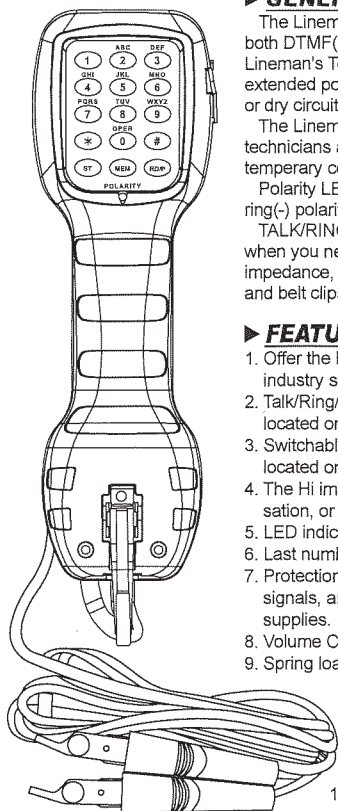


LINEMAN'S TEST SET

Water Resistant

User's Guide



► GENERAL:

The Lineman's Test Set is a new design to provide both DTMF (Touch Tone) and dial pulse output. The Lineman's Test Set features line-powered operation, so no extended power is required unless operating on low voltage or dry circuits.

The Lineman's Test Set used by installers, repair technicians and other authorized personnel for line testing and temporary communications.

Polarity LED provides immediate visual indication for tip(+) / ring(-) polarity.

TALK/RING/MONITOR switchable to set up the position when you need, and the last number redial, Hi monitor impedance, electronic ringer and field replaceable line cords and belt clips.

► FEATURES:

1. Offer the latest in integrated circuit design, provide the industry standard packed with popular features.
2. Talk/Ring/Monitor three kind of tests function, its switch located on inside of handgrip.
3. Switchable tone or pulse dialing. TONE/PULSE switch are located on inside of handgrip.
4. The Hi impedance monitor will not disturb data, conversation, or signaling.
5. LED indicates reversed polarity.
6. Last number redial(31 digits maximum).
7. Protection against excessive voltage, transients ringer signals, and direct connection to most batteries and power supplies.
8. Volume Control-3 position control for up to 12dB of gain.
9. Spring loaded belt clip can be mounted for carry easily.
 10. Durable cloth covered cord equipped with securely anchored strain relief, modular RJ11X plug, and two five-way test clips.
 11. Water-Resistant, extra protection against severe weather conditions.
 12. Spade connector cord included.

— 1 —

• Polarity Check:

Polarity is automatically indicated when in the Talk mode. The polarity indicator LED will light if polarity is reversed. Correct polarity is for the red lead On RING(-), black lead on TIP(+). A modular telephone linecord may be connected directly into Test Set to check polarity.

• Last Number Redial:

The last number dialed(up to 31 digits) in the Talk mode is stored. To redial, Press the redial button on keypad. Memory is backed-up by internal battery. The number may be redialed in either pulse or tone mode as selected by the PULSE/TONE switch.

• How to Storing Numbers into Memory:

The Lineman's Test Set is equipped with Flash Memory inside. It can allow you to store up to 10 frequently dialed numbers for easy access.

While in talk mode:

1. Press ST(Store)
2. Enter the number to be stored(15 digits max.)
3. Press ST(Store).
4. Press the number key for the chosen memory location.

• How to Store a Pause in a Stored Number:

It may be necessary to program a pause into the dialing sequence. Programming a pause into memory will cause the phone to wait 3 seconds before dialing any more numbers.

(For example, this may be necessary when accessing a trunk that require 2 to dial out. You can do this by pressing the RD/P button at the point where the pause is required. For example, to store the number 2 9429441 with a pause between the 2 and 9, enter 2 and press RD/P 9429441 each pause will count as one digit. A longer pause can be inserted by pressing RD/P more than once.)

• How to Dial a Stored Number:

After receiving a dial tone, press MEM and the number key (0~9) for the memory location in which the number is stored. For example, to call the number stored in memory location 1, press MEM and then the number 1. The number will be dialed automatically.

► OPERATION:

• Connection:

Lineman's Test Set, it comes with a RJ-11 modular jack, and equipped with an Angled Bed of Nail Cord(ABN). The cord is similar to the standard card(STD). Except that each alligator clip is equipped with a "Bed of Nails" and an insulation piercing spike. (Figure 1)

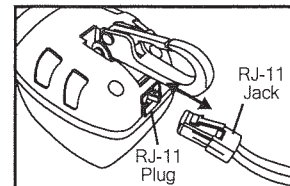


Figure 1

• Keypad:

The 15 standard keys will send either DTMF tones or dial pulse, depending on the TONE/PULSE switch setting. Includes 0~9, * and # keys and more 3 function keys of store(ST), Memory(MEM) and Redial/Pause(RD/P). (Figure 2)

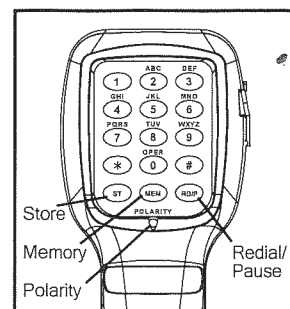


Figure 2

• Monitor/Ring/Talk Switch:

1. Monitor Mode:

In Monitor mode, The is on-hook with a Hi impedance coupling to telephone line. The allows for telephone line monitoring without disrupting conversations, data or signaling. (Figure 3)

2. Ring Mode:

In Ring mode, The is on-hook with an electronic ringer connected to the telephone line. This device is Low impedance coupling to telephone line for monitoring of optional line identification tones. (Figure 3)

3. Talk Mode:

To answer a call, seize the line, or initiate signaling, switch to TALK mode. If dialing, select the PULSE or TONE mode, whichever is appropriate. To terminate a call, release a line by switching to Ring or Monitor Mode. (Figure 3)

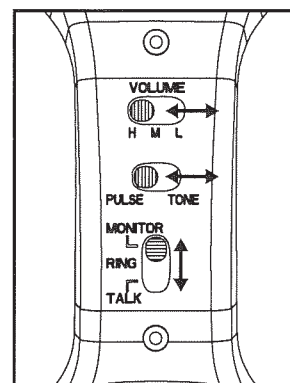


Figure 3

• Function Select:

1. Volume Switch(H/M/L):

This three-position slide switch is located on the inside of the handgrip. Selected volume by High/ Middle/Low. (Figure 3)

2. Tone/Pulse Switch(TONE/PULSE):

This two-position slide switch labeled TONE/ PULSE, selects the signaling output. TONE for DTMF or PULSE for dial pulse. (Figure 3)

— 2 —

► SPECIFICATIONS:

Loop Limit	4K ohms max. at 48VDC(5K meter - 26Ga non loaded) nominal 15mA minimum loop current.
DC Resistor	150 ohms Typical at 80mA current.
Monitor Impedance	Low impedance - 600 ohms Typical at 1KHz. (Ring Position) Hi impedance - 100K ohms Typical at 1KHz. (Monitor Position)
Rotary Dial Output	
Pulsing Rate	10 +/- 0.5 pulses/sec
Percent Break	60% +/- 2%
Interdigital Pause	8.5ms Typical
Leakage During Break	> 50K ohms
DTMF Output	
Tone Frequency Error	+/- 1.5%
Level of Tone Pair	+ 2 dBm max. , -11 dBm min.
Low v.s High Tone Difference	-4 dBm max.
Physical	
Length	22.4 cm (8 4/5 inches)
Width	7.12 cm (2 4/5 inches)
Height	7.0 cm (2 3/4 inches)
Weight	380 g (13.4 ounces) max.

(*Specification subject to change without notice.)

— 3 —

— 4 —