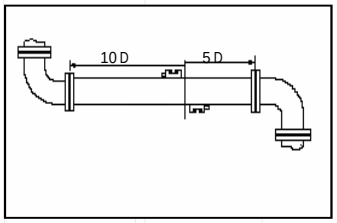
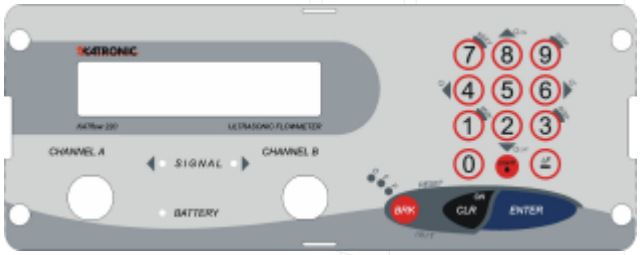
Step 1 Preparation



- Select the measurement point, nominally a 10 times pipe diameter, straight run length on the inlet of the measurement point, and a 5 times pipe diameter, on the outlet as illustrated above.
- Place the flow meter within cable reach of the transducers.
- Connect the transducers to the flow meter (channel "A" preferred as shown above).
- Turn on the flow meter.

Step 2 Keyboard Familiarisation



- Vertical Selection (?) : Keys 8 & 2
- Horizontal Selection (?) : Keys 4 & 6
- Return to Main Menu (esc): Key BRK
- Delete : Key CLR
- Numerical Input : Keys 0-9
- Flow Totaliser function (on/off): Keys Qon, Qoff (during measurement only)

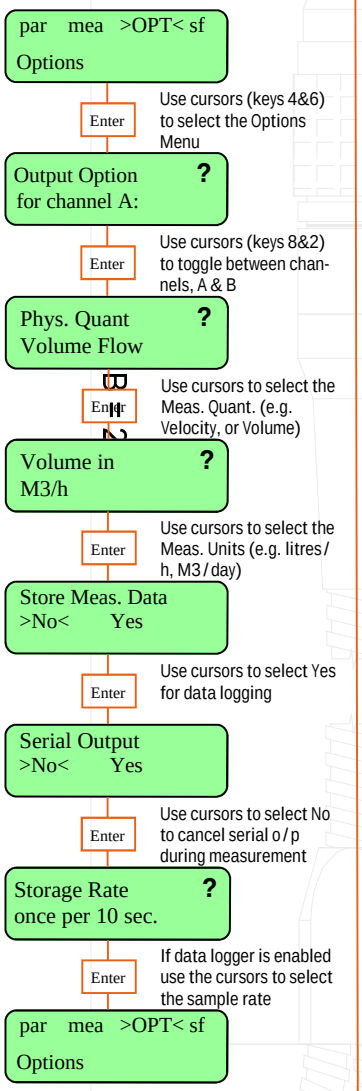
Step 3 Flow Meter Programming Familiarisation

The KF220 uses a simple hierarchical text menu structure, which is navigable by using the cursor keys, and the enter key. If at any point you wish to return to the top level menu just press the BRK key. The top level menu consists of the four options listed below:

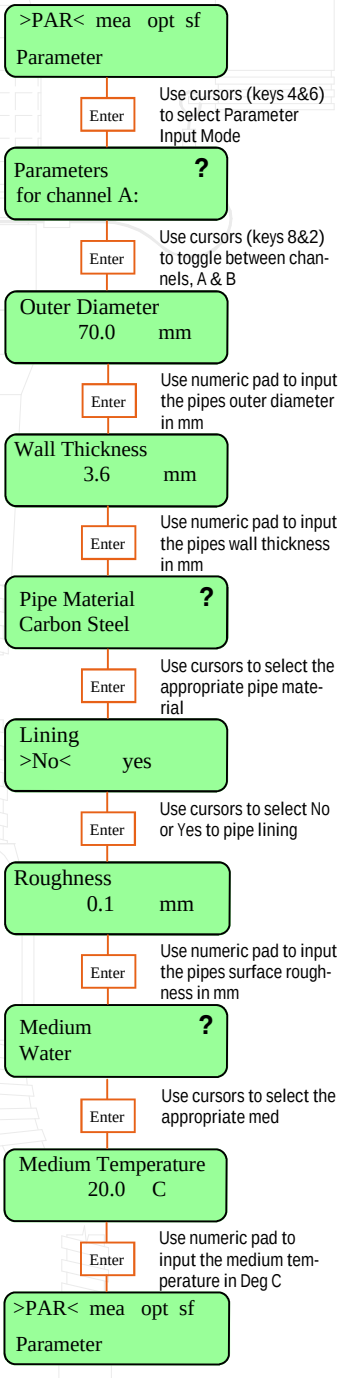
- PAR (parameters input mode)
- MEA (measurement mode)
- OPT (options menu)
- SF (special Function menu)

To take a measurement only the PAR and MEA menus are required, it is advised though to go through OPT, PAR and MEA menus in this order, so as to ensure the correct type of measurement is taken.

Step 4 Selecting Options



Step 5 Setting parameters



A = 1 m

NOTE

Extra screens may be present depending on user defined preferences

Step 6 Starting Measurement

Par >MEA< opt sf
Measuring

Use cursors (keys 4&6) to select Parameter Input Mode

Enter

Channel: >A< B X Y
v - - -

Use cursors (keys 4&6, 8&2) to toggle on & off , Ch's A & B

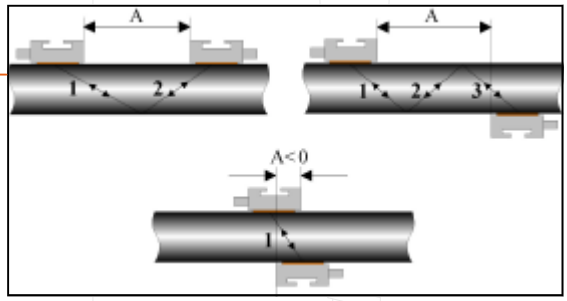
Enter

Sound Path
2 num

Use numeric pad to input the number of sound paths, see diagram to left.

A = 1 m

B = 2 m



Enter

Transducer Distance
A: 53.9 mm

Using the advised transducer spacing distance mount the sensors on the pipe as illustrated (left) using the clips and chains provided.

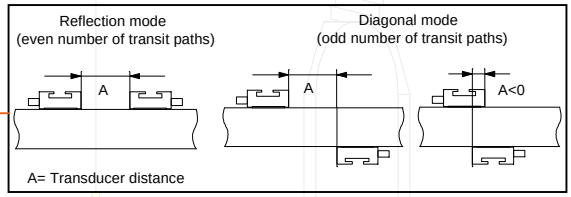
Important

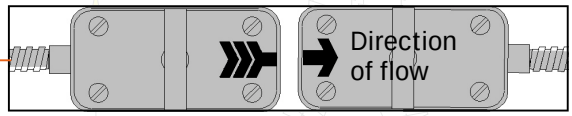
Observe recommended distances from disturbance sources in manual

Clean pipe at the measurement point

Do not forget the coupling paste

Mount sensors on the side of the pipe where possible to avoid gas and deposits.





B = 2 m

Enter

S = ¦ ¦ ¦ ¦ ?? ?
A: ¦ ? ¦ = 53.9 mm

Enter

Adjust the sensor position in order to obtain maximum signal strength "S" if required.

Transd. Distance?
53.9 mm

Enter

Use numeric pad to input the transducer distance if altered

A: Volume Flow
54.5 m3/h

A = 1 m

Now Measuring !
Press the "Q on" key to initiate the flow totaliser if required, and the "BRK" key to quit to the main menu.

Hints and Tips

Check you have the correct sensor by classifying the first letter of the sensor serial number with the types below (SN, can be found on the top of the sensors).

• S Type	=	Pipes 6...40 mm	8 Mhz
• Q Type	=	Pipes 10...400 mm	4 Mhz
• M Type	=	Pipes 100...2500mm	1 Mhz
• K Type	=	Pipes 200...6500mm	500 Khz

Hints and Tips

- If low or no signal is found try reducing the number of sound paths. Re-cleaning and the application of acoustic gel to the measurement location may also help.
- Battery charging must be manually initiated in the special functions menu (15hr max charge).