

# MS4238-20F Users Guide

Suisei Electronics System Co., Ltd  
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## 1. General Description

MS4238-20F is a writing target board for standard serial I/O mode used by connecting to EFP-I/1M or EFP-S2/S2V.

Reading and writing data to microcomputer 720 and 4500 series with built-in Renesas Electronics 4 bit PROM and QzROM are enabled by using MS4238-20F.

IC socket for 20-pin 1.27mm pitch SOP (PRSP0020DA-A) (20P2N-A) is mounted on MS4238-20F.

<Packing contents>

- 1) MS4238-20F
- 2) Users guide (this manual)

External Figure of MS4238-24F is shown in Fig 1.1

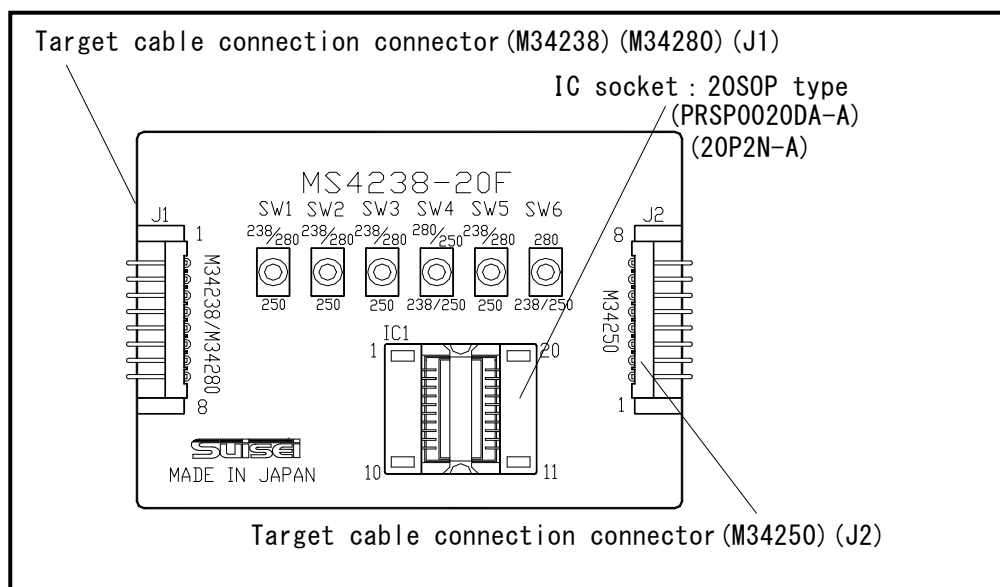


Fig 1.1 MS4238-20F External Figure

## 2. Device constitution and a connection process

### 2. 1 Device constitution

Device constitution when you use MS4238-20F is shown in Fig.2.1.

Fig2.1 Device constitution

Main body	ROM type	Unit	Cable
EFP- I /1M	QzROM	EF1SRP-05U	EF1TGCB-A(3-wire target connection cable)( separate sale)
	PROM	EF1SRP-01U	
EFP-S2/S2V	QzROM	EF1SRP-05U + EF1CNT-96P *1	
	PROM	EF1SRP-01U + EF1CNT-96P *1	
	PROM/QzROM	EF1SRP-01US2	

\*1) when you use EF1SRP-05U in EFP-S2/S2V, EF1CNT-96P (separate sale) is necessary.

### 2. 2 Connection Process

In case 4236, 428x group is used, please connect EF1TGCB-A (3-wire target connection cable) to target cable connection connector (M34238/M34280) (J1) as shown in Fig.2.1.

In case 4250, 45xx group is used, please connect EF1TGCB-A (3-wire target connection cable) to target cable connection connector (M34250) (J2) as shown in Fig.2.2.

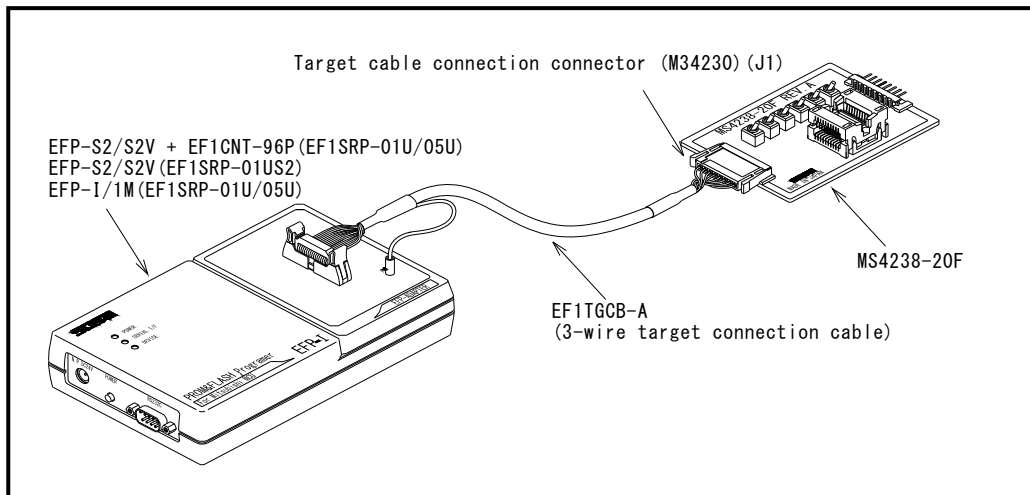


Fig. 2.1 4 2 3 8、4 2 8 x Group

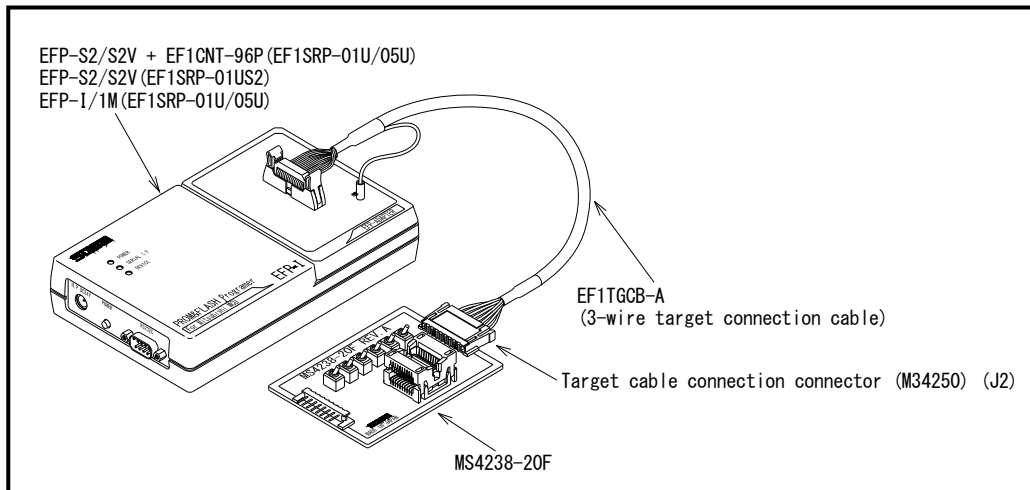


Fig.2.2 4 2 5 0、4 5 x x Group

### 3. List of Corresponding MCU and corresponding version

#### 3. 1 List of Corresponding MCU

A corresponding MCU list of MS4238-20F is shown in List.1.1.

MS4238-20F switches setting of SW1-SW6 is shown in Fig.3.1.

List.1.1 List of Corresponding MCU of MS4238-20F

Main body	ROM Type	Device type	Corresponding MCU name	Program Memory Area	SW1~5 Setting	Target cable connection connector	EF1SRP-05U SW setting
EFP-I/1M	PROM	M3423xEK	M34238EKFP	0h~2FFh	SW1~6 : 238 side	M34238/M34280(J1)	—
		M3428xE1	M34280E1FP	0h~3FFh	SW1~6 : 280 side		
		M3428xE2	M34282E2FP	0h~7FFh		SW1~6 : 250 side	
		M3425xE2	M34250E2FP	0h~7FFh			
		M345xxE2	M34580E2FP	0h~7FFh			
		M345xxE4	M34501E4FP M34506E4FP M34580E4FP	0h~FFFh		M34250(J2)	
	QzROM	M3450xG4 (Vdd:4.5V Vpp:7.9V)	M34508G4FP	0h~FFF			
EFP-S2/S2V	PROM	M34238EK	M34238EKFP	0h~2FFh	SW1~6 : 238 side	M34238/M34280(J1)	—
		M3428xE1	M34280E1FP	0h~3FFh	SW1~6 : 280 side		
		M3428xE2	M34282E2FP	0h~7FFh		SW1~6 : 250 side	
		M34250E2	M34250E2FP	0h~7FFh			
		M345xxE2	M34580E2FP	0h~7FFh			
		M345xxE4	M34501E4FP M34506E4FP M34580E4FP	0h~FFFh		M34250(J2)	
	QzROM	M34508/M34509G4 (VDD:4~4.7V)	M34508G4FP	0h~FFF			

\*1) when you use EF1SRP-05U in EFP-S2/S2V, EF1CNT-96P (separate sale) is necessary.

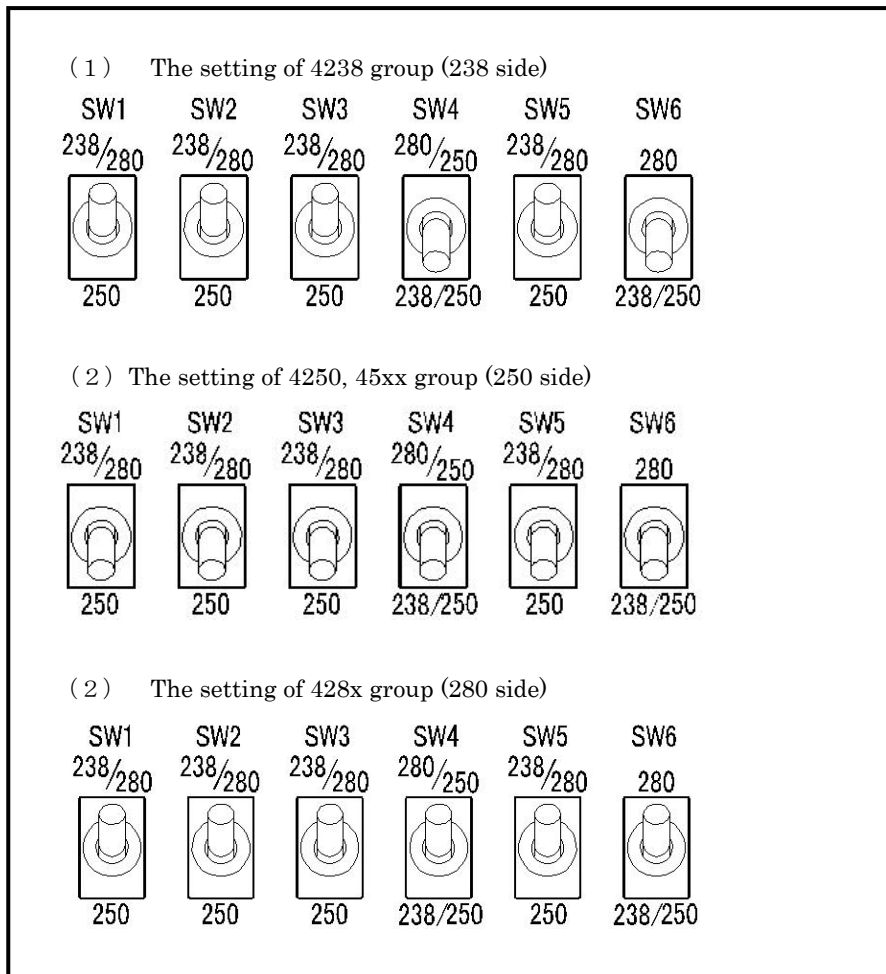


Fig3.1 The setting of the switch

### 3. 2 About Software version (S/W)

The version numbers such as EFP-1 and WinEFP are displayed by [Help]→[About] in the WinEFP window menu. Please download the latest version up data on the following site.

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

[http://www.suisei.co.jp/download\\_e/productdata\\_efp1\\_e.html](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](http://www.suisei.co.jp/download_e/productdata_s2_e.html)

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[http://www.suisei.co.jp/download\\_e/productdata\\_s2\\_e.html](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. Insertion Direction of MCU and cleaning of IC socket

##### 4. 1 Insertion Direction of MCU

When MCU is inserted, No.1 pin of the IC socket on MS4238-20F 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 4.1.

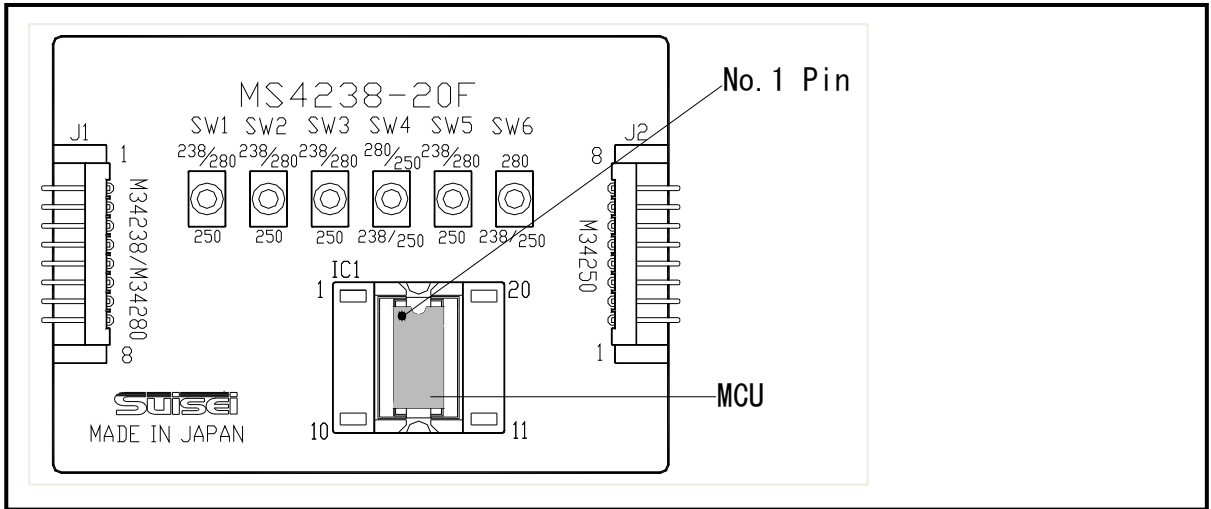


Fig 4.1 Insertion Direction of MCU

##### 4. 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.

#### 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.

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.

#### 【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](http://www.kita-mfg.com/pro_nanotech_e.html)

## 5. List of Pin Connection

Connector terminal names target cable connection connector (M34238/34280) (J1), (M34250) (J2) of MS4238-20F is shown in List 5.1.

List 5.1 Terminal List of target connection connector (J1, J2)

Pin No.	Terminal Name	I/O(writer side)	Pin No.	Terminal Name	I/O(writer side)
1	B U S Y	Input	5	S D A	I/O
2	V P P	Output	6	P G M / O E	Output
3	V D D	Output	7	R E S E T	Output
4	S C L K	Output	8	G N D	—