

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

**SECTION P35.801**  
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## **14 TYPE APPARATUS**

### **IMPROVEMENTS AND CHANGES**

#### **1. GENERAL**

1.01 This section lists improvements and changes in 14 type apparatus which have recently become available. The points involved are listed below and also discussed individually.

1.02 **For 14 Type Transmitter Distributors:**

Center contact governor  
Additional drilling of the face  
Change in 72185(M) contact screw bridge assembly  
New brush holder arm.

1.03 **For 14 Type Teletypewriters:**

Mechanical end-of-line indicator  
Improvement in operation of electrical end-of-line indicator  
Change in tape illuminator and remote bell arrangements  
New cover (No. 14-F)  
Change in upper case "H" contact mechanism.

#### **2. 14 TYPE TRANSMITTER-DISTRIBUTORS**

2.01 **A Center Contact Governor** will be provided on transmitter-distributors manufactured in the future which are equipped with governors. The parts required to install this governor on 14 type transmitter-distributors now in the field are:

80352(M) Center Contact Governor  
(This is the flywheel portion)  
86811(M) Governor Guard  
86853(M) Contact Bracket (assembly)  
(includes two brushes).

2.02 **Additional Drilling of the Face** will be provided on transmitter-distributors manufactured in the future in order to prevent crosses due to the formation of a conducting path by metallic particles lodging in that portion of the engraved line (used for determining brush location) between the inner and outer rings. A 3/16" hole will be drilled in the bake-like portion of the face on the line and midway between the rings.

2.03 **Change in 72185(M) Contact Screw Bridge Assembly.** This will be made hereafter in one piece instead of two pieces, one long and one short as heretofore.

2.04 **A New Brush Holder Arm** will be provided on transmitter-distributors manufactured in the future. It differs from the old holder in that the arm which mounts the brush is located 3/16" nearer to the distributor face. Brushes without stiffeners should be used with the new brush holder. The new brush holder may be added to existing transmitter-distributors by providing the following parts:

- 86815(M) Brush Holder Arm
- 86816(M) Bushing
- 86819(M) Collar.

### 3. NO. 14 TYPE TELETYPEWRITERS

3.01 **A Mechanical End-Of-Line Indicator** will be provided on 14 type teletypewriters arranged for TWX use manufactured in the future. This indicator operates on either a.c. or d.c. and therefore does not require the installation of a motor generator set at a TWX subscriber station. The indicator lamp does not light at exactly the 65th character on each line, but lights within three characters of 65 either way. The parts required for the new indicator complete are covered by

- 87593(M) End-Of-Line Indicator for No. 14 Teletypewriter.

Where the mechanical end-of-line indicator is to be substituted on machines already equipped with the electrical end-of-line indicator, the signal lamp assembly which is common to both indicators will not be required. The mechanical indicator less the signal lamp assembly is covered by the designation

- 88099(M) parts for converting electrical to mechanical end-of-line indicator.

When it is desired to install the new indicator in an existing machine, it will be necessary to add slip connection springs 17 and 18 if the base is equipped with a slip connection strip hav-

ing only six such springs. To provide the two additional springs the following are required:

82491(M) Guard

82492(M) Slip Connection Strip (Assembly).

If the typing unit is equipped with a terminal block having only six terminals, it should be modified by adding

82619(M) Terminal Block (Assembly)

82624(M) Guard.

**3.02 Electrical End-Of-Line Indicator:** When the carriage return key of 14 type teletypewriters equipped with the electrical end-of-line indicator is operated with heavy touch, there is a tendency for the lock lever of the indicator to over-travel and catch under the middle contact spring of the counter contact assembly. This difficulty may be obviated by the installation of

87404(M) Lock Lever Stop

**3.03 Change in Tape Illuminator and Remote Bell Arrangements:** The tape illuminator and remote bell contact arrangements for 14 type teletypewriters of previous design could not be employed on the same machine because of interference between the parts. The remote bell contacts have, therefore, been redesigned and are now mounted near the rear of the typing unit instead of near the front. In order to make this change, it was also necessary to change the position of the tape illuminator resistance.

The new remote signal bell and cable are coded 88894(M) remote signal bell contact and cable. To replace remote signal bell assemblies already installed on machines with the new type contact, the contact only need be replaced since the old style cable may be used. The following catalogue numbers have been assigned—

88895(M) Contact Assembly

88896(M) Cable Assembly (This covers the cable assembly alone.)

Where interference is experienced between the tape illuminator and the 6746(M) screws used to hold the bracket extension of the upper case "H" contact assembly this can be removed by using 33-6(M) fillister head screws instead of the 6747(M) screws.

**3.04 New Cover—14-F.** A new cover suitable for use with all operators' teletypewriters has been coded 14-F and delivery will begin as soon as present stocks are exhausted. The finger tab on the tape reel retainer is omitted in this cover.