

14-TYPE REGISTERS

PIECE-PART DATA AND REPLACEMENT PROCEDURES

1. GENERAL

1.01 This section covers the information necessary for ordering parts to be used in the maintenance of 14-type registers.

1.02 This section is reissued to:

- Add 1.05 describing the different configurations of the 14-type registers
- Add the following codes to 2.03: 14LA, 14LB, 14LC, 14LN, 14LU, 14LW, and 14LY
- Add piece-part information for MOD 2
- Make other changes as required.

Since this reissue covers a general revision, arrows ordinarily used to indicate changes have been omitted.

1.03 Part 2 of this section covers the piece-part numbers and the corresponding names of the parts which it is practical to replace in the field in the maintenance of the 14-type registers. No attempt should be made to replace parts not designated. Part 2 also contains explanatory figures showing the different parts.

1.04 Part 3 of this section gives the approved procedures for the replacement of the parts covered in Part 2.

Caution: *Do not replace any parts on a register used as a subscriber line message register except covers.*

1.05 The 14-type register consists of three configurations. For the purposes of this section, they will be identified as "14-type initial design" (Fig. 1), "14-type MOD 1" (Fig. 2) (identified in previous issues as improved design), and "14-type MOD 2" (Fig. 3). The basic description and functioning of the three configurations are as follows.

- (a) The 14-type initial design has a 2-piece flexible pawl which advances the units disc one full step as the register releases (magnet de-energizes).
- (b) The 14-type MOD 1 has a one-piece rigid pawl which advances the units disc one-half step when the register operates and the remaining half step when it releases.
- (c) The 14-type MOD 2 has a new one-piece frame, a new one-piece pawl, and a new armature assembly. The units wheel advances one-half step when the register operates and the remaining half step when it releases. Other than the cover, it is recommended that the MOD 2 configuration be replaced as a complete unit.

NOTICE

Not for use or disclosure outside the
Bell System except under written agreement

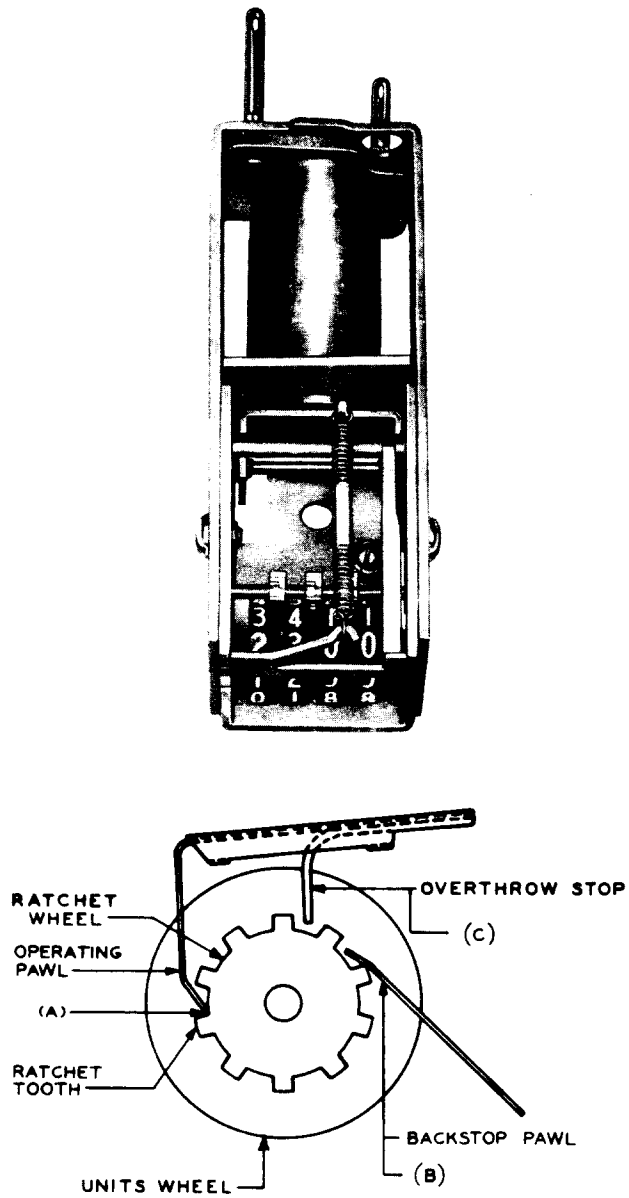


Fig. 1—Typical 14-Type Message Register (Initial Design)

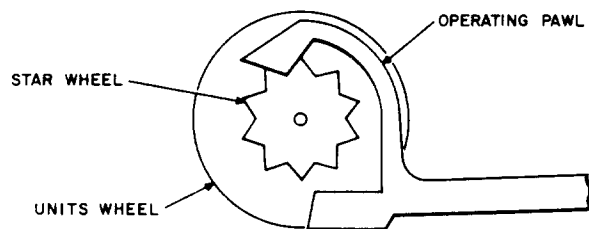
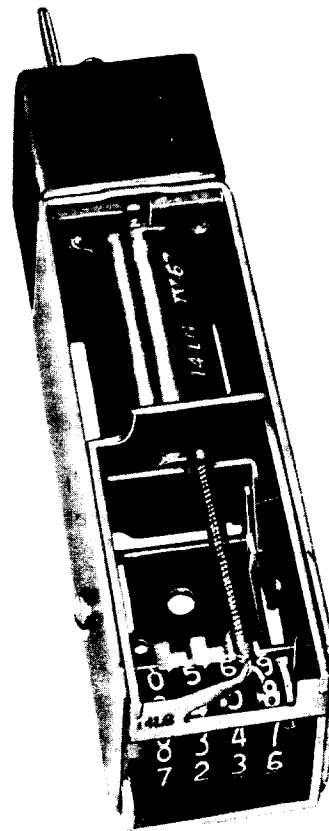


Fig. 2—Typical 14-Type Message Register (MOD 1)

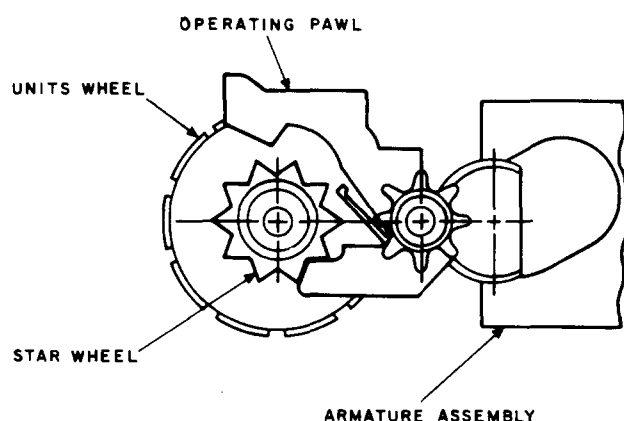
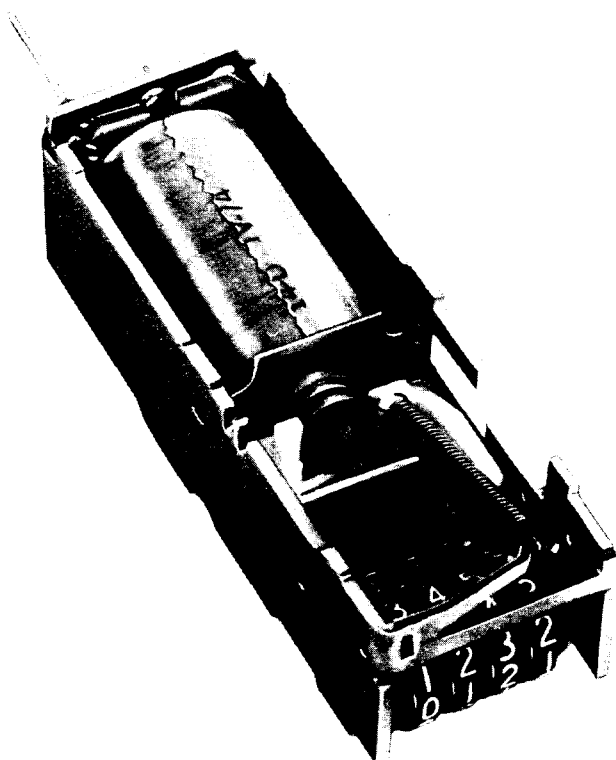


Fig. 3—Typical 14-Type Message Register (MOD 2)

2. PIECE-PART DATA

2.01 Figures 4 through 8 included in this part show the various piece parts in their proper relation to other parts of the register. The piece-part numbers of the various parts are given with the names of the parts as listed by the

Western Electric Company Merchandise Department. When these names differ from those in general use in the field, the latter names in some cases are shown in parentheses.

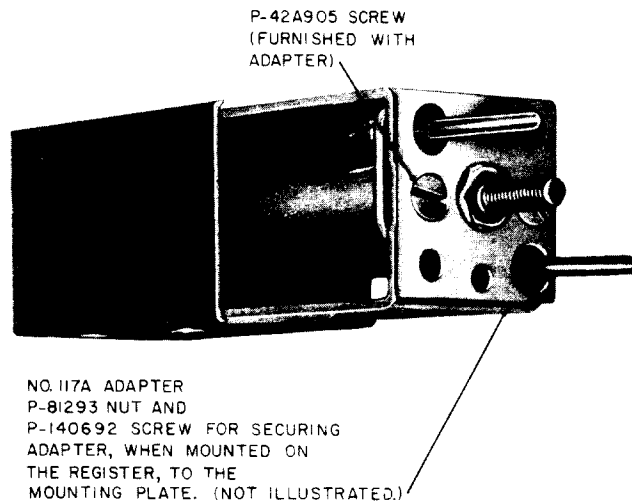
2.02 When ordering parts for replacement purposes, give the piece-part number and the name of the piece part; for example: P-16A072 Screw. Do not refer to the BSP number or to any information shown in parentheses following the piece-part number.

2.03 Part numbers of adapters and code numbers of registers with which the adapters are used are given in Table A.

TABLE A

ADAPTERS

REGISTER CODE NUMBER	ADAPTER
14LA	P-15A139
14LB	P-15A139
14LC	P-15A140
14LD	P-15A412
14LE	P-15A413
14LF	P-15A413
14FG	P-15A139
14LH	P-15A413
14LJ	P-15A139
14LK	P-15A140
14LL	P-15A413
14LM	P-15A139
14LN	P-15A139
14LP	P-15A413
14LR	P-15A412
14LS	P-15A412
14LT	P-15A412
14LU	P-15A139
14LW	P-15A412
14LY	P-15A412



**Fig. 4—14E Register Equipped With a 117A Adjuster
(Initial Design and MOD 1)**

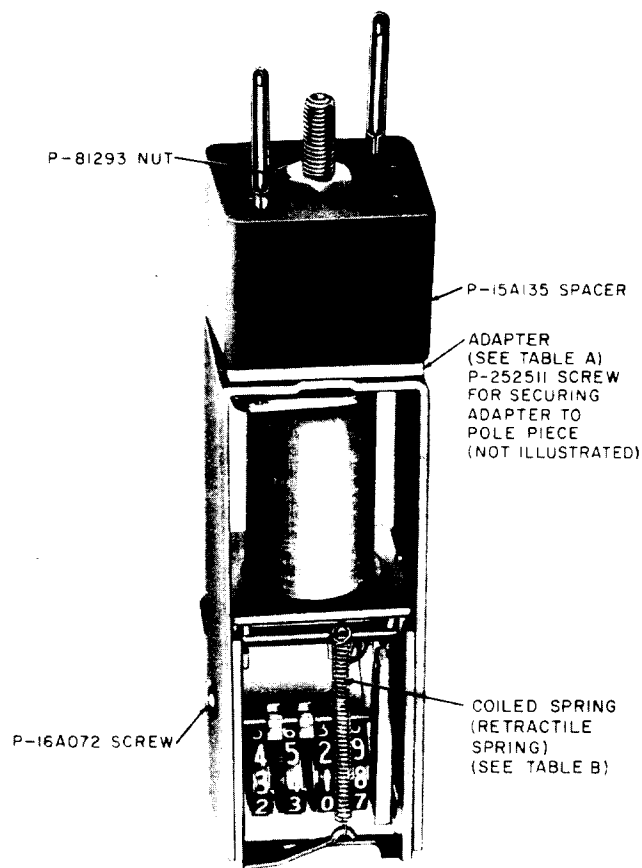


Fig. 5—14-Type Register Equipped With Spacer (MOD 1)

TABLE B

COILED SPRING (RETRACTILE SPRING)

REGISTER NUMBER	SPRING NUMBER	
	INITIAL DESIGN AND MOD 1	MOD 2
14B, 14D, 14LA, 14LC, 14LG, 14LM 14E, 14H, 14M, 14LJ 14AD, 14AE, 14LK, 14LN, 14LU 14C, 14LB 14F, 14G, 14J, 14K, 14P, 14R, 14S, 14T, 14U, 14W, 14AA, 14LD, 14LE, 14LF, 14LH, 14LL, 14LP, 14LR, 14LS, 14LT, 14LW, 14LY	P-482410 P-42M037 P-42M039 840051262	840054993* or 840055008* or 840055016*

* Use as required for correct tension.

COVER (SEE TABLE C)

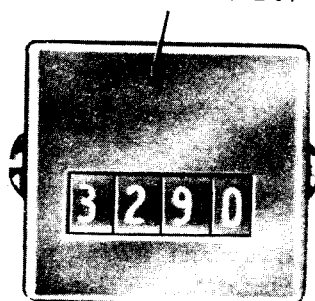


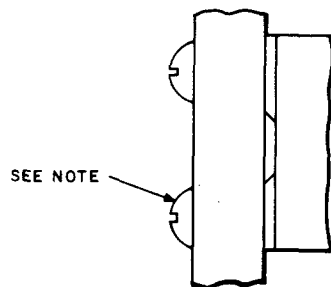
Fig. 6—14-Type Register With Cover in Place—Front View (Initial Design and MOD 1)

TABLE C

REGISTER COVERS

REGISTER CODE NUMBER	COVER NUMBER	
	INITIAL DESIGN AND MOD 1	MOD 2
14P	P-10F443*	840055867*
14M	P-15A924	840055305
14AD	—	840055289
14AE	—	No cover
All other	P-15A925	840055859
14-types	—	—

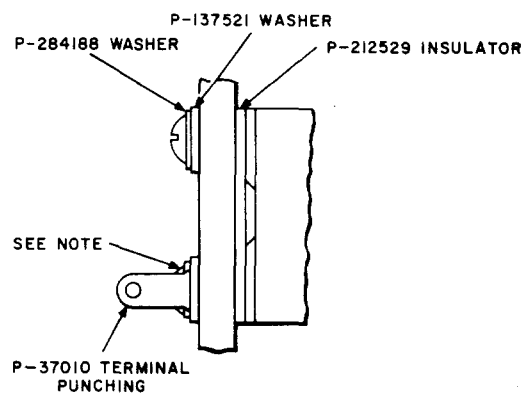
* Same as cover illustrated except has card holder.



NOTE:

- P-124483 SCREW (FOR .090 INCH THICK MOUNTING PLATE)
- P-428296 SCREW (FOR 3/16 INCH THICK MOUNTING PLATE)
- P-154490 SCREW (FOR 3/8 INCH THICK MOUNTING PLATE)

A—Register Not Insulated From Mounting Plate



NOTE:

- P-124483 SCREW (FOR .090 INCH THICK MOUNTING PLATE)
- P-125043 SCREW (FOR 3/16 INCH THICK MOUNTING PLATE)

B—Register Insulated From Mounting Plate

Fig. 7—Mounting Parts for 14-Type Register Not Equipped With Spacer

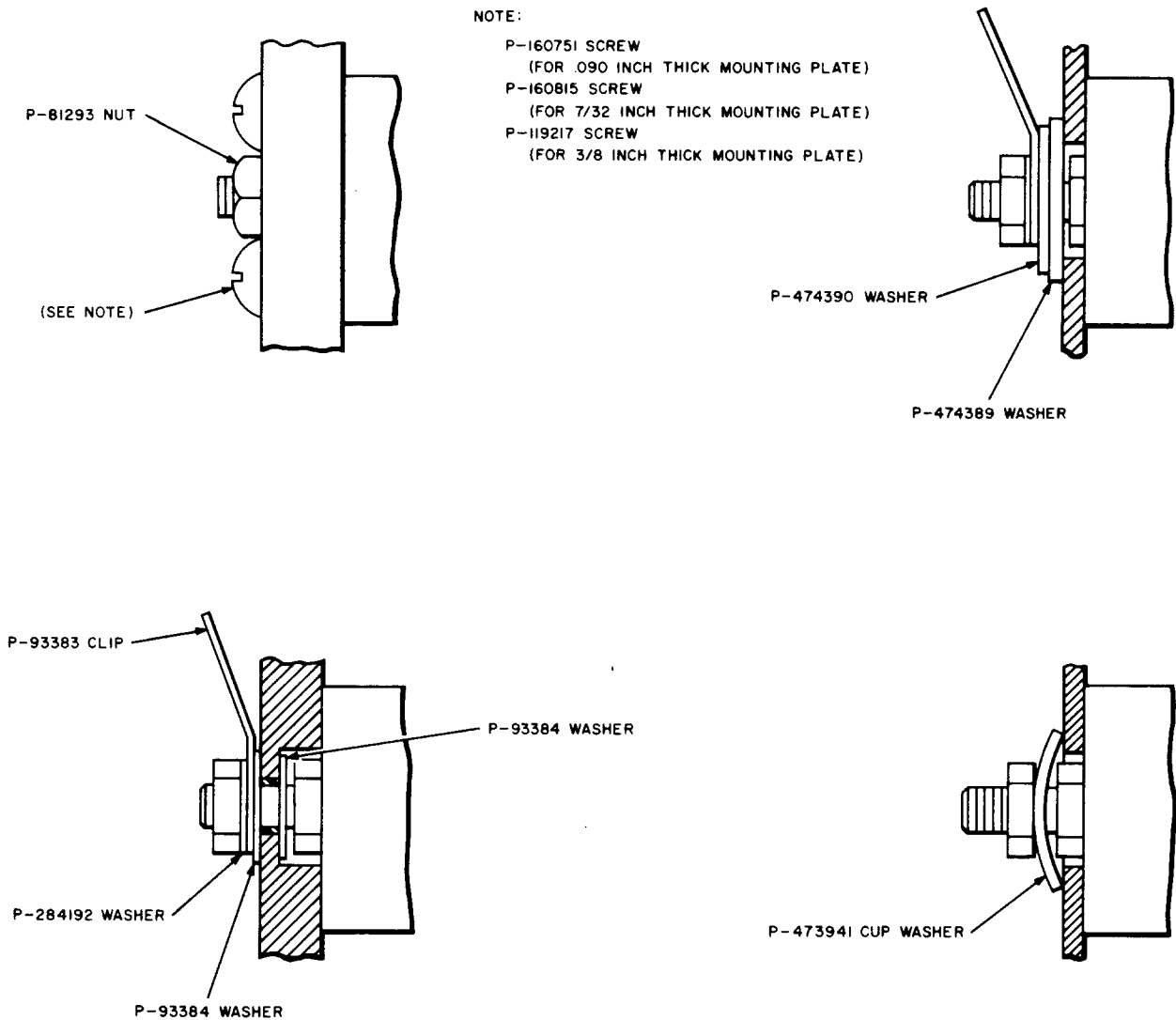


Fig. 8—Mounting Parts for 14-Type Registers Equipped With Spacer

3. REPLACEMENT PROCEDURES

3.01 *List of Tools*

CODE OR SPEC NO.	DESCRIPTION
TOOLS	
46	3/8-inch hex. single-end socket wrench
90B	Cap remover

245	3/8-inch and 7/16-inch open double-end flat wrench
—	3-inch C screwdriver
—	B long-nose pliers

3.02 No replacement procedures are specified for screws or other parts where the procedure consists of a simple operation.

3.03 After making any replacement of parts of a 14-type register, the part or parts replaced shall meet the readjust requirements involved as

SECTION 030-331-801

specified in Section 030-331-702. Other parts whose adjustments may have been disturbed by the replacing operations shall be checked to the readjust requirements, and an overall operation check shall be made of the register before restoring it to service.

3.04 *Obtaining Access to Various Parts of Mounted Registers:*

To gain access to the various parts of the register to make the replacements specified herein, it may be necessary to move the mounting plate forward. Where this is not feasible, it may be necessary to remove the register from its mounting. To remove the register, unsolder and tag the leads. If the battery connection to the register is connected in multiple to other registers, provide means to avoid discontinuity of the battery supply to the other registers when disconnecting the leads. Remove the register mounting nut with the 46 wrench or the mounting screws with the 3-inch C screwdriver.

3.05 *Cover and Window:* To replace the cover when the register is mounted in close quarters, slide the cover off using the 90B cap remover. Otherwise, the cover may be slid off by hand. Slide the new cover in place by hand.

If the replaced cover is marked with a designation, mark the new cover with the same designation. In the case of defective covers, principally due to loosening of the plastic window, it is recommended that new covers be provided. It is not feasible to make available a suitable cement for attaching the plastic material to the cover.

3.06 *Retractable Springs:* With the B long-nose pliers, unhook the loop of the spring attached to the cyclometer frame and then unhook the spring from the armature. Mount the new spring in place, holding the spring by an end loop, with the B long-nose pliers. Hook the spring on the armature first and then on the cyclometer frame.

3.07 *Spacer and Associated Parts:* Remove the spacer mounting nut using the 245 wrench. Withdraw the spacer. Remove the two screws which attach the adapter to the pole piece using the 3-inch screwdriver. Substitute the new parts, and mount the parts in the reverse order.

3.08 *117A Adapter:* Remove the adapter mounting screws using the 3-inch C screwdriver. Substitute the new part, and mount the adapter to the pole piece.