

## Pajero MK2 Dashboard Controller Instructions

This module has been provided to operate the basic functions of the dashboard for your convenience. These are:

- RPM gauge
- Temperature gauge
- Oil light
- Alternator Light

Installation is very simple. Please use the images below as reference to aid with your installation. The kit comprises of:

- 1x Dash controller with sticky back foam pad
- 4x ring terminals

Wire colours and functions:

Light Green	Ignition 12v supply
Brown	Ground source
Pink	RPM signal
Purple	Temperature signal
Orange	Alternator light signal
Grey	Oil light signal
Black	Oil pressure signal – to engine harness
White/Green twisted pair	CANBUS (white > CAN H – green > CAN L)

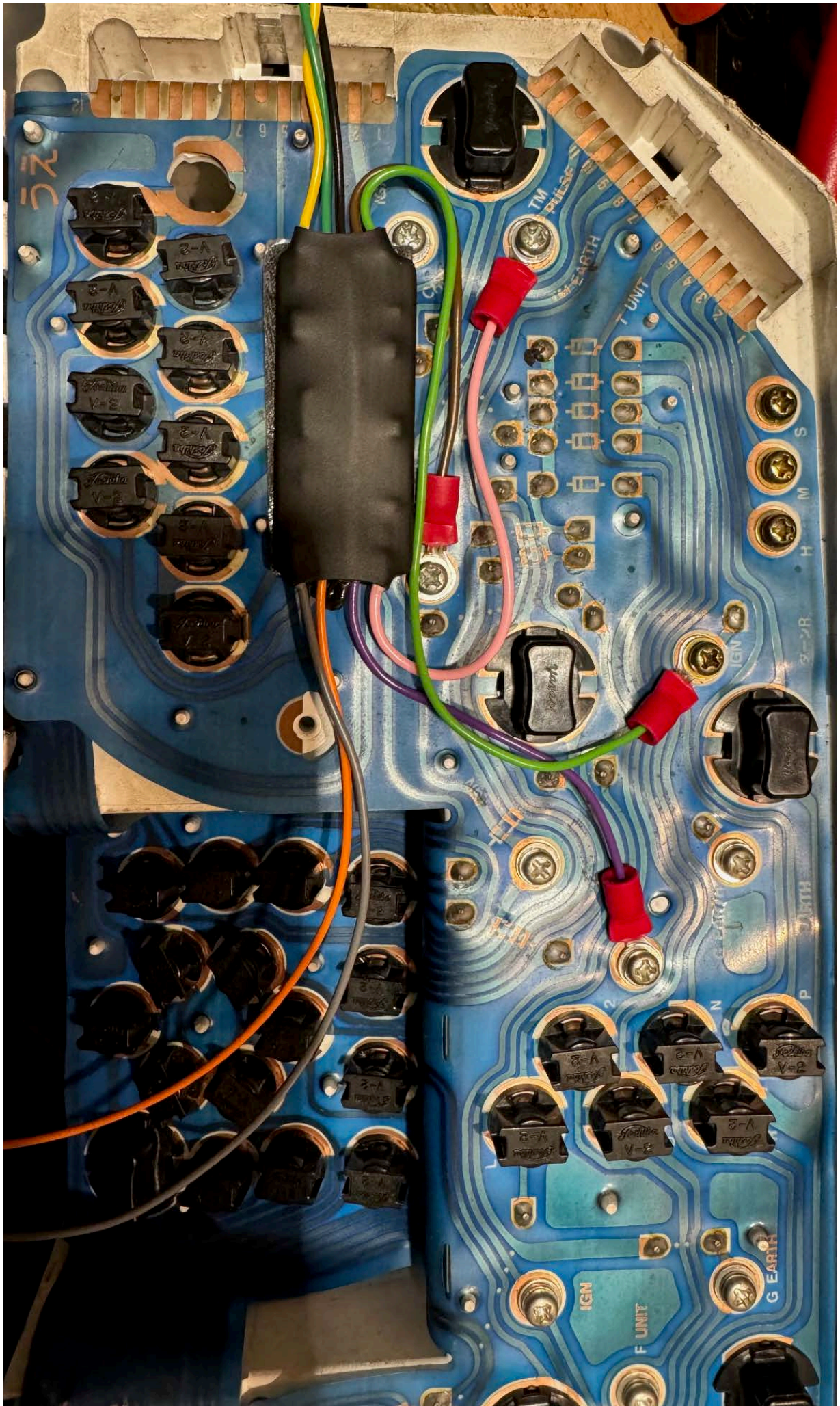
Connect the black wire to your standalone loom. For House of Torque looms, this is the red wire in the 6 pin connector.

Before sticking the controller to the back of the cluster, I would recommend cutting the 4 wires that connect to the cluster to length, and crimp the ring terminals on first.

The ignition live and ground source can be obtained from the dashboard cluster in a few locations. See below picture for the locations that I recommend you use. All of the screws on the cluster that provide an ignition live are clearly marked with “IGN” next to their location. The above is also true for the ground points on the back of the cluster.

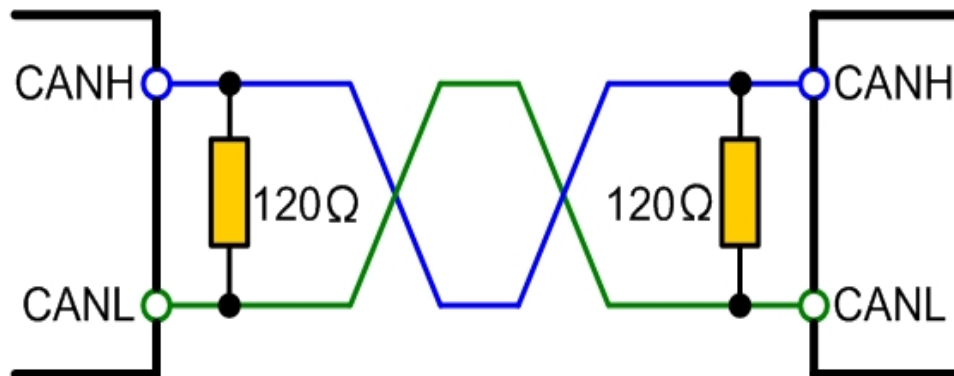
For the RPM signal, the pink wire should be terminated onto a screw on the left hand side of the cluster. The text “TM PULSE” is written on the circuit board right next to where this should be connected.

The purple wire that controls the temperature gauge should be fitted to the middle of the 3 terminals for the temperature gauge.



## CANBUS Connection

The white and green twisted pair should be connected to the BMW ECU CAN network. If you are using a House of Torque Standalone harness, the CANbus connector is located next to the OBD port. You should also verify that the CAN is correctly terminated. With everything connected and powered down, you should observe a resistance of 60 ohms between CAN H and L with a multimeter, measuring resistance (ohms). Below is a simplified version of how the CANbus should be terminated correctly:



1. Resistance is too low (<60 ohms):
  - a. You have too many resistors in the network. Remove 1 resistor at a time, remeasuring until correct.
2. Resistance is too high(>60 ohms):
  - a. You do not have enough resistors. Add 1 resistor, and re measure.
3. I have added more than 1 resistor, but the resistance is still not right?
  - a. Verify you are checking the resistance from the correct point.
  - b. Ensure the ECU, and Dash Control module are connected.
  - c. Ensure the car is powered OFF. Wait for the DDE relay to de energise (up to 2 minutes). Re measure.

## Oil & Alternator light

The oil and alternator light on the cluster are controlled by the grey and orange wire respectively. You will need to join these wires to the incoming wires to the cluster.

Oil light: Pin 3 of bottom left connector

Alternator light: Pin 14 of top left connector