Description, Specifications And Standard Equipment

Description

The RIDGID® SeekTech ST-510 line transmitter is part of the RIDGID SeekTech cable and pipe locating system. The ST-510 is used to generate an “active” signal on a metallic underground line so that it may be traced with a compatible receiver such as the SeekTech SR-20 or SR-60. This allows the line’s location to be correctly marked so it can be exposed for repair or avoided during excavation.

The ST-510 line transmitter can apply an active tracing signal to a target conductor in three ways:

1. **Direct Connect Method** – The transmitter’s leads are connected directly to the target conductor and a suitable ground *(See page 8)*.
2. **Inductive Clamp Method** (optional accessory) – The jaws of the inductive clamp encircle the target conductor; there is no metal-to-metal contact *(See page 9)*.
3. **Inductive Mode** – The transmitter is placed over, and in-line with, a conductor. Its internal antenna induces a signal onto the target conductor *(See page 9)*.

Specifications

Power Source.....8 Alkaline or rechargeable batteries.(D-Cells)

High Voltage Indicator Features: AUTO Shut Off, Battery Saver Mode, AutoBack Light

Weight .....4.75 lbs (2.15 kg) w/o batteries, 7.5 lbs (3.4 kg) w/batteries

Dimensions:

Length .....7.0" (17.8 cm)

Width .....15" (38.1 cm)

Height.....6.5" (16.5 cm)

Cable Length .....48' Extended (14m); 46" contracted (1.1m)

Output Power .....Nominal 10 watts max. 1 watt maximum if frequency is above 45kHz. Maximum output voltage 30V RMS; ~ 48V peak

Power Settings: .....4 mA, 15 mA, 50 mA, 150 mA, 600 mA

Default Settings: .....60 Hz Mode, 2 Hr. Shutoff, 30V-RMS Maximum, SeekTech frequencies loaded

FCC Limits.....47 CFR 15.213 says that from 9kHz up to (but not including) 45kHz, peak output power shall not exceed 10 W. From 45kHz to 490kHz, it must not exceed 1W.

Standard Equipment

- SeekTech ST-510 Transmitter
- Direct connect leads and clips
- Operator’s Manual
- 8 D-cell batteries (Alkaline)
- Grounding Stake

Transmitter Components

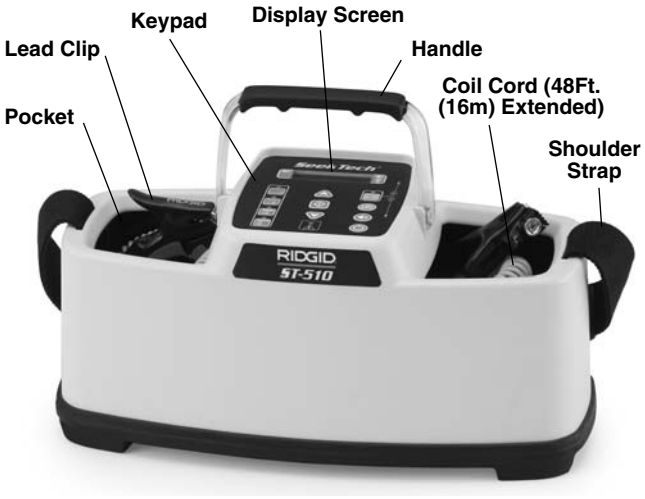


Figure 1 – Top View



Figure 2 – Back View



Figure 3 – Bottom View

Icon Legend

High Voltage Present

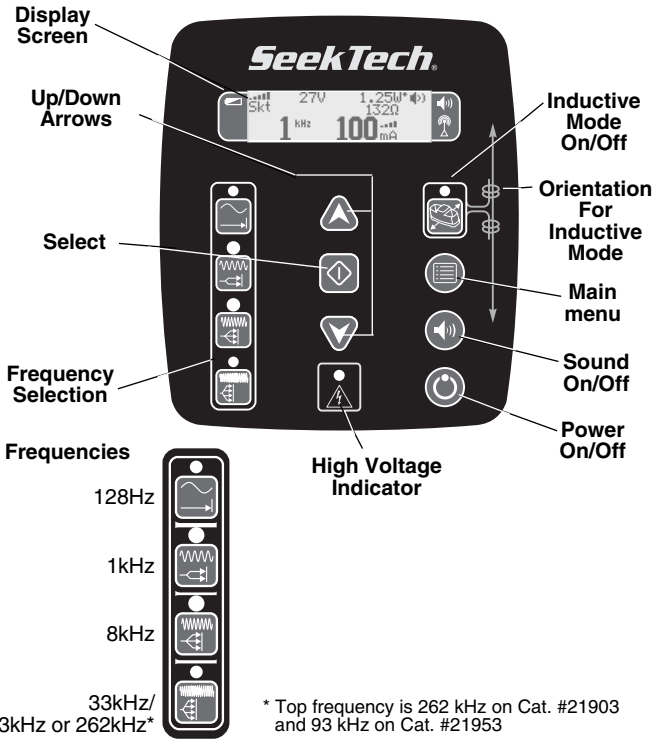
Safety Alert

Power ON/OFF

External Power 12-15VDC

Inductive Clamp

Keypad



* Top frequency is 262 kHz on Cat. #21903 and 93 kHz on Cat. #21953

Figure 4 – Keypad

Display Screen

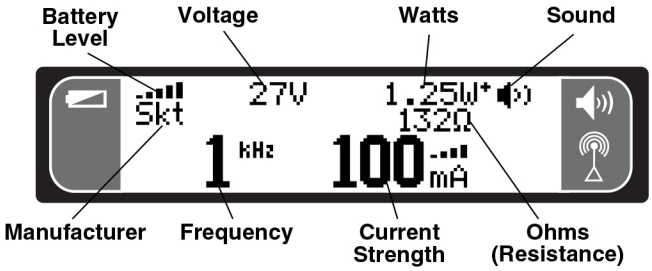


Figure 5 – Display Screen

- **Battery Level** – Shows remaining battery power in 5 steps.
- **Manufacturer** – Shows the manufacturer's frequency set being used (default is SeekTech).
- **Voltage** – Voltage that is applied to the leads. This may say MAX, indicating the voltage is at its highest allowable point (~80 V peak-to-peak, ~30V RMS (square wave)).
- **Current Strength** – current flowing through the circuit in milliamps (mA).
- **Sound** – Indicates if sound is ON or OFF.
- **Ohms (resistance)** – This shows the approximate resistance in the circuit.
- **Watts (Power)** – Total power that the transmitter is putting out. In Battery Saver mode, this is absent.
- **Frequency** – Frequency being used.