

SETUP GUIDE



Racegrade Keypads to AEM CD Dash

Supported Devices

Keypad 8
Keypad 15

CAN Bus Wiring

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.

Keypad 8 & 15

CAN High (Pin 3) → AEM CD Dash "CAN 2" 2 Pin DTM Pin 1 (Gray wire in twisted/shielded pair)
CAN Low (Pin 4) → AEM CD Dash "CAN 2" 2 Pin DTM Pin 2 (Black wire in twisted/shielded pair)

Terminating Resistors:

The keypads do not have internal terminating resistors. Follow your manufacturer's instructions to determine if you need a terminating resistor at the ECU.

Keypad Software Setup

It is assumed that the keypad is configured with the default base address

Node ID = 0x0A
KeyPress ID = 0x506
LED's ID = 0x507
Brightness ID = 0x508

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Supported Channels

The 8 button keypad transmits 33 channels and the 15 button keypad transmits 61 channels

8 Button Keypad

CH	Channel Name	CH	Channel Name	CH	Channel Name
1	KeyPad_Brightness (0-100%)	12	KeyPad_Sw3RedLEDState (On/Off)	23	KeyPad_Sw6OrangeLEDState (On/Off)
2	KeyPad_Sw1GreenLEDState (On/Off)	13	KeyPad_Sw3State (Pressed/Off)	24	KeyPad_Sw6RedLEDState (On/Off)
3	KeyPad_Sw1OrangeLEDState (On/Off)	14	KeyPad_Sw4GreenLEDState (On/Off)	25	KeyPad_Sw6State (Pressed/Off)
4	KeyPad_Sw1RedLEDState (On/Off)	15	KeyPad_Sw4OrangeLEDState (On/Off)	26	KeyPad_Sw7GreenLEDState (On/Off)
5	KeyPad_Sw1State(Pressed/Off)	16	KeyPad_Sw4RedLEDState (On/Off)	27	KeyPad_Sw7OrangeLEDState (On/Off)
6	KeyPad_Sw2GreenLEDState (On/Off)	17	KeyPad_Sw4State (Pressed/Off)	28	KeyPad_Sw7RedLEDState (On/Off)
7	KeyPad_Sw2OrangeLEDState (On/Off)	18	KeyPad_Sw5GreenLEDState (On/Off)	29	KeyPad_Sw7State (Pressed/Off)
8	KeyPad_Sw2RedLEDState (On/Off)	19	KeyPad_Sw5OrangeLEDState (On/Off)	30	KeyPad_Sw8GreenLEDState (On/Off)
9	KeyPad_Sw2State (Pressed/Off)	20	KeyPad_Sw5RedLEDState (On/Off)	31	KeyPad_Sw8OrangeLEDState (On/Off)
10	KeyPad_Sw3GreenLEDState (On/Off)	21	KeyPad_Sw5State (Pressed/Off)	32	KeyPad_Sw8RedLEDState (On/Off)
11	KeyPad_Sw3OrangeLEDState (On/Off)	22	KeyPad_Sw6GreenLEDState (On/Off)	33	KeyPad_Sw8State (Pressed/Off)

15 Button Keypad

CH	Channel Name	CH	Channel Name	CH	Channel Name
1	KeyPad_Brightness (0-100%)	21	KeyPad_Sw5State (Pressed/Off)	41	KeyPad_Sw10State (Pressed/Off)
2	KeyPad_Sw1GreenLEDState (On/Off)	22	KeyPad_Sw6GreenLEDState (On/Off)	42	KeyPad_Sw11GreenLEDState (On/Off)
3	KeyPad_Sw1OrangeLEDState (On/Off)	23	KeyPad_Sw6OrangeLEDState (On/Off)	43	KeyPad_Sw11OrangeLEDState (On/Off)

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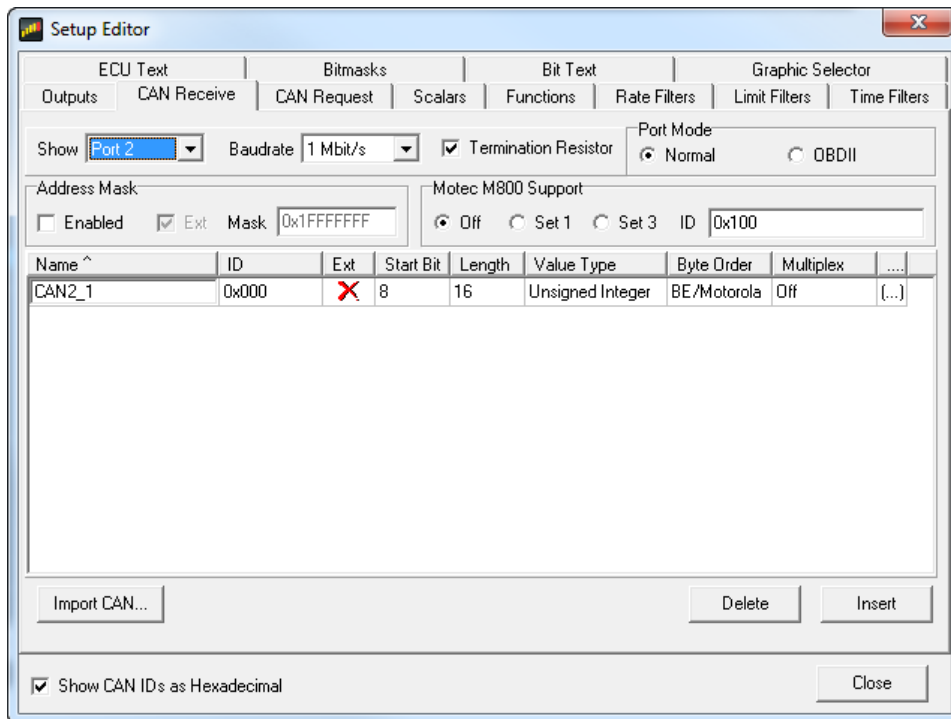


CH	Channel Name	CH	Channel Name	CH	Channel Name
4	KeyPad_Sw1RedLEDState (On/Off)	24	KeyPad_Sw6RedLEDState (On/Off)	44	KeyPad_Sw11RedLEDState (On/Off)
5	KeyPad_Sw1State(Pressed/Off)	25	KeyPad_Sw6State (Pressed/Off)	45	KeyPad_Sw11State (Pressed/Off)
6	KeyPad_Sw2GreenLEDState (On/Off)	26	KeyPad_Sw7GreenLEDState (On/Off)	46	KeyPad_Sw12GreenLEDState (On/Off)
7	KeyPad_Sw2OrangeLEDState (On/Off)	27	KeyPad_Sw7OrangeLEDState (On/Off)	47	KeyPad_Sw12OrangeLEDState (On/Off)
8	KeyPad_Sw2RedLEDState (On/Off)	28	KeyPad_Sw7RedLEDState (On/Off)	48	KeyPad_Sw12RedLEDState (On/Off)
9	KeyPad_Sw2State (Pressed/Off)	29	KeyPad_Sw7State (Pressed/Off)	49	KeyPad_Sw12State (Pressed/Off)
10	KeyPad_Sw3GreenLEDState (On/Off)	30	KeyPad_Sw8GreenLEDState (On/Off)	50	KeyPad_Sw13GreenLEDState (On/Off)
11	KeyPad_Sw3OrangeLEDState (On/Off)	31	KeyPad_Sw8OrangeLEDState (On/Off)	51	KeyPad_Sw13OrangeLEDState (On/Off)
12	KeyPad_Sw3RedLEDState (On/Off)	32	KeyPad_Sw8RedLEDState (On/Off)	52	KeyPad_Sw13RedLEDState (On/Off)
13	KeyPad_Sw3State (Pressed/Off)	33	KeyPad_Sw8State (Pressed/Off)	53	KeyPad_Sw13State (Pressed/Off)
14	KeyPad_Sw4GreenLEDState (On/Off)	34	KeyPad_Sw9GreenLEDState (On/Off)	54	KeyPad_Sw14GreenLEDState (On/Off)
15	KeyPad_Sw4OrangeLEDState (On/Off)	35	KeyPad_Sw9OrangeLEDState (On/Off)	55	KeyPad_Sw14OrangeLEDState (On/Off)
16	KeyPad_Sw4RedLEDState (On/Off)	36	KeyPad_Sw9RedLEDState (On/Off)	56	KeyPad_Sw14RedLEDState (On/Off)
17	KeyPad_Sw4State (Pressed/Off)	37	KeyPad_Sw9State (Pressed/Off)	57	KeyPad_Sw14State (Pressed/Off)
18	KeyPad_Sw5GreenLEDState (On/Off)	38	KeyPad_Sw10GreenLEDState (On/Off)	58	KeyPad_Sw15GreenLEDState (On/Off)
19	KeyPad_Sw5OrangeLEDState (On/Off)	39	KeyPad_Sw10OrangeLEDState (On/Off)	59	KeyPad_Sw15OrangeLEDState (On/Off)
20	KeyPad_Sw5RedLEDState (On/Off)	40	KeyPad_Sw10RedLEDState (On/Off)	60	KeyPad_Sw15RedLEDState (On/Off)
				61	KeyPad_Sw15State (Pressed/Off)

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.



Change the settings to the following:

Show: “Port 2”

Baudrate: 1 Mbit/s

Termination Resistor: “ON”

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.