

Configuring

1 – Configuring SmartyCam with Solo 2 DL

Question:

How can I configure SmartyCam HD Rev 2.1/GP HD (from here onwards SmartyCam) with Solo 2 DL?

Answer:

For a good SmartyCam-Solo 2 DL communication you must:

- physically connect the devices
- configure both your devices using Race Studio 3 software

1.1 – Physical connection

To physical connect the devices use the CAN cable you find in SmartyCam kit and connect camera "ext" connector to Solo 2 DL CAN EXP connector (5 pins). Solo 2 DL 7 pins connector is needed to connect Solo 2 DL to the vehicle ECU (via CAN, K-Line or RS232).



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- To configure the device with the ECU model it is connected to, enter the “ECU Stream” tab and select the ECU manufacturer/model (in the following example, VOLKSWAGEN – VWGroup communication protocol has been chosen): all the provided channels by the ECU are listed. Each channel can be modified: clicking on each one, it is possible to set a new name, change sampling frequency, measurement unit (if alternative ones are available) and the number of decimal places to show.

The screenshot shows the RaceStudio3 3.25.02 interface. The 'ECU Stream' tab is active. A dialog box titled 'Choose ECU Protocol' is open, with 'VOLKSWAGEN' selected in the 'Manufacturer' list and 'VWGroup' selected in the 'Model' list. The main interface shows the 'ECU: VOLKSWAGEN - VWGroup' configuration. A table of enabled channels is displayed, with 41 channels out of a maximum of 120. The table includes columns for ID, Name, Function, Unit, and Freq.

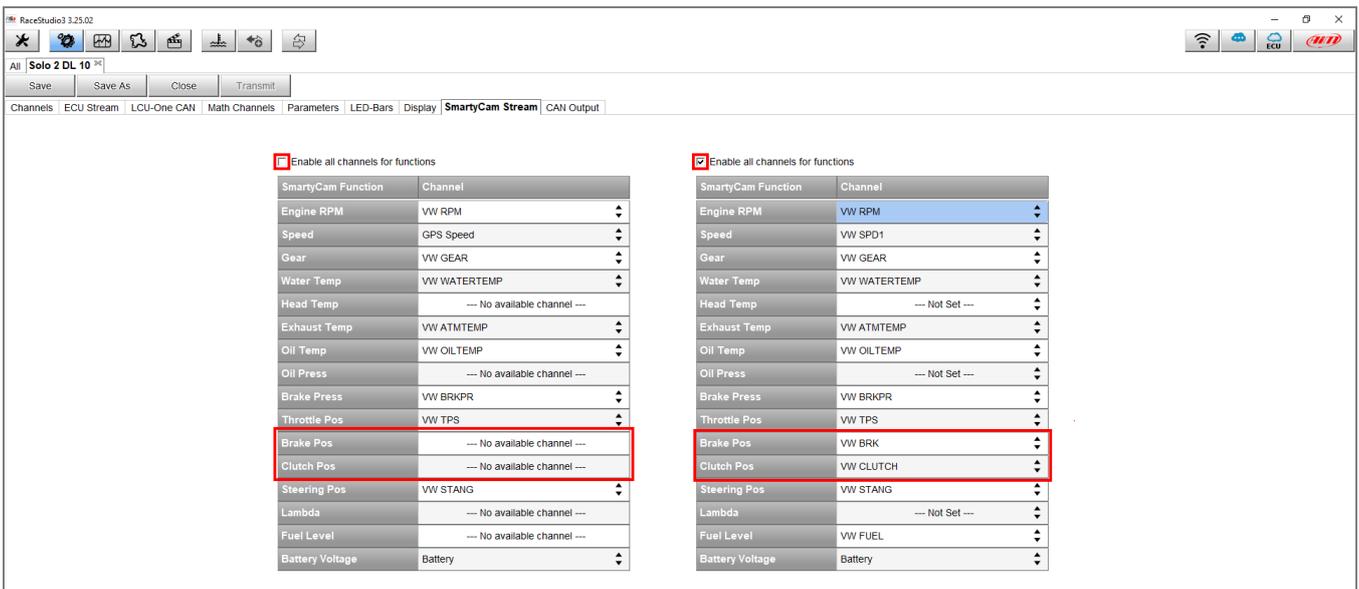
| ID | Name | Function | Unit | Freq |
|------|-----------------|-------------------|-----------|-------|
| CC01 | VW STANG | Steering Pos | deg | 10 Hz |
| CC02 | VW STSPD | Ang Velocity | deg/s 0.1 | 10 Hz |
| CC03 | VW SPD2 | Vehicle Spd | km/h 0.1 | 10 Hz |
| CC04 | VW ENGINEMOMENT | Percent | % 0.01 | 10 Hz |
| CC05 | VW RPM | Engine RPM | rpm | 10 Hz |
| CC06 | VW GASPERC | Percent | % 0.01 | 10 Hz |
| CC07 | VW CLUTCH | Number | # | 10 Hz |
| CC08 | VW WATERTEMP | Water Temp | C 0.1 | 10 Hz |
| CC09 | VW BRK | Number | # | 10 Hz |
| CC10 | VW SPD1 | Vehicle Spd | km/h 0.1 | 10 Hz |
| CC11 | VW SPDASH | Number | # | 10 Hz |
| CC12 | VW FUEL | Number | # | 10 Hz |
| CC13 | VW COOL ALARM | Number | # | 10 Hz |
| CC14 | VW OILP ALARM | Number | # | 10 Hz |
| CC15 | VW AIRTEMP | Intake Air Temp | C 0.1 | 10 Hz |
| CC16 | VW TPS | Ptd Throttle Load | % 0.01 | 10 Hz |
| CC17 | VW TIP TK DW | Number | # | 10 Hz |
| CC18 | VW TIP TK UP | Number | # | 10 Hz |
| CC19 | VW STMOM | Torque | N/m 0.1 | 10 Hz |

N.B.: to know the available protocols into the Race Studio 3 database and their compatibility, visit the Documentation -> ECU Connections -> Stock/Racing area of our website www.aim-sportline.com.



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To set SmartyCam function, enter the “SmartyCam Stream” tab: the software shows a panel (image below on the left) that allows to associate available functions (left column) to SmartyCam channels (right column). Channels list is filtered according to the functions set. To set functions different from default ones, enable “Enable Channel for all Functions” checkbox (image below on the right). Once all channels set press “Transmit” to transmit the configuration to the Solo 2 DL.



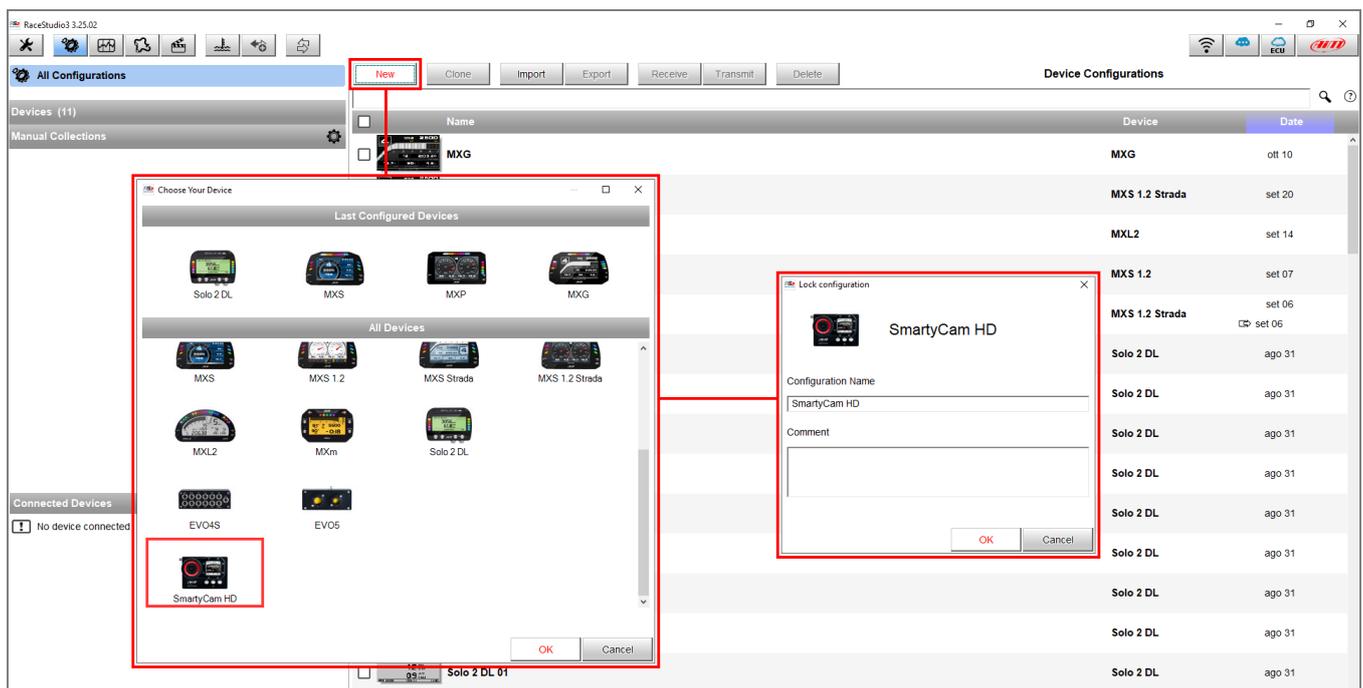
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1.3 – Configuring SmartyCam with Race Studio 3

To configure SmartyCam you should have installed Race Studio 3¹ software on your PC. Last releases are always downloadable from Download area -> Software section of AiM website www.aim-sportline.com.

Follow these steps:

- run Race Studio 3
- connect SmartyCam to the PC using the mini USB cable included in the kit
- press “Configurations” icon
- press “New”
- select “SmartyCam” and press “OK”
- fill in configuration name and press “OK”



¹ Please note: Race Studio 2 does not support AiM cameras

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SmartyCam configuration page shows up.

- on the right you see a number of overlays you can drag and drop in left part of the window (many sets are available).
- bottom of the window you see each overlay layers, the settings of which you can modify.

| Function | Unit | Scale |
|--------------|------|-------|
| Engine RPM | rpm | 10000 |
| Speed | km/h | 300 |
| Brake Pos | % | 0 100 |
| Throttle Pos | % | 0 100 |
| Gear | # | |