



# Tow-Trust Towbars

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## Issue 2

### Kit 4 – Twin Electrics Bypass Kit

Item	Qty	Description	Item	Qty	Description
A	1	12N Pre-Wired Socket	H	1	15 Amp Fuse
B	1	12S Pre-Wired Socket	I	1	20 Amp Fuse
C	1	7-Way Bypass Relay	J	10	Blue Snap Connectors
D	1	Voltage Sensing Relay	K	2	Fuse Holder
E	1	Length of 35/0.3	L	1	Earth Screw
F	1	Length Of 28/0.3 Cable	M	3	Ring Terminals
G	1	Length of Twin Core Cable			

1. Mount the pre-wired sockets to your chosen socket plate (not supplied in this kit) using the screws provided.
2. Route the 7-core cables into the vehicle through a suitable grommet.
3. Route the 28/0.3 cable from car battery to boot, fitting an inline 15A blade type fuse holder, but removing the fuse at this stage. The fuse location should be as close to the battery as possible.
4. Connect all cables to the bypass relay as shown below;

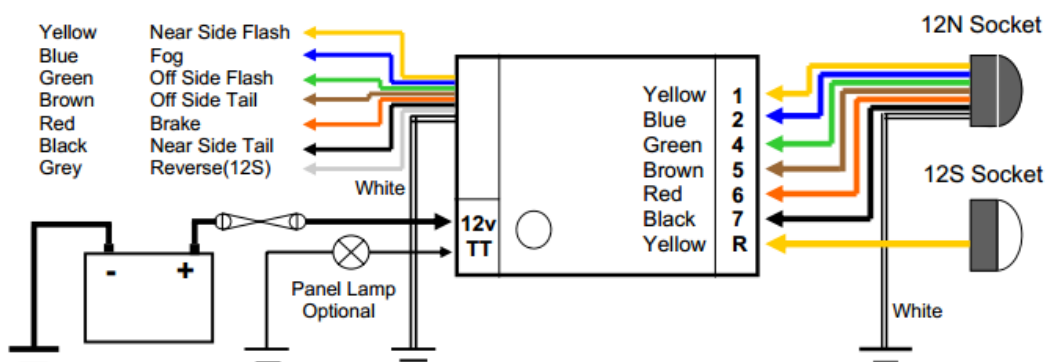
Relay Terminal	Connection to Relay
12v	28/0.3 (2.0 mm) cable from car battery.
TT	Do not make any connection if relay's buzzer is to be used. Otherwise connect to panel lamp on console via light signal wire and then from the panel lamp to earth.
1	12N Cable Yellow Lead
2	12N Cable Blue Lead
4	12N Cable Green lead
5	12N Cable Brown lead
6	12N Cable Red Lead
7	12N Cable Black lead
R	12S Cable Yellow Lead

5. The remaining white earth lead of the 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 secure to earth on the vehicle.
6. Connect the signal wires from the relay to the car's wires as shown below;

Signal Wire	Connection to Vehicle Loom	Signal Wire	Connection to Vehicle Loom
Yellow	Near Side Flasher	Red	Brake Lamp
Blue	Fog Lamp	Black	Near Side Tail lamp
Green	Off Side Flasher	Grey	Reverse Lamp
Brown	Off Side Tail Lamp**	White	Secure firmly to earth

\*\* 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.

**Car Harness** Do not connect brown & black if vehicle has common brake/tail or fog/tail lead



7. Route the 35/0.3 supplied power cable from the battery through the vehicle to the location of the voltage sensing relay fitting the inline fuse holder, but removing the fuse at this stage.

8. Connect wires from the grey 7 core to the voltage sensing relay as shown below:

Relay Terminal	Connection
12v	+12V 35/0.3 Cable from car battery
12v	
6	12S Socket - Pin 6. Red Lead
4	12S Socket - Pin 4 Green Lead
2	12S Socket - Pin 2 Blue Lead
0v	Suitable earth, minimum 16/0.2 thin wall preferably to chassis with ring terminal

9. Connect the white and black wires from the grey 7 core to a suitable earth point using one of the provided ring terminals.
10. Insert the inline fuses 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.