

Wizard Imports Limited

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FITTING INSTRUCTIONS

TEB7AS 7 WAY UNIVERSAL BYPASS RELAY INC BUZZER.

Description

This 7 way bypass relay may be used on negative earth vehicles of all types, from those that just require a simple bypass function for circuit protection or to avoid confusing the bulb failure warning systems, to those with part or full multiplexed systems and including modulated outputs (appearing as low voltages)to the various rear lamp clusters.

Each circuit samples only a very small current from the source circuit of the vehicle (typically 1 ma)so as to avoid detection by the vehicles bulb failure sensing system, and then boosts this to supply current to the duplicate circuit of the trailer or caravan.Additionally,it is capable of detecting ,analysing and rerouting signals present on an increasing number of modern vehicles which would otherwise cause incorrect bulb operation, relay chatter, dimming and even non functioning of bulbs if a standard bypass relay were fitted.

Main Features

- 1 7 way bypass relay with 7 terminal outputs arranged in 12N sequence including reverse.
- 2 Automatic sensing & routing according to signal type so that the correct trailer lights always operate as intended and at full voltage without relay chatter.
- 3 Ability to sense both signals where a common wire is used on the vehicle to supply two circuits and to apply one or both to the towed vehicle as required.
- 4 Integrated buzzer output which automatically mutes when panel lamp is attached and when both flashers operate together i.e. hazard warning and emergency braking.
- 5 All circuits fully snubbed for EMC protection.

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 on next page.

Relay terminal	Connection to relay
12v	28/0.3 92.0sqmm) cable from car battery or fuse box
C2	Do not make any connection if relays buzzer is to be used. Otherwise connect to panel lamp on console via light signal wire and then from the panel lamp to earth.
1	12N cable yellow lead
2	12N cable Blue lead
4	12N cable Green lead
5	12N cable Brown lead
6	12N cable Red lead
7	12N cable black lead
R	12s cable Yellow lead

.The remaining white earth lead of the 12N cable should be terminated with a 6.4mm OBA blue ring terminal, combining the white signal wire from the relay into the terminal and firmly securing to clean bare metal of chassis.

. 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 the car has a common wire feeding tail & brake, or tail & fog, the brown and black signal wires should not be connected to this common wire i.e. For a common tail & brake combination, connect only the red signal lead to the common car harness lead and tape up the brown and black. Similarly connect just the blue signal lead from the relay for a fog/tail combination.

Signal Wire	Connection to Vehicle Loom
Yellow	Near side flasher
Blue	Fog lamp
Green	Off side flasher
Brown	Off side tail lamp
Red	Brake lamp
Black	Near side tail lamp
Grey	Reverse lamp
White	Secure firmly to vehicle chassis Via ring terminal(Combine with 12N earth ring)

.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.

