Autonics

Graphic Panel
GP-S044

M A N U A L

Thank you very much for selecting Autonics products.
For your safety, please read the following before using.

▣ Caution for your safety

※Please keep these instructions and review them before using this unit.

※Please observe the cautions that follow;

⚠**Warning** Serious injury may result if instructions are not followed.

⚠**Caution** Product may be damaged, or injury may result if instructions are not followed.

※The following is an explanation of the symbols used in the operation manual.
⚠ Caution:Injury or danger may occur under special conditions.

⚠ Warning

1. **Do not use on devices that require high safety and stability (ex: nuclear energy systems, power supply, medical devices, aircraft control devices, combustion devices, automobiles, riding, moving nparts, etc.)**
   It may cause a fire, human injury or property loss.
2. **For trains, ships, various safety devices, security devices, medical devices not directly related to life, and for applications that require reliability and safety, organize an alternative circuit by error-preventive design for overall system device.**
   It may cause a fire, human injury or property loss.
3. **In case using the Graphic Panel touch switch for controlling, do not use the switch as an emergency switches or those related to safety that may cause physical injury or property damage in the event of a malfunction.**
   It may cause a fire, human injury or property loss.
4. **In case controlling other devices through Graphic Panel telecommunication, and there is a possibility of malfunction due to telecommunication error, an alternative circuit must be constructed.**
   It may cause a fire, human injury or property loss.
5. **Do not use the product in an area or an environment not specified in the manual.**
   It may cause a fire, human injury or property loss.
6. **Do not connect, inspect or repair when power is on.**
   It may cause a fire or give an electric shock.
7. **Do not disassemble the case. Please contact us if it is required.**
   It may cause a fire or give an electric shock.
8. **Please use the rectified power with insulation trans.**
   It may cause a fire or give an electric shock.
9. **Do not use the power exceeded the rated voltage.**
   It may cause a fire or give an electric shock.
10. **Lithium battery is used in this product, do not disassemble or burn up.**
    It may cause an explosion or a fire.
11. **Wire properly after check power terminal polarity.**
    It may cause a fire or a malfunction.

⚠ Caution

1. **Please read all notes related to installation and wiring in the manual.**
   If this is not observed, electrical shock or malfunction may occur.
2. **Make sure the ground wire of Graphic Panel is wired separately from the ground wires of other devices. Ground resistance must be less than 100Ω, and a lead wire of which sectional area is over 1.25mm² should be used.**
   If this is not observed, electrical shock or malfunction may occur.
3. **When connecting Graphic Panel ports and constructing input/output, check the pin number and terminal block before connecting.**
   It may cause a fire or a malfunction.
4. **Please tighten bolt on terminal block with specified tightening torque.**
   It may cause a short circuit, fire or a malfunction.
5. **Do not press the surface of the touch panel with sharp or hard objects.**
   The touch panel may be damaged.
6. **Keep Graphic Panel at the specified temperature.**
   If stored at a temperature beyond the specification, damage may occur.
7. **Do not inflow dust or wire dregs into the unit.**
   It may cause a fire or a malfunction.
8. **Do not use in an area with excessive humidity or temperature.**
   The Logic Panel may malfunction, or its useful life may be shortened.
9. **Do not close ventilating opening of this product.**
   Malfunction may occur due to temperature increase.
10. **Keep the product out of direct sunlight or excessive dust.**
    The Logic Panel may malfunction, or its useful life may be shortened.
11. **Do not use or store in a place with shock or vibration.**
    The Logic Panel may malfunction, or its useful life may be shortened.
12. **When liquid crystal from the broken LCD is smeared with skin, wash it for 15 minutes. If it is gotten in the eye, wash it for 15 minutes and contact with the medical specialist for more information.**
13. **In cleaning unit, do not use water or an oil-based detergent and use dry towels.**
    It may cause an electric shock or a fire.
14. **Please separate as an industrial waste when disuse this unit.**
15. **To change the battery, contact the store or an authorized technician.**
16. **The manufacturer is not liable for damages that occur due to causes for which the manufacturer is not responsible, damages that occur due to an extraordinary situation, secondary damages, compensation for accidents, damages occurring on other products, compensation for other processes, and damage and loss of opportunity to the user due a malfunction of the product, regardless of the predictability of the accident.**
17. **Note that this device is KCC certified for commercial use. Make proper applications for the product.**

※The above specifications are subject to change without notice.

▣ Before using the product

To ensure proper usage of the product, please read the instruction manual and the manual related to the Graphic Panel before usage.

▣ Features

GP(Graphic Panel) is a function to monitor and display controller's operation on graphic screen.

- **Online software upgrade**
  Any changes or upgrade on GP firmware, GP editor, protocol, language and font are available at our website (**www.autonics.co.kr**).
  Download required program to upgrade your product.
  (1) Graphic Panel firmware file (2) GP Editor (3)Additional protocol
- **Monitroring different types of controllers**
  PLC port makes possible to monitor and control the variables of additionally connected controllers.
- **Multilingual support**
  Support for Korean, Japanese, English, and Chinese. Additional languages will be available later on.
- **Providing various bitmap and user-selectable fonts.**
  It provides various bitmap and user-selectable fonts.
- **Various multiple ports**
  Both RS232 2 port and RS 232/RS422 compound port provided. Device (PC/PLC/printer/barcode reader, etc.) to be connected in two serial ports easily selectable.
- **Device Monitoring function**
  GP monitor enables to monitor GP device connectable controller without graphic design data.
- **Alarm History is printable by connecting a printer and a barcode scanner.**
  Barcode can be read by connecting a barcode scanner.
- **Touch interface**
  Device value can be entered using the touch screen.
- **Various display functions**
  Various data display is available using diverse tags.
- **Suepr thin Size**
  38mm super thin size makes easy to utilize rear space.

▣ Ordering information

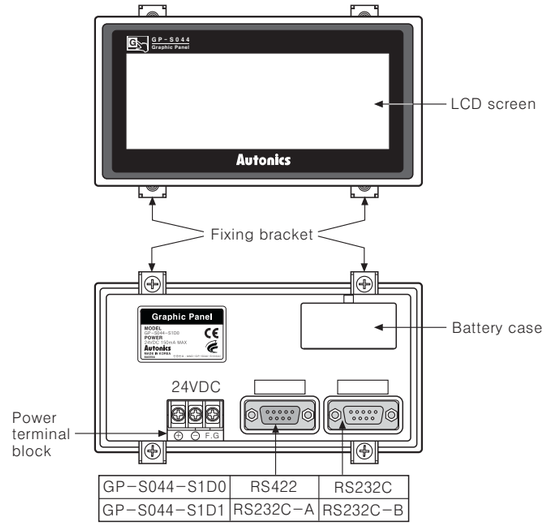
GP	-	S	044	S	1	D	0
①		②	③	④	⑤	⑥	⑦

① Item	GP	Graphic Panel
② Series	S	S series
③ Monitor size	044	4.4"
④ Display Unit	S	STN LCD
⑤ Color	1	MONO (BLUE)
⑥ Power Supply	D	24VDC
⑦ Telecommunications port	0	RS232C, RS422 (1each)
	1	RS232C (2)

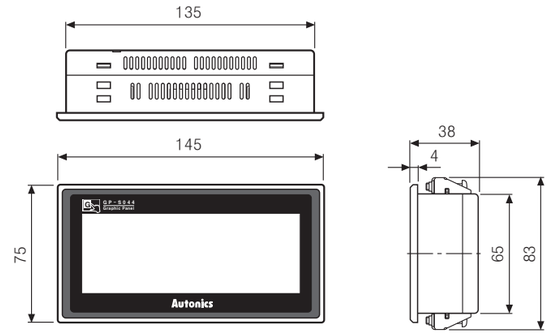
▣ Specifications

Model	GP-S044-S1D0	GP-S044-S1D1
Power supply	24VDC ±10%	
Power consumption	3.6W(Max.)	
LCD type	STN Blue Negative	
Resolution	240×80 dot	
Display area	112.78mm×37.58mm	
Color	Mono(Blue, White)	
Backlight	White LED	
Brightness	Adjustable by software	
Language	English, Korean	
Text	• High resolution display up to 400 letters • 6×8, 8×8 ASCII character, High quality view of numbers • 8×16 ASCII characters, 16×16 regional characters (1− 8 times bigger for width, 0.5−5 times bigger for height)	
Graphic drawing memory	512kB	
Number of user screen	500pages	
Serial interface	RS232C, RS422 ports	2 RS232C ports
Touch switch	Width 15×Height 4=60	
Battery life cycle	3 years at 25℃(Alarm for low battery warning)	
Ambient temperature	0 ~ 50℃(at non−freezing status)	
Storage temperature	−20 ~ 60℃(at non−freezing status)	
Ambient humidity	35~85%RH(at non−dew status)	
Insulated resistance	Min.100MΩ(at 500VDC)	
Ground	3rd grounding(Max.100Ω)	
Noise strength	The square wave noise (Pulse width 1㎲) by the noise simulator with ±500V R/S phase and repetition frequency 60Hz	
Dielectric strength	500VAC(50/60Hz) for a minute	
Vibration — Mechanical	0.75mm amplitude at frequency of 10~55Hz (for a minute) in each of X, Y, Z directions for an hour	
Vibration — Malfunction	0.5mm amplitude at frequency of 10~55Hz (for a minute) in each of X, Y, Z directions for 10 minutes	
Protection ratings	IP65F for front panel	
Accessory	Fixing bracket : 4pcs, Rubber waterproof ring, Battery included	
Approval	CE	
Unit weight	Approx.300g	

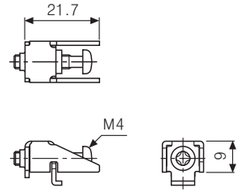
▣ Parts description



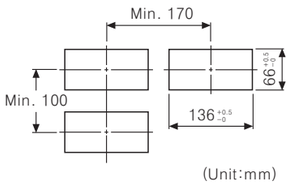
▣ Dimensions



●Fixing bracket



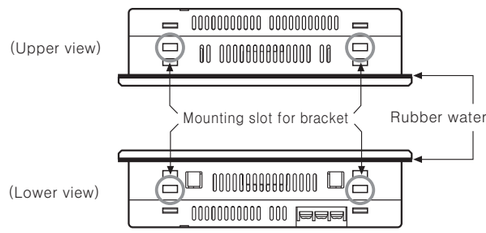
●Panel cut-out



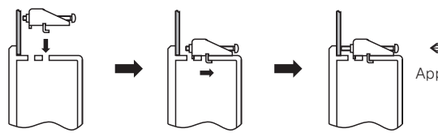
(Unit:mm)

▣ Installation

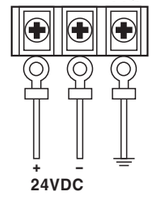
1. Set a rubber waterproof ring in GP.
2. Set GP in panel.
3. Set brackets in 4 bracket slots and fix them.



●Mounting bracket



▣ Power wiring

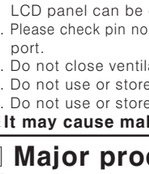


- Use a power line with at least 0.75mm² and a ground line with at least 1.25mm² of cross sectional area.
- Use crimp−on type ring terminal with at least 3mm of internal diameter and less than 6mm of external diameter.
- Do not apply power before power line connection.
- Check power polarity.
- Tighten terminal screw as 0.5 ~ 0.8N • m torque.
- Ground resistance should be less than 100Ω and ground it separately.

▣ Serial interface

- All devices connectable into GP including PC, PLC, Serial printer, barcode reader and dedicated connectors can be connected into both RS232C and RS422 ports.
- See "GP−2480 user manual" for proper connection in system configuration of GP and "GP−2480 Communication manual" for external device connection such as PLC.

Port	Pin		Port	Pin	
RS232C	1	Non−used	**RS422**	1	TXD+
	2	RXD		2	RXD+
	3	TXD		3	Non−used
	4	DTR		4	Non−used
	5	SG		5	SG
	6	DSR		6	TXD−
	7	Non−used		7	RXD−
	8	Non−used		8	Non−used
	9	Non−used		9	Non−used



▣ Software : GP Editor

Please visit our website(**www.autonics.com**) and download software and manual.

<Computer specification for using software>

Item	Minimum specification	Recommended specification
Operating system	Windows 98/NT/XP/Vista	Windows 98/NT/XP/Vista
Memory	256MB	512MB
Hard disk	1GB(Available space)	2GB(Available space)
Resolution	1024X768	1024X768

▣ Manual

- **GP user manual**
  Details on how to write screen data and GP HMI function are included.
- **Communication manual**
  See the "Communication manual" for more information about serial connection of external device, such as PLC.

▣ Battery replacement

- Please contact our distributor to replace battery.
- It may cause an explosion or a fire when improper battery is used.

▣ Cable

- For more reliable communication, it is recommended to use transmission cables for connecting to external devices (PLC). (Sold Separately)
- Please visit our website(www.autonics.com) and download transmission cable specifications.

▣ Caution for using

1. Do not press touch panel with hard and sharp object.
2. Please store the device in a place with recommended temperature range, or LCD panel can be damaged.
3. Please check pin no. in "Communication manual" for connecting communication port.
4. Do not close ventilating opening of this product.
5. Do not use or store in a place with direct ray of light or dust.
6. Do not use or store in a place with shock or vibration.

※It may cause malfunction if above instructions are not followed.

▣ Major products

■ Proximity sensors
■ Photoelectric sensors
■ Area sensors
■ Fiber optic sensors
■ Door/Door side sensors
■ Pressure sensors
■ Counters
■ Timers
■ Rotary encoders
■ Display units
■ Power controllers
■ Sensor controllers
■ Panel meters
■ Graphic/Logic panels
■ Temperature controllers
■ Tachometer/Pulse(Rate) meters
■ Temperature/Humidity transducers
■ Switching power supplies
■ Stepping motors/drivers/motion controllers
■ Field network devices
■ Laser marking system(CO_2, Nd:YAG)
■ Laser welding/soldering system

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