

**BELL SYSTEM PRACTICES**  
**Teletypewriter Stations**

**SECTION P31.325**  
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**AT&TCo Standard**

**INSTALLATION OF  
TP99250 FILTER UNIT  
FOR MOTOR GOVERNOR AND BRUSHES OF  
14, 15, 20 TELETYPEWRITERS, 14 TYPING  
REPERFORATORS, 14 AND 20 NON-TYPING  
REPERFORATORS AND 14 TRANSMITTER-  
DISTRIBUTORS**

**1. GENERAL**

1.01 This section furnishes information for the installation of the TP99250 filter unit on governed motor units. This filter is suitable for use with either end-ring or peripheral-ring governors. The function of this filter unit is to suppress radio frequency induction from the motor governor contacts and the motor brushes. It is suitable for either ac or dc motors.

1.02 This section is reissued to bring the codes of the filter parts up to date, change title to include the 14 transmitter-distributor and replace Sections P31.305, P31.312, and P31.327. Marginal arrows have been omitted as the changes are quite extensive.

1.03 The TP99250 filter unit supersedes the TP77613, TP74983 and TP105475 filter units.

1.04 The TP99250 filter unit consists of the following parts:

- 1—TP111252 Filter Assembly
- 2—TP70873 Brush Caps
- 2—TP1266 Screws
- 4—TP7002 Washers
- 2—TP2191 Lock Washers
- 2—TP82440 Screws

## 2. PROCEDURE

2.01 To install the TP99250 filter unit on motors with **end-ring governors**, proceed as follows:

- (1) Remove and discard the two TP6746 or TP8539 screws which mount the governor brush-holder bracket and discard the TP80335 clamping plate under the two screws.
- (2) Locate the filter unit in the space between the governor and the motor with the filter bracket underneath the motor shaft and the capacitors standing vertically. The end of the filter with the 225A coil should extend to the same side of the motor as the governor brushes.
- (3) Mount the filter unit bracket on top of the brush-holder bracket by means of the two TP82440 screws furnished.

**Note:** Readjust governor brushes in accordance with standard procedure.

- (4) If the two motor brush caps are not tapped, replace them with the TP70873 caps furnished.
- (5) The TP1266 screws, TP7002 washers, and TP2191 lock washers are used to hold the capacitor terminals to the brush caps.

2.02 On motor units equipped with **peripheral-ring governors** the 225A coil should be shifted to the mounting hole nearer the center of the bracket. With this change the installation procedure is the same as outlined in 2.01.

2.03 When the filter is to be used on a **transmitter-distributor**, shift the mounting bracket and choke coil to the notched side of the filter bracket.

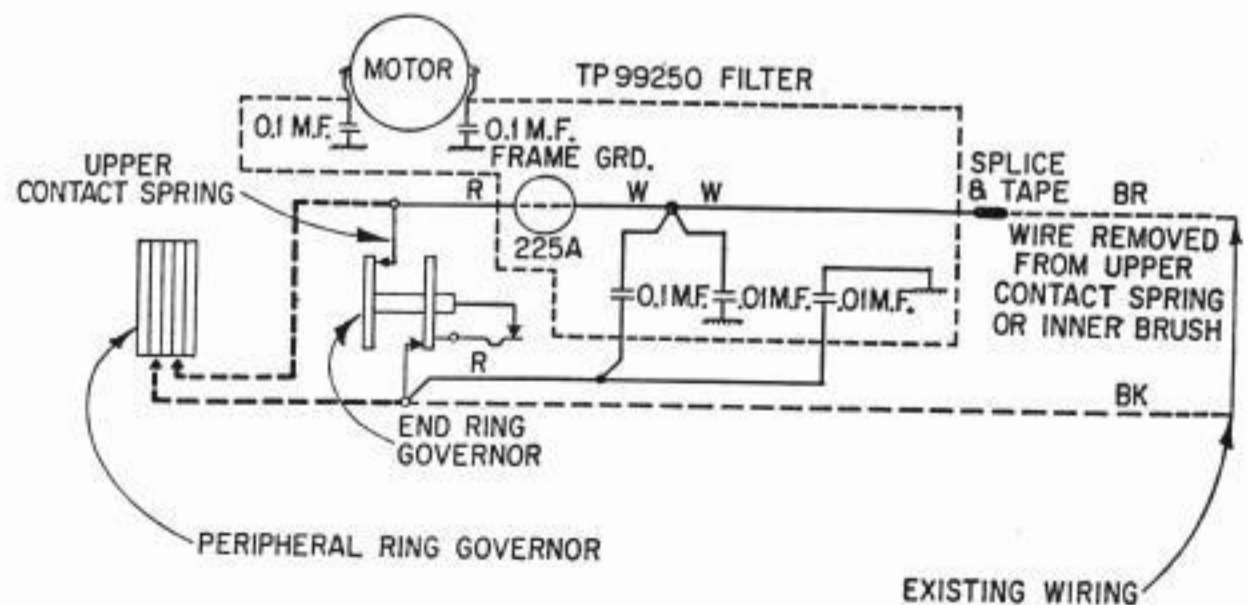


Fig. 1

- 2.04 Refer to Fig. 1 and connect the filter unit as follows:
- (1) Connect the free lead of the individually mounted capacitor to the brush on the same side of the motor.
  - (2) Connect the free lead of the inner capacitor (the one in the group of 4 which is nearest to the motor shaft) to the brush on the opposite side of the motor.
  - (3) Remove the brown wire connected to the upper (outer contact) spring of the end-ring governor contacts and splice this wire to the white coil lead and its associated capacitor leads. Solder and tape this connection.
  - (4) Connect the red lead from the coil to the upper (outer contact) spring of the end-ring governor contact cutting this lead to make the connection as short and direct as practicable.
  - (5) Connect the red lead joining the two remaining capacitors to the bottom (inner contact) spring of the end-ring governor contacts leaving the black wire already on this spring in place.
  - (6) In connecting the filter to the peripheral-ring governors the red lead from the coil should connect to the brush associated with the inner ring.
  - (7) Check the connections to see that they are in accordance with Fig. 1.

**Note:** The frame casting of the equipment should be connected to ground to reduce the electrical shock hazard and to increase the effectiveness of the filters in suppressing the radio frequencies generated at the motor brushes and governor contacts.