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## Fluid Gauges Installation and Calibration instructions.

Thank you for purchasing a fluid level gauge from us. Your unit is suitable for a tank 25 - 150cm or 9.5-60 inches depth. It has been tested at a depth of 40cm.

### **Installation.**

Fresh Water gauge `In Line Sensor` Version.

**Fit the unit (see picture below) between the tank and the pump, within one metre of the tank, if this is not possible please contact us for advice.**

NOTE This version is only suitable where the amplifier can be mounted at approximately the same level as the bottom of the tank, we would suggest within 7.5 cm. The unit can be mounted either vertically or horizontally. Where the pipework runs more than 7.5cm above the bottom of the tank see the diagram on page 5. The gauge will read empty when the water level is at the same level as the bottom of the amplifier moulding.

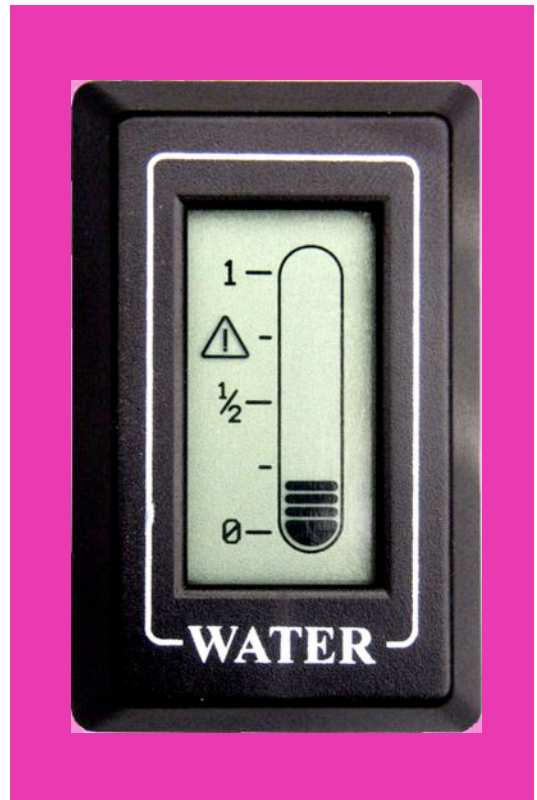
The plastic 'T' is suitable for fitting to 15mm plastic or copper pipe, but if copper is chosen be sure to use a pipe cutter to ensure a square burr free end. Make sure to check that the pipe is fully home in the fitting.

NOTE.

This sender can also be fitted to a pipe stub at the bottom of the tank using a straight coupler in place of the "T".

Fresh Water gauge "Through Tank".

The unit is supplied with a 1/2" B.S.P. threaded tank adapter to screw into a suitable bush. This should be positioned 50mm-75mm from the bottom of the tank remembering the Gauge will read empty when the water is at the same level as the sensor. Screw the compression fitting into the tank using a method of thread sealing, then push the unit into the fitting and tighten the compression joint.



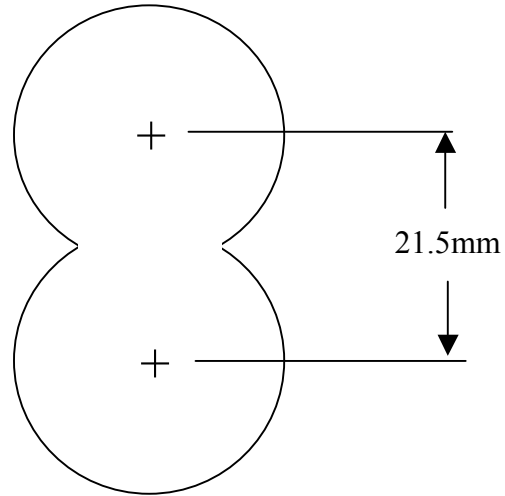
**Amplifier**

Mounting the Gauge and Electrical Connection.

The hole cut-out for the gauge is as per diagram. (see drill template on bottom of last page) It will be easier if the calibration procedure is carried out before finally mounting the gauge as the gauge can then be connected and viewed easily while adjustments are being made.

Mark the hole centres 21.5mm apart or use the drill template on last page, then using a small drill make two pilot holes. Now using a 32mm (1 1/4") hole saw, cut out the two circles. Try the gauge and remove rough edges as necessary.

A drilling template is on the last page of this instruction manual.



This is **NOT** a template  
See last page

Electrical connection.

Connect the wires to the connector blocks as shown using a wire gauge that fits the blocks. Multistrand 0.5-0.75mm CSA is ideal as this is a gauge of wire that can be supported and attached mechanically. (Do not use single strand wire) Connect to a supply in the range of 12-24 volts. Insert the plug into the sender ensuring that the two retaining clips on the plug fit over the OUTSIDE of the socket. If the sender and gauge are a long distance apart only the 0 volts and signal need to be run between the sender and the gauge leaving the +&- supply to be fed locally to the gauge and the + supply only to be fed locally to the sender.

Sender

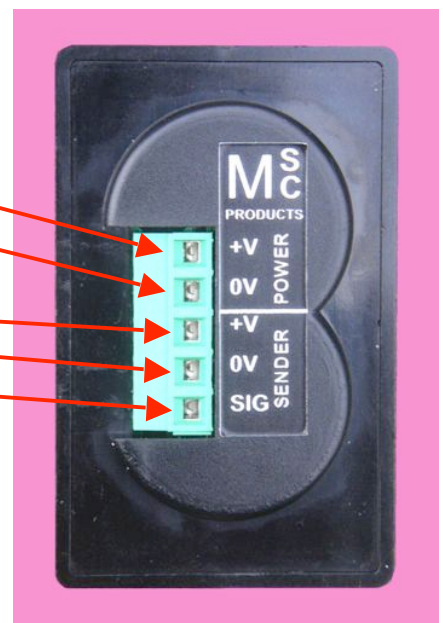
Gauge



Power feed

+12-24 volts  
- 0 volts

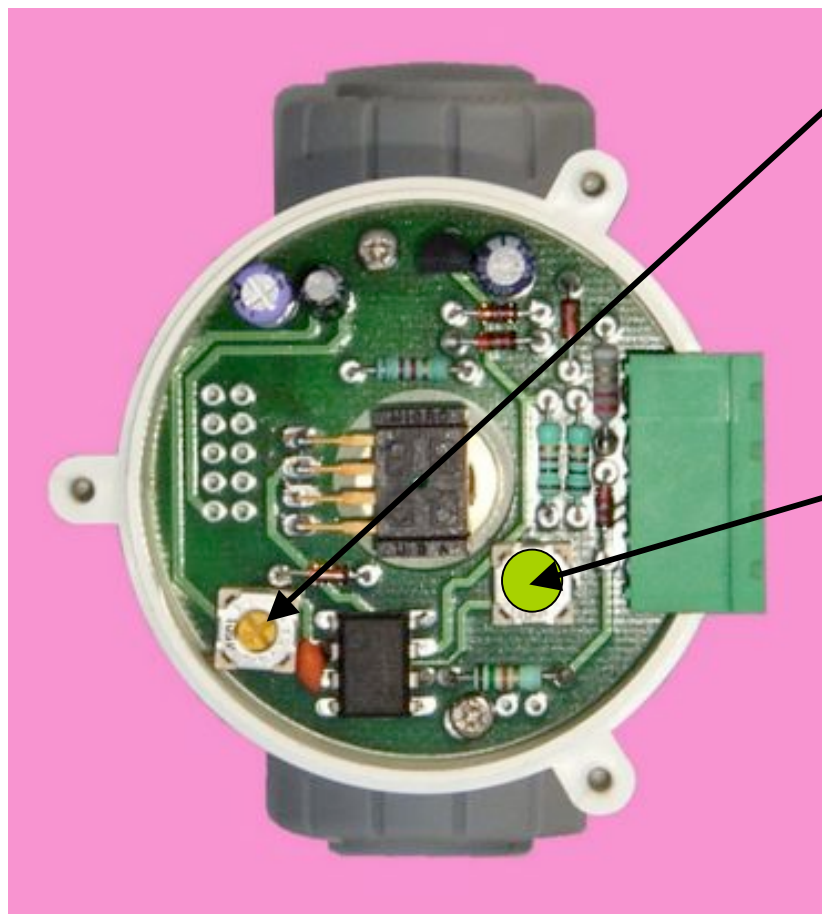
12-24 volts  
Negative 0volts  
Signal



The unit will now be operational.

### **Calibration Procedure.**

In most cases it will not be necessary to adjust the zero unless the amplifier is sited in an unusual position for example below the floor of the tank. Should this be the case please contact the manufacturer.



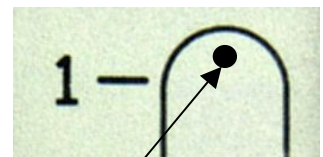
Adjust Full  
Note.

Depending on the model this may be a multi-turn control as shown in the inset. Turn clockwise to increase the reading.



This set zero control is set by the manufacturer.  
**DO NOT ADJUST**

See gauge



Calibration dot

Fill the tank then run approximately two gallons of water off using the tap. This is to ensure that no water is left in the filler pipe as this will cause a false 'full reading'. Although the main scale of the gauge is heavily damped, causing it to only move slowly, the calibration dot is almost instantaneous in function making adjustment easier.

If the dot is showing turn the 'Adjust full' control slowly anti-clockwise until it goes out then slowly clockwise until it just shows. If the dot is not showing turn the 'Adjust full' control slowly clockwise until the dot just shows.

After approximately ten seconds the main scale will show full.

Mount the gauge in its final position using the double sided adhesive gasket supplied.

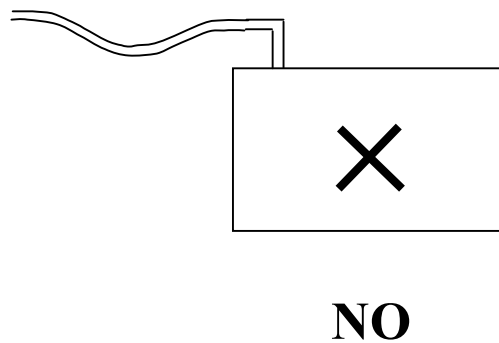
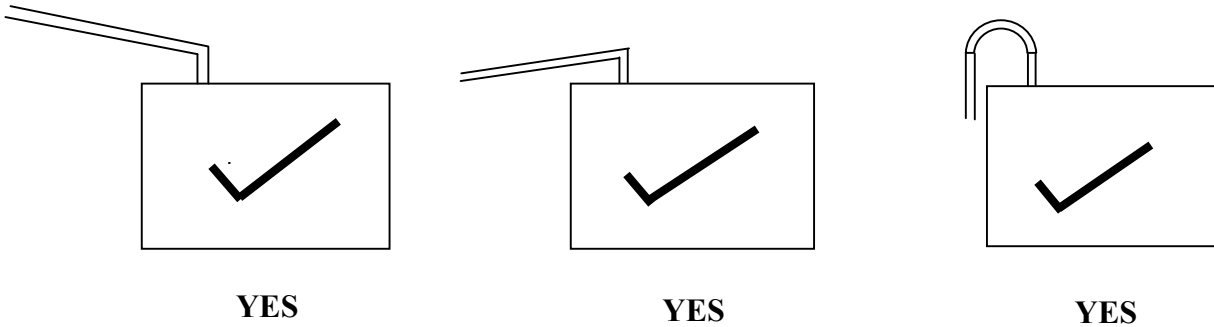
### **Finally**

Fit the lid using the three screws provided. Your unit is now fully operational and I hope it continues to help you to plan your 'water stops' for many years.

Please note that with the inline unit the gauge will read zero when the tap runs, but will quickly return to the correct reading when the pump stops.

## NOTE

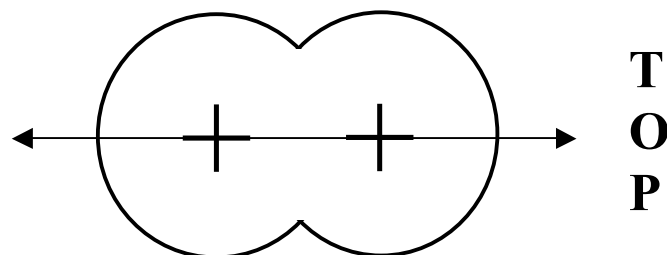
If the breather pipe on the tank is sagged and can hold water, then a false reading on the meter will result. If the pipe is flexible, a piece of wood can be strapped to it to keep it straight.



## WINTERISING

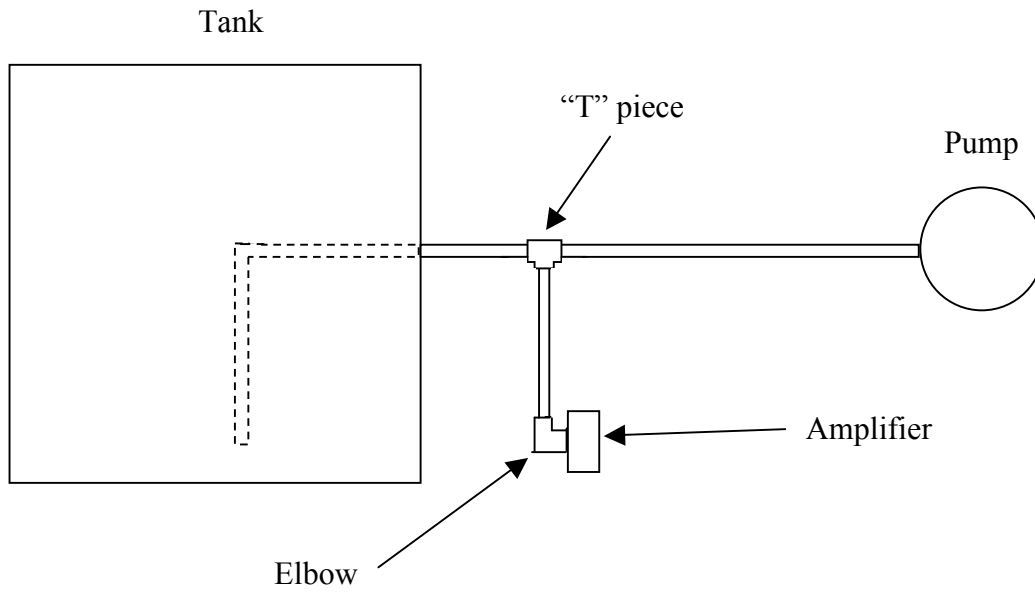
As with all plumbing products water must not remain in the unit at temperatures below freezing. Depending on pipe runs, experience has shown that water sometimes becomes trapped when the system is drained, so we would always recommend that the product is removed to a warm place for winter storage.

This is easily achieved by undoing the hand nut where the amplifier joins the "T" piece, unplugging the green connector block then pulling the unit out of the "T".



**Drilling Template**  
**Use vertically**

If the pipe work is raised above the bottom of the tank proceed as follows.



When the water reaches the level of the line shown below there is no pressure at the sensor and the gauge will read zero

