PRODUCT NEWS

OMRON

Catalog Correction Notice

Catalog / Manual

**Issue Date
April 01, 2025**

No. 2025003DE

The mistake of the print and the description is found in the catalog / manual that our company issued. We apologize.

[Name of catalog / manual]

"R88D-1SN[]-ECT-51 AC Servo System 1S Series with SS1/SLS Safety Sub-Functions Pamphlet"
< Publication in December, 2024 > < Catalog number I927-E1-02>
"R88D-1SN[]-ECT-51 AC Servo System 1S-series with SS1/SLS Safety Sub-Functions Data Sheet"
< Publication in July, 2024 > < Catalog number I928-E1-01 >
"AC Servomotors/Servo Drives EtherCAT® Communications and SS1/SLS Safety Sub-Functions User's Manual"

< Publication in August, 2024 > < Manual number I696-E1-01 >

[Page of publishing]

"R88D-1SN[]-ECT-51 AC Servo System 1S Series with SS1/SLS Safety Sub-Functions Pamphlet"
Page 6   1S Series Product Lineup
"R88D-1SN[]-ECT-51 AC Servo System 1S-series with SS1/SLS Safety Sub-Functions Data Sheet"
Page 10   Details about Safety Functions
"AC Servomotors/Servo Drives EtherCAT® Communications and SS1/SLS Safety Sub-Functions User's Manual"
Page 8-32   Safely-limited Speed (SLS) Function
Page A-175   Error Descriptions

[Correction method]

We revise it at the time of a Catalog reprint on the next time.

[Content of correction]

Before	After
	We will add the description of the red circled part.
『Pamphlet』 **P-6** High adaptability for machine safety 	『Pamphlet』 **P-6** High adaptability for machine safety

Before	**After**

『Data Sheet』
P10

Achievable safety levels for each safety function at maximum are shown as the below table:

Function	Achievable safety level EN61508/EN ISO 13849-1
STO function via safety input signals	SIL3/PLe
STO function via FSoE	SIL2/PLd
SS1 *1	SIL2/PLd
SLS *2	SIL2/PLd

*1. The method to activate STO when the motor stops is not supported. If you use an existing user program based on this method, you may need to change or modify the user program.
*2. The method of activating SLS when reaching the monitoring velocity is not supported. If you use an existing user program based on this method, you may need to change or modify it.
After Servo ON, the SLS function should be activated when the speed is stable.
Although SLS velocity limit can be set to less than 100 r/min, Safety Present Motor Velocity may be displayed 100 r/min larger than Present Motor Velocity. Therefore, at a monitoring velocity of less than 100 r/min, SLS Monitoring Limit Exceeded may occur even though the monitoring velocity is not actually exceeded. Set an appropriate monitoring speed after thoroughly checking the operation.
To use the SLS function, we recommend to use an OMRON motor power cable of 20 m or less. Using a motor power cable longer than 20 m may cause the following phenomena even during normal operation, resulting in a false detection of Monitoring Limit Exceeded or Safety Present Motor Velocity Error 2. Set an appropriate monitoring speed after thoroughly checking the operation. In addition, using a noise filter on the power supply line may stabilize the Safety Present Motor Velocity and reduce false detections. For information on noise filters, refer to the manual listed below.
a) Safety Present Motor Velocity, which is the velocity monitoring target of the SLS function, may exceed the actual velocity much more than 100 r/min.
b) Safety Velocity Detection. Status (4F1A-82 hex) may be disabled. Consult your OMRON sales representative for details.

Refer to the AC Servomotors/Servo Drives 1S-series with Built-in EtherCAT® Communications and SS1/SLS Safety Sub-Functions User's Manual (Cat. No. I696) for details.

『Data Sheet』
P10

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b) Safety Velocity Detection. Status (4F1A-82 hex) may be disabled. Consult your OMRON sales representative for details.
*3. Using the SLS function when a vertical axis, etc., is subject to an unbalanced load may result in a false detection of Safety Present Motor Velocity Error 2 even during normal operation. For axes to which this applies, use the 1S Series with Safety Functionality R88D-1SAN□.

Refer to the AC Servomotors/Servo Drives 1S-series with Built-in EtherCAT® Communications and SS1/SLS Safety Sub-Functions User's Manual (Cat. No. I696) for details.

『User's Manual』
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Precautions for Correct Use

- The method of activating SLS when reaching the monitoring velocity is not supported. If you use an existing user program based on this method, you may need to change or modify the user program.
- After Servo ON, activate the SLS function when the velocity is stable.
- Although SLS velocity limit can be set to less than 100 r/min, Safety Present Motor Velocity may be displayed 100 r/min larger than Present Motor Velocity. Therefore, at a monitoring velocity of less than 100 r/min, SLS Monitoring Limit Exceeded may occur even though the monitoring velocity is not actually exceeded. Set an appropriate monitoring speed after thoroughly checking the operation.
- To use the SLS function, we recommend to use an OMRON motor power cable of 20 m or less. Using a motor power cable longer than 20 m may cause the following phenomena even during normal operation, resulting in a false detection of Monitoring Limit Exceeded or Safety Present Motor Velocity Error 2. Set an appropriate monitoring speed after thoroughly checking the operation. In addition, using a noise filter on the power supply line may stabilize the Safety Present Motor Velocity and reduce false detections. For the recommended noise filters, refer to *3-8 Noise Filter Specifications* on page 3-145 and *4-7 Noise Filter Installation Conditions When the Total Wire Length Is Long* on page 4-83.

『User's Manual』
P8-32

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- Using the SLS function when a vertical axis, etc., is subject to an unbalanced load may result in a false detection of Safety Present Motor Velocity Error 2 even during normal operation. For axes to which this applies, consider using the 1S-series with Safety Functionality R88D-1SAN□.
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PA-175

Event name	Safety Present Motor Velocity Error 2		Event code	68500000 hex	
Description	Safety Velocity Detection – Status (4F1A-82 hex) was disabled in SLS status. Or, the SLS command was set to Activate SLS with Safety Velocity Detection – Status (4F1A-82 hex) disabled.				
Source	EtherCAT Master Function Module	Source details	Slave	Detection timing	During FSoE communications
Error attributes	Level	Minor fault	Recovery	Error reset (after resetting slave errors)	Log category	System log
Effects	User program	Continues.	Operation	Power drive circuit is OFF	
Indicators	EtherCAT NET RUN		EtherCAT NET ERR		EtherCAT LINK/ACT
	ON		---		---
System-defined variables	Variable		Data type		Name
	None		None		None
Cause and correction	Assumed cause		Correction		Prevention
	The acceleration/deceleration time for acceleration and deceleration in SLS status is short.		Correct the operation command to increase the acceleration/deceleration time so that Safety Velocity Detection – Status (4F1A-82 hex) remains enabled during acceleration/deceleration.		Perform a setting with consideration of precautions.
	Motor power status was turned OFF during motor rotation in SLS status.		Correct the operation command so that Motor power status does not turn OFF during motor rotation in SLS status.		
	The SLS command was set to Activate SLS with Safety Velocity Detection – Status (4F1A-82 hex) disabled.		Set the SLS command to Activate SLS with Safety Velocity Detection – Status (4F1A-82 hex) enabled.		
	The motor power cable is long. Noise		• Use a motor power cable of the latest version. • Take noise countermeasures such as using a noise filter.		
	Hardware failure		If this error occurs continuously even after the error is reset, the hardware is faulty. Replace the Servomotor or Servo Drive.		None

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PA-175

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Effects	User program	Continues.	Operation	Power drive circuit is OFF	
Indicators	EtherCAT NET RUN		EtherCAT NET ERR		EtherCAT LINK/ACT
	ON		---		---
System-defined variables	Variable		Data type		Name
	None		None		None
Cause and correction	Assumed cause		Correction		Prevention
	The acceleration/deceleration time for acceleration and deceleration in SLS status is short.		Correct the operation command to increase the acceleration/deceleration time so that Safety Velocity Detection – Status (4F1A-82 hex) remains enabled during acceleration/deceleration.		Perform a setting with consideration of precautions.
	Motor power status was turned OFF during motor rotation in SLS status.		Correct the operation command so that Motor power status does not turn OFF during motor rotation in SLS status.		
	The SLS command was set to Activate SLS with Safety Velocity Detection – Status (4F1A-82 hex) disabled.		Set the SLS command to Activate SLS with Safety Velocity Detection – Status (4F1A-82 hex) enabled.		
	External forces such as unbalanced loads are applied.		Please ensure that no external forces are applied to the motor. If the operation is intentional, please consider using the 1S Series with Safety Functionality R88D-1SAN□.		
	The motor power cable is long. Noise		• Use a motor power cable of the latest version. • Take noise countermeasures such as using a noise filter.		
	Hardware failure		If this error occurs continuously even after the error is reset, the hardware is faulty. Replace the		None

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Specifications in this product news are as of the issue date and are subject to change without notice.
Only main changes in specifications are described in this document. Please be sure to read the relevant catalogs, datasheets, product specifications, instructions, and manuals for precautions and necessary information when using products.