# EF3062F-80G User's Guide

## 1. General Description

EF3062F-80G is a parallel writing unit to use to set to EFP-I.

Reading and writing data to MCU Renesas Technology M16C/60 series with built-in Flash memory are enabled by using EF3062F-80G.

IC socket for 80-pin 0.65mm pitch QFP (80P6S-A) is mounted on EF3062F-80G.

＜Packing contents＞

1）EF3062F-80G

2）Users guide (this manual)

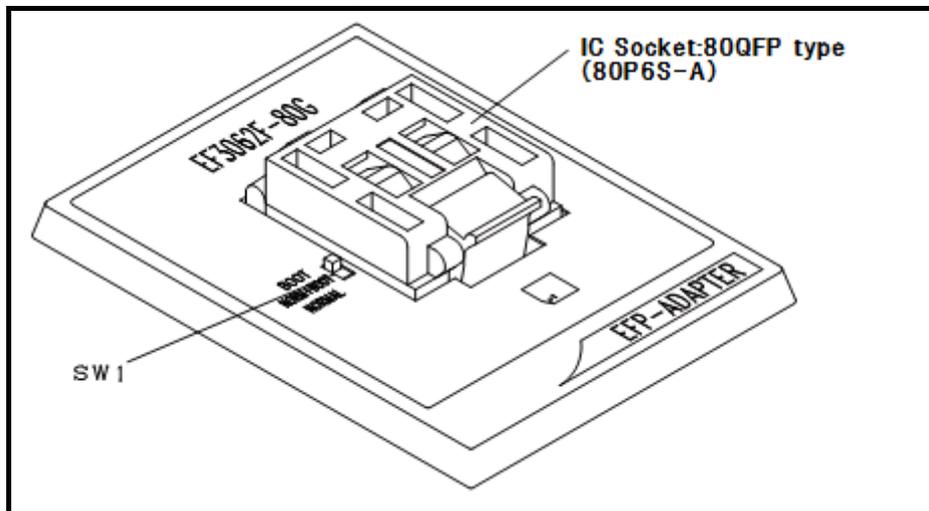Fig 1.1 shows the adapter appearance.



Fig.1.1: Appearance of EF3062F-80G

## 2．Insertion Direction of MCU and cleaning of IC socket

2.1　Insertion Direction of MCU

When MCU is inserted, No.1 pin of the IC socket on EF3062F-80G and MCU's No.1 pin should be connected.

The wrong insertion would cause a serious breakage of MCU.

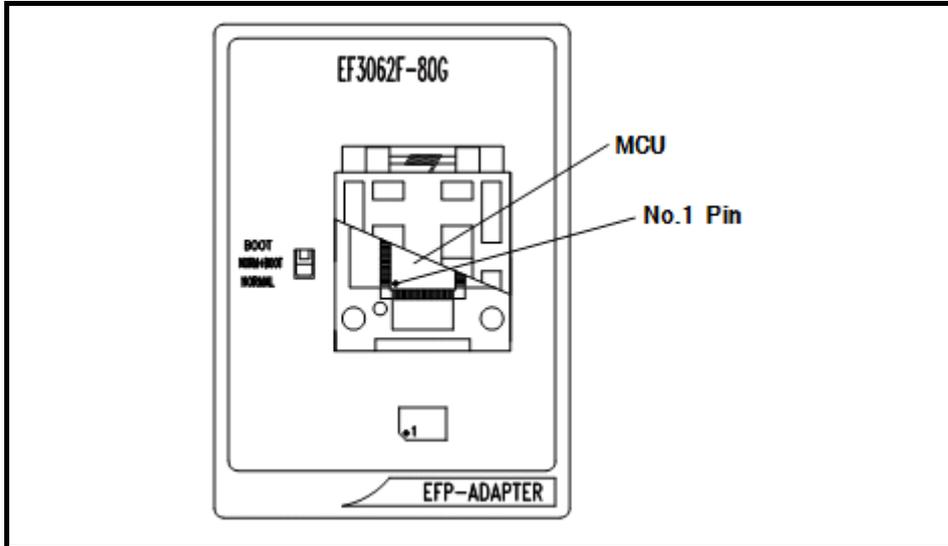Insertion direction of MCU is shown in Fig.2.1.



Figure 2.1: Pin Orientation of The socket

2.2　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

## 3. List of Corresponding MCU and corresponding version

### 3.1 Corresponding MCU

The correspondence list of EF3062F-80G

| MCU type | Memory type | Correspondence MCU Name | Program memory area | SW1 |
|---|---|---|---|---|
| M3062xFG(BOOT) | Flash memory | M30625FGxGP | FE000H ～ FFFFFH | BOOT |
| M3062xFG(NORMAL) | Flash memory | M30625FGxGP | C0000H ～ FFFFFH | NORMAL |

### 3.2 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.

## 4．About setting of SW1

It can perform writing to BOOT domain and NORMAL domain and reading by setting SW1 of EF3062F-80G. The setting method of each domain is shown below.

 1) The setting of BOOT domain

Set SW1 of EF3062F-80G in BOOT side and set a use device parameter in the environmental setting dialogue of WinEFP in "M3062xFG (BOOT)".

2) The setting of NORMAL domains

Set SW1 of EF3062F-80G in NORMAL side and set a use device parameter in the environmental setting dialogue of WinEFP in "M3062xFG (NORMAL)".

※ When the device LED (red) of the main body of EFP-I turns on, please do not set SW1.

＊ When you set SW1 in "NORM + BOOT" and it performs to read and write NORMAL domain and BOOT domain, please refer to **9. Device batch macro instruction**.

## 5．Block Set Command

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.
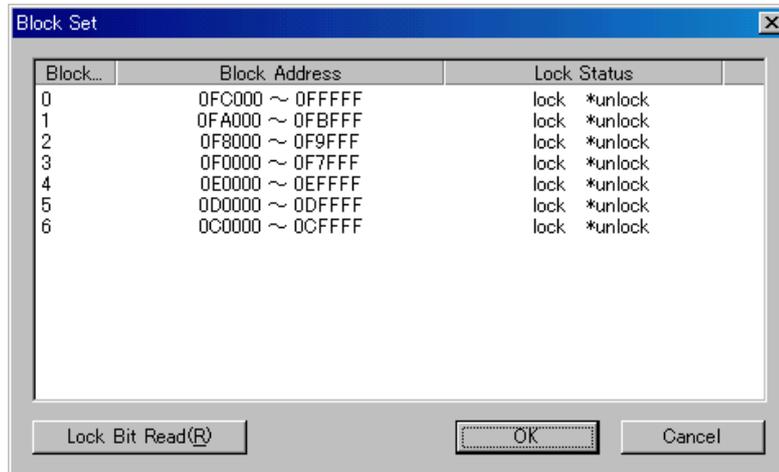


Fig. 5.1: Block Set Command Screen layout


(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) Lock Bit Read button

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

(5) OK button

 Click the OK button, it writes MCU to data of lock bit of block that setting to Lock

(6) Cancel button

 Cancels command.


### 5.2 Lock Bit Setting

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

 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.

## 6．Erase Command

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

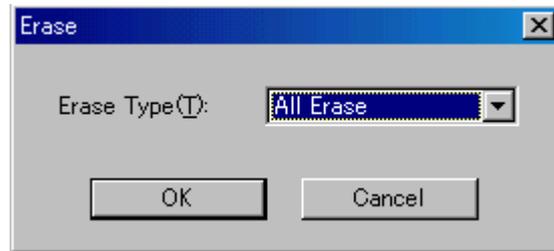The erase command parameter input dialog is shown in Fig. 6.1.



Fig. 6.1: Erase Command Parameter Input Dialog

(1) Erase type

All erase and block address field (xxxxxxh - xxxxxxh) 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) OK button

Executes block erase command.

(3) Cancel button

Cancels command.

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

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

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

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

## 7．Parameter Input by Device Command

MCU of the parallel I/O method of the M16C/60 series (80P6S-A package product) performs writing of data by a page unit and performs reading by BYTE unit.

The parameter input form of an address domain performing a writing and reading in MCU by a device command is shown in the following.

1）Writing to MCU

Please perform by a page unit the appointment of the address domain when it write in data from MCU.

Data size of One page is 256 bytes.

Program command and the start of the device macro command, the input form of the end address is the following setting.

In addition, the parameter error occurs when it input an address except the page unit into a Start address and End address.

Input form＞
Start Address  ｘｘｘｘ０ ０ Ｈ
End Address    ｘｘｘｘ Ｆ Ｆ Ｈ

2）Reading to MCU

Please perform the appointment of the address domain when it reads data from MCU by a BYTE unit.

## 8. Device batch macroinstruction

Device batch macro command is a command writing and reading that NORMAL domain of MCU and BOOT domain by batch. When it uses Device batch macro command, please set SW1 in MCU unit in "NORM +BOOT".

Please use this command when it work to write in reading data at MCU of the blank after it reads data from MCU which is finished writing.

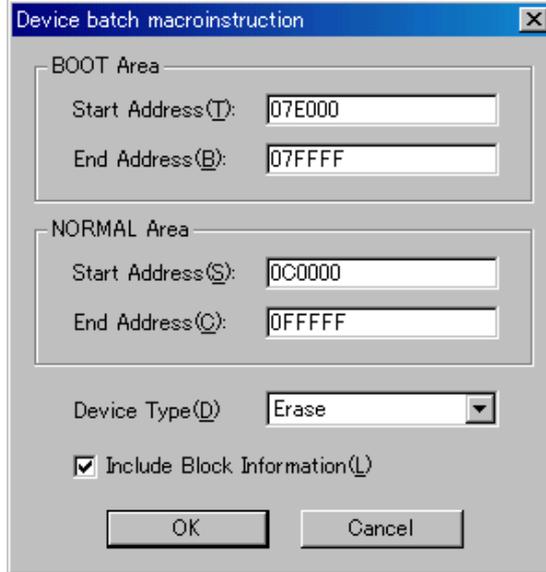The parameter input dialogue of the device batch macro command is shown in Fig.8.1.



Fig.8.1 Device batch macro command parameter input dialogue

1) Start , End Address (BOOT domain)

Appoint a domain reading or writing in the BOOT domain.

Please appoint domains from 7E000H to 7FFFFH in this parameter.

\* In the BOOT domain, NORMAL domain and address space repeat.

From 7E000H to 7FFFFH of the EFP-I Installed RAM is assigned to the work domain for the BOOT domain.

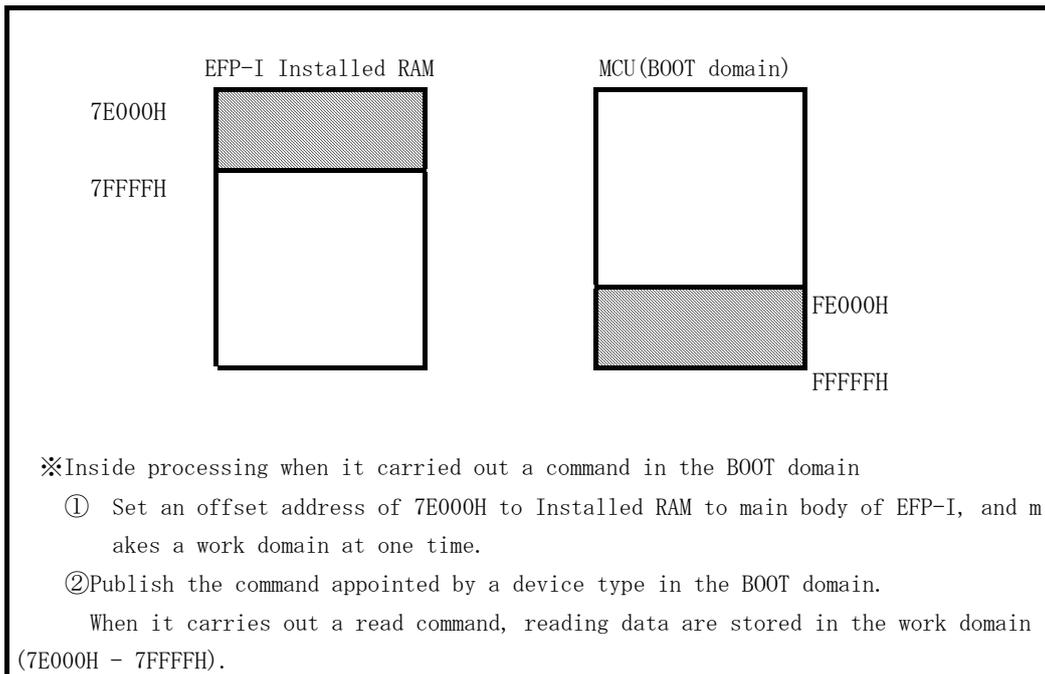The diagrammatical view of the work domain is shown in Fig. 8.2.



※Inside processing when it carried out a command in the BOOT domain

① Set an offset address of 7E000H to Installed RAM to main body of EFP-I, and makes a work domain at one time.

②Publish the command appointed by a device type in the BOOT domain.

When it carries out a read command, reading data are stored in the work domain (7E000H - 7FFFFH).

Fig.8.2 Work domain diagrammatical view

2）Start, End Address (NORMAL Domain)

Appoint a domain reading or writing in the NORMAL domain.

Please use address in NORMAL domain of the device.

3）Device Type

Appoint a command to publish. Please choose from drop-downs list in this parameter displayed area right side.

It is displayed when it click a downward arrow with a mouse.

4）Include Block Information

When it is set ON the check box of this parameter, it performs automatically the reading or writing of the lock bit data of the block which appointed in the start address and end address parameter an effective command of this parameter is shown in the following.

5）OK button

Carry out a device batch macro command.

6）Cancel button

Cancel the command

※ About use example of device batch macro command

when it begin to read data from MCU which is finished writing, with device batch macro command, and it write in data to MCU of the blank article, use example is shown in the folloing.

1）Set SW1 of EF3062F-80G in "NORM + BOOT" and choose [Device]→[ Device batch macroinstruction] in the WinEFP menu.

2）Insert MCU which is finished writing in EF3062F-80G. The start and the end address of the device batch macro command set an arbitrary address and set device type in "read" and click the OK button.

(When it reads the lock bit of the block, please set ON check box of "block information includes")

Take out MCU from EF3062F-80G when a command was finished normally.

3）Insert MCU of the blank article in EF3062F-80G. Set a start and end address of the device batch macro and set a device type in "program" and click the OK button.

(It writes automatically the data of the lock bit of the block which is begun to read when at the time of reading when it set ON in check box of "block information includes")

## 9. 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 7FFFFFh.  However, some MCU used in this unit automatically set offset address in buffer RAM and allocate address space from 80000h to FFFFFFh.

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

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

* The automatic offset of 80000H is not displayed in HEX offset addresses. When it input an address into HEX offsets, the offset which it added the address value that input into 80000H is set.