Porsche 911, Boxster and Cayman Plug&Play kit

AiM

Racing Data Power

INTRODUCTION

The P&P kit specifically designed for Porsche 911, Boxster and Cayman – 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.

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Chapter 1 – Communication protocols

Porsche cars can support one of these OBDII diagnosis protocols: K Line (ISO9141/2) or CAN (ISO 15765/4). Please check below which is the appropriate protocol for each model.

1.1 – OBDII CAN (15765/4) protocol

OBDII CAN protocol is supported by the following models:

- Porsche Cayman S 987 MK2
- Porsche Boxster S 987 MK2
- Porsche 997 MK1 GT2
- Porsche 997 MK2 all models

1.2 –OBDII K Line (ISO9141/2) protocol

OBDII Kline protocol is supported by the following models:

- Porsche 996 MK2 all models;
- Porsche 997 MK1 all models except for GT2;
- Porsche 986 Boxster;
- Porsche 987 MK1 Boxster;
- Porsche 987 MK1 Cayman.

Chapter 2 – Kit and optionals

2.1 – The kit

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

2.2 – 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
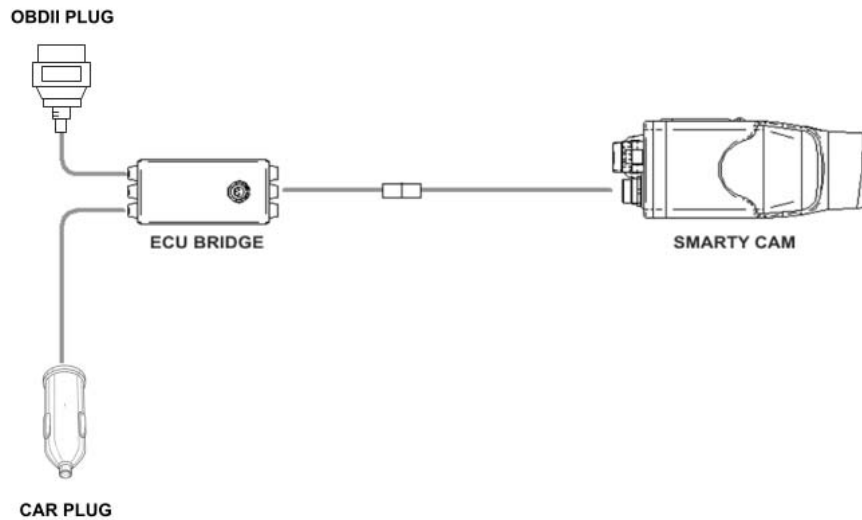

CAN cable with external microphone

Chapter 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 – Porsche OBDII connector position

Porsche OBDII purple connector is placed on the driver's side, on the right of steering column, near the clutch pedal – refer to the images below.

3.2 – 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 power cable + CAN supplied with the kit.

3.3 – 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 - Select the configuration

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**" drop down menu: "**OBD_II**";
- select from "**ECU Model**" drop down menu (image below highlighted): "**ISO9141/2**"or "**CAN**" – please, refer to chapter 1 on this manual for further details.
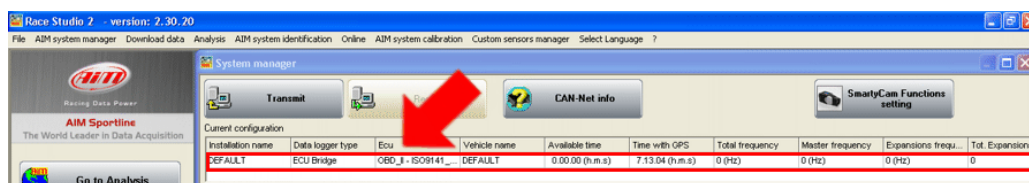
- Select "**SmartyCam Function setting**" to set **SmartyCam** channels (refer to **Race Studio Configuration** manual for more details).
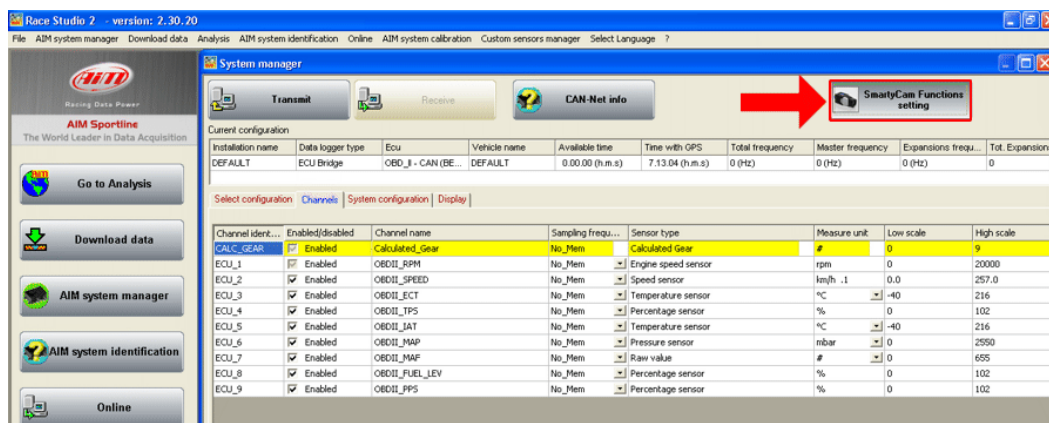
- transmit the configuration to **AIM** logger clicking "**Transmit**" (see below).
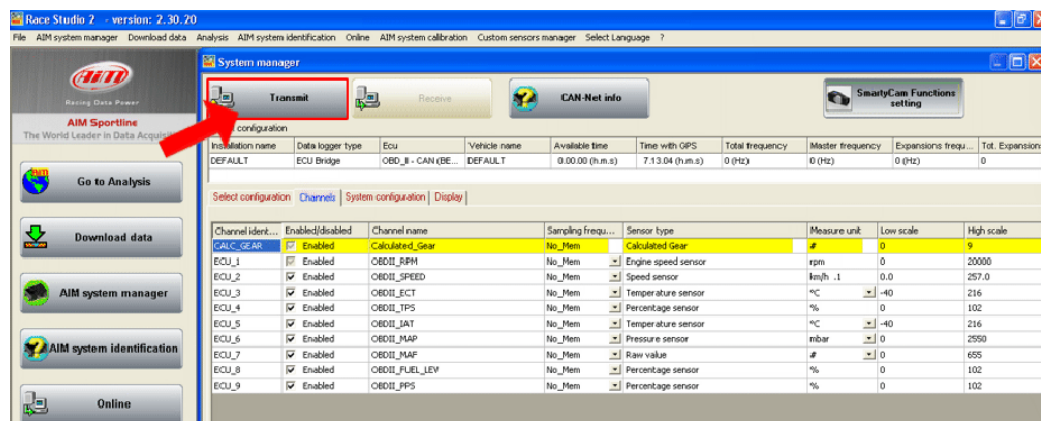
Note: it is suggested to enable non-used channels (see image above).

Chapter 5 – OBDII communication Protocol

Channels received by **AIM** loggers connected to OBDII are:

ID	CHANNEL NAME	FUNCTION
ECU_1	OBDII_RPM	Engine Speed
ECU_2	OBDII_SPEED	Speed Value
ECU_3	OBDII_ECT	Engine Coolant Temperature
ECU_4	OBDII_TPS	Throttle Position Sensor
ECU_5	OBDII_IAT	Intake Air Temperature
ECU_6	OBDII_MAP	Manifold Absolute Pressure
ECU_7	OBDII_MAF	Mass Air Flow
ECU_8	OBDII_FUEL_LEV	Fuel Level
ECU_9	OBDII_PPS	Pedal Position Sensor

Note: all the above channels are managed by AIM OBDII. Please consider that acquired channels depend on the car model; for this reason some of them could not be available. Moreover it is suggested to disable the error channels to allow a faster data transmission.

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**