

The Signal Detector (PN 370-0140-001) was designed to allow for activation verification of implants transmitting at 455 kHz, 8 MHz (e.g. 4ET-S1) and 18 MHz (e.g. 4ET-S2 and HD-S11-F2) frequencies. Visual and audio indicators on the Signal Detector are used to determine if the implants are actively transmitting. The corresponding model name designations for the frequencies are as follows:

- 455 kHz = F0
- 8 MHz = F1
- 18 MHz = F2

### Compatibility:

The Signal Detector is compatible with all DSI implants other than PhysioTel Digital. This includes HD implants as well as 4ET, F10, F20, F40, F50, or D70 implants.

### Batteries:

The Signal Detector is shipped without batteries installed. It requires two AA batteries and is shipped with a box of four AA batteries. Before first use, open the battery compartment and install two AA batteries in the indicated “+” and “-” polarity.

The Signal Detector is shipped with EN91 Energizer alkaline AA batteries but will accept any standard AA 1.5v alkaline battery. Continuous-use battery life with the EN91 batteries can vary from 2 days with no audio to 10 hours at high audio and high signal. If longer battery life is desired, Lithium Iron Disulfide AA batteries can also be used.

The red Power LED will begin to flash when the batteries are near depletion and should be replaced. It is very important to turn the Signal Detector OFF when not in actual use to maximize the life of the batteries.

### Use Instructions:

- Use the thumbwheel to turn ON the Signal Detector. Power LED will light and all three receivers/detectors will be active.
- Implant ON/OFF state can be determined from the LED indicators or audio. The LEDs will indicate which frequency is being received but the audio will not. The audio is a composite from the signals on all three frequencies.
- If audio is desired, set thumbwheel to the preferred volume. Audio may be useful for ON/OFF determination if the user’s vision needs to be focused elsewhere. Audio may also be useful to determine if pressure or biopotential channels are viable during surgery or after implant.
- The antennas for the three receivers are in the end of the housing unit where the “DSI” logo is located. This end should be nearest the implant(s) during use.
- The LED indicators will light when a rat or mouse implant is within about 8 inches of the Signal Detector in optimum orientation. For D70 implants, this distance will be significantly greater.
- Receive range is directional and is therefore dependent on orientation with respect to the implant.