

# Power Editor



## INSTRUCTION MANUAL

Application: TOYOTA GR YARIS [GXPA16]

E89671-T10020-00  
December 2023  
Ver. 3-1.01

### 1. INTRODUCTION

Thank you for your purchase of Power Editor R.

- This manual indicates items that require attention in order to install this product safely and lists precautions to avoid any possible damage and/or accidents.
- This product was designed based on installation onto a specific factory vehicle or a vehicle using other HKS products. The performance and/or safety cannot be guaranteed if this product was installed onto other inapplicable vehicles.
- Contact HKS dealer for any lost parts, replacement, and this manual.
- HKS will not be responsible for any damage caused by incorrect installation and/or use of this product.
- This product works only with a vehicle with DC12V negative ground.
- The specifications of this product are subject to be changed without notice.
- This manual is subject to be revised without notice.

Product	Power Editor R
Code Number	42018-AT020
Use	Boost up of turbocharged vehicle
Application	TOYOTA GR YARIS [GXPA16]

### 2. Safety Precaution

The following precautions for use of this product are to prevent possible accidents and/or injuries and for proper use.

**⚠ WARNING :** Indicates risk of serious injury and/or possible death.

**⚠ CAUTION :** Indicates risk of serious injury or property damage.

#### ⚠ WARNING

- Make sure to work on the vehicle in a well-ventilated area to prevent possible explosion or a fire.
- Make sure to hold connectors when removing them to avoid possible damage to other electronics parts and/or a fire caused by disconnection or a short circuit.
- Stop using the product if any unusual situation is noticed. Consult the dealer immediately. Failure to do so may cause an electric shock, burn out, or damage to the vehicle.
- Make sure to work on the vehicle in area where a vehicle can be parked safely.

#### ⚠ CAUTION

- Do not install this product by yourself.
- Do not modify, disassemble, and/or remodel the product and attached parts to avoid any damage to the unit and/or harness.
- To avoid possible malfunction and damage to the engine, install the unit away from excessive heat or water/moisture.
- Make sure all connections and wiring are not disconnected, short circuited, or incorrect. If so, it may cause an electric shock, burn out, or damage to the vehicle.
- If any unusual noise, scents, and/or vibrations are noticed, consult the dealer immediately.
- If any unusual noises, scents, and/or vibrations are noticed while driving, please refer to a factory repair manual.
- Confirm the following before reading the ECU data with this product:
  - The ECU is a factory standard.
  - Data on the ECU is not modified.
- Description of the connector, please go always hold the connector.
  - If you pull the cable, there is a possibility of disconnection.
- Before an automobile inspection and/or repair, it is necessary to remove this product.
- Daily maintenance on the vehicle is the responsibility of the owner.

### 3. Product Features

- By connecting this product between Pressure sensor and Manufacturer's original connector, boost can be easily raised.
- Even after installing this product, you can return to the normal state by connecting the "return connector" instead of the Power Editor R main unit.
- You can change the data for the boost up of the main unit by connecting to the personal computer with USB harness included in the product and using Easy Writer for Power Editor R.  
Easy Writer for Power Editor R is downloaded from the HKS homepage.
  - When connecting the USB harness, please remove the waterproof connector inserted into the harness by vehicle type.
  - After completing the settings and disconnecting the USB harness, connect the waterproof connector or map switch harness.



### 4. Parts List

1  Power Editor R 1pc.	2  Harness by vehicle type 1pc.	3  Harness for map change over switch 1pc.	4  USB harness 1pc.
5  Harness for vehicle speed signal wire 1pc.	6  Waterproof plug 1pc.	7  Bullet Terminal/Sleeve (male/female) 1pc.	8  Return connector 1pc.
9  Tie wrap (small) 5pc.	10  Tie wrap (medium) 5pc.	11  Tie wrap (large) 4pc.	12  Tie wrap (extra large) 2pc.
13  Double-sided tape 1pc.	14  Tie wrap base 4pc.	15  Screw M4 4pc.	16  Instruction Manual (JP/ENG) 1pc.

### 5. Power Editor R LED display

[LED for operation confirmation]

Off: Power off

Lights up: Power ON (normal operation)

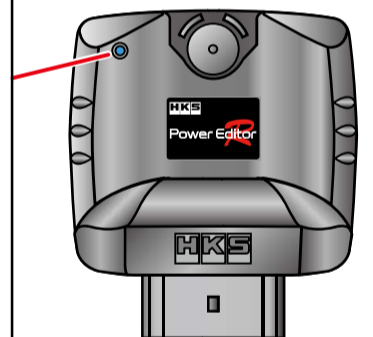
Blinking continuously: data is corrupted

(When it Blinking continuously, the boost will not increase and the operation will be the same as in the normal state.)

[When using the map changeover switch]

When switching to map A, the LED flashes once

When switching to map B, the LED flashes twice



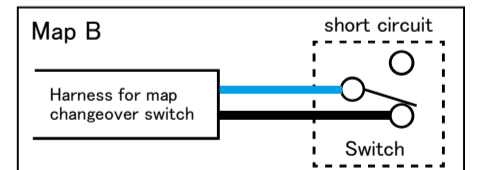
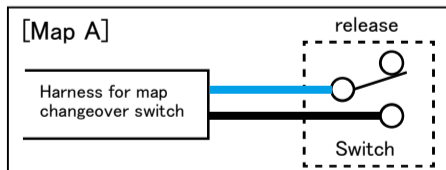
[About maps A and B]

- There are two maps, A and B, and you can switch between them using the changeover switch.

Map A	Boost Updater
Map B	No correction (normal state)

- Please check the data specifications on the HKS website.

- Connect the harness for the map changeover switch and release the blue and black wires to switch to map A, short them to switch to map B.



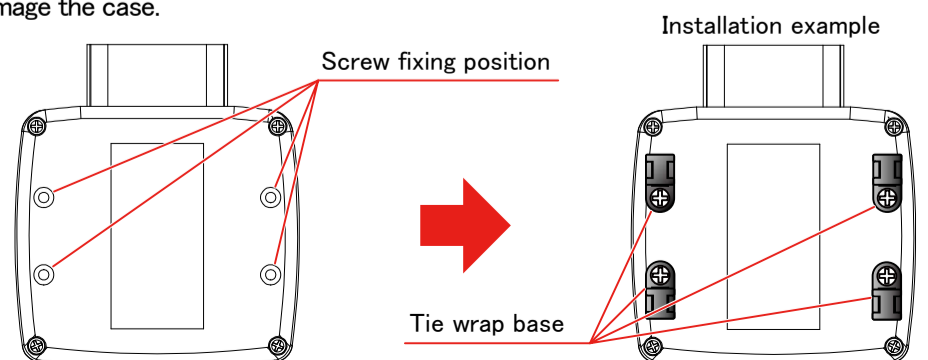
- When using map B, a map changeover switch is required.

- A map changeover switch is not included in the package, so please prepare one as needed.

### 6. When using a tie wrap base

- When using the tie wrap base, be sure to use the included screws M4.

If you use screws that are the wrong size, the tie wrap base may come off easily or damage the case.





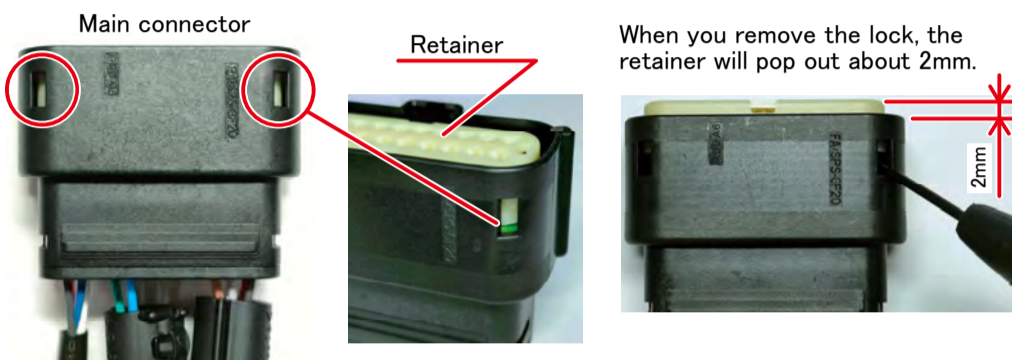
## 7. Preparation of harness for each vehicle type

- The harness for each vehicle type is completed by attaching the vehicle speed signal line or waterproof plug.
- Please check the table below and complete the harness for each vehicle model in a shape that suits your purpose.
  - One or two precision screwdrivers (-) with a tip of 2 mm or less are required for this work.

vehicle speed signal	Parts to be installed	function
use	Vehicle speed signal line	Vehicle speed correction map can be used - Requires processing of the vehicle side harness and drawing of the harness for vehicle speed signal wire from the engine room to the passenger compartment.
not use	waterproof plug	Vehicle speed correction map cannot be used

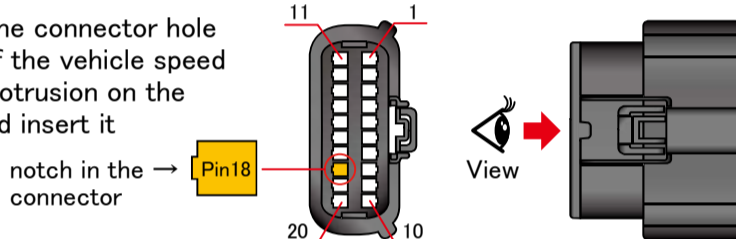
- Please check the HKS website for information on operation when using the vehicle speed correction map.

- Unlock the retainer that is fitted to the main connector of the car harness.
  - Use a precision screwdriver (-) to lift the retainer and release the lock.
  - It will be easier to release the lock by using two precision screwdrivers and lifting both the left and right sides at the same time.



- Insert the harness for vehicle speed signal wire or waterproof plug into Pin18 of the main connector.

- Align the notch in the connector hole with the terminal of the vehicle speed signal line or the protrusion on the waterproof plug, and insert it until it clicks.



- Once it is inserted all the way, it will become locked inside the connector and will not come out.

Please work with extreme caution.

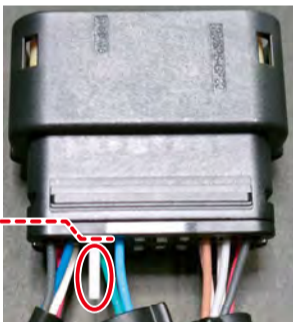
If you want to pull it out again, you need to completely remove the retainer and then release the lock inside the connector.

- Push the retainer back to its original position to lock it.

- Cut the waterproof plug.

- When the waterproof plug is attached, it will protrude about 9mm from the connector.
- Make sure to cut at the same level so as not to interfere with the surrounding electric wires.

Cut the protruding part of the waterproof plug



## 8. Installation procedure

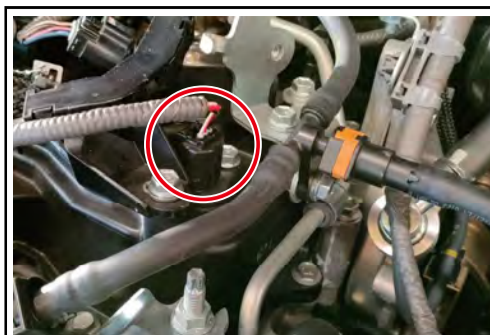
- Turn off the vehicle's engine and remove the cable terminal from the negative terminal of the battery after leaving it for at least 10 minutes.
- Install and secure the Power Editor R main unit in any location.
  - Please avoid installing the product in areas that get hot, such as the engine itself, or where it will be exposed to direct water.
  - When deciding on the installation location, make sure that the vehicle-specific harness included with Power Editor R can reach each sensor before fixing it.
  - When fixing with double-sided tape, clean the surface to which it will be attached, degrease it well before attaching it, and use tie wraps to secure it.
  - If you fix it with just double-sided tape, it will be dangerous if it comes off due to deterioration over time.
- Connect the Power Editor R main unit and the vehicle-specific harness.
- Remove the genuine connector of the sensor harness from each sensor, and connect it to the vehicle-specific harness of Power Editor R.
  - Make sure the connector is firmly locked.

Harness color mark	access point	Display on Easy Writer
red	Chamber pressure sensor	Channel 1
green	Intake manifold pressure sensor	Channel 2
blue	Air flow sensor	Channel 5
White	Intake camshaft angle sensor	REV (map axis)

- When using vehicle speed correction, connect the harness for vehicle speed signal wire.
  - If SLD Type I is already installed, connect it to the SLD's vehicle speed signal input (white wire).
- Please secure the vehicle-specific harness of Power Editor R with the included tie wrap so that it does not interfere with driving.
  - When routing the harness, avoid places that get hot, such as the engine itself.
- After confirming that all connectors are connected correctly, attach the cable terminal to the negative terminal of the battery.
- Turn on IG and check that the LED on the Power Editor R unit lights up.
  - If the LED does not light up even after turning on the IG, there may be a poor connection of the connector.

## 9. Recommended installation position of Power Editor R main unit and position of each sensor

- The engine cover has been removed.



Intake camshaft angle sensor position



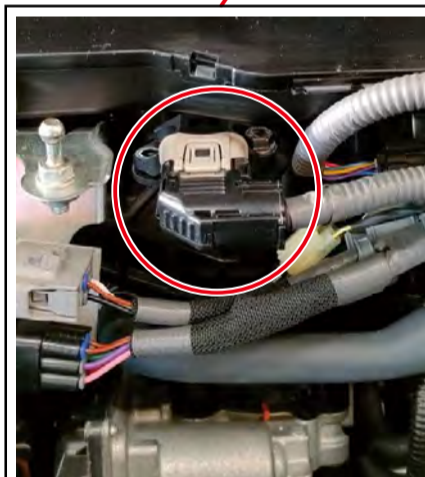
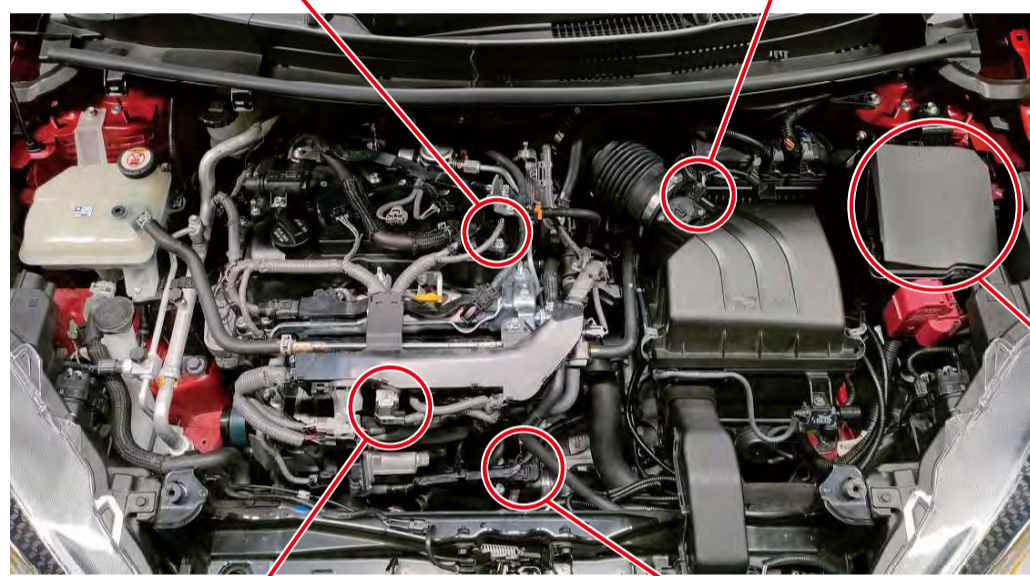
Airflow sensor position



Interrupt connection of vehicle specific harness (White)



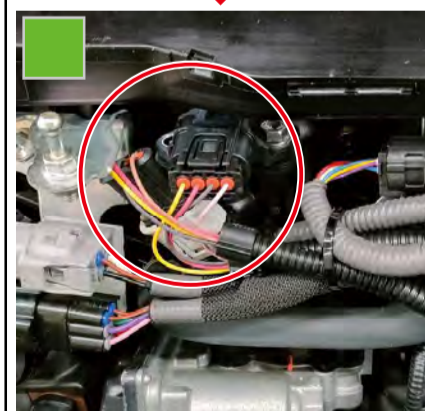
Interrupt connection of vehicle specific harness (Blue)



Intake manifold pressure sensor position



Chamber pressure sensor position

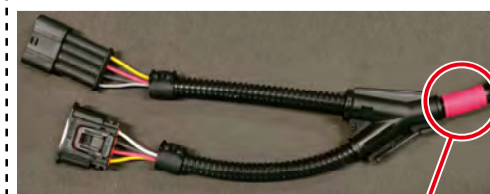


Interrupt connection of vehicle specific harness (Green)



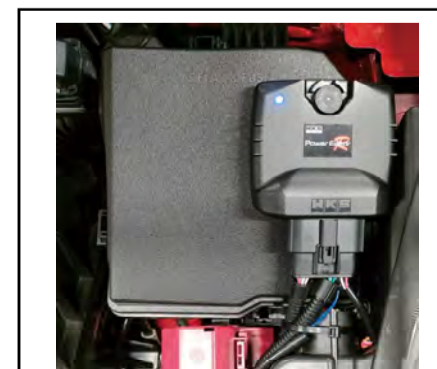
Interrupt connection of vehicle specific harness (Red)

Connect according to the color mark for each connector group using the vehicle type harness.



Harness by vehicle type

Color mark

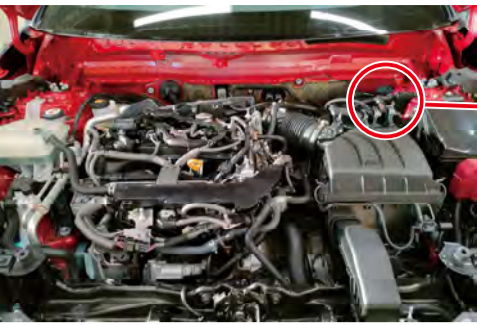


Recommended installation position for Power Editor R main unit

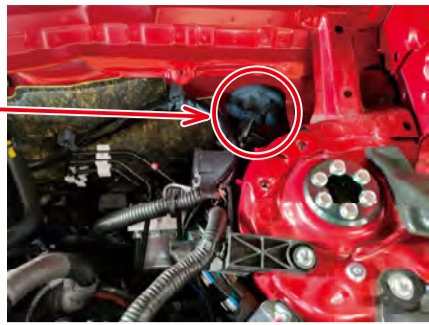


**10. Wiring the harness for vehicle speed signal wire**

1. Insert the harness for vehicle speed signal wire into the car from the grommet shown below.
  - The same applies to the harness for the map changeover switch.



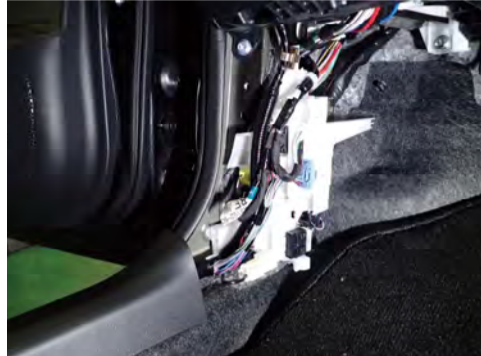
Remove the wiper part



Pull the harness through the grommet part

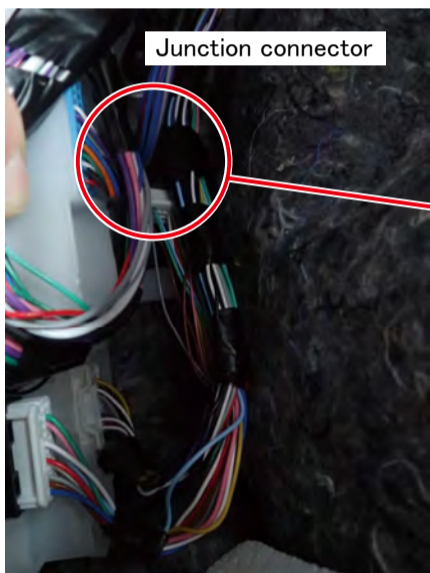
- Please check the maintenance manual for the removal method.

2. Remove the cover on the left side of the passenger seat footwell.

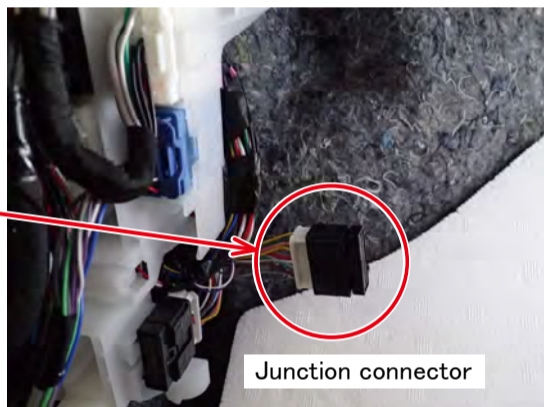


3. Pull out the connector (junction connector) for wiring the harness for vehicle speed signal wire to a position where you can work on it.

- Peel off the vinyl tape on the junction connector that is fixed with vinyl tape behind the white resin block, and pull it out to a position where you can work on it.



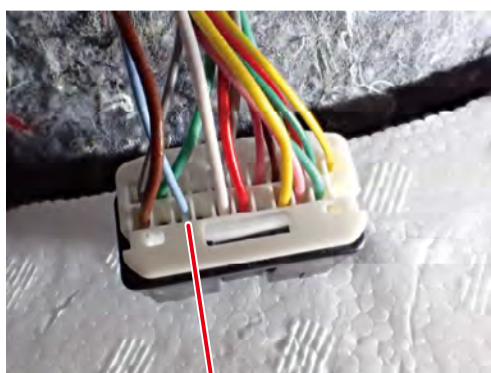
Junction connector



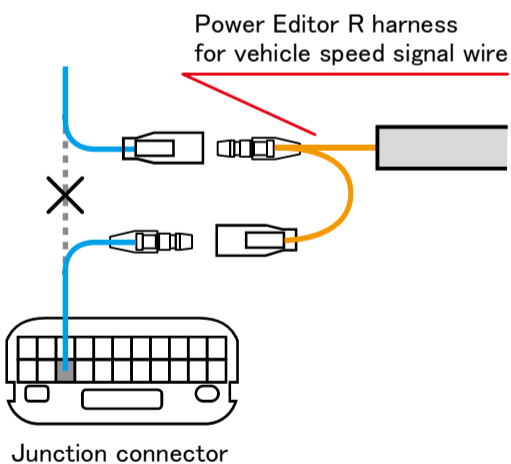
Junction connector

- When removing the vinyl tape, be careful not to damage the wiring.

4. Cut the vehicle speed signal wire of the junction connector, attach the bullet and sleeve, and connect the harness for vehicle speed signal wire of Power Editor R so that it is inserted.



Vehicle speed signal wire



**11. Troubleshooting**

If this product does not operate normally, check the wiring, etc. against the following symptoms before determining that it is malfunctioning.

If an abnormality occurs such as the check lamp lighting up, please remove the Power Editor R main unit and attach the included recovery connector.

Symptoms	Cause	Measures
The check lamp lights up even when the return connector is used.	The connector is coming loose.	Re-insert each connector firmly until it locks.
	Harness is disconnected. Or the connector terminals have poor contact.	Request repair of Power Editor R.
The check lamp lights up only when the Power Editor R is connected. Or boost does not go up.	Power Editor R main unit is malfunctioning.	
	The written setting data does not match the vehicle.	Perform the current car settings again.
Power Editor R's LED is blinking.	Data writing failed with Easy Writer exclusive for Power Editor R.	Write data again using Easy Writer for Power Editor R.

**12. Maintenance**

**⚠ WARNING**

- Do not use this product if unusual occurrences should occur to avoid risk of electrical shock and/or fire. Consult with the dealer immediately.

**⚠ CAUTION**

- Do not try to repair the product yourself. Consult with your dealer.
- If any unusual noises, scents, and/or vibrations are noticed while driving, please refer to a factory repair manual.

**13. Repair Service**

For questions about this product, any optional, lost, defective and/or damaged parts, please contact your dealer.

**14. Product Specifications**

- Operating Voltage ..... DC5V~16V
- Operating Temperature ..... -20°C~100°C
- Outer Size ..... 105 × 92 × 35mm

**15. Revision of Manual**

Rev. Number	Date	Details
3-1.01	2023/12	1st Edition