

POST OFFICE ENGINEERING DEPARTMENT.  
TECHNICAL INSTRUCTIONS.  
CIRCULATION F.

TELEGRAPHS.  
GENERAL.  
D.1014.

## PANEL-MOUNTED TELEGRAPH APPARATUS FOR PUBLIC CIRCUITS.

### Panel, Telegraph, No. 4 (Diagram TG.745, 769).

1. This panel accommodates the equipment necessary for a Loop or Single-wire Duplex or Simplex Special Event Teleprinter Circuit. The assembly of the equipment mounted on the panel is shown in Drawings 9581 and 9596.

2. The panel carries a series of four switching-keys, mounted so that they are operated in pairs. They are employed to set up, as required, the following circuit conditions :—

(a) *When all the keys are horizontal*, the circuits are "through."

(b) *When the key-levers of Keys 1 and 2 are operated to TEST SET TO LINE*, the officer at the Test Bay is able to work Duplex to the Distant Station.

(c) *When the key-levers of Keys 1 and 2 are operated to TEST SET TO LOCAL*, the officer at the Test Bay is able to work to the local teleprinter position.

(d) *When the key-levers of Keys 3 and 4 are operated to MORSE*, the officer at the Test Bay is able to work to the distant station.

(e) *When the key-levers of Keys 3 and 4 are operated to RESISTANCE*, a lamp resistance is substituted for the battery normally connected to line. This condition is required when the circuit is being balanced for duplex working.

3. A 2-position key—labelled TELEPRINTER OFF—is employed to disconnect the circuit between the tongue of the relay and the local teleprinter position, while testing operations are in progress. When the key-lever is horizontal, the circuit is through; when the key is operated to TELEPRINTER OFF, a negative current is applied to the teleprinter electromagnet, to hold its armature in the "rest" position.

4. A key is provided to enable the circuit conditions to be changed to simplex. When the key-lever is operated to SIMPLEX, the teleprinter contact-tongue—when transmitting—is connected directly to the line circuit, under simplex conditions.

5. The panel is equipped with the following apparatus :—

1 Baseboard No. 26.

1 Clip No. 16.

1 Condenser, M.C. No. 102.

1 Condenser, panel-mounting No. 3.

2 Condensers, panel-mounting No. 4.

1 Dust Cover.

2 Handles, Key, No. 7.

2 Keys No. 68, black.

4 Keys No. 21.

6 Key-mountings T.

2 Labels No. 175.

1 Label No. 179A.

2 Labels No. 179B.

1 Label No. 180.

2 Labels No. 181A.

1 Label No. 181B.

2 Labels No. 183.

1 Milliammeter No. 17.

2 Rheostats R.

2 Rheostats S.

1 Rheostat T.

1 Resistor, Spool No. 1, 2000 Ω.

2 Strips, Connexion, No. 100.

To be requisitioned separately :—

1 Relay, Standard, BN.

References :—None.

E N D.