Downloading Gauge Data after a JOB

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Connect the Interface Box to the Computer, FIRST

◦ Start the OWR Gauge Software
◦ Plug the 9V Battery, or External 9 or 15 VDC Adapter to the Interface Box
◦ Connect the Interface Box to the Computer
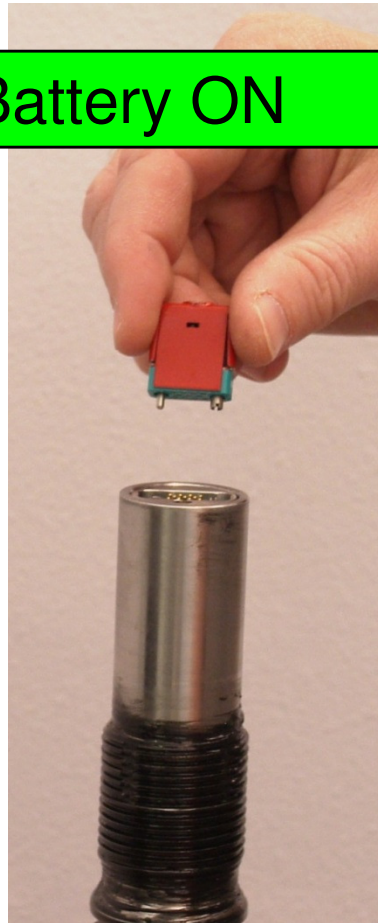

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WARNING for the Series 300 Gauge!

WARNING !!!! If the Battery Fixture is disconnected from the Series 300 gauge <u>BEFORE</u> YOU DOWNLOAD THE DATA, <u>ALL THE DATA will be LOST</u>!!

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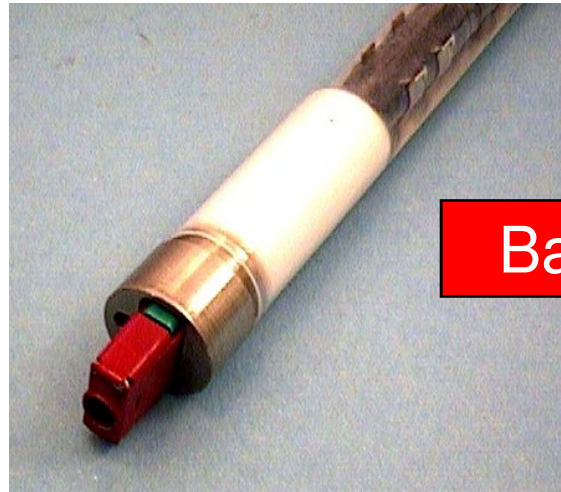# "Red Kill Switch" Warning for the Series 300!

Battery ON

When the "Red Kill Switch" is plugged into the Battery Fixture, it turns <u>OFF</u> the battery power to the <u>gauge</u>!
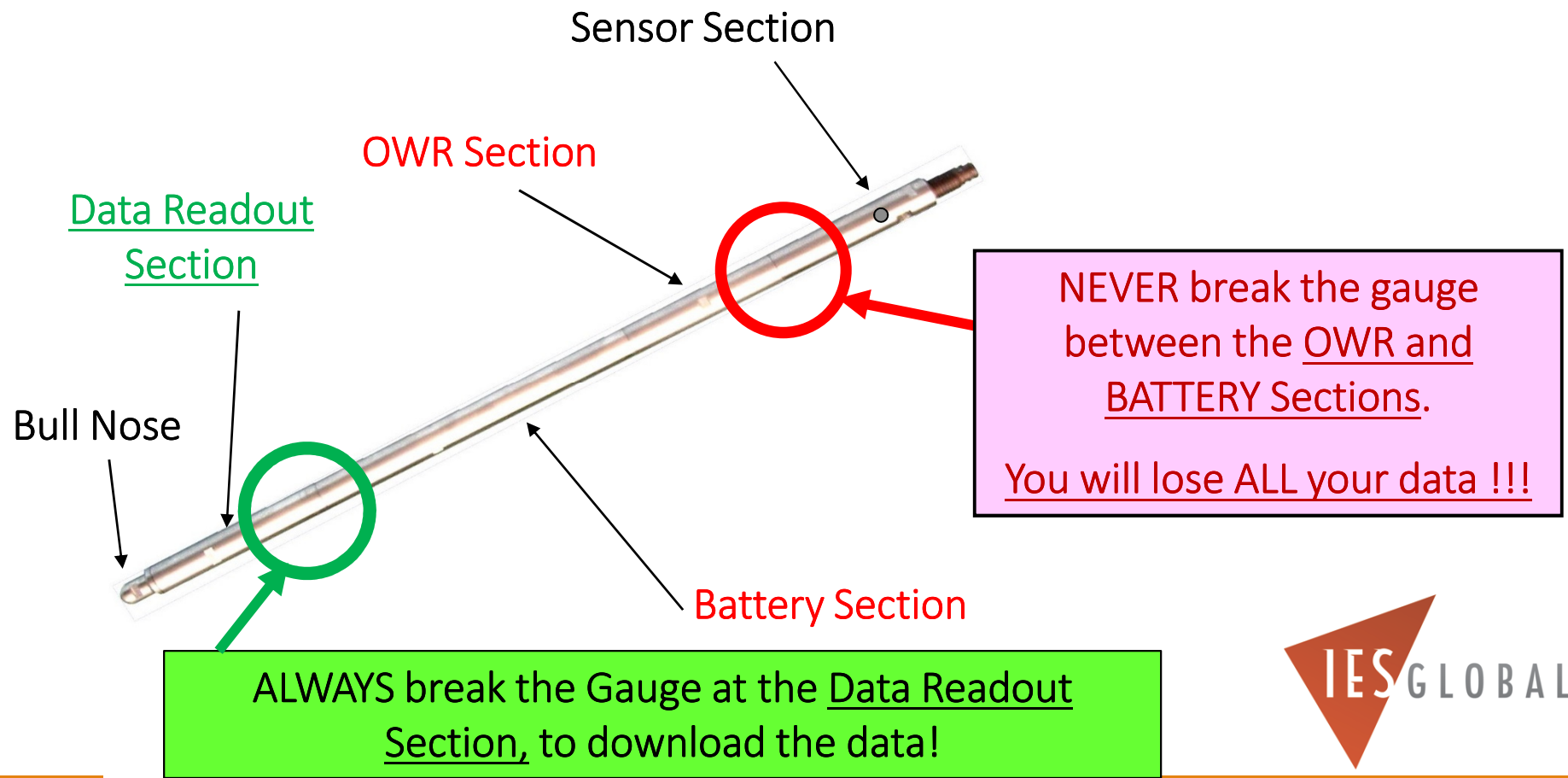
NOTE: If you install the "Red Kill Switch" ALL the <u>DATA</u> will be lost if you are using the Series 300!

Battery OFF

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Breaking the Gauge AFTER a Job

Sensor Section

OWR Section

Data Readout Section

Bull Nose

NEVER break the gauge between the OWR and BATTERY Sections.

You will lose ALL your data !!!

Battery Section

ALWAYS break the Gauge at the Data Readout Section, to download the data!

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Computer Connection Location

VERY IMPORTANT!!!

ALWAYS break the gauge between the DATA READOUT and BATTERY Section!!

Data Readout Section

Remove the **Data Readout** Section of the gauge to expose the computer connector.

The computer connector is located between the **Battery Section** and the **Data READOUT Section**.

NOTE: Use the ½" HEX Wrench to **break** the Data Readout and Battery Sections.

NOTE: **DO NOT** use this wrench to tighten gauge sections.
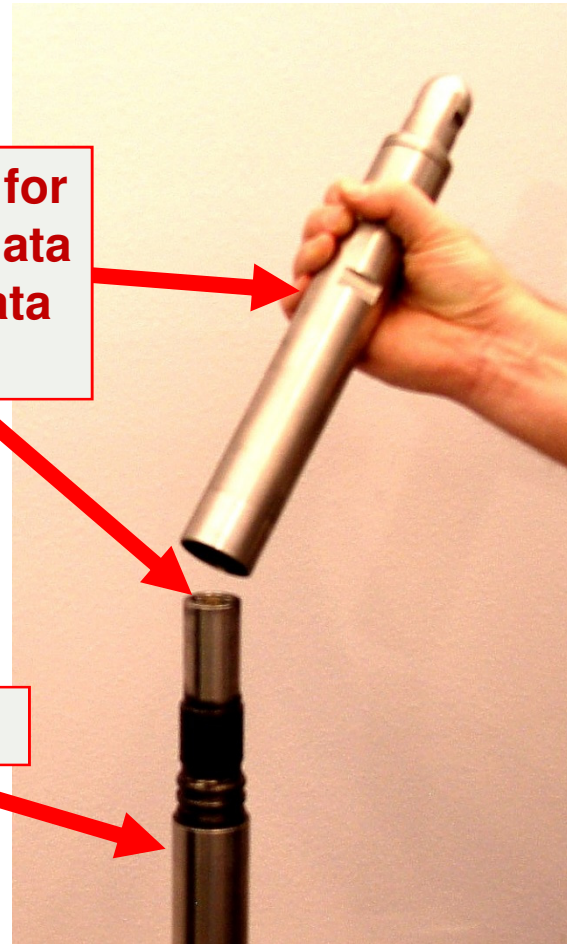
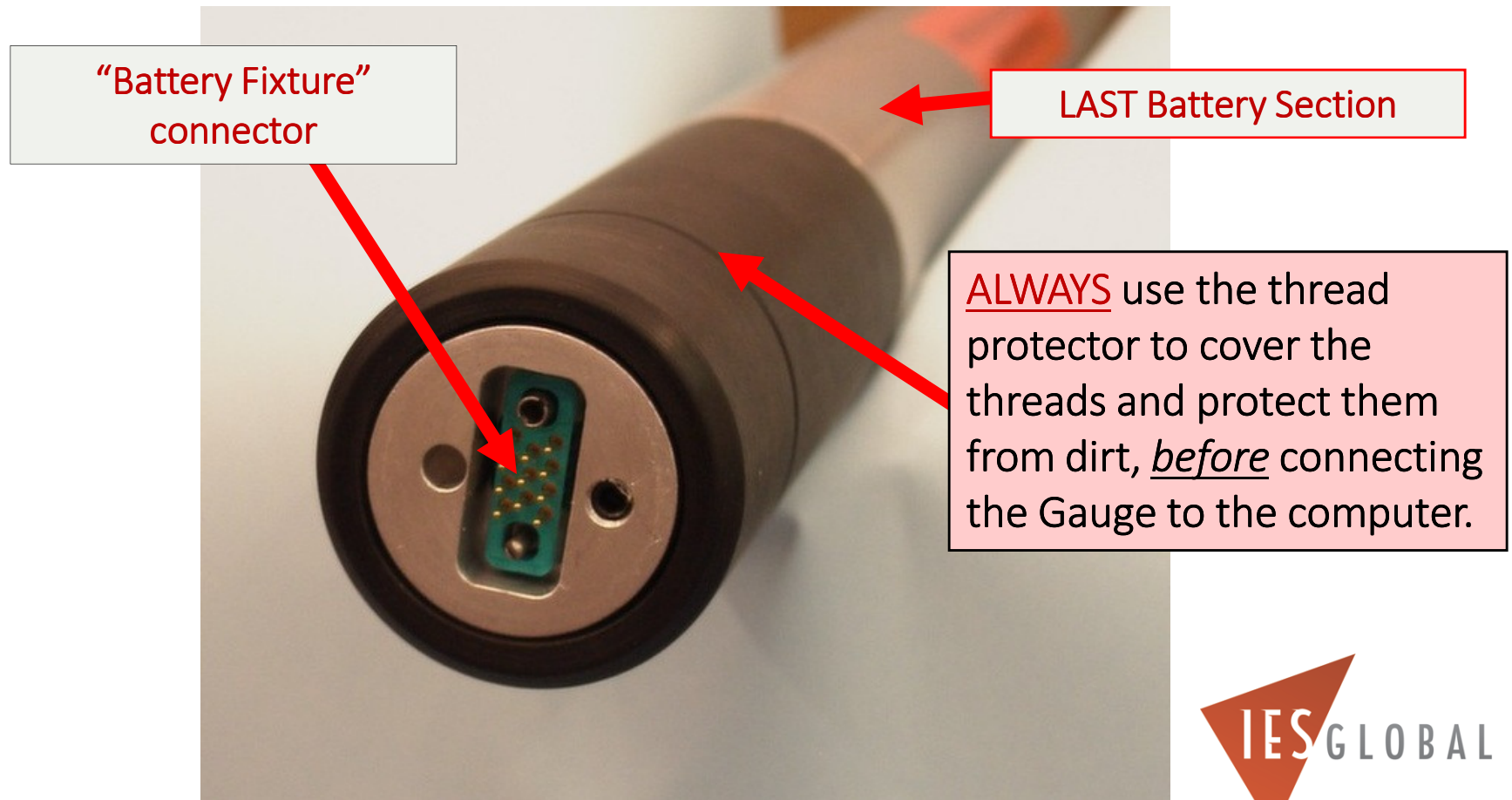Battery Section

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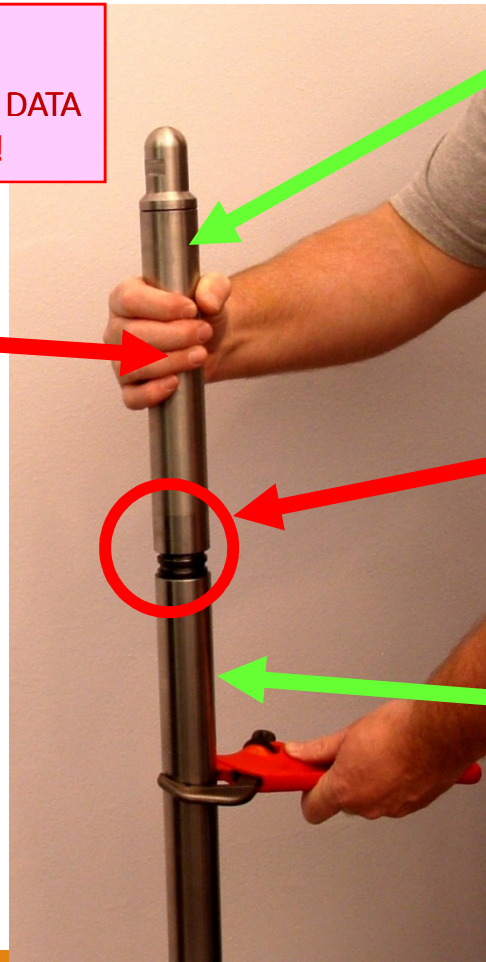
Computer Connection Location

The computer connector for downloading the gauge data is located here, at the Data Readout Section.

Battery Section

Install the Thread Protector Cover over the LAST Battery Section

"Battery Fixture" connector

LAST Battery Section

ALWAYS use the thread protector to cover the threads and protect them from dirt, *before* connecting the Gauge to the computer.

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Connect the Gauge to the Interface Box

Be *SURE* the male / female pin guides are lined up correctly before inserting the connector.

WARNING! DO NOT accidentally short the connector pins with the guide pins!! Loss of data could result!!

DO NOT FORCE THE CONNECTOR!!

Battery Section connector

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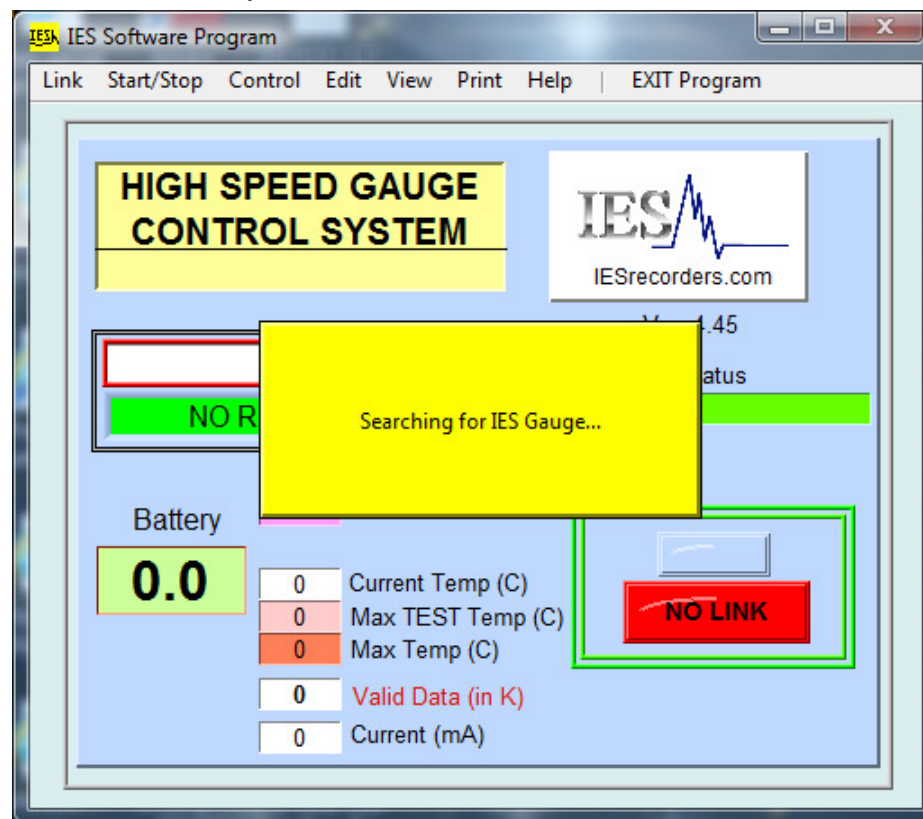# Connect the Interface Box to the <u>Gauge</u>.

Battery Section connector

-Connect the Gauge to the Interface Box (All 3 Lights should be ON)

- Make **LINK** to the Gauge (might take up to 30 seconds)
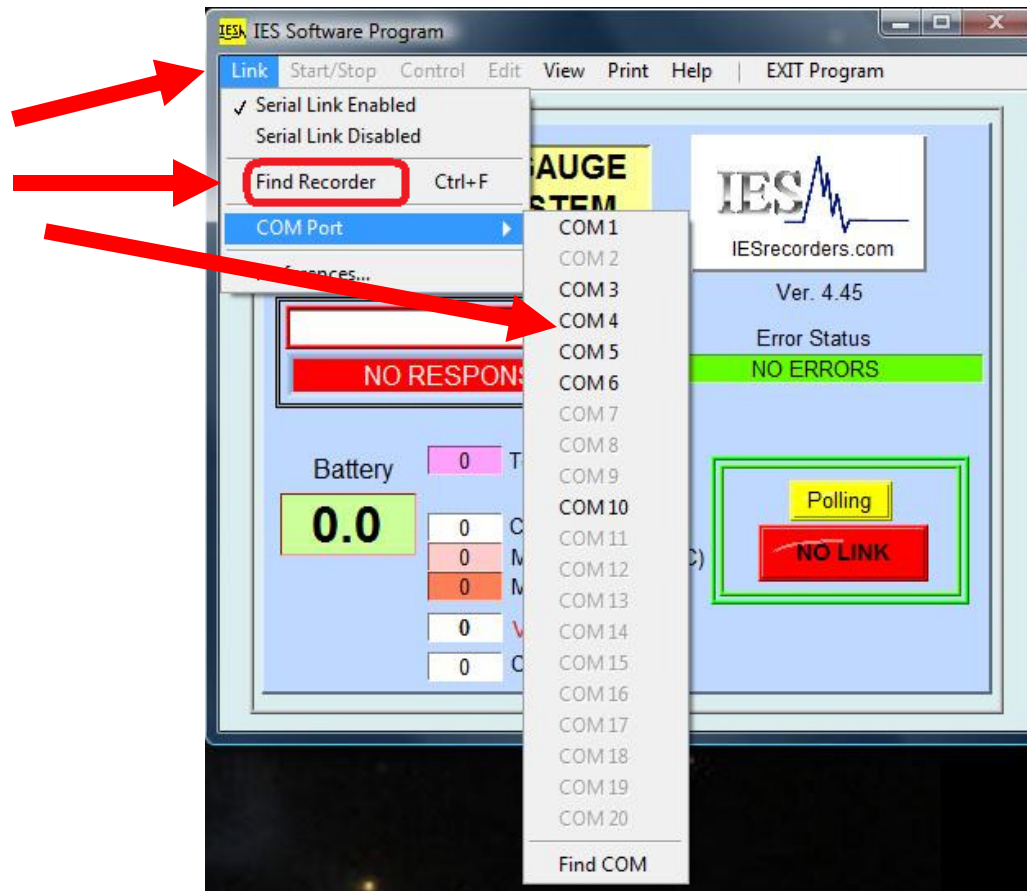
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Making LINK to the Gauge

◦ When you first connect the gauge to the computer, it will automatically search for the gauge. This could take up to 30 seconds.

If the gauge does not LINK with the computer, check the following:

- Serial Link is Enabled
- The correct COM port is selected
- If the gauge still does not make link, select "Find Recorder"

"Power Interruption" Error after a JOB...

◦ When you first connect the gauge to the computer after your JOB, and you see a "Power Interruption" error, it means you probably lost battery power while downhole.

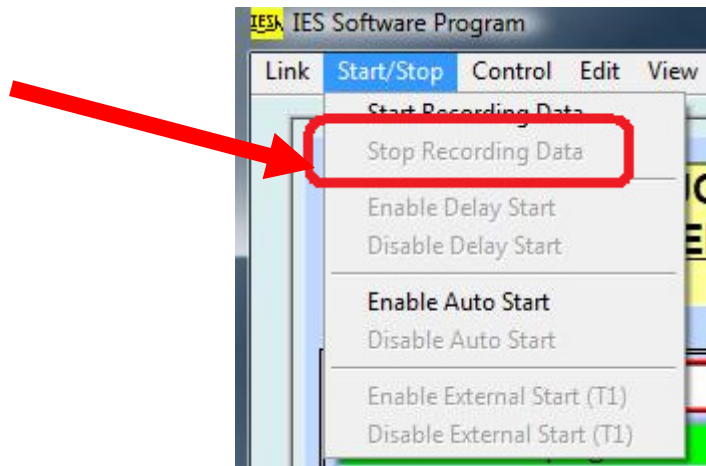◦ Download and SAVE the data, <u>even</u> if it appears to be TRASH.
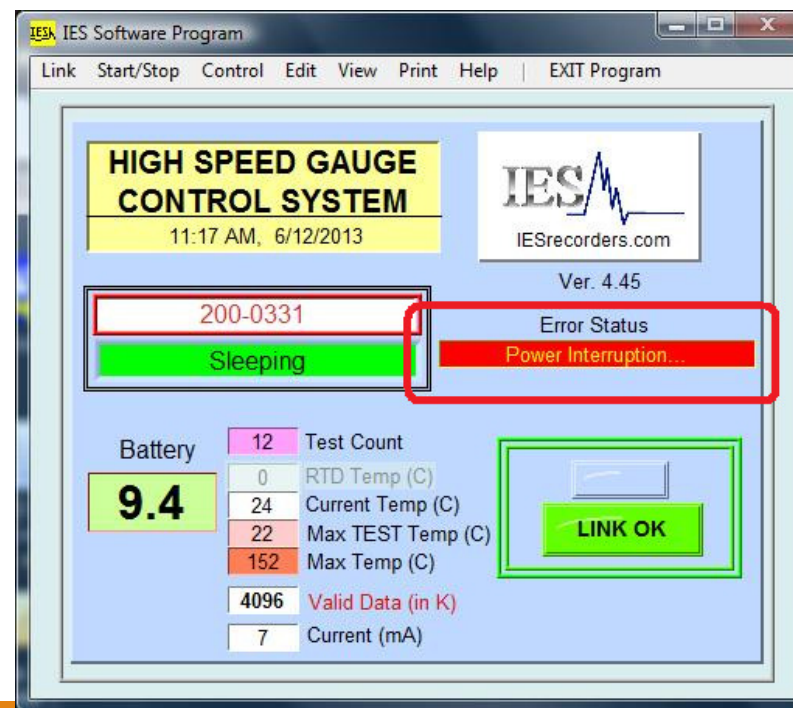
If the Gauge is still RECORDING DATA...

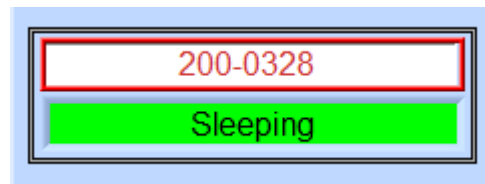◦ If the Gauge is still **RECORDING DATA**, you must **STOP** the gauge before you can download the data.

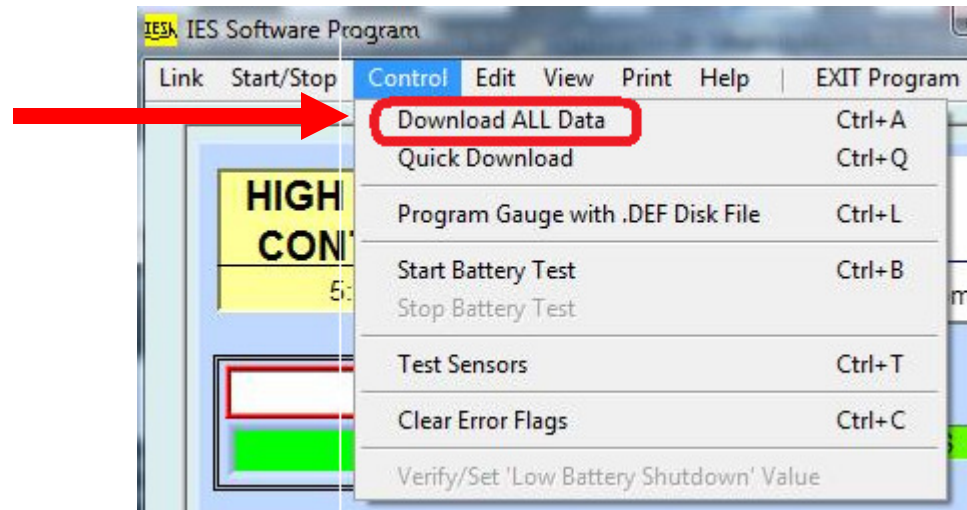◦ Go to the **START/STOP** menu, and select "**STOP RECORDING DATA**" to put the gauge to **SLEEP**.

Downloading the Gauge Data

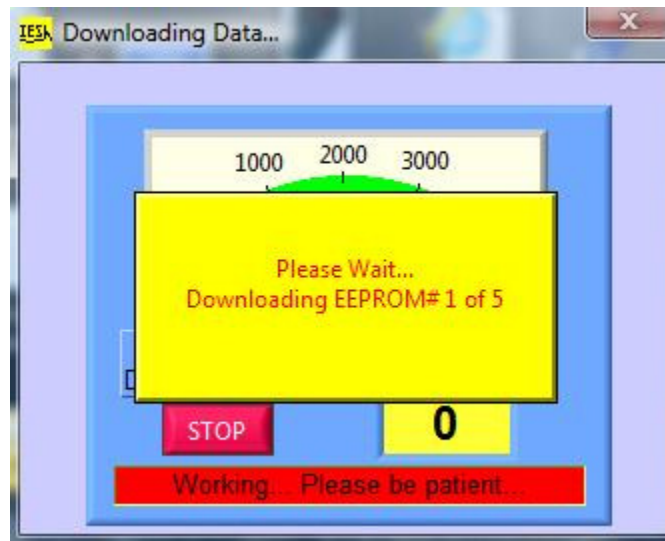◦ To download the data from the gauge, be sure it is **SLEEPING**.

◦ Then, go to the **CONTROL** menu, and select **QUICK DOWNLOAD**
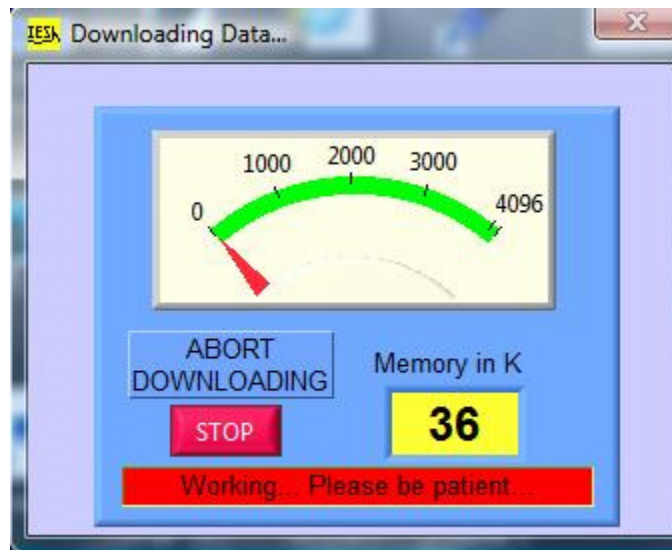
Downloading the Gauge Data

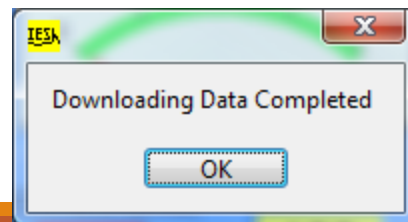◦ The gauge will begin downloading the gauge's EEPROM data first.

Downloading the Gauge Data

◦ Then it will download the pressure data.

◦ When done, it software should say "Downloading Data Completed".

Downloading the Gauge Data

◦ If there are any PARITY ERRORS while download, try downloading the data again.

◦ If you <u>still</u> get parity errors while downloading, reboot your computer, and try download the data again. If you are still are having problems, try using a different computer.
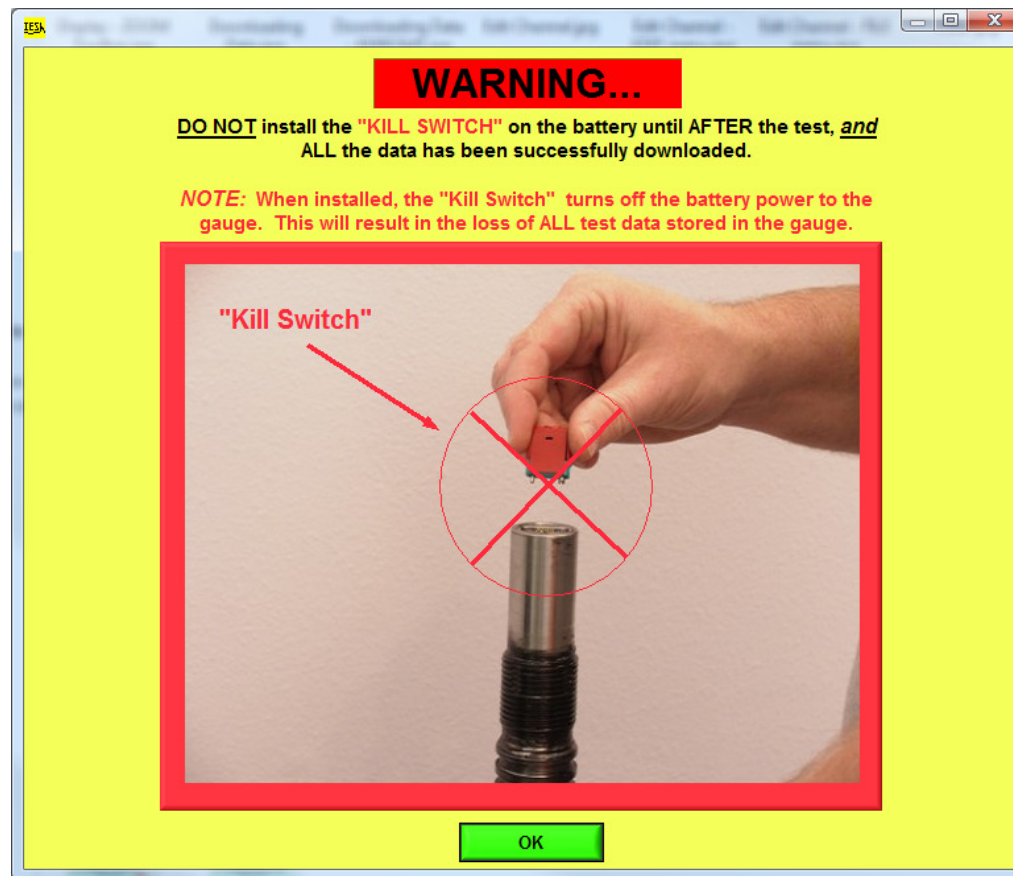
Downloading the Gauge Data

◦ Be sure you SAVE the data in several locations.

◦ You can download the data from the gauge as many times as you wish to.

◦ The data remains in the gauge until you either:
  ◦ Install the RED KILL SWITCH back into the battery fixture (for Series 300 gauges only)
  ◦ Disconnect the battery fixture from the gauge (for Series 300 gauges only),
  ◦ START the gauge again.

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Do NOT install the RED KILL SWITCH until you are sure the Data looks OK!
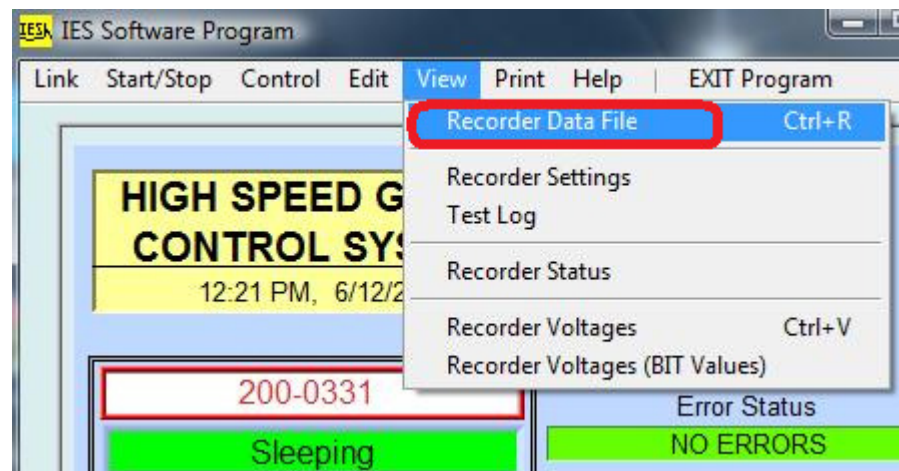# (for the Series 300 gauges)

Viewing the Gauge Data

Viewing the Gauge Data

◦ To view the gauge data, go to the **VIEW** menu and select **RECORDER DATA FILE**.
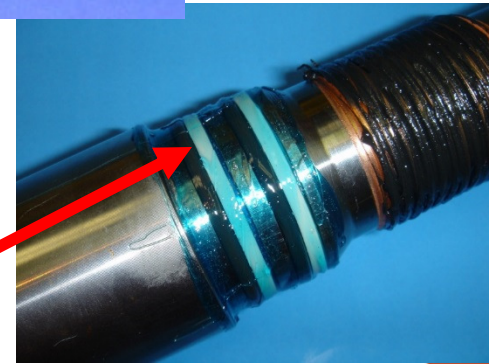
Viewing the Gauge Data

Required Gauge Maintenance
after <u>Every</u> JOB
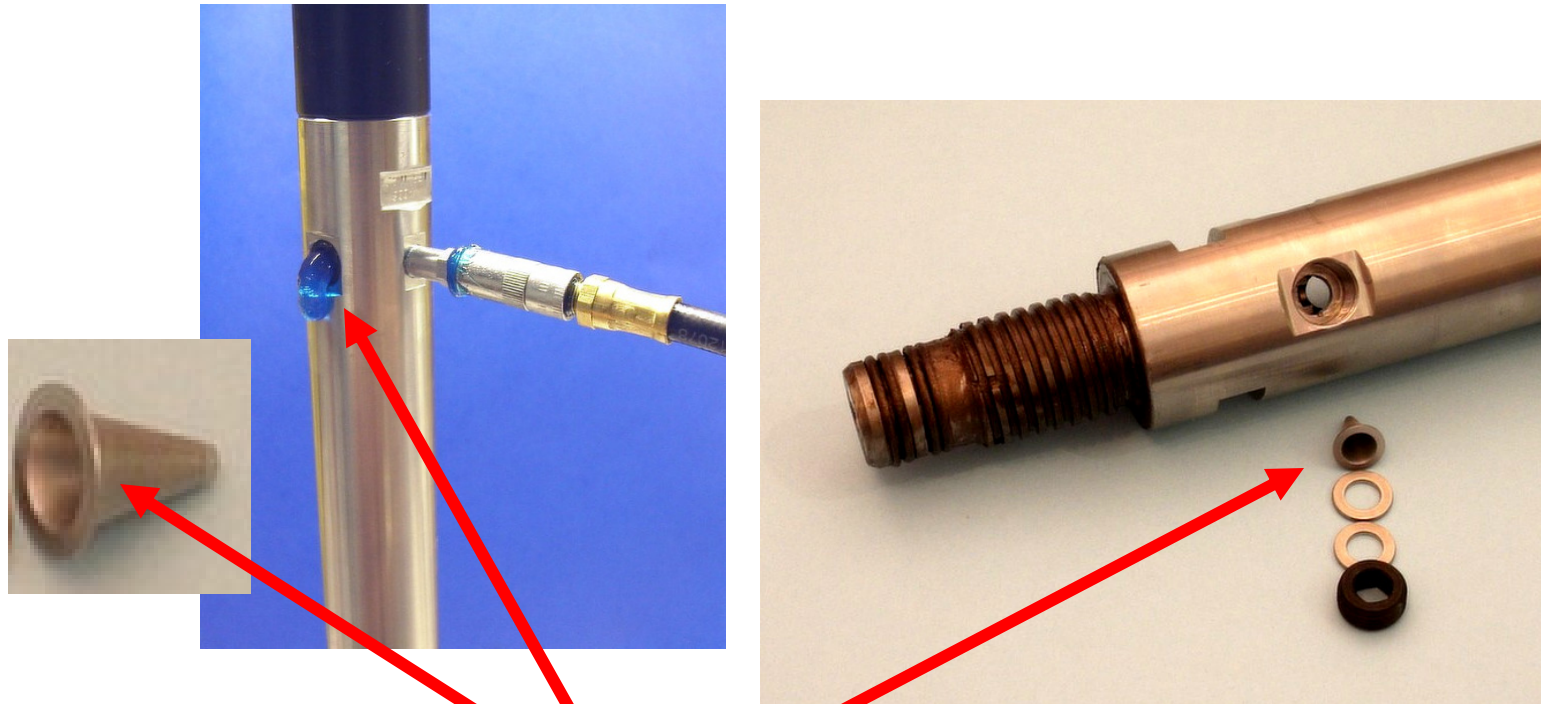
Replace ALL Internal O-rings inside the Gauge

Replace <u>all</u> internal O-rings and inspect all backup rings inside the gauge after EVERY JOB.

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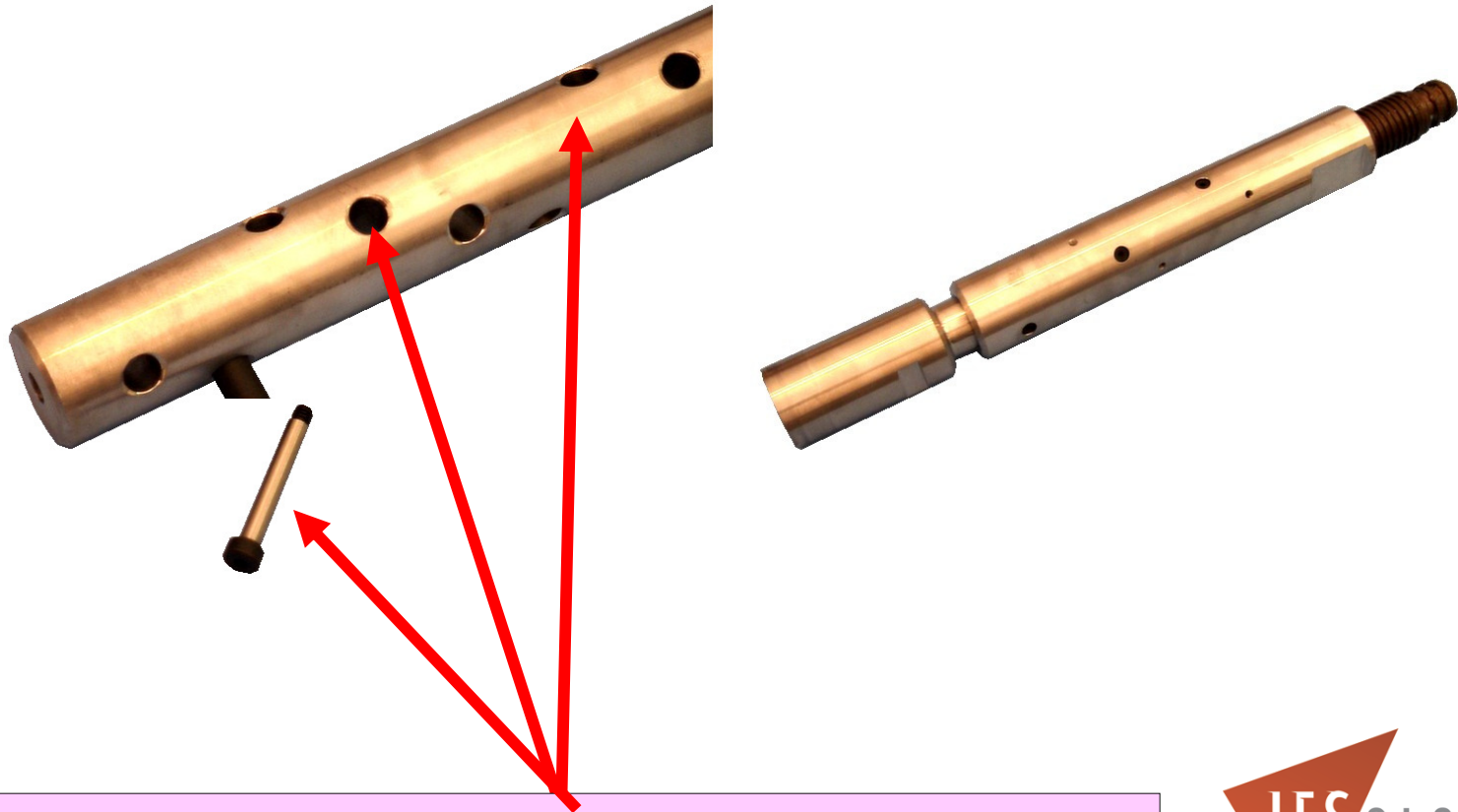# Pump new grease through the pressure ports, and inspect the micro screens

Pump new grease through the micro screen and pressure port. Remove the micro screen to inspect it.

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Inspect, re-grease, and rebuild the Shock Mitigator

Wipe off the old grease and put new grease on the Shock Mitigater internal parts.

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Remove and discard the Used Battery Pack from the Battery Fixture.

Remove the used battery pack after your JOB, in case it leaks. Properly dispose of it.

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# Always do a Grease Gun Test
<u>AFTER</u> every JOB

Grease Gun Test After the JOB

◦ You should ALWAYS <u>test</u> the Gauge, Pressure Sensor, and Battery Packs for proper operation **<u>AFTER</u>** your Job, to verify the gauge is still working correctly.

◦ This is done by injecting a pressure pulse into the gauge, using a grease gun.

◦ You can generate approximately 3000-4000 PSI by quickly, and firmly, squeezing down on a grease gun handle.
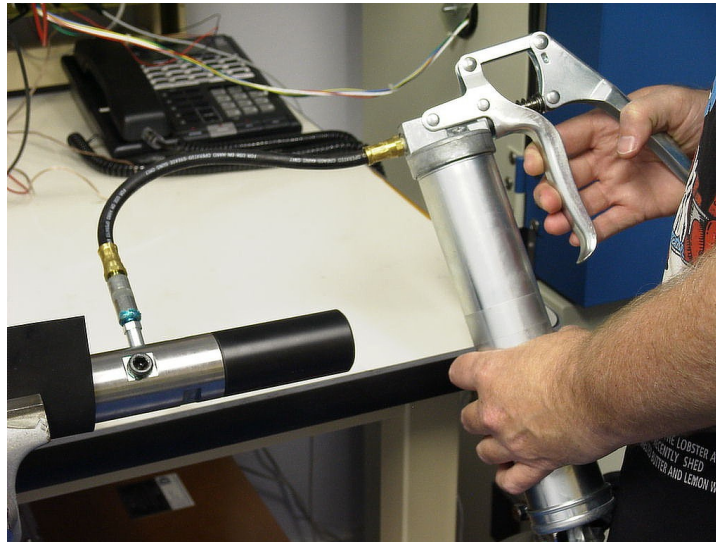
Grease Gun Test Procedure

◦ Unscrew and remove the 1/8" NPT grease gun port PLUG, and replace it with a grease gun nipple.

◦ Unscrew and remove both hollow lock nuts holding the micro screens in place.

◦ Leave the washers and micro screens installed, and then screw the solid lock nuts (with the FLAT bottoms supplied in the gauge tool box), in place of the hollow lock nuts. This will seal the grease inside the pressure ports.

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Grease Gun Test Procedure

- ◦ Connect the gauge to the computer, and make LINK (it might take 15-30 seconds). Clear any Error Flags.

- ◦ Use the gauge settings the gauge was programmed with.

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Grease Gun Test Procedure

◦ In the START/STOP menu, manually START the gauge.

◦ After the screen indicates the gauge is RECORDING DATA, then disconnect the gauge from the Interface Box.

◦ Wait 1 minute, then connect the grease gun to the grease gun nipple, and squeeze the grease gun as hard as you can, for 10 seconds.

◦ Wait 10 more seconds, then **loosen** the grease gun nipple with a wrench, to release the pressure.

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Grease Gun Test Procedure

◦ Connect the gauge back up to the Interface Box, and after it makes link, manually STOP the gauge if you need to (in the START/STOP menu)

◦ After the gauge is SLEEPING, do a QUICK Download of the data, and display the data.

◦ You should see the pressure pulse from the grease gun, and it should go into FAST Speed.

◦ Be sure you re-install the hollow lock nuts in the pressure ports.
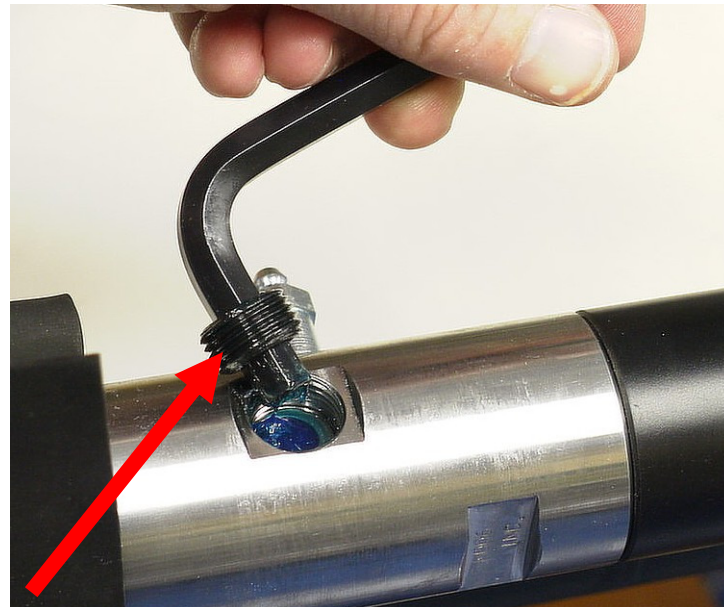
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Grease Gun Test After the JOB

Remove the 1/8" plug, and install the grease gun nipple. Tighten the Nipple with a wrench.

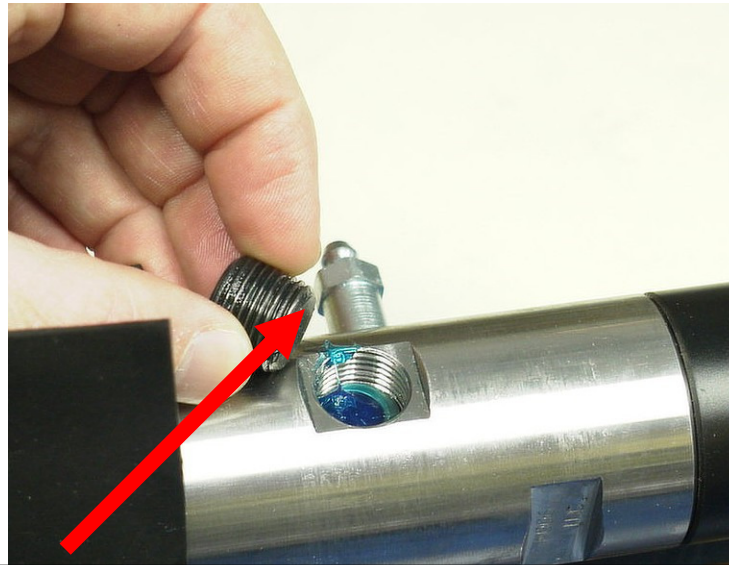IES GLOBAL

Grease Gun Test After the JOB

Remove both hollow lock nuts, but leave the washers and micro screens in place
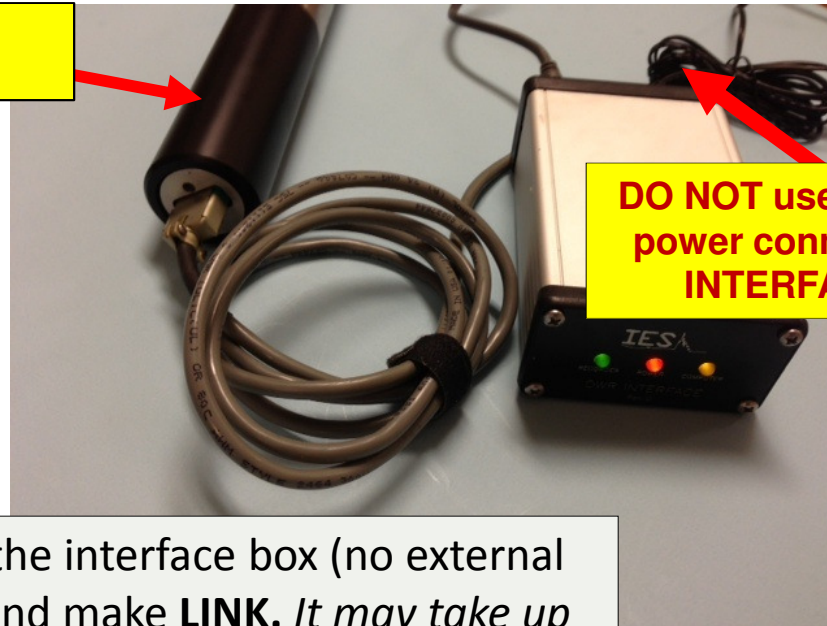
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Grease Gun Test After the JOB

Install the SOLID lock nuts, supplied with the gauge tool box, but leaving the washers and micro screens in place
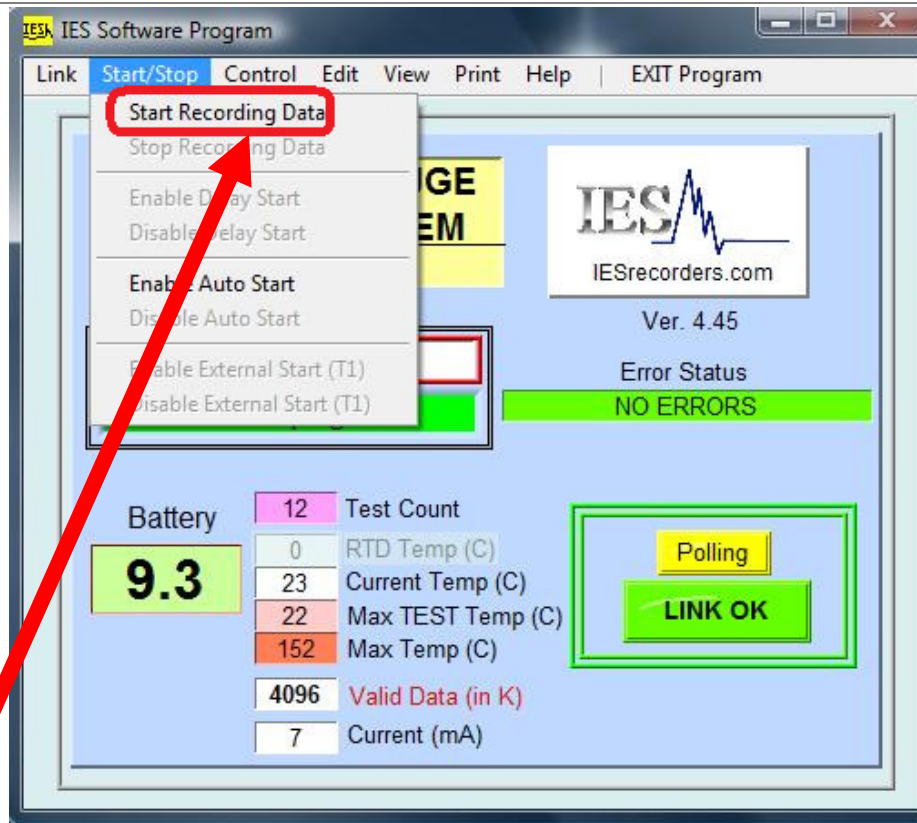
Grease Gun Test After the JOB

Battery Section

DO NOT use any external power connected to the INTERFACE BOX!

- Connect the gauge to the interface box (no external power) and computer, and make **LINK.** *It may take up to 30 seconds...*
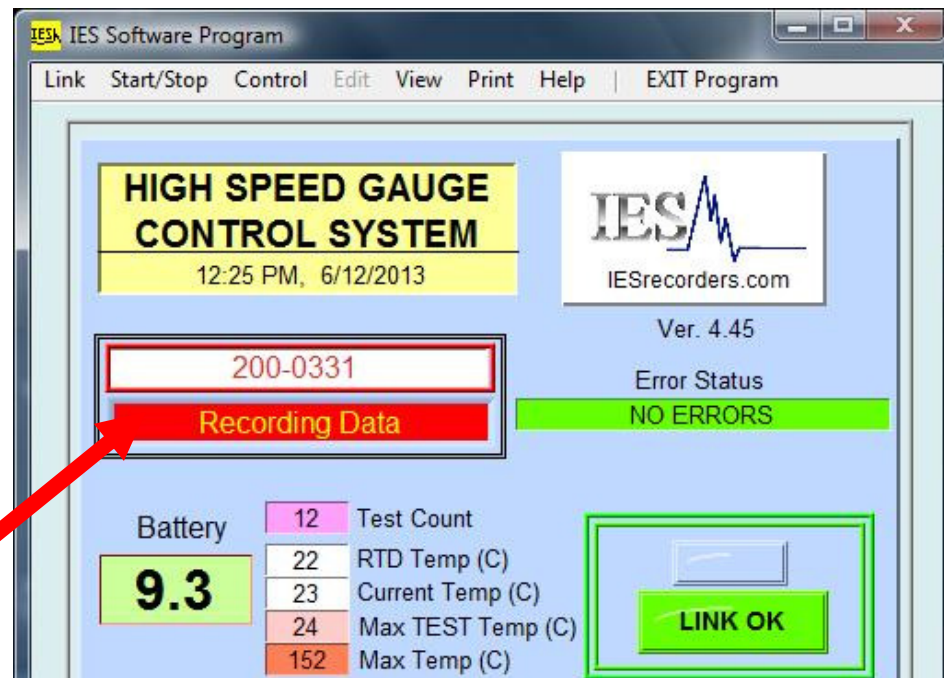
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Grease Gun Test After the JOB
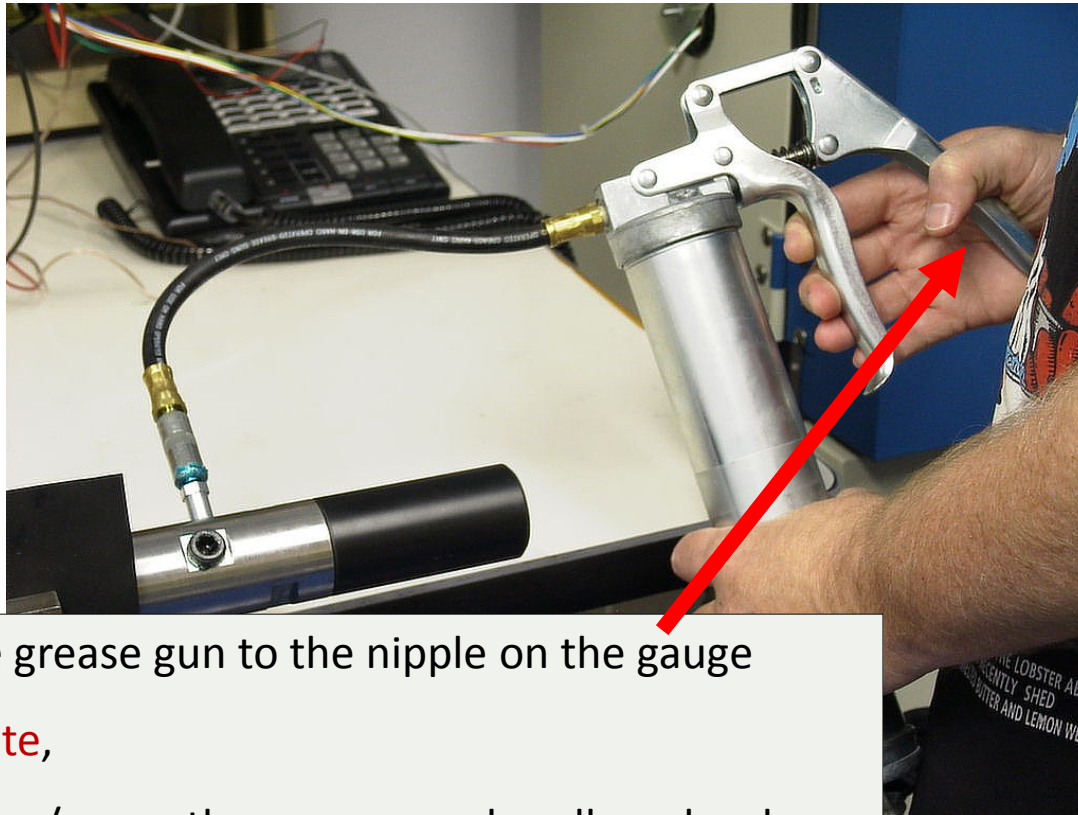

Manually START the gauge

Grease Gun Test After the JOB

-The gauge will <u>first</u> test the sensors and voltages...

-Wait until the MAIN screen is flashing <u>RECORDING DATA</u>,

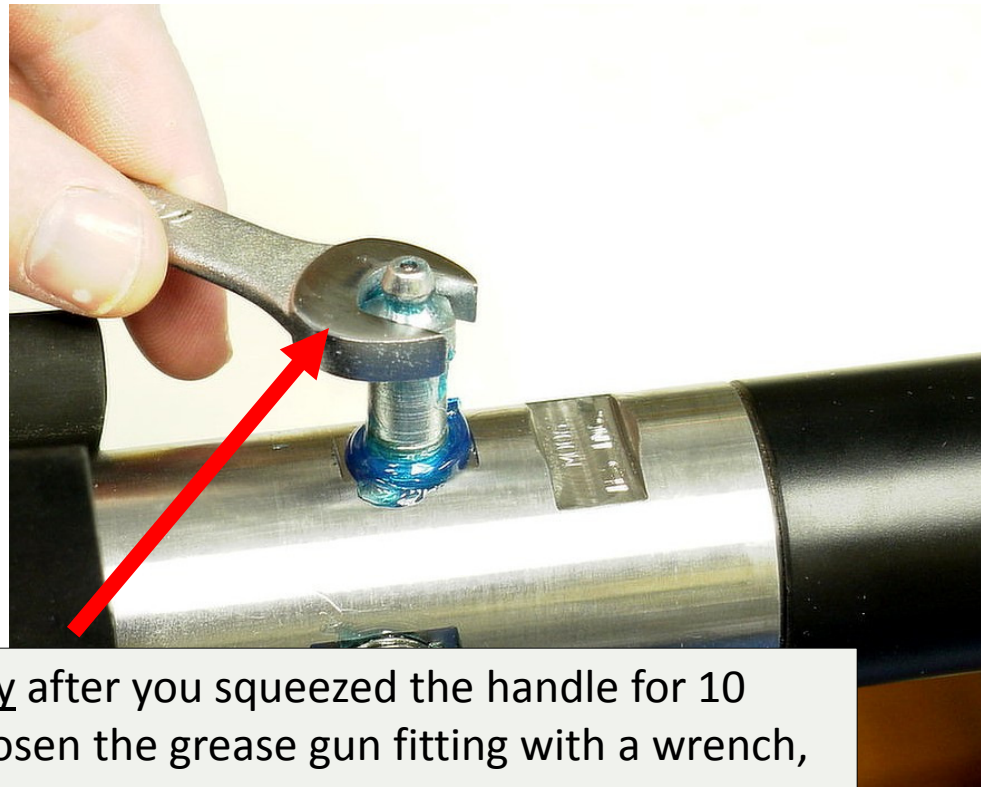- *Then <u>disconnect</u> the gauge from the Interface Box*

Grease Gun Test After the JOB

-Connect the grease gun to the nipple on the gauge

-Wait 1 minute,

-THEN squeeze/pump the grease gun handle as hard as you can, for 10 seconds

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Grease Gun Test After the JOB

Immediately after you squeezed the handle for 10 seconds, loosen the grease gun fitting with a wrench, to release the pressure

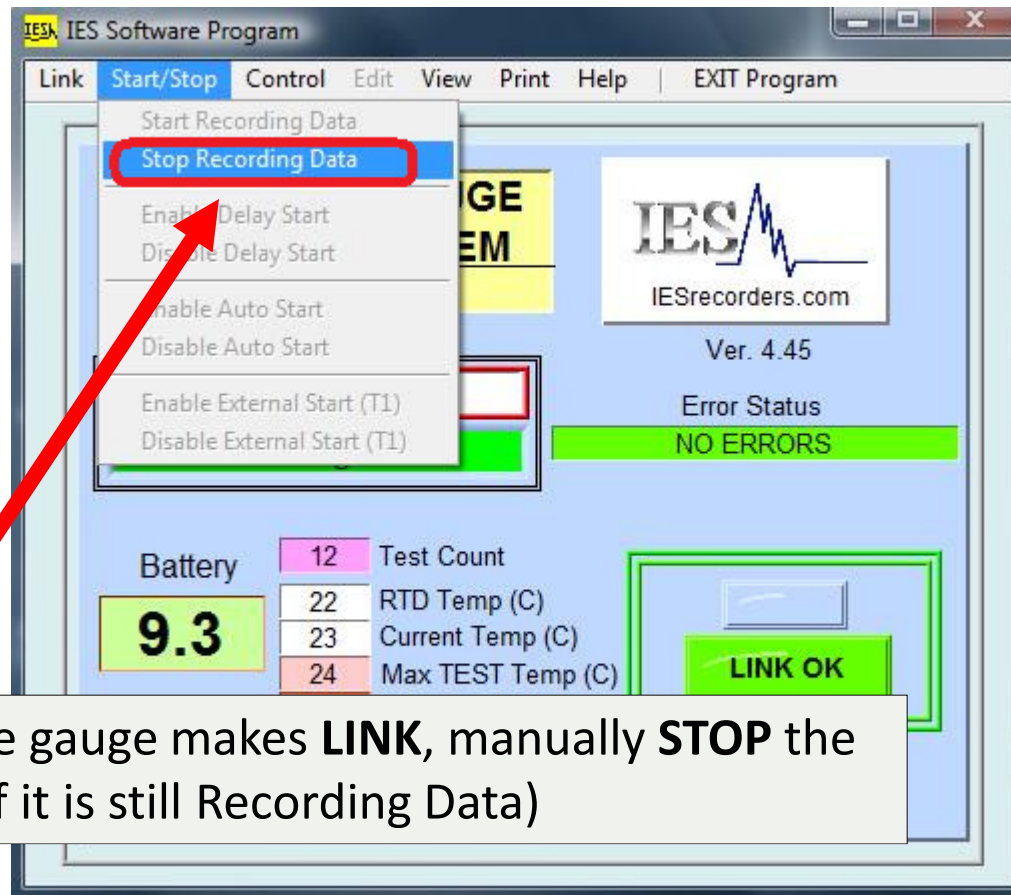IES GLOBAL
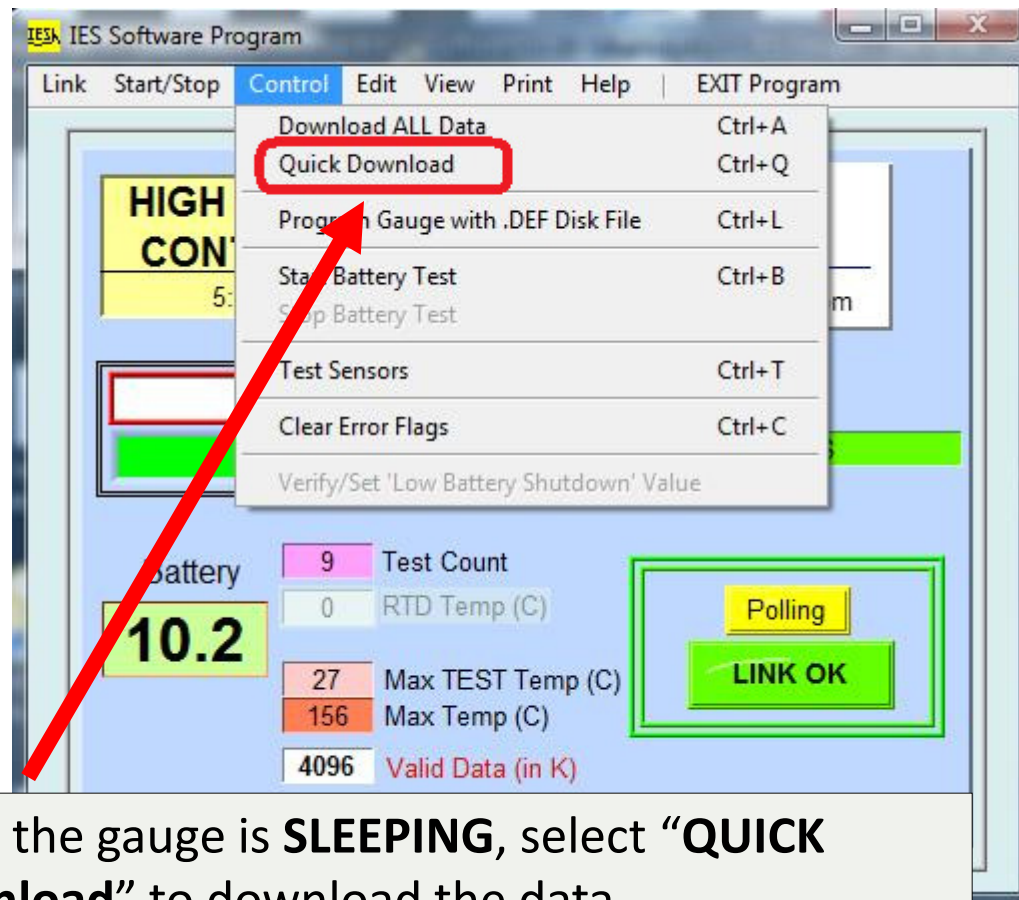
Grease Gun Test After the JOB

Re-connect the gauge to the interface box and the computer

Grease Gun Test After the JOB

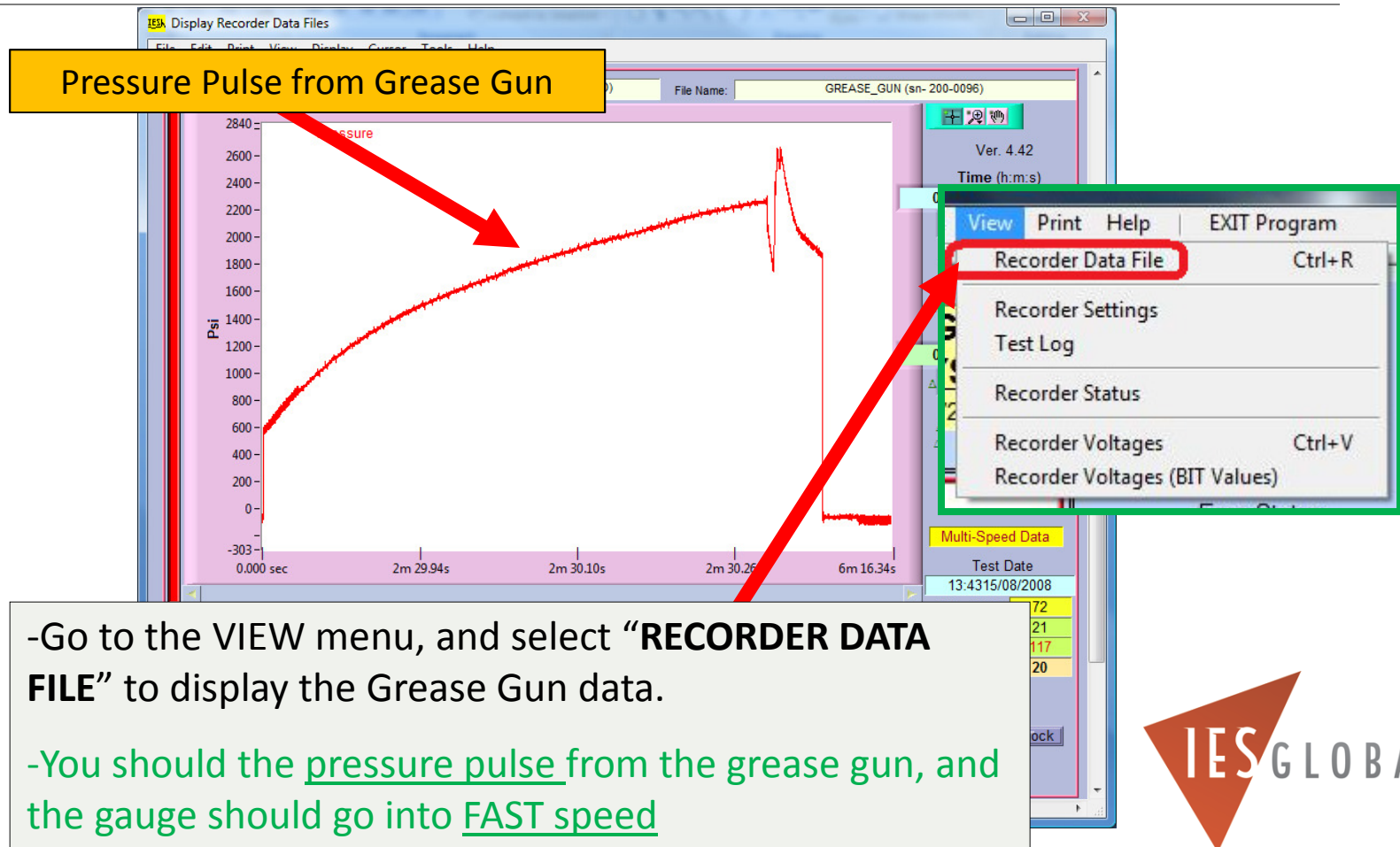After the gauge makes **LINK**, manually **STOP** the gauge (if it is still Recording Data)

Grease Gun Test After the JOB

Once the gauge is **SLEEPING**, select "**QUICK Download**" to download the data

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Grease Gun Test After the JOB

Pressure Pulse from Grease Gun

-Go to the VIEW menu, and select "**RECORDER DATA FILE**" to display the Grease Gun data.

-You should the pressure pulse from the grease gun, and the gauge should go into FAST speed

Grease Gun Test After the JOB

Be sure to re-install bothhollow lock nuts!!!

Always Store the Gauge COMPLETELY Assembled

Store the Gauge Completely Assembled

◦ <u>ALWAYS</u> store the gauge <u>completely assembled</u> for storage. This will keep the threads and O-rings clean and prevent moisture from collecting inside the gauge.

◦ <u>NEVER</u> store a Battery Pack inside a gauge.

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