
Safety Messages

Your safety and the safety of others is very important. We have provided important safety messages in this manual and on the HRC CBR600RR. Please read these messages carefully.

A safety message alerts you to potential hazards that could hurt you or others. Each safety message is preceded by a safety alert symbol  and one of three words, **DANGER**, **WARNING**, or **CAUTION**.

These mean:

 **DANGER**

You **WILL** be **KILLED** or **SERIOUSLY HURT** if you don't follow instructions.

 **WARNING**

You **CAN** be **KILLED** or **SERIOUSLY HURT** if you don't follow instructions.

 **CAUTION**

You **CAN** be **HURT** if you don't follow instructions.

Each message tells you what the hazard is, what can happen and what you can do to avoid or reduce injury.

Damage Prevention Messages

You will also see other important messages that are preceded by the word **NOTICE**.

This word means:

NOTICE

Your HRC CBR600RR or other property can be damaged if you don't follow instructions.

The purpose of these messages is to help prevent damage to your HRC CBR600RR, other property, or the environment.

HRC CBR600RR

PGM-FI Setting Tool Manual



All information in this publication is based on the latest product information available at the time of approval for printing. Honda Racing Corporation reserves the right to make changes at any time without notice and without incurring any obligation. No part of this publication may be reproduced without written permission.

Important Information

- This setting tool is sold as is without warranty, and the entire risk as to quality and performance is with the buyer.
 - This kit is designed and manufactured to enhance the performance of the CBR600RR, and as is stated in the CBR600RR racing kit set-up manual, should be used only in an organized racing or competitive event upon a closed course which is conducted under the auspices of a recognized sanctioning body or by permit issued by the local governmental authority having jurisdiction.
 - This kit is not suitable for use with any other parts.
 - Refer to HRC CBR600RR Racing Kit Set-up Manual/Parts List (00X32-N1A-D10 or 00X31-N1A-A10) for service procedures not included in this manual.
 - '07 will be displayed on setting tool menu and file name. Peplace '07 with '08 for use on '08 model vehicle.
-

This manual covers the PGM-FI setting procedure by PC communications.

PGM-FI Setting

System requirements and communication attachment

1. System requirements

- IBM AT compatible PC
- OS: Windows 98/Me/2000/XP
- CPU: Pentium 200MHz or higher (recommended)
- Main memory: 32MB or more (recommended)
- Display: 1024 x 768 or higher resolution (recommended)
- CD-ROM: CD-ROM drive is required (The product is provided with a CD-R)
- Serial port: Serial port is required (to communicate with the ECU)
If the serial port is not equipped, use USB-RS232C adaptor or USB type serial I/F unit



2. The attachment

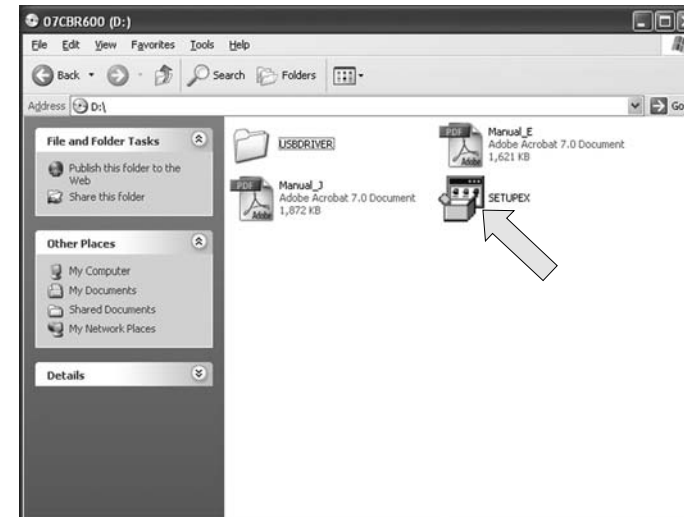
- UNIT, ASSY SERIAL I/F: 38880-NL3-750
- UNIT, ASSY SERIAL I/F (USB): 38880-NL9-C00



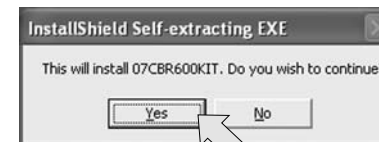
Use USB driver included in Set-up CD-ROM, or download it from HRC web site (<http://www.honda.co.jp/HRC/>).

Software Install

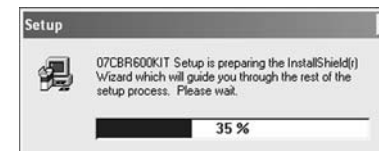
1. Put the CD-ROM in the CD-ROM drive and click on the CD-ROM icon.
2. In the window that appears, double-click "SETUP.EXE" to install the application.



3. If you wish to continue, click "Yes".



4. A window like below will appear and prepare for the setup process.



PGM-FI Setting

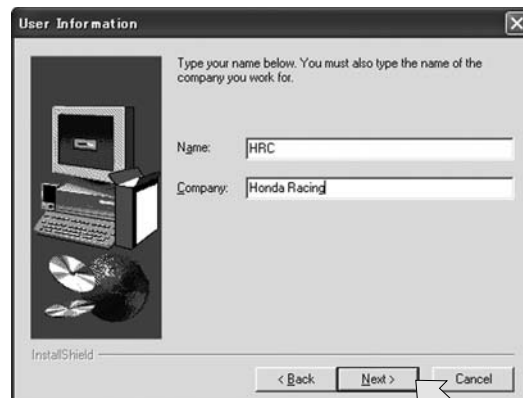
5. To continue the setup, click "Next."

NOTE:

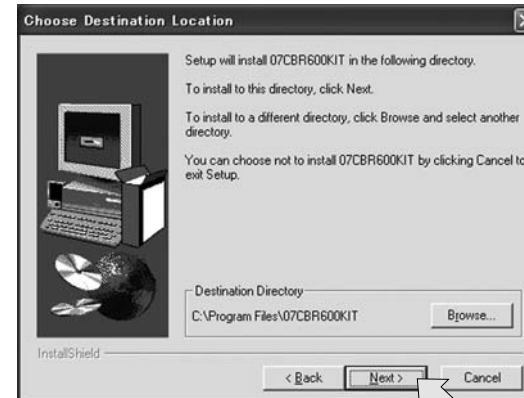
- Exit all other programs before starting installation.



6. When using Windows XP, the User Information window appears. Click "Next."



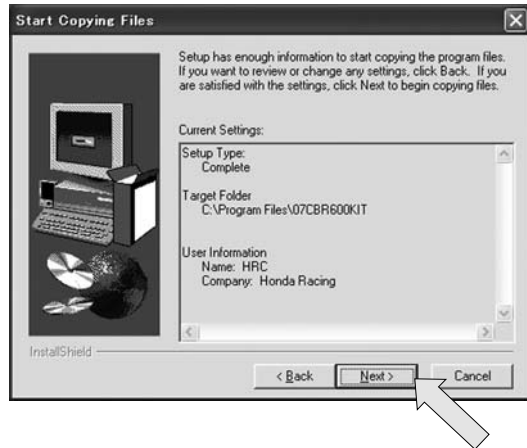
7. The setup program will ask you to specify a directory to install the application in. If you do not want to change the default directory, click "Next."



8. Select program folder, then click "Next."



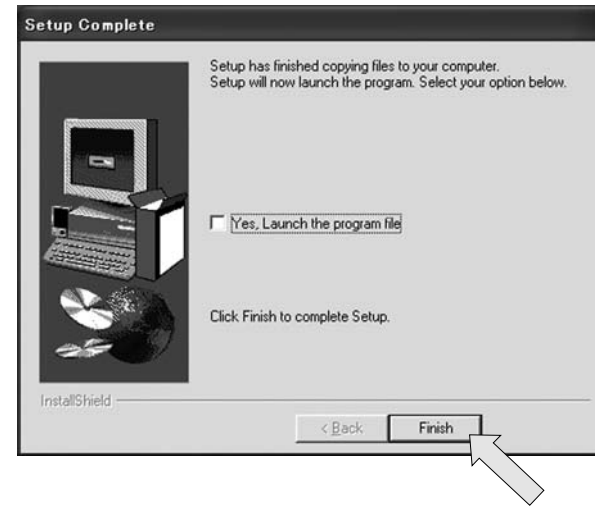
9. Confirm the folder and name etc. for installing the application, then click "Next."



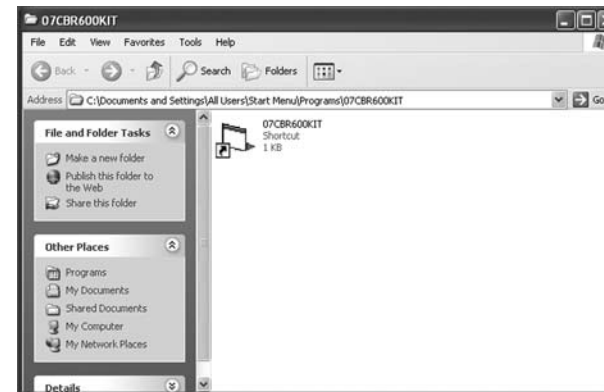
10. The installation will proceed.



11. When the installation is completed, click "Finish."



A shortcut link will appear. You may put this link on the desktop.

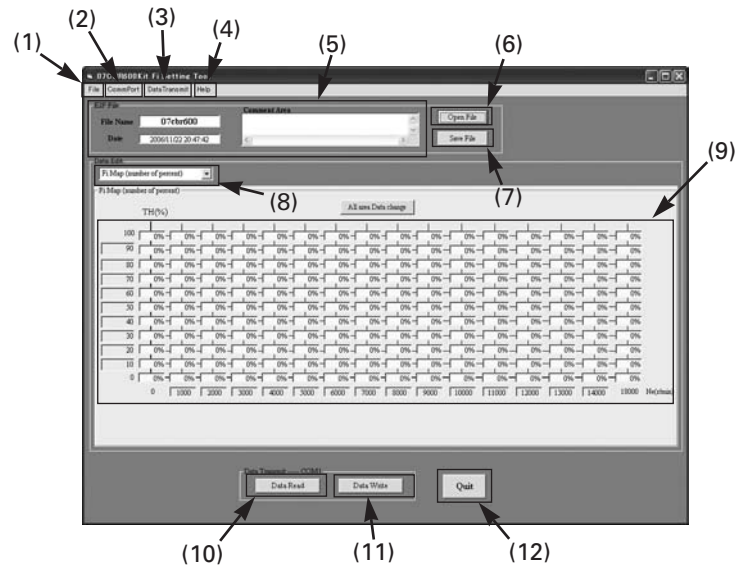


PGM-FI Setting

Operation

Functional Descriptions

When you start up the setting tool, a window like below will appear.

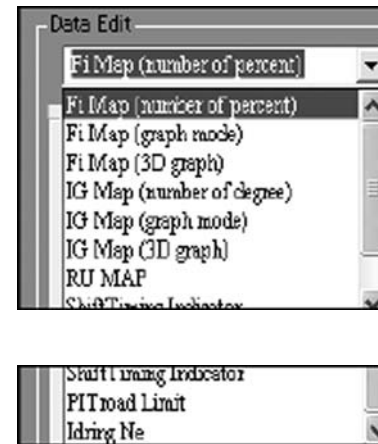


(Note: The figure above, designed for explanation purposes, differs from the actual screen you will see.

No.	Name	Function
(1)	File menu	Reading and writing the saved setting data.
(2)	COM Port	Selects communication port (default: COM 1).
(3)	Data Transmit (read/write)	Transfers setting data from ECU. Transfers setting data to ECU.
(4)	Help	Displays setting tool version.
(5)	File information display	Displays information on the setting file.
(6)	Open File	Reads in setting data saved before.
(7)	Save File	Saves setting data you have changed.
(8)	Data Edit Selector	Selects an item to change.
(9)	Data display area	Displays setting data.
(10)	Data Read	Transfers setting data from ECU.
(11)	Data Write	Transfers setting data to ECU.
(12)	Quit	Exits the program without saving data.

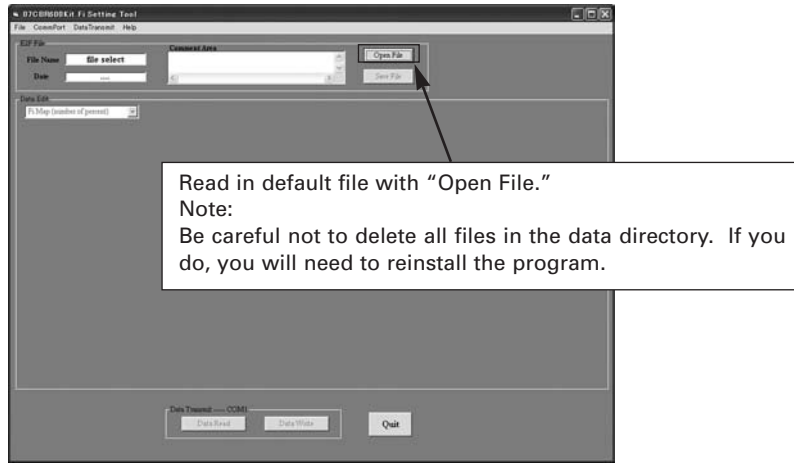
Before you begin

- About the pull-down menu
Data Edit Selector (No. 8 in the previous table) is a pull-down menu.



Click "▼" as shown in the figure above and a menu will appear. Items to edit can be changed here. The highlighted item will be and may be edited.

- When you start up the application for the first time, you will not see the following display.

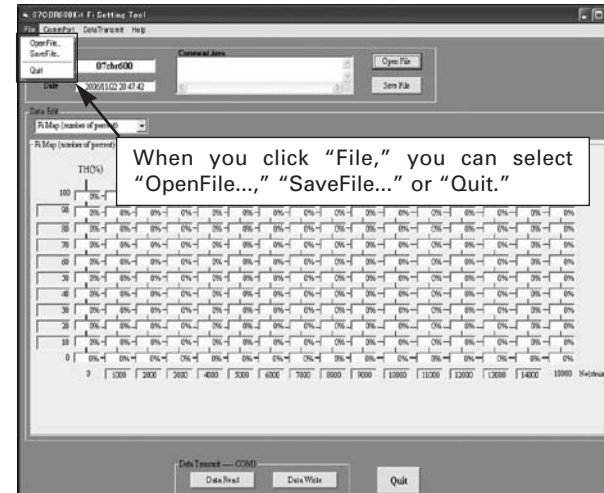


When you start up the program next time, it will automatically open the last file you used.

NOTICE

In case the default file is not displayed with "Open file," refer to troubleshooting No. 4.

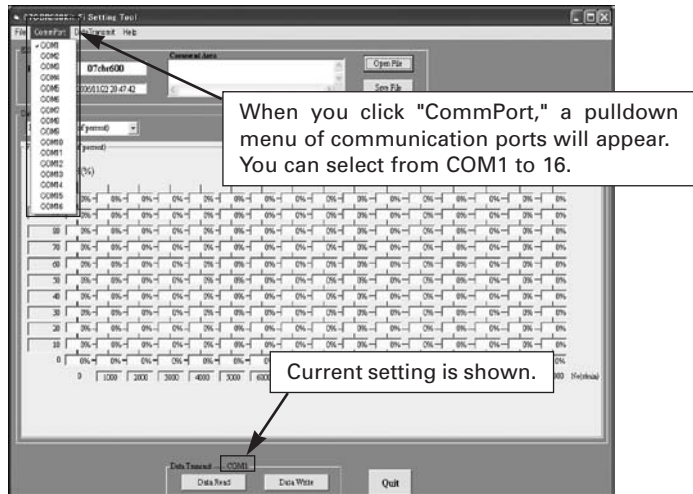
- File Menu



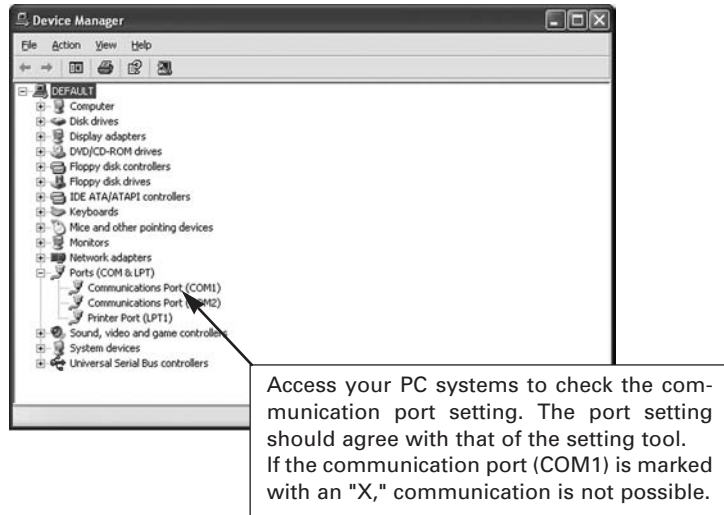
- "OpenFile..." Same function as the "Open File" button. Loading the data file.
- "SaveFile..." Same function as the "Save File" button. Writing the edited data to data file.
- "Quit" Same function as the "Quit" button. Quit setting tool. Before quitting, the setting tool, save editing data using the "Save File" button. If you quit without saving, the editing data will be cancelled.

PGM-FI Setting

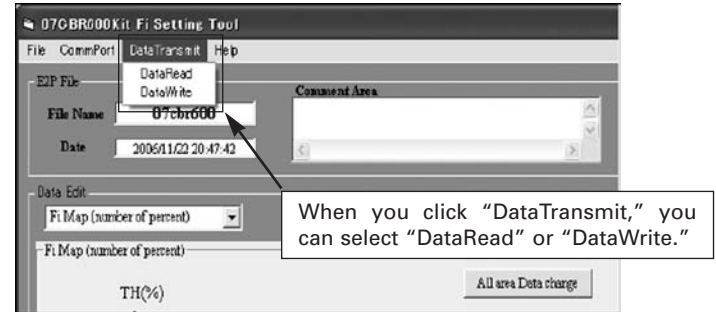
- Checking communication port (COM port)



Checking system property

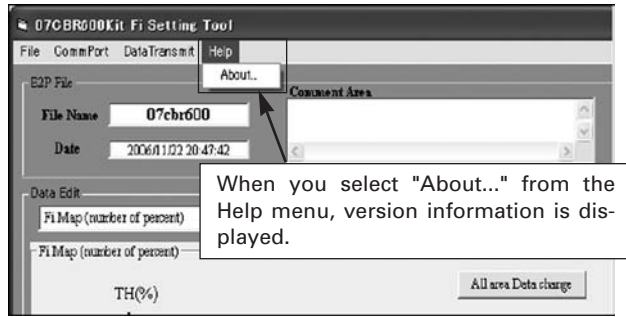


- Data Transmit Menu



- "DataRead" The same function as the "Data Read" button. Load the data from ECU.
- "DataWrite" The same function as the "Data Write" button. Write the edited data into ECU.

- Help Menu



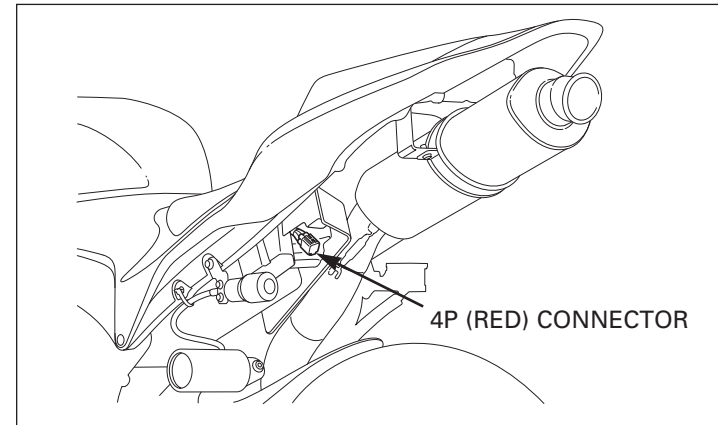
PGM-FI Setting

Connection with the Vehicle

1. Connect the "UNIT, ASSY SERIAL I/F: 38880-NL3-750" or "UNIT, ASSY SERIAL I/F (USB): 38880-NL9-C00" to the serial-port or USB port of your PC.



2. Pull the data link connector (4P red connector) out from the rear fender opening as shown. Remove the dummy connector and connect the serial I/F 4P (Red) connector to the data link connector.



Note:

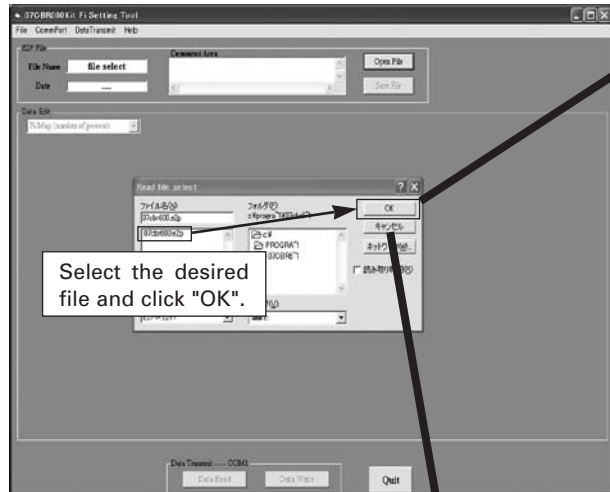
- Do not drive your vehicle with the setting cord attached.
- Properly install the dummy connector to the data link (4P Red) connector.

Use the setting cord only when you change settings.

File Operation

Opening a File

Click "Open File" and the window for reading files will be opened.
 Select the desired file and click OK to load the file.



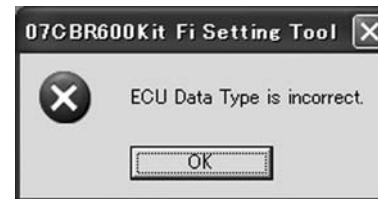
OK Button

When reading is correct:
 Open the setting tool window.

When reading error occurs.



If the specified E2P file is not found, the above message appears.



If the different base vehicle's model year data is opened, above message is appeared.

Refer to troubleshooting No.5.



If a file format error occurs while reading the E2P file, the above message appears. Refer to troubleshooting No. 6.

Note:

- Displayed file "07cbr600.e2p" is default data.
- If you become confused about settings, return to the standard setting by replacing the revised data with the default data "07cbr600.e2p".

Cancel Button



If the process of Open File is aborted,
 above message is appeared.
 Click "OK" to continue.

PGM-FI Setting

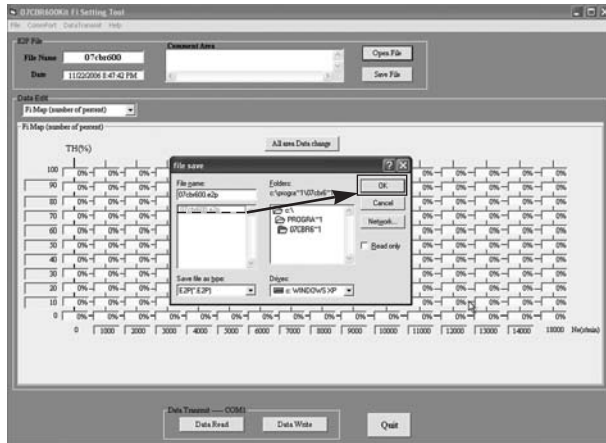
Save a File

When you click "Save File," a list of files already saved will appear and request you to input the file name.

Type a file name and click OK to save your file.

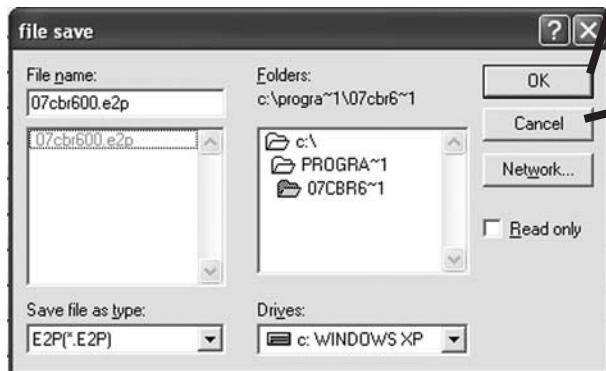
Note:

- The number of characters you may use for a file name is limited to 8 or less.



Note:

- When typing a file name, be sure to put the cursor before ".e2p." If you omit the extension (.e2p), you cannot open it. (It will not be listed.)



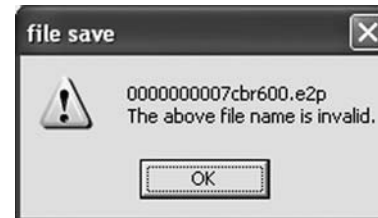
OK Button

When the EP2 file is saved:



The above message appears.

When a file saving error occurs:



If you use more than 8 characters for a file name, above message is appeared. To continue "Save File," click "OK" and type in a file name with 8 or less characters.

Cancel Button

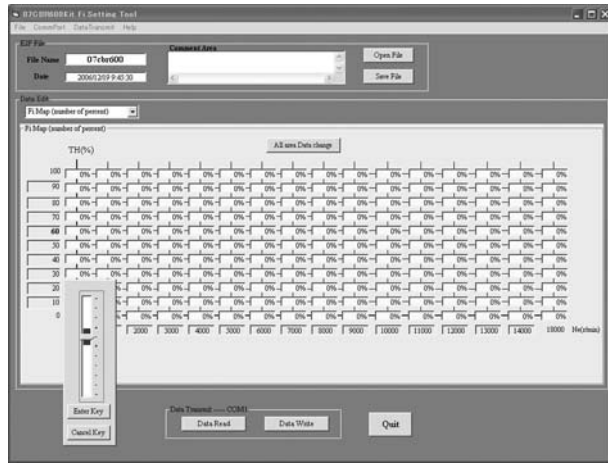


If the Save File process aborted, the above message appears. Click "OK" to continue.

Changing Setting

Changing TH Segmentation

You can change the TH position.



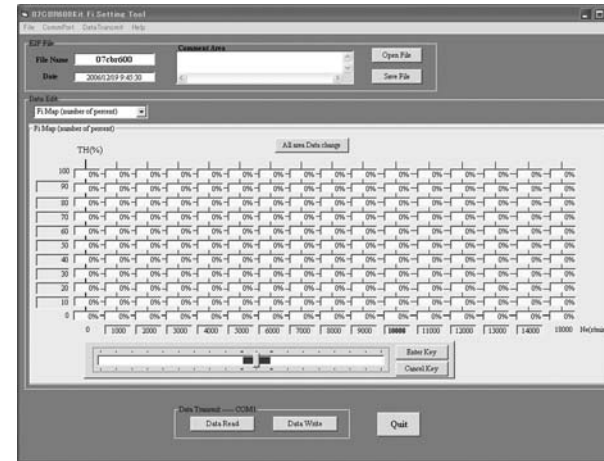
If you click TH segmentation, 60% for example, a scale as shown above will appear. You can change 9 points excluding both ends (0% and 100%). Use your mouse or up/down arrow keys to make changes. Click "Enter key" to enter your change. To cancel the change, click the "Cancel" key.



You may make changes is only within the zone of the scale.
 Note:
 Changing the TH segmentation changes both the FI and IG maps.
 The ignition map and the FI map cannot be changed individually.

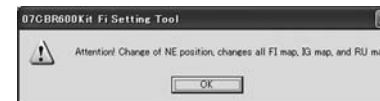
Changing Engine Speed Segmentation

You can change engine speed segmentation.



Engine speed segmentation can be changed like TH segmentation. For example, if you click on 10,000 min⁻¹ (rpm), a scale like above will appear. You can change 14 points excluding both ends (0 min⁻¹ (rpm) and 18,000 min⁻¹ (rpm)).

Choose a point to change with your mouse or left/right arrow keys and press the "Enter key" after you put in a new value. You may make changes only within the zone of the scale. Changing the engine speed segmentation will also affect the ignition timing. The air-fuel ratio map and ignition timing map cannot be changed separately.



Note:
 • TH and engine speed segmentations can only be changed on "Fi Map" screen.

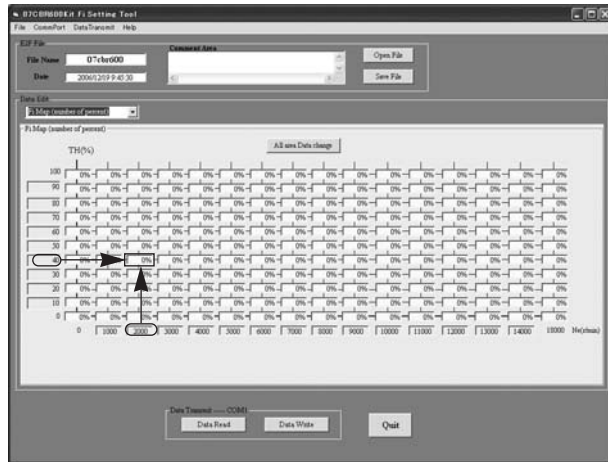
PGM-FI Setting

Change Setting Procedure

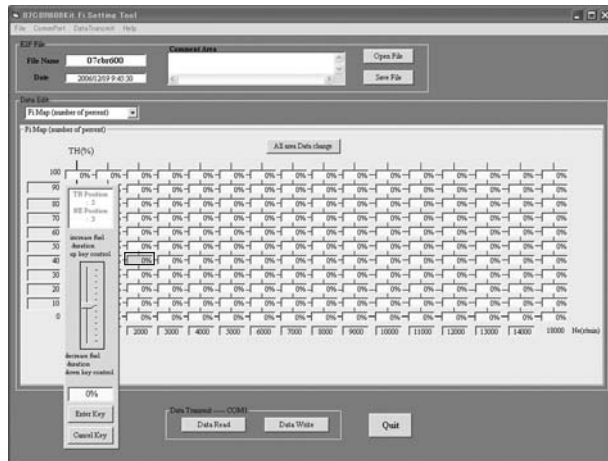
You can change the air-fuel ratio on either the map screen or on the graph screen.

1. Changing air-fuel ratio (on map screen)

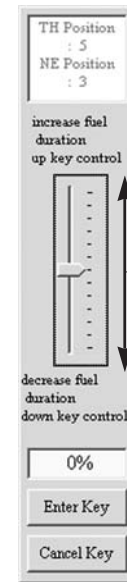
When you select "FI Map (percentage)", a screen like below will appear. In order to change data, click on the point where the desired TH position and engine speed.



Then, a scale as shown below will appear.

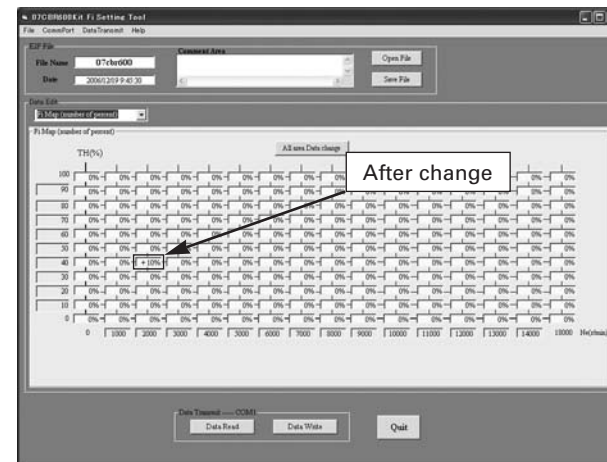


How to change the air-fuel ratio

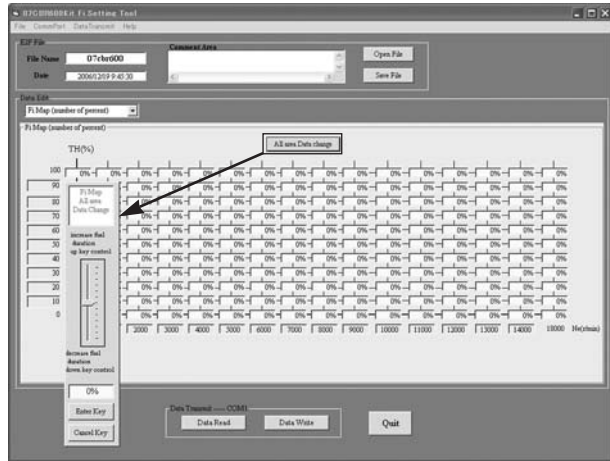


Make changes using your or up/down keys. Click the "Enter Key" to make the change take effect. Click the "Cancel Key" to abort the process.

You may change values in the range from -30% to +30%. 0% is the standard setting.

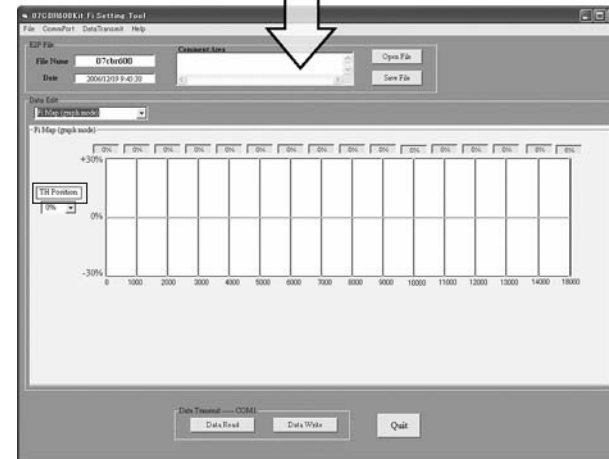
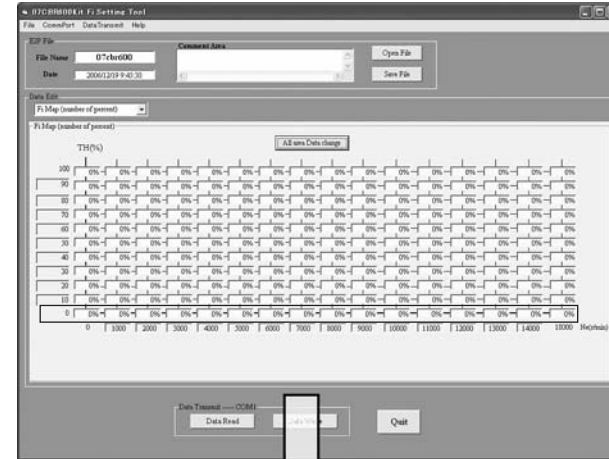


How to make a proportional change to all data



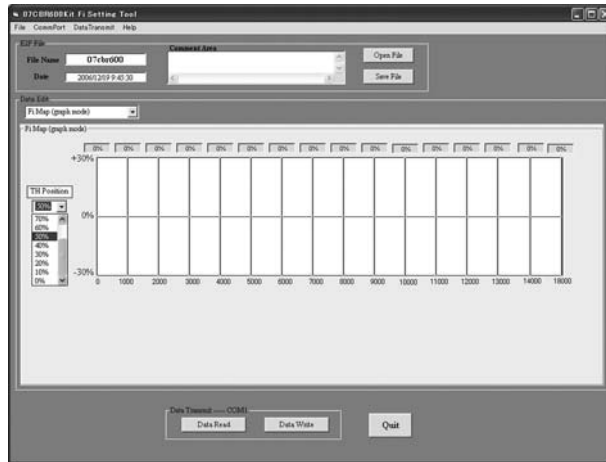
When you click "All area Data change," the above screen appears. This screen enables you to increase or decrease all data by the same percentage. Click the "Enter Key" to make the change.

2. Changing the air-fuel ratio (graph display)
The graph mode presents a horizontal axis map display.



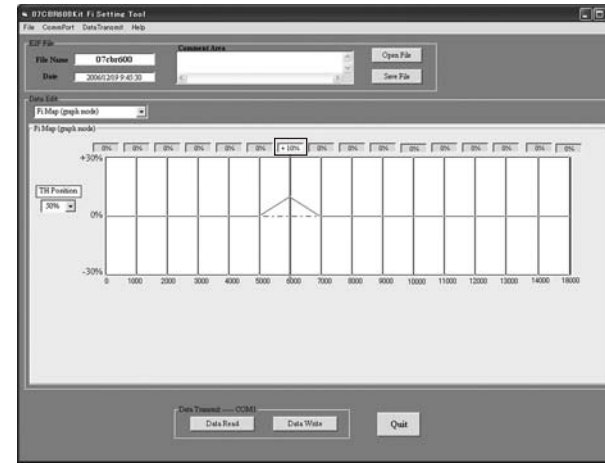
PGM-FI Setting

When you select the "Fi Map (graph mode)," a screen like below will appear.

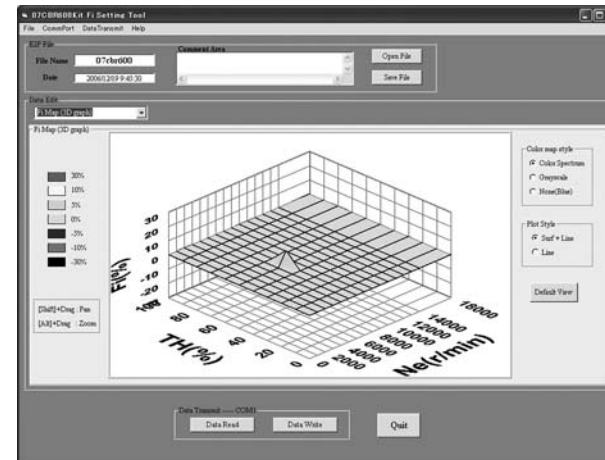


To change data, select the TH position you wish to adjust. The current setting will be graphically displayed along with engine speed by TH positions. Click the engine speed value you want to adjust.

Adjustable areas will be indicated with a color change. Use the up/down arrow keys to make change. It will be reflected in the map display.

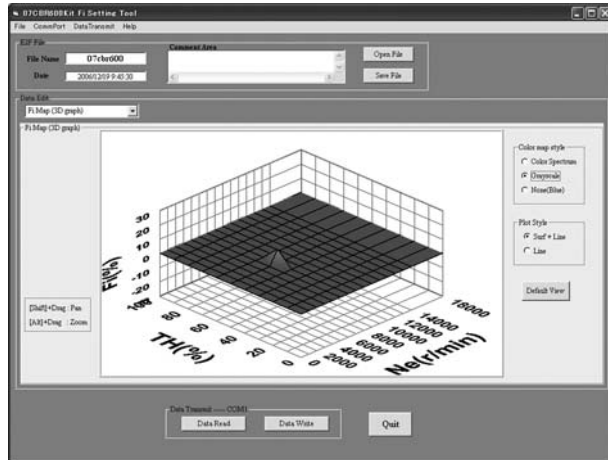


When you select "Fi Map (3D graph)," a screen like below will appear.

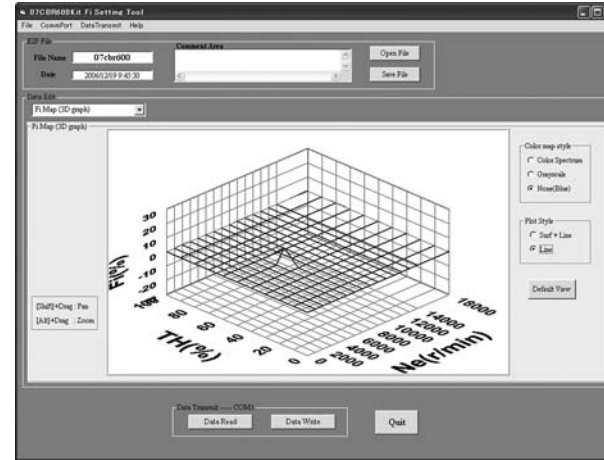


You can change the graph color and graph size by referring to the instructions on both sides of the graph as shown.

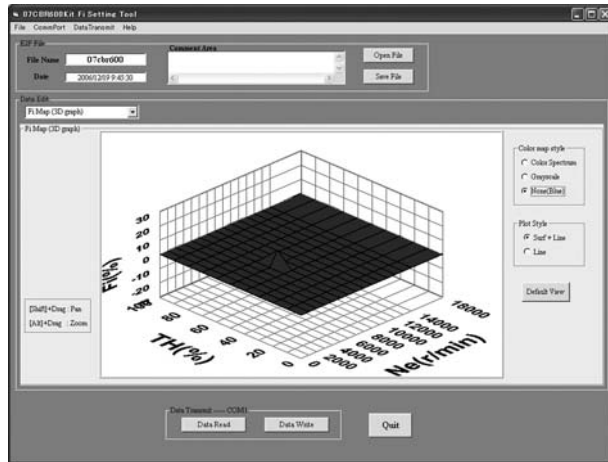
Grayscale:
 Display with grayscale (cannot select PilotStyle Line).



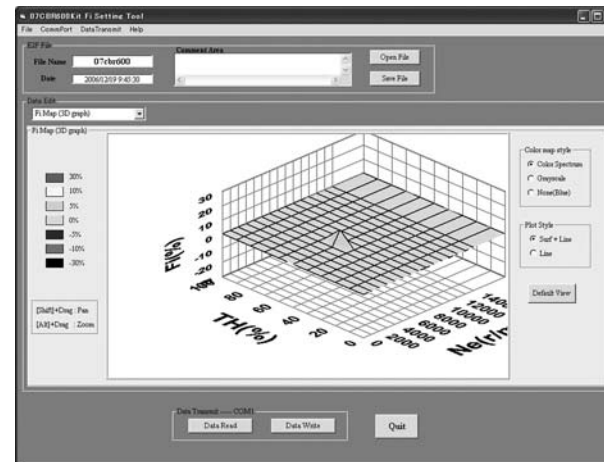
Line:
 Display with line only (Color map style will automatically vanish).



Single color:
 Display with the single color (blue).

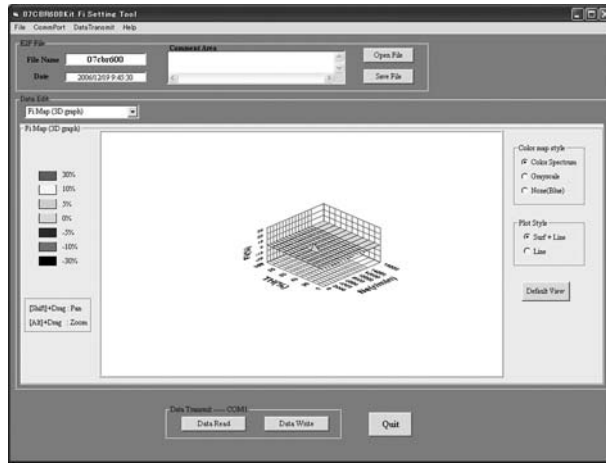


Drag:
 Drag the graphic while pressing the [Shift] key ([Shift]+Drag).



PGM-FI Setting

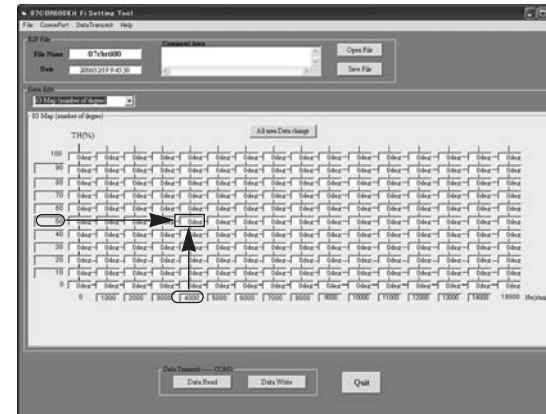
Zoom in/out:
 Zoom the graphic in or out using drag while pressing the [Alt] key ([Alt]+Drag).
 3. Changing Ignition Timing



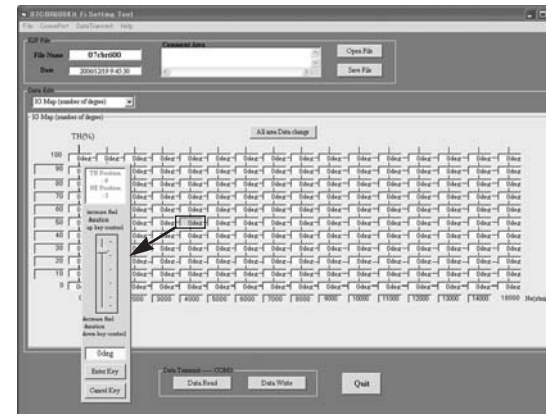
You can change ignition timing either on the IG Map or on the IG Map (graph mode).

1. Changing ignition timing on IG Map

When you select "Ignition Map, a screen will appear. To change data, click on the point where the desired TH opening and the engine speed.



Then, a scale as shown below will appear.



How to change ignition timing

TH Position : 6
NE Position : 5

increase fuel duration up key control

decrease fuel duration down key control

0deg

Enter Key

Cancel Key

Make the change using your mouse or up/down arrow keys.
Click "Enter Key" to make the change take effect.
Click "Cancel Key" to abort the process.

You may change values in the range from 0% to 20°. 0% is the standard setting.

PGM-FI Setting Tool

File Name: 07chev000
Date: 2006/10/19 9:45:30

3D Map (number of degrees)

TH (%)

All area Data change

After change

How to make a proportional change to all data

PGM-FI Setting Tool

File Name: 07chev000
Date: 2006/10/19 9:45:30

3D Map (number of degrees)

TH (%)

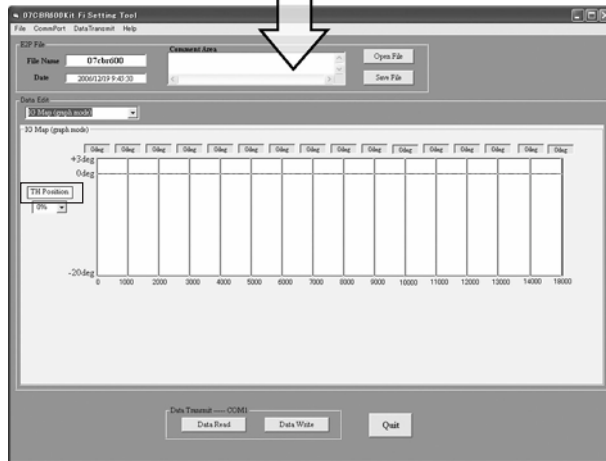
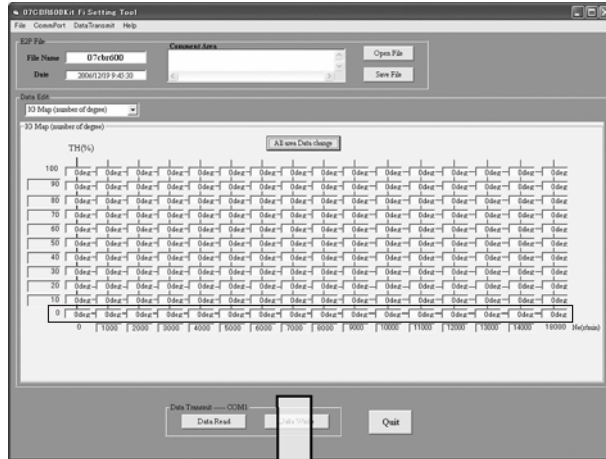
All area Data change

All area Data change

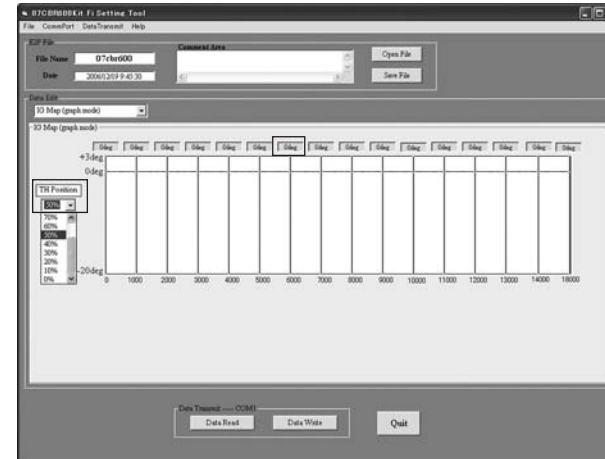
When you click "All area Data change," the screen will appear as above. This screen enables you to increase or decrease all data by the same percentage. Click the "Enter Key" to enter the change.

PGM-FI Setting

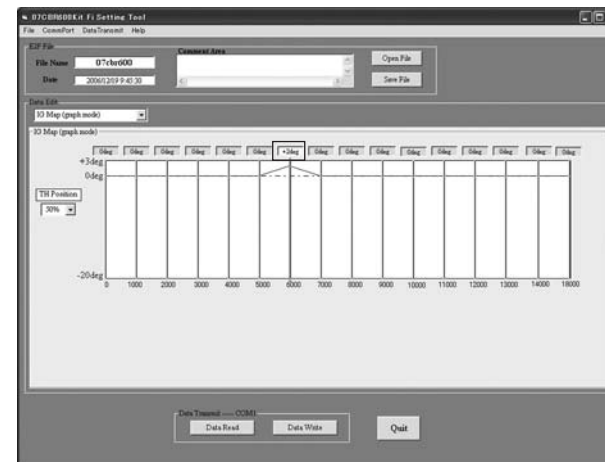
Changing ignition timing (graph mode)
Graph mode displays a horizontal axis of map display graphically.



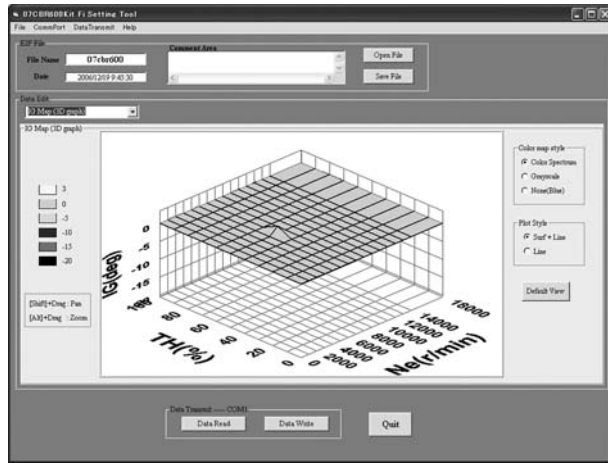
When you select "IG Map (graph mode)," a screen like below will appear.



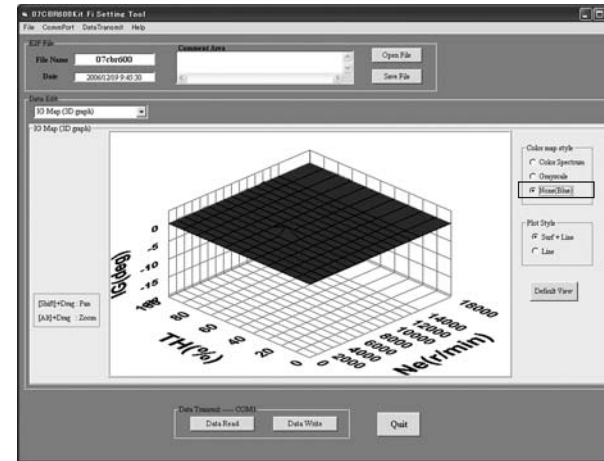
To change data, select the TH position you wish to adjust.
The current setting will be graphically displayed along with engine speed by TH positions.
Here, click the value display of the engine speed you wish to adjust.



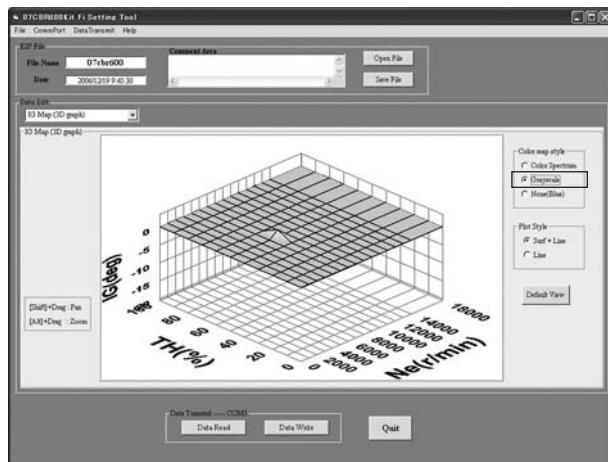
When you select "IG Map (3D graph)," a screen like below will appear. You can change the graph color and graph size by referring to the instructions on both sides of graph as shown.



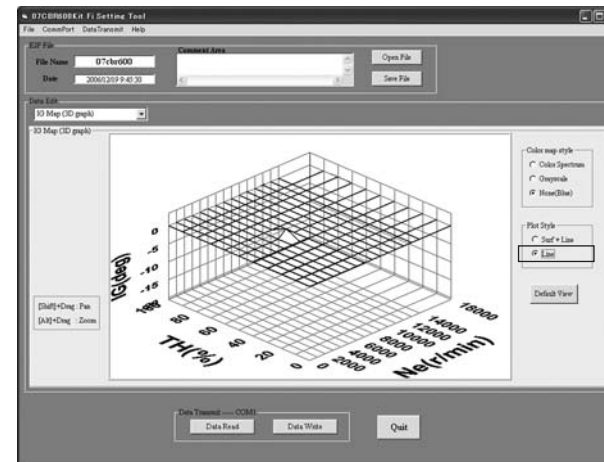
Single color:
Display with a single color (blue).



Grayscale:
Display with grayscale (cannot select PilotStyle Line).

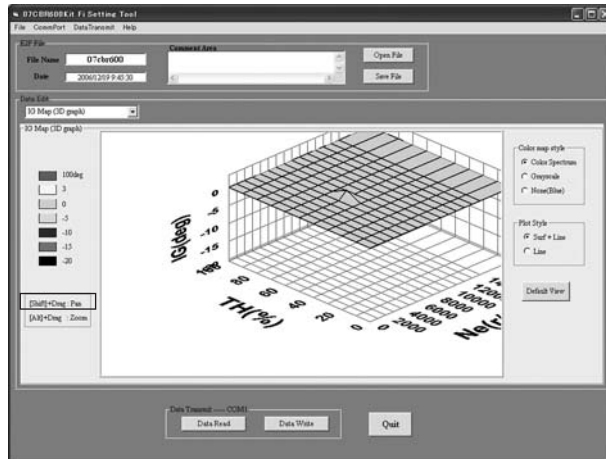


Line:
Display with line only (Color map style will automatically vanish).

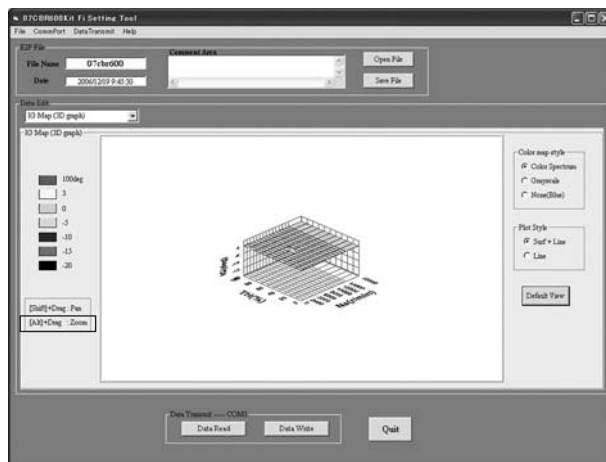


PGM-FI Setting

Drag:
Drag the graphic while pressing the [Shift] key ([Shift]+Drag).

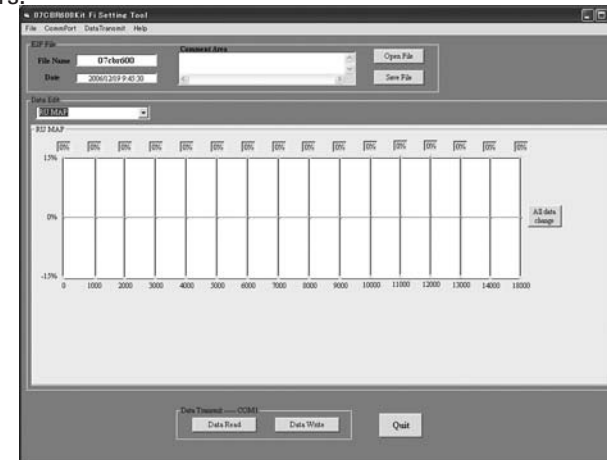


Zoom in/out:
Zoom the graphic in or out while pressing the [Alt] key ([Alt]+Drag).



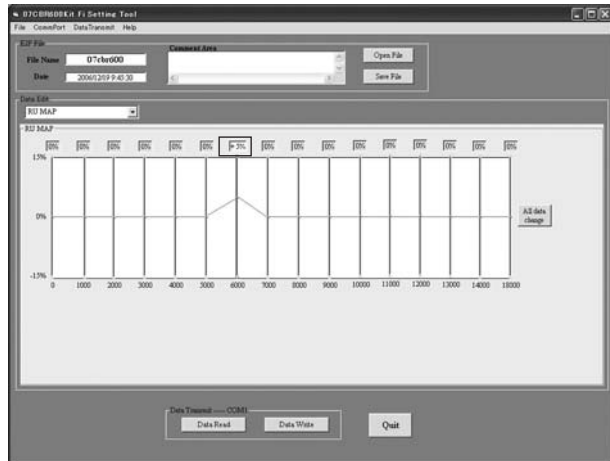
Changing the fuel distribution percentage between the upper and lower injector

When you select "RU MAP," a screen like below will appear. You can change the fuel distribution percentage between the upper and lower injectors.

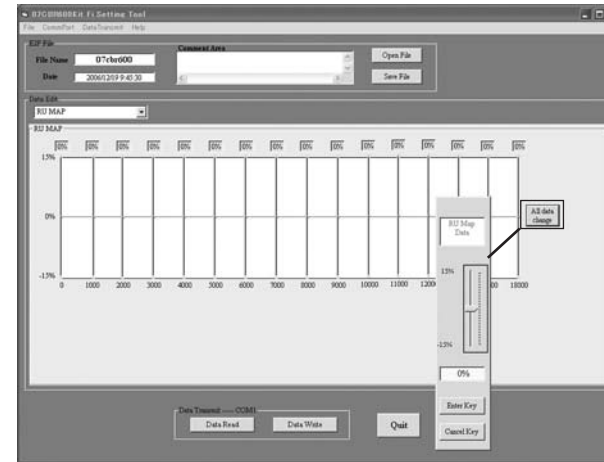


To make the change, select the upper injector value you wish to adjust. The current setting is graphed out to the engine rev direction by the correction value of the upper fuel injection quantity. Click the correction value display of the engine speed you wish to adjust.

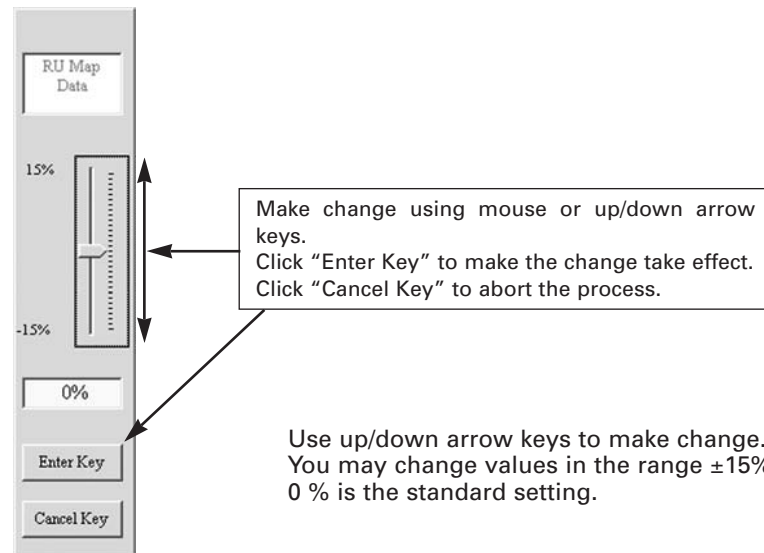
Adjustable areas will be indicated with a color change. Use your up/down arrow keys to make a change. It will be reflected in the map display.



How to make a proportional change to all data



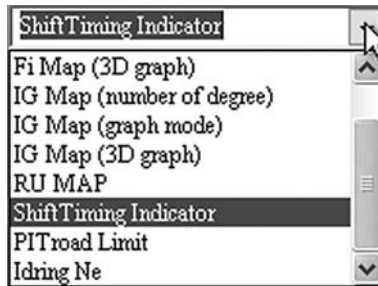
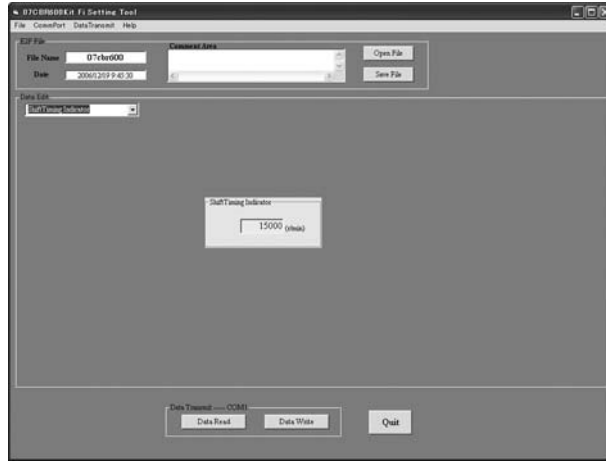
When you click "All data change," a screen like above will appear. This enables you to increase or decrease all data by the same percentage. The change takes effect when you click the "Enter Key."



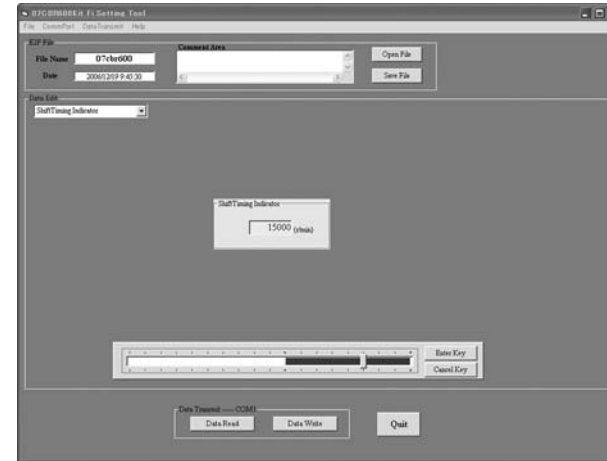
PGM-FI Setting

Shift Timing Indicator

When you click "Data Edit Selector," the following window will appear. Select "Shift Timing Indicator" from the pull down menu.



Input the shift point rpm value you want.

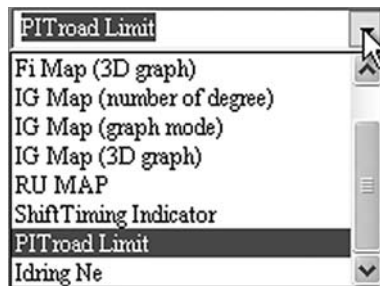
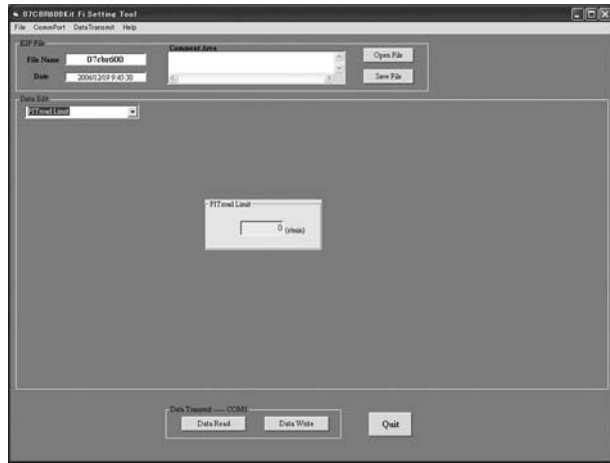


The shift timing indicator can be set between the 10,000 to 18,000 min⁻¹ (rpm). Choose the new value with your mouse or left/right arrow keys and press the "Enter key" after you put in a new value. Click the "Cancel Key" to abort the process. You may make a change only within the zone of the scale.

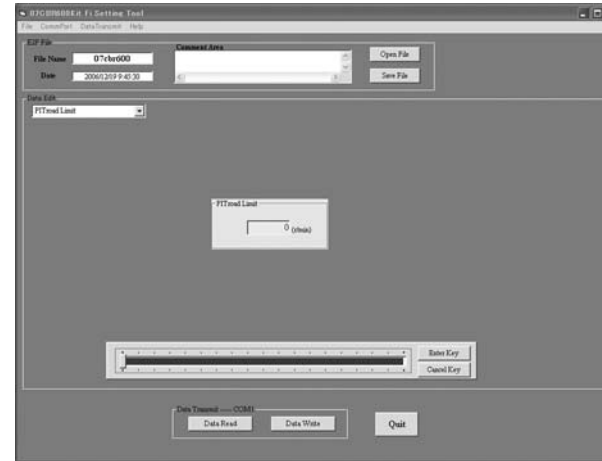


Pit Road Limit

When you click "Data Edit Selector," the following window will appear. Select "PITroad Limit" from the pull down menu.



When you click the cell shown below, the following scale will appear.



Input the rpm you wish for ignition cut off.
 The Pit road Limit can be set between the 0 to 18,000 min⁻¹ (rpm).
 Choose a point to change with your mouse or left/right arrow keys and press the "Enter key" after you put in a new value.
 Click the "Cancel Key" to abort the process.
 You may make a change only within the zone of the scale.



PGM-FI Setting

Engine Speed Calculation

Engine Speed = Vehicle speed (km/h) x 1,000/60/Tire circumference (m)
x Primary ratio x Transmission ratio x Final ratio

Example: (cross ratio transmission, final ratio 16/43)
7.374 rpm = 60 km/h x 1,000 ÷ 60 ÷ 2.0 x 2.111 x 2.600 x 2.687

So the actual engine speed change depends on the circumference of the tire and other factors. Measure each tire's actual circumference and recalculate the vehicle speed.

We recommend you set the engine speed 200 min-1 (rpm) lower than the calculated value.

WE AREN'T SURE WHAT THE ENGLISH IS TRYING TO SAY

Primary ratio:

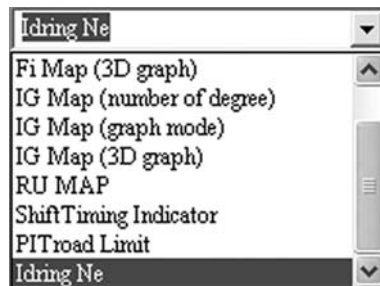
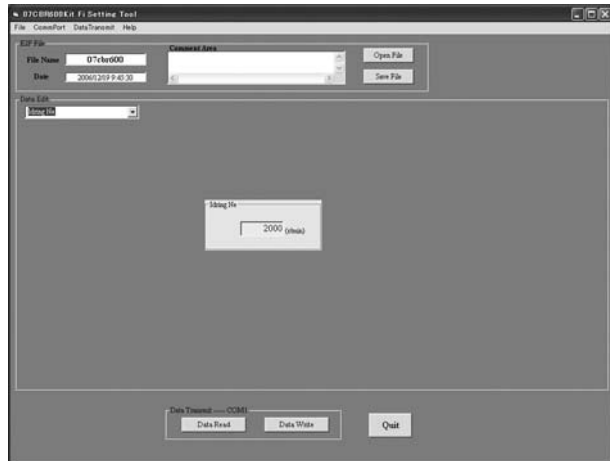
Transmission ratio:

Gear teeth	Ratio
36/76	2.111

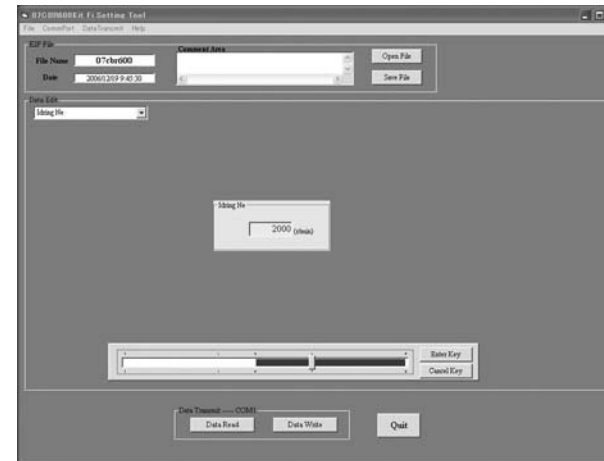
Idle Speed (Idling Ne)

	Standard transmission		Racing kit transmission	
	Gear teeth	Ratio	Gear teeth	Ratio
1st	12/33	2.750	15/39	2.600
2nd	16/32	2.000	16/32	2.000

When you click "Data Edit Selector," the following window will appear. Select "Idling Ne" from the pull down menu.



Click the cell shown below, the following scale will appear.



The Idle speed can be set between the 1,400 to 3,000 min⁻¹ (rpm). Choose a point to change with your mouse or left/right arrow keys and press the "Enter key" after you put in a new value. Click the "Cancel Key" to abort the process. You may make changes only within the zone of the scale. The idle speed can be set 200 min⁻¹ (rpm) steps.

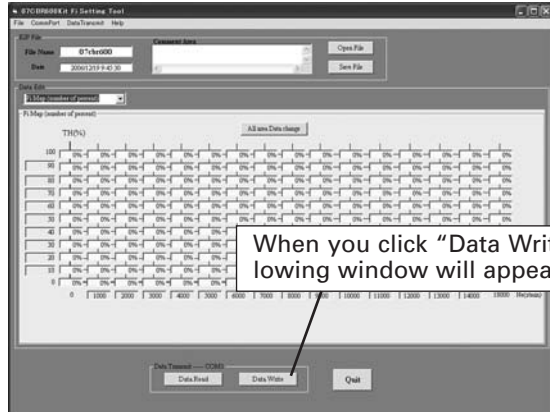
NOTE:
The actual idle speed may differ from setting data due to the machine's configuration or condition.



PGM-FI Setting

Transferring Setting Data

Transmitting data (PC to ECU)



When you click "Data Write," the following window will appear.



When you click "OK," the following window will appear. Turn the engine stop switch OFF, click "OK". The following window will appear.



Turn the engine stop switch ON, click "OK" within 2 seconds.



If the communication is correctly completed, the following window will appear, then turn the engine stop switch OFF.

If communication is not performed correctly, the following window will appear. Check connection and communication settings and retry communication clicking "Data Write" again.

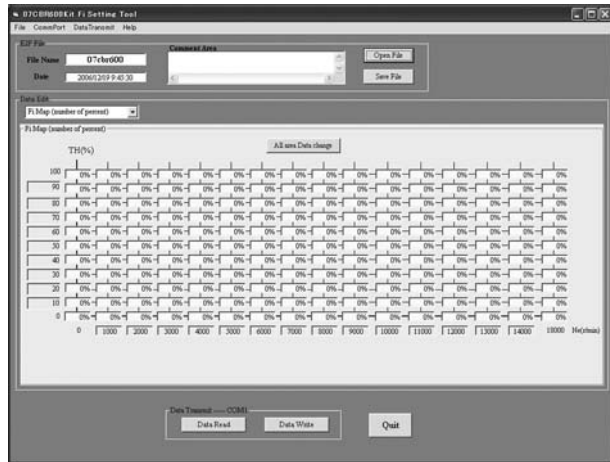


When the data for a different year is written, the following window will appear.

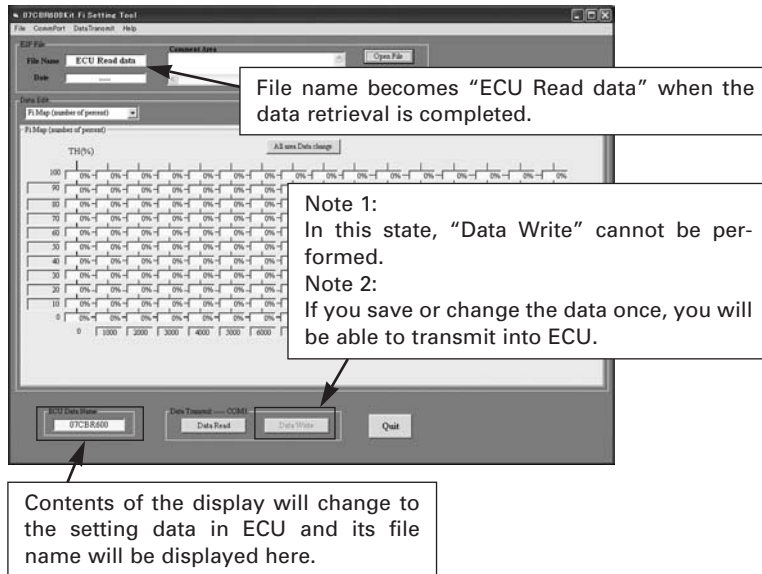


After transferring the data, disconnect the UNIT, ASSY SERIAL I/F from the vehicle.

Receiving data (ECU to PC)
 By clicking "Data Read," you can retrieve setting data from ECU.



Follow the same procedures used for Data Write and the screen will appear as below.

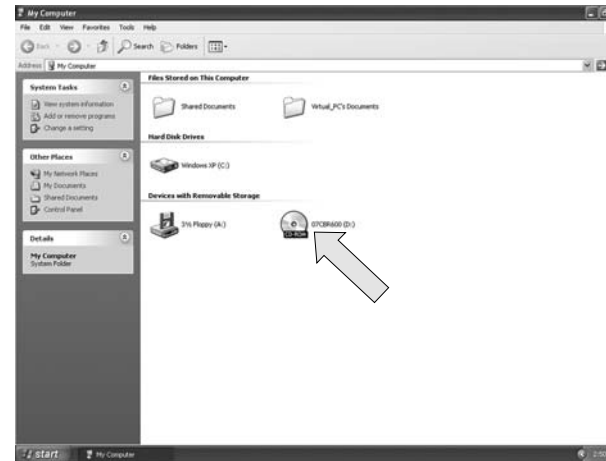


PGM-FI Setting

Troubleshooting

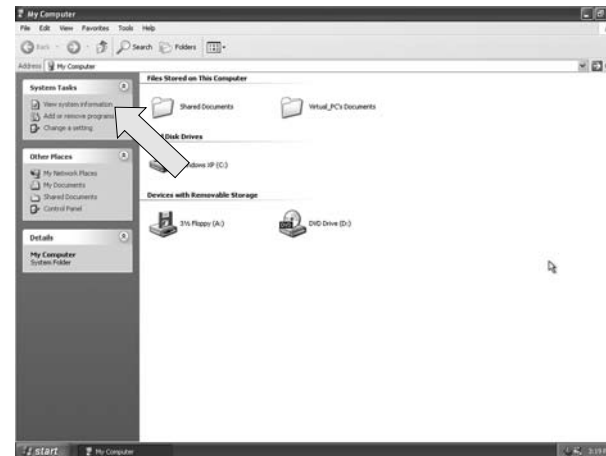
No.	State	Cause	Action to take
1	Unable to install	Don't know how to operate	*refer to 1
		CD-ROM drive does not recognize	Make the drive recognized and try installation again
		Defect of CD-ROM (deep scratch, etc.)	Please contact HRC service.
2.	Unable to run the tool	Unsupported OS	This tool runs on windows 98/Me/2000/XP.
3.	Unable to communicate with ECU	The serial port setting incorrect	*refer to 2
		Power supply of ECU is turned off.	Check battery connection. Check battery charging condition
		Incorrect serial interface connection	Check connection (Refer to the page on connection with the vehicle)
		Incorrect data transmit timing	Push the return key and transmit the data within 2 seconds after the engine stop switch is turned ON.
		Data read out from ECU cannot be transmitted.	The retrieved data cannot be retransmitted as it is. In order to transmit retrieved data, you should save it once. (Refer to the page on data reception)
4.	Default file is not displayed when starting up first	A same problem occurs with the English version.	*refer to 3
5.	Wrong ECU data	Different model year's E2P data is opened.	Check model year, select the correct model year file.
		Does not match setting tool display and vehicle's model year.	Check vehicle's model year, select the correct setting tool display (07CBR600 only).
6.	Wrong file format	Broken reading E2P file.	Please contact HRC service.

*1: CD-ROM drive



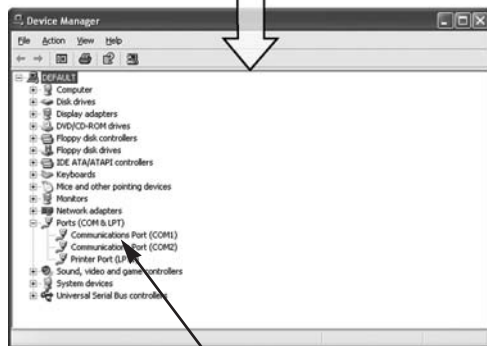
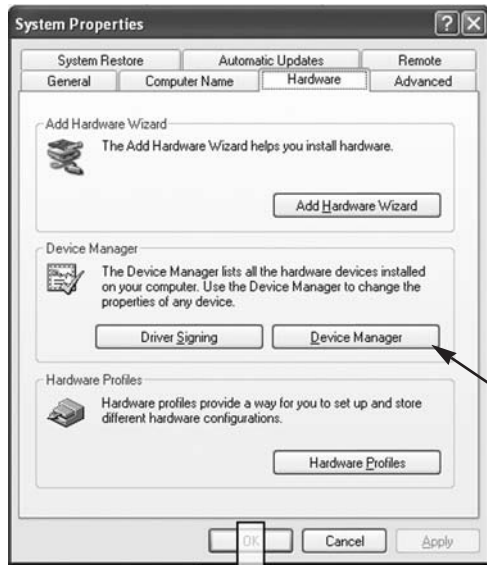
If you click on the My Computer icon, a window will appear. Click the CD-ROM drive in the window and installation will start. If no CD-ROM icon is displayed in the window, your PC might not be equipped with the CD-ROM drive or is not recognizing one. Consult the instruction manual of your PC to confirm this.

*2: How to check serial port



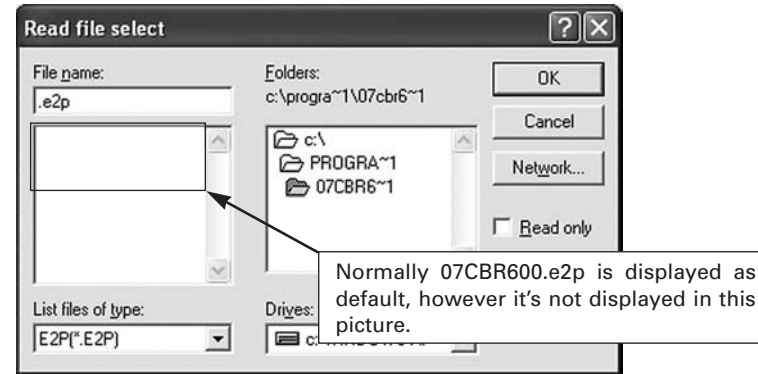
Click "View system information" in the System Tasks.

Windows XP
System Properties window will open.

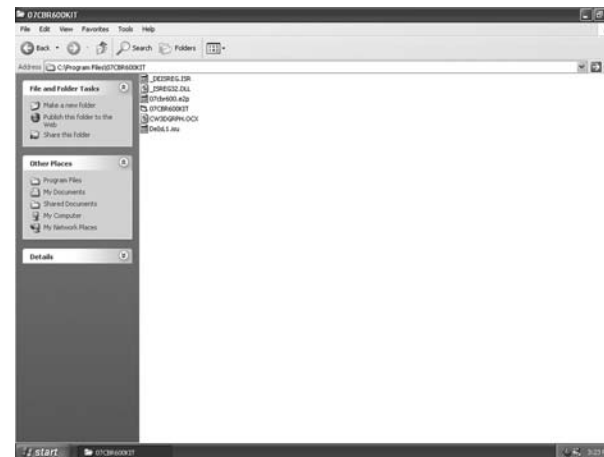


Unable to communicate when the "x" mark on the communication port (COM1). Also unable to communicate if the COM port differs from the tool setting.

*3: In case you open "Open File" when starting up for the first time.



Countermeasure : Open the directory including the tool, and change the file name.



Select "07Cbr6_a.e2p" and change the file name.
For example, change the file name 07Cbr600.e2p to 07Cbr6_1.e2p."
The file name is not acceptable if the name includes 8 letters or less.
Now you can open the file.

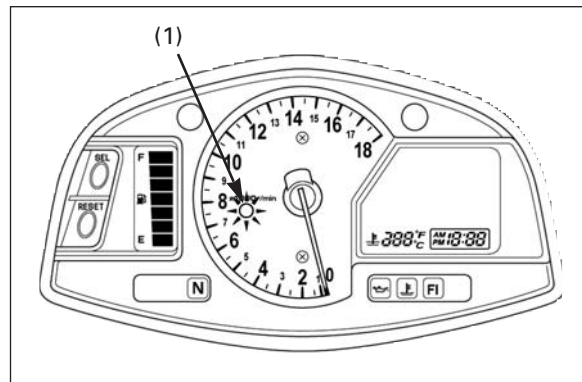


(1) TURN SIGNAL SWITCH (PIT ROAD SPEED LIMIT)

Turn Signal Switch Function

This machine is equipped with Pit Road Speed Limiter. The turn signal switch is used for this function.

To operate, push the turn signal switch to the right or left.



(1) INDICATOR

The indicator on the combination meter lights when the pit road speed limiter is activated.

To cancel the pit road speed limiter, push the turn signal switch in, and the indicator will go off.

See page 23 for pit road speed limiter setting.