

### Addition of Communication Cycle Restrictions to Existing Functions of 3-Axis Servo Amplifiers for AC Servo Amplifiers

Thank you for your continued patronage of the Mitsubishi Electric AC servo system.  
To secure computational resources for the AC servo amplifiers, communication cycle restrictions will be added to the existing functions of 3-axis servo amplifiers.

#### 1. Target Model

MR-J5W3-\_G

#### 2. Reason for the Change

To secure computational resources for program processing

#### 3. Details of the Change

##### (1) Details of the change

Function restrictions will be added for when the communication cycle is 125  $\mu$ s, as shown in the following table. A warning [AL. 09E.A Communication cycle setting warning] will occur if any of the following newly restricted functions are used: lost motion compensation function, input open-phase detection function, output open-phase detection function, vibration tough drive function, or vibration failure prediction function. When the one-touch tuning function (user command method) is used, the one-touch tuning error "C00E" (3-axis servo amplifier command communication cycle setting error) will occur. The vibration estimation function will be automatically disabled.

Category	Function	Network communication cycle restrictions (minimum)	
		MR-J5W3-_G	
		Ver. F0 or earlier	Ver. F5 or later
Tuning	One-touch tuning function (user command method)	Not restricted	250 $\mu$ s
	Lost motion compensation function	Not restricted	250 $\mu$ s
Disconnection/incorrect wiring detection	Input open-phase detection function	Not restricted	250 $\mu$ s
	Output open-phase detection function	Not restricted	250 $\mu$ s
Tough drive	Vibration tough drive function (*1)	Not restricted	250 $\mu$ s
Machine diagnosis	Vibration estimation function	Not restricted	250 $\mu$ s
	Vibration failure prediction function	Not restricted	250 $\mu$ s

\*1 The oscillation detection alarm [AL. 054 Oscillation detection] will also be automatically disabled.

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## (2) Details of the warning

The details of the warning are shown below.

Warning number: 09E		Name: Network warning		
Description of the warning		<ul style="list-style-type: none"> <li>• An error exists in the network data reception.</li> <li>• An error exists in the network settings.</li> </ul>		
Detail No.	Detail name	Cause	Check/action method	Model
09E.A	Communication cycle setting warning	Servo parameter settings primarily for the control mode and functions that are not supported by the network communication cycle currently in use have been selected.	Check the servo parameters and change the communication cycle to one that is compatible with the set control mode and functions.  For the function restrictions of the network communication cycle, refer to "Restrictions on the MR-J5_-_G_" in the User's Manual (Introduction).	[G]
		The servo amplifier is set to use a communication cycle of 31.25 $\mu$ s when the network communication cycle is 1.5 ms, 2.5 ms, 3 ms, 3.5 ms, 4.5 ms, 5 ms, 5.5 ms, 6 ms, 6.5 ms, 7 ms, or 7.5 ms.	Set [Pr. PA01.7 High speed mode] to "0" to use a network communication cycle of 1.5 ms, 2.5 ms, 3 ms, 3.5 ms, 4.5 ms, 5 ms, 5.5 ms, 6 ms, 6.5 ms, 7 ms, or 7.5 ms.	
		Values of the servo parameters for manufacturer setting have been changed.	Set the servo parameters for manufacturer setting to the initial values.	

## (3) Impact on existing equipment

For the newly restricted functions on MR-J5W3-\_G, if any of the following are used with a communication cycle of 125  $\mu$ s: lost motion compensation function, input open-phase detection function, output open-phase detection function, vibration tough drive function, or vibration failure prediction function, a warning [AL. 09E.A Communication cycle setting warning] will occur when communication with the controller is established. When the one-touch tuning function (user command method) is used with a 125  $\mu$ s communication cycle, the one-touch tuning error "C00E" (3-axis servo amplifier command communication cycle setting error) will occur.

When the warning [AL. 09E.A Communication cycle setting warning] occurs, disable the function with the parameter settings or change the communication cycle.

For details, contact your local sales office.

## 4. Schedule

This change will be made sequentially from the March 2026 production.

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