

इरिसेट

IRISET

ब्लॉक सिगनलिंग प्रयोगशाला

BLOCK SIGNALLING LABORATORY

प्रयोग सं. बी एस एल - 03

EXPERIMENT NO.: BSL - 03

नाम

Name : _____

अनुक्रमांक

Roll No : _____

पाठ्यक्रम

Course : _____

दिनांक

Date : _____

प्राप्तांक

Marks Awarded : _____

अनुदेशक के आक्षर

Instructor's Initial : _____

STUDY OF DOUBLE LINE BLOCK INSTRUMENTS

- I. Identify the following external parts of the instrument and write the identification numbers given on the parts:

S.No.	Part	Identification No
1.	Commutator Handle	
2.	Bell Plunger	
3.	SM's Key	
4.	Bottom Indicator	
5.	Top Indicator	
6.	Polarised Relay	
7.	Bell Unit	
8.	Maintainer's Key	

- II. Open the covers of the Block Instrument and Bell unit, identify the internal parts and write the identification numbers given on the parts:

S.No.	Part	Identification No.
1.	Commutator contact springs	
2.	Train On Line (TOL) contact springs	
3.	Commutator segments	
4.	Bell spring Assembly	
5.	Door lock Mechanism	
6.	Door lock coil	
7.	Bottom Indicator (TCFK)	
8.	Top Indicator (TGTK)	
9.	Block Bell relay	
10.	Block Bell coil	

III. **Operate Double Line Block instrument for sending a Train from Station 'A' to 'B' and record the observations:**

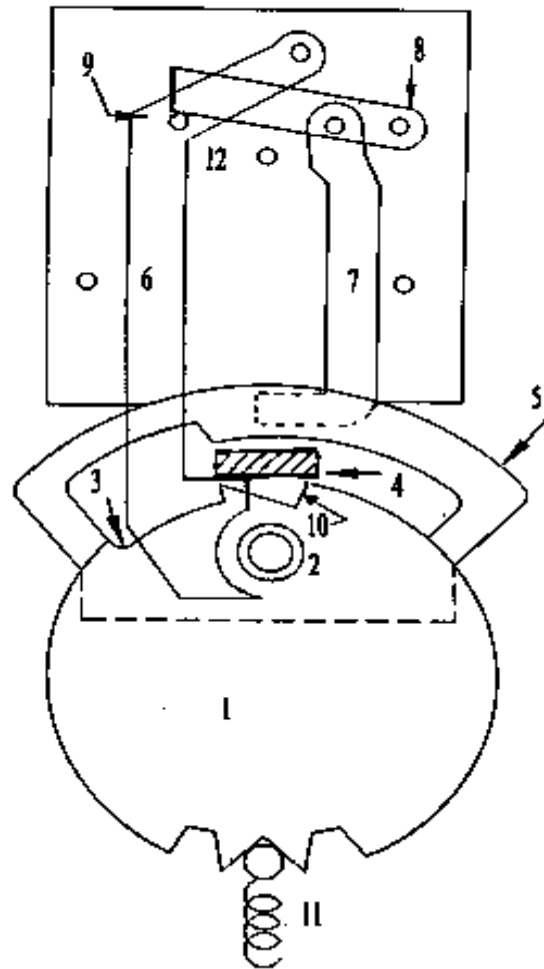
Operation at Station A	At Station A			At Station B			Operation at Station B
	Deflection of		Contact made	Deflection of		Contact made	
	Indicator	PR		Indicator	PR		
1. Press Bell Plunger twice to give LINE CLEAR signal							
							2. Acknowledge LINE CLEAR signal by pressing the bell plunger twice & turn the Commutator handle to right by 20 degrees to Line Clear
3. Observing Top Needle for Line Clear. Take OFF LSS. Driver starts train & enters into the Block section							
4. As train enters the Block section, give TOL signal & normailise LSS knob.							
							5. Acknowledge TOL Signal& turn the Commutator handle to left by 40 degrees to TOL
							6. Take OFF Home signal.
							7. On complete arrival of train, restore Home signal knob to Normal. Give train out of Block section signal & turn the Commutator handle by 20 degrees to right for Line Closed
8. Acknowledge Train out of Block section signal							

IV. Study of Door lock Mechanism

DOOR - LOCK MECHANISM

PARTS :

1. COMMUTATOR DISC
2. COMMUTATOR PIN
3. LOCKING NOTCH
4. ARMATURE
5. LOCKING BRACKET
6. HOLDING PAWL
7. RELEASING BRACKET
8. RELEASING LEVER
9. HOLDING PIN
10. HALF NOTCH
11. SPRING LOADED BALL
12. RESTING PIN



- a) Commutator is free to be turned from Line Closed position to _____ or to _____ position
- b) Commutator is free to be turned from Line Clear position to _____ position and then to _____ position.
- c) Commutator is not free to be turned from TOL position to _____ position, if it has been brought to TOL position from _____ position.
- d) Commutator is free to be turned from TOL position to _____ position, if it has been brought to TOL position directly from _____ position.

V. a) Write all the parts of Door lock mechanism

b) State the function of Locking (Deep) notch on Commutator disc

c) State the function of Auxiliary (Half) notch on Commutator disc.

d) State function of Locking Bracket

VI. Observations:

- i) Door lock mechanism prevents _____ of Block handle in _____ position when turned directly from Line Closed position to TOL and thus facilitates Block forward and Block back operations without failure of Block working. (**TOL, Locking**)
- ii) Door lock mechanism _____ the power consumption of door lock coil by _____ the armature mechanically, once the door lock is energized momentarily (**Holding, Economises**)
- iii) The displacement of _____ distinctly proves whether the Block handle was turned earlier to _____ or not in case of any dispute. (**Line Clear position, Holding pawl**)

Signature of Trainee