

6A KEY TELEPHONE SYSTEM IDENTIFICATION AND INSTALLATION

1. GENERAL

1.001 This addendum supplements Section 518-410-100, Issue 6.

1.002 This addendum is reissued to:

- Revise working limits information for off-premise stations using long line circuit (225A KTU)

2. IDENTIFICATION

The following change applies to Part 2 of the section:

- (a) 2.03 (g) (1) and (2) revised

DESIGN AND OPERATING FEATURES

(g) *Off-premise Stations* connected to the 6A system by means of a long line circuit will provide satisfactory transmission if the following conditions are met:

- (1) All off-premise stations must be equipped with 500-type telephone sets.

Note: ◆ Maximum conductor loop resistance of 500 ohms is transmission limit.

- (2) The working limits for dialing, supervision, tripping, and ringing circuits shall be 2500 ohms with a battery potential of 20 volts at the 225A KTU and a minimum line insulation resistance of 10,000 ohms.◆

ASSOCIATED APPARATUS

2.09 Power Supply

(a) The 6A Key Telephone System is designed to operate from a 20- to 26-volt dc source. Since associated installations of other key equipment or key systems may operate at a somewhat lower value, 14 to 26 volts, it may be necessary to replace the existing power supply

or use an independent supply for the 6A system equipment.

(b) The J86731A, List 4 (101G) power plant may be used as an independent power supply for any size and arrangement of the 6A Key Telephone System with the following limitations:

- No load other than the 6A is placed on the power plant.
- 20-volt talk terminals are used only for battery designated A.
- 20-volt signal terminals are used only for battery designated B.
- 18-volt ac terminals, audible and/or visual signals, do not exceed 1.4 amperes.
- 10-volt ac terminals operate a maximum of seventy-two 51A lamps, current drain not to exceed 2.8 amperes.



When 10- and 18-volt ac taps are used on the power plant, the maximum total current drain shall not exceed 1.4 amperes.

- 105-volt ± terminals operate simultaneously one to eight high-impedance ringers without capacitors or one or two high-impedance ringers with capacitors (one to three if 70 to 110 volts or one to five if 60 to 110 volts is permitted).
- If circuit failure occurs due to low line voltage, move the primary tap to 111 volts.

(c) The following power plants have a capacity large enough to be used as a common power plant for combined station systems:

- J86471B, List 1 (101J) (MD)
- 29- or 30-type

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(d) When ringers are used as audible signals, a separate power source supplying 105 volts 20 cycles must be provided when using the 101J power plant. The 30-type power plant includes a 30-cycle ringing supply.

Note: When using the 30-cycle supply, off-premise stations must not be equipped with intermediate transmission or toll ringing repeating facilities.

(e) For power supply arrangements, refer to Section 167-400-180.

(f) When central office, building, or local battery is supplied, fuse as follows:

● One 2-amp fuse for talking battery designated A.

● One 2-amp fuse for signaling battery designated B.

● One 2-amp fuse per maximum of 36 signal lamps.

● One 2-amp fuse for dc audible signal supply.

Note: When the same dc source is used for talking and audible signal operation, a noise suppression capacitor, such as the 23A KTU, should be installed across the battery supply.