

## Wizard Imports Limited

[wizardimports@xtra.co.nz](mailto:wizardimports@xtra.co.nz)

TEB4

4 Way Bypass Relay

### Description

This 4-way bypass relay may be used on negative earth vehicles that require a bypass relay to be fitted for circuit protection or to avoid confusing the bulb failure warning systems when towing a trailer or caravan. Do not use this relay on circuits which have modulated\* outputs to the rear lamp clusters, as relay chatter, or incorrect or non functioning of trailer bulbs may result. Instead, fit the Universal 7 Way Bypass Relay TEB7AS.

- Modulated outputs manifest themselves as low voltages, and often combine brake & tail or fog and tail lamps into one circuit.

### Procedure

#### Warning.

Normal rules of competency apply to anyone fitting this relay to a vehicle. It should be fitted to negative earth vehicles only.

Great care should be taken if the relay is fitted to a vehicle having multiplexed circuitry, and no attempt should be made to interrupt or interfere with the BUS, the ESUs or the power cable of a multiplexed system. Power sources should be taken from the main fuse box or battery and signal sources from the regular 12v system directly feeding the various rear road lamps.

- Route 28/0.3 cable (2.0 sq mm) from car battery to boot or fuse box, fitting an inline 15a blade type fuse holder, but removing the fuse at this stage.
  - Offer up the relay to the above cable clusters and make secure connections through the terminal blocks on the relay according to the chart overleaf.
-

Relay Terminal	Connection to Relay
12v	28/0.3 (2.0 Sq mm) cable from car battery or fuse box
2	Blue Lead of 12N Cable
5	Brown lead of 12N Cable
6	Red Lead of 12N Cable
7	Black Lead of 12N Cable

- Using scotch locks, solder joints or similar, attach the various leads coming from the underside of the relay to the car loom, teeing in at a point close to the car lamp circuit that is being sampled and avoiding any multiplex wiring or other devices. If tail lamp cables are common to those for the brake or fog circuits in the car loom, or appear as low voltages, fit universal relay TEB7AS instead.

Signal Wire	Connection to Vehicle Loom
Blue	Fog Lamp
Brown	Off Side Tail Lamp
Red	Brake Lamp
Black	Near Side Tail Lamp
White	Secure firmly to vehicle chassis via ring terminal

Secure the relay to the harness or similar preferably using a tywrap, such that the buzzer is not muffled and can be heard by the driver.

- Insert the inline fuse and test. If a test board is used, it should have 21w bulbs on the flasher circuits as the buzzer only works under load conditions.
- Note that the nomenclature and colour coding follows the format for the bypassing of the fog, tail and brake circuits on the 12N socket. The 4 relay circuits are identical and can be used to switch any 4 functions.

Simplified

Channel 1 blue cable switches output 2  
Channel 2 brown cable switches output 5  
Channel 3 red cable switches output 6  
Channel 4 black switches output 7

