SETUP GUIDE

MSD Atomic TBI Kit to CD Dash
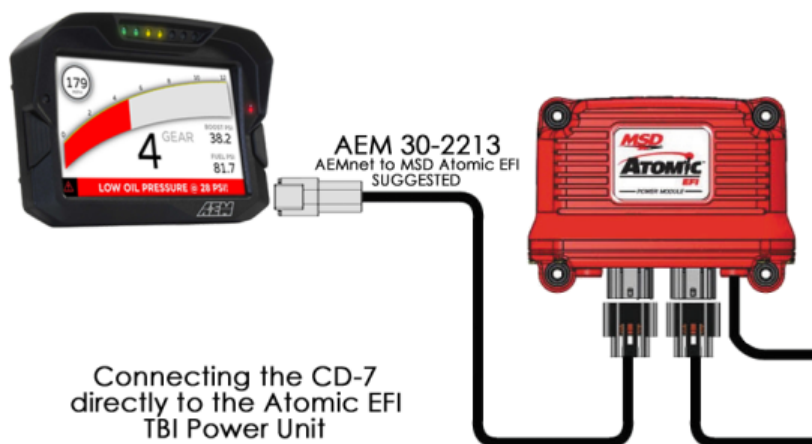
Supported Devices

MSD Atomic TBI Kit

CAN Bus Wiring

Wiring Method 1: The simplest method of connecting the CD Dash to the Atomic TBI system is to use the AEM to Atomic TBI adapter harness (AEM P/N: 30-2213). Doing this enables the CD Dash to be driven directly off the Atomic system and is a simple plug & play installation.
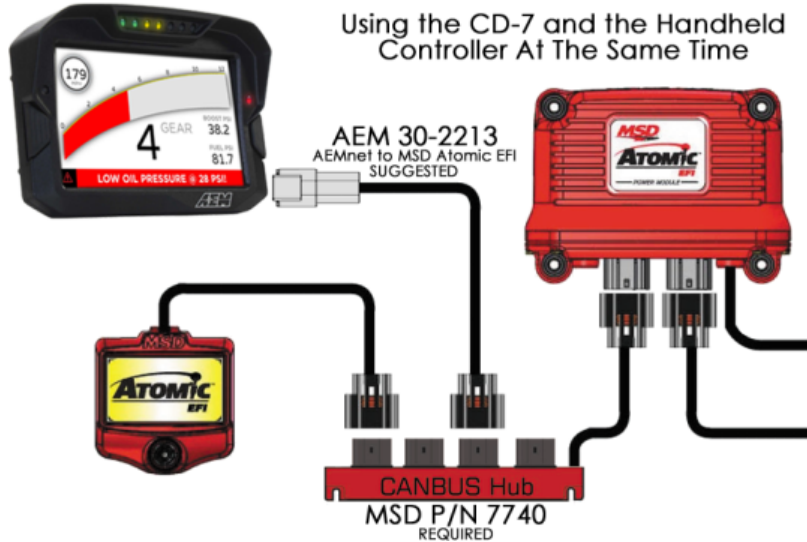
Configuration 1:

In this configuration, the adapter harness and the CD dash replace the Handheld Controller plugin at the power module. The CD Dash displays all the data the Handheld Controller can but it does not edit or write to the EFI. In

cases where this is needed, you unplug the CD Dash and plug in the Handheld Controller to make whatever changes are needed.

Configuration 2:

In this configuration connect both the CD Dash and the MSD Handheld Controller to the Atomic EFI's CAN bus at the same time, then you will need an MSD 4-Connector CAN-Bus Hub (MSD PN 7740).

Wiring Method 2: It is possible to wire in the CD Dash without purchasing an PnP adapters or CANBUS hubs.

AEM CD has 2 separate CAN ports. For 3rd party devices, AEM recommends you use AEM CAN Bus 2, whose connections are contained in a 2 pin Deutsch DTM connector. On older harnesses it may be in an unterminated, twisted/shielded flying lead in the dash harness.

Atomic EFI TBI Power Module

Pin	Function	Wire
1	CAN HI	Small Red
2	Shield Termination	Brown
3	Ground	Large Black
4	CAN LO	Small Black
5	EFI Power	Large RED
6	---	---
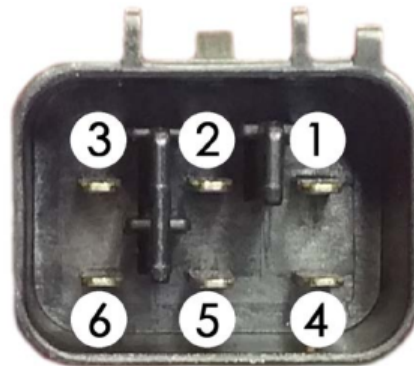
Atomic CAN HI (Pin 1) → AEM CD Dash "CAN 2" 2 Pin DTM Pin 1 (Gray wire in twisted/shielded pair)
Atomic CAN LO (Pin 4) → AEM CD Dash "CAN 2" 2 Pin DTM Pin 2 (Black wire in twisted/shielded pair)

Terminating Resistors:
Both the MSD Atomic Power Module and the MSD Handheld Controller have termination resistors built in to the devices. The CD Dash has a software selectable termination resistor available. If you are using the MSD CANBUS Hub and the MSD Handheld controller, you do no need to turn on any other termination resistors. If you are hooking the CD Dash directly up to the MSD Power Module then you need to activate the termination resistor in the CD Dash.

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ECU Software Setup

No software setup is required with the Atomic EFI, it broadcasts the CAN channels continuously.

Supported Channels

The MSD Atomic TBI system transmits 31 unique channels to the CD Dash.

CH	Channel Name
1	Engine Speed (RPM)
2	Throttle Pos (%)
3	A/F Ratio
4	Ignition Timing (deg)
5	Coolant Temp (F)
6	Air Temp (F)
7	Manifold Air Press (in-Hg)
8	Fuel Press (psi)
9	Battery Voltage (V)
10	Fuel Inj Duty (%)

CH	Channel Name
11	Idle Control Position
12	MIL Count
13	Coolant Fan 1 (On/Off)
14	Coolant Fan 2 (On/Off)
15	Nitrous Output (On/Off)
16	Rev Limiter (On/Off)
17	Fuel Decel Cut State (On/Off)
18	Idle Control Status (On/Off)
19	Fuel Flood Clear Status (On/Off)
20	Throttle WOT Status (On/Off)

| CH	Channel Name
21	Throttle Partial Status (On/Off)
22	Throttle Closed Status (On/Off)
23	AFR Block Learn (Learning/Off)
24	AFR Control (Open/closed loop)
25	Throttle Pos Error (Historical Error/Current Error/OK)
26	Manifold Air Press Error (Historical Error/Current Error/OK)
27	Air Temp Error (Historical Error/Current Error/OK)
28	Coolant Temp Error (Historical Error/Current Error/OK)
29	Battery Volts Error (Historical Error/Current Error/OK)
30	Fuel Press Error (Historical Error/Current Error/OK)
31	AFR Sensor Status (No Sensor/Warming Up/OK)

Layout Overview & CAN Setup

You can either start with a new dash layout by selecting "File" then "New" in DashDesign or you can select from a pre-designed layout that has screens already designed and inserted but has the CAN inputs left blank. These are chosen by selecting "File" then "Open" and selecting one of the setups titled xzyblank.aemcd7 with the xyz representing a description of the layouts contained in the file.

To import the CAN setup you select SETUP then DISPLAY from the main DashDisplay menu. Once the dialog box opens you select the "CAN Receive" tab.

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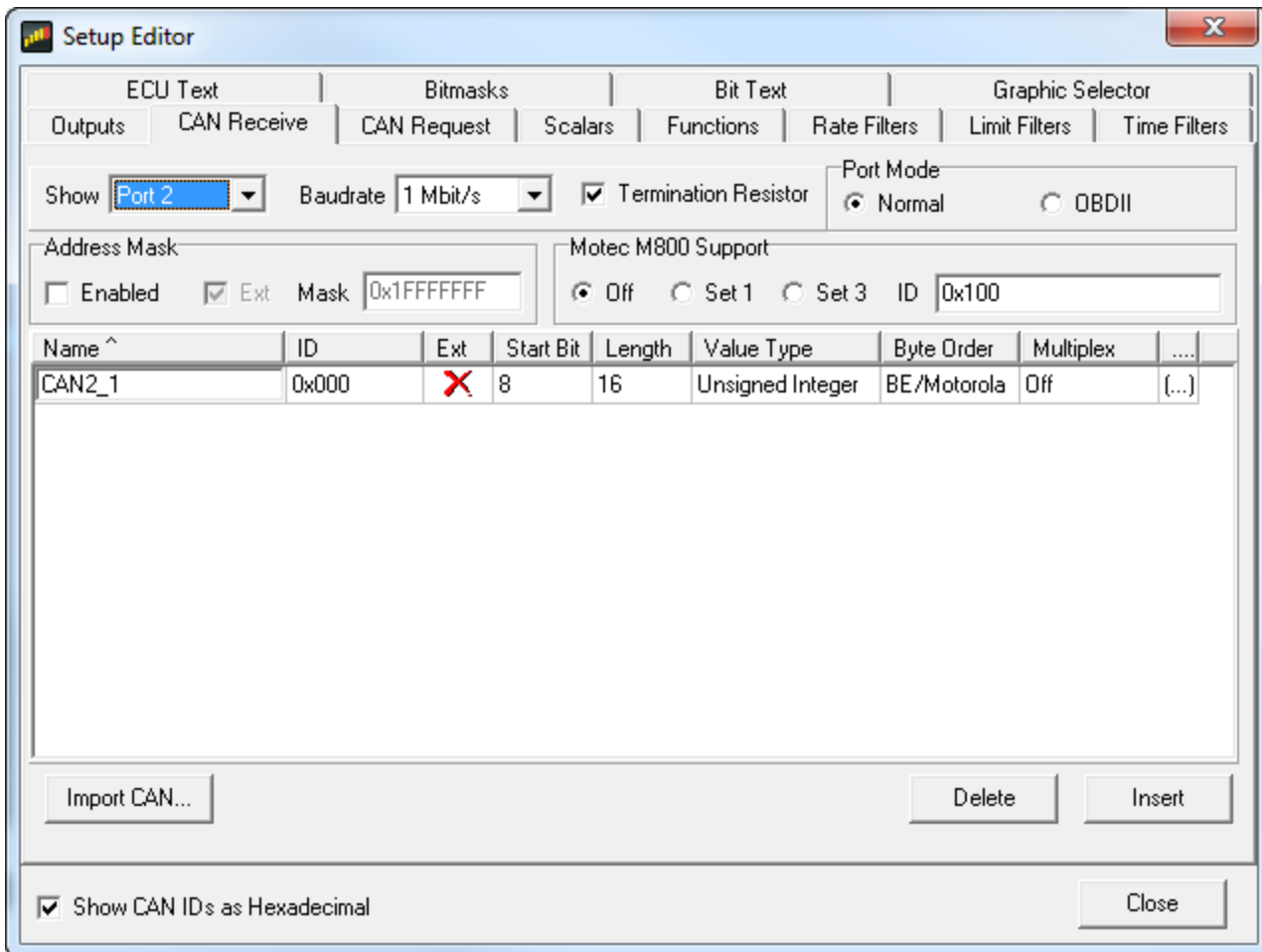
Change the settings to the following:
Show: "Port 2"
Baudrate: 1 Mbit/s
Termination Resistor: **"Unchecked"** if using the CANBUS Hub and Handheld Controller
"Checked" if you are connecting to CD Dash directly to the Power Module
Address Mask: "OFF"
M800 Support: "OFF"

Then click on "Import CAN" on the lower left and select the can setup file. The new items will appear in the Outputs tab. They can now be viewed on the display or logged. You can rename, filter, or manipulate any of these channels to make them more useful.