

Mechanic's Stethoscope DB10-MS220



Product Description

Widely used in ship, automobile, chemical manufacture, metallurgy, machine, household appliance and many other fields.

- * It can pick up and amplify the weak audio signals via a sensitive piezoelectric sensor, and distinguish the normal/abnormal signal and its location.
- * Designed to help locate the source of excess bearing and machine noise easily at low cost.
- * Used to quickly locate the source of engine noise such as piston slap, worn gears and bearings, blown gaskets. Also useful tracking down dashboard rattles and squeaks.

Product Parameters

Frequency Range	10~10K Hz
Input Impedance	> 20 M
Ambient Noise Permitted	100 dB
Power Supply	4 x 1.5V AAA Size (UM-4) Battery
Dimensions	156x67x28 mm
Weight	270 g (Not Including Batteries)
Standard Accessories	Main Unit
	Powerful Rare Earth Magnet
	Sensor
	Probe (Cone)
	Carrying Case
	Manual Book
Optional Accessories	Headset

Vibration Standard

Quality Rank	Rev (rpm)	ISO/IS2373 Motor Quality Standard According As Vibration Velocity		
		H: high of shaft (mm)		
		80<H<132	132<H<225	225<H<400
Normal	600~3600	1.8	2.8	4.5
Good (R)	600~1800	0.71	1.12	1.8
	1800~3600	1.12	1.8	2.8
Excellent (S)	600~1800	0.45	0.71	1.12
	1800~3600	0.71	1.12	1.8



This Mechanic's Stethoscope is small in size, light in weight, easy to carry. Although complex and advanced, it is convenient to use and operate. Its ruggedness will allow many years of use if proper operating techniques are followed. Please read the following instructions carefully and always keep this manual within easy reach.

4. Configuration

The unit consists of 2 separate probes, an earphone set and main part.



4.1 Sensors	4.7 Volume up
4.2 Signal LED bar	4.8 Volume down
4.3 Channel select key	4.9 Stinger probe
4.4 Channel indicator LED	4.10 Battery cover
4.5 Earphone set	4.11 Power key
4.6 Earphone jack	4.12 High power magnetic holder

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1. General Description

* Widely used in ship, automobile, chemical manufacture, metallurgy, machine, household appliance and many other fields. It can pick up and amplify the weak audio signals via a sensitive piezoelectric sensor, and distinguish the normal/abnormal signal and its location.

- * Designed to help locate the source of excess bearing and machine noise easily at low cost. It is an ideal easy to use listening device for mechanical generated noise in all types of applications.

* Used to quickly locate the source of engine noise such as piston slap, worn gears and bearings, damaged valves, water pump failure, blown gaskets. Also useful tracking down dashboard rattles and squeaks.

2. Main applications

* Rapidly detect the machine noise from a diesel engine, an air cylinder or an automobile, and exactly find out the malfunction position.

- * Used to check the piston slap, worn gears, damaged valves and bearings, water pump failure in industry.

1.

2.

5. Operation

- 5.1 Slide the battery cover and install batteries. Pay attention to the battery poles.
- 5.2 Fix the magnetic base or a stinger probe (cone or ball) to the sensors.
- 5.3 Connect the sensors to the main unit.
- 5.4 Plug in the earphone to the earphone jack.
- 5.5 press the power key to switch on the stethoscope and the LED lights to indicate that the unit works.
- 5.6 Press the Mode key to select the working sensor. One can select Left (mono), Right(mono), or both channels (stereo) to monitor.
- 5.7 Lightly touch the probe with your hand, you will hear the response sound from the earphone. That means that you can start your detection.
- 5.8 Adjust the volume key for a desire volume.
- 5.9 Touch the end of probe or magnetic base to the positions to be monitored. Pay attention to any sound change from the earphone.

5.10 Finally you can locate the position where a certain noise comes from. According to the experience and the relevant knowledge, you can easily find the hidden trouble or the position where the malfunction exists. The 3.5 mm jack socket tape output can also be fed into an audio tape recorder to store the data for either further analysis or as a reference for future comparison.

5.

- * Monitor the automatic assembly line to ensure proper operation.
- * Identify the abnormal noise from an engine or a motor to avoid accident.
- * Monitor the working of all kinds of axletrees.
- * Monitor the working of a ship or vessel.
- * Used in chemical industry to check whether the liquid in a pipe is flowing or blocked.
- * Used in the maintenance of various vehicles.

3. Specifications

Frequency range: 10-10KHz
Input Impedance: >20M
Ambient Noise permitted: 100dB
Working Temperature: -10~60°C
Power supply: 4x1.5 AAA batteries
Size: 156×67×28mm
Weight: 270 g(including sensors)