

## Ferrari F430 and F430 Scuderia Plug&Play kit



Racing Data Power

## INTRODUCTION

The P&P kit specifically designed for Ferrari F430 – including an **ECU Bridge** with an OBDII connector for immediate plug into the engine control unit (ECU) network – makes **SmartyCam** connection and activation very easy.

In fact, it is enough to connect the **ECU Bridge** to the vehicle socket – as detailed in this document – to get the key values from the engine control unit and record/overlay them on **SmartyCam** videos.

## Index

<b>Chapter 1 – Kit and optionals .....</b>	<b>4</b>
1.1 – The kit .....	4
1.2 – The optionals.....	4
<b>Chapter 2 – Preliminary information .....</b>	<b>5</b>
2.1 – Models and communication protocol.....	5
2.2 – Ferrari OBDII connector position.....	5
<b>Chapter 3 – Connections.....</b>	<b>6</b>
3.1 – Connecting SmartyCam to ECU Bridge .....	6
3.2 – Connecting ECU Bridge to the car .....	6
<b>Chapter 4 – Configuration settings .....</b>	<b>7</b>
<b>Chapter 5 – Communication protocol.....</b>	<b>8</b>
<b>Appendix – Part numbers .....</b>	<b>8</b>

## Chapter 1 – Kit and optionals

### 1.1 – The kit



- 1 – **SmartyCam**; (1)
- 1 – **ECU Bridge** with car adapter; (2)
- 1 – 2m or 4m CAN cable;(3)

### 1.2 – The optionals



Suction cup kit:

- 1 – ball head
- 1 – 60 mm. arm
- 1 – suction cup
- 1 – washer



Roll-bar kit:

- 1 – ball head
- 1 – 60 mm. arm
- 1 – roll bar bracket
- 1 – washer



CAN cable with external microphone

## Chapter 2 – Preliminary information

### 2.1 – Models and communication protocol

Ferrari communication protocol is CAN bus; it allows to directly connect the ECU to **ECU Bridge** through the OBDII socket, placed on the vehicle. (Refer to “Configuration settings” chapter for more details).

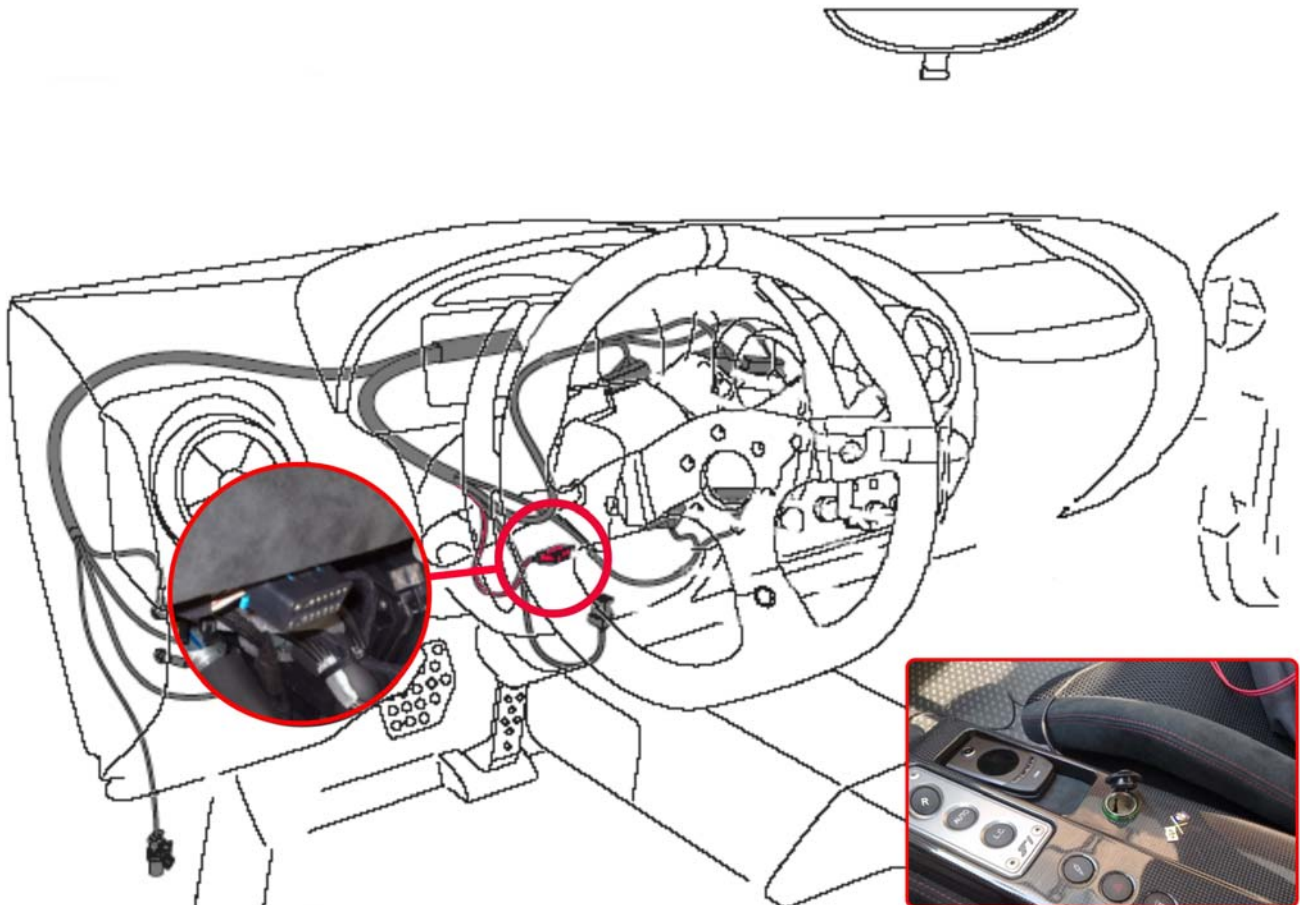
The car models tested by AIM are listed below; AIM does not exclude the compatibility with other Ferrari models. For further information it is suggested to contact technical support at: [http://www.aim-sportline.com/pages/tech\\_support/section\\_tech\\_support.php](http://www.aim-sportline.com/pages/tech_support/section_tech_support.php)

The protocol has been tested on the following car models:

- F430
- F430 Scuderia

### 2.2 – Ferrari OBDII connector position

OBDII connector is placed on the driver's side, on the right of steering column, under the dashboard – refer to the images below.



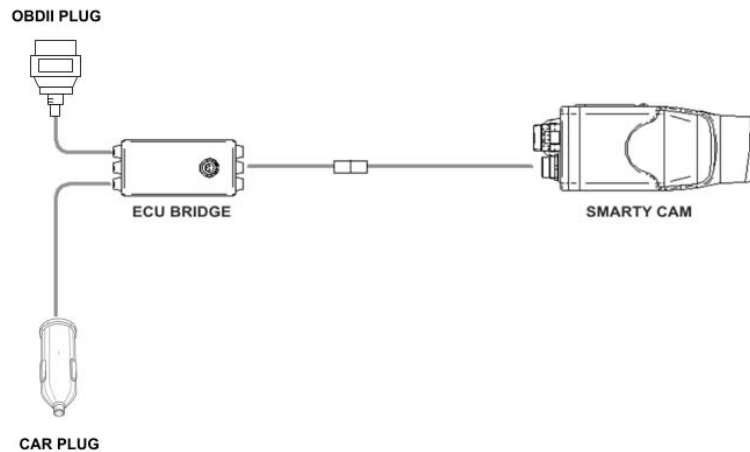
## Chapter 3 – Connections

To receive the info provided by the vehicle ECU it is necessary to connect:

**Step 1 – SmartyCam to ECU Bridge**

**Step 2 – ECU Bridge to the vehicle**

The image below shows the connections .



### 3.1 – Connecting SmartyCam to ECU Bridge

To connect **SmartyCam** to **ECU Bridge**:

- Connect the 7 pins connector placed on the **SmartyCam** back to the 2m or 4m CAN cable supplied with the kit.

### 3.2 – Connecting ECU Bridge to the car

To connect **ECU Bridge** to the vehicle:

- plug ECU Bridge OBDII male connector into OBDII socket (see image below);
- put the car adapter in the car cigarette lighter socket.



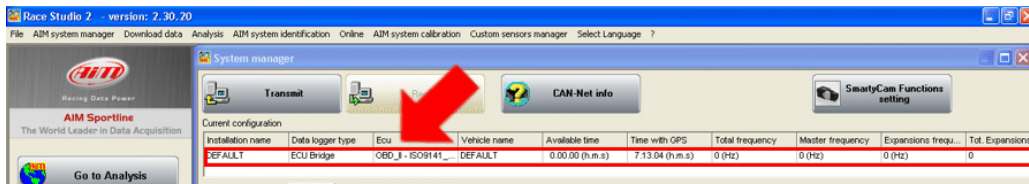
## Chapter 4 – Configuration settings

Once **ECU Bridge** is properly connected, it is necessary to configure it in **Race Studio 2** software. Please refer to these instructions:

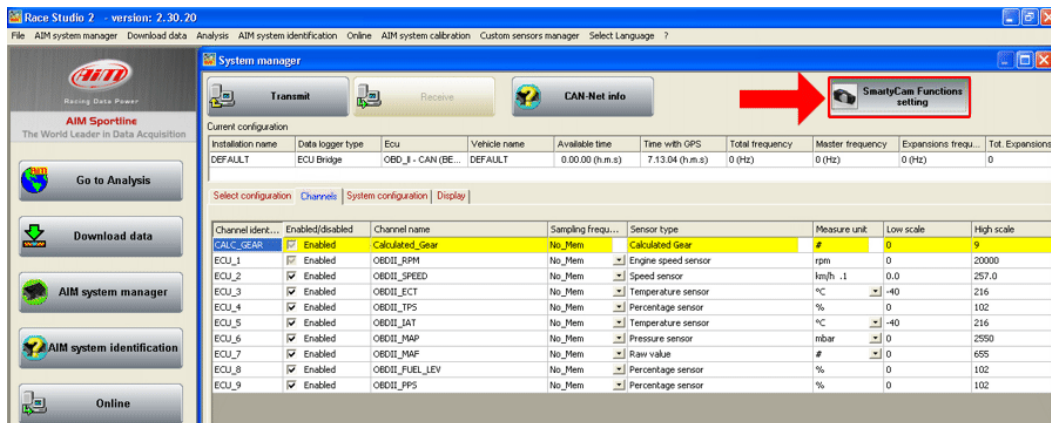
- Launch **Race Studio2 Configuration Software**
- Create a configuration pressing **“New”**.



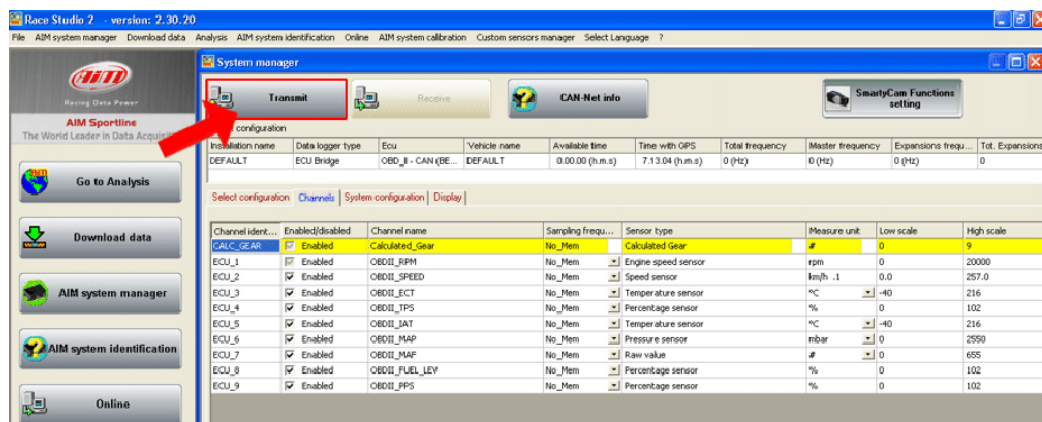
- select from **“ECU manufacturer”**: **“Ferrari”**;
- select from **“ECU Model”**: **“430 (ECU Bosch)”**;



- Select **“SmartyCam Function setting”** to set **SmartyCam** channels (refer to **Race Studio Configuration manual** for more details).



- transmit the configuration to **AIM** logger clicking **“Transmit”** (see below).



**Note: it is suggested to disable non-used channels (see image above).**

## Chapter 5 – Communication protocol

Channels received by **ECU Bridge** connected to ECU are:

<b>ID</b>	<b>CHANNEL NAME</b>	<b>FUNCTION</b>
ECU_1	F430_RPM	RPM
ECU_2	F430_WH_SPD_FL	Wheel speed front left
ECU_3	F430_WH_SPD_FR	Wheel speed front right
ECU_4	F430_WH_SPD_RL	Wheel speed rear left
ECU_5	F430_WH_SPD_RR	Wheel speed rear right
ECU_6	F430_VEH_SPEED	Vehicle speed
ECU_7	F430_PPS	Pedal position sensor
ECU_8	F430_GEAR	Gear number
ECU_9	F430_STEER_ANG	Steering angle
ECU_10	F430_BRK_SW	Brake switch
ECU_11	F430_STEER_SPD	Steering speed
ECU_12	F430_ECT	Engine coolant temperature
ECU_13	F430_OILT	Oil temperature

## Appendix – Part numbers

### Kit:

ECU Bridge OBDII with lighter plug: **X90BGCK12**

SmartyCam with 2m CAN cable: **X90SMYCEC2**

SmartyCam with 4m CAN cable: **X90SMYCEC4**

### Optional:

Suction cup kit: **X9KSSMC1**

Roll bar kit: **X9KSSMC0**

CAN cable with external microphone: **V02566100**