MITSUBISHI

Mitsubishi Graphic Operation Terminal

A9GT-80R1 type RGB input interface module

Thank you for buying the MELSEC-GOT Series

Prior to use, please read both this manual and detailed manual thoroughly and familiarize yourself with the product.

User's Manual

(Hardware)

GOT MELSEC

MODEL	A9GT-80R1-U
MODEL CODE	1DM121
IB(NA)-0800168-E(0406)MEE	

● SAFETY PRECAUTIONS ●

(Always read before starting use)

When using Mitsubishi equipment, thoroughly read this manual and the associated manuals introduced in the manual. Also pay careful attention to safety and handle the module properly.
These precautions apply only to the installation of Mitsubishi equipment and the wiring with the external device. Refer to the user's manual of the CPU module to be used for a description of the PLC 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.

[DESIGN PRECAUTIONS]

DANGER

- Do not bundle control lines or communication wires together with main circuit or power lines, or lay them close to these lines.
  As a guide, separate the lines by a distance of at least 100 mm (3.94 inch) otherwise malfunctions may occur due to noise.

[INSTALLATION PRECAUTIONS]

DANGER

- Before mounting or dismounting this module to or from the GOT, always shut off GOT power externally in all phases.
  Not doing so can cause a module failure or malfunction.

CAUTION

- Use this module in the environment given in the general specifications of the GOT User's Manual.
  Not doing so can cause an electric shock, fire, malfunction or product damage or deterioration.
- When installing this unit to the GOT, fit it to the connection interface of the GOT and tighten the mounting screws in the specified torque range.
  Undertightening can cause a drop, failure or malfunction.
  Overtightening can cause a drop, failure or malfunction due to GOT or screw damage.

[WIRING PRECAUTIONS]

DANGER

- Plug the communication cable into the connector of the connected module and tighten the mounting and terminal screws in the specified torque range.
  Undertightening can cause a short circuit or malfunction.
  Overtightening can cause a short circuit or malfunction due to the damage of the screws or module.

[STARTUP AND MAINTENANCE PRECAUTIONS]

DANGER

- Before starting cleaning, always shut off GOT power externally in all phases.
  Not doing so can cause a module failure or malfunction.

[STARTUP AND MAINTENANCE PRECAUTIONS]

⚠CAUTION

- Do not disassemble or modify any module.
  This will cause failure, malfunction, injuries, or fire.
- Do not touch the conductive areas and electronic parts of this module directly.
  Doing so can cause a module malfunction or failure.
- Exercise care to avoid foreign matter such as chips and wire offcuts entering the module.
  Not doing so can cause a fire, failure or malfunction.
- Always secure the cables connected to the module, e.g. run them in conduits or clamp them.Not doing so can cause module or cable damage due to dangling, moved or accidentally pulled cables or can cause a malfunction due to a cable contact fault.
- Do not hold the cable part when unplugging any cable connected to the module.
  Doing so can cause module or cable damage or a malfunction due to a cable contact fault.
- Before handling the unit, touch a grounded metal or similar object to discharge the static electricity from the human body.
  Failure to do so may cause the unit to fail or mulfunction.

[DISPOSAL PRECAUTIONS]

⚠DANGER

- Dispose of this product as industrial waste.

Manuals

The following manuals are relevant to this product.
Refer to the following list and order the required manuals.

Detailed Manual

Manual name	Manual No. (Model code)
A985GOT/A975GOT/A970GOT/A960GOT User's Manual (Available as option)	SH-4005 (1DM099)

Relevant Manual

For relevant manual, refer to the PDF manual stored within the drawing software.

1. Overview

This User's Manual describes the A9GT-80R1 type RGB input interface module (hereinafter, A9GT-80R1).
By mounting the A9GT-80R1 to A985GOT-TBA-V, A985GOT-TBD-V (abbreviated as A985GOT-V below), you can show the display of the personal computer on the A985GOT-V. Video input is also possible through the use of an RGB output type vision sensor.

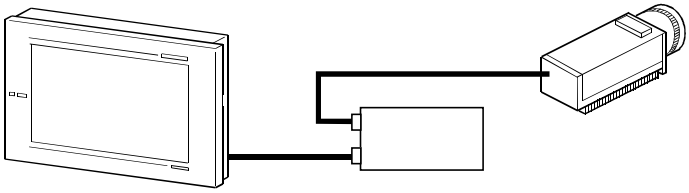
When connecting to a personal computer

A985GOT-V + A9GT-80R1

* You can not show the computer's display on the computer monitor and the A985GOT-V at the same time.

* When connecting with a personal computer, your computer's earth wire should be grounded.

When connecting to a video camera through the use of an RGB output type vision sensor.



A985GOT-V + A9GT-80R1

RGB output type vision sensor

- A9GT-80R1cannot be mounted to the GOT other than A985GOT-V.
- For details of the system configuration, refer to the GOT-A900 Series User's Manual(GT Works Version5/GT Designer Version5 compatible Connection System Manual).
- For details of the RGB screen to display on A985GOT-V, refer to the GT Works Version5/GT Designer Version5 reference manual.
- One of the following software packages are required for A9GT-80R1:
  J version of GT Works Version5 (SW5D5C-GTWORKS-E) or higher
  J version of GT Designer Version5 (SW5D5C-GOTR-PACKE) or higher

After opening the box, check that the following items are present.

Description	Quantity
A9GT-80R1	1

2. Specification

2.1 A9GT-80R1 specifications

Item	Specifications
RGB input method (pixels)	Analog RGB (SVGA; 800×600, VGA; 640×480)
Number of video input channels	1 channel
Display size [pixeles]	800×600 (refresh rate 60, 72, 75 [Hz]) 6840×480 (refresh rate 60, 72, 75, 85 [Hz])*1
RGB external connection method	D-Sub15 pin
5 V DC internal current consumption [A](5VDC)	0.25 (value for individual module)
Weight [kg](lb)	0.12(0.26)

*1: If VGA (640×480 dots) is used, since the resolution differs from that of the A985GOT-V (800×600 dots), blank spaces will be displayed in black.

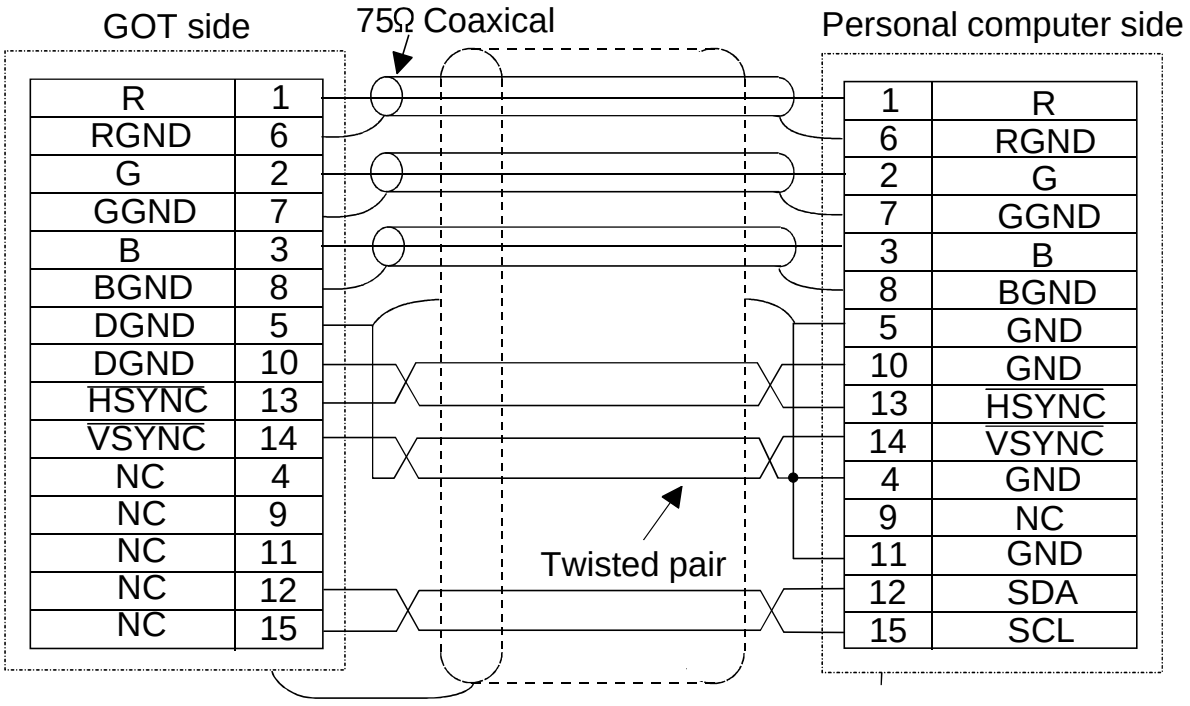
2.2 Cable Specifications

The following shows the cable specifications to connect A9GT-80R1 and personal computer/vision sensor, connection diagram and connector.

(1) Cable specifications

Item	Specifications
Applicable cable	Equivalent to SP23-23352A UL20276-SB
Applicable wire size	9-core combined cable (recommended)

(2) Connection diagram

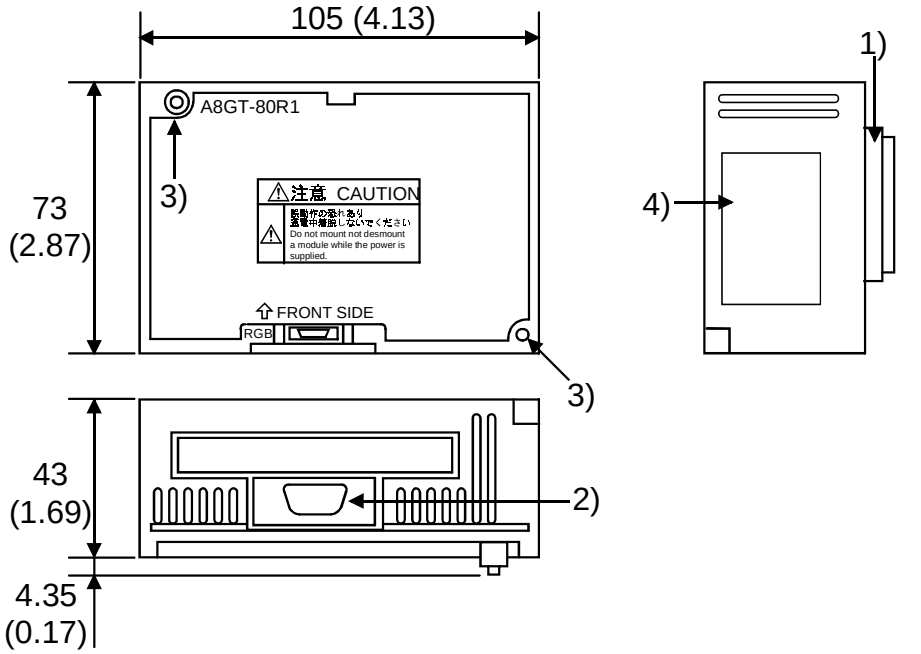


(3) Connector

- GOT connector
  Use the connector matching the following model for the GOT.
  15-pin D-sub (male) inch screw type
  Manufactured by DDK
  17HE-R13150-73MC2
- Connector at the personal computer/vision sensor
  Use the connector applicable to the personal computer/vision sensor.

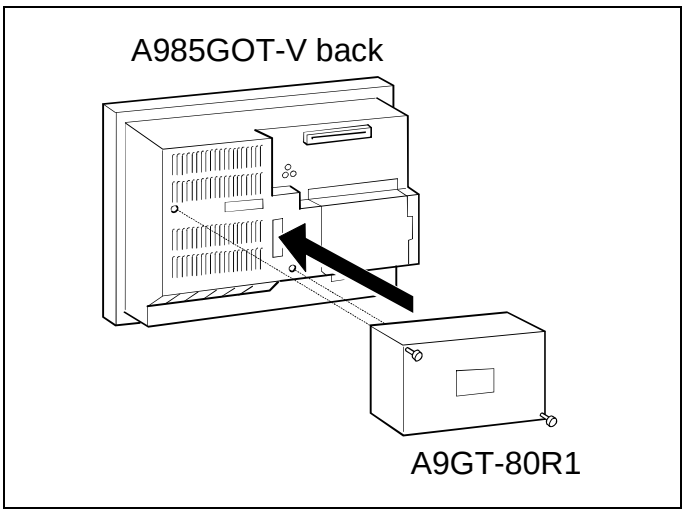
(4) Precaution for cable creating
The length of the cable varies depending on the personal computer/vision sensor to be used.
Create within the range of personal computer/vision sensor specifications

3. Name of the Part's and Outline Dimension Drawing

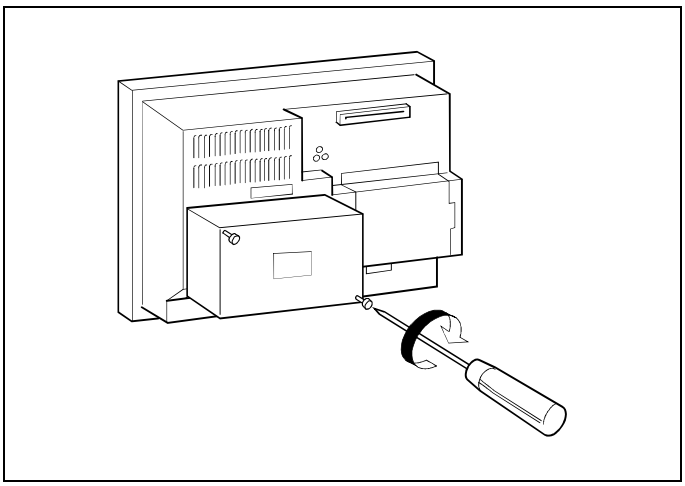


No.	Name	Description
1)	Connector for connection	Connector for connection to the A985GOT-V
2)	Connector	Connector for mounting cable
3)	Option module mounting screw	Mounting screw to the A985GOT-V
4)	Rating plate	-

4. Installation Procedure



(1) Insert the A9GT-80R1 connector into the option module interface at the back of A958GOT-V.



(2) Tighten the attachment screw to a point within the prescribed torque range of 39 to 59 N•cm.

To remove the unit, reverse the installation procedure.

Warranty

Mitsubishi will not be held liable for damage caused by factors found not to be the cause of Mitsubishi; machine damage or lost profits caused by faults in the Mitsubishi products; damage, secondary damage, accident compensation caused by special factors unpredictable by Mitsubishi; damages to products other than Mitsubishi products; and to other duties.

⚠For safe use

- This product has been manufactured as a general-purpose part for general industries, and has not been designed or manufactured to be incorporated in a device or system used in purposes related to human life.
- Before using the product for special purposes such as nuclear power, electric power, aerospace, medicine or passenger movement vehicles, consult with Mitsubishi.
- This product has been manufactured under strict quality control. However, when installing the product where major accidents or losses could occur if the product fails, install appropriate backup or failsafe functions in the system.

Country/Region	Sales office/Tel
U.S.A	Mitsubishi Electric Automation Inc. 500 Corporate Woods Parkway Vernon Hills, IL 60061 Tel : +1-847-478-2100
Brazil	MELCO-TEC Rep. Com.e Assessoria Tecnica Ltda. AV. Paulista 1471, Conj. 308, Sao Paulo City, Sao Paulo State, Brazil Tel : +55-11-283-2423
Germany	Mitsubishi Electric Europe B.V. German Branch Gothaer Strasse 8 D-40880 Ratingen, GERMANY Tel : +49-2102-486-0
U.K	Mitsubishi Electric Europe B.V. UK Branch Travellers Lane, Hatfield, Herts., AL10 8XB,UK Tel : +44-1707-276100
Italy	Mitsubishi Electric Europe B.V. Italian Branch Centro Dir. Colleoni, Pal. Perseo-Ingr.2 Via Paracelso 12, 20041 Agrate B., Milano, Italy Tel : +39-039-6053344
Spain	Mitsubishi Electric Europe B.V. Spanish Branch Carretera de Rubi 76-80 08190 - Sant Cugat del Valles, Barcelona, Spain Tel : +34-93-565-3131
France	Mitsubishi Electric Europe B.V. French Branch 25 Boulevard des Bouvets, F-92741 Nanterre Cedex, France TEL: +33-1-5568-5568
South Africa	Circuit Breaker Industries LTD. Tripswitch Drive, Elandsfontein Gauteng, South Africa Tel : +27-11-928-2000

Country/Region	Sales office/Tel
Hong Kong	Ryoden Automation Ltd. 10th Floor, Manulife Tower, 169 Electric Road, North Point, HongKong Tel : +852-2887-8870
China	Ryoden Automation Shanghai Ltd. 3F Block5 Building Automation Instrumentation Plaza 103 Cao Bao Rd. Shanghai 200233 China Tel : +86-21-6475-3228
Taiwan	Setsuyo Enterprise Co., Ltd. 6F., No.105 Wu-Kung 3rd.RD, Wu-Ku Hsiang, Taipei Hsine, Taiwan Tel : +886-2-2299-2499
Korea	HAN NEUNG TECHNO CO.,LTD. 1F Dong Seo Game Channel Bldg., 660-11, Deungchon-dong Kangsec-ku, Seoul, Korea Tel : +82-2-3660-9552
Singapore	Mitsubishi Electric Asia Pte, Ltd. 307 ALEXANDRA ROAD #05-01/02, MITSUBISHI ELECTRIC BUILDING SINGAPORE 159943 Tel : +65-6473-2308
Thailand	F. A. Tech Co.,Ltd. 898/28,29,30 S.V.City Building,Office Tower 2,Floor 17-18 Rama 3 Road, Bangkpongpang, Yannawa, Bangkok 10120 Tel : +66-2-682-6522
Indonesia	P.T. Autoteknindo SUMBER MAKMUR Jl. Muara Karang Selatan Block A Utara No.1 Kav. No.11 Kawasan Industri/ Pergudangan Jakarta - Utara 14440 Tel : +62-21-663-0833
India	Messung Systems Put,Ltd. Electronic Sadan NO:111 Unit No15, M.I.D.C BHOSARI,PUNE-411026 Tel : +91-20-712-2807
Australia	Mitsubishi Electric Australia Pty. Ltd. 348 Victoria Road, PostalBag, No 2, Rydalmere, N.S.W 2116, Australia Tel : +61-2-9684-7777

MITSUBISHI ELECTRIC CORPORATION

HEAD OFFICE : 1-8-12, OFFICE TOWER Z 14F HARUMI CHUO-KU 104-6212, JAPAN
NAGOYA WORKS : 1-14, YADA-MINAMI 5-CHOME, HIGASHI-KU, NAGOYA, JAPAN

When exported from Japan, this manual does not require application to the Ministry of Economy, Trade and Industry for service transaction permission.

Specifications subject to change without notice.
Printed in Japan on recycled paper.