

GANG Programmer for flash micro computers

Stick GANG Writer

User's Manual



TESSERA Technology INC.
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Chapter 1 Summary

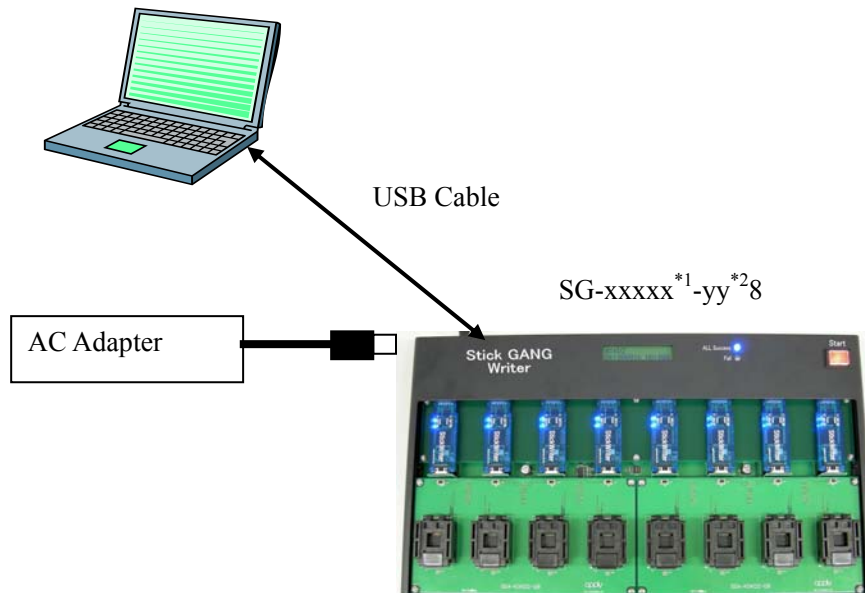
Stick GANG Writer is a GANG type flash writer used to simultaneously write program data into up to 8 micro-computers with built-in flash memory.

Since the 32-MByte flash memory is built into the body, it allows up to 8 HEX files and setting files for each device to be saved. Therefore, “stand-alone operation” is possible, without requiring a PC when writing.

- Allows writing with “stand-alone operation”
- Can simultaneously write on 8 devices using just 1 button
- Can also start writing 1 device at a time
- Allows up to 8 HEX files and setting files to be saved into the body
- Switching between HEX files and setting files is possible without requiring a PC
- Displays write only files and writing status with LCD
- Displays the total number of writing devices on LCD
- Notifies writing results with a buzzer that can be switched ON/OFF
- Equipped with a function for adding a serial number to each device
- Easily connected to PC using a USB interface
- Adaptable to various devices by exchanging the socket board (SGA board) prepared by each writing device type

1.1 System Configuration

Windows Personal Computer (Windows2000/XP)



SG-xxxxx^{*1}-yy^{*2}4



* 1: Varies by target device.

* 2: Package geometry of the target device will be included.

SGA board is exchangeable.



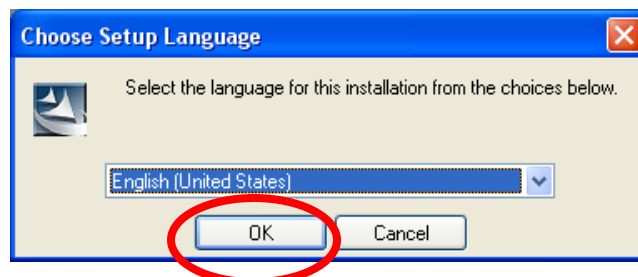
Chapter 2 Installation

2.1 System Requirement

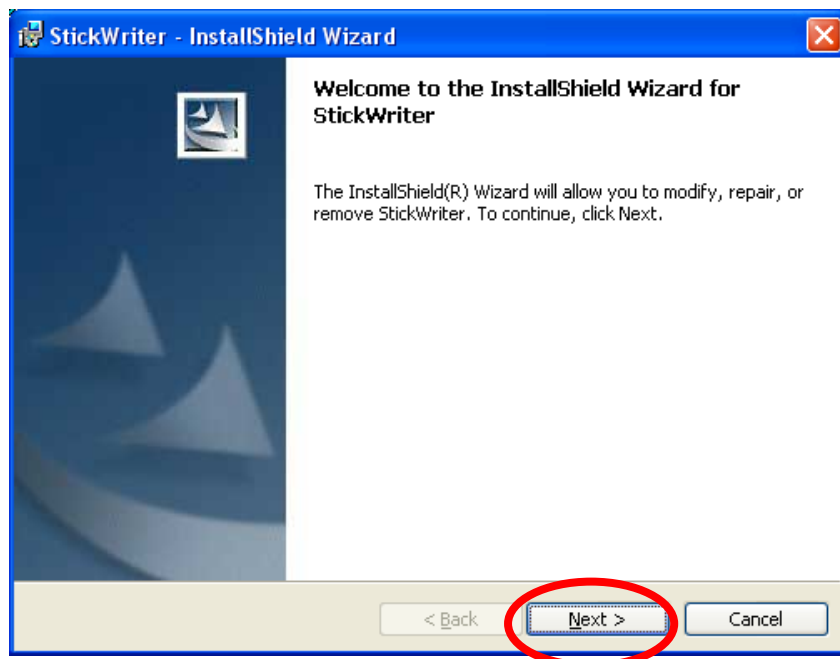
Host Machine	To use the Stick GANG Writer GUI, a PC running Windows2000 or Windows XP is required.
Host Interface	USB (Rev1.1/2.0) port is required.

2.2 Software Installation

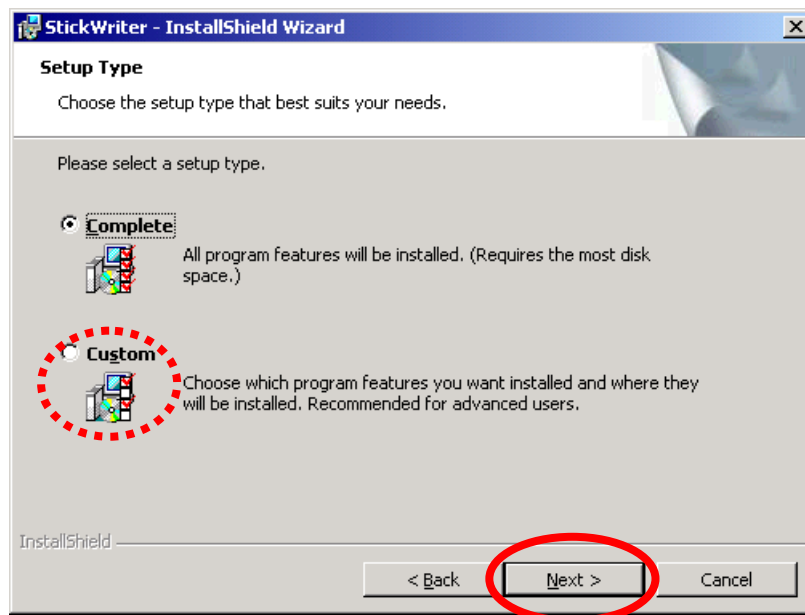
After inserting the Installation CD for both StickWriter and Stick GANG Writer into the CD drive, the following installer is launched automatically.



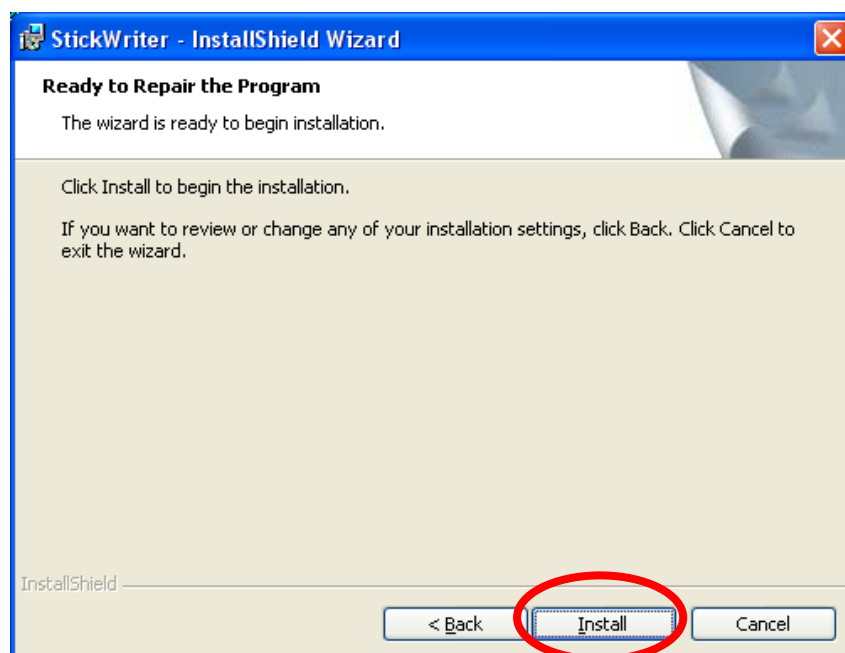
Click **OK**.



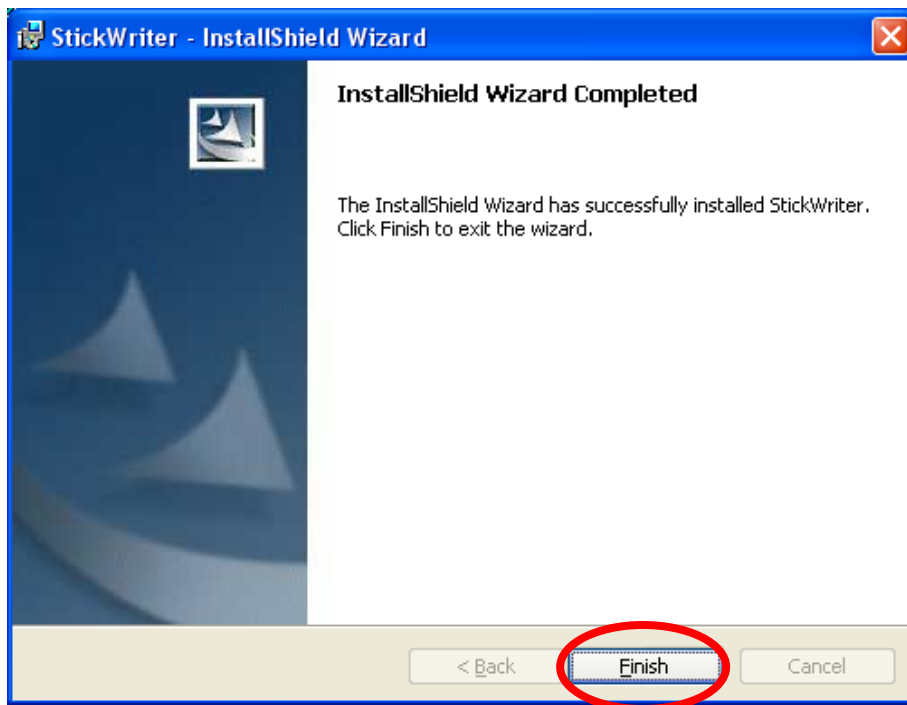
Click **Next >**.



To change the install folder, click **Custom**.
Click **Next >**. Installation will start.



Click **Install**. Installation will start.



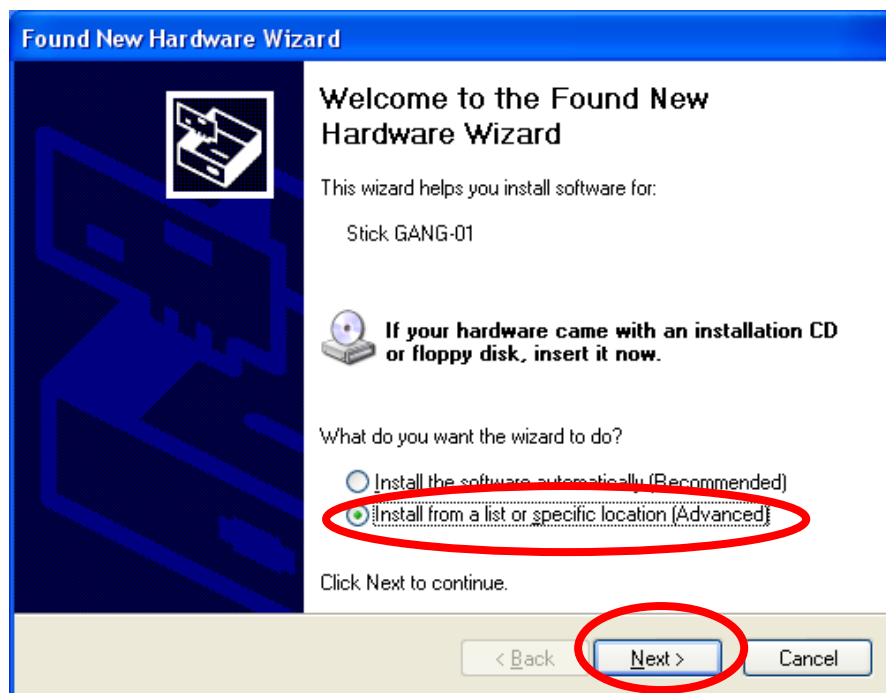
When installation finishes, the above window is displayed. Click Finish.
The GUI for StickWriter has been installed.

2.3 Driver Installation

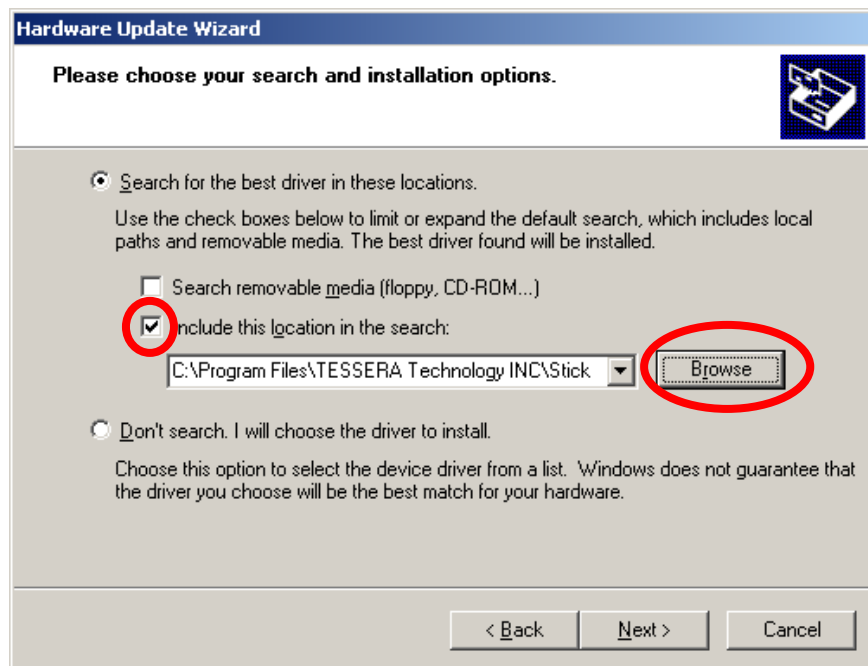
When Stick GANG Writer is first connected, the “New Hardware Detection Wizard” will be launched.



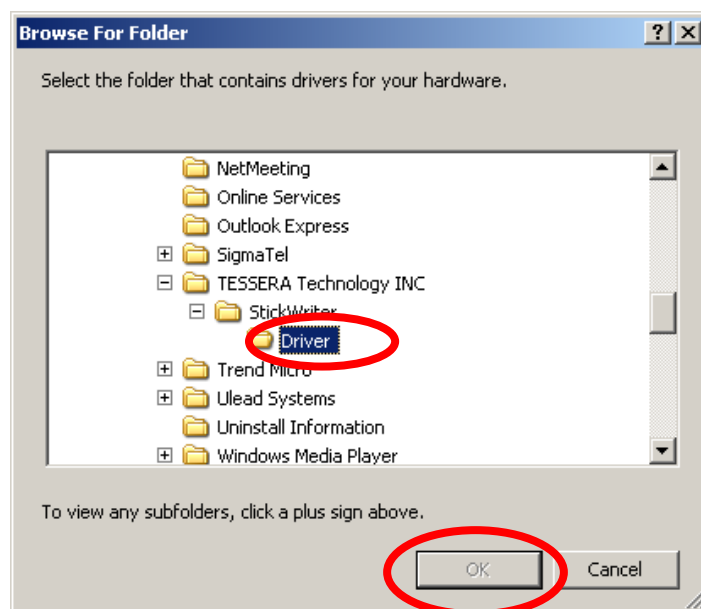
Since the driver for the StickWriter is not registered in Windows Update, select “No” and click Next >.



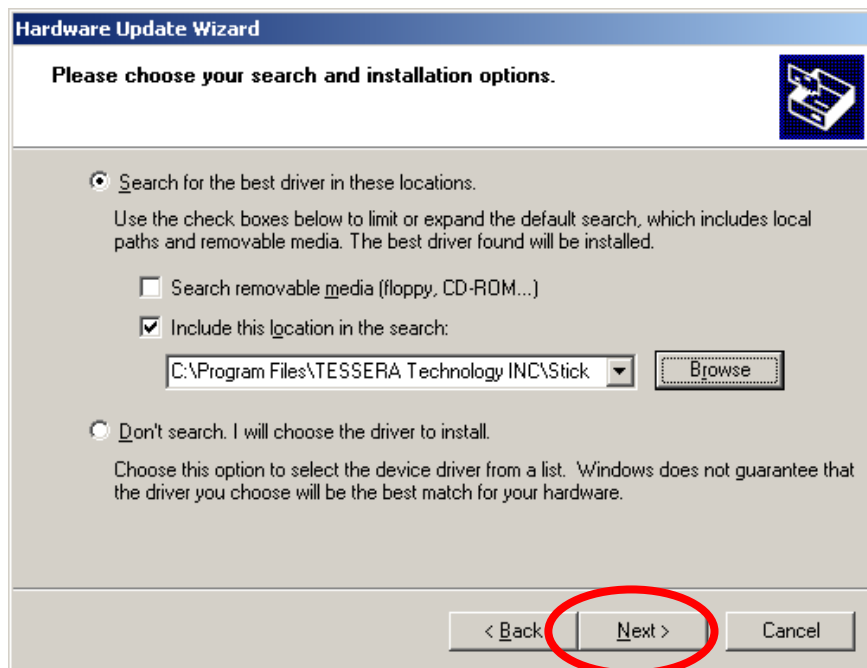
Select “Install from a list or specific location(Advanced)”, and click Next >.



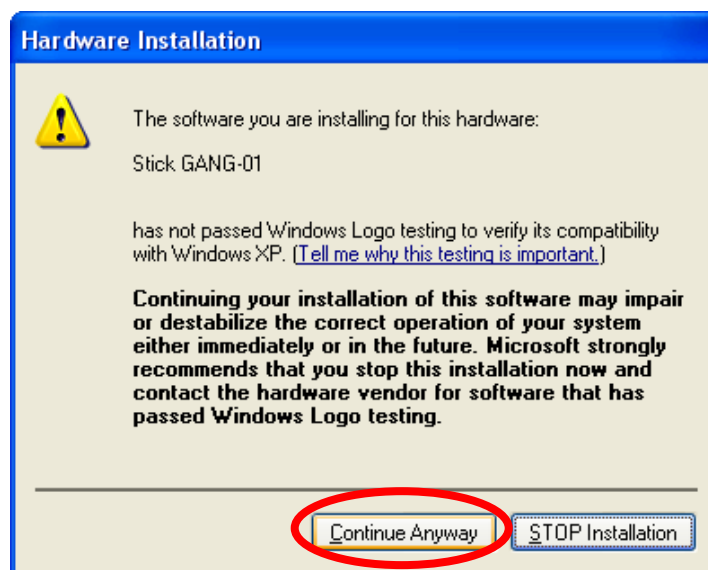
Check the “Include this location in the search:” and click **Browse**.



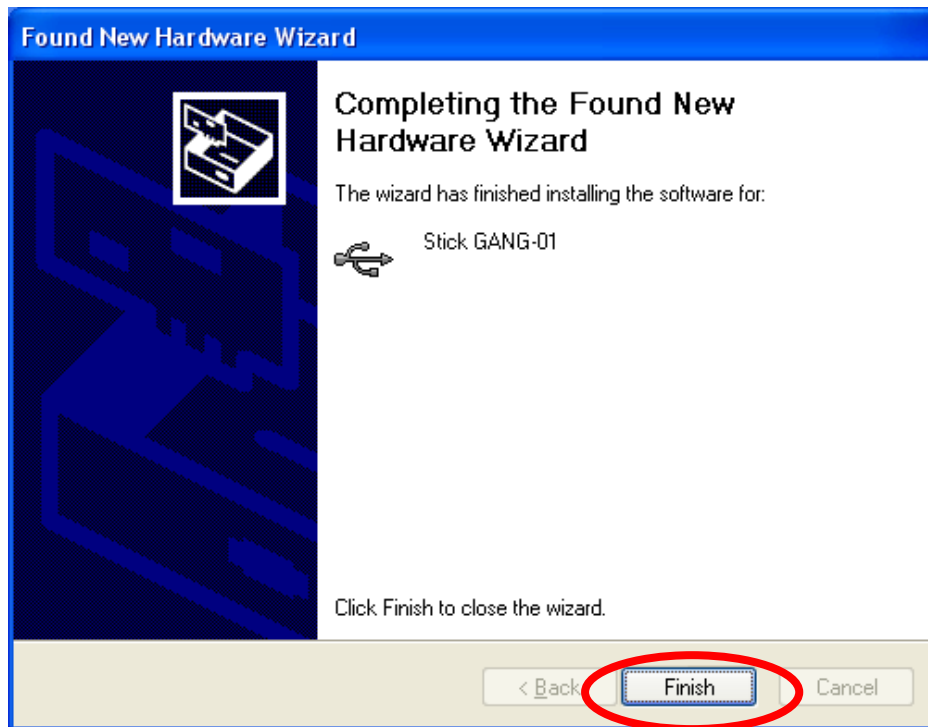
Select the “DRIVER” folder located in the folder where Stick GANG Writer was installed.



Click **Next >**.



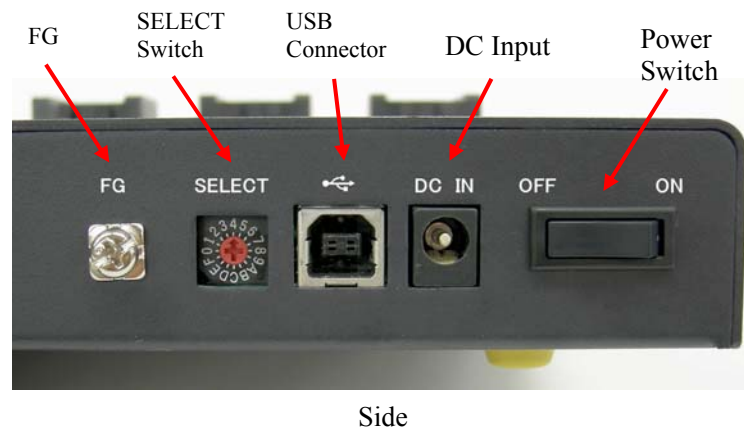
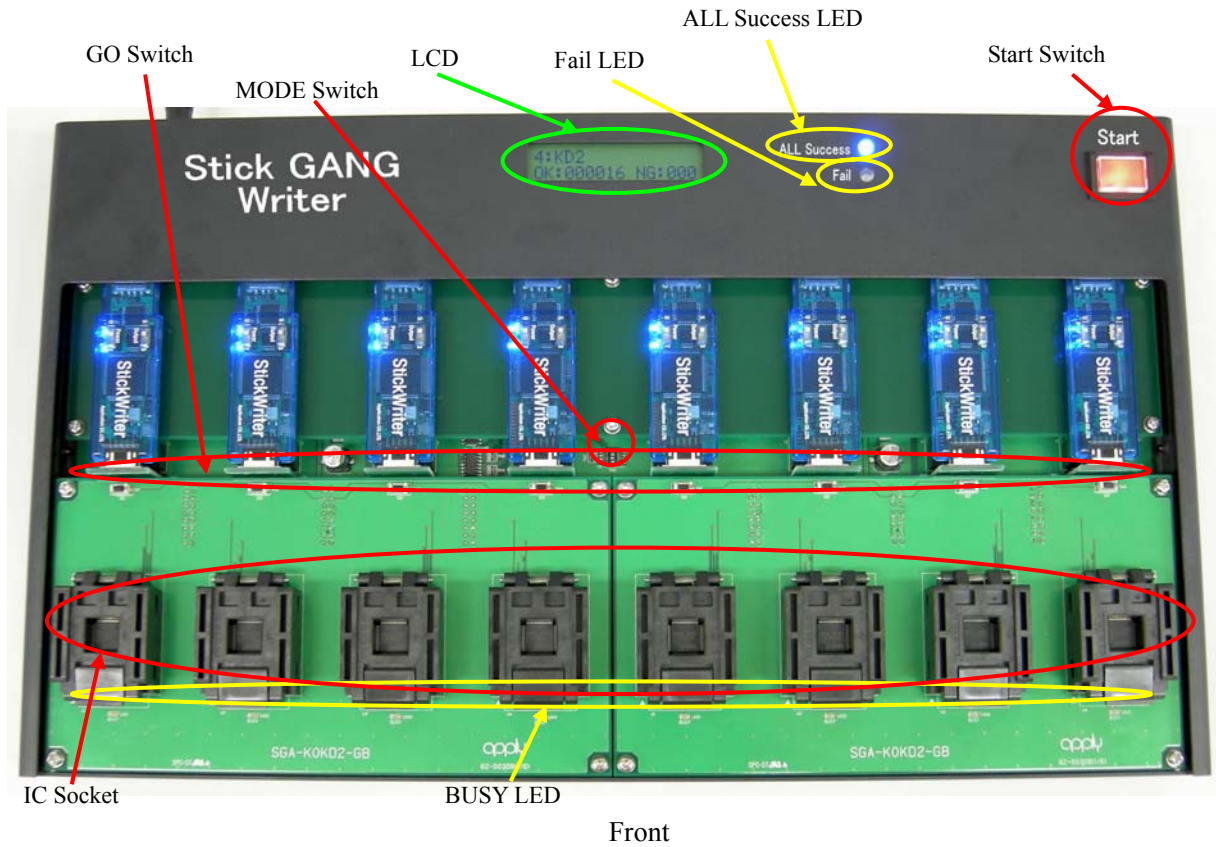
While installing the driver, the above message will be displayed. Click **Continue Anyway**. This will not cause operation failure or system instability.



The driver installation is finished. Click **Finish**.

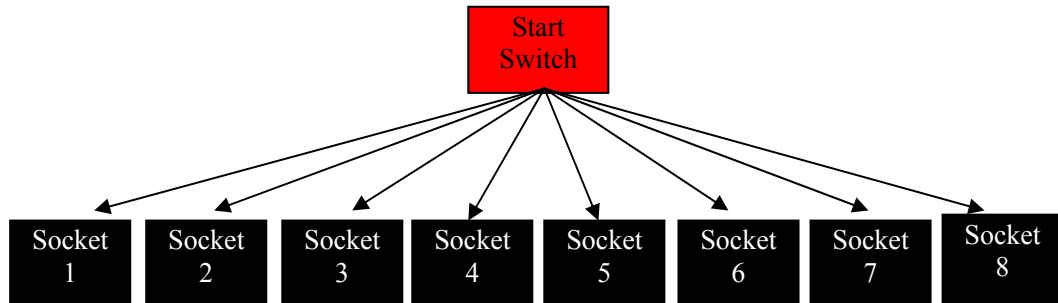
Chapter 3 Hardware Specifications

3.1 Name of each part



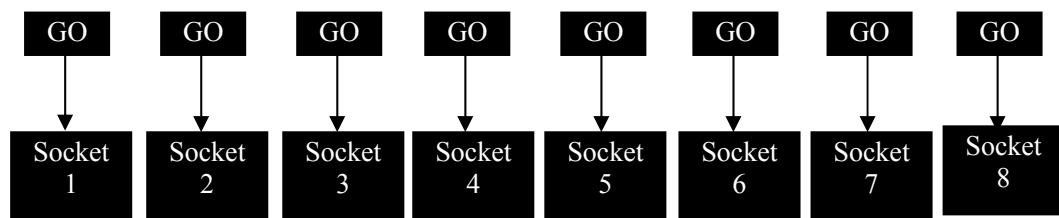
(1) Start Switch

Writing (EPV Command) will start simultaneously for all connected sockets. The Start switch can be pressed only when it is lit.



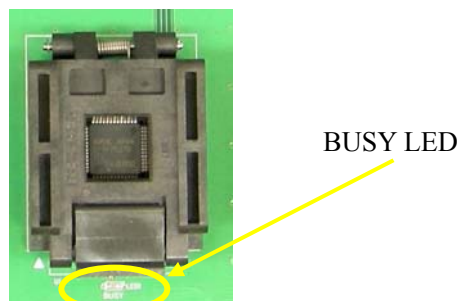
(2) GO Switch

When the “GO switch” on the SGA board is pressed, writing (EVP command) will start for each socket. This operates only in “stand-alone” mode when GUI is not launched. Moreover, when an error occurs during writing, the GO switch cannot be pressed until the ongoing writing in the device is finished.



(3) BUSY LED

This is the green LED attached under each socket. It will light up when power is supplied to the socket. Attach or remove the writing device to the socket after confirming that this LED is turned off.



(4) ALL Success LED

The blue light turns on when the following conditions are met.

Also, a buzzer sounds when the LED light turns on. (The buzzer can be turned “OFF” with the MODE switch.)

- When all devices have finished successfully as a result of executing the EVP command from GUI.
- When all devices have finished successfully as a result of writing with the Start switch.
- When writing was executed into each socket with the GO switch and all writing has finished successfully. However, when writing on a new device starts before all the devices finish writing, the light will not turn on.

(5) Fail LED

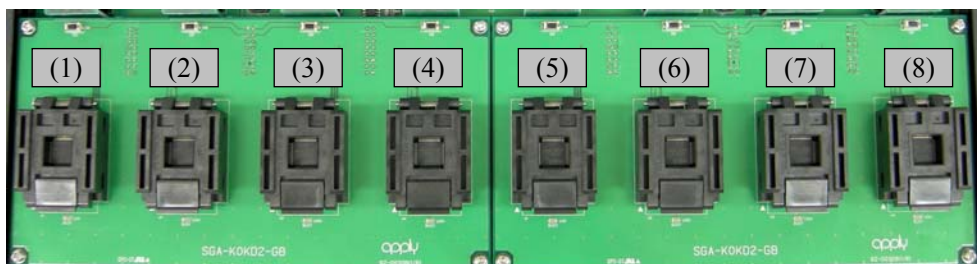
The red light turns on when the following conditions are met.

Also, a buzzer sounds when the LED light turns on. (The buzzer can be turned “OFF” with the MODE switch.)

- When at least one error has occurred, as result of executing the EVP command from GUI.
- When at least one error has occurred, as result of writing with the Start switch
- When writing was executed into each socket with the GO switch and at least one error has occurred.

(6) IC Socket

These are sockets to attach to the devices to be written. From the left, they are numbered 1, 2 ...8. Attach them keeping in mind the 1 pin position (▲ mark).



(7) LCD

Various information is displayed.

When launched

After checking the setting file and the HEX file, the following will be displayed.

1:Setting File
Checksum:0000

1st line: The specified number of the SELECT switch and the name of the setting file are displayed.

2nd line: The value of device Checksum of the written HEX file is displayed.

When writing (EPV)

The progress status of each socket is displayed.

1:Setting File
1■ 2■ 3■ 4■ 5■ 6■ 7■ 8■

1st line: The specified number of the SELECT switch and the name of the setting file are displayed.

2nd line: Each socket number as well as the progress status on the right is displayed in a graph.
If the device is unpopulated in the socket or if an error occurs, "X" is displayed.

When the writing finishes successfully in all sockets

The number of written (EVP) devices after activating the power of Stick GANG Writer is displayed.

1:Setting File
OK:000008 NG:000

1st line: The specified number of the SELECT switch and the name of the setting file are displayed.

2nd line: The number of devices that were successfully written is displayed to the right of "OK".
The number of devices in which an error occurred when writing is displayed to the right of "NG".

When a writing error has occurred

The progress status of each socket is displayed.

1,2,3,4,5,6,7,8
20

1st line: Socket numbers 1 to 8 are displayed.

2nd line: The error number is displayed under the socket number in which the error occurred.
The example above shows that an error (20) occurred in socket 3.
Refer to the list of error codes at the end for the meaning of this error.

(8) MODE switch

ON/OFF of the buzzer can be set.

1	ALL Success buzzer ON: The buzzer sounds when the ALL Success LED light turns on (Default setting) OFF: The buzzer does not sound even if the ALL Success LED light turns on.
2	Fail buzzer ON: The buzzer sounds when the Fail LED light turns on (Default setting) OFF: The buzzer does not sound even if the Fail LED light turns on.
3	SYSTEM Use this when the buzzer is OFF.
4	Unused Not used.


(9) SELECT Switch

This is the SELECT Switch of the setting files.

It can be set within 0 to F, but use it within the range of 1 to 8.

When making a change, switch the power to OFF, as changes cannot be made after activating the power.



In the left example, as the arrow  is at the “4” position, the SELECT Switch is set at “4”.

(10) USB Connector

A USB cable for connecting to a PC is connected.

Use the USB cable included for product attachments.

(11) DC Input

Connect the attached AC adapter.

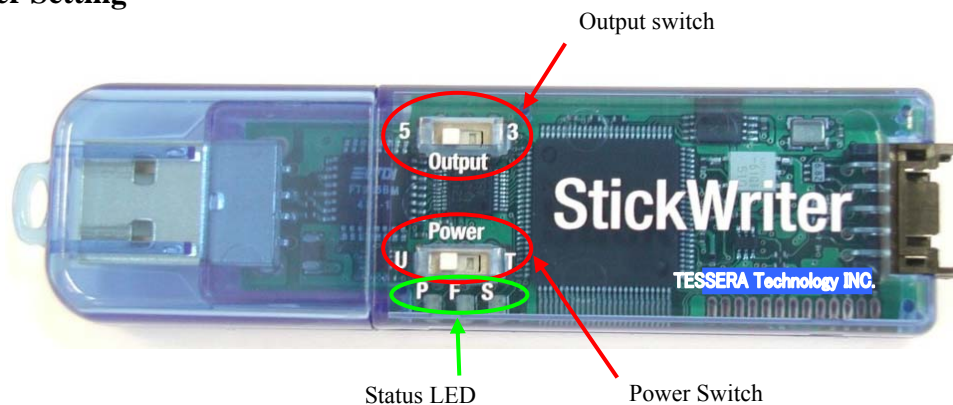
(12) Power Switch

The power of Stick GANG Writer can be switched ON/OFF.

(13) FG

This is Frame GND. Connect by separately preparing an earth cable.

3.2 StickWriter Setting



Output Switch

This switch is used to specify the voltage when supplying power from the StickWriter, but when using this with Stick GANG Writer, the voltage can be set to either level. (The switch is set at 5V when shipped.)

Stick GANG Writer will supply the appropriate voltage to the socket.

Power Switch

This specifies the power supply source to the StickWriter.

Always set the Power Switch to the “U” side, as power is supplied from the USB connector. (Setting at the time of shipment)

Status LED

The status is displayed with LED under the Power switch.

P Power	Blue	The light turns on when power from the StickWriter is supplied. In addition, the light flashes when communication to Stick GANG Writer as well as to the target device is being performed.
F Fail	Red	The light turns on in cases such as when communication with the target device fails.
S Success	Blue	The light turns on when the command to the target device succeeds.

3.3 Basic Specifications

Built-in data memory	32 Mbyte (NAND Flash: with ECC processing)
Supported communication method	UART, clock synchronizer SIO (with/without H/S) Fixed with SGA board
Available voltage supply	5V / 3.3V (For devices that require a voltage other than that mentioned above, it is to be generated with the SGA board)
PC Interface	USB 2.0/1.1
Power Supply	AC adapter Input: AC100 to 240V, 50/60Hz Output: DC12V, 3.3A
Body size	W400 × D230.5 × H55 (mm) (The height will vary depending on the SGA board)
Usage environment conditions	Temperature: 0°C to 40°C

Chapter 4 Stick GANG Writer Operation using GUI Software

4.1 Launching GUI Software

(1) System Connection

Connect Stick GANG Writer to the PC in which the Stick GANG Writer GUI program was installed with a USB cable.

(2) Launching the GUI Software

Select [Program (P)]->[StickWriter]->[Stick GANG Writer] from the Windows Start menu.

Initialize the GUI software by initiating communication with the Stick GANG Writer firmware. If the initialization process was successful, the window shown in Fig. 1 will be displayed.

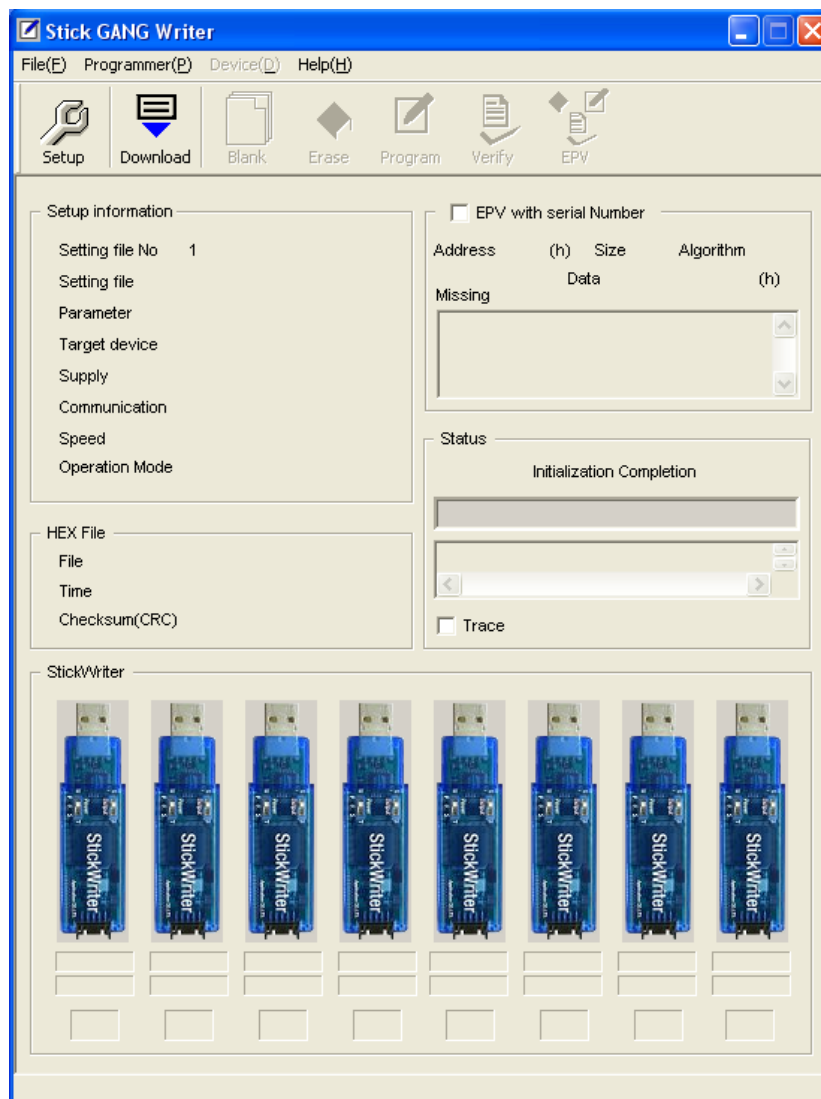


Fig. 1

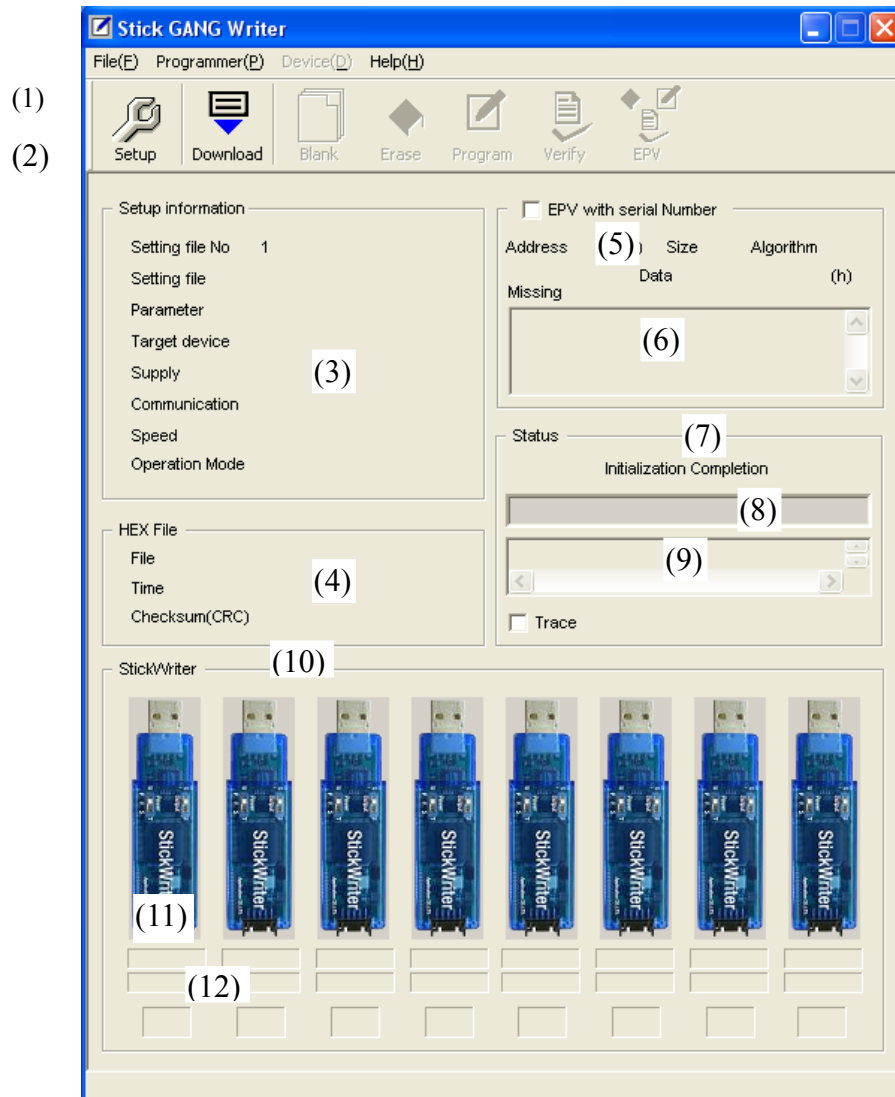


Fig. 2

- (3) Configuration of the Windows Screen
- (1) Menu Bar (Displayed on top)
 - (2) Tool Bar (Displayed under the menu)
 - (3) Setup Information section
 - (4) HEX File Information section
 - (5) EPV Information section with serial No
 - (6) List Box of Missing No
 - (7) Status Display section
 - (8) Progress Status Display section
 - (9) Trace Display section
 - (10) StickWriter Status Display section
 - (11) Checksum, Serial No Display section
 - (12) Progress status Display section

4.2 Tool Bar

The Tool bar consists of a set of buttons that initiate important operations in Stick GANG Writer.



[Device] - [Setup] button



[File] – [HEX File Download] button



[Device] – [Blank Check] button



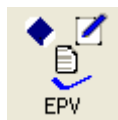
[Device] – [Erase] button



[Device] – [Program] button



[Device] – [Verify] button



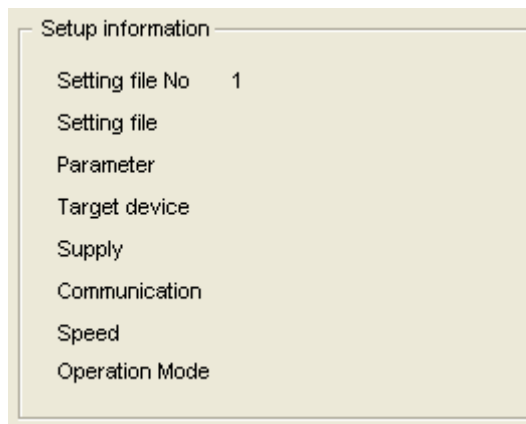
[Device] – [EPV] button

4.3 Setup Information

The Setup Information section displays key information on the setting file selected and the number of this setting file.

When GUI is launched, the setting file specified by the SELECT switch on the body of Stick GANG Writer is selected and becomes the default setting file.

The default setting file can be changed depending on the “setup”, but when GUI finishes, it goes back to the number specified by the SELECT switch on the body of Stick GANG Writer.



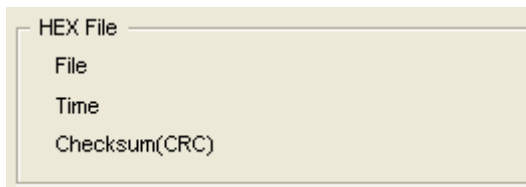
Setup information

Setting file No	1
Setting file	
Parameter	
Target device	
Supply	
Communication	
Speed	
Operation Mode	

4.4 HEX File Information

This displays HEX File information.

The value of “Checksum (CRC)” is calculated by the file size of the HEX file. Checksum values similar to “PG-FP4” by NEC Electronics can be confirmed by “Checksum display” in the “File” menu.



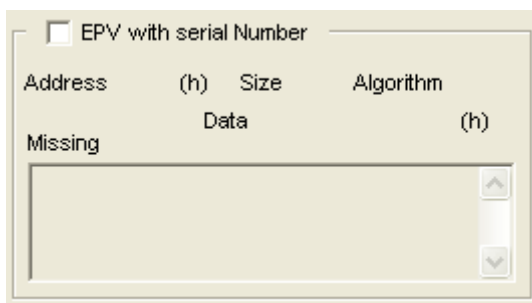
HEX File

File
Time
Checksum(CRC)

4.5 EPV with serial No

This displays information in the “EPV with serial No.” mode.

When the check box is clicked, the setting screen of “EPV with serial No.” in the “Device” menu opens. When the check box is unchecked, it becomes the normal “EPV” mode. In the box under “missing No”, serial numbers that failed to be written will be added as postscript.



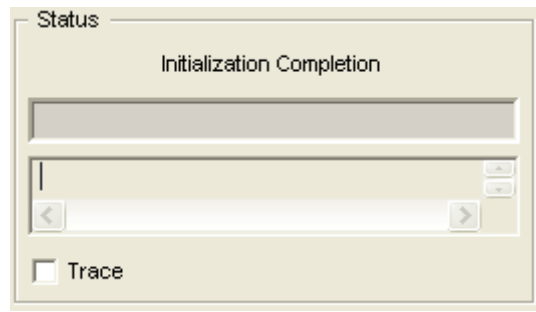
☐ EPV with serial Number

Address	(h)	Size	Algorithm
Missing		Data	(h)

4.6 Status

This displays information such as execution status of the command and results.

When “Trace display” is checked, information such as execution time of the command will be displayed in the trace display area.



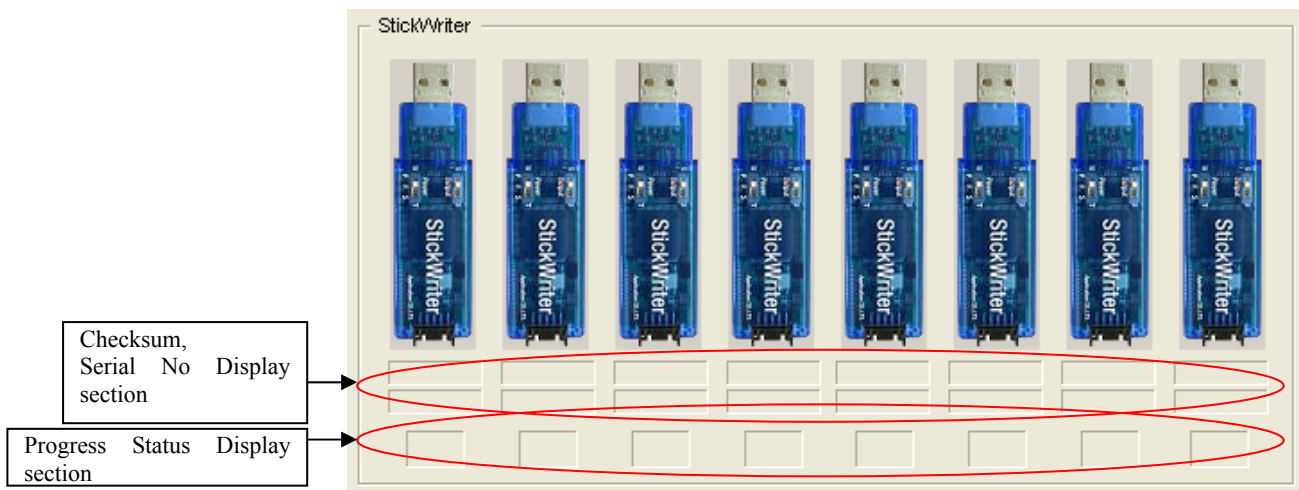
4.7 StickWriter

This displays the status of the StickWriter.

In the "SG-xxxxx-yy4" package, there are 4 connections for StickWriter, so the StickWriter display will also show 4 connections.

"Checksum, Serial No Display section" displays the checksum value when the "Checksum" command in the "Device" menu is executed. When "EPV with serial No" is executed, the serial No. is displayed.

The Progress Status Display section will show the progress status in numerical values during the execution of the command, and when the command finishes, the result ("OK" or "NG") is displayed.



4.8 Menu Bar

Depending on the status and type of the actual device, some menus may not be applicable.

4.8.1 [File] Menu

Clicking the [File] menu will display a pull-down menu.

The menu consists mainly of commands for file operations.

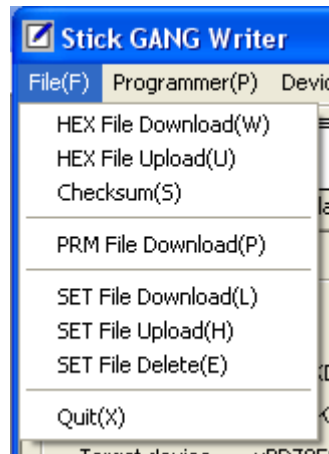


Fig. 3

(1) [HEX File Download] Menu



You can select a HEX file to be written and download it to the flash memory in Stick GANG Writer. The downloaded HEX file can be written into the flash memory of the target device by executing program commands or EPV commands.

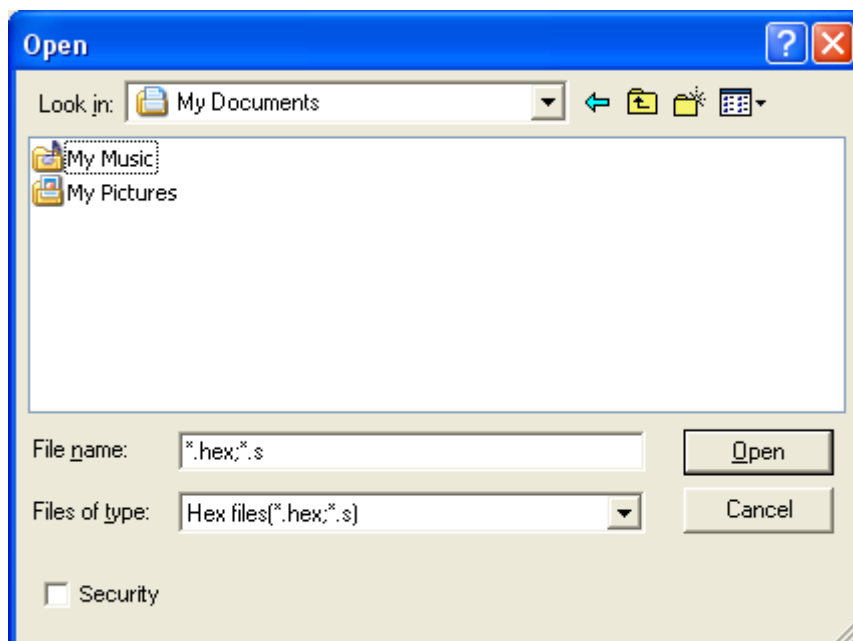


Fig. 4

[Open]

The selected HEX file will be downloaded to the flash memory in Stick GANG Writer. The result of the download will be displayed in the HEX File information section in the window shown in Fig 2.

[Cancel]

Closes the window without downloading the selected HEX file.

By checking “Security” in the lower left corner, the downloaded HEX file cannot be uploaded to the host machine.

(2) [HEX File Upload]Menu

Upload the HEX file that was downloaded on the Stick GANG Writer to the host machine.

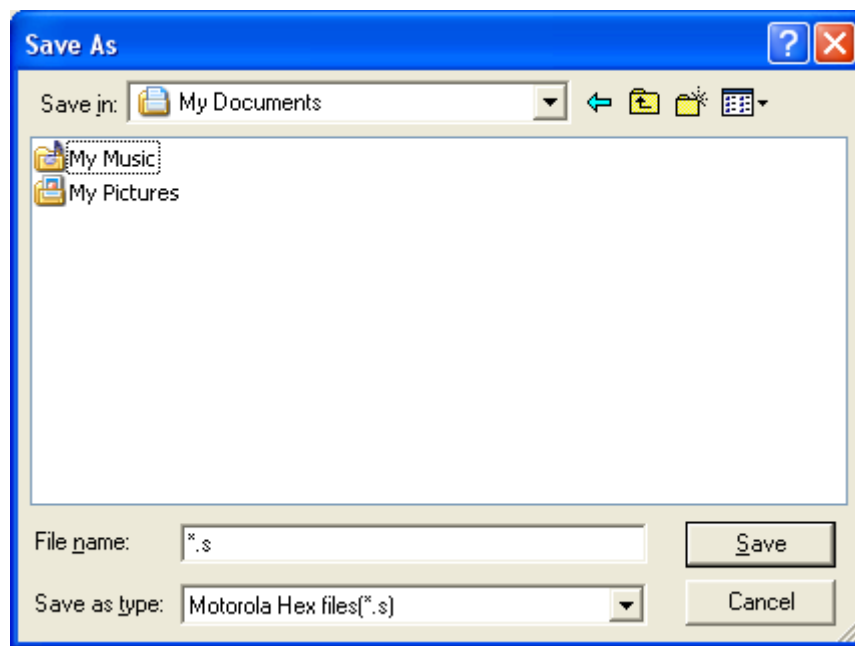


Fig. 5

[Save]

Input the file name and press the Save button to start uploading. It will be saved in Motorola S format.

[Cancel]

Closes the window without uploading the HEX file.

(3) [Checksum]Menu

The Checksum value of the HEX file downloaded to Stick GANG Writer's flash memory is displayed.

Device Checksum: Value calculated using the same algorithm as the target device.

FP4 Algorithm: Value calculated using the same algorithm as NEC Electronics programmer "PG-FP4".

CRC sum (32 bit: 1 M): Value when Program Area of PG-FP4 is set at 1 MByte.

CRC sum (32 bit: 2 M): Value when Program Area of PG-FP4 is set at 2 MByte.

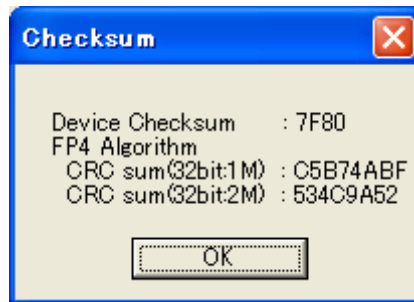


Fig. 6

(4) [Parameter File Download] Menu

Select a parameter file to enable downloading to the Stick GANG Writer's flash memory.

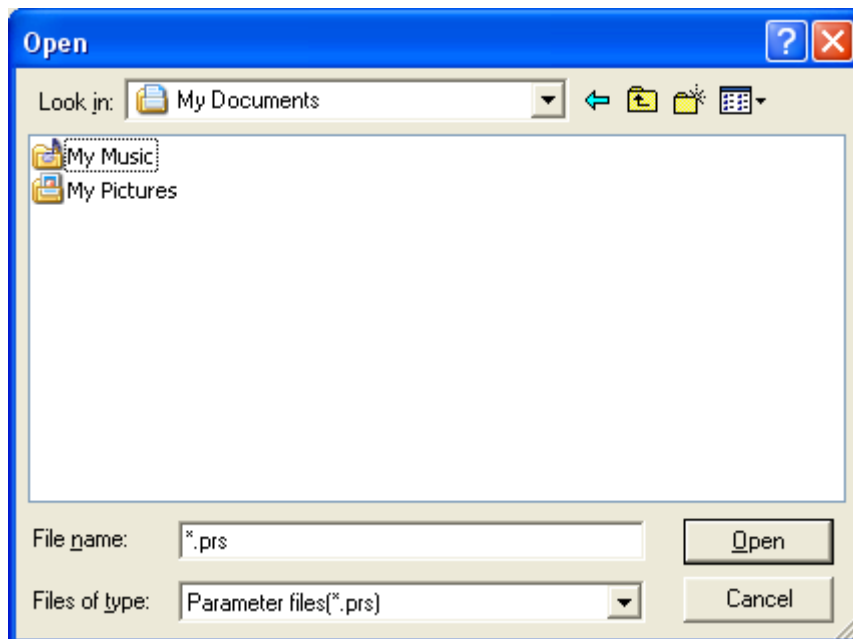


Fig. 7

[Open]

Downloads the selected parameter file.

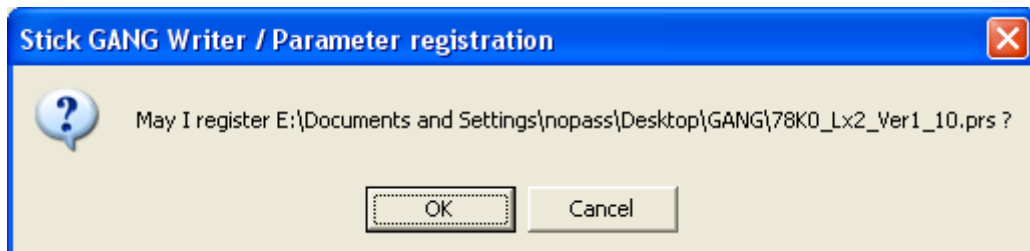


Fig. 8

Press [OK] to display the update confirmation window.

For registration update

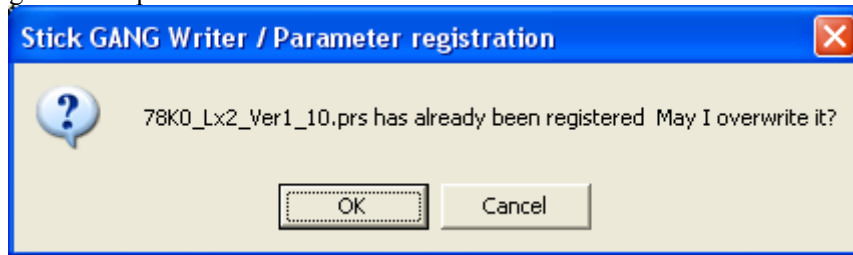


Fig. 9

The selected parameter file will be downloaded to the flash memory in Stick GANG Writer.
The latest parameter files can be downloaded from our website (<http://www.tessera.co.jp>).

[Cancel]

Closes the window without downloading the selected parameter file.

- (5) [Setting File Download] Menu
Select a setting file for download to the Stick GANG Writer's flash memory.

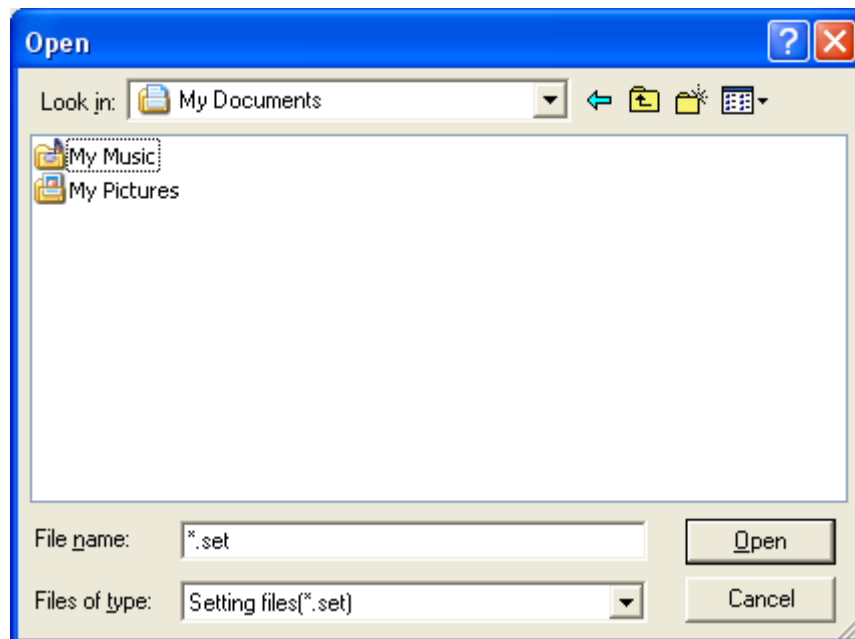


Fig. 10

[Open]
Downloads the selected setting file to Stick GANG Writer.

[Cancel]
Closes without downloading the selected setting file.

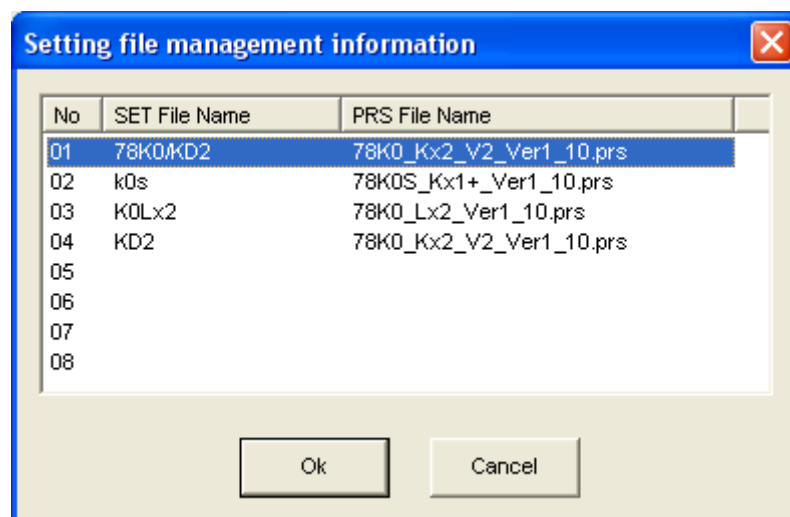


Fig. 11

Select a number to download and press [OK].

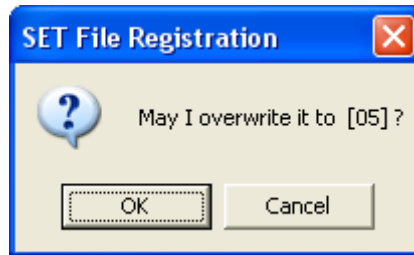


Fig. 12

Confirm the destination of the download and press [OK] to start downloading.
If the specified location is the default setting (in the case of overwriting), the warning window shown in Fig 13 will be displayed and the download will not start.

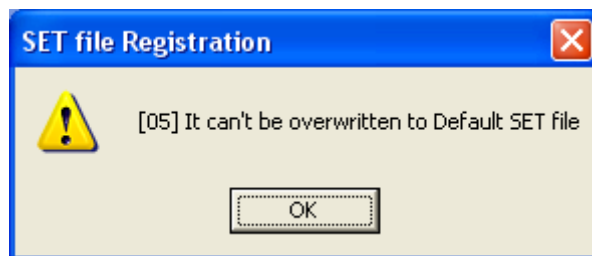


Fig. 13

The downloaded setting file will become the default setting file. (This will be reflected in the Setup information section in Fig 2.)

(6) [Setting File Upload] Menu

Upload the setting file from Stick GANG Writer to a specified location in the host machine.

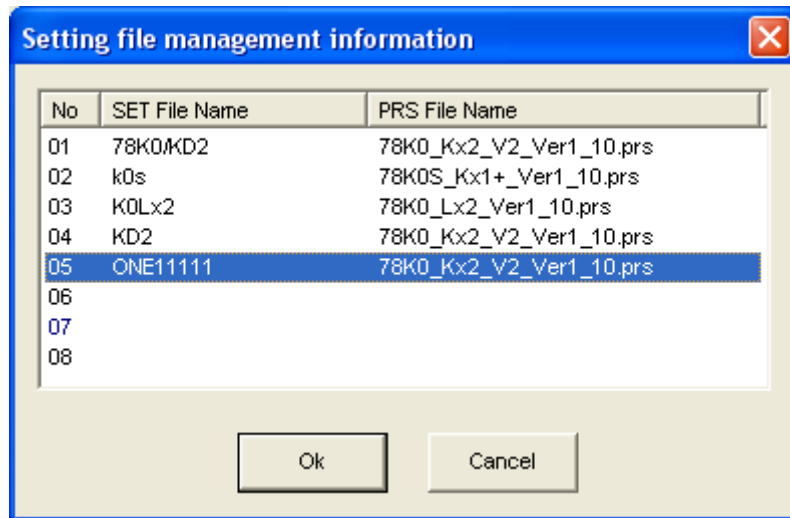


Fig. 14

Select a number to upload and press [OK].

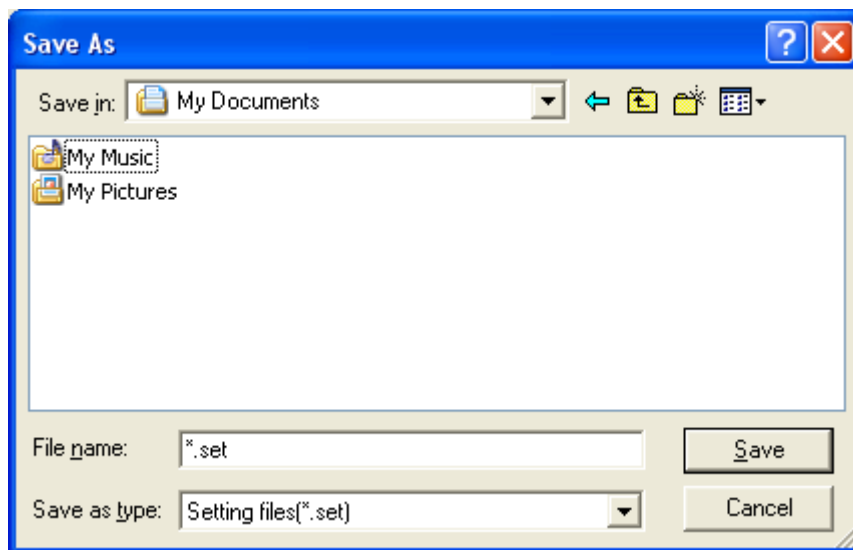


Fig. 15

[Save]

Input a file name and press [Save] to start uploading.

The saved file can be downloaded from the [Setting File Download] menu.

[Cancel]

Closes the window without uploading the setting file.

(7) [Setting File Delete] Menu

Delete a setting file from a specified location in Stick GANG Writer.

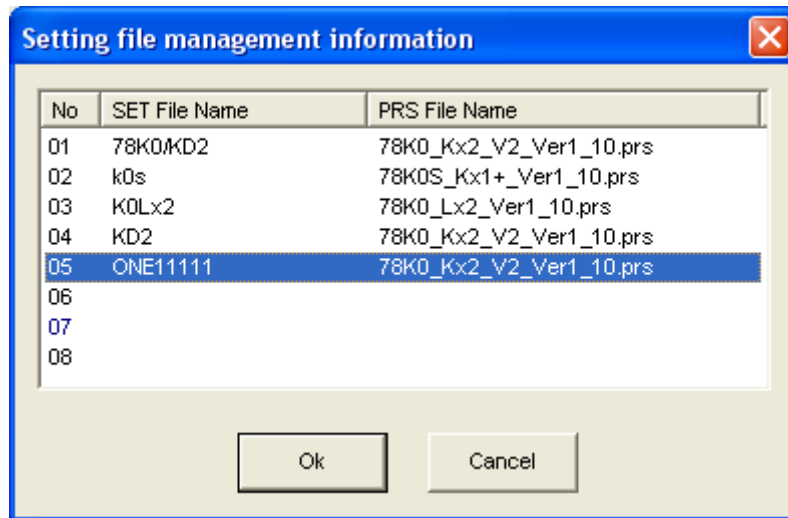


Fig. 16

Select a number to delete and press [OK].




Fig. 17

A confirmation window for the selected location will be displayed. Press [OK] to delete the setting file.

Keep in mind that when a setting file is deleted, the HEX file corresponding to this setting file will also be deleted.

(8) [Application Exit] Menu

Exit the Stick GANG Writer GUI software. The user may also exit by clicking the  button on the right side of the task bar.

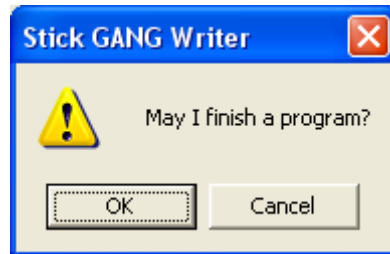


Fig. 18

Press [OK] to exit the application. Press [Cancel] to cancel the exit.

4.8.2 [Programmer] Menu

Clicking on the [Programmer] menu displays a pull-down menu as shown below. The menu consists of a set of setup commands related to programming.



Fig. 19

(1) [GANG Firmware Update] Menu

Update the firmware program for Stick GANG Writer.

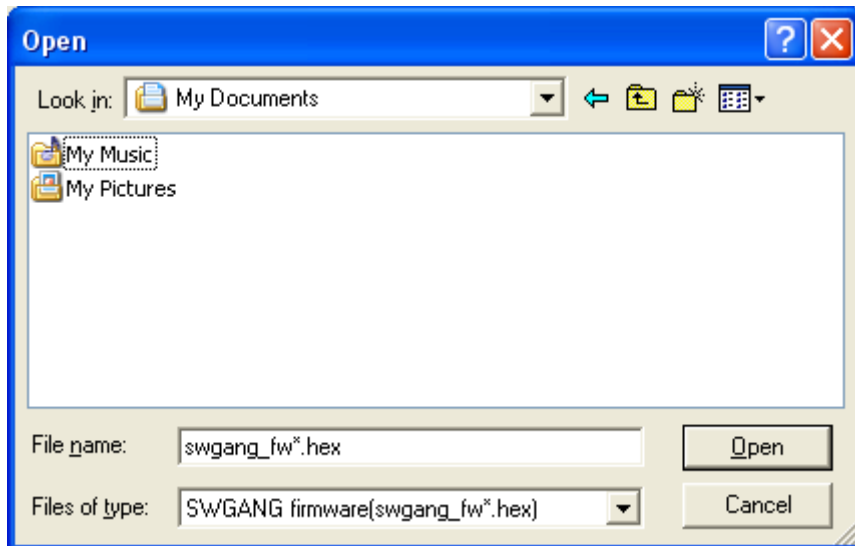


Fig. 20

Input the file name and press [Open] to start downloading the firmware

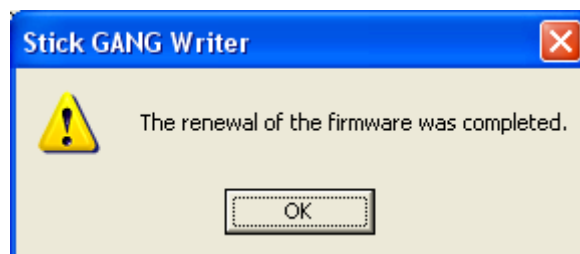


Fig. 21

After the firmware program is successfully downloaded, the window shown in Fig. 21 will be displayed. Press [OK] to initialize Stick GANG Writer which will complete the process.

(2) [SW Firmware Update]Menu

Update all the firmware programs for all the connected StickWriters.

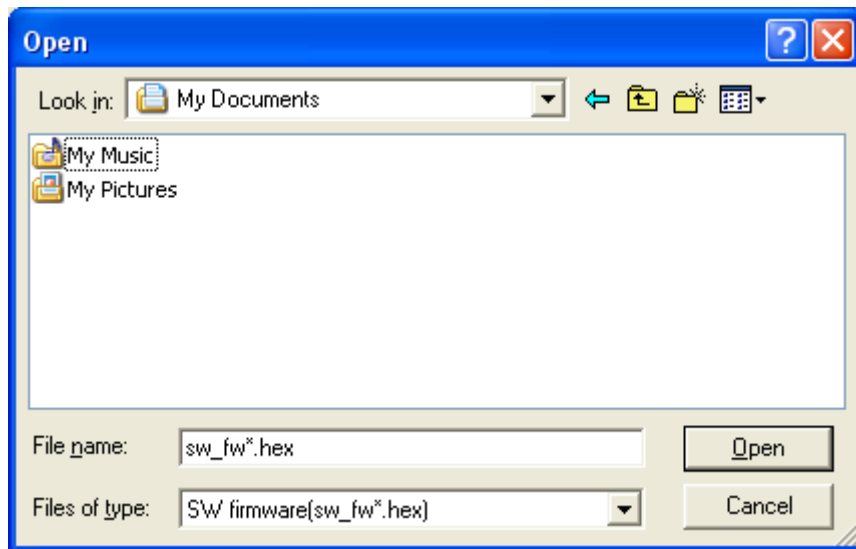


Fig. 22

Input the file name and press [Open] to start downloading the firmware.

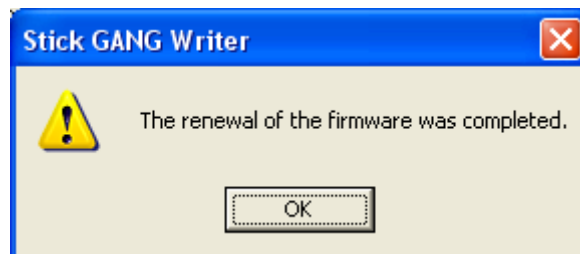


Fig. 23

After the firmware program is successfully downloaded, the window shown in Fig. 23 will be displayed. Press [OK] to initialize Stick GANG Writer which will complete the process.

4.8.3 [Device] Menu

Clicking the [Device] menu displays a pull-down menu. The menu consists mainly of commands related to programming of the target device, such as deleting, programming and verifying.

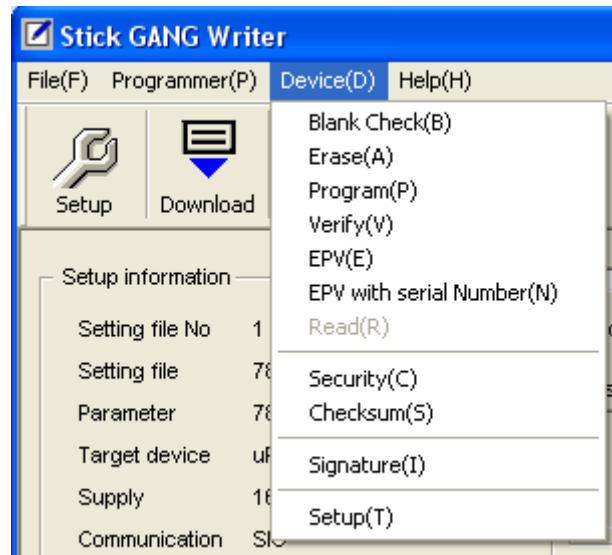


Fig. 24

(1) [Blank Check] Command



Performs a blank check for the target device connected to Stick GANG Writer. If the flash memory in the target device has been erased, the blank check will finish successfully. If the flash memory has not been erased, an error message will be displayed.

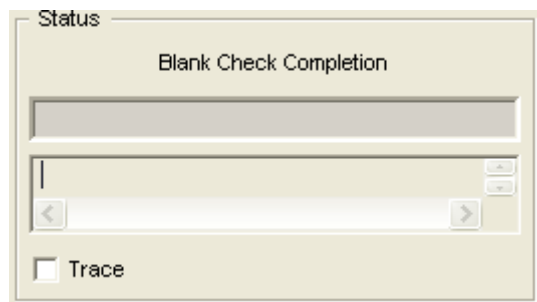


Fig. 25

The status displayed when [Blank Check] finishes successfully.

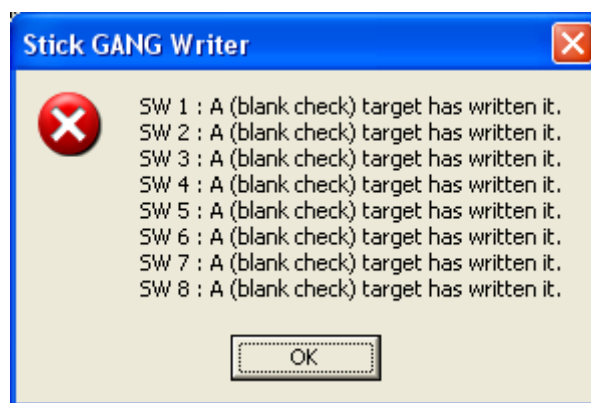


Fig. 26

The window displayed if data has been written to all target devices.

(2) [Erase] Command



Erases the flash memory of the target device connected to Stick GANG Writer. If “Blank check before Erase” is checked in the “Command options” of the [Setup] window, a blank check is performed before erasing. If the flash memory is blank, [Erase] will not be performed.

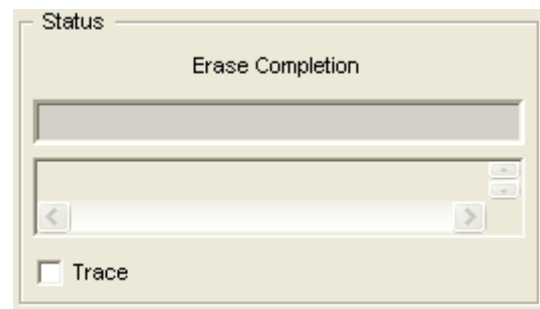
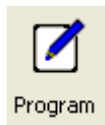


Fig. 27

The status displayed when [Erase] finishes successfully.

(3) [Program] Command



The HEX file downloaded to the Stick GANG Writer is sent to the connected target device and is written to the flash memory. While writing, the progress status is displayed in the progress status display section and the programmer's operations are shown.

If "Read verify after Program" is checked in the "Command option" of the [Setup] window, "Read verify" will be performed after writing to memory is completed. If it is not checked, "Internal verify" will be performed.

If "Security flag set after Program" is checked, a security flag is written after the writing is completed.

If "Checksum after Program" is checked, the checksum command is issued after the writing is completed and confirms that the checksum values match.

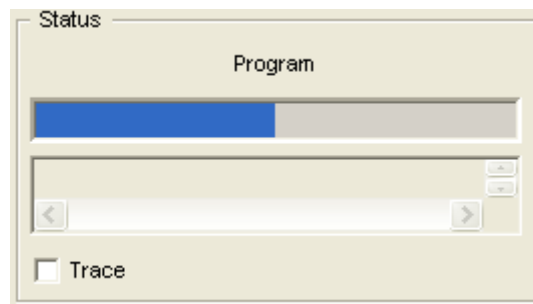


Fig. 28

The writing progress status and Progress bar are displayed.

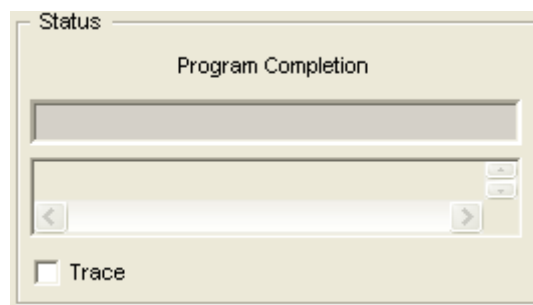


Fig. 29

The status displayed when the program finishes successfully.

(4) [Verify] Command



Verifies the data written to the flash memory of the target device connected to the Stick GANG Writer and the data written to the flash memory in the Stick GANG Writer. While verifying, the progress status is displayed in the progress status display section and the programmer's operations are shown.

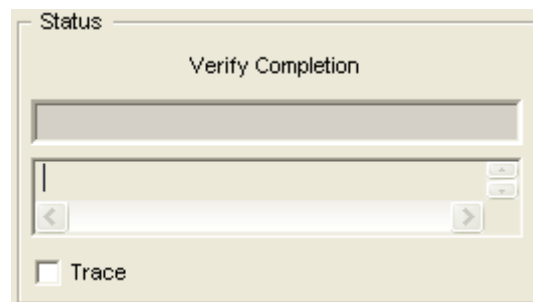


Fig. 30

The status displayed when [Verify] finishes successfully.



Fig. 31

The window displayed if [Verify] fails.

(5) [EPV] Command



Performs the [Erase] command, followed by the [Program] command for the target device connected to Stick GANG Writer. The options set in the “Command options” of the [Setup] window are also effective. During EPV, the progress status is displayed in the progress status display section and programmer’s operations are shown.

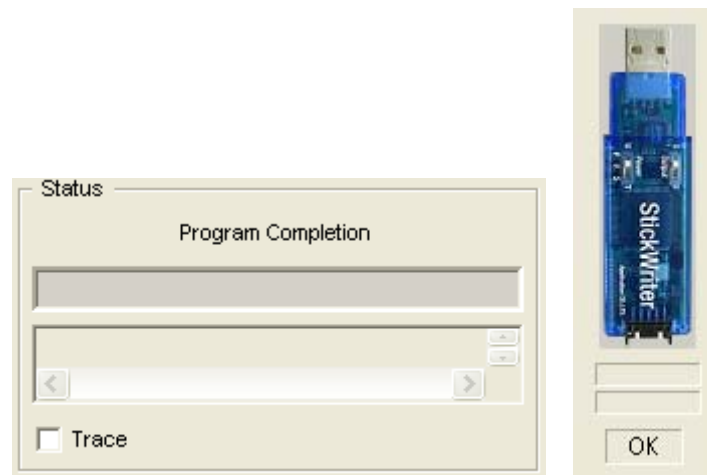


Fig. 32

The status displayed when EPV finishes successfully.

(6) [EPV with Serial No.] Command

Operates the same as the [EPV] command; however, when the [EPV] button is pressed, data for the specified address size will be changed to the specified standard in the algorithm. This command cannot be used in “stand-alone” mode in which GUI is not launched.

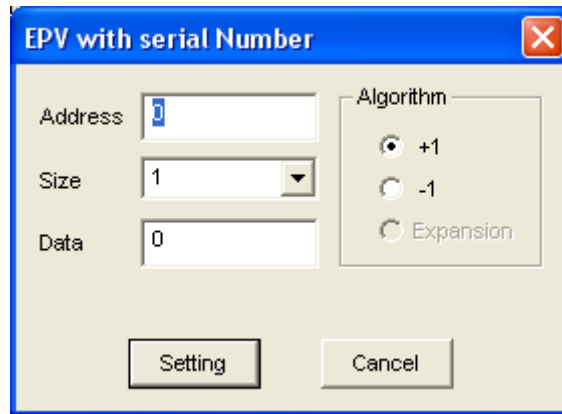


Fig. 33

[Address]

The address where the changed data will be written

[Size]

The size of data: 1, 2, 4 or 8 Byte(s) can be specified

[Data]

The data to be written; input an initial value.

[Algorithm/+1]

When the [EPV] button is pressed, the data increases by one.

[Algorithm/-1]

When the [EPV] button is pressed, the data decreases by one.

[Set] button

EPV with Serial No. mode is set.

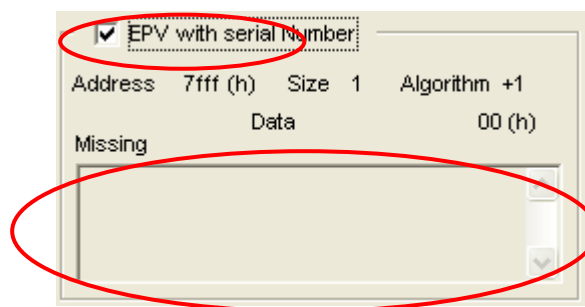


Fig. 34

When set at EPV with Serial No. mode, the “EPV with Serial No.” check box on the main screen is checked. When “EPV” is executed in this status, the serial No. is set according to how it was set. In addition, if an error occurs when writing, the No. to set in this device is set as a “missing No.” and added as a postscript in the “Missing No. Box”

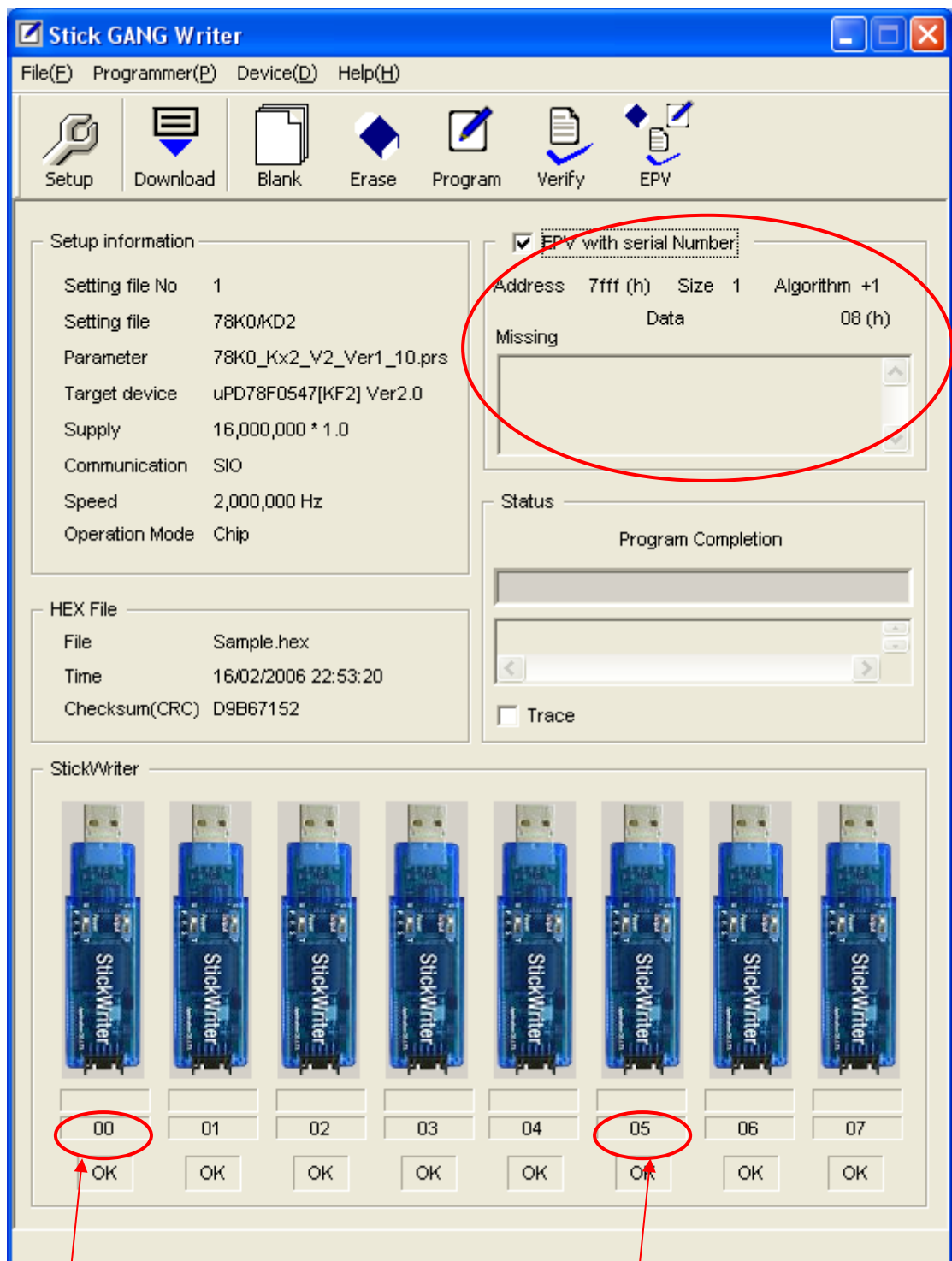


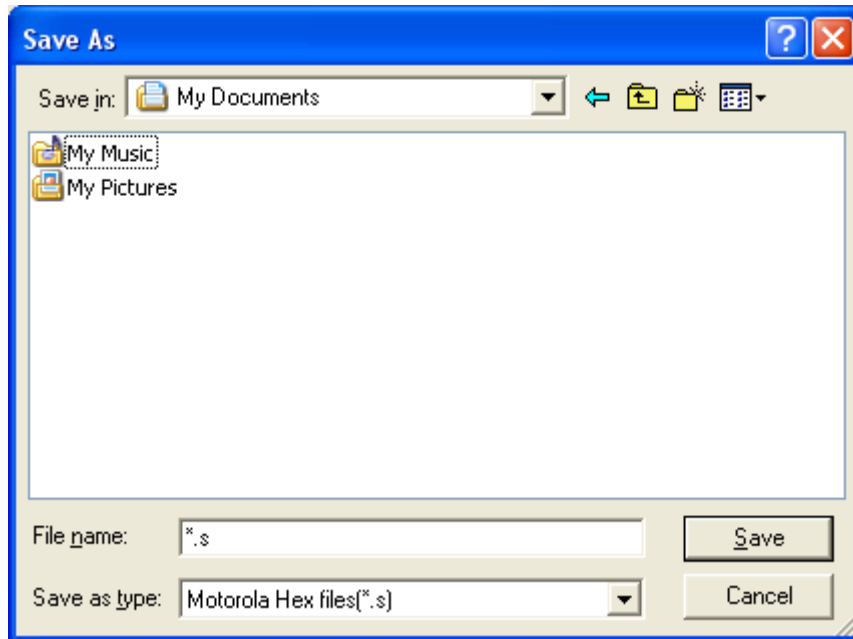
Fig. 35

0x00 was written in 0x7FFF as the serial number

0x05 was written in 0x7FFF as the serial number

(7) [Read] Command

Reads the contents of the flash memory in the target device connected to Stick GANG Writer.



[Save]

Input the file name and push the Save button to start reading Flash memory. The file will be saved only in Motorola Hex format.

[Cancel]

Closes the window without reading the flash memory.

(8) [Security] Command

Writes a security flag to the target device connected to Stick GANG Writer.



Fig. 36

The status displayed when [Security] finishes successfully.

(9) [Checksum] Command

Reads and displays the checksum value of the target device connected to Stick GANG Writer.
It does not compare the value to the data written in the flash memory of Stick GANG Writer.



Fig. 37

The status displayed when [Checksum] finishes successfully.

(10) [Signature] Command

Compares the signature information of the target device connected with Stick GANG Writer and the device specified at setup.
(Does not display signature information)

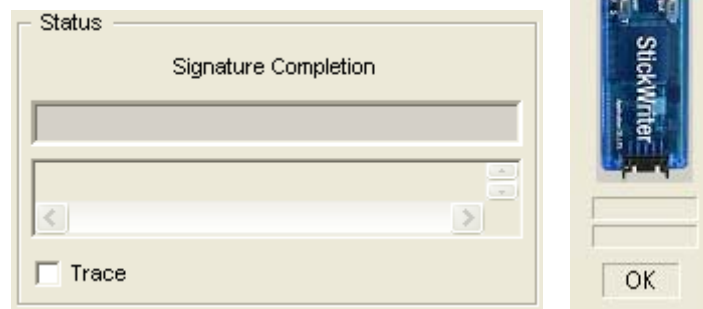


Fig. 38

The status displayed when [Signature] finishes successfully.

(11) [Setup] Command

Performs setup for the flash memory rewrite settings according to the user environment, as well as for the command option settings. The updated content will be saved in the Settings file.

The Setup dialog box is titled "Setup" and contains the following sections:

- Device:**
 - Setting file: 78K0/KD2 (with a Select button)
 - Parameter: 78K0_Kx2_V2_Ver1_10.prs
 - Target: uPD78F0547[KF2] Ver2.0 (dropdown menu)
- Supply oscillator:**
 - Frequency: (dropdown menu)
 - On Target: ☐ (checkbox)
 - Multiply: (dropdown menu)
- Operation Mode:**
 - Chip Start: ☒ (radio button)
 - Block End: ☐ (radio button)
 - Show Address: ☐ (checkbox)
- Block protection:**
 - Boot Block end: (dropdown menu)
 - FS Block: (dropdown menu)
 - FS Block: (dropdown menu)
 - Show Address: ☐ (checkbox)
- Communication interface to device:**
 - Port: CS10 [fRH] (dropdown menu)
 - Speed: 2 MHz (dropdown menu)
- Command options:**
 - ☒ Blank check before Erase
 - ☐ Read verify after Program
 - ☐ Security flag set after Program
 - ☒ Checksum after Program
- Security flag settings:**
 - ☐ Chip Erase disabled
 - ☐ Block Erase disabled
 - ☐ Program disabled
 - ☐ Read disabled
 - ☐ Boot block cluster reprogramming disabled
 - Reset vector: (text field) h

Buttons: Ok, Cancel

Fig. 39

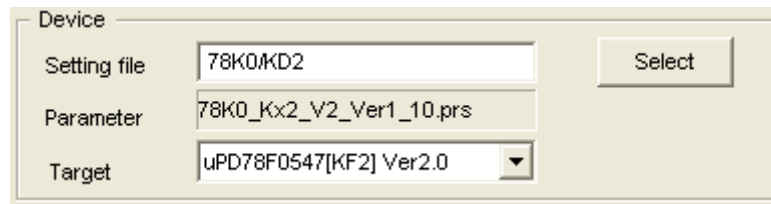
[OK]

Saves the parameter information with the Settings file name input by the user. (registered as the default settings file).

[Cancel]

Returns to the [Launch] screen without saving.

(1) Device



The screenshot shows a window titled "Device" with a light beige background. It contains three rows of input fields. The first row is labeled "Setting file" and contains the text "78K0MKD2". To the right of this field is a button labeled "Select". The second row is labeled "Parameter" and contains the text "78K0_Kx2_V2_Ver1_10.prs". The third row is labeled "Target" and contains a dropdown menu with the text "uPD78F0547[KF2] Ver2.0".

Fig. 40

[Setting File]

The file containing Settings information saved in Stick GANG Writer. The file name can be changed.

Use the “Select” button to select other settings files or create a new file.

[Parameter File]

The file containing recorded device memory size and communication-timing information.

[Target Device]

A device can be selected for use with the above setting file from among the support devices recorded in the parameter file.

[Select] button

Displays the Setting file Management information window. (Fig 41)

The Setting file name and Parameter file name that were input in this window will be displayed in [Setting File] and [Parameter File].

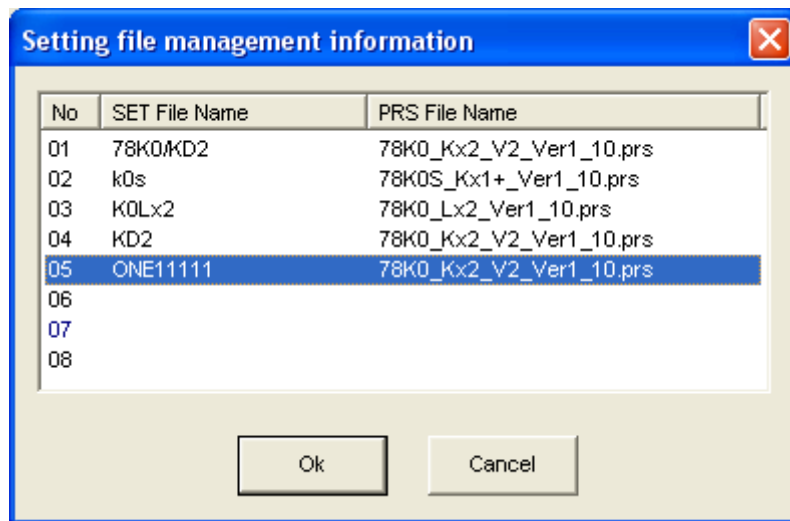


Fig. 41

Setting file information from 01 to 08 can be newly registered or selected. Double-click a position on the line to register new information, or click on a position and press [OK] to select previous information. If a previously registered number is selected, you will return to the Setup window. If new information is created, the window shown in Fig. 42 is displayed.

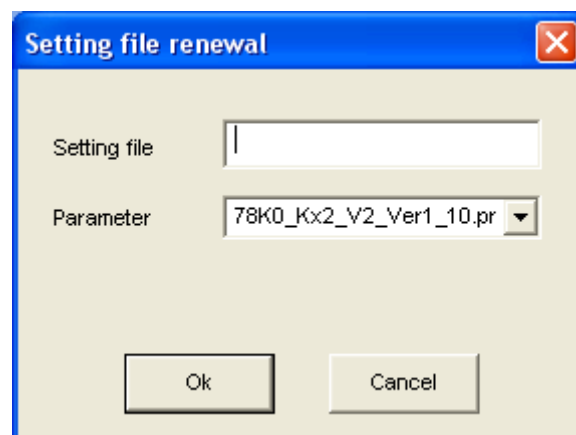


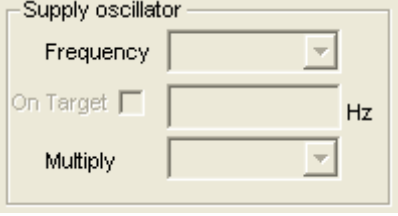
Fig. 42

Input any Setting file name and select a Parameter file for the target device. Press [OK]. In the Parameter file list box, a list of previously registered parameter files will be displayed.

(2) Supply Oscillator

Sets the operating frequency for the target device.

Operating frequency cannot be entered here, since this is already defined in the parameter file.



The image shows a configuration window titled "Supply oscillator". It contains three controls: a "Frequency" label followed by a dropdown menu; an "On Target" label followed by an unchecked checkbox and a text input field with "Hz" to its right; and a "Multiply" label followed by a dropdown menu.

Fig. 43

(3) Communication interface to device

Specifies the communication method between the target device and Stick GANG Writer.

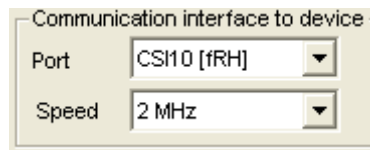


Fig. 44

Communication method	Socket board (SGA board) for Stick GANG Writer cannot be changed as the communication method is fixed.
Speed	Communication speed can be selected. Use the default maximum speed.

(4) Operation Mode

Sets the type of commands to the target device.

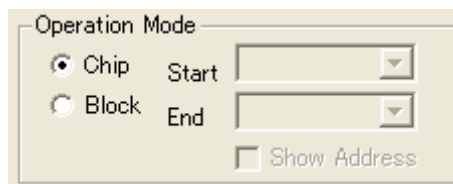


Fig. 45

Chip	Access in chip mode.
Block	Access in block mode. In this case, Start block and End block can be specified. Or check Show Address to display the address.

(5) Command options

Options can be specified for each command to the target device.

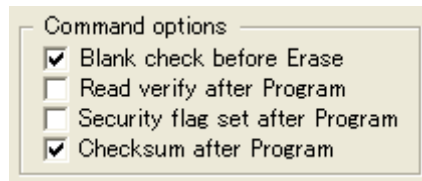


Fig. 46

Blank check before Erase

Before executing the [Erase] command, the [Blank check] command is issued to confirm whether data has been erased. If it has been erased, the [Erase] command will not be issued.

Read verify after Program

After data is written with the [Program] command, the written data will be re-sent for verification.

Security flag set after Program

After data is written with the [Program] command, a security flag will be written as specified by the Security flag setting.

Checksum after Program

After data is written with the [Program] command, the checksum value for the target device is received by the [Checksum] command for comparison.

(6) Security flag settings

Sets a security flag. Items that can be set vary by target device. Items for which the setting is not allowed cannot be set.

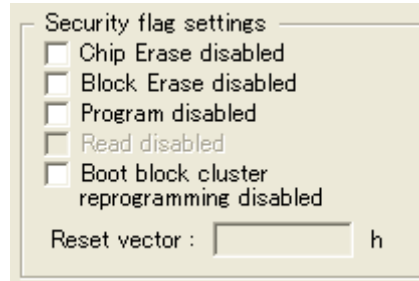


Fig. 47

Chip Erase disabled

Disables [Erase]

Note: After the security flag is set to the target device, Erase or Write will not be allowed on the device.

Block Erase disabled

Disables [Block Erase].

Program disabled

Disables [Program].

Read disabled

Disables [Read].

Boot block cluster reprogramming disabled

Disables the Boot block updates.

Note: After the security flag is set to the target device, the boot area will not allow Rewrite on the device.

Reset vector

Changes the address to one with the reset vector specifications.

(7) Block protection

Specifies the boot area. The boot area is designated up to the specified block. There are devices that cannot set this.



Fig. 48

Boot Block end

Specifies the boot area up to the block specified.

Note: After the security flag is set for the target device, the boot area will not allow Rewrite for the device.

FS Block start/FS Block end

Enables blocks outside the specified range to not rewrite with flash memory self programming.

4.8.4 [Help] Menu

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

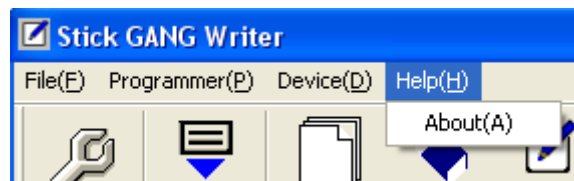


Fig. 49

(1) [About] Menu

Opens the window as shown below (Fig. 50).



Fig. 50

Press [OK] to exit the window.

Chapter 5 Others

5.1 About each file

Stick GANG Writer uses the files described below.

(1) Parameter file

This is a parameter file exclusively for StickWriter/Stick GANG Writer.

Information specific to the device such as signature information and the timing for writing is saved in this file.

There was a limit to the number of readable data depending on the license in StickWriter, but in GANG Writer, there are no limits.

(2) Setting file

The setting of security bits and command options to be set on the “Setup” screen is saved.

Up to 8 files corresponding to the [SELECT] switch of the body of Stick GANG Writer can be saved into the body.

(3) HEX file

This is the HEX file to write into the target device.

Up to 8 files can be saved into the body corresponding to the setting files.

Keep in mind that by deleting the setting file, the HEX file will also be deleted.

5.2 Using StickWriter by removing it from Stick GANG Writer

StickWriter, included as an attachment of Stick GANG Writer, can be removed and used as a regular “StickWriter”. When doing so, keep in mind the following points.

(1) Parameter file

Parameter file is not set.

Only 1 parameter file to be used can be registered.

To use more than 2 files, purchasing a license is required.

(2) Setting file

Setting file is not set.

Setting files saved with Stick GANG Writer cannot be used.

(3) HEX file

The last file used in Stick GANG Writer will remain, as StickWriter can only save 1 HEX file.

Therefore, keep in mind that HEX files saved in GUI as StickWriter will be overwritten when brought back to Stick GANG Writer.

5.3 List of Error codes displayed on LCD

Code	Detailed description
01	Error occurring when receiving unsupported commands or abnormal frames
04	Error occurring when receiving unsupported commands
05	Various parameters added to the command are not of appropriate values
07	Error in which there was an abnormality in the transmission frame data
08	Writing error
09	Writing error
0A	Internal verification error (writing side)
0B	Deletion error
0C	Deletion error
0D	Internal verification error (deleting side)/Blank check error
0F	Error occurring during verification of the data forwarded from the writer
10	Error occurring when executing a process prohibited by the security setting command
11	Internal verification error (deleting side)/Blank check error
12	Internal writing check verification error
13	Deletion error
15	Rejection response (NACK)
16	Error occurring in the Flash control macro
18	Writing error
19	Internal verification error (writing side)
1A	Deletion error
1B	Internal verification error (deleting side)/ Blank check error
1C	Writing error
1D	Normal reception/writing failure
1E	Reception/writing failure
1F	Reception failure/successfully written
20	Going beyond the maximum value of retry processing frequency
21	Time elapsed during processing in the device
25	Inconsistency between the signature information of the setting file and the signature information of the target
27	NAND Flash reading error
29	Error occurring when obtaining a response from the target
2B	Device unmounting
2D	Decrease of socket power supply voltage