One Type Analog Display coupled with Multi-Digital Display.

USER'S MANUAL (Product Number : DST)

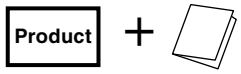
DUAL GAUGE

Sensor Connection

RPM+DIGITAL **DST**

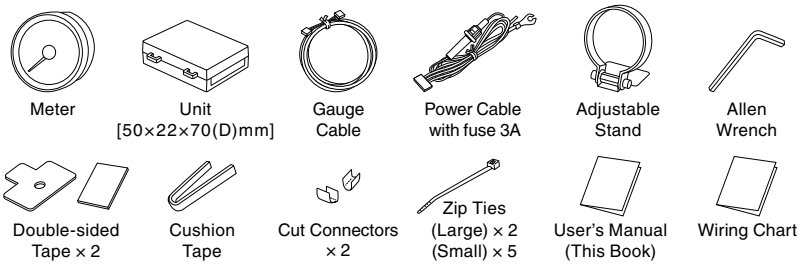
Thank you for purchasing this PIVOT product.
Please read this manual carefully and keep it for future reference.

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



Contents

Please check the contents of the package



Meter | Unit [50×22×70(D)mm] | Gauge Cable | Power Cable with fuse 3A | Adjustable Stand | Allen Wrench

Double-sided Tape × 2 | Cushion Tape | Cut Connectors × 2 | Zip Ties (Large) × 2 (Small) × 5 | User's Manual (This Book) | Wiring Chart

In the following circumstances the unit cannot be installed; doing so may cause damage.
・The ECU is different from the standard for that model. ・If a sub-computer is being used.

⚠ 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 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 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 other things.

●**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 please wipe with a soft cloth to remove any dirt. Do not use chemical cleansers such as thinner, benzene, or alcohol.

●**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.**

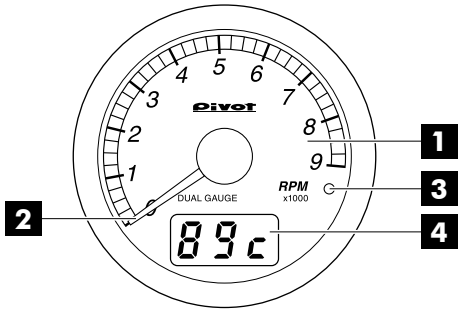
Features

Each of our Dual Gauges offer one type of analog display coupled with a multi-digital display in one smart looking unit, thus saving not only space but money.

Wide Range Compatible Sensor Connection Models

Like most gauges, the DS Series models are installed by wiring to the appropriate sensor; this means greater compatibility with a wide range of car models.

Part Names and Displays



1 Analog Display — Display RPM data.

2 Needle — Shows the current values and peak value.

3 Switch — Use to change modes of digital display and reset the peak value.

4 Digital Display — Display switches between types.

5 Illumination (night illumination) — Normally illuminated when on display.

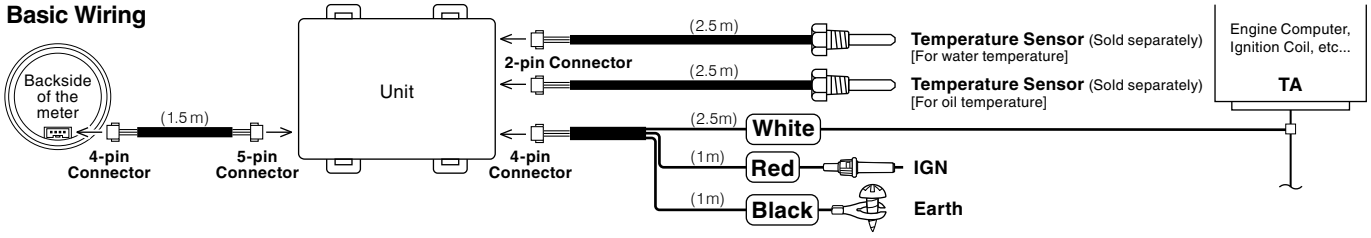
Analog Display	Dial : White, Needle : Red
Digital Display	Red

6 Display Range

Analog Display	**RPM** [0 ～ 9000rpm]
Digital Display	**Voltage** [8 ～ 18V]
	Water temp / Oil Temp [-35 ～ 150°C] (Displayed with Sensor sold separately)

Connecting the Wires

Basic Wiring



IGN

Red **Connect to the IGN (12V with key 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 Signal

White **Confirm the positions on the "Wiring Chart" and then connect the wire using the cut connectors (included).**

Wiring Chart

- Make sure to connect the white wire to indicated place on the car.

【Reference】 How to use the Cut Connectors

1 10mm Peel off of the vinyl cover at connection.	2 10mm 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.	*When crimping, please use crimpers or use pliers to bend and then solder together.

Connecting Sensor

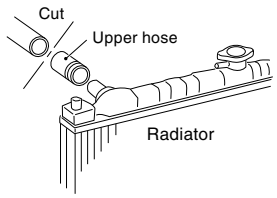
To display Water temperature and Oil temperature, you must purchase Temperature sensor (DTS ¥3,800) which is sold separately.

⚠ Depending on the installation you may need a sensor adaptor. (sensor connector 1/8 PT sold separately)

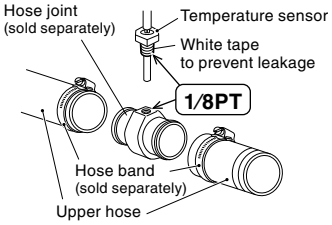
Connecting Water Sensor

Use the hose joint (sold separately) to attach the temperature sensor to the upper hose of radiator.

① Cut the upper radiator hose at a suitable spot. (Water coolant will spill out, so prepare replacement coolant.)

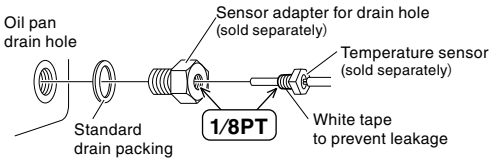


② Fit the hose band onto the cut upper hose and securely connect the cut hose to the hose joint with the hose band, so as no leakage will occur.



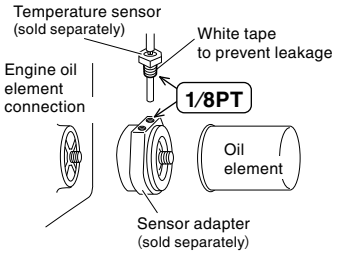
Connecting Oil Sensor

Oil Drain Hole Installation



⚠ **WARNING** For cars chassis that are low to the ground or in cases where road conditions may be poor, please do not use this type of installation. It may lead the sensor to bump against the ground and break or be damaged.

Oil Element Installation

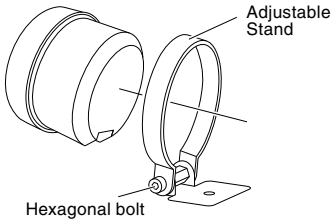


Installing The Product

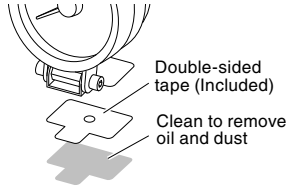
Installation with the Adjustable Stand

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

① Slightly loosen the Hexagonal bolt and install the gauge into the Adjustable Stand.

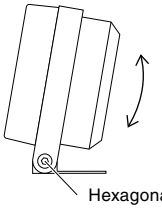


② Fasten using the double-sided tape. (Clean the surface; removing all oil and dust.)

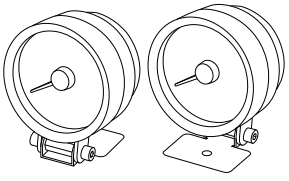


*Please be sure about where you wish to install the meter, as it is not advisable to reuse double-sided tape.

③ After deciding the position and angle of the meter face, fasten the Hexagonal bolt on both sides to secure.

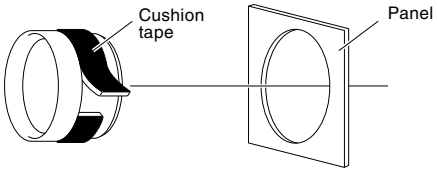


*It is possible to install the Adjustable Stand in the reverse direction.

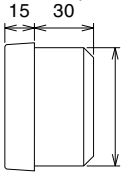


Mount into the Panel

① Wrap the cushion tape around the base of the meter.
② Press into the 60 mm hole in the panel.

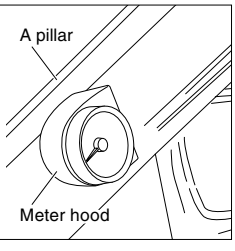


Meter Dimensions (unit; mm)



*If you wish to fasten the unit to the A-pillar or column cover, please purchase and use the separately sold meter holder which gives you installation a clean natural look. (For mounting to the A-pillar or other slanted surface, it is necessary to use screws.)

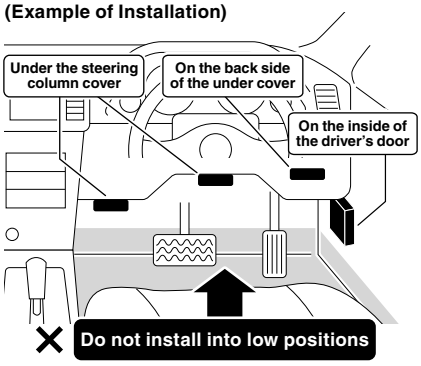
Mater Hood 60 (for ø60)
MH6-U (Multi-Purpose Type) ¥2,980
MH6-C (Processing Kit) ¥2,980



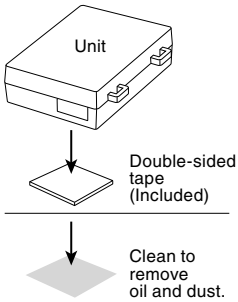
Installing The Unit

As shown in the right diagram , fasten the unit into positions not usually affected by water.

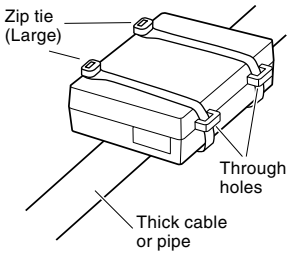
(Example of Installation)



Fastening to Flat Space



When Fastenings to a Cable or Pipe



Settings

Cylinder Number Setting

Set the cylinder number for the car being used.

▭ =Digital display area, ( ) contains additional explanation

1 OFF **Key OFF Press the switch** — (No display)

2 START **While holding down the switch, start the Engine** — P-4 (Blinking current setting)

3 **Release the switch after lighting display in 5 seconds** — P-4 (Blinking)

4 **Press the switch to change the pattern and set to the proper one** — P-4 (Blinking)

Patterns for cylinder settings display

1-cylinder P-1 ▸ 2 P-2 ▸ 3 P-3 ▸ 4 P-4 ▸ 5 P-5 ▸ 6 P-6 ▸ 8 P-8 ▸ Special A P-A

5 **Release the switch after setting is done** — P-4 (Blinking)

6 **Back to normal display with no operation for 5 seconds** **Setting Completed** — 13.5 (Normal display)

※ For one and two cylinder engines, set the signal level switch to two.
⇒ See **Switching the signal level** for details.

- The factory default setting is for a four-cylinder engine. After setting is changed, the last setting will be displayed.
- If the engine is a two cycle engine, multiply the number of cylinder by two. (e.g., For a two-cycle three-cylinder engine the setting would be six.)

【Reference】
One-cylinder : Some models of NISSAN or MAZDA
Two-cylinder : Some models of MAZDA or SUBARU
Four-cylinder : Rotary engine (RX-7)
Special A : Some models of NISSAN, etc.

Switching the signal level

Press the switch for 6 seconds

Changes are only necessary for those car models listed below.
NISSAN (FAIRLADY Z Z33) • MAZDA (after 2002) •
MITSUBISHI (COLT and others) • SUBARU (early type of PLEO and others)
※See the "Wiring List" for details.

1 OFF **Key OFF Press the switch** — (No display)

2 START **While holding down the switch, start the Engine** — P-4 (Blinking cylinder number)

3 **Press the switch for 5 seconds** — P-4

4 **Release the switch after displayed the signal detection level** — Hi (Blinking current setting)

5 **Press the switch to change the pattern and set to the proper one** — *Hi* = If the generic car: Hi; *Lo* = If the level is small: Lo

6 **Release the switch after setting is done** — Hi (Blinking)

7 **Back to normal display with no operation for 5 seconds** **Setting Completed** — 13.5 (Normal display)

- The factory default setting is for the generic car. After setting is changed, the last setting will be displayed.

Basic Operation

1 **Key Switch ON** (Engine start)

2 **Opening Demo**

3 **Display Each Mode**

4 **Key Switch OFF** (Engine stop)

5 **Meter OFF**

The needle stops when the key is turned OFF.

Opening Demo

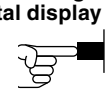
●When the key is turned ON the needle will move to the extreme left several times for searching position. Then it will move to the maximum value and finally to reading for current measurement item.

Switching The Display

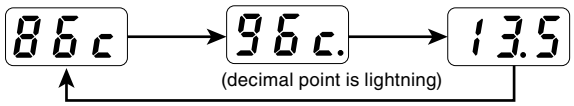
Switching The Digital Display

*1. Not displayed without temperature sensor.

Press switch to change the multi-digital display in operation

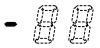
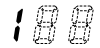


Water Temp[*1] → **Oil Temp**[*1] → **Voltage**



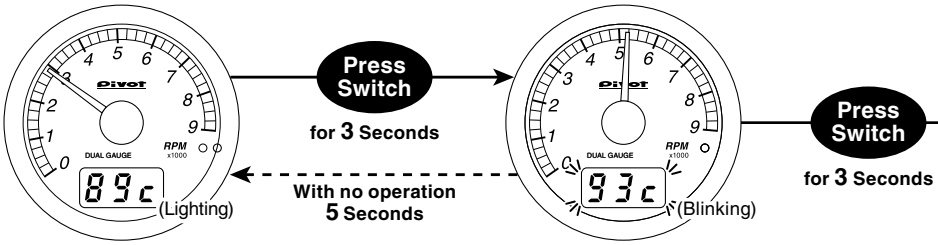
(decimal point is lightning)

Water Temperature / Oil Temperature Reading the Display

-35 ～ -1 °C The first place on the left shows "-" (minus).	
0 ～ 99 °C The third place from the left shows "C" (Celsius).	
100～150 °C Numerical Value Only.	

Display and Reset the Peak Value

Real-time Display **Peak Value Display**



Reset the Peak Value

Only the peak value on display will be reset. This will return to the Real-time Display for the currently displayed mode.

*Peak readings are reset when the key is turned OFF.
*For Boost, RPM, Water Temperature and Oil Temperature the high will be shown and for Voltage the low will be displayed.
*If you wish to check the loss of voltage upon operation of the starter, turn the key to the ON position and after the digital display comes on, operate the starter. However, Red code must be connected to the 12V IGN wire working with the starter operation and the key on.

Troubleshooting

Trouble	Possible Causes	Possible Solutions
Does not work with Engine start.	Poor connection of **Gauge cable**, **Red** or **Black** wires.	Please reconfirm whether wiring and connections are correct or not.
The opening demo starts with Engine start, but the needle does not work.	Poor connection of **White** wires.	Please reconfirm whether wiring and connections are correct or not.
	The signal detection level is not correct.	See page 3 **Switching the signal level** and make any necessary changes.
The displayed values are very different from the standard meter and others.	The cylinder setting is wrong.	See page 3 **Cylinder Number Setting** and make any necessary changes. (Due to difference in accuracy, readings may not be the same as those on the standard tachometer.)
	The signal detection level is not correct.	See page 3 **Switching the signal level** and make any necessary changes.
Upon starting up, the unit will not start in the newly changed display.	Because after changing displays, if the car's engine is turned off within 6 seconds, the new setting will not be stored, make sure to wait at least 6 seconds before turning the engine off.	
The Temperature displays do not change from ---, or do not show the value with connecting the sensor.	Poor connection of **Temperature sensor** or breaking of wire.	Please reconfirm **Temperature sensor** and whether wiring and connections are correct or not.