Firmware Upgrade for FR-A800 Plus Series (FR-A800-AWH) Inverters

Thank you for your continued patronage of Mitsubishi Electric drive control products.
The firmware of the FR-A800 Plus series (FR-A800-AWH) inverters will be upgraded to improve the functionality.
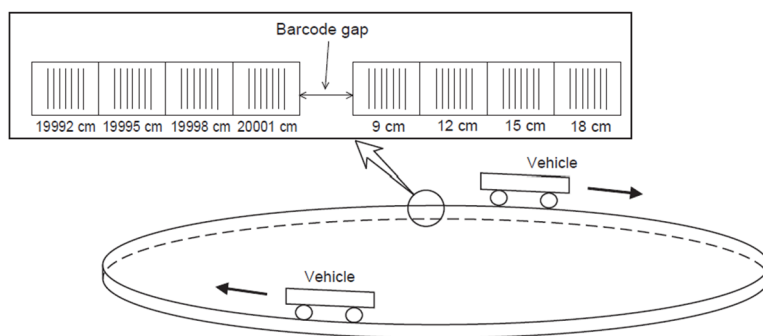
1. Products Affected

FR-A800 Plus series (FR-A800-AWH)

2. Details of the Change

(1) Addition of Rail guided vehicle
Position feed or speed feed operation is performed under full-closed control on a circular path.
This makes it possible to operate the cart on a circular path.

To support this function, parameters and parameter setting values will be added as follows.
This enables full-closed control on a circular path.

Pr.	Name	Initial value	Setting range	Description
766	Path selection	0	0	Linear path
			1	Circular path
767	Barcode start position	0cm	0, 9 to 30000 cm	Set the barcode start position.
768	Barcode end position	0cm	0, 9 to 30000 cm	Set the barcode end position.
769	Barcode gap	0mm	0 to 50 mm	Set the barcode gap.
770	Barcode width	30mm	30 to 50 mm	Set the barcode width.

(2) Specifications for EtherCAT communication
EtherCAT communication dedicated to the full-closed control is supported. PDO communication is performed using the objects arranged by the user specific process data mapping.

To support this function, parameter setting values will be added as follows.

Pr.	Name	Initial value	Setting range	Description
757	Distance meter selection	0 [*1] or 1 [*2]	0	Use the data input via RS-485 terminals.
			1 [*3]	Use the data sent from the distance meter which is connected to the port set in Pr.1429.
			2	Use the data input via the FR-A8APS-02.
			4	Use the distance meter data (position data) received from the EtherCAT master.

[*1] The initial value for the RS-485 models.

[*2] The initial value for the Ethernet models.

[*3] The setting value "1" is available for the Ethernet models only.

(3) Addition of Pr.349 setting values

The setting range of Pr349 is expanded. The parameter setting values will be added as follows.

Pr.	Name	Initial value	Setting range	Description
349	Communication reset selection/Ready bit status selection/Reset selection after inverter faults are cleared	0	0	Use this parameter to select the error reset operation, Ready bit status, inverter reset operation when a fault is cleared, and DriveControl settings.
			1	
			100	
			101	
			1000	
			1001	
			1100	
			1101	

Pr349	Communication reset selection		Ready bit status selection		Reset selection after inverter faults are cleared	DriveControl writing restriction
	NET operation mode	Other than NET operation mode	Main circuit: power-ON	Main circuit: power-OFF		
0	Reset enabled	Reset enabled	ON	ON	Reset	Not restricted
1	Reset enabled	Reset disabled	ON	ON	Reset	Not restricted
100	Reset enabled	Reset enabled	ON	OFF	Reset	Not restricted
101	Reset enabled	Reset disabled	ON	OFF	Reset	Not restricted
1000	Reset enabled	Reset enabled	ON	ON	Not reset	Not restricted
1001	Reset enabled	Reset disabled	ON	ON	Not reset	Not restricted
1100	Reset enabled	Reset enabled	ON	OFF	Not reset	Not restricted
1101	Reset enabled	Reset disabled	ON	OFF	Not reset	Not restricted

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(4) Deletion of Pr.178 to 189 setting value

For Pr178 to 189, the setting values listed in the setting range will be deleted.

Pr.	Name	Initial value	Setting range	Description
178	STF terminal function selection	60	85, 88, 89	85: SSCNETIII(/H) communication disabled (For FR-A8NS) 88: Forward stroke end 89: Reverse stroke end
179	STR terminal function selection	61		
180	RL terminal function selection	0		
181	RM terminal function selection	1		
182	RH terminal function selection	2		
183	RT terminal function selection	3		
184	AU terminal function selection	4		
185	JOG terminal function selection	5		
186	CS terminal function selection	6		
187	MRS terminal function selection	24		
188	STOP terminal function selection	25		
189	RES terminal function selection	62		

3. Date of Change

The change will be sequentially applied to the February 2025 production or later.

4. Product Identification

The SERIAL (determined by date of production) can be checked on the product's rating plate.

SERIAL example on rating plate
□ 5 2 ○○○○○○
Symbol Year Month Control number

SERIAL

The SERIAL consists of one symbol, two characters indicating the production year and month, and six characters indicating the control number. The last digit of the production year is indicated as the Year, and the Month is indicated by 1 to 9, X (October), Y (November), or Z