

STATION TRANSFORMERS IDENTIFICATION

1. GENERAL

- 1.01 This section is reissued to add information on the 2186A transformer.
- 1.02 Locate transformers where they will be accessible for inspection and maintenance.
- 1.03 Transformers discussed in this section require a 110- to 125-volt ac power service outlet.



Make sure that the 110- to 125-volt power service outlet is not under control of a switch.

- 1.04 To prevent accidental removal, fasten power cords to the 110- to 125-volt ac outlet with a power-cord plug-retainer assembly. Fasten plug-in transformers with a 2A clamp.

2. 393B TRANSFORMER

2.01 The 393B transformer (Fig. 1) is used primarily as a power supply for 10-volt lamps in 1A, 1A1, and 1A2 key telephone systems. It is furnished in a metal box with a removable cover. The box is approximately 8-3/4 inches long, 4-1/4 inches high, and 4 inches deep.

2.02 The 393B transformer is equipped with two 2-amp fuses in parallel and furnishes 9 to 11-volts ac 2.8 amps. It will handle the load of seventy-two 51A lamps or equivalent.



The 24-type fuses of later design are manufactured with a metallic surface on one side only. When placing these fuses in the 393B transformer, be sure the nonmetallic sides of the fuses are together on the center post (Fig. 1).

2.03 When more than 18 lamps are supplied by each 2-amp fuse, the leads from the 393B transformer to the key equipment should be 20 gauge or larger. The battery lead must be fused

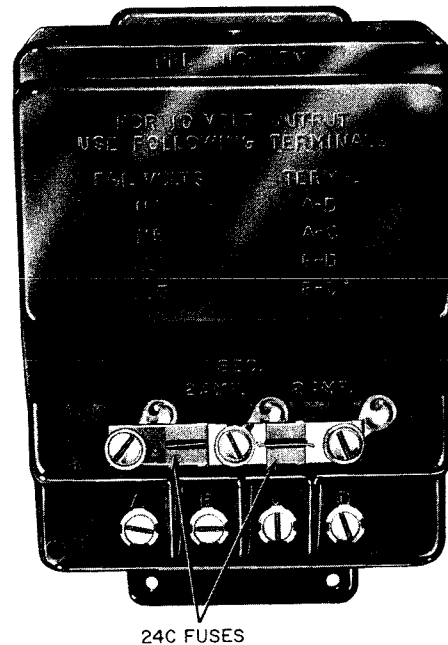


Fig. 1—393B Transformer

again at the key equipment with a 2-amp fuse as shown in Fig. 2.

2.04 Connect the leads from the 393B transformer to the key equipment as shown in Table A.

3. 2012A TRANSFORMER

3.01 The 2012A transformer (Fig. 3) supersedes the KS-16184, List 3 transformer.

3.02 The 2012A-42 transformer is rated MD and is replaced by the 2012A-49 (light olive gray) and 2012A-50 (ivory).

3.03 The 2012A transformer supplies power for telephone sets with dial night light feature.

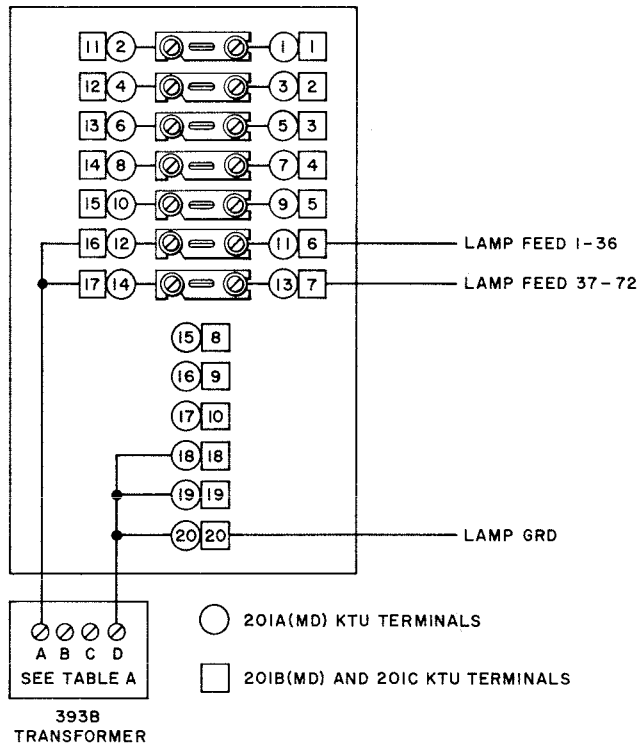


Fig. 2—201A (MD), 201B (MD) and 201C Key Telephone Units

TABLE A

TRANSFORMER CONNECTIONS

IF AC SUPPLY VOLTAGE IS	CONNECT THE LEADS FROM THE KEY EQUIP. TO TERM.
110	A and D
115	A and C
120	B and D
125	B and C

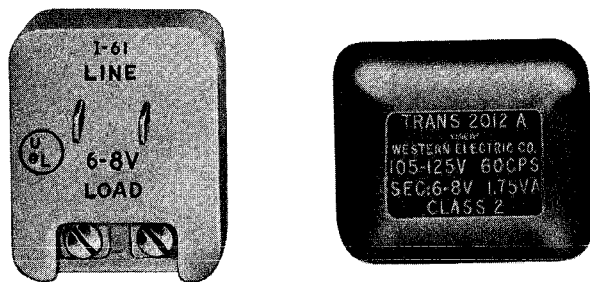


Fig. 3—2012A Transformer



Do not use 2012A transformer to power 3A speakerphone systems.

3.04 This transformer is self-protecting. A pair of prongs for the primary terminals is provided so that the transformer can be mounted in a standard parallel-blade convenience receptacle. Screw terminals are provided for secondary winding in a recess on the same side of apparatus as the prongs.

3.05 With 115-volts 60 cps applied to the primary winding, the secondary winding delivers approximately 7 volts at 0.250 amp.

3.06 Only one dial light or night light may be connected to a 2012A transformer. See Table B for wiring limits. A 25-foot mounting cord is not recommended. The added resistance of this cord results in decreased illumination.



When installing a dial light transformer, check that telephone protector and/or signaling ground conductor is connected to the best ground available as outlined in section covering protector and signaling grounds.

4. 2012B TRANSFORMER

4.01 The 2012B-42 transformer is rated MD and is replaced by the 2012B-49 (light olive gray) and 2012B-50 (ivory).

4.02 The 2012B transformer (Fig. 4) is primarily intended to supply power to the 55A or 55B control unit in 3A speakerphone systems. The length of wire between the transformer and the control unit should not exceed 100 feet of standard inside wire.



Do not use 2012B transformer as a 2012A transformer.

4.03 This transformer is self-protecting. A pair of prongs for the primary terminals is provided so that the transformer can be mounted in a standard parallel-blade convenience receptacle. Screw terminals are provided for secondary winding in a recess on the same side of apparatus as the prongs.

TABLE B
MAXIMUM LENGTHS
OF DIAL LIGHTING PAIRS FOR DIAL NIGHT LIGHT TELEPHONE SETS
(INSIDE WIRING CABLE OR JKT WIRE)

FEATURE	TYPE TELEPHONE SET	TRANSFORMERS				2012A (Note 3)
		KS-16940, L1		KS-16886, L2		
		8 VOLT (Note 1)	6.3 VOLT (Note 1)	6.6 VOLT (Note 2)		
		MAXIMUM LENGTHS IN FEET (Note 4)				
Home Run Feeder Single Tel Set 1 Dial Light	500	350	150	300	150	
	701	350	175	350	250	
	702	350	175	350	250	
	711	450	250	450	250	
	712	450	250	450	250	
	1702	350	175	350	250	
	1712	450	250	450	250	
Common Feeder 2 Tel Sets 1 Tel Line 1 Dial Light 1 Night Light	500	130	50	100		
	701	200	100	150		
	702	200	100	175		
	711	220	100	175	*	
	712	220	100	175		
	1702	200	100	150		
	1712	220	100	175		
Common Feeder 3 Tel Sets 1 Tel Line 1 Dial Light 2 Night Lights	500	90	40	60		
	701	160	85	130		
	702	160	85	130		
	711	175	100	160	*	
	712	175	100	160		
	1702	160	85	130		
	1712	175	100	160		
Common Feeder 2 Tel Sets 2 Tel Lines 2 Dial Lights	500	120				
	701	150				
	702	150				
	711	175	*	*	*	
	712	175				
	1702	150				
	1712	175				

Note 1: The KS-16940,L1 transformer is designed to power 30 dial night light telephone sets and is not recommended for single telephone installations. Do not use common feeder where more than two sets may be off-hook at the same time. Home runs from each set to the transformer provide best illumination.

Note 2: The KS-16886,L2 transformer is designed to power ten dial night light telephone sets and is not recommended for single telephone installations. Do not use common feeder where more than one set may be off-hook at the same time. Home runs from each set to the transformer provide best illumination.

Note 3: The 2012A transformer is designed to power only one dial night telephone set.

Note 4: Lengths may be doubled if pairs for feeder are paralleled.

* Not to be used for this feature.



Fig. 4—2012B Transformer

4.04 With 115-volts 60 cps applied to the primary winding, the secondary delivers approximately 17 volts at 0.132 amp.

4.05 A 2A clamp should be used to secure the 2012-type transformer to a standard electrical service outlet (Fig. 5). The 2A clamp will prevent the transformer from being accidentally dislodged from the outlet.

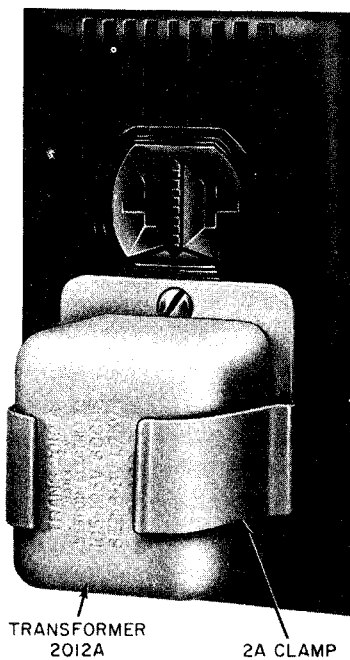


Fig. 5—2A Clamp

4.06 The 2A clamp is available in light olive gray (-49) and ivory (-50).

5. 2075A TRANSFORMER

5.01 The 2075A transformer (Fig. 6) supplies power (15 to 18 volts) for the 41A dial in the 660-, 662-, 663-, and 664-type telephone sets.

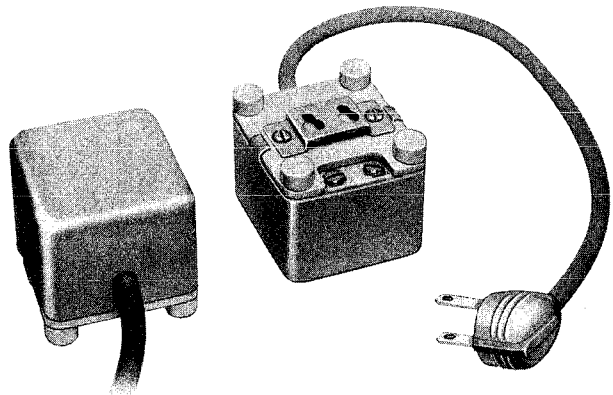


Fig. 6—2075A Transformer

5.02 The transformer is equipped with an 18-inch power cord terminated in a 2-pronged plug. This plug fits a standard parallel-blade convenience receptacle.

5.03 Keyhole slots are provided at the rear of the transformer for easy installation. Use a suitable backboard when mounting on surfaces requiring backboards.

6. 2186A TRANSFORMER

6.01 The 2186A transformer (Fig. 7) supplies power for the 700A and 700B subscriber sets.

6.02 The transformer is protected by an internal thermal overload safety switch which restores automatically. It is equipped with a 12-inch power cord connected to the primary winding. The secondary winding is terminated in screw terminals on the rear of the transformer.

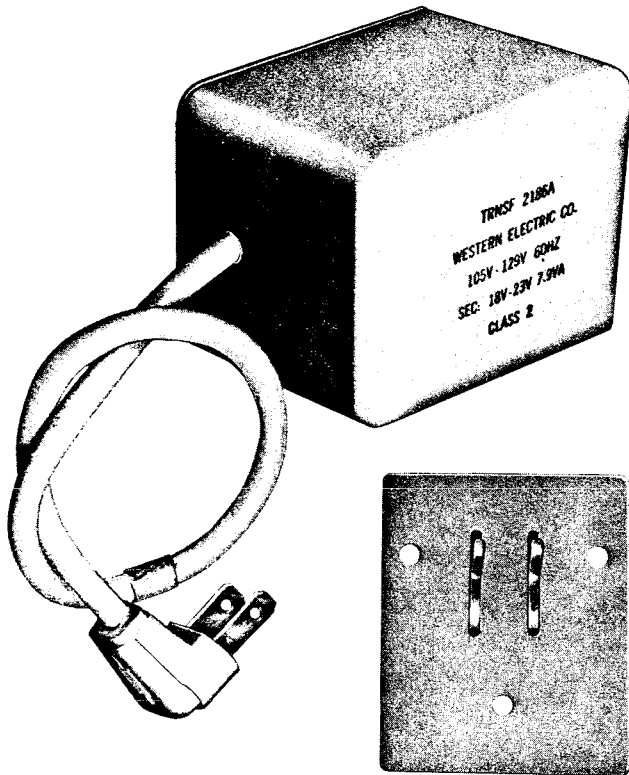


Fig. 7—2186A Transformer

6.03 With 117 volts, 60 Hz applied to the primary winding, the secondary delivers approximately 20 volts at 0.345 amp.

6.04 Keyhole slots are provided at the rear of the transformer for mounting purposes. Use the backboard furnished with the transformer on surfaces requiring backboards.

6.05 Attach backboard with appropriate fastening device depending on the type of mounting surface.◆

7. KS-5714 TRANSFORMER

7.01 The KS-5714 transformer is used primarily to operate bells, buzzers, and lamps on station systems when the circuits are arranged to supply this load separately. It is furnished in a metal box with a removable cover. The box is approximately 8-3/4 inches long, 4-3/8 inches high, and 4 inches

deep, and is arranged for wall mounting. This transformer is self-protecting and has no fuses.

7.02 The KS-5714, List 2 transformer supplies 15-volts ac 2.2 amps.

7.03 The KS-5714, List 3 transformer supplies 15-volts ac 1.1 amps.

8. KS-16886, LIST 2 TRANSFORMER

8.01 The KS-16886, List 2 transformer (Fig. 8) is primarily intended as the centralized power supply for multiphone dial light installations and home interphone systems requiring approximately 6 volts. It is capable of handling up to ten dial light stations. See Table B for wiring limits. Additional taps at 10.5, 24, and 25.5 volts are also provided for other possible uses. This transformer is self-protecting and has no fuses.

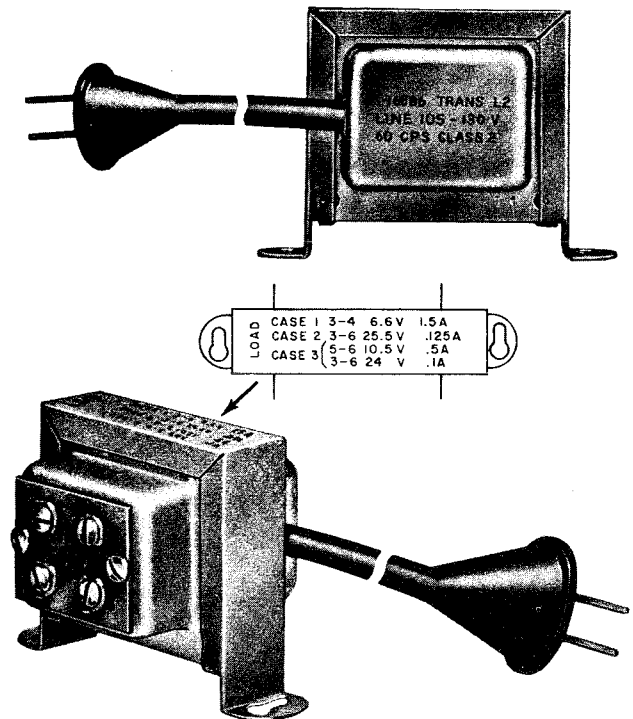


Fig. 8—KS-16886, List 2 Transformer

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8.02 Over-all dimensions of the transformer are 2-3/4 by 3-3/4 by 2-3/4 inches. Power cord is 18 inches long and terminates in a 2-pronged plug. Weight is approximately 1-1/2 pounds.

8.03 Keyhole slots provide easy installation. Use a suitable backboard when mounting on surfaces requiring backboards.

9. KS-16940, LIST 1 V.R. TRANSFORMER

9.01 The KS-16940, List 1 V.R. transformer (Fig. 9) is primarily for use as centralized dial light power source to provide regulated power for dial lights and night lights on telephones. It will power 30 dial light telephone sets. This transformer is self-protecting. See Table B for maximum lengths of wiring.

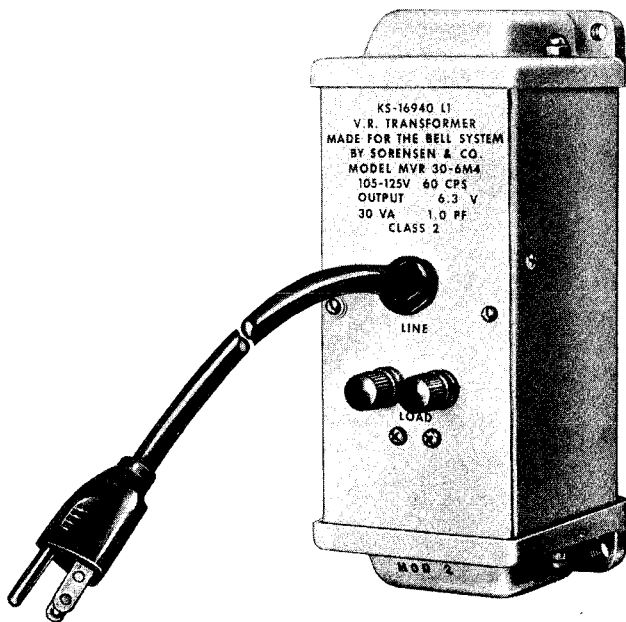


Fig. 9—KS-16940, List 1 V.R. Transformer

9.02 Input is provided with a 2-foot 3-conductor power cord and plug. The ground prong of the plug is connected internally to the transformer case. The output is isolated from the input and the case and is terminated in two low voltage terminals on the case.

9.03 Output taps of 6.3 and 8.0 volts are located on back of cover as shown in Fig. 10. The

transformer is shipped with movable lead connected to 6.3-volt tap.

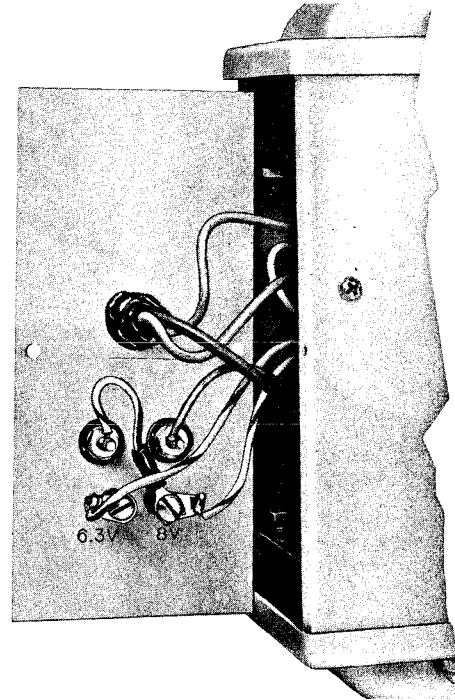


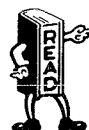
Fig. 10—Movable Lead Connected to 8-Volt Tap

9.04 To change connection to 8.0-volt tap:

- (1) Remove two screws holding cover to case.
- (2) Remove cover.
- (3) Change movable lead from 6.3-volt tap to 8.0-volt tap.

9.05 Over-all dimensions of the transformer are 7-5/8 by 2-15/16 by 3-5/8 inches. The weight is approximately 5-1/2 pounds.

9.06 Four 1/4-inch holes are provided on the case for mounting. Use a suitable backboard for mounting on surfaces requiring backboards.



An adapter is needed to plug power cord in a standard parallel-blade ac outlet.