

Fitting the TF1170-4

1. Choose the best position to locate the relay (usually, in the boot).
2. Route your power source cable(s) from the relay to a suitable power source. Fit a fuseholder in line in the cable, close to the source. Do not insert the fuse yet
3. Connect the power cables to the two +12V input terminals of the relay
4. Follow the instructions in **Chart C** and connect the relay to the trailer socket.
5. Connect your power cable(s) to the power source and insert a 20amp fuse.
6. Use a suitable test board to test the circuits. The loads created by the test board should simulate the load created by a caravan fridge (red, pin 6) and battery (green, pin 4)
7. The relay should stay on under load with the engine running smoothly, and go off within a few seconds when the engine is switched off.
8. It is possible to tune the relay: lift the lid off to reveal the tuner. With a tiny screwdriver, gently turn the tuner as far anti-clockwise as it will go. With a load present and the engine running, turn clockwise until the relay switches off. Now turn anti clockwise about two degrees. Switch the engine off and on again. The relay should switch on and off correctly.

Chart C:

Wiring the 12S or 13-pin Socket & connecting to the vehicle: TF1170 type Smart Combi

Relay function:

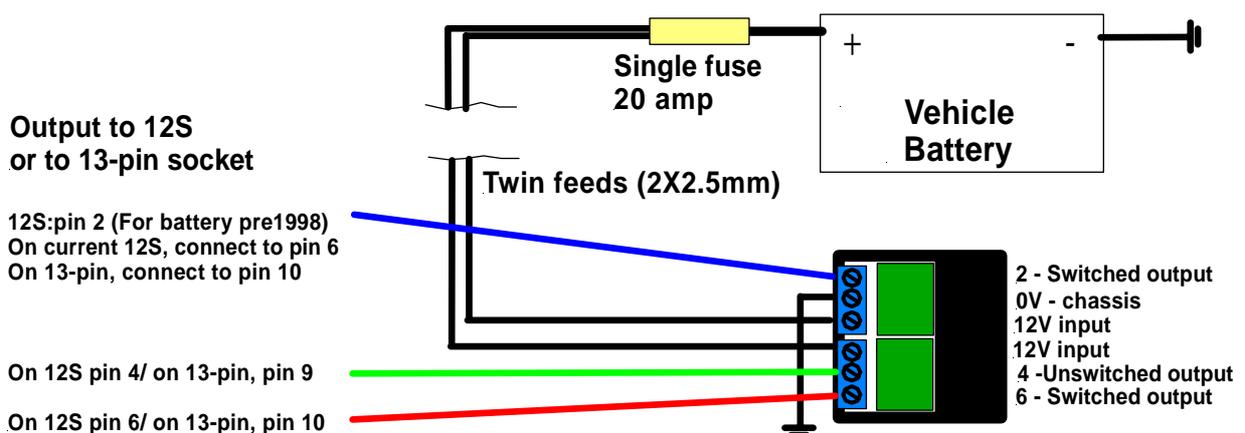
Switches the caravan auxiliary circuits on when the vehicle alternator provides sufficient power

Fuse rating: 20 amps

Socket pin number 7-pin/13-pin	7-core cable colour	to	Relay pin	Vehicle circuit
1/8	Yellow	to	N/A	Reversing light
2/10	Blue	to	2	Switched live
3/11	White	to	N/A	Chassis earth
4/9	Green	to	4	Permanent live
5/spare	Brown	-	N/A	Spare
6/10	Red	to	6	Switched live
7/13	Black	to	N/A	Chassis earth

The feed cable from the battery must be heavy duty. We recommend TF15625 twin. It must be protected with a 20amp blade fuse, placed as close to the power source as practically possible.

TF1170-4 "Smart" combination relay, 22 amps. Note the fuse and cable ratings indicated



On caravans after 1998, when the car is charging and the Smart Combi switches current to outputs 2 and 6, sending power to the fridge, the constant live on 12S pin 2 or 13-pin 9, which supplies the interior lights, is diverted by a relay within the caravan to charge the caravan battery. When this happens, the interior lights are switched off.

In a 13-pin socket, BOTH the blue cable from relay terminal 2 AND the red cable from relay terminal 6 should be connected to pin 10 in the 13-pin socket.