

# AUSTRALIAN INSTALLATION INSTRUCTIONS

Part No. 47235

IMPULSE™

## Electronic Brake Control Instructions

**IMPORTANT: Completely Read All Instructions Before Installing This Brake Control.**

### UNIVERSAL INSTALLATION

Color Code: White Wire... Ground/Earth/Negative  
 Blue Wire.... Trailer electric brakes (NOTE 1.)  
 Black Wire... Positive terminal on battery  
 Red Wire..... Cold side of stop lamp switch

- Be sure to use proper wire gauge when installing your control:
  - 12 gauge/5mm/3.3mm<sup>2</sup> for electric brakes, power and ground
  - 14 gauge/4mm/1.8mm<sup>2</sup> for the stoplight switch.
- Connect white wire to negative post on the vehicle battery. Grounding to any other location may cause intermittent brake control operation or failure.
- Attach 30 amp circuit breaker (Not included in this kit - Use Kit with Part No. 47275) or in-line fuse to the positive terminal on the vehicle's battery. Route black wire from the brake control to the fuse or breaker.
- Splice red wire into cold side of vehicle's stoplight switch located by the brake pedal. Find the wire by using a circuit tester and probing for the wire that powers the vehicle stoplights when the brake pedal is pressed.
- Route blue wire from brake control to vehicle trailer connector.
- Plug harness into back of control.

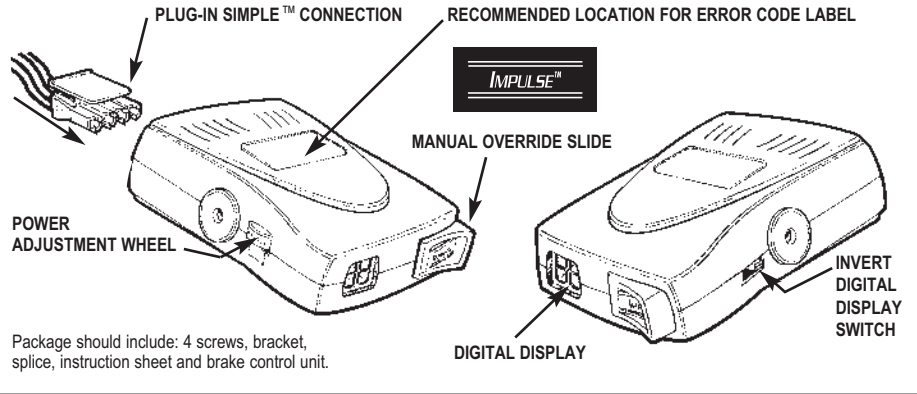
**NOTE 1.** Terminal 5 on 7-Pin Trailer Plugs

### IMPORTANT INSTALLATION TIPS

- Wire color codes vary by manufacturer. Be sure to wire by function only.
- Some late model Ford / Mercury trucks and sport utility vehicles have two or more stoplight switch wires. For proper operation, **use the light green wire**. The other wire is red with a green stripe. This wire goes directly to ground when not in use. Splicing into this wire will short circuit your brake control and possibly destroy the unit.
- Be sure your brake control is grounded properly. The ground wire should be connected to the negative post on the battery. Grounding in any other location may cause the control to operate intermittently.
- An upgrade to a 30 amp (12 gauge/5mm/3.3mm<sup>2</sup>) battery wire system will be needed for 6 and 8 braking systems.

### MOUNTING YOUR BRAKE CONTROL

- Your Hoppy® brake control can be mounted in any direction, including upside down.
- Choose a location on, or below the vehicle dash where you will be able to view the display and easily access the manual slide while driving.
- Once you have chosen a location, check behind the dash to be sure there are no damageable components in the chosen location. Using the bracket as a template, drill holes in the dash.
- Attach bracket in desired location with 2 screws provided, and attach control to bracket with 2 remaining screws.
- Plug wiring into back of control.



### OPERATING / SETTING YOUR CONTROL

- Once installed, your control will show "E1" on the digital display. This indicates your trailer is not connected. Once your trailer is connected, power will be shown in increments of 5% on the display. Five represents the lowest power, 99 the highest.
- The single adjustment wheel on the side of the unit adjusts power sent to the trailer. Pressing the brake pedal and rotating the wheel will change the intensity of power.
- Connect your trailer and test drive in an open area to set the level of power.
- Drive forward at approximately 30 km's per hour and apply the brakes. If brakes appear too weak, move adjustment wheel forward for additional power. If brakes lock up, move adjustment wheel backwards to reduce power. Continue this step until smooth braking is reached.

### IMPORTANT NOTES ABOUT YOUR HOPPY® BRAKE CONTROL

- Brake lights on the vehicle and trailer activate when the manual slide is pushed.
- Unit is short-proof protected from electric trailer brake and brake light wiring shorts.
- Works with 2, 4 and 6 brake systems.
- Brake control adjustments may need to be made for different road conditions and trailer loads.
- Always test your brake power levels at low speed before every trip. Weather conditions and varying trailer loads may require adjustments to the brake control power.
- Limited lifetime warranty.

### AUSTRALIAN TRANSPORT SAFETY BUREAU (DOTARS) TECHNICAL REQUIREMENTS

#### ELECTRIC WIRING

Trailer wiring must meet the following requirements:

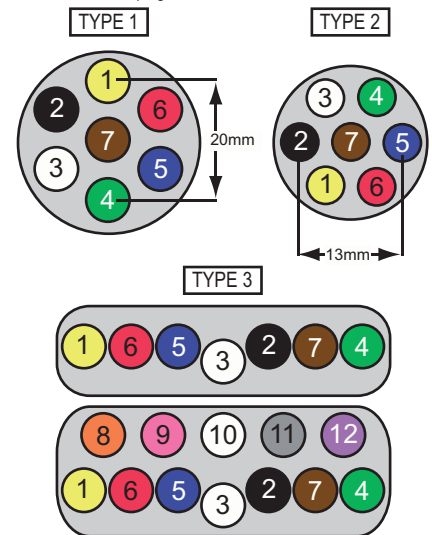
- All wiring must be anchored to the chassis at intervals of not more than 600 millimetres along its length
- All wiring must be insulated at joints
- All wiring must be located in such a position that it can neither become overheated nor contact moving parts
- All wiring must be protected from chafing
- An earth return wire must be provided between the trailer and its hauling vehicle; it is not acceptable to use the trailer coupling as an earth.

Trailers and towing vehicles must have electrical connectors which comply with Australian Standard 2513-1982 'Electrical Connectors for Trailer Vehicles' or as amended from time to time. Three types of seven pin connectors are specified in the Standard and their wiring is shown below. Twelve pin connectors are also specified in the Standard.

Note: Because of interchangeability problems that may arise it is recommended that pin 5 in the 7 pin connectors be used only for service brakes. If auxiliary circuits are required then the 12 pin type 3 connector would be preferable.

	Circuit	Circuit Conductor	Circuit Conductor Colour
7 Pin Connector	1	Left-hand turn	Yellow
	2	Reversing Signal	Black
	3	Earth Return	White
	4	Right-hand turn	Green
	5	Service Brakes	Blue
	6	Stop Lamps	Red
	7	Rear Lamps, clearance and Side Marker Lamps	Brown
12 Pin Connector	8	Battery Charger/Electric Winch	Orange
	9	Auxiliaries, etc. /Battery Feed	Pink
	10	Earth Return	White
	11	Rear Fog Lamp	Grey
	12	Spare	Violet

Front view of trailer plugs:



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**Need Help?**  
 Call us on (03) 9761 1110  
 with any questions.

### TROUBLE SHOOTING GUIDE

DISPLAY SHOWS / CONDITION	PROBABLE CAUSE
E1	Trailer is not connected
E2	Trailer electric brake wire (blue) short or defective magnet
E3	Brake light wire short
No power to trailer	Check vehicle and trailer connector pin outs
Trailer brakes on all the time	Check vehicle and trailer connector pin outs
Digital Display is Upside-Down	Use Digital Display Switch on side of unit to Invert Display

**PRO  
 QUIP**

Impulse™ Instruction Sheet