VOLKSWAGEN ECU for

Golf (1800-2000-2300 cc)

Racing Data Power

INTRODUCTION

AIM has developed special applications for many of the most common ECUs: by special applications we mean user-friendly systems which allow to easily connect your ECU to our high tech data loggers: user needs only to install harness between the **logger** and the ECU.

Once connected, the logger displays (and/or records, depending on the logger and on the ECU data stream) values like RPM, engine load, throttle position (TPS), air and water temperatures, battery voltage, speed, gear, lambda value (air/fuel ratio) analog channels…

All AIM loggers include – free of charge – **Race Studio 2** software, a powerful tool to configure the system and analyze recorded data on your PC.

Warning: once the ECU is connected to the logger, it is necessary to set it in the logger configuration in Race Studio 2 software.
Select Manufacturer "VOLKSWAGEN" and Model "VWGroup".
Refer to Race Studio Configuration user manual for further information concerning the loggers configuration.

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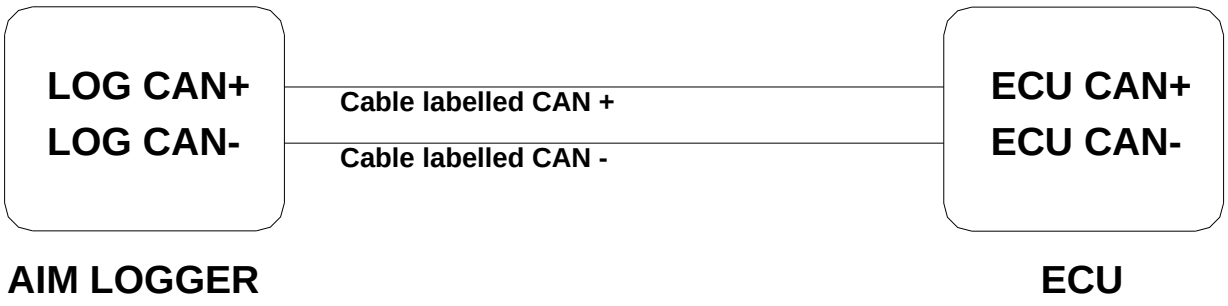
Chapter 1 – Car Models
Bosch ME 7.5 ECU is installed as stock one on the following car models:

- Volkswagen Golf 1800 20V Turbo 125 CV
- Volkswagen Golf 1800 20V Turbo 150 CV
- Volkswagen Golf 1800 20VTurbo 180 CV
- Volkswagen Golf 2000 8V Turbo 115 CV
- Volkswagen Golf 2300 V5 170 CV

Chapter 2 – CAN communication Setup

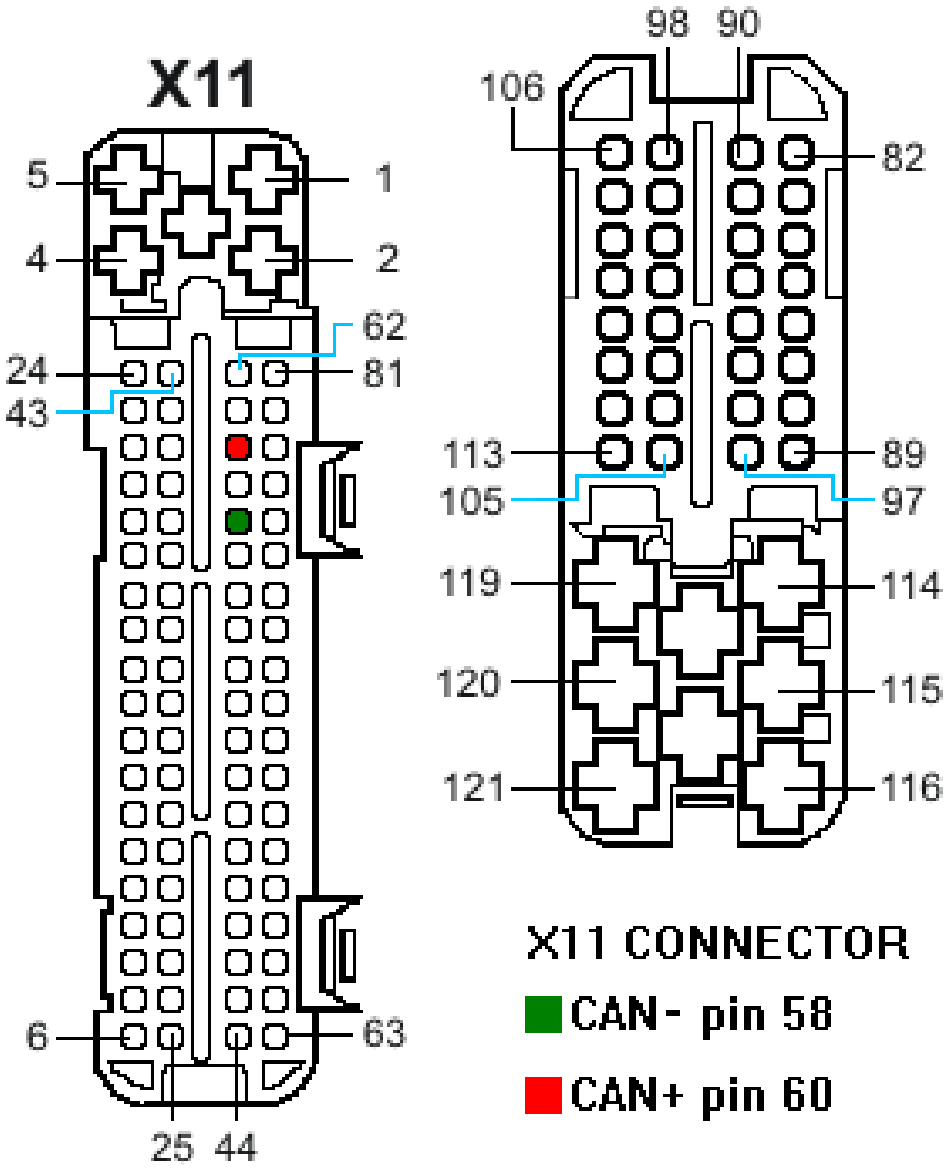
Bosch ME 7.5 ECU is equipped with a CAN communication protocol used to communicate parameters to a data logger and has “X11” connector used to communicate with an external logger.
The images here below show the standard CAN communication setup on top and the ECU wiring diagram on bottom. In this second image is highlighted “CAN” connection.



Chapter 3 – Connection with AIM loggers

To connect Bosch ME 7.5 ECU to AIM loggers use the “X11” male connector shown here below and:

- connect pin 60 of X11 connector to AIM cable labelled CAN+
- connect pin 58 of X11 connector to AIM cable labelled CAN-



Chapter 4 – VwGroup communication protocol

Channels received by AIM loggers connected to Bosch ME 7.5 ECU are:

ID	CHANNEL NAME	FUNCTION
ECU_1	VW_RPM	RPM
ECU_2	VW_SPD1	Speed1
ECU_3	VW_WATERTEMP	Water Temperature
ECU_4	VW_ENGINEMOMENT	Engine Torque
ECU_5	VW_AIRTEMP	Manifold Air Temperature
ECU_6	VW_GASPERC	Pedal Position Sensor
ECU_7	VW_BRKPR	Brake Pressure Sensor
ECU_8	VW_SPD2	Speed2
ECU_9	VW_SPDAS	Dash Speed
ECU_10	VW_ACCLAT	Lateral Acceleration
ECU_11	VW_STMOM	Steering Torque
ECU_12	VW_ATMTEMP	Atmospheric Temperature
ECU_13	VW_OILTEMP	Oil Temperature
ECU_14	VW_FRLF_SPEED	Front Left Speed sensor
ECU_15	VW_FRRG_SPEED	Front Right Speed sensor
ECU_16	VW_RRLF_SPEED	Rear Left Speed sensor
ECU_17	VW_RRRG_SPEED	Rear Right Speed Sensor
ECU_18	VW_YAWRATE	Gyroscope
ECU_19	VW_STSPD	Steering speed
ECU_20	VW_STANG	Steering angle
ECU_21	VW_BRK	Brake sensor
ECU_22	VW_FUEL	Fuel sensor
ECU_23	VW_GEAR	Engaged gear
ECU_24	VW_ENGOILT	Engine oil temperature
ECU_25	VW_TPS	Throttle position sensor
ECU_26	VW_CLUTCH	Switch Clutch
ECU_27	VW_BOOST_TDI	Boost pressure
ECU_28	VW_ENG_MOM	Engine torque
ECU_29	VW_SHIFT_ACT	Shifting in progress
ECU_30	VW_TIP_TK_DW	Tiptronic down
ECU_31	VW_TIP_TK_UP	Tiptronic down
ECU_32	VW_SIN_NAM	
ECU_33	VW_SIN_NEW1	
ECU_34	VW_SIN_NEW2	
ECU_35	VW_SIN_NAB	
ECU_36	VW_SIP_PK1	
ECU_37	VW_SIP_PK2	
ECU_38	VW_BOOST_TFSI	Overboost TFSI