

## INSTRUCTION MANUAL (2020-04-06)



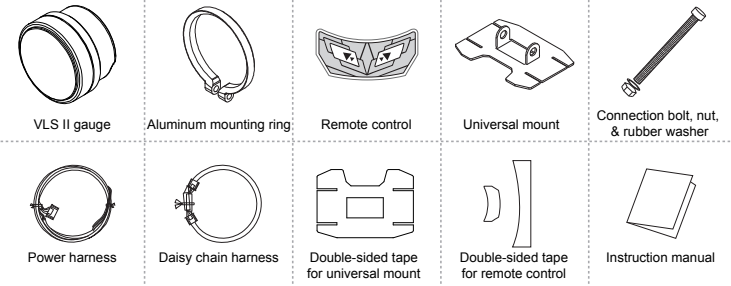
Please read the instructions before installation.

### PRODUCT FEATURES

- The Zero-Friction high speed brushless motor operates the indicator to 1200 rad/s while maintaining silent and accurate movement.
- The premium quality gauge features the innovative mounting ring which is perfectly integrated with the aluminum bezel and shot peened frame.
- The dual-color LED backlight module can be set to white or red for clear and easy reading of the gauge values. 12 levels of brightness adjustment can be set with the included remote control.
- Peak and warning values can be set with the included remote control and can retain the desired settings in memory.
- Gauge display range:

Boost	30 inHG ~ 45 PSI
Water Temp.	70° F ~ 250° F
Oil Temp.	120° F ~ 300° F
Oil Press.	0 PSI ~ 140 PSI

### CONTENTS FOR ALL GAUGES



### ADDITIONAL CONTENTS FOR EACH GAUGE

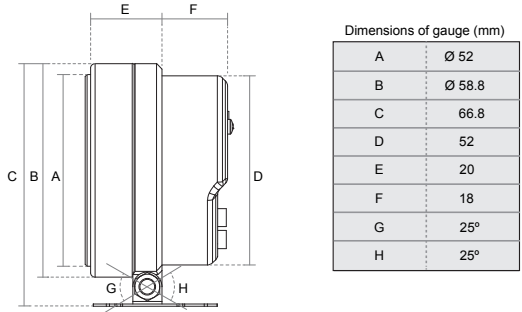
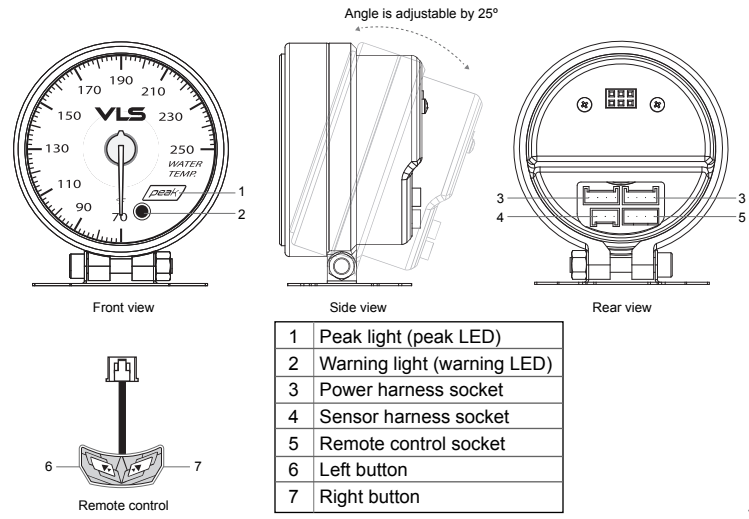
<b>Boost</b>					
<b>Oil Press.</b>					
<b>Oil Temp.</b>					
<b>Water Temp.</b>					

### IMPORTANT

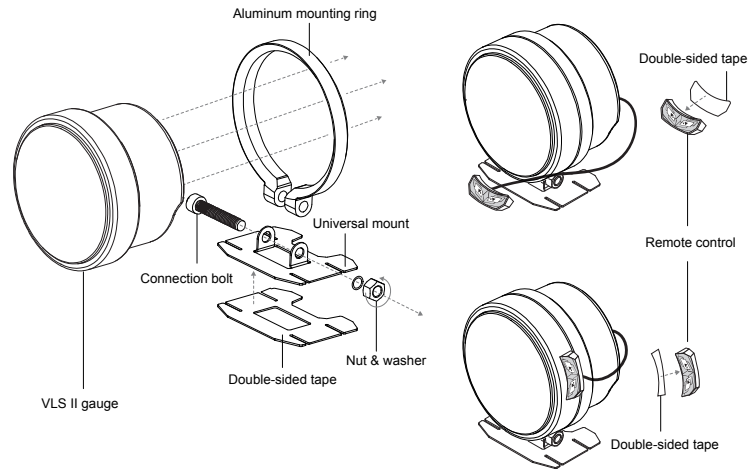
- This product is designed for use on 12V vehicles only.
- Professional installation by the dealer or shop is recommended.
- Never work in a poorly ventilated space or at an area with high temperature or humidity as malfunction and/or injury may occur under these environments.
- Turn off the engine first, then disconnect the negative (-) battery terminal before installation to prevent injury and/or damage to the gauge components.
- Install the sensors away from heat and moisture to prevent damage to the components.
- Position the sensor & power harness cables away from the engine, exhaust pipes, and other high heat sources to prevent damage to the cables.
- Ensure that each wiring harness is firmly connected only to the specified socket on the gauge unit and is in the correct orientation. DO NOT use excessive force when attaching or detaching the connectors on to the gauge.
- If solder is used to connect wires then use electrical tape or heat shrink to secure the wiring.
- Do not disconnect the wiring harness or remote control while operating the vehicle as this may cause damage to the product.
- Never disassemble or modify this product under any circumstances as this will void the warranty.
- VLS II gauges are daisy chain compatible only with VLS II analog gauges.
- The failure of the gauges due to incorrect installation is out of the liability of our warranty policy. Any loss of personal property due to improper usage is out of our responsibility or compensation. (Warranty information can be found on Page 2.)

### TECHNICAL INFORMATION

Default voltage	Default current	Default standby current
10-18 volts	70-140mA	11mA

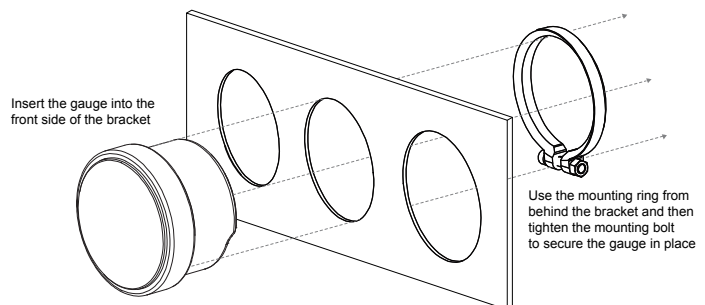


### MOUNTING INSTRUCTIONS

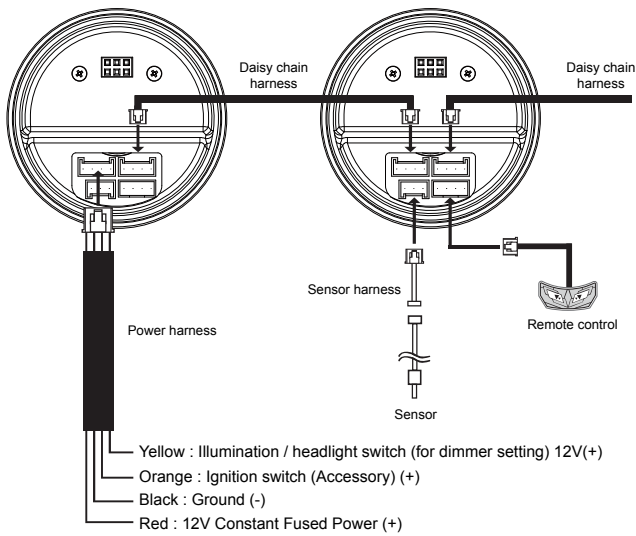


#### Mounting with universal stand:

- Choose the position where you want to mount the gauge. Be sure to confirm that the driver's field of view is not hindered, especially when multiple gauges are used. Pull the harness cables along the route of the shortest distance to the planned installation position of the gauge.
- Clean the area where the gauge will be mounted. Use the proper detergent (for example: alcohol or silicon ester remover) to remove all grease and dirt from the gauge and the installation area and let the area completely dry before mounting it.
- Mounting and securing the universal mount. Use the double-sided tape to secure the universal mount on the installation spot. Avoid tearing the double-sided tape repeatedly as it will reduce the effectiveness of the adhesion.
- If using a custom mounting solution, please use the aluminum mounting ring to secure the gauge from behind the mount or bracket as indicated by the diagram below:



## POWER & SENSOR CONNECTION DIAGRAM

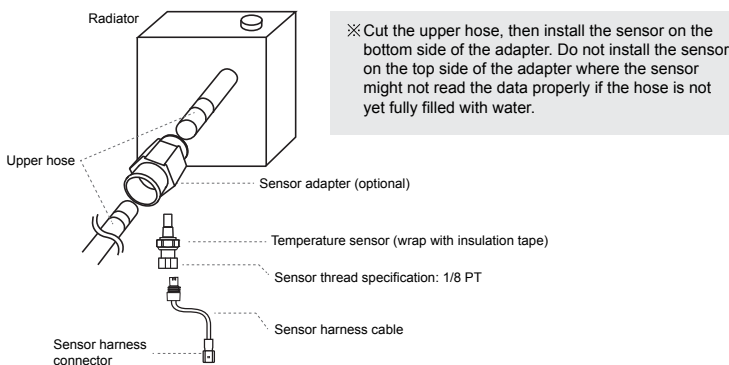


## REMOTE CONTROL OPERATION

Feature	Instruction	Description
<b>Backlight color switch</b>	Press the left and right buttons at the same time.	Backlight LED color can be switched between white and red.
<b>Brightness adjustment</b>	Push the left button for brightness adjustment. Brightness setting cycles through 6 levels for each backlight color.	Brightness adjustment can be set in day light and night light modes. Each mode has 6 levels of brightness for each color. When the headlight switch is used the gauge will automatically switch to night mode.
<b>Viewing &amp; clearing peak data</b>	<b>Show the peak value</b> Pressing the right button will show the peak value or lowest value on the gauge. Pressing the right button again will set the gauge back to normal mode. *The gauge will also return to normal mode if no buttons are pressed for 5 seconds.	Peak data automatically records the highest or the lowest valve during the current trip.
	<b>Clear the peak value</b> Press the right button to show the peak value then press the left button to clear it.	
<b>Warning value setup</b>	Press the left button to decrease the value. Holding the button will increase the speed. ③ Press and hold the right button for 3 seconds to enter setup mode. ① Press the right button to increase the warning value. Holding the button will increase the speed. ② Press the right button to increase the warning value. Holding the button will increase the speed.	The gauge will beep in normal mode when the reading surpasses the set warning value.

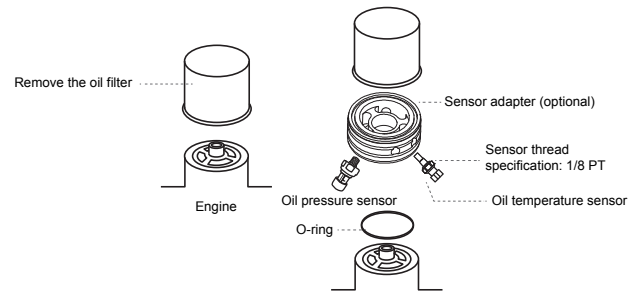
**Warning value setup**  
 Press and hold the right button for 3 seconds to get into the setup mode. Once in setup mode the needle will point to the current warning value with warning flash. Use the left and right buttons to adjust and set the warning value. Let the gauge sit still for 5 seconds and it will return to normal mode.

## INSTALLING WATER TEMPERATURE SENSOR



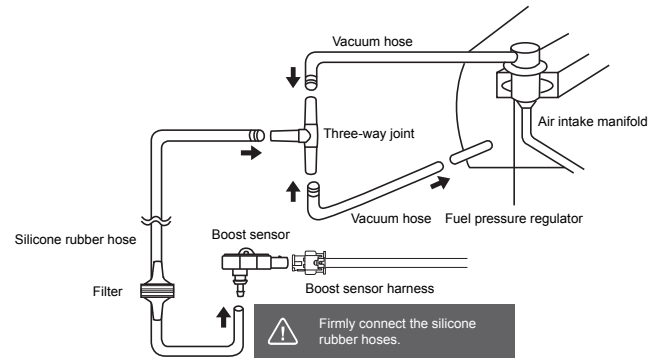
- Install the sensor with the sensor adapter first before plugging in the sensor harness to prevent the harness cable from twisting.
- Sensor thread specification is 1/8 PT. If the size does not match the adapter, then consult the dealer where you purchased the sensor adapter to obtain the correct size.

## INSTALLING OIL PRESSURE & OIL TEMPERATURE SENSORS



- Install the sensor with the sensor adapter first before plugging in the sensor harness to prevent the harness cable from twisting.
- Sensor thread specification is 1/8 PT. If the size does not match the adapter, then consult the dealer where you purchased the sensor adapter to obtain the correct size.
- Make sure to refill the engine oil to replace any oil that may have leaked out during installation.

## INSTALLING BOOST SENSOR



- Cut the vacuum hose extended out from the intake manifold then connect the vacuum hoses to the three-way joint.
- Mount the sensor away from high temperatures and at a location that is not exposed to water.
- Connect the silicone rubber hose to the boost sensor and the three-way joint in as shortest distance as possible to receive optimal information from the sensor.
- Intake pressure is measured from the space between the intake manifold and the fuel pressure regulator.



Secure the hoses with hose clips. Make sure all the connected hoses are well tightened. The engine might get damaged if the silicone rubber hose is disconnected while driving.

## LIMITED WARRANTY

We warrant all of our parts against defects in materials or workmanship under normal use and service after proper installation, (subject to the conditions and exclusions described below) for a period of one (1) year from the original consumer's date of purchase. During the warranty period, we will, at our option, repair or replace the defective part or refund your money. This warranty does not cover labor reimbursement. This warranty is non-transferrable. Replacement parts are warranted from the date of exchange for a period of one (1) year. The following is a non-exclusive list of examples that are not considered defects: failure due to accident or collision, chemical fallout, salt, hail, or other environmental conditions including natural disasters; improper installation, self-installation, or modification of the part; vehicles under manufacturer's recall for a related problem; and misuse or abuse, including off-roading or racing.

THIS WARRANTY DOES NOT COVER INCIDENTAL, INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES SUCH AS PHYSICAL INJURIES OR PROPERTY DAMAGE, LOSS OF TIME, LOSS OF USE OF THE VEHICLE, INCONVENIENCE, RENTAL VEHICLE CHARGES, TOWING CHARGES OR ACCOMMODATIONS RESULTING FROM A DEFECT IN OR FAILURE OF THE PART. THIS WARRANTY REPRESENTS THE EXCLUSIVE REMEDY FOR ANY PRODUCT DEFECT OR FAILURE AND REVEL USA, INC. MAKES NO OTHER WARRANTIES EXPRESS OR IMPLIED INCLUDING ANY WARRANTY OF MERCHANTABILITY, CONDITION OF ANY KIND, OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimers of implied warranties, and in those states any implied warranty that may apply is limited to one year. If any provision of the warranty should be deemed invalid or unenforceable, the remaining terms and provisions of the warranty shall remain in full force and effect.

To file a claim:  
 You must obtain a Return Authorization from the original place of purchase prior to returning parts for inspection for defects. Returns must accompany the original consumer's sales receipt. The R.A. number must be written on the outside of the carton to be returned. Any carton without a proper R.A. number will be refused. An R.A. does not guarantee repair, replacement or refund, only that Revel USA will inspect the parts for defects. Returns must be sent by pre-paid freight. If an inspection is performed and the product is working properly, the customer will be responsible for the shipping return expenses. (Note: All R.A. numbers are only valid for 30-days after being issued.)

**Revel USA**  
 1849 Western Way, Torrance, CA 90501  
 (310) 783-0200  
 www.Revel-USA.com