Zip Products Tachometer Signal Generator

Thank you for purchasing Zip Corvette # TL-182 Tachometer Signal Generator. The purpose of this tool is to accurately calibrate your electronic tachometer. Perfect for 1975-1982 Corvette owners installing a new tachometer circuit board (with adjustment pot) or 1953-1974 Corvette owners upgraded to an electronic tachometer conversion. All you will need is a 12v power supply or 12v battery to operate this tool.

1. On the LH side of the signal generator, you will notice a red wire and a black wire. This is the positive and ground that you will hook up to your battery and your tachometer. Use two jumper leads to supply power to the tachometer from the battery. Red = positive and Black = ground

2. The tachometer signal wire green wire on the RH side, do not connect to your tachometer at this time.

3. Place your tachometer needle at zero RPM.

4. With both your tachometer and the signal generator connected to power and ground, the signal generator will display at the top frequency output and duty cycle at the bottom. There are four buttons on the bottom of the signal generator - plus and minus to adjust both frequency and duty cycle. Left side controls frequency, right side controls duty cycle.

5. Set the duty cycle to 50% using the adjustment buttons. This setting will remain constant throughout the calibration. Now connected the green wire to the signal side of your Corvette's tachometer.

6. Set the frequency of your signal generator to 100. While you are adjusting, the display will indicate "set" and after two seconds it will display "out". The specific frequency (Hz) that is now being output.

7. This signal generator is designed to work for both standard V8 and a LS V8 engines, but the frequency will represent two different RPM measurements; it is important to know which one you are calibrating. For a standard V8 engine, the signal generator Frequency is multiplied by 60 and divided by 4. Example: (100*60)/4 = 1500 RPMs. The LS engine RPM is doubled, the correct formula is (100*60)/2 = 3000 RPMs. It is important to use the correct formula for your respective engine type.

8. To adjust the electronic tachometer, start by setting the signal generator at 100Hz and noting the RPM needle indicator on your tachometer. It should be registering 1500 RPMs on your standard V8. If it is close, leave it there for now.

9. Now adjust your frequency to 400Hz and note the position of the tachometer needle indicator. It should be 6000 RPMs. This is where you want to make your adjustments. If your tachometer is not accurate, use a small screwdriver to adjust the screw (adjusting pot) on the tachometer circuit board to align the needle to 6000 RPMs. Once you have corrected the upper RPM measurement, change the frequency to 40Hz. The tachometer needle should indicate 600 RPM. If the needle is within 10% of the low RPM, then the tachometer is accurately calibrated.

Note: There are no absolutely accurate tachometers, they can be off as much as 10%. Most OEM gauges will be even less accurate. It is much better to be off 10% at the low RPM than at the higher RPM. The tachometer signal generator gives you the ability to dial in your higher RPM levels to ensure your

tachometer is reading correctly in the most vital area. Fine tuning can be done by making small changes so the gauge is close on both sides but remember it's more important to be accurate at the upper level.

10. Once your tachometer is accurately calibrated, un-hook the power leads and signal wire and your tachometer is ready for installation into your Corvette's dash panel.