

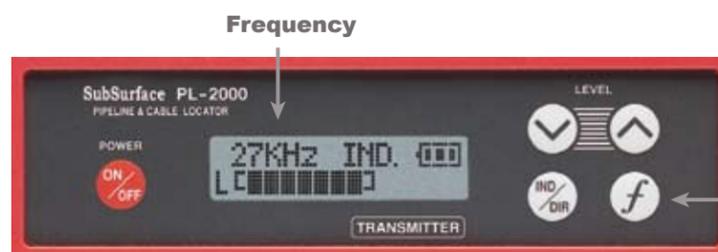
### Inductive Mode



**a.** Position the transmitter on the ground over the pipe or cable:



**b.** Choose either 27kHz or 8kHz frequency:



Frequency Selection Switch

**c.** Adjust the Output Power for either long distance (maximum power) or for short distance (save battery life):



Output Power level UP and DOWN Switches

Output Power level (shown at max.)

### Direct Connection Mode

**a.** Connect the Direct Mode cables to the transmitter, Ground stake, and the metal conductor to be located:

Connect to transmitter



Connect Red cable to conductor



Attach the clamp for the Red cable at a clean spot on conductor.

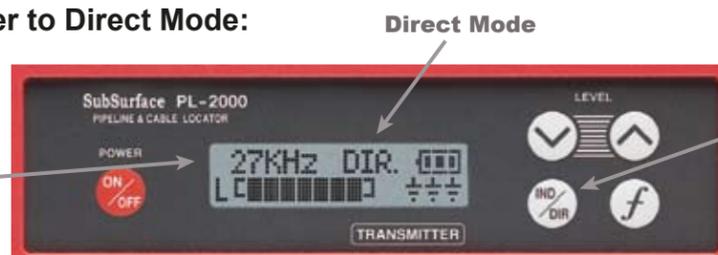
Connect Black cable to the Ground stake



Attach the clamp for the Black cable to the Ground stake. Position the Ground stake 5-15 feet from side of conductor.

**b.** Switch the transmitter to Direct Mode:

Displays 27kHz, 8kHz, 0.5kHz, or MIX



Direct Mode/Inductive Mode Selection Switch

**c.** Choose a frequency, or "MIX" for all 3 frequencies at once:

.5 kHz (512 Hz) or 8 kHz go the longest distances. .5 kHz requires a continuous, grounded conductor.



Frequency Selection Switch



**d.** Confirm that Ground connection is good:

Check the Red (pos.) cable for good contact too.



2 or 3 symbols for good Ground. A poor Ground is displayed: POOR  $\frac{1}{\equiv}$

**e.** If the Ground connection is poor, re-position the Ground stake and check both the Red cable and the Black cable for good contact. **Turn OFF power before touching metal stake or metal clamps!**



1. The Receiver must be operated facing in the direction of the pipeline or cable.

Turned 90 degrees from the pipeline or cable, there is no response at all.

2. When the receiver is turned ON, the Sensitivity is automatically adjusted depending upon the signal detected from the transmitter.

27 kHz Frequency

"Peak" Mode Selected

Numeric Display of Detected Signal



Sensitivity Setting (0 to 40)

Battery Power

Bar Graph of Detected Signal

3. Select the same frequency as selected at the transmitter for "active" locating, or select "Radio" or "50/60 Hz" for "passive" locating (no transmitter).

8 kHz Frequency

Frequency Selection Switch (choose 27 kHz, 8 kHz, .5 kHz, RADIO or 50/60 Hz)



Speaker Loudness

Backlight

Depth (available only for Peak and Sonde modes)

4. Select the Operating Mode depending whether you wish to locate a line with highest accuracy or longest distance, or you are locating a Sonde inside a pipe.

Peak mode has the highest accuracy locates, and DIST allows even longer distance locates. Null allows fast tracking.

Null Mode Selected

Line

Operating Mode Switch (choose Peak, Null, DIST, or Sonde)



Receiver on left of Line

Current Measurement

5. The receiver only locates the line in Peak Mode and DIST Mode when the bar graph is climbing on the sloped sections.

If the words "Excess Sens." appear, turn down the Sensitivity. If the bar graph is not climbing the sloped section at all, turn up the Sensitivity. Sensitivity must be increased as you walk further from the transmitter.

DIST Mode Selected

Bar Graph Climbing Slopes

Decrease Sensitivity



Sensitivity Setting (0 to 40)

Increase Sensitivity

6. The depth of the line or a sonde can be measured in the Peak Mode or the Sonde Mode only.

7. The receiver turns OFF automatically when no key has been touched for 5 minutes. The audio sound can be adjusted at the Speaker Key (right side) for louder, quieter, or no sound.

The receiver must be directly over the line. The rubber foot on the bottom should rest on the ground. Keep the receiver vertical and still.



Depth of line (inches)

Current Measurement (0 to 100 value)

Press the Depth Switch and wait a few seconds. Turn OFF depth by pressing again.