P/N: 001-72501

Instruction Sheet For P/N 150-10001:
60(-2) Tooth Crank Trigger Simulator w/ Cam Sync

Overview:

The Electromotive Crank Trigger Simulator is a useful tool for diagnosing problems with your Electromotive Ignition or Engine Management System. It duplicates the waveform output of a perfect 60(-2) tooth crank trigger wheel, and is adjustable from 0-16000 rpm. Also included is a cam sync pulse, which can be used to simulate a sequential engine management setup. This pulse occurs every other revolution, just as a cam trigger would.

Wiring:

The Crank Trigger Simulator comes with a standard 3-wire female weather-pack connector. This connector is the same as the one on the crank sensors sold by Electromotive, and as such, it should plug into your existing wiring with no modifications.

The Black wire coming out of the simulator is the Crank/Cam Ground Wire. Connect this wire to TEC-3 terminal G4, or to the black 22awg wire on the HPX.

The Red wire on the simulator is the crank trigger. Connect this to TEC-3 terminal G9, or to the red 22awg wire on the HPX.

The Green wire is the cam sync wire. Connect this to TEC-3 terminal G10. When this wire is used, the black wire from the TEC-3 cam cable MUST be connected to the black wire from the crank trigger simulator.

Shield wires are not needed with the crank trigger simulator.

Functionality:

Using the Crank Trigger Simulator is simple. The knob on the unit is used to vary the rpm of the input signal. Note that there is an off position on the knob. **When the unit is not in use, always turn it off**. This will keep the 9-volt battery in the unit from running out prematurely.

For situations where a very small rpm window is desired (instead of the large 0-16000 rpm range), the rear cover can be removed to reveal two knobs on the circuit board. These knobs represent a “low” and “high” adjustment. Looking at the knob on the left, it should be turned fully counterclockwise for full range functionality. If it is moved clockwise, the low rpm value will be moved higher. Conversely, the knob on the right should be turned fully clockwise for full-range functionality. If it is moved counterclockwise, the high rpm value will be moved lower. This feature allows a narrow rpm band to be tuned in with full-range knob adjustment on the front panel.

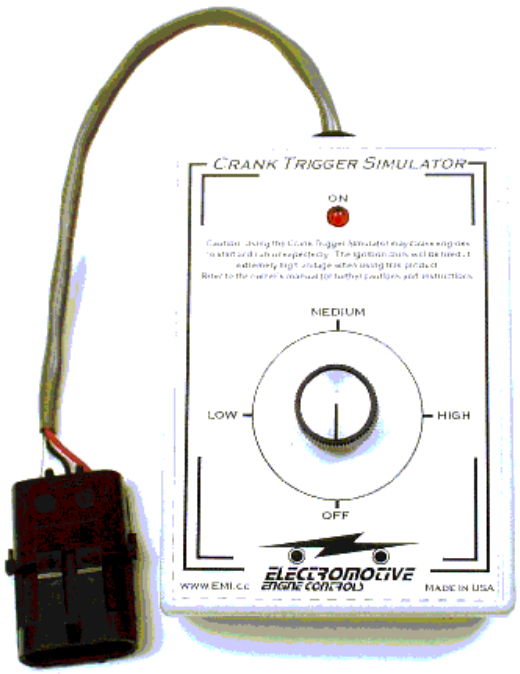
Use of the Crank Trigger Simulator is ideal for HPX applications where tuning of the exact timing level at different rpm points is desired. Setting the rev limiters on HPX's is also accomplished quite easily with the aid of the Crank Trigger Simulator. It is also useful to test an engine for problems that appear to be rpm-related.

Caution:

The Crank Trigger Simulator will fire the spark plugs when it is turned on. It will also fire the injectors on a TEC system. Keeping these facts in mind, it is very possible to turn over a non-running engine with the simulator. In some cases, it may even start the engine! USE EXTREME CAUTION when using the simulator, particularly on carbureted engines. If an engine starts when using the Crank Trigger Simulator, simply turn the knob down to zero rpm.

If the spark plug wires are disconnected from the coils themselves, be aware that the spark will arc the gap between the coil towers. DO NOT TOUCH THIS SPARK! It is extremely painful, and possibly deadly.

Fuel injected applications should either disconnect the fuel injector connectors, or remove the fuel supply to the injectors. Failure to do so will result in the cylinders being filled with fuel when running the Simulator.



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