

Getting Started

- Remove battery door by sliding down to unlatch
- Remove clear plastic wrap from battery and connect to IB-FH168 battery connector
- Download Polarity Test Tones from <http://metraonline.com/part/IB-FH168> and save them to your mobile device or USB drive
- Insert the USB drive in a compatible port on the system being tested, or connect your mobile device via an AUX cable. (in some cases, Bluetooth connections will not pass the necessary test tones properly)

Testing

1. Reduce ambient noise in the testing area as much as possible before measuring. Other systems playing, fans and HVAC in the vehicle, wind and loud noises will make it difficult to get good results.
2. Balance and fade the system so that only the speaker being tested is playing. Multiple speakers playing simultaneously will corrupt the measurements.
3. Set the volume of the source unit to between $\frac{1}{2}$ and $\frac{3}{4}$ volume. The tones need be loud enough for the tool to accurately distinguish polarity. If too quiet, the tool will display random information.
4. Orient the IB-FH168 tool so that the round microphone hole on the front of the device is 4-6" away from and centered on the mounted speaker. Off angle testing or placing the tool too far away or too close can cause incorrect readings. Testing an unmounted speaker will cause erroneous readings since the front and rear of the speaker emits sounds that are in opposite polarity to one another.
5. With the test tone playing, press and hold the "Test" button on the face of the tool. A speaker wired in correct polarity will cause the green LED of the tool to flash three times followed by one flash of the red LED. This pattern will repeat for as long as the test button is held.
6. If the tool displays three red flashes followed by one green, the polarity has tested to be reversed and the wiring at the radio, amplifier or speaker is connected improperly. Proper sound can be achieved by reversing the polarity at any point, but best practice is to correct the wiring where the problem originates to avoid confusion for any technicians revisiting the system wiring in the future.
7. The "Low Battery" LED will display when the included 9V battery is discharged to the point that accurate measurements cannot be made. For best results, replace with a good quality 9V alkaline battery when needed.

