

KEY SYSTEM PRACTICE

KSP 401-0PA

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K401PA KEY TELEPHONE UNIT

Paging Adapter Circuit

1.0 GENERAL

The K401PA Key Telephone Unit (KTU) is a plug-in unit designed for use in a K1A2 Key Telephone System (KTS) utilizing Rotary Tel-Touch Dial Intercom Systems. It will provide access to a paging amplifier from intercom stations. The paging circuit is accessed by dialing an assigned intercom number. The K401PA is not intended for use with the K36A Key Telephone System.

2.0 OPERATION

The paging system is operated via an intercom station by pressing the intercom button on the station set, going off-hook and dialing assigned number. Voice paging can then be accomplished via the intercom system and the K401PA KTU. When the calling station goes on-hook after paging, the circuit reverts to the idle state. Electrical and mechanical characteristics of the K401PA are described below.

2.1 ELECTRICAL

The K401PA paging access circuit is designed to include the following characteristics:

- (1) Performs all functions from a power supply with a voltage range from -20Vdc to -28Vdc.
- (2) Operates with 100 Vac $\pm 30\%$ or 14 Vac $\pm 40\%$ signal voltage inputs.
- (3) Permits the transfer of audible communications from input to output (intercom to paging amplifier) at -3.5 dBv to +0.5 dBv.
- (4) Reference frequency is 1 kHz at an amplitude of 1.0 Vrms.
- (5) Strapping Options: (See figure 2 and paragraph 4.2.)
- (6) Reset controlled by normally closed contact at K207C1 or A00-B.
- (7) Provide a contact closure to control paging amplifier contact rated at 1 amp. resistive DC load.

Option	Strap	Description
B	N to O	14 Vac $\pm 40\%$ signal voltage
A	M to N	100 Vac $\pm 30\%$ signal voltage
(8)		Works into an input impedance of from 300 to 1000 ohms. (Paging amplifier should have an impedance of approximately 600 ohms for proper matching.)

2.2 MECHANICAL

The K401PA will plug into any 18 or 20 pin connector having 0.150-inch contact centers. Plugs into same connectors as the K400 line cards.

3.0 OPERATING ENVIRONMENT

Temperature: 0° to +55° C
Humidity: 0% to 90% without condensation.

4.0 INSTALLATION

The K401PA KTU may be inserted into any vacant CO/PBX line card connector. The paging access circuit may be assigned any available intercom station number.

Do not install the K401PA until all connections are complete and checked.

4.1 CONNECTIONS (See Figure 1)

Connections When Switched Contacts Are Not used.

- (1) Be sure power to system is off.
- (2) Determine which CO/PBX connector the K401PA KTU will occupy.
- (3) Determine what intercom station number will be used.
- (4) Connect the paging amplifier leads to the LINE T and R terminals.
- (5) A lead (pin 16) on K401PA must be returned to ground through a normally closed relay contact (reset control lead).

4.2 STRAPPING OPTIONS

NOTE

Before installing a K401PA, ensure that strapping is correct.

- (1) When a ringing supply is applied to the K401PA KTU at terminal 1 (RT), strap per option A.
- (2) When a buzzing supply is applied to the K401PA, strap per option B.

5.0 CIRCUIT CARD DESCRIPTION

5.1 SCHEMATIC DIAGRAM

Figure 2 gives a schematic diagram of the circuits for the K401PA pc board. The diagram shows the terminal points for strapping options; A and B.

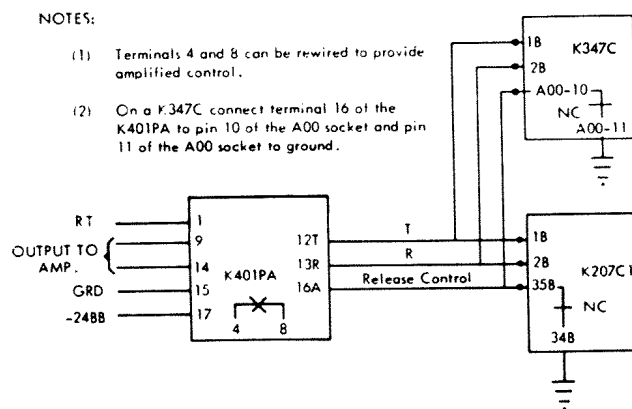
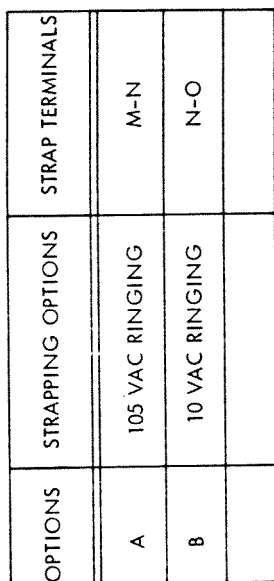


Figure 1. K401PA KTU Hookup to Intercom

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FIGURE 2.



NOTES:

1. For Assembly see drawing no. 182329.
2. All strapping terminals not mentioned in "Options" are to have no connection.
3. Strap terminal 1 to 2, 6 to 7, & 9 to 10.