

AiM User Guide

Kit Solo 2 DL for Vortex X10 ECU

Release 1.01



Supported models

This user guide explains how to connect Vortex X10 ECU to AiM Solo 2 DL.
Supported models are:

- Vortex X10

2

Installation note

To install Solo 2 DL on your bike you can use a bar pad. AiM provides the two optional bar pads shown below:

- bar pad for handle bar with cross brace – part number:**X47KPSOLO2T20** image on the left;
- bar pad for handle bar without cross brace – part number:**X47KPSOLO2T10** image on the right.

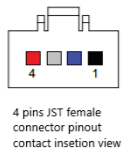
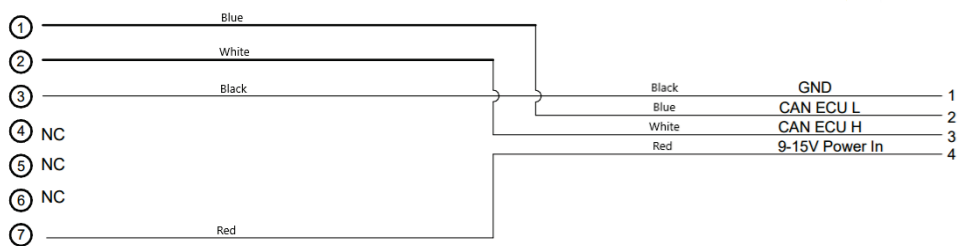
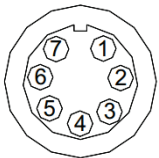




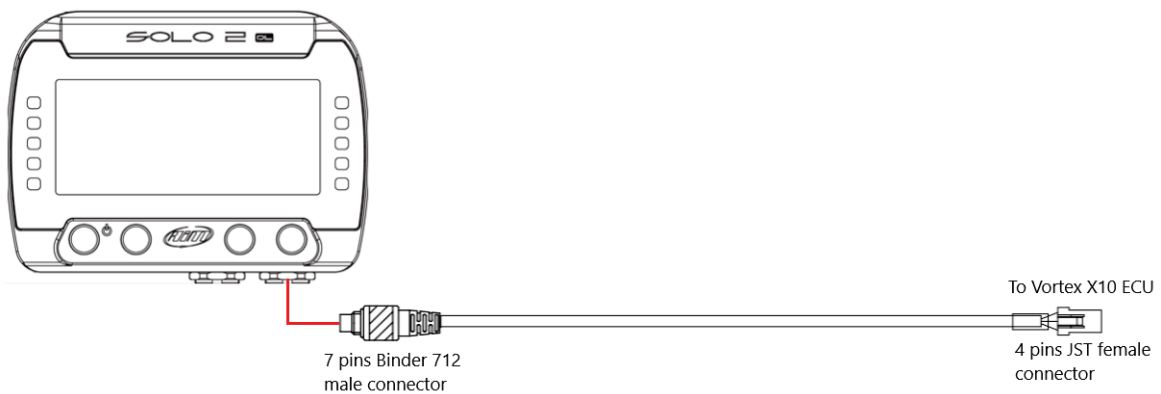
Vortex X10 ECU can be connected to Solo 2 DL using an interface cable shown here below.
Its part number is: **V02589150**.



7 pins Binder 712 male connector pinout solder termination view



Vortex X10 has a connector used to communicate and transmit data to an external device, the connector is highlighted below.



3

Race Studio 3 configuration

Before connecting the Solo 2 DL to the ECU, set all functions using AiM software Race Studio 3. The parameters to set in the device configuration are:

- ECU manufacturer: **VORTEX**
- ECU Model: **X10 ECU**

4

“VORTEX – X10 ECU” protocol

Channels received by Solo 2 DL configured with “VORTEX – X10 ECU” protocol are:

CHANNEL NAME	FUNCTION
RPM	Engine RPM
TPS	Throttle position sensor
IgnAngle	Ignition angle
InjTime	Injection time
MapSel	Map selection switch
LowFuelTrimSW	Low fuel trim switch
MidFuelTrimSW	Middle fuel trim switch
HighFuelTrimSW	High fuel trim switch
TPSRate	Throttle position rate
MAP	Manifold air pressure
AnalogIn1	Analog 1
AnalogIn2	Analog 2
AnalogIn3	Analog 3
AnalogIn4	Analog 4
AnalogIn5	Analog 5
AnalogIn6	Analog 6
VIgn	Voltage ignition
BaroP	Barometric pressure
IntFuelTrim	Intake air pressure fuel trim
EctFuelTrim	Engine coolant temperature fuel trim
BaroFuelTrim	Barometric pressure fuel trim
AccFuelTrim	Acceleration fuel trim
IAT	Intake air pressure
ECT	Engine coolant temperature
Fault	Fault code



InjDuty1	Injection duty cycle
DigIn1	Digital input 1
DigIn2	Digital input 2
DigIn3	Digital input 3
DigIn4	Digital input 4
DigOut1	Digital output 1
DigOu2	Digital output 2
DigOu2 01	Digital output 02 01
DigOu4	Digital output 04
InjEndAmgle	Injection end angle
FirstInjTrim	First injection trim
EngineKill	Engine killing
FloodClear	Flood clearance
OutInj	Output injection
OutInjDt	Output injection duty cycle
OutInjEndAngle	Output injection end angle
InOutInjSplit	Input/Output injection split
TotInjTime	Total injection time
Gear	Engaged gear
ActiveMap	Active MAP
FreeRevState	Free revolution state

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