1.1 Configuration of Safety Control Unit

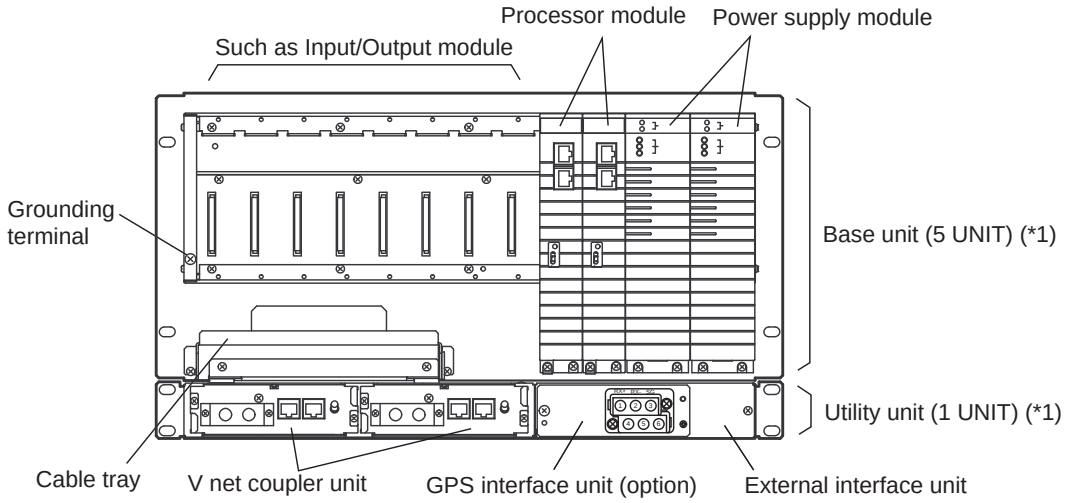
There are two types of safety control unit. The standard type safety control unit (Ambient Temperature: -20 to 50 deg. C) and wide range temperature type safety control unit (Ambient Temperature: -20 to 70 deg. C).

In this manual, the illustrations and descriptions are mainly focused on the standard type safety control unit in which the cooling fans are not installed.

Standard Type Safety Control Unit for V net

The components of the standard type safety control unit (Model: SSC10S-S/SSC10D-S) are shown in the following figure.

In this figure, the control unit is a duplexed type (redundant configuration). The power supply modules are always dual-redundantly configured. For a non-redundant configuration, a single processor module is installed to the left slot. The slot at the right is covered using a dummy cover. If a safety node is connected, the ESB bus coupler modules are installed with the redundant configuration.



*1: 1 UNIT=44.45 mm

Figure 1.1-1 Configuration of Safety Control Unit (SSC10D-S)

Table 1.1-1 Model Names of Safety Control Unit Components (Standard type)

Name	Standard type safety control unit			
	Single configuration (SSC10S-S)		Duplexed configuration (SSC10D-S)	
Power supply module (100-120 V AC)	SPW481	2pcs	SPW481	2pcs
Power supply module (220-240 V AC)	SPW482	2pcs	SPW482	2pcs
Power supply module (24 V DC)	SPW484	2pcs	SPW484	2pcs
Processor module	SCP401	1pcs	SCP401	2pcs
Dummy cover (for processor module)(*1)	T9083VB	1pcs	-	-
Dummy cover (for I/O module)(*2)	SDCV01	as required	SDCV01	as required
ESB bus coupler module(*3)	SEC401	2pcs	SEC401	2pcs
V net coupler unit	AIP504	2pcs	AIP504	2pcs
External interface unit for standard type safety control unit	-	1pcs	-	1pcs
GPS interface unit (option)	-	1pcs	-	1pcs

7.7 Parts Requiring Periodical Replacement

Read the following important points thoroughly and carry out the periodical replacement.

The parts having defined life spans, which can be replaced by the user are available as spare parts and consumables. Purchase and replace as necessary.

IMPORTANT

Precautions for parts having defined life spans

- The term “Parts having defined life spans” refers to parts that are expected to wear out or break down within 10 years from initial use under normal conditions of usage and storage. Therefore, parts with expected life spans of 10 years from more are excluded here.
- The recommended replacement cycle is the cycle estimated for preventive maintenance. It provides no guarantee against the accidental failures.
- The recommended replacement cycle is merely a reference, and varies depending on the usage conditions.
- The recommended replacement cycle is subject to change according to actual field results.

Periodic Replacement Parts Having Defined Life Spans

A safety control unit and safety node unit include parts having defined life spans, which require periodical replacement. The following table shows the recommended part replacement cycles for preventive maintenance.

Table 7.7-1 Periodic Replacement Parts Having Defined Life Spans

Part name	Part number	Recommended replacement cycle	Replacement by user	Remarks
Power supply module (100-120 V AC)	SPW481	8 years	Yes	At the ambient temperature of 40 deg. C or lower on average
Power supply module (220-240 V AC)	SPW482	8 years	Yes	At the ambient temperature of 40 deg. C or lower on average
Power supply module (24 V DC)	SPW484	8 years	Yes	At the ambient temperature of 40 deg. C or lower on average
Battery pack	S9185FA	3 years(*1)	Yes	At the ambient temperature of 30 deg. C or lower on average
		1.5 years (*1)	Yes	At the ambient temperature of 40 deg. C or lower on average
		9 months (*1)	Yes	At the ambient temperature of 50 deg. C or lower on average
Aluminum electrolytic capacitor	-	8 years	No(*2)	For SPW481,SPW482,SPW484 At the ambient temperature of 40 deg. C or lower on average
Fuse built in power supply unit	S9109VK	8 years	No(*2)	SPW481
	S9109VK	8 years	No(*2)	SPW482
	A1546EF	8 years	No(*2)	SPW484
Fan unit	AIP602	4 years	Yes	At the ambient temperature of 60 deg. C or lower on average

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Item	Model or Part No.	Qty: Model SSC10S	SSC10D	SSC50S	SSC50D	Description
1	—	1	1	1	1	CPU Node Unit
2	T9082QE	1	1	1	1	Cable Tray
3	Y9306LB	4	4	4	4	B.H.Screw, M3 × 6
4	SCP401	1	1			Processor Module
	SCP451			1	1	Processor Module
5	T9083UB	1	1	1	1	Cover
6	S9185FA	1	1	1	1	Battery Assembly
7	S9343UV	2	2			Cable Assembly
7a	T9042PS	1	1			Label (CPU-L BUS1)
7b	T9042PW	1	1			Label (V net BUS1 CN2)
7c	T9042PT	1	1			Label (CPU-L BUS2)
7d	T9042PX	1	1			Label (V net BUS2 CN2)
8	SCP401		1			Processor Module
	SCP451				1	Processor Module
9	T9083UB		1		1	Cover
10	S9185FA		1		1	Battery Assembly
11	S9343UV		2			Cable Assembly
11a	T9042PU		1			Label (CPU-R BUS1)
11b	T9042PY		1			Label (V net BUS1 CN3)
11c	T9042PV		1			Label (CPU-R BUS2)
11d	T9042PZ		1			Label (V net BUS2 CN3)
12	T9083VB	1		1		Dummy Cover
13	Below	2	2	2	2	Power Supply Module
	SPW481					for 100 to 120 V AC Power Supply
	SPW482					for 220 to 240 V AC Power Supply
	SPW484					for 24 V DC Power Supply
14	T9083UX	2	2	2	2	Cover
15	AIP504	2	2			V net Coupler Unit
16	S9112BL	2	2			V net Connector Unit
17	T9022RA	1	1			Label (BUS1)
18	T9022RT	2	2			Label (BUS2)
19	T9042PL	2				Dust Cover
20	S9156FA	1	1			CPU Node External Interface Unit (with fan)
	S9473FA			1	1	CPU Node External Interface Unit (with fan) for SSC50 style S2 or later
21	S9161FA	1	1			IRIG Interface Unit (option code : /GPS)
22	S9359UK	1	1			RIO T Assembly (option code : /GPS)
23	S9158FA	1	1			CPU Node External Interface Unit (without fan)
	S9474FA			1	1	CPU Node External Interface Unit (without fan) for SSC50 style S2 or later
24	T9083TR	1	1			Plate (without fan)
	T9083TR			1	1	Plate
25	Y9306LE	2	2			B.H.Screw, M3 × 6 (without fan)
	Y9306LE			2	2	B.H.Screw, M3 × 6
26	S9049PM	8	8	8	8	Insulating Bushing (accessory)
27	T9070UQ	4	4			Cover (for V net Cable : accessory)

Figure CMPL 1-3

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