# Instruction Manual



# P/N 30-3322 Water/Methanol Injection V2 Conductive Fluid Level Sensor With Flying Lead Connector\*



#### STOP!

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

**WARNING!** THIS IS A RACE ONLY PRODUCT MANUFACTURED AND SOLD FOR INSTALLATION ON VEHICLES DESIGNED TO BE USED SOLELY FOR COMPETITION PURPOSES. ONCE THIS PART IS INSTALLED, THE VEHICLE MAY NEVER BE USED, OR REGISTERED OR LICENSED FOR USE, ON A PUBLIC ROAD OR HIGHWAY. IF YOU INSTALL THIS PART ON YOUR VEHICLE AND USE THE VEHICLE ON A PUBLIC ROAD OR HIGHWAY, YOU WILL VIOLATE THE CLEAN AIR ACT AND MAY BE SUBJECT TO PERSONAL CIVIL OR CRIMINAL LIABILITY, INCLUDING FINES OF UP TO \$4,819 PER DAY.

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!**

Improper installation and/or adjustment of this product can result in major engine/vehicle damage. For technical assistance visit our dealer locator to find a professional installer/tuner near you.

Note: AEM holds no responsibility for any engine damage or personal injury that results from the misuse of this product, including but not limited to injury or death caused by the mishandling of methanol.

\*AEM's conductive fluid sensor is only compatible with the V2 controller and NOT with V1.

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Instruction Part Number: 10-3322
Document Build 10/8/2021

### IMPORTANT SAFETY NOTICE REGARDING METHANOL

AEM strongly recommends that users never exceed a 50% methanol concentration when using any AEM Water/Methanol system or component.

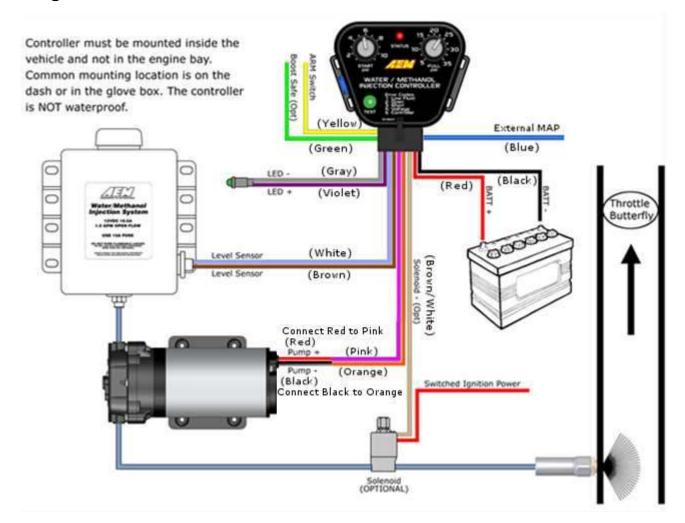
All AEM water/methanol injection systems and components (pump, lines, fittings, filter, flow sensor, tank, and nozzles) are 100% chemically compatible with methanol. However, for safety reasons we strongly recommend that users never use more than a 50% methanol concentration in our systems.

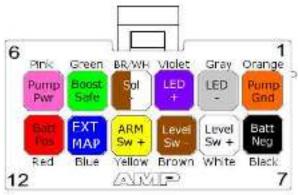
Methanol is a toxic and highly flammable chemical. 100% methanol ignites easily and burns vigorously with an almost undetectable flame. Methanol can be absorbed through the skin, and even small amounts can cause blindness or even death. Using this fluid at high pressures, without dilution, in an under-hood environment with nylon lines and push-to-connect fittings is very unsafe. The performance advantages of using greater than 50% methanol concentrations are small, if they exist at all. However, the safety issues are very real and far outweigh any perceived benefit of running high concentrations of methanol.

Note: AEM holds no responsibility for any engine damage or personal injury that results from the misuse of this product, including but not limited to injury or death caused by the mishandling of methanol.

#### **INSTALLATION**

#### **Diagram**





\*Viewed from Wire Side of Connector

NOTE: THIS KIT INCLUDES NEW STYLE INJECTOR NOZZLES THAT HAVE INTERNAL CHECK VALVES. AN EXTERNAL CHECK IS NO LONGER NEEDED OR INCLUDED IN THIS KIT.

#### **Pin Installation**

Pin#	Description	Wire**	Color	Connection
1	Pump Ground	16 AWG	Orange	Connect to ground (black) wire of pump.
2	LED -	20 AWG	Gray	Connect to ground (black) wire of external LED.
3	LED +	20 AWG	Violet	Connect to positive (red) wire of external LED.
4	Solenoid -	20 AWG	Brown/White	1.5A Low Side output. Connect to optional flow control solenoid.
5	Boost Safe LS Out	18 AWG	Green	1.7A Low Side output, grounded when error condition exists.
6	Pump Power	16 AWG	Pink	Connect to the positive (red) wire of pump.
7	Ground	16 AWG	Black	Main ground connection. Connect directly to battery ground.
8	Level Switch+	20 AWG	White	Connect to the white wire of the fluid tank level sensor*
9	Level Switch-	20 AWG	Brown	Connect to the black wire of the fluid tank level sensor*
10	Arm Switch +	20 AWG	Yellow	Arms injection system. Connect to a switched 12V source.
11***	External Signal	18 AWG	Blue	Connect to External Signal. (0–5V, injector duty, MAF frequency)
12	Power 12V	16 AWG	Red	Main Power Connection. Connect directly to positive battery terminal.

<sup>\*</sup>Note: If fluid tank is equipped with previous generation level sensor, identified by having two black wires, then pins 8 (white)

and 9 (brown) may be connected to either of the two black sensor wires. The polarity is unimportant.

\*\*Note: If you need to extend the wires to mount the controller use at least 16 AWG wire for the pump and controller ground circuits and 18 AWG for the remainder.

\*\*\*Note: The external signal is only available for the Multi-Input Controllers. The Internal MAP Standard and HD controllers will

not have this pin populated.

#### OPTIONAL SYSTEM UPGRADES

#### High-Flow Low-Current WMI Solenoid – AEM P/N 30-3326



AEM's stainless steel Water/Methanol Injection Solenoid (PN 30-3326) eliminates any chance of water/methanol flow into the inlet when the WMI system is not engaged. This affordable water/methanol injection accessory features high flow capability (3,600cc/min) and an impressively low current draw of only 0.75A that does not require the use of an additional relay.

#### Water/Methanol Injection Filter – AEM P/N 30-3003



Inline filter that uses a micronic mesh screen to filter out particles as small as 40 microns. Allows a cleaner flow of water/methanol into the injection pump, lines, and nozzles increasing overall system longevity. Injection filter is **HIGHLY RECOMMENDED** when using the AEM water/methanol injection flow gauge.

#### Additional Nozzle Kit - AEM P/N 30-3315



Includes one complete nozzle, three pintle sizes (one is preinstalled), one retaining clip, and the necessary hardware to run a second nozzle in your injection system.

#### 5-Gallon Tank - AEM P/N 30-3320



Upgrade to a 5-gallon tank to maximize your fluid holding capacity. Includes level sensor and mounting hardware.

#### 12 MONTH LIMITED WARRANTY

AEM Performance Electronics warrants to the consumer that all AEM ELECTRONICS products will be free from defects in material and workmanship for a period of twelve months from date of the original purchase. Products that fail within this 12-month warranty period will be repaired or replaced when determined by AEM that the product failed due to defects in material or workmanship. This warranty is limited to the repair or replacement, at AEM's discretion, of the AEM Electronics part. In no event shall this warranty exceed the original purchase price of the AEM ELECTRONICS part nor shall AEM ELECTRONICS be responsible for special, incidental or consequential damages or cost incurred due to the failure of this product.

Warranty claims to AEM ELECTRONICS must be transportation prepaid and accompanied by 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 ELECTRONICS disclaims any liability for consequential damages due to breach of any written or implied warranty on all products manufactured by AEM ELECTRONICS.

Warranty returns will only be accepted by AEM ELECTRONICS when accompanied by a valid Return Merchandise Authorization (RMA) number. Product must be received by AEM ELECTRONICS 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 ELECTRONICS can issue an RMA for any electronic product, it is first necessary for the installer or end user to contact the 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 an RMA requested before the above process transpires. AEM ELECTRONICS will not be responsible for products that are installed incorrectly, installed in a non-approved application, misused, or tampered with.

Fuel Pumps installed with incorrect polarity (+&- wires crossed) will not be warranted. Proper fuel filtration before and after the fuel pump are essential to fuel pump life. Any pump returned with contamination will not be warranted.

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

Need additional help? Contact the AEM Performance Electronics tech department at 1-800-423-0046 or email us at tech@aemelectronics.com.