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AiM Infotech

### Mirror Camera MX

Release 1.00





InfoTech



## 1 Physical connection

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



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

There is a wide number of analog cameras on the market. We have tested one of them, of which the Amazon Code is: **ASIN B01H1RFZYA** .

This camera offers a couple of interesting options:

- the possibility to reverse the image
- the possibility to enable or disable the parking overlay view.



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:



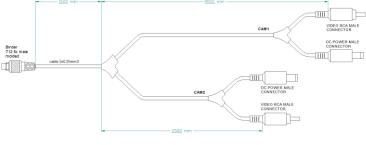
- **Single RearMaster camera** (cable length: 5m) ended with:
  - Male metallic 5pins Binder connector for connection to AiM loggers;
  - DC Power Connector (yellow) to be connected to the camera one;
  - Video RCA Connector (red) to be connected to the camera one.
- **Double RearMaster camera** (cable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



**V02573380** 5 mt single REARMASTER camera cable



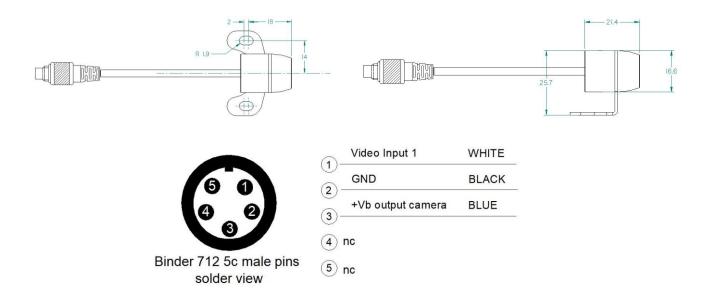
V02573400 Cable for n.2 (front and rear) REARMASTER cameras



\* 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 camera with a more reliable Binder connection (**P.N.: XB1ZCAMHD00;** Binder connector pinouts are specified below):



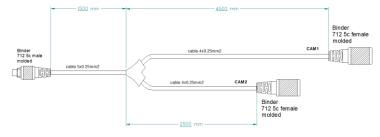
The patch cables available are:

- Single AiM Mirror Camera (6m length) ended with:
  - Male metallic 5pins Binder connector for connection to AiM loggers;
  - Female metallic 5pins Binder connector for Mirror Camera connection.
- Double AiM Mirror 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 Mirror 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 camera image displaying. For example, if you wish to turn ON the 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.

🚈 Channel Setting	IS				×	
Name	Gear					
Function	Gear					
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					_	
Sensor	Gear Pote	ntiometer				
Sampling Freque	ency 20 Hz				\$	
Unit of Measure	gear					
_ Gear Parameters						
Set gears number:			5 韋			
Use reverse gear			•			
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ECU: BMW - F_Se	ries		Change	ECU 🗘	?	
Enable the CAN Bus 120 Ohm Resistor						
Enabled Channels (Max. 120) 42 / 42 Silent on CAN Bus						
ID 🛛 Na	ame	Function	Un	it Freq		
CC01 🔽 RF	PM	Engine RPM	rpm	i 10 Hz	^	
CC07 🔽 Ge	ar	Gear	gea	r 10 Hz		
CC14 Sp	beed	Vehicle Spd	km/	h 0.1 10 Hz		
CC18 🕑 W	heel Speed RL	Wheel Spd	km/	h 0.1 10 Hz		



• 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".

Provide 13 ASU			
Create New Output Command Description of the following conditions are true: Gear Gear Image: Ima	All MXP Strada M Save Save As Close Transmit	Variables Parameters Shift Lights and Alarms Trigger Commands kons Manager Display SmartyCam Stream CAN Output	
Create New Output Command Description of the following conditions are true: Gear Gear Image: Ima			
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If All  of the following conditions are true: Clear  clear		I ∰ Create New Output Command X	
If All  of the following conditions are true: Clear  clear			
Gear Image: equal to   then trigger the following action(s):     Next Display Page   Display Page Command   Previous Display Page   Display Stutton Command   First Camera Input   Reset Alarms Command   Second Camera Input			
then trigger the following action(s):          Next Display Page           Display Page Command           Display Page Command           Previous Display Page           Display Button Command           Reset Alarms Command           Second Camera Input		If All  triangle of the following conditions are true:	
then trigger the following action(s):          Next Display Page           Display Page Command           Display Page Command           Previous Display Page           Display Button Command           Reset Alarms Command           Second Camera Input		Gear	
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		Save Cancel	



# 3 Settings through AiM device menu

The 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 camera technical specs), brightness and contrast for each available input.



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

