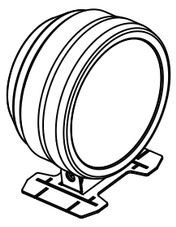


SAFE ECO SPORT PLUG & PLAY

Precision Gen2

⚠ Route wires away from the ignition and radio signal frequency interference since this could cause the gauges to malfunction.

⚠ Wireless devices and mobile phones that emits electric waves should not close to or touch the product and harness. It may influence the performance of the gauges.

⚠ Make sure the waterproof processing is done when diverging or splitting wires in the engine compartment.

⚠ Use a dried soft cloth for cleanliness. Do not use cleaners except for neutral detergents.

⚠ Do not to install the product in a way that interferes with safety equipment, for instance seat belt and air bag systems or vehicle operation devices, for example engine controls, steering wheel and braking systems. Interference with the normal operation of the vehicle can result in unpredictable accidents or fires.

⚠ When the negative battery terminal is removed, vehicle's interior equipment, for instance clocks and audio components with internal memory, may lose their memory data. Hence, follow up the operation manual of interior equipment to reset data after the completion of the installation of the product.

⚠ Under no circumstances will VAITRIX be liable to the customers for any damages or losses of genuine parts for customers' vehicle while installing.

⚠ Under no circumstances will VAITRIX be liable to customers for any damages arising out of the use or the inability to use the product, even if VAITRIX has been advised of the possibility of such damages.

⚠ The product adopts high luminance LEDs. When several gauges are lined up, there might be subtle color difference in the LED production tolerance, but it is not malfunction whereas it is normal.

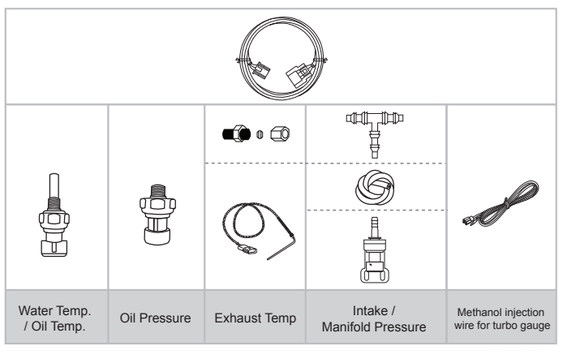
Features

1.The gauge is operated by far- infrared remote controller.
2.Hairline finish face with high definition scale and high brightness pointer creates clear and precise reading.
3.High transparent glass with low reflection creates 99% of visibility and reduces the reflection to 4%.
4.The advanced illumination LEDs backlight offers 6 levels of lighting modes for visual comfort. High-sensitivity light sensor can automatically adjust the brightness of faceplate illumination based on ambient lighting.
5.Stepper motor drives the gauge pointer to a particular angle instantaneously.
6.Microcontroller with silent stepper mode in 3540 segments drives the gauge pointer over a 270° sweep, providing accurate data to the driver.
7.Self-diagnosis function detects disconnection of sensors, short circuits and communication errors. When it goes into warning mode, the pointer and the backlight will flash alternately.
8.The warning value can be set. When the warning red LED light comes on, the buzzer will sound. (The sound can be switched on/off by pressing the button.)
9.Peak value will be held in memory automatically. Driver can obtain the data promptly and recall the highest reading
10.CNC racing gauge with metal bezel and ABS lightweight body. The gauge operates individually without control unit and the metal clamps make it easy to assemble.

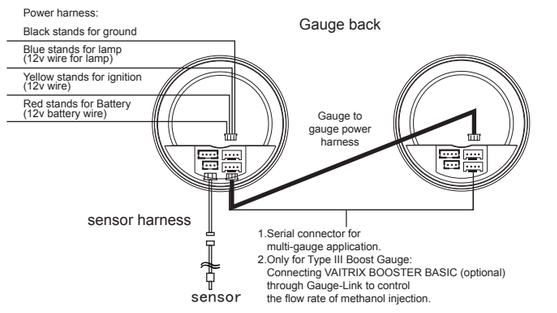
Components In The Box

Gauge	x1	
Double Sided Sticky Pads	x2	
Instruction Manual	x1	
Sensor Harness	x1	
Bolt & Beam ring & Mounting Bracket	x1	

Optional Components



Gauge Wiring Harness Diagram



REMOTE CONTROLLER OPERATION MANUAL

Functional buttons	
Warning	Peak
Up (+)	Down (-)
Brightness	Enter
Initial methanol injection	Full methanol injection

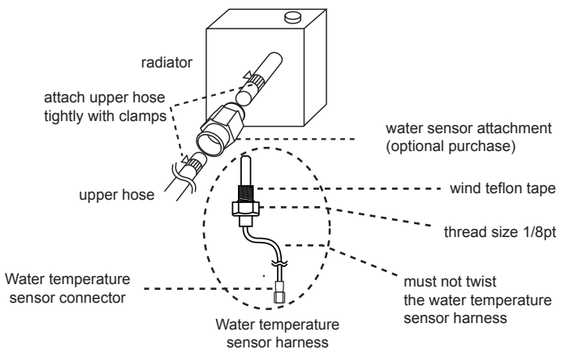
GAUGE MODEL	BO- Booster
WT- Water temperature	VO- Voltage
OT- Oil temperature	IT- Intake air temperature
EGT- Exhaust temperature	TT- Transmission temperature
OP- Oil pressure	FP- Fuel pressure temperature

Steps to connect:

1.Select gauge model first, the pointer of selected gauge will sweep back to zero and flash, then it will enter the setting mode. (In this status, if there is no action within 30 seconds, it will be required to connect again.
2.The functional buttons will be activated only when the gauge enters the setting mode.
3.Exit setting mode of connection by pressing the ENTER button, or select another gauge model to continue setting up.
4.Under setting mode, press and hold the BO button or EGT button to enter sensor adjustment mode. (This function is only available for exhaust temperature and turbo gauge)

Operation manual	Illustration
POWER: POWER Button: Press to start operation or stop operation. OFF: Press POWER button to turn gauge off under setting mode. ON: Select and press the GAUGE MODEL under OFF mode to enter the setting mode, and the pointer will start flashing. After that, press POWER button to turn gauge on,	Needle sweeps around… …while panel flashes
BRIGHTNESS SETTING: (Warning light and Peak light will flash alternately) Adjust the brightness by selecting UP and DOWN buttons (1-2-3 steps) and then press ENTER button to complete setting.	Alternating flashing
INITIAL METHANOL INJECTION SETTING: (Only methanol injection turbo gauge is available) (PEAK light will flash at lower speed). Press UP and DOWN buttons to adjust the pressure of initial injection and then press ENTER button to complete setting. The highest value must be less than the injection value of full power.	Slow blinking
FULL METHANOL INJECTION SETTING: (Only methanol injection turbo gauge is available) (PEAK light will flash at higher speed). Press UP and DOWN buttons to adjust the pressure of full power injection and then press ENTER button to complete setting. The lowest value must be higher than the value of initial injection	Quick blinking
PEAK VALUE SETTING: (PEAK light will come on) Press PEAK button and the recorded peak value will be displayed. Press PEAK button again, the gauge will return to the setting mode and the peak value will be kept. If ENTER button is being pressed, the recorded PEAK value will be deleted and the gauge will return to the setting mode.	Peak value Press ENTER button to clear peak value record Permanent light
WARNING VALUE SETTING: (Red WARNING light will come on). Adjust WARNING value by pressing UP and DOWN buttons. After setting, the gauge will buzz when the vehicle reaches above or under the setting value.	Permanent light

The Installation Of Water Temperature Sensor



⚠ Notice:
• Make sure not to twist the sensor harness when installing the sensor. Otherwise, the sensor harness may be cut.

• Coolant spills during the installation work. Please make sure to replenish the engine with coolant and bleed the air from the radiator system, otherwise the accumulation of air inside the radiator system will retain heat and result in the engine overheat.

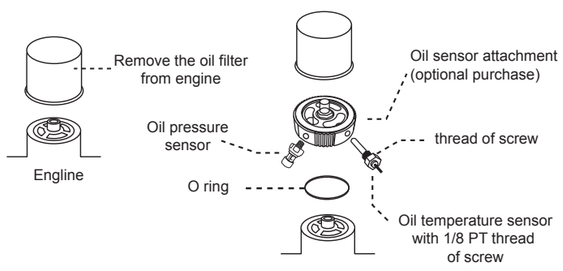
• To prevent from water leaks during the installation of the sensor, it is highly recommended to use Teflon tape to wind the sensor. Attach the sensor attachment and upper hose with clamps tightly. Inspect connections for the sake of leakage before driving.

• To avert the damage of the sensor cable, please fix the waterproof processing connector on the vehicle body and do not bend the sensor cable near the sensor.

• The thread size of the water temperature sensor is 1/8PT. Use a sensor attachment ofsize 1/8PT.

• Fully tighten the sensor into the sensor attachment and then connect it to the sensor harness.

The Installation Of Oil Temperature Sensor And Oil Pressure Sensor



⚠ Notice:
• Make sure not to twist the sensor harness when installing the sensor. Otherwise the sensor harness may be cut.

• Lubricant spills during the installation work. Please make sure to replenish the engine with lubricant. The engine might overheat when lubricant is insufficient.

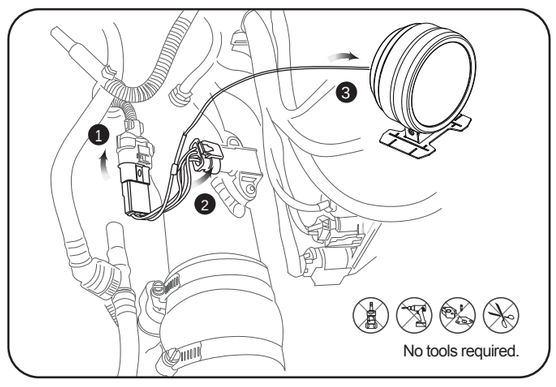
• To prevent from lubricant leaks during the installation of the sensors, it is highly recommended to use Teflon tape to wind the sensor. Inspect oil sensor attachment and o ring for the sake of leakage before driving. Leaks could cause a fire or damage the engine.

• Do not install the sensor near oil sump. Do not install the sensor to pressure switch directly. Failure to do so could damage the sensor because the pressure pulsation is too high to withstand.

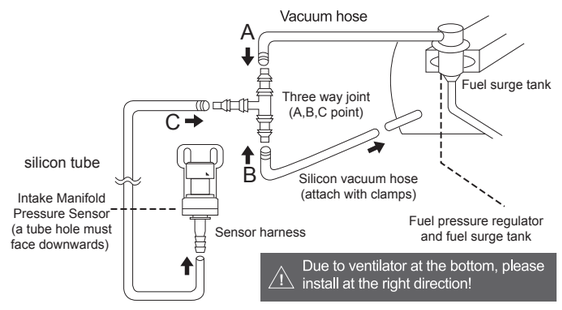
• To prevent from damaging the sensor harness,please fix the waterproof processing connectors on the vehicle body and do not bend the sensor harness, especially around the sensor.

• The thread size of the oil temperature sensor is 1/8PT. Use a sensor attachment of 1/8PT.
Fully tighten the oil pressure and temperature sensors into the oil sensor attachment and then connect them to the sensor harness.

Plug&Play Boost Gauge Installation Guide



The Installation Of Intake Manifold Pressure Sensor (Sensor Installation Varies From Vehicle To Vehicle)



1.The silicon vacuum hose attached to the sensor should be as short as possible. Fix the sensor with bolts in the engine compartment in an area where it will not be subject to excess heat or vibration.

2. Access to the air pressure intake me be obtained between the fuel surge tank and the fuel pressure regulator.
(1) Detach the vacuum hose from the fuel surge tank side that has less pressure oscillations and connect it to three way point (A or B point).
(2) To connect the fuel surge tank with the three way point (A or B point), by cutting the required length of the silicon vacuum hose included in the box.
(3) Use the silicon vacuum hose to connect the sensor to the three way point (C point).

⚠ Notice:
• Make sure to use silicon vacuum hoses that can withstand more than 400kPa for the installation of turbo boost 3.0 bars. Failure to do so could cause severe damage to the engine, for instance engine blowout or silicon vacuum hose burst.

• To prevent form disconnection of silicon vacuum hoses and air leaks, by means of attaching hose clamps or using tie-wraps to secure the adjacent hoses in the engine compartment. Disconnected hoses or air leaks could cause damage to the engine.

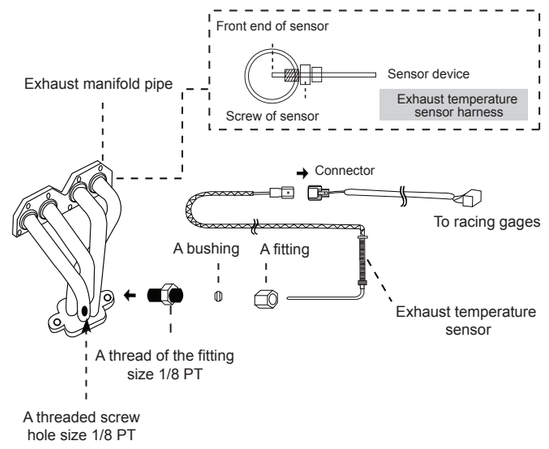
• In the case that the gauge does not indicate correct intake pressure, switch off the engine immediately and stop using the product. Please go over all connections including harnesses and silicon vacuum hoses.
Air leaks or loose connections may occur, or the connected locations may be incorrect.

• The sensor must be installed being the silicon vacuum hose connection side faced downwards.

• Vehicles which have a solenoid valve between the fuel surge tank and the fuel pressure regulator place a three way joint closer to the fuel surge tank side than to the solenoid valve side.

• Depending on vehicle's design, there are some cases that this product cannot be installed to a vehicle. Please ask retailers or distributors for details.

The Installation of Exhaust Temperature Sensor



1. Precisely drill a size 1/8PT threaded screw hole in the exhaust manifold pipe. (If the pipe wall thickness is not enough, weld a welding nipple pipe instead)
2. Fully tighten the threaded fitting to the hole of the exhaust manifold pipe.
3. Pierce the sensor through the fitting and the bushing.
4. Insert the edge of the sensor into the threaded fitting and position it at the centre of the exhaust manifold pipe.
5. Fully tighten the fitting.

⚠ Notice:
• To prevent from personal injury, do not install the exhaust temperature sensor while the engine is hot.
• When drilling a threaded hole on the exhaust manifold pipe, make sure no drillings left inside the exhaust manifold pipe or turbine. Drillings may result in damage to the engine, exhaust pipe or turbine.
• The thread size of the fitting is 1/8PT. Drill a threaded screw hole size 1/8PT.
• Fully tighten the exhaust temperature sensor into the sensor attachment and then connect it to the sensor harness.