

Guide to the SmartCAN Module

Introduction

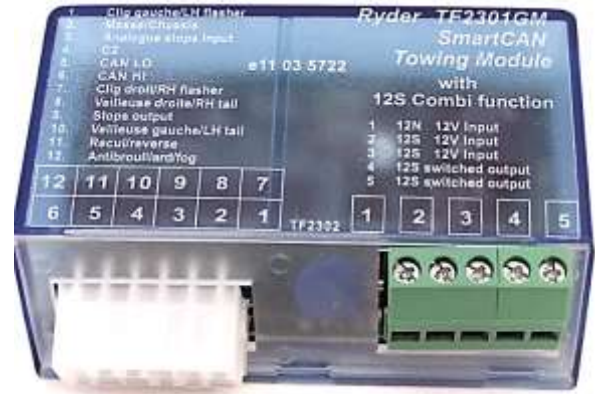
The SmartCAN module is a multi-compatible CANbus interface.

Dedicated and Multi-compatible

Uniquely, each standard SmartCAN module has in its memory the lighting control data for many different models of vehicle (see [Application List](#)).

Becomes a dedicated interface

When it is connected to a vehicle's active CANbus system, it recognises the signals there and uses the vehicle-specific data in its memory to "adopt" the vehicle. It becomes fully interactive and dedicated to that host vehicle.



Trailer lamps AND caravan auxiliary functions

The SmartCAN module then controls the trailer lighting functions. It can also control a caravan auxiliary (fridge/battery) function when required.

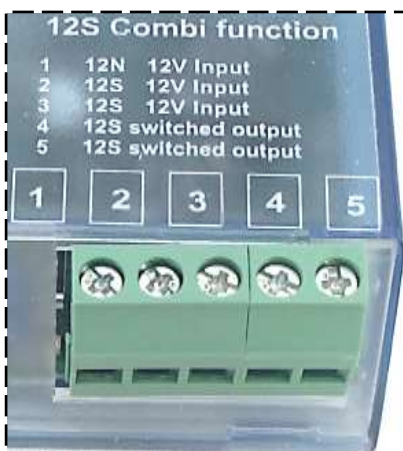
Replaces a multitude of vehicle-specific kits

Two SmartCAN modules (standard and GM) can efficiently replace a multitude of dedicated CANbus kits. The GM version, TF2302GM holds all the lighting control data for GM vehicles and the Standard version has the data for the rest of the list.

Compatible with coding tools for towing

SmartCAN is fully compatible with recoding tools that activate additional towing-related functionality.

Caravan auxiliary function, CAN-controlled, not voltage-sensing



12N & 12S power inputs and 12S switched outputs

The SmartCAN has built-in circuits to control the secondary outputs to a caravan fridge, battery and interior lights. This function is not voltage-sensing but is directly controlled by the Controller Area Network: the caravan fridge and battery-charging function is switched on when the vehicle's engine revs reach an appropriate level.

Works perfectly with "intelligent charging"

The advantage of this direct control is not only that it is more precise and reliable but also that it will work correctly in vehicles with "intelligent charging" which senses when the vehicle's electrical system (charging and loading the battery) is in balance and stops charging. Because the battery level drops to just above 12 volts any voltage-sensing combi relay would switch off but the SmartCAN's 12S function is not affected, and the feed to the caravan fridge and battery is not interrupted.

Figure 1 shows how simple the connections are:

Connecting to the short loom

Butt connectors attach the CANbus signal and earth cables, and the trailer socket cables to the module's short plug-in loom.

CANbus connection

Screened, 2-core, signal cable is attached to two of the butt connectors on the short loom. The other ends connect to the vehicle's CAN wires using Posi-Tap connectors:



First the connectors are attached to the appropriate twisted CANbus wires of the vehicle.



Next, the signal wires from the relay are connected to the PosiTaps. This gives a perfect connection.



If you accidentally connect the signal wires the wrong way round, they are easily disconnected and changed.

An LED in the module flashes to tell you the status of the CAN connection (See instructions)

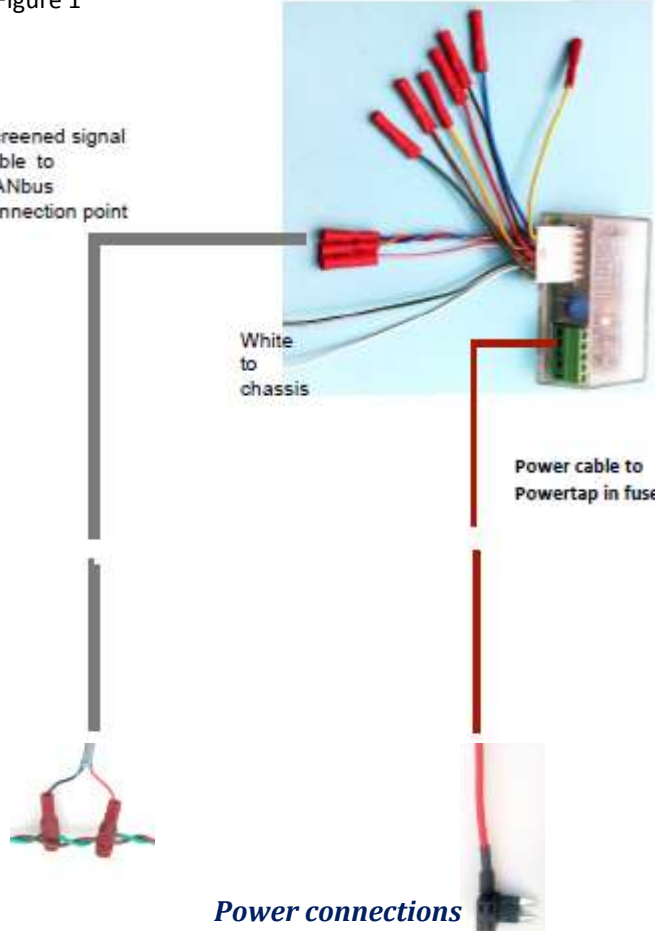
Figure 1

These wires connect to the trailer socket

Screened signal cable to CANbus connection point

White to chassis

Power cable to Powertap in fusesbox



Power connections

The power cables connect to the screw terminals of the module. The other ends plug into the fusebox using PowerTap fuse taps.

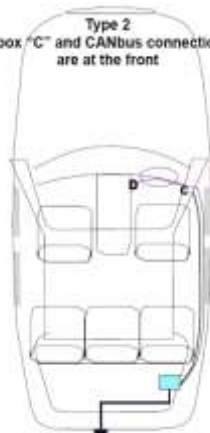
Type 1
Fusebox "A" and CANbus connection "B" are at the rear

Connections to the car

Type 1

In some vehicles the fuse box and the CANbus connection points are all in the boot, so fitting the SmartCAN system is very quick indeed.

Type 2
Fusebox "C" and CANbus connection "D" are at the front



Type 2

Other vehicles have the fusebox and the CANbus connection points at the front so the wires have to be routed from the boot to the front and the installation takes a little longer.

Dedicated Fitting kits

Five Types of Kit plus Two Variations

There are five types of fitting kit and each type comes with either a 7-pin or 13-pin wired socket.

1. **A rear-fitting standard kit** with the standard module and short loom, 1 metre power wires and shielded signal cable, PosiTap connectors, a wired socket, a PowerTap fusebox connector, a fuse and socket fixing screws. (TF2351 and TF2351-13)
2. **A front-fitting standard kit** with the standard module and short loom, 5 metre power wires and shielded signal cable, PosiTap connectors, a wired socket, a PowerTap fusebox connector, a fuse and socket fixing screws. (TF2352 and TF2352-13)
3. **A GM (Vauxhall) kit** with the GM module and short loom, power wires and shielded signal cable, PosiTap connectors, a wired socket, a PowerTap fusebox connector, a fuse and socket fixing screws (TF2353 and TF2353-13)
4. **A standard van kit** with the standard module and short loom, 7 metre power wires and shielded signal cable, PosiTap connectors, a wired socket, a PowerTap fusebox connector, a fuse and socket fixing screws. (TF2354 and TF2354-13)
5. **A GM (Vauxhall) van kit** with the gm module and short loom, 7 metre power wires and shielded signal cable, PosiTap connectors, a wired socket, a PowerTap fusebox connector, a fuse and socket fixing screws. (TF2354GM and TF2354GM-13)

Any kit can be supplied with a generic or a vehicle-specific label and instructions.



Recoding for Towing, Application List

Recoding the vehicle to activate towing-related functionality

Many vehicles do not need to be recoded to implement extra towing-related functions. Our GM (Vauxhall) module, for example, enables all this functionality automatically on Vauxhall and other General Motors vehicles. Most BMW's, Mercedes and Honda vehicles automatically function fully, but an increasing number of vehicles do need to be recoded.

Recoding Tools

Fortunately there are coding tools available that make recoding very easy. Apart from the big recoders that dealers have, there are two aftermarket tools that we would recommend:

1. **The VGDS laptop system for VAG vehicles only.** This is a pack of software with a set of leads to link a laptop to the vehicles OBD2 connector. Easy to use, it updates automatically when you connect via broadband and is priced around £250. You can see a complete guide to using it in the Recoding Guide on the pages following. Available from <https://www.ilexa.co.uk/>
2. **Autocode tool for most vehicles.** This tool from Westfalia UK will recode most vehicles, is very easy to use and is routinely updated. Although it's priced around £1850 to buy, Westfalia offer considerable up-front discounts if you buy their towbars in significant quantities. It can also be leased. The annual fee for updating and support is currently £250 plus VAT.

Click this link to see full guides to the use of these recoders: [Guides](#)

Application list

Click here to see which vehicles SmartCAN is compatible with: [Application List](#)

Prices

Log into the website: www.rydertowing.co.uk to see prices. If you require trade access to the website but do not yet have a user name or password, please use the following link to make a trade application: [Trade](#)

We hope you have found this introduction helpful. Please contact us using the details below if you wish ask us for further information.

Quality – Service – Innovation