MITSUBISHI ELECTRIC
Changes for the Better

Automating the World

FACTORY AUTOMATION

Graphic Operation Terminal
GOT SIMPLE Series New Product Release

Introducing the All-New 12.1" Widescreen Model

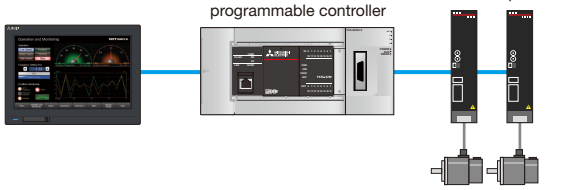
- **12.1 inch WXGA with easy-to-read screen**
- **USB device and POWER LED Installed on front of GOT**
- **Two Ethernet ports built-in**
- **Accelerate machine commissioning and startup with highly integrated drive control connectivity**
- **Monitor the status of different industrial devices simultaneously with multi-channel connections**
- **Built-in sound output function enables audio alerts from GOT**

Functions that solve manufacturing challenges

Servo connectivity

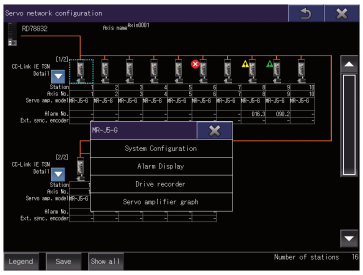
GOT Drive

The status of the servo amplifier can be checked using graphs and diagrams, and parameters can be set and adjusted. Easy preventive maintenance is also possible because the machine's deterioration and the appropriate time for part replacement can be predicted.



PickUp System Launcher Function

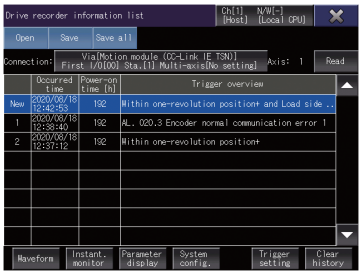
The status of servo amplifier connected to GOT can be checked from the graphical configuration diagram.



System launcher
(servo network configuration) screen

PickUp Drive Recorder Function

Servo data such as motor current and position command before and after the alarm occurrence can be read from the servo amplifier and displayed in a waveform or a list form.

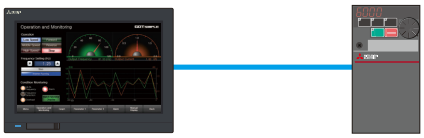


Drive recorder information list screen

Inverter connectivity

GOT Drive

Inverter parameter settings and current values such as output frequency can be monitored.

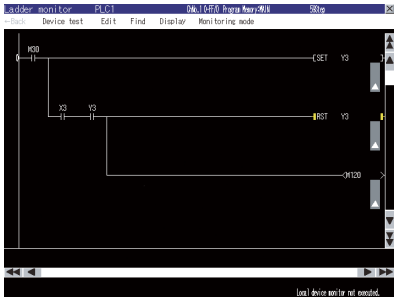


Controller connectivity

Data in programmable controller can be monitored and changed, and errors can be checked without using a personal computer. Controller connectivity functions improve the efficiency of on-site operations.

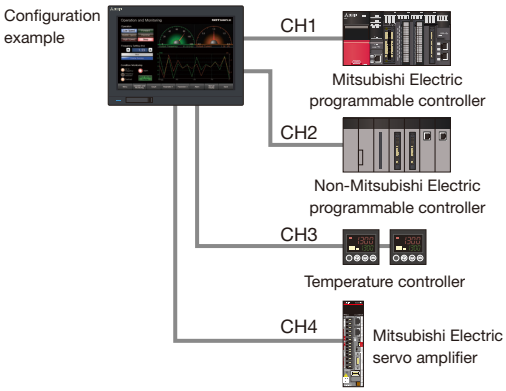
PickUp Ladder Monitor

By monitoring the ladder program, the cause of error can be identified without using a personal computer. Simple changes can also be made.



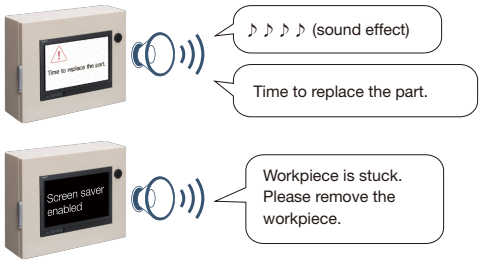
Multi-channel (four channels)

Up to four channels of industrial devices (programmable controller, servo, inverter, temperature controller, etc.) can be monitored with one GOT.



Sound Output Function and Speech Synthesis Function

GOT can be used to output sound data. Also, message sound file can easily be created by just entering text in GT Works3.



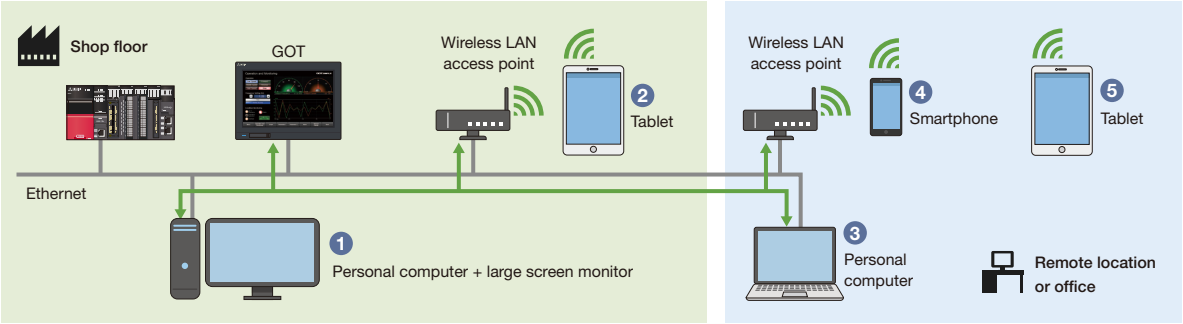
* GT Works Text to Speech License (SW1DND-GTVO-M) is required separately.

* Please refer to the manual for more details on supported products for GOT Drive and related functions

GOT Mobile Function*1 (+Wireless LAN)

Via GOT at the shop floor, connected devices can be monitored and controlled from computers, tablets, and other information devices in a remote location.

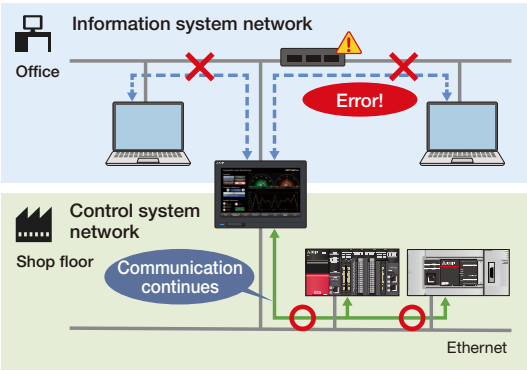
Simultaneous monitoring from five information devices (clients)



*1 The GOT Mobile function license (GT25-WEBSKEY-□) is required separately.

Ethernet Interface (two ports)

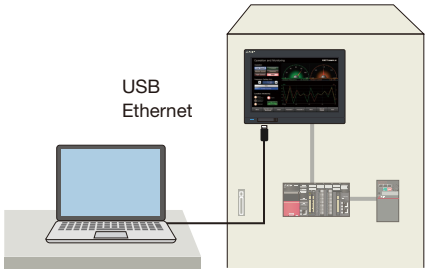
Two Ethernet ports physically separate the information system network in the office from the control system network at the shop floor.



FA Transparent

By connecting a personal computer to the front USB interface on the GOT, you can use the GOT as a transparent gateway to enable programming, startup, and adjustment of the industrial devices inside the cabinet.

There is no need to open the control panel and unplug cables to connect the PC directly.



GOT SIMPLE Series Specification Comparison

● : Supported, - : Not supported ◆...Option or license required

	Item		GS2512	GS21-W-N
Hardware specifications	Screen size		12.1" widescreen	10" widescreen 7" widescreen
	Resolution		WXGA	WVGA
	Memory	Memory for storage (ROM)	32MB	15MB
		Memory for operation (RAM)	128MB	–
	RS-232		●	●
	RS-422/485		●	●
	Ethernet		● 2 ports as standard	●
	USB host		● (rear face)	–
	USB device		● (front face)	● (rear face)
	SD memory card interface		●	●
	Sound output interface		●	–
Functions	System alarm display		●	–
	Alarm display (user)		●	●
	Alarm display (system)		●	–
	Document display ◆		●	–
	GOT Mobile function ◆		●	–
	VNC server function ◆		●	●
	Remote personal computer operation function (Ethernet) ◆		●	–

	Item	GS2512	GS21-W-N
Functions	Server function, Client function	●	–
	Mail send function	●	–
	Network drive function	●	–
	MES interface function ◆	●	–
	FA transparent	●	●
	SoftGOT-GOT link ◆	●	–
	Multi-channel function	● 4ch	● 2ch
	Sequence program monitor (Ladder) ◆	●	–
	Sequence program monitor (SFC) ◆	●	–
	Network monitor	●	–
	CC-Link IE TSN / CC-Link IE Field Network diagnostics	●	–
	Drive recorder	●	–
	Log viewer	●	–
	System launcher	●	–
	System launcher (servo network)	●	–
	Sound output function	●	–
	Speech synthesis function ◆	●	–

■GOT

Model	Screen size	Display section / Display color	Panel color	Power
GS2512-WXTBD	12.1" WXGA	TFT color / 65536 colors	Black	24 V DC

■Options

Product name	Model	Specifications
USB environmental protection cover	GT21-WUCOV	Environmental protection cover for the USB interface on the GOT front face (for replacement)
Panel Mount HMI Speaker*1	FA1-GT0S04W	Items includes in product package: speaker, audio cable (1 m), power supply connector, cable lamp, user's manual.

*1 For the details of the product, please contact MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED or the local sales office.

■Performance specifications

Item		Specifications
Display section *1*2	Display device	TFT color LCD
	Screen size	12.1" widescreen
	Resolution	WXGA:1280 × 800 dots
	Display size	261.12(10.28) (W) × 163.2(6.43) (H) mm(inch)
	Number of displayed characters	16-dot standard font: 80 characters × 50 lines (two-byte characters) 12-dot standard font: 106 characters × 66 lines (two-byte characters)
	Display color	65536 colors
	Brightness adjustment	32 levels
	Backlight*3	LED (not replaceable)
Touch panel *4*5	Type	Analog resistive film
	Key size	Minimum 2 × 2 dots*8 (per key)
	Simultaneous press	Not available*9 (Only 1 point can be touched)
	Life	1 million touches or more (operating force: 0.98 N or less)
Panel color		Black
User memory	User memory capacity	Memory for storage (ROM)*6: 32 MB Memory for operation (RAM): 128 MB
	Life (number of write times)	100000 times
Built-in clock precision		±90 seconds/month (ambient temperature: 25 °C)
Battery		GT11-50BAT lithium battery
	Data to be backed up	SRAM data, clock data, system status log data
	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	2 channel Data transfer method: 100BASE-TX, 10BASE-T Connector shape: RJ45 (modular jack) AUTO MDI/MDI-X
	USB (host)	1 channel (rear face) USB version: USB 2.0 (High-Speed 480 Mbps) Connector shape: USB-A
	USB (device)	1 channel (front face) USB version: USB 2.0 (High-Speed 480 Mbps) Connector shape: USB Mini-B
	SD memory card*6	1 channel, SDHC compliant (maximum 32 GB)
	Sound output interface	1 channel, WAV format (16 bits, 8.000 kHz/16.000 kHz, monoral) Applicable plug: Φ3.5 stereo mini-plug (3-prong)
Buzzer output		Single tone (tone and tone length adjustable)
POWER LED		2 colors (blue and orange)
Protective structure*7		Front: IP67F*10*11 Inside control panel: IP2X
Safety standards, radio laws (as of June 2023)		CE, UKCA, UL, cUL, KC
External dimensions		299(11.77) (W) × 219(8.62) (H) × 48(1.89) (D) mm(inch)
Panel cut dimensions		290.5(11.44) (W) × 210.5(8.29) (H) mm(inch)
Weight (excluding a fitting)		1.7(3.7) kg(lb)
Compatible software package		GT Works3 Version 1.290C or later

*1 As a characteristic of liquid crystal display panels, bright dots (always lit) and dark dots (never lit) may appear on the panel. Since liquid crystal display panels comprise a great number of display elements, the appearance of bright and dark dots cannot be reduced to zero. Individual differences in liquid crystal display panels may cause differences in color, uneven brightness and flickering. Note that these phenomena are characteristics of liquid crystal display panels and it does not mean the products are defective or damaged.
*2 Flickering may occur due to vibration, shock, or the display colors.
*3 To prevent the display section from burning in and lengthen the backlight life, enable the screen save function and turn off the backlight.
*4 When a stylus is used, the touch panel has a life of 100 thousand touches. The stylus must satisfy the following specifications.
· Material: polyacetal resin · Tip radius: 0.8 mm or more
*5 Repeatedly touching the outer edge of the actual display area may cause the product to fail.
*6 While writing data to the memory for storage (ROM) or an SD memory card, if GOT is powered off, the data may be corrupted which may cause the GOT to stop operating.
*7 Note that the structure does not guarantee protection in all users' environments. The GOT may not be used in certain environments where it is subjected to splashing oil or chemicals for a long period of time or soaked in oil mist.
*8 The minimum size of a key that can be arranged.To ensure safe use of the product, the following settings are recommended.
· Key size: 16 × 16 dots or larger · Distance between keys: 16 dots or more
*9 If you touch two points or more simultaneously on the touch panel, a switch in an unintended location may operate. Do not touch two points or more simultaneously on the touch panel.
*10 To conform to IP67F, close the USB environmental protection cover by pushing the USB mark firmly. (The GOT conforms to IP2X when the USB environmental protection cover is open.)
*11 The suffix "F" of IP67F is a symbol that indicates protection rate against oil. It is described in the Appendix of Japanese Industrial Standard JIS C 0920.

■Power supply specifications

Item		Specifications
Power supply voltage		24 V DC (+10%, -15%)
Power consumption	Under the maximum load	20 W or less
	Main unit	14 W
	Main unit (backlight OFF)	8 W
Inrush current		59 A or less (2 ms, ambient temperature: 25 °C, under the maximum load)
Permissible instantaneous power failure time		5 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
Withstand voltage		350 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

■General specifications

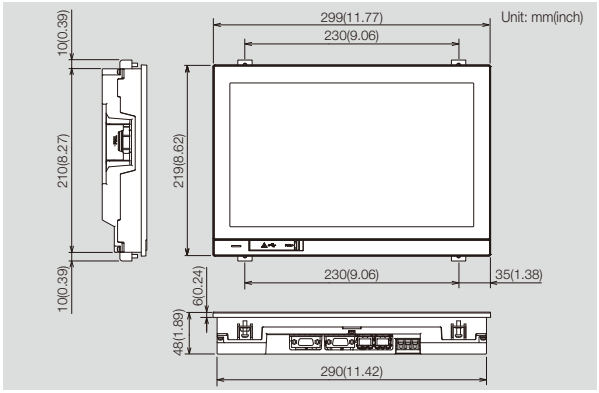
Item	Specifications
Operating ambient temperature*1	0 °C to 50 °C
Storage ambient temperature	-20 °C to 60 °C
Operating ambient humidity	10% RH to 90% RH, non-condensing
Storage ambient humidity	10% RH to 90% RH, non-condensing
Vibration resistance	Compliant with IEC 61131-2 *5: Under intermittent vibration: Frequency 5 to 8.4 Hz, Acceleration –, Half amplitude 3.5 mm, Sweep count 10 times in each X, Y, or Z direction; 8.4 to 150 Hz, 9.8 m/s², –, – Under continuous vibration: 5 to 8.4 Hz, –, 1.75 mm, –; 8.4 to 150 Hz, 4.9 m/s², –, –
Shock resistance	Compliant with IEC 61131-2*5 (147 m/s² (15 G), 3 times in each X, Y, or Z direction)
Operating atmosphere	No greasy fumes, corrosive gas, flammable gas, excessive conductive dust, and direct sunlight (as well as at storage)
Operating altitude*2	2000 m or less
Installation location	Inside control panel
Overvoltage category*3	II or less
Pollution degree*4	2 or less
Cooling method	Self-cooling
Grounding	Grounding with a ground resistance of 100 Ω or less by using a ground cable that has a cross -sectional area of 2 mm² or more. If impossible, connect the ground cable to the control panel.

*1 Includes the temperature inside the enclosure of the control panel to which the GOT is installed.
*2 Do not use or store the GOT under a pressure higher than the atmospheric pressure at altitude 0 m. Doing so may cause a malfunction. Air purging by applying pressure to the control panel may create clearance between the surface sheet and the touch panel. This may cause the touch panel to be not sensitive enough or the sheet to come off.
*3 This indicates the section of the power supply to which the equipment is assumed to be connected between the public electrical power distribution network and the machinery within the premises. Category II applies to equipment that is supplied with power from fixed facilities. The withstand surge voltage for the equipment with the rated voltage up to 300 V is 2500 V.
*4 This indicates the occurrence rate of conductive material in an environment where a device is used. Pollution degree 2 indicates an environment where only non-conductive pollution occurs normally and a temporary conductivity caused by condensation shall be expected depending on the conditions.
*5 The definition of 1 G has been changed from 9.8 m/s² to 10 m/s² in IEC 61131-2 ED.3. The product was tested by using the former definition, 1 G = 9.8 m/s².

Operate and store the GOT in environments without direct sunlight, high temperature, dust, humidity, and vibrations.

For the status of conforming to various standards and laws (CE, UKCA, ATEX, UL/cUL, KC, KCs), please contact your local sales office.

■External dimensions



⚠ Precautions for safe use

To use the products given in this publication properly, always read the relevant manuals before beginning operation.

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MITSUBISHI ELECTRIC CORPORATION

HEAD OFFICE: TOKYO BLDG., 2-7-3, MARUNOUCHI, CHIYODA-KU, TOKYO 100-8310, JAPAN
NAGOYA WORKS: 1-14, YADA-MINAMI 5, HIGASHI-KU, NAGOYA, JAPAN

Country/Region	Sales office
USA	+1-847-478-2100
Mexico	+52-55-3067-7500
Brazil	+55-11-4689-3000
China	+86-21-2322-3030
Taiwan	+886-2-2299-2499
Korea	+82-2-6103-9460
Singapore	+65-6473-2486
Malaysia	+60-3-7626-5000
Indonesia	+62-21-3192-6461
Vietnam	+84-28-3910-5945
Thailand	+66-2092-8600
Philippines	+63-(0)2-8256-8042
India	+91-20-4624-2100
Australia	+61-2-9684-7777
Germany	+49-2102-486-0
UK	+44-1707-28-8780
Italy	+39-039-60531
Spain	+34-935-65-3131
France	+33-1-55-68-55-68
Czech Republic	+420-734-402-587
Turkey	+90-216-969-2500
Poland	+48-12-347-65-00
South Africa	+27-11-658-8100

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