

EF3062F-128H User's Guide

Susei Electronics System Co., Ltd
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1. General Description

EF3062F-128H is a parallel writing unit to use to set to EFP-S2/S2V.

Reading and writing data to MCU Renesas Technology M16C/62P group with built-in Flash memory are enabled by using EF3062F-128H.

IC socket for 100-pin 0.5mm pitch LQFP (PLQP128KB-A, 128P6Q-A) is mounted on EF3062F-128H.

<Packing contents>

- 1) EF3062F-128H
- 2) Users guide (this manual)

Fig 1.1 shows the adapter appearance.

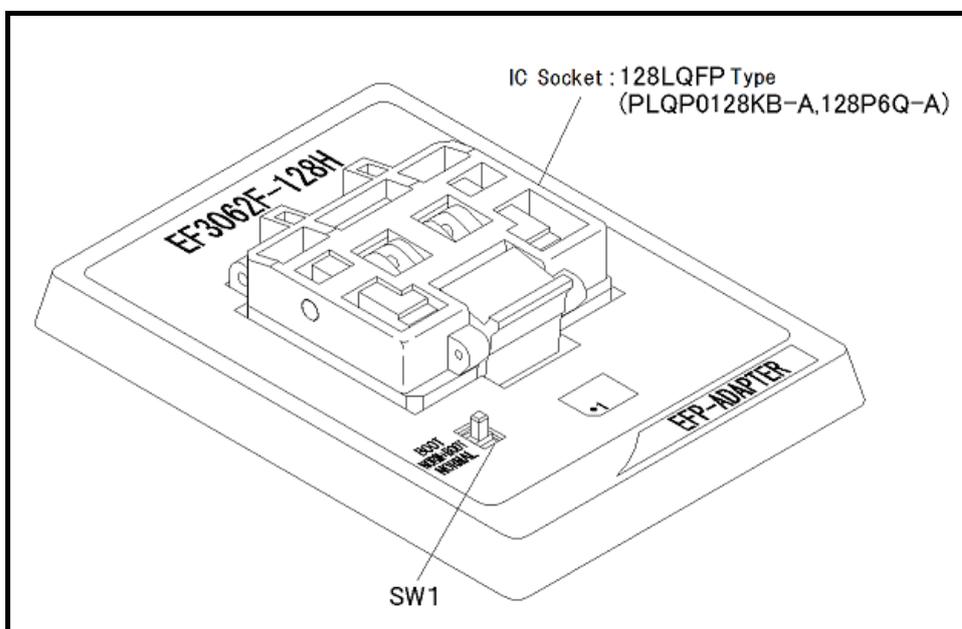


Fig. 1.1: Appearance of the EF3062F-128H

2. Connection with EFP-S2/EFP-S2V

It connects EF3062F-128H to EF1CNT-96P and is connected to the main body of EFP-S2/S2V. The connection of EFP-S2/EFP-S2V and the unit are shown in Fig 2.1.

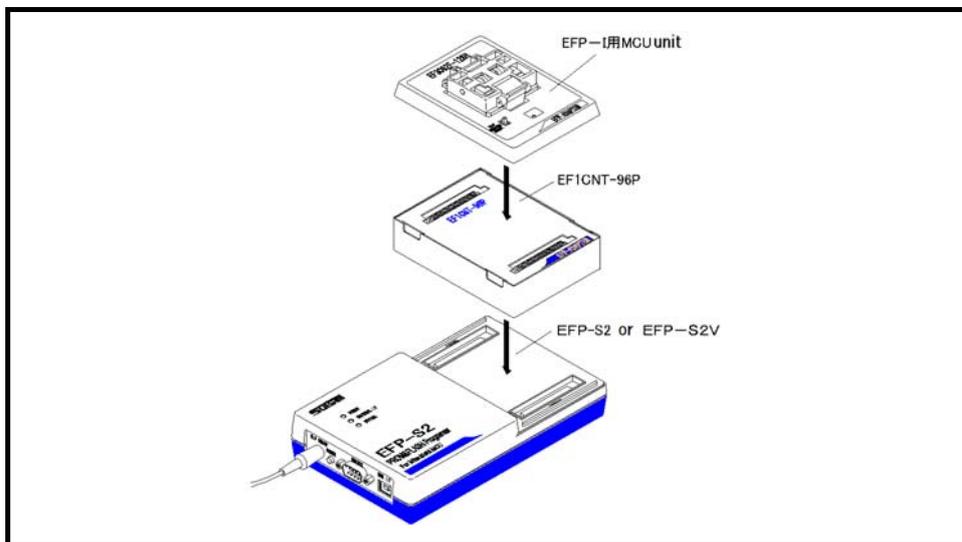


Fig 2.1 the connection of EFP-S2/EFP-S2V and the unit

3. Insertion Direction of MCU and cleaning of IC socket

3.1 Insertion Direction of MCU

When MCU is inserted, No.1 pin of the IC socket on EF3062F-100GS2 and MCU' s No.1 pin should be connected.

The wrong insertion would cause a serious breakage of MCU.

Insertion direction of MCU is shown in Fig.3.1.

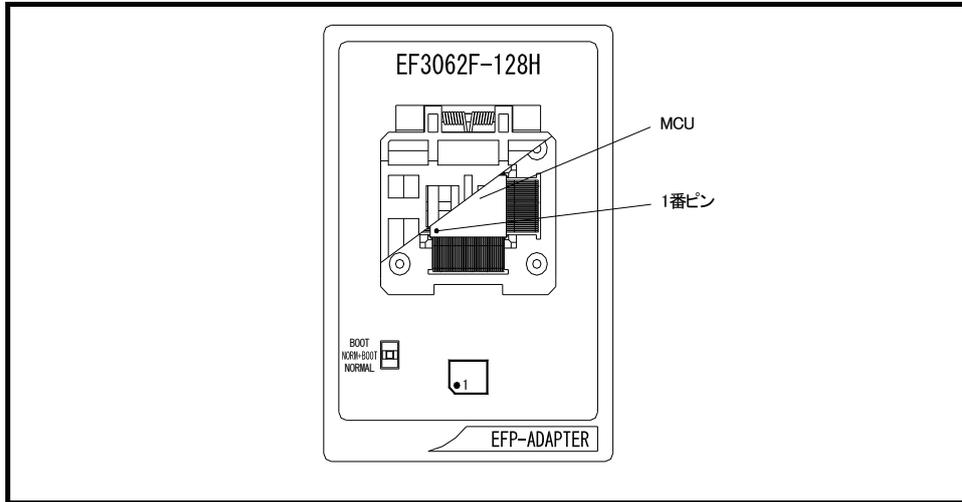


Fig 3.1: Pin Orientation of The socket

3.2 Cleaning of IC Socket

A contact pin inside of the IC socket of the MCU unit might deteriorate and a contact failure might occur because of the number of times used and its age of service. As the contact failure may cause incorrect writing of MCU and malfunction of the writer, please take the below measures.

Though enquiries on contact failures can be made, we regard IC sockets as consumable supplies. We may recommend you to replace them if a contact failure of IC socket occurs due to its use deterioration.

Measures against IC Socket Contact Failure

- (i) Please clean the contact pin surface inside of IC socket with a brush, etc. regularly, depending on the number of times used.
- (ii) If the product is not to be used for a long period, please keep it with less humidity in a plastic bag, etc.

【Recommended item for cleaning】

About the cleaning of the contact pin in the IC socket, we recommend the use of the nanotech brush (Kita Mfg Co., Ltd).

The nanotech brush can remove the dirt which stuck to a contact pin, a very small amount of metastasis of solder. When a contact poor problem occurred, please try it.

About nanotech brush, please ask us or Kita Mfg Co., Ltd (refer to the following site).

Nanotech brush (Kita Mfg Co., Ltd.) http://www.kita-mfg.com/pro_nanotech_e.html

4. List of Corresponding MCU and corresponding version

4.1 Corresponding MCU

The correspondence MCU name list of EF3062F-128H is given in Table 4.1.

Table 4.1: The correspondence MCU list

MCU Type	Memory type	Corresponding MCU name	Program memory Area	SW
M3062xFCP	Flash memory	M30621FCPGP	BOOT : FD000h~FFFFFFh	BOOT
			NORMAL: E0000h~FFFFFFh	NORMAL
M3062xFGP		M30625FGPGP	BOOT : FD000h~FFFFFFh	BOOT
			NORMAL : C0000h~FFFFFFh	NORMAL
M3062xFHP		M30627FHGP	BOOT : FD000h~FFFFFFh	BOOT
			NORMAL : A0000h~FFFFFFh	NORMAL

4.2 About Software version(S/W)

Please download the latest version up data on the following site when the S/W version.

Please use S/W of the latest version and confirm S/W version regularly.

【S/W version confirmation method】

The version numbers are displayed by [Help]→[About] in the WinEFP or WinEFP2 window menu.

< EFP-I/IM S/W the latest free download site >

http://www.suisei.co.jp/download_e/productdata_efp1_e.html

< EFP-S2 S/W the latest free download site >

http://www.suisei.co.jp/download_e/productdata_s2_e.html

< EFP-S2V S/W the latest free download site >

http://www.suisei.co.jp/download_e/productdata_s2_e.html

Note on Corresponding Versions

Above corresponding versions might change without notice on account of the future capability improvement, etc. Furthermore in case the upgrade procedure manual is attached when this product is purchased, please refer to that manual as a priority.

5. Block Set Command

In the MCU usable by this unit, internal flash memory is divided into several blocks. And every block has block-renewal-prohibition bit called lock bit.

The block set command handles for viewing and setting lock bit.

Setting a block's lock bit to "lock" allows you to protect the block from being written to or erased.

5.1 Screen Layout

The screen layout for the block set command is shown in Fig. 5.1.

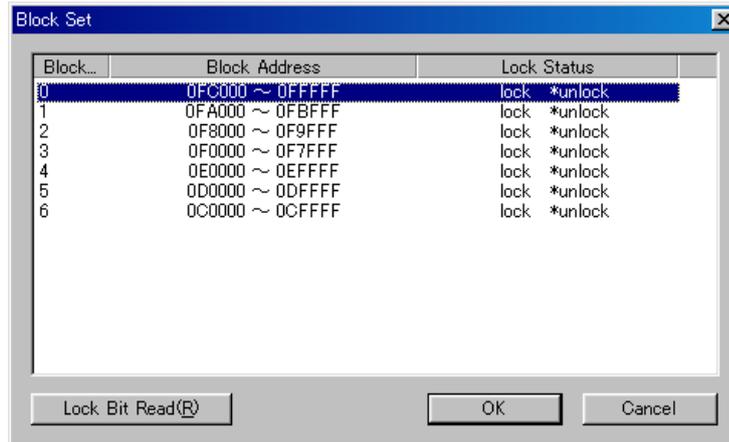


Fig. 5.1: Block Set Command Screen layout

(1) Block No.

Indicates the block No. assigned for each block.

(2) Block Address

Indicates start and end address for each block.

(3) Lock Status

Indicates the lock bit status for each block.

Lock: The lock bit is locked.

Unlock: The lock bit is unlocked.

(4) Radio button for selecting field

Select a field to be erased.

(5) Lock Bit Read button

Reads all lock bit data from target MCU, and indicates lock bit status according to data contents.

(6) Lock Bit Write button

Setting lock bit. The lock bit of the block, which is displayed "lock" in lock bit status, is set to "locked".

(7) Cancel button

Cancels command.

Refer to "5.2 Lock Bit Setting Operation Procedure" about a setting method of lock bit.

5.2 Lock Bit Setting

The procedure for setting lock bit to lock is as follows:

This section contains a procedure to set unlocked lock bit to be locked.

To change a locked lock bit back to unlocked, see “6.1 Lock Bit Erase Command”.

Procedure-1: Lock Type Setting

Lock type parameter specifies whether lock bit is to be effective or not.

Lock type parameter is located in Use Devise of WinEFP2 Environment Setting dialog.

Without setting lock type parameter, protect function by lock bit is not worked correctly.



Fig. 5.2: Lock Type Parameter

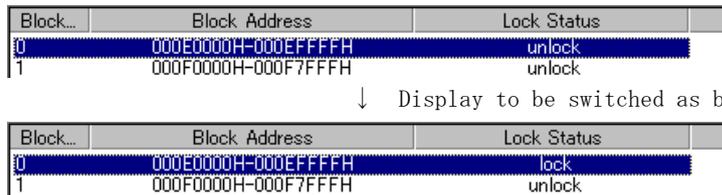
※ Lock type setting contents

Lock bit effective: Lock bit is effective

Procedure-2: Lock Bit Setting

Execute block set command, and then block set command dialog appears.

Position the mouse cursor on the desired line and double-click to switch lock bit status in Lock Status, and set to lock side.



Block...	Block Address	Lock Status
0	000E0000H-000EFFFFH	unlock
1	000F0000H-000F7FFFH	unlock

↓ Display to be switched as below when double-clicking

Block...	Block Address	Lock Status
0	000E0000H-000EFFFFH	lock
1	000F0000H-000F7FFFH	unlock

Fig. 5.3: Setting Lock Bit

Click the Lock Bit Write button, and execute block set command.

If you write or erase the block which protected status by lock bit after setting above, error occur and stop a command execution. Error doesn't occur by All Erase (all block to be erased together) command, but unlocked block is all erased.

6. Erase Command

The erase type parameter contained in the erase command enables you to erase by block or erase all blocks.

The erase command parameter input dialog is shown in Fig. 6.1.

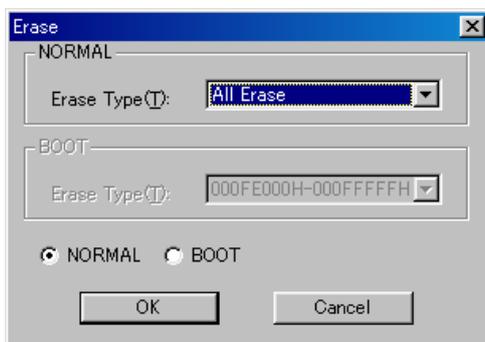


Fig. 6.1: Erase Command Parameter Input Dialog

(1) Erase type

All erase and block address field (xxxxxxh – xxxxxh) are displayed in the drop-down list to the right of the erase type parameter display field (displayed by clicking the arrow pointing downward with the mouse). Select the block erase method.

(2) Radio button for selecting field

Select a field doing erase.

(3) OK button

Executes block erase command.

(4) Cancel button

Cancels command.

6.1 Lock Bit Releasing

Procedure for releasing a protected status block by lock bit is as follows.

Procedure-1: Lock Type Setting

Lock type parameter specifies whether lock bit is to be effective or not.

Lock type parameter is located in Use Devise of WinEFP2 Environment Setting dialog.

Without setting lock type parameter, protect function by lock bit is not worked correctly.



Fig.6.2: Lock Type Parameter

※ Lock type setting contents

Lock bit ineffective: Lock bit is ineffective

Procedure-2: Lock Bit Erasing

Execute erase command. Then, Erase Command Parameter Input dialog is appeared.

Specify a protected block by lock bit or “All Erase” in Erase type parameter, and then execute Erase command.

7. Parameter Input by Device Command

MCU to use at this MCU this MCU unit performs the writing and reading of data by WORD unit.

Please input an odd number address into End Address, and input even number in Start Address of each command.

Parameter error occurs and cancels a command when it input an address except WORD unit into Start Address, End Address.

8. Automatic offset address for EFP-I internal RAM

EFP-I has built-in 512k Byte user buffer RAM. In EFP-I, address space of buffer RAM are normally set from 0h to 7FFFFFFh. However, some MCU used in this unit automatically set offset address in buffer RAM and allocate address space from 80000h to FFFFFFFh.

*Please set domain of FFFFFFFh - 80,000h the command in the [Edit] in the WinEFP window menu.

For automatic offset setting, it cannot use the domain of 7FFFFFFh - 0h.

* When you input indication value into the Offset Address parameters such as Download, Upload command, a value of "the input value + automatic offset value" (80,000h) becomes offset value for the buffer RAM.

* The explanation about the offset of the buffer RAM is mentioned in "5.1 the way of thinking of offset addresses" of EFP-I control software WinEFP instruction manual.