

**Instruction Manual** 

## **Important Information**

Please read this instruction manual carefully, and proceed with the installation ONLY if you fully understand this manual. Make sure to pay attention to all the "Important!" "Warning!" and "Caution!" messages through out the manual.

#### Important!

- This product is legal for sale or use in California only on vehicles which may never be driven on a public highway.
- This product is only for vehicles with 12V (battery) systems.

#### Warning!

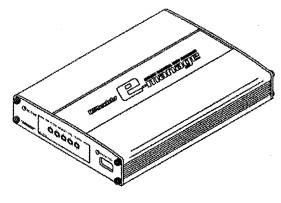
- Installation of this product should only be performed by a trained specialist, who is very familiar with the automobile's mechanical, electrical, and fuel management systems. If installed by untrained person, it may cause damage to the unit as well as the vehicle.
- Never tune the E-manage while the vehicle is moving.
- Never tune the e-Manage on public highways. This can be dangerous to you and others on the road.
- When tuning and operating the vehicle in a garage, make sure that the garage is equipped with a proper ventilation system.
- After installation and tuning, make sure to clean up every thing that would interfere
  the driver. Wires, tools, and laptop computer may interfere with the driver and cause
  accidents.
- Avoid open sparks, flames, or operation of electrical device near flammable substances.

#### Caution!

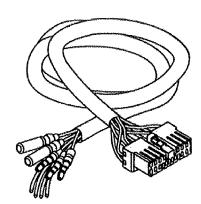
- Improper tuning of the e-Manage can cause damage to the engine.
- GReddy Performance Products, Inc. will not take any responsibility of damage caused by improper installation or tuning.
- Tuning should be performed only by a technician who fully understand the vehicle's fuel management and ignition timing requirement for the engine being tuned.
- Always use a proper air/fuel ratio meter when tuning the e-Manage.
- Installation of this product requires modification of the vehicle's electrical system.
- When making wire connections, be sure to remove the key from the ignition, and disconnect the negative terminal of the battery.
- Never short out the system. It can damage the unit as well as the vehicle's electrical system.
- Read and fully understand the wiring diagram before making any wire connection.
- When connecting the connector, push it in all the way until you hear them click in together.

# **Parts List**

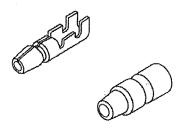
\*Make sure to check that all the following products listed are included in the box.



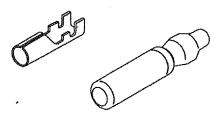
Main Unit x1



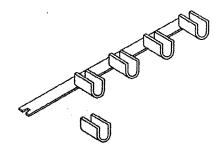
Main Harness x1



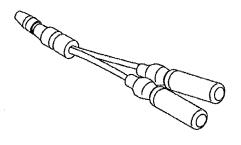
Male connector x2
Male Connector Sleeve x2



Female connector x 3
Female Connector sleeve x3

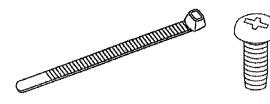


Splice x5

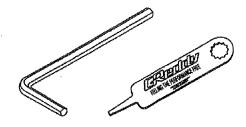


Split harness x1

# **Parts List**



Tie Wrap 150mm x3 M4 screw x4



Hex wrench x1 Adjustment tool x1



Instruction Manual x1

Necessary Basic tools	Other helpful items
Voltage meter Cutter + & - Screw driver Crimping tool	Soldering Iron Drill Rag, cleaner, water Electrical tape Shrink-wrap

#### **Features**

- This unit is designed for 12V system.
- This unit is designed to control the factory injectors at 5 RPM points with the airflow meter or MAP signal inputs.
- The built-in VTEC controller allows the adjustment of the VTEC shifting RPM point.
- With the "Self troubleshooting" feature, the unit will notify any errors in the system.
- With the Communication software (Sold Separately), the unit can be fine-tuned.
  - Data logging and real time monitoring is possible by connecting with a PC (Windows)
  - Fine fuel tuning with an additional 16 RPM points.
  - · Ability to control larger injectors and Airflow meters.
  - With the "DATA Protection" feature, the system can prevent any dangers of data changes.
- With the Option Harness kit (Sold separately), more function can be added to the system.
  - Ability to control the injector duty cycle, and Ignition Timing.
  - Ability to control up to 2 sub-injectors
  - · Ability to trace the fuel map on real time monitoring mode

\*[VTEC] is a registered trademark of American Honda Motor Co., Inc.

#### Installation

Please read this instruction manual carefully, and proceed with the installation ONLY if you fully understand this manual. Make sure you read all the "Important!", "Warning!" and "Caution!" messages through out the manual.

#### Important!

- Installation of this product should only be performed by a trained specialist, who is very familiar with the automobile mechanical and electrical systems.
   If installed by untrained person, it may cause damage to the unit as well as the vehicle.
- When using soldering iron and other tools for installation, make sure you read and understand the tools user manual. Miss use of these tools can cause injuries.
- When mounting the main unit, make sure it gets mounted in a safe area that will not interfere with the driver. Improper mounting of the unit may interfere with the driver and it can cause accidents.

#### Caution!

- When making wire connections, be sure to remove the key from the ignition, and disconnect the negative terminal of the battery.
- Never short out the system. It can damage the unit as well as the vehicle's electrical system.
- Read and fully understand the wiring diagram before making wire connection.
- When connecting the connectors, push in all the way until you hear them click in together.

#### **Please**

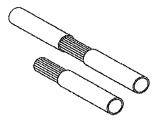
 Be sure to wrap the spliced and soldered areas with electrical tape or with a shrink-wrap.

#### Installation

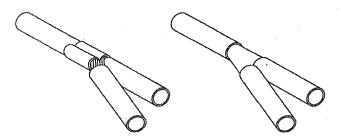
- Disconnect the negative terminal of the battery.
- Locate the vehicle's ECU and disconnect the harness.
- Splice the E-manage harness to the ECU harness power, ground and RPM input source. Refer to the ECU diagram on Page 26-31, For splicing instruction, please refer to page 7.
- Cut the Airflow meter or MAP signal wire and install the male and female connector on the cut end. (For RB26DETT, there are 2 signal wire, so cut and install the connector on both wires) For male/female connector installation instruction, please refer to page 7.
- Connect the airflow input/output signal wire from the E-manage harness to the cut wires.
  - For Hot-wire, Flap or MAP type sensors, refer to the diagram on page 8.
  - For Karman Vortex type sensor, refer to the diagram on page 8.
  - For RB26DETT, refer to the diagram on page 9.
  - For VETC equipped vehicle, refer to the diagram on page 9.
- Make sure to wrap all the area that was spliced or soldered with electrical tape.
- Reconnect the ECU harness, and reinstall all the parts that were removed for the installation.
- Reconnect the negative terminal of the battery.

# How to splice or solder wires

1. Strip the cover off the wire as shown.



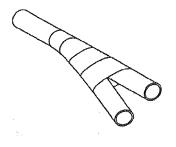
3. Crimp the splice or solder the twisted wires.



Twist the striped wires to gather, and set the splice. If soldering, you do not need to use

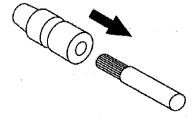


4. Wrap the area with electrical tape.

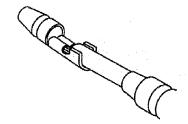


# How to use the male/female connectors

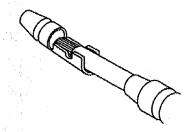
• Strip the cover off the wire and install the sleeve on as shown.



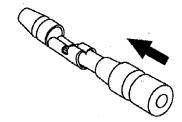
3. Crimp the inside of the connector with the exposed wire



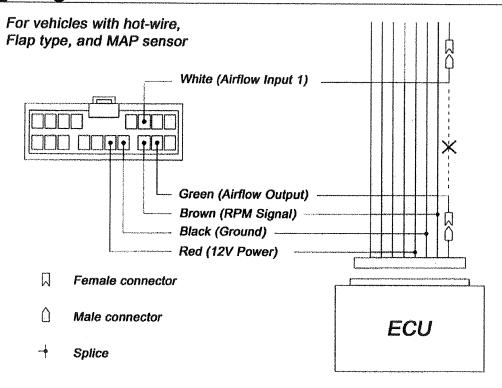
2. Set the wire in to the connector.

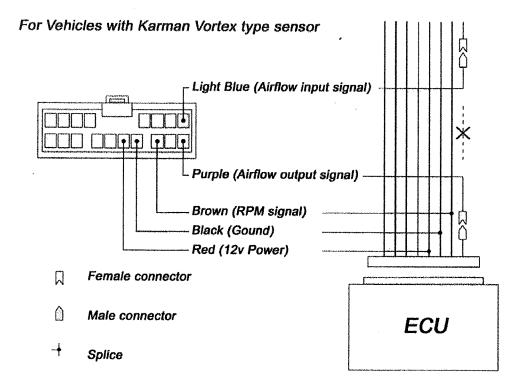


4. Crimp the outside with the sleeve and wire.

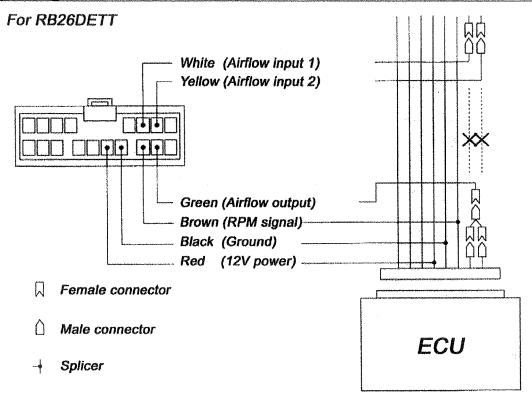


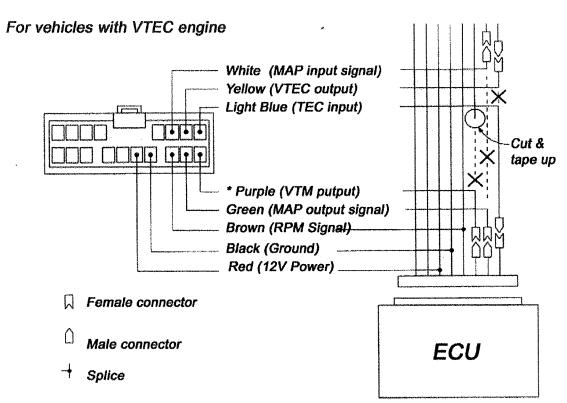
# **Wiring Diagram**



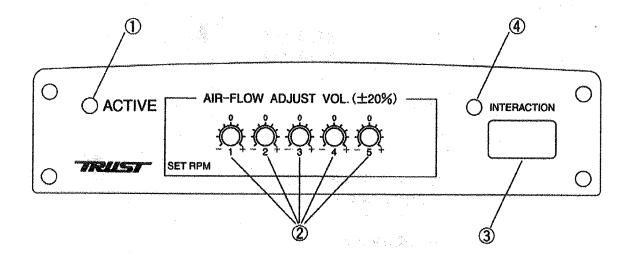


# **Wiring Diagram**

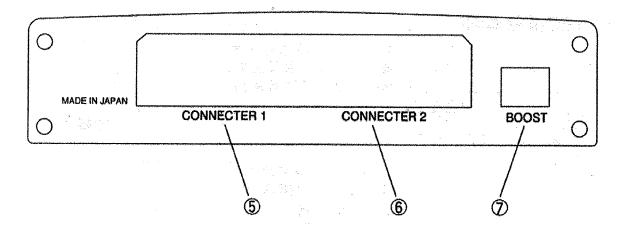




# Description



**Front Panel** 



Rear Panel

# Description

## ① ACTIVE L.E.D.

- When the ignition is turned on, it will illuminate and flash GREEN.
- When it reaches to the A.A.V. setting RPM range, it will illuminate and flash ORANGE.

## ② AIR-FLOW ADJUST VOLUME (A.A.V.)

This is used to set the 5 PRM points for fuel tuning.

#### **③ INTERACTION**

• This is the port to communicate with PC using the optional software that will be sold separately.

#### **4** INTERACTION L.E.D.

1. This will illuminate when there is a connection with PC.

#### **⑤** CONNECTOR 1

This is the port for the harness that is included with the unit.

#### **© CONNRCTOR 2**

• This port is used for the optional harness that is sold separately, to add more features to this unit.

#### Tressure sensor connection port

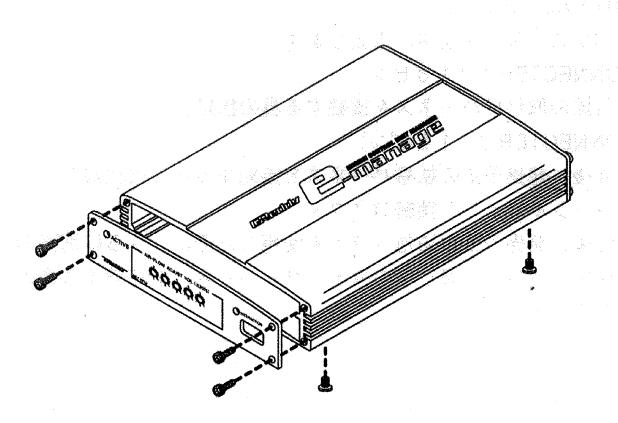
 Pressure sensor can be added to the system to add more features with the use of the software (sold separately)

# Initial Setup

# Caution! Make sure to perform the initial setting before starting the vehicle.

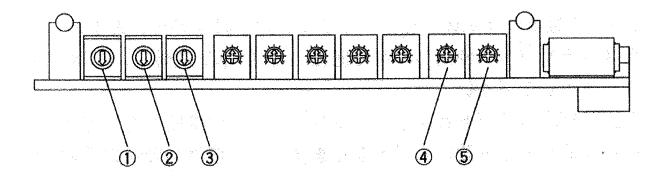
## Rotary switch setting

- First, using the Hex wrench supplied with the unit, remove the front cover of the unit.
- From the list of ECU Wire Location Chart on page 26-31, look up you vehicle and set the first three left rotary switches.



Remove the front cover

# **Initial Setup**



Rotary Switch Setting

- ① Number of cylinder selector
- 2 Air-flow Type Selector
- ③ Air-flow Type Selector
  Set the above selector according to the Vehicle Signal Location Chart.
- **⑤ VTEC Airflow Adjust Volume (VAAV)**

This volume switch is used to compensate for the difference in the fuel map caused by the adjustment in the VTEC change over point.

### Warning!

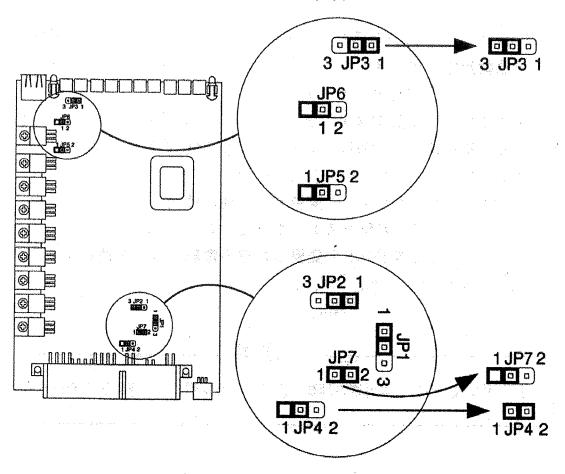
The rotary switches are very sensitive, make sure to use the supplied tool turn the switches, and do not use excessive force.

- Vehicles with out VTEC, this completes the initial setup. Place the front cover back on.
- For the vehicle equipped with VTEC, follow the next procedure.

# **Initial Setup**

### Set up for VTEC equipped vehicle

- To set the unit for the VTEC, the jumper on the circuit board inside the casing needs to be set.
- Remove the circuit board, by removing the 2 screws on the bottom, and carefully pull it out.
- By following the diagram on this page and chart on the next page, set the jumper pins accordingly.
- After the all the jumpers are correctly set, reinstall the circuit board back in to the casing. This completes the set up for VTEC equipped vehicle.



#### Caution!

Make sure all the jumper setting is correct. Improper jumper installation can cause damage to the unit as well as the vehicle.