BELL SYSTEM PRACTICES Plant Series SECTION 572-008-206 Issue 3, February, 1952 AT&TCo Standard

## INSTALLATION OF TP93884 FILTER ASSEMBLY FOR SENDING CONTACTS OF 15 or 20 TELETYPEWRITERS AND 15 PERFORATOR-TRANSMITTER

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## 1. GENERAL

1.01 This section furnishes information for the installation of the TP93884 filter assembly for the sending contacts of 15 or 20 teletypewriters and the 15 perforator-transmitter. The function of this filter unit is to suppress radio frequency induction from the sending contacts of these teletypewriters.

1.02 This section is reissued to change the wiring at the sending contacts of keyboards not equipped with a line-test key to correspond with that of keyboards having a linetest key. Other minor changes are included.

1.03 If the typing unit of the machine to be equipped is one of the few early models in which the main driving gear is inside instead of outside the frame, it will be necessary to substitute one of the later models for the older style unit to avoid mechanical interference between the right-hand bearing housing and the TP93883 condenser and bracket of the TP93884 filter assembly.

1.04 The TP93884 filter assembly consists of a TP92222 filter unit and a TP93883 set of parts. (a) TP92222 Filter Unit consists of the following:

- 1 TP105964 Filter Assembly 2 TP6746 Screws
- 5 TP7002 Washers
- 2 TP8539 Screws
- (b) TP93883 Set of Parts consists of the following:
  - 1 TP105966 Condenser Assembly 1 TP75400 Screw 1 TP78103 Screw 1 TP2191 Lock Washer 1 TP7002 Washer 1 TP3598 Nut
- 2. INSTALLATION
- A. Installation of TP93884 Filter Assembly on 15 or 20 Teletypewriters
- 2.01 To install the TP92222 filter unit on 15 or 20 type keyboards proceed as follows:
  - Remove the two TP6746 screws which mount the TP7387 brace to the TP7382 front bracket of the sending-contacts cam assembly. Retain the TP2191 lockwashers and the TP41663 flat washers.

(2) Mount the TP105964 filter assembly against the TP7382 front bracket so that the coil and condensers are to the rear of the filter bracket with the coil to the left using the previously removed TP2191 lockwashers and the TP41663 flat washers under the heads of the TP8539 screws furnished with the filter. Use the two TP7002 flat washers furnished between the filter bracket and the TP7382 front bracket to space the filter away from the front bracket. Rotate the filter bracket clockwise until it stops against the TP7383 oiler and tighten the TP8539 screws.

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- (3) Remove the sending-contacts mounting screw just to the front of the sendingcontacts soldering terminals and place the terminal of the shielded filter lead under the head of this screw after placing a TP7002 washer furnished between the terminal of the shielded lead and the TP2191 lockwasher to prevent mutilation of the terminal. The filter leads should be located to the left of the guard post on the filter bracket.
- (4) Replace the sending-contacts mounting screw.
- (5) Discard the two TP6746 screws furnished with the filter unit. (These are required only when a TP92222 filter is replacing a TP82019 filter.)
- 2.02 To install the TP93883 set of parts on the 15A and 15B bases mount the TP105966 condenser assembly (0.01 uf) as follows:
  - (1) Remove the two TP6810 screws and TP2669 lockwashers which secure the terminal block assembly to the base casting, and lift the terminal block assembly away from the base as far as the cable will permit. With either sandpaper or a sharp tool, remove the enamel from the top surfaces of the mounting screw hole areas so that the TP2669 lockwashers will contact the unfinished surfaces. Replace the terminal block assembly and secure it by means of the screws and lockwashers furnished.
  - (2) Replace the rear mounting screw of the 41-46 terminal block with the TP75400 screw furnished. Discard the screw just removed and the TP78103 screw furnished with the parts.
  - (3) Mount the condenser and bracket assembly against the left side of the terminal block bracket so that the new screw passes through the elongated hole in the bracket resting on the base casting. Secure the bracket with the TP3598 nut, TP2191 lockwasher, and TP7002 washer furnished.
- 2.03 To install the TP93883 set of parts on the 15C and 15D bases mount the TP105966 condenser assembly as follows:
  - (1) First proceed as specified in (1) of 2.02 above.

- (2) Replace the rear mounting screw of the 26-point terminal block with the TP78103 screw furnished. Discard the screw removed and the TP75400 screw furnished.
- (3) Mount the condenser as specified in 2.02(3).
- B. Installation of TP92222 Filter Unit on a 15 Perforator-t ransmitter
- 2.04 To install the filter on the perforatortransmitter proceed as follows:
  - Remove the two TP74986 screws which mount the TP84911 bracket and the TP7382 front bracket on the TP7387 brace. Retain the TP2191 lockwashers and the TP41663 flat washers. Discard the TP74986 screws.
  - (2) Discard the TP7002 washers furnished. Mount the TP105964 filter assembly against the TP84911 bracket so that the coil and condensers are to the rear of the filter bracket with the coil to the left. Using the TP8539 screw furnished, and the TP2191 lockwashers and TP41663 flat washers previously removed, secure the TP84911 bracket and the TP7382 front bracket to the TP7387 brace.
  - (3) Rotate the filter unit clockwise until it stops against the TP7383 oiler and tighten the TP8539 screws.
  - (4) Remove the sending-contacts mounting screw just to the front of the sendingcontacts soldering terminals and place the terminal of the shielded-filter lead under the head of this screw, taking care that the filter leads are to the left of the guard post on the filter bracket.
  - (5) Replace the sending-contacts mounting screw.
  - (6) Discard the two TP6746 screws furnished with the filter unit.
- C. Wiring Connections for Keyboards
- 2.05 For 15A, 15B, and 15C keyboards and the perforator-transmitter refer to Figure 1 and connect the TP105964 filter assembly as follows:
  - Disconnect the BK wire from the righthand terminal of the sending contacts
    and splice it to the W wire of the filter. Check to make sure that the other end of the BK wire terminates at terminal 54.

- (2) Connect the R wire (shielded) of the filter to the right-hand terminal of the sending contacts 2(K3).
- (3) Connect the BK wire of the filter to the left-hand terminal of the sending contacts 1(K3). Check to make sure that the other end of the BK wire that is connected to the left-hand terminal of the sending contacts terminates at the LINE-TEST key: With the LINE-TEST key in the LINE position, the circuit should extend to terminal 55.
- 2.06 For 15D, 15E, 15F, and 15G keyboards refer to Figure 2 and connect the TP105964 filter assembly as follows:

- Disconnect the G wire from the left-hand terminal of the sending contacts 1(K3) and splice it to the W wire of the filter. Check to make sure that the other end of the G wire terminates at terminal 54.
- (2) Move the R wire from the right-hand terminal of the sending contacts 2(K3) to the left-hand terminal 1(K3) and also connect the BK wire of the filter to the terminal. Check to make sure that the other end of the R wire terminates at terminal 55.
- (3) Connect the R wire (shielded) of the filter to the right-hand terminal of the sending contacts 2(K3).



Figure 1 - (With LINE-TEST Key) 15A, 15B, and 15C Keyboards and 15 Perforator-transmitters



Figure 2 - (Without LINE-TEST Key) 15D, 15E, 15F and 15G Keyboards

- D. Wiring Connections for Bases
- 2.07 Connect the free lead from the condenser to terminal 34 (see Figure 3).



Figure 3-15A, 15B, and 15C TTY Bases