Performance Vehicle Telemetry Displays

www.btigauges.com

CAN Bus Gauge for AEM Infinity
Plug and Play Installation Manual
Plug and Pin Installation Manual
Doc version 2.3

Notice: This product is intended for Off-Road use only. Never take your eyes off of the road while using this device. If you are uncomfortable with wire termination, please have this device installed by a competent shop.

Patent Pending

Plug and Play harness installation:

Plug and play wiring harness for Infinity ECUs with the AEM wiring harness:

Locate the 4 pin AEM NET wiring connector on the Infinity harness. Connect the Plug and play harness into the Infinity harness and run the cable to the desired gauge installation location. Note that the gauge gets power and the CAN signal from this cable and no other wiring is necessary.
** Notice** It has come to our attention that some of the first AEM Infinity factory harnesses had the CAN high and CAN low wires reversed **(Most Infinity 8 Supra harnesses)**. Pin 1 should be White (CAN high) and Pin 2 should be Green (CAN low).

Plug and pin harness installation:

Plug and pin wiring harness for Infinity ECUs:

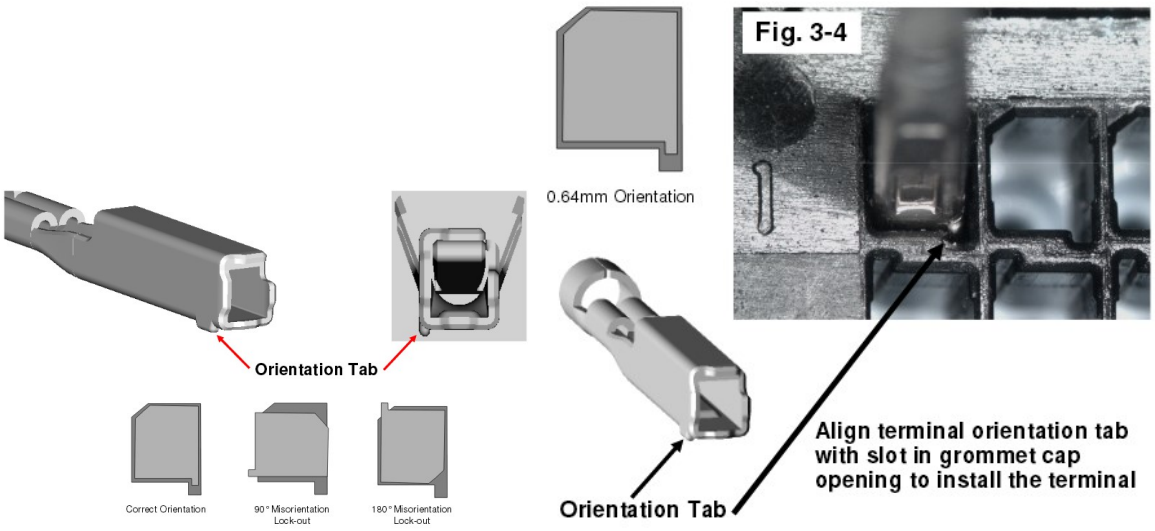
The termination to the Infinity ECU is relatively simple as it only consists of two wires: CAN A High and CAN A Low. Included on the plug and pin harness are two pins that will simply plug into the Infinity (Molex MX 123) connectors.

Notice: It is imperative that the pins are properly inserted into the correct positions on the connector! Removal and repining of these connectors is very difficult and requires special tools. Improper connection to the wrong pins could result to damage to the gauge or the ECU.

Double check your work here!

If you have questions regarding the Molex MX 123 connector, refer to this document for assistance: http://www.molex.com/mx_upload/family//MX123UserManual.pdf

Note that the pins have an orientation tab that only allows the pin to be inserted in one orientation. See the figure below to see the orientation and how the pin will be locked out if the orientation is not correct.

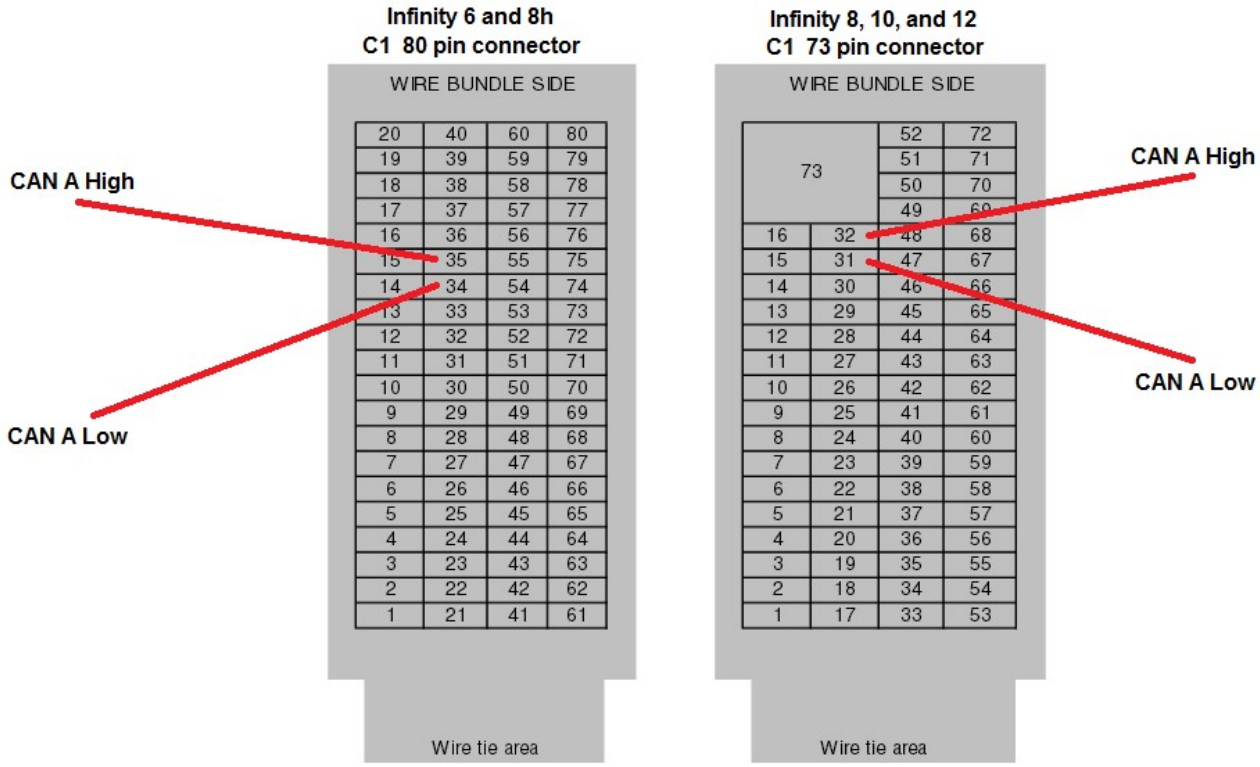


As per the AEM Infinity 8, 10, and 12 documentation:

C1-31	CANL_A_Out	Dedicated High Speed CAN Transceiver	Recommend twisted pair (one twist per 2") with terminating resistor. Contact AEM for additional information.
C1-32	CANH_A_Out	Dedicated High Speed CAN Transceiver	Recommend twisted pair (one twist per 2") with terminating resistor. Contact AEM for additional information.

As per the AEM Infinity 6 and 8h documentation:

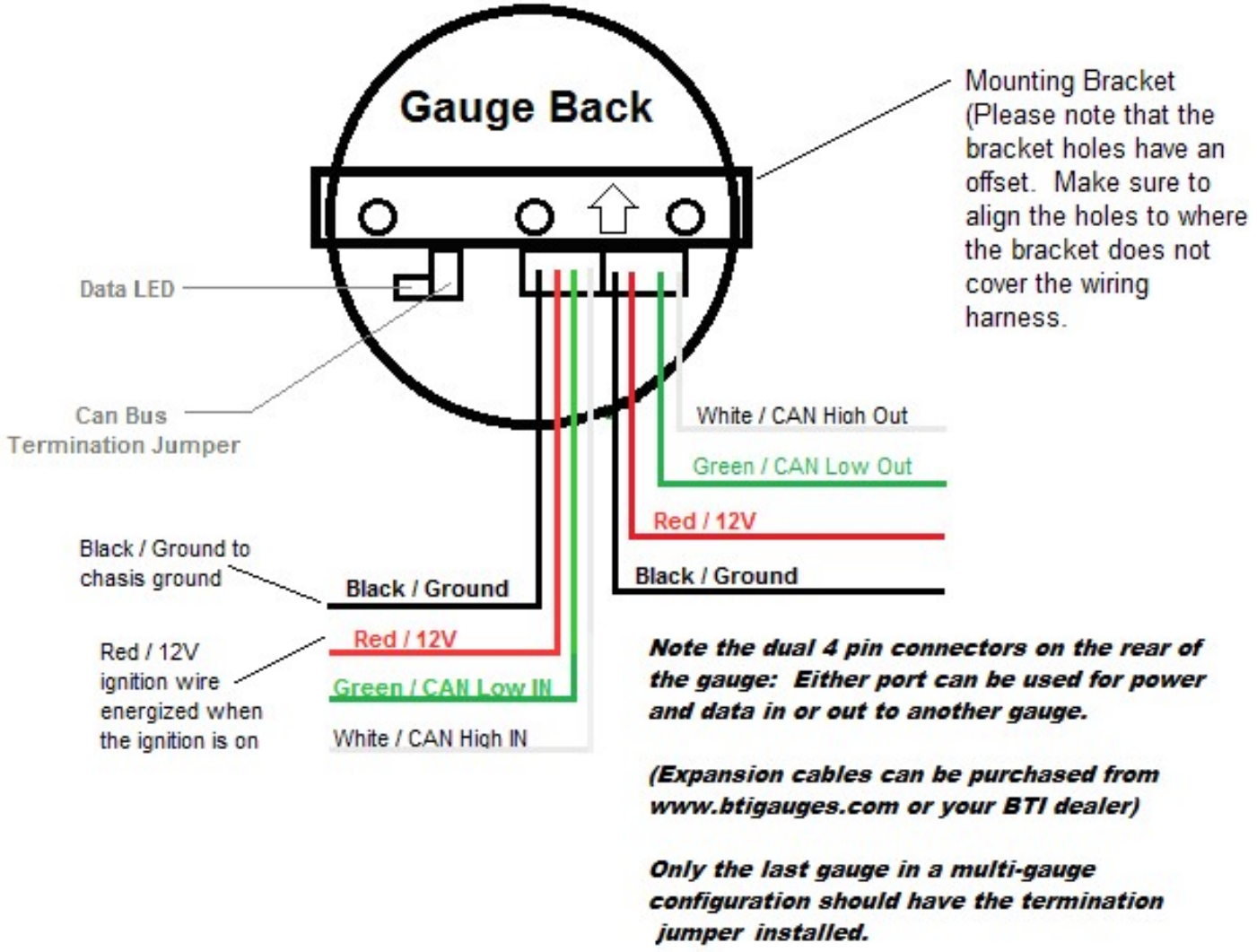
C1-34	CANL_A_Out	Dedicated High Speed CAN Transceiver	Recommend twisted pair (one twist per 2") with terminating resistor. Contact AEM for additional information.
C1-35	CANH_A_Out	Dedicated High Speed CAN Transceiver	Recommend twisted pair (one twist per 2") with terminating resistor. Contact AEM for additional information.



The plug and pin harness has two signal wires (Red and Black). Pin the RED wire to CAN A High and the BLACK wire to CAN A Low on the corresponding connector

Connect the RED CAN A High wire to the WHITE CAN high input on the gauge harness

Connect the Black CAN A Low wire to the Green CAN low input on the gauge harness.



Data LED: This indicator will flash when ever the gauge is energized and CAN communications are present. Use this to confirm communications.

CAN Bus Termination Jumper: Remove this jumper if the gauge is not the last device on the CAN Bus. If there are multiple gauges, the last gauge should be the only gauge with the jumper installed.
Leave the jumper installed if the gauge is a stand alone installation and there is nothing else on the CAN Bus.

Operation:

Upon powering up a properly terminated gauge, the Gauge will display the interface and version number,
The gauge will then display a splash screen if one is programmed.
Following the splash screen, the gauge will display the first screen. (This screen usually has a parameter assigned from testing the gauge after manufacturing)
The remaining 11 screens will display the following message:

"No parameter selected for screen # 1-12"

Use the Left or Right buttons to scroll through the 12 screens.
Use the center button to enter the screen configuration.
Once in the screen configuration, use the Left or Right buttons to scroll to the desired parameter or compound parameters that you wish to assign to the selected screen number.
After the desired parameter or parameters have been selected, use the Center button to complete the screen assignment.
When the gauge is powered off, the last screen that was used for more than 60 seconds will be the next screen displayed when power is reapplied to the gauge.

Shift Light Configuration:
Press and hold the left button after energizing the gauge until the shift light configuration screen appears. The menu will prompt you to enter an RPM number for each gear (1-5). Use the left and right button to increment or decrement the RPM value. Use the center button to save the value for each gear. The shift light will flash once the setup is complete.

Gauge Setup Options:
Press and hold the right button after energizing the gauge until the setup appears. The first option is for the display update rate. This value can be set from 0 – 200 milliseconds. Use the left and right buttons to adjust accordingly. Use the center button to accept the Update Rate value. You will then be prompted to enable or disable the peak hold screens. This applies only to single parameter screens and does not affect the Boost, Slip, or Knock screens which always display peak values when ever selected.

Peak-Hold Reset:
In order to reset the peak value on the selected single parameter screen, press and hold the center button for 3 seconds until the "Reset" prompt appears.
Note that the peaks on the single parameter screens will continue to record peak values no matter what parameter you are monitoring.

UTC Time Offset (Requires AEM Vehicle Dynamics Module): In order to change the UTC time offset, press and hold the center button for more than 3 seconds while on the "GPS Time" screen. This will allow you to adjust the time offset from -12 to +12 hours. Example: Central time with DST = -5, Central time no DST = -6.

Warranty:
All BTI Gauges carry a 1 year warranty effective at the time of purchase.

- This warranty extends only to products distributed and/or sold by BTI Gauges. It is effective only if the products are purchased and operated in the USA. (Within the USA including US 48 States, Alaska and Hawaii.)
- This warranty covers only normal use of the computer. BTI Gauges shall not be liable under this warranty if any damage or defect results from (i) misuse, abuse, neglect, improper shipping or installation; (ii) disasters such as fire, flood, lightning or improper electric current; or (iii) service or alteration by anyone other than an authorized BTI Gauge representative.
- You must retain your bill of sale or other proof of purchase to receive warranty service.
- No warranty extension will be granted for any replacement part(s) furnished to the purchaser in fulfillment of this warranty.
- Warranty claims must be sent to sales@btigauges.com.