



# USER'S MANUAL (Product Number: PDX-B1)

## Sub-Computer for BMW **POWER DRIVE**

Thank you for purchasing 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.  + 

### **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 and checking during driving may cause an accident; please use with the utmost consideration for safety.
- **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 other things.

- **Just after installation do not exert any strong force on the product.**  
Please note that it's easy to unstick just after fixing the product with double-sided tape.
- **Do not install the product in any place subject to high temperature or any place where water may be splashed.**
- **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, in any manner, process, take apart, or make changes to this product.**

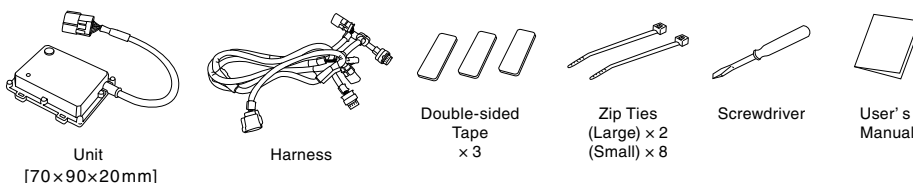


1. This product cannot be installed in cars which use the different DME (engine computer) from the standard or use a sub-computer. (can be installed with 3-drive series)
2. Cannot be displayed exact value on Boost meter using Diagnostic Monitoring Connector and Torque meter of the car. (including PIVOT products : 52X-BM, 52X-Z4, 52X-F3 etc.)
3. If not carried out work as procedure, warning message might light.

## Contents

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## Please check the contents of the package



## Features

Because Power Drive (PDX-B1) is a control system based on results from actual testing of BMW-N20 engines, you are ensured real power that suits your needs.

### Performance Boost

Power Drive gives you performance boost ; maximum 1.48 seconds reducing at 0-100km/h time, power increase about 60 ps and torque up 5.8 kgm on our measured results.

### Level Adjustment

The boost pressure can be adjusted in 9 steps of 10% from normal to up to 1.9 times normal to meet your needs whether driving in the city or racing.

### Power Boost with Safety Range

Besides offering boost up within your cars fuel control range and adjusting for boost during startup and low water temperature, if the product should fail it will automatically return to normal boost levels to ensure safety while driving.

### Simple Coupler Connection

Simple coupler connection within the engine room means easy trouble-free installation.

### Waterproof Drainage Design

The circuit board is protected by a double layer waterproof coating and the sealed case is designed to drain away water and protect from high pressure water and condensation; ensuring long worry-free usage.

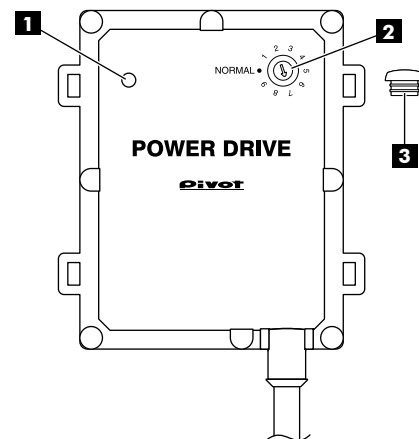
### Easy Installation with Thin Compact Unit

Thin Compact unit Installation is made easy by fixing the unit with double-sided tape or zip ties.  
※Do not install in areas prone to strong engine vibration or extreme heat.

### No Repair or Inspection Necessary

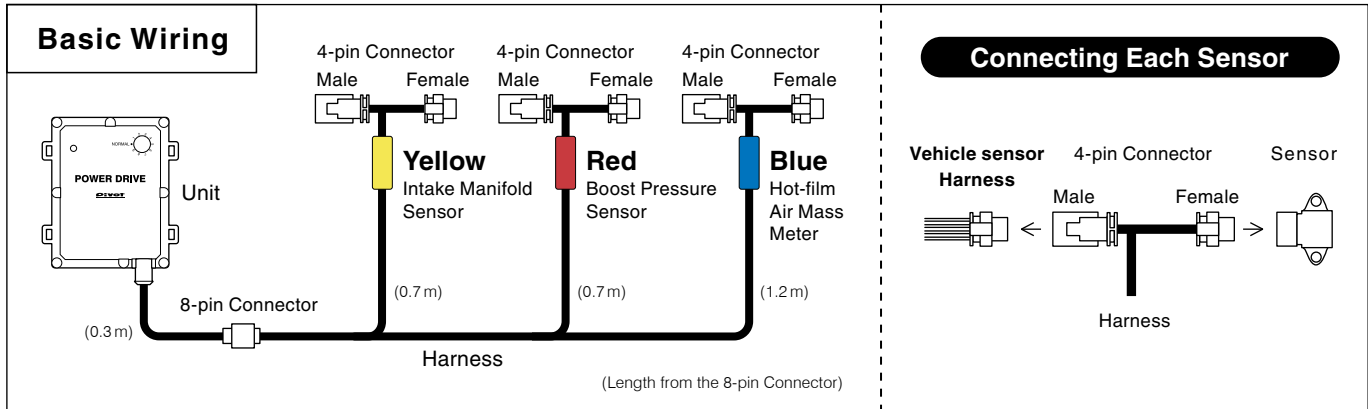
As this product makes no alterations to the DME (engine computer), it has no impact on inspection, repair or DME version upgrades.

## Part Names



- 1 LED** ..... Lights during operation
- 2 Adjustment dial** ... For boost level adjustment
- 3 Cap** ..... Cap of adjustment dial

# Connecting The Wires

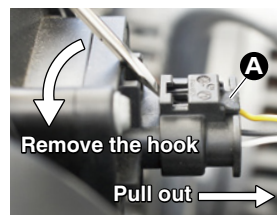


**⚠ Follow the procedure below when connecting. If not carried out work as procedure, warning message might light.**

- Connection Procedure

- 1 Key Switch OFF.**
  - 2 Open the hood.**
  - 3 Close all doors and lock them.**
  - 4 Wait for more then 15 minutes after doors locked.**
  - 5 Connect each Sensor.**
    - See page 2 to 3 for the sensor position of each car type.
    - Do not open the doors after finishing all connection.
  - 6 Connect the Harness to the Unit.**
  - 7 Fasten the Unit.**
    - See page 2 to 3 for the Unit install examples of each car type.
    - See page 4 for fastening.
  - 8 Fasten the Harness.**
  - 9 Start the engine and check the LED lights or not.**

### ● Pull out the connector (Common to each model)



### Attachment and Detachment of Car side Female connector

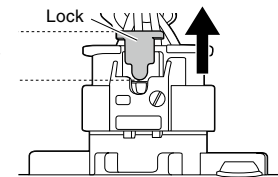
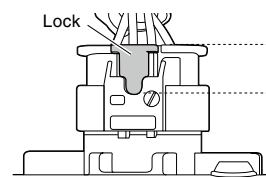
**Detachment**  
Remove the hook of car side connector using screwdriver and pull out.  
※May also press the **A** section If you can pull out

**Attachment**  
Insert until locked.

### ■ Unlock the connector

Locked state

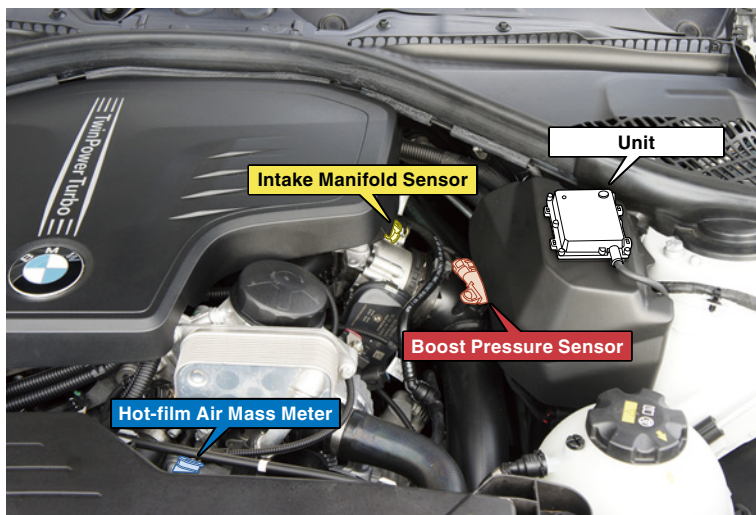
Unlocked state



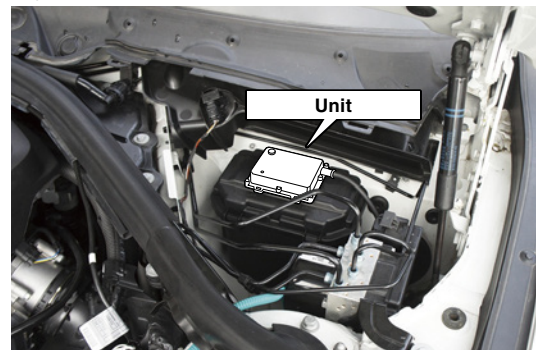
Slide the Lock to arrow direction and pull out the connector.

## Sensor Position of Each Vehicle Type and Unit Install examples

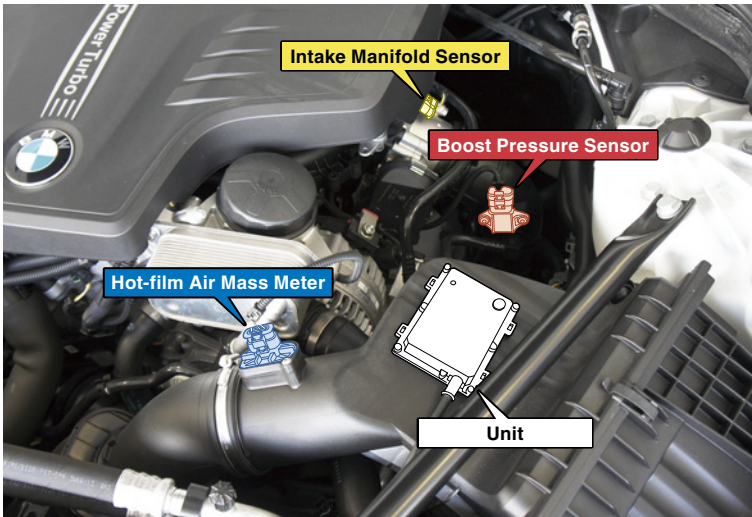
### 220i/320i/420i



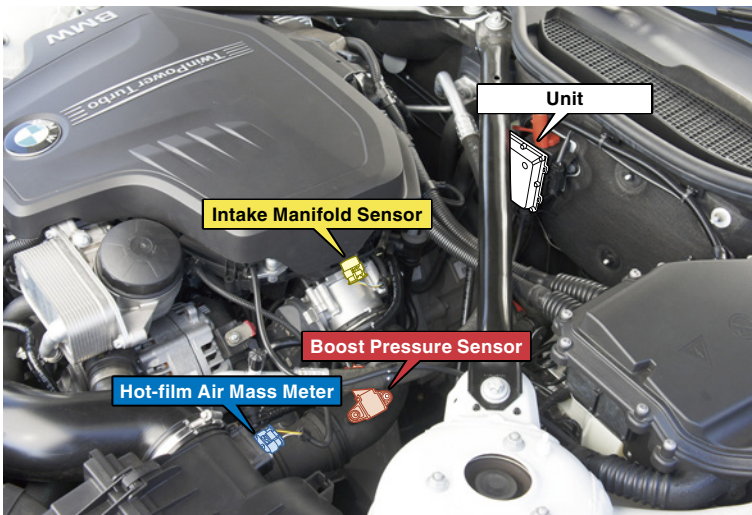
(e.g. Top of the Fuse box)



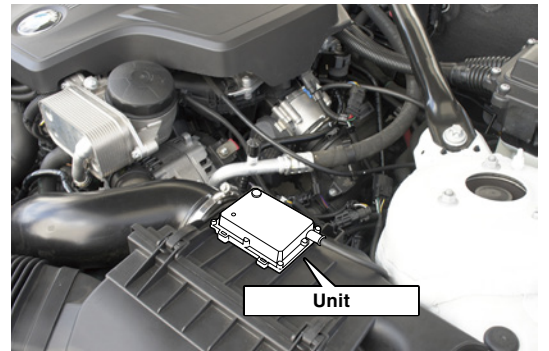
## 523i



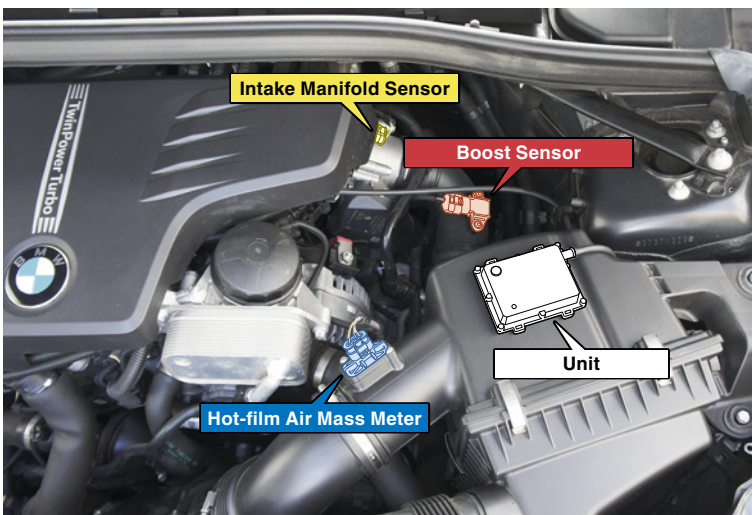
## Z4 20i



(e.g. Top of the Air cleaner box)

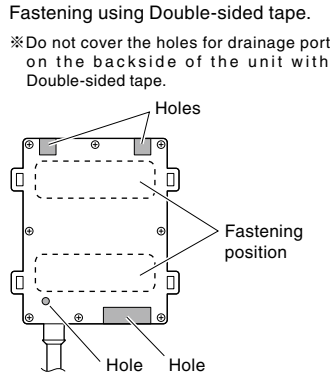
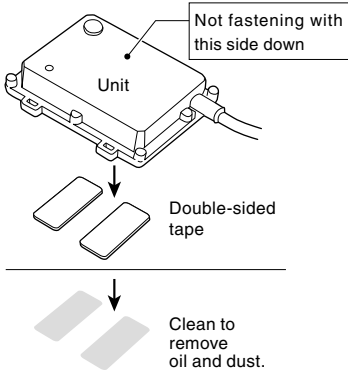


## X1 20i



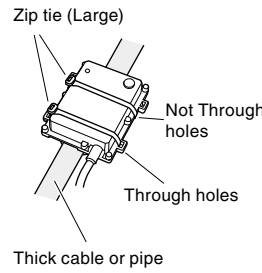
# Installing The Product

## ●Fastening to Flat Space

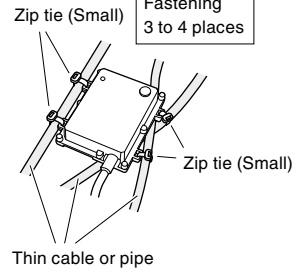


## ●When Fastening to a Cable or Pipe

### Fastening to a Thick cable or pipe



### Fastening to a Thin cable or pipe



※Do not install in areas prone to strong engine vibration or extreme heat.

# Level Adjustment

### 1 Key Switch OFF.

### 2 Wait for the LED lights off.

### 3 Turn the Dial after the LED lights off.

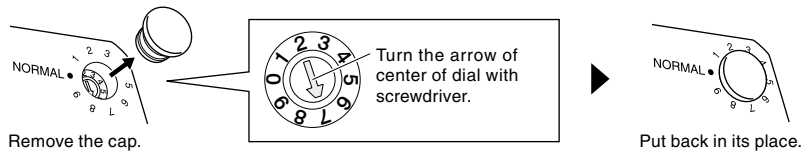
### 4 Key Switch ON.

### 5 Setting Completed when the LED lights.

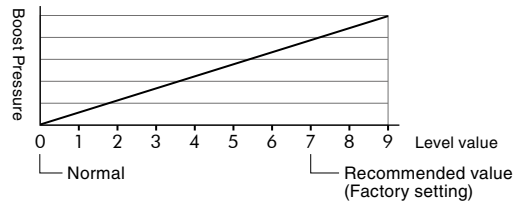
#### If warning message displayed

If warning message displayed when you use different parts such as muffler from its standards, please set the level value 2 to 3 steps lower.

## ●Level Value Adjustment (Usually not necessary)



## ●Relation of Dial Numbers and Boost Pressure



| Car Model | Peak Boost of Each Level (kPa) |    |     |     |     |     |     |     |     |     |
|-----------|--------------------------------|----|-----|-----|-----|-----|-----|-----|-----|-----|
|           | 0 (Normal)                     | 1  | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   |
| 320i      | 60                             | 72 | 79  | 84  | 89  | 95  | 100 | 104 | 108 | 112 |
| 420i      | 58                             | 64 | 70  | 76  | 81  | 86  | 89  | 92  | 95  | 98  |
| 523i      | 75                             | 88 | 89  | 90  | 91  | 92  | 95  | 98  | 101 | 105 |
| Z4        | 80                             | 97 | 100 | 102 | 105 | 108 | 112 | 116 | 121 | 126 |
| X1        | 78                             | 87 | 92  | 96  | 100 | 104 | 107 | 110 | 114 | 118 |

※The results shown here are from actual tests carried out by PIVOT and may differ from other car type and conditions.

# Troubleshooting

| Trouble                       | Possible Causes                                | Possible Solutions  |
|-------------------------------|--|---|
| LED does not light or blinks. | Poor connection of <b>Harness</b> .            | Please reconfirm whether wiring and connections of <b>Harness</b> .                       |
| Warning message lights.       | Poor connection of <b>Harness</b> .            | Please reconfirm whether wiring and connections of <b>Harness</b> and restart the engine. |
|                               | Not carried out connecting as procedure order. | Please reconfirm whether wiring and connections of <b>Harness</b> and restart the engine. |
| Not feel any differences.     | <b>Adjustment Dial</b> is set to 0. (0=Normal) | Please reconfirm <b>Adjustment Dial</b> .   |

※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.