

1 – SmartyCam and AiM devices

Question:

How can I connect my SmartyCam HD/GP HD with AiM devices and configure both?

Answer:

Those AiM devices that support SmartyCam, in addition to the physical connection with the proper cables need, together with SmartyCam, a software setup. The table below shows which software you need to install on your PC:

| • | SoloDL | RS2 |
|---|------------------------|-----|
| • | MXL | RS2 |
| • | EVO4 | RS2 |
| • | ECU Bridge | RS2 |
| • | Solo 2 DL | RS3 |
| • | MXL2 | RS3 |
| • | MXS 1.2/MXS Strada 1.2 | RS3 |
| • | MXG 1.2/MXG 1.2 Strada | RS3 |
| • | MXP/MXP Strada | RS3 |
| • | MXm | RS3 |
| • | EVO4S | RS3 |
| • | EVO5 | RS3 |
| | | |
| • | SmartyCam | RS3 |

To make the communication between SmartyCam and AiM devices possible, you need to:

- physically connect the devices
- set AiM devices up using the proper software
- configure SmartyCam with RS3

FAO



1.1 – Physical connection

To physically connect the devices, use SmartyCam CAN cable; available versions are:

- SmartyCam CAN cable: length 2m:
- SmartyCam CAN cable: length 4m

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Each AiM device is equipped with a connector or a cable labelled "EXP" that is to be connected to SmartyCam "EXT" connector:

• **SoloDL/Solo 2 DL**: connect SmartyCam CAN cable to the 5 pins connector placed under the device

The 7 pins connector is used to connect with the vehicle ECU (via CAN, K-Line or RS232) and the external power source

- **EVO4/4S**: connect SmartyCam CAN cable to the connector labelled "Exp"
- **EVO5**: connect SmartyCam CAN cable to the cable labelled "EXP" of 37 pins connector harness included in the kit
- MXL2, MXS 1.2, MXG1.2/MXP: connect SmartyCam CAN cable to the cable labelled "EXP" of 37 pins connector harness included in the kit
- MXS 1.2 Strada/MXG 1.2 Strada/MXP Strada: connect SmartyCam CAN cable to the cable labelled "EXP" of 14 pins connector harness included in the kit
- MXL Strada/Pista: connect SmartyCam CAN cable to the 5 pins connector placed rear right of the device
- **MXL Pro05**: connect SmartyCam CAN cable to the cable labelled "EXP" of 22 pins connector harness included in the kit
- **ECU Bridge**: connect the camera CAN cable to 5 pins connector of the device.

If you need to connect more expansions we suggest to use a Data Hub – AiM CAN connections multiplier – available in different versions with different part numbers:

two ways Data Hub with 40 cm cable: X08HB2GK0
four ways Data Hub with 40 cm cable: X08HUB010
four ways Data Hub with 150 cm cable: X08HUB150



1.2 – RS2 configuration

MXL, SoloDL, EVO4 and ECU Bridge are only configurable using RS2. Latest updates are always downloadable from Download Area -> Software of www.aim-sportline.com.

Proceed as follows:

- run RS2
- connect your device to the PC and press "Device Configuration"
- select your device and choose the configuration to be modified or create a new one
- complete the device setup
- click "SmartyCam Functions Settings", in the page top keyboard: a table appears where you can associate different functions (left column) to each channel (right column); the channels list is filtered according to the functions set; user can unlock the filtering and have free choice checking "Enable Channels for all Functions" box
- once the functions associated to the channels click "OK" and then "Transmit" to transmit the configuration to the device

| | an system monoger | | | | | | | | | | | - |
|----------------------------|-------------------------|------------------------------|--------------------|----------------------------|---------|--------------------------|---------------------------|-----------------|------------------|-------------------|----------------------|-----------------|
| acing Date Power | Transmi | ı bı | leceive | CAN-Net info | Smarty | Cam Functions setting | Set acquisition system to | me | | | | |
| AIM Sportline | Current configuration | | | | | | | | | | | |
| Leader in Data Acquisition | Installation na | Data logger type | Ecu | Lap Timer | Vehi | e name | Available time | Time with GPS | Total frequency | Master frequency | Expansions frequency | Tot. Expansions |
| | SmartyCam - M | MXL PISTA | None - None | Optical | DEF | | 9.32.39 (h.m.s) | 4.06.35 (h.m.s) | 121 (Hz) | 121 (Hz) | 0 (Hz) | 0 |
| Analysis | Select configuration | hannels System configuration | CAN-Expansions col | | | • | | _ | | | | |
| | Found 1 | | | Set Functions To Char | nnels | | $ \Box$ \rightarrow | < | Set Functions | To Channels | | |
| | Specu_1 | | | FUNCTION | | CHANNEL | | | FUNCTION | | CHANNEL | |
| Download Data | Wheel circumturence | (mm) 1000 | | ENGINE RPM | | Engine | | _ | ENGINE RPM | | Engine | |
| | Pulses per whice revolu | ution 1 | | REFERENCE SPEED | | Speed_1 | | | REFERENCE SPEED |) | Speed_1 | |
| mport SmartyCam | | | | GEAR | | none availabl | e | _ | GEAR | | none available | |
| micro SD Data | Channel iden fier | Enabled/disabled | Channel na | WATER TEMP | | NOT SET | | - | WATER TEMP | | NOT SET | |
| | RPM | Enabled | Engine | HEAD TEMP | | NOT SET | | - peed | HEAD TEMP | | NOT SET | |
| | SPD_1 | Enabled | Speed_1 | EXHAUST TEMP | | NOT SET | | - | EXHAUST TEMP | | NOT SET | |
| vice Configuration | CH_1 | Enabled | WAT | OIL TEMP | | NOT SET | | | OIL TEMP | | NOT SET | - |
| | CH_2 | Enabled | СНТ | DIL PRESS | | NOT SET | | | DRAVE DRESS | | NOT SET | |
| | CH3 | Enabled | EGT | THROTTLE ROSITION | | ··· none availabl | | | TUPOTTI E POSITI | ON | ··· NOT SET ···· | |
| Device Info | CH_4 | Enabled | OilTemp | BRAKE POS | | none availabl | | 0-120 °C | RRAKE POS | | NOT SET | |
| | | Enabled | Unpress | CLUTCH POS | | none availabl | e | | CLUTCH POS | | NOT SET | 1 |
| | CH 7 | Enabled | Lambda | STEER POS | | none availabl | e | | STEER POS | | NOT SET | |
| Online | CH 8 | Fnabled | Channel 8 | LAMBDA | | NOT SET | | • | LAMBDA | | NOT SET | - |
| | CALC GEAR | Disabled | Calculated | LATERAL ACCEL | | NOT SET | | • | LATERAL ACCEL | | NOT SET | |
| oules Calibration | ACC 1 | Enabled | LatAcc | LONG ACCEL | | NOT SET | | | LONG ACCEL | | NOT SET | - |
| Device <u>Calibration</u> | LOG TMP | Enabled | Datalogger | FUEL LEVEL | | none availabl | e | | FUEL LEVEL | | NOT SET | |
| | BATT | Enabled | Battery | BATTERY | | NOT SET | | - | BATTERY | | NOT SET | |
| ustomize Sensor | | | | | | | | | - | | | |
| | | | | Enable Channel for all Fur | actions | | | | E able Channel | for all Functions | | |
| | | | | | | | OK 🛛 Cancel | | - | | V OK | Cancel |



1.3 – RS3 configuration

Solo 2 DL, MXL2, MXG 1.2, MXG 1.2 Strada, MXS 1.2, MXS 1.2 Strada, MXP, MXP Strada, MXm, EVO4S ed EVO5 are only configurable with RS3. Latest updates are always downloadable from Download Area -> Software of www.aim-sportline.com.

Proceed as follows:

- run RS3
- connect your device to the PC and enter "Configurations" page
- select the configuration you need to modify or create a new one
- enter "SmartyCam Stream" layer: a table appears where you can associate different functions (left column) to each channel (right column); the channels list is filtered according to function set; user can unlock the filtering and have free choice checking "Enable Channels for all Functions"
- once the functions associated to the channels click "Transmit" to transmit the configuration to the device

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|--|------------------------------|----------------------|----|--------------------|-----------|-----|--|--|--|--|--|--|
| * * * * * | | | | | (î 😤 | an | | | | | | |
| All MXS Strada 02 ³⁶ | | | | | | | | | | | | |
| Save Save As Close Transmit | | | | | | | | | | | | |
| Channels ECU Stream CANZ Stream Math Leannels Parameters Shift Lights and Alarms Trigger Commands Displar SmartyCan Stream CAN Expansions CAN Output | | | | | | | | | | | | |
| | Enable all channels for full | inctions | | | | | | | | | | |
| | SmartyCam Function | Channel | | SmartyCam Function | Channel | | | | | | | |
| | Engine RPM | RPM | \$ | Engine RPM | RPM | \$ | | | | | | |
| | Speed | GPS Speed | \$ | Speed | GPS Speed | \$ | | | | | | |
| | Gear | No available channel | | Gear | Not Set | \$ | | | | | | |
| | Water Temp | No available channel | | Water Temp | WAT | \$ | | | | | | |
| | Head Temp | No available channel | | Head Temp | СНТ | \$ | | | | | | |
| | Exhaust Temp | No available channel | | Exhaust Temp | Not Set | \$ | | | | | | |
| | Oil Temp | No available channel | | Oil Temp | Not Set | \$ | | | | | | |
| | Oil Press | No available channel | | Oil Press | OilPress | \$ | | | | | | |
| | Brake Press | No available channel | | Brake Press | Not Set | \$ | | | | | | |
| | Throttle Pos | No available channel | | Throttle Pos | Not Set | \$ | | | | | | |
| | Brake Pos | No available channel | | Brake Pos | BRKpos | \$ | | | | | | |
| | Clutch Pos | No available channel | | Clutch Pos | Not Set | \$ | | | | | | |
| | Steering Pos | No available channel | | Steering Pos | Not Set | \$ | | | | | | |
| | Lambda | No available channel | | Lambda | Not Set | \$ | | | | | | |
| | Fuel Level | No available channel | | Fuel Level | Fuel Used | \$ | | | | | | |
| | Battery Voltage | Battery | \$ | Battery Voltage | Battery | \$ | | | | | | |
| | - | | | | | | | | | | | |
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1.4 – SmartyCam configuration with RS3

To setup SmartyCam HD/GP HD you need to use RS3 software (RS2 does not support cameras).

Proceed as follows:

- run RS3
- connect SmartyCam to the PC using the mini USB cable you find in the kit
- enter "Configuration" page and select the configuration to modify or create a new one; to create a new configuration press "New" button, select "SmartyCam HD" among the available devices, fill in the configuration name and press "OK" as shown here below.





The software opens SmartyCam configuration page.

- right side of the window shows many overlay sets that can be dragged and dropped into the left main window
- bottom left of the page each overlay properties appear in specific tabs that need to be setup
- once SmartyCam setup click "Save" in keyboard placed on top of overlay layers, go back to configurations page and transmit the configuration to SmartyCam.

