



(Standard installation)



RBC-12-NG

GSL's RBC range is a new generation of brake controllers that operate in a pre-set braking force utilising microprocessor technology. Available in both 12V and 24V, GSL's RBC range eliminates the need for a separate reducer on 24V systems. This new generation of brake controllers has been designed for both single and dual axle trailers using a negative earth (ground) systems only. Rugged and compact, it is easily installed with the simple connection of four wires and comes with a remote control. The remote control is simple to install and makes adjusting and monitoring the brakes even easier. This remote control can be located up to 1m from the brake controller. Both the 12V and 24V models also incorporate an override function for independent braking of the trailer from the vehicle brakes - helping to prevent potentially dangerous swaying and snaking.

Features:

- LED indicator for both brake connection and brake activation
- Remote control utilises a built-in LED for single hole mounting
- Remote control is ultra-small and can be mounted in the smallest of dash knock-outs
- 1m reach for remote control
- Easily adjustable braking force
- Compatible with single filament/brake bulb systems
- Impressive maximum output capability of up to 2 axles (12A)
- Mountable at any angle
- Convenient override

In the box:

- 1 x Remote brake controller
- 1 x Retaining nut (on unit)
- 1 x Washer (on unit)
- 1 x Remote control
- 1 x Dash mount decal
- 2 x Mounting screws

Specifications	RBC-12-NG	RBC-24-NG
Minimum Input Voltage	9 VDC	18 VDC
Nominal Input Voltage	12 VDC	24 VDC
Maximum Input Voltage	15 VDC	30 VDC
Suitable For 12V Trailer Brakes	Yes	Yes
No Current Load	30 mA	
Maximum Load	2 Axle / 12A Avg	
Dimensions	30mm x 57mm x 90mm	
Weight	200g	

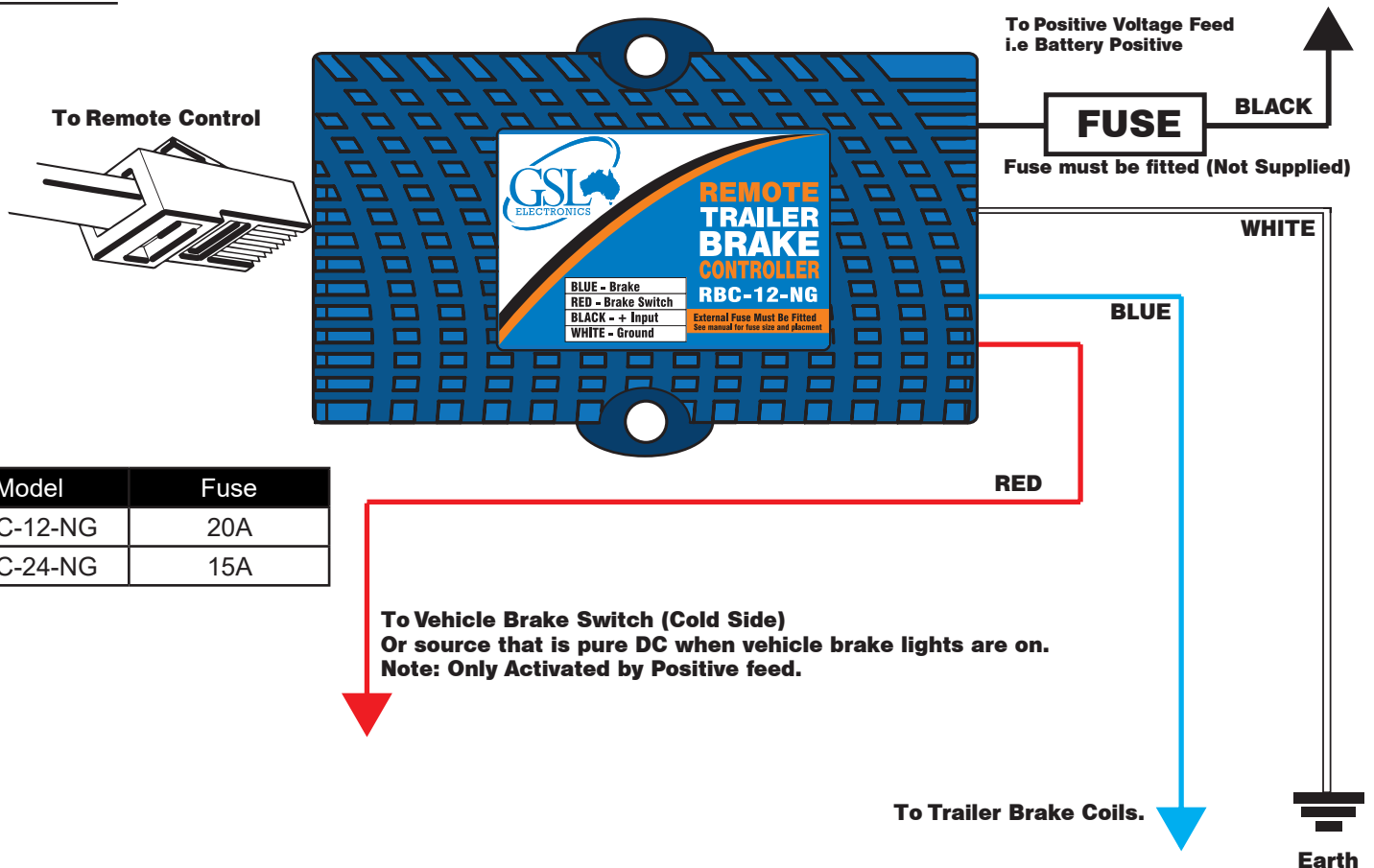


Note: Both the 12V and 24V model are load activated and cannot be tested without load. At no load, the output reading of high voltage will register. The output voltage is PULSED, so it cannot be measured with a voltmeter or test light.

Installation:

1. Disconnect the vehicle's NEGATIVE battery terminal
2. Determine a suitable mounting location inside the cabin
3. Hold the brake controller in the selected position and mark the hole location through the holes in the flanges of the unit
4. Using a suitable drill bit, drill holes in the marked locations
5. Secure the brake controller in position with self-tapping screws. Take care to not strip the holes by over-tightening the screws
6. Drill a hole for the 8.5mm remote control shaft in a suitably sized mounting panel in the dash with a wall thickness of less than 4mm
7. Affix decal, washer and retaining nut over shaft and tighten. Turn shaft fully counter-clockwise and affix the knob on the shaft with firm, even pressure with the indicator facing the minimum position
8. Plug the remote control lead into the brake controller
9. Connect brake wiring as per wiring instructions and follow Set-up and Operation procedures

Wiring Diagram



Model	Fuse
RBC-12-NG	20A
RBC-24-NG	15A



Models:

RBC-12-NG & RBC-24-NG

Page 3 of 4

Remote Brake Controllers

Installation & Operating Instructions

Please read these instructions before use



Wire Guide	
White Wire	Negative Battery
Blue Wire	Brake
Black Wire	Positive Battery Fuse : 12V 20A / 24V 15A
Red Wire	Brake Switch

* Please note: an external fuse must be fitted (not supplied).

* The control unit is activated by a positive feed brake switch only.

(Please check the polarity of your vehicles brake switch before connection)

PLEASE ENSURE THAT A FUSE IS FITTED ON THE BLACK WIRE (POSITIVE BATTERY)

(Optionally a 20A fuse may also be fitted to the BLUE brake wire)

The Remote Brake Controller has four (4) coloured wires- BLACK, RED, BLUE and WHITE.

- The BLACK wire is the positive voltage power supply line. A fuse must be fitted (refer to table above for size).
 - The RED wire must be connected to a point that receives a DC Voltage equal to that of the supply voltage when the brakes are on. Generally, for most vehicles we strongly recommend that you connect the RED wire to the cold side of the brake light switch. If this is not an option for your vehicle, then any point that receives a straight DC voltage should be applicable. For example- top rear tail light, brake light relay or the wire connecting to the stop lights on the trailer plug.
- NOTE:** Vehicles that use the same globe/supply for rear and tail lights cannot have the RED wire to the stop light/tail lights directly. Please use the alternatives listed above.
- The BLUE brake wire must be connected directly to the trailer brake wire.
 - The WHITE ground wire must be connected to a grounded metal part of the dashboard, vehicle fire wall or directly to the negative battery terminal.



Important: A brake control unit that is not properly grounded may operate intermittently or not at all.

- Make sure all connections are secure.
- Do not connect the Black "BATTERY" wire to the fuse panel or tie into any accessory wiring. Connecting to the existing wiring may damage the vehicles wiring and cause trailer brake failure.
- Do not reverse Black "BATTERY" wire and White "GROUND" connections. Even a momentary incorrect connection can damage the brake control unit.

In the unlikely event of RF Interference, you may wish to try one of the following :

- 1) Refrain from using the vehicle chassis as a conduit for the earth return for the brake coils. Facilitate a separate ground wire. (See point 3 below)
- 2) Mount the brake controller route all cables for the input and output of the brake controller away from antennas and RF Equipment.
- 3) Use an as short as possible bifilar (or twisted) wire to feed the RBC and brake coils (both active and return).
- 4) Add a ferrite clamp over the RED, BLUE, BLACK & WHITE wires.

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RBC-12-NG & RBC-24-NG

Page 4 of 4

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SET-UP & OPERATION

SETTING THE BRAKING FORCE:

To set the brake intensity, simply rotate the knob until the required braking level is achieved. A clockwise knob rotation will increase the braking and a counter-clockwise will decrease it.




USING THE OVERRIDE FEATURE:

To activate the override function, simply push on the adjustment knob. Releasing the knob disables the function.

NOTE: when the override is active, the braking force is still determined by the knob position.

The override function works to apply the trailer brakes without applying the vehicle brakes. This feature can be used when the tow vehicle begins to sway or enter a tail wag situation. Please consult towing professionals or towing training schools for advice on how to use this feature correctly. In the event of an emergency situation, do not rely on the override button for additional braking force. If additional braking force is required turn the knob clockwise and return your hand to the wheel in a quick and timely manner.

LED Status Indication

LED Indication	Status
	Trailer connected / brakes connected / all systems OK
	Either : <ul style="list-style-type: none">• Brake pedal pressed, controller actively braking• Override has been pressed <p>Note: Unit will flash 3-4 times after pressing the brake or using the override then return to solid.</p>
	No power or trailer disconnected from vehicle

Warranty Conditions: Our products come with guarantees that cannot be excluded under the Australian Consumer Law.

The customer is entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage.

The customer is also entitled to have the products repaired or replaced if the products fail to be of acceptable quality and the failure does not amount to a major failure.

GSL Electronics (GSL) warrants that its products will, under normal use and service, be free of defects in material and workmanship for a period of two (2) years from the date of the original purchase by the customer as marked on the customer's original invoice.

Please refer to our website for full warranty and return information which can be found at <http://www.gsl.com.au/faq.html>