



## ABS™ Signal Thrower™

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The IDEAL ABS™ Signal Thrower™ can be used with the mated ABS™ Tester to trace and locate cables. The ABS™ Signal Thrower™ snaps on to the Lanyard attachment on the ABS™ Tester when not in use. Although designed as an enhanced subassembly to the ABS™ Tester, the ABS™ Signal Thrower™ may be used with any audio frequency range signal tracing device.

### **The ABS™ Signal Thrower™ has several unique features:**

- Three distinct signal types selectable from the front panel
- Auto-off after 3 hours of non-use
- Two signal power levels - full (HI) and half-amplitude (LO)
- RJ-11 jack allows use of different test leads
- Compact size
- Attaches to ABS™ Tester Master Unit

### **WARNING**

Do not attach to live AC circuits. This could cause an extreme shock hazard.

### **Instructions for Use**

#### **To send a signal**

- 1) Using test lead assembly, connect leads across the line or attach one lead to ground and the other lead to one wire of a cable or pair to be traced.
- 2) Press the button on the unit briefly to turn on the signal. If the desired signal power level indicator (HI or LO) is not blinking, press the button briefly until the correct signal power level is selected. The ABS™ Signal Thrower™ toggles through a HI-LO-OFF sequence.
- 3) Select a different signal type if desired as described in "Selecting and verifying a signal type" section.
- 4) To turn off the signal, press the button briefly. If it has been more than 15 seconds since the last press, the ABS™ Signal Thrower™ will go directly to OFF. If not, a second press may be necessary if the unit was set to HI power level.

### **Applications Hints**

When tracing wires terminated to a terminal block such as a "66 block," attaching both ABS™ Signal Thrower™ leads to the cable or pair tends to contain the signal within the wire. The tracer must nearly touch the end of the cable to detect the signal, which is helpful when the wires are close together as when terminated. A modular phone cable can be used as a test lead to connect the ABS™ Signal Thrower™ directly to a wall jack.

When tracing long cable runs and to maximize signal, connect one lead of the ABS™ Signal Thrower™ to the wire or cable and the other end to ground (case of an electrical box, electrical conduit, metallic water pipe or ground rod). If no ground is available, do not connect the other lead to anything, let it dangle as near to the earth as possible. To trace coaxial cables, connect the ABS™ Signal Thrower™ to the ungrounded shield, not the center conductor.

LO amplitude setting is useful if there is too much "bleeding" of the signal or the tracer being used has fixed volume and is overloading. (Note: The LO amplitude setting may actually generate a stronger signal when connecting both leads of the ABS™ Signal Thrower™ to a cable, due to the field canceling effect of having a signal and its return together, especially in twisted pair cable.)

### **Selecting or Verifying Signal Type Selected**

The ABS™ Signal Thrower™ has three distinctly different signal types available - one single/steady tone and two dual or warble tones.

- 1) Press and hold the front panel button until both the HI and LO LEDs turn on, this indicates entry into the tone selection function.
- 2) Continue holding the button down, one of the two LEDs will turn on steady or flash to indicate the currently selected tone. The Single LED will turn on steady to indicate the single tone is selected. The Dual LED will either flash for one of the dual signals or be on steady for the other. Releasing the button before two seconds have passed will leave the signal type unchanged.
- 3) To select another signal type, continue holding the button down until the desired type is displayed. The ABS™ Signal Thrower™ will continue to cycle through the three types until the button is released or the unit times out and turns off (10 to 12 seconds).

Hint: The currently selected signal type is generated at the RJ jack once the signal selection function is entered. Holding a tracer (the ABS) near the jack will allow the user to hear each signal type as it is selected.

### **Accessory Parts**

ABS™ Tester Module	62-180
Lead Set	K-8690
Cable Assembly	K-7919

### **Battery Replacement**

1. Remove both screws on the rear of the ABS™ Signal Thrower™ with a #1 Phillips screwdriver. Carefully open tester.
2. Remove old battery.
3. Install new battery (6V, A544 type or equivalent) with the + end of battery as indicated by the + molded into the bottom of the battery holder.
4. Close tester and replace screws. Do not over tighten.



## ABS™ Tester Instruction Sheet

The IDEAL ABS™ Tester (Almost a Butt Set) is a simple to use tester for basic troubleshooting of analog voice system installations. It monitors phone lines for dial tone quality and presence of power, tests for correct jack polarity (detects reversed tip and ring), and indicates call addressing for correct telephone extensions.

### ABS™ Tester

- Simple to use for basic troubleshooting of communication systems.
- Used for diagnostic work involved with analog voice system installation and maintenance.
- Will receive and reproduce telephone system dial tone for the purpose of determining the quality of the tone. (LISTEN function or OFF hook)
- Checks tip and ring jack polarity.
- Identifies presence of power. (AC and DC)
- Indicates call addressing for correct telephone extensions.
- Equipped for jack and cross-connect system access.
- Receives tracing signals for identifying specific conductors in a cable run. (TRACE function requires separate tone.
- Volume control to adjust test tones.
- Clip lead access for two center pins of RJ11 jack.
- 60 cycle noise rejection for clear tone detection
- Lanyard attachment point for hands free operation
- Drop resistant, moisture resistant case and speaker for long life durability.
- Replaceable line cord assembly to maximize life of tester
- Comes complete with 9 volt battery installed in tester
- Pocket sized

### WARNING

If OVERLOAD LED (Red) is illuminated and warning tone sounds, the telephone line being tested is a digital line. Toggle off the LISTEN button or remove the tester from the line within 30 seconds to avoid damage to the tester.

### Instructions for Use

#### To Monitor for Dial Tone Quality at a Modular Jack

1. Plug the ABS™ Tester into a phone system jack using a jumper cable (supplied with ABS™ Tester).
2. Turn Line Status switch to ON position.
3. The Line Status LEDs will show if the line under test has DC power and if it is wired correctly with a Green NORM LED
4. Push the LISTEN button, taking the line "off" hook and hear the dial tone.
5. Listen for good clean dial tone.
6. Push LISTEN again to end test.

*(Note: The LISTEN feature can be toggled on and left on without draining the battery. Some digital systems can be listened to depending on the digital system being tested.)*

#### To Monitor Dial Tone at a Cross Connect

1. Plug modular plug on clip jumper (supplied with ABS™ Tester) into ABS™ Tester jack.
2. Use clips to connect to appropriate contacts on cross connect terminals.
3. Push the LISTEN button, taking the line "off" hook and hear the dial tone.
4. Listen for good clean dial tone.
5. Push LISTEN again to end test.

*(Note: The LISTEN feature can be toggled on and left on without draining the battery. Some digital systems can be listened to depending on the digital system being tested.)*

#### To Detect Tracing Tone Signal

1. Push TRACE button and the probe end becomes active.
2. Hold TRACE to trace a line within a bundle of cables or to "tone out" a line on a punch down block.

#### To Detect Tracing Tone Signal at Wall Outlet

1. Plug the ABS™ into a wall outlet using a jumper cable (supplied with ABS™).
2. Push TRACE to hear tone if the line to that wall outlet has been activated with a signal from another source such as IDEAL ABS™ Signal Thrower™ #62-184 or IDEAL PathFinder™ #62-080.

#### Test for Line Status

1. Plug the ABS™ Tester into a wall outlet using a jumper cable.

#### Test Results:

- Green NORM lights when the communication line under test is powered up and the TIP pin/wire is positive with respect to the RING pin/wire and the phone is "on-hook".
- Red REV indicator will light if TIP and RING polarity are reversed.
- Both NORM and REV LEDs will be illuminated if an AC voltage is present.
- Both NORM and REV LEDs will flash if the line is ringing (for phone number verification).

#### Clip Lead Access

1. Attach alligator clips from butt set, tone generator, or other test equipment to large perforated test pads allow secure for access to the two center pins of an RJ11 jack.
2. The LINE STATUS switch can be in ON or OFF position when using test pads.

*Note: In the OFF position a 10K load is removed from the test terminal to the RJ11 interface circuit.*

#### Accessory Part

K-8343 Cable Assembly, RJ11/Alligator clips  
K-7919 RJ11/RJ11 Cable Assembly

#### Battery Replacement

1. Remove screws from back of case using a #1 Phillips screwdriver. Carefully open tester.
2. Remove old battery.
3. Install new battery (9 volt battery).
4. Close tester and replace screws. Do not over tighten.

Warranty limited solely to repair or replacement; no warranty of merchantability, fitness for a particular purpose or consequential damages.

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