

## KEY EQUIPMENT—4A

### IDENTIFICATION, INSTALLATION, AND MAINTENANCE

#### 1. GENERAL

1.01 This section is reissued to:

- Add 1035C3A dial, show 1025A3 and 1025W3A dials MD; Table A
- Show 688A and B subscriber sets MD.

1.02 The 688-type subscriber set contains a transistor amplifier to compensate for the low output level of the transmitter of the 52-type head telephone set. It is recommended that the 688-type subscriber set be used in all new installations in preference to the 685-type subscriber set which is not equipped with an amplifier.

#### 2. IDENTIFICATION

2.01 The basic 4A key equipment (Fig. 1) consists of:

- Subscriber set
- Dial
- Head telephone set
- Key

2.02 The 4A key equipment utilizes a head telephone set to permit hands-free operation. The circuit provides:

- Two-way service between a central office or PBX and the subscriber station.
- Hold feature, if desired.

**Note:** 4A key equipment should not be used where tip party identification is required.

2.03 See Table A for selection of components for the various configurations of the 4A key equipment.



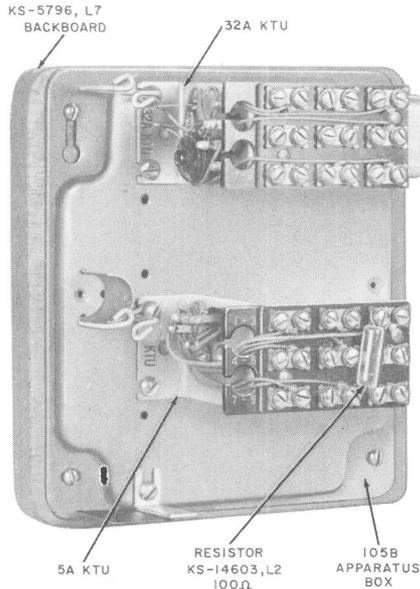
Fig. 1—Typical 4A Key Equipment Installation

#### 3. INSTALLATION

3.01 Install components of 4A key equipment such as subscriber sets, 105-type apparatus boxes, dials, etc, following standard practices for the apparatus involved.

3.02 In selecting a mounting location for the 6026-type key, avoid knee well installations or other locations where damage or accidental operation of equipment or injury to customer might occur.

3.03 When installing the key on the side of a desk or table, the face of the key should be flush with the edge of the desk or table (Fig. 1).



**Fig. 2—Battery Feed Filter and Holding Relay Equipment**

**3.04** The 6026-type key housing can be reversed for mounting on either the right or left side of a desk or table.



*To minimize crosstalk, wiring between the subscriber set and 6026-type key should not exceed 10 feet. Avoid paralleling with other telephone wires.*

**3.05** When required, the 5A and 32A KTU's (Fig. 2) may be located remotely from the subscriber set and 6026-type key.

**3.06** Dial mountings may be installed on top of or at either end of a desk or table. The

6000D, 6044B, or 6044D dial mountings require drilling through the top of the desk or table for passage of the wires.



*Obtain customer's permission before drilling hole in desk or table.*

**3.07** Where drilling is not permissible, install dial mounting as follows:

- (a) For side of desk, where top overhang permits, attach a 40A dial mounting to the overhang (Fig. 1).
- (b) Where a greater angle is desired, use a 43A dial mounting in conjunction with a G1 handset mounting (line switch removed).

**3.08** To install a filter on a 6-type dial in a mounting, use another 64A dial adapter as an extra spacer. A 61A filter, a P-295735 mounting bracket, three No. H-36 RHM screws, and two 1/4-inch No. 4 self-tapping screws are also required. Mount filter on the underside of mounting bracket with self-tapping screws. A D-161488 connector may be used to connect filter leads to the dial and key.



*When a 688B (MD) or 688C subset is used, wiring changes must be made at the 6026B or 6026D key. See connections section for these required changes.*

#### 4. MAINTENANCE

**4.01** Maintenance of subscriber sets, ringers, dials, batteries, head telephone sets, key telephone units, and associated apparatus is covered in the particular section on each item.

**4.02** Use PBX installation and maintenance sections as guides for correcting troubles on relays, keys, or jacks.

**4.03** Make circuit operation tests in accordance with SD-69087-01.

◆ TABLE A ◆

## COMPONENT PARTS OF 4A KEY EQUIPMENT

| EQUIPMENT                                 |          | REMARKS   |
|---|----------|---|
| Adapter, dial                             | 52D      | Used with 40A, 6000D dial mounting in addition to the 64A dial adapter.   |
|   | 59B      | Used with the 6044B dial mounting.  |
|   | 59D      | Used with the 6044D dial mounting.  |
|   | 64A      | Used with 40A, 6000D dial mounting in addition to the 52D dial adapter.   |
| Box, apparatus, 105 type                  |          | For mounting key telephone units (Fig. 2).  |
| Dial, 6 type*                             |          | Used with 40A, 43A, 6000D, 6044B or D dial mounting (Fig. 1).   |
| Dial, 1025A3 and 1025W3 (MD)              |          | Use D10P or D10R mounting cord — specify length when ordering.  |
| Dial, 1035C3A                             |          | Use D14M mounting cord — specify length when ordering.  |
| Filter, 61A                               |          | Used to suppress radio frequency induction due to dialing.  |
| Key, 6026B                                |          | 3-position lever-type key arranged for "OFF", talking, and holding; equipped with 361C jack, 215A jack, 3B varistor, and terminal block (Fig. 1).   |
| Key, 6026D                                |          | Similar to the 6026B key, but arranged for "OFF" and talking only; 2-position lever-type key (Fig. 1).  |
| Mounting, dial                            | 40A      | For fastening to the underside of a desk top overhang (Fig. 1).   |
|   | 43A      | To hold dial at 45, 60, 75, or 90 degree angle from a horizontal position.  |
|   | 6000D    | Mounted on top of a desk at a 20-degree angle.  |
|   | 6044B, D | Mounted on top of a desk at a 37-degree angle.  |
| Resistor, 100 ohm<br>KS-14603, List 2D    |          | Used with a 5A KTU (Fig. 2).  |
| Set, subscriber, 685A                     |          | Common battery talking, common battery signaling (Fig. 1).  |
| Set, subscriber, 688A (MD), B (MD), and C |          | Common battery talking, common battery signaling.   |
| Set, head telephone<br>52- or 53-type     |          | Attendant telephone (Fig. 1).   |
| Units,<br>key telephone<br>(Fig. 2)       | 5A       | Hold relay.   |
|   | 32A      | Used as a transmitter current limiting network when the total loop conductor to the central office or nearest long line termination is less than 300 ohms. This includes both station and central office conductor loops in the case of PBX extensions. |

\* When installing the 6J, K, or L, dial, use a 6044D dial mounting.