



AiM Infotech

Bosch MS4.3 Grand Am and Bosch MS4.3 Turbo ECU

Release 1.01



ECU

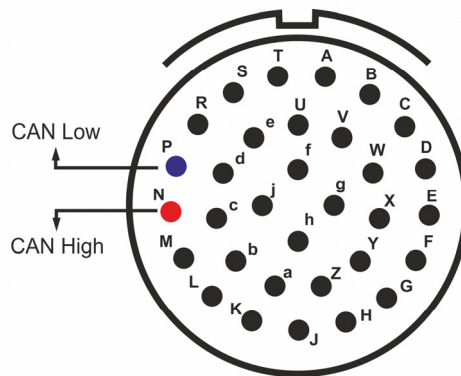
This tutorial explains how to connect Bosch MS4.3 ECU to AiM devices. Supported years and models are:

- Bosch MS4.3 Grand Am 2011
- Bosch MS 4.3 Turbo 2011

1

CAN bus connection

Bosch MS4.3 Grand Am and Bosch MS4.3 Turbo ECU feature a data transmission bus based on CAN on the 32 pins Deutsch front connector. Its part number is: **MS 3476 L18-32P**. Here below you see the connector pinout.



Deutsch connector pin	Pin function	AiM cable
N	CAN High	CAN+
P	CAN Low	CAN-

2

AiM device configuration

Before connecting the ECU to AiM device set this up using AiM Race Studio software. The parameters to select in the device configuration are:

- ECU manufacturer "Bosch"
- ECU Model
 - "MS43N_(2011) Grand-Am" if your ECU is a Bosch MS 4.3 Grand Am 2011
 - "MS 4.3N Turbo (2011 GA)" if your ECU is a Bosch MS 4.3 Turbo 2011

3

Available channels

Channels received by AiM devices changes according to the selected protocol.

3.1

"Bosch" "MS 4.3N (2011) Grand-Am" protocol

Channels received by AiM devices connected to "Bosch" "MS 4.3N (2011) Grand-Am protocol are:

ID	CHANNEL NAME	FUNCTION
ECU_1	MS43_RPM	RPM
ECU_2	MS43_SPEED	Vehicle speed
ECU_3	MS43_WH_SPD_FL	Front left wheel speed
ECU_4	MS43_WH_SPD_FR	Front Right wheel speed
ECU_5	MS43_WH_SPD_RL	Rear left wheel speed
ECU_6	MS43_WH_SPD_RR	Rear Right wheel speed
ECU_7	MS43_TPS	Throttle position
ECU_8	MS43_MAP_BE_T1	Manifold air pressure before time 1



ECU_9	MS43_MAP_BE_T2	Manifold air pressure before time 2
ECU_10	MS43_MAP_AF_T1	Manifold air pressure after time 1
ECU_11	MS43_MAP_AF_T2	Manifold air pressure after time 2
ECU_12	MS43_BARO_PR	Barometric pressure
ECU_13	MS43_WATER_PR	Water pressure
ECU_14	MS43_CRANK_PR	Crank pressure
ECU_15	MS43_OIL_PR	Oil pressure
ECU_16	MS43_BRK_PRESS	Brake pressure
ECU_17	MS43_SWPOS_ABS	ABS switch position
ECU_18	MS43_FUEL_PR1	Fuel pressure 1
ECU_19	MS43_FUEL_PR2	Fuel pressure 2
ECU_20	MS43_FUEL_USED	Used fuel
ECU_21	MS43_ECT	Engine coolant temperature
ECU_22	MS43_OIL_T	Oil temperature
ECU_23	MS43_FUEL_T	Fuel temperature
ECU_24	MS43_AIR_T	Intake air temperature
ECU_25	MS43_EXH_T1	Exhausted temperature 1
ECU_26	MS43_EXH_T2	Exhausted temperature 2
ECU_27	MS43_GEAR_T1	Gearbox temperature
ECU_28	MS43_LAMBDA_T1	Lambda temperature 1
ECU_29	MS43_LAMBDA_T2	Lambda temperature 2
ECU_30	MS43_LAMBDA1	Lambda value 1
ECU_31	MS43_LAMBDA2	Lambda value 2
ECU_34	MS43_INJ_TIME1	Injection time 1
ECU_35	MS43_INJ_TIME2	Injection time 2
ECU_36	MS43_IGN_ANG	Ignition angle
ECU_37	MS43_GEAR	Engaged gear
ECU_38	MS43_YAW_ACC	Yaw acceleration
ECU_39	MS43_YAW	Yaw rate
ECU_40	MS43_TC_ACTIVE	Traction control active
ECU_41	MS43_ACC_X	Lateral acceleration
ECU_42	MS43_ACC_Y	Longitudinal acceleration



ECU_44	MS43_RL_AIR_CH	Relative air charge
ECU_45	MS43_LAM_SET_P	Lambda setting
ECU_46	MS43_OILP_GAUGE	Oil pressure gauge

3.2

"Bosch" "MS 4.3N Turbo (2011 GA)" protocol

Channels received by AiM devices connected to "Bosch" "MS 4.3N Turbo (2011 GA)" protocol are.

ID	CHANNEL NAME	FUNCTION
ECU_1	MS43_RPM	RPM
ECU_2	MS43_SPEED	Vehicle speed
ECU_3	MS43_WH_SPD_FL	Front left wheel speed
ECU_4	MS43_WH_SPD_FR	Front Right wheel speed
ECU_5	MS43_WH_SPD_RL	Rear left wheel speed
ECU_6	MS43_WH_SPD_RR	Rear Right wheel speed
ECU_7	MS43_TPS	Throttle position
ECU_8	MS43_MAP_BE_T1	Manifold air pressure before time 1
ECU_9	MS43_MAP_BE_T2	Manifold air pressure before time 2
ECU_10	MS43_MAP_AF_T1	Manifold air pressure after time 1
ECU_11	MS43_MAP_AF_T2	Manifold air pressure after time 2
ECU_12	MS43_BARO_PR	Barometric pressure
ECU_13	MS43_WATER_PR	Water pressure
ECU_14	MS43_CRANK_PR	Crank pressure
ECU_15	MS43_OIL_PR	Oil pressure
ECU_16	MS43_BRK_PRESS	Brake pressure
ECU_17	MS43_SWPOS_ABS	ABS switch position
ECU_18	MS43_FUEL_PR1	Fuel pressure 1
ECU_19	MS43_FUEL_PR2	Fuel pressure 2
ECU_20	MS43_FUEL_USED	Used fuel
ECU_21	MS43_ECT	Engine coolant temperature



ECU_22	MS43_OIL_T	Oil temperature
ECU_23	MS43_FUEL_T	Fuel temperature
ECU_24	MS43_AIR_T	Intake air temperature
ECU_25	MS43_EXH_T1	Exhausted temperature 1
ECU_26	MS43_EXH_T2	Exhausted temperature 2
ECU_27	MS43_GEAR_T1	Gearbox temperature
ECU_28	MS43_LAMBDA_T1	Lambda temperature 1
ECU_29	MS43_LAMBDA_T2	Lambda temperature 2
ECU_30	MS43_LAMBDA1	Lambda value 1
ECU_31	MS43_LAMBDA2	Lambda value 2
ECU_34	MS43_INJ_TIME1	Injection time 1
ECU_35	MS43_INJ_TIME2	Injection time 2
ECU_36	MS43_IGN_ANG	Ignition angle
ECU_37	MS43_GEAR	Engaged gear
ECU_38	MS43_YAW_ACC	Yaw acceleration
ECU_39	MS43_YAW	Yaw rate
ECU_40	MS43_TC_ACTIVE	Traction control active
ECU_41	MS43_ACC_X	Lateral acceleration
ECU_42	MS43_ACC_Y	Longitudinal acceleration
ECU_44	MS43_RL_AIR_CH	Relative air charge
ECU_45	MS43_LAM_SET_P	Lambda setting
ECU_46	MS43_OILP_GAUGE	Oil pressure gauge