

DESCRIPTION AND OPERATION OF CMC 7900T BUTT-IN II TELEPHONE HAND TEST SET

CONTENTS	PAGE
1. GENERAL	1
2. MATERIAL	2
3. DESCRIPTION	3
4. OPERATION	3
CONNECTING TO A LINE	3
A. Monitoring	3
B. Polarity Check	3
ORIGINATING A CALL	3
A. Dialing A Number	3
B. Last Number Redial	3
C. Disconnection Upon Test Or Call Completion	3
5. WARRANTY/MAINTENANCE	3

1. GENERAL

- 1.01** This section describes the features and operation of the CMC 7900T BUTT-IN II Telephone Hand Test Set manufactured by the COMMUNICATIONS MANUFACTURING COMPANY, 2234 Colby Avenue, Los Angeles, California 90064.
- 1.02** Whenever this section is referenced, the version for reissue will be listed in this paragraph.
- 1.03** The CMC 7900T BUTT-IN II test set is a rugged, high-impact plastic unit for voice frequency transmission and operational tests of trunk circuits and subscriber lines. It has a keypad constructed of a water-repellent rubber and the case is designed with tight-fitting joints to make it moisture-resistant for outside use.
- 1.04** When equipped with cords having the appropriate test clips or plugs, it can be used by either outside plant or central office personnel, see Fig. 1.

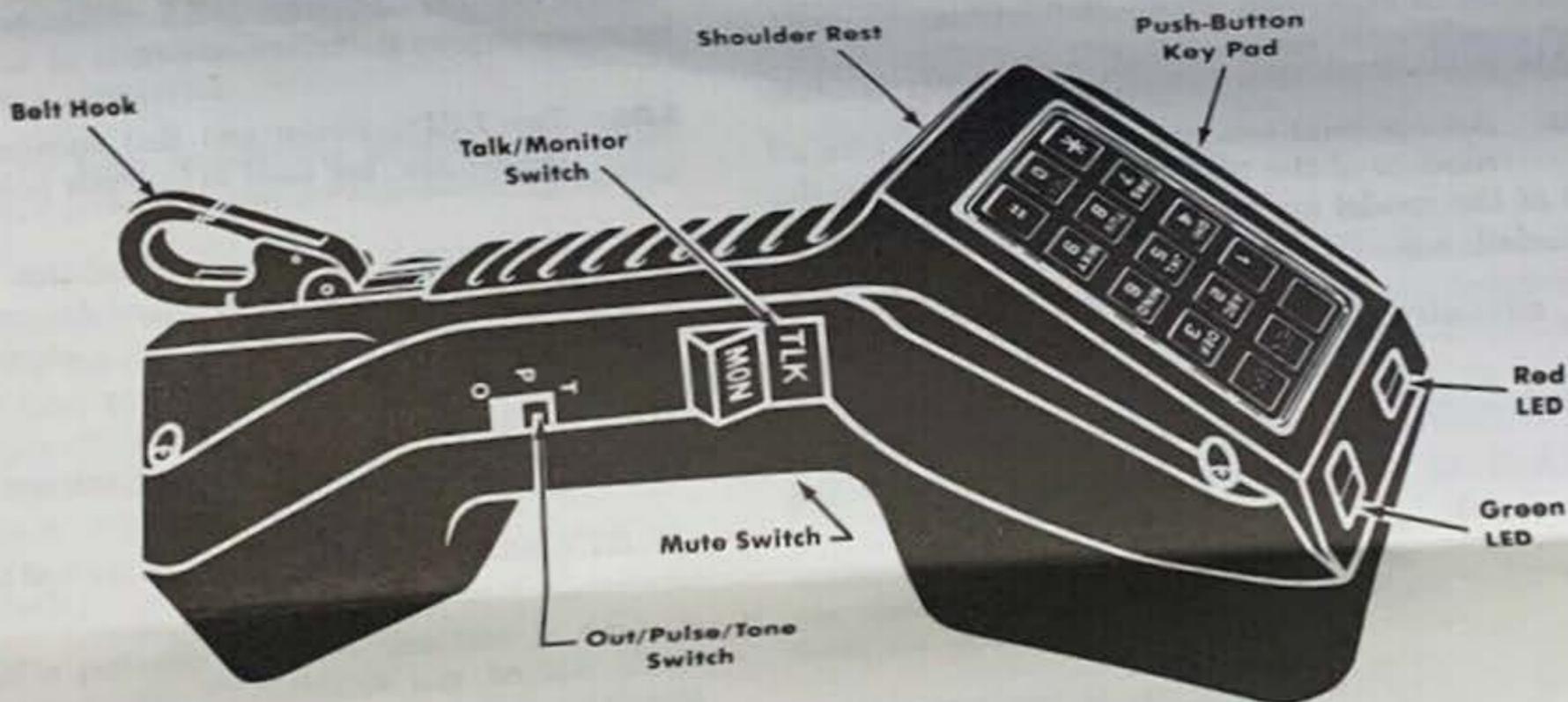


Fig. 1 — CMC 7900T BUTT-IN II Hand Test Set

2. MATERIAL

2.01 The test set is available in 4 models:

- CMC 7900TA is equipped with a 5 foot cord with insulation-piercing (spike) alligator clips.
- CMC 7900TB is equipped with a 1 foot cord terminated with a 346A plug to allow cord changes utilizing optional cords.
- CMC 7900TAR equipped with a 5 foot cord with insulation-piercing (spike) alligator clips and tone ringer.
- CMC 7900TBR equipped with a 1 foot cord terminated with a 346A plug, to allow cord changes utilizing optional cords, and a tone ringer.

2.02 The following optional cords, used with the CMC 7900TB and CMC 7900TBR test sets are terminated with a 471A jack which mates with a 346A plug:

- CMC 0040 equipped with standard insulated alligator clips for use in central offices.
- CMC 0041 equipped with insulation-piercing (spike) alligator clips.
- CMC 0042 equipped with a 310 plug.
- CMC 0043 equipped with a 240A plug.
- CMC 0044 equipped with an RJ11 modular plug.

2.03 An optional tone ringer is available with all models of the test set. An "R" suffix at the end of the model number indicates that a ringer is included, e.g., 7900TAR, 7900TBR.

3. DESCRIPTION

3.01 A rocker switch TLK/MON, located on the handle, permits monitoring, outpulsing and talking, on a connected line or central office equipment.

3.02 A 3-position slide switch designated T/P/O (Tone, Pulse, Out) provides either Touch-Tone® or DP (dc Dial Pulse) pulsing. The position O bypasses the test set and keypad electronics to extend the listening range of the set when working on exceptionally long lines. Signaling is not possible in this mode, but communication is possible. Use of this mode is recommended when testing beyond the subscriber loop limit (1500 ohms at 48V dc) or when testing on dry circuits.

3.03 A push-button switch MUTE, located on the handle next to the transmitter, allows the user to cut off the transmitter to improve reception in noisy locations. The call will remain muted as long as the MUTE switch is depressed. This mode also prevents the called person from hearing the caller's private conversation with someone nearby.

3.04 An optional Tone Ringer provides an audible ringing signal when the set is in the monitor mode.

3.05 A spring-loaded, removable belt hook provides a secure connection to a belt loop or "D" ring for a convenient way to carry or store the test set. The CMC 0020 belt hook can be removed by removing the 2 Phillips screws.

3.06 Two LEDs, Green and Red, located above the keypad, are used to indicate polarity.

3.07 The keypad, see Fig. 2, in addition to controlling outpulsing, provides for redialing the last number called, and a polarity check of the connected line.

- REDIAL is used to redial the last number called.
- PLRTY is used to make a polarity check of the line.

Touch-Tone® is a Registered Trademark of AT&T



Fig. 2 — Keypad Layout

4. OPERATION

CONNECTING TO A LINE

A. Monitoring

Caution: Operate the TLK/MON key to the MON position before connecting to a subscriber line or to central office equipment to avoid interrupting any transmission in progress.

4.01 The high impedance monitoring circuit will provide a non-service affecting audible monitor.

4.02 Connect the black lead of the test set to the Tip (positive/ground) side of the line and the red lead to the Ring (negative/battery) side of the line. If the leads are connected in reverse, the test set will work, however, a polarity check will show a reverse polarity.

B. Polarity Check

4.03 If a polarity check of the line is desired, operate the TLK/MON key to the MON position and press the PLRTY key. A lighted Green LED indicates normal polarity; a reversed line will be indicated by a Red LED.

ORIGINATING A CALL

A. Dialing A Number

4.04 With the set connected to an idle line or equipment, see paragraph 4.02, select the type of pulsing required by moving the slide switch to position T if Touch-Tone® pulses are required or to position P for dc pulses.

4.05 Set the rocker switch in the TLK position and verify that dial tone is received by listening to the receiver. With the keypad, enter the desired number. If the pulse mode T or P has been selected, the digits will be automatically outpulsed at the correct rate.

B. Last Number Redial

4.06 In the T (Touch-Tone®) or P (dc pulse) mode, the last number dialed can be automatically redialed by momentarily pressing the REDIAL key.

C. Disconnection Upon Test or Call Completion

4.07 When the test or call is completed, release the line or equipment. Operate the TLK/MON key to the MON position and disconnect the test clips from the line or remove the plug from the equipment.

5. WARRANTY/MAINTENANCE

5.01 The 7900T Telephone Hand Test Set is fully warranted against manufacturing defects for a period of eighteen (18) months from date of purchase. This warranty includes parts and labor. If

SECTION 100-120-002

service is required during or after the warranty period, please contact the Customer Service Group at Communications Manufacturing Company by calling 213+828-3200 prior to the return of any unit.

5.02 Field maintenance of this test set is limited to replacing the cord set and/or the belt hook. The following replacement parts are available direct from the Communications Manufacturing Company:

Hook, Belt (Box of 10)	CMC0020
Cord, 1 foot, w/346A plug	#200149
Cord, 5 feet, w/insulated piercing (spike) alligator clips	#200150

5.03 To replace the belt hook, remove the two phillips head screws securing the belt hook mounting channel, with a phillips screwdriver. Install new belt hook using the phillips head screws just removed.

5.04 To replace a cord set, remove the six phillips head screws (not including the two screws securing the belt hook) and carefully separate the two halves of the outer plastic case. Disconnect the tip and ring conductors by loosening the two machine screws securing the spade terminals. Disconnect the strain relief hook by removing the machine screw.

5.05 Replace the worn or defective cord set with a new cord set. Place the spade tip terminals, observing the proper tip ring polarity, under the machine screw heads and tighten.

Note: If a fiber washer is installed under the strain relief hook, it must be reinstalled with the new cord set.

5.06 Reassemble the case by placing the two halves together while carefully observing the placement of the cord set and the groove sets of the case. Install the six phillips head machine screws after the case halves have been aligned and seated.