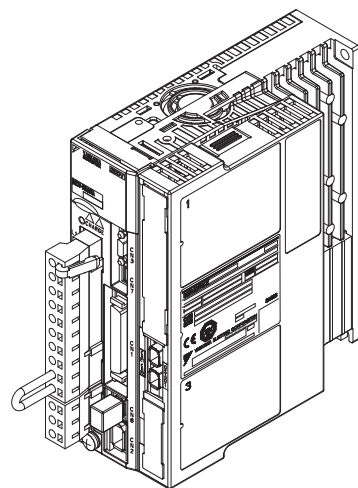


AC SERVOPACK
 Σ -V Series/
 Σ -V Series for Large-Capacity Models/
 Σ -7 Series
 Installation Guide
 Safety Module
 Safety Module Model: SGDV-OZA01A



MANUAL NO. TOBP C720829 06C

This installation guide explains how to mount the safety module onto the Σ -V, large-capacity Σ -V or Σ -7 Series SERVOPACK. Read this installation guide thoroughly as well as the safety precautions (Manual No.: TOBP C720829 00) included with the product.

General Precautions

- The drawings presented in this instructions are sometimes shown without covers or protective guards. Always replace the equipment's cover or protective guard as specified first, and then operate the products in accordance with the user's manual.
- The drawings presented in this instructions are typical examples and may not match the product you received.
- These instructions are subject to change due to product improvement, specification modification, and instructions improvement. When these instructions are revised, the instructions code is updated and the new instructions is published as a next edition.
- If the instructions must be ordered due to loss or damage, inform your nearest Yaskawa representative or one of the offices listed on the back of this instructions.
- Yaskawa will not take responsibility for the results of unauthorized modifications of this product. Yaskawa shall not be liable for any damages or troubles resulting from unauthorized modification.

Safety Information

- The following conventions are used to indicate precautions in these instructions.
- Failure to heed these precautions can result in serious or possibly even fatal injury or damage to the products or to related equipment and systems.

WARNING Indicates precautions that, if not heeded, could possibly result in loss of life or serious injury.

CAUTION Indicates precautions that, if not heeded, could result in relatively serious or minor injury, damage to the product, or faulty operation.

In some situations, the precautions indicated could have serious consequences if not heeded.

APPLICABLE SERVOPACKs

Σ -V Series, Large-Capacity Σ -V Series or Σ -7 Series Σ -7S Models

ITEMS REQUIRED FOR INSTALLATION

Package Contents

A-Board¹ B-Mounting screws for board (2) C-Nameplate (Ratings)

D-Nameplate (Model no.) E-Nameplate² (Component code)

*1: This board is an example and may differ from the received product.
 *2: Details of nameplates shown may differ from the received product. Refer to the user's manual to confirm correct details.

Additional Items (not included)

Option Case Kit* (Model: SGDV-OZA01A)

F-Mounting plate G-Mounting screws for plate (2) H-Module cover

I-SERVOPACK J-Phillips screwdriver K-Screwdriver

* : For large-capacity Σ -V SERVOPACKs, a kit is attached to the SERVOPACK.

INSTALLATION CONDITIONS

Install the module in the following environment.

- Cover the working area with a conductive or antistatic mat.
- This mat must be safely grounded with a resistor (1 M Ω ±20%).
- The surrounding air temperature must be between 0 and 55°C.
- Ambient humidity must be 90% RH or less (with no condensation).
- No extreme changes in temperature that can cause condensation
- Free from corrosive or flammable gases
- Free from dust, salts, or iron dust
- Not subject to water, oil, or chemicals
- No vibration and/or shock directly transmitted to the product

SAFETY PRECAUTIONS

Before starting

CAUTION

- Always wear an antistatic wrist strap that is safely grounded.
- Touch a safely grounded object to discharge any static electricity from your body.

Installation

CAUTION

- Install in the specified environment. Failure to observe this caution may result in malfunction.
- Disconnect all cables from the SERVOPACK before installing the board. Failure to observe this caution may result in malfunction.
- Do not apply any impact to the board. Failure to observe this caution may result in malfunction.
- Protect the board from moisture. Failure to observe this caution may result in malfunction.
- Do not touch the connector or electronic components on the board. Hold the board along its edges when installing. Failure to observe this caution may result in malfunction.
- Do not place any object on the board. Failure to observe this caution may result in malfunction.
- Avoid direct contact with any object that has not had antistatic treatment. Failure to observe this caution may result in malfunction.
- Make sure that your clothing is not in contact with the board. Failure to observe this caution may result in malfunction.
- Do not tighten the screws with excessive torque. The recommended tightening torque is 0.14 N·m ±10%. Tightening screws with excessive torque may damage screw threads and the spacer, resulting in deformation of the board.

INSTALLATION PROCEDURE

For large-capacity Σ -V SERVOPACKs, remove the module cover from the SERVOPACK and start with step 3.

Preparing the SERVOPACK

1. Fit the mounting plate (F) into the recess on the SERVOPACK (I), and fix the plate with the mounting screws (G). (Tightening torque: 0.14 N·m)

Back F-Mounting plate G-Mounting screws I-SERVOPACK

2. Remove the connector cover from the SERVOPACK.

Connector cover

Installing the Board

3. Hold both ends of the board (A) as shown in the illustration, and firmly insert the board connector into the connector port on the SERVOPACK.

Insert the board connector firmly into the connector port.

A-Board

4. Fix the board on the SERVOPACK with four screws. (Tightening torque: 0.14 N·m)

B-Mounting screws

Tighten this pre-attached screws as well.

Preparing the Module Cover

5. Remove one of the front covers (shown in the illustration) from the module cover (H) with a screwdriver (K).

Front cover (Remove only this cover.) H-Module cover K-Screwdriver

Insert a screwdriver here to remove the front cover.

6. Affix three nameplates (C, D, E) to the positions specified in illustration.

E D C

For details on where to affix the nameplate (E), refer to the user's manual.

The product is under warranty only when the nameplate (C) is attached.

C-Nameplate (Ratings)
 D-Nameplate (Model no.)
 E-Nameplate (Component code)

Mounting the Module Cover

7. Align the front end of the module cover (H) with the front panel of the SERVOPACK as shown in the illustration, and place the module cover so that you can view the installed board from the opening (where the front cover is removed) on the module cover.

Front panel H-Module cover I-SERVOPACK

8. Fix the module cover to the SERVOPACK by pushing in the retention clips on the left and right side of the module cover, while directing their angled end protrusions to enter the SERVOPACK.

Retention clip angled end protrusion

Retention clip

Push the clips in the direction indicated by the arrow so the clip will go into the SERVOPACK.

After Installing

Conduct a trial operation after the safety module has been properly installed on the SERVOPACK. For trial operation details, refer to the manual for SERVOPACK being used.
 Note : Before using the SERVOPACK, remove the safety function jumper connector from CN8.

If You Need to Send Us the Option Module for Service

Always leave the option module attached to the SERVOPACK when sending the option module to YASKAWA for service.

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 Installation Guide
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In the event that the end user of this product is to be the military and said product is to be employed in any weapons systems or the manufacture thereof, the export will fall under the relevant regulations as stipulated in the Foreign Exchange and Foreign Trade Regulations. Therefore, be sure to follow all procedures and submit all relevant documentation according to any and all rules, regulations and laws that may apply. Specifications are subject to change without notice for ongoing product modifications and improvements.