

CUSTOMER NOTIFICATION

SUD-DT-04-0093

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CP(K), O

PG-FP4

(Control Code: B, C, E, F)

Operating Precautions

Be sure to read this document before using the product.

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Notes on Using PG-FP4

1. Product Version

Control Code ^{Note}		Firmware	GUI Software	Remark
B	<1>	V1.16	V1.09	Hardware bug exists; see No.21
C	<2>	V1.17	V2.00	Hardware bug exists; see No.21
	<3>	V1.18	V2.02	Hardware bug exists; see No.21
	<4>	V1.19	V2.04	Hardware bug exists; see No.21
E	<5>	V1.21	V2.05	
E, F	<6>	V1.23	V2.05	
E, F	<7>	V1.30	V2.11	

<Version confirmation>

- Firmware version: Displayed by selecting [Reset] from the [Programmer] menu
- GUI software version: Displayed by selecting [About] from the [Help] menu

Note The “control code” is the second digit from the left in the 10-digit serial number in the warranty supplied with the product you purchased (if it has not been upgraded). If the product has been upgraded, a label indicating the new version is attached to the product and the x in V-UP LEVEL x on this label indicates the control code.

2. Product History

No.	Bugs and Changes/Additions to Specifications	Control Code						
		<1>	<2>	<3>	<4>	<5>	<6>	<7>
1	Bug in automatic signature selection	×	√	√	√	√	√	√
2	IIC communication adapter board is not included	×	√	√	√	√	√	√
3	Bug in SIO-H/S communication mode	×	×	×	×	√	√	√
4	Bug in USB communication	×	√	√	√	√	√	√
5	Bug in baud rate during upload	×	√	√	√	√	√	√
6	Bug in Abort	×	√	√	√	√	√	√
7	Bug in parallel I/F communication	√	×	×	√	√	√	√
8	Single-power-supply flash memory microcontroller is not supported	×	√	√	√	√	√	√
9	Restriction on single-power-supply flash memory microcontroller	×	×	√	√	√	√	√
10	Bug in HEX Editor address display	√	×	√	√	√	√	√
11	Bug in [Signature] command display when using USB I/F	√	×	√	√	√	√	√
12	Restrictions on security function of single-power-supply flash memory microcontroller	×	×	×	×	√	√	√
13	Addition of program area switching icon (addition of specification)	×	×	√	√	√	√	√
14	Update of USB driver	×	×	√	√	√	√	√
15	Bug in write processing	√	×	√	√	√	√	√

No.	Bugs and Changes/Additions to Specifications	Control Code						
		<1>	<2>	<3>	<4>	<5>	<6>	<7>
16	Restriction on checksum command in two-power-supply flash memory microcontroller	×	×	×	√	√	√	√
17	Bug in communication port selection in single-power-supply flash memory microcontroller	×	×	×	√	√	√	√
18	Bug in display of device checksum command	×	×	×	√	√	√	√
19	Bug in upload	×	×	×	√	√	√	√
20	Modification of specification of baud rate selection in UART communication mode	×	×	×	√	√	√	√
21	Bug in voltage output when power supply is turned on/off	×	×	×	×	√	√	√
22	Bug in upgrading firmware	×	×	×	√	√	√	√
23	Bug in setting checksum command in two-power-supply flash memory microcontroller	×	×	×	×	√	√	√
24	Modification of specification of multiplication rate selection format	×	×	×	×	√	√	√
25	Addition of display of number of VPP/FLMD pulses when selecting communication port	×	×	×	×	√	√	√
26	Bug in checksum command in two-power-supply flash memory microcontroller when operated in standalone mode	×	×	×	×	√	√	√
27	Bug in downloading Motorola S-format HEX file	×	×	×	×	×	√	√
28	Addition of subcommands to Read command (addition of specification)	×	×	×	×	×	×	√
29	Bug in Read command when UART is used for USB communication	√	√	√	√	√	√	×
30	Addition of Get Security Settings command (addition of specification)	×	×	×	×	×	×	√
31	Addition of Boot block cluster setting function (addition of specification)	×	×	×	×	×	×	√
32	<Security Setting> Addition of Read command disable function (addition of specification)	×	×	×	×	×	×	√
33	<Security Setting> Addition of Boot block cluster reprogramming disable function (addition of specification)	×	×	×	×	×	×	√
34	<Security Setting> Addition of Reset vector (addition of specification)	×	×	×	×	×	×	√
35	<File checksum> Addition of Arithmetic checksum (16 bits) and modification of GUI display (addition of specification)	×	×	×	×	×	×	√
36	Modification of CRC command specification (addition of specification)	×	×	×	×	×	×	√
37	Addition of 57,600 bps, 115,200 bps, 128,000 bps to GUI baud rate selection menu for UART communication (addition of specification)	×	×	×	×	×	×	√
38	Modification of target power supply detection function (addition of specification)	×	×	×	×	×	×	√

No.	Bugs and Changes/Additions to Specifications	Control Code						
		<1>	<2>	<3>	<4>	<5>	<6>	<7>
39	Modification of [Upload...] menu specifications (1) (addition of specification)	×	×	×	×	×	×	√
40	Modification of [Upload...] menu specifications (2) (addition of specification)	×	×	×	×	×	×	√
41	Modification of [Logging] menu specifications (addition of specification)	×	×	×	×	×	×	√
42	Modification of GUI specification when host machine is shut down (addition of specification)	×	×	×	×	×	×	√
43	Modification of specification when Disable Chip Erase is selected and popup message is cancelled (addition of specification)	×	×	×	×	×	×	√
44	Bug in address display in Boot block cluster setting	×	×	×	×	×	×	×
45	The last address input for file upload differs from the one actually executed	×	×	×	×	×	×	√
46	Bug in Address display in Block/Area	×	×	×	×	×	×	√

×: Applicable or not supported, √: Not applicable or corrected

3. Details of Bugs and Additions to Specifications

No.1 Bug in automatic signature selection

[Description]

When multiple signature information is stored in a parameter file, the valid signature cannot be selected automatically.

[Workaround]

Be sure to use the released parameter file that supports the target microcontroller.

This bug has been corrected in products with control code C (firmware: V1.17, GUI: V2.00) or later.

No.2 IIC communication adapter board is not included

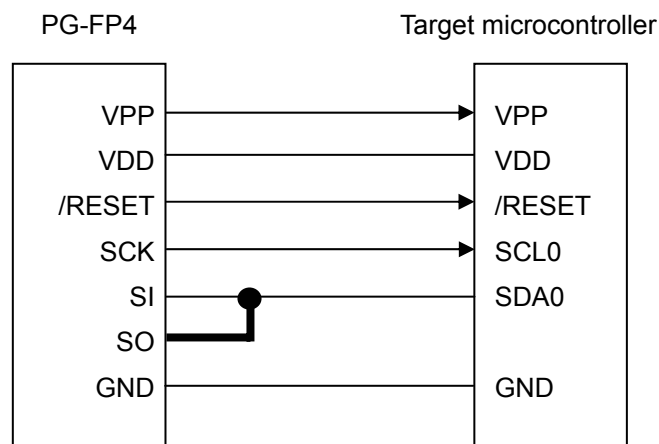
[Description]

The IIC communication mode adapter board is not included.

[Workaround]

When using IIC communication mode, short the SI and SO pins in the PG-FP4.

Connection example



The IIC communication mode adapter board is included in products with control code C (firmware: V1.17, GUI: V2.00) or later.

Use the IIC communication mode adapter board for IIC communication.

No.3 Bug in SIO-H/S communication mode

[Description]

SIO-H/S communication mode cannot be used in the following devices.

*μ*PD78F9478, *μ*PD78F9488, *μ*PD78F0078, *μ*PD78F0703Y, *μ*PD78F0828B, *μ*PD78F4216A, *μ*PD78F4218A, *μ*PD78F4225, *μ*PD78F4976A, *μ*PD78F4938A, *μ*PD78F4967, *μ*PD78F0988A, *μ*PD78F0034B

[Workaround]

There is no workaround. Use other than SIO-H/S communication mode when using the above devices.

This bug can be avoided by using products with control code E (firmware: V1.21, GUI: V2.05) or later in combination with the latest parameter file.

See **4. Cautions** regarding this bug.

No.4 Bug in USB communication

[Description]

USB communication with the host cannot be performed in Windows 98 and Windows Me.

[Workaround]

Use the serial interface (RS-232-C) when using Windows 98 or Windows Me. To use USB communication, use Windows 2000.

In addition, use the serial interface (RS-232-C) when updating firmware data in the PG-FP4. Firmware data cannot be updated via USB communication.

This bug has been corrected in products with control code C (firmware: V1.17, GUI: V2.00) or later.

No.5 Bug in baud rate during upload

[Description]

When serial communication is used with a baud rate of 38,400 bps or higher in the Upload menu (File → Upload), the message E 502 Programmer is not responding is displayed and the upload may not be performed correctly.

[Workaround]

There is no workaround. Use serial communication with a baud rate of 19,200 bps or less.

This bug has been corrected in products with control code C (firmware: V1.17, GUI: V2.00) or later.

No.6 Bug in Abort

[Description]

Even if "Abort" is executed after a command for the target microcontroller is executed, the Abort is not executed and the command processing is executed instead.

[Workaround]

There is no workaround. Do not use "Abort".

This bug has been corrected in products with control code C (firmware: V1.17, GUI: V2.00) or later.

No.7 Bug in parallel I/F communication

[Description]

Correct communication cannot be performed via the parallel I/F (dedicated to download).

[Workaround]

There is no workaround. Use the serial I/F (RS-232-C) or USB.

This bug has been corrected in products with control code C (firmware: V1.19, GUI: V2.04) or later.

No.8 Single-power-supply flash memory microcontroller is not supported

[Description]

The single-power-supply flash memory microcontroller is not supported.

[Workaround]

There is no workaround.

This bug has been corrected in products with control code C (firmware: V1.17, GUI: V2.00) or later.

No.9 Restriction on single-power-supply flash memory microcontroller

[Description]

If a communication port other than SIO is used in the single-power-supply flash memory microcontroller, communication may not be performed depending on the target clock frequency.

Moreover, the following functions cannot be used regardless of the communication port.

- Checksum after Program

[Workaround]

There is no workaround.

Use the SIO communication port.

This bug has been corrected in products with control code C (firmware: V1.18, GUI: V2.02) or later.

No.10 Bug in HEX Editor address display

[Description]

When a Motorola-SRC format file is loaded, the end address displayed in the application software is the address incremented by one. This bug is just a problem of address display; there is no problem in the loaded data.

[Workaround]

There is no workaround.

This bug has been corrected in products with control code C (firmware: V1.18, GUI: V2.02) or later.

No.11 Bug in [Signature] command display when using USB I/F

[Description]

If the [Signature] command is executed when using the USB I/F, the following message will be output.

Power failure detected!

No Device connected.

This bug is just a problem of display in the application software; there is no operational problem.

[Workaround]

There is no workaround.

This bug has been corrected in products with control code C (firmware: V1.18, GUI: V2.02) or later.

No.12 Restrictions on security function of single-power-supply flash memory microcontroller

[Description]

The security function of the single-power-supply flash memory microcontroller is not supported. This function is not activated even if the check box is selected in [Security flag after Program] on the GUI.

[Workaround]

There is no workaround.

This bug has been corrected in products with control code E (firmware: V1.21, GUI: V2.05) or later.

No.13 Addition of program area switching icon (addition of specification)

[Description]

The program area switching icon has been added to the toolbar for the GUI software.

[Workaround]

Switch the program area using [Select Programming Area...] on the [Programmer] menu.

This item has been implemented in products with control code C (firmware: V1.18, GUI: V2.02) or later.

No.14 Update of USB driver

[Description]

Some of the USB driver specifications required in the Windows 2000 Service Pack 2 (SP2) environment was changed. Accompanied by this change, the USB driver included in the PG-FP4 has also been changed to meet the required specifications.

[How to upgrade]

How to update a USB driver already installed is described below.

1. Open Device Manager in Windows.
2. Select "USBIO Device..... (NEC Flash Programmer)" under "USBIO controlled devices" and click [Properties].
3. Select the Driver tab and execute [Update Driver...] to update the driver.

Use the driver under the directory Setup\Drivers included in GUI software V.2.02.

No.15 Bug in write processing

[Description]

When the PROGRAM command is executed in the μ PD78F4046, PROGRAM processing is repeated unnecessarily.

[Workaround]

There is no workaround.

There is no problem in terms of product quality in a device in which this processing occurs.

This bug has been corrected in products with control code C (firmware: V1.18, GUI: V2.02) or later.

No.16 Restriction on checksum command in two-power-supply flash memory microcontroller

[Description]

The checksum command is not supported in the two-power-supply flash memory microcontroller.

Therefore, the checksum command cannot be executed.

[Workaround]

There is no workaround.

This bug has been corrected in products with control code C (firmware: V1.19, GUI: V2.04) or later.

No.17 Bug in communication port selection in single-power-supply flash memory microcontroller

[Description]

When using the single-power-supply flash memory microcontroller (except V850ES/SA2, SA3), the communication port selection menu of the GUI is displayed as a blank, so the relevant port cannot be selected.

[Workaround]

There is no workaround.

This bug has been corrected in products with control code C (firmware: V1.19, GUI: V2.04) or later.

No.18 Bug in display of device checksum command

[Description]

The result of the first device checksum command immediately after power-on or a reset cannot be displayed correctly.

[Workaround]

The result is displayed correctly from the second and later device checksum command.

This bug has been corrected in products with control code C (firmware: V1.19, GUI: V2.04) or later.

No.19 Bug in upload

[Description]

If the size of a file to be uploaded is FFDh or larger, a symbol ">" is appended at the end of the file when it is saved.

[Workaround]

There is no workaround.

This bug has been corrected in products with control code C (firmware: V1.19, GUI: V2.04) or later.

No.20 Modification of specification of baud rate selection in UART communication mode

[Description]

4,800 bps has been deleted from the baud rate selection list in the UART communication mode.

[Workaround]

This item has been implemented in products with control code C (firmware: V1.19, GUI: V2.04) or later.

No.21 Bug in voltage output when power supply is turned on/off

[Description]

When the power supply is turned on/off, approx. 7 V of voltage is output from VPP, VDD, or VDD2.

[Workaround]

Remove the PG-FP4 taking care that the target is not affected by power supply turn-on/off.

This bug has been corrected in products with control code E (firmware: V1.21, GUI: V2.05) or later.

No.22 Bug in upgrading firmware

[Description]

When the firmware is upgraded to V1.19 or later using GUI software V2.02 or earlier, the firmware cannot be upgraded correctly, and after that, cannot be activated.

[Workaround]

Upgrade firmware using GUI software V2.04 or later.

No.23 Bug in setting checksum command in two-power-supply flash memory microcontroller

[Description]

The device Checksum command is not executed after the Program command even if the "Checksum after program" option is set on the GUI software.

[Workaround]

There is no workaround.

Execute the device Checksum command independently after the Program command.

This bug has been corrected in products with control code E (firmware: V1.21, GUI: V2.05) or later.

No.24 Modification of specification of multiplication rate selection format

[Description]

The multiplication rate can be separately selected for Direct mode and PLL mode. In addition, the multiplication rate can be directly input in PLL mode.

This item has been implemented in products with control code E (firmware: V1.21, GUI: V2.05) or later.

No.25 Addition of display of number of VPP/FLMD pulses when selecting communication port

[Description]

The number of VPP or FLMD pulses output from FP4 is displayed when selecting the communication port.

This item has been implemented in products with control code E (firmware: V1.21, GUI: V2.05) or later.

No.26 Bug in checksum command in two-power-supply flash memory microcontroller when operated in standalone mode

[Description]

The checksum command is not displayed in the Commands menu when the PG-FP4 is operated in the standalone mode.

[Workaround]

Execute the checksum command from the GUI software.

This bug has been corrected in products with control code E (firmware: V1.21, GUI: V2.05) or later.

No.27 Bug in downloading Motorola S-format HEX file

[Description]

When the HEX file downloaded to the PG-FP4 satisfies both the following conditions, the last data byte of the data record will not be downloaded (at this time, the data becomes the initial value FFh).

Condition 1: The file is a Motorola S-format file and its data record format is S2 or S3

Condition 2: The last data byte of the data record is an even address

Example: In the case of the data record line S20503FFFC52AA shown below, the data record format is S2 and the last data byte is 52h.

Therefore, data 52h is not downloaded and becomes FFh (initial value).

In the case of data record line S20503FFFC52AA

	Record format	Byte count	Load address	Data byte	Checksum
Data record	S2	05	03FFFC	52	AA

This bug does not occur when downloading an Intel HEX type file.

[Workaround]

There is no workaround.

This bug has been corrected in products with control code E (firmware: V1.23, GUI: V2.05) or later.

No.28 Addition of subcommands to Read command (addition of specification)

[Description]

[View] (displays the read data in the communication log window), [Write Intel HEX file] (displays and saves the read data in the Intel HEX format), and [Write Motorola SREC file] (displays and saves the read data in the Motorola SREC format) can be executed from the [Read] menu when using a device that can read device data.

[Workaround]

This item has been implemented in products with control code E (firmware: V1.30, GUI: V2.11) or later.

No.29 Bug in Read command when UART is used for USB communication

[Description]

A communication error occurs if the Read command is executed when the host interface is USB and communication is performed with the target via UART.

[Workaround]

Use a serial interface as the host interface when executing the Read command via UART. This bug will be corrected in the next version.

No.30 Addition of Get Security Settings command (addition of specification)

[Description]

The Get Security Settings command can be executed when using a device that can check the security status inside the device.

[Workaround]

This item has been implemented in products with control code E (firmware: V1.30, GUI: V2.11) or later.

No.31 Addition of Boot block cluster setting function (addition of specification)

[Description]

The Boot block cluster setting function can be executed when using a device that can set boot swap.

[Workaround]

This item has been implemented in products with control code E (firmware: V1.30, GUI: V2.11) or later.

No.32 <Security Setting> Addition of Read command disable function (addition of specification)

[Description]

The Disable Read function can be executed when using a device that can disable the Read command using a security setting.

[Workaround]

This item has been implemented in products with control code E (firmware: V1.30, GUI: V2.11) or later.

No.33 <Security Setting> Addition of Boot block cluster reprogramming disable function (addition of specification)

[Description]

The Disable Boot block cluster reprogramming function can be executed when using a device that can disable the Boot block cluster reprogramming function using a security setting.

[Workaround]

This item has been implemented in products with control code E (firmware: V1.30, GUI: V2.11) or later.

No.34 <Security Setting> Addition of Reset vector (addition of specification)

[Description]

The Reset vector can be executed when using a device that can transmit the Reset vector address using a security setting.

[Workaround]

This item has been implemented in products with control code E (firmware: V1.30, GUI: V2.11) or later.

No.35 <File checksum> Addition of Arithmetic checksum (16 bits) and modification of GUI display (addition of specification)

[Description]

The specification has been modified so that the Arithmetic checksum (16 bits) can be used for the File checksum function.

In addition, the result of the checksum is displayed in the programmer parameter window, and initialized when a new file is downloaded.

[Workaround]

This item has been implemented in products with control code E (firmware: V1.30, GUI: V2.11) or later.

No.36 Modification of CRC command specification (addition of specification)

[Description]

In line with modification of the specification of the File checksum function, the crc command used when downloading a file or executing EPV has been changed to the `crc_no_store` command.

[Workaround]

This item has been implemented in products with control code E (firmware: V1.30, GUI: V2.11) or later.

No.37 Addition of 57,600 bps, 115,200 bps, and 128,000 bps to GUI baud rate selection menu for UART communication (addition of specification)

[Description]

The serial baud rate specification has been modified so that 57,600 bps, 115,200 bps, and 128,000 bps can be selected in the device to make allowances for the speed of UART communication in future flash memory macros.

[Workaround]

This item has been implemented in products with control code E (firmware: V1.30, GUI: V2.11) or later.

No.38 Modification of target power supply detection function (addition of specification)

[Description]

The specification has been modified so that the target power supply detection function operates under the following settings.

(1) When VDD is supplied from the FP4

The error message "Target power detected! Check Setup." is displayed when the target VDD is 0.2 V or higher before VDD is supplied from the FP4

(2) When VDD is supplied from the target

The error message "No VDD applied or Voltage is out of range" is displayed when VDD is $\pm 5\%$ out of the set range immediately before communication is started.

[Workaround]

This item has been implemented in products with control code E (firmware: V1.30, GUI: V2.11) or later.

No.39 Modification of [Upload...] menu specifications (1) (addition of specification)

[Description]

With the conventional specifications, if the [Open] button in the window opened by selecting the [Upload...] menu is clicked, data is displayed immediately. With the new specifications, the message "Press <return> to start/continue output" is displayed and keeps users waiting for the upload data to be displayed.

[Workaround]

This item has been implemented in products with control code E (firmware: V1.30, GUI: V2.11) or later.

No.40 Modification of [Upload...] menu specifications (2) (addition of specification)

[Description]

With the conventional specifications, no extension is appended to the file name if a file is saved without specifying the extension in the window opened by selecting the [Upload...] menu. With the new specifications, .hex or .rec is appended.

[Workaround]

This item has been implemented in products with control code E (firmware: V1.30, GUI: V2.11) or later.

No.41 Modification of [Logging] menu specifications (addition of specification)

[Description]

With the conventional specifications, no extension is appended to the file name if a file is saved without specifying the extension in the window opened by selecting the [Logging] menu. With the new specifications, .txt is appended.

[Workaround]

This item has been implemented in products with control code E (firmware: V1.30, GUI: V2.11) or later.

No.42 Modification of GUI specification when host machine is shut down (addition of specification)

[Description]

With the conventional specifications, the GUI of the PG-FP4 must be shut down before shutting down the host machine. With the new specifications, the GUI of the PG-FP4 is automatically shut down.

[Workaround]

This item has been implemented in products with control code E (firmware: V1.30, GUI: V2.11) or later.

No.43 Modification of specification when Disable Chip Erase is selected and popup message is cancelled (addition of specification)

[Description]

With the conventional specifications, if [Cancel] is clicked for the message that pops up when Disable Chip Erase is selected, the Setup window is closed at the same time. With the new specifications, the Setup window is not closed at this time.

[Workaround]

This item has been implemented in products with control code E (firmware: V1.30, GUI: V2.11) or later.

No.44 Bug in address display in Boot block cluster setting

[Description]

The address display is not shown correctly if "Show Address" is checked when selecting the boot block in the Boot block cluster setting menu.

[Workaround]

Use the BlockNumber display. This bug will be corrected in the next version.

No.45 The last address input for file upload differs from the one actually executed

[Description]

The last address from which data is uploaded is decremented by 1 from the input address.

[Workaround]

Increment the address input as the last address by 1.

This bug has been corrected in products with control code E (firmware: V1.30, GUI: V2.11) or later.

No.46 Bug in Address display in Block/Area

[Description]

The Address indication in the Block/Area field in the programmer parameter window is not shown if the start block or area is set to 1 when using block mode or area mode.

[Workaround]

There is no workaround.

This bug has been corrected in products with control code E (firmware: V1.30, GUI: V2.11) or later.

4. Cautions

◆ Operating clock of target microcontroller

It is recommended to supply the operating clock for the target microcontroller from the target system.

If the operating clock for the target microcontroller is output from the flash programmer, communication may not be performed normally because the output waveform is distorted due to the clock line routing of the target. In such a case, insert a device such as the C-MOS buffer in the target system to shape the waveform, if necessary.

◆ Caution on SIO-H/S communication mode (1)

When using the device shown below in SIO-H/S communication mode, use a **CPU clock of 2 MHz or higher**; otherwise a timeout error may occur when the Verify command is executed individually.

Affected devices: μ PD78F0034BY, 78F0703Y, 78F0988A, 78F9478, 78F9488, 78F4218A, 78F0354

◆ Caution on SIO-H/S communication mode (2)

Use the 78F0078 in SIO-H/S communication mode under the following conditions.

- **Use a CPU clock of 2 MHz or higher.**
- **Pull up the H/S pin. (Recommended pull-up resistor value: 4.7 k Ω)**

◆ Caution on SIO communication mode

When the operating clock is supplied to the μ PD78F9468 from the flash programmer, **shape the waveform of the SCK pin using a circuit such as C-MOS buffer**; otherwise communication may not be performed normally.

◆ Optional products^{Note}

The following products are available for use in combination with the PG-FP4.

<Program adapter (FA series)>

An adapter used for writing to a device before it is mounted in the target system.

<FA-CON9>

A conversion board (for D-sub 9-pin connector) used for directly connecting the FA series and PG-FP4 without using the target cable supplied with the PG-FP4.

<FA-CON16>

A conversion board (for 16-pin connector) used for directly connecting the FA series and PG-FP4 without using the target cable supplied with the PG-FP4.

<FA-CLIP>

A clip-type target cable for the PG-FP4.

Note These are products of Naito Densai Machida Mfg. Co., Ltd.

Contact: ASMIS sales department TEL: +8-45-475-4191

5. Difference Manual

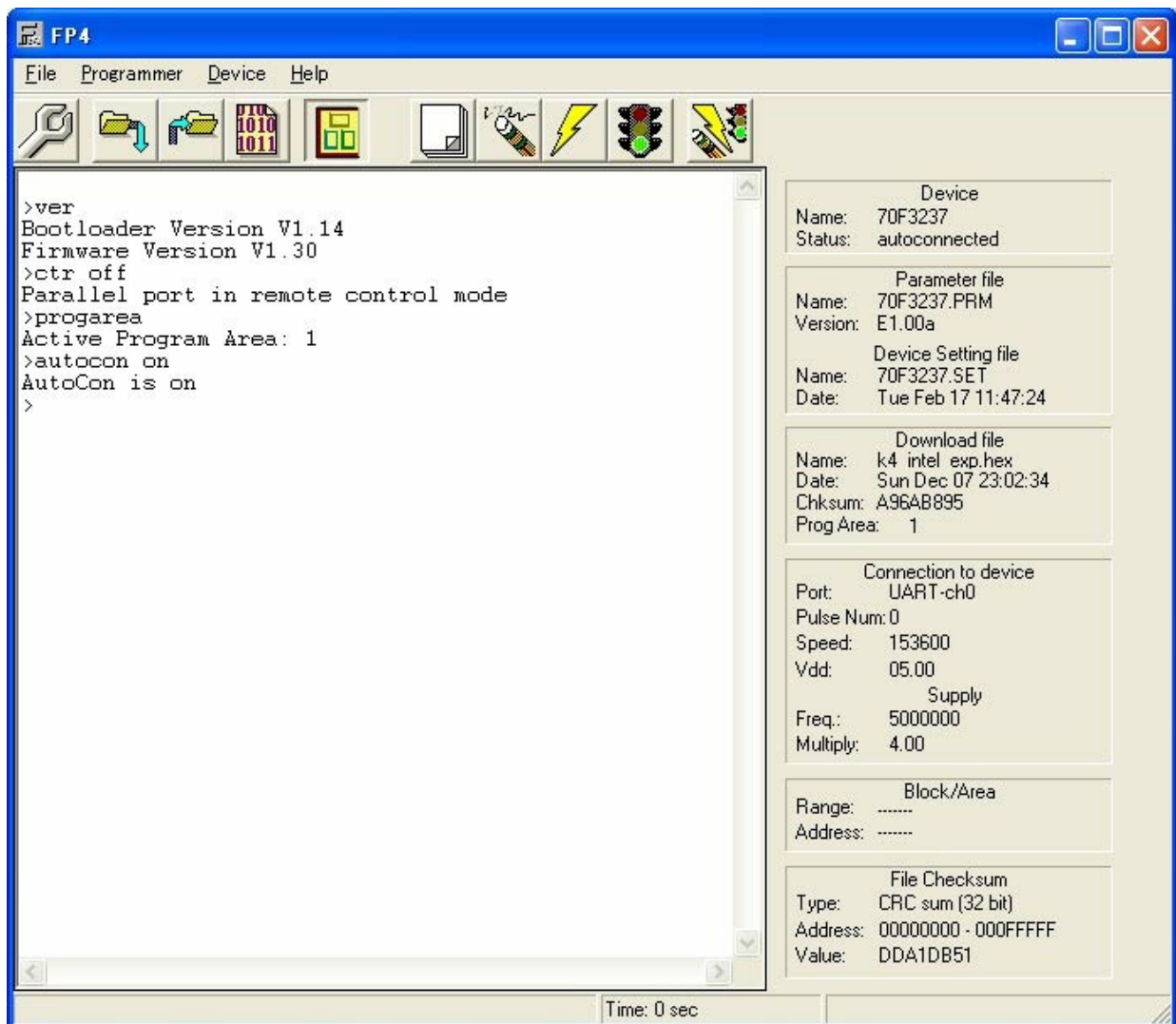
This section describes the functions added from GUI (V2.11) not described in the Flash Memory Programmer PG-FP4 User's Manual (document number: U15260E, 3rd edition).

The type of change is marked as "Change" or "Addition".

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Change

Figure 4-3. GUI Software Main Window

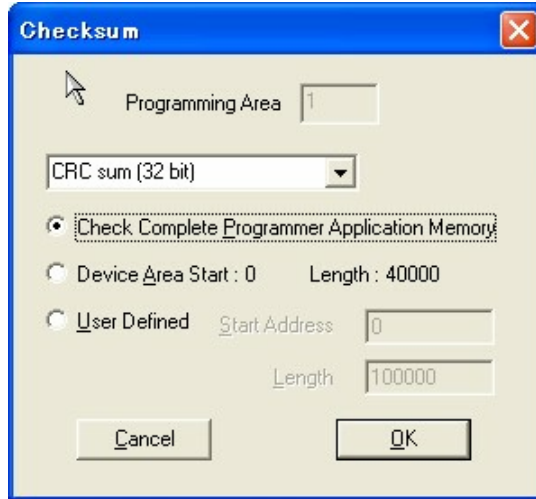


(4) [Checksum...] menu

The [Checksum...] menu may be used to verify that the PG-FP4's flash memory area contains the correct download file.

Figure 4-10. Checksum Dialog Box

Change



All the programming memory area (2 MB) or “Check Complete Programmer Application Memory”, in which 32-bit CRC calculations are performed in the PG-FP4 programming memory area selected using the [Programmer] > [Select Programming area...] menu, is selected by default. A 16-bit arithmetic calculation can also be selected from the pull-down menu.

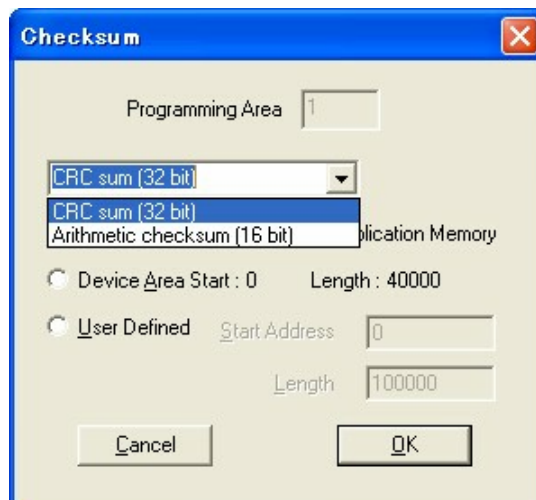
The currently selected programming memory area is displayed in the “Programming Area” for reference.

Select the “Device Area” to calculate the checksum of the flash memory area of the target device. The target memory area accords with the information of the currently downloaded parameter file.

Select “User Defined” to calculate the checksum of any memory area. In this case, specify the “Start Address” and “Length”.

The execution result of the checksum is reflected in the File Checksum area in the programmer parameter window.

Addition



4.4.3 [Device] menu

Clicking the [Device] menu displays the following pull-down menu.

This pull-down menu mainly consists of commands for programming the target device, such as erase, program, and verify.

Figure 4-19. [Device] Menu

Change



(10) [Read] menu

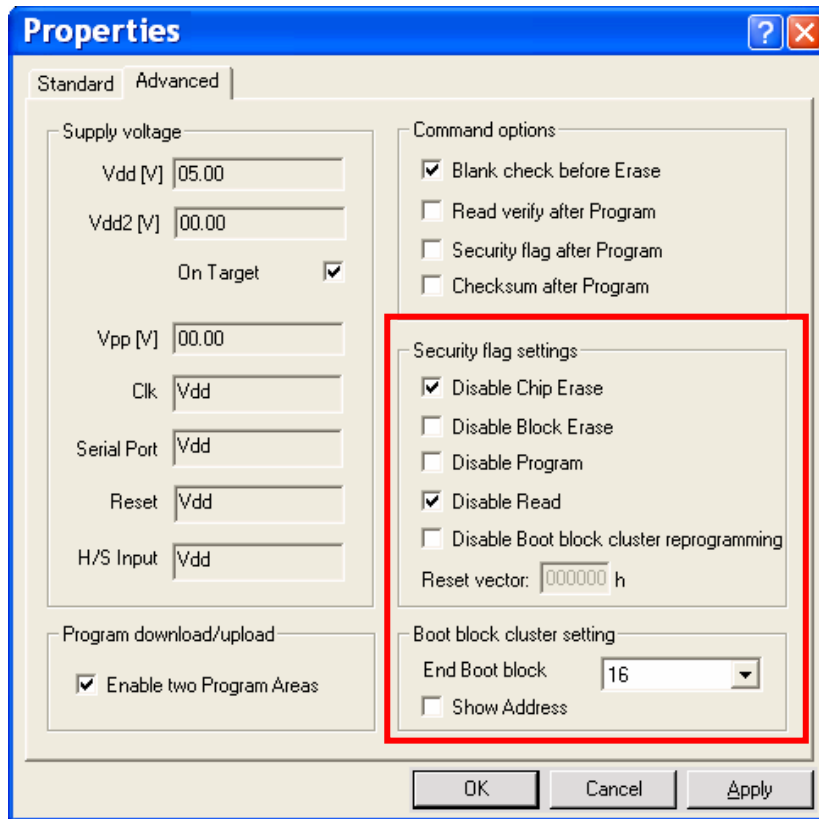
Addition

The [Read] menu is used to read the flash memory of the target device connected to the PG-FP4. When [View] is selected from the [Read] menu, 4 KB read data is displayed in the log window each time the Enter key is pressed. When [Write Intel HEX File] or [Write Motorola SREC File] is selected from the [Read] menu, the read data can be saved in the Intel HEX-format or Motorola HEX-format.

(11) [Get Security Settings] menu

Addition

The [Get Security Settings] menu is used to read information on the security flag or boot area setting of the target device connected to the PG-FP4, and reflect the result in the Advanced Setup menu. When this menu is specifiable, be sure to confirm the security status and the boot area by executing the Get Security Settings menu before executing a security command, and then add the security specification.



<UART-ch0, UART-ch1, UART-ch2, or UART-ch3 is selected>

- 9,600 baud
- 19,200 baud
- 31,250 baud
- 38,400 baud
- 57,600 baud
- 76,800 baud
- 115,200 baud
- 128,000 baud
- 153,600 baud

Addition

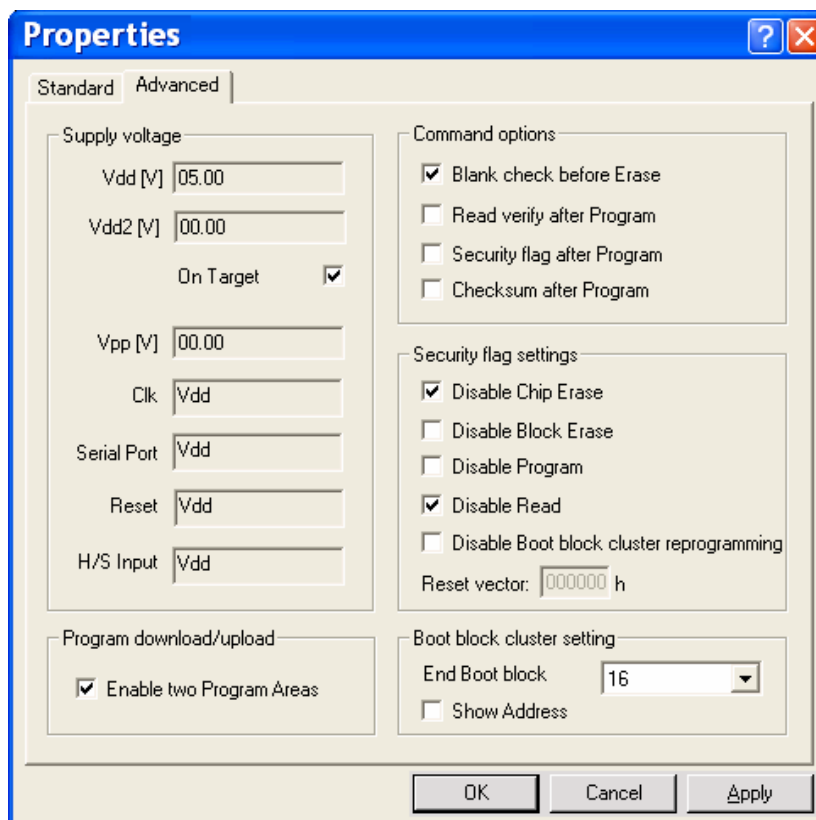
(c) Advanced setup

Advanced setup is used to specify the programming voltage for programming the target device, command options, and security flag setting.

When Advanced is clicked, the following window is displayed.

Change

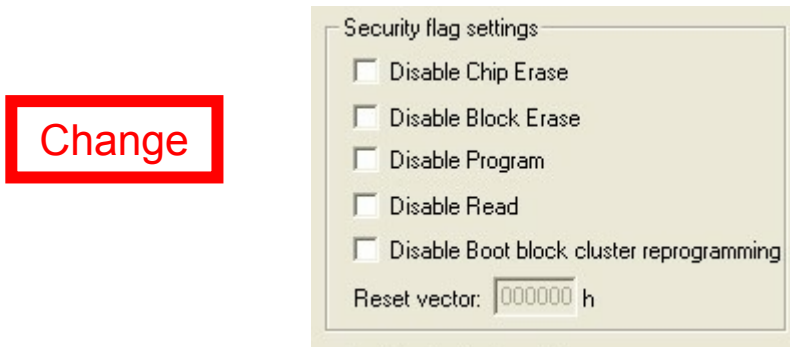
Figure 4-26. Device Setup Window – Advanced



<3> **Security flag settings**

The <Security flag settings> dialog box is used to specify which security function is valid. This function is valid only when a single-power-supply flash memory microcontroller is used. The specified security function becomes valid after the Security command is executed. The function differs depending on the target device. Only usable functions can be set.

Figure 4-29. Setup Window – Security Flag Settings



[Disable Chip Erase check box]

If this check box is checked, the Erase command becomes invalid in the entire flash memory area of the target device.

A warning message “I907 Caution: When ‘Chip Erase’ is disabled, chips can no longer be erased or programmed!” is displayed when **OK** is clicked in the Device Setup Window after checking this box.

Caution Be aware that if the security flag is set in the target device, neither erasing nor writing^{Note} to the device can be enabled afterward.

[Disable Block Erase check box]

If this check box is checked, the Erase command becomes invalid in all the blocks of the flash memory selected under Operation Mode in the Standard Setup menu.

This setting is cleared by the Erase command when Chip was selected under Operation Mode.

[Disable Program check box]

If this check box is checked, the Program command becomes invalid, as does the Erase command in all the blocks of the flash memory selected under Operation Mode in the Standard Setup menu.

The Erase command for the entire flash memory area is valid.

This setting is cleared by the Erase command when Chip was selected under the Operation Mode.

Change

[Disable Read check box]

If this check box is checked, the Read command becomes invalid.

This setting is cleared by the Erase command when Chip was selected under the Operation Mode.

Addition**[Disable Boot block cluster reprogramming check box]**

If this check box is checked, the boot area is set regarding the boot block set by the Boot block cluster setting function as the last block.

Caution Be aware that if the security flag is set in the target device, writing to the boot area in the device cannot subsequently be enabled.

The following is the correspondence between the Erase and Program commands when the security functions of a single-power-supply flash memory microcontroller are valid.

	CHIP Erase Command	Block Erase Command	Program Command	Read Command
Disable Chip Erase	Invalid	Invalid	Valid ^{Note 1}	Valid
Disable Block Erase	Valid	Invalid	Valid	Valid
Disable Program	Valid	Invalid	Invalid	Valid
Disable Read	Valid	Valid	Valid	Invalid
Disable Boot block cluster reprogramming	Invalid	Valid ^{Note 2}	Valid ^{Note 2}	Valid

Notes 1. Since the Erase command is invalid, the data that differs from the data already written in the flash memory cannot be written.

2. Valid only for an area not specified as the boot area.

<4> Boot block cluster setting**Addition**

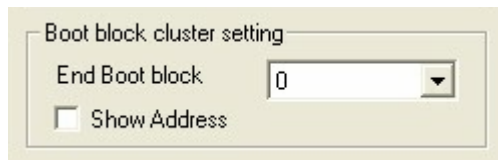
The Boot block cluster setting is used to specify the boot area.

This function is valid only when a single-power-supply flash memory microcontroller is used.

The specified boot area becomes valid after the Security command is executed.

The function differs depending on the target device. Only usable functions can be set.

Figure 4-30. Setup Window – Security Flag Settings



The blocks up to the end boot block can be used as the boot area. When the [Disable Boot block cluster reprogramming] check box under the Security flag settings menu is valid, the specified boot area becomes valid after the Security command is executed.

Caution Be aware that if the security flag is set in the target device, writing to the boot area in the device cannot subsequently be enabled.