

OTP64168F-80F

User's Manual

Rev.1.00 Dec. 1998

- * This manual contains important information necessary for the safe use of the OTP64164F-80F. It should be read before use.
- * Please keep it in an easily accessible place, near the OTP64164F-80F at all times.

Ok Electric Industry Co., Ltd.

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1. OVERVIEW

The OTP64168F-80F is a conversion adapter used to write program data to the ROM(OTP) contained in the ML64P168-GP(Package Type : QFP80-P-1420-0.80-BK) using a general PROM writer (note1).

Data can be written into or read from the ROM(OTP) like an EPROM by inserting the OTP64168F-80F into the socket of a general PROM writer (note2) before inserting the ML64P168-GP into the socket of the OTP64168F-80F. (See the figure 1)

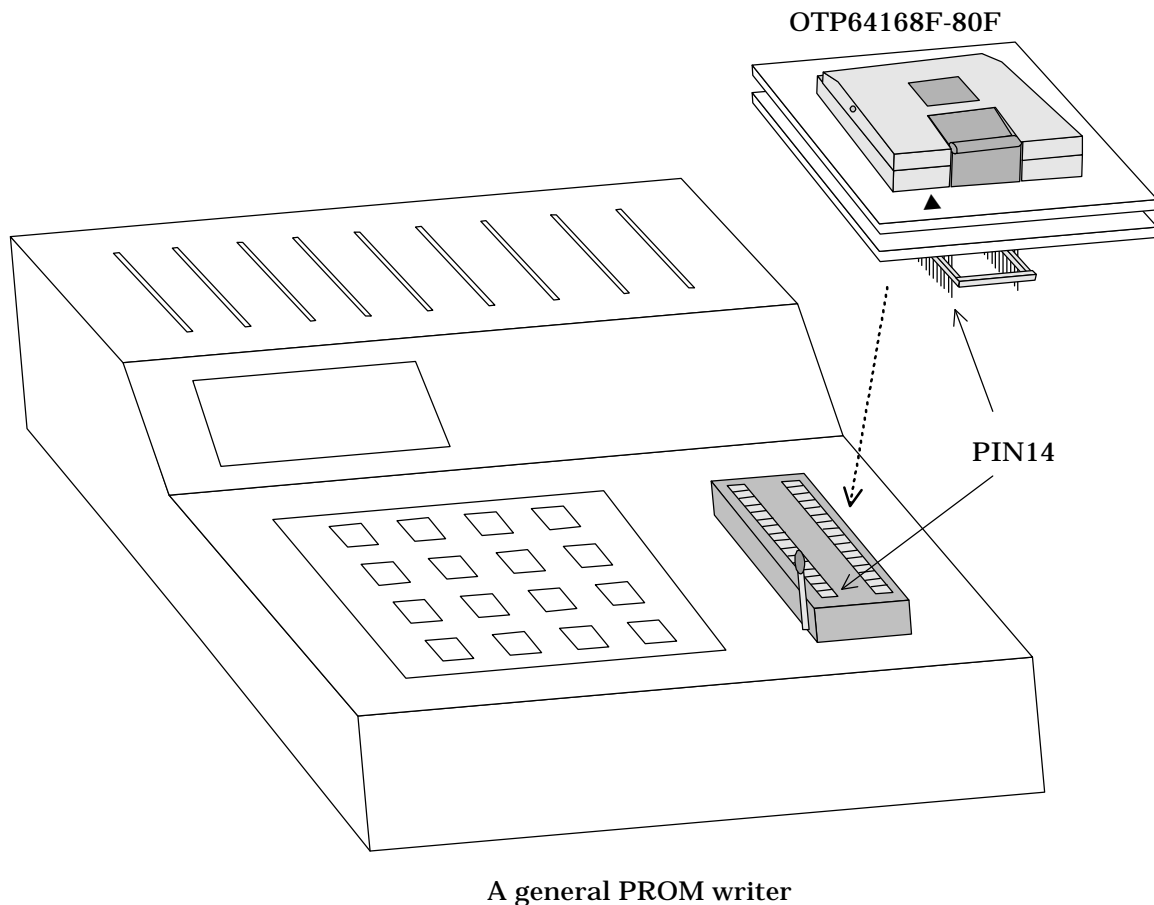


Figure 1. Mounting OTP64164F-80F

note1 : We recommend using a PROM writer Model 1866A from MINATO and a PROM writer R4945/TR4943 from ADVANTEST.

note2 : Be sure to insert the OTP64164F-80F into the socket of the general PROM writer in the specified direction as shown in the figure 1 above. Otherwise, the OTP64164F-80F may be damaged.

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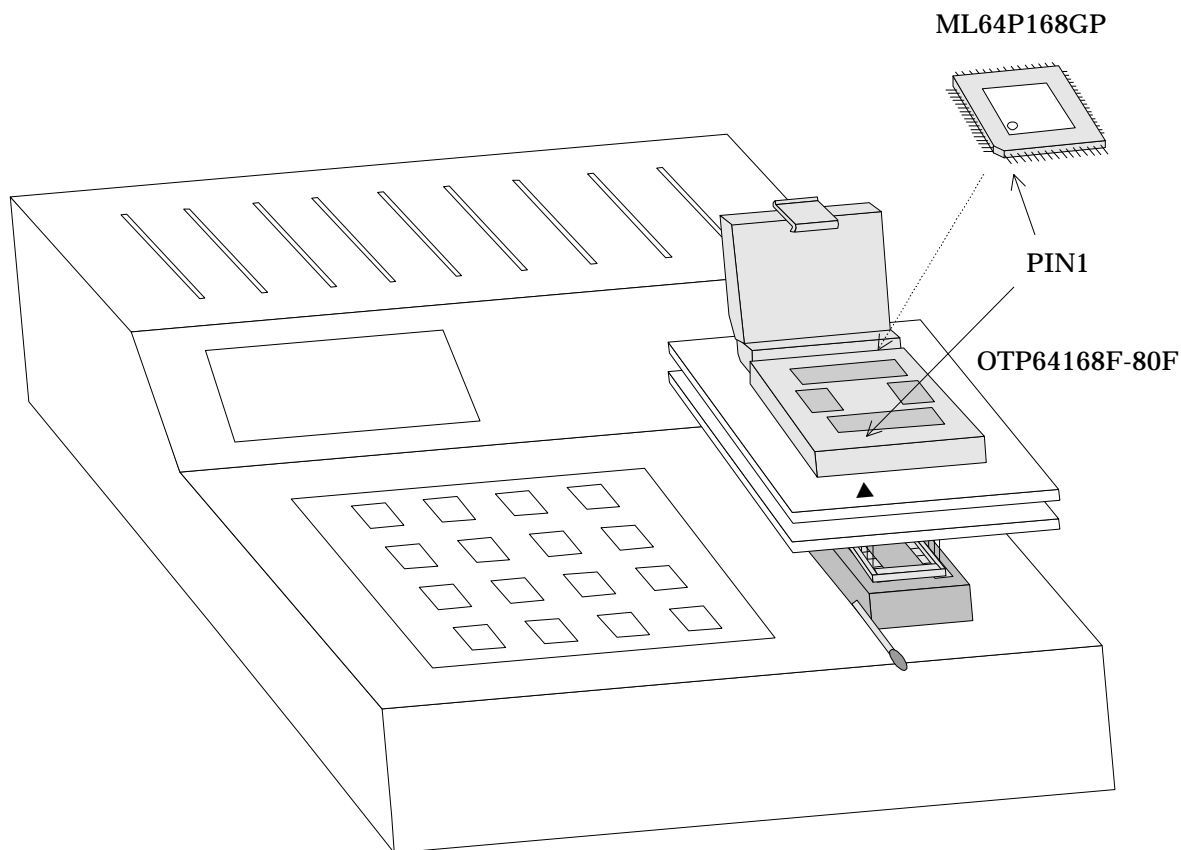
2. WRITING PROGRAM DATA

Turn the SW1 of the OTP64168F-80F to "D".

Make the pin 1 facing to the mark "▲" of the socket when inserting the ML64P168-GP into the socket of the OTP64168F-80F. (See the figure 2)

When writing program data (note3), set the ROM type of the PROM writer to the intel fast writing mode ($V_{pp}=12.5V$, program pulse width:1ms) for the 27C256 type PROM.

Specify the writing address range to 0000H~1FFFH.



A general PROM writer

Figure 2. Mounting ML64P168-GP

note3 : The ML64P168-GP dose not contain ID code. Don't set up ID mode (product identification mode) when writing data using a general PROM writer. Otherwise, an error will occur.

3. WRITING SECURITY FLAG

The security flag is used to inhibit reading program data from the ML64P168-GP.

When writing a security flag, write "00" to the address location "0000" after setting the SW1 of the OTP64168F-80F to "S" .

Note that in this case, verification may be impossible and an error may occur in the PROM writer.

[NOTES]

1. Set the SW1 of the OTP64168F-80F to "D" when writing program data.
2. It is impossible to verify the security flag after writing "00" to the security flag. Therefore, when setting a security flag, first write program data after setting the SW1 to "D" . Then write "00" after setting the SW1 to "S". It is impossible to overwrite the existing program data if a new program is written when the SW1 is set to "S".
3. Write program data to the locations 0000H~1FFFH using a PROM writer that can specify the writing address. Data in 0000H~1FFFH may be damaged if data is written into 2000~7FFFH.
4. For more information on the ML64P168-GP, see the ML64P168 User's Manual.

■ Recommended operating conditions

Parameter	Condition	Rated Value			Unit
		Min	Typ	Max	
Power supply voltage	-	4.75	5.00	5.25	V
Program power supply voltage	Read operation	4.75	5.00	5.25	V
	Programming operation	12.00	12.50	13.50	V
Operating temperature	-	5	-	40	°C
Operating humidity	(without condensation)	30	-	80	%