

Support from MR-J2 Super Series to MR-J4 Series Replacement.

■ Supported models

- MR-J2S-A(1) (0.1 to 37kW)
- MR-J2S-A4 (0.6 to 55kW)
- MR-J2S-B(1) (0.1 to 37kW)
- MR-J2S-B4 (0.6 to 55kW)
- MR-J2S-CP (0.1 to 7kW)



Features

- Complete upgrades in a short time by using existing wiring and mounting holes.
- The AC servo can be replaced independently, without replacing the host controller or SSCNET cable.
- Replacement of a single axis in a multi-axis system is possible.
- The MR-J2S motor can be controlled with the MR-J4 servo amplifier.

Precautions for Replacement

- MR-J2 Series replacements are not supported.
- The initialization time after power ON differs for the MR-J2S servo amplifier and MR-J4 servo amplifier, so it may be necessary to change the program in existing system.
(* Pay special attention to the magnetic brake release time for the vertical axis. The vertical axis could drop.)
- The outline dimensions will be larger than the existing MR-J2S servo amplifier when using this renewal tool. Refer to the outline dimensions on the back page for details on the dimensions. Always confirm that there is sufficient space before selecting this tool.
- When making a secondary package replacement, the monitor output value (motor rotation speed) will differ from the existing amplifier because of a difference in the motor's maximum rotation speed. The program must be changed when using the monitor output with existing system.
- Note that even when this renewal tool is used, some MR-J2S servo functions may not be 100% compatible.
- Depending on the situation, it may be necessary to change the existing wiring or add a noise filter, etc. as a noise countermeasure when using the servo system controller and positioning module (model: A1SD75P, etc.).
- Refer to the Guide for Replacing MR-J2S/J2M Series with J4 Series "L (NA) 03093" issued by Mitsubishi Electric, and the "Guide for Replacing MELSERVO-J2S Series using the MR-J2S Renewal Tool (X903120701)" available on the Mitsubishi Electric System & Service web site for replacing the MR-J2S Series with the MR-J4 Series.

Replacing MELSERVO-J2S Series with MELSERVO-J4 Series

The MR-J2S renewal tool is used to replace an existing MR-J2S Series amplifier with the MR-J4 Series amplifier. The renewal kit provides compatibility to existing installation dimensions and terminal blocks. The conversion cable is interchangeable allowing existing cables to be used with the replacement models.

Use existing mounting holes to upgrade in a short time!

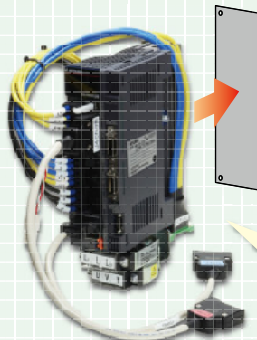
Before replacement

MR-J2S amplifier



After replacement

MR-J4 amplifier
+
renewal kits

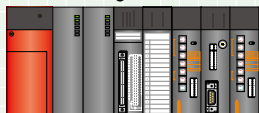


The existing mounting holes can be used, so there's no need for additional work!

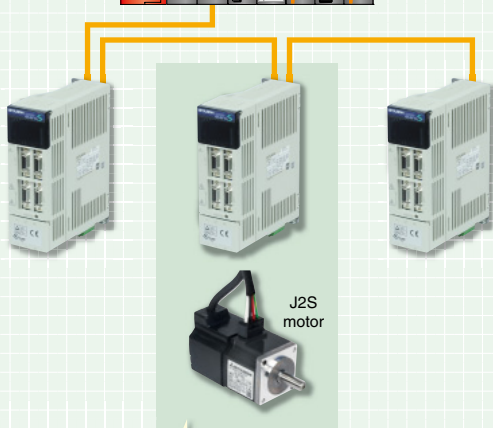
Upgrade without replacing the host controller and existing wiring! Replace a single axis in a multi axis system!

Before replacement

Existing controller



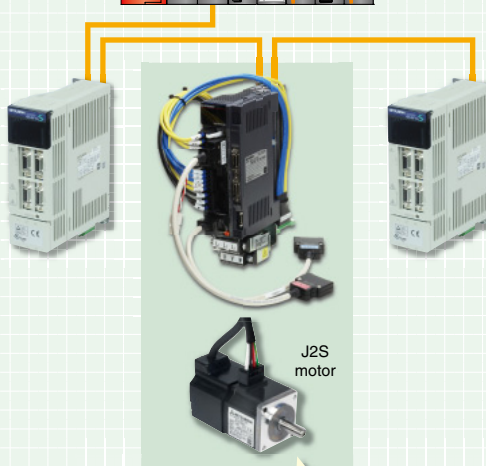
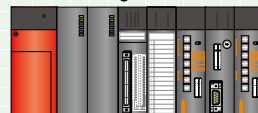
Existing wiring



Just one axis in the multi-axis system failed!!

After replacement

Existing controller



Replace just one axis without replacing the controller or wiring!!

Drive the MR-J2S motor with the MR-J4 amplifier!

Before replacement

MR-J2S amplifier

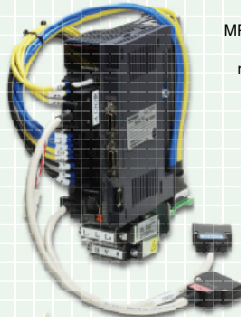


J2S motor

Just the amplifier failed!!

After replacement

MR-J4 amplifier
+
renewal kits



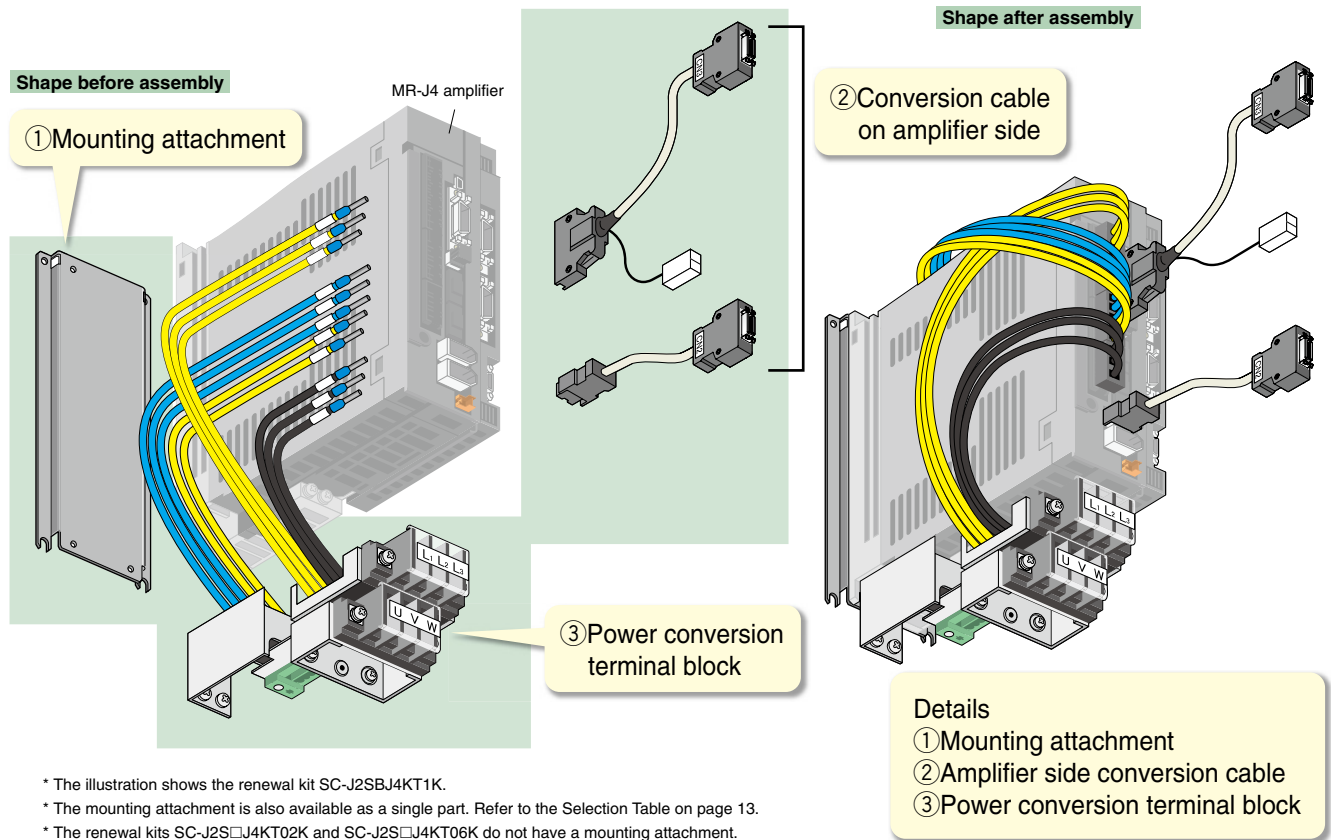
J2S motor



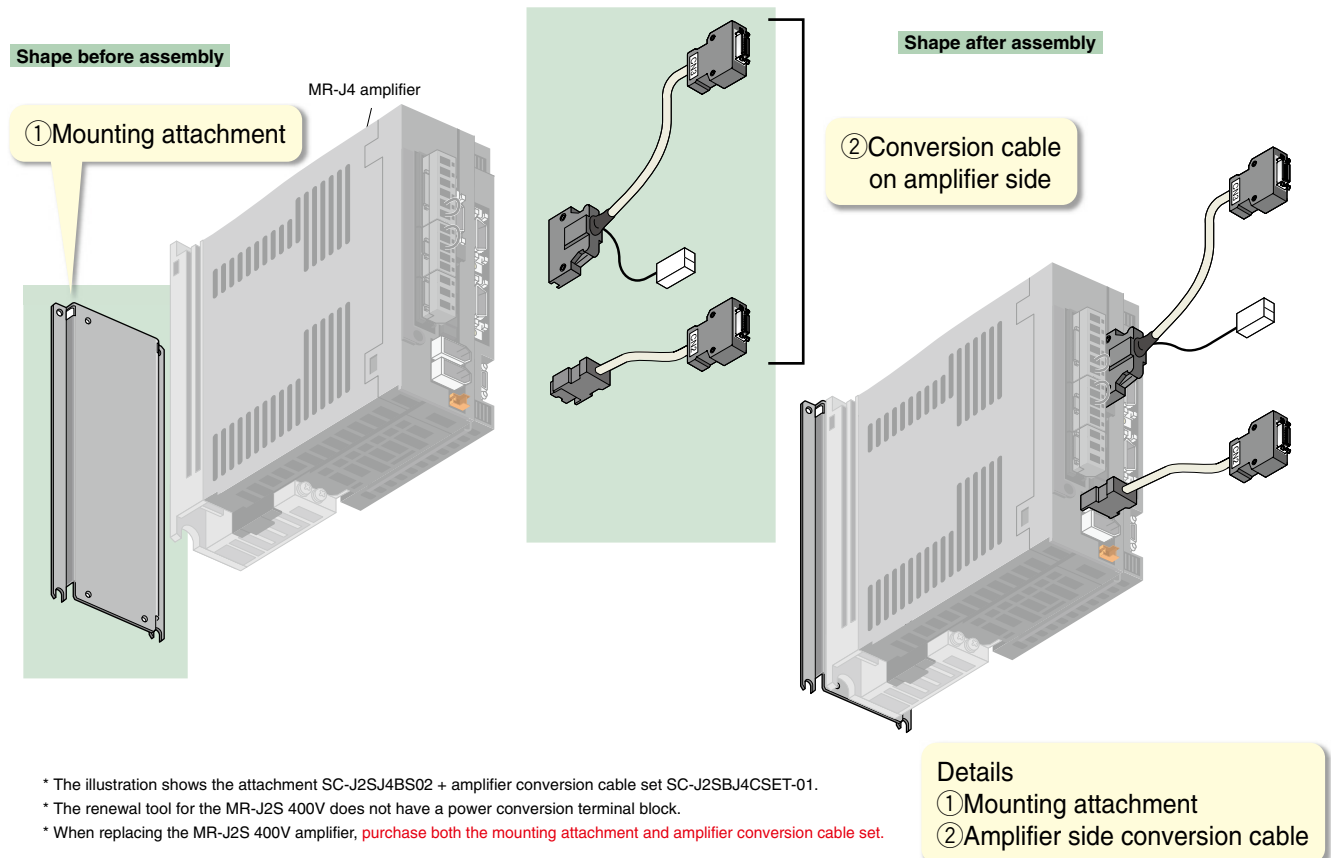
Use the existing motor and replace only the amplifier!!

Renewal Kit Structure

● For MR-J2S 100V 200V AC amplifier



● For MR-J2S 400V AC amplifier



Basic configuration (for 100V/200V AC)

Type A (general-purpose interface) Type CP (built-in positioning function)

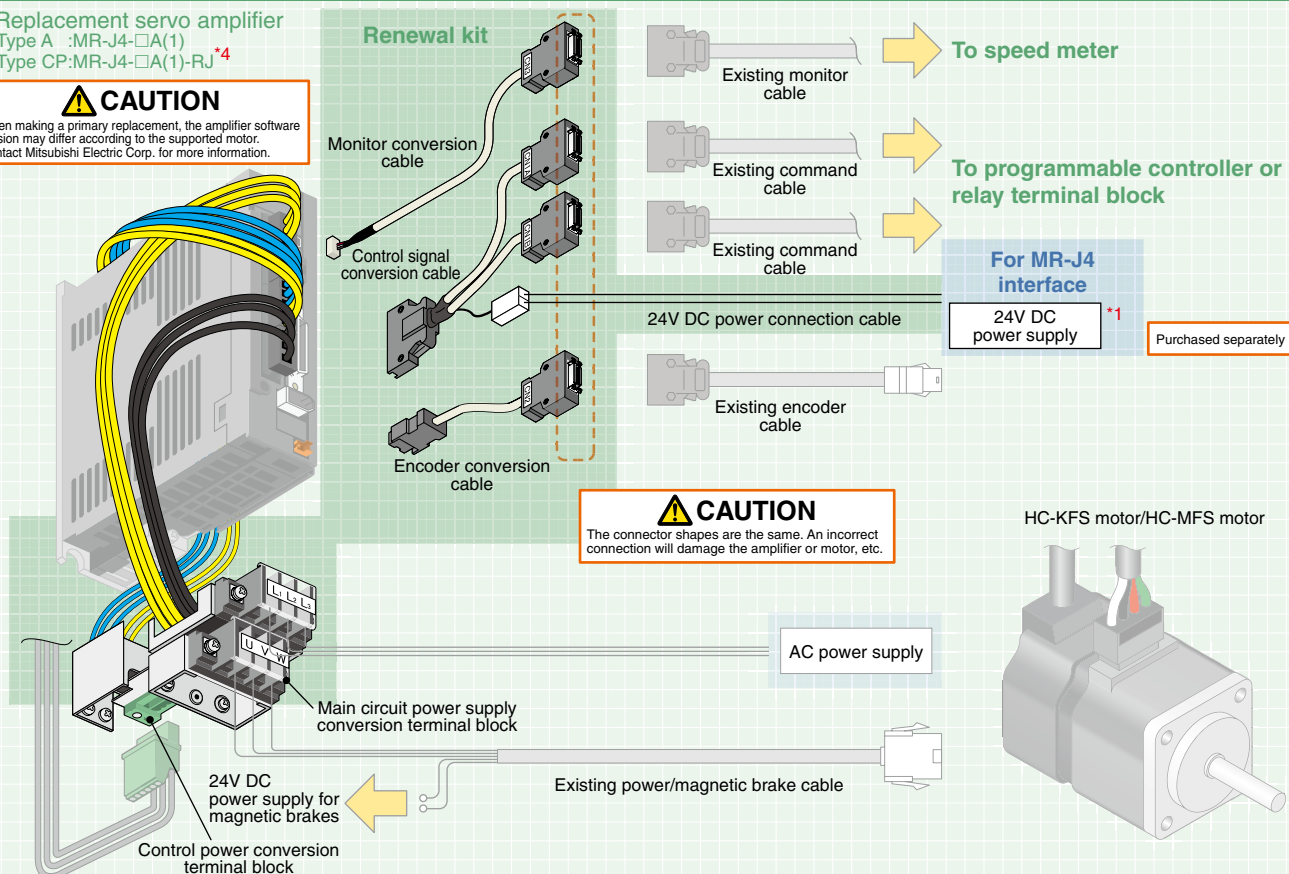
*5

Primary replacement (replacing only the servo amplifier)

- Replacement servo amplifier
Type A :MR-J4-□A(1)
Type CP:MR-J4-□A(1)-RJ^{*4}

CAUTION

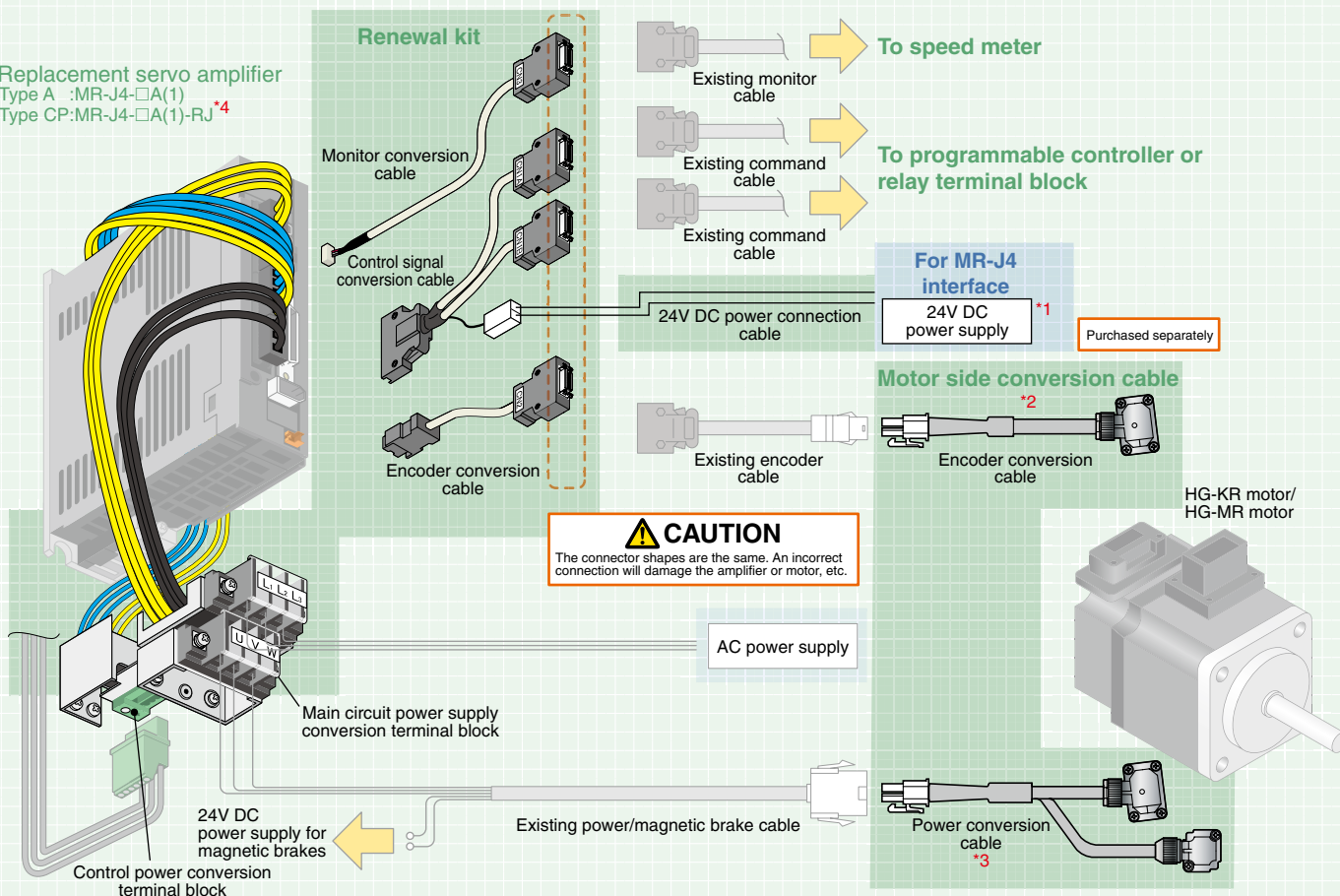
When making a primary replacement, the amplifier software version may differ according to the supported motor. Contact Mitsubishi Electric Corp. for more information.



Secondary replacement (Replacing servo motor after replacing servo amplifier)

Package replacement (Replacing servo amplifier and servo motor together)

- Replacement servo amplifier
Type A :MR-J4-□A(1)
Type CP:MR-J4-□A(1)-RJ^{*4}



*1. A separate 24V DC (current capacity 80mA or more) is required for the interface when making the replacement. Refer to page 14 for recommended specifications.
(Required only when a 24V DC power supply for the internal interface is used with the MR-J2S servo amplifier. Not required when 24V DC power supply for interface is supplied from an external source.)

*2. Refer to the table on pages 7 and 9 for motor side conversion cables.

*3. When replacing the HC-KFS, MFS motor with the HG-KR, MR motor, the magnetic brake cable is built into the power cable.

*4. J2S-CP renewal is supported with software version B3 and higher.

*5. When replacing the J2S 30kW or 37kW amplifier, select the mounting attachment and amplifier conversion cable set.

Basic configuration (for 100V/200V AC)

Type B (SSCNET interface)

*4

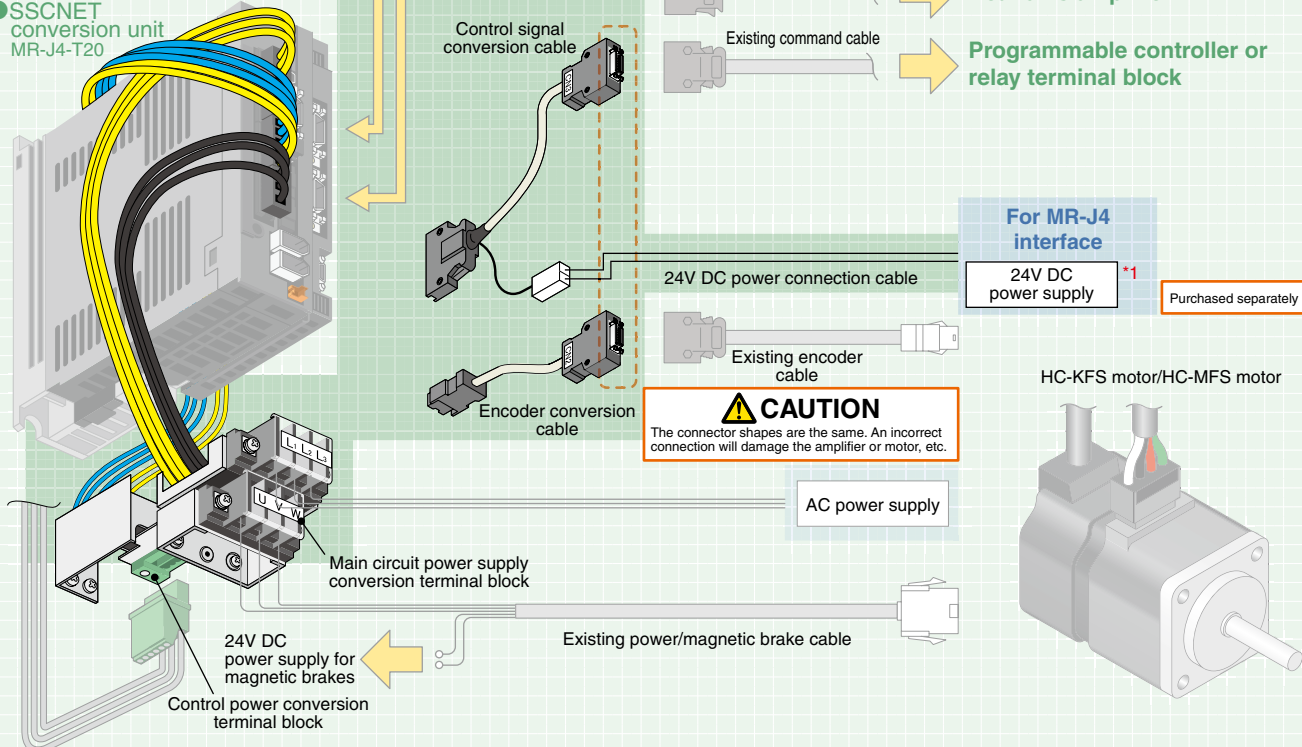
Primary replacement (replacing only the servo amplifier)

- Replacement servo amplifier
MR-J4-□B(1)-RJ020

CAUTION

When making a primary replacement, the amplifier software version may differ according to the supported motor. Contact Mitsubishi Electric Corp. for more information.

- SSCNET conversion unit
MR-J4-T20

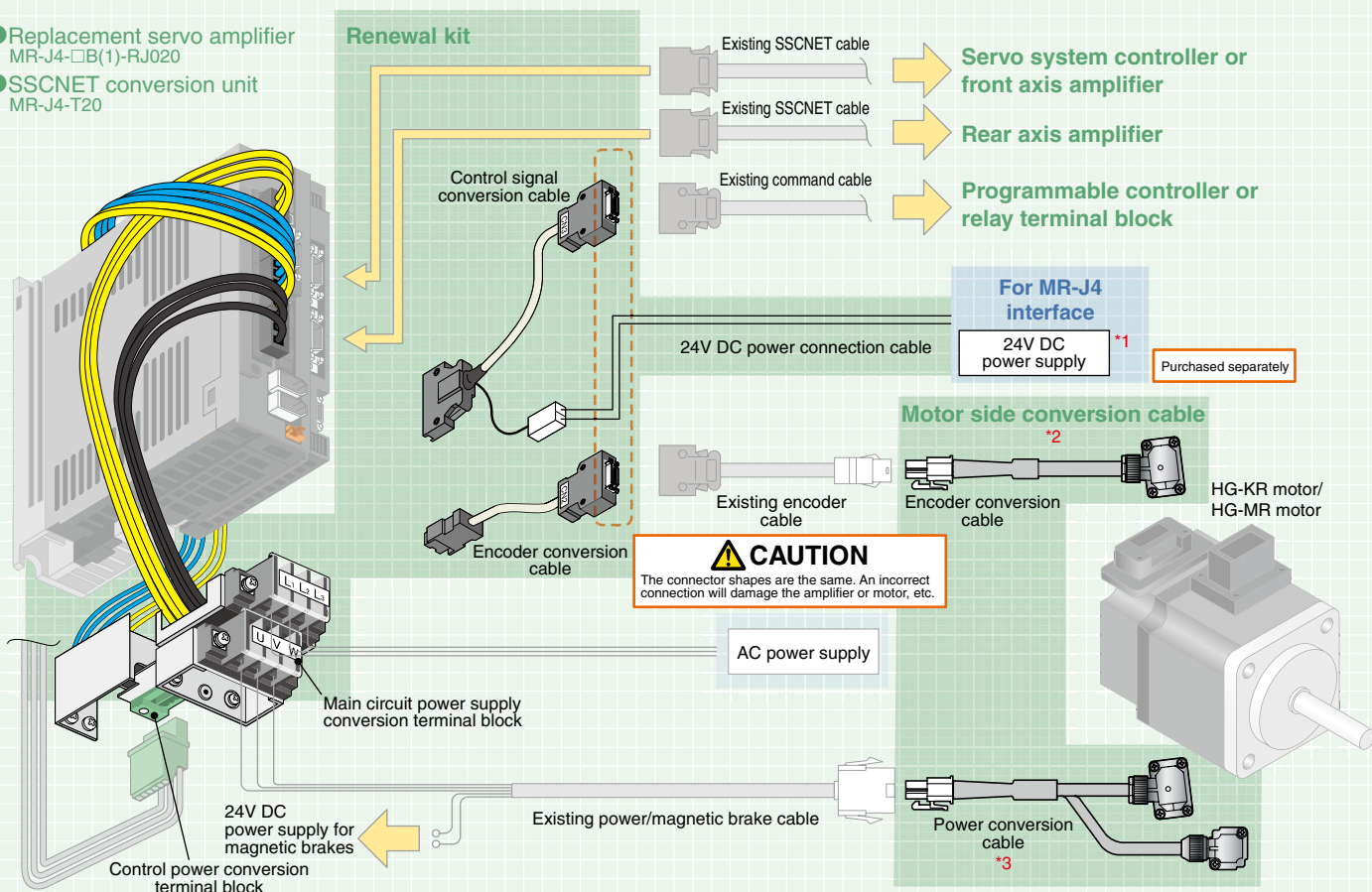


Secondary replacement (Replacing servo motor after replacing servo amplifier)

Package replacement (Replacing servo amplifier and servo motor together)

- Replacement servo amplifier
MR-J4-□B(1)-RJ020

- SSCNET conversion unit
MR-J4-T20



*1. A separate 24V DC (current capacity 80mA or more) is required for the interface when making the replacement. Refer to page 14 for recommended specifications. (Required only when a 24V DC power supply for the internal interface is used with the MR-J2S servo amplifier. Not required when 24V DC power supply for interface is supplied from an external source.)

*2. Refer to the table on page 8 for motor side conversion cables.

*3. When replacing the HC-KFS, MFS motor with the HG-KR, MR motor, the magnetic brake cable is built into the power cable.

*4. When replacing the J2S 30kW or 37kW amplifier, select the mounting attachment and amplifier conversion cable set.

Basic configuration (for 400V AC)

Type A (general-purpose interface)

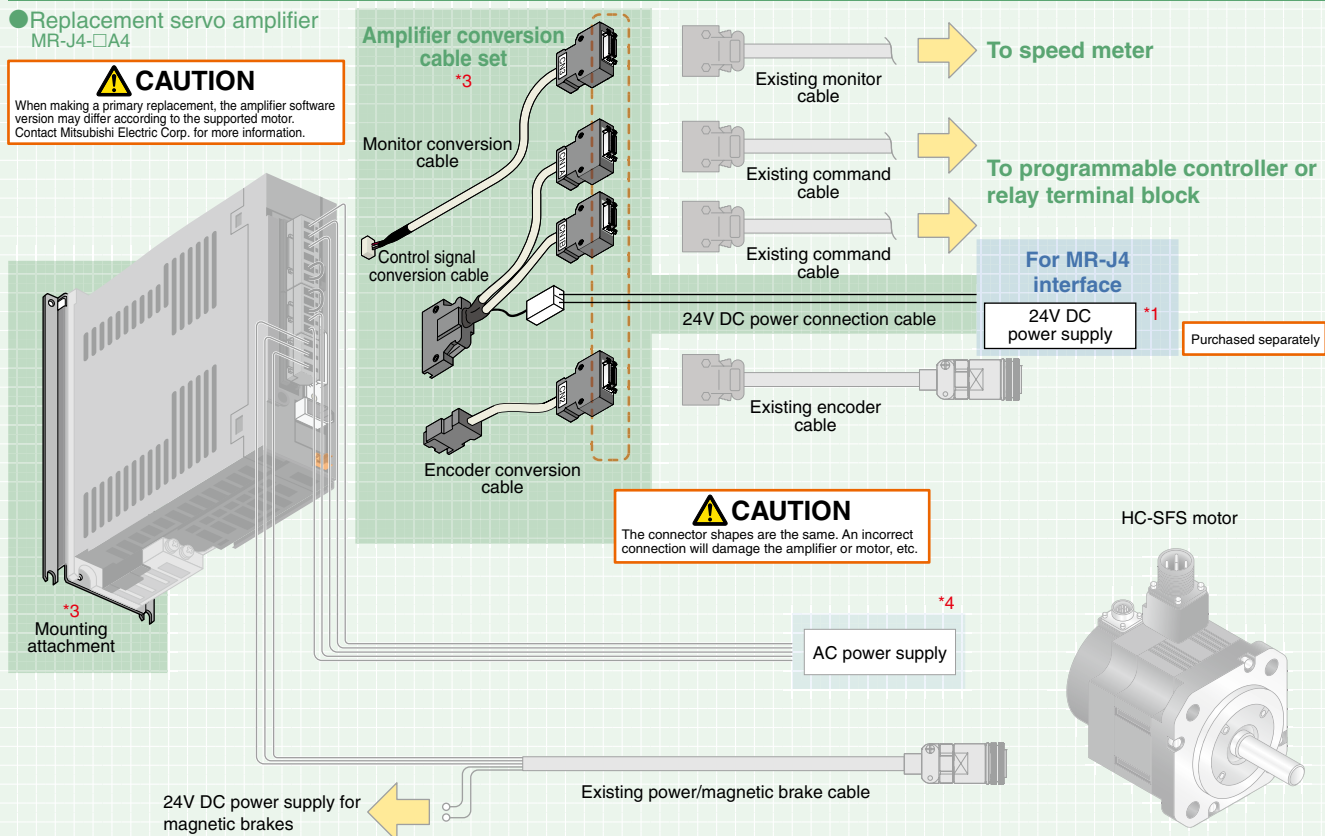
*3, *4

Primary replacement (replacing only the servo amplifier)

● Replacement servo amplifier MR-J4-□A4

⚠ CAUTION

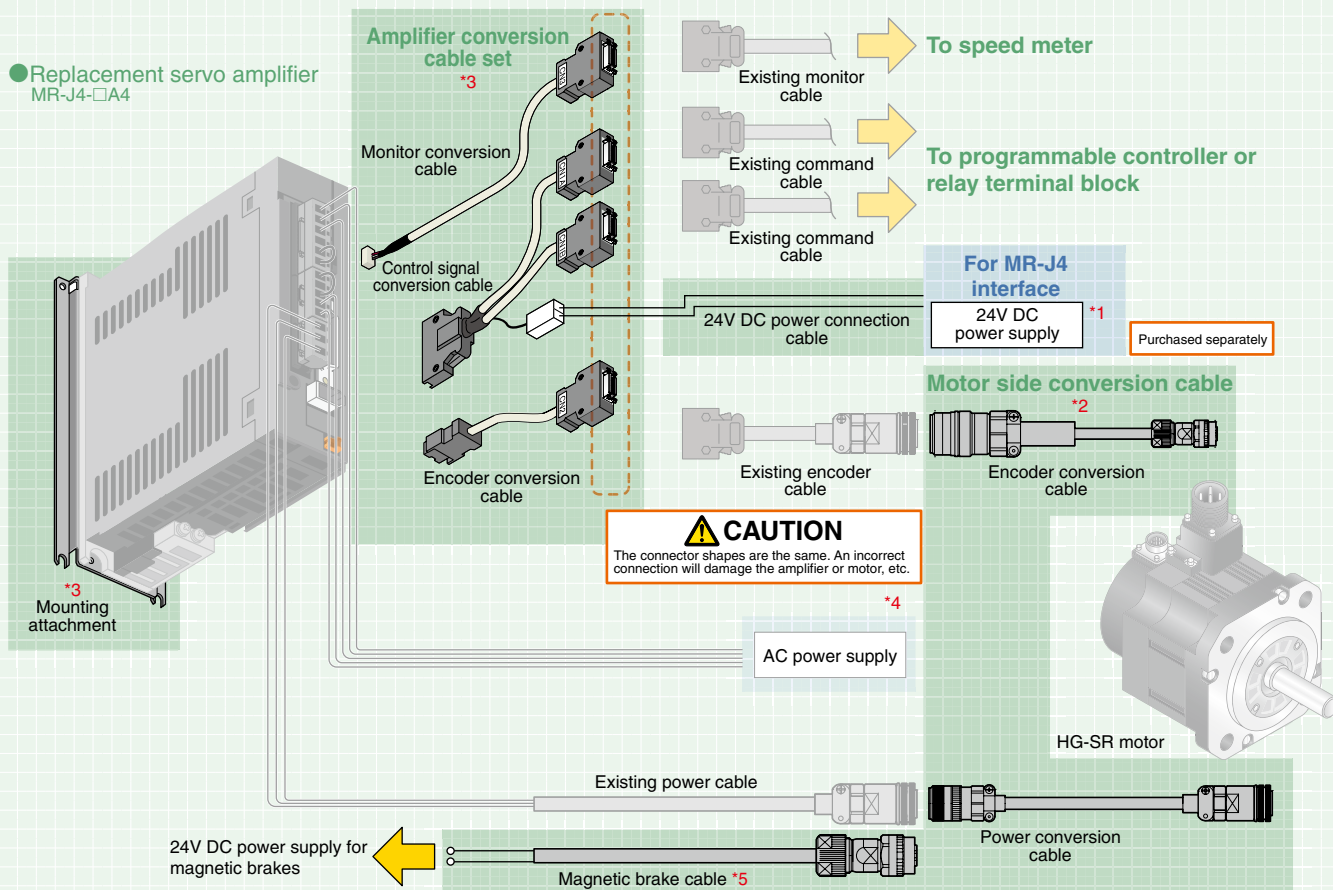
When making a primary replacement, the amplifier software version may differ according to the supported motor. Contact Mitsubishi Electric Corp. for more information.



Secondary replacement (Replacing servo motor after replacing servo amplifier)

Package replacement (Replacing servo amplifier and servo motor together)

● Replacement servo amplifier MR-J4-□A4



*1. A separate 24V DC (current capacity 80mA or more) is required for the interface when making the replacement. Refer to page 14 for recommended specifications.
(Required only when a 24V DC power supply for the internal interface is used with the MR-J2S servo amplifier. Not required when 24V DC power supply for interface is supplied from an external source.)

*2. Refer to the table on page 7 for motor side conversion cables.

*3. When replacing the JS2 400V amplifier, the mounting attachment and separate amplifier conversion cable set must be prepared. Refer to page 7 for details on making a selection.

*4. The J2S 400V renewal kit does not include a main circuit power or control power conversion terminal block. Refer to the MR-J4 Servo Amplifier Technical Materials issued by Mitsubishi Electric Corp., for details on wiring.

*5. When replacing the HC-SFS Series motor with brakes with secondary or package replacement, a magnetic brake cable must be newly connected. Use the Mitsubishi Electric System & Service motor magnetic brake cable (SC-BKC1CBL□M-L or SC-BKC1CBL□M-H).

Renewal Replacement Combination Table

Primary replacement	Replacing only servo amplifier	Secondary replacement	Replacing servo motor after replacing servo amplifier	Package replacement	Replacing servo amplifier and servo motor together
					○: Compatible, △: Compatible with limited functions or conditions, ×: Incompatible

Type A (100V/200V AC)

(^{*1})

Existing model		Primary/package replacement model (*2, 3)		Secondary replacement / package replacement model				
Servo amplifier model	Servo motor model	Servo amplifier model (*4, 5)	Renewal kit model	Servo motor model (*4)	Motor side conversion cable model (*18)			
					Compatibility	Power conversion cable	Encoder conversion cable	Brake conversion cable
[Small capacity, low inertia HC-KFS Series standard, with brakes] (B) indicates with brakes								
MR-J2S-10A (1)	HC-KFS053 (B)	MR-J4-10A (1)	SC-J2SJ4KT02K	HG-KR053 (B)	△ (*6)	Without brakes SC-J2SJ4PW1C03M-■ With brakes SC-J2SJ4PWBK1C03M-■	SC-HAJ3ENM1C03M-■	Built-into power conversion cable
	HC-KFS13 (B)			HG-KR13 (B)				
MR-J2S-20A (1)	HC-KFS23 (B)	MR-J4-20A (1)		HG-KR23 (B)				
MR-J2S-40A (1)	HC-KFS43 (B)	MR-J4-40A (1)	SC-J2SJ4KT06K	HG-KR43 (B)				
MR-J2S-70A	HC-KFS73 (B)	MR-J4-70A	SC-J2SJ4KT1K	HG-KR73 (B)				
[Small capacity, super-low inertia HC-MFS Series standard, with brakes] (B) indicates with brakes								
MR-J2S-10A (1)	HC-MFS053 (B)	MR-J4-10A (1)	SC-J2SJ4KT02K	HG-MR053 (B)	○	Without brakes SC-J2SJ4PW1C03M-■ With brakes SC-J2SJ4PWBK1C03M-■	SC-HAJ3ENM1C03M-■	Built-into power conversion cable
	HC-MFS13 (B)			HG-MR13 (B)				
MR-J2S-20A (1)	HC-MFS23 (B)	MR-J4-20A (1)		HG-MR23 (B)				
MR-J2S-40A (1)	HC-MFS43 (B)	MR-J4-40A (1)	SC-J2SJ4KT06K	HG-MR43 (B)				
MR-J2S-70A	HC-MFS73 (B)	MR-J4-70A	SC-J2SJ4KT1K	HG-MR73 (B)				
[Medium capacity, medium inertia HC-SFS Series standard, with brakes] (B) indicates with brakes								
MR-J2S-60A	HC-SFS52 (B)	MR-J4-60A	SC-J2SJ4KT06K	HG-SR52 (B)	△ (*7)	SC-SAJ3PW2KC1M-S2	SC-HAJ3ENM3C1M	(*8)
MR-J2S-100A	HC-SFS102 (B)	MR-J4-100A	SC-J2SJ4KT1K	HG-SR102 (B)				
MR-J2S-200A	HC-SFS152 (B)	MR-J4-200A	SC-J2SJ4KT3K	HG-SR152 (B)				
	HC-SFS202 (B)			HG-SR202 (B)				
MR-J2S-350A	HC-SFS352 (B)	MR-J4-350A		HG-SR352 (B)				
MR-J2S-500A	HC-SFS502 (B)	MR-J4-500A	SC-J2SJ4KT5K	HG-SR502 (B)				
MR-J2S-700A	HC-SFS702 (B)	MR-J4-700A	SC-J2SJ4KT7K	HG-SR702 (B)		Existing cable can be used		
[Medium capacity, super-low inertia HC-RFS Series standard, with brakes] (B) indicates with brakes								
MR-J2S-200A	HC-RFS103 (B)	MR-J4-200A	SC-J2SJ4KT3K	HG-RR103 (B)	○	Existing cable can be used	SC-HAJ3ENM3C1M	Existing cable can be used
	HC-RFS153 (B)			HG-RR153 (B)				
MR-J2S-350A	HC-RFS203 (B)	MR-J4-350A		HG-RR203 (B)				
	HC-RFS353 (B)			HG-RR353 (B)				
MR-J2S-500A	HC-RFS503 (B)	MR-J4-500A	SC-J2SJ4KT5K	HG-RR503 (B)				
[Medium capacity, flat type HC-UFS Series standard, with brakes] (B) indicates with brakes								
MR-J2S-70A	HC-UFS72 (B)	MR-J4-70A	SC-J2SJ4KT1K	HG-UR72 (B)	○	Existing cable can be used	SC-HAJ3ENM3C1M	Existing cable can be used
MR-J2S-200A	HC-UFS152 (B)	MR-J4-200A	SC-J2SJ4KT3K	HG-UR152 (B)				
MR-J2S-350A	HC-UFS202 (B)	MR-J4-350A		HG-UR202 (B)				
	HC-UFS352 (B)			HG-UR352 (B)				
MR-J2S-500A	HC-UFS502 (B)	MR-J4-500A	SC-J2SJ4KT5K	HG-UR502 (B)				

Existing model		Primary replacement model (^{*2})		Secondary replacement / package replacement model				
Servo amplifier model	Servo motor model	Servo amplifier model (^{*4, 5})	Renewal kit model	Servo amplifier model (^{*4})	Servo motor model (^{*4})	Compatibility	Renewal kit model	Motor side conversion cable model (^{*18})
								Power conversion cable
								Encoder conversion cable
								Brake conversion cable / cooling fan conversion cable
[Medium to large capacity, low inertia HA-LFS 2000/min Series, standard, with brakes] (B) indicates with brakes								
MR-J2S-500A	HA-LFS502	MR-J4-500A	SC-J2SJ4KT5K	MR-J4-500A	HG-SR502	× (^{*9})	SC-J2SJ4KT5K	SC-HAJ3PW1C1M
MR-J2S-700A	HA-LFS702	MR-J4-700A	SC-J2SJ4KT7K	MR-J4-700A	HG-SR702		SC-J2SJ4KT7K	Existing cable can be used
MR-J2S-11KA	HA-LFS11K2(B)	MR-J4-11KA	SC-J2SJ4KT15K	MR-J4-11KA	HG-JR11K1M(B)		SC-J2SJ4KT15K	SC-J2SJ4PW3C1M-■
MR-J2S-15KA	HA-LFS15K2(B)	MR-J4-15KA (^{*12})	SC-J2SJ4KT15K	MR-J4-11KA (^{*12})	HG-JR11K1M(B)			Existing cable can be used
MR-J2S-22KA	HA-LFS22K2(B)	MR-J4-22KA (^{*12})	SC-J2SJ4KT22K	MR-J4-15KA (^{*12})	HG-JR15K1M(B)	× (^{*9})	SC-J2SJ4CSET-02 (^{*13})	SC-HAJ3ENM3C1M
MR-J2S-30KA	HA-LFS30K2	MR-J4-DU30KA (^{*12, 15})		MR-J4-22KA (^{*12})	HG-JR22K1M			Existing cable can be used
MR-J2S-37KA	HA-LFS37K2	MR-J4-DU37KA (^{*12, 15})	SC-J2SJ4BS09 + SC-J2SJ4CSET-02	MR-J4-30DU-A (^{*12, 15})	HG-JR30K1M		SC-J2SJ4BS09 + SC-J2SJ4CSET-02	SC-HAJ3ENM3C1M

Type A (400V AC)

Existing model		Primary/package replacement model (*2, 3)		Secondary replacement / package replacement model				
Servo amplifier model	Servo motor model	Servo amplifier model (*4, 5)	Renewal kit model	Servo motor model (*4)	Motor side conversion cable model (*18)			
					Compatibility	Power conversion cable	Encoder conversion cable	Brake conversion cable
[Medium capacity, medium inertia HC-SFS Series standard, with brakes] (B) indicates with brakes								
MR-J2S-60A4	HC-SFS524(B)	MR-J4-60A4	SC-J2SJ4BS02 + MR-J4-100A4	HG-SR524(B)	△ (*7)	SC-SAJ3PW2KC1M-S2	SC-HAJ3ENM3C1M	(*8)
MR-J2S-100A4	HC-SFS1024(B)	MR-J4-100A4	SC-J2SJ4CSET-01 + SC-J2SJ4BS03	HG-SR1024(B)				
MR-J2S-200A4	HC-SFS1524(B) + HC-SFS2024(B)	MR-J4-200A4	SC-J2SJ4CSET-01 + SC-J2SJ4BS04	HG-SR1524(B) + HG-SR2024(B)				
MR-J2S-350A4	HC-SFS3524(B)	MR-J4-350A4	SC-J2SJ4CSET-01 + SC-J2SJ4BS05	HG-SR3524(B)				
MR-J2S-500A4	HC-SFS5024(B)	MR-J4-500A4	SC-J2SJ4CSET-01 (*17)	HG-SR5024(B)				
MR-J2S-700A4	HC-SFS7024(B)	MR-J4-700A4	SC-J2SJ4BS05 + SC-J2SJ4CSET-01	HG-SR7024(B)				
[Medium to large capacity, low inertia HA-LFS 2000/min Series, standard, with brakes] (B) indicates with brakes								
MR-J2S-11KA4	HA-LFS11K24(B)	MR-J4-11KA4	SC-J2SJ4BS06	MR-J4-11KA4	HG-JR11K1M4(B)	× (*9)	SC-J2SJ4BS06	SC-J2SJ4PW3C1M-■
MR-J2S-15KA4	HA-LFS15K24(B)	MR-J4-15KA4 (*12)	SC-J2SJ4CSET-02	MR-J4-11KA4 (*12)	HG-JR11K1M4(B)		SC-J2SJ4CSET-02	Existing cable can be used
MR-J2S-22KA4	HA-LFS22K24(B)	MR-J4-22KA4 (*12)	SC-J2SJ4BS07	MR-J4-15KA4 (*12)	HG-JR15K1M4(B)		SC-J2SJ4CSET-02 (*13)	Existing cable can be used
MR-J2S-30KA4	HA-LFS30K24	MR-J4-DU30KA4 (*12, 16)	SC-J2SJ4BS08	MR-J4-22KA4 (*12)	HG-JR22K1M4			Existing cable can be used
MR-J2S-37KA4	HA-LFS37K24	MR-J4-DU37KA4 (*12, 16)	SC-J2SJ4BS09	MR-J4-DU30KA4 (*12, 16)	HG-JR30K1M4	× (*9)	SC-J2SJ4BS09	SC-HAJ3ENM3C1M
MR-J2S-45KA4	HA-LFS45K24	MR-J4-DU45KA4 (*12, 16)	SC-J2SJ4CSET-02	MR-J4-DU37KA4 (*12, 16)	HG-JR37K1M4		SC-J2SJ4CSET-02	Existing cable can be used
MR-J2S-55KA4	HA-LFS55K24	MR-J4-DU55KA4 (*12, 16)		MR-J4-DU45KA4 (*12, 16)	HG-JR45K1M4			Existing cable can be used

Existing model		Primary replacement model (^{*2})		Secondary replacement / package replacement model				
Servo amplifier model	Servo motor model	Servo amplifier model (^{*4, 5})	Renewal kit model	Servo amplifier model (^{*4})	Servo motor model (^{*4})	Compatibility	Renewal kit model	Motor side conversion cable model (^{*18})
								Power conversion cable
								Encoder conversion cable
								Brake conversion cable / cooling fan conversion cable
[Medium to large capacity, low inertia HA-LFS 2000/min Series, standard, with brakes] (B) indicates with brakes								
MR-J2S-11KA4	HA-LFS11K24(B)	MR-J4-11KA4	SC-J2SJ4BS06	MR-J4-11KA4	HG-JR11K1M4(B)	× (^{*9})	SC-J2SJ4BS06	SC-J2SJ4PW3C1M-■
MR-J2S-15KA4	HA-LFS15K24(B)	MR-J4-15KA4 (^{*12})	SC-J2SJ4CSET-02	MR-J4-11KA4 (^{*12})	HG-JR11K1M4(B)		SC-J2SJ4CSET-02	Existing cable can be used
MR-J2S-22KA4	HA-LFS22K24(B)	MR-J4-22KA4 (^{*12})	SC-J2SJ4BS07	MR-J4-15KA4 (^{*12})	HG-JR15K1M4(B)		SC-J2SJ4CSET-02 (^{*13})	Existing cable can be used
MR-J2S-30KA4	HA-LFS30K24	MR-J4-DU30KA4 (^{*12, 16})	SC-J2SJ4BS08	MR-J4-22KA4 (^{*12})	HG-JR22K1M4			Existing cable can be used
MR-J2S-37KA4	HA-LFS37K24	MR-J4-DU37KA4 (^{*12, 16})	SC-J2SJ4BS09	MR-J4-DU30KA4 (^{*12, 16})	HG-JR30K1M4	× (^{*9})	SC-J2SJ4BS09	SC-HAJ3ENM3C1M
MR-J2S-45KA4	HA-LFS45K24	MR-J4-DU45KA4 (^{*12, 16})	SC-J2SJ4CSET-02	MR-J4-DU37KA4 (^{*12, 16})	HG-JR37K1M4		SC-J2SJ4CSET-02	Existing cable can be used
MR-J2S-55KA4	HA-LFS55K24	MR-J4-DU55KA4 (^{*12, 16})		MR-J4-DU45KA4 (^{*12, 16})	HG-JR45K1M4			Existing cable can be used

Refer to page 9 for the applicable precautions.

Renewal Replacement Combination Table

Primary replacement	Replacing only servo amplifier	Secondary replacement	Replacing servo motor after replacing servo amplifier	Package replacement	Replacing servo amplifier and servo motor together
○: Compatible, △: Compatible with limited functions or conditions, x: Incompatible					

Type B (100V/200V AC) ^{(*)1}

Existing model		Primary/package replacement model (*2, 3)			Secondary replacement / package replacement model					
Servo amplifier model	Servo motor model	Servo amplifier model (*4, 5)	SSCNET conversion unit model (*4)	Renewal kit model	Servo motor model (*4)	Compatibility	Motor side conversion cable model (*18)			
							Power conversion cable	Encoder conversion cable	Brake conversion cable	
[Small capacity, low inertia HC-KFS Series standard, with brakes] (B) indicates with brakes										
MR-J2S-10B(1)	HC-KFS053(B)	MR-J4-10B(1)-RJ020	MR-J4-T20	SC-J2SBJ4KT02K	HG-KR053(B)	△ (*6)	Without brakes SC-J2SJ4PW1C03M-■ With brakes SC-J2SJ4PWBK1C03M-■	SC-HAJ3ENM1C03M-■	Built-into power conversion cable	
	HC-KFS13(B)				HG-KR13(B)					
MR-J2S-20B(1)	HC-KFS23(B)			MR-J4-20B(1)-RJ020	HG-KR23(B)					
MR-J2S-40B(1)	HC-KFS43(B)			MR-J4-40B(1)-RJ020	SC-J2SBJ4KT06K					HG-KR43(B)
MR-J2S-70B	HC-KFS73(B)	MR-J4-70B-RJ020		SC-J2SBJ4KT1K	HG-KR73(B)					
[Small capacity, super-low inertia HC-MFS Series standard, with brakes] (B) indicates with brakes										
MR-J2S-10B(1)	HC-MFS053(B)	MR-J4-10B(1)-RJ020	MR-J4-T20	SC-J2SBJ4KT02K	HG-MR053(B)	○	Without brakes SC-J2SJ4PW1C03M-■ With brakes SC-J2SJ4PWBK1C03M-■	SC-HAJ3ENM1C03M-■	Built-into power conversion cable	
	HC-MFS13(B)				HG-MR13(B)					
MR-J2S-20B(1)	HC-MFS23(B)			MR-J4-20B(1)-RJ020	HG-MR23(B)					
MR-J2S-40B(1)	HC-MFS43(B)			MR-J4-40B(1)-RJ020	SC-J2SBJ4KT06K					HG-MR43(B)
MR-J2S-70B	HC-MFS73(B)	MR-J4-70B-RJ020		SC-J2SBJ4KT1K	HG-MR73(B)					
[Medium capacity, medium inertia HC-SFS Series standard, with brakes] (B) indicates with brakes										
MR-J2S-60B	HC-SFS52(B)	MR-J4-60B-RJ020	MR-J4-T20	SC-J2SBJ4KT06K	HG-SR52(B)	△ (*7)	SC-SAJ3PW2KC1M-S2	SC-HAJ3ENM3C1M	(*8)	
MR-J2S-100B	HC-SFS102(B)	MR-J4-100B-RJ020		SC-J2SBJ4KT1K	HG-SR102(B)					
MR-J2S-200B	HC-SFS152(B)	MR-J4-200B-RJ020		SC-J2SBJ4KT3K	HG-SR152(B)					
MR-J2S-350B	HC-SFS352(B)	MR-J4-350B-RJ020			HG-SR202(B)					
MR-J2S-500B	HC-SFS502(B)	MR-J4-500B-RJ020		SC-J2SBJ4KT5K	HG-SR352(B)					
MR-J2S-700B	HC-SFS702(B)	MR-J4-700B-RJ020		SC-J2SBJ4KT7K	HG-SR502(B)					
					HG-SR702(B)		Existing cable can be used			
[Medium capacity, super-low inertia HC-RFS Series standard, with brakes] (B) indicates with brakes										
MR-J2S-200B	HC-RFS103(B)	MR-J4-200B-RJ020	MR-J4-T20	SC-J2SBJ4KT3K	HG-RR103(B)	○	Existing cable can be used	SC-HAJ3ENM3C1M	Existing cable can be used	
	HC-RFS153(B)				HG-RR153(B)					
MR-J2S-350B	HC-RFS203(B)			MR-J4-350B-RJ020	HG-RR203(B)					
MR-J2S-500B	HC-RFS353(B)			MR-J4-500B-RJ020	SC-J2SBJ4KT5K					HG-RR353(B)
	HC-RFS503(B)			HG-RR503(B)						
[Medium capacity, flat type HC-UFS Series standard, with brakes] (B) indicates with brakes										
MR-J2S-70B	HC-UFS72(B)	MR-J4-70B-RJ020	MR-J4-T20	SC-J2SBJ4KT1K	HG-UR72(B)	○	Existing cable can be used	SC-HAJ3ENM3C1M	Existing cable can be used	
MR-J2S-200B	HC-UFS152(B)	MR-J4-200B-RJ020		SC-J2SBJ4KT3K	HG-UR152(B)					
MR-J2S-350B	HC-UFS202(B)	MR-J4-350B-RJ020			HG-UR202(B)					
MR-J2S-500B	HC-UFS352(B)	MR-J4-500B-RJ020		SC-J2SBJ4KT5K	HG-UR352(B)					
	HC-UFS502(B)				HG-UR502(B)					

Existing model		Primary replacement model ^{(*)2}			Secondary replacement / package replacement model						
Servo amplifier model	Servo motor model	Servo amplifier model ^{(*)4, 5}	SSCNET conversion unit model ^{(*)4}	Renewal kit model	Servo amplifier model ^{(*)4}	SSCNET conversion unit model ^{(*)4}	Servo motor model ^{(*)4}	Compatibility	Renewal kit model	Motor side conversion cable model ^{(*)18}	Brake conversion cable / cooling fan conversion cable
[Medium to large capacity, low inertia HA-LFS 2000/min Series, standard, with brakes] (B) indicates with brakes											
MR-J2S-500B	HA-LFS502	MR-J4-500B-RJ020	MR-J4-T20	SC-J2SBJ4KT5K	MR-J4-500B-RJ020	MR-J4-T20	HG-SR502	x (*)9	SC-J2SBJ4KT5K	SC-HAJ3PW1C1M	SC-HAJ3ENM3C1M
MR-J2S-700B	HA-LFS702	MR-J4-700B-RJ020		SC-J2SBJ4KT7K	MR-J4-700B-RJ020		HG-SR702		SC-J2SBJ4KT7K	Existing cable can be used	
MR-J2S-11KB	HA-LFS11K2(B)	MR-J4-11KB-RJ020		SC-J2SBJ4KT15K	MR-J4-11KB-RJ020		HG-JR11K1M(B)		SC-J2SBJ4KT15K	SC-J2SJ4PW3C1M-■	Existing cable can be used
MR-J2S-15KB	HA-LFS15K2(B)	MR-J4-15KB-RJ020 ^{(*)12}		SC-J2SBJ4KT15K	MR-J4-11KB-RJ020 ^{(*)12}		HG-JR15K1M(B)		SC-J2SBJ4CSET-02 ^{(*)13}	Existing cable can be used	
MR-J2S-22KB	HA-LFS22K2(B)	MR-J4-22KB-RJ020 ^{(*)12}		SC-J2SBJ4KT22K	MR-J4-15KB-RJ020 ^{(*)12}		HG-JR22K1M		SC-J2S4BS09 + SC-J2SBJ4CSET-02	(*)10	Cooling fan conversion cable SC-J2SJ4FAN1C1M
MR-J2S-30KB	HA-LFS30K2	MR-J4-DU30KB-RJ020 ^{(*)12, 15}		SC-J2S4BS09 + SC-J2SBJ4CSET-02	MR-J4-22KB-RJ020 ^{(*)12}		HG-JR30K1M		SC-J2S4BS09 + SC-J2SBJ4CSET-02	(*)14	
MR-J2S-37KB	HA-LFS37K2	MR-J4-DU37KB-RJ020 ^{(*)12, 15}			MR-J4-DU30KB-RJ020 ^{(*)12, 15}						

Type B (400V AC)

Existing model		Primary/package replacement model (*2, 3)			Secondary replacement / package replacement model				
Servo amplifier model	Servo motor model	Servo amplifier model (*4, 5)	SSCNET conversion unit model (*4)	Renewal kit model	Servo motor model (*4)	Compatibility	Motor side conversion cable model (*18)		
							Power conversion cable	Encoder conversion cable	Brake conversion cable
[Medium capacity, medium inertia HC-SFS Series standard, with brakes] (B) indicates with brakes									
MR-J2S-60B4	HC-SFS524(B)	MR-J4-60B4-RJ020	MR-J4-T20	SC-J2S4BS02 + SC-J2SBJ4CSET-01	HG-SR524(B)	△ (*7)	SC-SAJ3PW2KC1M-S2	SC-HAJ3ENM3C1M	(*8)
MR-J2S-100B4	HC-SFS1024(B)	MR-J4-100B4-RJ020		SC-J2S4BS03 + SC-J2SBJ4CSET-01	HG-SR1024(B)				
MR-J2S-200B4	HC-SFS1524(B)	MR-J4-200B4-RJ020		SC-J2S4BS04 + SC-J2SBJ4CSET-01	HG-SR1524(B)				
	HC-SFS2024(B)			SC-J2SB4CSET-01 (*17)	HG-SR2024(B)				
MR-J2S-350B4	HC-SFS3524(B)	MR-J4-350B4-RJ020		SC-J2S4BS05 + SC-J2SBJ4CSET-01	HG-SR3524(B)				
MR-J2S-500B4	HC-SFS5024(B)	MR-J4-500B4-RJ020			HG-SR5024(B)				
MR-J2S-700B4	HC-SFS7024(B)	MR-J4-700B4-RJ020			HG-SR7024(B)		Existing cable can be used		

Existing model		Primary replacement model ^{(*)2}			Secondary replacement / package replacement model						
Servo amplifier model	Servo motor model	Servo amplifier model ^{(*)4, 5}	SSCNET conversion unit model ^{(*)4}	Renewal kit model	Servo amplifier model ^{(*)4}	SSCNET conversion unit model ^{(*)4}	Servo motor model ^{(*)4}	Compatibility	Renewal kit model	Motor side conversion cable model ^{(*)18}	Brake conversion cable / cooling fan conversion cable
[Medium to large capacity, low inertia HA-LFS 2000/min Series, standard, with brakes] (B) indicates with brakes											
MR-J2S-11KB4	HA-LFS11K24(B)	MR-J4-11KB4-RJ020	MR-J4-T20	SC-J2S4BS06 + SC-J2SBJ4CSET-02	MR-J4-11KB4-RJ020	MR-J4-T20	HG-JR11K1M4(B)	x (*)9	SC-J2S4BS06	SC-J2SJ4PW3C1M-■	Existing cable can be used
MR-J2S-15KB4	HA-LFS15K24(B)	MR-J4-15KB4-RJ020 ^{(*)12}		SC-J2S4BS07 + SC-J2SBJ4CSET-02	MR-J4-11KB4-RJ020 ^{(*)12}		HG-JR11K1M4(B)		SC-J2SBJ4CSET-02		
MR-J2S-22KB4	HA-LFS22K24(B)	MR-J4-22KB4-RJ020 ^{(*)12}		SC-J2S4BS08 + SC-J2SBJ4CSET-02	MR-J4-15KB4-RJ020 ^{(*)12}		HG-JR15K1M4(B)		SC-J2SBJ4CSET-02 ^{(*)13}		Cooling fan conversion cable SC-J2SJ4FAN1C1M
MR-J2S-30KB4	HA-LFS30K24	MR-J4-DU30KB4-RJ020 ^{(*)12, 16}		SC-J2S4BS09 + SC-J2SBJ4CSET-02	MR-J4-22KB4-RJ020 ^{(*)12}		HG-JR22K1M4		SC-J2S4BS09 + SC-J2SBJ4CSET-02		
MR-J2S-37KB4	HA-LFS37K24	MR-J4-DU37KB4-RJ020 ^{(*)12, 16}			MR-J4-DU30KB4-RJ020 ^{(*)12, 16}		HG-JR30K1M4			(*)10	(*)14
MR-J2S-45KB4	HA-LFS45K24	MR-J4-DU45KB4-RJ020 ^{(*)12, 16}			MR-J4-DU37KB4-RJ020 ^{(*)12, 16}		HG-JR37K1M4				
MR-J2S-55KB4	HA-LFS55K24	MR-J4-DU55KB4-RJ020 ^{(*)12, 16}			MR-J4-DU45KB4-RJ020 ^{(*)12, 16}		HG-JR45K1M4				

Refer to page 9 for the applicable precautions.

Renewal Replacement Combination Table

Primary replacement	Replacing only servo amplifier	Secondary replacement	Replacing servo motor after replacing servo amplifier	Package replacement	Replacing servo amplifier and servo motor together
					○: Compatible, △: Compatible with limited functions or conditions, x: Incompatible

Type CP ^(*)

Existing model		Primary/package replacement model (*2, 3)		Secondary replacement / package replacement model					
Servo amplifier model	Servo motor model	Servo amplifier model (*4, 5)	Renewal kit model	Servo motor model (*4)	Compatibility	Motor side conversion cable model (*18)			
						Power conversion cable	Encoder conversion cable	Brake conversion cable	
[Small capacity, low inertia HC-KFS Series standard, with brakes] (B) indicates with brakes									
MR-J2S-10CP(1)	HC-KFS053(B)	MR-J4-10A(1)-RJ	SC-J2SCPJ4KT02K	HG-KR053(B)	△ (*6)	Without brakes SC-J2SJ4PW1C03M-■ With brakes SC-J2SJ4PWBK1C03M-■	SC-HAJ3ENM1C03M-■	Built-into power conversion cable	
	HC-KFS13(B)			HG-KR13(B)					
MR-J2S-20CP(1)	HC-KFS23(B)	MR-J4-20A(1)-RJ		HG-KR23(B)					
MR-J2S-40CP(1)	HC-KFS43(B)	MR-J4-40A(1)-RJ	SC-J2SCPJ4KT06K	HG-KR43(B)					
MR-J2S-70CP	HC-KFS73(B)	MR-J4-70A-RJ	SC-J2SCPJ4KT1K	HG-KR73(B)					
[Small capacity, super-low inertia HC-MFS Series standard, with brakes] (B) indicates with brakes									
MR-J2S-10CP(1)	HC-MFS053(B)	MR-J4-10A(1)-RJ	SC-J2SCPJ4KT02K	HG-MR053(B)	○	Without brakes SC-J2SJ4PW1C03M-■ With brakes SC-J2SJ4PWBK1C03M-■	SC-HAJ3ENM1C03M-■	Built-into power conversion cable	
	HC-MFS13(B)			HG-MR13(B)					
MR-J2S-20CP(1)	HC-MFS23(B)	MR-J4-20A(1)-RJ		HG-MR23(B)					
MR-J2S-40CP(1)	HC-MFS43(B)	MR-J4-40A(1)-RJ	SC-J2SCPJ4KT06K	HG-MR43(B)					
MR-J2S-70CP	HC-MFS73(B)	MR-J4-70A-RJ	SC-J2SCPJ4KT1K	HG-MR73(B)					
[Medium capacity, medium inertia HC-SFS Series standard, with brakes] (B) indicates with brakes									
MR-J2S-60CP	HC-SFS52(B)	MR-J4-60A-RJ	SC-J2SCPJ4KT06K	HG-SR52(B)	△ (*7)	SC-SAJ3PW2KC1M-S2	SC-HAJ3ENM3C1M	(*8)	
MR-J2S-100CP	HC-SFS102(B)	MR-J4-100A-RJ	SC-J2SCPJ4KT1K	HG-SR102(B)					
	HC-SFS152(B)	MR-J4-200A-RJ	SC-J2SCPJ4KT3K	HG-SR152(B)		SC-HAJ3PW1C1M			
MR-J2S-200CP	HC-SFS202(B)			HG-SR202(B)					
MR-J2S-350CP	HC-SFS352(B)	MR-J4-350A-RJ		HG-SR352(B)		Existing cable can be used			
MR-J2S-500CP	HC-SFS502(B)	MR-J4-500A-RJ	SC-J2SCPJ4KT5K	HG-SR502(B)					
MR-J2S-700CP	HC-SFS702(B)	MR-J4-700A-RJ	SC-J2SCPJ4KT7K	HG-SR702(B)					
[Medium capacity, super-low inertia HC-RFS Series standard, with brakes] (B) indicates with brakes									
MR-J2S-200CP	HC-RFS103(B)	MR-J4-200A-RJ	SC-J2SCPJ4KT3K	HG-RR103(B)	○	Existing cable can be used	SC-HAJ3ENM3C1M	Existing cable can be used	
	HC-RFS153(B)			HG-RR153(B)					
MR-J2S-350CP	HC-RFS203(B)	MR-J4-350A-RJ		HG-RR203(B)					
MR-J2S-500CP	HC-RFS353(B)	MR-J4-500A-RJ	SC-J2SCPJ4KT5K	HG-RR353(B)					
	HC-RFS503(B)			HG-RR503(B)					
[Medium capacity, flat type HC-UFS Series standard, with brakes] (B) indicates with brakes									
MR-J2S-70CP	HC-UFS72(B)	MR-J4-70A-RJ	SC-J2SCPJ4KT1K	HG-UR72(B)	○	Existing cable can be used	SC-HAJ3ENM3C1M	Existing cable can be used	
MR-J2S-200CP	HC-UFS152(B)	MR-J4-200A-RJ		HG-UR152(B)					
MR-J2S-350CP	HC-UFS202(B)	MR-J4-350A-RJ	SC-J2SCPJ4KT3K	HG-UR202(B)					
	HC-UFS352(B)			HG-UR352(B)					
MR-J2S-500CP	HC-UFS502(B)	MR-J4-500A-RJ	SC-J2SCPJ4KT5K	HG-UR502(B)					
[Medium capacity, low inertia HA-LFS Series, standard]									
MR-J2S-500CP	HA-LFS502	MR-J4-500A-RJ	SC-J2SCPJ4KT5K	HG-SR502	× (*9)	SC-HAJ3PW1C1M	SC-HAJ3ENM3C1M		
MR-J2S-700CP	HA-LFS702	MR-J4-700A-RJ	SC-J2SCPJ4KT7K	HG-SR702		Existing cable can be used			

- *1. Refer to the Mitsubishi Electric System & Service web site for motors with reduction gears and models not listed above.
- *2. When the gain of the existing servo amplifier is extremely high, the characteristics may differ slightly if a primary replacement is made. Always set the gain again.
- *3. The replacement servo amplifier, SSCNET conversion unit and renewal kit are common for the primary, secondary and package replacements.
- *4. Purchase from Mitsubishi Electric Corp.
- *5. When making a primary replacement, the amplifier software version may differ according to the supported motor. Consult with Mitsubishi Electric Corp. when placing an order.
- *6. When replacing the motor, the motor's moment of inertia will differ from the original motor. Pay attention to the load moment of inertia rate. The operation pattern may need to be reviewed depending on the existing system. Refer to the "Guide for Replacing MELSERVO-J2S/J2M Series with J4 Series L (NA) 03092" issued by Mitsubishi Electric for details on the motor specifications.
- *7. Note that the entire length of the motor will be shorter, so the motor connector may interfere with the system side.
- *8. When replacing the motor with brakes with secondary or package replacement, a magnetic brake cable must be newly connected. Use the Mitsubishi Electric System & Service motor magnetic brake cable (SC-BKC1CBL□M-L or SC-BKC1CBL□M-H).
- *9. When replacing the motor, the flange dimensions and shaft dimensions will not be interchangeable. The mounting section and the coupling section with the servo motor shaft, such as the coupling pulley must be changed. Refer to the "Guide for Replacing MELSERVO-J2S/J2M Series with J4 Series L (NA) 03092" issued by Mitsubishi Electric for details on the motor specifications.
- *10. When replacing the motor, the existing power cable's crimp terminal must be changed. Refer to the "Guide for Replacing MELSERVO-J2S/J2M Series with J4 Series L (NA) 03092" issued by Mitsubishi Electric for details on the motor specifications.
- *11. When replacing the motor, the new motor will not have a cooling fan. The existing wiring will no longer be required, so always insulate it.
- *12. If the servo amplifier must be replaced again for the secondary replacement, a package replacement is recommended.
- *13. The renewal kit cannot be used with the secondary replacement or package replacement, as the servo amplifier's dimensions could vary greatly because of a change in servo amplifier capacity. Use the amplifier conversion cable set in this case.
- *14. A new encoder cable must be connected when replacing the motor. Contact Mitsubishi Electric System & Service to purchase a new cable.
- *15. Use this amplifier in combination with the converter unit MR-CR55K.
- *16. Use this amplifier in combination with the converter unit MR-CR55k4.
- *17. The renewal kit is not required for this combination. Purchase only the amplifier conversion cable if necessary.
- *18. Either "A1" or "A2" is indicated at ■ in the model. (A1 is connected to load side, and A2 is connected to opposite load side.)

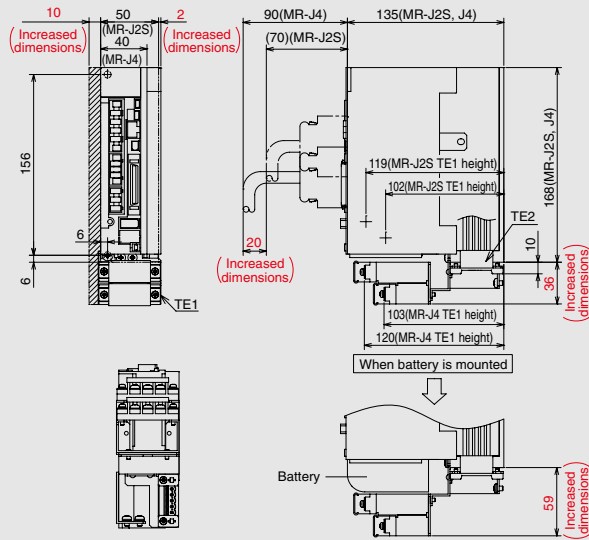
Visit the Mitsubishi Electric System & Service website for replacing motor models not listed in the replacement combination table. <http://www.melco.co.jp/business/>

Outline dimensions

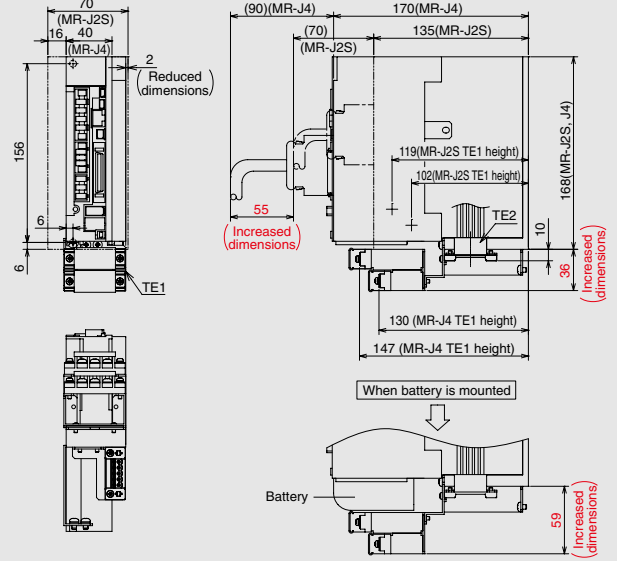
Renewal kit (for 100V/200V AC)

[unit: mm]

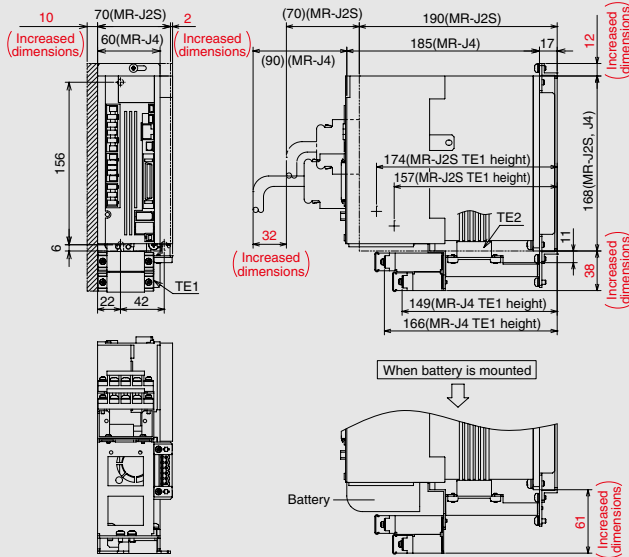
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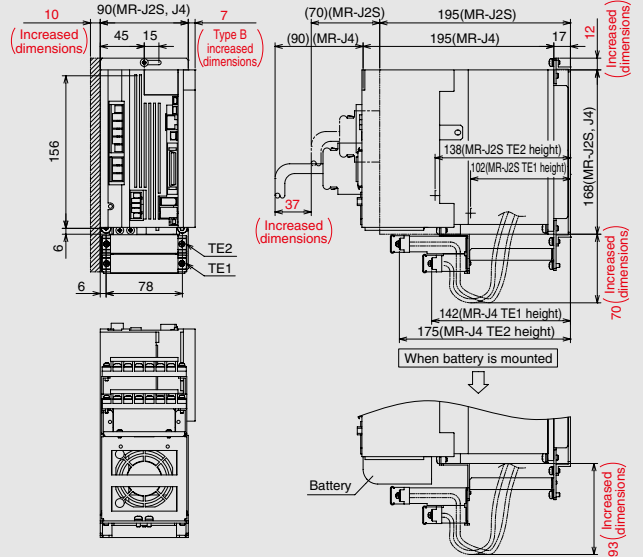
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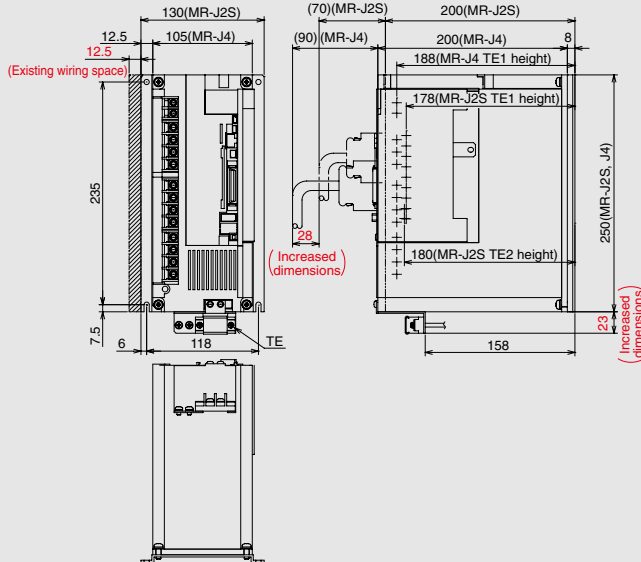
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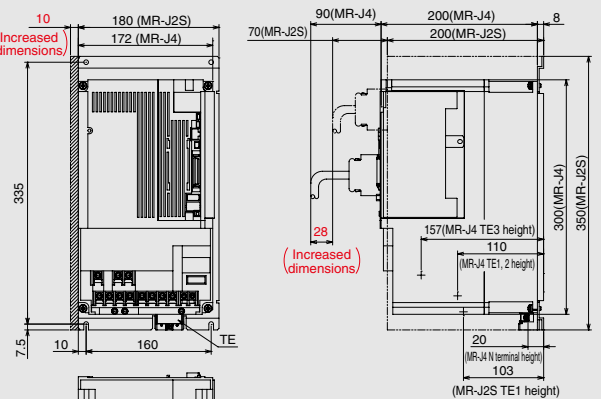
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■ SC-J2S(B)(CP)J4KT5K

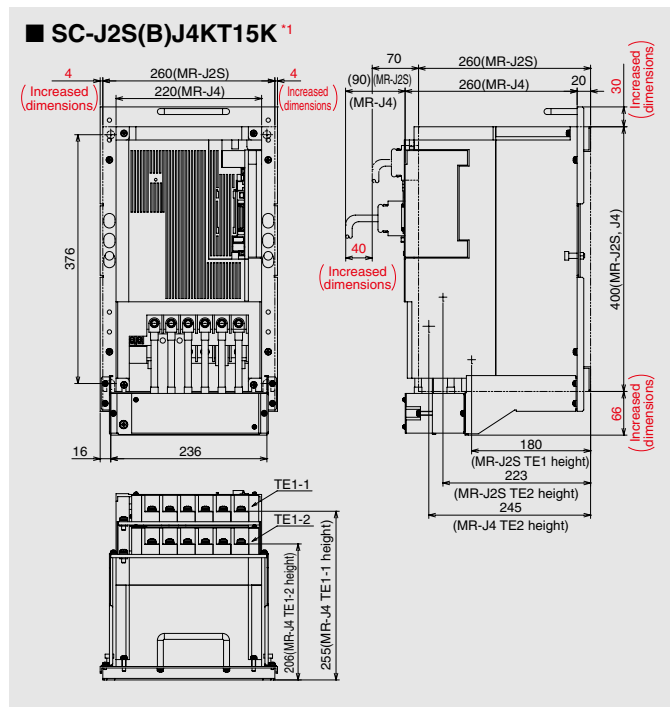


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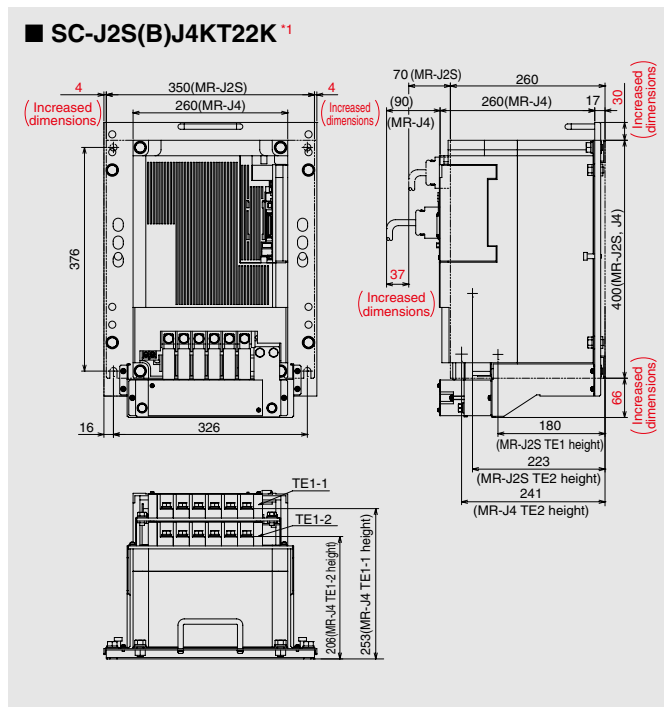


Renewal kit (for 100V/200V AC)

[unit: mm]

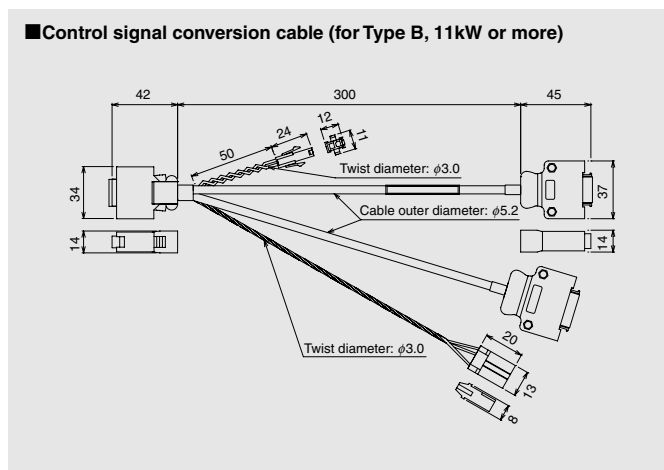
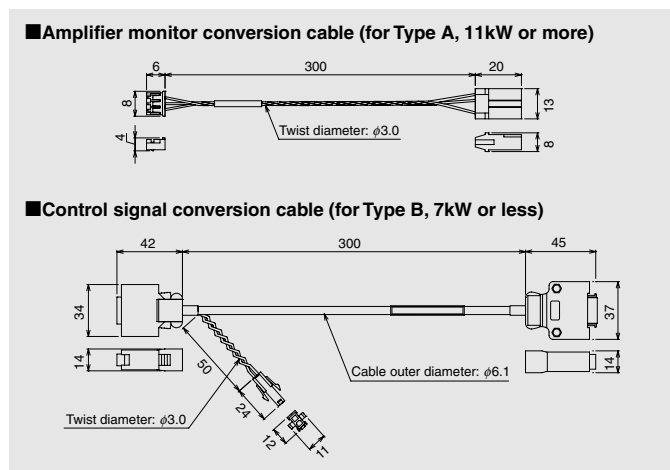
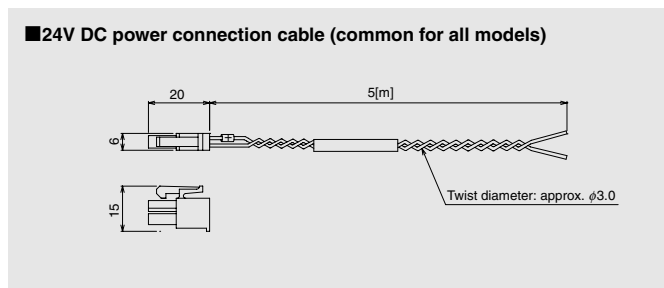
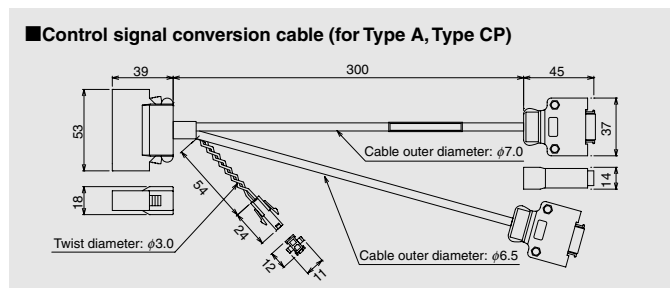
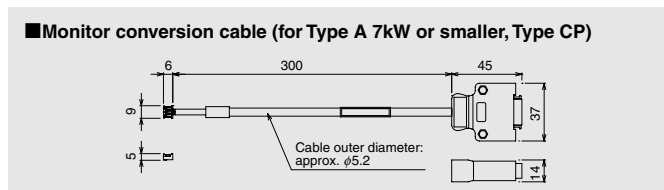
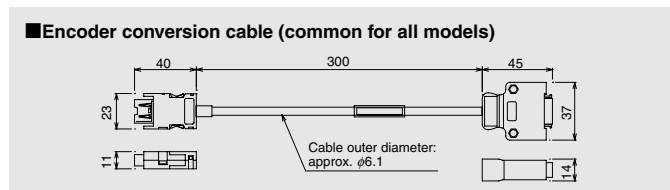


*1. Mounting of the MR-J2S cooling fin external extension attachment is not supported.



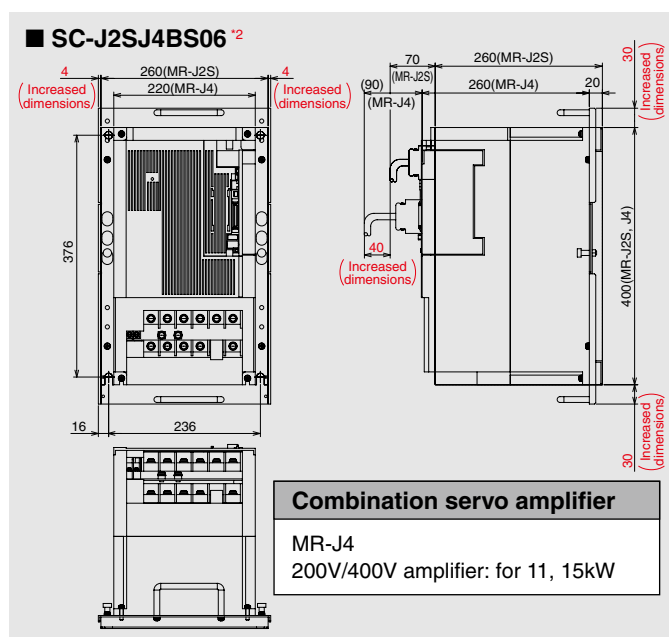
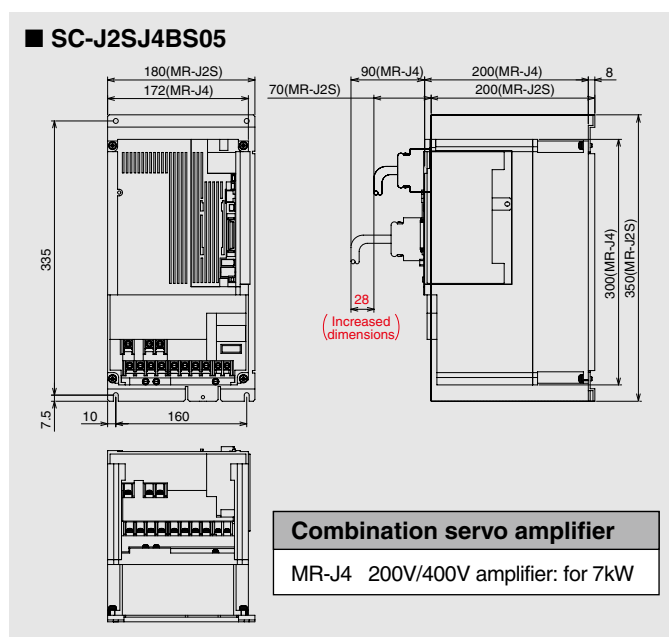
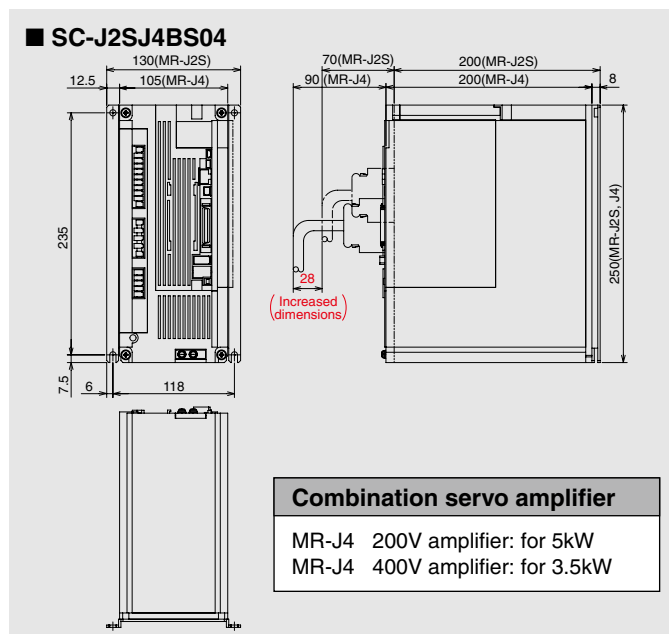
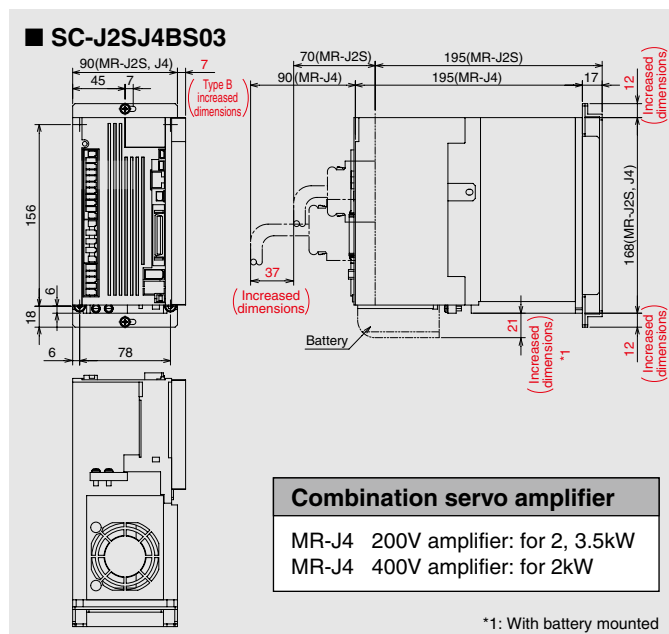
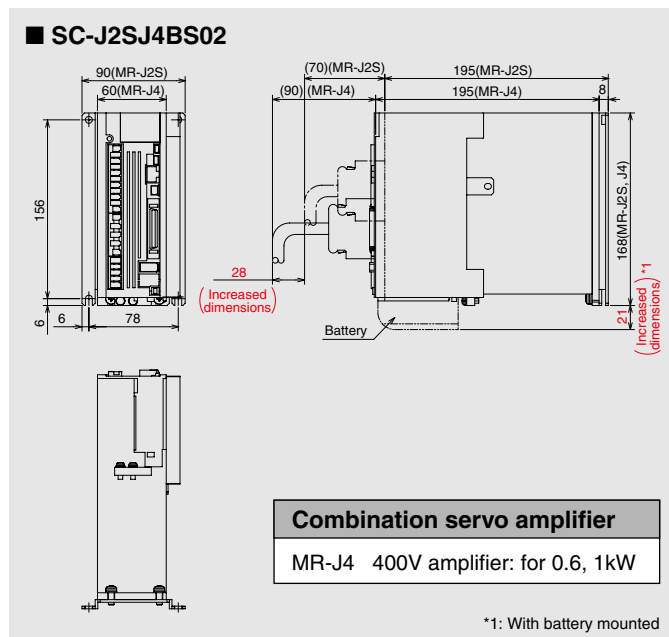
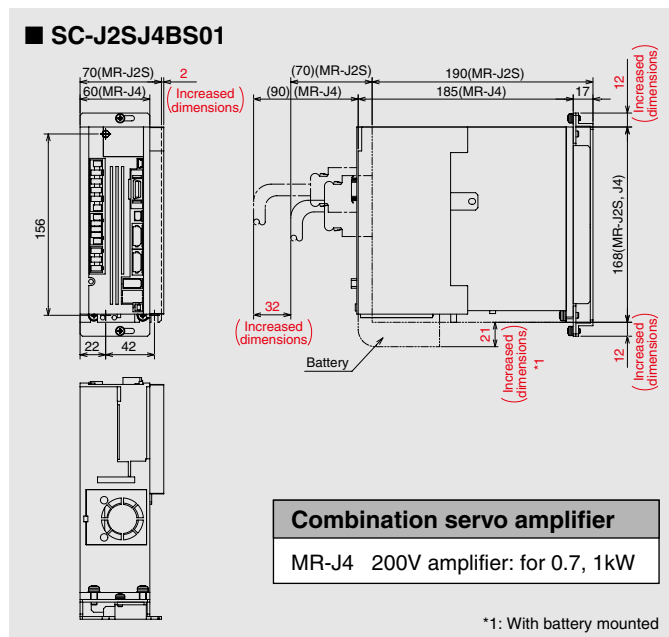
Amplifier conversion cable

[unit: mm]



Renewal kit (for 400V AC) / using mounting attachment (for 100V/200V AC)

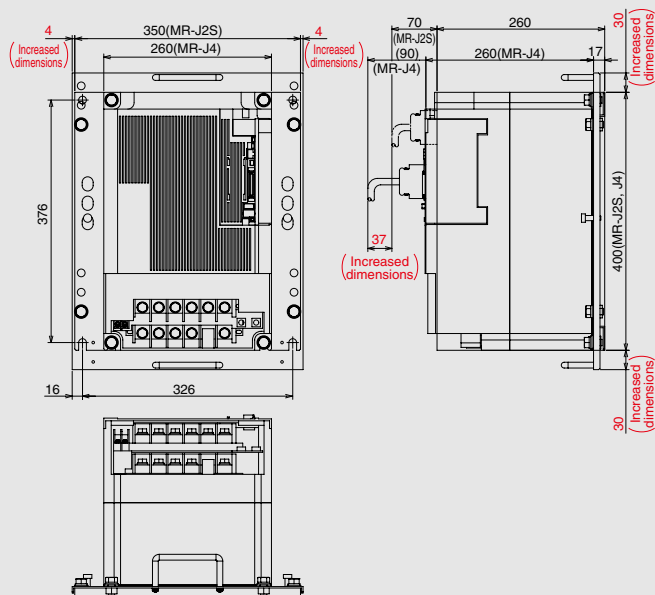
[unit: mm]



Renewal kit (for 400V AC) / using mounting attachment (for 100V/200V AC)

[unit: mm]

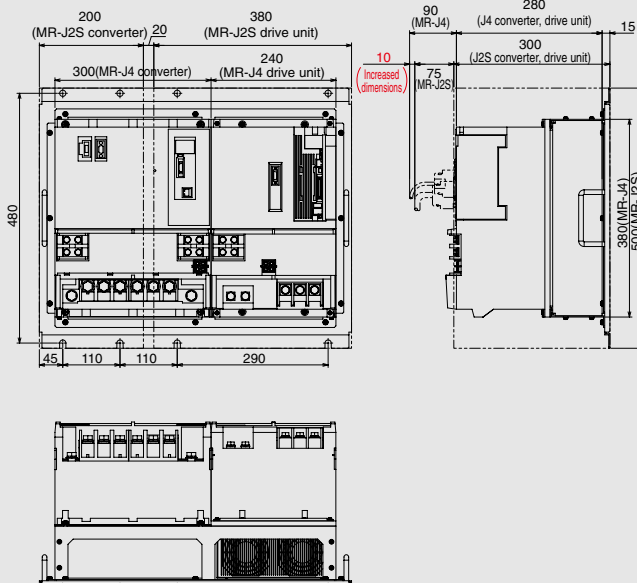
■ SC-J2SJ4BS07^{*1}



Combination servo amplifier

MR-J4 200V/400V amplifier: for 22kW

■ SC-J2SJ4BS08^{*1}



Combination servo amplifier

MR-J4 400V amplifier: for 30kW

■ SC-J2SJ4BS09^{*1}

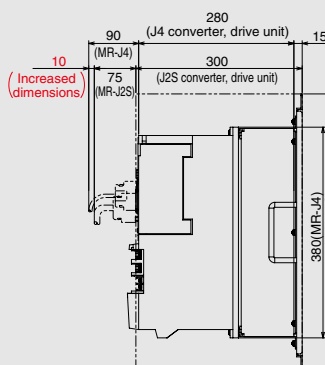
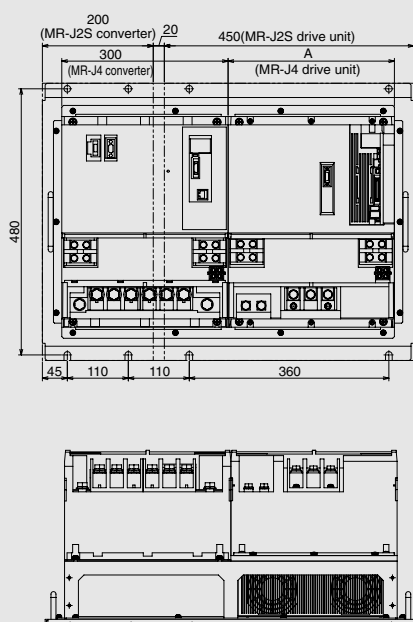


Table of dimension changes

Servo amplifier	A
MR-J4 400V 30, 37kW	240
MR-J4 200V 30, 37kW	300
400V 45, 55kW	

Combination servo amplifier

MR-J4 200V amplifier: for 30, 37kW
MR-J4 400V amplifier: for 37, 45, 55kW

*1. Mounting of the MR-J2S cooling fin external extension attachment is not supported.

Mounting attachment selection table

Model	Applicable amplifier ^{*2}	Description
SC-J2SJ4BS01	MR-J4 200V amplifier: for 0.7, 1kW	Mounting plate (base x1, amplifier base x1)
SC-J2SJ4BS02	MR-J4 400V amplifier: for 0.6, 1kW	Mounting plate (amplifier base x1)
SC-J2SJ4BS03	MR-J4 200V amplifier: for 2, 3.5kW / MR-J4 400V amplifier: for 2kW	Mounting plate (base x1, amplifier base x1)
SC-J2SJ4BS04	MR-J4 200V amplifier: for 5kW / MR-J4 400V amplifier: for 3.5kW	Mounting plate (amplifier base x1)
SC-J2SJ4BS05	MR-J4 200V/400V amplifier: for 7kW	Mounting plate (amplifier base x1)
SC-J2SJ4BS06	MR-J4 200V/400V amplifier: for 11, 15kW	Mounting plate (base x1, amplifier base x1)
SC-J2SJ4BS07	MR-J4 200V/400V amplifier: for 22kW	Mounting plate (base x1, amplifier base x1)
SC-J2SJ4BS08	MR-J4 400V amplifier: for 30kW	Mounting plate (amplifier base frame x4, base x1)
SC-J2SJ4BS09	MR-J4 200V amplifier: for 30, 37kW / MR-J4 400V amplifier: for 37, 45, 55kW	Mounting plate (amplifier base frame x4, base x1)

*2. The mounting attachment is common for Type A, Type B and Type CP.

Mitsubishi General-Purpose AC Servo Renewal Tool

Mitsubishi Electric Corp. related materials

Mitsubishi Electric Corp. catalog



Renewal catalog explaining replacement of MR-J2S System with MR-J4

■MR-J2S Renewal Catalog
L (NA) 03091A

Mitsubishi Electric Corp. Replacement Guide



Guide explaining replacement of MR-J2S System with MR-J4. Refer to this guide for details on the parameter settings and option settings, etc.

■Guide for Replacing MR-J2S/J2M Series with J4 Series
L (NA) 03093

General-Purpose AC Servo MR-J2S Series

Notice of Discontinuation

Production of the Mitsubishi general-purpose AC servo MR-J2S Series will be discontinued in August 2015.

Replacing to the MR-J4 Series using our renewal tool is recommended.

Refer to the Mitsubishi Electric FA site

(<http://www.MitsubishiElectric.co.jp/fa/>) for details on the products being discontinued.

Ordered production schedule

End of August 2014

The orders will be delivered 8 to 10 weeks after order is received.

Production discontinuation schedule

August 2015

Orders will not be accepted after August 31, 2015.

Repair and Part Supply Schedule

August 2022

Orders will be accepted until August 31, 2022.

* We will continue to provide support until August 31, 2022.

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MITSUBISHI ELECTRIC SYSTEM & SERVICE CO., LTD.

OVERSEAS SERVICE SUPPORT SECTION

Email: osb.webmaster@melsc.jp