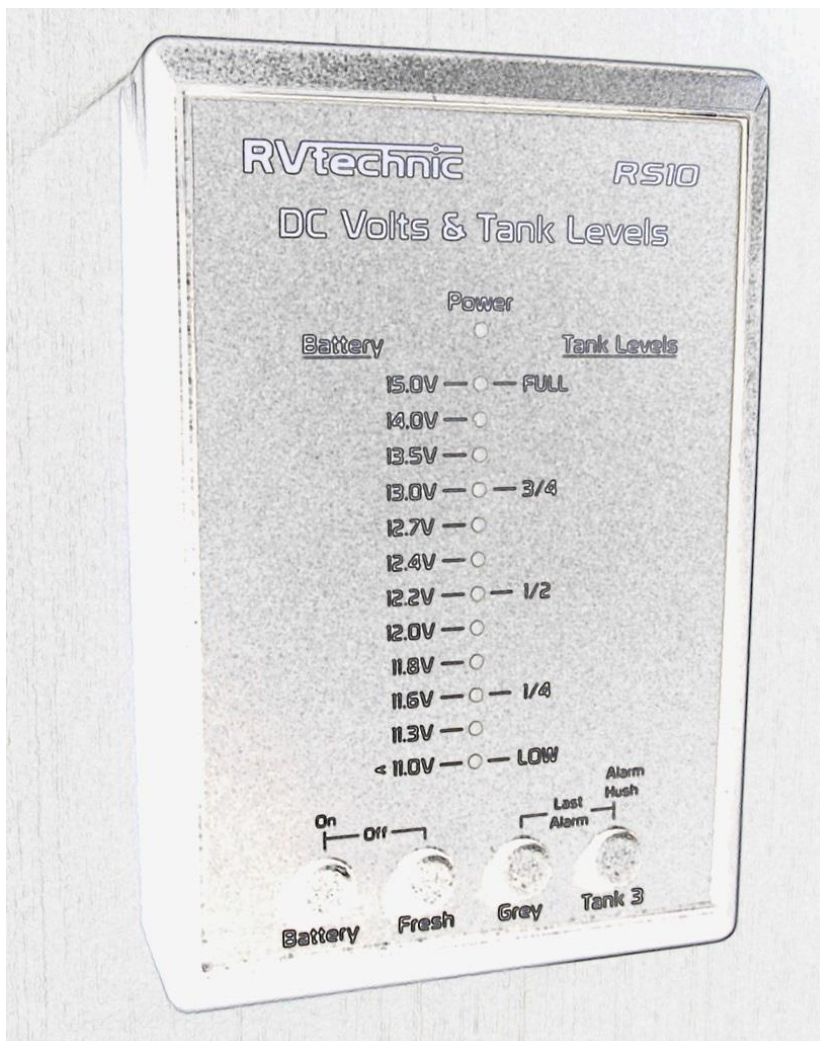


DC Volts & Water Tank Meters

With Battery Alarms

- Water tank meter for 3 tanks including grey water
- Battery voltage meter
- Alarms for house-battery voltage too low / high



- Proudly
Designed and
Manufactured in
New Zealand
- 2 Year Warranty

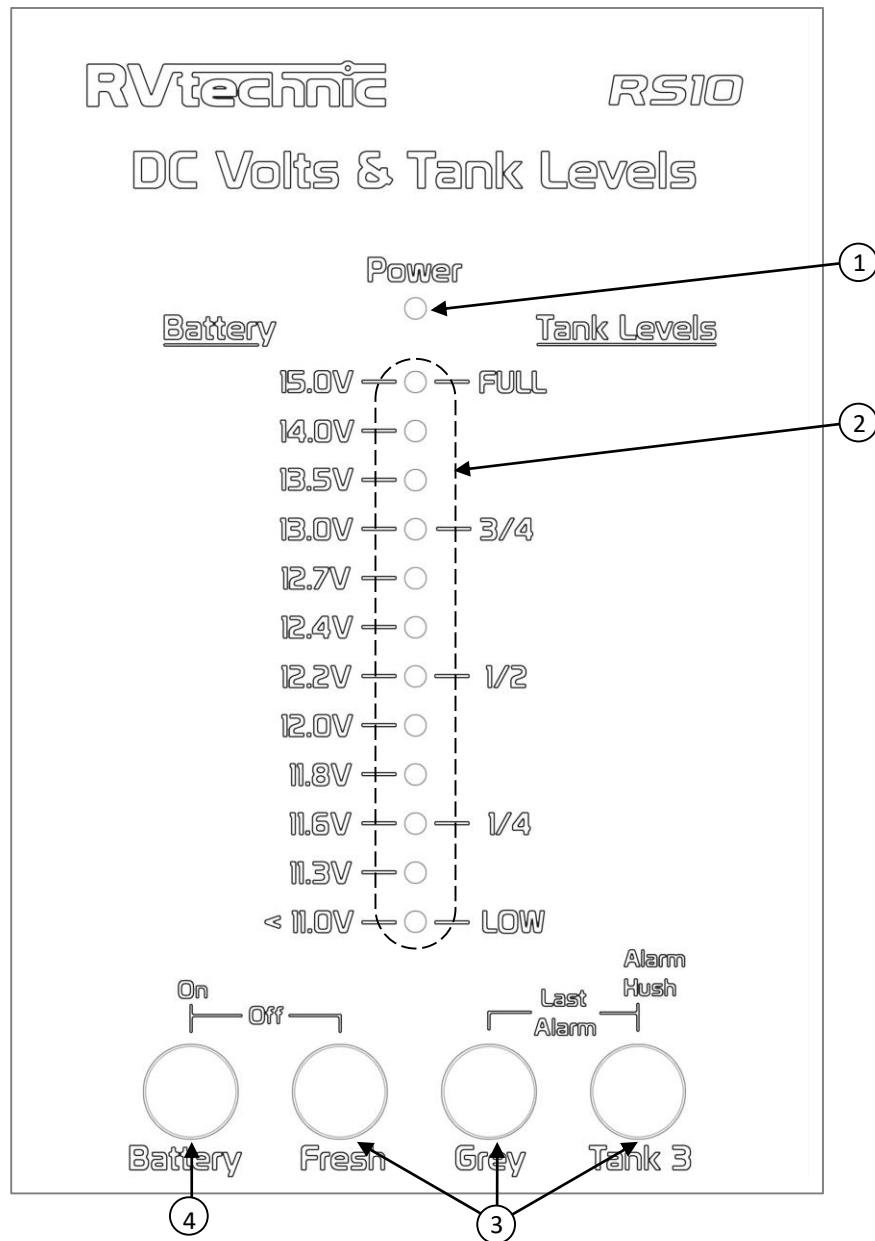
Thank you for purchasing an RVtechnic RS10 DC Volts & Tank Levels unit. We trust the product will provide excellent convenience, functionality and reliability for your motorhome or marine vessel.

1. Functionality and Features of the RS10:

- Monitors 12Vdc battery voltage
- Monitors up to 3 water tanks including grey water (tank sensor cables to be purchased separately)
- Alarms when battery voltage is too low or too high (under 11.8V, over 15.0V). Peace of mind when drawing power from or charging your expensive house-batteries

Please read this guide in full prior to installation and use

2. Front Panel Functions



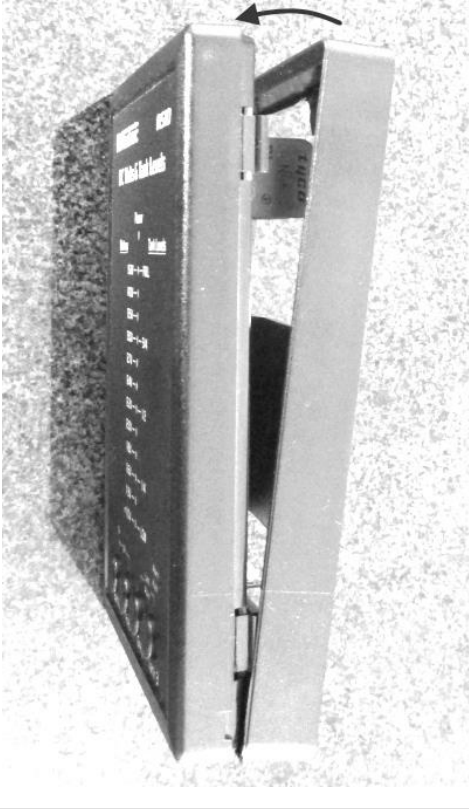
Key:

- 1) **Power** LED flashes once per minute when RS10 is on
 - 2) Indicator LEDs for voltage or tank levels (voltage displays as a single LED when buttons not pressed)
 - 3) Push buttons to indicate water tank levels
 - 4) Push button to indicate house-battery voltage (as a row of LEDs)
- Press **Battery** and **Fresh** buttons together to turn off the unit
 - Press **Battery** button to turn the unit on from off-state
 - Press **Tank 3** button to hush repeating alarm sounds
 - Press **Grey** and **Tank 3** buttons together to display the most recent alarm code

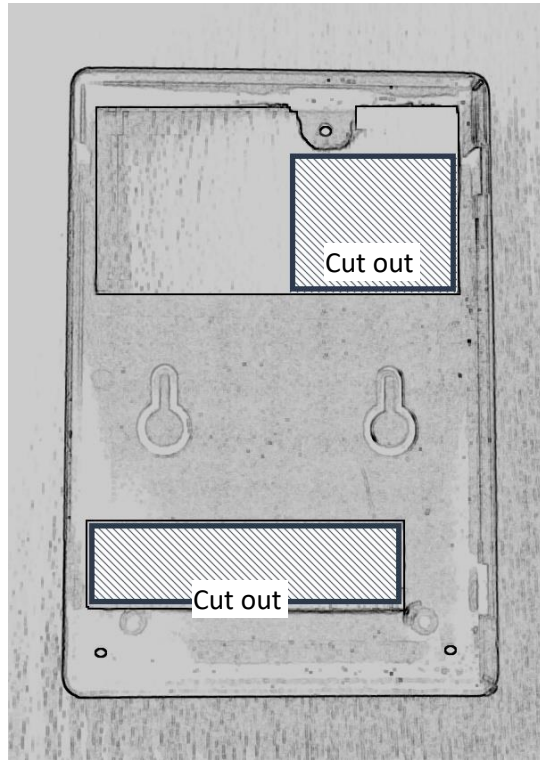
3. Installation

Wall mounting

1. Separate front from rear case (pull apart)

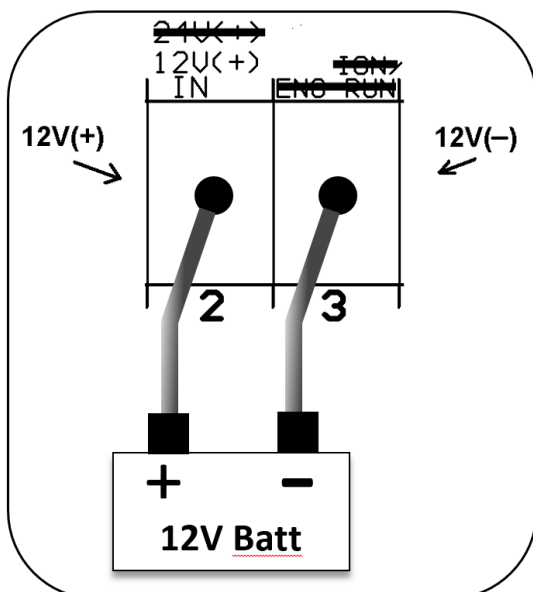


2. Using rear case as a guide, cut out wall panel sections to enable cable access.
3. Screw rear case onto wall using enclosed screws



RS10 Connections in a 12volt RV

- Connect cables to RS10 **before** connecting cables to battery – to reduce risk of damage from energised wires either shorting together or contacting RS10 circuit board during install.



4. Alarms

Note: Alarm sound is two short, low tones

House-battery voltage	Alarm
Over 15.1V (battery is over-charging from solar or other source)	All batt LEDs flash every 3 secs indicating high batt voltage. Alarm sounds once per minute
11.8V to 11.9V (slightly low)	Batt LEDs flash every 3 secs indicating house-battery voltage. No alarm sound
11.5V to 11.8V (low)	Batt LEDs flash every 3 secs indicating house-battery voltage. Alarm sounds once per minute
Below 11.5V (very low)	Batt LEDs flash every 1 sec indicating house-battery voltage. Alarm sounds once every 10 secs

Other alarms:

Condition	Alarm
Fresh tank level drops below 1/4 tank	Single short beep alert. No LEDs flash

5. User Settings

To switch off all sounds including alarm tones:

Hold **Battery** and **Tank3** buttons for 5 seconds and release (then USER settings mode will be active for 3 seconds and power LED will flash). While flashing, Press **Grey** button (sounds status will change from ON to OFF).

Repeat this process to change sounds status from OFF back to ON.

To switch off single LED voltage display:

(By default a single LED always displays to indicate house-battery voltage while no buttons are pressed. The following process will switch single LED voltage display on/off)

Hold **Battery** and **Tank3** buttons for 5 seconds and release (then USER settings mode will be active for 3 seconds and power LED will flash). While flashing, Press **Fresh** button (single LED display mode will change from ON to OFF).

Repeat this process to change single LED display mode from OFF back to ON.

6. Trouble Shooting Guide

Problem	Possible cause(s)	Solution(s)
Voltage display LEDs flash and alarm sounds	House-battery voltage is too low or high (refer to Alarms section) <i>Note: 3-way or 2-way fridges (running on 12V supply) draw 10 to 15 Amps and will flatten house-battery quickly without engine running.</i>	If flashing display LEDs are indicating 11.8V or lower, battery voltage is low. It is recommended that loads are switched off and battery charged. If all voltage display LEDs are flashing, house-battery voltage has been over 15.1V for more than 1 minute which can damage 12V batteries. Remove charging source. <i>Note: 12V lead-acid, SLA and AGM batteries can be degraded or damaged if voltage is kept below 12V or above 15V for long periods.</i>
Grey water meter reading low when water is present in the tank	Grey water is particularly clean	Add ½ teaspoon of salt into grey tank (wash salt down sink/basin/shower drain). <i>Note: Grey water meter sensitivity is set low to avoid false-reads from dirty/fouled tank sensors</i>
Water meter(s) reading water is present when tank(s) empty	Water tank sensors are particularly dirty/fouled	Remove tank sensors from side of tank, clean, reinstall.

7. Electrical Specifications

Item	Specification
RS10 operating voltage	8V to 15V DC
RS10 current consumption	4mA

8. Warranty Information

Before calling for service or assistance please carefully check the Troubleshooting Guide and Installation information contained in this document.

1. In this warranty:
 - (a) "RVtechnic" means RVtechnic Ltd NZBN: 9429030541535;
 - (b) "you" means the purchaser of the Product not having purchased the Product for re-sale, and "your" has a corresponding meaning;
 - (c) "Product" means the RVtechnic product purchased by you accompanied by this document;
2. RVtechnic issues this limited warranty to the original purchaser of this product. This limited warranty is not transferable. The warranty applies to manufacturing faults and material defects for 2 years from the date of purchase. The purchaser must return the product for inspection together with the receipt of purchase to either the retailer if purchased from a retail outlet, or to RVtechnic.
3. RVtechnic is not liable in the following situations (which are not exhaustive):
 - (a) the Product is damaged by:
 - (i) accident
 - (ii) misuse or abuse
 - (iii) normal wear and tear
 - (iv) incorrect power supply
 - (v) incomplete or improper installation
 - (vi) incorrect, improper or inappropriate use, application or operation
 - (vii) insect or vermin infestation
 - (viii) failure to comply with any additional instructions supplied with the product;
 - (b) the Product is modified without authority from RVtechnic in writing;
 - (c) the Product's serial number or warranty seal has been removed or defaced;
 - (d) the Product was serviced or repaired by anyone other than RVtechnic or an RVtechnic authorised repairer.
4. RVtechnic will, at its sole discretion, either (i) return the Product to you if it is not determined to be defective, or (ii) without regard to whether or not the original Product is determined to be defective, either (A) provide you with a replacement product of the same or comparable model, or (B) provide you with a refurbished or repaired Product
5. To the extent permitted by law: (a) RVtechnic excludes all warranties other than as contained in this document; (b) RVtechnic shall not be liable for any loss or damage whether direct or indirect or consequential arising from your purchase, use or non-use of the Product.

For service, please email: service@rvtechnic.co.nz

Or call (in NZ) 021-1542255, (outside of NZ) +64-21-1542255

For further contact details go to our website: www.rvtechnic.co.nz