

Instruction Manual



P/N 30-3515 1989-1998 Nissan Skyline GT-R RB26DETT AEM Infinity PnP Harness



STOP!

THIS PRODUCT HAS LEGAL RESTRICTIONS.
READ THIS BEFORE INSTALLING/USING!

THIS PRODUCT MAY BE USED SOLELY ON VEHICLES USED IN SANCTIONED COMPETITION WHICH MAY NEVER BE USED UPON A PUBLIC ROAD OR HIGHWAY, UNLESS PERMITTED BY SPECIFIC REGULATORY EXEMPTION. (VISIT THE "EMISSIONS" PAGE AT [HTTP://WWW.SEMASAN.COM/EMISSIONS](http://www.semasan.com/emissions) FOR STATE BY STATE DETAILS.)

IT IS THE RESPONSIBILITY OF THE INSTALLER AND/OR USER OF THIS PRODUCT TO ENSURE THAT IT IS USED IN COMPLIANCE WITH ALL APPLICABLE LAWS AND REGULATIONS. IF THIS PRODUCT WAS PURCHASED IN ERROR, DO NOT INSTALL AND/OR USE IT. THE PURCHASER MUST ARRANGE TO RETURN THE PRODUCT FOR A FULL REFUND.

THIS POLICY ONLY APPLIES TO INSTALLERS AND/OR USERS WHO ARE LOCATED IN THE UNITED STATES; HOWEVER CUSTOMERS WHO RESIDE IN OTHER COUNTRIES SHOULD ACT IN ACCORDANCE WITH THEIR LOCAL LAWS AND REGULATIONS.

WARNING: This installation is not for the tuning novice! Use this system with **EXTREME** caution! The AEM Infinity Programmable EMS allows for total flexibility in engine tuning. Misuse or improper tuning of this product can destroy your engine! If you are not well versed in engine dynamics and the tuning of engine management systems **DO NOT** attempt the installation. Refer the installation to an AEM-trained tuning shop or call 800-423-0046 for technical assistance.

NOTE: All supplied AEM calibrations, Wizards and other tuning information are offered as potential starting points only. **IT IS THE RESPONSIBILITY OF THE ENGINE TUNER TO ULTIMATELY CONFIRM IF THE CALIBRATION IS SAFE FOR ITS INTENDED USE.** AEM holds no responsibility for any engine damage that results from the misuse or mistuning of this product!

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OVERVIEW

The 30-3515 AEM Infinity PnP Harness Adapter was designed to run 1989-1998 Nissan Skyline GT-R with RB26DETT engines. This is a true standalone system that eliminates the use of the Nissan ECU and mass airflow sensors. The Infinity ECU supports the factory CAS (Cam Angle Sensor), so replacing the disk within the CAS is not required. The use of this harness makes the kit “plug and play” so no cutting or splicing wires is necessary (when used with optional 30-3510-00 AUX harness, sold separately). The base configuration files available for the Infinity EMS are starting points only and will need to be modified for every specific application.

The available Infinity EMS part numbers for this adapter kit are:

- 30-7106 INFINITY 506
- 30-7108 INFINITY 508* (*Use of this ECU will result in the loss of certain functions- VTC Solenoid and MIL. Refer to Pinout below for details.)

Please read this document in its entirety before attempting to start or run an engine.

GETTING STARTED

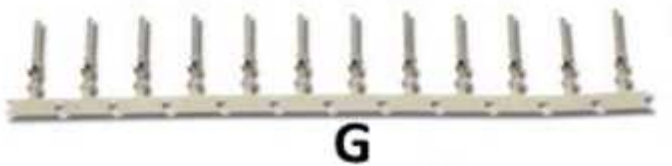
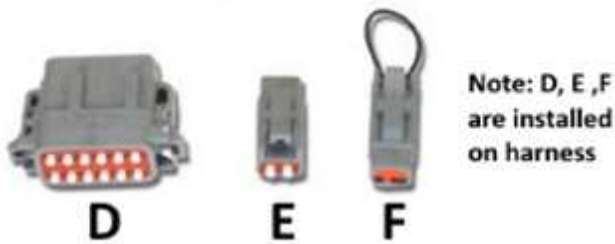
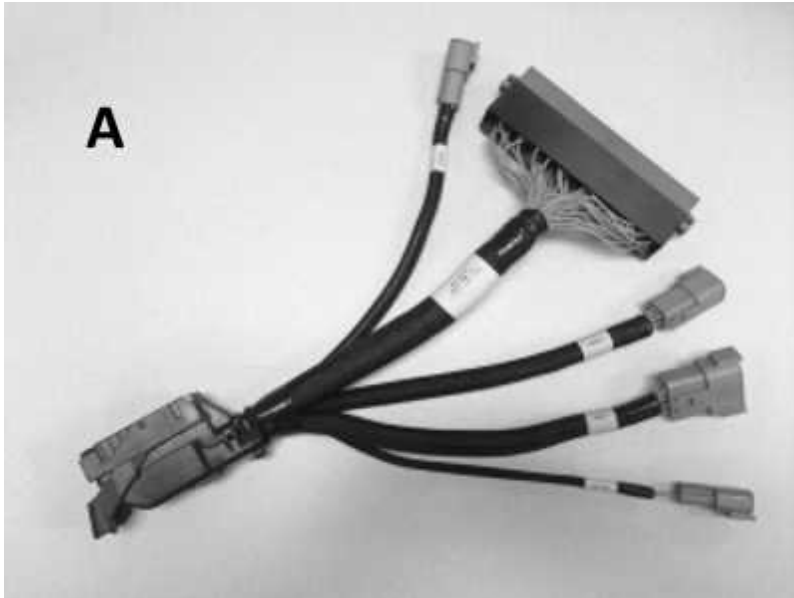
Refer to the **10-7100 for EMS 30-7100 Infinity Quick Start Guide** for additional information on getting the engine started with the Infinity EMS. The base session is located in C:\Documents\AEM\Infinity Tuner\Sessions\Base Sessions.

DOWNLOADABLE FILES

Files can be downloaded from www.aeminfinity.com. An experienced tuner must be available to configure and manipulate the data before driving can commence. The Quick Start Guide and Full Manual describe the steps for logging in and registering at www.aeminfinity.com. These documents are available for download here: <http://www.aemelectronics.com/products/support>

Kit Contents

Diagram	AEM P/N	Description	Qty
A	36-3515	AEM Infinity Skyline GT-R PnP Harness	1
B	8-500	Velcro, Hook Side	12"
C	8-500	Velcro, Loop Side	12"
D	4-1008	12-Way Aux Connector, Sealed	1
E	4-1009	Dust Cap, Flash Enable	1
F	4-1010	Jumper, Flash Enable	1
G	1062-20-0122	Socket, Aux Connector	12
	10-3515	Instruction Sheet, 30-3515	1



Important Application Notes

The 30-3515 AEM Infinity PnP Harness allows for a "plug and play" installation of either an AEM Infinity 506 or Infinity 508* ECU to a 1989-1998 Nissan Skyline equipped with one of the following engines:

1989-1998	RB26DETT	2.6L DOHC I-6, Twin Turbo
1989-1994	RB20DET	2.0L DOHC I-6, Single Turbo
1993-1998	RB25DET	2.5L DOHC I-6, Single Turbo

*Use of the Infinity-8h ECU will result in the loss of certain functions- VTC Solenoid and MIL. Refer to Pinout below for details.

The AEM Infinity ECU will run the engine with a speed density fueling calculation, eliminating the need for an OEM airbox and mass airflow sensor (MAF). Required are an intake air temperature (IAT) sensor and manifold absolute pressure (MAP) sensor. AEM also offers an auxiliary sub-harness to make adding these sensors a plug and play installation.

30-2010	Air Temp Sensor Kit, 3/8" NPT
30-2130-50	3.5bar (50PSIa) Stainless Steel MAP Sensor Kit
30-3510-00	Auxiliary Harness for AEM MAP and IAT Sensors

The AEM Infinity ECU includes on board control for one UEGO wideband oxygen sensor. This sensor connects to the AEM Infinity PnP Harness via a 6-pin DTM-style plug. AEM offers a UEGO extension harness that is 72" long and will connect the UEGO sensor to the PnP harness.

30-2001	Bosch LSU 4.2 Wideband UEGO Replacement Sensor
30-3600	Infinity O2 Sensor Extension Harness (72")

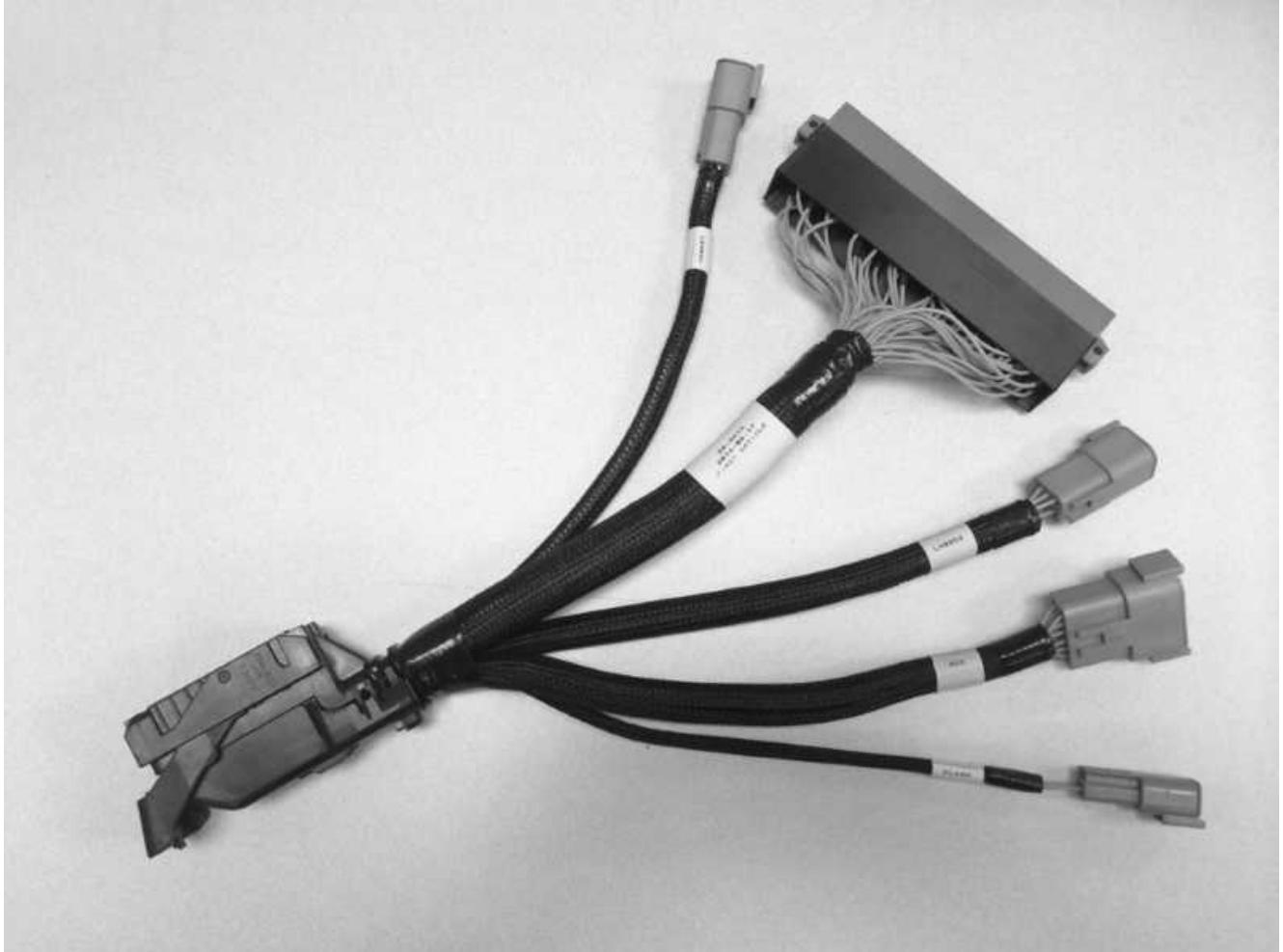
The AEM Infinity ECU supports the OEM Nissan Cam Angle Sensor (CAS) '360 Degree' pattern. The base session is pre-configured and will sync close enough for startup with the OEM CAS disk. Previous AEM ECUs may have required the CAS trigger disk to be replaced with an AEM-supplied disk that has a 12 crank / 1 cam pattern. If the engine already has one of these AEM disks installed, the Infinity ECU may be reconfigured via the Setup Wizard to properly read this pattern. In the **Cam/Crank** section of the Setup Wizard, select sensor type **Universal 12 Hall Crank & 1 Hall Cam**. The timing will need to be sync'd with a timing light before attempting to fire the engine. Refer to the **Infinity User Guide** for detailed instructions on setting up a universal Cam/Crank pattern.

The AEM Infinity PnP harness includes a dedicated TPS signal output circuit for use with Skyline GT-R auxiliary devices (ATTESA AWD control and dashboard display). This output signal is located at pin 56 of the Nissan ECU connector for plug and play operation of these devices. The output signal will directly follow the TPS voltage as it is calibrated via the **Set Throttle Range** section of the Setup Wizard.

Many Nissan wiring harnesses have been found to contain significant differences between model years and/or trim levels. Likely differences include: Crank signal, Cam signal, Ignition switch wiring (the Ignition switch input controls the Main Relay output), injector and coil destinations. Official documentation for many of these vehicles was not offered in English, so it would be very wise to double-check the pinout destinations for these circuits. This is especially true if the vehicle contains a 'swapped' engine or if the wiring harness has been cut, spliced, soldered, re-routed, re-pinned or modified in any other manner. It is the user's responsibility to check that the wiring on the vehicle matches the pinout chart contained in this instruction manual.

INFINITY ADAPTER HARNESS

The AEM Infinity Plug and Play Harness connects between the OEM Nissan harness and the AEM Infinity ECU, completely replacing the OEM ECU. The harness connections for the various sensors and auxiliary options are described here.



Connections

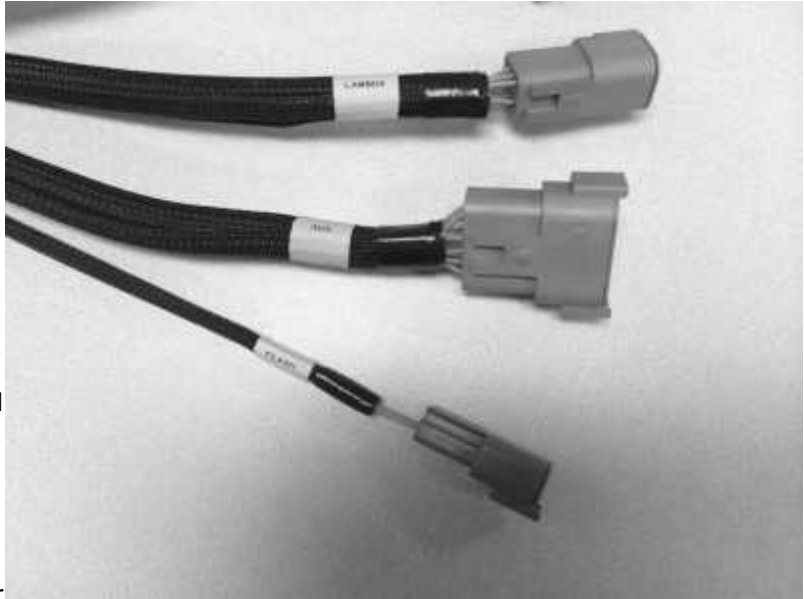
Lambda - This 6-way DTM-style connector plugs directly into an optional AEM UEGO extension harness, **AEM P/N 30-3600**. The Bosch LSU 4.2 UEGO Sensor, **AEM P/N 30-2001**, will plug into that extension harness. Refer to 'UEGO Sensor' section for mounting requirements.

AUX - This 12-way connector is used to adapt many common ancillary inputs and outputs easily. Included in this kit are a 12-way mating connector, 12 terminals, and a connector wedgelock. These components will need to be terminated by the installer with 16-22ga wire. **For a plug & play installation of the MAP and IAT sensors required to run this engine, use the Auxiliary Harness AEM P/N 30-3510-00 (sold separately).** This will allow the installer

to plug in the required sensors with out any custom wiring or termination. Note: the pin numbering is molded into the wire side of the connector. See 'Pinouts' section for details of this connector's pins.

Flash - This 2-way connector is used for secondary hardware flashing. This connector is normally protected with a dust cap. The included shunt connector jumps the two wires together when required. Once initially flashed, the EMS is normally upgraded in the software, not requiring this connector.

AEMnet - This 4-way connector is for AEMnet, an open architecture based on CAN 2.0 which provides the ability for multiple enabled devices, such as dashboards, data loggers, etc. to easily communicate with one another through two twisted cables (CAN+/CAN-). Support for data transmit to an AEM AQ-1 Datalogger and data receive from one or more AEM 4-Channel Wideband UEGO Controllers are supported.



Installation

1) Remove the passenger side kick panel to gain access to the ECU. Unbolt the ECU brackets to remove the ECU.



2) Remove the plastic wire cover and loosen the bolt in the center of the main ECU connector. As the bolt is loosened, gently rock the connector side to side to remove it from the ECU.



3) Insert the OEM wire harness connector into the AEM Infinity PnP adapter harness. Gently tighten the bolt and draw the connector into the adapter harness. Make sure the connector does not skew to one side. Verify the connector is fully seated and snug the bolt. Do not force the connector, do not over tighten the bolt.



4) Plug in the additional connectors to the AEM Infinity PnP harness. The 12-pin AUX connector will need to be terminated for the IAT and MAP sensors, or use AEM p/n 30-3510-00 Infinity AUX Harness (sold separately) for a simple plug and play installation. Refer to schematic for wiring MAP and IAT sensors into 12-pin AUX plug at end of this document if constructing your own harness.

The 6-pin LAMBDA connector plugs into the 30-3600 Infinity O2 Sensor Extension Harness (sold separately) to mate with the optional 30-2001 Bosch LSU 4.2 Wideband UEGO Replacement Sensor (also sold separately). Route these harnesses through the firewall to the appropriate sensors and secure out of the way of hot or moving parts.



5) Plug in the 80-pin connector to the Infinity ECU. Swing the latch over to draw the connector down into position. The latch will click in position. Slide the the red lock into place to secure the latch. Use the supplied Velcro strips to secure the ECU into place behind the kick panel.



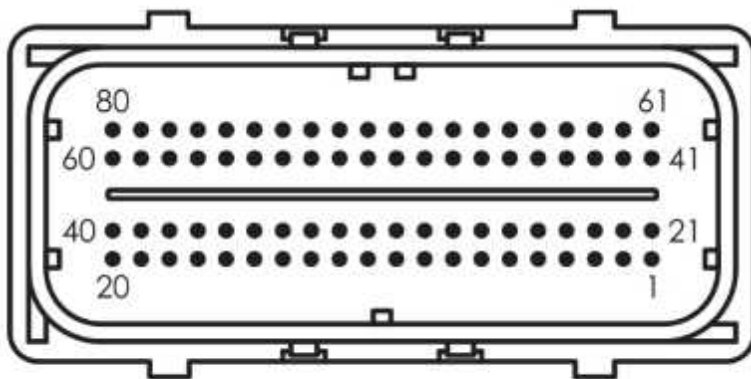
PINOUTS

Infinity 506 P/N 30-7106, Infinity 508 P/N 30-7108*					
Infinity Pin	Hardware Reference	Nissan Function	Nissan Pin Destination	Hardware Specification	Notes
C1-1	LowsideSwitch_4	A/C Compressor	C2-9	Lowside switch, 1.7A max, NO internal flyback diode. 12v pullup.	Configured in Base Session for A/C Compressor Clutch control. May be reassigned in Setup Wizard Output Function Assignments.
C1-2	LowsideSwitch_5	Tacho	C2-7	Lowside switch, 6A max with internal flyback diode. Inductive load should NOT have full time power. 12v pullup.	Configured in Base Session for tachometer signal. May be reassigned in Setup Wizard Output Function Assignments.
C1-3	LowsideSwitch_6 (Infinity-6 ONLY)	VTC Solenoid	C2-113	Lowside switch, 6A max with internal flyback diode. Inductive load should NOT have full time power. No pullup.	Configured in Base Session for VTC Solenoid Valve control. May be reassigned in Setup Wizard Output Function Assignments.
C1-3*	Injector 7 (Infinity 508 ONLY)	---	---	For use with high impedance (10-15ohms) injectors only, 1.7A max.	Available.
C1-4	LowsideSwitch_7 (Infinity 506 ONLY)	MIL	C2-32	Lowside switch, 6A max no internal flyback diode. No pullup.	Configured in Base Session for Malfunction Indicator Light control. May be reassigned in Setup Wizard Output Function Assignments.
C1-4*	Injector 8 (Infinity 508 ONLY)	---	---	For use with high impedance (10-15ohms) injectors only, 1.7A max.	Available.
C1-5	UEGO 1 Heat	---	C5-4	Bosch UEGO controller	Terminated at 6-pin "Lambda" connector for connecting an Infinity UEGO Extension harness (AEM 30-3600) and UEGO wideband Bosch LSU4.2 sensor (AEM 30-2001).
C1-6	UEGO 1 IA	---	C5-6		
C1-7	UEGO 1 IP	---	C5-1		
C1-8	UEGO 1 UN	---	C5-2		
C1-9	UEGO 1 VM	---	C5-5		
C1-10	Batt Perm Power	Permanent Power	C2-58	Dedicated power management CPU	Full time battery power. MUST be powered before the ignition switch input is triggered.
C1-11	Coil 4	Coil 4	C2-13	25 mA max source current	0-5V Falling edge fire. DO NOT connect directly to coil primary.
C1-12	Coil 3	Coil 3	C2-3	25 mA max source current	0-5V Falling edge fire. DO NOT connect directly to coil primary.
C1-13	Coil 2	Coil 2	C2-12	25 mA max source current	0-5V Falling edge fire. DO NOT connect directly to coil primary.
C1-14	Coil 1	Coil 1	C2-1	25 mA max source current	0-5V Falling edge fire. DO NOT connect directly to coil primary.
C1-15	Coil 6	Coil 6	C2-11	25 mA max source current	0-5V Falling edge fire. DO NOT connect directly to coil primary.
C1-16	Coil 5	Coil 5	C2-2	25 mA max source current	0-5V Falling edge fire. DO NOT connect directly to coil primary.
C1-17	Crank Position Sensor VR+	---	---	Differential Variable Reluctance Zero Cross Detection	Not used.
C1-18	Crank Position Sensor VR-	---	---		
C1-19	Cam Position Sensor 1 VR-	---	---	Differential Variable Reluctance Zero Cross Detection	Not used.
C1-20	Cam Position Sensor 1 VR+	---	---		
C1-21	LowsideSwitch_2	Cooling Fan Relay	C2-6	Lowside switch, 1.7A max, NO internal flyback diode. No pullup.	May be adjusted under Coolant Fan 1 options in Setup Wizard.

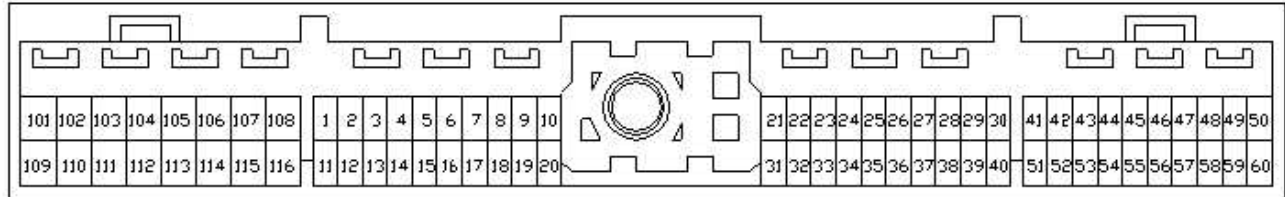
C1-22	LowsideSwitch_3	AAC Valve	C2-4	Lowside switch, 6A max with internal flyback diode. Inductive load should NOT have full time power. No pullup.	Configured in Base Session for Idle Air Control (AAC) Valve control. May be reassigned in Setup Wizard Output Function Assignments.
C1-23	AGND	Sensor Ground	C2-30	Dedicated analog ground	Sensor ground for 0-5v analog inputs.
C1-24	AGND	Sensor Ground	C3-3	Dedicated analog ground	Sensor ground for 0-5v analog inputs.
C1-25	Crank Position Sensor 1 Hall	Crank Signal	C2-42, C2-52	10K pullup to 12V. Will work with ground or floating switches. Frequency input only.	See Setup Wizard Cam/Crank page for options.
C1-26	Cam Position Sensor 1 Hall	Cam Signal	C2-41, C2-51	10K pullup to 12V. Will work with ground or floating switches. Frequency input only.	See Setup Wizard Cam/Crank page for options.
C1-27	Digital_In_2	---	---	10K pullup to 12V. Will work with ground or floating switches. Frequency input only.	Not used.
C1-28	Digital_In_3	---	C3-9	10K pullup to 12V. Will work with ground or floating switches. Frequency input only.	Available frequency input. May be used for Flex Fuel, Turbo Speed, or other. See Setup Wizard to configure input.
C1-29	Digital_In_4	Vehicle Speed Input	C2-53	10K pullup to 12V. Will work with ground or floating switches. Frequency input only.	Configured in Base Session for vehicle speed. May be adjusted under Vehicle Speed Input options in Setup Wizard.
C1-30	Digital_In_5	A/C Switch	C2-43	10K pullup to 12V. Will work with ground or floating switches. Switch input only.	Configured in Base Session for A/C Switch. May be reassigned in Setup Wizard Input Function Assignments.
C1-31	Digital_In_6 (Infinity-6 ONLY)	---	---	10K pullup to 12V. Will work with ground or floating switches. Frequency input only.	Available frequency input. May be used for Flex Fuel, Turbo Speed, or other. See Setup Wizard to configure input.
C1-31*	Coil 7 (Infinity 508 ONLY)	---	---	25 mA max source current	Not used.
C1-32	Digital_In_7 (Infinity 506 ONLY)	---	C3-10	10K pullup to 12V. Will work with ground or floating switches. Switch input only.	Available switch input. May be used for Clutch, Brake, Nitrous, or other. See Setup Wizard to configure input.
C1-32*	Coil 8 (Infinity 508 ONLY)	---	---	25 mA max source current	Not used.
C1-33	Power Ground	Ground	C2-10	Power ground	Power ground.
C1-34	CAN A-	---	C5-2	Dedicated high speed CAN transceiver	Four pin AEMnet connector in PnP harness. Transmit and receive to/from AEM AQ-1 logger, 4-channel UEGO controller, and third party dash displays.
C1-35	CAN A+	---	C5-1	Dedicated high speed CAN transceiver	Four pin AEMnet connector in PnP harness. Transmit and receive to/from AEM AQ-1 logger, 4-channel UEGO controller, and third party dash displays.
C1-36	CAN B-	---	---	Dedicated high speed CAN transceiver	Not used.
C1-37	CAN B+	---	---	Dedicated high speed CAN transceiver	Not used.
C1-38	Temp 1	Coolant Temp Sensor	C2-28	2.49k pullup to 5v	See Setup Wizard Coolant Temperature page for options.
C1-39	Temp 2	Air Temp Sensor	C3-2	2.49k pullup to 5v	Must wire IAT sensor to AUX plug in PnP harness. See Setup Wizard Basic Sensors page for options.
C1-40	Temp 3	---	C3-7	2.49k pullup to 5v	Available temperature input. May be used for Oil Temperature input or other. See Setup Wizard Input Function Assignments.
C1-41	LowsideSwitch_0	Fuel Pump	C2-18	Lowside switch, 4A max, NO internal flyback diode. No pullup.	Switched ground. Will prime for 2 seconds at key on and activate if RPM > 0.
C1-42	LowsideSwitch_1	Boost Control	C2-25	Lowside switch, 4A max with internal flyback diode. Inductive load should NOT have full time power. No pullup.	Base session configured to drive boost control solenoid. May be reassigned in Setup Wizard Output Function Assignments.

C1-43	Power Ground	Ground	C2-20	Power ground	Power ground.
C1-44	Knock Sensor 1	Knock1	C2-23	Dedicated knock signal processor	See Setup Wizard Knock Setup page for options.
C1-45	Knock Sensor 2	Knock2	C2-24	Dedicated knock signal processor	See Setup Wizard Knock Setup page for options.
C1-46	Power Ground	Ground	C2-50	Power ground	Power ground.
C1-47	Main Relay Control	Ground out to main relay	C2-16	0.7A max ground sink for external relay control	Will activate at key on and at key off according to the configuration settings.
C1-48	Ign Switch	Ignition Switch	C2-45	10k pulldown	Full time battery power must be available at C1-10 before this input is triggered.
C1-49	+5V_Out	+5V Sensor Power	C2-48	Regulated, fused +5V supply for sensor power	Analog sensor power.
C1-50	+5V_Out	+5V Sensor Power	C3-4	Regulated, fused +5V supply for sensor power	Analog sensor power.
C1-51	Analog_In_7	Throttle Position	C2-38	12 bit A/D, 100K pullup to 5V	Configured for TPS input from OEM throttle body.
C1-52	Analog_In_8	MAP Sensor	C3-5	12 bit A/D, 100K pullup to 5V	Must wire MAP sensor to AUX plug in PnP harness. See Setup Wizard Basic Sensors page for options.
C1-53	Analog_In_9	Fuel Pressure	C3-9	12 bit A/D, 100K pullup to 5V	Wire <u>optional</u> Fuel Pressure sensor to AUX plug in PnP harness. See Setup Wizard Basic Sensors page for options.
C1-54	VR+_In_2	---	---	Differential Variable Reluctance Zero Cross Detection	Available for use as Non-driven wheel speed input. See Setup Wizard Input Function Assignments.
C1-55	VR-_In_2	---	---		
C1-56	VR-_In_3	---	---	Differential Variable Reluctance Zero Cross Detection	Available for use as Driven wheel speed input. See Setup Wizard Input Function Assignments.
C1-57	VR+_In_3	---	---		
C1-58	HighsideSwitch_0	---	---	2.6A max, High Side Solid State Relay	Available +12V switched output. See Setup Wizard Output Function Assignments to configure.
C1-59	Stepper_1B	---	---	Automotive, Programmable Stepper Driver, up to 28V and $\pm 1.4A$	Not used.
C1-60	Stepper_2B	---	---	Automotive, Programmable Stepper Driver, up to 28V and $\pm 1.4A$	Not used.
C1-61	DBW1 Motor-	---	---	5.0A max Throttle Control Hbridge Drive	Not used.
C1-62	DBW1 Motor+	---	---	5.0A max Throttle Control Hbridge Drive	Not used.
C1-63	+12v	+12v	C2-49, C4-3	12v power from main relay	12v power from main relay.
C1-64	Injector 6	Injector 6	C2-112	Saturated or peak and hold, 3A max continuous.	Injector 6.
C1-64*	Injector 6 (Infinity 508 ONLY)	Injector 6	C2-112	For use with high impedance (10-15ohms) injectors only, 1.7A max.	Injector 6.
C1-65	Injector 5	Injector 5	C2-110	Saturated or peak and hold, 3A max continuous.	Injector 5.
C1-65*	Injector 5 (Infinity 508 ONLY)	Injector 5	C2-110	For use with high impedance (10-15ohms) injectors only, 1.7A max.	Injector 5.
C1-66	Injector 4	Injector 4	C2-114	Saturated or peak and hold, 3A max continuous.	Injector 4.
C1-66*	Injector 4 (Infinity 508 ONLY)	Injector 4	C2-114	For use with high impedance (10-15ohms) injectors only, 1.7A max.	Injector 4.
C1-67	Power Ground	Ground	C2-60, C5-4	Power ground	Power ground.
C1-68	+12v	+12v	C2-59, C3-8, C5-3	12v power from main relay	12v power from main relay.
C1-69	Analog_In_19	---	---	12 bit A/D, 100K pullup to 5V	Available analog input. May be used for External UEGO Lambda input or other. See Setup Wizard Input Function Assignments.

C1-70	Analog_In_18	---	---	12 bit A/D, 100K pullup to 5V	Available analog input. May be used for Mode Switch input or other. See Setup Wizard Input Function Assignments.
C1-71	Analog_In_16	---	---	12 bit A/D, 100K pullup to 5V	Available analog input. May be used for Charge Out Pressure input or other. See Setup Wizard Input Function Assignments
C1-72	Flash Enable	Flash Enable	Flash Enable Connector	10k pulldown	Two pin connector in AEM adapter harness. Use only to force EMS into flash mode if normal firmware update procedure does not work.
C1-73	Analog_In_13	---	C3-6	12 bit A/D, 100K pullup to 5V	Available analog input. See Setup Wizard Input Function Assignments.
C1-74	Analog_In_11	---	C3-12	12 bit A/D, 100K pullup to 5V	Available analog input. May be used for Oil Pressure input or other. See Setup Wizard Input Function Assignments.
C1-75	Analog_In_10	---	C3-11	12 bit A/D, 100K pullup to 5V	Available analog input. May be used for Baro Pressure input or other. See Setup Wizard Input Function Assignments.
C1-76	Injector 3 (Infinity-6 ONLY)	Injector 3	C2-103	Saturated or peak and hold, 3A max continuous.	Injector 3.
C1-76*	Injector 3 (Infinity 508 ONLY)	Injector 3	C2-103	For use with high impedance (10-15ohms) injectors only, 1.7A max.	Injector 3.
C1-77	Injector 2 (Infinity-6 ONLY)	Injector 2	C2-105	Saturated or peak and hold, 3A max continuous.	Injector 2.
C1-77*	Injector 2 (Infinity 508 ONLY)	Injector 2	C2-105	For use with high impedance (10-15ohms) injectors only, 1.7A max.	Injector 2.
C1-78	Injector 1 (Infinity-6 ONLY)	Injector 1	C2-101	Saturated or peak and hold, 3A max continuous.	Injector 1.
C1-78*	Injector 1 (Infinity 508 ONLY)	Injector 1	C2-101	For use with high impedance (10-15ohms) injectors only, 1.7A max.	Injector 1.
C1-79	Stepper_2A	---	---	Automotive, Programmable Stepper Driver, up to 28V and ±1.4A	Not used.
C1-80	Stepper_1A	---	---	Automotive, Programmable Stepper Driver, up to 28V and ±1.4A	Not used.



INFINITY "C1" 80 PIN



Nissan Pin Numbering

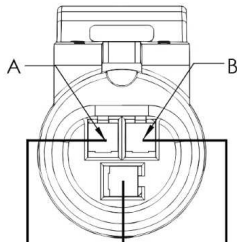
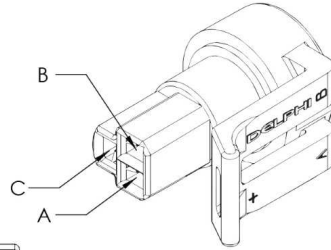
C3		AUX	
Pin	Dest. Pin	Default Pin Function	
1	C1-53	Analog9 (Fuel Press)	
2	C1-39	AnalogTemperature2 (Air Temp)	
3	C1-24	Sensor Ground	
4	C1-50	+5V Ref	
5	C1-52	Analog8 (MAP)	
6	C1-73	Analog13 (Oil Press)	
7	C1-40	AnalogTemperature3 (Oil Temp)	
8	C1-68, C2-59	+12V	
9	C1-28	Digital3 (Flex Fuel)	
10	C1-32	Digital7 (Available)	
11	C1-75	Analog10 (Baro)	
12	C1-74	Analog11 (Avail)	

C4		LAMBDA	
Pin	Dest. Pin	Default Pin Function	
1	C1-8	UEGO Control	
2	C1-6		
3	C1-63, C2-49	+12V	
4	C1-5	UEGO Control	
5	C1-9		
6	C1-7		

C5		AEMnet	
Pin	Dest. Pin	Default Pin Function	
1	C1-32	CAN A Hi (+)	
2	C1-31	CAN A Lo (-)	
3	C1-68, C2-59	+12V	
4	C1-67, C2-50	Ground	

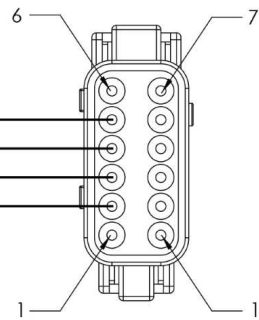
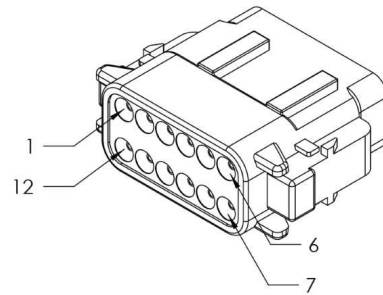
C6		FLASH	
Pin	Dest. Pin	Default Pin Function	
A	C1-10, C2-58	+12V Perm Power	
B	C1-72	Flash Enable	

AEM MAP SENSOR PN: 30-2130-XXX



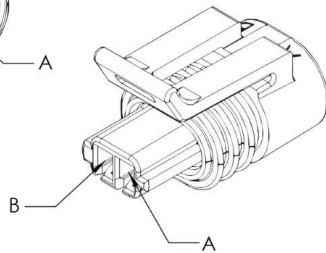
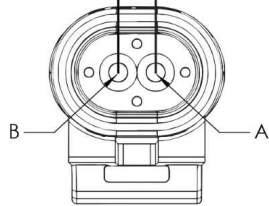
MAP 3-PIN	
PIN	DESCRIPTION
A	SENSOR GROUND
B	+5V REFERENCE
C	MAP SIGNAL

INFINITY HARNESS AUXILIARY PLUG



AUX 12-PIN	
PIN	DESCRIPTION
1	---
2	IAT SIGNAL
3	SENSOR GROUND
4	+5V REFERENCE
5	MAP SIGNAL
6	---
7	---
8	---
9	---
10	---
11	---
12	---

IAT 2-PIN	
PIN	DESCRIPTION
A	IAT SIGNAL
B	SENSOR GROUND



AEM INLET AIR TEMPERATURE SENSOR PN: 30-2010



Drawing: AEM MAP & IAT SENSOR WIRING

ECU: Infinity

Date: 09/01/15

Rev: A

Engineer: Nakano

12 MONTH LIMITED WARRANTY

Advanced Engine Management Inc. warrants to the consumer that all AEM High Performance products will be free from defects in material and workmanship for a period of twelve (12) months from date of the original purchase. Products that fail within this 12-month warranty period will be repaired or replaced at AEM's option, when determined by AEM that the product failed due to defects in material or workmanship. This warranty is limited to the repair or replacement of the AEM part. In no event shall this warranty exceed the original purchase price of the AEM part nor shall AEM be responsible for special, incidental or consequential damages or cost incurred due to the failure of this product. Warranty claims to AEM must be transportation prepaid and accompanied with dated proof of purchase. This warranty applies only to the original purchaser of product and is non-transferable. All implied warranties shall be limited in duration to the said 12-month warranty period. Improper use or installation, accident, abuse, unauthorized repairs or alterations voids this warranty. AEM disclaims any liability for consequential damages due to breach of any written or implied warranty on all products manufactured by AEM. Warranty returns will only be accepted by AEM when accompanied by a valid Return Merchandise Authorization (RMA) number. Product must be received by AEM within 30 days of the date the RMA is issued.

UEGO oxygen sensors are considered wear items and are not covered under warranty.

Please note that before AEM can issue an RMA for any electronic product, it is first necessary for the installer or end user to contact the EMS tech line at 1-800-423-0046 to discuss the problem. Most issues can be resolved over the phone. Under no circumstances should a system be returned or a RMA requested before the above process transpires.

AEM will not be responsible for electronic products that are installed incorrectly, installed in a non-approved application, misused, or tampered with.

Any AEM electronics product can be returned for repair if it is out of the warranty period. There is a minimum charge of \$50.00 for inspection and diagnosis of AEM electronic parts. Parts used in the repair of AEM electronic components will be extra. AEM will provide an estimate of repairs and receive written or electronic authorization before repairs are made to the product.