

**MODEL 69 TELEPHONE HANDSET**

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Figure 1: Model 69 Telephone Handset

**1. INTRODUCTION**

**1.01** This document covers the Model 69 telephone handset (see Figure 1). A general description as well as information on disassembly, assembly, replacement parts, fault isolation, and installation is included.

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

**2. GENERAL DESCRIPTION**

**2.01** The Model 69 telephone handset (see Figure 2) is equipped with a carbon granule transmitter, and a receiver and induction coil assembly. The receiver is a central armature type. The induction coil makes the handset compatible with hearing aids that have a T-Switch (Telecoil). The transmitter, and the receiver and induction coil assembly, are housed in a molded plastic handle containing a transmitter holder assembly and a cotton baffle. Two molded plastic caps, one for the transmitter, and one for the receiver and induction coil assembly, are threaded on the handle of the handset. The Model 69 telephone handset is also equipped with a pushbutton switch located in the center of the handle, and is available with either a 5-conductor or 6-conductor nonmodular handset cord.

**2.02** The transmitter holder assembly is equipped with two screw terminals for connection to the handset cord. The transmitter rests on pressure-contact connectors in the transmitter holder assembly.

**2.03** The receiver and induction coil assembly is equipped with two screw terminals for connecting the spade-tip leads of the handset. A varistor, shunted across the terminals of the receiver and induction coil assembly, protects the receiver and induction coil assembly from abnormal line surges.

**2.04** The pushbutton switch is a single-pole, single-throw, normally-open type, and provides on-off control of a circuit connected to the switch conductor leads. The conductor leads for the pushbutton switch are independent of the transmitter and receiver leads for connection to an external circuit.

**2.05** The handset contains a cotton ball baffle inserted through the receiver cavity into the handle. This baffle reduces acoustic coupling from the receiver to the transmitter. If the baffle is not used, clarity of reception will be impaired.

TABLE A  
ORDERING INFORMATION

CODE NUMBERS			
HANDSET CODE NUMBERS ARE FORMED IN THREE STEPS AS FOLLOWS:			
(1) Handset Model Number (See Part 1)	0069	15	OC2
(2) Color Code (See Part 2)			
(3) Versions (See Part 3)			
PART 1 HANDSET MODEL NUMBER			
CODE	DESCRIPTION	COLOR OFFERED	VERSION OFFERED
0069	Model 69 Telephone Handset	00, 05, 13, 15 (Available On All Versions)	OC1 OC2 OC3 OC4
PART 2 COLORS		PART 3 VERSIONS	
CODE	COLORS	CODE	VERSIONS
00	Black	OC1	Equipped With 5-Conductor Handset Cord And Plunger Bar With ITT Logo
05	Moss Green	OC2	Equipped With 5-Conductor Handset Cord And Plain Plunger Bar
13	Beige	OC3	Equipped With 6-Conductor Handset Cord And Plunger Bar With ITT Logo
15	White	OC4	Equipped With 6-Conductor Handset Cord And Plain Plunger Bar

**2.06** Several versions of the Model 69 telephone handset are available; however, differences are limited to the number of conductors in the handset cords and the appearance of the ITT logo on the plunger bar of the pushbutton switch. Differences are described in the following paragraphs. Refer to Table A for ordering information.

#### MODEL 0069\*\*-OC1

**2.07** The Model 0069\*\*-OC1 is a standard telephone handset equipped with a pushbutton switch and a 4-foot, 5-conductor, nonmodular, coiled, handset cord. The ITT logo appears on the plunger bar of the pushbutton switch.

#### MODEL 0069\*\*-OC2

**2.08** The Model 0069\*\*-OC2 is the same as the Model 0069\*\*-OC1 except the ITT logo does not appear on the plunger bar of the pushbutton switch.

#### MODEL 0069\*\*-OC3

**2.09** The Model 0069\*\*-OC3 is a standard telephone handset equipped with a pushbutton switch and a 4-foot, 6-conductor, nonmodular, coiled, handset cord. The ITT logo appears on the plunger bar of the pushbutton switch.

**MODEL 0069\*\*-OC4**

**2.10** The Model 0069\*\*-OC4 is the same as the Model 0069\*\*-OC3 except the ITT logo does not appear on the plunger bar of the pushbutton switch.

**3. INSTALLATION**

**3.01** Use of the Model 69 telephone handset is reserved for applications requiring control of an external circuit, such as radio telephone operations. Therefore, installation procedures will vary for specific applications.

**4. FAULT ISOLATION**

**4.01** Proper testing of both the transmitter, and the receiver and induction coil assembly, requires the use of special test equipment. However, a suspected faulty handset can be adequately checked for maintenance purposes by direct comparison with, or substitution by, a handset that is known to be functioning correctly.

**4.02** A faulty transmitter can be identified by noise in the circuit or low transmission levels. A DC ohmmeter test is not a reliable method for checking the condition of a carbon granule transmitter.

**4.03** A faulty receiver and induction coil assembly can be identified by distortion from a loose or damaged diaphragm, an open coil, or a faulty varistor.

**4.04** A faulty handset cord may result in interrupted transmissions or may cause transmission to cease completely.

**4.05** When a fault is isolated, check the handset wiring and replace the faulty part. If the problem still exists, substitute a handset that is known to be functioning correctly.

**5. DISASSEMBLY AND ASSEMBLY**

**5.01** To disassemble the Model 69 telephone handset, proceed as follows while referring to Figure 2 and Table B:

- (a) Loosen the receiver cap by turning it in a counterclockwise direction; remove the cap from the handle.
- (b) Tilt the handle to one side, and remove the receiver and induction coil assembly.

- (c) Loosen the two screw terminals, and disconnect each spade-tip lead from the screw terminals of the receiver and induction coil assembly.

- (d) Remove the cotton ball baffle from the handle.

- (e) Loosen the transmitter cap by turning it in a counterclockwise direction; remove the cap from the handle.

- (f) Remove the transmitter.

- (g) Lift the transmitter holder assembly from the handle, loosen the two screw terminals, and disconnect the spade-tip leads.

- (h) Using a 1/16 inch Allen-head wrench, loosen and remove the two Allen-head screws that hold the escutcheon to the handle; remove the escutcheon.

- (j) Remove the plunger bar and the restoring spring.

**Warning:** *The membrane assembly is constructed of three layers. Care must be taken to ensure that these layers are not separated and that the membrane is not damaged.*

- (k) Remove the membrane assembly by gently lifting the end closest to the receiver cavity.

- (m) Lift the switch assembly from the handle.

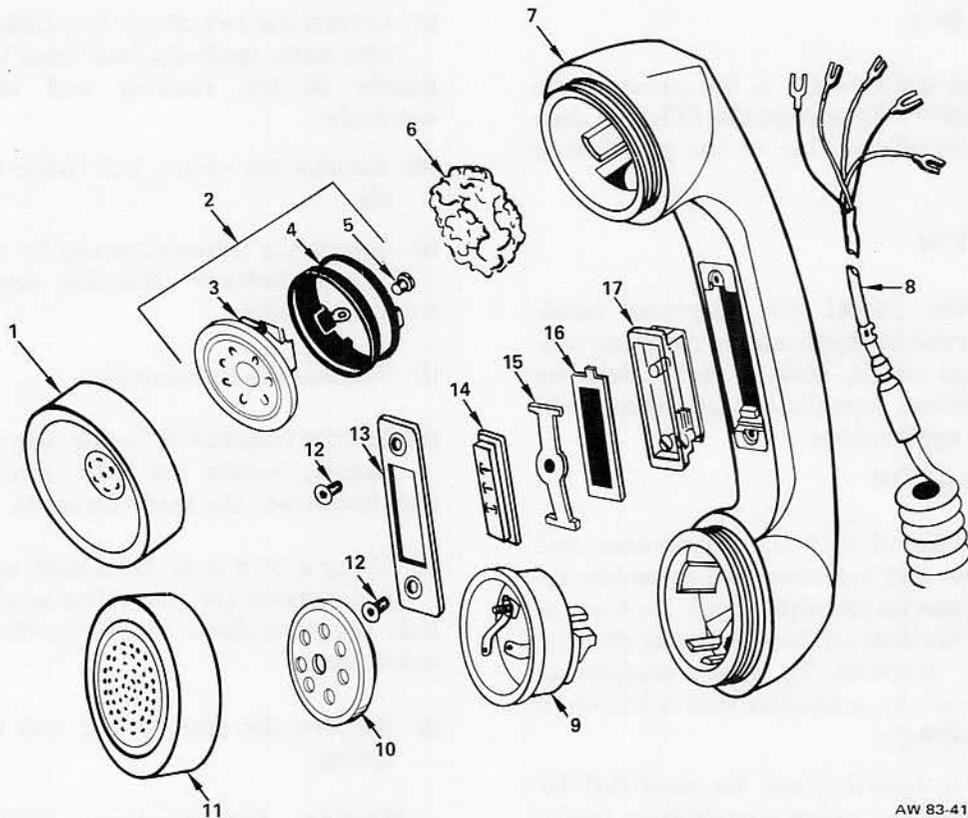
- (n) Loosen the two switch assembly screw terminals and disconnect the RD and GN spade-tip leads; remove the switch assembly.

- (p) Remove the handset cord by guiding it through the hole in the end of the handle.

**5.02** To assemble the Model 69 telephone handset equipped with a 5-conductor handset cord, proceed as follows:

- (a) Insert the handset cord through the small hole in the end of the handle. Pull the cord through the hole until the strain relief section of the cord is in place.

- (b) Feed the two WH leads (covered with the protective sleeve) through the handle and out the receiver cavity.



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Figure 2: Model 69 Telephone Handset, Exploded View

TABLE B

REPLACEMENT PARTS LIST

INDEX NO	PART NUMBER	DESCRIPTION MODEL 69 TELEPHONE HANDSET	QUANTITY USED			
			69/OC1	69/OC2	69/OC3	69/OC4
1	079289-0**	Cap, Receiver	1	1	1	1
2	183463-101	Receiver <sup>1</sup>	1	1	1	1
2	184936-101	Receiver And Induction Coil Assembly <sup>2</sup>	1	1	1	1
3	183464-101	Receiver	1	1	1	1
4	184935-101	Coil, Induction	1	1	1	1
5	183458-101	Screw, Mounting	2	2	2	2
6	079545-101	Baffle, Cotton Ball	1	1	1	1
7	084495-0**	Handle	1	1	1	1
8	1018**-048	Cord, Coiled, 5-Conductor	1	1	—	—
8	1019**-048	Cord, Coiled, 6-Conductor	—	—	1	1
9	182955-101	Transmitter Holder Assembly	1	1	1	1
10	075555-104	Transmitter	1	1	1	1
11	079290-0**	Cap, Transmitter	1	1	1	1
12	080040-104	Screw	2	2	2	2
13	080033-102	Escutcheon	1	1	1	1
14	084498-0**	Bar, Plunger	1	—	1	—
14	180579-0**	Bar, Plunger	—	1	—	1
15	080035-101	Spring, Restoration	1	1	1	1
16	080036-101	Membrane Assembly	1	1	1	1
17	080032-101	Switch Assembly	1	1	1	1

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\*\* Substitute 2-digit color code when ordering.

<sup>1</sup> This product has been discontinued, but is provided as a source of information for receivers still in service.

<sup>2</sup> The 184936-101 is hearing aid compatible and replaces the 183463-101 receiver.

- (c) Feed the RD and GN leads through the opening in the center of the handle.
- (d) Feed the BK, YL, and remaining WH lead through the transmitter cavity.
- (e) Connect the RD and GN leads to the switch assembly. When facing the two screw terminals with the screws closest to the transmitter cavity, the RD lead is on the left and the GN lead is on the right.
- (f) Place the switch assembly into the handle, with the screws closest to the transmitter cavity.
- (g) Place the membrane assembly on top of the switch assembly. The side of the membrane assembly with the metal strip in the center must be placed next to the switch assembly.
- (h) Place the restoring spring on top of the membrane assembly. Notice that the spring is slightly bent. The spring must be placed so that the center of the spring is higher than the two ends.
- (j) Place the plunger bar on top of the restoring spring.
- (k) Place the escutcheon on top of the plunger bar.
- (m) Mount the escutcheon to the handle using two Allen-head screws.

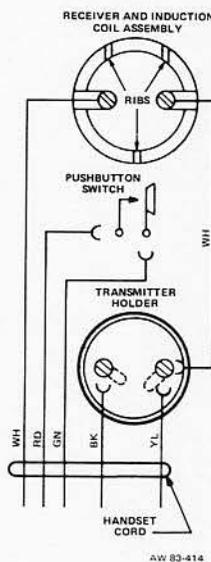


Figure 3: Handset Wiring for 5-Conductor Cord

- (n) Press the plunger bar and check for proper operation.
- (p) Connect each WH spade-tip lead to a screw terminal on the receiver and induction coil assembly (see Figure 3).
- (q) Place the receiver and induction coil assembly into the handle with the two ribs on the induction coil toward the end of the handset. (See Figure 3.) Thread the receiver cap onto the handle by turning it in a clockwise direction.
- (r) Connect the BK, YL, and remaining WH lead to the transmitter holder assembly.
- (s) Place the transmitter holder assembly into the handle.

*Note:* When assembling the nonmodular handset, the u-shaped slot on the bottom of the transmitter holder must engage the cord strain relief.

- (t) Place the transmitter into the transmitter holder assembly; thread the transmitter cap onto the handle by turning it in a clockwise direction.

**5.03** Assembly instructions for a Model 69 telephone handset equipped with a 6-conductor handset cord are similar to those provided for a 5-conductor handset cord. The wiring diagram for the 6-conductor handset cord is shown in Figure 4.

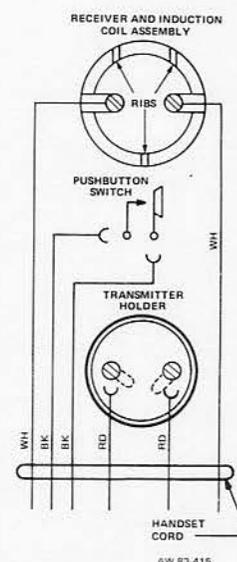


Figure 4: Handset Wiring for 6-Conductor Cord