

MITSUBISHI

A8GT-PW-EU

Power supply module

Mitsubishi Graphics Operation Terminal User's Manual

Thank you for choosing the Mitsubishi General Purpose PC MELSEC-GOT series. To ensure correct use of this equipment, please read this manual carefully before operating it.



IB(NA)-66700-B (9703) MEE

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Related Manuals

The following manuals are available for this equipment. Refer to the table given below to choose suitable manuals.

Related Manual

Manual Name	Manual No (Type Code)
Model A870GOT Graphic Operation Terminal EMC Specification Compatible Product Addition Instruction Manual (Packaged with the A870GOTEMC specification compatible product)	IB-66699 (13J861)
A870GOT (N) Graphic Operation Terminal EMC Specification Compatible Product Addition Instruction Manual (Packaged with the A870GOT (N) EMC specification compatible product)	IB-66759 (13JL06)
Model A870GOT Graphic Operation Terminal User's Manual (Packaged with the A870GOTEMC specification compatible product)	IB-66628 (13J830)
Model A8GT-STN/EL-BOX-EU EMC Box User's Manual (Packaged with the EMC Box)	IB-66703 (13J865)

Model Name	A8GT-PW-EU-U-E
Model Name Code	13J862

● SAFETY PRECAUTIONS ●

(Read these precautions before using.)

When using Mitsubishi equipment, thoroughly read this manual and the associated manuals introduced in this manual. Also pay careful attention to safety and handle the module properly.

These precautions apply only to Mitsubishi equipment. Refer to the CPU module user's manual for a description of the PC system safety precautions.

These ● SAFETY PRECAUTIONS ● classify the safety precautions into two categories: "DANGER" and "CAUTION".

⚠ DANGER Procedures which may lead to a dangerous condition and cause death or serious injury if not carried out properly.

⚠ CAUTION Procedures which may lead to a dangerous condition and cause superficial to medium injury, or physical damage only, if not carried out properly.

Depending on circumstances, procedures indicated by ⚠ CAUTION may also be linked to serious results.

In any case, it is important to follow the directions for usage.

Store this manual in a safe place so that you can take it out and read it whenever necessary. Always forward it to the end user.

[INSTALLATION PRECAUTIONS]

⚠ DANGER

- When a power supply module is installed in the GOT, be sure to shut off the power at all external switches. If all the switches are not turned off, the module could be damaged or malfunction.

⚠ CAUTION

- Use the power supply module in an environment that is within the general specifications written in the GOT User's Manual. If the power supply is used in an environment that is outside of the general specifications, then electric shock, fire, malfunction, or product damage or degradation could occur.
- When installing a power supply module in the GOT main module, install it in the GOT installation area and be sure it is fastened with a module fastening screw that is tightened within the torque tightening range. If the module fixing screws are loose, it may cause falling, short circuit or malfunction of the module. If the module fixing screws are too tight, the GOT, it could result in falling, short circuit or malfunction of the module due to the damage of the screws or module.

[WIRING PRECAUTIONS]

⚠ DANGER

- Before beginning wiring work, make sure all phases of the power supply have been obstructed from the outside. Failure to completely shut off the power-supply phases may cause electrical shock, damage or malfunctioning to the module.

⚠ CAUTION

- Be sure to ground the LG terminals, carrying out at least class 3 grounding work with a ground exclusive to the GOT. Otherwise there will be a danger of electric shock and malfunctions.
- The connection method for the power supply module FG terminal differs depending on the type of GOT to be installed.
 - For A870GOT
 - Be sure to use FG mesh wire and to ground the EMC box. If this is not done, then electric shock or malfunction could occur. In addition, doing so would be out of compliance with EMC standards.
 - For A870GOT(N)
 - Do not ground the GOT power supply module FG terminal. Grounding it could cause electric shock or malfunction. In addition, doing so would be out of compliance with EMC standards.
- When wiring the power supply module, check the rated voltage and terminal layout of the wiring, and make sure the wiring is done correctly. Connecting a power supply that differs from the rated voltage or wiring it incorrectly may cause fire or breakdown.
- Tighten the terminal screws of power supply module within the range of specified torque.
 - If the terminal screws are loose, it may cause falling, short circuit or malfunction of the module.
 - If the terminal screws are too tight, the GOT, it could result in falling, short circuit or malfunction of the module due to the damage of the screws or module.
- When wiring the power supply module, be sure that no shield cut of debris, wiring debris, or other foreign matter gets into the GOT main module, power supply module, communication module, bus connection module, or option module. If any does get in, it could cause a fire, trouble, or malfunction.

[STARTING AND MAINTENANCE PRECAUTIONS]

⚠ DANGER

- Do not touch the terminals while the power is on. Doing so may cause electric shock or malfunctioning.
- Switch all phases of the GOT external power supply off before cleaning or retightening terminal screws. Not doing so could result in electric shock. If the terminal screws are loose, it may cause falling, short circuit or malfunction of the module. If the terminal screws are too tight on the GOT, it could result in falling, short circuit or malfunction of the module due to the damage of the screws or module.

⚠ CAUTION

- Never disassemble or modify the power supply module. This may cause breakdowns, malfunctioning, injury, and/or fire.
- Do not directly touch the conducted area and electric parts of the power supply module. It may cause damage and malfunctioning of the module.
- The memory cassette is made of resinous materials, and should be protected from strong shock or impact. It may cause breakdown.

[DISPOSAL PRECAUTIONS]

⚠ CAUTION

- When disposing of this product, treat it as industrial waste.

1. Introduction

This manual explains the handling for the model A8GT-PW-EU Power Supply Module EMC specification compatible products (Hereafter Power Supply Module).

The Power Supply Module is an EMC specification compatible product and is the Power Supply Module used for the A870GOT products listed below.

A8GT-70GOT-EW-EU(N) A8GT-70GOT-EB-EU(N)

A8GT-70GOT-SW-EU(N) A8GT-70GOT-SB-EU(N)

(Hereafter abbreviated as GOT)

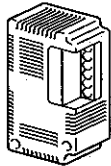


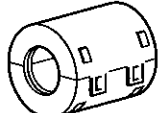
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If a system is configured differently from that described in this manual it will not comply with EMC specifications, so be sure to follow the instructions given in this manual and configure the system using the EMC Box and other MELSEC-GOT series components.

The instructions in this manual do not guarantee that all of the equipment configured with MELSEC-GOT series components, including other electrical components, will comply with EMC specifications. To check if all the equipment complies with EMC specifications, consult with the manufacturers who produced the equipment.

2. Products Included In Packaging

After unpacking the product be sure that the following items are included.

Product name	Quantity
Power Supply Module 	1
Power supply terminal short bar 	1
FG mesh (Use for A8GT-70GOT-EU) 	1
Ferrite core (ZCAT3035-1330 made by TDK) 	1

3. Power Supply Module Specifications

Item	Specifications
Applicable GOT	A8GT-70GOT-EB/EW/SB/SW-EU
Input power supply voltage	100 to 120VAC (+10%, -15%)/200 to 240VAC (+10%, -15%)
Input frequency	50/60Hz
Input maximum volt amperes	100VA
Rush current	20A or less (264VAC, maximum load)
Allowable momentary power failure	Within 20ms
Noise durability	First transient common mode durability 2kV
Withstand voltage	AC input/LG batch-DC/FG/signal batch 3600VAC or higher 1 second
	AC input/LG batch-external output/DC output/FG/signal batch 3600VAC or more 1 second Note 1
	DC output/signal batch-external output batch 500VAC or higher 1 minute Note 1
Insulator resistor	5MΩ or more using a insulation resistance tester
External output *1	Transistor output 2 points (RUN, OUTPUT)
Applicable wire size	Power supply cable with 3 core shield (Core size 0.75 to 2mm ²)
Applicable solderless terminal	RAV1 25-4, RAV2-4 (JIS model name symbol)
Applicable tightening torque	98 to 137 N cm (10 to 14 kg cm)
External dimensions	182mm(7.17 inch)(H) × 98mm(3.82 inch)(W) × 50mm(1.97 inch)(D)
Weight	400g (0.88 lb)

Note 1: The external output shows 12/24VDC, COM, RUN, and OUTPUT

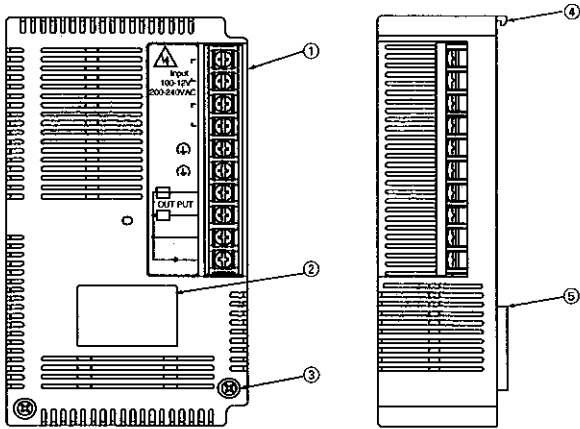
*1 ① External output/specifications

Item	Specifications	
Insulation method	Photo coupler insulation	
Usage low voltage range	10.2 to 30VDC	
Maximum load current	0.5A/1, 1A/1 common	
Maximum rush current	1A, 100 μs or less	
Current leakage when off	0.1mA or less	
Maximum voltage drop when on	0.9VDC (TYP) 0.5A, 1.5VDC (MAX) 0.5A	
Response time	OFF → ON	2ms or less
	ON → OFF	2ms or less (resistance load)
Surge killer	Tuner diode with built in photo coupler	
External supply power supply	Voltage	12/24VDC (10.2 to 30VDC)
	Current	7mA (TYP.24VDC with 1 common)

② External output usage method

- RUN** Whether the GOT is operating correctly or not is output externally (Output status)
 - ON When operating normally
 - OFF When operating abnormally
 Use when you want to monitor GOT operation using the PC CPU. For the usage method use the input module received PC program to check this output.
- OUTPUT** Turning on the bit device GB1 in the GOT using the status monitoring function or touch switch (bit) function makes external output (turning on of lights, sounding of buzzers, etc) possible.

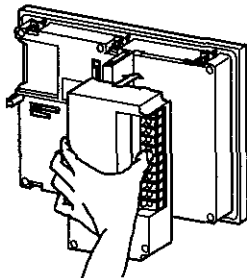
4. Part Names



No.	Name	Description
①	Terminal Block	<p>*At short: Set to 100VAC At open: Set to 200VAC</p> <p>1 If differs depending on the type of GOT to be used When using A8GT-70GOT-EU: Grounding to the BOX When using A8GT-70GOT-EUN: No grounding</p>
②	Information Label	
③	Power Supply Module installation screws	Screws for installing the Power Supply Module in the GOT unit. The tightening torque range is 36 to 48 N cm (3.7 to 4.9 kg cm)
④	Power Supply Module hooks	Hooks for installing the Power Supply Module in the GOT unit.
⑤	GOT unit connector	Connector for connecting the GOT unit's Power Supply Module interface.

5. Installation Method

Install the Power Supply Module in the GOT and tighten the module fixing screws (2 screws) within the tightening torque range (36 to 48 N cm (3.7 to 4.9 kg cm)) and make sure it is securely installed

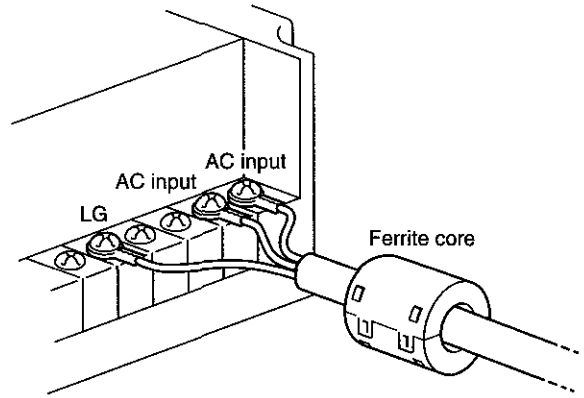


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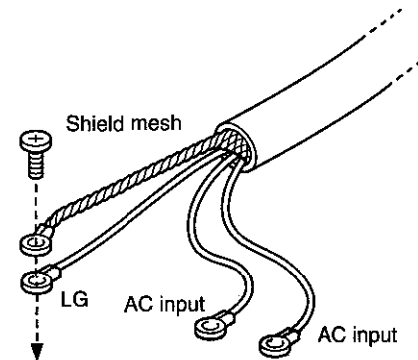
Absolutely do not remove the short bar installed between the LG and FG. Doing so will take the module out of compatibility with EMC specifications

6. Connection Method for Power Supply Wires, Ground Wires, and FG Mesh Wires

(1) Connect the power supply wires and ground wires as shown in the diagram below, and when they are within 100 mm (3.94 inch) from the Power Supply Module's terminal block, be sure to install the ferrite core supplied in the package in the Power Supply Module



(2) When grounding a ground wire in the control panel then ground it in the same position as the LG wire and the shield mesh

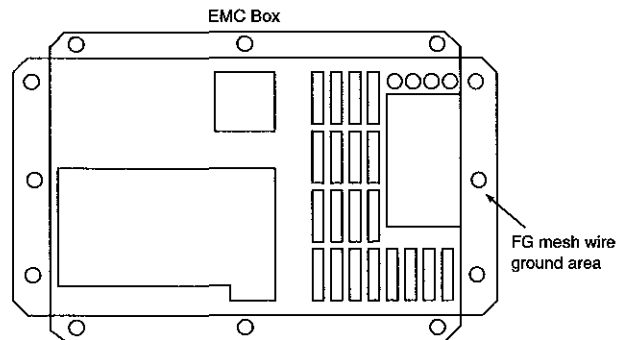


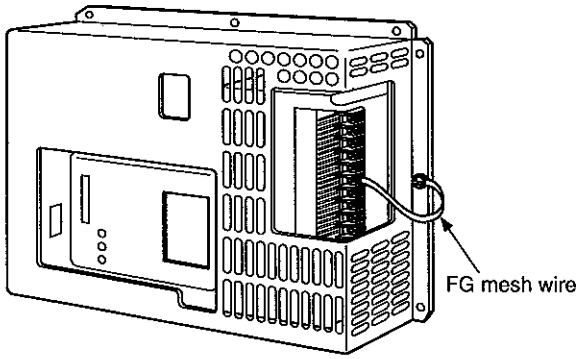
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Be sure to use a protective ground for the LG terminal

(3) ① When A8GT-70GOT-EU

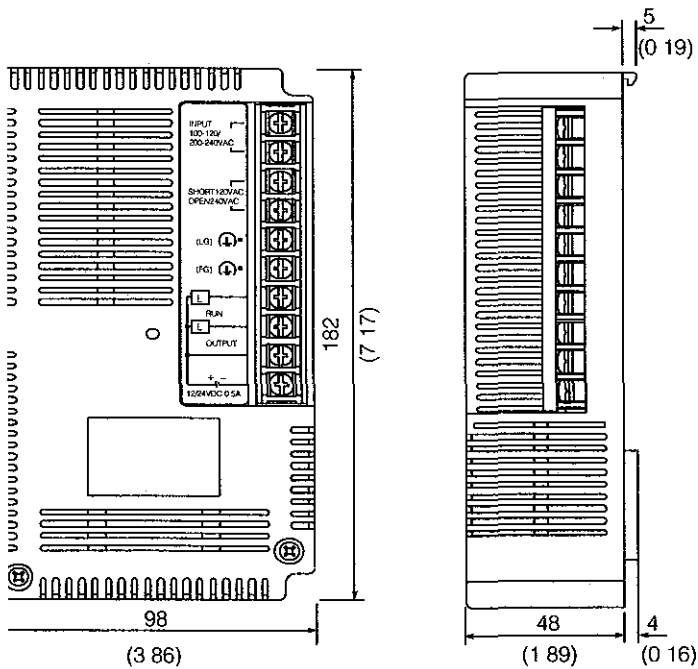
To prevent radiated noise when configuring a GOT with a Power Supply Module, install the FG mesh wire included in the packaging with the Power Supply Module to the Power Supply Module FG terminal and then attach it to the screw holes on the bottom of the EMC Box (A8GT-EL-BOX-EU/A8GT-STN-BOX-EU)



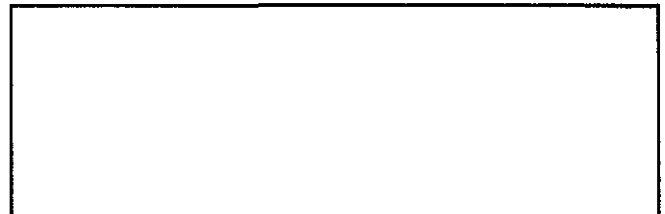


② When A8GT-70GOT-EUN
Be sure not to ground the FG mesh wire

7. External dimensions



Unit mm (inch)



The United States	Mitsubishi Electronics America Inc. (Industrial Automation Division) 800 Biermann Court, Mt. Prospect, IL 60056 Phone: (708)298 9223
Canada	Mitsubishi Electric Sales Canada Inc. (Industrial Automation Division) 4299 14th Avenue, Markham, Ontario L3R 0J2 Phone: (416)475 7728
United Kingdom	Mitsubishi Electric UK Ltd. (Industrial Automation Division) Travellers Lane, Hatfield, Herts AL10 8XB Phone: (0707)276100
Germany	Mitsubishi Electric Europe GmbH, (Industrial Automation Division) Gothaer Strasse 8, Postfach 1548, D 4030 Ratingen 1 Phone: (02102)4860
Taiwan	Setsuyo Enterprise Co., Ltd., (106) 11th Fl., Chung-Ling Bldg. 363 Sec. 2 Fu Hsing S. Rd. Taipei Taiwan R.O.C. Phone: (02)732 0161
Hongkong (& China)	Ryoden International Ltd. (Industrial & Electrical Controls Division) 10/F, Manulife Tower, 169 Electric Rd. North Point, Hong Kong Phone: 8678870
Singapore (& Malaysia)	MELCO Sales Shingapore Pte. Ltd. (Industrial Division) 307 Alexandra Rd. #05 01/02 Mitsubishi Electric Bldg., Singapore 0315 Phone: 4732308
Thailand	F. A. Tech Co. Ltd., 1138/33 34 Rama 3 Rd., Yannawa, Bangkok 10120 Phone: (02)295-2661 4
Australia	Mitsubishi Electric Australia Pty. Ltd., (Industrial Controls Division) 348 Victoria Rd. Rydalmere N.S.W. 2116 Phone: (02)884-7200
Republic of South Africa	M.S.A. Manufacturing (Pty) Ltd., (Factory Automation Division) P.O. Box 36733, Bramley, Johannesburg 2018 Phone: (011)444 8080

MITSUBISHI ELECTRIC CORPORATION
HEAD OFFICE: MITSUBISHI DE KAI BLDG MARUNOUCHI TOKYO 0 100 TELEX: J24327 CABLE MELCO TOKYO
NAGOYA WORKS: 1-14, YADA MINAMI 5, HIGASHI-KU, NAGOYA, JAPAN

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Printed in Japan

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