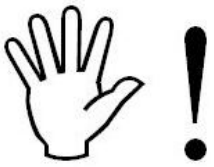
Instruction Manual

P/N 30-3822
2016 Polaris RZR XP Turbo
AEM Infinity
Plug and Play 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 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 30-3822 AEM Infinity PnP Harness was designed to run the 2016 Polaris RZR XP Turbo. This is a true standalone system that eliminates the use of the stock Polaris ECU. The use of this harness makes the kit “plug and play” so no cutting or splicing wires is necessary. The base configuration files available for the Infinity EMS are starting points only and will need to be modified for every specific application.

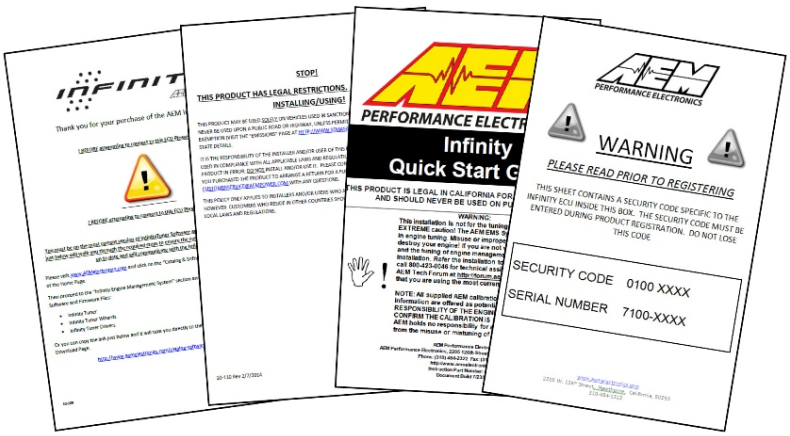
The appropriate Infinity ECU part number for this adapter kit is:

- 30-7112 INFINITY 508, POWERSPORTS

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

GETTING STARTED

Your Infinity EMS will be packaged with four important documents: Usage Legality Disclaimer, Software Download Notice, Security Code Notice, and an Infinity Quick Start Guide.



First, read and acknowledge the Usage Legality Disclaimer. Second, refer to the Infinity Quick Start Guide (QSG). Third, follow the Software Download Notice and download the Infinity Tuner software from the AEM Electronics web site. Fourth, visit www.aeminfinity.com to register your EMS (See "Account Registration" in QSG). Once the registration process is complete, you'll be able to download the latest firmware for your EMS*. The final setup process is to open the Infinity Tuner software and connect to your EMS to update the firmware (See "Firmware Update" in QSG. This can be done once the EMS is installed into your vehicle - see Installation section.

Once the Infinity is installed into your vehicle and it has been loaded with the latest firmware, setup and tuning may commence. Refer to the QSG for additional information on getting the engine ready for tuning with the Infinity EMS. Additionally, the full Infinity User Manual can be referenced for more in-depth information pertaining to the install, setup, and usage of the Infinity EMS.

*Be sure to download **Inf-508 Polaris RZR XP Turbo** firmware. Do **NOT** download the Inf-508 Polaris RZR900/ RZR1000 firmware.

IMPORTANT APPLICATION NOTES

The 30-3822 AEM Infinity PnP Harness allows for a "plug and play" installation of an AEM Infinity 508 Powersports ECU to a 2016 Polaris RZR Turbo. This kit completely replaces the stock ECU and offers full control of fuel injection, ignition timing advance, and drive by wire (DBW) electronic throttle control. The Infinity ECU also supports the factory Polaris dash display functions, as well as the AWD hub control.

Fuel Injectors

The stock RZR Turbo fuel injectors flow 450 cc/min. These injectors have been characterized by AEM and are available for selection in the Setup Wizard but testing has shown that the stock injectors operate near 100% duty cycle when ran at the factory rated power/boost level. It's suggested that larger injectors be installed in order to support higher than stock power/boost levels. The Setup Wizard includes injector data for many popular aftermarket fuel injectors. Please note that the Infinity 508 Powersports ECU can only drive high impedance injectors and low impedance or "peak and hold" injectors are not supported.

Ignition Coils

The OEM Polaris two-wire ignition coils are controlled by the AEM Infinity ECU, but they are not driven directly. This kit includes the AEM 3-Channel Coil Driver required to drive these coils integrated into the PnP harness.

Drive by Wire (DBW) Throttle Control

The base session provided by AEM is configured to work with the stock Polaris electronic throttle body and accelerator pedal position sensor. When the system is installed for the first time, the Drive By Wire Setup Wizard should be run with "Calibrate Sensor Data Only" selected to calibrate the Infinity to your specific vehicle's sensors.

Sensors and Speed Density Fueling

The Infinity will run the engine with a speed density fueling control using the stock Polaris Manifold Air Pressure (MAP), Intake Air Temperature (IAT) and Coolant Temperature (CLT) sensors. The stock MAP sensor reads up to 300kpa. The Infinity also references the stock air box/barometric pressure sensor.

UEGO Wideband Oxygen Sensor and mounting bung

The Infinity includes on board control for one UEGO wideband oxygen sensor. The Bosch LSU 4.2 sensor (included in this kit) plugs in directly to the AEM Infinity PnP Harness. The included oxygen sensor bung should be welded into the exhaust system after the turbo but before the catalytic converter (if still equipped). Oxygen sensor bungs and replacement sensors are available from AEM.

35-4005	**O2 Sensor Bung, Mild Steel**
35-4008	**O2 Sensor Bung, Tall Stainless Steel**
30-2001	**Bosch LSU 4.2 Wideband UEGO Replacement Sensor**

KIT CONTENTS

AEM P/N	Description	Qty
35-3822	AEM Infinity PnP Harness	1
35-2843	Ignitor, 3-Channel with Thermal Paste	1
35-2001	Bosch LSU 4.2 Wideband UEGO Sensor	1
35-4005	Oxygen sensor bung	1
1-3071	Cushion Clamp, 7/8"	1
1-3069	Screw, Self-Tapping #8 x 5/8"	5
1-3070	Screw, Self-Tapping #8 x 3/4"	2
1062-20-0122	Socket, Aux Connector with terminals	12
10-3822	Instruction Sheet, 30-3822	1

INFINITY CONNECTORS

The AEM Infinity EMS uses the MX123 Sealed Connection System from Molex. AEM strongly recommends that users become familiar with the proper tools and procedures before attempting any modifications. The entire user manual can be downloaded direct from Molex at:

http://www.molex.com/mx_upload/family//MX123UserManual.pdf

****NOTE** DUE TO EXPOSURE TO DIRT AND MUD, THE FOLLOWING CLEANING PROCEDURE MUST BE FOLLOWED IN ORDER TO PREVENT DAMAGE TO THE MAIN WIRING HARNESS CONNECTOR. DO NOT ATTEMPT TO UNLATCH AND REMOVE THE MAIN CONNECTOR IF IT'S DIRTY PRIOR TO CLEANING!!**

DAMAGE TO THE MAIN HARNESS CONNECTOR DUE TO LACK OF OR IMPROPER CLEANING IS NOT COVERED UNDER WARRANTY!!

Cleaning Instructions - **DO NOT ATTEMPT TO UNLATCH OR REMOVE THE CONNECTOR UNTIL STEP 3.**

Note dirt and grit built up around latch lock and in connector slides. All debris must be removed before attempting to unlatch and remove connector.

1. With the connector still in place and latched, use a squirt bottle to squirt water liberally and directly onto the connector slides and around all exposed surfaces to loosen and remove dirt, grit and small rocks. Repeat as necessary.

Squirt water liberally to the areas indicated

2. With the connector still in place and latched, use high pressure air to remove loosened debris. Direct air stream around connector slides and all exposed surfaces. Repeat as necessary.

3. Release latch lock and gently attempt to lift the latch to determine if there is excessive resistance. If latch binds or resistance is felt, stop and move to Step 4.

4. If resistance is felt while unlatching the connector, continue cleaning the connector with the latch raised to the point of resistance. Cycle the latch back and forth to help loosen additional debris.

Continue to clean out debris by squirting water into connector slides

5. Repeat previous steps until the connector slides are completely free of dirt and debris and the connector can be fully unlatched and removed with little resistance.

Clean connector slides

6. Once connector is removed, check the slides for any debris. Use a clean damp paper towel or rag to remove debris from the outsides of the connector. Use caution when wiping near the terminal openings.

Clean outside of connector housing - avoid terminal openings

8. Use a clean damp paper towel or rag to remove debris from the outside of the header connector. Use caution to avoid getting debris into connector.

INFINITY ADAPTER HARNESS

The core of the AEM Infinity PnP Harness Kit is the main harness that connects between the Polaris engine harness (replacing the stock ECU) and the AEM Infinity EMS. The harness connections for the various power, sensors, and auxiliary options are described here.

Connections

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. Note: the pin numbering is molded into the wire side of the connector. See 'Pinouts' section for details of this connector's pins.

ECU Header - Plugs into cars stock wiring harness.

Lambda - This 6-way terminated connector plugs directly into the included wideband oxygen UEGO sensor, **AEM P/N 30-2001**. The included M18x1.5 oxygen sensor bung needs to be welded into the exhaust system for installation. The sensor should be mounted in the exhaust collector where it will sample from both engine cylinders. On turbocharged engines the UEGO sensor must be installed <u>after</u> the turbocharger, if not, the pressure differential will greatly affect the accuracy of the sensor. To prevent collection of liquids between the sensor housing and sensor element during the cold start phase, the installation angle should be inclined at least 10° from horizontal with the electrical connection upwards.

Signal - This is a sealed, self-contained signal conditioner. This plug will come pre-terminated and should be secured out of the way of hot or moving parts. Do NOT remove.

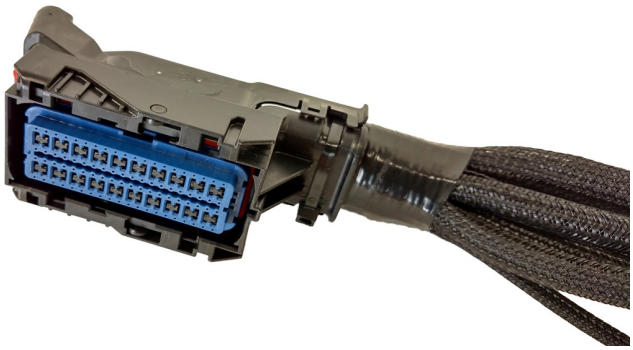
Coil - This connector should be plugged into the included 3-Channel Ignitor as shown.

AEMnet - AEMnet is an open architecture based on CAN 2.0 which provides the ability for multiple enabled devices, such as race dashes, data loggers, etc., to easily commumicate with one another through two twisted cables (CAN+/CAN-).

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.

Battery (+) - The red flying lead ring terminal should be connected to the battery positive terminal. This provides permanent power to the ECU. The fuse holder contains a 5A fuse. Always replace with a fuse of the same rating.

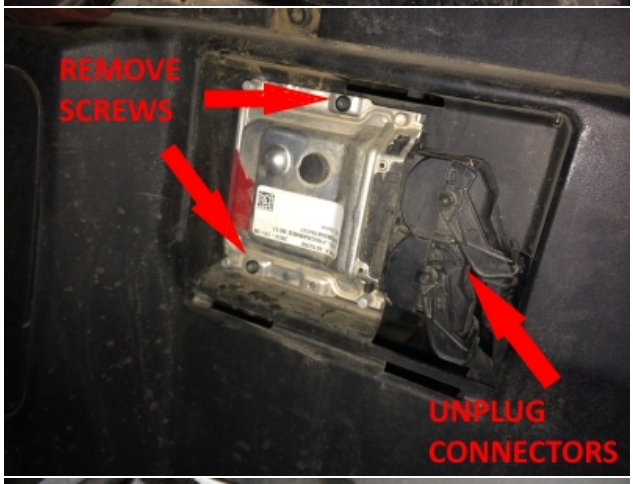
ECU C1 - Plugs into Infinity EMS.



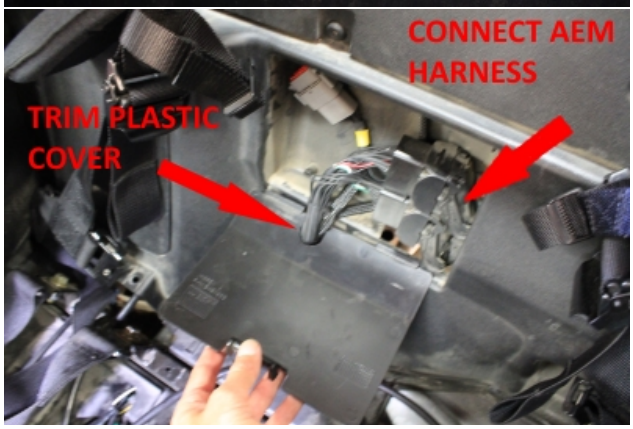
INSTALLATION

1. Remove the driver's side seat (rear seat in "XP 4" four-seater models) to gain access to the ECU compartment. Remove the access cover.

2. Remove the two screws securing the ECU to the body panel. Pull the ECU out to gain access to the connectors. Unlatch the connectors and remove the ECU from the vehicle.



3. Connect the two ECU connectors to the AEM adapter harness inside the ECU compartment. Route the UEGO sensor connector through the hole to the UEGO sensor location. Mark and trim the plastic access cover to the pass the AEM harness through the bottom.



4. Replace the plastic access cover and route the AEM harness down towards the fuse box, below the seat bracket. Secure the harness to the plastic body panel using the supplied cushion clamp and #8 x 5/8" self-tapping screw.

5. Find the storage bin located below the seat. Place the AEM Infinity ECU against the front wall of the compartment (opposite the fuse box) and secure in place with four of the supplied #8 x 5/8" self-tapping screws. Note the orientation of the ECU in the photo- the large blue connector should be toward the bottom of the compartment, with the two USB connectors near the top.

6. Mount the AEM 3-Channel Coil Driver to the driver's side of the same compartment with the two supplied (longer) #8 x 3/4" self-taping screws.

7. Connect the ring terminal of the fused power lead on the AEM Infinity harness to the positive terminal of the battery. Route the ring terminal through the neck of the terminal boot or trim the boot as necessary to ensure it can be placed back in position and protect the positive terminal from shorting to ground.

8. Plug in the harness connectors to the UEGO sensor, coil driver, and ECU. Refer to the images in the previous section to identify the connectors. The wire-exit end of the Infinity ECU 80-way connector should face toward the outside of the vehicle.

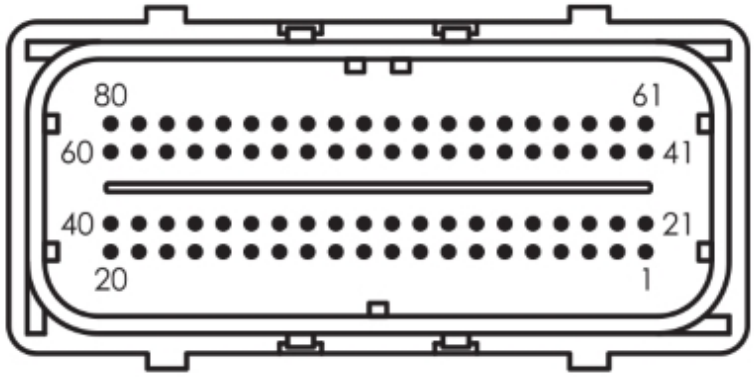
9. Installation complete. Refer to Getting Started for information on loading Infinity with firmware.

PINOUTS

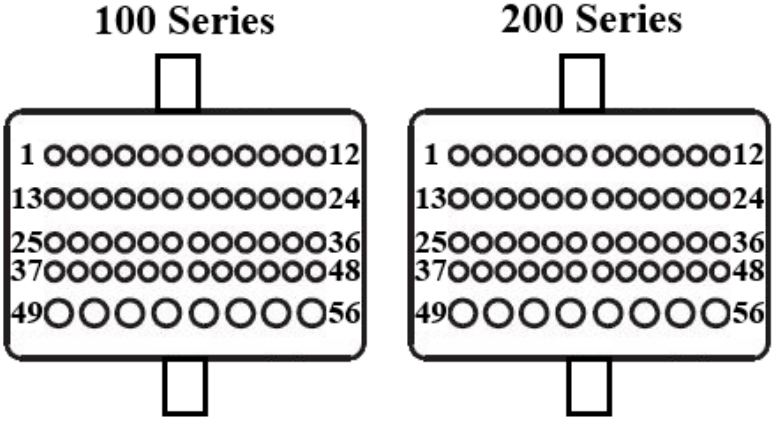
Infinity-508 Powersports, PN 30-7112					
Infinity Pin	**Hardware Reference**	**RZR Function**	**RZR Pin Destination**	**Hardware Specification**	**Notes**
C1-1	Lowside 4	AWD Hub Control	C2-246	Lowside switch, 1.7A max, NO internal flyback diode. 12v pullup.	Hard coded for AWD Hub Control. Not user configurable.
C1-2	Lowside 5	Chassis Relay Control	C2-140	Lowside switch, 6A max with internal flyback diode. Inductive load should NOT have full time power. 12v pullup.	Hard coded for Chassis Relay Control. Not user configurable.
C1-3	Injector 7			For use with high impedance (10-15ohms) injectors only, 1.7A max.	Not used.
C1-4	Injector 8			For use with high impedance (10-15ohms) injectors only, 1.7A max.	Not used.
C1-5	UEGO 1 Heat	UEGO 1 Heat	C5-4	Bosch UEGO controller	"Lambda" harness branch connects to Bosch UEGO LSU 4.2 sensor (AEM pn 30-2001) .
C1-6	UEGO 1 IA	UEGO 1 IA	C5-2		
C1-7	UEGO 1 IP	UEGO 1 IP	C5-6		
C1-8	UEGO 1 UN	UEGO 1 UN	C5-1		
C1-9	UEGO 1 VM	UEGO 1 VM	C5-5		
C1-10	Batt Perm Power	Permanent Power	Battery Lead	Dedicated power management CPU	Full time battery power. MUST be powered before the ignition switch input is triggered.
C1-11	Coil 4			25 mA max source current	Not used.
C1-12	Coil 3			25 mA max source current	Not used
C1-13	Coil 2	Coil 2	C3-5	25 mA max source current	0-5v falling edge ignition trigger. DO NOT connect directly to coil primary. Connects to included AEM 3 Channel Ignitor.
C1-14	Coil 1	Coil 1	C3-7	25 mA max source current	0-5v falling edge ignition trigger. DO NOT connect directly to coil primary. Connects to included AEM 3 Channel Ignitor.
C1-15	Coil 6				Not used.
C1-16	Coil 5				Not used.
C1-17	Crank Position Sensor VR+	Crank Position Sensor VR+	C2-213	Differential Variable Reluctance Zero Cross Detection	VR crank input.
C1-18	Crank Position Sensor VR-	Crank Position Sensor VR-	C2-201		
C1-19	Cam Position Sensor 1 VR-			Differential Variable Reluctance Zero Cross Detection	Not used.
C1-20	Cam Position Sensor 1 VR+				
C1-21	Lowside 2	Coolant Fan	C2-141	Lowside switch, 1.7A max, NO internal flyback diode. No pullup.	Configured in RZR base session for Coolant Fan.
C1-22	Lowside 3	Spare Lowside Output	C6-1	Lowside switch, 6A max with internal flyback diode. Inductive load should NOT have full time power. No pullup.	Available lowside output in Aux connector. See Setup Wizard to configure.
C1-23	AGND	Sensor Ground	C2-103, C2-104, C2-105, C2-106	Dedicated analog ground	Sensor ground for 0-5v analog inputs.
C1-24	AGND	Sensor Ground	C2-204, C2-208, C2-237, C6-11	Dedicated analog ground	Sensor ground for 0-5v analog inputs.
C1-25	Crank Position Sensor 1 Hall			10K pullup to 12V. Will work with ground or floating switches. Frequency input only.	Not used.
C1-26	Cam Position Sensor 1 Hall			10K pullup to 12V. Will work with ground or floating switches. Frequency input only.	Not used.
C1-27	Digital 2	AWD Request Signal	C2-120	10K pullup to 12V. Will work with ground or floating switches. Frequency input only.	Hard coded for AWD Request. Not user configurable.
C1-28	Digital 3	Spare Frequency Input	C6-3	10K pullup to 12V. Will work with ground or floating switches. Frequency input only.	Spare frequency input in Aux connector. Can be used for Flex Fuel or Turbo Speed or other frequency input. See Setup Wizard to configure input.
C1-29	Digital 4	Vehicle Speed Sensor	C2-232	10K pullup to 12V. Will work with ground or floating switches. Frequency input only.	Configured in RZR base session for Vehicle Speed.

C1-30	Digital 5	Brake Switch	C2-135	No pullup. Works with 12v switch inputs. Switch input only.	Configured in RZR base sessin for Brake Switch.
C1-31	Coil 7			25 mA max source current	Not used.
C1-32	Coil 8			25 mA max source current	Not used.
C1-33	Power Ground	Ground	C2-247	Power ground	Power ground.
C1-34	CAN A-	AEMnet CAN-	C8-2	Dedicated high speed CAN transceiver	AEMnet.
C1-35	CAN A+	AEMnet CAN+	C8-1	Dedicated high speed CAN transceiver	AEMnet.
C1-36	CAN B-	Chassis CAN-	C2-144	Dedicated high speed CAN transceiver	Hard coded for stock dash display.
C1-37	CAN B+	Chassis CAN+	C2-132	Dedicated high speed CAN transceiver	Hard coded for stock dash display.
C1-38	Temp 1	Coolant Temp Sensor	C2-215	2.49k pullup to 5v	RZR coolant temp sensor.
C1-39	Temp 2	Air Temp Sensor	C2-227	2.49k pullup to 5v	RZR air temp sensor.
C1-40	Temp 3	Spare Temp Input	C6-6	2.49k pullup to 5v	Spare temp input in Aux connector. Can be used for Oil Temperature input. See Setup Wizard Oil Temperature page.
C1-41	Lowside 0	Fuel Pump Relay	C2-142	Lowside switch, 4A max, NO internal flyback diode. No pullup.	Switched ground. Will prime at key on and activate when RPM>0.
C1-42	Lowside 1	Boost Control	C2-101	Lowside switch, 4A max with internal flyback diode. Inductive load should NOT have full time power. No pullup.	Configured in RZR base session for boost control. See Setup Wizard Boost Control page for options. Monitor BoostControl [%] channel for output state.
C1-43	Power Ground	Ground	C2-154	Power ground	Power ground.
C1-44	Knock Sensor 1	Knock Sensor 1	C2-238	Dedicated knock signal processor	RZR knock sensor.
C1-45	Knock Sensor 2			Dedicated knock signal processor	Not used.
C1-46	Power Ground	Ground	C2-153	Power ground	Power ground.
C1-47	Main Relay Control	Ground out to main relay	C2-115	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	C2-116	10k pulldown	Full time battery power must be available at C1-10 before this input is triggered.
C1-49	5v Sensor Power	+5V Sensor Power	C2-125, C2-137, C2-138	Regulated, fused +5V supply for sensor power	Analog sensor power.
C1-50	5v Sensor Power	+5V Sensor Power	C2-210, C2-223	Regulated, fused +5V supply for sensor power	Analog sensor power.
C1-51	Analog 7	DBW TPS1	C2-203	12 bit A/D, 100K pullup to 5V	TPS1 input from DBW throttle body.
C1-52	Analog 8	MAP Sensor	C2-219	12 bit A/D, 100K pullup to 5V	RZR MAP sensor.
C1-53	Analog 9	Fuel Sender Signal	C2-112	12 bit A/D, 100K pullup to 5V	Hard coded for fuel level input. Not user configurable.
C1-54	VR+ 2			Differential Variable Reluctance Zero Cross Detection	Not used.
C1-55	VR- 2				
C1-56	VR- 3			Differential Variable Reluctance Zero Cross Detection	Not used.
C1-57	VR+ 3				
C1-58	Highside 0	Brake Lights	C2-113, C2-150	2.6A max, High Side Solid State Relay	Brake light control.
C1-59	Stepper 1B			Automotive, Programmable Stepper Driver, up to 28V and ±1.4A	Not used.
C1-60	Stepper 2B			Automotive, Programmable Stepper Driver, up to 28V and ±1.4A	Not used.
C1-61	DBW Motor-	DBW Throttle Close	C2-252	5.0A max Throttle Control Hbridge Drive	DBW throttle control. Base session is configured for stock DBW TB. Other TB's may be used but will require setup and characterization. See Drive By Wire Wizard.
C1-62	DBW Motor+	DBW Throttle Open	C2-251	5.0A max Throttle Control Hbridge Drive	DBW throttle control. Base session is configured for stock DBW TB. Other TB's may be used but will require setup and characterization. See Drive By Wire Wizard.
C1-63	+12v	+12v	C2-155	12v power from main relay	12v power from main relay.
C1-64	Injector 6			For use with high impedance (10-15ohms) injectors only, 1.7A max.	Not used.
C1-65	Injector 5			For use with high impedance (10-15ohms) injectors only, 1.7A max.	Not used.
C1-66	Injector 4			For use with high impedance (10-15ohms) injectors only, 1.7A max.	Not used.
C1-67	Power Ground			Power ground	
C1-68	+12v	+12v	C2-156	12v power from main relay	12v power from main relay.

C1-69	Analog 19	DBW APP2	C2-111	12 bit A/D, 100K pullup to 5V	Accelerator Pedal Position Sensor 2.
C1-70	Analog 18	DBW APP1	C2-121	12 bit A/D, 100K pullup to 5V	Accelerator Pedal Position Sensor 1.
C1-71	Analog 16	DBW TPS2	C2-220	12 bit A/D, 100K pullup to 5V	TPS2 input from DBW throttle body.
C1-72	Flash Enable		Flash	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 13	Available Analog Input	C6-4	12 bit A/D, 100K pullup to 5V	Spare Analog Input in Aux connector. Can be used as Oil Pressure, Mode Switch, 3-Step or other analog input. See Oil Pressure or Input Function Assignments in Setup Wizard.
C1-74	Analog 11	Trans Position Signal	C2-123	12 bit A/D, 100K pullup to 5V	Hard coded for tranmission position input. Not user configurable.
C1-75	Analog 10	Baro/Air Box Pressure	C2-110	12 bit A/D, 100K pullup to 5V	RZR barometric/air box pressure sensor.
C1-76	Injector 3			For use with high impedance (10-15ohms) injectors only, 1.7A max.	Not used.
C1-77	Injector 2	Injector 2	C2-243	For use with high impedance (10-15ohms) injectors only, 1.7A max.	Injector 2.
C1-78	Injector 1	Injector 1	C2-244	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



ECU-side of header connector view.

C3	IGNITOR	
Pin	Dest. Pin	Default Pin Function
1		
2		
3	C2-254	Harness Coil 2
4	C2-250	Power Ground
5	C1-13	ECU Coil 2
6	C2-256	Harness Coil 1
7	C1-14	ECU Coil 1

C4	LAMBDA	
Pin	Dest. Pin	Default Pin Function
1	C1-8	UEGO UN
2	C1-6	UEGO IA
3	+12V	Switched Power
4	C1-5	UEGO Heat
5	C1-9	UEGO VM
6	C1-7	UEGO IP

C5	FLASH	
Pin	Dest. Pin	Default Pin Function
1	C1-10, F1-1	+12V Perm Power
2	C1-72	Flash Enable

C6	AUX	
Pin	Dest. Pin	Default Pin Function
1	C1-22	Lowside 3
2		
3	C1-28	Digital 3
4	C1-73	Analog 13
5		
6	C1-40	Temp 3
7		
8		
9	5v	5v
10	12v	12v
11	SGND	Sensor Ground
12	GND	Ground

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.