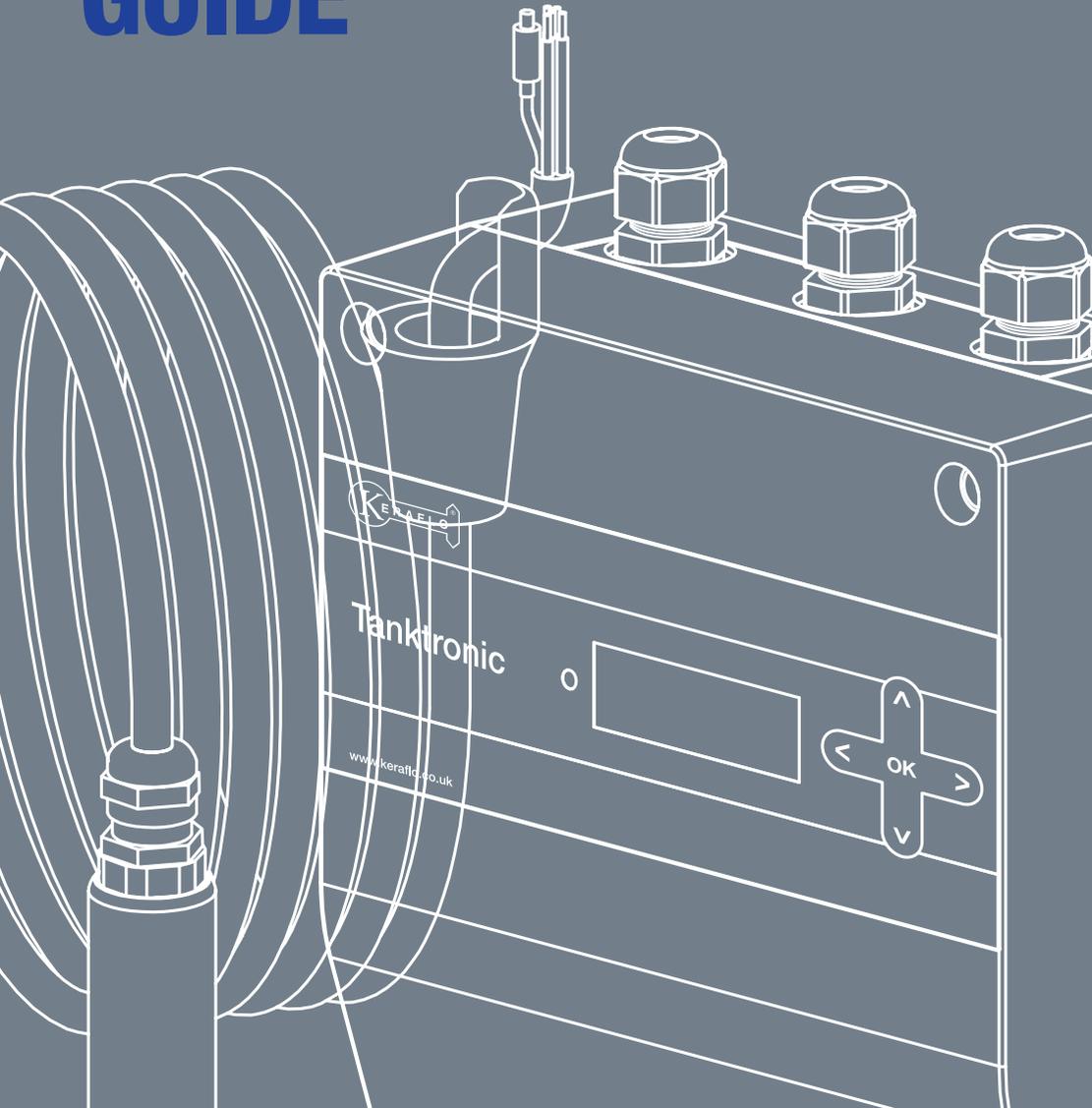




# TANKTRONIC<sup>®</sup> INSTALLATION GUIDE

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59-69 Reading Road, Woodley, Reading Berkshire RG5 3AN

TT/21A-01

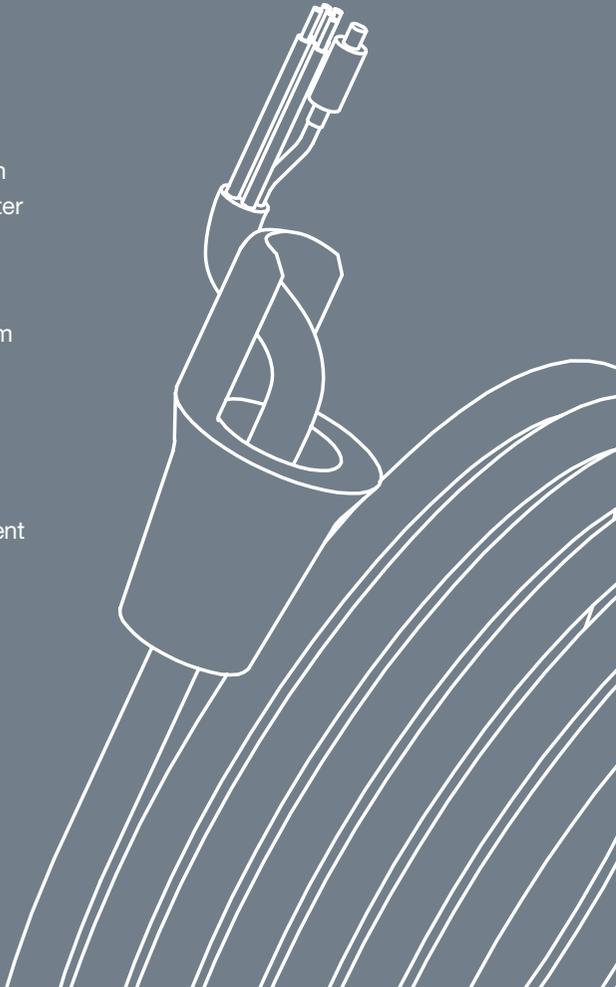
# PLEASE READ THIS MANUAL BEFORE USING TANKTRONIC®

## INTRODUCTION

Tanktronic is an electronic tank management system which provides an easy-to-use solution for monitoring water conditions within a tank and controls filling all in one system.

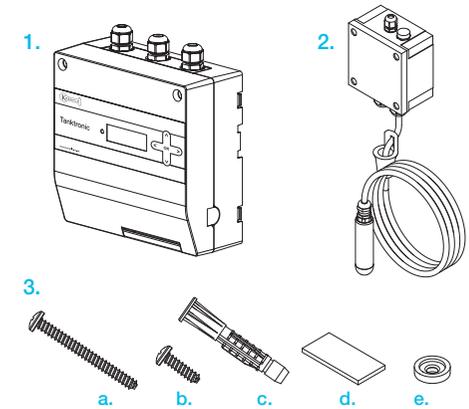
Pressure and temperature readings from a continuously submersed sensor are taken and shown on a user friendly interface informing the customer of the water level and status.

Tanktronic can be used as an independent monitoring system or installed with several different modules to build a sophisticated tank control system. Tanktronic's features include electronic fill, remote control and water usage monitoring.



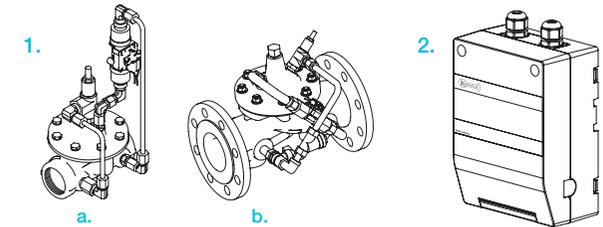
### Parts Supplied as Standard

1. Main control unit including power supply
2. Sensor assembly and bung
3. Fixings
  - a. 4 x #6 screws for mounting main control unit
  - b. 4 x #4 screws for mounting vent box
  - c. Rawlplugs
  - d. Self-adhesive pads
  - e. 4 x floating washers



### Optional Parts

1. Control valve assembly
  - a. Compression fitting
  - b. Flanged fitting
2. Battery back-up module



### Glossary (see diagram on page 20)

**Close Level:** The Close Level is the maximum desired water level inside the tank. The valve(s) will close when this level is reached. The Close Level can be set either manually or automatically.

**Fill Delay:** The Fill Delay is the depth of water lost before the system opens the valve to begin filling; it is the depth of water displaced in relation to the Close Level.

### High Level Alarm (Alarm Level H):

This alarm will trigger when the High (maximum) Level is reached and the valve has not shut off. It must be set higher than the Close Level.

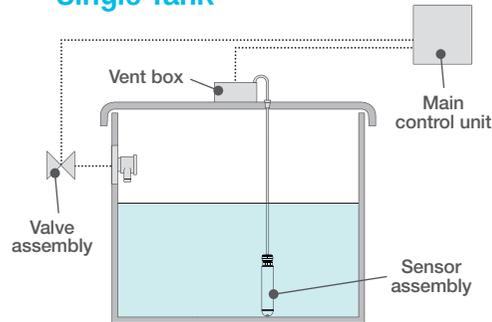
### Low Level Alarm (Alarm Level L):

This will trigger when the Low (minimum) Level is reached and the valve has not opened to allow water to flow. This level must be lower than the set Low Level.

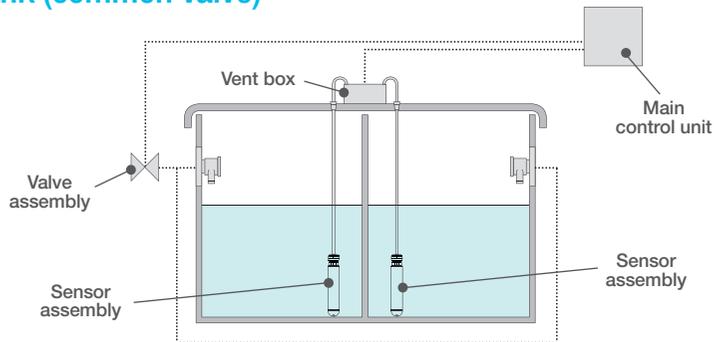
# 1. ASSESSING SYSTEM LAYOUT

Before installing your Tanktronic system, it is suggested that you assess the tank environment to establish the best position for the equipment. You should also assess the most appropriate locations for any permanent fixings or adaptations to the area. This assessment also ensures that you have adequate cable and fixings to complete the installation before starting.

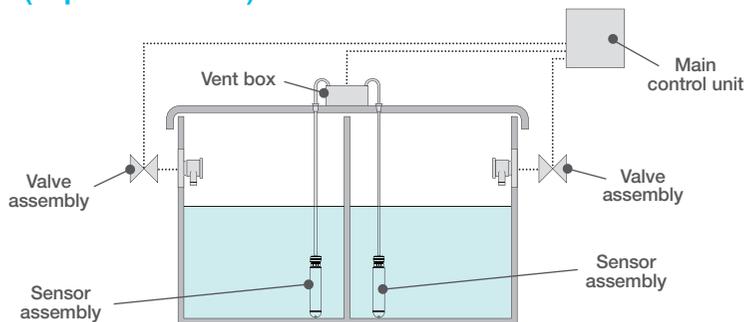
## Single Tank



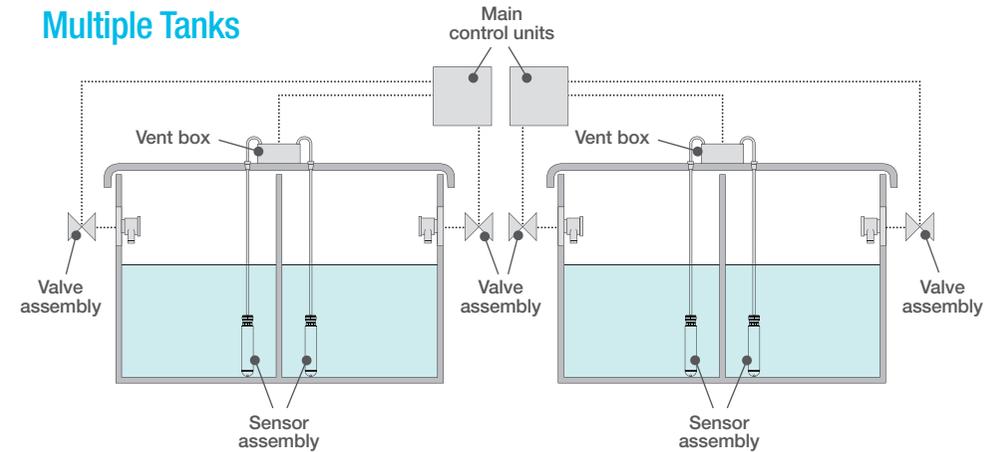
## Twin Tank (common valve)



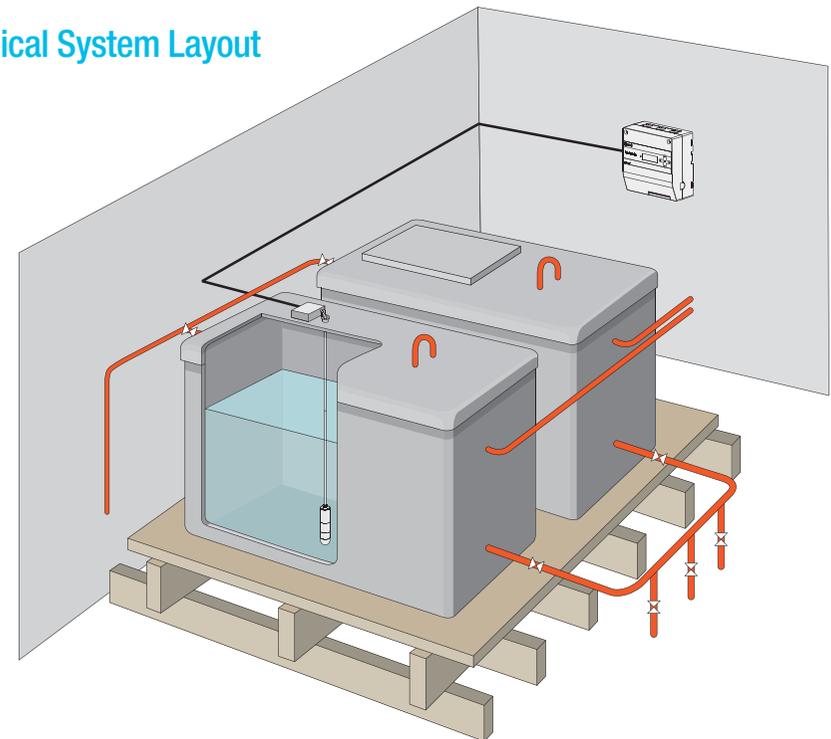
## Twin Tank (separate valves)



## Multiple Tanks



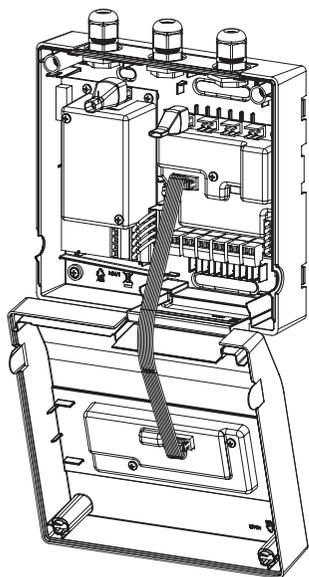
## Typical System Layout



## 2. MOUNTING THE MAIN CONTROL UNIT

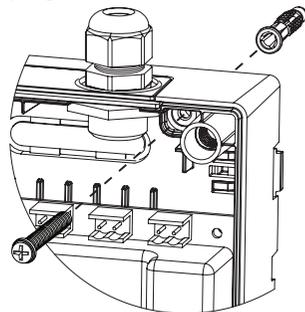
The main control unit should be mounted to a solid surface, such as a wall, within easy reach of the tanks being monitored.

1. Open the main control unit and offer the unit to the wall.
2. Ensure the main control unit can be opened fully, with no obstructions below the unit that could limit access.
3. A drilling template is included in the packaging and this can be used to mark the drilling points. Use the complete template to mark the position of the main control unit.



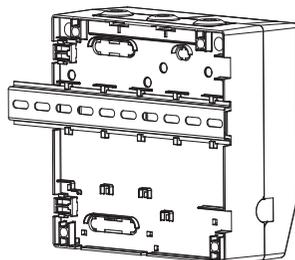
4. Mark the position of the mounting holes as per the drilling template. Pay particular attention to ensure that the cable glands are free from obstruction.  
**NOTE: Remove the unit prior to drilling.**

5. Drill 8mm diameter holes and insert rawlplugs.



6. Screw unit in position using floating washers and #6 screws provided. Take care not to trap the ribbon cable when closing the unit.

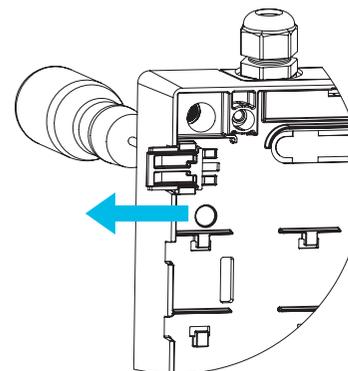
It is also possible to mount the main control unit on a DIN Rail.



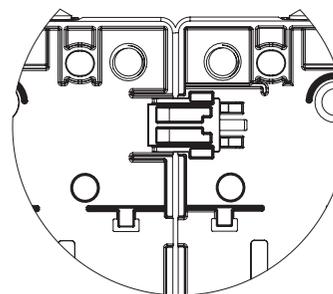
## 3. MOUNTING SUBSIDIARY AND BATTERY BACK-UP MODULES

If the installation involves multiple tanks or a battery back-up case is required, please follow the instructions below.

1. Slide tabs with a screwdriver as shown below.  
**NOTE: These tabs are not load-bearing and any extra units should be supported during fitting.**

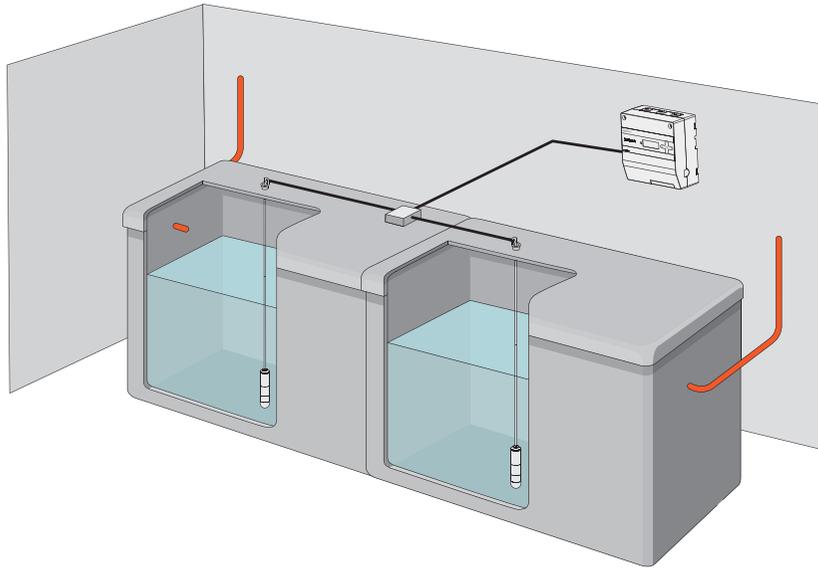


2. Align the subsidiary module to the main control unit using the tabs.



3. Mark the position of the mounting holes. A drilling template is included in the packaging and this can be used to mark the drilling points. Push out and use the central part of the template to mark the position of the battery back-up box. Pay particular attention to ensure that the cable glands are free from obstruction.  
**NOTE: Remove the unit prior to drilling.**
4. Drill 8mm diameter holes and insert rawlplugs.
5. Screw unit in position using floating washers and #6 screws provided.
6. Repeat for additional modules or the battery back-up module.

## 4. MOUNTING VENT BOX



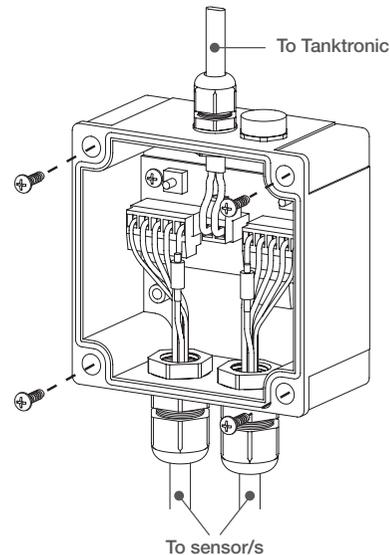
The vent box is supplied with self-adhesive pads to fix it to the top of the tank being used. Four screws are supplied to allow you to permanently fix the box. Four clearance holes are located in the corners of the box to facilitate such fixing.

### Notes on Positioning

To reduce the effects of turbulence, do not position the sensor close to the inlet.

Take cable length into consideration to ensure there is sufficient cable length to reach the vent box.

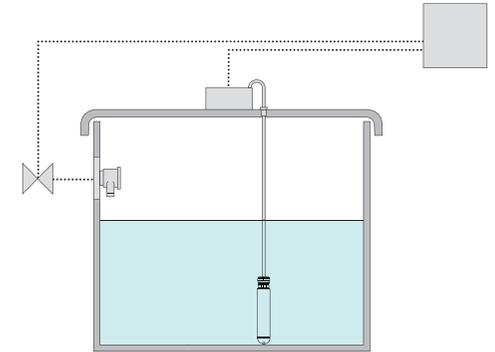
**NOTE: Do not cut the sensor cable and take care not to damage the clear plastic tube at the centre of the cable.**



## 5. INSTALLING THE SENSOR IN THE TANK

Allocate one sensor to each tank. It is advisable to label each sensor (Sensor 1 for example) and its corresponding tank (Tank 1 for example) prior to lowering the sensor into the tank.

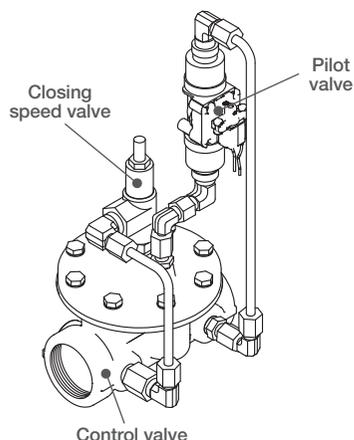
A 25mm hole should be drilled in the top of the tank, preferably away from the water in-let pipe. Lower the sensor into the tank so it touches the bottom of the tank. Take care not to allow debris to enter the tank. It is suggested that the tank is drained down and chlorinated before refilling. A tapered rubber bung is fitted to the sensor cable to hold the sensor in place in the tank; slide this bung down the cable and force into the hole through which the sensor has been lowered, securing the cable in place.



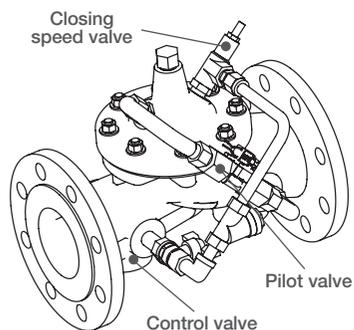
## 6. INSTALLING THE VALVE ASSEMBLY

The valve assembly consists of a pilot and control valve. Installation of valves should be in accordance with The Water Supply (Water Fittings) Regulations 1999 and BS6700:1997 Para. 2.2.4

**For 1½” or smaller piping, use a screw-thread filling valve**



**For 2” fittings and greater, use a control valve with flange fittings**



### Operation

When the water in the tank drops below the desired Open Level, Tanktronic will send a signal to the pilot valve to open. This relieves the pressure on the top surface of the diaphragm, causing the control valve to open. When the water level has reached the desired Close Level, Tanktronic sends a closing pulse to the pilot valve, causing water pressure to build on the diaphragm surface and close slowly.

The control valve can be mounted horizontally outside the tank either at floor level or above the tank water level. It can also be positioned vertically in the rising main (up to and including 150mm (6”) only).

A servicing valve must be fitted upstream of the control valve. A servicing valve fitted downstream of the valve is also recommended to completely isolate the valve for maintenance. It is recommended that a coarse particle strainer (not supplied) is installed upstream of the control valve to prevent debris entering it unless the valve is mounted vertically.

Discharge into the tank – if an air gap is required for back flow protection, the discharge must be above the water level.

Prior to installation, all pipe work should be flushed through to remove all debris.

Decide upon the best location for mounting the valve assembly. Refer to the consulting engineer’s plans as appropriate.

### Installation

Connect the control valve inlet to the pipe work using either screw thread fittings or a flange and appropriate gaskets and bolts. Note the arrow on the side of the valve indicating the direction of flow.

Connect the control valve outlet to the tank. An optional discharge flange assembly is available.

### Commissioning and Testing

Complete the tank set-up setting the appropriate level settings.

Connect the pilot valve flying leads to the cable back to Tanktronic. Gently open the upstream servicing valve.

Operate the system – complete an auto set-up or temporarily lift the sensor cable to initiate filling. Lowering the sensor to the bottom of the tank will close the valve.

The closing speed valve can be adjusted to avoid excessive pressures (water hammer) developing in the supply pipe as the

control valve closes. The closing speed valve is the slotted screw with lock nut found on the top cover of the control valve. The closing speed valve should be set to provide a slow closure of the control valve. If the closing speed is too short, a bang will be heard. This must be avoided to prevent damage to the pipe and system. Turning the closing speed valve clockwise will increase the delay. If the control valve fails to close or does not close quickly enough, the closing speed valve should be turned anti-clockwise to shorten the closure time.

### Servicing and Maintenance

No routine maintenance should be necessary. If debris has entered the water supply, isolate the supply to the control valve assembly and inspect/clean as appropriate.

## Twin Tank Installation

To ensure a continuous supply of potable water, some installations feature one large tank with a central partition or two smaller tanks connected in parallel. Both compartments are normally used with an interconnecting balance pipe and a central draw-off connection.

To minimise the risk of water-borne diseases, it is desirable to ensure regular circulation through both tanks. For parallel installations this is achieved by filling both compartments/tanks simultaneously. When connected correctly both tanks will receive an equal flow – irrespective of which pilot valve is open.

### Normal Installation

To avoid overfilling one tank, a large balance pipe must be fitted with a central take-off (i.e. the distance from the tank outlet to the draw-off pipe must be of equal diameter and length).

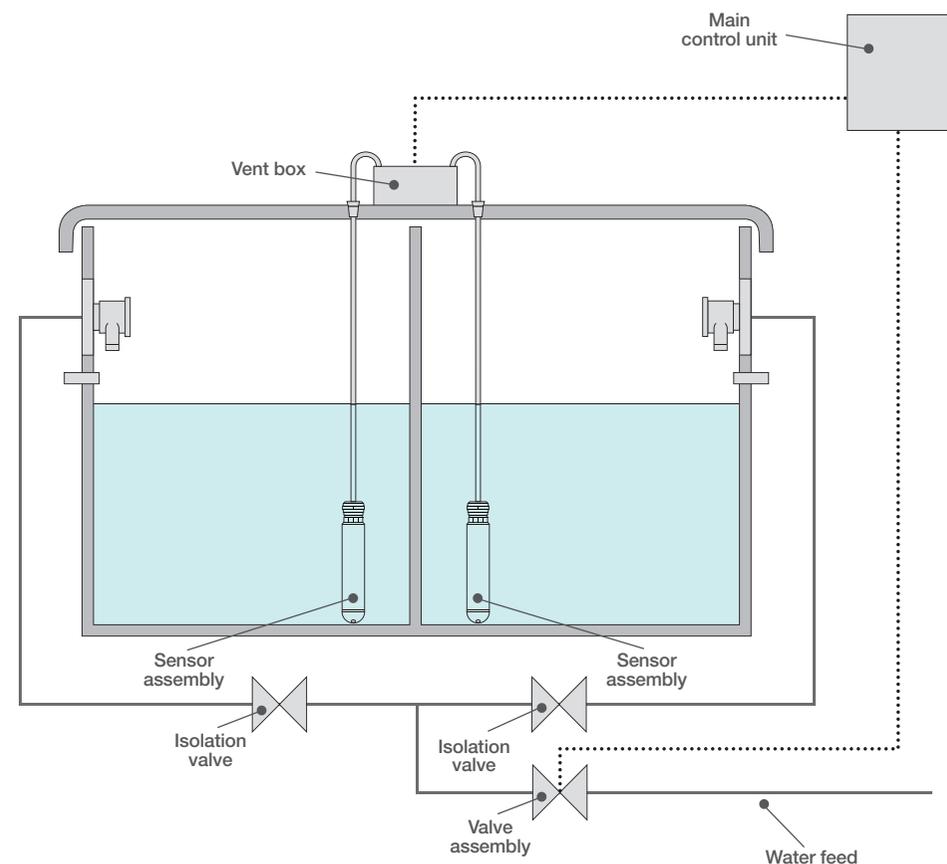
Likewise the filling pipes to each tank should be of identical head loss (i.e. same diameter, length and fittings). It is advisable to leave a substantial distance (e.g. 150 mm) between the Close Level and the Overflow Level of the warning pipe (see diagram opposite). This will allow for some imbalance in water levels between the tanks.

It is suggested that the servicing valves to both KB pilot valves be open. The control valve will open fully and fill both tanks when either or both KB pilot valve is open. The Open Levels and Close Levels would normally be set the same for each tank. The pilot lines need not be symmetrical.

### Maintenance

One tank/compartment may be isolated for cleaning, chlorinating or for any other reason. To isolate one tank, close all the valves relating to this tank (i.e. KB pilot servicing valve, filling isolating valve and the outlet isolating valve). The flow rate into the functioning tank will increase. If this flow is excessive, throttle the flow with the main servicing valve or the filling isolating valve.

## Typical Twin Tank Installation

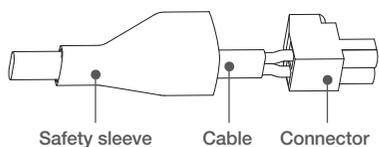


# 7. WIRING CONNECTIONS

## Power

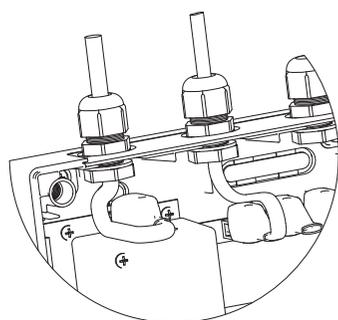
Tanktronic requires a normal 240v mains power supply from a switched fused 3A supply.

1. To connect the power cable, first slide the cable through the safety sleeve, then attach it to the connector.



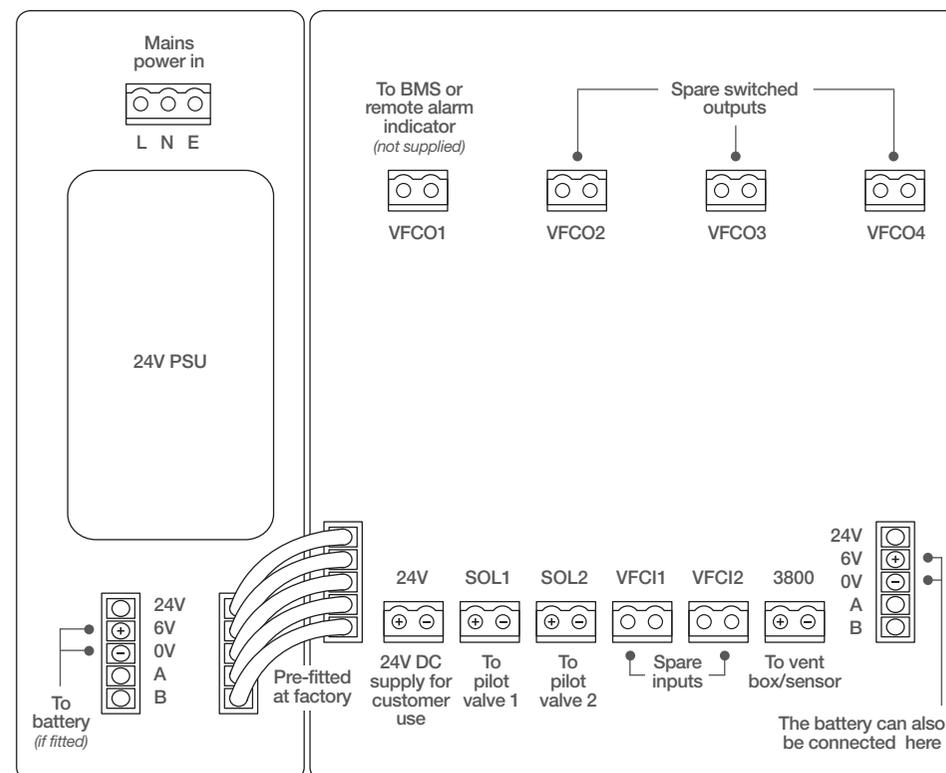
2. Slide the safety sleeve back over the connector before pushing the assembly firmly into the required socket. This should be duplicated for any connection to the Volt Free Contact Out (VFCO). This is a safety feature to reduce the chance of an electrical short circuit should a wire come loose.

3. Ensure cables are fed through the cable glands as displayed and cables are free to access the tanks, valves and any alarm unit being used.



4. Replace main control unit cover.

**NOTE: Do not connect the valve to the main control unit for initial set-up otherwise the valve may open and flooding may occur.**



## Sensor

Attach the connector 3800 to the net connector in the vent box assembly. Please note the positive and negative polarity.

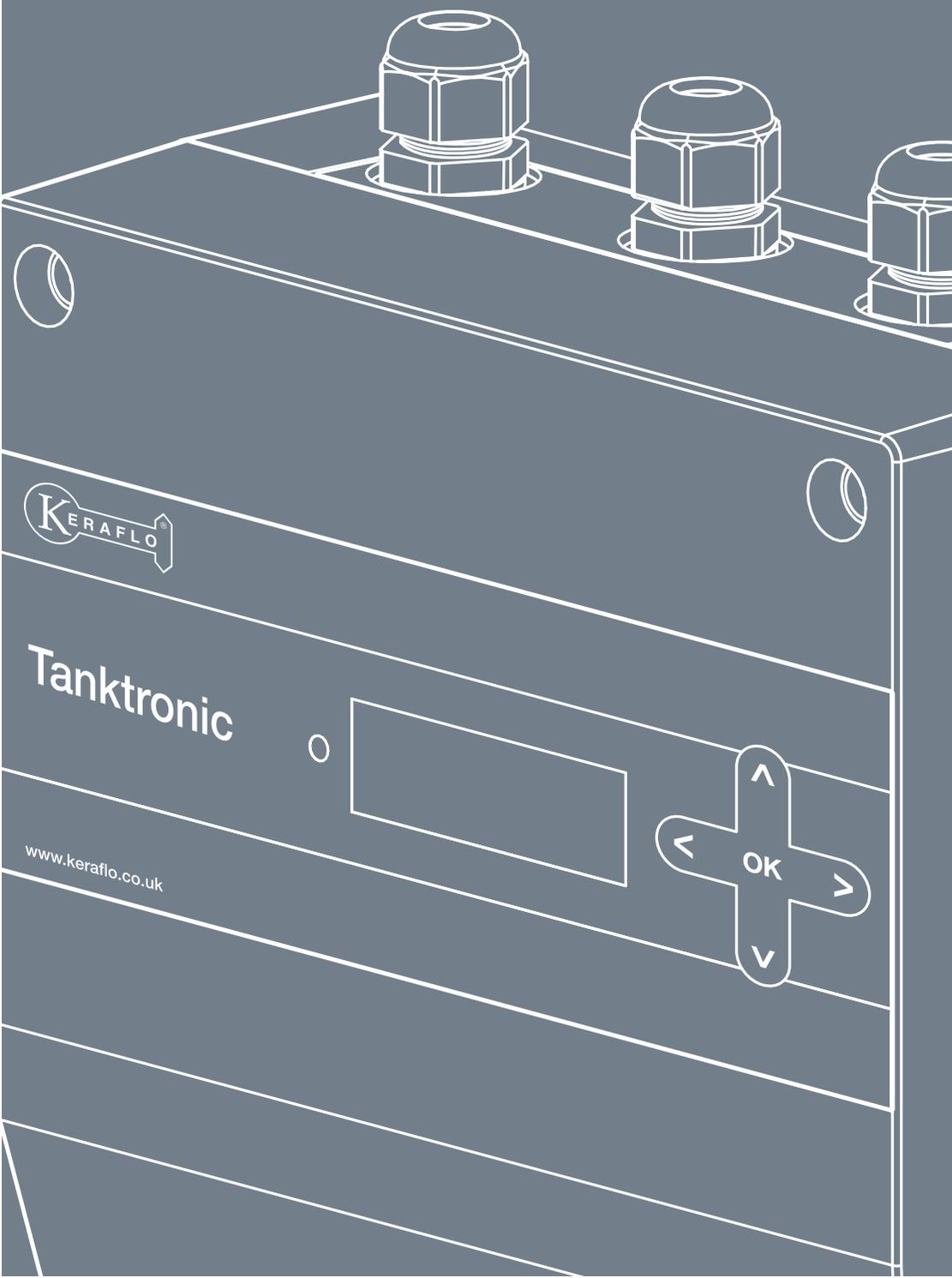
Maximum lengths for a typical 1mm<sup>2</sup> cable  
 Pilot valve: 50m length  
 Sensor: 100m

## Pilot Valve

The pilot valve needs to be connected to the SOL1 connector. Please note the positive and negative polarity.

If there is a second valve assembly, connect the other pilot valve to SOL2.

**NOTE: If the wiring is not connected correctly, the polarity will be reversed and the connected device will not function as intended.**



## 1. INITIAL START-UP

When power is first connected, the screen back-light comes on and screen will read 'Initialising...'. The status LED is constant amber.

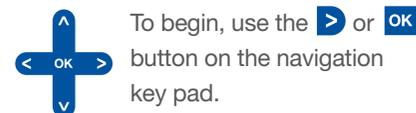


All system checks will be complete after approximately 10 seconds.

The HOME screen will appear and the LED will flash red to indicate the system has not been set up and to indicate it is in an alarmed status. The LED will continue to flash red until Tanktronic has been set-up correctly.



## 2. NAVIGATION



To begin, use the **>** or **OK** button on the navigation key pad.

This will lead to the MAIN MENU.



Use the **>** or **OK** button to move to the next level of a menu or to save a value.

Further menu options are accessed by scrolling up and down using the **▲** and **▼** buttons.

To exit a menu use the **<** arrow.

Repeated **<** presses will return the user to the HOME screen.

Values that can be altered using the **▲** and **▼** buttons will step in 2 unit increments if pressed once. If the key is held down, the value will step in 10 unit amounts.

## 3. CONFIGURATION FOR TANK FILLING

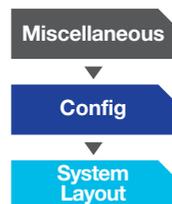
Depending on the system layout, it may be necessary to configure the main control unit to identify the pilot valve(s) to be used to fill the tank(s).

**NOTE: If only a single tank is present, this configuration is not required. Proceed to Section 4. Auto Set-up.**

### Twin Tanks with Common Pilot Valve

For twin tanks with a common pilot valve, follow the instructions below.

Select from the MAIN MENU screen:



Press **>** or **OK** to enter the menu.

Use **▲** or **▼** to select Twin Common Pilot.

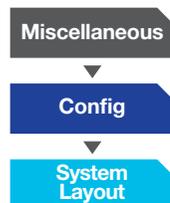
Save and return to the Config menu. Two tank menus will now appear on the HOME screen.

Proceed to Section 4. Auto Set-up.

### Twin Tanks with Separate Pilot Valves

For twin tanks with separate pilot valves, follow the instructions below.

Select from the MAIN MENU screen:



Press **>** or **OK** to enter the menu.

Use **▲** or **▼** to select Twin Separate Pilot.

Save and return to the Config menu. Two tank menus will now appear on the HOME screen.

Proceed to Section 4. Auto Set-up.

## 4. AUTO SET-UP

To set-up Tanktronic for use with a new or empty tank, auto set-up can be used.

**NOTE: Please ensure these default settings are appropriate before you run auto set-up. If they are not proceed to Section 5. Tank Set-up.**

The unit has been configured with default settings:

Area:	10.0m <sup>2</sup>
Close Level:	1.20m
Fill Delay:	0.20m
Alarm Level H:	0.20m
Alarm Level L:	0.20m
Alarm Temp H:	20.0°C
Alarm Temp L:	5.0°C

These are very general and can be used if you do not know the settings you wish to use initially.

If you have twin tanks using auto set-up for Tank 1 or 2 will apply the same Close Level to the other tank.

Auto set-up will use the default factory settings for alarm and temperature levels as well as the fill settings.

Place the sensor in the tank.

From the MAIN MENU screen select:



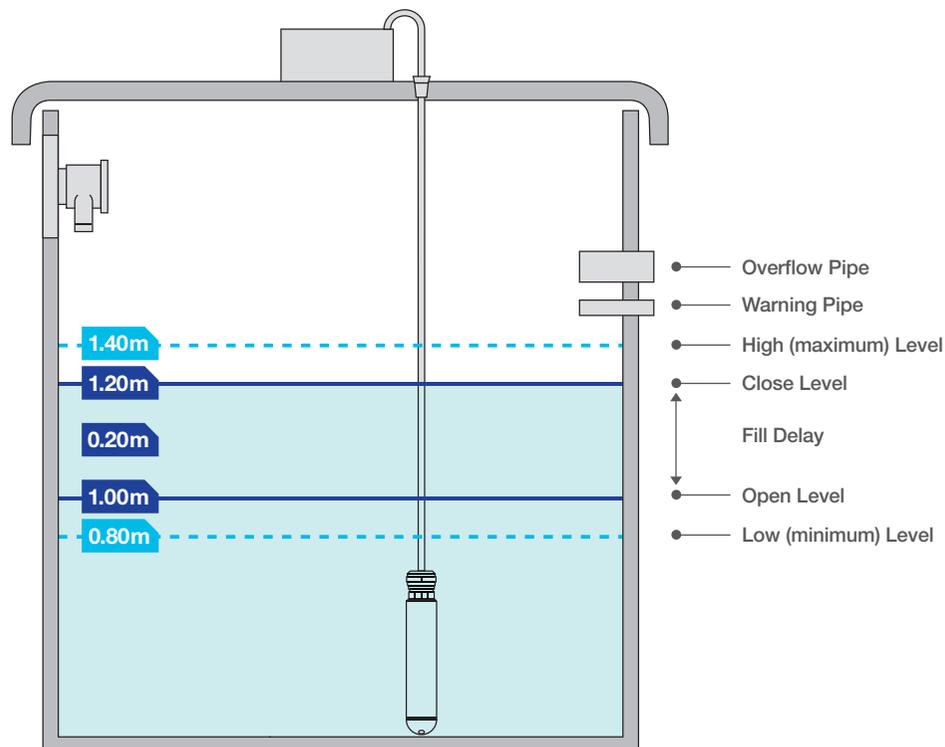
The system will start filling as soon as 'start' is selected. Once the water has reached the desired level select 'done', this will close the valve.

Return to the Config menu.

The Close Level should update to reflect the new water level.

## 5. TANK SET-UP

The various monitoring criteria shown below must be set up for each tank.



### The unit has been configured with default settings:

Area:	10.0m <sup>2</sup>	Alarm Level H:	0.20m
Close Level:	1.20m	Alarm Level L:	0.20m
Fill Delay:	0.20m	Alarm Temp H:	20.0°C
		Alarm Temp L:	5.0°C

### Close Level

The Close Level is the maximum desired water level inside the tank. The valve(s) will close when this level is reached.

To set up the Close Level, select from the MAIN MENU screen:



Press **>** or **OK** to enter the menu.

Use **▲** or **▼** to set the desired Close Level.

Save and return to the Config menu.

This should be repeated for subsequent tanks. Different values can be entered for each tank.

### Fill Delay

The difference between the Close Level and the Open Level is referred to as the Fill Delay. The valve will open and begin to fill the tank once the level of water in the tank drops to the Open Level.

**NOTE: The Fill Delay is set relative to the Close Level, not the dimensions of the tank.**

To set up the Fill Delay, select from the MAIN MENU screen:



Press **>** or **OK** to enter the menu.

Use **▲** or **▼** to set the desired Fill Delay.

Save and return to the Config menu.

This should be repeated for subsequent tanks. Different values can be entered for each tank.

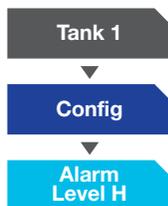
## Level Alarms

The high and low levels are the maximum and minimum permissible water levels in the tank. If these levels are reached high and low level alarms are triggered.

### High Level Alarm

This alarm will be triggered when the maximum water level is reached and the valve has not shut off. It should be set higher than, and set relative to, the Close Level criteria.

To set up the High Level Alarm, select from the MAIN MENU screen:



Press **>** or **OK** to enter the menu.

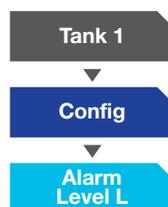
Use **▲** or **▼** to set the maximum water level.

Save and return to the Config menu.  
Repeat for subsequent tanks if necessary.

### Low Level Alarm

This alarm will be triggered when the minimum water level has been reached and the valve has not opened to allow water to flow. This is set relative to the Open Level and is always set below that level.

To set up the Low Level Alarm, select from the MAIN MENU screen:



Press **>** or **OK** to enter the menu.

Use **▲** or **▼** to set the minimum water level.

Save and return to the Config menu.  
Repeat for subsequent tanks if necessary.

## Temperature Alarms

The high and low temperatures are the maximum and minimum permissible temperature limits of the water in the tank. If these levels are reached high and low temperature alarms are triggered.

### High Temperature Alarm

It is recommended that the building use and environment are considered when setting the High Temperature Alarm, and that the relevant building and water regulations are consulted to provide guidance as regards biological contamination.

To set up the High Temperature Alarm, select from the MAIN MENU screen:



Press **>** or **OK** to enter the menu.

Use **▲** or **▼** to set the maximum water temperature.

Save and return to the Config menu.  
Repeat for subsequent tanks if necessary.

### Low Temperature Alarm

To set up the Low Temperature Alarm, select from the MAIN MENU screen:



Press **>** or **OK** to enter the menu.

Use **▲** or **▼** to set the minimum water temperature.

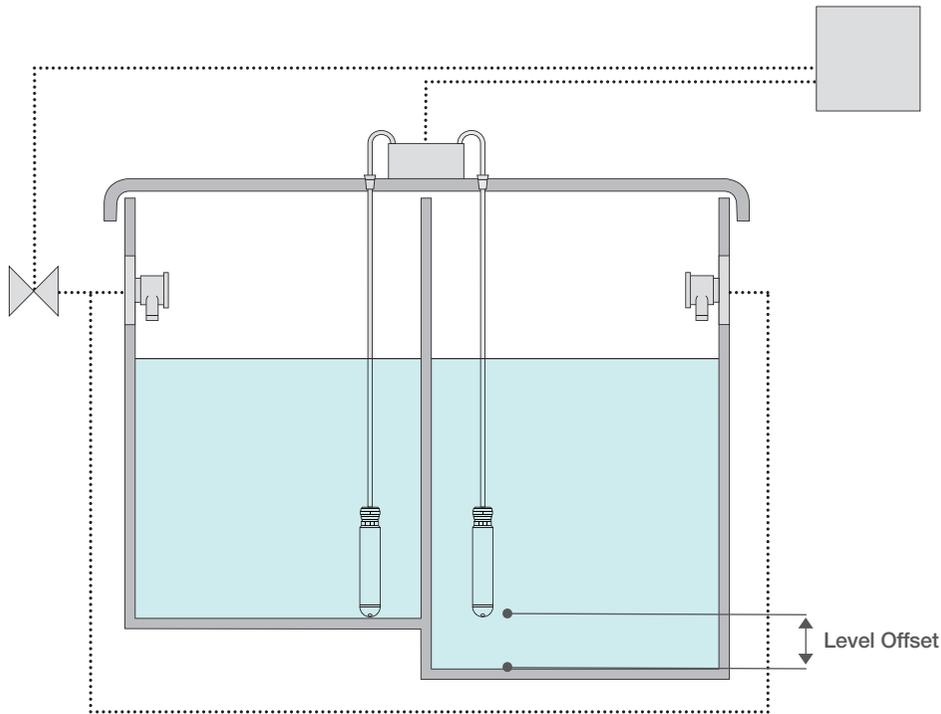
Save and return to the Config menu.  
Repeat for subsequent tanks if necessary.

Set-up for monitoring levels and temperatures is now complete.  
Proceed to Section 7. Tank Area Set-up.

## 6. LEVEL OFFSET

**NOTE:** This step is only necessary if either of the following points apply. If the points do not apply, proceed to Section 7. Tank Area Set-up

- The sensor does not reach the bottom of a tank.
- Two or more tanks of different sizes are being monitored and a common set of readings is required for both tanks, for example, a pair of balanced tanks with a common discharge.



Level Offset can be set with the sensor in position in the tank. Select from the MAIN MENU screen:



The following message will appear. 'Are you sure?' Yes or No. Select 'Yes'  Then select:

 Level Offset

Use the  and  buttons to set the necessary Level Offset. Exit to HOME screen.

The water level will now read the entered offset when the sensor is out of water.

If the initial water reading was 1.56m and an offset of 0.44m was entered, then the resultant water level reading will be 2m.

**NOTE:** There is a slight delay to allow the sensor to settle at a particular depth before that level is displayed on the screen. This is to prevent nuisance readings caused by turbulent water.

## 7. TANK AREA SET-UP

Setting the Tank Area will allow Tanktronic to calculate the volume of stored water when the sensor is submerged. The volume is displayed on the HOME screen in litres.

The Area will need to be entered for each tank.

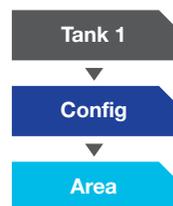
### To calculate your tank area:

For a square or rectangular tank multiply the length by the width, both measured in metres.

For a circular tank multiply half the diameter, measured in metres, by itself and then multiply that by 3.142.

*E.g. If the tank is 6m across, half the diameter is 3m, multiplied by itself, 3m, is 9m. Then multiply this by 3.142 giving an area of 28.28m<sup>2</sup>.*

To set up the Tank Area, select from the MAIN MENU screen:



Press **>** or **OK** to enter the menu.

The default setting is 10m<sup>2</sup>. Use **▲** or **▼** to set the desired value.

Save and return to Config menu.  
Repeat for subsequent tanks if necessary.

If the system requires a Level Offset, please refer to Section 6. Level Offset.

Tanktronic is now ready to use.

You may now clear the alarms from the system. Select from the MAIN MENU screen:



Press **>** or **OK**.



The LED will turn green, indicating normal operation; if the status LED remains red check the 'Alarms' status and rectify the problem. See FAQ's if necessary.

Tanktronic is now ready for use.

**NOTE: At this stage you will need to connect your valve to your main control unit. See page 14, Section 7. Wiring Connections.**

## Specification

### Valve

Max working pressure:	10 bar
Min working pressure:	0.5 bar
Power requirements:	6VDC, 1.4W

### Sensor Assembly

Ingress protection:	IP68 (sensor) IP 66 (vent box)
Operating temp range:	0 to 40°C

### Main Control Unit

Control classification:	Multi purpose control
Max load:	0.85A (on mains supply)
Action classification:	Type 1.B.Y
Pollution classification:	Degree 2
Ingress protection:	IP43
Operating temp range:	0 to 40°C

## FAQs

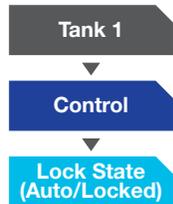
### I have a twin tank arrangement and want to drain them; what special procedures do I have to take with Tanktronic?

This applies if you have two tanks serviced by one valve or two tanks serviced by two.

If you need to drain a tank for maintenance, etc. you will need to carry out the following procedure.

Manually isolate the tank via the balance and inlet valves.

Lock the appropriate sensor using Tanktronic. Select from the MAIN MENU screen:



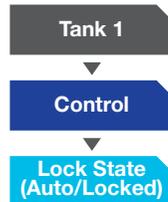
Select **'Lock'** and press **OK** on the subsequent screen to save the setting.

This will prevent nuisance alarms, but does not prevent the second tank from filling, maintaining water supply.

Proceed with maintenance of the tank.

On completion of maintenance, manually open the isolation valves; water will flow between the tanks via the balance pipe and start to backfill Tank 1.

Allow **'Balancing'** to ensure close delay is reached in Tank 2. You can now **'Unlock'** the Tanktronic sensor. Select from the MAIN MENU screen:



Select **'Auto'** and press **OK** on the subsequent screen to save the setting.

Tanktronic will now issue a Low Level Alarm, until the minimum level is reached or until the alarm is cleared.

To conduct maintenance for the second tank, follow the same procedure but **'Lock'** Tank 2.

### How do I know if the mains power is off?

If mains power is lost to the main control unit, and the battery back-up comes into use, the status LED will flash green, until mains power is re-established. A message also appears on the display, stating **'Warning: Mains Off'**. If there is no battery back-up, the LED will not light up and the display will be blank.

### How many sensors and tanks can I monitor/fill with Tanktronic?

With one main control box you can monitor/fill two sensors placed in two separate tanks (see page 4, Section 1. Assessing System Layout). Two additional sensors/tanks can be monitored/filled with the addition of each main control unit. For example, to use Tanktronic with four tanks, you would need two main control units.

### How many battery back-up boxes do I need?

The battery back-up module is available and only used in the event of mains power being severed from the main control box. Only one battery back-up module is required to support any number of main control units, but the time such back-up lasts reduces with more control units attached to it.

### Do I need a battery back-up box?

No, the system will run from the mains supply without need for the battery back-up.

### Do the various units need to be level? Is this important?

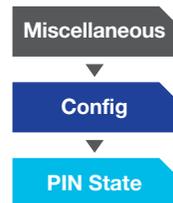
The units will operate if not perfectly level, but we suggest all effort is made to mount the unit to a common level, especially if multiple boxes (main control box and battery back-ups) are being mounted together, avoid any stresses being put upon the supporting tabs and cabling. (See page 7, Section 3. Mounting Subsidiary and Battery Back-up Modules)

# ADDITIONAL FUNCTIONALITY

## PIN

### To enable a PIN

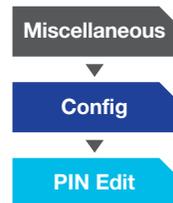
Protect Tanktronic from unauthorised use. Select from the MAIN MENU screen:



Select either 'Enable' or 'Disable' and save.

### To change PIN

The default PIN is **0000**. To change this select from the MAIN MENU screen:

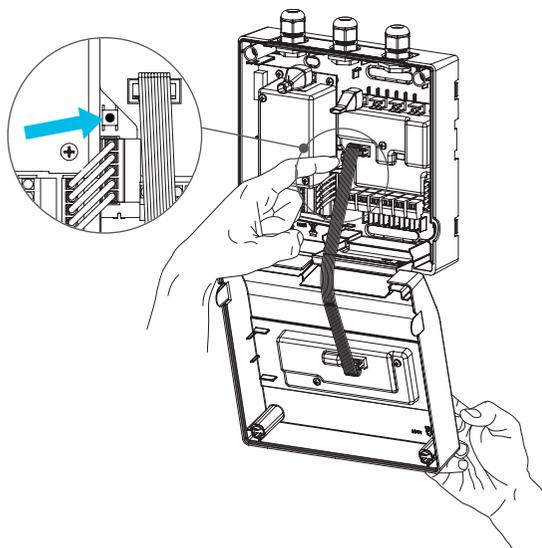


Select new code numbers using the the **▲** and **▼** buttons. To select the next digit use the **▶** button. Save and return to the HOME screen.

## Resetting PIN Lock-out

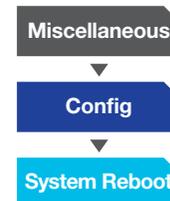
In the event of forgetting the PIN, the menu can be accessed using the following process:

1. Open the Tanktronic housing, while still attached to the power.
2. Press and hold the small black select button (see diagram below) for at least 20 seconds, then press **▶** whilst still holding the black select button.
3. Continue holding down the black select button and you can now access the menus without entering a PIN.
4. Once you are in the menu, you can release the black select button. To change or disable the PIN, just use the Config menu as normal.



## System Reboot

To restart the unit without losing its current settings select from the MAIN MENU screen:



The unit will show 'Initializing' and return to its normal HOME screen.

Disconnection from all power sources (mains power and battery) will reboot the unit as well, but the setting will NOT be lost.

## Factory Reset

If you need to reset Tanktronic completely, to return it to its original settings select from the MAIN MENU screen:



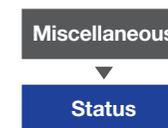
Here you will be asked to confirm if you wish to reset the unit. Select 'Yes' to reset.

**NOTE: Tanktronic will now reset to its default factory setting and all previous stored settings will be lost.**

## Status Settings

The status of Tanktronic sensors and valves can be reviewed via the 'Status' menu option. This is useful for fault finding and checking the state of multiple sensors in multiple tanks.

Select from the MAIN MENU screen:



**VFC** = (Volt Free Contact) – a switch is either open or closed.

**Open** = Sensor is in normal operational state or no device is connected.

**Closed** = Sensor is in alarmed state or has a device switched to the closed position.

**VFC Input Status 1:** Open/Closed

**VFC Input Status 2:** Open/Closed

**VFC Output Status 1:** Open/Closed

**VFC Output Status 2:** Open/Closed

**VFC Output Status 3:** Open/Closed

**VFC Output Status 4:** Open/Closed

**Valve State 1:** Open/Closed

**Valve State 2:** Open/Closed

## Sensor Set-up

**NOTE: This step is only necessary if you have purchased a new sensor.**

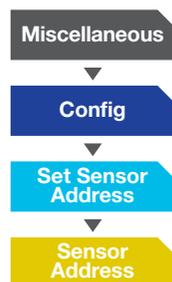
If only one tank is to be monitored, refer to Single Tank. If more than one tank is to be monitored, refer to Twin/Partitioned Tanks.

### Single Tank

The Close Level is the maximum desired water level inside the tank. The valve(s) will close when this level is reached.

The system must be configured so it recognizes the sensor. The sensor must be given a name, referred to as a 'Sensor Address' on the system.

From the MAIN MENU screen select:



The screen will briefly flash 'Please select sensor' and then update to 'Success, Sensor Address Set'.

Press **OK** to exit.

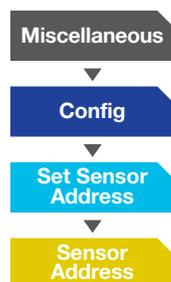
The sensor has now been set up on the system.

### Twin/Partitioned Tanks

The system must be configured so it recognizes the sensors. Each sensor must be given a name, referred to as a 'Sensor Address' on the system.

Allocate one sensor to each tank. It is advisable to label each sensor (Sensor 1 for example) and its corresponding tank (Tank 1 for example) prior to commencing set up.

From the MAIN MENU screen select:



The screen will briefly flash 'Please select sensor' and then update to 'Success, Sensor Address Set'.

Press **OK** to exit.

The sensor has now been set up on the system. Repeat the process for subsequent sensors, scrolling **▲** to select additional sensor names.

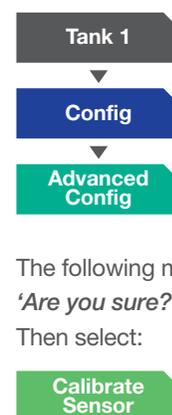
## Sensor Calibration

**NOTE: This step is only necessary if you have purchased a new sensor. Prior to commencing calibration, ensure the sensor is out of water.**

Calibrating the sensors will ensure accurate level readings are obtained whilst the sensor is in use. Failure to do this may result in false readings or nuisance alarms.

Ensure the sensor is out of the water before calibration commences.

From the MAIN MENU screen select:



The following message will appear. 'Are you sure?' Yes or No. Select 'Yes' **▶**. Then select:

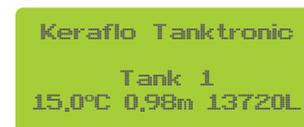
The following message will appear: 'Sensor calibration must be out of the water'.

Select **▶** or **OK** and calibration will begin.

When complete, the following message will appear 'Sensor Calibration Complete'; select **OK**. This will take about a second.

The water level will read as 0.00m when the sensor is out of the water.

Exit to HOME screen (Repeated **◀** presses) and check level information on the HOME screen.



This information is also shown in the Tank 1 status screen.

The sensor can now be lowered into the tank. As the sensor is lowered, the HOME screen level reading will up-date.

**NOTE: There is a slight delay to allow the sensor to settle at a particular depth before that level is displayed on the screen. This is to prevent nuisance readings caused by turbulent water.**

# MENU MAP

