

rain alert™

ULTRASONIC TANK LEVEL MONITOR

WIRELESS – THE CONVENIENT CHOICE

- The Rain Alert™ measures the level of fluid in your tank in 10 graduations of the tank height.
- We provide a 1 year warranty subject to terms and conditions. (Contact Rain Harvesting Pty Ltd for details). Supplied with long life lithium battery. The warranty becomes invalid if the sealed unit is opened.
- Suitable for use on vented tanks for the storage of rainwater. May also be used with vented tanks for the storage of selected herbicides and pesticides and various diesel fuels, kerosene or oils. Check with Rain Harvesting Pty Ltd on the chemical compatibility prior to use with these or any other fluids.

NOTE: The Rain Alert™ is not suitable for pressurised containers. Only use on tanks vented to atmosphere.

INSTALLATION INSTRUCTIONS

1. SETTING RECEIVER (Tank Level Monitor with LCD Panel)

- Accurately measure the height of your tank.
NOTE: Deduct 100mm from the tank height for rainwater tanks, because the water in the last 100mm or so of the tank (called the Anaerobic Zone) is the poorest quality water, and should not be considered in calculating the amount of water available for use. Using the tank height chart on page 2, read across to the relevant multi switch settings. The multi switches are located in a recess at the back of the Receiver above the pins.
- Using screwdriver or tip of ball point pen, flip the relevant switch(es) upwards (= ON). As an example, if the tank is 850mm high, set switches Number 4 & 8 UP.

Your Receiver is now programmed to your tank height.

2. MATCHING RECEIVER AND TRANSMITTER

You should match the Receiver with the Transmitter so that the system code is unique to your tank. You only need to do this once.

- Plug Receiver into a suitable and convenient electrical socket and switch on. The display screen on the front of the Receiver will show a flashing top bar as shown in diagram. This indicates that the Receiver is awaiting a unique code. The flashing top bar will last for 2 minutes during which time you can match the Transmitter to the Receiver. (If you do not match the Transmitter to the Receiver within these 2 minutes, just turn off the Receiver at the power point, and turn on again to reset, and then match the devices as instructed below).

- Hold the Transmitter against the Receiver right hand side, as shown, so that the black dots are touching each other (important!) for about 20 seconds to allow unique code to be transferred. Bars will increase up the display screen. When all 10 bars are shown they will flash to indicate that the unique code is transferred.

3. FITTING TRANSMITTER (the ULTRASONIC "ROCKET")

It is important to select a position on the top of the tank that ensures there are no obstructions to the ultrasonic path of the Transmitter. This zone of sensitivity must be kept clear and unobstructed to ensure the Transmitter provides an accurate reading. Ensure the Transmitter is vertical on top of the tank. (See page 2 for some "do's and don'ts" for fitting the Transmitter).

NOTE: In the event of a power failure or if the Receiver is switched off or unplugged, it is not necessary to re-match the Receiver with the Transmitter. When power returns again or unit is switched on, the Receiver display screen will show the top bar flashing. The top bar will continue to flash for 2 minutes, after which time the display screen will be blank, whilst the unique signal is located. This may take up to one hour.

A hole of a minimum 20mm and maximum 30mm must be created on the tank surface to fit the Transmitter and to provide a path into the tank for the Transmitter's ultrasonic signal. Two screws must also be used to secure the Transmitter in place.

Tools required:

Drill.
Drill bit or hole saw (minimum 20mm – maximum 30mm).
Star/Philips head screwdriver or drill bit.

1. Create a hole for the Transmitter's Ultrasonic Path

Use a drill, fitted with an appropriate drill bit or hole saw, to create a hole in the tank surface of a minimum 20mm to maximum 30mm. See page 2 for some "do's and don'ts" for fitting the Transmitter.

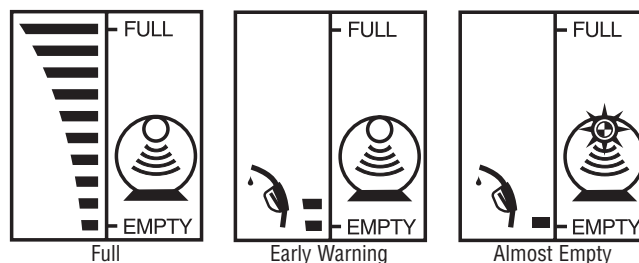
NOTE: Do NOT drill tanks in a potentially explosive atmosphere. This is critical if the Rain Alert™ is being fitted to fuel or oil tanks, or tanks that are used to store other flammable liquids.

2. Secure the Transmitter to the tank surface

Two screws must be used to secure the Transmitter to the tank. Fit the weather seal that is provided to sit between the Transmitter and the tank surface. Do not over-tighten the screws. The two stainless steel screws supplied are ideal for plastic/poly or fiberglass tanks. Special self-tapping screws (eg. with a hex head) may be required for metal tanks. A masonry drill bit may be required to create holes on concrete tanks.

The Rain Alert™ is now fully installed and signals should be received every hour. After initial installation it may take one hour for the correct fluid level indication to be displayed on the LCD panel of the Receiver.

TANK LEVEL MONITOR (RECEIVER) ON SCREEN DISPLAYS – NORMAL MESSAGES



NORMAL OPERATION

The Rain Alert™ uses ultrasonic radio wave technology to measure the level of fluid in the tank. It then uses wireless transmission to send the measured level to the Receiver. To preserve battery life, the measurements and transmissions are done once every hour.

OTHER MESSAGES/TROUBLE SHOOTING

Blank screen after installation or following a power failure

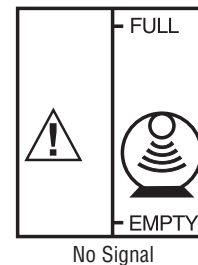
Receiver waiting for signal

- Do Nothing! Signal should be received within one hour.

Flashing triangle, no bars

No radio signal
(after waiting for two hours)

- check for correct matching procedure
- location of Receiver to Transmitter (try repositioning Receiver)
- moisture ingress due to seal damage
- exhausted battery



No Signal

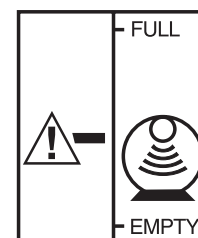
Flashing triangle, middle bar only

No ultrasonic echo
(Could be caused by condensation on sensing cone)

- do nothing and allow to dry naturally

If message persists

- check that the Transmitter sensor cone is clean
- check that the Transmitter is vertical
- check that the Transmitter seal is undamaged



No Echo

IMPORTANT
This appliance is NOT intended for use by young children or infirm persons unless they have been adequately supervised by a responsible person to ensure that they can use the appliance safely. Young children should be supervised to ensure that they do not play with this appliance.

RAIN ALERT™ RECEIVER MULTI SWITCH SETTING CHART

Measure the vertical height of the tank from the TRANSMITTER position on top of the tank to the bottom of the tank.

NOTE: Deduct 100mm from the tank height for rainwater tanks to allow for the poorest quality water from the "Anaerobic Zone". Read to the nearest measurement on the chart.

Height of tank in mm.	Set Switches On
500	All Off
550	7
600	6,8
650	6,7,8
700	5,7
750	5,6
800	5,6,7,8
850	4,8
900	4,6
950	4,6,7
1000	4,5,8
1050	4,5,7,8
1100	4,5,6,7
1150	3
1200	3,7,8
1250	3,6,8
1300	3,5
1350	3,5,7
1400	3,5,6,8
1450	3,5,6,7,8
1500	3,4,7
1550	3,4,6
1600	3,4,6,7,8
1650	3,4,5,8
1700	3,4,5,6
1750	3,4,5,6,7
1800	2,8
1850	2,7,8
1900	2,6,7
1950	2,5
2000	2,5,7,8
2050	2,5,6,8
2100	2,4
2150	2,4,7
2200	2,4,6,8
2250	2,4,6,7,8
2300	2,4,5,7
2350	2,4,5,6
2400	2,4,5,6,7,8
2450	2,3,8
2500	2,3,6
2550	2,3,6,7
2600	2,3,5,8
2650	2,3,5,7,8
2700	2,3,5,6,7
2750	2,3,4
2800	2,3,4,7,8
2850	2,3,4,6,8
2900	2,3,4,5
3000	2,3,4,5,6,8

Do's and Don'ts of fitting TRANSMITTER

(NOT TO SCALE)

Zone of Sensitivity: Must be clear and unobstructed. 39° 3m max.

Inserting a tube, or any other sharp or rough edge will cause a false echo and give an incorrect reading.

Tank contents NOT 'seen' because of object within sensitivity zone

Try to mount TRANSMITTER as vertical as possible, or within 10° of vertical.

Similar to above.

Tank contents NOT 'seen' because of object within sensitivity zone

PRODUCT WARRANTY – REGISTRATION CARD

Please complete the following to register your product with Rain Harvesting Pty Ltd and receive a FREE CD/DVD on "10 Steps to Rainwater Harvesting".

Postage is free, so please mail to:
Rain Harvesting Pty Ltd, REPLY PAID 311, Archerfield, QLD 4108 Australia

1. Where and when did you purchase your product?

Where: (eg. Which local plumbing supplies or hardware store)

Date:

2. Who installed your product? (circle any that apply)

- Plumber
- Handyman
- Self-installed
- Other (please specify): _____

3. Please include your contact details to activate your Rain Alert™ Product Warranty:

Name: _____

Address: _____

Telephone: _____

Email: _____

Please send me further information and news about rainwater harvesting, including latest research on rainwater quality, products and systems.

For details of our Privacy Policy, visit http://www.rainharvesting.com.au/privacy_policy.asp