

KEY SERVICE UNITS

550- AND 551- TYPES

IDENTIFICATION AND INSTALLATION

1. GENERAL

1.01 These units are 1A2 key telephone system packages (Fig. 1) designed to receive miniature relay plug-in type 400 series key telephone units (KTUs). The receptacle mounting assembly will accept either type KTU shown in Fig. 2 or 3. Total central office or PBX line capacity is reduced by one for each 401-type KTU installed. There is no provision for dial intercom within these packages.

1.02 The only difference between the 550A and 551A key service units (KSUs) is:

- 550A KSU (Fig. 4) requires connection to an external power supply. (Refer to 3.04.)
- 551A KSU (Fig. 5) is factory equipped with a small plug-in power plant.

1.03 A P-48F261 adapter plate is available for mounting two single or one double

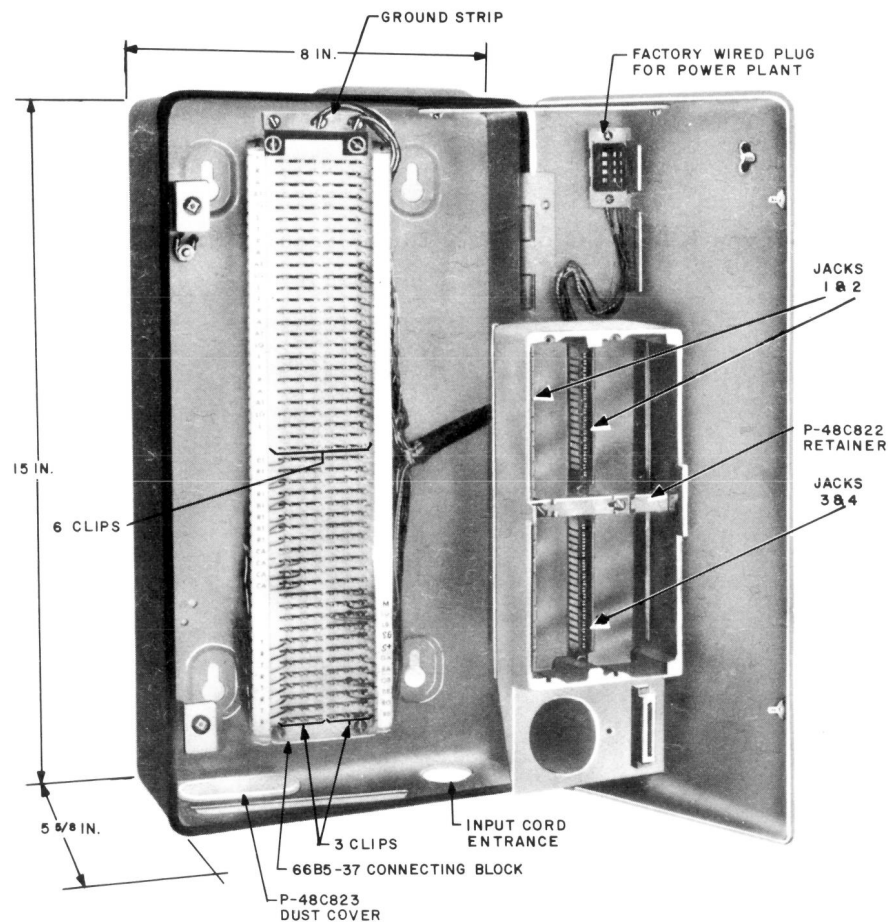


Fig. 1 - KSU Less Plug-In Equipment

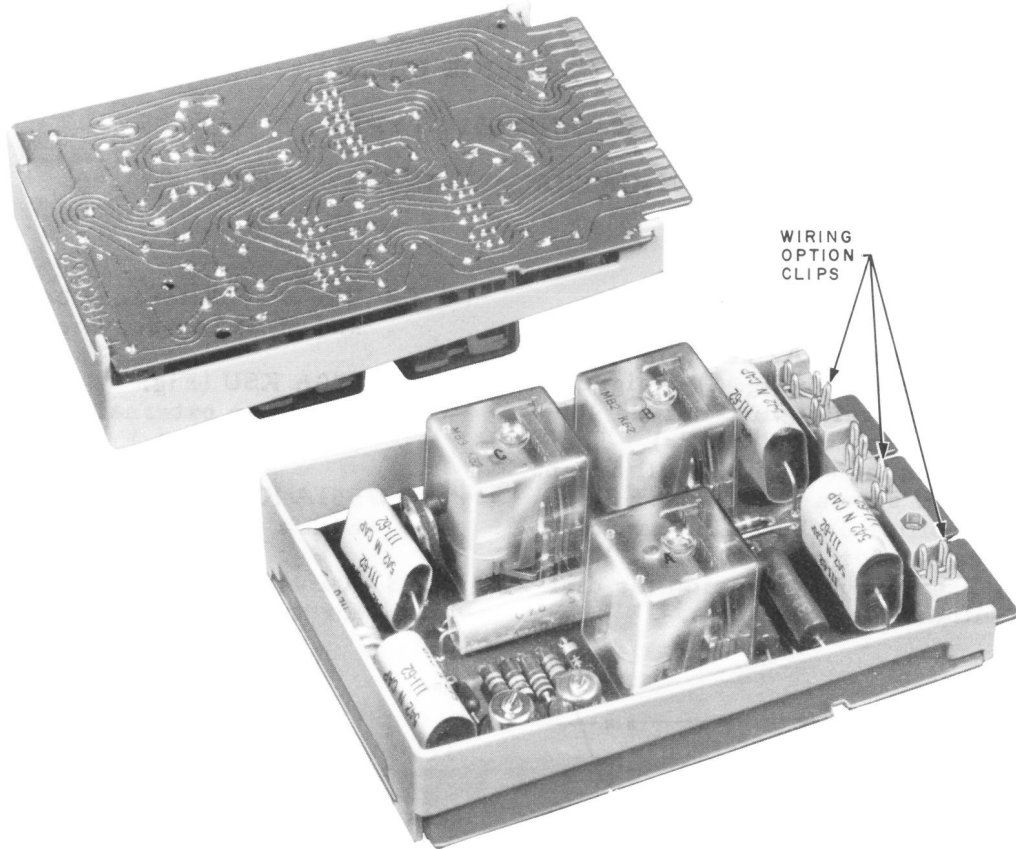


Fig. 2 - 400-Type KTU, CO or PBX Line Circuit, Front and Rear View

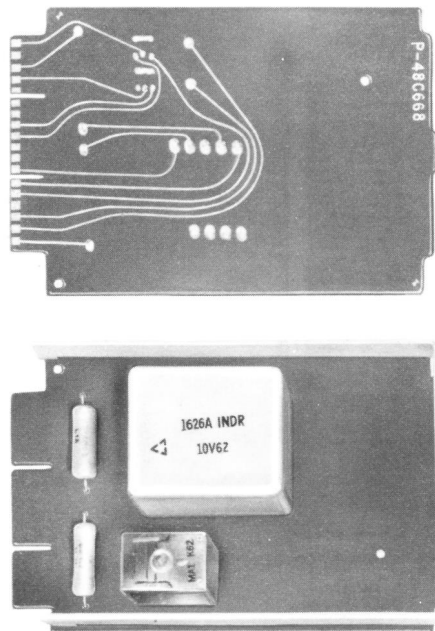


Fig. 3 - 401A KTU, Manual Intercom Line Circuit, Front and Rear View

width 1A key telephone system angle bracket type KTU in a 550A KSU (in place of internal power plant). As an example, this device will allow any of the units in Table A to be provided.

2.02 Small wire clips, located in a plastic block on the 400-type KTU, provide for different circuit wiring options (Fig. 6). When applicable, change the factory provided or existing option, using

TABLE A
Angle Bracket-KTUs for Supplementing
550A Key Service Unit

Circuit	KTU	Size
Manual Intercom: Less busy lamp	2A	Single width
With busy lamp	31A	Double width
2-way auto. sig	13C	Double width
Multistation sig	3A	Single width
Private Line: Less visual sig	7A	Double width
Power Supply Control: Bat. feed resistance	22 type	Single width
Gen ballast lamp	11A	Single width
Fuse unit	21A	Double width
Miscellaneous: Relay switching	17B	Single width
Additional bridging	8 type	Single width

1.04 Only telephone sets designed for A lead control can be used with these key service units.

2. FEATURES

2.01 When equipped with proper plug-in 400-series KTUs 550A or 551A key service units provide for:

- CO or PBX line pickup and hold feature.
- Flashing lamp indications.
- Winking (or steady) hold lamp indication.
- Individual line time-out (with options for short or long duration).
- Common (or individual) audible signal on incoming calls.
- Manual intercom feature with busy lamp indication.

The 400-series key telephone units are not furnished as part of key service units and must be ordered separately as required.

long nose pliers for seating bare 24-gauge wire between clips.

3. DESCRIPTION AND ASSEMBLY OF PARTS

3.01 The receptacle assembly contains four line jacks plus separate jack for a KS interrupter. A KS-19175, List 1 interrupter designed for 10-volt ac operation is supplied with each KSU. Lamp flash, lamp wink, and ringing signal interruptions are provided for. The interrupter may be removed from its jack by loosening the screw shown in Fig. 4.

3.02 A KS-19385, List 1 interrupter designed for 24-volt dc operation may be substituted for the one supplied with the KSU. The KS-19385, List 1 interrupter is intended for use at locations where only 24-volt dc power is used. When a 24-volt installation is made, station lamps should be operated at 9 to 11 volts ac or dc as usual.

3.03 The 66B5-37 connecting block used in these packages is divided into three sections (Fig. 1). The upper section features 26 rows of 6-clip terminals. The lower section is split electrically into right and left sections, each having 24 rows of 3-clip terminals. Each of the two fanning strips is equipped with pressure sensitive aluminum tapes with printed lead designations.

3.04 The J86738A, List 1 power plant output terminates in a recessed connector which mates with a factory-wired plug contained in the key service unit cabinet. (See Fig. 1 and 7.) The power plant may be installed in a 550A KSU (converting it to a 551A KSU). The installation consists of plugging in the power plant, securing it to the cover with the wing nut

provided, and fastening the input cord in the bottom of the cabinet.

3.05 A power input cord must be obtained separately. (See Table B.) The cord, equipped with a 3-prong right angle plug on one end and a 3-prong twist-lock connector on the other, mates with the power input cord attached to the J86738A, List 1 power plant. (See Fig. 5.)

3.06 See Table C for input and output voltages of J86738A, List 1 power plant.

3.07 The J86738A, List 1 power plant is designed to supply power for a 551A KSU only and should not be used to feed other equipment. Also, 400-type key telephone unit relays require 20 volts minimum

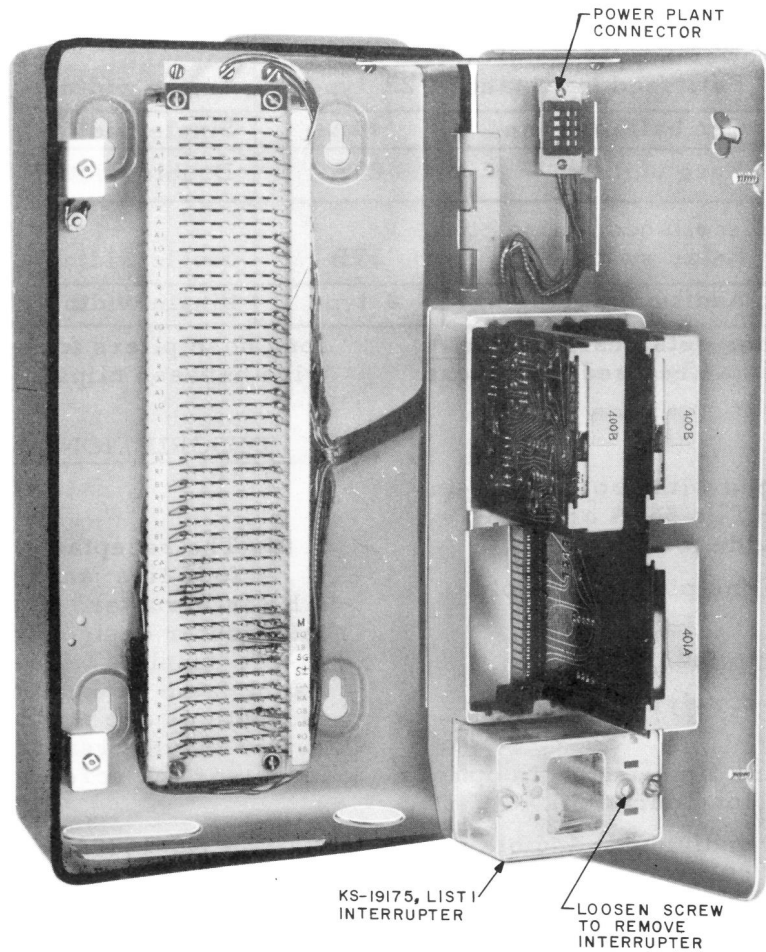


Fig. 4 - 550A Key Service Unit

for reliable operation. To assure adequate minimum operating voltage for relay operation, the 20-volt dc supply should not be used to operate excessive number of audible signals. The 20V± supply can be used for this purpose.

TABLE B
Double Ended Input Power Cord*

Cord Designation	Length in Feet
P-41W 765	1-1/2
P-41W 766	2
P-41W 767	4
P-41W 768	6

* For extending from KSU to electrical outlet.

4. ORDERING INFORMATION

4.01 Tables B, D, and E items are to be ordered as required to meet service requirements.

5. INSTALLATION

5.01 When required, change wiring options on 400-type KTUs before inserting them into receptacles. (See Fig. 6.)



The plug-edge of each 400B KTU is treated with a lubricant to assist in insertion or removal from its mounting receptacle. DO NOT WIPE OFF LUBRICANT.

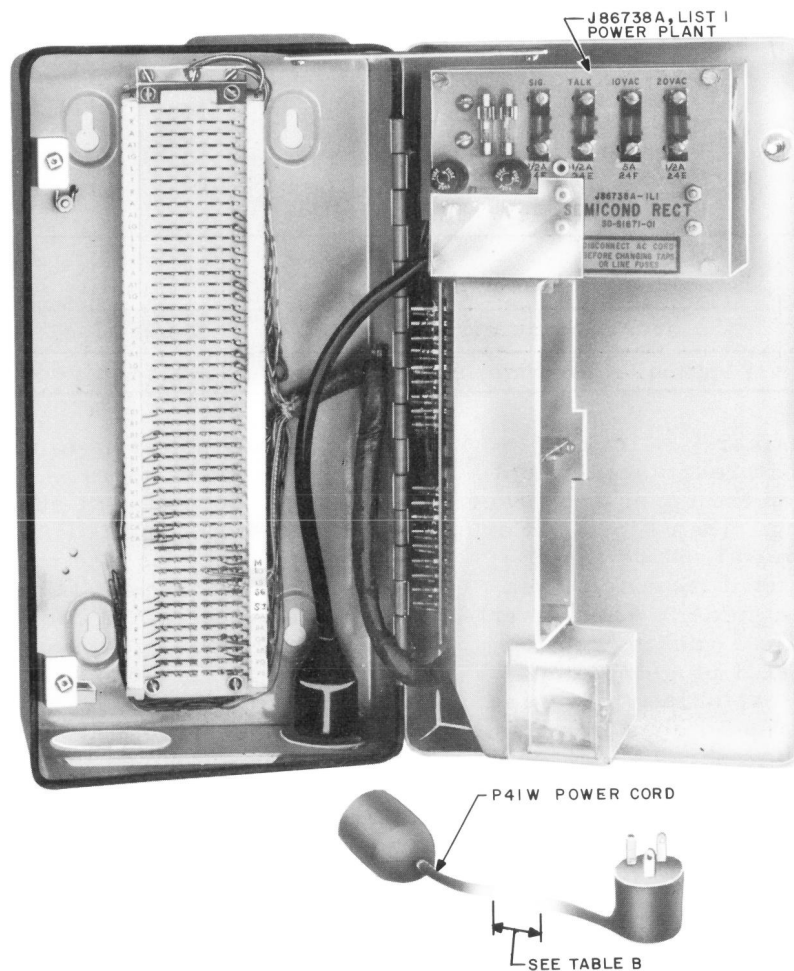


Fig. 5 - 551A Key Service Unit

TABLE C
J86738A, List 1 Power Plant

Input		Output		
Volts	Cycles	Supply	Voltage Range	Nominal Amperes
105 to 129	60	DC Talk	18-26	0.09
		DC Sig	20-26	0.2
		AC Lamp	8.75-11	2.1
		AC Aud Signal	20-22	0.2

TABLE D
Key Service Units*

550A	4 Lines (Less Power†)
551A	4 Lines (With J86738A, L1 PWR PLT)

* Furnished with KS-19175, List 1 interrupter.

† J86738A, List 1 power plant may be ordered separately.

TABLE E
1A2 Key Telephone System
Plug-In Printed Circuit Card KTU
(Not Furnished With KSU)

KTU Code	Features	Quantity
400B	CO or PBX line circuit	1 per line
401A	Manual intercommunicating line	As required

5.02 A slide bar retainer (for locking 400-type KTUs in receptacle mounting) is located between the upper and lower halves of the mounting. (See Fig. 1) For KTU insertion or removal, slide the retainer bar to the left until its notch lines up with the receptacle guide. When inserting KTUs, use a vertical rocking motion with enough force to seat plug-in components fully in their receptacles. Slide the retainer bar through the notches in KTUs. Tighten the retainer bar screw, locking KTUs in place.

5.03 Cables and wire may enter the cabinet from top or bottom. Dress wires along the sides of connecting block.

5.04 Use a 714-type tool for terminating wire in connecting block clips.

5.05 Where power is to be obtained from an external source (for example, a 101G-type power plant shared among several systems) the SIG BAT supply could fall below 20 volts (the minimum required to operate 400-type KTUs). If this voltage cannot be maintained above this minimum a separate power plant should be used for 550A KSU installations.

5.06 Key service units must be grounded to an approved local ground with a number 14 gauge or equivalent wire. The third wire in the power cord should not be used for this grounding requirement. A multiple post grounding terminal is located at the top of the 66B5-37 connecting block as a terminating point for the ground wire.

5.07 See section covering key service units 550- and 551- types, connections for connecting these key service units.

6. FINAL CHECK

6.01 Upon completion of installation check that all features of the system are being provided at each station involved.

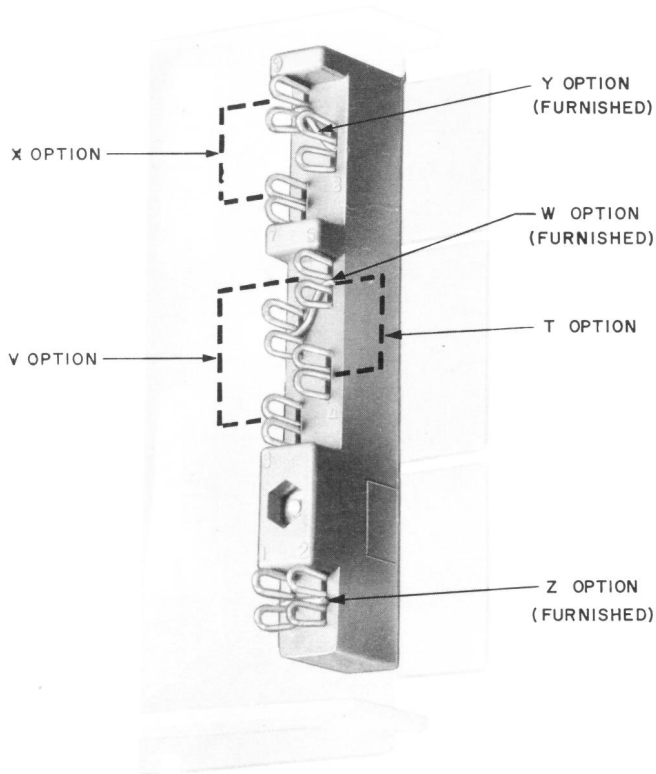


Fig. 6 - 400 Type KTU Circuit Option Block

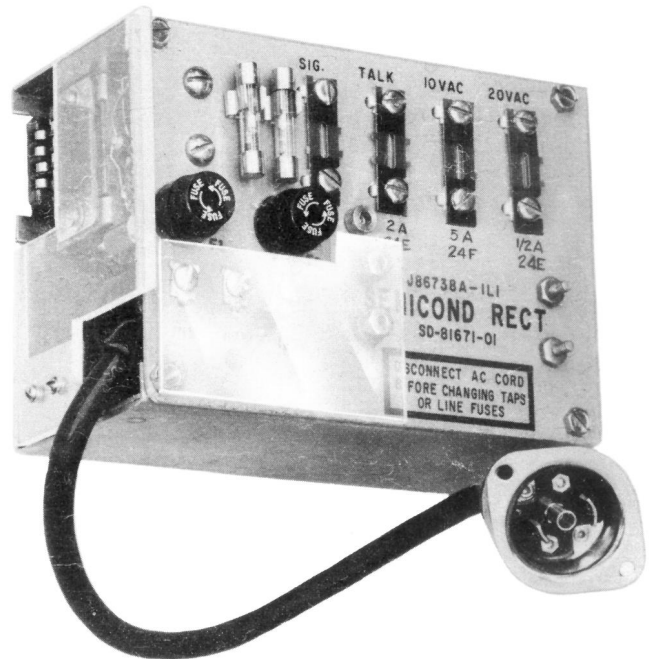


Fig. 7 - J86738A, L1 Power Plant