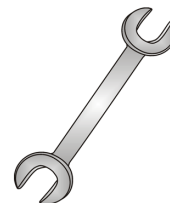




Tow-Trust Towbars

Tel: 01827 717412

Email: technical@tow-trust.co.uk



Issue 2

Kit 6 – 13 Pin Electrics With Bypass Kit

Item	Qty	Description	Item	Qty	Description
A	1	13 Pin Pre-Wired Socket	G	1	15 Amp Fuse
B	1	7-Way Bypass Relay	H	1	20 Amp Fuse
C	1	Voltage Sensing Relay	I	10	Blue Snap Connectors
D	1	Length of 35/0.3 Cable	J	2	Fuse Holders
E	1	Length of 28/0.3 Cable	K	1	Earth Screw
F	1	Length of Twin Core Cable	L	3	Ring Terminals

1. Mount the pre-wired socket to your chosen socket plate (not supplied in this kit) using the screws provided.
2. Route the cable 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;

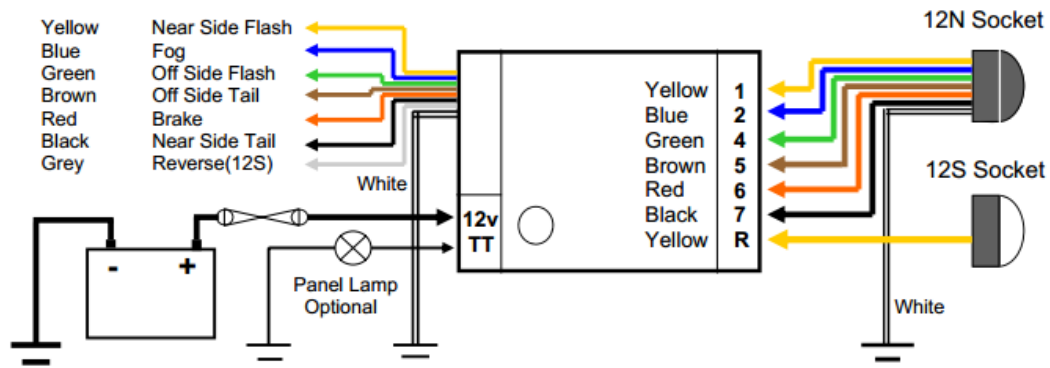
Relay Terminal	Connection to Relay		
12v	28/0.3 (2.0 mm) cable from car battery.		
TT	Do not make any connection if relay's buzzer is to be used. Otherwise connect to panel lamp on console via light signal wire and then from the panel lamp to earth.		
1	Yellow Lead from 13 Pin Pre-wired Socket	6	Red Lead from 13 Pin Pre-wired Socket
2	Blue Lead from 13 Pin Pre-wired Socket	7	Black Lead from 13 Pin Pre-wired Socket
4	Green Lead from 13 Pin Pre-wired Socket	R	Pink Lead from 13 Pin Pre-wired Socket
5	Brown Lead from 13 Pin Pre-wired Socket		

5. The remaining white, white/black and white/red wires 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 Cable from car battery
12v	
6	Pin 6 Grey Wire
4	Pin 4 Orange Wire
2	
0v	Suitable earth, minimum 16/0.2 thin wall preferably to chassis with ring terminal

9. 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.