

## TWO YEAR WARRANTY

This Two Year Warranty is subject to and shall not derogate from any mandatory statutory provisions to the contrary. In particular, this Two Year Warranty does not exclude, restrict or modify any condition or warranty that cannot be excluded by applicable legislation, including without limitation consumer protection legislation.

Redarc Electronics Pty Ltd at the Redarc Trust trading as Redarc Electronics ("Redarc") warrants to the original purchaser of the product(s) on the reverse side of this sheet ("Product") that are purchased from an authorised distributor or reseller ("Purchaser"), that the Product will be free, under normal use and maintenance, from defects in materials and workmanship affecting normal use for a period of TWO YEARS from the date of purchase ("Warranty Period"), subject to the conditions set out below ("Warranty").

1. **Warranty**
  - 1.1 Unless otherwise stated in this Warranty, Redarc will at its sole discretion either replace or repair a Product that is defective in materials or workmanship within the Warranty Period without charge to the Purchaser. To the extent permitted by law, Redarc's determination of the cause of any defect will be conclusive.
  - 1.2 While Redarc warrants, where applicable, that the Product is free from defects in materials and workmanship under normal use at the time of delivery, Redarc does not warrant that the Product will meet any user specific requirements or that the operation of the Product will be uninterrupted or error-free.
  - 1.3 To the extent permitted by law, this Warranty contains the whole of the Redarc's obligations and any distributor and the agents, officers and employees of such distributor and of Redarc are not authorised to vary or extend the terms of this Warranty.
  - 1.4 Redarc's Trading Terms contain important information about Redarc's liability for the Product. In particular these are set out at paragraphs 10, 11 and 13 of Redarc's Trading Terms.
  - 1.5 The benefit of this Warranty is personal to the Purchaser and is not transferable.
2. **Warranty void**  
Any of the following circumstances will render this Warranty void:
  - 2.1 Failure to ensure proper maintenance of the Product or any associated equipment or machinery;
  - 2.2 Failure to pay for the Product in full or comply with Redarc's Trading Terms;
  - 2.3 If the Purchaser sells, leases or otherwise parts with possession of the Product;
  - 2.4 If the Purchaser moves the Product to a new site;
3. **Deemed second hand sales**  
The sale of the Product via an online auction (such as eBay), online store or other internet website by a party that is not an authorised distributor or reseller of the Product will be deemed to be a second hand sale and will render this Warranty void, in accordance with paragraph 2.3 of this Warranty, as Redarc has no control over the storage, handling, quality or safety of products sold by such persons.
4. **Exclusions**  
This Warranty shall not apply to, or include, any of the following:
  - 4.1 Any defect, damage, fault, failure or malfunction due to accident, misuse, abuse, movement of the Product to a new site, negligence, non-observance of any of the instructions supplied with the Product including the instructions on the reverse side of this sheet ("Operating Instructions") or local regulations on the part of any user, choice of location, improper installation, configuration or connection, faulty power supply, normal wear and tear or any occurrence outside of Redarc's control;
  - 4.2 A Product that is not installed or maintained strictly in accordance with the Operating Instructions;
  - 4.3 A Product that is installed, repaired or serviced by a person who is not a qualified auto electrician or electronics technician, or if non-approved parts have been fitted;
  - 4.4 A Product that is used other than for any reasonable purpose for which it was manufactured, or is used in a way not specified by Redarc;
  - 4.5 Deterioration due to normal use and exposure, including abnormal environmental conditions such as lightning strike, flood and extreme heat;
  - 4.6 Any freight, packing and insurance expenses relating to transportation of the Product;
  - 4.7 Any expenses relating to installation and/or removal of the Product; and
  - 4.8 Any indirect or incidental damage of whatever nature.
5. **Purchaser's obligations**
  - 5.1 The Purchaser must retain proof of purchase documentation for the Product.
  - 5.2 Installation and maintenance of the Product and associated equipment and/or machinery is the responsibility of the Purchaser. The Purchaser must retain evidence that the Product was installed, and that proper maintenance has been performed on the Product, by Redarc or a qualified auto electrician or electronics technician, in accordance with the Operating Instructions.
  - 5.3 The Purchaser must operate the Product in accordance with all of the Operating Instructions.
  - 5.4 Upon discovery of a defect the Purchaser must return the Product to the distributor with full details of the nature of the defect. A written report describing the circumstances of failure must accompany the returned Product with proof of purchase which clearly shows the date and the place of such purchase by the Purchaser.
  - 5.5 Removal of the Product must be effected by a qualified auto electrician or electronics technician to ensure that the Warranty remains valid.
  - 5.6 The Purchaser must prepay shipping and transportation charges, and insure the shipment or accept the risk of loss or damage during such shipment and transportation.
  - 5.7 Redarc will ship the repaired or replacement Product to the Purchaser freight prepaid.
  - 5.8 If the Product is found to be working satisfactorily on return to Redarc, the Purchaser must pay Redarc's reasonable costs of testing and inspecting the Product in addition to shipping and transportation charges. The Product will be returned to the Purchaser on receipt of the amount charged.

FREE TECHNICAL ASSISTANCE

**REDARC**

THE POWER CONVERSION SPECIALISTS

23 Brodie Road North

Lonsdale

South Australia 5160

Phone: 08 8322 4848

Fax: 08 8387 2889

Email: [power@redarc.com.au](mailto:power@redarc.com.au)

Web: [www.redarc.com.au](http://www.redarc.com.au)

## BREAKSAFE SERIES 6000 AND 6000XP

Electric Brake Break-away system

The Break-Safe Break-Away system is designed to apply the trailer brakes and brake lights if the trailer or caravan is accidentally separated from the tow vehicle. The system has a built in battery that can be charged from the tow vehicle's auxiliary line or by a battery charger. The easy to operate test button is used to indicate the level of charge in the battery. This should be checked before the trailer is towed. Please ensure that you select the correct model for your requirements

Series 6000 to suit 2 and 4 wheel trailer brakes.  
Series 6000XP to suit 2,4 and 6 wheel trailer brakes.

### WARNING

The Break-Safe should be mounted *internally* but can be mounted externally if necessary although the Break-Safe is *not waterproof* and should have a *rain* and *splash* cover if it is mounted externally. The mounted position of the Break-Safe should be determined by the installer in conjunction with the vehicle owner's preference. When mounting inside the trailer or caravan, choose a position where air can circulate around the box. Do not position the box where articles can be stored against it as they may activate the test button.

### TEST BUTTON

Use the test button to test the condition of the built-in battery. This should be checked each time the trailer is used. Depress the button momentarily and check the battery level lights. **The test button will also energise the trailer brakes and brake lights.**



RM6000 Remote Monitor (optional)

GREEN - Battery normal.  
RED - Battery low (charge before use).  
NO LIGHT - Battery flat, charge before use or replace battery.



BA6000 Break-Safe 6000

### CHARGING

Charging of the Break-Safe battery can be done via the tow vehicle auxiliary line (Break-Safe black wire) or by connecting a small battery charger (8 amps maximum) to the red and black terminals on the front of the Break-Safe box. The orange charge light next to the red terminal will illuminate when the Break-Safe battery is connected to 12 volts for charging. The charging system in the Break-Safe unit is a **trickle charge circuit** only and it may take several hours for the battery to fully recharge.

**All Break-Safe wires must be connected for correct operation of Break-Safe unit.**

**WIRING**  
**BLACK** 12 volt tow vehicle auxiliary line  
**RED** Stop light circuit  
**WHITE** Earth return from trailer brakes  
**BLUE** Positive supply to trailer brakes  
**ORANGE** Both wires to Break-Away switch  
**PURPLE** Remote monitor sense wire

Caravans and horse floats  
mount battery box internally.

Mount Break-Away switch here.



Trailers, mount unit on side. Break-Safe is not waterproof. Fit rain and splash cover.

FREE TECHNICAL ASSISTANCE, contact Redarc Electronics  
Ph (08) 8322 4848, Fax (08) 8387 2889  
or Email [power@redarc.com.au](mailto:power@redarc.com.au)

Specifications are subject to change without notification.

## TESTING

**Disconnect the trailer plug from the tow vehicle.** Pull the Break-Away pin from the breakaway switch attached to the A frame. The electric brakes and brake lights of the trailer should immediately activate and the battery level light should illuminate. The brakes will release when the pin is replaced in the switch.

## PARKING YOUR TRAILER

When parking your trailer, it is necessary to replace the plastic plunger into the BA Switch after the vehicle has been disconnected from the trailer. Removing the plastic plunger from the BA Switch will activate the trailer brakes, and as such will eventually flatten the Break-Safe battery.

## NOTE

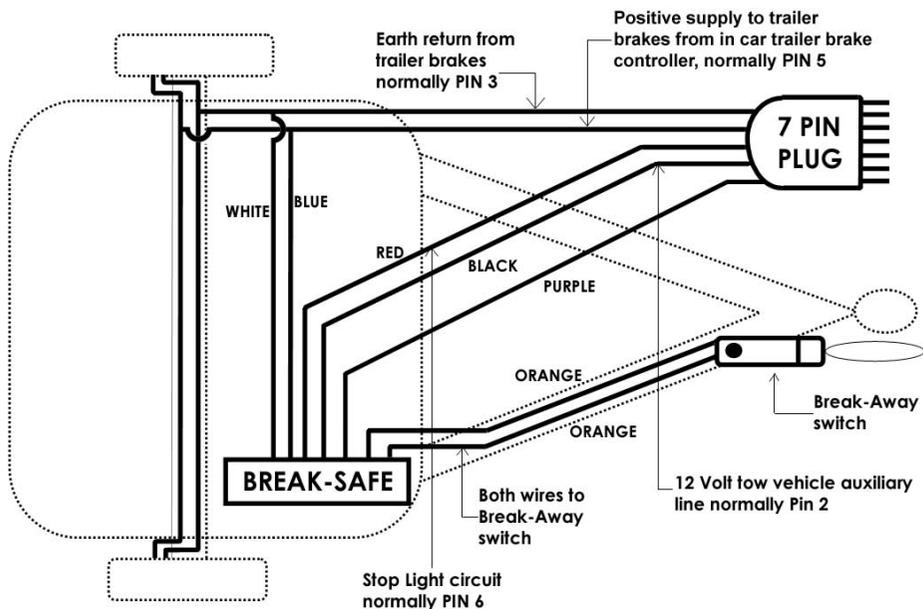
*Attach the Break-Away cable to the rear of the tow vehicle using a secure anchor point. Do not hook cable to tow ball or safety chain anchor.*

## FUSING

The Break-Safe unit is protected by one internal mini-blade fuse. If the unit fails to operate, please check the fuses first. Care must be taken when opening the unit.

Fuse Rating - 30 amp

## WIRING DIAGRAM



## TROUBLESHOOTING

|  |   |
|--|---|
| Charge light NOT ON when the trailer is connected with the tow vehicle.                                    | Check to vehicle's auxiliary line. The red and black terminals on the front of the Break-Safe unit should be live when auxiliary power is connected and the brakes are applied.                                   |
| BUZZING NOISE from Break-Safe when the test button is pressed or the Break-Away pin is pulled.             | Battery is dead flat <b>or</b> there is a short circuit in the trailer's electric brakes which has blown the Break-Safe's internal fuse. <b>Charge battery and check internal fuses and replace as necessary.</b> |
| Electric brakes &/or brake lights do not activate when test button is pressed or Break-Away pin is pulled. | Check battery level and check internal fuses.   |
| Battery level test lights remain ON.   | Break-Away pin not fully inserted in Break-Away switch.   |

## BREAK-SAFE REMOTE MONITOR



Part no.: RM6000

To suit Break-Safe 6000 & 6000XP Break-Away kits only.

The new *RM6000* remote monitor provides the only accurate way to monitor the breakaway battery condition, and will give an audible and visual signal if the battery condition falls below the acceptable levels (using a volt meter to monitor the Break-Safe battery is **dangerous**, as it will not give a true indication of the battery condition). The new *RM6000* remote monitor operates each time the brake pedal in the tow vehicle is pressed. The additional circuitry in the Break-Safe *6000* & *6000XP* disconnects the Break-Safe battery from the charge wire and then connects it to a small electronic load. Should the Break-Safe battery be good, a green light will illuminate on the front panel of the *RM6000*. If the battery is below the safe level, a red light will flash and a buzzer will sound for about 10 seconds.

**NOTE:** The RM6000 should be disconnected from the RED charging terminal if a charger is connected.

## FITTING INSTRUCTIONS

Mount the remote monitor to the tow vehicle dashboard (using the u bracket or the sticky tabs provided) in a position where the front panel of the remote monitor is visible to the driver in the normal driving position. Connect the negative terminal of the remote monitor to a good earth. Fit a wire to the sensor terminal of the remote monitor and run the wire through the vehicle and trailer plug (a 12 pin plug may be required) to the purple remote monitor sense wire of the Break-Safe unit.

**Note:** a 12 volt auxiliary wire must be fitted to the tow vehicle for charging the Break-Safe internal battery and for correct operation of the RM6000 remote monitor. If an auxiliary is fitted, the orange charge light next to the red terminal on the Break-Safe will illuminate.

## TESTING

After installation is complete, connect the trailer plug to the tow vehicle.

Sit in the driver's seat and turn the ignition of the tow vehicle on. Press the brake pedal. A green light should illuminate on the front panel of the remote monitor.

## BREAK-AWAY SWITCH

Also available for separate purchase is the **BASWITCH**. If ever your current Break-Away switch needs replacement, you can purchase a new switch separate from the Break-Safe unit.

