

# ELECTRONIC BRAKE CONTROLLER

Installation & Operating Instructions  
Please read these instructions before use



The EBC range is a new generation of brake controllers utilising microprocessor based technology. It is a compact, rugged, all electronic brake controller and is easily installed with the connection of four wires and the mounting bracket supplied. Easily adjustable via the front display and simple up, down controls. Both models also incorporate an emergency over-ride slide lever for manual control. Designed for both single and dual axle trailers using negative earth (ground) systems only. Available in 12V & the new 24V version eliminating the need for a separate reducer on 24V systems.

Specifications	EBC-12	EBC-24
Minimum Input Voltage	9 VDC	18 VDC
Nominal Input Voltage	12 VDC	24 VDC
Maximum Input Voltage	15 VDC	30 VDC
Output Voltage	12V	12V
Suitable For 12V Trailer Brakes	Yes	Yes
No Current Load	30 mA	
Maximum Load	2 Axel / 12A Avg	
Dimensions	40mm x 80mm x 125mm	
Weight	270gm	

**Note :** The EBC-24 is load activated and can not be tested without load. At no load, output reading of 24V will register.  
Please note that the output voltage is PULSED, so it cannot be measured with a volt meter or test light.  
\* The Control Unit is Activated by A Positive Feed Brake Switch Only.  
(Please check the polarity of your vehicles brake switch before connection)

#### Features :

- Digital Display For Accurate Set-Up And Ease Of Use
- Easy adjustment Via Two Push-buttons
- Open circuit & Overload Indication and protection
- Convenient Over-Ride Slide Lever
- Selectable Three Position Ramp-Up For Brake Speed
- 2 Axel 12A Output Capability
- Top Or bottom Mounting Via The Multi Position Bracket
- Can Be Mounted On Any Angle

#### Installation :

1. Disconnect the vehicle's NEGATIVE battery terminal.
2. Determine a suitable mounting location. The unit must be mounted securely to a solid surface and be easily accessible to the driver.
3. Hold the mounting bracket in the selected position and mark the hole location through the holes in the bracket.
4. Using a suitable drill bit, drill holes in the marked locations.
5. Secure bracket in position with self tapping screws being careful not to strip the holes by over-tightening.
6. Mount the brake control unit in the bracket by snapping into position.

**White Wire: 0V DC**

**Blue Wire: Brake**

15A Fuse\*

**Black Wire: +VDC**

**Red Wire: Brake Switch**



\* Please Note: An External Fuse Must Be Fitted (Not Supplied).



**Wiring: Please ensure that a fuse is fitted in the Blue Wire (Brake).**

The Brake Controller has four (4) coloured wires, black, red, blue and white. The black wire is the positive voltage power supply line. The red brake wire powers up the electronic circuit of the unit and must be connected to the cold side of the brake light switch. The blue brake wire must be connected directly to the trailer brake wire. The white ground wire is connected to a grounded metal part of the dash, 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.

**Set-up & Operation :**

**Setting the braking force:**

To set the brake intensity simply press and hold the down arrow button to lower or the right up arrow button to raise the desired braking force in 01 increments (From 15 up to a maximum of 99). On very low setting the display may read O.C. This indicates either a very low braking force or open circuit. To check for open circuit set the control to 50 and retest brakes. If OC is still displayed then the wiring or brake coils are open circuit.

**Setting the Ramp-up Feature:**

To set the ramp-up feature simply press and hold both the face buttons together. There are four levels that the user can select (00 to 03). The 00 setting represents instant braking to your set level of braking force. The other settings enable the brakes to ramp-up to the selected brake intensity at varying speeds.

Ramp-Up Settings.	
00	No Ramp-Up
01	Fast Ramp-Up
02	Medium Ramp-Up
03	Slow Ramp-Up

By using this feature the user can adjust the ramp-up setting to a level better suited to his or her towing conditions. When the vehicle brake is applied the trailer brakes will gradually increase in braking force up to the set level of intensity.

Fault Indication.	
OC	Either Low Brake Force or Open Circuit, check for disconnected wires or faulty brake coils.
OL	Overload, reduce load or check for short circuit on output.

*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>

