

AiM Infotech

Subaru Impreza 1999-2011 ECU

Release 1.00



This tutorial explains how to connect AiM devices to Subaru Impreza 1999-2011.

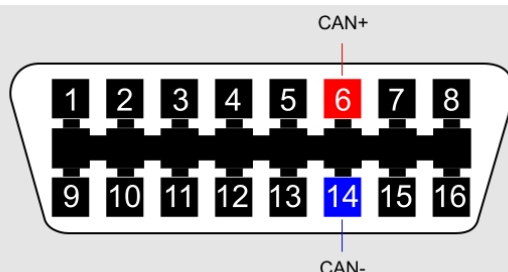
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Wiring connection

Subaru Impreza is equipped with an OBDII plug placed on the car driver side under the steering column as shown here below.



The ECU communicates using the CAN Bus on the OBDII connector. Connector pinout as well as connection table are shown here below.



OBDII connector pin

Pin function

AiM cable

6

CAN High

CAN+

14

CAN Low

CAN-

2

AiM Logger configuration

Once the ECU connected to the logger, set up the logger as follows:

Run Race Studio 2 software and follow this path:

- Device Configuration -> Select the device you are using;
- select the configuration or press "New" to create a new one;
- select ECU manufacturer "Subaru" and – according to the year of your Impreza – ECU Model:
 - "SSM 1999/2007" or
 - "SSM 2008/2011"
- transmit the configuration to the device pressing "Transmit".

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Available channels

AiM loggers support two Subaru protocols according to the year of production of your car:

- "SSM 1999/2007" for cars produced between 1999 and 2007
- "SSM 2008/2011" for cars produced between 2008 and 2011

3.1

"SSM 1999/2007" protocol

Channels received by AiM loggers connected to Subaru Impreza from 1999 to 2007 are:

ID	CHANNEL NAME	FUNCTION
ECU_1	RPM	RPM
ECU_2	SPEED	Vehicle Speed
ECU_3	TPS	Throttle Position Sensor
ECU_4	ECT	Engine cooling temperature
ECU_5	TURBO_PRESS	Turbo pressure
ECU_6	IN_VVT_R	Right bank inlet timing
ECU_7	IN_VVT_L	Left bank inlet timing
ECU_8	IGN_ADV	Ignition advance
ECU_9	KNOCK_CORR	Advances correction depending on detonation sensor
ECU_10	FUEL_LEV	Fuel level
ECU_11	NEUTRAL	Neutral sensor
ECU_12	CLUTCH	Clutch disengaged signal
ECU_13	BRAKE	Brake switch
ECU_14	ENG_LOAD	Instant engine load
ECU_15	AIR_FLOW	Air flow in the air pipes

3.1

“SSM 2008/2011” protocol

Channels received by AiM loggers connected to Subaru Impreza from 2008 to 2011 are:

ID	CHANNEL NAME	FUNCTION
ECU_1	SSM_RPM	RPM
ECU_2	SSM_SPEED	Vehicle Speed
ECU_3	SSM_TPS	Throttle Position Sensor
ECU_4	SSM_ECT	Engine cooling temperature
ECU_5	SSM_TURBO_PRES	Turbo pressure
ECU_6	SSM_IN_VVT_R	Right bank inlet timing
ECU_7	SSM_IN_VVT_L	Left bank inlet timing
ECU_8	SSM_IGN_ADV	Ignition advance
ECU_9	SSM_KNOCK_CORR	Advances correction depending on detonation sensor
ECU_10	SSM_FUEL_LEV	Fuel level
ECU_11	SSM_NEUTRAL	Neutral sensor
ECU_12	SSM_CLUTCH	Clutch disengaged signal
ECU_13	SSM_BRAKE	Brake switch
ECU_14	SSM_ENG_LOAD	Instant engine load
ECU_15	SSM_AIR_FLOW	Air flow in the air pipes
ECU_16	SSM_EX_VVT_R	Right bank exhaust timing
ECU_17	SSM_EX_VVT_L	Left bank exhaust timing
ECU_18	SSM_SEL_MAP	Selected Map
ECU_19	SSM_GEAR	Engaged gear