

Addition of Safety Sub-Function Unset Alarm for AC Servo Amplifiers

Thank you for your continued patronage of the Mitsubishi Electric AC servo system.
To enhance safety, an alarm notifying that the safety sub-function is unset will be added to the AC servo amplifiers.

1. Target Model

MR-J5-_G(4)-HS(N1), MR-JET-_G4-HS(N1)

2. Reason for the Change

MR-J5-_G(4)-HS(N1) and MR-JET-_G4-HS(N1) are shipped from the factory with the safety sub-function disabled. An alarm will be added to prevent the servo amplifier from being started while the safety sub-function is unset when using the safety sub-function.

3. Details of the Change

- Servo parameter [Pr. PF02.7 Safety sub-function setting unset error enabled/disabled selection] will be added to monitor the setting status of the safety sub-function.
- [AL. 11D.1 Safety sub-function setting unset error] will occur when [Pr. PF02.7] is set to "1" (Enabled) and [Pr. PSA01.0 Safety sub-function activation setting] is set to "0" (Disabled).
- The initial value of [Pr. PF02.7] will be changed from "0" to "1".

	When using the safety sub-function	When not using the safety sub-function
Before	Set the functional safety parameters and [Pr. PSA01.0] to "1" (Enabled).	Functional safety parameters and [Pr. PF02.7] do not need to be changed.
After	Set the functional safety parameters and [Pr. PSA01.0] to "1" (Enabled). Set [Pr. PF02.7] to "1" (Enabled) to monitor the setting status of the safety sub-function.	Functional safety parameters do not need to be changed. Set [Pr. PF02.7] to "0" (Disabled).

When using the safety sub-function, set [Pr. PF02.7] to "1" (enabled) to trigger [AL. 11D.1] if the servo amplifier is powered on while the safety sub-function is unset. This prevents the servo amplifier from being started with the safety sub-function unintentionally left unset. When not using the safety sub-function, set [Pr. PF02.7] to "0" (Disabled).

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(1) Parameter details

Details of the parameter to be added are shown below.

[Pr. PF02.7_Safety sub-function setting unset error enabled/disabled selection]

Initial value	Setting range	Ver.
1h	Refer to the text	F4

Select whether to enable or disable [AL. 11D.1 Safety sub-function setting unset error].

This servo parameter is only available for the MR-J5-_G_-HS_ and MR-JET-_G_-HS_. The setting value of this servo parameter is invalid for models other than the MR-J5-_G_-HS_ and MR-JET-_G_-HS_.

When the setting value of this servo parameter is set to "1" (Enabled) and [Pr. PSA01.0 Safety sub-function activation setting] is set to "0" (Disabled), [AL. 11D.1 Safety sub-function setting unset error] occurs.

0: Disabled

1: Enabled

When this servo parameter is set to "1" (Enabled) on servo amplifiers with firmware versions earlier than F4, [AL. 037 Parameter error] occurs.

When using servo amplifiers with firmware versions earlier than F4 and not using the safety sub-function, set this servo parameter to "0" (Disabled).

For servo amplifiers with firmware version F4 or later, the initial value of this servo parameter has been changed from "0" (Disabled) to "1" (Enabled).

(2) Alarm details

Details of the alarm to be added are shown below.

[AL. 11D Initial setting parameter error]

- An error occurred in a parameter requiring initial settings.

[AL. 11D.1_Safety sub-function setting unset error]

Cause	Check/action method	Model
1. The safety sub-function is disabled.	When using the safety sub-function, set [Pr. PSA01.0 Safety sub-function activation setting] to "1" (Enabled). When not using the safety sub-function, set [Pr. PF02.7 Safety sub-function setting unset error enabled/disabled selection] to "0" (Disabled).	[G]

(3) Impact on existing equipment

By setting [Pr. PF02.7] to "0" (Disabled), specifications will be the same as those of firmware version F0 or earlier. In firmware version F0 or earlier, the initial value of [Pr. PF02.7] is "0", and thus the setting status of the safety sub-function is not monitored. If a parameter file created with firmware version F0 or earlier is applied to a servo amplifier with firmware version F4 or later, the setting status of the safety sub-function will not be monitored, allowing continued use as before. By updating from firmware version F0 or earlier to firmware version F4 or later using the firmware update function, [Pr. PF02.7] is set to "0" (Disabled), and thus there will be no impact on operation. Similarly, by using parameter automatic setting to write parameters created with firmware version F0 or earlier from the controller to the servo amplifier, [Pr. PF02.7] is set to "0" (Disabled), and thus there will be no impact on operation.

4. Schedule

These changes will be made sequentially from the December 2025 production.

There may be cases where both the former and new products exist in the distribution stage.