



Relay Output Option Card for the GP10 and VG10

Option Card Part Number
SOPCG11SRY

Saftronics, Inc.

5580 Enterprise Pkwy., Ft. Myers, FL 33905

Telephone: (239) 693-7200

Fax: (239) 693-2431

www.saftronics.com

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Preface

Thank you for purchasing our OPCG11SRY drive option card. Before using the option, read this manual carefully to understand how to use the option correctly. Improper use may result in abnormal operation, reduce product life, and possible failure. This manual does not describe how to use the Drive unit. Refer to the GP10/VG10 Instruction Manual for details about the drive unit. Keep this manual on hand for reference when using the option.

To use the Option Safely

Note the following items when using the option. Improper use may result in unexpected failure, electric shock, or possible injury.

(1) Installation and Wiring

WARNING

- Wait at least five minutes after turning off the power before installing or wiring the Drive option. Use a multi-meter or similar instrument to check the voltage before performing installation or wiring.
(Check whether the charge lamp goes off.), **as electric shock may occur**
- Discharge static electricity from your body before handling the Drive option. Never touch the Drive option with wet hands, **as accident or electric shock may occur**
- No foreign matter such as screws, metal patches, lint, chips, and dust in the Drive option.
There is risk of fire or accident.
- Do not damage or stress the wiring, **as accident or electric shock may occur.**

CAUTION

- Do not install or operate a damaged option or one that is lacking parts, **as injury may occur.**
- Since noise is generated by the Drive, motor, and wiring, carefully monitor surrounding sensors and devices for abnormal operation. **There is a risk of accident.**

(2) Operation

WARNING

- Check and adjust parameters before operation. Improper parameters may cause an unexpected action for some machines. **There is a risk of accident.**

CAUTION

- High-speed operation can be set easily for the Drive. Fully check motor or device performance before changing the setup, **as accident may occur.**

(3) Maintenance and Inspection, and Parts Replacement

WARNING

- Wait at least five minutes after turning off the power before inspecting the Drive option. (Check whether the charge lamp goes off.) **There is a risk of electric shock.**
Only authorized personal are allowed to maintain and inspect the Drive option and replace parts, **as electric shock or injury may occur.**
- Never modify the Drive option, **as electric shock or injury may occur.**

CAUTION

- Do not execute a megger test (insulation resistance measurement).

(4) Discard

CAUTION

- Since the Drive option uses soldering lead, treat it as an industrial waste when discarding it.

1 Before Using this Product

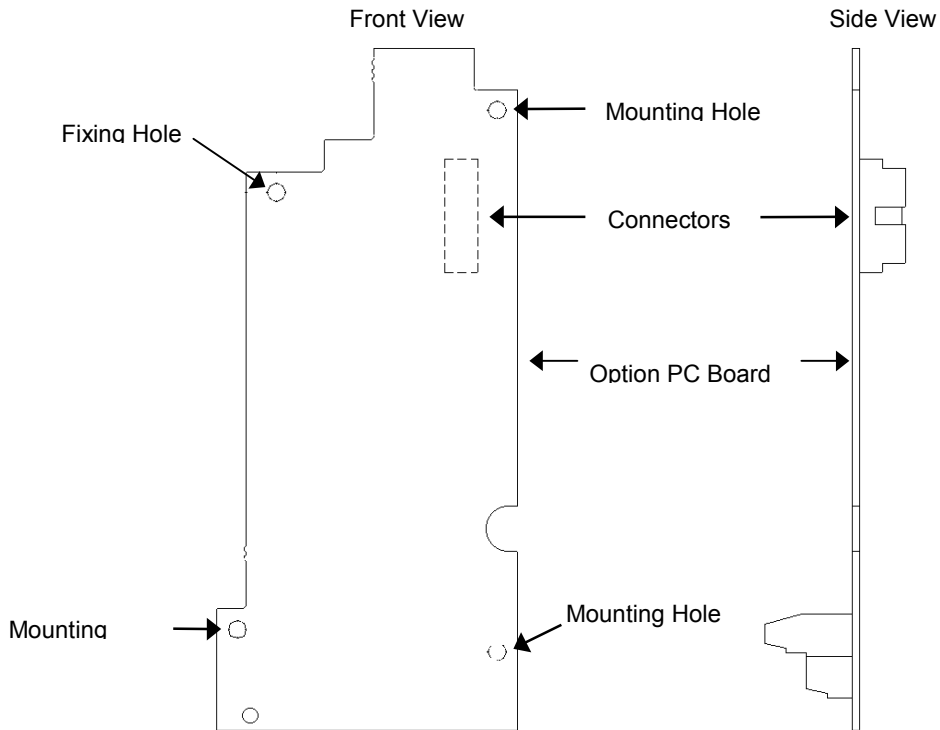
Check the items described below when you receive this product. Also check whether this product has been damaged during transport. If anything is amiss, contact your distributor or our nearest branch office.

1-1 Checking Accessories

Confirm that the following accessories are included in the package:

- 1. Instruction Manual 1
- 2. Accessories
 - 1) Mounting screw M3 x 6 1
 - 2) Supports 3

1-2 Product Appearance



Terminal Arrangement

	Y4C	Y3A	Y3B	Y2C	Y1A	Y1B	
Y4A	Y4B	Y3C	Y2A	Y2B	Y1C	NC	

2 Product Inquiries

2-1 Overview

The transistor output of control terminal Y1-Y4 is converted into relay output (1C).

2-2 Product Warranty

Warranty period is 12 months after installation or 18 months after shipment from the Company, whichever occurs first. However, the troubles caused by the following reasons are not covered by this warranty even in warranty period.

- (1) Problems caused by incorrect operation or by unauthorized repairs or modifications.
- (2) Problems resulting from using the Drive in the range outside the standard specification.
- (3) Damage to the Drive after purchase or during delivery.
- (4) Damage caused by earthquakes, fire, floods, lightning, abnormal voltage fluctuations or other natural disasters and secondary disasters.

3 Installation

3-1 Installation Environment

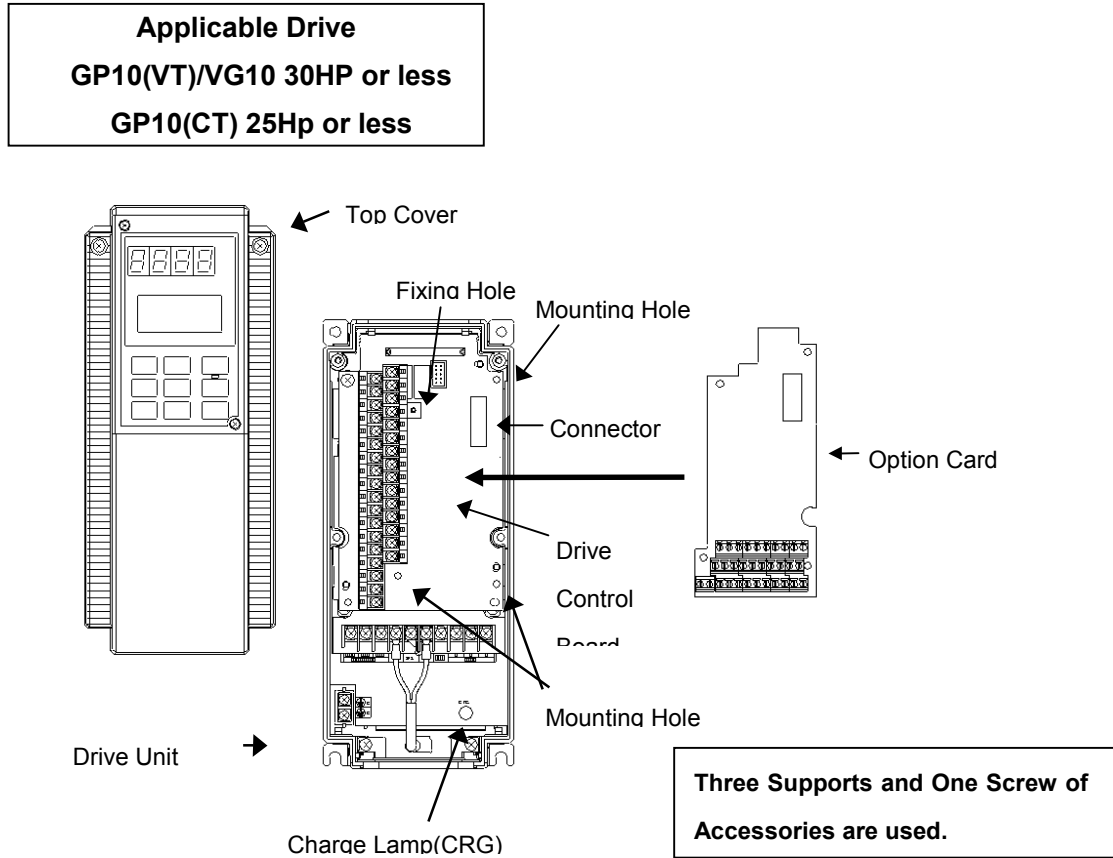
The installation environment for the Drive in which this product is being installed is listed Table 3-1-1 and Drive instruction book page 2-1.

Table 3-1-1 Installation Environment.

Item	Specifications	Remarks
Location	Indoors	—
Ambient temperature	-10 to 50°C(+14 to 122°F), -10 to 40°C(+14 to 104°F) for NEMA4/12 (Remove the ventilation cover of the Drive when the temperature exceeds +40°C (30HP or less).)	—
Ambient relative humidity	5 to 95%	—
Environment	The place should be away from direct sunlight and free from dust, corrosive gases, inflammable gases, oil mists, steam, dripping water or vibration. Salty environments should preferably be avoided. Avoid places where sudden changes in temperature occur which could cause condensation or freezing.	—
Altitude	Up to 3300 feet (1000m)	—

3-2 Installation Procedure

Before installing or removing the option, be sure to turn off input power to the Drive and confirm that the charge lamp (CHARGE or CRG) is off.



Step1

Remove the top cover, and insert the accessory supports into the three mounting holes on the Drive control Board.

Step2

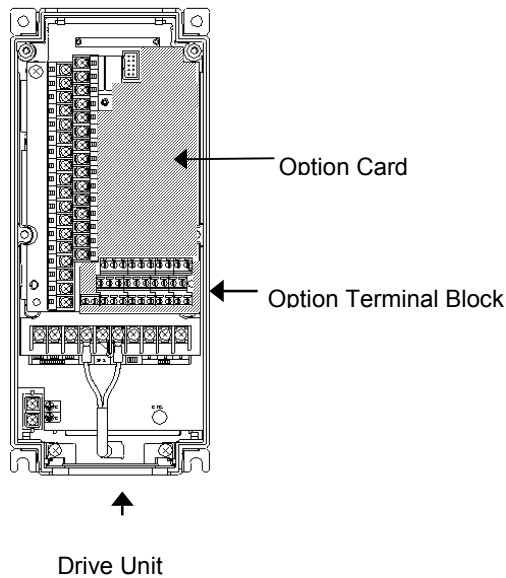
Set the supports inserted in step 1 on the option card, and insert the Drive control board connector to the option card connector. After that, check that you can see the nails of the supports on the option card.

Step3

Insert and tighten the screws (M3 x 6) in the fixing holes to secure the option card.

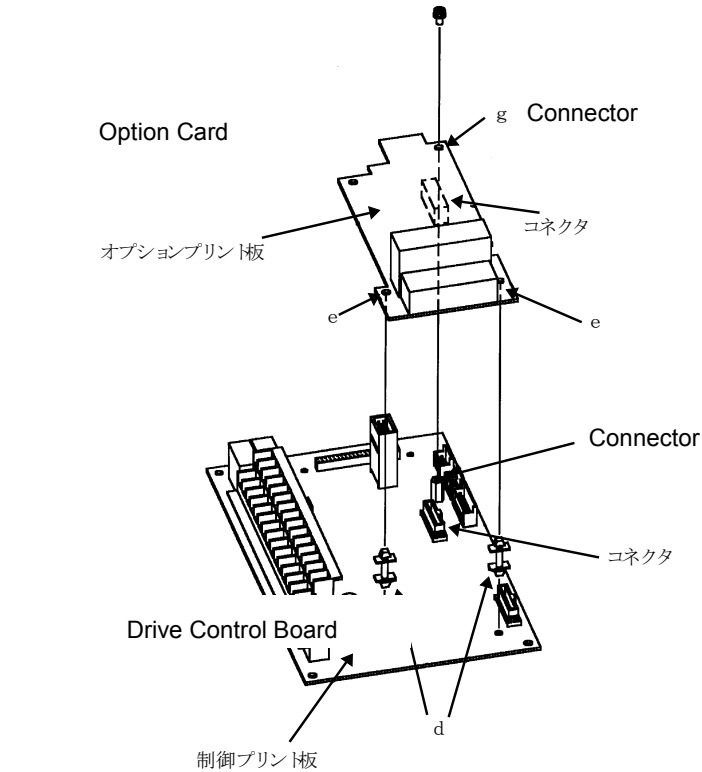
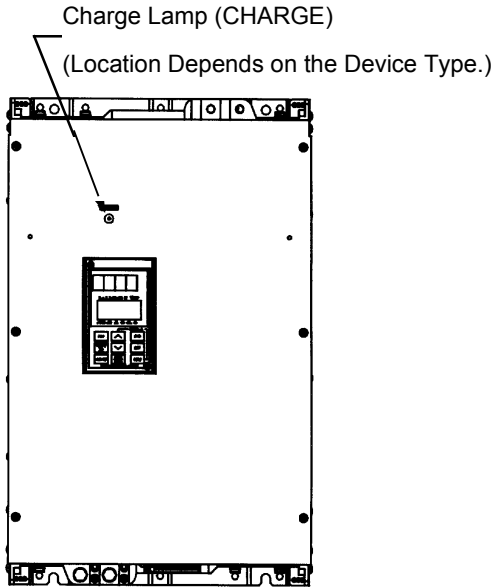
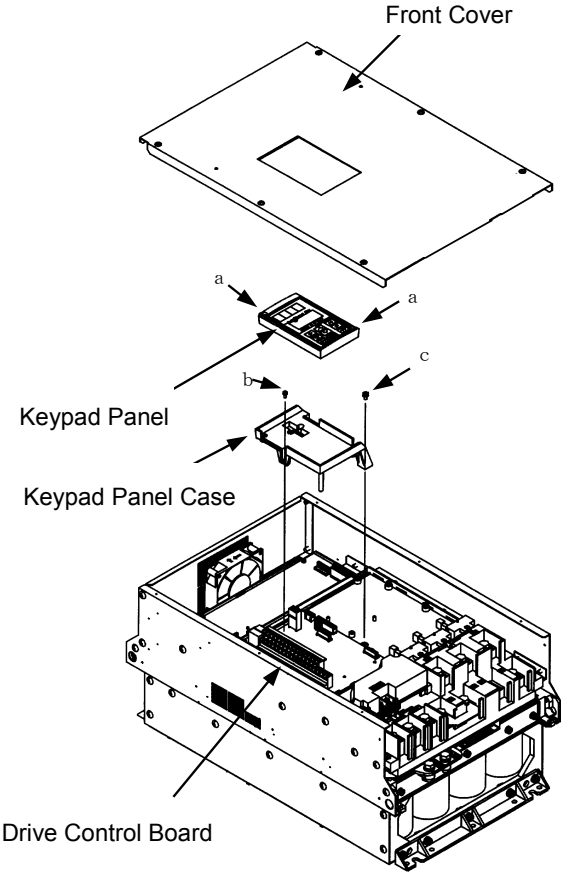
Step4

Confirm that the option card and all wires are installed correctly, then place the top cover of the Drive.



Applicable Drive
GP10(VT)/VG10 40HP or more
GP10(CT) 30HP or more

Two Supports and One Screw
of Accessories are used.



Step 1

Remove the front cover and loosen the two M3 screws (a) to remove the keypad panel.

Step 2

Remove one M3 screw (b) and one M4 screw (c) to remove the keypad panel case.

Step 3

Insert the two accessory supports (d) into the Drive control board.

Step 4

Insert the two supports (d) into the holes (e) on the option card. Align the support (f) with the hole (g) on the option card, then and insert one connector.

Step 5

Insert and tighten the accessory screws (M3 x 6) at (f) and (g) to secure the option card.

Step 6

Place the keypad panel and the front cover, then assemble the Drive as it was before.

3-3 Wiring

Screw size M3

Tightening torque 6.9 LB-inch/MAX

CAUTION

•Check the wiring again before operating the Drive. Improper wiring may cause unexpected Drive operation or device operation. **There is a risk of accident or injury.**

4 Specification

4-1 Function Explanation

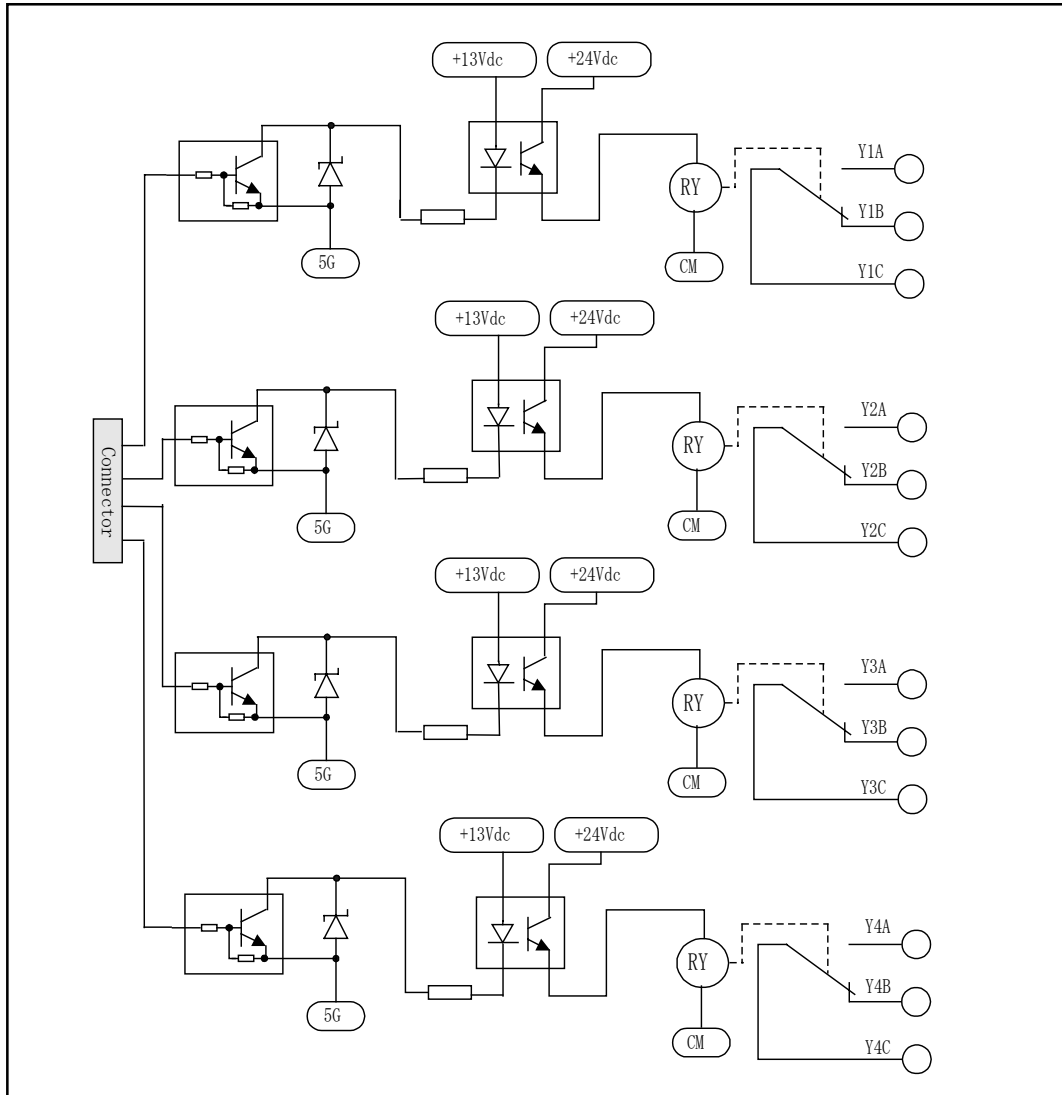
The transistor outputs of control terminal Y1-Y4 are converted into relay output(1C) .

Terminal	Function explanation
Y1A Y1B Y1C	Close between Y1A-Y1C when terminal Y1 is turned on
Y2A Y2B Y2C	Close between Y2A-Y2C when terminal Y2 is turned on
Y3A Y3B Y3C	Close between Y3A-Y3C when terminal Y3 is turned on
Y4A Y4B Y4C	Close between Y4A-Y4C when terminal Y4 is turned on

4-2 Electric Characteristic

Specification
AC250V 0.3A COS ϕ =0.3
DC48V 0.5A

4-3 Connected Chart



4-4 Terminal Agreement

	Y4C	Y3A	Y3B	Y2C	Y1A	Y1B	
Y4A	Y4B	Y3C	Y2A	Y2B	Y1C	NC	