



## TRANSMITTER

# AiM Carbon 8 Button Wireless Steering Wheel Plate with Paddle Shifters

### Specifications

Compact case in flame-retardant ABS plastic.

Requires one 3V CR2 lithium battery (provided).

Robust performance even at 2.65V. Unique Transmitter ID prevents cross-talk from nearby systems.

No need to disconnect the Transmitter battery if the vehicle is off the road. The sleep drain of 0.9uA and 25mA drain per - 20msec button press allows over 6 million transmissions.

Tri-colour LED indicating performance state:

> GREEN = Transmit OK. Transmission successfully received and acknowledged by the Receiver.

> ORANGE = Transmit Fail. Transmission not acknowledged by the Receiver. Possible causes are obstruction, lack of range or de-powered Receiver (e.g. vehicle ignition is OFF)

> RED = Low Battery <2.65V. Replace battery now.

Transmission time of 6 milliseconds for a real-time response.





# AIMSHOP

## Installation Instructions



The Transmitter is supplied preassembled and simply requires the supplied battery to be inserted.

Remove the four retaining screws and the lid from the battery housing, fit the CR2 battery and replace the lid and screws. When fitting the battery take particular care in removing the case lid and inserting the battery correctly, noting that the '+' end of the battery is nearest to the LED.

To remove the battery, carefully prise out the battery - it is deliberately a tight fit in the holder.

The Transmitter button plate is pre-drilled to support standard 50 to 50.8mm and 70mm PCD steering wheel bosses.

The rear plate is additionally pre-drilled to suit 74mm PCD and can be used as a guide to gently drill through the button plate and / or spacer disc, if required. Use a 6mm HSS drill bit with light pressure and low speed, with the parts securely clamped





## CAN RECEIVER

### Specification



Weight with (without) 0.7m wiring loom: 165g (112g).

Wiring loom uses 18AWG heat resistant, high temperature, thin wall wires with tinned copper.

The CAN Receiver communicates using industry standard CAN 2.0 messaging. A suitable CAN protocol is available from AiM Shop.

Digital channels 1 - 8 are momentary buttons with channels 9 and 10 providing analogue outputs from the MIL-Spec calibration switches.

Transmitter battery voltage is broadcast within the CAN message for easy remote monitoring.



## Installation Instructions

### Wiring

Provide suitable 12V Power and Ground connections.

The Receiver draws little current (<50mA), so will not increase any circuit load significantly.

Connect CAN HIGH+ and CAN LOW - wires to your 1Mbps CAN network. Choose a cool location for the Receiver inside the car, with minimal (metal) obstructions between Receiver and Transmitter. Behind the dashboard is normally an ideal place.

### Receiver Testing

Check that the transmitter light is reliably GREEN on button presses and continues to flash twice a second while Receiver is powered. ORANGE means that there is a probable obstruction to two-way communication. You can test the range of the system using this light for indication.

Once you have reliable communication between the Transmitter and Receiver, configure your CAN network using the provided AiM protocol.

The Transmitter LED will automatically power down when the Receiver is powered OFF to avoid an unnecessary battery drain.

## Potentiometers

### Channels 9 and 10

The Transmitter unit supports 2Hz sampling of two independent, twelve-position, MIL-Spec calibration switches.

The Receiver unit will output a digital CAN message value proportional to the position switch.

With ignition ON, pressing any of the channels 1 to 8 momentary switches initiates communication, and the green Transmitter LED will flash at 2Hz to show successful two-way messaging. The eight digital channels will each trigger a transmission immediately on button press, independently of the 2Hz potentiometer transmission frequency.