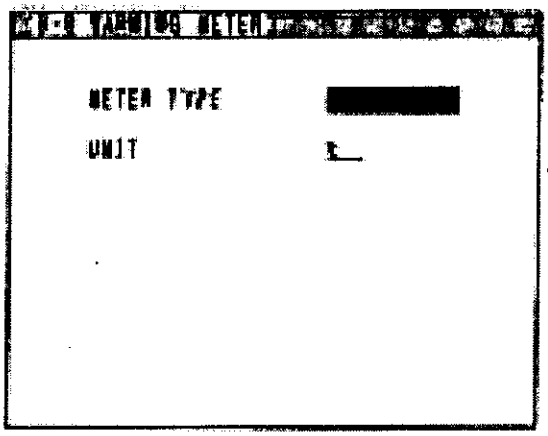
B-8 WARNING METER

WARNING METER

This feature can be used to input the signal from G-Reddy Warning Gauges using the optional Data Link Cable. (sold separately)



1. METER TYPE
Select the meter type.

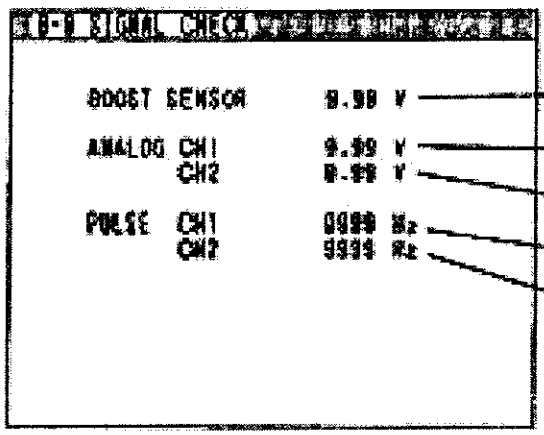
2. UNIT
Select the unit for the selected meter type.

B-9 WARNING METER

B-9 SIGNAL CHECK

Signal check mode

Use this feature to check and make sure that the signals are inputted properly.

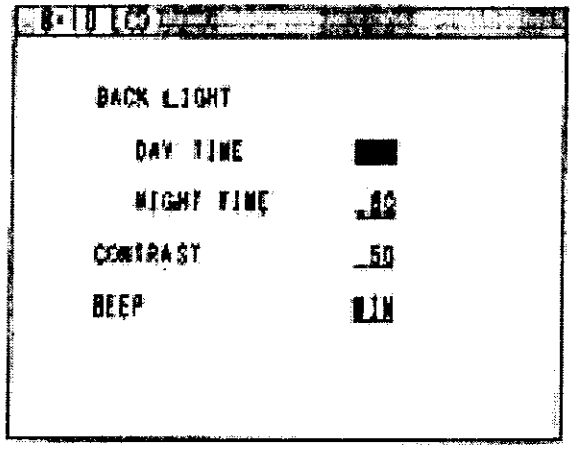


- Pressure sensor voltage
- Analog signal input 1
- Analog signal input 2
- Pulse signal input 1
- Pulse signal input 2

B-10 LCD

LCD screen setup

Use this feature to adjust the brightness and contrast.



1. BACK LIGHT

By using the illumination sensor, the brightness can be adjusted for daytime and nighttime.

(1) DAY TIME

Adjust the Daytime brightness

(2) NIGHT TIME

Adjust the Nighttime brightness

2. CONTRAST

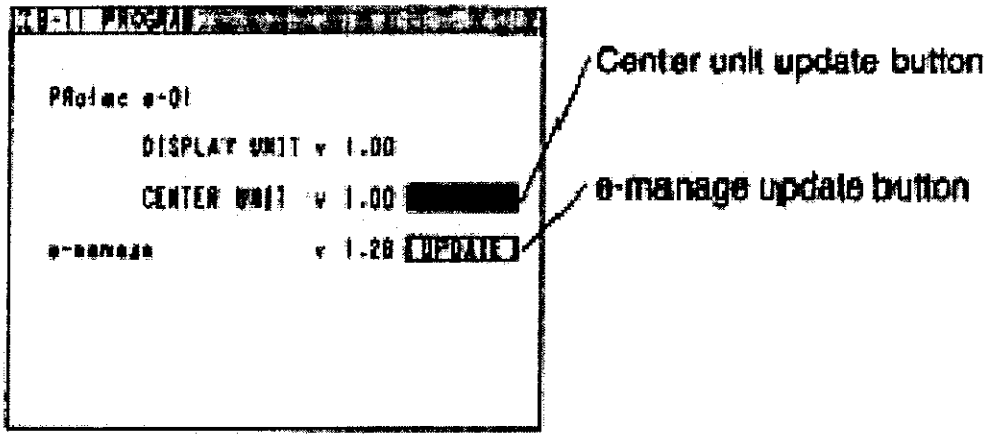
Adjust the contrast.

3. BEEP

When the Controller button is pressed the unit makes a "BEEP" sound. Use this feature to adjust the sound level or turn off the sound.

Program Information

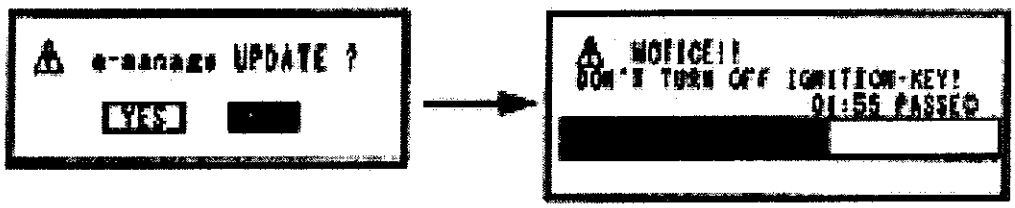
Use this feature to check the version type of the Display, Center Unit and e-manage system.



e-manage Update (Communication program download)

- This is necessary to communicate with e-manage.
- If the unit is linked with the e-manage for the first time the download will start automatically.
- Always perform the download with the ignition "ON" and engine turned off.

(1) If the 12 pin ignition Harness is connected to the e-manage, disconnect it off from the unit.
(2) Choose UPDATE and select YES to start the download. Download will take approximately 5 minutes.



- Never disconnect the USB communication cable while updating.
- Never turn the ignition OFF while updating.
- Turning the ignition OFF while updating can put the e-manage in to limp mode. If this occurs, re-update the unit.

B-11 PROGRAM

(3) When the download is complete, turn the ignition OFF.

Important!
- Turn off the ignition and turn it back on to confirm the update.

(4) Reconnect the 12 pin ignition harness back to the e-manage unit.

ERROR MESSAGE

If an error occur any time during the operation of the e-01, the following message will apear.

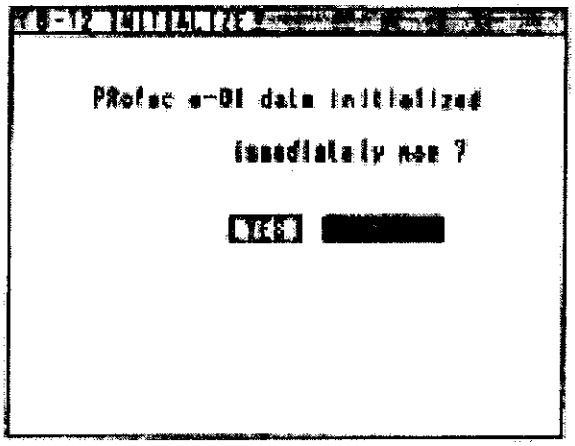
- If the engine is running, the unit will not update. Turn the engine off and re-update the unit.

B-12 INITIALIZE

RESET SETTING

This feature is used to reset all of the setting and the learned data.

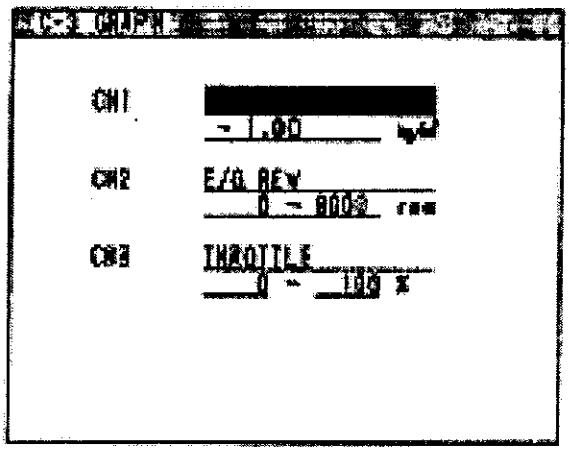
- To initialize e-manage, see page 53 D-11 INITIALIZE.



C. DISPLAY

This feature can display 3 input signals at real time such as boost, rpm, and Throttle position data. There are 4 different display format to choose from, Digital, Graph, Gauge, and Bar graph. HI, LO boost selection, SET BOOST , GAIN, START BOOST can be adjusted in this mode.

ITEM SETUP



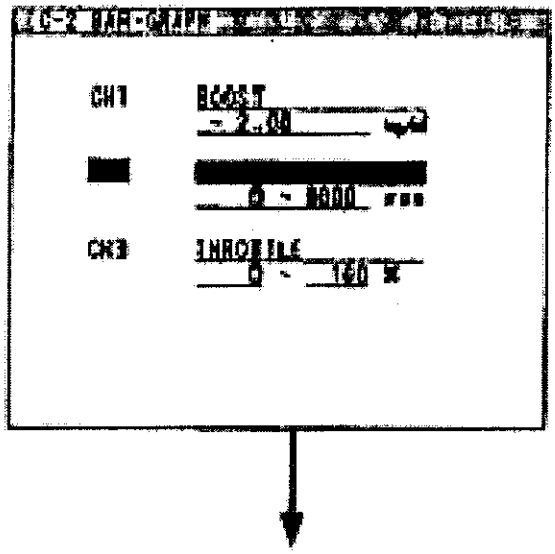
(1) Select the data to display
(2) Input the minimum and maximum of the data range to display.
(3) Press the SET knob to go to Display screen

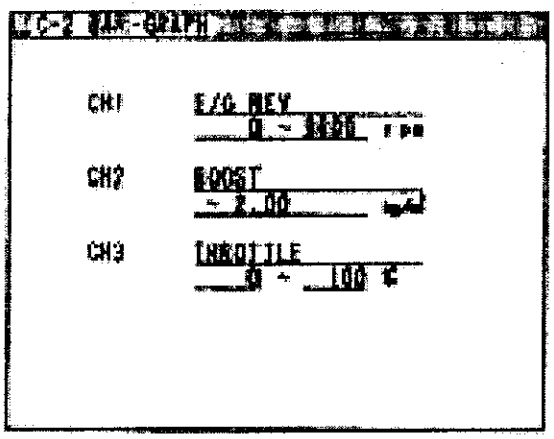
Display data list and description	
OFF	No Display
BOOST	Boost Pressure
E/G Rev	Engine rpm
AN CH1	Analog input signal channel 1
AN CH2	Analog input signal channel 2
PL CH1	Pulse input signal channel 1
PL CH12	Pulse input signal channel 2
THROTTLE	Throttle position
SOL.DUTY	Boost controller solenoid valve duty cycle
AIR FOLW INPUT	e-manage airflow meter input signal
AIR FOLW OUTPUT	e-manage airflow meter output signal
NORMAL DURATION	e-manage Stock injector duration (ms)
NORMAL DUTY CYCLE	e-manage stock injector duty cycle (%)
TOTAL DURATION	e-manage Stock injector duration (ms)
TOTAL DUTY CYCLE	e-manage stock injector duty cycle (%)
IGN. TIMMING ADJ	e-manage adjusted ignition timing

Important!

- The e-manage data in display data list can be selected but, the data will not display without the e-manage linked.
- Setup the Parameter in e-manage to display the e-manage data.

Moving the Channels





-EXAMPLE-

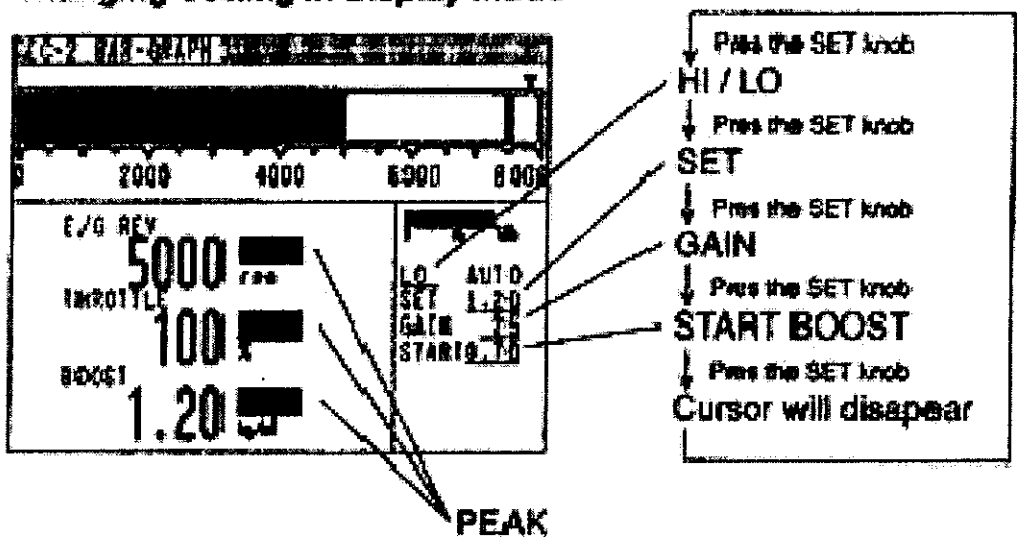
To swap CH2 item in to CH1 spot,

(1) Move the cursor and hi-light CH2.

(2) Hold down the SHIFT button and press up button on the 4-way navigation button.

•To move to CH3, hold down the SHIFT button and press down button on the 4-way navigation button.

Changing Setting in display mode



HI, LO boost selection, SET BOOST , GAIN, START BOOST can be adjusted in any of the Digital, Graph, Gauge, and Bar graph display mode.

Press the SET knob to move the cursor to the target setting.
Turn the SET knob to make changes.
Press the SET knob again to confirm the setting.

* Press the MENU button to cancel at any time.

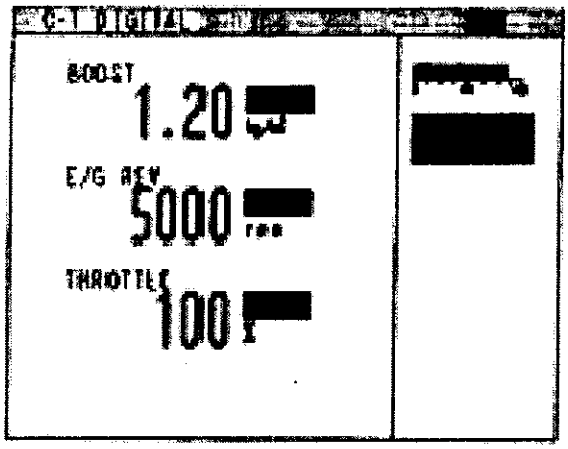
PEAK HOLD Reset

To clear the stored Peak Hold data, hold down the up button on the 4-way navigation button for 2 seconds.

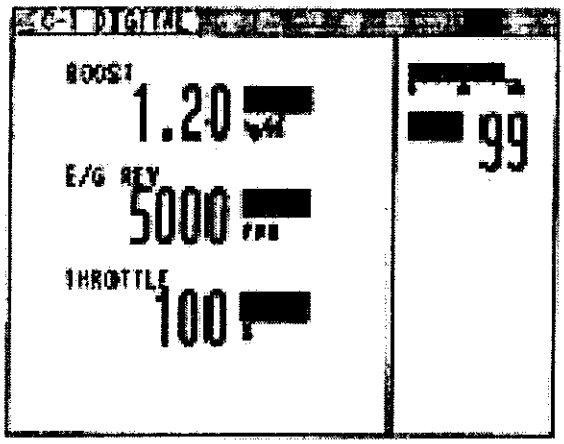
LOCK Feature

This feature is used to lock all the settings to prevent any problems.
To lock, press down the MENU button and SHIFT button for 5 seconds.
Repeat the same procedure to unlock.
Lock feature can only be set in the Display mode.
When the unit is locked, the message shown is displayed and the "LOCK" will appear in the upper right hand corner of the title bar.

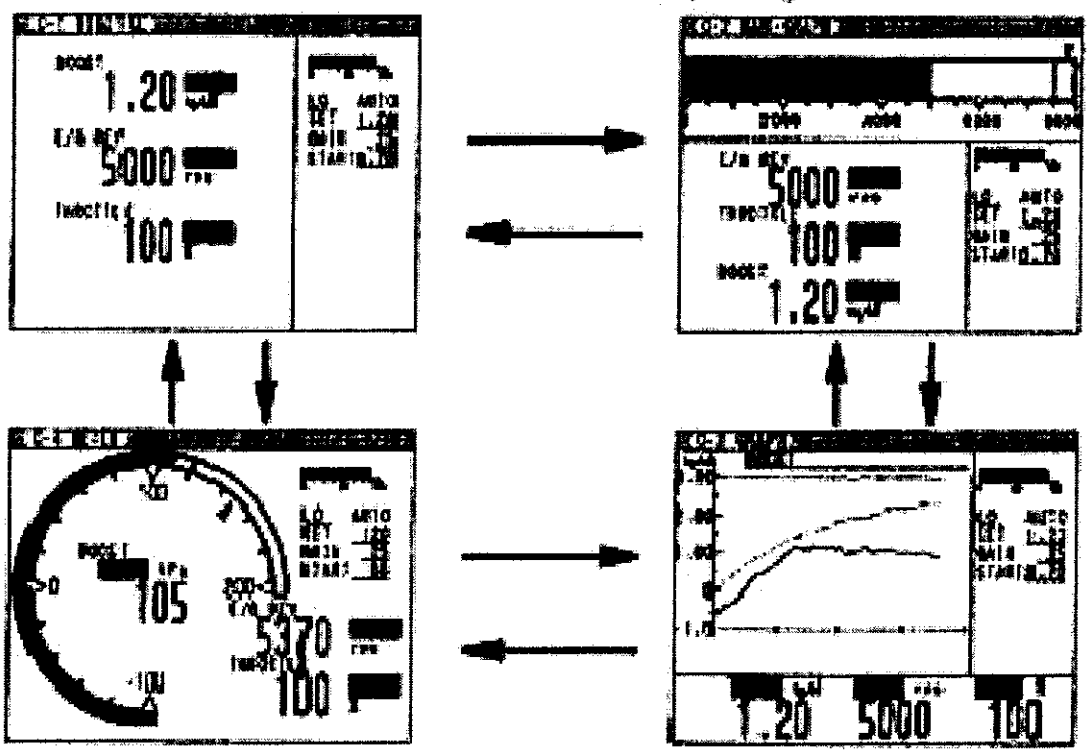
OVER TAKE BOOST operation



(1) Set up the OVER TAKE BOOST feature. See page 20.
(2) While in Display mode, press the SHIFT button to go to OVER TAKE BOOST mode.



- **How to scroll through 4 different Display types**
  Use LEFT and RIGHT button on the 4-way navigation button



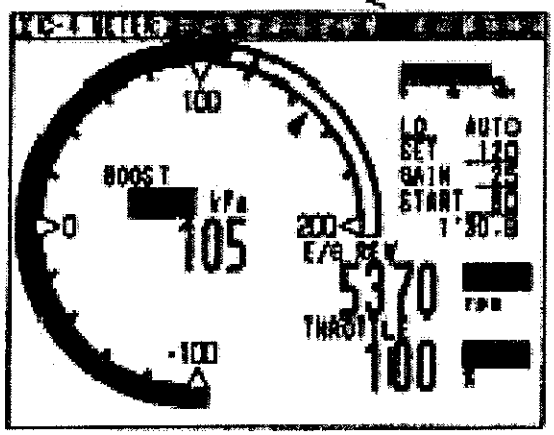
Recording and Playback Data

All of the input signals can be recorded and played back in the Display or e-manage Map screen mode.

1. Record

3 hours of input signals (including the e-manage signals) can be recorded while in the Display mode.

REC indicator



How to Record

(1) To start recording, press the down button the 4-way navigation buttons.
When data is being recorded "REC" will appear in the upper right hand corner of the title bar.

(2) Press the down button again to stop.

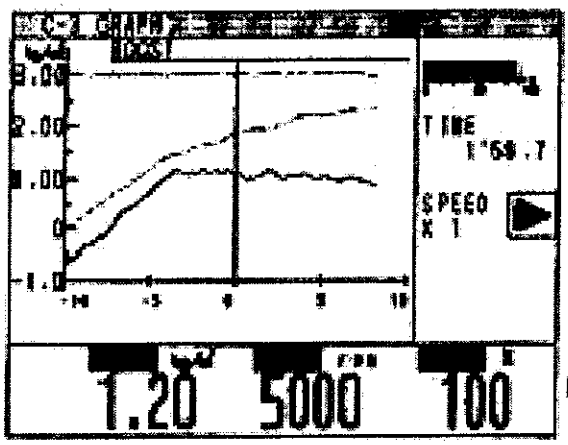
- This feature will record and play back only 1 set of data.
- Rerecording will over write the previous set of data.

Important!

- This feature will only work in the Data Display Mode
- If the cursor is displayed, this feature will not work.

2. Play Back

Play back the recorded data in the display mode. If you pause the play back and change the Display mode to e-manage Map display screen, the recorded e-manage data can be played back.



(1) Hold down the SET knob for 2 second to go to Play Back mode.

(2) How to use this feature.

Play / Pause - - - Press the Set knob to start

Fast Forward - - - Turn the SET knob clockwise.

Reverse - - - - - - - Turn the SET knob counter-clockwise.

Stop - - - - - - - - - Press Set knob to stop.

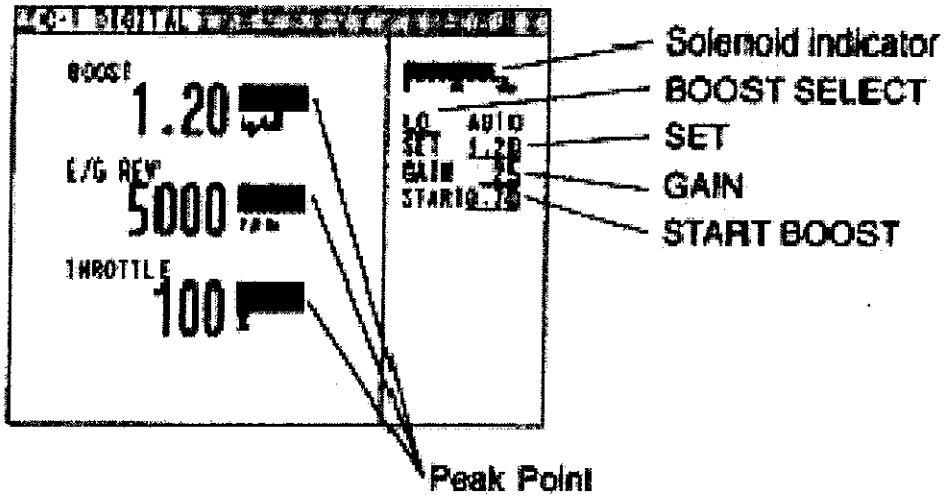
While in Play, turn the SET KNOB to change the sampling speed.
While in Pause, turn the SET KNOB to scroll through the segments.

(3) Hold down the SET knob for 2 second to go back to Display mode.

C-1 DIGITAL

Digital Display

CH1~3 data will display in digital format.

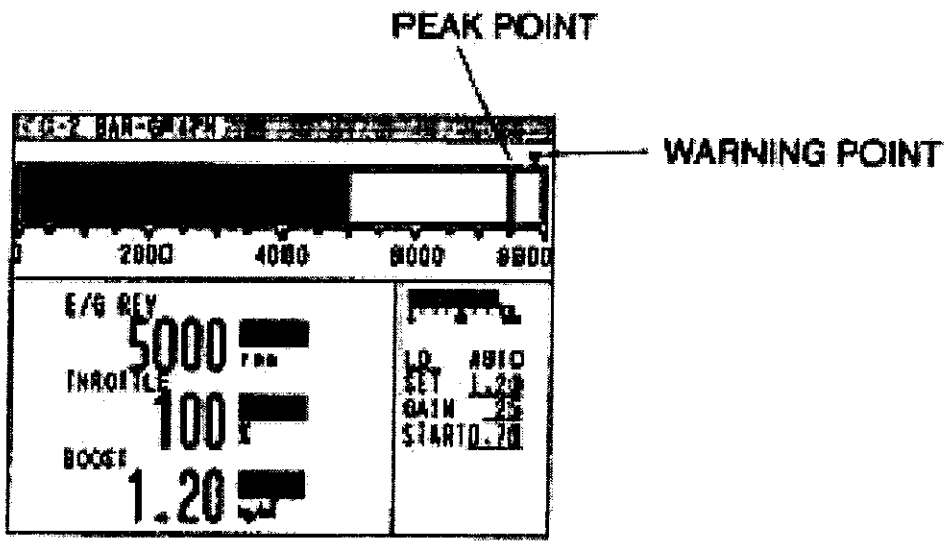


C-2 BAR-GRAPH

BAR-Graph Display

CH1~3 data will display in digital format.

CH1 Data will display in Bar Graph format

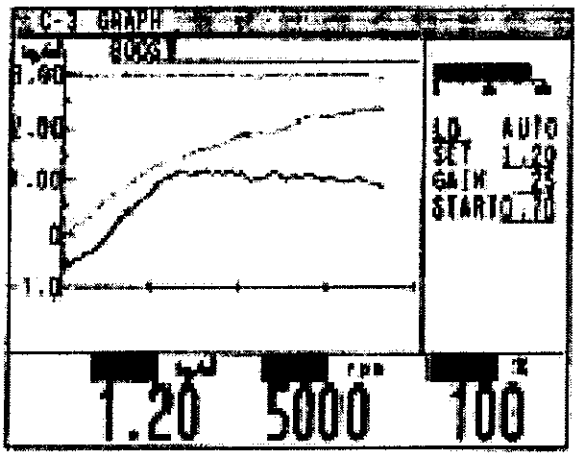


C-3 GRAPH

Graph Display

CH1~3 data will display in digital format.

CH 1 will display in Graph format

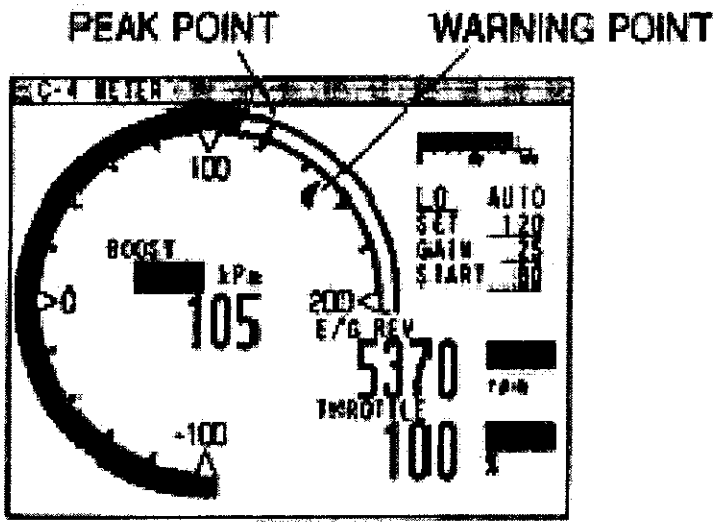


C-4 METER

GAUGE Display

CH1~3 data will display in digital format.

CH 1 will display in Gauge format



e-manage

Use this feature to tune the e-manage unit by linking with a USB Cable (standard A-B USB available at any computer supply retailer).

Initial set up linking with the e-manage

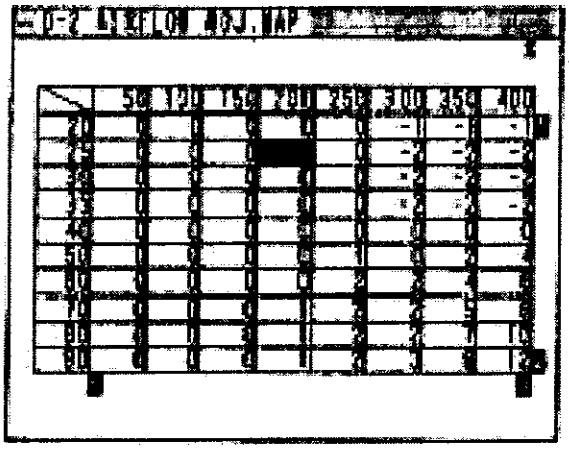
1. Update the e-manage unit – This will start automatically when links with the e-manage)
See page 31 B-11 PROGRAM
2. Import program from e-manage
See page 52 D-9 IMPORT/EXPORT
3. Set the Parameter
See page 43 D-1 PARAMETER

Features:

- Air Flow Adjustment Map
  This 16 x16 (rpm x throttle position) table is used to fine-tune the input signal of the Air Flow Meter or MAP Sensor to the ECU for fuel enrichment.
- Upgrade Injectors
  Controls upgrade injectors. (up to 150% larger than factory)
- Upgrade Airflow meters
  Controls upgrade Airflow meters.
- Boost limiter cut feature
  Eliminates factory boost limiter.
- Anti Engine Stall feature
  This is used to stabilize the rough idle due to turbo compressor surge. Blow-off valve vented out to the atmosphere or use of a high lift camshaft.
- VTEC® Setting
  This is used to set the VTEC setting without going in to the Main Unit.
- Map Trace feature
  This allows the tuner to pin point the current location on any map table.
- Security Setting feature
  This allows the tuner set up a password to apply a security lock to the data in the main unit.

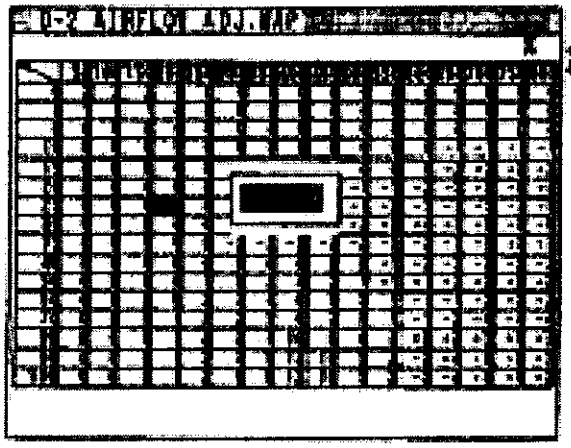
Optional Parts:

- **Harness Kit (Injector control)**
  This harness is used when controlling main injectors or sub injectors
- **Harness Kit (Ignition Timing Control)**
  This Harness is used when controlling the ignition timing.
- **GReddy Pressure Sensor**
  GReddy pressure sensor can be used for the scale of each Map table. This is used when the factory system exceeds the Air Flow Meter or MAP sensor capacity.

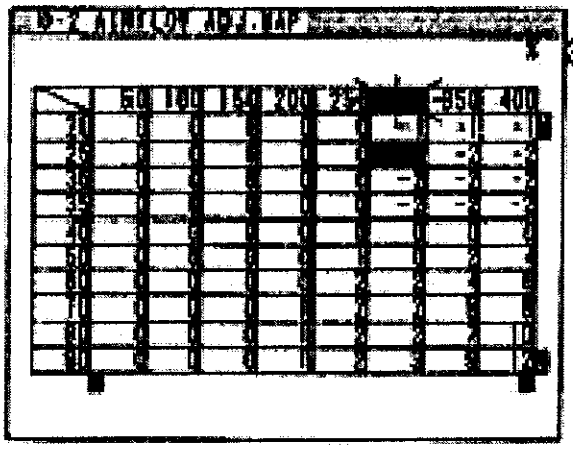


1. Zoom Map screen in and out
Press SET knob while holding down SHIFT button.

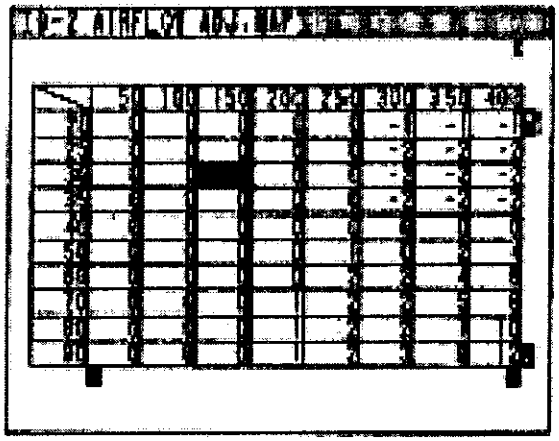
Press SET knob while holding down SHIFT button.



2. Inputting Values
Move the cursor to the target cell using the 4-way navigation button, and press SET knob to select the cell. Input the value by turning the SET knob or up / down key, and press SET knob to confirm the value.

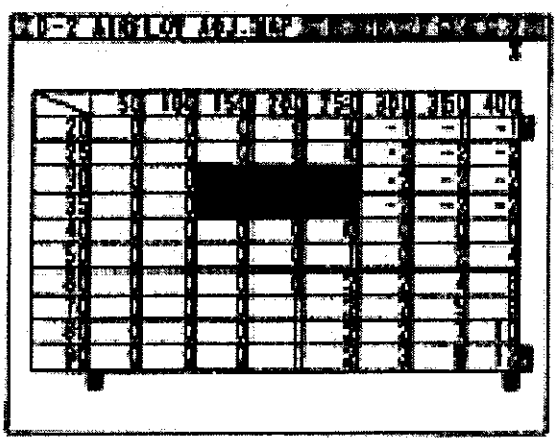


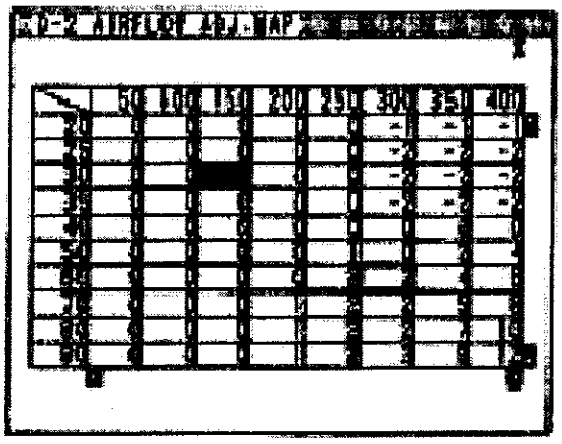
3. Scale Change
Change the scale of each Map by moving the cursor to the target cell and press SET knob to select the cell. Input the value by turning the SET knob or up / down key, and press SET knob to confirm the value.



4. Selecting multiple cells

To input a value to a block of cells, hi light the cells by holding down the SHIFT button while moving the cursor with the 4-way navigation button.



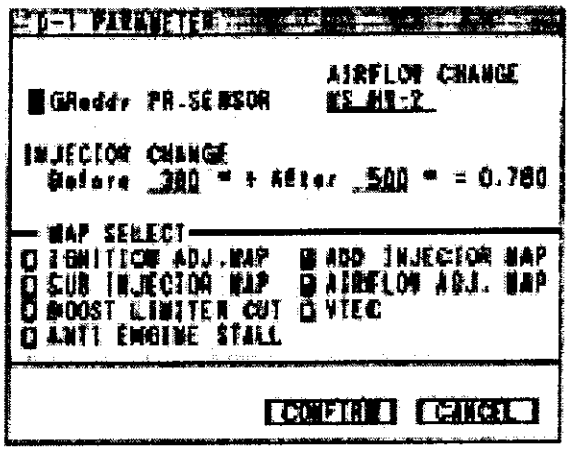


5. Map Trace

This feature will hi-light the cell that is currently reading.

D-1 PARAMETER

This window allows you to change Airflow Meters, injectors, set the Throttle, and select which map to use.



1. GReddy PR.SENSOR

Choose this box when an optional GReddy pressure sensor will be used for the scale of each Map tables.

- This function is used when the system exceeds the Air Flow Meter's capacity. The factory ECU will continue to read off the Air Flow Meter, but the e-Manage system will work off the GReddy pressure sensor.

2. AIRFLOW CHANGE

- When the Airflow meter or MAP sensor is upgraded, check the Sensor Type from the "Vehicle Specific ECU wire location chart", and select it from the pull down menu.
- The Airflow Type programmed with the Main unit's rotary switch will display as "Main Unit Setting" in the pull down menu.

Important!

- When the airflow meter is upgraded, the airflow signal value will change. Make sure to check Air/Fuel Ratio with a proper equipment to ensure proper fuel mixture.

3. Injector Change

- When upgrading the injectors, this feature calculates the difference of the two sizes and trims the whole fuel map (factory map) for proper idling and drivability.
- Input the factory injector size and the upgrade injector size.
- This system can control up to 150% larger injectors than the factory. Too large of an injectors can cause problems performing properly.
- When the injectors are upgraded, the injector signal value is being altered. Make sure to check the Air/Fuel Ratio with a proper equipment to ensure proper fuel mixture.

4. Map Select

Place check marks on the features you need to program.

IGNITION MAP

- This allows the tuner to adjust the factory ignition timing.

ADD INJECTOR MAP

- This is used to increase the factory injector's fuel injection by adding to the factory programmed injector duty cycle.

SUB INJECTOR MAP

- This feature can be used if the application requires more fuel than the main injectors can provide.

AIRFLOW MAP

- This is used to adjust the input signal of the Air Flow Meter or MAP Sensor to the ECU for fuel enrichment.

BOOST LIMITER CUT

- This is used to eliminate the factory fuel cut by ECU due to the increase of the intake air flow.

VTEC

- This is used to set the VTEC setting without going in to the e-manage Unit.

ANTI ENGINE STALL

- This feature is used to stabilize the rough idle due to the turbo compressor surge, blow-off valve vented out to the atmosphere or use of a high lift camshaft.

5. Confirm settings

Once all of the settings in the Parameter Setting is complete, click on "Confirm" to send the data to the e-manage unit.

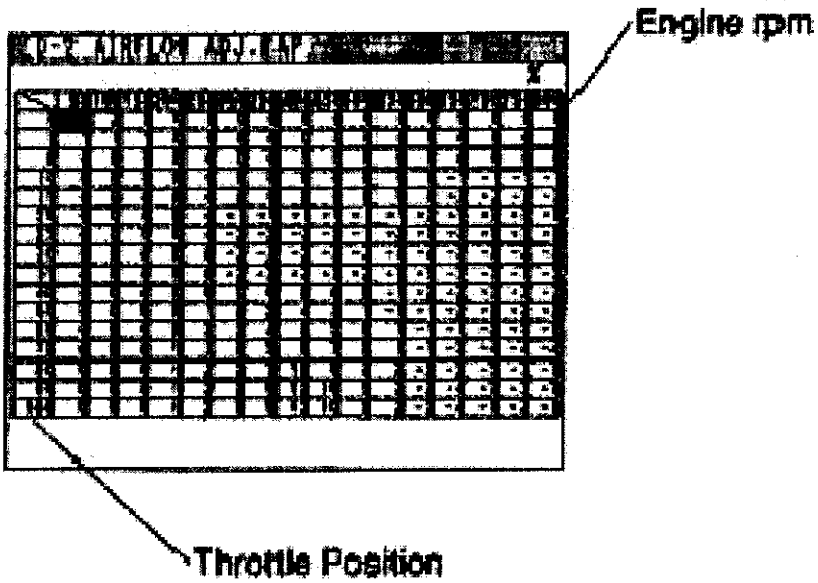
6. Cancel

This will cancel any changes and return back to the e-manage sub menu.

D-2 AIRFLOW ADJ. MAP

Airflow Adjustment Setting

- This is used to adjust the input signal of the Air Flow Meter or MAP Sensor to the ECU for fuel enrichment.
- This setting will add to the Air-Flow Adjust Volume (A.A.V) RPM Setup on the main unit.
- Input a negative value to take away fuel.
- When programming the Air Flow Adjustment Map with this unit, it is recommended to set all of the Air Flow Adjust Volume (A.A.V) RPM Setup on the Main Unit to "ZERO".
- Since this is a "piggy back" system, a "zero" value inputted in any map table will be same as the factory ECU setting, and any value other than "zero" is the adjustment to the factory ECU signals or program.



Adjustment Value: %
Input range : -50 ~ +50%, 0.5% Increments

Important

To use this feature the THROTTLE Setting is required.
See Page 27
When a substantial adjustment is made, the ignition timing can be change as well. Make sure to check the air/fuel ratio with proper equipment to prevent any detonation.

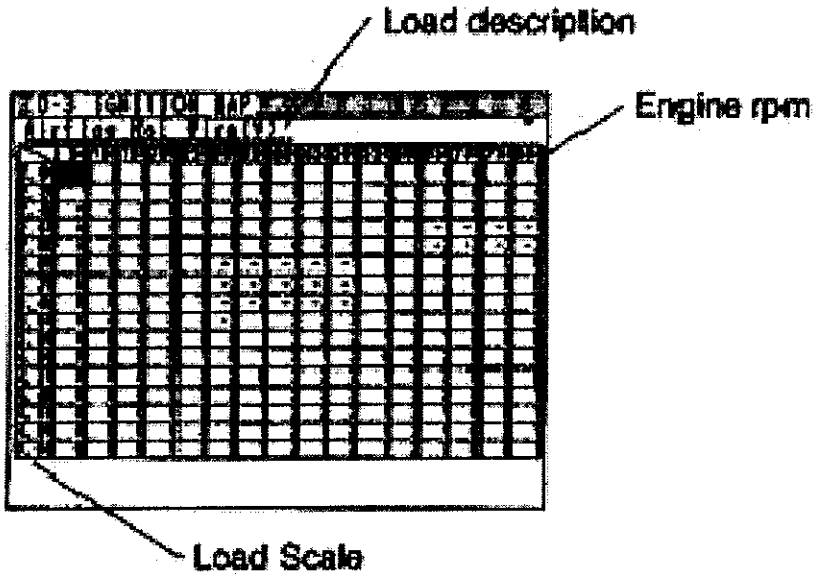
D-3 IGNITION MAP

Ignition Adjustment Map

This allows the tuner to adjust the factory ignition timing.

- Since this is a "piggy back" system, a "0" value inputted in any map table will be same as the factory ECU setting, and any value other than "zero" is the adjustment to the factory ECU signals or program.
- Input a number for advancing and "-" before the number for retarding the timing.

- The value inputted in this map table is not the actual ignition timing.



Adjustment Value: °
Input range : -20 ~ +20°, 1° increments

Important

- Since the e-Manage does not receive the crank angle sensor signal, there is a possibility that the timing could be off by ±1°.

D-4 ADD. INJECTOR MAP

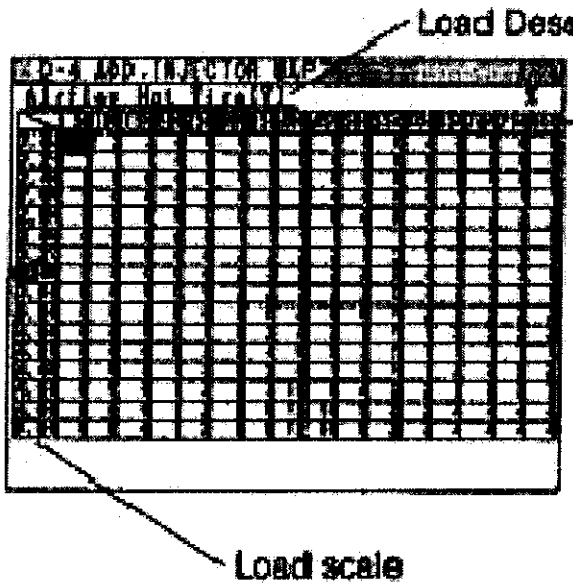
Additional Injection Setting

- This is used to increase the factory injector's fuel injection by adding to the factory programmed injector duty cycle.
- This feature is required if Boost Limiter Cut feature is used.
- The additional range is 0-100%. However, the duty cycle of the injector cannot exceed 100%.
- Since this is a "piggy back" system, a "0" value inputted in any map table will be same as the factory ECU setting, and any value other than "zero" is the adjustment to the factory ECU signals or program.

-Example-

If factory ECU injector duty cycle is 50%, and 30% was inputted in this Additional Injection Map,

50 + (50 x 0.3) = 65%



Input a desired increase rate the factory duty cycle in the corresponding cells.

Adjustment Value: %
Input range : 0 – +100%, 0.5% increments

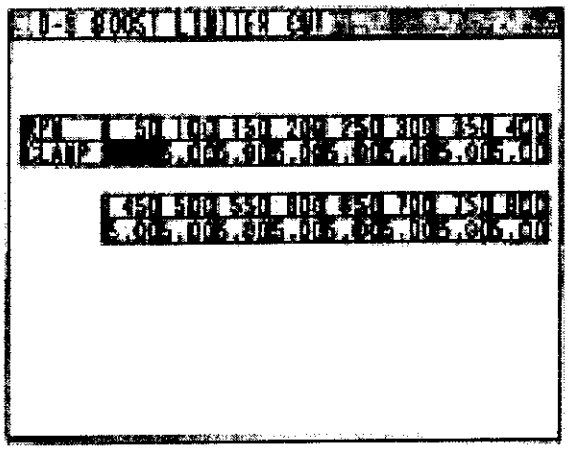
Please

- To take out fuel, make the adjustment in the Air Flow Adjustment Map.

D-6 BOOST LIMITER CUT

Boost Limiter Cut Setting

- This is used to eliminate the factory fuel cut by ECU due to the increase of the intake air flow.
- The Air Flow Meter or MAP sensor input signal to the ECU can be clamped. However, since ECU can not recognize the amount of increase of the intake air flow over the clamped signal, compensation (increased fuel) in the Additional Injector Map is recommended.



1. In the data recording feature, record the rpm point and air flow meter/MAP sensor voltage and injector duty cycle where the boost limit occurred.
2. Input the clamping value. Input a value slightly lower than the point where injector duty cycle becomes 0% in the data.

rpm:
Input range: 0 ~ 10000rpm, 100rpm increments

Clamp Value: This will automatically change according to the sensor type.
Input range: 0 ~ 5V, 0.05V increments (Air Flow, or MAP type:V)
Input range: 0 ~ 3150Hz, 50Hz increments (Karman type :Hz)

- This feature is not used for the vehicles that does not have a boost limiter.

D-5 SUB INJECTOR MAP

Sub Injector Setting

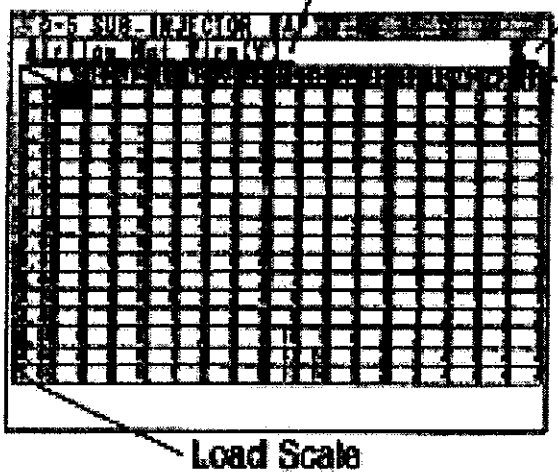
o This feature can be used if the application requires more fuel than the main injectors can provide.

o This feature will drive additional sub-injectors once every two rpm signal pulse. (For 4 cyl., twice every two rev., and for 6cyl., three times every two rev.)

o Either injector duty cycle or duration can be selected as the numerical value in Map table.

o The injector duty cycle range is 0-100%

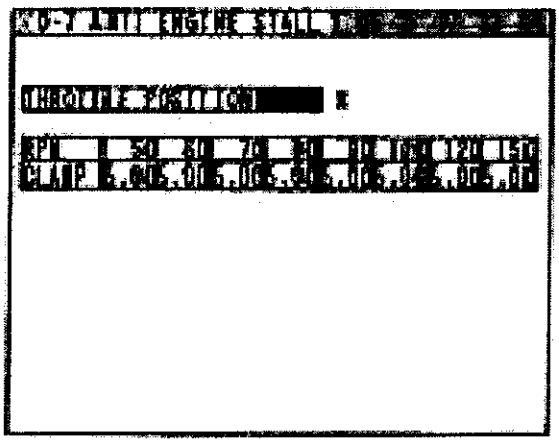
o A value higher than 95% entered will be displayed in RED.



Adjustment Value: %
Input range : 0 ~ +100%, 0.5% increments

Anti Engine Stall Setting

- This feature is used to stabilize the rough idle due to the turbo compressor surge, blow-off valve vented out to the atmosphere or use of a high lift camshaft.
- Input the Throttle Position in degrees. This will allow the values below the inputted value (throttle opening) to be recognized as accelerator OFF (fully closed).
- The Airflow Meter or MAP sensor input signal to the ECU can be clamped at a desired voltage at 8 different rpm points to prevent engine stall or rough idle.



1. In the data record feature, record the rpm point, airflow meter/MAP sensor voltage and injector duty cycle where the engine stalls.
2. Input the rpm points where the airflow voltage fluctuates and input the airflow clamping value.

Throttle Position: %
Input range : 0 ~ 10%, 1% increments

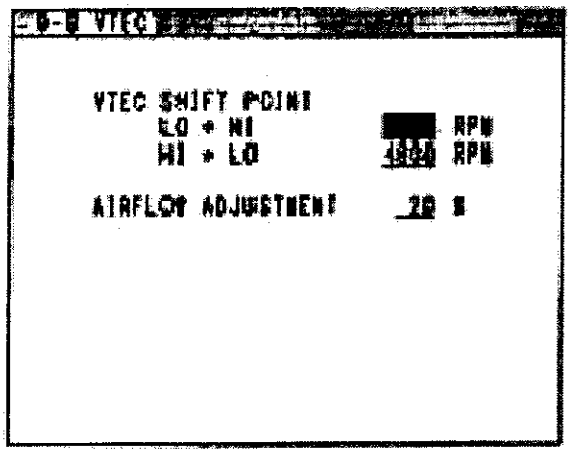
rpm:
Input range: 0 ~ 8000rpm, 50rpm increments

Clamp Value: This will automatically change according to the airflow type.
Input range: 0 ~ 5V, 0.05V increments (Air Flow, or MAP type:V)
Input range: 0 ~ 3150Hz, 50Hz increments (Karman type :Hz)

- This feature is not needed for vehicles that do not have any engine stalling problems.

VTEC Setting

This is used to set the VTEC setting without going in to the Main Unit. The VTEC setting with e-01 will over ride the setting on the e-manage Unit.



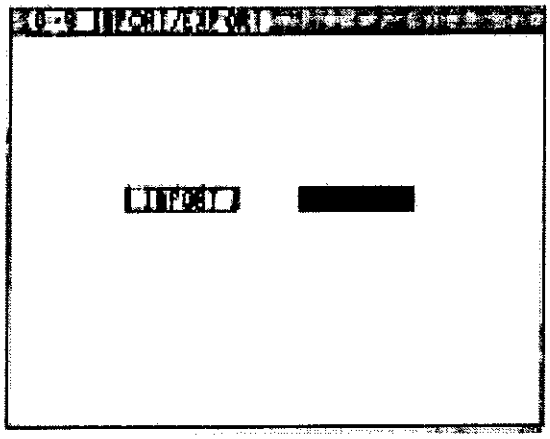
1. **VTEC SHIFT POINT**
   - Lo->Hi - - - VTEC turns on.
   - Hi->Lo - - - VTEC turns off.
2. **AIRFLOW ADJUSTMENT**
   When the VTEC shift point is changed from factory setting, the airflow will need to be adjusted for proper air/fuel ratio.

rpm:
Input range: 1500 ~ 7000rpm, 50rpm increments

Adjustment Value: %
Input range : -20 ~ +20%, 1% increments
Input range : 0 ~ 100%, 0.5% increments

DATA IMPORT / EXPORT

This feature is used to program to and from the e-manage.



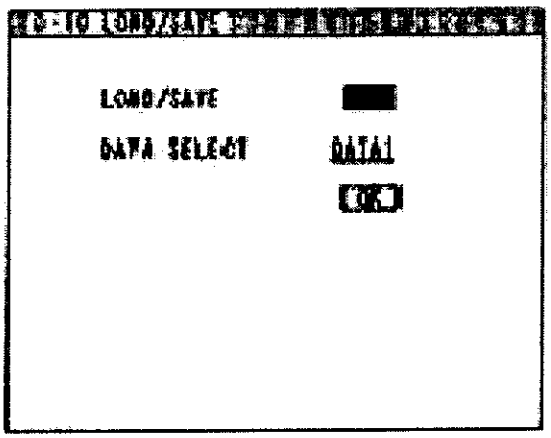
1. Import Used to Import the data from the Main Unit.
2. Export Used to export all the data to the Main Unit.

When the e-01 and e-manage is linked, they are communicating at real time. When a setting is changed, it will send it to e-manage automatically.

When an error occurs, re-import or reexport the program.

[redacted]

This feature is used to save and load data to and from the SD memory card.



1. LOAD / SAVE

LOAD - - - Loads the saved data from the SD card.

SAVE - - - Saves the data to SD card.

2. DATA SELECT

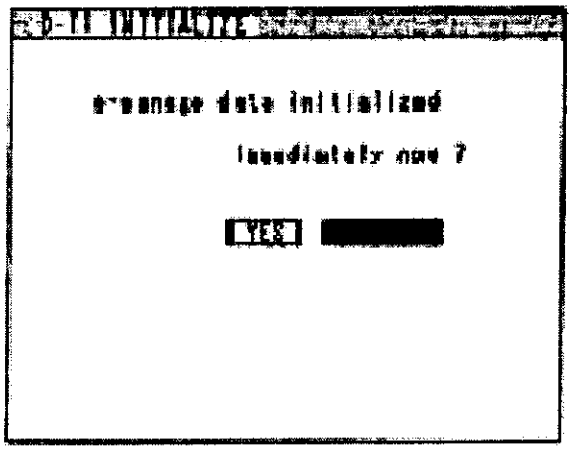
Select the data to load or save. SD card can save up to 3 data.

Important!

If a new data is loaded, it must be exported to the e-manage unit.

D-11 INITIALIZE

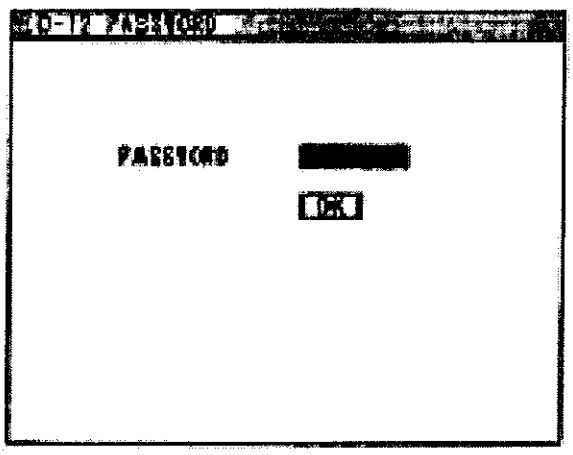
This will reset all of the e-manage settings.



To reset the e-01 settings, see page 31 B-12 INITIALIZE

D-12 PASSWORD

This allows the tuner set up password to apply security lock to the data in the main unit.
It will require the tuner to input a password to communicate with the main unit.



To Lock
Input a pass word and click on OK.

To unlock
Input a pass word and click on OK.

Important!
To clear the stored password, the e-manage setting must be re-initialized.
Re-initializing will clear all the e-manage.

7. e-manage ERROR CODES

CODE	Error Error	Description
20	No Injector pulse from all	Not receiving an injector signal
21	No Injector 1 pulse	Not receiving injector signal I/J CH-1
22	No Injector 2 pulse	Not receiving injector signal I/J CH-2
23	No Injector 3 pulse	Not receiving injector signal I/J CH-3
24	No Injector 4 pulse	Not receiving injector signal I/J CH-4
25	No Injector 5 pulse	Not receiving injector signal I/J CH-5
26	No Injector 6 pulse	Not receiving injector signal I/J CH-6
27	No Injector A pulse	Not receiving injector signal I/J CH-A
28	No Injector B pulse	Not receiving signal I/J CH-B
31	Incorrect Injector 1 pulse	Incorrect I/J CH-1 wire to e-Manage
32	Incorrect Injector 2 pulse	Incorrect I/J CH-2 wire to e-Manage
33	Incorrect Injector 3 pulse	Incorrect I/J CH-3 wire to e-Manage
34	Incorrect Injector 4 pulse	Incorrect I/J CH-4 wire to e-Manage
35	Incorrect Injector 5 pulse	Incorrect I/J CH-5 wire to e-Manage
36	Incorrect Injector 6 pulse	Incorrect I/J CH-6 wire to e-Manage
37	Incorrect Injector A pulse	Incorrect I/J CH-A wire to e-Manage
38	Incorrect Injector B pulse	Incorrect I/J CH-B wire to e-Manage
40	NG order of Ign. signal	Incorrect wiring order of the ignition signal
41	No Ignition Signal 1 pulse	Not receiving the ignition signal IG CH-1
42	No Ignition Signal 2 pulse	Not receiving the ignition signal IG CH-2
43	No Ignition Signal 3 pulse	Not receiving the ignition signal IG CH-3
44	No Ignition Signal 4 pulse	Not receiving the ignition signal IG CH-4
45	No Ignition Signal 5 pulse	Not receiving the ignition signal IG CH-5
46	No Ignition Signal 6 pulse	Not receiving the ignition signal IG CH-6
47	JP1 PULL UP error	Incorrect Jumper setting (JP1)
48	JP1 PULL DOWN error	Incorrect Jumper setting (JP1)
49	No Ignition pulse	Not receiving the ignition signal
51	Incorrect Ignition 1 pulse	Incorrect IG CH-1 wire to e-Manage
52	Incorrect Ignition 2 pulse	Incorrect IG CH-2 wire to e-Manage
53	Incorrect Ignition 3 pulse	Incorrect IG CH-3 wire to e-Manage
54	Incorrect Ignition 4 pulse	Incorrect IG CH-4 wire to e-Manage
55	Incorrect Ignition 5 pulse	Incorrect IG CH-5 wire to e-Manage
56	Incorrect Ignition 6 pulse	Incorrect IG CH-6 wire to e-Manage
57	JP2 + 12V error	Incorrect Jumper setting (JP2)