73-TYPE STATION DIALS
IDENTIFICATION AND MAINTENANCE

1. GENERAL

1.01 This section contains information on the 73A3A, 73B3A, 73C3A, and 73D3A dials (Fig. 1 and 2).

Fig. 1—73-Type Dial, Front View

1.02 Whenever this section is reissued, the reason for reissue will be listed in this paragraph.

2. IDENTIFICATION

A. Purpose

2.01 These dials provide TOUCH-TONE* dialing in some DESIGN LINE† decorator telephones.

*Registered Service Mark of AT&TCo.
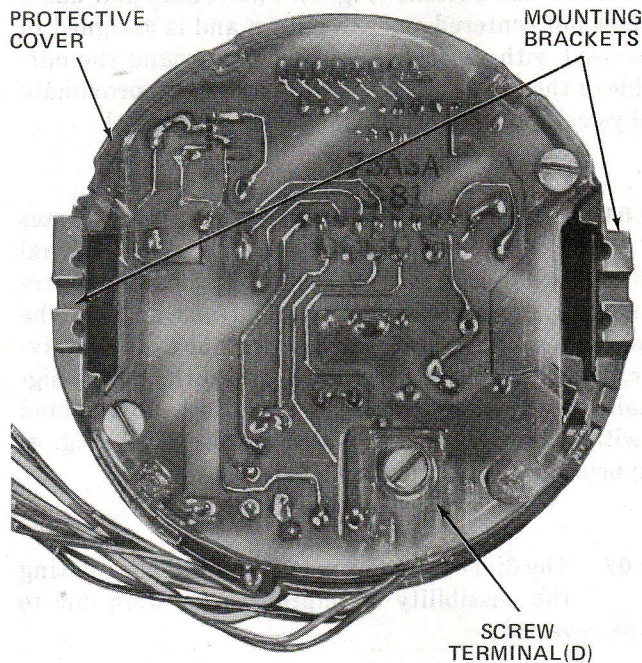
†Trademark of AT&TCo.

Fig. 2—73-Type Dial, Rear View

The 73-type dial provides ten-buttons for dialing and two buttons designated * and # for special services.

B. Ordering Guide

2.02 Order as follows:

- Dial, 73A3A (Gold trim)

- Dial, 73B3A (Chrome trim)

- Dial, 73C3A (Black trim)

- Dial, 73D3A (Black trim).

C. Design Features

2.03 The buttons of the dial are round and positioned in a circular pattern. The 73A3A, 73B3A, and 73C3A dials have the alphanumeric characters on the buttons (Fig. 1). The 73D3A dial has a black dot centered on each button and is designed to be used with an alphanumeric ring around the outside of the dial. The 73-type dial has the approximate physical dimensions of the 8-type rotary dial.

2.04 Each of the buttons, when operated, generates a dual tone, multifrequency (DTMF) signal distinctive to that button. Figure 3 indicates the frequencies for each button. All buttons operate the common switch which reduces sidetone to the receiver, opens the transmitter path, and turns on the signaling frequencies. Both the signaling and common switch functions are provided by the 677F (Fig. 4) hybrid integrated circuit (HIC).

2.05 The dial contains a polarity guard eliminating the possibility of improper operation due to line reversals.

2.06 The dial provides eight spade-tipped leads and one screw terminal D for connection to the telephone set.

3. MAINTENANCE

There are no field adjustments for the 73-type dial. Maintenance consists only of determining if the dial is defective.

3.01 To determine if a dial is defective.

(1) Verify wiring for secure and correct connections.

(2) Check for presence of dial tone. If no dial tone is heard, make test with 1013A or equivalent hand test set across incoming CO line to telephone set. If dial tone is heard, make normal tests of telephone set components as described in appropriate sections.

(3) Break dial tone by dialing a digit as prescribed by local instructions. If unable to break dial tone, replace the dial.

(4) Check all buttons for tone feedback to the receiver. If feedback tones are not present, replace dial.

3.02 To test dial frequency and amplitude outputs.

(1) Dial local number for testing TOUCH-TONE† telephone dials, or dial local test desk and request access to the dial-test circuit.

(2) When second dial tone is heard, dial appropriate code for testing 12-button dials, dial digits 1 through 9, and then *, 0, and #.

3.03 Replace dial if it fails to meet the tests.
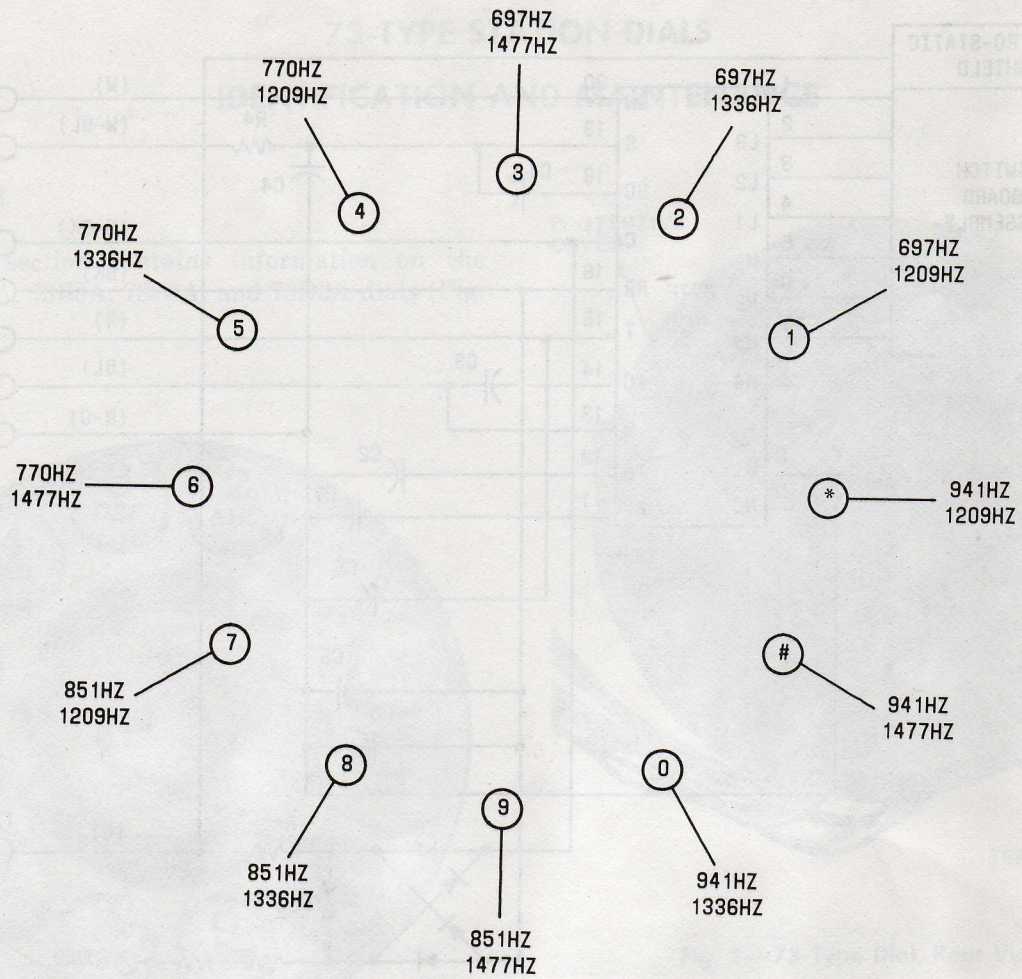
697HZ
1477HZ

770HZ
1209HZ

697HZ
1336HZ

④

③

②

770HZ
1336HZ

697HZ
1209HZ

⑤

①

770HZ
1477HZ

⑥

941HZ
1209HZ

*

⑦

#

851HZ
1209HZ

941HZ
1477HZ

⑧

⑨

⓪

851HZ
1336HZ

941HZ
1336HZ

851HZ
1477HZ

Fig. 3—Dial Frequencies

ELECTRO-STATIC SHIELD

SWITCH BOARD ASSEMBLY

1	L4
2	L3
3	L2
4	L1
5	H1
6	H2
7	H3
8	H4
9	R
10	NC

677F HIC

GN	20
S	19
SC	18
C	17
RR	16
T	15
TC	14
B	13
TG	12
PO	11

R4   (W)
C4   (W-BL)
C1   (O-BK)
      (BK)
C3   (R)
      (BL)
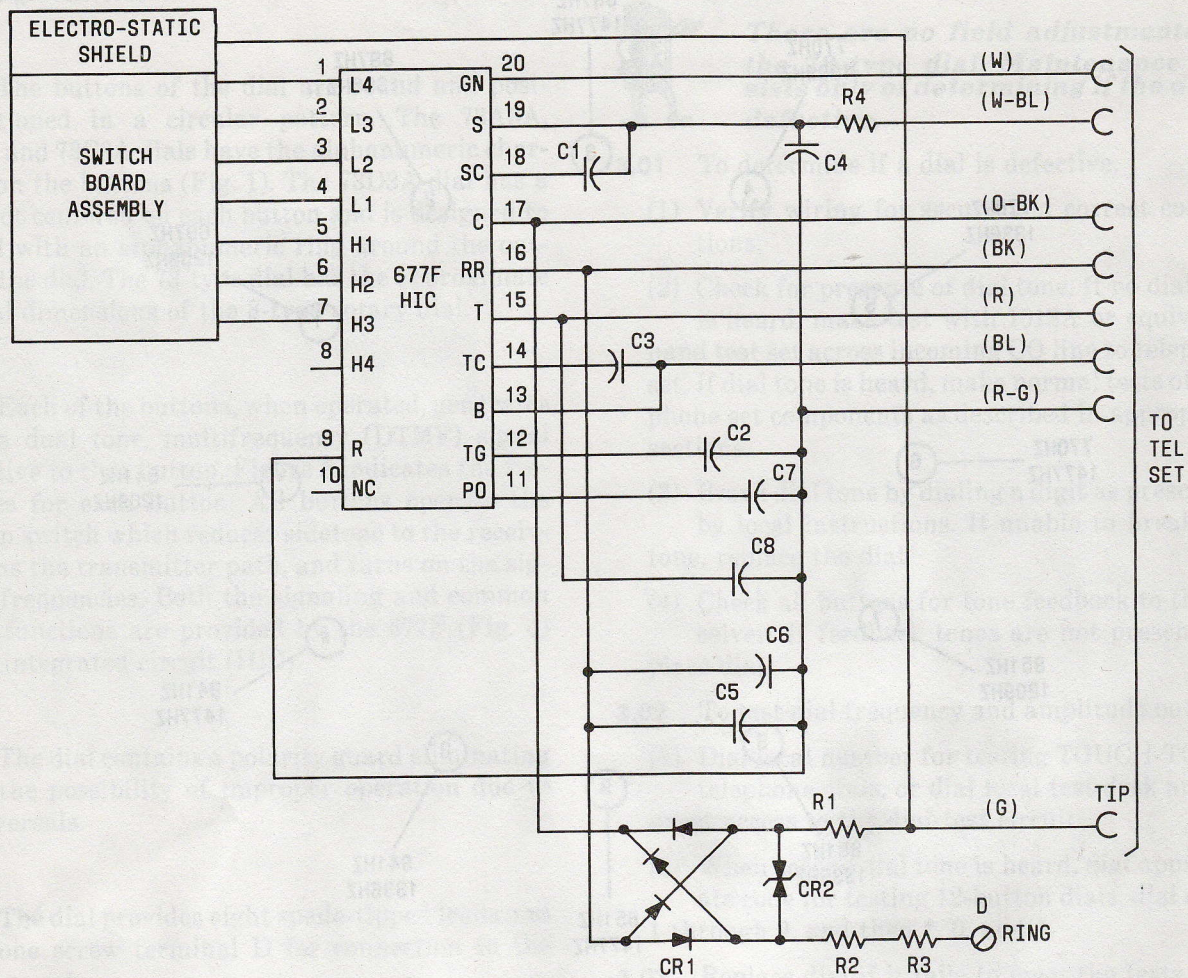C2   (R-G)
C7
C8
C6
C5

R1   (G)
CR2
CR1   R2 R3   RING   D

TO TEL SET

TIP

Fig. 4—73-Type Dial Schematic