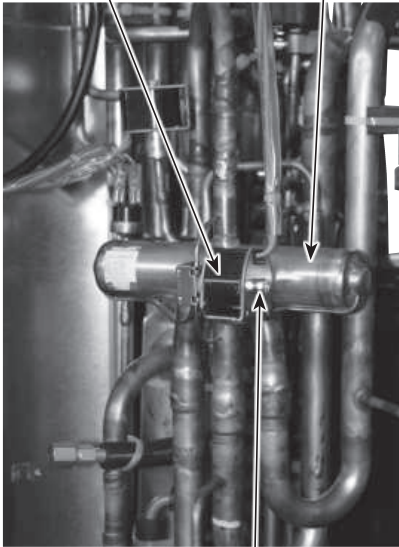




OPERATING PROCEDURE	PHOTOS/FIGURES
6. Removing the thermistor <Outdoor liquid pipe> (TH3) and Photo 9 thermistor <Compressor> (TH4), thermistor <HIC pipe> (TH2) (1) Remove the service panel. (See Photo 1) (2) Disconnect the connectors, TH3 (white) and TH4 (white), TH2 (black) on the multi controller circuit board in the electrical parts box. (3) Loosen the clamp for the lead wire in the rear of the electrical parts box. (4) Pull out the thermistor <Outdoor liquid pipe> (TH3) and thermistor <Compressor> (TH4) from the sensor holder. (See Photo 7 and 9)	Photo 9  Thermistor <Outdoor liquid pipe> (TH3)
7. Removing the 4-way valve coil (21S4) (1) Remove the service panel. (See Photo 1) [Removing the 4-way valve coil] (2) Remove 4-way valve coil fixing screw (M5 × 7). (3) Remove the 4-way valve coil by sliding the coil toward you. (4) Disconnect the connector 21S4 (green) on the multi controller circuit board in the electrical parts box.	Photo 10  4-way valve coil (21S4) 4-way valve 4-way valve coil fixing screw
8. Removing the 4-way valve (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (3) Remove the electrical parts box (See Photo 5) (4) Remove 3 valve bed fixing screws (4 × 10) and 4 ball valve and stop valve fixing screws (5 × 16), then remove the valve bed. (See Photo 4 and 7) (5) Remove 2 cover panel fixing screws (5 × 12), then slide the cover panel (front) upward to remove it. (The cover panel (front) is fixed to the cover panel (rear) with a hook on the rear side. (See Photo 4) (6) Remove the cover panel (rear) fixing screws (2 for right side and 2 for rear/ 5 × 12), then slide the cover panel (rear) upward to remove it. (See Photo 4) (The cover panel (rear) is fixed to the side panel (R) with 2 screws.) (7) Remove 3 side panel (R) fixing screws (5 × 12) in the rear of the unit, then slide the side panel (R) upward to remove it. (The side panel (R) is fixed to the side plate with hooks on the rear side.) (8) Remove the 4-way valve coil. (See Photo 10) (9) Recover refrigerant. (10) Remove the welded part of 4-way valve. Notes: 1. Recover refrigerant without spreading it in the air. 2. The welded part can be removed easily by removing the side panel (R). 3. When installing the 4-way valve, cover it with a wet cloth to prevent it from heating (248°F [120°C] or more), then braze the pipes so that the inside of pipes are not oxidized.	

OPERATING PROCEDURE

9. Removing bypass valve coil (SV1, SV2) and bypass valve

- (1) Remove the service panel. (See Photo 1)
- (2) Remove the top panel. (See Photo 1)
- (3) Remove the cover panel (front). (Refer to procedure 8(5))
- (4) Remove the cover panel (rear) (Refer to procedure 8(6))
- (5) Remove the side panel (R). (Refer to procedure 8 (7))
- (6) Remove the bypass valve coil fixing screw (M4 × 6).
- (7) Remove the bypass valve coil by sliding the coil upward.
- (8) Disconnect the connector SV1 (gray) or SV2 (blue) on the multi controller circuit board in the electrical parts box.
- (9) Remove the electrical parts box. (See Photo 5)
- (10) Recover refrigerant.
- (11) Remove the welded part of bypass valve.

Refer to the notes below.

10. Removing the high pressure switch (63H) and high pressure sensor (63HS)

- (1) Remove the service panel. (See Photo 1)
- (2) Remove the top panel. (See Photo 1)
- (3) Remove the cover panel (front). (Refer to procedure 8(5))
- (4) Remove the cover panel (rear) (Refer to procedure 8(6))
- (5) Remove the side panel (R). (Refer to procedure 8 (7))
- (6) Pull out the lead wire of high pressure switch and high pressure sensor.
- (7) Remove the electrical parts box. (See Photo 5)
- (8) Recover refrigerant.
- (9) Remove the welded part of high pressure switch and high pressure sensor.

Refer to the notes below.

11. Removing the low pressure sensor (63LS)

- (1) Remove the service panel. (See Photo 1)
- (2) Remove the top panel. (See Photo 1)
- (3) Remove the cover panel (front). (Refer to procedure 8(5))
- (4) Remove the cover panel (rear) (Refer to procedure 8(6))
- (5) Remove the side panel (R). (Refer to procedure 8 (7))
- (6) Disconnect the connector 63LS (blue) on the multi controller circuit board in the electrical parts box.
- (7) Remove the electrical parts box. (See Photo 5)
- (8) Recover refrigerant.
- (9) Remove the welded part of low pressure sensor.

Refer to the notes below.

12. Removing electronic expansion valve (LEV-A, LEV-B)

- (1) Remove the service panel. (See Photo 1)
- (2) Remove the top panel. (See Photo 1)
- (3) Remove the cover panel (front). (Refer to procedure 8(5))
- (4) Remove the cover panel (rear) (Refer to procedure 8(6))
- (5) Remove the side panel (R). (Refer to procedure 8 (7))
- (6) Remove the electrical expansion valve coil. (See Photo 11,12)
- (7) Remove the electrical parts box. (See Photo 5)
- (8) Recover refrigerant.
- (9) Remove the welded part of electrical expansion valve.

Refer to the notes on the right.

PHOTOS/FIGURES

Photo 11

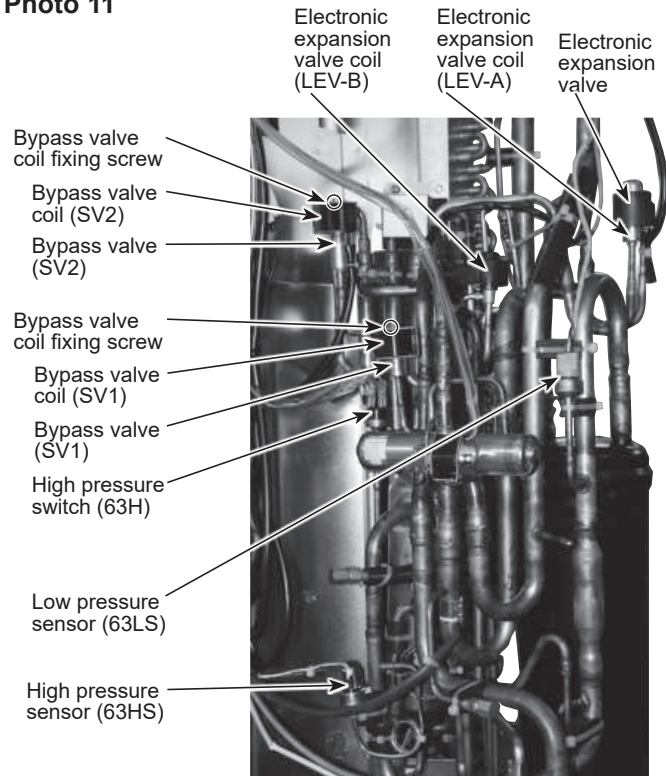
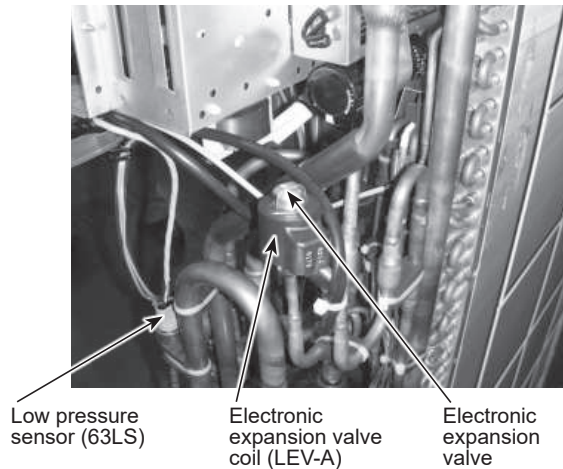


Photo 12



Notes:

1. Recover refrigerant without spreading it in the air.
2. The welded part can be removed easily by removing the side panel (R).
3. When installing the following parts, cover it with a wet cloth to prevent it from heating as the temperature below, then braise the pipes so that the inside of pipes are not oxidized;
 - Bypass valve (procedure 9), 248°F [120°C] or more
 - High pressure switch and high pressure sensor (procedure 10), 212°F [100°C] or more
 - Low pressure sensor (procedure 11), 212°F [100°C] or more
 - LEV (procedure 12), 248°F [120°C] or more

OPERATING PROCEDURE

13. Removing the compressor (MC)

- (1) Remove the service panel. (See Photo 1)
- (2) Remove the top panel. (See Photo 1)
- (3) Remove 2 front cover panel fixing screws (5 × 12) and remove the front cover panel. (See Photo 4)
- (4) Remove front panel fixing screws, 5 (5×12) and 2 (4 × 10) and remove the front panel. (See Photo 4)
- (5) Remove 4 back cover panel fixing screws (5 × 12) and remove the back cover panel.
- (6) Remove the electrical parts box. (See Photo 5)
- (7) Remove the valve bed. (Refer to procedure 8 (4))
- (8) Remove 3 separator fixing screws (4 × 10) and remove the separator. (See Figure 2)
- (9) Recover refrigerant.
- (10) Remove the 3 compressor fixing nuts for motor using spanner or adjustable wrench.
- (11) Remove the welded pipe of motor for compressor inlet and outlet and then remove the compressor.

Note: Recover refrigerant without spreading it in the air.

PHOTOS/FIGURES

Photo 13

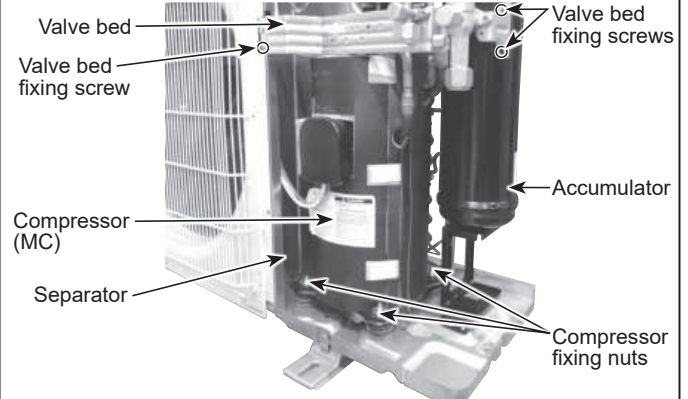
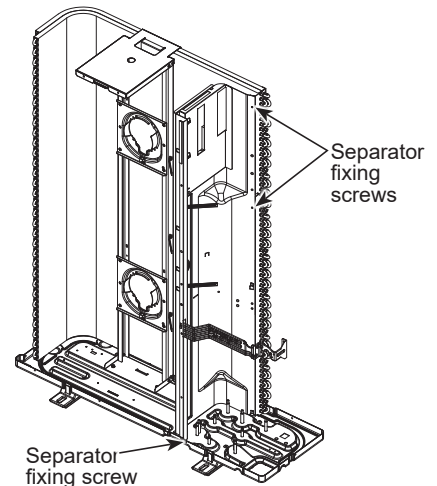


Figure 2



14. Removing the accumulator

- (1) Remove the service panel. (See Photo 1)
- (2) Remove the top panel. (See Photo 1)
- (3) Remove the front cover panel. (Refer to procedure 13 (3))
- (4) Remove the back cover panel. (Refer to procedure 13 (5))
- (5) Remove the side panel (R). (Refer to procedure 8 (7))
- (6) Remove the electrical parts box. (See Photo 5)
- (7) Remove the valve bed. (See procedure 8 (4))
- (8) Recover refrigerant.
- (9) Remove 2 welded pipes of accumulator inlet and outlet.
- (10) Remove 2 accumulator leg fixing screws (4 × 10). (See Photo 15)

Note: Recover refrigerant without spreading it in the air.

Photo 14

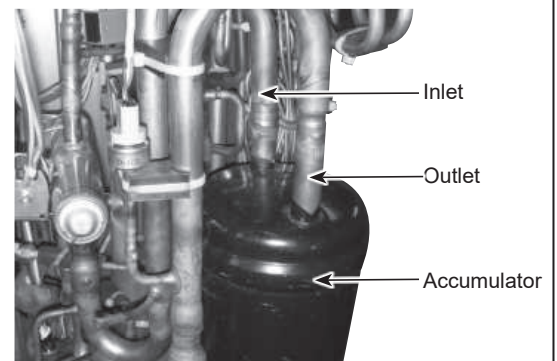
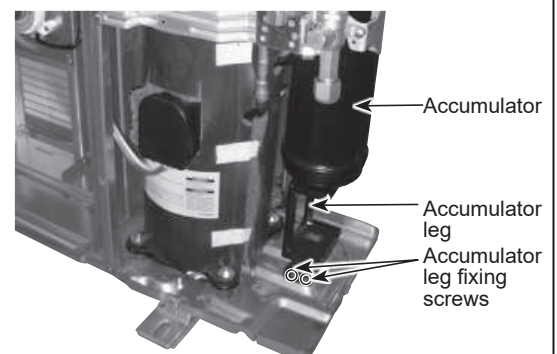
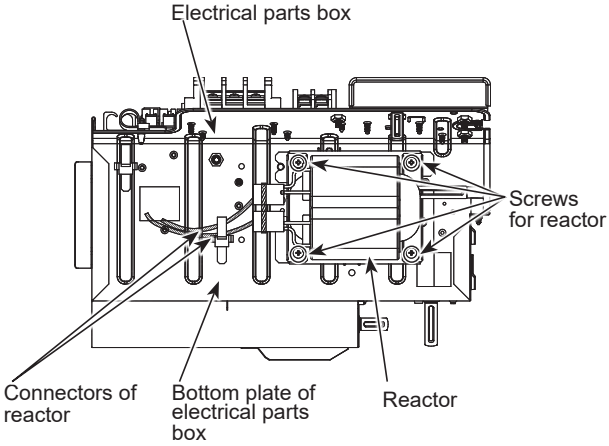
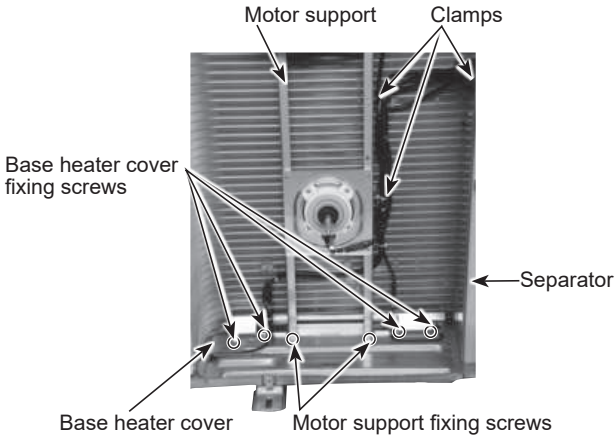


Photo 15

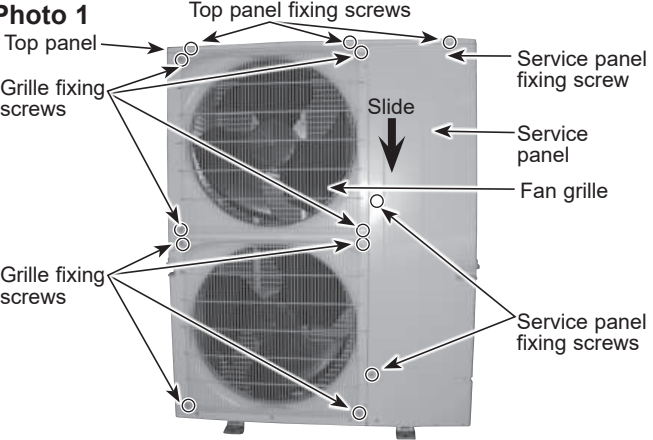
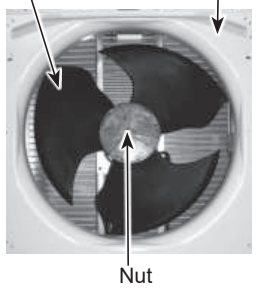
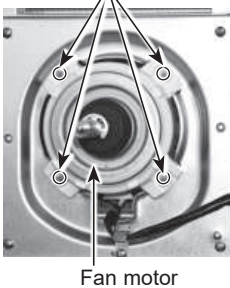
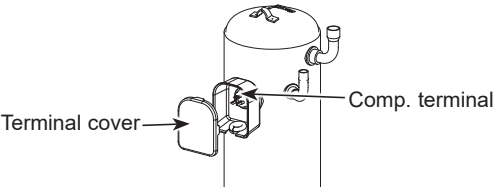
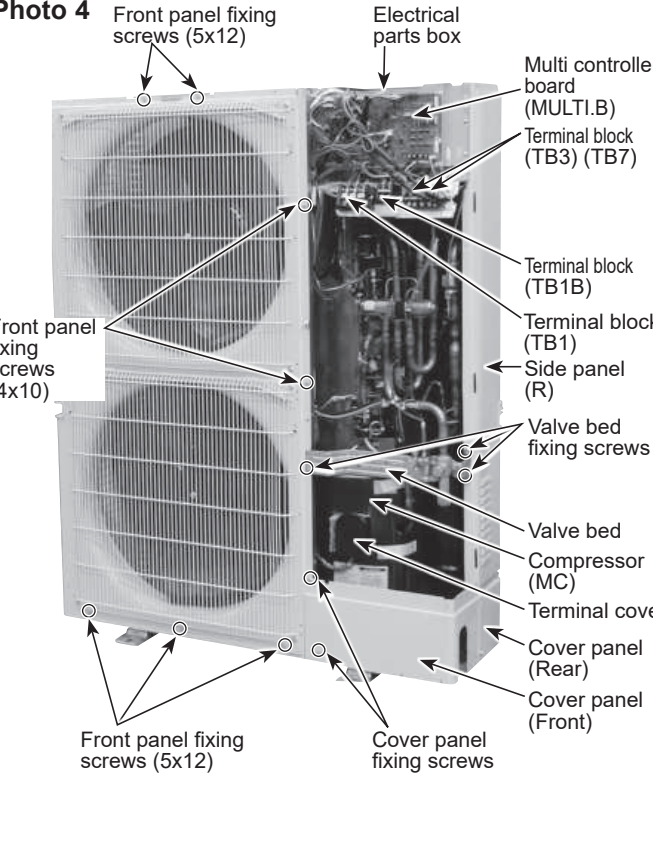


OPERATING PROCEDURE	PHOTOS/FIGURES
15. Removing the reactor (DCL) (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (3) Remove the electrical parts box (See Photo 5) (4) Remove 4 screws for reactor (4 x 10) to remove the reactor. (See Figure 3)	Figure 3 
16. Removing the base heater (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (3) Remove 4 fan grille fixing screws (5 x 12) to detach the fan grille. (See Photo 1) (4) Remove a nut (for right handed screw of M6) to detach the propeller. (See Photo 2) (5) Remove all of the following connectors from multi controler circuit board; <Diagram symbol in the connector housing> • Fan motor (CNF1, CNF2) • Base heater (SS) Pull out the disconnected wire from the electrical parts box. (See Photo 4) (6) Loosen the wire clamps on the side of the motor support and separator. (7) Remove 2 motor support fixing screws (5 x 12), then remove the motor support with fan motor still attached. (See Photo 16) (8) Remove 4 base heater cover fixing screws (4 x 10), then remove the base heater cover. (9) Remove the base heater. (See Photo 17) Notes: 1. Tighten the propeller fan with a torque of $5.7 \pm 0.3 \text{ N}\cdot\text{m}$ [$4.2 \pm 0.2 \text{ ft} \cdot \text{lbs}$] 2. Rotate the propeller fan and make sure that the base heater and the lead wires do not interfere with the movement of the propeller fan.	Photo 16  Photo 17 

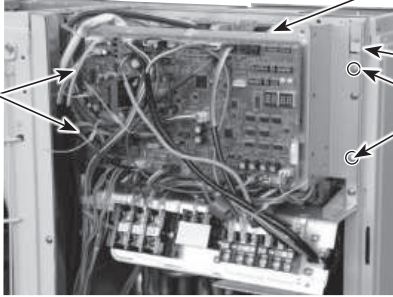
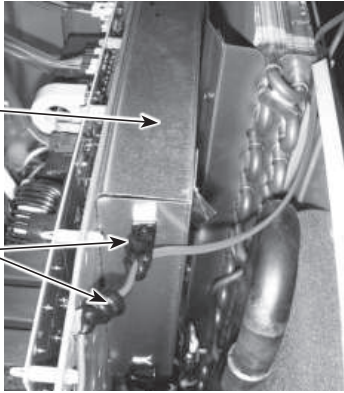
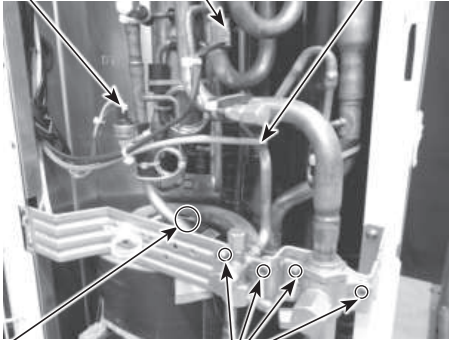
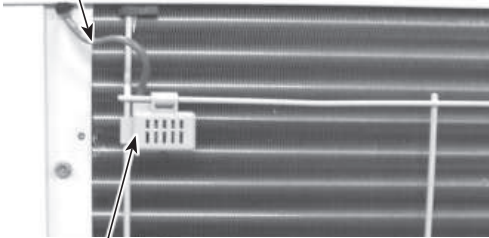
MXZ-8C48NA MXZ-8C48NA-U1

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

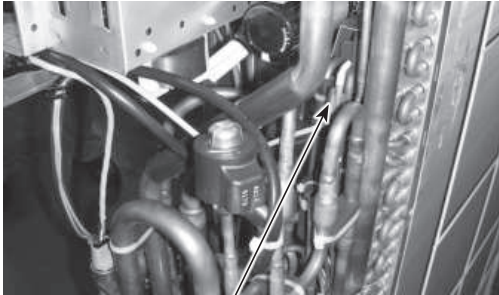
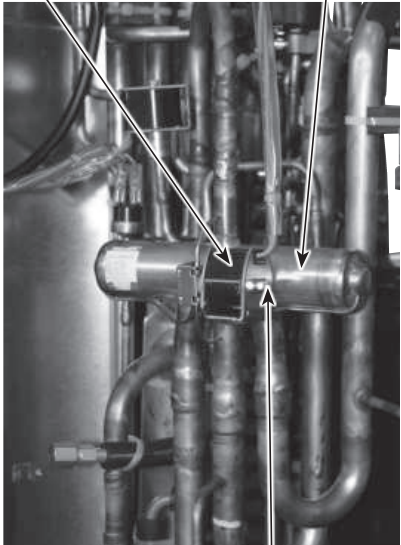
Note: Turn OFF the power supply before disassembly.

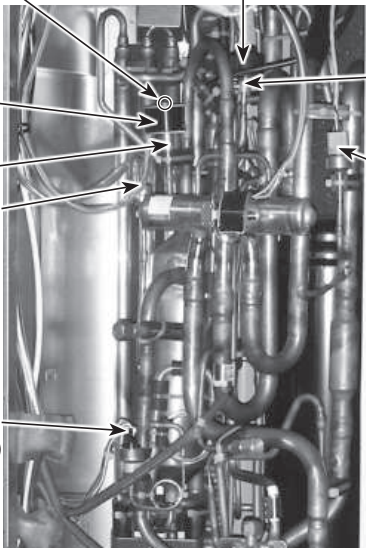
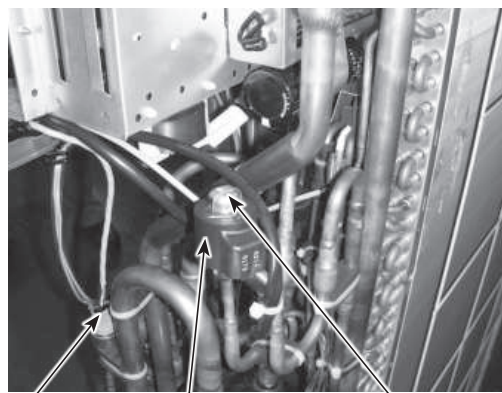
OPERATING PROCEDURE	PHOTOS/FIGURES
1. Removing the service panel and top panel (1) Remove 3 service panel fixing screws (5 × 12) and slide the hook on the right downward to remove the service panel. (2) Remove screws (2 for front, 3 for rear/5 × 12) of the top panel and remove it.	Photo 1 
2. Removing the fan motor (MF1, MF2) (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (3) Remove 4 fan grille fixing screws (5 × 12) to detach the fan grille. (See Photo 1) (4) Remove a nut (for right handed screw of M6) to detach the propeller. (See Photo 2) (5) Disconnect the connectors, CNF1 and CNF2 on multi controller circuit board in electrical parts box. (6) Remove 4 fan motor fixing screws (5 × 20) to detach the fan motor. (See Photo 3) Note: Tighten the propeller fan with a torque of 5.7 ± 0.3 N·m [4.2 ± 0.2 ft = lbs]	Photo 2  Photo 3 
3. Removing the electrical parts box (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (3) Disconnect the connecting wire from terminal block. (4) Remove all the following connectors from multi controller circuit board; <Diagram symbol in the connector housing> • Fan motor (CNF1, CNF2) • Thermistor <HIC pipe> (TH2) • Thermistor <Outdoor liquid pipe> (TH3) • Thermistor <Compressor> (TH4) • Thermistor <Suction pipe/Ambient, Outdoor> (TH7/6) • High pressure switch (63H) • High pressure sensor (63HS) • Low pressure sensor (63LS) • 4-way valve (21S4) • Bypass valve (SV1) • Electronic expansion valve (LEV-A, LEV-B) Pull out the disconnected wire from the electrical parts box. (5) Remove the terminal cover and disconnect the compressor lead wire from the comp. terminal. (See Figure 1) Note: The terminal cover can be easily removed by using a blade of flathead screwdriver. Figure 1 	Photo 4 

From the previous page.

OPERATING PROCEDURE	PHOTOS/FIGURES
(6) Remove 2 electrical parts box fixing screws (4 × 10) and detach the electrical parts box by pulling it upward. The electrical parts box is fixed with 2 hooks on the left and 1 hook on the right.	Photo 5  Electrical parts box Hooks Hook Electrical parts box fixing screws
4. Removing the thermistor <Suction pipe> (TH6) (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (3) Disconnect the connector, TH7/6 (red), on the Multi controller circuit board in the electrical parts box. (4) Loosen the wire clamps on top of the electrical parts box. (5) Pull out the thermistor <Suction pipe> (TH6) from the sensor holder. Note: When replacing thermistor <Suction pipe> (TH6), replace it together with thermistor <Ambient> (TH7) since they are combined together. Refer to procedure No.5 below to remove thermistor <Ambient> (TH7).	Photo 6  Electrical parts box Clamps Photo 7  High pressure sensor (63HS) Thermistor <Suction pipe> (TH6) Thermistor <HIC pipe> (TH2) Thermistor <Compressor> (TH4) Ball valve and stop valve fixing screws
5. Removing the thermistor <Ambient> (TH7) (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (3) Disconnect the connector TH7/6 (red) on the multi controller circuit board in the electrical parts box. (4) Loosen the wire clamps on top of the electrical parts box. (See Photo 6) (5) Pull out the thermistor <Ambient> (TH7) from the sensor holder. Note: When replacing thermistor <Ambient> (TH7), replace it together with thermistor <Suction pipe> (TH6), since they are combined together. Refer to procedure No.4 above to remove thermistor <Suction pipe> (TH6).	Photo 8  Lead wire of thermistor <Ambient> (TH7) Sensor holder



OPERATING PROCEDURE	PHOTOS/FIGURES
6. Removing the thermistor <Outdoor liquid pipe> (TH3) and thermistor <Compressor> (TH4), thermistor <HIC pipe> (TH2) (1) Remove the service panel. (See Photo 1) (2) Disconnect the connectors, TH3 (white) and TH4 (white), TH2 (black) on the multi controller circuit board in the electrical parts box. (3) Loosen the clamp for the lead wire in the rear of the electrical parts box. (4) Pull out the thermistor <Outdoor liquid pipe> (TH3) and thermistor <Compressor> (TH4) from the sensor holder. (See Photo 7 and 9)	Photo 9  Thermistor <Outdoor liquid pipe> (TH3)
7. Removing the 4-way valve coil (21S4) (1) Remove the service panel. (See Photo 1) [Removing the 4-way valve coil] (2) Remove 4-way valve coil fixing screw (M5 × 7). (3) Remove the 4-way valve coil by sliding the coil toward you. (4) Disconnect the connector 21S4 (green) on the multi controller circuit board in the electrical parts box.	Photo 10  4-way valve coil (21S4) 4-way valve 4-way valve coil fixing screw
8. Removing the 4-way valve (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (3) Remove the electrical parts box. (See Photo 5) (4) Remove 3 valve bed fixing screws (4 × 10) and 4 ball valve and stop valve fixing screws (5 × 16) and then remove the valve bed. (See Photo 4 and 7) (5) Remove 2 cover panel fixing screws (5 × 12), then slide the cover panel (front) upward to remove it. (The cover panel (front) is fixed to the cover panel (rear) with a hook on the rear side. (See Photo 4) (6) Remove the cover panel (rear) fixing screws (2 for right side and 2 for rear/ 5 × 12), then slide the cover panel (rear) upward to remove it. (See Photo 4) (The cover panel (rear) is fixed to the side panel (R) with 2 screws.) (7) Remove 3 side panel (R) fixing screws (5 × 12) in the rear of the unit, then slide the side panel (R) upward to remove it. (The side panel (R) is fixed to the side plate with hooks on the rear side.) (8) Remove the 4-way valve coil. (See Photo 10) (9) Recover refrigerant. (10) Remove the welded part of 4-way valve. Note: 1. Recover refrigerant without spreading it in the air. 2. The welded part can be removed easily by removing the side panel (R). 3. When installing the four-way valve, cover it with a wet cloth to prevent it from heating (120°C or more), then braze the pipes so that the inside of pipes are not oxidized.	

OPERATING PROCEDURE	PHOTOS/FIGURES
9. Removing bypass valve coil (SV1) and bypass valve (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (3) Remove the cover panel (front). (Refer to procedure 8 (5)) (4) Remove the cover panel (rear). (Refer to procedure 8 (6)) (5) Remove the side panel (R). (Refer to procedure 8 (7)) (6) Remove the bypass valve coil fixing screw (M4 × 6). (7) Remove the bypass valve coil by sliding the coil upward. (8) Disconnect the connector SV1 (gray) on the multi controller circuit board in the electrical parts box. (9) Remove the electrical parts box. (See Photo 5) (10) Recover refrigerant. (11) Remove the welded part of bypass valve. Refer to the notes below.	Photo 11 
10. Removing the high pressure switch (63H) and high pressure sensor (63HS) (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (3) Remove the cover panel (front). (Refer to procedure 8 (5)) (4) Remove the cover panel (rear). (Refer to procedure 8 (6)) (5) Remove the side panel (R). (Refer to procedure 8 (7)) (6) Pull out the lead wire of high pressure switch and high pressure sensor. (7) Remove the electrical parts box. (See Photo 5) (8) Recover refrigerant. (9) Remove the welded part of high pressure switch and high pressure sensor. Refer to the notes below.	Photo 12 
11. Removing the low pressure sensor (63LS) (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (3) Remove the cover panel (front). (Refer to procedure 8 (5)) (4) Remove the cover panel (rear). (Refer to procedure 8 (6)) (5) Remove the side panel (R). (Refer to procedure 8 (7)) (6) Disconnect the connector 63LS (blue) on the multi controller circuit board in the electrical parts box. (7) Remove the electrical parts box. (See Photo 5) (8) Recover refrigerant. (9) Remove the welded part of low pressure sensor. Refer to the notes below.	Notes: 1. Recover refrigerant without spreading it in the air. 2. The welded part can be removed easily by removing the side panel (R). 3. When installing the following parts, cover it with a wet cloth to prevent it from heating as the temperature below, then braze the pipes so that the inside of pipes are not oxidized; • Bypass valve (procedure 9), 248°F [120°C] or more • High pressure switch and high pressure sensor (procedure 10), 212°F [100°C] or more • Low pressure sensor (procedure 11), 212°F [100°C] or more • LEV (procedure 12), 248°F [120°C] or more
12. Removing electrical expansion valve (LEV-A, LEV-B) (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (3) Remove the cover panel (front). (Refer to procedure 8 (5)) (4) Remove the cover panel (rear). (Refer to procedure 8 (6)) (5) Remove the side panel (R). (Refer to procedure 8 (7)) (6) Remove the electrical expansion valve coil. (See Photo 11,12) (7) Remove the electrical parts box. (See Photo 5) (8) Recover refrigerant. (9) Remove the welded part of electrical expansion valve. Refer to the notes on the right.	

OPERATING PROCEDURE

13. Removing the compressor (MC)

- (1) Remove the service panel. (See Photo 1)
- (2) Remove the top panel. (See Photo 1)
- (3) Remove 2 front cover panel fixing screws (5 × 12) and remove the front cover panel. (See Photo 4)
- (4) Remove front panel fixing screws, 5 (5 × 12) and 2 (4 × 10) and remove the front panel. (See Photo 4)
- (5) Remove 4 back cover panel fixing screws (5 × 12) and remove the back cover panel.
- (6) Remove the electrical parts box. (See Photo 5)
- (7) Remove the valve bed. (Refer to procedure 8 (4))
- (8) Remove 3 separator fixing screws (4 × 10) and remove the separator. (See Figure 2)
- (9) Recover refrigerant.
- (10) Remove the 3 compressor fixing nuts for motor using spanner or adjustable wrench.
- (11) Remove the welded pipe of motor for compressor inlet and outlet and then remove the compressor.

Note: Recover refrigerant without spreading it in the air.

PHOTOS/FIGURES

Photo 14

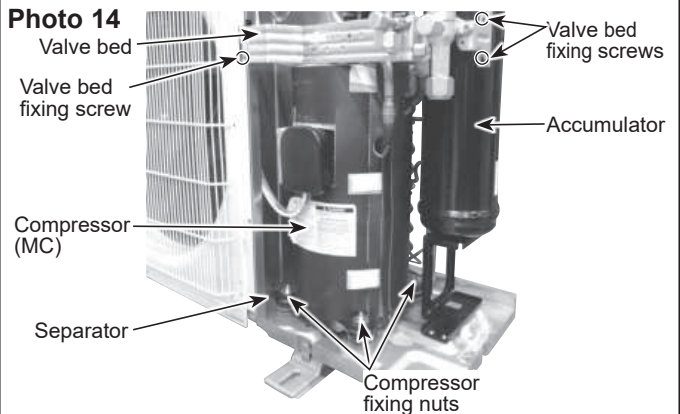
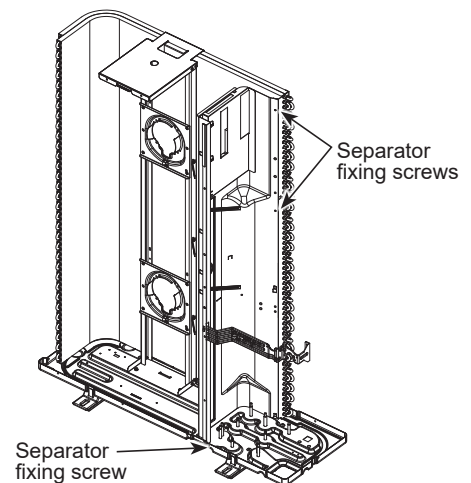


Figure 2



14. Removing the accumulator

- (1) Remove the service panel. (See Photo 1)
- (2) Remove the top panel. (See Photo 1)
- (3) Remove the front cover panel. (Refer to procedure 13 (3))
- (4) Remove the back cover panel. (Refer to procedure 13 (5))
- (5) Remove the side panel (R). (Refer to procedure 8 (7))
- (6) Remove the electrical parts box. (See Photo 5)
- (7) Remove the valve bed. (Refer to procedure 8 (4))
- (8) Recover refrigerant.
- (9) Remove 2 welded pipes of accumulator inlet and outlet.
- (10) Remove 2 accumulator leg fixing screws (4 × 10). (See Photo 16)

Note: Recover refrigerant without spreading it in the air.

Photo 15

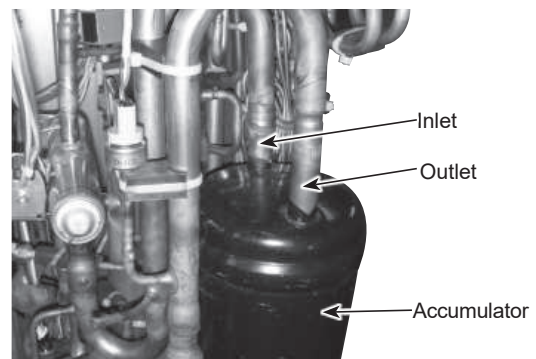
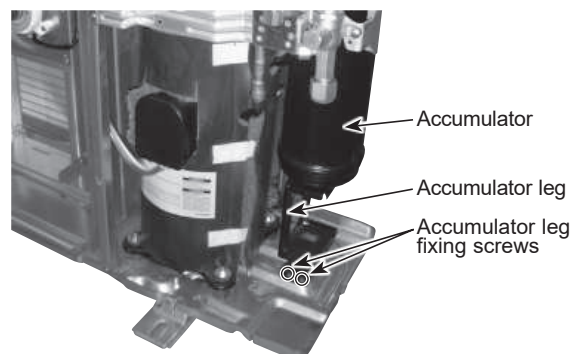
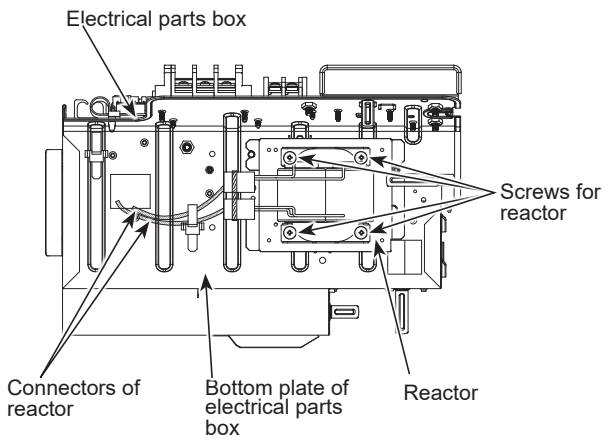


Photo 16



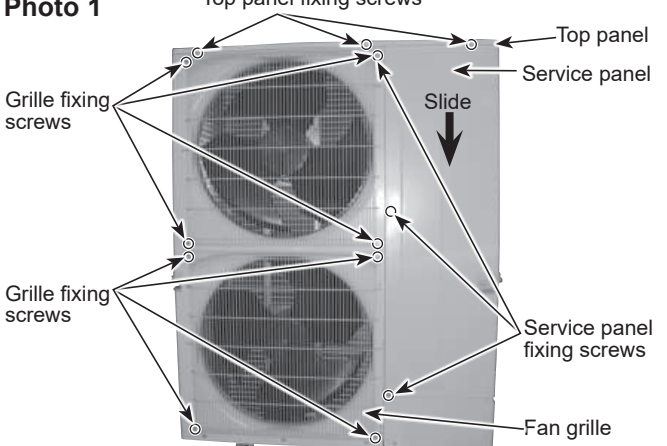
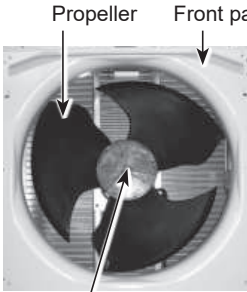
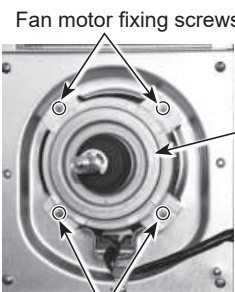
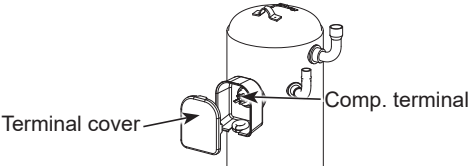
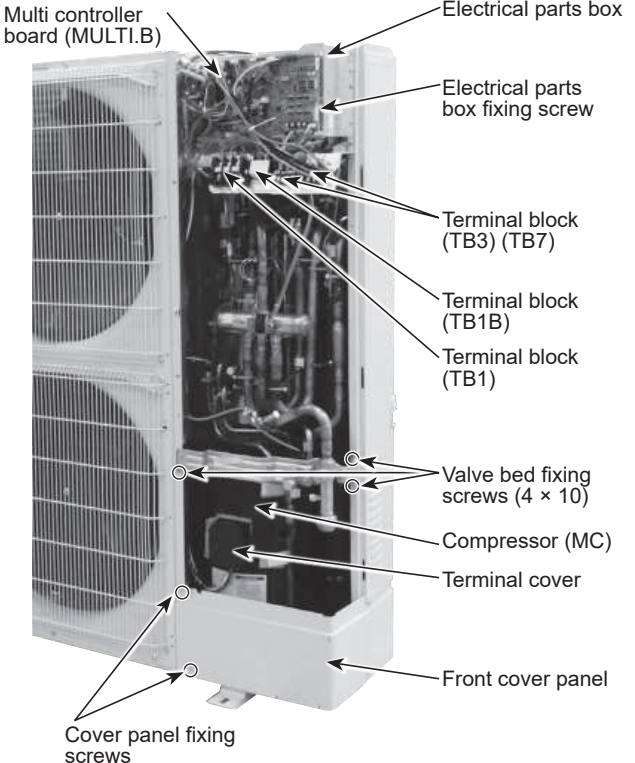


OPERATING PROCEDURE	PHOTOS/FIGURES
15. Removing the reactor (DCL) (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (3) Remove the electrical parts box (See photo 5) (4) Remove 4 screws for reactor (4 x 10) to remove the reactor. (See Figure 3)	Figure 3  The diagram shows a side view of the reactor assembly. At the top, there is a rectangular box labeled 'Electrical parts box'. Below it, on the left, are two vertical components labeled 'Connectors of reactor'. In the center, there is a horizontal plate labeled 'Bottom plate of electrical parts box'. To the right of this plate is the 'Reactor' unit. Four screws are shown securing the reactor to the bottom plate, with arrows pointing to them from the label 'Screws for reactor'.

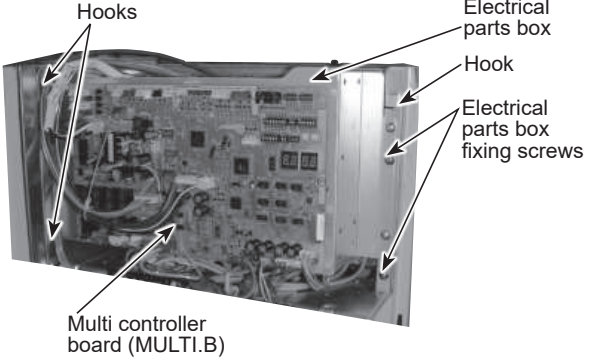
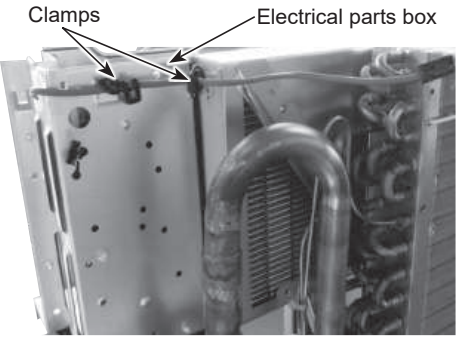
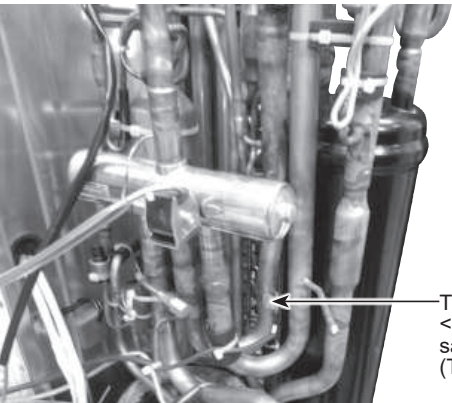
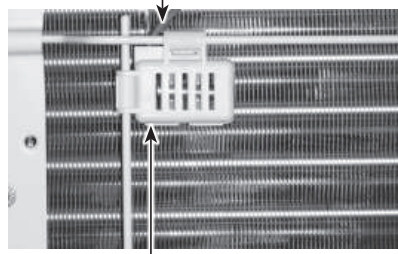
MXZ-8C60NA-U1

Note: Turn OFF the power supply before disassembly.

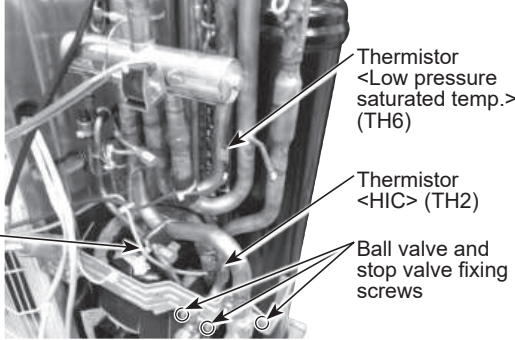
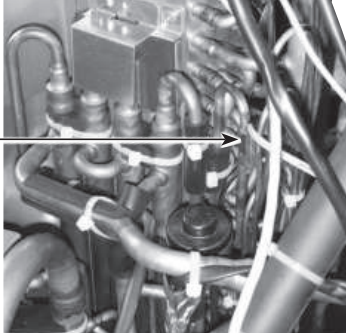
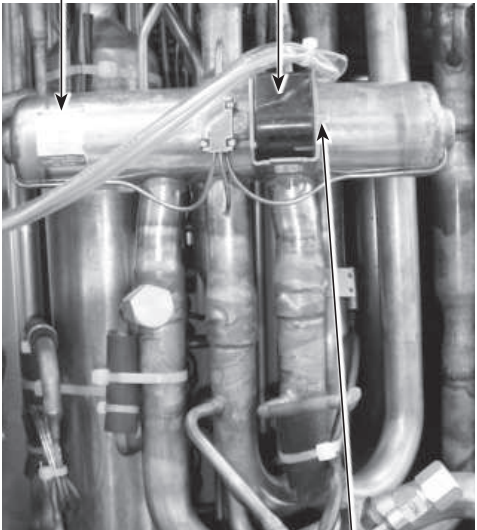
→ : Indicates the visible parts in the photos/figures.

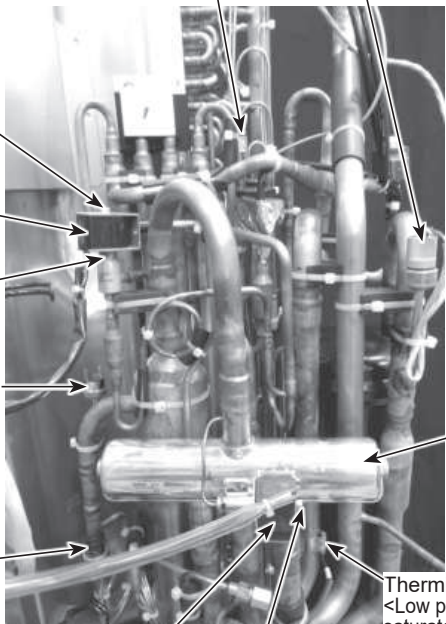
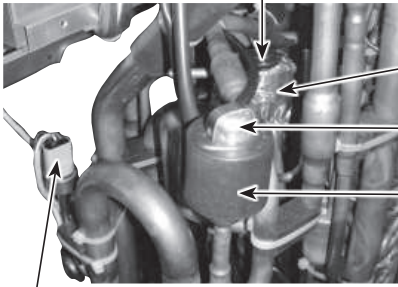
OPERATING PROCEDURE	PHOTOS/FIGURES
1. Removing the service panel and top panel (1) Remove 3 service panel fixing screws (5 × 12) and slide the hook on the right downward to remove the service panel. (2) Remove screws (2 for front, 3 for rear/5 × 12) of the top panel and remove it.	Photo 1 
2. Removing the fan motor (MF1, MF2) (1) Remove the service panel. (See Photo 1) (2) Remove 4 fan grille fixing screws (5 × 12) to detach the fan grille. (See Photo 1) (3) Remove a nut (for right handed screw of M6) to detach the propeller. (See Photo 2) (4) Disconnect the connectors, CNF1 and CNF2 on multi controller board in electrical parts box. (5) Remove 4 fan motor fixing screws (5 × 20) to detach the fan motor. (See Photo 3) Note: Tighten the propeller fan with a torque of $5.7 \pm 0.3 \text{ N}\cdot\text{m}$ [$4.2 \pm 0.2 \text{ ft} \cdot \text{lbs}$]	Photo 2  Photo 3 
3. Removing the electrical parts box (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (3) Disconnect the connecting wire from terminal block. (See Photo 5) (4) Remove all the following connectors from outdoor multi controller circuit board; <Diagram symbol in the connector housing> • Fan motor (CNF1, CNF2) • Thermistor <HIC pipe> (TH2) • Thermistor <Outdoor liquid pipe> (TH3) • Thermistor <Compressor> (TH4) • Thermistor <Suction pipe/Ambient, Outdoor> (TH7/6) • High pressure switch (63H) • High pressure sensor (63HS) • Low pressure sensor (63LS) • 4-way valve (21S4) • Bypass valve (SV1) • Electronic expansion valve (CNLVA/CNLVB) Pull out the disconnected wire from the electrical parts box. (5) Remove the terminal cover and disconnect the compressor lead wire. Note: The terminal cover can be easily removed by using a blade of flathead screwdriver. Figure 1 	Photo 4 

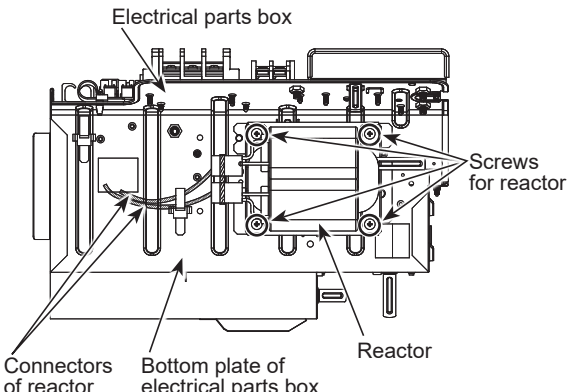
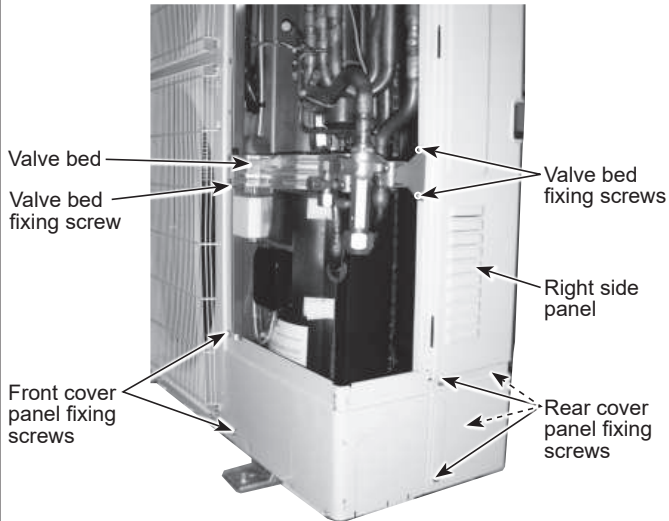
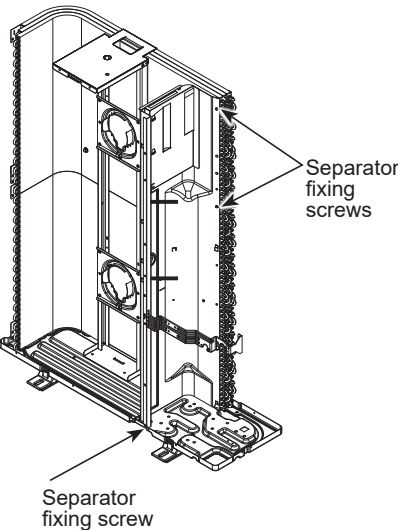
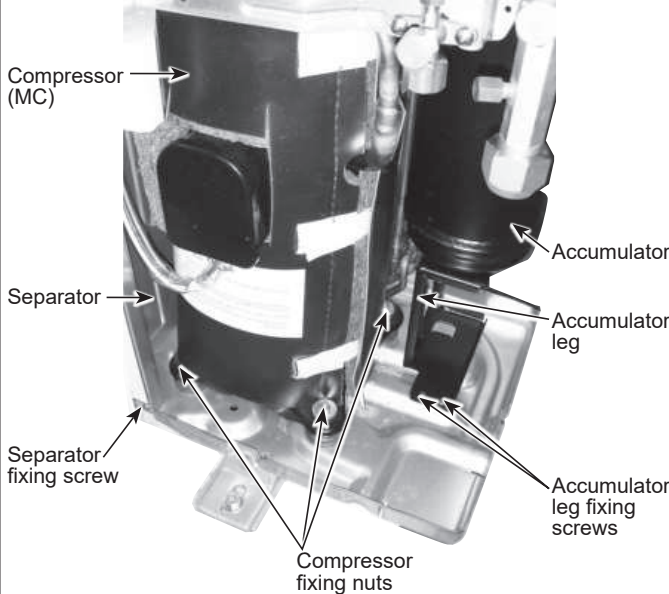
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OPERATING PROCEDURE	PHOTOS/FIGURES
(6) Remove 2 electrical parts box fixing screws (4 × 10) then detach the electrical parts box by pulling it upward. The electrical parts box is fixed with 2 hooks on the left and 1 hook on the right.	Photo 5  Hooks Electrical parts box Hook Electrical parts box fixing screws Multi controller board (MULTI.B)
4. Removing the thermistor <Suction pipe> (TH6) (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (3) Disconnect the connectors, TH7/6 (red), on the multi controller circuit board in the electrical parts box. (4) Loosen the wire clamps on the back of electrical parts box. (5) Pull out the thermistor <Suction pipe> (TH6) from the sensor holder. Note: When replacing thermistor <Suction pipe> (TH6), replace it together with thermistor <Ambient> (TH7) since they are combined together. Refer to procedure No.5 below to remove thermistor <Ambient> (TH7).	Photo 6  Clamps Electrical parts box
5. Removing the thermistor <Ambient> (TH7) (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (3) Disconnect the connector TH7/6 (red) on the multi controller circuit board in the electrical parts box. (4) Loosen the wire clamps on top of the electrical parts box. (See Photo 6.) (5) Pull out the thermistor <Ambient> (TH7) from the sensor holder. Note: When replacing thermistor <Ambient> (TH7), replace it together with thermistor <Suction pipe> (TH6), since they are combined together. Refer to procedure No.4 above to remove thermistor <Suction pipe> (TH6).	Photo 7  Thermistor <Low pressure saturated temp.> (TH6) Photo 8  Lead wire of thermistor <Ambient> (TH7) Sensor holder



OPERATING PROCEDURE	PHOTOS/FIGURES
6. Removing the thermistors Thermistor <HIC> (TH2) and thermistor <Compressor> (TH4) (1) Remove the service panel. (See Photo 1) (2) Disconnect the connectors, TH2 (black) and TH4 (white), on the multi controller board in the electrical parts box. (3) Pull out the thermistor <HIC> (TH2) and thermistor <Compressor> (TH4) from the sensor holder. (See Photo 9-1) Thermistor <Outdoor pipe> (TH3) (1) Remove the service panel. (See Photo 1) (2) Disconnect the connector, TH3 (white), on the Multi controller board in the electrical parts box. (3) Loosen the clamp for the lead wire on the bottom of the electrical parts box. (4) Pull out the thermistor <Outdoor pipe> (TH3) from the sensor holder. (See Photo 9-2)	Photo 9-1  Photo 9-2 
7. Removing the 4-way valve coil (21S4) (1) Remove the service panel. (See Photo 1) [Removing the 4-way valve coil] (2) Remove 4-way valve coil fixing screw (M4 × 6). (3) Remove the 4-way valve coil by sliding the coil toward you. (4) Disconnect the connector 21S4 (green) on the multi controller circuit board in the electrical parts box.	Photo 10 
8. Removing the 4-way valve (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (3) Remove the electrical parts box (See Photo 5) (4) Remove 3 valve bed fixing screws (4 × 10) and 4 ball valve and stop valve fixing screws (5 × 16), then remove the valve bed. (See Photo 4) (5) Remove 2 cover panel fixing screws (5 × 12), then slide the cover panel (front) upward to remove it. (The cover panel (front) is fixed to the cover panel (rear) with a hook on the rear side. (See Photo 4) (6) Remove the cover panel (rear) fixing screws (2 for right side and 2 for rear/ 5 × 12), then slide the cover panel (rear) upward to remove it. (See Photo 4) (The cover panel (rear) is fixed to the side panel (R) with 2 screws.) (7) Remove 3 side panel (R) fixing screws (5 × 12) in the rear of the unit, then slide the side panel (R) upward to remove it. (The side panel (R) is fixed to the side plate with hooks on the rear side.) (8) Remove the 4-way valve coil. (See Photo 10) (9) Recover refrigerant. (10) Remove the welded part of 4-way valve. 1. Recover refrigerant without spreading it in the air. 2. The welded part can be removed easily by removing the right side panel. 3. When installing the four-way valve, cover it with a wet cloth to prevent it from heating 248°F (120°C) or more, then braze the pipes so that the inside of pipes are not oxidized.	

OPERATING PROCEDURE	PHOTOS/FIGURES
9. Removing bypass valve coil (SV1) and bypass valve (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (3) Remove the cover panel (front). (Refer to procedure 8(5)) (4) Remove the cover panel (rear) (Refer to procedure 8(6)) (5) Remove the side panel (R). (Refer to procedure 8 (7)) (6) Remove the bypass valve coil fixing screw (M4 × 6). (7) Remove the bypass valve coil by sliding the coil upward. (8) Disconnect the connector SV1 (gray) on the multi controller circuit board in the electrical parts box. (9) Remove the electrical parts box. (See Photo 5) (10) Recover refrigerant. (11) Remove the welded part of bypass valve. Refer to the notes below.	Photo 11 
10. Removing the high pressure switch (63H) and high pressure sensor (63HS) (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (3) Remove the cover panel (front). (Refer to procedure 8(5)) (4) Remove the cover panel (rear) (Refer to procedure 8(6)) (5) Remove the side panel (R). (Refer to procedure 8 (7)) (6) Pull out the lead wire of high pressure switch and high pressure sensor. (7) Remove the electrical parts box. (See Photo 5) (8) Recover refrigerant. (9) Remove the welded part of high pressure switch and high pressure sensor. Refer to the notes below.	Photo 12 
12. Removing electronic expansion valve (LEV-A, LEV-B) (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (3) Remove the cover panel (front). (Refer to procedure 8(5)) (4) Remove the cover panel (rear) (Refer to procedure 8(6)) (5) Remove the side panel (R). (Refer to procedure 8 (7)) (6) Remove the electronic expansion valve coil. (See Photo 12) (7) Remove the electrical parts box. (See Photo 5) (8) Recover refrigerant. (9) Remove the welded part of electronic expansion valve.	Notes: 1. Recover refrigerant without spreading it in the air. 2. The welded part can be removed easily by removing the right side panel. 3. When installing the following parts, cover it with a wet cloth to prevent it from heating as the temperature below, then braze the pipes so that the inside of pipes are not oxidized; • Bypass valve (procedure 9), 248°F [120°C] or more • High pressure switch and high pressure sensor (procedure 10), 212°F [100°C] or more • Low pressure sensor (procedure 11), 100°C or more • LEV (procedure 12), 248°F [120°C] or more

OPERATING PROCEDURE	PHOTOS/FIGURES
13. Removing the reactor (DCL) (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (3) Remove the electrical parts box (See photo 5) (4) Remove 4 screws for reactor (4 x 10) to remove the reactor. (See Figure 2)	Figure 2  Electrical parts box Connectors of reactor Bottom plate of electrical parts box Reactor Screws for reactor
14. Removing the compressor (MC) (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (3) Remove the electrical parts box. (See Photo 5) (4) Remove the valve bed. (Refer to procedure 8 (4)) (5) Remove the cover panel (front). (Refer to procedure 8(5)) (6) Remove the cover panel (rear) (Refer to procedure 8(6)) (7) Remove the side panel (R). (Refer to procedure 8 (7)) (8) Remove front panel fixing screws, 5 (5x12) and 2 (4 x 10) and remove the front panel. (See Photo 4) (9) Remove 3 separator fixing screws (4 × 10) and remove the separator. (See Figure 3) (10) Recover refrigerant. (11) Remove the 3 compressor fixing nuts using spanner or adjustable wrench. (12) Remove the welded pipe of motor for compressor inlet and outlet and then remove the compressor. Note: Recover refrigerant without spreading it in the air.	Photo 13  Valve bed Valve bed fixing screw Valve bed fixing screws Right side panel Front cover panel fixing screws Rear cover panel fixing screws
Figure 3  Separator fixing screw Separator fixing screws	Photo 14  Compressor (MC) Separator Separator fixing screw Compressor fixing nuts Accumulator Accumulator leg Accumulator leg fixing screws Separator fixing screws

OPERATING PROCEDURE

15. Removing the accumulator

- (1) Remove the service panel. (See Photo 1)
- (2) Remove the top panel. (See Photo 1)
- (3) Remove the electrical parts box. (See Photo 5)
- (4) Remove the valve bed. (See procedure 8 (4))
- (5) Remove the cover panel (front). (Refer to procedure 8(5))
- (6) Remove the cover panel (rear) (Refer to procedure 8(6))
- (7) Remove the side panel (R). (Refer to procedure 8 (7))
- (8) Recover refrigerant.
- (9) Remove 2 welded pipes of accumulator inlet and outlet.
- (10) Remove 2 accumulator leg fixing screws (4 × 10). (See Photo 16)

Note: Recover refrigerant without spreading it in the air.

PHOTOS/FIGURES

Photo 15

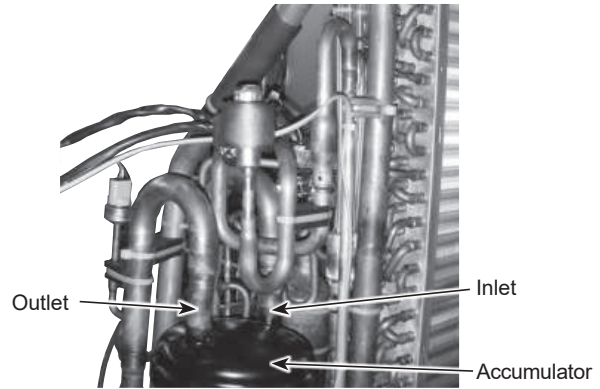
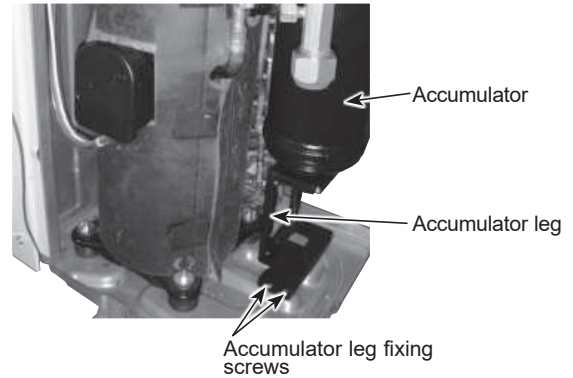


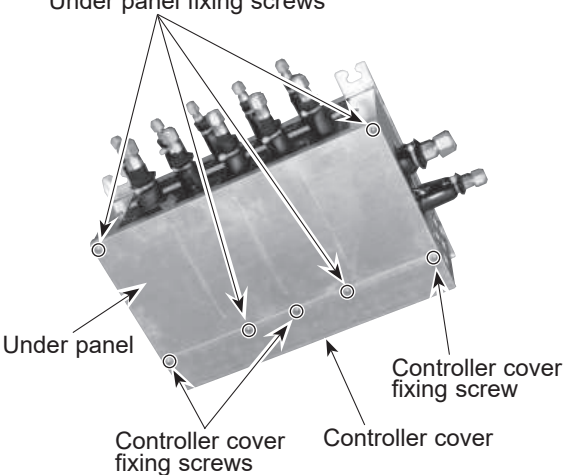
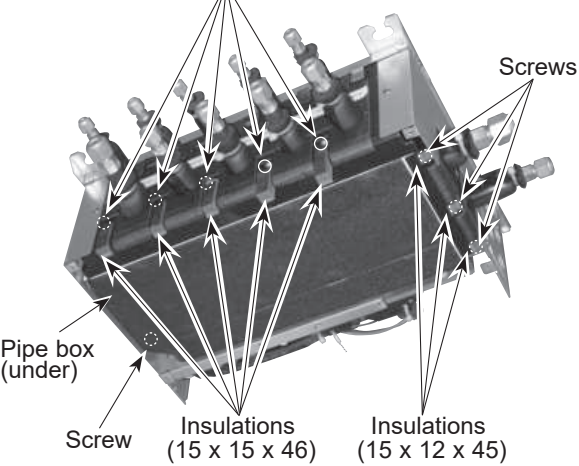
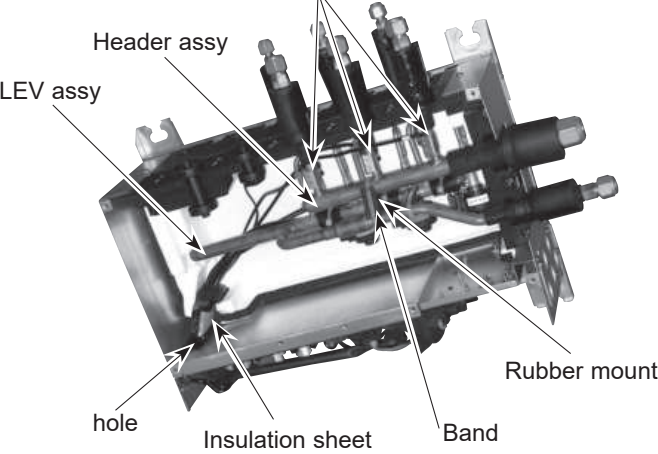
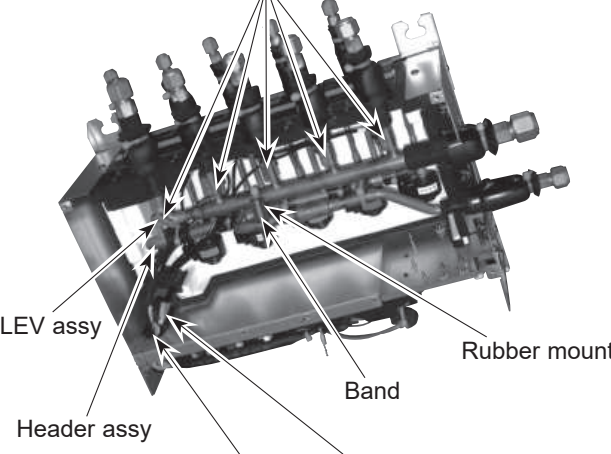
Photo 16



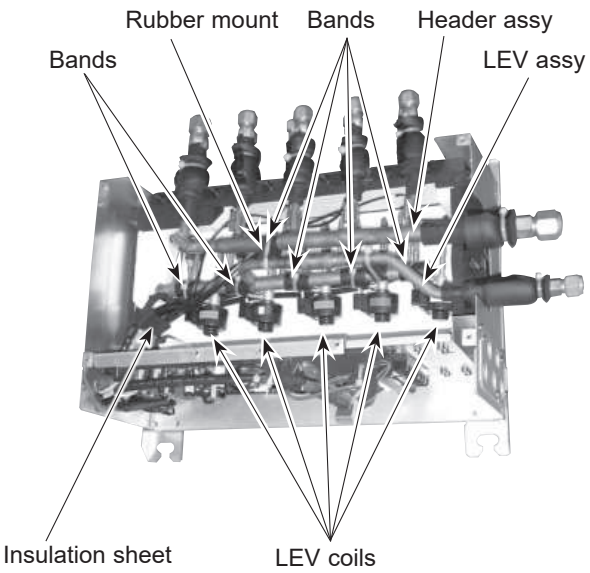
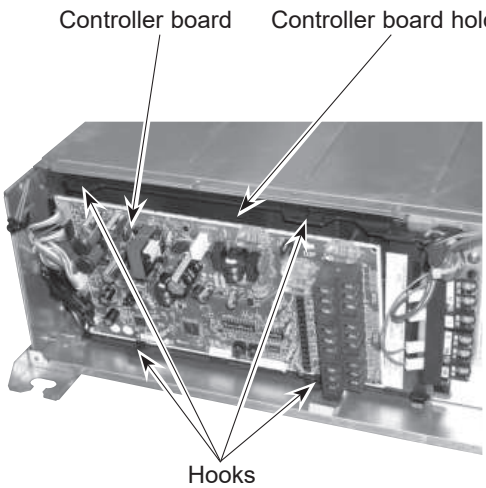
10-2. BRANCH BOX: PAC-MKA50BC PAC-MKA51BC PAC-MKA30BC PAC-MKA31BC

PHOTO: PAC-MKA50/51BC

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

OPERATING PROCEDURE	PHOTOS/FIGURES
1. Removing the controller cover and under panel (1) Remove 3 controller cover fixing screws (4 × 10) to detach the controller cover. (See Photo 1) (2) Remove 4 under panel fixing screws (4 × 10) to remove the under panel. (See Photo 1)	Photo 1  Under panel fixing screws Under panel Controller cover fixing screw Controller cover fixing screws
2. Removing the thermistor (TH-A to E*) (1) Remove the controller cover. (See Photo 1) (2) Remove the under panel. (See Photo 1) (3) Remove 8 insulations, then remove 9 pipe box (under) fixing screws (4 × 10). (See Photo 2-1) (4) Pull out the thermistor(s), TH-A to E, from the sensor holders mounted on the gas pipe. (See Photo 2-2) (5) Loosen the insulation sheet which bundles the thermistor connectors. (6) Loosen the side clamps, then disconnect the connector(s) on the controller board. (7) Pull out the lead wire(s) through the hole to the controller board side. *TH-A to C for PAC-MKA30/31BC. (See Photo 2-3) Notes: 1. Attach the insulation sheet to the thermistor(s) and the lead wire(s) of LEV coil after replacing thermistor(s). 2. Install the pipe box not to twine the lead wire(s) and the pipe cover around the pipe box.	Photo 2-1  Pipe box (under) fixing screws Screws Pipe box (under) Screw Insulations (15 × 15 × 46) Insulations (15 × 12 × 45)
Photo 2-3  Sensor holders Header assy LEV assy hole Insulation sheet Band Rubber mount	Photo 2-2  Sensor holders Header assy LEV assy hole Insulation sheet Band Rubber mount



OPERATING PROCEDURE	PHOTOS/FIGURES
3. Removing the LEV coil (LEV-A to E*) (1) Remove the controller cover. (See Photo 1) (2) Remove the under cover. (See Photo 1) (3) Remove 8 insulations, then remove 9 pipe cover fixing screws (4 x 10). (See Photo 2-1) (4) Cut the bands that fixes the lead wire, then pull out the LEV coil(s) (LEV-A to E*). (See Photo 3) (5) Loosen the insulation sheet which bundles the LEV lead wires. (6) Loosen the side clamps, then disconnect the connector(s) on the controller board. (7) Pull out the lead wire(s) through the hole to the pipe box side. (See Photo 2-2 or 2-3) *LEV-A to C for PAC-MKA30/31BC. (See Photo 2-3) Notes: 1. Attach the insulation sheet to the thermistor(s) and the lead wire(s) of LEV coil after replacing thermistor(s). 2. Install the pipe box not to twine the lead wire(s) and the pipe cover around the pipe box.	Photo 3 
4. Removing the controller board (1) Remove the controller cover. (See Photo 1) (2) Loosen the side clamps, then disconnect the connectors on the controller board. (3) Pick an upper edge of the controller board, then pull forward. The controller board is fixed to the controller board holder with 4 hooks. (See Photo 4) (4) Remove the controller board from the controller board holder.	Photo 4 

OPERATING PROCEDURE

5. Removing the LEV assy

- (1) Remove the controller cover. (See Photo 1)
- (2) Remove the under panel. (See Photo 1)
- (3) Remove 8 the insulations, then remove 9 pipe box (under) fixing screws (4 x 10). (See Photo 2-1)
- (4) Loosen the side clamps, then disconnect the LEV and thermistor connectors on the controller board.
- (5) Pull out the lead wires through the hole to the pipe box side.

<Removing the header assy>

- (6) Cut the band which fixes the header assy and LEV assy together, then remove the rubber mount. (See Photo 3)
- (7) Remove the header assy. (See Photo 3)

<Disassembling the pipe box>

- (8) Remove 2 side panel fixing screws (4 x 10). (See Photo 5-1)
- (9) Pull out the pipe box (top) and separate it from the side panel. (See Photo 5-2)
- (10) Turn the pipe box (top) upside down. (See Photo 5-3).
- (11) Remove 5 insulations, then remove 5 pipe box (top) fixing screws (4 x 10).
- (12) Turn the pipe box (top) upside down again, facing the pipe side up.
- (13) Separate the pipe box (center) from the pipe box (top). (See Photo 5-4.)
- (14) Remove the LEV assy.

<Pipe box cap only for PAC-MKA30/31BC>

The pipe box caps are placed in 2 unused pipe holes between the pipe box top, center and under. (See Photo 5-5)

Notes:

1. Attach the insulation sheet to the thermistor(s) and the lead wire(s) of LEV coil after replacing thermistor(s).
2. Install the pipe box not to twine the lead wire(s) and the pipe cover around the pipe box.

Photo 5-4

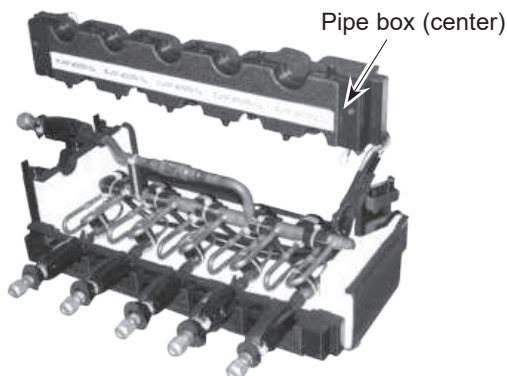
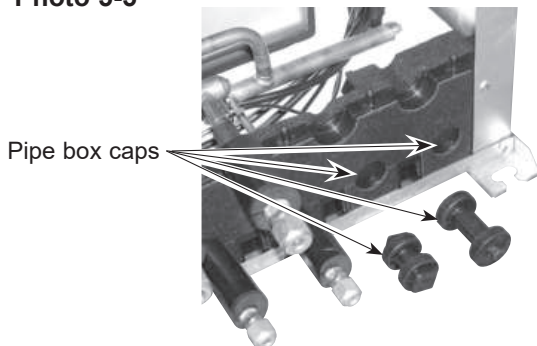


Photo 5-5



PHOTOS/FIGURES

Photo 5-1

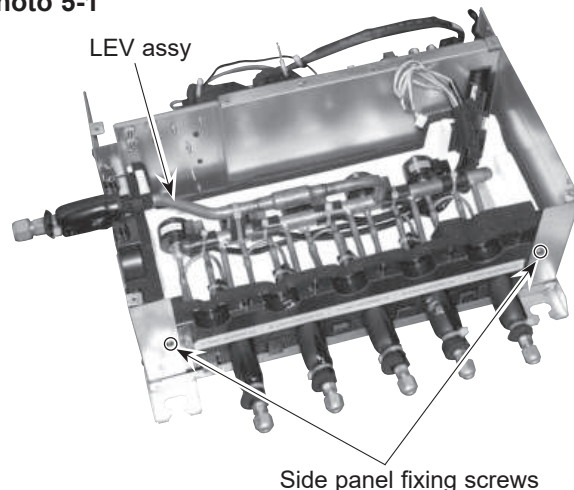


Photo 5-2

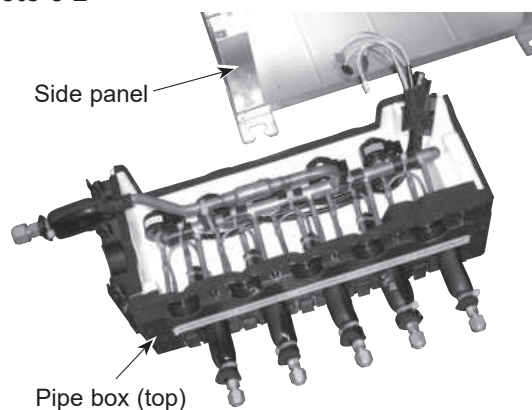
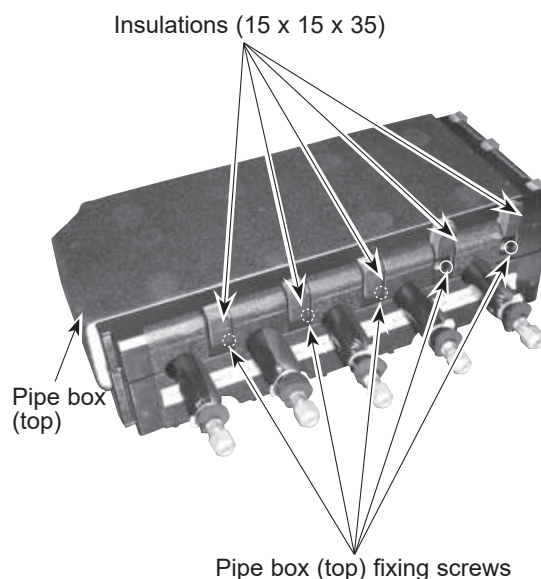


Photo 5-3



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