

PIVOT
STEPPING GAUGE

USER'S GUIDE (No.3)

EXHAUST TEMP SG-ET

Thank you for purchasing our PIVOT STEPPING GAUGE SERIES.
Please read these instructions carefully before installing or using this meter.

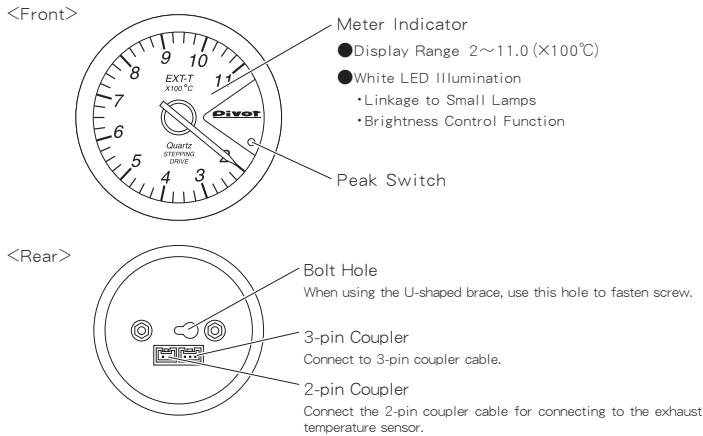
FEATURES

- Microcomputer controlled stepping motor drive provides highly precise display of exhaust temperature.
 - Includes highly precise exhaust temperature sensor.
 - One-touch hold peak function to view highest temperature.
 - Includes U-shaped brace and easy-to-install stand allows freedom in installation.
 - Easy-to-see LED white light means no bulb replacement. Includes brightness control function.
- [Opening Demo] By turning the key switch ON, the needle will move in a fixed pattern. (searching for the origin.)

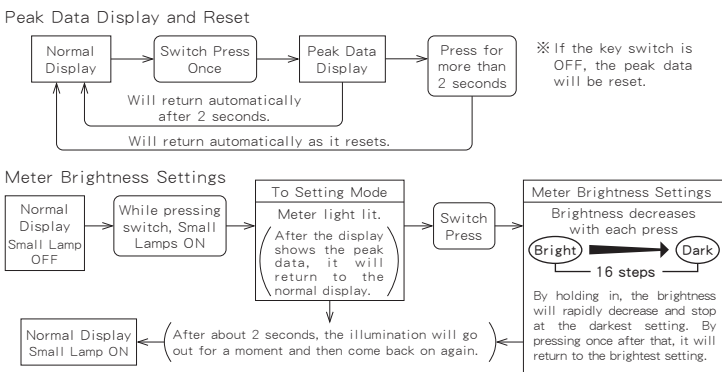
CONTENTS

Meter	Adjustable Stand	U-shaped Brace	Exhaust Temperature Sensor	Fitting Union B	Fitting Bolt B	Knurled Nut	Allen Wrench
3-pin Coupler Cable	2-pin Coupler Cable	Wire Connectors X3	Hexagonal Bolt	Hexagonal Nut	Spring Washer	Double-sided Tapes X3	User's Guide

PART NAMES



SWITCH OPERATIONS SETTINGS



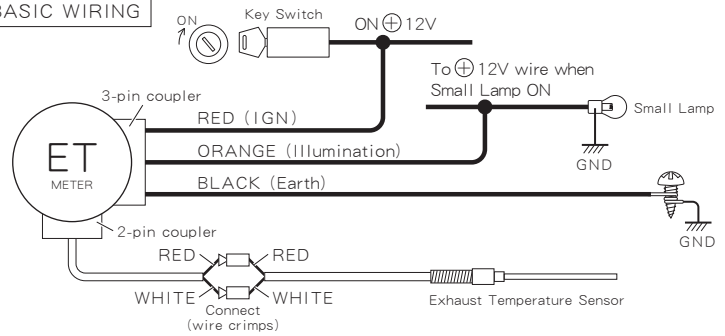
- <If you wish to adjust several meters to match>
- ① Decide the brightness you wish to make the standard, check how many steps away that is from the brightest (or darkest) setting.
 - ② Adjust other meters to match the number of steps away from brightest (or darkest).

CONNECTING THE WIRES

NOTE

1. For safety purposes, when working on your car always disconnect the ⊖ battery terminal. (Reconnect to check for power.)
2. Make sure that all wire and snap connectors are firmly connected and insulated.
3. Be careful when laying wires not to cause any electrical shorts or wire breakage.

BASIC WIRING



CONNECTION PROCEDURE

1. Connect the 3-pin Coupler Cable
 - ① Properly connect each wire and cable.
 - RED wire (IGN)=Connect to the wiring that carries (⊕ 12V) when key switch is ON.
 - ORANGE wire (Illumination)=Connect to the wiring that carries (⊕ 12V) when the Small Lamps are ON.
 - BLACK wire (GND)=Connect with the same screw in the steel panel that carries earth ground.
 - ② Connect the 3-pin coupler to the back of the meter.

NOTE

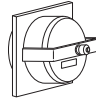
Connecting the 3-pin coupler to the water, oil, intake temperature gauge, or speed meter will result in damage or a malfunction.

2. Connect the 2-pin Coupler Cable
 - ① Make sure to properly connect the male end of the connectors to the female end of the connectors of the exhaust temperature sensor being careful to match the cable colors.
 - ② Connect the 2-pin coupler to the back of the meter.

METER INSTALLATION

A. Installation with U-shaped Brace

Fasten from the back of the instrument panel.



1. Fastening the Hexagonal Bolt for Installing the U-shaped Brace

- ① Insert the six-sided part of the hexagonal bolt into the hole at the back of the case and slide it to the left.



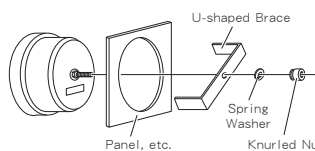
Inside the hole to the left is a bolt lock; position the bolt so as to lock.

- ② With the bolt locked in place, screw on the hexagonal nut to tighten.



2. Installing the Meter

- ① Insert the meter into the front side of the panel where you wish to install it.
- ② On the rear side, slide the U-shaped brace onto the hexagonal bolt and securely fasten with the spring washer and the knurled nut.



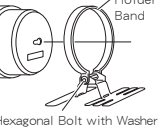
B. Installation with the Adjustable Stand

Fasten to a stable place with the double-sided tape. (On top of the steering column cover or dashboard.)



1. Installing the Adjustable Stand

- ① Place the stand's holder band around the back of the meter.
- NOTE:
If you cannot get the band around the meter, loosen the hexagonal bolt and expand the band.



2. Installing to the Car

- ① Carefully decide installation place.
 - ② Bend the stand to securely fit the place of installation.
 - ③ Clean the surface; removing all oil or dust.
 - ④ Fasten using the double-sided tape.
- Clean to remove oil & dust
- Double-sided Tape
- ⑤ After deciding the position and angle of the meter face, fasten the hexagonal bolts on both sides to secure.



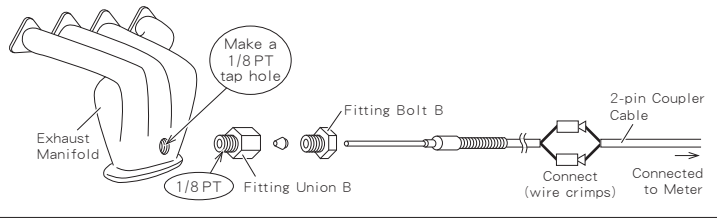
NOTE

If after installing the meter, the 3-pin coupler cable is viewable and looks bad.
Tie the 3-pin coupler cable behind the meter with the zip tie.



SENSOR INSTALLATION

BASIC INSTALLATION

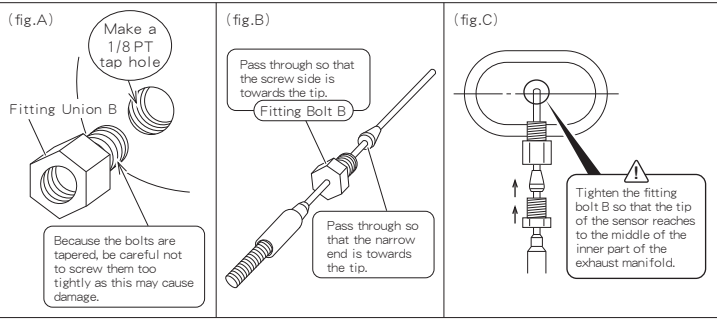


INSTALLATION PROCEDURE

- ① Detach the exhaust manifold.
- ② After having decided the position from which to measure the exhaust temperature, make a 1/8PT tap hole.
- ③ Fasten a fitting union B to the middle of the bolt. (fig.A)
- ④ Insert the tip of the exhaust sensor through the fitting bolt B. (fig.B)
- ⑤ Tighten the fitting bolt B on to the bolt so that the tip of the sensor reaches to the middle of the inner part of the exhaust manifold. (fig.C)
- ⑥ Replace the exhaust manifold.
- ⑦ After laying out the sensor cable, fasten the connectors by colors to the cable connectors of the 2-pin coupler cable.

INSTALLATION WARNING

1. When removing and installing the exhaust manifold, please follow directions for your type of model car.
2. Make sure to remove or install the manifold only after allowing it to have become fully cooled down; not doing so may cause burns or injury.



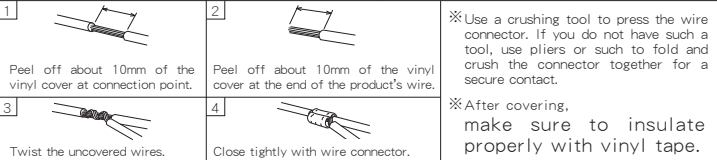
TROUBLESHOOTING

※Please make the following checks before seeking repair.

Trouble	Possible Causes	Possible Solutions
The opening demo does not work with key switched ON.	Contact failure of RED/BLACK wire.	Check the wire connections or conditions.
Display dose not change.	● Contact failure of exhaust temperature sensor. ● Contact failure of 2-pin coupler cable.	Check the sensor and wire connections or conditions.
Even with the Small Lamps ON, the meter light does not come on.	Contact failure of ORANGE wire. The brightness is set at the darkest setting.	Check the ORANGE wire connections or conditions. Make any necessary change to brightness.
The illumination color is slightly different from other meters.	This is due to a variance in the LED and is not a malfunction. Please be aware that we cannot perfectly match the color.	
The needle stops at the key OFF position.	This is a characteristic of the stepping motor and is not a failure or breakdown. If after the opening demo with the key ON (the engine stopped), the exhaust temperature display reads correctly (under 200 °C the display reads 200°C) the meter is working properly.	

HOW TO USE THE WIRE CONNECTORS

※If soldering is possible, please do so.



PIVOT CORPORATION

87-3 OKADA SHIMO-OKADA MATSUMOTO-SHI NAGANO 390-0313 TEL0263-46-5901