

USER'S GUIDE

52X Series

PLUG IN GAUGE Ø52

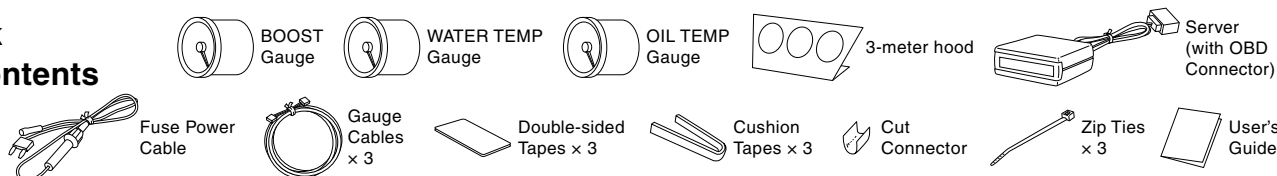
EURO SPEC

Thank you for purchasing this PIVOT product. Please read this manual carefully before installation and use. Please keep this manual for future reference.

<p>⚠ WARNING Improper use or disregard of these warnings may result in the injury or death of people.</p> <p>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.</p> <p>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.</p> <p>Do not operate while driving. Operating or checking the display during driving may cause an accident; please use with the utmost consideration for safety.</p> <p>Please securely fasten the product to a stable place and 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.</p>	<p>⚠ CAUTION Improper use or disregard of these warnings may cause injury to persons, damage the product and other things.</p> <p>This product is for DC12V cars; Installation cannot be carried out on cars with other voltage batteries.</p> <p>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 loses adhesiveness.</p> <p>Do not install the product in any place subject to high temperature or any place where water may be splashed.</p> <p>Do Not Use Chemical Cleaners. If the unit gets dirty please wipe with a soft cloth to remove any dirt. Do not use chemical cleansers such as thinner, benzene, or alcohol.</p> <p>Make sure to replace all screws and parts to their original place.</p> <p>Do not install the product in a place where it will cause distraction.</p> <p>Do not, in any manner, process, take apart, or make changes to this product.</p>
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- 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/obd-e/>.**

Check the contents



FEATURES

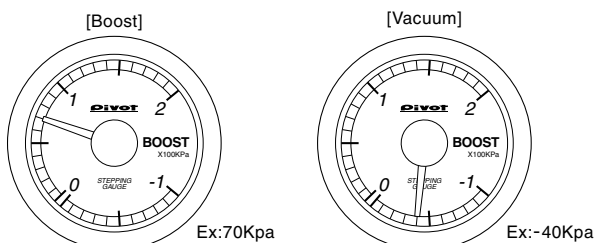
With our 52X-VW, just by connecting to the diagnostic monitoring connector, the VW specialized CAN communication can be analyzed and three types of data can be simultaneously displayed. (Not for use with incompatible models)

<p>Triple Gauge Simultaneous display of three types of data: Boost, Water Temperature and Oil Temperature</p>	<p>No Piping or Wiring Necessary It is possible to connect directly using the connector to the diagnostic monitoring connector meaning there is no need for troublesome wiring</p>
<p>LED Illumination Illumination by high contrast highly luminous white LED</p>	<p>Stepping Motor Drive Stepping motor drive brings you a high-performance display with no hunching or overshooting</p>

Displays and Uses

Boost (Absolute pressure display※)

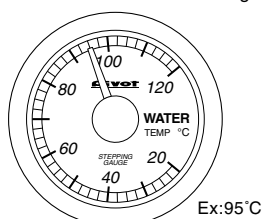
- ▶ **Display** -100~154KPa
- ▶ **Use** ●Check Boost ●For Eco-driving [Vacuum]



※ This display of absolute pressure includes barometric pressure and may differ from a gauge showing relative pressure (mechanical type).
 ※ With the key in the ON position, due to altitude the boost needle may show a minus reading.

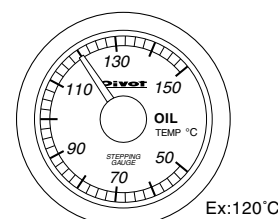
Water Temp

- ▶ **Display** 20°C~120°C
- ▶ **Use** ●Prevention of overheating ●Check Heating etc.



Oil Temp

- ▶ **Display** 50°C~150°C
- ▶ **Use** ●Check engine oil temperature etc.

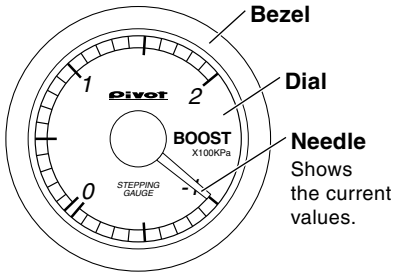


Opening Demo

When the engine is started an opening demo (the needle will go around once) for all three types will be shown and then the unit will go into its normal display.

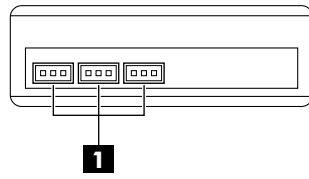
PART NAMES

● Gauge



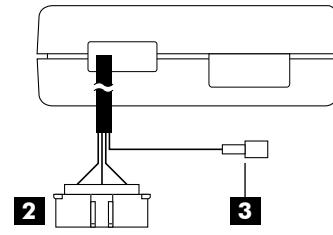
● Server

(View from Gauge Connection)



1 Gauge Output Connector
Connect the Gauge Cable

(View from Car Connection)



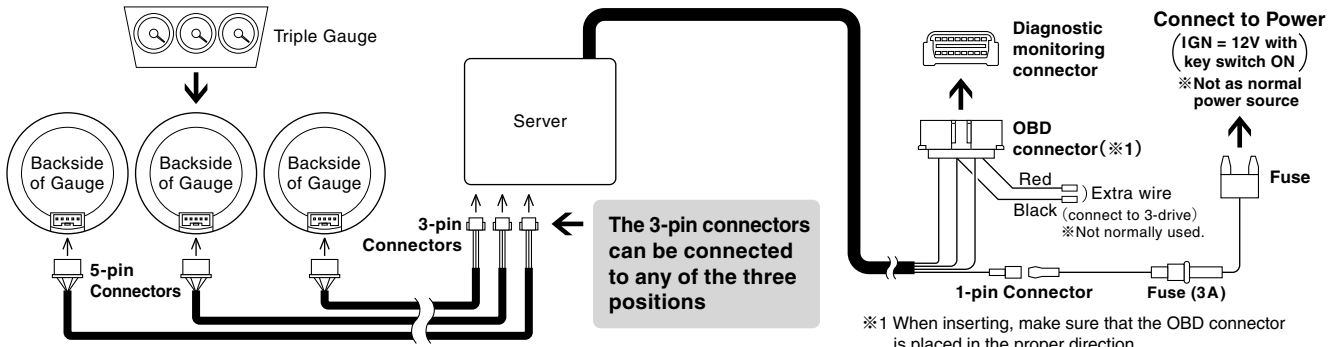
2 OBD Connector
Connect to get Communication Signal

3 1-pin Connector
Connect the Fuse Power Cable

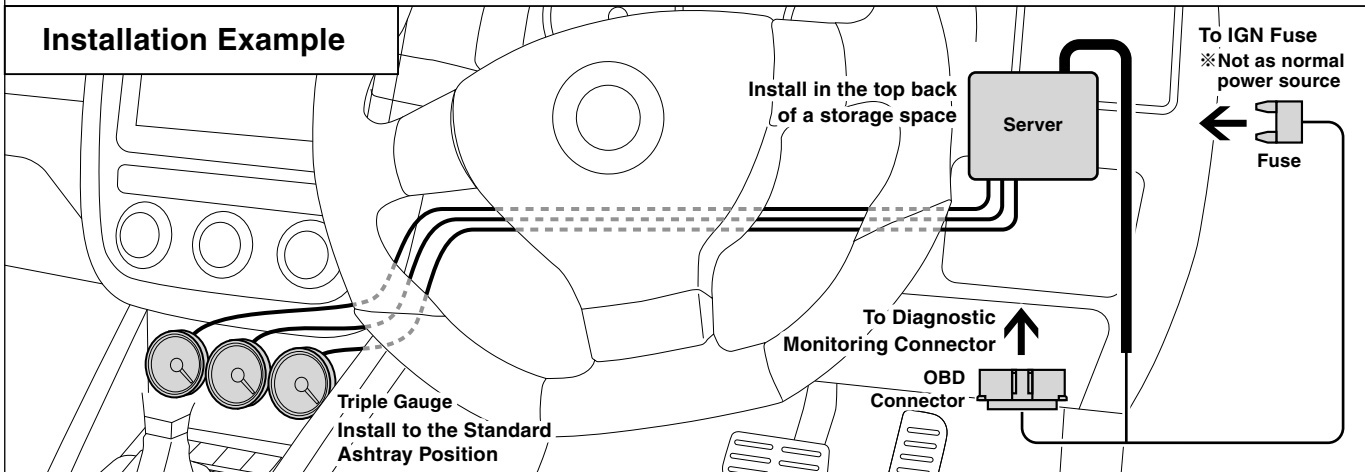
WIRING METHOD and INSTALLATION

BASIC WIRING

Please carry out wiring with the engine turned OFF and the key removed.



Installation Example



1 Installing the Three Cables between the Gauges and the Server (In case of VW GOLF V)

Preparation

- Remove the under cover (torque screw T20 x 2) from beneath the steering wheel.
- Pull up on the emergency brake.
- Turn the key to ON (do not start engine), shift into "D" and then turn the key back to OFF. (This will place it into ACC and the key cannot be removed.)

1 Remove the cover below the air-conditioner dials and the ashtray

- Remove the cover of A by pulling down as shown in figure 1.
- As shown in figure 1, lift up the cover of B turning the shift boot inside out and wrapping it up over the shift knob. (Allowing installation without removing the shift knob)
- Remove the two screws from the front of the ashtray of C, as shown in figure 1. (torque screw T20 x 2)
- After having lifted up the front of C as shown in figure 1, remove all connectors and completely take off C.

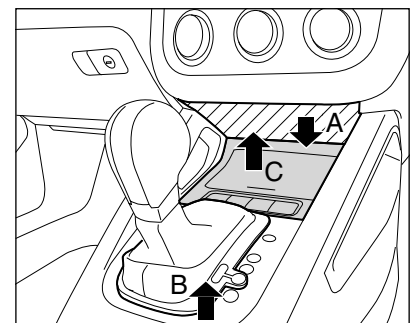


Figure 1 : Figure showing Removal of Covers

2 Laying the Cables

- Lay the three cables to connect the gauge and the server as shown in Figure 2.
 - Large Connectors ⇒ Gauge Side
 - Small Connectors ⇒ Server Side
- Pull the end of the cables for the server side through the inside of the console and bring them to the under cover area. (See figure 3)
- Insert the three cables into the server. (They can be connected to any position)
- Remove the small storage compartment from the right side of the steering wheel.
- Fasten the server to the top back of a storage space using the double-sided tape.
- Return the ashtray to its original position. (Pull the cables over toward the right side as shown in figure 2)

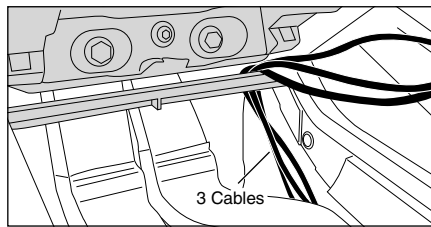


Figure 2 : Shows cover removed as in figure 1

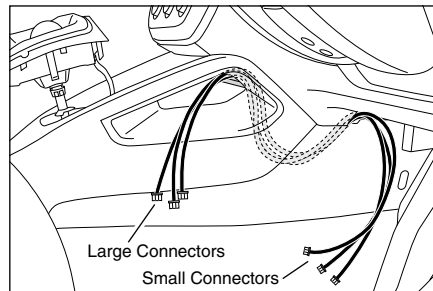
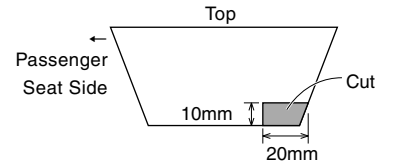


Figure 3 : Figure of laid cables

3 Opening Holes for the Cables

- Step on the brake and put the shift lever into "P".
- Turn the key ON, then back to OFF and remove the key.
- Return the cover of B in figure1 to its original position.
- Make a cut in the cover of A in order to pull through the gauge cable. (see the figure below)



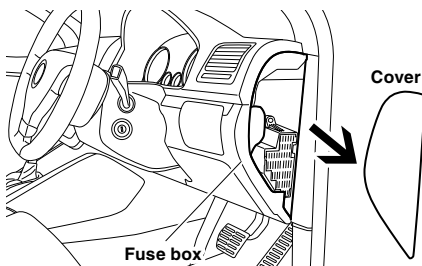
- Return the cover of A cut in step 4 to its original position.

2 Connecting the Fuse and OBD Connector

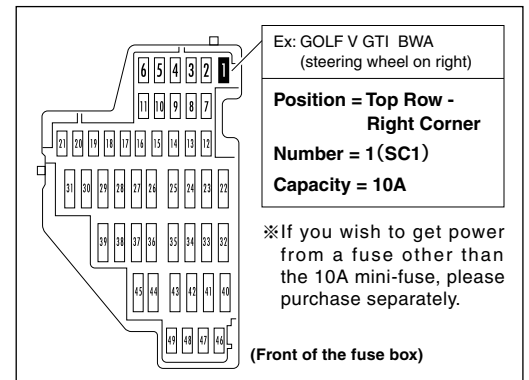
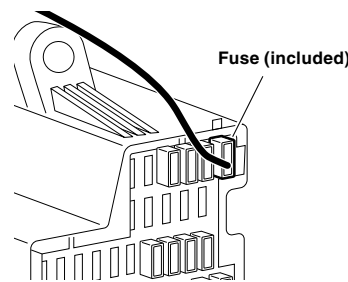
The following is just one example of wiring to the fuse box of a GOLF V GTI BWA (steering wheel on right). If your model is different and you are unsure of how to connect please contact your dealer.

1 Connecting to a Power Source

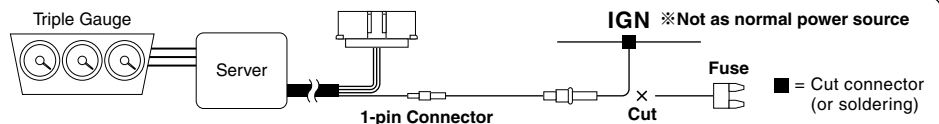
- Use a flathead screwdriver or such tool to remove the cover of the fuse box found on the side of the panel to the right of the steering wheel.



- Remove the fuse for IGN (12V with key switch ON), and insert the included fuse power cable.

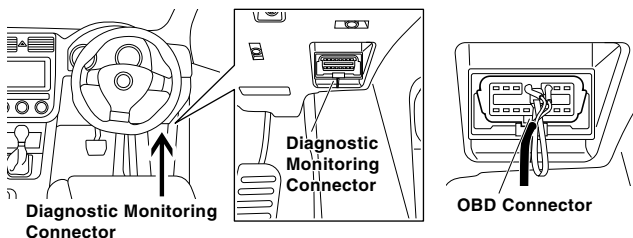


If you are unable to get power from the fuse box, please wire directly to IGN (12V with key in ON position).



2 Insert the OBD Connector

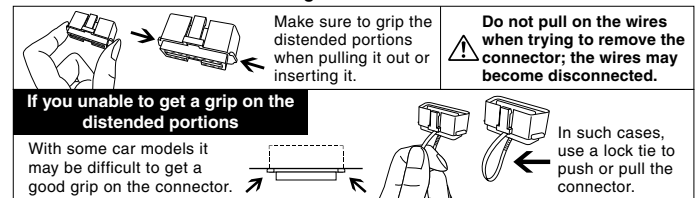
Insert the OBD connector to the diagnostic monitoring connector. Then connect the fuse power cable to the 1-pin connector from the server.



3 Replace Removed or Disconnected Parts

Without causing scratches or damage to the cables, replace the cover to the right of the driver's seat, the under cover beneath the steering wheel and the storage compartment to the right side of the steering wheel.

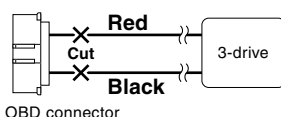
[REFERENCE 1] Notes about using the OBD connector



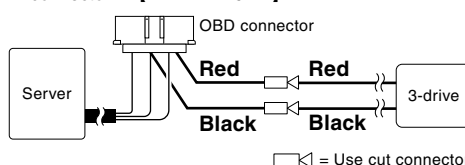
at times like this When use in conjunction with the PIVOT's 3-drive series

Cut the wires coming from the 3-drive's OBD connector and properly connect the wires using a connector.

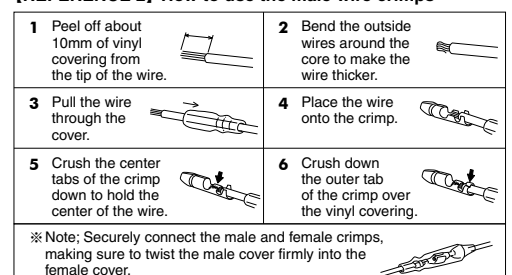
- Disconnect the OBD connector from the diagnostic monitor connector on the car.
- Cut the wires from the connector.



- Properly connect the black and red wires using a connector. ⇒ [REFERENCE 2]



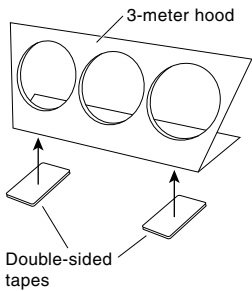
[REFERENCE 2] How to use the male wire crimps



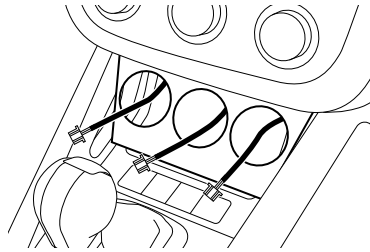
3 Installing the Three Gauges and the Meter Hood

1 Installing the Meter Hood

① Affix the provided double-sided tape to both ends of the bottom of the 3-meter hood.



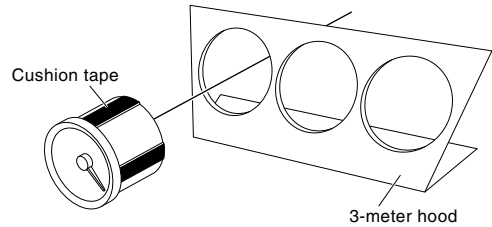
② Pull a cable through each of the holes in the hood, and install the meter hood in the standard ashtray position.



2 Installing the Three Gauges

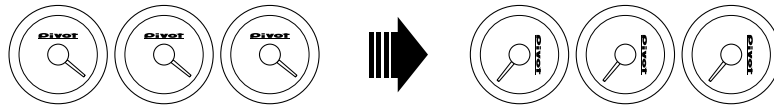
① Affix the provided cushion tape to three spots on the rear part of each gauge.

② Insert a cable into each gauge and press each gauge into its place in the hood.







POINT

It is possible to adjust the direction for a better view.



BASIC OPERATION

Basic operation from engine start to stopping.

- 1**  **START**
Key ON
 (Engine start)
- 2**  **Opening Demo**
(For Simultaneous Triple Display)
- 3**  **Real display**
 Each gauge will display actual measurements.
- 4**  **Key OFF** (Engine stop)
 The needle stops at the key OFF position.

TROUBLESHOOTING

Trouble	Possible Causes	Possible Solutions
Don't operate when the engine is started (all three).	Poor connection of the Gauge Cable, OBD connector or fuse.	Please reconfirm whether wiring and connections are correct or not.
	If wiring has been direct to power the red wire may have been improperly wired or there is a poor connection.	Please reconfirm whether wiring and connections are correct or not.
	The unit has been installed into an incompatible car model.	Please check the list of compatible car models.
	The power is connected to the normal power source (12V even with key OFF).	Change the power to IGN (12V with key in ON position).
Don't operate when the engine is started (one or two).	There is a poor cable connection between the gauge(s) and the server.	Check the each cable connections or conditions.
The displayed values are different from the standard or other gauges.	Due to the ECU information received, the displayed values on this product may differ from those of the standard or other gauges.	
The boost pressure display is different from the standard or other gauges.	This product's boost gauge reads absolute pressure and may differ from a gauge using relative pressure.	
With the key in the ON position the boost needles points to a minus reading.	The sensor for absolute pressure is subtracting for barometric pressure and hence the display shows minus. (EX: Elevation of 700 meters = minus 8Kpa)	
With the key in the ON position, the oil temperature display shows a minus reading.	This is a normal data operation for your car and is not a problem.	