



इ रि से ट
विद्युत सिगनल प्रयोगशाला
प्रयोग नं: ई एस एल 24

IRISET
ELECTRICAL SIGNALLING LABORATORY
EXPERIMENT NO.: ESL – 24

नाम
Name : _____
अनुक्रमांक
Roll No : _____
पाठ्यक्रम
Course : _____
दिनांक
Date : _____

प्राप्त अंक
Marks Awarded : _____
अनुदेशक का अधाक्षर
Instructor Initial : _____

Siemens Relay Interlocking System (Route Setting Type)

STUDY OF CONTROL PANEL

Briefing:

Route setting type relay interlocking (Route Relay Interlocking) is normally preferred for Junction / bigger stations as well as bigger yards above 200 routes. In this system, for clearing a signal the operator has to press relevant signal and route buttons simultaneously. During this operation all the points in the route, overlap and isolation are set automatically to the required position. Once the route is set and route strip indications lit indicates that the relevant points in the route, overlap and isolation are locked and can be released only after the passage of a train or by the emergency cancellation of the route. It is compulsory to have sectional route release in RRLs. In this system of relay interlocking, metal to metal contact relays of siemens K-50 relay mini groups, minor groups, Major groups and point chain groups are used. The operating panel used is domino type panel with push button controls.

1) Indicate the colours and location of the following push buttons :

	Description	Designation	Colour	Location
a)	Main signal button	GN		
b)	Shunt signal button	Sh GN		
c)	Route button	UN		
d)	Point button	WN		
e)	Common Point button	WWN		
f)	Points emergency operation button, when point track circuit is failed	EWN		
g)	Point button used for emergency release of a sub-route.	WN		
h)	Emergency Full Route release button	EUUYN		

i)	Emergency Sub-route release button	EUYN		
j)	Emergency Button for throwing signal to Danger	EGGRN		
k)	Day / Night push buttons for signals	Day / Night		
l)	Panel indication intensity control Push buttons.	1,2		
m)	Alarm suppressing button for Signal lamp failure.	GXYN		
n)	Alarm suppressing button for Point failure.	WXYN		

2. Indicate the various counters provided on the panel.

3. Study the working of panel and answer the following:

What are the operations necessary for the following?

- a) Operate the points individually with points track circuit clear

- b)
 - i) Operate the points with the points track circuit failed.
 - ii) Name the counter which records the above operation.

- c) Set a route.

- d) Throw a cleared signal to danger

- e)
 - i) Cancel a route when approach track is clear.
 - ii) Name the counter which records the above operation.

- f)
 - i) Cancel a route when approach track is occupied.
 - ii) Name the counter which records the above operation.

- g)
 - i) Release route-section of a sub-route under emergency.
 - ii) Name the counter which records the above operation.

- h)
 - i) Release a locked overlap in case of failures.
 - ii) Name the counter which records the above operation.

Date:

Signature of the Trainee