Innova-Sonic® Model 205 Quick Start Instructions

1. Operation of Keyboard (Figure1-1)

Figure1-1 Keyboard

0 ~ 9 are the menu codes to input information required for the flow measurement exercise.

You can use ◀ to delete or move back to the previous data.

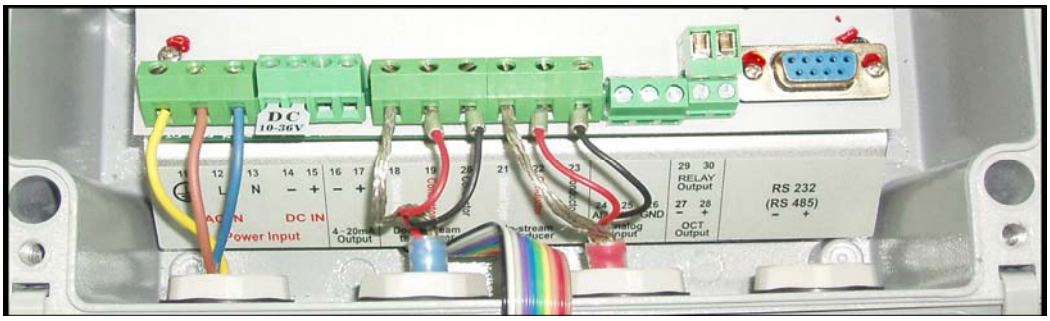
▲/ + ~ ▼/ - are to toggle up and down the menu.

After all data is selected, press ENT to confirm.

MENU is used to select a menu using two-digit numbers for each menu. For example, to enter pipe outside diameter, select MENU 1 1 to enter into the window (“MENU11” is the address code of the outer pipe diameter).

2. Transducer Connection（Figure2-1）。

(**11**)GND--PE （**18** Ground ）-（DN）screen wire （**21** Ground ）-（UP）screen wire
(**12**)L-- AC （**19** Conductor）- (DN) red wire-core （**22** Conductor）- (UP) red wire-core
(**13**)N --AC（**20** Shield Layer）- (DN) black wire-core （**23** Shield Layer）- (UP) black wire-core



Note：The upstream transducer cable is coded red and the downstream is blue.

Figure（2-1）Connection of the flow meter’s transducers

3. Measurement Site Selection （Figure2-2）

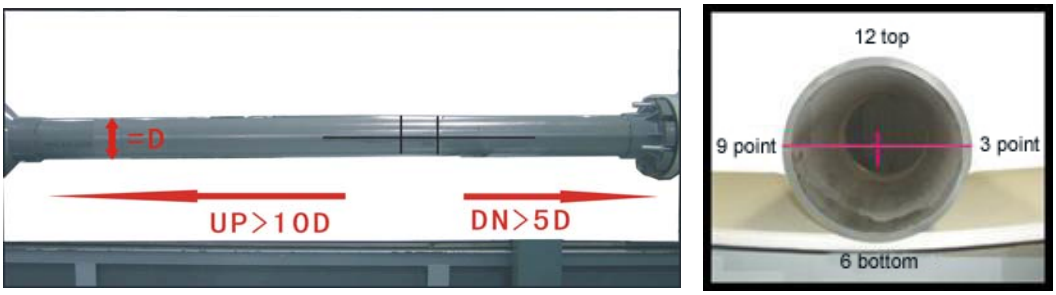


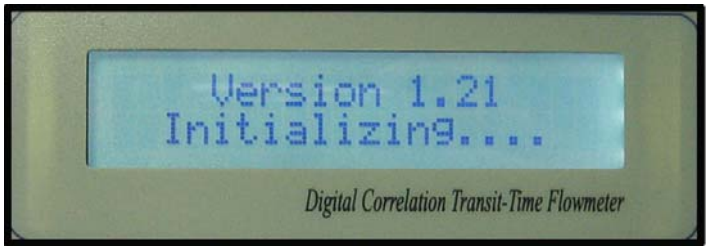
Figure2-2 Installation at the 3 o’clock and 9 o’clock positions

Select the measurement site on a straight section of pipe with 10D (10 pipe diameters) upstream and 5D downstream. The transducers usually are installed at the site 3 o'clock and 9 o'clock positions, and avoid installation at 6 o'clock and 12 o'clock.

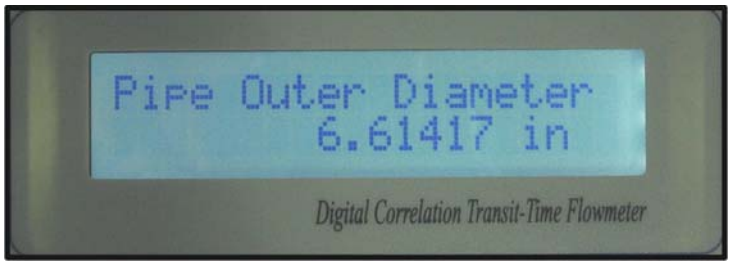
4. Installation and Debugging

Using this quick start installation procedure, the basic parameters needed for a quick startup can be easily done (inputs, such as the pipe outside diameters, pipe wall thickness, pipe material, fluid type, method of transducer installation, etc.). Also the distance (spacing) between the upstream and downstream transducers is automatically calculated by the flow meter in order to obtain the ultrasonic signal and to measure the flow. The main installation and debugging process as follows:

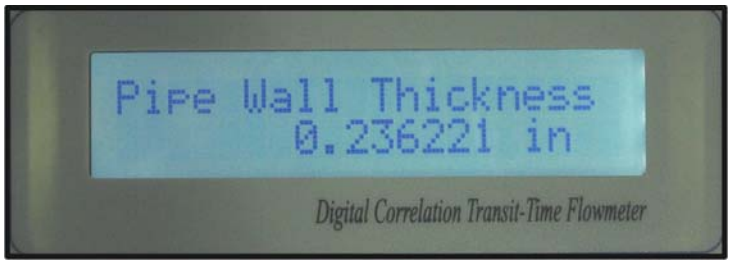
1: Power up the flow meter electronics



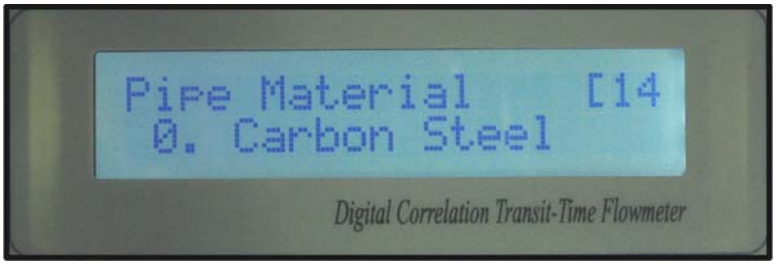
2: Select [MENU] [1] [1] and enter the outside pipe diameter



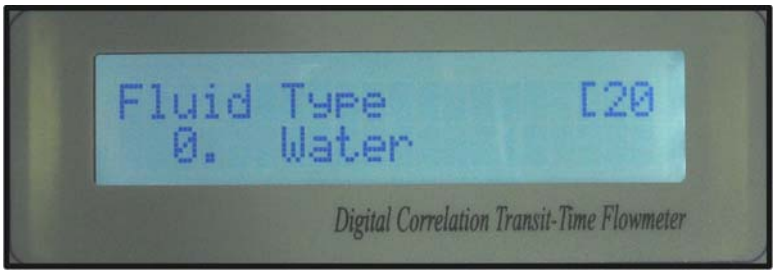
3: Select [MENU] [1] [2] and enter input the pipe wall thickness



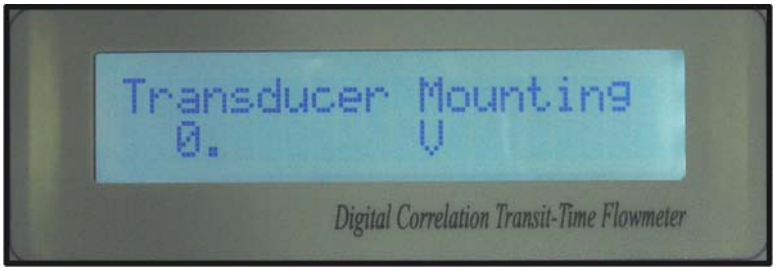
4: Select [MENU] [1] [4] and choose the pipe material



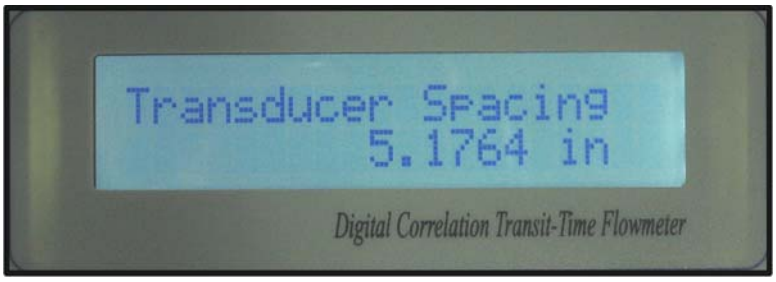
5: Select MENU 2 0 and choose the fluid type



6: Select MENU 2 4 and choose the transducer mounting method

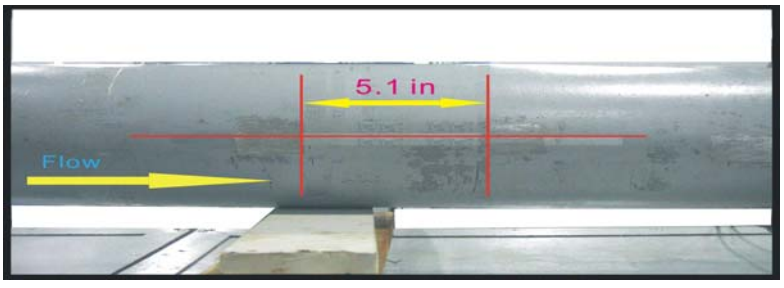


7: Select MENU 2 5 and see the calculated transducer spacing

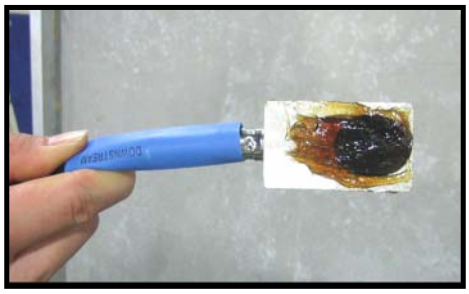


8: Use the calculated data for transducer spacing for installation

8.1 Pipe orientation and preparation (cleaning)

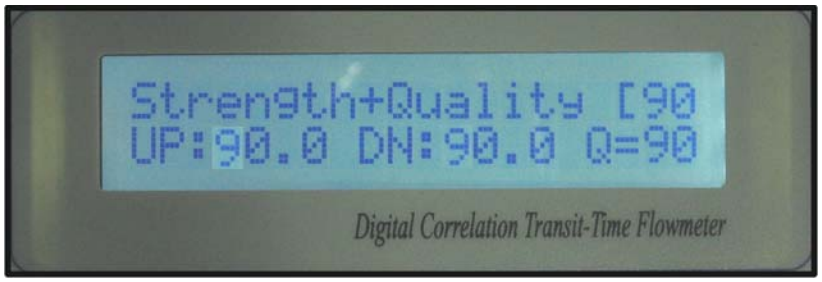


8．2 Applying coupling grease and mounting transducers

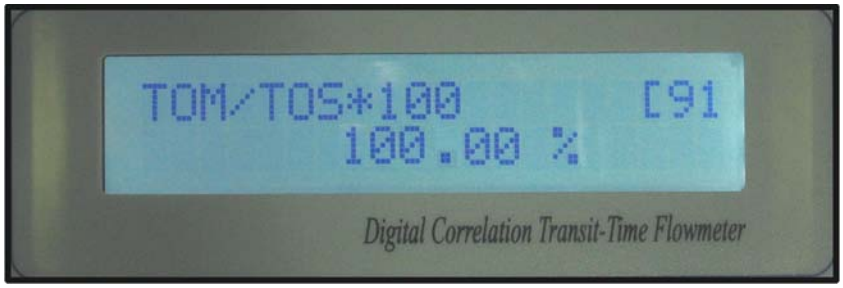


9: Select [MENU] [9] [0] and see the signal strength of the installed transducers.

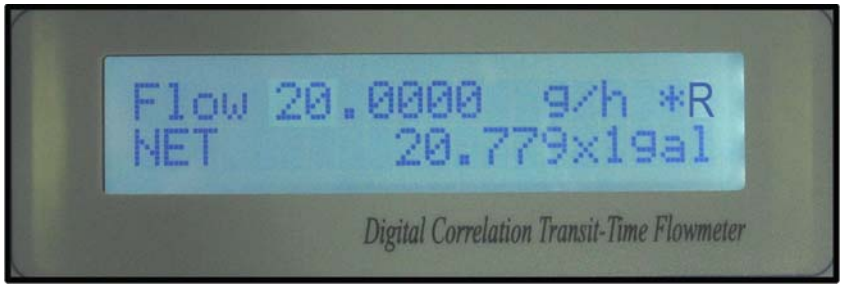
(When the UP and DN signal strength is at least 60, the signal quality is at least 50, the flow meter is functioning well.)



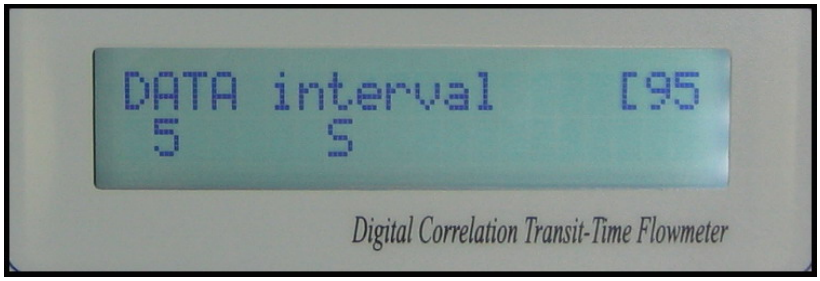
10: Select [MENU] [9] [1] to check TOM/TOS*100, (it should be 100±3%)



11: Select [MENU] [0] [0] to read the instantaneous and totalizing flow.



12: Select [MENU] [9] [5] and setup the data collection interval of SD card.



Note:

The information presented above is for quick start-up of the Sierra Innova-Sonic® Model 205. Other setup parameters are referenced in the 205 manual**.**

For insertion transducer go to Innova-Sonic® Model 205 Manual Appendix 4.

Edited 10/11/2009