

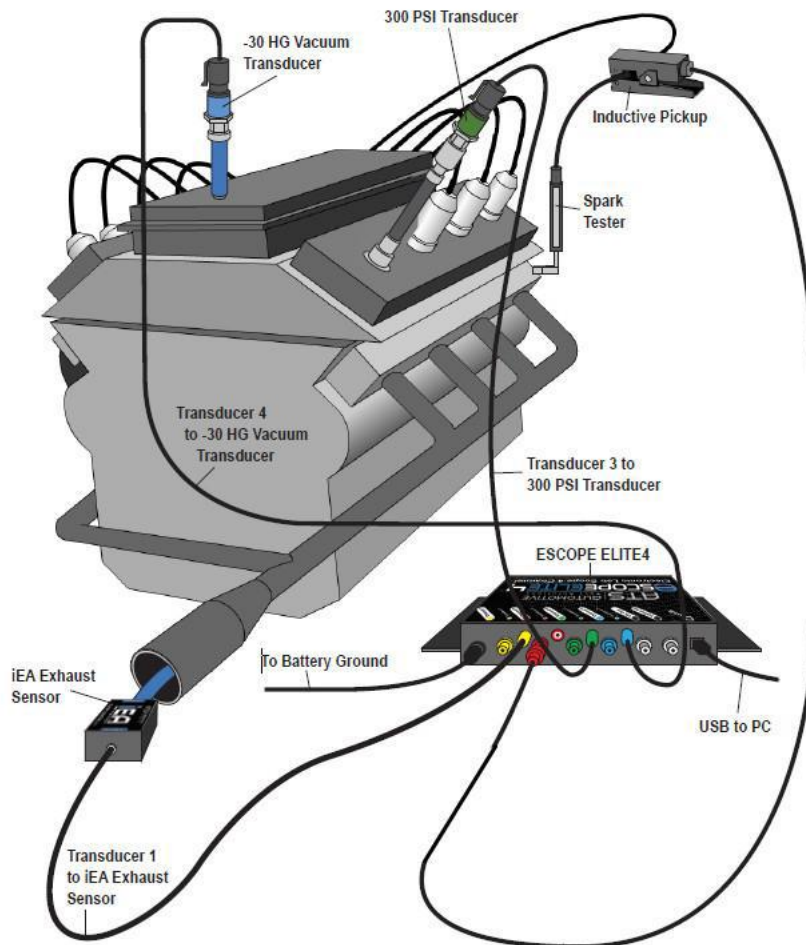
Follow this process for every compression waveform you are capturing with the eSCOPE



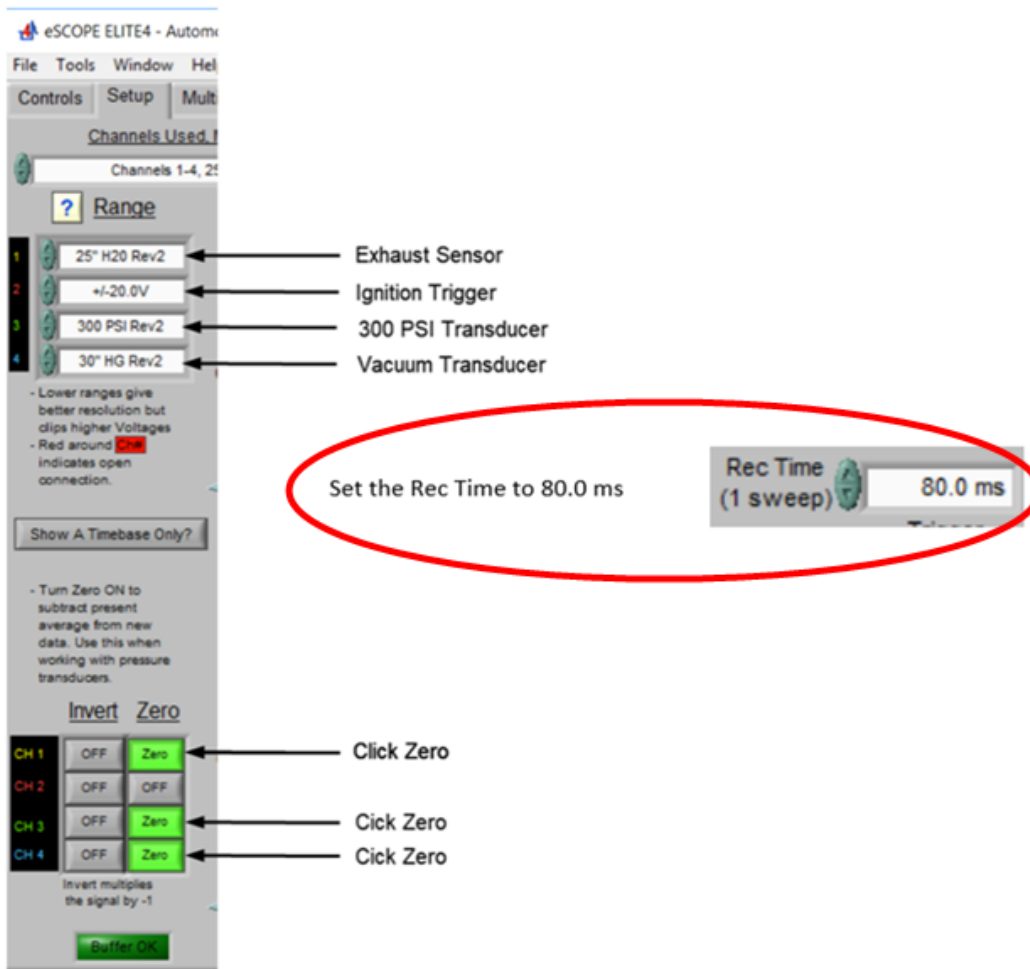
Please connect as follows:

- Channel 1 – Exhaust Transducer
- Channel 2 – Ignition Trigger
- Channel 3 – 300PSI Transducer
- Channel 4 – Vacuum Transducer

## Compression & Vacuum Analysis Setup



Assuming you are capturing with the eSCOPE and NOT the iEA, set the Range values as displayed below and Zero the transducers in Channel 1,3 and 4. Remember to set the record time to 80.0 ms.



The following two steps are needed to properly capture and diagnose a compression wave form

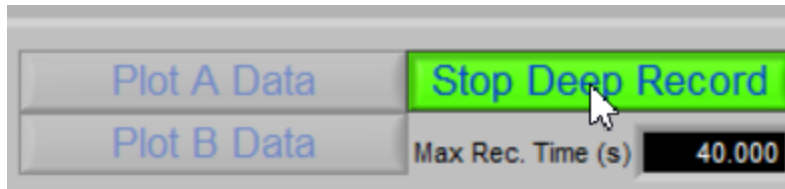
### 1. Cranking Wave Form Capture

- a. From the "Measure and Deep Rec" tab, click on "Start Deep Record"



- b. **Crank (clear flood mode if available or disable fuel) for 7 - 10 compression strokes**

- c. Click on "Stop Deep Record"



- d. Click on "Save Deep Record"



- e. Save the Deep Recording and name accordingly.  
 i. Example: 2007 Chevy Tahoe Cranking Waveform

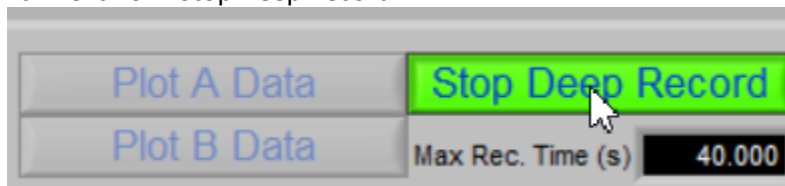
## 2. Running and Snap Wave Form Capture

- a. From the "Measure and Deep Rec" tab, click on "Start Deep Record"



- b. Start the vehicle, let idle for 15 seconds, snap the throttle let idle again for 15 seconds.***

- c. Click on "Stop Deep Record"



- d. Click on "Save Deep Record"



- e. Save the Deep Recording and name accordingly.  
 i. Example: 2007 Chevy Tahoe Idle and Snap Throttle Waveform

**Unless the problem only occurs on a cold motor, let it come up to operating temperature first.**

When capturing the compression waveforms directly from iEA, follow this process for every compression waveform you are capturing.



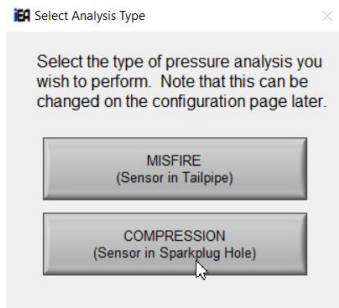
Please connect as follows:

- Channel 1 – Exhaust Transducer
- Channel 2 – Ignition Trigger
- Channel 3 – 300PSI Transducer
- Channel 4 – Vacuum Transducer

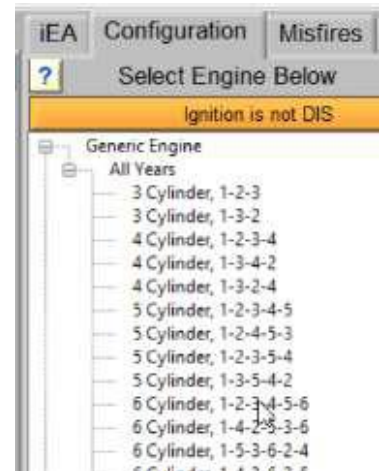
The iEA Software assumes you have connected exactly as outlined above and the range, zero settings and record times are set for you.

Now, the following two steps are needed to properly diagnose a compression wave form

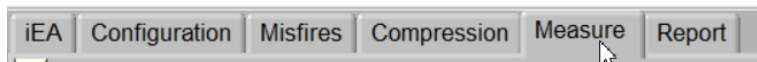
1. Open the IEA Software
2. Select Analysis Type - Compression



3. From the "Configuration" tab select the car/engine (click on the (+) sign to select the correct engine. What matters is the correct firing order. If your exact vehicle is not listed, choose the matching firing order from the Generic Engine-All Years section.

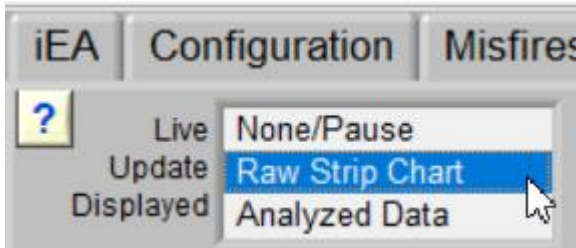


4. Select the "Measure" tab

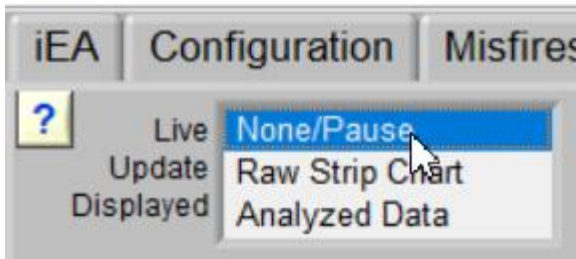


## 5. Cranking Wave Form Capture

- a. Go to measure screen and select "Update – raw/strip".



- b. ***Crank (clear flood mode if available or disable fuel for 7 - 10 compression strokes).***
- c. Select "Live None/Pause"



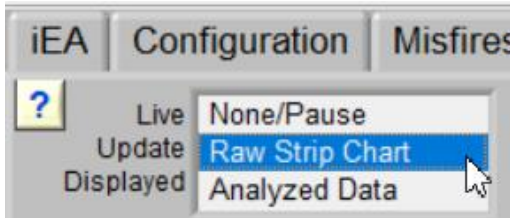
- d. Save the data! "Save All.BIN".



- e. Use a file naming system that you will understand later.  
Example: 2007 Chevy Tahoe Cranking Waveform

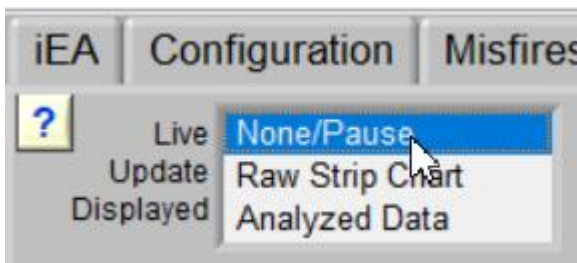
## 6. Running and Snap Wave Form Capture

- a. Go to measure screen and select "Update – raw/strip".



- b. Start the vehicle, let idle for 15 seconds, snap the throttle let idle again for 15 seconds.***

Select "Live None/Pause"



- c. Save the data! "Save All.BIN".



- d. Use a file naming system that you will understand later.  
Example: 2007 Chevy Tahoe Idle and Snap Throttle Waveform.

**Unless the problem only occurs on a cold motor, let it come up to operating temperature first.**