AiM User Guide

Rear camera
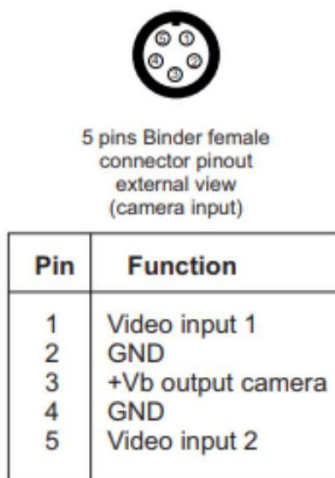
Release 1.01

1
Physical connection

The AiM loggers built to manage Rear camera are provided with a female metallic 5pins Binder connector, placed on the device bottom and labelled as "VIDEO IN" (following image).

5 pins Binder female
connector pinout
external view
(camera input)

Pin	Function
1	Video input 1
2	GND
3	+Vb output camera
4	GND
5	Video input 2

The Video In connector allows the connection of two different Rear cameras, that may be activated as here down described.

There is a wide number of analog rear cameras on the market. We have tested one of them – Rear Master Camera - of which the Amazon Code is: **ASIN B01H1RFZYA** (following left image).

This Rear camera offers a couple of interesting options:
- the possibility to reverse the image
- the possibility to enable or disable the parking overlay view.

N.B.: some of the Rear cameras require a 3.3V power. Please, verify before you connect yours to the +Vb output (12V), supplied by the pin3 of the Binder connector

It has, as most of the analog cameras, a connection through standard RCA connectors (following right image), for which we have developed the patch cables:
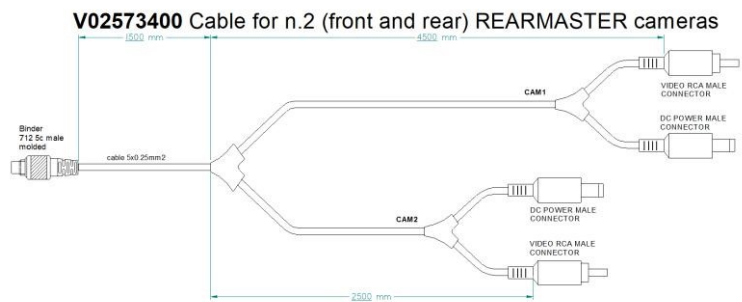

Single RearMaster Rear camera (cable length: 5m) ended with:
- **Male metallic 5pins Binder connector** for connection to AiM loggers;
- **DC Power Connector (red)** to be connected to the camera one;
- **Video RCA Connector (yellow)** to be connected to the camera one.

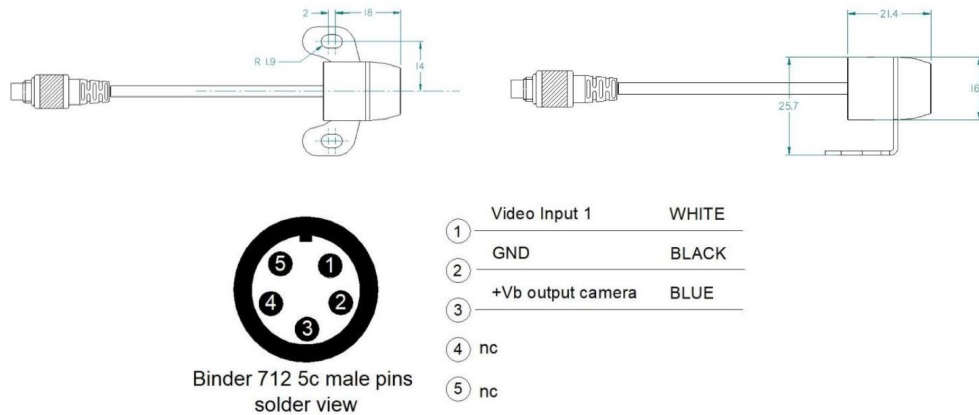V02573390 5 mt single REARMASTER camera cable
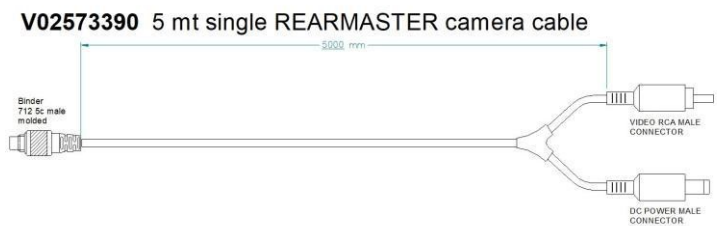
Double RearMaster Rear camera (cable length: 6m) ended with:
- **Male metallic 5pins Binder connector** for connection to AiM loggers;
- **X2 DC Power Connector (red)*** to be connected to the camera one;
- **X2 Video RCA Connector (yellow)*** to be connected to the camera one.

V02573400 Cable for n.2 (front and rear) REARMASTER cameras

* The two **DC Power** and **Video RCA** cables couples are respectively 4m and 6m long, in order to allow both front camera and rear camera connection.

AiM offers the same Rear camera with a more reliable Binder connection (**P.N.: XB1ZCAMHD00;** Binder connector pinouts are specified below**):**
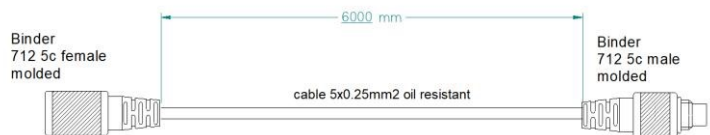

1	Video Input 1	WHITE
2	GND	BLACK
3	+Vb output camera	BLUE
4	nc	
5	nc	

Binder 712 5c male pins solder view

The patch cables available are:

Single AiM Rear camera (6m length) ended with:
- **Male metallic 5pins Binder connector** for connection to AiM loggers;
- **Female metallic 5pins Binder connector** for Rear camera connection.

Double AiM Rear camera: ended with:
- **Male metallic 5pins Binder connector** for connection to AiM loggers;
- **X2 female metallic Binder connectors**: each one must be used to connect the Rear camera (cable lengths 4m – front camera – and 6m – rear camera).

V02551170 6mt single AIM backup camera cable

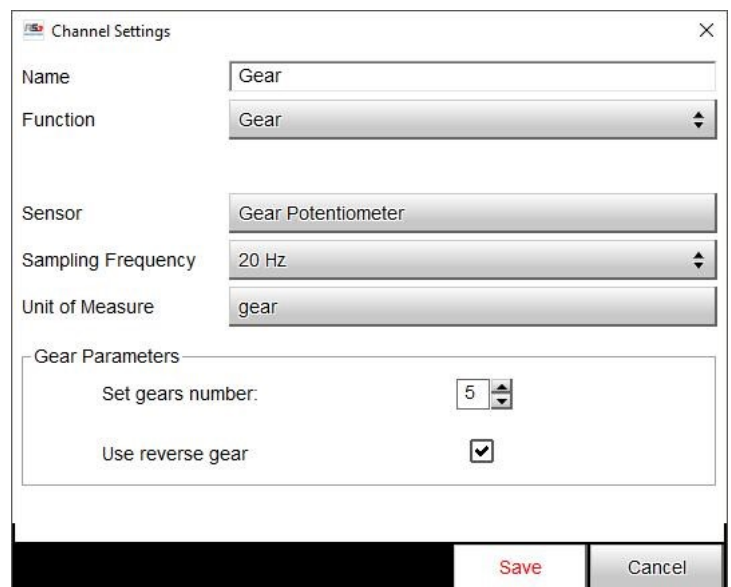**V02573410** Cable for n.2 (front&rear) AIM backup cameras
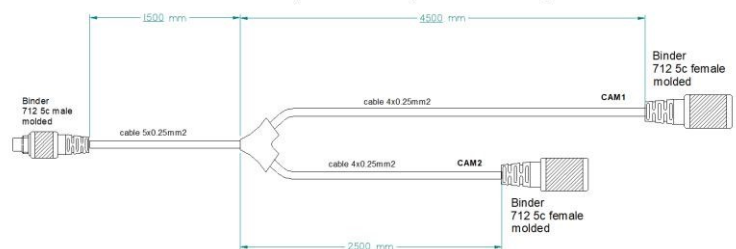
2
Configuration through Race Studio 3

Once the connection has been executed, it is necessary to configure the device, defining a specific event that causes the Rear camera image displaying. For example, if you wish to turn ON the Rear camera when you insert the Reverse Gear, these are the steps to follow:

- Open Race Studio 3, connect your system via Wi-Fi or USB and create a new configuration (or modify an existing one).
- The Gear, of course, is supposed to be one of the available channels. It is possible to obtain it:

- Through analog sensor, plugging it into one of the device analog channels, which must be configured as expressed on the right (Channels tab). The "Use reverse gear" box must be ticked.
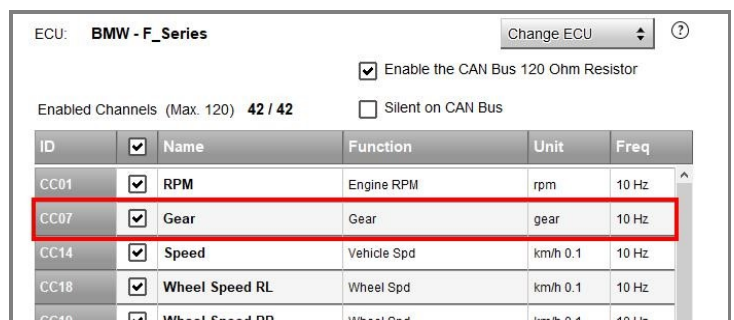
- Through ECU, selecting the compatible protocol with your vehicle ECU from the ECU Stream tab.

- Open the Trigger Commands tab and click "Add New Command": select "First Camera Input Page" as a command to activate when the Gear is equal to "R".
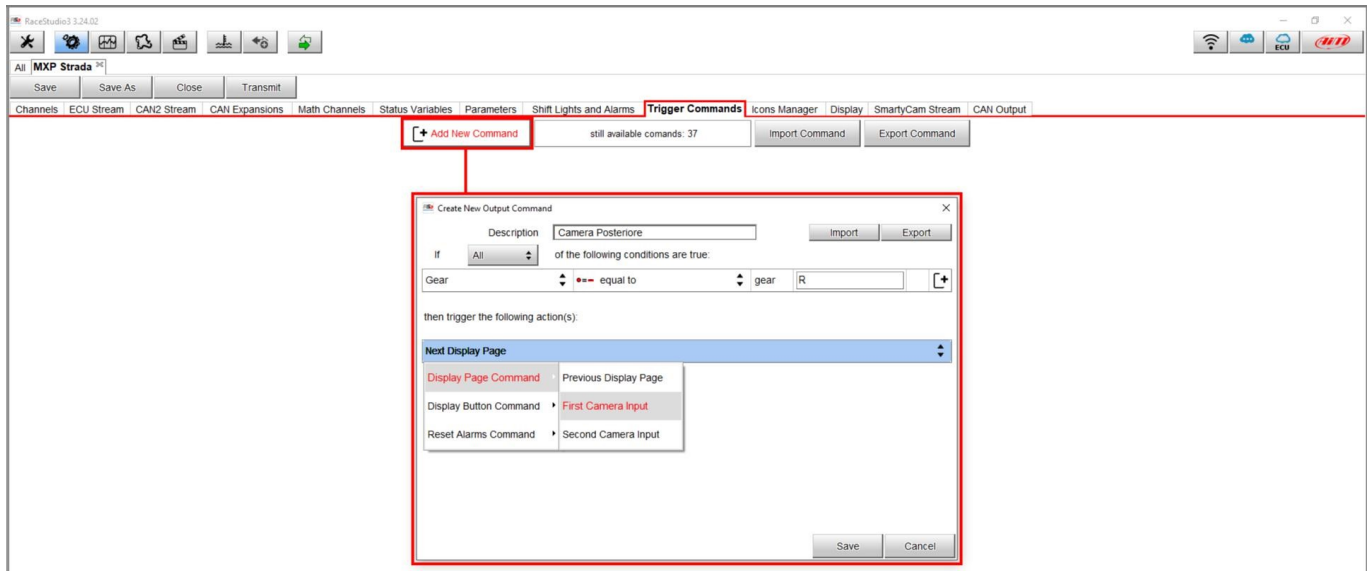
3
Settings through AiM device menu

The Rear camera parameters setting must be executed from the device menu directly, as explained below:

- Press "MENU/<<" button.
- Pressing "PREV and "NEXT", move on the VIDEO IN icon and press "ENTER".
- The system offers the possibility to set the image format (PAL or NTSC – according to the Rear camera technical specs), brightness and contrast for each available input.

If no key is pressed, after 5 seconds the menu disappears, showing the Rear camera image in live streaming, so that it can be better positioned.