

LINEAR **M**EASUREMENT **I**NSTRUMENTS, Corp.

Research, Development and Manufacturing of Precision Measuring Systems

CONFIGURATION and MASTERING for the TP-107 to the LMI 440 or ASI DataMyte 501



This instruction will outline:

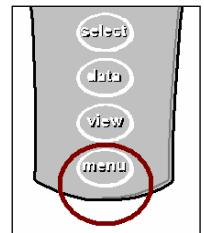
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I. GAGE CONFIGURATION

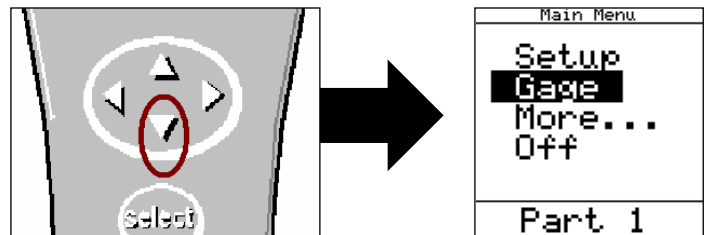
Section I is a one time setup after a successful gage configuration is finished there should be no need to repeat section I. It is recommended to store a copy of the gage files onto a personal computer or laptop. Consult the collector manual or, if purchased, the TranSend manual for further details.

A Axis Setup

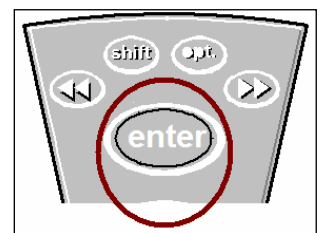
1. Press <menu> to turn on the collector.



2. Press ▼ to highlight "Gage".

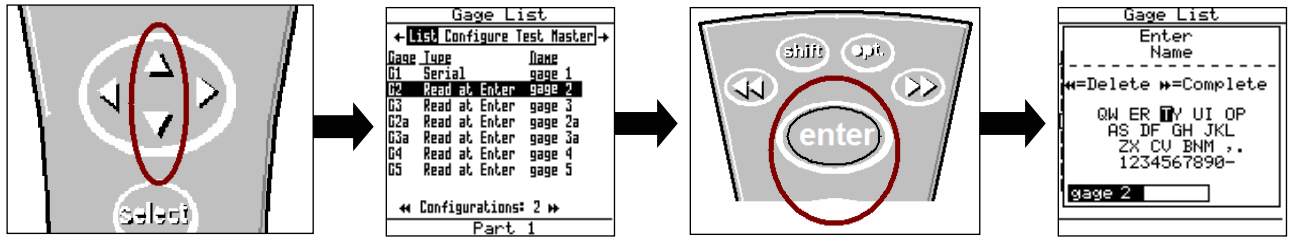


3. Press <enter>.



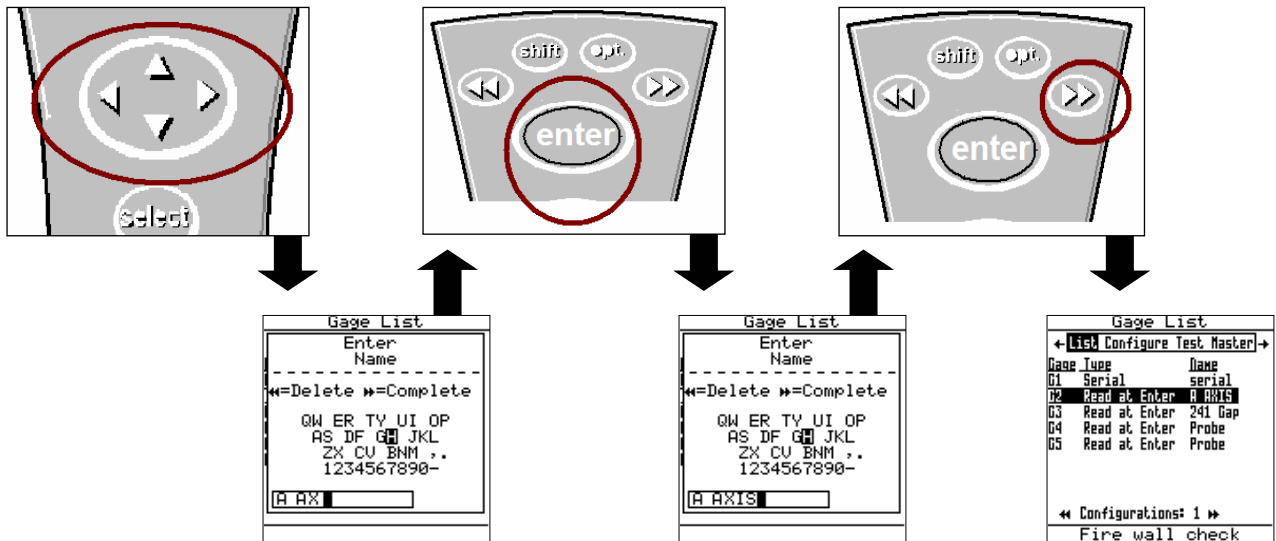
It is recommended to assign a simple name to the gage files such as; A axis, X axis, etc. This will help to identify different setups.

4. To assign the gage file name, press ▲ or ▼ to highlight “G2”* in the “Gage List” and press <enter> on the collector.

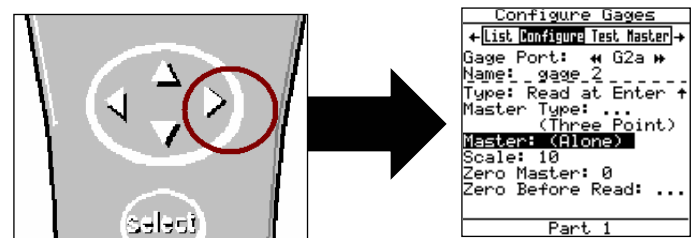


**G2 has the ability to support “sub files”. These are files that allow multiple styles or configurations of gages to be used by the same collector. To create sub files highlight G2 and press ►►, this will create a sub file of G2a. Each press of ►► creates another sub file. The balance of this instruction will be based on G2*

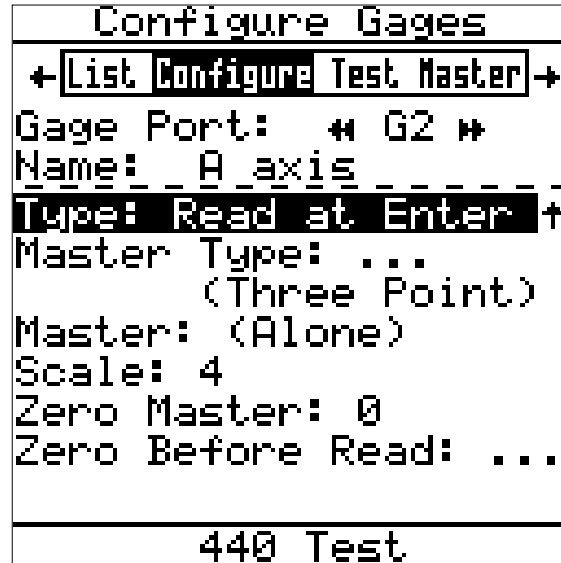
5. Use the ▲,►,◀, or ▼ to highlight the first character of the new file name then press <enter>, repeat the process until the gage file name is spelled. Then press ►► to accept the new name.



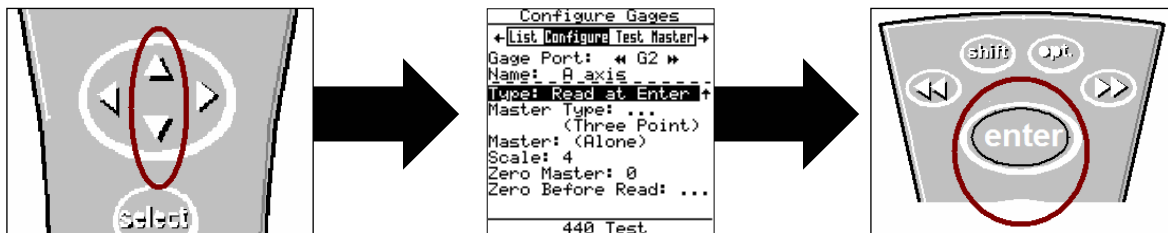
6. Press the ► to “Configure”, by default the screen may read as follows.



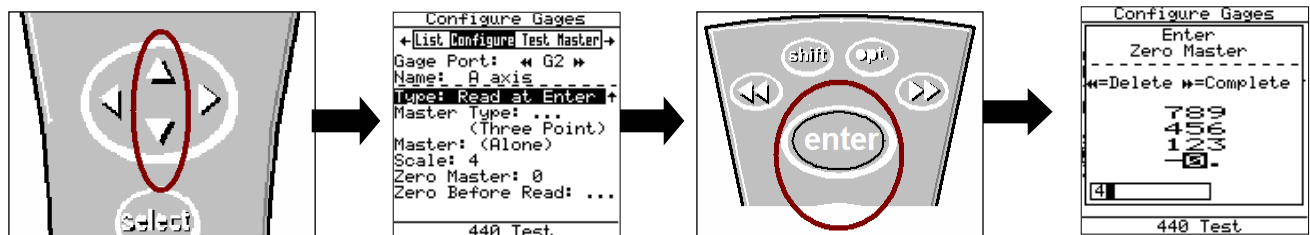
7. The “Configure Gages” screen needs to be set as follows. Failure to set this screen properly may cause undesired results.



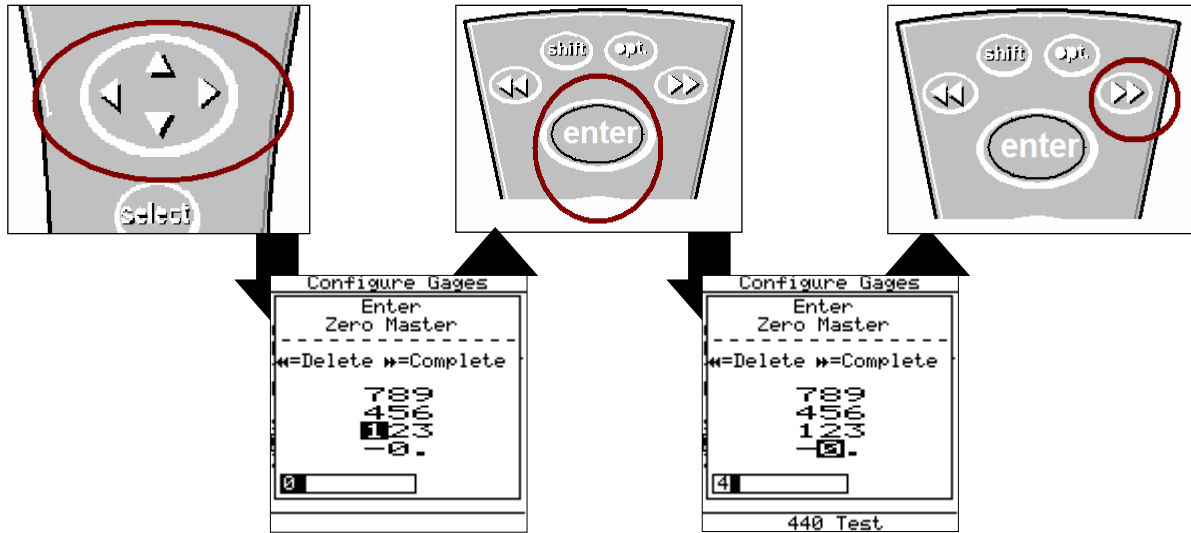
8. If changes to this screen are needed, press ▲ or ▼ to highlight either “Type”, “Master Type”, “Master With”, or “Zero Before Read” then press <enter> to toggle the different choices.



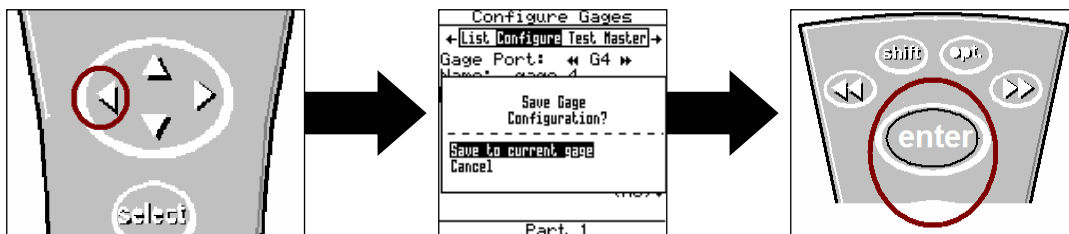
9. To make changes to the “Scale” or “Zero Master” press ▲ or ▼ to highlight “Scale” or “Zero Master” and press <enter>. This will bring up the numeric keypad. Key in the new value and press ►► to accept.



10. Key in the desired value by using the ▲, ▼, ►, or ◀ to highlight the first number, press <enter>. Repeat until the number is completed and press ►► to accept the new value.



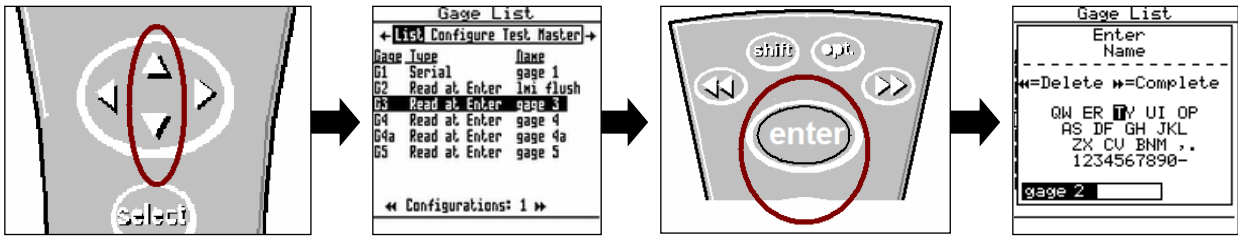
11. Once the “Configure Gages” screen is set press ◀ and a pop up will appear if any changes were made. Highlight “Save to current gage” and press <enter> if the changes were intentional. If a setting was changed by mistake or you were not done in “Configure Gages” highlight “Cancel” and press <enter>.



A Axis setup configuration is complete.

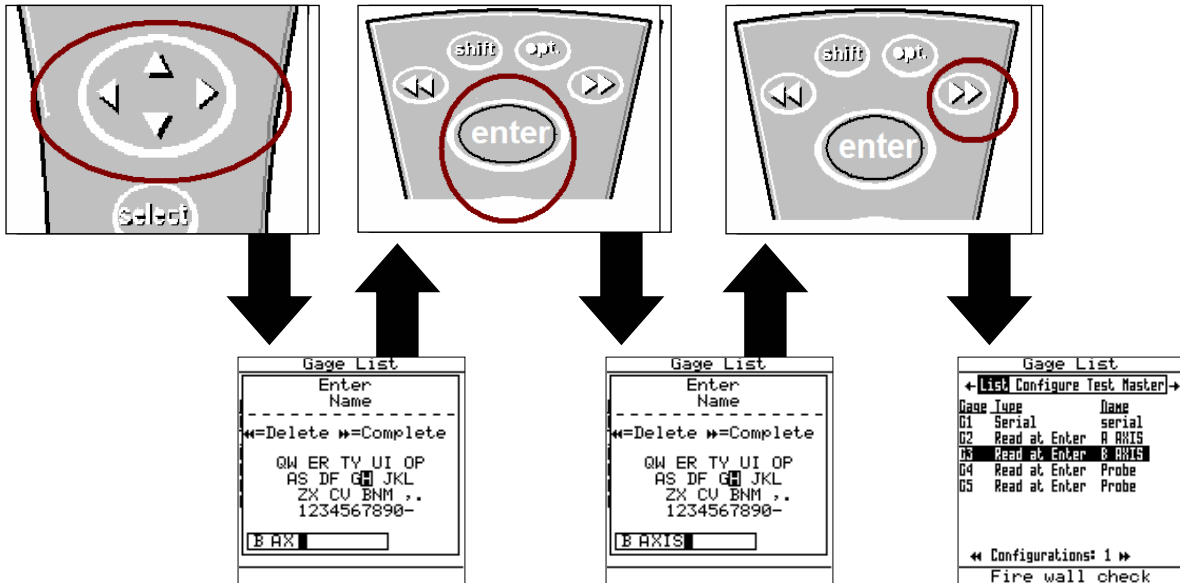
B Axis Setup

11. To assign the gage file name, press ▲ or ▼ to highlight “G3”* in the “Gage List” and press <enter> on the collector.

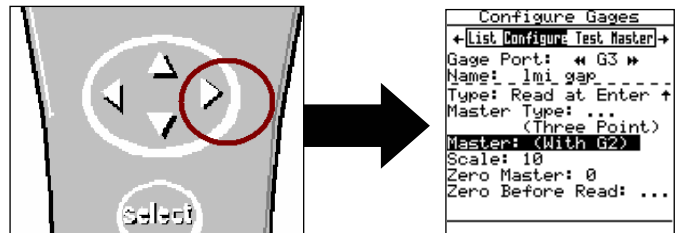


**G3 has the ability to support “sub files”. These are files that allow multiple styles of gages to be used by the same collector. To create sub files highlight G2 and press ►►, this will create a sub file of G3a. Each press of ►► creates another sub file. The balance of this instruction will be based on G3*

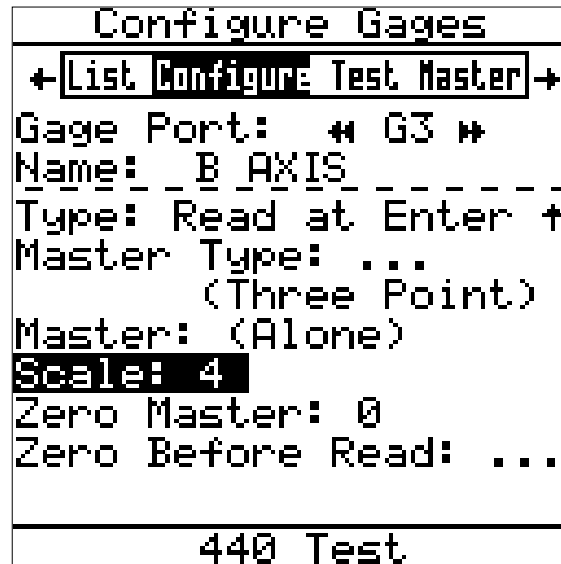
12. Use the ▲,►,◀, or ▼ to highlight the first character of the new file name then press <enter>, repeat the process until the gage file name is spelled. Then press ►► to accept the new name.



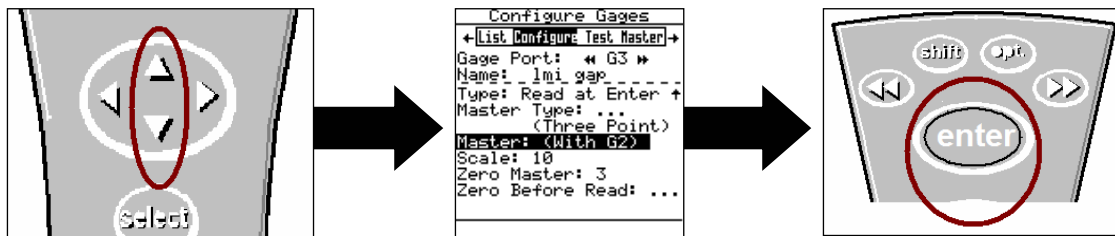
13. Press the ► to “Configure”, by default the screen should read as follows.



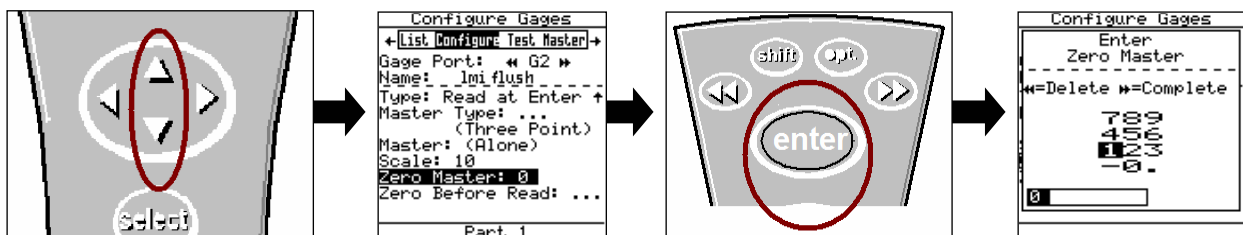
14. The “Configure Gages” screen needs to be set as follows. Failure to set this screen properly may cause undesired results.



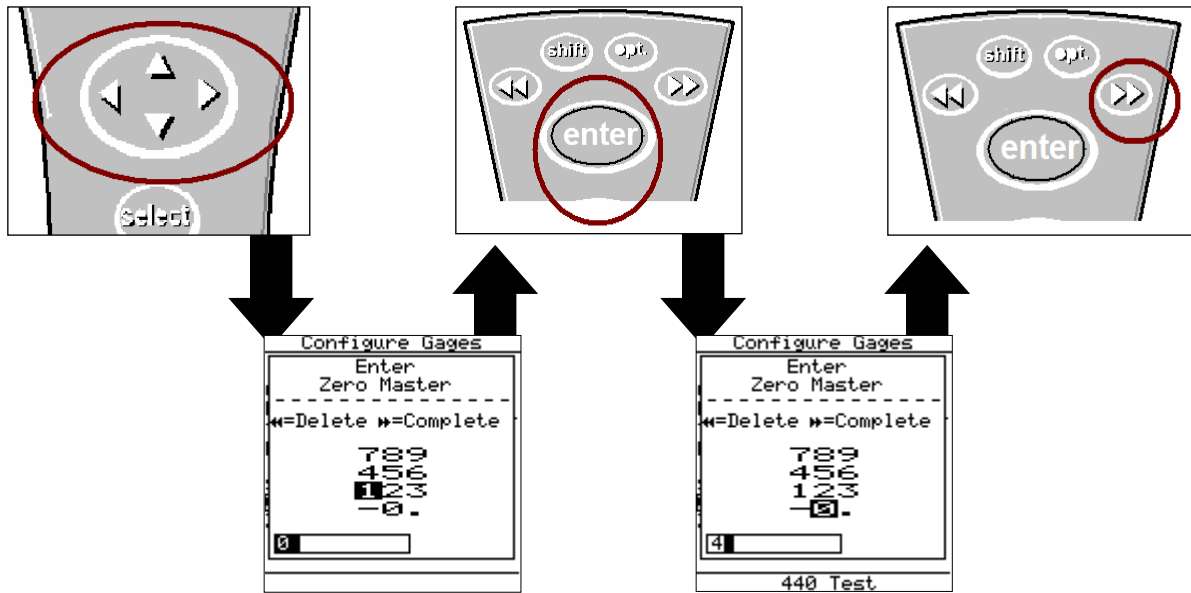
15. If changes to this screen are needed, press ▲ or ▼ to highlight either “Type”, “Master Type”, “Master With”, or “Zero Before Read” then press <enter> to toggle the different choices.



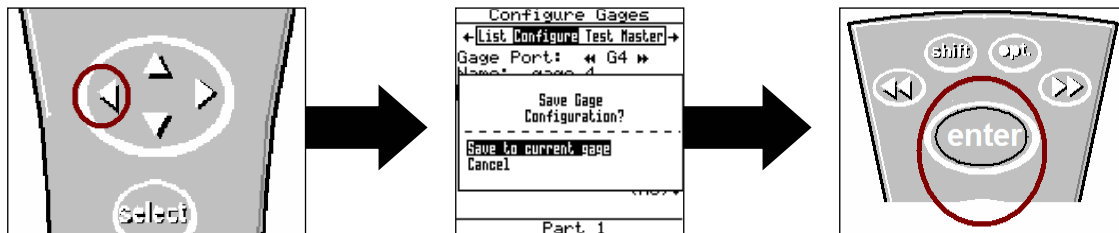
16. To make changes to the “Scale” or “Zero Master” press ▲ or ▼ to highlight “Scale” or “Zero Master” and press <enter>. This will bring up the numeric keypad. Key in the new value and press ►► to accept.



17. Key in the desired value buy using the ▲, ▼, ►, or ◀ to highlight the first number, press <enter>. Repeat until the number is completed and press ►► to accept the new value.



18. Once the “Configure Gages” screen is set press ► and a pop up will appear if any changes were made. Highlight “Save to current gage” and press <enter> if the changes were intentional. If a setting was changed by mistake or you were not done in “Configure Gages” highlight “Cancel” and press <enter>.



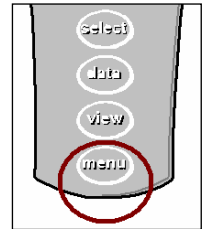
Configuration of the LMI 440 or ASIDataMyte 501 is complete.

II. MASTERING INSTRUCTIONS

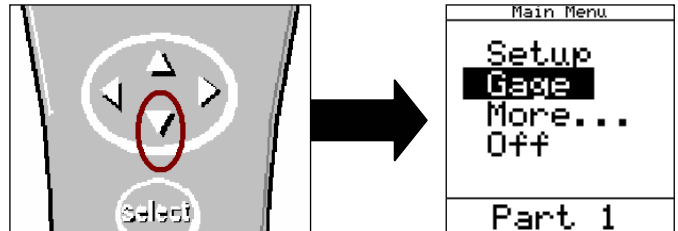
1. Connect the transducer to Gage Port 2/3 of the data collector.



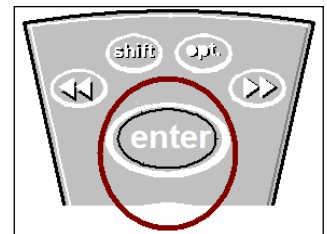
2. Press <Menu> to turn on the collector.



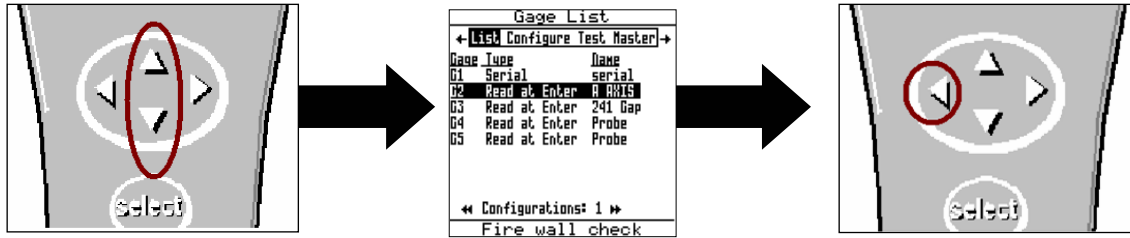
3. Press ▼ to highlight "Gage".



4. Press <enter>.



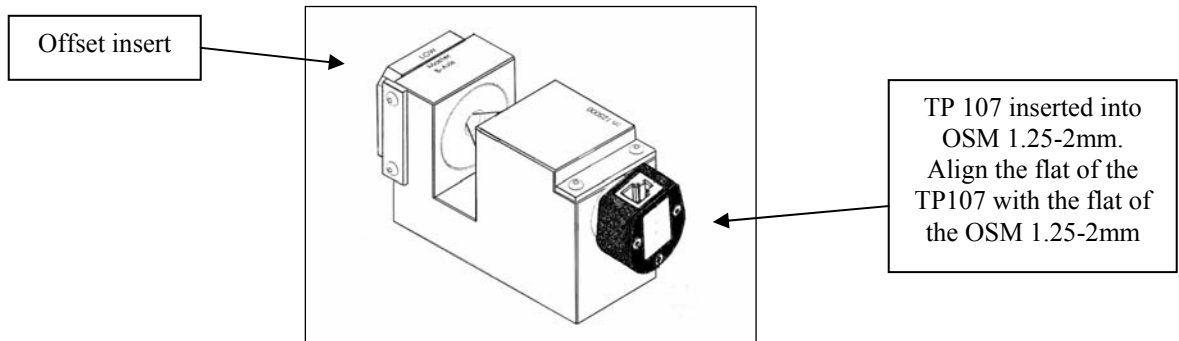
- 5 From the gage list use the ▲ or ▼ keys on the data collector to choose gage file G2 and press ◀ on the collector.



- 6 “Master” will be highlighted in screen header and “G2” is identified as “Gage Port”. If G2 is not the Gage Port press the ▶▶ or ◀◀ until G2 appears.



7. Insert the TP 107 into the OSM 1.25-2mm, align the flat of the TP 107 to the flat of the OSM 125-2. Place the offset insert into the other end of the OSM 1.25-2mm.



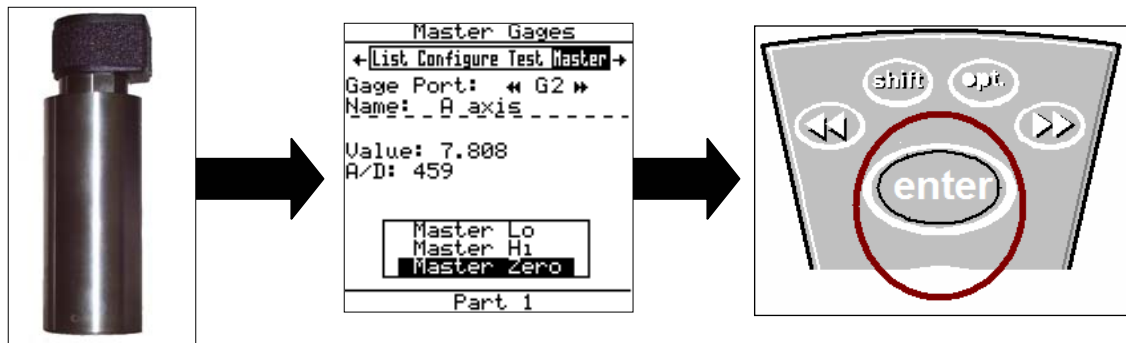
8. Align the offset insert “Low” with “Master A-Axis” on the OSM 1.25-2mm. Verify “Master Low” highlighted on the collector, press <enter>.



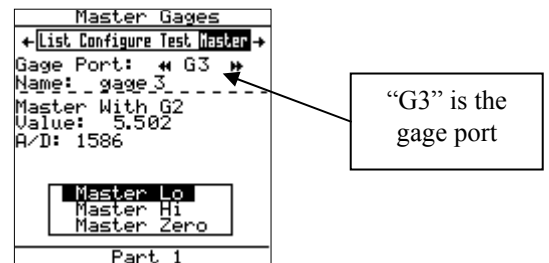
9. Align the offset insert “High” with “Master A-Axis” on the OSM 1.25-2mm. Verify “Master Hi” highlighted on the collector, press <enter>.



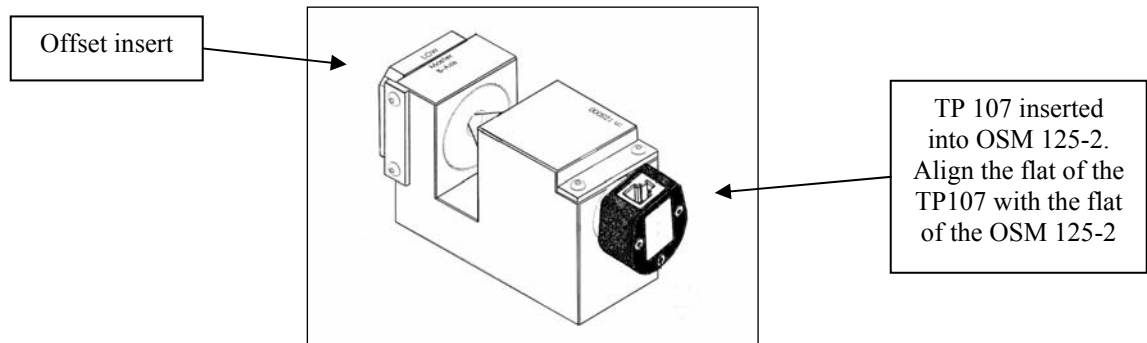
10. Remove the TP 107 from the OSM 1.25-2mm and insert it into the “Zero Bushing”. With "Master Zero" highlighted on the collector press <enter>.



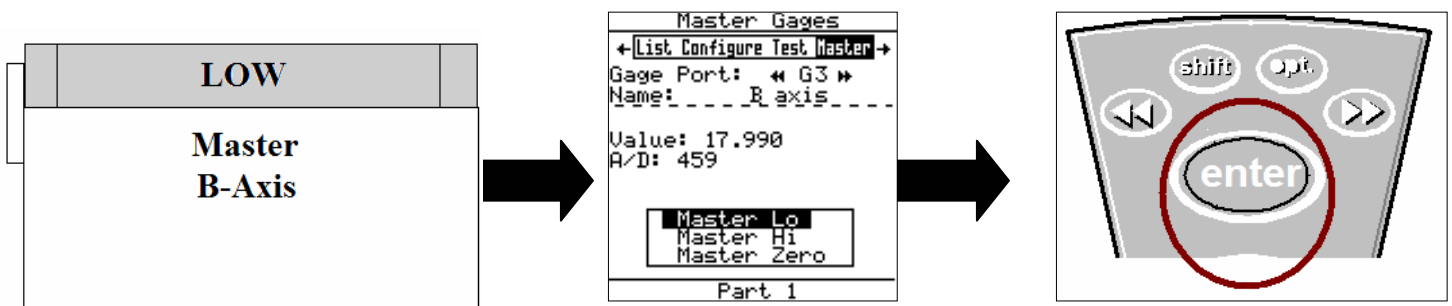
11. The A axis is now mastered. Press the ►► to advance the “Master Gage” screen to “Gage Port: G3”.



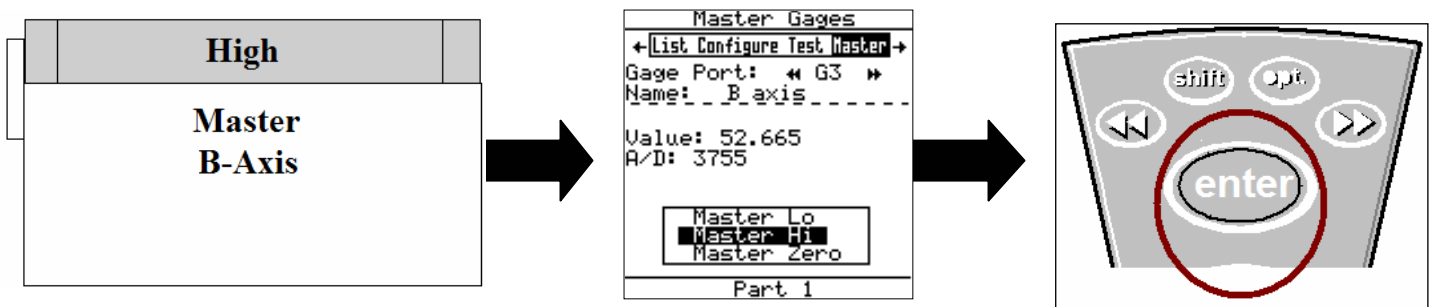
12. Insert the TP 107 into the OSM 1.25-2mm, align the flat of the TP 107 to the flat of the OSM 125-2. Place the offset insert into the other end of the OSM 1.25-2mm.



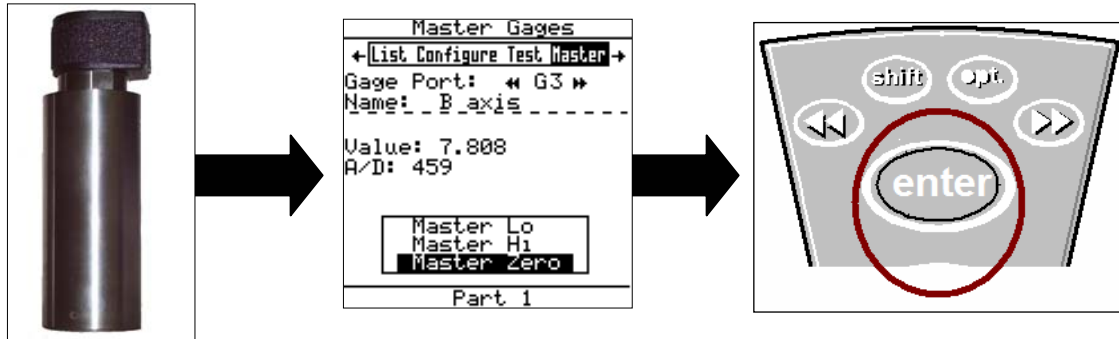
13. Align the offset insert "Low" with "Master B-Axis" on the OSM 1.25-2mm. Verify "Master Low" highlighted on the collector, press <enter>.



14. Align the offset insert "High" with "Master A-Axis" on the OSM 1.25-2mm. Verify "Master Hi" highlighted on the collector, press <enter>.



- Remove the TP 107 from the OSM 1.25-2mm and insert it into the “Zero Bushing”. With "Master Zero" highlighted on the collector press <enter>.

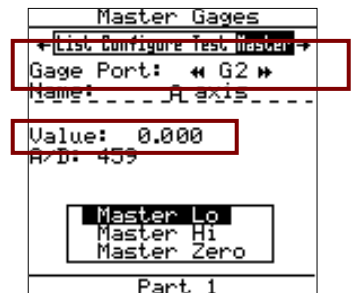


Mastering the TP 107 to the LMI 440 or ASIDatamyte 501 is complete

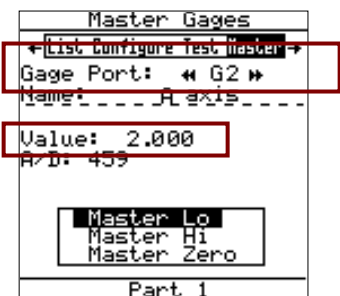
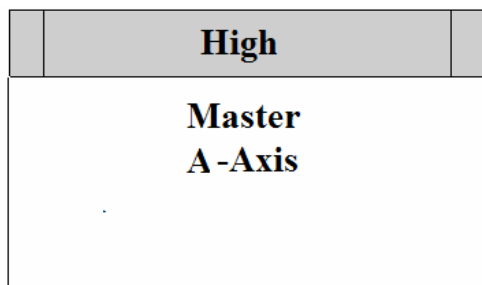
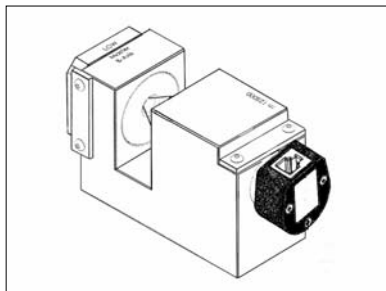
III. Verification of the Mastering

A axis Verification

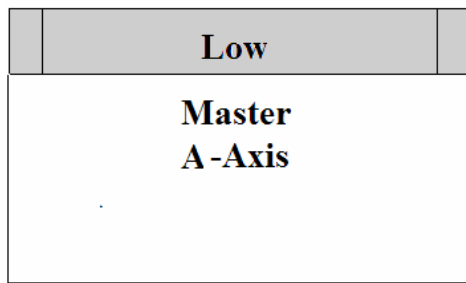
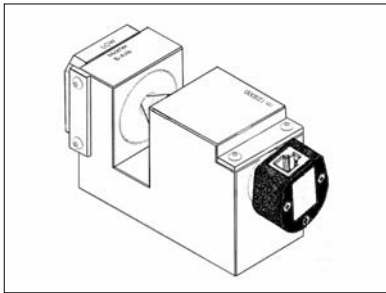
- With the TP 107 in the “Zero Bushing” and the collector set to “Gage Port: G2” in the “Master” screen on the collector, the “Value” needs to read 0.00 +/- 0.03. Rotate the TP 107 at 90° intervals inside the “Zero Bushing”. The value should not vary any more than .03mm.



- Insert the TP 107 into the OSM 1.25-2mm. Align the offset insert “High” with “Master A-Axis”. The “Value” on the collector screen needs to be 2.00.



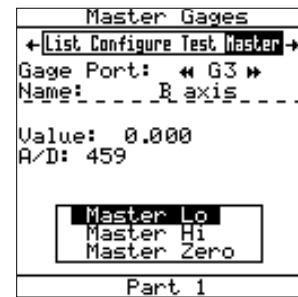
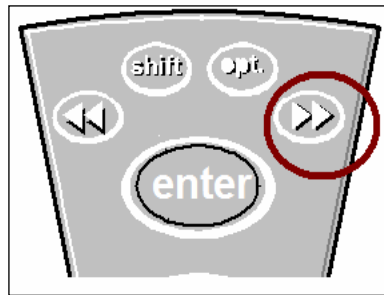
10. Insert the TP 107 into the OSM 1.25-2mm. Align the offset insert “Low” with “Master A-Axis”. The “Value” on the collector screen needs to be -2.00.



11. Add the results of step 2 and step 3 together (disregard the minus sign), the result must be 4.00mm +/- 0.04mm. This example step 2 is 2.000 and step 3 is -2.00, added together without the minus sign equals 4.000mm.

B axis Verification

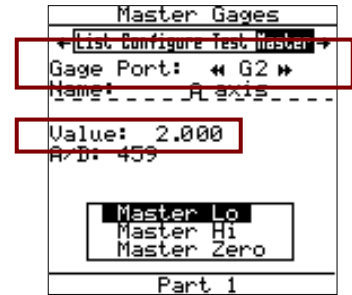
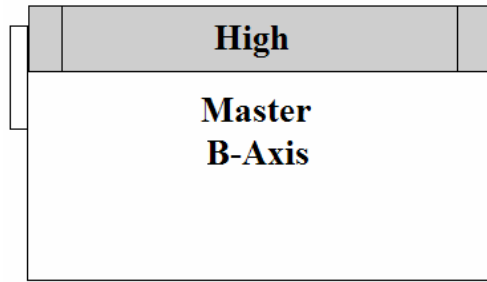
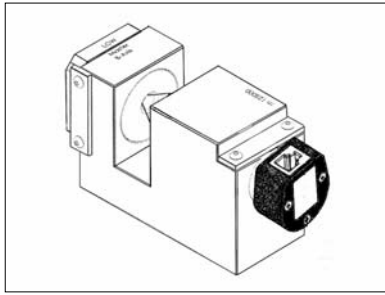
5. Press **▶▶** on the keypad of the collector to change the display from G2 to G3.



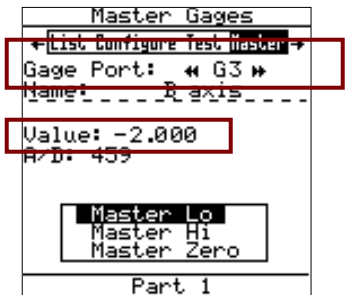
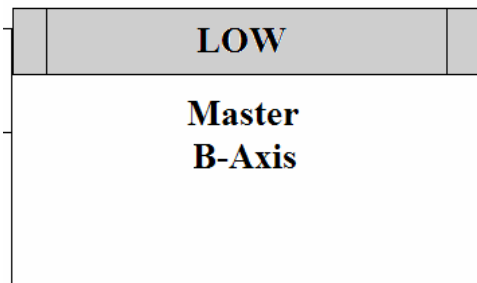
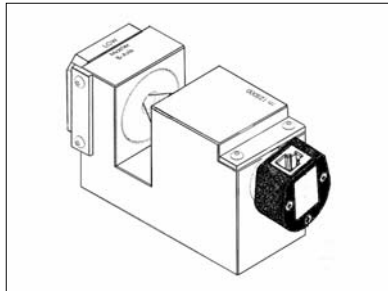
6. With the TP 107 in the “Zero Bushing” and the collector set to “Gage Port: G3” in the “Master” screen on the collector, the “Value” needs to read 0.00 +/- 0.03. Rotate the TP 107 at 90° intervals inside the “Zero Bushing”. The value should not vary any more than .03mm.



7. Insert the TP 107 into the OSM 1.25-2mm. Align the offset insert “High” with “Master A-Axis”. The “Value” on the collector screen needs to be 2.00.



8. Insert the TP 107 into the OSM 1.25-2mm. Align the offset insert “Low” with “Master B-Axis”. The “Value” on the collector screen needs to be -2.00.



9. Add the results of step 7 and step 8 together (disregard the minus sign), the result must be 4.00mm +/- 0.04mm. This example step 7 is 2.000 and step 8 is -2.00, added together without the minus sign equals 4.000mm.

Verification Complete