

STEELMAN® Mini EngineEAR®

ELECTRONIC STETHOSCOPE & VIBRATION DETECTOR

Battery Installation:

1. Remove battery compartment cover from LEFT side of hand set.
2. Install AA battery (included) into battery compartment.
3. Reinstall battery compartment cover onto LEFT side of hand set.

Set-Up:

1. Attach earphones by plugging into connector located on the BOTTOM of the hand set.
NOTE: Turn rotary switch on hand set to the "OFF" position **BEFORE** placing earphones into ears.
2. Place earphones into ears. Turn rotary switch to the "ON" position. Volume will be on low. Continue turning rotary switch, slowly increasing volume to the desired level.
NOTE: Mini EngineEAR® electronically amplifies sound. Mini EngineEAR® will provide clear sound around most automotive components and assemblies. Occasional static interference around the ignition coils and/or distributors may occur on some automobiles.

Electronic Stethoscope Mode:

1. Place sensing tip as close as possible to suspect area.
2. When possible, place sensor tip flush on housing. Keeping the sensor tip flush against the suspected component will help to minimize outside noise.
3. When an extended reach is required, or when working near hot surfaces the inductive metal probe can be inserted onto the end of the sensing tip. By allowing the probe to make contact with the suspected problem area, this probe will sense even the faintest vibrations and transmit them to the microphone located inside of the sensing tip.

Inductive Clamp Mode:

Under Car:

1. Attach sensor clamp to the first suspected problem area on the chassis of the vehicle.
2. Run the lead wire to the passenger compartment of vehicle. Take care to run lead so that it is clear of any moving parts and heat sources. Secure the lead so that it cannot drag on pavement and become damaged during vehicle road test. Attach plug at end of lead wire to connector located on the LEFT side of hand set.

CAUTION: IT IS HIGHLY RECOMMENDED THAT THE PERSON OPERATING THIS TOOL SIT IN THE PASSENGER SEAT OF VEHICLE AND USE A SECOND PERSON TO DRIVE THE VEHICLE. IT IS AGAINST MANY STATE MOTOR VEHICLE LAWS TO OPERATE A VEHICLE WHILE WEARING HEADPHONES.

3. Test drive vehicle while listening to suspected area.
4. After test driving vehicle and listening to the first suspect area, record notes.
5. If further diagnosis is required, reposition sensor clamp to second suspect area and repeat steps 1-4. Repeat steps 1-4 until all suspected areas have been tested.

Under Hood:

Fuel Injectors – The condition of fuel injectors can be checked quickly and easily using this tool. By connecting the sensor clamp to the body of a fuel injector, a tapping sound produced by the electrical solenoid inside the injector can be heard. If a clear metal-to-metal "ringing" sound is heard the injector is clean. If the dull "thud" sound is heard, it is usually an indication that deposits have built-up inside of the injector and cleaning or servicing may be required.

NOTE: It is important to listen to the injectors before and after cleaning to confirm that all injectors are performing properly.