

# ELECTRIC BRAKE CONTROLLER

## 12V Microprocessor with Remote Head

The Electric Brake Controller (EBC) is a new generation of brake controller utilising microprocessor based technology. It is compact, rugged and easily installed. Easily adjustable via the remote control which can be located up to 1m from the controller, it also incorporates an over-ride function for manual control. Designed for both single and dual axle trailers using negative earth (ground) systems only.



### Features

- Dashboard LED Indicator
- Convenient override control
- Remote hideaway control box
- Easy setup push button switch
- Dual axle capability
- Easy adjustment dashboard knob
- New gen microprocessor based
- Mountable at any angle
- Compact and rugged housing

Unit comes supplied with  
 1 x Retaining Nut (on unit)  
 1 x Washer (on unit)  
 1 x LED Plastic Cover  
 1 x Control Knob  
 1 x Dashboard Sticker  
 2 x Mounting Screws

### TECHNICAL SPECIFICATIONS

Minimum Input Voltage	9VDC
Nominal Input Voltage	12VDC
Maximum Input Voltage	15VDC
No Current Load	30mA
Maximum Load	2 Axle / 12A Avg
Dimensions	40 x 79 x 81 mm
Weight	200g

Please note that the output voltage is PULSED, so it cannot be measured with a volt meter or test light.  
 When the trailer is not connected, 12V is still present at the plug

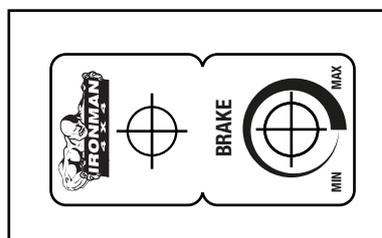
### Installation

- Disconnect the vehicle's NEGATIVE battery terminal.
- Determine a suitable mounting location behind the dash. The unit must be mounted securely to a solid surface.
- Hold the mounting bracket in the selected position and mark the hole location through the holes in the bracket.
- Using a suitable drill bit, drill holes in the marked locations.
- Secure bracket in position with self tapping screws being careful not to strip the holes by over-tightening.
- Mount the brake control unit in the bracket by snapping into position.
- Using the template below, drill two holes in dash or position of placement and insert control knob and LED through holes.
- Fix locking nut over shaft of control and tighten. Insert supplied LED lens over LED.
- Connect brake wiring as per wiring instructions and follow 'set-up and operation procedures' overleaf.

CUT HERE

CUT HERE

### DRILLING TEMPLATE FOR DASHBOARD MOUNTING



### Drill Hole Sizes

Left Circle (LED) = 6.4mm  
 Right Circle (Control Knob) = 7.3mm

# ELECTRIC BRAKE CONTROLLER

## 12V Microprocessor with Remote Head

### WIRING INSTRUCTIONS

<b>White Wire</b>	0VDC (Earth)
<b>Blue Wire</b>	Brake/Trailer Plug
<b>Black Wire</b>	+VDC (Pos Battery)
<b>Red Wire</b>	Brake Switch

\* The Control Unit is Activated by A Positive Feed Brake Switch Only.  
(Please check the polarity of your vehicles brake switch before connection)

### Wiring - Please ensure that a 25Amp auto reset circuit breaker is installed to the black wire

- The Brake Controller has four (4) coloured wires, BLACK, RED, BLUE and WHITE.
- The BLACK wire is the positive voltage power supply line. Install a 25Amp auto reset circuit breaker (not supplied).
- 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 on most vehicles we strongly recommend to connect the RED wire to the switched side of the brake light switch. If that is not the case on the vehicle then any point that receives a straight DC voltage, i.e 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 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 (we recommend 5mm blue wire).
- The WHITE ground wire is connected to a grounded metal part of the 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 and 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 intensity and a counterclockwise rotation will decrease it.

#### Setting the Over-Ride Feature

To activate the Over-Ride function simply push on the adjustment knob, releasing the knob disables the function. The braking force when the Over-Ride is active is still determined by the knob position.

In the unlikely event of RF Interference try any of the following tips

1. Refrain from using the vehicle chassis as an earth. Facilitate a separate ground wire. (See point 3 below)
2. Mount the brake controller and 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 EBC and brake coils (both active and return).
4. Add a ferrite clamp over the RED, BLUE, BLACK and WHITE wires.

### LED INDICATION

<b>LED Off</b>	Trailer brakes disconnected or no input power to the unit
<b>LED On</b>	Trailer brakes connected
<b>LED Flashing</b>	Brakes on at the selected level, either via brake pedal or Over-Ride function

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. Ironman 4x4 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 information which can be found at <http://www.ironman4x4.com/warranty-terms>.