

## 344-TYPE PLUGS FOR TELEGRAPH RELAY CONNECTING BLOCKS

### 1. GENERAL

1.01 This section describes the 344A, B and C plugs designed to replace polar relays in telegraph repeaters, and gives their application under certain conditions.

1.02 The plug may be used to replace any relay which uses an 18B relay connecting block. Such relays include 215, 255, 209FB, 209FC, and similar types.

### 2. DESCRIPTION

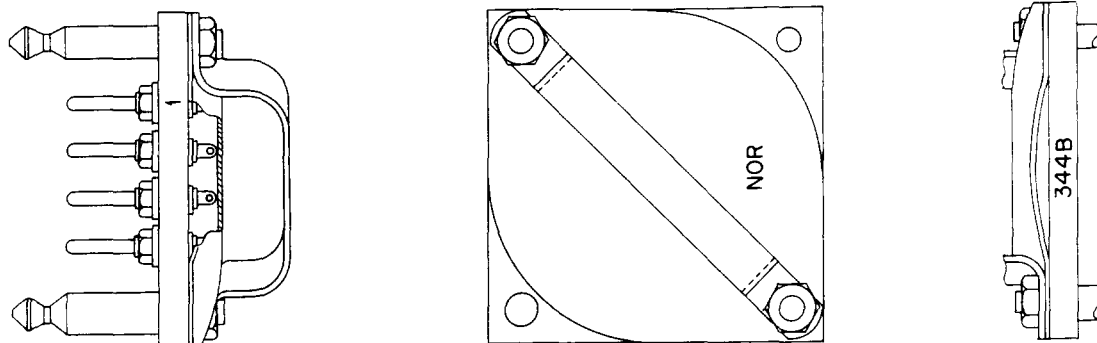
2.01 The general appearance of the plug is illustrated in Fig. 1. It consists of a polar relay base equipped with a handle for easy removal from the connecting block. The terminals corresponding to the relay marking contact and armature are strapped.

which normally connect to the relay windings are strapped either for normal or reversed wiring and are stencilled as shown in the diagrams of connections in Fig. 1.

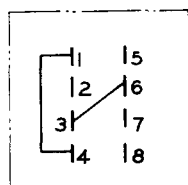
2.02 The plug is equipped with two guide pins only, instead of four, in order to insure easier removal from the relay connecting block. One large and one narrow guide pin are located at the opposite corners of the plug.

### 3. PURPOSE

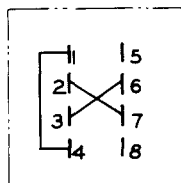
3.01 For certain types of half-duplex telegraph services it is desirable to dispense with the break relays in telegraph repeaters at intermediate points on the circuit in order to facilitate transmission of breaks. The break relay may also be dispensed with at terminal repeaters for other types of service.



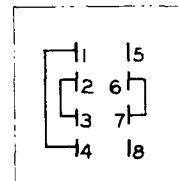
Code	Marking
344 A	
344 B	NOR
344 C	REV



344A



344B



344C

DIAGRAMS OF CONNECTIONS

Fig. 1 - 344 Type Plugs

This condition can be obtained most conveniently by removing the break relay and replacing it with a plug, the terminals of which are properly strapped to preserve the continuity of the circuit.

4. APPLICATION

4.01 The 344A plug is primarily used to replace the send or receive relays in the 90-type connecting repeaters associated with the No. 1 telegraph service board as follows:

(a) In one-way services:

- (1) For sending only, the plug is used in place of the receiving relay.
- (2) For receiving only, the plug is used in place of the sending relay.

(b) In full-duplex services:

- (1) In the send leg, the plug replaces the receiving relay.
- (2) In the receive leg, the plug replaces the sending relay.

4.02 The 344B and 344C plugs are used to replace break relays in telegraph repeaters when arranged for differential loop operation on specific services as follows:

- (a) On full-duplex telegraph or teletypewriter services, the break relay has no useful function. The use of a plug will prevent buildup of relay contacts. The 344B plug is employed here.
- (b) On services to another telegraph company where the break feature is not required in the Telephone Company terminal and the marking polarity of both companies' terminals is the same, the 344B plug is used. On such services using 40C voice-frequency carrier telegraph terminals, the 344C plug is employed.
- (c) On long half-duplex teletypewriter circuits where there is a likelihood of more than one station attempting to transmit simultaneously and it is desired to dispense with the break relays at intermediate points to facilitate the transmission of breaks, the 344B plug is employed.
- (d) On half-duplex services at intermediate points having no drops and no open-and-close type repeaters in the circuit, the 344B plug may be employed.
- (e) In "looping-back" 40C voice-frequency carrier telegraph channels for testing purposes, a 344C plug is used to reverse the connection to the send relay windings.