227A (MD) AND 227B KEY TELEPHONE UNITS

AUDIBLE AND VISUAL SIGNALING

IDENTIFICATION AND CONNECTIONS

1. GENERAL

1.01 This section is reissued to:

- Include the 227B KTU.

2. IDENTIFICATION

- Rate the 227A KTU Manufacture Discontinued.

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

Fig. 1 - 227A (MD) and 227B KTU (Front View)

Fig. 2 - 227A (MD) and 227B KTU (Rear View)
3. PURPOSE

3.01 To serve as a visual and audible signaling control, and switching relay for key telephone systems.

4. DESIGN FEATURES

(a) Operates on 14 to 26 volts dc.
(b) 227B KTU — all wire spring relay contacts factory-connected to screw terminals on back panel.
(c) 227B KTU — (CA1) and (CA2) relay windings are not commonly strapped within the unit as in the 227A KTU (MD).
(d) Four 400A diodes factory-wired to provide four CA1 leads.

5. APPLICATION

• 1A, 1A1, 1A2, and 6A key telephone systems.
• 2A communication system.
• Key equipment No. 101A or 101B.

6. CONNECTION INDEX

Fig. 3 — 227A (MD) or 227B KTU — Auxiliary Lamp Relay Circuit.
• Used when additional lamps over the maximum permitted for a given circuit are required.

Fig. 4 — 227A (MD) or 227B KTU — Multi-signal Control Circuit for Buzzers, Bells, or Ringers.
Presents for:
• Using the same audible signal as a line signal and common signal.
• Associating a common audible signal with one or more groups of line or signal circuits.
• Operating one or more audible signals from one line or signal circuit.

Fig. 5 — 227A (MD) or 227B KTU — Multi-signal Control for Ringers.
• Operating two or more signals which require different operating voltages.

Fig. 6 — 227A (MD) or 227B KTU — Common Audible or Station Audible for 6A Key Telephone System.

Fig. 7 — 227A (MD) or 227B KTU — Multi-signal Control Circuit for Ringers Arranged for Combination of Audible Signal and Visual Signal.

Fig. 8 — 227A (MD) or 227B KTU — Multi-signal Control Circuit for Buzzers or Bells Arranged for Combination of Audible Signal with Visual Signal.

Fig. 7 and 8 provide for:
• Audible signal with locked-in visual signal.
• Locked-in visual signal can be released by manual operation of a SHUNT-DOWN key at called station.

Fig. 9 — 227A KTU (MD) or 227B KTU with 228A or 265A KTU — Method of Connecting 400A Diodes for Additional CA1 Leads.

6.01 Connect CA1 leads through 400A diodes when an audible signal is common to more than one group of line or signal circuits. This prevents false operation of audible signals not common to the same group of line or signal circuits.

6.02 CA leads may multiple to other CA leads, and CA1 leads may multiple to other CA1 leads if they are common to the same line or signal circuit.

6.03 For additional information refer to SD-69294-01.
Fig. 3 — 227A (MD) or 227B KTU — Auxiliary Lamp Relay Circuit

NOTES:

1. CONNECT ALL LAMPS ASSOCIATED WITH THE LINE TO THIS FIGURE.
2. CONNECT RELAY GROUND TO TERMINALS DESIGNATED LAMP BATTERY ON LINE AND SIGNAL CIRCUIT.
3. CONNECT L LEAD OF 227A OR B KTU TO L LEAD OF LINE AND SIGNAL CIRCUIT.
4. MAXIMUM 20 LAMPS PER LEAD.
Fig. 4 — 227A (MD) or 227B KTU—Multisignal Control Circuit for Buzzers, Bells, or Ringers
Fig. 5—227A (MD) or 227B KTU—Multisignal Control for Ringers
Fig. 6 — 227A (MD) or 227B KTU — Common Audible or Station Audible for 6A Key Telephone System
TO RINGER

TO LAMP

TO SIGNAL KEY ASSOCIATED WITH COMBINATION OF AUDIBLE SIGNAL AND LAMP SIGNAL

CIRCUIT FOR

2.278

KfU

ONE REQUIRED PER 2 COMBINED AUDIBLE SIGNALS AND 1 COMBINED VISUAL AND AUDIBLE SIGNAL

RING GRO

TO POWER SUPPLY

105V±

TO LINE CIRCUIT FOR LINE RINGER

RING GRO

TO POWER SUPPLY

105V±

TO LINE CIRCUIT FOR LINE RINGER

NOTE:

TO SIGNAL KEY ASSOCIATED WITH COMBINATION OF AUDIBLE SIGNAL ARRANGED TO SHUNT DOWN LOCKED - IN LAMP SIGNAL MANUALLY WHEN CALL IS ANSWERED. LOOP RESISTANCE SHALL NOT EXCEED 6.5 OHMS.

SAME TERMINALS.

FURNISHED LOCALLY.

Fig. 7 — 227A (MD) or 227B KTU — Multisignal Control Circuit for Ringers, Arranged for Combination of Audible Signal and Visual Signal

Fig. 8 — 227A (MD) or 227B KTU — Multisignal Control Circuit for Buzzers or Bells Arranged for Combination of Audible Signal with Visual Signal

NOTE:
1. W. OPTION USE THIRD AND/OR FOURTH AUDIBLE CIRCUIT.
2. TO SIGNAL KEY ASSOCIATED WITH COMBINATION OF AUDIBLE SIGNAL ARRANGED TO SHUNT DOWN LOCKED IN LAMP SIGNAL MANUALLY WHEN CALL IS ANSWERED. LOOP RESISTANCE SHALL NOT EXCEED 6.5 OHMS.
3. FURNISHED LOCALLY.
Fig. 9 — 227A KTU (MD) or 227B KTU with 228A or 265A KTU — Method of Connecting 400A Diodes for Additional CA1 Leads

NOTES:
1. DO NOT USE TERMINALS 29 AND 30 FOR ANY CONNECTIONS.
2. STRAP NEGATIVE END OF 400A DIODE TO OPERATING LEAD OF RELAY.
3. 400A DIODE FURNISHED WIRED AS SHOWN.
4. PROVIDE LOCALLY.