

USER'S MANUAL (Product Number: PT5-X)

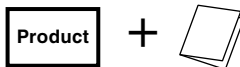
Tachometer for Stop-Start System Models

PROGAUGE

STEPPING DRIVE
TACHOMETER Ø52

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

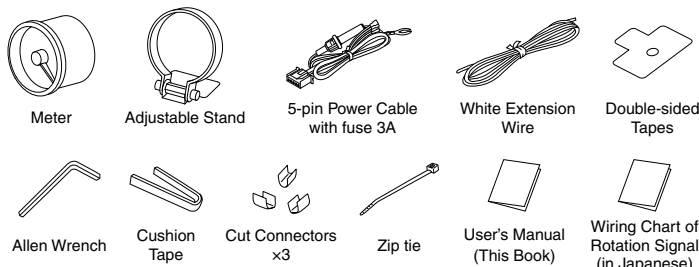
If this product is given to another user, make sure to include this User's Manual.



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Please check the contents of the package



WARNING

Improper use or disregard of these warnings may result in the injury or death of people.

- **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.
- **Do not operate while driving.**
Operating or checking the display during driving may cause an accident; please use with the utmost consideration for safety.
- **During installation be sure to remove the minus cable from the battery.**
So as to prevent fire and damage resulting from shorting of circuits, etc...
- **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.
- **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.

CAUTION

Improper use or disregard of these warnings may cause injury to persons, damage the product and / or other things.

- **Do not use electrotap.**
Wiring should be carried out using the attached "Cut Connector" or by soldering, make sure to securely insulate all wiring parts with insulation tape, and confirm that no wires are sticking out.
- **This product is for DC12V cars.**
Installation cannot be carried out on cars with other voltage batteries.
- **Do not, in any manner, process, take apart, or make changes to this product.**
- **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.
- **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.
- **Make sure to replace all screws and parts to their original place.**
- **Do not install the product in any place subject to high temperature or any place where water may be splashed.**
- **If you are not confident about doing the wiring yourself, please consult your local pro shop or garage.**
When installing this product, we recommend that if technical knowledge becomes necessary please consult a qualified mechanic.
- **Do not install the product in a place where it will cause distraction.**

Features

The PT5-X displays RPM immediately without Opening Demo upon engine start after Stop-Start function.

Compatible with Stop-Start system model cars

Display RPM without Opening Demo upon engine start after Stop-Start function. Note: It's also compatible with non Stop-Start system models.

From Eco to Sports

From eco to sports; getting accurate RPM readings is a must.

Compatible with wide range

Compatible with 1-, 3- and 4-cylinder cars including Stop-Start model cars. [12V]

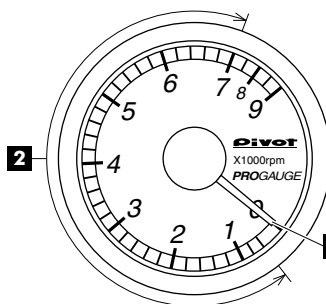
Easy Installation

Fastening with double-sided tape in various places by the Band Holder.

Translucent Illumination

The translucent LED system provides a clear display.

Part Names and Functions



- 1 Needle**
Show the RPM values.
- 2 Wide Scale Display**
The display has been made easier to read by enlarging the 500 to 7000 rpm area.
- 3 Illumination (night illumination)**
Normally illuminated when on display.

Opening Demo

During the opening demo, the needle will move slightly to minus several times. Then it will move to the maximum value and finally to reading for current values.

Connecting The Wires

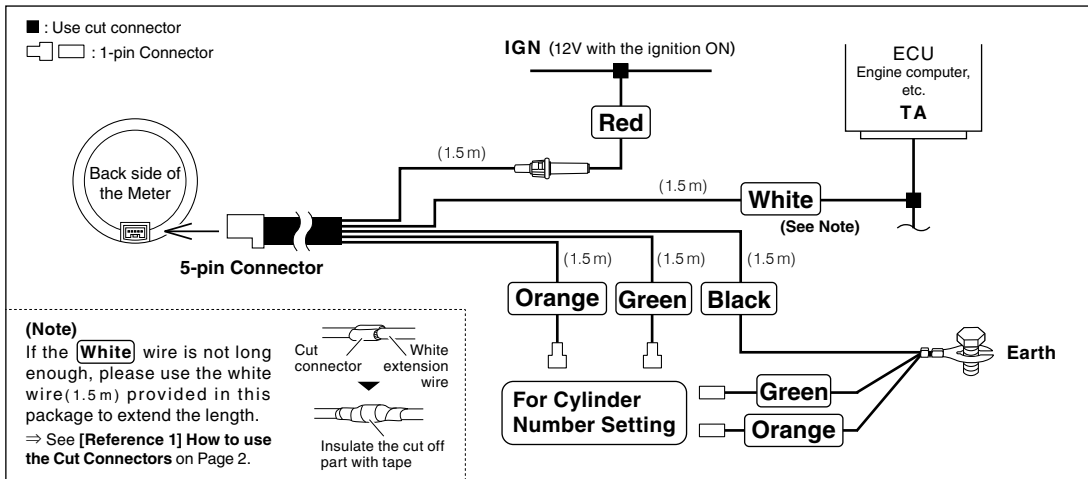
Preparation

Before installation, please check the installation method is proper for the model of car.

Basic Wiring



After carrying out basic wiring, please follow directions under [Connection for Cylinder Number Setting] on Page 3.



IGN

Red Connect to the IGN (12V with the ignition ON) using the cut connectors (included).

Earth

Black with earth terminal Fasten to a screw of a metal part which is earthed.

• Painted screws and screws connected to plastic parts are not earthed; make sure to connect only to a place which is earthed.

RPM

White Confirm the positions on the “Wiring Chart” and then connect using Cut Connectors.



• Connect to the corresponding location of RPM signal of the wire on the car side.

Cylinder Number Setting

Orange **Green** Connect the 1-pin Connector according to the cylinder number .

(⇒ Refer to page 3 “Connection for Cylinder Number Setting”).



When another device is already connected to the RPM signal from the ECU

- ▶ and that device works properly keep that wiring.
- ▶ and the meter or other device stops working properly or sometimes becomes unstable disconnect from the ECU wire and get the RPM from the minus terminal of ignition coil or diagnosis. ⇒ See following “To get the RPM signal from other than the ECU”



To get the RPM signal from other than the ECU

• To get the RPM signal from diagnosis (check connector)

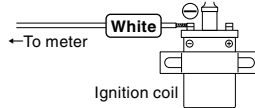
e.g.) in case of MAZDA EUNOS ROADSTER (NA6C)

← To meter

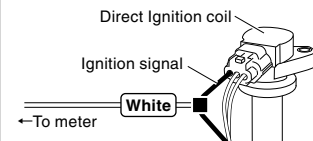


Location of the RPM signal (IG[⊖])

• To get the RPM signal from the ignition coil



• To get the RPM signal from the ignition signal of the direct ignition coil



■ : Use cut connector

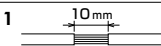
Note : Set the Cylinder Number setting to “1”. Make sure to check the wiring position of the ignition signal which will vary depending on the car models.

If display the extremely low number of RPM by above connecting

e.g.) Genuine tachometer of a six-cylinder car displays the 500rpm at the 3000rpm. The reason is that the car is independent ignition type.

▶ Set the Cylinder Number setting to “1”. ⇒ See page 3 Connection for Cylinder Number Setting

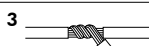
[Reference 1] How to use the Cut Connectors



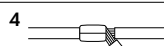
1 Peel off of the vinyl cover at connection.



2 Peel off of the vinyl cover at the end of the product's wire.



3 Wrap around both wire coils.



4 Close tightly with cut connector.




5 Insulate with vinyl tape.

Note: When crimping, please use crimpers or use pliers to bend and then solder together.

Connection for Cylinder Number Setting

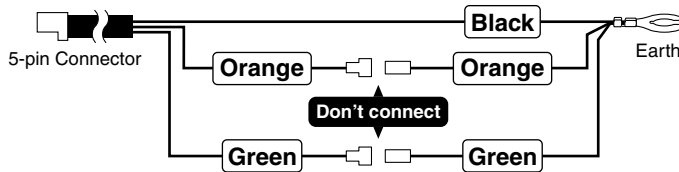
Preparation For details about the number of cylinders and signal level settings, see the attached the “Wiring Chart of Rotation Signal”.

To make cylinder number settings, there are a total of four cables which may be used: 1 **Orange** and 1 **Green** (Body Earth) cables and 1 **Orange** and 1 **Green** cable from the meter itself.

 : 1-pin Connector

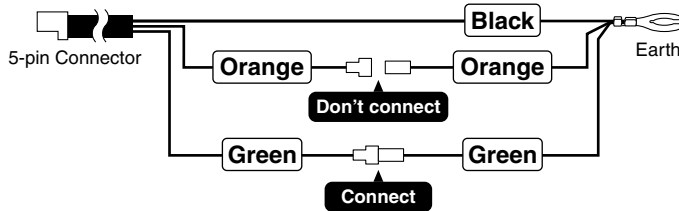
Four-cylinder

Do not connect the 1-pin Connector.



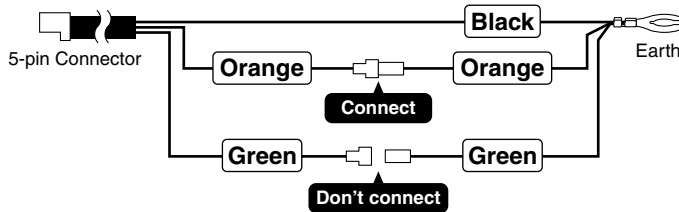
Three-cylinder

Connect only the 1-pin Connector of the **Green** cable.



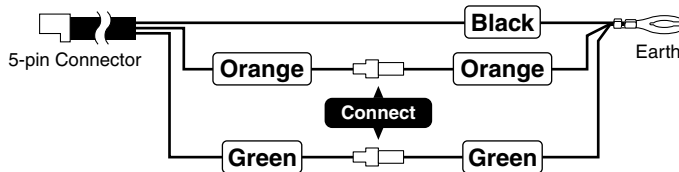
Single cylinder: Signal level 2

Connect only the 1-pin Connector of the **Orange** cable.



Single cylinder: Signal level 1

Connect both the 1-pin Connectors of the **Green** and **Orange** cables.



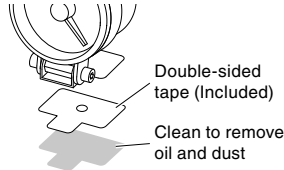
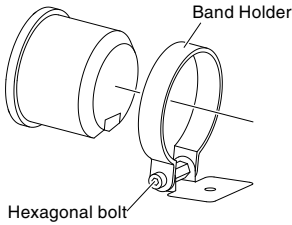
Fastening The Product

Install in an easy-to-view location.

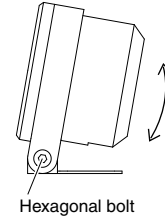
A. Installation with the Adjustable Stand

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

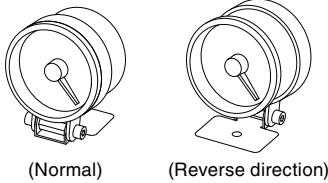
- 1 Slightly loosen the screw and install the gauge into the Band Holder.
- 2 Fasten using the double-sided tape. (Clean the surface; removing all oil and dust.)
- 3 After deciding the position and angle of the meter face, fasten the hexagonal bolts on both sides to secure.



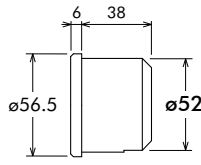
Note: Please be sure about where you wish to install the meter, as it is not advisable to reuse double-sided tape.



Note: It is possible to install the Adjustable Stand in the reverse direction.

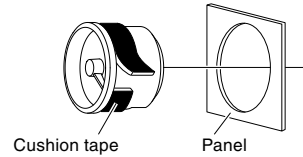


**Meter dimensions
(unit: mm)**



B. Mount into the Panel

- 1 Wrap the cushion tape around the base of the meter.
- 2 Press into the 52 mm hole in the panel.



Basic Operation

Basic operation from engine start to stopping.

- 1 **Engine START**
- 2 **Opening Demo**
- 3 **Current RPM display**
Note: During no idling, the needle will display "0".
- 4 **Turn the ignition to the OFF position (Engine stop)**
- 5 **Meter OFF**
Note: Due to characteristics of the gauge, even though the engine is off and the gauge is not measuring, the needle will not return to "0".

Troubleshooting

Trouble	Possible Causes	Possible Solutions
The Opening Demo does not work.	Poor connection or wrong wiring of each cable.	Please reconfirm whether wiring and connections are correct or not.
Opening Demo works but the needle does not work with Engine start.	Poor connection of White wire.	Please reconfirm whether wiring and connections are correct or not.
	The Connection for Cylinder Number Setting is incorrect.	See [Connection for Cylinder Number Setting] on Page 3 and make sure to connect as directed for the number of cylinders.
The car's tachometer and PT5-X reading are very different.	The cylinder setting is wrong.	See [Connection for Cylinder Number Setting] on Page 3 and make sure to connect as directed for the number of cylinders.
The auto-power window function and/or other electronic devices are re-set.	This is due to the minus terminal on the battery being disconnected.	Re-connect the minus terminal and follow re-setting instructions for any affected devices.

(Note)

- Our products have already been recognized as our Industrial Property or are in the process of receiving Industrial Property status.
- We plan in the near future to take all possible legal measures to protect against unfair competition from look-alike products using similar designs, regulating characteristics, circuitry and circuitry layout.
- We strictly prohibit the unlicensed use of the PIVOT trademark and the unauthorized use of PIVOT User's Manual.