DIODES AND VARISTORS

IDENTIFICATION

1. GENERAL

1.01 This section covers general information pertaining to diodes and varistors used with station apparatus. Diodes and varistors which form component parts of station apparatus are not listed as they normally are not ordered separately. For a complete list and description of all types of diodes and varistors refer to the Western Electric Company Apparatus Card Catalog.

1.02 This section is reissued to:

- Add 400J, 426N, and 446F diodes
- Add 104A varistor

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

1.03 Refer to appropriate section in Division 032 for precautions to be taken while working with diodes and varistors.

2. IDENTIFICATION

2.01 Fig. 1 shows the diodes used in station apparatus and Table A lists their description and application.

2.02 Fig. 2, 3, and 4 shows the varistors used in station apparatus and Table B lists their description and application.

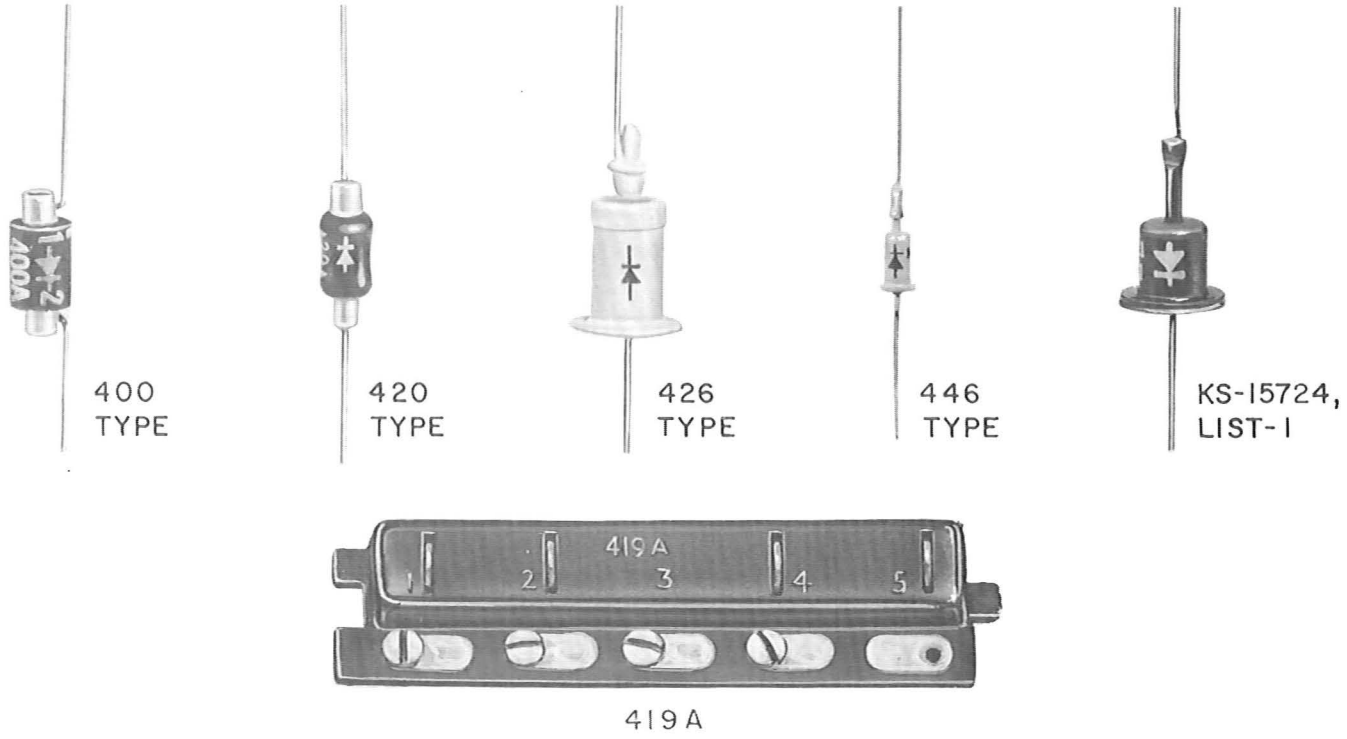
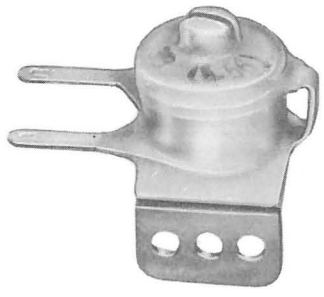


Fig. 1—Diodes

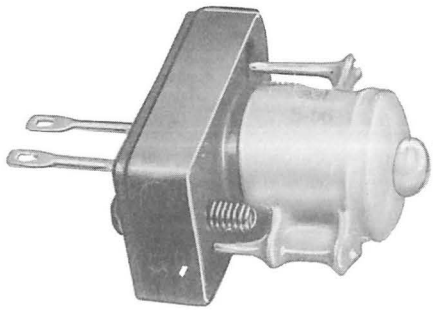
TABLE A

DIODES

TYPE	DESCRIPTION	USE
→ 400A	Germanium crystal rectifier with wire terminals	Key telephone units, 55A (MD) control unit
400E		Ringup circuit key telephone unit, 1B telephone answering set, 570-type telephone set
→ 400J		247B key telephone unit
419A	Four germanium crystal rectifiers wired to terminal block	Polarizing network for 151A amplifier used in telephone sets
420B	Hermetically sealed silicon alloy with wire terminals	Dial restriction on multikey sets, 570-type telephone set
426E	Silicon diode in metal case with wire terminals	Surge protector in 8A and 9A announcement systems
↱ 426N		AC1 or AD1 telephone base
446F	Hermetically sealed silicon diffused junction with wire terminals	402A and 404A key telephone unit
↳ KS-15724, List 1	Germanium rectifier in metal case with wire terminals ***Caution: The outside case forms part of the electrical circuit of the rectifier. Do not allow case to contact other components of the set.***	Busy lamp circuit, 1A1 and 1A2 key telephone systems, 55A (MD) control unit



3B



33L

Fig. 2—Varistors

TABLE B

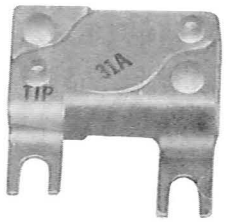
VARISTORS

TYPE	FIG.	DESCRIPTION	USE
3B	2	Two 3/4-inch diameter copper-oxide discs on mounting bracket	Reduces clicks in receiver units. Replaces 3A (MD) varistor ←
20A	4	Nine 3/4-inch diameter copper-oxide discs on mounting bolt	531 (MD) and 687 subscriber sets ←
27B		Eight 3/4-inch diameter copper-oxide discs on insulated base	Ringup relay circuit in key telephone units
30A		Nine 3/4-inch diameter copper-oxide discs on mounting bracket	
31A	3	Four 3/16-inch diameter copper-oxide discs sealed in insulating material	Reduces clicks on postpay coin collectors
33L	2	Four 3/4-inch diameter copper-oxide discs on insulated base	Reduces clicks in receiver units. Replaces 4A (MD) and 33A (MD) varistors ←
37A	3	Two 1/2-inch diameter copper-oxide discs. One terminal used for mounting	Reduces noise on coin collectors
37B			Reduces noise on telephone sets which use 101-type induction coils
37C			Reduces noise on D-type (MD) hand set mountings ←
44A	4	Two 1/2-inch diameter copper-oxide discs in a metal case	Reduce clicks in receiver units ↰ ↲
100A		Two silicon discs encased in resin with wire terminals	
104A		Two germanium diffused junction elements molded in a common encapsulation with wire terminals	
307A		Silicon-carbide disc on mounting bracket	103A key equipment
313B		Silicon-carbide disc on mounting bolt	32A key telephone unit
316A		Two 3/4-inch silicon-carbide discs in a metal case	Prevents false relay operation 1A1 and 1A2 key equipment ringup circuit

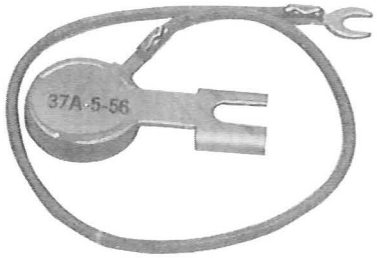
TABLE B (Cont)

VARISTORS

TYPE	FIG.	DESCRIPTION	USE
317A	4	A 3/4-inch silicon-carbide disc with a coating of insulating material and wire terminals	Ringup circuit 1A1 and 1A2 key equipment
317B			Holding bridge 507A and B PBX trunks

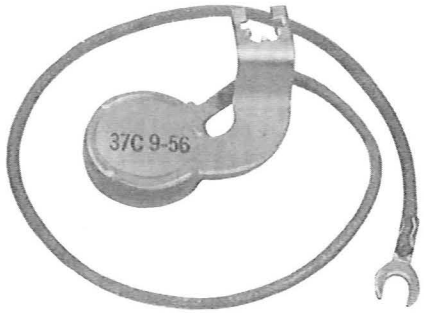


31A



37A

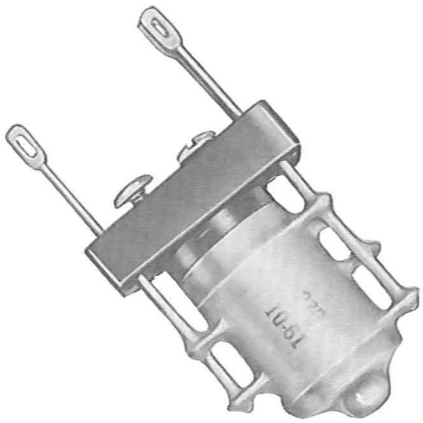
37B



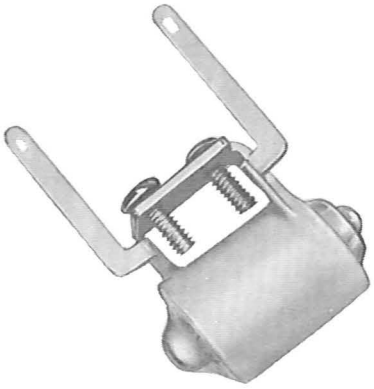
37C

Fig. 3—Varistors

20A

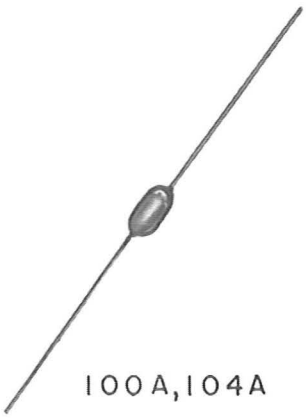


27B

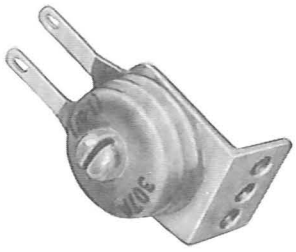


30A

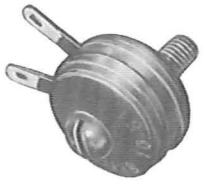
44A



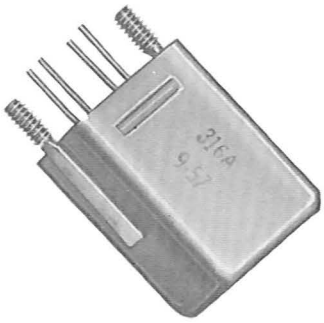
100A,104A



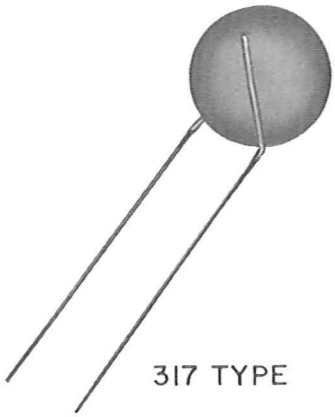
307A



313B



316A



317 TYPE

Fig. 4—Varistors