

AiM Infotech

Haltech Elite Series ECUs

Release 1.00



ECU



1

Supported models

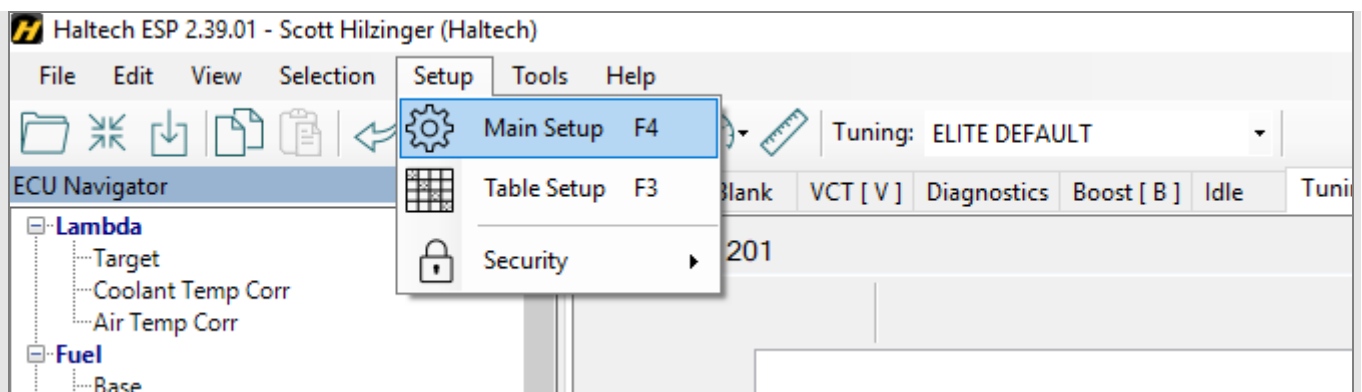
This tutorial explains how to connect Haltech Elite ECUs to AiM devices. Supported models are:

- Elite 550
- Elite 750
- Elite 950
- Elite 1000
- Elite 1500
- Elite 2000
- Elite 2500

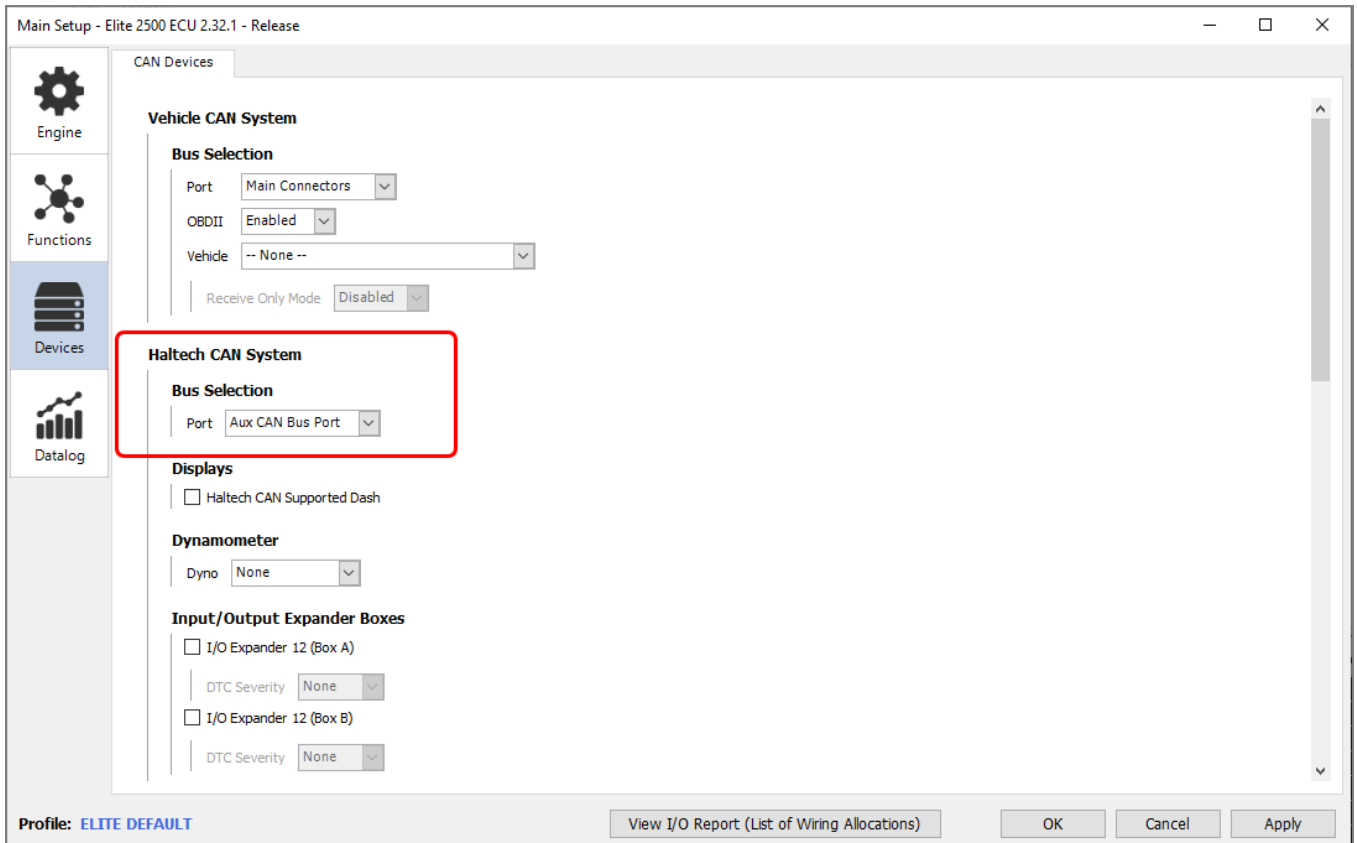
2

Software setup

Haltech 1000/1500/2000/2500 ECUs need a software setting to correctly communicate with AiM devices. Run ECU Manager software and follow this path: Setup → Main Setup



In "Main setup" panel -> select "CAN Devices" Layer -> Haltech CAN system "Bus selection" drop down menu and select "Aux CAN Bus Port" option -> press "OK".



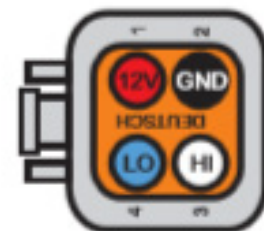
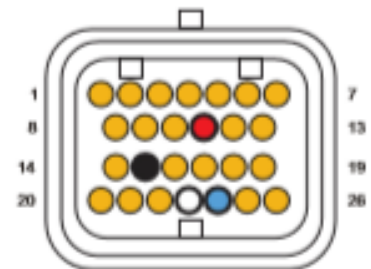
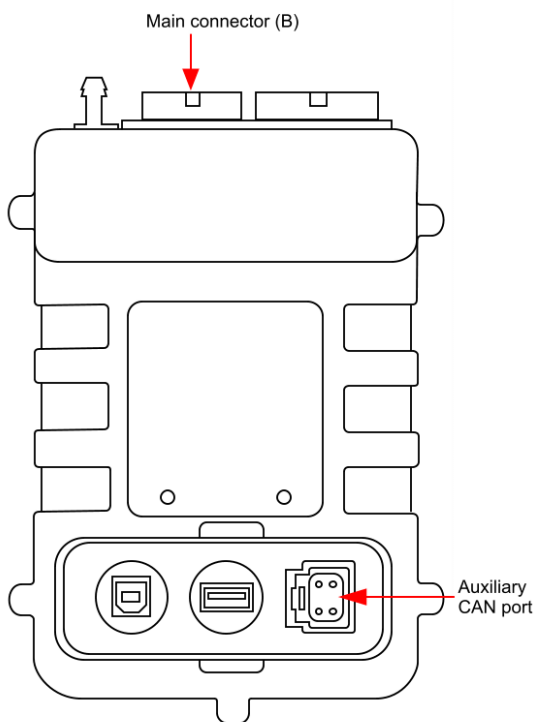
3

Wiring connection

Dual connector Haltech Elite ECU's (Elite 1000/1500/2000/2500) feature TWO CAN networks. The AIM Dash must be connected to the Bus configured as "Haltech CAN System" in the above-mentioned setup screen. The Vehicle Bus is used to communicate with the factory vehicles CAN network and cannot be used to communicate with the AIM dash.

Below you see the ECUs technical drawings and each ECU model pinout:

Haltech Elite 1000/1500/2000/2500



B connector Pin

B23

Pin function

CAN High

AiM cable label

CAN+

B24

CAN Low

CAN-

Auxiliary CAN port connector pin

3

Pin function

CAN High

AiM cable label

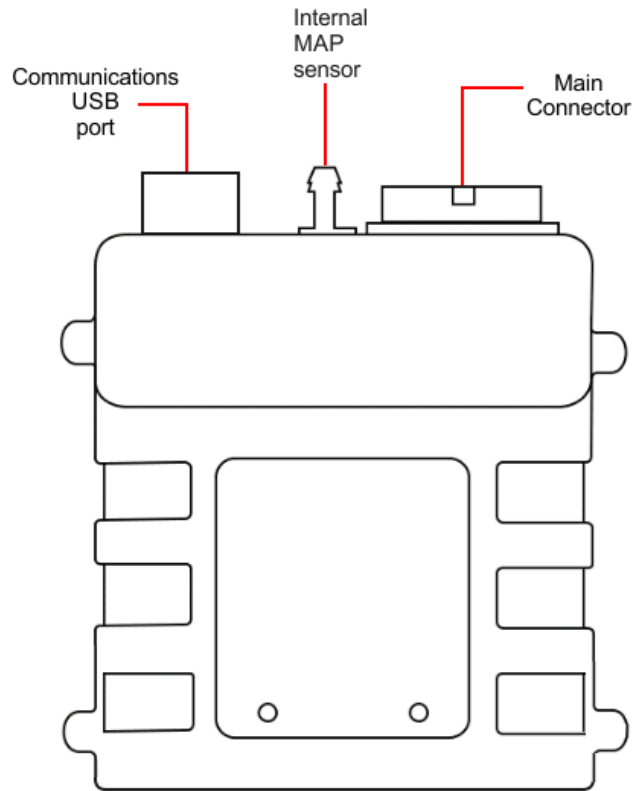
CAN+

4

CAN Low

CAN-

Haltech Elite 550/750/950



Main connector Pin

16

Pin function

CAN High

AiM cable label

CAN+

17

CAN Low

CAN-

Main harness CAN connector pin

3

Pin function

CAN High

AiM cable label

CAN+

4

CAN Low

CAN-

4

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 V2"

5

Available channels

Channels received by AiM devices connected to "Haltech – CAN V2" protocol are:

CHANNEL NAME	FUNCTION
ECU RPM	RPM
ECU ManifPress	Manifold air pressure
ECU ThrottlePos	Throttle position sensor
ECU CoolantPres	Coolant pressure
ECU FuelPress	Fuel pressure
ECU OilPress	Oil pressure
ECU EngineDeman	Engine demand
ECU WastegaPress	Wastegate pressure
ECU InjDT1	Injection duty 1
ECU InjDT2	Injection duty 2
ECU IgnAngLead	Ignition angle
ECU WheelSlip	Wheel slip
ECU WheelDiff	Wheel difference
ECU Lambda1	Lambda value 1
ECU Lambda2	Lambda value 2
ECU Lambda3	Timed duty cycle 1



ECU Lambda4	Timed duty cycle 2
ECU TrigErrCount	ECU trigger error counter
ECU TrigCount	ECU trigger counter
ECU TrigSyncLev	ECU trigger synchronisation level
ECU KnockLev1	Knock level 1
ECU KnockLev2	Knock level 2
ECU BrakePress	Brake pressure
ECU NOSPressS1	NOS pressure 1
ECU TurboSpd1	Turbo speed 1
ECU LateralG	Lateral accelerometer
ECU WheelSpdFL	Front left wheel speed
ECU WheelSpdFR	Front right wheel speed
ECU WheelSpdRL	Rear left wheel speed
ECU WheelSpdRR	Rear right wheel speed
ECU ExhCamAng1	Camshaft angle 1
ECU ExhCamAng2	Camshaft angle 2
ECU EngLimitAct	Engine limiter action
ECU LaunchIgnRet	Launch ignition retard
ECU LaunchFuEn	Launch fuel enrichment
ECU LongG	Longitudinal acceleration
ECU GenOut1DT	Injection duty cycle 1
ECU BoostCtrOut	Boost output
ECU VehSpeed	Vehicle speed
ECU Gear	Active gear
ECU IntakeCamA1	Internal camshaft angle 1
ECU IntakeCamA2	Internal camshaft angle 2
ECU FuelFlow	Fuel flow
ECU FuReturn	Fuel flow return
ECU BatteryVolt	Battery voltage
ECU TargBoostLev	Target boost level
ECU BaromPress	Barometric pressure
ECU EGTSensor1	Exhaust gas temperature 1



ECU EGTSensor2	Exhaust gas temperature 2
ECU EGTSensor3	Exhaust gas temperature 3
ECU EGTSensor4	Exhaust gas temperature 4
ECU EGTSensor5	Exhaust gas temperature 5
ECU EGTSensor6	Exhaust gas temperature 6
ECU EGTSensor7	Exhaust gas temperature 7
ECU EGTSensor8	Exhaust gas temperature 8
ECU EGTSensor9	Exhaust gas temperature 9
ECU EGTSensor10	Exhaust gas temperature 10
ECU EGTSensor11	Exhaust gas temperature 11
ECU EGTSensor12	Exhaust gas temperature 12
ECU CoolantTemp	Engine coolant temperature
ECU AirTemp	Air temperature
ECU FuelTemp	Fuel temperature
ECU OilTemp	Oil temperature
ECU GearOilTemp	Gearbox oil temperature
ECU DiffOilTemp	Differential gear oil temperature
ECU FuelCompos	Fuel composition
ECU FuelLevel	Fuel level
ECU FuelTrimSTB1	Fuel trim short term bank 1
ECU FuelTrimSTB2	Fuel trim short term bank 2
ECU FuelTrimLTB1	Fuel trim long term bank 1
ECU FuelTrimLTB2	Fuel trim long term bank 2
ECU GearSwitch	Gear switch
ECU DecelCutAct	Deceleration cut active
ECU TPSAct	Throttle position sensor active
ECU BrakePedSw	Brake pedal switch
ECU ClutchSw	Clutch switch
ECU TorqueRedAct	Torque reduction active
ECU FlatShSw	Flat shift switch
ECU AuxRPMLimSw	Auxiliary RPM limiter switch
ECU AntilagACT	Antilag active



ECU BatteryLtSw	Active battery light switch
ECU CheckEngLtSw	Check engine light switch
ECU IgnitionSw	Ignition switch
ECU TurboTimer	Turbo timer
ECU TurboTimerEng	Turbo time engaged
ECU SteerWheelAng	Wteering wheel angle
ECU DriveshaRPM	Driveshaft RPM
ECU NOSPressS2	NOS pressure 2
ECU NOSPressS3	NOS pressure 3
ECU NOSPressS4	NOS pressure 4
ECU TurboSpdS2	Turbo speed
ECU GenericSen1	Generic sensor input 1
ECU GenericSen2	Generic sensor input 2
ECU GenericSen3	Generic sensor input 3
ECU GenericSen4	Generic sensor input 4
ECU GenericSen5	Generic sensor input 5
ECU GenericSen6	Generic sensor input 6
ECU GenericSen7	Generic sensor input 7
ECU GenericSen8	Generic sensor input 8
ECU GenericSen9	Generic sensor input 9
ECU GenericSen10	Generic sensor input 10
ECU TargLambda	Lambda value target
ECU NitroStOutSt	Nitrous Stage 1 Output State; Contains the following status messages:
= 1 Av3E9_60	-
= 2 AvE3E9_61	-
Av3E9 7	-
ECU GearbOilPress	Gearbox oil pressure
ECU InjectionDT3	Injection duty 3
ECU InjectionDT4	Injection duty 4
ECU CrankCPress	Crank pressure
ECU RaceTimer	Race time
ECU IgnitionAng1	Ignition angle 1



ECU IgnitionAng2	Ignition angle 2
ECU TorqDrvsRPMT	Torque Management Driveshaft RPM Target
ECU TorqDrvsRPME	Torque Management Driveshaft RPM Target Error
ECU TorqDrRPMEI	Torque Management Driveshaft RPM Target Error Ignition Correction correction
ECU TorqDrRPMIC	Torque Management Driveshaft RPM Timed Ignition Correction
ECU TorqClgnCorr	Torque Management Combined Ignition Correction