

NORTHERN RAILWAY



BLOCK WORKING MANUAL

(For Official Use Only)

Embodying Amendment Slip No. 5 upto dated 14.10.2013

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(REVISED)

2007

PREFACE

1. This Block Working Manual contains instructions regarding Block Working at stations over Northern Railway. These are being issued superseding instructions contained in the earlier editions (last edition 1983). The rules in this Manual are based on the provisions contained in Chapter-XIV of this Railway's General and Subsidiary Rules, 2000.

2. All staff concerned with train working should make themselves fully acquainted and conversant with these instructions as far as their duties relate and should keep their copy up-to-date. Ignorance of rules is not to be accepted as an excuse for non-compliance.

3. No order contained in this Manual shall be varied, superseded or suspended, except under the express authority of the Authorized Officer, in writing.

4. This Manual is for official use only. All orders, letters and instructions in this connection shall be considered arising out of official duty and shall be communicated only to such of the servants of the Administration to whom these concern.

S.R. Thakur
Chief Operations Manager

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CORRECTION SLIP REGISTER

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CHAPTER I

GENERAL INSTRUCTIONS

1001. Issue of Block Working Manual :- This book of rules and regulations for working trains on **Single and Double lines** by electrical block instruments on the Absolute Block System shall be issued to all staff concerned as directed by the Chief Operations Manager.

1002. Study of Manual :- This Manual shall be studied by the staff in conjunction with the **General and Subsidiary Rules in force for Indian Railways (Open Lines) 2000** to which it is a companion volume. Nothing in this volume shall be accepted as modifying the **General and Subsidiary Rules**.

1003. Agenda and Corrigenda :- All alterations or corrections that may from time to time be notified shall be neatly entered and shall be recorded on the pages provided for the purpose.

1004. System of Working :- The whole of the Northern Railway worked on the Absolute Block System/ Automatic Block System except on section where the use of any other system of working, which is shown in Chapter VII of the General and Subsidiary Rules Book, is permitted by special instructions.

1005. Object of electrical block instruments :- (a) The object of signalling trains by electrical block instruments is to provide at all times a visual indication of the state of block sections to which they refer to and to guard against two trains being admitted into the same block section at a time.

(b) Each instrument is connected to a similar type of instrument at the next block station and the two work together. The pair of instruments is used for working both Up and Down trains over the block section, so that each is used both for "**sending to**" the next station or for "**receiving from**" the next station. Each station controls the line by which trains approach it, and the line by which trains leave it is controlled from the station at the other end of the block section.

1006. Use of electrical block instruments :- (a) Block Electrical instruments shall be operated in accordance with **Chapter XIV** of the General and Subsidiary Rules Book.

(b) Block Instruments are provided with control keys which can lock the instruments irrespective of their position. When the key is removed from the instrument, the latter is locked. The Station Master must keep this key in his personal possession throughout his period of duty and he must make it over personally to his relief, recording the fact in the station diary. This key is also used for unlocking the back cover along with the key of the Electrical Signal Maintainer.

1007. Working of Block Instrument :- Block instruments shall be worked steadily and deliberately. The bell plunger shall be pressed into the full extent with a slight pause between each stroke, otherwise the signals on the bells will be indistinct or lost.

1008. Training of Staff :- Block Instruments in actual use for train working shall on no account be used for the purpose of instructing staff.

1009. Extra care during repairs to line wires. - When the Station Master on duty has been advised by the person in charge of a Telegraph Line working party that they intend to work at the station or in a block section, he shall advise the Station Master on duty at the other end of the block section concerned, and both Station Masters shall work with extra care and vigilance until advised that the working party has completed their task. Whichever Station Master received the latter advice, shall be responsible for informing the Station Master at the other end of the block section.

1010. Station. - When used in the context of this Manual, the word "Station" shall be understood to mean either a Block station or a Block cabin.

1011. Reporting of failures. - (a) All failures of electrical block and Electrical Communication Instruments shall be reported by the Station Master to the following persons through a written memo or a phonic message duly recorded in the concerned register.

Concerned Electrical Signal Maintainer;
Control, Signal Inspector; Traffic Inspector;
Assistant Signal & Telecommunication Engineer;
Senior Divisional/Divisional Signal & Telecommunication Engineer;
Senior Divisional Operations Manager &
Divisional Railway Manager.

(b) The Station Master shall record details of all failures in the "Signal Failure Register" maintained at the station.

(c) When a failure has been rectified, the Signal Inspector or his authorised representative shall certify to that effect in the column provided in the signal failure register. On receiving the certificate, the Station Master shall notify to all the addressee (to whom the failure message had been given) to the effect that the failure has been rectified.

1012. Private Number - (a) Except where otherwise specified in each case, when a Station Master on duty gives line clear, whether on Block instruments or Electrical communication instruments, he shall confirm it by a Private number.

(b) When Private numbers are given by means of telephone, in order to avoid error or confusion, the number shall be given and acknowledged in three different ways, i.e. 'Thirty six' 'Three six' 'Chhatties' - (Hindi equivalent of 36).

(c) A private number allotted for a line clear, subsequently cancelled, shall not be re-allotted; fresh number shall be given for each line clear.

1013. Private Number Books. - (a) Station Masters shall be provided with books of numbers in two digits printed in groups of five. One book of numbers shall be in use at a time for both up and down trains (main as well as branch line) and for all purposes for which private numbers are used. Private numbers shall be allotted in the order in which they are printed in the book. Each private number, as allotted must be scored out by a line drawn horizontally through it and the purpose for which it is used being entered against it thus :-

<u>Private Numbers</u>	<u>Used for</u>
~~16~~	339 Up
~~29~~	340 Down
~~72~~	357 Up
~~22~~	Unused at the end of day
~~86~~	01/01/2007
27	
32	
15	
79	
84	

(b) Any number of a group of five which have not been allotted upto mid-night shall be scored through vertically, the next day's date being written at the head of next group of five as shown above.

1014. The same Private number appearing consecutively. - Should it so occur due to a misprint of the changing from one group to another that a private number is the same as the last allotted the issuing station shall cancel this number in his book.

1015. Custody of Private Number Books. - Private Number Books in stock shall be kept under lock and key by the Station Master who shall issue one book at a time as required and see that adequate supply is always available. Before issuing it, he shall ensure that it is complete in all respects, append a certificate to this effect, stamp it with the Station stamp on the top, endorse date of issue and Office/Cabin/Level crossing gate to which it is issued. The book in use shall be kept in safe custody by the official on duty to whom it is issued, who shall be responsible for ensuring that no other person is allowed to see or have access to it and when he goes off duty he shall hand it over to his relief. Each book, as it gets exhausted shall be sent in a sealed envelope to the Divisional Railway Manager.

1016. Station Master :- The term "Station Master" wherever used in this Manual also applies to Station Superintendent/Station Master/Assistant Station Master/Cabin Master/Switchman and any other Competent staff, who may for the time being be incharge of Block working, provided he is in possession of a valid competency certificate. Such competency certificate shall be issued only by Principal, Zonal Railway Training Institute, Chandausi.

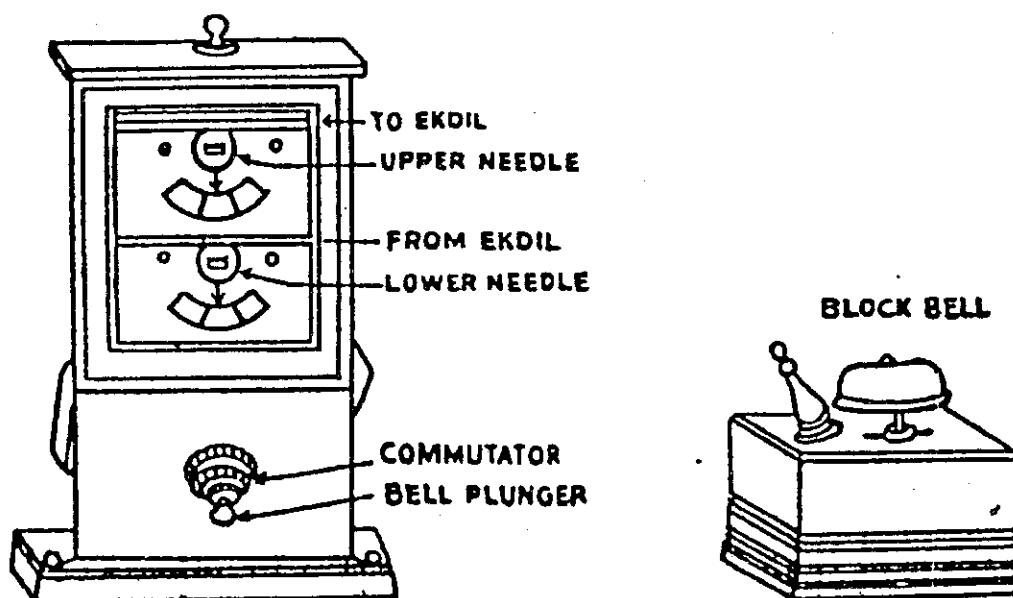
CHAPTER II

DOUBLE LINE ELECTRICAL BLOCK INSTRUMENTS AND METHODS OF SIGNALLING TRAINS FROM BLOCK STATION TO BLOCK STATION

2001. The types of Block Instruments used on Double Line Sections of the Railway are:

- (a) (i) S.G.E. type.
- (ii) Daido type.
- (iii) Block Proving Axle Counter

(b) The section of the line provided with these block instruments are given in the Working Time Table.



DOUBLE LINE BLOCK INSTRUMENT (S.G.E. TYPE)

2002. From the above illustration, it will be seen that the instrument is provided with:

(a) Two needles, an upper and a lower, both indicating "Train on Line", "Line closed" and "Line Clear" on segments coloured red, white and green respectively.

(b) a commutator

- (c) a bell plunger
- (d) a block bell

2003. Needle indications :- The needle indications are:

- (i) Line Closed (needle vertical, on white segment),
- (ii) Line Clear (needle deflected right, on green segment),
- (iii) Train on Line (needle deflected left, on red segment).

The **LINE CLOSED** indication is shown when there is no train in the block section and Line Clear has not been given for any train to enter it.

The **LINE CLEAR** indication is shown when Line Clear has been given or received for a train to enter the block section.

The **TRAIN ON LINE** indication is shown when the block section is occupied by a train, or when there is some other obstruction.

2004. Upper needle :- The indications of this needle refer to trains leaving the station and give a visual indication of the condition of the block section in advance. It is electrically controlled by the Station Master at the block station immediately in advance, and its indication can only be altered by him; except where **auto TOL** feature is provided where needle changes to **TOL** position consequent upon passing the last stop signal of despatching station. The indications of the upper needle correspond with those of the lower needle of the corresponding instrument at the Station in Advance.

2005. Lower needle :- The indications of this needle refer to trains approaching a station and give a visual indication of the condition of the block section in rear. It is worked by the Station Master of the station at which the instrument is located, however where **auto TOL** feature is provided, the indication of this needle will assume **TOL** position automatically as soon as the train enters the block section. The indication of the lower needle corresponds to that of the upper needle of the corresponding instrument at the station in rear.

2006. Commutator :- The turning of the commutator operates the **LOWER NEEDLE** of its block instrument and the upper needle of the block instrument at the station in rear.

- (a) The commutator (like the needles) has three positions :-
 - (i) **Normal position :-** When the pointer on the face of the commutator is vertical. In this case there is no train in the block section and no line clear has been given. The lower needle of the Block Instrument will be in "Line Closed" position.

- (ii) **Line Clear position** :- When a line clear for a train to approach has been granted. In this case the pointer on the face of the commutator will be towards right and the lower needle will be in "line clear" position (except in case of block station where automatic operation of needle from "Line clear" to "Train on Line" is provided).
 - (iii) **Train on Line position** :- When a train has entered the Block section ahead and the pointer on the face of the commutator is turned to the left. In this case the lower needle of the block instrument will be in "Train on Line" position.
- (b) (i) The commutator shall be turned immediately the bell code has been signalled and before releasing the bell plunger. The bell code shall always be given before turning the commutator.
- (ii) The commutator shall be turned to **TOL** for the section provided with **auto TOL** as soon as the needle goes to **TOL** position and audio buzzer sounds; indicating that the train has entered the section. The bell code shall always be given before turning the commutator.
- (c) When a commutator is turned first to "Line Clear" position and then to "Train on Line" position after the train has entered the block section, it will get locked and remains locked until the train has arrived. If, however, the commutator is turned directly from "Line Closed" position to "Train on Line" position for the purpose of blocking back etc. it does not get locked.

2007. Bell plunger:- The Bell plunger is placed in the centre of the commutator and when fully pressed, gives one beat on the bell of the corresponding instrument at the other end of the Block section. The bell plunger shall be employed for signalling trains on the prescribed code of bell signals.

2008. (a) Block bell:- This bell is provided to give an audible signal by means of the prescribed code of bell signals.

(b) **SM's Control key:-** This is provided in the block instrument. Its function is described in Para 1006 (b).

(c) **Block Telephone:-** The Block Telephone is provided for telephonic communication with the Block Station at the other end of the block section.

2009. Relation of the needle indications to block sections:- One block instrument is provided for each direction at each Block station, the up instrument for signalling trains to and from the next block section in the up direction and the down instrument for trains to and from the next block section in the down direction.

2010. Method of Signalling trains from Block Station to Block Station:- In the case of each train, after the **CALL ATTENTION/ATTEND TELEPHONE** signal has been given and acknowledged, before any other

operation on the Block Instrument is made, the names of the stations working together shall be exchanged on the telephone, one with the other, as an assurance that the correct stations are in communication.

The following is the sequence of operations for signalling a train at either A, B or C class stations:—

Taking stations **X** and **Y** and a train travelling from **X** to **Y** and proceeding on its Journey, the block section being clear and the block instruments showing **LINE CLOSED**, then: -

Station X (Sending)	Station Y (Receiving)
1 Sends "Call attention/Attend Telephone" Signal to Y.	2 Acknowledges.
3 Calls out station name.	4 Calls out his station name.
5 Asks, "Is Line Clear" on telephone giving number and description of the train.	6 Agrees to grant "Line Clear" and gives a private number.
7 Sends "Is Line Clear" signal to Y.	8 Acknowledges "Is Line Clear" signal by an exact repetition and on the last beat turns the commutator of his Block Instrument to the right indicating "Line Clear".
9 Seeing that his upper needle now points to "Line Clear" position, takes off departure signals for the train to start.	
10 After train enters block section, sends "Train entering Signal to "Y".	11 (i) Acknowledges "Train entering section" signal by an exact repetition and on the last beat turns the commutator of his block instrument to the left indicating "Train on Line".
	(ii) Where auto TOL feature is provided, the commutator of receiving station should be turned to TOL position after the TOL indication has appeared and buzzer for train entering section sounds.
12 Puts back the departure signal levers when the train has passed the last stop signal.	13 On arrival of the train, sends "Call attention/Attend Telephone" Signal to 'X'.

Station X (Sending)	Station Y (Receiving)
14 Acknowledges "Call Attention/ Attend Telephone" Signal.	15 Calls out station name.
16 Calls out station name.	17 After conditions for closing line are fulfilled gives arrival of the train and sends "Train out of Section" Signal to X and on the last beat turns the commutator to "Line Closed".
18 Acknowledges "Train out of section" Signal by an exact repetition.	

2011. (a) Electric Control is provided on the relevant last stop signal.

- (i) The last stop signal cannot be taken 'OFF' until the Block Station in advance has signalled "LINE CLEAR" on the block instrument.
- (ii) The Electric Control can be withdrawn and the signals can be put back to ON at any time.

(b) Lock on the commutator - When a commutator lock becomes operative, the commutator remains locked until the train, passes the Home signal and operates the relevant treadle/track circuit, the Home signal lever and first facing points lock lever are put back.

2012. Rules regarding Intermediate Block Signalling:-

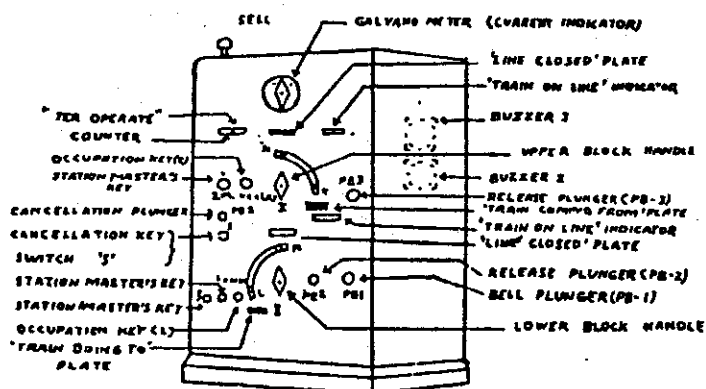
- (a) Following arrangements are made in regard to intermediate Block Signalling:-
 - (i) The advanced starter or last stop signal of the Block Station in rear is provided with automatic replacing arrangement to put the signal to 'on' position by passage of a train and it cannot be taken 'off' again while the track ahead upto, the intermediate Block Home and overlap beyond that is still occupied.
 - (ii) The intermediate Block Post Home Signal is automatically replaced to 'on' position with the passage of a train and remains in that position until the Block Section in advance is cleared and a fresh Line Clear is obtained for the next train.
- (b) Method of train operation will be as follows :-
 - (i) The last stop signal of the Block station in rear of the Block post shall be taken 'off' after ascertaining that the portion of track upto the intermediate Block post Home Signal and Overlap is clear.

- (ii) The trains between the Block Post Home Signal and the next Block station will be worked in accordance with the normal rules of working of trains with the double line Block instruments.

2013. Failure of treadles/Track circuit - At stations where release plungers are not provided, the following procedure shall be adopted: -

- (a) The Station Master on finding that the treadle has failed to operate shall inform the Station Master of the Block Station in rear by telephone of the fact and shall inform if the train has arrived complete. This advice shall be confirmed by a Private number.
- (b) As the last stop signal of the Block station in rear is interlocked with the block instrument, it will fail to come "OFF" for the next train. The Station Master of that station shall take necessary action as per G.R. 3.68. to G.R. 3.70. In addition, he shall, immediately intimate by a memo/ Telephone the officials mentioned in para 1011.
- (c) The Station Master of the Block Station in rear shall proceed to obtain "LINE CLEAR" for the next train as per para 7002 (a).
- (d) The Driver of the train shall be issued an "Authority" to pass the last stop signal as if, it is defective. To indicate to the Loco pilot that "Line Clear" has been obtained for his train, an endorsement to this effect shall be made on the "Authority" to pass the last stop signal and the Private number obtained from the Block Station in advance shall be incorporated therein.
- (e) When the defect has been rectified, two Station Masters shall revert to the normal procedure of working on the block instruments only after they have satisfied themselves that there is no train in the block section. The time when working of Block Instruments is resumed shall be recorded in the Train Signal Registers of the two stations and the officials to whom the failure message was addressed, shall be intimated by Telephonic Message.
- (f) In all cases of suspension and resumption of working on block instruments, Section Control shall be kept fully advised.

B. DOUBLE LINE BLOCK INSTRUMENT (DAIDO TYPE)



DOUBLE LINE BLOCK INSTRUMENT (DAIDO TYPE)

2014. Description of Instrument - From the illustration above, it will be seen that the instrument is provided with:-

- (a) Current Indicator (Galvanometer).
- (b) Block handle - 2 Nos. (Upper for "Receiving" trains, lower for "Despatching" trains).
- (c) Bell plunger - 1 No. (PB 1).
- (d) Release Plunger - 2 Nos. (PB 2 & PB 3).
- (e) Occupation Keys - 2 Nos. (Upper for "Blocking Back" and lower for "Blocking Forward")
- (f) Station Master's control key (with 3 apertures 1, 2 and 3)
- (g) 'Train-on-line' Indicators - 2 Nos. (Upper for "Approaching trains and lower for "leaving" trains).
- (h) Buzzers audible through single aperture - 2 Nos. (One for "Approaching" and the other for "Leaving" trains with different tones).
- (i) Cancellation plunger (PB 4).
- (j) Cancellation Switch "S".
- (k) Time element release operate indicator.
- (l) Counter.
- (m) Single stroke Block Bell.
- (n) Telephone.

2015. Functions of the Components:- (a) **Current Indicator** - Deflection of the needle of the indicator indicates the flow of current in the instrument whenever bell plunger (PB-1) or release plungers (PB-2 or PB-3), of either of the instruments is pressed.

(b) **Block Handle** - The normal position of these handles is vertical, pointing to the letter "N" (Normal), from which it can be moved only with the co-operation of the Station Master at the other end. The Upper Handle is turned 90° to the right, to the letter "R" for giving Line Clear. The lower handle is moved 90° to the left for getting Line Clear, when the handle will point to the letter 'L'. These handles can be brought back to the normal position only when the train is out of section or when the line clear has been cancelled.

Pressing of PB-2 or PB-3 of an instrument causes deflection of the needle of the current indicator of the instruments at both the stations thrice and then there is a single stroke of bell, which indicates that the handle is released for operation from one position to the other. This single stroke bell will be referred to hereafter as "Indication Bell".

(c) **Bell Plunger (PB-1):-** This plunger when pressed causes the block bell at the other end to sound.

(d) **Release Plungers (PB-2 & PB-3):-** These plungers are utilised to release the handle of block instrument at the other end. PB-2 when pressed enables the Station Master of the receiving station to turn the upper block handle from the '**Normal**' position to '**Receiving**' position after receipt of '**Indication Bell**'. Similarly PB-3 when pressed enables the Station Master of the despatching station to turn the lower block handle, from '**Normal**' position to '**Leaving**' position, after ringing of the '**Indication Bell**'.

(e) **Occupation Keys:-** Each instrument is provided with two occupation keys viz. upper for '**Blocking Back**' and the lower for '**Blocking Forward**'. These can be extracted only when the position of the relevant handle of the block instrument is normal and the Station Master's Control key is applied to the relevant aperture.

(f) **Station Master's Control key:-** This key when inserted in the instrument and turned releases the instrument and when removed, locks it. This key is also used to release either of the occupation keys. This key must be kept in the personal possession of the Station Master. When this key is extracted from the instrument and the block instrument is locked, bell beats cannot be transmitted from the instrument to the Station on the either side though these can be received.

(g) **"Train on Line Indication" -** These indications are provided for "Approaching" trains and "Leaving" trains separately. "**Train-on-Line**" indication appears on the indicator automatically at both the stations when trains enter the concerned block section.

(h) **Buzzers -** There are two buzzers inside the instrument which are heard through an aperture on the right side of the instrument. Buzzer sounds continuously when the train enters the block section and "**Train on line**" indication appears on "**Train on line**" indicator after the last stop signal is replaced to "**ON**" position by the passage of the train. "**Train on Line**" indication also appears at the station in advance and **buzzer-2**, starts sounding intermittently. Both the buzzers stop when the '**receiving**' station gives "**Call Attention**" Signal on PB-1.

Buzzer-2, sounds intermittently again at the Receiving station when the train enters inside the Home Signal. The Home Signal is automatically replaced to '**ON**' position. The Buzzer stops after SM's slide, control on the home signal is normalised.

(i) **Cancellation plunger:-** This plunger is pressed to release the lock on the cancellation key switch "**S**".

(j) **Cancellation Key Switch 'S':-** This switch is used for the cancellation of the Line Clear by the despatching station. This is turned to the right for initiating the process of cancellation.

(k) **Time Element Release Operate Indicator:-** The normal indication on this indicator is 'Locked'. The indication 'Free' appears on this indicator 2 minutes after the turning of the cancellation key switch 'S' to the right.

(l) **Counter:-** The counter records the progressive number of each cancellation of line clear.

(m) **Single stroke Block Bell:-** All the beats are sounded on this bell whenever PB-1, 2 or 3 is pressed.

(n) **Telephone:-** It is used for all conversation in connection with the train operation.

2016. Method of working of Block instruments:- It is assumed that a train is to go from 'X' to 'Y'.

Station 'X' (sending)	Station 'Y' (Receiving)
1 Unlocks instrument and sends "Call Attention/ Attend Telephone" to 'Y' by pressing PB-1.	2 Unlocks instrument and acknowledges "Call Attention/ Attend Telephone" Signal on PB-1
3 Attends telephone and calls out station name.	4 Calls out his station name.
5 Asks "Is Line Clear" on telephone, giving No. and description of the train.	6 Agrees to grant, 'Line Clear' on telephone repeating No. and description of train and gives private number.
7 After sending "Is Line Clear" Signal to 'Y' on PB-1, pushes PB-2 and keeps it pressed.	8 Watches needle deflection on the indicator and as soon as there is 'Indication Bell' turns upper block handle from 'Normal' to 'Receiving' position, Acknowledges 'Is Line Clear' Signal on PB-1 and pushes PB-3 and keeps it pressed.
9 Watches deflection of needle on the indicator and as soon as there is "Indication Bell" turns lower block handle from 'Normal' to 'Leaving' position. Takes 'OFF' departure signals and starts train. When train passes the 'Last Stop Signal' it is automatically replaced to 'ON' and 'Train on Line' indication and buzzer-1, sounds continuously.	10 As the train passes the Last Stop Signal of Station in rear, Buzzer-2, starts sounding intermittently. Presses Push Button PB-1. Buzzer stops. Releases push button PB-1.

Station 'X' (sending)	Station 'Y' (Receiving)
11 Continuous buzzer stops. Sends 'Train Entering Block Section' Signal on PB-1.	12 Acknowledges 'Train Entering Block Section' Signal on PB-1. Takes 'OFF' the approach signals. When the train enters the Home Signal, it is automatically replaced to 'ON' and buzzer-2, starts sounding intermittently Puts back the Home Signal control slide. Buzzer-2 stops. Ensures that reception signal levers have been put back to normal, Sends 'Call Attention/Attend Telephone' Signal to 'X'.
13 Acknowledges 'Call Attention/ Attend Telephone' Signal and attends telephone.	14 Attends telephone and calls out his station name.
15 Calls out his station name.	16 Gives arrival of the train and sends 'Train out of Block section' Signal on PB-1 and pushes PB-3 and keeps it pressed.
17 Watches deflection of the needle on the indicator and on hearing the 'Indication Bell' turns lower block handle to 'Normal', 'Train on Line' indication disappears from 'Train on Line' indicator. Acknowledges 'Train out of Block Section' on PB-1 and pushes PB-2 and keeps it pressed.	18 Watches deflection of needle on the indicator and on hearing 'Indication Bell' turns upper block handle to 'Normal'. 'Train on Line' indication disappears from the 'Train on Line' indicator.

Both the instruments are now normal and the indicator of each instrument is showing 'Line Closed'.

2017. Cancellation of Line Clear:— If it becomes necessary to cancel the line clear, it is imperative that the lever of the 'Last Stop Signal' is restored to normal, if already pulled.

Station 'X' (sending)	Station 'Y' (Receiving)
1 Sends 'Call Attention/Attend Telephone' Signal on PB-1.	2 Acknowledges 'Call Attention/ Attend Telephone' Signal on PB-1 and attends telephone.
3 Attends telephone and calls out station name.	4 Calls out his station name.

Station 'X' (sending)	Station 'Y' (Receiving)
5 Gives cancellation message with circumstances necessitating the cancellation, supported by a private number.	6 Acknowledges the cancellation with a private number.
7 Presses PB-4 and turns Cancellation Switch to the right. Indication 'Free' will appear on the 'Time Element Release Indicator' after two minutes when the counter will register next higher number. Restores cancellation switch to 'N' position.	8 Sends cancellation signal on PB-1 and pushes PB-2 and keeps it pressed.
9 Watches deflection of the needle and on hearing the 'Indication Bell' turns his upper handle to 'N' position. Acknowledges cancellation code on PB-1 and pushes PB-3 and keeps it pressed.	10 Watches deflection of needle and on hearing 'Indication Bell', restores the lower block handle to 'N' position. The indication 'Free' on the time element release indicator goes out and locked indication appears.

Notes: (1) Reasons for operating cancellation switch/button must be recorded in the Train Signal Register showing the progressive number on the counter.

(2) Counter readings should also be accounted for in a special register (Sets of pages to be allotted for each counter) in the form shown below:

Date	Time	Counter Before	Reading After	Brief reasons for emergency operation.	Station Master's signature.

(3) The Station Master on duty, at the time of handing over charge, must record the counter readings in his relief diary.

2018. This type of double line block instruments shall be considered to have failed under the following circumstances :-

- (i) Block bell codes cannot be sent or received.
- (ii) Permanent deflection or recurring oscillation of the block needle or bell beats are noticed without push button PB-1 being pressed at either end.
- (iii) A train which left the station on line clear and also operated the last stop signal treadle or track circuit, returns to the station from which it started.

- (iv) The block instrument is found unlocked or unsealed.
- (v) A telegraph party is working on the line.
- (vi) Block officials have for any reasons, disconnected the block instrument.
- (vii) Due to an obstruction on one of the lines (Up or Dn.) single line working has been introduced by the other line.
- (viii) Due to an accident or breach of rules/block rules, there is a dispute about the instrument having been operated or not.
- (ix) A lorry, trolley, motor trolley or rail motor has to run on "Line Clear" but is not able to operate the treadles and track circuit.
- (x) The last stop signal does not automatically go back to "ON" position after the train occupies track circuit controlling it.
- (xi) Automatic "Train on Line" indication does not appear with the entry of train in the block section.
- (xii) The Cancellation Counter does not operate.

Procedure outlined in Para 7002 should be followed in the case of failure of Diado Double Line Block Instruments as well.

2019 Block Proving Axle Counter - The working of Block proving axle counter is described in Chapter XI.

2020 WORKING ON DIGITAL AXLE COUNTER WITH CONVENTIONAL DOUBLE LINE INSTRUMENTS.

1.0 Brief Description of working:- This is a means of working where in Block Instruments are provided for Block working and Digital Axle Counters are used for proving the clearance of the Block Section. Definition of Axle Counter is given in the GR 1.02/7 & at Para 11004 of Block Working Manual. In addition to conventional type block instrument, Reset boxes are kept in Station Master's Office with the following indications:

- a) **Red** - for occupation of Block section
- b) **Green** - for clearance of Block Section
- c) **Miniature Green**
alongwith red - indicates axle counter is in Preparatory Rest condition
- d) **Yellow** - for Power On

2.0 Line clear working :-

2.1 The types of block instruments used on double line sections are given in Para 2001 and method of signalling trains from one Block station to other block station is given in Para 2010 for SEG type block instrument and in Para 2032 for Daido type Block instrument.

2.2 At train receiving station: On receipt of line clear enquiry for an approaching train, the station master on duty shall ensure that the **Reset** box is showing green indication which will mean that the block section over which the train has to enter is clear and free from obstruction. He shall then grant line clear by following the method of working laid down in Block Working Manual as given in sub para 2.1 above. He shall turn the commutator of the block instrument to "**Line clear**" position. As soon as the train enters the block section, the **Reset** box will show red indication and the Station Master on duty shall acknowledge the train entering

section signal to train dispatching end Station Master on duty and turn the commutator of the block instrument to “**Train On Line**” position. On complete arrival of the train, the **Reset box** will show green indication indicating clearance of the block section and the Station Master on duty shall turn the commutator of the block instrument to “**Line closed**” position. For ensuring complete arrival of a train GR 4.17 and SR therein shall be followed.

- 2.3 **At train despatching station:** When it is intended to dispatch a train, the Station Master on duty after ensuring that the reset box indication is green, shall obtain Line Clear from the Station Master on duty at the block station in advance by following the method of working laid down in Block Working Manual as given in sub para 2.1 above. On getting Line Clear from the block station in advance and then take “**off**” departure signals for the train to start. After the train enters block section the **reset box** shall show red indication and the Station Master shall send the train entering signal to Station Master in advance and shall put back the departure signals to “**On**” position when the train has passed the last stop signal.
- 3.0 **Cancellation of line clear:** For cancellation of line clear the method of cancellation of line clear given in Para 2017 of BWM for double line block instruments shall be followed.
- 4.0 **Working of Axle Counter:** Whenever any train enters the block section and passes over the detection point kept at the entry of block section, the axle counter equipment will start counting the number of axles which have entered the block section. This is recorded as IN-COUNT. Similarly, when the train reaches the destination station and passes over the detection point kept at the exit of the block section the axle counter equipment will count the number of axles which have passed over the detection point at the exit end. This is recorded OUT-COUNT.
- 4.1 When OUT-COUNT is same as IN-COUNT the **Reset box** shows green indication. When the block section is occupied, the OUT-COUNT is less than the IN-COUNT and **Reset box** will show RED indication which will mean that the block section is occupied and it is not clear. There for, when the **reset box** is showing Red / No indication, it can have two implications. It would mean either a train portion is left behind in the block section or the axle counter is defective due to any technical fault. In such a case, the ASM on duty shall ensure complete arrival of the train, according to GR 4.17 and SRs thereof. In case he is unable to ensure complete arrival of a “run through” train, he shall ensure complete arrival of the train through exchange of private number from the station in advance and also the section controller. When the **Reset box** is showing RED / No indication after complete arrival of the train, it means axle counter system has failed and resetting procedure given below shall be adopted.
- 5.0 **Failure of axle counter:** When the axle counter used for clearance of block section fails and **Reset box** shows occupied a **Reset button** is provided on The **Reset box** to set the axle counter back to normal. Once the axle counter has failed and the concerned block instrument deemed to be failed and last stop signal cannot be taken “**off**”, the receiving station shall verify the clearance of the block section by exchange of private number with the station in rear. After ensuring that the block sections is clear, the axle counter shall be reset by the Station Masters

on duty of the sending end and the receiving stations. The counter reading on the **reset box** shall increase by one on every operation of the reset button.

- 5.1 Register for recording Reset operations:** A register with the following proforma is to be maintained for this purpose at all stations by station Master on duty. The station Master on duty at both sending and receiving end shall ensure that each and every operation of the reset button is properly recorded in the register indicating the movement before and after the operation of the reset button. Each axle counter shall have individual proforma.

S.No.	Date	Train No. after which axle counter failed	Train No. piloted after failure of axle counter	Counter reading		Resetting time	First Train passed after normalization of axle counter	Sign of SM on duty	Remarks
				Before Resetting	After Resetting				
1	2	3	4	5	6	7	8	9	10

- 6.0 Resetting of Axle Counter by Station Master on duty:** The receiving end Station Master of the train shall inform the Station Master of the train dispatching end shall then insert the **Reset key**, turn right and press the key along with **reset button** of the **reset box**. There after the Station Master at the train receiving end shall insert the **reset key** turn right and press the key along with **reset button** with this action, the miniature **green** along with **red** indication (preparatory reset indication) will appear on the **reset boxes** provided at both receiving and dispatching station.
- 6.1** The first train shall be dispatched as per the extant rules by issue of T/369-(3b). After the train is received at the receiving end station and cleared the portion monitored by axle counter, the green indication will appear in the **Reset box** at both ends and the normal working of axle counter gets restored.
- 7.0 Action to be taken when the axle counter can not be reset:** After complete arrival of the train according to para 6.1 above, even then, if the green indication does not appear on the Reset box the matter shall be reported to ESM of the station through telephonically and a written memo.
- 7.1** ESM shall rectify the failure of the axle counter after submission and acceptance of the disconnection memo.
- 7.2** During the failure of the axle counter the trains shall continue to be dispatched on T/369-(3b) and no cognizance of the indication of the **Reset Box** shall be taken.
- 7.3** After rectification of the axle counter failure the ESM shall inform the Station Master on duty by giving a written message. Than the Station Master on duty shall inform to the Station Master on duty of other end station they shall reset the axle counter as per the procedure given above at Para 6.0. Then the normal working shall be resumed.

CHAPTER III

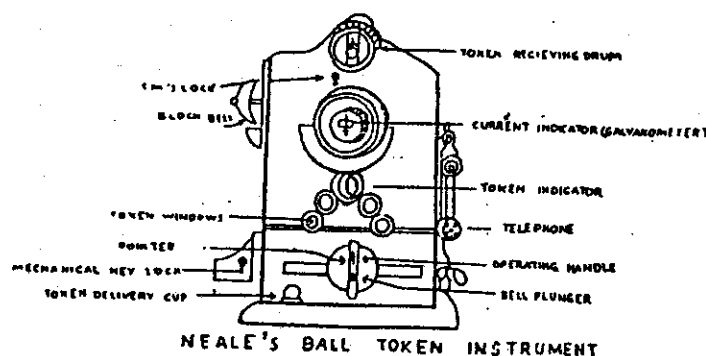
SINGLE LINE ELECTRIC BLOCK INSTRUMENTS AND METHOD OF SIGNALLING TRAINS FROM BLOCK STATION TO BLOCK STATION.

Note: The method signalling trains on all the block instruments as shown in this chapter is on the assumption that similar instruments exist on contiguous stations.

3001. The types of Block Instruments used on single line sections of this Railway are :-

- (a) (i) Neale's ball token instrument.
 - (ii) Neale's tablet token instrument.
 - (iii) Token less block instrument, (handle type-Kyosan).
 - (iv) Token less block instrument, (push button type-Podanur make).
 - (v) Token less block instrument, (push button type-Siemen's make).
 - (vi) Token less block Instruments (handle type-Andrew YULE make).
 - (vii) Block proving axle counter (Working is described in Chapter XI)
- (b) The sections of the line provided with these block instruments are given in the working Time Table.

3002. Neale's ball token instrument - NEALE'S BALL TOKEN INSTRUMENT



This instrument is illustrated above and is provided with the following: -

- (a) an operating handle;
- (b) a bell plunger;
- (c) a block bell;
- (d) a current indicator (galvanometer);
- (e) a token receiving drum;
- (f) a lock on the token receiving drum and operating handle;
- (g) a token delivery cup;
- (h) a mechanical key lock;
- (i) Token windows
- (j) a token indicator
- (k) a block telephone.

3003. The operating handle is a circular disc with handle having a pointer engraved on its as shown below :-

LINE CLOSED

SENDING

RECEIVING

- (a) The pointer indicates the following three positions of the operating handle :-
 - i. "LINE CLOSED," which is the normal position of the handle and indicates that no token has been extracted at either end of the block section, which is, therefore, clear of trains.
 - ii. "TRAIN COMING FROM", which indicates that Line Clear has been given for a train to approach, and that a token has been extracted at the other end of the block section; and
 - iii. "TRAIN GOING TO", which indicates that Line Clear has been received to despatch a train and a token has been extracted from the instrument.
- (b) The operating handle cannot be turned without the cooperation of the Station Master at the other end of the block section, who has electrical control over it.

3004. Bell plunger: The bell plunger is placed in the centre of the operating handle and when operated, rings the bell of the corresponding block instrument at the other end of the block section. It shall be employed for signalling trains by means of the prescribed code of bell signals. Each depression of the bell plunger causes one beat on the bell of the corresponding block instrument at the other end of the block section.

3005. Block bells: These bells are provided to convey the prescribed code of bell signals.

3006. Current indicator or galvanometer: The galvanometer is provided with a needle, the movement of which indicates the passage of an electrical current, received or sent, and also the operation of the corresponding block instrument at the other end of the section.

3007. Token Receiving Drum : This provides the means for inserting a token into the instrument, and is so formed that only the correct token can be inserted.

3008. Lock on the token receiving drum and operating handle: This lock is provided to prevent unauthorised operation of token receiving drum as well as operating handle. When the key is extracted both the operating handle and the token receiving drum are locked. The key shall always remain in possession of Station Master, on duty except when the instrument is to be operated.

3009. Token delivery cup: - This is a cup at the bottom of the instrument into which tokens are delivered.

3010. Mechanical Key Lock: The mechanical key lock is an attachment to the token instrument, added where required for the purpose of providing interlocking between the token instrument and the last stop signal of the section, which it controls. It may also be used for other purposes, such as the control of out laying points. The key can only be removed from the lock after the token has been extracted from the instrument and the removal of the key locks the operating handle in the "Train Going To" position.

3011. (a) Token Windows: These indicate the availability of tokens in the instrument.

(b) **Token indicator:** The indicator shows a green disc if there is even one token and red disc if there is no token in the instrument. When the red disc appears the operating handle can be moved only to "Train Coming From" position and it cannot be moved to "Train Going To" position.

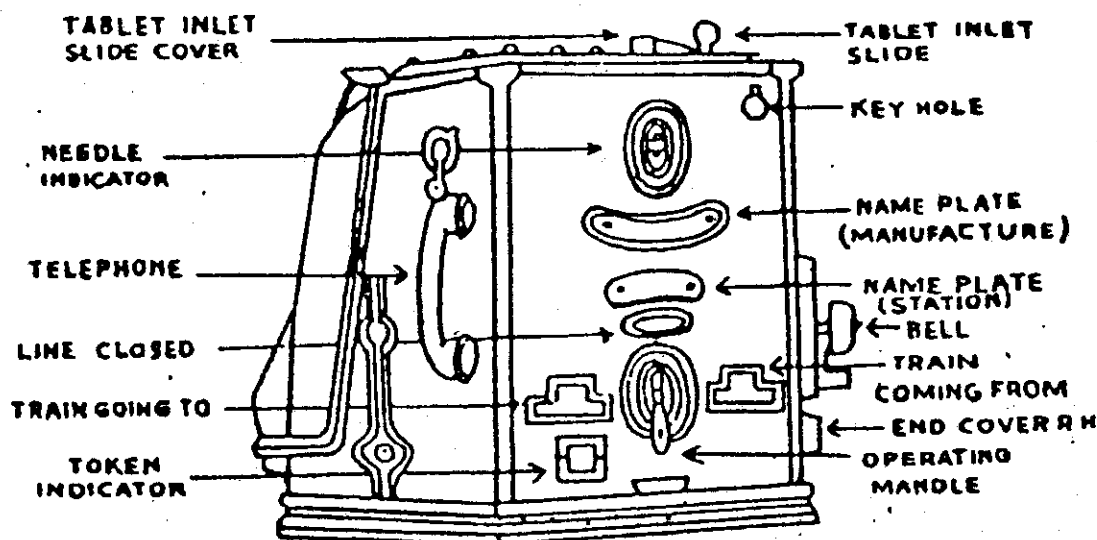
(c) **Block Telephone:** The block telephone is provided for telephonic communications with the station at the other end of the block section.

3012. Description of token: (a) Tokens have holes of different pattern to ensure that only the correct token is inserted into the block instrument. For this purpose, token instruments with tokens of same types of holes shall not be provided at the same block station. The tokens with same types of holes should be provided only after a few Block stations so that an over carried token cannot be inserted into any wrong block instrument.

(b) A token is inserted in an instrument by placing it in a token receiving drum. The drum must then be revolved to allow the token to drop into the token chamber.

(c) Each token has engraved on it the code initials of the two stations at either end of the block section to which it applies. Every token also bears a distinctive number.

3013. Neale's Tablet Token Instrument : The following is illustration of this type of instrument :-



NEALE'S TABLET TOKEN INSTRUMENT

This instrument differs from the Neale's Ball Token Instrument in following respects :-

(a) a flat tablet is used in this instrument as a token instead of a ball. The tablet is a metal disc and is engraved with the code initials of the stations at each end of the block section to which it applies and has a distinctive number.

(b) a small rectangular token indicator is provided to show when five or more tablets are available in the instrument.

3014. Method of signalling trains from Block station to Block Station with Neale's Ball Token and Neale's tablet token instruments:- Before any operation on these instruments is made, names of the stations working together shall be exchanged on the telephone as an assurance that correct stations are speaking with each other.

The Station Master granting Line clear must do so by giving private number and the Station Master receiving LINE CLEAR shall not consider it valid unless a private number has been received. Both Station Masters shall, then, record the private numbers in their trains Signal Registers.

Taking two adjacent Block Station X and Y and supposing that a train is to proceed from X to Y and the operating handles of the token instruments at both stations are normal, the following is the sequence of operations for signalling the train :-

Station 'X' (Sending)	Station 'Y' (Receiving)
1. Sends "Call attention/Attend Telephone" signal to Y.	2. Acknowledges "Call attention/Attend telephone" signal to X and attends telephone.
3. Attends telephone and announces station name.	4. Announces his station name.
5. Make Line clear enquiry from Y giving train number and description	6. Agrees to give line clear with a private number to X.
7. Sends "Is Line Clear" Signal to Y keeping the bell plunger pressed on the last stroke.	8. On the last beat of X's "Is line clear" Signal, turns the operating handle of his instrument to the "Train coming from" position and acknowledges the "Is line clear" Signal to X, keeping the bell plunger pressed on the last stroke.
9. Turns the operating handle to the "Train Going To" position on receipt of the last beat of Y's acknowledgement signal. This will release a token from the instrument, the number of which he shall intimate to Y on telephone.	
10. Sends "Train Entering Block Section" signal to Y on departure of the train with the token.	11. Acknowledges "Train Entering Block Section" signal to X.
	12. On Complete arrival of the train after dropping token in the instrument sends "Call attention/Attend telephone" Signal to X.
13. Acknowledges "Call Attention/Attend Telephone" signal to Y and attends telephone.	14. Attends telephone and calls out station name.
15. Calls out his station name.	16. Gives arrival of the train and sends "Train out of Block Section" Signal to X, keeping the bell plunger pressed on the last stroke.

Station 'X' (Sending)	Station 'Y' (Receiving)
17. On the last beat of Y's "Train out of Block Section" Signal, turns the operating handle of his instrument to "Line Closed" position.	
18. Acknowledges "Train out of Block Section" Signal to Y, keeping the bell plunger pressed on the last stroke.	19. Turns his operating handle to "LINE CLOSED" on the last beat of X's acknowledgement signal.

3015. Line Clear Enquiry - When to be put up :-

- (a) When the Station Master on duty receives the "Train Entering Section" signal or is informed that a train is approaching his station, he shall put up "Line Clear Enquiry" to the next station in advance.
- (b) In case where owing to the run between stations being short, there would not be sufficient time to ask and receive "Line Clear" under the provision of para (a) without causing delay to trains, the "Line Clear" shall be asked from the station in advance immediately the "Line Clear" is given to the station in rear.
- (c) Where, however, the run between stations is long, the "Line Clear" enquiry should not be sent more than 30 minutes before the due departure of the train from a station.
- (d) At a terminal station and where trains have long halt, the "Line Clear Enquiry" should not be sent more than 15 minutes before a train is due to leave.
- (e) Before the "Line Clear Enquiry" message is signalled through bell code, the Station Master must ask, by telephone, whether the "Line Clear" can be given and must give number and description of the train and enter the same in the Trains Signal Register.

3016. Delivery of token: (a) The Station Master is responsible for seeing that the proper token for the block section into which a train is proceeding is given to the Loco pilot.

(b) When an incoming token is received, the Station Master on duty shall examine it and satisfy himself that it is the correct token for the particular block section, shall confirm and enter the number of the token in the train Signal Register before inserting it in the instrument.

(c) Under no circumstances shall a token or tablet be handed over to the Loco pilot unless it has been obtained from the instrument in accordance with the rules laid down.

(d) The Station Master shall be responsible for seeing that every member of his staff, through whose hands tokens may have to pass is acquainted with the distinguishing features of the tokens of the adjoining block sections.

(e) Token should not be delivered to the Loco pilot until points have been correctly set and correct departure signals taken 'off' where provided.

3017. Transferring tokens: The Station Master on duty shall maintain a record of token balance in each token block instrument in the train signal Register itself. He shall enter the opening balance and closing balance in red ink at the time of changing duty. The incoming Station Master shall ensure that the outgoing Station Master does not leave without striking the balances in the train signal register and sign for it.

As soon as Station Master observes that the number of tokens in any of the Block instruments, is reduced to **six** he shall at once advise the Electrical Signal Maintainer In charge of the section with a copy to the Signal Inspector and Asst. Signal Inspector by Memo/Telephone and also through control phone, where provided as follows :-

"Tokens short on the Up/Down side."

The Electrical Signal Maintainer shall, at once, arrange for the transfer of tokens which should be done only when the operating handles of the two instruments are in the normal positions.

- (a) When removing tokens from an instrument, the Electrical Signal Maintainer shall show the tokens removed to the Station Master and make the following entry in the token book which shall be signed by the Station Master on duty to verify that token numbers as mentioned were extracted from the block instrument with his permission.

Nos. of Tokens.

For Block Section.

Time removed.

Position of Operating handle.

Date.

Signatures of the Station Master.

- (b) The Electrical Signal Maintainer shall, then proceed to the next station, show the tokens to the Station Master on duty before inserting them into the instrument and shall make the following entry in the token book, which shall be signed by the Station Master, who before signing shall satisfy himself that the individual number of tokens being inserted in his Block instrument are the same as were extracted out by Electrical Signal Maintainer from the Block Instrument of the adjoining station vide para (a) above.

Nos. of tokens.

For Block Section.

Time inserted.

Position of the operating handle.

Signatures of the Station Master.

- (c) The Electrical Signal Maintainer shall record the individual numbers of tokens extracted/deposited and the fresh balance of tokens left in the block instrument in the train signal register of respective stations. The Station Master on duty shall bring forward the fresh balance for striking the closing balance at the time of changing duty.
- d) Neal's Token Bell/Tablet instrument shall be considered failed and working of the Block Instrument shall be suspended in the following circumstances:
1. When bell signals are received indistinctly or fail altogether.
 2. If the needle of the galvanoscope fails to move when bell signals are given or received or shows a wrong indication viz. to the right instead of left and vice versa.
 3. When a token is broken or damaged in any way during or after extraction.
 4. If a token cannot be taken out from either instrument after proper signals have been exchanged and no token is out from either instruments of a section.
 5. When a token can be taken out from the instruments without proper signals being exchanged with the station at the other end of the section.

Note: Above test shall be made when the operators take charge of the block instrument.

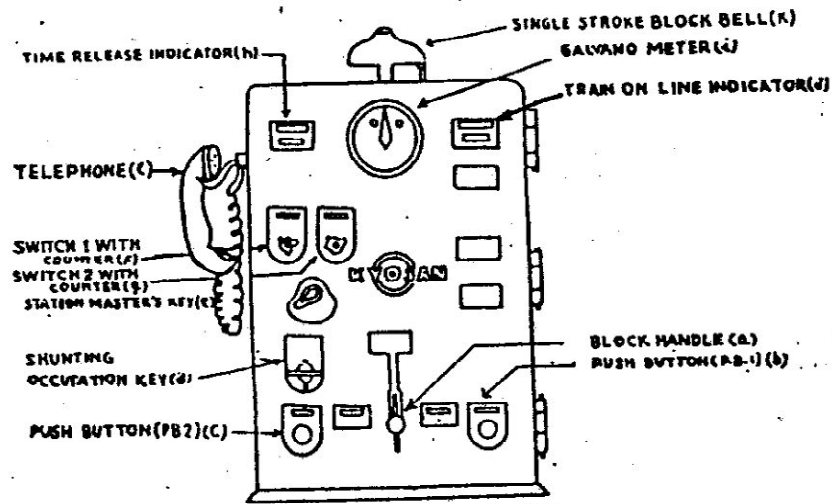
6. If a token cannot be put back into the instrument or jams when being put back into the instrument.
7. If a train arrives at a station without a token referring to the Block Section over which the train has passed.
8. When the token belonging to a block section has been over carried to another station, or is lost and cannot be found.
9. When there is a reason to believe that there is contact between the Block wire and any other circuit.

Note: If a contact exist between the block wire and any other circuit, there will be either a permanent or Intermittent deflection of the needle in the dial and possibly irregular beats on the bell. A contact between two block wires of adjacent sections would cause signals if given on one instrument to be repeated on the adjacent instrument.

10. If the operating handle cannot be turned to any one of the three positions with a prolonged beat from the distant station.

11. If operating handle can be turned to any one of the three positions without a prolonged beat from the station at the other end.
12. If the dial glass of the galvanoscope is broken.
13. If the instrument or its battery counter is found unlocked.
14. When the key of the token receiver drum is lost or the lock is out of order.
15. When a private number cannot be obtained from the Station master at the other end of section through the Block Telephone.
16. If it is known that the instrument is defective in any way not specified above.

3018. TOKENLESS BLOCK INSTRUMENT. HANDLE TYPE - KYOSAN



TOKENLESS BLOCK INSTRUMENT HANDLE TYPE - KYOSAN

The following are the principal components of the instrument :-

- (a) Block Handle.
- (b) Push Button PB-1.
- (c) Push Button PB-2.
- (d) Shunting Occupation key.
- (e) Station Master's key.
- (f) Switch-1 with counter S-1.
- (g) Switch-2 with counter S-2.
- (h) Time Release Indicator.

- (i) Galvanometer.
- (j) Train on line indicator.
- (k) Single Stroke Block Bell.
- (l) Telephone.

3019. Block handle - The handle has three positions. Normal position, i.e. "**Line Closed**" position, when the handle is vertical, "**Trains Going To**" position when the handle is turned to left and "**Train Coming From**" when the handle is turned to right. Normally it remains locked in all the three positions. It gets released only with the cooperation of the relevant Block instrument at the other end of the Block Section either for giving line clear or for obtaining line clear and also for closing line and cancelling line clear.

Note:- While changing the Block Handle from one position to another, plunger provided in the centre of the Block Handle is also pressed.

3020. Push Button PB-1 - It is a white coloured Push Button on the right hand side of the Block Handle. This button is pressed to transmit bell codes and also to stop the intermittent "**Train On Line**" buzzer at the station receiving the train and the continuous "**Train on Line**" buzzer at the station despatching the train, when operated by the station which is receiving the train. It is also simultaneously pressed with push button PB-2 for "giving Line Clear" or for "Obtaining Line Clear" and also while closing line and for cancellation of line clear.

3021. Push Button PB-2 - It is red coloured Push Button on the left side of the Block Handle. This button is pressed simultaneously with Push Button PB-1 while "**Giving Line Clear**" or "**Obtaining Line Clear**" and also while closing line and for cancellation of line clear. This button can also be used for interrupting "**Train on Line**" code to signal "Stop and Examine Train" message by the despatching station.

3022. Shunting Occupation Key - This Key is located just above the push button PB-2. Normally the key remains inserted and turned to "**R**" position. This key can only be taken out when Station Master's key is inserted and turned to "**R**" position with the block handle in "**Line Closed**" position. When the key is taken out for shunting purposes or turned to "**N**" position, the Block Handle cannot be turned from its "Line Closed" position and the key is used as an authority for the Loco pilot to perform shunting. The shunting key in up side Block Instrument is red coloured and the one in down side Block Instrument is black coloured. Particulars of the relative block section are engraved on the key. This key is not to be used for shunting except as provided in Station working Rules.

3023. Station Master's key:- This key is located just above the shunting occupation key. When the key is removed from the Block Instrument or turned to "**R**" position, operation of the Block Handle, transmission of codes (Except "Train on Line" Code), transmission of Bell Signals and removal of shunting occupation key cannot be done.

3024. Switch-1 with counter S-1:- This switch is located on top left hand side of SM's key. It is a latch type two position switch and is normally kept in "N" position. It is used for cancelling "Line Clear" by turning the switch to "R" position. This switch can also be used to stop "Train on Line" buzzer by turning it from "N" to "R" position. The counter provided along with this switch is to record the number of "Line Clear" cancellations made by switch-1 (S-1).

3025. Switch-2 with Counter S-2:- This switch is located on the right hand side of switch-1 (S-1). It is a latch type two position switch and is normally kept in "N" position. It is used when a train is to be brought back to the station from where it had departed. This switch is also used for emergency releasing of the Block Instrument when a train which has entered the block section on Line clear and cannot be received on reception signals.

For the push back movement and emergency release the switch is moved from "N" and "R" position. The counter provided with this switch is to record the operation of switch-2 (S-2).

3026. Time Release Indicator:- This indicator is located above the switches S-1 and S-2. Normally it indicates "Locked" position on white background and when cleared it changes over to "Free" on green background. This indicator works when the "Line Clear" obtained is cancelled before the train enters the block section.

3027. Galvanometer:- Galvanometer is placed on the right hand side of Time Release Indicator. It is provided with a needle, the movement of which indicates the passage of an electrical current received or sent, and also the operation of the corresponding block instrument at the other end of the block section.

3028. Train on Line Indicator:- This Indicator is located on the right hand side of the Galvanometer. Normally a disc indicates white colour and as soon as the train enters the block section, its white disc change over to "Train on Line" written on red background.

3029. Single Stroke Block Bell:- This bell is placed on the top of the instrument. It is provided to convey the prescribed bell code signals.

3030. Telephone:- Telephone is provided on the left hand side of the instrument. Telephone conversation can be made only with the relative block station. The push button provided on the speaking set must be kept pressed while speaking and listening.

3031. Sequence of operation:- Example given below is for despatching a train from 'X' station to station 'Y'. It is assumed that the Block Handle at both the stations are vertical i.e. in "Line Closed" position, and shunting occupation keys at both the stations are in the relevant instruments and turned to "R" position and Station Master's keys at both the stations have been inserted and turned to "R" position.

<u>Station 'X' despatching a train</u>	<u>Station 'Y' receiving the train</u>
1. Sends "Call Attention/Attend Telephone beats to station "Y" by pressing push button PB-1. Release push button after sending the code.	2. Bell rings. Bell code is acknowledged by pressing push button PB-1. Release push button after acknowledging the code. Attends telephone.
3. Bell rings. Attends Telephone and calls out his station's name.	4. Calls out his Station's name.
5. Makes line clear enquiry from 'Y' giving number and description of the train.	6. Agrees to give line clear with a private number.
7. Sends "Is Line Clear" signal keeping push button PB-1 pressed. Thereafter presses push button PB-2 and keeps both pressed.	8. On noticing the deflection of the needle and thereafter on hearing the single stroke bell turns the Block Handle from "Line Closed" to "Train Coming From" position.
9. Noticing the deflection of the Galvanometer needle towards the left releases push buttons PB-1 and PB-2.	10. Acknowledges "Is Line Clear" signal keeping push button PB-1 pressed and thereafter presses push button PB-2 and keeps both pressed.
11. On noticing the deflection of needle and thereafter hearing the single stroke bell turns the block handle from "Line Closed" position to "Train Going To" position.	12. On seeing the deflection of the needle releases push buttons PB-1 and PB-2.
13. Takes 'off' the departure signals to start the train. As soon as the train enters the block section, the last stop signal automatically goes back to its "ON" position and "Train on Line" indicator disc changes from white to red. At the same time, one buzzer in the instrument starts buzzing continuously. The last stop signal lever and its control slide where provided, are put back to normal position.	14. As soon as the train enters the block section, the "Train on Line" indicator disc changes from white to red and the buzzer starts buzzing intermittently. Presses push button PB-1 as an acknowledgement for 'train on line' indication. Intermittent buzzing stops. Releases push button PB-1.
15. Continuous buzzer stops. Transmits "Train Entering Section" code.	16. Acknowledges "Train Entering Section" code.
	17. Takes "off" reception signals. As soon as the train passes the Home signal, the signal goes back to "ON" automatically. A bell rings continuously after the train has completely passed the Home Signal and the last vehicle track circuit. The Home Signal lever and its S.M's control slide, where provided, are put back to normal position. The buzzer ringing stops.

Station 'X' despatching a train**Station 'Y' receiving the train**

Note: Though Home Signal may go back to "ON" automatically by the passage of the train, Home Signal lever must not be put back to normal, until the whole of train has arrived inside the last vehicle track circuit. Failure to adhere to this will result in a Block Failure and the train arrival buzzer/Bell will not sound alarm.

18. Acknowledges "Call Attention/Attend Telephone" signal and attends telephone.

19. Calls out his station name.

20. Calls out his station name.

21. Gives arrival of the train and sends "Train out of block section" signal by pressing push button PB-1. Thereafter also presses push button PB-2 and keeps both buttons pressed.

22. On noticing the deflection of the needle and thereafter hearing the single stroke bell turns the block handle from "Train going to" to "Line Closed" position.

23. Galvanometer needle gives a deflection which indicates that the other end has changed the position of the handle. On noticing this, push buttons PB-1 and PB-2 are released.

24. Acknowledges 'Train out of block section' signal keeping push button PB-1 pressed and thereafter presses push button PB-2 and keeps both button pressed.

25. On noticing the deflection of the needle and thereafter hearing the single stroke bell turns the Block Handle from "Train coming from" to "Line Closed" position.

26. On noticing the deflection on Galvanometer, releases push button PB-1 and PB-2, Block handles of both instruments are now in normal position.

3032. Procedure for cancelling "Line Clear" before the train enters the Block Section - It is assumed that the Block Handle at station 'X' is in "Train Going to" position and the related signals are in the "ON" position. Similarly, the Block handle at station 'Y' is in "Train coming from" position and the related signals are in their "ON" position.

Note: Station 'X' enters reading the S-1 counter before cancellation in Train Signal Register and also the reason for using S-1 switch.

Station 'X' Block Handle in "Train Going to" position.	Station 'Y' Block Handle in "Train Coming from" position.
1. Sends "Call Attention/Attend Telephone" code.	2. Acknowledges "Call Attention/Attend Telephone" code and attends telephone.
3. Attends telephone and announces his station name.	4. Announces his station name.
5. Asks for the cancellation of "Line Clear" received earlier supported by a private number.	6. Agrees for the cancellation and gives a private number.
7. Turns his switch S-1 from 'N' to 'R' position. After 60 seconds, the time release indicator, changes from "Locked" indication to "Free" indication and the counter registers one higher number. After noticing this, turns switch S-1 from 'R' to 'N' position.	
8. Presses push button PB-1 and sends "Cancellation" code further presses push button PB-2 and keeps both buttons pressed.	9. Receives "Cancellation" code and after hearing the single stroke bell turns the Block Handle from "Train Coming From" to "Line Closed" position.
10. On noticing the deflection in the Galvanometer, releases push buttons PB-1 and PB-2.	11. Acknowledges "Cancellation" code by pressing push button PB-1 and further pressing push button PB-2 and keeps both buttons pressed.
12. On hearing the bell turns the Block Handle from "Train Going To" to "Line Closed" position.	13. Noticing the deflection on the Galvanometer releases push buttons PB-1 and PB-2.

Note : 1) Enters reading of S-1 counter after Cancellation in his Train Signal Register.

2) Counter readings should also be accounted for in a special register (sets of pages to be allocated for each counter) in the form shown below :-

Date	Time	Counter Before operation	Reading After operation	Brief reasons for emergency operation.	Station Master's signature.

3) The Station Master on duty, at the time of handing over charge, must record the counter readings in his relief diary. Block handles of both the instruments are now in normal position.

3033. (a) Procedure for normalising the Block Instruments after the train is pushed back to the departing station:- It is assumed that the Block Handle at Station 'X' is in 'Train Going To' position and the 'Train on Line' indicator disc is showing RED.

At station 'Y' the Block Handle is in "Train Coming From" position and the "Train on line" indicator disc is showing red indication. All relevant signals at both the stations are in the 'ON' position.

Station 'X' Block Handle in "Train Going to" position.	Station 'Y' Block Handle in "Train Coming from" position.
1. Transmits "Call Attention / Attend Telephone" Code.	2. Acknowledges "Call Attention / Attend Telephone" code and attends telephone.
3. Attends telephone and announces his station name.	4. Announces his station name.
5. Asks to agree for the push back movement supported by a private number.	6. Agrees for push back movement and gives his private number.
7. Turns switch S-2 from 'N' to 'R' position. Train is received on proper signal or an authority of T/369 (3b) accompanied by hand signals. As soon as the train occupies the track circuit ahead of the home signal, a bell rings and the counter registers the next higher number. Turns switch S-2 from 'R' to 'N', bell stops ringing. Gives 'Call Attention'/Attend Telephone' bell code by pressing PB-1.	8. Acknowledges 'Call Attention/Attend Telephone' bell code and attends telephone.
9. Attends telephone and calls out his station name.	10. Calls out his station name.
11. Gives Complete arrival of the train and sends 'Cancellation' bell code by pressing push button PB-1. Thereafter presses push button PB-2 and keeps both buttons pressed.	12. On getting 'Cancellation' code and on hearing a bell, turns the block handle from "Train Coming From" to "Line Closed" position.
13. On noticing the deflection in the galvanometer releases push button PB-1 and PB-2.	14. On noticing the deflection in the galvanometer, acknowledges 'Line Cancellation' code by pressing push button PB-1 and thereafter presses push button PB-2 and keeps both buttons pressed.
15. On hearing the bell, turns block handle from 'Train Going To' to "Line Closed" position.	16. On noticing the deflection in the galvanometer, releases push buttons PB-1 and PB-2.

Block Handles of both the instruments are now in normal position.

(b) Procedure for emergency release of block instrument in the event of a train to be received when conditions do not permit to taking "off" approach Signal (use of S-2 switch) S-2 switch will be used by the station receiving the train and following procedure is followed:-

It is assumed that at a station 'Y' which is receiving the train with all reception signals in the 'ON' position. SM's control key is the Block Instrument and the switch-2 is turned to 'R' position. The shunting occupation key is in the block instrument and turned to 'R' position and S-1 switch is in 'N' position. Block handle at station 'X' is in "Train Going To" position whereas at station 'Y' it is in "Train Coming From" position. Also 'train on line' is indicated on the indicator at both the stations.

<u>Station 'X' Block Handle in "Train Going To" position.</u>	<u>Station 'Y' Block Handle in "Train Coming From" position.</u>
	1. Transmits key controlling the facing point to the concerned cabin and pulls route slide.
	2. Turns S-2 switch to 'R' position.
	3. Train is received on prescribed authority and on hand signals.
	4. Train arrival bell starts ringing when the train has entered home signal.
	5. Puts back S-2 switch from 'R' to 'N' position, after the entire train has entered home signal and push back route slide.
	6. Enters S-2 counter reading in the train signal register and the reasons for using S-2 switch.
	7. Sends 'Call Attention/Attend Telephone' signal to station 'X' by pressing push button PB-1.
8. Acknowledges 'Call Attention/Attend Telephone' code by pressing the push button PB-1 and attends telephone.	9. Attends telephone and announces his station name.
10. Announces his station name.	11. Sends "train out of block section" signal by pressing push button PB-1. Thereafter also presses PB-2 and keeps both buttons pressed.

<u>Station 'X' Block Handle in "Train Going To" position.</u>	<u>Station 'Y' Block Handle in "Train Coming From" position.</u>
12. On noticing the deflection of the needle and thereafter hearing the single stroke bell, turns the block handle from "Train Going To" to 'Line Closed' position.	13. Gets deflection which indicates that the other end has changed the position of the handle. On noticing this push buttons PB-1 and PB-2 are released.
14. Acknowledges "Train out of block section" signal keeping push button PB-1 pressed and thereafter presses push button PB-2 and keeps both the buttons pressed.	15. On noticing the deflection of the needle and thereafter hearing the single stroke bell, turns the block handle from "Train Coming From" position to "Line Closed" position.
16. On noticing the deflection, releases push buttons PB-1 and PB-2.	

Block Handles of both the instruments are now in normal position.

3034. "Stop and Examine signal" when required is given by interrupting "Train on Line" code by pressing PB 2 and thereafter signalling the code by pressing PB-1:- This procedure should be adopted if the "Train on Line" code is not acknowledged by the receiving station Before push button PB-1 is pressed the Station Master should ensure that the SM's slide as well as the lever controlling the last stop signal have been put back to normal position.

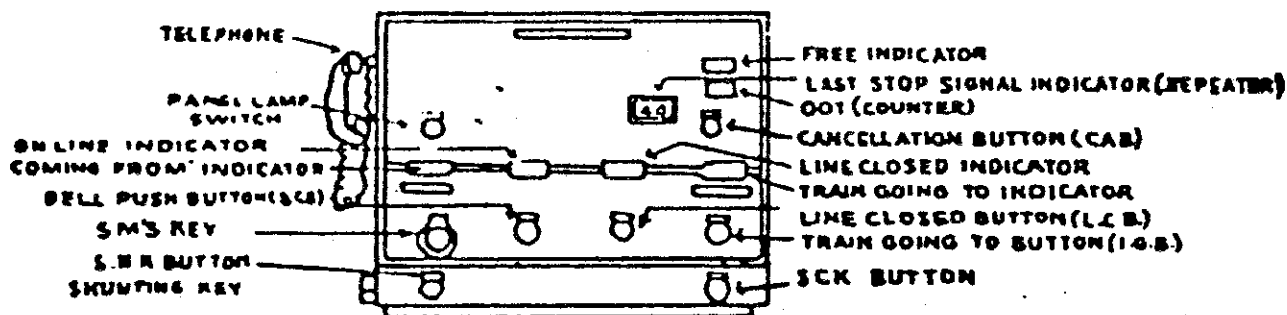
3035. Last Stop Signal fails at station 'X' after the block instruments have been set to "Train Coming From" condition at station 'Y' and "Train Going To" condition at station 'X'.

<u>STATION 'X'</u>	<u>STATION 'Y'</u>
Block Instrument handle is in "Train Going To" position.	Block Instrument is in "Train Coming From" position.
1. (a) Releases S.M.'s Control over last stop signal. (b) Last stop signal fails to come "Off".	
2. Sends "Call Attention/Attend Telephone" signal by pressing push button PB-1 and attends telephone.	3. Acknowledges "Call Attention/Attend Telephone" signal by pressing push button PB-1 and attends telephone.

STATION 'X'	STATION 'Y'
Block Instrument handle is in "Train Going To" position.	Block Instrument is in "Train Coming From" position.
4. Announces his station name. 6. Advises of the failure of the last stop signal, giving number and description of train and asks for private number. 8. Puts back, S.M.'s control slide and last stop signal lever to normal.	5. Announces his station name. 7. Acknowledges his Station name, regarding number and description of train and gives private number.

Note: Thereafter the S.M. of station 'X' should cancel line clear as detailed in para 3032 and introduce paper line clear working.

3036. TOKENLESS BLOCK INSTRUMENT (PUSH BUTTON TYPE) Podanur make.



TOKENLESS BLOCK INSTRUMENT (PUSH-BUTTON TYPE) - PODANUR MAKE

Brief description:- On section where such Block Instruments are used, cooperation of the receiving end Station Master for obtaining authority for occupation of the block section is not necessary. Cooperation between Station Master at both end stations is, however, necessary in the case of Cancellation and Push Back operations to restore the instruments to "Line Closed position".

For giving bell signals on the instrument only one button, namely "Bell Push" button has to be pressed. For all other operations, simultaneous pressing of the "Bell Push" button and another button ("Train Going To" button or "Line Closed" button or "Cancellation" button as the case may be) is necessary.

A shunting key can be extracted in the "Line Closed" or in "Train Going To" condition of the instrument for authorising shunting beyond last stop signal and upto the opposite first stop signal. The extraction of this shunting key will make the instrument inoperative except that :-

- (a) Transmission and reception of bell signals are possible;
- (b) Telephonic conversation is possible;
- (c) Reception of "Train on Line" code and appearance of "Train on Line" indicator are possible.

However, the conditions established prior to extraction of the key will continue to remain and, therefore, the shunting key also functions as an emergency key. Shunting key cannot be extracted from the instrument when Block instrument is in "Train Coming From" position.

When the shunting key is taken out of the adjunct to the instrument, the block instrument cannot be changed from the "Line Closed" condition to "Train Going To" condition at sending station and "Train Coming From" condition at receiving station. Whenever conditions warrant refusal of line clear, shunting key should be extracted from the adjunct of the Block Instrument and kept by S.M. in his safe personal custody.

3037. The following are the principal components of the Block instrument :-

- (a) "Bell Push" button (BCB).
- (b) "Line Closed" button (LCB).
- (c) "Train Going To" button (TGT).
- (d) "Cancellation" button (CAB).
- (e) "Station Master's key".
- (f) "SHK" button.
- (g) "SCK" button.
- (h) Shunting key in the adjunct.
- (i) Siding key in the adjunct (wherever slip/catch siding is provided).
- (j) "Line Closed" Indicator.
- (k) "Train Going To" Indicator.
- (l) "Train Coming From" Indicator.
- (m) "Train on Line" Indicator.
- (n) "Free" Indicator.

- (o) Single Stroke Block Bell
- (p) "Train on Line" Bell.
- (q) "Train arrival" Bell.
- (r) "Telephone".
- (s) "Panel Lamp" switch.
- (t) Counter.

3038. "Bell Push Button" (BCB) - It is **black** colour "push button" placed in the centre of the instrument. This button is pressed to transmit bell code signals. This is also operated by the receiving end Station Master to stop the "Train on Line" intermittent audible warning at the receiving station.

3039. "Line Closed" Button (LCB) - It is a **white** coloured push button on the right hand side of the Bell Push Button (BCB). This button is pressed simultaneously with Bell Push Button by the receiving Station Master for setting the instruments at despatching and receiving ends to "Line Closed" condition.

3040. "Train Going To" Button (TGT) - It is a **green** coloured push button on the right hand side of the LCB. This button is pressed by the sending end Station Master simultaneously with Bell Push button (BCB) for setting Instrument to "Train Coming From" condition at the receiving station and "Train Going To" condition at the sending station.

3041. "Cancellation Button" (CAB) - It is **red** coloured push button just above the "Train Going To" indicator. This button is pressed simultaneously with Bell Push Button (BCB) to enable the instruments to be operated to "Line Closed" condition from "Train Going To" condition in cases when the train does not enter the Block Section or when having entered the Block Section, it pushes back to the sending station. A counter is provided above this button and it registers every operation of the cancellation button. About 1 to $1\frac{1}{2}$ minutes or so after the initiation of "Cancellation" operation, the Time release indication (Free) appears. After appearance of the "Free" indicator the instrument is operated by the Station Master to "Line Closed" condition by pressing the "LCB" and "BCB" simultaneously with the cooperation of the Station Master at the other end station who also presses LCB and BCB of his instrument simultaneously.

3042. "Station Master's Key" - This key is located just below the "Train Coming From" indication. When the SM's key is taken out of the Block Instrument, it prevents unauthorized manipulation of the Block Instrument.

With the key out bell signals can be received and telephone communication made. Apart from this, reception of "Train Coming From" Code appearance of its indication, reception of "Train on Line" code and appearance of its indication and bell warning are possible at the receiving end, in addition to Automatic transmission of "Train Going To" code. Automatic transmission of "Train on Line" code and appearance of "Train on Line" indication and reception of "Line Closed" code are possible at the sending station. No other operations are possible.

3043. "SHK" Button - It is **blue** coloured button just below the Station Master's key. This is to be pressed whenever shunting key (SHK) is to be extracted from the adjunct of the Block Instrument.

3044. "SCK" Button - It is a **blue** coloured button just below the "Train Going To" Push Button. This is to be pressed whenever control key (SCK) for slip/catch siding points, wherever provided, is to be extracted from the adjunct of the Block Instrument.

3045. "Shunting Key" - Normally this key is inside the adjunct (for shunting key) to the instrument. This key can be extracted after inserting and turning Station Master's key and by pressing the "SHK" Button when the instrument is not in "Train Coming From" condition.

When shunting key is extracted it makes the instrument inoperative except for the bell signals and telephone communication.

Shunting key is used as an Emergency key and whenever circumstances warrant refusal of Line Clear, it must be removed and kept by Station Master to necessitate his cooperation to be sought by the Station Master at the other end of the Block Section before the latter can set his instrument to "Train Going to" condition.

Particulars of the relevant block section are engraved on the shunting key.

3046. "Line Closed" Indicator:- This is in the centre of the instrument, it is a stencilled indication, lit by a **white lamp** when the instrument is in "Line Closed" condition, and panel lamp switch is in 'ON' position.

3047. "Train Going To" Indicator:- This is on the right hand side of the instrument. This is a stencilled arrow indication lit by a **green lamp** when the instrument is set to "Train Going To" condition and the panel lamp switch is in 'ON' position.

3048. "Train Coming From" Indicator:- This is on the left hand side of the instrument. This is stencilled arrow indication lit by a **green lamp** when the instrument is set to "Train Coming From" condition, by operation of the "BCB" and "TGT" buttons together at the sending end station Instrument and the panel lamp switch is in 'on' position.

3049. "Train on Line" Indicator:- This is in the centre of the Instrument. This is a stencilled indication lit by a **red lamp** when a train enters the Block Section.

3050. Free Indicator:- This is just above the counter. This is a stencilled indication lit by a **green lamp** 1 to $1\frac{1}{2}$ minutes after the operation of "Cancellation Button" as detailed in para 3058.

3051. Single Stroke Bell:- The bell is used for receiving Bell Code signals and is operated when the "Bell Push" button of the instrument at the other end is operated.

3052. "Train on Line" Bell:- This provides intermittent audible warning at the receiving station when a train enters the Block Section.

3053. "Train Arrival" Bell:- This provides continuous audible warning at the receiving station when the train has passed inside the last vehicle track circuit.

3054. "Telephone":- Telephone is on the left hand side of the instrument for Telephonic conversation between block stations. The push button wherever provided on the speaking set must be kept pressed while speaking and listening.

3055. "Panel Lamp Switch":- This is a **yellow** coloured switch just above the "Train Coming From" indicator. It is operated to light up the various indicators, except the "FREE" AND "TRAIN ON LINE" indicators whenever necessary.

3056. "Counter":- It registers the next higher number whenever cancellation button is operated as explained in para 3058. At the time of handing over the charge, Station Master should record the last number registered on the counter, in the Train Signal Register and affix his signatures thereunder.

3057. Method of Working Block Instruments:- Example given below is for despatching a train from Station 'A' to Station 'B'. It is assumed that the Block Instruments at both these stations are in "Line Closed" condition and shunting key and slip/catch siding key, if any, at both stations are in the relevant instruments and the S.M.'s key extracted and kept by respective Station Masters. Outer/Distant, Home and Last Stop Signals are at 'ON', position.

Station 'A' despatching a train	Station 'B' receiving a train
1. Inserts S.M.'s key and turns. Presses "Bell Push" Button (BCB) to send 'Call Attention/ Attend Telephone' to station 'B'. Releases "Bell Push" button.	2. Bell signal is acknowledged by pressing "Bell Push" button. Releases "Bell Push" button and attends telephone.
3. Receives acknowledgement signal. Attends telephone and calls out his station name.	4. Calls out his own station name.
5. Ask "Line Clear" giving number and description of the train, supported by a private number.	6. Grants "Line Clear" after repeating the number and description of the train and private number supported with his private number after ensuring that shunting key is in the block instrument.
7. Presses "Train Going To" (TGT) button and bell push button simultaneously.	8. Block Instrument displays "Train Coming From" indication.
9. Block Instrument displays "Train Going To" indication.	

Station 'A' despatching a trainStation 'B' receiving a train

10. Takes 'off' the departure signal to send the train. As soon as the train occupies track just ahead of the Last Stop Signal, the signal automatically goes back to its "ON" position and "Train on Line" indication appears automatically on the Block Instrument. Last Stop Signal lever and S.M.'s control slides are put back to normal position.
 11. "Train on Line" indication appears automatically on the instrument and warning bell sounds intermittently. Inserts S.M.'s key and turns. Presses Bell Push Button for acknowledging "Train on Line" indication. Intermittent ringing of bell stops. Release Bell Push button.
 12. Takes 'off' reception signals. As soon as the train passes the Home Signal, the signal goes back to 'ON' automatically. A bell rings continuously after the train has completely passed the Home Signal and the last vehicle track circuit. The Home Signal Lever and its S.M.'s control slide, where provided, are put back to normal position. The ringing stops.
- Note:** Though Home Signal may go back to 'ON' automatically by the passage of the train, Home Signal lever Must not be put back to normal, until the whole of the train has arrived inside the last vehicle track circuit. Failure to adhere to this will result in a Block Failure and the train arrival buzzer/Bell will not sound alarm.
13. After ensuring that the train has arrived complete and all the relevant signals are at 'ON', operates 'Line Closed' button along with the "Bell Push" button, and keeps these pressed.
 14. Block Instrument sets itself to "Line Closed" condition, and "Line Closed" indicator is lit white.
 15. Block Instrument sets to "Line Closed" condition and "Line Closed" indicator is lit white. Releases buttons.

3058. To cancel a "Line Clear" before the train enters the Block Section.

<u>Sending Station 'A'</u>	<u>Receiving Station 'B'</u>
Block Instrument displays "Train Going To" indication and all concerned signals, S.M.'s controls if any, and signal levers are in normal positions.	Block Instrument displays "Train Coming From" indication and all concerned signals, S.M.'s controls if any, and signal levers are in normal positions.
(1) (a) Inserts Station Master's key and turns. (b) Operates "Cancellation" button along with "Bell Push" button. (c) "Counter" registers next higher number.	
(2) Gives "Call attention/Attend telephone" signal	(3) (a) Inserts Station Master's key and turns. (b) Acknowledges "Call attention/Attend Telephone" signal and attends telephone.
(4) Advises on telephone the intention to cancel "Train Going To" condition.	(5) Acknowledges intention to cancel "Train Going To" condition.
(6) Time release "Free" Indication appears 1 to 1½ minutes after "Cancellation" button is operated.	
(7) Gives "Call attention/attend telephone" signal.	(8) Acknowledges "Call attention/attend telephone" signal.
(9) Sends "Cancellation" code by operating "Bell Push" button: keeps "Line Closed Button" together with "Bell Push Button" pressed on the last beat.	(10) Acknowledges "Cancellation" code by operating "Bell Push" button: keeps "Line Closed Button" together with "Bell Push Button" pressed on the last beat (11) Block instrument sets to "Line Closed" condition Releases buttons.
(12) Block Instrument sets to "Line Closed" condition Releases buttons.	

Notes: (1) Reasons for operating cancellation Switch/button must be recorded in the Train Signal Register showing the progressive number on the counter.

- (2) Counter readings should also be accounted for in a special register (sets of pages to be allotted for each counter) in the form shown below :-

Date	Time	Counter Before operation	Reading After operation	Brief reasons for emergency operation.	Station Master's signature.

- (3) The Station Master on duty, at the time of handing over charge must record the counter readings in his relief diary.

3059. To cancel 'Train Going To' Condition when a Train pushes Back to the Despatching Station after having entered the block section:-

<u>Sending Station 'A'</u>	<u>Receiving Station 'B'</u>
Block Instrument displays "Train on Line" indication. Train to be pushed back is at the first Stop Signal and is ready to be pushed back.	Block Instrument displays "Train Coming From" and "Train on Line" indication.
1. Inserts S.M.'s key and turns. Sends "Call attention/Attend telephone" signal by operating bell push button and attends telephone.	2. Acknowledges 'Call attention/Attend telephone' signal, attends telephone and calls out his station name.
3. Calls out his station name and gives number and description of train to be pushed back supported by a Private Number.	4. Acknowledges number and description of the train supported by his private number.
	5. Replaces S.M.'s control and arranges to replace reception signals and their levers to their normal positions.
6. (a) Releases S.M.'s control and takes "off" the reception signals.	
(b) Train pushes back to the station with in Home Signal.	
(c) Home Signal replaced to "ON" position automatically.	
(d) Warning bell sounds.	

<u>Sending Station 'A'</u>	<u>Receiving Station 'B'</u>
(e) Outer and Home or Distant and Home signal levers and S.M.'s slide for Home Signal are put back to normal. (f) Warning bell stops. 7. (a) Verifies that the train has arrived complete and all relevant signals are at 'ON'. (b) Operates 'Cancellation button' along with 'Bell Push' button. (c) Sends "Call attention/Attend Telephone" signal by Operating "Bell Push" button and wait acknowledgement. 9. (a) Operates 'Bell Push' button to send the 'Cancel' signal. (b) Presses "Line Closed" and 'Bell Push' 11. (a) Block Instrument sets to "Line Closed" condition. (b) Release buttons. (c) Takes out S.M.'s key.	8. Acknowledges 'Call Attention/Attend telephone' signal by operating 'Bell Push' button. 10. (a) Acknowledges 'Cancel' signal. (b) Co-operates in normalising of the instrument buttons together. by operating "Bell Push" and "Line Closed" buttons simultaneously. (c) Keeps both buttons pressed till Block Instrument is set to "Line Closed" condition. (d) Releases the buttons. (e) Takes out S.M.'s key.

Note : The push back operations are prohibited at stations provided with catch sidings unless specially permitted under the Station Working Rules.

3060. Authority to shunt upto opposing First Stop Signal in the possession of the relevant "Shunting Key" with the Loco Pilot:- If shunting is to be done under "Line Closed" conditions, the following procedure should be followed :-

<u>Sending Station 'A'</u>	<u>Receiving Station 'B'</u>
Block Instrument is in "Line Closed" condition.	Block Instrument is in "Line Closed" condition.
1. (a) Inserts Station Master's key and turns.	2. Acknowledges and attends telephone.
(b) Calls attention.	
3. Informs intention to shunt upto opposing first stop signal, supported by a Private Number.	4. Acknowledges and gives assent, supported by a Private Number.
5. (a) Takes out the shunting key.	
(b) Hand over the shunting key to the Loco Pilot and takes out S.M.'s key.	
6. (a) Loco Pilot completes shunting; Returns shunting key to the Station Master.	7. Acknowledges the advice of completion of shunting supported by a Private Number.
(b) Inserts S.M.'s key and replaces shunting key in the instrument.	
(c) Takes out S.M.'s key.	
(d) Advises the S.M. at 'B' station of completion of shunting and replacement of the shunting key in the Instrument, supported by a Private Number.	

Note : Shunting up to opposing First Stop Signal is prohibited at stations provided with Catch Siding.

3061. In sections with Tokenless Instruments:- "Push Button" type, shunting between the Last Stop Signal and Opposing First Stop Signal behind a departing train, with the instrument in "Train Going To" condition is specially allowed and the following procedure should be followed :-

Note : Whenever it is necessary to extract shunting key, with the instrument in "Train Going To" condition, it must be done only after "Train on Line" condition has been established and acknowledged by the S.M. at the other end for safety and avoiding failure of Block Instrument.

<u>Sending Station 'A'</u>	<u>Receiving Station 'B'</u>
Block Instrument in "Train Going To" condition, and the Last Stop Signal at 'ON'. "Train on Line" indication appears.	Block Instrument in "Train Coming From" condition and "Train on Line" appears on the Instrument.
1. (a) Calls attention and attends telephone.	(b) Acknowledges and attends telephone.
(c) Uses S.M.'s Key, extracts shunting key and hands it over for shunting and takes out S.M.'s key.	(d) Acknowledges and gives assent, supported by a Private Number.

Case (1): If shunting is completed before the Train clears block section.

- | | |
|--|---|
| <p>2. (a) Loco Pilot completes shunting; returns shunting key to Station Master.</p> <p>(b) Inserts S.M.'s key and replaces shunting key in the instrument.</p> <p>(c) Takes out S.M.'s key after advising the S.M. at 'B' Station of the completion of shunting and replacement of shunting key in the Instrument, supported by a Private Number.</p> | <p>(d) Acknowledges completion of shunting, supported by a Private Number.</p> <p>After reception of train, Block Instrument set to "Line Closed" condition in accordance with Para 3057.</p> |
|--|---|

Case (2) : If train clears section before shunting is completed, Station 'B' will fail to establish "Line Closed" condition. In such a case Station Master at station 'B' should wait till shunting at station 'A' is completed and advice received as detailed above.

Note : Shunting upto opposing First Stop Signal is prohibited at stations provided with catch siding.

3062. Operation of Slip and Catch siding while sending/receiving a train:- Sequence of Operations of Slip/Catch siding; while despatching/receiving trains will be incorporated in the Station Working Rules of stations wherever Slip/Catch sidings are provided.

3063. To cancel "TRAIN COMING FROM":- Condition by the Receiving Station before the train starts from the sending station and enters the Block Section - When the instruments at station 'A' and station 'B' have been set to "Train Going To" and "Train Coming From" conditions respectively the need for cancelling "Train Coming From" indication on the part of Station Master at 'B' can arise if any obstruction in the Block Section occurs.

In such a contingency, if the train has not left Station 'A' Station Master at 'B' shall insert the S.M.'s key and turn and sends "Obstruction Danger" signal by operating 'Bell Push' button. On hearing this bell code, station 'A' shall replace the Last Stop Signal to "ON" if in "OFF" position. After inserting and turning S.M.'s

key he will acknowledge "Obstruction Danger" signal by operating "Bell Push" button and will initiate the action for cancellation of "Train Going To" condition as detailed in para. 3059 after verifying that the train has not left.

After the instruments at both ends have been set to "Line Closed" condition, both stations should take out the S.M.'s key and "Shunting Keys" from their respective instruments to prevent their operation till the obstruction is removed.

When the obstruction is removed, the Station Master receiving the information inserts S.M.'s key and send "Call Attention" signal and advises of the obstruction having been removed under exchange of private numbers and by giving the "Obstruction" removed signal by operating "Bell Push" button which should be acknowledged by the other station after inserting and turning S.M.'s key. Both Station Masters may then replace the "Shunting Keys" in their respective instruments and then take out S.M.'s keys.

3064. Procedure to be followed in case of sending message of "Stop and examine Train" Signal:-

When such a signal is transmitted S.M. at the sending station will also remove shunting key from his instrument to prevent the S.M. at receiving station from setting his instrument to "Line Closed" position and then to "Train Going To" position before ensuring that the Block Section is free from any obstruction. The shunting key should be replaced only when the other Station Master has informed him of having examined the train to his satisfaction, supported by a Private Number.

3065. Last Stop Signal fails at Station 'A' after the Block Instrument have been set to "Train Coming From" condition at station 'B' and "Train Going To" condition at station 'A'.

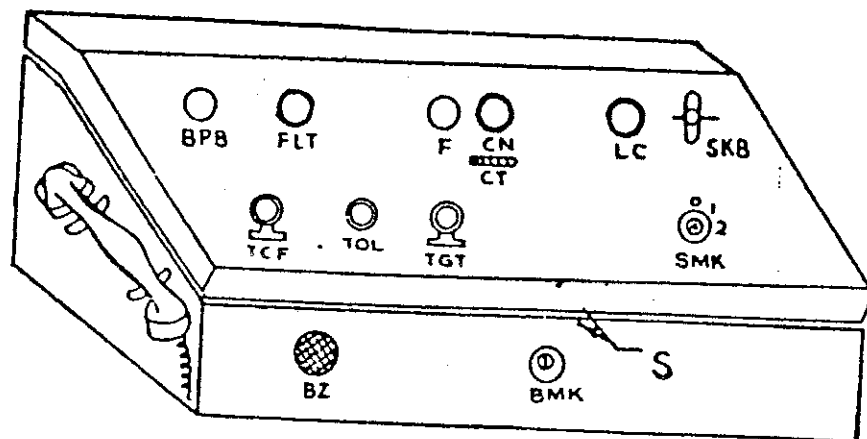
<u>Station 'A'</u>	<u>Station 'B'</u>
Block Instrument displays "Train Going To" indication.	Block Instrument displays "Train Coming From" indication.
1. (a) Releases S.M.'s control over last stop signal.	
(b) Last stop signal fails to come 'off'.	
2. Sends "Call Attention" signal by operating "Bell Push" button and attends telephone.	3. Acknowledges "Call Attention" signal by operating "Bell Push" button and attends telephone.
4. Advises of the failure of last stop signal, gives number and description of train and asks for Private Number.	5. Acknowledges information, number and description of train and gives Private Number.
6. Puts back S.M.'s control slide of last stop signal to normal.	

Note: Thereafter Station Master 'A' should cancel line clear as detailed in para. 3058 and introduce Paper Line Clear Working.

3066. Home Signal fails at station 'B' and the train is received on prescribed authority:-

Station 'A'	Station 'B'
Block Instrument displays "Train Going To" indication and "Train on Line" indication.	Block Instrument displays "Train Coming From" indication, and "Train on Line" indication.
Even if the Home Signal fails to be taken to 'OFF' position, the relevant Home Signal lever should be pulled and the train received on prescribed authority. On reception of the train, the Home Signal lever should be put back to normal. The same procedure shall be followed till the Home Signal has been set right.	

Note: The rest of the procedure i.e. operating the instrument to "Line Closed" condition should be followed as detailed in para. 3057.

3067. TOKENLESS BLOCK INSTRUMENT PUSH BUTTON TYPE (SIEMENS MAKE)**TOKENLESS BLOCK INSTRUMENT - PUSH BUTTON TYPE (SIEMENS)**

Brief description - (i) On sections where such Block Instruments are used, cooperation of the receiving end Station Master for obtaining authority for occupation of the block section is not necessary. Cooperation between Station Masters at both end stations is, however, necessary in the case of cancellation and push button operation to restore the instrument to "Line Closed" position.

(ii) A shunting key can be extracted for authorising shunting, observing the relevant rules under the following conditions :-

- (a) "Line Closed".
- (b) "Train Going To"

- (c) "Train on Line" with "Train Going To"

(iii) Shunting key cannot be extracted from the instrument when it is in "Train Coming From" condition. The extraction of the shunting key will make the instrument inoperative except that :-

- (a) Transmission and reception of bell signals are possible.
- (b) Telephonic conversation is possible.
- (c) Reception of "Train on Line" code, and appearance of "Train on Line" indicator are possible.

However, the conditions established prior to extraction of the key will continue to remain and, therefore, the shunting key also functions as emergency key.

(iv) When the shunting key is taken out from Block Instrument at one end of the block section, the Block Instrument at the other end cannot be changed from "Line Closed" condition to "Train Going To" condition and the instrument at the station at which the key has been extracted cannot be set to the "Train Coming From" condition. Whenever conditions warrant refusal of line clear, shunting key should be extracted from the adjunct to the block instrument and kept in the personal custody of the Station Master on duty.

3068. The following are the principal components of the block instrument :-

- (a) Bell Push Button (BPB).
- (b) Train Going to Button (TGT),
- (c) Line Closed Button (LC).
- (d) Cancellation Button (CN).
- (e) Train Coming From Indicator (TCF).
- (f) Train on Line Indicator (TOL),
- (g) Free Indicator (F).
- (h) Station Master's Key (SMK).
- (i) Hooter (BZ).
- (j) Block Telephone (BT).
- (k) Shunting Key (SKB).
- (l) Fault Indicator (FLT).
- (m) Block Maintainer's Key (BMK).
- (n) Counter (CT).

3069. Bell Push Button (BPB):- The part of the Block Instrument coded "BPB" is the bell push button, coloured opaque black, and it is to be pressed to transmit the bell code signals. This is also pressed simultaneously along with buttons "TGT" or "LC" or "CN" whenever any of the latter is required to be operated. This is also pressed at the receiving station as a token of acknowledgement to stop the "Train on Line" audible warning at the receiving end.

3070. Train Going To Button (TGT):- The part of the Block Instrument coded "TGT" is the "Train Going To" button, coloured green, and it is to be pressed along with the "BPB" button by the Station Master at the sending station. This sets the instrument at the sending station to "Train Going To" condition and the instrument at the receiving end to "Train Coming From" condition. This button is illuminated green when the instrument is in the "Train Going To" condition.

3071. Line Closed Button (LC):- The part of the Block Instrument coded "LC" is the "Line Closed" button and is to be pressed along with "BPB" button by the Receiving Station to set both the instruments in "Line Closed" condition. This button is illuminated when the Instrument is in "Line Closed" condition.

3072. Cancellation Button (CN):- The part of the Block Instrument coded "CN" is the cancellation button, coloured yellow, and it is to be pressed along with "BPB" button to enable cancellation of the "Line Clear" already obtained, if the train has not already entered the block section. Below "CN" is a counter coded "CT" which registers one higher number each time "CN" button is pressed.

Note: (1) Reasons for operating cancellation button must be recorded in the train signal register showing the progressive number on the counter.

(2) Counter readings should also be accounted for in a special register (sets of pages to be allotted for each counter) in the form shown below :-

Date	Time	Counter Before Operation	Reading After Operation	Brief reasons for emergency operation.	Station Master's signature.

3) The Station Master on duty, at the time of handing over charge, must record the counter readings in his relief diary.

3073. Train Coming From indicator (TCF):- The part of block instrument coded "TCF" is the "Train Coming From" indicator, which is illuminated "green" when the instrument is set to "Train Coming From" position.

3074. Train on Line Indicator (TOL):- The part of the block instrument coded "TOL" is the "Train on Line" indicator, which is illuminated "red" when the train enters the block section and remains lit simultaneously with "TGT/TCF" indicator as long as the train is in the block section.

3075. Free Indicator (F):- The part of the block instrument coded "F" is the free indicator. This is illuminated green after an interval of 1 to 1½ minutes after the "CN" button is pressed for cancellation of "Line Clear" provided the train has not entered the block section.

3076. Station Master's Key (SMK):- The part of the Block Instrument coded "SMK" is the S.M.'s key which, when taken out prevents unauthorised manipulation of the instrument. However, Bell codes "TCF" and "TOL" indications, and "Train Entering Block Section" audible warning can be received even when the S.M.'s key is taken out. It has three positions marked '0', '1' and '2' as under :-

- (i) Position '0' - Instrument locked.
- (ii) Position '1' - Instrument is operative and unlocked.
- (iii) Position '2' - This position is for inserting and extracting shunting key.

3077. Hooter (BZ):- The part of the Block Instrument coded "BZ" is a hooter which provides an audible warning at the receiving station :

- (a) when a train enters the Block Section and
- (b) when the train has passed inside the station section from the block section.

3078. Block Telephone (BT):- The part of the Block Instrument coded "BT" is the telephone to be used for communication with the Station Master at the other end of the Block Section.

3079. Shunting Key (SKB):- The part of the Block Instrument called "SKB" is the Shunting key which is an authority to be given to the Loco Pilot in all cases when, under the relevant rules, shunting at a station beyond the advanced starter upto the opposing First Stop signal has to be performed. The shunting key when taken out prevents any operation of the instrument, but allows only the reception and transmission of "Train on Line" code and bell signals.

Note: Whenever conditions warrant prevention of a train being despatched from the station at the other end, the shunting key must be extracted and kept in the personal custody of Station Master, under advice to the Station Master at the other end.

3080. Fault Indicator (FLT):- The part of the Block Instrument coded "FLT" is a luminous "FAULT" push button which is illuminated red in case of any fault in the working of the block instrument. Whenever this button is illuminated, it should be pressed to switch off the indication, if possible. In case red indication persists in spite of pressing this button, the instrument should be considered defective and working of the instrument suspended.

The Electrical Signal Maintainer concerned should then be called to attend the instrument and it should be restored only after being declared fit by him.

3081. Electrical Signal Maintainer's Key (BMK):- The part of the Block Instrument coded "BMK" is the Electrical Signal Maintainer's key and is used for opening the instrument for maintenance or attending to any failure. The key is kept under the personal custody of Electrical Signal Maintainer for the maintenance of the instrument.

Note: Sealing arrangement has also been provided as shown in the diagram coded as "S". This should be kept sealed by the Electrical Signal Maintainer Incharge.

3082. Mode of Signalling trains:- Starting a train from station 'A' to Station 'B'. Sequence of operation - Initially it is assumed that the Block Instruments at both these stations 'A' & 'B' are in "Line Closed" condition and the shunting keys at both stations remain inserted in the relevant instrument and the S.M.'s keys have been extracted and have been kept in the personal custody of the Station Masters on duty. The Outer/Distant, Home and the Last Stop Signals are at 'ON' position.

'A' Station (Sending end)	'B' Station (Receiving end)
1. Inserts Station Master's key and turns. Presses bell push button (BPB) to send "Call Attention/Attend Telephone" Signal to station 'B'.	2. Bell signal is acknowledged by pressing Bell Push Button (BPB). Attends telephone.
3. Receives acknowledgement signal. Attends telephone and calls out his station name.	4. Calls out his station name.
5. Asks "Line Clear" giving number and description of the train, supported by a Private Number.	6. Grants "Line Clear" by repeating the number and description of the train and Private Number, supported by his private number, after ensuring that the shunting key is in the Block Instrument.
7. Presses "TGT" button along with the "BPB" button and keeps them pressed.	8. Block Instrument displays "Train Coming From" (TCF) indication, "LC" indication goes out.
9. Block Instrument displays, "Train Going To" "TGT" indication, "LC" indication goes out. Releases buttons.	
10. "Takes Off" the departure signals to send the train. As soon as the train occupies track just	11. "Train on Line" (TOL) indication appears automatically on the instrument in addition to "TCF"

'A' Station (Sending end)	'B' Station (Receiving end)
ahead of the last stop signal, the signal automatically goes back to its "ON" position and "Train on Line" (TOL) indication appears automatically on the Block Instrument in addition to "TGT" indication. Last Stop Signal lever and S.M.'s control slides are returned to normal position.	indication and audible warning sounds continuously. Inserts S.M.'s key and turns. Presses Bell push button (BPB) for acknowledging the audible warning. Audible warning stops.
14. Block Instrument gets set to Line Closed (LC) condition "TGT" and "TOL" indication goes out.	12. Takes 'off' reception signals. As soon as the train passes the Home Signal, the signal goes back to 'ON' automatically. A bell rings continuously after the train has completely passed the Home Signal and the last vehicles track circuit. The Home Signal lever and its S.M.'s control slide, where provided, are put back to normal position. The ringing stops. Note: Though Home Signal may go back to 'ON' automatically by the passage of the train, Home Signal lever must not be put back to normal, until the whole of the train has arrived inside the last vehicle track circuit. Failure to adhere to this will result in a Block Failure and the train arrival buzzer/Bell will not sound alarm. 13. Provided the conditions laid down for complete arrival are complied with, presses "LC" along with "BPB" and keeps them pressed. 15. Block Instrument gets set to "Line Closed" (LC) condition, "TGT" and "TOL" indications go out. Releases buttons.

3083. To cancel "Train Going To" (TGT) condition before the train enters the block section. (Train intended to be despatched from Station 'A' to Station 'B').

<u>'A' Station</u>	<u>'B' Station</u>
Block Instrument displays "Train Going To" (TGT) indication and all concerned signals are 'ON' signal levers and S.M.'s slides are normal.	Block Instrument displays "TCF" indication and all concerned signals are 'ON' and signal levers and S.M.'s slides are normal.
1. (a) Inserts Station Master's key and turns. (b) Presses "CN" along with "BPB". (c) Counter Registers next higher number.	
2. Presses "BPB" to send "Call Attention/Attend Telephone" to Station 'B'. Releases "BPB" button.	3. Inserts Station Master's key and turns. Acknowledges Bell signal by pressing "BPB". Releases "BPB". Attends telephone.
4. Advises on telephone the intention to cancel "TGT" condition.	5. Acknowledges intention to cancel "TGT" condition.
6. Time releases "Free" indication appears $1\frac{1}{2}$ minutes after "CN" is pressed.	
7. Gives "Call Attention" signal by pressing "BPB".	8. Acknowledges "Call Attention" signal by pressing "BPB".
9. Sends cancellation code and at the last beat presses "LC" and keeps both LC & BPB pressed.	10. Acknowledges cancellation code by pressing "BPB" along with "LC" and keeps them pressed.
	11. Block Instrument gets set to "Line Closed" (LC) condition. "TCF" indication goes out. Releases buttons.
12. Block Instrument gets set to "Line Closed" (LC) condition, "TGT" indication goes out. Releases buttons.	

3084. To set the Block Instruments to "Line Closed" (LC) condition when the train pushes back to the despatching station ('A' is the despatching station).

<u>'A' Station</u>	<u>'B' Station</u>
Block Instrument displays "Train Going To" (TGT) and "Train on Line" (TOL) indications. Trains to be pushed back is the First Stop signal and is ready to be pushed back.	Block Instrument displays "Train Coming From" (TCF) and "Train on Line" (TOL) indications.
1. Inserts S.M.'s key and turns. Presses "BPB" to send "Call Attention/Attend Telephone" signal to 'B' and attends telephone.	2. Acknowledges "Call Attention/ Attend Telephone" signal, attends telephone and calls out his station name.
3. Calls out his station name and gives number and description of train to be pushed back, supported by a private number.	4. Acknowledges number and description of the train, supported by his Private number.
6. (a) Takes 'OFF' reception signals. (b) Train passes Home Signal. (c) Audible warning sounds continuously. (d) Puts back S.M.'s control slide for Home Signal (for Home Signal lever itself does not exist).	5. Replaces S.M.'s control and arranges to replace reception signals and their levers to the normal positions.
Note : Though Home Signal may go back to 'ON' automatically by the passage of the train, Home Signal lever must not be put back to normal, until the whole of the train has arrived inside the last Vehicle track circuit. Failure to adhere to this will result in a Block Failure and the train arrival buzzer/bell will not sound alarm.	
(e) Audible warning stops.	
7. (a) Provided the conditions laid down for complete arrival of train are complied with, presses "CN" along with "BPB".	
(b) "Counter" registers next higher number.	

<u>'A' Station</u>	<u>'B' Station</u>
8. Gives "Call Attention" signal by pressing "BPB".	9. Acknowledges "Call Attention" signal by pressing "BPB".
10. Sends "Cancellation" code by pressing "BPB", keeps "LC" button also pressed on the last beat.	11. Acknowledges "Cancellation" code by pressing "BPB" and Keeps "LC" button also pressed on the last beat.
13. Block Instrument gets set to "Line Closed" (LC) condition. "TGT" & "TOL" indications go out. Releases buttons.	12. Block Instrument gets set to "Line Closed" (LC) condition. "TCF" & "TOL" indications go out.

Note: The push back operation is prohibited at stations provided with catch sidings.

3085. Last Stop signal fails at Station 'A' after the Block Instrument have been set to "Train Coming From" condition at Station 'B' and "Train Going To" at Station 'A'.

<u>Station 'A'</u>	<u>Station 'B'</u>
Block Instrument displays "Train Going To" indication.	Block Instrument displays "Train Coming From" indication.
1. (a) Releases S.M.'s control over Last Stop Signal. (b) Last Stop Signal Fails to come "off".	
2. Sends "Call Attention" Signal by pressing Bell Push Button (BPB) and attends telephone.	3. Acknowledges "Call Attention" signal by pressing Bell Push Button (BPB) and attends telephone.
4. Advises the failure of last stop signal, giving number and description of train and asks for Private Number.	5. Acknowledges information, number and description of train and gives Private Number.
6. Puts back S.M.'s control/Last Stop Signal lever to normal.	

Note : Thereafter Station Master of Station 'A' should cancel line clear as detailed in para 3083 and introduce paper line clear working.

3086. Authority to shunt upto opposite first stop signal by the "Shunting Key". For this purpose, the Block Instrument must be under "Line Closed" condition and the following procedure should be allowed.

(Shunting being performed at Station 'A')

<u>Sending Station 'A'</u>	<u>Receiving Station 'B'</u>
Block Instrument in "Line Closed" condition.	Block Instrument in "Line Closed" condition.
1. (a) Inserts S.M.'s key and turns.	(c) Acknowledges "Call Attention/ Attend Telephone" signal and attends telephone.
(b) Sends "Call Attention/ Attend Telephone" signal and attends telephone.	
(d) Informs intention to shunt upto opposite first stop signal, supported by a Private Number.	(e) Acknowledges and gives consent, supported by a Private Number.
2. (a) Turns S.M.'s key to the right to position-2 and takes out "Shunting Key".	
(b) Hands over shunting key to the Loco Pilot and takes out S.M.'s key.	
3. (a) Loco Pilot completes shunting and returns shunting key to the Station Master.	
(b) Inserts S.M.'s key and replaces shunting key in the instrument.	
(c) Takes out S.M.'s key.	
(d) Advises the Station Master at station 'B' of completion of shunting and replacement of the shunting key in the instrument, supported by a Private Number.	4. Acknowledges the advice completion of shunting supported by a Private Number.

Note: Shunting upto First Stop Signal is prohibited at station provided with Catch Siding.

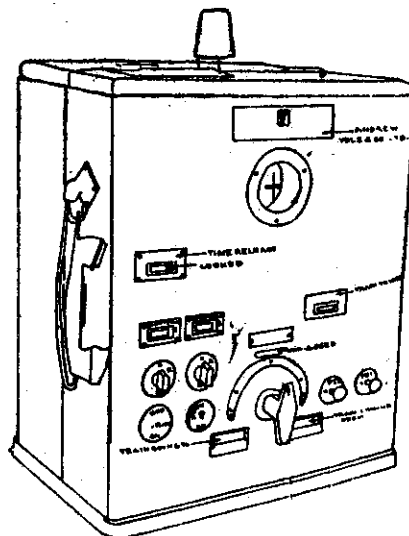
3087. In section with Tokenless Instruments "Push Button" type (Siemen's make) shunting between the Last Stop Signal and opposite First Stop Signal behind a departing train, with the instrument in "Train Going To" condition is specially allowed and the following procedure should be followed:-

Note: Whenever it is necessary to extract shunting key, with the instrument in the "Train Going To" condition, it must be done only after "Train on Line" condition has been established and acknowledged by the Station Master at the other end for safety and avoiding failure of the Block Instrument.

Sending Station 'A'	Receiving Station 'B'
Block Instrument in "Train Going To" condition and the Last Stop Signal at 'ON'. "Train on Line" indication appears.	Block Instrument in "Train Coming From" condition and "Train on Line" indication appears on the instrument.
1. (a) Calls attention and attends telephone. (c) Informs intention to shunt behind the departing train upto the opposite first stop signal, supported by a Private Number. (e) Uses S.M.'s key, extracts shunting key and hands it over to the Loco Pilot for shunting and takes out the S.M.'s key.	(b) Acknowledges and attend telephone. (d) Acknowledges and gives consent supported by a Private Number.
Case (1) — If shunting is completed before the train clear block section.	
2. (a) Loco Pilot completes shunting and returns key to the Station Master. (b) Inserts S.M.'s key and replaces shunting key in the instrument. (c) Takes out S.M.'s key after advising the Station Master at 'B' station of the completion of shunting and replacement of shunting key in the instrument, supported by a Private Number.	(d) Acknowledges completion of shunting, supported by a Private Number. After reception of train, Block Instrument sets to "Line Closed" condition in accordance with Para 3082.

Case (2)- If train clears section before shunting is completed, Station 'B' will fail to establish "Line Closed" condition. In such a case Station Master at station 'B' shall wait till shunting at station 'A' is completed and advice received as detailed above.

3088. TOKENLESS BLOCK INSTRUMENT HANDLE TYPE (ANDREW YULE MAKE).



TOKENLESS BLOCK INSTRUMENT HANDLE TYPE (ANDREW YULE MAKE)

The following are the principle components of the instrument :-

- (a) Block Handle.
- (b) Push Button PB-1
- (c) Push Button PB-2.
- (d) Shunting occupation key
- (e) SM's Key.
- (f) Counter S-1 for Switch-I..
- (g) Counter S-2 for Switch-II.
- (h) Time Release indicator.
- (i) Galvanometer
- (j) 'Train ON Line' indicator.
- (k) Single stroke Block Bell.
- (l) Telephone.

3089. Block Handle : The handle has **three** positions. Normal position i.e. line closed (Position) when the handle is vertical, "Train Going To" position when handle is turned to left and "Train Coming From" when handle is turned to right. Normally it remains locked in all the three positions. It gets released only with the cooperation of the relevant Block Instrument provided at the other end of the Block Section either for giving line clear or for obtaining line clear and also for closing line and cancelling line clear.

3090. Push Button PB-1:- It is a **white** coloured push button on the right hand side of the Block Handle. This button is pressed to transmit bell codes and also to stop "Train on Line" buzzer at the station receiving the train and "Train on Line" buzzer at the station despatching the train, when operated by the station which is receiving the train. It is also simultaneously pressed with push button PB-2 for "Giving Line Clear" or for "Obtaining Line Clear" and also while closing line and for cancellation of line clear.

3091. Push Button PB-2:- It is **red** coloured push button. It is placed on right side of the Block Handle. This button is pressed simultaneously with push button PB-1 while "Giving Line Clear" or "Obtaining Line Clear" and also while closing line and for cancellation of line clear.

3092. Shunting Occupation key:- This key is placed beside SM Key. Normally the key remains inserted and turned to "R" position. This key can only be taken out when Station Master's Key is inserted and turned

to off position with Block handle in "Line Closed 'N' or 'L' (TGT) position and key is used as an authority for the Loco Pilot to perform shunting. The shunting key in Up side Block instrument is yellow coloured and the one in down side block instrument is blue.

3093. Station Master's Key :- This key is located on left hand side of lower half of the instrument. On reversal of this key the instrument becomes operative. When the key is removed from the block instrument or turned to "OFF" position, operation of the block handle, transmission of bell signals and removal of shunting occupation key cannot be done. Bell codes can, however, be received even when the key is in 'OFF' position or has been taken out.

3094. Switch 1 with counter S-1 :- This switch is placed on the left hand side of the front panel and below the TEK indicator. It is latch type two position switch and is normally kept in 'N' position. It is used for cancelling 'Line Clear' by turning the switch to 'R' position. The counter provided along with this switch is to record the number of 'Line Clear' cancellations made by switch (S-1).

3095. Switch 2 with counter S-2 :- This switch is placed besides switch S-1. It is a latch type 2 position switch and is normally kept in 'N' position. It is used to lower home signal when a train is to be brought back to station from where it had been despatched for the push back movement and the switch is moved from 'N' to 'R' position. The counter provided with this switch is to record the operation of switch (S-2).

3096. Time Release Indicator (TEK) :- The indicator is placed on the left hand side of the front panel. Normally it indicates "Locked" position on white back ground and when operated it changes over to free "ON GREEN" background. This indicator works when the 'Line Clear' obtained is cancelled before train enters the block section.

3097. Galvanometer :- This is placed in centre near top and deflection of its needle indicates incoming and outgoing D.C. current and also the operation of the corresponding block instrument at the other end of the block section.

3098. Train on line indicator :- It is located on right hand side of the front panel. Normally it displays white indication, and displays "Train on Line" indication as long as train occupies block section.

3099. Single stroke bell :- Placed on top of the instrument for receiving bell code signals.

3100. Telephone :- It is kept hanging on the left hand side of the instrument for conversation and fitted with press switch to talk and listen.

3101. Sequence of Operation :- Example given below is for despatching a train from "X" station to station "Y". It is assumed that the block handles at both the station are vertical, i.e. in line closed position and shunting occupation keys at both the stations are in the relevant instruments and in "R" position and Station Master's keys at both the stations have been inserted and turned to 'ON' position.

Station 'X' despatching a train.**Station 'Y' Receiving a train.**

Block Handle is in line closed i.e. Vertical Position.
All concerned signals, signal levers S.M.'s slides and track etc. are in normal position.

Block Handle is in line closed i.e. vertical position.
All concerned signals, signal levers, S.M.'s slides and track etc. are in normal position.

- | | |
|---|--|
| <p>1. S.M.'s key is inserted and turned to 'R' sends "Call Attention/Attend Telephone" signal to Station 'Y' by pressing PB-1. Releases push button after sending the code.</p> | <p>2. S.M.'s key is inserted and turned to 'R'. Acknowledges Bell code signal by pressing push button PB-1.</p> |
| <p>3. Bell rings, attends telephone and calls out his station name.</p> | <p>4. Calls out his station name.</p> |
| <p>5. Asks "Is Line Clear" on telephone giving number and description of the train.</p> | <p>6. Grants verbal "Line Clear" on telephone repeating No. and description of the train and gives a private number.</p> |
| <p>7. Sends "Is Line Clear" signal keeping PB-1 pressed. There after presses push button PB-2 and keeps both pressed.</p> | <p>8. On noticing the deflection of the Galvanometer needle, turns the block handle slowly towards right side to position 'R' (Train coming from).</p> |
| <p>9. On noticing the deflection of Galvanometer, releases PB-1 and PB-2.</p> | <p>10. Presses PB-1 and PB-2 buttons.</p> |
| <p>11. On noticing the deflection of Galvanometer needles turns block handle slowly to left to final position "L" (Train going To).</p> | <p>12. On noticing the deflection in the Galvanometer needle, releases PB-1 and PB-2.</p> |
| <p>13. Last stop signal is :-
(i) Taken 'off'.
(ii) Train enters into the block section.
(iii) Train on line indication appears and a buzzer starts ringing.</p> | <p>14. "Train on Line" indication appears and a buzzer starts ringing.</p> |
| | <p>15. Presses PB-1 button for acknowledgement of "Train on line" signal.</p> |
| <p>16. Buzzer stops "Train On Line" indication persists.</p> | <p>17. Buzzer stops, "Train On Line" indication persists.</p> |

<u>Station 'X' despatching a train.</u>	<u>Station 'Y' Receiving a train.</u>
	18. Reception signals are (i) taken 'off'. (ii) Train passes home signal and (iii) Occupies train arrival track. (iv) Buzzer starts ringing. (v) Puts back SM's control slide and normalises all signals and buzzer stops.
	19. Presses PB-1 and PB-2 buttons for closing the line.
20. On noticing the deflection in Galvanometer needle turns the block handle to 'N' (Line closed) position. Train on line indication disappears.	21. On noticing the deflection in Galvanometer needle, releases PB-1 and PB-2.
22. Presses PB-1 and PB-2 buttons.	23. On noticing the deflection in the galvanometer needle, turns the block handle to 'N' (Line closed) position. "Train on Line" indication disappears.
24. On noticing the deflection in Galvanometer needle, releases PB-1 and PB-2 buttons.	

Both the Block instruments at station 'X' and 'Y' are now in normal position.

Note:- Similar procedure and operation is followed to despatch a train from station 'Y' to station 'X'.

3102. Procedure for cancelling 'Line Clear' before a train enters the block section:- It is assumed that the block handle at station 'X' is in "Train Going To" position and the related signals are in "ON" position. Similarly, the block handle at station 'Y' is in "Train Coming From" position and the related signals are in their "ON" position.

<u>Station 'X'</u>	<u>Station 'Y'</u>
Block Handle in "Train Going To" (L) position, all related signals are in "ON" position and relevant signal levers/SM slides are in normal position.	Block Handle in "Train Coming From" (R) position, all concerned signals are in "ON" position and relevant signal levers/SM slides are in normal position.

<u>Station 'X'</u>	<u>Station 'Y'</u>
1. Sends "Call Attention/Attend Telephone" Bell code.	2. Acknowledges "Call Attention/Attend Telephone" Bell Code and attends telephone.
3. Announces his station name.	4. Announces his station name.
5. Ask for cancellation of "Line Clear" received earlier supported by a private number.	6. Agrees for the cancellation and gives a private number.
7. Turns cancellation switch S-1 to 'R' (Reverse) position.	8. Turns block handle from "R" to "N" position after receiving signal.
(i) Counter registers next higher number.	
(ii) Time relay operates.	
(iii) Time Release indicator operates and "Free" appears in the window after pre-determined time lag of one minute.	
(iv) Presses PB-1 and PB-2 buttons.	
	9. Send cancellation bell code on the block instrument and presses PB-1 and PB-2 buttons.
10. Restores S-1 switch to normal and on receiving the signal, turns the block handle from "L" to "N".	

3103. Closing the Block Section after the train pushes back to the despatching station:

<u>Station 'X'</u>	<u>Station 'Y'</u>
Block handle in "Train Going To" (L) position.	Block handle in "Train Coming from" (R) position.
1. Sends 'Call Attention/Attend Telephone' Bell code.	2. Acknowledges "Call Attention/ Attend Telephone" bell code and attends telephone.
3. Attend telephone and announces his station name.	4. Announces his station name.
5. Gives number and description of the train supported by a private number.	6. Acknowledges number and description of the train supported by a private number.

<u>Station 'X'</u>	<u>Station 'Y'</u>
7. i) Turns S-2 switch to "R".	8. Acknowledges call attention/ attend telephone bell code and attends telephone.
ii) Counter S-2 registers next higher number.	
iii) Reception signals are taken 'off'.	
iv) Train occupies train arrival track & reception signal goes to "ON".	
v) Buzzer starts sounding.	
vi) Put back all signal levers/SM slides to normal.	
vii) Buzzer stops sounding.	
viii) Gives call attention/attend telephone bell code by pressing PB-1.	
9. Attends telephone & calls out his station name.	10. Calls out his station name.
11. Gives complete arrival of the train and sends cancellation bell code by pressing push button PB-1. Thereafter presses push button PB-2 and keeps both buttons pressed.	12. On getting cancellation code & noticing deflection of the needle, turns the block handle from "L" to "N" position i.e. "Train Going To" to "Line Closed" position.
13. On noticing deflection in the Galvanometer releases push buttons PB-1 and PB-2.	14. On noticing deflection in the Galvanometer, acknowledges cancellation code by pressing push button PB-1 and thereafter presses PB-2 and keeps both buttons pressed.
15. On noticing deflection in Galvanometer, restores S-2 switch to normal and turns block handle from "L" to "N" position.	16. On noticing deflection in the galvanometer needle, releases push button PB-1 and PB-2.

Now both the block instruments at station 'X' and 'Y' are in normal position.

3104. Failure of last stop signal at despatching station after line clear has been obtained.

Station 'X'	Station 'Y'
Block handle in "Train Going To" i.e. 'L' position.	Block handle is in "Train Coming From" i.e. 'R' position.
1. (a) Releases control over last stop signal. (b) Last stop signal fails to assume "off" aspect.	
2. Sends 'Call Attention/Attend Telephone' signal by pressing push button PB-1 and attends telephone.	3. Acknowledges 'Call Attention/Attend Telephone' signal by pressing PB-1 and attends telephone.
4. Announces his station name.	5. Announces his station name.
6. Advises of the failure of last stop signal, giving number and description of the train and asks for private number.	7. Acknowledges information/regarding number and description of train and gives Private Number.
8. Puts back, SM's control slide and last stop signal lever to normal.	

Thereafter SM of station 'X' should cancel line clear as detailed in para 3102 and introduce paper line clear.

3105 WORKING ON DIGITAL AXLE COUNTER WITH CONVENTIONAL SINGLE LINE INSTRUMENTS.

1.0 Brief Description of working:- This a means of working wherein Block Instruments are provided for Block working and Digital Axle Counters are used for proving the clearance of the Block Section. Definition of Axle Counter is given in the GR 1.02/7 & at Para 11004 of Block Working Manual. In addition to conventional type block instrument, Reset boxes are kept in Station Master's Office with the following indications:

- a) **Red** - for occupation of Block section
- b) **Green** - for clearance of Block Section
- c) **Miniature Green**
along with red - indicates axle counter is in Preparatory Rest condition
- d) **Yellow** - for Power On

2.0 Line clear working :-

2.1 The types of block instruments used on single line sections are given in Para 3001 and method of working trains from one Block station to another block station are given in Para 3014 for Neale's Bell Token tablet type block instrument, in Para 3031 for Token less Kyosan type Block instrument and in Para 3057 for Token less Push Button Podanur Block Instrument.

2.2 At train receiving station: On receipt of line clear enquiry for an approaching train, the station master on duty shall ensure that the **Reset box** is showing green indication which will mean that the block section over which the train has to pass is clear and free from obstruction. He shall then grant line clear by following the method of working laid down in different paras of Block Working Manual chapter III. He shall turn the operating handle of the block instrument to "**Train Coming From**" position. As soon as the train enters the block section, the **Reset box** will show red indication and the Station Master on duty shall acknowledge the train entering block section signal to train sending end station master. On complete arrival of the train, the **Reset box** will show green indication

indicating clearance of the block section and the Station Master on duty shall turn the operating handle of the block instrument to “**Line closed**” position. For ensuring complete arrival of a train the GR 4.17 and SRs their under shall be followed.

- 2.3 **At train despatching station:** When it is intended to dispatch a train, the Station Master on duty after ensuring that the **Reset Box** indication is showing green, shall obtain Line Clear from the Station Master on duty at the block station in advance by following the method of signaling procedure laid down in chapter III of Block Working Manual. After getting Line Clear from the block station in advance, the Station Master shall turn the operating handle to “**Train Going To**” position and then take “**off**” departure signals for the train to start. After the train enters block section the **reset box** shall show red indication and the Station Master on duty send the train entering block section signal to Station Master in advance and shall put back the departure signals to “**On**” position when the train has passed the last stop signal.
- 3.0 **Cancellation of line clear:** For cancellation of line clear, the method as described in chapter III of BWM shall be followed.
- 4.0 **Working of Axle Counter:** Whenever any train enters the block section and passes over the detection point kept at the entry of block section, the axle counter equipment will start counting the number of axles which have entered the block section. This is recorded as IN-COUNT. Similarly, when the train reaches the destination station and passes over the detection point kept at the exit of the block section the axle counter equipment will count the number of axles which have passed over the detection point at the exit end. This is recorded OUT-COUNT.
- 4.1 When OUT-COUNT is same as IN-COUNT the **Reset box** shows green indication. When the block section is occupied, the OUT-COUNT is less than the IN-COUNT and **Reset box** will show **RED** indication which will mean that the block section is occupied and it is not clear. There for, when the **reset box** is showing Red / No indication, it can have two implications. It would mean either a train portion is left behind in the block section or the axle counter is defective due to any technical fault. In such a case, the ASM on duty shall ensure complete arrival of the train, according to GR 4.17 and SRs their of. In case he is unable to ensure complete arrival of a “run through” train, he shall ensure complete arrival of the train through exchange of private number from the station in advance and also the section controller. When the **Reset box** is showing RED / No indication after complete arrival of the train, it means axle counter system has failed and resetting procedure given below shall be adopted.
- 5.0 **Failure of axle counter:** When the axle counter used for clearance of block section fails and **Reset box** shows occupied a **Reset button** is provided on The **Reset box** to set the axle counter back to normal. Once the axle counter has failed and the concerned block instrument deemed to be failed and last stop signal cannot be taken “**off**”, the sending station shall verify the clearance of the block section by exchange of private number with the station in advance. After ensuring that the block sections is clear, the axle counter shall be reset by the Station Masters on duty of the sending end and the receiving stations. The counter reading on the **reset box** shall increased by one on every operation of the rest button.

- 5.1 Register for recording Reset operations:** A register with the following proforma is to be maintained for this purpose at all stations by station Master on duty. The station Master on duty at both sending and receiving end shall ensure that each and every operation of the reset button is properly recorded in the register indicating the movement before and after the operation of the reset button. Each axle counter shall have individual proforma.

S.No.	Date	Train No. after which axle counter failed	Train No. piloted after failure of axle counter	Counter reading		Resetting time	First Train passed after normalization of axle counter	Sign of SM on duty	Remarks
				Before Resetting	After Resetting				
1	2	3	4	5	6	7	8	9	10

- 6.0 Resetting of Axle Counter by Station Master on duty:** The receiving end Station Master of the train shall inform the Station Master of the train dispatching end under exchange of private number about the complete arrival of train after passage of which the axle counter has failed. The Station Master of the train dispatching end shall then insert the **Reset key**, turn right and press the key along with reset button of the **reset box**. There after the Station Master at the train receiving end shall insert the reset key turn right and press the key along with reset button with this action, the miniature green along with red indication (preparatory reset indication) will appear on the reset boxes provided at both receiving and dispatching station.
- 6.1** The first train shall be dispatched as per the extant rules by issue of Paper Line Clear Ticket. After the train is received at the receiving end station and cleared the portion monitored by axle counter, the green indication will appear in the **Reset box** at both ends and the normal working of axle counter gets restored.
- 7.0 Action to be taken when the axle counter cannot be reset:** After complete arrival of the train according to para 6.1 above, even then, if the green indication does not appear on the **Reset box** the matter shall be reported to ESM of the station through telephonically and a written memo.
- 7.1** ESM shall rectify the failure of the axle counter after submission and acceptance of the disconnection memo.
- 7.2** During the failure of the axle counter the trains shall continue to be dispatched on paper line clear ticket and no cognizance of the indication of the **Reset Box** shall be taken.
- 7.3** After rectification of the axle counter failure the ESM shall inform the Station Master on duty by giving a written message. The Station Master on duty shall inform to the Station Master on duty of the train receiving station shall reset the axle counter as per the procedure given above at Para 6.0. After proper normalization of axle counter normal working shall be resumed.

CHAPTER IV

CODE OF BELL SIGNALS

4001. Bell Code :- For the signalling of trains, the prescribed code of bell signals as detailed below, shall be used, and a copy thereof shall be exhibited in each block station near the place of operation of block working equipment.-

Ref. No.	Indication	Code	How Signalled	How Acknowledged
1.	CALL ATTENTION OR ATTEND TELEPHONE	0	One stroke or beat	One stroke or beat
2.	IS LINE CLEAR, OR LINE CLEAR ENQUIRY	00	Two	Two
3.	TRAIN ENTERING BLOCK SECTION	000	Three	Three
4.	(A) TRAIN OUT OF BLOCK SECTION (B) OBSTRUCTION REMOVED	0000	Four	Four
5.	(A) CANCEL LAST SIGNAL (B) SIGNAL GIVEN IN ERROR			
6.	(A) OBSTRUCTION DANGER SIGNAL (GENERAL)	000000	Six	Six
	(B) STOP AND EXAMINE TRAIN	000000-0	Six pause one	Six pause one
	(C) TRAIN PASSED WITHOUT TAIL LAMP OR TAIL BOARD	000000-00	Six pause two	Six pause two
	(D) TRAIN DIVIDED	000000-000	Six pause three	Six pause three
	(E) VEHICLES RUNNING AWAY IN WRONG DIRECTION ON DOUBLE LINE OR INTO THE BLOCK SECTION ON SINGLE LINE	000000-0000	Six pause four	Six pause four
	(F) VEHICLES RUNNING AWAY IN RIGHT DIRECTION ON DOUBLE LINE	000000-00000	Six pause five	Six pause five
7.	TESTING	0000000000000000	Sixteen	Sixteen

Note :- (1) '0' INDICATES A STROKE OR A BEAT AND "-" INDICATES A PAUSE.
(2) EACH SIGNAL SHALL BE GIVEN SLOWLY AND DISTINCTLY.

DOUBLE LINE

4002. (a) Call attention/Attend telephone (One beat):- This signal should be sent and acknowledged before sending signals mentioned as items 2, 4, (a) & (b), 5(a) & (b) and 7 and station names called out on the block telephone.

(b) The only exception to this rule is when a signal denoting obstruction or other dangerous conditions [i.e. any signals in para 4001(6 A to F) above] is being sent. In such cases the "Call Attention/Attend Telephone" signal shall not precede the signal denoting obstruction or other dangerous conditions and the Station Master, receiving such a signal shall acknowledge it by an exact repetition, except where otherwise indicated in paras 4007 to 4012.

Notes:- (i) Unless otherwise provided, whenever "Line Clear" is signalled on the block instruments and is preceded by a message on the telephone, the message shall be confirmed by a private number. When signals denoting obstructions or other dangerous conditions are given on the Block instruments, the message passed on the block telephones in this connection shall also be confirmed by private numbers.

(ii) On controlled sections, the Controller shall always be informed either before or after (depending on circumstances) sending any signals referred to above, except items 1, 2 & 7.

4003. Line Clear Enquiry (two beats) :- (a) This signal denotes that Line Clear is required for a train. Before sending it, the Station Master shall ensure that the "Train out of Block Section" signal has been received for the preceding train and the relevant block instruments have been restored to their normal positions.

(b) Every "Line Clear Enquiry" signal must be acknowledged repeating it and giving "Line Clear" or by giving "Obstruction Danger" signal.

(c) In case where the Block instruments are not located in the cabins, before the line clear signal is sent, the Station Master shall obtain an assurance from the cabin staff that the conditions under which line clear may be given have been complied with. The assurance will be confirmed by an exchange of private number.

4004. Train Entering Block Section (three beats) - (a) This signal shall be sent to the block station in advance as soon as the train has passed the last stop signal. If due to any reason, the departure beats are delayed the time of entering the block section should also be repeated on the block telephone and an entry made to this effect in the remarks column of the Train Signal Register.

(b) Should it, however, be necessary to send any of the signals denoting obstructions or other dangerous conditions as mentioned in para 4001 (6 A to F), before the "Train Entering Block Section" signal has been sent, the "Train Entering Block Section" signal shall not be sent but the instruments shall be turned to "Train on Line" position.

(c) Where an Intermediate Block Post is provided, the station in its rear shall send the "Train Entering Block Section" signal when the train passes the Home Signal of the Intermediate Block Post. When the train occupies the overlap track circuited portion of the line in advance of the intermediate Block Home Signal Post, a ring will be sounded in the cabin of the Station in rear, which can be stopped by the acknowledgement of the "Train Entering Block Section" signal by the station in advance.

(d) Where the automatic "TOL" feature is provided on audio visual indication of a needle going to "TOL" position shall be treated as train entering block section and the commutator of the block instrument should be turned to "TOL" position.

4005. "Train out of Block Section (Four beats) :- (a) This signal shall be sent when the whole train has arrived complete and the conditions under which "Line Clear" may be given have been complied with.

(b) Obstruction removed (Four beats) - This signal denotes that the obstruction/obstructions which necessitated sending of the "Obstruction Danger" signal have been removed.

4006. Cancel last signal or signal given in error (Five beats) :- This signal shall be sent when-

- (i) it is required to cancel the previous signal or the previous signal has to be altered:
- (ii) Line Clear for a train has to be cancelled to give precedence to another train.
- (iii) Line Clear has to be cancelled due to an obstruction in face of the train or due to return of the train on account of an impassable obstruction in the block section or on account of some unforeseen circumstances.
 - (a) Before this signal is given to detain a train to give precedence to another or the train has to be detained for any other reasons, the departure signal shall at once be put to 'ON' position. The signal shall not be given and position of points shall not be altered until the Station Master has warned the Loco Pilot either personally or through an authorised railway servant and the Station Master is satisfied that the train is stationary.
 - (b) In the case of SGE type block instruments the Station Master shall, then exchange proper messages with the Station Master of the station in advance for the cancellation of the line clear and shall give the cancellation bell code and after it has been acknowledged, the commutator will be turned from "Line Clear" to "Line Closed" position. A fresh line clear for the next train shall, then be obtained as usual and the train started after taking 'OFF' the departure signals. In case of Daido type Block Instruments, action will be taken as per para 2017.
 - (c) Should a train return to the Block Station from which it had left owing to an impassable obstruction (such as a breach or a land slide etc.), the Loco Pilot shall bring his train to

a stop opposite the Last Stop Signal of the same line or the first Stop Signal of the adjacent line whichever comes first and the Guard shall apprise the Station Master/control of the situation through PCP/PECP if available or by a memo. The Station Master shall send **T/509** (Authority to enter a blocked/non signalled line) to the Loco Pilot to enter the station yard. The man delivering **T/509** shall pilot the train into the station yard cautiously.

The Station Master shall, then exchange with, the Station Master in advance, proper message as to the circumstances necessitating the cancelling of line clear and to give the "cancel last signal" bell code which shall be acknowledged.

The next train over the block section shall be passed in accordance with the procedure laid-down in para 7002 (a) and 2013 (d), only when obstructions has been removed.

- (d) (i) Should the train return to the Block Station from which it had left owing to some unforeseen circumstances (but not owing to the circumstances mentioned in para (c) above), the Station Master shall have a written assurance from the Guard that the block section from which the latter has returned is free from obstruction. He shall send the message to the Station Master in advance assuring him that the block section in question is free from obstruction and, thereafter, give the "Cancel last signal" (five beat) bell code which shall be acknowledged.
- (ii) The next train over the block section shall be passed in accordance with the procedure laid down in paras **7002** (a) and **2013** (d).

Signals denoting obstruction or other dangerous conditions (Six beats, six pause one, six pause two, and so on)

4007. Obstruction danger signal (six beats) - This signal is sent when :-

- (i) it is necessary, in consequence of any obstruction or other cause, **to refuse "Line Clear"** or
- (ii) **to stop an approaching train** at the Block Station in rear.

The procedure to be followed in each case is as described below :

- (i) **When refusing Line Clear :-** This signal shall be sent without turning the commutator/operating handle. The fact that Line Clear was asked for and was refused, shall be recorded in the Train Signal registers at both stations together with a remark as to the circumstances. Private numbers shall not be exchanged.
- (ii) **When it is required to stop an approaching train** for which Line Clear has already been given to the Block Station in rear :-
 - (a) The Station Master who requires the train to be stopped at the station in rear, shall, immediately, place all signals at his Station in 'ON' position or keep them so, if they have

not already been taken 'OFF'. He shall, immediately, turn the commutator of his Block Instrument to "**Train on Line**" position in case of SGE Type Block instrument and also give the "Obstruction Danger" signal, but in case of Diado type only obstruction danger signal shall be given.

The Station Master of the Block Station receiving the "Obstruction Danger" signal shall, immediately, put all relevant signals to 'ON' position and employ every other means available to stop the train.

- (b) Should he succeed in stopping the train, he shall acknowledge the signal without delay. Proper messages shall be exchanged, clarifying the circumstances which necessitated sending of this signal.

On no account shall the train be allowed to proceed until the "Obstruction Removed" signal has been received.

- (c) Should the Station Master not succeed in stopping the train, he shall, instead of acknowledging the signal, at once send the "Train Entering Block Section" (three beats) signal in reply and advise the Station Master ahead by telephone, confirming the same with an exchange of private numbers. The Station Master who sent the "Obstruction Danger" signal shall, accordingly, take all possible steps to protect the obstruction.
- (d) When the Station Master who sent the "Obstruction Danger" signal is satisfied that the obstruction has been removed, he shall send "Obstruction Removed" signal and exchange proper messages for it with the other Station Master. Fresh Line Clear shall be obtained and trains passed in accordance with the procedure laid down in paras 7002 (a) and 2013 (d).

4008. Stop and examine train (six pause one) :- (I) This signal shall be sent to the Block Station in advance when anything unusual is observed on a train passing a station such as :-

- (a) a signal of alarm from a passenger;
 - (b) goods falling off from vehicles;
 - (c) a vehicle on fire;
 - (d) an axle box running hot; or
 - (e) any other condition likely to foul or obstruct the line.
- (ii) The Station Master sending the signal shall, if he considers it advisable, stop a train coming in the opposite direction which has already entered the Block Section, to ascertain whether any injury to a passenger or damage to the train or track had been caused by the train, about which

the signal was sent. He shall also inform the Station Master of the Block Station in advance why the signal was sent. Till such time as the affected train arrives complete at the station in advance, the Station Master shall not grant line clear for any train or trains coming on any adjacent line or lines, to enter the section. On sections provided with intermediate or automatic block signalling the Station Master shall also not allow a train to follow by the same line in the same direction till the effected train has arrived complete and safe at the station in advance and it is ascertained that the section is safe for train operation.

In case the affected train is unable to reach the next Block Station and if the Guard/Loco Pilot of the affected train or any responsible railway servant, confirms that the adjacent line is clear and safe, train running may be resumed on the adjacent line. The first train to enter shall be given a "Caution Order".

In cases where a Station Master observes goods or some parts of the vehicle falling off and has reason to believe that they might have fallen off in the mid-section before the train had arrived within his station limits, he shall advise and caution the Station Master in rear. The Loco Pilot of the first train travelling in the opposite direction, shall be given a Caution order containing instructions to proceed cautiously to the next Block Station and to keep a sharp look out for any obstruction or infringement. However, relaying of such information to the station in rear and issuing caution order to the Loco Pilot of the first train, shall be restricted between the station which apprehended such danger and the adjacent block section in rear.

- (iii) The station master receiving the signal and the message shall immediately acknowledge both and shall use all available means to stop the train in question at the station. (In case of a train having hot axle vehicle or a vehicle which is derailed or whose running gear is considered dangerous the train shall be brought to a stop at the first stop signal and dealt with in accordance with **SR 4.29/1**. Till such time the affected train arrived complete at his station, the Station Master shall not permit any train or trains running on any adjacent line or lines to leave his station which sent the signal and message. When the affected train has arrived complete and has been stopped, it shall be carefully examined and dealt with as the circumstances may require.
- (iv) Thereafter, if conditions permit, the trains may be permitted to enter the Block section from either side after advising the Loco Pilot of the circumstances and warning them through a caution order to keep a sharp look out and to stop at the next block station and report in writing whether any of the lines is damaged/obstructed or not.
- (v) Caution order shall be discontinued for a particular line only after it has been ascertained from a Loco Pilot of the train proceeding by that line that the line in question is free of damage/obstruction. If, however, any of the line is damaged/obstructed, suitable action should be taken or repair/remove it.

Note: Where the double line section adjoins any other line or lines (of the same or different gauge) the station master who sends the "Stop and Examine train" signal under **4008(ii)** shall also advise the Station

Master of the other adjoining stations concerned.. The Station Master at either end of the Block Section or Block Sections shall not allow any train or trains to run by the adjacent line or lines over the Block Section/Sections concerned till such time the affected train arrives complete at the station in advance. There after the trains may be permitted to enter the adjoining block section/sections concerned after advising the Loco Pilot of the circumstances and warning them through caution orders to keep a sharp look out. The other instructions contained in para 4008 (iv) and (v) and 4020 (iv) and (v) will also apply.

4009. Train passed without tail lamp or tail board (Six pause two) :-

This signal shall be sent to the Block Station in advance when a train pass without a tail lamp or tail lamp light extinguished at night/tail board/or authorised suitable substitute. The "Train out of Block Section" signal shall not be sent to the Block Station in rear, until advice has been received from the Block Station in advance that the train is complete.

- (i) If, after sending the signal, the Station Master has reason to believe that a portion of the train is missing, he shall not send the "Train out of Block Section" signal to the station in rear and shall use all means available to stop the first train running in the opposite direction, the Loco Pilot of which shall be given a caution order containing instructions to keep a sharp look out for any obstruction on either line.
- (ii) When the train has been stopped, the Station Master shall satisfy himself whether it is complete or not and shall advise the Station Master in rear accordingly. If the train is found to be complete and conditions under which "Line Clear" may be given have been complied with, he shall Signal, "Train out of Block Section". Before allowing the train to proceed, he shall see that the last vehicle is indicated in one of the following ways prescribed in G.R. 4.16 and S.Rs. there of.
 - (a) by a day a tail lamp/tail board or red flag;
 - (b) by night a tail lamp or hand signal lamp, showing red.
- (iii) If the train is found to be incomplete, the "Train out of Block Section" signal shall be withheld.

Normal working shall not be resumed until both Station Masters have satisfied themselves that the block section concerned is clear.
- (iv) Should the signal be received too late to stop the train, the signal shall be transmitted forward immediately to the Block Station ahead.

See S.Rs 4.17/1, 4.17/2 & 4.56/1

4010. Train divided (Six pause three) - This signal with a message shall be sent to the station in advance in case -

- (i) A train is seen running through a station in two or more parts; or,
- (ii) The first portion of a parted train has been seen running away but the rear portion has been brought to a stop; or,
- (iii) A train parts while starting from a station and the Loco Pilot runs on to the next station with the front portion leaving the rear portion stationary.
 - (a) The Railway servant observing a train running through a station in two or more parts shall try to draw the attention of the Loco Pilot and the Guard by gesticulations etc., but shall not try to stop the train by a display of danger signals, or by raising signal.
 - (b) The two Station Masters concerned shall have the corresponding commutators of their block instruments turned to "Train on Line" positions and the Station Master receiving the signal shall acknowledge the message with a private number. He shall avoid stoppage of the front portion at his approach signals and shall take immediate steps to receive it on a clear line and stop it at his station. He shall keep the section blocked until the complete train has been received.
 - (c) Should, however, a portion of the train be left at the station in rear, the Station Master, who receives the front portion, may send the "Train out of Block Section" signal on being assured by the Station Master in rear that the portion which has been received at his is the complete portion which left the station in rear. This assurance shall be accompanied with a private number. The Station Master giving this assurance should, however, thoroughly satisfy himself in this respect before giving such an assurance.
 - (d) The Station Master receiving the front portion, shall, now send the train engine or another relief engine by the proper line to the station which sent the "Train Divided" signal.
 - (e) If the rear portion is at this station, the Station master shall attach the light engine to this portion and despatch the same to the next station (where the front portion is) on a proper Line Clear. If, however, this station happens to be one where no cross-over is provided, the light engine shall be allowed to proceed to a Block Station where it can cross over to the line on which the parted portion is and, then return to this station to push forward the remaining portion to the station where the front portion has been left.
 - (f) If the parted portion is in the block section the Station Master allowing the train or relief engine to enter the blocked Block section shall give to the Loco Pilot. form No. T/A-602 which contains:-
 - (i) an authority to proceed without line clear.

- (ii) an authority to pass last stop signal in 'on' position except when he is moving on wrong direction on double line.
- (iii) a caution order to enter the block section at a cautious speed. The Loco Pilot shall proceed exercising all necessary caution and acting upon the signals of the Guard.

Note:- SM shall enter the kms of Engine and Brake Van on the caution order portion.

- (g) When the remaining portion of the train has been brought into the station ahead, it shall be coupled to the front portion. The "Train out of Block Section" signal shall be given to the station in rear only when the conditions under which line clear may be given have been complied with.

See also **G.R. 6.08**

4011. Vehicles running away on wrong line (Six pause four) -

- (i) Should a train, portion of a train, or a vehicle/vehicles be proceeding on a wrong line, the commutators shall immediately be turned to "Train on Line" position and this signal sent with a message. In case the vehicle contains passengers, labourers or other persons, this information shall also be given. The Station Master sending the signal shall, immediately, put signals concerned in the 'ON' position to stop any train proceeding in that direction by the right line, and shall issue a caution order to the Loco Pilot of the first train going in the same direction (on the right line), mentioning the circumstances and instruct him to proceed cautiously.
- (ii) The Station Master, receiving the signal and the message, shall acknowledge the same and shall, immediately, endeavour to stop the runaway vehicles by covering the rails with sand, earth, ballast etc. for as great a distance as possible. If this attempt is not successful, the runaway vehicle or vehicles shall be diverted into a clear loop or siding. Where no siding is available, or where this course would result in a serious accident, he shall cross the vehicles over to the right line, provided the block section ahead on that line is clear, and is not on a falling gradient.
- (iii) Should the signal be received at a station too late to take the action mentioned in the preceding clause, the Station Master shall repeat the signal and send advice to the next station towards which runaway vehicles are proceeding. The vehicles may, as a last resort, be derailed by placing a sleeper or other obstacle on the line. If, however, the vehicle contains passengers or other persons, it shall not be turned into a dead end siding or derailed unless the same is done to avoid a more serious accident.
- (iv) Should there be a train travelling towards the runaway vehicles on the same line, all available measures shall be taken to stop the train.

See also **S.R. 6.11/1 (a) to (e)**

4012. Vehicles running away on right line (Six pause five) :-

This signal with a message shall be sent when: -

- (i) A portion of a train or vehicle is seen running away on the right line, or,
- (ii) When a train has entered a block section without a proper "Authority to Proceed".
 - (a) The Station Master sending the signal shall put or keep all relevant signals in the 'ON' position and use all measures available to stop any train entering the block section between the Block Stations concerned either on the line occupied by the runaway vehicles or train or on any other parallel line. In case the vehicle or vehicles contain passengers, labourers or other persons, this information must also be given.
 - (b) The Station Master receiving the signals, shall acknowledge the same and shall put back or keep all signals in the 'On' position. He shall use all measures available to stop any train which is likely to enter the other line. Should the section, which the runaway vehicles have entered, be already occupied by a train on the same line, the signals which have already been taken 'OFF' shall be kept "OFF" until the train has passed them. When the train has been admitted, the facing points in its rear shall be reversed to protect it.
 - (c) Every endeavour shall be made to stop the vehicle by covering the rails heavily with sand, earth or ballast for as great a distance as possible. If this attempt is not successful, the runaway vehicle or vehicles shall be diverted into a clear loop or siding.
 - (d) Should the signal be received too late to take action as mentioned above, the Station Master shall repeat the same to the next station towards which the runaway vehicles are proceeding and permit the vehicles to run through to the station provided the advance block section is clear and is not on a falling gradient. In such cases the signal and the advice shall be sent to the station ahead as prescribed in clause (a) above.
 - (e) The vehicle, as a last resort, may be derailed by placing a sleeper or other obstacle on the line. If, however, the vehicle or vehicles contain passengers or other persons, they shall not be turned into a dead end siding or derailed, unless it is necessary to do so to avoid a more serious accident.
 - (f) Should a train leave a Block station without proper "Authority to Proceed" the Station masters sending the signal and receiving the same shall take necessary action as prescribed in clauses (a) and (b) above. The Station Master, receiving the signal, shall not take signals 'OFF' for the reception of this train, and arrange reception as per **G.R. 5.09**.
 - (g) Where the instruments would permit of this being done, the commutators of the two block instruments shall be turned to indicate "Train on Line" when this signal is sent.

See also **S.R. 6.11/1 (a) to (e)**

4013. Testing signal (Sixteen beats) : - The testing signal should be used only for the purpose of testing the Block Instruments.

SINGLE LINE

Explanation and application of bell codes.

4014. Call attention/Attend telephone (One beat) : -

- (a) This signal should be sent and acknowledged before sending signals mentioned in para **4001** as items 2, 4 (a) & (b), 5 (a) & (b) and 7 and Station names called out on the block telephone.
- (b) The only exception to this rule is when a signal denoting obstruction or other dangerous conditions, i.e. any signals in para **4001** (6 A to E) is being sent. In such cases the "Call attention/Attend telephone" signal shall not precede the signal denoting obstruction or other dangerous conditions and the Station Master, receiving such a signal shall acknowledge it by an exact repetition, except where otherwise indicated in paras **4019** to **4023**.

- Notes:-**
- (i) Unless otherwise provided, whenever "Line Clear" is signalled on the block instruments and is preceded by a message on the block telephone, the message shall be confirmed by a private number. When signals denoting obstructions or other dangerous conditions are given on the Block Instruments, the message passed on the block telephones in this connection shall also be confirmed by the private numbers.
 - (ii) On controlled sections, the controller shall always be informed either before or after (depending on circumstances) sending any signals referred to above, except items 1, 2 & 7 of para **4001**.

4015. Line Clear Enquiry (Two beats):- (a) This signal shall be sent when Line Clear is required for a train. It shall not be sent unless the "Train out of Block Section" signal has been received and acknowledged for the last preceding train and the relevant Block Instruments have been restored to their normal position.

(b) Every "Line Clear Enquiry" signal must be acknowledged by repeating it and giving Line Clear or by giving "Obstruction Danger" signal.

(c) In case where the Block instruments are not located in the cabins, before the line clear signal is sent, the Station Master shall obtain an assurance from the cabin staff that the conditions under which line clear may be given have been complied with. The assurance will be confirmed by an exchange of private numbers.

4016. Train Entering Block Section signal (Three beats):- (a) This signal shall be sent when a train enters the block section. If due to any reasons the departure beats are delayed, the time of entering the block section should also be reported on the block telephone and an entry made to this effect in the remarks column of the Train Signalling Register.

(b) Should it, however, be found necessary to send any of the signals denoting obstruction or other dangerous conditions indicated in para 4001 (6 A to E), before the "Train Entering Block Section" signal has been sent, the "Train Entering Block Section" signal shall not be sent.

4017. Train out of Block Section (Four beats): (a) This signal shall be sent when the whole train has arrived complete and the conditions under which "Line Clear" may be given have been complied with.

(b) **Obstruction removed:** This signal denotes that the obstruction/obstructions which necessitated sending of the "Obstruction Danger" signal has/have been removed.

4018. Cancel last signal or signals given in error (Five beats) :-

This signal shall be sent when :-

- (i) It is required to cancel the previous signal or when the previous signal has to be altered.
- (ii) A line clear has to be cancelled either by the Station Master of the station which asked the same or by the Station Master of the Station which gave the Line Clear, either to give precedence to another train or to start a train from the opposite direction.
- (iii) The sending Station Master has to cancel the Line Clear due to an obstruction in face of the train or due to return of the train on account of an impassable obstruction in the block section or on account of some unforeseen circumstances.
 - (a) When the signal has to be given to detain a train to give precedence to another, departure signals shall at once be put to 'ON' position. Points shall not be altered until the Loco Pilot has been warned that his train is being detained, the token or tablet, if any, has come in the possession of the Station Master. The token/tablet, where in use, shall then be inserted in the block instrument. The Station Master at whose station the train has to be detained, shall exchange proper messages with the other end Station Master for the cancellation of the Line Clear. He shall, then, send the "Cancel last signal" signal to the receiving Station Master, who shall acknowledge the same and two shall jointly restore their block instruments to normal positions in accordance with the method of signalling trains.
 - (b) in case the Line Clear is to be cancelled by the Station which give the Line Clear for the purpose of starting a train from the opposite direction, the initiative for sending the "Cancel Last Signal" bell code shall rest with him and the procedure laid down in para (a) above shall be followed.
 - (c) When, however, the sending Station Master has to cancel the Line Clear due to an obstruction in face of the train, he shall, after observing the precautions regarding signals and points

as laid down in para (a) above, get back the token or tablet, if any, and deposit it in the block instrument. He shall exchange with the other end Station Master proper messages as to the circumstances necessitating cancellation of Line Clear and, then, send "Cancel Last Signal" bell code which shall be acknowledged.

- On no account shall the two relevant block instruments be restored to their normal positions until the obstruction has been removed.
- (d) When a train, which had proceeded in the Block Section return to the station from which it had started due to some impassable obstruction (such as a breach or a landslide, etc.), the Loco Pilot shall push back the train upto first stop signal and the Guard shall show red signal and advise the nearest cabin/Station Master through a memo explaining the circumstances which necessitated the return of the train. The Station Master shall arrange to receive the train by taking 'off' signals when interlocking permits otherwise train, to be piloted on **T/509**. The Station Master shall, then follow the procedure laid down in para (c) above. The train shall be worked in accordance with **G.R. 4.12** and its S.Rs. Material train shall also be worked in accordance with **G.R. 4.62** and its S.Rs.
- (e) If the train returns due to some unforeseen circumstances but not due to circumstances mentioned in para (d) above, the Loco Pilot shall bring the train to a stop at the foot of the First Stop Signal and shall be received in the manner laid down in para (d) above. The token or tablet, if any, shall be obtained from the Loco Pilot and the procedure laid down in para (a) above followed for sending the "Cancel Last Signal" and "Obstruction Removed" signals. The message sent must properly explain the circumstances.

Signals denoting obstructions or other dangerous conditions (Six beats, Six pause one, Six pause two, and so on).

4019. Obstruction danger signal (Six beats) :- This signal shall be sent when :-

- (i) It is necessary, in consequence of an obstruction or for any other reason, **to refuse "Line Clear"** or,
- (ii) to stop an approaching train, for which "Line Clear" has already been sent to the Block Station in rear.

The procedure to be followed in each case is described below :-

- (i) **When refusing Line Clear :-** When, on receipt of a "Line Clear Enquiry" the Station Master is unable to grant "Line Clear", he shall send this signal. The fact that "Line Clear" was asked for and was refused shall be recorded in the train registers of the two stations together with a remark as to the circumstances. Private numbers shall not be exchanged.

(ii) **When it is required to stop an approaching train** for which "Line Clear" has already been sent to the Block Station in rear -

- (a) The Station Master sending the "Obstruction Danger" signal shall, immediately, place all approach signals of the direction in which the obstruction has been located, to the "ON" position or keep them so if they have not already been taken "OFF".
- (b) The Station Master receiving the "Obstruction Danger" signal shall, immediately, place relevant departure signals at his station to 'ON' position and shall employ every other means available to stop the train.
- (c) Should he succeed in stopping the train, he shall acknowledge the signal without delay. The token or tablet, if any, shall be taken from the Loco Pilot and carefully stored away.

On no account shall the train be allowed to proceed until the Station Master who sent the "Obstruction Danger" signal exchanges a message with the other end Station Master that the obstruction has been removed and also send the "Obstruction Removed" signal. The token or tablet, if any, shall now be dropped in the block instrument. The two instrument shall be restored to their normal positions.

- (d) Should the Station Master not succeed in stopping the train, he shall, instead of acknowledging the signal, at once send, the "Train Entering Block Section" signal in reply and advise the Station Master ahead by telephone or any alternate means confirming the same with an exchange of private numbers. The Station Master, who sent this "Obstruction Danger" signal, shall, accordingly, take necessary steps to protect the obstruction.

4020. Stop and examine train (Six pause one) : - (i) This signal shall be sent to the Block Station in advance when anything unusual is observed on a train running through or leaving a station, such as :-

- (a) a signal of alarm from a passenger;
- (b) goods falling off from vehicles;
- (c) a vehicle on fire;
- (d) an axle box running hot; or
- (e) any other condition likely to foul or obstruct the line.

(ii) Immediately after sending the signal, the block station in advance to which the train is proceeding shall be given a message by telephone or any alternate means as to the reason for sending such a signal.

In cases where a Station Master observed goods or some parts of the vehicle falling off and has reason to believe that they might have fallen off before the train had arrived within his station limits, he shall advise the station in rear also and the Loco Pilot of the next train entering from either end shall be given a Caution Order containing instructions to proceed cautiously to the next Block Station and to keep a sharp look out for any obstruction. However, relaying of such information to the Station in rear and issuing Caution Orders to the Loco Pilot of the next train, shall be restricted between the station which apprehended such danger and the adjacent block section in rear.

(iii) The Station Master receiving the signal and the message shall immediately acknowledge both and shall use all available means to stop the train in question. In case of a train having hot axle vehicle or a vehicle which is derailed or whose running gear is considered dangerous, the train shall be brought to a stop at the first stop signal and dealt with in accordance with **SR 4.29/1**. When the affected train has arrived complete and has been stopped, it shall be carefully examined and dealt with as the circumstances may require.

(iv) There after, if conditions permit, train may be permitted to enter the section from either end after advising the Loco Pilots of the circumstances and warning them through a caution order to keep a sharp look out and to stop at the next Block Station and report in writing whether the line is damaged/obstructed or not.

(v) Caution Order shall be discontinued only after it has been ascertained that the Block Section is free from damage/obstruction. If, however, the line is damaged/obstructed suitable action should be taken to repair/remove it.

Note: Where the single line section adjoins any other line or lines (of the same or different gauge), the Station Master who sends the "Stop and examine train" signal under **4020** (ii) shall also advise the Station Master or Station Masters of the adjoining stations concerned. The Station Master at either end of the Block Section or Block Sections concerned shall not allow any train or trains to run by the adjacent line or lines over the Block Section/Sections concerned till such time the affected train arrives complete at the station in advance. Thereafter, the trains may be permitted to enter the adjoining Block Section or Sections concerned after advising the Loco Pilots of the circumstances and warning them through Caution Orders to keep a sharp look out. The other instructions contained in paras **4008** (iv) and (v) and **4020** (iv) and (v) will also apply.

4021. Train passed without tail lamp or tail board (Six pause two) : -

This signal shall be sent to the station in advance should a train pass without a tail lamp (or tail lamp light extinguished at night)/tail board/authorised substitute and the "Train out of Block Section" signal shall not be sent to the station in rear. Inward token, if any, shall not be inserted in the block instrument, but shall be kept in the custody of the Station master on duty. The block instruments shall not be put to "Line Closed" position until he has ensured from the station in advance that the train has been stopped and found to be complete.

- (i) If the station in advance reports that the train is incomplete, the block section in rear shall be considered obstructed and the Station Master shall take immediate steps to clear the cause.
- (ii) If the train is found to be complete and the conditions under which "Line Clear" may be given have been complied with the Station Master in advance shall signal "Train out of Block Section". Before the train is allowed to proceed, he shall see that the last vehicle is indicated in one of the following ways, as prescribed in **G.R. 4.16** and SR thereof.

By day, a tail lamp/tail board or a red flag.

By night, a tail lamp or a hand signal lamp, showing red.

4022. Train divided (Six pause three) :- This signal shall be sent to the next station when :-

- (i) a train is seen running through a station in two or more parts, or
- (ii) the first portion of the parted train has been seen running away, but the rear portion has been brought to a stop, or
- (iii) A train parted while starting from a station and the Loco Pilot runs on to the next station leaving the rear portion stationary.
 - (a) The railway servant observing a train running through a station in two or more parts, shall try to draw the attention of the Loco Pilot and the Guard by gesticulations etc., but shall not try to stop it by a display of danger hand signals, or by raising signals.
 - (b) The Station Master receiving the signal and the message, shall acknowledge the same. He shall avoid stoppage of the front portion at his approach signals and shall take immediate steps to receive and stop it on a clear line at his station. He shall keep the section blocked and the Loco Pilot shall retain his token, if any, until the complete train has been received.
 - (c) When the parted portion is in the block section, the Loco Pilot shall then return with the engine above on an authority to proceed without line clear and an authority to pass. Advanced Starter signal in 'ON' position and a caution order to pick up the rear portion exercising all cautions and action upon the signal of the Guard.
 - (d) If, however, the rear portion is at the station where the train parted or where this rear portion was brought to a stop, the Station Master sending the train engine to pick up the remaining load, shall exchange suitable messages with the Station Master of the station where the rear portion is. The train engine proceeding to this station shall be received on signals and it shall, then, pull or push the parted portion out of the station to the station where the front portion is. It shall be received there also on signals.

- (e) When the remaining portion of the train has been brought into the station where the front portion had reached, the two portions shall be coupled and the Loco Pilot shall surrender his token, if any, to the Station Master, who shall insert it in the block instrument.
- (f) The Station master shall signal "Obstruction Removed" bell code in accordance with the sequence of operations.

(See G.R. 6.08)

4023. Vehicles running away into the Block Section (Six pause four) :-

This signal shall be sent when: -

- (i) a vehicle or portion of a train has escaped and is running away, or
- (ii) a train enters the block section without proper "Authority to Proceed".
 - (a) The Station Master who observes vehicles running away from his station shall immediately put to 'ON' position, all signals relating to the block section into which the vehicles have escaped and try to stop by whatever means possible any train running in the same direction. He shall, then, send the "Vehicles running away" signal, and when it is acknowledged, follow the same with a message. In case the vehicle or vehicles contain passengers, labourers or other persons, this information must also be given.
 - (b) The Station Master receiving the signal and the message shall acknowledge both and, immediately, put all his signals relating to this block section to 'ON'. He shall try to stop any train running in the opposite direction by whatever means possible. If no such train is involved, but there is another train running in the same direction and preceding the runaway vehicles, he shall, at once take 'OFF' approach signals for its admittance and when it is admitted, reverse the facing points in its rear to protect it.
 - (c) Every endeavour shall be made to stop the vehicle or vehicles by covering the rails heavily with sand, earth or ballast for as great a distance as possible. If this attempt is not successful, the runaway vehicle or vehicles shall be diverted into a clear loop or siding.
 - (d) Should the signal be received too late to take action as mentioned above, the Station Master shall repeat the same to the next station towards which the runaway vehicle or vehicles are proceeding and permit the vehicle or vehicles to run though to the next station provided the block section ahead is clear and is not on a falling gradient. In such cases the signal and advice shall be sent to the station ahead as prescribed in clause (a) above.

- (e) The vehicle or vehicles may, as a last resort, be derailed by placing a sleeper or other obstacle on the line. If, however, the vehicle or vehicles contain passengers or other persons, they shall not be turned into a dead end siding or derailed unless it is necessary to do so to avoid a more serious accident.
- (f) Should a train leave a Block Station without a proper "Authority to Proceed" the Station Masters sending the signal and receiving the same shall take necessary action as prescribed in clauses (a) and (b) above. The Station Master receiving the signal shall not take 'OFF' signals for the reception of this train and arrange reception as per G.R. 5.09.

4024. Testing signals (Sixteen beats) :- The testing signals should be used only for the purpose of testing the Block Instruments.

4025. Action to be taken when a Loco Pilot overshoots a signal/signals.

1. **Reception Signals:** - As soon as the Station Master becomes aware of the fact that a Loco Pilot has over shoot a reception signal, the following action shall be taken:
 - (a) Try to stop the train by showing Red hand danger signal or even by switching off the OHE in the electrified section. If the Loco Pilot, after overshooting the reception signal/signals, comes to stop at a place at which trains usually come to stop i.e. at the starter signal,
 - (i) A memo shall be served to the Loco Pilot with a copy to the guard, advising him that he has disregarded reception signals, section control shall also be apprised of the incident with the relevant details.
 - (ii) Loco Pilot/Asstt. Loco Pilot/Diesel Asstt. should be booked off and their relief arranged if the same is readily available at the station where the Loco Pilot has over shooted the signal/signals. In case of a passenger carrying train the crew may be replaced by stabling any goods train running in the vicinity.

In case crew has to be called from an out station and the train is likely to be detained too much, the train may be allowed to proceed ahead where the crew can be conveniently changed. A caution order, under such circumstances, should be issued to the Loco Pilot instructing him to regulate the speed of his train in such a way that no mishap/disregard of signals takes place.

- (iii) Meanwhile, concerned officials should be advised to reach the station at which the train is being detained for recording statement of the crew, joint check of brake power and for the preparation of the Joint Note.

- (iv) The goods train may be stabled and passenger carrying train, if the circumstances so warrant, but care being taken to ensure that such stabling/detention does not lead to blockage of other trains.
- (v) Engine crew should be subjected to a medical examination as prescribed in para 427(E) of the Accident Manual.
- (b) **When a Loco Pilot, after overshooting the Outer Signal, stops short of the Home Signal:-**
The train shall be piloted to the station and brought upto the place where the trains usually come to a stop i.e. the Starter Signal on the authority of T/509.

Rest of the procedure shall be the same as detailed in para (a) above.

- (c) **When a Loco Pilot, after overshooting the reception Signals, stops either short of platform or after jamming the points: -** The train shall be shunted upto its berthing place on the authority of T/806 (shunting order).

Rest of the procedure shall be the same as detailed in para (a) above.

2. Departure Signals: - (i) If the Loco Pilot overshoots the starter signal and comes to a stop between starter and Advanced starter or beyond the Advanced starter signal, at a place from where the train can be easily backed to the station, the train shall be backed to its berthing place on the authority of T/806 (shunting order). Action shall, thereafter, be taken as per para 1(a) above.

(ii) If the Loco Pilot, after disregarding the danger aspect of departure signals, enters the block section, action shall be taken as per SR 6.06/1; treating the train as run away train.

Action, as per para 1(a), shall be initiated against the crew at the station at which the train comes to a stop.

CHAPTER V

PAPER LINE CLEAR

5001. Introduction: - Paper Line clear ticket is an “**Authority to Proceed**” as described in GR 14.08. It is issued in the following circumstances:-

(a) On Single Line Section, when;

- (i) Electrical Block instruments have failed,
- (ii) At station where Block Proving Axle Counters are provided and has to start a Tower Wagon, Motor Trolley, Track Maintenance Machines etc.

(b) On double Line Section, when;

- (i) Single Line working has been introduced on Double line Section (Rules for this have been described in ‘Chapter X’).

5002. Authority to proceed:- (a) No engine or train shall leave a block station unless the Loco Pilot has in his possession a Line Clear ticket written on the authorised form and applicable to the block section which the train is about to enter.

(b) Sub-rule (a) does not apply either.

- (i) When an engine or a train enters a block section to assist a disabled train, or,
- (ii) When during total failure of communications, trains on double line and any engine with or without brake vans on single line are allowed to proceed to the block station in advance on “Authority to Proceed without Line Clear”.
- (iii) In the circumstances mentioned in (i) and (ii) above separate authorities, as described in ‘Chapter VIII’; will be given to the Loco Pilot.

(c) When it is necessary to give a Loco Pilot any special instructions concerning the road, or any other circumstances demanding cautious driving, the Paper Line Clear Ticket shall be supplemented by a caution order.

5003. Line clear Enquiry / Reply Message book:

- (i) Line clear Enquiry / Reply Message books are provided as T/A 1425 and T/B 1425. The Form No. T/A 1425 shall be used by the Train Despatching Station and T/B 1425 by the Train receiving station.

- (ii) The pages in these books are progressively machine-numbered. When a book is brought in to use, the Station Master shall give a certificate assuring that book is complete and no page is missing.
- (iii) Pages of these forms are printed on both sides, i.e. in English on front and in Hindi on back.

5004. Columns of Line clear Enquiry / Reply Message book:- All the line clear messages on T/A 1425 and T/B 1425 are similar and corresponding columns for recording the messages that pass between two station namely .

Despatching Station (T/A 1425)	Receiving Station (T/B 1425)
Line Clear Enquiry	A Line clear Reply
Train entering section (sent)	B Train entering section (acknowledged)
Train out of section (acknowledged)	C Train out of section (sent)
Line Clear Cancellation	D Line Clear Cancellation

5005. Message not to be recorded in wrong Books:- Messages despatched to and received from one station shall not be recorded on wrong Books. Station Master must ensure that the correct book is used before filling up the entries.

5006. Persons authorised to obtain and give Line Clear: - No one except the Station Master on duty is permitted to ask for or give "Line Clear".

5007. Writing and signing train messages: - (a) All enquiry and Line Clear messages shall be written in blue / black ink and signed in full by the Station Master on duty. Other coloured ink shall not be used.

(b) Every message related to passage of train shall first be written in the Line clear Enquiry / Reply Message books i.e. T/A 1425 or T/B 1425 as the case may be, then informed. Such messages shall be written immediately before that they are required to be informed and not in advance.

5008. Describing trains in messages: - (a) In enquiries for "Line Clear" and in replies to them, train shall be distinctly described, thus - "2230" DN Mail or "4 LJH" DN Pass or "MGS Juggler", as the case may be. A separate enquiry and reply message shall be sent for each train and, on no account, shall a Line Clear message received for one train be used for another train.

5009. Enquiry for Line Clear or enquiry message:- This message is despatched from a station asking the station in advance if the line is clear for a train, which is either waiting or expected to arrive.

5010. Procedure in sending/Receiving enquiry message:- This message shall be written by the Station Master in his Line clear Enquiry / Reply Message book, (T/A 1425/T/B 1425) in space A, and

sent as soon as it has been written out, the time of dispatch / time of receipt shall be entered in the relevant columns and also the name of the Station Master sending and receiving the Enquiry. The last train which passed over the section shall be stated in each enquiry

- Note:** (i) No Reply of Enquiry message shall be valid unless it is supported by a private number.
 (ii) All the relevant columns shall be filled neatly in the form.

5011. Line Clear Enquiry - when to be put up :- (a) When the Station master on duty receives the "Train Entering Block Section" signal or is informed that the train is approaching his station, he shall apply for "Line Clear" to the station in advance.

(b) In case where owing to the run between stations being short, there would not be sufficient, time to ask and receive "Line Clear" under the provision of para (a) above without causing delay to trains, the "Line Clear" shall be asked from the station in advance immediately the "Line Clear" is given to the station in rear.

(c) Where, however, the run between station is long the "Line Clear Enquiry" should not be sent more than 30" (Minutes) before the due departure of the train from a station.

(d) At terminal stations and where trains have long halts the "Line Clear Enquiry" should not be sent more than 15" before a train is due to leave.

5012. Reply to enquiries :- On receiving an enquiry as to whether the line is clear, the Station Master on duty shall give a reply in accordance with the prevailing conditions.

5013. Paper Line Clear ticket:- (a) It is the authority given to the Loco Pilot duly filled by the Station Master of the dispatching station after the Line clear is received from the receiving station.

(b) Separate forms **T/C 1425** for "Up" and **T/D 1425** for "Down" direction have been provided.

(c) It shall be prepared in duplicate by carbon process.

5014. How to prepare a Paper Line Clear Ticket

The following particulars shall be written on the Paper Line Clear ticket :-

- (i) **Number of train** – The train shall be described as mentioned in Para 5008 above.
- (ii) **Description** – It shall be written, distinctly mentioning the type of train, Viz. Mail, Exp., Pass., Goods or Mixed.
- (iii) **Date** - The date shall be written in numerals, thus 09.7.05 and not thus "9th July" 2005. It shall be the date of the receipt of Line Clear message.

- (iv) **Time:-** The time also shall be the time of the receipt of Line Clear message, and not the time the Line Clear ticket is written out.
- (v) **Names of issuing and destination stations:-** The issuing station shall put its stamp, which shall give the name of the station in full. In addition, the name of the destination station shall be written in full and the code initials of both issuing and destination stations shall be inserted in block letters.
- (vi) **The Last Train No.:-** which has cleared the section and the name of **Station** at which the train cleared the block section should be mentioned in full.
- (vii) **Private number:-** The private number, received with Line Clear message, shall be entered in the column provided for the purpose both in figures and words thus "32 (Thirty two)".
- (viii) **Station Master's signatures:-** The issuing Station Master on duty shall, legibly, sign in full. He shall also write his name in full in block letters below his signatures.
- (ix) **Other endorsements:-** Mark ($\checkmark$) for "Authority to pass Last Stop Signal" in the "ON" position already mentioned in the form. Name of other Departure Signal / Signals, if required to pass in "ON" Position, should also be mentioned.

No separate Form, as an Authority to Pass signal in "ON" position will be issued with this Form.

Note: (a) No corrections / over writings / or use of any type of erasers are allowed.

- (b) If a mistake is made in the preparation of Line Clear ticket, the word "**Cancelled**" shall be written across it and if the ticket has been detached, it shall be pasted in its carbon copy. A fresh and correct ticket shall, thus, be made out. If, however, a "Line Clear" is cancelled, the word "**Cancelled**" shall be written across the ticket and also across the carbon copy. The ticket shall be pasted on the carbon copy.

- (c) A Line Clear ticket is not to be made out until required.

5015. Delivery of Paper Line Clear ticket (a) The Station Master on duty shall be responsible for ensuring that the proper Line Clear ticket for the block section into which the train is proceeding is given to the Loco Pilot.

(b) The Station Master in-charge shall be responsible for ensuring that every member of his staff, through whose hands Line Clear tickets may have to pass, is acquainted with the difference between up and down **Paper Line Clear tickets** in use.

(c) **Paper Line Clear ticket** must be delivered to the Loco Pilot through authorised person after stopping the train.

5016. Duty of Loco Pilot on receiving Paper Line Clear Ticket: - (a) Loco Pilot shall satisfy themselves that Paper Line Clear ticket is complete in respect of all the details as mentioned in para 5014 (i) to (ix) above. In the event of any of these details being omitted or incorrectly entered, the Loco Pilot shall not proceed until the Station Master gives him a correct Paper Line Clear ticket. He shall, if requested by the Station Master, state in what way it is incorrect. Loco Pilot shall endorse his signatures on the carbon copy as acknowledgement.

(b) All Paper Line Clear tickets which, on examination by the Loco Pilot, are found to be incorrectly prepared or written, shall be retained by him. In such cases, he should inform the Station Master who shall then make out correctly a fresh Paper Line Clear ticket as per Note below para 5014 and deliver it to the Loco Pilot.

The incorrect Paper Line Clear ticket shall be retained by the Loco Pilot and made over at the end of the trip only to the Loco Foreman or his Assistant along with a special report. The Loco Foreman shall in turn, send a special report by a special messenger to the Divisional Railway Manager enclosing the incorrect line clear ticket and keeping a true copy thereof for his own record.

(c) Paper Line Clear ticket, which is required to be cancelled in order to give precedence to another train, shall be surrendered by the Loco Pilot to the Station Master on written memo.

5017. Train entering block section: - This message shall be despatched on the departure of a train from a station and shall be recorded in space "B" of the Enquiry and Reply message book at both stations.

5018. Train out of Block Section :- This message shall be despatched when a train has arrived complete and the conditions under which "Line Clear" for another train can be given have been complied with. The message shall be recorded in space "C" of the Enquiry and Reply message book at the both stations.

5019. Disposal of Line Clear Tickets: - (a) The Loco Pilot shall hand over all Line Clear tickets to the Loco Foreman at the end of the run.

(b) The Loco Foreman shall, in turn, send them to the Divisional Railway Manager's office, where they shall be checked before being destroyed.

5020. Blocking back and blocking forward :- See Chapter-VI

5021. Train Signal Register: - In addition to the entries in the relevant enquiry and reply books, all entries in connection with the passage of a train shall be maintained in the Train Signal Register.

5022. Cancellation of Line Clear: - When it is necessary to cancel a "Line Clear" the cancellation message shall be recorded in spaces "D" of the Enquiry and Reply message book (T/A 1425 and T/B 1425) at both stations supported by private number. Reason for cancellation of Line Clear shall invariably be mentioned there in.

CHAPTER VI

BLOCKING BACK AND BLOCKING FORWARD

6001. Method of blocking back: - At stations where double line block instruments are provided. When it is necessary to block back the block section, the Station Master of the shunting station shall telephone to the Station in rear as follow :-

"I am blocking section back for shunting purposes.

Private No....."

The Station Master receiving this advice shall acknowledged it as follows: -

"I note that the section is being blocked back for shunting purposes.

Private No....."

As soon as the block section is cleared, the shunting station shall advise the station in rear as follow:-

"Shunting has been completed, block section is clear.

Private No.....".

The Station Master in rear shall reply as follow :-

"I note that shunting has been completed and block section is clear.

Private No.....".

On double line, where the block instruments are provided with block needles, the needles shall be turned by the shunting station to "Train on Line" directly when the section is blocked back and to "Line Closed" when the block has been removed.

On double line where Daido Type Double Line Block Instruments are provided, the occupation key (R) shall be removed from the Block Instrument, and given to the Loco Pilot as an authority to enter the block section in rear, for shunting purposes only when the section is blocked back.

As soon as the block section is cleared, the Station Master of the shunting station shall replace the occupation key (R) in the Instrument.

The time at which the above message, signals and private numbers are exchanged shall be entered in the appropriate portion of the Train Signal Registers at both stations.

6002. Method of block forward :- At station where Double Line Block Instruments are provided. When the block section in advance is clear, it becomes necessary to obstruct the line outside the last stop signal :-

- (i) either a shunt signal (which may for this purpose be provided on the post of the last stop signal) shall be taken OFF or written permission to shunt beyond the last stop signal in the 'ON' position on the shunting order shall be given to the Loco Pilot, and
- (ii) the block section shall be blocked forward.

The Station Master shall telephone to the station in advance as follow :-

"I am blocking section forward for shunting purposes,
Private No....."

The Station Master receiving the advice, shall acknowledged it as follow :-

"I note that you are blocking section forward for shunting purpose.
Private No....."

As soon as the block section is cleared, the Station Master of the shunting station shall telephone to the other end Station as follow :-

"Shunting has been completed, block section is clear.
Private No....."

Where the block instruments are provided with block needles, the needles shall be turned by the station in advance to "Train on Line" directly when the section is blocked forward and to "Line Closed" when the block has been removed.

On double line where Daido Type Double Line Block instruments are provided, the occupation key (L) shall be removed from the Block Instrument and given to the Loco Pilot as an authority to shunt in the block section beyond the last stop signal in the "ON" position where the section is blocked forward.

As soon as the block section is cleared, the Station Master of the shunting station shall replace the occupation key (L) in the Instrument.

If the block section ahead is occupied by a train proceeding to the next block station, shunting may be performed following that train without blocking forward, if SWR is permitted but should the section be cleared and line closed by the station in advance while shunting is still in progress, section shall immediately be blocked forward as above.

6003. Method of Blocking Back:- At stations where single line block instruments are provided.

When it is necessary to block back the block section, the Station Master of the shunting station shall telephone to the station in rear as follow:-

"I am blocking section back for shunting purposes.

Private No.....".

The Station Master receiving this advice, shall acknowledged it as follow :-

"I note that the section is being blocked back for shunting purposes,

Private No.....".

As soon as the block section is cleared, the shunting station shall advise the station in rear as follow:-

"Shunting has been completed. Block section is clear.

Private No.....".

The Station Master in rear shall reply as follow :-

"I note that shunting has been completed and block section is clear.

Private No.....".

On single line where token-less instruments are provided, the shunting key shall be removed from the block instrument (thus locking the instrument in Line Closed position) and given to the Loco Pilot as an authority to enter the block section in rear for shunting purposes.

As soon as the block section is cleared, the Station Master of the shunting station shall replace the shunting key in the instrument.

On single line where Token Instruments are provided, the token shall be extracted by the Station Master of the Shunting station after exchanging proper messages for Block Back. The token shall be given to the Loco Pilot as an authority to enter the block section for shunting purposes.

As soon as the block section is cleared the Station Master of the shunting station shall collect the token back from the Loco Pilot and shall deposit it in the instrument, which shall be normalised.

6004. Method of Blocking back/forward:- At stations where paper line clear working is in force.

The methods of blocking back and blocking forward are the same as described in the preceding paras.

6005. Suitable remarks with regard to blocking back or blocking forward shall be made in the Train Signal Register along with the private number and time messages are exchanged by the Station Master, on duty at the both stations.

6006. Wherever it becomes necessary to block the section between the two stations temporarily for other than shunting purposes, such as imposing engineering block or other obstructions on track similar messages shall be exchanged by modifying the message suitably by the Station Masters. Each message so exchanged shall be confirmed by private number.

6007. In all the above cases, the Loco Pilot shall also be issued T-806 (Shunting Order) with suitable endorsement as an authority for shunting.

CHAPTER VII

FAILURE OF COMMUNICATIONS ON DOUBLE LINE

7001. (a) Double Line Block Instruments shall be considered to have failed when :-

- (i) Block bell codes cannot be sent or received.
- (ii) The deflections of the relevant block needles do not correspond to the position of the commutator except the station where arrangements are made for block instruments to assume the "TOL", indication automatically by passage of Last Stop Signal by a train of despatching station.
- (iii) Permanent deflection or recurring oscillation of the block needles/current indications or bell beats are noticed without the plunger at either end being pressed.
- (iv) The commutator/handle cannot be turned from one position to its next correct position in spite of correct beats being received from the other end station.
- (v) The block instrument or the battery almirah for the block instrument is found unlocked or improperly locked or unsealed or improperly sealed.
- (vi) S&T Staff have, for any reason, disconnected the block instrument;
- (vii) Due to an accident or breach of rules/block rules, there is a dispute about the instrument having been operated or not;
- (viii) The treadle or track circuit has failed;
- (ix) Any other damage or defect to the block instrument, or its accessories which is likely to endanger safety, is noticed.
- (x) Any unusual indication appearing on the instrument.

(b) Double line block instruments shall be considered to have been rendered inoperative when:-

- (i) A train which left the station on Line Clear and also operated the last stop signal treadle or track circuit, returns to the station from which it started and the next train is sent on T- 369 (3 b) issued for last stop signal after obtaining line clear on block telephone.

- (ii) A lorry, push trolley, material trolley, motor trolley or rail motor has to run on "Line Clear" but is not heavy enough to operate the treadle.

Note: On sections where track circuits have been provided in place of treadles, "Line Clear" should be obtained on the block instruments.

- (iii) Due to an obstruction on one line of the section, single line working has been introduced by the other line :
- (iv) When telegraph staff is working on the line, subject to the provision that the Station Master shall restore the instrument only if he is satisfied that none of the conditions mentioned in para 7001 (a) exist.
- (c) **The conditions when block proving axle counter shall considered failed are described in Chapter XI of this manual.**

7002. Working of trains in case of failure of block instruments:-

- (a) Line Clear from the Block station in advance shall be obtained by one of the following means in the following order: -
 - (i) Block Instruments, Track Circuiting or Axle counters
 - (ii) Telephones attached to block instruments
 - (iii) Station To Station Fixed Telephone where ever available
 - (iv) Fixed Telephone such as Railway autophones & BSNL/MTNL Phones
 - (v) Control Telephone
 - (vi) VHF sets [under special instructions but not as the sole means of communication on stations where passenger trains run. It can be used as only means of communication for specific siding/sections where only freight trains run under special instructions issued by the DRM.]

***Note:-** These instructions shall also be followed whenever during total interruptions of communications, an accident to a train or track or other obstructions precludes the use of the lines on a double line section, or whenever total interruption of communications occurs during single line working on a double line section. For special instruction on train working also refer Appendix 'B' of this Manual.

- (b) When "Line Clear" is obtained through the means referred to in para (a) (iii) to (vi) above, train numbers with private numbers of three previous trains which have passed over the block section shall be repeated and checked by both stations so that the identity of the correct station asking/ giving Line Clear is established.
- (c) When the block instrument is found to be or treated as defective before obtaining "Line Clear" or after the arrival of a train at the Block station in advance but before the train "out of block section" report is signalled, the Station Master on duty shall intimate to the Station Master at

the other end the reason for treating the instrument as defective, giving particulars of dispatch/ complete arrival of the last train in question and confirm this advice by a private number. He shall, in addition, immediately intimate the officials mentioned in para 1011.

- (d) When a block instrument has been found to be or treated as defective after "Line Clear" has been obtained for a train but before the departure signals have been taken 'OFF', the Station Master on duty, in addition to giving the particulars mentioned in sub-para (c) above to the Station Master at the other end shall intimate him that the "Line Clear" which had been signalled on the block instrument may be cancelled. This advice shall be confirmed by a private number. The Station Master, issuing the message shall, then, signal the cancellation bell code. However, in the case of 'SGE' type block instruments the Commutator shall first be turned to "Train on Line" position before bell codes are acknowledged.
- (e) When "Line Clear" is obtained by any one of the alternative means referred to in para (a) (i) to (vi) above, the method of asking and giving "Line Clear" shall be the same as prescribed in paras 2010 except that the block instrument shall not be used.. The Line Clear advice shall be confirmed by private number.
- (f) The SM/ASM shall issued the form No.T/369-(3b) to the Loco Pilots to authorize to pass last stop signal in "ON" position. The private No of line clear obtained from the adjoining station, shall be endorse on this form.
- (g) A record of all the particulars referred to in the above sub-paras along with private numbers shall be maintained in the Train Signal Registers of the both stations and when "Line Clear" is obtained through control, the Section Controller shall also keep a record of the particulars mentioned in sub-para (b) above.
- (h) When the defect, if any, has been rectified by an authorised S & T staff, the both Station Masters shall restore to the normal procedure of working on the block instruments, only after they have satisfied themselves that there is no train in the block section. The time when working on block instruments is resumed shall be recorded in the train signal register of the two stations and the officials, to whom the failure message was addressed, shall be intimated.
- (i) In all cases of suspension and resumption of working on block instruments, control shall be kept fully advised.

TOTAL INTERRUPTION OF COMMUNICATIONS ON DOUBLE LINE SECTIONS.

7003. In the event of total interruption of communications occurring between two stations on a double line section, i.e. when "Line Clear" cannot be obtained by any one of the following means stated in the order of preference viz.

- (i) Block Instruments, Track Circuiting or Axle counters
- (ii) Telephones attached to block instruments

- (iii) Station To Station Fixed Telephone wherever available
- (iv) Fixed Telephone such as Railway autophones & BSNL/MTNL phones
- (v) Control Telephone
- (vi) VHF Set.

The following procedure shall be adopted for train passing:

7004. Before any train is allowed to enter a block section in advance, it shall be brought to a stop and the Loco Pilot and Guard of the train shall be advised of the circumstances by the Station Master on duty.

7005. The Station Master shall give an authority for working of train during total interruption of communication on double line section (**on form No. T/C 602**) to the Loco Pilot of each train which shall include:-

- (a) An Authority to proceed without Line Clear.
- (b) An authority to pass the last Stop signal in the "ON" position.
- (c) A caution order restricting the speed to 25 kilometers per hour over the straight and to 10 kilometers per hour when approaching or passing any portion of the line where the view ahead is not clear due to curve, obstruction, rain, fog or any other cause,

7006. In the event of a Loco Pilot approaching or passing any portion of the line where the view ahead is not clear, a railway employee with hand signals must be sent in advance to guide the further movement of the train. A sharp look out ahead should be kept and the engine whistle freely used.

7007. No train shall be allowed to enter the block section until there is a clear interval of 30 minutes between the "train about to leave" and the "train which has immediately preceded".

7008. Fixed signals with the exception of the last stop signal may be taken "off" for the reception and departure of trains. The first Stop signal shall, however, be taken 'off' only after the train has been brought to a stand outside it.

7009. A tunnel should be entered only after it has been ascertained that it is clear. If there is any doubt on this point the train should be piloted by a railway employee equipped with hand signals and detonators.

7010. The Guard shall keep a sharp look out in the rear and be prepared to exhibit a hand danger signal to prevent the approach of a train from the rear and to protect it, if necessary.

7011. When a train is stopped in the block section, the Guard shall immediately exhibit a hand danger signal towards the rear and check up that the tail-board or the tail-light is correctly exhibited. If the stoppage is on account of accident, failure, obstruction or other exceptional cause and the train cannot proceed, the Loco Pilot shall sound the prescribed code of whistle to apprise the Guard of the fact, where upon the Guard shall protect the train by placing one detonator at 250 metres from the train on the way out and 2 detonators, 10 metres apart, at 500 metres from the train, irrespective of the gauge. When a train is detained outside signals and if the detention exceeds or is likely to exceed 10 minutes, it shall also be protected accordingly. In the absence of the Guard the duty of protecting the train shall devolve on the Loco Pilot.

7012. No train shall be backed:- In exceptional circumstances when it may be unavoidable to back a train, the train shall be backed only after providing protection by placing one detonator at 250 metres and two detonators, 10 metres apart, at 500 metres in rear of the point up to which the train is to be backed.

7013. Before entering a tunnel, the headlights, side and tail-lights and other lights (where provided) shall also be lit.

7014. When approaching the station ahead, the Loco Pilot must bring his train to a stop outside the first Stop signal and sound continuous whistle. If no one from the station turns up within 10 minutes, the train shall be protected as per para 7011 above and the Loco Pilot may send his Assistant Loco Pilot immediately thereafter, to the Station or the cabin to inform the Station master or Cabinman of the fact that the train is waiting at the signal for its admission into the station. In the absence of the Assistant Loco Pilot, the Guard, after protecting the train, shall give this information.

7015. The Loco Pilot of all train shall make over the T/C 602 "Authority for working of trains during total interruption of communication on double line section" to the Station Master of the station at the other end of the affected section, These shall be kept by the Station Master in his safe custody for inspection by the traffic Inspector of the section, who shall prepare a report on the working of train and shall forward the same along with his report to the Divisional Railway Manager within 7 days of communication.

7016. A record of all trains passed over the block section on T/C 602 "Authority for working of train during "total interruption of communication on double line section" during the course of total interruption of communications, shall be maintained on the Train signal Register at both the stations concerned.

7017. Trains must continue to work on this system until any one of the means of communications, mentioned in para 7003 above is restored by the competent authority.

7018. As soon as anyone of the means of communications has been restored the Station Master at the other end of the section on the following Format:

From station Master _____

To station Master _____

Message No. _____ Train (Number and description) _____ arrived complete at _____ hours _____ minutes. Last train _____ (Number and description) dispatched to your station _____ at hours _____ minutes Last train _____ (number and description) dispatched to your station _____ at _____ hours _____ Minutes. Cancel the present method of working the trains. Line Clear must be obtained by means of _____ Acknowledge.

Private No. (in words) _____ (in figures) _____

On receipt of the above message the Station Master at the other end of the section must acknowledge in the following format:

From Station Master _____

To Station Master _____

Message No. _____ Your message No. _____. Understand that train (Number and description) _____ which was the last train to leave my station has arrived complete at your station. Train (Number and description) _____ which left your station has arrived complete at my station at _____ hrs./ not arrived. Present system of train working is being/ will be cancelled immediately after the complete arrival of train no. _____. Line Clear for the next train will be obtained by means of _____ private No. (in words) _____ (in figures) _____.

7019. Line Clear shall not be obtained or given by means of communications restored until both the stations are satisfied that all trains and engines etc. despatched from their station have arrived complete at the other end station. When the trains referred to in para 7018 above arrive complete at the stations, after restoration of communication, their No. and their arrival time will be communicated to the other end Station Master concerned under exchange of Private Numbers. Thereafter an intimation about this shall be given to Section Controller also, on controlled section, if communication with the Section Controller has also got restored, and normal working resumed. If, however, communication with Section Controller has not got restored along with restoration of communications between two stations, the Section Controller shall be advised of the position immediately on restoration of communication with him.

CHAPTER VIII

FAILURE OF COMMUNICATIONS ON SINGLE LINE

8001. Failure of Block Instruments

[A] General - Applicable to all instruments :

Single line block instruments shall be considered to have failed or been rendered inoperative when:-

- (i) Bell Codes cannot be sent or received.
- (ii) The Station Master's control key is lost or the lock becomes Defective.
- (iii) The block instrument or battery almirah for the block instrument is found unlocked or improperly locked or unsealed or improperly sealed.

Note: If it is found unsealed, steps should be taken to have it sealed as soon as possible.

- (iv) When Telegraph Party is working on line, the instrument shall not be used till then.
- (v) If a train arrives at a station with the instrument in 'Line Closed' condition.
- (vi) There are indications, which may lead Station Master to believe that there is contact between block and other circuits.
- (vii) When any other damage or defect to the block instrument or its accessories, likely to endanger safety, is noticed.

[B] Applicable to Neales' Token/Tablet Instrument :-

- (i) The Galvanometer needle/needles remain stationary while bell codes are being exchanged.
- (ii) The deflections of the Galvanometer needle/needles do not correspond to the positions of the block handle viz.
 - (a) with needles of both instruments in normal position the pressing of plunger at either end does not deflect both needles to the right.

- (b) with either handle turned to 'Train Going To' or 'Train Coming From' positions, the pressing of plunger of that instrument does not deflect both needles to the left, or
- (c) if token has been deposited into either instrument, the pressing of the plunger of that instrument does not deflect both needles to the right.
- (iii) Permanent deflections or oscillations of the Galvanometer needle/needles or bell beats are noticed without the plunger at either end being pressed.
- (iv) No token is left in the instrument at the station from which a train is to start.
- (v) The token is in any way damaged.

Note:- Such a token, when obtained, may be utilised for working the train for which it was obtained, but must not be deposited into any token instrument and S & T official as well as the Station Master in advance must be informed.

- (vi) The token jams the instrument on being put back into the instrument.
- (vii) A train arrives at a station without a token or with the token not referring to the block section over which the train has immediately passed, or with a token incorrectly obtained.
- (viii) A token/tablet is lost.
- (ix) The last stop signal control key is lost.
- (x) The last stop signal lock provided on the instrument defective in any way.
- (xi) Two tokens are obtained at one and the same time.
- (xii) The block handle cannot be turned from one position to the next inspite of the correct beats and proper deflection of the Galvanometer needle.
- (xiii) No token is delivered on turning the block handle to 'Train Going To' position though there are tokens left in the instrument.
- (xiv) The Station Master's control lock on the token depositing drum/slide is defective.
- (xv) The block handle can be turned from one position to another without the co-operation of the Station Master on duty at the other end of the block section.
- (xvi) The block handles of the instruments at both the stations get simultaneously operated to 'Train Going To' or 'Train Coming From' positions.

[C] Applicable to token-less block instrument -handle type (Kyosan): -

- (i) The Galvanometer needle/needles remain stationary while bell codes are being exchanged.
- (ii) Permanent deflections or oscillations of the Galvanometer needle/needles or bell beats are noticed without the plunger at either end being pressed.
- (iii) The buzzer does not sound for the appropriate condition or sounds when it should not.
- (iv) Proper indication fails to appear on the instrument.
- (v) 'Free' indication fails to appear or counter fails to register next higher number.
- (vi) The position of the handle of the block instrument can be changed with the shunting key taken out.
- (vii) Shunting occupation key gets lost or the lock becomes defective.
- (viii) The last stop signal does not automatically go back to 'ON' after entry of train in the block section.
- (ix) The last stop signal comes "OFF" without block handle being in "Train Going To" position.
- (x) Last stop signal fails to come "OFF" although block handle is in "Train Going To" position.
- (xi) Home signal does not automatically go back to "ON" after the train has passed inside it.
- (xii) Block handle gets locked in any particular position, i.e. 'Line Closed', 'Train Coming From' or 'Train Going To' in spite of PB-1 and PB-2 push buttons having been pressed by the station at the other end of the block section.
- (xiii) The block handle can be turned from one position to another without the cooperation of the Station Master on duty at the other end of the block section.
- (xiv) Block handles of instruments at both the stations get simultaneously operated to 'Train Going To' or 'Train Coming From' position.

Note: Where treadles are provided token-less block working shall be made inoperative for running of motor trolleys in the block Section as motor trolleys are not likely to operate treadles. Paper Line Clear working shall be introduced at such occasions.

[D] Applicable to token-less block instruments - push button type (Podanur and Siemens).

- (i) The buzzer does not sound for the appropriate condition or sounds when it should not.
- (ii) Proper indication fails to appear on the instrument.
- (iii) 'Free' indication fails to appear or counter fails to register the next higher number.
- (iv) 'Train Going To'/'Train Coming From'/'Train on Line' indication cannot be cancelled although proper manipulation has been made.
- (v) The indications on the block instrument can be changed even with the shunting key taken out.
- (vi) Shunting occupation key get lost or the lock becomes defective.
- (vii) The last stop signal does not automatically go back to "ON" after entry of train in the block section.
- (viii) The last stop signal at the sending station fails to come "OFF" although block instruments at sending and receiving stations may be displaying correct 'Train Going To' and 'Train Coming From' indications respectively.
- (ix) The last stop signal can be taken "OFF" without establishing 'Train Going To' condition.
- (x) Home signal does not automatically go back to "ON" after the train has passed inside it.

Note: Where treadles are provided, token-less block working shall be made inoperative for running of motor trolleys in the block section as motor trolleys are not likely to operate treadles. Paper line clear working shall be introduced at such occasions.

[E] Applicable to block proving axle counter described in Chapter XI.

8002. Action to be taken

- (a) In the event of block instrument having failed, the Station Master shall :-
 - (i) Advise the failure to all concerned giving the particulars of the last train passed over the section and introduce paper line clear working.
 - (ii) Record the failure and the time in the Train Signal Register as well as in the Signal Failure Register.

- (b) The Station Master at the other end of the block section shall acknowledge the message and make a record in his Trains Signal Register.
- (c) When the failure has been rectified, it shall be recorded in the Trains Signal Register.
- (d) Paper line clear working shall not be discontinued and block instruments shall not be brought back into use unless all transactions for which paper line clear working was initiated have been completed.
- (e) Before resuming normal working on block instruments, the Station Master at the station, where the instrument was defective, shall :-
 - (i) inform to all concerned about the resumption of normal working giving particulars of the last train passed over the block section.
 - (ii) Record the time of resumption of normal working in his Trains Signal Register.
- (f) The Station Master at the other end of the block section shall acknowledge the message and shall make a record in his Trains Signal Register.
- (g.) **Special conditions applicable to Neales' Token Instrument :**
 - (i) If a lost token is found after the failure message has been sent but before arrival of S & T official, the Station Master incharge personally shall restore the instrument to normal. If any train/trains have passed on paper line clear before token is found the instrument shall be restored to normal only after the transaction for the last train have been completed as per paper line clear working and the block section is clear. While restoring the instruments to normal the Station Master shall advise the Station Master on duty of the other end of the Block section under exchange private number as follows :-

"No. token No. found. Propose to restore token working".

The Station Master on duty receiving the advice, shall reply as follows :-

"No. Your No., restore your instrument and let me restore mine".

Both the Station Masters shall then place their instruments in the normal position carrying out the regular sequence of operations and the Station Master who reported the failure shall advise the S & T staff through telephone or other available means by using appropriate code and send a copy of the message by train to the Divisional Railway Manager.

- (ii) If a lost token is found after the instruments have been restored by the S&T staff, it shall be put in a paper cover and kept in the station safe until it can be put into the instrument by a member of the S & T staff to whom the following message be sent :-

"Token No. found".

- (iii) If a lost token is found at a station to which it does not belong, it shall be put in a stout cover and despatched to the Divisional Safety Office of the that Division to which it refers.

8003. Working of trains when single line block instruments become defective:- In the event of failure of the instruments, trains shall be worked on paper line clear which may be obtained :-

- (a) by the telephone attached to the block instrument;
- (b) station to station fixed telephone where ever available in the event of failure of (a) above;
- (c) fixed telephone such as railway auto phone & BSNL / MTNL phones in the event of failure of (a) and (b) above;
- (d) Through the section controller on Control Phone in the event of failure of (a),(b) and (c) above;
- (e) VHF sets in the event of failure of (a), (b), (c) and (d) above.

Note: Whenever line clear is obtained by any one of the alternative means of communications prescribed above, Line clear Enquiry / Reply Message books shall be brought into use by the both Station Masters and the procedure laid down in chapter V for obtaining line clear observed. Paper line clear ticket shall be issued to the Loco Pilot as his authority to enter the block section.

8004. (1) When 'Line Clear' is obtained through the Controller, the following precautions shall be taken :-

- (a) All line clear messages and private numbers, similarly all 'Train Entering Block Section' and 'Train out of Block Section' messages shall be conveyed through the Controller / Station Master in contact on Control Phone.
- (b) To ensure that reply to the line clear enquiry is emanating from the authorised person competent to grant line clear, train numbers with their description and private numbers of three previous trains passed over the block section shall be obtained by the train dispatching Station master through the Section Controller who shall verify the same in consultation with the Train receiving Station Master;
- (c) A record of messages and private numbers shall be maintained at each station by the respective Station Masters. A record shall also be maintained by the Section Controller on the Control Phone of the private numbers transmitted through him against such train.

(2) When 'Line Clear' is obtained through the "station to station fixed telephone or BSNL/ MTNL telephone" or "VHF sets", Station Masters shall ensure that reply to the line clear enquiry is emanating from the authorised person competent to grant line clear. For such a purpose, train numbers with their description and private numbers of three previous trains passed over the block section shall be Cross checked.

TOTAL INTERRUPTION OF COMMUNICATIONS ON SINGLE LINE

8005. In the event of total interruption of communications occurring between two block station i.e. when Line Clear cannot be obtained by one of the following means stated in order of preference viz.

- (i) Block Instruments, Track circuits or Axle counters:
- (ii) Telephone attached to the Block Instruments.
- (iii) Station to station fixed telephones wherever available
- (iv) Fixed telephone such as railway auto-phones & BSNL/MTNL phones
- (v) Control Telephone
- (vi) VHF sets [under special instructions but not as the sole means of communication on stations where passenger trains run. It can be used as only means of communication for specific siding/ sections where only freight trains run under special instructions issued by the DRM.]

The instructions laid down in the succeeding paragraph shall be followed for working trains between block stations,

Note:- These instructions shall also be followed whenever during total interruptions of communications, an accident to a train or track or other obstructions precludes the use of the lines on a double line section, or whenever total interruption of communications occurs during single line working on a double line section. For special instruction on train working also refer Appendix 'B' of this Manual.

8006. The station Master who has a train to dispatch through the affected block section shall open communications by establishing contact with the Station Master of the block station at the other end of the affected block section by sending an engine or self propelled vehicle or any other vehicle, enumerated below, in the order of preference laid down.

- (1) Light engine.
- (2) Train engine; after it is detached from the train by the Loco Pilot on instructions from the Station Master on duty;
- (3) Motor Trolley/Tower Wagon duly accompanied by a Guard or by a Station Master other than the Station Master on duty;
- (4) Trolley/Cycle Trolley/Moped Trolley duly accompanied by a Guard or by a Station Master other than the Station Master on duty;

- (5) Diesel car/Rail Motor Car/EMU Rake after ensuring that all passengers have detrained.

8007. Before the Light Engine /Train Engine/Motor Trolley/Tower Wagon/Trolley/Cycle Trolley/Moped Trolley/diesel Car/Rail Motor Car/EMU Rake is sent into the affected block section to open communications, the Loco Pilot/Motorman/Guard/Station Master being sent to do so shall be advised by the Station Master on duty of the circumstances in which and the purpose for which he is being sent. The Station Master on duty shall also satisfy himself that the Loco Pilot/Motorman/Guard/Station Master being sent to open communications, thoroughly understand, the rules of working of trains during total failure of communications on the single line. If the Loco Pilot/Motorman/Guard/Station Master who is being sent to open communications, is not conversant with the Rules for working of trains during total failure of communications on single line, the Station Master on duty shall explain these rules to such staff. The Station Master on duty shall also obtain the signature of the Loco Pilot/Motorman/Guard /Station Master on 'Authority for opening communication during the total failure of communication, the circumstance in which and the purposes for which he is being sent and the Rules for Working of Trains during total failure of communications on single line.

8008. (A) Before dispatching the Light engine/Train Engine/Motor Trolley/Tower Wagon/Trolley/Cycle Trolley/Moped Trolley/Diesel Car/Rail Motor Car/EMU Rake, the station master on duty shall hand over 'Authority for opening of communication during total interruption of communication on single line section (T/B 602) to the Loco Pilot/Motorman/Guard/Station Master who is being sent to open communication, which includes: -

- (1) An "Authority to proceed Without Line Clear "
- (2) A Caution Order, specifying the speed up-to which the engine or self-propelled vehicle or other vehicle referred to in para A may run to the affected block section.
- (3) An Authority to pass the last stop signal in the "ON" position in case there is a last stop Signal at the station.
- (4) A line Clear Enquiry message addressed to the Station Master of the block station at the other end of the affected block section asking for Line Clear for the train waiting to be dispatched to his station..
- (5) A conditional Line Clear message to the Station Master of the block station at the other end of the affected block section permitting him: -
 - (i) To return the Light Engine /Train Engine, either light or attached, to a train waiting to be dispatched from his station, or attached with another engine; or
 - (ii) To return Tower Wagon/Diesel Car/Rail Motor Car/EMU Rake running by itself; or
 - (iii) To return Motor Trolley/Cycle Trolley/Moped Trolley either running by itself or loaded in a train waiting to be dispatched from his station.

(B) The Line Clear Enquiry message (T/E 602) asking Line Clear for the trains to be dispatched through the affected block section, and the Conditional Line Clear Message (T/F 602) for the return journey of the engine or self propelled vehicle or other vehicle as the case may be, shall be written out, on respective forms for being sent through the Loco Pilot/Motorman/Guard/Station Master going to open communications.

The particulars of the engine either returning in light or attached to a train or attached to another engine/ Tower Wagon/Diesel Car /Rail Motor Car/EMU Rake, as may be applicable, shall be correctly filled in the respective columns of the prescribed forms.

(C) The Loco Pilot/Motorman/Guard/Station Master going to open communications shall, on receipt of (T/B 602) "Authority for opening communication during total interruption of communication on single line section" and sign on its original and carbon copy in token of his having understood its contents.

(D) In case a light engine or an engine and brake-van is to be dispatched to proceed to the next block station and then continue its journey onward after arrival at the next station and is not meant for opening communication, the Loco Pilot of Engine or the Engine and brake-van, shall be given only form No. T/B 602.

(E) The Last Stop signal shall not be taken "OFF", while permitting an engine or self propelled vehicle or other vehicle to proceed to the next station on "Authority for opening communication during total interruption of communication on single line section".

8009. After an engine or self propelled vehicle or other vehicle is dispatched to the next station to open communication with "Line Clear Enquiry Message" i.e. T/E 602 and "Conditional Line Clear Message" i.e. T/F 602, to the next station for the return journey of the engine or self propelled vehicle or other vehicle, no other train or engine or self propelled vehicle or vehicle shall be allowed to leave the station and proceed in the same direction until the engine or self propelled vehicle or other vehicle sent to open communications returns. This does not, however, prevent an engineering officials going into the section on push trolleys for his work on a section on which push trolleys do not run on Line Clear.

8010. (a) The engine or self propelled vehicle or other vehicle proceeding on "Authority for opening communication during total interruption of communication on single line section", Loco Pilot shall "Switch On" the Flasher Lights wherever provided and shall proceed at a speed not exceeding 15 kilometers per hour by day and when the view is clear and 10 kilometers per hour during night or when the view is obstructed, making free use of engine whistle or horn of the self propelled vehicle, where provided, In thick, foggy or tempestuous weather or in dust storm etc. when visibility is impaired, the engine or self propelled vehicle, or other vehicle proceeding on 'T/B 602' shall proceed at walking pace only making repeated use of the engine whistle or horn of self propelled vehicle, where provided, preceded at an adequate distance by two men on foot, one displaying a red light and the other carrying fog signals ready for immediate use Normally one of these men will be provided by the Station Master from his Group "D" Staff and the other from the crew of the engine or the person whose Motor Trolley/Trolley/Cycle Trolley/Moped Trolley is being used . In case of single manned self-propelled vehicle, both these men shall be provided by the Station Master. The Station Master on Duty shall explain to both of them their duties, in the presence of the Loco Pilot/Motorman/Guard/Station Master in charge

of the self propelled vehicle or other vehicle or other vehicle being sent to the next station and satisfy himself that they understand the same

(b) Both by day and night, a tunnel must not be entered until the Loco Pilot/Motorman/Guard/Station Master has ascertained that it is clear. Should there be any doubt on this point, the engine or other vehicle etc. should be piloted by a railway servant equipped with hand signal and detonators, Before entering the tunnel the head lights, side and tail lights and other lights(where provided) shall also be it.

(c) No obstruction of the line beyond the outermost facing points shall be allowed until the return of the engine/Tower Wagon/Diesel Car/Rail Motor Car/EMU Rake/motor Trolley /Cycle Trolley/moped Trolley.

8011. In the event of an engine/self propelled vehicle/other vehicle, proceeding on 'Authority for opening communication during total interruption of communication on single line section' (T/B 602) meeting in the mid section, an engine/self propelled vehicle/other vehicle sent from the other end, the Loco Pilot/Motorman/Guards/ Station Master, as the case may be, shall, taking into consideration the importance of the train for which they are proceeding to get Line Clear, the distance from the nearest station, gradients to be encountered, the presence of catch sidings etc. decide to which of the two stations, the engines/self propelled vehicle/vehicles should proceed. Before proceeding, the engines or self propelled vehicles shall, if possible, be coupled up. If the engines/ self propelled vehicles cannot be coupled up they should run at a safe speed and adequate distance apart. In the case of Motor Trolley/Push Trolley/Cycle Trolley/moped Trolley, meeting an engine and brake van/Diesel Car/Rail Motor Ca/EMU Rake, the Motor Trolley/Push Trolley/Cycle Trolley/moped Trolley, shall, if possible, be loaded with the Brake Van/Diesel Car/Rail Motor Car/EMU Rake.

8012. On sighting the station to which the engine/self propelled vehicle/other vehicle running by itself or with another similar unit coupled together or separately, to which it is/they are proceeding, the leading engine/ self propelled vehicle/other vehicle shall stop outside (i.e. In rear of) the first Stop signal of the station . The engine or self propelled vehicle or other vehicle following the leading engine/self propelled vehicle/other vehicle, shall stop at a safe distance behind the leading engine/self propelled vehicle/other vehicle. The Station Master shall be advised of the stoppage outside the first Stop signal either by using the engine whistle /horn of the self-propelled vehicle, if provided, or by sending a man if necessary. They shall not enter the station till permitted by the Station Master to do so either by taking 'Off' the relevant signals or otherwise.

8013. When the engine or engines/self propelled vehicle or self propelled vehicles/other vehicle or vehicles have been admitted into the Station, the 'Authority for opening communication during total interruption of communication on single line section' with the Line Clear Enquiry Message and the Conditional Line Clear Message giving the Line clear for the return journey shall be delivered to the Station Master on Duty who shall keep this document in his safe custody and also post the Line Clear Enquiry Message and Conditional Line Clear Message in his Line Clear Books. On the Authority of the Conditional Line Clear Message for the return journey the Station Master on Duty shall make out a Conditional Line Clear Ticket and hand over it to the Loco Pilot/Motorman/Guard/Station Master to return the Block station from where he came with his engine (either light or attached to a train or another engine or a self propelled vehicle if one is waiting to proceed in that direction)/self propelled vehicle/other vehicles.

8014. In case of the engine or self propelled vehicle or other vehicle returning to the station from which he was sent without reaching the next station, the 'Authority for opening communication during total interruption of communication on single line section' shall be taken back by the Station Master on Duty of the Station from which this was issued and cancelled. The original entries shall also be cancelled.

8015. Station Master on duty before dispatching the engine either light or attached to a train/self propelled vehicle/other vehicle, on the return journey shall hand over to the Loco Pilot/Motorman/Guard/Station Master, 'Conditional Line Clear Reply Message' (T/F 602) for the 'Line Clear Enquiry Message' giving Line Clear for the train waiting at the other station, thereby authorizing the Station Master at that station to start the train waiting there on complete arrival of the engine, either light or attached to a train/self propelled vehicle/other vehicles at his end.

8016. On the return journey, engine either light or attached to a Train/Diesel Car/Rail Motor Car/EMU Rake/Train loaded with Motor Trolley /Cycle Trolley/Moped Trolley may run at booked speed observing speed limits in the Working Time Table and other relevant rules. The Motor Trolley /Push Trolley /Cycle Trolley/Moped Trolley returning by itself may run at their normal speed observing the rules governing their running on Line clear.

8017. On reaching the station, the engine either light or attached to a train/self propelled vehicle / other vehicles shall again stop outside (i.e. In rear of) the first stop signal of the station and thereafter by guided by the instructions from the Station Master, who may arrange to receive it by taking 'Off' the relevant signals or otherwise.

8018. On arrival at the station the 'Conditional Line Clear Reply Message' shall be handed over to the Station Master who shall record in the Line Clear Message Book and on its authority issue a Conditional Line Clear Ticket (T/G 602 for UP train & T/H 602 for DN train as the case may be) for the waiting train.

8019. If there be an even flow of trains in both directions, Enquiry and conditional Line Clear Messages for each succeeding trains may be sent through the Guard of the preceding train

8020. The arrival and departure time of all trains, engines, trolley etc. which are passed under the above rules must be carefully recorded in the Line Clear Enquiry and Reply Books, and also in the counterfoil of the "Authority to proceed Without Line Clear" and in the train signal register.

8021. If the Station Master at one end of the interrupted section has more than one train to dispatch in the same direction before another train is normally expected from the opposite direction, he shall, in such cases, send the first available engine of a train to obtain **Line Clear** not only for that train but also for the following trains, which may be waiting or expected at his station. In the **Line Clear Enquiry Message, (T/E 602)**, it shall be stated that these latter trains will be dispatched after the first train at intervals of **30 minutes**. After the Loco Pilot returns with the Line Clear for the required number of trains to the station at which he had left the train, the Station Master shall Dispatch the first train on the authority of the Line Clear for the trains and shall also endorse on the Line Clear Ticket that a particular train (giving its numbers and

description in full) shall follow at a specified interval. The Station Master shall give similar information to the Guard also in writing. The Loco Pilots of the second and subsequent following trains shall be given a Caution Order restricting the speed to **25 kmph** over the straight when the view ahead is clear and to **10 kmph** when approaching or passing any portion of the line where the view ahead is not clear due to curve, obstruction, rain fog, or any other cause.

When dispatching a second and subsequent trains, the particulars of the last proceeding train along with its time of departure will be endorsed on the Line Clear Ticket also the particulars of the train which would follow. The Line Clear for the last train of the series should be endorsed with the particulars of the proceeding train together with its time of departure.

While adopting this procedure, the Guard and the Loco Pilots should be instructed to keep a sharp look out and be prepared to stop short of any obstruction.

8022. When a train is stopped in the block section the Guard shall immediately exhibit a hand danger signal towards the rear and check up that the tail board or the tail light is correctly exhibited. If the stoppage is on account of accident, failure, obstructions or other exceptional cause and the train cannot proceed, the Loco Pilot shall sound the prescribed code of whistle to apprise the Guard of the fact, where upon the Guard shall protect the train by placing one detonator at 250 meters from the train on the way out and 2 detonators, 10 meters apart, at 500 meters from the train, irrespective of the gauge, when a train is detained outside signals and if the detention exceeds or is likely to exceed 10 minutes it shall also be protected accordingly. In the absence of the Guard the duty of protecting the train shall devolve on the Loco Pilot.

8023. When trains follow one another no train shall be backed. In exceptional circumstances when it may be unavoidable to back a train, shall be backed only after providing protection by placing one detonator at 250 meters and 2 detonators, 10 meters apart, at 500 meters from the point up to, which the train is to be backed.

8024. Trains must continue to work on this system until anyone of the means of communications, mentioned in Para 8005 above is restored by the competent authority.

8025. As soon as anyone of the means of communications has been restored, the Station Master at the other end of the Block section on the following format:-

From Station Master_____ To Station Master_____

Time_____Hours_____minutes

Message No._____Train (No. and description)_____ -arrived complete at_____ hours_____minutes. Last train_____ (No. and description) dispatched to your station at _____hours_____minutes. Cancel the Conditional Line Clear Working of trains . Line Clear must be obtained by means of _____ . Acknowledge. Private No. (in words)_____ (in figures)_____.

On receipt of the above message, the Station Master at the other end of the section must acknowledge in the following format

From Station Master_____To Station Master_____
 Message No._____. Your Message No._____. Understand that train(number and description)_____which was the last train to leave my station has arrived complete at your station Train No._____which left your station has arrived complete at my station at_____Hours_____minutes/not arrived. Conditional Line Clear Working of trains is being/will be cancelled immediately after the complete arrival of train number _____Line Clear for the next train will be obtained by means of _____

Private No.(in words)_____(in figures)_____.

8026. Line Clear shall not be obtained or given by means of communication restored, until both the Station Masters are satisfied that all trains and engines etc. despatched from their stations have arrived complete at the other station. Even if the communication is restored immediately after the departure of the light engine/self propelled vehicle/any other vehicle referred to in para 8006 sent under "Authority for opening communication" / "Authority to proceed without Line Clear" during total interruption of communication on single line section, normal working should not be resumed until the light engine/self propelled vehicle/any other vehicle reaches the next station and both the **Station Master are satisfied under exchange of Private Numbers** that no light engine/self propelled vehicle/any other vehicle is on the section Thereafter an intimation about this shall be given to Section Controller also, on Controlled sections, if communication with Section Controller has also got restored and normal working resumed. If, however, communication with Section Controller has not got restored along with restoration of communication between two stations, the section controller shall be advised of the position immediately on the restoration of communication with him.

8027. On the section where total interruption of communication occurs, the Traffic Inspector of the section, must scrutinize the train passing records of the station and submit his report to the Divisional Railway Manager within 7 days of the resumption of communication.

CHAPTER IX

SINGLE LINE WORKING ON DOUBLE LINE DURING TOTAL INTERRUPTION OF COMMUNICATIONS

The following rules must, in addition to the rules prescribed in Chapter VIII "rules and regulations for working of trains during total interruption of communications on single line", be observed by staff :

9001. Whenever an accident to a train or track or other obstruction, precludes the use of one line on a double line section during total interruption of communications, single line working shall be introduced only after a responsible official of the engineering department, not less than an Inspector in rank, has certified that the other line on which single line working is to be introduced is free and safe for passage of trains. Such an engineering official shall give the certificate only to the Station Master of the station at that end of the affected section for which the unobstructed line shall be the right line for despatching trains. On receipt of this certificate, the Station Master will follow the rules prescribed in Chapter VIII for opening of communications.

9002. All the cross-over points in the facing direction over which the train shall proceed, while temporary single line working is in force, shall be clamped and padlocked.

9003. In the case of train proceeding on the right line :

- (a) The last stop signal of the station in rear of the affected section may be passed in the 'on' position on a written authority issued by the Station Master in the prescribed form. In case the last Stop signal is the Starter, in addition to the written authority, hand signals shall also be shown at the foot of this signal.
- (b) The approach Stop signals, if any, of the station in advance of the affected section, may be taken 'off'.

9004. In the case of a train proceeding on the wrong line:

- (a) The train shall be piloted out of the station on a written authority **T/511**, issued by the Station Master after all the facing points have been correctly set and locked and trailing points correctly set over which the train will pass.
- (b) The Loco Pilot should switch "ON" the Flasher light of the Train engine, while running on the wrong line. On proper authority to proceed in case the train engine running on the wrong line

without switching on the flasher light is noticed by the station staff, gangman and gateman, They shall stop the train immediately.

- (c) On reaching the next station, the Loco Pilot shall bring his train to a stop opposite the first stop signal pertaining to the right line or at the last stop signal pertaining to the wrong line (on which his train is running), whichever he comes across first.
- (d) The Station Master of the station in advance shall depute a railway servant in uniform at the foot of the signal (whichever the train would encounter first) who shall stop the train on hand danger signal and thereafter pilot into the station on a written authority issued by the Station Master.

9005. It will be the responsibility of the person incharge of the first engine or self-propelled vehicle or other vehicle, sent under "Authority Temporary Single Line Working on Double Line" to inform all the gatemen and gangmen enroute about the introduction of "Temporary Single Line Working" as also the line on which it is proposed to run the train.

This information shall be conveyed through the Loco Pilot of a subsequent train also, if necessary.

9006. Resumption of normal working:-

- (a) If after the introduction of single line working communications are restored between the two affected stations, the trains will continue to run under special rules until action is taken in accordance with the instructions contained in these rules for the cancellation of the procedure. Thereafter, trains will be run in accordance with the instructions for the movement of traffic during temporary introduction of single line working on double line.
- (b) If, however, before communications are restored, the other line is released for the passage of traffic, trains shall be worked, in accordance with the instructions for running of trains on double line section during total interruption of communications.

CHAPTER X

RULES AND REGULATIONS FOR SINGLE LINE WORKING ON A DOUBLE LINE SECTION WHEN ONE LINE IS OBSTRUCTED

10001. Whenever an accident to a train or track or other obstruction precludes the use of one of the lines on double line section, the traffic may temporarily be worked over single line under one of the following systems :-

(a) By obtaining "Line Clear" on electrical communication instruments.

(b) By the installation of Single Line Block instruments and Shunting Limit Boards demarcating the block section in the wrong direction, if the affected line is likely to remain out of use for a substantial period.

10002. When it is desired to introduce temporary single line working on double line, on electrical communication instruments, the Station Master at one end of the affected section shall, on receipt of reliable information in writing that one line is clear, take steps to introduce temporary single line working on that line in consultation with the section Controller and the Station Master of the station at the other end of the section.

10003. If there is reason to suspect that the line over which temporary single line working is to be introduced, is also fouled or damaged, temporary single line working must not be introduced until a responsible engineering official of the rank not less than that of an Inspector has inspected that section and certified that the line is safe for the passage of trains.

10004. Single line working shall be introduced between the nearest stations provided with **cross-over** between **Up** and **Down** lines on either side of the obstruction. If there is an intermediate Block Hut between the above two stations, the same shall be treated as closed and the commutators of the Block Instruments at such Block Huts shall be kept locked in "**Train on Line**" position through out the period single line working is in force. The commutators shall be locked also in that position, with S.M.'s key, wherever possible. In cases where it is not possible to keep the commutators in "**Train on Line**" position, as in Daido Type instruments, the Block Instruments shall be put out of use and the Caution Indicator hung on the handle of the Block Instruments, The signals at such Block Huts shall be kept in the '**ON**' position throughout and these shall be passed by the Loco Pilots on a written authority in the prescribed form issued by the Station Master of the adjoining Block station in operation.

10005. All trains will be worked in accordance with the rules for the use of electric speaking instruments on single line and "**Line Clear**" shall be obtained on the telephone attached to Block Instrument or station

to station fixed telephone or fixed telephone such as railway autophones or BSNL/ MTNL phones or control telephone or VHF set.

10006. At all stations on the portion of the section on which single line working has been introduced, the commutators of the Block Instruments pertaining to both obstructed and unobstructed lines shall be kept in **"Train on Line"** position throughout the period single line working is in force. The commutators shall be locked also in that position with S.M.'s key, wherever possible. In cases where it is not possible to keep the commutators in **"Train on Line"** position, as in Daido Type Instruments, the Block Instruments shall be put out of the use and Caution Indicator hung on the handle of the Block Instruments. At these stations, if the train is running on the right line, the last stop signal shall be kept in the **'ON'** position. In case the train is running on the wrong line, all fixed signals shall be kept in the on position.

10007. After ascertaining that one of the lines is clear for the passage of traffic, the Station Master proposing single line working shall issue a message containing the following information under exchange of private numbers, to the Station Master at the other end of the affected section :-

- (a) Cause of introduction of single line working.
- (b) The line by which single line working is proposed.
- (c) source of information that the said line is clear
- (d) Place of obstruction.
- (e) Restriction of speed, if any, on the line.
- (f) Names of intermediate stations, if any, which would be out of use.
- (g) Assurance that the trap points, if any, have been spiked or clamped and padlocked.
- (h) Assurance that if the train is running on the right line, the last Stop signal shall be kept in the **'ON'** position. In case the train is running on the wrong line; all fixed signals shall be kept in the **'ON'** position; and
- (i) The number and timings of the last train, which arrived or left the block station issuing the message.

10008. On receipt of acknowledgement from the Station Master, confirmed by a Private Number single line working may be introduced, Line Clear will be obtained the telephone attached to Block Instrument or station to station fixed telephone or fixed telephone such as railway autophones & BSNL/ MTNL phones or control telephone or VHF set and trains run on **paper line clear ticket** in accordance with the instructions contained Chapter-V.

10009. Loco Pilot of each train shall be handed over an Authority for Temporary single line working on double line section (T/D 602) which shall indicate -

- (a) Paper line clear ticket
- (b) Authority to pass signal in 'on' position(write the description and no. of signal in the form)
- (c) Caution order indicating below
 - (i) The line on which the train or light engine is to run;
 - (ii) The kilometrages between which the obstruction exists;
 - (iii) Any restriction of speed which may have been imposed by Way and Works staff; and

An assurance to the effect that any trap points on the line in question have been spiked or clamped shall also be mentioned by the SM on form.

10010. An endorsement will also be made on the above form given to the Loco Pilot of the first train to inform all gatemen and gangmen on the way about the introduction of temporary single line working and specifying the line on which the trains will run.

This information shall be conveyed through the Loco Pilot or a subsequent train also, if necessary.

10011. The speed of the first train passing over the temporary single line, will be restricted to 25 kilometers per hour. Subsequent trains may run at their **booked speed**, subject to observance of other speed restrictions imposed by the Way and Works staff.

10012. When a train is stopped between stations on account of accident, failure, obstruction or other exceptional cause and the Loco Pilot finds that it cannot proceed, it shall be protected as per **G.R. 6.03**.

10013. In the case of a train proceeding on the right line :-

- (a) The last Stop signal of the station in rear of the affected section may be passed in the 'ON' position on a written authority issued by the Station Master in the prescribed form referred to in para **10009 (b)**. In case the last Stop signal is the starter, hand signals shall also be shown at the foot of this signal.
- (b) The approach Stop signals, if any, of the station in advance of the affected section, may be taken "off".

10014. In the case of a train proceeding on the wrong line :-

- (a) The train shall be piloted out of the station on the above written authority (T/D 602) issued by the Station Master after all the facing points have been correctly set and locked and trailing points correctly set, over which the trains will pass.
- (b) The Loco Pilot should switch "ON" the flasher light of the train engine while running on the wrong line on proper authority to proceed. In case the train engine running on the wrong line without switching "ON" the flasher light is noticed by the station staff, gatemen & gangmen, they shall stop the train immediately.
- (c) On approaching the next station, the Loco Pilot shall bring his train to a stop opposite the first Stop signal pertaining to the right line or at the last Stop signal pertaining to the wrong line (on which he is running) whichever he comes across first.
- (d) The Station Master of the station in advance shall depute railway servant in uniform at the foot of the signal (whichever the train would encounter first) who shall stop the train on hand danger signal and thereafter pilot it into the station on a written authority issued by the Station Master.
- (e) If the Loco Pilot finds that no railway servant in uniform has been deputed at the foot of the signal to pilot the train into the station, **G.R. 4.44** shall be observed.

10015. All the cross over points in the facing direction over which the train shall proceed, while temporary single line working is in force shall be clamped and padlocked.

10016. Resumption of normal working.

- (a) On receipt of a written certificate from a responsible Engineering Official that the obstructed track is free and safe for passage of trains, the Station Master will issue a message to the other station or stations, as the case may be, under exchange of private number and decide, in consultation with section Controller, the train after passage of which, the normal working has to be introduced.
- (b) When Double Line working is introduced the Block Instruments and all fixed signals, including those of Intermediate block Huts which were treated as closed, shall be brought into use immediately. An entry shall also be made in the Train Register Books of all stations concerned showing the time double line working was suspended, time single line working was introduced and the time normal working was resumed. The Loco Pilot of the first train entering the section after normal working is resumed shall inform all Gatemen and Gangmen on the way about the resumption of normal working.

10017. All the records in connection with the temporary single line working shall be retained at the station and the Traffic Inspector of the section must scrutinize them and submit his report to the Divisional Railway Manager within 7 days of the resumption of normal working.

10018. Persons to be advised :- The persons to be advised whenever there is obstruction on a section are :-

- (i) The Section Controller
- (ii) The Controlling Station Master
- (iii) The Traffic Inspector
- (iv) The Permanent Way Inspector
- (v) The Divisional Railway Manager
- (vi) All persons using trolleys and lorries on the section
- (vii) Station Master sending this advice shall do so by the quickest means possible and mention what action has been taken by him.

The Divisional Railway Manager shall also be furnished with full particulars immediately through the Controller. If control working is suspended, full particulars shall be informed by any other available means to all persons concerned.

CHAPTER XI

CONTROLLED MANUAL BLOCK

11001. On single line :- A train may be given line clear by a block station to the block station in rear manually by operation of the direction switch, provided that the block section is track circuited throughout its length or axle counters are provided at either end of the block section.

11002. On double line :- A train may be given line clear by a block station to the block station in rear :

Automatically, by means of track circuits or axle counters provided that :-

- (a) The block section is track circuited throughout its length or axle counters are provided at either end of the block section.
- (b) The last stop signal at the block station in rear is so controlled that it cannot display "Off" aspect unless the block section in advance is shown to be clear by track circuits or axle counters, and
- (c) Visual indicators are provided at each block station on the block panel showing the conditions of the block sections both in rear and in advance of the station.

In the case of Intermediate block post, visual indicators are provided only at the block station in rear and are not provided at the intermediate block post.

11003. Track Circuit :- means an electrical circuit provided to detect the presence of a vehicle on a portion of track, the rails of the track forming part of the circuit.

11004. Axle Counter :- means an electrical device which, when provided at two given points on the track, proves by counting axles in and counting axles out, whether the section of the track between the said two points is clear or occupied.

The axle counter is used in lieu of a track circuit in order to ensure the clearance of any particular length of track.

11005. Line clear working in case of single line:-

- (A) By means of Direction Switch.

(B) By means of Push Buttons.

(A) **By means of Direction Switch:** - A direction switch is provided on the panel having two positions "N" and "R". Above the direction switch there are two directional indicators 'TGT' and 'TCF' in the shape of arrows (→) which shall indicate the condition of the block section as given below :-

- (a) **Train coming From:** - For granting line clear the Station Master on duty shall first ensure from the panel that block section is clear. He shall then grant line clear to the Station Master on duty at the station in rear confirming it by a private number on block telephone and turn his direction switch to "R" position. A white light will appear in the 'TCF' indicator, and similar indication will appear at the sending station in 'TGT' indicator. Then the sending Station Master may take "OFF" his last stop signal.
 - (b) **Train Going To:** - After ensuring from the panel that block section is clear, the Station Master on duty shall obtain line clear on block telephone from the other end supported by a private number. He should also see that "N" his direction switch is in "N" position. After the receiving end has turned his direction switch "N" to "R" position, the "TGT" indicator will get illuminated by a white light indicating thereby that line clear has been granted by receiving end. Station Master may then take "OFF" his last stop signal.
 - (c) **Train entering Block Section:** - When the train passes the last stop signal and enters the block section, the last stop signal shall go back to "ON" position and the white light of both the directional indicators "TGT" and "TCF" of sending and receiving ends respectively shall turn to **red** indicating thereby that the block section is occupied.
- At the receiving end, a buzzer will sound as soon as the train enters the block section. The Station Master on duty at the receiving end shall press "Acknowledgment button" which shall stop the buzzer.
- (d) **Train out of Block Section:** - When the train has arrived complete at the receiving end, and cleared the block section, white light shall again appear in the "TCF" indicator, indicating thereby that complete train has arrived and the block section is clear. **Red** light shall continue to appear in the 'TGT' indicator at the sending station.

The Station master on duty at the receiving end after ensuring the complete arrival of the train by visual observation of the indication regarding the clearance of the concerned section, will inform the Station Master on duty at the sending end that the train has arrived complete and then the line shall be closed. Then the Station Master on duty at the receiving end will turn the direction switch "R" to "N" position which shall illuminate his "TGT" indicator with red light and **white** light of "TCF" indicator shall disappear.

When the line is closed, the "TGT" indicator on either end shall be illuminated with **red** light.

(B) By means of Push Buttons: - Following Push Buttons and indications are provided on the block-working panel. (i) 'TGT' button (ii) 'TCF' button (iii) Group button (GN/GEN), (iv) Cancellation button (v) App. Ack. Button (vi) 'TGT' direction indicator (vii) 'TCF' direction indicator (viii) Block Track indicator (ix) Slot indicator ('YKE').

- (a) **Train Coming From :-** For granting line clear the Station Master on duty at the receiving end shall first ensure from the block track indicator "BTKE" on the block working panel that block section is clear. He shall then grant line clear to the Station Master on duty at the station in rear confirming it by a private number on block telephone and press his "TCF" button along with group button. A white light will appear in the TCF direction indicator. A white light will appear in the slot indicator (YKE) provided on the block working panel at the block station in rear.

- (b) **Train Going To :-** After ensuring from the block working panel that the block section is clear, the Station Master on duty at sending end shall obtain line clear on block telephone from the other end supported by a private number.

After receiving the white indication in the slot indicator "YKE" the Station Master on duty at the sending end will press his "TGT" button along with the group button, which will illuminate the "TGT" direction indicator by a white light indicating thereby that the line clear has been granted by receiving end. Station Master at the sending end may then take 'off' his last stop signal.

- (c) **Train Entering Block Section :-** When the train passes the last stop signal and enters the block section, the last stop signal shall go back to "ON" position and the white light of both the direction indicators "TGT" and "TCF" of sending and receiving end respectively and also the block track indicators "BTKE" at both sending and receiving ends shall turn to red indicating thereby that the block section is occupied. White light of the slot indicator at the sending end will extinguish.

At the receiving end, a buzzer will sound as soon as the train enters the block section. The Station Master on duty at receiving end shall press his approach acknowledgment button which shall stop the buzzer.

- (d) **Train out of block section :** When the train has arrived complete at the receiving end and cleared the block section, the "TCF" and "TGT" direction indicators at the receiving end, sending end respectively shall extinguish automatically only after replacement of all signals to danger, behind the train. The block track indicators "BTKE" at both the ends shall turn to white from red, thereby indicating that the block section is closed.

11006. Cancellation of line clear:-

- (A) On section where line clear working is by means of direction switch.

(a) By the sending station :

- (i) The Station Master on duty at the sending station shall restore departure signals to "ON" if taken "OFF". Point shall not be altered until the Loco Pilot has been warned that his train is being detained. Thereafter he shall inform the Station Master on duty at the receiving end to cancel the line clear under exchange of private numbers.
- (ii) The Station Master on duty at the receiving end shall then turn his direction switch to 'N' position and press the 'ZN' button provided below the line clear cancellation counter and keep the button pressed till the next higher number is - registered in the counter.

The 'ZN' button may then be released. Red light shall appear in the 'TGT' indicator at both the stations.

- (b) **By the Receiving Station :** In case the line clear has to be canceled by the station which had given the line clear. He shall at once take action as per (a) (ii) above. This shall put back the last stop signal of the sending station to "ON", if the train has not passed the same, if the buzzer has not sounded and white indication of his "TCF" indicator has not changed to Red. He shall exchange private numbers to confirm his action.

It shall not be possible to cancel the line clear if the train has already entered the block section.

(B) On sections where line clear working is by means of Push Buttons.**(a) By sending station :**

- (i) The Station Master on duty at the sending station shall restore departure signals to "ON" if taken "OFF". Points shall not be altered until the Loco Pilot has been warned that his train is being detained. Thereafter he shall inform the Station Master on duty at the receiving end to cancel the line clear under exchange of private numbers.
- (ii) The Station Master on duty at the receiving end shall then press his 'Line Clear' cancellation button ("CN") along with the "Group button" provided below the line clear cancellation counter and keep the buttons pressed till the next higher number is registered in the counter. The cancellation button and the group button may then be released. The "TGT" and "TCF" indicators at the sending and receiving ends respectively shall extinguish after 120 seconds after the initiation of the cancellation operation thereby indicating that the line clear has been cancelled.

- (b) **By the receiving station :** In case the line clear has to be cancelled by the station which had granted the line clear, the Station Master on duty at the receiving station shall at once

take action as per (a) (ii) above. This shall put back the last stop signal of the sending station to "ON" if the train has not passed the same, if the buzzer has not sounded/white indication in his "TCF" direction indicator has not changed to red. He shall exchange private number to confirm his action.

It shall not be possible to cancel the line clear if the train has entered the block section, which will be displayed on direction indicator and "BTKE".

- (c) **'Train Parting'** : In case of 'Train Parting' in the mid Block section and consequently till the entire parted train arrives at the receiving station, the concerned Block Track Indicator (BTKE) and the concerned directional Arrow (→) Light Indicators ("TGT" or "TCF") as the case may be will keep on displaying red at both the receiving and sending stations. SM/ASM on duty will set and follow the rules as laid down in the relevant rules/paras of Accident Manual pertaining to "Parting of trains". For the resetting of the Axle counter, the same procedure as laid down in the Station Working rules is to be followed.
- (d) **Shunting in Block Section** : The SM/ASM on duty will permit shunting in the Block Section as per rules laid down in the G&S Rules applicable to single line working. In case if the entire load returns in full to the originating station, the Axle Counter will not fail. The Block Track Indicator/(BTKE) that was displaying red with the entrance of the shunting load into the Block Section will now turn white thereby indicating that the Block Section is clear. In case any of the wagon/wagons of the shunting load is left in the Block Section, the Axle Counter will fail and the block section will continue showing 'Red'.

11007. Line Clear Working in case of Double Line : -

- (a) **At Receiving Station** : On receipt of line clear enquiry for an approaching train, the Station Master on duty shall satisfy himself that the concerned block section is clear. He shall then grant line clear ensuring all conditions under G&SR confirming it by a private number.

As soon as the train enters the block section, **white** light of the block section track indicator shall change into **red** and buzzer shall sound to draw the attention of the Station Master on duty. Buzzer shall go on sounding until it is acknowledged by pressing the 'Acknowledgement Button' provided on the panel.

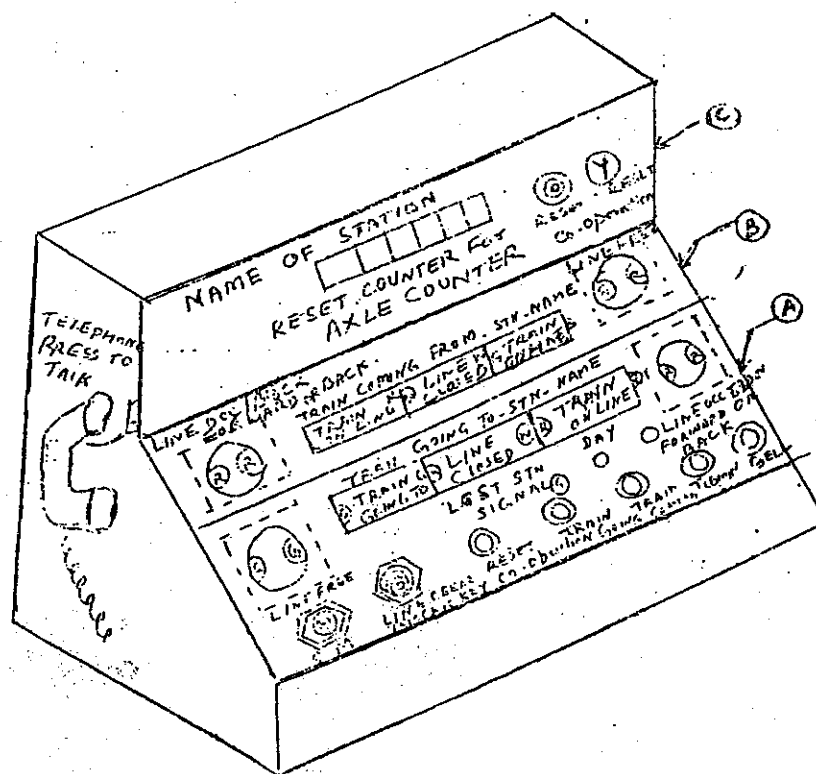
- (b) **At Sending Station** : When it is intended to despatch a train after ensuring that the block section track indicator is showing clear, the Station Master on duty shall obtain line clear from the Station Master on duty at the block station in advance on block telephone. The Station Master on duty at block station in advance shall also ensure that block section track indicator is showing clear before he gives private number in support of line given.

BLOCK WORKING THROUGH AXLE-COUNTER ON DOUBLE LINE

11008. Block Panel

The running of every train shall in its direction from one block station to another, on double line, be regulated by means of a block panel with associated Axle counter and other equipment.

Block Panel Diagram



BLOCK PANEL

1. Description of Block Panel:-

The Block Panel consists of push Buttons, Keys, indicators, counters, block bell, block telephone and buzzer etc. mounted on a frame. The Block Panel can be divided into three portions viz. 'A', 'B' & 'C' for the purpose of its explanation,

Portion 'A'

It has three rows:-

Upper row:- It houses various indications pertaining to 'Train going to ' Direction.

Middle row:- It houses "last stop signal", "Train Going to" Acknowledgement and "Train coming From" Acknowledgement indications.

Lower row:- It houses various push buttons. SM's Key and Line Clear Blocking Key.

Portion 'B'

It houses various indications pertaining to "Train coming from" directions.

Portion 'C'

It houses Reset Counter, Reset Key and reset co-operation indication.

The description of the various parts/portions is as given below:

2. Push Buttons

- (i) **Train Going to 'Push button-"TGT"** Push Button is located in the portion 'A' of Block Panel and is to be pressed for acknowledgement of line occupied/axle counter failed or line free/axle counter restored in the train Going to direction.
- (ii) **Train Going to acknowledgement** of line occupied /axle counter failed or line free/ axle counter restored in the Train going to direction.
- (iii) **Train Coming from Acknowledgement 'TCF ACK'** push button is located in the portion 'A' of block panel and is to be pressed for acknowledgement of line occupied/axle counter failed or line free/axle counter restored in the "Train coming from" direction.
- (iv) **'Bell' push button-** It is located in the portion 'A' of Block panel and when it is pressed a beat is heard in the single stroke Bell at the other end of the block section.

The Bell push button shall be used to:-

- (a) transmit the prescribed code of bell signals,
- (b) get line clear when framed along with "TGT" push button,
- (c) cancel the line clear by the train receiving stations which is already obtained by the train despatching station, when operated in conjunction with, 'LCB' key out;
- (v) **Re-set push button-'RSB'** push button, intended to reset the axle counter by receiving end SM.

3. Keys

- (i) **SM's key-** SM's control Key for block panel is a two position key. It is located in the portion 'A' of block panel. This key is provided to enable the Station Master to have control on the block panel.

SM's key should normally remain in the personal custody of SM. it should be inserted and turned whenever any operation on the Block panel is to be done. When this key is 'out' only the undermentioned operations are possible: -

- (a) Exchange of Bell Code Signals.
- (b) Acknowledgement of buzzers of Train entering/Clearing/ axle counter failure/ restored by pressing of "TGT ACK"/"TCF ACK" push buttons.
- (ii) **LCB key** :- Line clear blocking/cancelling key is a two position key normally kept inserted and turned. It is located in the portion 'A' of block panel. It is to be taken 'Out' by receiving end station Master in the following cases only.
 - (a) In case or emergency for withdrawing the facility of obtaining line clear available with sending end SM.
 - (b) If the sending end SM has already taken Line clear to send a train this can be cancelled by taking "OUT" this key and simultaneously pressing the Bell push button with SM's key 'IN'.

Note:- This facility is to be used only in an emergency and adequate safeguards are to be provided in the station working Rules for recording this action, so that this facility is not misused.

- (c) When a train passes without a L.V.Board/Tail Lamp.
- (iii) **Re-set (RSK) Key**- This Reset key is located in the portion 'C' of the Block panel. It is a non-locking key and when at receiving station this key is Inserted, turned and pushed in it RESETS the axle Counter provided for proving the clearance of the Block section.

THIS, THEREFORE, HAS TO BE USED WITH GREAT (CAUTION) AFTER MAKING SURE THAT THE BLOCK SECTION IS CLEAR.

4. INDICATORS:- Separate indicators are available for "TCF" and "TGT" directions.

- (i) **'Train Coming from' direction** (In the portion 'B' of block panel).
 - (a) **LINE CLOSED:-** indication appears as 'White Light' on the panel, when there is no train in the block section and when the section has not been blocked.

- (b) **TRAIN COMING FROM:-** Indication appears as a 'Green Light' on the panel at the receiving station, when "TGT" and "BELL" push buttons are pressed simultaneously at sending station end the conditions of granting line clear at receiving station has been complied with. This disappears as soon as the Train enters the Block section at the sending end.
 - (c) **TRAIN ON LINE:-** Indication appears as "RED LIGHT" on the panel when the block section is occupied by a train or any other rail vehicle after line clear has been obtained on the block panel.
 - (d) **LINE FREE:-** 'A Green light' to indicate that the block section is clear from trains or any other rail vehicles.
 - (e) **LINE OCCUPIED/BLOCK FORWARD/BLOCK BACK:-** A 'Red light' indication to indicate that the block section is occupied by a train or any other rail vehicles. This also appears during Block Forward/Block Back operations:-
- (ii) **'TRAIN GOING TO' direction:-** (In the Upper row of portion 'A' of the Block Panel)
- (a) **LINE CLOSED:-** Indication appears as a 'White light' on the panel when there is no train in the block section and when the section has not been blocked.
 - (b) **TRAIN GOING TO:-** Indication appears as a 'Green Light' on the panel at the sending station, when "TGT" and "Bell" push buttons are pressed simultaneously at sending station and conditions for granting the line clear for the train at receiving station have been complied with and the receiving station panel has gone to Train coming from position. This disappears as soon as the train enters the Block section.
 - (c) **TRAIN ON LINE:-** indication appears as "Red light" on the panel when the block section is occupied by a train or any other rail vehicle after Line clear has been obtained on the Block panel.
 - (d) **LINE FREE:-** A 'Green' light to indicate that block section is clear from train or any other rail vehicle.
 - (e) **LINE OCCUPIED/BLOCK FORWARD/BLOCK BACK:-** A 'Red light' indication to indicate that the Block section is occupied by a train or any other rail vehicle. This also appears during Block forward/Block back operations.
- (iii) **LAST STOP SIGNAL (LSS) INDICATION' -** (In the middle row of portion 'A' of the Block panel). A 'Green' light indication to indicate that the "Last stop signal" has been lowered for the train to enter the block section.
- (iv) **ACKNOWLEDGEMENT INDICATIONS -** (In the middle row of portion 'A' of the Block Panel)
- (a) **'Train Going to' Acknowledgement indication-** This pertains to the 'Train going To direction. When a train enters the Block Section at the sending end or returns back complete to the sending station or arrives complete at the reset after a failure a buzzer

sounds at the train sending station. Similarly the buzzer sound when a train enters or clears the Block Section from the station in advance in a block back operation. Alongwith the sounding of the buzzer a white indication appears above the 'TGT ACK' button to indicate the SM that this button has to be pressed to silence the buzzer.

- (b) **'Train coming from' Acknowledgement indication**-This pertains to the 'Train Coming From' direction. When a train enters the Block Section from the Station in rear, or returns back complete, or arrives complete at receiving stations, or when the axle counter fails or is reset after a failure, a buzzer sounds at the receiving station. Similarly the buzzer sounds when a train enters the Block Section in rear or arrives back complete at the station in a Block Back Operation. Along with the buzzer a white indication appears above the "TGT ACK" button to indicate the SM that this button has to be pressed to silence the buzzer.

5. **'RESET CO-OPERATION' INDICATION- (In the portion 'C' of the Block Panel).**

A 'Yellow' lamp indication or Reset Co-operation to indicate that co-operation has been extended by the sending station for resetting the axle counter.

- (i) **COUNTER:** - (In the portion 'C' of the Block Panel) Axle reset Counter for registering the number of attempts made to reset the Axle Counter. This is available only at the train receiving station.
- (ii) **BUZZER:** - As detailed in para 11008 (4) (iv) (a) & (b) above, when a train occupies/clear a block section or axle counter fails/Restores to normal, a buzzer sounds. The SM can silence this buzzer by pressing "TGT ACK" or "TCF ACK" push buttons. Based on the events proceedings the sounding of the buzzer along with the buzzer white indication also appears, above the "TGT ACK" or "TCF ACK" push buttons which guides the SM as to which button is to be pressed.
- (iii) **BLOCK BELL:** - This is a single stroke bell and is operated by pressing the "BELL" push button provided on the panel at either end of the block section and gives signal at the other station.
- (iv) **BLOCK TELEPHONE:** - This provides for speech communication between the station Masters at the two ends of the block section.
- (v) **LOCKS:-** Two locks have been provided in the rear of the Block Panel as under:-
 - (a) Signal Maintainer's lock
 - (b) SM's lock.

Unless both these locks are unlocked, the block panel from the rear cannot be opened for maintenance purpose. The key for the SM's lock should be in the personal custody of the SM on duty in charge of the Block Operations.

11009. OPERATING PROCEDURES

Method of obtaining line clear:- Following of the sequence of operations for obtaining line clear to send a train from station in rear to station in advance.

Taking two stations 'X' and 'Y' & a train travelling from 'X' to 'Y' the block section being clear and the 'LINE CLOSED' white indication being displayed in "TRAIN GOING TO" part of the portion 'A' of the block panel at 'X' station & "TRAIN COMING FROM " part of the portion 'B' of the block panel at 'Y' station.

'X' Station (Sending)	'Y' Station (Receiving)
1. Inserts SM's key and turns it, presses bell push button to send "call Attention/attend telephone" signal to station 'Y'	2. Bell signal is acknowledged by pressing bell push button. Attends telephone.
3. Receives acknowledgement signal. Attends telephone and calls out his station name.	4. Calls out his station name.
5. Asks line clear giving number, description and direction of the train.	6. Grants line clear by repeating the number description and direction of the train, provided it can be accepted this should be confirmed by giving a private number after assuring that the 'LCB' key is in the block panel and in the 'turned position.
7. Obtains 'line clear' by pressing 'TGT' push button along with the 'BELL' push button and keeps them pressed.	8. Block panel displays 'train coming from' green indication. 'Line clear white indication disappears.
9. Block panel displays. "Train Going to" green indication "Line Closed" white indication disappears. Releases buttons.	
10. Takes "OFF" the departure signals to send the train. 'LSS' green light indication appears in portion 'A' of the block panel.	
11. As soon as the train occupies track just ahead of the last stop signal automatically goes back to its "ON" position and 'Train on line' Red indication appears automatically and a buzzer also sounds. The green LSS indication gets	12. "Train on line red indication appears automatically on the panel and buzzer sounds continuously. 'Line Occupied red indication appears and 'Line Free' and "TCF" green indication disappear. SM presses "TCF ACK" to stop the buzzer.

'X' Station (Sending)**'Y' Station (Receiving)**

extinguished. Line occupied **red** indication appears and 'Line Free' and 'TGT' green indication disappears. "SM" presses "TGT ACK" to stop the buzzer.

13. Takes "OFF" reception signals. As soon as the train passes the home signal, the signal goes back to "ON" automatically. A buzzer sound continuously after the train has completely passed the block overlap ahead of the home signal.
14. Block panel displays "Line Closed" white indication and "TRAIN ON LINE" red indication disappears.
15. SM presses "TCF ACK" to stop the buzzer.
16. Block panel displays "LINE CLOSED" white indication and "TRAIN ON LINE" red indication disappears and a buzzer sound which is stopped by pressing 'TGT ACK' push button by SM.
17. The home signal lever and its SM control slide, where provided are put back to normal position.
18. Gives 'Train out of section' signal.
19. Acknowledges 'Train out of section' signal.

Note :- Even though the block section gets closed automatically as soon as the section is clear of train yet SM has to observe the provisions of GR 4.17 and SRs there of.

11010. Refusal to the "IS LINE CLEAR" Signal:-

- (1) If, by reason of the line being blocked on the presence of a train in the section, on train parting or by shunting or for any other reason, the block station in advance is unable to accept "IS LINE CLEAR" signal, such station must refuse it on electrical communication and also take 'Out' LCB key from the portion 'A' of the Block Panel.

- (2) If the block station in advance does not give consent to accept the train, the train must be stopped at the station and should not be allowed to leave, until a fresh consent has been given and accepted by the block station in advance.

11011. The 'Train Entering Section':- On departure of a train from a block station and occupying the track circuit just in advance of LSS, a buzzer sounds at both, train sending as well as train receiving stations. This should be acknowledged by pressing the respective acknowledgement buttons i.e. "TGT ACK" button by train sending SM and "TCF ACK" push button by train receiving SM.

11012. The 'Train out of Block Section':- When the section is cleared after the complete arrival of the train which is detected by Axle Counter Device, a buzzer Sounds at both train receiving and train sending stations. This should be acknowledged by pressing the respective acknowledgement buttons i.e. "TCF ACK" button by train receiving SM and "TGT ACK" button by train sending SM.

11013. The 'Obstruction Danger' signal:-

1. This signal is a 'Danger' signal and shall be given in any case of danger when it is necessary to stop a train or to attract the immediate attention of the SM of the next station or the station in rear.
2. It must always be promptly acknowledged and immediate steps taken to stop any train entering the block section.
3. If a 'Line Clear' has been obtained the station receiving the 'Obstruction Danger' signal must cancel the "Line Clear" so obtained.
4. The 'Obstruction Danger' signal should be recorded a danger signal and it should be used only in case of danger or sudden emergency. When it is necessary to stop a train for which line clear has already been given, the station transmitting this signal i.e. train receiving station shall take 'out' "LCB" key and press 'BELL' push button simultaneously. This should be done with SM's key in "IN" position. The receiving station SM must record the reason for this in "Train Signal Register" in RED ink and exchange private number with station in rear.

11014. Procedure for Resetting of the Axle Counter when failed:- After a train has been received at the receiving end station or when no train has entered into the block section or after any block forward or block back operation is completed of the line occupied 'Red' indication still persists, then

both receiving station SM and sending station SM shall adopt the following procedure for resetting the Axle Counter—

- (i) Verify, that the block section is clear from vehicles, by any one of the following means:-
 - a) Observing the procedure laid down in GR 4.17 (Regarding Observance of L.V. Board Tail Lamp by SM) and the relevant SRs thereof.
 - b) By checking from the train signal register, the details of the last train passed through that block section and finding from the SM of the station in advance that the last train that has passed/has arrived complete. The SM should exchange private number with the SM from whom the complete arrival of the last train has been confirmed.
- (ii) After the above verification follow the procedure given below for resetting the Axle Counter:-

RECEIVING END STATION 'Y'	SENDING END STATION 'X'
1. Inserts SMs key and Turns it gives call attention/attend telephone signal.	2. Acknowledges call attention/ attend telephone signal.
3. Attends Telephone.	4. Attends Telephone
5. Informs the station Master in rear that the Axle Counter has failed after the arrival of the train.	6. Acknowledges.
7. Informs the SM that he has verified the complete arrival of the last Train that passed from station 'x' to station 'y' and intimates his intention to normalise the Axle Counter and Communicates a private number.	8. Acknowledges and gives a private number.
9. Requests for co-operation to reset the Axle counter.	10. Acknowledges and presses the reset co-operation button and keeps it pressed.

RECEIVING STATION 'Y'	SENDING STATION 'X'
11. A yellow reset Co-operation indication appears on the panel. He inserts, turns and presses the reset key. The Reset counter increases by one number. Releases the pressure on Reset Key. "Line Free" Green indication and line closed white indication appears and line occupied train on Line/Red indication disappear. Train advises the sending end SM to Release the Reset Co-operation button. 13. Extracts the Reset key and keeps it in safe custody.	12. Release the reset Co-operation button. Line occupied/Train on Line RED indication disappear and "Line free" Green indication and line closed white indication appears.

- (iii) This increment of Reset counter should be recorded in the train signal register along with exchange of private number for every resetting of Axle Counter done manually. At the receiving station, entry should be made in the Counter Register maintained at the station for each resetting of the Axle Counter.

11015. To Cancel Line Clear:-

- (A) Where a line clear has been obtained and it is later on found that the train to which it referred has to be detained owing to any reason, the following procedure must be adopted:-
- (i) If Last Stop Signal [LSS] is not taken off, SM should not clear the LSS.
 - (ii) If LSS is already taken 'off', it must be put back to "ON" and SM should inform the Loco Pilot of the train for which the LSS was taken 'off', regarding Cancellation of Line Clear obtained for the said train as per SR 3.36/3 (c).

For cancelling the 'Line Clear' the following procedure must be adopted.

'X' STATION (SENDING)	'Y' STATION (RECEIVING)
1. Block Panel indicates "Train Going To" green indication.	2. Block Panel indicates "Train Coming From" green indication.
3. Gives 'Call Attention/Attend Telephone 'Signal.	4. Acknowledges Call Attention/Attend Telephone Signal.
5. Attends Telephone	6. Attends Telephone

'X' STATION (SENDING)	'Y' STATION (RECEIVING)
7. Informs that the train for which 'Line Clear' has been obtained is being detained and the 'Line Clear' is to be cancelled. In support of this he gives a private number.	8. Acknowledges and gives consent by giving a private number. Also takes out the LCB key and simultaneously presses "BELL" push button with SM's Key "IN".
9. 'Train Going To' green indication disappears and 'Line Closed' white indication appears on the Block panel.	10. 'Train Coming From' green indication disappears and 'Line Closed' white indication appears on the Block panel.
	11. LCB key is inserted and turned.

- Note:-** (i) Cancellation operation has to be done by the station which has granted line clear.
(ii) Next train can now be sent following the normal procedure as per para 11009.

(B) Where Line Clear has been obtained and the train has also been despatched into to the block Section and the train has to be returned to the station from which it was despatched or returns due to unforeseen circumstances the following procedure must be adopted.

'X' STATION (SENDING)	'Y' STATION (RECEIVING)
1. Block panel indicates 'Train on line' red indication.	2. Block panel indicates "Train on Line" red indication.
3. Gives call Attention /attend Telephone Signal.	4. Acknowledges 'call attention/ attend Telephones signal.
5. Attends Telephone.	6. Attends Telephone.
7. Informs that the train which left the station has returned back to this station complete supported by his private number.	8. Acknowledges by giving private number.
9. A Buzzer sound on complete arrival of the train which is acknowledged by pressing 'TGT' ACK' button. 'Line Closed' white indication appears and 'Train on line' red indication disappears.	10. A buzzer sounds on complete arrival on the train which is acknowledged by pressing 'TCF ACK' button. 'Train on line' red indication still persists as in 2 above.
11. 'Line Free' green indication appears on the Block panel.	12. 'Line Free' green indication appears on the Block panel.

- (C) When the SM of the station in advance wishes to cancel the 'Line Clear' he must (except in case of emergency when the 'obstruction Danger' signal is to be used) inform the SM of the station in rear on the telephone and when the SM of the station in rear agrees the cancellation must be done as described in para 11015.

Note:- Whenever any of the above operation is to be done by the switchman, he shall not do so without the permission of his station master supported by a private number.

11016. Loco Pilot's Authority to proceed:- On the Double line sections, the Loco Pilot shall not take his train from a block station to the next block station unless the Last stop signal pertaining to him has been taken "OFF" as laid down in G.R. 14.08. When the LSS cannot be taken "OFF" the following shall constitute Loco Pilots authority to proceed.

- (i) **When the 'Block Panel' is in working condition & LSS has failed:-** If the Block Panel is in normal working condition but there is only failure of last stop signal Line Clear working shall continue to be done in the Block Panel itself and a written authority on the Form T/369-3b with an endorsement there on by the station Master that the Line Clear has been obtained on Block Panel alongwith the Private Number received from the Block station in advance, shall constitute the Loco Pilots Authority to proceed (SR 3.70/1(c)).
- (ii) **In case of failure of Block Panel:-** If there is a failure of Block Panel and Line clear cannot be obtained on it, Line clear should be obtained through the Electrical Communication equipment as laid down in Block working manual. The form T/369-3b authorizing the Loco Pilot to pass the Last Stop Signal at "ON" position shall constitute the Loco Pilots Authority to proceed.

11017. BLOCK FORWARD:-

- (a) The station Master who intends to 'Block forward the line shall advise the station Master of the station in advance on block telephone supported by a private number and ask permission to Block forward who will acknowledge the message and grant permission supported by a private number.

The SM of the station advance will 'take out' LCB key and keeps it in safe custody. Loco Pilot shall be given shunting order [Form T/806] for entering the block section for shunting which shall be taken back from the Loco Pilot on completion of shunting. On completion of shunting the station Master shall inform the station Master of the station in advance, of the completion of shunting supported by a private number which shall be acknowledged by the SM of the station in advance by a private number.

On completion of the shunting the station Master of the station in advance should restore the LCB key back in the Block Panel.

(b) All the entries in the TSR will be made in 'Red' ink. Reasons for Block forward must also be recorded against the entry in the Remarks Column.

(c) The following operations will be done on the Block Panel for 'Block forward'.

SHUNTING BEING PERFORMED AT THE STATION "X"

<u>'X' STATION</u>	<u>'Y' STATION</u>
1. Block Panel indicates 'Line closed ' white indication and 'Line Free' green indication.	2. Block Panel indications 'Line closed' white indication and 'Line Free' Green indicates.
3. Gives call attention /attend Telephone signal.	4. Acknowledges the 'Call attention/attend Telephone signal.
5. Attends Telephone	6. Attends Telephone
7. Informs intention to perform shunting in Block section & gives a private number.	8. Acknowledges and removes the "LCB" key and keeps it in his personal custody and gives private number.
9. Prepare T/806 and sends it to the Driver. When the Movement takes place into the Block section the buzzer sounds which is acknowledged by pressing "TGT ACK" push button the 'Line occupied' red indication appears. 'Line closed & Line free indications disappear.	10. The buzzer sounds which is acknowledged/ by pressing "TCF ACK" push button. The Line Occupied red indication appears. Line closed & 'Line free' indications disappear.
11. When the shunting is completed and the train has cleared the block section the buzzer sounds which is acknowledged by pressing the "TGT ACK" push button.	12. The buzzer sounds which is acknowledged by pressing the "TCF ACK" push button.
13. 'Line occupied red indication disappears and 'Line free green & Line Closed white.	14. Line occupied red indication disappears and 'Line free green'.
15. Gives call attention signal and attends telephone.	16. Acknowledges call Attention signal and attends telephone.
17. Informs that shunting is completed supported by a Private number.	18. Acknowledges supported by a Private number and restores the LCB key.

11018. BLOCK BACK:—

- (a) The station Master who intends to Block Back the line shall ask the station Master of the station in rear supported by a private number on the telephone for permission to block back who will acknowledge the message and give consent supported by a private number. The LCB key shall be taken out by the SM Who intends to perform shunting and issue Form T / 806 authorizing him to perform shunting in the block section.
- (b) On completion of shunting the "LCB" key shall be restored in the block panel and shunting order issued to the Loco Pilot for shunting in the block section will be taken back from him. Now the SM shall inform the station Master of the station in rear of the completion of shunting supported by a private number which shall be acknowledged by the station Master of the station in rear by a private number.
- (c) All the entries in the "TSR" will be made in 'red' ink. Reasons for block back must be recorded against the entry in Remarks column.
- (d) The following operations are to be done on the block panel for 'Block Back'.

**Shunting being performed at station 'X' towards 'Y' on
the wrong line i.e. Block Section in rear**

'X' STATION	'Y' STATION
1. Block Panel indicates 'Line Closed' white and 'Line free' green indications.	2. Block Panel indicates 'Line Closed' white and 'Line Free 'Green indications.
3. Gives Call Attention / Attend Telephone signal	4. Acknowledges 'Call Attention/ attend Telephone signal.
5. Attends telephone.	6. Attends telephone.
7. Inform intention to perform shunting in block section and gives a private number.	8. Acknowledges & gives consent by giving a private number.
9. Takes out the "LCB" key and keeps it in his personal custody issue T/806 to the Loco Pilot for performing shunting into the block section.	
10. When the movement takes places in the block section the buzzer sounds which is acknowledged by pressing "TCF ACK" push button 'Line occupied' red indication appears Line closed & Line free indication disappear.	11. The buzzer sounds which is acknowledged by pressing "TGT ACK" push button 'Line occupied red indication appears 'Line closed and line free indication disappear.

'X' STATION	'Y' STATION
12. When the shunting train has cleared the block section the buzzer sounds which is acknowledged by pressing "TCF ACK" push button.	13. The buzzer sound which is acknowledged by pressing "TGT ACK" push button. Line occupied red indication disappears and Line free green and Line closed white indications appear.
14. Restores the "LCB" key and gives call attention/ attend telephone signals.	15. Acknowledges and attends telephone.
16. Informs that shunting is completed and block section is clear supported by a private number.	17. Acknowledges supported by a private number.

11019. BLOCK FAILURES:-

The block failures can be categorised into the following:-

- (a) Failure of Block Panel
- (b) Failure of Last stop signal.
- (a) **Failure of the Block Panel:-** The Block Panel must be considered to be defective for UP and/ or Down trains, as the case may be in the following cases.
 - (i) When no indication of any sort at all, appears on the block Panel.
 - (ii) When none of the indications Viz. 'Train Coming From'/Train Going To' appears on the Block Panel except 'Line Free' or 'Line Occupied'.
 - (iii) When no train has entered into the Block section but the Block Panel shows 'Line occupied red indication and this indication persists even after Resetting has been tried as per para 11014.
 - (iv) When "Train Going To" or "Train Coming From " indications do not appear by appropriate action though condition for asking "Line Clear" and granting line clear are fulfilled.
 - (v) When "Train On Line" indication does not appear on the entry of train into Block section at either of the stations.
 - (vi) When a train has arrived at the receiving station but the block panel still shows "Train on Line" red indication or shows "Line occupied" red indication and the indications persist even after resetting has been tried as per para 11014.

- (vii) Total failure of communication during which trains shall be worked as per extant rules in force on the railways.
- (viii) Any damage is seen or reported to block equipment i.e. Block Panel Axle counter devices. Axle counter equipment and Block Multiplexer equipment etc.
- (ix) When last stop signal cannot be kept at "ON" Position during its suspension/disconnection.
- (x) When last stop signal of the station does not go back to 'ON' position on the entry of a train into the block section.
- (xi) When the bell code signals are received indistinctly.

Note:- (i) In all the above cases the block panel must be treated as defective block working suspended and train must be dealt with by taking line clear on the Electric/Communication Equipment provided and by following provision of GR 14.13 and the procedure laid down in the Block working manual.

(ii) In respect of the failure indicated in the item No.(a)(vii) of the para above, train must be dealt with under the extant rules as outlined in GR 14.13 and the procedure laid down in the Block working manual.

(iii) In respect of the failure indicated in the item Nos.(a)(v), (ix) and (x) of the para (a) above, all efforts must be made to keep the Last Stop Signal in the 'ON' position. If it is not possible, then a competent railway servant should be deputed with red hand signal to take his position at the foot of the Last Stop Signal to warn drivers of the approaching trains. In addition, all trains in the relevant directions should be despatched by issue of relevant authority T/369-3b to pass the Last Stop Signal.

(iv) The block panel should not be restored for normal working until it is tested by a competent signalling staff and certified fit by him for normal working.

(b) Failure of the last stop signal:- The last stop must be considered to have failed for Up or Dn. direction as the case may be, in the following cases :-

- (i) The last stop signal can not be taken 'OFF' even though line clear has been obtained.
- (ii) The last stop signal can be lowered without getting line clear.
- (iii) The last stop signal does not restore to "ON" position after the train enters the block section.

In all the cases indicated in para's (a) and (b) above failure should be informed to S&T staff immediately.

Note :- In respect of the cases indicated in para's (b) (ii) & (iii) above, the precautions indicated in Note No. (iii) & (iv) under the para 11019 (I) (a) dealing with failures of the block panels should strictly be adhered to.

11020 SUSPENSION OF BLOCK WORKING

Block working must be suspended and trains dealt with in accordance with the extant instructions in the following cases:-

- (a) **Suspension of Block Panel:-** The Block Panel shall be considered inoperative and should be suspended for Up or Down line or for both the lines as the case may be in the following cases:-
- (i) When material Lorries, Motor Trolleys, Tie Tamping machines and Rail Motors/Tower Wagon (4-Wheeler) has to run in the section. These shall be worked on T/369-(3b).
 - (ii) Abnormal movement i.e. single Line Working on Double Line or mid-section accidents etc.
 - (iii) When any part of the Block Equipment is to be opened for repair which shall be done only under duly accepted disconnection memo (T/351). Block Panel working shall only be resumed by Railway Servant authorised as per extant rules in force on the Railway.
- (b) **Suspension of Last Stop Signal:-** The last stop signal shall be considered in-operative and deemed to have been suspended the following cases:-
- (i) When the Last Stop Signal has been under taken for repairs by S&T staff.
 - (ii) During the 'Block Forward' and 'Block Back'.
 - (iii) During single line working on double line section due to sum emergency like, mid- section accident or other wise.
 - (iv) When the material Lorries/Trolleys, Tie Tamping Machines or Tower wagon has to run in the section.

Note:- In respect of the cases listed in para (a) & (b) above, as soon as the cause of suspension of Block Working are removed normal working can be restored by SM.

11021. Working of Trains when there is failure of Block Panels.

When ever the block fail, line clear should be obtained on the electric communication equipment and by following the provisions of GR 14.13 and Block Working Manual. If Block Working can be carried on, on the Block Panel but the LSS can not be taken off, then line clear should be obtain on the block panel, T/369-3b should be issued for the LSS endorsing the line clear Private Number. Obtained from the station in advance. It will constitute Loco Pilots Authority for entering the Block Section.

11022. Failure of Directional Indicator or Track Circuit/Axle Counter:

- (a) In the event of there being no light in directional indicator, at any one end, the Station Master on duty there shall enquire from the other end whether the directional indicator at the other end is giving correct indication. If so, he shall confirm this by exchange of private number and continue normal working.
- (b) In the event of both the directional indicators having no light, the block panel shall be treated as defective and the Station Master on duty at the despatching station shall issue on double line an T/369-3b for the last stop signal with an endorsement of line clear private number received and on single line a Paper line clear Ticket with an endorsement of line clear private number received, is to be issued.
- (c) In the event of failure of block section track circuit/axle counter (which shall be indicated by continuous red light in directional indicator in case of single line) or in case any false indication is noticed on the panel, paper line clear working shall be introduced on single line and T/369-3b with endorsement thereon of the line clear private number received shall be issued on double line Section.
- (d) In the event of failure of block section track circuit/axle counter, line shall not be closed after passage of a train till the Station Master on duty has ensured complete arrival of the train by personal observation of tail lamp or its authorised substitute. He shall confirm it with a private number. Refer GR 4.17 and SRs thereto.

11023. Specific Conditions Applicable to Axle Counter Generally:- This device is used:-

- (A) For clearance of block section.
- (B) For clearance of any portion/portions of track within the station limits.

11024. When used for clearance of block section :-

Whenever the axle counter used for clearance of block section fails and the axle counter shows 'occupied' although the block section physically clear, a reset button is provided at the block station in advance in order to set the axle counter back to normal. Every such operation is electrically counted on a veedor counter. This re-setting device shall be operated by the authorised staff in accordance with the instructions contained in the Station Working Rules of the Block Station concerned.

11025. When used for clearance of portion/portions of track within station limit:-

Whenever the axle counter used for clearance of portion/portions of track within station limits, detected by the axle counter fails and shows 'occupied' although the related portion/portions of track are physically clear, a re-set button for each set of axle counters is provided at that block station in order to set the axle

counter back to normal. Every such operation is electrically counted on a veedor counter. This re-setting device shall be operated by the authorised staff in accordance with the instructions contained in the Station Working Rules.

11026. Whenever lorries, material trollies, motor trollies are to run in block section which is provided with axle counters they shall not be worked on signals. When the block section is clear, paper line clear in case of single line and verbal line clear in case of double line shall be obtained for such movements and movements authorised thereafter. The section shall be closed after ensuring by exchange of private numbers or by such other methods as may be stipulated in the Station Working Rules of the station concerned that the block section has, in fact, been cleared by the trolley/lorry which had entered the block section. Thereafter, the axle counters shall be re-set to normal by the Station Master on duty in the manner stipulated in para 11024.

11027. Lorries, Material Trollies, motor trollies and material lorries are not likely to actuate the axle counters correctly. When these are to run over a portion of track monitored by axle counters the concerned portion of track shall be considered as clear on completion of the movement only by visual verification or other means of ensuring the clearance of the monitored portion of track (and not by the indication of the axle counters) as stipulated in the relevant Station Working Rules.

11028. On Automatic Block Signalling Section where axle counters are provided : -

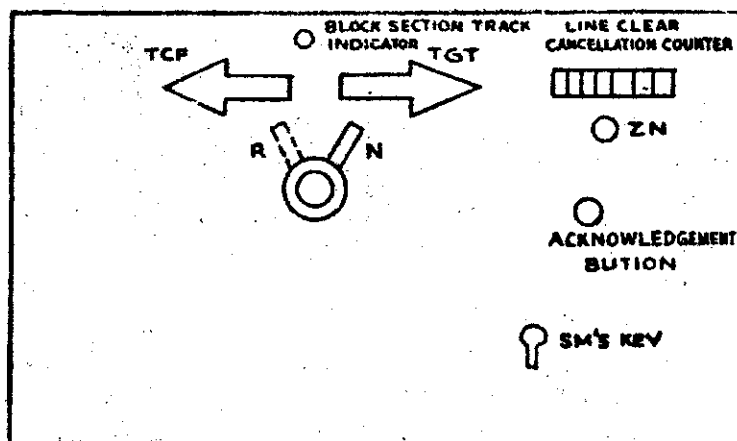
(a) The Automatic Signalling shall be suspended and the entire Block Section from one block station to the other shall be treated as one block section and paper line clear working/verbal line clear introduced for working motor trollies, material trollies and lorries as stipulated in para 11026 above. At the end of such movement, it shall be ensured that the block section has been cleared in accordance with the methods stipulated in the relevant Station Working Rules. The Station Masters at both the ends shall confirm by exchange of private numbers that the block section has been cleared.

(b) Whenever any automatic signal is reported defective by the Driver to the Station Master, the following procedure shall be adopted:-

On receipt of information from the Driver that an automatic signal is defective, the ESM/Incharge of the section shall be given a written memo by the Station Master on duty to attend the fault and rectify the same. The ESM on being served with the memo from the Station Master on duty shall visit the defective signal and rectify the fault. The ESM after ensuring that all S & T gears relating to the defective signal are in working order except that the axle counter needs re-setting, shall establish communication on telephone with the concerned Station Master on duty and ask him to re-set the axle counter by pressing the particular emergency re-set push button. The emergency re-setting push buttons are provided at the block station in advance and are kept sealed by the ESM.

(c) Whenever emergency re-setting button has to be used the Station master on duty after ensuring that all trains which had left the block station in rear have arrived complete at his station, he shall break the seal and press the relevant emergency re-set button to normalise the axle counters equipment. After this operation normal working shall be resumed. He shall arrange to secure the re-set button and arrange to get it re-sealed by the ESM as early as possible.

- (d) Whenever axle counters are provided at stations, the ESM Incharge of the section should have knowledge of Station Working Rules of the stations. The Station Master shall obtain his assurance at his to this effect.



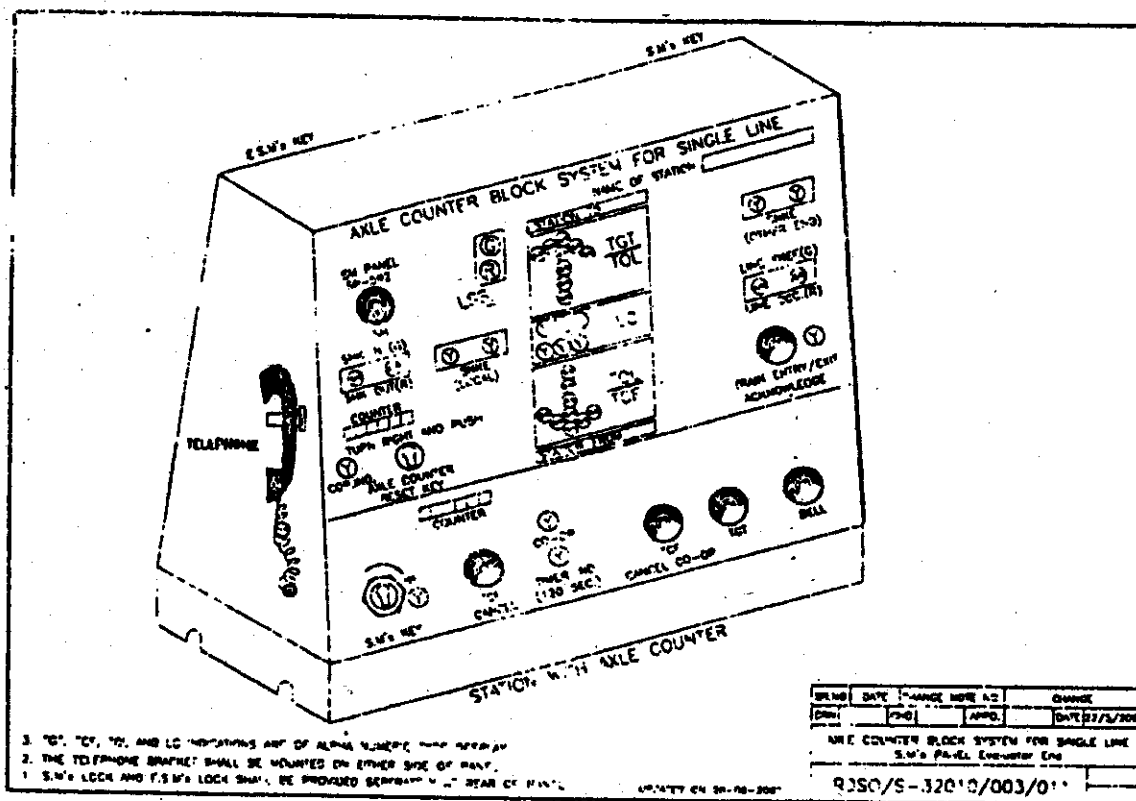
PANEL FOR CONTROLLED MANUAL BLOCK
(SINGLE LINE)

BLOCK WORKING WITH AXLE COUNTER ON SINGLE LINE

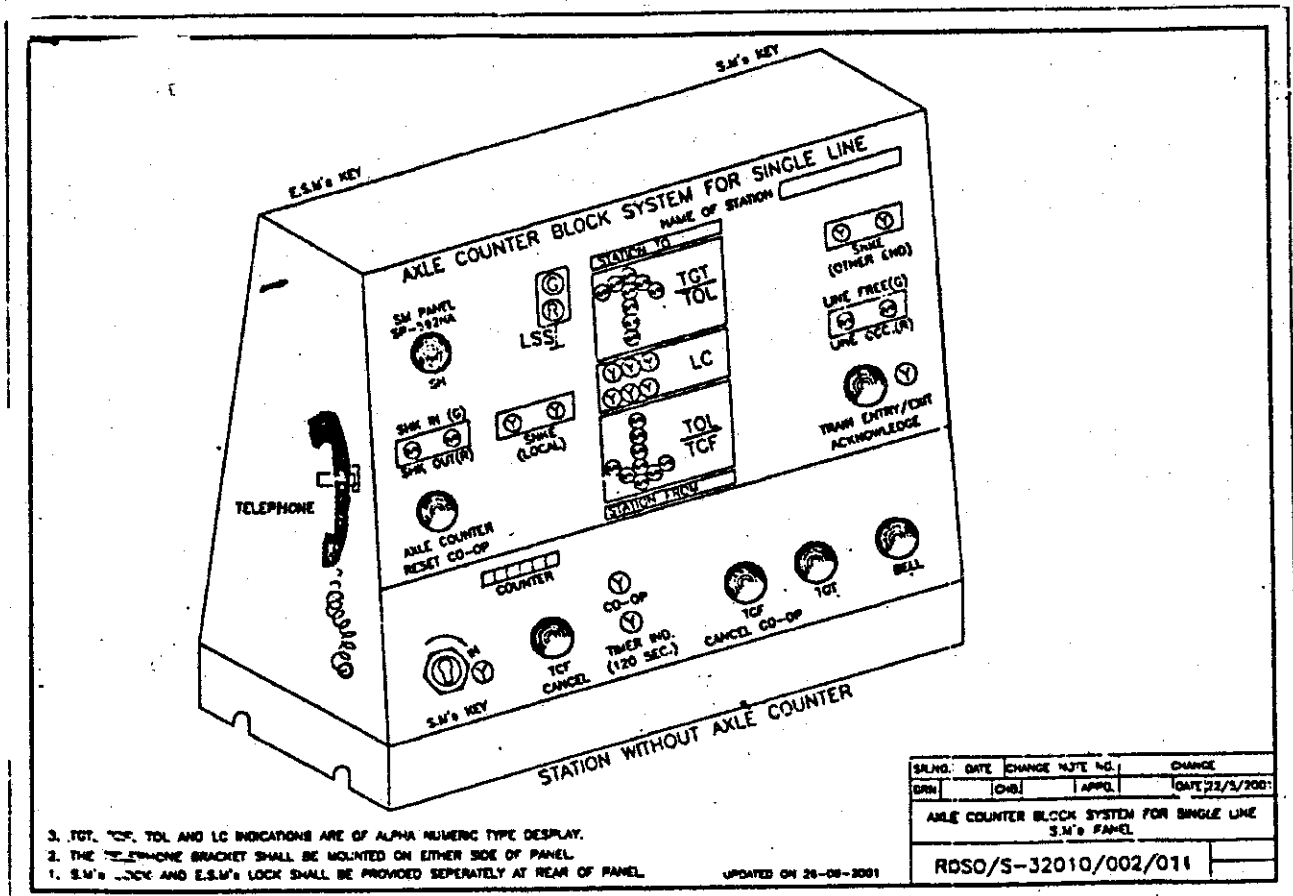
11029. Block Panel : The block Panel means a panel associated with Axle Counter and other equipments which control, command, indicate and provide the information for the operation of a train in block section.

PANEL FOR CONTROLLED MANUAL BLOCK (SINGLE LINE)

BLOCK PANEL DIAGRAM (WITH EVALUATOR)



BLOCK PANEL DIAGRAM (WITHOUT EVALUATOR)



11030. BRIEF DESCRIPTION OF BLOCK PANEL & ITS FEATURES

The block panel operated axle counter block system for Single Line Section checks the movement of train "IN" and "OUT" of the block section by means of axle counter and checks the complete arrival of train at the receiving station automatically. System uses the concept of "Train Going To" (TGT) from sending station for taking line clear. The "Train Coming From" (TCF) indication comes automatically if all the conditions required to grant line clear are available at the receiving station. The "Train On Line" (TOL) and "Line Closed" (LC) indications are displayed on the block panels automatically.

11031. Block Panels work in pairs between two adjoining stations and are of two different types at these two stations.

- (1) at a station with evaluator

- (2) at the adjoining station without evaluator.

These two panels differ regarding provision of re-set key, Counter & re-set Co-operation button on panel. The availability of these various buttons on the two different panels is as given here under:-

Key/Button/Counter	Available	
	(1) Panel where Evaluator is provided	(2) Panel without Evaluator
Reset key	YES	NO
Reset Counter	YES	NO
Reset Cooperation Button	NO	YES

11032. PRINCIPLES OF WORKING

- (i) The trains are worked on absolute block system.
- (ii) Axle counters are provided at the either ends of the block section to verify the occupation and clearance of the block section.
- (iii) It is not possible to take Line clear unless the conditions for taking line clear are fulfilled, that is , unless line is clear of trains running in the same direction not only upto the first Stop Signal at the block station from which line clear is being taken but also for an adequate distance beyond it , and is also clear of trains running in the direction towards the block station by which such Line Clear is being taken.
- (iv) It is not be possible to take Last Stop Signal to 'OFF' unless the line clear has been obtained.
- (v) The last stop signal gets automatically replaced to "ON" aspect on the entry of the train into the **Block Section**.
- (vi) Replacement of last stop signal to 'ON' position would cause "**TOL**" indications to appear on the block panels of both the stations at the either ends of the Block Section , simultaneously and automatically , indicating the entry of train into the block section.
- (vii) Block section is automatically closed on the complete arrival of train at the receiving station from which the line clear had been obtained.
- (viii) A Co-operative control is provided on the block panel to cancel the Line Clear already taken.

- (ix) A Co-operative control for resetting of axle counter is provided.

11033. DESCRIPTION OF BLOCK PANEL

Block panels (1) and (2) work in pairs as a set between adjoining stations as shown in the diagram. Following are the various parts of the Block Panels and their functions:-

(i) Description of Push Buttons:-

Push buttons	Functions
BELL	(I) To transmit "BELL" codes. (II) To take Line Clear, when pressed alongwith "TGT" button. (III) To cancel Line Clear when pressed alongwith "CANCEL" button. (IV) To extend Co-operation for cancellation to other station when pressed with "RESET" button.
TRAIN GOING TO (TGT)	Station Master of dispatching station operates it alongwith bell button. When "TGT" button is pressed alongwith bell button, by the station which is dispatching a train, the block panel of that station gets a Green "TGT" indication. Simultaneously, the block panel of the receiving stations gets "TCF" (Train coming from) indication.
CANCEL	It is also operated alongwith "Bell" button to enable cancellation of Line Clear if the train has not entered the block section or after the train has been pushed back to station in rear. This operation for cancellation of line clear is done by the train receiving station.
CANCEL CO-OPERATION	It is operated by train dispatching station for extending cancel Co-operation to train receiving station.
AXLE COUNTER RESET CO-OPERATION	It is operated from a station where evaluator of axle counter has not been provided, to extend co-operation for resetting of Axle counter.
ACKN.	It is operated to acknowledge the section occupied or section free condition. It silences the "SECTION OCCUPIED"/"FREE" buzzer.
SHUNT BUTTON	It is operated to extract shunt key.

(ii) Description of keys:-

Key	Functions
(A) SM KEY	This key when taken out prevents the following operations:- (a) Transmissions of "BELL" code (b) Transmission of line Clear inquiry code. (c) Resetting of Axle Counter (d) Release of shunt key
(B) AXLE COUNTER RESET KEY	Axle Counter reset key. provided at station (i) with evaluator , when operated , resets the axle counter when "AXLE COUNTER RESETCO-OPERATION" button is simultaneously pressed by the adjoining station.
(C) MAINTAINER BACK COVER LOCK KEY	A lock is provided at the back of block panel for maintenance purpose.
(D) SM'S BACK COVER LOCK KEY	For double lock, arrangement of a lock on the back of block panel is provided which can be operated by key kept in the custody of Station Master.
(E) SHUNT KEY	This key is provided to perform shunting operations.
(F) CATCH/SLIP SIDING	This key on demand is provided to perform CATCH/SLIP SIDING operations.

(iii) Description of Indicators:-

Indicators	Functions
LINE CLOSED	In lit condition , it indicates that section is free from vehicles & line Clear has not been granted or received.
TRAIN COMING FROM	Its shape is arrowhead pointing in direction of traffic towards station and is provided with Green/Red LED's and show three conditions. (i) Green light in "steady" condition indicates Train Coming From condition. (ii) Green light in flashing condition indicates. (a) Line Clear has been withdrawn before the entry of train in Block Section, or (b) Block Section has cleared after the arrival of train , but associated Signals & their controls have not been put to normal at either of the stations. (iii) Red light indicates entry of train in block section ("TOL" conditions)

Indicators	Functions
TRAIN GOING TO	Its shape is arrowhead pointing in direction of traffic. It is provided with Green/Red LED , and shows three conditions- (i) Green light in "Steady" condition indicates Train Coming From condition. (ii) Green light in flashing condition indicates- (a) Line Clear has been withdrawn before the entry of train in Block Section, or (b) Block Section has cleared after the arrival of train , but associated Signals & their controls have not been put to normal at either of the stations. (iii) Red light indicates entry of train in block section ("TOL" condition)
LAST STOP SIGNAL	Its shape is a circular monogram of signal , and indicates the aspect of the last stop signal of that station. 'Red' indication means Last stop signal is at "ON" and Green indication means Last Stop Signal is at "OFF".
RESET CO-OPERATION	Its shape is circular and is placed near reset key . When lit it indicates that co-operation has been received from the adjoining station (Where reset co-operation button has been provided on the block panel) for resetting the axle counter.
LINE FREE	Its shape is circular/rectangular and is placed above "ACKN" button . It has Green/Red indication . Green indicates line is clear of vehicles and Red indicates line is occupied.
SNKE (LOCAL)	Its shape is circular. In lit (yellow) condition it indicates that the Last Stop Signal , the First stop signal & their controls on signal are in normal at that station.
SNKE (OTHER END)	Its shape is circular, In lit (yellow) condition it indicates that the LSS, the FSS controls are normal at the adjoining station and "TCF" indication is also not available at station on other end of block section.
SM KEY (IN)	In lit (yellow) condition it indicates that SM key is "IN" and turned.
SHK-IN/OUT	It has 2 colours i.e. "GREEN" indicates Shunting key has not been taken out and "RED" indicates Shunting key has been extracted.
TRAINACKNOWLEDGEMENT IN/OUT	This is lit up (yellow) at the time of train entry into and exit from the block section. It remains lit until acknowledged.
CO-OPERATION TIMER	It starts flashing when cancellation process starts and flashes for 120 seconds.

(iv) Description of Counters:-

Counters	Functions
CANCEL	It keeps a record of cancellations of 'Line Clear ' when train has not entered block section or when a train has been pushed back.
RESET	Reset Counter is provided on back panel at the station where Axle Counter Reset key is provided. It keeps record of number of successful resets of Axle Counter.

(v) Description of Buzzers:-

Buzzers	Functions
BLOCK	It gives signal as per bell code sent by SM of the station at the other end of Block Section.
SECTION	It is an audible signal which informs the SM that Train has either occupied or cleared the Block Section.

11034. OPERATING PROCEDURES:-**(i) Sequence of operations for sending and receiving a train**

SMs at the sending and receiving stations will go through the following sequence of procedure for sending & receiving a train.

Sending Station 'X'	(A) Receiving Station 'Y'
1 Ensures (a) Line Closed indicator is lit. (b) Indicators "SNKE" (LOCAL) and "SNKE" (OTHER END)are lit. (c) SM "KEY" (IN) is lit.	
2 Sends "Attend Telephone" Signal by pressing "BELL" button.	3. Acknowledges by pressing "BELL" button and attends telephone.
4 Asks line clear giving number description of train with his private No.	5. (i) Exchanges information regarding train and ensures:

Sending Station 'X'	(A) Receiving Station 'Y'
	(ii) Line Closed indicator and "SNKE" (LOCAL) indicator is lit. Then conveys verbal line clear supported by a private number.
6 Presses "BELL" button and the "TRAIN GOING TO" button and keeps both buttons pressed till "LINE CLOSED" indicator disappears and "TRAIN GOING TO" indicator becomes Green.	7 "LINE CLOSED" indication disappears and "TRAIN COMING FROM" indication becomes Green.
8. "BELL" and "TGT" Button are released Takes off Last Stop Signal.	
9 Train enters the Block Section "LINE FREE" indicator turns to "RED SECTION" buzzer starts ringing & "TRAIN GOING TO" indication turns "Red" on the panel. Last Stop signal replaces to "ON" Position.	10 SECTION buzzer starts ringing and "TRAIN COMING FROM" indication turns 'Red'. "LINE FREE" indicator turns to "RED".
11 Acknowledges the buzzer by pressing "ACKN" button. Puts back the Last Stop Signal.	12 Acknowledges the buzzer by pressing "ACKN" button.
	13 Takes 'Off' Reception Signals for the train . As soon as the train passes the Home signal , the signal is replaced to "ON" position. As soon as The train clears Block Section. SECTION buzzer starts ringing. "TRAIN COMING FROM" indication turns to flashing "GREEN". Acknowledges the buzzer by pressing "ACKN" button.
14 "LINE FREE" indicator turns to "GREEN" and SECTION buzzer starts ringing. "TRAIN GOING TO" indication turns to flashing "GREEN". Acknowledges the buzzer by pressing "ACKN" button. "TRAIN GOING TO" indication disappears and "LINE CLOSED" indication appears.	15 Replaces all controls pertaining to reception of train to Normal. "SNKE" (Local) indication appears. "TRAIN COMING FROM" indication disappears. "LINE CLOSED" indication appears.

(ii) To Cancel "Line Clear" before a train enters the Block Section.

Only the train receiving station can cancel line clear, with cooperation from train sending station. The procedure for cancellation would be as follows:

Sending Station 'X'	Receiving Station 'Y'
Block panel displays "TRAIN GOING TO" indication.	Block panel displays "TRAIN COMING FROM" indication.
SM ensures that cancellation of the Line clear conditions are available. Exchanges private number for cancellation.	SM ensures that conditions for cancellation of line clear are available. Exchanges private number.
1. Ensures that signals for the movement for which line clear had been obtained are put back to normal. SM presses the "CANCEL CO-OPERATION" button.	2. Ensures that signals for the movement for which line clear had been obtained are put back to normal. After appearance of "CANCEL COOPERATION" indication on the block panel, presses "BELL" and "CANCEL" buttons simultaneously. "TRAIN COMING FROM" indication turns to flashing "GREEN". After signals at both stations are at "NORMAL" i.e. "SNKE" (local) and "SNKE" (other end) is lit. "TIMER" indicator appears flashing.
3. "TRAIN GOING TO" indication turns "FLASHING GREEN". Puts signal controls to Normal and observes "SNKE" (local) is lit.	4. "CANCEL" indicator continues Flashing for 120 seconds. On expiry of 120 seconds. "TRAIN COMING FROM" indication and "TIMER" indication disappears. "LINE CLOSED" indication appears.
5. "TRAIN GOING TO" indication disappears. "LINE CLOSED" indication appears.	

(iii) Closing of Block when a train returns to sending station.

Sometimes it may be operationally necessary to push back a train to the station rear (dispatching station) after it has entered the block section. For such operation, SR 4.12/3 is to be followed.

After the train has been pushed back to the sending station, the sending station advises the receiving station regarding this under exchange of private numbers, and line clear is cancelled as per the procedure given in para (ii) above. The sequence of activities would be as follows.

Sending Station 'X'	Receiving Station 'Y'
1 As soon as Train clear the block section, "SECTION BUZZER" starts ringing. "TRAIN GOING TO" indication turns "FLASHING GREEN". Acknowledges the buzzer by pressing "ACKN" button. Ensures "SNKE" (local) indicator is lit.	2 As soon as Train clears the block section, "SECTION BUZZER" starts ringing. "TRAIN COMING FROM" indication turns to flashing "GREEN". Acknowledges the buzzer by pressing "ACKN" button. SM. after prescribed "BELL" code for closing of block ensures that "SNKE" indication is lit.
3 SM advises the-receiving station to cancel the line clear on block telephone , and after prescribed BELL code presses "CANCEL COOPERATION" button.	4 Presses "BELL" & "CANCEL" buttons simultaneously and releases. "TIMER" indicator appears flashing & continues flashing for 120 seconds. On expiry of 120 seconds "TRAIN COMING FROM" indication and "TIMER" indication disappears. "LINE CLOSED" indication appears.
5. "TRAIN GOING TO" indication disappears and "LINE CLOSED" indication appears.	

11035. SHUNTING

When shunting is required to be done in block section, the block back can be done by extracting the "SHUNT KEY" which authorises the driver to do shunting by entering in the block section. The method of blocking back as given in para 6003 of the Block Working Manual is to be followed.

Precautions regarding correct setting & locking of the route and showing of "proceed" signal as per General Rules 3.70 shall be observed.

The "SHUNT KEY" can be extracted only when Block Panel is displaying "LINE CLOSED" or "TRAIN GOING" TO condition. However, shunting "TRAIN GOING TO" condition is not permitted.

(i) Extraction of Shunt key in LINE CLOSED condition.

Station that intends to do shunting	Other Station
1 Ensures that "LINE CLOSED" indicator is lit and "SNKE" indicators 'Local' and 'OTHER END' are lit.	
2 Gives "Call attention" Signal	3 Acknowledges the "Call attention " Signal.

Station that intends to do shunting	Other Station
4 Informs intention to perform shunting in block section and gives a private number	5 Grants the permission supported by private number.
6 Presses shunt key button on block panel and extracts "SHUNTKEY".	
7 Prepares Shunting Order (T/806) and sends it to driver with shunting key. When movement takes place into the block section "SECTION buzzer" starts ringing and "LINE CLOSED" indication disappears. "LINE FREE" indication turns red. Acknowledges the buzzer by pressing "ACKN" button.	8 On entry of train in block section, the SECTION buzzer starts ringing and "LINE CLOSED" indication disappears, "LINE FREE" indication turns red. Acknowledges the buzzer by pressing "ACKN" button.
9 Receives back the "SHUNT KEY" after completion of shunting and inserts it in the block panel. Exchanges private number regarding completion of the shunting with the adjoining station. System of normalisation of the panel thereafter, that is, resetting of the axle counter etc. has been given in para 11014 herein.	10 Acknowledges with private number.

(ii) In case of train parting where one portion of the train clears the block section at the station in advance and the other portion clears at the station in rear.

In case a train had started on proper signals, and parted in midsection, block will normalize automatically as soon as block section is clear of all vehicles provided the front portion of the train has been received on proper signals at the receiving station, and the rear portion has come back to the dispatching station.

In case the train is worked on PLC, the cancellation action will be required.

11036. RESETTING OF AXLE COUNTER

(i) Ensuring clearance of block section.

After a train has been completed received at the receiving station, or after a Block Back operation has been completed, or when no train has entered into Block Section, and "LINE FREE" indicator still displays "RED", then there may be a need for resetting of the axle counter. Resetting operation of axle counter is a co-operative operation between the Station Master having "AXLE COUNTER RESET" key and the station having "RESET CO-OPERATION" button.

Before starting the resetting operation, the Station Master of the train receiving station shall ensure and verify that the block section is clear of vehicles by observing the procedure laid down in GR 4.17 & relevant SR's. He shall check the train signal register, the details of last train passed through that Block Section and ensure from the station in rear that the last train that had passed, has arrived complete. The SM of the station in rear from whom the complete arrival has been confirmed.

The SM of the train sending station shall ensure that he has received the private number from the train receiving station confirming that the last train has been received complete and that the block section is free of vehicles. He shall also ensure that block back operation, if done, has also been completed.

(ii) Resetting procedure

After the verification of clearance of Block section, following procedure shall be adopted for resetting of Axle Counter.

Station where Block Panel is provided with Evaluator and AXLE COUNTER RESET key	Other Station (provided with RESET CO-OPERATION button)
1. Inserts and turns SM's key. Gives call attention/attend telephone to the other station.	2. Acknowledges call attention/attend telephone.
3. Attends telephone.	4. Attends telephone.
5. Informs the other station that the Axle Counter has failed after arrival of train.	6. Acknowledges
7. Informs the SM that complete arrival of last train that passed from sending station to receiving station has been verified and intimates his intention to normalise the Axle Counter & communicates his private number.	8. Acknowledges & give private numbers.
9. Requests for co-operation to normalise the Axle Counter.	10. Acknowledges & presses RESET CO-OPERATION button.
11. On RESET CO-OPERATION indicator lit. SM inserts RESET key. Turns & Presses for short duration and releases. Advises sending station SM to release RESET button.	12. Releases the reset button.

Station where Block Panel is provided with Evaluator and AXLE COUNTER RESET key	Other Station (provided with RESET CO-OP button)
13. "LINE FREE" indicator turns from "RED" to "GREEN". SECTION buzzer starts ringing. "TRAIN GOING TO"/"TRAIN COMING FROM" indication disappears. "LINE CLOSED" indication appears. Acknowledges the buzzer by pressing "ACKN" button. The reading of the RESET counter increases. The number is entered in train signal register as well as in counter register kept at the station with details of private numbers.	14. LINE FREE indicator turns from "RED" to "GREEN". SECTION buzzer starts ringing. "TRAIN GOING TO"/"TRAIN COMING FROM" indication disappears. "LINE CLOSED" indication appears. Acknowledges the buzzer by pressing "ACKN" button.

11037. BLOCK FAILURE -The block failures can be categorised into the following:-

- (a) Failure of Block Panel.
- (b) Failure of Last Stop Signal.

(a) Failure of Block Panel:-

The block panels must be considered to be defective in the following case.

- (i) When no indication is available on the Block Panel.
- (ii) When none of the indications viz. "TRAIN COMING FROM" "TRAIN GOING TO" appears on the Block panel except 'LINE FREE'.
- (iii) When no train has entered into the Block Section but the Block panel shows 'Line Occupied' red indication and this indication persists even after Resetting has been tried.
- (iv) When "TRAIN GOING TO" or "TRAIN COMING FROM" indications do not appear by appropriate action though conditions for asking LINE CLEAR and granting LINE clear are available.
- (v) When "TRAIN GOING TO" or "TRAIN COMING FROM" indicator does not turn to "RED" to give "TRAIN ON LINE" indication on the entry of train into Block Section at either of the stations.
- (vi) When a train has arrived at the receiving station but the Block Panel still shows "TRAIN ON LINE" red indication and persists even after Resetting has been tried.
- (vii) When a train has arrived at the receiving station but the Block Panel shows "FLASHING GREEN"/"GREEN" indication even after ensuring "SNKE LOCAL" indicator & "SNKE OTHER END" indicators are lit at either of the stations.

- (viii) Total failure of communication during which train shall be worked as per extent rules described in Block Working Manual.
- (ix) Any damage is seen or reported to block equipments i.e. Block Panel, Axle Counter, Track Devices, Axle counter equipment and block multiplexer equipment etc.
- (x) When Last Stop Signal cannot be kept at 'ON' during its suspension/disconnection.
- (xi) When Last Stop Signal of the station does not go back to 'ON' position on the entry of a train into the Block Section.
- (xii) When the Bell Code signals are received indistinctly or are not received.
- (xiii) In all the above cases the Block Panel must be treated as defective for block working and trains must be dealt following provisions of GR 14.13 and SR there under.
- (xiv) The Block Panel should not be restored for normal working until a competent signalling staff has tested & certified fit.

(b) Failure of Last Stop signal:-

The last Stop Signal must be considered to have failed in following cases.

- (i) The Last Stop signal cannot be taken 'OFF' even though Line Clear has been obtained.
- (ii) The Last Stop signal can be lowered without obtaining Line Clear.
- (iii) The Last Stop Signal can not be restored to 'ON' position after the train enters the Block Section.

11038. SUSPENSION OF BLOCK PANEL WORKING/LAST STOP SIGNAL

(a) Suspension of Block Panel Working

Block Panel Working must be suspended and train dealt with in accordance with the extent instructions in the following cases.

- (i) When material lorries, motor trolleys, TTM, Rail-cum-Road Vehicle and rail motor tower wagon (4-Wheeler) have to run in section, these shall be worked on PLC (These shall be run according to special instructions on the subject).
- (ii) An Accident in mid-section.
- (iii) When any part of the Block Equipment is to be opened for repairs, it shall be done only under duly accepted disconnection notice. Block panel working shall only be resumed by a Competent Railway Servant

- (iv) As soon as, the cause suspension of block working is removed normal working can be restored by SM.

(b) Suspension of Last Stop Signal

The Last stop signal shall be considered inoperative and deemed to have been suspended in the following cases.

- (i) When the Last Stop Signal has been undertaken for repair by S & T staff.
- (ii) During the Block Back
- (iii) Mid-Section accident
- (iv) When the material trolleys/lorries, TTM, Rail-cum-Road vehicle or Tower wagon has to run in the section.
- (v) As soon as the cause of suspension of Last Stop Signal is removed normal working can be restored by SM.

11039. Working of trains when there is failure of Block Panel / Last Stop Signal.

(i) Failure of Block Panel:-

Whenever the Block Panel fails, Line Clear should be obtained on Electrical communication equipments provided and by following provisions of **GR 14.13** and SR there under.

(ii) Failure of Last Stop Signal when Block Panel is in working order:-

Block panel working need not be suspended if the Last Stop Signal cannot be taken off even after setting the instrument to Train Going To condition, provided, the block panel is otherwise in working order. In such cases Line Clear should be obtained as usual through block instrument. The Station Master will issue Paper authority (T/C1425 or T/D1425) as an authority to proceed, duly endorsing therein that line clear has been obtained through Block Panel.

11040. Procedure for shunting during failure of SHUNT KEY:-

When the "SHUNT-KEY" cannot be extracted and if shunting has to be necessarily performed, the Station Master shall ensure that the Block instrument concerning the direction of shunting is in 'Line Closed' condition. He shall advise the Station Master at the other end of the block section about the shunting to be performed, probable duration etc. and exchange private numbers to this effect before starting shunting operation. The Station Master at the other end of the block section shall take out the "SHUNT KEY", keep it in his personal custody and give a

categorical assurance with a private Number to the Station Master of the station at which shunting is to be done. After shunting has been completed the Station Master shall inform the Station Master at the other end of the block section, about the completion of shunting and exchange private Number to this effect. Before the Station Master at the other end, gives his Private Number he shall insert the "SHUNT KEY" in the instrument Both Station Master shall enter in the Train Signal Register, in Red ink the time of exchange of Private Numbers and Private Numbers exchanged before and after shunting operations. The Station at which shunting is to be performed shall give a written authority to the Loco Pilot for doing shunting as well as passing the Starter/Advanced Starter Signal at 'ON' position upto the opposing First Stop Signal.

Appendix "A"

To

BLOCK WORKING MANUAL

2007

**(Specimen of the forms used in connection
with Train Working)**

Standardization of Operating Forms on Indian Railways

Annexure-I

S. Description No.	Old Form No.	New Form No.	Colour
1. Signal & Telecommunication disconnection/Reconnection notice	SI-4	S&T (T/351)	Black
2. Advance Authority to pass defective signals	OPT-373	T/369(I)	Blue
3. Authority to pass signals in "ON" or defective position	OPT-373	T/369-3(b)	Blue
4. Caution order	OPT-80	T/409	Green
5. "NIL" Caution order	OPT-80B	T/A-409	Green
6. Reminder caution order	—	T/B-409	Green
7. Train Examination Advise/Report	C&W-61	T/431	Black
8. Authority to receive a train on an obstructed line	OPT-374	T/509	Blue
9. Authority to start from a Non signaled line	OPT-30	T/511	Blue
10. Authority to start from a line with common starter signal	OPT-30	T/512	Blue
11. Authority to proceed for Relief Engine/Train into an occupied Block section	OPT-3 & OPT-4	T/A-602	Red
12. Authority for Opening Communication during total interruption of Communication on Single line Section	—	T/B-602	Red
13. Authority for Working of Trains during Total interruption of Communication on Double Line Section	—	T/C-602	Red
14. Authority for Temporary Single Line Working on Double Line Section	—	T/D-602	Red
15. Line Clear Inquiry Message asking Line Clear for Despatch of train during Total Failure of Communication on single Line Section.	—	T/E-602	Red
16. Conditional Line Clear Message	—	T/F-602	Red
17. Conditional Line Clear Ticket (Up)	—	T/G-602	Red
18. Conditional Line Clear Ticket (Down)	—	T/H-602	Red
19. Message on Restoration	—	T/I-602	Black
20. Written Permission by Guard to Driver to Proceed to next Station from section	—	T/609	Blue
21. Shunting Order	OPT-79	T/806	Blue
22. Authority to Pass Automatic/Semi Automatic/Manually Operated/Gate Signals	OPT-188 & 189	T/A 912	Blue
23. Authority to Proceed without Line Clear on Automatic Block Signalling Territory	OPT-190 & OPT-191	T/B 912	Red
24. Authority to Proceed for Relief Engine/Train into an Automatic Block Signalling Section	OPT-190 & OPT-191	T/C 912	Red
25. Authority to Proceed on Automatic Block System during prolong failure of Signals	OPT-192 & OPT-193	T/D 912	Red
26. Train Intact Arrival Register	TM-110	T/1410	Black
27. Line Clear Inquiry and reply message book in the event of Failure/Suspension/Non-Provision of Block Instruments. (Train Despatching Station)	OP/TM-118, 119, 122, 123, 124 & 125	T/A-1425	Black
27a. Line Clear Inquiry and reply message in the event of Failure/Suspension/Non-Provision of Block Instruments. (Train Receiving Station)	OP/TM-118, 119, 122, 123, 124 & 125	T/B-1425	Black
28. Paper Line Clear Ticket (UP)	OP/TM-118	T/C 1425	Blue
29. Paper Line Clear Ticket (Down)	OP/TM-119	T/D 1425	Blue
30. Trolley/Lorry/OHE Ladder Trolley Notice	—	T/1518	Black
31. Motor Trolley Permit.	—	T/1525	Black.
32. Machine Following Permit		T/465	Black
33. Authority to receive a train on –non signalled line		T/510	Blue

Note* As a temporary measure the caution order may be issued on the white paper With green band diagonally across the form.

सिगनल एवं दूरसंचार S&T (टी T/351) उत्तर रेलवे/Northern Railway क्रम सं. Sr.No. _____ सिगनल एवं दूरसंचार विभाग Signal and Telecommunication Deptt. वियोजन/पुनर्योजन नोटिस की पावती ACKNOWLEDGEMENT OF DISCONNECTION/RECONNECTION NOTICE	सिगनल एवं दूरसंचार S&T (टी T/351) उत्तर रेलवे/Northern Railway क्रम सं. Sr.No. _____ सिगनल एवं दूरसंचार विभाग Signal and Telecommunication Deptt. पुनर्योजन नोटिस RECONNECTION NOTICE	सिगनल एवं दूरसंचार S&T (टी T/351) उत्तर रेलवे/Northern Railway क्रम सं. Sr.No. _____ सिगनल एवं दूरसंचार विभाग Signal and Telecommunication Deptt. वियोजन नोटिस DISCONNECTION NOTICE
सं. No. _____ मंडल Division _____ To _____ The Station Master on duty at _____ station/ cabin. स्टेशन/कैबिन पर कार्यरत स्टेशन मास्टर को निम्नलिखित गियरों के वियोजन के लिए For disconnecting the following gears:- * _____ Red→ _____ Green→ _____ _____ तारीख on _____ को at hours _____ बजकर for _____ _____ मिनट पर _____ घंटे minutes के लिए खराबी पर ध्यान देने/रख-रखाव के लिए to attend failure/for maintenance. (वियोजन की अनुमति अवधि Expected duration of disconnection) ए. आई/एम एस एम/ईएसएम SI/MSM/ESM वियोजन से संबंधित नोटिस Notice about disconnection received. तारीख on _____ को at _____ बजे hours _____ minute मिनट को प्राप्त किया।	सं. No. _____ सिगनल गियर पुनर्योजन का नोटिस Notice for reconnecting signalling gear. सं. No. _____ मंडल Division _____ To _____ Green→ _____ Green→ _____ The Station Master on duty at _____ station _____ स्टेशन पर कार्यरत स्टेशन मास्टर को कृपया नोट करें कि नोटिस सं. Please note that the disconnected gear/s referred to in notice no. _____ में वियोजित गियर/गियरों को has have been reconnected on दिनांक _____ को at _____ बजकर hours _____ minutes मिनट पर पुनर्योजित कर दिया गया है।	सं. No. _____ सिगनलिंग गियर के वियोजन के लिए परिवहन कर्मचारियों को नोटिस Notice to Transportation staff for disconnecting signalling gear. सं. No. _____ मंडल Division _____ To _____ Red→ _____ Red→ _____ The Station Master on duty at _____ station _____ स्टेशन पर कार्यरत स्टेशन मास्टर को कृपया नोट करें कि खराबी पर ध्यान देने/रख- रखाव हेतु निम्नलिखित गियर Please note that the following gears will be disconnected दिनांक on _____ को at _____ बजकर hours _____ मिनट minutes पर for _____ घंटे hours _____ मिनट minutes के लिए वियोजित किए जाएंगे to attend failure/ formaintenance.*
स्टेशन मास्टर के हस्ताक्षर Signature of Station Master Disconnection will be allowed at _____ बजकर hours _____ मिनट पर minutes दिनांक on _____ 20 _____ को वियोजन की अनुमति होगी। स्टेशन मास्टर के हस्ताक्षर Signature of Station Master पुनर्योजन Reconnected दिनांक on _____ 20 _____ को at _____ बजे hours हुआ। एस आई/एम एस एम/ईएसएम SI/MSM/ESM. पुनर्योजन से संबंधित नोटिस Notice about reconnection received दिनांक on _____ 20 _____ को at _____ बजकर hours _____ मिनट min- utes पर प्राप्त हुआ।	हस्ताक्षर/Signature _____ पदनाम Designation _____ दिनांक Date _____ समय Time _____ बजे hours.	_____ (वियोजन की अनुमानित अवधि Expected duration of disconnection) हस्ताक्षर Signature _____ पदनाम designation _____ दिनांक Date _____ समय Time _____
स्टेशन मास्टर के हस्ताक्षर Signature of Station Master *वियोजित किए जाने वाले गियर/गियरों के ब्यौरे भरें। Fill in the details of the gears to be disconnected. **रिकॉर्ड किए जाने वाले वियोजन की अनुमति न दिए जाने के कारण. Reasons for not allowing disconnection to be recorded.		*वियोजित किए जाने वाले गियरों के ब्यौरे भरें। Fill in details of the gears to be disconnected.

उत्तर रेलवे **NORTHERN RAILWAY**

स्टेशन पर त्रुटिपूर्ण सिगनलों को पार करने के लिए अग्रिम प्राधिकार ADVANCE AUTHORITY TO PASS DEFECTIVE SIGNALS AT
STATION _____ स्टेशन पर

ड्राइवर/रिकार्ड Loco Pilot/Record

Station _____ स्टेशन

दिनांक Date _____ 20__

To

The Loco Pilot of Train No. गाड़ी नं. _____ Up/Down अप/डाउन के ड्राइवर को

As per advice of Station Master, _____ Station स्टेशन के स्टेशन मास्टर की सूचना के अनुसार _____ स्टेशन पर, *Up/Down अप/डाउन _____ Signals/s* सिगनल खराब है/हैं*Is/are out of order at Station अतः आप प्रथम रोक सिगनल पर रुकेंगे और हैंड सिगनल दिए जाने पर पहुंच सिगनल के बाद अधिकतम 15 कि.मी. प्रति घंटे की प्रतिबन्धित गति से आगे बढ़ें। You shall, therefore, stop at the first Stop Signal and after being Hand Signaled past the approach Signal proceed at a restricted speed not exceeding 15 KMPH.

ड्राइवर के हस्ताक्षर Signature of Loco Pilot

स्टेशन मास्टर के हस्ताक्षर Signature of Station Master

स्टेशन मास्टर की मोहर Station Master Stamp

दिनांक Date _____

दिनांक Date _____ 20__

*जो लागू न हो उसे काट दें Strike out whichever is not applicable

A/54

ऑन या खराब स्थिति में सिगनलों को पार करने के लिए प्राधिकार
(रिकॉर्ड / चालक)

दिनांक
समय

उप/डाउन के चालक को

सिगनल का नं. और विवरण स्टेशन पर सिगनल खराब हो गया है/गए हैं आपको "ऑन" स्थिति में खराब बाहरी/होम/इनर होम/मार्ग सूचक/स्टार्टर/मध्यवर्ती स्टार्टर/अग्रिम स्टार्टर/आई बी एस सिगनल/सिगनलों को ऐसी रफ्तार से पार करने के लिए प्राधिकृत किया जाता है जो 15 कि.मी. प्र.घं. से अधिक न हो।

*गाड़ी लाइन नं. (अंकों में) एवं (शब्दों में) पर प्रवेश करेगी

*अग्रिम स्टार्टर सिगनल/अंतिम रोक सिगनल में खराबी होने पर, अंतिम गाड़ी संख्या (अंतिम वाहन सहित) स्टेशन पर प्राप्त हुआ। लाइन विलयर स्टेशन

से बिजली संप्रेषण यंत्र पर प्राप्त की जा चुकी है। प्राप्त किया गया प्राइवेट नं. (अंकों में) (शब्दों में)

आज्ञा के हस्ताक्षर

स्टेशन मास्टर के हस्ताक्षर
स्टेशन मास्टर की मोहर

दिनांक

दिनांक

*यदि मार्ग सूचक/इनर होम/होम सिगनल खराब हो जाता है।

**यदि दोहरी लाइन वाले क्षेत्र में अग्रिम स्टार्टर/अंतिम रोक सिगनल में खराबी आ जाती है।

A/54

Northern Railway

Form No. T/369-3(b)

AUTHORITY TO PASS SIGNALS IN 'ON' OR DEFECTIVE POSITION
(Record/Loco Pilot)

Station

Date:

Time:

To

The Loco Pilot of train no. Up/Down

Description and No. of signals AT STATION are OUT OF ORDER. You are hereby authorized to pass the defective Outer/Home/Inner Home/Router/Starter/Intermediate Starter/Advance Starter/IBS signals at "ON" position at a speed not EXCEEDING 15 KMPH.

*The train will be admitted on line No. (in figures) and (in words)

**In case of failure of Advanced Starter Signal/Last Stop Signal- Last Train No. (with its Last Vehicle) cleared section at station and line clear has been obtained on Electrical Communication Instrument from station. Private No. received (in figures) (in words)

Signature of Loco Pilot

Signature of Station Master

Date

Station Master Stamp

Date

*In case of Router/Inner Home/Home Signal is defective

**In case of failure of Advance Starter/Last Stop Signal on Double Line Territory

INSTRUCTION

Wherever applicable. Driver proceeding on this authority must observe instructions mentioned at the back of this form

IMPORTANT INSTRUCTION महत्वपूर्ण अनूदेश

- (1) पहुँच सिगनल के लिए दोषपूर्ण सिगनल के नीचे किसी सक्षम रेल कर्मचारी के जरिए दिए जाने वाले प्राधिकार पर "ऑन" स्थिति में ड्राइवर दोषपूर्ण सिगनल पार करने के लिए प्राधिकृत है। For approach signal Loco Pilot is authorised to pass the defective signal at 'ON' on the Authority delivered through a competent railway servant at the foot of the defective signal.
- (2) स्टार्टर सिगनल के लिए, स्टेशन पर दिए जाने वाले प्राधिकार पर ड्राइवर ऐसे सिगनल को पार करता है और इसके अलावा स्टेशन मास्टर के अनुदेशों के अनुसार सक्षम रेल कर्मचारी प्रस्थान करने वाली गाड़ी को हाथ-सिगनल देगा। For Starter Signal, The Loco Pilot to pass such signal on the Authority handed over at the station and in addition thereto, a competent railway servant shall show hand signals to departing train in accordance with the instructions of Station Master.
- (3) दोषपूर्ण अग्रिम स्टार्टर सिगनल के मामले में हाथ-सिगनल दिखाने से छूट दी जाए और ड्राइवर स्टेशन पर दिए जाने वाले लिखित प्राधिकार पर ऐसे सिगनल को पार करे। यह उन मामलों में जहाँ अग्रिम स्टार्टर सिगनल की किसी प्वाइंट्स (कांटे) की अभिरक्षा करता हो, लागू नहीं होगा वहाँ हाथ-सिगनलों को न दिखाने की छूट नहीं दी जाएगी। In case of defective Advance Starter Signal, hand signals may be dispensed with and Loco Pilot to pass such signal by a written authority handed over at the station. Except in case of an Advance Starter Signal protects any points, hand signals shall not be dispensed with.

उत्तर रेलवे NORTHERN RAILWAY
सतर्कता आदेश CAUTION ORDER
 (रिकार्ड/ड्राइवर/गार्ड Record/Loco Pilot/Guard)

Station _____ स्टेशन

दिनांक Date _____ 20 _____

To

The Loco Pilot of Train No. गाड़ी नं. _____ विवरण (Description) _____ के ड्राइवर को।

एतद्वारा आपको अनुदेश दिया जाता है कि निम्नलिखित गति प्रतिबन्ध You are hereby instructed to exercise the following speed restrictions observing engineering indicators, hand signals of flagman and banner flag exhibited as necessary. अंकों में (in figures).....शब्दों में (in words)..... प्रदर्शित इंजीनियरिंग संकेतकों, फ्लैग मेन के हाथ सिगनलों और बैनर फ्लैग का यथासंभव अनुपालन करें।

क्रम.सं. Sr. No.	स्टेशनों के मध्य Stations Between		किलोमीटर Kilometrage		गति कि.मी. प्र.घं. Speed Kmph	कारण/टिप्पणियां Cause/remarks
	से From	तक To	से From	तक To		
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						

समय Time _____

स्टेशन मास्टर के हस्ताक्षर Signature of Station Master

स्टेशन मास्टर की मोहर Station Master Stamp

दिनांक Date _____ 20 _____

ड्राइवर के हस्ताक्षर Signature of Loco Pilot _____ दिनांक Date _____ 20 _____

गार्ड के हस्ताक्षर Signature of Guard _____ दिनांक Date _____ 20 _____

उत्तर रेलवे NORTHERN RAILWAY

कुछ नहीं सतर्कता आदेश "NIL" CAUTION ORDER

(रिकार्ड/ड्राइवर/गार्ड Record/Loco Pilot/Guard)

Station _____ स्टेशन

दिनांक Date _____ 20 _____

To

गाड़ी नं. The Loco Pilot of Train No. _____ विवरण (Description) _____ के ड्राइवर को

सतर्कता आदेश CAUTION ORDER

कुछ नहीं "NIL"

_____ स्टेशन तक Station (Name of next Notice Station/Station) (अगला उल्लिखित स्टेशन/स्टेशन का नाम)

समय Time _____

स्टेशन मास्टर के हस्ताक्षर Signature of Station Master

स्टेशन मास्टर की मोहर Station Master Stamp

दिनांक Date _____ 20 _____

ड्राइवर के हस्ताक्षर Signature of Loco Pilot _____ दिनांक Date _____ 20 _____ समय Time _____

गार्ड के हस्ताक्षर Signature of Guard _____ दिनांक Date _____ 20 _____ समय Time _____

उत्तर रेलवे NORTHERN RAILWAY
अनुस्मारक सतर्कता आदेश REMINDER CAUTION ORDER
(रिकार्ड/ड्राइवर Record/Loco Pilot)

Station _____ स्टेशन

दिनांक Date _____ 20 _____

To

The Loco Pilot of Train No. गाड़ी नं. _____ विवरण (Description) _____ के ड्राइवर को एतद्वारा अनुदेश दिया जाता है कि निम्नलिखित गति प्रतिबन्धों You are hereby instructed to exercise the following speed restrictions observing engineering indicators, hand signals of flagman and banner flag exhibited as necessary. अंकों में (in figures) _____ शब्दों में (in words) _____ प्रदर्शित इंजीनियरिंग संकेतकों, फ्लैग मेन के हाथ सिग्नलों और बैनर फ्लैग का यथासंभव अनुपालन करें।

क्रम.सं. Sr. No.	स्टेशनों के मध्य Stations Between		किलोमीटर Kilometrage		गति कि.मी. प्र.घं. Speed Kmph	कारण/टिप्पणियां Cause/remarks
	से From	तक To	से From	तक To		
1.						
2.						
3.						
4.						

समय Time _____

स्टेशन मास्टर के हस्ताक्षर Signature of Station Master

स्टेशन मास्टर की मोहर Station Master Stamp

दिनांक Date _____ 20 _____

ड्राइवर के हस्ताक्षर Signature of Loco Pilot _____ दिनांक Date _____ 20 _____ समय Time _____

गार्ड के हस्ताक्षर Signature of Guard _____ दिनांक Date _____ 20 _____ समय Time _____

फॉर्म सं.टी Form No. T/431 क्र.सं.Sr. No. _____ उत्तर रेलवे/NORTHERN RAILWAY गाड़ी परीक्षण सूचना/रिपोर्ट Train Examination Advice/Report	फॉर्म सं.टी Form No. T/431 क्र.सं.Sr. No. _____ उत्तर रेलवे/NORTHERN RAILWAY गाड़ी परीक्षण सूचना/रिपोर्ट Train Examination Advice/Report	फॉर्म सं.टी Form No. T/431 क्र.सं.Sr. No. _____ उत्तर रेलवे/NORTHERN RAILWAY गाड़ी परीक्षण सूचना/रिपोर्ट Train Examination Advice/Report
गाड़ी परीक्षण सूचना TRAIN EXAMINATION ADVICE.	गाड़ी परीक्षण रिपोर्ट TRAIN EXAMINATION REPORT	गाड़ी परीक्षण रिपोर्ट TRAIN EXAMINATION REPORT
(क A) गाड़ी सं. Train No. _____ with a load of _____ वाहनों/वातडिब्बों के साथ vehicles/wagons ready for examination at _____ hours बजे लाइन सं. पर on line no. _____ निरीक्षण के लिए तैयार है. due to start at _____ hours. बजे चलने के लिए निर्धारित है। Time and date of sending Advice on _____ 20 _____ को _____ बजे सूचना भेजने का समय एवं तारीख	(ख B) To Train Examiner _____ गाड़ी परीक्षक को। कृपया नोट करें कि गाड़ी सं. Please note that train no. _____ जो चलने के लिए _____ बजे निर्धारित लाइन सं. _____ पर दिनांक _____ को _____ वाहनों/वातडिब्बों के भार के साथ निरीक्षण के लिए तैयार है। with a load of _____ vehicles / wagons on line no. _____ ready for examination at _____ hours due to start at _____ hours.	(ग C) To Station Master / Yard Master _____ स्टेशन मास्टर/वाई मास्टर को। कृपया नोट करें कि गाड़ी सं. Please note that train no. _____ with a load of _____ वाहनों/ वात-डिब्बों के भार के साथ vehicles / wagons on line no. _____ लाइन सं. पर जांच कर ली गयी है और संलग्न क्षति प्रस्तुत में में दर्शाए गए अनुपयुक्त _____ वाहन/वात-डिब्बों को हटाने के बाद चलाए जाने हेतु सुरक्षित है। date _____ 20 _____ को _____ बजे hours सूचना भेजने का समय एवं तारीख has been examined and is safe to run after _____ Vehicles / Wagons unfit to run shown in the attached damaged memo are detached.
स्टेशन मास्टर/वाई मास्टर Station Master/ Yard Master गाड़ी परीक्षक के हस्ताक्षर Signature of TXR टी एक्स आर द्वारा प्राप्त किया गया समय एवं तारीख Time & Date received by TXR	Time and Date of sending advice on _____ 20 _____ को _____ hours बजे सूचना भेजने का समय एवं तारीख। स्टेशन मास्टर/वाई मास्टर Station Master / Yard Master (स्टेशन मास्टर /वाई मास्टर द्वारा प्रविष्टियां की जाएं. To be entered by Station Master / Yard Master) संलग्न ममा में दर्शाए गए अनुसार _____ वाहन/ वातडिब्बों को हटाए जाने के बाद गाड़ी को सुरक्षा रिपोर्ट / Train report, safe after detaching _____ wagons/vehicles as indicated on attached memo. (गाड़ी परीक्षक द्वारा प्रविष्टियां की जाएं TXR to enter)	_____ गाड़ी परीक्षक के हस्ताक्षर Signature of TXR
अनुदेश Instructions Advice to be made out by Station Master and with forms 'A' 'B' & 'C' sent to the Train Examiner, who will acknowledge receipt on form 'A' keeping forms 'B' & 'C'. On completion, Train Examiner shall send forms 'B' & 'C' to the Station Master, who shall keep form 'B' and acknowledge its receipt on form 'B', returning it to the Train Examiner for record. The time allowed for Train Examiner for examination will be fixed by the Senior Divisional Operations Manager to suit local conditions. स्टेशन मास्टर द्वारा सुविधा किया जाए तथा फॉर्म 'क' 'ख' एवं 'ग' गाड़ी परीक्षक को भेजे जाएं जो फॉर्म 'ख' एवं 'ग' को रखने हुए फॉर्म 'क' पर वापसी देंगे. इसके पूरा होने के पश्चात, गाड़ी परीक्षक फॉर्म 'ख' एवं 'ग' स्टेशन मास्टर को भेजेंगे जो फॉर्म 'ग' को रख लेंगे तथा फॉर्म 'ख' पर वापसी देंगे एवं ट्रेफिक रिकॉर्ड के लिए गाड़ी परीक्षक को लौटा देंगे. गाड़ी परीक्षक द्वारा परीक्षण के लिए अनुपयुक्त समय अनुपयुक्त व्यापार स्थितियों के अनुरूप त्रिदिन में परीक्षण प्रबंधक द्वारा निर्धारित किया जाएगा. (यातायात रिकॉर्ड Traffic Record)	स्टेशन मास्टर/वाई मास्टर Station Master / Yard Master पावती रिपोर्ट 'ग' Acknowledging report 'C' (स्टेशन मास्टर /वाई मास्टर द्वारा रिपोर्ट की पावती दी जाए) (Acknowledgement of report by Station Master / Yard Master) रिपोर्ट 'ग' की उपरोक्त पावती गाड़ी परीक्षक द्वारा जांची जाए. Above acknowledgement of report 'C' checked by TXR (यातायात रिकॉर्ड Traffic Record)	(गाड़ी परीक्षक प्रमाणित करें तथा स्टेशन मास्टर/वाई मास्टर को सौंप दें TXR certifies and hands over to Station Master or Yard Master)

उत्तर रेलवे NORTHERN RAILWAY

अवरोधी लाइन पर गाड़ी को लेने के लिए प्राधिकार

AUTHORITY TO RECEIVE A TRAIN ON AN OBSTRUCTED LINE

(रिकार्ड/ड्राइवर Record/Loco Pilot)

Station _____ स्टेशन

दिनांक Date _____ 20 _____

To

The Loco Pilot of Train No. गाड़ी नं. _____ विवरण (Description) _____ Up/Down. अप/डाउन के ड्राइवर को

आपको "ऑन" स्थिति में प्राधिकारधारी द्वारा मार्गदर्शित होते हुए सावधानीपूर्वक गाड़ी की गति 15 कि.मी. से अधिक न रखते हुए *अप/डाउन* आउटर/होम/रूटिंग सिगनलों को पार करने के लिए प्राधिकृत किया जाता है। आपकी गाड़ी एक अवरोधी लाइन पर ली जा रही है इसलिए आप अपनी गाड़ी को लाइन नं. _____ (शब्दों में/in words) _____ (अकों में/in figures) _____ की तरफ के फेसिंग प्वाइंटों पर तब तक खड़ी रखेंगे जब तक आगे बढ़ने के लिए हाथ सिगनल नहीं दिया जाता। You are authorised to pass *Up/Down* Outer/Home/Routeing Signals in 'ON' position cautiously not exceeding 15 kmph speed being piloted by the bearer of this Authority and you should bring your train to a stand at the facing points leading to Line No. (in words) _____ (in figures) _____ until Hand Signaled forward as you are being received on an obstructed line.

स्टेशन मास्टर के हस्ताक्षर Signature of Station Master

स्टेशन मास्टर की मोहर Station Master Stamp
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ड्राइवर के हस्ताक्षर Signature of Loco Pilot _____ दिनांक Date _____ 20 _____

*जो लागू न हो उसे काट दें। Strike out whichever is not applicable.

फॉर्म सं. टी/511 Form No. T/511

क्रम सं. Sr. No. _____

उत्तर रेलवे NORTHERN RAILWAY
 सिगनल रहित लाइन से प्रस्थान करने के लिए प्राधिकार
 AUTHORITY TO START FROM A NON-SIGNALED LINE
 (रिकार्ड/ड्राइवर Record/Loco Pilot)

Station _____ स्टेशन

दिनांक Date _____ 20 _____

समय Time _____

To

The Loco Pilot of Train No. गाड़ी नं. _____ विवरण (Description) _____ Up/Down. अप/डाउन के ड्राइवर को

*आपको "ऑन" स्थिति में *स्टार्टर/एडवांस्ड स्टार्टर को पार करने और जब तक कि आपकी गाड़ी सिगनल रहित (नॉन सिगनल्ड) लाइन सं. (शब्दों में/in words) _____ (अकों में/in figures) _____ से चालू नहीं हो जाती, गति 15 कि.मी. प्रति घंटे से अधिक न रखते हुए सक्षम रेल कर्मचारी द्वारा सिगनल रहित लाइन के प्वाइंटों की तरफ सावधानी पूर्वक विधिवत रूप से यार्ड को छोड़ने के लिए प्राधिकृत किया जाता है। You are authorised to pass *Starter/Advanced Starter in the 'ON' position and leave the Yard cautiously duly piloted out up to last set of points of non signaled line by the competent Railway servant at a speed not exceeding 15 kmph over the points as your train is started from non-sigaled line No. _____

टोकन/लाइन क्लियर टिकट नं. Token or line clear ticket No. _____

प्राइवेट नं. Private No. received (शब्दों में/in words) _____ (अकों में/in figures) _____ प्राप्त किया

स्टेशन मास्टर के हस्ताक्षर Signature of Station Master

स्टेशन मास्टर की मोहर Station Master Stamp

दिनांक Date _____ 20 _____

ड्राइवर के हस्ताक्षर Signature of Loco Pilot _____ दिनांक Date _____ 20 _____

*जो लागू न हो उसे काट दें। Strike out whichever is not applicable.

उत्तर रेलवे NORTHERN RAILWAY

सामूहिक प्रस्थान सिगनल वाली लाइन से प्रस्थान करने के लिए प्राधिकार

AUTHORITY TO START FROM A LINE WITH COMMON STARTER SIGNAL

(रिकार्ड/ड्राइवर Record/Loco Pilot)

Station _____ स्टेशन

दिनांक Date _____ 20 _____ समय Time _____

To

The Loco Pilot of Train No. गाड़ी नं. _____ विवरण (Description) _____ Up/Down. अप/डाउन के ड्राइवर को

आपको स्टार्टर सिगनल के 'आफ' होने पर लाइन नं. (शब्दों में) _____ (अंकों में) _____ से आगे बढ़ने की अनुमति दी जाती है You are authorised to start from line No. (in words) _____ (in figures) _____ on the starter signal being taken off. लाइन नं. Line No. _____ is one of the number of lines governed by the same starter signal. उन लाइन नं. में से एक है, जो उसी सामूहिक प्रस्थान सिगनल से शासित है।

_____ स्टेशन से _____ फोन पर/ब्लॉक यंत्र पर लाइन क्लियर Line clear is obtained on *Block Instrument/ _____ phone from _____ Station. प्राप्त किया है।

प्राप्त किया गया प्राइवेट नं. Private No. received (शब्दों में/in words) _____ (अंकों में/in figures) _____

*टोकन/लाइन क्लियर टिकट नं. Token or line clear ticket No. _____

स्टेशन मास्टर के हस्ताक्षर Signature of Station Master

स्टेशन मास्टर की मोहर Station Master Stamp

ड्राइवर के हस्ताक्षर Signature of Loco Pilot _____ दिनांक Date _____ 20 _____

*मूर्त (टेंजिबल) प्रस्थान प्राधिकार या पेपर लाइन क्लियर टिकट के बारे में जो लागू न हो उसे काट दें। In case of tangible authority or paper line clear ticket, strike out whichever is not applicable.

अप/डाउन UP/DOWN

फॉर्म सं.टी./ए Form No. T/A-602
क्रम सं. Sr. No. _____

उत्तर रेलवे NORTHERN RAILWAY

किसी ऑक्यूपाइड ब्लॉक सेक्शन में राहत इंजन/गाड़ी ले जाने के लिए प्राधिकार

AUTHORITY TO PROCEED FOR RELIEF ENGINE/TRAIN INTO AN OCCUPIED BLOCK SECTION

(डाइवर/गार्ड/रिकार्ड Loco Pilot/Guard/Record)

Station _____ स्टेशन

दिनांक Date _____ 20 _____

To: The Loco Pilot of Relief Engine/Train No. राहत इंजन/गाड़ी नं. _____ के डाइवर को

लाइन क्लियर के बिना आगे बढ़ने के लिए ब्लॉक टिकट **BLOCK TICKET TO PROCEED WITHOUT LINE CLEAR**

- 1) आप को _____ कि.मी. तक अप/डाउन पर _____ स्टेशन से अपने राहत इंजन/गाड़ी के साथ लाइन क्लियर के बिना सावधानी पूर्वक आगे बढ़ने के लिए एतद्वारा प्राधिकृत किया जाता है। You are hereby authorized to proceed cautiously without Line clear from station _____ up to km _____ on UP/DOWN Line with your Relief/Engine/Train.
- 2) आपको अपने इंजन/गाड़ी को _____ कि.मी. पर विराम देना होगा और इसके बाद साइट पर सक्षम प्राधिकारी के अनुदेशों द्वारा निर्देशित किया जाएगा You shall bring your Engine/Train to a stop at Km _____ and there after be guided by the instructions from the Competant Authority at the site.
- 3) यह आदेश _____ स्टेशन और _____ स्टेशन के बीच _____ कि.मी. पर लाइन पर अवरोध की वजह से दिया जाता है। This order is given due to obstruction on _____ line between _____ station and _____ station at KM No. _____.
- (4) आप _____ स्टेशन पर सेक्शन क्लियर करेंगे You shall clear the section at station _____.

ऑन स्थिति में सिगनलों को पार करने के लिए प्राधिकार/AUTHORITY TO PASS SIGNALS IN 'ON' POSITION

1. आपको ऑन स्थिति में सिगनल/सिगनलों का नं. एवं विवरण _____ को पार करने के लिए प्राधिकृत किया जाता है जिसमें सिगनल पोस्ट/पोस्टों पर यदि यह कार्टों का बचाव करता है हाथ सिगनलों का पालन करते हुए गति 15 कि.मी. प्र.घं. से अधिक न रखें। You are authorised to pass the Signal/Signals No. & description _____ in 'ON' position, speed not exceeding 15 KMPH observing hand signals at the foot of the signals post/s, if it protects points.

सतर्कता आदेश CAUTION ORDER

1. आपको _____ स्टेशन एवं _____ स्टेशन के बीच _____ कि.मी. तक आपके राहत इंजन/गाड़ी की गति 15 कि.मी. प्र.घं. दिन में जब दृश्यता आगे साफ हो तथा 10 कि.मी. प्र.घं. रात्रि में अथवा जब दृश्यता आगे साफ न हो, रखते हुए चलाने की अनुमति दी जाती है। You are permitted to run your Relief Engine/Train upto km _____ between Station _____ and _____ with the speed of:— 15 KMPH in day and when view ahead is clear. 10 KMPH in night or when view ahead is not clear.

2. आपको विशेष रूप से सचेत किया जाता है कि ब्लॉक सेक्शन के बीच स्थित समपार फाटक/फाटकों के पास पहुंचते समय पूर्ण सावधानी बरतें तथा बार-बार सीटी बजाएं। ब्लॉक सेक्शन में लागू सतर्कता आदेश निम्नलिखित है : You are expressly warned to observe every caution while approaching level crossing gate/s situated between block section and whistle frequently. Caution Orders in force in the Block Section are as under:—

क्र.सं. Sr.No.	स्टेशन Station between		किलोमीटर दूरी Kilometrage		गति कि.मी. प्र.घं. Speed kmph	कारण/टिप्पणियां Cause/Remarks
	से from	तक To	से from	तक To		
1						
2						
3						
4						

मैंने इसकी विषय-वस्तु को समझ लिया है। I have understood the contents of this

डाइवर के हस्ताक्षर

Signature of Loco Pilot

गार्ड के हस्ताक्षर

Signature of Guard

स्टेशन मास्टर के हस्ताक्षर Signature of Station Master

स्टेशन मास्टर की मोहर Station Master Stamp

समय Time _____ बनकर Hours. _____ Minutes मिनट

अनुदेश INSTRUCTION

1. इस प्राधिकार पर चलने वाले डाइवर इस फार्म के पीछे उल्लिखित अनुदेशों का पालन अवश्य करें। Loco Pilot proceeding on this authority must observe instruction mentioned at the back of this form.
2. ऊपर दर्शाए गए किसी (अवरोधों में पहले ठहराव लेगा तथा इसके पश्चात् वह स्थल पर उपस्थित कर्मचारी/पर्यवेक्षक के सिगनलों का पालन करेगा। Loco Pilot will about of km (obstruction shown above and thereafter he will obey line signals of employee/supervisor present at site.

महत्वपूर्ण अनुदेश IMPORTANT INSTRUCTIONS

इस प्राधिकार पर चलने वाले ड्राइवर निम्नलिखित अनुदेशों का पालन अवश्य करें Loco Pilot proceeding on this authority must observe the following instructions:—

- | | | | |
|-------|--|--|--|
| (1) | गति अधिक न हो Speed must not exceed | एकल लाइन पर/Single Line | दोहरी लाइन पर Double Line |
| क.(a) | दिन में Day | 15 कि.मी.प्र.घं. KMPH | 25 कि.मी.प्र.घं. KMPH |
| ख. | रात में अथवा जब दृश्यता बाधित हो | 10 कि.मी.प्र.घं. KMPH | 10 कि.मी.प्र.घं. |
| (b) | Night or when view is obstructed | | 10 KMPH |
| ग. | धुंध, कोहरे अथवा तूफानी मौसम में या आंधी चलते समय | लालबत्ती एवं पटाखों के साथ आगे चलने वाले दो व्यक्तियों द्वारा पैदल चलने की निर्धारित गति | लालबत्ती एवं पटाखे के साथ आगे चलने वाले एक व्यक्ति द्वारा पैदल चलने की निर्धारित गति |
| (c) | In thick, foggy or tempestuous weather or in dust storm. | Walking speed preceded by two men on foot with Red light and Fog Signals. | Walking speed preceded by one men on foot with Red light and Fog Signals. |
2. दिन और रात के समय ड्राइवर को किसी सुरंग में तब तक नहीं घुसना चाहिए जब तक कि वह यह मालूम न ले कि सुरंग क्लीयर है। यदि इस विषय में शंका हो तो, गाड़ी को एक रेल कर्मचारी द्वारा जो हाथ-सिगनलों और पटाखों से सुसज्जित हो, मार्गदर्शित किया जाना चाहिए। Both by day and night, a and must not be entered until the Loco Pilot has ascertained that it is clear. Should, there be any doubt on this point, the trains should be piloted by a Railway employee equipped with Hand Signals and Detonators.
 3. रात के समय यदि इंजन पर इलेक्ट्रिक हैड लाइट न लगी हो या इलेक्ट्रिक हैड लाइट खराब हो तो उस गाड़ी या लाइट इंजन से आगे पर्याप्त दूरी पर पटाखों से युक्त एक रेल कर्मचारी आने वाली किसी दूसरी गाड़ी को रोकने के लिए एक लाल बत्ती आगे उसे दिखाते हुए चलेगा। स्वचालित वाहन/अन्य वाहन के मामले में भी सावधानियां अवश्य बरती जानी चाहिए। During night if engine is not fitted with the Electric Head Light or if Electric Head Light is not in working order the Train or the Light Engine must be preceded at an adequate distance by a Railway Servant carrying Detonators and exhibiting Red Light ahead to Stop any other approaching train. The precautions must be taken in case of self propelled vehicle/other vehicle also.
 4. हर समय बाहर की ओर कड़ी निगरानी रखी जानी चाहिए और ड्राइवर रेलपथ पर प्रत्यक्ष या अचानक उत्पन्न होने वाले किसी भी अवरोध से पहले रुकने के लिए अवश्य तैयार रहें। A sharp look out must be kept at all times and the Loco Pilot must be prepared to Stop clear and short of any obstruction which may exist or crop up on the road.
 5. अगले स्टेशन के पास पहुंचते समय, ड्राइवर अपनी गाड़ी इंजन/लाइट इंजन/ट्रॉली/टॉवर वैगन/डीजल रेल कार/स्वचालित वाहन/अन्य वाहन को राइट लाइन से संबंधित पहले रोक सिगनल/रांग लाइन से संबंधित अंतिम रोक सिगनल, जो भी पहले आए के बाहर अवश्य रोकें और इसके पश्चात वह लगातार सीटी बजाए अथवा स्वचालित वाहन में यदि हॉर्न की व्यवस्था हो तो उसे विशेष अनुदेश के अनुसार बजाए। यदि 10 मिनट के भीतर स्टेशन से कोई न आए तो सहायक ड्राइवर/गार्ड को गाड़ी/लाइट इंजन/स्वचालित इंजन/अन्य वाहन के पहुंचने की सूचना देने के लिए स्टेशन मास्टर से तत्काल सम्पर्क करने के लिए भेजा जाएगा अथवा यदि सिगनल पोस्ट टेलीफोन की व्यवस्था हो तो इसके जरिए या संचार के किसी अन्य माध्यम द्वारा, यदि व्यवस्था हो तो, सम्पर्क करेगा। When approaching the station ahead, Loco Pilot must Stop his train engine/light engine/trolley/tower wagon/diesel rail car/self-propelled vehicle/other vehicle out side First Stop Signal pertaining to right line/last stop signal pertaining to wrong line whichever comes across first and sound continuously whistle or by sounding the horn of self propelled vehicle. If provided, as per special instructions. If no one turns up from the station within 10 minutes, Assistant Loco Pilot/Guard shall be immediately sent to the station to inform Station Master of the arrival of the train/light engine/self propelled vehicle/other vehicle or make contact Station Master through Signal Post Telephone, if provided or by other means of communications if provided.

अप/डाउन UP/DOWN

फॉर्म सं. टी./बी 602 Form No. T/B-602

उत्तर रेलवे NORTHERN RAILWAY
इकहरे लाइन सेक्शन पर पूर्ण संचार-भंग के दौरान संचार चालू करने के लिए प्राधिकार
AUTHORITY FOR OPENING COMMUNICATION DURING TOTAL INTERRUPTION OF
COMMUNICATION ON SINGLE LINE SECTION
(डाइवर/रिकार्ड Loco Pilot/Record)

Station.....स्टेशन

दिनांक Date.....20.....

To : Loco Pilot of Engine/Self propelled Vehicle इंजन/स्वचालित वाहन के डाइवर को।

साइन क्लियर के बिना आगे बढ़ने का प्राधिकार AUTHORITY TO PROCEED WITHOUT LINE CLEAR

1. आपको You are hereby authorized to proceed cautiously without Line clear from station..... to station..... स्टेशन से स्टेशन तक अपने इंजन/स्वचालित वाहन के साथ लाइन क्लियर के बिना सावधानी पूर्वक प्रस्थान करने के लिए एतद् द्वारा प्राधिकृत किया जाता है with your Engine/Self propelled Vehicle.
2. आप अपने इंजन/वाहन को अगले ब्लॉक स्टेशन के पहले रोक सिगनल के बाहर रुका कर देंगे और इसके बाद उस स्टेशन के स्टेशन मास्टर के अनुदेशों द्वारा निर्देशित किया जाएगा। You shall bring your Engine/Vehicle to a stand outside the first stop signal of the next block station thereafter be guided by the instruction from the Station Master of that Station.
3. गाड़ी सं. Train No. was Last Train over the section. इस सेक्शन पर अन्तिम गाड़ी थी। वह यहां से It left/arrived here at बजे कर hours minutes. मिनट पर गई/यहां पर आई।
4. यह प्राधिकार निम्नलिखित के कारण दिया जाता है This authority is given due to :—
(क a) Total interruption of communication with Station..... from Hours. दिनांक of date..... 20..... को बजे से स्टेशन पर पूर्ण संचार भंग।

ऑन स्थिति में सिगनलों को पार करने के लिए प्राधिकार AUTHORITY TO PASS SIGNALS IN 'ON' POSITION

1. आपको ऑन स्थिति में सिगनल/सिगनलों का नं. एवं विवरण..... को पार करने के लिए प्राधिकृत किया जाता है, जिसमें सिगनल पोस्ट/पोस्टों पर यदि यह कांटो का बचाव करता है, हाथ सिगनलों का पालन करते हुए गति 15 कि.मी. प्र.घ. से अधिक न रखें। You are authorised to pass the Signal/s No. & description..... in 'ON' position, speed NOT exceeding 15 KMPH observing hand signals at the foot of the signal post/s, if it protects points.

1. आपको स्टेशन से स्टेशन के बीच आपके इंजन/स्वचालित वाहन की गति दिन में जब दृश्यता आगे साफ हो 15 कि.मी. प्र.घ. तथा रात्रि में अथवा जब दृश्यता आगे साफ न हो 10 कि.मी. प्र.घ. रखने की अनुमति दी जाती है। You are permitted to run your Engine/Self propelled Vehicle between Station..... to station with the speed of :15 KMPH in day and when view ahead is clear. and 10 KMPH in night or when view ahead is not clear.
2. आपको विशेष रूप से सचेत किया जाता है कि ब्लॉक सेक्शन के बीच स्थित समपार क्रांटाक/फांटकों के पास पहुंचते समय पूर्ण सावधानी बरतें तथा बार-बार सीटी बजाएं। You are expressly warned to observe every caution while approaching level crossing gate/s situated between block section and whistle frequently.
3. इसके अलावा निम्नलिखित सतर्कता आदेश ब्लॉक सेक्शन में लागू हैं। In addition following caution orders are in force in block section :—

क्रम सं. Sr. No.	स्टेशन Station between		किलोमीटर Kilometrage		गति कि.मी.प्र.घ. Speed kmph	कारण/टिप्पणियां Cause/Remarks
	से From	तक To	से From	तक To		
1.						
2.						
3.						
4.						

लाइन क्लियर पूछताछ संदेश LINE CLEAR ENQUIRY MESSAGE

To, The Station Master..... स्टेशन मास्टर को।
संदेश सं. Message No. वापसी पर क्या लाइन क्लियर होगी तथा इसे चलने के लिए तैयार गाड़ी नं. के लिए क्लियर रखा जाएगा? On return of will line be clear and kept clear for train No. waiting to proceed?

सशर्त लाइन क्लियर संदेश CONDITIONAL LINE CLEAR MESSAGE

To, The Station Master..... स्टेशन मास्टर को। संदेश सं. Message No. आपके यहां के पहुंचने पर, गाड़ी के साथ/के बिना लगे गाड़ी इंजन या अन्य इंजन या स्वचालित वाहन/ट्रॉली आदि (पूरा ब्योरा) के वापस आने के लिए लाइन क्लियर होगी और क्लियर रखी जाएगी। On arrival of at yours, line will be clear and kept clear for Train Engine to return with/without attached to a Train or Another Engine or Self Propelled Vehicle/Trolley etc. (Complete particulars). प्राइवेट नं. Private Number (शब्दों में in words) (अंकों में in figures)..... मैंने इसकी विषय-वस्तु को समझ लिया है। I have understood the contents of this.

डाइवर के हस्ताक्षर Signature of Loco Pilot

गाई के हस्ताक्षर Signature of Guard

स्टेशन मास्टर के हस्ताक्षर

स्टेशन मास्टर की मोहर
Station Master's Stamp

समय Time..... बजे कर Hours..... मिनट Minutes

अनुदेश INSTRUCTION

1. *जो लागू न हो उसे काट दें।/*Strike out whichever is not applicable.
2. इस प्राधिकार पर चलने वाले डाइवर इस फॉर्म के पीछे उल्लिखित अनुदेशों का पालन अवश्य करें/Loco Pilot proceeding on this Authority must observe instructions mentioned at the back of this form.

महत्वपूर्ण अनुदेश IMPORTANT INSTRUCTIONS

इस प्राधिकार पर चलने वाले ड्राइवर निम्नलिखित अनुदेशों का पालन अवश्य करें **Loco Pilot proceeding on this authority must observe the following instructions:—**

- | | |
|---|--|
| (1) गति अधिक न हो Speed must not exceed | इकहरी लाइन पर Single Line |
| क (a) दिन में Day | 15 कि.मी.प्र.घं. KMPH |
| ख (b) रात में अथवा जब दृश्यता बाधित हो में Night or when view is obstructed | 10 कि.मी.प्र.घं. KMPH |
| ग (c) धुंध, कोहरे अथवा तूफानी मौसम में या आंधी चलते समय
In thick, foggy or tempestuous weather or in dust storm. | लालबत्ती एवं पटाखों के साथ आगे चलने वाले दो व्यक्तियों द्वारा पैदल चलने की निर्धारित गति men on foot with Red light and Fog Signals. |

2. दिन और रात के समय ड्राइवर को किसी सुरंग में तब तक नहीं घुसना चाहिए जब तक कि वह यह जान न ले कि सुरंग क्लियर है। यदि इस विषय में कोई शंका हो तो, गाड़ी को एक रेल कर्मचारी द्वारा जो हाथ-सिगनलों और पटाखों से सुसज्जित हो, मार्गदर्शित किया जाना चाहिए।

Both by day and night, a Tunnel must not be entered until the Loco Pilot has ascertained that it is clear. Should, there be any doubt on this point, the train should be piloted by a Railway Employee equipped with Hand Signals and Detonators.

3. रात के समय यदि इंजन पर इलैक्ट्रिक हैड लाइट न लगी हो या इलैक्ट्रिक हैड लाइट खराब हो तो उस गाड़ी या लाइट-इंजन से आगे पर्याप्त दूरी पर पटाखों से युक्त एक रेल कर्मचारी आने वाली किसी दूसरी गाड़ी को रोकने के लिए एक लाल बत्ती आगे से दिखाते हुए चलेगा। स्वचालित वाहन/अन्य वाहन के मामले में भी सावधानियां बरती जानी चाहिए।

During night if engine is not fitted with the Electric Head Light or if Electric Head Light is not in working order the Train or the Light Engine must be preceded at an adequate distance by a Railway Servant carrying Detonators and exhibiting Red Light ahead to Stop any other approaching train. The precautions must be taken in case of self propelled vehicle/other vehicle also.

4. हर समय बाहर की ओर कड़ी निगरानी रखी जानी चाहिए और ड्राइवर रेल पथ पर प्रत्यक्ष या अचानक उत्पन्न होने वाले किसी भी अवरोध से पहले रूकने के लिए अवश्य तैयार रहें।

A sharp look out must be kept at all times and the Loco Pilot must be prepared to Stop clear and short of any obstruction which may exist or crop up on the road.

5. अगले स्टेशन के पास पहुंचते समय, ड्राइवर अपनी गाड़ी इंजन/लाइट इंजन/ट्रॉली/टॉवर वैगन/डीजल रेल कार/स्वचालित वाहन/अन्य वाहन को प्रथम ठहराव सिगनल के बाहर अवश्य रोके और उसके बाद वह लगातार सीटी बजाए अथवा स्वचालित वाहन में यदि हॉर्न की व्यवस्था हो तो उसे विशेष अनुदेश के अनुसार बजाए। यदि 10 मिनट के भीतर स्टेशन से कोई ना आए तो सहायक ड्राइवर/गार्ड को गाड़ी/लाइट इंजन/स्वचालित इंजन/अन्य वाहन के पहुंचने की सूचना देने के लिए स्टेशन मास्टर से तत्काल सम्पर्क करने के लिए भेजा जाएगा अथवा यदि सिगनल पोस्ट टेलीफोन की व्यवस्था हो तो इसके जरिए या संचार के किसी अन्य माध्यम द्वारा, यदि व्यवस्था हो तो, सम्पर्क करेगा।

When approaching the station ahead, Loco Pilot must Stop his train engine/light engine/trolley/tower wagon/diesel rail car/self-propelled vehicle/other vehicle outside First Stop Signal and sound continuously whistle or by sounding the horn of self propelled vehicle. If provided, as per special instructions. If no one turns up from the station within 10 minutes, Assistant Loco Pilot/Guard shall be immediately sent to the station to inform Station Master of the arrival of the train/light engine/self propelled vehicle/other vehicle or make contact Station Master through Signal Post Telephone, if provided or by other means of communications if provided.

अप/डाउन UP/DOWN

फॉर्म नं. टी/सी 602 Form No. T/C 602

क्रम सं. Sr. No.

उत्तर रेलवे NORTHERN RAILWAY

दोहरे लाइन सेक्शन पर पूर्ण संचार भंग के दौरान गाड़ियों के संचालन के लिए प्राधिकार
**AUTHORITY FOR WORKING OF TRAINS DURING TOTAL INTERRUPTION OF COMMUNICATION ON
 DOUBLE LINE SECTION**

Station..... स्टेशन

(डाइवर/रिकार्ड Loco Pilot/Record)

दिनांक/Date 20.....

To : Loco Pilot of Train No. गाड़ी नं.....के डाइवर को

लाइन क्लियर के बिना आगे बढ़ने का प्राधिकार AUTHORITY TO PROCEED WITHOUT LINE CLEAR

1. आपको स्टेशन से स्टेशन तक अपनी गाड़ी/स्वचालित वाहन संख्या के साथ लाइन क्लियर के बिना सावधानीपूर्वक आगे बढ़ने के लिए एतद्वारा प्राधिकृत किया जाता है।
 You are hereby authorized to proceed cautiously without Line clear. From station.....to station..... with your Train/Self propelled Vehicle No.

2. आप अपनी गाड़ी को अगले ब्लॉक स्टेशन के राइट लाइन से सम्बन्धित पहले रोक सिगनल/रोंग लाइन से सम्बन्धित अन्तिम रोक सिगनल, जो भी पहले आए, के बाहर खड़ा कर देना होगा और इसके बाद उस स्टेशन के स्टेशन मास्टर के अनुदेशों द्वारा निर्देशित किया जाएगा।
 You shall bring your Train to a stand outside the first stop signal pertaining to right line/last stop signal pertaining to wrong line whichever comes across first of the next Block Station thereafter be guided by the instructions from the Station Master of that Station.

3. गाड़ी नं. इस सेक्शन पर अन्तिम गाड़ी थी। वह यहां से बजकर मिनट पर गई/पहुँचा कर आई।
 Train No. was Last Train over the section. It left/arrived here at hour..... minutes.

4. परिस्थितियाँ जिनमें यह आदेश दिया जाता है।
 Circumstances under which this order is given :—

(क) दिनांक को बजकर मिनट से स्टेशन के साथ पूर्ण संचार भंग

(a) Total interruption of communication with Station from hours..... minutes of date.....

(ख b)

ऑन स्थिति में सिगनलों को पार करने के लिए प्राधिकार AUTHORITY TO PASS SIGNALS IN 'ON' POSITION

आपको ऑन स्थिति में सिगनल/सिगनलों का नं. एवं विवरण को पार करने हेतु प्राधिकृत किया जाता है, जिसमें सिगनल पोस्ट/पोस्टों पर यदि यह कांटों का बचाव करता है, हाथ सिगनलों का पालन करते हुए गति 15 कि.मी. प्र.घं. से अधिक न रखे।

You are authorised to pass the Signal/Signals No. & description..... in 'ON' position, speed not exceeding 15 KMPH observing hand signals at the foot of the signal post/s, if it protects points.

सतर्कता आदेश CAUTION ORDER

1. आपको स्टेशन एवं स्टेशन के बीच अपनी गाड़ी की गति 25 कि.मी. प्र.घं. दिन में जब दृश्यता आगे साफ हो तथा 10 कि.मी. प्र.घं. रात्रि में अथवा जब दृश्यता आगे साफ न हो, रखने की अनुमति दी जाती है।
 You are permitted to run your Train between Station..... and station with the speed of :— 25 KMPH in day and when view ahead is clear.

10 KMPH in night or when view ahead is not clear.

2. आपको विशेष रूप से सचेत किया जाता है कि ब्लॉक सेक्शन के बीच स्थित समपार फाटक/फाटकों के पास पहुंचते समय पूर्ण सावधानी बरतें तथा बार-बार सीटी बजाएं।
 You are expressly warned to observe every caution while approaching level crossing gate/s situated between block section and whistle frequently.

क्रम सं. Sl. No.	स्टेशन Station between		किलोमीटर Kilometrage		गति कि.मी. प्र.घं. Speed kmph	कारण/टिप्पणियाँ Cause/Remarks
	से From	तक To	से From	तक To		
1.						
2.						
3.						
4.						

मैंने इसकी विषय-वस्तु को समझ लिया है/ I have understood the contents of this.

डाइवर के हस्ताक्षर Signature of Loco Pilot

गार्ड के हस्ताक्षर Signature of Guard

स्टेशन मास्टर के हस्ताक्षर
Signature of Station Masterस्टेशन मास्टर की मोहर
Station Master's Stamp

समय Time..... बजकर Hours..... मिनट Minutes

अनुदेश INSTRUCTION

- *जो लागू न हो उसे काट दें। *Strike out whichever is not applicable.
- इस प्राधिकार पर चलने वाले डाइवर इस फॉर्म के पीछे उल्लिखित अनुदेशों का पालन अवश्य करें/Loco Pilot proceeding on this Authority must observe instructions mentioned at the back of this form.

महत्वपूर्ण अनुदेश IMPORTANT INSTRUCTIONS

इस प्राधिकार पर चलने वाले ड्राइवर निम्नलिखित अनुदेशों का पालन अवश्य करें Loco Pilot proceeding on this authority must observe the following instructions:—

- | | |
|---|-------------------------------------|
| (1) गति अधिक न हो Speed must not exceed | दोहरी लाइन पर Double Line |
| क. (a) दिन में Day | 25 कि.मी.प्र.घं. KMPH |
| (ख) रात में अथवा जब दृश्यता बाधित हो | 10 कि.मी.प्र.घं. |
| (b) Night or when view is obstructed | 10 KMPH |
| (ग) धुंध, कोहरे अथवा तूफानी मौसम में या आंधी चलते समय | लालबत्ती एवं पटाखे के साथ आगे |
| (c) In thick, foggy or tempestuous weather or dust storm. | चलने वाले दो व्यक्तियों द्वारा पैदल |
| | चलने की निर्धारित गति |
| | Walking pace preceded by two |
| | men on foot with Red light and |
| | Fog Signals. |

2. दिन और रात के समय ड्राइवर को किसी सुरंग में तब तक नहीं घुसना चाहिए जब तक कि वह यह जान न ले कि सुरंग क्लीयर है। यदि इस विषय में कोई शंका हो तो, गाड़ी को एक रेल कर्मचारी द्वारा जो हाथ-सिगनलों और पटाखों से सुसज्जित हो, मार्गदर्शित किया जाना चाहिए।

Both by day and night, a Tunnel must not be entered until the Loco Pilot has ascertained that it is clear. Should, there be any doubt on this point, the trains should be piloted by a Railway Employee equipped with Hand Signals and Detonators.

3. रात के समय यदि इंजन पर इलेक्ट्रिक हैड लाइट न लगी हो या इलेक्ट्रिक हैड लाइट खराब हो तो उस गाड़ी या लाइट इंजन से आगे पर्याप्त दूरी पर पटाखों से युक्त एक रेल कर्मचारी आने वाली किसी दूसरी गाड़ी को रोकने के लिए एक लाल बत्ती आगे से दिखाते हुए चलेगा। स्वचालित वाहन/अन्य वाहन के मामले में भी सावधानियां अवश्य बरती जानी चाहिए।

During night if engine is not fitted with the Electric Head Light or if Electric Head Light is not in working order the Train or the Light Engine must be preceded at an adequate distance by a Railway Servant carrying Detonators and exhibiting Red Light ahead to Stop any other approaching train. The precautions must be taken in case of self propelled vehicle/other vehicle also.

4. हर समय बाहर की ओर कड़ी निगरानी रखी जानी चाहिए और ड्राइवर रेल-पथ पर प्रत्यक्ष या अचानक उत्पन्न होने वाले किसी भी अवरोध से पहले रुकने के लिए अवश्य तैयार रहे।

A sharp look out must be kept at all times and the Loco Pilot must be prepared to Stop clear and short of any obstruction which may exist or crop up on the road.

5. अगले स्टेशन के पास पहुंचते समय, ड्राइवर अपनी गाड़ी इंजन/लाइट इंजन/ट्रॉली/टॉवर वैगन/डीजल रेल कार/स्वचालित वाहन/अन्य वाहन को राइट लाइन से संबंधित पहले रोके सिगनल/रांग लाइन से संबंधित अंतिम रोके सिगनल, जो भी पहले आए के बाहर अवश्य रोके और उसके पश्चात वह लगातार सीटी बजाए अथवा स्वचालित वाहन में यदि हॉर्न की व्यवस्था हो तो उसे विशेष अनुदेश के अनुसार बजाए। यदि 10 मिनट के भीतर स्टेशन से कोई न आए तो सहायक ड्राइवर/गार्ड को गाड़ी/लाइट इंजन/स्वचालित इंजन/अन्य वाहन के पहुंचने की सूचना देने के लिए स्टेशन मास्टर से तत्काल सम्पर्क करने के लिए भेजा जाएगा अथवा यदि सिगनल पोस्ट टेलीफोन की व्यवस्था हो तो इसके जरिए या संचार के किसी अन्य माध्यम द्वारा, यदि व्यवस्था हो तो, सम्पर्क करेगा।

When approaching the station ahead, Loco Pilot must Stop his train engine/light engine/trolley/tower wagon/diesel rail car/self-propelled vehicle/other vehicle out side First Stop Signal pertaining to right line/last stop signal pertaining to wrong line whichever comes across first and sound continuously whistle or by sounding the horn of self propelled vehicle. If provided, as per special instructions. If no one turns up from the station within 10 minutes, Assistant Loco Pilot/Guard shall be immediately sent to the station to inform Station Master of the arrival of the train/light engine/self propelled vehicle/other vehicle or make contact Station Master through Signal Post Telephone, if provided or by other means of communications if provided.

अप/डाउन UP/DOWN

फॉर्म सं. टीडी Form No. T/D 602
क्रम सं. S r. No. _____

उत्तर रेलवे NORTHERN RAILWAY

बोहरी लाइन पर अस्थाई इकहरी लाइन संचालन के लिए प्राधिकार
AUTHORITY FOR TEMPORARY SINGLE LINE WORKING ON DOUBLE LINEStation _____ स्टेशन दिनांक Date _____ 20
To The Loco Pilot of Train No. गाड़ी नं. _____ (विवरण Description) के ड्राइवर को
लाइन क्लियर टिकट LINE CLEAR TICKETलाइन क्लियर है और आपको _____ स्टेशन तक अप/डाउन लाइन पर आगे बढ़ने के लिए प्राधिकृत किया जाता है।
The line is clear and you are authorized to proceed on Up / Down Line up to station _____

प्राइवेट नं. Private No. (शब्दों में in words) _____ (अंकों में in figures) _____

AUTHORITY TO PASS SIGNAL IN 'ON' POSITIONसिग्नल का नं. एवं विवरण Description & No. of Signal _____ स्टार्टर, मध्यवर्ती स्टार्टर, अग्रिम स्टार्टर अथवा
अंतिम रोक सिग्नलों के लिए लागू सिग्नल पर यदि कांटी का बचाव करता है, इय सिग्नल / सिग्नलों का पालन करें : Applicable to Starter, Intermediate
Starter, Advanced Starter, or Last Stop Signals. Observe hand signal/s at the foot of the signal, if it protects points.** आपको उन स्टेशनों के सिग्नलों को पार करने हेतु प्राधिकृत किया जाता है जिन्हें इकहरी लाइन संचालन के लिए अस्थाई रूप में बंद कर दिया गया है, _____ स्टेशन
You are authorized to pass the signals of those stations which have been closed temporarily for single line working.
Station/s _____आपको मार्ग में गैटमैन तथा गैंग मैन इकहरी लाइन संचालन को चालू होने के लिए भी सूचित करना होगा. You have to also inform the Gate men and Gang
men enroute for Introduction of single line working.**सतर्कता आदेश CAUTION ORDER**

1. आपकी गाड़ी राइट लाइन/रांग लाइन पर जा रही है। अंतर्गत _____ कि.मी. पर है।

*i) Your train is going on Right line/Wrong line. The obstruction exists at km. _____

ii) आपकी गाड़ी अस्थाई इकहरी लाइन को पार करने के लिए पहली गाड़ी है। लागू अन्य गति प्रतिबंध का पालन करते हुए गति 25 कि.मी. प्रतिघण्टे तक सीमित रखी जाएगी
Your train is First Train to pass over the Temporary Single Line. Speed shall be restricted to 25 KMPH subject to observance of
other speed restriction in force.iii) यदि आपकी गाड़ी रांग लाइन पर जा रही है तो आपको आदेश रहित सेक्शन 'न्यूट्रल सेक्शन' (केवल विद्युतिकृत सेक्शन में) का पालन करने के
लिए विशेष रूप से सचेत किया जाता है। संबंधित लाइन पर कोई ट्रैप प्वाइंट नहीं है/ट्रैप प्वाइंट को क्लैम्प/स्पाइक कर दिया गया है। You are
expressly warned to observe 'Neutral section' (only in Electrified section) if your train is going on wrong line.
There are no Trap Points on the line in question/ Trap points have been clamped/spiked.

iv) ब्लॉक सेक्शन में लागू सतर्कता आदेश नीचे दिए अनुसार हैं। Following are the caution Orders in force in Block Section :-

क्रम सं. Sr No	स्टेशन Station between		कि.मी. KILOMETRAGE		गति कि.मी. प्र.घं. Speed kmph	कारण/टिप्पणियाँ Cause / Remarks
	से From	तक To	से From	तक To		
1						
2						
3						
4						

मैंने इसको यस्तु-स्थिति को समझ लिया है। I have understood the contents of this.

ड्राइवर के हस्ताक्षर Signature of Loco Pilot

स्टेशन मास्टर के हस्ताक्षर Signature of Station Master

स्टेशन मास्टर की मोहर Station Masters Stamp

समय Time _____ बजकर Hours _____ मिनट Minutes

* जो लागू न हो उसे काट दें। Strike out whichever is not applicable.

** मध्यवर्ती ब्लॉक स्टेशनों के लिए। For intermediate block stations.

अप/डाउन UP/DOWN

उत्तर रेलवे NORTHERN RAILWAY

इकहरी लाइन सेक्शन पर पूर्ण संचार-भंग के दौरान गाड़ियों को भेजने के लिए लाइन क्लियर
पूछने के लिए लाइन क्लियर पूछताछ संदेशLINE CLEAR INQUIRY MESSAGE ASKING LINE CLEAR FOR DESPATCH OF TRAINS DURING TOTAL FAILURE OF
COMMUNICATION ON SINGLE LINE SECTION

(डाइवर/रिकार्ड Loco Pilot/Record)

Station _____ स्टेशन

दिनांक Date _____

समय Time _____ बजकर Hours. _____ Minutes मिनट

From Station Master _____ स्टेशन मास्टर से

To Station Master _____ स्टेशन मास्टर को

संदेश सं. _____ गाड़ी के साथ/के बिना गाड़ी इंजन/स्वचालित वाहन/अन्य वाहन सं. _____ की वापसी पर क्या अनुगामी
गाड़ी/गाड़ियों के लिये जो आपकी तरफ आने की प्रतीक्षा में है, लाइन क्लियर होगी और क्लियर रखी जाएगी?Message No. _____ On return of *Train Engine with/without train/self propelled vehicle/other vehicle num-
ber _____ will line be clear and kept clear for following trains/:-

1. _____
2. _____
3. _____
4. _____

waiting to proceed to yours.

स्टेशन मास्टर के हस्ताक्षर Signature of Station Master

स्टेशन मास्टर की मोहर Station Master Stamp

*जो लागू न हो उसे काट दें Strike out whichever is not applicable.

*अप/डाउन UP/DOWN

उत्तर रेलवे NORTHERN RAILWAY

कंडीशनल लाइन क्लियर संदेश CONDITIONAL LINE CLEAR MESSAGE
(डाइवर/रिकार्ड Loco Pilot/Record)

दिनांक Date _____ 20 _____

समय Time _____ बजकर Hours. _____ Minutes मिनट

Station _____ स्टेशन

From Station Master _____ स्टेशन मास्टर से

To Station Master _____ स्टेशन मास्टर को

संदेश सं. Message No. _____

आपका संदेश सं. _____ *आपके यहां गाड़ी के साथ/के बिना गाड़ी इंजन/स्वचालित वाहन/अन्य वाहन सं. _____ के पहुंचने पर अनुगामी गाड़ी/गाड़ियों के लिए लाइन क्लियर होगी और क्लियर रखी जाएगी।

Your Message No. _____ On arrival of *Train Engine with/without train/self propelled vehicle/other vehicle number _____ at yours line will be clear and kept clear for following Trains:—

- (1) गाड़ी नं. Train No. _____ प्राइवेट नं. Private No. (शब्दों में in words) _____ (अंकों में in figures) _____.
- (2) गाड़ी नं. Train No. _____ प्राइवेट नं. Private No. (शब्दों में in words) _____ (अंकों में in figures) _____.
- (3) गाड़ी नं. Train No. _____ प्राइवेट नं. Private No. (शब्दों में in words) _____ (अंकों में in figures) _____.
- (4) गाड़ी नं. Train No. _____ प्राइवेट नं. Private No. (शब्दों में in words) _____ (अंकों में in figures) _____.

स्टेशन मास्टर के हस्ताक्षर Signature of Station Master

स्टेशन मास्टर की मोहर Station Master Stamp

*जो लागू न हो उसे काट दें Strike out whichever is not applicable.

अप UP

क्रम सं. Sr. No. _____

उत्तर रेलवे NORTHERN RAILWAY

कंडीशनल लाइन क्लियर टिकट CONDITIONAL LINE CLEAR TICKET
(डाइवर/रिकार्ड Loco Pilot/Record)

Station _____ स्टेशन

दिनांक Date _____ 20

समय Time _____ बजकर Hours. _____ Minutes मिनट

From Station Master _____ स्टेशन मास्टर से

To

गाड़ी नं. The Loco Pilot of Train No. _____ अप UP (विवरण Description) _____ के डाइवर को।

लाइन क्लियर है और आपको _____ स्टेशन के लिए पहुंचने हेतु प्राधिकृत किया जाता है।

The line is clear and you are authorised to proceed to _____ Station.

*अंतिम गाड़ी इस स्टेशन से *Last train left this station at _____ बजकर hours _____ मिनट minutes. पर चली।

आपको गाड़ी के पीछे-पीछे चलने और _____ स्टेशन तक पहुंचने के लिए एतद्वारा प्राधिकृत किया जाता है।

You are hereby authorized to follow and proceed to _____ Station.

प्राइवेट नं. Private No. (शब्दों में/in words) _____ (अकों में/in figures) _____

**जा चुकी गाड़ियों का ब्यौरा

Particulars of trains left

गाड़ी नं. Train No.	समय Time
_____	_____
_____	_____
_____	_____

पीछे जाने वाली गाड़ियों का ब्यौरा

Particulars of trains to follow

गाड़ी नं. Train No.	समय Time
_____	_____
_____	_____
_____	_____

स्टेशन मास्टर के हस्ताक्षर Signature of Station Master

स्टेशन मास्टर की मोहर Station Master Stamp

विशेष अनुदेश Special Instructions

जब कोई गाड़ी पीछा कर रही है तब कड़ी निगरानी रखें। जब दृश्यता साफ हो तब गति 25 कि.मी. प्र.घं. से अधिक न हो तथा जब दृश्यता किसी भी बजह से साफ न हो तब गति 10 कि.मी. प्र.घं. या इससे कम रखें। When following a Train keep sharp look out at speed not exceeding 25 kmph when view is clear and 10 kmph or less when view is impaired due to any reason.

*अनियमितता के दौरान दूसरी तथा इसके बाद की गाड़ियों की प्रविष्टि को काट दें। Strike out in case of second and subsequent trains during uneven flow.

**अनियमितता के दौरान पहली गाड़ी की प्रविष्टि तथा नियमितता के दौरान सभी गाड़ियों की प्रविष्टि काट दें। Strike out in the case of first train during uneven flow and for all trains during even flow.

डाउन DOWN

क्रम सं. Sr. No. _____

उत्तर रेलवे NORTHERN RAILWAY

कंडीशनल लाइन क्लियर टिकट CONDITIONAL LINE CLEAR TICKET
(डाइवर/रिकार्ड Loco Pilot/Record)

Station _____ स्टेशन

दिनांक Date _____ 20 _____

समय Time _____ बजकर Hours. _____ Minutes मिनट

From Station Master _____ स्टेशन मास्टर से

To

गाड़ी नं. The Loco Pilot of Train No. _____ डाउन DOWN (विवरण Description) _____ के डाइवर को।

लाइन क्लियर है और आपको _____ स्टेशन के लिए पहुंचने हेतु प्राधिकृत किया जाता है।

The line is clear and you are authorised to proceed to _____ Station.

*अंतिम गाड़ी इस स्टेशन से *Last train left this station at _____ बजकर hours _____ मिनट minutes. पर चली।

आपको गाड़ी के पीछे-पीछे चलने और _____ स्टेशन तक पहुंचने के लिए एतद्वारा प्राधिकृत किया जाता है।

You are hereby authorized to follow and proceed to _____ Station.

प्राइवेट नं. Private No. (शब्दों में/in words) _____ (अंकों में/in figures) _____

**जा चुकी गाड़ियों का ब्यौरा

Particulars of trains left

गाड़ी नं. Train No.

समय Time

_____	_____
_____	_____
_____	_____
_____	_____

पीछे जाने वाली गाड़ियों का ब्यौरा

Particulars of trains to follow

गाड़ी नं. Train No.

समय Time

_____	_____
_____	_____
_____	_____
_____	_____

स्टेशन मास्टर के हस्ताक्षर Signature of Station Master

स्टेशन मास्टर की मोहर Station Master Stamp

विशेष अनुदेश Special Instructions

जब कोई गाड़ी पीछा कर रही है तब कड़ी निगरानी रखें। जब दृश्यता साफ हो तब गति 25 कि.मी. प्र.घं. से अधिक न हो तथा जब दृश्यता किसी भी बजह से साफ न हो तब गति 10 कि.मी. प्र.घं. या इससे कम रखें। When following a Train keep sharp look out at speed not exceeding 25 kmph when view is clear and 10 kmph or less when view is impaired due to any reason.

*अनियमितता के दौरान दूसरी तथा इसके बाद की गाड़ियों की प्रविष्टि को काट दें। Strike out in case of second and subsequent trains during uneven flow.

**अनियमितता के दौरान पहली गाड़ी की प्रविष्टि तथा नियमितता के दौरान सभी गाड़ियों की प्रविष्टि काट दें। Strike out in the case of first train during uneven flow and for all trains during even flow.

रेलवे RAILWAY

संचार के किसी भी साधन द्वारा पुनः स्थापन का संदेश
MESSAGE ON RESTORATION BY ANY ONE OF THE MEANS OF COMMUNICATIONS

From Station Master _____ स्टेशन मास्टर से To Station Master _____ स्टेशन मास्टर को
दिनांक Date _____ 20 _____ समय Time _____ बजकर Hours. _____ मिनट Minutes
नं. No. _____ गाड़ी Train (नं. एवं विवरण No. & Description) _____ arrived complete at _____ बजकर
hours _____ मिनट minutes पर सही सलामत पहुंची अंतिम गाड़ी Last Train (नं. एवं विवरण No. & Description)
_____ dispatched to your station at _____ बजकर hours _____ मिनट minutes. पर आपके स्टेशन
के लिए भेजी गई गाड़ियों का कंडीशनल लाइन क्लियर संचालन/गाड़ियों के संचालन की वर्तमान विधि को रद्द करें. Cancel the
conditional Line clear working of Trains/present method of working the trains. लाइन क्लियर Line Clear must be obtained
by means of _____ साधन द्वारा अवश्य प्राप्त किया जाए।

पावती दें। Acknowledge

प्राइवेट नं. Private No. (शब्दों में/in words) _____ (अकों में/in figures) _____

स्टेशन मास्टर के हस्ताक्षर Signature of Station Master

स्टेशन मास्टर की मोहर Station Master Stamp

पावती ACKNOWLEDGEMENT

From Station Master _____ स्टेशन मास्टर से To Station Master _____ स्टेशन मास्टर को
दिनांक Date _____ 20 _____ समय Time _____ बजकर Hours. _____ मिनट Minutes
संदेश सं. Message No. _____

आपके संदेश सं. Your Message No. _____ से पता चलता है कि गाड़ी नं. understand that Train No.
_____ विवरण Description _____ which was the last Train to leave my station has
arrived complete at your station जो मेरे स्टेशन से चलने वाली अंतिम गाड़ी थी। आपके स्टेशन पर सही-सलामत पहुंच गई है। गाड़ी नं.
Train No. _____ which left your station has arrived complete at my station/not arrived जो आपके स्टेशन
से चली थी मेरे स्टेशन पर at _____ बजकर hours _____ minutes मिनट पर सही सलामत पहुंच गई है/नहीं पहुंची है। Conditional
Line Clear working of trains/present system of train working is being/will be cancelled immediately after the complete
arrival of train No. गाड़ी नं. _____ के सही सलामत पहुंचने के तत्काल बाद गाड़ियों का कंडीशनल लाइन क्लियर
संचालन/गाड़ी संचालन की वर्तमान पद्धति रद्द की जा रही है/की जाएगी। अगली गाड़ी के लिए लाइन क्लियर Line Clear for the next train
will be obtained by means of _____ साधन द्वारा प्राप्त किया जाएगा।

प्राइवेट नं. Private No. (शब्दों में/in words) _____ (अकों में/in figures) _____

स्टेशन मास्टर के हस्ताक्षर Signature of Station Master

स्टेशन मास्टर की मोहर Station Master Stamp

उत्तर रेलवे NORTHERN RAILWAY

इंजन अथवा गाड़ी के हिस्से को मध्य सेक्शन से अगले स्टेशन तक ले जाने की अनुमति दिए जाने पर
गार्ड द्वारा ड्राइवर को दी गई लिखित अनुमति

**Written permission given by the Guard to Loco Pilot when the Engine or portion of a train is
allowed to proceed to the next station from mid section**

(ड्राइवर/रिकार्ड Loco Pilot/Record)

To, The Loco Pilot of Train गाड़ी (नं. एवं विवरण No. and description) _____ के ड्राइवर को

आपको आपकी गाड़ी के इंजन के साथ आपकी गाड़ी के अगले हिस्से जिसमें अंतिम वाहन सं. _____ सहित _____ वाहन शामिल है _____ स्टेशन के लिए _____ बजकर _____ मिनट पर अलग करने और प्रस्थान करने के लिए प्राधिकृत किया जाता है। You are authorized to uncouple and proceed at _____ hours _____ minutes to _____ station with* the Engine of your Train/the front portion of your train consisting of _____ vehicles with last vehicle No. _____

आप ड्यूटी पर तैनात स्टेशन मास्टर को घटना की रिपोर्ट देंगे और यदि स्टेशन मास्टर द्वारा ऐसा करना अपेक्षित हो तो आप अपनी खराब गाड़ी पर/अपनी गाड़ी के पिछले हिस्से को लेने के लिए जो _____ कि.मी. पर है। स्टेशन मास्टर द्वारा अनुमति दिए जाने के बाद इस प्राधिकार पर वापस आएं। You shall deliver the report of occurrence to the Station Master on duty and, if required to do so by the Station Master, you shall return to *your disabled train/take the rear portion of your train which is at KM _____ on this Authority after being permitted by the Station Master.

मैं प्रमाणित करता हूँ कि मैंने मूर्त प्रस्थान अधिकार** _____ प्राप्त कर लिया है और मेरी गाड़ी का सेक्शन क्लियर हो जाने तक इसे सुरक्षित रखूंगा। यह भी प्रमाणित किया जाता है कि सेक्शन के मध्य में रह गया गाड़ी का हिस्सा नियमों के अनुसार कसकर बांधा हुआ है और सुरक्षित रखा गया है। I certify that I have received the tangible authority to proceed** _____ and will retain it, until the section is cleared of my train. Also certified that portion of Train left in Mid Section is secured and protected as per rules.

ड्राइवर के हस्ताक्षर Signature of Loco Pilot

दिनांक Date _____

समय Time _____

गार्ड के हस्ताक्षर Signature of Guard

दिनांक Date _____

समय Time _____

Loco Pilot of _____ के ड्राइवर को, you are hereby permitted and authorised to enter into the Block Section to clear the disabled/rear portion of your train. आपको अपनी गाड़ी के खराब/पिछले हिस्से को क्लियर करने के लिए ब्लॉक सेक्शन में प्रवेश करने हेतु एतद्वारा अनुमति दी जाती है और प्राधिकृत किया जाता है।

स्टेशन मास्टर के हस्ताक्षर Signature of Station Master

दिनांक Date _____ 20 _____

स्टेशन मास्टर की मोहर Station Master Stamp

*जो लागू न हो उसे काट दें Strike out whichever is not applicable.

**प्रस्थान करने के लिए प्राधिकार का ब्यौरा दर्ज करें। Enter particulars of the Authority to Proceed.

उत्तर रेलवे NORTHERN RAILWAY

शंटिंग आदेश SHUNTING ORDER

(डाइवर/गार्ड/रिकार्ड Loco Pilot/Guard/Record)

Station _____ स्टेशन

दिनांक Date _____ 20 _____

समय Time _____ बजकर Hours. _____ Minutes मिनट

To

The Loco Pilot of Train No. गाड़ी नं. _____ *अप/डाउन *UP/DOWN के डाइवर को

कृपया निम्नलिखित आदेशों का बिना किसी विलम्ब के तत्परता से अनुपालन करें Please comply with the following order promptly without any type of delay:—

1. _____
2. _____
3. _____
4. _____

*आपको ऑन स्थिति में You are authorised to pass _____ signal in the 'ON' position and सिगनल पार करने के लिए और proceed *up to/beyond** _____ signal. सिगनल तक/से आगे पहुंचने के लिए प्राधिकृत किया जाता है।

***इस उद्देश्य के लिए Section between _____ स्टेशन और Station and _____ station is *blocked back/blocked forward. स्टेशन के बीच सेक्शन ब्लॉक बैक/ब्लॉक फॉरवर्ड कर दिया है।

*आपको टोकन/टेबलेट/लाइन क्लियर टिकट संख्या For this purpose Token/Tablet/Line Clear Ticket No. _____ *एस एच/ओसीई चाबी SH/OCE Key is hereby issued to you from _____ hours बजकर _____ minutes मिनट से to _____ hours बजकर _____ minutes. मिनट तक एतद्वारा जारी की जाती है।

स्टेशन मास्टर के हस्ताक्षर Signature of Station Master

स्टेशन मास्टर की मोहर Station Master Stamp

डाइवर के हस्ताक्षर Signature of Loco Pilot _____ दिनांक Date _____ समय Time _____ बजकर hours _____ मिनट minutes

गार्ड के हस्ताक्षर Signature of Guard _____ दिनांक Date _____ समय Time _____ बजकर hours _____ मिनट minutes

*जो लागू न हो उसे काट दें Strike out whichever is not applicable.

**किमी. या सिगनल नं. दर्ज करें। Enter Km or Signal No.

***लाइन ब्लॉक ब्रेक ब्लॉक फॉरवर्ड होने पर लागू होता है। Applies when Line is Blocked back/Blocked forward.

उत्तर रेलवे NORTHERN RAILWAY

स्वचालित/अर्ध-स्वचालित/हस्तचालित/फाटक रोक सिगनलों को पार करने के लिए प्राधिकार
AUTHORITY TO PASS AUTOMATIC/SEMI-AUTOMATIC/MANUALLY OPERATED/GATE STOP SIGNALS
 (डाइवर/रिकार्ड Loco Pilot/Record)

Station _____ स्टेशन

दिनांक Date _____ 20 _____

समय Time _____ बजकर Hours _____ Minutes मिनट

To

The Loco Pilot/Motorman of Train No. गाड़ी नं. _____ Up/Down अप/डाउन के डाइवर/मोटरमैन को

(क a) स्वचालित सिगनल खराब हो जाने पर आपको _____ स्टेशन और _____ स्टेशन के बीच सभी स्वचालित सिगनलों को पार करने के लिए प्राधिकृत किया जाता है। इसके अलावा आपको वहीं में रेल कर्मचारी के द्वारा इन सिगनलों को पार करने पर अर्ध-स्वचालित/हस्तचालित/ फाटक रोक सिगनलों को पार करने के लिए भी प्राधिकृत किया जाता है। खण्ड 'ख' में यथा उपबंधित को छोड़कर सिगनल पर हाथ-सिगनल दिखाया जाना है। (a) Automatic signaling has failed and you are, hereby authorised to pass all Automatic signals between _____ station and _____ station. In addition, you are also authorized to pass Semi Automatic/manually operated/gate stop signals on being hand signaled past such signals by a railway servant in uniform. The hand signals being displayed at the foot of signal except as provided for in clause 'b'.

(ख b) जब गलत दिशा में चल रहे हों (i) आप अवश्य पता लगाएं कि बाहरी साइडिंग के कांटे, जहां उपलब्ध कराए गए हों, सही तरीके से सेट करके ताला लगाया गया है और या समपार फाटक सं. _____ पर ताले लगाए गए हैं और (ii) कांटे और समपार फाटकों को पार करने से पहले वहीं में रेल कर्मचारी द्वारा हाथ-सिगनल दिखाए जाते हैं। When running in wrong direction (i) you must ascertain that points of outlying siding, where provided, are correctly set and locked and/or the level crossing gates Nos. _____ are locked and (ii) hand signals are displayed by the railway servant in uniform at the points, level crossing gates before passing them.

यहां पार किए जाने वाले सभी सिगनलों]
 के पहचान नं. का उल्लेख करें।]

Here indicate distinguishing]
 Number of all signals to be]
 thus passed.]

स्टेशन मास्टर के हस्ताक्षर Signature of Station Master

स्टेशन मास्टर की मोहर Station Master Stamp

मैंने इस प्राधिकार की विषय वस्तु को समझ लिया है। I have understood the contents of this authority.

गाई के हस्ताक्षर Signature of Guard _____ दिनांक Date _____ समय Time _____ बजकर hours _____ मिनट minutes

डाइवर के हस्ताक्षर Signature of Loco Pilot _____ दिनांक Date _____ समय Time _____ बजकर hours _____ मिनट minutes

उत्तर रेलवे NORTHERN RAILWAY

ब्लॉक सिगनल क्षेत्रों पर लाइन क्लियर के बिना आगे बढ़ने के लिए प्राधिकार. AUTHORITY TO PROCEED
WITHOUT LINE CLEAR ON AUTOMATIC BLOCK SIGNALLING TERRITORIES

(ड्राइवर/रिकार्ड Loco Pilot/Record)

Station _____ स्टेशन

दिनांक Date _____ 20 _____
Time समय _____ बजकर hours _____ मिनट minutes

इंजन/गाड़ी/यूनिट नं. _____ अप/डाउन के मोटर मैन/ड्राइवर को.

To : The Motor man/Loco Pilot of Engine/Train/Unit No. _____ Up / Down

आपको अप/डाउन लाइन पर अपनी गाड़ी के साथ या के बिना _____ स्टेशन से _____ स्टेशन तक लाइन क्लियर के बिना सावधानी पूर्वक आगे बढ़ने के लिए एतद्वारा प्राधिकृत किया जाता है. You are here by authorized to proceed cautiously without line clear from _____ station to _____ station with or without your train on UP / DOWN* Line. आपको स्टेशन से संबंधित लाइन पर पहले रोक सिगनल/अंतिम रोक सिगनल से पहले अपनी गाड़ी/इंजन/यूनिट नं. _____ खड़ी कर देनी होगी और इसके बाद _____ स्टेशन के स्टेशन मास्टर के अनुदेशों द्वारा निर्देशित किया जाएगा. You shall bring your Train / Engine / Unit No. _____ to stand out side first Stop Signal/ Last Stop Signal pertaining to wrong line* of the station and there after be guided by the instructions from the Station Master of _____ station.

सेक्शन पर गाड़ी नं. _____ अंतिम गाड़ी थी. यह _____ बजकर _____ मिनट पर यहां से /पर चली / पहुंची.
Train No. _____ was the last train over the section. It left / arrived* here at _____ hours _____ minutes.

परिस्थितियां जिनमें यह प्राधिकार दिया जाता है. CIRCUMSTANCES UNDER WHICH THIS AUTHORITY IS GIVEN

- * (क A) सिगनलों एवं संचार व्यवस्था का खराब हो जाना. Failure of signals and communications.
- * (ख B) _____ स्टेशन और _____ स्टेशन के बीच _____ कि.मी. पर लाइन का अवरोध होना / पर अवरोध होना और संचार साधनों का खराब हो जाना. Blocking of line / obstruction on line at KM _____ between _____ station and _____ station and failure of means of communication.
- * (ग C)

'ऑन' स्थिति में सिगनलों को पार करने के लिए प्राधिकार AUTHORITY TO PASS SIGNALS IN 'ON' POSITION

आपको रेल कर्मचारी द्वारा हाथ से सिगनल देने पर 'ऑन' स्थिति में मध्यवर्ती स्वचालित सं. _____, अर्धस्वचालित सिगनल, हस्तचालित सिगनल सं. _____ और ऑन स्थिति में फाटक रोक सिगनलों को समझ पर तक सावधानी पूर्वक पार करने के लिए प्राधिकृत किया जाता है.

You are authorized to pass the Intervening Automatic Signal Nos. _____ at 'ON'/Semi Automatic Signal, Manually Operated Signal Nos. _____ on being hand signaled by a railway employee and the Gate Stop Signals in 'ON' position cautiously up to the level crossing.

सतर्कता-आदेश CAUTION ORDER

1. आपको _____ स्टेशन से _____ स्टेशन तक अपने इंजन/ गाड़ी / यूनिट सं. _____ को दृश्यता साफ होने पर सीधी लाइन पर 25 कि.मी. प्रतिघण्टा और सुरंग, धुमाव, अवरोध, बरिष, कोहरा या किसी अन्य कारण से जब दृश्यता साफ न हो 10 कि.मी. प्रति घण्टा से अधिक प्रति न रखते हुए चलने की अनुमति दी जाती है. You are permitted to run your Engine/Train / Unit No. from _____ station to _____ Station with the speed not exceeding 25 kmph over the straight with clear view and 10 kmph when view ahead is impaired due to tunnel, curve, obstruction, rain, fog or any other cause.

स्टेशन मास्टर के हस्ताक्षर Signature of Station Master

स्टेशन मास्टर की मोहर Station Master Stamp

मैंने इस प्राधिकार की विषय-वस्तु को समझ लिया है. I have under stood the contents of this authority.

गाई के हस्ताक्षर Signature of Guard _____ दिनांक Date _____ समय Time _____ बजकर hours _____ मिनट minutes

ड्राइवर के हस्ताक्षर Signature of Loco Pilot _____ दिनांक Date _____ समय Time _____ बजकर hours _____ मिनट minutes

*जो लागू न हो उसे काट दें. Strike out whichever is not applicable.

इस प्राधिकार पर चलने वाले ड्राइवर इस फॉर्म के पीछे उल्लिखित अनुदेशों का पालन अवश्य करें।

Loco Pilot proceeding on this authority must observe instructions mentioned at the back of this form.

महत्वपूर्ण अनुदेश Important Instruction

इस प्राधिकार पर चलने वाले मोटरमैन/ड्राइवर निम्नलिखित सावधानियां अवश्य बरतें:-

Motorman/Loco Pilot proceeding on this authority must observe the following precautions:-

1. दृश्यता साफ होने पर सीधी लाइन पर गति 25 कि.मी.प्र.घं. और लाइन के किसी भाग के पास पहुंचते या पार करते हुए जहां घुमाव, अनधिकृत कोहरा एवं किसी अन्य कारण से दृश्यता साफ न होने पर गति 10 कि.मी.प्र.घं. से अधिक न रखें बशर्ते कि लगाए गए गति प्रतिबंध और सम्मुख कांटे 15 कि.मी.प्र.घं. तक प्रतिबंधित गति का पालन करें।
Speed must not exceed 25 KMPH over the straight with clear view and 10 KMPH when approaching or passing any portion of the line where the view ahead is not clear due to curve, obstruction, rain, fog or any other cause subject to the observance of speed restriction imposed and speed over facing points restricted to 15 KMPH.
2. दिन और रात के समय ड्राइवर को किसी सुरंग में तब तक नहीं घुसना चाहिए जब तक कि ड्राइवर यह जान न ले कि सुरंग क्लियर है। यदि कोई शंका हो तो। गाड़ी को एक रेल कर्मचारी द्वारा जो हाथ-सिगनलों और पटाखों से सुसज्जित हो, मार्गदर्शित किया जाना चाहिए।
Both by day or night at tunnel must not be entered until the Loco Pilot has ascertained that it is clear. Should there be any doubt on this point, the train should be piloted by a Railway Employee equipped with lighted hand signals and detonators.
3. हर समय बाहर की ओर कड़ी निगरानी रखी जानी चाहिए और ड्राइवर प्रत्यक्ष या रेल पथ पर अचानक होने वाले किसी भी अवरोध से पहले रुकने के लिए अवश्य तैयार रहें। इंजन की सीटी का निर्बाध रूप से अवश्य इस्तेमाल किया जाए।
A sharp look out must be kept at all times and Loco Pilot must be prepared to stop clear and short of any obstruction which may exist or crop up on the Engine whistle must be freely used.
4. आगे नामित स्टेशन पर पहुंचते समय ड्राइवर अपनी गाड़ी के इंजन को रॉग लाइन पर पहले रोक सिगनल/अंतिम रोक सिगनल के बाहर अवश्य खड़ा करें और एक लम्बी सीटी बजाए और स्टेशन मास्टर के अनुदेशों का पालन करें।
When approaching the nominated station ahead, the Loco Pilot must bring his train engine to stand outside the First Stop Signal/Last Stop Signal pertaining to wrong line and sound one long whistle and act to the instructions of the Station Master.
5. प्राधिकृत यात्रा को समाप्ति पर नामित स्टेशन के स्टेशन मास्टर को यह फॉर्म रिकार्ड के लिए सौंप देना चाहिए।
The form should be handed over to the Station Master of the nominated station at the end of the authorized journey for record.

उत्तर रेलवे NORTHERN RAILWAY

स्वचालित ब्लॉक सिग्नल सेक्शन में राहत इंजन/गाड़ी के लिए आगे बढ़ने हेतु प्राधिकार AUTHORITY TO PROCEED
FOR RELIEF ENGINE / TRAIN INTO AN AUTOMATIC BLOCK SIGNALLING SECTION

(ड्राइवर/रिकार्ड Loco Pilot/Record)

Station _____ स्टेशन

दिनांक Date _____ 20 _____

समय Time _____ बजकर hours _____ मिनट minutes.

राहत इंजन / गाड़ी नं. _____ अप / डाउन के मोटर मैन / ड्राइवर को

To The Moto man / Loco Pilot of Relief Engine / Train No. _____ Up/Down.

आपको अप/डाउन *लाइन पर अपने राहत इंजन/गाड़ी * के साथ _____ स्टेशन _____ कि.मी. तक लाइन क्लियर के बिना सावधानी पूर्वक आगे बढ़ने के लिए प्राधिकृत किया जाता है . You are here by authorized to proceed cautiously without line clear from _____ station to up to Km. _____ with your Relief Engine/Train* on UP / DOWN* Line. आप अपनी राहत गाड़ी / इंजन * को _____ कि.मी. पर खड़ा कर देंगे और उसके बाद साइट पर सक्षम प्राधिकारी के अनुदेशों द्वारा निर्देशित किया जाएगा . You shall bring your Relief Train / Engine* to a stand at Km. _____ and there after be guided by the instructions from the Competent Authority at site.

यह आदेश _____ कि. मी. पर अप / डाउन * लाइन पर अवरोध होने के कारण दिया जाता है । परन्तु _____ स्टेशन और _____ स्टेशन के बीच संचार व्यवस्था उपलब्ध है . This order is given due to obstruction on UP/DOWN* line at km _____. But communication is available between _____ station and _____ station.

Train No. _____ was the last train over the section.

इस सेक्शन पर गाड़ी सं. _____ अंतिम गाड़ी थी । यह यहां से / पर _____ बजकर _____ मिनट चली / पहुंची . Train No. _____ was the last train over the section. It left / arrived* here at _____ hours _____ minutes.

सतर्कता आदेश CAUTION ORDER

आपको _____ स्टेशन से _____ स्टेशन तक अपने राहत इंजन / गाड़ी को दृश्यता साफ होने पर सीधी लाइन पर 15 कि. मी. प्रति घण्टा और सुरंग, घुमाव, अवरोध, बारिश, कोहरा या किसी अन्य कारण से दृश्यता साफ न होने पर 10 कि.मी. प्रति घण्टा से अधिक गति न रखते हुए चलाने की अनुमति दी जाती है . You are permitted to run your Relief Engine / Train from _____ station to km _____ with the speed not exceeding 15 kmph over the straight with clear view and 10 kmph when view ahead is impaired due to tunnel, curve, obstruction, rain, fog or any other cause.

स्टेशन मास्टर के हस्ताक्षर Signature of Station Master

स्टेशन मास्टर की मोहर Station Master Stamp

मैंने इस प्राधिकार की विषय-वस्तु को समझ लिया है . I have under stood the contents of this authority

गाई के हस्ताक्षर Signature of Guard _____ दिनांक Date _____ समय Time _____ बजकर hours _____ मिनट minutes

ड्राइवर के हस्ताक्षर Signature of Loco Pilot _____ दिनांक Date _____ समय Time _____ बजकर hours _____ मिनट minutes

*जो लागू न हो उसे काट दें. Strike out whichever is not applicable.

इस प्राधिकार पर चलने वाला ड्राइवर इस फॉर्म के पीछे उल्लिखित अनुदेशों का गलन अवश्य करें ।

Loco Pilot proceeding on this authority must observe instructions mentioned at the back of this form.

महत्वपूर्ण अनुदेश Important Instruction

इस प्राधिकार पर चलने वाले मोटरमैन/ड्राइवर निम्नलिखित सावधानियां अवश्य बरतें:-

Motorman/Loco Pilot proceeding on this authority must observe the following precautions:-

1. दृश्यता साफ होने पर सीधी लाइन पर गति 25 कि.मी.प्र.घं. और लाइन के किसी भाग के पास पहुंचते या पार करते हुए जहां घुमाव, अनधिकृत कोहरा एवं किसी अन्य कारण से दृश्यता साफ न होने पर गति 10 कि.मी.प्र.घं. से अधिक न रखें बशर्ते कि लगाए गए गति प्रतिबंध और सम्मुख कांटे 15 कि.मी.प्र.घं. तक प्रतिबंधित गति का पालन करें।
Speed must not exceed 25 KMPH over the straight with clear view and 10 KMPH when approaching or passing any portion of the line where the view ahead is not clear due to curve, obstruction, rain, fog or any other cause subject to the observance of speed restriction imposed and speed over facing points restricted to 15 KMPH.
2. दिन और रात के समय ड्राइवर को किसी सुरंग में तब तक नहीं घुसना चाहिए जब तक कि ड्राइवर यह जान न ले कि सुरंग क्लियर है। यदि कोई शंका हो तो। गाड़ी को एक रेल कर्मचारी द्वारा जो हाथ-सिगनलों और पटाखों से सुसज्जित हो, मार्गदर्शित किया जाना चाहिए।
Both by day or night at tunnel must not be entered until the Loco Pilot has ascertained that it is clear. Should there be any doubt on this point, the train should be piloted by a Railway Employee equipped with lighted hand signals and detonators.
3. हर समय बाहर की ओर कड़ी निगरानी रखी जानी चाहिए और ड्राइवर प्रत्यक्ष या रेल पथ पर अचानक होने वाले किसी भी अवरोध से पहले रूकने के लिए अवश्य तैयार रहें। इंजन की सीटी का निर्बाध रूप से अवश्य इस्तेमाल किया जाए।
A sharp look out must be kept at all times and Loco Pilot must be prepared to stop clear and short of any obstruction which may exist or crop up on the Engine whistle must be freely used.
4. आगे नामित स्टेशन पर पहुंचते समय ड्राइवर अपनी गाड़ी के इंजन को रॉग लाइन पर पहले रोक सिगनल/अंतिम रोक सिगनल के बाहर अवश्य खड़ा करें और एक लम्बी सीटी बजाए और स्टेशन मास्टर के अनुदेशों का पालन करें।
When approaching the nominated station ahead, the Loco Pilot must bring his train engine to stand outside the First Stop Signal/Last Stop Signal pertaining to wrong line and sound one long whistle and act to the instructions of the Station Master.
5. प्राधिकृत यात्रा को समाप्ति पर नामित स्टेशन के स्टेशन मास्टर को यह फॉर्म रिकार्ड के लिए सौंप देना चाहिए।
The form should be handed over to the Station Master of the nominated station at the end of the authorized journey for record.

उत्तर रेलवे NORTHERN RAILWAY

सिगनलों की दीर्घ कालीन खराबी के दौरान स्वचालित ब्लॉक पद्धति पर आगे बढ़ने के लिए प्राधिकार
 PROCEED ON AUTOMATIC BLOCK SYSTEM DURING PROLONGED FAILURE OF SIGNALS
 (ड्राइवर/रिकार्ड Loco Pilot/Record)

Station _____ स्टेशन

दिनांक Date _____ 20 _____

समय Time _____ बजकर Hrs. _____ मिनट minutes

ई एम यू/इंजन/गाड़ी* सं. _____ विवरण _____ अप/डाउन* के मोटर मैन/ड्राइवर को

To the Motorman/Loco Pilot* of EMU/Engine/Train* No. _____ Description _____ Up/Down*.

_____ स्टेशन और _____ स्टेशन के बीच सभी सिगनल खराब हो गए हैं। अपने प्राइवेट नं. (शब्दों में) _____
 (अकों में) _____ से _____ स्टेशन से लाइन क्लियर प्राप्त कर लिया गया है। All signals between _____
 Station and _____ Station have failed. Line Clear has been received from _____ Station under his Private
 No. (in words) _____ (in figures) _____.

आपको अप/डाउन लाइन पर _____ स्टेशन से _____ स्टेशन तक 25 कि.मी. प्रति घंटा से अधिक गति न रखते
 हुए सावधानी पूर्वक आगे बढ़ने के लिए एतद्वारा प्राधिकृत किया जाता है। You are hereby authorised to proceed cautiously from
 _____ station to _____ station on Up/Down* line at a speed not exceeding 25 Kmph.

आपको समपार फाटकों पर सभी सावधानियों को बरतते हुए इस प्राधिकार पर ऑन स्थिति पर प्रस्थान सिगनलों, फाटक सिगनलों और अन्य
 मध्यवर्ती सिगनलों को पार करने के लिए भी प्राधिकृत किया जाता है। You are also authorized to pass departure signals, Gate
 signals and other intervening signals at 'ON' on this authority observing all precautions at the level crossing gates.

आपको _____ स्टेशन पर पहले रोक सिगनल के बाहर रुकना होगा और इसके बाद उस स्टेशन के स्टेशन मास्टर के अनुदेशों
 द्वारा निर्देशित किया जाएगा। You shall stop outside the first Stop Signal at _____ Station and thereafter be guided
 by the instructions of the Station Master of that station.

स्टेशन मास्टर के हस्ताक्षर Signature of Station Master

स्टेशन मास्टर की मोहर Station Master Stamp

मैंने इस प्राधिकार की विषय-वस्तु को समझ लिया है। I have under stood the contents of this authority.

गार्ड के हस्ताक्षर Signature of Guard _____ दिनांक Date _____ समय Time _____ बजकर hours _____ मिनट minutes

ड्राइवर के हस्ताक्षर Signature of Loco Pilot _____ दिनांक Date _____ समय Time _____ बजकर hours _____ मिनट minutes

*जो लागू न हो उसे काट दें। Strike out whichever is not applicable.

उत्तर रेलवे NORTHERN RAILWAY

Station _____ स्टेशन

दिनांक Date _____ 20__

गाड़ी का संपूर्ण आगमन रजिस्टर TRAIN INTACT ARRIVAL REGISTER

क्रम सं. Sl.No.	दिनांक DATE	गाड़ी नं. TRAIN NO.	आगमन का समय Time of Arrival		उसकी गाड़ी सही-सलामत पहुंच गई है और सभी उल्लंघन चिह्नों से हटकर खड़ी है, इस संबंध में टोकन में गार्ड के हस्ताक्षर Guard's signature in token that his train has arrived complete and is standing clear of all fouling marks
			बजकर Hour	मिनट Minutes	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					

स्टेशन मास्टर के हस्ताक्षर Signature of Station Master

स्टेशन मास्टर की मोहर Station Master Stamp

NORTHERN RAILWAY

**Line Clear Inquiry and Reply Message Book in the event of
Failure/Suspension/Non-provision of Block Instruments****Train Despatching Station****Line Clear Inquiry**

- A.** {
1. Date..... Mode of communication.....
 2. From Station Master.....(Name of SM) of.....(Station)
To Station Master.....(Name of SM) of.....(Station)
 3. Train No.....Up/Dn.
 4. Line Clear asked at.....hrs. and reply received from.....
 5. Last Train No.....Up/Dn left.....station at.....hrs.
and arrived at.....station at.....hrs.
 6. Private Number received (in figures and words).....

Train Entering Section

- B.*** {
7. Train No.....Up/Dn left at.....hrs.
 8. Train entering section report given to.....station and acknowledged at.....hrs.

Train Out of Section

- C.*** {
9. Train No.....Up/Dn arrived at.....station at.....hrs.
 10. Train Out of Section report received from.....station and acknowledged at.....hrs.

Line Clear Cancellation

- D.*** {
11. Line Clear Cancelled at.....hrs. Reasons for cancellation.....
 12. Private number exchanged given.....Recieved.....

Signature of Station Master

*Strikeout whichever is not applicable.

*Separate Books to be maintained for each block section.

उत्तर रेलवे

क्रम सं.....

ब्लाक उपकरणों में खराबी होने/रुक जाने/उपलब्ध न होने की स्थिति में लाइन क्लीयर पूछताछ एवं उत्तर संदेश पुस्तिका

गाड़ी भेजने वाला स्टेशन

लाइन क्लीयर पूछताछ के संबंध में

- क. {
1. दिनांक..... संचार का माध्यम.....
 2. स्टेशन से स्टेशन मास्टर.....(स्टेशन मास्टर का नाम) द्वारा
.....स्टेशन के स्टेशन मास्टर.....(स्टेशन मास्टर का नाम) के लिए
 3. गाड़ी सं.....अप/डाउन
 4. लाइन क्लीयर.....बजे पूछा गया आर.....स्टेशन स.....बजे उत्तर प्राप्त हुआ।
 5. अंतिम गाड़ी सं. अप/डाउन.....स्टेशन से.....बजे रवाना हुई और.....स्टेशन पर.....बजे पहुंची
 6. प्राप्त किया गया प्राइवेट नम्बर (अंकों एवं शब्दों में).....

गाड़ी का सेक्शन में प्रवेश करना

- ख.* {
7. गाड़ी सं. अप/डाउन.....बजे रवाना हुई।
 8. गाड़ी के सेक्शन में प्रवेश करने के संबंध में.....स्टेशन को.....बजे रिपोर्ट भेजी गई और पावती प्राप्त हुई।

गाड़ी का सेक्शन से बाहर जाना

- ग.* {
9. गाड़ी सं. अप/डाउन.....स्टेशन पर.....बजे पहुंची
 10. स्टेशन से ट्रेन आऊट ऑफ सेक्शन रिपोर्ट.....बजे प्राप्त हुई

लाइन क्लीयर रद्दीकरण

- घ.* {
11. लाइन क्लीयर.....बजे रद्द की गई। रद्द करने के कारण.....
 12. प्राइवेट नं. की अदला-बदली, दिया गया.....प्राप्त किया.....

स्टेशन मास्टर के हस्ताक्षर

*जो लागू न हो उसे काट दें।

नोट: प्रत्येक ब्लॉक सेक्शन के लिए अलग-अलग किताबें उपयोग की जाएं।

NORTHERN RAILWAY

Sr.No.

Line Clear Inquiry and Reply Message Book in the event of Failure/Suspension/Non-provision of Block Instruments

Train Recieving Station

Line Clear Reply

- A.** {
1. Date..... Mode of communication.....
 2. From Station Master.....(Name of SM) of.....Station
To Station Master.....(Name of SM) of.....Station
 3. Train No.....Up/Dn.
 4. Line Clear asked by.....station at.....hrs. and reply given at.....hrs.
 5. Last Train No.....Up/Dn left.....station at.....hrs.
and arrived at.....station at.....hrs.
 6. Private Number given (in figures and words).....

Train Entering Section

- B.*** {
7. Train No.....Up/Dn left at.....station at.....hrs.
 8. Train entering section report received from station and acknowledged at.....hrs.

Train Out of Section

- C.*** {
9. Train No.....Up/Dn arrived at.....hrs.
 10. Train Out of Section report given to.....station and acknowledged at.....hrs.

Line Clear Cancellation

- D.*** {
11. Line Clear Cancelled at.....hrs. Reasons for cancellation.....
 12. Private number exchanged given.....Recieved.....

Signature of Station Master

*Strikeout whichever is not applicable.

*Separate Books to be maintained for each block section.

उत्तर रेलवे

क्रम सं.

ब्लॉक उपकरणों में खराबी होने/रुक जाने/उपलब्ध न होने की स्थिति में लाइन
क्लीयर पूछताछ एवं उत्तर संदेश पुस्तिका

गाड़ी आगमन का स्टेशन

लाइन क्लीयर के संबंध में उत्तर

- क. { 1. दिनांक..... संचार का माध्यम.....
2. स्टेशन के स्टेशन मास्टर.....(स्टेशन मास्टर का नाम)
से स्टेशन के स्टेशन मास्टर.....(स्टेशन मास्टर का नाम) के लिए
3. गाड़ी सं.....अप/डाउन
4. लाइन क्लीयर.....स्टेशन से.....बजे पूछा गया और..... बजे उत्तर दिया गया
5. आखिरी गाड़ी सं. अप/डाउन.....स्टेशन से.....बजे रवाना हुई और..... स्टेशन पर.....बजे पहुंची
6. दिया गया प्राइवेट नम्बर (अंकों एवं शब्दों में).....

गाड़ी का सेक्शन में प्रवेश करना

- ख.* { 7. गाड़ी सं. अप/डाउन.....स्टेशन से.....बजे रवाना हुई
8. गाड़ी के सेक्शन में प्रवेश करने के संबंध में स्टेशन से रिपोर्ट.....बजे प्राप्त हुई और पावती दी गई

गाड़ी का सेक्शन से बाहर जाना

- ग.* { 9. गाड़ी सं. अप/डाउन.....बजे पहुंची
10. ट्रेन आऊट ऑफ सेक्शन के संबंध में स्टेशन को.....बजे रिपोर्ट भेजी गई और पावती प्राप्त हुई

लाइन क्लीयर रद्दीकरण

- घ.* { 11. लाइन क्लीयर.....बजे रद्द की गई। रद्द करने के कारण.....
12. प्राइवेट नं. की अदला-बदली, दिया गया.....प्राप्त किया.....

स्टेशन मास्टर के हस्ताक्षर

*जो लागू न हो उसे काट दें।

नोट:- प्रत्येक ब्लॉक सेक्शन के लिए अलग-अलग किताबें उपयोग की जाएं।

उत्तर रेलवे
पेपर लाइन क्लियर टिकट
(चालक/रिकॉर्ड)

प्रप गाड़ी सं _____ अप विवरण _____
दिनांक _____ समय _____ बजकर _____ मिनट
_____ स्टेशन मास्टर से

गाड़ी नं. _____ अप के चालक को

लाइन क्लियर है और आपको _____ स्टेशन के लिए आगे बढ़ने के लिए प्राधिकृत किया जाता है।

अंतिम गाड़ी सं (अंतिम वाहन सहित) _____ ने _____ स्टेशन पर सेक्शन क्लियर किया।

प्राप्त किया प्राइवेट नं. (अंकों में) _____ (शब्दों में) _____

'ऑन' स्थिति में सिग्नल पार करने के लिए प्राधिकार

*आपको अंतिम रोक सिग्नल एवं अन्य प्रस्थान सिग्नल का यदि कोई हा का खतर न पार करने हेतु प्राधिकृत किया जाता है, जब सिग्नल ब्लॉक उपकरण के साथ इंटरलाकड हो।

स्टेशन मास्टर के हस्ताक्षर
स्टेशन मास्टर की मोहर

जी लागू न हो उसे काट दें।

Form No. T/C-1425
Sr. No. _____

NORTHERN RAILWAY
PAPER LINE CLEAR TICKET

(LOCO Pilot/Record)

Up
Train No. _____ Up
Date _____
From Station Master _____
Time _____ hours _____ minutes
Description _____

To The Loco Pilot of Train No. _____ UP

The line is clear and you are authorized to proceed to _____ Station.

Last train No. (with its last vehicle) _____ cleared the section at _____ Station.

Private No. received (in figures) _____ (in words) _____

AUTHORITY TO PASS SIGNAL AT ON POSITION

*You are authorized to pass Last Stop Signal and other departure signal if any in danger, when the signal is interlocked with Block Instrument

Signature of Station Master

Station Master Stamp

*Strike out whichever is not applicable

(वाहन / रिकॉर्ड)

दिनांक

गाड़ी नं.

डाइरेक्टर

डिवीजन

दिनांक

समय

पलकों

गाड़ी नं.

हालत के बालक को

लाइन क्लियर है और आपको

स्टेशन से निकल जाने के लिए

किया जाता है।

अंतिम गाड़ी नं. (अंतिम वाहन सहित)

ने

स्टेशन पर सेक्शन क्लियर किया

प्राप्त किया प्राइवेट नं. (अंको में)

(शब्दों में)

ऑन' स्थिति में सिग्नल पार करने के लिए प्राधिकार

*आपको अंतिम रोक सिग्नल एवं अन्य प्रस्थान सिग्नलों को यदि कोई हो को खतरा में पार करने हेतु प्राधिकृत किया जाता है, जब सिग्नल ब्लॉक उपकरण के साथ इंटरलॉकड हो।

स्टेशन मास्टर के हस्ताक्षर

स्टेशन मास्टर की मोहर

*जो लागू न हो उसे काट दें।

Form No. T/D-1425

Sr. No.

NORTHERN RAILWAY
PAPER LINE CLEAR TICKET
(Loco Pilot/Record)

Down

Train No. Down

Description

Date Time hours

minutes

From Station Master

To The Loco Pilot of Train No. DN

The line is clear and you are authorized to proceed to Station.

Last train No. (with its last vehicle) cleared the section at Station.

Private No. received (in figures) (in words)

AUTHORITY TO PASS SIGNAL AT ON POSITION

*You are authorised to pass Last Stop Signal and other relevant signals in danger, when the signal is interlocked with Block Instrument.

Signature of Station Master

Station Master Stamp

*Strike out whichever is not applicable.

फॉर्म सं. टी Form No. T/1518. क्रम सं. Sr. No. _____	फॉर्म सं. टी Form No. T/1518. क्रम सं. Sr. No. _____	फॉर्म सं. टी Form No. T/1518. क्रम सं. Sr. No. _____
उत्तर रेलवे NORTHERN RAILWAY ट्रॉली/लॉरी/ओएचई लेडर ट्रॉली नोटिस TROLLEY/LORRY/OHE LADDER TROLLEY NOTICE	उत्तर रेलवे NORTHERN RAILWAY ट्रॉली/लॉरी/ओएचई लेडर ट्रॉली नोटिस TROLLEY/LORRY/OHE LADDER TROLLEY NOTICE	उत्तर रेलवे NORTHERN RAILWAY ट्रॉली/लॉरी/ओएचई लेडर ट्रॉली नोटिस TROLLEY/LORRY/OHE LADDER TROLLEY NOTICE
क A नोटिस सं. Notice No. _____ दिनांक Date _____ समय Time _____ hours.	ख B To The Official In Charge of _____ Lorry / Trolley / OHE Ladder Trolley. लॉरी/ट्रॉली/ओएचई/लेडर ट्रॉली के प्रभारी अधिकारी को मैंने I have exchanged advice with _____ स्टेशन के साथ सूचना का आदान प्रदान कर लिया है एवं जब तक मुझे लॉरी/ट्रॉली को हटाने की सूचना प्राप्त नहीं हो जाती तब तक सभी गाड़ियों को सतर्कता आदेश जारी किया जाएगा/ station and shall issue caution order to all trains until I receive advice of the removal of lorry / trolley.	ग C हटाने संबंधी रिपोर्ट (रिमूवल रिपोर्ट) REMOVAL REPORT सन्दर्भ Reference:- लॉरी/ट्रॉली/ओएचई लेडर ट्रॉली नोटिस सं Lorry / Trolley/ OHE Ladder Trolley Notice No. _____ दिनांक Dated _____.
Department _____ विभाग . Station _____ स्टेशन To _____ Master _____ स्टेशन मास्टर को । ट्रॉली/लॉरी/ओएचई लेडर ट्रॉली सं. Trolley/ Lorry /OHE/Ladder Trolley No. _____ _____ is required to work between _____ स्टेशन station and ओर _____ स्टेशन के बीच station अप/डाउन लाइन पर on Up/Down line at _____ KM कि.मी. पर from _____ बजकर hours _____ मिनट से minutes to _____ बजकर hours _____ मिनट तक minutes. कार्य करने के लिए अर्पणित है । यह It will leave _____ station स्टेशन से at _____ बजकर hours _____ मिनट पर minutes इस दिन के of this day for स्टेशन station/ KM No कि.मी. सं. _____ के लिए चलेगी. मुझे मालूम है कि मुझे I am aware that I should clear the Block Section by _____ बजकर hours _____ मिनट minutes तक ब्लॉक सेक्शन क्लियर कर लेना चाहिए ।	अप/डाउन लाइन The Line has been blocked for your Lorry / Trolley / OHE Ladder Trolley between _____ स्टेशन और Station and _____ स्टेशन के बीच आपकी लॉरी/ट्रॉली/ओएचई लेडर ट्रॉली से अवरूद्ध हो गई है और लॉरी/ट्रॉली/ओएचई लेडर ट्रॉली को हटाने संबंधी रिपोर्ट प्राप्त होने पर भी अवरूद्धता हटाई जाएगी. Station on UP / DOWN Line and block will be removed only on receipt of the removal report of Lorry / Trolley / OHE Ladder Trolley. प्राइवेट नं. Private Number (शब्दों में in words) _____ (अंकों में in figures) _____ आपको अनुमत ब्लॉक के भीतर ब्लॉक सेक्शन के क्लियरेंस को सुनिश्चित करने के लिए सलाह दी जाती है You are advised to ensure clearance of Block Section within Block permitted.	_____ पर पहुंची लॉरी/ट्रॉली / ओएचई लेडर ट्रॉली सं. _____ Lorry / Trolley / OHE Ladder Trolley No. _____ arrived at was removed from the track at _____ बजकर hours _____ minutes मिनट पर at km _____ कि.मी. पर रेलपथ से हटा ली गई थी सामान्य गाड़ी संचालन दोबारा शुरू करने के लिए ब्लॉक सेक्शन में अवरोध नहीं है. Block Section is free from obstruction to resume normal Train Working. प्रभारी अधिकारी के हस्ताक्षर Signature of official In charge हटाने संबंधी रिपोर्ट (रिमूवल रिपोर्ट) दिनांक _____ को _____ बजकर _____ मिनट पर प्राप्त हुई Removal report received at _____ hours minutes on date _____ 20 ____.
प्रभारी अधिकारी के हस्ताक्षर Signature of Official In Charge स्टेशन मास्टर के हस्ताक्षर Signature of Station Master स्टेशन मास्टर की मोहर Station Master Stamp	स्टेशन मास्टर के हस्ताक्षर Signature of Station Master स्टेशन मास्टर की मोहर Station Master Stamp दिनांक Date _____ समय Time _____	स्टेशन मास्टर के हस्ताक्षर Signature of Station Master स्टेशन मास्टर की मोहर Station Master Stamp

उत्तर रेलवे NORTHERN RAILWAY
मोटर ट्राली परमिट MOTOR TROLLEY PERMIT
 (मूल प्रति/दूसरी प्रति Original/Duplicate)

Station _____ स्टेशन

दिनांक Date _____ 20 _____

From Station Master _____ स्टेशन मास्टर से

To

_____ (प्रभारी अधिकारी Officer In charge) मोटर ट्राली सं. Motor Trolley No. _____ को

आपको गाड़ी नं./मोटर ट्राली नं. You are permitted to follow Train No. Motor Trolley No. _____ in Block
 Section between Station ब्लाक सेक्शन में _____ स्टेशन और and Station _____ स्टेशन के बीच which left this
 station इस स्टेशन से _____ बजकर hours _____ minutes मिनट पर for station _____ स्टेशन के लिए
 चली है, के पीछे चलने की अनुमति दी जाती है।

आपको 'आन' स्थिति में अप/डाउन You are authorized to pass Up/Down _____ signals at 'ON'
 position. सिगनलों को पार करने के लिए भी प्राधिकृत किया जाता है।

On arrival at Station _____ स्टेशन पर पहुंचने पर आप यह परमिट you are required to hand over this
 permit to Station Master _____ स्टेशन मास्टर को सौंप दें।

प्राप्त किया गया प्राइवेट नं. Private No. received (शब्दों में in words) _____ (अंकों में in figures) _____

स्टेशन मास्टर के हस्ताक्षर Signature of Station Master

स्टेशन मास्टर की मोहर Station Master Stamp

प्राप्त किया Received

Signature of _____ के हस्ताक्षर

*{प्रभारी अधिकारी एवं पदनाम Official Incharge & Designation}

*{मोटर ट्राली ड्राइवर Motor Trolley Driver}

*जो लागू न हो उसे काट दें। Strike out whichever is not applicable.

NORTHERN RAILWAY

FORM T/465

Sr. No.

MACHINE FOLLOWING PERMIT

Station Stamp

Dated

Incharge

Track Machine No.....

You are hereby permitted to take your Track Maintenance in the block section from

Station to Station and proceed cautiously not exceeding speed 40 KMPH

following Track Maintenance Machine No. *Track Maintenance Machine
No. is followed you*.

On arrival at station this permit is to be handed over to the Station Master.

Private No. of line clear is (in figure).....(in words)

Station Master

* If applicable

Received

Signature / Designation

NORTHERN RAILWAY

FORM T/510

Sr. No.

AUTHORITY TO RECEIVE A TRAIN ON NON-SIGNALLED LINE

(Record/Loco Pilot)

Station

Dated

Time

To,

The Loco Pilot of train No. (Description) UP/ Dn.

You are authorised to pass “Up/Down” *Outer / Home /Routing Signals in “On” Position cautiously not exceeding 15 KMPH speed being piloted by the bearer on this authority and you should bring your train to a stand at facing points leading to line No. (in figure) (in words) until hand signalled forward as you are being received on a non-signalled line.

Signature of Station Master

Station Master's Stamp

Signature of Loco Pilot

Date 20....

* Strike out whichever is not applicable.

Appendix "B"

To

BLOCK WORKING MANUAL

2007

**(Special Instructions for Train Working
during Block Instrument failure)**

Appendix 'B'**Special Instructions "On train working during block Instrument failure".**

1. The order of preference for obtaining/granting line clear as laid down in para 7002 (a) and 8005 should not be violated under any circumstances. Any violation should be treated with utmost severity for taking up with the defaulters.
2. VHF sets shall not be used as the sole means of communication on section where passenger trains run. However, it can be used as only means of communication for specific sidings/sections where only freight trains are running under special instructions issued by DRM specifying the circumstances, duration and manner in which VHF sets will be used till restoration of any one of the other means of communication. It is reiterated that VHF sets as sole means of communication shall not be used on section where passenger trains run.
3. ~~The use of VHF sets for prolonged duration will be permitted only in presence of Supervisory staff.~~
4. Further, wherever GSMR has been/is being provided, the use of VHF sets for the purpose of line clear should not be permitted.
5. In all cases where line clear is obtained/granted by means of communication other than block instrument/Track Circuit/Axle Counter or telephone attached to block instrument, the system of calling station name, followed by establishing identity of the Station Master on duty by cross checking the Private Numbers given for line clear to preceding three trains shall be adopted strictly.
6. In a single line station, in case of any defect in block instrument whereby paper line clear working has to be introduced, S.E./Sig. should reach the station immediately, within one hour of occurrence of such a failure. All efforts should be made to rectify the failure at the earliest possible.
7. In such a condition, section controller should also ensure that no crossing or precedence is arranged at a station where such a failure is continuing.
8. Similar precautions should be taken during introduction of single line working in double line section.
9. In case of failure of block Instrument on double ~~line~~ section, immediate action should be taken for rectifying the failure in three hours. The section controller should not allow precedence at such station till the instruments are put right.

10. In case the failure is not rectified within three hours, the sectional T.I. or any other nearby supervisory Station Master should go to the station for assisting the staff there and to ensure that all rules are meticulously adhered to and appropriate authority for each and every train issued taking care that there are no mistakes.
11. Arrival timings of SE/Sig and TI/Supervisory SS attending the station shall be recorded in control order register at station and conveyed to control.