

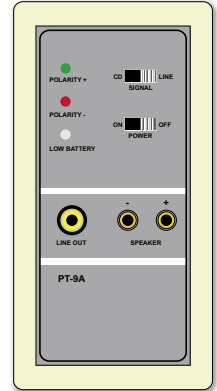


HOW TO

HOW TO USE THE PT9A PHASE TESTER

The goal of any audio system with multiple speakers is to reproduce sound energy so that the phase between all speakers is complimentary (rather than destructive). This means all speakers in the system need to be working together. The PT-9A allows the install technician to verify the absolute phase of each speaker in the system, both individually and as a group using a combination of internally generated pulses and pulses from the test CD. Simple **GREEN** or **RED** light pulses on the front of the instrument indicate the overall condition of the speaker(s) being evaluated in real time while installed in their final position(s) in the vehicle. It can't get much more accurate than that!

The PT-9A features an internal pulse generator output that simultaneously processes speaker pulses through the built-in microphone located on the front of the instrument. This allows the unit to be entirely self contained. The internal generator provides evenly spaced, positive (pressure) pulses to both the line level jack and speaker level outputs for the duration of time the unit is on. The LINE LEVEL signal is sufficient to drive signal processor and amplifier inputs. The SPEAKER LEVEL signal is sufficient to drive a speaker directly. To use the internal pulse generator, be sure the signal switch is in the LINE position. Alternatively, the PT-9A can use only the built-in microphone to "hear" pulses generated by an external source, such as the test CD provided. The test CD uses a sequence of 3 positive pulses followed by one negative pulse. Whenever the CD plays the pulse track (Track 3), the speakers in the system will follow this pulsing sequence. To use only the built in microphone and pulses from an external source, be sure the signal switch is in the "CD" position.




If the system is already up and running you can use the Test CD on track 3 to allow the instrument to "listen" for the pulse signals. Position it near the speaker and watch for 3 green pulses followed by 1 red pulse.



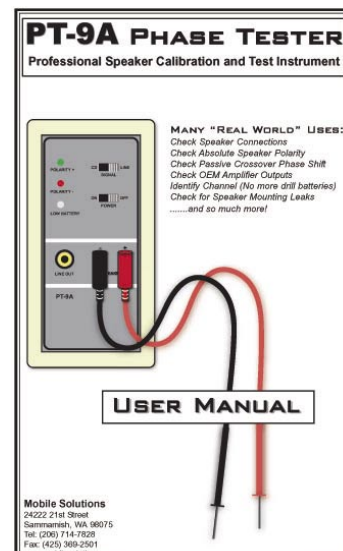
When you are using the PT-9A in the "LINE" position for testing speakers directly, you may want to attach alligator clip leads to the probes and to the speaker terminal so you don't have to fumble with holding the probes in place.



You can also use the PT-9A to test raw speakers to make sure the terminals are as marked. Often in manufacturing these can be reversed without you knowing it until you realize something just doesn't sound right. This is also an important step in setting up an SQ or SPL car. You can even check for phase shift through the passive crossover!



PT-9A Phase Tester with Test CD



PT-9A User's Manual