

BELL SYSTEM PRACTICES
Teletypewriter and Manual
Telegraph Station and P.B.X.
Installation and Maintenance

SECTION P31.318
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AT&T Co Standard

INSTALLATION OF RADIO INDUCTION SUPPRESSORS ON THE 128B2 TELETYPEWRITER SUBSCRIBER SET

1. GENERAL

1.01 This section furnishes information for the installation of 88D filter units and a 313D condenser unit on the 128B2 teletypewriter subscriber set. The function of these units is to suppress radio frequency induction originating from the contacts of the polar relays in this set.

1.02 This section is being reissued to correct errors which appeared in the previous issue.

1.03 Two 88D filters are required, one for the sending and one for the receiving relay. The 313D condenser unit is required for by-passing certain terminals of the set.

2. PROCEDURE

2.01 Mount the 88D filter unit to be associated with the sending relay as follows:

(1) Using two RHBM 6-32 3/8" long screws, mount the unit with the coils and condenser unit on the upper side of the filter bracket immediately below the 18B relay connecting block inserting the mounting screws in the two holes provided in the relay panel for the filter bracket.

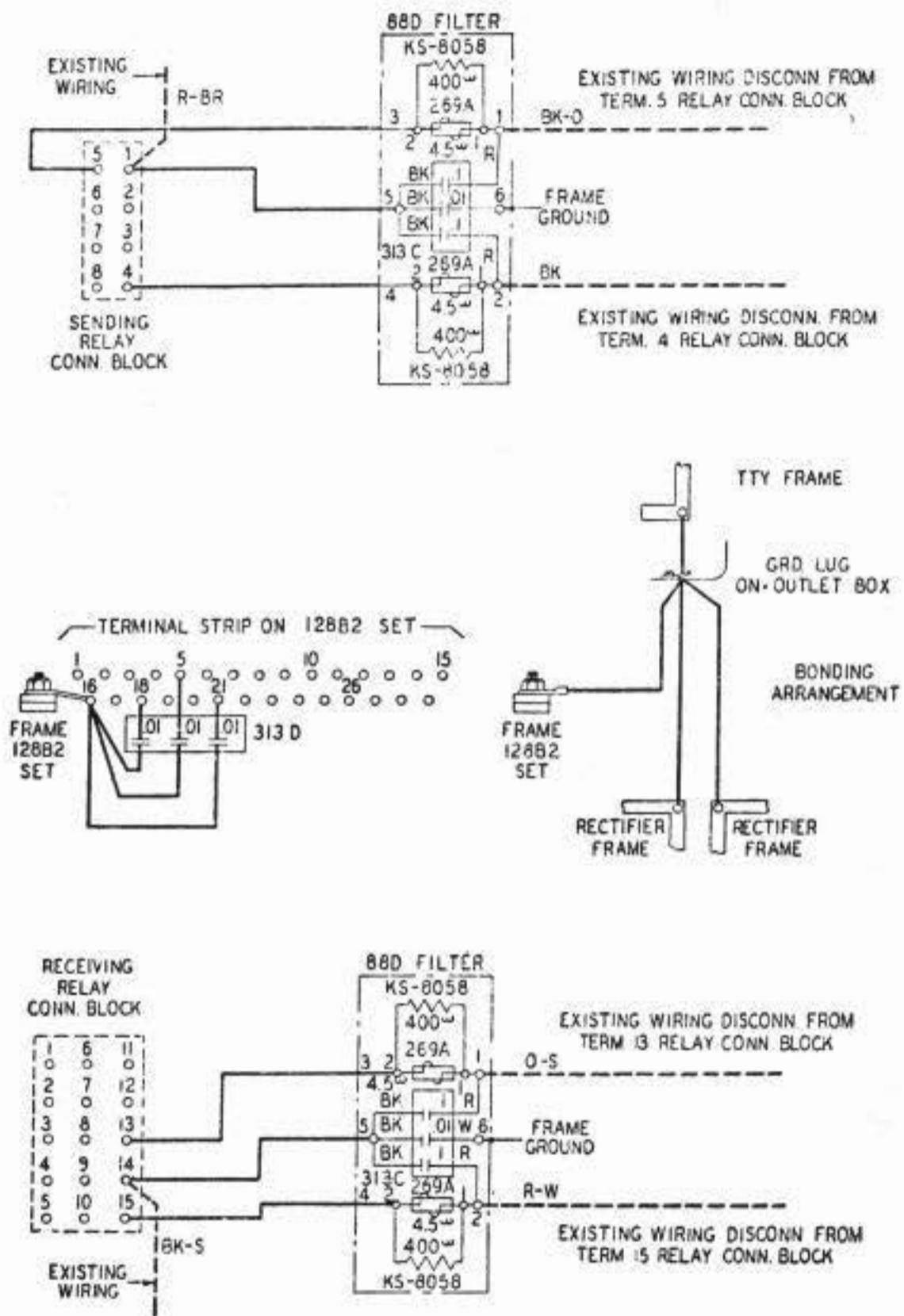
(2) Tighten the mounting screws securely.

2.02 Mount an 88D filter unit immediately below the receiving relay connecting block using the procedure described above for the sending relay.

2.03 Referring to Fig. 1 and the circuit label SD-70220-80 connect the 88D filter unit associated with the receiving relay as follows:

(1) Remove the orange-slate lead from terminal 13 of the relay connecting block and connect it to terminal 1 of the 88D filter.

(2) Connect terminal 3 of the right-hand coil to terminal 13 of the relay connecting block making this lead as short and direct as possible.



**Fig. 1—Radio Induction Suppression—
 Arrangements for 128B2 Tele-
 typewriter Subscriber Set**

- (3) Remove the red-white lead from terminal 15 of the relay connecting block and connect it to terminal 2 of the filter unit.
 - (4) Connect terminal 4 of the left-hand coil to terminal 15 of the relay connecting block making this lead as short and direct as possible.
 - (5) Connect terminal 5 of the 88D filter unit to terminal 14 of the relay connecting block leaving the black-slate wire in place on terminal 14 of the relay connecting block.
 - (6) The wiring should now be in accordance with the diagram for the receiving relay filter shown on Fig. 1.
 - (7) Dress the connections to terminals 13, 14 and 15 so that the leads clear adjacent wiring by at least 1/4".
- 2.04 Connect the 88D filter unit associated with the sending relay as follows:
- (1) Remove the black-orange wire from terminal 5 of the relay connecting block and connect it to terminal 1 of the filter unit.
 - (2) Connect terminal 3 of the left-hand coil of the filter unit to terminal 5 of the relay connecting block cutting the excess length of lead so that the connection is as short and direct as possible.
 - (3) Remove the black wire from terminal 4 of the relay connecting block and connect it to terminal 2 of the filter unit.
 - (4) Connect terminal 4 of the right-hand coil of the filter unit to terminal 4 of the relay connecting block cutting the excess length of lead to make the connection as short and direct as possible.
 - (5) Connect terminal 5 of the filter unit to terminal 1 of the relay connecting block leaving the red-brown wire already connected to the No. 1 terminal of the relay connecting block in place making this lead as short and direct as possible.
 - (6) The connections should now be in accordance with the diagram for the sending relay filter shown in Fig. 1.
 - (7) Dress the connections to terminals 3, 4 and 5 of the filter unit so that the leads clear adjacent wiring by at least 1/4".

2.05 The 313D condenser unit should rest on the base plate of the 128B2 set about an inch behind the terminal strip and about midway between terminals 16 and 21. (The 313D condenser unit contains three .01 mf. paper condensers.)

- (1) Place the condenser unit in the position described above and trim the length of the left-hand set of three leads so that they may be stripped at the ends and all connected directly to terminal 16.
- (2) Cut the right-hand three leads from the condenser unit individually so that one may be connected directly to terminal 21, another to 18, and the other to terminal 5.
- (3) Remove the condenser unit, strip, twist together and tin the ends of the left-hand leads, strip and tin individually the ends of the three right-hand leads.
- (4) Replace the condenser unit in the set and connect the three left-hand leads to terminal 16.
- (5) Connect the three right-hand leads to terminals 5, 18 and 21.
- (6) Connect terminal 16 to the frame of the set using the screw or bolt in the frame nearest terminal 16.

2.06 Make the following bonding connections to complete the radio induction suppression arrangement using insulated wire at least No. 14 B & S gauge or equivalent.

- (1) Using as direct and short a lead as practicable, connect the ground lug of the 128-B-2 set, as established under 2.05 (6), to the ground lug on the teletypewriter table outlet box.
- (2) The signal ground should connect as usual to terminal 16 of the 128B2 set.
- (3) Using two separate leads of a length to run as direct as possible, connect the frames of each of the KS-5300 or J86205J rectifiers to the outlet box ground lug making the connection to the rectifier frames under the nut on any convenient bolt under the base of the rectifier.
- (4) Connect the teletypewriter frame as directly as practicable to the ground lug on the outlet box.

2.07 For additional measures that may be required or for procedures to be followed in installations requiring unusual arrangements of equipment consult Section P31.301.