

# Cable for Mitsubishi Electric Encoder J4 / J3 / JN Series

## Encoder Cable Connection Diagram List

**SVEM-J3HF1 (R) / J3W1 (R)**  
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Amplifier Side (HA)      Motor Side (HM)

Signal Name	Wire Color	Pin Number	Pin Number	Wire Color	Signal Name
P5	White	1	3	White	P5
LG	White / Black	2	6	White / Black	LG
MR	Red	3	5	Red	MR
MRR	Red / Black	4	2	Red / Black	MRR
BAT	Green	9	2	Green	BAT
SD	Shield	Plate	9	Shield	SHD

**SVEM-J3HF2**  
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Amplifier Side (HA)      Motor Side (HM)

Signal Name	Wire Color	Pin Number	Pin Number	Wire Color	Signal Name
P5	White	1	8	White	P5
LG	White / Black	2	5	White / Black	LG
MR	Red	3	1	Red	MR
MRR	Red / Black	4	2	Red / Black	MRR
BAT	Green	9	4	Green	BAT
SD	Shield	Plate	10	Shield	SHD

**SVEM-J3HF2L**  
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Amplifier Side (HA)      Motor Side (HM)

Signal Name	Wire Color	Pin Number	Pin Number	Wire Color	Signal Name
P5	White, Red, Green, Yellow	1	8	White, Red, Green, Yellow	P5
LG	White/Black, White/Red, Black/Black, Red/Black	2	5	White/Black, White/Red, Black/Black, Red/Black	LG
MR	Brown	3	1	Brown	MR
MRR	Brown / Black	4	2	Brown / Black	MRR
BAT	Blue	9	4	Blue	BAT
SD	Shield	Plate	10	Shield	SHD

**SVEM-J3HF1L-C20-C / J3W1L-C20-C**  
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Amplifier Side (HA)      Motor Side (HM)

Signal Name	Wire Color	Pin Number	Pin Number	Wire Color	Signal Name
P5	White, Red, Green	1	7	White, Red, Green	P5E
LG	White/Black, Red/Black, Green/Black	2	8	White/Black, Red/Black, Green/Black	P5G
MR	Yellow	3	1	Yellow	MR
MRR	Yellow / Black	4	2	Yellow / Black	MRR
BAT	Brown	9	3	Brown	BAT
SD	Shield	Hood	9	Shield	SHD

\* 2-Wire Type

**SVEM-J3HF1L-C30-C / J3W1L-C30-C**  
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Amplifier Side (HA)      Motor Side (HM)

Signal Name	Wire Color	Pin Number	Pin Number	Wire Color	Signal Name
P5	White, Red, Green	1	7	White, Red, Green	P5E
LG	White/Black, Red/Black, Green/Black	2	8	White/Black, Red/Black, Green/Black	P5G
MR	Yellow	3	1	Yellow	MR
MRR	Yellow / Black	4	2	Yellow / Black	MRR
MD	Brown	7	4	Brown	MD
MDR	Brown / Black	8	5	Brown / Black	MDR
BAT	Blue	9	3	Blue	BAT
SD	Shield	Hood	6	White/Black, Red/Black, Green/Black, Blue/Black	CONT
			9	Shield	SHD

\* 4-Wire Type

Connector Included Cable Documents

**SVEM-J3HF1L-D20-D / J3W1L-D20-D**  
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Amplifier Side (HA)      Motor Side (HM)

Signal Name	Wire Color	Pin Number	Connector Pin Number	Wire Color	Signal Name
P5	White, Red, Green, Yellow	1	7	White, Red, Green, Yellow	P5E
LG	Black/White, Black/Red, Black/Green, Black/Yellow	2	8	Black/White, Black/Red, Black/Green, Black/Yellow	P5G
MR	Brown	3	1	Brown	MR
MRR	Black / Brown	4	2	Black / Brown	MRR
BAT	Blue	9	3	Blue	BAT
SD	Shield	Hood	9	Shield	SHD

\* 2-Wire Type

**SVEM-J3HF1L-D50-D / J3W1L-D50-D**  
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Amplifier Side (HA)      Motor Side (HM)

Signal Name	Wire Color	Pin Number	Pin Number	Wire Color	Signal Name
P5	White, Red, Green, Yellow	1	7	White, Red, Green, Yellow	P5E
LG	White/Black, Red/Black, Green/Black, Blue/Black	2	8	White/Black, Red/Black, Green/Black, Blue/Black	P5G
MR	Brown	3	1	Brown	MR
MRR	Brown / Black	4	2	Brown / Black	MRR
MD	Blue	7	4	Blue	MD
MDR	Blue / Black	8	5	Blue / Black	MDR
BAT	Gray	9	3	Gray	BAT
SD	Shield	Hood	6	White/Black, Red/Black, Green/Black, Blue/Black, Gray/Black	CONT
			9	Shield	SHD

\* 4-Wire Type

**SVEM-J3HF1M**  
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Amplifier Side (HA)      Motor Side (HM)

Signal Name	Wire Color	Pin Number	Pin Number	Wire Color	Signal Name
MR	White	1	5	White	MR
MRR	Black / White	2	4	Black / White	MRR
BAT	Red	3	2	Red	BAT
SEL	Black / Red	6	1	Black / Red	CONT
MD	Green	4	8	Green	MD
MDR	Black / Green	5	7	Black / Green	MDR
P5	Yellow	7	3	Yellow	P5
LG	Black / Yellow	8	6	Black / Yellow	P5G
SHD	Shield	9	9	Shield	SHD