

TRUST SUPER TUNING SYSTEMS AIMED AT REAL COMPETITORS

*Reddy*

**e** ENGINE CONTROL UNIT MANAGER  
**-manage**

**Ultimate**



Take it easy!

Installation Manual

**TRUST**

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## 1. 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 Ultimate while the vehicle is moving.
- Never tune the e-Manage Ultimate 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.

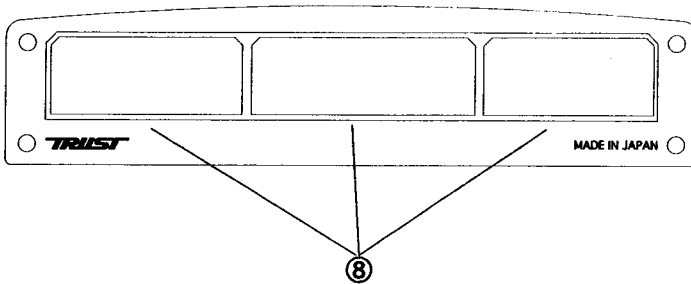
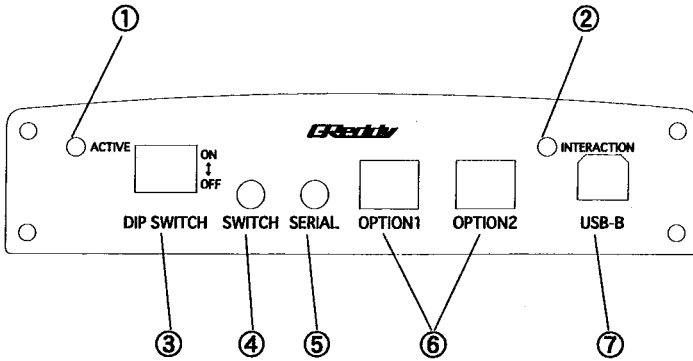
## 1. Important Information

### **Caution!**

- Improper tuning of the e-Manage Ultimate 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 understands 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 Ultimate.
- 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.

If there are any questions regarding this products, please contact your GReddy Authorized Dealers or GReddy Performance Products, Inc. 9 Vanderbilt, Irvine, CA 92618

## 2 Unit Description



## 2 Unit Description

### ① ACTIVE L.E.D

- Steady GREEN - - - - - When the unit recognize Ignition ON
- Flashing GREEN - - - - - When Fouled Plug feature is activated (When engine is started with wide open throttle)
- Quick Flashing RED - - - - - When Self Diagnostic has detected an error
- Flashing RED - - - - - When Warning is activated
- Flashing Orange - - - - - During Main Unit Data Logging

### ② INTERACTION L.E.D.

- Steady - - - - - When the unit recognize Ignition ON
- Slow Flash - - - - - When confirming engine rpm
- Flashing - - - - - When communicating with PC

### ③ DIP SWITCH

- Used turn ON/OFF the maps that are set in the Parameter setting (Front Panel)

### ④ SWITCH

- Used with the Remote Switching System (sold separately) or Switching Harness (Sold separately).

### ⑤ SERIAL

- Used to link the GReddy Warning Meters with a Data Link Cable (sold separately)

### ⑥ OPTION1,2

- Used to connect GReddy Pressure Sensor, GReddy Temp Sensor, and/or A/F Input Harness.

### ⑦ USB-B

- Used to communicate with a PC. Connect the B side of a standard USB cable

### ⑧ CONNECTOR

- Connect the Plug-in Harness (sold separately) or Universal Harness Kit (sold separately) Connector 14P, 18P, 12P

### 3. Initial Setup

#### ⊙ Jumper Setting

- Before installing the unit, the Jumpers in the unit must be set for vehicle's sensors, and desired maps for the application.

#### (How to set the Jumpers)

1. Remove the rear panel by removing 4 screws with provided tool.
2. Remove 2 screws on the bottom and slide the board out.
3. Set the Jumpers for the application.
4. After the Jumpers are set, reinstall the board into the case.

#### Jumper Chart

| Jumper No. | Signal Description                       | OPEN         | 1 - 2                        | 2 - 3             | Factory Setting |
|------------|--|--------------|------------------------------|-------------------|-----------------|
| JP1        | Injector Input / Output Signal CH-1      | IN / OUT     | Addition Only                | -                 | OPEN            |
| JP2        | Injector Input / Output Signal CH-2      | IN / OUT     | Addition Only                | -                 | OPEN            |
| JP3        | Injector Input / Output Signal CH-3      | IN / OUT     | Addition Only                | -                 | OPEN            |
| JP4        | Injector Input / Output Signal CH-4      | IN / OUT     | Addition Only                | -                 | OPEN            |
| JP5        | Injector Input / Output Signal CH-5      | IN / OUT     | Addition Only                | -                 | OPEN            |
| JP6        | Injector Input / Output Signal CH-6      | IN / OUT     | Addition Only                | -                 | OPEN            |
| JP7        | Ignition Input Signal                    | -            | Normal                       | Honda Distributor | 1 - 2           |
| JP8        | Ignition Output Signal                   | -            | 5V                           | 12V               | 1 - 2           |
| JP9        | Airflow Signal Input / Output            | Normal       | Mazda Hot Wire               | -                 | OPEN            |
| JP10       | Airflow Signal Input 2 / VTEC Output     | -            | GT-R RB26DETT                | VTEC OUT          | 1 - 2           |
| JP11       | OPTION 1                                 | Normal       | GReddy Temp Sensor           | -                 | OPEN            |
| JP12       | OPTION 2                                 | Normal       | GReddy Temp Sensor           | -                 | OPEN            |
| JP13       | Knock Signal Input 1 / Water Temp Input  | Normal       | Pull up                      | -                 | OPEN            |
| JP14       | Knock Signal Input 2 / Intake Temp Input | Normal       | Pull up                      | -                 | OPEN            |
| JP15       | RPM Signal Input                         | -            | Normal Input                 | Coil (-)          | 1 - 2           |
| JP16       | Frequency Input / VTEC Input             | Karman IN    | VTEC IN                      | VTEC IN (K20A)    | OPEN            |
| JP17       | Frequency Output / VTM Output            | VTM          | Karman Output                | -                 | 1 - 2           |
| JP18       | Injector Input / Output Signal CH1-6     | IN / OUT     | Addition Only                | -                 | OPEN            |
| JP19       | Injector Signal CH-A                     | I/J Addition | I/J, Sub I/J, NVCS, Relay(-) | -                 | 1 - 2           |
| JP20       | Injector Signal CH-B                     | I/J Addition | I/J, Sub I/J, NVCS, Relay(-) | -                 | 1 - 2           |

- \* When using I/J CH-5 OUT and I/J CH-6 OUT for Sub Injectors, NVCS, or Relay (-) on a 3 ~ 4 cylinder engine, set JP5 and JP6 to OPEN.

#### ▲ Important

- Make sure to check and confirm that the Jumper setting is correct before installing. Incorrect setting can damage the unit as well as the vehicle's electrical system.

JMP 17

### 3 Initial Setup

#### Jumper Setting Description

**JP1 Injector Input / Output Signal CH1**

This jumper will configure the Injector Input / Output Signal CH1.

Set to "OPEN" when using Injector Adj. Map to trim and add fuel, and set to "1-2" to add only.

**JP2 Injector Input / Output Signal CH2**

This jumper will configure the Injector Input / Output Signal CH2.

Set to "OPEN" when using Injector Adj. Map to trim and add fuel, and set to "1-2" to add only.

**JP3 Injector Input / Output Signal CH3**

This jumper will configure the Injector Input / Output Signal CH3.

Set to "OPEN" when using Injector Adj. Map to trim and add fuel, and set to "1-2" to add only.

**JP4 Injector Input / Output Signal CH4**

This jumper will configure the Injector Input / Output Signal CH4.

Set to "OPEN" when using Injector Adj. Map to trim and add fuel, and set to "1-2" to add only.

**JP5 Injector Input / Output Signal CH5**

This jumper will configure the Injector Input / Output Signal CH5.

Set to "OPEN" when using Injector Adj. Map to trim and add fuel, and set to "1-2" to add only.

**JP6 Injector Input / Output Signal CH6**

This jumper will configure the Injector Input / Output Signal CH6.

Set to "OPEN" when using Injector Adj. Map to trim and add fuel, and set to "1-2" to add only.

**JP7 Ignition Input Signal**

This jumper will configure the unit to recognize the vehicle's Ignition type.

Set to "1-2" for Normal type (pull down type), and "2-3" for Honda Distributor Type (pull up type).

**JP8 Ignition Output Signal**

This jumper will configure the Ignition output signal.

Set to "1-2" for 5V system and "2-3" for 12V System (Honda distributor Type or some Toyota when tach does not operate properly).

**JP9 Airflow Input / Output Signal**

This jumper will configure the unit to recognize the vehicle's Airflow meter system.

Set to "OPEN" for normal system (sensor signal increase as airflow increases), and set to "1-2" for Mazda Hot Wire Type system (sensor signal decreases as airflow increases)

**JP10 Airflow Signal Input2 / VTEC Output**

This jumper will configure the unit for vehicle with 2 airflow meters or for Honda to control VTEC.

Set to "1-2" for GT-R RB26DETT and "2-3" for VTEC.



### 3. Initial Setup

#### Jumper Setting

##### JP11 OPTION 1

This jumper will configure the OPTION 1 port on the Front Panel of the unit.  
Set to "OPEN" for Normal type (when used for pressure or A/F sensor), and "1-2" when using GReddy Temp Sensor.

##### JP12 OPTION 2

This jumper will configure the OPTION 2 port on the Front Panel of the unit.  
Set to "OPEN" for Normal type (when used for pressure or A/F sensor), and "1-2" when using GReddy Temp Sensor.

##### JP13 Knock Signal Input 1 / Water Temp Sensor

This jumper will configure pin 32 channel in the Connector C (14 pin connector).  
Set to "OPEN" for Normal type (when used for knock sensor), and "1-2" for pull-up Type (for temp sensor).

##### JP14 Knock Signal Input 2 / Intake Temp Sensor

This jumper will configure pin 38 channel in the Connector C (14 pin connector).  
Set to "OPEN" for Normal type (when used for knock sensor), and "1-2" for pull-up Type (for temp sensor).

##### JP15 RPM Signal Input

This jumper will configure the unit to recognize the vehicle's rpm signal.  
Set to "1-2" for Normal type (Tach signal from ECU), or "2-3" for Coil(-) type.

##### JP16 Frequency Input / VTEC Input

This jumper will configure pin 13 channel in the Connector B (18 pin connector).  
Set to "OPEN" for Karman airflow meter input signal. Set to "1-2" for VTEC input signal, and "2-3" for VTEC input signal for K20A engine.

##### JP17 Frequency Output / VTM Output

This jumper will configure pin 21 channel in the Connector B (18 pin connector).  
Set to "OPEN" for Karman airflow meter output signal. Set to "1-2" for Honda with VTM signal.

##### JP18 Injector Input / Output Signal CH1~6

This jumper will Configure the Injector Input/Output Signal Ch1~6.  
Set to "OPEN" when using Injector Adj. Map to trim and add fuel, and set to "1-2" to add only.

##### JP19 Injector Signal CH-A

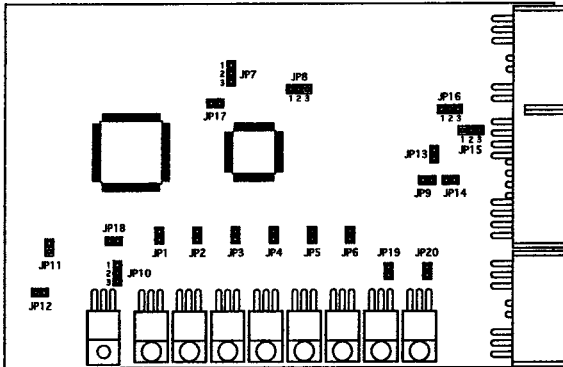
This jumper will configure the Sub Injector Signal CH-A.  
Set to "OPEN" when using CH-A for the 7th injector signal for V8 and set to "1-2" for Sub Injector or for NVCS relay.

##### JP20 Injector Signal CH-B

This jumper will configure the Sub Injector Signal CH-B.  
Set to "OPEN" when using CH-B for the 8th injector signal for V8 and set to "1-2" for Sub Injector or for NVCS relay.

### 3. Initial Setup

#### Jumper Location



- ※ When Jumping "1-2" or "2-3" make sure to match the pin numbers printed on the circuit board at the corresponding jumper locations.  
For "OPEN" make sure the jumper is not jumping the pins at the corresponding jumper locations.
- ※ When setting jumpers to "OPEN" make sure to place the jumper on to one side of the pin to prevent loosing the jumpers.

### 4. Before Installation

1. Disconnect the negative terminal of the battery.
2. Locate the factory ECU and disconnect the ECU harness connectors. Refer to the ECU location Chart on the back of this manual.
3. Follow the wire diagram for the specific vehicle list on the back of this manual, and connect each harnesses.
4. Inspect all connections and reconnect the ECU harness connector. Reconnect the negative terminal of the battery.

#### Tools needed

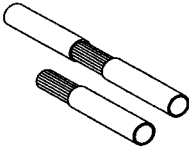
- wire cutter
- Solder and Solder Iron
- Crimper
- Shrink Tube and Electrical Tape

#### ⚠ Caution

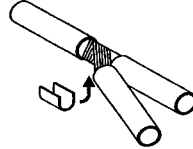
- When making any wire connections, DO NOT use any crimp connector or tapping connectors. These connectors will cause poor connections.
- Only use the provided connectors with proper tools or solder all wire connections.

## 5 How to splice wires

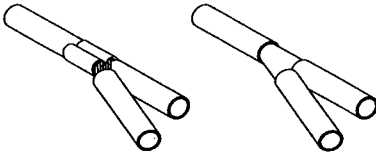
1. Strip the wire as shown.



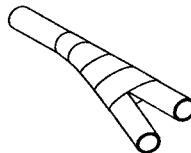
2. Wrap the stripped wire together as shown, and set the crimp in place.  
\*Crimp is not necessary if soldering.



3. Crimp or solder the connection.

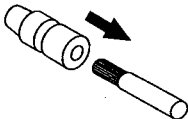


4. wrap the connection with shrink tube or electrical tape.

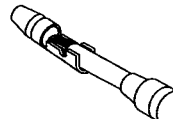


## 6 How to install the connectors

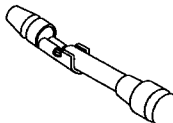
1. Strip the end of the wire and slip the protective sleeve on.



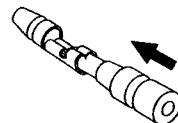
2. Set the connector over the stripped end.



3. Crimp the inside part with proper crimping tool.



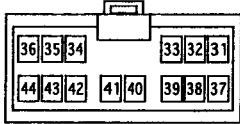
4. Crimp the out side part and slip the protective sleeve over the connector.



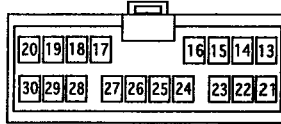
## 7. Harness Diagram

•Signal wire connection.

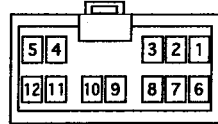
Connect the provided signal harness to the vehicle's ECU according to the chart below.



Connector C  
(14 pin)



Connector B  
(18 pin)

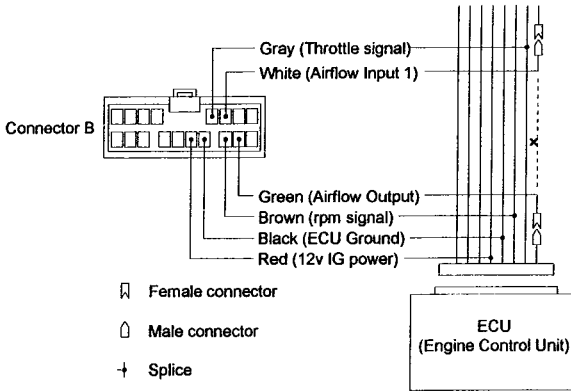


Connector A  
(12 pin)

| No. | Signal Description                  | No. | Signal Description                     | No. | Signal Description         |
|-----|-------------------------------------|-----|--|-----|----------------------------|
| 31  | Analog (Voltage) Input              | 13  | Airflow (Frequency) Input / VTEC Input | 1   | Ignition Input Signal CH6  |
| 32  | Knock Signal 1 / Water Temp Signal  | 14  | Airflow2 (Voltage) Input / VTEC Output | 2   | Ignition Input Signal CH5  |
| 33  | Crank Angle Signal Input            | 15  | Airflow1 (Voltage) Input               | 3   | Ignition Input Signal CH4  |
| 34  | Injector Output Signal CH1          | 16  | Throttle Position Sensor Input         | 4   | Ignition Input Signal CH2  |
| 35  | Injector Output Signal CH2          | 17  | Injector Input Signal CH1              | 5   | Ignition Input Signal CH1  |
| 36  | Injector Output Signal CH3          | 18  | Injector Input Signal CH2              | 6   | Ignition Output Signal CH6 |
| 37  | Analog (Voltage) Output             | 19  | Injector Input Signal CH3              | 7   | Ignition Output Signal CH5 |
| 38  | Knock Signal 2 / Intake Temp Signal | 20  | Injector Input Signal CH4              | 8   | Ignition Output Signal CH4 |
| 39  | Cam Angle Signal Input              | 21  | Airflow (Frequency) Input / VTM Output | 9   | Ignition Output Signal CH3 |
| 40  | Vehicle Speed Signal Output         | 22  | Airflow1 (Voltage) Output              | 10  | Ignition Input Signal CH3  |
| 41  | Vehicle Speed Signal Input          | 23  | RPM Input Signal                       | 11  | Ignition Output Signal CH2 |
| 42  | Injector Output Signal CH4          | 24  | Ground (ECU Ground)                    | 12  | Ignition Output Signal CH1 |
| 43  | Injector Output Signal CH5          | 25  | Ignition Power (ECU Power)             |     |                            |
| 44  | Injector Output Signal CH6          | 26  | Injector Input Signal CH7 / A          |     |                            |
|     |                                     | 27  | Injector Input Signal CH8 / B          |     |                            |
|     |                                     | 28  | Injector Input Signal CH5 / C          |     |                            |
|     |                                     | 29  | Injector Input Signal CH6 / C          |     |                            |
|     |                                     | 30  | Injector Ground (Sensor Ground)        |     |                            |

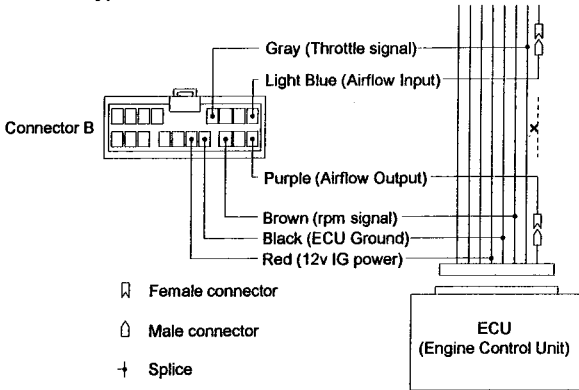
## 8. Wiring Power, Ground, Airflow Meter Throttle, RPM Signal

Hot-wire airflow meter, Flap type airflow meter, or Pressure sensor



\* Always use the provided connectors or solder all connections.

Karman Vortex type airflow meter



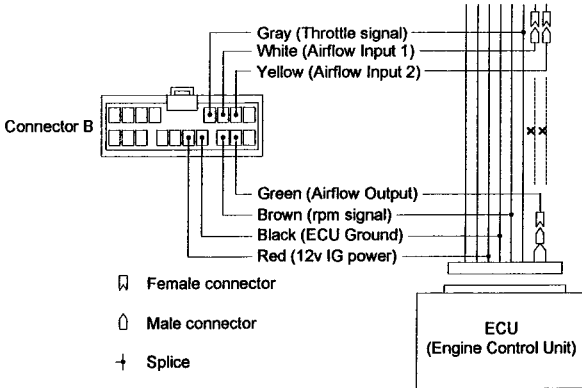
\* Always use the provided connectors or solder all connections.

### Important

If the Ignition signal, Crank angle signal, or Cam angle signal wire is going to be wired, the unit does not require the rpm signal wire to be connected to pick up rpm signal.

## 8. Wiring Power, Ground, Airflow Meter, Throttle, RPM Signal

for RB26DETT (with 2 airflow meters)



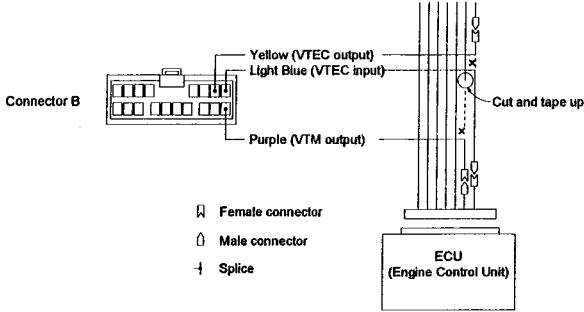
- \* The 2 wires for the airflow meter on the ECU will be connected together to the Airflow Output wire.
- \* Make sure the jumper JP10 is set to "1-2" in the unit. This activates the Airflow Input 2 wire.
- \* Always use the provided connectors or solder all connections.

### Important

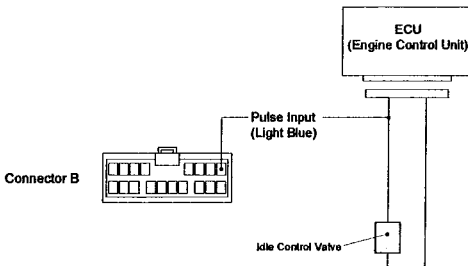
If the Ignition signal, Crank angle signal, or Cam angle signal wire is going to be wired, the unit does not require the rpm signal wire to be connected to pick up rpm signal.

## 9. VTEC / Idle Control Valve

for VTEC Equipped vehicle



Idle Control Valve wiring



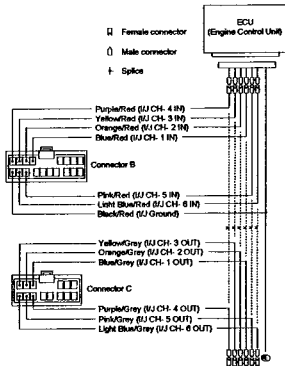
\* When using the Idle Adjustment Setting, make sure to set the Jumper JP16 to "OPEN" in the unit

## 10 Injector Signal Wires

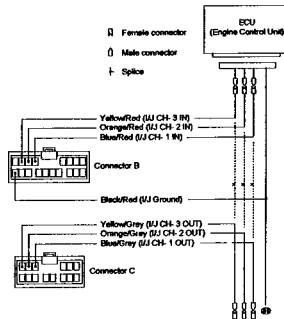
- Wire the injector signal wires for each cylinders. (except for Rotary Engines).
- Normally, the Injector Adjustment will be set to add & trim (jumper JP1~6, 18 set to "OPEN". Inj Adj. Map will be used to add and trim fuel). This can be set for add only. (jumper JP1~6, 18 set to "1-2". Inj Adj. Map will be used to add fuel only)

### ⊙ examples for ADD / TRIM setup:

- for 6 cylinder individual injection

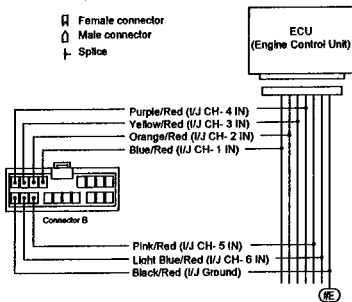


- for 6 cylinder group injection

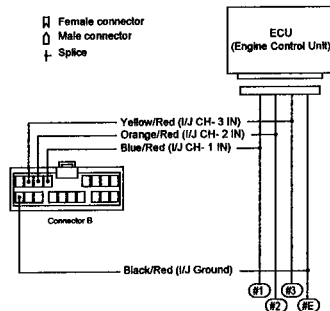


### ⊙ examples for ADD ONLY setup:

- for 6 cylinder individual injection



- for 6 cylinder group injection



## IMPORTANT

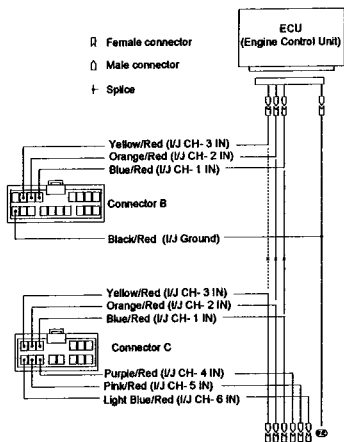
On a vehicles with low resistance injectors without dropping resistors (AE86, R31), change the injectors to high resistance injectors or add a dropping resistors.



## 10 Injector Signal Wires

### When changing I/J CH

Example: Changing group injection to sequential injection

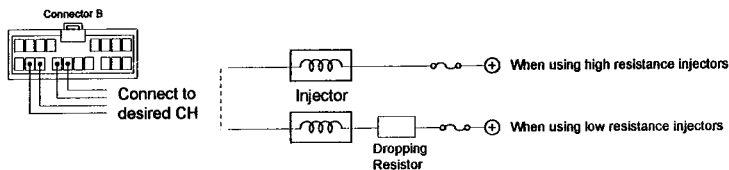


#### How to connect

- Connect the necessary I/J CH OUT wires to the Connector C.
- The I/J CH Setting must be configured with PC before starting the engine.
- Confirm the injector wiring to match the injection method.

### Sub Injector Wiring

When using the CH for sub injectors



### Important

When using low resistance injectors, dropping resistors are required to control the injectors.

# 11. Ignition Signal Wire

• Connect the e-manage Ignition channels in the engine's firing order shown in the chart below.

(Firing Order Chart)

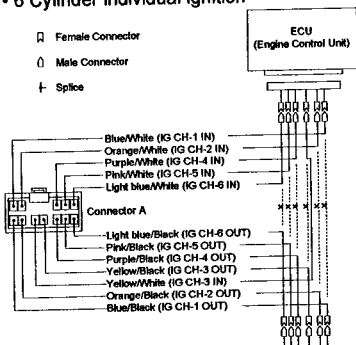
| e-manage Channels                                     | CH1  | CH2  | CH3  | CH4  | CH5 | CH6 |
|---|------|------|------|------|-----|-----|
| 3, 4, 6, 8 cylinder Distributor                       | 1    |      |      |      |     |     |
| 3 Cylinder Individual Ignition                        | 11   | 12   | 13   |      |     |     |
| 4 Cylinder (Inline) Group Ignition                    | 11,4 | 12,3 |      |      |     |     |
| 4 Cylinder (Horizontally Opposed) Group Ignition      | 11,2 | 13,4 |      |      |     |     |
| 4 Cylinder (In-line) Individual Ignition              | 11   | 13   | 14   | 12   |     |     |
| 4 Cylinder (Horizontally Opposed) Individual Ignition | 11   | 13   | 12   | 14   |     |     |
| 6 Cylinder (In-line) Group Ignition                   | 11,6 | 15,2 | 13,4 |      |     |     |
| 6 Cylinder (V8) Group Ignition                        | 11,4 | 12,5 | 13,6 |      |     |     |
| 6 Cylinder (In-line) Individual Ignition              | 11   | 15   | 13   | 16   | 12  | 14  |
| 6 Cylinder (V8) Individual Ignition                   | 11   | 12   | 13   | 14   | 15  | 16  |
| 13B (FC3S, JC3SE)                                     | 1T   | 1L   |      |      |     |     |
| 20B (JCESE)   | 1T   |      |      | 1L   |     |     |
| 13B (FD3S)  | 1T1  | 1T2  | 1L   |      |     |     |
| 13B (SE3P)  | 1T1  | 1T2  | 1L,1 | 1L,2 |     |     |

## ⚠ IMPORTANT

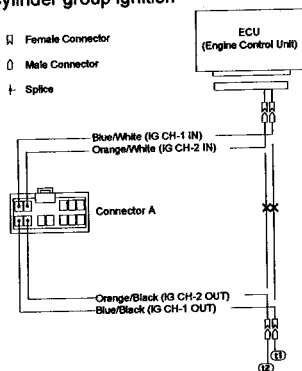
• make sure the Ignition wires are connected in the proper order shown in the chart above. Improper wiring of the ignition wires can cause damage to the ignition coils.

### Example

#### • 6 Cylinder individual ignition

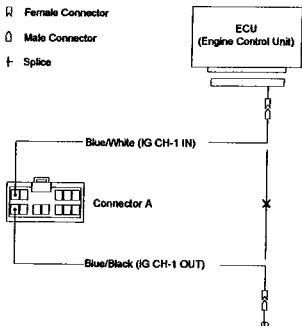


#### • 4 Cylinder group ignition

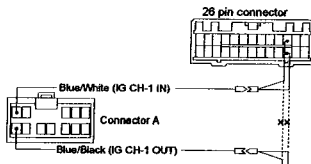


# 11. Ignition Signal Wire

## Distributor Type Ignition



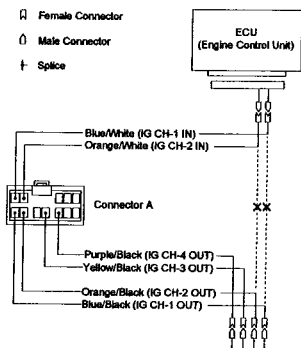
## Honda Distributer (with 2 signal)



\*On Honda EG type vehicles, there are 2 ignition signals in the 26 pin connector. Group the 2 together as shown above.

## When changing the IG channel

example: to convert a group ignition system to direct ignition system.



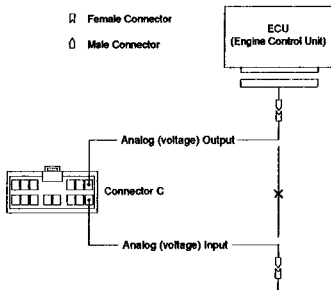
### How to connect

- Connect the necessary IG CH OUT wires to the Connector A.
- Please refer to the Ignition firing order chart and Harness Diagram for proper wiring order.
- Confirm the injector wiring to match the ignition method.

## 12 Analog Input, Output / Vehicle Speed Signal

### Analog Input, Output wiring

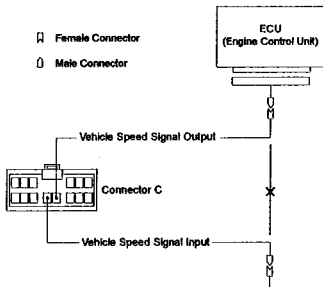
- These channels can be used on vehicles with airflow meter that uses a map sensor for boost limiter. (Factory controlled boost cut or fuel cut)
- Connect this wire to throttle or accelerator position sensor input, to change feedback range or A/T shift schedule.



- Pay close attention to the input and output wiring order (direction).
- this channel can also be used for analog input signal only. (for monitoring purpose)

### Vehicle Speed Signal wiring

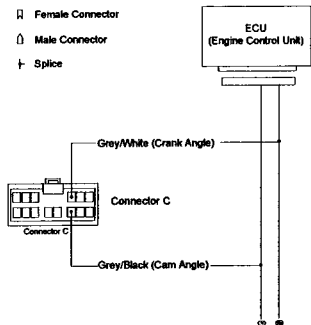
- Connect these wires to eliminate speed cut or when using the vehicle speed adjustment Map. These channels can also be used to monitor the vehicle speed for the data log feature.



### 13. Crank & Cam Angle / Water & Intake Temp, Knock Signal

#### Crank Angle Signal & Cam Angle Signal

- Connect these wires for e-manage Ultimate to recognize the rpm signal from crank and cam angle signal if there are no tach signal out put from the ecu. Also, by connecting these wires Ignition timing can be monitored in the data log feature.

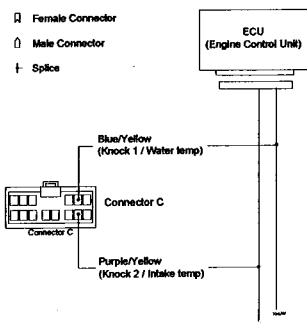


#### IMPORTANT

If the Crank and Cam angle signal wires are connected to the ecu, e-manage will recognize the rpm without connecting the rpm signal wire.

#### Knock 1 - 2, Water Temp Signal, Intake Temp Signal

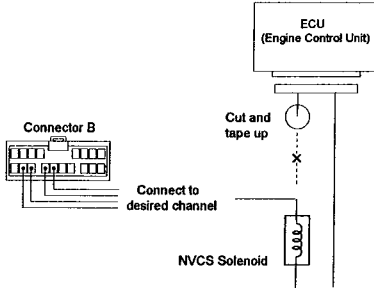
- Connect these wire to the ECU Knock, water temp, or intake temp sensor signal to monitor them in the data log feature.
- Also by connecting these wire to the water temp and/or intake temp signal the temperature condition can be set in the software to activate relays with selected relay channels.



## 14. NVCS/Relay Channels

### NVCS (Nissan Valve Control System)

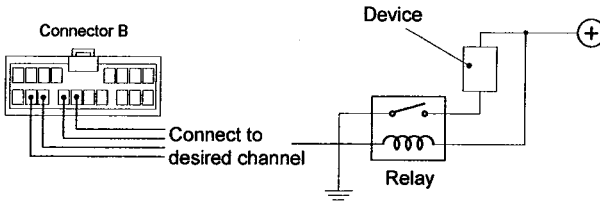
- Connecting one of these channels to the NVCS solenoid to control the NVCS.



- Make sure the wire that was cut is taped up to prevent any short.
- When using this feature the proper channels must be configured in the "I/J" set up in the Parameter setting in the software and make the necessary jumper setting to activate these channels.

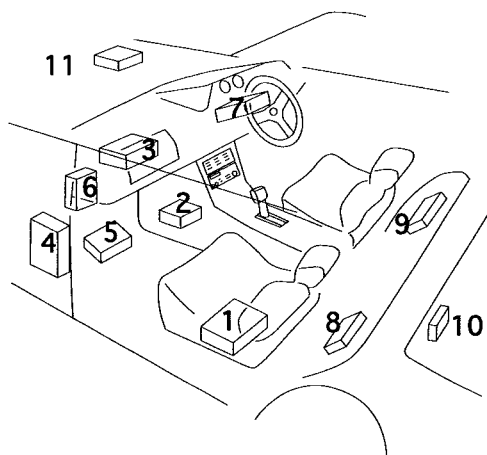
### Relay

- These channels can be used for relays to activate desired devices.



- When using this feature the proper channels must be configured in the "I/J" set up in the Parameter setting in the software and make the necessary jumper setting to activate these channels.

## 15 ECU Location Chart



### Channel Symbol Description

- (+B) ← Power
- (E) ← Ground
- (I) ← RPM Signal
- (Th) ← Throttle Signal
- (Ar) ← Airflow/map Sensor Signal
- (VT) ← VTEC Signal
- (VM) ← VTM Signal
- (#E) ← Sensor Ground

- (Ne) ← Crank Angle Signal
- (G) ← Cam Angle Signal
- (A) ← Intake Temp Signal
- (W) ← Water Temp Signal
- (Kn) ← No. # Knock Signal
- (P) ← Absolute Pressure Sensor Signal
- (SPD) ← Vehicle Speed Signal
- (#I) ← No. # Injector Signal
- (IN) ← No. # Ignition Signal

- (I-L) ← RPM & Ignition Signal
- (#I-#) ← No. # & No. # Ignition Signal
- (LL#) ← No. # Leading Ignition Signal  
(F : front, C : Center, R : Rear)
- (#T#) ← No. # Trailing Ignition Signal  
(F : front, C : Center, R : Rear)
- (#P#) ← No. # Primary Injector Signal  
(F : front, C : Center, R : Rear)
- (#S#) ← No. # Primary Injector Signal  
(F : front, C : Center, R : Rear)

## 16. ECU Wire Location Chart

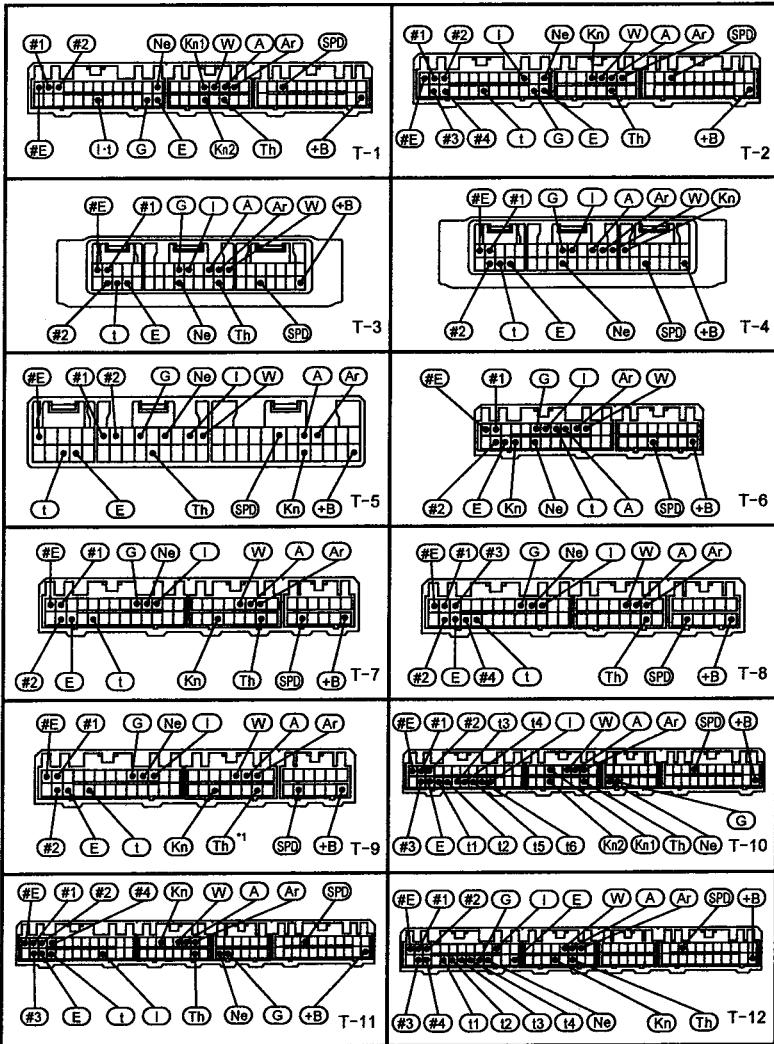
### TOYOTA / LEXUS

| Model   | Chassis Code | Year        | Engine Code | Sensor Type | CP #    | ECU Location |
|---------|--------------|-------------|-------------|-------------|---------|--------------|
| ARISTO  | JZS161       | 97.8~       | 2JZ-GTE     | TY_HW-5     | T-17    | 11           |
|         | JZS147       | 91.90~97.7  |             | TY_PR-1     | T-15    | 5            |
| SOARER  | JZZ30        | 91.5~96.7   | 1JZ-GTE     | TY_PR-1     | T-13    | 5            |
|         | GZ20         | 88.1~91.4   | 1G-GTE      | TY_FL-3     | T-1     | 3            |
| SUPRA   | JZA80        | 93.5~97.7   | 2JZ-GTE     | TY_PR-1     | T-15US  | 5            |
|         | JZA70        | 90.8~93.4   | 1JZ-GTE     |             | T-10    |              |
| MARK 2  | JZX110       | 00.9~       | 1JZ-GTE     | TY_HW-6     | T-17    | 2            |
|         | JZX100       | 96.9~00.8   |             | TY_HW-4     | T-16    |              |
|         | JZX90        | 94.9~96.8   |             | TY_PR-1     | T-19    |              |
|         |              | 92.10~94.8  |             |             | T-13    |              |
|         | JZX81        | 90.8~92.9   |             | T-10        | 3       |              |
| MR-S    | ZZW30        | 99.10~      | 1ZZ-FE      | TY_HW-1     | T-22    | 8            |
| MR-2    | SW20         | 93.10~99.7  | 3S-GTE      | TY_PR-2     | T-2     | 10           |
|         |              | 89.10~93.9  |             | TY_FL-2     |         |              |
|         |              | 93.10~97.12 | 3S-GE       | TY_PR-3     | T-11    |              |
|         |              | 89.10~93.9  |             | T-2         |         |              |
|         | AW11         | 86.8~89.9   | 4A-GZE      | TY_FL-4     | T-5     |              |
|         | 84.6~89.9    | 4A-GE       | TY_PR-3     | T-3         |         |              |
| CELICA  | ZZT231       | 99.9~       | 2ZZ-FE      | TY_HW-1     | T-22    | 11           |
|         | ZZT230       |             | 1ZZ-FE      |             |         |              |
|         | ST205        | 94.2~99.7   | 3S-GTE      | TY_PR-2     | T-2     | 2            |
|         | ST202/203    | 93.10~97.11 | 3S-GE       | TY_PR-3     | T-11    |              |
| ALTEZZA | SXE10        | 98.10~      | 3S-GE       | TY_HW-1     | T-14    | 11           |
|         | GXE10        |             | 1G-FE       | TY_PR-3     | T-18    |              |
| IS300   | JCE10        |             |             | 2JZ-GE      | TY_HW   |              |
|         | LEVIN        | AE111       | 95.5~00.7   | 4A-GE       | TY_PR-3 | T-2          |
| AE101   |              | 91.6~95.4   | 4A-GE       | TY_FL-1     | T-8     |              |
|         |              |             | 4A-GE(A/T)  |             | T-2     |              |
| AE92    |              | 89.5~91.5   | 4A-GE       | TY_PR-3     | T-7     |              |
|         |              | 87.5~89.4   | 4A-GE       |             | T-3     |              |
| AE86    | 83.5~87.4    |             |             |             | 4       |              |
| STARLET | EP91         | 95.12~91.12 | 4E-FTE      | TY_PR-1     | T-9     | 6            |
|         | EP82         | 89.12~95.11 | 4E-FTE(M/T) |             | T-6     | 2            |
|         |              | 92.1~95.11  | 4E-FTE(A/T) |             | T-7     |              |
|         |              | 89.12~91.12 |             |             | T-6     |              |
| ESTIMA  | MCR30/40     | 00.1~       | 1MZ-FE      | TY_HW-1     | T-20    | 4            |
|         | ACR30/40     | 00.3~       | 2AZ-FE      |             | T-23    |              |
| VITZ    | NCP13        | 00.10~02.7  | 1N2-FE      | TY_HW-3     | T-12    | 6            |
|         | NCP10/15     | 99.8~       | 2N2-FE      |             |         |              |
|         | SCP10        | 99.1~       | 1SZ-FE      |             |         |              |
| xA / xB | NCP61/31     | 03.2~       | 1N2-FE      | TY_HW-3     | T-21    | 6            |
| IC      | FW21         | 04.1~       | 2AZ-FE      | TY_HW-3     | T-21US  | 6            |
|         |              |             |             |             |         |              |
|         |              |             |             |             |         |              |
|         |              |             |             |             |         |              |
|         |              |             |             |             |         |              |

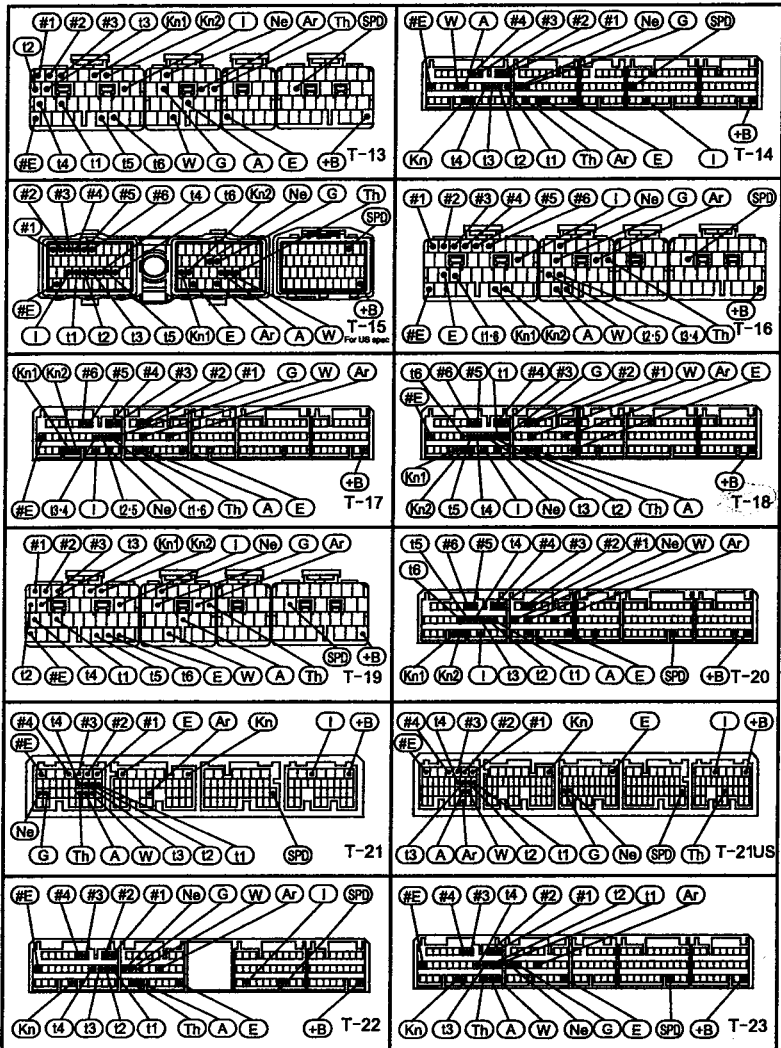
Some of these information are for Japanese spec Vehicles. Please refer to your factory service manual.



# 16 ECU Wire Location Chart



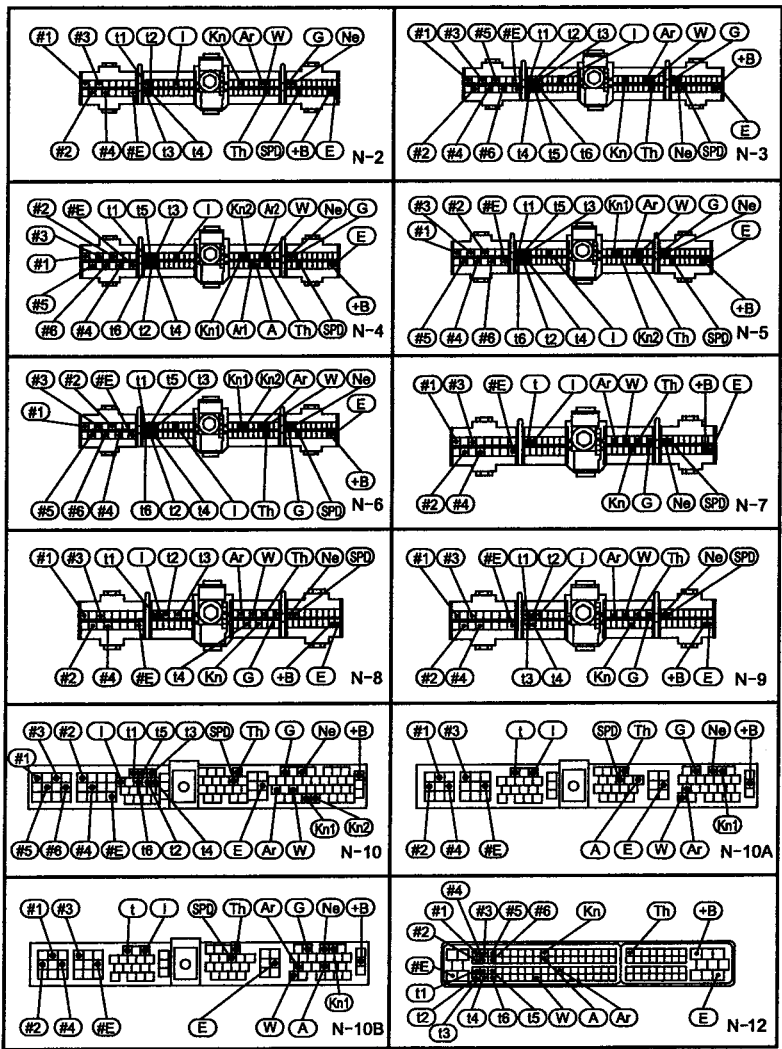
# 16. ECU Wire Location Chart



16. ECU Wire Location Chart



# 16 ECU Wire Location Chart



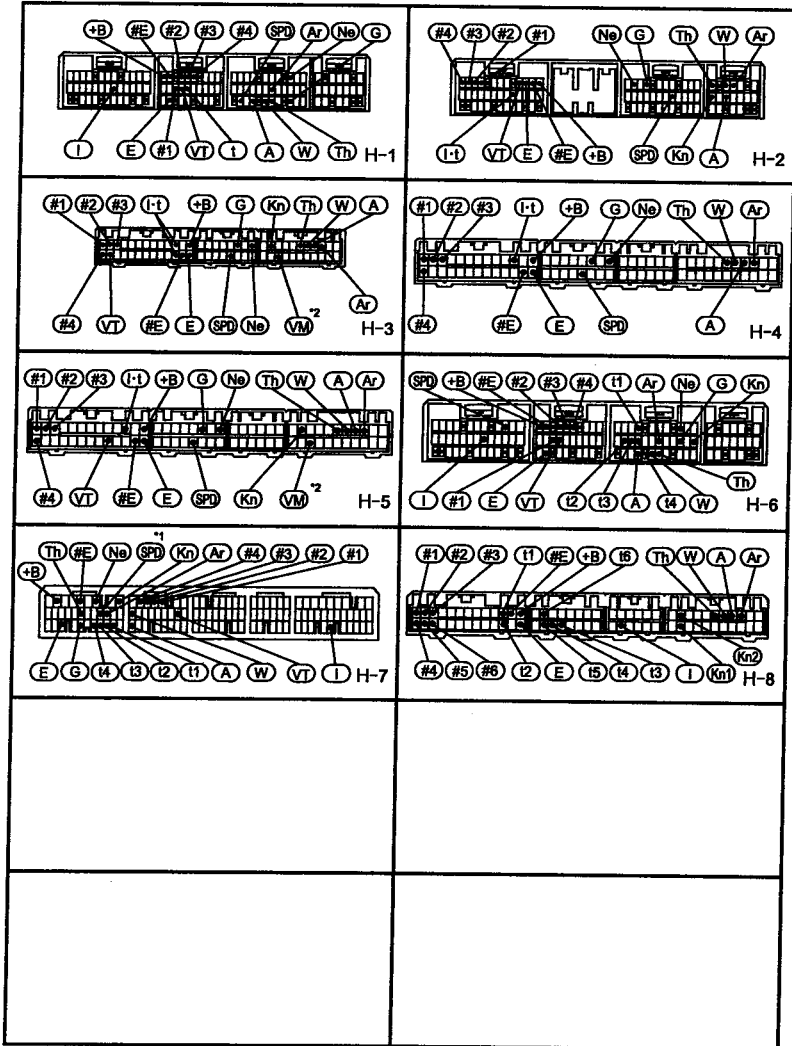
## 16 ECU Wire Location Chart

### HONDA / ACURA

| Model   | Chassis Code | Year       | Engine Code   | Sensor Type | OP #    | ECU Location |
|---------|--------------|------------|---------------|-------------|---------|--------------|
| CIVIC   | EP3          | 01.10~     | K20A          | HN_PR-4     | H-7     | 3            |
|         | EK9          | 98.9~00.9  | B16B (Type-R) | HN_PR-1     | H-1     | 4            |
|         |              | 97.6~98.8  |               |             | H-2     |              |
|         | EK4          | 98.9~00.9  | B16A          |             | H-1     |              |
|         |              | 95.9~98.8  |               |             | H-2     |              |
|         | EG6          | 91.9~95.8  |               |             | H-3     |              |
|         | EG9          | 91.9~95.8  |               |             |         |              |
| EJ1     | 93.2~00.8    |            |               |             |         |              |
| RSX     | DC5          | 01.7~      |               | K20A        | HN_PR-4 | H-7          |
| INTEGRA | DC2/DB8      | 95.9~01.6  | B18C(Type-R)  | HN_PR-1     | H-2     | 4            |
|         |              | 93.5~95.8  | B18C(M/T)     |             | H-3     |              |
|         |              | 93.5~01.6  | B18C(A/T)     |             | H-5     |              |
| PRELUDE | BB6/BB8      | 96.12~98.9 | H22A          | HN_PR-1     | H-2     | 5            |
|         | BB4          | 91.9~96.10 |               |             | H-3     |              |
| ACCORD  | CL1          | 00.6~01.5  | H22A          | HN_PR-1     | H-1     | 3            |
|         | CF4          | 97.9~      | F20B          |             |         | 5            |
|         | CD5          | 93.9~97.8  | F22B          |             | H-3     |              |
| NSX     | NA1          | 90.9~97.1  | C30A          | HN_PR-3     | H-8     | 9            |

Some of these information are for Japanese spec Vehicles. Please refer to you factory service manual.

# 16. ECU Wire Location Chart



\*1 MT only

\* 2 Vehicle with VTM Signal

## 16 ECU Wire Location Chart

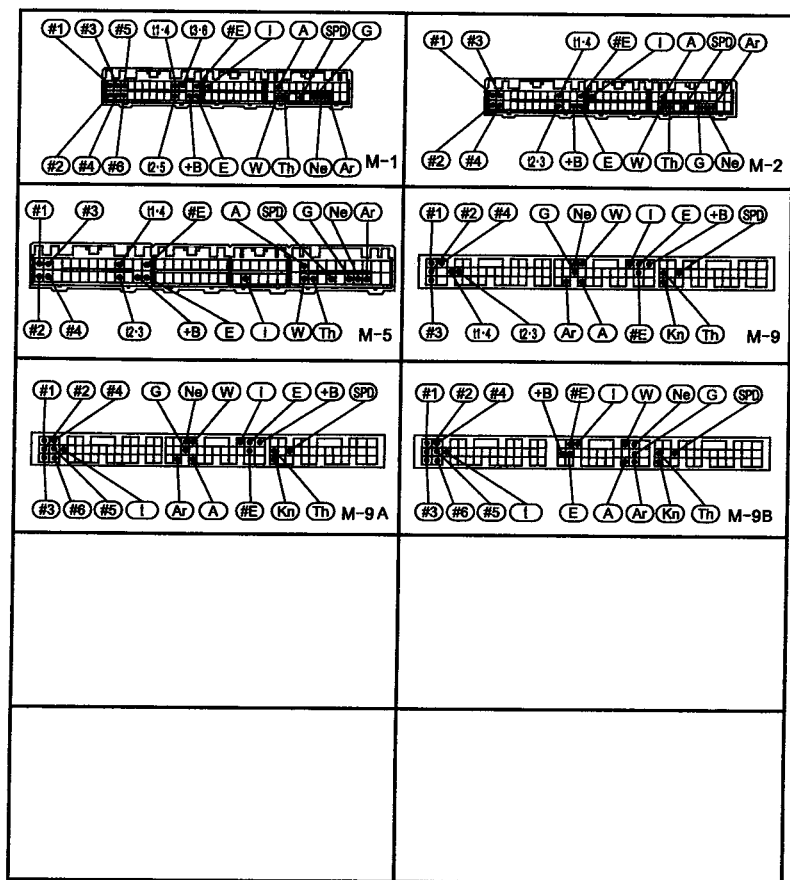
### MITSUBISHI

| Model   | Class Code | Year        | Engine Code    | Sensor Type | CP # | ECU Location |
|---------|------------|-------------|----------------|-------------|------|--------------|
| LANCER  | CT9A       | 03.1~05.2   | 4G63           | MT_KR-1     | M-9  | 4            |
|         | CT9A       | 01.2~02.1   |                |             |      |              |
|         | CP9A       | 98.1~01.1   |                |             | M-5  |              |
|         | CN9A       | 96.8~97.12  |                |             |      |              |
|         | CE9A       | 93.12~96.7  |                |             | M-2  |              |
|         | CD9A       | 92.10~93.11 |                |             |      |              |
| 3000GT  | Z16A       | 90.10~99.8  | 6G72           | MT_KR-2     | M-1  | 2            |
| ECLIPSE | D32A/D33A  | 95~99       | 4G63           | MT_KR-1     | M-5  | 4            |
|         | D39A       |             | 4G64 (2.4L)    |             |      |              |
|         | D22A/D27A  | 89~91       |                | M-2         |      |              |
|         | D53 M/T    | 01~05       | 6G72 (3.0L V6) | MT_KR-2     | M-9A |              |
|         | D53 A/T    |             |                |             | M-9B |              |
|         |            |             |                |             |      |              |
|         |            |             |                |             |      |              |
|         |            |             |                |             |      |              |

Some of these information are for Japanese spec Vehicles. Please refer to you factory service manual.



# 16. ECU Wire Location Chart



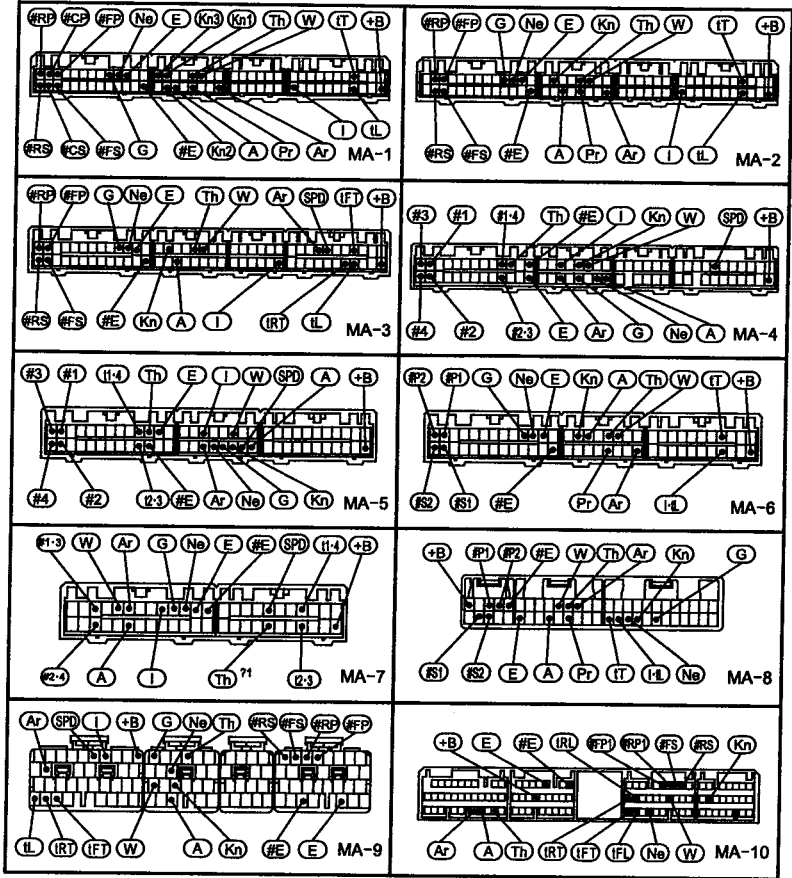
## 16. ECU Wire Location Chart

### MAZDA

| Model | Chassis Code | Year        | Engine Code       | Sensor Type | CR #  | ECU Location |
|-------|--------------|-------------|-------------------|-------------|-------|--------------|
| RX-8  | SE3P         | 03.4~       | 13-MSP $\omega$ m | MZ_HW-5     | MA-11 | 11           |
|       |              |             | 13-MSP $\omega$ m |             | MA-10 |              |
| COSMO | JCESE        | 90.3~95.8   | 20B-REW           | MZ_FL-5     | MA-1  | 5            |
|       | JC3SE        |             | 13B-REW           |             | MA-2  |              |
| RX-7  | FD3S         | 95.12~      | 13B-REW           | MZ_PR-1     | MA-9  | 4            |
|       |              | 91.12~95.11 |                   |             | MA-3  |              |
|       | FC3S         | 89.3~91.11  | 13B               | MZ_FL-2     | MA-6  | 5            |
|       | 85.9~89.2    | MZ_FL-1     |                   | MA-8        |       |              |
| MIATA | NB8C         | 98.1~00.6   | BP-ZE             | MZ_HW-1     | MA-5  | 5            |
|       | NB6C         |             | B6-ZE             |             |       |              |
|       | N8C          | 95.8~97.11  | BP-ZE             | MZ_HW-3     | MA-13 |              |
|       |              | 93.8~95.7   |                   |             | MA-12 |              |
|       | N86CE        | 89.9~93.7   | B6-ZE             | MZ_FL-4     | MA-7  |              |

Some of these information are for Japanese spec Vehicles. Please refer to your factory service manual.

# 16. EGU Wire Location Chart



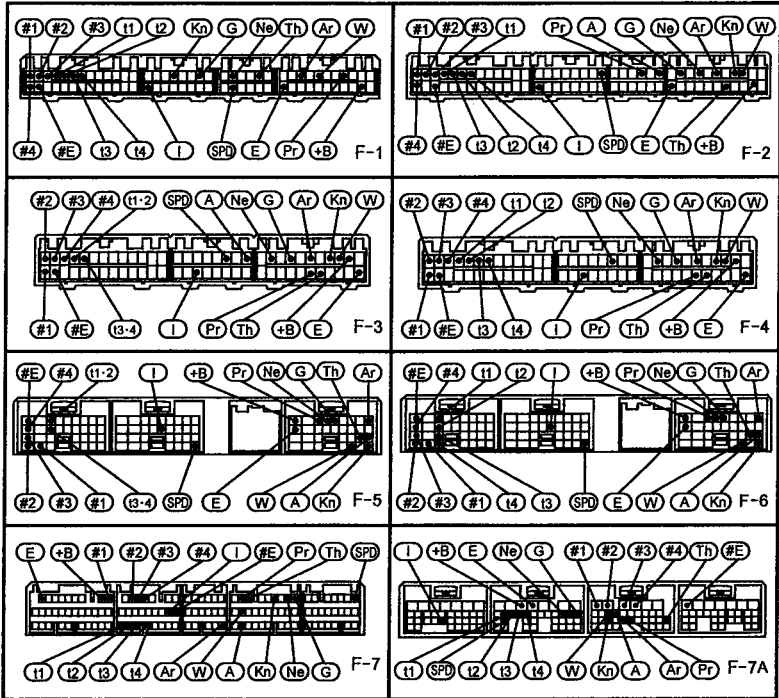
## 16 ECU Wire Location Chart

### SUBARU

| Model    | Chassis Code | Year       | Engin Code | Sensor Type | CP # | ECU Location |
|----------|--------------|------------|------------|-------------|------|--------------|
| LEGACY   | BH5/BE5      | 98.6~      | EJ20       | SB_HW-4     | F-6  | 5            |
|          | BD5/BG5      | 96.6~98.5  | EJ20(M/T)  | SB_HW-3     | F-4  |              |
|          |              | 93.10~96.5 | EJ20       | SB_HW-1     | F-2  |              |
|          | BC5/BF5      | 89.2~93.9  |            | SB_HW-2     | F-1  |              |
| IMPREZA  | GDFC         | 03~        | EJ25       | SB_HW-6     | F-7A | 5            |
|          | GDB/GDA      | 00.10~04.5 | EJ207      | SB_HW-6     | F-7  | 5            |
|          | GC8/GF8      | 98.9~00.8  | EJ20       | SB_HW-4     | F-5  | 5            |
|          |              | 96.9~98.8  |            | SB_HW-3     | F-3  |              |
|          |              | 92.11~96.8 |            | SB_HW-2     | F-2  |              |
| FORESTER | SF5          | 98.9~      | EJ20       | SB_HW-4     | F-4  | 5            |

Some of these information are for Japanese spec Vehicles. Please refer to you factory service manual.

# 16 ECU Wire Location Chart



## E-manage Jumper Setting

|            |                |               |   |
|------------|----------------|---------------|---|
| <b>JP1</b> | Ignition Input | 1-2 Pull Down | At ignition (key) "ON" 0V<br>When it sends ignition signal 2.5~5V |
|            |                | 2-3 Pull Up   | At ignition (key) "ON" 12V<br>When it sends ignition signal 0V    |

Most all Hondas are Pull Up Type Ignition (only Distributor Type)

|            |                  |                          |
|------------|------------------|--------------------------|
| <b>JP2</b> | Ignition Out put | 1-2 5V IG Output system  |
|            |                  | 2-3 12V IG output system |

Most Hondas are 12V out put system

|            |                |                  |
|------------|----------------|------------------|
| <b>JP3</b> | Air Flow Meter | 1-2 Airflow type |
|            |                | 2-3 VTEC output  |

|            |             |                   |
|------------|-------------|-------------------|
| <b>JP4</b> | Pulse Input | OPEN Karman input |
|            |             | 1-2 VTEC input    |

|            |               |   |
|------------|---------------|---|
| <b>JP5</b> | Injector CH-A | 1-2 Sub injector "A" feature on               |
|            |               | OPEN Sub injector feature off (for 8cylinder) |

|            |               |   |
|------------|---------------|---|
| <b>JP6</b> | Injector CH-B | 1-2 Sub injector "B" feature on               |
|            |               | OPEN Sub injector feature off (for 8cylinder) |

|            |               |  |
|------------|---------------|--|
| <b>JP7</b> | Pulse Out put | 1-2 Karman type airflow meter out put signal |
|            |               | OPEN VTM Signal ouput for VTEC               |

**GRddy**

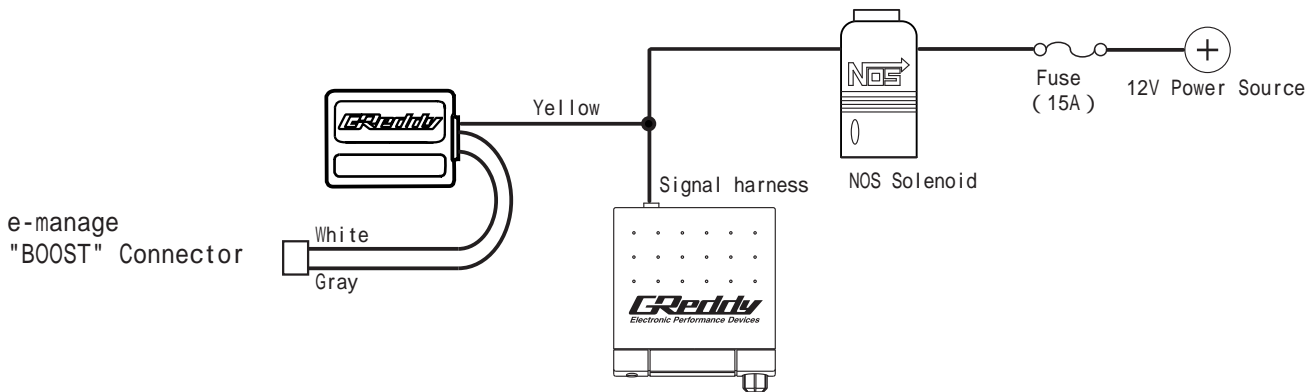
**e-manage** ENGINE CONTROL UNIT MANAGER MULTI SWITCHING SYSTEM Adapter

This adapter is used to monitor the MULTI SWITCHING SYSTEM (NOS) activation signal.

Must use support tool 1.20 and e-manage 1.40 and above.

《How to use》

1. Connect the Adapter Yellow wire to the desired signal MSS signal wire.
2. The yellow connector on the adapter will plug into the e-manage "BOOST" port or e-manage Ultimate "OPTION" port.



**GRddy**

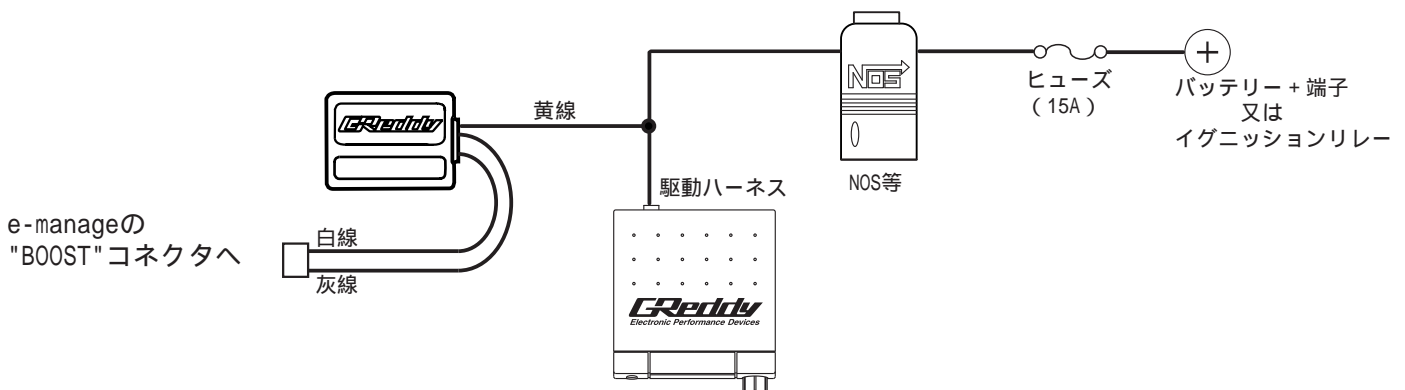
**e-manage** ENGINE CONTROL UNIT MANAGER MULTI SWITCHING SYSTEM 認識アダプタ

MULTI SWITCHING SYSTEM (NOS等) の駆動信号をe-manageに認識させる為のアダプタです。

Support Tool ver1.20 , e-manage ver1.40以上でご使用下さい。

《配線方法》

1. 認識させたいMSSの駆動信号ハーネスに黄線を配線します。
2. アダプタから出ているコネクタをe-manageのプレッシャーセンサー接続コネクタに接続します。



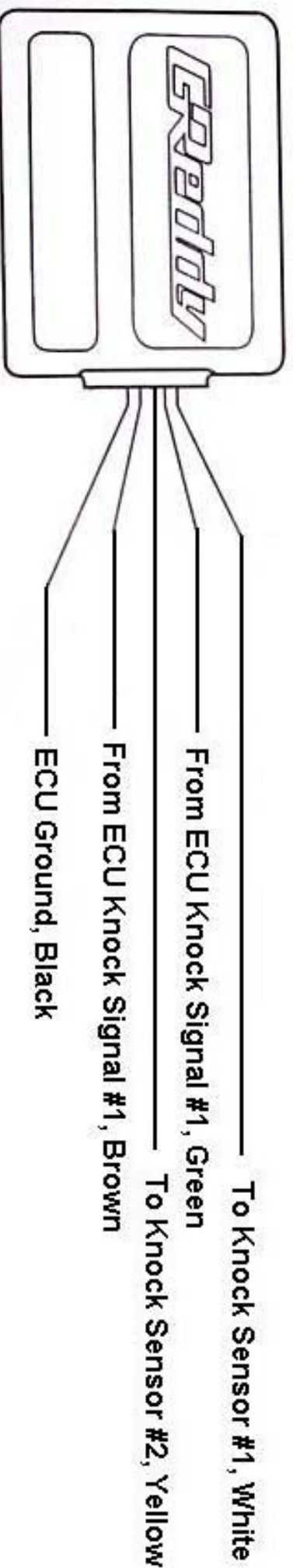
**Greddy**



## Knock Sensor Adapter #1

It is used for the vehicles with which retarding compensation of the ignition time by the knock sensor is effective too much.

1. The knock signal line 1 is cut, a sensor side is wired in the white line of an adapter, and ECU side is wired in green line.
2. The knock signal line 2 is cut, a sensor side is wired in yellow line of an adapter and ECU side is wired in brown line (only vehicles with two knock signals)
3. A ground is wired in black line of an adapter

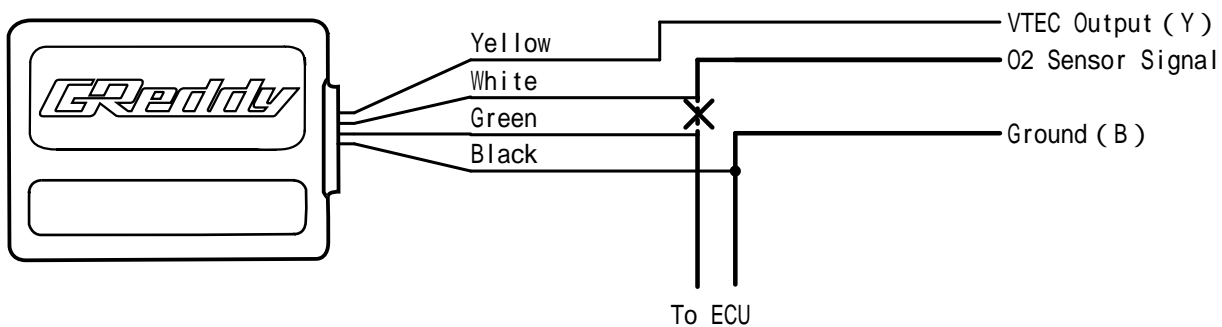




This adapter is used to cut the O2 sensor feedback signal.  
 e-manage jumper settings will need to be set to VTEC control.  
 Some vehicle may get a check engine light or run in safe mode when using  
 this adapter.

《How to Connect》

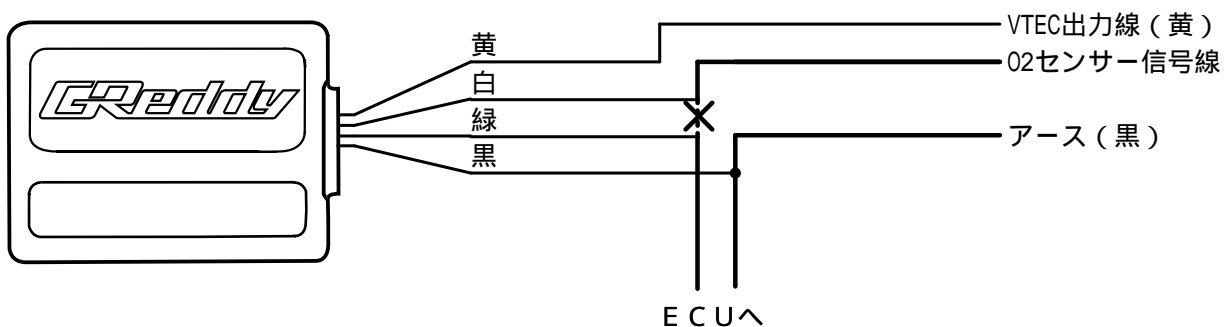
1. Cut the O2 sensor wire and connect the white wire to the O2 sensor wire (sensor side), and the green wire to the O2 sensor wire (ECU side).
2. Connect the Black wire to a good ground.
3. Connect the Yellow wire to the e-manage VTEC Output wire (Yellow).



02センサー信号線を設定回転数以上で切り離すアダプタです。  
 e-manageのジャンパー設定（VTEC車両）が必要です。  
 車両によってはエンジンチェックランプが点灯したり、フューエルセーフ  
 モードになる可能性があります。

《配線方法》

1. 02センサー信号線をカットし、アダプタの白線をセンサー側に、緑線をECU側に配線します。
2. アダプタの黒線をアースに配線します。
3. アダプタの黄線をe-manageの黄線(VTEC出力)に配線します。



**Greddy**

**e-manage**  
ENGINE CONTROL UNIT MANAGER

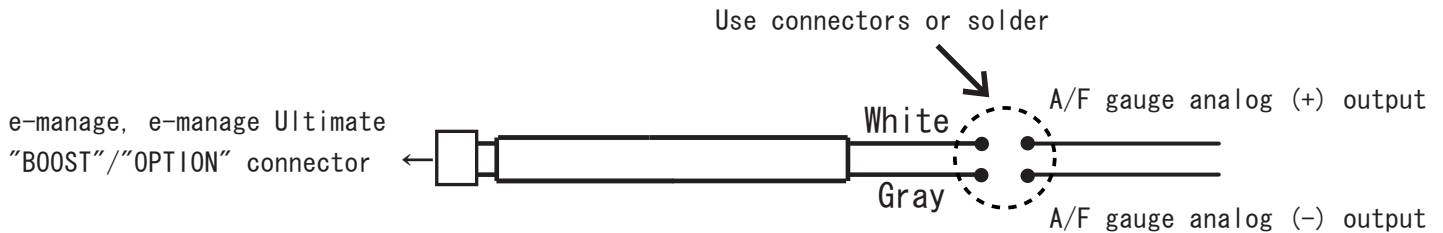
## A/F Sensor Harness

©This harness is used to read signals from A/F gauge analog outputs.

※Compatible with Support Tool1.20, e-manage1.40 or newer & Emanage Ultimate.

### 《How to Connect》

1. The Yellow connector will be connected to the "Boost" or "Option" port on the front of the unit.
  2. Connect the harness wires to the A/F gauge analog output signal.
- ※ Please carefully look over the instruction manual for the A/F gauge to before connecting.



**Greddy**

**e-manage**  
ENGINE CONTROL UNIT MANAGER

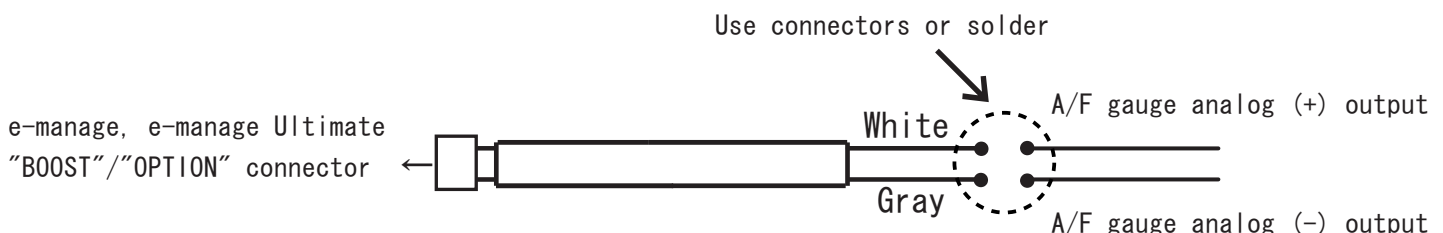
## A/F Sensor Harness

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### 《How to Connect》

1. The Yellow connector will be connected to the "Boost" or "Option" port on the front of the unit.
  2. Connect the harness wires to the A/F gauge analog output signal.
- ※ Please carefully look over the instruction manual for the A/F gauge to before connecting.



## Injector Adapter 1

This adapter is for vehicles that have an injector circuit check engine light and run in safe mode due to wiring the injectors channels for +/-.  
Not used for 6 cylinder vehicles.

- |                    |               |
|--------------------|---------------|
| • Mitsubishi       | • Subaru      |
| CT9A ( ~ ) 03.01 ~ | GDA/B 00.10 ~ |
| CU2W 02.06 ~       | BE/BH5 98.6 ~ |

## Injector Adapter 2

This adapter is used for vehicles that get a very rich condition when wiring the injector channels for +/-.

This adapter is build into the e-manage Ultimate hardware from serial num. 4000 - on.

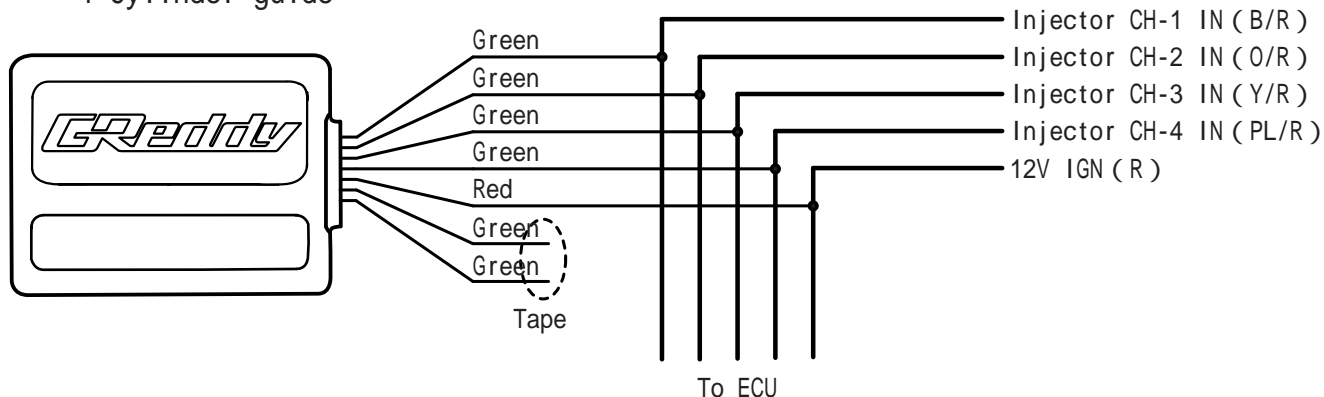
## Injector Adapter 3, Injector adapter 3 (6 Cylinder)

This adapter is for vehicles that have an injector circuit check engine light when wiring the injector channels for +/-.

### 《 How to Connect 》

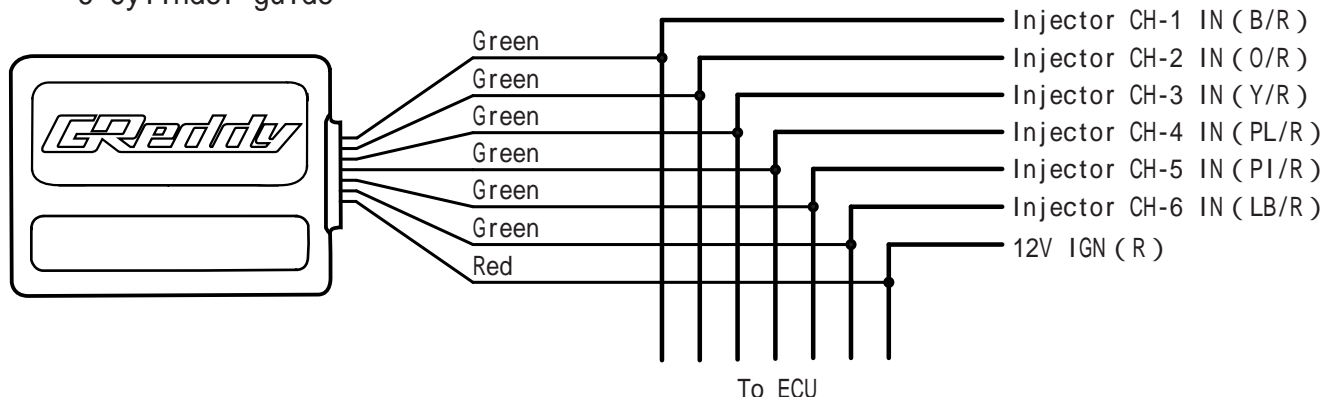
1. Connect the Adapter Red wire to a 12V(IGN) power source
2. Connect the Green wires to each Injector Input Channel, in no specific order.

#### • 4 Cylinder guide



If green wires remain disconnected, please tape the ends to prevent short circuit.

#### • 6 Cylinder guide



Injector Adapter 1 is for 4 cylinder only.