MITSUBISHI ELECTRIC

Changes for the Better

SPLIT-TYPE, HEAT PUMP AIR CONDITIONERS

Revision A:
●MXZ-A14WV -E1 has been added.

Please void OB319.

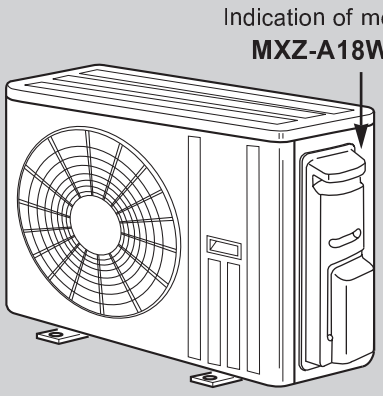
No. OB319
REVISED EDITION-A

HFC utilized
R410A

SERVICE MANUAL

Inverter-controlled multi system type
Models

MXZ-A14WV -E1
MXZ-A18WV -E1
MXZ-A26WV -E1
MXZ-A32WV -E1



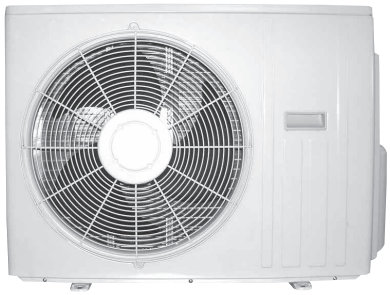
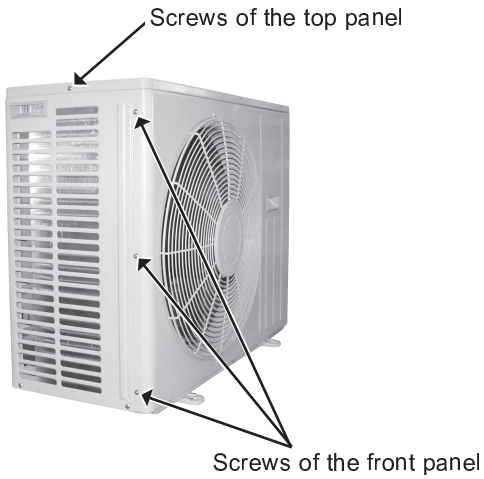
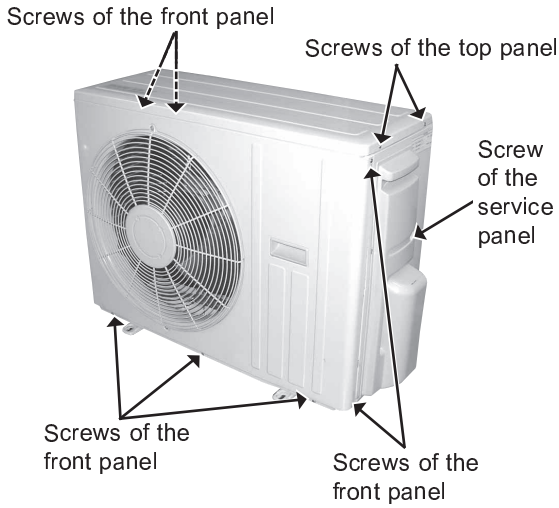
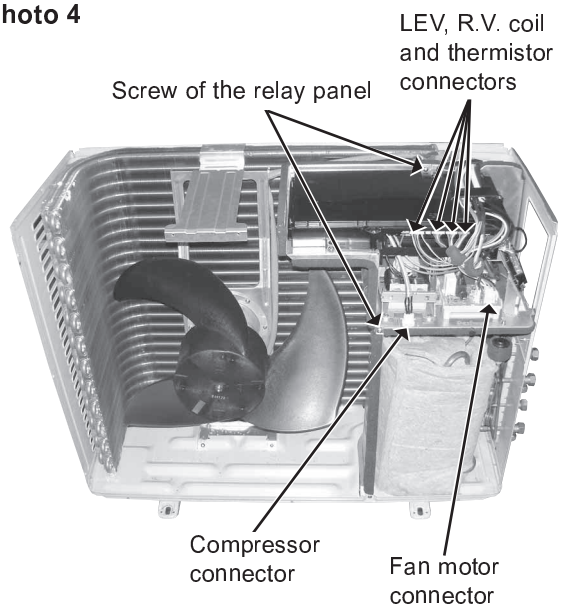
CONTENTS

NOTE:
•This service manual describes technical data of outdoor units.
As for indoor units, refer to the service manual OB307 REVISED EDITION-C, OB321, OB327, OB329, OB336 REVISED EDITION-A, OB345, OC302 or OC303.

CE

13 DISASSEMBLY INSTRUCTIONS

13-1. MXZ-A14WV -E1 MXZ-A18WV -E1
OUTDOOR UNIT

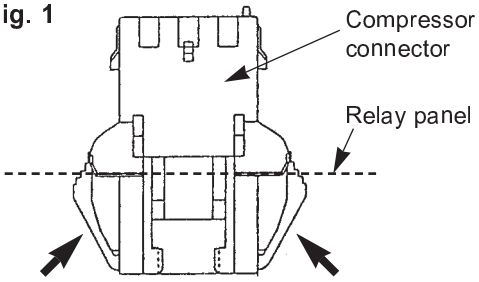
OPERATING PROCEDURE	PHOTOS
1. Removing the cabinet. 1. Removing the cabinet. (1) Remove the screws of the top panel. (2) Remove the top panel. (3) Remove the screw of the service panel. (4) Remove the service panel. (5) Remove the screws of the front panel.	**Photo 1** 
Photo 3 	**Photo 2** 
2. Removing the inverter assembly (1) Remove the top panel, service panel and front panel. (2) Remove indoor/outdoor connecting wire and power supply cable. (3) Remove the compressor connector on the compressor side. (4) Remove the connectors for fan motor, LEV, thermistor and R.V. coil from the electronic control P.C. board. (5) Remove the screws of the inverter assembly. (6) Remove the inverter assembly.	**Photo 4** 

OPERATING PROCEDURE

3. Removing the Outdoor Electronic control P.C. board.

(1) Remove the top panel, service panel and front panel.
(2) Remove the connector coming out of the compressor.
(3) Remove the compressor connector, compressor relay connector on the electronic control P.C. board side, terminal of reactor and terminals of TAB4 and X64 of the noise filter P.C. board coming out of the electronic control P.C. board. (Fig. 1)
(4) Remove the screw fixing the cover of the electronic control P.C. board.
(5) Remove the cover of the electronic control P.C. board.
(6) Remove the screw fixing the heat sink.
(7) Remove the hooks fixing the electronic control P.C. board.
(8) Disconnect all the connectors and the terminal on the electronic control P.C. board.
(9) Remove the electronic control P.C. board.

Fig. 1



Push up the connector by holding the part shown by the arrows.

4. Removing the propeller and fan motor

(1) Remove the top panel, service panel and front panel.
(2) Remove the fan motor connector (CN911) from the noise filter P.C. board.
Remove the inverter assembly and then lead wires from cable clamp.
(3) Remove the propeller nut.
(4) Remove the propeller.
(5) Remove the screws of fan motor.
(6) Remove the fan motor

PHOTOS

Photo 5

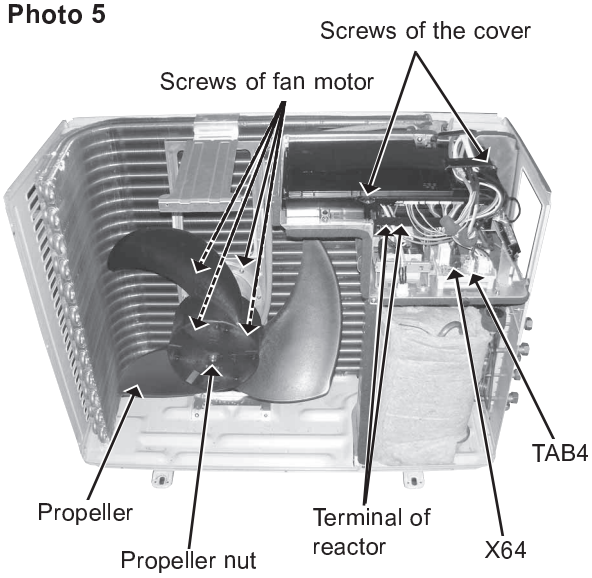


Photo 6

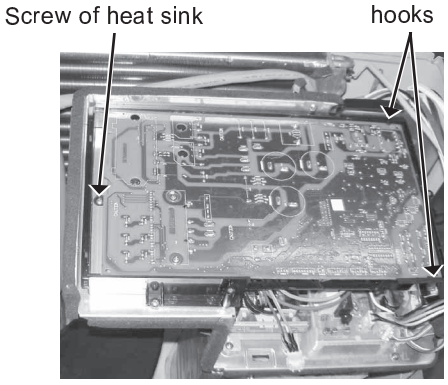
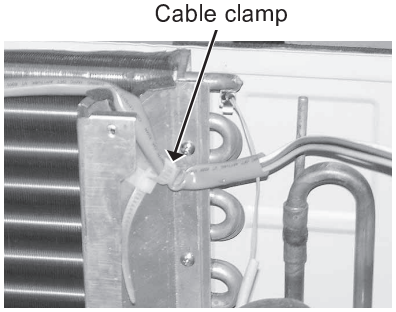
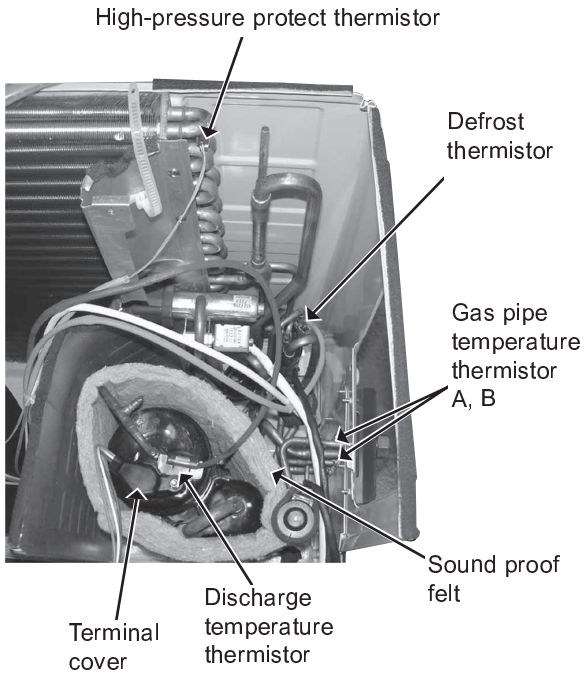
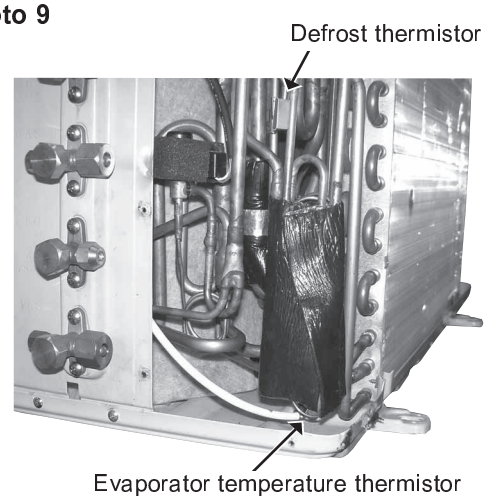
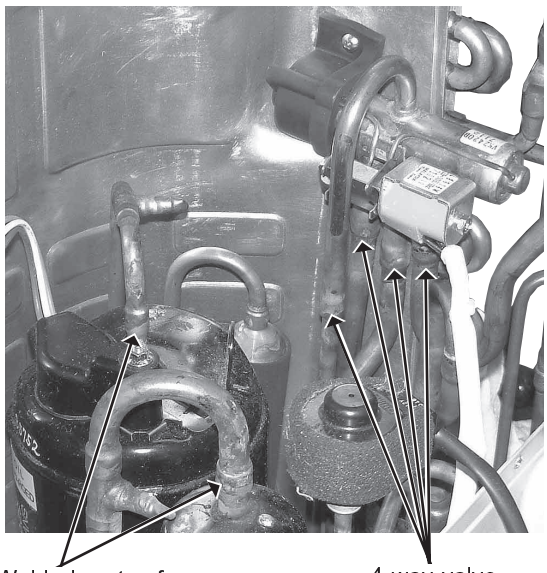


Photo 7



OPERATING PROCEDURE	PHOTOS
5. Removing the thermistor Discharge temperature thermistor, defrost, evaporator temperature, high-pressure protect, gas pipe temperature A and gas pipe temperature B (1) Remove the top panel, service panel, front panel. (2) Remove indoor/outdoor connecting wire and power supply cable. (3) Remove thermistor connector (CN661, CN662) from the electronic control P.C. board. (4) Remove the inverter assembly. (5) Remove the thermistor in the upper part of compressor. (6) Remove the back panel. (7) Remove the thermistors for defrost, evaporator temperature, gas pipe temperature A and gas pipe temperature B. Do not wipe off silicon oil. Otherwise the temperature of the electronic control P.C. board may rise unusually.	**Photo 8**  **Photo 9** 

OPERATING PROCEDURE	PHOTOS
6. Removing the compressor/4-way valve (1) Collect refrigerant from refrigerant circuit. Caution: If collecting has not been done enough, refrigerating machine oil may spout out or harmful substance may be generated during welding work. (2) Remove indoor/outdoor connecting wire and power supply cable. (3) Remove the top panel, service panel, front panel and back panel. (4) Remove the inverter assembly. (5) In case of removing 4-way valve, detach welded parts first. (6) Remove the terminal cover then pull out the lead wire from the terminal of compressor. Remove the soundproof felt. (7) Detach welded parts of compressor suction and discharge pipes. (8) Remove the compressor nuts and remove the compressor.	**Photo 10**  Welded parts of compressor suction and discharge pipes 4-way valve welded parts

13-2. MXZ-A26WV -E1 MXZ-A32WV -E1
OUTDOOR UNIT

OPERATING PROCEDURE

1. Removing the compressor

(1)Remove the screws of the top panel, and remove it.
(2)Remove the screws of the service panel, and remove it.
Recover refrigerant gas.
(3)Remove the screws of the front panel, and remove it.
(4)Disconnect the compressor lead wire from terminal of compressor. (U, V, W)
(5)Disconnect the outdoor electronic control P.C. board connectors.
CN661, CN662, CN681, CN791, CN792, CN793, CN794 (MXZ-A32WV), CN795, CN931, CN932
Disconnect the noise filter P.C. board connector.
CN912
(6)Remove the screws of the electrical parts, and remove the electrical parts.
(7)Remove the propeller.
(8)Remove the screws of the separator, and remove the separator.
(9)Remove the sound proof felt.
(10)Detach the welded parts of the compressor suction and discharge pipes. (Photo 3)
(11)Remove the compressor nuts and remove the compressor.

PHOTOS

Photo 1

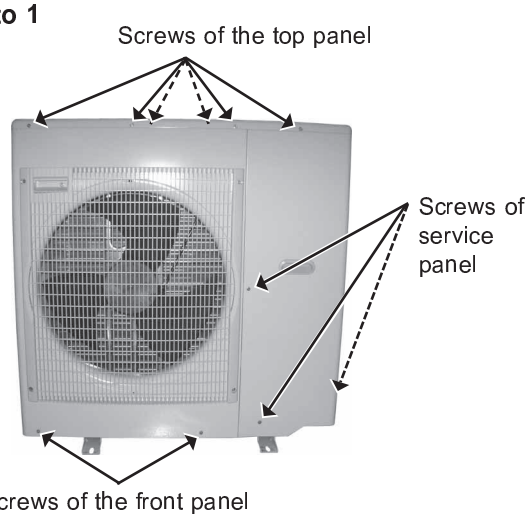


Photo 2

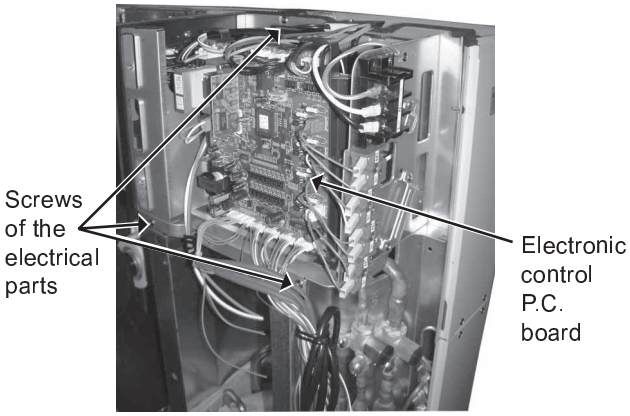
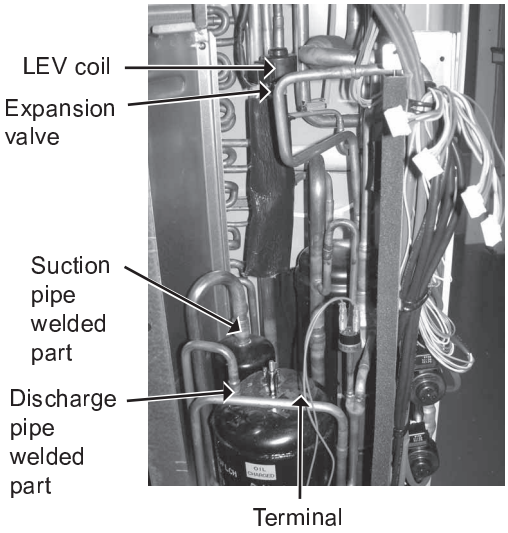
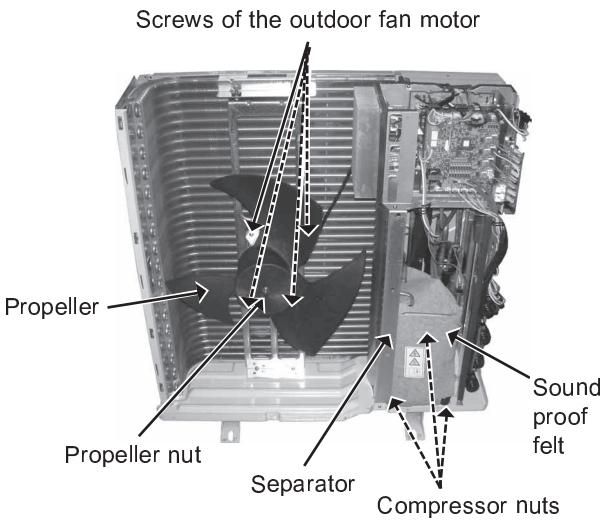
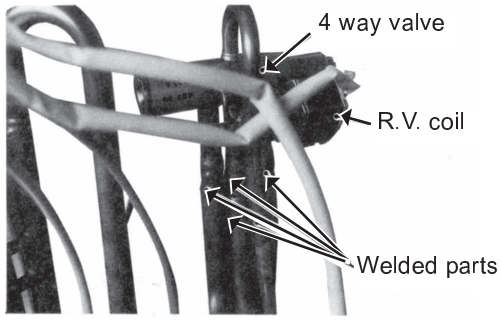
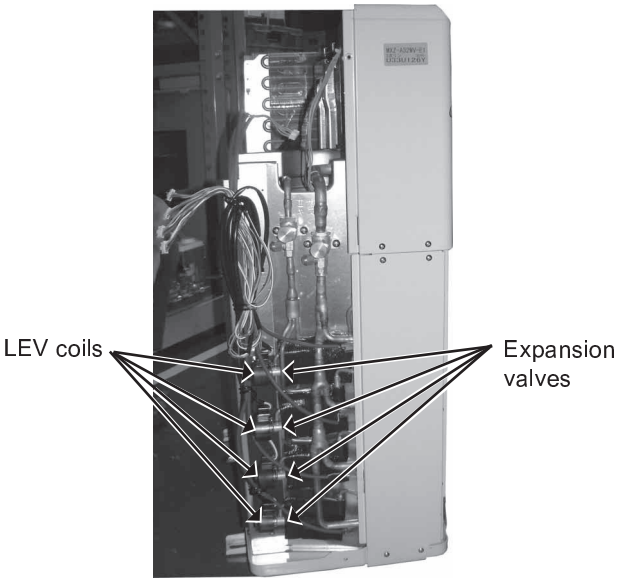
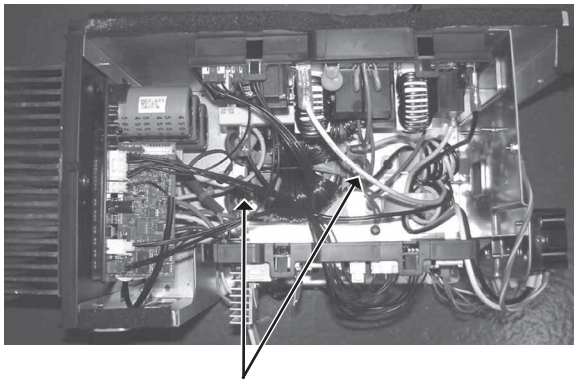


Photo 3

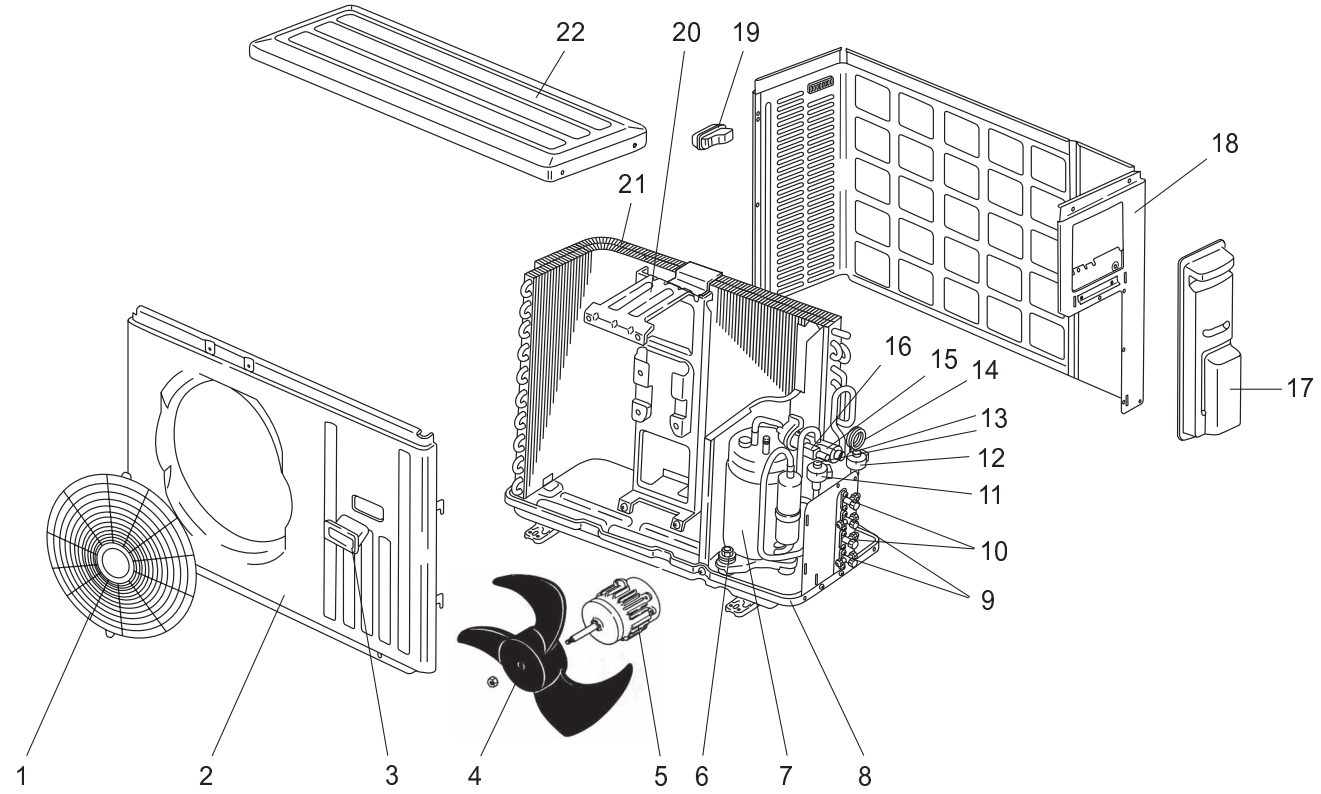


OPERATING PROCEDURE	PHOTOS
2. Removing the fan motor (1)Remove the top panel, the service panel, and the front panel. (Photo 1) (2)Disconnect the connector CN911 on the outdoor electronic control P.C. board. (3)Remove the propeller. (4)Remove the fan motor.	**Photo 4** 
3. Removing the 4-way valve (1)Remove the top panel. (Photo 1) (2)Remove the service panel, rear panel, and pipe cover. Recover refrigerant gas. (3)Remove the electrical parts. (Photo 2) (4)Detach the welded parts of 4-way valve and pipe. (Photo 5)	**Photo 5** 
4. Removing the expansion valve (1)Remove the top panel. (Photo 1) (2)Remove the service panel. (Photo 1) (Gas recovery is not required if the unit is pumped down.) (3)Remove the LEV coil. (4)Detach the welded parts of expansion valves and pipes.	**Photo 6** 

OPERATING PROCEDURE	PHOTOS
5. Removing the reactor (1)Remove the top panel. (Photo 1) (2)Disconnect the reactor lead wire. (3)Remove the screws of the reactor, and remove the reactor.	**Photo 7**  Screws of the reactor

14 PARTS LIST

MXZ-A14WV -E1
MXZ-A18WV -E1
14-1. OUTDOOR UNIT FUNCTIONAL PARTS AND STRUCTURAL PARTS

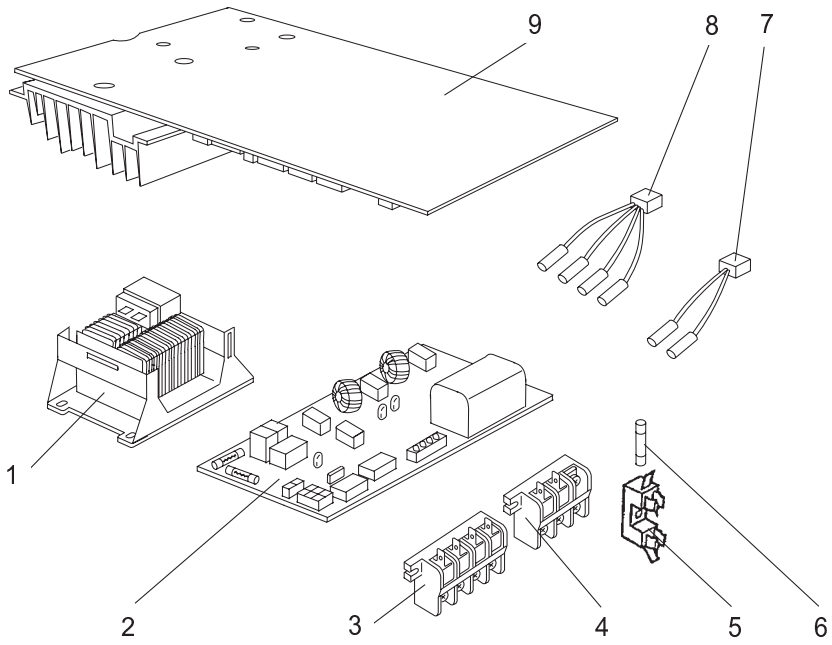


Part numbers that are circled are not shown in the illustration.

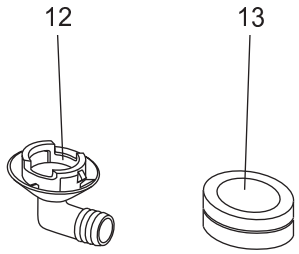
No.	Parts No.	Parts Name	Symbol in Wiring Diagram	Q'ty/unit		Remarks
				MXZ-A14WV-E1	MXZ-A18WV-E1	
1	E02 819 521	FAN GUARD		1	1	
2	E02 737 232	CABINET		1	1	
3	E02 819 009	HANDLE		1	1	
4	E02 214 501	PROPELLER		1	1	
5	E02 735 301	OUTDOOR FAN MOTOR	MF	1	1	RA6V49-□□
6	E02 065 506	COMPRESSOR RUBBER SET		3	3	3RUBBERS/SET
7	E02 735 900	COMPRESSOR	MC	1	1	SNV-092FJYH
8	E02 737 290	BASE		1	1	
9	E02 735 661	STOP VALVE (GAS)		2	2	
10	E02 735 662	STOP VALVE (LIQUID)		2	2	
11	E02 736 493	LEV COIL	B	1	1	
12	E02 735 493	LEV COIL	A	1	1	
13	E02 735 640	EXPANSION VALVE	LEV A,B	2	2	
14	E02 735 937	CAPILLARY TUBE		1	1	ϕ1.8×ϕ0.6×750
15	E02 735 961	4-WAY VALVE		1	1	
16	E02 735 490	R.V. COIL	21S4	1	1	
17	E02 737 245	SERVICE PANEL		1	1	
18	E02 737 233	BACK PANEL (OUT)		1	1	
19	E02 817 009	HANDLE		1	1	
20	E02 636 515	MOTOR SUPPORT		1	1	
21	E02 735 630	OUTDOOR HEAT EXCHANGER		1	1	
22	E02 819 297	TOP PANEL		1	1	
(23)	E02 735 933	MUFFLER		2	2	
(24)	E02 069 936	CAPILLARY TUBE		2	2	ϕ3.0×ϕ2.0×400
(25)	E02 735 936	CAPILLARY TUBE		2	2	ϕ3.0×ϕ1.8×600

MXZ-A14WV -E1
MXZ-A18WV -E1

14-2. OUTDOOR UNIT ELECTRICAL PARTS



14-3. ACCESSORY



14-2. OUTDOOR UNIT ELECTRICAL PARTS

Part numbers that are circled are not shown in the illustration.

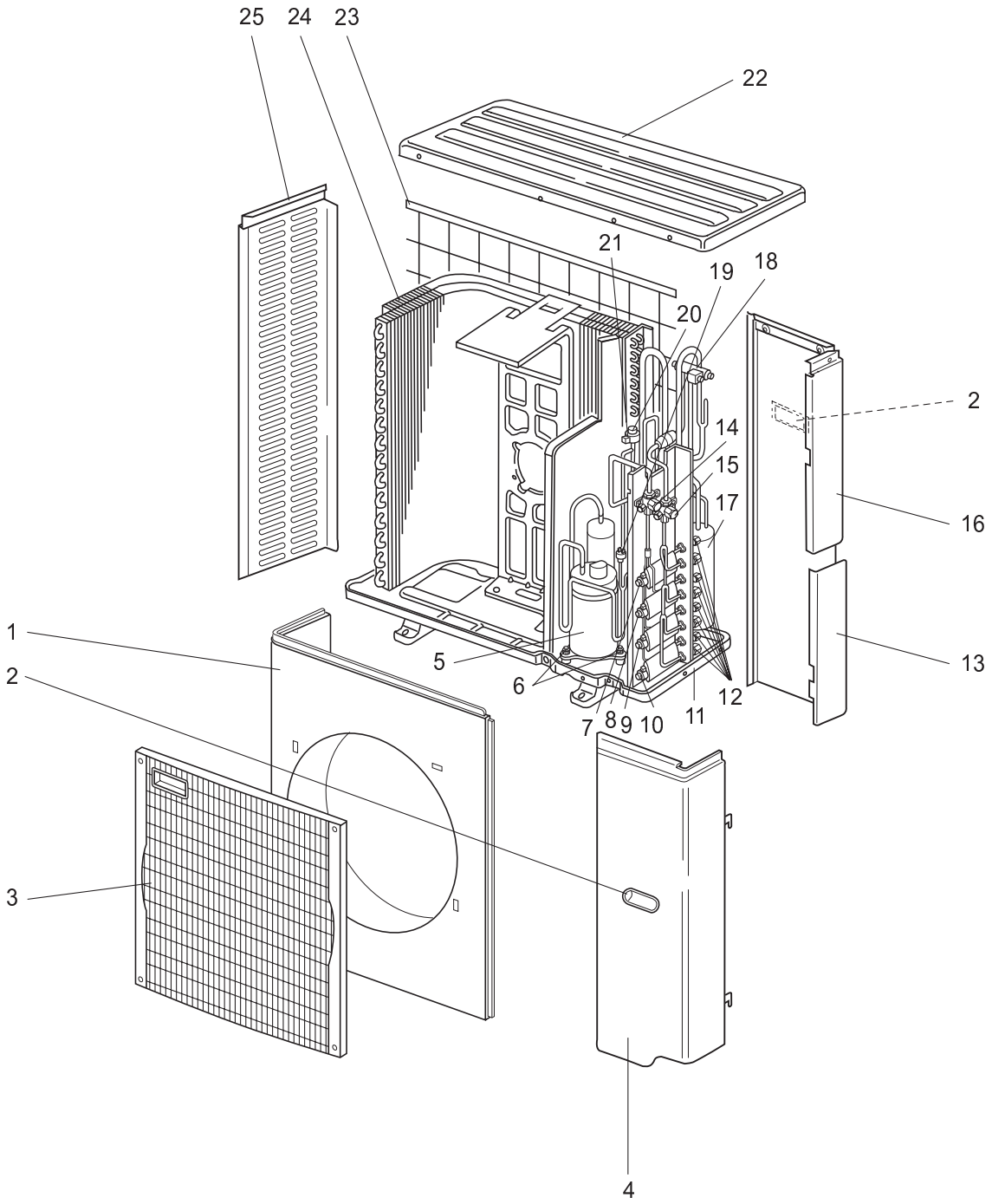
No.	Parts No.	Parts Name	Symbol in Wiring Diagram	Q'ty/unit		Remarks
				MXZ-A14WV-E1	MXZ-A18WV-E1	
1	E02 735 337	REACTOR	L	1	1	
2	E02 735 444	NOISE FILTER P.C. BOARD		1	1	
3	E02 735 374	TERMINAL BLOCK	TB2	1	1	
4	E02 573 375	TERMINAL BLOCK	TB1	1	1	
5	E02 735 241	FUSE HOLDER		1	1	
6	E02 735 382	FUSE	F61	1	1	20A 250VAC
7	E02 735 306	GAS PIPE TEMPERATURE THERMISTOR SET	RT6A,RT6B	1	1	
8	E02 735 308	THERMISTOR SET	RT61,RT62,RT63,RT68	1	1	DISCHARGE,DEFROST EVAPORATOR,HIGH-PRESSURE PROTECT
9	E02 887 450	ELECTRONIC CONTROL P.C. BOARD		1		Including heat sink and RT65
	E02 735 450	ELECTRONIC CONTROL P.C. BOARD			1	Including heat sink and RT65
(10)	E02 735 385	FUSE&VARISTOR	F912,NR63	1	1	3.15A 250V
(11)	E02 737 382	FUSE	F801,F911	1	1	1A 250V

14-3. ACCESSORY

12	E02 817 704	DRAIN SOCKET		1	1	
13	E02 444 705	DRAIN CAP		2	2	2PCS/SET

MXZ-A26WV - E1
MXZ-A32WV - E1

14-4. OUTDOOR UNIT STRUCTURAL PARTS AND FUNCTIONAL PARTS

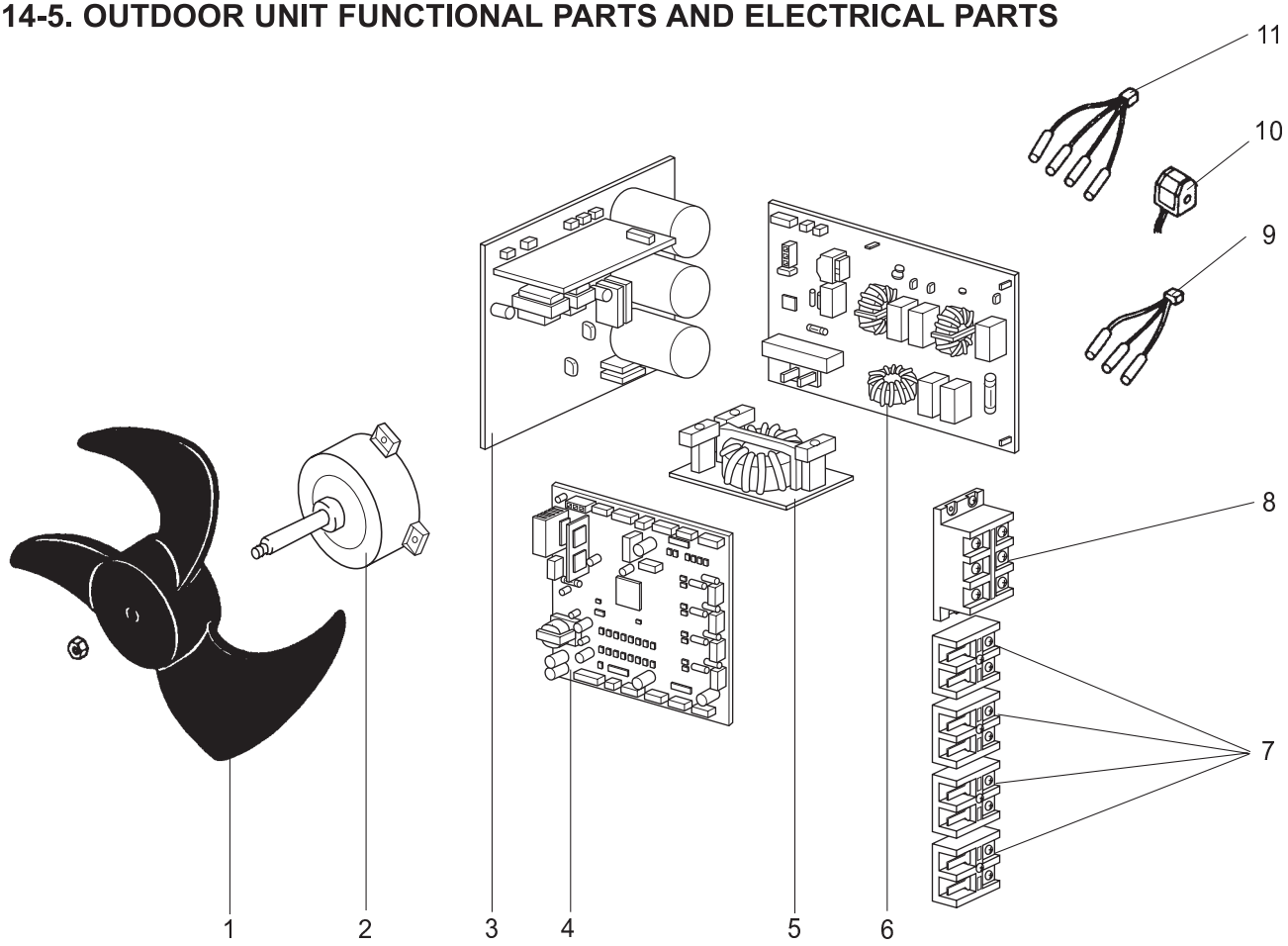


14-4. OUTDOOR UNIT STRUCTURAL PARTS AND FUNCTIONAL PARTS

Part numbers that are circled are not shown in the illustration.

No.	Parts No.	Parts Name	Symbol in Wiring Diagram	Q'ty/unit		Remarks
				MXZ-A26WV-E1	MXZ-A32WV-E1	
1	M21 TK0 232	FRONT PANLE		1	1	
2	M21 TK0 027	HANDLE ASSEMBLY		2	2	
3	M21 TK5 010	GRILLE		1	1	
4	M21 TK0 245	SERVICE PANEL		1	1	
5	T92 500 801	COMPRESSOR	MC	1	1	TNB220FMCH
6	T2W TK0 505	COMPRESSOR RUBBER SET		3	3	3RUBBERS SET
7	M21 TK5 646	EXPANSION VALVE	LEV D		1	D room
	T2W TK0 654	LEV COIL			1	D room
8	M21 TK5 646	EXPANSION VALVE	LEV C	1	1	C room
	T2W TK0 653	LEV COIL		1	1	C room
9	R01 E39 401	EXPANSION VALVE	LEV B	1	1	B room
	T2W TK0 652	LEV COIL		1	1	B room
10	R01 E39 401	EXPANSION VALVE	LEV A	1	1	A room
	T2W TK0 651	LEV COIL		1	1	A room
11	M21 TK0 290	BASE ASSEMBLY		1	1	
12	M21 42E 644	UNION		1	1	1/2,3/8,1/4 SET
13	T2W TK0 247	PIPE COVER		1	1	
14	M21 TK5 667	BALL VALVE 3/8		1	1	
15	M21 TK0 667	BALL VALVE 5/8		1	1	
16	M21 TK0 248	REAR PANEL		1	1	
17	T2W TK0 959	POWER RECEIVER		1	1	
18	M21 20A 961	4-WAY VALVE		1	1	
19	M21 NT1 646	HIGH PRESSURE SWICH	HPS	1	1	4.8MPa(48.9kg/cm^2)
20	T2W WW8 401	EXPANSION VALVE	LEV E	1	1	
21	T2W TK0 651	LEV COIL	LEV E	1	1	
22	M21 TK0 297	TOP PANEL		1	1	
23	T2W E40 523	REAR GUARD		1	1	
24	M21 TK0 630	HEAT EXCHANGER		1	1	
25	M21 TK0 249	SIDE PANEL		1	1	
(26)	M21 SJ4 937	CAPILLARY TUBE		2	2	ϕ4.0×ϕ2.4×400
(27)	M21 TK0 936	CAPILLARY TUBE SET		3	4	ϕ4.0×ϕ2.8×90
(28)	T2W E59 936	CAPILLARY TUBE		1	1	ϕ2.5×ϕ0.6×1000
(29)	T2W E70 936	CAPILLARY TUBE		1	1	ϕ2.0×ϕ0.6×750

MXZ-A26WV -E1
MXZ-A32WV -E1
14-5. OUTDOOR UNIT FUNCTIONAL PARTS AND ELECTRICAL PARTS

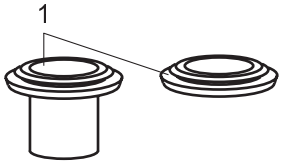


Part numbers that are circled are not shown in the illustration.

No.	Parts No.	Parts Name	Symbol in Wiring Diagram	Q'ty/unit		Remarks
				MXZ-A26WV-E1	MXZ-A32WV-E1	
1	M21 TK0 501	PROPELLER		1	1	
2	M21 TK0 301	OUTDOOR FAN MOTOR	MF	1	1	PM8H60-□□
3	T2W TK0 440	POWER BOARD		1	1	Including heat sink and RT65
4	T2W TK1 451	ELECTRONIC CONTROL P.C. BOARD		1		
	T2W TK0 451	ELECTRONIC CONTROL P.C. BOARD			1	
5	M21 TK0 337	REACTOR	L	1	1	220μF 400V
6	T2W TK0 424	NOISE FILTER P.C. BOARD		1	1	
7	T2W E58 376	TERMINAL BLOCK	TB2~5	3	4	Indoor unit connecting
8	T2W TK0 375	TERMINAL BLOCK	TB1	1	1	Power supply
9	T2W E88 307	GAS PIPE TEMPERATURE THERMISTOR	RT6A,B,C	1		
	T2W E70 307	GAS PIPE TEMPERATURE THERMISTOR	RT6A,B,C,D		1	
10	T2W TK0 398	R.V. COIL	21S4	1	1	
11	M21 TK0 308	THERMISTOR SET	RT61,62,63,68	1	1	DISCHARGE, DEFROST EVAPORATION, OUTDOOR HEAT EXCHANGER
⑫	T2W E08 381	FUSE	F801	1	1	3.15A 250V
⑬	T2W E66 382	FUSE	F911	1	1	1A 250V
⑭	T2W E89 313	FUSE&VARISTOR SET	F912,NR63	1	1	3.15A 250V

MXZ-A26WV-E1
MXZ-A32WV-E1

14-6. ACCESSORY



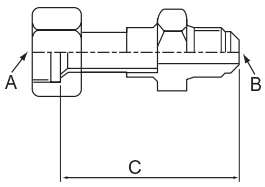
No.	Parts No.	Parts Name	Symbol in Wiring Diagram	Q'ty/unit		Remarks
				MXZ-A26WV-E1	MXZ-A32WV-E1	
1	T2W E59 704	DRAIN SOCKET ASSEMBLY		1	1	DRAIN SOCKET ×1 DRAIN CAP ×2

15 OPTIONAL PARTS

15-1. Different-diameter pipe

MXZ-A14WV MXZ-A18WV	Model name	Connected pipes diameter (mm)	Length A	Length B	Length C
For different-diameter pipes	MAC-A454JP	ϕ9.52 — ϕ12.7 (3/8) (1/2)	ϕ9.52 (3/8)	ϕ12.7 (1/2)	69

Unit : mm (inch)

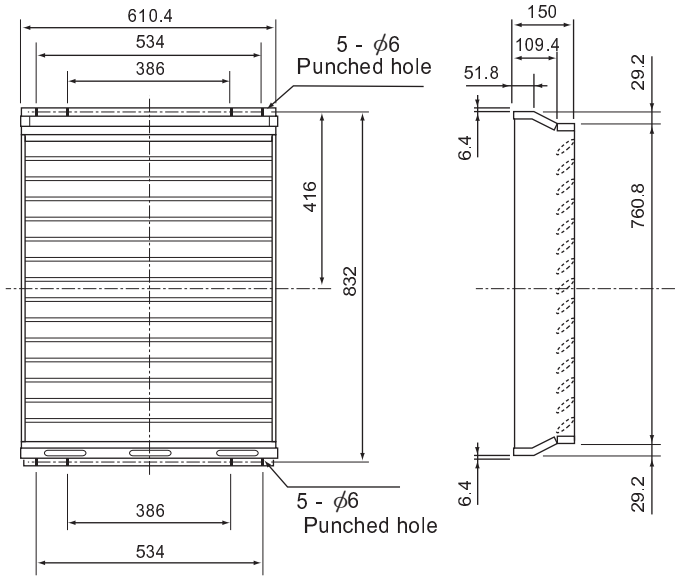


MXZ-A26WV MXZ-A32WV	Model name	Connected pipes diameter (mm)	Length A	Length B	Length C
For different-diameter pipes	MAC-A454JP	ϕ9.52 — ϕ12.7 (3/8) (1/2)	ϕ9.52 (3/8)	ϕ12.7 (1/2)	69
	MAC-A455JP	ϕ12.7 — ϕ9.52 (1/2) (3/8)	ϕ12.7 (1/2)	ϕ9.52 (3/8)	65
	MAC-A456JP	ϕ12.7 — ϕ15.88 (1/2) (5/8)	ϕ12.7 (1/2)	ϕ15.88 (5/8)	66.5

15-2. Outlet guide

Changes air discharge direction.

Applied unit	Model name	Model code
MXZ-A26WV MXZ-A32WV	MAC-855SG	51H-855



MAC-855SG

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