

GRAPHIC OPERATION TERMINAL  
**GOT2000** Series

User's Manual (Hardware)













# Abbreviations, Generic Terms, Model Icons

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

## ■1. GOT

### (1) GOT2000 series

Abbreviations and generic terms			Description	Meaning of icon	
				Support	Not support
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			
			All GT25 models		
GT25	GT25-W	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		
	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	Panel color	Power	Remarks	
GT27	GT2715	GT2715-XTBA	15" XGA	TFT color 65536 colors	Black	AC	Multimedia and 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 <sup>*1*2</sup>				DC		
	GT2710	GT2710-STBA	10.4" SVGA		Black	AC		
		GT2710-STBD	10.4" VGA			DC		
		GT2710-VTBA			White	AC		
		GT2710-VTBD				DC		
		GT2710-VTWA			White	AC		
		GT2710-VTWD <sup>*1*2</sup>	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 <sup>*1*2</sup>				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 <sup>*1*2</sup>				DC		
		GT2508F-VTNA			-	AC		Open frame model
		GT2508F-VTND				DC		
GT2505	GT2505-VTBD	5.7" VGA	Black	DC	-			
GT25 (Wide screen)	GT2510	GT2510-WXTBD	10.1" WXGA	TFT color 65536 colors	Black	DC	Wide model	
		GT2510-WXTSD			Silver <sup>*3</sup>			
	GT2507	GT2507-WTBD	7" WVGA		Black			
		GT2507-WTSD			Silver <sup>*3</sup>			
GT25 (Rugged)	GT2507	GT2507T-WTSD	7" WVGA	TFT color 65536 colors	Silver	DC	Rugged model	
GT25 (Handy)	GT2506	GT2506HS-VTBD	6.5" VGA	TFT color 65536 colors	Black	DC	Handy GOT	
	GT2505	GT2505HS-VTBD	5.7" VGA					

## 2.2.2 CC-Link IE Field Network communication unit set

Classification	Model	Screen size	Display section, Display color	Panel color	Power	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				DC	
	GT2710	GT2710-STBA-GF	10.4" SVGA		Black	AC	
		GT2710-STBD-GF				DC	
		GT2710-VTBA-GF	10.4" VGA			AC	
		GT2710-VTBD-GF				DC	
		GT2710-VTWA-GF			White	AC	
		GT2710-VTWD-GF				DC	
	GT2708	GT2708-STBA-GF	8.4" SVGA		Black	AC	
		GT2708-STBD-GF				DC	
GT2708-VTBA-GF		8.4" VGA	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				DC	
	GT2508	GT2508-VTBA-GF	8.4" VGA		Black	AC	
		GT2508-VTBD-GF				DC	
		GT2508-VTWA-GF			White	AC	
		GT2508-VTWD-GF				DC	

### 3.2.4 GT25-S, GT25-V

#### 1. GT2512-S, GT2512F-S

Item		Specifications		
		GT2512-STBA, GT2512-STBD	GT2512F-STNA, GT2512F-STND	
Display section *1*2	Display device	TFT color LCD		
	Screen size	12.1"		
	Resolution	SVGA: 800 × 600 dots		
	Display size	246(9.69) (W) × 184.5(7.26) (H) mm(inch)		
	Number of displayed characters	16-dot standard font: 50 characters × 37 lines (two-byte characters) 12-dot standard font: 66 characters × 50 lines (two-byte characters)		
	Display color	65536 colors		
	Brightness adjustment	32 levels		
	Backlight	LED (Not replaceable)		
	Backlight life *4	Approx. 60000 h (operating 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): 32MB, Memory for operation (RAM): 80MB		
	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: RJ-45 (modular jack)		
	USB (Host)	2 channels (Front face, rear face)	1 channel (rear face)	
		USB version: USB 2.0 (High-Speed 480 Mbps), Connector shape: USB-A		
	USB (Device)	1 channel (Front face)	1 channel (rear face)	
		USB version: 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		316(12.44) (W) × 246(9.69) (H) × 52(2.05) (D) mm(inch)	311(12.24)(W)×237(9.33)H×54(2.13)(D) mm(inch)	
Panel cut dimensions		302(11.89) (W) × 228(8.98) (H) mm(inch)	269(10.59)(W)×214(8.43)(H) mm(inch)	
Weight (Excluding installation fitting)		2.4(5.3) kg(lb)		
Compatible software package		GT Works3 Version1.122C or later	GT Works3 Version1.150G or later	

### 3.3.4 GT25-S, GT25-V

#### 1. GT25 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 <sup>2</sup> to 2 mm <sup>2</sup>			
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			

#### 2. GT25 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	8.4 W or less
	Main unit	13 W	10 W	8 W	4.3 W
	Main unit (Backlight OFF)	6 W	6 W	6 W	2.6 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.			1000 Vp-p noise voltage, 1s noise width (when measuring with a noise simulator under 30 to 100 Hz noise frequency)	
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 <sup>2</sup> to 2 mm <sup>2</sup>				
Applicable solderless terminal	Solderless terminal for M3 screw RAV1.25-3, V2-S3.3, V2-N3A, FV2-N3A				

## 8. 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
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 (Recommended product: RSG-130-V0 of KITAGAWA INDUSTRIES CO.,LTD.)
17)	Terminating resistor setting switch (inside the cover)	<ul style="list-style-type: none"> <li>GT2512, GT2510, GT2508 Switches the terminating resistor for the RS-422/485 communication port between used and unused states (initial setting (unused))</li> <li>GT2505 For switching the terminating resistor setting of the RS-422/485 communication port to 330 Ω, OPEN, or 110 Ω (Default: 330 Ω)</li> </ul>
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, LG terminal *2, FG terminal
22)	Ethernet interface	For communicating with a controller or connecting a personal computer (Connector shape: RJ-45 (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 communication with a controller (Connector shape: D-sub 9-pin (male))
25)	RS-422/485 interface	For communication with a controller (Connector shape: D-sub 9-pin (female))
26)	USB interface (Device/back)	For connecting a personal computer (Connector shape: USB Mini-B) Applicable models: GT2512F-STNA/D, GT2510F-VTNA/D, GT2510-VTWA/D, GT2508F-VTNA/D, GT2508-VTWA/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	-