

**MITSUBISHI ELECTRIC**

## GT05 Protective Cover for Oil

### User's Manual

**GT05-90PCO  
GT05-80PCO  
GT05-70PCO  
GT05-60PCO  
GT05-50PCO**

Thank you for choosing Mitsubishi Electric Graphic Operation Terminal (GOT).

**Prior to use, please read both this manual and detailed manual thoroughly to fully understand the product.**

MODEL	GT05-PCO-U
MODEL CODE	1D7M71
IB(NA)-0800390-G(1906)MEE	

© 2007 MITSUBISHI ELECTRIC CORPORATION

#### 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 "WARNING" and "CAUTION".

**WARNING** 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 precautions 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.

#### INSTALLATION PRECAUTIONS

##### WARNING

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

##### CAUTION

- When mounting the GOT to the control panel, tighten the mounting screws in 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.

#### DISPOSAL PRECAUTIONS

##### CAUTION

- Dispose of the product as industrial waste.

#### Manuals

The following manuals are related to this product.

##### Detailed Manual

Manual name	Manual Number (Model code)
GOT2000 Series User's Manual (Sold separately)	SH-081194ENG (1D7MJ5)
GT16 User's Manual (Hardware) (Sold separately)	SH-080928ENG (1D7MD3)
GT15 User's Manual (Sold separately)	SH-080528ENG (1D7M23)
GT11 User's Manual (Sold separately)	JY997D17501G (09R815)

##### Relevant Manuals

For relevant manuals, refer to the PDF manuals stored in the GT Designer3 DVD-ROM.

#### Referenced Standard: GB/T15969.2

(Requirement of Chinese standardized law)

#### Packing List

The following item is included.

Manual name	Item	Quantity
GT05-90PCO GT05-80PCO GT05-70PCO GT05-60PCO GT05-50PCO	Protective cover for oil	1
	USB connector protective sticker	1
	GT05 Protective Cover for Oil User's Manual (This manual)	1

## 1. Overview

This user's manual explains the GT05 protective cover for oil (hereinafter referred to as protective cover for oil). Use of the protective cover for oil improves oil resistance and chemical resistance of the GOT.\*1

- \*1: Note that the structure does not guarantee protection in all users' environments. The protective cover for oil may not be used in an environment where it is exposed to oil or chemicals for a long time, or where oil mist fills the air.

The following table shows protective covers for oil and the applicable GOT.

Model	Applicable GOT
GT05-90PCO	GT1695, GT1595
GT05-80PCO	GT1685, GT1585
GT05-70PCO	GT1675, GT1672, GT1575, GT1572
GT05-60PCO	GT1665, GT1662, GT1565, GT1562
GT05-50PCO	GT1555, GT1550, GT1155, GT1150

## 2. Specifications

### 2.1 General specifications

Item	Specifications
Operating ambient temperature	0°C to 50°C
Storage ambient temperature	-20°C to 50°C
Operating ambient humidity	10% RH to 90% RH, non-condensing
Storage ambient humidity	10% RH to 90% RH, non-condensing

### 2.2 Performance specifications

The performance specifications of the protective cover for oil are indicated below.

Item	GT05-90PCO	GT05-80PCO	GT05-70PCO	GT05-60PCO	GT05-50PCO
	IP67				
Level of protection	Caution: The protective cover for oil may not be used in an environment where it is exposed to oil or chemicals for a long time, or where oil mist fills the air.				
Material	Cover: Nitrile rubber, Display: PET sheet				
Weight	0.310kg	0.195kg	0.185kg	0.135kg	0.080kg

#### POINT

For installing the GOT with the protective cover for oil, the control panel thickness must be 2 to 3mm because of the cover thickness. (Control panel thickness without the cover: 2 to 4mm)

## 2.3 Oil resistance, chemical resistance

The protective cover for oil is made of materials with high oil and chemical resistance so that the cover can be used in various oil and chemical atmospheres.

Because oils, including cutting oils, contain a small amount of additives depending on oil products, oil resistance of the cover cannot be stated.

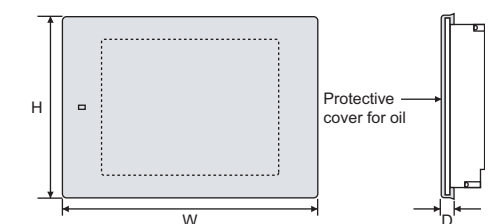
Prior to use the cover, test the cover in operating environments, and then check the oil and chemical resistance of the cover.

- Test contents and oil resistance of cover

The protective cover for oil is soaked in the following oils for 2000 hours, and then oil resistance of the cover is checked.

Oil type	Product	Change in appearance and dimension	Adhesion between cover and sheet	Oil resistance
Water-insoluble cutting oil	Grinding oil (Yushiron oil CL35)	No change	No change	○
Water-soluble cutting oil	Grinding oil (Noritake cool CG-50P)	No change	No change	○

## 3. External Dimensions



Dimensions	GT05-90PCO	GT05-80PCO	GT05-70PCO	GT05-60PCO	GT05-50PCO
W	408 (16.06)	327 (12.87)	314 (12.36)	252 (9.92)	178 (7.01)
H	307 (12.09)	253 (9.96)	228 (8.98)	201 (7.91)	146 (5.75)
D	12 (0.47)	12 (0.47)	12 (0.47)	12 (0.47)	12 (0.47)

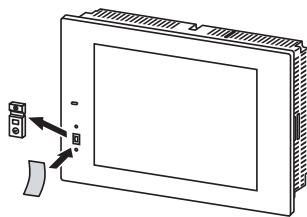
Unit: mm (inch)

## 4. Installation Procedure

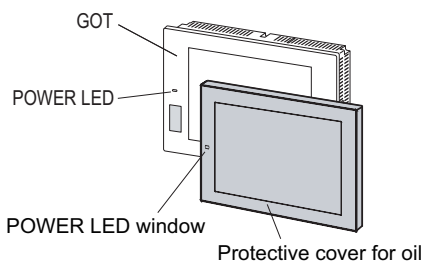
The following shows how to install the protective cover for oil on GT1575 as an example.

To install the cover on GT16, the procedures (1) and (2) are not required.

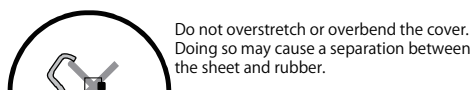
- When the USB environmental protection cover is installed on the GOT, remove the cover.
- After removing the cover, put the USB connector protective sticker on the USB connector.



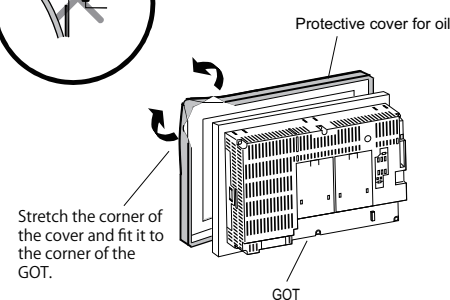
- Align the POWER LED window of the cover and the POWER LED of the GOT front panel to ensure that the cover orientation is appropriate.



- Stretch one corner of the cover, and fit it to the corner of the GOT front panel.

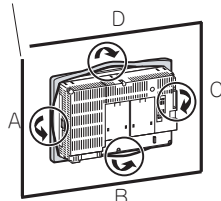


Do not overstretch or overbend the cover. Doing so may cause a separation between the sheet and rubber.



- Starting from one corner, fit the other corners of the cover sequentially to the corners of the GOT, and then the sides (in the order of the arrows from A to D). Make sure that the gasket of the GOT rear face is entirely covered.

Starting from the upper left corner, fit the sides of the protective cover for oil in the order from A to D.



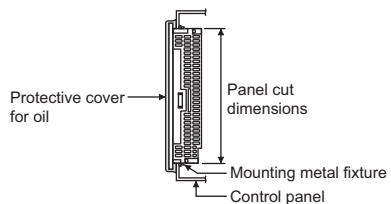
#### POINT

- To prevent liquid ingress into the control panel, make sure that the gasket is completely covered.



Make sure that the corners of the protective cover for oil align those of the GOT front panel.

- Mount the GOT onto the control panel. When the control panel is dirty, clean the control panel. The panel cutting dimensions and mounting screw tightening torque with the protective cover for oil are the same as those without the cover. Mount the GOT onto the control panel by referring to GT16 User's Manual (Hardware), GT15 User's manual or GT11 user's Manual.



#### POINT

- For attaching the protective cover for oil to the GOT already mounted on the control panel, follow the procedures as below.
  - Remove the GOT from the control panel. Make sure to externally shut off all phases of the power supply and remove all cables from the GOT in advance.
  - Clean dirt off surfaces of the GOT and control panel.

## 5. Precautions for Use

- The protective cover for oil is a consumable product. Check the cover for scratch, damage or dirt at regular intervals, and replace with new one if necessary.
- Do not push the protective cover for oil with pointed tools, including mechanical pencils and screwdrivers. Doing so causes scratches and damages of the cover.
- Do not clean the protective cover for oil with bleaches, thinners, organic solvents, corrosive chemicals, and others. Doing so causes changes in shape and color of the cover.
- When the protective cover for oil is attached to the GOT, do not stretch and bend the cover too much. Doing so may cause a separation between the sheet and rubber.
- Do not place or use the protective cover for oil in direct sunshine.
- When the protective cover for oil gets dusts, wipe the dusts off with a damp cloth.
- White particles may adhere to the rubber frame of the protective cover for oil, which does not affect the quality of the cover. Wipe the frame with a cloth moistened with isopropyl alcohol or ethanol as necessary.
- When the protective cover for oil is used, the USB connector on the GOT front face cannot be used.
- When the protective cover for oil is used, the human sensor does not correctly operate. Disable the human sensor with the utility. For the human sensor setting, refer to GT15 User's Manual.
- Do not attach and remove the protective cover for oil frequently. Doing so reduces oil resistance and chemical resistance.
- Note that the structure does not guarantee protection in all users' environments. The protective cover for oil may not be used in an environment where it is exposed to oil or chemicals for a long time, or where oil mist fills the air.

## Warranty

Mitsubishi Electric will not be held liable for damage caused by factors found not to be the cause of Mitsubishi Electric; machine damage or lost profits caused by faults in the Mitsubishi Electric products; damage, secondary damage, accident compensation caused by special factors unpredictable by Mitsubishi Electric; damages to products other than Mitsubishi Electric 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 Electric.
- 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
USA	Mitsubishi Electric Automation, Inc. 500 Corporate Woods Parkway, Vernon Hills, IL 60061, U.S.A. Tel: +1-847-478-2100
Brazil	Mitsubishi Electric do Brasil Comercio e Servicos Ltda. Avenida Adelinio Cardana, 293, 21 andar, Bethaville, Barueri SP, Brasil CEP 06401-147 Tel: +55-11-4889-3000
Mexico	Mitsubishi Electric Automation, Inc. Mexico Branch Mariano Escobedo 869, Col. Zona Industrial, Tlalpan, Edo. Mexico, C.P. 54030 Tel: +52-55-3067-7511
Germany	Mitsubishi Electric Europe B.V. German Branch Mitsubishi-Electric-Platz 1, 40882 Ratingen, Germany Tel: +49-2102-486-0
UK	Mitsubishi Electric Europe B.V. UK Branch Travellers Lane, Hatfield, Hertfordshire, AL10 8XB, U.K. Tel: +44-1477-28-8780
Italy	Mitsubishi Electric Europe B.V. Italian Branch Centro Direzionale Colosani - Palazzo Siro, Viale Colosani 7, Agrate Brianza (MB), Italy Tel: +39-039-60531
Spain	Mitsubishi Electric Europe B.V. Spanish Branch Carretera de Rubi 78-80-Apdo.420, 08190 Sant Cugat del Valles (Barcelona), Spain Tel: +34-935-65-3131
France	Mitsubishi Electric Europe B.V. French Branch 25, Boulevard des Bouvets, 92741 Nanterre Cedex, France Tel: +33-1-55-68-55-68
Czech	Mitsubishi Electric Europe B.V. Czech Branch Avenir Business Park, Radlicka 751/113e, 158 00 Praha 5, Czech Republic Tel: +420-251-551-470
Turkey	Mitsubishi Electric Turkey A.S. Umraniye Branch Serifali Mahallesi Nutuk Sokak No.5, TR-34775 Umraniye / Istanbul, Turkey Tel: +90-216-526-3990
Poland	Mitsubishi Electric Europe B.V. Polish Branch ul. Krakowska 50, 32-083 Balice, Poland Tel: +48-12-347-65-00
Russia	Mitsubishi Electric (Russia) LLC St. Petersburg Branch Piskarevsky pr. 2, bld 2, lit "Sch", BC "Benusa", office 720; RU-195027 St. Petersburg, Russia Tel: +7-812-833-3497
South Africa	Adroit Technologies 20 Waterford Office Park, 189 Wilkopp Road, Fourways, Johannesburg, South Africa Tel: +27-11-658-8100
China	Mitsubishi Electric Automation (China) Ltd. No.1386 Hongqiao Road, Mitsubishi Electric Automation Center, Shanghai, China Tel: +86-21-2322-3030
Taiwan	SETSUYO ENTERPRISE CO., LTD. 6F, No.105, Wugong 3rd Road, Wugu District, New Taipei City 24889, Taiwan Tel: +886-2-2299-2499
Korea	Mitsubishi Electric Automation Korea Co., Ltd. 7F-9F, Gangseo Hangang Xi-tower A, 401, Yangcheon-ro, Gangseo-Gu, Seoul 07528, Korea Tel: +82-2-3860-9500
Singapore	Mitsubishi Electric Asia Pte. Ltd. 307 Alexandra Road, Mitsubishi Electric Building, Singapore 159943 Tel: +65-6473-2308
Thailand	Mitsubishi Electric Factory Automation (Thailand) Co., Ltd. 12th Floor, SV City Building, Office Tower 1, No. 896/19 and 20 Rama 3 Road, Kwaeng Bangpoo, Khet Yama, Bangkok 10120, Thailand Tel: +66-2882-6522 to 31
Indonesia	PT. Mitsubishi Electric Indonesia Gedung Jaya 11th Floor, Jl. MH. Thamrin No.12, Jakarta Pusat 10340, Indonesia Tel: +62-21-3192-6461
Vietnam	Mitsubishi Electric Vietnam Co., LTD. Ho Chi Minh Head Office Unit 01-04, 10th Floor, Vincom Center, 72 Le Thanh Ton Street, District 1, Ho Chi Minh City, Vietnam Tel: +84-8-3910-5945
India	Mitsubishi Electric India Pvt. Ltd. Pune Branch Emerald House, EL-3, J Block, M.I.D.C., Bhosari, Pune - 411026, Maharashtra, India Tel: +91-20-2710-2000
Australia	Mitsubishi Electric Australia Pty. Ltd. 348 Victoria Road, P.O. Box 11, Rydalmere, N.S.W. 2116, Australia Tel: +61-2-9684-7777

## MITSUBISHI ELECTRIC CORPORATION

HEAD OFFICE: TOKYO BUILDING, 2-7-3 MARUNOUCHI, CHIYODA-KU, TOKYO 100-8310, 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, June 2019.