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## Simplified Installation of the EESiFlo 6000 Series Ultrasonic Flow Computer



Setup of the 6000 Series Ultrasonic Flow Computer involves three simple steps.

1. Define the Parameters of the Pipe and Fluids (PAR on the main menu)
2. Select the Output Options (OPT on the main menu)
3. Enter the Measure Mode (MEA on the main menu)

### Defining the Pipe and Fluid Parameters >PAR<

- 1) Start by turning the instrument **ON** by pressing the **ON/C** button
- 2) Plug the Transducers into the receptacle marked **Channel A** (or B) and the 6000 will automatically detect which transducers are installed by displaying that information on the LCD.
- 3) Using the 4 or 6 keys scroll to **PAR** (parameters) on the main menu and press **ENTER**.
- 4) Press **ENTER** again to view **Channel A Parameters** or use the 2 and 8 keys to select Channel B.
- 5) Enter the pipes **Outer Diameter** then press **ENTER**. Remember, this is the OD of the pipe not the pipe size. For example a 2 inch pipe has an Outside Diameter of 2.375 inches.
- 6) Or, if the pipes diameter is not known, simply enter 0.00 and the 6000 will prompt you to enter the **Pipe Circumference**.
- 7) Next, enter **Wall Thickness**
- 8) Select a **Pipe Material** using the 2 and 8 keys to scroll up and down through the available list.
- 9) Answer **YES** or **NO** to the prompt for **Lining**. If you answered **YES**, then enter the **Lining Type** (using the 2 and 8 keys) and then the **Lining Thickness**

- 10) Enter the internal **Roughness** of the pipe
- 11) Using the 2 and 8 keys, select the **Medium** (Liquid Type) from the available list.
- 12) Enter the approximate **Medium Temperature** and you'll return to the main menu.

## Selecting Output Options >OPT<

- 1) Using the 4 and 6 keys, scroll to **OPT** (Output Options) then press **ENTER**.
- 2) Choose **Channel A** (or B) then press **ENTER**
- 3) The 6000 will prompt you for the **Physical Quantities** for your desired output. Use the 2 and 8 keys to scroll up and down through the available list. Press **ENTER**.
- 4) Using the 2 and 8 keys, choose your **Velocity In** units from the available list then press **ENTER**.
- 5) If the 6000 is fitted with temperature inputs, answer **NO** to the prompt for **Temperature T1** and **Temperature T2** then press **ENTER**
- 6) Choose a **Damping** (averaging) time in seconds then press **ENTER**
- 7) Answer **NO** to **Store Measured Data** (if you'd like to store data, answer **YES** here) then press **ENTER**
- 8) Unless you have a Serial Printer attached to the 6000, answer **NO** to **Serial Output** then press **ENTER**
- 9) If the 6000 is fitted with a 4 to 20 mA output, answer **NO** to **Current Loop** then press **ENTER** and you'll return back to the main menu

## Enter the Measure Mode >MEA<

- 1) Using the 4 and 6 keys, scroll back to **MEA** (Measuring) then press **ENTER**
- 2) Below each channel will appear a minus sign (**-**), a check mark (**✓**) or a dot (**•**). Using the 4 and 6 keys, select **Channel A** (or B), then ensure there is a check mark below that channel by pressing the 2 or 8 keys. Then press **ENTER**
- 3) The next prompt to appear may be different, depending upon how the 6000 has been initialized. If **Reflection Mode** appears, continue with step 4 below. If a prompt appears asking for a **Sound Path**, continue with step 5 below.
- 4) If **Reflection Mode** prompt appears, choose **NO** and the 6000 will measure in the **Direct Mode**, where the transducers are mounted on opposite sides of the pipe. If you choose **YES**, the 6000 will measure in the **Reflection Mode** where the transducers are mounted on the same side of the pipe. It is recommended you answer **YES** and mount the transducers on the same side of the pipe. However, if problems are experienced getting good solid flow data, it is recommended you go through the **MEA** routine again, this time answering **NO** to this prompt, then remembering that transducers will be mounted on opposite sides of the pipe. Continue at step #6 below.

- 5) If **A: Sound Path** appears, the number indicated below this prompt represents the number of Sound Paths (as indicated on pages 26 and 27 of the 6000 Operating Instructions). This value may be manually adjusted by the User. After reading pages 26 through 27 of the 6000 Operating Manual, choose a Sound Path that matches your exact needs, then press **ENTER**.
- 6) Press **ENTER** and the 6000 will indicate how far apart the transducers must be separated. This display may indicate the values are in millimeters, when in fact they are in inches !!!
- 7) Select an appropriate transducer **Measuring Point** by following the guidelines in the manual pages 17 through 20
- 8) Apply **Ultrasonic Couplant** to the bottom of the Transducers
- 9) **Install Transducers** with arrows pointing in the same direction.
- 10) Ensure Transducers are correct distance apart by pressing **ENTER** and reviewing the **SIGNAL STRENGTH** as discussed on pages 30 and 31
- 11) A **GREEN** signal indicates you have sufficient signal strength to begin measuring. A **RED** signal will indicate you should re-check your transducers installation.
- 12) Press **ENTER** and you are now displaying the flow data you've selected !!!

Once measurements are complete, press **BRK 3 times** to shut the instrument off.

For Additional Information Please Contact:



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