

STEELMAN[®]



SPECIFICATIONS

PART NO.	DESCRIPTION
06600	ELECTRONIC SQUEAK & RATTLE FINDER

ChassisEAR[®]

OPERATING INFORMATION

CAUTION:

It is against many state laws to operate a motor vehicle while wearing earphones.

STEELMAN® ChassisEAR® is a versatile electronic listening tool which is designed to allow the user to listen to amplified sounds through a speaker or earphones DURING a road test.

NOTE:

Changes or modifications to this equipment not expressly approved by **STEELMAN**® could void the user's warranty.

Only Cable Leads/Clamps supplied with this equipment must be used.

There are up to 6 extremely sensitive microphones/clamps that can be attached to many difficult to diagnose vehicle parts. (see under "How to Use")

Some of these vehicle parts/areas include:

- | | |
|-----------------------------|--------------------------|
| 1. Wheel Bearings | 9. Fuel Injectors |
| 2. Brake Calipers | 10. Alternators |
| 3. C.V. Joints | 11. Water Pumps |
| 4. Leaf and Coil Springs | 12. Smog Pumps |
| 5. Differentials | 13. Power Steering Pumps |
| 6. Transmissions | 14. AC Compressors |
| 7. Body Squeaks and Rattles | 15. Industrial Equipment |
| 8. Under the Dash | |

During a road test under load, these parts make different sounds than when the car is on a hoist. In order to accurately diagnose an under car problem, the car must be driven during diagnoses so that all parts and bearings are under a full load.

Before using the ChassisEAR® for the first time, please review the components.

KIT CONTENTS				
Description	QTY	Part no.	Description	QTY
Control Unit	1	06610	Velcro Straps	12
Headphones	1	HD-6060N	Nylon Straps	12
6pc - Lead w/ Clamps	1 Set	06635	9-volt Battery	1
Microphone clamp with 16 foot lead (Red)	1	06630-R	Vinyl Pouch	1
Microphone clamp with 16 foot lead (Green)	1	06630-G	Location Identifier Note Pad (25 sheets per pad)	1
Microphone clamp with 16 foot lead (White)	1	06630-W	Instruction Manual	1
Microphone clamp with 16 foot lead (Pink)	1	06630-P		
Microphone clamp with 16 foot lead (Blue)	1	06630-B		
Microphone clamp with 16 foot lead (Yellow)	1	06630-Y		

How to Use:

1) With the vehicle elevated, attach the clamps to the suspect areas. If, for example, you suspect there is a bad wheel bearing, attach the clamps, one each, per wheel bearing. Put the clamp on the tie rod or knuckle close to the inside of the wheel. In order to generate an exact cross-comparison of sounds, place the clamp on identical opposite locations. Attach the other two clamps to the transmission and differential, since many times what you think is a wheel bearing turns out to be something different. Or, if you suspect a brake problem, attach the 4 clamps adjacent to the brakes. The closer the clamp is positioned to the suspected problem, the better sound reproduction you will get.

2) Run the wire leads to the passenger front seat and connect the jack from each wire lead into the control box. Match the color to the number, i.e., the red jack is plugged into input jack #1, green is plugged into #2, and so forth.

3) Using the location identifier note pad, record information on note pad of the location and corresponding channel for each microphone/clamp. This will allow you to properly assign the problem noise to the proper malfunctioning part while conducting the road test.

4) Using the nylon and velcro ties that are provided (more can be purchased from your STEELMAN distributor when needed), secure the leads under the car so that they do not drag on the pavement. Be careful to avoid running the leads against the exhaust pipe or any other location which would cause heat damage.

CAUTION:

It is highly recommended that the technician wearing the headphones sits on the passenger side and use a second person to drive the car. It is against many state laws to operate a motor vehicle while wearing earphones.

5) Lower the vehicle and conduct the road test. During test, turn on the "on/off volume control" switch. On the #1 setting, (Red color), adjust volume control to desired level. Various levels may reveal additional sounds and problems. Initially, make a mental note of the sounds that you hear. Now rotate selection switch to the next channel that indicated a wheel bearing. You may make instant cross-comparisons between the two channels by rotating the selection switch back and forth between #1 and #2 channel. Now test the third channel. Then test the fourth, fifth, and sixth. After making the cross-comparisons between all four wheel bearings, make a note of the color/channel number where the problem exists.

6) Next listen to the other two channels to assure that there is not a problem sound located in these areas.

IMPORTANT:

Make notes while driving (being cautious) as to what is heard on each channel (rattles, squeaks, grinding, whining, etc.). When you have returned to the shop, you can then zero in on the exact location of the noise/problem.

FUEL INJECTORS:

It is quick and easy to hook up the ChassisEAR® clamps on the fuel injectors. The "tapping" solenoids are easily heard. If a clear metal-to-metal "ringing" sound is heard, then the injector is clean. If the "needle" inside the solenoid is making a dull "thud", then a deposit buildup more than likely exists inside the injector. A cleaning of the injectors is suggested. It is important to listen to the injectors before and after cleaning in case one is still dirty after cleaning

LIMITED WARRANTY

STEELMAN® JS Products, Inc. has carefully examined each product at the time of manufacturing and warrants workmanship at the time of shipment. This warranty applies only to the original consumer/purchaser and is not valid if the product is misused, or if accidental damages occur. **STEELMAN®** JS Products, Inc. assumes no direct or indirect liability for incidental or consequential damages resulting from the use of its products. This warranty commences on the date of the original consumer purchase, and extends for 90 Days thereafter.

In the event of a defect or malfunction of a product, wherein repair or replacement should be necessary, call the Customer Service Department at 1-800-255-7011 for complete instructions on how to return the product for warranty repair or replacement. The original consumer/purchaser must provide a copy of the Bill of Sale or Invoice showing the date on which the purchase was made. After the (ninety) 90 Day Period, **STEELMAN®** JS Products, Inc. will charge a service charge for all parts and labor. Inbound and outbound freight will be paid by the consumer/purchaser.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. Additionally, some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you.

This warranty gives specific legal rights, and there may be other rights which vary from state to state.

STEELMAN®

JS Products, Inc. • 5440 S. Procyon St. • Las Vegas, NV 89118
Phone: 702-362-7011 • Fax: 775-898-8773 • www.steelmantools.com