

GRAPHIC OPERATION TERMINAL

GOT2000

GOT2000 Series User's Manual (Hardware)












- GT27 model
- GT25 model
- GT25 open frame model
- GT25 wide model
- GT25 rugged model
- GT23 model
- GT21 model
- GT21 wide model
- Handy GOT

Abbreviations, Generic Terms, and Model Icons

The following shows the abbreviations, generic terms, and model icons used in this manual.

GOT

■GOT2000 series

Abbreviations and generic terms			Description	Meaning of icon			
				Available	Unavailable		
GT27	GT27-X	GT2715-X	GT2715-XTBA GT2715-XTBD				
	GT27-S	GT2712-S	GT2712-STBA GT2712-STWA GT2712-STBD GT2712-STWD				
		GT2710-S	GT2710-STBA GT2710-STBD				
		GT2708-S	GT2708-STBA GT2708-STBD				
	GT27-V	GT2710-V	GT2710-VTBA GT2710-VTWA GT2710-VTBD GT2710-VTWD				
		GT2708-V	GT2708-VTBA GT2708-VTBD				
		GT2705-V	GT2705-VTBD				
GT25			All GT25 models				
GT25	GT25-W	GT2512-WX	GT2512-WXTBD GT2512-WXTSD				
		GT2510-WX	GT2510-WXTBD GT2510-WXTSD				
		GT2507-W	GT2507-WTBD GT2507-WTSD				
		GT2507T-W	GT2507T-WTSD				
	GT25-S	GT2512-S	GT2512-STBA GT2512-STBD				
		GT2512F-S	GT2512F-STNA GT2512F-STND				
	GT25-V	GT2510-V	GT2510-VTBA GT2510-VTWA GT2510-VTBD GT2510-VTWD				
		GT2510F-V	GT2510F-VTNA GT2510F-VTND				
		GT2508-V	GT2508-VTBA GT2508-VTWA GT2508-VTBD GT2508-VTWD				
		GT2508F-V	GT2508F-VTNA GT2508F-VTND				
		GT2505-V	GT2505-VTBD				
	GT25HS-V Handy GOT	GT2506HS-V	GT2506HS-VTBD				
		GT2505HS-V	GT2505HS-VTBD				
	GT23	GT23-V	GT2310-V			GT2310-VTBA GT2310-VTBD	
GT2308-V			GT2308-VTBA GT2308-VTBD				

Classification	Model	Screen size	Display section Display color	Front panel color	Power supply	Remarks		
GT27	GT2715	GT2715-XTBA	15" XGA	TFT color 65536 colors	Black	AC	Multimedia Video/RGB compatible Multi-touch compatible	
		GT2715-XTBD				DC		
	GT2712	GT2712-STBA	12.1" SVGA		Black	AC		
		GT2712-STBD				DC		
		GT2712-STWA			White	AC		
		GT2712-STWD ^{*1*2}				DC		
	GT2710	GT2710-STBA	10.4" SVGA		Black	AC		
		GT2710-STBD	10.4" VGA			DC		
		GT2710-VTBA				AC		
		GT2710-VTBD				DC		
		GT2710-VTWA			White	AC		
		GT2710-VTWD ^{*1*2}	DC					
	GT2708	GT2708-STBA	8.4" SVGA		Black	AC		
		GT2708-STBD	8.4" VGA			DC		
		GT2708-VTBA				AC		
		GT2708-VTBD				DC		
GT2705	GT2705-VTBD	5.7" VGA		Black	DC	Multi-touch compatible		
GT25	GT2512	GT2512-STBA	12.1" SVGA	TFT color 65536 colors	Black	AC	—	
		GT2512-STBD				DC		
		GT2512F-STNA			—	AC	Open frame model	
		GT2512F-STND				DC		
	GT2510	GT2510-VTBA	10.4" VGA		Black	AC	—	
		GT2510-VTBD				DC		
		GT2510-VTWA			White	AC		
		GT2510-VTWD ^{*1*2}				DC		
		GT2510F-VTNA			—	AC		Open frame model
		GT2510F-VTND				DC		
	GT2508	GT2508-VTBA	8.4" VGA		Black	AC	—	
		GT2508-VTBD				DC		
		GT2508-VTWA			White	AC		
		GT2508-VTWD ^{*1*2}				DC		
		GT2508F-VTNA			—	AC		Open frame model
		GT2508F-VTND				DC		
GT2505	GT2505-VTBD	5.7" VGA	Black	DC	—			
GT25 (Wide screen)	GT2512	GT2512-WXTBD	12.1" WXGA	TFT color 65536 colors	Black	DC	Wide model	
		GT2512-WXTSD						Silver ^{*3}
	GT2510	GT2510-WXTBD			10.1" WXGA			Black
		GT2510-WXTSD						Silver ^{*3}
	GT2507	GT2507-WTBD			7" WVGA			Black
		GT2507-WTSD						Silver ^{*3}
GT25 (Rugged)	GT2507	GT2507F-WTSD	7" WVGA	TFT color 65536 colors	Silver	DC	Rugged model	
GT25 (Handy)	GT2506	GT2506HS-VTBD	6.5" VGA	TFT color	Black	DC	Handy GOT	
	GT2505	GT2505HS-VTBD	5.7" VGA	65536 colors				
GT23	GT2310	GT2310-VTBA	10.4" VGA	TFT color 65536 colors	Black	AC	—	
		GT2310-VTBD				DC		
	GT2308	GT2308-VTBA	8.4" VGA			AC		
		GT2308-VTBD				DC		

CC-Link IE Field Network communication unit set

Classification	Model	Screen size	Display section Display color	Front panel color	Power supply	Remarks		
GT27	GT2715	GT2715-XTBA-GF	15" XGA	TFT color 65536 colors	Black	AC	GOT + GT15-J71GF13-T2	
		GT2715-XTBD-GF				DC		
	GT2712	GT2712-STBA-GF	12.1" SVGA		Black	AC		
		GT2712-STBD-GF				DC		
		GT2712-STWA-GF			White	AC		
		GT2712-STWD-GF			White	DC		
	GT2710	GT2710-STBA-GF	10.4" SVGA		Black	AC		
		GT2710-STBD-GF	10.4" VGA			DC		
		GT2710-VTBA-GF			AC			
		GT2710-VTBD-GF			DC			
		GT2710-VTWA-GF			White	AC		
		GT2710-VTWD-GF	White		DC			
	GT2708	GT2708-STBA-GF	8.4" SVGA		Black	AC		
		GT2708-STBD-GF	8.4" VGA			DC		
		GT2708-VTBA-GF			AC			
		GT2708-VTBD-GF			DC			
	GT2705	GT2705-VTBD-GF			5.7" VGA	Black		DC
GT25	GT2512	GT2512-STBA-GF	12.1" SVGA	TFT color 65536 colors	Black	AC	GOT + GT15-J71GF13-T2	
		GT2512-STBD-GF				DC		
	GT2510	GT2510-VTBA-GF			10.4" VGA	Black		AC
		GT2510-VTBD-GF						DC
		GT2510-VTWA-GF				White		AC
		GT2510-VTWD-GF				White		DC
	GT2508	GT2508-VTBA-GF			8.4" VGA	Black		AC
		GT2508-VTBD-GF						DC
		GT2508-VTWA-GF				White		AC
		GT2508-VTWD-GF				White		DC

GT2508-V, GT2508F-V

Item		Specifications		
		GT2508-VTBA GT2508-VTBD	GT2508-VTWA GT2508-VTWD	GT2508F-VTNA GT2508F-VTND
Display section ^{*1*2}	Display device	TFT color LCD		
	Screen size	8.4"		
	Resolution	VGA: 640 × 480 dots		
	Display size	170.9 (6.73) (W) × 128.2 (5.05) (H) mm (inch)		
	Number of displayed characters	16-dot standard font: 40 characters × 30 lines (two-byte characters) 12-dot standard font: 53 characters × 40 lines (two-byte characters)		
	Display color	65536 colors		
	Brightness Adjustment	32 levels		
	Backlight	LED (Not replaceable)		
	Backlight life ^{*4}	Approx. 60000 h (Ambient temperature: 25°C, display intensity: 50%)		
Touch panel ^{*3}	Type	Analog resistive film		
	Key size	Minimum 2 × 2 dots ^{*8} (per key)		
	Simultaneous press	Not available ^{*5} (Only 1 point can be touched.)		
	Life	1 million touches or more (Operating force: 0.98 N or less)		
Human sensor	Detection length	—		
	Detection temperature	—		
User memory	User memory capacity	Memory for storage (ROM): 32 MB, Memory for operation (RAM): 80 MB		
	Life (number of write times)	100000 times		
Built-in clock precision	±90 seconds/month (Ambient temperature: 25 °C)			
Battery		GT11-50BAT lithium battery		
	Life	Approx. 5 years (Ambient temperature: 25 °C)		
Built-in interface	RS-232	1 channel, transmission speed: 115200, 57600, 38400, 19200, 9600, 4800 bps Connector shape: D-sub 9-pin (male)		
	RS-422/485	1 channel, transmission speed: 115200, 57600, 38400, 19200, 9600, 4800 bps Connector shape: D-sub 9-pin (female)		
	Ethernet	1 channel Data transfer method: 100BASE-TX, 10BASE-T Connector shape: RJ45 (modular jack) AUTO MDI/MDI-X		
	USB (Host)		2 channels (front face and rear face)	1 channel (rear face)
			USB 2.0 (High-Speed 480 Mbps), Connector shape: USB-A	
	USB (Device)		1 channel (front face)	1 channel (rear face)
			USB 2.0 (High-Speed 480 Mbps), Connector shape: USB Mini-B	
	SD card	1 channel, SDHC compliant (maximum 32 GB)		
	Extension interface	For installing a communication unit or an option unit		
	Auxiliary extension interface	—		
Side interface	For installing a communication unit			
Buzzer output	Single tone (tone and tone length adjustable)			
POWER LED	2 colors (blue and orange)			
Protective structure	Front: IP67F ^{*6*9} In control panel: IP2X		Front: IP67F ^{*7*9} In control panel: IP2X	
External dimensions	241 (9.49) (W) × 194 (7.64) (H) × 52 (2.05) (D) mm (inch)		236 (9.29) (W) × 185 (7.28) (H) × 54 (2.13) (D) mm (inch)	
Panel cutting dimensions	227 (8.94) (W) × 176 (6.93) (H) mm (inch)		194 (7.64) (W) × 158 (6.22) (H) mm (inch)	
Weight (excluding a fitting)	1.5 (3.3) kg (lb)		1.5 (3.3) kg (lb)	
Compatible software package	GT Works3 Version1.112S or later		GT Works3 Version1.150G or later	

GT25-S, GT25-V



Input power supply 100 V AC to 240 V AC

Item	Specifications			
	GT2512-STBA GT2512F-STNA	GT2510-VTBA GT2510-VTWA GT2510F-VTNA	GT2508-VTBA GT2508-VTWA GT2508F-VTNA	
Power supply voltage	100 V AC to 240 V AC (+10%, -15%)			
Power supply frequency	50 Hz/60 Hz (±5%)			
Maximum apparent power	80 VA	80 VA	70 VA	
Power consumption	Under the maximum load	35 W or less	34 W or less	31 W or less
	Main unit	14 W	12 W	11 W
	Main unit (Backlight OFF)	7 W	7 W	7 W
Inrush current	60 A or less (2 ms, ambient temperature: 25 °C, under the maximum load)			
Permissible instantaneous power failure time	20 ms or less (100 V AC or more)			
Noise immunity	Noise voltage: 1500 Vp-p, noise width: 1 μs, measured by a noise simulator with noise frequency ranging from 25 Hz to 60 Hz			
Withstand voltage	1500 V AC for 1 minute across power terminals and earth			
Insulation resistance	500 V DC across power terminals and earth, 10 MΩ or more by an insulation resistance tester			
Applicable wire size	0.75 mm ² to 2 mm ²			
Applicable solderless terminal	Solderless terminal for M3 screw RAV1.25-3, V2-S3.3, V2-N3A, FV2-N3A			
Applicable tightening torque (Terminal block terminal screw)	0.5 N·m to 0.8 N·m			

Input power supply 24 V DC

Item	Specifications			
	GT2512-STBD GT2512F-STND	GT2510-VTBD GT2510-VTWD GT2510F-VTND	GT2508-VTBD GT2508-VTWD GT2508F-VTND	GT2505-VTBD
Power supply voltage	24 V DC (+25%, -20%)			24 V DC (+10%, -15%)
Power consumption	Under the maximum load	37 W or less	33 W or less	31 W or less
	Main unit	13 W	10 W	8 W
	Main unit (Backlight OFF)	6 W	6 W	6 W
Inrush current	5 A or less (20 ms, ambient temperature: 25 °C, under the maximum load)			42 A or less (2 ms, operating ambient temperature 25, maximum load)
Permissible instantaneous power failure time	10 ms or less			
Noise immunity	Noise voltage: 500 Vp-p, noise width: 1 μs, measured by a noise simulator with noise frequency ranging from 25 Hz to 60 Hz			Noise voltage: 1000 Vp-p, noise width: 1 μs, measured by a noise simulator with noise frequency ranging from 30 Hz to 100 Hz
Withstand voltage	350 V AC for 1 minute across power terminals and earth			500 V AC for 1 minute across power terminals and earth
Insulation resistance	500 V DC across power terminals and earth, 10 MΩ or more by an insulation resistance tester			
Applicable wire size	0.75 mm ² to 2 mm ²			
Applicable solderless terminal	Solderless terminal for M3 screw RAV1.25-3, V2-S3.3, V2-N3A, FV2-N3A			
Applicable tightening torque (Terminal block terminal screw)	0.5 N·m to 0.8 N·m			

Part names and settings of GT25-S and GT25-V

No.	Name	Description
1)	Display section	Displays the utility and the user-created screen.
2)	Touch panel	For operating the touch switches in the utility and the user-created screen
3)	USB interface (Host/front)	For connecting a USB mouse, a USB keyboard, or a USB barcode reader, and transferring or saving data (Connector shape: USB-A) Applicable models: GT2512-STBA/D, GT2510-VTBA/D, GT2508-VTBA/D
4)	USB interface (Device/front)	For connecting a personal computer (Connector shape: USB Mini-B) Applicable models: GT2512-STBA/D, GT2510-VTBA/D, GT2508-VTBA/D, GT2505-V
5)	POWER LED	Lit in blue: Power is properly supplied. Lit in orange: Screen saving Blinks in orange and blue: Backlight failure Not lit: Power is not supplied. (For GT2512F-STNA/D, GT2510F-VTNA/D, and GT2508F-VTNA/D, you can check the LED status from the GOT rear face.)
7)	Unit installation fitting	Mounting fixtures for fixing the GOT to the control panel
8)	Reset switch	Hardware reset switch
9)	S.MODE switch *3	Used for OS installation at the GOT startup
10)	SD card access LED	ON: SD card installed Blink: SD card accessed OFF: SD card not installed or SD card installed but removal possible
11)	SD card interface (inside the cover)	For installing an SD card
12)	SD card cover	Has the function to switch the access to the SD card between enabled and disabled states. When the cover is opened: Access prohibited When the cover is closed: Access allowed
13)	Battery (inside the cover)	Space for housing the battery
14)	Side interface (inside the cover)	For installing a communication unit
15)	USB interface (Host/back)	For connecting a USB mouse, a USB keyboard, or a USB barcode reader, and transferring or saving data (Connector shape: USB-A)
16)	Cable clamp mounting hole	Cable clamp mounting hole as a precaution against a disconnection of the USB cable
17)	Terminating resistor setting switch (inside the cover)	• GT2512, GT2510, GT2508 Switches the terminating resistor for the RS-422/485 communication port between used and unused states (initial setting (unused)) • GT2505-V For switching the terminating resistor setting of the RS-422/485 communication port to 330 Ω, 110 Ω, or OPEN (Default: 330 Ω)
19)	Extension interface	For installing a communication unit or an option unit
20)	Vertical installation arrow mark	For the vertical installation, install the GOT so that the arrow points upward.
21)	Power terminal	Power input terminal, FG terminal, LG terminal *2
22)	Ethernet interface	For communicating with a controller or connecting a personal computer (Connector shape: RJ45 (modular jack))
23)	Ethernet communication status LED	SD/RD LED ON: Data sent or received SD/RD LED OFF: Data not sent or received SPEED LED ON: Communicating at 100 Mbps SPEED LED OFF: Communicating at 10 Mbps or disconnected
24)	RS-232 interface	For communicating with a controller (connector shape: D-sub 9-pin (male), #4-40UNC inch screw thread) For the pin layout of the connector, refer to the following.  GOT2000 Series Connection Manual (Mitsubishi Electric Products) For GT Works3 Version 1
25)	RS-422/485 interface	For communicating with a controller (connector shape: D-sub 9-pin (female), M2.6 metric screw thread) For the pin layout of the connector, refer to the following.  GOT2000 Series Connection Manual (Mitsubishi Electric Products) For GT Works3 Version 1
26)	USB interface (Device/back)	For connecting a personal computer (Connector shape: USB Mini-B) Applicable models: GT2512F-STNA/D, GT2510-VTWA/D, GT2510F-VTNA/D, GT2508-VTWA/D, GT2508F-VTNA/D
27)	Fitting installation hole	For fixing the fitting to the control panel Applicable models: GT2512F-STNA/D, GT2510F-VTNA/D, and GT2508F-VTNA/D
28)	Special fitting installation hole *1	For fixing the GOT to the control panel to comply with the ATEX directive and KCs regulation Applicable model: GT2510-VTWA/D
29)	Rating plate	—

System configuration

You can also check the EMC Directive compliance status of the GOT2000 series at the Mitsubishi Electric Factory Automation Global Website.

For the latest information, go to the Mitsubishi Electric Factory Automation Global Website.

www.MitsubishiElectric.com/fa

GOT

Use the following GOTs having a CE mark on the rating plate.

For how to check the hardware version of the GOT, refer to the following.

 Page 432 Confirming of Versions and Conforming Standards

○: Compliant ×: Not compliant

Product name	Model	Hardware version (Manufacture year and month)	EMC Directive
GT2715	GT2715-XTBA	Version A or later (April 2014)	○
	GT2715-XTBD		
GT2712	GT2712-STBA	Version A or later (August 2013)	○
	GT2712-STBD		
	GT2712-STWA		
	GT2712-STWD		
GT2710	GT2710-STBA		
	GT2710-STBD		
	GT2710-VTBA		
	GT2710-VTBD		
	GT2710-VTWA		
	GT2710-VTWD		
GT2708	GT2708-STBA		
	GT2708-STBD		
	GT2708-VTBA		
	GT2708-VTBD		
GT2705	GT2705-VTBD	Version A or later (April 2015)	○
GT2512	GT2512-WXTBD	Version A or later (January 2021)	○
	GT2512-WXTSD		
	GT2512-STBA	Version A or later (October 2014)	
	GT2512-STBD		
	GT2512F-STNA	Version A or later (January 2016)	
	GT2512F-STND		
GT2510	GT2510-WXTBD	Version A or later (April 2017)	○
	GT2510-WXTSD		
	GT2510-VTBA	Version A or later (April 2014)	○
	GT2510-VTBD		
	GT2510-VTWA		
	GT2510-VTWD		
	GT2510F-VTNA	Version A or later (January 2016)	
	GT2510F-VTND		
GT2508	GT2508-VTBA	Version A or later (April 2014)	○
	GT2508-VTBD		
	GT2508-VTWA		
	GT2508-VTWD		
	GT2508F-VTNA	Version A or later (January 2016)	
	GT2508F-VTND		