

Power Editor



INSTRUCTION MANUAL

SUBARU
LEVORG [VNH]
WRX S4 [VBH]

E05253-F43040-00
August 2025
Ver.3-1.01

1. INTRODUCTION

Thank you for purchasing Power Editor R harness.

- 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 the vehicles listed in the table below.
- The specifications of this product are subject to be changed without notice.

Product	Power Editor R harness FR-1
Code Number	42999-AF001
Use	Boost up of turbocharged vehicle
Application	SUBARU LEVORG [VNH] / WRX S4 [VBH]

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.

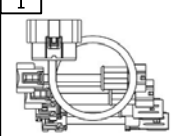
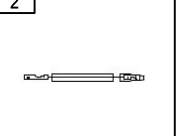
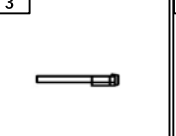
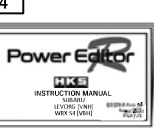
⚠ CAUTION

- 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 take appropriate action according to the user manual.
- Before using this product, please check the following.
 - The ECU installed in the vehicle is a genuine manufacturer's product.
 - The ECU data is normal.
- Desorption 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

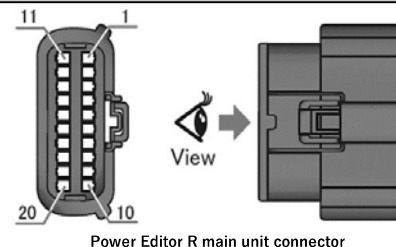
- You can increase the boost pressure by attaching this product and writing the data that is compatible with your vehicle into the Power Editor R unit.
- Even after installing this product, you can return to the normal state by connecting the "return connector" instead of removing the Power Editor R main unit.

4. Parts List

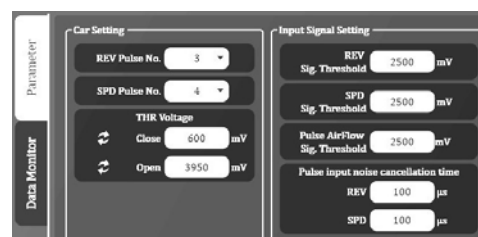
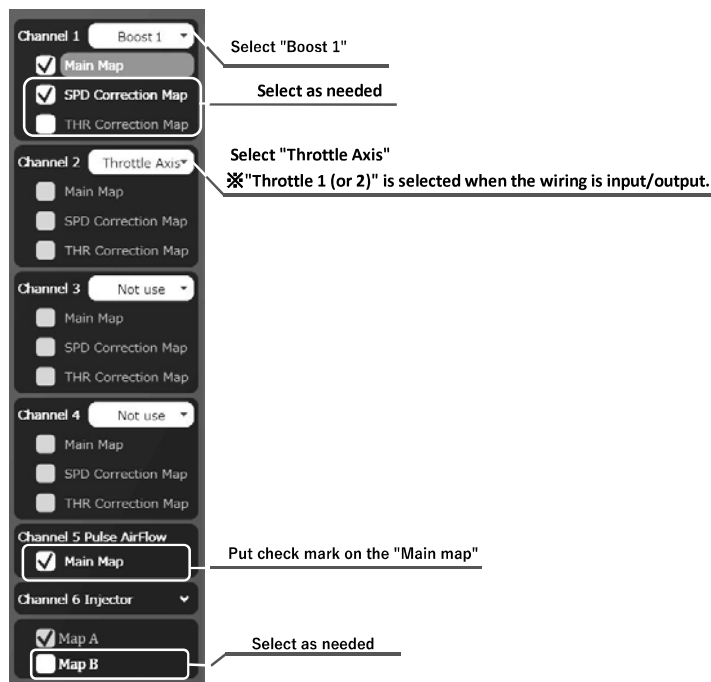
			
FR-1 harness 1pc.	Vehicle speed signal harness 1pc.	Waterproof plug 1pc.	Instruction manual (JP/ENG) 1pc.

5. Harness specifications and map data settings

The terminals on the connector on the Power Editor R main unit (right image) of this product are wired as shown in the table below. Set the settings and parameters for each channel of the map data as shown below.



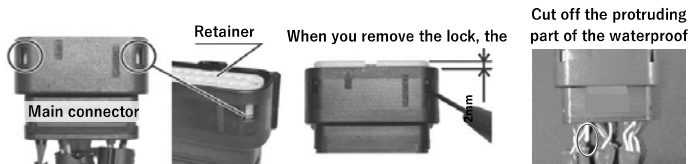
Pin	Wiring destination (function)	Pin	Wiring destination (function)
1	Boost pressure sensor (power supply)	11	Boost pressure sensor (GND)
2	Boost pressure signal (sensor side)	12	Boost pressure signal (ECU side)
3	Throttle position signal (sensor+ECU side)	13	— (Waterproof plug)
4	— (Waterproof plug)	14	— (Waterproof plug)
5	— (Waterproof plug)	15	— (Waterproof plug)
6	— (Waterproof plug)	16	— (Waterproof plug)
7	Air flow meter signal (sensor side)	17	Air flow meter signal (ECU side)
8	Intake cam angle signal	18	Vehicle speed signal or Waterproof plug (optional)
9	USB D—	19	USB D+
10	USB 5V	20	USB GND



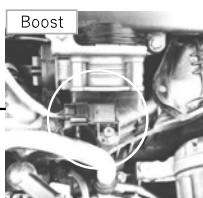
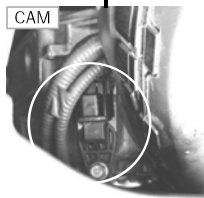
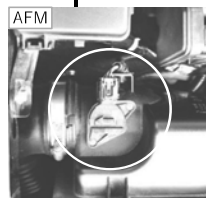
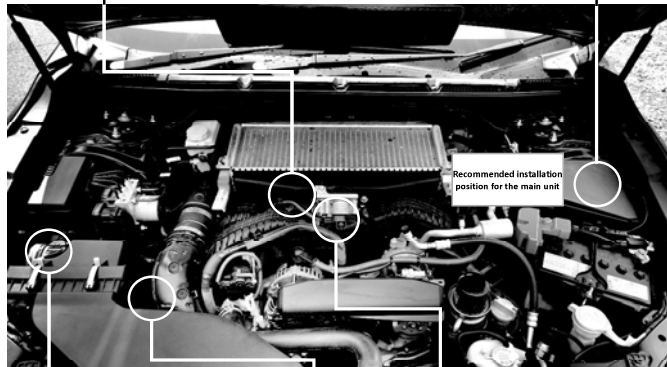
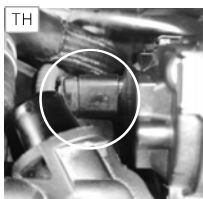
Parameter Settings

6. Harness installation

- * This product is installed with the cable terminal removed from the negative battery terminal. Before installation, check the maintenance manual and confirm the settings to be reset. After installation, set up the product according to the maintenance manual.
- ① 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. Depending on the condition of the vehicle, it may be necessary to leave it for 10 minutes or more. Please leave it for an appropriate period of time.
 - ② Install the Power Editor R in a place that is not subject to high temperatures or direct water. If you use double-sided tape to attach the unit, clean the surface and degrease it thoroughly before attaching it, and use a tie-wrap to secure it in place. If you use only double-sided tape to attach the unit, it may come off due to aging, which can be dangerous.
 - ③ Connect the harnesses to each sensor on the FR-1 harness. Refer to the label affixed to each sensor and the diagram below, and connect so that each sensor and the original harness are interrupted.
* When connecting the connector, make sure that it is securely locked.
* There is no need to connect harnesses that will not be used for correction. Connect the male and female connectors of the harnesses that will not be connected to substitute for insulation.
 - ④ If using vehicle speed correction, it is recommended to use it in conjunction with VAC II (45009-AF001). Connect the VAC II optional output wire (light blue) to the Gibushi side of the vehicle speed signal harness. For the terminal side of the vehicle speed signal harness, remove the retainer lock on the connector on the FR-1 harness main body side (*1) and insert it into Pin 18 (*2). If you are not connecting the speed signal harness, install a waterproof plug on Pin 18 (*2, *3).
* Once the terminal or waterproof plug is inserted all the way, it will lock inside the connector and will not come out. Please work with great care. If you want to remove it again, you will need to completely remove the retainer and then release the lock inside the connector.
* 1 Use a precision screwdriver (-) to lift the retainer to release the lock. It will be easier to release the lock if you use two precision screwdrivers to lift both the left and right at the same time.
* 2 Insert until you hear a click.
* 3 Cut the waterproof plug at a flat position so that it does not interfere with surrounding electric wires.



- ⑤ Push the retainer back into its original position and connect the FR-1 harness to the Power Editor R main unit.
- ⑥ To prevent the harness from moving due to vibration, secure it in place using the tie-wraps included with the Power Editor R unit.
- ⑦ After checking that all connectors are connected correctly, attach the cable terminal to the negative battery terminal.
- ⑧ Carry out the following before starting the engine.
 - ⑧-1. After installing the battery and waiting for at least 20 seconds, turn on the IG power.
 - ⑧-2. After turning on the IG power, make sure that no error messages appear on the meter even if more than one minute has passed, and then start the engine.
 - ⑧-3. Turn off the air conditioner and lights, and leave the engine at idle until it is completely warmed up.
(Guideline: the radiator fan should turn at least twice)
 - ⑧-4. Refer to the maintenance manual to make various settings.

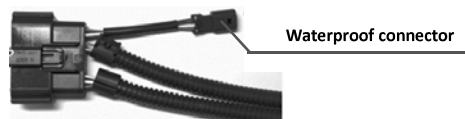


CAUTION

- When removing the battery or parts, always follow the maintenance instructions and instruction manual issued by the manufacturer.

7. Writing data to the Power Editor R

- ① Remove the waterproof connector attached to this product, attach the USB harness included with the Power Editor R main unit, and connect it to your computer.
- ② Write the map data created using "Easy Writer for Power Editor R".
 - ※ Please download and use the latest version from the HKS website.
 - ※ After completing the setup and removing the USB harness, connect the waterproof connector or the map switch harness.



8. Maintenance

WARNING

Do not use this product if unusual occurrences 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.

9. Repair Service

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

10. Revision of Manual

Rev. Number	Date	Details
3-1.01	2025/8	1st Edition