

USER'S GUIDE



Thank you for purchasing PIVOT "X2".

Please read these instructions carefully before installing or using this device.

Please do not lose this user's guide, as you will held liable for the cost of reissuing it.

X2 SMOOTHER

MULTI GAUGE ø60

 CAUTION Improper use or disregard of these warnings may result in the injury or death of people.			 NOTE Improper use or disregard of these warnings may cause injury to persons, damage the product and other things.		
Do not work in areas where there is excessive exhaust Due to vehicle exhaust emission poisoning or fire may result in a damage to humans. Please securely fasten the product to a stable place It is very dangerous if, while in use, the product falls off and interferes with braking.	Do not crush the cable Please be careful that the cable does not get crushed by the seat rail or car door steel plate, nor cut by any sharp steel plate as this may cause a poor connection or an electric short leading to fire or other danger.	Do not operate while driving Operating or checking the display during driving may cause an accident; please use with the utmost consideration for safety. Please be sure to store bundle away all wires with tape, etc... It is very dangerous to pull tangled wires by force or allow tangled wires to interfere with driving.	This product is for DC12V cars; Installation cannot be carried out on cars with other voltage batteries. Just after installation do not exert any strong force on the product When double-sided tape is used for an installation be warned that when hot the tape temporarily losses adhesiveness.	Do Not Use Chemical Cleansers If the unit gets dirty do not use chemical cleansers such as thinner, benzene, or alcohol; please wipe with a soft cloth to remove any dirt. Do not install the product in any place subject to high temperature or any place where water may be splashed	Make sure to replace all screws and parts to their original place Do not install the product in a place where it will cause distraction Do not, in any manner, process, take apart, or make changes to this product

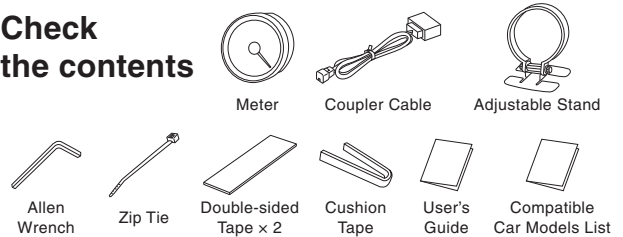
1. The display will not be proper if the ECU being used is not the standard one or if a sub-computer is being used, even in compatible car models.



2. Cannot be used in combination with products that use another company's diagnostic monitoring connectors.

3. For details about using in combination with other PIVOT products please see our Web Site at http://pivotjp.com/information/obd_conjunction-e.html.

Check the contents



FEATURES

Smooth Action	New Controller provides needle action quick and smooth.
2 in 1 Display	Switch between 2 types of display in the same unit. 1. Boost (Normal aspiration cars will only display minus pressure) 2. Water Temperature
Peak Hold	Save and display peak reading after reset.
New Design	New design allows for easy viewing of Boost and Vacuum.
Easy-installation	It is possible to connect directly using the coupler to the diagnostic monitoring connector meaning there is no need for troublesome wiring.
Air Pressure Correction	The altitude adjustment function makes it possible to correct for differences in the absolute pressure display and relative pressure display.
Stepping Drive	Stepping motor drive brings you a high-performance display with no hunching or overshooting.
Affordably Priced	Two types of display at a total cost of 18,900 yen means each type is only 9,450 yen and that translated into a great buy.

Note

From start of display until end of display

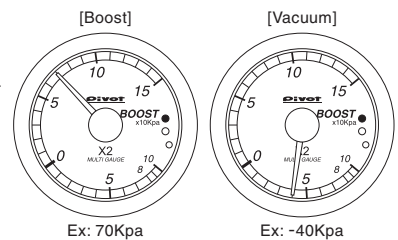
- The first time the key is turned ON after installation, the unit must judge the type of car model being used and hence it may take up to 40 seconds for the display to come on. From the second time, the display will take less than 15 seconds to appear.
- It may also take up to 15 seconds for the display to turn off after the key has been switched OFF.

Displays and Uses

1. Boost (Absolute pressure display)

► **Display** -100~-150Kpa
(Normal aspiration cars will only display minus pressure)

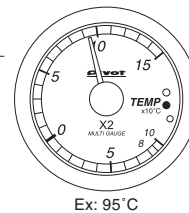
- **Use**
- Check Boost (TURBO)
 - For Eco-driving [Vacuum] (TURBO/NA)



2. Water Temp

► **Display** -40°C~150°C

- **Use**
- Prevention of overheating
 - Check Heating etc.



3. Peak Hold

- **Use**
- Check Momentary Maximum Boost (TURBO)
 - Check Highest Water Temperature

Opening Demo

Turning the key ON will display the opening demo one time.

Illumination (Dial lighting)

The illumination is always on while driving, but because it is a low energy LED this no effect on the vehicle performance or battery life.

CONNECTING THE COUPLER

Preparation

Before installation, please check the installation position on the separate sheet "Compatible Car Models List".

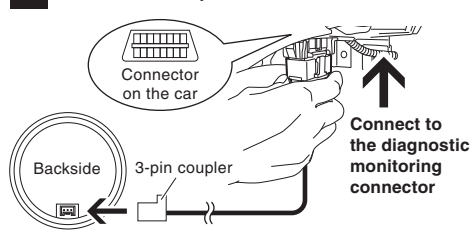
With the engine running, insert the OBD2 connector to the connector on the car.

1 ► Key ON (The engine is on)

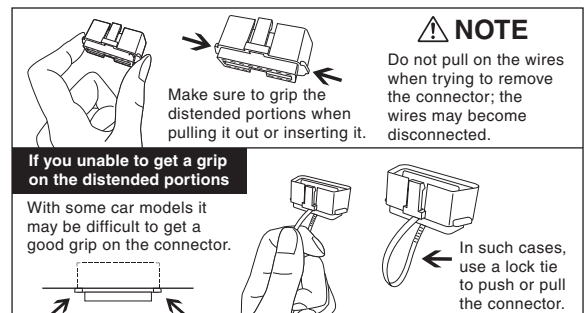


※In some car models, when the engine is turned off even upon insertion the display will not come on. Therefore it may be necessary to connect the coupler while the engine is on.

2 ► Insert the coupler to the connector



Notes about using the OBD2 connector



METER INSTALLATION

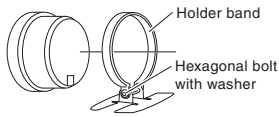
Install in an easy-to-view location.

PART NAMES

A. Installation with the Adjustable Stand

Fasten using the double-sided tape. (On top of the steering column cover or dashboard.)

1 Installing the adjustable stand



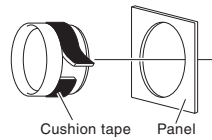
- Place the stand's holder band around the back of the meter.
※If you cannot get the band around the meter, loosen the hexagonal bolt and expand the band.
- After getting the band in place, tighten the hexagonal bolt to secure the band.

2 Install to the car

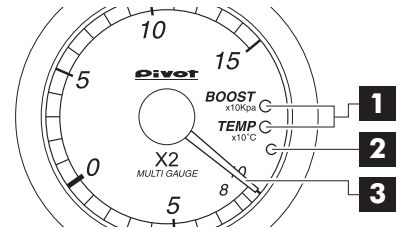


- Bend the stand to securely fit the place of installation.
- Clean the surface; removing all oil or dust.
- Fasten using the double-sided tape.
※Please be sure about where you wish to install the meter, as it is not advisable to reuse double-sided tape.
- After deciding the position and angle of the meter face, fasten the hexagonal bolts on both sides to secure.

B. Installation with the Cushion Tape



Wrap the cushion tape around the base of the meter and forcibly insert into the 60 mm hole in the panel.



1 Mode Lamp

The lamp for the current mode will light up.

2 Switch

Use to switch modes and make settings.

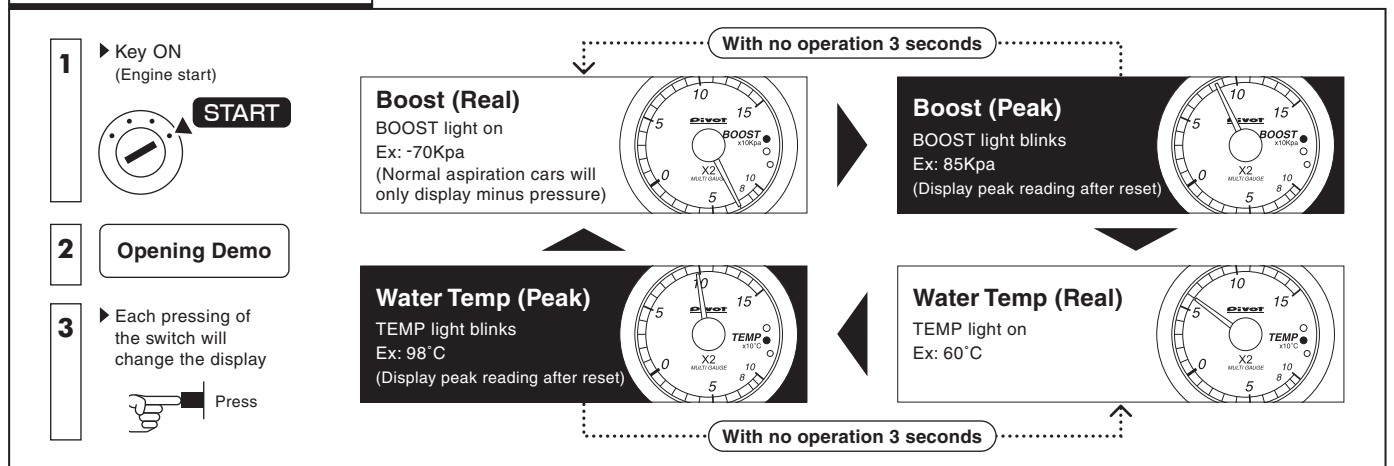
3 Needle

Shows the current values and settings displays.

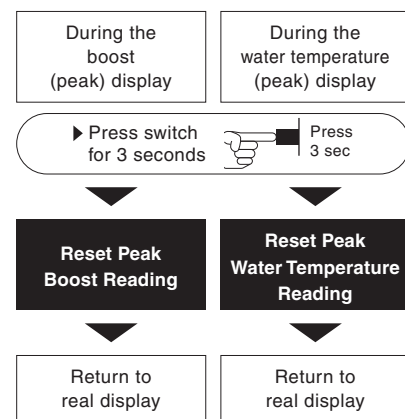
BASIC OPERATIONS

After the opening demo has finished the various reading are displayed.

Switching Modes



How to Erase Peak Readings



- ※ Peak readings are all saved even when the key is turned OFF.
- ※ By disconnecting the battery or the connector it is possible to erase all peak readings.

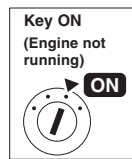
Air Pressure Correction Function (It is not necessary if at an altitude of 200 meters or lower.)

There is usually no need to make adjustments to the pressure display of this product. It already shows the ideal measurement using the car sensor for absolute pressure while taking into account altitude differences. But it may be necessary to make adjustments in the following circumstances.

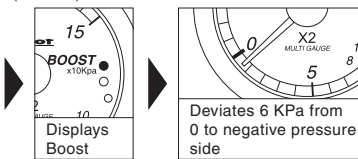
- Adjust when a deviation at the 0 position occurs due to altitude differences.
- Adjust when there are significant differences between gauge (relative pressure) readings.

1 Check to Confirm Corrections

Example
Needle deviation : 6KPa to negative pressure side
Correction Value : 60KPa to the boost side

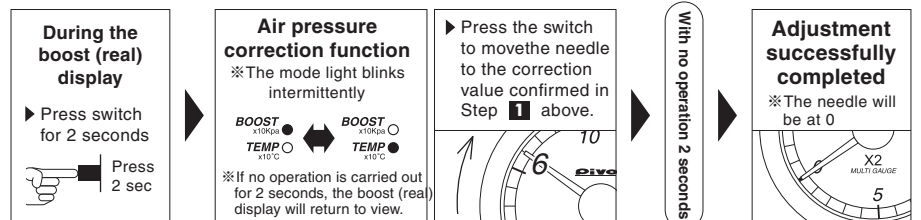


With the key in the ON position (engine not running), the amount in the display that the needle moves from 0 to the negative pressure side (vacuum) is the value that will be used for correction of the boost side.



Correction Value : **60KPa** to the boost side

2 How to make Air Pressure Corrections



TROUBLESHOOTING

Please note that for some models of car in which the boost display has been stated to be impossible, the display will work but the values shown will not be accurate nor correct.

Trouble	Possible Causes	Possible Solutions
Does not work with the key ON.	Poor connection of coupler. The unit has been installed into an incompatible car model.	Check the coupler connections or conditions. Please check the list of compatible car models.
The displayed values are different from the standard meter.	Due to the ECU information received, the displayed values on this product may differ from those of standard or other meters.	
The boost pressure display is different from the standard or other gauge.	This product's boost meter reads absolute pressure and may differ from a meter using relative pressure. (For details about the basic operations please see the section entitled "Air Pressure Correction Function")	