MITSUBISHI ELECTRIC

SPLIT-TYPE AIR CONDITIONERS

Revision E:
- MSZ-EF22/25/35/42/50VG2W/B/S - [ET1], MSZ-EF18VGK2W/B/S - [E1] and MSZ-EF22/25/35/42/50VGK2W/B/S - [E1], [ET1] have been added.

OBH831 REVISED EDITION-D is void.

INDOOR UNIT

No. OBH831
REVISED EDITION-E

SERVICE MANUAL

Models

MSZ-EF18VGW/B/S - [E1], [E2]
MSZ-EF22VGW/B/S - [E1], [ET1], [E2], [ET2], [ET3]
MSZ-EF25VGW/B/S - [E1], [ET1], [E2], [ET2], [ET3]
MSZ-EF35VGW/B/S - [E1], [ET1], [E2], [ET2], [ET3]
MSZ-EF42VGW/B/S - [E1], [ET1], [E2], [ET2], [ET3]
MSZ-EF50VGW/B/S - [E1], [ET1], [E2], [ET2], [ET3]

MSZ-EF22VG2W/B/S - [ET1]
MSZ-EF25VG2W/B/S - [ET1]
MSZ-EF35VG2W/B/S - [ET1]
MSZ-EF42VG2W/B/S - [ET1]
MSZ-EF50VG2W/B/S - [ET1]

MSZ-EF18VGKW/B/S - [E1], [E2]
MSZ-EF22VGKW/B/S - [E1], [ET1], [ER1], [E2], [ET2], [ER2]
MSZ-EF25VGKW/B/S - [E1], [ET1], [ER1], [E2], [ET2], [ER2]
MSZ-EF35VGKW/B/S - [E1], [ET1], [ER1], [E2], [ET2], [ER2]
MSZ-EF42VGKW/B/S - [E1], [ET1], [ER1], [E2], [ET2], [ER2]
MSZ-EF50VGKW/B/S - [E1], [ET1], [ER1], [E2], [ET2], [ER2]
MSZ-EF18VGK2W/B/S - [E1]
MSZ-EF22VGK2W/B/S - [E1], [ET1]
MSZ-EF25VGK2W/B/S - [E1], [ET1]
MSZ-EF35VGK2W/B/S - [E1], [ET1]
MSZ-EF42VGK2W/B/S - [E1], [ET1]
MSZ-EF50VGK2W/B/S - [E1], [ET1]

MXZ-F·VF Series(OBH790)

MSZ-EF·VGW/VGKW
MSZ-EF·VGB/VGKB
MSZ-EF·VGS/VGKS

CONTENTS

Use the specified refrigerant only

Never use any refrigerant other than that specified.

Doing so may cause a burst, an explosion, or fire when the unit is being used, serviced, or disposed of.
Correct refrigerant is specified in the manuals and on the spec labels provided with our products.
We will not be held responsible for mechanical failure, system malfunction, unit breakdown or accidents caused by failure to follow the instructions.

<Preparation before the repair service>

- Prepare the proper tools.
- Prepare the proper protectors.
- Provide adequate ventilation.
- After stopping the operation of the air conditioner, turn off the power-supply breaker and pull the power plug.
- Discharge the capacitor before the work involving the electric parts.

<Precautions during the repair service>

- Do not perform the work involving the electric parts with wet hands.
- Do not pour water into the electric parts.
- Do not touch the refrigerant.
- Do not touch the hot or cold areas in the refrigeration cycle.
- When the repair or the inspection of the circuit needs to be done without turning off the power, exercise great caution not to touch the live parts.

⚠ WARNING

- **When the refrigerant circuit has a leak, do not execute pump down with the compressor.**
- **When pumping down the refrigerant, stop the compressor before disconnecting the refrigerant pipes. The compressor may burst if air etc. get into it.**
- **When opening or closing the valve below freezing temperatures, refrigerant may spurt out from the gap between the valve stem and the valve body, resulting in injuries.**

Revision A:
• MSZ-EF18/22/25/35/42/50VGW/B/S - E2, MSZ-EF22/25/35/42/50VGW/B/S - ET2, MSZ-EF18/22/25/35/42/50VGKW/B/S - E1 and MSZ-EF22/25/35/42/50VGKW/B/S - ET1 have been added.

Revision B:
• MSZ-EF22/25/35/42/50VGKW/B/S - ER1 have been added.

Revision C:
• 10. TROUBLESHOOTING has been modified.

Revision D:
• MSZ-EF22/25/35/42/50VGW/B/S - ET3, MSZ-EF18/22/25/35/42/50VGKW/B/S - E2 and MSZ-EF22/25/35/42/50VGKW/B/S - ET2, ER2 have been added.

Revision E:
• MSZ-EF22/25/35/42/50VG2W/B/S - ET1, MSZ-EF18VGK2W/B/S - E1 and MSZ-EF22/25/35/42/50VGK2W/B/S - E1, ET1 have been added.

1 TECHNICAL CHANGES

The following models are compatible with the outdoor units with low standby power control.
Connecting the following models to the **MUZ-EF·VG/H** series outdoor units enables the low standby power control.

The following models may be connected to the **MUZ-EF·VG/H** series after once connected to the **MXZ series** and operated, for example because of relocation. In that case, the **MUZ-EF·VG/H** series outdoor units will not operate without taking a step. Follow the procedure "Deleting the memorized abnormal condition" described in 10-2.1.

MSZ-EF18VGW/B/S - E1
MSZ-EF22VGW/B/S - E1, ET1
MSZ-EF25VGW/B/S - E1, ET1
MSZ-EF35VGW/B/S - E1, ET1
MSZ-EF42VGW/B/S - E1, ET1
MSZ-EF50VGW/B/S - E1, ET1
MSZ-EF18VGKW/B/S - E1
MSZ-EF22VGKW/B/S - E1, ET1, ER1
MSZ-EF25VGKW/B/S - E1, ET1, ER1
MSZ-EF35VGKW/B/S - E1, ET1, ER1
MSZ-EF42VGKW/B/S - E1, ET1, ER1
MSZ-EF50VGKW/B/S - E1, ET1, ER1

1. New model

MSZ-EF18VGW/B/S - E1	→	**MSZ-EF18VGW/B/S -** E2
MSZ-EF22VGW/B/S - E1, ET1	→	**MSZ-EF22VGW/B/S -** E2, ET2
MSZ-EF25VGW/B/S - E1, ET1	→	**MSZ-EF25VGW/B/S -** E2, ET2
MSZ-EF35VGW/B/S - E1, ET1	→	**MSZ-EF35VGW/B/S -** E2, ET2
MSZ-EF42VGW/B/S - E1, ET1	→	**MSZ-EF42VGW/B/S -** E2, ET2
MSZ-EF50VGW/B/S - E1, ET1	→	**MSZ-EF50VGW/B/S -** E2, ET2

1. Indoor electronic control P.C. board has been changed.

MSZ-EF22VGW/B/S - ET2	→	**MSZ-EF22VGW/B/S -** ET3
MSZ-EF25VGW/B/S - ET2	→	**MSZ-EF25VGW/B/S -** ET3
MSZ-EF35VGW/B/S - ET2	→	**MSZ-EF35VGW/B/S -** ET3
MSZ-EF42VGW/B/S - ET2	→	**MSZ-EF42VGW/B/S -** ET3
MSZ-EF50VGW/B/S - ET2	→	**MSZ-EF50VGW/B/S -** ET3
MSZ-EF18VGKW/B/S - E1	→	**MSZ-EF18VGKW/B/S -** E2
MSZ-EF22VGKW/B/S - E1, ET1, ER1	→	**MSZ-EF22VGKW/B/S -** E2, ET2, ER2
MSZ-EF25VGKW/B/S - E1, ET1, ER1	→	**MSZ-EF25VGKW/B/S -** E2, ET2, ER2
MSZ-EF35VGKW/B/S - E1, ET1, ER1	→	**MSZ-EF35VGKW/B/S -** E2, ET2, ER2
MSZ-EF42VGKW/B/S - E1, ET1, ER1	→	**MSZ-EF42VGKW/B/S -** E2, ET2, ER2
MSZ-EF50VGKW/B/S - E1, ET1, ER1	→	**MSZ-EF50VGKW/B/S -** E2, ET2, ER2

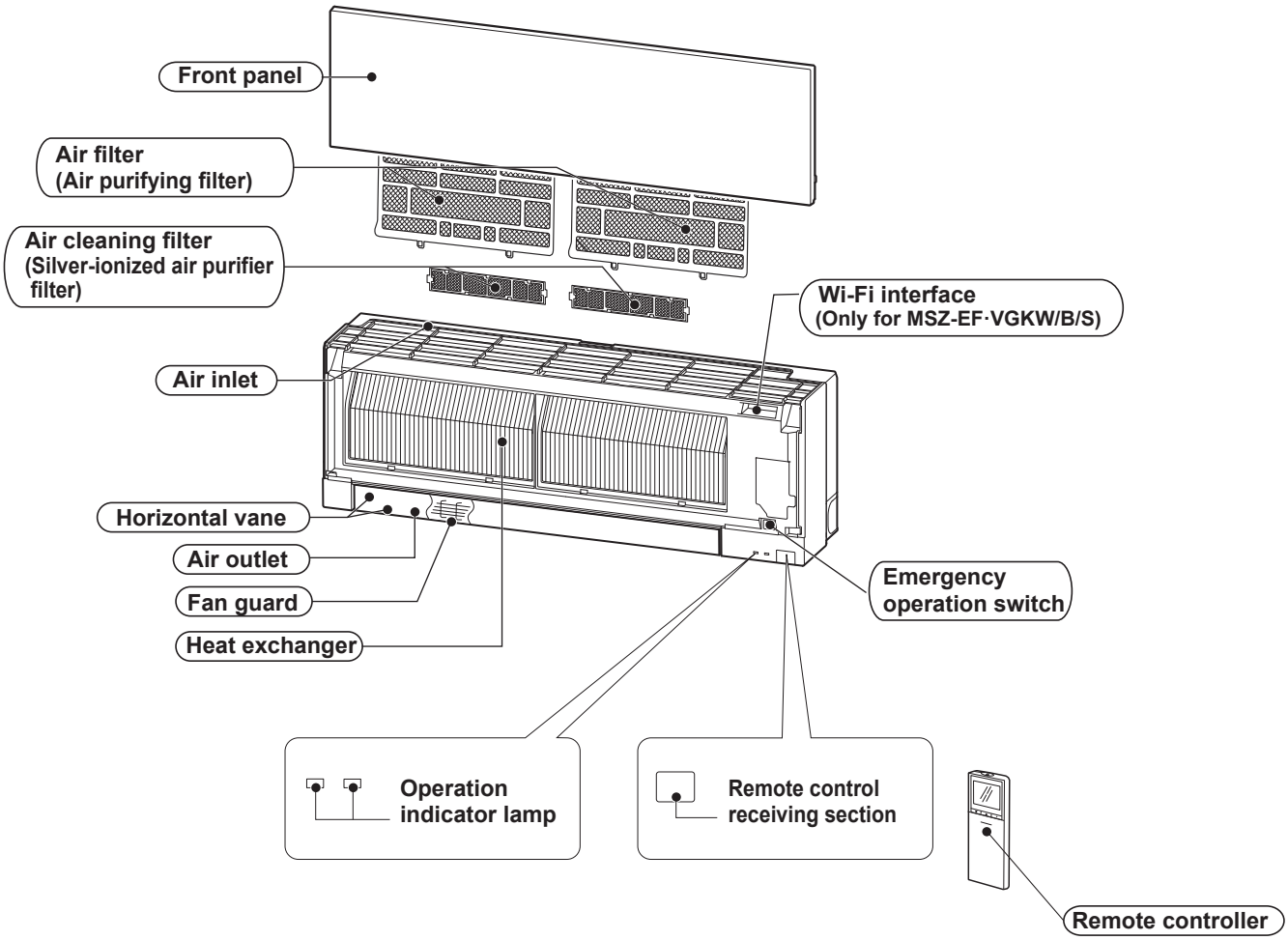
1.Compressor protector has been added.

MSZ-EF22VGW/B/S - ET3	→	**MSZ-EF22VG2W/B/S -** ET1
MSZ-EF25VGW/B/S - ET3	→	**MSZ-EF25VG2W/B/S -** ET1
MSZ-EF35VGW/B/S - ET3	→	**MSZ-EF35VG2W/B/S -** ET1
MSZ-EF42VGW/B/S - ET3	→	**MSZ-EF42VG2W/B/S -** ET1
MSZ-EF50VGW/B/S - ET3	→	**MSZ-EF50VG2W/B/S -** ET1
MSZ-EF18VGKW/B/S - E2	→	**MSZ-EF18VGK2W/B/S -** E1
MSZ-EF22VGKW/B/S - E2, ET2	→	**MSZ-EF22VGK2W/B/S -** E1, ET1
MSZ-EF25VGKW/B/S - E2, ET2	→	**MSZ-EF25VGK2W/B/S -** E1, ET1
MSZ-EF35VGKW/B/S - E2, ET2	→	**MSZ-EF35VGK2W/B/S -** E1, ET1
MSZ-EF42VGKW/B/S - E2, ET2	→	**MSZ-EF42VGK2W/B/S -** E1, ET1
MSZ-EF50VGKW/B/S - E2, ET2	→	**MSZ-EF50VGK2W/B/S -** E1, ET1

1. Indoor electronic control P.C. board has been changed.
2. Wi-Fi interface has been changed.
3. Remote controller has been changed.

2 PART NAMES AND FUNCTIONS

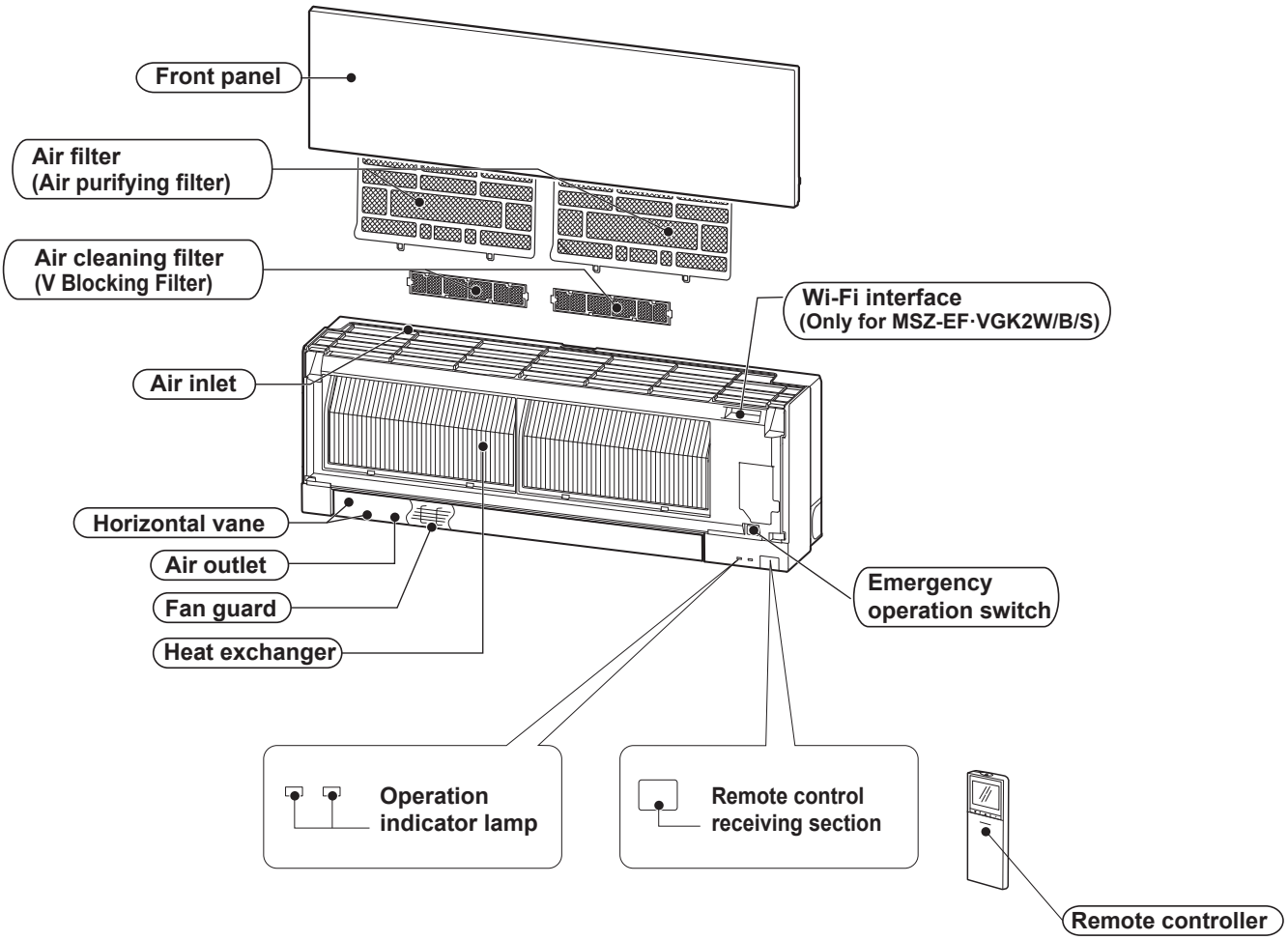
MSZ-EF18VGW MSZ-EF22VGW MSZ-EF25VGW MSZ-EF35VGW MSZ-EF42VGW MSZ-EF50VGW
MSZ-EF18VGB MSZ-EF22VGB MSZ-EF25VGB MSZ-EF35VGB MSZ-EF42VGB MSZ-EF50VGB
MSZ-EF18VGS MSZ-EF22VGS MSZ-EF25VGS MSZ-EF35VGS MSZ-EF42VGS MSZ-EF50VGS
MSZ-EF18VGKW MSZ-EF22VGKW MSZ-EF25VGKW MSZ-EF35VGKW MSZ-EF42VGKW MSZ-EF50VGKW
MSZ-EF18VGKB MSZ-EF22VGKB MSZ-EF25VGKB MSZ-EF35VGKB MSZ-EF42VGKB MSZ-EF50VGKB
MSZ-EF18VGKS MSZ-EF22VGKS MSZ-EF25VGKS MSZ-EF35VGKS MSZ-EF42VGKS MSZ-EF50VGKS



ACCESSORIES

Model		MSZ-EF18VGW MSZ-EF18VGB MSZ-EF18VGS MSZ-EF22VGW MSZ-EF22VGB MSZ-EF22VGS MSZ-EF25VGW MSZ-EF25VGB MSZ-EF25VGS MSZ-EF35VGW MSZ-EF35VGB MSZ-EF35VGS MSZ-EF42VGW MSZ-EF42VGB MSZ-EF42VGS MSZ-EF50VGW MSZ-EF50VGB MSZ-EF50VGS MSZ-EF18VGKW MSZ-EF18VGKB MSZ-EF18VGKS MSZ-EF22VGKW MSZ-EF22VGKB MSZ-EF22VGKS MSZ-EF25VGKW MSZ-EF25VGKB MSZ-EF25VGKS MSZ-EF35VGKW MSZ-EF35VGKB MSZ-EF35VGKS MSZ-EF42VGKW MSZ-EF42VGKB MSZ-EF42VGKS MSZ-EF50VGKW MSZ-EF50VGKB MSZ-EF50VGKS
(1)	Installation plate	1
(2)	Installation plate fixing screw 4 × 25 mm	5
(3)	Battery (AAA) for remote controller	2
(4)	Wireless remote controller	1
(5)	Felt tape (For left or left-rear piping)	1
(6)	Soft dry cloth (VGB type only)	1
(7)	Air cleaning filter	2

MSZ-EF22VG2W MSZ-EF25VG2W MSZ-EF35VG2W MSZ-EF42VG2W MSZ-EF50VG2W
MSZ-EF22VG2B MSZ-EF25VG2B MSZ-EF35VG2B MSZ-EF42VG2B MSZ-EF50VG2B
MSZ-EF22VG2S MSZ-EF25VG2S MSZ-EF35VG2S MSZ-EF42VG2S MSZ-EF50VG2S
MSZ-EF18VGK2W MSZ-EF22VGK2W MSZ-EF25VGK2W MSZ-EF35VGK2W MSZ-EF42VGK2W MSZ-EF50VGK2W
MSZ-EF18VGK2B MSZ-EF22VGK2B MSZ-EF25VGK2B MSZ-EF35VGK2B MSZ-EF42VGK2B MSZ-EF50VGK2B
MSZ-EF18VGK2S MSZ-EF22VGK2S MSZ-EF25VGK2S MSZ-EF35VGK2S MSZ-EF42VGK2S MSZ-EF50VGK2S



ACCESSORIES

Model		MSZ-EF22VG2W MSZ-EF22VG2B MSZ-EF22VG2S MSZ-EF25VG2W MSZ-EF25VG2B MSZ-EF25VG2S MSZ-EF35VG2W MSZ-EF35VG2B MSZ-EF35VG2S MSZ-EF42VG2W MSZ-EF42VG2B MSZ-EF42VG2S MSZ-EF50VG2W MSZ-EF50VG2B MSZ-EF50VG2S MSZ-EF18VGK2W MSZ-EF18VGK2B MSZ-EF18VGK2S MSZ-EF22VGK2W MSZ-EF22VGK2B MSZ-EF22VGK2S MSZ-EF25VGK2W MSZ-EF25VGK2B MSZ-EF25VGK2S MSZ-EF35VGK2W MSZ-EF35VGK2B MSZ-EF35VGK2S MSZ-EF42VGK2W MSZ-EF42VGK2B MSZ-EF42VGK2S MSZ-EF50VGK2W MSZ-EF50VGK2B MSZ-EF50VGK2S
(1)	Installation plate	1
(2)	Installation plate fixing screw 4 × 25 mm	5
(3)	Battery (AAA) for remote controller	2
(4)	Wireless remote controller	1
(5)	Felt tape (For left or left-rear piping)	1
(6)	Soft dry cloth (VGB type only)	1
(7)	Air cleaning filter	2

3 SPECIFICATION

Indoor model					MSZ-EF18VGW MSZ-EF18VGB MSZ-EF18VGS MSZ-EF18VGKW MSZ-EF18VGKB MSZ-EF18VGKS	MSZ-EF22VGW MSZ-EF22VGB MSZ-EF22VGS MSZ-EF22VGKW MSZ-EF22VGKB MSZ-EF22VGKS	MSZ-EF25VGW MSZ-EF25VGB MSZ-EF25VGS MSZ-EF25VGKW MSZ-EF25VGKB MSZ-EF25VGKS	MSZ-EF35VGW MSZ-EF35VGB MSZ-EF35VGS MSZ-EF35VGKW MSZ-EF35VGKB MSZ-EF35VGKS
Power supply					Single phase 230 V, 50 Hz			
Electrical data	Power input ✻1		Cooling	W	20			
			Heating		26			30
	Running current ✻1		Cooling	A	0.20			
			Heating		0.26			0.29
Fan motor	Model				RC0J40			
	Current ✻1		Cooling	A	0.20			
			Heating		0.26			0.29
Dimensions W × H × D				mm	885 × 299 × 195			
Weight				kg	11.5			
Special remarks	Air direction				5			
	Airflow	Cooling	Super High	m^3/h	630			
			High		498			
			Med.		378			
			Low		276			
			Silent		240			
		Heating	Super High	m^3/h	714			762
			High		534			
			Med.		372			
			Low		276			
			Silent		240			
	Sound level	Cooling	Super High	dB(A)	42			
			High		36			
			Med.		29			30
			Low		23			24
			Silent		19			21
		Heating	Super High	dB(A)	45			46
			High		37			38
			Med.		29			30
			Low		24			
			Silent		21			
	Fan speed	Cooling	Super High	rpm	1,200			
			High		990			
			Med.		800			
			Low		630			
			Silent		570			
		Heating	Super High	rpm	1,330			1,400
			High		1,050			
			Med.		790			
			Low		630			
			Silent		570			
	Fan speed regulator				5			
Remote controller model					W: SG19A B,S: SG19B			

NOTE: Test conditions are based on ISO 5151.

Cooling: Indoor Dry-bulb temperature 27°C Wet-bulb temperature 19°C
Outdoor Dry-bulb temperature 35°C
Heating: Indoor Dry-bulb temperature 20°C
Outdoor Dry-bulb temperature 7°C Wet-bulb temperature 6°C

✻1 Measured under rated operating frequency.

Specifications and rated conditions of main electric parts

Fuse	(F11)	T3.15AL250V
Horizontal vane motor	(MV)	12 V DC
Varistor	(NR11)	470 V
Terminal block	(TB)	3P

Indoor model					MSZ-EF18VGK2W MSZ-EF18VGK2B MSZ-EF18VGK2S	MSZ-EF22VG2W MSZ-EF22VG2B MSZ-EF22VG2S MSZ-EF22VGK2W MSZ-EF22VGK2B MSZ-EF22VGK2S	MSZ-EF25VG2W MSZ-EF25VG2B MSZ-EF25VG2S MSZ-EF25VGK2W MSZ-EF25VGK2B MSZ-EF25VGK2S	MSZ-EF35VG2W MSZ-EF35VG2B MSZ-EF35VG2S MSZ-EF35VGK2W MSZ-EF35VGK2B MSZ-EF35VGK2S
Power supply					Single phase 230 V, 50 Hz			
Electrical data	Power input ✻1		Cooling	W	20			
			Heating		26			30
	Running current ✻1		Cooling	A	0.20			
			Heating		0.26			0.29
Fan motor	Model				RC0J40			
	Current ✻1		Cooling	A	0.20			
			Heating		0.26			0.29
Dimensions W × H × D				mm	885 × 299 × 195			
Weight				kg	11			
Special remarks	Air direction				5			
	Airflow	Cooling	Super High	m^3/h	666			
			High		522			
			Med.		390			
			Low		270			
			Silent		228			
		Heating	Super High	m^3/h	750			804
			High		558			
			Med.		384			
			Low		270			
			Silent		228			
	Sound level	Cooling	Super High	dB(A)	42			
			High		36			
			Med.		29			30
			Low		23			24
			Silent		19			21
		Heating	Super High	dB(A)	45			46
			High		37			38
			Med.		29			30
			Low		24			
			Silent		21			
	Fan speed	Cooling	Super High	rpm	1,200			
			High		990			
			Med.		800			
			Low		630			
			Silent		570			
		Heating	Super High	rpm	1,320			1,400
			High		1,050			
			Med.		790			
			Low		630			
			Silent		570			
	Fan speed regulator				5			
Remote controller model					SH25E SH25F			

NOTE: Test conditions are based on ISO 5151.

Cooling: Indoor Dry-bulb temperature 27°C Wet-bulb temperature 19°C
Outdoor Dry-bulb temperature 35°C
Heating: Indoor Dry-bulb temperature 20°C
Outdoor Dry-bulb temperature 7°C Wet-bulb temperature 6°C

✻1 Measured under rated operating frequency.

Specifications and rated conditions of main electric parts

Fuse	(F11)	T3.15AL250V
Horizontal vane motor	(MV)	12 V DC
Varistor	(NR11)	470 V
Terminal block	(TB)	3P

Indoor model					MSZ-EF42VGW MSZ-EF42VGB MSZ-EF42VGS MSZ-EF42VGKW MSZ-EF42VGKB MSZ-EF42VGKS	MSZ-EF50VGW MSZ-EF50VGB MSZ-EF50VGS MSZ-EF50VGKW MSZ-EF50VGKB MSZ-EF50VGKS
Power supply					Single phase 230 V, 50 Hz	
Electrical data	Power input ✻1		Cooling	W	23	23
			Heating		33	43
	Running current ✻1		Cooling	A	0.23	0.23
			Heating		0.31	0.39
Fan motor	Model				RC0J40	
	Current ✻1		Cooling	A	0.23	0.23
			Heating		0.31	0.39
Dimensions W × H × D				mm	885 × 299 × 195	
Weight				kg	11.5	
Special remarks	Air direction				5	
	Airflow	Cooling	Super High	m^3/h	672	678
			High		534	552
			Med.		462	474
			Low		396	408
			Silent		348	
		Heating	Super High	m^3/h	792	876
			High		594	666
			Med.		468	540
			Low		378	432
			Silent		330	384
	Sound level	Cooling	Super High	dB(A)	43	43
			High		39	40
			Med.		35	36
			Low		31	33
			Silent		28	30
		Heating	Super High	dB(A)	48	49
			High		41	43
			Med.		35	37
			Low		30	33
			Silent		28	30
	Fan speed	Cooling	Super High	rpm	1,260	1,270
			High		1,050	1,080
			Med.		930	950
			Low		830	850
			Silent		750	
		Heating	Super High	rpm	1,440	1,570
			High		1,140	1,250
			Med.		940	1,060
			Low		800	890
			Silent		720	810
	Fan speed regulator				5	
Remote controller model					W: SG19A B,S: SG19B	

NOTE: Test conditions are based on ISO 5151.

Cooling: Indoor Dry-bulb temperature 27°C Wet-bulb temperature 19°C
Outdoor Dry-bulb temperature 35°C
Heating: Indoor Dry-bulb temperature 20°C
Outdoor Dry-bulb temperature 7°C Wet-bulb temperature 6°C

✻1 Measured under rated operating frequency.

Specifications and rated conditions of main electric parts

Fuse	(F11)	T3.15AL250V
Horizontal vane motor	(MV)	12 V DC
Varistor	(NR11)	470 V
Terminal block	(TB)	3P

Indoor model					MSZ-EF42VG2W MSZ-EF42VG2B MSZ-EF42VG2S MSZ-EF42VGK2W MSZ-EF42VGK2B MSZ-EF42VGK2S	MSZ-EF50VG2W MSZ-EF50VG2B MSZ-EF50VG2S MSZ-EF50VGK2W MSZ-EF50VGK2B MSZ-EF50VGK2S
Power supply					Single phase 230 V, 50 Hz	
Electrical data	Power input ✻1		Cooling	W	23	23
			Heating		33	43
	Running current ✻1		Cooling	A	0.23	0.23
			Heating		0.31	0.39
Fan motor	Model				RC0J40	
	Current ✻1		Cooling	A	0.23	0.23
			Heating		0.31	0.39
Dimensions W × H × D				mm	885 × 299 × 195	
Weight				kg	11.5	
Special remarks	Air direction				5	
	Airflow	Cooling	Super High	m^3/h	708	714
			High		558	582
			Med.		480	492
			Low		408	420
			Silent		354	
		Heating	Super High	m^3/h	834	930
			High		624	702
			Med.		486	570
			Low		390	450
			Silent		336	396
	Sound level	Cooling	Super High	dB(A)	43	43
			High		39	40
			Med.		35	36
			Low		31	33
			Silent		28	30
		Heating	Super High	dB(A)	48	49
			High		41	43
			Med.		35	37
			Low		30	33
			Silent		28	30
	Fan speed	Cooling	Super High	rpm	1,260	1,270
			High		1,050	1,080
			Med.		930	950
			Low		830	850
			Silent		750	
		Heating	Super High	rpm	1,440	1,570
			High		1,140	1,250
			Med.		940	1,060
			Low		800	890
			Silent		720	810
	Fan speed regulator				5	
Remote controller model					W: SH25E B,S: SH25F	

NOTE: Test conditions are based on ISO 5151.

Cooling: Indoor Dry-bulb temperature 27°C Wet-bulb temperature 19°C
Outdoor Dry-bulb temperature 35°C
Heating: Indoor Dry-bulb temperature 20°C
Outdoor Dry-bulb temperature 7°C Wet-bulb temperature 6°C

✻1 Measured under rated operating frequency.

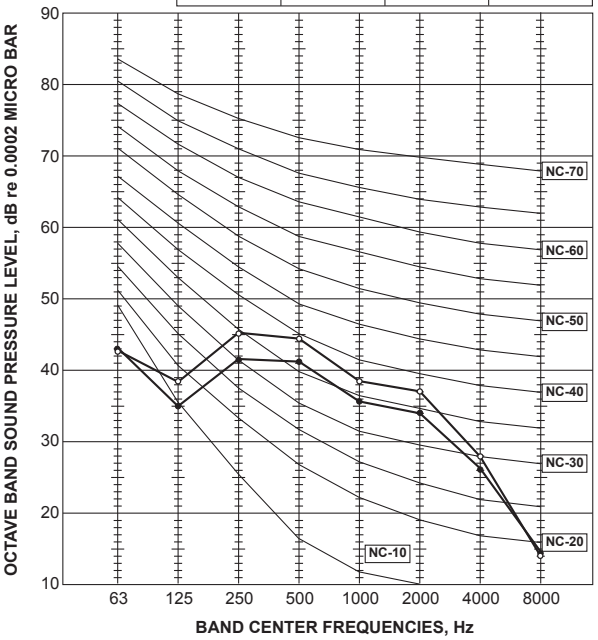
Specifications and rated conditions of main electric parts

Fuse	(F11)	T3.15AL250V
Horizontal vane motor	(MV)	12 V DC
Varistor	(NR11)	470 V
Terminal block	(TB)	3P

4 NOISE CRITERIA CURVES

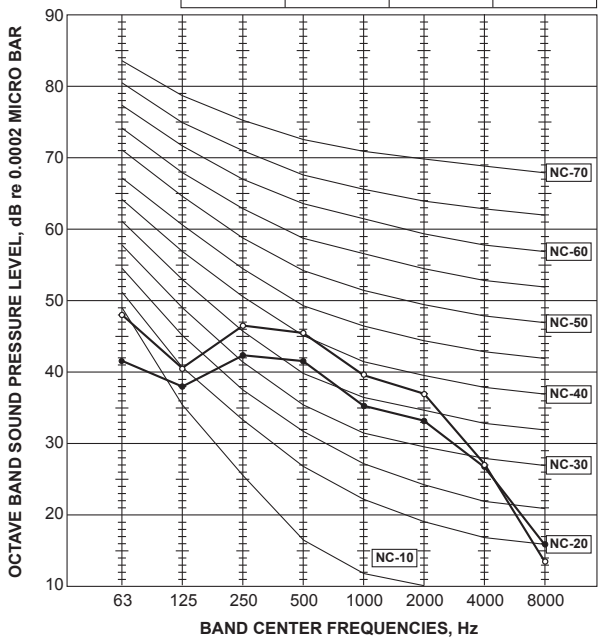
MSZ-EF18VGW MSZ-EF22VGW MSZ-EF25VGW MSZ-EF18VGKW MSZ-EF22VGKW MSZ-EF25VGKW
MSZ-EF18VGB MSZ-EF22VGB MSZ-EF25VGB MSZ-EF18VGKB MSZ-EF22VGKB MSZ-EF25VGKB
MSZ-EF18VGS MSZ-EF22VGS MSZ-EF25VGS MSZ-EF18VGKS MSZ-EF22VGKS MSZ-EF25VGKS
MSZ-EF22VG2W MSZ-EF25VG2W MSZ-EF18VGK2W MSZ-EF22VGK2W MSZ-EF25VGK2W
MSZ-EF22VG2B MSZ-EF25VG2B MSZ-EF18VGK2B MSZ-EF22VGK2B MSZ-EF25VGK2B
MSZ-EF22VG2S MSZ-EF25VG2S MSZ-EF18VGK2S MSZ-EF22VGK2S MSZ-EF25VGK2S

FAN SPEED	FUNCTION	SPL(dB(A))	LINE
Super High	COOLING	42	●——●
	HEATING	45	○——○



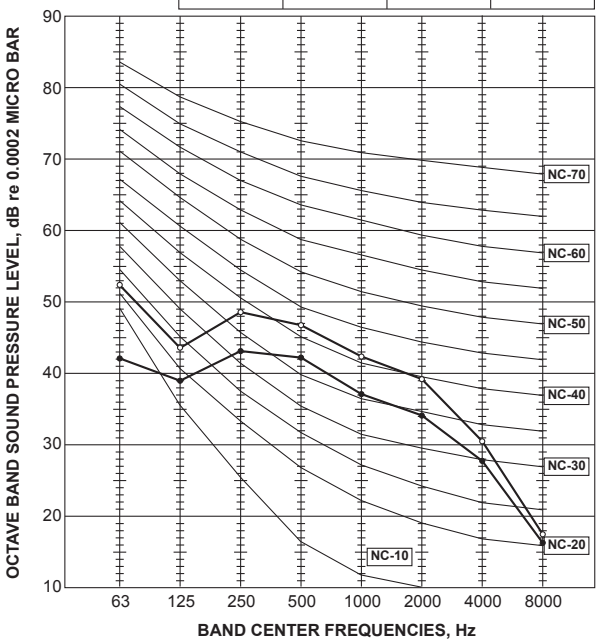
MSZ-EF35VGW MSZ-EF35VGKW MSZ-EF35VG2W MSZ-EF35VGK2W
MSZ-EF35VGB MSZ-EF35VGKB MSZ-EF35VG2B MSZ-EF35VGK2B
MSZ-EF35VGS MSZ-EF35VGKS MSZ-EF35VG2S MSZ-EF35VGK2S

FAN SPEED	FUNCTION	SPL(dB(A))	LINE
Super High	COOLING	42	●——●
	HEATING	46	○——○



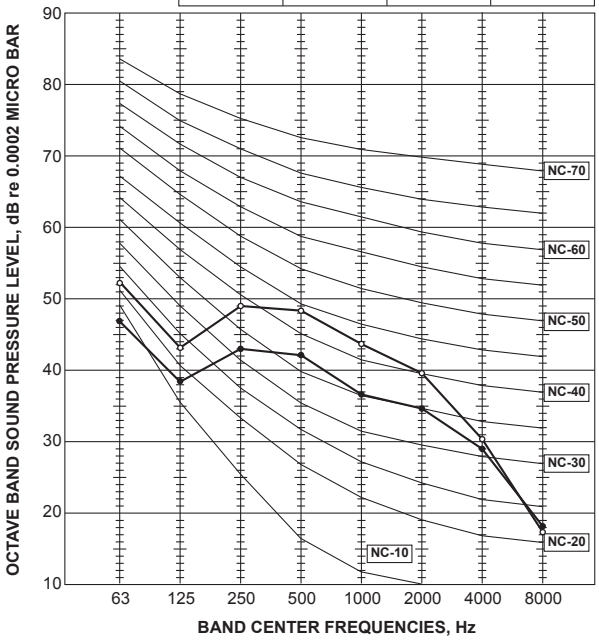
MSZ-EF42VGW MSZ-EF42VGKW MSZ-EF42VG2W MSZ-EF42VGK2W
MSZ-EF42VGB MSZ-EF42VGKB MSZ-EF42VG2B MSZ-EF42VGK2B
MSZ-EF42VGS MSZ-EF42VGKS MSZ-EF42VG2S MSZ-EF42VGK2S

FAN SPEED	FUNCTION	SPL(dB(A))	LINE
Super High	COOLING	43	●—●
	HEATING	48	○—○

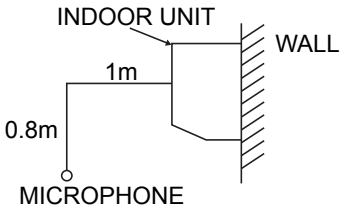


MSZ-EF50VGW MSZ-EF50VGKW MSZ-EF50VG2W MSZ-EF50VGK2W
MSZ-EF50VGB MSZ-EF50VGKB MSZ-EF50VG2B MSZ-EF50VGK2B
MSZ-EF50VGS MSZ-EF50VGKS MSZ-EF50VG2S MSZ-EF50VGK2S

FAN SPEED	FUNCTION	SPL(dB(A))	LINE
Super High	COOLING	43	●—●
	HEATING	49	○—○



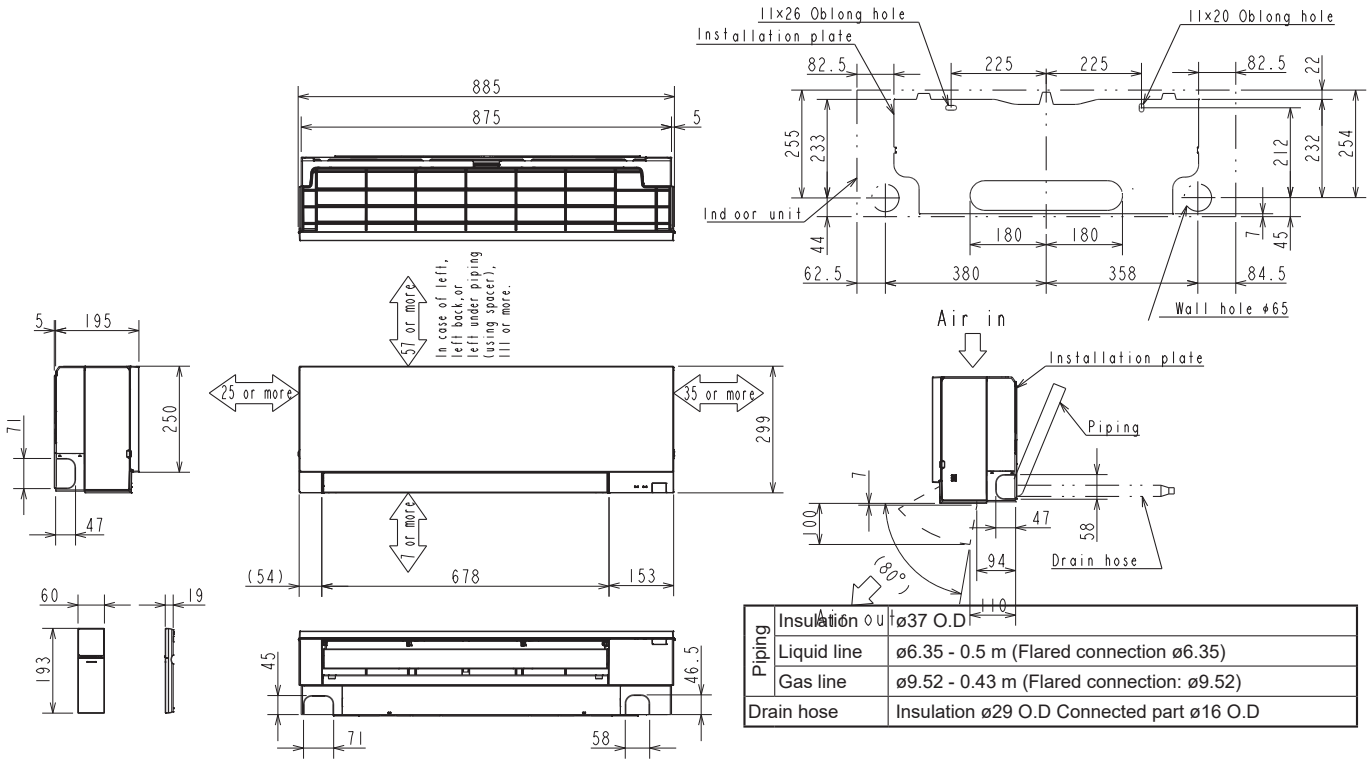
Test conditions
Cooling: Dry-bulb temperature 27 °C
Wet-bulb temperature 19 °C
Heating: Dry-bulb temperature 20 °C



5 OUTLINES AND DIMENSIONS

MSZ-EF18VGW MSZ-EF22VGW MSZ-EF25VGW MSZ-EF35VGW MSZ-EF42VGW MSZ-EF50VGW
MSZ-EF18VGB MSZ-EF22VGB MSZ-EF25VGB MSZ-EF35VGB MSZ-EF42VGB MSZ-EF50VGB
MSZ-EF18VGS MSZ-EF22VGS MSZ-EF25VGS MSZ-EF35VGS MSZ-EF42VGS MSZ-EF50VGS
MSZ-EF18VGKW MSZ-EF22VGKW MSZ-EF25VGKW MSZ-EF35VGKW MSZ-EF42VGKW MSZ-EF50VGKW
MSZ-EF18VGKB MSZ-EF22VGKB MSZ-EF25VGKB MSZ-EF35VGKB MSZ-EF42VGKB MSZ-EF50VGKB
MSZ-EF18VGKS MSZ-EF22VGKS MSZ-EF25VGKS MSZ-EF35VGKS MSZ-EF42VGKS MSZ-EF50VGKS

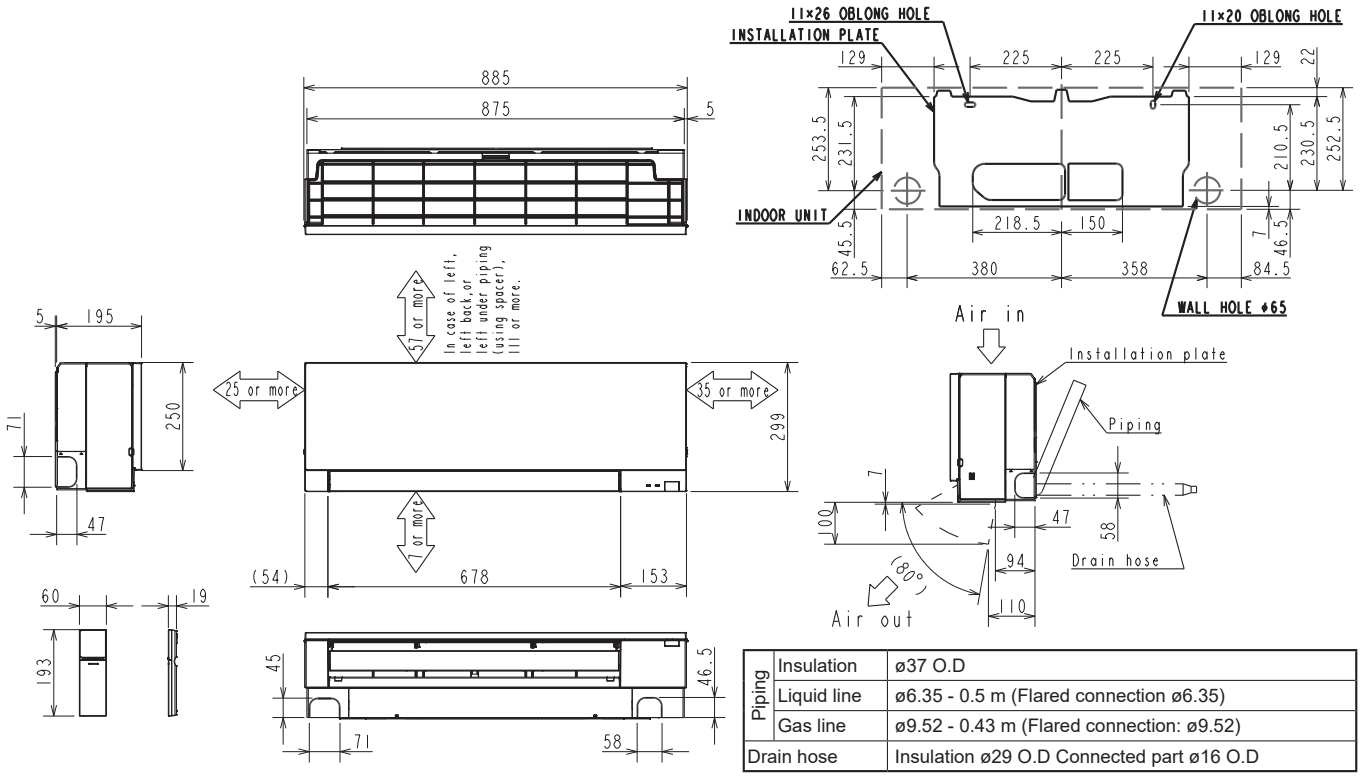
Unit: mm



Piping	Insulation ø37 O.D	
	Liquid line	ø6.35 - 0.5 m (Flared connection ø6.35)
	Gas line	ø9.52 - 0.43 m (Flared connection: ø9.52)
Drain hose	Insulation ø29 O.D Connected part ø16 O.D	

MSZ-EF22VG2W MSZ-EF25VG2W MSZ-EF35VG2W MSZ-EF42VG2W MSZ-EF50VG2W
MSZ-EF22VG2B MSZ-EF25VG2B MSZ-EF35VG2B MSZ-EF42VG2B MSZ-EF50VG2B
MSZ-EF22VG2S MSZ-EF25VG2S MSZ-EF35VG2S MSZ-EF42VG2S MSZ-EF50VG2S
MSZ-EF18VGK2W MSZ-EF22VGK2W MSZ-EF25VGK2W MSZ-EF35VGK2W MSZ-EF42VGK2W MSZ-EF50VGK2W
MSZ-EF18VGK2B MSZ-EF22VGK2B MSZ-EF25VGK2B MSZ-EF35VGK2B MSZ-EF42VGK2B MSZ-EF50VGK2B
MSZ-EF18VGK2S MSZ-EF22VGK2S MSZ-EF25VGK2S MSZ-EF35VGK2S MSZ-EF42VGK2S MSZ-EF50VGK2S

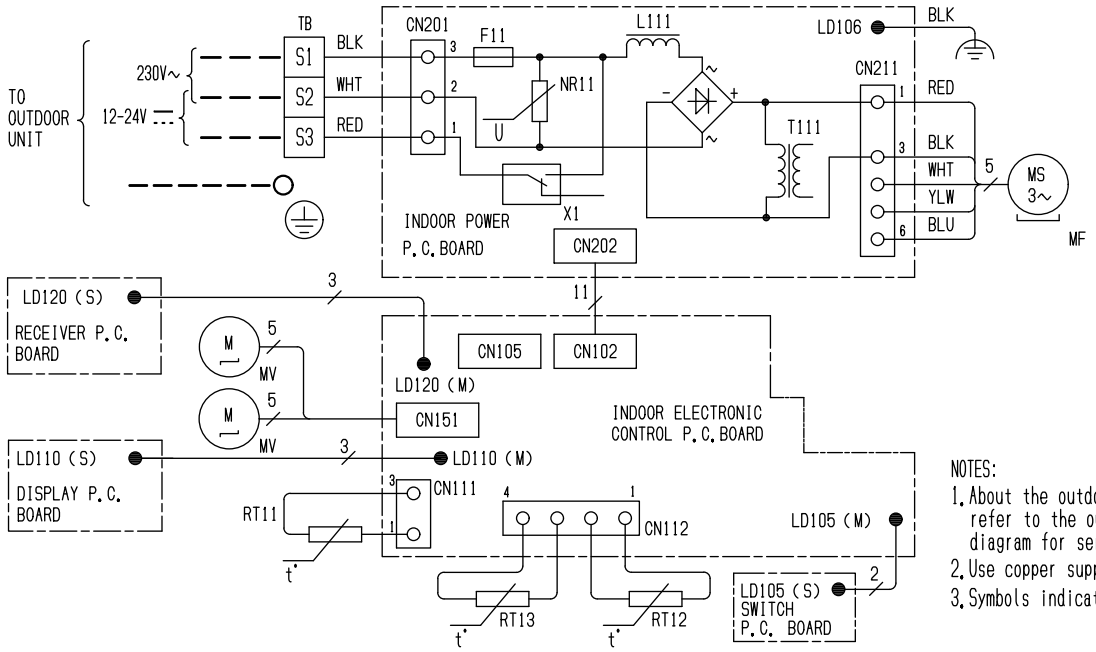
Unit: mm



Piping	Insulation	ø37 O.D
	Liquid line	ø6.35 - 0.5 m (Flared connection ø6.35)
	Gas line	ø9.52 - 0.43 m (Flared connection: ø9.52)
Drain hose		Insulation ø29 O.D Connected part ø16 O.D

6 WIRING DIAGRAM

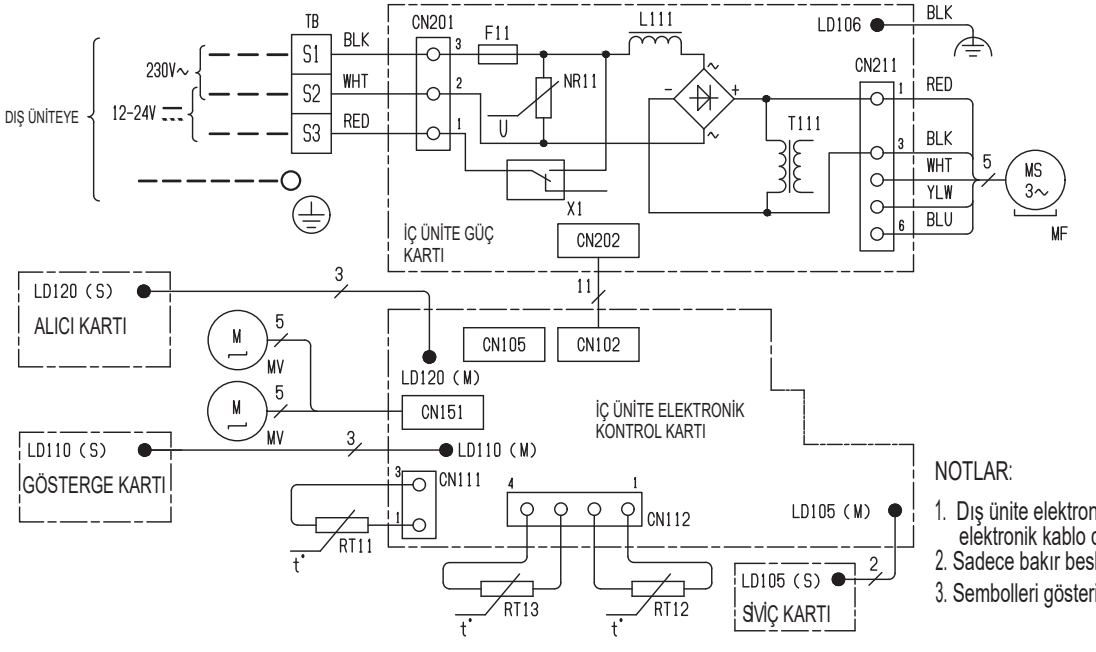
MSZ-EF18VGW-E1 **MSZ-EF22VGW-E1** **MSZ-EF25VGW-E1**
MSZ-EF35VGW-E1 **MSZ-EF42VGW-E1** **MSZ-EF50VGW-E1**
MSZ-EF18VGB-E1 **MSZ-EF22VGB-E1** **MSZ-EF25VGB-E1**
MSZ-EF35VGB-E1 **MSZ-EF42VGB-E1** **MSZ-EF50VGB-E1**
MSZ-EF18VGS-E1 **MSZ-EF22VGS-E1** **MSZ-EF25VGS-E1**
MSZ-EF35VGS-E1 **MSZ-EF42VGS-E1** **MSZ-EF50VGS-E1**



SYMBOL	NAME
F11	FUSE (T3.15AL250V)
L111	REACTOR
MF	FAN MOTOR
MV	VANE MOTOR
NR11	VARISTOR
RT11	ROOM TEMP. THERMISTOR
RT12	COIL TEMP. THERMISTOR (MAIN)
RT13	COIL TEMP. THERMISTOR (SUB)
T111	TRANSFORMER
TB	TERMINAL BLOCK
X1	RELAY

NOTES:
1. About the outdoor side electronic wiring refer to the outdoor unit electronic wiring diagram for servicing.
2. Use copper supply wires
3. Symbols indicate. ☐☐☐ : Terminal block
   ⊙⊙⊙⊙ : Connector

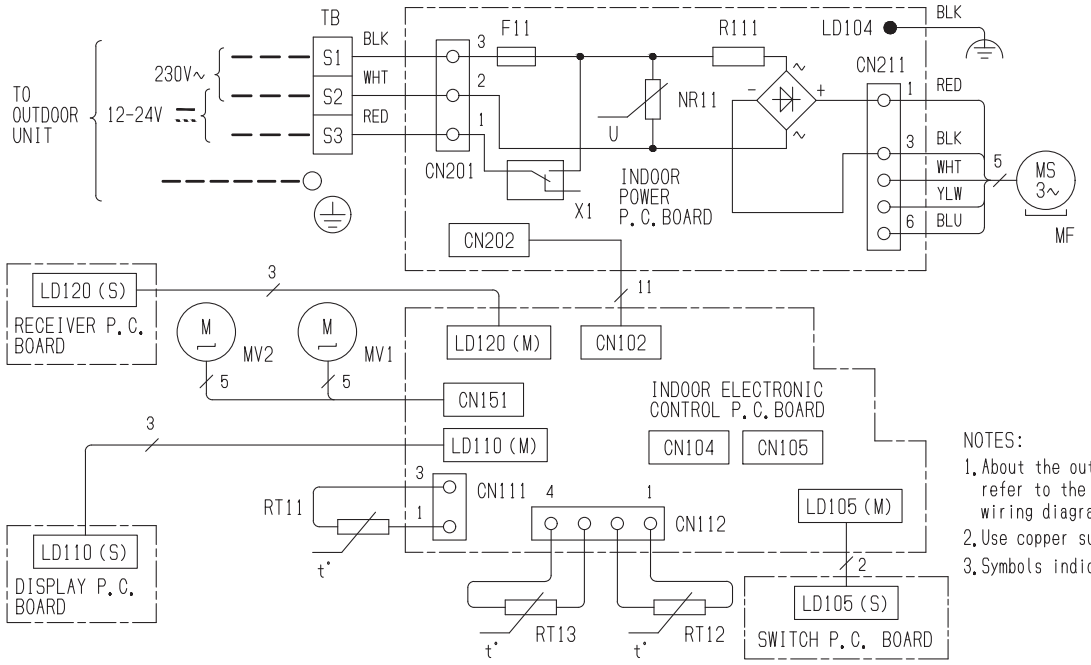
MSZ-EF22VGW-ET1 **MSZ-EF25VGW-ET1** **MSZ-EF35VGW-ET1** **MSZ-EF42VGW-ET1** **MSZ-EF50VGW-ET1**
MSZ-EF22VGB-ET1 **MSZ-EF25VGB-ET1** **MSZ-EF35VGB-ET1** **MSZ-EF42VGB-ET1** **MSZ-EF50VGB-ET1**
MSZ-EF22VGS-ET1 **MSZ-EF25VGS-ET1** **MSZ-EF35VGS-ET1** **MSZ-EF42VGS-ET1** **MSZ-EF50VGS-ET1**



SEMBOL	PARÇA ADI
F11	SİGORTA (T3.15AL250V)
L111	REAKTÖR
MF	FAN MOTORU
MV	KANAT MOTORU
NR11	VARİSTÖR
RT11	ODA SICAKLIK TERMİSTÖRÜ
RT12	BORU SICAKLIK TERMİSTÖRÜ(ANA)
RT13	BORU SICAKLIK TERMİSTÖRÜ(YARDIMCI)
T111	TRAFO
TB	TERMİNAL BLOĞU
X1	RÖLE

NOTLAR:
1. Dış ünite elektronik kablolaması için dış ünite elektronik kablo devre şemasını referans alınız.
2. Sadece bakır besleme kablosu kullanın
3. Sembolleri gösterir ☐☐☐ : Terminal bloğu
   ⊙⊙⊙⊙ : Konektör

MSZ-EF18VGW-E2 **MSZ-EF22VGW-E2** **MSZ-EF25VGW-E2** **MSZ-EF35VGW-E2** **MSZ-EF42VGW-E2**
MSZ-EF18VGB-E2 **MSZ-EF22VGB-E2** **MSZ-EF25VGB-E2** **MSZ-EF35VGB-E2** **MSZ-EF42VGB-E2**
MSZ-EF18VGS-E2 **MSZ-EF22VGS-E2** **MSZ-EF25VGS-E2** **MSZ-EF35VGS-E2** **MSZ-EF42VGS-E2**

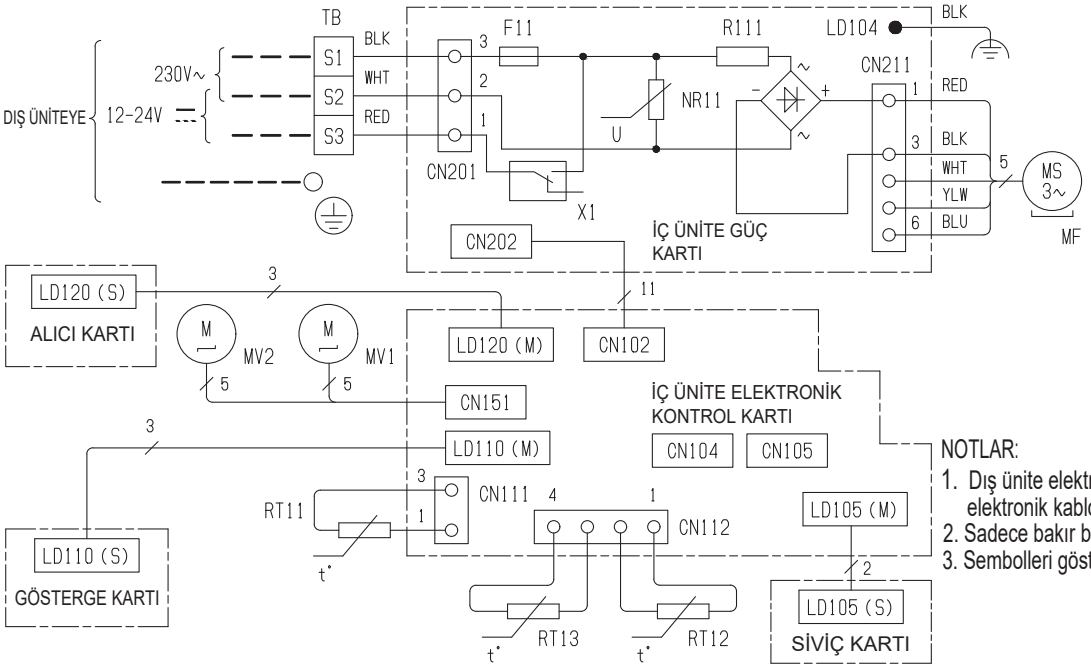


SYMBOL	NAME
F11	FUSE (T3.15AL250V)
MF	FAN MOTOR
MV1	VANE MOTOR (HORIZONTAL UPPER)
MV2	VANE MOTOR (HORIZONTAL LOWER)
NR11	VARISTOR
R111	RESISTOR
RT11	ROOM TEMP. THERMISTOR
RT12	COIL TEMP. THERMISTOR (MAIN)
RT13	COIL TEMP. THERMISTOR (SUB)
TB	TERMINAL BLOCK
X1	RELAY

NOTES:
1. About the outdoor side electronic wiring refer to the outdoor unit electronic wiring diagram for servicing.
2. Use copper supply wires.
3. Symbols indicate.

: Terminal block
: Connector

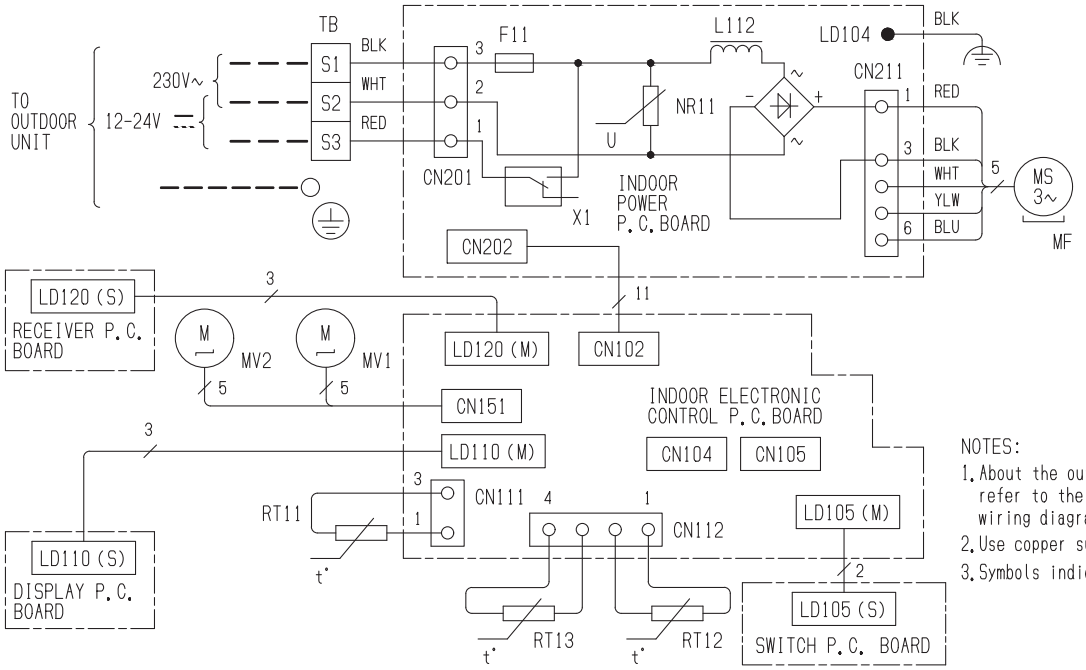
MSZ-EF22VGW-ET2 **MSZ-EF25VGW-ET2** **MSZ-EF35VGW-ET2** **MSZ-EF42VGW-ET2**
MSZ-EF22VGB-ET2 **MSZ-EF25VGB-ET2** **MSZ-EF35VGB-ET2** **MSZ-EF42VGB-ET2**
MSZ-EF22VGS-ET2 **MSZ-EF25VGS-ET2** **MSZ-EF35VGS-ET2** **MSZ-EF42VGS-ET2**



SEMBOL	PARÇA ADI
F11	SİGORTA (T3.15AL250V)
MF	FAN MOTORU
MV1	KANAT MOTORU (YATAY ÜST)
MV2	KANAT MOTORU (YATAY ALT)
NR11	VARİSTÖR
R111	RESİSTÖR
RT11	ODA SICAKLIK TERMİSTÖRÜ
RT12	BORU SICAKLIK TERMİSTÖRÜ(ANA)
RT13	BORU SICAKLIK TERMİSTÖRÜ(YARDIMCI)
TB	TERMİNAL BLOĞU
X1	RÖLE

NOTLAR:
1. Dış ünite elektronik kablolaması için dış ünite elektronik kablo devre şemasını referans alınız.
2. Sadece bakır besleme kablosu kullanın
3. Sembolleri gösterir : Terminal bloğu
: Konektör

MSZ-EF50VGW - E2
MSZ-EF50VGB - E2
MSZ-EF50VGS - E2

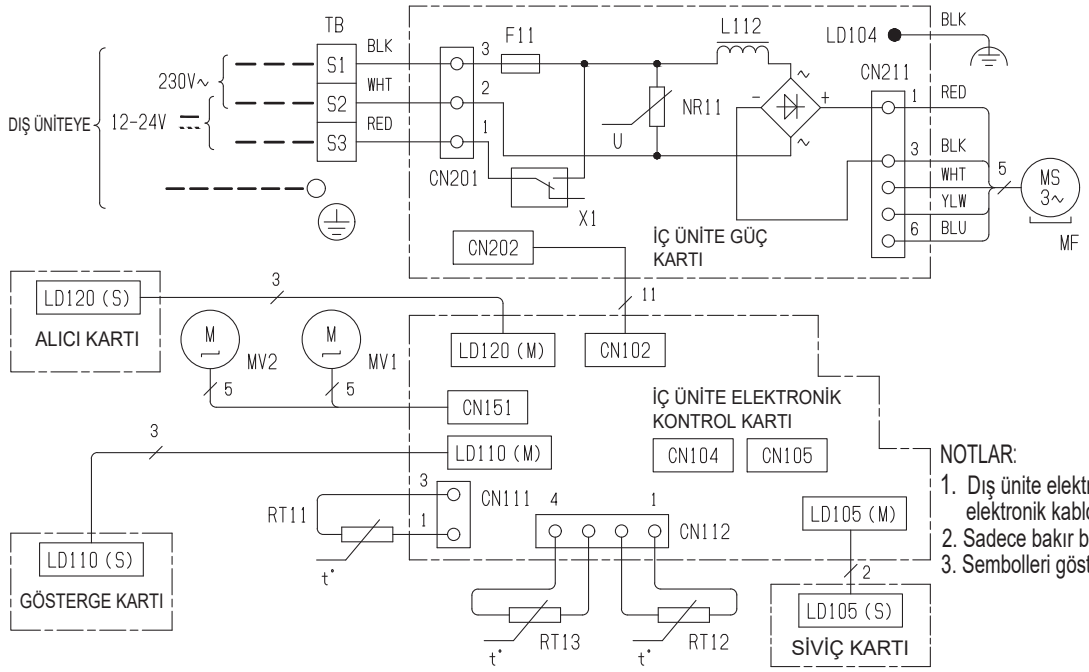


SYMBOL	NAME
F11	FUSE (T3.15AL250V)
L112	REACTOR
MF	FAN MOTOR
MV1	VANE MOTOR (HORIZONTAL UPPER)
MV2	VANE MOTOR (HORIZONTAL LOWER)
NR11	VARISTOR
RT11	ROOM TEMP. THERMISTOR
RT12	COIL TEMP. THERMISTOR (MAIN)
RT13	COIL TEMP. THERMISTOR (SUB)
TB	TERMINAL BLOCK
X1	RELAY

NOTES:
1. About the outdoor side electronic wiring refer to the outdoor unit electronic wiring diagram for servicing.
2. Use copper supply wires.
3. Symbols indicate.

: Terminal block
: Connector

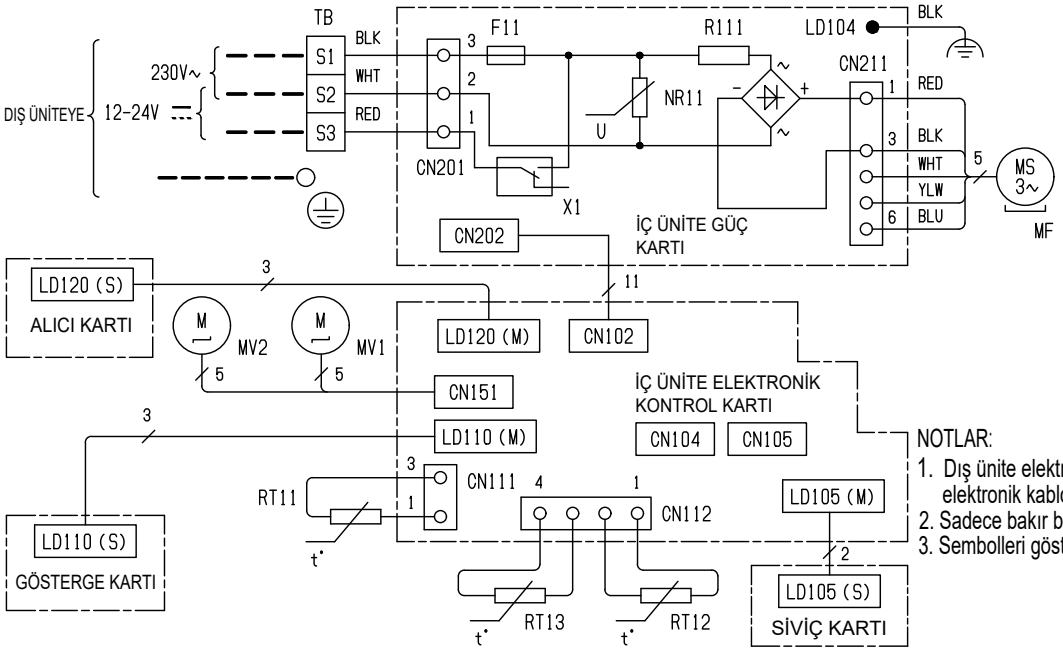
MSZ-EF50VGW - ET2
MSZ-EF50VGB - ET2
MSZ-EF50VGS - ET2



SYMBOL	NAME
F11	SİGORTA (T3.15AL250V)
L112	REAKTÖR
MF	FAN MOTORU
MV1	KANAT MOTORU (YATAY ÜST)
MV2	KANAT MOTORU (YATAY ALT)
NR11	VARİSTÖR
RT11	ODA SICAKLIK TERMİSTÖRÜ
RT12	BORU SICAKLIK TERMİSTÖRÜ(ANA)
RT13	BORU SICAKLIK TERMİSTÖRÜ(YARDIMCI)
TB	TERMİNAL BLOĞU
X1	RÖLE

NOTLAR:
1. Dış ünite elektronik kablolaması için dış ünite elektronik kablo devre şemasını referans alınız.
2. Sadece bakır besleme kablosu kullanın
3. Sembolleri gösterir : Terminal bloğu
: Konektör

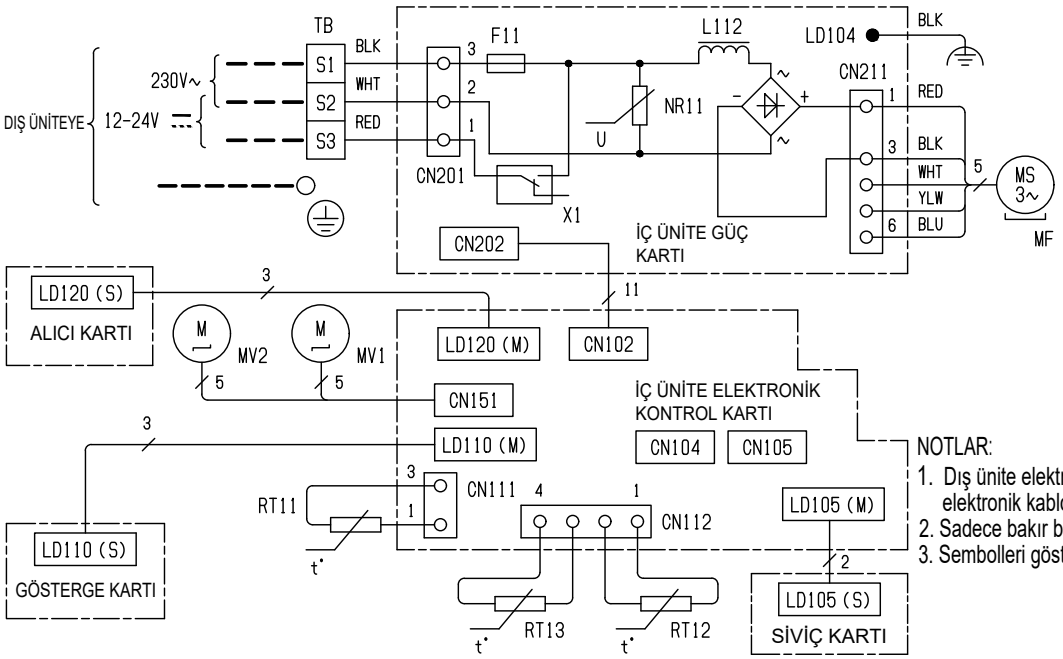
MSZ-EF22VGW - ET3 **MSZ-EF25VGW - ET3** **MSZ-EF35VGW - ET3** **MSZ-EF42VGW - ET3**
MSZ-EF22VGB - ET3 **MSZ-EF25VGB - ET3** **MSZ-EF35VGB - ET3** **MSZ-EF42VGB - ET3**
MSZ-EF22VGS - ET3 **MSZ-EF25VGS - ET3** **MSZ-EF35VGS - ET3** **MSZ-EF42VGS - ET3**



SEMBOL	PARÇA ADI
F11	SİGORTA (T3.15AL250V)
MF	FAN MOTORU
MV1	KANAT MOTORU (YATAY ÜST)
MV2	KANAT MOTORU (YATAY ALT)
NR11	VARİSTÖR
R111	RESİSTÖR
RT11	ODA SICAKLIK TERMİSTÖRÜ
RT12	BORU SICAKLIK TERMİSTÖRÜ(ANA)
RT13	BORU SICAKLIK TERMİSTÖRÜ(YARDIMCI)
TB	TERMİNAL BLOĞU
X1	RÖLE

NOTLAR:
1. Dış ünite elektronik kablolaması için dış ünite elektronik kablo devre şemasını referans alınız.
2. Sadece bakır besleme kablosu kullanın
3. Sembolleri gösterir □□□□: Terminal bloğu
   ⊙⊙⊙⊙: Konektör

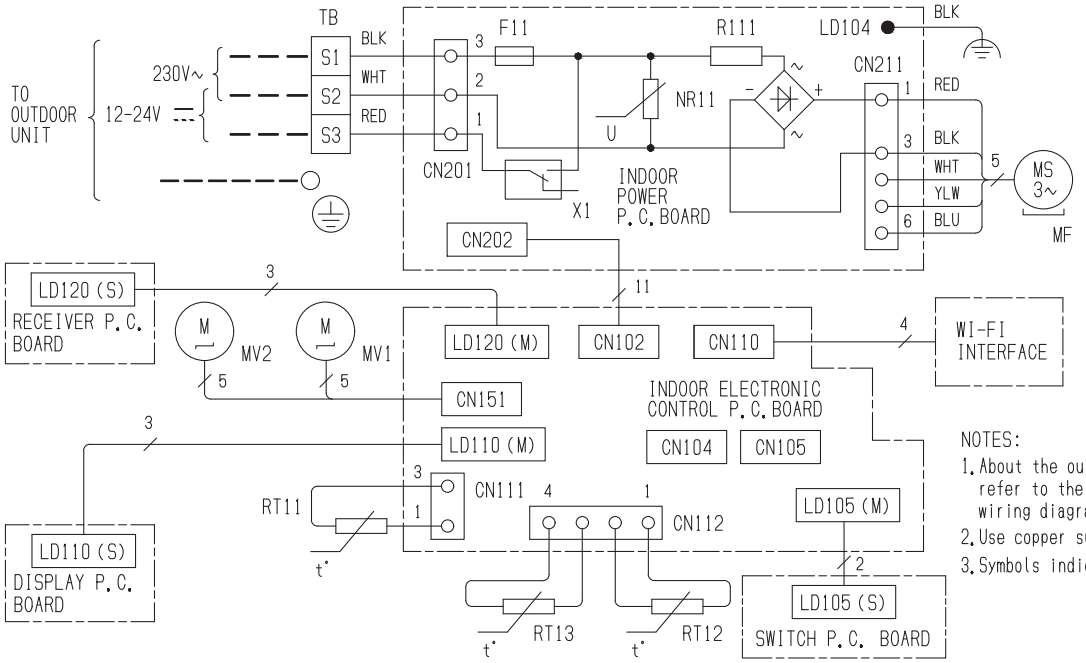
MSZ-EF50VGW - ET3
MSZ-EF50VGB - ET3
MSZ-EF50VGS - ET2



SYMBOL	NAME
F11	SİGORTA (T3.15AL250V)
L112	REAKTÖR
MF	FAN MOTORU
MV1	KANAT MOTORU (YATAY ÜST)
MV2	KANAT MOTORU (YATAY ALT)
NR11	VARİSTÖR
RT11	ODA SICAKLIK TERMİSTÖRÜ
RT12	BORU SICAKLIK TERMİSTÖRÜ(ANA)
RT13	BORU SICAKLIK TERMİSTÖRÜ(YARDIMCI)
TB	TERMİNAL BLOĞU
X1	RÖLE

NOTLAR:
1. Dış ünite elektronik kablolaması için dış ünite elektronik kablo devre şemasını referans alınız.
2. Sadece bakır besleme kablosu kullanın
3. Sembolleri gösterir □□□□: Terminal bloğu
   ⊙⊙⊙⊙: Konektör

MSZ-EF18VGKW-E1 MSZ-EF22VGKW-E1, ER1 MSZ-EF25VGKW-E1, ER1 MSZ-EF35VGKW-E1, ER1 MSZ-EF42VGKW-E1, ER1
MSZ-EF18VGKB-E1 MSZ-EF22VGKB-E1, ER1 MSZ-EF25VGKB-E1, ER1 MSZ-EF35VGKB-E1, ER1 MSZ-EF42VGKB-E1, ER1
MSZ-EF18VGKS-E1 MSZ-EF22VGKS-E1, ER1 MSZ-EF25VGKS-E1, ER1 MSZ-EF35VGKS-E1, ER1 MSZ-EF42VGKS-E1, ER1

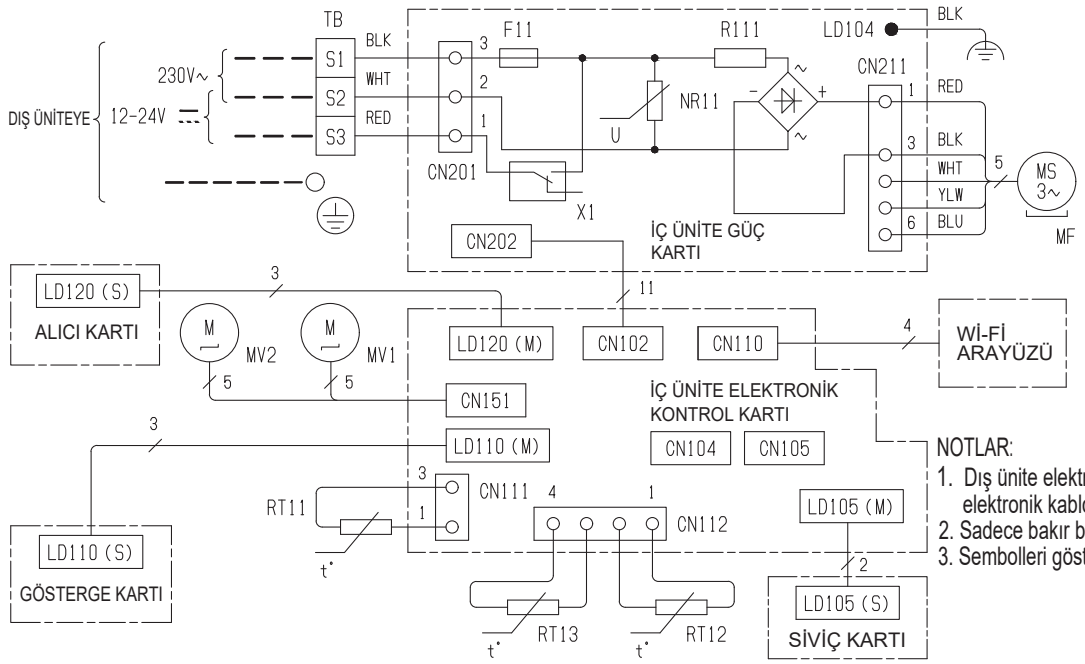


SYMBOL	NAME
F11	FUSE (T3.15AL250V)
MF	FAN MOTOR
MV1	VANE MOTOR (HORIZONTAL UPPER)
MV2	VANE MOTOR (HORIZONTAL LOWER)
NR11	VARISTOR
R111	RESISTOR
RT11	ROOM TEMP. THERMISTOR
RT12	COIL TEMP. THERMISTOR (MAIN)
RT13	COIL TEMP. THERMISTOR (SUB)
TB	TERMINAL BLOCK
X1	RELAY

NOTES:
1. About the outdoor side electronic wiring refer to the outdoor unit electronic wiring diagram for servicing.
2. Use copper supply wires.
3. Symbols indicate.

: Terminal block
: Connector

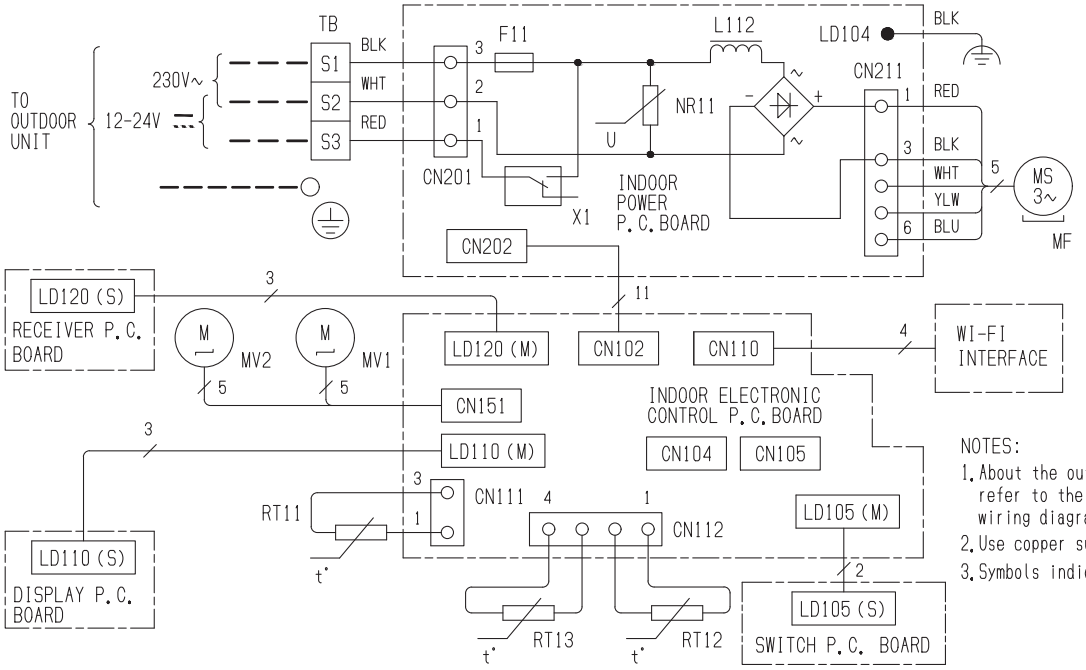
MSZ-EF22VGKW-ET1 MSZ-EF25VGKW-ET1 MSZ-EF35VGKW-ET1 MSZ-EF42VGKW-ET1
MSZ-EF22VGKB-ET1 MSZ-EF25VGKB-ET1 MSZ-EF35VGKB-ET1 MSZ-EF42VGKB-ET1
MSZ-EF22VGKS-ET1 MSZ-EF25VGKS-ET1 MSZ-EF35VGKS-ET1 MSZ-EF42VGKS-ET1



SEMBOL	PARÇA ADI
F11	SİGORTA (T3.15AL250V)
MF	FAN MOTORU
MV1	KANAT MOTORU (YATAY ÜST)
MV2	KANAT MOTORU (YATAY ALT)
NR11	VARİSTÖR
R111	RESİSTÖR
RT11	ODA SICAKLIK TERMİSTÖRÜ
RT12	BORU SICAKLIK TERMİSTÖRÜ(ANA)
RT13	BORU SICAKLIK TERMİSTÖRÜ(YARDIMCI)
TB	TERMİNAL BLOĞU
X1	RÖLE

NOTLAR:
1. Dış ünite elektronik kablolaması için dış ünite elektronik kablo devre şemasını referans alınız.
2. Sadece bakır besleme kablosu kullanın
3. Sembolleri gösterir : Terminal bloğu
: Konektör

MSZ-EF50VGKW- E1, ER1
MSZ-EF50VGKB- E1, ER1
MSZ-EF50VGKS- E1, ER1

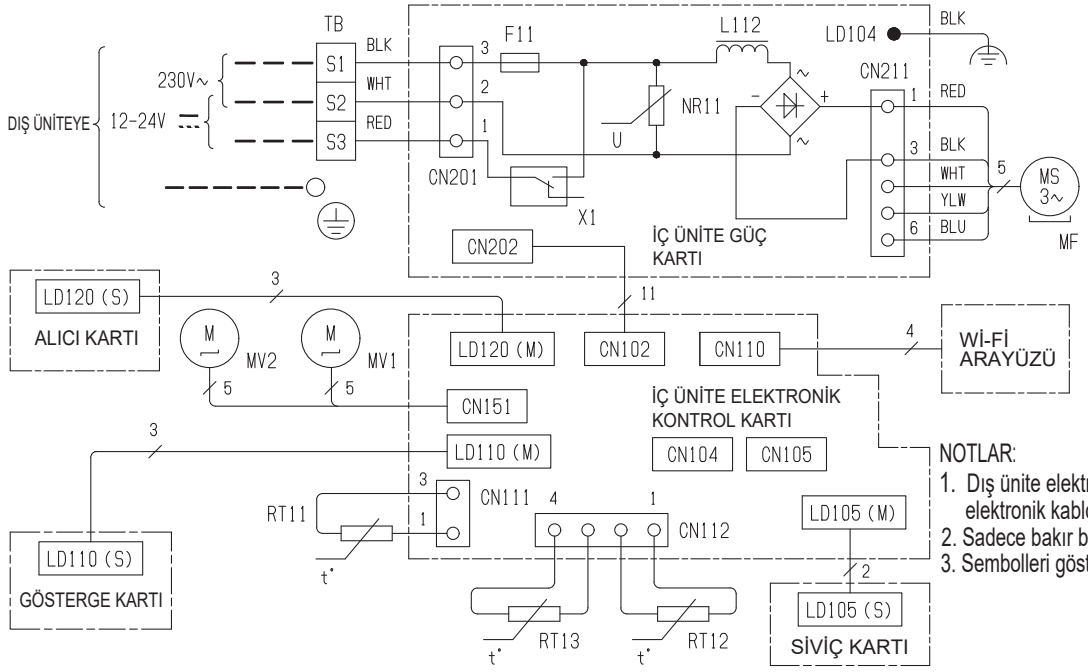


SYMBOL	NAME
F11	FUSE (T3.15AL250V)
L112	REACTOR
MF	FAN MOTOR
MV1	VANE MOTOR (HORIZONTAL UPPER)
MV2	VANE MOTOR (HORIZONTAL LOWER)
NR11	VARISTOR
RT11	ROOM TEMP. THERMISTOR
RT12	COIL TEMP. THERMISTOR (MAIN)
RT13	COIL TEMP. THERMISTOR (SUB)
TB	TERMINAL BLOCK
X1	RELAY

NOTES:
1. About the outdoor side electronic wiring refer to the outdoor unit electronic wiring diagram for servicing.
2. Use copper supply wires.
3. Symbols indicate.

: Terminal block
: Connector

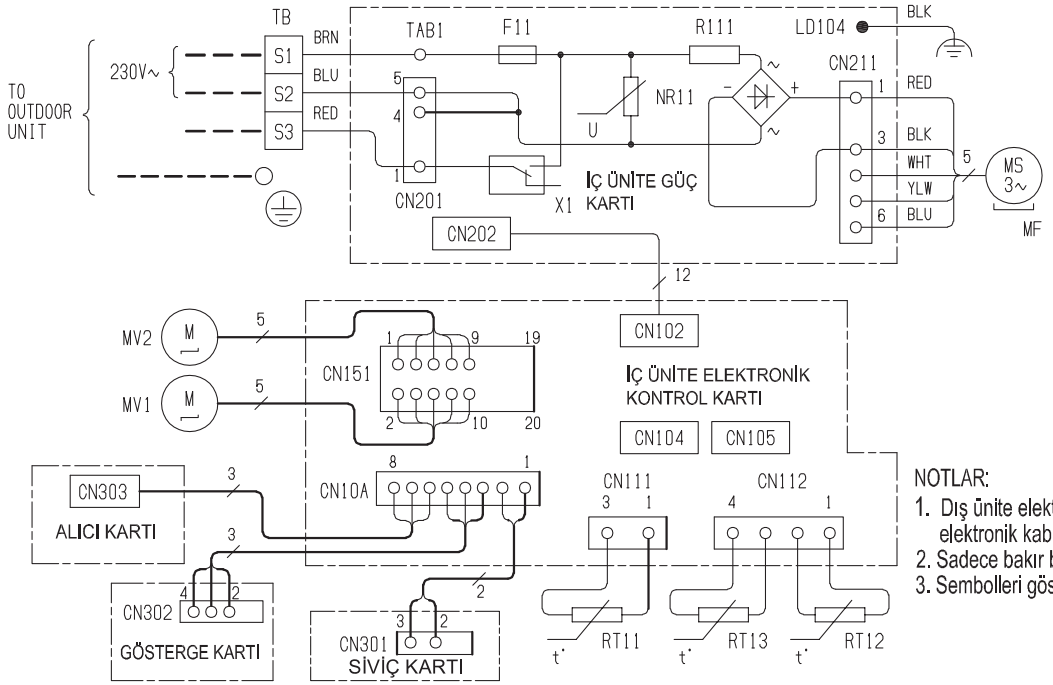
MSZ-EF50VGKW- ET1
MSZ-EF50VGKB- ET1
MSZ-EF50VGKS- ET1



SYMBOL	NAME
F11	SİGORTA (T3.15AL250V)
L112	REAKTÖR
MF	FAN MOTORU
MV1	KANAT MOTORU (YATAY ÜST)
MV2	KANAT MOTORU (YATAY ALT)
NR11	VARİSTÖR
RT11	ODA SICAKLIK TERMİSTÖRÜ
RT12	BORU SICAKLIK TERMİSTÖRÜ(ANA)
RT13	BORU SICAKLIK TERMİSTÖRÜ(YARDIMCI)
TB	TERMİNAL BLOĞU
X1	RÖLE

NOTLAR:
1. Dış ünite elektronik kablolaması için dış ünite elektronik kablo devre şemasını referans alınız.
2. Sadece bakır besleme kablosu kullanın
3. Sembolleri gösterir : Terminal bloğu
: Konektör

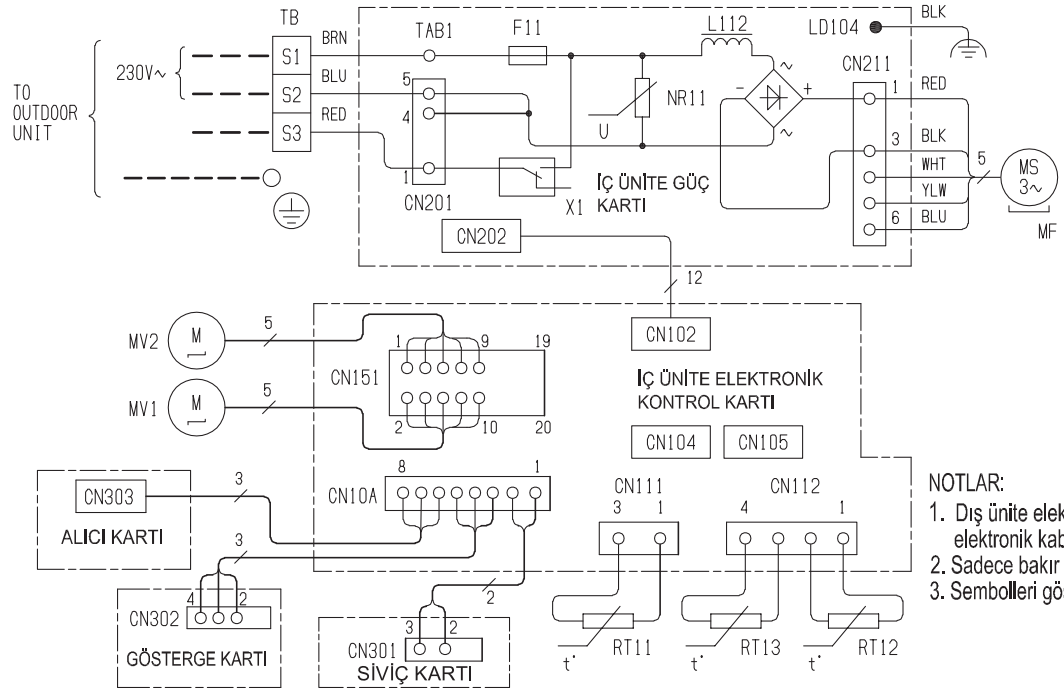
MSZ-EF22VG2W - ET1 **MSZ-EF25VG2W - ET1** **MSZ-EF35VG2W - ET1** **MSZ-EF42VG2W - ET1**
MSZ-EF22VG2B - ET1 **MSZ-EF25VG2B - ET1** **MSZ-EF35VG2B - ET1** **MSZ-EF42VG2B - ET1**
MSZ-EF22VG2S - ET1 **MSZ-EF25VG2S - ET1** **MSZ-EF35VG2S - ET1** **MSZ-EF42VG2S - ET1**



SEMBOL	PARÇA ADI
F11	SİGORTA (T3.15AL250V)
MF	FAN MOTORU
MV1	KANAT MOTORU (YATAY ÜST)
MV2	KANAT MOTORU (YATAY ALT)
NR11	VARİSTÖR
R111	RESİSTÖR
RT11	ODA SICAKLIK TERMİSTÖRÜ
RT12	BORU SICAKLIK TERMİSTÖRÜ(ANA)
RT13	BORU SICAKLIK TERMİSTÖRÜ(YARDIMCI)
TB	TERMİNAL BLOĞU
X1	RÖLE

NOTLAR:
1. Dış ünite elektronik kablolaması için dış ünite elektronik kablo devre şemasını referans alınız.
2. Sadece bakır besleme kablosu kullanın
3. Sembolleri gösterir □□□□ : Terminal bloğu
   ○○○○ : Konektör

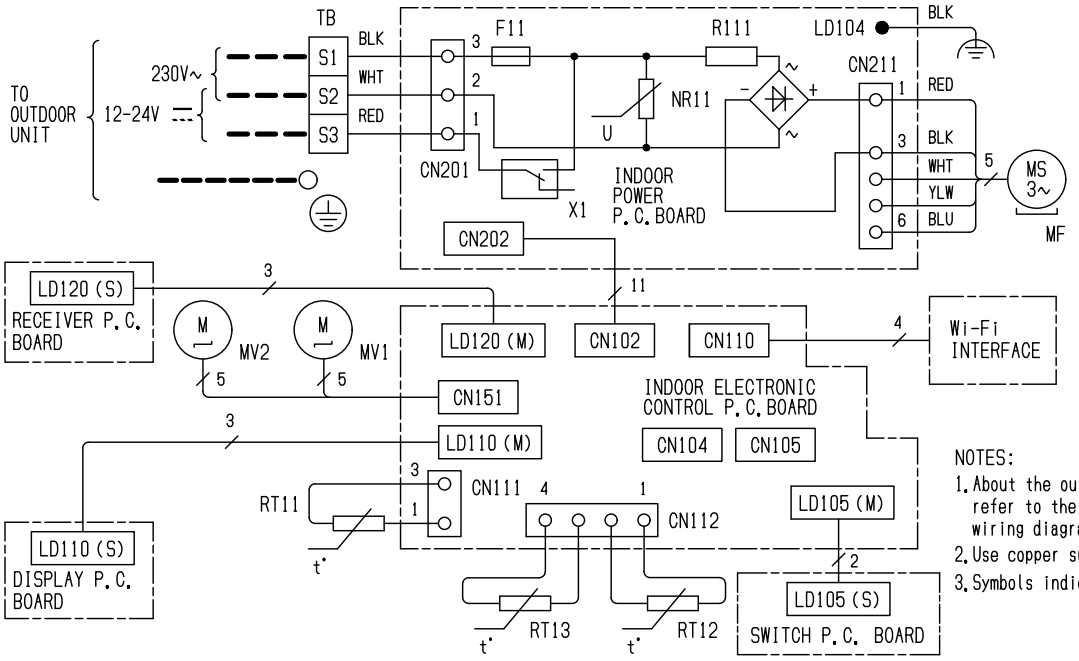
MSZ-EF50VG2W - ET1
MSZ-EF50VG2B - ET1
MSZ-EF50VG2S - ET1



SYMBOL	NAME
F11	SİGORTA (T3.15AL250V)
L112	REAKTÖR
MF	FAN MOTORU
MV1	KANAT MOTORU (YATAY ÜST)
MV2	KANAT MOTORU (YATAY ALT)
NR11	VARİSTÖR
RT11	ODA SICAKLIK TERMİSTÖRÜ
RT12	BORU SICAKLIK TERMİSTÖRÜ(ANA)
RT13	BORU SICAKLIK TERMİSTÖRÜ(YARDIMCI)
TB	TERMİNAL BLOĞU
X1	RÖLE

NOTLAR:
1. Dış ünite elektronik kablolaması için dış ünite elektronik kablo devre şemasını referans alınız.
2. Sadece bakır besleme kablosu kullanın
3. Sembolleri gösterir □□□□ : Terminal bloğu
   ○○○○ : Konektör

MSZ-EF18VGKW-E2 MSZ-EF22VGKW-E2, ER2 MSZ-EF25VGKW-E2, ER2 MSZ-EF35VGKW-E2, ER2 MSZ-EF42VGKW-E2, ER2
MSZ-EF18VGKB-E2 MSZ-EF22VGKB-E2, ER2 MSZ-EF25VGKB-E2, ER2 MSZ-EF35VGKB-E2, ER2 MSZ-EF42VGKB-E2, ER2
MSZ-EF18VGKS-E2 MSZ-EF22VGKS-E2, ER2 MSZ-EF25VGKS-E2, ER2 MSZ-EF35VGKS-E2, ER2 MSZ-EF42VGKS-E2, ER2

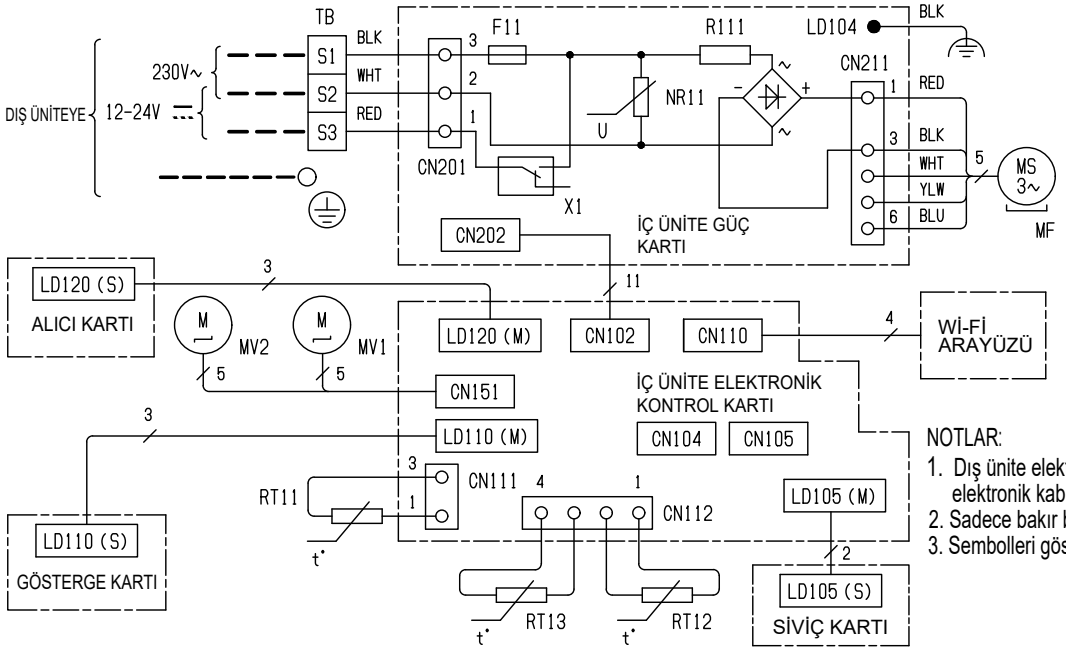


SYMBOL	NAME
F11	FUSE (T3.15AL250V)
MF	FAN MOTOR
MV1	VANE MOTOR (HORIZONTAL UPPER)
MV2	VANE MOTOR (HORIZONTAL LOWER)
NR11	VARISTOR
R111	RESISTOR
RT11	ROOM TEMP. THERMISTOR
RT12	COIL TEMP. THERMISTOR (MAIN)
RT13	COIL TEMP. THERMISTOR (SUB)
TB	TERMINAL BLOCK
X1	RELAY

NOTES:
1. About the outdoor side electronic wiring refer to the outdoor unit electronic wiring diagram for servicing.
2. Use copper supply wires.
3. Symbols indicate.

: Terminal block
: Connector

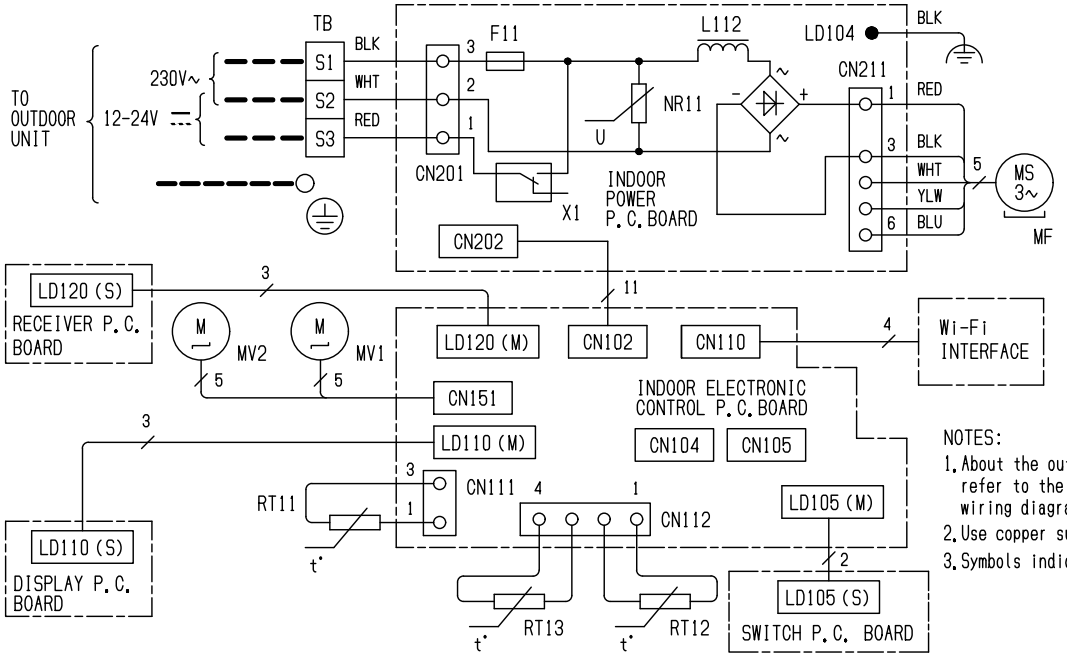
MSZ-EF22VGKW-ET2 MSZ-EF25VGKW-ET2 MSZ-EF35VGKW-ET2 MSZ-EF42VGKW-ET2
MSZ-EF22VGKB-ET2 MSZ-EF25VGKB-ET2 MSZ-EF35VGKB-ET2 MSZ-EF42VGKB-ET2
MSZ-EF22VGKS-ET2 MSZ-EF25VGKS-ET2 MSZ-EF35VGKS-ET2 MSZ-EF42VGKS-ET2



SEMBOL	PARÇA ADI
F11	SİGORTA (T3.15AL250V)
MF	FAN MOTORU
MV1	KANAT MOTORU (YATAY ÜST)
MV2	KANAT MOTORU (YATAY ALT)
NR11	VARİSTÖR
R111	RESİSTÖR
RT11	ODA SICAKLIK TERMİSTÖRÜ
RT12	BORU SICAKLIK TERMİSTÖRÜ(ANA)
RT13	BORU SICAKLIK TERMİSTÖRÜ(YARDIMCI)
TB	TERMİNAL BLOĞU
X1	RÖLE

NOTLAR:
1. Dış ünite elektronik kablolaması için dış ünite elektronik kablo devre şemasını referans alınız.
2. Sadece bakır besleme kablosu kullanın
3. Sembolleri gösterir : Terminal bloğu
: Konektör

MSZ-EF50VGKW- E2, ER2
MSZ-EF50VGKB- E2, ER2
MSZ-EF50VGKS- E2, ER2

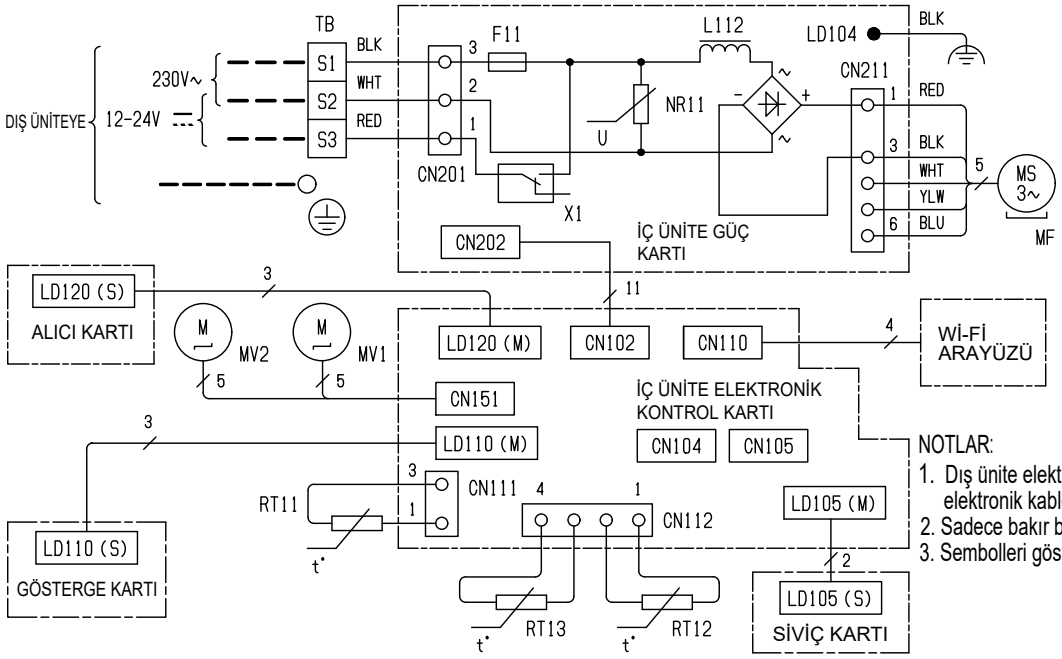


SYMBOL	NAME
F11	FUSE (T3.15AL250V)
L112	REACTOR
MF	FAN MOTOR
MV1	VANE MOTOR (HORIZONTAL UPPER)
MV2	VANE MOTOR (HORIZONTAL LOWER)
NR11	VARISTOR
RT11	ROOM TEMP. THERMISTOR
RT12	COIL TEMP. THERMISTOR (MAIN)
RT13	COIL TEMP. THERMISTOR (SUB)
TB	TERMINAL BLOCK
X1	RELAY

NOTES:
1. About the outdoor side electronic wiring refer to the outdoor unit electronic wiring diagram for servicing.
2. Use copper supply wires.
3. Symbols indicate.

: Terminal block
: Connector

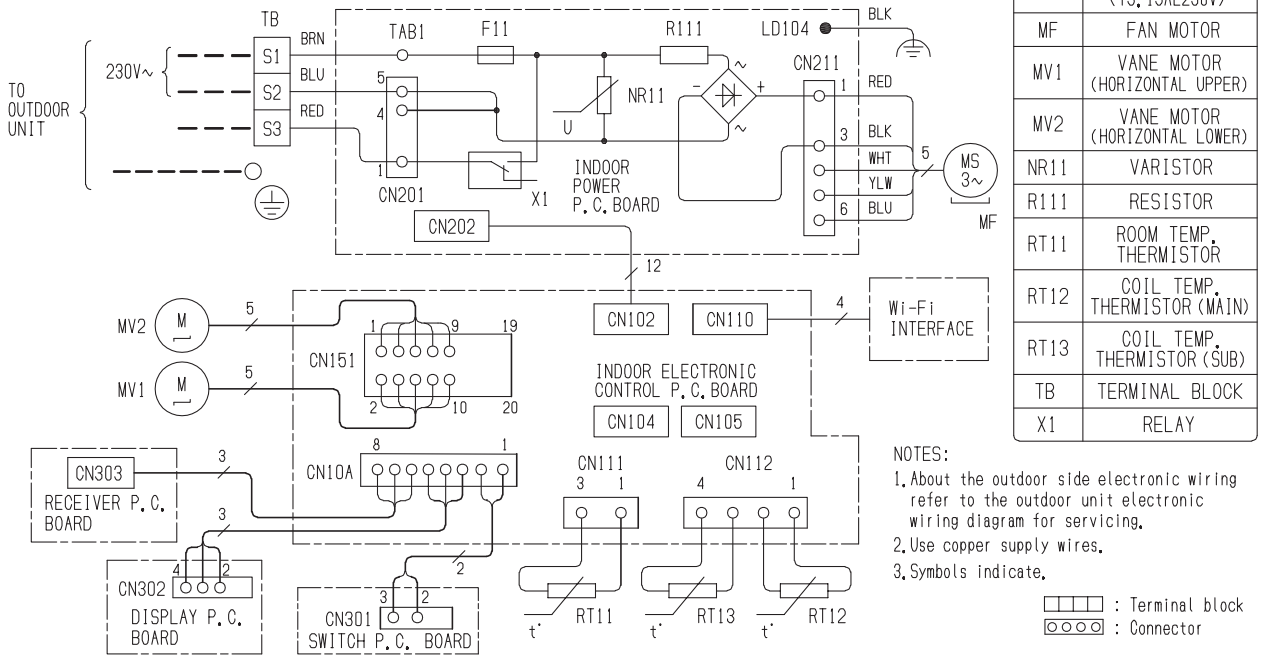
MSZ-EF50VGKW- ET2
MSZ-EF50VGKB- ET2
MSZ-EF50VGKS- ET2



SYMBOL	NAME
F11	SİGORTA (T3.15AL250V)
L112	REAKTÖR
MF	FAN MOTORU
MV1	KANAT MOTORU (YATAY ÜST)
MV2	KANAT MOTORU (YATAY ALT)
NR11	VARİSTÖR
RT11	ODA SICAKLIK TERMİSTÖRÜ
RT12	BORU SICAKLIK TERMİSTÖRÜ(ANA)
RT13	BORU SICAKLIK TERMİSTÖRÜ(YARDIMCI)
TB	TERMİNAL BLOĞU
X1	RÖLE

NOTLAR:
1. Dış ünite elektronik kablolaması için dış ünite elektronik kablo devre şemasını referans alınız.
2. Sadece bakır besleme kablosu kullanın
3. Sembolleri gösterir : Terminal bloğu
: Konektör

MSZ-EF18VGK2W-E1 MSZ-EF22VGK2W-E1 MSZ-EF25VGK2W-E1 MSZ-EF35VGK2W-E1 MSZ-EF42VGK2W-E1
MSZ-EF18VGK2B-E1 MSZ-EF22VGK2B-E1 MSZ-EF25VGK2B-E1 MSZ-EF35VGK2B-E1 MSZ-EF42VGK2B-E1
MSZ-EF18VGK2S-E1 MSZ-EF22VGK2S-E1 MSZ-EF25VGK2S-E1 MSZ-EF35VGK2S-E1 MSZ-EF42VGK2S-E1

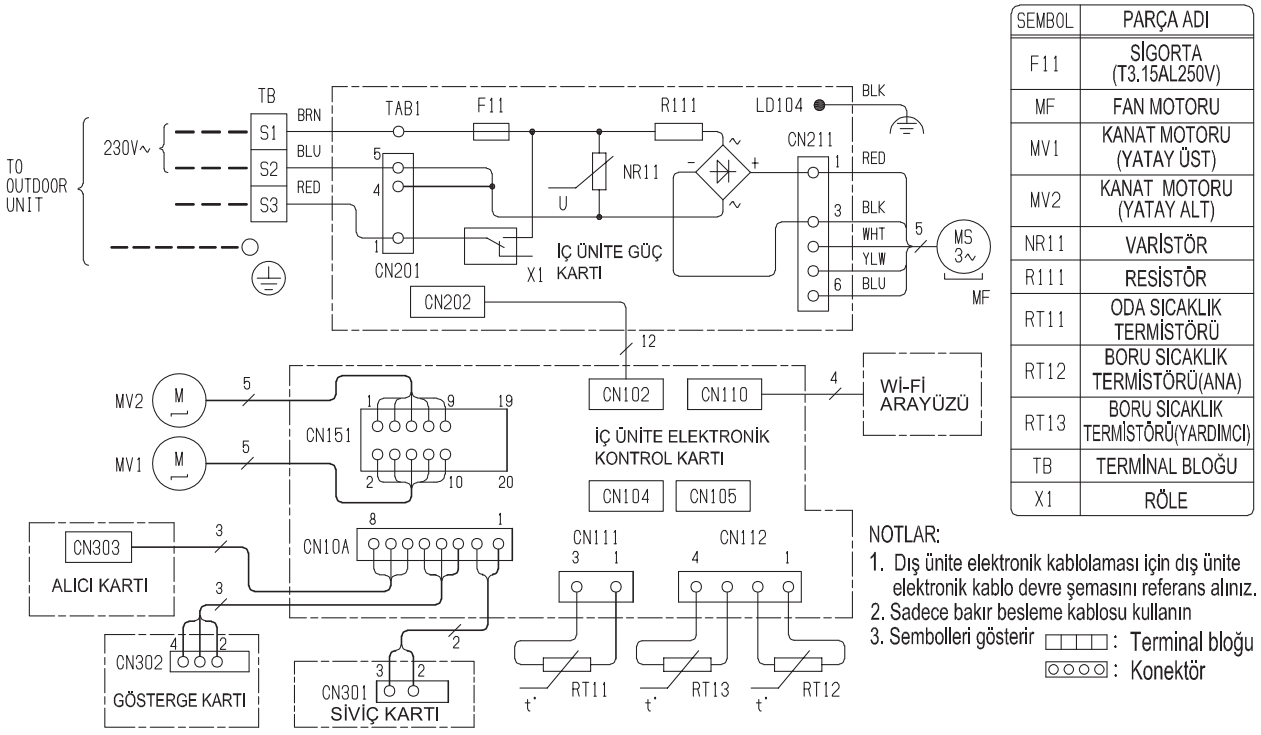


SYMBOL	NAME
F11	FUSE (T3.15AL250V)
MF	FAN MOTOR
MV1	VANE MOTOR (HORIZONTAL UPPER)
MV2	VANE MOTOR (HORIZONTAL LOWER)
NR11	VARISTOR
R111	RESISTOR
RT11	ROOM TEMP. THERMISTOR
RT12	COIL TEMP. THERMISTOR (MAIN)
RT13	COIL TEMP. THERMISTOR (SUB)
TB	TERMINAL BLOCK
X1	RELAY

NOTES:
1. About the outdoor side electronic wiring refer to the outdoor unit electronic wiring diagram for servicing.
2. Use copper supply wires.
3. Symbols indicate.

: Terminal block
: Connector

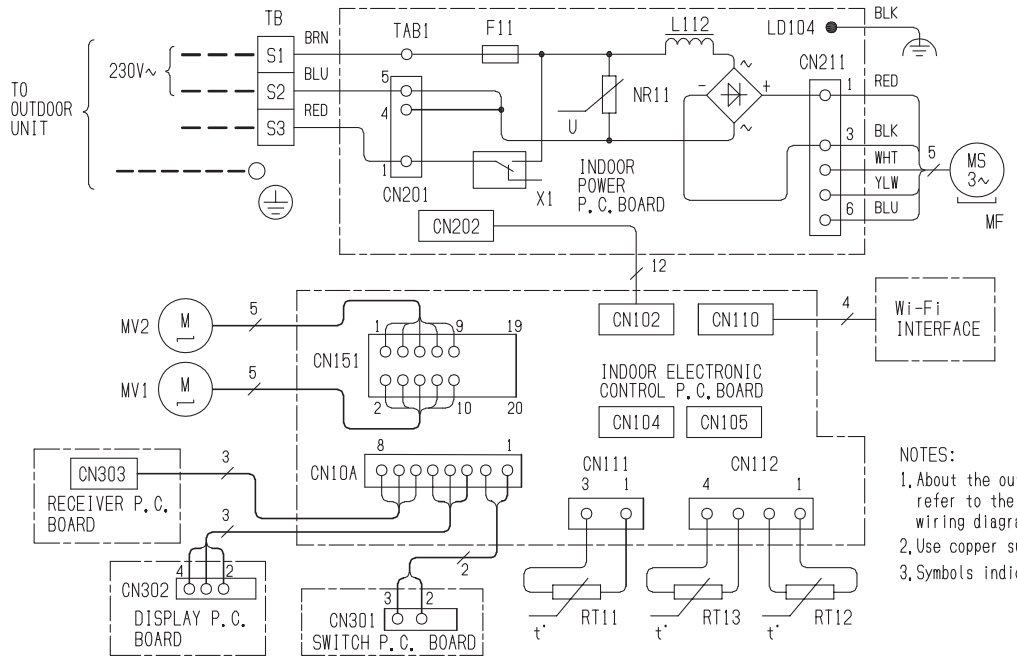
MSZ-EF18VGK2W-ET1 MSZ-EF22VGK2W-ET1 MSZ-EF25VGK2W-ET1 MSZ-EF35VGK2W-ET1 MSZ-EF42VGK2W-ET1
MSZ-EF18VGK2B-ET1 MSZ-EF22VGK2B-ET1 MSZ-EF25VGK2B-ET1 MSZ-EF35VGK2B-ET1 MSZ-EF42VGK2B-ET1
MSZ-EF18VGK2S-ET1 MSZ-EF22VGK2S-ET1 MSZ-EF25VGK2S-ET1 MSZ-EF35VGK2S-ET1 MSZ-EF42VGK2S-ET1



SEMBOL	PARÇA ADI
F11	SİGORTA (T3.15AL250V)
MF	FAN MOTORU
MV1	KANAT MOTORU (YATAY ÜST)
MV2	KANAT MOTORU (YATAY ALT)
NR11	VARİSTÖR
R111	RESİSTÖR
RT11	ODA SICAKLIK TERMİSTÖRÜ
RT12	BORU SICAKLIK TERMİSTÖRÜ(ANA)
RT13	BORU SICAKLIK TERMİSTÖRÜ(YARDIMCI)
TB	TERMİNAL BLOĞU
X1	RÖLE

NOTLAR:
1. Dış ünite elektronik kablolaması için dış ünite elektronik kablo devre şemasını referans alınız.
2. Sadece bakır besleme kablosu kullanın
3. Sembolleri gösterir : Terminal bloğu
: Konektör

MSZ-EF50VGK2W - E1
MSZ-EF50VGK2B - E1
MSZ-EF50VGK2S - E1

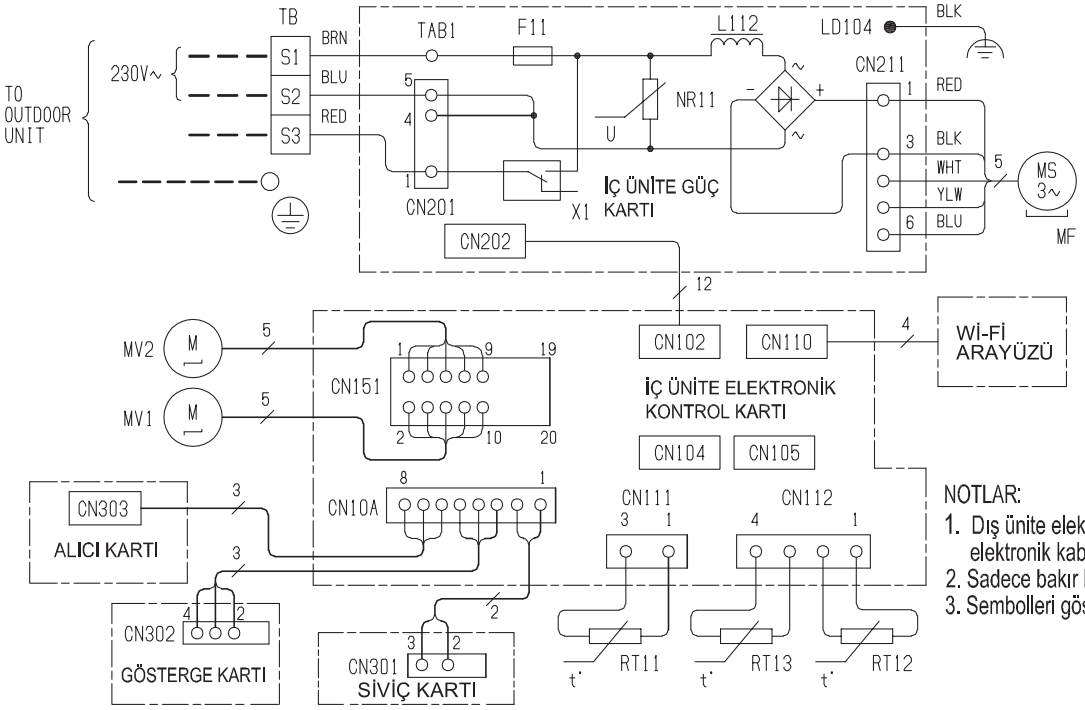


SYMBOL	NAME
F11	FUSE (T3.15AL250V)
L112	REACTOR
MF	FAN MOTOR
MV1	VANE MOTOR (HORIZONTAL UPPER)
MV2	VANE MOTOR (HORIZONTAL LOWER)
NR11	VARISTOR
RT11	ROOM TEMP. THERMISTOR
RT12	COIL TEMP. THERMISTOR (MAIN)
RT13	COIL TEMP. THERMISTOR (SUB)
TB	TERMINAL BLOCK
X1	RELAY

NOTES:
1. About the outdoor side electronic wiring refer to the outdoor unit electronic wiring diagram for servicing.
2. Use copper supply wires.
3. Symbols indicate.

: Terminal block
: Connector

MSZ-EF50VGK2W - ET1
MSZ-EF50VGK2B - ET1
MSZ-EF50VGK2S - ET1



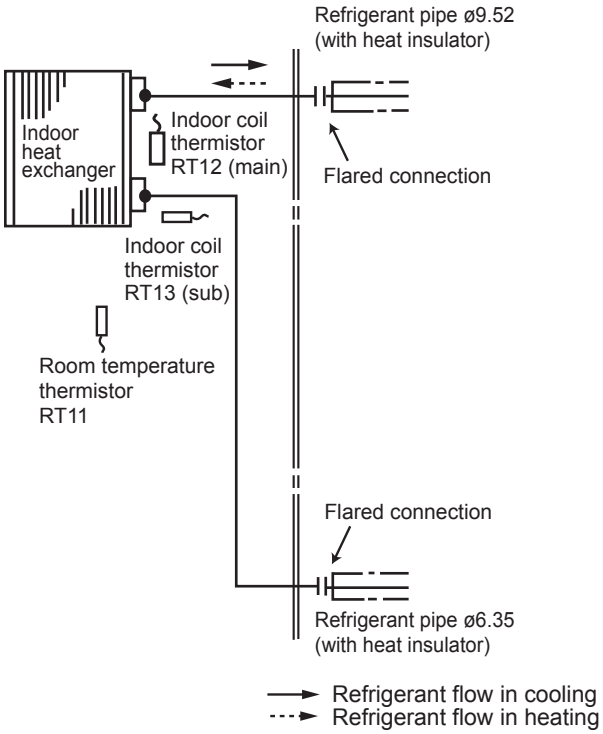
SYMBOL	NAME
F11	SİGORTA (T3.15AL250V)
L112	REAKTÖR
MF	FAN MOTORU
MV1	KANAT MOTORU (YATAY ÜST)
MV2	KANAT MOTORU (YATAY ALT)
NR11	VARİSTÖR
RT11	ODA SICAKLIK TERMİSTÖRÜ
RT12	BORU SICAKLIK TERMİSTÖRÜ(ANA)
RT13	BORU SICAKLIK TERMİSTÖRÜ(YARDIMCI)
TB	TERMİNAL BLOĞU
X1	RÖLE

NOTLAR:
1. Dış ünite elektronik kablolaması için dış ünite elektronik kablo devre şemasını referans alınız.
2. Sadece bakır besleme kablosu kullanın
3. Sembolleri gösterir : Terminal bloğu
: Konektör

7 REFRIGERANT SYSTEM DIAGRAM

MSZ-EF18VGW MSZ-EF22VGW MSZ-EF25VGW MSZ-EF35VGW MSZ-EF42VGW MSZ-EF50VGW
MSZ-EF18VGB MSZ-EF22VGB MSZ-EF25VGB MSZ-EF35VGB MSZ-EF42VGB MSZ-EF50VGB
MSZ-EF18VGS MSZ-EF22VGS MSZ-EF25VGS MSZ-EF35VGS MSZ-EF42VGS MSZ-EF50VGS
MSZ-EF18VGKW MSZ-EF22VGKW MSZ-EF25VGKW MSZ-EF35VGKW MSZ-EF42VGKW MSZ-EF50VGKW
MSZ-EF18VGKB MSZ-EF22VGKB MSZ-EF25VGKB MSZ-EF35VGKB MSZ-EF42VGKB MSZ-EF50VGKB
MSZ-EF18VGKS MSZ-EF22VGKS MSZ-EF25VGKS MSZ-EF35VGKS MSZ-EF42VGKS MSZ-EF50VGKS
MSZ-EF22VG2W MSZ-EF25VG2W MSZ-EF35VG2W MSZ-EF42VG2W MSZ-EF50VG2W
MSZ-EF22VG2B MSZ-EF25VG2B MSZ-EF35VG2B MSZ-EF42VG2B MSZ-EF50VG2B
MSZ-EF22VG2S MSZ-EF25VG2S MSZ-EF35VG2S MSZ-EF42VG2S MSZ-EF50VG2S
MSZ-EF18VGK2W MSZ-EF22VGK2W MSZ-EF25VGK2W MSZ-EF35VGK2W MSZ-EF42VGK2W MSZ-EF50VGK2W
MSZ-EF18VGK2B MSZ-EF22VGK2B MSZ-EF25VGK2B MSZ-EF35VGK2B MSZ-EF42VGK2B MSZ-EF50VGK2B
MSZ-EF18VGK2S MSZ-EF22VGK2S MSZ-EF25VGK2S MSZ-EF35VGK2S MSZ-EF42VGK2S MSZ-EF50VGK2S

Unit: mm



8 SERVICE FUNCTIONS

MSZ-EF18VGW MSZ-EF22VGW MSZ-EF25VGW MSZ-EF35VGW MSZ-EF42VGW MSZ-EF50VGW
MSZ-EF18VGB MSZ-EF22VGB MSZ-EF25VGB MSZ-EF35VGB MSZ-EF42VGB MSZ-EF50VGB
MSZ-EF18VGS MSZ-EF22VGS MSZ-EF25VGS MSZ-EF35VGS MSZ-EF42VGS MSZ-EF50VGS
MSZ-EF18VGKW MSZ-EF22VGKW MSZ-EF25VGKW MSZ-EF35VGKW MSZ-EF42VGKW MSZ-EF50VGKW
MSZ-EF18VGKB MSZ-EF22VGKB MSZ-EF25VGKB MSZ-EF35VGKB MSZ-EF42VGKB MSZ-EF50VGKB
MSZ-EF18VGKS MSZ-EF22VGKS MSZ-EF25VGKS MSZ-EF35VGKS MSZ-EF42VGKS MSZ-EF50VGKS
MSZ-EF22VG2W MSZ-EF25VG2W MSZ-EF35VG2W MSZ-EF42VG2W MSZ-EF50VG2W
MSZ-EF22VG2B MSZ-EF25VG2B MSZ-EF35VG2B MSZ-EF42VG2B MSZ-EF50VG2B
MSZ-EF22VG2S MSZ-EF25VG2S MSZ-EF35VG2S MSZ-EF42VG2S MSZ-EF50VG2S
MSZ-EF18VGK2W MSZ-EF22VGK2W MSZ-EF25VGK2W MSZ-EF35VGK2W MSZ-EF42VGK2W MSZ-EF50VGK2W
MSZ-EF18VGK2B MSZ-EF22VGK2B MSZ-EF25VGK2B MSZ-EF35VGK2B MSZ-EF42VGK2B MSZ-EF50VGK2B
MSZ-EF18VGK2S MSZ-EF22VGK2S MSZ-EF25VGK2S MSZ-EF35VGK2S MSZ-EF42VGK2S MSZ-EF50VGK2S

8-1. TIMER SHORT MODE

For service, the following set time can be shortened by bridging JPG and JPS/the timer short mode point* on the electronic control P.C. board. (Refer to 10-7.)

- The set time for the ON/OFF timer can be reduced to 1 second for each minute.
- After the breaker is turned on, the time for starting the compressor, which normally takes 3 minutes, can be reduced to 1 minute. Restarting the compressor, which takes 3 minutes, cannot be reduced.

* JPG and JPS: **MSZ-EF·VG-E1, ET1**
Timer short mode point: **MSZ-EF·VG-E2, ET2, ET3, MSZ-EF·VGK, VG2, VGK2**

8-2. HOW TO SET REMOTE CONTROLLER EXCLUSIVELY FOR A PARTICULAR INDOOR UNIT

A maximum of 4 indoor units with wireless remote controllers can be used in a room.
To operate the indoor units individually with each remote controller, assign a number to each remote controller according to the number of the indoor unit.

This setting can be set only when all the following conditions are met:

- The remote controller is powered OFF.
- Weekly timer is not set.
- Weekly timer is not being edited.

(1) Hold down [1~4] button on the remote controller for 2 seconds to enter the pairing mode.
(2) Press [1~4] button again and assign a number to each remote controller.
Each press of [1~4] button advances the number in the following order: 1 → 2 → 3 → 4.
(3) Press [EDIT/SEND SET] button to complete the pairing setting.
After you turn the breaker ON, the remote controller that first sends a signal to an indoor unit will be regarded as the remote controller for the indoor unit.
Once they are set, the indoor unit will only receive the signal from the assigned remote controller afterwards.

8-3. AUTO RESTART FUNCTION

When the indoor unit is controlled with the remote controller, the operation mode, the set temperature, and the fan speed are memorized by the indoor electronic control P.C. board. “AUTO RESTART FUNCTION” automatically starts operation in the same mode just before the shutoff of the main power.

Operation

① If the main power has been cut, the operation settings remain.

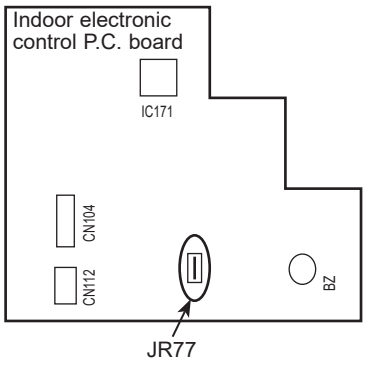
② After the power is restored, the unit restarts automatically according to the memory.
(However, it takes at least 3 minutes for the compressor to start running.)

How to disable “AUTO RESTART FUNCTION”

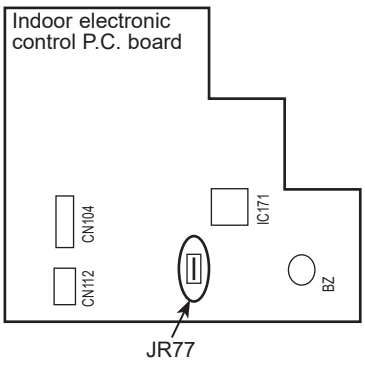
① Turn off the main power for the unit.

② Cut the jumper wire to JR77 on the indoor electronic control P.C. board. (Refer to 10-7.)

MSZ-EF•VG/VGK



MSZ-EF•VG2/VGK2



NOTE:

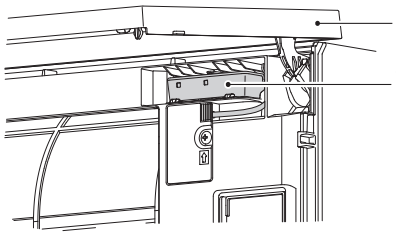
- The operation settings are memorized when 10 seconds have passed after the indoor unit was operated with the remote controller.
- If main power is turned OFF or a power failure occurs while AUTO START/STOP timer is active, the timer setting is cancelled.
- If the unit has been off with the remote controller before power failure, the auto restart function does not work as the power button of the remote controller is OFF.
- To prevent breaker OFF due to the rush of starting current, systematize other home appliance not to turn ON at the same time.
- When some air conditioners are connected to the same supply system, if they are operated before power failure, the starting current of all the compressors may flow simultaneously at restart.
  Therefore, the special counter-measures are required to prevent the main voltage-drop or the rush of the starting current by adding to the system that allows the units to start one by one.

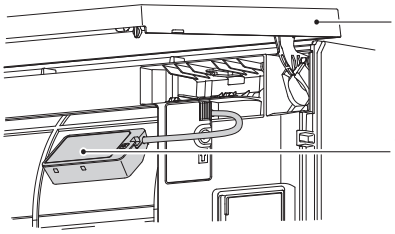
8-4. Wi-Fi INTERFACE SETTING UP (MSZ-EF·VGK/VGK2)

MSZ-EF·VGK

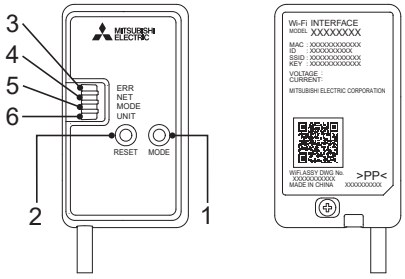
1. Wi-Fi interface introduction

This Wi-Fi interface communicates the status information and controls the commands from the MELCloud by connecting to an indoor unit.





No.	Item	Description
1	MODE switch	It selects modes.
2	RESET switch	It resets the system and ALL settings.
3	ERR LED (Orange)	It shows the network error state.
4	NET LED (Green)	It shows the network state.
5	MODE LED (Orange)	It shows the Access point mode state.
6	UNIT LED (Green)	It shows the indoor unit state.



(1) MODE switch
- The MODE switch is used for selecting modes in configurations.

(2) RESET switch
- Hold down the RESET switch for 2 seconds to reboot the system.
- Hold down the RESET switch for 14 seconds to initialize the Wi-Fi interface tothe factory default.

NOTE:
When the Wi-Fi interface is reset to the factory default, ALL the configuration information will be lost. Take great care in implementing this operation.

(1) Open the front panel and remove the Wi-Fi interface.

(2) Set up a connection between the Wi-Fi interface and the router.
Refer to the SETUP MANUAL and SETUP QUICK REFERENCE GUIDE provided with the unit.

For SETUP MANUAL, please go to the website below.
http://www.mitsubishielectric.com/ldg/ibim/

(3) Put the Wi-Fi interface back and close the front panel after the setup is completed.

(4) For MELCloud User Manual, please go to the website below.
https://www.melcloud.com/Support

NOTE:
- Ensure that the Router supports the WPA2-AES encryption setting before starting the Wi-Fi interface setup.
- The End user should read and accept the terms and conditions of the Wi-Fi service before using this Wi-Fi interface.
- To complete connection of this Wi-Fi interface to the Wi-Fi service, the Router may be required.
- This Wi-Fi interface will not commence transmission of any operational data from the system until the End user registers and accepts the terms and conditions of the Wi-Fi service.
- This Wi-Fi interface should not be installed and connected to any Mitsubishi Electric system which is to provide application critical cooling or heating.
- At the time of relocation or disposal, reset the Wi-Fi interface to the factory default.

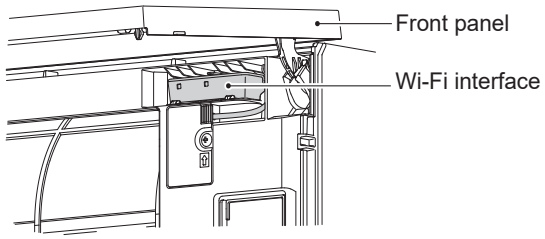
Mitsubishi Electric's Wi-Fi interface is designed for communication to Mitsubishi Electric's MELCloud Wi-Fi service.
Third party Wi-Fi interfaces cannot be connected to MELCloud.
Mitsubishi Electric is not responsible for any (i) under performance of a system or any product; (ii) system or product fault; or (iii) loss or damage to any system or product; which is caused by or arises from connection to and/or use of any third party Wi-Fi interface or any third party Wi-Fi service with Mitsubishi Electric equipment.

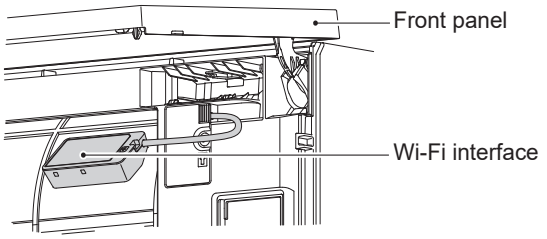
For the latest information regarding MELCloud from Mitsubishi Electric Corporation, please visit www.MELCloud.com.

MSZ-EF·VGK2

1. Wi-Fi interface introduction

This Wi-Fi interface, communicates the status information and controls the commands from the MELCloud by connecting to the indoor unit.





2. Setting up

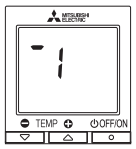
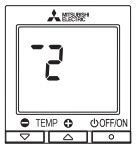
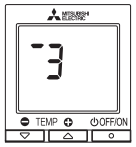
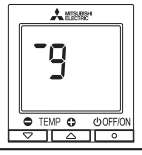
(1) Download the MELCloud application.
Please go to the website below.
https://www.melcloud.com/?qr=1

2-1. Selecting the setting up mode

Refer to the MELCloud application to set up the connection between the router and Wi-Fi interface.

To enter the setting up mode

(1) Hold down the Temperature ⊕ for 5 seconds.
(2) Select the mode by pressing Temperature ⊕ and ⊖ as shown on the table below.
(3) Point the remote controller toward the indoor unit unit and press the ⏻OFF/ON.

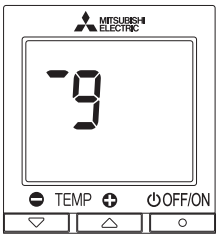
Number	Mode	Operation
	Pairing mode	[Connecting] A short beep sounds once every 5 seconds for 10 minutes and the operation indicator lamp blinks.
		[Connection fail] After 10 minutes, five beeps sound and the operation indicator lamp blinks.
		[Connection success] The operation indicator lamp lights up for 5 seconds and a long beep sounds.
	NA	This mode is not supported in this model. If this mode is selected, three short beeps will sound.
	NA	This mode is not supported in this model. If this mode is selected, three short beeps will sound.
	Troubleshooting mode	Refer to “3. When it doesn’t connect well”

3. When it doesn't connect well

Troubleshooting mode

- Hold down the Temperature ⊕ for 5 seconds.
- Select "¯ 9" by pressing Temperature ⊕ and ⊖ as shown on the right.
- Point the remote controller toward the indoor unit and press the ⏻OFF/ON.

Troubleshooting mode



In the troubleshooting mode, you can check what kind of error is occurring by the blinking pattern of the indoor unit operation indicator lamp as follows.

Indication	Description	Check point
10 times	MELCloud, Router, Wi-Fi interface	Check the connection between unit and Wi-Fi interface.
5 times	MELCloud, Router, Wi-Fi interface	Make sure that DHCP is enabled. or check IP address settings of the Wi-Fi interface.
7 times	MELCloud, Router, Wi-Fi interface	Check if the Router is connected to the internet. or check DNS setting the Router and Wi-Fi interface.

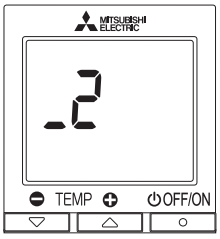
In addition, check the following.

- Make sure that the communication distance is not too far between the Wi-Fi interface and the Router.
- Make sure that the Router uses WPA2-AES encryption.
- Make sure that the number of connected devices to the Router does not exceed the limit.
- Set up the Wi-Fi interface after operating the air conditioner using the wireless remote controller at least once.

If the connection fails even after checking the above, set up the Wi-Fi interface and the router again by the following method.

To reset connection and set up the Wi-Fi interface and the router again

- Hold down the Temperature ⊖ for 5 seconds.
- Select "_ 2" by pressing Temperature ⊕ and ⊖.
- Point the remote controller toward the indoor unit and press the ⏻OFF/ON.
- The indoor unit beeps 3 times when resetting is complete.



Other check points

Check the following, and pair the Wi-Fi interface and the router according to Selecting a mode.

- Make sure that the communication distance is not too far between the Wi-Fi interface and the router.
- Make sure that the router uses WPA2-AES encryption.
- Make sure that the number of connected devices to the router does not exceed the limit.
- Make sure that DHCP is enabled, or check IP address setting of the Wi-Fi interface.
- Check DNS settings of the router, or check DNS address of the Wi-Fi interface.
- Check if the router is connected to Internet.
- Set up the Wi-Fi interface after operating the air conditioner using the wirelessremote controller at least once.

If the connection fails even after checking the above, set up the Wi-Fi interface and the router again by the following method.

- Hold down the Temperature ⊖ for 5 seconds.
- Select "_ 2" by pressing Temperature ⊕ and ⊖ .
- Point the remote controller toward the indoor unit and press the ⏻OFF/ON .
- The indoor unit beeps 3 times when resetting is complete.

[About trademarks]

- "Wi-Fi", "Wi-Fi Protected Setup™", "WPA2™" are trademarks or registered trademarks of the Wi-Fi Alliance. The Wi-Fi Interface uses Open Source Software.
- The Bluetooth® word mark is registered trademarks owned by Bluetooth SIG,Inc.

For Declaration of Conformity and MELCloud User Manual, please go to the website below.
www.melcloud.com/Support
After accessing the address above, select "United Kingdom" to view support details.

The Wi-Fi interface uses Open Source Software.
To view the Open Source software licence(s), please go to the following website.
https://www2.melcloud.com/?oss=1

NOTE:

- Ensure that the Router supports the WPA2-AES encryption setting and 2.4GHz before commencement of the installation of this Wi-Fi interface.
- The end user should read and accept the terms and conditions of the Wi-Fi service before using this Wi-Fi interface.
- To complete connection of this Wi-Fi interface to the Wi-Fi service, the Router may be required.
- This Wi-Fi interface will not commence transmission of any operational data from the system until the end user registers and accepts the terms and conditions of the Wi-Fi service.
- Do not place the Wi-Fi interface where it can be easily accessed by third parties.
- This Wi-Fi interface should not be installed and connected to any Mitsubishi Electric system which is to provide application critical cooling or heating.
- Please write down the information regarding the Wi-Fi interface setting on the last page of this manual, when you set up this Wi-Fi interface.
- At the time of relocation or disposal, reset the Wi-Fi interface to the factory default.
- To fully connect this Wi-Fi interface to the Wi-Fi service, you may need a router and a smartphone compatible with Bluetooth® Low Energy 4.2 or later.

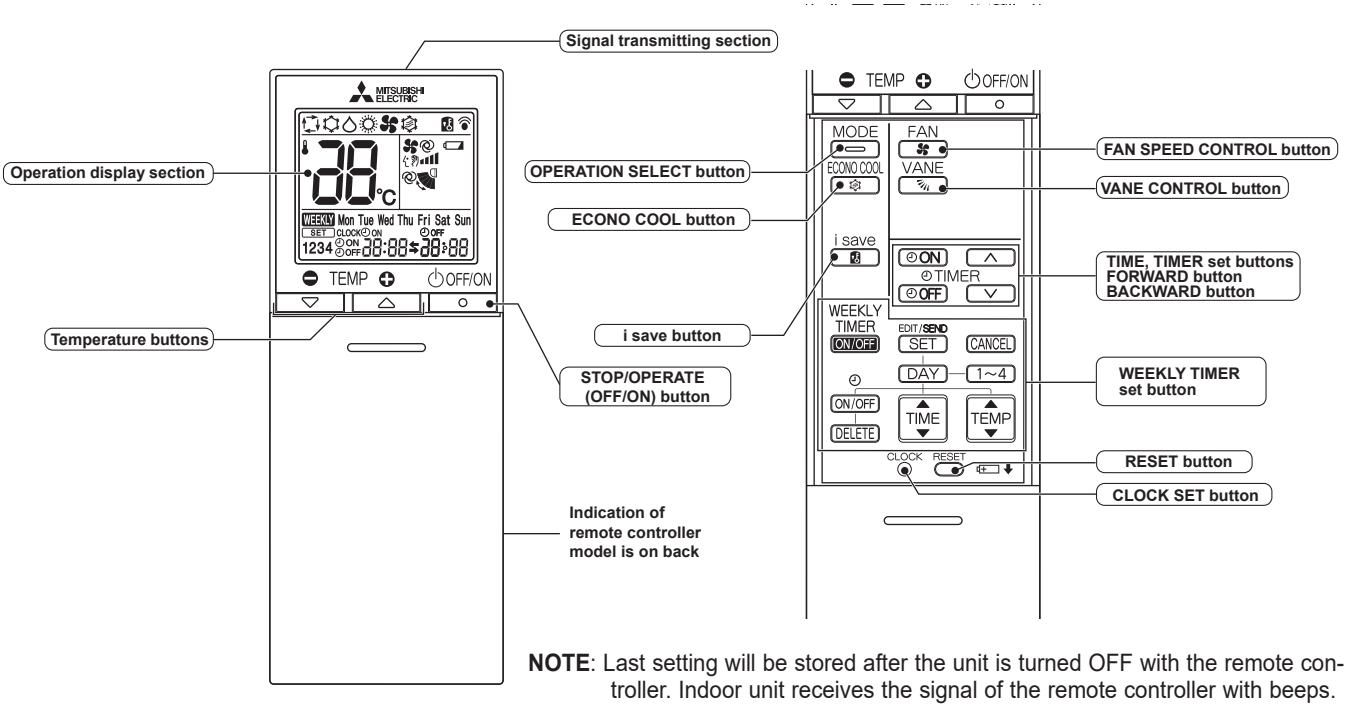
Mitsubishi Electric's Wi-Fi interface is designed for communication to Mitsubishi Electric's MELCloud Wi-Fi service. Mitsubishi Electric is not responsible for any (i) underperformance of a system or any product;
(ii) system or product fault; or (iii) loss or damage to any system or product;
which is caused by or arises from connection to and/or use of any third party Wi-Fi interface or any third party Wi-Fi service with Mitsubishi Electric
equipment.

For the latest information regarding MELCloud from Mitsubishi Electric Corporation, please visit www.melcloud.com.

9 MICROPROCESSOR CONTROL

MSZ-EF18VGW MSZ-EF22VGW MSZ-EF25VGW MSZ-EF35VGW MSZ-EF42VGW MSZ-EF50VGW
MSZ-EF18VGB MSZ-EF22VGB MSZ-EF25VGB MSZ-EF35VGB MSZ-EF42VGB MSZ-EF50VGB
MSZ-EF18VGS MSZ-EF22VGS MSZ-EF25VGS MSZ-EF35VGS MSZ-EF42VGS MSZ-EF50VGS
MSZ-EF18VGKW MSZ-EF22VGKW MSZ-EF25VGKW MSZ-EF35VGKW MSZ-EF42VGKW MSZ-EF50VGKW
MSZ-EF18VGKB MSZ-EF22VGKB MSZ-EF25VGKB MSZ-EF35VGKB MSZ-EF42VGKB MSZ-EF50VGKB
MSZ-EF18VGKS MSZ-EF22VGKS MSZ-EF25VGKS MSZ-EF35VGKS MSZ-EF42VGKS MSZ-EF50VGKS
MSZ-EF22VG2W MSZ-EF25VG2W MSZ-EF35VG2W MSZ-EF42VG2W MSZ-EF50VG2W
MSZ-EF22VG2B MSZ-EF25VG2B MSZ-EF35VG2B MSZ-EF42VG2B MSZ-EF50VG2B
MSZ-EF22VG2S MSZ-EF25VG2S MSZ-EF35VG2S MSZ-EF42VG2S MSZ-EF50VG2S
MSZ-EF18VGK2W MSZ-EF22VGK2W MSZ-EF25VGK2W MSZ-EF35VGK2W MSZ-EF42VGK2W MSZ-EF50VGK2W
MSZ-EF18VGK2B MSZ-EF22VGK2B MSZ-EF25VGK2B MSZ-EF35VGK2B MSZ-EF42VGK2B MSZ-EF50VGK2B
MSZ-EF18VGK2S MSZ-EF22VGK2S MSZ-EF25VGK2S MSZ-EF35VGK2S MSZ-EF42VGK2S MSZ-EF50VGK2S

WIRELESS REMOTE CONTROLLER



NOTE: Last setting will be stored after the unit is turned OFF with the remote controller. Indoor unit receives the signal of the remote controller with beeps.

INDOOR UNIT DISPLAY SECTION

Operation indicator lamp

The operation indicator at the right side of the indoor unit indicates the operation state.

•The following indication applies regardless of shape of the indication.

Indication	Operation state	Room temperature
☀ ☀	The unit is operating to reach the set temperature	About 2°C or more away from set temperature
☀ ○	The room temperature is approaching the set temperature	About 1 to 2°C from set temperature
☀ ☼	Standby mode (Only during multi system operation)	—
☼ ○	The air filter needs to be cleaned. *1	—

☀ Lit
☼ Blinking
○ Not lit

*1 **Timing for air filter cleaning**
The air filter needs to be cleaned if the operation indicator lamp blinks when starting or stopping the operation. Follow the OPERATING INSTRUCTIONS to clean and dry the air filter, and then attach it. Hold down the FAN button to stop the operation indicator lamp from blinking.

9-1. COOL (☼) OPERATION

(1) Press / STOP/OPERATE (OFF/ON) button.
OPERATION INDICATOR lamp of the indoor unit turns on with a beep tone.
(2) Select COOL mode with OPERATION SELECT button.
(3) Press TEMPERATURE buttons TEMP ⊖ or ⊕ button to select the desired temperature. The setting range is 16 - 31°C.

1. Coil frost prevention

The compressor operational frequency is controlled by the temperature of the indoor heat exchanger to prevent the coil from frosting.
When the temperature of indoor heat exchanger becomes too low, the coil frost prevention mode works.
The indoor fan operates at the set speed and the compressor stops. This mode continues until the temperature of indoor heat exchanger rises.

2. Low outside temperature operation

When the outside temperature is lower, low outside temperature operation starts, and the outdoor fan slows or stops.

3. Indoor fan speed control

When the thermostat turns OFF, the indoor fan operates very Low to reduce power consumption.
When the room temperature rises and the thermostat is ON, the indoor fan operates according to the settings on the remote controller.

9-2. DRY (△) OPERATION

(1) Press STOP/OPERATE (OFF/ON) button.
OPERATION INDICATOR lamp of the indoor unit turns on with a beep tone.
(2) Select DRY mode with OPERATION SELECT button.
(3) The set temperature is determined from the initial room temperature.

1. Coil frost prevention

Coil frost prevention works the same way as that in COOL mode. (9-1.1.)

2. Low outside temperature operation

Low outside temperature operation works the same way as that in COOL mode. (9-1.2.)

3. Indoor fan speed control

Indoor fan speed control works the same way as that in COOL mode. (9-1.3.)

9-3. FAN (❀) OPERATION

(1) OPERATION INDICATOR lamp of the indoor unit turns on with a beep tone.
(2) Select FAN mode with OPERATION SELECT button.
(3) Select the desired fan speed. When AUTO, it becomes Low.
Only indoor fan operates.
Outdoor unit does not operate.

9-4. HEAT (☼) OPERATION

(1) Press STOP/OPERATE (OFF/ON) button.
OPERATION INDICATOR lamp of the indoor unit turns on with a beep tone.
(2) Select HEAT mode with OPERATION SELECT button.
(3) Press TEMPERATURE buttons TEMP ⊖ or ⊕ button to select the desired temperature. The setting range is 16 - 31°C.

1. Cold air prevention control

When the compressor is not operating or is starting, and the temperature of indoor heat exchanger and/or the room temperature is low or when defrosting is being done, the indoor fan will stop or rotate in Very Low speed.

2. High pressure protection

The compressor operational frequency is controlled by the temperature of the indoor heat exchanger to prevent the condensing pressure from increasing excessively.
When the temperature of indoor heat exchanger becomes too high, the high pressure protection works.
The indoor fan operates following the cold air prevention control. This mode continues until the temperature of indoor heat exchanger falls.

3. Defrosting

Defrosting starts when the temperature of outdoor heat exchanger becomes too low.
The compressor stops once, the indoor/outdoor fans stop, the 4-way valve reverses, and the compressor re-starts.
This mode continues until the temperature of outdoor heat exchanger rises or the fixed time passes.

9-5. AUTO CHANGE OVER ··· AUTO MODE OPERATION

Once desired temperature is set, unit operation is switched automatically between COOL and HEAT operation.

Mode selection

(1) Initial mode

When unit starts the operation with AUTO operation from OFF:

- If the room temperature is higher than the set temperature, operation starts in COOL mode.
- If the room temperature is equal to or lower than the set temperature, operation starts in HEAT mode.

(2) Mode change

COOL mode changes to HEAT mode when about 15 minutes have passed with the room temperature 1°C below the set temperature.

HEAT mode changes to COOL mode when about 15 minutes have passed with the room temperature 1°C above the set temperature.

NOTE 1

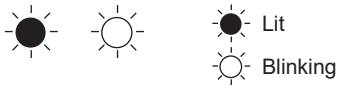
If 2 or more indoor units are operating in multi system, there might be a case that the indoor unit, which is operating in ⇄ (AUTO), cannot change over to the other operating mode (COOL ↔ HEAT) and becomes a state of standby.
Refer to **NOTE 2 "FOR MULTI SYSTEM AIR CONDITIONER"**.

NOTE 2
FOR MULTI SYSTEM AIR CONDITIONER
OUTDOOR UNIT: MXZ series

Multi system air conditioner can connect 2 or more indoor units with one outdoor unit.

- When you try to operate 2 or more indoor units with one outdoor unit simultaneously, one for the cooling and the others for heating, the operation mode of the indoor unit that operates first is selected. Other indoor units cannot operate, and operation indicator lamp blinks as shown in the figure below. In this case, please set all the indoor units to the same operation mode.

OPERATION INDICATOR



- When indoor unit starts the operation while the defrosting of outdoor unit is being done, it takes a few minutes (max. 10 minutes) to blow out the warm air.
- In the heating operation, though indoor unit that does not operate may get warm or the sound of refrigerant flowing may be heard, they are not malfunction. The reason is that the refrigerant continuously flows into it.

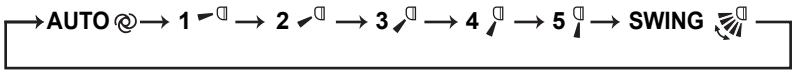
9-6. AUTO VANE OPERATION

1. Horizontal vane

(1) Vane motor drive

These models are equipped with a stepping motor for the horizontal vane. The rotating direction, speed, and angle of the motor are controlled by pulse signals (approximately 12 V) transmitted from indoor microprocessor.

(2) The horizontal vane angle and mode change as follows by pressing VANE CONTROL button.



(3) Positioning

To confirm the standard position, the vane moves until it touches the vane stopper. Then the vane is set to the selected angle.

Confirming of standard position is performed in the following cases:

(a) When the operation starts or finishes (including timer operation).

(b) When the test run starts.

(c) When standby mode (only during multi system operation) starts or finishes.

(4) VANE AUTO (@) mode

In VANE AUTO mode, the microprocessor automatically determines the vane angle to make the optimum room temperature distribution.

In COOL and DRY operation
Vane angle is fixed to Horizontal position.

In HEAT operation
Vane angle is fixed to Angle 4.

(5) STOP (operation OFF) and ON TIMER standby

In the following cases, the horizontal vane returns to the closed position.

(a) When STOP/OPERATE (OFF/ON) button is pressed (POWER OFF).

(b) When the operation is stopped by the emergency operation.

(c) When ON TIMER is ON standby.

(6) Dew prevention

During COOL or DRY operation with the vane angle at Angle 4 or 5 when the compressor cumulative operation time exceeds 1 hour, the vane angle automatically changes to Angle 1 for dew prevention.

(7) SWING ( ) mode

By selecting SWING mode with VANE CONTROL button, the horizontal vanes swing vertically.

When COOL, DRY or FAN mode is selected, only the upper vane swings.

(8) Cold air prevention in HEAT operation

The horizontal vane position is set to Upward.

NOTE: When 2 or more indoor units are operated with multi outdoor unit, even if any indoor unit turns thermostat off, this control does not work in the indoor unit.

(9) ECONO COOL ( ) operation (ECONOmical operation)

When ECONO COOL button is pressed in COOL mode, set temperature is automatically set 2°C higher by microprocessor. However, the temperature on the LCD screen on the remote controller is not changed.

Also the horizontal vane swings in various cycle.

SWING operation makes you feel cooler than set temperature. So, even though the set temperature is higher, the air conditioner can keep comfort. As a result, energy can be saved.

To cancel this operation, select a different mode or press one of the following buttons in ECONO COOL operation: ECONO COOL, or VANE CONTROL button.

9-7. TIMER OPERATION

1. How to set the time

(1) Check that the current time is set correctly.

NOTE: Timer operation will not work without setting the current time. Initially “0:00” blinks at the current time display of TIME MONITOR, so set the current time correctly with CLOCK SET button.

How to set the current time

(a) Press the CLOCK set button.

(b) Press the TIME SET buttons (∧ and ∨) to set the current time.

- Each time FORWARD button (∧) is pressed, the set time increases by 1 minute, and each time BACKWARD button (∨) is pressed, the set time decreases by 1 minute.
- Pressing those buttons longer, the set time increases/decreases by 10 minutes.

(c) Press the CLOCK set button.

(2) Press STOP/OPERATE (OFF/ON) button to start the air conditioner.

(3) Set the time of timer.

ON timer setting

(a) Press ON TIMER button(ON) during operation.

(b) Set the time of the timer using TIME SET buttons (∧ and ∨). ※

OFF timer setting

(a) Press OFF TIMER button (OFF) during operation.

(b) Set the time of the timer using TIME SET buttons (∧ and ∨). ※

※ Each time FORWARD button (∧) is pressed, the set time increases by 10 minutes: each time BACKWARD button (∨) is pressed, the set time decreases by 10 minutes.

2. To release the timer

To release ON timer, press ON TIMER button (ON).

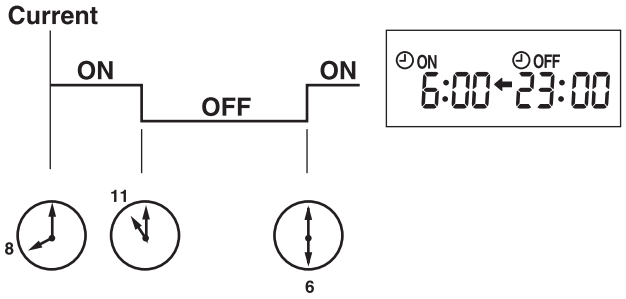
To release OFF timer, press OFF TIMER button(OFF).

TIMER is cancelled and the display of set time disappears.

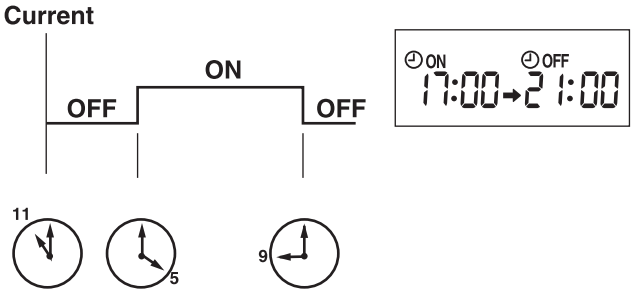
PROGRAM TIMER

- OFF timer and ON timer can be used in combination. The set time that is reached first will operate first.
- “ ⬅ ” and “ ➡ ” display shows the order of OFF timer and ON timer operation.

(Example 1) The current time is 8:00 PM.
The unit turns off at 11:00 PM, and on at 6:00 AM.



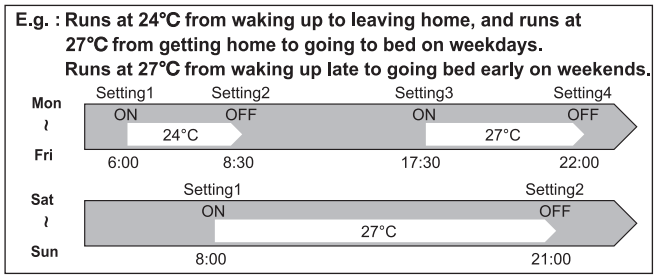
(Example 2) The current time is 11:00 AM.
The unit turns on at 5:00 PM, and off at 9:00 PM.



NOTE: If the main power is turned OFF or a power failure occurs while ON/OFF timer is active, the timer setting is cancelled. As these models are equipped with an auto restart function, the air conditioner starts operating with timer cancelled when power is restored.

9-8. WEEKLY TIMER OPERATION

• A maximum of 4 ON or OFF timers can be set for individual days of the week.
• A maximum of 28 ON or OFF timers can be set for a week.



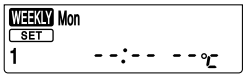
NOTE:

• The simple ON/OFF timer setting is available while the weekly timer is on. In this case, the ON/OFF timer has priority over the weekly timer; the weekly timer operation will start again after the simple ON/OFF timer is complete.
• When the weekly timer is set, temperature cannot be set to 10°C.
• The weekly timer operation and i-save operation cannot be used together.

1. How to set the weekly timer

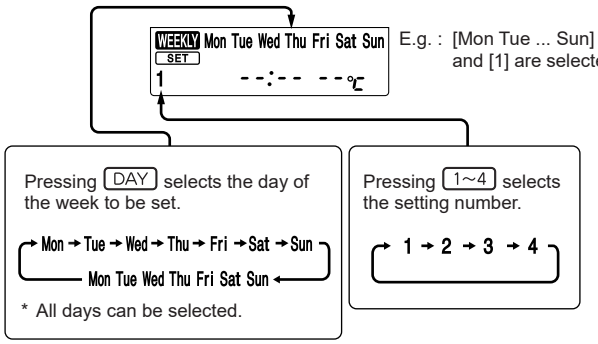
* Make sure that the current time and day are set correctly.

(1) Press EDIT/SEND SET button to enter the weekly timer setting mode.

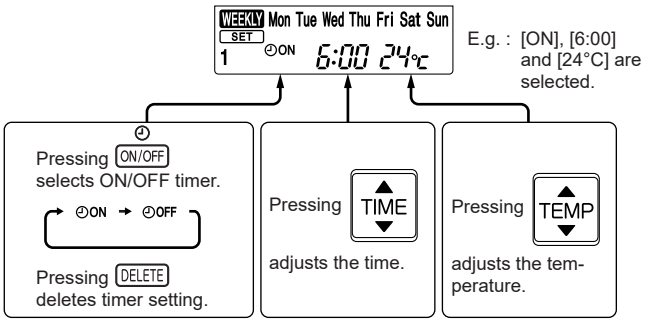


* SET blinks.

(2) Press DAY and 1~4 buttons to select setting day and number.



(3) Press ON/OFF , TIME , and TEMP buttons to set ON/OFF, time, and temperature.



* Hold down the button to change the time quickly.

Press DAY and 1~4 buttons to continue setting the timer for other days and/or numbers.

(4) Press EDIT/SEND SET button to complete and transmit the weekly timer setting.

* SET which was blinking goes out, and the current time will be displayed.

NOTE:

- Press EDIT/SEND SET button to transmit the setting information of weekly timer to the indoor unit. Point the remote controller toward the indoor unit for 3 seconds.
- When setting the timer for more than one day of the week or one number, EDIT/SEND SET button does not have to be pressed per each setting. Press EDIT/SEND SET button once after all the settings are complete. All the weekly timer settings will be saved.
- Press EDIT/SEND SET button to enter the weekly timer setting mode, and press and hold DELETE button for 5 seconds to erase all weekly timer settings. Point the remote controller toward the indoor unit.

(5) Press WEEKLY TIMER ON/OFF button to turn the weekly timer ON. (WEEKLY lights.)

•When the weekly timer is ON, the day of the week whose timer setting is complete, will light.

Press WEEKLY TIMER ON/OFF button again to turn the weekly timer OFF. (WEEKLY goes out.)

NOTE:
The saved settings will not be cleared when the weekly timer is turned OFF.

2. Checking weekly timer setting

(1) Press EDIT/SEND SET button to enter the weekly timer setting mode.
*SET blinks.

(2) Press DAY or 1~4 buttons to view the setting of the particular day or number.

(3) Press CANCEL button to exit the weekly timer setting.

NOTE:
When all days of the week are selected to view the settings and a different setting is included among them, --:-- --℃ will be displayed.

9-9. i-save (i-save) OPERATION

1. How to set i-save operation

(1) Press STOP/OPERATE (OFF/ON) button.
(2) Select COOL, HEAT or ECONO COOL mode.
(3) Press i-save button.
(4) Set the temperature, fan speed, and airflow direction for i-save operation.

NOTE:

- i-save operation cannot be selected during DRY or AUTO mode operation.
- The setting range of HEAT mode i-save operation is 10°C and 16 - 31°C.
- 2 groups of setting can be saved. (One for COOL/ECONO COOL, one for HEAT)
- i-save operation and the weekly timer operation cannot be used together.

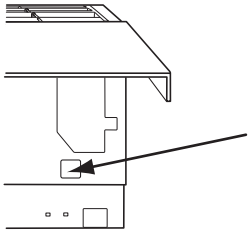
2. How to cancel operation

- Press i-save button again.
- i-save operation can also be cancelled by pressing OPERATION SELECT button to change the operation mode. The preferred setting can be saved for the next time with a single press of i-save button.

9-10. EMERGENCY/TEST OPERATION

In the case of test run operation or the emergency operation, use the emergency operation switch on the right side of the indoor unit. The emergency operation is available when the remote controller is missing or has failed, or the batteries in the remote controller are running down. The unit will start and OPERATION INDICATOR lamp will light up.
The first 30 minutes of operation is the test run operation. This operation is for servicing. The indoor fan runs at High speed and the temperature control does not work.
After 30 minutes of test run operation, the system shifts to EMERGENCY COOL/HEAT MODE with a set temperature of 24°C. The fan speed shifts to Med. The coil frost prevention works even in the test run or the emergency operation.
In the test run or the emergency operation, the horizontal vane operates in VANE AUTO (@) mode.
The emergency operation continues until the emergency operation switch is pressed once or twice or the unit receives any signal from the remote controller. In the latter case normal operation will start.

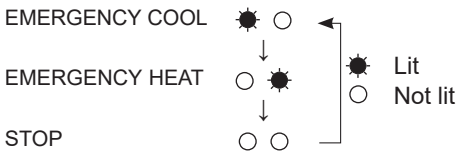
NOTE: Do not press the emergency operation switch during normal operation.



Operation mode	COOL/HEAT
Set temperature	24°C
Fan speed	Med.
Horizontal vane	Auto

The operation mode is indicated by the Operation Indicator lamp as follows

Operation Indicator lamp



9-11. 3-MINUTE TIME DELAY OPERATION

When the system turns OFF, compressor will not restart for 3 minutes as 3-minute time delay function operates to protect compressor from overload.

10 TROUBLESHOOTING

MSZ-EF18VGW MSZ-EF22VGW MSZ-EF25VGW MSZ-EF35VGW MSZ-EF42VGW MSZ-EF50VGW
MSZ-EF18VGB MSZ-EF22VGB MSZ-EF25VGB MSZ-EF35VGB MSZ-EF42VGB MSZ-EF50VGB
MSZ-EF18VGS MSZ-EF22VGS MSZ-EF25VGS MSZ-EF35VGS MSZ-EF42VGS MSZ-EF50VGS
MSZ-EF18VGKW MSZ-EF22VGKW MSZ-EF25VGKW MSZ-EF35VGKW MSZ-EF42VGKW MSZ-EF50VGKW
MSZ-EF18VGKB MSZ-EF22VGKB MSZ-EF25VGKB MSZ-EF35VGKB MSZ-EF42VGKB MSZ-EF50VGKB
MSZ-EF18VGKS MSZ-EF22VGKS MSZ-EF25VGKS MSZ-EF35VGKS MSZ-EF42VGKS MSZ-EF50VGKS
MSZ-EF22VG2W MSZ-EF25VG2W MSZ-EF35VG2W MSZ-EF42VG2W MSZ-EF50VG2W
MSZ-EF22VG2B MSZ-EF25VG2B MSZ-EF35VG2B MSZ-EF42VG2B MSZ-EF50VG2B
MSZ-EF22VG2S MSZ-EF25VG2S MSZ-EF35VG2S MSZ-EF42VG2S MSZ-EF50VG2S
MSZ-EF18VGK2W MSZ-EF22VGK2W MSZ-EF25VGK2W MSZ-EF35VGK2W MSZ-EF42VGK2W MSZ-EF50VGK2W
MSZ-EF18VGK2B MSZ-EF22VGK2B MSZ-EF25VGK2B MSZ-EF35VGK2B MSZ-EF42VGK2B MSZ-EF50VGK2B
MSZ-EF18VGK2S MSZ-EF22VGK2S MSZ-EF25VGK2S MSZ-EF35VGK2S MSZ-EF42VGK2S MSZ-EF50VGK2S

10-1. CAUTIONS ON TROUBLESHOOTING

1. Before troubleshooting, check the following

1) Check the power supply voltage.
2) Check the indoor/outdoor connecting wire for miswiring.

2. Take care of the following during servicing

1) Before servicing the air conditioner, be sure to turn OFF the main unit first with the remote controller, and then after confirming the horizontal vane is closed, turn OFF the breaker and/or disconnect the power plug.
2) Be sure to turn OFF the power supply before removing the front panel, the cabinet, the top panel, and the P.C. board.
3) When removing the P.C. board, hold the edge of the board with care NOT to apply stress on the components.
4) When connecting or disconnecting the connectors, hold the connector housing. DO NOT pull the lead wires.

<Incorrect> <Correct>

Lead wiring **Connector housing**

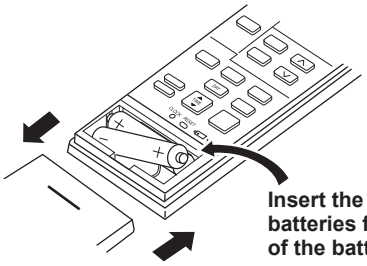
3. Troubleshooting procedure

1) Check if the OPERATION INDICATOR lamp on the indoor unit is blinking ON and OFF to indicate an abnormality. To make sure, check how many times the OPERATION INDICATOR lamp is blinking ON and OFF before starting service work.
2) Before servicing, check that the connector and terminal are connected properly.
3) When the electronic control P.C. board seems to be defective, check the copper foil pattern for disconnection and the components for bursting and discoloration.
4) When troubleshooting, Refer to 10-2, 10-3 and 10-4.

4. How to replace batteries

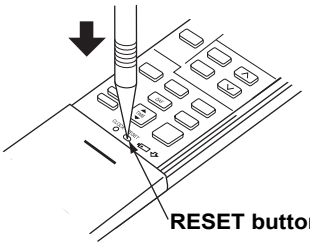
Weak batteries may cause the remote controller malfunction.
In this case, replace the batteries to operate the remote controller normally.

① Remove the front lid and insert batteries. Then reattach the front lid.



Insert the negative pole of the batteries first. Check if the polarity of the batteries is correct.

② Press RESET button with a thin instrument, and then use the remote controller.



RESET button

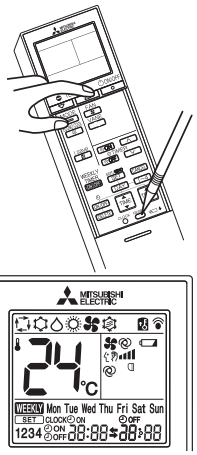
NOTE: 1. If RESET button is not pressed, the remote controller may not operate correctly.
2. This remote controller has a circuit to automatically reset the microprocessor when batteries are replaced. This function is equipped to prevent the microprocessor from malfunctioning due to the voltage drop caused by the battery replacement.
3. Do not use the leaking batteries.

10-2. FAILURE MODE RECALL FUNCTION

Outline of the function
This air conditioner can memorize the abnormal condition which has occurred once.
Even though LED indication listed on the troubleshooting check table (10-4.) disappears, the memorized failure details can be recalled.

1. Flow chart of failure mode recall function for the indoor/outdoor unit

Operational procedure



The cause of abnormality cannot be found because the abnormality does not recur.

Setting up the failure mode recall function

Turn ON the power supply.
<Preparation of the remote controller>
① While pressing both OPERATION SELECT button and TEMP ⊕ button on the remote controller at the same time, press RESET button.
② First, release RESET button.
Hold down the other 2 buttons for another 3 seconds. Make sure that the indicators on the LCD screen shown in the right figure are all displayed. Then release the buttons.

Press STOP/OPERATE (OFF/ON) button of the remote controller (the set temperature is displayed) with the remote controller headed towards the indoor unit. ※1

※1 Regardless of normal or abnormal condition, a short beep is emitted once the signal is received.

Judgment of indoor/outdoor abnormality

Does the left lamp of OPERATION INDICATOR lamp on the indoor unit blink at the interval of 0.5 seconds?
Blinks: Either indoor or outdoor unit is abnormal. Beep is emitted at the same timing as the blinking of the left lamp of OPERATION INDICATOR lamp. ※2

No (OFF) → Indoor unit is normal.
But the outdoor unit might be abnormal because there are some abnormalities that cannot be recalled with this way.
Check if outdoor unit is abnormal according to the detailed outdoor unit failure mode recall function.

NOTE: It takes up to 1 minute to indicate the outdoor unit abnormality. Even if the OPERATION INDICATOR lamp is not lighting, keep checking at least 1 minute or longer.

Yes (Blinks)

Before blinking, does the left lamp of OPERATION INDICATOR lamp stay ON for 3 seconds?
When it stays ON for 3 seconds (without beep): The outdoor unit is abnormal.

Yes → The outdoor unit is abnormal.
Check the blinking pattern, and identify the abnormal point by referring to the outdoor unit failure mode table. (Refer to outdoor unit service manual.)
Make sure to check at least 2 consecutive blinking cycles. ※3

No → The indoor unit is abnormal.
Check the blinking pattern, and identify the abnormal point by referring to the indoor unit failure mode table. (Refer to 10-2.2)
Make sure to check at least 2 consecutive blinking cycles. ※2

Releasing the failure mode recall function

Release the failure mode recall function by the following procedures.
Turn OFF the power supply and turn it ON again.
Press RESET button of the remote controller.

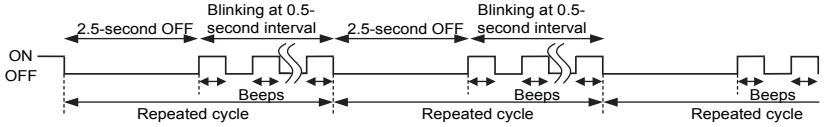
Repair the failure parts.

Deleting the memorized abnormal condition

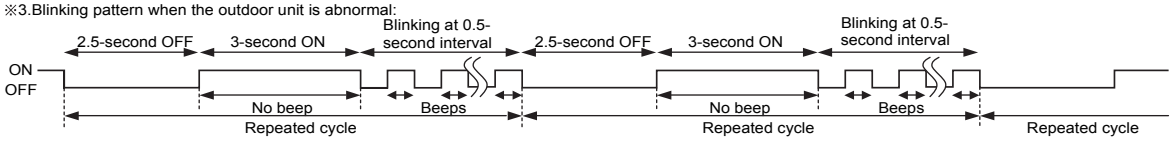
① After repairing the unit, recall the failure mode again according to "Setting up the failure mode recall function" mentioned above.
② Press STOP/OPERATE (OFF/ON) button of the remote controller (the set temperature is displayed) with the remote controller headed towards the indoor unit.
③ Press the emergency operation switch so that the memorized abnormal condition is deleted. ※4
④ Release the failure mode recall function according to "Releasing the failure mode recall function" mentioned above.

NOTE: 1. Make sure to release the failure mode recall function after it is set up, otherwise the unit cannot operate properly.
2. If the abnormal condition is not deleted from the memory, the last abnormal condition is kept memorized.

※2. Blinking pattern when the indoor unit is abnormal:



※3.Blinking pattern when the outdoor unit is abnormal:



※4 The information regarding whether the connected outdoor unit is a low-standby-power model or a non-low-standby-power model will also be initialized. (Default= compatible with a low-standby-power model)

2. Table of indoor unit failure mode recall function

The left lamp of OPERATION INDICATOR lamp	Abnormal point (Failure mode)	Condition	Remedy
Not lit	Normal	—	—
1-time blink every 0.5-second	Room temperature thermistor	The room temperature thermistor short or open circuit is detected every 8 seconds during operation.	Refer to the characteristics of the room temperature thermistor (10-7.).
2-time blink 2.5-second OFF	Indoor coil thermistor	The indoor coil thermistor short or open circuit is detected every 8 seconds during operation.	Refer to the characteristics of the main indoor coil thermistor, the sub indoor coil thermistor (10-7.).
3-time blink 2.5-second OFF	Serial signal	The serial signal from outdoor unit is not received for a maximum of 6 minutes.	Refer to 10-6.Ⓓ "How to check miswiring and serial signal error".
11-time blink 2.5-second OFF	Indoor fan motor	The rotational frequency feedback signal is not emitted for the 12 seconds after the indoor fan motor is operated.	Refer to 10-6.Ⓐ "Check of indoor fan motor".
12-time blink 2.5-second OFF	Indoor control system	It cannot properly read data in the nonvolatile memory of the indoor electronic control P.C. board.	Replace the indoor electronic control P.C. board.

NOTE: Blinking patterns of this mode differ from the ones of TROUBLESHOOTING CHECK TABLE (10-4.).

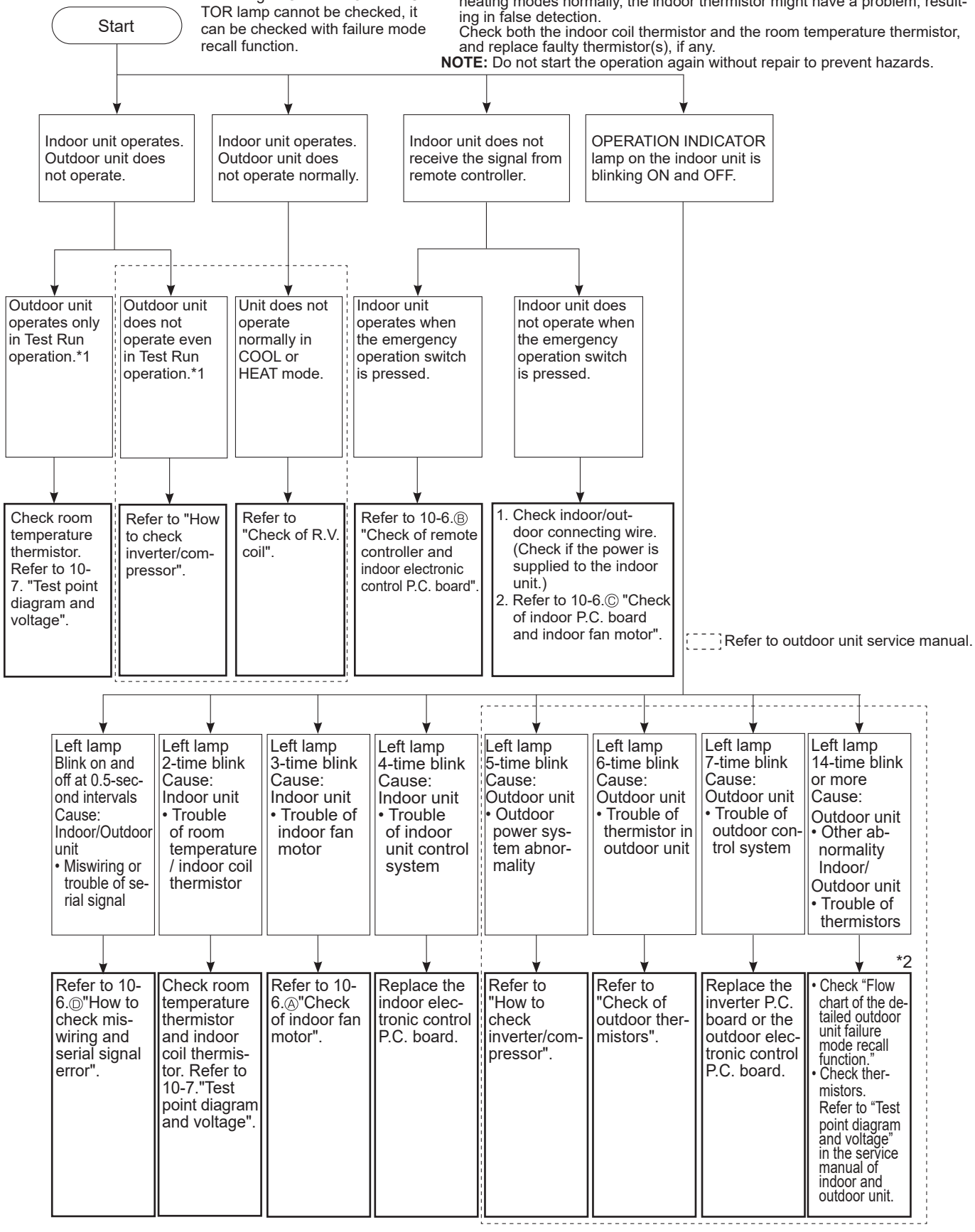
10-3. INSTRUCTION OF TROUBLESHOOTING

1. Check of the unit

*1 "Test Run operation" means the operation within 30 minutes after the emergency operation switch is pressed.

If blinking of OPERATION INDICATOR lamp cannot be checked, it can be checked with failure mode recall function.

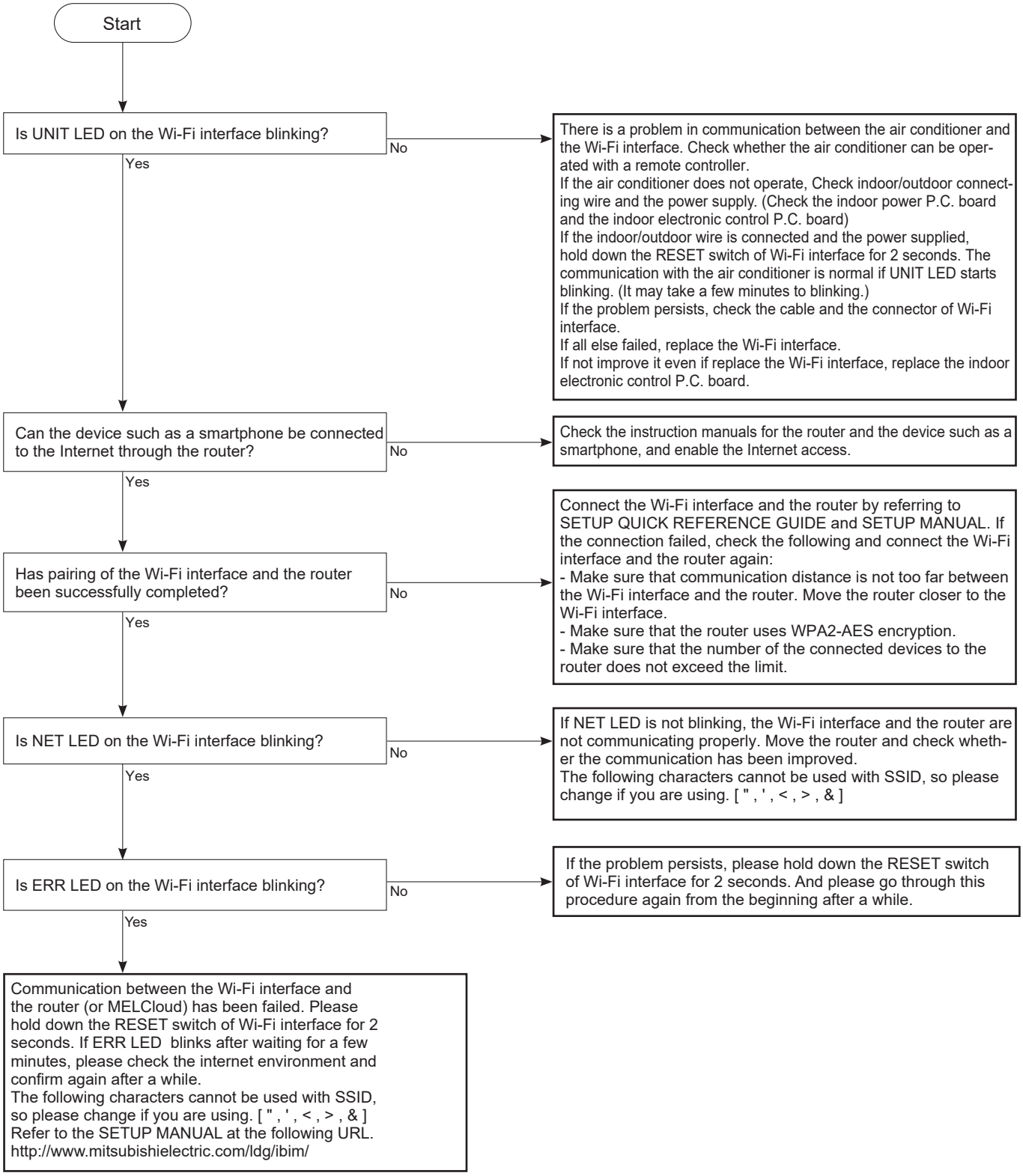
*2 There is a possibility that diesel explosion may occur due to the air mixed in the refrigerant circuit.
First, ensure that there are no leakage points on the valves, flare connections, etc. that allow the air to flow into the refrigerant circuit, or no blockage points (e.g. clogged or closed valves) in the refrigerant circuit that cause an increase in pressure.
If there is no abnormal point like above and the system operates cooling and heating modes normally, the indoor thermistor might have a problem, resulting in false detection.
Check both the indoor coil thermistor and the room temperature thermistor, and replace faulty thermistor(s), if any.
NOTE: Do not start the operation again without repair to prevent hazards.



2. Check of Wi-Fi interface (MSZ-EF·VGK/VGK2)

MSZ-EF·VGK

Follow the procedure below if the air conditioner cannot be monitored or controlled with a device such as a smartphone.



MSZ-EF·VGK2

Follow the procedure below if the air conditioner cannot be monitored or controlled with a device such as a smartphone.

Did the LED indication blink 10 times after you selected the setting of the Wi-Fi interface and the router?

Yes →

There is a problem in a communication between the air conditioner and the Wi-Fi interface.
- Operate the air conditioner with the remote controller once.
- If the situation does not improve, replace the Wi-Fi interface.
- If the situation does not improve even after you replace the Wi-Fi interface, replace the indoor P.C.board.

* After replacing the indoor P.C. board, perform a test run once, and then set up the Wi-Fi communication. (Refer to 8-5. Wi-Fi INTERFACE SETTING UP.)
Incomplete connection between the indoor unit and the outdoor unit causes an error on the pairing mode.

No ↓

Is the router information settings completed?

No →

Follow the instructions of the application to set up a connection between the Wi-Fi interface and the router.

Yes ↓

Did the LED indication and the buzzer operate properly after you set up a connection between the Wi-Fi interface and the router?

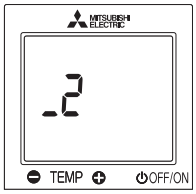
No →

There is a problem in a communication between the air conditioner and the router.
- Make sure that the communication distance is not too far between the air conditioner and the router.
- Make sure that the router is compatible with WPA2-AES encryption.
- Make sure that the SSID consists of the combination of alphabets and numbers.
- If the problem persists even after you check above, follow the instructions of A, and then set up a connection between the Wi-Fi interface and the router again.

Yes ↓

A To reset connection and set up the Wi-Fi interface and the router again

(1) Hold down the Temperature ⊖ for 5 seconds.
(2) Select "_ 2" by pressing Temperature ⊕ and ⊖.
(3) Point the remote controller toward the indoor unit and press the ⏻OFF/ON.
(4) The indoor unit beeps 3 times when resetting is complete.



Is the air conditioner registered with the MELCloud application?

No →

There is a problem in a communication between the air conditioner and the MELCloud.
- Make sure that the number of the connected devices to the router does not exceed the limit.
- Make sure that DHCP setting is enabled.
- Make sure that DNS setting of the router and DNS address of the Wi-Fi interface are correct.
- Make sure that the router is connected to the internet.
- Make sure that the communication is not limited with security of the router.
- If the problem persist even after you check above, follow the instructions of A, and then set up a connection between the Wi-Fi interface and the router again.

Yes ↓

If the situation does not improve after you review above →

Refer to the OPERATING INSTRUCTIONS or MELCloud support page.
https://www.mitsubishielectric.com/ldg/ibim/
https://www.melcloud.com/Support

10-4. TROUBLESHOOTING CHECK TABLE

Before taking measures, make sure that the symptom reappears for accurate troubleshooting.
When the indoor unit has started operation and detected an abnormality of the following condition (the first detection after the power ON), the indoor fan motor turns OFF and OPERATION INDICATOR lamp blinks.

OPERATION INDICATOR

☼ ○

● Lit
☼ Blinking
○ Not lit

No.	Abnormal point	Operation indicator lamp	Symptom	Condition	Remedy
1	Miswiring or serial signal	Left lamp blinks. 0.5-second ON ●○●○●○●○ 0.5-second OFF	Indoor unit and outdoor unit do not operate.	The serial signal from the outdoor unit is not received for 6 minutes. The indoor unit is connected to a low-standby-power model after once connected to a non-low-standby-power model.	• Refer to 10-6. Ⓓ "How to check miswiring and serial signal error". • Refer to **NOTE**.
2	Indoor coil thermistor Room temperature thermistor	Left lamp blinks. 2-time blink ●○●○○○○○○●○●○○ 2.5-second OFF		The indoor coil or the room temperature thermistor is short or open circuit.	• Refer to the characteristics of indoor coil thermistor, and the room temperature thermistor (10-7.).
3	Indoor fan motor	Left lamp blinks. 3-time blink ●○●○●○○○○○●○●○●○○○ 2.5-second OFF		The rotational frequency feedback signal is not emitted during the indoor fan operation.	• Refer to 10-6. Ⓐ "Check of indoor fan motor".
4	Indoor control system	Left lamp blinks. 4-time blink ●○●○●○●○○○○○●○●○●○● 2.5-second OFF		It cannot properly read data in the nonvolatile memory of the indoor electronic control P.C. board.	• Replace the indoor electronic control P.C. board.
5	Outdoor power system	Left lamp blinks. 5-time blink ●○●○●○●○●○○○○○●○●○ 2.5-second OFF		It consecutively occurs 3 times that the compressor stops for overcurrent protection or start-up failure protection within 1 minute after start-up.	• Refer to "How to check of inverter/compressor". Refer to outdoor unit service manual • Check the stop valve.
6	Outdoor thermistors	Left lamp blinks. 6-time blink ●○●○●○●○●○●○○○○○●○ 2.5-second OFF		The outdoor thermistors short or open circuit during the compressor operation.	• Refer to "Check of outdoor thermistor". Refer to outdoor unit service manual.
7	Outdoor control system	Left lamp blinks. 7-time blink ●○●○●○●○●○●○●○○○○○● 2.5-second OFF		It cannot properly read data in the nonvolatile memory of the inverter P.C. board or the outdoor electronic control P.C. board.	• Replace the inverter P.C. board or the outdoor electronic control P.C. board. Refer to outdoor unit service manual.
8	Other abnormality *1	Left lamp blinks. 14-time blink or more ●○●○●○●○●○●○●○●○●○●○ ○●○●○●○○○○○○ 2.5-second OFF		An abnormality other than the above is detected. An abnormality of the indoor thermistors, the defrost thermistor or ambient temperature thermistor is detected.	• Check the stop valve. • Check the 4-way valve. • Check the abnormality in detail using the failure mode recall function for outdoor unit. • Refer to TEST POINT DIAGRAM AND VOLTAGE" on the service manual of indoor and outdoor unit for the characteristics of the thermistors. (Do not start the operation again without repair to prevent hazards.)
9	Outdoor control system	Left lamp lights up. ●	Outdoor unit does not operate.	It cannot properly read data in the nonvolatile memory of the inverter P.C. board or the outdoor electronic control P.C. board.	• Check the blinking pattern of the LED on the inverter P.C. board or the outdoor electronic control P.C. board.

NOTE: The indoor unit may have been connected to a non-low-standby-power model outdoor unit. To use a low-standby-power model, clear the error history by referring to “Deleting the memorized abnormal condition” described in 10-2.1. When the error history is being cleared, the connection information also will be initialized. The indoor unit will be compatible with a low-standby-power model after initialization. If the operation indicator lamp continues to blink as shown in No.1 after the procedure, refer to 10-6. Ⓓ “How to check miswiring and serial error”.

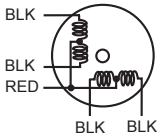
*1. Refer to *2 on 10-3. “INSTRUCTION OF TROUBLESHOOTING”.

OPERATION INDICATOR

Lit
Blinking
Not lit

No.	Abnormal point	Operation indicator lamp	Symptom	Condition	Remedy
1	**MXZ type** Operation mode setting	Left lamp lights and lower lamp blinks.  2.5-second OFF	Outdoor unit operates but indoor unit does not operate.	The operation mode of the each indoor unit is differently set to COOL (includes DRY) and HEAT at the same time, the operation mode of the indoor unit that has operated at first has the priority.	• Unify the operation mode. Refer to outdoor unit service manual.

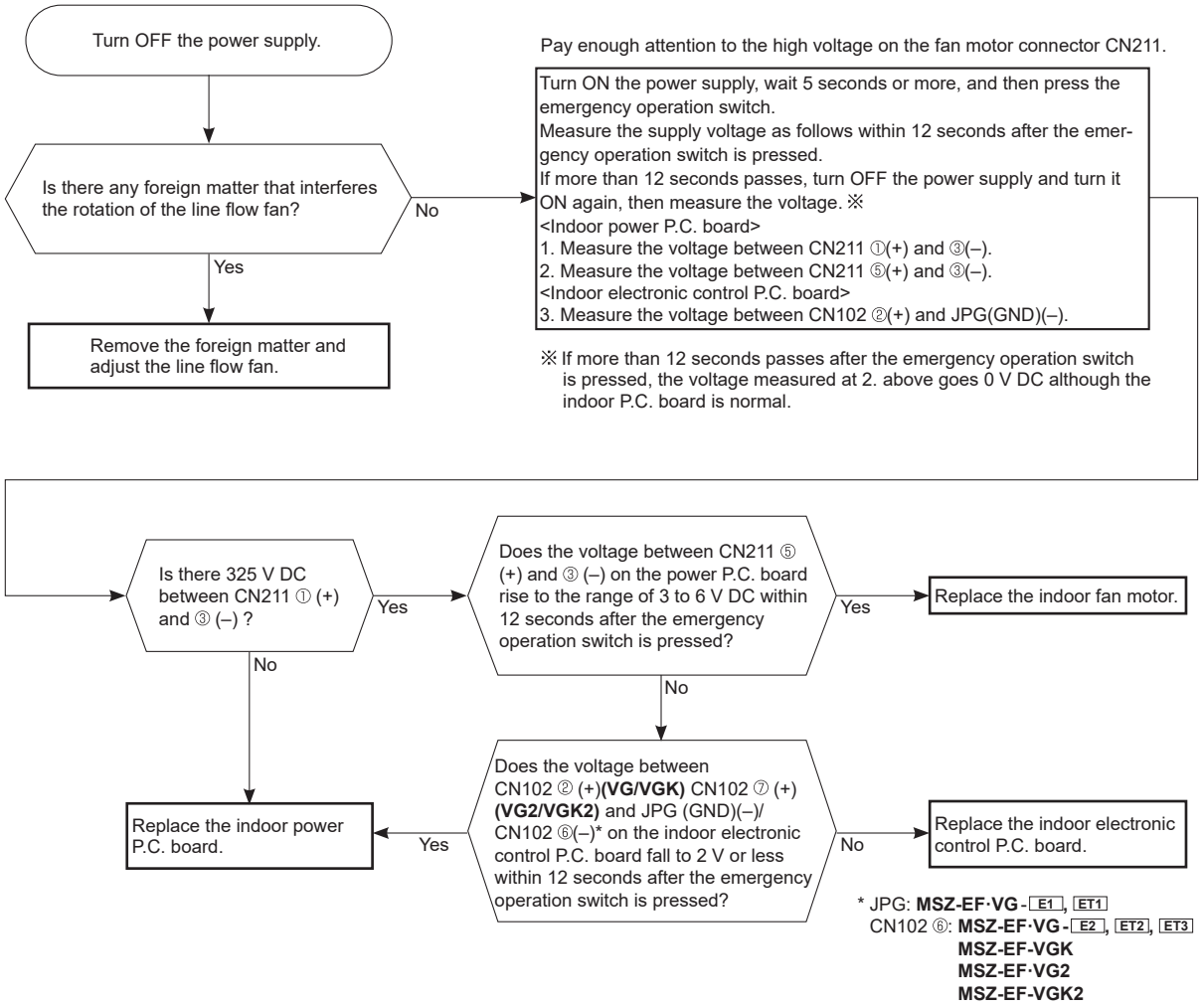
10-5. TROUBLE CRITERION OF MAIN PARTS

Part name	Check method and criterion	Figure
Room temperature thermistor (RT11) Indoor coil thermistor (RT12, RT13)	Measure the resistance with a multimeter. Refer to 10-7. "Test point diagram and voltage", "Indoor electronic control P.C. board", for the chart of thermistor.	
Indoor fan motor (MF)	Check 10-6.Ⓐ "Check of indoor fan motor".	
Vane motor (MV)	Measure the resistance between the terminals with a multimeter. (Temperature: 10 - 30°C) Color of the lead wire: RED - BLK Normal: 232 - 268 Ω	

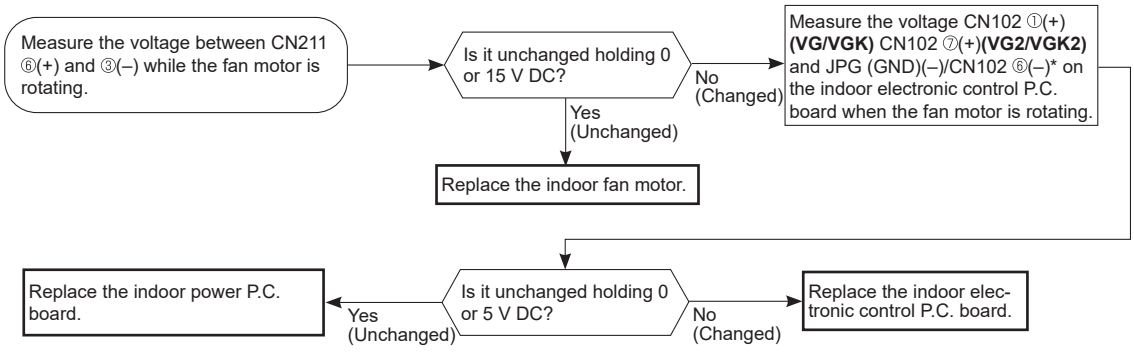
10-6. TROUBLESHOOTING FLOW

Ⓐ Check of indoor fan motor

The indoor fan motor error has occurred, and the indoor fan does not operate.

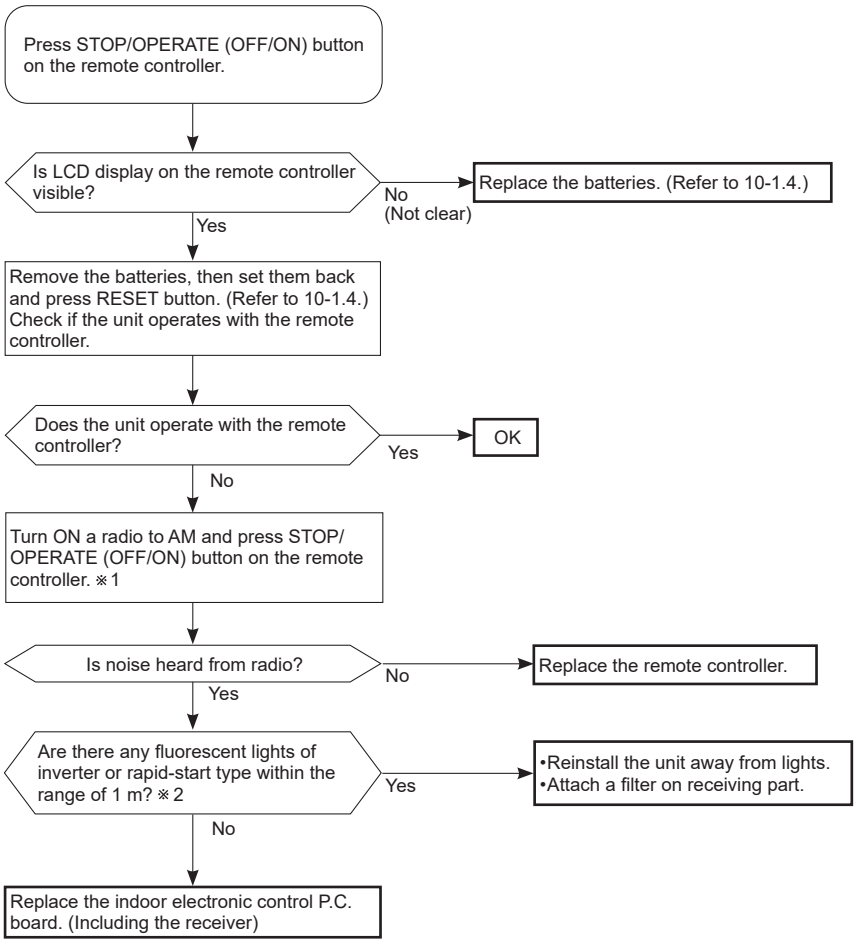


The indoor fan motor error has occurred, and the indoor fan repeats "12-second ON and 30-second OFF" 3 times, and then stops.



Ⓑ Check of remote controller and indoor electronic control P.C. board

※Check if the remote controller is exclusive for this air conditioner.



※1 Look at the image of the signal transmitting section of the remote controller through the monitor of a digital camera or a camera phone. It is normal if the LED of the signal transmitting section lights up when the STOP/OPERATE (OFF/ON) button on the remote controller is pressed. However, it may be difficult to see the illuminated LED of the signal transmitting section with a smartphone camera.

※2 If the inverter fluorescent light is turned on when the room is cool, the unit may have difficulty receiving the signal from the remote controller or may not be able to operate with it; if the inverter fluorescent light is turned on when the room is warm, the unit may be able to operate with the remote controller.

Ⓒ Check of indoor P.C. board and indoor fan motor

MSZ-EF·VG - E1, ET1

Turn OFF the power supply.
Remove indoor fan motor connector CN211 from indoor power P.C. board and vane motor connector CN151 from the indoor electronic control P.C. board and turn ON the power supply.

Does the unit operate with the remote controller?
Does OPERATION INDICATOR lamp light up by pressing the emergency operation switch?

Yes → Measure the resistance of indoor fan motor.
Refer to 10-5.
→ Short circuit:
Replace the indoor fan motor.

Yes → Measure the resistance of the vane motor coil.
Refer to 10-5.
→ Short circuit:
Replace the vane motor and the indoor electronic control P.C. board.

No

Turn OFF the power supply.
Check both “parts side” and “pattern side” of the indoor power P.C. board visually.

Be sure to check both the fuse and the varistor in any case.

Is the varistor (NR11) burnt and the fuse (F11) blown?
No
Is the fuse (F11) blown only?
No

Yes → Replace the varistor (NR11) and fuse (F11). ※3

Yes

Measure the resistance between CN211 ①(+) and ③(-) of indoor fan motor connector. ※1, ※2

Is the resistance 1MΩ or more?
No → Replace the fuse (F11) and the indoor fan motor. ※3

Yes → Replace the fuse (F11). ※3

※1. The fan motor connector's ① lead wire is red, whereas ③ is black.
※2. Connect "+" of the multimeter to fan motor connector's ① lead wire, and “-” to ③ lead wire, otherwise the resistance cannot be measured properly.
※3. Please replace the fuse after removing the indoor power P.C. board from the electrical box.

Measure the resistance of reactor (L111) on the indoor power P.C. board.

Is the resistance of reactor (L111) approximately 2.2 Ω?
No → Replace the indoor power P.C. board and the indoor fan motor.

Yes

Is there approximately 5 V DC between 5 V (+) and JPG (GND) (-) of the indoor electronic control P.C. board?

Is there approximately 9 V to 13 V DC between 12 V (+) and JPG (GND) (-) of the indoor electronic control P.C. board?

Yes → Replace the indoor fan motor.

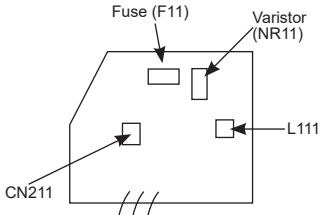
No

Are connector CN102 on the indoor electronic control P.C. board or lead wires disconnected?
Yes → Connect the connector or repair disconnection.

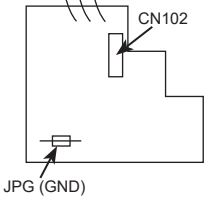
No

Replace the indoor electronic control P.C. board.

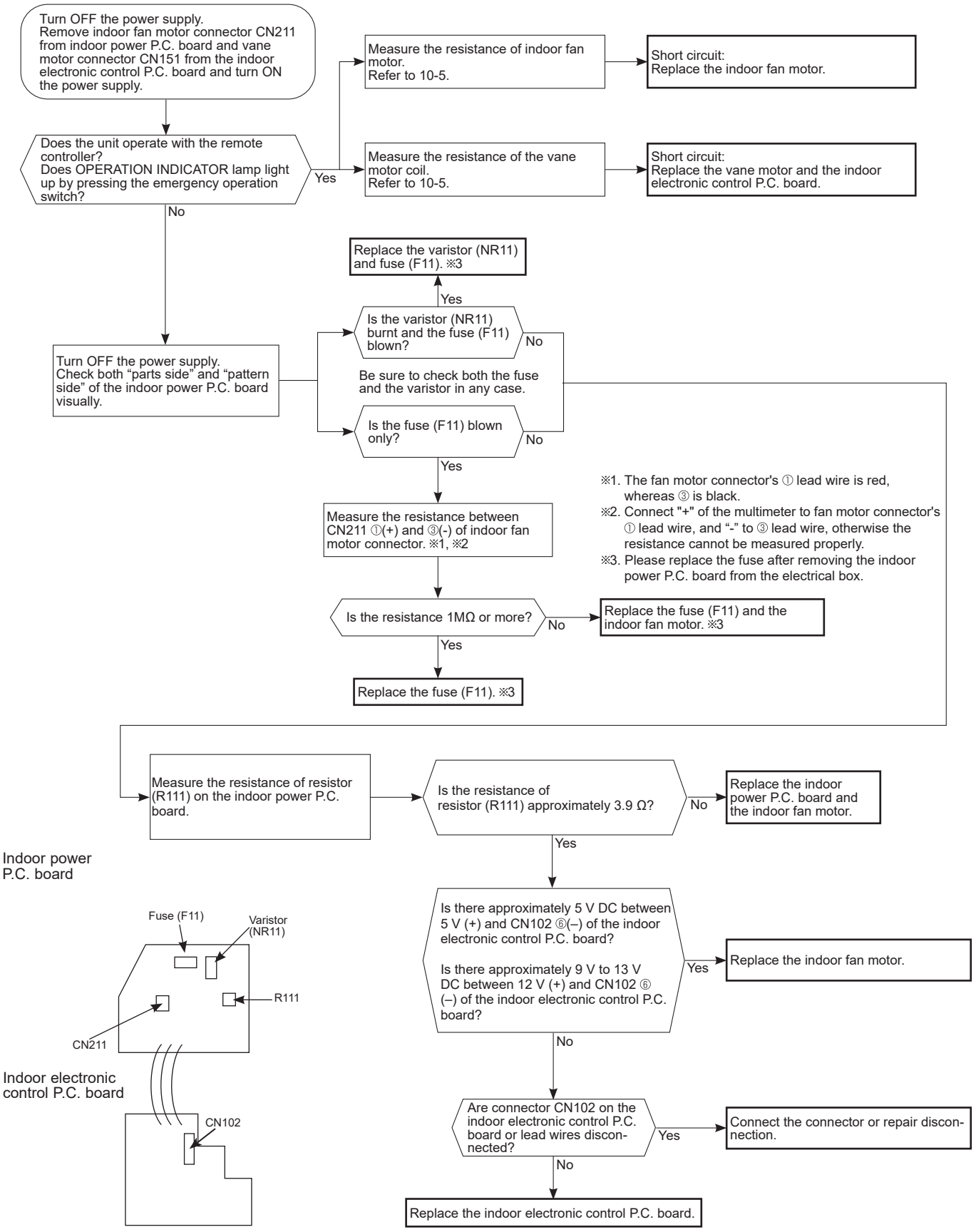
Indoor power P.C. board



Indoor electronic control P.C. board



MSZ-EF18/22/25/35/42VG-E2
MSZ-EF22/25/35/42VG-ET2, ET3
MSZ-EF18/22/25/35/42VGK-E1, E2
MSZ-EF22/25/35/42VGK-ET1, ER1, ET2, ER2
MSZ-EF22/25/35/42VG2, MSZ-EF18/22/25/35/42VGK2



MSZ-EF50VG- E2, ET2, ET3
MSZ-EF50VGK- E1, ET1, ER1, E2, ET2, ER2
MSZ-EF50VG2, MSZ-EF50VGK2

Turn OFF the power supply.
Remove indoor fan motor connector CN211 from indoor power P.C. board and vane motor connector CN151 from the indoor electronic control P.C. board and turn ON the power supply.

Does the unit operate with the remote controller?
Does OPERATION INDICATOR lamp light up by pressing the emergency operation switch?

Yes → Measure the resistance of indoor fan motor. Refer to 10-5. → Short circuit: Replace the indoor fan motor.

Yes → Measure the resistance of the vane motor coil. Refer to 10-5. → Short circuit: Replace the vane motor and the indoor electronic control P.C. board.

No

Turn OFF the power supply.
Check both “parts side” and “pattern side” of the indoor power P.C. board visually.

Be sure to check both the fuse and the varistor in any case.

Is the varistor (NR11) burnt and the fuse (F11) blown? No

Is the fuse (F11) blown only? No

Yes → Replace the varistor (NR11) and fuse (F11). ※3

Yes → Measure the resistance between CN211 ①(+) and ③(-) of indoor fan motor connector. ※1, ※2

※1. The fan motor connector's ① lead wire is red, whereas ③ is black.
※2. Connect "+" of the multimeter to fan motor connector's ① lead wire, and “-” to ③ lead wire, otherwise the resistance cannot be measured properly.
※3. Please replace the fuse after removing the indoor power P.C. board from the electrical box.

Is the resistance 1MΩ or more? No → Replace the fuse (F11) and the indoor fan motor. ※3

Yes → Replace the fuse (F11). ※3

Measure the resistance of reactor (L112) on the indoor power P.C. board.

Is the resistance of reactor (L112) approximately 2.2 Ω? No → Replace the indoor power P.C. board and the indoor fan motor.

Yes

Is there approximately 5 V DC between 5 V (+) and CN102 ⑥ (-) of the indoor electronic control P.C. board?

Is there approximately 9 V to 13 V DC between 12 V (+) and CN102 ⑥ (-) of the indoor electronic control P.C. board?

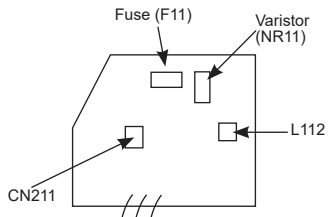
Yes → Replace the indoor fan motor.

No

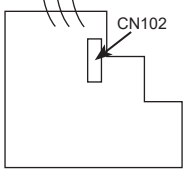
Are connector CN102 on the indoor electronic control P.C. board or lead wires disconnected? Yes → Connect the connector or repair disconnection.

No → Replace the indoor electronic control P.C. board.

Indoor power P.C. board

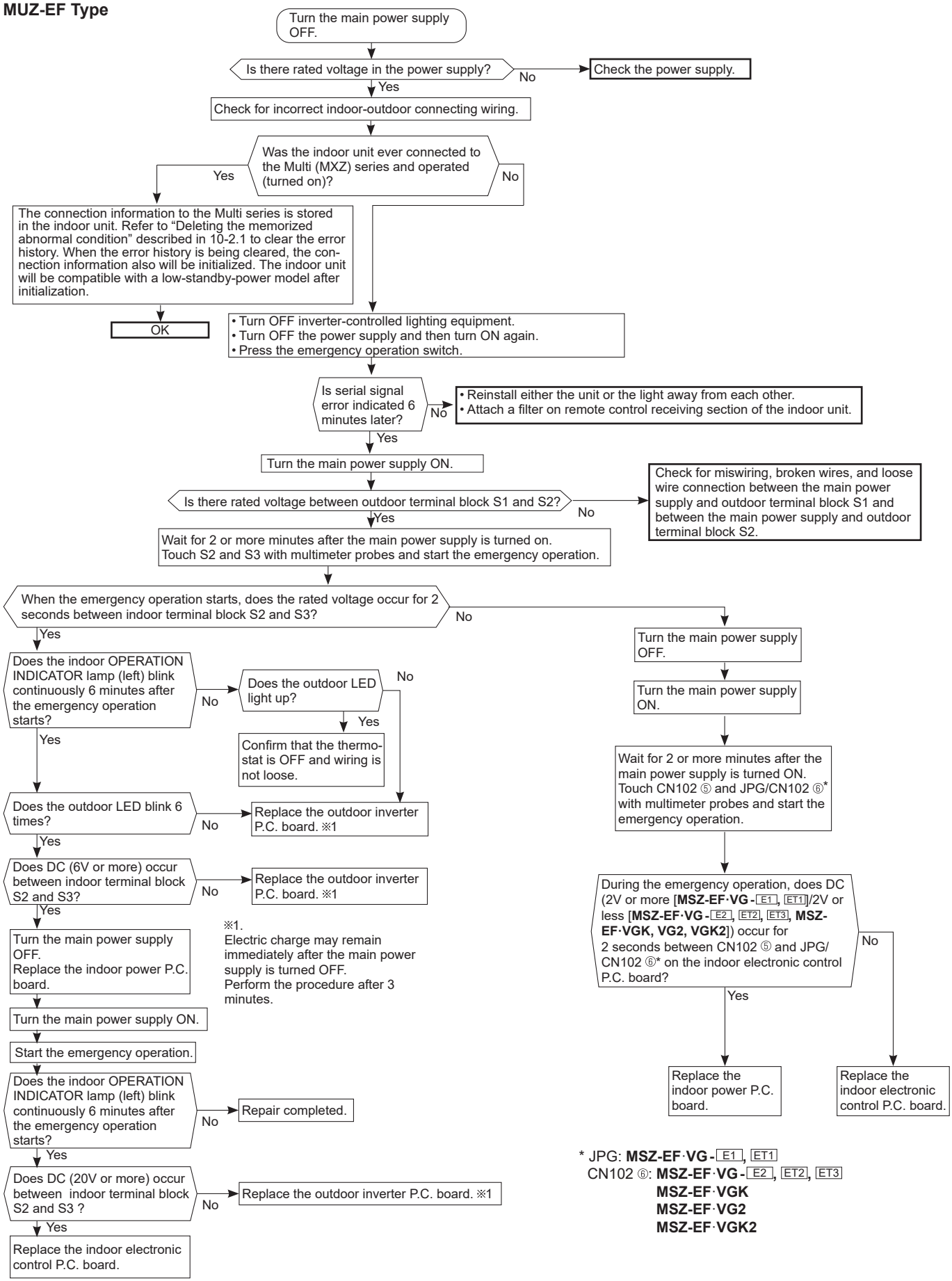


Indoor electronic control P.C. board



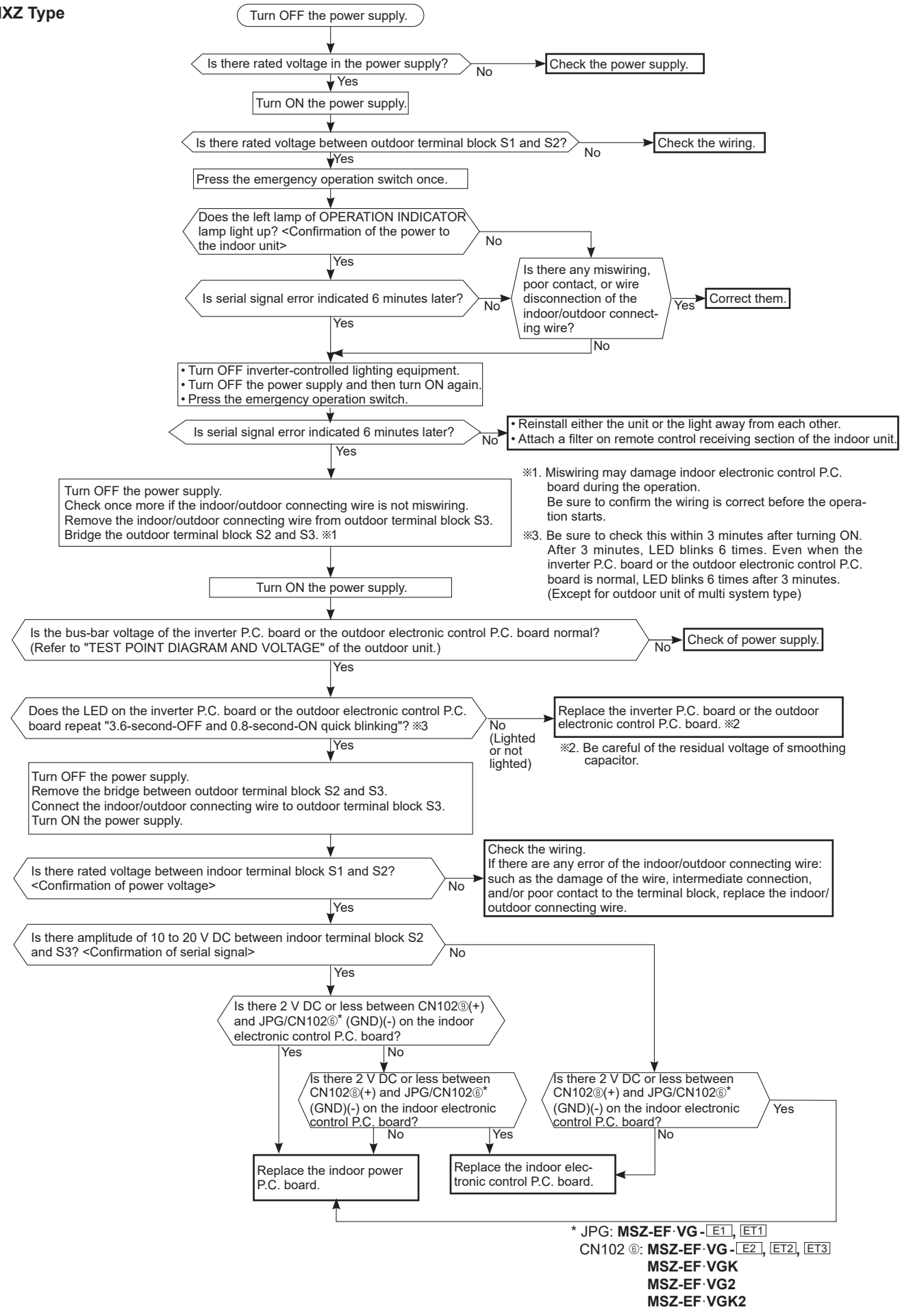
Ⓓ How to check miswiring and serial signal error

MUZ-EF Type

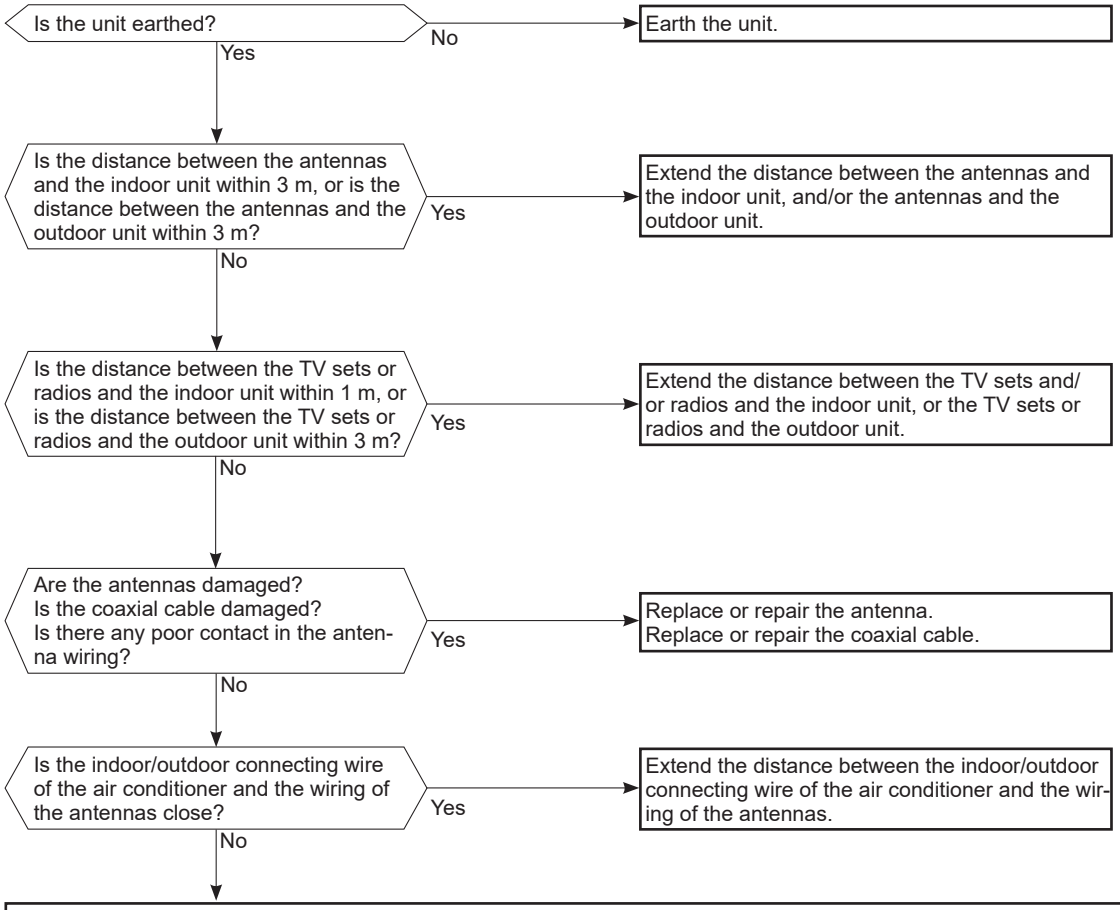


* JPG: **MSZ-EF·VG-**E1, ET1
CN102 ⑥: **MSZ-EF·VG-**E2, ET2, ET3
MSZ-EF·VGK
MSZ-EF·VG2
MSZ-EF·VGK2

MXZ Type


Turn OFF the power supply.
Is there rated voltage in the power supply?
No
Check the power supply.
Yes
Turn ON the power supply.
Is there rated voltage between outdoor terminal block S1 and S2?
No
Check the wiring.
Yes
Press the emergency operation switch once.
Does the left lamp of OPERATION INDICATOR lamp light up? <Confirmation of the power to the indoor unit>
No
Yes
Is serial signal error indicated 6 minutes later?
No
Is there any miswiring, poor contact, or wire disconnection of the indoor/outdoor connecting wire?
Yes
Correct them.
Yes
No
• Turn OFF inverter-controlled lighting equipment.
• Turn OFF the power supply and then turn ON again.
• Press the emergency operation switch.
Is serial signal error indicated 6 minutes later?
No
• Reinstall either the unit or the light away from each other.
• Attach a filter on remote control receiving section of the indoor unit.
Yes
Turn OFF the power supply.
Check once more if the indoor/outdoor connecting wire is not miswiring.
Remove the indoor/outdoor connecting wire from outdoor terminal block S3.
Bridge the outdoor terminal block S2 and S3. ※1
※1. Miswiring may damage indoor electronic control P.C. board during the operation.
Be sure to confirm the wiring is correct before the operation starts.
※3. Be sure to check this within 3 minutes after turning ON. After 3 minutes, LED blinks 6 times. Even when the inverter P.C. board or the outdoor electronic control P.C. board is normal, LED blinks 6 times after 3 minutes. (Except for outdoor unit of multi system type)
Turn ON the power supply.
Is the bus-bar voltage of the inverter P.C. board or the outdoor electronic control P.C. board normal? (Refer to "TEST POINT DIAGRAM AND VOLTAGE" of the outdoor unit.)
No
Check of power supply.
Yes
Does the LED on the inverter P.C. board or the outdoor electronic control P.C. board repeat "3.6-second-OFF and 0.8-second-ON quick blinking"? ※3
No (Lighted or not lighted)
Replace the inverter P.C. board or the outdoor electronic control P.C. board. ※2
※2. Be careful of the residual voltage of smoothing capacitor.
Yes
Turn OFF the power supply.
Remove the bridge between outdoor terminal block S2 and S3.
Connect the indoor/outdoor connecting wire to outdoor terminal block S3.
Turn ON the power supply.
Is there rated voltage between indoor terminal block S1 and S2? <Confirmation of power voltage>
No
Check the wiring.
If there are any error of the indoor/outdoor connecting wire: such as the damage of the wire, intermediate connection, and/or poor contact to the terminal block, replace the indoor/outdoor connecting wire.
Yes
Is there amplitude of 10 to 20 V DC between indoor terminal block S2 and S3? <Confirmation of serial signal>
No
Yes
Is there 2 V DC or less between CN102⑨(+) and JPG/CN102⑥* (GND)(-) on the indoor electronic control P.C. board?
Yes
No
Is there 2 V DC or less between CN102⑧(+) and JPG/CN102⑥* (GND)(-) on the indoor electronic control P.C. board?
No
Yes
Is there 2 V DC or less between CN102⑧(+) and JPG/CN102⑥* (GND)(-) on the indoor electronic control P.C. board?
Yes
No
Replace the indoor power P.C. board.
Replace the indoor electronic control P.C. board.
* JPG: MSZ-EF·VG- E1, ET1
CN102 ⑥: MSZ-EF·VG- E2, ET2, ET3
MSZ-EF·VGK
MSZ-EF·VG2
MSZ-EF·VGK2

Ⓔ Electromagnetic noise enters into TV sets or radios



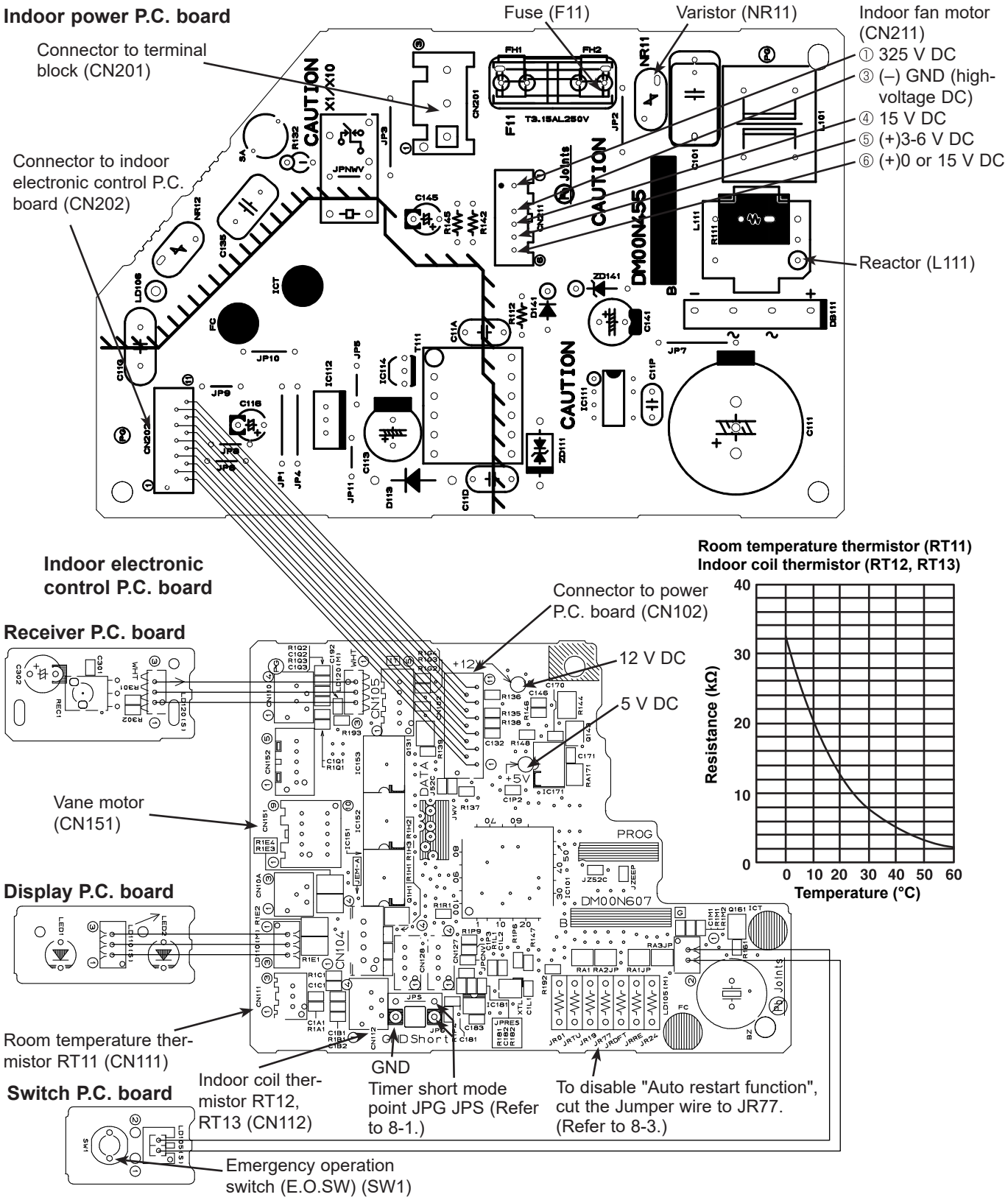
Even if all of the above conditions are fulfilled, the electromagnetic noise may enter, depending on the electric field strength or the installation condition (combination of specific conditions such as antennas or wiring).
Check the following before asking for service.

1. Devices affected by the electromagnetic noise
   TV sets, radios (FM/AM broadcast, shortwave)
2. Channel, frequency, broadcast station affected by the electromagnetic noise
3. Channel, frequency, broadcast station unaffected by the electromagnetic noise
4. Layout of:
   indoor/outdoor unit of the air conditioner, indoor/outdoor wiring, earth wire, antennas, wiring from antennas, receiver
5. Electric field intensity of the broadcast station affected by the electromagnetic noise
6. Presence or absence of amplifier such as booster
7. Operation condition of air conditioner when the electromagnetic noise enters in
   1) Turn OFF the power supply once, and then turn ON the power supply. In this situation, check for the electromagnetic noise.
   2) Within 3 minutes after turning ON the power supply, press STOP/OPERATE (OFF/ON) button on the remote controller for power ON, and check for the electromagnetic noise.
   3) After a short time (3 minutes later after turning ON), the outdoor unit starts running. During operation, check for the electromagnetic noise.
   4) Press STOP/OPERATE (OFF/ON) button on the remote controller for power OFF, when the outdoor unit stops but the indoor/outdoor communication still runs on. In this situation, check for the electromagnetic noise.

10-7. TEST POINT DIAGRAM AND VOLTAGE

1. Indoor electronic control P.C. board, indoor power P.C. board, receiver P.C. board and display P.C. board

MSZ-EF18VGW- E1 **MSZ-EF22VGW-** E1,ET1 **MSZ-EF25VGW-** E1,ET1 **MSZ-EF35VGW-** E1,ET1 **MSZ-EF42VGW-** E1,ET1 **MSZ-EF50VGW-** E1,ET1
MSZ-EF18VGB- E1 **MSZ-EF22VGB-** E1,ET1 **MSZ-EF25VGB-** E1,ET1 **MSZ-EF35VGB-** E1,ET1 **MSZ-EF42VGB-** E1,ET1 **MSZ-EF50VGB-** E1,ET1
MSZ-EF18VGS- E1 **MSZ-EF22VGS-** E1,ET1 **MSZ-EF25VGS-** E1,ET1 **MSZ-EF35VGS-** E1,ET1 **MSZ-EF42VGS-** E1,ET1 **MSZ-EF50VGS-** E1,ET1



MSZ-EF18VGW- E2
MSZ-EF18VGB- E2
MSZ-EF18VGS- E2

MSZ-EF22VGW- E2, ET2
MSZ-EF22VGB- E2, ET2
MSZ-EF22VGS- E2, ET2

MSZ-EF25VGW- E2, ET2
MSZ-EF25VGB- E2, ET2
MSZ-EF25VGS- E2, ET2

MSZ-EF35VGW- E2, ET2
MSZ-EF35VGB- E2, ET2
MSZ-EF35VGS- E2, ET2

MSZ-EF42VGW- E2, ET2
MSZ-EF42VGB- E2, ET2
MSZ-EF42VGS- E2, ET2

MSZ-EF50VGW- E2, ET2
MSZ-EF50VGB- E2, ET2
MSZ-EF50VGS- E2, ET2

MSZ-EF18VGKW- E1
MSZ-EF18VGKB- E1
MSZ-EF18VGKS- E1

MSZ-EF22VGKW- E1, ET1, ER1
MSZ-EF22VGKB- E1, ET1, ER1
MSZ-EF22VGKS- E1, ET1, ER1

MSZ-EF25VGKW- E1, ET1, ER1
MSZ-EF25VGKB- E1, ET1, ER1
MSZ-EF25VGKS- E1, ET1, ER1

MSZ-EF35VGKW- E1, ET1, ER1
MSZ-EF35VGKB- E1, ET1, ER1
MSZ-EF35VGKS- E1, ET1, ER1

MSZ-EF42VGKW- E1, ET1, ER1
MSZ-EF42VGKB- E1, ET1, ER1
MSZ-EF42VGKS- E1, ET1, ER1

MSZ-EF50VGKW- E1, ET1, ER1
MSZ-EF50VGKB- E1, ET1, ER1
MSZ-EF50VGKS- E1, ET1, ER1

Indoor power P.C. board

Fuse (F11)

Varistor (NR11)

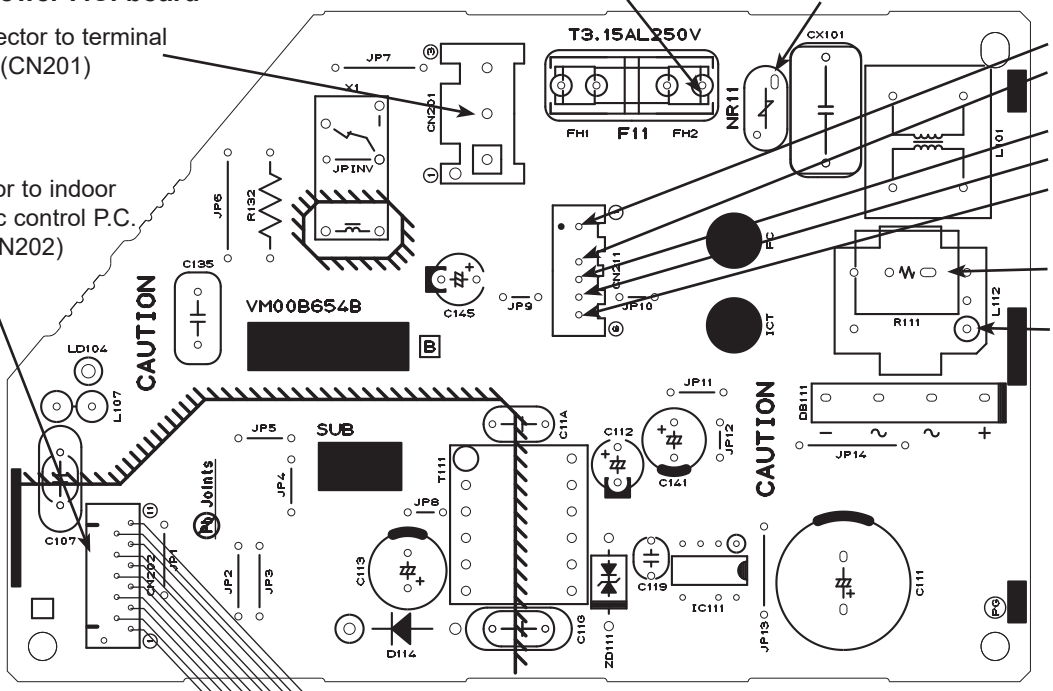
Indoor fan motor (CN211)
① 325 V DC
③ (–) GND (high-voltage DC)
④ 15 V DC
⑤ (+)3-6 V DC
⑥ (+)0 or 15 V DC

Connector to terminal block (CN201)

Connector to indoor electronic control P.C. board (CN202)

Resistor (R111)

Reactor (L112)



Indoor electronic control P.C. board

Receiver P.C. board

Wi-Fi interface connector (CN110)

Vane motor (CN151)

Display P.C. board

Room temperature thermistor RT11 (CN111)

Indoor coil thermistor RT12, RT13 (CN112)

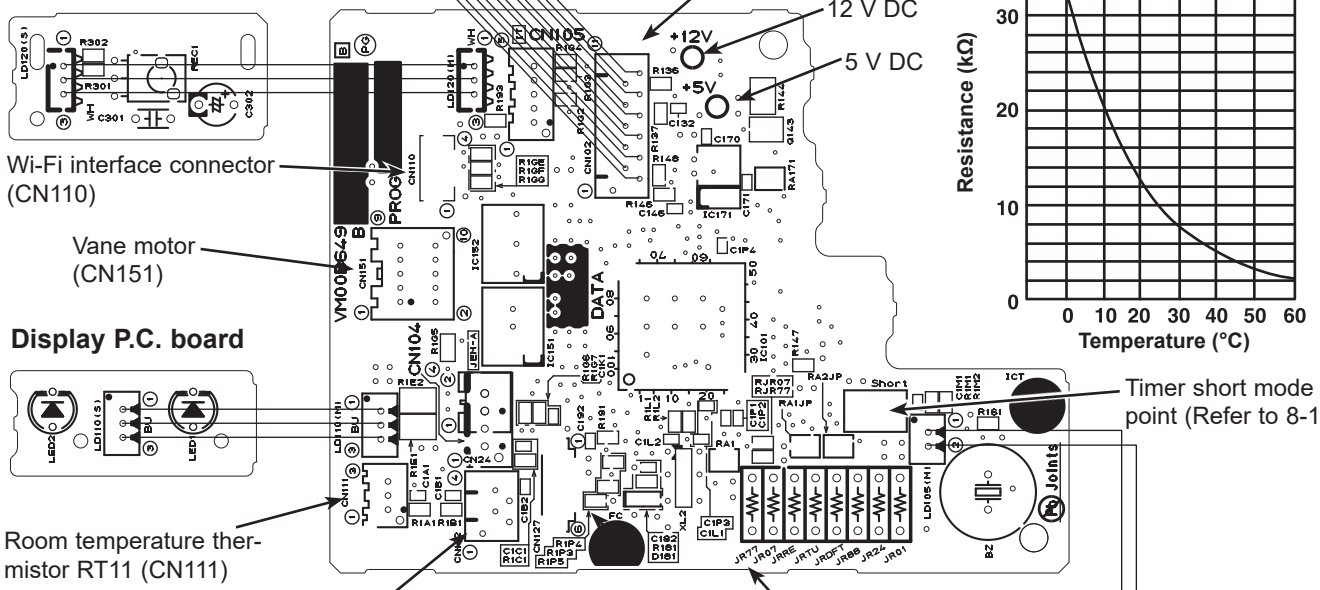
Switch P.C. board

Emergency operation switch (E.O.SW) (SW1)

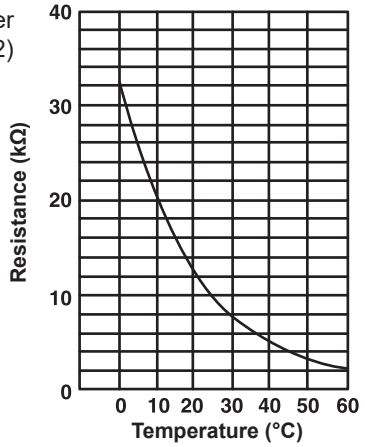
Connector to power P.C. board (CN102)

12 V DC

5 V DC



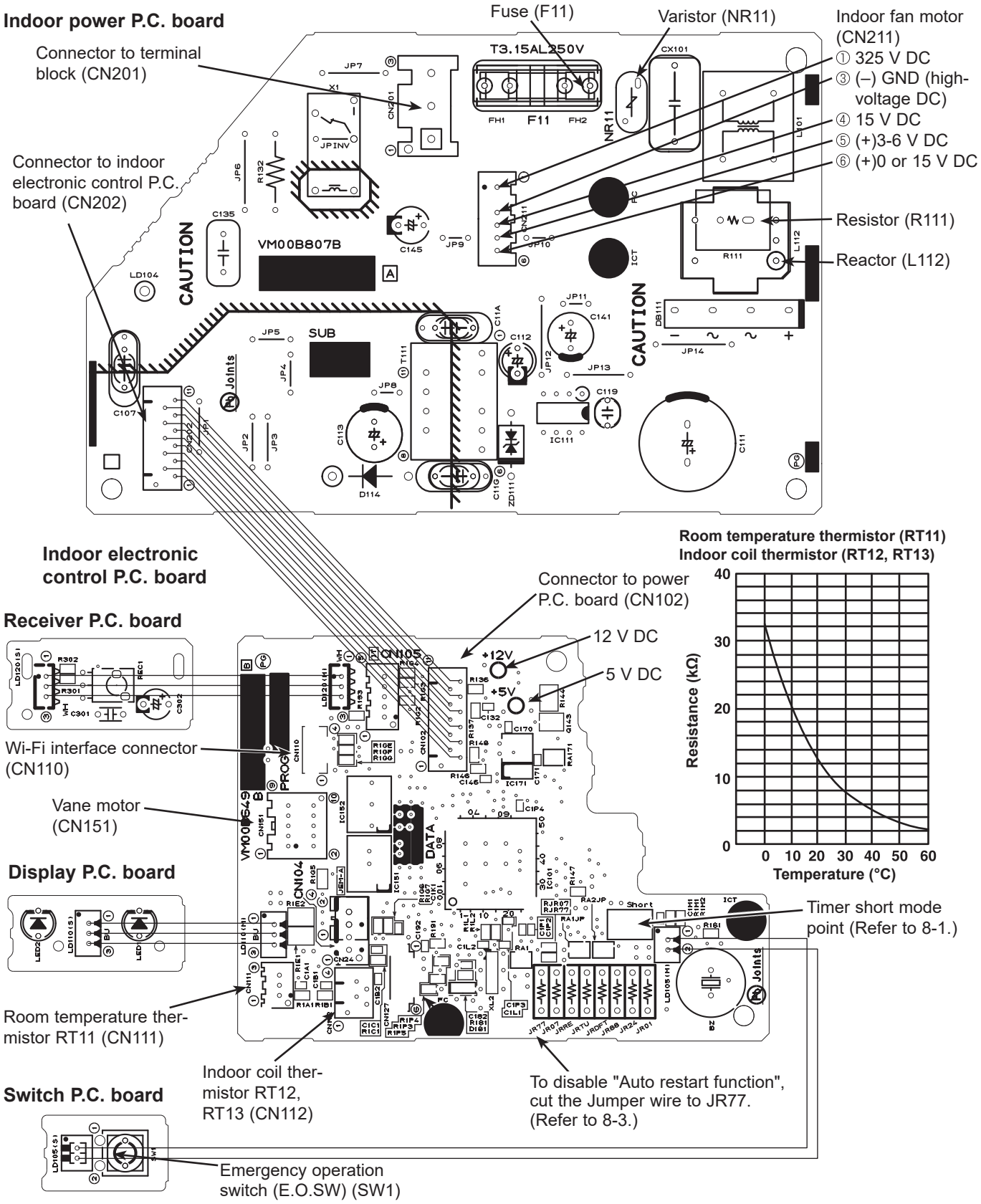
Room temperature thermistor (RT11)
Indoor coil thermistor (RT12, RT13)



Timer short mode point (Refer to 8-1.)

To disable "Auto restart function", cut the Jumper wire to JR77. (Refer to 8-3.)

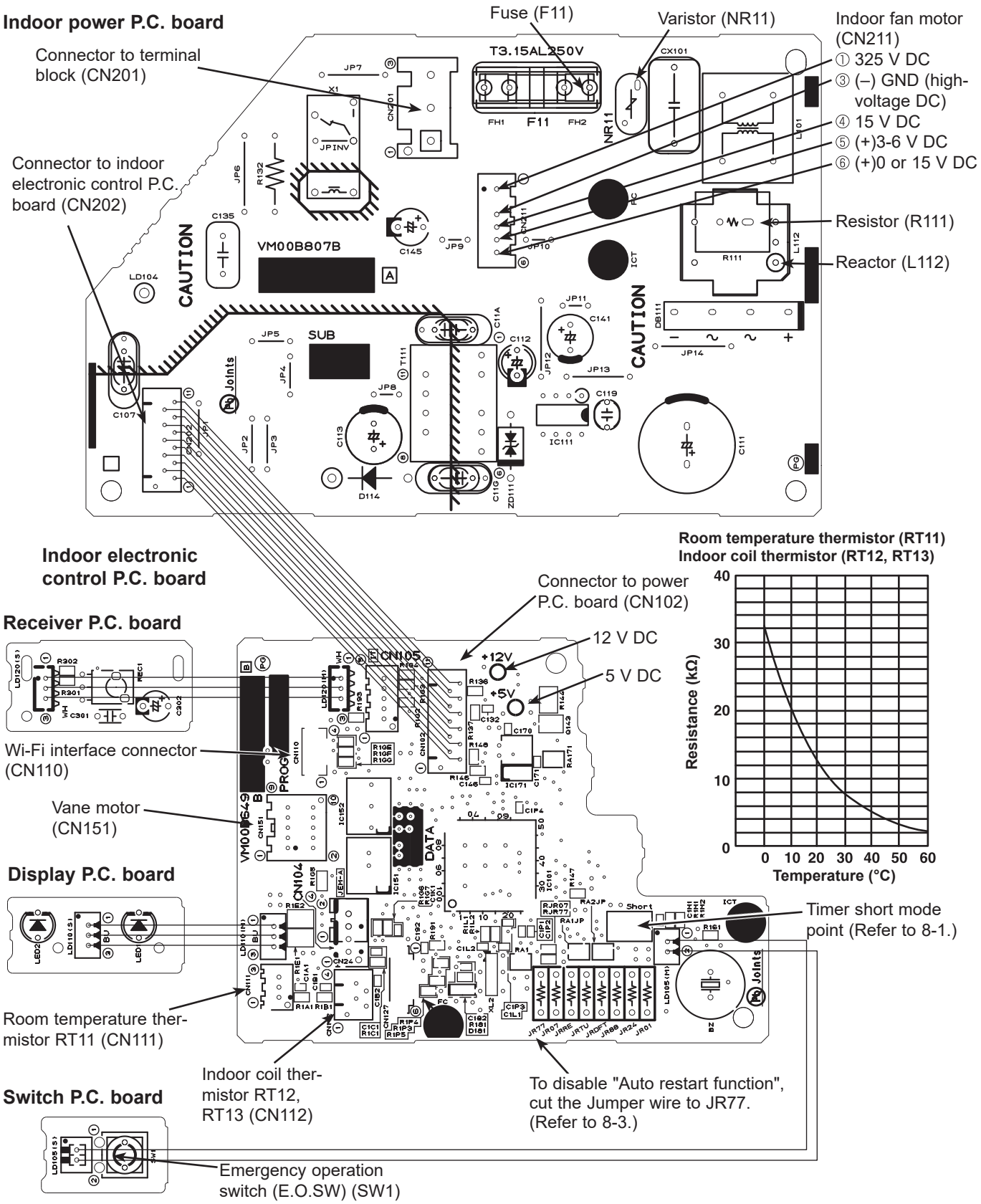
MSZ-EF22VGW- ET3 **MSZ-EF25VGW-** ET3 **MSZ-EF35VGW-** ET3 **MSZ-EF42VGW-** ET3 **MSZ-EF50VGW-** ET3
MSZ-EF22VGB- ET3 **MSZ-EF25VGB-** ET3 **MSZ-EF35VGB-** ET3 **MSZ-EF42VGB-** ET3 **MSZ-EF50VGB-** ET3
MSZ-EF22VGS- ET3 **MSZ-EF25VGS-** ET3 **MSZ-EF35VGS-** ET3 **MSZ-EF42VGS-** ET3 **MSZ-EF50VGS-** ET3



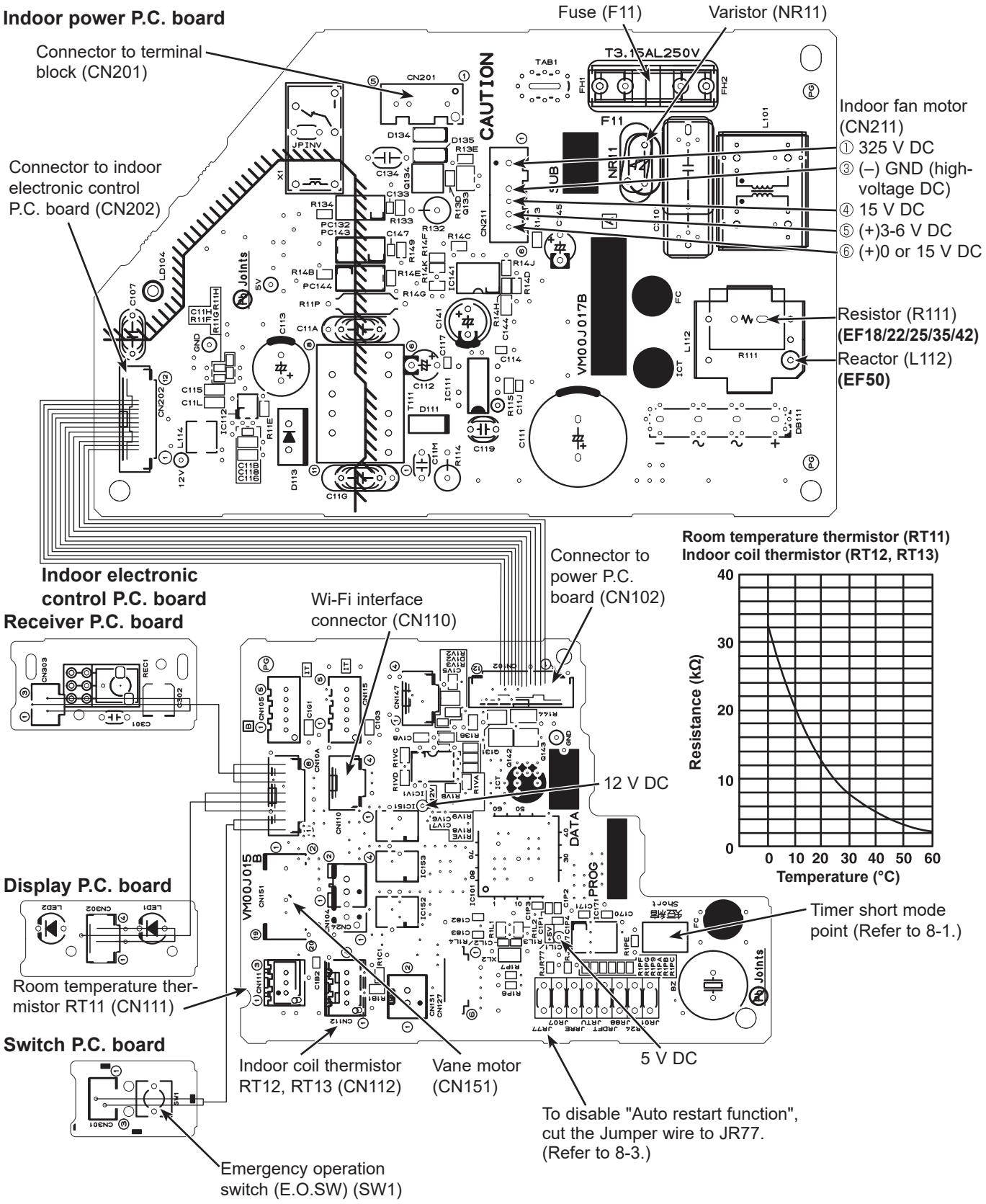
MSZ-EF18VGKW- E2
MSZ-EF35VGKW- E2, ET2, ER2
MSZ-EF18VGKB- E2
MSZ-EF35VGKB- E2, ET2, ER2
MSZ-EF18VGKS- E2
MSZ-EF35VGKS- E2, ET2, ER2

MSZ-EF22VGKW- E2, ET2, ER2
MSZ-EF42VGKW- E2, ET2, ER2
MSZ-EF22VGKB- E2, ET2, ER2
MSZ-EF42VGKB- E2, ET2, ER2
MSZ-EF22VGKS- E2, ET2, ER2
MSZ-EF42VGKS- E2, ET2, ER2

MSZ-EF25VGKW- E2, ET2, ER2
MSZ-EF50VGKW- E2, ET2, ER2
MSZ-EF25VGKB- E2, ET2, ER2
MSZ-EF50VGKB- E2, ET2, ER2
MSZ-EF25VGKS- E2, ET2, ER2
MSZ-EF50VGKS- E2, ET2, ER2



MSZ-EF22VG2W **MSZ-EF25VG2W** **MSZ-EF35VG2W** **MSZ-EF42VG2W** **MSZ-EF50VG2W**
MSZ-EF22VG2B **MSZ-EF25VG2B** **MSZ-EF35VG2B** **MSZ-EF42VG2B** **MSZ-EF50VG2B**
MSZ-EF22VG2S **MSZ-EF25VG2S** **MSZ-EF35VG2S** **MSZ-EF42VG2S** **MSZ-EF50VG2S**
MSZ-EF18VGK2W **MSZ-EF22VGK2W** **MSZ-EF25VGK2W** **MSZ-EF35VGK2W** **MSZ-EF42VGK2W** **MSZ-EF50VGK2W**
MSZ-EF18VGK2B **MSZ-EF22VGK2B** **MSZ-EF25VGK2B** **MSZ-EF35VGK2B** **MSZ-EF42VGK2B** **MSZ-EF50VGK2B**
MSZ-EF18VGK2S **MSZ-EF22VGK2S** **MSZ-EF25VGK2S** **MSZ-EF35VGK2S** **MSZ-EF42VGK2S** **MSZ-EF50VGK2S**

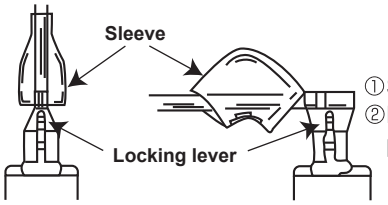


11 DISASSEMBLY INSTRUCTIONS

<Detaching method of the terminal with locking mechanism>

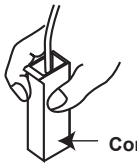
The terminal which has the locking mechanism can be detached as shown below.
There are 2 types of the terminals with locking mechanisms.
The terminal without locking mechanism can be detached by pulling it out.
Check the shape of the terminal before detaching.

(1) Slide the sleeve and check if there is a locking lever or not.



①Slide the sleeve.
②Pull the terminal while pushing the locking lever.

(2) The terminal with this connector shown below has the locking mechanism.

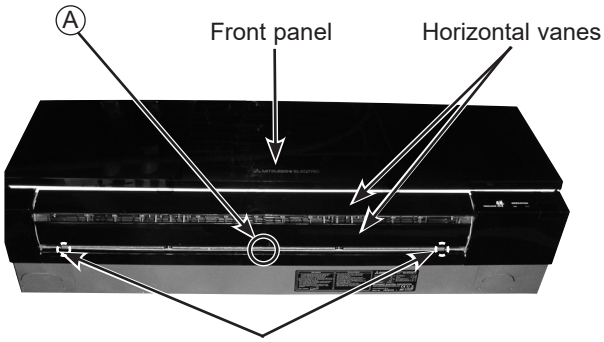


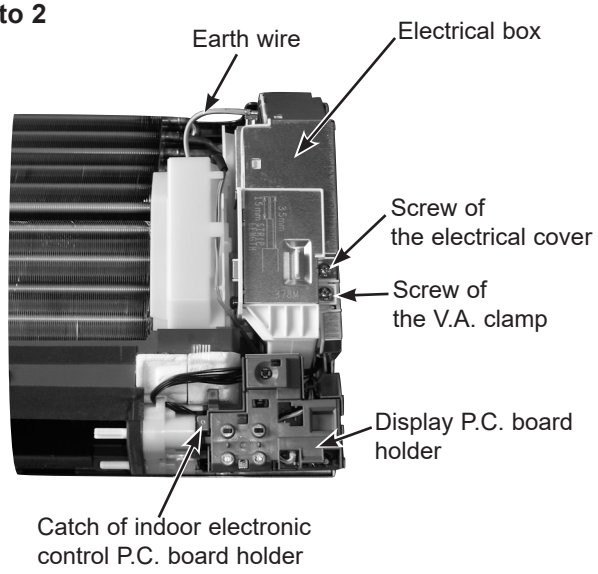
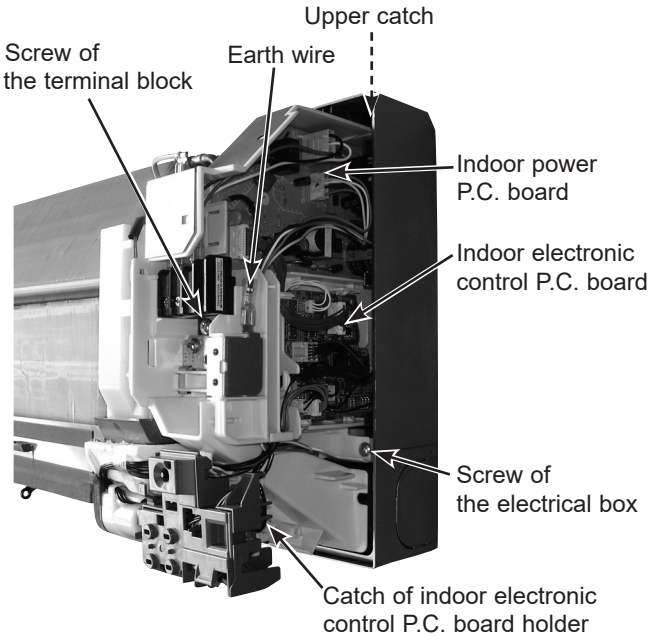
①Hold the sleeve, and pull out the terminal slowly.

11-1. MSZ-EF18VGW MSZ-EF22VGW MSZ-EF25VGW MSZ-EF35VGW MSZ-EF42VGW MSZ-EF50VGW
MSZ-EF18VGB MSZ-EF22VGB MSZ-EF25VGB MSZ-EF35VGB MSZ-EF42VGB MSZ-EF50VGB
MSZ-EF18VGS MSZ-EF22VGS MSZ-EF25VGS MSZ-EF35VGS MSZ-EF42VGS MSZ-EF50VGS
MSZ-EF22VG2W MSZ-EF25VG2W MSZ-EF35VG2W MSZ-EF42VG2W MSZ-EF50VG2W
MSZ-EF22VG2B MSZ-EF25VG2B MSZ-EF35VG2B MSZ-EF42VG2B MSZ-EF50VG2B
MSZ-EF22VG2S MSZ-EF25VG2S MSZ-EF35VG2S MSZ-EF42VG2S MSZ-EF50VG2S

NOTE: Turn OFF the power supply before disassembly.

→: Indicates the visible parts in the photos/figures.
- - - →: Indicates the invisible parts in the photos/figures.

OPERATING PROCEDURE	PHOTOS/FIGURES
1. Removing the panel (1) Remove the horizontal vanes. (2) Remove the screw caps of the panel. Remove the screws of the panel. (3) Unhook the lower part (Ⓐ) of the panel. (4) First, hold the lower part of the right end of the panel, and hold the lower part of the left end of the panel. (5) Pull the panel slightly toward you, and then remove the panel by pushing it upward.	**Photo 1** 

OPERATING PROCEDURE	PHOTOS/FIGURES
2. Remove the indoor electrical box (1) Remove the panel (Refer to section 1.) and the corner box right. (2) Remove the screw of the V.A. clamp. Remove the V.A. clamp and the indoor/outdoor connecting wire. (3) Remove the earth wire connected to the indoor heat exchanger from the electrical box. (4) Remove the screw of the electrical cover and remove the electrical cover. (5) Disconnect following connectors: <Indoor electronic control P.C. board> CN151 (Vane motor) <Indoor power P.C. board> CN211 (Indoor fan motor) (6) Remove the screw fixing the electrical box, then the upper catch of the electrical box, and pull out the electrical box.	**Photo 2** 
3. Removing the indoor power P.C. board, the switch board, the display board, the receiver board and the indoor electronic control P.C. board (1) Remove the panel (Refer to section 1.) and the corner box right. (2) Remove the screw of the V.A. clamp. Remove the V.A. clamp and the indoor/outdoor connecting wire. (3) Remove the indoor electrical box (Refer to section 2.). (4) Remove the earth wire connected to the electrical box from the indoor power P.C. board. (5) Disconnect the following connectors: <Indoor electronic power P.C. board> CN201 (Terminal block) CN202 (To the indoor electronic control P.C. board) (6) Remove the indoor power P.C. board. (7) Disconnect the following connectors: <Indoor electronic control P.C. board> CN111 (Room temperature thermistor) CN112 (Indoor coil thermistor) (8) Unhook the catches of the display P.C. board holder from the nozzle and the electrical box (right side). (9) Open the rear cover of the display P.C. board holder and remove the switch board, the display board and the receiver board. Remove the indoor electronic control P.C. board.	**Photo 3** 

OPERATING PROCEDURE	PHOTOS/FIGURES
4. Removing the nozzle assembly (1) Remove the panel (Refer to section 1.) and the corner box right. (2) Remove the indoor/outdoor connecting wire (Refer to section 2.). (3) Remove the electrical cover (Refer to section 2.). (4) Disconnect the following connector: <Indoor electronic control P.C. board> CN151 (Vane motor) (5) Remove the display P.C. board holder. (6) Pull out the drain hose from the nozzle assembly and remove the nozzle assembly. (7) Remove the vane motors (Refer to section 5.).	**Photo 4** 
5. Removing the horizontal vane motor (1) Remove the nozzle assembly (Refer to section 4.). (2) Remove the screws of the vane motor unit cover, and pull out the vane motor unit (3) Remove the screws of the vane motor unit. (4) Disconnect the connector from the vane motor. (5) Remove the vane motor from the vane motor unit.	

OPERATING PROCEDURE

6. Removing the indoor fan motor, the indoor coil thermistor and the line flow fan

(1) Remove the panel (Refer to section 1.) and the corner box right.
(2) Remove the indoor electronic control P.C. board holder, the electrical box and the nozzle assembly.
(3) Remove the screws fixing the motor bed.
(4) Release the hooks of the water cut and remove the water cut.
(5) Loosen the screw fixing the line flow fan.
(6) Remove the motor bed together with the indoor fan motor and the motor band.
(7) Release the hooks of the motor band and remove the motor band. Pull out the indoor fan motor.
(8) Remove the indoor coil thermistor from the heat exchanger.
※ Install the indoor coil thermistor in its former position when assembling it (Photo 5.).
(9) Remove the screws fixing the left side and the upper right side of the heat exchanger (Photo 7, Photo 8).
(10) Lift the heat exchanger, and pull out the line flow fan to the lower-left.
※ When attaching the line flow fan, screw the line flow fan so 4 mm gap is provided between the right end of the line flow fan and the right wall of the air passage of the box (Figure 1).

Figure 1

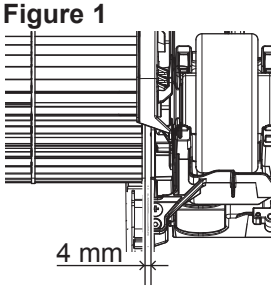
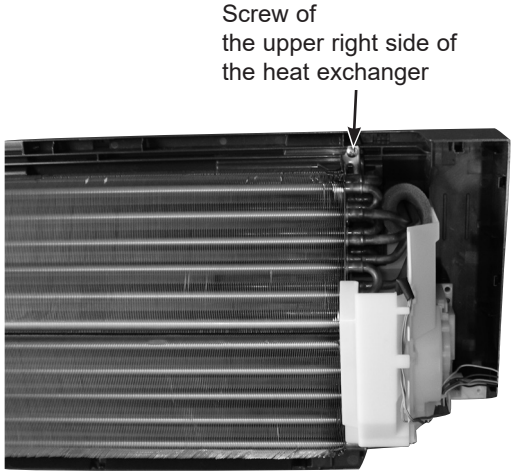


Photo 8



PHOTOS/FIGURES

Photo 5

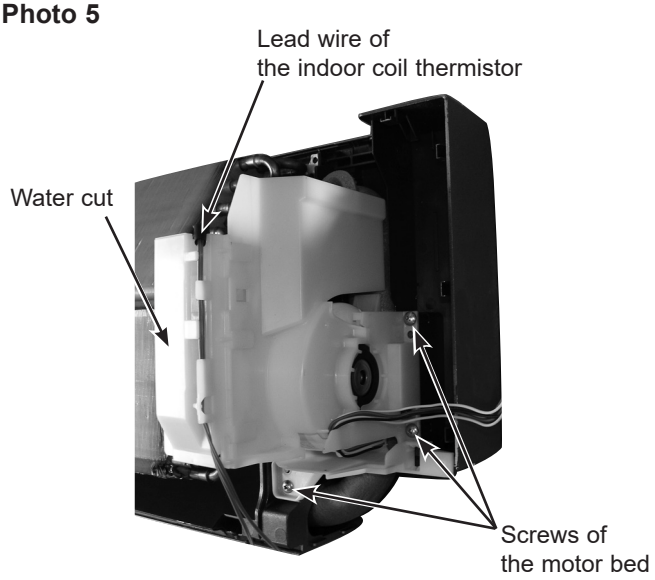


Photo 6

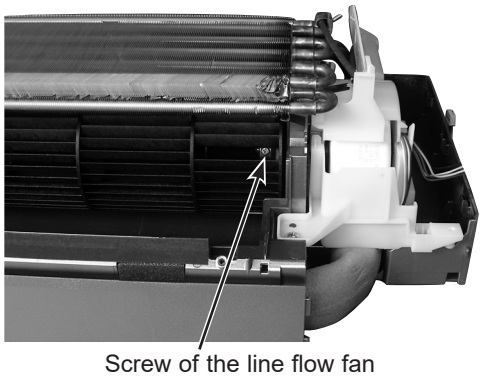
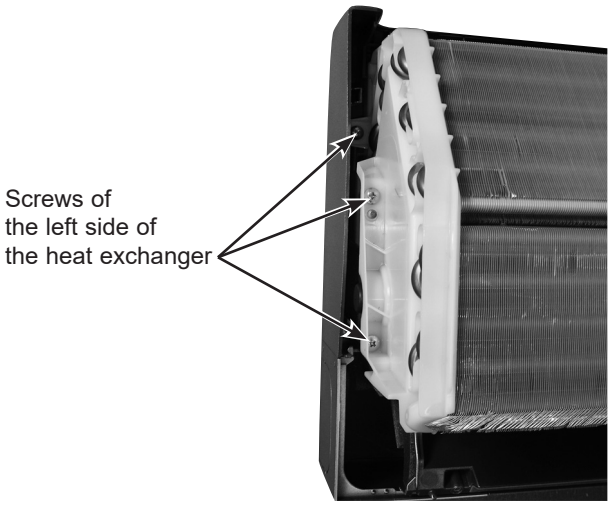
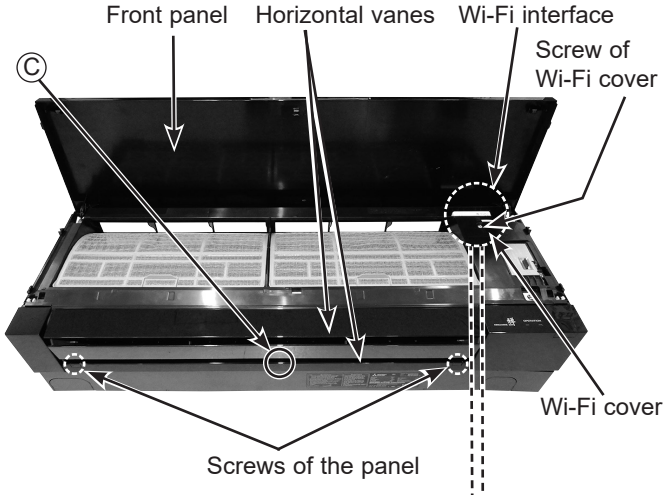
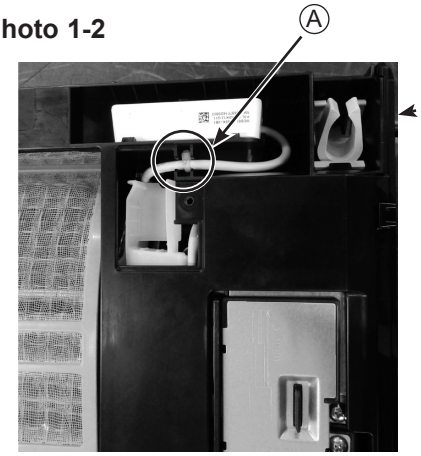


Photo 7



11-2. MSZ-EF18VGKW MSZ-EF22VGKW MSZ-EF25VGKW MSZ-EF35VGKW MSZ-EF42VGKW MSZ-EF50VGKW MSZ-EF18VGKB MSZ-EF22VGKB MSZ-EF25VGKB MSZ-EF35VGKB MSZ-EF42VGKB MSZ-EF50VGKB MSZ-EF18VGKS MSZ-EF22VGKS MSZ-EF25VGKS MSZ-EF35VGKS MSZ-EF42VGKS MSZ-EF50VGKS

NOTE: Turn OFF the power supply before disassembly.

OPERATING PROCEDURE	PHOTOS/FIGURES
1. Removing the panel (1) Remove the front panel. Remove the horizontal vanes. (2) Remove the screw caps of the panel. Remove the screws of the panel. (3) Remove the screw of the Wi-Fi cover on the upper right of the panel, and remove the Wi-Fi cover. (4) Remove the Wi-Fi interface on the right side of the panel. Pull out the Wi-Fi cable, and pull out the cable tie fixed on the panel. (Ⓐ) (5) Insert Wi-Fi interface into the water cut (Ⓑ) in the same direction as Photo 1-3, and fix it temporary. (6) Unhook the lower part (Ⓒ) of the panel. (7) First, hold the lower part of the right end of the panel, and hold the lower part of the left end of the panel. (8) Pull the panel slightly toward you, and then remove the panel by pushing it upward.	**Photo 1-1**  **Photo 1-2**  **Photo 1-3** 

OPERATING PROCEDURE

2. Removing the Wi-Fi interface

(1) Remove the panel (Refer to section 1.) and the corner box right.
(2) Remove the screw of the V.A. clamp.
Remove the V.A. clamp and the indoor/outdoor connecting wire.
(3) Remove the screw of the electrical cover, and remove the electrical cover.
(4) Disconnect the following connector (Photo 3):
<Indoor electronic control P.C. board>
CN110 (Wi-Fi interface)
(5) Remove the lead wire of the Wi-Fi interface from the hook of the cable guide and water cut.

3. Removing the indoor electrical box

(1) Remove the panel (Refer to section 1.) and the corner box right.
(2) Remove the screw of the V.A. clamp.
Remove the V.A. clamp and the indoor/outdoor connecting wire.
(3) Remove the earth wire connected to the indoor heat exchanger from the electrical box.
(4) Remove the screw of the electrical cover and remove the electrical cover.
(5) Disconnect following connectors:
<Indoor electronic control P.C. board>
CN151 (Vane motor)
CN110 (Wi-Fi interface)
<Indoor power P.C. board>
CN211 (Indoor fan motor)
(6) Remove the lead wire of the Wi-Fi interface, and remove the Wi-Fi interface (Refer to section 2.).
(7) Remove the screw fixing the electrical box, then the upper catch of the electrical box, and pull out the electrical box.

4. Removing the indoor power P.C. board, the switch board, the display board, the receiver board and the indoor electronic control P.C. board

(1) Remove the panel (Refer to Section 1.) and the corner box right.
(2) Remove the screw of the V.A. clamp. Remove the V.A. clamp and the indoor/outdoor connecting wire.
(3) Remove the indoor electrical box (Refer to section 3.).
(4) Remove the earth wire connected to the electrical box from the indoor power P.C. board.
(5) Disconnect the following connectors:
<Indoor electronic power P.C. board>
CN201 (Terminal block)
CN202 (To the indoor electronic control P.C. board)
(6) Remove the indoor power P.C. board.
(7) Disconnect the following connectors:
<Indoor electronic control P.C. board>
CN111 (Room temperature thermistor)
CN112 (Indoor coil thermistor)
(8) Unhook the catches of the display P.C. board holder from the nozzle and the electrical box (right side).
(9) Open the rear cover of the display P.C. board holder and remove the switch board, the display board and the receiver board.
Remove the indoor electronic control P.C. board.

PHOTOS/FIGURES

Photo 2

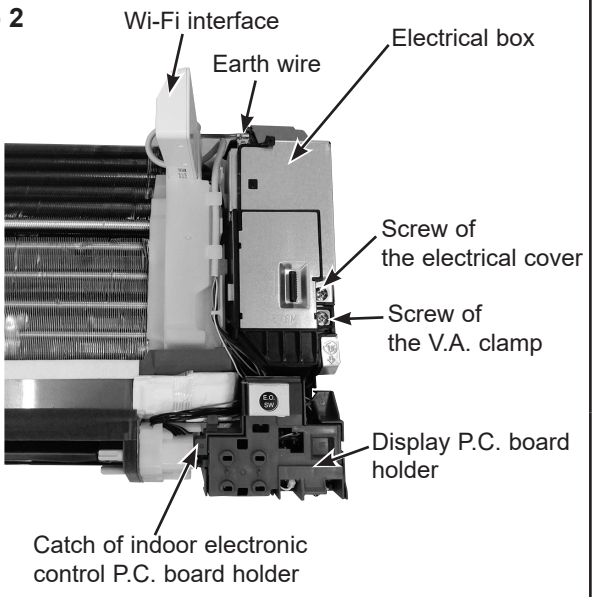
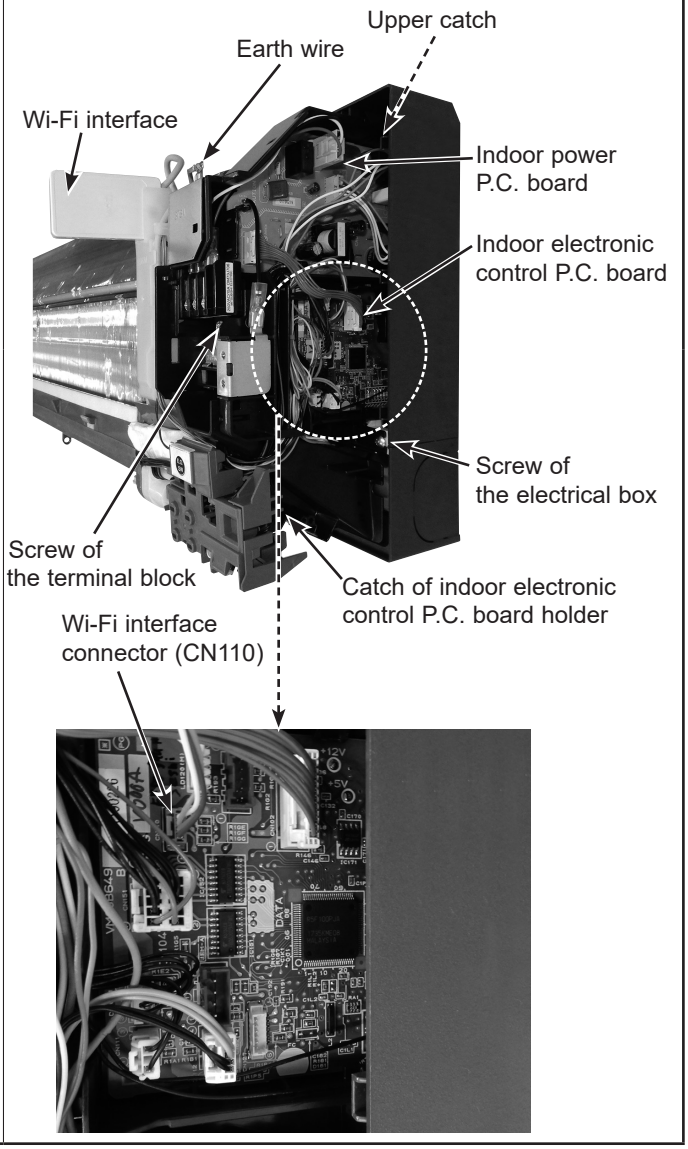
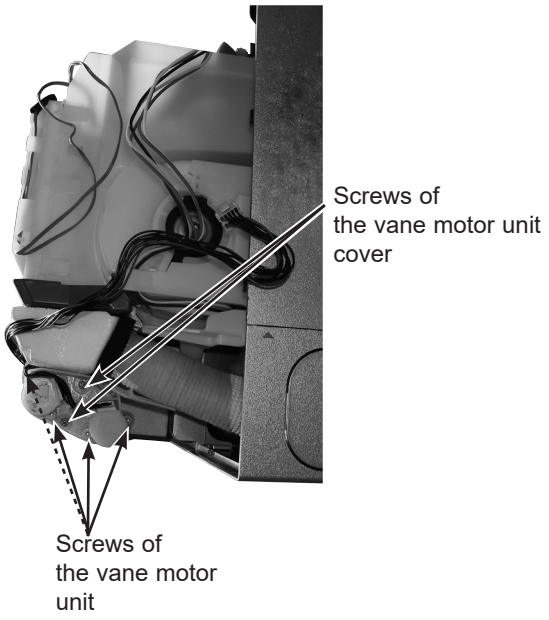


Photo 3



OPERATING PROCEDURE	PHOTOS/FIGURES
5. Removing the nozzle assembly (1) Remove the panel (Refer to section 1.) and the corner box right. (2) Remove the indoor/outdoor connecting wire (Refer to section 3.). (3) Remove the electrical cover (Refer to section 3.). (4) Disconnect the following connector: <Indoor electronic control P.C. board> CN151 (Vane motor) (5) Remove the display P.C. board holder. (6) Pull out the drain hose from the nozzle assembly and remove the nozzle assembly. (7) Remove the vane motors (Refer to section 6.). **6. Removing the horizontal vane motor** (1) Remove the nozzle assembly (Refer to section 5.). (2) Remove the screws of the vane motor unit cover, and pull out the vane motor unit (3) Remove the screws of the vane motor unit. (4) Disconnect the connector from the vane motor. (5) Remove the vane motor from the vane motor unit.	**Photo 4** 

OPERATING PROCEDURE

7. Removing the indoor fan motor, the indoor coil thermistor and the line flow fan

(1) Remove the panel (Refer to section 1.) and the corner box right.
(2) Remove the indoor electronic control P.C. board holder, the electrical box and the nozzle assembly.
(3) Remove the screws fixing the motor bed.
(4) Release the hooks of the water cut and remove the water cut.
(5) Loosen the screw fixing the line flow fan.
(6) Remove the motor bed together with the indoor fan motor and the motor band.
(7) Release the hooks of the motor band and remove the motor band. Pull out the indoor fan motor.
(8) Remove the indoor coil thermistor from the heat exchanger.
※ Install the indoor coil thermistor in its former position when assembling it (Photo 5.).
(9) Remove the screws fixing the left side and the upper right side of the heat exchanger (Photo 7, Photo 8).
(10) Lift the heat exchanger, and pull out the line flow fan to the lower-left.
※ When attaching the line flow fan, screw the line flow fan so 4 mm gap is provided between the right end of the line flow fan and the right wall of the air passage of the box (Figure 1).

Figure 1

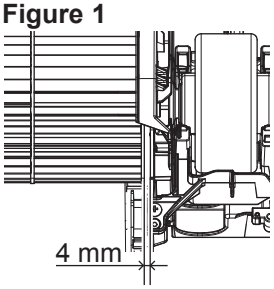
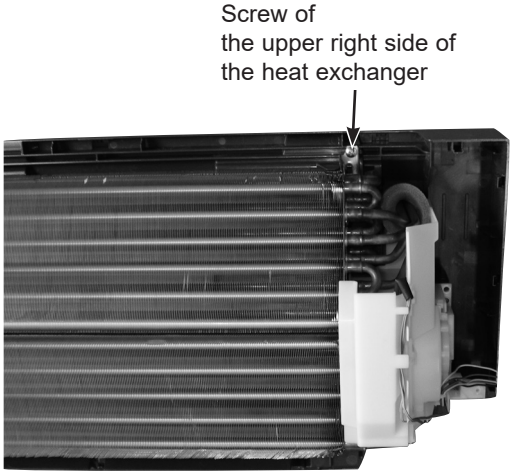


Photo 8



PHOTOS/FIGURES

Photo 5

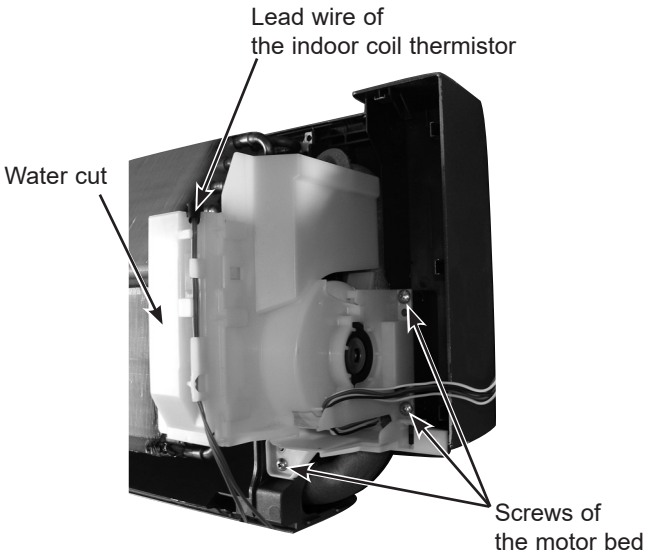


Photo 6

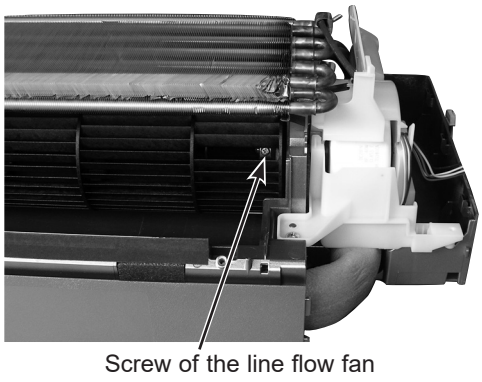
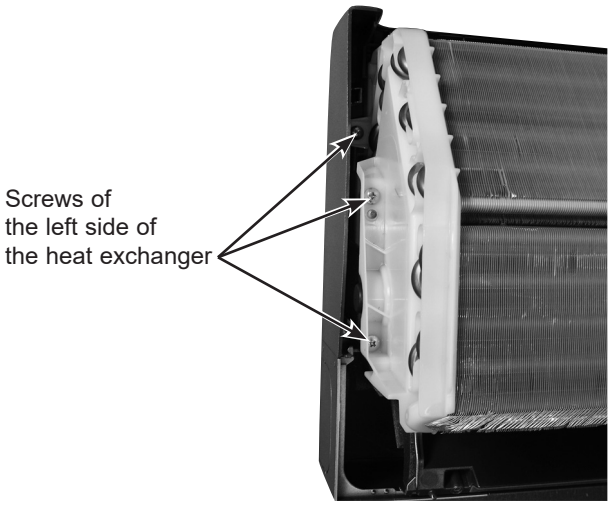


Photo 7



11-3. MSZ-EF18VGK2W MSZ-EF22VGK2W MSZ-EF25VGK2W MSZ-EF35VGK2W MSZ-EF42VGK2W MSZ-EF50VGK2W
MSZ-EF18VGK2B MSZ-EF22VGK2B MSZ-EF25VGK2B MSZ-EF35VGK2B MSZ-EF42VGK2B MSZ-EF50VGK2B
MSZ-EF18VGK2S MSZ-EF22VGK2S MSZ-EF25VGK2S MSZ-EF35VGK2S MSZ-EF42VGK2S MSZ-EF50VGK2S

NOTE: Turn OFF the power supply before disassembly.

OPERATING PROCEDURE

1. Removing the panel

(1) Remove the front panel. Remove the horizontal vanes.
(2) Remove the screw caps of the panel. Remove the screws of the panel.
(3) Remove the screw of the Wi-Fi cover on the upper right of the panel, and remove the Wi-Fi cover.
(4) Remove the Wi-Fi interface on the right side of the panel. Pull out the Wi-Fi cable, and pull out the cable tie fixed on the panel. (Ⓐ)
(5) Insert Wi-Fi interface into the water cut (Ⓑ) in the same direction as Photo 1-3, and fix it temporary.
(6) Unhook the lower part (Ⓒ) of the panel.
(7) First, hold the lower part of the right end of the panel, and hold the lower part of the left end of the panel.
(8) Pull the panel slightly toward you, and then remove the panel by pushing it upward.

PHOTOS/FIGURES

Photo 1-1

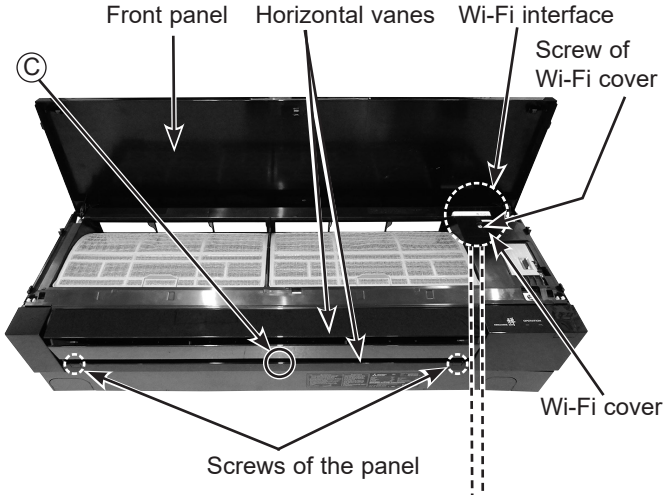


Photo 1-2

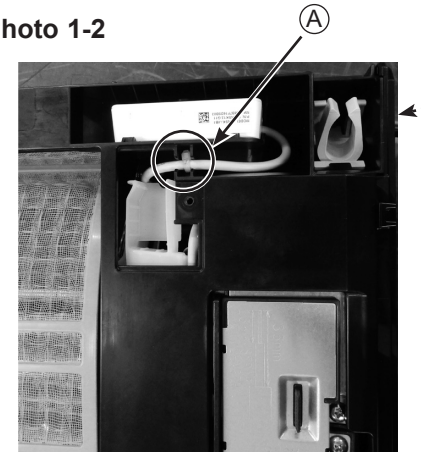
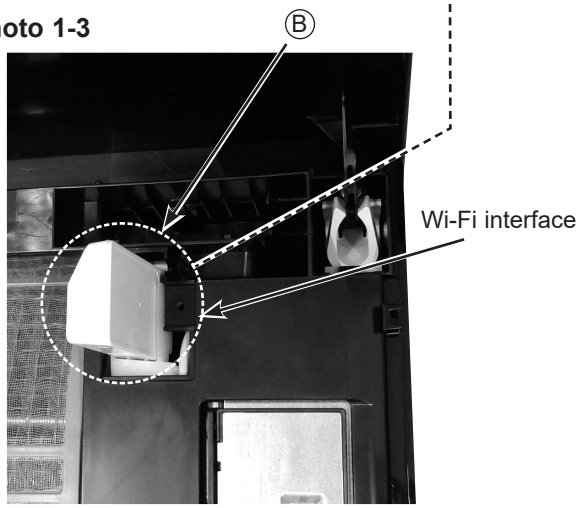


Photo 1-3



OPERATING PROCEDURE

2. Removing the Wi-Fi interface

(1) Remove the panel (Refer to section 1.) and the corner box right.
(2) Remove the screw of the V.A. clamp.
Remove the V.A. clamp and the indoor/outdoor connecting wire.
(3) Remove the screw of the electrical cover, and remove the electrical cover.
(4) Disconnect the following connector (Photo 3):
<Indoor electronic control P.C. board>
CN110 (Wi-Fi interface)
(5) Remove the lead wire of the Wi-Fi interface from the hook of the cable guide and water cut.

3. Removing the indoor electrical box

(1) Remove the panel (Refer to section 1.) and the corner box right.
(2) Remove the screw of the V.A. clamp.
Remove the V.A. clamp and the indoor/outdoor connecting wire.
(3) Remove the earth wire connected to the indoor heat exchanger from the electrical box.
(4) Remove the screw of the electrical cover and remove the electrical cover.
(5) Disconnect following connectors:
<Indoor electronic control P.C. board>
CN151 (Vane motor)
CN110 (Wi-Fi interface)
<Indoor power P.C. board>
CN211 (Indoor fan motor)
(6) Remove the lead wire of the Wi-Fi interface, and remove the Wi-Fi interface (Refer to section 2.).
(7) Remove the screw fixing the electrical box, then the upper catch of the electrical box, and pull out the electrical box.

4. Removing the indoor power P.C. board, the switch board, the display board, the receiver board and the indoor electronic control P.C. board

(1) Remove the panel (Refer to Section 1.) and the corner box right.
(2) Remove the screw of the V.A. clamp. Remove the V.A. clamp and the indoor/outdoor connecting wire.
(3) Remove the indoor electrical box (Refer to section 3.).
(4) Remove the earth wire connected to the electrical box from the indoor power P.C. board.
(5) Disconnect the following connectors:
<Indoor electronic power P.C. board>
CN201 (Terminal block)
CN202 (To the indoor electronic control P.C. board)
(6) Remove the indoor power P.C. board.
(7) Disconnect the following connectors:
<Indoor electronic control P.C. board>
CN111 (Room temperature thermistor)
CN112 (Indoor coil thermistor)
(8) Unhook the catches of the display P.C. board holder from the nozzle and the electrical box (right side).
(9) Open the rear cover of the display P.C. board holder and remove the switch board, the display board and the receiver board.
Remove the indoor electronic control P.C. board.

PHOTOS/FIGURES

Photo 2

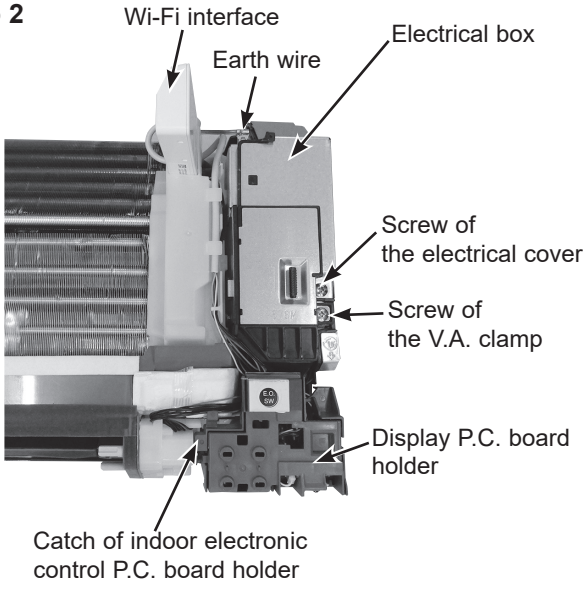
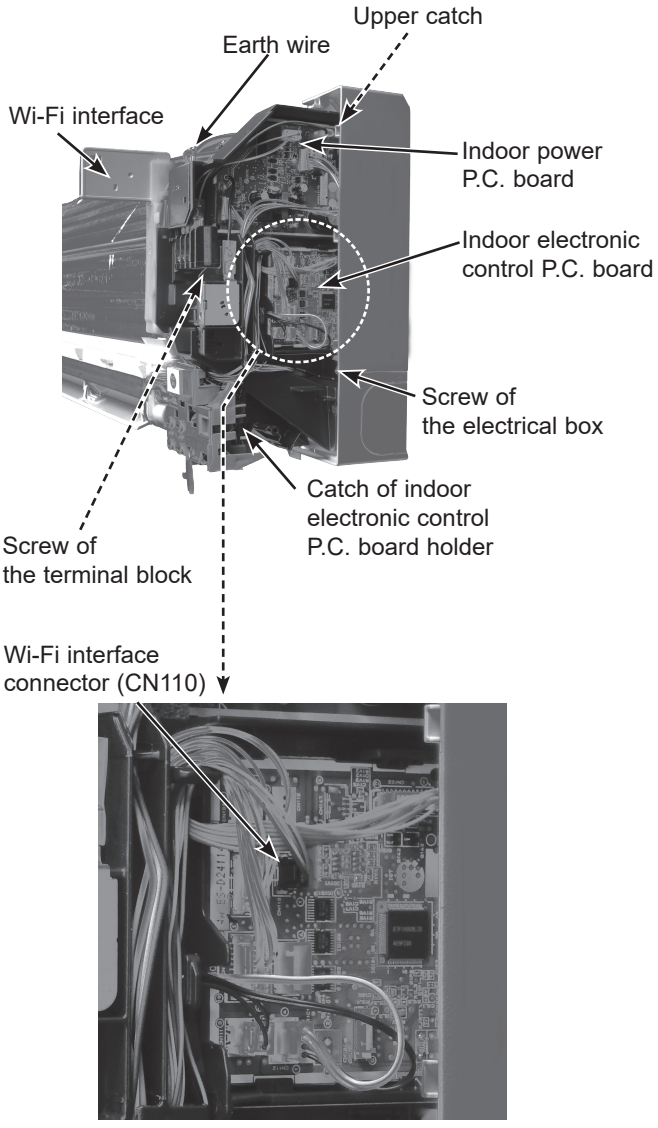
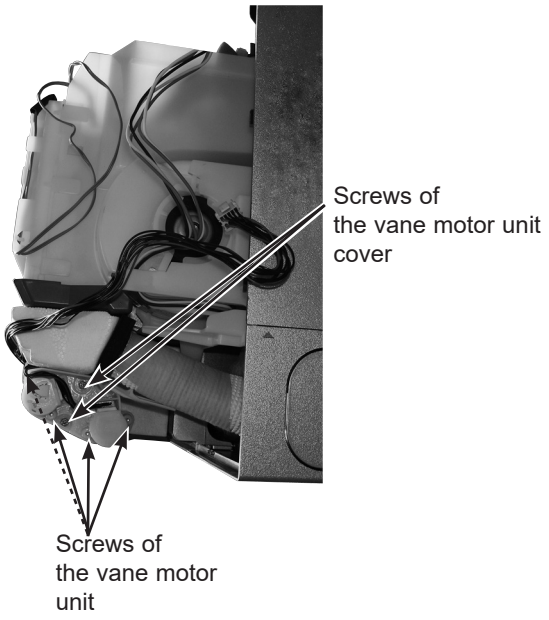


Photo 3



OPERATING PROCEDURE	PHOTOS/FIGURES
5. Removing the nozzle assembly (1) Remove the panel (Refer to section 1.) and the corner box right. (2) Remove the indoor/outdoor connecting wire (Refer to section 3.). (3) Remove the electrical cover (Refer to section 3.). (4) Disconnect the following connector: <Indoor electronic control P.C. board> CN151 (Vane motor) (5) Remove the display P.C. board holder. (6) Pull out the drain hose from the nozzle assembly and remove the nozzle assembly. (7) Remove the vane motors (Refer to section 6.). **6. Removing the horizontal vane motor** (1) Remove the nozzle assembly (Refer to section 5.). (2) Remove the screws of the vane motor unit cover, and pull out the vane motor unit (3) Remove the screws of the vane motor unit. (4) Disconnect the connector from the vane motor. (5) Remove the vane motor from the vane motor unit.	**Photo 4** 

OPERATING PROCEDURE

7. Removing the indoor fan motor, the indoor coil thermistor and the line flow fan

(1) Remove the panel (Refer to section 1.) and the corner box right.
(2) Remove the indoor electronic control P.C. board holder, the electrical box and the nozzle assembly.
(3) Remove the screws fixing the motor bed.
(4) Release the hooks of the water cut and remove the water cut.
(5) Loosen the screw fixing the line flow fan.
(6) Remove the motor bed together with the indoor fan motor and the motor band.
(7) Release the hooks of the motor band and remove the motor band. Pull out the indoor fan motor.
(8) Remove the indoor coil thermistor from the heat exchanger.
※ Install the indoor coil thermistor in its former position when assembling it (Photo 5.).
(9) Remove the screws fixing the left side and the upper right side of the heat exchanger (Photo 7, Photo 8).
(10) Lift the heat exchanger, and pull out the line flow fan to the lower-left.
※ When attaching the line flow fan, screw the line flow fan so 4 mm gap is provided between the right end of the line flow fan and the right wall of the air passage of the box (Figure 1).

Figure 1

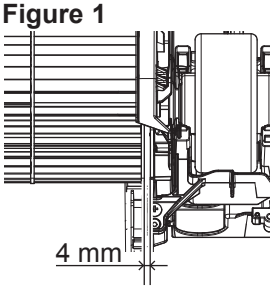
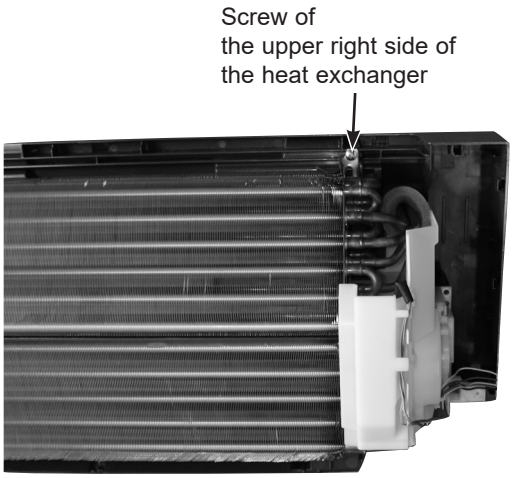


Photo 8



PHOTOS/FIGURES

Photo 5

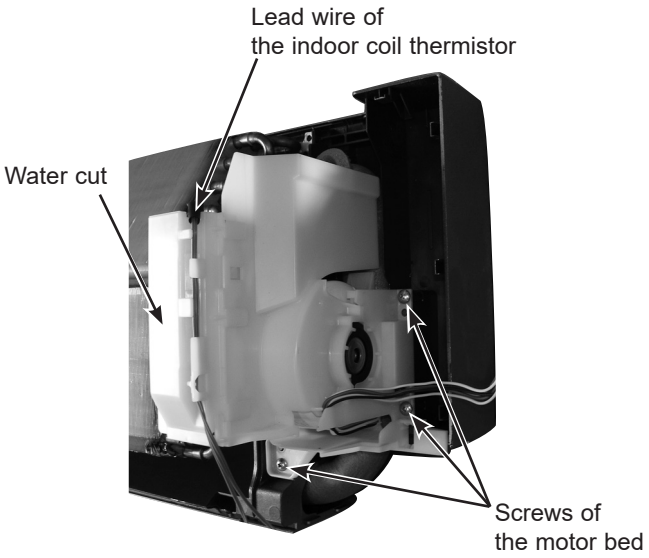


Photo 6

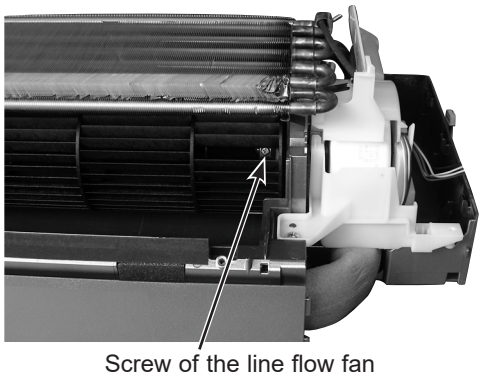
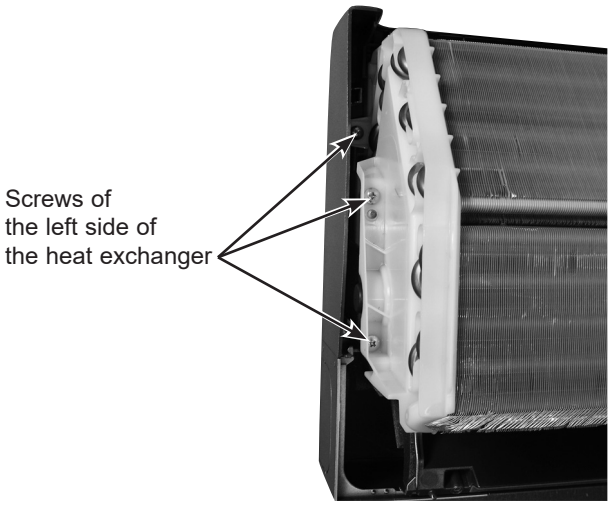


Photo 7



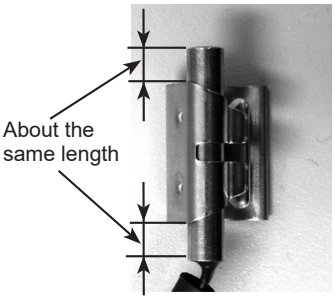
Fixing the indoor coil thermistor

※ There are 2 forms of parts for fixing the indoor coil thermistor.

Clip shape

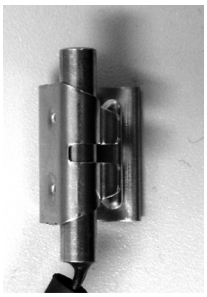
Holder shape

When fixing the indoor coil thermistor to the clip-shape/holder-shape part, the lead wire should point down.



Position and procedure for mounting the clip-shape part

1. Set the indoor coil thermistor in the center of the clip-shape part.



2. Check the (marked) mounting position.

3. Mount the clip-shape part.

NOTE:

- Take care to avoid loss and accidental falling of the clip-shape part inside the unit.
- Mount the clip-shape part on the marked position.
- Do not pull the lead wire when removing the indoor coil thermistor.

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