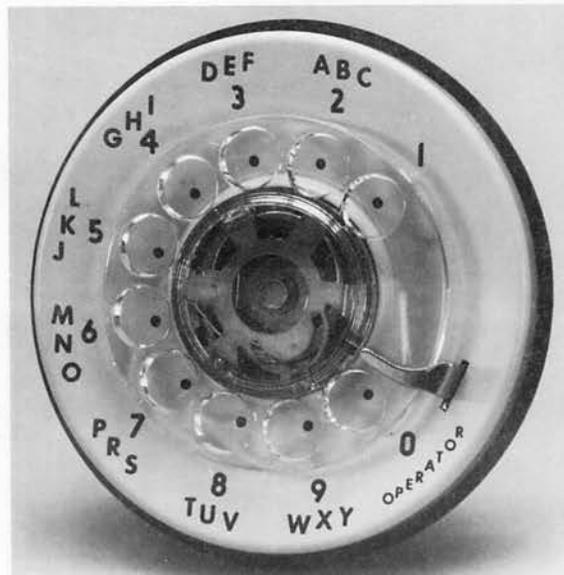


## MODELS 30 AND 35 ROTARY DIALS

CONTENTS	PAGE
1. INTRODUCTION .....	1
2. GENERAL DESCRIPTION .....	1
MODEL 0030**-OOG .....	1
MODEL 0030**-OOD .....	3
MODEL 0035**-OOG .....	3
MODEL 0035**-OOD .....	3
3. REMOVAL .....	3
4. DISASSEMBLY .....	3
5. REPLACEMENT PARTS .....	4
6. ASSEMBLY .....	4
7. INSTALLATION .....	6
8. ADJUSTMENTS .....	6



AW 85-187

Figure 1: Models 30 and 35 Rotary Dials

### 1. INTRODUCTION

1.01 This document covers the Models 30 and 35 rotary dials. (See Figure 1.) A general description as well as information on removal, disassembly, replacement parts, assembly, installation, and adjustments is included.

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

1.03 For information concerning telephones that these dials are used in, refer to the appropriate section in Volume 1 of the ITT Telephone Apparatus Practices Manual.

### 2. GENERAL DESCRIPTION

2.01 The Models 30 and 35 rotary dials (see Figure 2) consist of a rigid metal bracket on which are mounted the gear train, contact spring assembly, numeral ring, mainspring and spider assembly, finger plate, and miscellaneous parts. The gear train is protected by a plastic dust cover. Each model is available with either a metropolitan-style numeral ring (letters and numerals) coded G, or a regular-style numeral ring (numerals only) coded D.

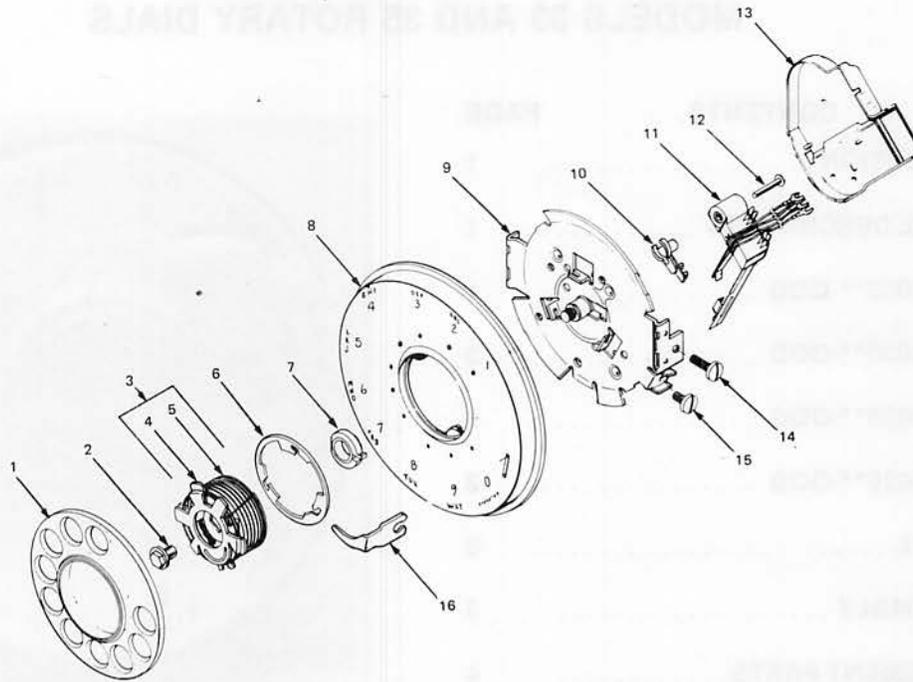
The Models 30 and 35 rotary dials are similar with the exception of an additional set of contacts appearing in the Model 35 rotary dial to allow its use with handsfree equipment.

2.02 When the dial finger plate is rotated clockwise and released, a pair of pulsing contacts interrupts the telephone line current once for each unit of the dialed digit. Telephone switching equipment is operated in accordance with the number of pulses received. The dials are factory-adjusted to 10 pulses per second (nominal) and a pulse ratio with a break period of 61.5% of the pulse duration.

2.03 The Models 30 and 35 rotary dials are identified by a code number stamped in ink on the back of the dial. Refer to Table A for ordering information and for an explanation of each code number. Variations of the Models 30 and 35 rotary dials are briefly described in the following paragraphs. (Substitute a two-digit color code in place of the \*\* to obtain the code number for a particular dial.)

#### MODEL 0030\*\*-OOG

2.04 The Model 0030\*\*-OOG rotary dial is designed for use in standard telephones. It contains one set of normally-open contacts that closes to short circuit the telephone receiver during dial-



AW 83-47

Figure 2: Models 30 and 35 Rotary Dials, Exploded View

TABLE A

ORDERING INFORMATION

CODE NUMBERS				
DIAL CODE NUMBERS ARE FORMED IN THREE STEPS AS FOLLOWS:				
		0030	00	OOG
(1)	Dial Model Number (See Part 1)			
(2)	Color Code (See Part 2)			
(3)	Numeral Ring Style (See Part 3)			
PART 1 DIAL MODEL NUMBER				
CODE	DESCRIPTION	COLOR OFFERED	NUMERAL RING STYLE	
0030	Model 30 Rotary Dial (For Standard Telephones)	00, 05, 09, 12, 13, 15, 43, 44, 45, 46, 47	OOG, OOD	
0035	Model 35 Rotary Dial (For Handsfree Operations)	(Available On All Versions)	OOG, OOD	
PART 2 COLORS		PART 3 NUMERAL RING STYLE		
CODE	COLORS	CODE	DESCRIPTION	
00	Black	OOG	Metropolitan (Letters And Numerals)	
05	Moss Green	OOD	Regular (Numerals Only)	
09	Ivory			
12	Aqua Blue			
13	Beige			
15	White			
43	Orange			
44	Light Ash			
45	Cocoa Brown			
46	Harvest Gold			
47	Cherry Red			

AW 84 910

ing. One set of pulsing contacts is provided to interrupt the line current once for each unit of a dialed digit. This dial has a 4.5-inch diameter, metropolitan-style numeral ring displaying both letters and numerals.

#### MODEL 0030\*\*-OOD

2.05 The Model 0030\*\*-OOD rotary dial is the same as the Model 0030\*\*-OOG rotary dial with the exception that it has a regular-style numeral ring displaying numerals only.

#### MODEL 0035\*\*-OOG

2.06 The Model 0035\*\*-OOG rotary dial is designed for use in standard telephones used in connection with handsfree equipment. It contains one set of normally-open contacts that closes to short circuit the telephone receiver during dialing. An additional set of normally-open contacts closes to mute the handsfree speaker during dialing. One set of pulsing contacts is provided to interrupt the line current once for each unit of a dialed digit. This dial has a 4.5-inch diameter metropolitan-style numeral ring displaying both letters and numerals.

#### MODEL 0035\*\*-OOD

2.07 The Model 0035\*\*-OOD rotary dial is the same as the Model 0035\*\*-OOG rotary dial with the exception that it has a regular-style numeral ring displaying numerals only.

### 3. REMOVAL

3.01 To remove the dial from the telephone proceed as follows:

- (a) Remove the telephone housing.
- (b) Loosen the two dial mounting screws and lift the dial from the dial mounting brackets.
- (c) Disconnect the dial leads from the telephone.

### 4. DISASSEMBLY

4.01 To disassemble the dial, proceed as follows:

- (a) Rotate the finger plate completely clockwise.
- (b) Insert the straightened end of a paper clip or similar tool into the hole that is now approximately  $\frac{1}{4}$  inch to the left of the tip of the finger stop. (See Figure 3.)

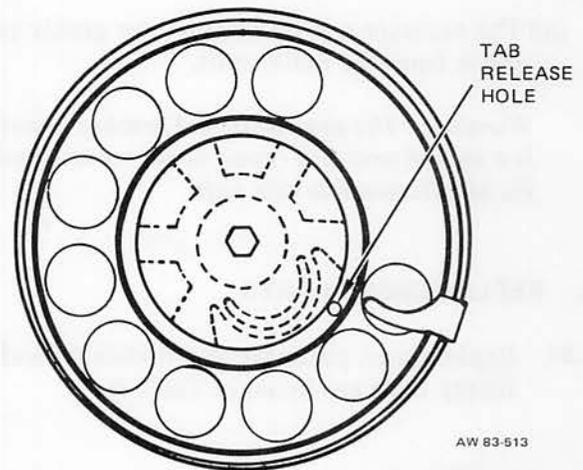


Figure 3: Location of Tab Release Hole

(c) Press down on the paper clip to spring the tab of the spider. Rotate the finger plate clockwise to release it. Work the finger plate off of the spider and out from under the finger stop.

(d) While holding the spider firmly, remove the hex-head screw. Lift the spider from the main shaft and work the mainspring out of the dial bracket.

*Note:* The mainspring can be removed from the spider assembly if necessary.

(e) Remove the bushing.

(f) Remove the finger stop by loosening the screw that holds the finger stop to the gear train and dial bracket assembly. Lift the finger stop from the dial.

(g) Rotate the retaining ring counterclockwise to clear the locking slots of the gear train and dial bracket assembly.

(h) Lift the retaining ring and numeral ring from the gear train and dial bracket assembly.

(j) The dust cover on the back of the dial is snapped into place. Remove the dust cover by gently lifting the edges.

(k) Loosen and remove the screw that holds the contact spring assembly to the gear train and dial bracket assembly. Lift the contact spring assembly from the gear train and dial bracket assembly, taking care not to damage the contacts.

(m) The actuator can be removed by gently pulling it from the main shaft.

**Warning:** *The gear train and bracket assembly is a staked unit and repair is not recommended. Do not disassemble this unit.*

**5. REPLACEMENT PARTS**

5.01 Replacement parts for the Models 30 and 35 rotary dials are listed in Table B.

**6. ASSEMBLY**

6.01 To assemble the dial, proceed as follows:

(a) If the actuator has been removed, slip it onto the main shaft with the flat side next to the surface of the main gear. Rotate the main shaft until the hole in the main gear aligns with the hole in the dial bracket. Rotate the actuator counterclockwise to stop on the main gear stud. (See Figure 4.)

(b) Route the leads of the contact spring assembly around and under the plastic base of the assembly. Position the contact spring

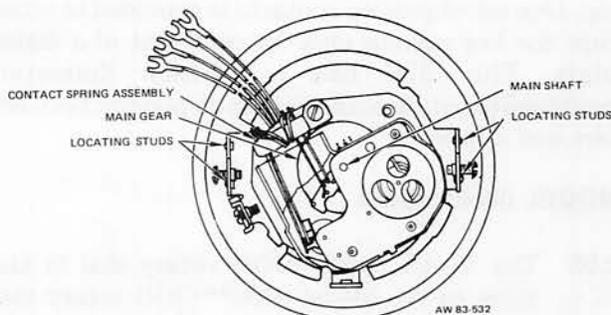


Figure 4: Rear View of Dial

assembly so that the two locating studs of the contact spring assembly seat in the two holes provided in the dial bracket. (See Figure 4.)

(c) Check to see that the end of the pulsing lever spring rests on the surface of the impulse cam.

**Note:** Be sure that the dial leads do not interfere with the contact springs or with the main gear. The inner stud of the actuator must rest against the lever spring of the normally-open switch, and the switch contacts must be open when the hole in the main gear is aligned with the hole in the dial bracket. (This applies only if the mainspring and spider are in place so that tension is applied to the actuator.)

TABLE B

REPLACEMENT PARTS LIST

INDEX NO	PART NUMBER	DESCRIPTION	QUANTITY USED			
			30/00G	30/00D	35/00G	35/00D
		<b>Models 30 And 35 Rotary Dials</b>				
1	079284-101	Plate, Finger	1	1	1	1
2	189538-101	Screw, Hex-Head	1	1	1	1
3	088438-101	Spring And Spider Assembly	1	1	1	1
4	088439-101	Spider	1	1	1	1
5	190258-101	Spring	1	1	1	1
6	088418-101	Ring, Retaining	1	1	1	1
7	088416-101	Bushing	1	1	1	1
8	088403-0**	Ring, Numeral	1	—	1	—
	181457-0**	Ring, Numeral	—	1	—	1
9	088421-104	Gear Train And Bracket Assembly	1	1	1	1
10	088400-101	Actuator	1	1	1	1
11	088419-101	Contact Spring Assembly	1	1	—	—
	088419-102	Contact Spring Assembly (Handsfree)	—	—	1	1
12	180221-104	Screw, Contact Spring Mounting	1	1	1	1
13	088402-101	Cover, Dust	1	1	1	1
14	190262-102	Screw, Finger Stop Mounting	1	1	1	1
15	075487-102	Screw, Dial Mounting	2	2	2	2
16	088417-101	Finger Stop	1	1	1	1

NOTE:

\*\* Substitute a two-digit color code when ordering.

AW B4-909