

AiM InfoTech

HALTECH Elite Series ECUs

Release 1.01



ECU



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Supported models

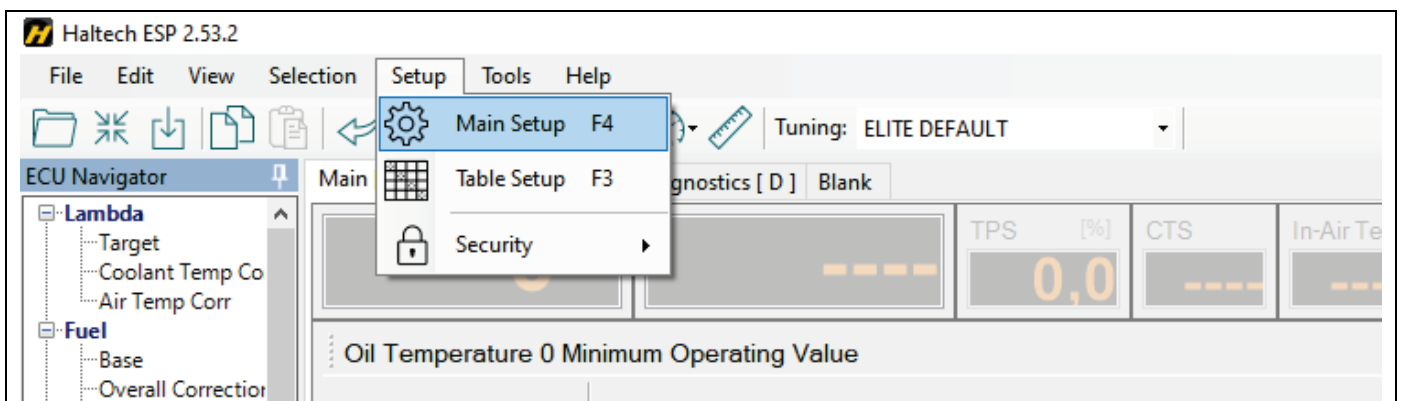
This tutorial explains how to connect Haltech Elite ECUs to AiM devices. Supported models are:

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

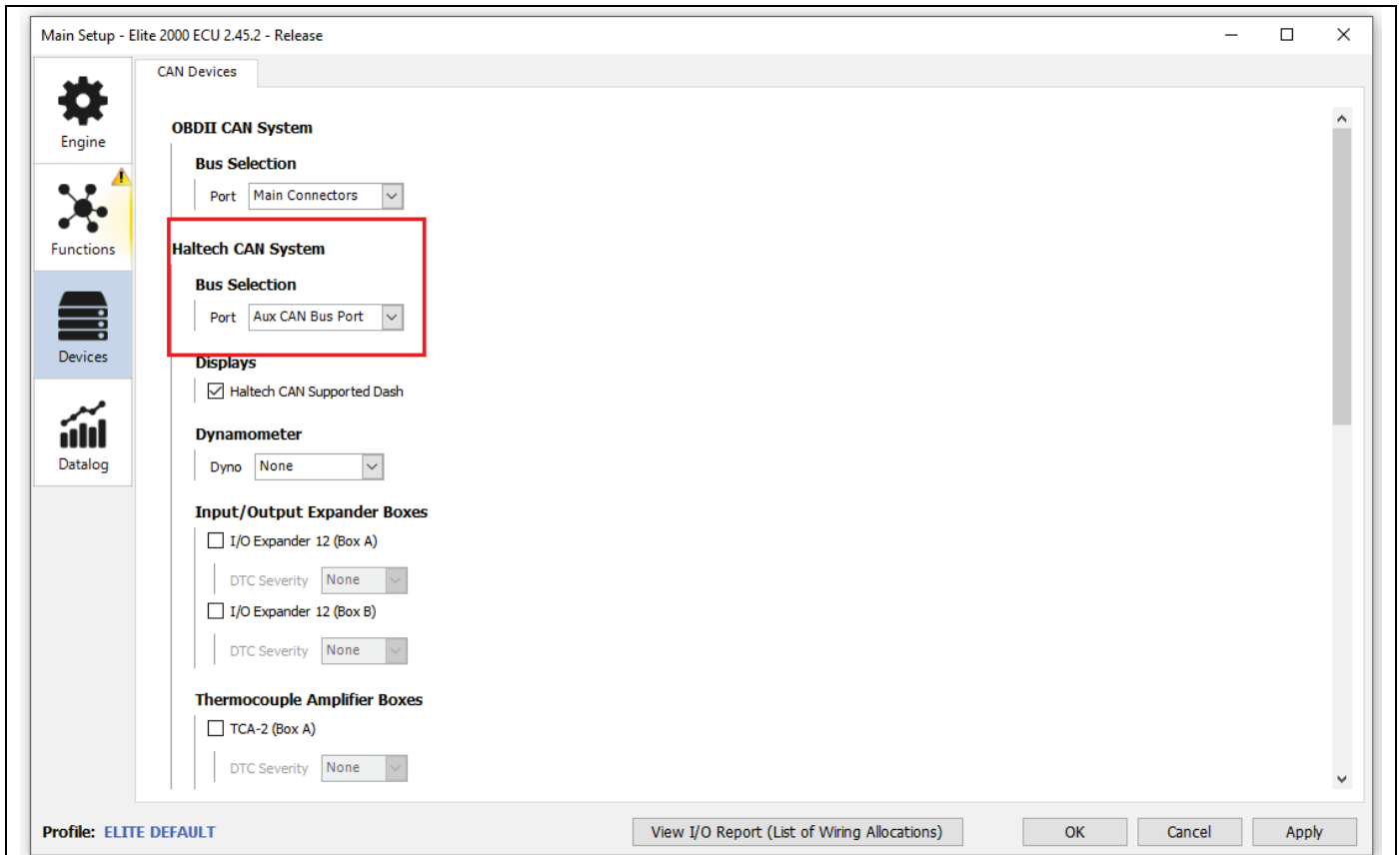
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Software setup

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".

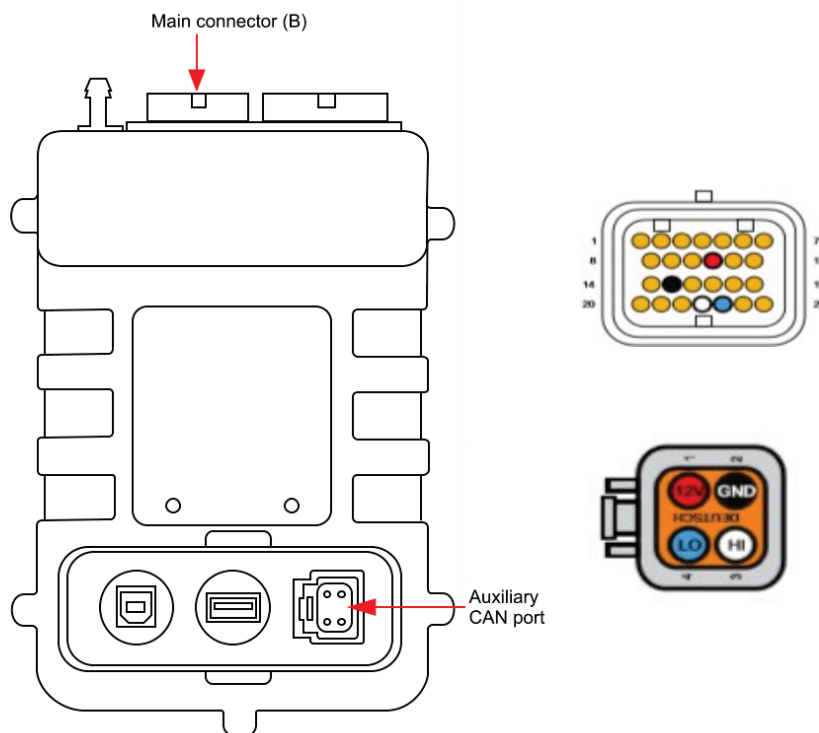


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Wiring connection

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:



B connector Pin

B23

Pin function

CAN High

AiM cable

CAN+

AiM color cable

White

B24

CAN Low

CAN-

Blu

Aux CAN port connectorpin

Pin function

AiM cable

AiM color cable

3

CAN High

CAN+

White

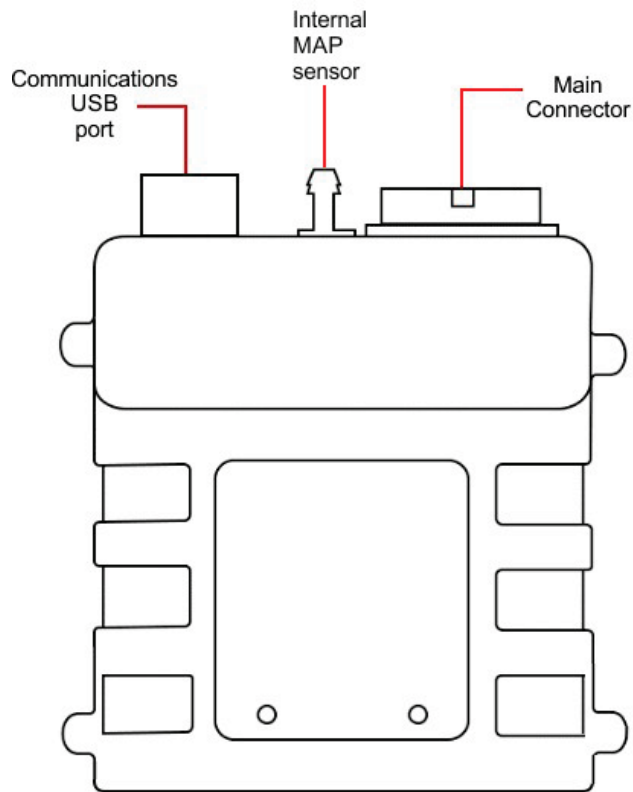
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CAN Low

CAN-

Blu

Haltech Elite 550/750/950



Main connector Pin	Pin function	AiM cable	AiM cable color
16	CAN High	CAN+	White
17	CAN Low	CAN-	Blu
Main harness CAN connectorpin	Pin function	AiM cable	AiM cable color
3	CAN High	CAN+	White
4	CAN Low	CAN-	Blu

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Race Studio configuration

Before connecting the AiM device to the ECU, set all functions using AiM software Race Studio. The parameters to set in the device configuration are:

- ECU manufacturer: **HALTECH**
- ECU Model: **CAN V2**
CAN_V2_40 if your ECU **FW version is from 2.40.0** (RS3 Only)

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"HALTECH – CAN V2 and CAN_V2_40" protocol

Channels received by AiM devices configured with "HALTECH – CAN V2 and CAN_V2_40" protocol are:

Note please: ticked (✓) channels in the third column are only available with CAN_V2_40 protocol

ECU CHANNE	FUNCTION	CAN_V2_40
ECU RPM	Engine RPM	
ECU WIDEBAND B1	Wideband bank 1	✓
ECU WIDEBAND B2	Wideband bank 2	✓
ECU Gear Sel Pos	Gear selector position	✓
ECU WIDEBAND S12	Wideband sensor 12	✓
ECU WIDEBAND S10	Wideband sensor 10	✓
ECU WIDEBAND S9	Wideband sensor 9	✓
ECU WIDEBAND S7	Wideband sensor 7	✓
ECU WIDEBAND S5	Wideband sensor 5	✓
ECU WIDEBAND S8	Wideband sensor 8	✓
ECU WIDEBAND S6	Wideband sensor 6	✓
ECU FUEL TRIPMT	Fuel trip meter	✓
ECU PLIGHT STATE	Park light state	✓



ECU HEAD LIGHT S	Head light state	✓
ECU HBEAM L STAT	High beam light state	✓
ECU LEFT IND STA	Left indicator state	✓
ECU RIGHT IN ST	Right indicator state	✓
ECU FT RACC PRES	Front tyre recommended pressure	✓
ECU RT RACC PRES	Rear tyre recommended pressure	✓
ECU FLTA LEAKDC	Front left tyre air leak detected	✓
ECU FRTA LEAKDC	Front right tyre air leak detected	✓
ECU RLTA LEAKDC	Rear left tyre air leak detected	✓
ECU RRTA LEAKDC	Rear right tyre air leak detected	✓
ECU FLTS BATTVOL	Front left tyre sensor battery voltage	✓
ECU FRTS BATTVOL	Front right tyre sensor battery voltage	✓
ECU RLTS BATTVOL	Rear left tyre sensor battery voltage	✓
ECU Gear 2	Gear 2	
ECU ABS ERROR	ABS error	✓
ECU ABS ACTIVE	ABS active	✓
ECU CUT PERC	Cut percentage	✓
ECU RRTS BATTVOL	Rear right tyre sensor battery voltage	✓
ECU RERIGH TY TM	Rear right tyre temperature	✓
ECU REARLF TY TM	Rear left tyre temperature	✓
ECU FRRIGH TY TM	Front right tyre temperature	✓
ECU FRLEF TYR TM	Front left tyre temperature	✓
ECU FRONT LEFT PR	Front left tyre pressure	✓
ECU FRNT RIGHT PR	Front right tyre pressure	✓
ECU LEFT REAR PR	Rear left tyre pressure	✓
ECU ABS ARMED	ABS armed	✓
ECU WIDEBAND OVE	Wideband overall	✓
ECU RIGHT REAR PR	Rear right tyre pressure	✓
ECU CUT PERC F	Cut percentage function	✓
ECU ENG LIM METH	Engine limiter method	✓
ECU RPM LIM METH	RPM limiter method	✓
ECU EN LIM F	Engine limiter function	✓



ECU RPM LIM F	RPM limiter function	✓
ECU ENG LIM MAX	Engine limiter MAX RPM	✓
ECU BRAKE P FRON	Front brake pressure	✓
ECU BRAKE P REAR	Rear brake pressure	✓
ECU PRESS DIFF	Brake pressure difference	✓
ECU BRAKEPRREAR	Rear brake ratio pressure	✓
ECU AUX2FUELPUMP	Auxiliary fuel pump 2	✓
ECU PRFUELPUMP	Primary fuel pump	✓
ECU AUX1FUEL PDC	Auxiliary fuel pump 1 duty cycle	✓
ECU AUX3FUELPUMP	Auxiliary fuel pump 3	✓
ECU VERTICAL G	Vertical acceleration	✓
ECU PITCH RATE	Pitch rate	✓
ECU ROLL RATE	Roll rate	✓
ECU YAW RATE	Yaw rate	✓
ECU AXFUEL P3	Auxiliary fuel pump 3	✓
ECU ANTISWITCHST	Antilag switch state	✓
ECU ANTILAG O ST	Antilag output state	✓
ECU TCTRL SWITCH	Traction control switch	✓
ECU PRMFUEL OUT	Primary fuel pump output state	✓
ECU AUXFUEL P1	Auxiliary fuel pump 1	✓
ECU AUXFUEL P2	Auxiliary fuel pump 2	✓
ECU NITROUSEN1S	Nitrous enable 1 switch state	✓
ECU NITROUSEN1OU	Nitrous enable 1 output state	✓
ECU NITROUSEN2S	Nitrous enable 2 switch state	✓
ECU NITROUSE2O	Nitrous enable 2 output state	✓
ECU NITROUSE3S	Nitrous enable 3 switch state	✓
ECU NITROUSE3O	Nitrous stage 3 output state	✓
ECU NITROUSE4S	Nitrous stage 4 switch state	✓
ECU NITROUSE4O	Nitrous stage 4 output state	✓
ECU NITROV1S	Nitrous override switch state 1	✓
ECU THERM FAN 3O	Thermo fan 3 output	✓
ECU TRAC CT LIGH	Traction light control	✓



ECU THERM FAN 4O	Thermo fan 4 output	✓
ECU AIR CTRL OUT	Air control output	✓
ECU AIR CTRL REQ	Air control request	✓
ECU ROTTRIM POT1	Rotary trim potentiometer 1	✓
ECU THERM FAN 2O	Thermo fan 2 output	✓
ECU THERM FAN 1O	Thermo fan 1 output	✓
ECU ROTTRIM POT2	Rotary trim potentiometer 2	✓
ECU ROTTRIM POT3	Rotary trim potentiometer 3	✓
ECU NITROV1O	Nitrous override output state 1	✓
ECU NITROV2S	Nitrous override switch state 2	✓
ECU WIDEBAND S11	Wideband sensor 11	✓
ECU NITROV2O	Nitrous override output state 2	✓
ECU NITROV3S	Nitrous override switch state 3	✓
ECU NITROV3O	Nitrous override output state 3	✓
ECU NITROV4S	Nitrous override switch state 4	✓
ECU NITROV4O	Nitrous override output state 4	✓
ECU WATINJSS EN	Water injection advanced enable switch state	✓
ECU WATINJOS EN	Water injection advanced enable override output state	✓
ECU WAT INJSS OV	Water injection advanced enable override switch state	✓
ECU WATINJ OVOS	Water injection advanced enable override output state	✓
ECU CUT PERC MTH	Cut percentage method	✓
ECU TOT FUEL USD	Total fuel used	✓
ECU ROLLANTISWIC	Rolling Antilag switch state	✓
ECU CRUI CTRL IN	Cruise control input	✓
ECU Gear	Engaged gear	✓
ECU VehSpeed	Vehicle speed	
ECU WheelSpdFR	Front left right speed	
ECU WheelSpdRL	Rear left wheel speed	
ECU WheelSpdRR	Rear right wheel speed	
ECU WheelSpdFL	Front left wheel speed	
ECU LongG	Longitudinal acceleration	
ECU LateralG	Lateral acceleration	



ECU TurboSpd1	Turbo speed sensor 1
ECU DriveshaRPM	Drive shaft RPM
ECU DriveshaRPMT	Drive shaft RPM Target
ECU TorqDrvsRPME	Torque management driveshaft RPM target error
ECU TurboSpdS2	Turbo speed sensor 2
ECU CoolantTemp	Engine coolant temperature
ECU EGTSensor7	Exhaust gas sensor 7
ECU EGTSensor1	Exhaust gas sensor 1
ECU EGTSensor2	Exhaust gas sensor 2
ECU EGTSensor3	Exhaust gas sensor 3
ECU EGTSensor4	Exhaust gas sensor 4
ECU EGTSensor5	Exhaust gas sensor 5
ECU EGTSensor6	Exhaust gas sensor 6
ECU EGTSensor8	Exhaust gas sensor 8
ECU EGTSensor9	Exhaust gas sensor 9
ECU EGTSensor10	Exhaust gas sensor 10
ECU EGTSensor11	Exhaust gas sensor 11
ECU EGTSensor12	Exhaust gas sensor 12
ECU AirTemp	Air temperature
ECU OilTemp	Oil temperature
ECU Amb Air T	Ambient air temperature
ECU FuelTemp	Fuel temperature
ECU DiffOilTemp	Differential oil temperature
ECU GearOilTemp	Gear oil temperature
ECU OilPress	Oil pressure
ECU BrakePress	Brake pressure
ECU FuelPress	Fuel pressure
ECU WastegaPress	Waste gate pressure
ECU CrankCPress	Crank case pressure
ECU GearbOilPress	Gearbox oil pressure
ECU NOSPress S4	NO2 pressure sensor 4
ECU NOSPress S1	NO2 pressure sensor 1



ECU BaromPress	Barometric pressure
ECU NOSPress S3	NO2 pressure sensor 3
ECU NOSPress S2	NO2 pressure sensor 2
ECU TargBoostLev	Target boost level
ECU ManifPress	Manifold air pressure
ECU CoolantPres	Coolant pressure
ECU Inj Pres D	Injection pressure duty cycle
ECU TorqDrRPMEl	Torque management driveshaft RPM target error ignition correction
ECU ExhCamAng1	Exhaust camshaft angle 1
ECU TorqDrRPMIC	Torque management driveshaft RPM timed ignition correction
ECU IgnAngLead	Ignition angle lead
ECU IntakeCamA1	Inlet camshaft angle 1
ECU IntakeCamA2	Inlet camshaft angle 2
ECU ExhCamAng2	Exhaust camshaft angle 2
ECU SteerWheelAn	Steering wheel angle
ECU LaunchIgnRet	Launch ignition retard
ECU IgnitionAng1	Ignition angle bank1
ECU TorqClgnCorr	Torque management combined ignition correction
ECU IgnitionAng2	Ignition angle bank 2
ECU ThrottlePos	Throttle position sensor
ECU InjDT2	Injection duty cycle 2
ECU LaunchFuEn	Launch control fuel enrich
ECU GenOut1DT	Generic output 1 duty cycle
ECU BoostCtrOut	Boost control output
ECU Rel Humidity	Relative humidity
ECU InjectionDT3	Injection duty cycle 3
ECU FuelCompos	Fuel composition
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 InjectionDT4	Injection duty cycle 4



ECU EngineDeman	Engine demand
ECU InjDT1	Injection duty cycle 1
ECU Acc Ped Pos	Pedal position sensor
ECU Race Timer	Race Timer
ECU TurboTimer	Turbo timer
ECU TurboTimerEng	Engine turbo timer
ECU BatteryVolt	Battery voltage
ECU FuelLevel	Fuel level
ECU FuelFlow	Fuel flow
ECU FuReturn	Fuel flow return
ECU Lambda4	Lambda value 4
ECU Lambda3	Lambda value 3
ECU Lambda2	Lambda value 2
ECU Lambda1	Lambda value 1
ECU WheelSlip	Wheel slip
ECU WheelDiff	Wheel differential
ECU Cru Last T S	Cruise last time speed
ECU Cruise Trg S	Cruise target speed
ECU Crui Spd Err	Cruise speed error
ECU CheckEngLtSw	Check engine light switch
ECU Neutral SW	Neutral switch
ECU Reverse SW	Reverse switch
ECU Oil Press Li	Oil pressure limp mode
ECU Laun Ctrl Sw	Launch control switch
ECU TC Ctrl EN	Traction control
ECU IgnitionSw	Ignition switch
ECU KnockLev2	Knock level 2
ECU KnockLev1	Knock level 1
ECU GenericSen1	Generic sensor 1
ECU GenericSen2	Generic sensor 2
ECU GenericSen3	Generic sensor 3
ECU GenericSen4	Generic sensor 4



ECU GenericSen5	Generic sensor 5
ECU GenericSen6	Generic sensor 6
ECU GenericSen7	Generic sensor 7
ECU GenericSen8	Generic sensor 8
ECU GenericSen9	Generic sensor 9
ECU GenericSen10	Generic sensor 10
ECU TargLambda	Lambda target
ECU Torque Man K	Torque management Knob
ECU trigSyncLev	Trig sync level
ECU Abs Humidity	Absolute Humidity
ECU trigErrCount	Trig error counter
ECU LaunchCtrAct	Launch control active
ECU AuxRPMLimSw	Auxiliary RPM limiter switch
ECU ClutchSw	Clutch switch
ECU TorqueRedAct	Torque reduction active
ECU TrigCount	Trig counter
ECU FlatShSw	Flat shift switch
ECU Spec Humi	Specific humidity
ECU TC Ctr Act	Traction control active
ECU BrakePedSw	Brake pedal switch
ECU BatteryLtSw	Battery lights switch active
ECU Cruise Ctr S	Cruise control switch
ECU GearSwitch	Gear switch
ECU EngLimitAct	Engine limiting active
ECU NitroStOutSt	Nitro stage output state
ECU DecelCutActi	Deceleration cut active
ECU TPSAct	Transient throttle active

Technical note: not all data channels outlined in the ECU template are validated for each manufacturer's model or variant; some of the outlined channels are model and year specific, and therefore may not be applicable.