



GenWriter

Application Note #025

(AN025-V10)

2
A

GenWriter S1000 / G1000

V1.0

August 2007

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- ◆ Error Message

PART I : Introduction

- ◆ Overview
- ◆ Features

1. Overview

- ◆ **GenWriter V3.0 is CORERIVER's exclusive romwriter.**
- ◆ **It supports all CORERIVER MCU Families.**
 - ✓ **GenWriter V3.0 S1000 is single romwriter of stand alone mode.**
 - ✓ **GenWriter V3.0 G1000 is 4-Gang romwriter.**

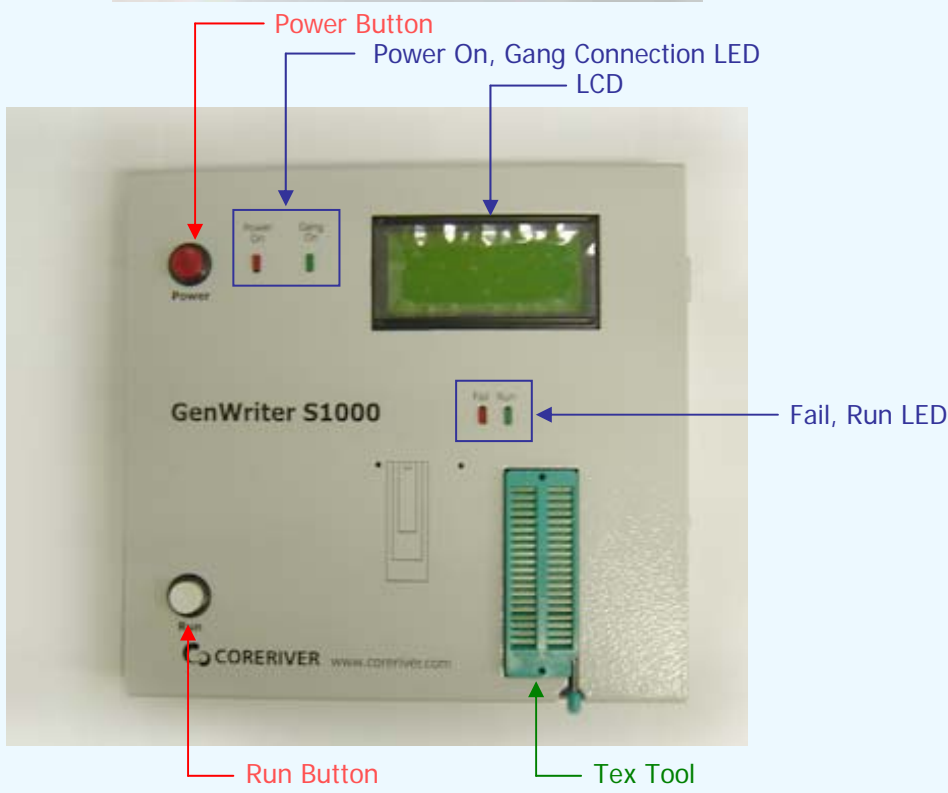
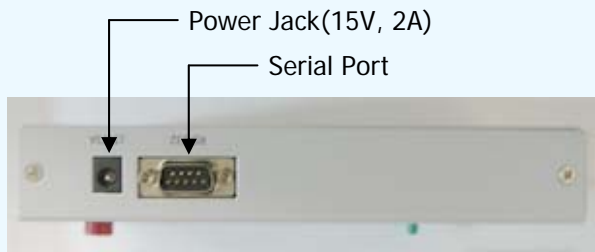
2. Features

- ◆ Supply Voltage : 12V DC (2.0A)
- ◆ Display
 - ✓ LCD Display : Device, Hex Name, Success and Fail Message Display
 - ✓ LED Display : Run and Fail Display
- ◆ Supported File Format
 - ✓ Intel HEX, ASCII HEX
- ◆ Adapter list (Option)
 - ✓ 28SOIC/44PLCC for MiDAS1.0 Family
 - ✓ 8/16/20 SOIC for MiDAS1.1 Family
 - ✓ 44MQ/64LQ for MiDAS2.0 Family
 - ✓ 32LQ for MiDAS2.1 Family
 - ✓ 32-LQ/32-MLF for RoboCore1.0 Family
 - ✓ 32-MLF for Unichip3.0 Family
 - ✓ 32-MLF/44MQ for MiDAS3.0 Family
 - ✓ 8SOIC/20SOIC/24SOIC for ATOM1.0 Family
- ◆ Tool Configuration
 - ✓ Single : GenWriterV3.0 S1000
 - ✓ 4Gang : GenWriterV3.0 G1000
- ◆ Supported Device :
 - ✓ MiDAS1.0
 - ✓ MiDAS1.1
 - ✓ MiDAS2.0
 - ✓ MiDAS2.1
 - ✓ RoboCore1.0
 - ✓ Unichip3.0
 - ✓ MiDAS3.0
 - ✓ ATOM1.0

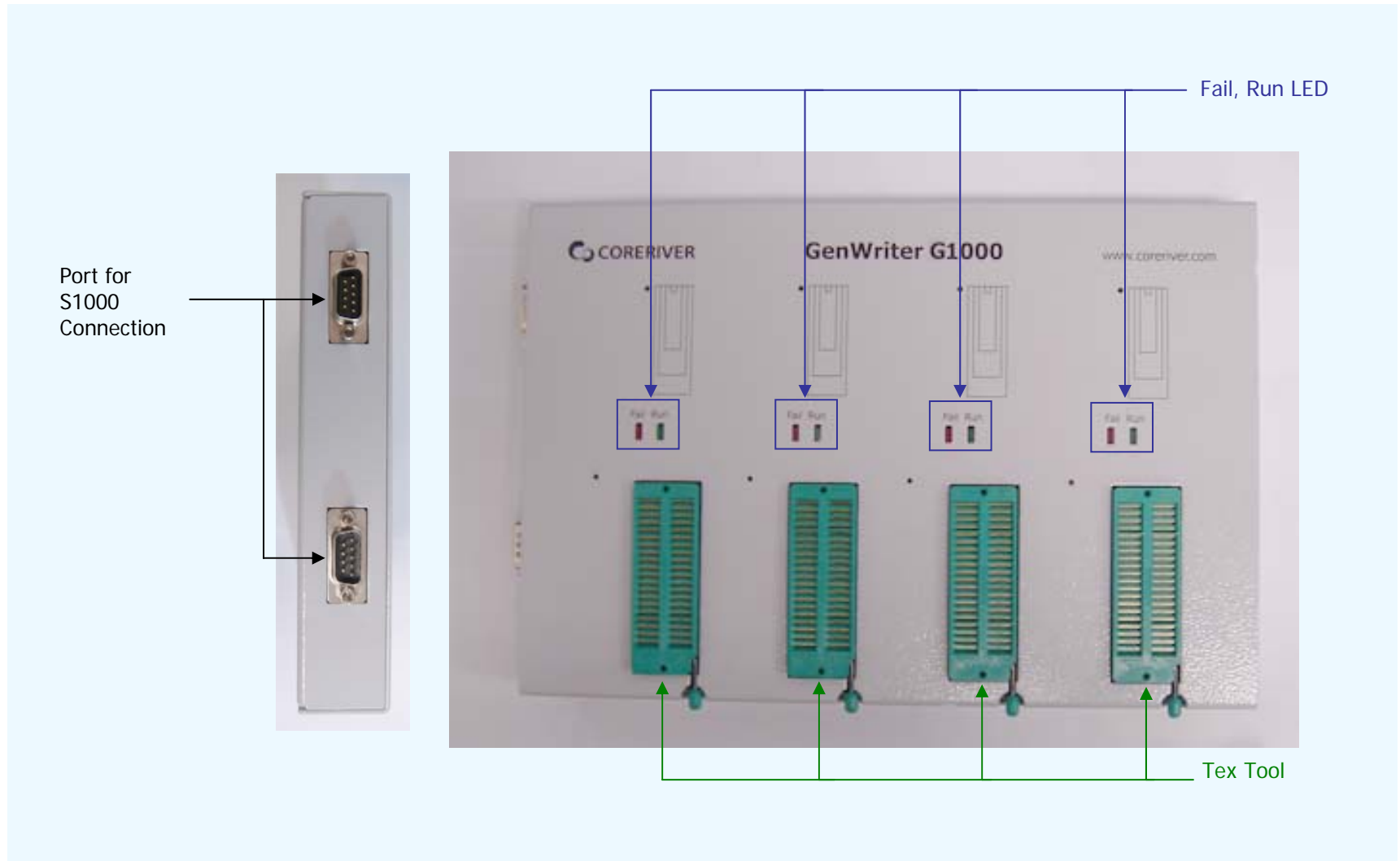
PART II : GenWriter H/W Equipment

- ◆ Single Writer (S1000)
- ◆ Gang Writer (G1000)
- ◆ Configuration

1. Single Writer (S1000)



2. Gang Writer (G1000)



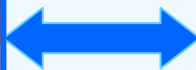
3. Configuration

- ◆ Configuration for GenWriter Programming Environment.



[GenWriter v3.0 S/W on PC Host]

Cable
Assembly



[GenWriter]

- ◆ Accessories.

Serial Cable
(1.5 meter)



Power Adaptor
(SMPS, 15V, 2A)



Socket



PART III : How to Use

- ◆ How to Download the HEX File to S1000
- ◆ Programming MCU with GenWriter

1. How to Download the HEX File to S1000

1. Set up the S1000 and PC.
 - 1) Install GenWriter v3.0 S/W in your PC.



[GenWriter v3.0 S/W on PC Host]



[S1000]

2. Set up accessories.
 - 1) Serial cable.
 - 2) Power adaptor. (15V, 2A)

Serial Cable

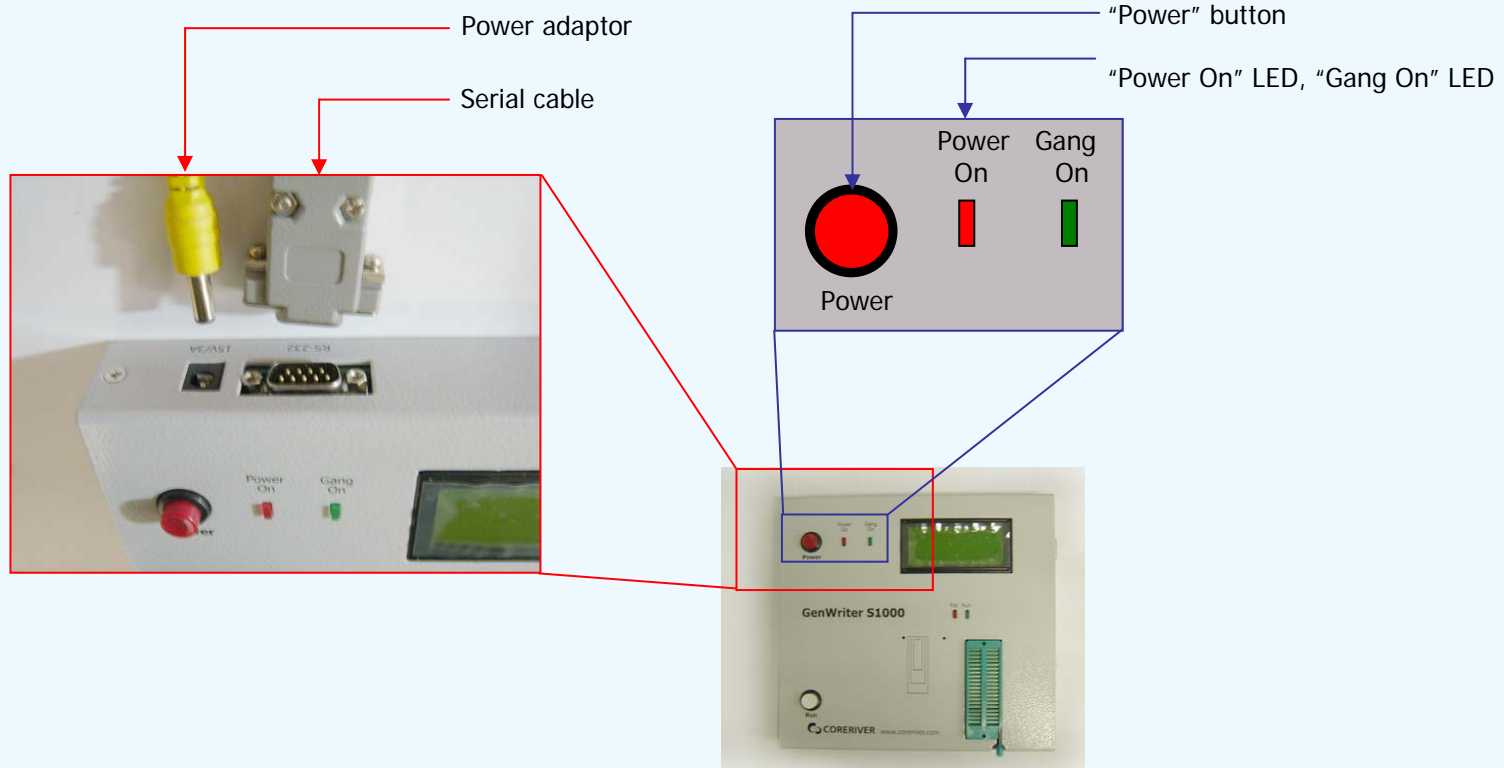


Power Adaptor
(SMPS, 15V, 2A)



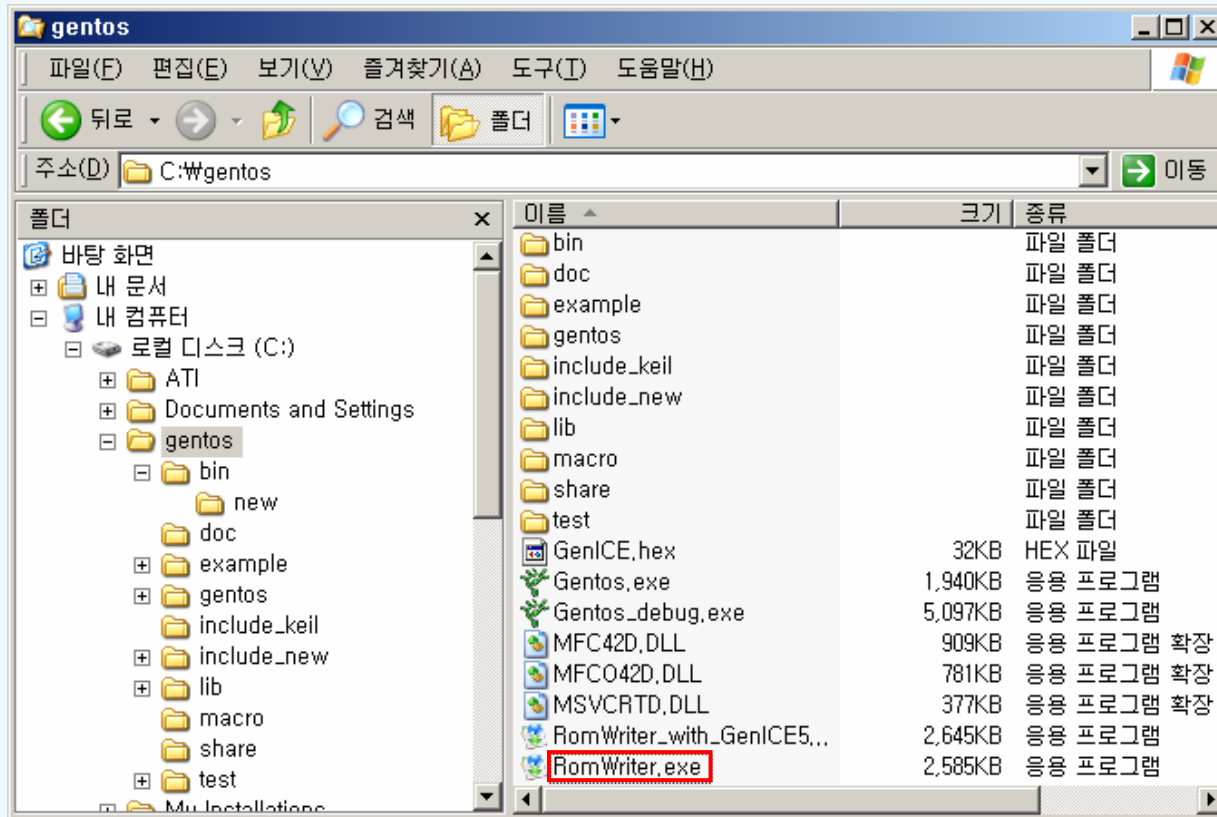
1. How to Download the HEX File to S1000

3. Connect the S1000 to PC with serial cable.
 - 1) Check whether power of the S1000 is **OFF**.
4. Power on the S1000.



1. How to Download the HEX File to S1000

5. Run the GenWriter v3.0 S/W.



1. How to Download the HEX File to S1000

6. Set "serial", "device".
 - 1) Serial = COM1, 57600 (baudrate)
 - 2) device = Target MCU type
7. Click "Open" button for open the HEX file.

Select the target MCU type

Select the serial port

Select the file

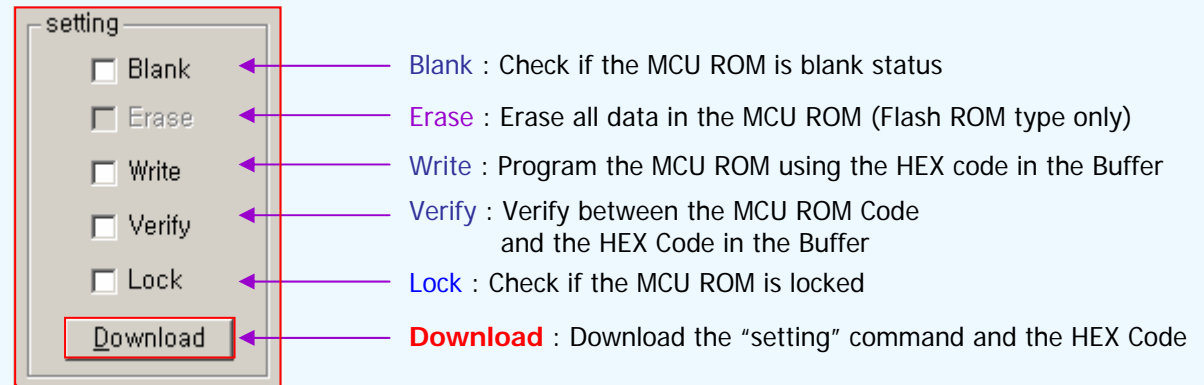
The image shows a sequence of three screenshots from the GenWriter v3.0 software. The first screenshot is a Windows Explorer window titled '열기' (Open) showing a folder named 'port' containing two files: 'M_mcu_code.hex' and 'port.hex'. A blue arrow points to 'M_mcu_code.hex' with the label 'Select the file'. The second screenshot is a configuration dialog box with 'serial' and 'device' sections. The 'serial' section has a dropdown menu set to 'COM1' and a text field set to '57600'. The 'device' section has a dropdown menu set to 'A1.0' and a list box containing 'U3.0', 'M3.0', and 'A1.0'. A red box highlights these sections, with red arrows pointing to the text 'Select the target MCU type' and 'Select the serial port'. The third screenshot is the main GenWriter v3.0 interface. The 'file' field is empty, and the 'Open' button is highlighted with a blue box. A blue arrow points from the '열기(Q)' button in the first screenshot to this 'Open' button, with the label 'Click "Open" button after selecting the file'. The main interface also shows a 'serial' dropdown set to 'COM1', a 'device' dropdown set to 'A1.0', and a 'setting' panel on the right with various options like 'Blank', 'Erase', 'Write', 'Verify', 'Lock', and 'Download'. A data table with memory addresses and hex values is visible in the background.

Click "Open" button after selecting the file

[GenWriter v3.0]

1. How to Download the Hex File to S1000

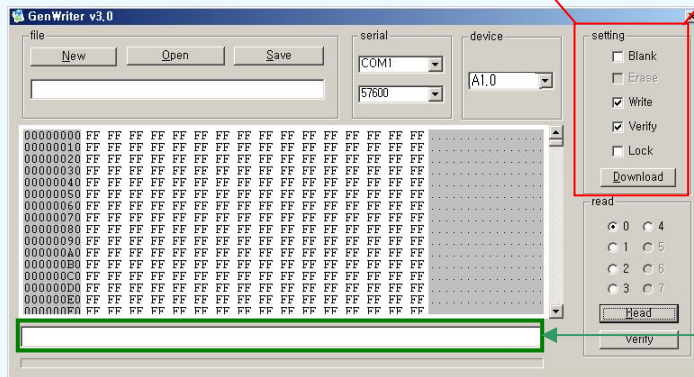
8. Configure “setting” command. (Blank, Erase, Write, Verify and Lock)



The diagram shows a 'setting' dialog box with five checkboxes and a 'Download' button. Purple arrows point from each checkbox to its corresponding description:

- Blank : Check if the MCU ROM is blank status
- Erase : Erase all data in the MCU ROM (Flash ROM type only)
- Write : Program the MCU ROM using the HEX code in the Buffer
- Verify : Verify between the MCU ROM Code and the HEX Code in the Buffer
- Lock : Check if the MCU ROM is locked

The 'Download' button is highlighted with a red box and a purple arrow pointing to its description: **Download** : Download the “setting” command and the HEX Code



See the status for checking the progression.

9. Click the “Download” button for download the “setting” command and the HEX Code.

1. How to Download the Hex File to S1000

10. Check result.

The screenshot displays the GenWriter v3.0 software interface. The main window is titled "GenWriter v3.0" and contains several sections:

- file:** Includes buttons for "New", "Open", and "Save". Below these is a text field containing "m11_test_full.hex - (checksum : 0xF800)". A red arrow points to this field with the label "File name (checksum)".
- serial:** Includes a dropdown menu set to "COM3" and a text field containing "57600".
- device:** Includes a dropdown menu set to "A1,0".
- setting:** Includes checkboxes for "Blank", "Erase", "Write", "Verify", and "Lock". A "Download" button is located below these settings.
- read:** Includes radio buttons for "0", "1", "2", "3", "4", "5", "6", and "7". Below these are "Read" and "Verify" buttons.
- Hex Data:** A large grid of hexadecimal data is displayed, with columns labeled from 00 to FF. A red arrow points to the first row of data with the label "Start".

Below the main window, three status bars are shown, each with a red arrow pointing to it:

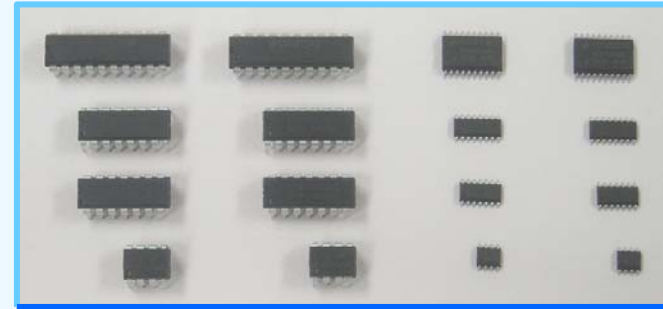
- The first status bar contains the text "Auto Result Good!". A red arrow points to it with the label "Downloading".
- The second status bar contains the text "Data transfered & Cheksum[0xf800] OK!". A red arrow points to it with the label "Complete (checksum)".

2. Programming MCU with GenWriter

1. Set up the GenWriter and MCU.



[GenWriter]



[MiDAS 1.1 Family]

2. Set up accessories.

- 1) Power adaptor (15V, 2A)
- 2) Socket

Power Adaptor
(SMPS, 15V, 2Ah)

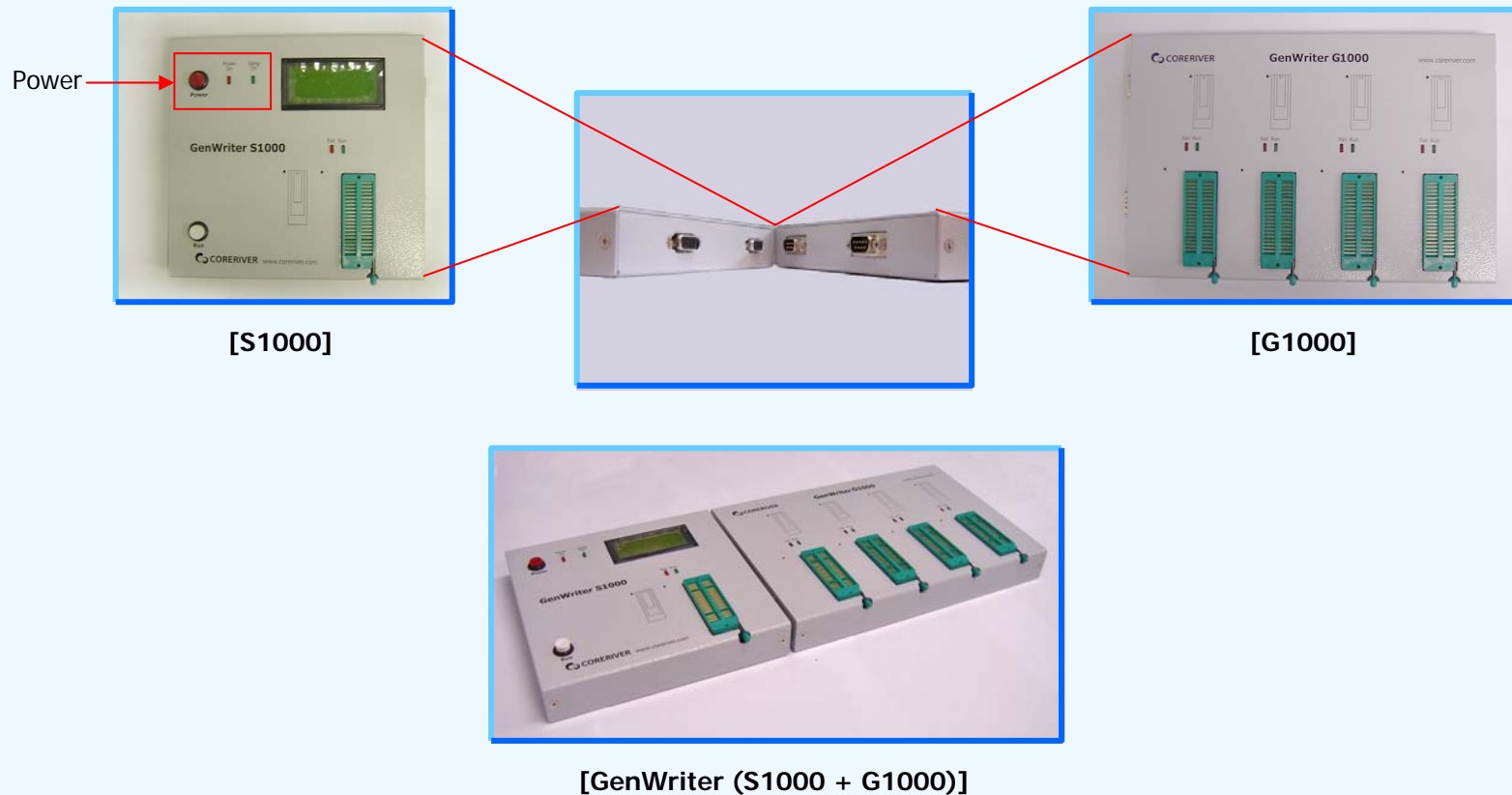


Socket



2. Programming MCU with GenWriter

3. Combine the S1000 and the G1000.
 - 1) It is possible for S1000 to program 1 device.
 - 2) It is possible for G1000 to program 4 device.

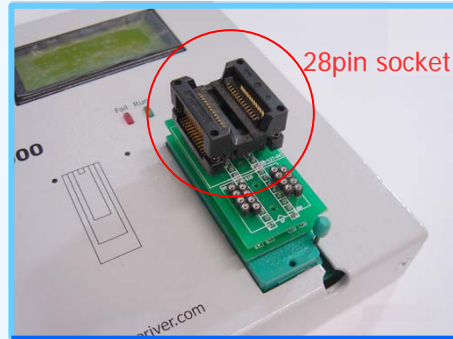


2. Programming MCU with GenWriter

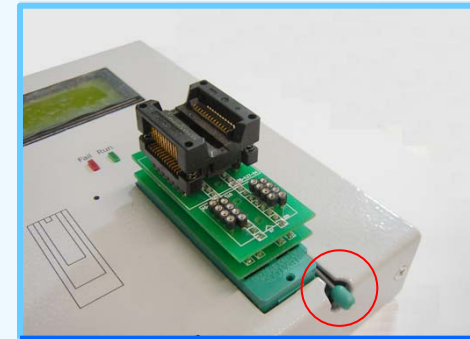
4. Combine the GenWriter and the socket.
 - 1) Select the socket adaptable to the target MCU.



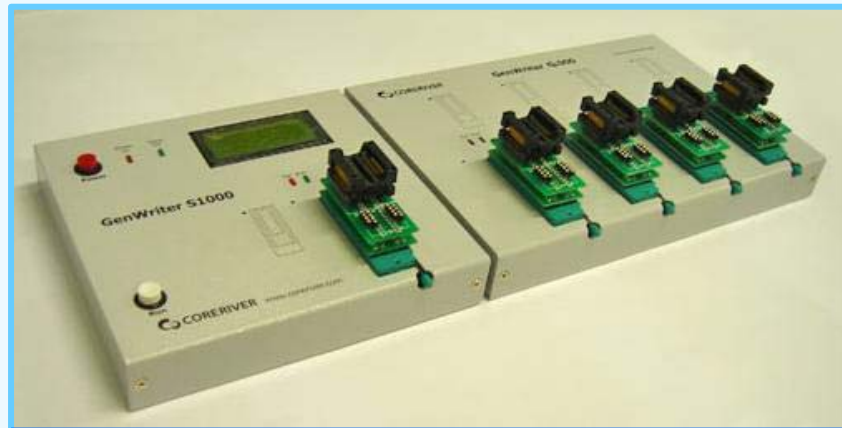
1. Raise the lever



2. Combine the socket



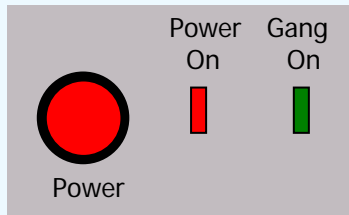
3. Get down the lever



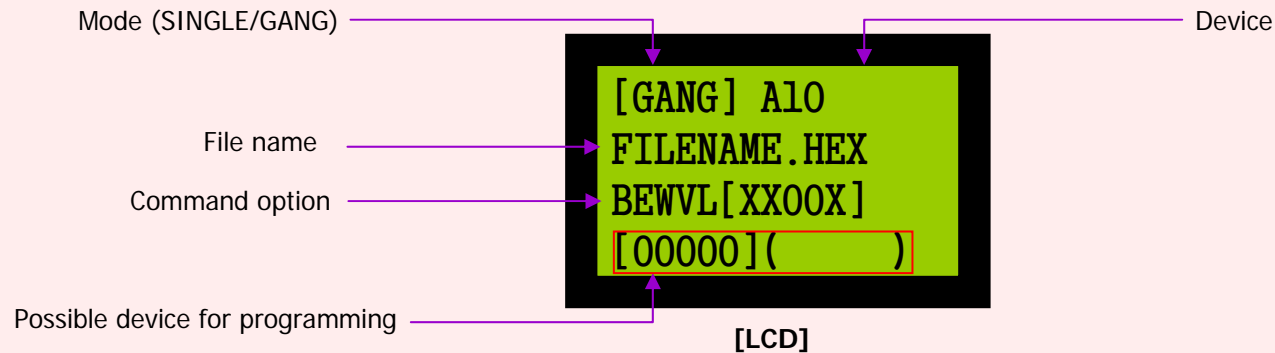
[GenWriter combined with the socket]

2. Programming MCU with GenWriter

5. Fix MCU in the socket.
6. Power on the S1000.
 - 1) Check "Power On" LED.

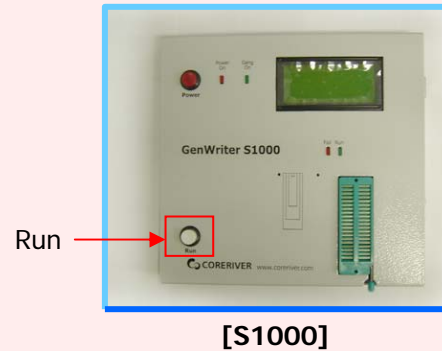


7. Check LCD. (Single mode/Gang mode, target MCU, File, Command)

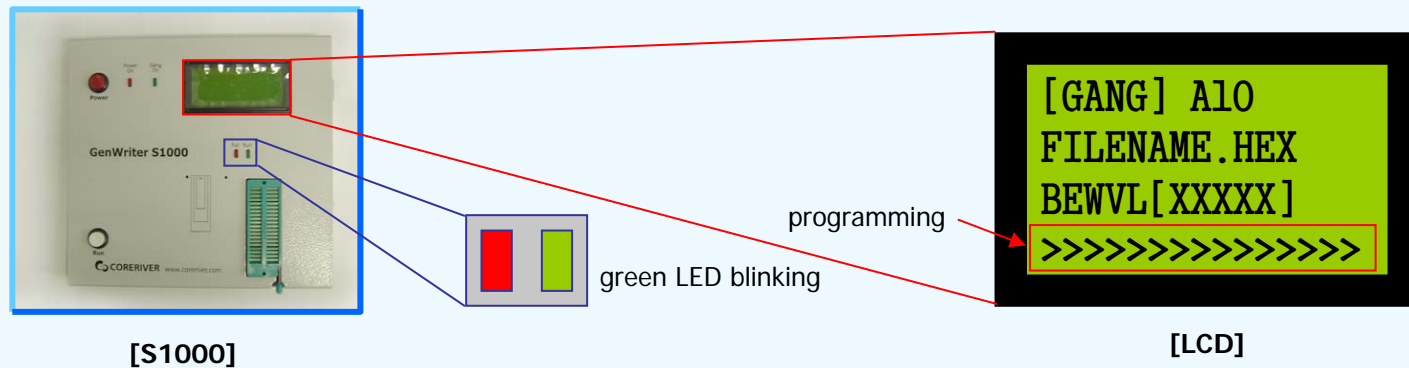


2. Programming MCU with GenWriter

8. Click 'RUN' button for run.

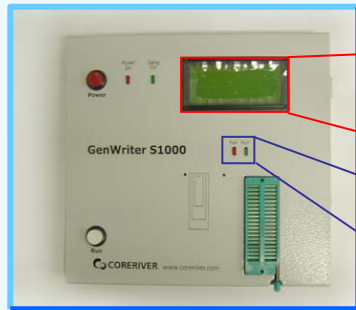


9. Check state.

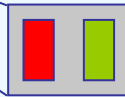


2. Programming MCU with GenWriter

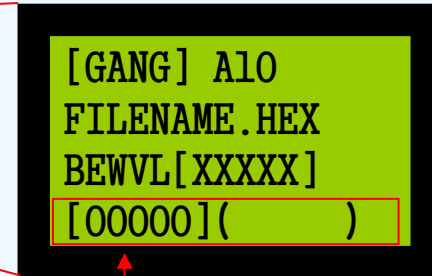
10. Remove MCU after complete.



[S1000]



Success : All LED Off
Fail : Red LED On, Green LED Off



[LCD]

“0” is success message
(In other case, Refer to next [Slide 34](#))

PART IV : GenWriter v3.0 S/W

- ◆ Program & Toolbar

1. Program & Toolbar

The screenshot shows the GenWriter v3.0 software interface. The window title is "GenWriter v3.0". The interface includes a "file" menu with "New", "Open", and "Save" buttons. A text input field for the file name and checksum value is highlighted with an orange box. The "serial" section has dropdowns for "COM1" and "57600". The "device" section has a dropdown for "A1.0". The main area is a hex editor showing memory addresses from 00000000 to 000000E0, each followed by "FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF". A red box highlights the hex data, and a green box highlights the status bar at the bottom. The "setting" panel on the right has checkboxes for "Blank", "Erase", "Write", "Verify", and "Lock", and a "Download" button. The "read" panel has radio buttons for addresses 0-7, a "Head" button, and a "Verify" button. Annotations with arrows point to various parts of the interface:

- Title : Version information
- Initialize the buffer
- Load the HEX file(*.ihex; *.hex) to the buffer
- Serial port setting
- Set Device
- Setting : Refer to next Slide 15.
- Read MCU
- Verify check
- See the status for checking the progression.
- Check or modify the buffer's data being downloaded to the MCU ROM
- File name & checksum value

PART V : GenWriter for JIG

- ◆ Pin Configuration
- ◆ Read Master MCU
- ◆ Programming MCU
- ◆ Supported Device

2. Read Master MCU

2. Check LCD

Check sum
of read code

```
[GANG] A10  
OxABCD  
BEWVL[XXXXX]  
[00000]( )
```

[Read Success]

```
[GANG] A10  
Master read fail  
BEWVL[XXXXX]  
[00000]( )
```

[Read Fail]

3. Programming MCU

1. Assert low signal at 'Run' pin for programming MCU.

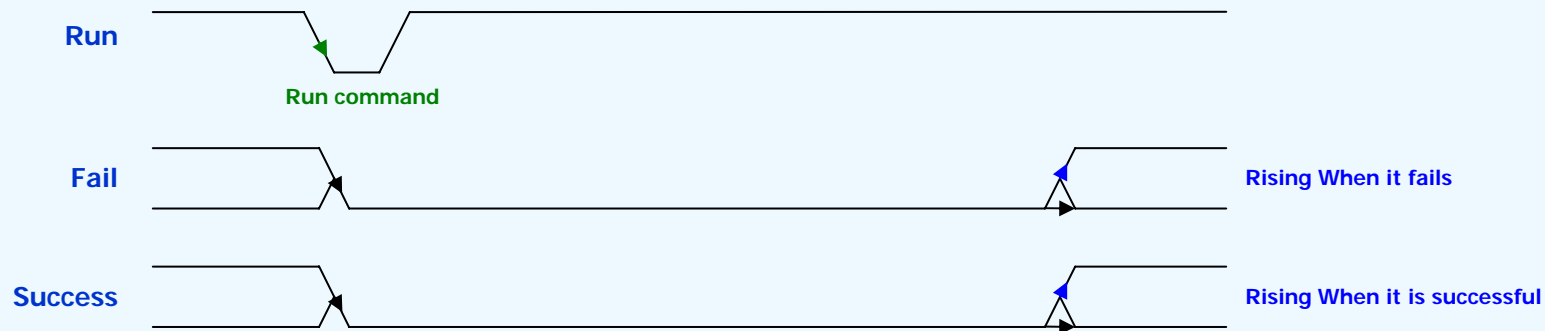


VSS	VDD
	SCLK
	SDAT
	Read
	Run
	Fail
	Success



3. Programming MCU

2. Check Result



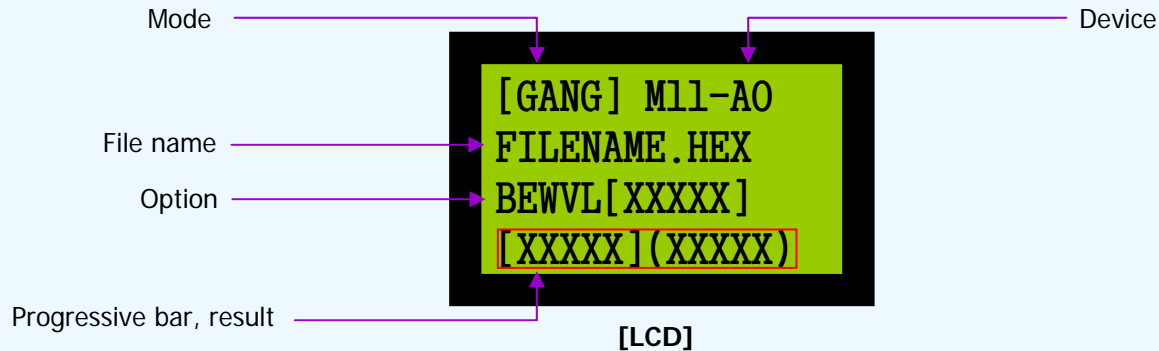
4. Supported Device

1. Supported Device
 - 1) ATOM1.0

Appendix : LCD Message

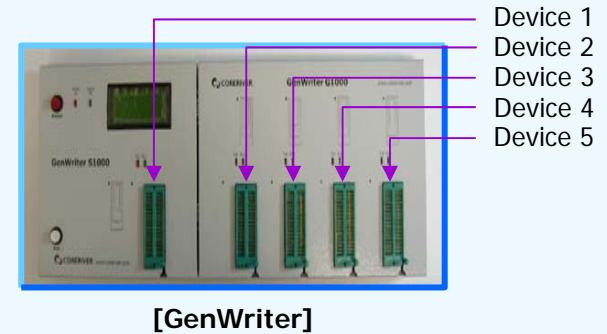
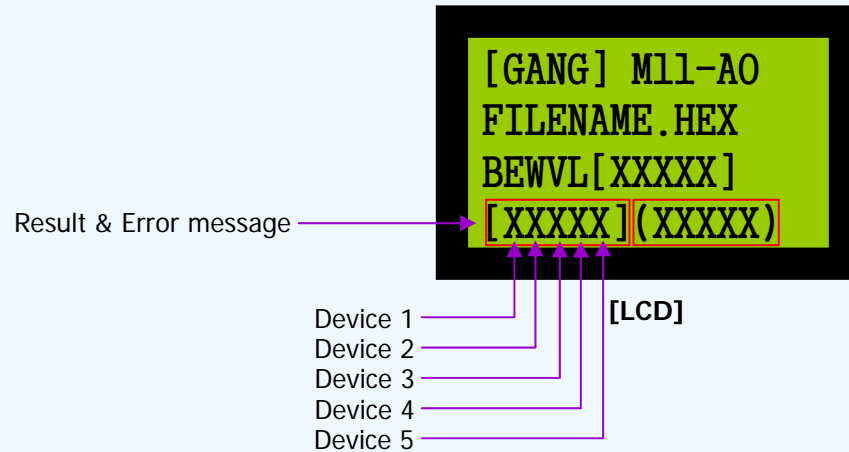
- ◆ Information Message
- ◆ Error Message

1. Information Message



- ◆ **MODE**
 - SINGLE : Single Writer Mode
 - GANG : 5 Gang Writer Mode
- ◆ **DEVICE** : Type of Target MCU
 - ※ [note] Please, check the type of the target MCU whether it is consistent with DEVICE to prevent the target MCU from being damaged
- ◆ **FILE NAME**
 - Current downloaded HEX file
 - If not downloaded, 'NO FILE' message is displayed.
- ◆ **OPTION** : Current configured option (**B**lank, **E**rase, **W**rite, **V**erify, **L**ock), Selected : O Not selected : X
- ◆ **RESULT** : Success message is "O", in other case, Refer to next Slide 27.

2. Error Message



1. Master – Error message

- 1) [X] – Start fail : there is nothing in socket, or device has a bad connection.
- 2) [S] – Check Signature fail : it fails to read device-code.
- 3) [C] – Check Lock fail : device was locked.
- 4) [B] – Check Blank fail : device is not blank.
- 5) [P] – Program fail : it fails to write.
- 6) [R] – Read fail : it fails to read ROM code.
- 7) [V] – Verify fail : device's ROM has not the same code as buffer has.
- 8) [L] – Lock fail : it fails to lock device.