

# USER'S GUIDE

# 52X Series

PLUG IN GAUGE Ø52

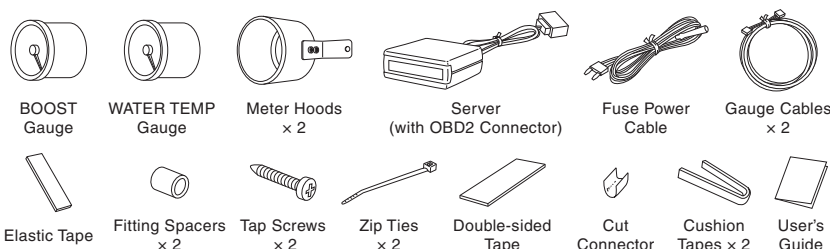
## EURO SPEC

Thank you for purchasing PIVOT "52X-R56" for BMW MINI.  
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.

<p><b>CAUTION</b> Improper use or disregard of these warnings may result in the injury or death of people.</p> <p><b>Do not work in areas where there is excessive exhaust</b> Due to vehicle exhaust emission poisoning or fire may result in a damage to humans.</p> <p><b>Please securely fasten the product to a stable place</b> It is very dangerous if, while in use, the product falls off and interferes with braking.</p> <p><b>Do not crush the cable</b> 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><b>Do not operate while driving</b> Operating or checking the display during driving may cause an accident; please use with the utmost consideration for safety.</p> <p><b>Please be sure to store bundle away all wires with tape, etc...</b> It is very dangerous to pull tangled wires by force or allow tangled wires to interfere with driving.</p>	<p><b>NOTE</b> Improper use or disregard of these warnings may cause injury to persons, damage the product and other things.</p> <p><b>This product is for DC12V cars;</b> Installation cannot be carried out on cars with other voltage batteries.</p> <p><b>Just after installation do not exert any strong force on the product</b> When double-sided tape is used for an installation be warned that when hot the tape temporarily loses adhesiveness.</p> <p><b>Do Not Use Chemical Cleansers</b> 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.</p> <p><b>Do not install the product in any place subject to high temperature or any place where water may be splashed</b></p> <p><b>Make sure to replace all screws and parts to their original place</b></p> <p><b>Do not install the product in a place where it will cause distraction</b></p> <p><b>Do not, in any manner, process, take apart, or make changes to this product</b></p>
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- 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.
- Cannot be used in combination with products that use another company's diagnostic monitoring connectors.
- For details about using in combination with other PIVOT products please see our Web Site at [http://pivotjp.com/information/obd\\_conjunction-e.html](http://pivotjp.com/information/obd_conjunction-e.html).
- The meter hood can become extremely hot when exposed to direct sunlight; be particularly careful of burns.

## Check the contents



## FEATURES

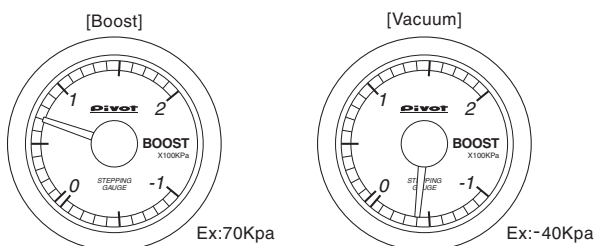
With our 52X-R56 multi-gauge, just by connecting to the diagnostic monitoring connector, the MINI specialized CAN communication can be analyzed and two types of data can be simultaneously displayed. (Not for use with incompatible models)

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

## Displays and Uses

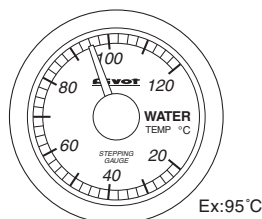
### Boost (Absolute pressure display※)

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



### Water Temp

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



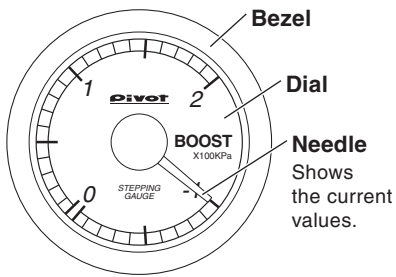
### Opening Demo

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

※ 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.

# PART NAMES

## ● Gauge



## ● Server

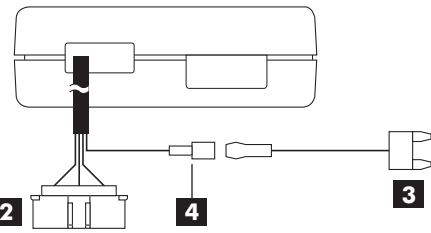
(View from Gauge Connection)



- 1 Gauge Output Coupler**  
Connect the Gauge Cable

- 2 OBD2 Connector**  
Connect to get Communication Signal

(View from Car Connection)



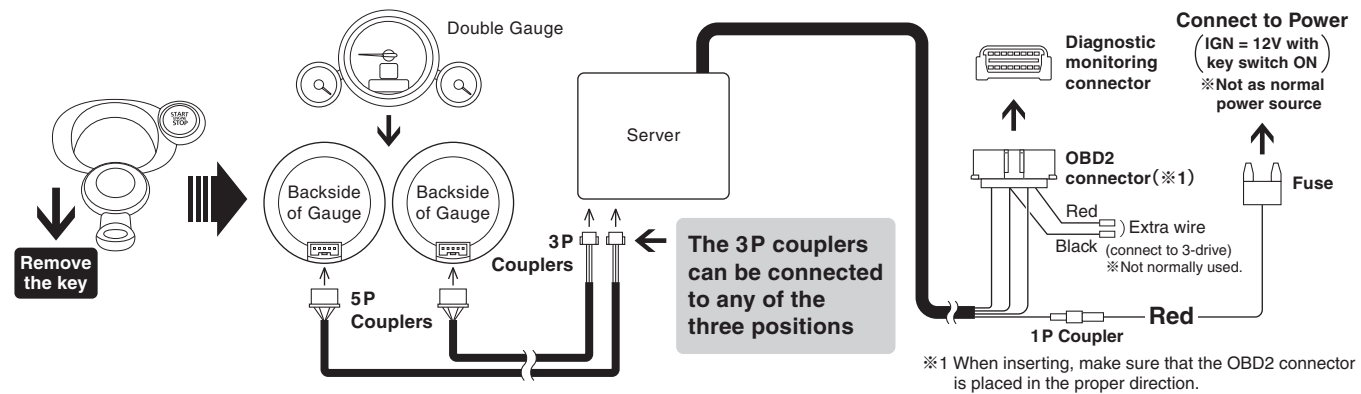
- 3 Fuse Power Cable**  
Connect to a Power Source  
(It is possible to cut and) connect directly

- 4 1P Coupler**  
Connect the Fuse Power Cable

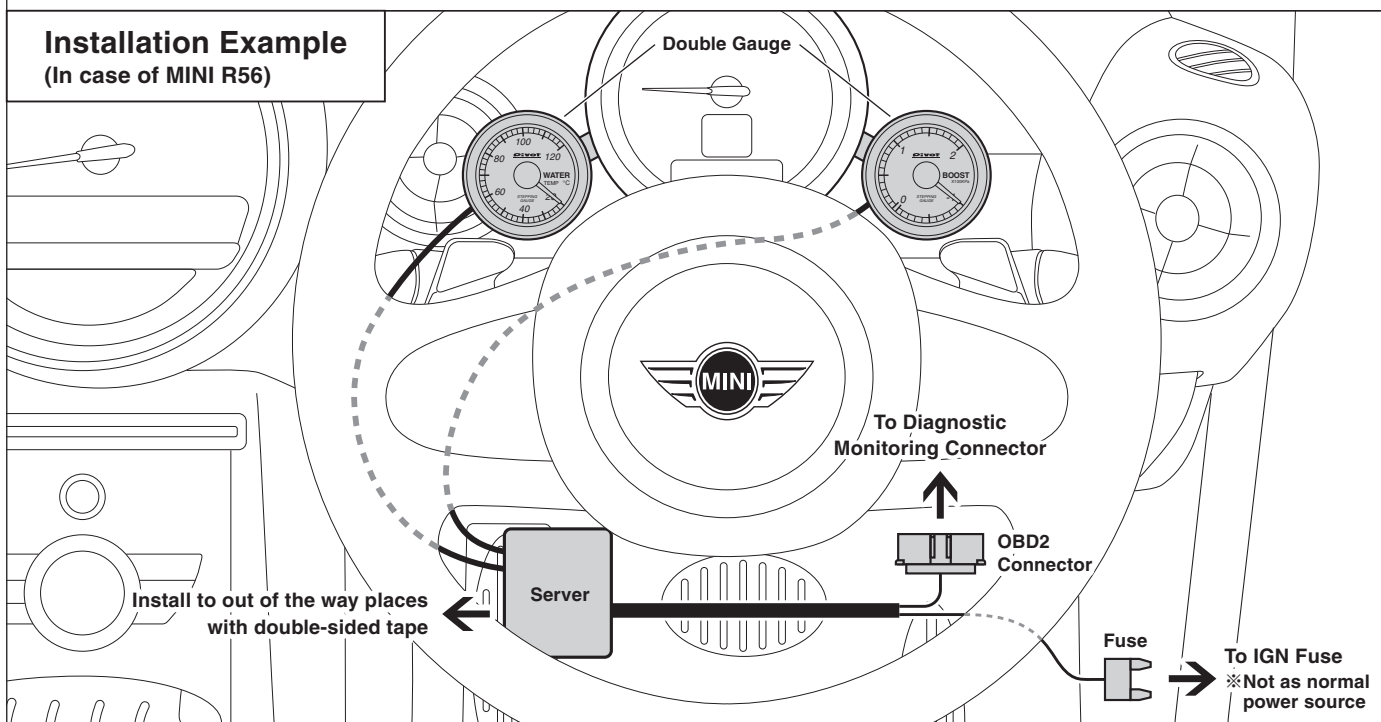
# WIRING METHOD

## BASIC WIRING

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



## Installation Example (In case of MINI R56)



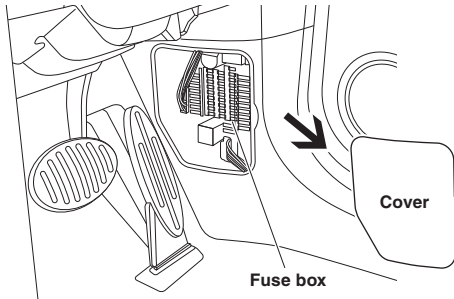
# 1

## Connecting to a Power Source

The following is just one example of wiring to the fuse box of a BMW MINI COOPER S MF16S (steering wheel on right). If your model is different and you are unsure of how to connect please contact your dealer.

### 1 Remove the Cover of the Fuse Box

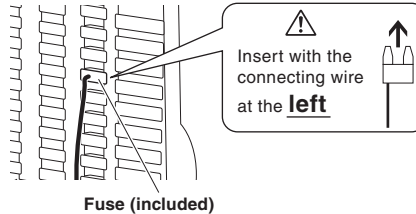
Use a flathead screwdriver or such tool to remove the cover of the fuse box found on the side of the panel to the right of the steering wheel.



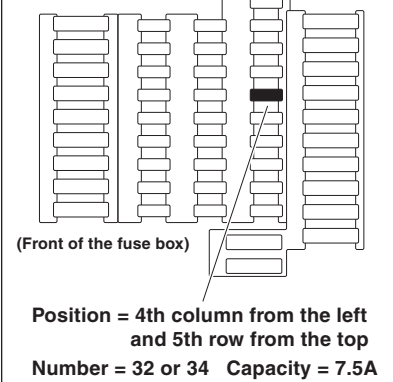
### 2 Insert the Fuse

Remove the fuse for IGN (12V with key switch ON), and insert the 7.5A mini-fuse that is connected to the OBD2 connector.

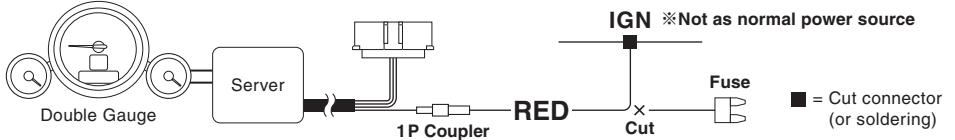
※If you wish to get power from a fuse other than the 7.5A mini-fuse, please purchase separately.



Ex: BMW MINI COOPER S MF16S (steering wheel on right · 2008 MODEL)



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



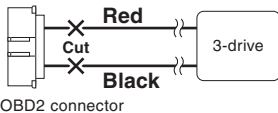
at times like this

### When use in conjunction with the PIVOT's 3-drive series

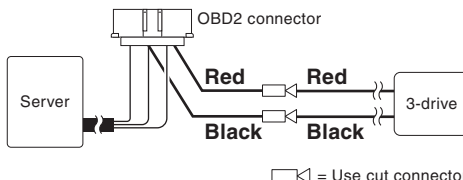
Cut the wires coming from the 3-drive's OBD2 connector and properly connect the wires using a connector.

① Disconnect the OBD2 connector from the diagnostic monitor connector on the car.

② Cut the wires from the connector.



③ Properly connect the black and red wires using a connector. ⇒ [REFERENCE 1]



### [REFERENCE 1] How to use the male wire crimps

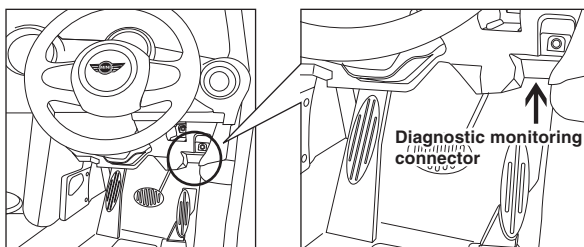
1 Peel off about 10mm of vinyl covering from the tip of the wire.	2 Bend the outside wires around the core to make the wire thicker.
3 Pull the wire through the cover.	4 Place the wire onto the crimp.
5 Crush the center tabs of the crimp down to hold the center of the wire.	6 Crush down the outer tab of the crimp over the vinyl covering.

※ Note; Securely connect the male and female crimps, making sure to twist the male cover firmly into the female cover.

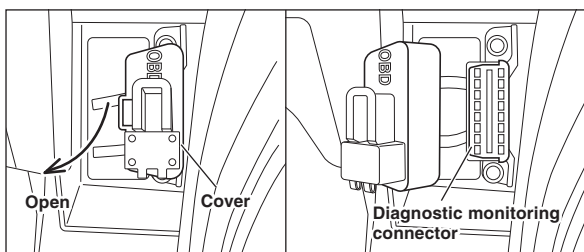
# 2

## Connecting the OBD2 Connector

### 1 Locate the Diagnostic Monitoring Connector Position

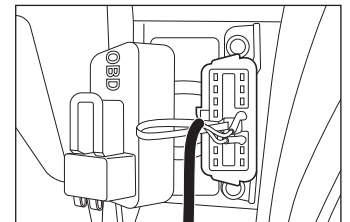


### 2 Open the Cover



### 3 Completely insert the OBD2 Connector

Insert the OBD2 connector to the diagnostic monitoring connector. Then connect the fuse power cable to the 1P coupler of from the server.



### [REFERENCE 2] Notes about using the OBD2 connector

**NOTE**  
Do not pull on the wires when trying to remove the connector; the wires may become disconnected.

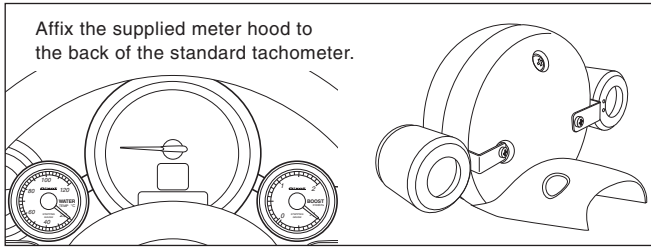
Make sure to grip the distended portions when pulling it out or inserting it.

**If you unable to get a grip on the distended portions**

With some car models it may be difficult to get a good grip on the connector.

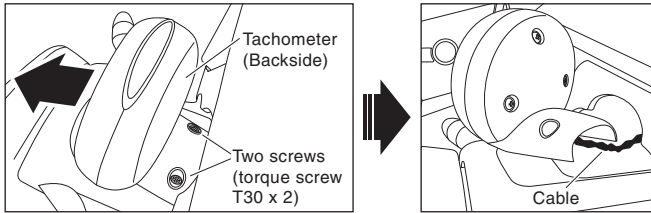
In such cases, use a lock tie to push or pull the connector.

# INSTALLING THE PRODUCT



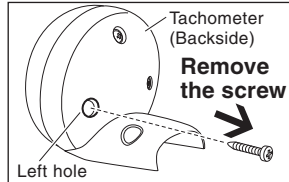
## 1 Remove the standard tachometer

Unscrew the two screws (torque screw T30 x 2) from the base at the back of the tachometer and remove it by pulling it forward. (As the wiring for the tachometer is connected to inside the steering column it cannot be removed. Carry out all operations with the wiring pulled out but connected.)  
 ※Make sure not to lose any removed parts.



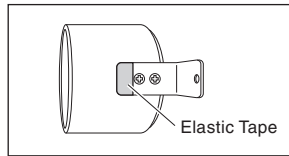
## 2 Unscrew the screws at the back of the tachometer

Remove the screw from the left hole at the back of the tachometer.  
 ※Put the bolt store in a safe place.



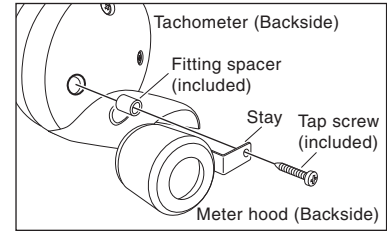
## 3 Affix Elastic Tape to the Stay on the Meter Hood

Cut the provided elastic tape and affix as shown in the figure. This spot will rub against the car's standard tachometer; make sure to place the tape there.

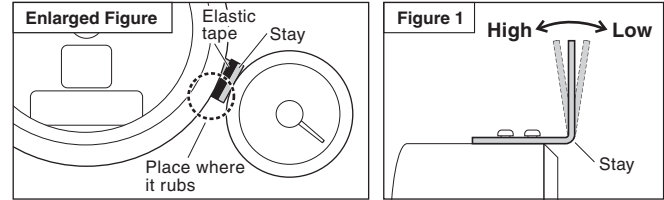


## 4 Fix the meter hood with the screw

Decide the installation position for the meter hood and fasten down using the provided spacers and tap screws.



### POINT

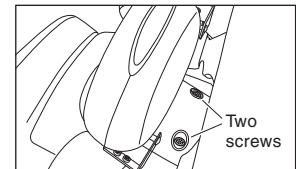


With a little force it is possible to bend the L shaped stay attached to the meter hood. If you wish to adjust the height of the gauge, please bend the stay (figure 1). Please bend only the hood before attaching it to the standard tachometer; bending it after attaching may cause damage to the screw holes if the standard tachometer.

## 5 Carry out steps 2 - 4 for the other side.

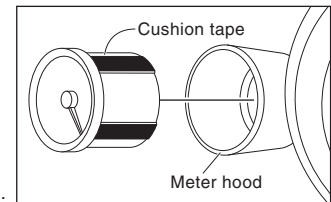
## 6 Return the tachometer to its original position

Return the tachometer to its original place by going in the reverse order from 1 above, and securely fasten with the two screws.



## 7 Fasten the gauge to the meter hood

Pull the 5P wire through the hole at the back of the meter hood and insert it into the 5P coupler at the back of the gauge. After having decided the angle press the gauge into the hood at finish the installation.



# BASIC OPERATION

<p><b>1 Key ON</b> (Engine start)</p>	<p><b>2 Opening Demo</b> (For Simultaneous Double Display)</p>	<p><b>3 Real display</b> Each gauge will display actual measurements.</p>	<p><b>4 Key OFF</b> (Engine stop)</p>	<p><b>5 Meter OFF</b> The needle stops at the key OFF position.</p>
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# TROUBLESHOOTING

Trouble	Possible Causes	Possible Solutions
Don't operate when the engine is started.	Poor connection of the gauge cable, OBD2 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 displayed values are different from the standard or other gauge.	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 gauge.	This product's boost gauge reads absolute pressure and may differ from a gauge using relative pressure.	
	With the engine running, disconnect the OBD2 connector.	Please stop the engine and restart it.
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)	
Before the opening demo starts the needle briefly moves.	This is due to a special characteristic of the gauge and is not a malfunction.	