

REV/SPEED METER

0-100~400 TIME/SWITCH CONTROL

INSTRUCTION MANUAL

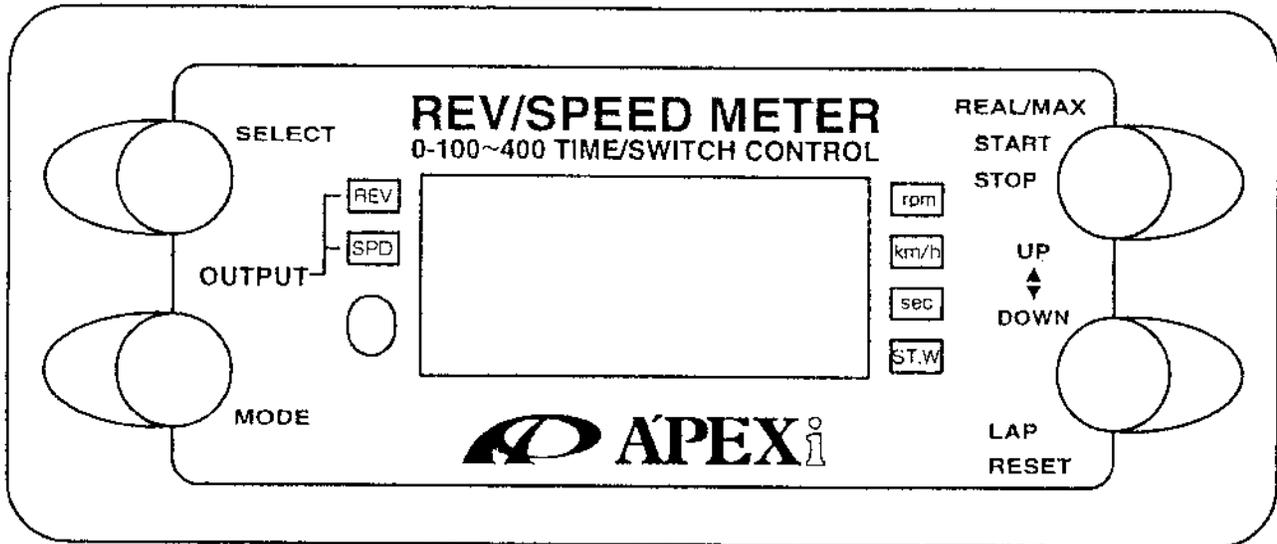


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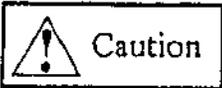
REV/SPEED METER

1. Introduction

Thank you for purchasing the APEXi REV/SPEED METER. Please review this instruction manual carefully before installation and use so that the unit is operated correctly.

By taking the vehicle engine RPM signal and vehicle speed signal, this unit has the capability to display engine RPM, vehicle speed, vehicle acceleration timing, and stopwatch features. Other features include peak hold display of engine RPM, vehicle speed as well as time measurements of start to 100m, 200m, 400m, 100km/h, 200km/h, and 300km/h. A stopwatch function allows the measurement of time for time trials.

The unit not only utilizes a large LED display monitor for easy visibility, but a light sensor allows the display to automatically adjust its brightness according to the surrounding light.

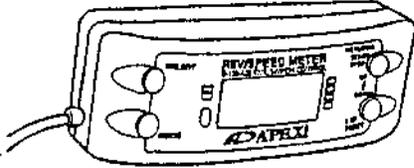
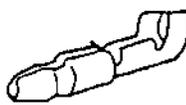
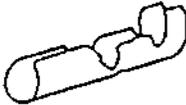


Caution

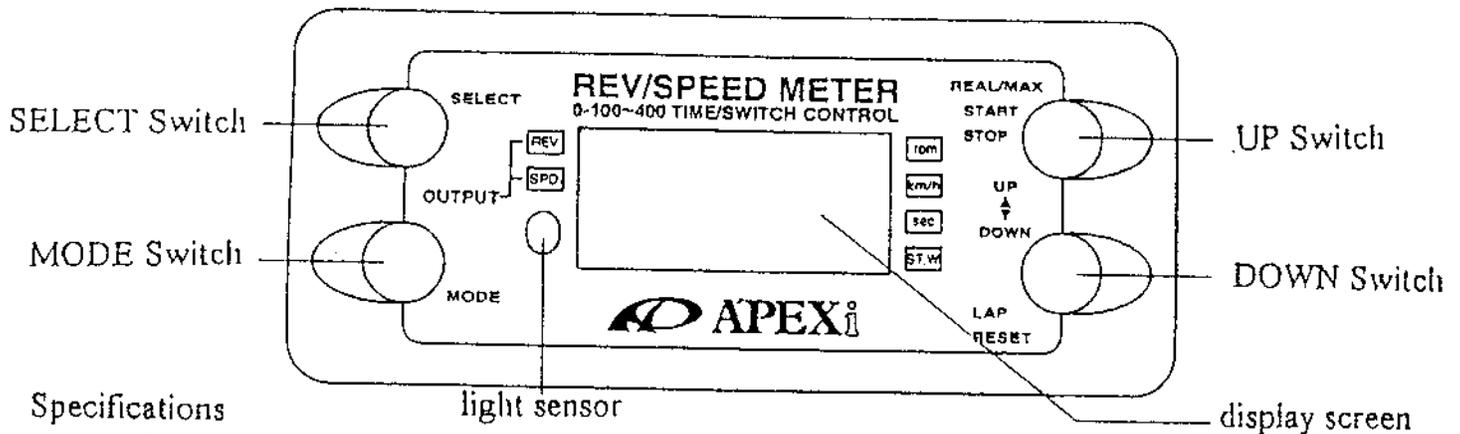
* Please do not use this unit in conjunction with any vehicle that is not listed in the Vehicle Setting Tables

* Please do not use this unit for any other purposes than the ones stated above.

2. Parts List

| | |
|---|---|
| <p>1. Meter Unit 1</p>  | <p>6. Female Sleeve 5</p>  |
| <p>2. Electric / Signal Harness 1</p>  | <p>7. Splitting Cap 5</p>  |
| <p>3. Male Fitting 4</p>  | <p>8. Instruction Manual 1</p>  |
| <p>4. Female Fitting 5</p>  | <p>9. Double- Sided Tape 1</p>  |
| <p>5. Male Sleeve 4</p>  | <p>10. Warranty Card 1</p>  |

3. Part Names



Specifications

Size 106 (W) x 44 (H) x 28 (D) mm

Weight 120 g

Display 7 segment LED

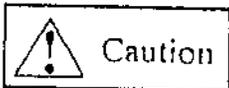
Output Level 12 V 500mA

Voltage Usage 10~16 V

Electrical Consumption Under 200mA (Under operation)
Under 10mA (IG/ OFF)

Operation Temperature -20~+60 C

4. Installation



* When installing this unit, please be sure to disconnect the negative terminal of the battery.

* Please mount this unit in a location where the driver can not reach during driving. (At least 50 cm away from the driver's seat.)

(1) Wiring Connection

1) Disconnect the negative terminal of the battery.

2) Please locate the engine control unit of the vehicle. (refer to the Vehicle Specific Computer Location Diagram)

3) While referring to the Vehicle Specific Computer Wiring Diagram, locate and cut the vehicle speed signal wire connecting to the engine control unit. Connect a male fitting to the engine control unit side and connect a female fitting to the vehicle harness side.

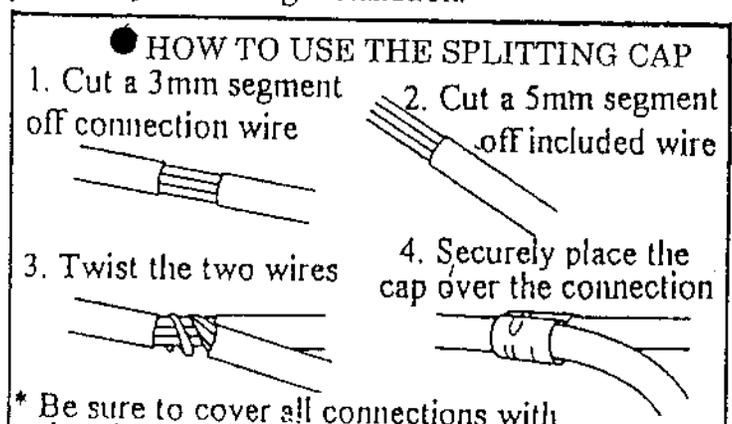
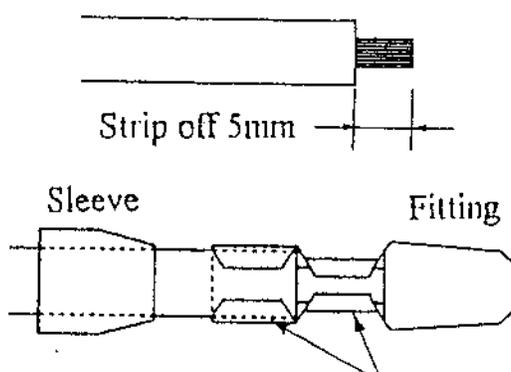
* On some AT Toyota vehicles, cut the SP2+, and SP2- wires and connect fittings.

4) While referring to the Vehicle Specific Computer Wiring Diagram, locate the IG power, constant power, ground, RPM signal wires connecting to the engine control unit and connect the red wire, orange wire, black wire, and yellow wire respectively of the included electric/ signal harness by using the splitting caps.

Be sure to cover all connections with electrical tape.

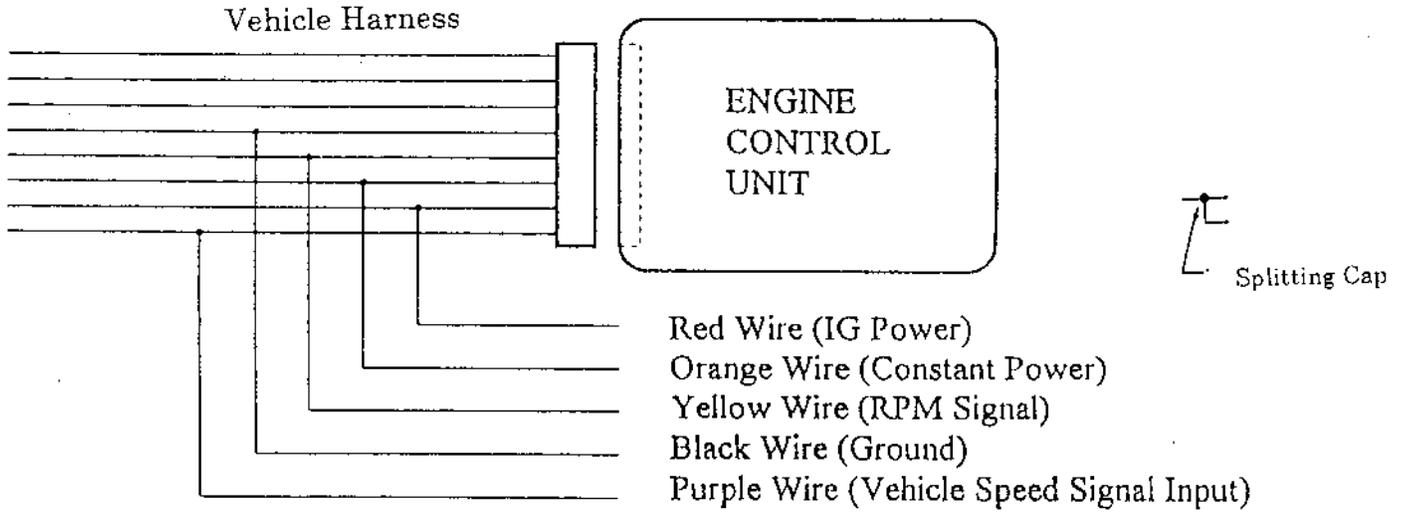
5) Connect the negative terminal of the battery to complete wiring installation.

(2) Fitting Installation

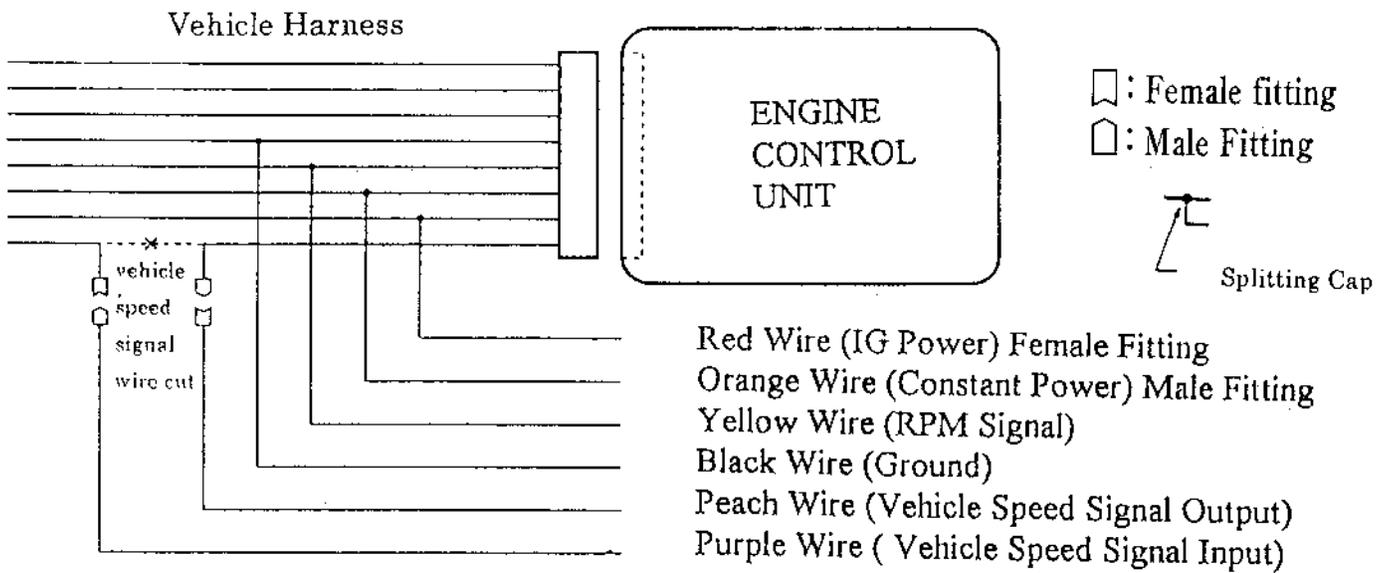


5. Connection Diagram

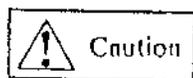
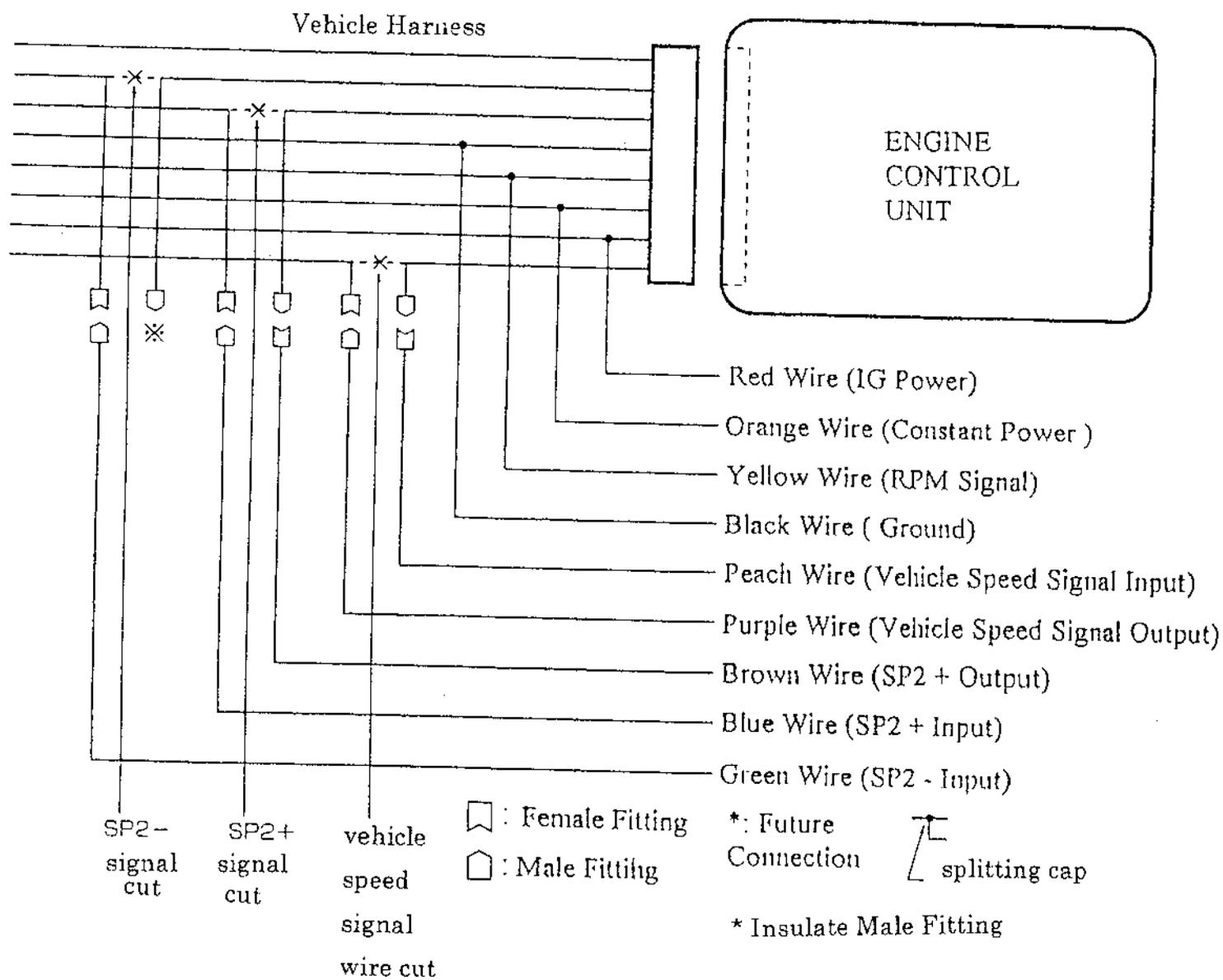
(1) Basic Connection



(2) When Disconnecting the Speed Limiter



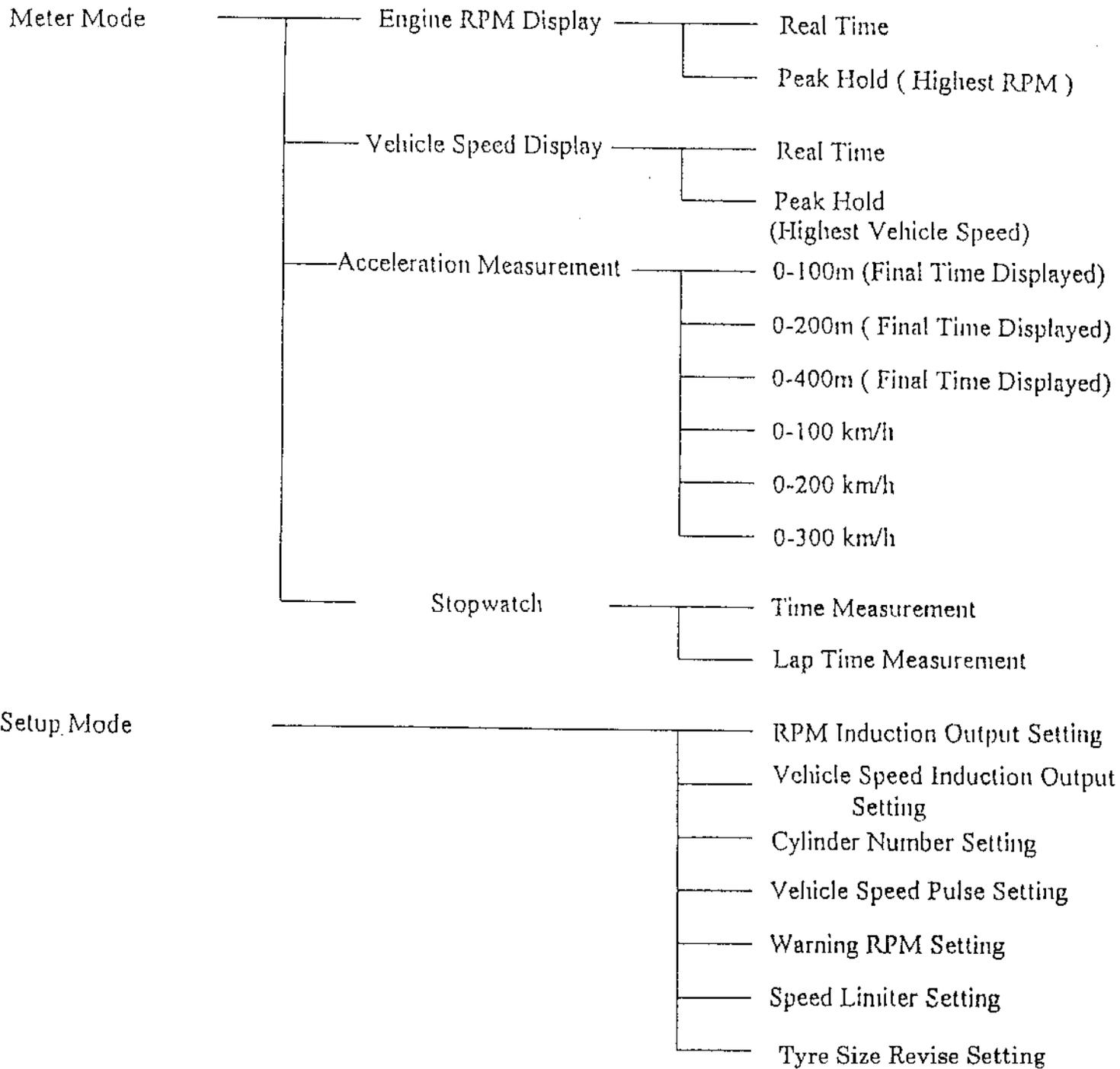
(3) When releasing the speed limiter on AT for the Aristo (JZS147), Soarer (JZZ30)



If the speed limit of the vehicle is already released by ROM tune etc., apply "Basic Connection". And insulate the other wires which are not used.

6. Functions

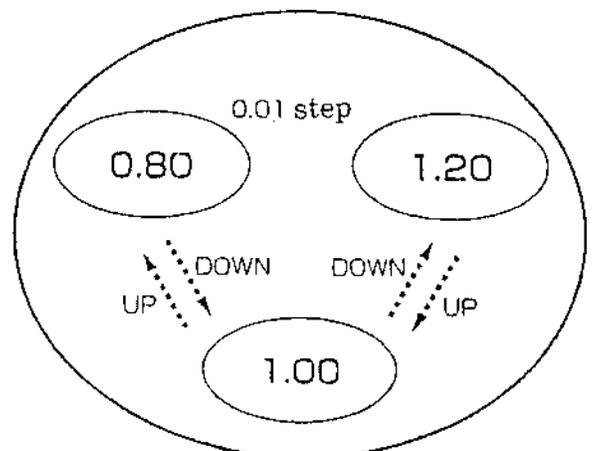
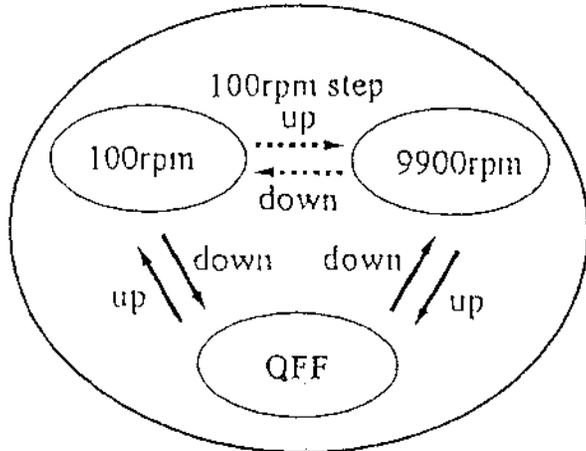
By taking the Engine RPM Signal and Vehicle Speed Signal into this unit, the following displays become available.



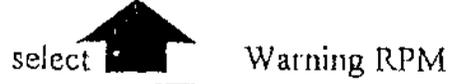
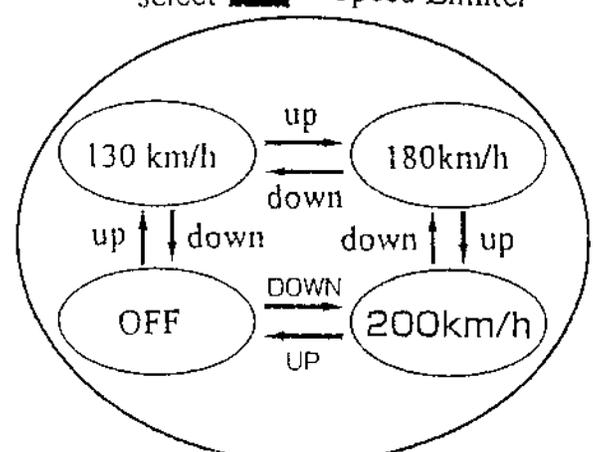
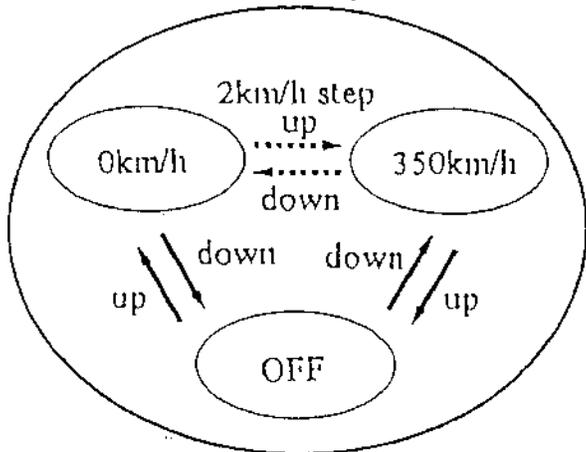
6.1 Set Up Mode Transition Diagram

RPM Induction Output

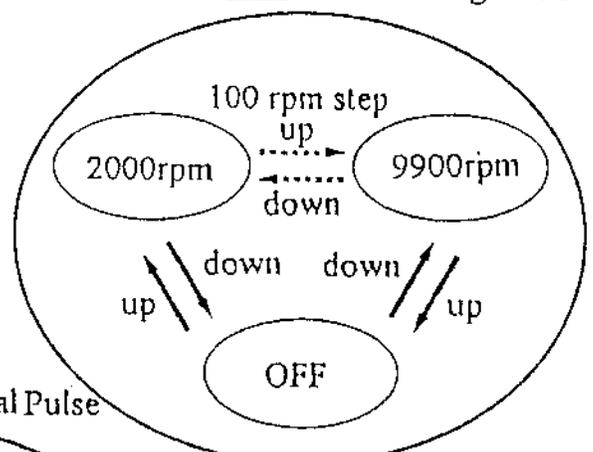
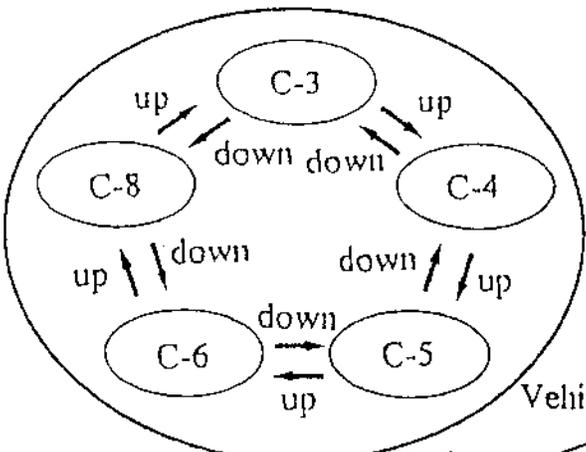
Tyre Size Revise



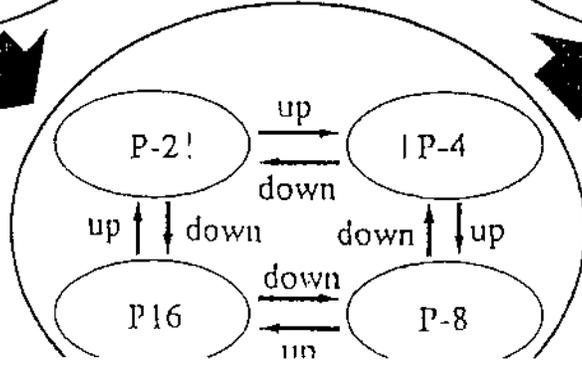
Vehicle Speed Induction



Cylinder Number



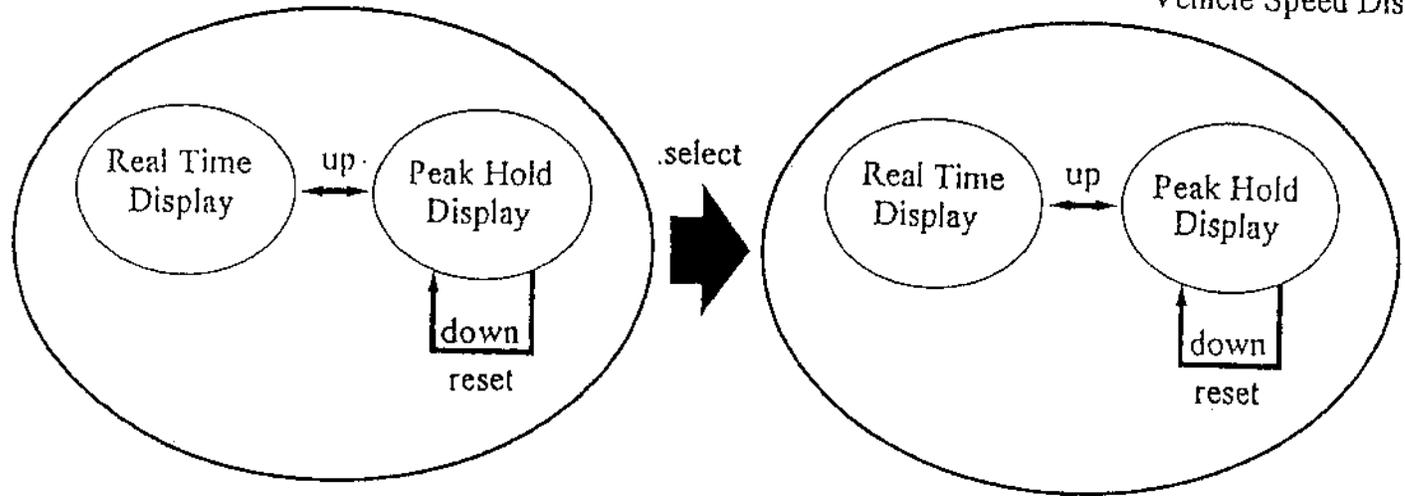
Vehicle Speed Signal Pulse



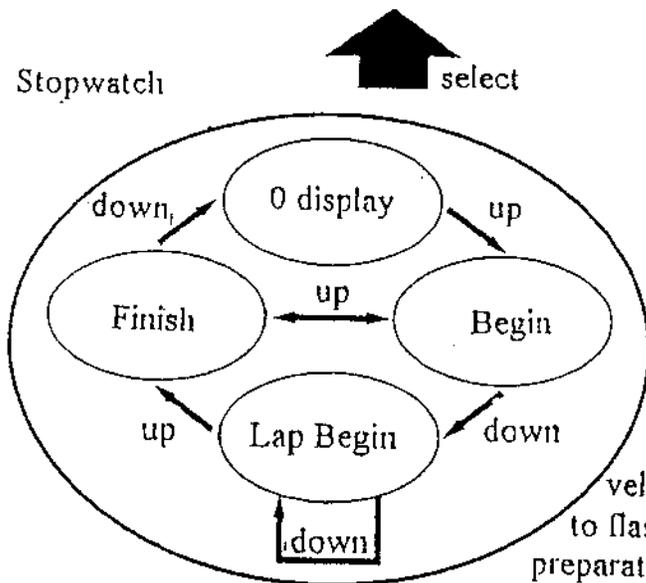
6.2 Meter Mode Transition Diagram

Engine RPM Display

Vehicle Speed Display

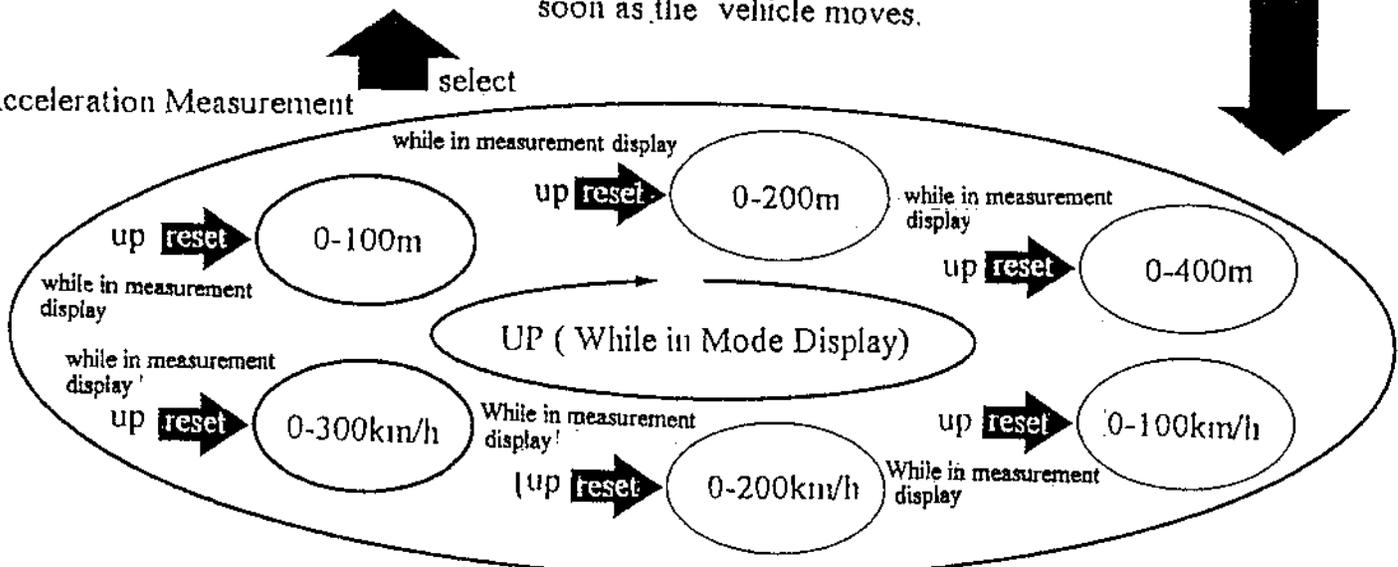


Stopwatch



Pushing the Down switch when the vehicle is stopped will cause the ST.W LED to flash completing the automatic measurement preparation. The unit will begin measurements as soon as the vehicle moves.

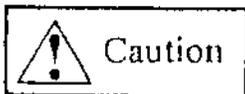
Acceleration Measurement



While the vehicle is stopped, the SEC LED will flash. Press the UP switch after the second flash to finish the automatic measurement preparation.

Once the vehicle starts to move, timing will begin.

Press DOWN after measurement to display the final speed after 0-100m, 0-200m, 0-400m.



Caution

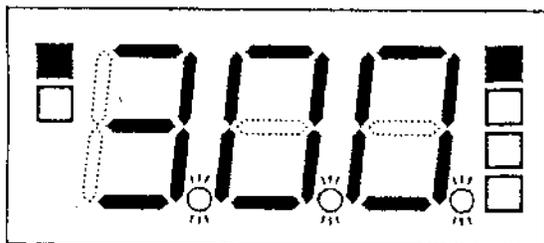
*When first installing the Rev Speed Meter, or when disconnecting any of the connectors, be sure to configure the setup mode according to the vehicle.

*Any setting not matching the vehicle will prevent the unit from working properly.

After installing the Rev Speed Meter, double check the wiring to make sure that it is correct and turn the ignition key ON. (The position when the engine does NOT turn on.) Pressing the MODE switch will start the set up mode.

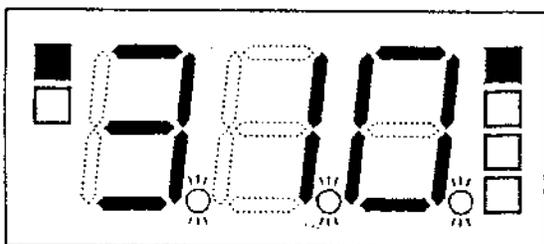
7.1 RPM Induction Output Setting

Set the RPM which starts the switch function

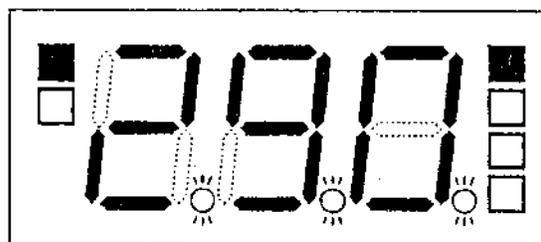


- * The starting point is 3000 rpm
- * Actual rpm is the display number X 10 rpm.
- *  denotes flashing lights.

(1) Use the UP/ DOWN switch to change the rpm setting for the RPM Induction Output Setting. The display will be set at 3000 rpm when setting for the first time or when the connector has been disconnected.



When pushing UP once

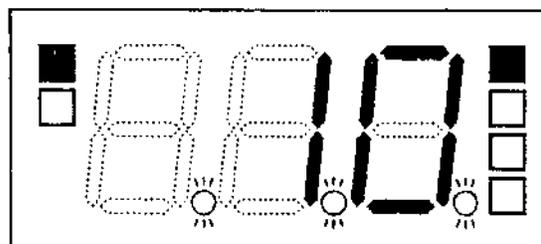


When pushing DOWN once

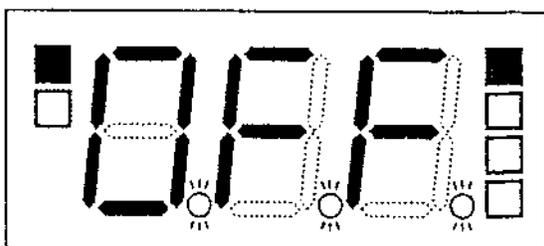
(2) The rpm settings may be changed in 100 rpm increments with a 9900rpm upper limit and a 100 rpm lower limit. Select the OFF setting to turn off the RPM Induction Output function.



Upper Limit 9900 rpm



Lower Limit 100 rpm

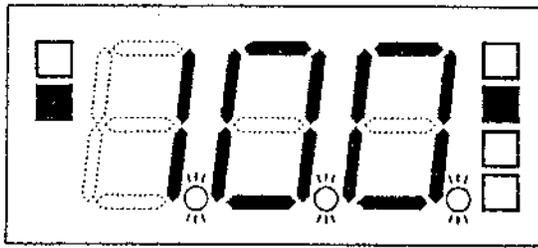


Turning the Function OFF

(3) Press the SELECT switch to move on to the next setting mode.

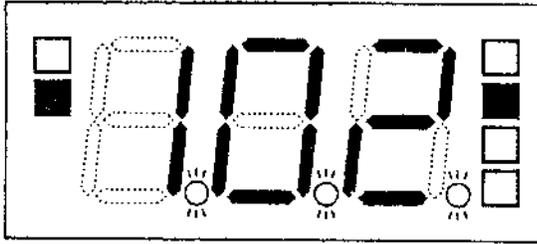
7.2 Vehicle Speed Induction Output Setting

Set the Vehicle Speed which starts the switch function.

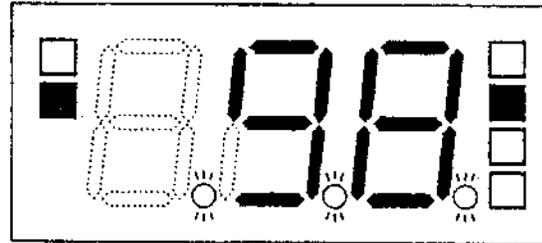


- * The starting point is 100 km/h
- *  denotes flashing lights.

(1) Use the UP/ DOWN switch to change the speed setting for the Vehicle Speed Induction Output Setting. The display will be set at the starting point when setting for the first time or when the connector has been disconnected.

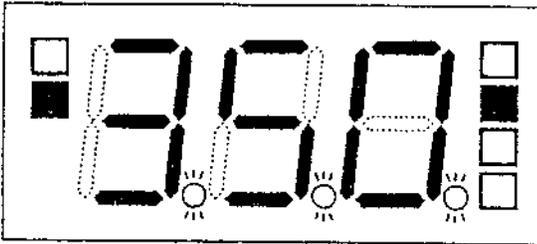


When pushing UP once.

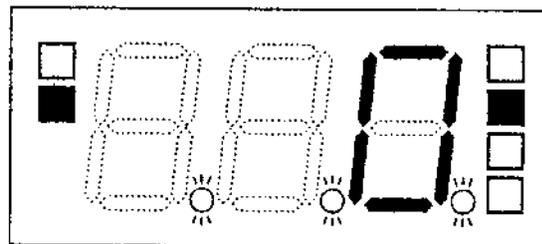


When pushing DOWN once.

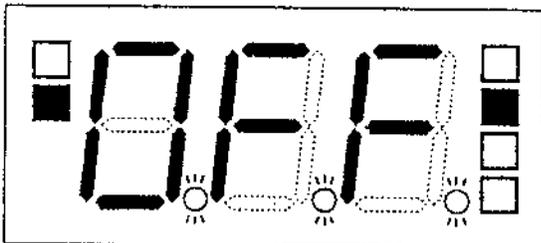
(2) The speed settings may be changed in 2km/h increments with a 350 km/h upper limit and a 0 km/h lower limit. Select the OFF setting to turn off the Vehicle Speed Induction Output function.



Upper Limit 350 km/h



Lower Limit 0 km/h

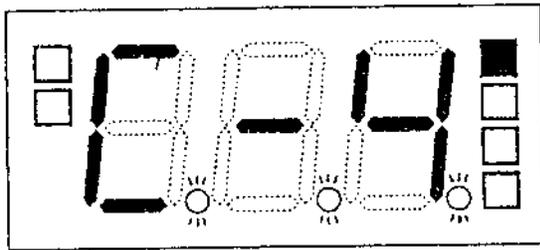


Turning the Function OFF

(3) Press the SELECT switch to move on to the next setting mode.

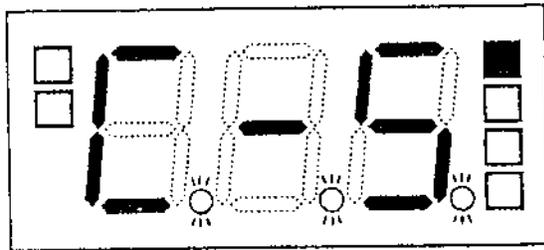
7.3 Cylinder Number Setting

Set the cylinder number of the installation vehicle.

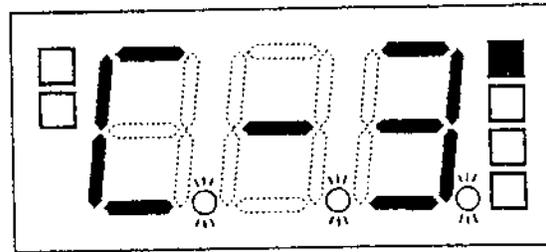


- * The starting point is 4 cylinders.
- *  denotes flashing lights.

(1) Use the UP/ DOWN switch to change the cylinder number setting. The display will be set at the starting point when setting for the first time or when the connector has been disconnected.



When pushing UP once



When pushing DOWN once

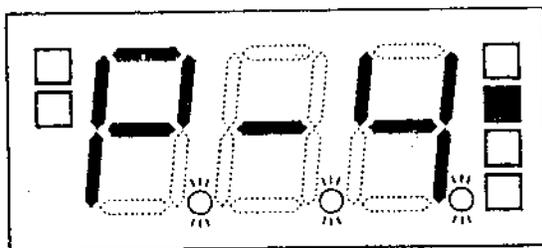
(2) Please select a cylinder number setting from either 3,4,5,6,or 8.

* For rotary engines, please set the cylinder number by number of rotors X 2.

(3) Press the SELECT switch to move on to the next setting mode.

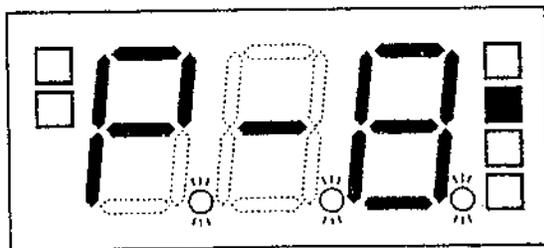
7.4 Vehicle Speed Signal Pulse Setting

Set the Vehicle Speed Pulse.

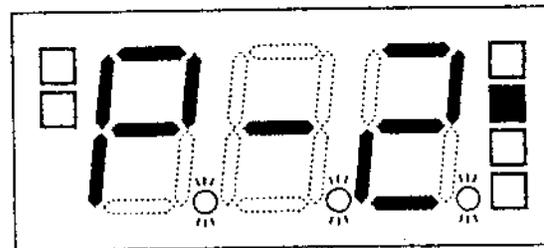


- * The starting point is P-4.
- *  denotes flashing lights.

(1) Use the UP/ DOWN switch to change the Vehicle Speed Pulse Setting. The display will be set at the starting point when setting for the first time or when the connector has been disconnected.



When pushing UP once.

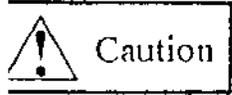


When pushing DOWN once.

(2) Please choose a Vehicle Speed Signal Pulse Number from 2,4,8,and 16.

As a fundamental rule, the Nissan Y32 Cedric, Gloria, and Cima uses the P-16 setting. All other Nissan vehicles use the P-2 Setting. All other Japanese vehicles use the P-4 setting.

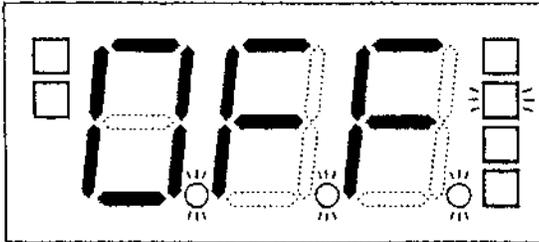
6 Speed Limiter Setting



Caution

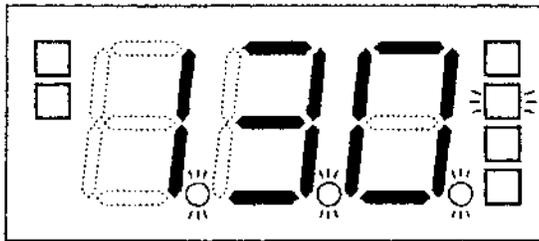
- * Please follow the speed limits on all public roads and follow safe driving procedures at all times.
- * Use the speed limiter release only on a closed-circuit and never use it on a public highway.

Set the Speed Limiter Release

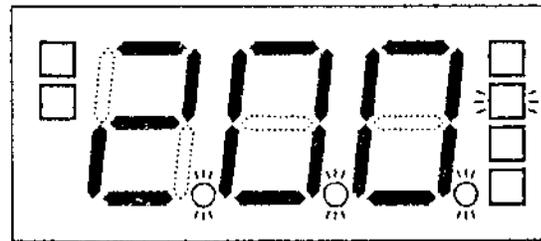


- * The starting point is OFF.
- *  denotes flashing lights.
- *  denotes flashing lights.

1) Use the UP/DOWN switch to change the Speed Limiter Release Setting. The display will be at the starting point when setting for the first time or when the connector has been disconnected.



When pushing UP once.



When pushing DOWN once.

OFF: The Speed Limiter has not been released

130 : Releases the speed limiter of light vehicles.

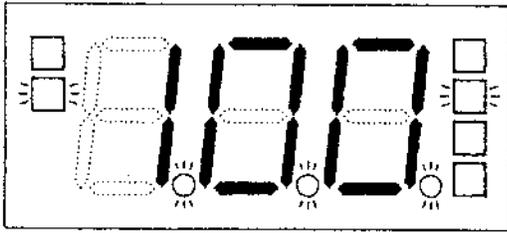
180 : Releases the speed limiter of the vehicle only specified by manufacture

200 : Releases the speed limiter of all other Japanese domestic vehicle

2) Press the SELECT switch to move on to the next setting mode.

7.7. Tyre Size Revise Setting

- Input revised value of out side diameter of tyre when the tyre is changed ec.(inch-up and inch down of wheel)

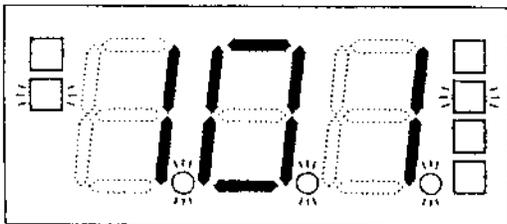


※ Initial value : 1.00

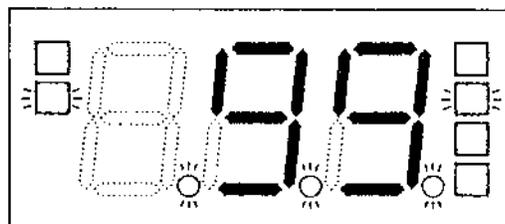
Display shows "1.0.0.". When 3 dots flush, it shows set-up mode.

- (1) Revised value can be set by "UP/DOWN" switch

Initial connection and when the connector is removed, it shows initial value.



One push of "UP"



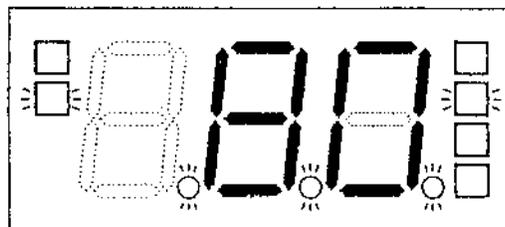
One push of "Down"

- (2) Revised value can be set by 0.01 between 1.20 and 0.80.

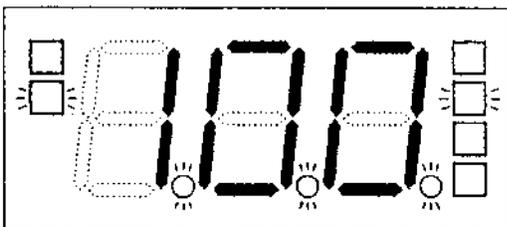
If you do not need revised value, set as "1.00".



Upper Limit 1.20



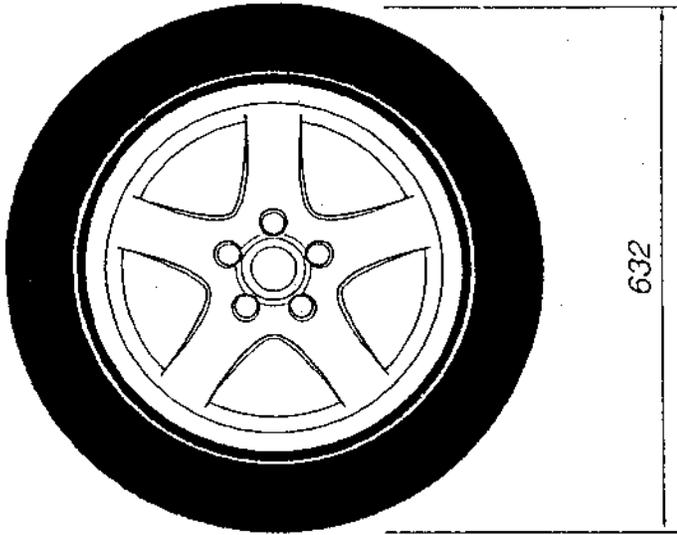
Lower Limit 0.80



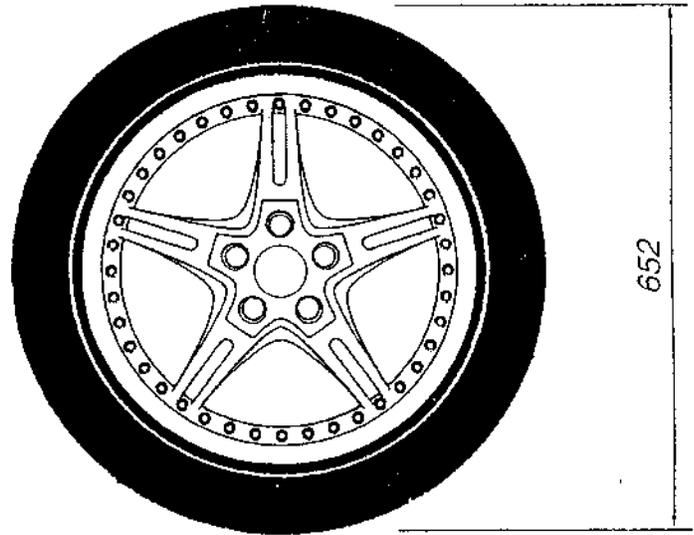
unnecessary case

Calculation

$$\text{Revised Value} = \frac{\text{Changed Tyre Diameter}}{\text{Stock Tyre Diameter}}$$



Stock Tyre
225/50-16



Changed Tyre
245/45-17

※ Obtain Tyre Diameter from the catalogue issued by Tyre Mfrs or actual measurement.

An Example : Skyline GT-R(BNR32)

$$\text{Revised Value} = \frac{652\text{mm}}{632\text{mm}} = 1.03$$

Set "1.03" as a Revised Value

- (3) "Tyre Size Revised Setting" is the last setting procedure of "Set Up Mode".
In case of reconfirmation is required, push "Select SW". Push "Mode SW" to complete the "Set Up Mode".

8. Meter Mode

8.1 Engine RPM Display

(1) Real Time Display

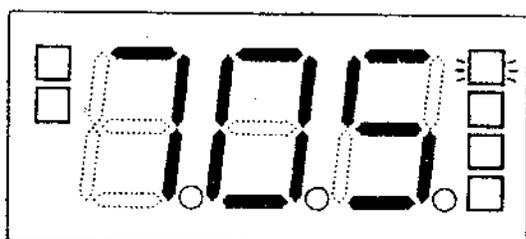
Displays the engine RPM in Real Time.



(2) Peak Hold Display

Pressing the UP switch displays the engine RPM in Peak Hold

Pressing the UP switch again returns the display to Real Time.

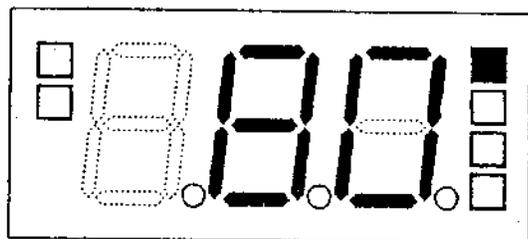


*  denotes flashing lights.

When pushing the UP switch

(3) Clearing the Peak Hold

Pressing the DOWN switch while in Peak Hold Mode will clear the existing engine rpm making the present engine rpm the new peak.



When pushing the DOWN switch

(4) Displaying the RPM Induction Output

Once the engine rpm exceeds the set rpm of the RPM Induction Output Setting, the OUTPUT REV LED will remain lit.



* If in Meter Mode, the Induction Output will be displayed.

(5) Press the SELECT switch to move on to the next measurement.

8.2 Vehicle Speed Display

(1) Real Time Display

Displays Vehicle Speed in Real Time



* The vehicle speed will not read accurately unless the factory tires or tires with the same diameter are used on the vehicle.

(2) Peak Hold Display

Pressing the UP switch displays the vehicle speed in Peak Hold

Pressing the UP switch again returns the display to Real Time.

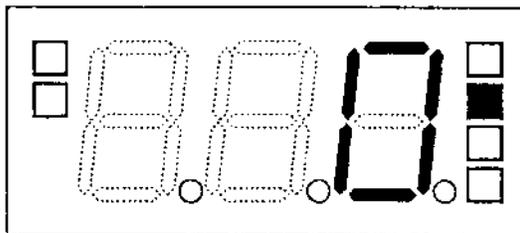


*  denotes flashing lights.

When pushing the UP switch

(3) Clearing the Peak Hold

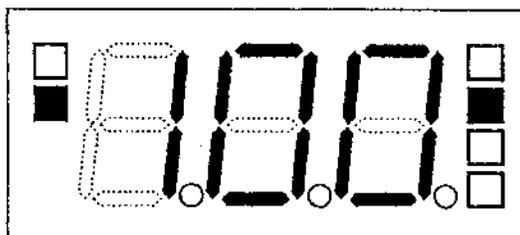
Pressing the DOWN switch while in Peak Hold Mode will clear the existing vehicle speed making the present vehicle speed the new peak.



When pushing the DOWN switch

(4) Displaying the Vehicle Speed Induction Output

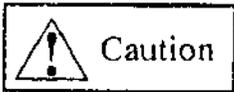
Once the vehicle speed exceeds the set speed of the Vehicle Speed Induction Output Setting, the OUTPUT SPD LED will remain lit.



* If in Meter Mode, the Induction Output will be displayed.

(5) Press the SELECT switch to move on to the next measurement.

8.3 Acceleration Measurement



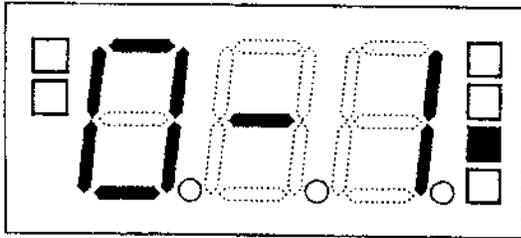
Caution

* Please follow the speed limits on all public roads and follow safe driving procedures at all times.

* Use the speed limiter release only on a closed-circuit and never use it on a public highway.

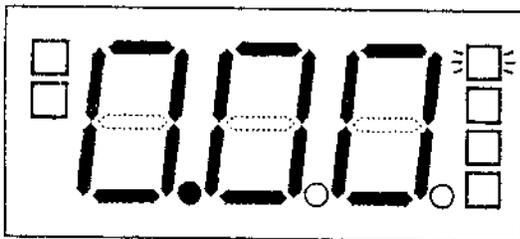
(1) 0-100m

(a) Measures the elapsed time from 0-100m.



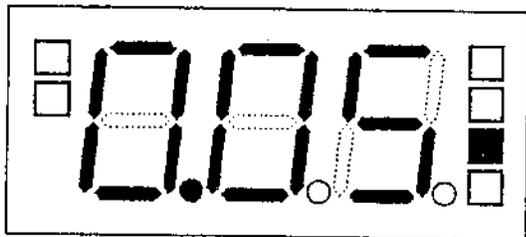
* Starting point is 0-100m

The SEC LED will flash when the vehicle is stopped showing that it is READY.

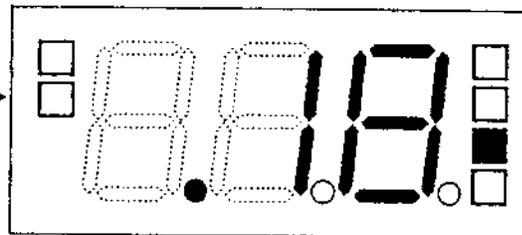


*  denotes flashing lights.

The automatic measurement will begin once the vehicle begins to move. Once the vehicle reaches the set distance, the measurement will stop automatically.

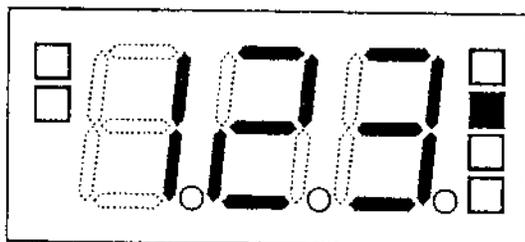


Mutual
Display



0 min 5 sec 18

Pressing the DOWN switch after measurement will display the final time.



* Spinning the wheels will cause the unit to finish measurement before the actual distance causing an inaccurate time.

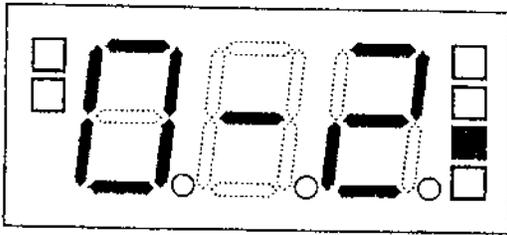
* A bar will be displayed if the measurement time exceeds 9 min 59 sec.

(b) Press UP to measure the time again.

(c) Pressing UP will display the measurement distance. Pressing UP once more during this display will change the measurement distance.

(2) 0-200m

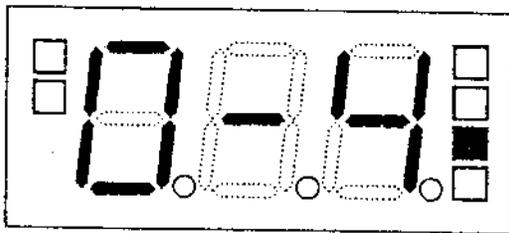
Measures the elapsed time from 0-200m



Measurement functions and operational procedures are the same as 0-100m.

(3) 0-400m

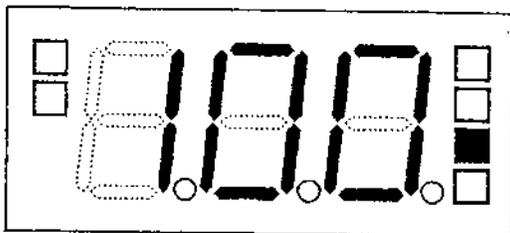
Measures the elapsed time from 0-400m



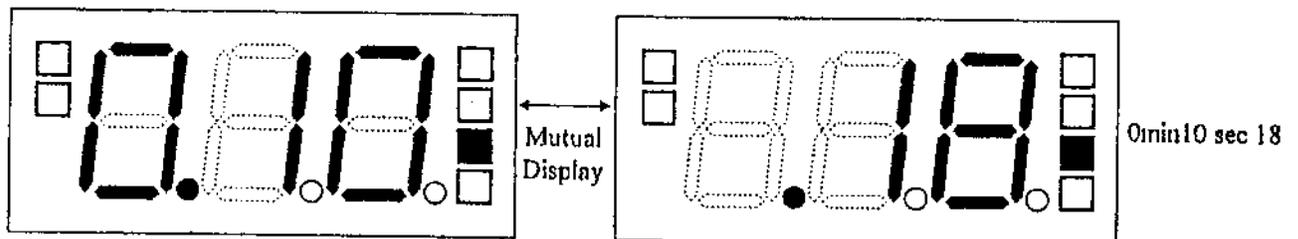
Measurement functions and operational procedures are the same as 0-100m.

(4) 0-100km/h

(a) Measures the elapsed time from 0-100km/h



The SEC LED will flash when the vehicle is stopped showing that it is READY.
The automatic measurement will begin once the vehicle begins to move. Once the vehicle reaches the set speed, the measurement will stop automatically.



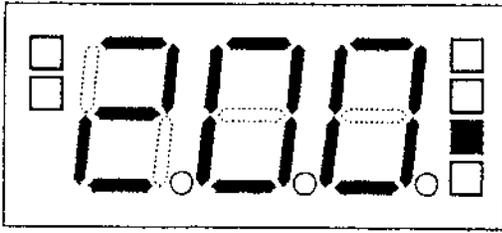
* A bar will be displayed if the measurement time exceeds 9 min 59 sec.

(b) Press UP to measure the time again.

(c) Pressing UP will display the measurement speed. Pressing UP once more during this display will change the measurement distance.

(5) 0-200km/h

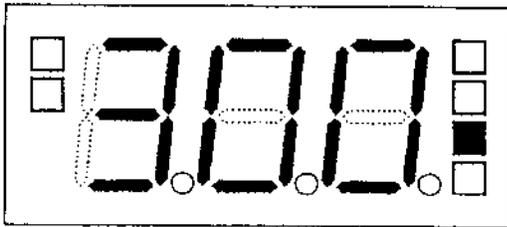
Measures the elapsed time from 0-200km/h



Measurement functions and operational procedures are the same as 0-100km/h.

(3) 0-300km/h

Measures the elapsed time from 0-300km/h

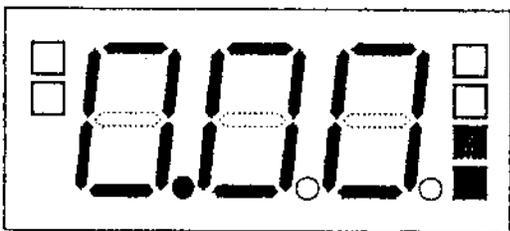


Measurement functions and operational procedures are the same as 0-100km/h.

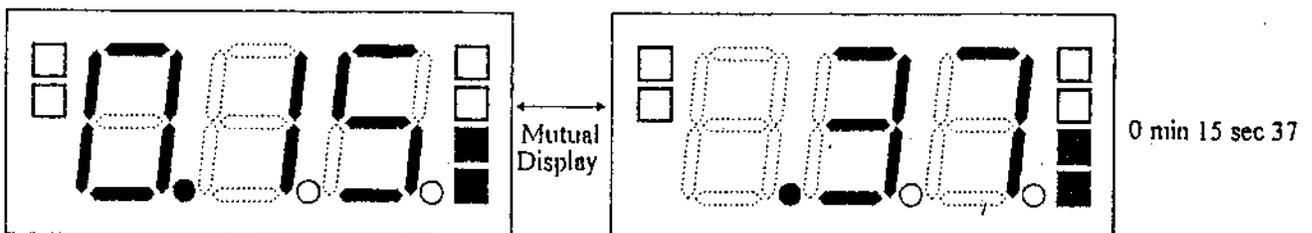
Press the SELECT switch to move on to the next measurement.

8.4 Stop Watch

(1) Measures elapsed time.



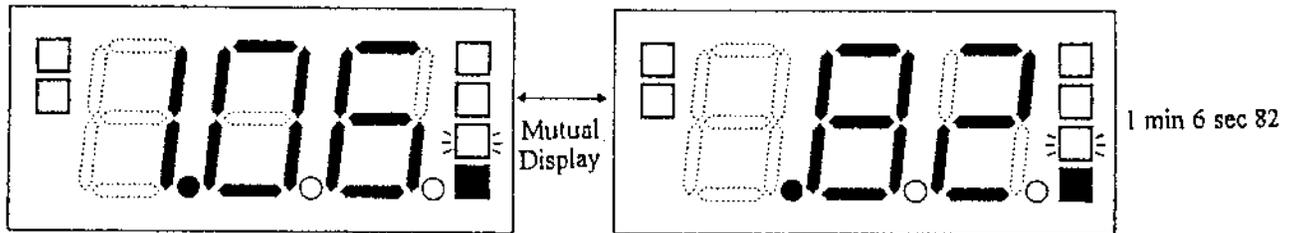
Pressing the UP switch will begin the time measurement.
Pressing the UP switch again will stop the time measurement.



Pressing the DOWN switch when the elapsed time is on display will clear the screen putting the unit back in READY mode.

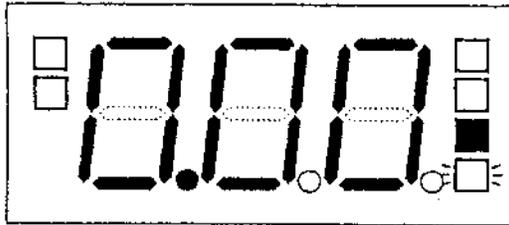
(2) Measure Lap Times.

Pressing the UP switch will begin the elapsed time measurement. Pressing the DOWN switch right afterwards will put it in Lap Measurement. Pressing the UP switch will end the Lap Measurement.



Pressing the DOWN switch after the Lap Measurement will put the unit back in READY mode.

(3) Automatic Measurement of the Stopwatch.



The ST.W LED will flash when the DOWN switch is pushed while vehicle is stopped showing that it is READY.

The automatic measurement will begin once the vehicle begins to move.

9. Vehicle Specific Installation Table

9.1 TOYOTA

| Vehicle Name | Model Type | Engine | Year | ECU Location | ECU Wiring Diagram | Remark | |
|-----------------------------|-----------------------------|-------------|--------------|--------------------------|--------------------|---------|---|
| CELSIOR | UCF20 | 1UZ-FE | '94.10~ | d | T3 | ※ | |
| | UCF10 | | '89.10~'94.9 | | T4 | | |
| CROWN | JZS155 | 2JZ-GE | '95.8~ | d | T13 | ※ | |
| | UZS15# | 1UZ-FE | | | T5 | ※ | |
| | JZS143 | 2JZ-GE | '91.10~'95.8 | d | T3 | ※ | |
| | UZS131 | 1UZ-FE | '89.9~'91.10 | a | T6 | ※ | |
| CROWN MAJESTA | JZS155 | 2JZ-GE | '95.8~ | d | T13 | ※ | |
| | UZS15# | 1UZ-FE | | | T3 | ※ | |
| | JZS149 | 2JZ-GE | '91.10~'95.8 | c | T1 | ※ | |
| | UZS141 | 1UZ-FE | | | ※ | | |
| ARISTO | UZS143 | 1UZ-FE | '92.10~ | c | T2 | ※ | |
| | JZS147 | 2JZ-GTE | '91.10~ | | | | |
| | | 2JZ-GE | | | | ※ | |
| SOARER | UZZ31 | 1UZ-FE | '91.5~ | c | T1 | | |
| | JZZ31 | 2JZ-GE | '94.1~ | | T3 | | |
| | JZZ30 | 1JZ-GTE | '91.5~ | | | | |
| | MZ20 | 7M-GTE | '89.1~'91.4 | d | T6 | | |
| | | | '86.1~'88.12 | | T9 | | |
| | GZ20 | 1G-GTE | '89.1~'91.4 | | T6 | | |
| | | | '86.1~'88.12 | | T10 | | |
| | | 1G-GE | '89.1~'91.4 | | T6 | | |
| '86.1~'88.12 | | | T9 | | | | |
| SUPRA | JZA80 | 2JZ-GTE | '93.5~ | | c | T2 | ※ |
| | | 2JZ-GE | | | | | |
| | JZA70 | 1JZ-GTE | '90.8~'93.4 | d | T5 | | |
| | MA70 | 7M-GTE | '86.2~'90.7 | | T6 | | |
| | GA70 | 1G-GTE | '88.9~'93.4 | | T6 | | |
| | | | '86.2~'88.8 | | T9 | | |
| | 1G-GE | '88.9~'93.4 | T6 | | | | |
| | | '86.2~'88.8 | T9 | | | | |
| MARK II CRESTA CHASER | JZX100 | 1JZ-GTE | '92.9~ | e | T3 | only MT | |
| | JZX91 | 2JZ-GE | '92.10~ | | | ※ | |
| | JZX90 | 1JZ-GTE | '92.10~ | | | T5 | |
| | | 1JZ-GE | | | | | |
| | JZX81 | 1JZ-GTE | '90.8~'92.9 | d | T5 | | |
| | | 1JZ-GE | | | | | |
| | GX81 | 1G-GTE | '88.8~'92.9 | d | T6 | | |
| 1G-GZE | | '88.8~'90.7 | | | | | |
| 1G-GE | | '88.8~'92.9 | | | | | |
| MR2 | SW20 late production | 3S-GTE | '93.10~ | front part of rear trunk | T6 | | |
| | | 3S-GE | | | T5 | | |
| | SW20 early & mid production | 3S-GTE | '89.10~'93.9 | | T6 | | |
| | | 3S-GE | | | | | |
| | AW11 | 4A-GZE | '86.8~'89.9 | front part of rear trunk | T10 | | |
| 4A-GE | | '84.6~'89.9 | T12 | | | | |
| CELICA | ST205 | 3S-GTE | '94.2~ | e | T6 | | |
| | ST202 | 3S-GE | '93.10~ | | T5 | | |
| | | 3S-FE | | | T6 | | |
| | ST185 | 3S-GTE | '89.10~'93.9 | e | T6 | | |
| | ST182 | 3S-GE | | | | | |
| | ST165 | 3S-GTE | '85.8~'89.9 | e | T10 | | |
| ST162 | 3S-GE | | | | | | |

※Confirmation of Speed Limit Release is not yet available

| Vehicle Name | Model Type | Engine | Year | ECU Location | ECU Wiring Diagram | Remark |
|---------------------------------------|------------|--------|---------------|--------------|--------------------|---------|
| CURREN | ST206 | 3S-GE | '94.1~ | e | T5 | |
| | | 3S-FE | | | T5 | W/TRC |
| | | | | | T6 | W/O TRC |
| CARINA ED CORONA EXIV | ST202 | 3S-GE | '93.10~ | e | T5 | |
| | | 3S-FE | | | T5 | W/TRC |
| | | | | | T6 | W/O TRC |
| CALDINA | ST191 | 3S-FE | '92.11~ | d | T5 | 2WD A/T |
| | ST195 | 3S-FE | | | T7 | 4WD M/T |
| | ST190 | 4S-FE | | | T6 | 4WD A/T |
| | | | | | T7 | M/T |
| | | | T6 | A/T | | |
| COROLLA SPRINTER LEVIN TREN0 | AE111 | 4A-GE | '95.5~ | e | T6 | |
| | | 4A-FE | | | T7 | |
| | AE101 | 4A-GZE | '91.6~'95.5 | e | T6 | |
| | | 4A-GE | '91.6~'95.5 | | T7 | M/T |
| | | 4A-FE | '91.6~'95.5 | | T6 | A/T |
| | AE92 | 4A-GZE | '89.5~'91.5 | e | T6 | |
| | | | '87.5~'89.5 | | T10 | |
| | | 4A-GE | '89.6~'91.5 | | T7 | |
| | | | '87.5~'89.6 | | T12 | |
| | AE86 | 4A-GEU | '83.5~'87.4 | a | T12 | |
| COROLLA CERES SPRINTER MARINO | AE111 | 4A-GE | '95.5~ | e | T6 | |
| | | 4A-FE | | | T7 | |
| | AE101 | 4A-GE | '92.5~'95.5 | e | T7 | M/T |
| | | 4A-FE | '92.5~'95.5 | | T6 | A/T |
| COROLLA FX | AE101 | 4A-GE | '92.5~'95.5 | e | T7 | M/T |
| | | | | | T6 | A/T |
| | | 4A-FE | | | '92.5~'95.5 | T7 |
| | AE92 | 4A-GE | '89.6~'92.4 | e | T6 | A/T |
| | | | | | T7 | |
| STARLET | EP91 | 4E-FTE | '95.12 | d | T7 | |
| | | 4E-FE | | | T8 | |
| | EP82 | 4E-FTE | '89.12~'95.12 | e | T8 | M/T |
| | | | '92.1~'95.12 | | T7 | A/T |
| | | 4E-FE | '89.12~'95.12 | | T8 | |
| | EP71 | 2E-TE | '86.1~'89.12 | e | T12 | |
| 2E-E | | | | | | |
| RAV4 | SXA10G | 3S-FE | '94.5~ | e | T7 | M/T |
| | | | | | T6 | A/T |

9.2 NISSAN

| Vehicle Name | Model Type | Engine | Year | ECU Location | ECU Wiring Diagram | Remark |
|------------------|------------|----------|--------------|--------------|--------------------|--------|
| PRESIDENT | G50 | VH45DE | '91.10~ | a | N1 | |
| INFINITE Q45 | G50 | VH45DE | '89.11~ | a | N1 | |
| CIMA III | FGY33 | VH41DE | '96.6~ | a | N1 | |
| | FHY33 | VQ30DET | '96.6~ | | | |
| CIMA II | FGY32 | VH41DE | '91.8~'96.6 | a | N1 | |
| | FPY32 | VG30DET | '93.9~'96.6 | | | |
| CIMA I | FPY31 | VG30DET | '89.8~'91.7 | a | N1 | |
| | | VG30DE | | | | |
| | | VG30DET | '88.1~'89.7 | | N6 | |
| | | VG30DE | | | | |
| FAIRLADY Z | Z32 | VG30DETT | '89.7~ | c | N1 | |
| | | VG30DE | | | | |
| | Z31 | VG30ET | '86.10~'89.7 | a | N5 | |
| | | VG30DE | | | | |
| | | RB20DET | | | | |
| LEOPARD | Y33 | VQ30DET | '96.3~ | a | N4 | |
| | | VQ30DE | | | | |
| LEOPARD JFERRY | JGBY32 | VH41DE | '92.6~'96.3 | a | N1 | |
| LEOPARD | UF31 | VG30DET | '88.8~'92.6 | a | N1 | |
| | | VG30DE | | | N5 | |
| | GF31 | VG20DET | | | N6 | |
| | | VG20E | | | N5 | |
| CEDRIC GLORIA | Y33 | VQ30DET | '95.6~ | a | N4 | |
| | | VQ30DE | | | | |
| | Y32 | VQ30DET | '91.6~'95.6 | a | N1 | |
| | | VG30DE | | | | |
| | Y31 | VG20DET | '89.6~'91.6 | a | N1 | |
| | | VG20DE | | | | |
| CEFIRO | A32 | VQ30DE | '94.8~ | e | N1 | |
| | | VQ25DE | | | | |
| | | VQ20DE | | | | |
| | A31 | RB20DET | '89.9~'94.8 | a | N1 | |
| | | RB25DE | '92.5~'94.8 | | | |
| | | RB20DE | '88.9~'94.8 | | | |
| LAUREL | C34 | RB25DET | '93.1~ | a | N1 | |
| | | RB25DE | | | | |
| | | RB20DE | | | | |
| | C33 | RB25DE | '91.10~'93.1 | a | N1 | |
| | | RB20DET | '89.1~'93.1 | | | |
| RB20DE | | | | | | |
| SKYLINE | R33 | RB26DETT | '95.1~ | a | N1 | |
| | | RB25DET | '93.8~ | | | |
| | | RB25DE | | | | |
| | R32 | RB26DETT | '89.8~'95.1 | a | N1 | |
| | | RB25DE | '91.8~'93.8 | | | |
| | | RB20DET | '89.5~'93.8 | | | |
| | | RB20DE | | | | |
| | R31 | RB20DET | '87.8~'89.5 | a | N5 | |
| RB20DE | | | | | | |
| STAGEA | WGNC34 | RB25DET | '96.8~ | a | N7 | |

| Vehicle Name | Model Type | Engine | Year | ECU Location | ECU Wiring Diagram | Remark |
|--------------|------------|--------------|--------------|--------------|--------------------|--------|
| BLUE BIRD | U14 | SR20DE | '96.1~ | e | N2 | |
| | | SR18DE | | | | |
| | U13 | SR20DET | '91.9~'96.1 | e | N2 | |
| | | SR20DE | | | | |
| | | CA18DE | | | | |
| | U12 | SR20DET | '89.10~'91.9 | e | N2 | |
| | | SR20DE | | | | |
| CA18DET | | '87.9~'89.10 | N1 | | | |
| CA18DE | | | | | | |
| SILVIA | S14 | SR20DET | '96.6~ | a | N2 | |
| | | | '91.1~'93.10 | | N1 | |
| | | SR20DE | '93.10~ | | N2 | |
| | RS13 | SR20DET | '93.10~'96.6 | a | N3 | |
| | | SR20DE | '91.1~'93.10 | | N2 | |
| | S13 | CA18DET | '88.5~'91.1 | a | N1 | |
| CA18DE | | | | | | |
| 180SX | RPS13 | SR20DET | '96.8~ | a | N2 | |
| | | SR20DE | | | | |
| | | SR20DET | | | '91.1~'96.8 | N3 |
| | RS13 | CA18DET | '89.3~'91.1 | | N1 | |
| PULSAR | N15 | SR18DE | '95.1~ | e | N2 | |
| | | GA16DE | | | | |
| | | GA15DE | | | | |
| | N14 | SR20DET | '90.8~'95.1 | e | N2 | |
| | | SR18DE | | | | |
| PRIMERA | P11 | SR20DE | '95.9~ | e | N2 | |
| | | SR18DE | | | | |
| | P10 | SR20DE | '90.2~'95.9 | e | N2 | |
| | | SR18DE | '92.9~'95.9 | | N3 | |
| AVENEIR | W10 | SR20DET | '95.8~ | e | N2 | |
| | | SR20DE | '90.5~ | | | |
| | | SR18DE | '93.1~ | | N3 | |
| | | SR18Di | | | | |
| PRESEA | R11 | SR20DE | '95.1~ | e | N2 | |
| | | GA18DE | | | | |
| | | GA15DE | | | | |
| | R10 | SR20DE | '90.6~'95.1 | e | N2 | |
| | | SR18DE | '92.6~'95.1 | | N3 | |
| | | SR18Di | | | | |
| SUNNY | B14 | SR18DE | '94.1~ | e | N2 | |
| | B13 | SR18DE | '90.1~'94.1 | | | |
| NX CORPE | B13 | SR18DE | '90.1~ | e | N2 | |
| MARCH | K11 | CG13DE | '92.1~ | e | N2 | |
| | | CG10DE | | | | |
| TERRANO | YD21 | VG30E | '89.10~'95.8 | f | N2 | |

9.3 MITSUBISHI

| Vehicle Name | Model Type | Engine | Year | ECU Location | ECU Wiring Diagram | Remark |
|--------------|------------|------------|---------------|---------------|--------------------|--------|
| DIAMANTE | F36A | 6G72 MIVEC | '95.1~ | e | M1 | |
| | | 6G72 | | | M2 | |
| | F17A | 6G72 | '90.5~'94.12 | a | M3 | |
| GTO | Z16A | 6G72 | '90.10~ | back of radio | M3 | |
| LEGNUM | EC5W | 6A13 | '96.8~ | e | M1 | |
| GALANT | EC5A | 6A13 | '96.8~ | e | M1 | |
| | E84A | 6A12 | | | M3 | |
| | E39A | 4G63 | '87.10~'92.4 | b | M4 | |
| ECLIPSE | D32A | 4G63 | '95.6~ | back of radio | M1 | |
| | D27A | 4G63 | '89.11~'95.6 | | M4 | |
| LANCER | CK4A | 4G92 | '95.10~ | b | M1 | |
| | CM5A | 4G93 | | | M1 | |
| | CN9A | 4G63 | '96.8~ | b | M1 | |
| | CE9A | 4G63 | '93.10~'95.10 | | M3 | |
| | CD9A | 4G63 | '92.10~'93.10 | | M3 | |
| | CD5A | 4G93 | '91.10~'95.10 | | M3 | |
| RIVERO | CD5W | 4G93 | '91.10~'95.10 | b | M3 | |
| MIRAGE | CA4A | 4G92 | '91.10~'95.10 | b | M3 | |
| FTO | DE3A | 6A12 MIVEC | '94.10~ | b | M1 | |
| | | 6A12 | | | M3 | |
| | | 4G93 | | | M1 | |
| PAJERO | V25W | 6G74 | '93.7~ | a | M3 | |
| | V23W | 6G72 | '91.1~ | a | M5 | |
| RVR | N23W | 4G63 | '92.10~ | b | M3 | |
| PAJERO MINI | H56A | 4A30 | '94.12~ | j | M6 | T/C |
| MINICA | H36A | 4A30 | '93.9~ | | M7 | N/A |
| | | | | j | M8 | |

9.4 HONDA

| Vehicle Name | Model Type | Engine | Year | ECU Location | ECU Wiring Diagram | Remark |
|--------------|------------|-------------|--------------|---------------------|--------------------|---------|
| NSX | NA1 | C30A | '95.3~ | back of driver seat | H5 | |
| | | | '90.9~'95.3 | | H1 | |
| LEGEND | KA9 | C35A | '96.2~ | c | H6 | |
| | KA7 | C32A | '90.10~'96.2 | c | H1 | |
| | KA8 | | '90.12~'96.2 | | | |
| INSPIRER | UA2 | G25A | '95.2~ | c | H2 | |
| | UA1 | G20A | | | | |
| | CC2 | G25A | '92.1~'95.2 | c | H2 | |
| | CB5 | G20A | '89.10~ | c | H2 | |
| PRELUDE | BB1 | H22A | '91.9~ | c | H2 | W/TRC |
| | BB4 | | | | H3 | W/O TRC |
| ACCORD | CD6 | H22A | '93.9~ | c | H3 | |
| | CD5 | F22B | | | | |
| ACCORD WAGON | CE1 | F22B | '94.3~ | c | H3 | |
| | CB9 | F22A | '91.4~'94.3 | c | H3 | |
| INTEGRA | DC2 | B18C | '95.9~ | a | H7 | M/T |
| | | | | | H2 | A/T |
| | D88 | | '93.5~'95.9 | a | H2 | M/T |
| | | | | | H3 | A/T |
| CIVIC | DA6 | B16A | '89.4~'93.5 | c | H4 | |
| | EK4 | B16A | '95.9~ | a | H7 | |
| | EK3 | D15B | | | | |
| | EG6 | B16A | '91.9~'95.9 | a | H3 | |
| | EG4 | D15B | | | | |
| EF9 | B16A | '89.9~'91.9 | c | H4 | | |

| Vehicle Name | Model Type | Engine | Year | ECU Location | ECU Wiring Diagram | Remark |
|--------------|------------|--------|-------------|----------------|--------------------|--------|
| CR-X | EG2 | B16A | '92.3~ | a | H3 | |
| | EG1 | D15B | | b | H3 | |
| | EF8 | B16A | '89.9~'92.3 | c | H4 | |
| CR-V | RD-1 | B20B | '95.10~ | a | H2 | |
| ODYSSEY | RA-1 | F22B | '94.10~ | c | H3 | 2WD |
| | RA-2 | | | | | 4WD |
| SM-X | RH-1 | B20B | '96.11~ | center console | H2 | ※ |

9.5 MAZDA

| Vehicle Name | Model Type | Engine | Year | ECU Location | ECU Wiring Diagram | Remark |
|--------------|------------|---------|---------------|--------------|--------------------|----------------------|
| EUNOS COSMO | JC3S | 13B-REW | '90.3~ | c | Z1 | |
| | JC3SE | 20B-REW | '90.3~'94.3 | | | |
| | JCES | | '90.3~ | | | |
| | JCESE | 13B-REW | '90.3~'94.3 | | | |
| RX-7 | FD3S | 13B-REW | '95.12~ | a | Z8 | |
| | | | '91.12~'95.12 | | Z2 | |
| | FC3S | 13B | '88.9~'91.12 | c,h | Z3 | h for Cruise Control |
| | | | '85.10~'88.9 | | Z4 | |

9.5 SUBARU

| Vehicle Name | Model Type | Engine | Year | ECU Location | ECU Wiring Diagram | Remark | |
|--------------|------------|--------|---------|--------------|--------------------|--------|---------|
| LEGACY | BD5 | EJ20H | '93.10~ | c | F1 | | |
| | BG5 | | | | | | |
| | BD5 | EJ20D | | | | F3 | |
| | BG5 | | | | | | |
| | BG9 | | | | EJ25D | | '94.10~ |
| | BC5 | EJ20G | | | '89.2~ | h | F2 |
| BF5 | | | | | | | |
| IMPREZA | GC8 | EJ20K | '96.9~ | c | F5 | | |
| | GF8 | | | | | | |
| | GC8 | EJ20G | | | '92.11~'96.8 | F2 | |
| | GF8 | | | | '93.10~ | | |
| VIVIO | KK3, 4 | EN07Z | '92.3~ | h | F4 | S/C | |
| | KK3, 4 | | | | | EN07X | N/A |

9.7 ISUZU

| Vehicle Name | Model Type | Engine | Year | ECU Location | ECU Wiring Diagram | Remark |
|--------------|------------|--------|---------|--------------|--------------------|--------|
| BIG HORN | UBS25 | 6VD1 | '91.12~ | e | I1 | |

9.8 SUZUKI

| Vehicle Name | Model Type | Engine | Year | ECU Location | ECU Wiring Diagram | Remark | | |
|--------------|------------|---------|-------------|--------------|--------------------|---------|----|--|
| ALTO WORKS | HA21S | K6A T/C | '94.11~ | b | S1 | | | |
| | HB21S | | | | | | | |
| | HA11S | F6A T/C | | | S2 | | | |
| | HB11S | | | | | | | |
| CAPUCHINO | EA21R | K6A | '95.5~ | k | S3 | | | |
| | EA11R | F6A | '91.1~'95.5 | b | S4 | MT | | |
| WAGON-R | CT21S | F6A T/C | '95.11~ | b | S5 | AT | | |
| | CV21S | | | | S6 | Only MT | | |
| | CT21S | F6A T/C | | | '93.9~'95.11 | b | S4 | |
| | CV21S | | | | | | | |

9.9 DAIHATSU

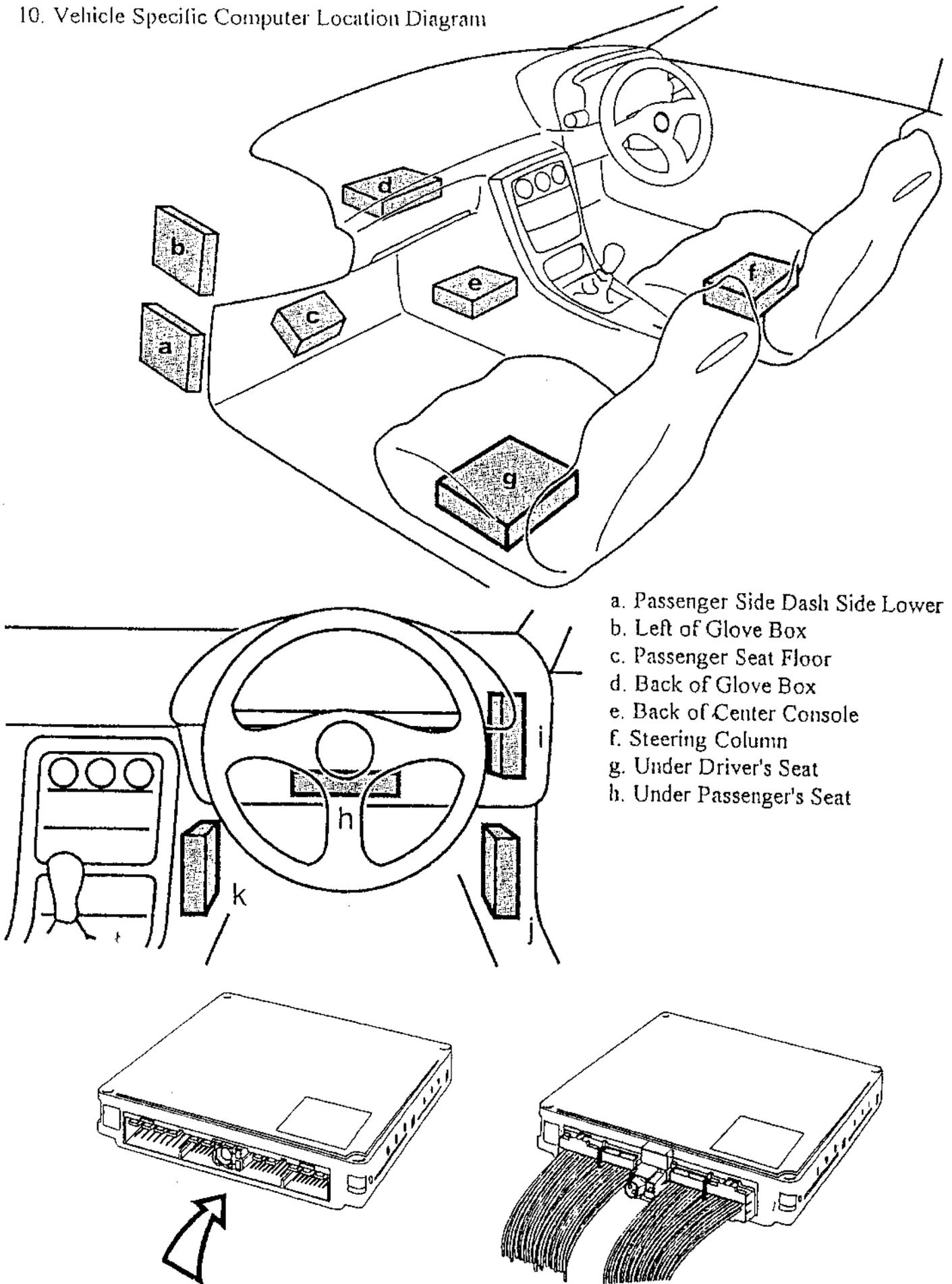
| Vehicle Name | Model Type | Engine | Year | ECU Location | ECU Wiring Diagram | Remark |
|--------------|------------|--------|--------|--------------|--------------------|--------|
| MIRA TR-XX | L502S | JB-JL | '94.9~ | d | D1 | |
| | L512S | | | | | |
| MIRA | L502S | JB-EL | '94.9~ | d | D1 | |
| | L500S | EF-JL | | | | |
| | L500S | EF-EL | | | | |
| | L510S | | | | | |
| | L500S | EF-KL | | | | |
| MOVE | L602S | JB-JL | '95.8~ | d | D1 | T/C |
| | L600S | EF-ZL | | d | D2 | 2WD |
| | L610S | | | | | 4WD |

Abbreviations

TRC-Traction Control
 A/T-Automatic Transmission
 T/C ······ Turbo Charger
 2WD ······ 2Wheels Drive

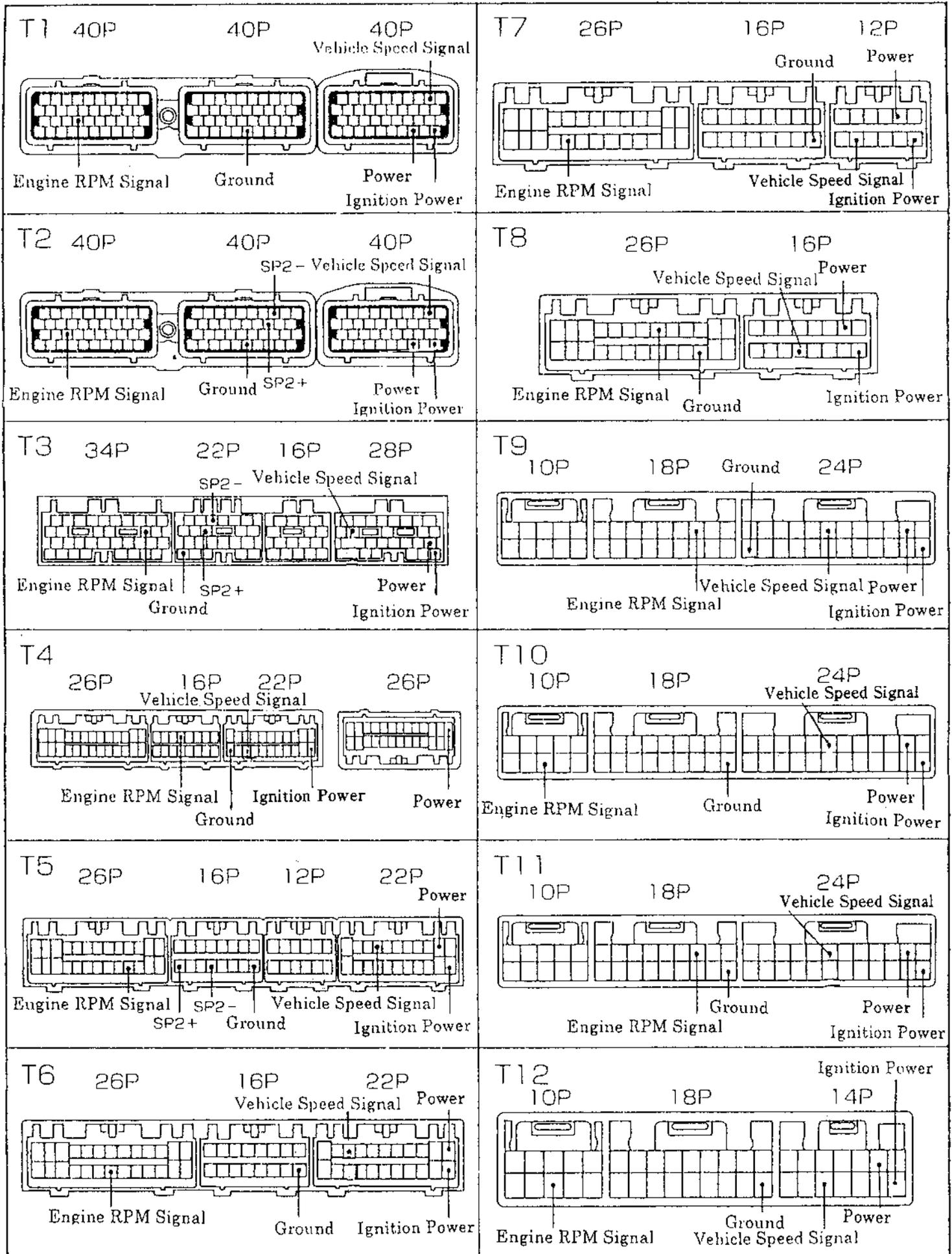
M/C-Manual Transmission
 S/C ······ Super Aspiration
 N/A ······ Natural Aspiration
 4WD ······ 4Wheels Drive

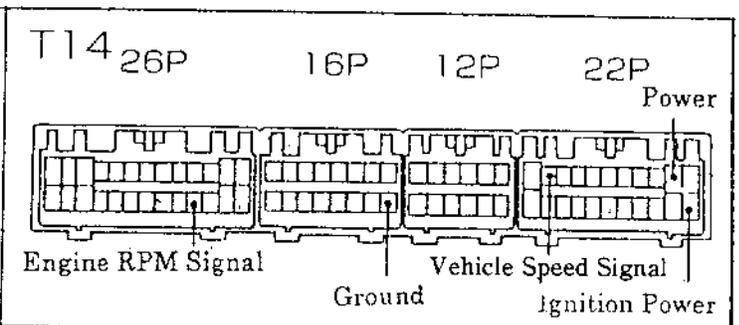
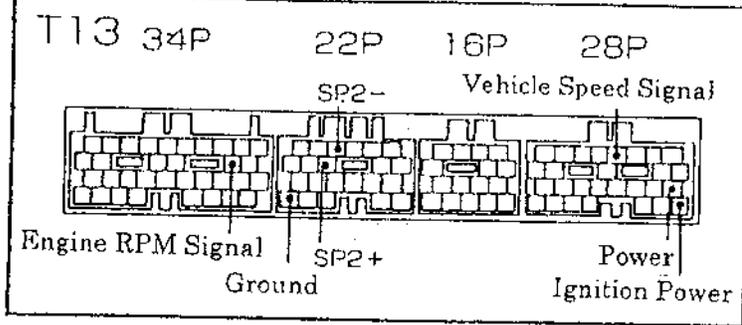
10. Vehicle Specific Computer Location Diagram



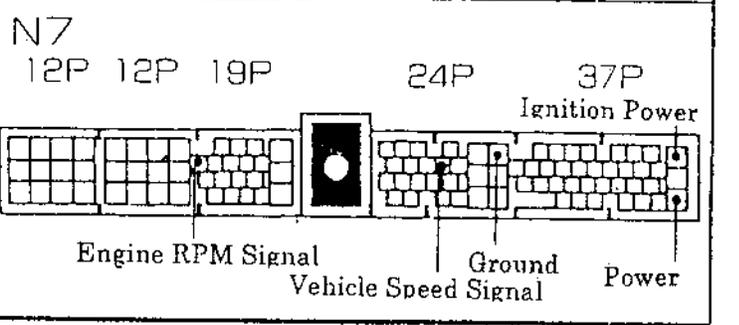
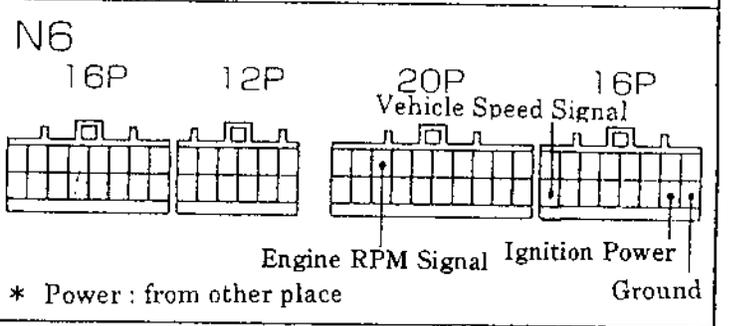
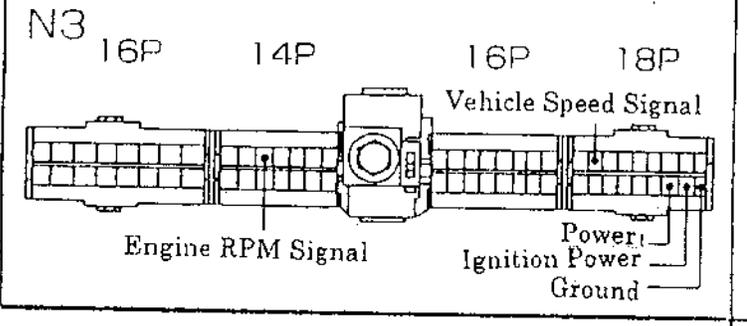
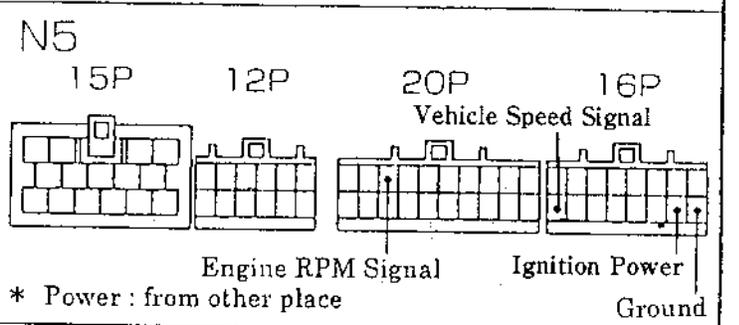
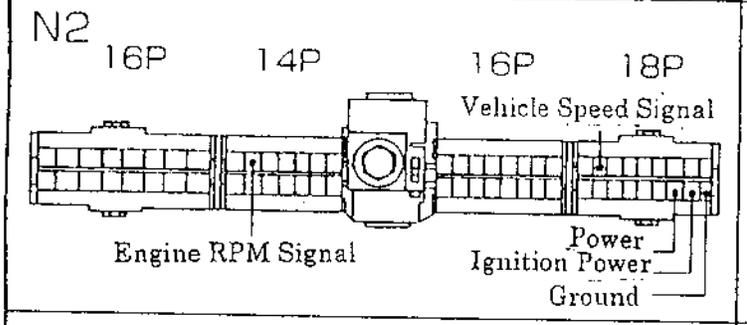
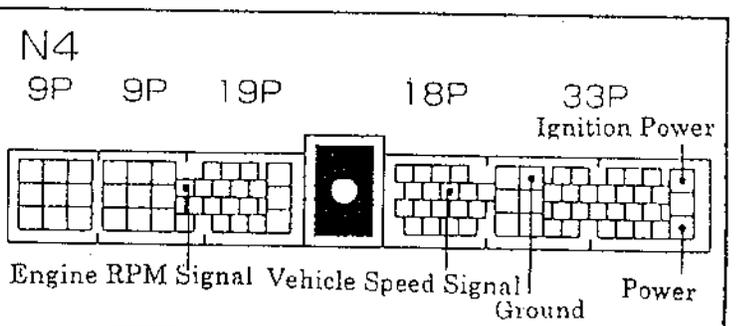
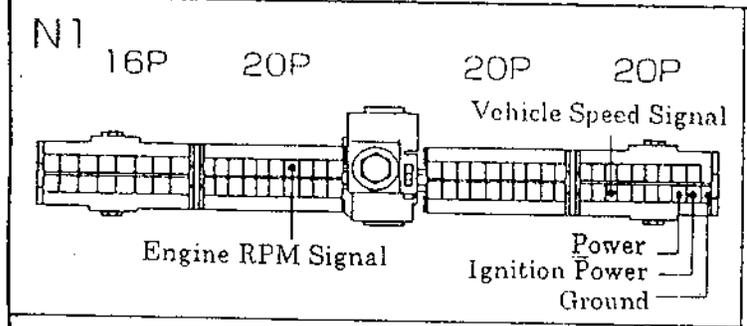
* The Vehicle Specific Computer Wiring Diagram is viewed from

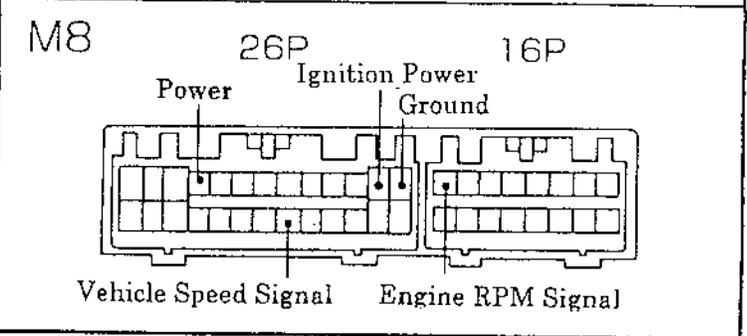
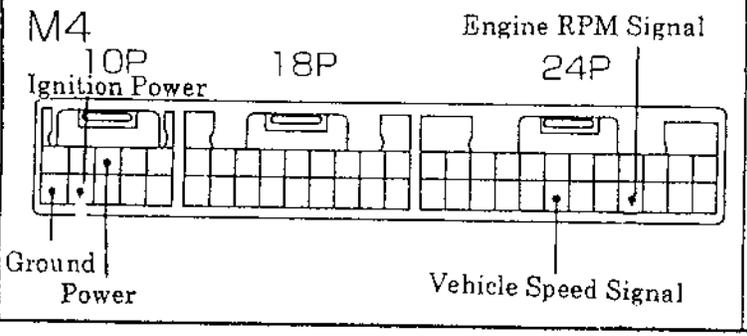
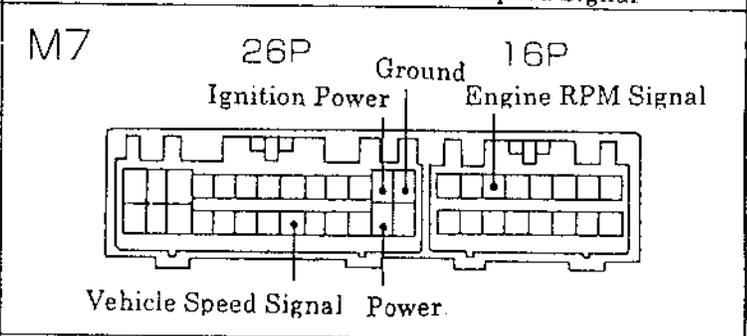
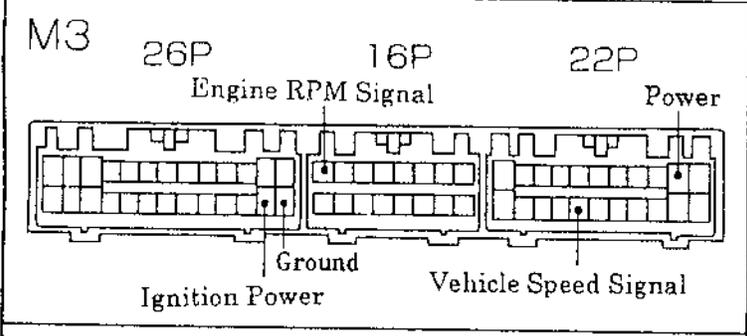
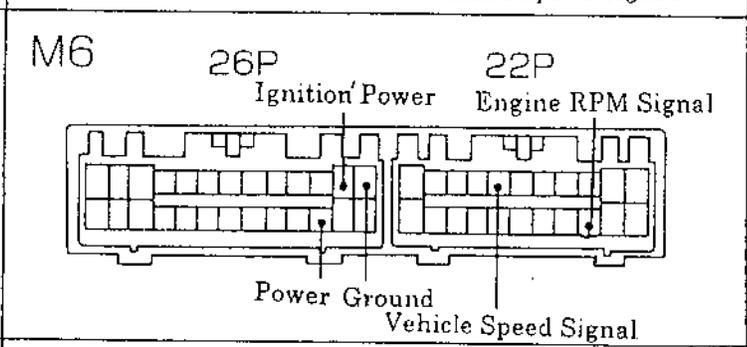
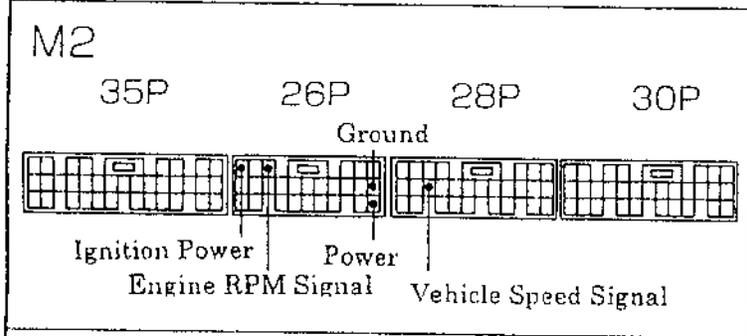
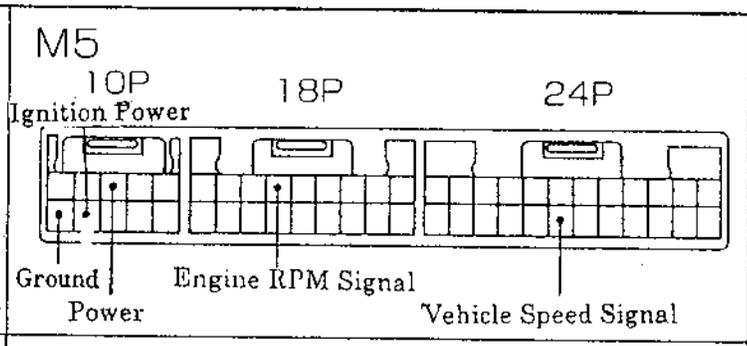
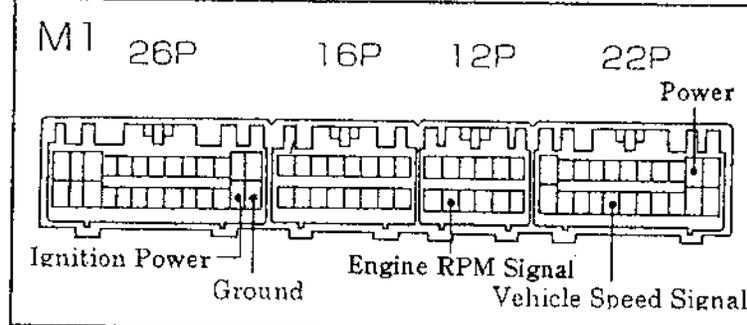
11.1 TOYOTA



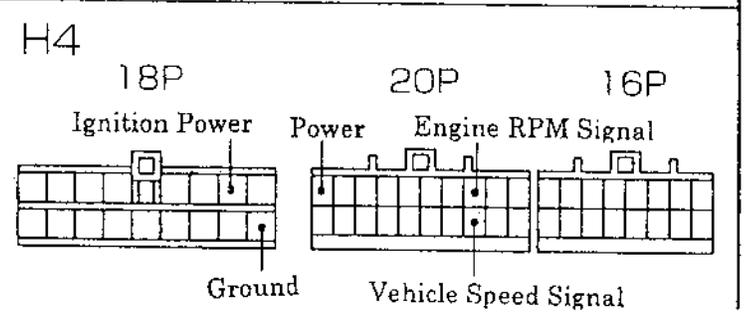
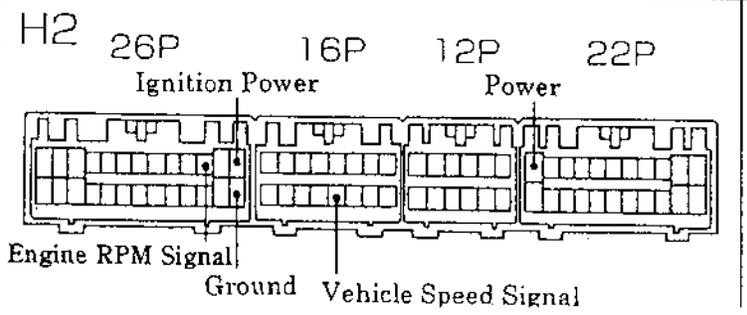
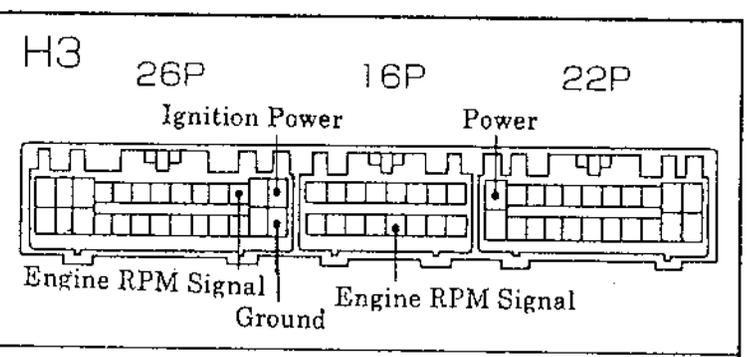
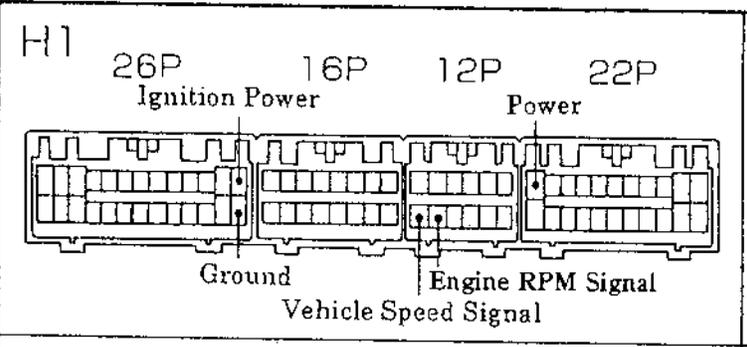


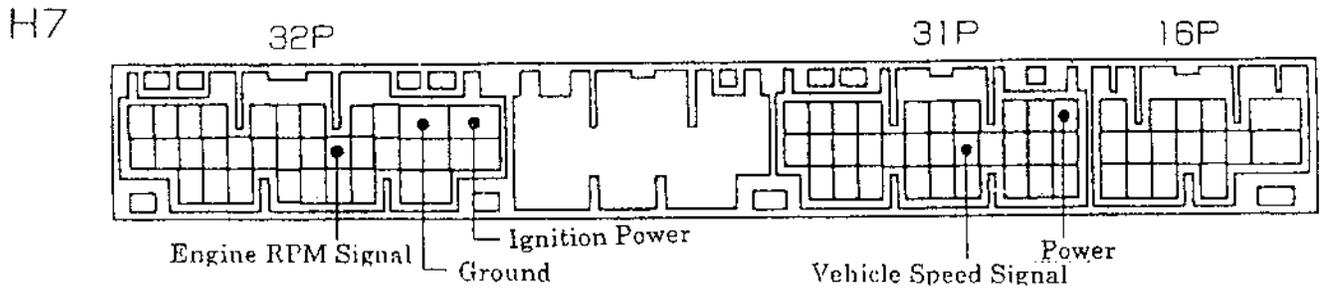
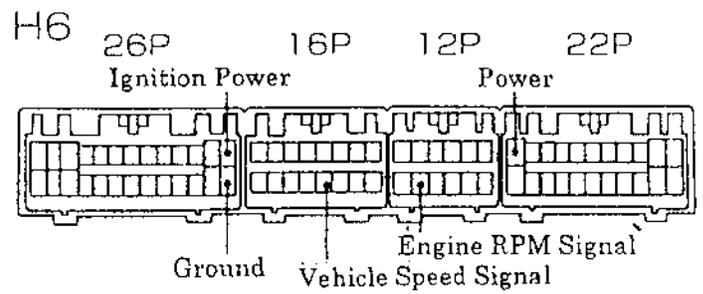
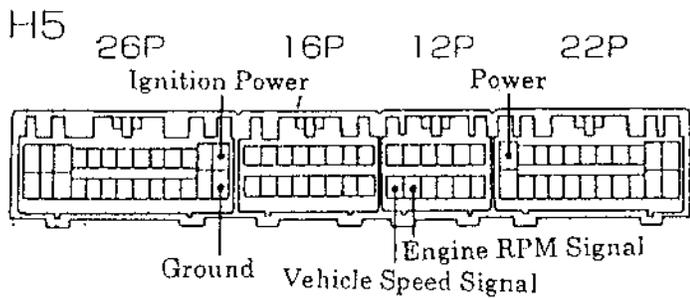
11.2 NISSAN



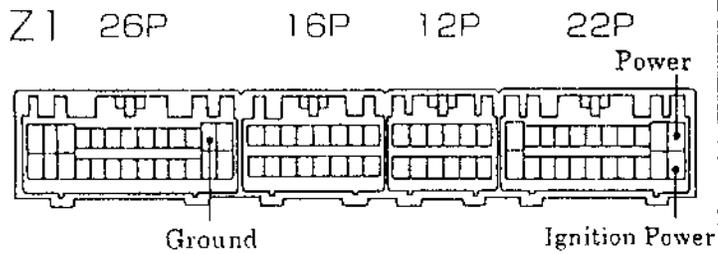


11.4 HONDA

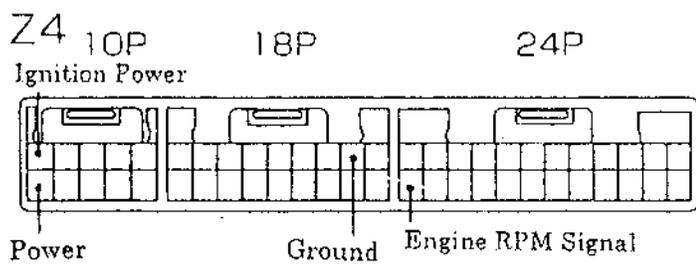
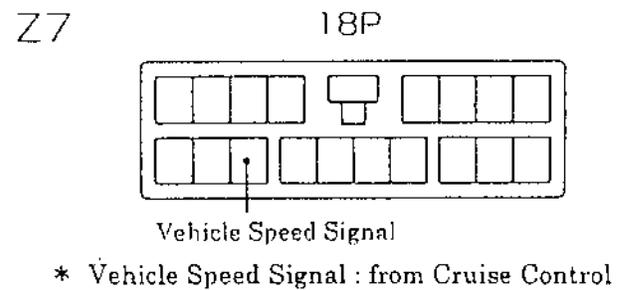
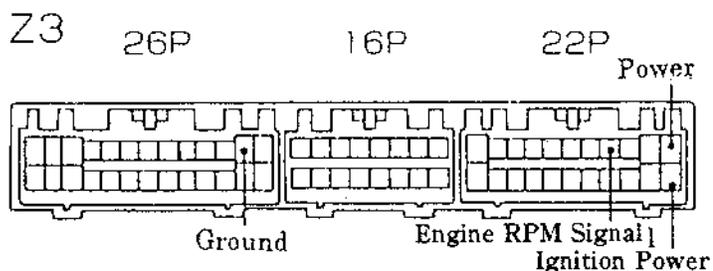
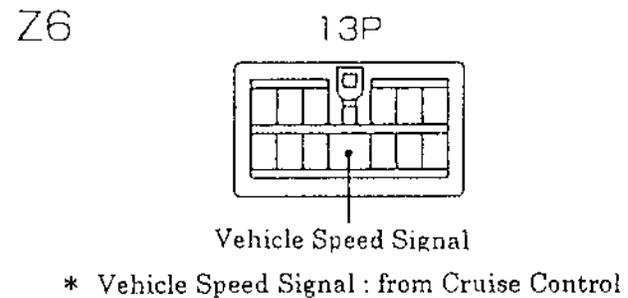
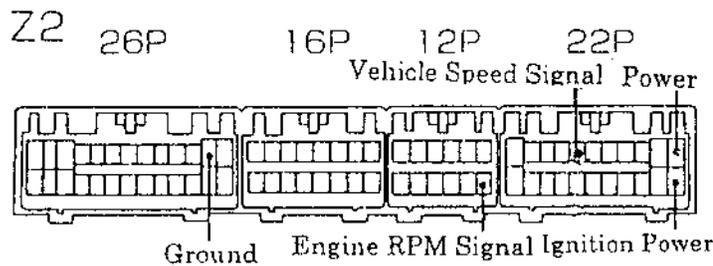
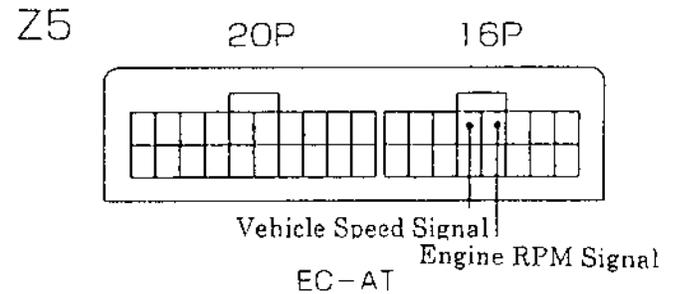




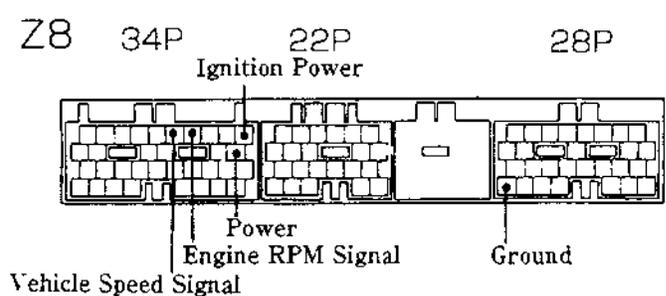
11.5 MAZDA



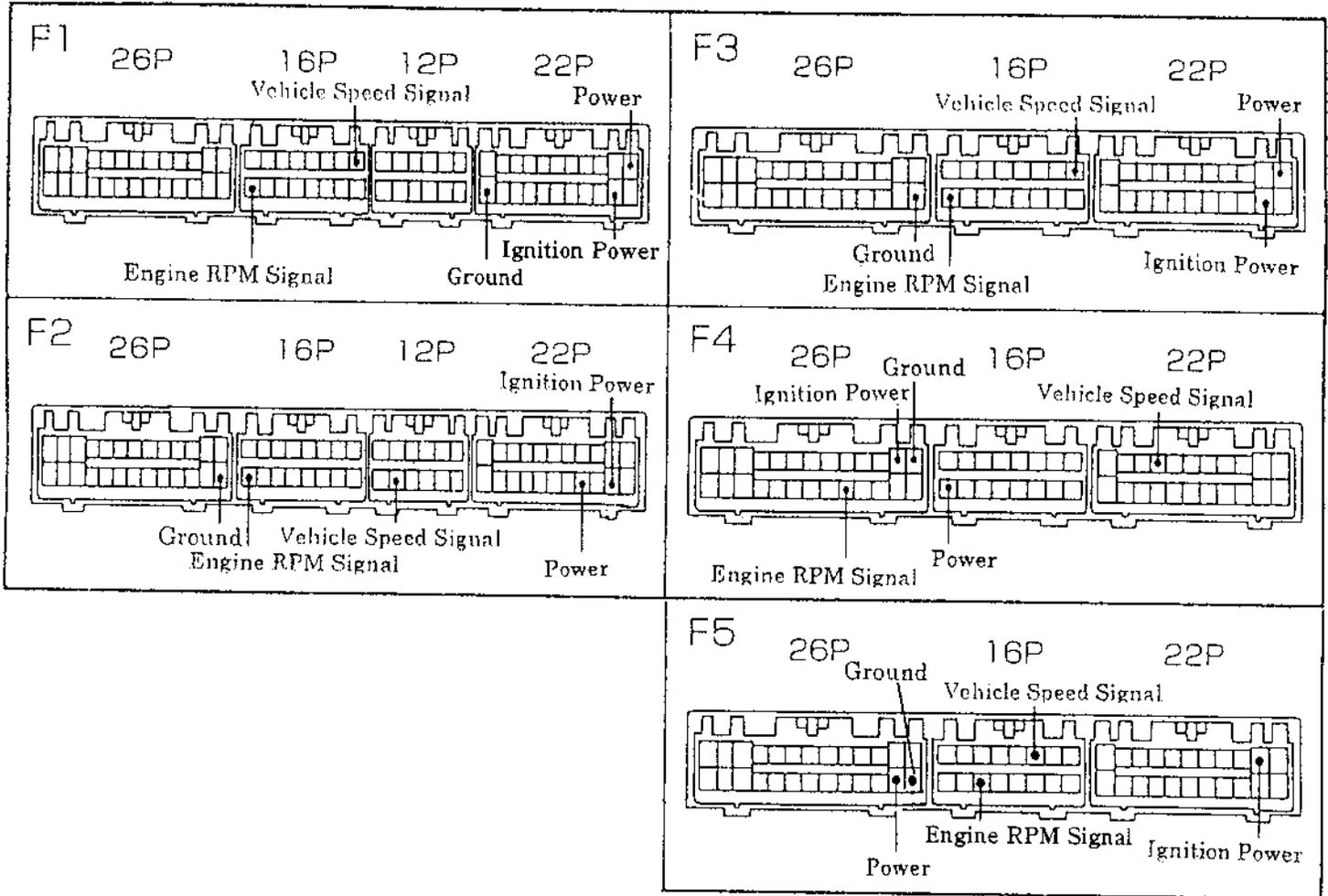
* Engine RPM signal : from EC-AT(Z5)



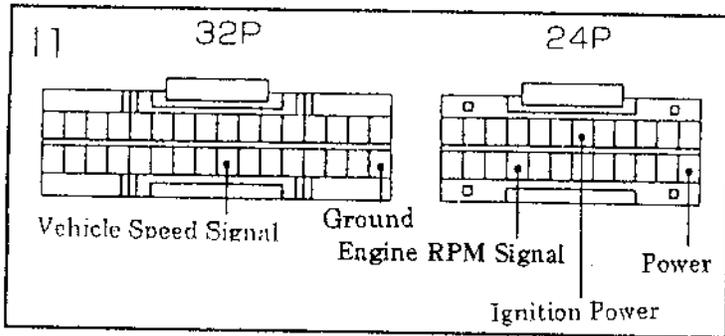
* Vehicle Speed Signal : from Cruise Control (Z6)



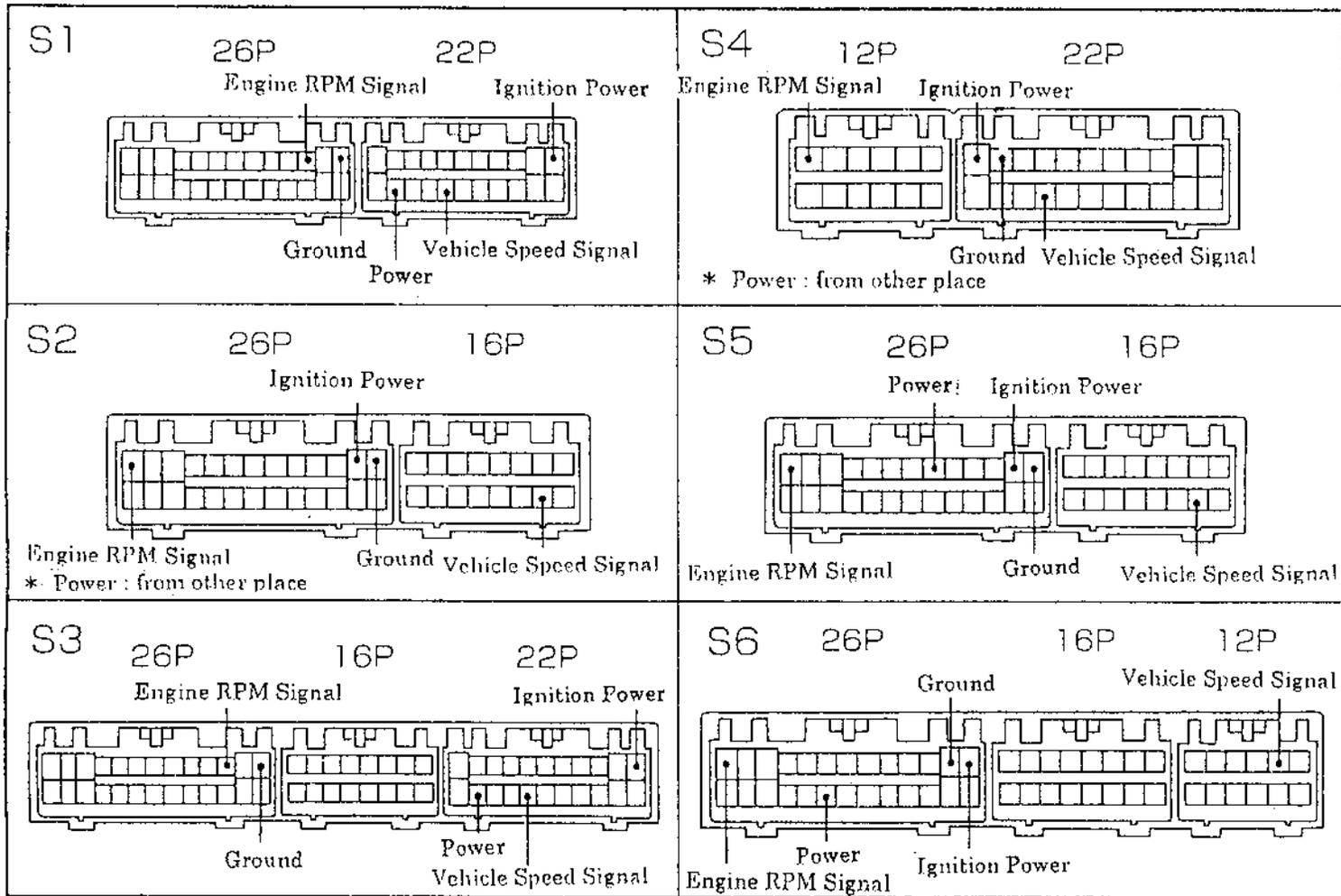
11.6 SUBARU



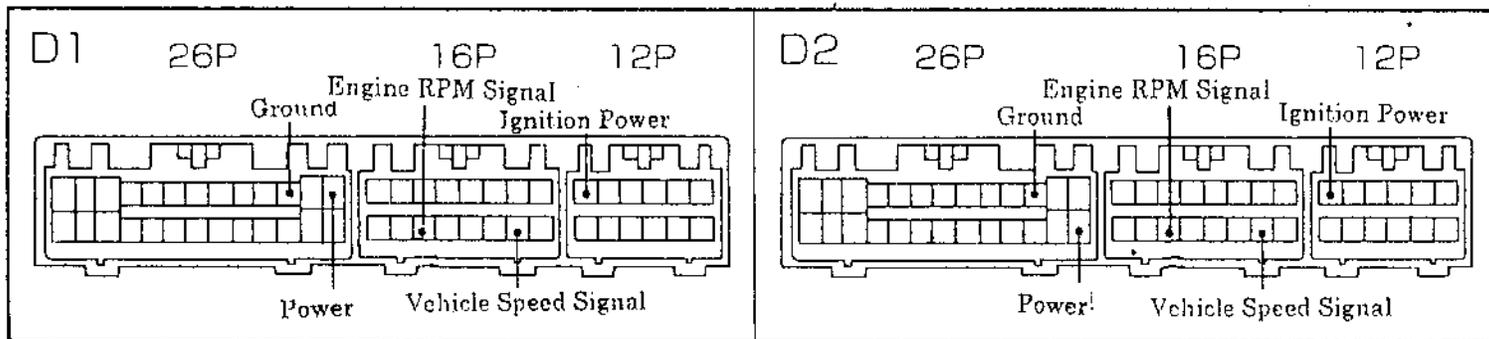
11.7 ISUZU



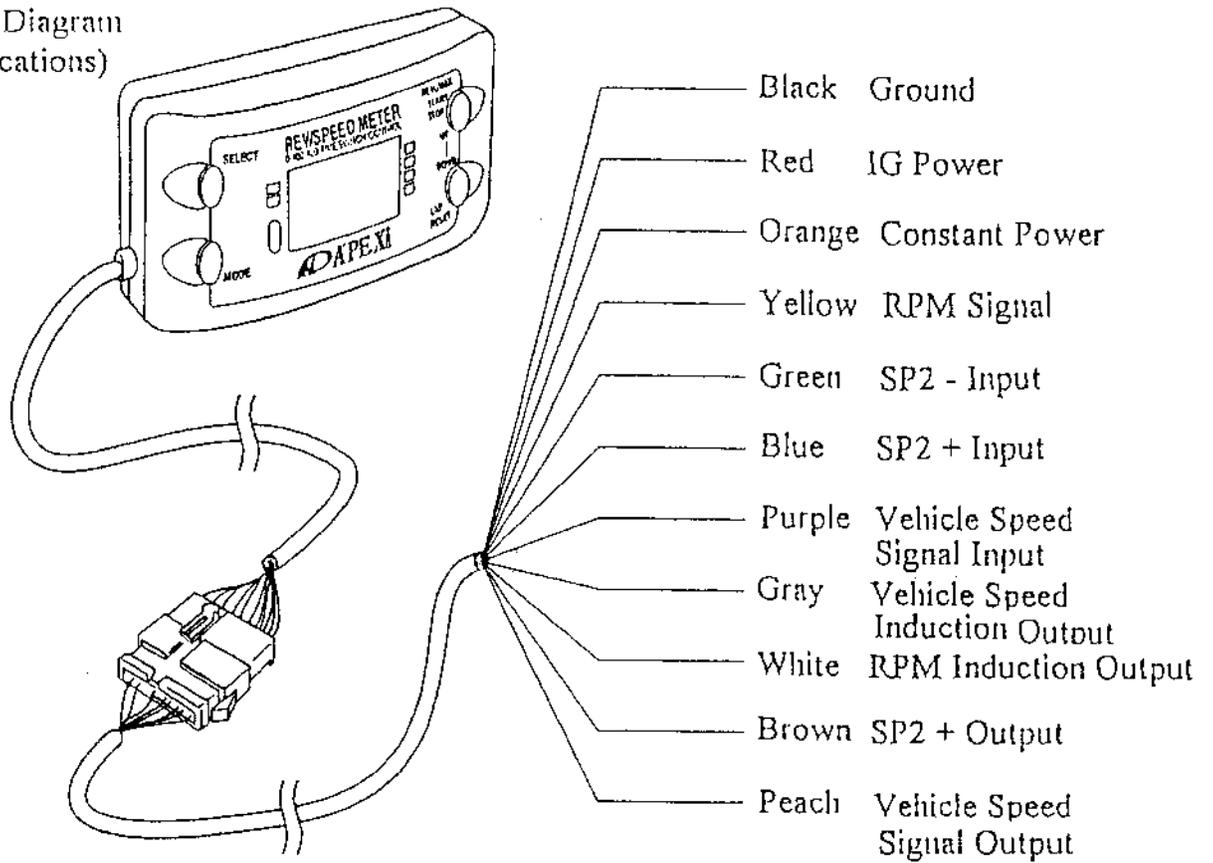
11.8 SUZUKI



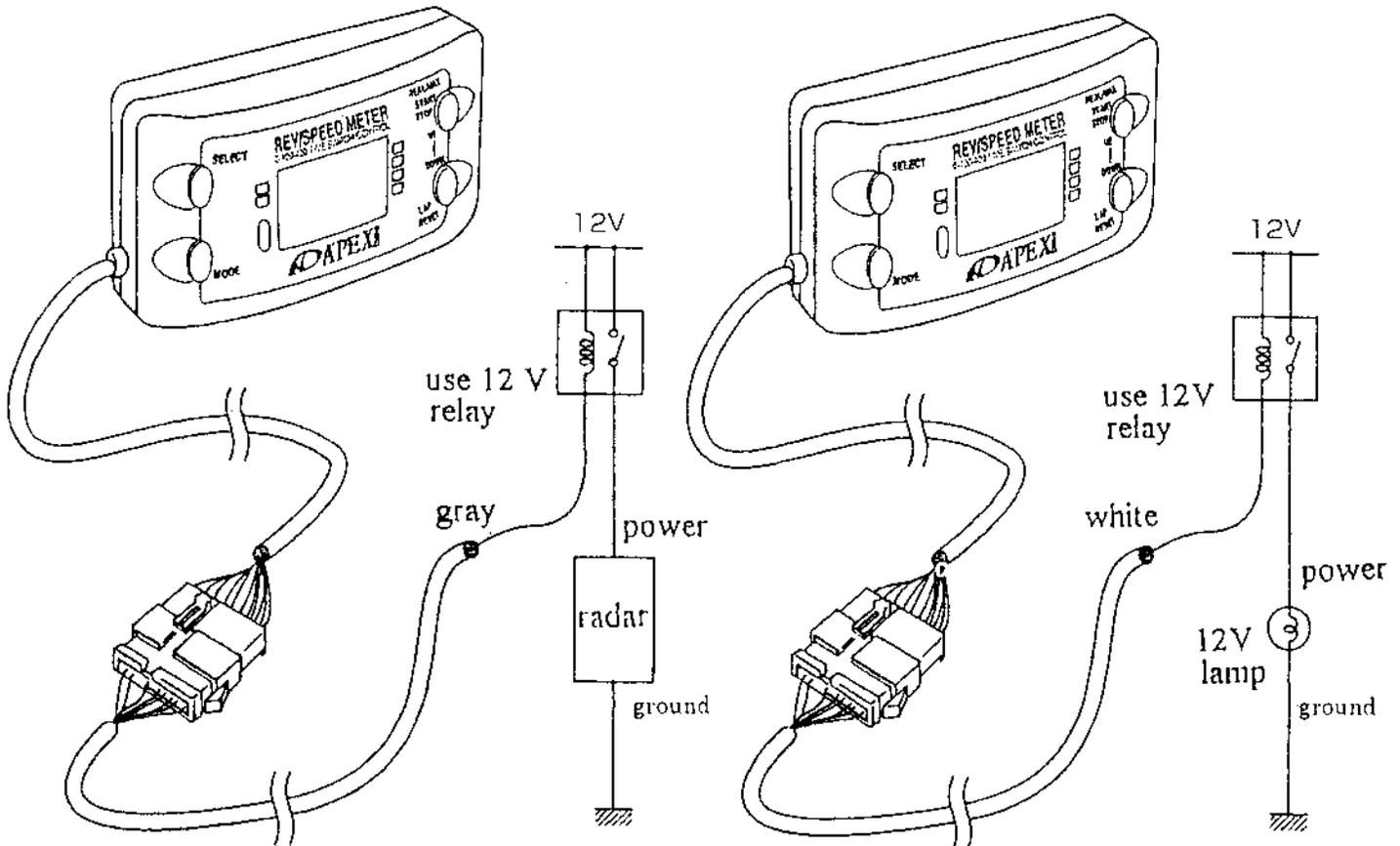
11.9 DAIHATSU



12. Connection Diagram
(Practical Applications)



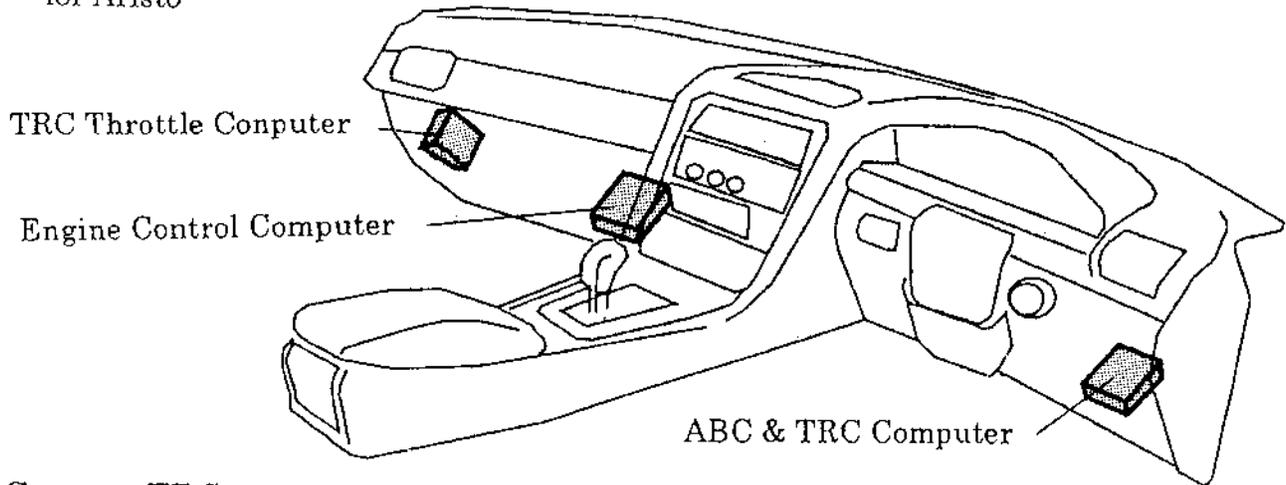
● Vehicle Speed Induction Output Practical Example 1 ● RPM Induction Output Practical Example 2



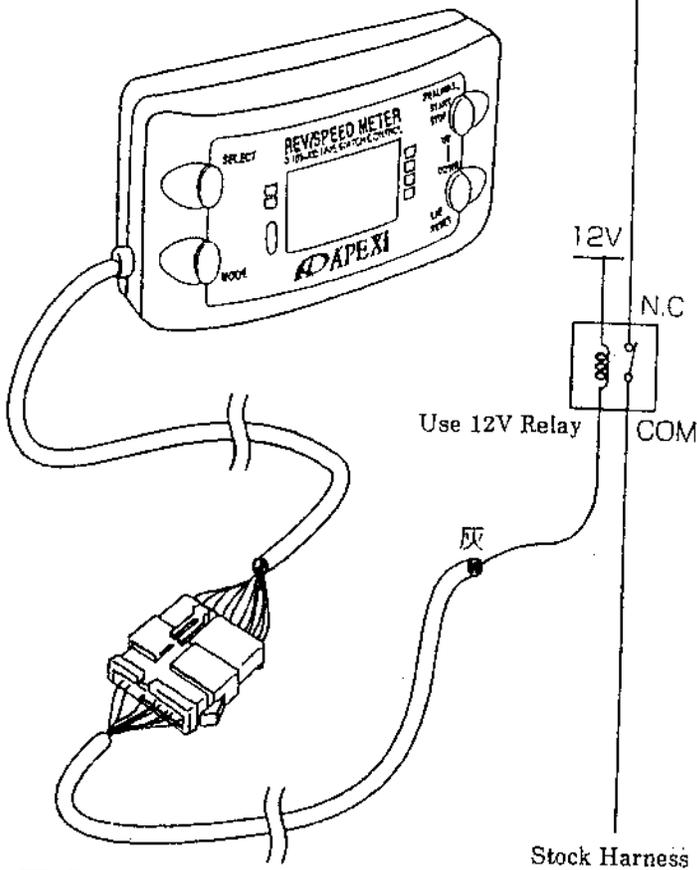
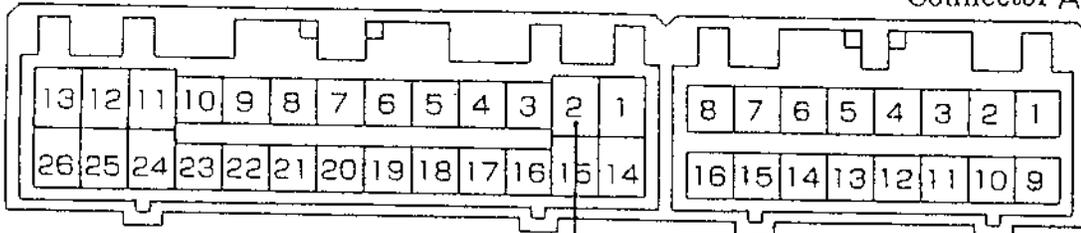
If the Vehicle Speed Induction Output is set to

If the RPM Induction Output is set to 7500 rpm,

An Example of Vehicle Speed Response Output (How to Connect for Speed Limit Cut for Aristo)



How to Connect TRC 26P Connector B TRC Computer 16P Connector A



"Vehicle Specific Computer Wiring Diagram" shows the view of this direction of ECU. ECU of some vehicle is installed in opposite direction and make sure the number of the pins.

1. Cut stock harness in 2nd pin of TRC Computer Connector and connect relay as stated as connecting diagram.
2. Set vehicle speed response output as 150km/h. Refer to page 9 of this Manual.
3. The vehicle speed is normal up to the speed sent in above No.2. but TRC is not effective for higher speed.

If the vehicle become lower speed than set speed, TRC unit is reset and TRC light in the meter flushes then return to the normal.

CAUTION

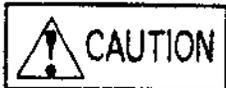
Use Relay Type of which connect point is on when the current is off and connect point is off when the current is on.

CAUTION

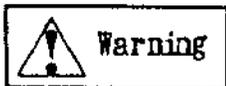
All the function of TRC depend on the vehicle speed response output. Refer to page 9 of this Manual.



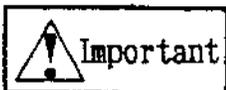
- Never adjust the knobs on the controller unit while driving as it is extremely dangerous.



- Never disassemble this product.
- If any unusual engine characteristics arise during use of this unit, discontinue use immediately and contact our office.
- **Read this instruction manual carefully before installation and proceed setting after you obtain full information of this unit and manual.**
- **If this unit is stalled erroneously, the vehicle and its related equipment will be damaged.**



- **Manufacturer is not responsible to the vehicle and its related equipments damaged due to erroneous wirings. Also manufacturer is out of responsibility for any damage and/or accident if this unit is equiped and set with vehicle not specified on this manual.**



- **Be sure to complete necessary points on Application Form of Inspection and Repair when the unit need an inspection and/or repair. Apply the inspection and/or repair to the dealers. It takes longer time for inspection and/or repair if the Application form is not attached.**

 **APEX**ⁱ
APEX CO., Ltd. JAPAN