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Viewed:	44		

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Title: PicoScope Test 12V Electrical Noise Detection

Applies To: All International / IC and Other Makes & Models

CHANGE LOG

Please refer to the change log text box below for recent changes to this article:

08/19/2022 - Initial Article Release

DESCRIPTION

This procedure was created to guide a technician through proper diagnostic steps of detecting electrical noise (RFI / RF) induced concerns that can create intermittent symptoms or fault codes.

SYMPTOM(s)

Electrical noise (RFI) can affect proper operation of comercial vehicle electrical systems. Some items that can create this concern are battery chargers, alternator, ignition components, 12-120 volt AC inverters, TEM equipment, power supplies, 2-way radios and other electrical devices and equipment.

SPECIAL TOOL(s) or SOFTWARE

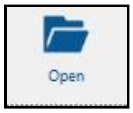
Tool Description	Tool Number	Notes
PicoScope	1211210	
Breakout Adapters	Engine & Model Dependant	

DIAGNOSTIC STEP(s)

1. Open PicoScope software.

2. Install Pico leads and test probes.

3. Open folder and highlight 12V Electrical Noise file.



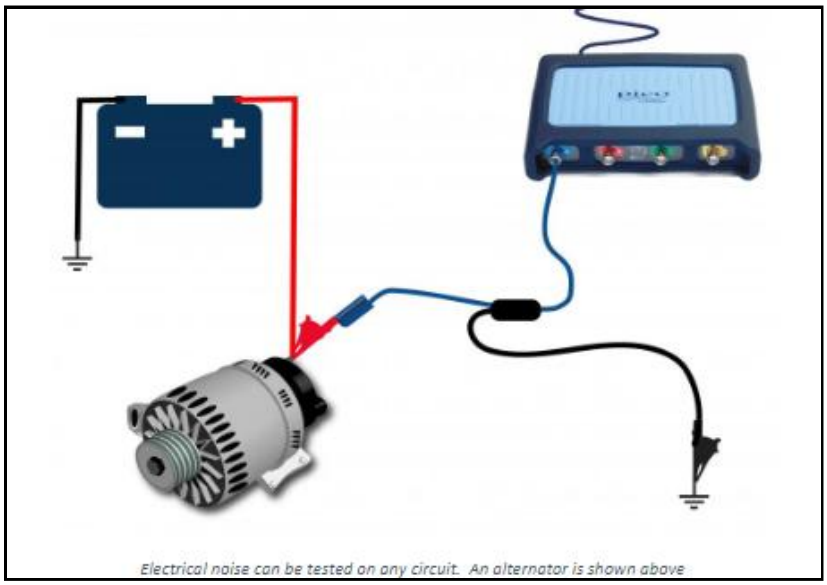
4. Connect the PicoScope to the electrical circuits in question.

   a. If necessary four circuits can be monitored at the same time.

   b. In some cases you may need to monitor a datalink circuit to verify if the electrical noise is affecting this circuit.

5. Open Electrical Noise set-up file.

6. Connect the PicoScope to the circuit in question. Monitor and review recordings to identify concern.



Electrical noise can be tested on any circuit. An alternator is shown above

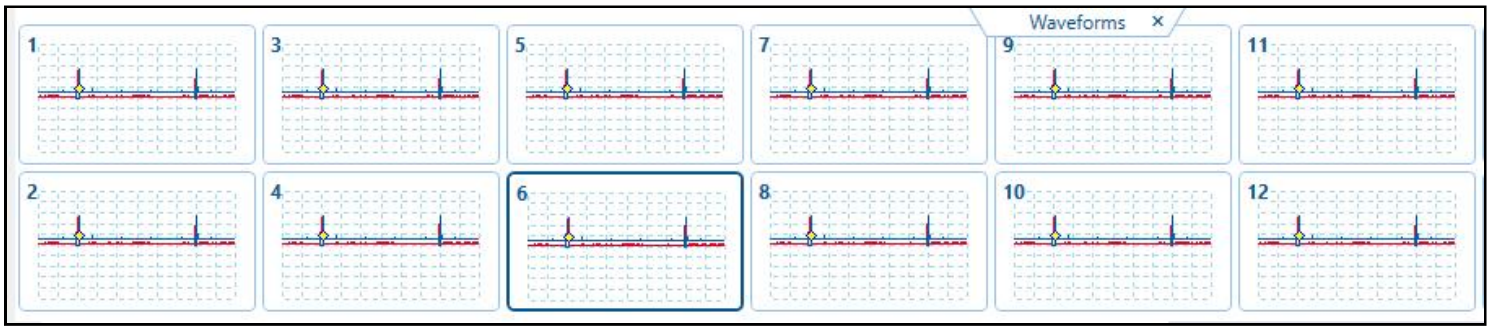
7. Begin operation tap on **RUNNING**.

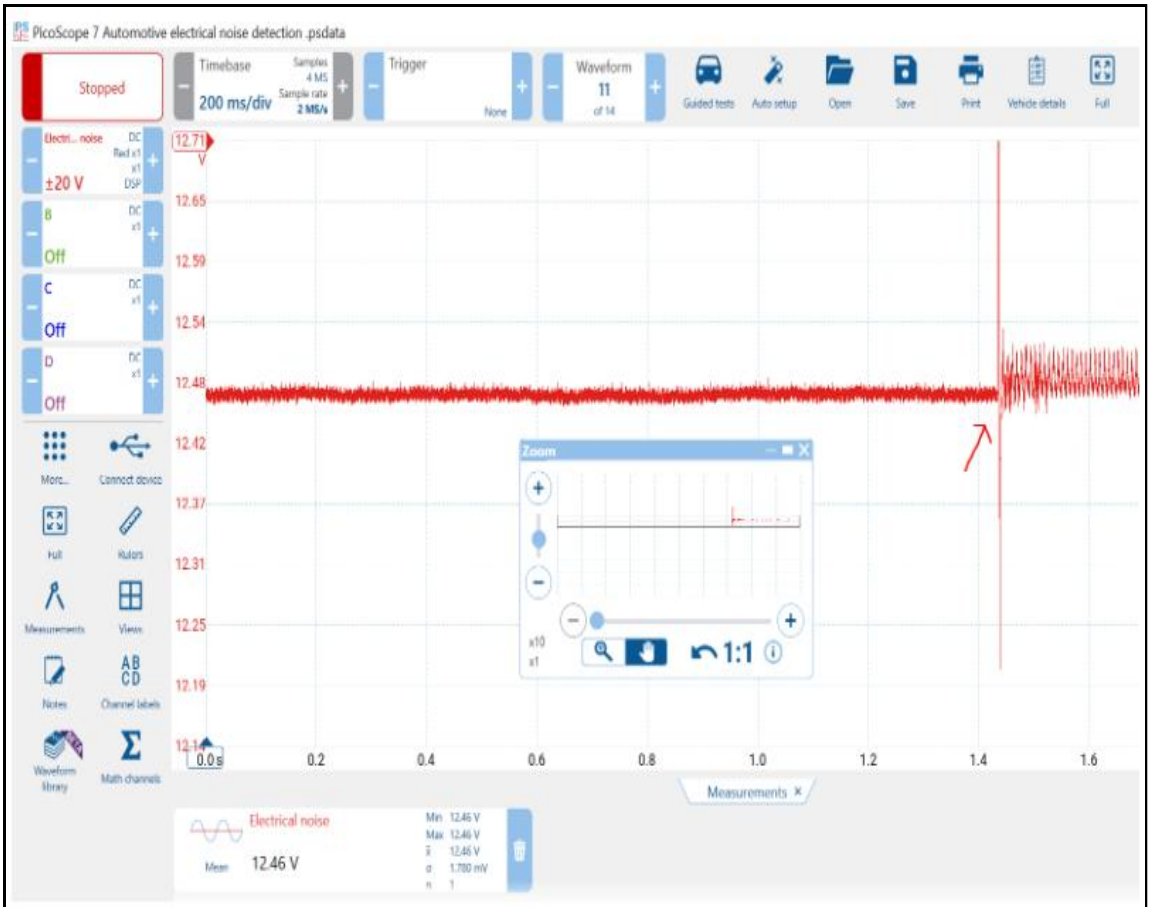
8. After the concern has been identified tap on **STOPPED.**

9. Review recordings **WAVEFORM *see examples below***.

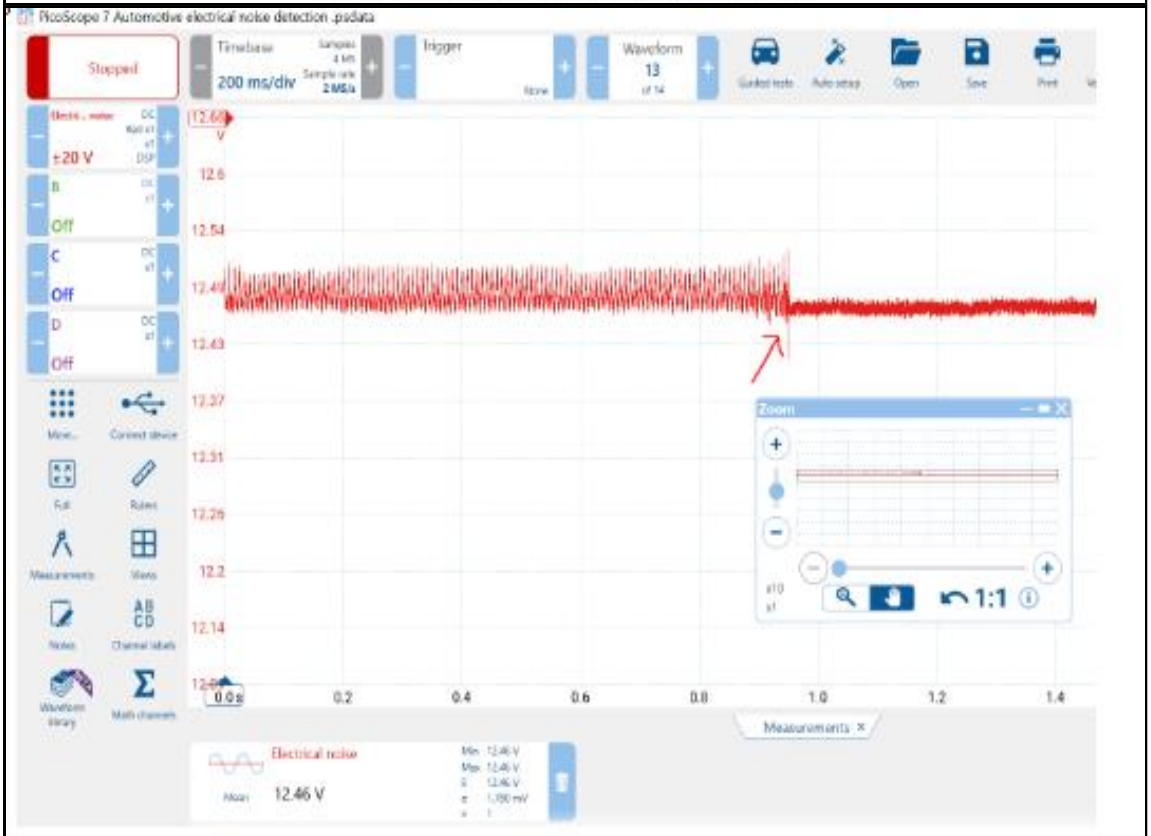
DATA ANALYSIS

Review each recording to help identify when a concern occurs by expanding out each graph and adjusting **time and division.**





The undesirable electrical noise begins at the arrow above



The electrical noise in this circuit stops at the arrow

WARRANTY INFORMATION

Warranty Claim Coding:

Refer to the SRT Manual for Repair Times if none are present refer to T-time policy.

Standard Repair Time(s):

Refer to the SRT Manual for Repair Times

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