

GOT 1000

RGB Output Unit

User's Manual

GT15V-75ROUT

●SAFETY PRECAUTIONS●

(Always read these precautions before using this equipment.)

Before using this product, please read this manual and the relevant manuals introduced in this manual carefully and pay full attention to safety to handle the product correctly.

The precautions given in this manual are concerned with this product.

In this manual, the safety precautions are ranked as "DANGER" and "CAUTION".




DANGER

Indicates that incorrect handling may cause hazardous conditions, resulting in death or severe injury.



CAUTION

Indicates that incorrect handling may cause hazardous conditions, resulting in medium or slight personal injury or physical damage.

Note that the  caution level may lead to a serious accident according to the circumstances. Always follow the instructions of both levels because they are important to personal safety.

Please save this manual to make it accessible when required and always forward it to the end user.

[DESIGN PRECAUTIONS]

CAUTION

- Do not bundle the control and communication cables with main-circuit, power or other wiring.
Run the above cables separately from such wiring and keep them a minimum of 100mm (3.94in.) apart. Not doing so noise can cause a malfunction.

[MOUNTING PRECAUTIONS]

DANGER

- Be sure to shut off all phases of the external power supply used by the system before mounting or removing this unit onto/from the GOT.
Not doing so can cause the unit to fail or malfunction.

CAUTION

- Use this unit in the environment that satisfies the general specifications described in User's Manual.
Not doing so can cause an electric shock, fire, malfunction or product damage or deterioration.
- Tighten the mounting screws within the specified torque range.
Undertightening can cause the GOT to drop, short circuit or malfunction.
Overtightening can cause a drop, short circuit or malfunction due to the damage of the screws or the GOT.
- Do not touch the conductive and electronic parts of the unit directly.
Doing so can cause a unit malfunction or failure.

[WIRING PRECAUTIONS]

DANGER

- Be sure to shut off all phases of the external power supply used by the system before wiring.
Failure to do so may result in an electric shock, product damage or malfunctions.

CAUTION

- Exercise care to avoid foreign matter such as chips and wire offcuts entering the GOT. Not doing so can cause a fire, failure or malfunction.
- Make sure to securely connect the cable to the connector of unit.
Incorrect connection may cause malfunctions.
- Do not hold the cable by hand and pull it out from the unit.
When removing the cable from the unit, make sure to hold the connector by hand and pull it.
Failure to do so may cause malfunctions or damage to the unit or cable.

[STARTUP/MAINTENANCE PRECAUTIONS]

DANGER

- When power is on, do not touch the terminals.
Doing so can cause an electric shock or malfunction.
- Before starting cleaning, always shut off GOT power externally in all phases.
Not doing so can cause a unit failure or malfunction.
Undertightening can cause a short circuit or malfunction.
Overtightening can cause a short circuit or malfunction due to the damage of the screws or unit.

CAUTION

- Do not disassemble or modify the unit.
Doing so can cause a failure, malfunction, injury or fire.
- Do not drop the module or subject it to strong shock.
A module damage may result.
- Before touching the unit, always touch grounded metal, etc. to discharge static electricity from human body, etc.
Not doing so can cause the unit to fail or malfunction.

[DISPOSAL PRECAUTIONS]

CAUTION

- When disposing of the product, handle it as industrial waste.

[TRANSPORTATION PRECAUTIONS]

CAUTION

- Make sure to transport the GOT main unit and/or relevant unit(s) in the manner they will not be exposed to the impact exceeding the impact resistance described in the general specifications of GT15 User's manual, as they are precision devices.
Failure to do so may cause the unit to fail.
Check if the unit operates correctly after transportation.

REVISIONS

* The manual number is noted at the lower right of the top cover.

Print Date	*Manual Number	Revision				
Mar., 2006	IB(NA)-0800349-A	First edition				
Feb., 2007	IB(NA)-0800349-B	<table border="1"><tr><td>Partial addition</td></tr><tr><td>Chapter 1</td></tr><tr><td>Addition</td></tr><tr><td>Compliance with the EMC and Low Voltage Directives</td></tr></table>	Partial addition	Chapter 1	Addition	Compliance with the EMC and Low Voltage Directives
Partial addition						
Chapter 1						
Addition						
Compliance with the EMC and Low Voltage Directives						
Jul., 2007	IB(NA)-0800349-C	<table border="1"><tr><td>Partial corrections</td></tr><tr><td>Compliance with the EMC and Low Voltage Directives, Chapter 2, 3, 4</td></tr></table>	Partial corrections	Compliance with the EMC and Low Voltage Directives, Chapter 2, 3, 4		
Partial corrections						
Compliance with the EMC and Low Voltage Directives, Chapter 2, 3, 4						

This manual confers no industrial property rights or any rights of any other kind, nor does it confer any patent licenses. Mitsubishi Electric Corporation cannot be held responsible for any problems involving industrial property rights which may occur as a result of using the contents noted in this manual.

© 2006 MITSUBISHI ELECTRIC CORPORATION

CONTENTS

1. Overview	1
2. Specifications	2
2.1 RGB output unit	2
2.2 Specifications of the cables (9-core combined cables) used when connecting the external display	3
3. Part Names and External Dimensions	4
4. Installation Procedure	6

Manuals

The following shows manuals relevant to this product.

Detailed Manual

Manual name	Manual number (Model code)
GT15 User's Manual (Sold separately)	SH-080528ENG (1D7M23)
GOT1000 Connection Manual (Sold separately)	SH-080532ENG (1D7M26)

Relevant Manuals

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

Packing List

The following items are included.

Model	Product	Quantity
GT15V-75ROUT	RGB output unit	1
	Mounting screw set (2 screws,2 stickers)	2
	Extend interface relay board	1

Compliance with the EMC and Low Voltage Directives

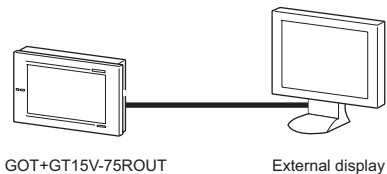
When incorporating the Mitsubishi GOT into other machinery or equipment and keeping compliance with the EMC and low voltage directives, refer to "EMC AND LOW VOLTAGE DIRECTIVE" of GT15 User's Manual.

The CE logo is printed on the rating plate of the GOT, indicating compliance with the EMC and low voltage directives.

1. Overview

This User's Manual describes the GT15V-75ROUT RGB output unit (referred to as the RGB output unit hereinafter).

When mounting RGB output unit with GT1585V-STBA and GT1575V-STBA, (collectively referred to as the GOT hereinafter), the RGB output unit can external display screens on GOT.



To use the RGB output unit, make the Communication Settings.
For setting details, refer to GOT1000 Series Connection Manual.

For details of system configuration, refer to GOT1000 Series Connection Manual.

2. Specifications

2.1 RGB output unit

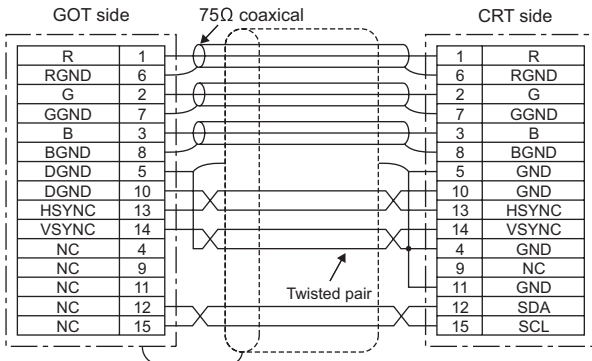
Item		Specifications		
RGB input section	RGB output method (dot's)	Analog RGB(SVGA; 800x600)		
	Number of RGB output channels	1 channel		
	Dot clock	38.362 MHz		
	Horizontal scanning frequency	37.87 kHz		
	Vertical scanning frequency	60.30 Hz		
	Timing chart	Horizontal synchronizing timing	Vertical synchronizing timing	
	RGB external connection method	D-Sub15 pin		
Applicable wire size	9-core combined cable (recommended)			
Maximum cable length	30 m (98.4 feet)			
Internal current consumption (5VDC)	0.11 A			
Weight	0.16 kg (0.32 lb)			

2.2 Specifications of the cables (9-core combined cables) used when connecting the external display

(1) Cable specifications

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

(2) Connection diagram

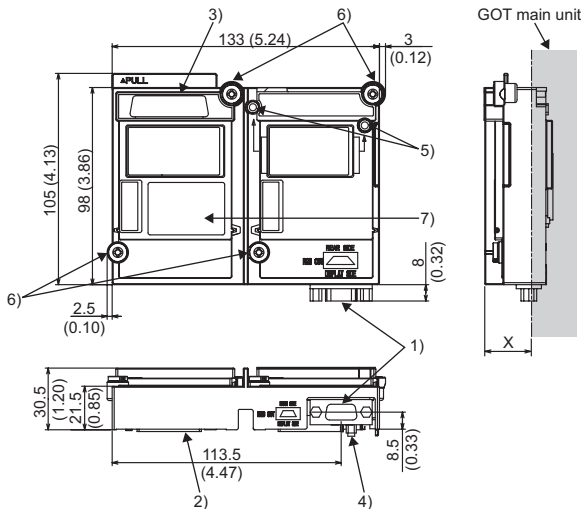


(3) Connector

- 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 display
Use the connector applicable to the display.

3. Part Names and External Dimensions

(1) Part names and external dimensions of the RGB output unit



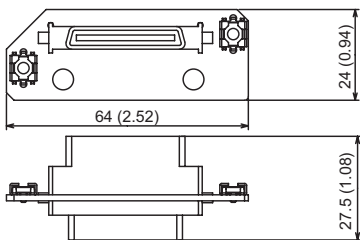
Dimensions of X when the RGB output unit is mounted to the GOT.

12.1"	18 (0.71)
10.4"	21 (0.83)

Unit: mm (inch)

No.	Name	Description
1)	Connector for RGB output	Connector for connecting a 9-core combined cable
2)	Interface connector	Connector mounted to the GOT
3)	Extension connector	Connector to which a back extension unit is installed
4)	Connector for video/RGB connection	Connector connecting with the video/RGB interface of GOT
5)	Board fixing screw	Screw for fixing the extend interface relay board
6)	Mounting screw	Mounting screws for fixing the unit to the GOT
7)	Rating plate	-

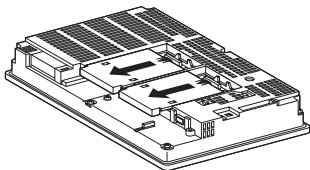
(2) Extend interface relay board



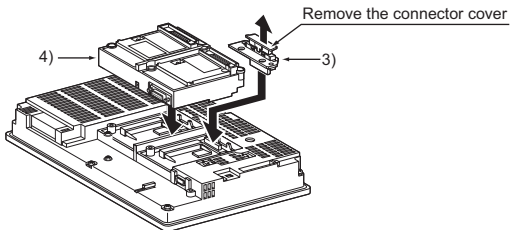
Unit: mm (inch)

4. Installation Procedure

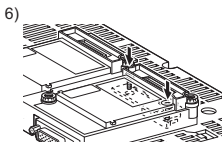
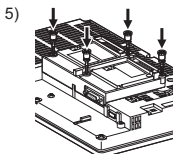
- (1) Power off the GOT.
- (2) Remove two extension unit covers of the GOT.



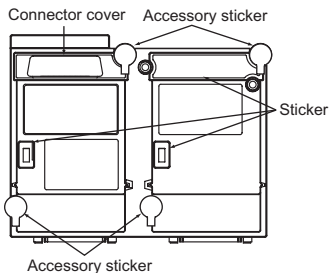
- (3) Attach the extend interface relay board to the extend I/F-2 side on the GOT.
After the installation, detach the connector cover from the extend interface relay board.
- (4) Fit the RGB output unit in the GOT case.



- (5) Fasten the RGB output unit by tightening its mounting screws (4 places) with tightening torque 0.36 to 0.48 N•m.
- (6) Fasten the bus connection unit by tightening the board fixing screws (2 places) with the tightening torque of 0.36 to 0.48 N•m.



- (7) When installing an extension unit on the unit that has been installed, remove the connector cover and the sticker.
- When not installing an extension unit on the unit that has been installed, in order to avoid receiving electrostatic, stick accessory stickers to cover the top of mounting screws (4 places).
- Keep the connector cover fixed.
- Keep the sticker stuck as it is.



Point

Remove the screws that fix the extend interface relay board before removing the unit.(Above 6))

HEADQUARTERS

MITSUBISHI ELECTRIC EUROPE B.V. **EUROPE**
 German Branch
 Gothaer Straße 8
D-40880 Ratingen
 Phone: +49 (0)2102 / 486-0
 Fax: +49 (0)2102 / 486-1120

MITSUBISHI ELECTRIC EUROPE B.V. **CZECH REPUBLIC**
 Czech Branch
 Radlická 714/113a
CZ-158 00 Praha 5
 Phone: +420 (0)251 551 470
 Fax: +420 (0)251-551-471

MITSUBISHI ELECTRIC EUROPE B.V. **FRANCE**
 French Branch
 25, Boulevard des Bouvets
F-92741 Nanterre Cedex
 Phone: +33 (0)1 / 55 68 55 68
 Fax: +33 (0)1 / 55 68 57 57

MITSUBISHI ELECTRIC EUROPE B.V. **IRELAND**
 Irish Branch
 Westgate Business Park, Ballymount
IRL-Dublin 24
 Phone: +353 (0)1 4198800
 Fax: +353 (0)1 4198890

MITSUBISHI ELECTRIC EUROPE B.V. **ITALY**
 Italian Branch
 Viale Colleoni 7
I-20041 Agrate Brianza (MI)
 Phone: +39 039 / 60 53 1
 Fax: +39 039 / 60 53 312

MITSUBISHI ELECTRIC EUROPE B.V. **SPAIN**
 Spanish Branch
 Carretera de Rubí 76-80
E-08190 Sant Cugat del Vallés (Barcelona)
 Phone: 902 131121 // +34 935653131
 Fax: +34 935891579

MITSUBISHI ELECTRIC EUROPE B.V. **UK**
 UK Branch
 Travellers Lane
UK-Hatfield, Herts. AL10 8XB
 Phone: +44 (0)1707 / 27 61 00
 Fax: +44 (0)1707 / 27 86 95

MITSUBISHI ELECTRIC CORPORATION **JAPAN**
 Office Tower "Z" 14 F
 8-12,1 chome, Harumi Chuo-Ku
Tokyo 104-6212
 Phone: +81 3 622 160 60
 Fax: +81 3 622 160 75

MITSUBISHI ELECTRIC AUTOMATION, Inc. **USA**
 500 Corporate Woods Parkway
Vernon Hills, IL 60061
 Phone: +1 847 478 21 00
 Fax: +1 847 478 22 53

EUROPEAN REPRESENTATIVES

GEVA **AUSTRIA**
 Wiener Straße 89
AT-2500 Baden
 Phone: +43 (0)2252 / 85 55 20
 Fax: +43 (0)2252 / 488 60

TEHNIKON **BELARUS**
 Oktyabrskaya 16/5, Off. 703-711
BY-220030 Minsk
 Phone: +375 (0)17 / 210 46 26
 Fax: +375 (0)17 / 210 46 26

Koning & Hartman b.v. **BELGIUM**
 Woluwelaan 31
BE-1800 Vilvoorde
 Phone: +32 (0)2 / 257 02 40
 Fax: +32 (0)2 / 257 02 49

INEA BH d.o.o. **BOSNIA AND HERZEGOVINA**
 Aleja Lipa 56
BA-71000 Sarajevo
 Phone: +387 (0)33 / 921 164
 Fax: +387 (0)33 / 524 539

AKHNATON **BULGARIA**
 4 Andrej Ljapchev Blvd. Pb 21
BG-1756 Sofia
 Phone: +359 (0)2 / 817 6004
 Fax: +359 (0)2 / 97 44 06 1

INEA CR d.o.o. **CROATIA**
 Losinjska 4 a
HR-10000 Zagreb
 Phone: +385 (0)1 / 36 940 - 01 / -02 / -03
 Fax: +385 (0)1 / 36 940 - 03

AutoCont C.S. s.r.o. **CZECH REPUBLIC**
 Technologická 374/6
CZ-708 00 Ostrava-Pustkovec
 Phone: +420 595 691 150
 Fax: +420 595 691 199

B:TECH A.S. **CZECH REPUBLIC**
 U Borové 69
CZ-58001 Havlíčkův Brod
 Phone: +420 (0)569 777 777
 Fax: +420 (0)569-777 778

Beijer Electronics A/S **DENMARK**
 Lykkegårdsvej 17, 1.
DK-4000 Roskilde
 Phone: +45 (0)46 / 75 76 66
 Fax: +45 (0)46 / 75 56 26

Beijer Electronics Eesti OÜ **ESTONIA**
 Pärnu mnt.160i
EE-11317 Tallinn
 Phone: +372 (0)6 / 51 81 40
 Fax: +372 (0)6 / 51 81 49

Beijer Electronics OY **FINLAND**
 Jaakonkatu 2
FIN-01620 Vantaa
 Phone: +358 (0)207 / 463 500
 Fax: +358 (0)207 / 463 501

UTEKO A.B.E.E. **GREECE**
 5, Mavrogenous Str.
GR-18542 Piraeus
 Phone: +30 211 / 1206 900
 Fax: +30 211 / 1206 999

MELTRADE Ltd. **HUNGARY**
 Fertő utca 14.
HU-1107 Budapest
 Phone: +36 (0)1 / 431-9726
 Fax: +36 (0)1 / 431-9727

Beijer Electronics SIA **LATVIA**
 Vestienas iela 2
LV-1035 Riga
 Phone: +371 (0)784 / 2280
 Fax: +371 (0)784 / 2281

Beijer Electronics UAB **LITHUANIA**
 Savanoriu Pr. 187
LT-02300 Vilnius
 Phone: +370 (0)5 / 232 3101
 Fax: +370 (0)5 / 232 2980

EUROPEAN REPRESENTATIVES

INTEHSIS srl **MOLDOVA**
 bld. Traian 23/1
MD-2060 Kishinev
 Phone: +373 (0)22 / 66 4242
 Fax: +373 (0)22 / 66 4280

Koning & Hartman b.v. **NETHERLANDS**
 Haarlerbergweg 21-23
NL-1101 CH Amsterdam
 Phone: +31 (0)20 / 587 76 00
 Fax: +31 (0)20 / 587 76 05

Beijer Electronics AS **NORWAY**
 Postboks 487
NO-3002 Drammen
 Phone: +47 (0)32 / 24 30 00
 Fax: +47 (0)32 / 84 85 77

MPL Technology Sp. z o.o. **POLAND**
 Ul. Krakowska 50
PL-32-083 Balice
 Phone: +48 (0)12 / 630 47 00
 Fax: +48 (0)12 / 630 47 01

Sirius Trading & Services srl **ROMANIA**
 Aleea Lacul Morii Nr. 3
RO-060841 Bucuresti, Sector 6
 Phone: +40 (0)21 / 430 40 06
 Fax: +40 (0)21 / 430 40 02

Craft Con. & Engineering d.o.o. **SERBIA**
 Bulevar Svetog Cara Konstantina 80-86
SER-18106 Nis
 Phone: +381 (0)18 / 292-24-4/5
 Fax: +381 (0)18 / 292-24-4/5

INEA SR d.o.o. **SERBIA**
 Izletnicka 10
SER-113000 Smederevo
 Phone: +381 (0)26 / 617 163
 Fax: +381 (0)26 / 617 163

AutoCont Control s.r.o. **SLOVAKIA**
 Radlinského 47
SK-02601 Dolny Kubin
 Phone: +421 (0)43 / 5868210
 Fax: +421 (0)43 / 5868210

CS MTrade Slovensko, s.r.o. **SLOVAKIA**
 Vajanského 58
SK-92101 Piestany
 Phone: +421 (0)33 / 7742 760
 Fax: +421 (0)33 / 7735 144

INEA d.o.o. **SLOVENIA**
 Stegne 11
SI-1000 Ljubljana
 Phone: +386 (0)1 / 513 8100
 Fax: +386 (0)1 / 513 8170

Beijer Electronics AB **SWEDEN**
 Box 426
SE-20124 Malmö
 Phone: +46 (0)40 / 35 86 00
 Fax: +46 (0)40 / 35 86 02

Econotec AG **SWITZERLAND**
 Hinterdorfstr. 12
CH-8309 Nürensdorf
 Phone: +41 (0)44 / 838 48 11
 Fax: +41 (0)44 / 838 48 12

GTS **TURKEY**
 Darülaceze Cad. No. 43 KAT. 2
TR-34384 Okmeydanı-Istanbul
 Phone: +90 (0)212 / 320 1640
 Fax: +90 (0)212 / 320 1649

CSC Automation Ltd. **UKRAINE**
 15, M. Raskova St., Fl. 10, Office 1010
UA-02002 Kiev
 Phone: +380 (0)44 / 494 33 55
 Fax: +380 (0)44 / 494-33-66

EURASIAN REPRESENTATIVES

Kazpromautomatics Ltd. **KAZAKHSTAN**
 Mustafina Str. 7/2
KAZ-470046 Karaganda
 Phone: +7 7212 / 50 11 50
 Fax: +7 7212 / 50 11 50

CONSUS **RUSSIA**
 Promyshlennaya st. 42
RU-198099 St. Petersburg
 Phone: +7 812 / 325 36 53
 Fax: +7 812 / 325 36 53

ELECTROTECHNICAL SYSTEMS **RUSSIA**
 Derbenevskaya st. 11A, Office 69
RU-115114 Moscow
 Phone: +7 495 / 744 55 54
 Fax: +7 495 / 744 55 54

ELEKTROSTILY **RUSSIA**
 Rubzovskaja nab. 4-3, No. 8
RU-105082 Moscow
 Phone: +7 495 / 545 3419
 Fax: +7 495 / 545 3419

NPP "URALELEKTRA" **RUSSIA**
 Sverdlova 11A
RU-620027 Ekaterinburg
 Phone: +7 343 / 353 2745
 Fax: +7 343 / 353 2461

MIDDLE EAST REPRESENTATIVES

ILAN & GAVISH Ltd. **ISRAEL**
 24 Shenkar St., Kiryat Arie
IL-49001 Petah-Tiqva
 Phone: +972 (0)3 / 922 18 24
 Fax: +972 (0)3 / 924 0761

AFRICAN REPRESENTATIVE

CBI Ltd. **SOUTH AFRICA**
 Private Bag 2016
ZA-1600 Isando
 Phone: +27 (0)11 / 928 2000
 Fax: +27 (0)11 / 392 2354