



**AiM Infotech**

# Haltech Platinum Sprint

**Release 1.02**

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This tutorial explains how to connect Haltech Platinum Sprint 500 ECU to AIM devices.

# 1

## Haltech CAN protocol

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Haltech Platinum Sprint 500 communicates using the CAN bus.

As for Haltech CAN Broadcast Protocol, there are two versions of Haltech CAN protocol:

- V1 installed in all Haltech Platinum Sprint 500 but that will be dismissed;
- V2 installed in all Haltech Platinum Sprint 500 starting from firmware version 1.11.

We recommend to always have your ECU updated to the last firmware. Please address to Haltech for software/firmware settings and/or upgrading.

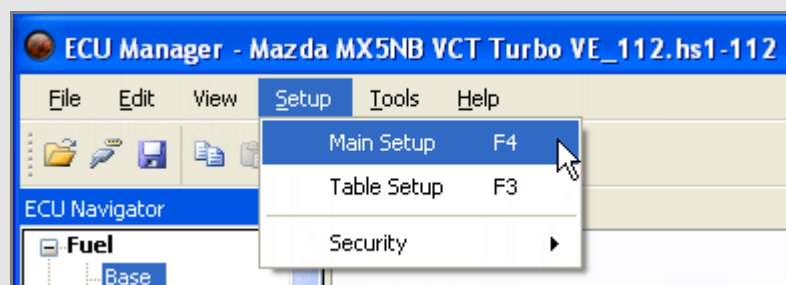
## 1.1

### CAN MODE check

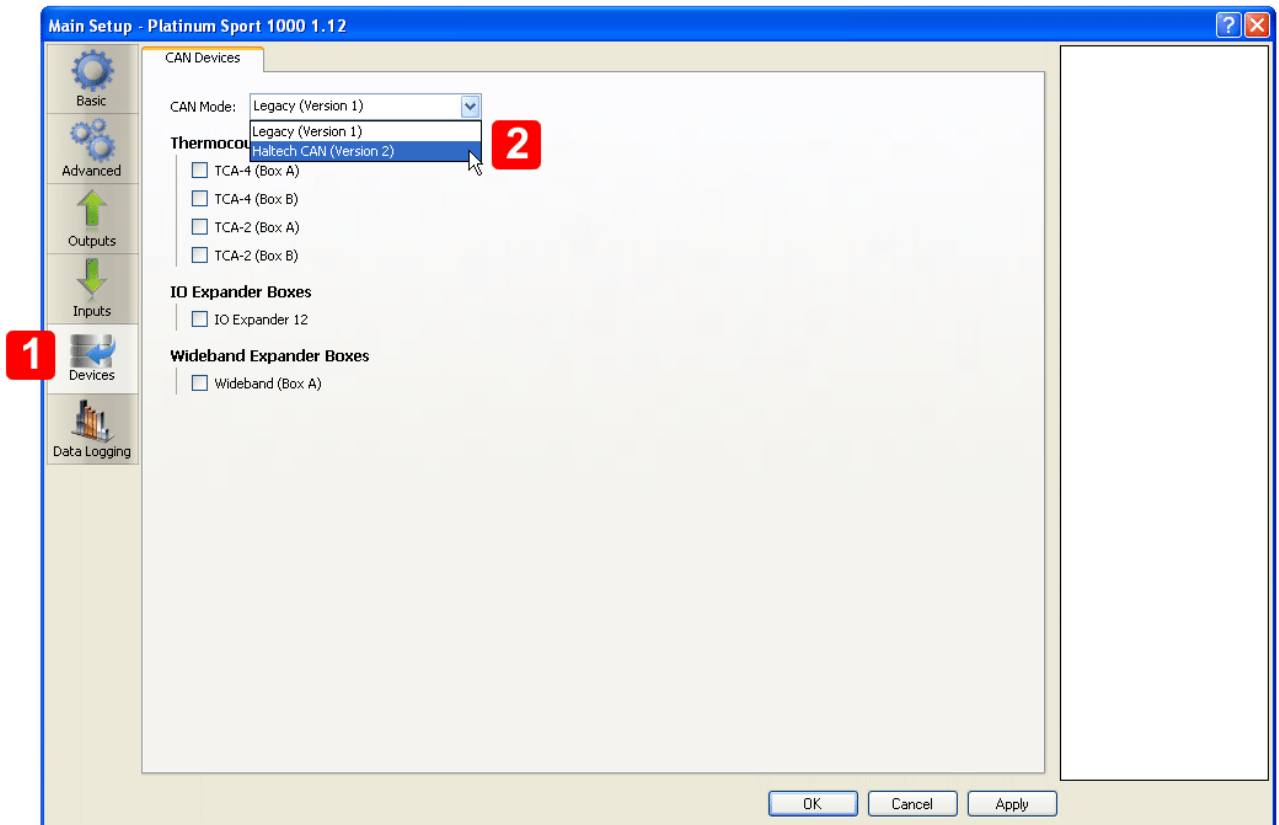
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Before attempting any communication between Haltech ECU and AiM devices ensure that your ECU has CAN export data mode enabled. Here is explained how to check/change this setting.

Open “ECU Manager” software and follow this path: “Setup →Main Setup” as shown here below.

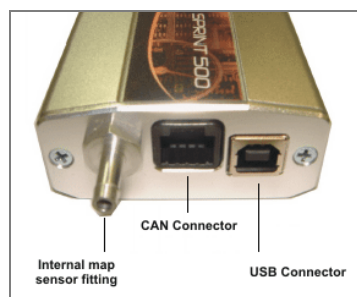


In Main Setup window select "Device" layer and set "CAN Mode" on "Haltech CAN (Version 2)" as shown here below then press "OK" and transmit the configuration to the ECU.

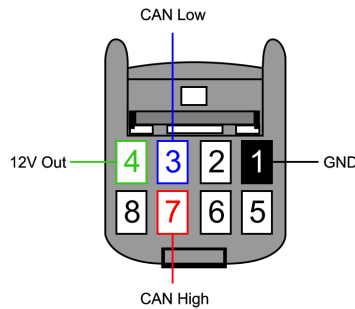


## 2 CAN Communication setup

Haltech Platinum Sprint 500 ECU has an 8 pins CAN rear central female connector shown here below. The connector is sold separately by Haltech and its part number is #HT030003. Please refer to Haltech for any other information about Haltech hardware components.



This ECU needs GND and Vbatt connection too. Please refer to your AiM device pinout to connect them. ECU CAN connector pinout and connection table are shown below.



8 pins connector pin	Pin function	AiM cable label
4	12V Out	VBatt
1	GND	GND
7	CAN High	CAN+
3	CAN Low	CAN-

### 3 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 "HALTECH"
- ECU Model:
  - "CAN" if your ECU **firmware version** is **up to 1.10**;
  - "CAN\_V2" if your ECU **firmware version** is **from 1.11 (included)** onward.

## 4

# Available channels

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Channels received by AIM devices connected to Haltech Platinum Sprint 500 changes according to the selected protocol.

## 4.1

### "Haltech" "CAN" protocol

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Channels received by AIM devices connected to "Haltech" "CAN" protocol are:

<b>ID</b>	<b>CHANNEL NAME</b>	<b>FUNCTION</b>
ECU_1	HAL_RPM	RPM
ECU_2	HAL_SPEED	Speed
ECU_3	HAL_OIL_PRESS	Oil pressure
ECU_4	HAL_OIL_TEMP	Oil temperature
ECU_5	HAL_ECT	Engine cooling temperature
ECU_6	HAL_FUEL_PRESS	Fuel pressure
ECU_7	HAL_BATT_VOLT	Battery supply
ECU_8	HAL_TPS	Throttle position sensor
ECU_9	HAL_MAP	Manifold air pressure
ECU_10	HAL_AIR_TEMP	Air temperature
ECU_11	HAL_EGT	Exhausted gas temperature
ECU_12	HAL_LAMBDA	Lambda value
ECU_13	HAL_IGN_ADV	Ignition advance
ECU_14	HAL_GEAR	Engaged gear
ECU_15	HAL_INJ_DCYLE	Injection duty cycle

## 4.2 "Haltech" "CAN\_V2" protocol

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Channels received by AIM devices connected to "Haltech" "CAN\_V2" protocol are:

<b>ID</b>	<b>CHANNEL NAME</b>	<b>FUNCTION</b>
ECU_1	H_RPM	RPM
ECU_2	H_VEH_SPEED	Vehicle speed
ECU_3	H_WHEEL_FL	Front left wheel speed
ECU_4	H_WHEEL_FR	Front right wheel speed
ECU_5	H_WHEEL_RL	Rear left wheel speed
ECU_6	H_WHEEL_RR	Rear right wheel speed
ECU_7	H_THROTTLE	Throttle position sensor
ECU_8	H_BOOST_OUTPUT	Boost output
ECU_9	H_MANIF_PR	Manifold air pressure
ECU_10	H_DECEL_CUT	Deceleration cut
ECU_11	H_FUEL_PR	Fuel pressure
ECU_12	H_OIL_PR	Oil pressure
ECU_13	H_CLUTCH	Clutch
ECU_14	H_LAMBDA1	Lambda value 1
ECU_15	H_LAMBDA2	Lambda value 2
ECU_16	H_TIMED_DUTY_1	Timed duty cycle 1
ECU_17	H_TIMED_DUTY2	Timed duty cycle 2
ECU_18	H_COOLANT_T	Engine coolant temperature
ECU_19	H_AIR_T1	Air temperature 1
ECU_20	H_FUEL_T	Fuel temperature
ECU_21	H_OIL_T	Oil temperature
ECU_22	H_GEAR	Engaged gear
ECU_23	H_EGT1	Exhaust gas temperature 1
ECU_24	H_EGT2	Exhaust gas temperature 2
ECU_25	H_EGT3	Exhaust gas temperature 3



ECU_26	H_EGT4	Exhaust gas temperature 4
ECU_27	H_EGT5	Exhaust gas temperature 5
ECU_28	H_EGT6	Exhaust gas temperature 6
ECU_29	H_EGT7	Exhaust gas temperature 7
ECU_30	H_EGT8	Exhaust gas temperature 8
ECU_31	H_TRIGGER_CNT	Trigger counter
ECU_32	H_HOME_CNT	Home counter
ECU_33	H_MISS_CNT	Missing counter
ECU_34	H_TRIGGER_LAST	Trigger last
ECU_35	H_TRASM_T	Transmission temperature
ECU_36	H_DIFF_T	Differential temperature
ECU_37	H_INJ_DUTY_1	Injection duty cycle 1
ECU_38	H_INJ_DUTY_2	Injection duty cycle 2
ECU_39	H_IGN_ANG_LE	Ignition angle lead
ECU_40	H_IGN_ANG_TR	ignition angle thyristor
ECU_41	H_IN_CAM_ANG_1	internal camshaft angle 1
ECU_42	H_IN_CAM_ANG_2	internal camshaft angle 2
ECU_43	H_EX_CAM_ANG_1	external camshaft angle 1
ECU_44	H_EX_CAM_ANG_2	external camshaft angle 2
ECU_45	H_WHEEL_SLIP	Wheel slip
ECU_46	H_FUEL_COMPOS	Fuel composition
ECU_47	H_BRAKE_PR	Brake pressure
ECU_48	H_NOS_PR	NO2 Pressure
ECU_49	H_BARO_PR	Barometric pressure
ECU_50	H_FUEL_CONSUMP	Fuel consumption
ECU_51	H_BOOST_TARGET	Boost target
ECU_52	H_AIR_T2	Air temperature 2
ECU_53	H_BATT_VOLT	Battery supply
ECU_54	H_KNOCK_RET_B1	Knock retard B1
ECU_55	H_KNOCK_LEVEL	Knock level
ECU_56	H_L_ANTILAG_ON	Left Antilag on
ECU_57	H_L_ANTILAG_SW	Left Antilag switch



ECU_58	H_REV_LIMITER	Revolution limiter (speed limiter)
ECU_59	H_R_ANTILAG_SW	Right Antilag switch
ECU_60	H_NOS_SW	NO2 switch
ECU_61	H_NOS_ACT	NO2 actual
ECU_62	H_MIL_CHK_ENG	Malfunctioning indicator lamp for engine check
ECU_63	H_TURBO_SPEED	Turbo speed
ECU_64	H_FUEL_CUT	Fuel cut
ECU_65	H_FUEL_FLOW	Fuel flow
ECU_66	H_FUEL_FLOW_R	Fuel flow return
ECU_67	H_FTRIMSHORTB1	Fuel trim short term bank 1
ECU_68	H_FTRIMSHORTB2	Fuel trim short term bank 2
ECU_69	H_FTRIMLONGB1	Fuel trim long term bank 1
ECU_70	H_FTRIMLONGB2	Fuel trim long term bank 2
ECU_71	H_GEAR_SHIFT	Engaged gear
ECU_72	H_FLAT_SHIFT	Neutral signal
ECU_73	H_BATT_CHRG	Battery supply
ECU_74	H_LIMP_MODE	LIMP mode active
ECU_75	H_AVE_FUEL_ECO	Average fuel economy