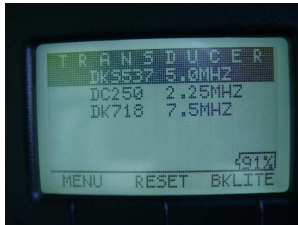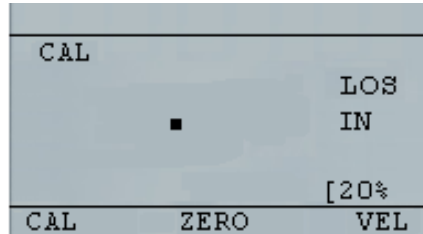**EHC-09A Ultrasonic Thickness Gage**

1. Powering ON/OFF

To power ON the unit press and hold the F1 key for about three seconds. To turn off the unit press and hold the F1 key for about three seconds.

FI

F2

2. Selecting transducer and performing Auto Zero

NOTE: Lemo connectors used on the EHC-09 series need to be pinched to remove…do not pull on them but rather pinch the side of the connector to remove.

Plug in the transducer at the top of the gage and go to the transducer option that matches the part number on your transducer by pressing up or down arrow keys. Then press Menu/OK key to select the highlighted transducer. After the probe zeros, you are ready to make measurements. The transducer selection screen can also be accessed by going into the setup menu, selecting measurements then xducer.

3. Calibrating the gage

Calibrating is the process of adjusting the gage for a specific material and transducer before testing the material to make sure that all measurements are accurate. You must always calibrate before measuring material for standard accuracy.

To perform any calibration, first go to the main measurement screen and press Menu/OK to enter the setup menu. Then scroll to Calibration and press menu/ok. Image F2 Should appear

a. Velocity Calibration Only

Make a measurement of the thicker step, select VEL by pressing F3. After selecting VEL, you can take the transducer off the test block. If the displayed measurement is different than the known value of the step, use the up or down arrow key to adjust the displayed value to the known value of the step. Press OK to perform the calibration. You can also manually enter a velocity by pressing Menu/OK, scroll to Measurement, highlight VEL and use the the right or left arrow to the desired value then press F1 Back key to escape.

b. Zero Calibration Only

Make a measurement of the thicker step, select ZERO by pressing F3. After selecting ZERO, you can take the transducer off the test block. If the displayed measurement is different than the

known value of the step, use the up or down arrow key to adjust the displayed value to the known value of the step. Press OK to perform the calibration.
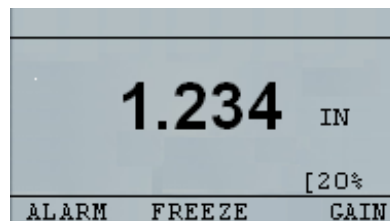
c. Velocity and Zero Calibration: (Recommended)

Go to the calibration screen following the instructions in the second paragraph at the beginning of section 3. Measure the thicker step, select VEL by pressing F3. After selecting VEL you can take the transducer off the test block. If the displayed value is different than the known value of the step, adjust the value by pressing up or down arrow keys and press F1/CAL. Then measure the thinner step and select ZERO by pressing F2. After selecting ZERO you can take the transducer off the test block. If the measured value is different than the known value of the step, adjust the measured value by pressing up or down arrow key and then press OK. Note that the order of Velocity and Zero calibration could be reversed. If Velocity calibration is performed after Zero calibration, the calibrated velocity value will be displayed at the end of the calibration process. Basic instructions for this method will display on the gage just above the F1, F2, F3 labels.

NOTE: Once any of the above calibrations is performed, verify the accuracy of the readings using the test step block.

4. Taking measurements

Once an Auto-zero is performed on the selected transducer, the unit automatically goes to the measurement screen (image F3)

F3

To take thickness readings, apply couplant to the surface of the object being measured and use the transducer to measure thickness. The EHC-09A will display and hold the value in reverse video. For more detailed information on making measurements, please refer to the EHC-09 series User's Guide on the CD provided with the gage or on the support tab of www.danatronics.com.

5. Changing the display settings

Go into the setup menu, scroll to display and press menu/ok. There you can change the backlight, contrast and enter demo mode to see a display of the additional paid options available on the gage

To adjust the resolution or the units (in/mm/usec) go into the setup menu, scroll to initial settings, press menu ok then scroll to the item you wish to change and use the left/right arrow buttons to select the desired choice