MODEL 185462 PUSHBUTTON DIAL NETWORK ASSEMBLY

CONTENTS PAGE

1. INTRODUCTION

1.01 This document covers the Model 185462 pushbutton dial network assembly. (See Figure 1.) A general description as well as information on removal, disassembly, replacement parts, assembly, and installation is included.

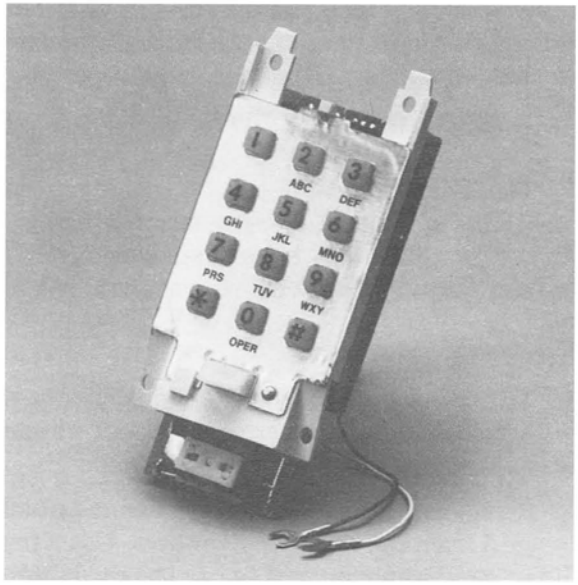
1.02 Whenever this section is reissued, reason for reissue will be listed in this paragraph.

1.03 For information concerning telephones that this pushbutton dial network assembly is used in, refer to the appropriate section in Volume 1 of the ITT Telephone Apparatus Practices Manual.

2. GENERAL DESCRIPTION

2.01 The Model 185462 pushbutton dial network assembly is a 12-pushbutton keypad assembly with a tone-generating printed circuit board (PCB) attached. (See Figure 2.) The pushbutton dial network assembly is designed to be mounted in the handset of an ITT Trendline or Trendline II telephone. The pushbutton dial network assembly features a keypad assembly and network components consolidated onto the tone-generating PCB.

2.02 The keypad assembly consists of a cover plate, a silicone switchplate, 12 white translucent pushbuttons, a translucent recall switch, and a contact PCB assembly. The PCB has Light Emitting Diodes (LEDs) that are optional on the Trendline II telephones.



AW 85-182

Figure 1: Model 185462 Pushbutton Dial Network Assembly

2.03 The tone-generating PCB that mounts to the keypad assembly provides a dual tone multifrequency (DTMF) output and all the components necessary to connect and to match the impedance of handset transmitter and receiver units to a two-wire telephone circuit. The PCB also provides connections for the Automatic Number Identification (ANI), and the optional receiver volume control in the Trendline II telephone. (See Figure 3.)

2.04 The Model 185462 pushbutton dial network assembly is available in three styles. The styles are briefly described in the following paragraphs. Refer to Table A for ordering information and for an explanation of each code number.

MODEL 185462-101

2.05 The Model 185462-101 provides standard telephone operation in the basic Trendline II telephones.

MODEL 185462-102

2.06 The Model 185462-102 is the same as the 185462-101 except it is equipped with LEDs and the other components for use in the deluxe Trendline II telephones. The LEDs are illuminated when the dial light on/off switch is pressed.

MODEL 185462-107

2.07 The Model 185462-107 is equipped with LEDs and other components necessary for use in the Trendline, dial light telephone. The LEDs illuminate when the station user goes off-hook.

REMOVAL

3.01 To remove the Model 185462 pushbutton dial network assembly, perform the following procedure:

(a) Remove the number card retainer and number card from the telephone handset. Use a paper clip or similar instrument to pry the card retainer from the handset. (See Figure 4.)

(b) Remove the two screws that hold the handset cover to the handset housing. Remove the handset cover.

(c) Remove the receiver, transmitter, and handset connections from the tone-generating PCB.

(d) Remove the two mounting screws and lift the pushbutton dial network assembly from the handset.

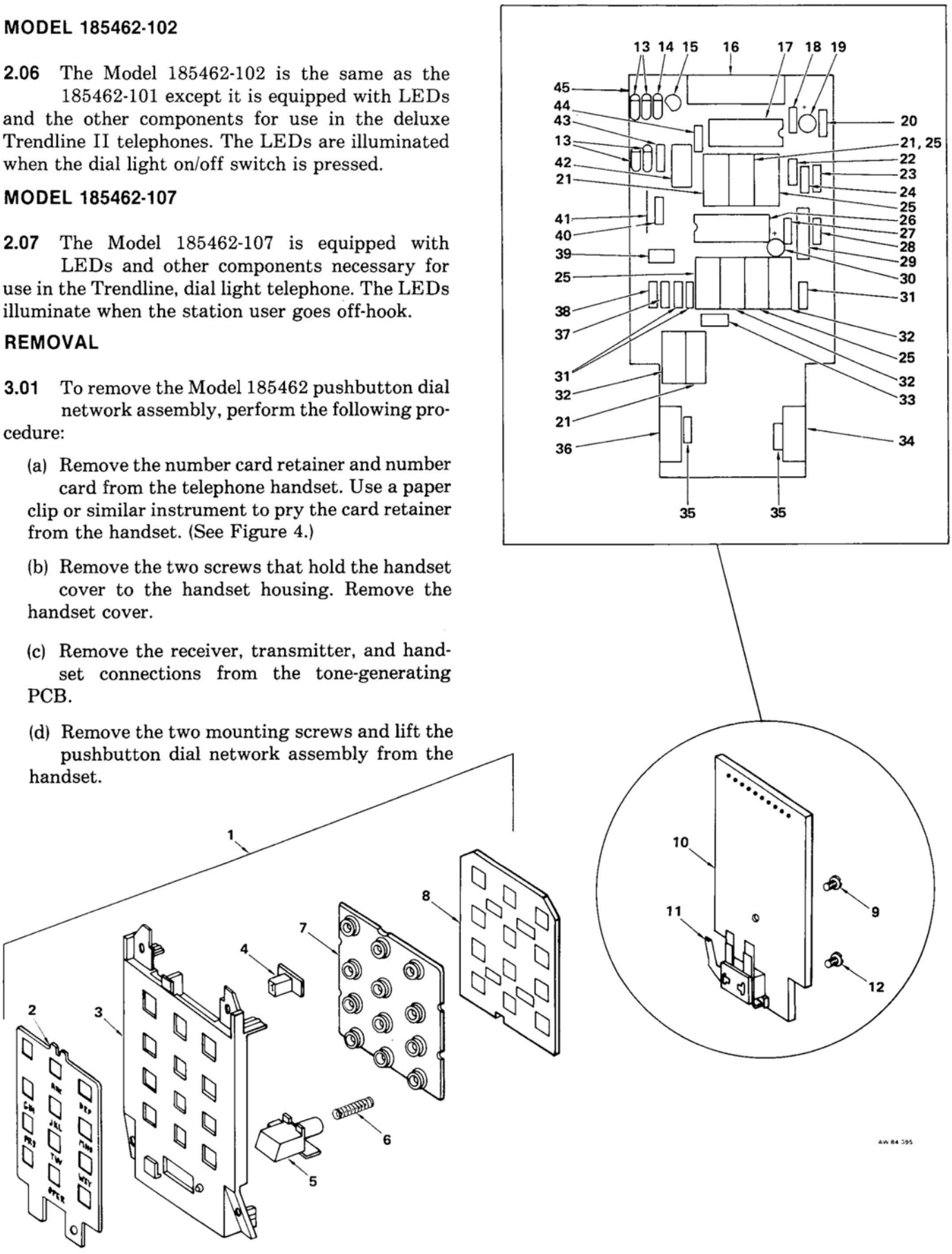


Figure 2: Model 185462 Pushbutton Dial Network Assembly, Exploded View

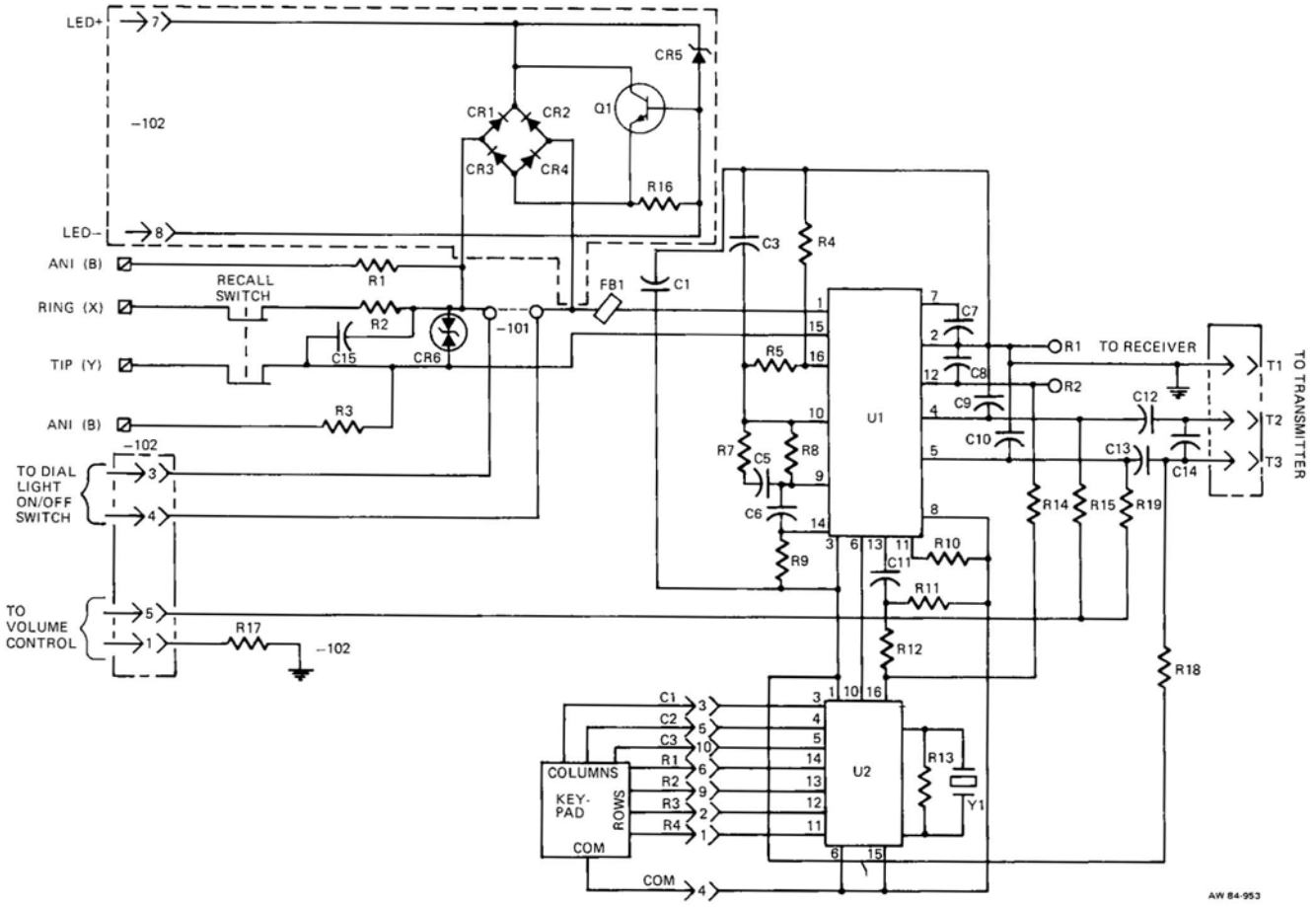


Figure 3: Model 185462-101, -102 Pushbutton Dial Network Assembly, Schematic

TABLE A

ORDERING INFORMATION

CODE NUMBERS

DIAL CODE NUMBERS ARE FORMED IN TWO STEPS AS FOLLOWS:

185462 101

(1) Dial Model Number (See Part 1)

(2) Dial Style (See Part 2)

PART 1 DIAL MODEL NUMBER

CODE	DESCRIPTION
185462	Model 185462 Pushbutton Dial Network Assembly

PART 2 DIAL STYLE

CODE	DESCRIPTION
101	Tel-Touch Dial, Without LEDs For Use With The Basic Model Trendline II Telephone
102	Tel-Touch Dial, With LEDs For Use With The Deluxe Model Trendline II Telephone
107	Tel-Touch Dial, With LEDs For Use With The Dial Light Model Trendline Telephone

AW 84-974

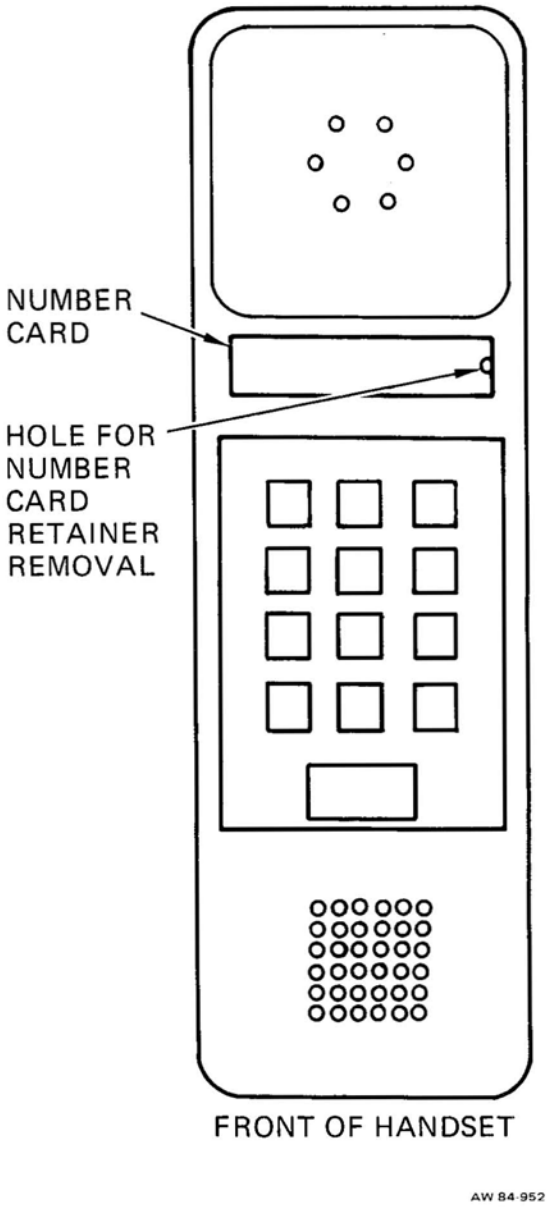


Figure 4: Number Card Removal

4. DISASSEMBLY

4.01 To disassemble the Model 185462 pushbutton dial network assembly, remove the one screw that is located closest to the center of the PCB and lift the PCB from the keypad assembly. This is the lowest level of disassembly suggested for the Model 185462 pushbutton dial network assembly. Further disassembly of the PCB requires removal of components. Further disassembly of the keypad requires removal of the plastic stakes that hold the assembly together.

5. REPLACEMENT PARTS

5.01 Replacement parts for the Model 185462 pushbutton dial network assembly are listed in Table B.

6. INSTALLATION

6.01 To install the Model 185462 pushbutton dial network assembly, perform the following procedure:

(a) Remove the handset cover.

(b) Place the pushbutton dial network assembly into the handset and mount it with the two mounting screws.

(c) Connect the transmitter, receiver, and handset connections. Refer to the telephone circuit label.

(d) Place the handset cover on the housing and secure it using two mounting screws.

(e) Install the number card and card number retainer in the slot provided.

TABLE B

REPLACEMENT PARTS LIST

INDEX NO	PART NUMBER	DESCRIPTION	QUANTITY USED		
		Model 185462 Pushbutton Dial Network Assembly	101	102	107
1	185440-101	Keypad Assembly	1	–	–
1	185440-102	Keypad Assembly	–	1	–
1	185440-107	Keypad Assembly	–	–	1
2	185439-101	Faceplate	1	1	1
3	185417-101	Plate, Cover	1	1	1
4	185416-101	Pushbutton (1)	1	1	1
	185416-102	Pushbutton (2)	1	1	1
	185416-103	Pushbutton (3)	1	1	1
	185416-104	Pushbutton (4)	1	1	1
	185416-105	Pushbutton (5)	1	1	1
	185416-106	Pushbutton (6)	1	1	1
	185416-107	Pushbutton (7)	1	1	1
	185416-108	Pushbutton (8)	1	1	1
	185416-109	Pushbutton (9)	1	1	1
	185416-110	Pushbutton (*)	1	1	1
	185416-111	Pushbutton (0)	1	1	1
	185416-112	Pushbutton (#)	1	1	1
5	185427-101	Button, Recall	1	1	1
6	185452-101	Spring	1	1	1
7	185418-101	Switchplate, Silicone	1	1	1
8	185424-101	PC Board Assembly (Nonlighted)	1	–	–
8	185424-102	PC Board Assembly (Lighted)	–	1	–
8	185424-103	PC Board Assembly	–	–	1
9	086135-102	Screw, PC Board Mounting	1	1	1
10	185601-101	PC Board Assembly	1	–	–
10	185601-102	PC Board Assembly	–	1	–
10	601847-536 -001	PC Board Assembly (Not Shown)	–	–	1
11	185426-101	Recall Switch Assembly	1	1	1
12	096407-102	Screw	1	1	1
13	180658-101	Diode, 1N4004, CR1-CR4	–	4	–
14	183611-139	Diode, Zener, 1N5227B, CR5	–	1	–
15	180146-101	Transistor, NPN, 2N4141, Q1	–	1	–
16	184652-105	Connector, Bottom Entry, 10-Pin	1	1	–
17	184295-101	IC, DTMF Generator, U2	1	1	–
18	181789-146	Resistor, 10 K, R12	1	1	–
19	182130-118	Capacitor, 100 MFD, 3 V, ±20%, C1	1	1	–
20	181789-130	Resistor, 560 Ohm, R9	1	1	–
21	182075-106	Capacitor, 0.1 MFD, 100 V, ±10%, C3 (-101), C8, C11	3	2	–
22	181789-153	Resistor, 39 K, R14	1	1	–
23	181789-123	Resistor, 150 Ohm, R10	1	1	–
24	181789-134	Resistor, 1 K, R11	1	1	–
25	182075-110	Capacitor, 0.22 MFD, 100 V, ±20%, C3 (-102), C6, C12, C13	3	4	–
26	184296-102	IC, Hybrid Network , U1	1	1	–
27	181789-151	Resistor, 27 K, R8	1	1	–
28	181789-150	Resistor, 22 K, R7	1	1	–
29	182075-127	Capacitor, 0.0015 MFD, 400 V, ±10%, C5	1	1	–
30	182130-114	Capacitor, 22 MFD, 15 V, ±20%, C7	1	1	–
31	181789-129	Resistor, 470 Ohm, R15, R18, R19	3	3	–
32	182075-102	Capacitor, 0.022 MFD, 250 V, ±10%, C9, C10, C15	3	3	–
33	182075-125	Capacitor, 0.33 MFD, 63 V, ±10%, C14	1	1	–

TABLE B

REPLACEMENT PARTS LIST (Cont)

INDEX NO	PART NUMBER	DESCRIPTION	QUANTITY USED		
		Model 185462 Pushbutton Dial Network Assembly	**101**	**102**	**107**
34	062948-401	Resistor, 12 Ohm, 1 W, R2	1	1	–
35	181789-138	Resistor, 2.2 K, R1, R3	2	2	–
36	183611-152	Diode, Zener, ZZ12, CR6	1	1	–
37	181789-132	Resistor, 820 Ohm, R5	1	1	–
38	181789-110	Resistor, 12 Ohm, R4	1	1	–
39	184289-101	Ferrite Bead, FB1	1	1	–
40	181789-185	Resistor, 51 K, R17	–	1	–
41	182126-101	Strap, Wire	1	–	–
42	183116-102	Crystal, 3.5795 MHz, Y1	1	1	–
43	181789-113	Resistor, 22 Ohm, R16	–	1	–
44	181789-172	Resistor, 10 M, R13	1	1	–
45	185600-101	PC Board, Drilled	1	1	–

AW 84-975

NOTES:

1. All resistors are 1/4 W, ±5% unless otherwise specified.
2. All capacitor values are in microfarads (MFD).