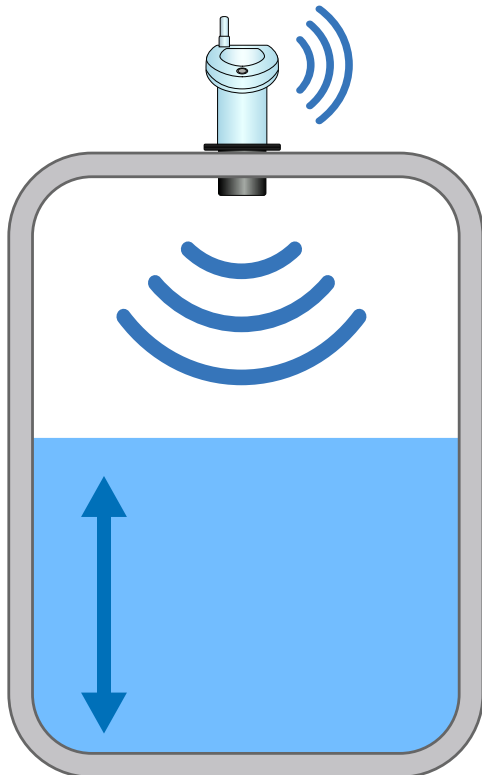
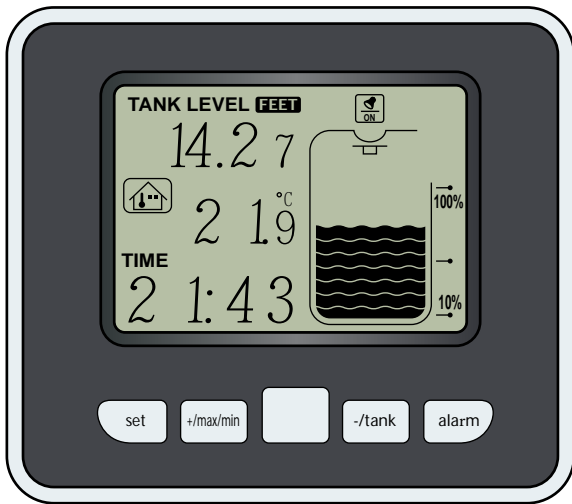


VIEWSONIC2 Series Operating Instructions



1. Things You Must Know

The following picture illustrates transmitter installation:

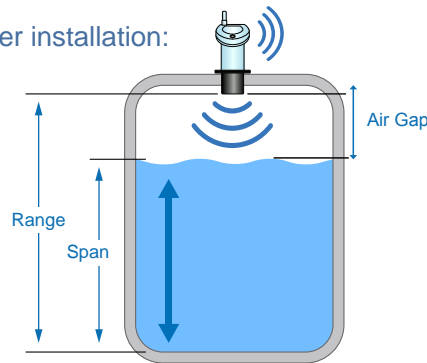


Figure 2

Please pay attention to the following issues in installation:

- 1) The distance between transmitter bottom and highest water surface must be 0.5m (1.64ft) or more.
- 2) The maximum depth the unit can measure is 15m (49.2ft).
- 3) Observe the balance bubble on the sensor to ensure it is installed at a level horizontal position.

Range: is defined as the distance from the bottom of the tank transmitter to bottom of your tank. Minimum Range 18" Maximum Range 49 ft. Display of "0.00" and full tank icon flashes (Figure 9). Press **+ / max / min** or **- / tank** key to increase or decrease air gap. Long press **+ / max / min** or **- / tank** key to increase or decrease air gap at greater step. Press the **set** key to exit depth setting

Air Gap: (see H1 in sketch of 2.2) is defined as the distance from the bottom of the tank transmitter to the maximum fluid level of tank. The range is: 0.5M(min) - 15.0M(max) or 1.64" (min)-49.2" (max).

If there's no key operation in depth setting mode for longer than 15s the unit will switch to normal display mode automatically. (There will be measurement errors if the tank depth and air gap are not set correctly).

1.3 Examples of Wrong Installation

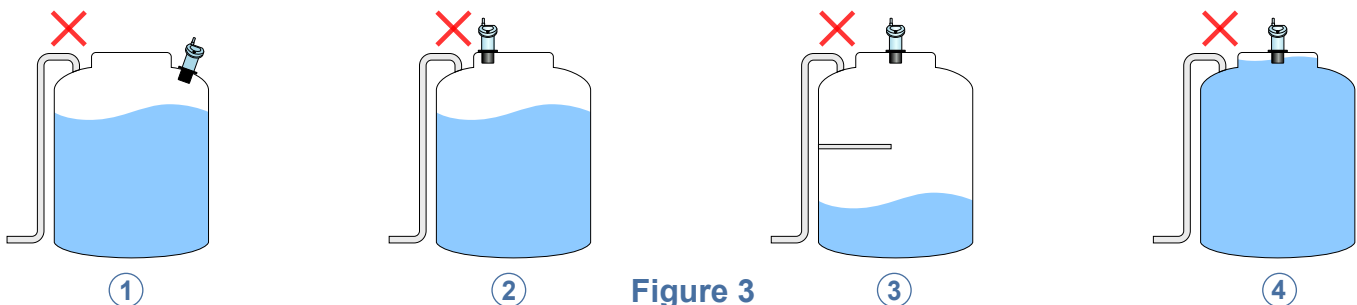


Figure 3

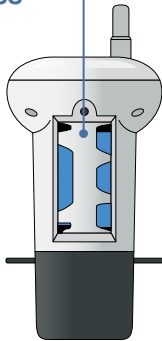
See Images of Wrong Installs Above

- 1) The sensor is not installed at a level horizontal position.
- 2) The sensor is too close to the Tank wall.
- 3) There are solid objects in the tank.
- 4) The transmitter bottom is dipped in the water (or other liquids in tank)

Note: Even though it works fine in occasional water splash or dew, this product is not completely water proof in heavy rain. It is highly recommended that a cover be installed above the unit.

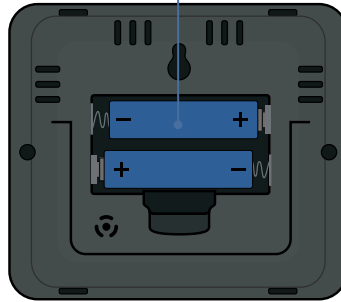
2. Button/Display Overview

AAA Batteries :
6pcs

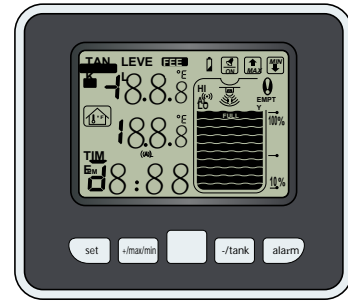


Transmitter

AA Batteries :
2pcs



LCD Display
Back



LCD Display
Front

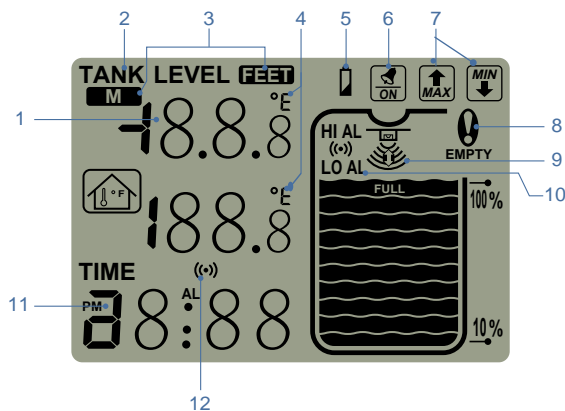
This Key has
no Function

set Key to Set
up Parameters

alarm Key to
View and Set
up Time and
Depth Alarm

+max/min Key to
Increase Value in
Setup or Check
max/min Record

-/tank Key to Decrease
Value in Setup or Switch
Between Temperature
and Depth Value



1. Value Display Area
2. Tank Temperature and Water Level Icon
3. Liquid Level Units
4. Tank Temperature Unit (°C/°F)
5. Sensor Battery Indicator
6. Alarm Activation Icon, Button Sound
7. Min-Max Indicator
8. Empty Alert Icon
9. RF Signal Indicator
10. High-Low Alarm Indication
11. Time Alarm Indication
12. Time alarm on/off symbol

3. Programming

3.1 Program Sensor Range

Fast Track Programming available at the end of manual (excludes pictures and in depth explanations).

1. Insert Batteries
2. LCD Display Beeps after 3 seconds. "0.00" is Displayed

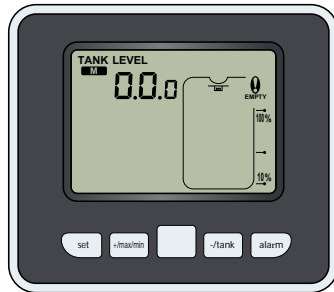
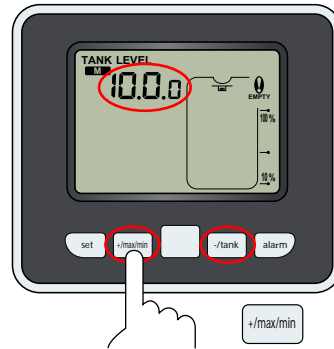


Figure 7



Press **+/max/min** Key or **-/tank** Key to Set Range Depth.

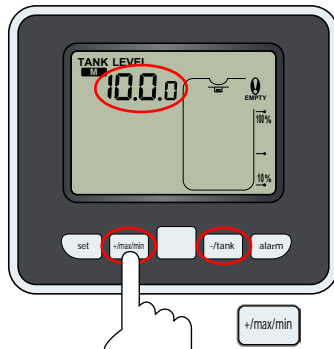
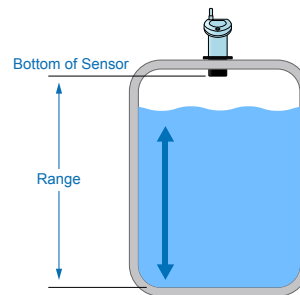


Figure 8



Press the **set** Key to Access the Air Gap setting (Figure 8).

If you miss this step, tank depth and air gap can be set later. In normal operation mode, press and hold **set** and **alarm** keys at the same time for 5 seconds to set Tank Depth and Air Gap values. The setting steps are the same as described above.

3.2 Set Time

In normal display mode press **set** key for 3 seconds (Figure 10).

- **12/24H:** 12Hr or 24Hr will flash. Press **+max/min** or **-/tank** key to select 12H or 24H. Press **set** key to move to hour setting.

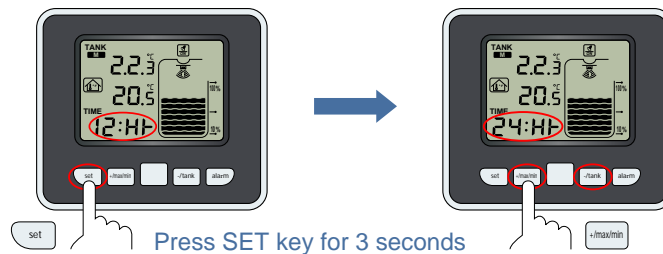


Figure 10

- **HOUR:** Hour value will flash. Press **+max/min** or **-/tank** key to increase or decrease hour value. When hour value is set press **set** key to set minute value (Figure 11).

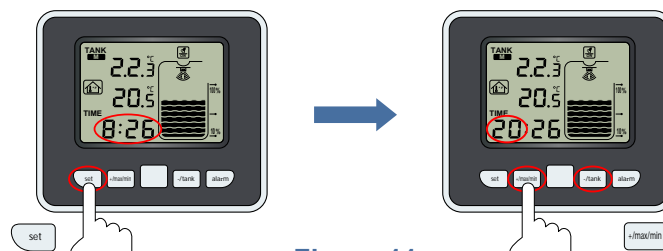


Figure 11

- **MINUTE:** Minute value will flash. Press **+max/min** or **-/tank** key to increase or decrease minute value. When minute value is set press **set** key to set temperature unit (Figure 12).

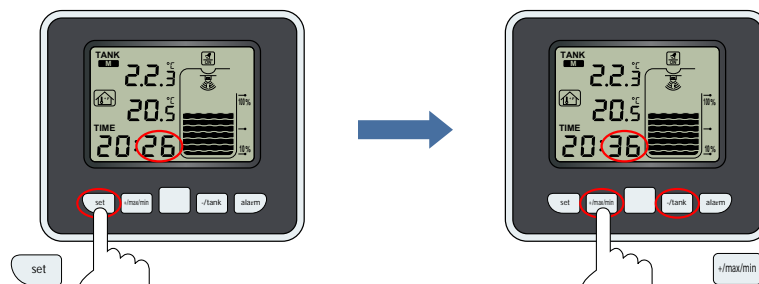


Figure 12

3.3 Set Temperature Unit

Temperature unit will flash. Press **+max/min** or **-/tank** key to select temperature unit of °C or °F. After temperature unit is set press **set** key to set tank level unit (Figure 13).



Figure 13

3.4 Set Tank Level Unit

Tank level unit will flash. Press **+max/min** or **-/tank** key to select water level unit of meters or feet. After tank level unit is set press **set** key to exit (Figure 14).



Figure 14

3.5 Check and Reset MIN/MAX Value

In normal display mode press **+max/min** key once to check the max value of indoor temperature and tank level or tank temperature (Figure 15).

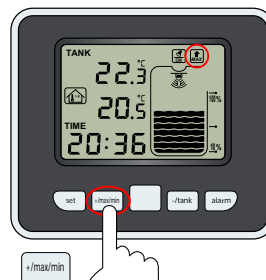


Figure 15

3.5 Check and Reset MIN/MAX Value

In normal display mode press **+ /max/min** key once to check the max value of indoor temperature and tank level or tank temperature (Figure 16).

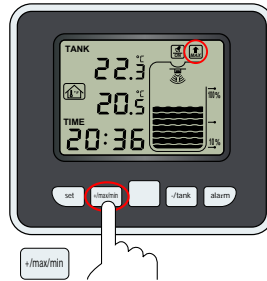


Figure 16

Press **+ /max/min** key again to exit (Figure 17).

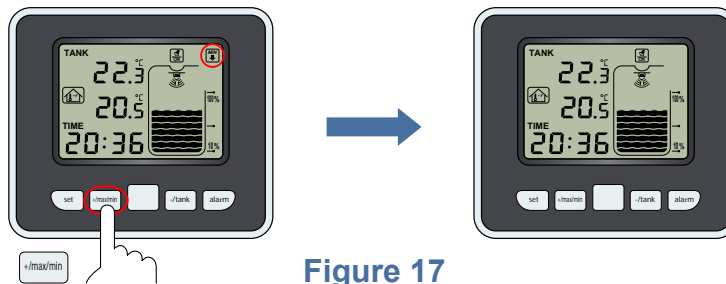


Figure 17

In the MIN/MAX mode press **set** key, min or max icon and value will flash. Press the **+ /max/min** key once, the displayed minimum or maximum record will be reset to current value. Press **set** key to reset the next minimum or maximum record (Figure 18).

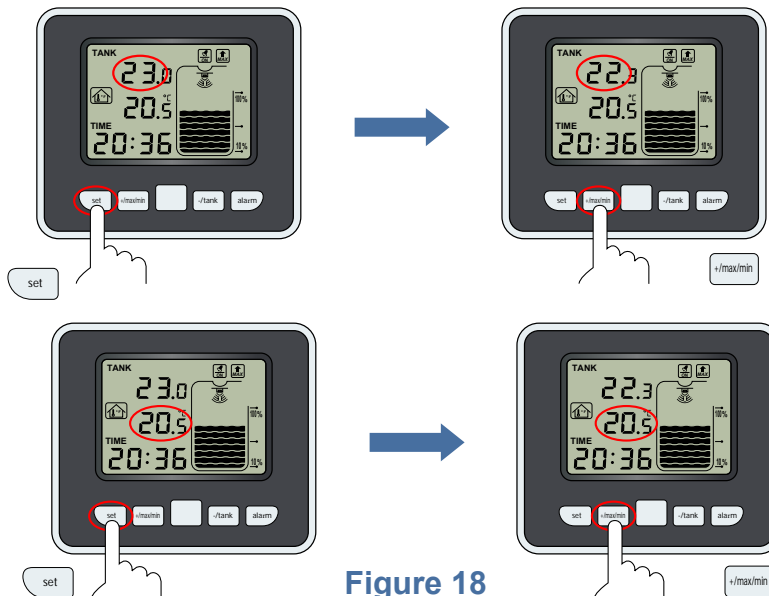


Figure 18

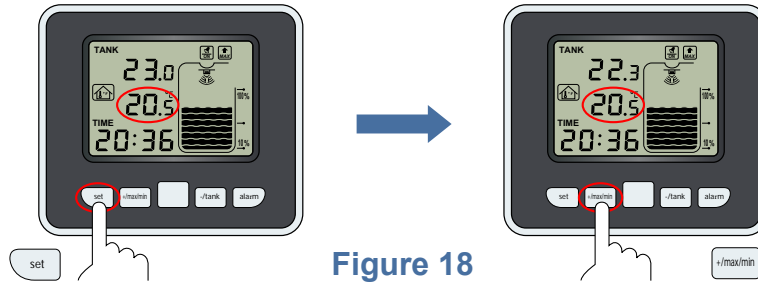


Figure 18

3.6 Tank Level and Tank Temperature Switch

In normal display mode, press **-/tank** key to switch from tank level display to tank temperature display or switch from tank temperature display to tank level display (Figure 19).

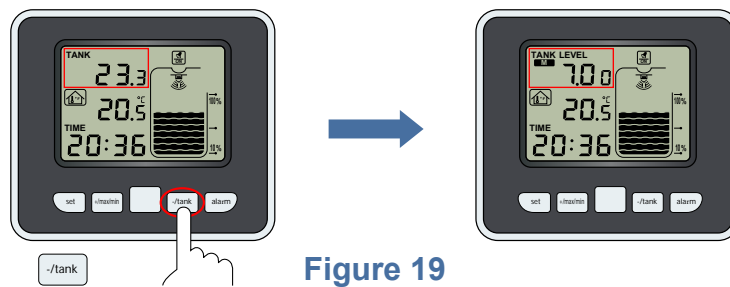


Figure 19

When transmission signal is lost press the **-/tank** key for 5 seconds to re-connect with transmitter (Figure 20).

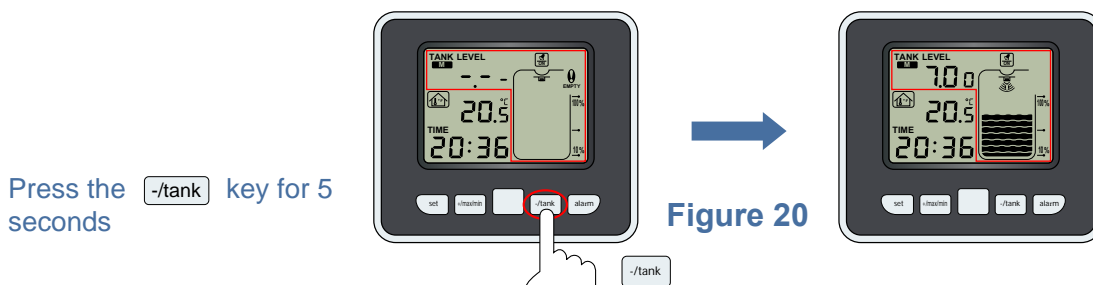


Figure 20

Press the **-/tank** key for 5 seconds

3.7 Alarm

SET TIME ALARM

In normal display mode press **alarm** key. Previously set time alarm will display (Figure 21).

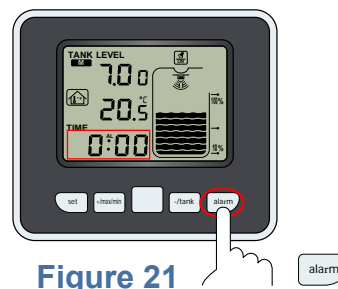


Figure 21

Press **set** key 3 seconds to set alarm hour. Alarm hour will flash. Press **+max/min** or **-/tank** key to increase or decrease alarm hour (Figure 22).

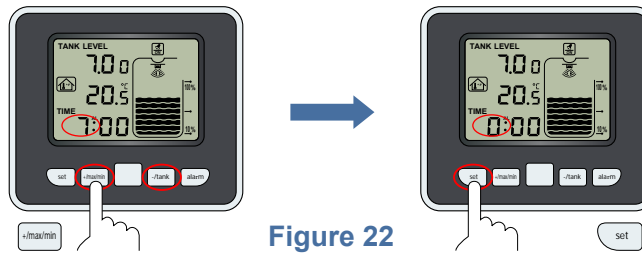


Figure 22

After alarm hour is set press **set** key to set alarm minute. Press **+max/min** or **-/tank** key to increase or decrease alarm minute (Figure 23).

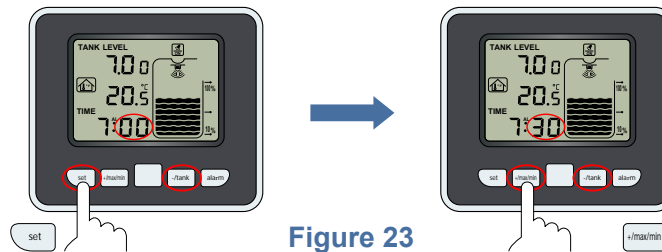


Figure 23

During alarm hour or minute flashing press **alarm** key to enable or disable time alarm. When time alarm is enabled the icon is visible. When time alarm is disabled the icon is invisible. Press **set** key to confirm time alarm setting and start to set level high or low alarm (Figure 24).

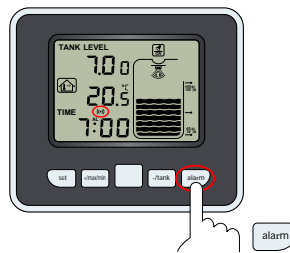


Figure 24

Set Tank Level High and Low Alarm

After finishing the time alarm setting, the set tank level alarm will flash. Press **+max/min** or **-/tank** key to increase decrease high alarm value (Figure 25).

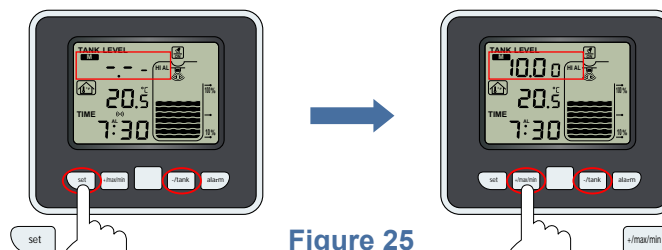


Figure 25

After tank level high alarm is set press **set** key to set tank level low alarm. The previously set tank level low alarm value will flash. Press **+max/min** or **-tank** key to increase or decrease low alarm value (Figure 26).

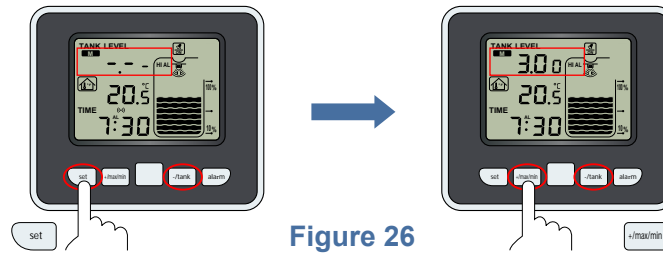


Figure 26

While the high or low alarm value is flashing, press **alarm** key to enable or disable water level alarm. When high or low alarm is enabled the icon is visible. When high or low alarm is disabled the icon is invisible (Figure 27).

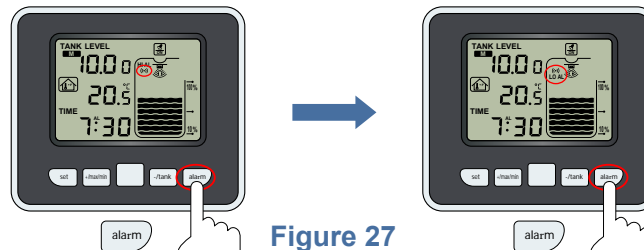


Figure 27

After tank level low alarm is set press **set** key to exit (Figure 28).

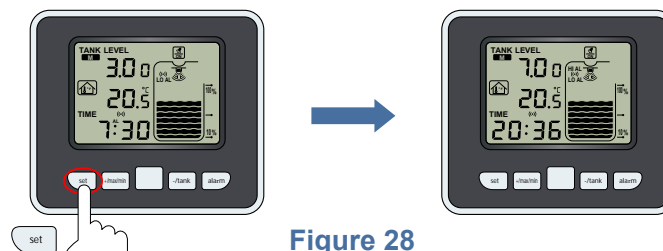



Figure 28

Enable or Disable Alarm Buzzer

In default setting the alarm buzzer is enabled. To disable the alarm buzzer press ALARM key for 5 seconds. The alarm icon  will disappear. Press ALARM key 5 seconds again to enable alarm buzzer. The alarm icon will appear (Figure 29).

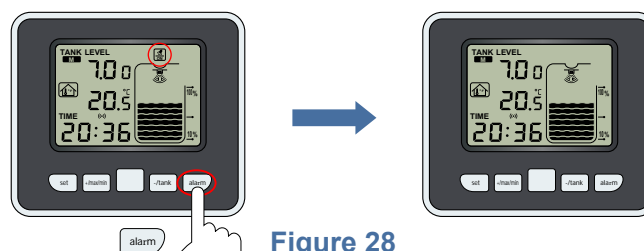


Figure 29

Empty Alert

When water level is less than 20% of tank depth, the  icon will display (Figure 30).

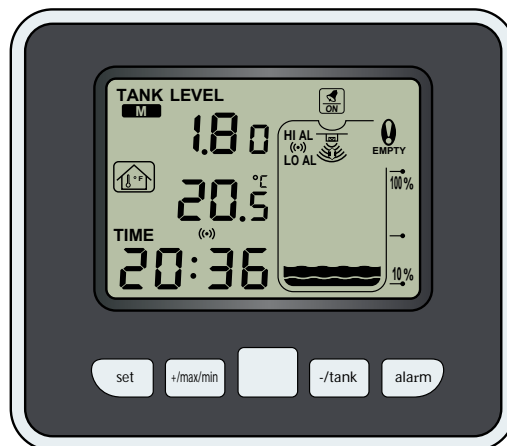


Figure 30

4. Default Value

1. Time: 0:00-23:59 (default: 0:00)
2. 12HR/24HR format: (default: 24HR)
3. Temperature unit: °C/°F (default: °C)
4. Water level/meter/feet (default: m)
5. TANK LEVEL/TANK TEMP display: (default: TANK TEMP)
6. Alarm set: 0:00-23:59 (default: 12:00, disable)
7. Water level HI-alarm: 0.15m (0 feet -49.2 feet) (default: 10m, OFF)
8. Water level LO-alarm: 0.15m (0 feet -49.2 feet) (default: 2m, OFF)

5. Specifications

Transmission Distance: max.100 metres (in open space)

Frequency: 433MHz

Indoor temperature range: 0 to -50°C,

Resolution: 1°C,

Accurate: +/-1°C,

Tank temp measure range: -40 to -60°C,

Resolution: 1°C,

Accurate: +/-1°C,

Water level measure range: 0 to 15m,

Resolution: 0.01m,

Accurate: +/-0.03m

Alarm duration: 120 sec

Fast Track Programming

ViewSonic2 Programming

Setting Tank Height

Press and Hold 'set' and 'alarm' buttons for 5 seconds.

Press '+/max/min' to increase tank height

Press '-/tank' to decrease tank height

Press 'set' to confirm tank height and move to Air Gap Setting

Setting Air Gap (The Air gap is the distance from the bottom of the sensor to the maximum fill height of the tank)

Press '+/max/min' to increase Air Gap

Press '-/tank' to decrease Air Gap

Press 'set' to confirm the Air Gap and return back to the home screen.

****NOTE: Once Tank Height and Air Gap have been set, please allow 60 Seconds for Level Reading to Appear on Display**

Setting the Time/Temperature/Tank Level Units

Press and hold 'set' button for 3 seconds

12Hr or 24Hr will flash on the screen

Press '+/max/min' or '-/tank' to switch between 12Hr or 24Hr clock options

Press 'set' to move to the hour setting.

Press '+/max/min' or '-/tank' to increase or decrease hour value.

Press 'set' to move to the minute setting.

Press '+/max/min' or '-/tank' to increase or decrease minute value.

Press 'set' to move to the temperature setting.

Temperature unit will flash. Press '+/max/min' or '-/tank' to select the Temperature Unit. (C or F).

Press 'set' to move to setting the Level Unit.

Tank Level Unit will Flash. Press '+/max/min' or '-/tank' to select Tank Level Units. (Feet or Meters)

Press 'set' to select the desired level unit and return to the home screen.

Setting High and Low Level Alarms

On the Home Screen, tap 'alarm' button.

Press and hold 'set' button for 3 seconds - Clock will flash.

Tap 'set' 2 times to skip to high/low level alarms. (Bypasses Alarm Clock Setting - See Step 5 for Alarm Clock)

Tank High Level Set Point will Flash - Press '+/max/min' or '-/tank' to increase or decrease high level value.

Press 'set' to move to the Low Level Set Point

Tank Low Level Set Point will Flash - Press '+/max/min' or '-/tank' to increase or decrease low level value.

Press 'set' to return to Home Screen.

****NOTE: When High and Low Level Set Points are flashing during the setting process, press 'alarm' button to toggle audible alarm function.**

Setting Alarm Clock Function

On the Home Screen, tap 'alarm' button.

Press and hold 'set' button for 3 seconds - Clock will flash.

Press '+/max/min' or '-/tank' to increase or decrease hour value.

Press 'set' to move to the minute setting.

Press '+/max/min' or '-/tank' to increase or decrease minute value.

Press 'set' to move to the minute setting.

****NOTE: After Initial Set-Up, if signal is ever lost, press and hold '-/tank' button for 5 seconds and allow 60 seconds to re-initiate signal.**

6. Faults and Handling

Faults	Causes	Handling
Level meter does not work.	Dead Battery	Replace Battery
Level meter does not display data.	<ol style="list-style-type: none"> 1. Dead Battery. 2. The LCD is damaged. 	<ol style="list-style-type: none"> 1. Replace Battery 2. Maintain it in the factory.
Level meter works but there is no change of trumpet icon on (▲) the LC, which means that the system is in a lost state.	<ol style="list-style-type: none"> 1. The measured area is beyond the measuring range of level meter. 2. The measured medium has strong disturbance, vibration or heavy dust. 3. There are strong interference sources around such as frequency converter and motor. 4. The probe is not aligned to the measured surface. 5. There are redundant objects in the measured space, such as support rods and feed openings. 6. The liquid level is in a blind area. 7. The measured medium is soft powder or there is foam on liquid surface. 	<ol style="list-style-type: none"> 1. Replace the level meter with a level meter with greater measuring range. 2. The meter will restore the normal measurement automatically after the measured medium gets back to calm. 3. Check surrounding environment and realize good electromagnetic shielding. Do not share one power supply with frequency converter and motor, and make it grounded reliably. 4. Reinstall probe and make it perpendicular to liquid surface. 5. Select an appropriate position for installation and prevent an interfering object. 6. Raise the installation position of probe. 7. Check whether the medium is powder. If so, consult the manufacturer.

