



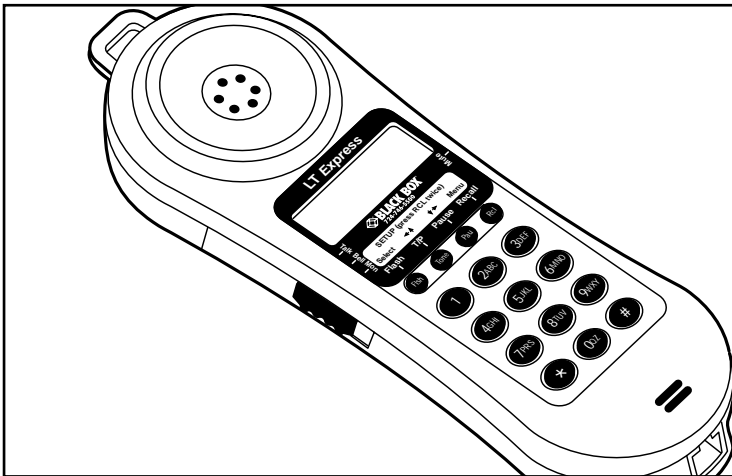
BLACK BOX[®]

NETWORK SERVICES

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LT EXPRESS



Test your phone system almost any way, from almost anywhere!

Key Features

- ▶ **Ultra-compact portable telephone-test set runs on a single 9V battery.**
- ▶ **Hold it like a regular handset or attach the included headset.**
- ▶ **Versatile, easy-to-read 2 x 16 LCD panel.**
- ▶ **Displays Caller ID both on-hook and for Call Waiting (CWCID).**
- ▶ **In MONITOR mode, listen to phone lines without loading them.**
- ▶ **Tone- or pulse-dialing.**
- ▶ **Can store up to five phone numbers.**
- ▶ **"DataAlert" circuitry prevents going off-hook on low-voltage lines.**

The LT Express is a self-contained, self-powered, super-tiny portable phone-test set. It's ideal for temporary communication and for servicing and installing telephone and data lines. It's powered by a single preinstalled 9-volt alkaline battery and comes with a test-cable set, a headset that can be used with either ear, and a kit for attaching an optional belt clip.

You can always run a regular phone cable from the LT Express to an extension jack for quick in-office testing. But for testing at wiring-closet "66 blocks," etc., the LT Express is designed for use with its included dedicated cable set only. The cable set is about 5 feet (1.5 m) long; it has a modular plug and strain relief on one end and self-piercing bent nose clips with a "bed of nails" on the other. (Extra or replacement sets are available.)

The LT Express has a 2 x 16 LCD panel that displays a wide variety of information, including:

- On-hook and off-hook voltage and polarity;
- Numbers currently being dialed and how they're being dialed;
- Caller ID information, messages, and faults, both on-hook and for Call Waiting (CWCID); and
- Battery status.

The LT Express has three operating modes you can switch between: TALK (the unit goes off hook), BELL (the unit stays on hook passively waiting for calls), and MONITOR. In MONITOR mode, you can listen to a line for up to 15 minutes at a time without loading it. Volume levels are comparable to those of an off-hook line, and there's no popping or clicking on the line when you attach or detach the unit.

You can pulse- or tone-dial with the LT Express. The unit has Pause and Flash keys, so you can imbed 3.8-second pauses and hookflashes in your dialing strings. You can also press Tone

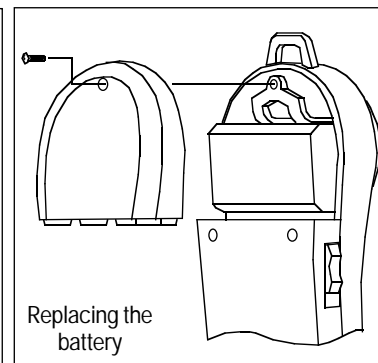
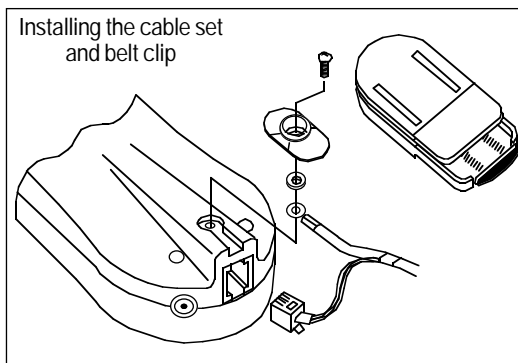
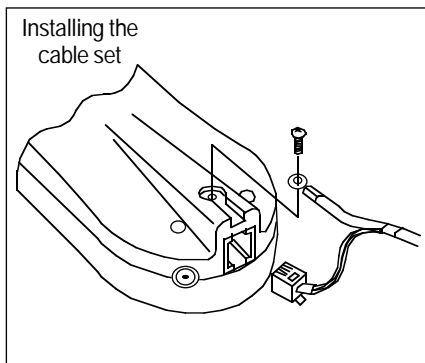
to switch from pulse- to tone-dialing in the middle of a string. Another useful button: Hold down Mute to mute the microphone.

The LT Express can store and recall as many as 5 phone numbers, each up to 19 digits long, in battery-backed-up memory. It also automatically stores the most recently dialed number so that you can do quick last-number redialing. In an unused LT Express, the battery can typically maintain stored-number memory for more than two years!

Each battery will normally provide 30 to 50 hours of operating time, and the Express has automatic shutoff to prevent excessive drain.

The LT Express has special "DataAlert" circuitry that tests the voltage on the phone line when you switch to TALK mode. If the line is carrying less than 10 volts—indicating a dead line, a data line, or an in-use voice line—the LT Express asks you for confirmation before it goes off hook.

*It's easy to attach the cable set, even with the optional belt clip.
And replacing the battery is a snap, too!*



Specifications

Apparent Line Resistance:
275 Ω at 20 mA

Battery Life: For a typical 9-VDC, 450-mAhr alkaline battery:
Operating: 18 hours minimum, 225 hours maximum;
Standby: 3.4 years;
Typical: 30 to 50 hours

Flash Duration: 600 \pm 50 ms

Line-Current Range: 15 to 120 mA

Measurement:
Voltage: 0 to 128 VDC \pm 5%;
Current: 10 to 140 mA \pm 5%;
Do *not* attach unit to electric-power lines

Memory: Battery-backed-up memory stores (5) programmed phone numbers (up to 19 digits each) plus last number for redial; battery will typically maintain stored numbers in an unused unit for over 2 years

MONITOR-Mode Impedance:
Greater than 130 k Ω

Pulse Dialing:
Pulse rate: 10 pps \pm 10%;
Make/break ratio: 60% to 40% \pm 2%;
Interdigit interval: 820 ms;
Resistance during break: 120 k Ω

Pulse Duration:
Tone: 3 seconds;
Pulse: 3.4 seconds

Return Loss: 14 dB at 600 Ω

Ringer Equivalence: In BELL mode: 0.0 (no ringer load)

Tone Dialing:
DTMF output into 600 Ω :
Tone-frequency error: \pm 1.5%;
Tone level:
High group: -6 \pm 2 dBm;
Low group: -8 \pm 2 dBm;
High vs. low difference: 2 \pm 1 dBm

User Controls:
(1) Left-side-mounted TALK/BELL/MON slide switch for operating mode;
(1) Right-side-mounted microphone-mute pushbutton (must be held down);

(4) Front-mounted pushbuttons (Flash, Tone, Pau, Rcl) for various options;
(1) Standard front-mounted 12-key phone keypad

Interface:
Telephone system:
Modular telco:
Headset: 2.5-mm cell-phone type

Connectors: To telephone network: RJ-12 ("6-wire RJ-11") F;
To headset: 2.5-mm cell-phone headset jack

Indicators: (1) Front-mounted 2-line x 16-character reflective super-twisted liquid crystal display (LCD) panel

Temperature Tolerance:
Operating:
32 to 122°F (0 to 50°C);
Storage:
-4 to +140°F (-20 to +60°C)

Humidity Tolerance: 10 to 90% noncondensing

Altitude (Maximum): 10,000 ft. (3048 m)

Enclosure: High-strength ABS plastic

Power: From 9-VDC alkaline battery, typical:
BELL mode (timed out): 15 μ A;
TALK mode:
CWCID OFF: 2 mA;
CWCID ON: 12 mA;
MONITOR mode: 25 mA

Size: Excluding lanyard (top hook): 7.3"H x 2.5"W x 1.7"D (18.5 x 6.4 x 4.3 cm)

Weight: With cable set: 0.6 lb. (0.3 kg)

The complete package

- The LT Express (battery preinstalled).
- A cable set with self-piercing bent nose clips and a bed of nails.
- A headset that can be worn over either ear.
- An optional belt-clip kit.
- A users' manual.

Ordering Information

ITEM	CODE
LT Express.....	TS147A
Cable Set with Bed of Nails and Belt Clip (Spare)	TS148
<i>You might also need:</i>	
RJ-11 (4-Wire) Modular Cable, 4-ft. (1.2-m)	EL04M-04