

The 7th generation

EVC

ELECTRONIC VALVE CONTROLLER

EasyWriter

Instruction Manual

Contents:

Contents: 1
Requirements: 1
1. Description of the file 2
2. Installation of USB driver 2
3. Confirmation of USB driver installation 3
4. Starting Easy Writer 4
5. Description of "Basic Settings" window 4
6. Description of "Map Settings" window 6
7. Data monitor 8
8. Data log 9

Requirements:

- Windows PC (OS tested: Windows 10 64bit as of February 27, 2020)
- EasyWriter requires .Net Framework 4.7.2 or later to be installed on your PC.
If it hasn't been installed already, install it from the official Microsoft website.
- USB cable (USB A to Micro B) for connecting the display unit to your PC.

- *To read and write data using EasyWriter, the following conditions must be met.
- The valve unit and the display unit are connected.
 - The display unit and the PC are connected with a USB cable.
 - The valve unit and the display unit are turned on. (Ignition ON or engine running)

1. Description of the file

Name	Date modified	Type	Size
en-US	2020/02/26 17:05	File folder	
ja-JP	2020/02/26 17:05	File folder	
Manual	2020/02/28 11:28	File folder	
USBDriver	2020/02/26 17:04	File folder	
EasyWriter_7.exe	2020/02/17 16:55	Application	1,697 KB
Prism.dll	2020/01/22 22:31	Application exten...	75 KB
System.Valu	2020/01/22 22:31	Application exten...	25 KB

2. Installation of USB driver

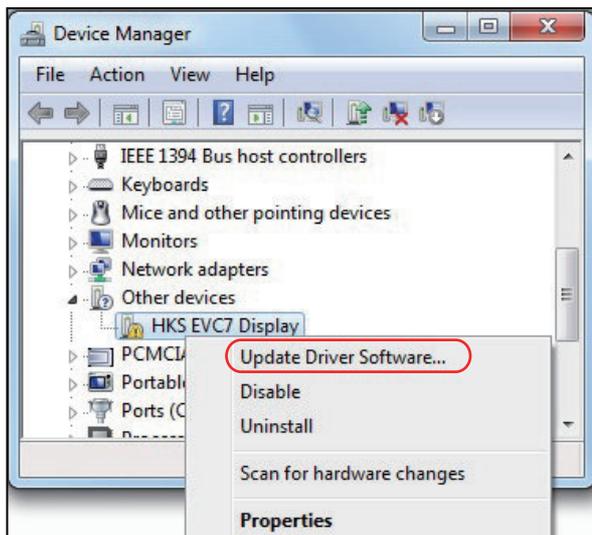
[For Windows 10]

- Right-click on "EVC7_USB_Driver_Win10.inf" in the USBDriver folder and select Install.
- Then follow the instructions that appear to complete the installation.

Name	Date modified	Type	Size
evc_usb_driver_win10.cat	2/10/2020 8:25 PM	Security Catalog	8 KB
EVC7_USB_Driver_Win10.inf	2/10/2020 8:18 PM	Setup Information	3 KB

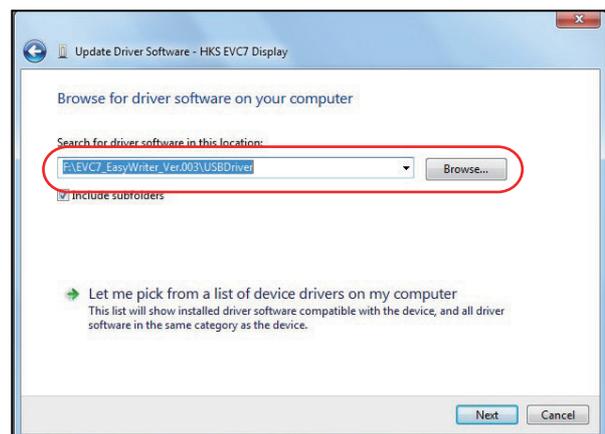
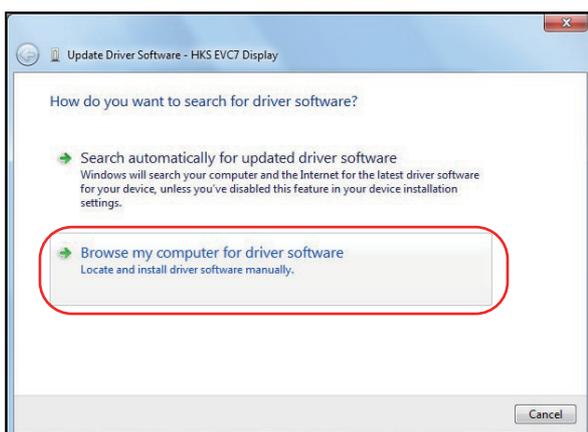
[For Windows 7]

- When the EVC7 is connected to the PC with a USB cable, the device with "!" is displayed in the device manager.
- Right-click on the device with "!" And select "Update Driver".



*If automatic driver installation is enabled, the driver search starts automatically. During the search, "Update Driver" button is not displayed. Please try again after a while.

- Click on Browse my computer for driver software.



- Select the "USBDriver" folder of EasyWriter for the search location and click on "Next".

- Click "Install"



- After a while, the update of the driver software is completed.



3. Confirmation of USB driver installation

- Connect EVC7 display unit to your PC with USB cable.
- Open the Device Manager and if HKS_EVC7 is displayed at the port (COM & LPT), the USB driver is installed correctly.



- How to open a Device Manager

[For Windows 10]

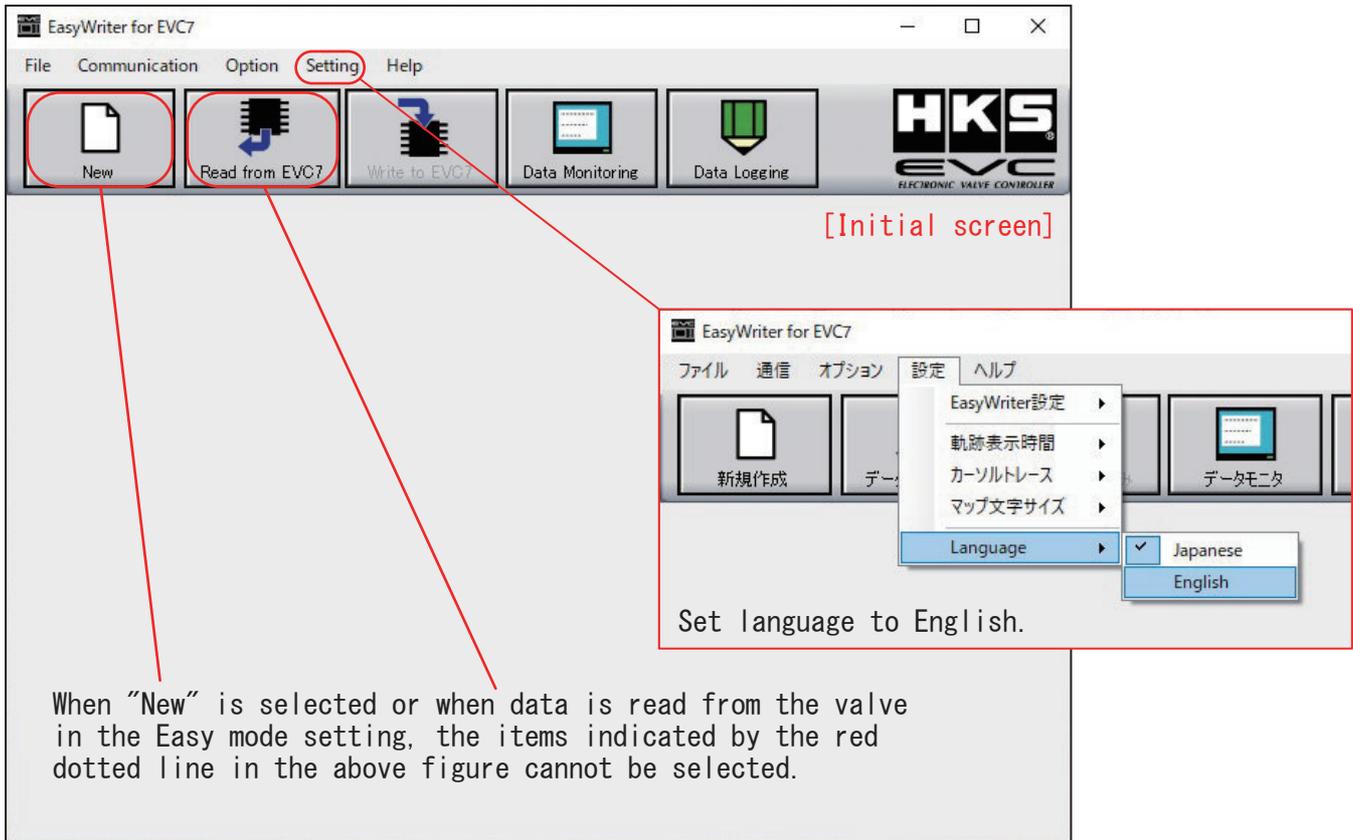
- Right-click the start menu and click on Device Manager icon.

[For Windows 7]

- Click Start menu and open Control Panel.
- If the display method at the top right of the window is "Category", change it to "Small icon" or "Large icon".
- Click Device Manager from the displayed list.

4. Starting Easy Writer

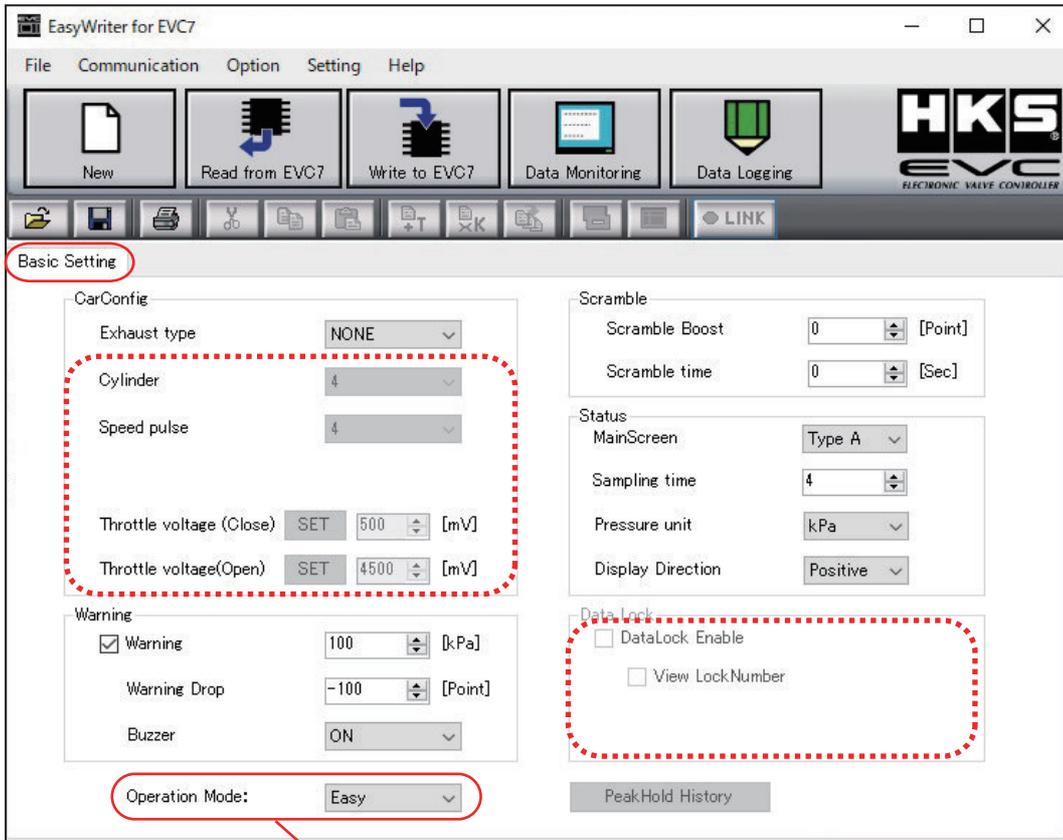
- Run EasyWriter_7.exe.



The screenshot shows the 'EasyWriter for EVC7' application window. The menu bar includes 'File', 'Communication', 'Option', 'Setting', and 'Help'. The toolbar contains icons for 'New', 'Read from EVC7', 'Write to EVC7', 'Data Monitoring', and 'Data Logging'. A red dotted line encloses the 'New' and 'Read from EVC7' icons. A red circle highlights the 'Setting' menu item. A callout box shows the 'Setting' menu open, with the 'Language' option selected, showing 'Japanese' and 'English' choices. The text 'Set language to English.' is written below the callout. The label '[Initial screen]' is placed in the main window area.

When "New" is selected or when data is read from the valve in the Easy mode setting, the items indicated by the red dotted line in the above figure cannot be selected.

5. Description of "Basic Settings" window

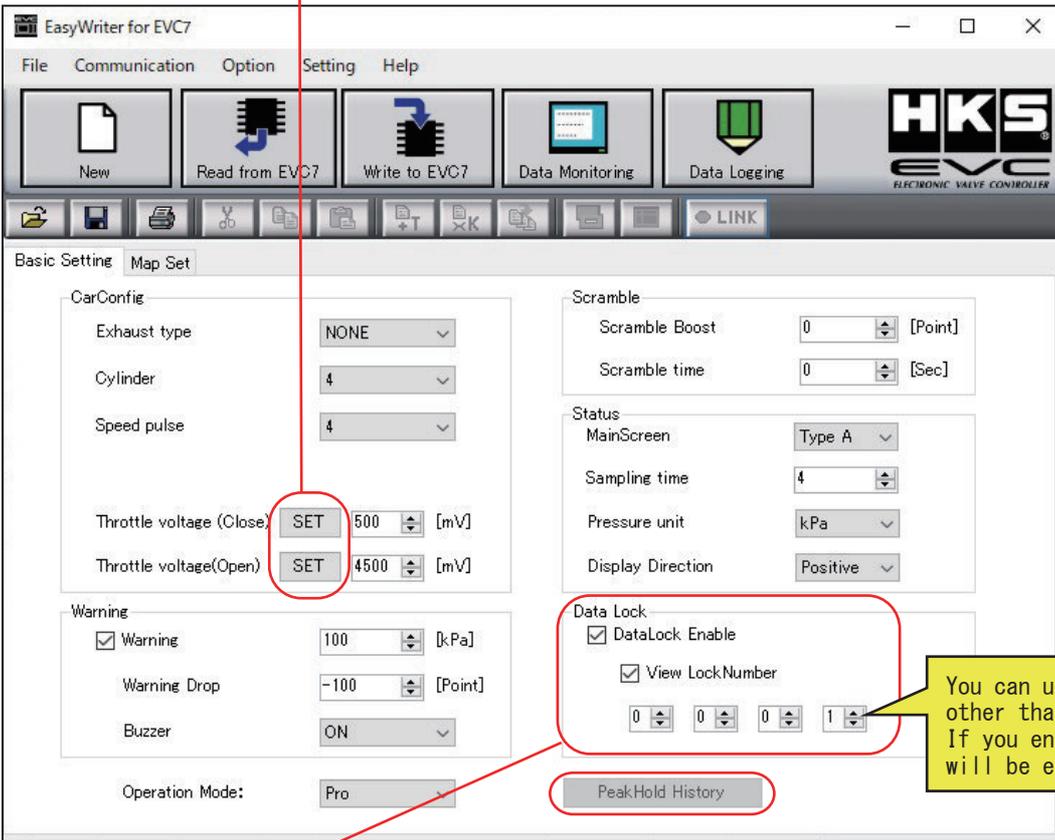


The screenshot shows the 'Basic Setting' window. The 'Operation Mode' is set to 'Easy'. A red dotted line encloses the 'CarConfig' section, which includes 'Exhaust type' (NONE), 'Cylinder' (4), 'Speed pulse' (4), 'Throttle voltage (Close)' (500 [mV]), and 'Throttle voltage (Open)' (4500 [mV]). Another red dotted line encloses the 'Data Lock' section, which includes 'DataLock Enable' (unchecked) and 'View LockNumber' (unchecked). The 'Warning' section includes 'Warning' (checked, 100 [kPa]), 'Warning Drop' (-100 [Point]), and 'Buzzer' (ON). The 'Scramble' section includes 'Scramble Boost' (0 [Point]) and 'Scramble time' (0 [Sec]). The 'Status' section includes 'MainScreen' (Type A), 'Sampling time' (4), 'Pressure unit' (kPa), and 'Display Direction' (Positive). The 'PeakHold History' button is visible at the bottom.

- When "New" is selected or when data is read from the valve in the Easy mode setting, the items indicated by the red dotted line in the above figure cannot be selected.
- By changing the operation mode to "PRO mode", items of the red dotted line can be selected and the "Map setting" tab can be selected.

• Throttle voltage setting

By pressing the “SET” button, the current throttle voltage is input to the (closed) or (open) set voltage of the throttle voltage.



• Data Lock Function

Locking is enabled after selecting lock function and performing “Write to EVC7” once.

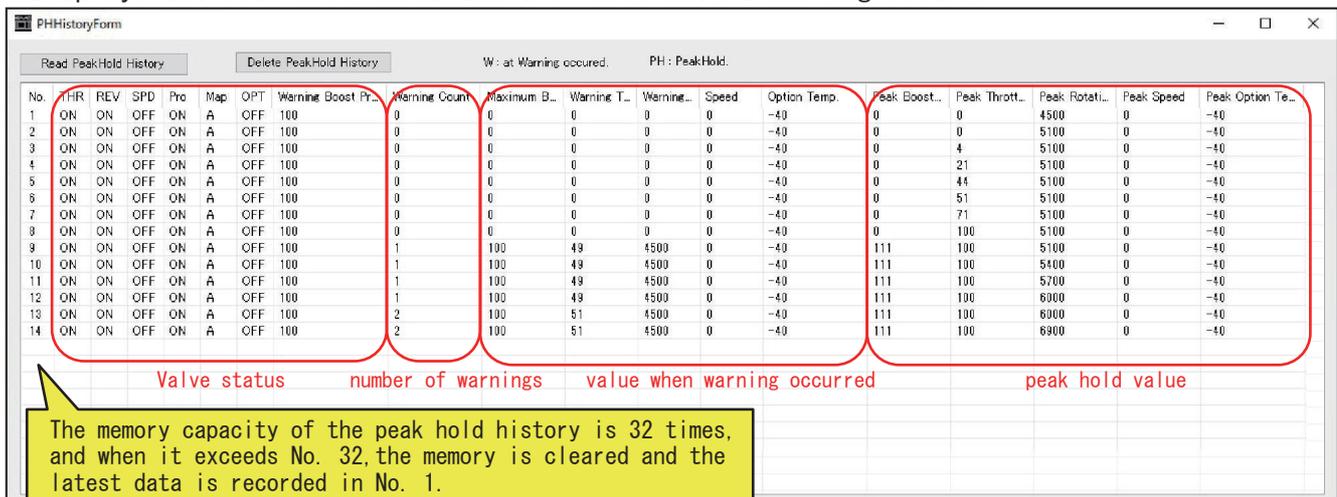
If you perform “Read from EVC7” or “Write to EVC7” while the data is locked, the PC will ask you to enter the Data Lock code. You can read / write data by entering the correct code.



*You cannot see the map on the display unit when data is locked.

• Peak Hold History

Displays the Peak Hold value and the value when a warning occurs.



6. Description of "Map Settings" window

EasyWriter for EVC7

File Communication Option Setting Help

New Read from EVC7 Write to EVC7 Data Monitoring Data Logging

HKS EVC ELECTRONIC VALVE CONTROLLER

Basic Setting **Map Set**

Mode: A ValveControlValue: 29 [Point] Map Function : Do not use

Edit Item: Correction Values

You can select the map to edit. A / B / C / D

The base of valve control value [Point] can be changed

You can choose which axes to use in the map
 ·Throttle
 ·REV
 ·REV+Throttle
 ·Speed
 ·Speed+Throttle

Correction value : Set a correction value
 Axis guide point : Set an axis value

Show Graph

You can check the value of the map on a graph

Point

Changes made in "Basic settings" and "Map settings" will not be effective until "Write to EVC7" is performed.

Always perform "Write to EVC7" after making a new map.

EasyWriter for EVC7

File Communication Option Setting Help

New Read from EVC7 **Write to EVC7** Data Monitoring Data Logging

HKS EVC ELECTRONIC VALVE CONTROLLER

Basic Setting Map Set

Mode: A ValveControlValue: 30 [Point] Map Function : REV + Throttle

Edit Item: Correction Values

Throttle[%]

REV[rpm]

	2000	2500	3000	3500	4000	4500	5000	6000	7000	8000
0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0
30	0	0	5	5	5	5	5	5	5	5
40	0	0	5	10	10	10	10	10	10	10
50	0	0	5	10	15	15	15	15	15	15
60	0	0	5	10	15	20	20	20	20	20
70	0	0	5	10	15	20	20	20	20	20
80	0	0	5	10	15	20	20	25	25	25
90	0	0	5	10	15	20	20	25	25	25
100	0	0	5	10	15	20	20	25	25	25

Show Graph

- Correction value of the map
 Correction value of the map [Point] is + or - from the valve control value [Point].

Example: Valve control value (30 [Point]) + Correction value of the map(25 [Point]) = Total valve control value (55 [Point])

• “Map Settings” tab ①

EasyWriter for EVC7

File Communication Option Setting Help

New Read from EVC7 Write to EVC7 Data Monitoring Data Logging

Basic Setting Map Set

Copy the value of the selected cell

Cuts the value of the selected cell

Paste the copied or cut value

Adds the specified number to the value of the selected cell

Multiplies the value of the selected cell by the specified number

Evenly divide the selected cell by mean value and enters the value automatically

Throttle[%]

	2000	2500	3000	3500	4000	4500	5000	6000	7000	8000
0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0
30	0	0	5	5	5	5	5	5	5	5
40	0	0	5	10	10	10	10	10	10	10
50	0	0	5	10	15	15	15	15	15	15
60	0	0	5	10	15	20	20	20	20	20
70	0	0	5	10	15	20	20	20	20	20
80	0	0	5	10	15	20	20	25	25	25
90	0	0	5	10	15	20	20	25	25	25
100	0	0	5	10	15	20	20	25	25	25

Show Graph

• “Map Setting” tab ②

EasyWriter for EVC7

File Communication Option Setting Help

New Read from EVC7 Write to EVC7 Data Monitoring Data Logging

Basic Setting Map Set

Green: Communication with EVC7 established
Light off: No communication with EVC7

The locus of the loaded map is displayed in green for easy tracing. The color will return to white over time.

The background of the map location currently reading turns blue

A red frame is displayed at the current reading map position

Throttle[%]

	2000	2500	3000	3500	4000	4500	5000	6000	7000	8000
0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0
30	0	0	5	5	5	5	5	5	5	5
40	0	0	5	10	10	10	10	10	10	10
50	0	0	5	10	15	15	15	15	15	15
60	0	0	5	10	15	20	20	20	20	20
70	0	0	5	10	15	20	20	20	20	20
80	0	0	5	10	15	20	20	25	25	25
90	0	0	5	10	15	20	20	25	25	25
100	0	0	5	10	15	20	20	25	25	25

Show Graph

7. Data monitor

- Boost pressure and sensor input value can be monitored.

The screenshot shows the 'EasyWriter for EVC7' software interface. The 'Data Monitoring' button in the top toolbar is highlighted with a red circle. A red arrow points from this button to the 'Monitor' window shown below.

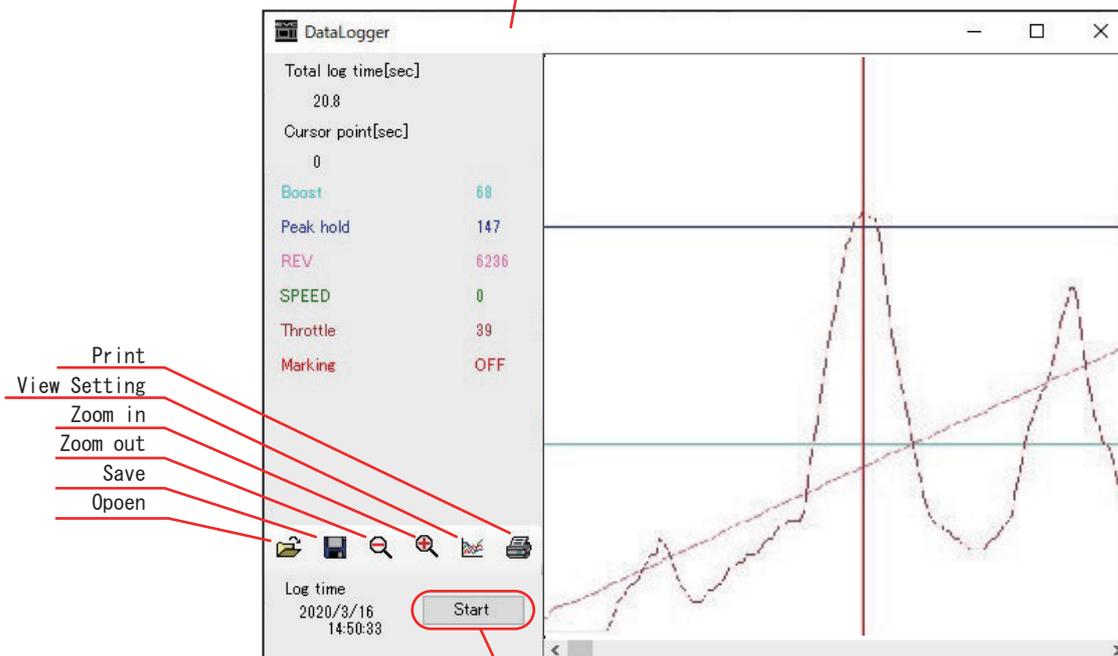
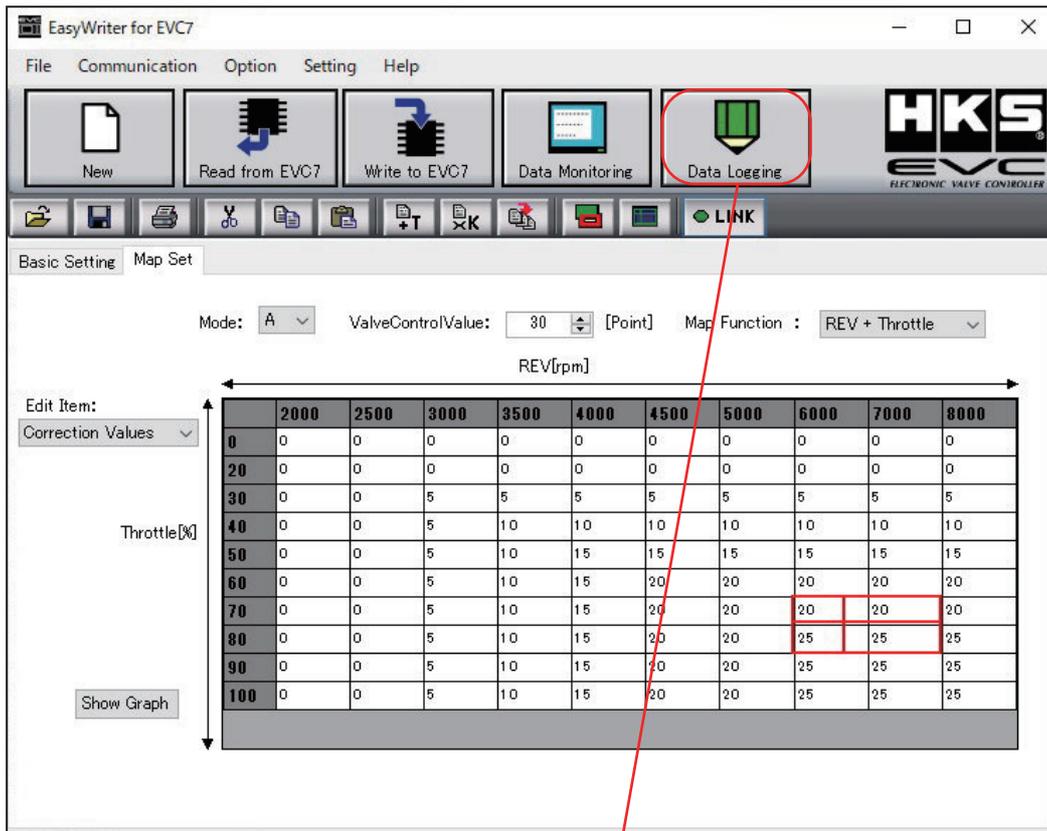
The 'Monitor' window displays the following data:

Setting	Value	Setting	Value
Boost	87 kPa	Peakhold	137 kPa
Throttle	74 %	REV	6220 rpm

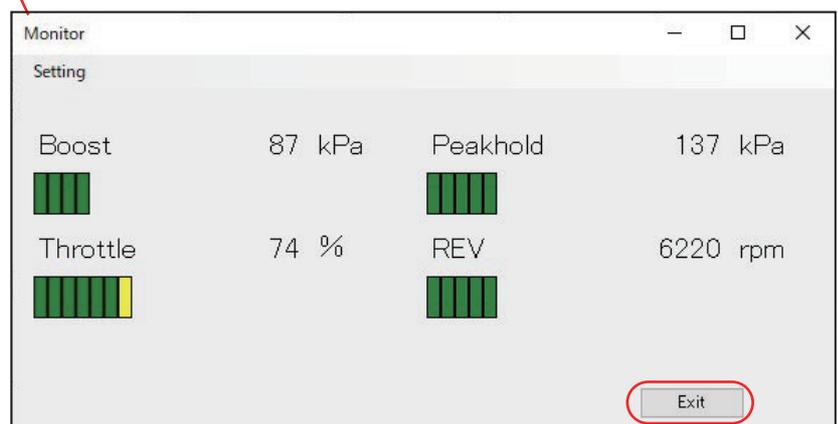
Each data point is accompanied by a green bar graph. An 'Exit' button is located at the bottom right of the window.

8. Data log

- Possible to log the boost pressure and the sensor input value.



- Click to open the monitor screen and start logging.
- The marking turns on while pressing the "space key" during logging.
- Click Exit to close the monitor screen and display the graph in the logger.
- Continuous logging time is up to 90 minutes
- After 90 minutes, logging stops and the monitor screen closes.
- The data is not saved automatically, please save the data manually.



HKS[®]