

**Features**

■ 3-phase shift lamp

● Equipped with a shift warning lamp function as used in F1, GT and rally racecars. Beginning at the rpm before the shift point the first warning lamp will light, then the second warning lamp, and finally when the shift point is reached the three lamps will sequentially flash.

● Settings for shift point and warning lamps can be made easily and at will.

● The lamps can be freely set to light from the right, middle or left.

● The lamp body's lightweight and compact design give you the freedom to attach it anywhere with double-sided tape.

■ Microcomputer Controller

● Microcomputer controller gives you one touch control of engine rpm settings.

● Easy connection to cigarette lighter; auto-detection circuitry system analyzes engine rpm.

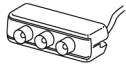
● For more precise settings or for car models for which the auto detection system doesn't work well, you are able to wire to the engine rpm signal.

● Equipped with a lamp brightness control function.

**Kit Contents**



Controller



Shift Lamp



Double-sided Tape (Large)



Double-sided Tape (Small x 2)



White extension cord



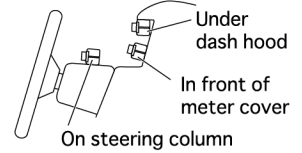
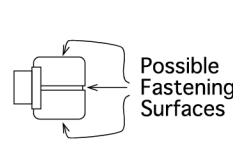
Wire Connectors x 2



User's Guide



Rpm Signal Wiring Table by Engine Computer Type



**About Shift Lamp Trial Run**

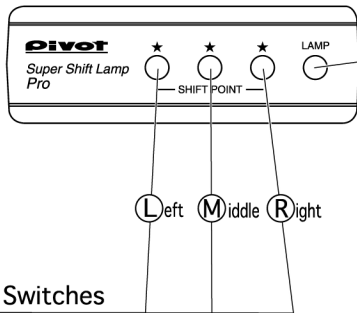
Each time the power is turned on, a trial run will occur to check shift lamp brightness.



**Controller Part Names and Functions**

The warning lamp function is designed to let you know when the shift point is near and allow shifting to go more smoothly, therefore please set as near to the shift point as you wish. Usually, they are set at an interval of about 500 rps from the lowest point to the shift point.

<FRONT>



**Warning Lamp / Shift Point Setting Switches**

Set the rpm values at which you wish the warning lamp to light and the shift lamp to flash.

**[How to Set]**

Press the ★ switch of the lamp you wish to set for more than 1 second.

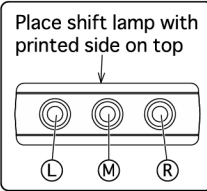
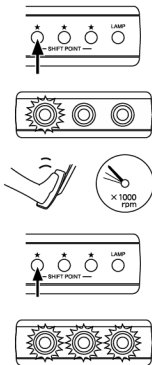
The lamp will flash (Standby mode)

Raise rpm to the value you wish to set.

Maintaining that rpm value, press the ★ switch again to set.

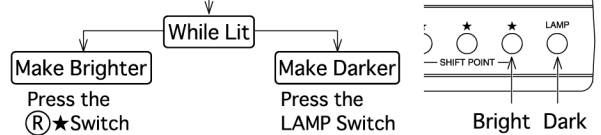
All three lamps will sequentially flash and then go off.

→ **SETTING COMPLETE**



**Lamp Brightness Control Switch**

By pressing once, the lamp will come on at the currently set brightness.



Upon reaching the desired brightness, stop pressing the switch to complete the setting. The lamp will go off in a short time.

**[Lamp Lighting Order]**

The lighting order of the lamps can be set as you wish. All three lamps will flash when the shift point rpm you set as been reached.

**[Setting Example]**

- Ⓛ = 4000rpm (warning 1)
- Ⓜ = 4500rpm (warning 2)
- Ⓡ = 5000rpm (Shift point=all flash)

**Ⓛ 4000rpm**

1. Press Ⓛ★Switch for more than 1 second. → Left lamp will flash
2. At 4000rpm press Ⓛ★Switch. → All lamps will sequentially flash, and then go off.

**SETTING COMPLETE**

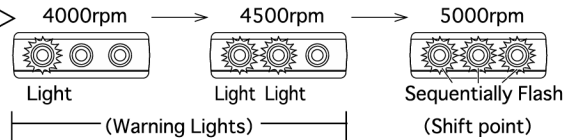
**Ⓜ 4500rpm**

- Do as above using the Ⓜ Switch.

**Ⓡ 5000rpm**

- Do as above using the Ⓡ Switch.

**<CHECK>**



**Note** To avoid accidents, please stop car and make settings in a safe place.

<REAR>

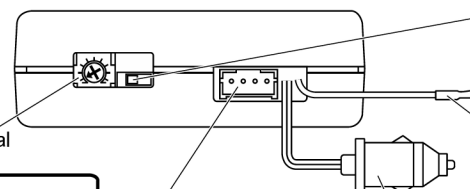
**For Cigarette Lighter Connection (Auto Detection System)**

For Normal Usage Please use this Installation

**Detection Adjustor**

Adjust for detecting rpm signal

**NOTE**  
Under normal use with the cigarette lighter connection  
**DO NOT TOUCH THIS.**  
For usage see [Troubleshooting].



**4-pin Coupler**

Connect to the Shift Lamp 4-pin Coupler Cord.

**Cigarette Lighter Plug**

Connect to get electrical power and the rpm signal by auto detection means. (If white cord is connected, only power will be received.)

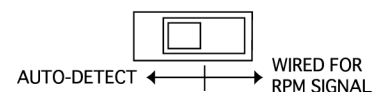
**When Wiring for RPM Signal**

In some model cars and racecars, due to characteristics of the alternator, the auto detection system may not operate properly causing the lamps to function irregularly. If this occurs, please change the switch as shown below and follow instructions for Wiring for the RPM Signal.

**RPM Signal Switch**

Move depending on how you are wired to get rpm signal.

- ◆ If wired to get rpm signal, should be to RIGHT
- ◆ If using Auto Detection System, should be to LEFT



If this switch is moved, make sure to turn on the power again when finished.

**White Cord (Wiring for RPM Signal)**

Remove tube from tip, connect to white extension cord, and connect to your engine computer's rpm signal (TA).

# WIRING and INSTALLATION

## For Cigarette Lighter Connection (Auto Detection System)

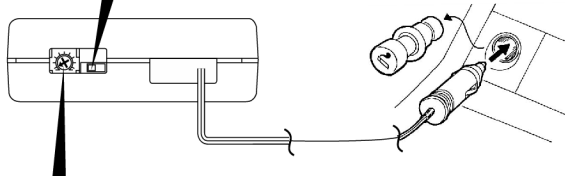
Under normal conditions this installation type will operate smoothly, but in some of the following cases it is advisable to wire separately for the rpm signal to obtain a more precise and stable reading.

Cause= Not a product malfunction, but due to car specific characteristics the auto-detection system is unstable, as in the following cases:

1. If there is a significant gap in operations between when using and not using the air-conditioner, fan, or lights.
2. If, even after moving the detection adjustor unstable operation continues.

1. Pull out the cigarette lighter plug and remove any dirt or dust from the socket.
2. Insert the controller cigarette lighter plug, making sure it is securely and fully inserted. → **INSTALLATION COMPLETE**

⚠ Make sure the RPM Signal Switch is to the LEFT.



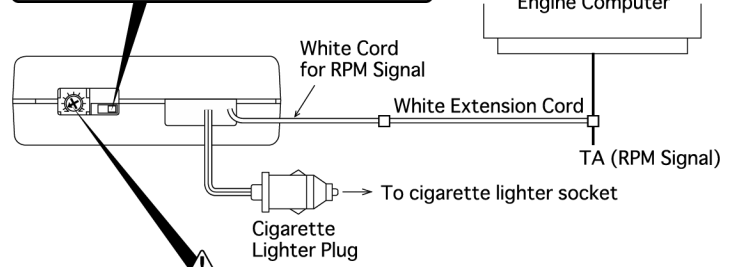
⚠ About the Detection Adjustor

It is not necessary to touch this under normal operating conditions.

## When Wiring for RPM Signal

1. Remove the protective tube from the tip of the white cord and connect it to the white extension cord.
2. Connect the end of the white extension cord to your engine computer's rpm signal (TA). For details about the location see: [Rpm Signal Wring Table by Engine Computer Type]
3. Clean out the cigarette lighter socket, and securely insert the controller cigarette lighter plug.

⚠ Make sure the RPM Signal Switch is to the RIGHT.

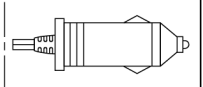
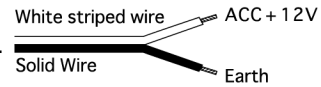


⚠ DO NOT TOUCH THE DETECTION ADJUSTOR

## When Not Using the Cigarette Lighter Plug

If you are not using the cigarette lighter plug, but are wiring directly please follow these directions.

- ① Cut the cigarette lighter plug cord.
- ② Connect the white striped wire to the ACC +12V.
- ③ Connect the solid wire to body earth.



## Installing the Controller and the Shift Lamp

1. Insert the 4-pin coupler cord of the Shift Lamp into the 4-pin coupler in the REAR of the Controller.
2. Using the double-sided tape (Large) for the Controller and (Small x2) for the Shift Lamp, place where you wish making sure they are securely fastened.

### NOTE

Make sure that the area where the unit will be fastened is free of dust, dirt and oil and make sure that unit is securely fastened. Using the same tape twice will lessen its adhesive qualities and is not advisable.

## Troubleshooting

Please read this before asking for repair.

TROUBLE	POSSIBLE	CAUSES POSSIBLE SOLUTIONS
Shift Lamp doesn't light or flash.	•The detection adjustor at <rear> of controller is turned to the right	•Turn adjustor all the way to the left.
	•The RPM Signal Switch is to the right when the actual connection is for the cigarette lighter (Auto- Detection).	•Move the RPM Signal Switch to the left side and turn on the power again.
	•The white extension cord is not connected properly.	•Check the connection points and conditions.
Noticeable gap in operations between when using and not using the air-conditioner, fan, or lights.	•Auto-detection system is unstable due to car characteristics.	
When using air conditioner or such device, the lamps come on at a lower rpm than the one you set.	•Auto-detection system is unstable due to car characteristics.	Turn the Detection Adjustor from the far left slowly to the right until you reach a stable position.
•Unstable operation. •Unstable operation at low rpm.	•Auto-detection system is unstable due to car characteristics.	•Try turning the Detection Adjustor. •Try making setting above 3000 rpm.

### Note

In some cases, turning the Detection Adjustor too far to the right will cause the failure of the lamp to operate at the settings made. →Make the shift point settings again.

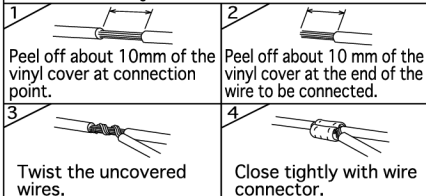
If the controller has been installed using the cigarette lighter only, and after trying these solutions nothing improves, please reinstall following the directions for

**Wiring for RPM Signal** as above.

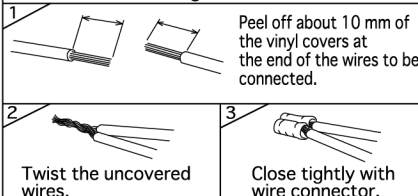
## How to use the Wire Connectors

※ If soldering is possible, please do so.

### Method 1 Connecting a new wire to the middle of another wire



### Method 2 Connecting two wires at their ends.



※Use a crushing tool to press the wire connector. If you do not have such a tool, use pliers or such to fold and crush the connector together for a secure contact.  
※Loose connections can cause wire to come apart, so please make sure the connection is secure.

Be sure to insulate and secure with vinyl electrical tape.

