

OUTDOOR UNIT SERVICE MANUAL



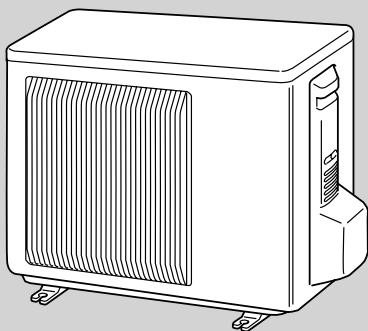
No. OBH530

Models

MU-GE50VB-E1

MUH-GE50VB-E1

Indoor unit service manual
MS/MSH-GE-VB Series (OBH529)



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PARTS CATALOG (OBB530)

NOTE:

• This service manual describes technical data of outdoor units.



MU-GA50VB-^[E1] → MU-GE50VB-^[E1]

1. Unit size has been changed.
(W 850 mm × H 605 mm × D 290 mm → W 800 mm × H 550 mm × D 285 mm)
2. Outdoor fan motor has been changed. (RA6V50-PA → RA6V33-KA)

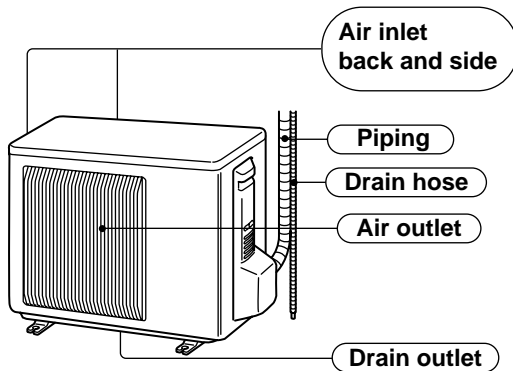
MUH-GA50VB-^[E1] → MUH-GE50VB-^[E1]

1. Unit size has been changed.
(W 850 mm × H 605 mm × D 290 mm → W 800 mm × H 550 mm × D 285 mm)
2. Outdoor fan motor has been changed. (RA6V60-MA → RA6V33-KB)

2

PART NAMES AND FUNCTIONS

MU-GE50VB
MUH-GE50VB



MUH-GE50VB

ACCESSORIES

<Outdoor unit: MUH type>

① Drain socket	1
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3

SPECIFICATION

Outdoor model			MU-GE50VB	MUH-GE50VB		
Function			Cooling	Cooling	Heating	
Power supply			Single phase 230 V, 50 Hz	Single phase 230 V, 50 Hz		
Capacity		kW	5.0	5.0	5.2	
Electrical data	Breaker capacity	A	15	15		
	Running current (Total)	A	8.20	8.23	7.53	
	Power input (Total)	W	1,810	1,780	1,610	
	Power factor (Total)	%	96	94		
	Starting current (Total)	A	37	37		
Coefficient of performance (C.O.P) (Total)			2.76	2.81	3.23	
Compressor	Model		RN196VHSHT			
	Output	W	1,300			
	Compressor motor current	A	7.57	7.60	6.90	
Fan motor	Model		RA6V33-KA			
	Fan motor current	A	0.33			
Dimensions W × H × D		mm	800 × 550 × 285			
Weight		kg	38			
Special remarks	Dehumidification	ℓ/h	2.5	2.5	—	
	Air flow	m ³ /h	1,902			
	Sound level	dB	52			
	Fan speed	rpm	855			
	Fan speed regulator			1		
	Refrigerant filling capacity (R410A)	kg	1.35			
	Refrigeration oil (Model)	cc	520 (NEO 22)			

NOTE: Test conditions are based on ISO 5151.

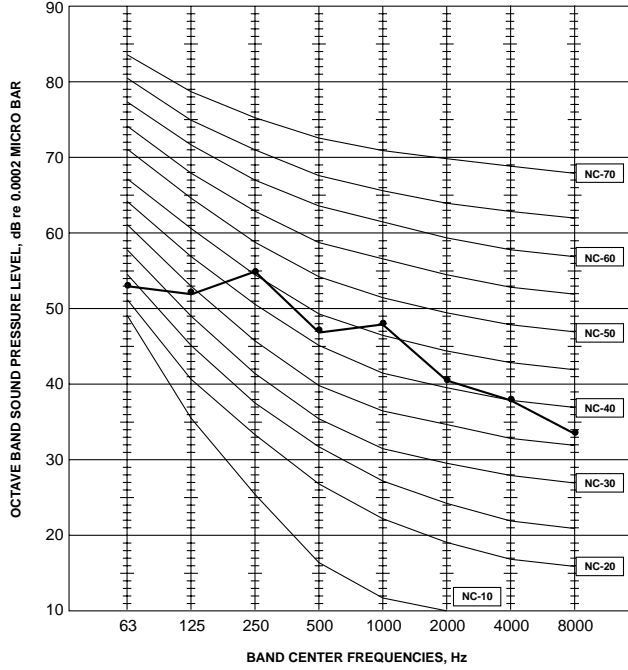
Cooling: Indoor Dry-bulb temperature 27°C Wet-bulb temperature 19°C
 Outdoor Dry-bulb temperature 35°C Wet-bulb temperature 24°C
 Heating: Indoor Dry-bulb temperature 20°C Wet-bulb temperature -°C
 Outdoor Dry-bulb temperature 7°C Wet-bulb temperature 6°C
 Indoor-Outdoor piping length: 5 m

NOISE CRITERIA CURVES

MU-GE50VB

FUNCTION	SPL(dB(A))	LINE
COOL	52	

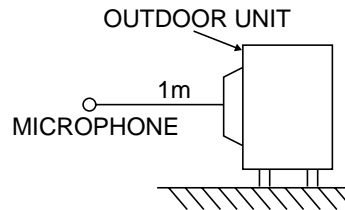
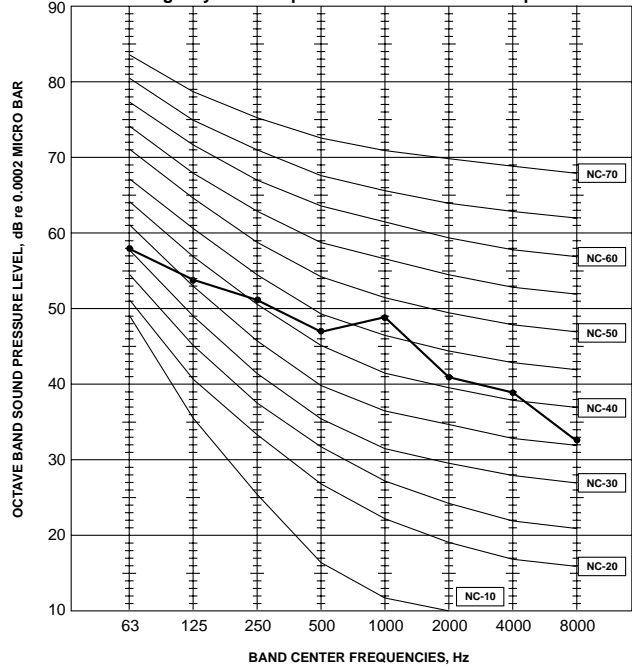
Test conditions,
Cooling :Dry-bulb temperature35°C Wet-bulb temperature24°C



MUH-GE50VB

FUNCTION	SPL(dB(A))	LINE
COOLING	52	
HEATING		

Test conditions,
Cooling :Dry-bulb temperature35°C Wet-bulb temperature24°C
Heating :Dry-bulb temperature 7°C Wet-bulb temperature 6°C



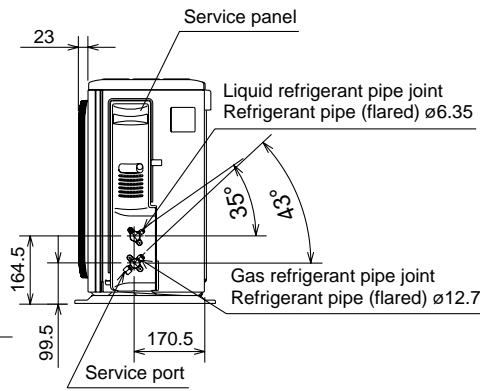
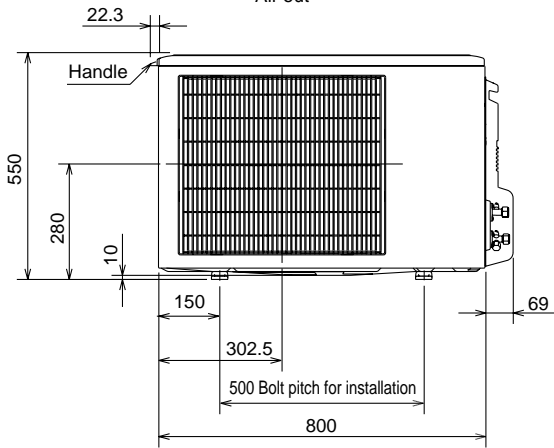
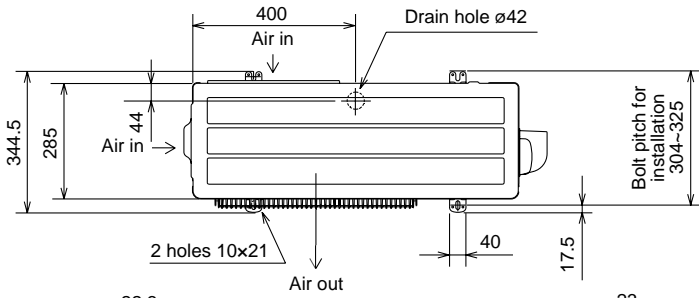
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OUTLINES AND DIMENSIONS

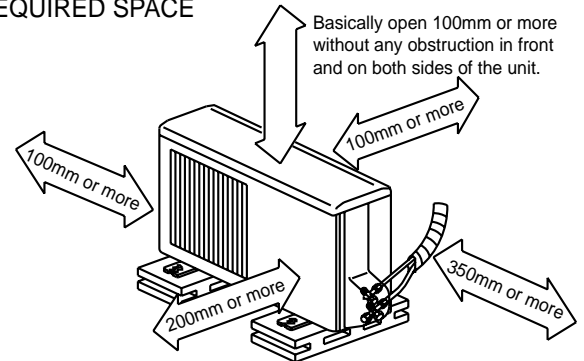
MU-GE50VB MUH-GE50VB

Unit: mm

OUTDOOR UNIT



REQUIRED SPACE

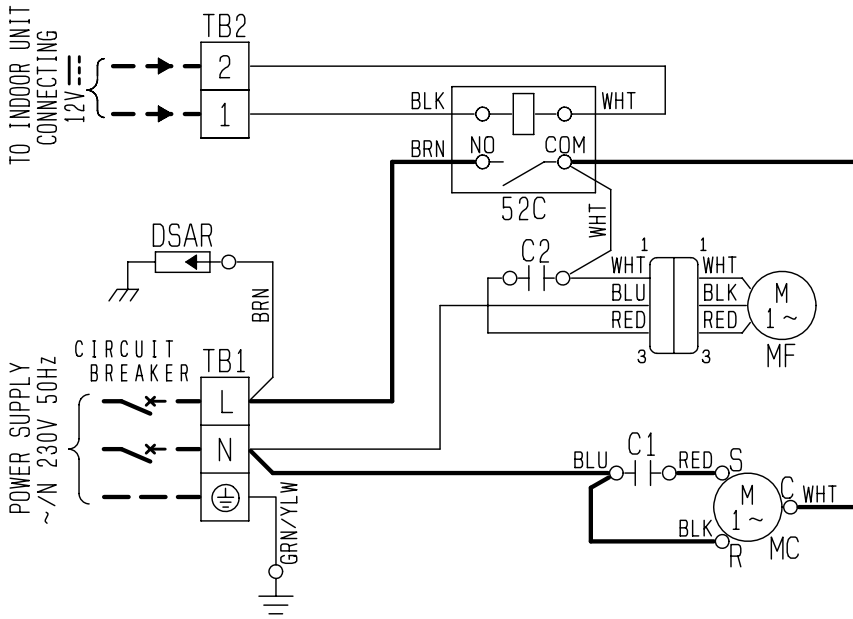


Open two sides of left, right, or rear side.

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WIRING DIAGRAM

MU-GE50VB

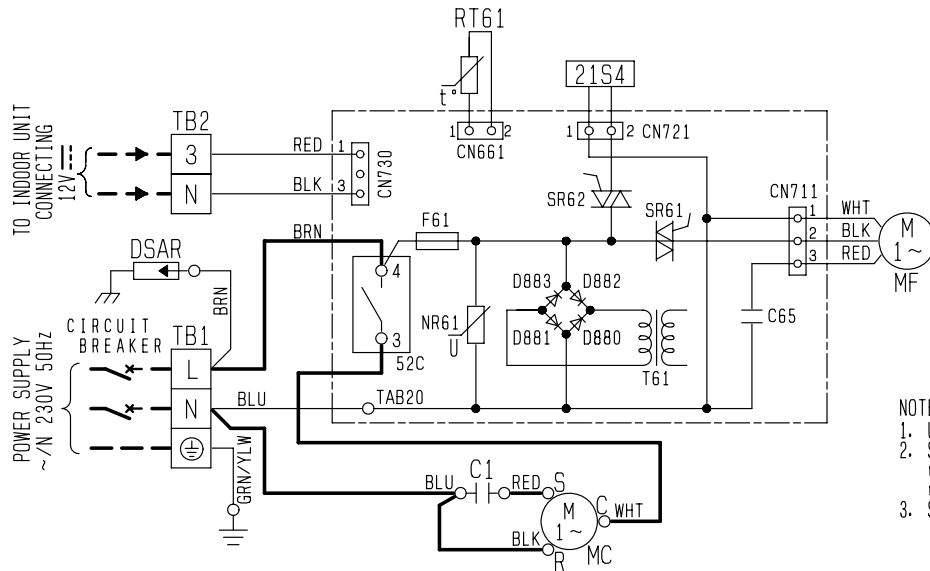


SYMBOL	NAME
C1	COMPRESSOR CAPACITOR
C2	FAN MOTOR CAPACITOR
DSAR	SURGE ABSORBER
MC	COMPRESSOR (INNER PROTECTOR)
MF	FAN MOTOR (INNER FUSE)
TB1	TERMINAL BLOCK
TB2	TERMINAL BLOCK
52C	COMPRESSOR CONTACTOR

NOTES:

1. Use copper conductors only (For field wiring).
2. Since the indoor and outdoor unit connecting wires have polarity, connect them according to the numbers. (2, 1)
3. Symbols below indicate.
 : Terminal block
 : Connector

MUH-GE50VB



SYMBOL	NAME
C1	COMPRESSOR CAPACITOR
C65	FAN MOTOR CAPACITOR
DSAR	SURGE ABSORBER
D880~D883	DIODE
F61	FUSE (T2AL250V)
MC	COMPRESSOR (INNER PROTECTOR)
MF	FAN MOTOR (INNER FUSE)
NR61	VARISTOR
RT61	DEFROST THERMISTOR
SR61, SR62	SOLID STATE RELAY
T61	TRANSFORMER
TB1, TB2	TERMINAL BLOCK
21S4	REVERSING VALVE SOLENOID COIL
52C	COMPRESSOR CONTACTOR

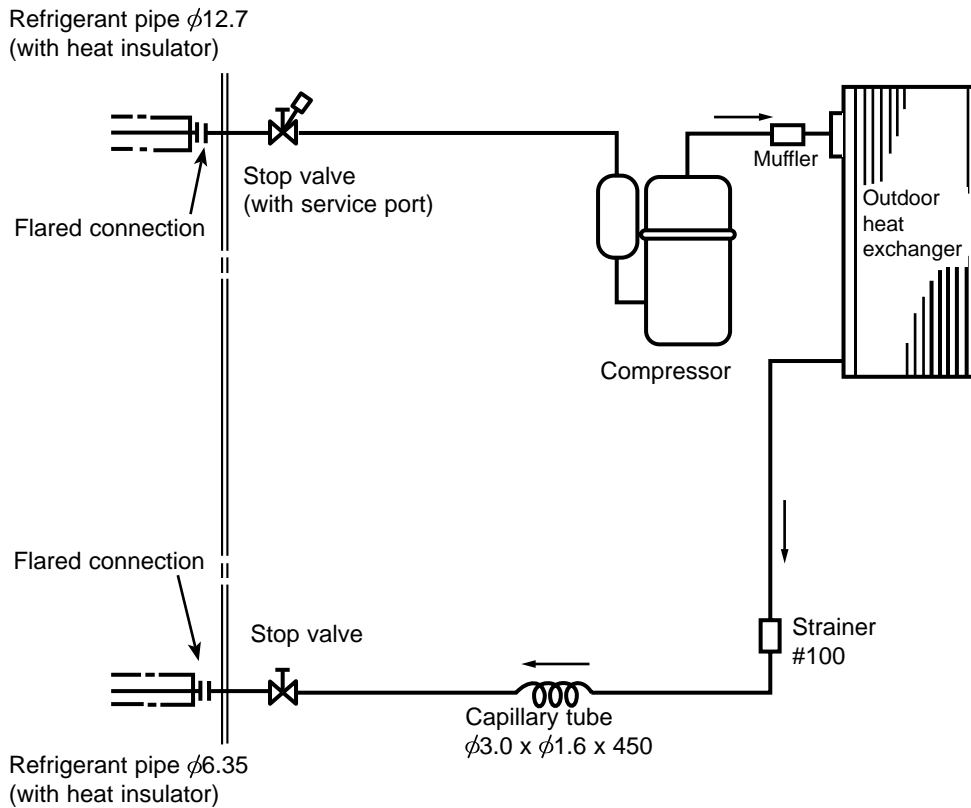
NOTES:

1. Use copper conductors only (For field wiring).
2. Since the indoor and outdoor unit connecting wires have polarity, connect them according to the numbers. (3, N)
3. Symbols below indicate.
 : Terminal block, : Connector

MU-GE50VB

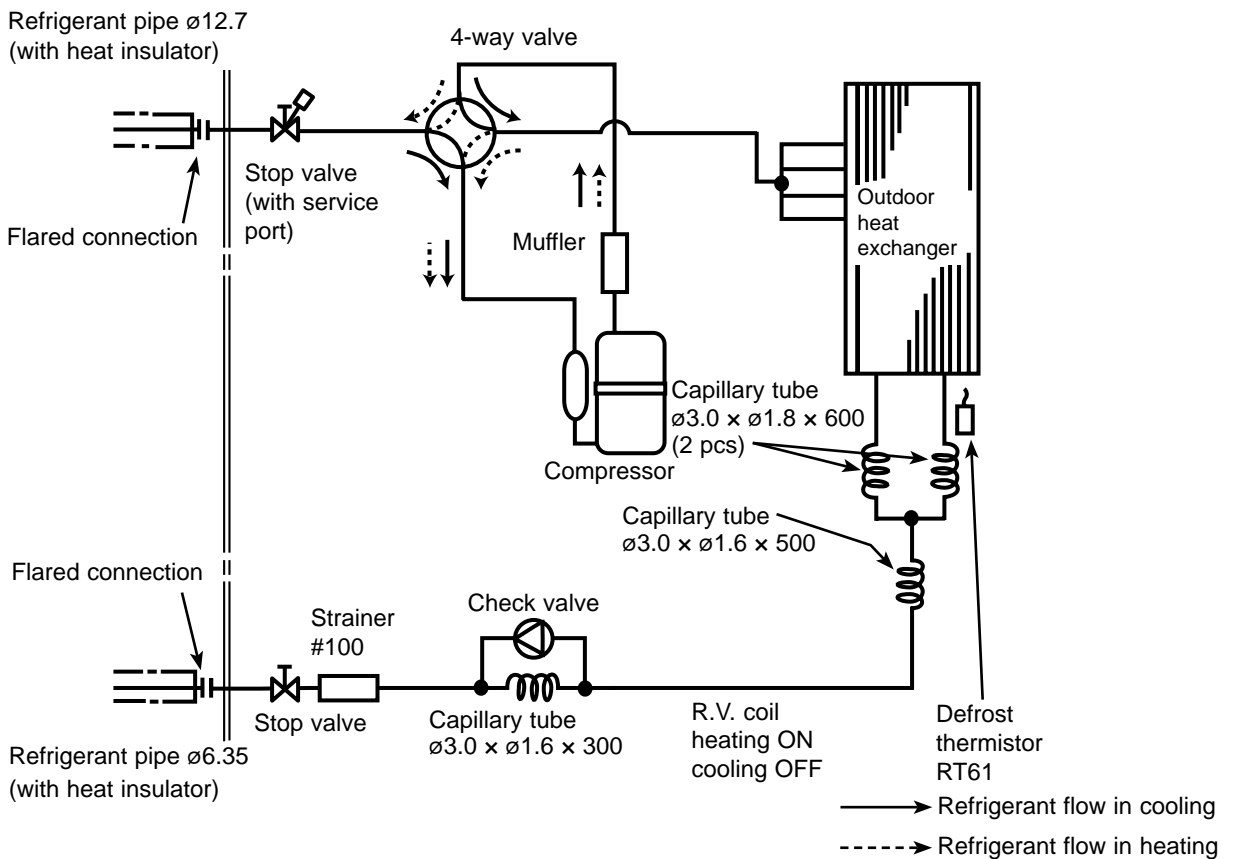
Unit :mm

OUTDOOR UNIT



MUH-GE50VB

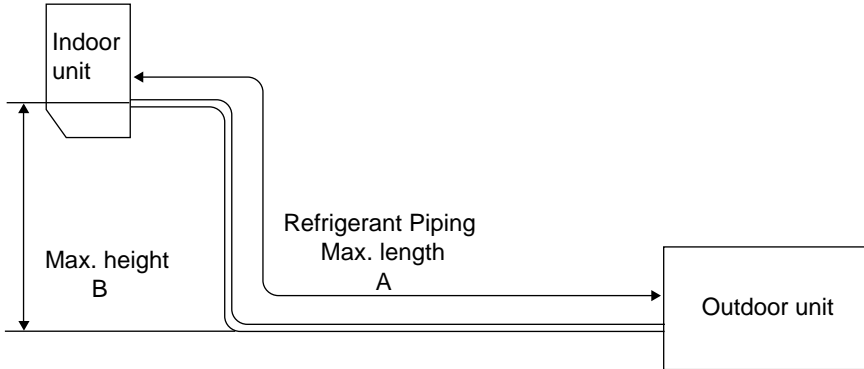
OUTDOOR UNIT



MAX. REFRIGERANT PIPING LENGTH

Model	Refrigerant piping: m		Piping size O.D: mm		Length of connecting pipe: m	
	Max. length A	Max. height B	Gas	Liquid	Indoor unit	Outdoor unit
MU-GE50VB MUH-GE50VB	25	10	12.7	6.35	Gas 0.43 Liquid 0.5	Gas 0 Liquid 0

MAX. HEIGHT DIFFERENCE



ADDITIONAL REFRIGERANT CHARGE (R410A: g)

Model	Outdoor unit precharged	Refrigerant piping length (one way)				
		7 m	10 m	15 m	20 m	25 m
MU-GE50VB	1350	0	60	160	260	360
MUH-GE50VB	1450					

Calculation : $Xg = 20 \text{ g/m} \times (A-7)\text{m}$

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PERFORMANCE CURVES

MU-GE50VB MUH-GE50VB

The standard specifications apply only to the operation of the air conditioner under normal conditions, since operating conditions vary according to the areas where these units are installed. The following information has been provided to clarify the operating characteristics of the air conditioner under the conditions indicated by the performance curve.

(1) GUARANTEED VOLTAGE

198~264 V

(2) AIR FLOW

Air flow should be set at MAX.

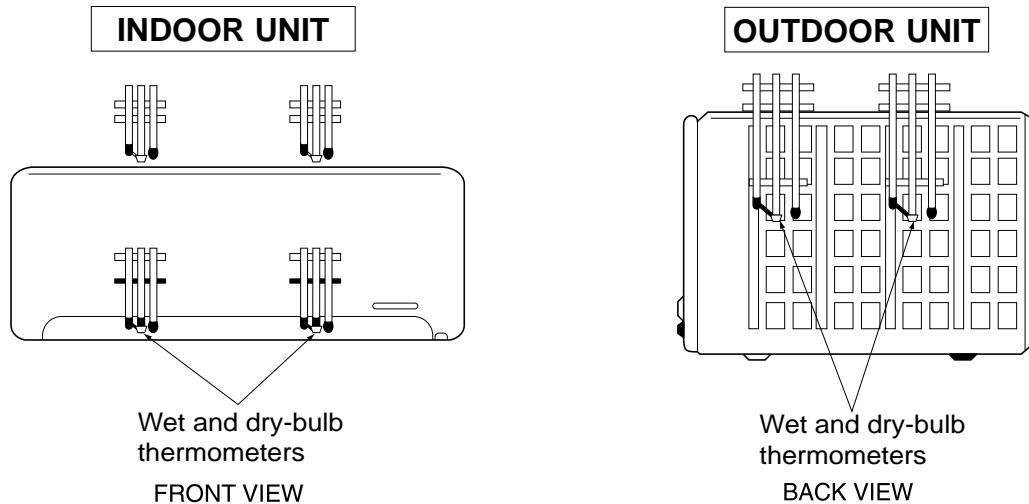
(3) MAIN READINGS

- | | | |
|--|------|---------------------------------|
| (1) Indoor intake air wet-bulb temperature: | °CWB | } Cooling |
| (2) Indoor outlet air wet-bulb temperature: | °CWB | |
| (3) Outdoor intake air dry-bulb temperature: | °CDB | |
| (4) Total input: | W | } Heating (MUH-GE50VB) |
| (5) Indoor intake air dry-bulb temperature: | °CDB | |
| (6) Outdoor intake air wet-bulb temperature: | °CWB | |
| (7) Total input: | W | |

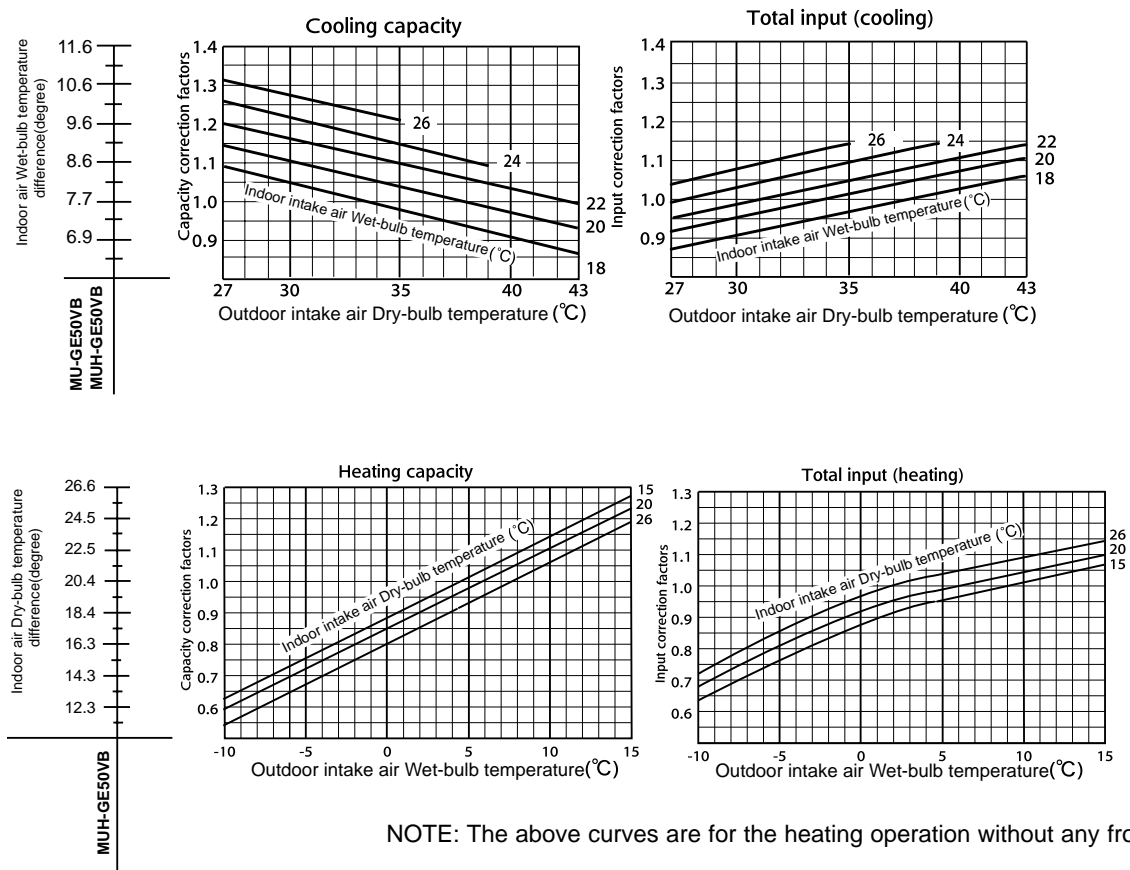
Indoor air wet/dry-bulb temperature difference on the left side of the following chart shows the difference between the indoor intake air wet/dry-bulb temperature and the indoor outlet air wet/dry-bulb temperature for your reference at service.

How to measure the indoor air wet-bulb/dry-bulb temperature difference

1. Attach at least 2 sets of wet and dry-bulb thermometers to the indoor air intake as shown in the figure, and at least 2 sets of wet and dry-bulb thermometers to the indoor air outlet. The thermometers must be attached to the position where air speed is high.
2. Attach at least 2 sets of wet and dry-bulb thermometers to the outdoor air intake. Cover the thermometers to prevent direct rays of the sun.
3. Check that the air filter is cleaned.
4. Open windows and doors of room.
5. Press the EMERGENCY OPERATION switch once (twice) to start the EMERGENCY COOL [HEAT (MUH-GE50VB)] MODE.
6. When system stabilizes after more than 15 minutes, measure temperature and take an average temperature.
7. 10 minutes later, measure temperature again and check that the temperature does not change.



8-1. CAPACITY AND THE INPUT CURVES



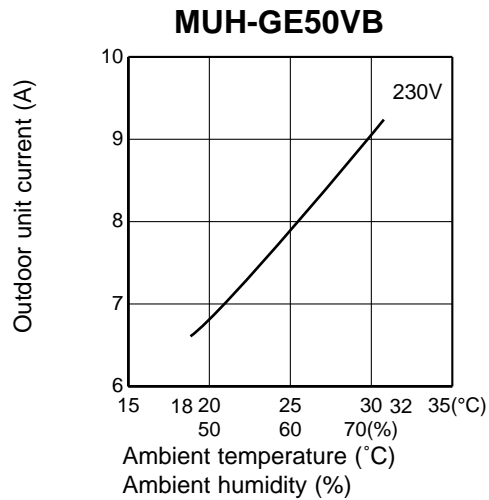
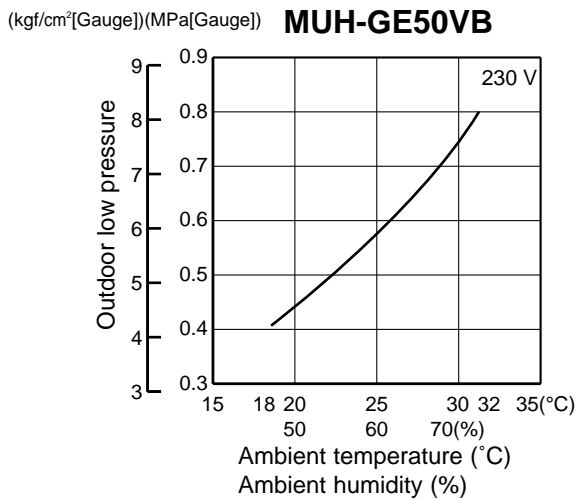
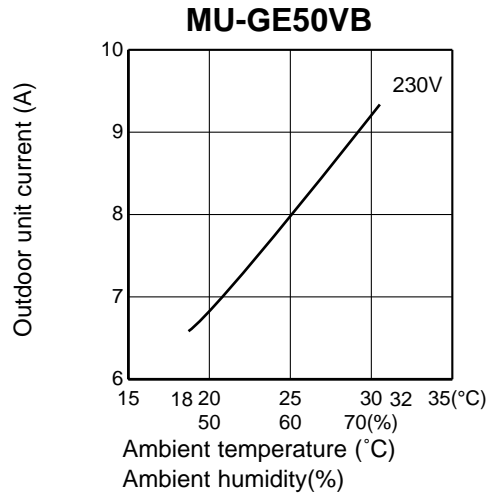
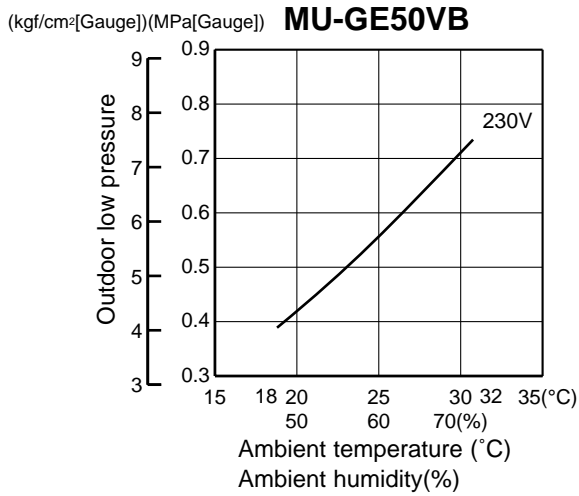
8-2. OUTDOOR LOW PRESSURE AND OUTDOOR UNIT CURRENT COOL operation

① Both indoor and outdoor unit are under the same temperature/humidity condition.

Dry-bulb temperature	Relative humidity(%)
20	50
25	60
30	70

② Air flow should be set at MAX.

③ The unit of pressure has been changed to MPa on the international system of units (SI unit system).
The conversion factor is: **1(MPa[Gauge]) = 10.2(kgf/cm² [Gauge])**

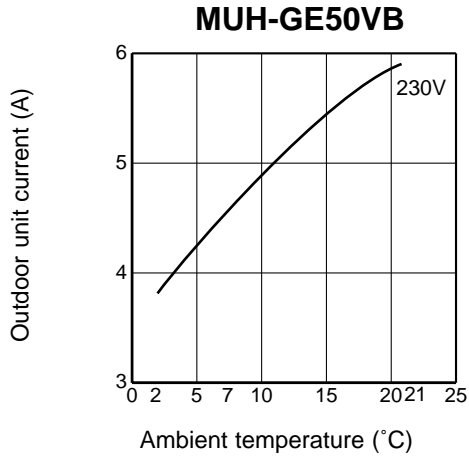




HEAT operation

Condition indoor: Dry bulb temperature 20.0 °C
Wet bulb temperature 14.5 °C

Outdoor: Dry bulb temperature 7,15, 20 °C
Wet bulb temperature 6,12, 14.5° C



PERFORMANCE DATA
COOL operation (230V)

MS-GE50VB : MU-GE50VB

CAPACITY : 5.0 (kW) SHF : 0.65 INPUT : 1810 (W)

		OUTDOOR DB(°C)															
INDOOR DB(°C)	INDOOR WB(°C)	21				25				27				30			
		Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	5.88	2.76	0.47	1448	5.63	2.64	0.47	1520	5.40	2.54	0.47	1593	5.20	2.44	0.47	1665
21	20	6.13	2.14	0.35	1520	5.88	2.06	0.35	1611	5.70	2.00	0.35	1647	5.50	1.93	0.35	1720
22	18	5.88	3.00	0.51	1448	5.63	2.87	0.51	1520	5.40	2.75	0.51	1593	5.20	2.65	0.51	1665
22	20	6.13	2.39	0.39	1520	5.88	2.29	0.39	1611	5.70	2.22	0.39	1647	5.50	2.15	0.39	1720
22	22	6.38	1.72	0.27	1575	6.15	1.66	0.27	1674	6.00	1.62	0.27	1720	5.75	1.55	0.27	1792
23	18	5.88	3.23	0.55	1448	5.63	3.09	0.55	1520	5.40	2.97	0.55	1593	5.20	2.86	0.55	1665
23	20	6.13	2.63	0.43	1520	5.88	2.53	0.43	1611	5.70	2.45	0.43	1647	5.50	2.37	0.43	1720
23	22	6.38	1.98	0.31	1575	6.15	1.91	0.31	1674	6.00	1.86	0.31	1720	5.75	1.78	0.31	1792
24	18	5.88	3.47	0.59	1448	5.63	3.32	0.59	1520	5.40	3.19	0.59	1593	5.20	3.07	0.59	1665
24	20	6.13	2.88	0.47	1520	5.88	2.76	0.47	1611	5.70	2.68	0.47	1647	5.50	2.59	0.47	1720
24	22	6.38	2.23	0.35	1575	6.15	2.15	0.35	1674	6.00	2.10	0.35	1720	5.75	2.01	0.35	1792
24	24	6.70	1.54	0.23	1647	6.45	1.48	0.23	1738	6.30	1.45	0.23	1792	6.10	1.40	0.23	1882
25	18	5.88	3.70	0.63	1448	5.63	3.54	0.63	1520	5.40	3.40	0.63	1593	5.20	3.28	0.63	1665
25	20	6.13	3.12	0.51	1520	5.88	3.00	0.51	1611	5.70	2.91	0.51	1647	5.50	2.81	0.51	1720
25	22	6.38	2.49	0.39	1575	6.15	2.40	0.39	1674	6.00	2.34	0.39	1720	5.75	2.24	0.39	1792
25	24	6.70	1.81	0.27	1647	6.45	1.74	0.27	1738	6.30	1.70	0.27	1792	6.10	1.65	0.27	1882
26	18	5.88	3.94	0.67	1448	5.63	3.77	0.67	1520	5.40	3.62	0.67	1593	5.20	3.48	0.67	1665
26	20	6.13	3.37	0.55	1520	5.88	3.23	0.55	1611	5.70	3.14	0.55	1647	5.50	3.03	0.55	1720
26	22	6.38	2.74	0.43	1575	6.15	2.64	0.43	1674	6.00	2.58	0.43	1720	5.75	2.47	0.43	1792
26	24	6.70	2.08	0.31	1647	6.45	2.00	0.31	1738	6.30	1.95	0.31	1792	6.10	1.89	0.31	1882
26	26	6.90	1.31	0.19	1738	6.70	1.27	0.19	1828	6.60	1.25	0.19	1882	6.40	1.22	0.19	1937
27	18	5.88	4.17	0.71	1448	5.63	3.99	0.71	1520	5.40	3.83	0.71	1593	5.20	3.69	0.71	1665
27	20	6.13	3.61	0.59	1520	5.88	3.47	0.59	1611	5.70	3.36	0.59	1647	5.50	3.25	0.59	1720
27	22	6.38	3.00	0.47	1575	6.15	2.89	0.47	1674	6.00	2.82	0.47	1720	5.75	2.70	0.47	1792
27	24	6.70	2.35	0.35	1647	6.45	2.26	0.35	1738	6.30	2.21	0.35	1792	6.10	2.14	0.35	1882
27	26	6.90	1.59	0.23	1738	6.70	1.54	0.23	1828	6.60	1.52	0.23	1882	6.40	1.47	0.23	1937
28	18	5.88	4.41	0.75	1448	5.63	4.22	0.75	1520	5.40	4.05	0.75	1593	5.20	3.90	0.75	1665
28	20	6.13	3.86	0.63	1520	5.88	3.70	0.63	1611	5.70	3.59	0.63	1647	5.50	3.47	0.63	1720
28	22	6.38	3.25	0.51	1575	6.15	3.14	0.51	1674	6.00	3.06	0.51	1720	5.75	2.93	0.51	1792
28	24	6.70	2.61	0.39	1647	6.45	2.52	0.39	1738	6.30	2.46	0.39	1792	6.10	2.38	0.39	1882
28	26	6.90	1.86	0.27	1738	6.70	1.81	0.27	1828	6.60	1.78	0.27	1882	6.40	1.73	0.27	1937
29	18	5.88	4.64	0.79	1448	5.63	4.44	0.79	1520	5.40	4.27	0.79	1593	5.20	4.11	0.79	1665
29	20	6.13	4.10	0.67	1520	5.88	3.94	0.67	1611	5.70	3.82	0.67	1647	5.50	3.69	0.67	1720
29	22	6.38	3.51	0.55	1575	6.15	3.38	0.55	1674	6.00	3.30	0.55	1720	5.75	3.16	0.55	1792
29	24	6.70	2.88	0.43	1647	6.45	2.77	0.43	1738	6.30	2.71	0.43	1792	6.10	2.62	0.43	1882
29	26	6.90	2.14	0.31	1738	6.70	2.08	0.31	1828	6.60	2.05	0.31	1882	6.40	1.98	0.31	1937
30	18	5.88	4.88	0.83	1448	5.63	4.67	0.83	1520	5.40	4.48	0.83	1593	5.20	4.32	0.83	1665
30	20	6.13	4.35	0.71	1520	5.88	4.17	0.71	1611	5.70	4.05	0.71	1647	5.50	3.91	0.71	1720
30	22	6.38	3.76	0.59	1575	6.15	3.63	0.59	1674	6.00	3.54	0.59	1720	5.75	3.39	0.59	1792
30	24	6.70	3.15	0.47	1647	6.45	3.03	0.47	1738	6.30	2.96	0.47	1792	6.10	2.87	0.47	1882
30	26	6.90	2.42	0.35	1738	6.70	2.35	0.35	1828	6.60	2.31	0.35	1882	6.40	2.24	0.35	1937
31	18	5.88	5.11	0.87	1448	5.63	4.89	0.87	1520	5.40	4.70	0.87	1593	5.20	4.52	0.87	1665
31	20	6.13	4.59	0.75	1520	5.88	4.41	0.75	1611	5.70	4.28	0.75	1647	5.50	4.13	0.75	1720
31	22	6.38	4.02	0.63	1575	6.15	3.87	0.63	1674	6.00	3.78	0.63	1720	5.75	3.62	0.63	1792
31	24	6.70	3.42	0.51	1647	6.45	3.29	0.51	1738	6.30	3.21	0.51	1792	6.10	3.11	0.51	1882
31	26	6.90	2.69	0.39	1738	6.70	2.61	0.39	1828	6.60	2.57	0.39	1882	6.40	2.50	0.39	1937
32	18	5.88	5.35	0.91	1448	5.63	5.12	0.91	1520	5.40	4.91	0.91	1593	5.20	4.73	0.91	1665
32	20	6.13	4.84	0.79	1520	5.88	4.64	0.79	1611	5.70	4.50	0.79	1647	5.50	4.35	0.79	1720
32	22	6.38	4.27	0.67	1575	6.15	4.12	0.67	1674	6.00	4.02	0.67	1720	5.75	3.85	0.67	1792
32	24	6.70	3.69	0.55	1647	6.45	3.55	0.55	1738	6.30	3.47	0.55	1792	6.10	3.36	0.55	1882
32	26	6.90	2.97	0.43	1738	6.70	2.88	0.43	1828	6.60	2.84	0.43	1882	6.40	2.75	0.43	1937

NOTE Q :Total capacity (kW) SHF :Sensible heat factor DB :Dry-bulb temperature
SHC :Sensible heat capacity (kW) INPUT :Total power input (W) WB :Wet-bulb temperature

PERFORMANCE DATA
COOL operation (230V)

MS-GE50VB : MU-GE50VB

CAPACITY : 5.0 (kW) SHF : 0.65 INPUT : 1810 (W)

		OUTDOOR DB(°C)															
INDOOR DB(°C)	INDOOR WB(°C)	35				40				43				46			
		Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	4.90	2.30	0.47	1774	4.50	2.12	0.47	1882	4.33	2.03	0.47	1919	4.15	1.95	0.47	1955
21	20	5.15	1.80	0.35	1846	4.80	1.68	0.35	1937	4.63	1.62	0.35	1991	4.45	1.56	0.35	2045
22	18	4.90	2.50	0.51	1774	4.50	2.30	0.51	1882	4.33	2.21	0.51	1919	4.15	2.12	0.51	1955
22	20	5.15	2.01	0.39	1846	4.80	1.87	0.39	1937	4.63	1.80	0.39	1991	4.45	1.74	0.39	2045
22	22	5.45	1.47	0.27	1919	5.10	1.38	0.27	2027	4.93	1.33	0.27	2063	4.75	1.28	0.27	2100
23	18	4.90	2.70	0.55	1774	4.50	2.48	0.55	1882	4.33	2.38	0.55	1919	4.15	2.28	0.55	1955
23	20	5.15	2.21	0.43	1846	4.80	2.06	0.43	1937	4.63	1.99	0.43	1991	4.45	1.91	0.43	2045
23	22	5.45	1.69	0.31	1919	5.10	1.58	0.31	2027	4.93	1.53	0.31	2063	4.75	1.47	0.31	2100
24	18	4.90	2.89	0.59	1774	4.50	2.66	0.59	1882	4.33	2.55	0.59	1919	4.15	2.45	0.59	1955
24	20	5.15	2.42	0.47	1846	4.80	2.26	0.47	1937	4.63	2.17	0.47	1991	4.45	2.09	0.47	2045
24	22	5.45	1.91	0.35	1919	5.10	1.79	0.35	2027	4.93	1.72	0.35	2063	4.75	1.66	0.35	2100
24	24	5.75	1.32	0.23	1991	5.40	1.24	0.23	2082	5.25	1.21	0.23	2127	5.10	1.17	0.23	2172
25	18	4.90	3.09	0.63	1774	4.50	2.84	0.63	1882	4.33	2.72	0.63	1919	4.15	2.61	0.63	1955
25	20	5.15	2.63	0.51	1846	4.80	2.45	0.51	1937	4.63	2.36	0.51	1991	4.45	2.27	0.51	2045
25	22	5.45	2.13	0.39	1919	5.10	1.99	0.39	2027	4.93	1.92	0.39	2063	4.75	1.85	0.39	2100
25	24	5.75	1.55	0.27	1991	5.40	1.46	0.27	2082	5.25	1.42	0.27	2127	5.10	1.38	0.27	2172
26	18	4.90	3.28	0.67	1774	4.50	3.02	0.67	1882	4.33	2.90	0.67	1919	4.15	2.78	0.67	1955
26	20	5.15	2.83	0.55	1846	4.80	2.64	0.55	1937	4.63	2.54	0.55	1991	4.45	2.45	0.55	2045
26	22	5.45	2.34	0.43	1919	5.10	2.19	0.43	2027	4.93	2.12	0.43	2063	4.75	2.04	0.43	2100
26	24	5.75	1.78	0.31	1991	5.40	1.67	0.31	2082	5.25	1.63	0.31	2127	5.10	1.58	0.31	2172
26	26	6.05	1.15	0.19	2063	5.70	1.08	0.19	2154	5.53	1.05	0.19	2199	5.35	1.02	0.19	2244
27	18	4.90	3.48	0.71	1774	4.50	3.20	0.71	1882	4.33	3.07	0.71	1919	4.15	2.95	0.71	1955
27	20	5.15	3.04	0.59	1846	4.80	2.83	0.59	1937	4.63	2.73	0.59	1991	4.45	2.63	0.59	2045
27	22	5.45	2.56	0.47	1919	5.10	2.40	0.47	2027	4.93	2.31	0.47	2063	4.75	2.23	0.47	2100
27	24	5.75	2.01	0.35	1991	5.40	1.89	0.35	2082	5.25	1.84	0.35	2127	5.10	1.79	0.35	2172
27	26	6.05	1.39	0.23	2063	5.70	1.31	0.23	2154	5.53	1.27	0.23	2199	5.35	1.23	0.23	2244
28	18	4.90	3.68	0.75	1774	4.50	3.38	0.75	1882	4.33	3.24	0.75	1919	4.15	3.11	0.75	1955
28	20	5.15	3.24	0.63	1846	4.80	3.02	0.63	1937	4.63	2.91	0.63	1991	4.45	2.80	0.63	2045
28	22	5.45	2.78	0.51	1919	5.10	2.60	0.51	2027	4.93	2.51	0.51	2063	4.75	2.42	0.51	2100
28	24	5.75	2.24	0.39	1991	5.40	2.11	0.39	2082	5.25	2.05	0.39	2127	5.10	1.99	0.39	2172
28	26	6.05	1.63	0.27	2063	5.70	1.54	0.27	2154	5.53	1.49	0.27	2199	5.35	1.44	0.27	2244
29	18	4.90	3.87	0.79	1774	4.50	3.56	0.79	1882	4.33	3.42	0.79	1919	4.15	3.28	0.79	1955
29	20	5.15	3.45	0.67	1846	4.80	3.22	0.67	1937	4.63	3.10	0.67	1991	4.45	2.98	0.67	2045
29	22	5.45	3.00	0.55	1919	5.10	2.81	0.55	2027	4.93	2.71	0.55	2063	4.75	2.61	0.55	2100
29	24	5.75	2.47	0.43	1991	5.40	2.32	0.43	2082	5.25	2.26	0.43	2127	5.10	2.19	0.43	2172
29	26	6.05	1.88	0.31	2063	5.70	1.77	0.31	2154	5.53	1.71	0.31	2199	5.35	1.66	0.31	2244
30	18	4.90	4.07	0.83	1774	4.50	3.74	0.83	1882	4.33	3.59	0.83	1919	4.15	3.44	0.83	1955
30	20	5.15	3.66	0.71	1846	4.80	3.41	0.71	1937	4.63	3.28	0.71	1991	4.45	3.16	0.71	2045
30	22	5.45	3.22	0.59	1919	5.10	3.01	0.59	2027	4.93	2.91	0.59	2063	4.75	2.80	0.59	2100
30	24	5.75	2.70	0.47	1991	5.40	2.54	0.47	2082	5.25	2.47	0.47	2127	5.10	2.40	0.47	2172
30	26	6.05	2.12	0.35	2063	5.70	2.00	0.35	2154	5.53	1.93	0.35	2199	5.35	1.87	0.35	2244
31	18	4.90	4.26	0.87	1774	4.50	3.92	0.87	1882	4.33	3.76	0.87	1919	4.15	3.61	0.87	1955
31	20	5.15	3.86	0.75	1846	4.80	3.60	0.75	1937	4.63	3.47	0.75	1991	4.45	3.34	0.75	2045
31	22	5.45	3.43	0.63	1919	5.10	3.21	0.63	2027	4.93	3.10	0.63	2063	4.75	2.99	0.63	2100
31	24	5.75	2.93	0.51	1991	5.40	2.75	0.51	2082	5.25	2.68	0.51	2127	5.10	2.60	0.51	2172
31	26	6.05	2.36	0.39	2063	5.70	2.22	0.39	2154	5.53	2.15	0.39	2199	5.35	2.09	0.39	2244
32	18	4.90	4.46	0.91	1774	4.50	4.10	0.91	1882	4.33	3.94	0.91	1919	4.15	3.78	0.91	1955
32	20	5.15	4.07	0.79	1846	4.80	3.79	0.79	1937	4.63	3.65	0.79	1991	4.45	3.52	0.79	2045
32	22	5.45	3.65	0.67	1919	5.10	3.42	0.67	2027	4.93	3.30	0.67	2063	4.75	3.18	0.67	2100
32	24	5.75	3.16	0.55	1991	5.40	2.97	0.55	2082	5.25	2.89	0.55	2127	5.10	2.81	0.55	2172
32	26	6.05	2.60	0.43	2063	5.70	2.45	0.43	2154	5.53	2.38	0.43	2199	5.35	2.30	0.43	2244

NOTE Q :Total capacity (kW) SHF :Sensible heat factor DB :Dry-bulb temperature
SHC :Sensible heat capacity (kW) INPUT :Total power input (W) WB :Wet-bulb temperature

PERFORMANCE DATA
COOL operation (230V)

MSH-GE50VB : MUH-GE50VB

CAPACITY : 5.0 (kW) SHF : 0.65 INPUT : 1780 (W)

		OUTDOOR DB(°C)															
INDOOR DB(°C)	INDOOR WB(°C)	21				25				27				30			
		Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	5.88	2.76	0.47	1424	5.63	2.64	0.47	1495	5.40	2.54	0.47	1566	5.20	2.44	0.47	1638
21	20	6.13	2.14	0.35	1495	5.88	2.06	0.35	1584	5.70	2.00	0.35	1620	5.50	1.93	0.35	1691
22	18	5.88	3.00	0.51	1424	5.63	2.87	0.51	1495	5.40	2.75	0.51	1566	5.20	2.65	0.51	1638
22	20	6.13	2.39	0.39	1495	5.88	2.29	0.39	1584	5.70	2.22	0.39	1620	5.50	2.15	0.39	1691
22	22	6.38	1.72	0.27	1549	6.15	1.66	0.27	1647	6.00	1.62	0.27	1691	5.75	1.55	0.27	1762
23	18	5.88	3.23	0.55	1424	5.63	3.09	0.55	1495	5.40	2.97	0.55	1566	5.20	2.86	0.55	1638
23	20	6.13	2.63	0.43	1495	5.88	2.53	0.43	1584	5.70	2.45	0.43	1620	5.50	2.37	0.43	1691
23	22	6.38	1.98	0.31	1549	6.15	1.91	0.31	1647	6.00	1.86	0.31	1691	5.75	1.78	0.31	1762
24	18	5.88	3.47	0.59	1424	5.63	3.32	0.59	1495	5.40	3.19	0.59	1566	5.20	3.07	0.59	1638
24	20	6.13	2.88	0.47	1495	5.88	2.76	0.47	1584	5.70	2.68	0.47	1620	5.50	2.59	0.47	1691
24	22	6.38	2.23	0.35	1549	6.15	2.15	0.35	1647	6.00	2.10	0.35	1691	5.75	2.01	0.35	1762
24	24	6.70	1.54	0.23	1620	6.45	1.48	0.23	1709	6.30	1.45	0.23	1762	6.10	1.40	0.23	1851
25	18	5.88	3.70	0.63	1424	5.63	3.54	0.63	1495	5.40	3.40	0.63	1566	5.20	3.28	0.63	1638
25	20	6.13	3.12	0.51	1495	5.88	3.00	0.51	1584	5.70	2.91	0.51	1620	5.50	2.81	0.51	1691
25	22	6.38	2.49	0.39	1549	6.15	2.40	0.39	1647	6.00	2.34	0.39	1691	5.75	2.24	0.39	1762
25	24	6.70	1.81	0.27	1620	6.45	1.74	0.27	1709	6.30	1.70	0.27	1762	6.10	1.65	0.27	1851
26	18	5.88	3.94	0.67	1424	5.63	3.77	0.67	1495	5.40	3.62	0.67	1566	5.20	3.48	0.67	1638
26	20	6.13	3.37	0.55	1495	5.88	3.23	0.55	1584	5.70	3.14	0.55	1620	5.50	3.03	0.55	1691
26	22	6.38	2.74	0.43	1549	6.15	2.64	0.43	1647	6.00	2.58	0.43	1691	5.75	2.47	0.43	1762
26	24	6.70	2.08	0.31	1620	6.45	2.00	0.31	1709	6.30	1.95	0.31	1762	6.10	1.89	0.31	1851
26	26	6.90	1.31	0.19	1709	6.70	1.27	0.19	1798	6.60	1.25	0.19	1851	6.40	1.22	0.19	1905
27	18	5.88	4.17	0.71	1424	5.63	3.99	0.71	1495	5.40	3.83	0.71	1566	5.20	3.69	0.71	1638
27	20	6.13	3.61	0.59	1495	5.88	3.47	0.59	1584	5.70	3.36	0.59	1620	5.50	3.25	0.59	1691
27	22	6.38	3.00	0.47	1549	6.15	2.89	0.47	1647	6.00	2.82	0.47	1691	5.75	2.70	0.47	1762
27	24	6.70	2.35	0.35	1620	6.45	2.26	0.35	1709	6.30	2.21	0.35	1762	6.10	2.14	0.35	1851
27	26	6.90	1.59	0.23	1709	6.70	1.54	0.23	1798	6.60	1.52	0.23	1851	6.40	1.47	0.23	1905
28	18	5.88	4.41	0.75	1424	5.63	4.22	0.75	1495	5.40	4.05	0.75	1566	5.20	3.90	0.75	1638
28	20	6.13	3.86	0.63	1495	5.88	3.70	0.63	1584	5.70	3.59	0.63	1620	5.50	3.47	0.63	1691
28	22	6.38	3.25	0.51	1549	6.15	3.14	0.51	1647	6.00	3.06	0.51	1691	5.75	2.93	0.51	1762
28	24	6.70	2.61	0.39	1620	6.45	2.52	0.39	1709	6.30	2.46	0.39	1762	6.10	2.38	0.39	1851
28	26	6.90	1.86	0.27	1709	6.70	1.81	0.27	1798	6.60	1.78	0.27	1851	6.40	1.73	0.27	1905
29	18	5.88	4.64	0.79	1424	5.63	4.44	0.79	1495	5.40	4.27	0.79	1566	5.20	4.11	0.79	1638
29	20	6.13	4.10	0.67	1495	5.88	3.94	0.67	1584	5.70	3.82	0.67	1620	5.50	3.69	0.67	1691
29	22	6.38	3.51	0.55	1549	6.15	3.38	0.55	1647	6.00	3.30	0.55	1691	5.75	3.16	0.55	1762
29	24	6.70	2.88	0.43	1620	6.45	2.77	0.43	1709	6.30	2.71	0.43	1762	6.10	2.62	0.43	1851
29	26	6.90	2.14	0.31	1709	6.70	2.08	0.31	1798	6.60	2.05	0.31	1851	6.40	1.98	0.31	1905
30	18	5.88	4.88	0.83	1424	5.63	4.67	0.83	1495	5.40	4.48	0.83	1566	5.20	4.32	0.83	1638
30	20	6.13	4.35	0.71	1495	5.88	4.17	0.71	1584	5.70	4.05	0.71	1620	5.50	3.91	0.71	1691
30	22	6.38	3.76	0.59	1549	6.15	3.63	0.59	1647	6.00	3.54	0.59	1691	5.75	3.39	0.59	1762
30	24	6.70	3.15	0.47	1620	6.45	3.03	0.47	1709	6.30	2.96	0.47	1762	6.10	2.87	0.47	1851
30	26	6.90	2.42	0.35	1709	6.70	2.35	0.35	1798	6.60	2.31	0.35	1851	6.40	2.24	0.35	1905
31	18	5.88	5.11	0.87	1424	5.63	4.89	0.87	1495	5.40	4.70	0.87	1566	5.20	4.52	0.87	1638
31	20	6.13	4.59	0.75	1495	5.88	4.41	0.75	1584	5.70	4.28	0.75	1620	5.50	4.13	0.75	1691
31	22	6.38	4.02	0.63	1549	6.15	3.87	0.63	1647	6.00	3.78	0.63	1691	5.75	3.62	0.63	1762
31	24	6.70	3.42	0.51	1620	6.45	3.29	0.51	1709	6.30	3.21	0.51	1762	6.10	3.11	0.51	1851
31	26	6.90	2.69	0.39	1709	6.70	2.61	0.39	1798	6.60	2.57	0.39	1851	6.40	2.50	0.39	1905
32	18	5.88	5.35	0.91	1424	5.63	5.12	0.91	1495	5.40	4.91	0.91	1566	5.20	4.73	0.91	1638
32	20	6.13	4.84	0.79	1495	5.88	4.64	0.79	1584	5.70	4.50	0.79	1620	5.50	4.35	0.79	1691
32	22	6.38	4.27	0.67	1549	6.15	4.12	0.67	1647	6.00	4.02	0.67	1691	5.75	3.85	0.67	1762
32	24	6.70	3.69	0.55	1620	6.45	3.55	0.55	1709	6.30	3.47	0.55	1762	6.10	3.36	0.55	1851
32	26	6.90	2.97	0.43	1709	6.70	2.88	0.43	1798	6.60	2.84	0.43	1851	6.40	2.75	0.43	1905

NOTE Q :Total capacity (kW) SHF :Sensible heat factor DB :Dry-bulb temperature
SHC :Sensible heat capacity (kW) INPUT :Total power input (W) WB :Wet-bulb temperature

PERFORMANCE DATA
COOL operation (230V)

MSH-GE50VB : MUH-GE50VB

CAPACITY : 5.0 (kW) SHF : 0.65 INPUT : 1780 (W)

		OUTDOOR DB(°C)															
INDOOR DB(°C)	INDOOR WB(°C)	35				40				43				46			
		Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	4.90	2.30	0.47	1744	4.50	2.12	0.47	1851	4.33	2.03	0.47	1887	4.15	1.95	0.47	1922
21	20	5.15	1.80	0.35	1816	4.80	1.68	0.35	1905	4.63	1.62	0.35	1958	4.45	1.56	0.35	2011
22	18	4.90	2.50	0.51	1744	4.50	2.30	0.51	1851	4.33	2.21	0.51	1887	4.15	2.12	0.51	1922
22	20	5.15	2.01	0.39	1816	4.80	1.87	0.39	1905	4.63	1.80	0.39	1958	4.45	1.74	0.39	2011
22	22	5.45	1.47	0.27	1887	5.10	1.38	0.27	1994	4.93	1.33	0.27	2029	4.75	1.28	0.27	2065
23	18	4.90	2.70	0.55	1744	4.50	2.48	0.55	1851	4.33	2.38	0.55	1887	4.15	2.28	0.55	1922
23	20	5.15	2.21	0.43	1816	4.80	2.06	0.43	1905	4.63	1.99	0.43	1958	4.45	1.91	0.43	2011
23	22	5.45	1.69	0.31	1887	5.10	1.58	0.31	1994	4.93	1.53	0.31	2029	4.75	1.47	0.31	2065
24	18	4.90	2.89	0.59	1744	4.50	2.66	0.59	1851	4.33	2.55	0.59	1887	4.15	2.45	0.59	1922
24	20	5.15	2.42	0.47	1816	4.80	2.26	0.47	1905	4.63	2.17	0.47	1958	4.45	2.09	0.47	2011
24	22	5.45	1.91	0.35	1887	5.10	1.79	0.35	1994	4.93	1.72	0.35	2029	4.75	1.66	0.35	2065
24	24	5.75	1.32	0.23	1958	5.40	1.24	0.23	2047	5.25	1.21	0.23	2092	5.10	1.17	0.23	2136
25	18	4.90	3.09	0.63	1744	4.50	2.84	0.63	1851	4.33	2.72	0.63	1887	4.15	2.61	0.63	1922
25	20	5.15	2.63	0.51	1816	4.80	2.45	0.51	1905	4.63	2.36	0.51	1958	4.45	2.27	0.51	2011
25	22	5.45	2.13	0.39	1887	5.10	1.99	0.39	1994	4.93	1.92	0.39	2029	4.75	1.85	0.39	2065
25	24	5.75	1.55	0.27	1958	5.40	1.46	0.27	2047	5.25	1.42	0.27	2092	5.10	1.38	0.27	2136
26	18	4.90	3.28	0.67	1744	4.50	3.02	0.67	1851	4.33	2.90	0.67	1887	4.15	2.78	0.67	1922
26	20	5.15	2.83	0.55	1816	4.80	2.64	0.55	1905	4.63	2.54	0.55	1958	4.45	2.45	0.55	2011
26	22	5.45	2.34	0.43	1887	5.10	2.19	0.43	1994	4.93	2.12	0.43	2029	4.75	2.04	0.43	2065
26	24	5.75	1.78	0.31	1958	5.40	1.67	0.31	2047	5.25	1.63	0.31	2092	5.10	1.58	0.31	2136
26	26	6.05	1.15	0.19	2029	5.70	1.08	0.19	2118	5.53	1.05	0.19	2163	5.35	1.02	0.19	2207
27	18	4.90	3.48	0.71	1744	4.50	3.20	0.71	1851	4.33	3.07	0.71	1887	4.15	2.95	0.71	1922
27	20	5.15	3.04	0.59	1816	4.80	2.83	0.59	1905	4.63	2.73	0.59	1958	4.45	2.63	0.59	2011
27	22	5.45	2.56	0.47	1887	5.10	2.40	0.47	1994	4.93	2.31	0.47	2029	4.75	2.23	0.47	2065
27	24	5.75	2.01	0.35	1958	5.40	1.89	0.35	2047	5.25	1.84	0.35	2092	5.10	1.79	0.35	2136
27	26	6.05	1.39	0.23	2029	5.70	1.31	0.23	2118	5.53	1.27	0.23	2163	5.35	1.23	0.23	2207
28	18	4.90	3.68	0.75	1744	4.50	3.38	0.75	1851	4.33	3.24	0.75	1887	4.15	3.11	0.75	1922
28	20	5.15	3.24	0.63	1816	4.80	3.02	0.63	1905	4.63	2.91	0.63	1958	4.45	2.80	0.63	2011
28	22	5.45	2.78	0.51	1887	5.10	2.60	0.51	1994	4.93	2.51	0.51	2029	4.75	2.42	0.51	2065
28	24	5.75	2.24	0.39	1958	5.40	2.11	0.39	2047	5.25	2.05	0.39	2092	5.10	1.99	0.39	2136
28	26	6.05	1.63	0.27	2029	5.70	1.54	0.27	2118	5.53	1.49	0.27	2163	5.35	1.44	0.27	2207
29	18	4.90	3.87	0.79	1744	4.50	3.56	0.79	1851	4.33	3.42	0.79	1887	4.15	3.28	0.79	1922
29	20	5.15	3.45	0.67	1816	4.80	3.22	0.67	1905	4.63	3.10	0.67	1958	4.45	2.98	0.67	2011
29	22	5.45	3.00	0.55	1887	5.10	2.81	0.55	1994	4.93	2.71	0.55	2029	4.75	2.61	0.55	2065
29	24	5.75	2.47	0.43	1958	5.40	2.32	0.43	2047	5.25	2.26	0.43	2092	5.10	2.19	0.43	2136
29	26	6.05	1.88	0.31	2029	5.70	1.77	0.31	2118	5.53	1.71	0.31	2163	5.35	1.66	0.31	2207
30	18	4.90	4.07	0.83	1744	4.50	3.74	0.83	1851	4.33	3.59	0.83	1887	4.15	3.44	0.83	1922
30	20	5.15	3.66	0.71	1816	4.80	3.41	0.71	1905	4.63	3.28	0.71	1958	4.45	3.16	0.71	2011
30	22	5.45	3.22	0.59	1887	5.10	3.01	0.59	1994	4.93	2.91	0.59	2029	4.75	2.80	0.59	2065
30	24	5.75	2.70	0.47	1958	5.40	2.54	0.47	2047	5.25	2.47	0.47	2092	5.10	2.40	0.47	2136
30	26	6.05	2.12	0.35	2029	5.70	2.00	0.35	2118	5.53	1.93	0.35	2163	5.35	1.87	0.35	2207
31	18	4.90	4.26	0.87	1744	4.50	3.92	0.87	1851	4.33	3.76	0.87	1887	4.15	3.61	0.87	1922
31	20	5.15	3.86	0.75	1816	4.80	3.60	0.75	1905	4.63	3.47	0.75	1958	4.45	3.34	0.75	2011
31	22	5.45	3.43	0.63	1887	5.10	3.21	0.63	1994	4.93	3.10	0.63	2029	4.75	2.99	0.63	2065
31	24	5.75	2.93	0.51	1958	5.40	2.75	0.51	2047	5.25	2.68	0.51	2092	5.10	2.60	0.51	2136
31	26	6.05	2.36	0.39	2029	5.70	2.22	0.39	2118	5.53	2.15	0.39	2163	5.35	2.09	0.39	2207
32	18	4.90	4.46	0.91	1744	4.50	4.10	0.91	1851	4.33	3.94	0.91	1887	4.15	3.78	0.91	1922
32	20	5.15	4.07	0.79	1816	4.80	3.79	0.79	1905	4.63	3.65	0.79	1958	4.45	3.52	0.79	2011
32	22	5.45	3.65	0.67	1887	5.10	3.42	0.67	1994	4.93	3.30	0.67	2029	4.75	3.18	0.67	2065
32	24	5.75	3.16	0.55	1958	5.40	2.97	0.55	2047	5.25	2.89	0.55	2092	5.10	2.81	0.55	2136
32	26	6.05	2.60	0.43	2029	5.70	2.45	0.43	2118	5.53	2.38	0.43	2163	5.35	2.30	0.43	2207

NOTE Q :Total capacity (kW) SHF :Sensible heat factor DB :Dry-bulb temperature
SHC :Sensible heat capacity (kW) INPUT :Total power input (W) WB :Wet-bulb temperature

PERFORMANCE DATA

HEAT operation (230V)

MSH-GE50VB : MUH-GE50VB

CAPACITY: 5.2 (kW) INPUT : 1610 (W)

INDOOR DB(°C)	OUTDOOR WB(°C)													
	-10		-5		0		5		10		15		20	
	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT
15	3.28	1047	3.95	1256	4.63	1417	5.30	1530	5.98	1626	6.60	1674	7.28	1707
21	3.12	1127	3.74	1336	4.42	1481	5.04	1594	5.72	1674	6.34	1723	6.99	1787
26	2.81	1208	3.48	1417	4.11	1562	4.78	1674	5.46	1755	6.08	1803	6.76	1852

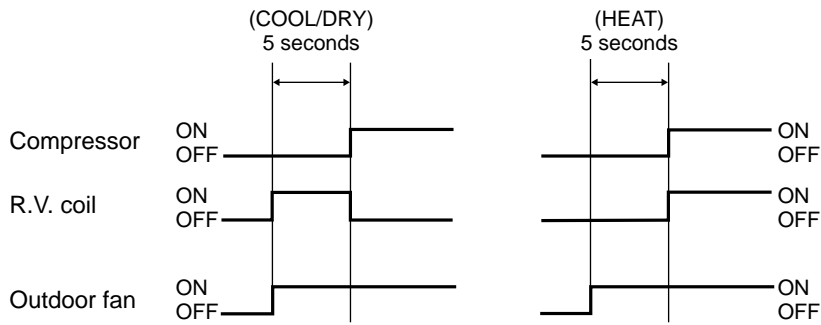
NOTE Q:Total capacity (kW) INPUT:Total power input (W) DB: Dry-bulb temperature WB: Wet-bulb temperature

9 ACTUATOR CONTROL

R.V. coil control

Heating ON
Cooling OFF
Dry OFF

NOTE: The 4-way valve reverses for 5 seconds right before start-up of the compressor.



MUH-GE50VB**10-1. COMPULSORY DEFROSTING MODE FOR SERVICE**

By short circuit of the connector JPDS and JPSS on the outdoor deicer P.C. board, defrosting mode can be accomplished regardless of the defrost interval restriction. (Refer to 11-4.)

Defrost thermistor RT61 must read below -3°C.

10-2. CHANGE IN DEFROST SETTING

<JRF> When the JRF wire of the deicer P.C. board is cut, the defrost interval time will be changed.

<JRG> When the JRG wire of the deicer P.C. board is cut, the defrost temperature will be changed. (Refer to 11-4.)

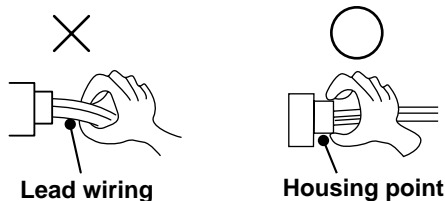
MODEL	Jumper wire	Change point
MUH-GE50VB	JRF	Defrost interval time changes from 40 minutes to 15 minutes.
	JRG	Defrost start temperature changes from -3°C to 0°C.

MU-GE50VB**MUH-GE50VB****11-1. CAUTIONS ON TROUBLESHOOTING****1. Before troubleshooting, check the following:**

- 1) Check the power supply voltage.
- 2) Check the indoor/outdoor connecting wire for mis-wiring.

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 electronic control P.C. board.
- 3) When removing the electronic control 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 housing of the connector. DO NOT pull the lead wires.

**3. Troubleshooting procedure**

- 1) First, check if the OPERATION INDICATOR lamp on the indoor unit is flashing ON and OFF to indicate an abnormality. To make sure, check how many times the OPERATION INDICATOR lamp is flashing ON and OFF before starting service work.
- 2) If the electronic control P.C. board seems to be defective, check the copper foil pattern for disconnection and the components for bursting and discoloration.

11-2. TROUBLE CRITERION OF MAIN PARTS

MU-GE50VB MUH-GE50VB

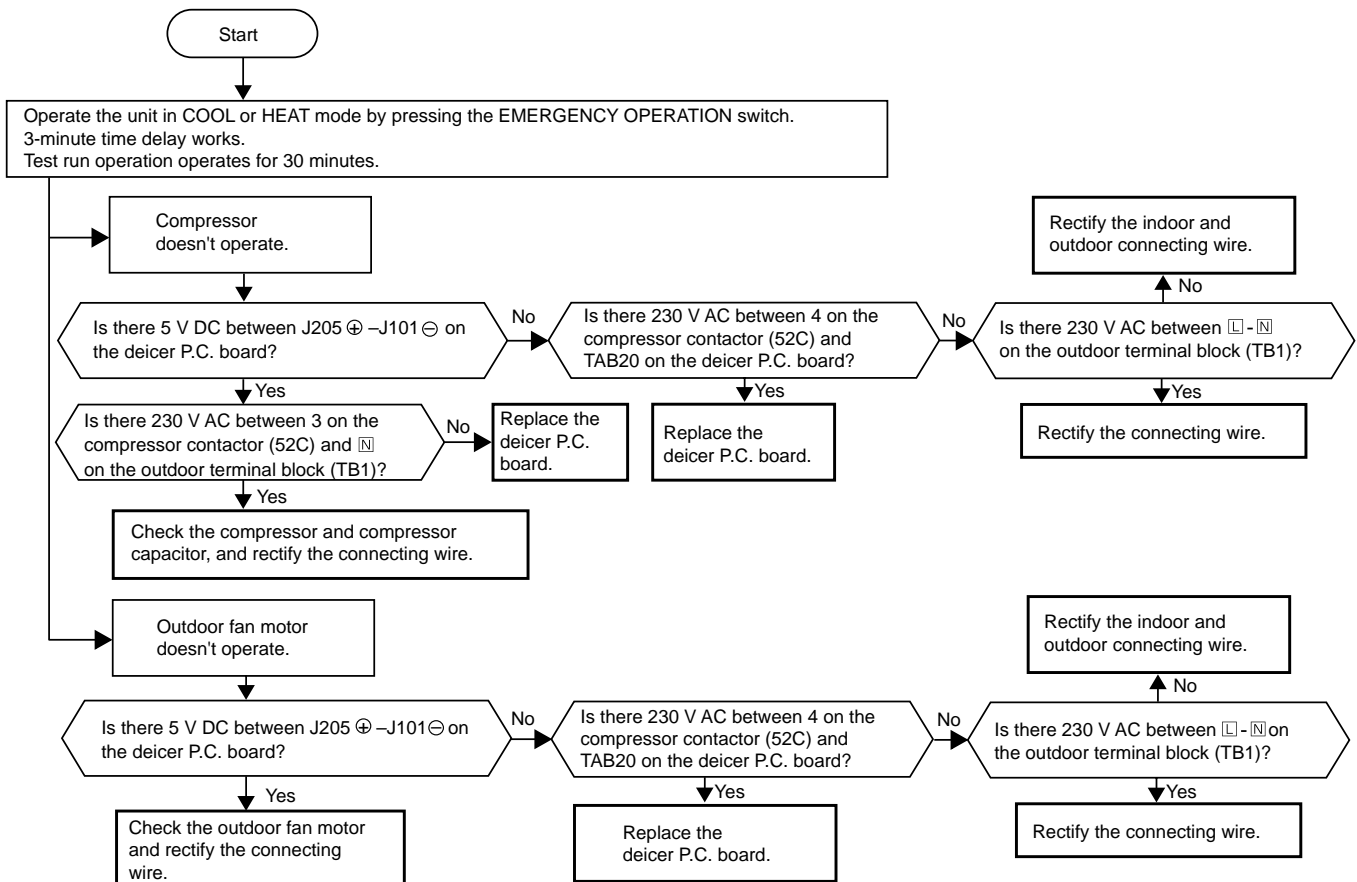
Part name	Check method and criterion	Figure											
Defrost thermistor (RT61) MUH-GE50VB	Measure the resistance with a tester. (Part temperature $-10^{\circ}\text{C} \sim 40^{\circ}\text{C}$) Refer to 11-4. "Test point diagram and voltage", "Outdoor deicer P.C. board", for the chart of thermistor.												
Compressor (MC) INNER PROTECTOR 150 \pm 5 $^{\circ}\text{C}$ OPEN 90 \pm 10 $^{\circ}\text{C}$ CLOSE	Measure the resistance between the terminals with a tester. (Coil wiring temperature $-10^{\circ}\text{C} \sim 40^{\circ}\text{C}$) <table border="1"> <thead> <tr> <th>Terminal</th> <th>Normal</th> </tr> </thead> <tbody> <tr> <td>C-R</td> <td>1.59 ~ 1.95 Ω</td> </tr> <tr> <td>C-S</td> <td>2.65 ~ 3.24 Ω</td> </tr> </tbody> </table>	Terminal	Normal	C-R	1.59 ~ 1.95 Ω	C-S	2.65 ~ 3.24 Ω						
Terminal	Normal												
C-R	1.59 ~ 1.95 Ω												
C-S	2.65 ~ 3.24 Ω												
Outdoor fan motor (MF) INNER FUSE 152 $^{\circ}\text{C}$ CUT OFF	Measure the resistance between the terminals with a tester. (Coil wiring temperature $-10^{\circ}\text{C} \sim 40^{\circ}\text{C}$) <table border="1"> <thead> <tr> <th rowspan="2">Color of lead wire</th> <th colspan="2">Normal</th> </tr> <tr> <th>MU-GE50VB</th> <th>MUH-GE50VB</th> </tr> </thead> <tbody> <tr> <td>WHT-BLK</td> <td>190 ~ 233 Ω</td> <td>190 ~ 233 Ω</td> </tr> <tr> <td>BLK-RED</td> <td>271 ~ 332 Ω</td> <td>271 ~ 332 Ω</td> </tr> </tbody> </table>	Color of lead wire	Normal		MU-GE50VB	MUH-GE50VB	WHT-BLK	190 ~ 233 Ω	190 ~ 233 Ω	BLK-RED	271 ~ 332 Ω	271 ~ 332 Ω	
Color of lead wire	Normal												
	MU-GE50VB	MUH-GE50VB											
WHT-BLK	190 ~ 233 Ω	190 ~ 233 Ω											
BLK-RED	271 ~ 332 Ω	271 ~ 332 Ω											

(P) INNER PROTECTOR

11-3. TROUBLESHOOTING FLOW <MUH-GE50VB>

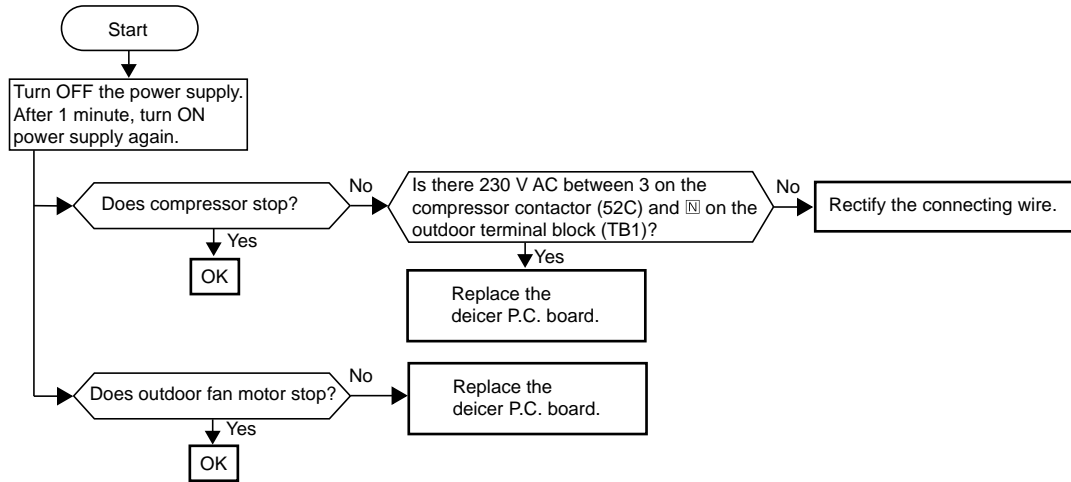
Compressor and/or outdoor fan motor does not operate.

A Check of outdoor unit



Compressor and/or outdoor fan motor does not stop.

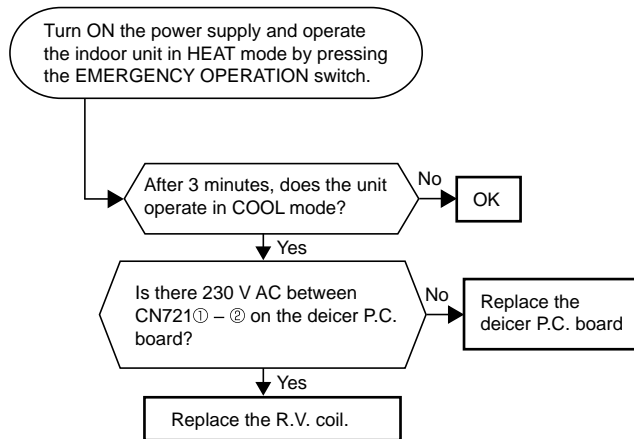
Ⓑ Check of outdoor unit



Ⓒ Check of R.V. coil

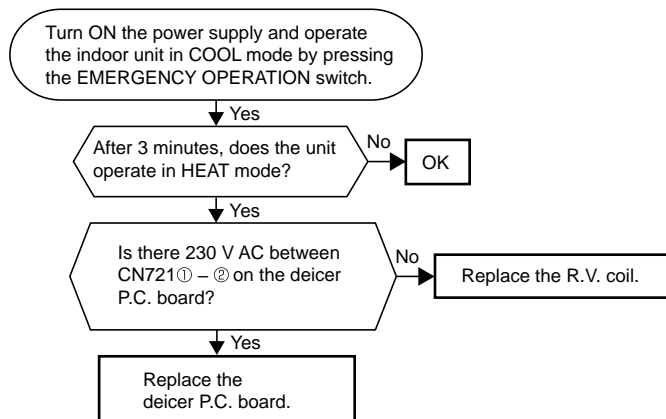
Unit operates COOL mode even if it is set to HEAT mode.

※ First, measure the resistance of R.V. coil to confirm it is disconnected or is not short-circuit.



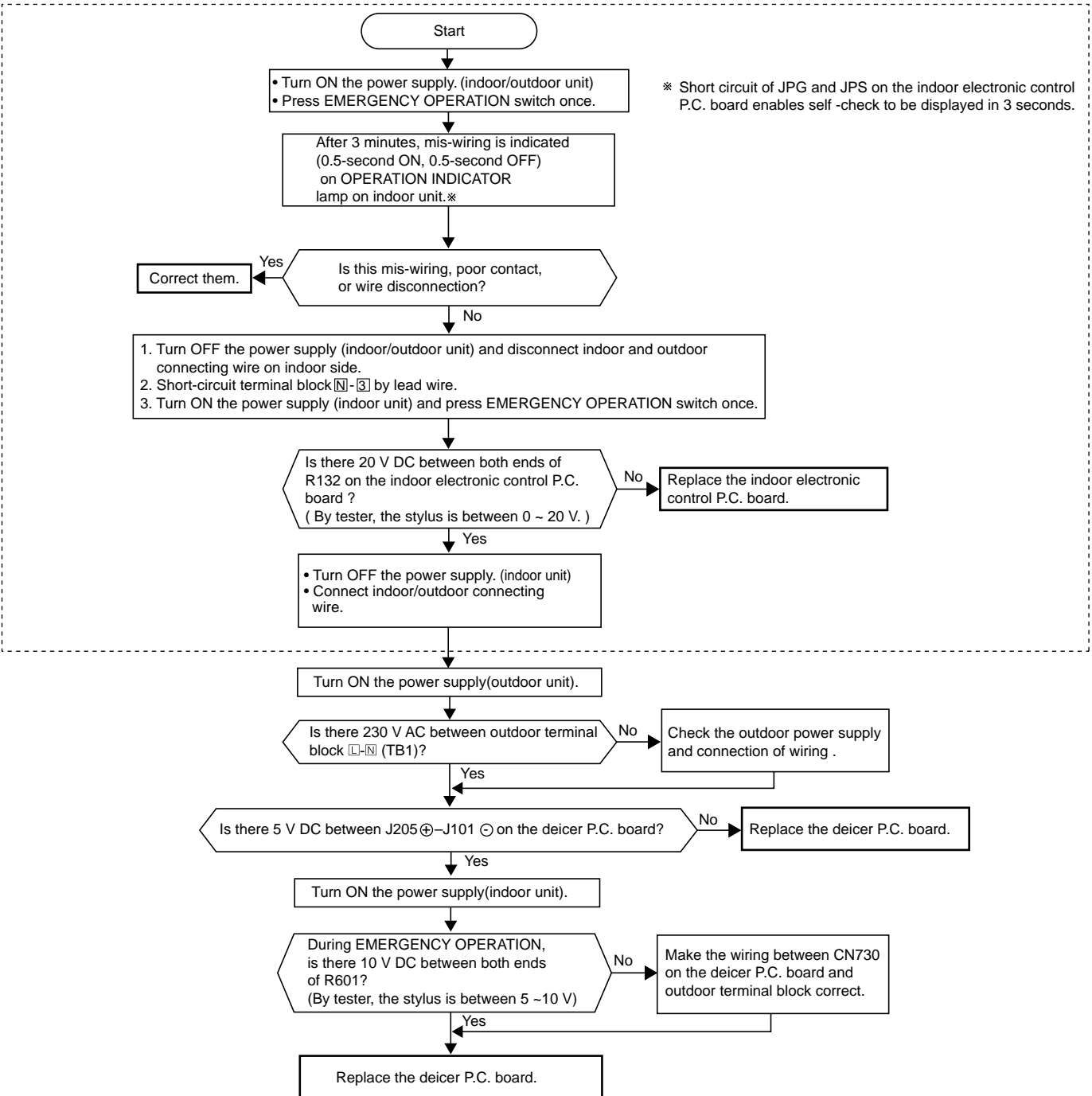
Unit operates HEAT mode even if it is set to COOL mode.

※ First, measure the resistance of R.V. coil to confirm it is disconnected or is not short-circuit.



When OPERATION INDICATOR lamp flashes 0.5-second intervals.
Outdoor unit does not operate.

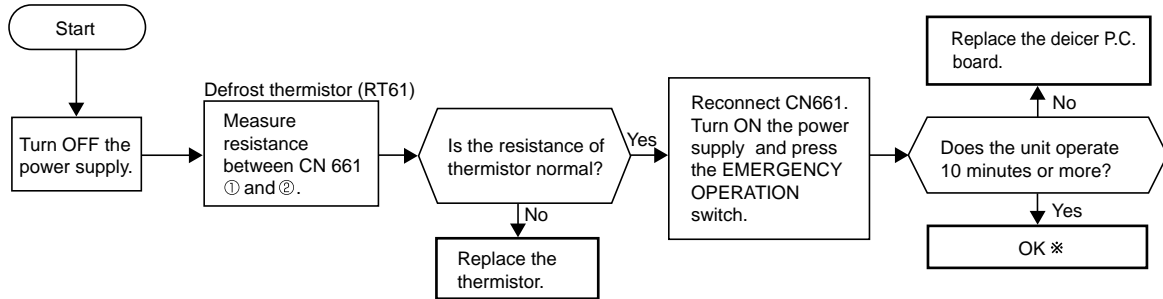
④ How to check mis-wiring and serial signal error



Refer to indoor unit service manual.

When OPERATION INDICATOR lamp flashes 6-time.
Thermistors in the outdoor unit are abnormal.

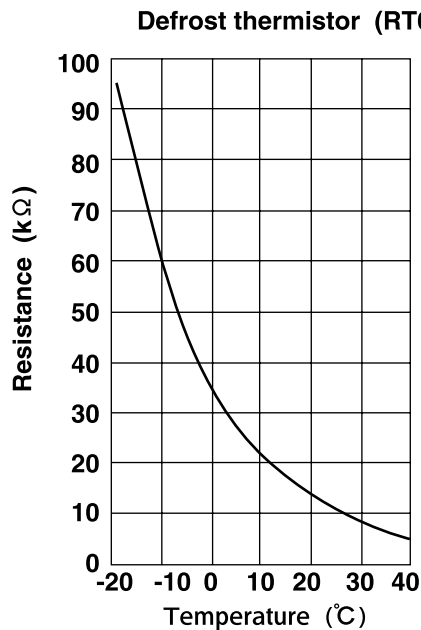
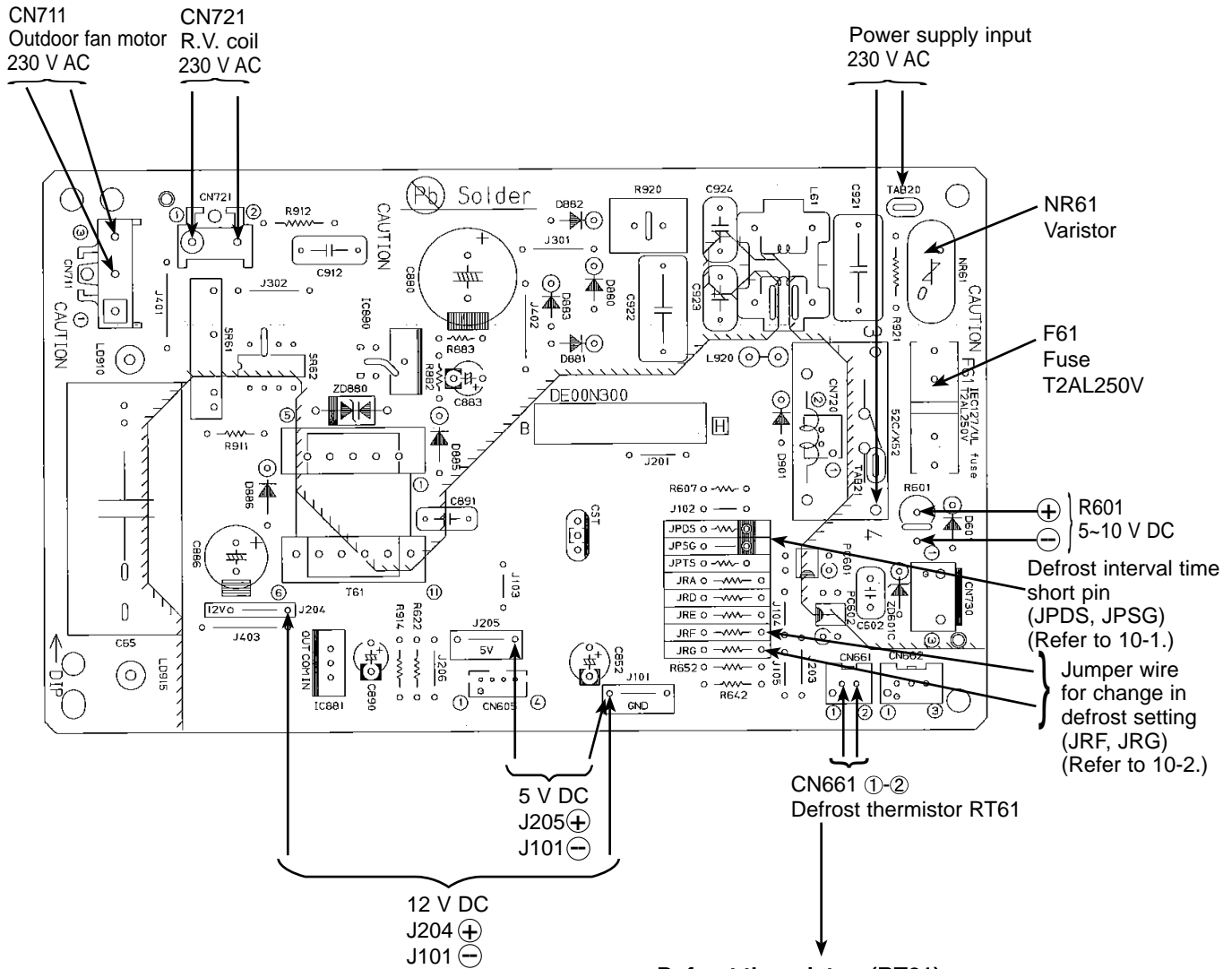
⑤ Check of outdoor thermistor



* Defective contact of the connector is considered.

11-4. TEST POINT DIAGRAM AND VOLTAGE MUH-GE50VB

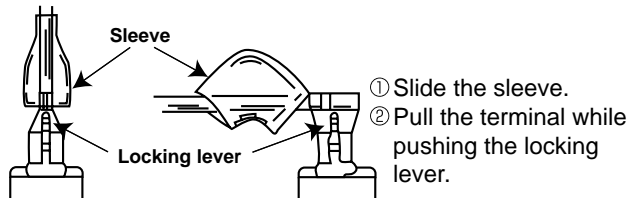
Outdoor deicer P.C. board



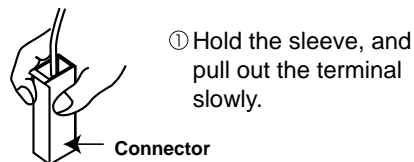
<"Terminal with locking mechanism" Detaching points>

The terminal which has the locking mechanism can be detached as shown below.
There are two types (Refer to (1) and (2)) of the terminal with locking mechanism.
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.



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



MU-GE50VB MUH-GE50VB

NOTE : Turn OFF power supply before disassembling.

OPERATING PROCEDURE	PHOTOS
<p>1. Removing the cabinet</p> <ol style="list-style-type: none"> (1) Remove the screw fixing the service panel. (2) Pull down the service panel and remove it. (3) Disconnect the power supply and indoor/outdoor connecting wire. (4) Remove the screws fixing the top panel. (5) Remove the top panel. (6) Remove the screws fixing the cabinet. (7) Remove the cabinet. (8) Remove the screws fixing the back panel. (9) Remove the back panel. 	<p>Photo 1</p> <p>Photo 2</p>



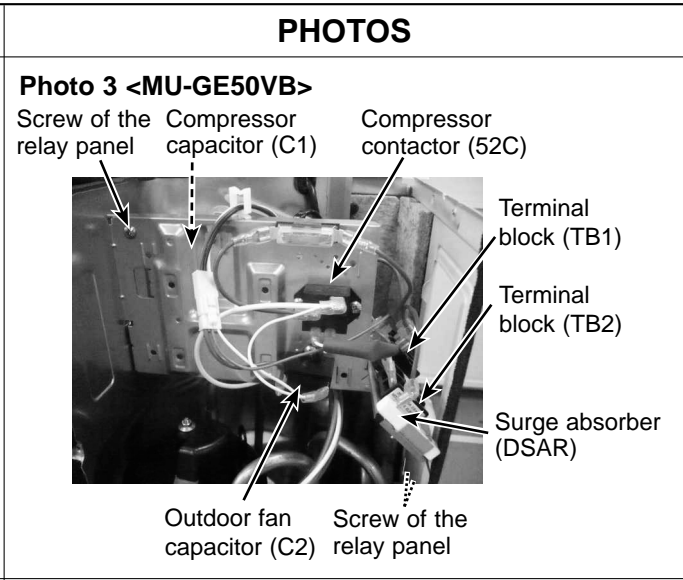
OPERATING PROCEDURE

2. Removing the electrical parts <MU-GE50VB>

(1) Remove the service panel and the cabinet. (Refer to 1.)

(2) Remove the following parts.

- Compressor capacitor (C1)
- Outdoor fan capacitor (C2)
- Terminal block (TB1, TB2)
- Surge absorber (DSAR)
- Compressor contactor (52C)

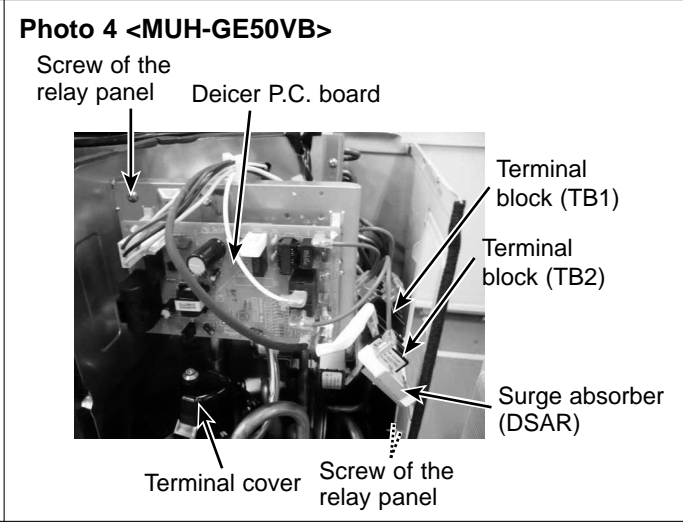


3. Removing the deicer P.C. board <MUH-GE50VB>

(1) Remove the service panel and the cabinet. (Refer to 1.)

(2) Disconnect all the connectors and the terminals on the deicer P.C. board.

(3) Remove the deicer P.C. board.



4. Removing the propeller and the outdoor fan motor

(1) Remove the cabinet. (Refer to 1.)

(2) Remove the propeller nut.

(3) Remove the propeller.

NOTE: Loosen the propeller in the rotating direction for removal.

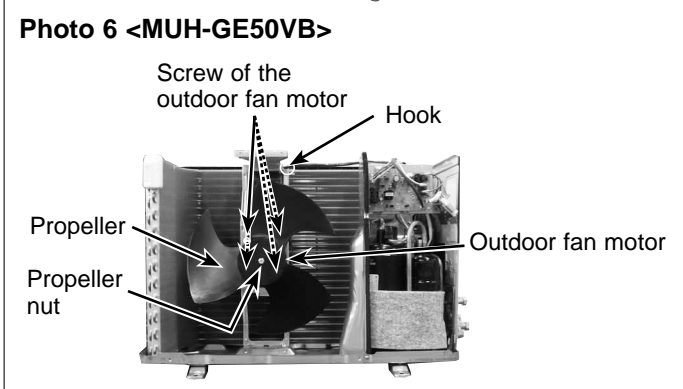
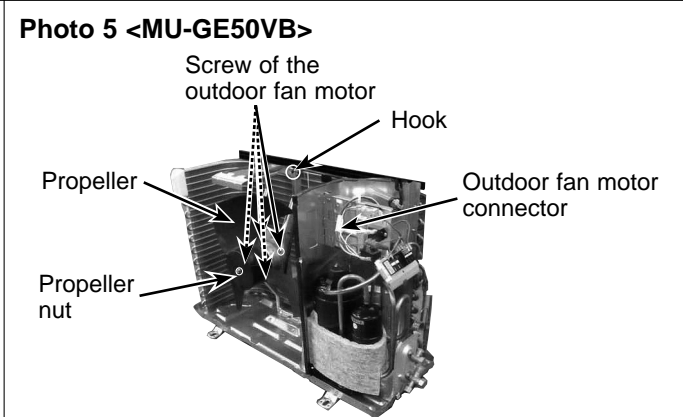
When attaching the propeller, align the mark on the propeller and the motor shaft cut section.

Set the propeller in position by using the cut on the shaft and the mark on the propeller.

(4) Disconnect the outdoor fan motor connector.

(5) Remove screws fixing the fan motor.

(6) Remove the outdoor fan motor.



OPERATING PROCEDURE

5. Removing the compressor

- (1) Remove the cabinet. (Refer to 1.)
- (2) Remove the relay panel.
- (3) Remove the soundproof felt.
- (4) Remove the terminal cover on the compressor.
- (5) Disconnect lead wires from the glass terminal of the compressor.
- (6) Recover gas from the refrigerant circuit.

NOTE: Recover gas from the pipes until the pressure gauge shows 0 kg/cm² (0 MPa).

- (7) Disconnect the welded part of the discharge pipe.
- (8) Disconnect the welded part of the suction pipe.
- (9) Remove nuts fixing the compressor.
- (10) Remove the compressor.

PHOTOS

Photo 7 <MU-GE50VB>

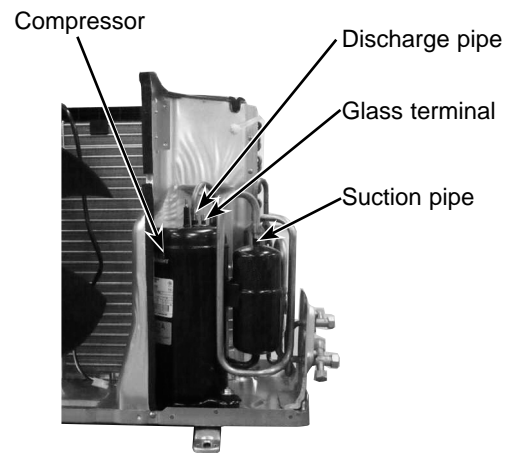
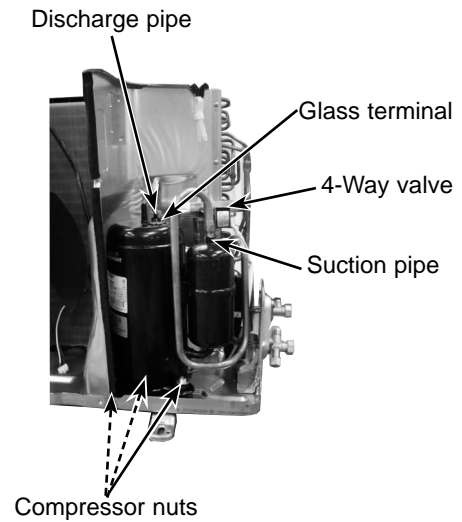


Photo 8 <MUH-GE50VB>





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