

AQUAGAUGE™ Installation and Operating Instructions.

Installation Details (Pressure Sensor Model)

Pass the pressure sensor and tube through an appropriate hole or opening in the tank above the water level and ensure that the sensor is sitting on the bottom of the tank. Excess tube can be pushed into the tank.

Operation

The tank transmitter unit normally accepts four AA batteries. These can be accessed or installed by unscrewing the lid on the side of the transmitter. This combination of batteries (6V) gives an output power which is within allowable limits specified by most broadcasting regulations for an operating frequency of 434 MHz. Voltages up to 12V can be used but permissible RF power limits may be exceeded in these circumstances. An AC/DC transformer can also be used as a replacement for batteries. The transmitter unit will send data every 5-6 seconds and batteries should last for 12 months. When disconnecting and reconnecting they must remain disconnected for at least 15 seconds to ensure complete power down.

To use the receiver/display unit:

- Install the 9V battery and switch the receiver on.
- The unit should display the message “**AQUAGAUGE loading...**” followed by “**searching**” and then the **depth** in centimeters.
- If no RF signal is being received then the display will show “**NO SIGNAL**”
- The receiver display will retain a reading for 4 minutes if no new data is received. The unit must therefore be periodically switched on and off when testing reception range.

Maintenance and Operating Problems

Provided that the batteries are charged and the RF receiver unit is within an acceptable distance from the transmitter, then AQUAGAUGE™ sensor units should operate continuously and reliably. Common causes of problems include low batteries in the receiver or transmitter unit and electrical or RF interference from external sources. The receiver and transmitter need to be separated by a distance of about 3 meters otherwise temporary saturation of the receiver may occur and result in poor reception.

AQUACHART Data Logging and Charting Software.

If the system has been purchased with the optional serial data collection package (for WINDOWS 95 or latter WINDOWS operating system) then the AQUACHART software supplied on CD will need to be installed. Insert the CD and run the setup program and follow the instructions. Once installed connect the supplied serial cable to the socket on the AQUAGAUGE display unit and an available serial port on the PC. Check that the chosen serial port is not allocated to other software running on the PC. Start the AQUACHART software and select appropriate data collection parameters as follows:

Serial Port: select the port to which the serial cable is connected

Data Storage Buffer Size: default size is 12800. This value will determine the number of data points available for display in the main text box. If the data buffer size is exceeded it will automatically be saved and appended to a file named Aquachart_overflow_data.txt

Time Interval Between Readings: Choose an appropriate interval for data collection

Initial x-axis Span: Determines the initial time span for the Level and Temperature data plots.

The START button commences data collection

The STOP button stops data collection

The CLEAR button erases all data

The PRINT button prints the graphs

The SAVE button will save the data displayed in the text box in a text file of choice

Drag handles are provided on the charts for data rescaling and a cursor can be used to determine x,y values at any position on both charts.

