



TS[®]17 Portable Test Telephone (Deluxe)

Description and Use

SPECIFICATIONS: PHYSICAL

Length: 6¾ inches (17.1 cm)
Width: 2-3/8 inches (5.1 cm)
Height: 2½ inches (6.3 cm)
Storage Temperature: -20°C to +60°C
Operational Temperature: -5°C to +40°C

ELECTRICAL

Loop Limit: 2.4 kOhms at 48 Vdc
15mA minimum loop current)

Monitor Impedance

High Impedance: (HI Z):
100 kOhms, minimum at 1 kHz
Low Impedance: (RING):
6 kOhms, at 1 kHz typical

Off-Hook DC Resistance: 150 ohms typical

Rotary Dial (Pulse) Output:

Pulsing Rate: 10 pps ±1pps
Break/Make Ratio: 60/40 ±3%
Interdigit Interval: >300 ms
Leakage During Break: >50 kOhms

DTMF (Tone) Output:

Tone Frequency Error: ±1.5%
(maximum)
Level Per Tone Pair: +1 dBm
maximum,
High vs. Low Tone Difference:
2dB ±2dB

Last Number Redial:

Capacity: 31 Digits
Storage time: 10 minutes, typical
Operation: Tone and Pulse Modes

Hook Flash Duration: 450 ms ±100 ms

Telecom Electrical Safety Classification: TNV-3

Ordering Information:

Part Number	Description
17801-005	TS17 Butt Set, Deluxe, with Alligator Clip Line Cord and Belt Clip
17801-000	TS17 Butt Set, Deluxe (no line cord or belt clip)

- Last Number Redial.
- Listening for noise.
- High and Low Impedance Monitor Mode.
- Microphone Mute.
- Hook Flash.
- Audible Ringer.
- Field Replaceable Line Cord and Belt Clip on some models.

This portable test telephone, often called a "butt-in," is a self-contained, line powered (no battery required), portable handset used by installers, repair technicians, and other authorized personnel for testing and temporary communications on metallic voice type telephone lines.

CONTROLS AND INDICATORS

HI Z/RING/TALK Switch. The test telephone has a three-position slide switch located on the side of the handgrip near the receiver. The switch is labeled HI Z/ RING/TALK.

In the HI Z position, the TS17 is on-hook with a high impedance audio coupling to the telephone line. This allows for telephone line monitoring without disrupting conversations, data, or network signaling. Use this MONITOR position if you do not know whether or not the line you are connecting to is a data line.

In the RING position, the TS17 is on-hook with an electronic ringer connected to the telephone line. In this position, the TS17 provides a low impedance coupling to the telephone line for audio monitoring without disrupting conversations or network signaling. Use this MONITOR position if you know the line is not a data line because the volume of sounds will be louder than in the HI Z position.

In the TALK position, the TS17 is off-hook and may be used for dialing and talking. In this mode, the TS17 performs as an ordinary telephone.

Audible Ringer. The TS17 Test Telephone has an audible ringer to indicate incoming calls when the test telephone is in the RING mode.

PULSE/TONE Switch. This two-position slide switch, labeled PULSE/TONE, is located on the side of the handgrip, just below the receiver. The switch selects the dialing type: TONE for DTMF dialing or PULSE for pulse dialing.

Note: The TS 17 is not polarity sensitive and will function normally regardless of telephone line polarity.

Polarity. The red LED, located below the keypad area, will light up when the red test lead is connected to a more positive voltage than the black test lead.

Keypad. All 12 dialing keys will send DTMF tones. Ten of the 12 keys send dial pulses. Asterisk (*) and pound (#) will not send dial pulses. If the asterisk (*) key is pressed when the unit is in PULSE mode, the dialing mode will be changed to tone dialing.

Function Keys. The Test Telephone includes three function keys: REDIAL, MUTE, and FLASH. These keys perform their respective functions when the unit is in the TALK position.

MUTE. To mute the transmitter, press and release the MUTE button. By pressing this button, side tone is reduced, making it easier to hear low volume signals. To remove mute from the transmitter, press and release the MUTE button a second time.

FLASH Button. The hook flash button provides a timed break in the line current when activated.

Last Number Redial Button. The last number dialed can be redialed with the press of the REDIAL button.

OPERATION

Monitoring. Move the HI Z/RING/TALK switch to HI Z or RING and connect the test leads to the telephone line under test. Monitoring may now be done without disrupting traffic. Typical monitoring applications include:

- Verifying that the line under test is idle before going off-hook.
- Hunting for trace tones.
- Listening for noise.

IMPORTANT SAFETY PRECAUTION

■ *Good safety practices prohibit the connection of the TS17 Test Telephone and similar test telephones to 115/230 Volts AC commercial electrical power. If the TS17 Test Telephone is connected to commercial power, all warranties are immediately voided.*

■ *Not for Outdoor Use!*

■ *Legal Requirements may exist regarding permission to connect equipment to a Telecom network operated by a public network operator.*

FEATURES

The TS17 Portable Test Telephone employs the latest technology in integrated circuit design to provide:

- Tone (DTMF) and Pulse Signaling.
- Continuous Polarity Indication.

If the telephone lines under test include data lines, it is best to use the HI Z monitor mode when hunting for trace tones to avoid interrupting the data service.

Polarity Check. Move the HI Z/RING/TALK switch to TALK. The red LED will not light if the red test lead is connected to the ring (negative) side of the line and the black test lead is connected to the tip (positive) side of the line. The red LED will light if the test leads are reversed; that is, with the red test lead connected to the tip (positive) side and with the black test lead connected to the ring (negative) side.

Dialing

1. Move the HI Z/RING/TALK switch to the HI Z or RING position.
2. Move the PULSE/TONE switch to either PULSE or TONE depending on the type of signaling required.
3. Connect the line cord clips to the telephone line and verify that the telephone line is idle.
4. Move the HI Z/RING/TALK switch to the TALK position. Listen for dial tone (when furnished).
5. Enter the desired number to be called on the keypad. If the test telephone is in the TONE mode, the tones associated with each digit will be generated as each respective button is pressed. If the test telephone is in the PULSE mode, the digits will be pulsed out at the correct rate as the keys are pressed.
6. To end the call, return the HI Z/RING/TALK switch to the HI Z or RING position.

Last Number Redial. To activate the Last Number Redial function:

1. Move the HI Z/RING/TALK switch to HI Z or RING position, wait one second minimum.
2. Move the HI Z/RING/TALK switch back to the TALK position.

3. When dial tone is heard, press the REDIAL button. The last number dialed will be automatically redialed.

Note: The redial memory has a 10 minute time limit after the portable test telephone has been disconnected from a working telephone line. After 10 minutes, the number will be lost from memory.

MAINTENANCE

Belt Clip Replacement. The belt clip may be easily replaced in the field without opening up the Portable Test Telephone. The ordering number for the replacement clip is P1780002. To replace the belt clip, follow the instructions that comes with the belt clip.

Line Cord Replacement. The line cord may be replaced in the field. The ordering number for the line cord is P1780001. To replace the line cord, unplug the RJ11 jack from the end of the TS17 Test Telephone and replace the cord with a new one.

Warranty. Harris Corporation agrees to warranty its products are free from defects in material and workmanship for the following periods:

- Butt Sets and Test Telephones – 90 days from date of purchase.
- Line Cords and Accessories – 90 days from date of purchase.

This warranty constitutes the sole and exclusive warranty for products sold by Harris Corporation and is in lieu of any other warranty, express, implied, or statutory, including the warranty of merchantability and fitness for a particular purpose. In no event shall Harris be liable for any special, incidental, indirect, or consequential

damages arising out of the use of any product or from any other cause.

This warranty shall not apply to product mishandling, abuse, misuse, negligence, or accident, nor to products which have been modified, altered, or repaired by personnel not authorized by Harris.

Non-Warranty. Out-of-warranty maintenance, service, or repair of products is available from the Harris Corporation on a time and materials basis. In addition, Harris offers for sale some replacement components. Harris Corporation recommends that out-of-warranty service and repair of electronic products be completed at its Harris Communications Products Division facility or authorized representative. Contact Harris Repairs for the location of the Harris authorized repair facility nearest you.

Return or Repair of Equipment. The return of any products for credit, other than for warranty service, is done at the sole discretion of Harris Corporation. Before any product is returned, including for warranty service, a Return Authorization ("RA") number must be obtained from the Customer Service Department by calling 1-800-437-2266. If the RA number is not clearly marked on the shipping label, the package will not be accepted by Harris. All authorized returns must be shipped, with shipping charges prepaid, f.o.b. destination, and addressed as follows:

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Camarillo, California 93012-8516
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Attn: Customer Support, RA# xxxxx

