

Sophisticated Bypass Belays: SMART LOGIC

Many cars now have complex lighting control systems that use modulated current to control the rear lights. The Ryder SMART LOGIC 7-way bypass system makes fitting towbar electrics to these cars straightforward and safe.

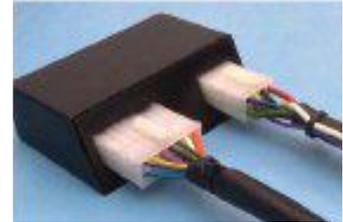
TF2218/7E series SMART LOGIC Bypass

This smart bypass fits virtually all cars, handles cars with standard or modulated (e.g. two lamps on one wire) circuitry, and has a quiescent current measured in MicroAmps. Interface to the car is via signal wires from the relay; interface to the trailer is via screw terminals.



TF2218/7EPIN Plug-in SMART LOGIC Bypass with fog cut-out and “trailer aware” output.

With all the features of the TF2218/7E, this version has extra functionality: It can, if required, be fitted so that it cuts out the vehicle’s fog lights when a trailer is connected; it also has an output that goes live (+12V, protected) when a trailer is connected. This can be used, for example, to switch on a parking sensor cut out.



The TF2218/7 relays are quick and easy to fit, and very cost-effective. They bypasses all the vehicle’s bulb-failure warning systems.

Monitor the trailer flashers with both a built-in audible output and terminal outputs for a remote sounder or warning lamp.

- Totally transparent: the car does not detect the relay
- Fully snubbed against “spikes” and other hazards
- Type-approved for EMC compliance
- Protected: stands rough treatment, accidental current reversals, etc.
- The TF2218/7-S is ready fitted with the SuperSplice plug-in connector

| | | |
|---------------|--------------|------------------------------------|
| Part numbers: | TF2218/7E-P | with plain signal wires |
| | TF2218/7E-S | with SuperSplice plug-in connector |
| | TF2218/7EPIN | with plug-in connection |

SuperSplice plug-in connector

The TF2218/7-S SMART LOGIC Relay is supplied ready-fitted with the SuperSplice plug-in connector. This is a safe and efficient system for connecting towbar electrics to modern cars. (See page 25)



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Fitting the TF2218/7E-S/TF2218/7E-P

Route your power source cable(s) from the boot to the battery. Fit a fuseholder in line in the cable, close to the battery. (Check the fuse value on **Chart A**). Do not insert a fuse yet

Follow the instructions in **Chart A** and connect together your 7-core cable, your relay and the appropriate wires in the vehicle loom. Connect your power cable to the battery and connect a test board.

Insert the fuse.

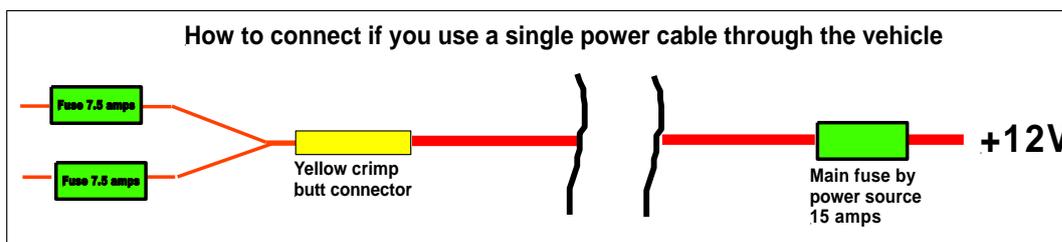
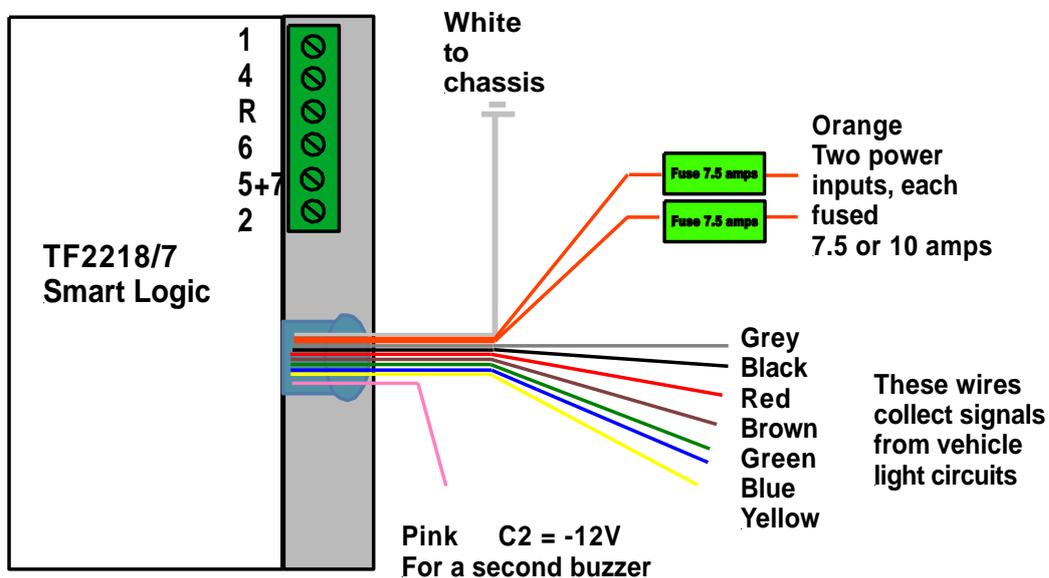
Test the installation by turning the car lights on and off and observing the lights on the test board.

Special notes*

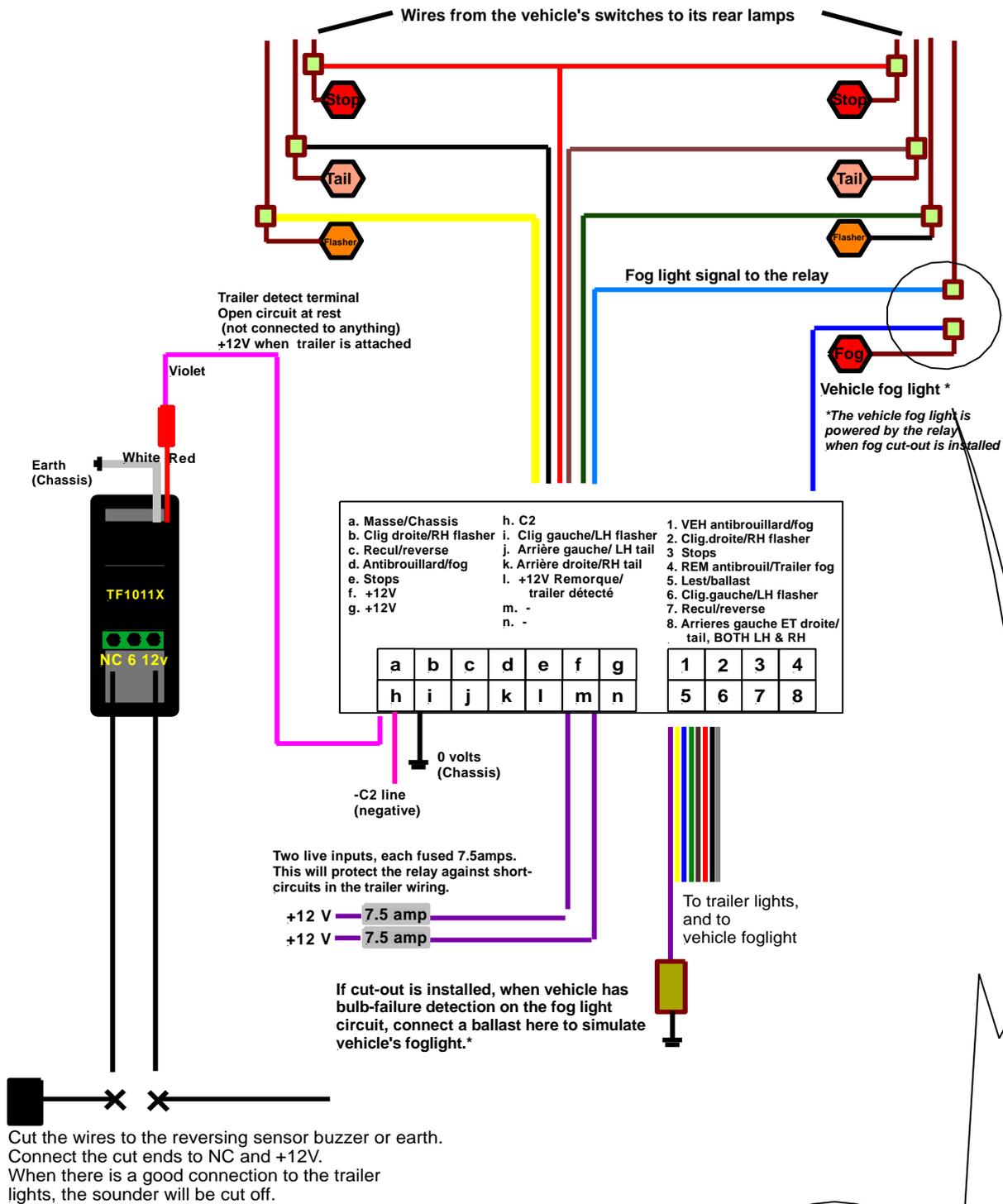
Connect black(LH) and brown (RH) thin signal wires to both the car's side light circuits, and both black and brown of the 7-core to Terminal E.

TF2218/7-P and TF2218/7-S Traditional shape: diagram on next page

| Chart A: Wiring the relay(s) | | | | Fuse 2 x 7.5 amps | |
|------------------------------|---------------------|----|-----------------------|---------------------------------|----------------------------|
| Socket pin No. | 7 core cable colour | to | Relay terminal number | Wire colour/ SuperSplice number | to Vehicle circuit |
| 1 | Yellow | | A | Yellow - 1 | LH flasher |
| 2 | Blue | | F | Blue - 2 | Fog lamp |
| 3 | White | | - | White | Chassis earth |
| 4 | Green | | B | Green - 4 | RH flasher |
| 5 | Brown | | E | Brown - 5 | RH tail light * |
| 6 | Red | | D | Red - 6 | Brake lights |
| 7 | Black | | E | Black - 7 | LH tail lights* |
| 12S Pin 1 | Aux Yellow | | C | Grey | Reverse |
| - | - | | +12V (both) | Orange | Power source |
| | | | +12V (both) | Orange | (Fuse each 7.5 amps) |
| | | | C2 (option)** | Pink | Telltale switch (negative) |



TF2218/7EPIN - Wiring plan



Cut the wires to the reversing sensor buzzer or earth.
Connect the cut ends to NC and +12V.
When there is a good connection to the trailer lights, the sounder will be cut off.

When fog cut-out is not installed, only the signal feed to the relay is connected and the vehicle's cable is not cut.
Vehicle fog load and fog ballast are not then used

