

SERVICE MANUAL

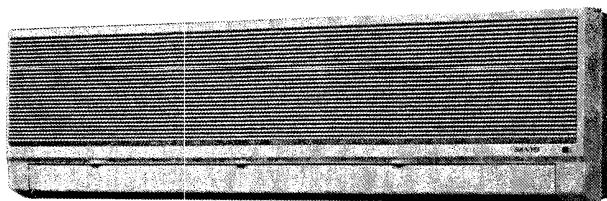
**24KS12W
30KS12W
36KS12W**

SANYO

SPLIT SYSTEM AIR CONDITIONER

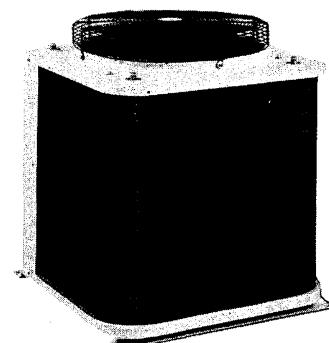
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Indoor Unit

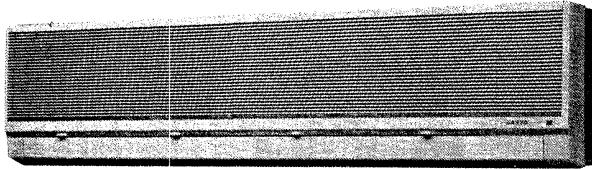


KS2412W

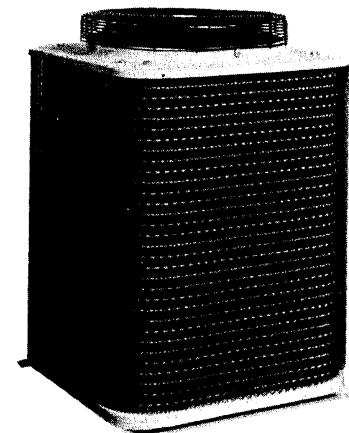
Outdoor Unit



CS2412



KS3012W
KS3612W



CS3012
CS3612

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1. SPECIFICATIONS

1) Unit Specifications

Model No.			24KS12W
Unit Model No.	Indoor unit		KS2412W
	Outdoor unit		CS2412
PERFORMANCE			Cooling
Capacity	BTU/hr.		22,400 / 22,000
Air circulation (High)	cu. ft./min.		540 / 510
Moisture removal (High)	Pints/hr.		6.5 / 6.4
ELECTRICAL RATING			
Frequency	Hz		60
Phase			Single
Voltage rating	V		230 / 208
Available voltage range	V		187 ~ 253
Running amperes	A		10.5 / 11.4
Power input	W		2,400 / 2,350
Power factor	%		99 / 99
S.E.E.R.	BTU/Whr.		9.5 / 9.6
FEATURES			
Controls			Microcomputer
Control switch			Wireless remote control
Temperature control			IC Thermostat
Timer			ON/OFF/PROGRAM 24-hours
Fan speeds	Indoor fan / Outdoor fan		3 / 1
Air deflection	Horizontal / Vertical		Manual / Automatic
Air filter			Washable, easy access
Compressor			Rotary
Refrigerant (R-22) amount at shipment lbs. (kg)			6.8 (3.1)
Refrigerant control			Capillary tube
Operation sound	In-Hi/Med/Lo	dB-A	45 / 42 / 40
	Out-Hi	dB-A	52
Refrigerant piping connections			Flare type
Max allowable piping length at shipment ft. (m)			50 (15)
Limit of piping length	ft. (m)		100 (30)
Limit elevation difference between two units	ft. (m)		50 (15)
Refrigerant pipe diameter o.d.	Narrow pipe	in. (mm)	1/4 (6.35)
	Wide pipe	in. (mm)	5/8 (15.88)
Refrigerant piping kit			Optional
Accessories			Hanging wall bracket
DIMENSIONS & WEIGHT		Indoor unit	Outdoor unit
Height	in. (mm)	14-9/16 (370)	30-1/8 (765)
Width	in. (mm)	49-7/32 (1,250)	26-3/8 (670)
Depth	in. (mm)	8-9/32 (210)	26-3/8 (670)
Net weight	lbs. (kg)	40 (18)	178 (81)
Shipping volume	cu. ft. (cu. m)	6.9 (0.195)	16.3 (0.461)
Shipping weight (Approx.)	lbs. (kg)	53 (24)	195 (86)

DATA SUBJECT TO CHANGE WITHOUT NOTICE.

Remarks: 1. Rating conditions are: Outdoor unit entering air temperature 95°F D.B./75°F W.B.
 Indoor unit entering air temperature 80°F D.B./67°F W.B.

1) Unit Specifications

Model No.		30KS12W	
Unit Model No.	Indoor unit	KS3012W	
	Outdoor unit	CS3012	
PERFORMANCE			Cooling
Capacity	BTU/hr.	28,000 / 27,000	
Air circulation (High)	cu. ft./min.	750 / 710	
Moisture removal (High)	Pints/hr.	8.1 / 7.8	
ELECTRICAL RATING			
Frequency	Hz	60	
Phase		Single	
Voltage rating	V	230 / 208	
Available voltage range	V	187 ~ 253	
Running amperes	A	13.0 / 13.9	
Power input	W	2,900 / 2,830	
Power factor	%	97 / 98	
S. E. E. R.	BTU/Whr.	10.0 / 10.0	
FEATURES			
Controls		Microcomputer	
Control switch		Wireless remote control	
Temperature control		IC Thermostat	
Timer		ON/OFF/PROGRAM 24-hours	
Fan speeds	Indoor fan / Outdoor fan	3 / 1	
Air deflection	Horizontal / Vertical	Manual / Automatic	
Air filter		Washable, easy access	
Compressor		Rotary	
Refrigerant (R-22) amount at shipment lbs. (kg)		9.5 (4.3)	
Refrigerant control		Capillary tube	
Operation sound	In-Hi/Med/Lo	dB-A	47 / 44 / 41
	Out-Hi	dB-A	62
Refrigerant piping connections		Flare type	
Max allowable piping length at shipment ft. (m)		50 (15)	
Limit of piping length	ft. (m)	100 (30)	
Limit elevation difference between two units	ft. (m)	50 (15)	
Refrigerant pipe diameter o.d.	Narrow pipe	in. (mm)	3/8 (9.52)
	Wide pipe	in. (mm)	5/8 (15.88)
Refrigerant piping kit		Optional	
Accessories		Hanging wall bracket	
DIMENSIONS & WEIGHT		Indoor unit	Outdoor unit
Height	in. (mm)	14-9/16 (370)	38 (965)
Width	in. (mm)	59-1/16 (1,500)	26-3/8 (670)
Depth	in. (mm)	9-7/16 (240)	26-3/8 (670)
Net weight	lbs. (kg)	64 (29)	200 (91)
Shipping volume	cu. ft. (cu. m)	9.2 (0.260)	25 (0.708)
Shipping weight (Approx.)	lbs. (kg)	79 (36)	227 (103)

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Remarks: 1. Rating conditions are: Outdoor unit entering air temperature 95°F D.B. / 75°F W.B.
Indoor unit entering air temperature 80°F D.B. / 67°F W.B.

1) Unit Specifications

Model No.	36KS12W		
Unit Model No.	Indoor unit	KS3612W	
	Outdoor unit	CS3612	
PERFORMANCE			Cooling
Capacity	BTU/hr.	34,000 / 33,000	
Air circulation (High)	cu. ft. /min.	720 / 690	
Moisture removal (High)	Pints/hr.	10.0 / 9.6	
ELECTRICAL RATING			
Frequency	Hz	60	
Phase		Single	
Voltage rating	V	230 / 208	
Available voltage range	V	187 ~ 253	
Running amperes	A	15.8 / 16.9	
Power input	W	3,510 / 3,450	
Power factor	%	97 / 98	
S. E. E. R.	BTU/Whr.	9.8 / 9.9	
FEATURES			
Controls	Microcomputer		
Control switch	Wireless remote control		
Temperature control	IC Thermostat		
Timer	ON/OFF/PROGRAM 24-hours		
Fan speeds	Indoor fan / Outdoor fan		
Air deflection	Horizontal / Vertical		
Air filter	Washable, easy access		
Compressor	Rotary		
Refrigerant (R-22) amount at shipment lbs. (kg)	9.9 (4.5)		
Refrigerant control	Capillary tube		
Operation sound	In-Hi/Med/Lo	dB-A	48 / 45 / 42
	Out-Hi	dB-A	62
Refrigerant piping connections	Flare type		
Max allowable piping length at shipment ft. (m)	50 (15)		
Limit of piping length	ft. (m)	130 (40)	
Limit elevation difference between two units	ft. (m)	50 (15)	
Refrigerant pipe diameter o.d.	Narrow pipe Wide pipe	in. (mm)	3/8 (9.52) 3/4 (19.05)
Refrigerant piping kit	Optional		
Accessories	Hanging wall bracket		
DIMENSIONS & WEIGHT		Indoor unit	Outdoor unit
Height	in. (mm)	14-9/16 (370)	38 (965)
Width	in. (mm)	59-1/16 (1,500)	26-3/8 (670)
Depth	in. (mm)	9-7/16 (240)	26-3/8 (670)
Net weight	lbs. (kg)	68 (31)	209 (95)
Shipping volume	cu. ft. (cu. m)	9.2 (0.260)	25 (0.708)
Shipping weight (Approx.)	lbs. (kg)	85 (39)	235 (107)

DATA SUBJECT TO CHANGE WITHOUT NOTICE.

Remarks: 1. Rating conditions are: Outdoor unit entering air temperature 95°F D.B./75°F W.B.
 Indoor unit entering air temperature 80°F D.B./67°F W.B.

2) Major Component Specifications

Unit Model No.	KS2412W
Controller P.C.B.	POW-KS2412
Control circuit fuse	250V - 3A
Wireless remote control unit	RCS-KS2412W

Unit Model No.	CS2412	
Compressor	Hermetic Rotary Type	
Compressor model No.	C-R170H6S	
Source	230/208V, 60Hz, Single phase	
Pole	2	
Nominal output W(H.P.)	1,700 (2-1/4)	
Compressor oil cc	1,350 (Special oil for Rotary Compressor)	
Coil resistance Ω (Ambient temp. 77°F)	C - R : 0.73 C - S : 1.91	
Protective Devices, Compressor	Internal line type	
Overload relay model	-	
Operating temp.	Open °F Close °F	320 ± 9 198 ± 20
Operating amperes (Ambient temp. 77°F)	-	-
Run capacitor	μ F VAC	35 400
Crankcase heater	V - W	230 - 30

Unit Model No.	KS2412W	CS2412
Fan	Cross-flow	Propeller
Number... dia. (length) mm	1.... ϕ 110, (L990)	1.... ϕ 500
Fan motor model	KFH4Q-31A6P	KFC8S-101A6P
Source	230/208V, 60Hz, Single phase	
No. of pole... rpm. (230/208V)(Hi.)	4.... 1,272/1,180	8.... 827/809
Nominal output W(H.P.)	30 (1/32)	100 (1/8)
Coil resistance Ω (Ambient temp. 68°F)	WHT - BRN : 210.4 ORG - YEL : 424.9 WHT - VLT : 45.5 VLT - ORG : 25.8 ORG - PNK : 114.4	WHT - BRN : 24.2 BLK - PNK : 53.1
Safety Devices		
Fan motor, internal type	Open °F Close °F	248 ± 9 171 ± 27
Run capacitor	μ F VAC	1.8 440
		248 ± 9 171 ± 27
		5 440

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2) Major Component Specifications

Unit Model No.	KS3012W		
Controller P.C.B.	POW-KS2412		
Control circuit fuse	250V - 3A		
Wireless remote control unit	RCS-KS2412W		

Unit Model No.	CS3012		
Compressor	Hermetic Rotary Type		
Compressor model No.	C-R191H6S		
Source	230/208V, 60Hz, Single phase		
Pole	2		
Nominal output	W(H.P.)	1,900 (2-1/2)	
Compressor oil	cc	1,350 (Special oil for Rotary Compressor)	
Coil resistance		C - R:	0.70
(Ambient temp. 77°F)	Ω	C - S:	1.66
Protective Devices, Compressor		Internal line type	-
Overload relay model		-	-
Operating temp.	Open °F	329 ± 9	-
	Close °F	203 ± 16	-
Operating amperes		-	-
(Ambient temp. 77°F)			
Run capacitor	μF	40	
	VAC	370	
Crankcase heater	V - W	230 - 30	

Unit Model No.	KS3012W	CS3012
Fan	Cross-flow	Propeller
Number....dia. (length)	mm	1....φ 120, (L1,170)
Fan motor model		SFG4T-41A6P
Source		230/208V, 60Hz, Single phase
No. of pole....rpm. (230/208V)(Hi.)		4....1,260/1,151
Nominal output	W(H.P.)	40 (1/16)
Coil resistance	Ω	WHT - GRY : 175.5
(Ambient temp. 68°F)		WHT - VLT : 16.9
		VLT - YEL : 11.4
		YEL - PNK : 35.0
WHT - BRN : 34.9		
WHT - PNK : 72.1		
WHT - YEL : 81.6		
Safety Devices		
Fan motor, internal type	Open °F	248 ± 9
Operating temp.	Close °F	171 ± 27
Run capacitor	μF	4.5
	VAC	440
		4
		440

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2) Major Component Specifications

Unit Model No.	KS3612W		
Controller P.C.B.	POW-KS2412		
Control circuit fuse	250V - 3A		
Wireless remote control unit	RCS-KS2412W		

Unit Model No.	CS3612		
Compressor	Hermetic Rotary Type		
Compressor model No.	C-R220H6K		
Source	230/208V, 60Hz, Single phase		
Pole	2		
Nominal output W(H.P.)	2.200 (3)		
Compressor oil cc	1,500 (Special oil for Rotary Compressor)		
Coil resistance Ω (Ambient temp. 77°F)	C - R : 0.55 C - S : 1.53		
Protective Devices, Compressor	Internal line type		
Overload relay model	-		
Operating temp.	Open °F	320 ± 9	-
	Close °F	189 ± 20	-
Operating amperes (Ambient temp. 77°F)	-		
Run capacitor	μ F	40	
	VAC	370	
Crankcase heater	V - W	230 - 30	

Unit Model No.	KS3612W		
Fan	Cross-flow		
Number....dia. (length) mm	1....φ120, (L1,170)		
Fan motor model	SFG4T-51A6P		
Source	230/208V, 60Hz, Single phase		
No. of pole....rpm. (230/208V)(Hi.)	4....1,329/1,237		
Nominal output W(H.P.)	50 (1/16)		
Coil resistance Ω (Ambient temp. 68°F)	WHT - GRY : 118.2 WHT - VLT : 15.5 VLT - YEL : 13.6 YEL - PNK : 31.4		
Safety Devices			
Fan motor, internal type	Open °F	248 ± 9	248 ± 9
Operating temp.	Close °F	171 ± 27	171 ± 27
Run capacitor	μ F	4	4
	VAC	440	440

DATA SUBJECT TO CHANGE WITHOUT NOTICE.

3) Other Component Specifications

Thermister (Indoor coil temp. sensor)		PBC-41E-S4			
Resistance	kΩ	14 °F	23.7 ± 5%	77 °F	5.5 ± 5%
		32 °F	15.0 ± 5%	86 °F	4.6 ± 5%
		50 °F	9.8 ± 5%	104 °F	3.2 ± 5%
		68 °F	6.6 ± 5%		
Unit Model No.		KS2412, KS3012, KS3612			

Transformer		ATR-H122U			
Rating	Primary	AC 220V	60HZ		
	Secondary	10V	1.2A		
	Capacity	12VA			
Coil resistance	Ω (at 77 °F)	Primary (WHT - WHT) : 146 ± 15% Secondary (BRN - BRN) : 0.5 ± 15%			
Thermal Cutoff		259 °F	2A	250V	
Unit Model No.		KS2412, KS3012, KS3612			

Thermister (Indoor teperature sensor)		SDT-500B-6			
Resistance	kΩ	50 °F	10.3 ± 4%	86 °F	4.0 ± 4%
		59 °F	8.0 ± 4%	104 °F	2.6 ± 4%
		68 °F	6.3 ± 4%	122 °F	1.8 ± 4%
		77 °F	5.0 ± 4%		
Unit Model No.		KS2412, KS3012, KS3612			

Synchro Motor		M2EA24ZA01			
Rated voltage		AC230V	60Hz		
Rating		3 RPM	2.5W	20mA	
Resistance	kΩ (at 68 °F)	16.45 ± 15%			
Unit Model No.		KS2412, KS3012, KS3612			

3) Other Component Specifications

Relay		MY2F-T1-USIS
Coil rated		AC 240V
Coil resistance	Ω (at 68°F)	18.8 ± 15%
Contact rating		AC 240V : 5A
Unit Model No.		CS2412
Magnetic Contactor		FMCA-1UL
Coil rated		60Hz AC 240V
Coil resistance	Ω (at 68°F)	580 ± 15%
Main Contact		AC 240V : FLA 20A LRA 120A
Auxiliary Contact		AC 220~240V : 3A
Unit Model No.		CS2412, CS3012
Magnetic Contactor		FMCA-1SUL
Coil rated		60Hz AC 240V
Coil resistance	Ω (at 68°F)	580 ± 15%
Main Contact		AC 240V : FLA 26A LRA 156A
Auxiliary Contact		AC 220~240V : 3A
Unit Model No.		CS3612
Thermistor (PTC)		IDK 101YV
Rated max. voltage		AC 400V
max. ampere		11.5A
Resistance	Ω (at 77°F)	100 ± 25%
Unit Model No.		CS2412, CS3012, CS3612

3) Other Component Specifications

Thermostat (Fan speed control)	YTB-4U201F
Operating Temps. °F	OFF 79 ± 3 ON 75 +3, -1
Contact rating	AC 200/240V : FLA 1A LRA 6A
Unit Model No.	CS2412

Thermostat (Fan speed control)	YTB-4U305F
Operating Temps. °F	OFF 79 ± 3 ON 75 +3, -1
Contact rating	AC 200/240V : FLA 1A LRA 6A
Unit Model No.	CS3012, CS3612

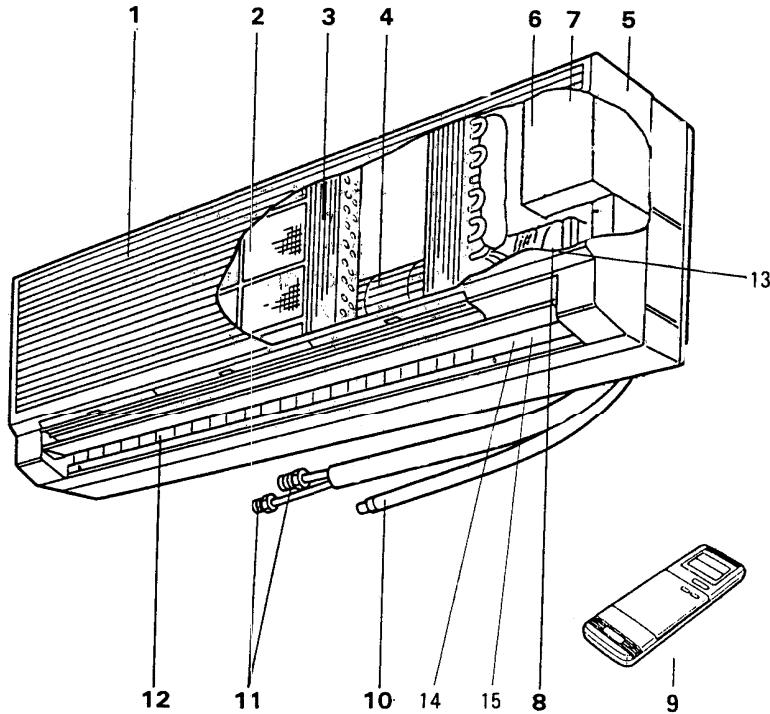
Switch (Pressure switch)	FIB-2UC01
Operating Pressure psig(kg/sq. cm. G)	OFF 412 +14, -7 (29 +1, -0.5) ON Manual
Contact rating	AC 240V : FLA 4A LRA 24A
Unit Model No.	CS3012, CS3612

2. OPERATING RANGE

Temperature	Indoor air intake temp.	Outdoor air intake temp.
Maximum	95°F DB / 71°F WB	115°F DB
Minimum	67°F DB / 57°F WB	67°F DB

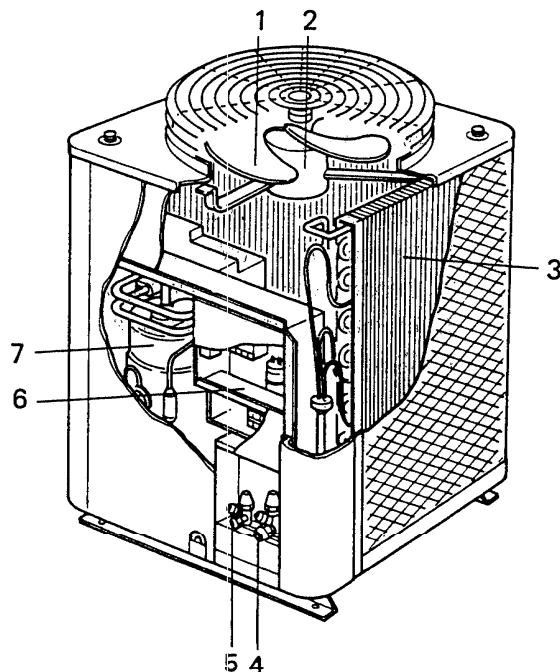
3. CONSTRUCTION OF THE UNIT

INDOOR UNIT KS2412W



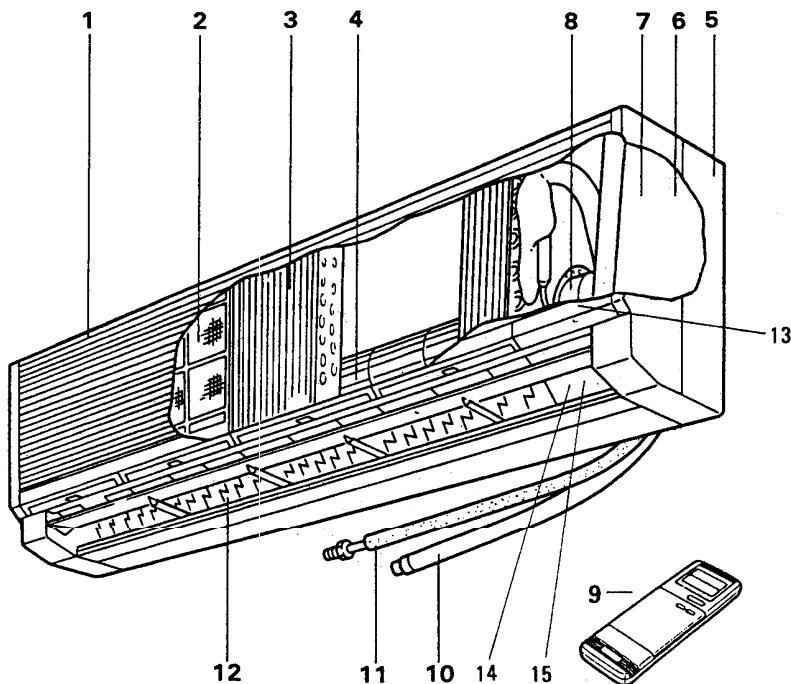
1. Air intake
2. Air filter (Slide-out)
3. Evaporator (= Indoor heat exchanger)
4. Indoor fan
5. Casing
6. Electrical component box
7. PCB Ass'y (inside component box)
8. Fan motor
9. Remote control unit
10. Drain hose
11. Refrigerant piping
12. Air outlet
13. Remote Control Receiver
14. Switch and Lamp
15. Louver Motor

OUTDOOR UNIT CS2412



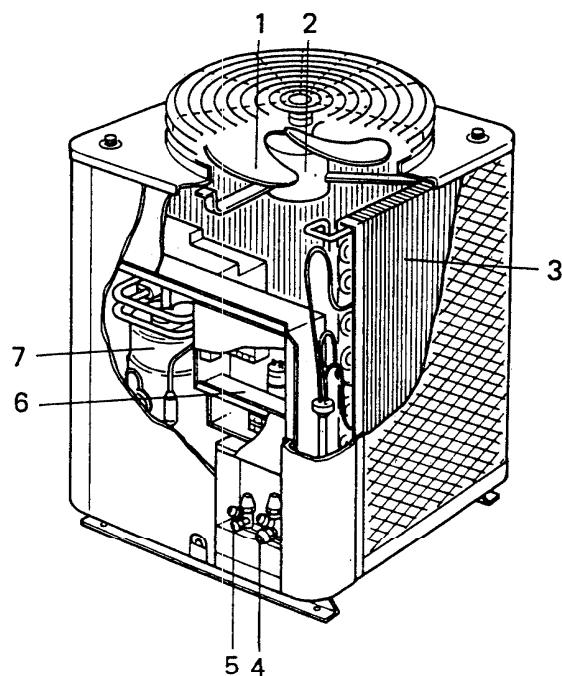
1. Propeller fan
2. Fan motor
3. Condenser (= Outdoor heat exchanger)
4. Service valve (Wide pipe)
5. Service valve (Narrow pipe)
6. Electrical component box
7. Compressor

INDOOR UNIT KS3012W/KS3612W



1. Air intake
2. Air filter (Slide-out)
3. Evaporator (= Indoor heat exchanger)
4. Indoor fan
5. Casing
6. Electrical component box
7. PCB Ass'y (inside component box)
8. Fan motor
9. Remote control unit
10. Drain hose
11. Refrigerant piping
12. Air outlet
13. Remote Control Receiver
14. Switch and Lamp
15. Louver Motor

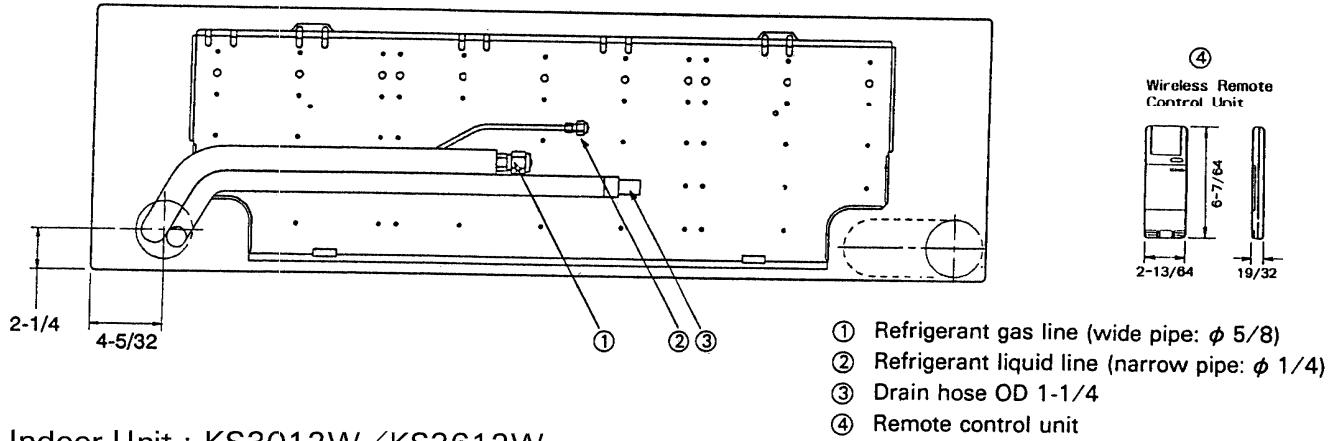
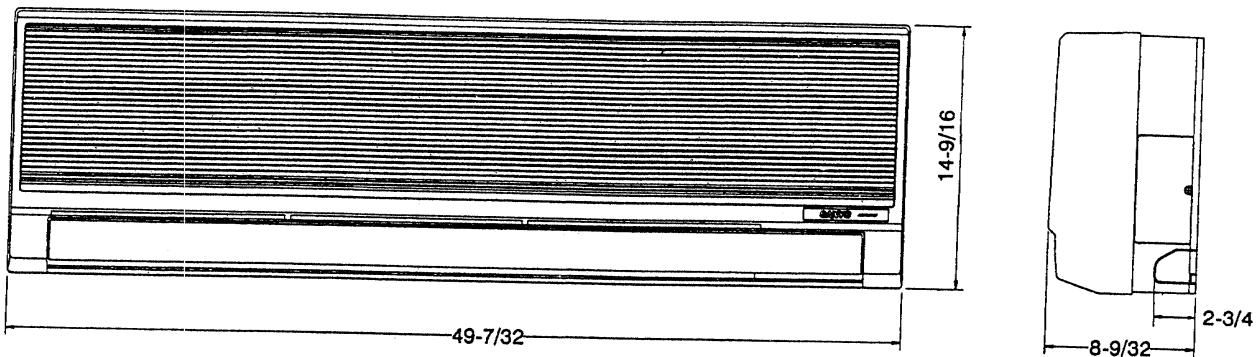
OUTDOOR UNIT CS3012/CS3612



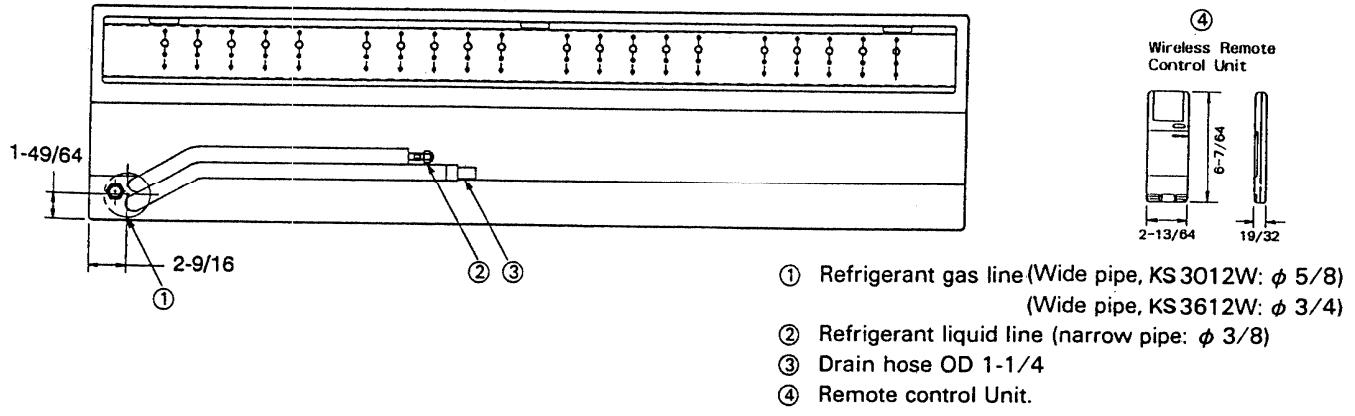
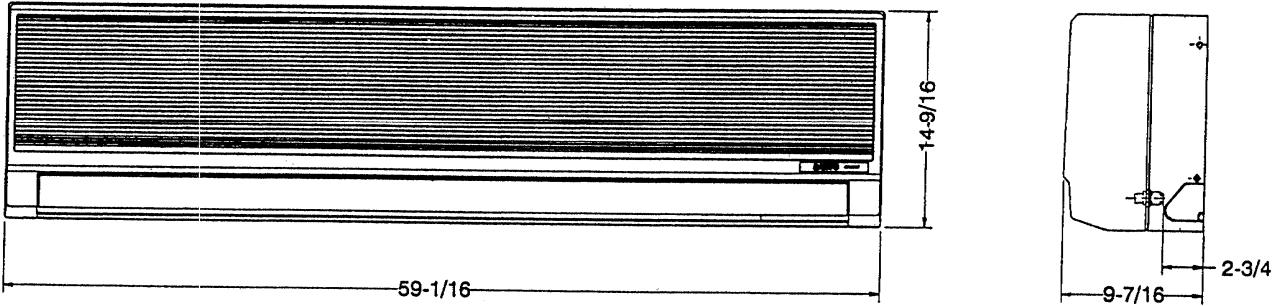
1. Propeller fan
2. Fan motor
3. Condenser (= Outdoor heat exchanger)
4. Service valve (Wide pipe)
5. Service valve (Narrow pipe)
6. Electrical component box
7. Compressor

4. DIMENSIONAL DATA

Indoor Unit : KS2412W

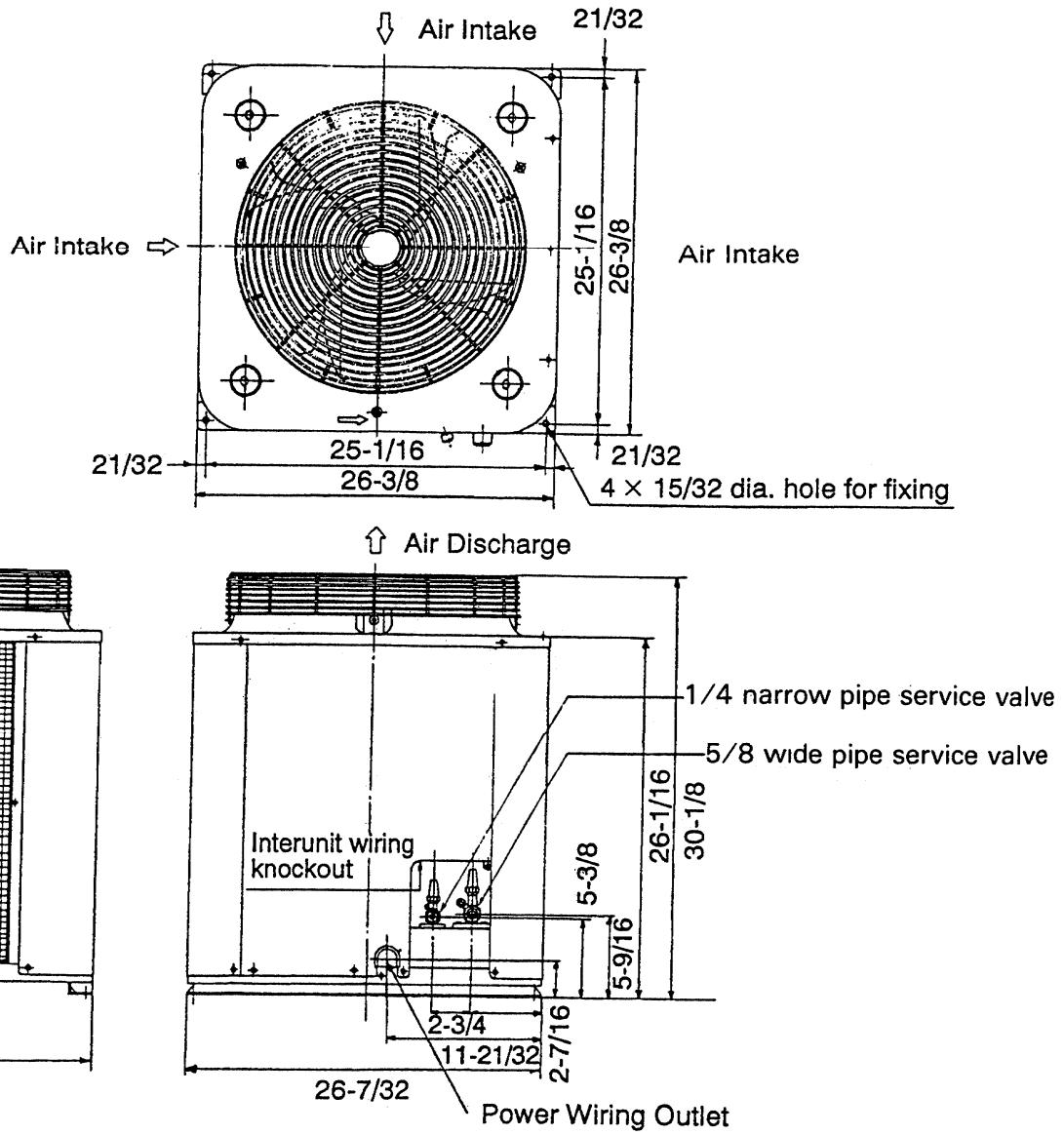


Indoor Unit : KS3012W / KS3612W



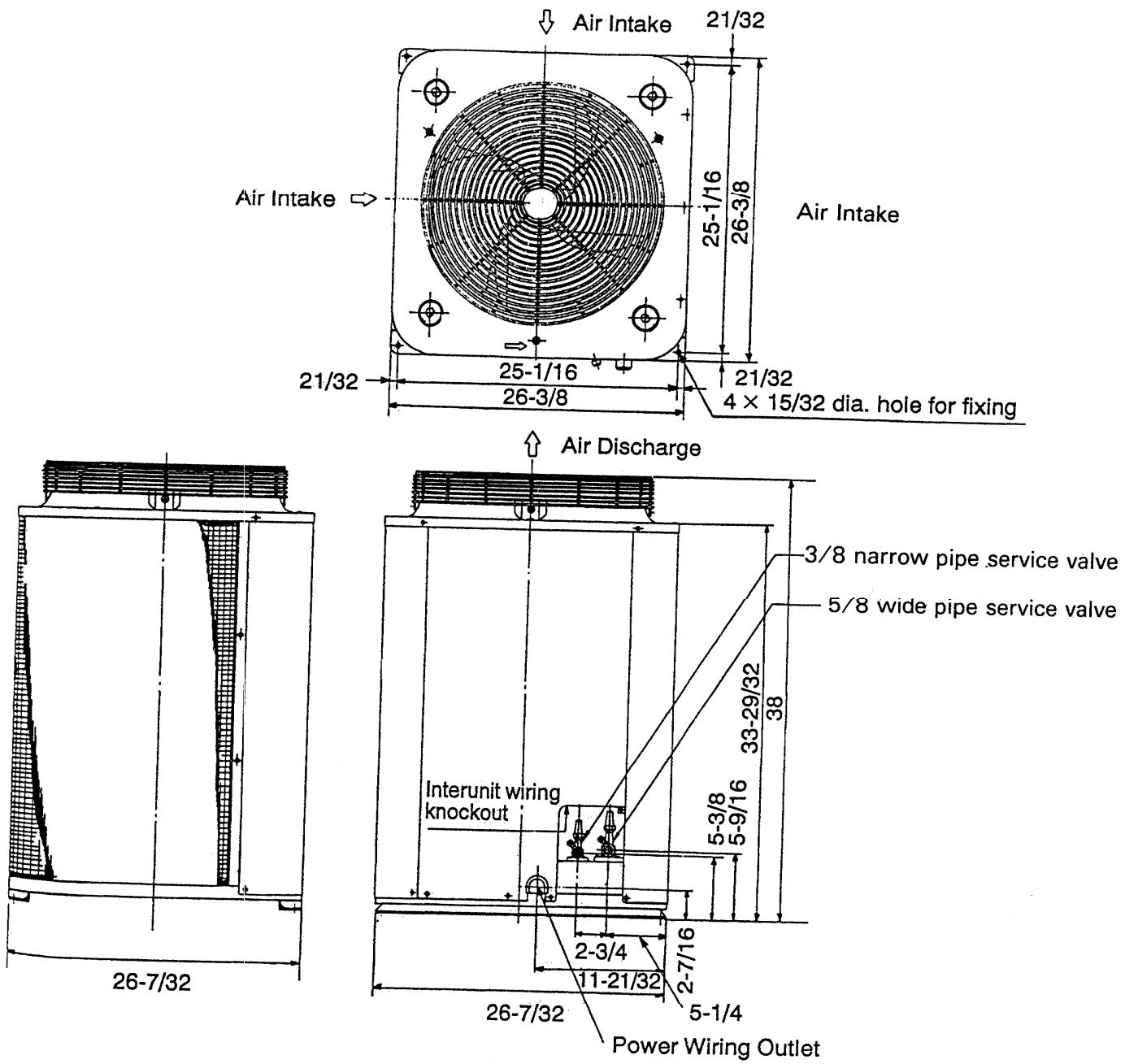
DIMENSIONAL DATA

Outdoor Unit : CS2412



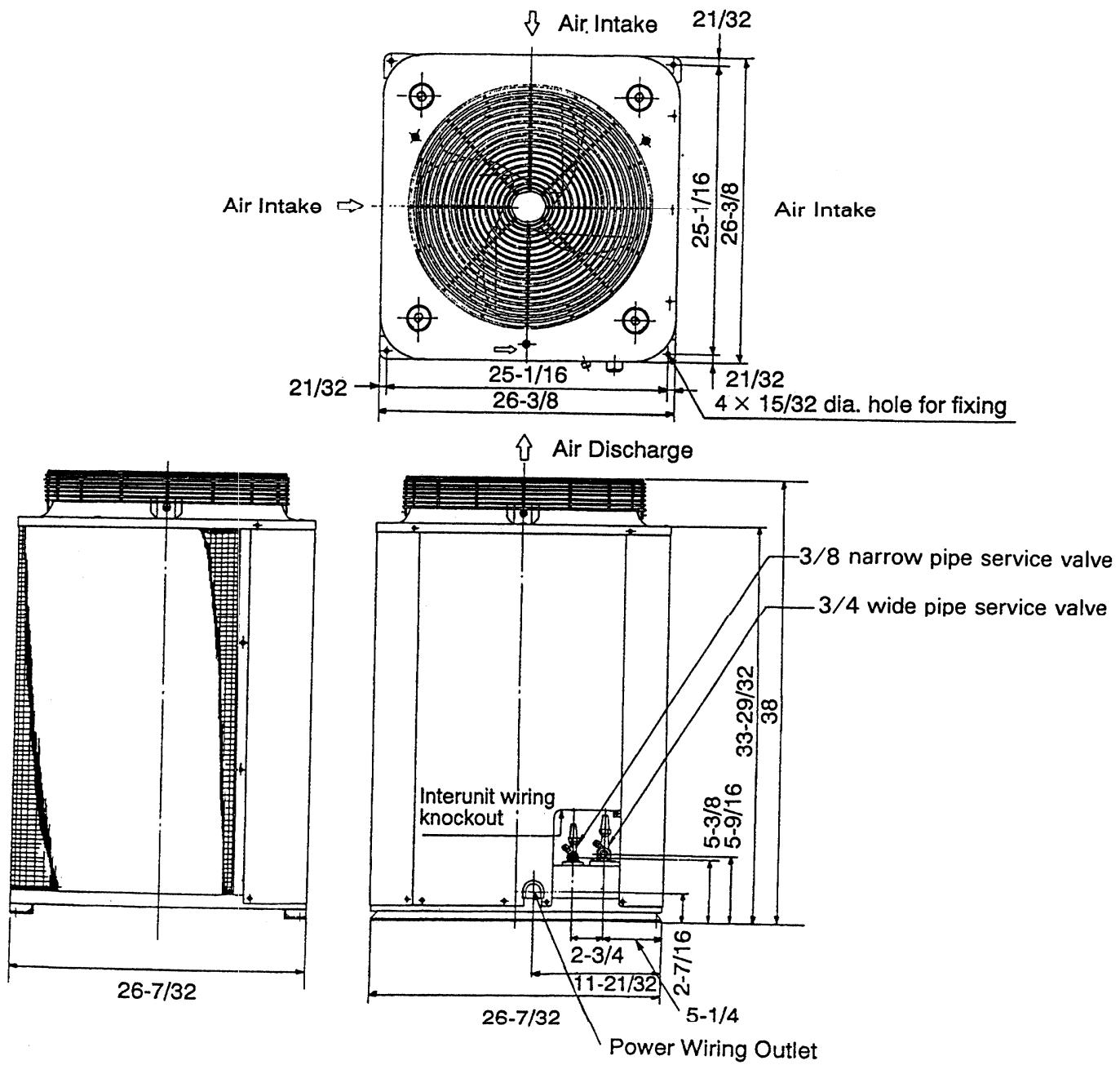
DIMENSIONAL DATA

Outdoor Unit : CS3012



DIMENSIONAL DATA

Outdoor Unit : CS3612



5. COOLING CAPACITY

1PHASE 60Hz 230 V

MODEL NAME : 24KS12W

EVAPORATOR		CONDENSER					
ENTERING TEMP °F(°C)		AMBIENT TEMP °F(°C)					
W.B	D.B		75(23.9)	85(29.4)	95(35)	105(40.6)	115(46.1)
59 (15.0)		TC KW	22,180 1.70	21,170 1.85	20,180 2.02	19,020 2.18	17,470 2.40
	72 (22.2)	SHC	15,800	15,270	14,750	14,170	13,400
	76 (24.4)	SHC	17,700	17,160	16,640	16,060	15,300
	80 (26.7)	SHC	19,680	19,150	18,620	18,050	17,280
	84 (28.9)	SHC	21,570	21,040	20,160	19,020	17,470
	88 (31.1)	SHC	22,180	21,170	20,160	19,020	17,470
		TC KW	22,940 1.71	22,220 1.88	21,350 2.05	20,180 2.23	18,590 2.45
	72 (22.2)	SHC	13,390	13,040	12,630	12,080	11,350
	76 (24.4)	SHC	15,290	14,940	14,520	13,980	13,250
	80 (26.7)	SHC	17,270	16,920	16,500	15,960	15,230
63 (17.2)	84 (28.9)	SHC	19,160	18,820	18,400	17,850	17,130
	88 (31.1)	SHC	21,060	20,710	20,300	19,750	18,590
		TC KW	23,560 1.73	23,180 1.89	* 22,400 2.07	21,170 2.26	19,710 2.50
	72 (22.2)	SHC	10,900	10,730	10,380	9,850	9,240
	76 (24.4)	SHC	12,790	12,620	12,280	11,750	11,140
	80 (26.7)	SHC	14,770	14,610	14,260	13,730	13,120
	84 (28.9)	SHC	16,670	16,500	16,160	15,630	15,020
	88 (31.1)	SHC	18,560	18,400	18,050	17,520	16,910
		TC KW	24,300 1.75	23,900 1.91	23,300 2.10	22,240 2.32	20,940 2.56
	72 (22.2)	SHC	8,330	8,170	7,930	7,520	7,020
67 (19.4)	76 (24.4)	SHC	10,230	10,070	9,830	9,420	8,920
	80 (26.7)	SHC	12,210	12,050	11,810	11,400	10,900
	84 (28.9)	SHC	14,110	13,950	13,710	13,300	12,800
	88 (31.1)	SHC	16,000	15,840	15,600	15,190	14,690
		TC KW	24,770 1.78	24,510 1.95	23,970 2.13	23,120 2.37	22,180 2.62
	76 (24.4)	SHC	7,670	7,570	7,380	7,080	6,760
	80 (26.7)	SHC	9,650	9,560	9,360	9,060	8,740
	84 (28.9)	SHC	11,550	11,450	11,260	10,960	10,630
	88 (31.1)	SHC	13,440	13,350	13,160	12,860	12,530

TC:Total Cooling Capacity (BTU/H)

SHC:Sensible Heat Capacity (BTU/H)

KW:Compressor Input (KW)

Rating conditions(*MARK) are

:Outdoor Ambient Temp.95°F D.B.

:Indoor Unit Entering Air Temp.80°F D.B. > 67°F W.B.

COOLING CAPACITY 1PHASE 60Hz 208 V

MODEL NAME : 24KS12W

		RATED CAPACITY : 22,000 BTU/H			AIR FLOW RATE : 510 CFM					
EVAPORATOR		CONDENSER								
ENTERING TEMP °F(°C)		AMBIENT TEMP °F(°C)								
W.B	D.B		75(23.9)	85(29.4)	95(35)	105(40.6)	115(46.1)			
59 (15.0)		TC KW	21,780 1.68	20,790 1.83	19,800 2.00	18,680 2.16	17,160 2.38			
	72 (22.2)	SHC	15,410	14,880	14,370	13,790	13,030			
	76 (24.4)	SHC	17,220	16,690	16,170	15,600	14,840			
	80 (26.7)	SHC	19,110	18,580	18,060	17,480	16,730			
	84 (28.9)	SHC	20,910	20,380	19,800	18,680	17,160			
	88 (31.1)	SHC	21,780	20,790	19,800	18,680	17,160			
63 (17.2)		TC KW	22,530 1.70	21,820 1.86	20,970 2.03	19,820 2.20	18,260 2.43			
	72 (22.2)	SHC	13,100	12,750	12,340	11,800	11,080			
	76 (24.4)	SHC	14,910	14,560	14,150	13,600	12,880			
	80 (26.7)	SHC	16,790	16,450	16,030	15,490	14,720			
	84 (28.9)	SHC	18,600	18,250	17,840	17,300	16,570			
	88 (31.1)	SHC	20,410	20,060	19,650	19,100	18,260			
67 (19.4)		TC KW	23,140 1.71	22,770 1.88	* 22,000 2.05	20,790 2.23	19,360 2.48			
	72 (22.2)	SHC	10,700	10,530	10,190	9,670	9,060			
	76 (24.4)	SHC	12,510	12,340	12,000	11,470	10,870			
	80 (26.7)	SHC	14,400	14,230	13,890	13,360	12,750			
	84 (28.9)	SHC	16,200	16,030	15,690	15,170	14,560			
	88 (31.1)	SHC	18,010	17,840	17,500	16,970	16,360			
71 (21.7)		TC KW	23,870 1.73	23,470 1.90	22,880 2.08	21,850 2.30	20,570 2.53			
	72 (22.2)	SHC	8,240	8,080	7,840	7,430	6,940			
	76 (24.4)	SHC	10,050	9,890	9,650	9,240	8,750			
	80 (26.7)	SHC	11,930	11,770	11,540	11,130	10,630			
	84 (28.9)	SHC	13,740	13,580	13,340	12,930	12,440			
	88 (31.1)	SHC	15,550	15,390	15,150	14,740	14,250			
75 (23.9)		TC KW	24,330 1.76	24,070 1.93	23,540 2.11	22,700 2.35	21,780 2.59			
	76 (24.4)	SHC	7,590	7,490	7,300	7,000	6,680			
	80 (26.7)	SHC	9,470	9,380	9,190	8,890	8,560			
	84 (28.9)	SHC	11,280	11,180	10,990	10,690	10,370			
	88 (31.1)	SHC	13,090	12,990	12,800	12,500	12,180			

TC:Total Cooling Capacity (BTU/H)

SHC:Sensible Heat Capacity (BTU/H)

KW:Compressor Input (KW)

Rating conditions(*MARK) are

:Outdoor Ambient Temp. 95°F D.B.

:Indoor Unit Entering Air Temp. 80°F D.B./67°F W.B.

COOLING CAPACITY 1PHASE 60Hz 230 V

MODEL NAME : 30KS12W

EVAPORATOR		CONDENSER					
ENTERING TEMP °F(°C)		AMBIENT TEMP °F(°C)					
W.B	D.B		75(23.9)	85(29.4)	95(35)	105(40.6)	115(46.1)
59 (15.0)		TC KW	27,720 2.02	26,460 2.20	25,200 2.40	23,770 2.60	21,840 2.85
	72 (22.2)	SHC	20,240	19,600	18,970	18,260	17,330
	76 (24.4)	SHC	22,830	22,190	21,560	20,850	19,920
	80 (26.7)	SHC	25,540	24,900	24,260	23,560	21,840
	84 (28.9)	SHC	27,720	26,460	25,200	23,770	21,840
	88 (31.1)	SHC	27,720	26,460	25,200	23,770	21,840
63 (17.2)		TC KW	28,670 2.04	27,780 2.23	26,680 2.44	25,230 2.64	23,240 2.92
	72 (22.2)	SHC	17,020	16,600	16,090	15,430	14,550
	76 (24.4)	SHC	19,610	19,190	18,680	18,020	17,140
	80 (26.7)	SHC	22,320	21,900	21,390	20,730	19,850
	84 (28.9)	SHC	24,910	24,490	23,980	23,320	22,440
	88 (31.1)	SHC	27,500	27,080	26,570	25,230	23,240
67 (19.4)		TC KW	29,460 2.05	28,980 2.25	* 28,000 2.46	26,460 2.68	24,640 2.98
	72 (22.2)	SHC	13,890	13,490	13,070	12,430	11,690
	76 (24.4)	SHC	16,280	16,080	15,660	15,020	14,280
	80 (26.7)	SHC	18,990	18,790	18,370	17,730	16,990
	84 (28.9)	SHC	21,580	21,380	20,960	20,320	19,580
	88 (31.1)	SHC	24,170	23,970	23,550	22,910	22,170
71 (21.7)		TC KW	30,380 2.08	29,880 2.28	29,120 2.50	27,800 2.76	26,180 3.04
	72 (22.2)	SHC	10,270	10,080	9,790	9,290	8,690
	76 (24.4)	SHC	12,860	12,670	12,380	11,880	11,280
	80 (26.7)	SHC	15,570	15,380	15,090	14,590	13,980
	84 (28.9)	SHC	18,160	17,970	17,680	17,180	16,570
	88 (31.1)	SHC	20,750	20,560	20,270	19,770	19,160
75 (23.9)		TC KW	30,970 2.12	30,630 2.31	29,960 2.53	28,900 2.82	27,720 3.11
	76 (24.4)	SHC	9,460	9,340	9,110	8,750	8,350
	80 (26.7)	SHC	12,170	12,050	11,820	11,450	11,060
	84 (28.9)	SHC	14,760	14,640	14,410	14,040	13,650
	88 (31.1)	SHC	17,350	17,230	17,000	16,640	16,240

TC:Total Cooling Capacity (BTU/H)

SHC:Sensible Heat Capacity (BTU/H)

KW:Compressor Input (KW)

Rating conditions(*MARK) are

:Outdoor Ambient Temp. 95°F D.B.

:Indoor Unit Entering Air Temp. 80°F D.B./67°F W.B.

COOLING CAPACITY 1PHASE 60Hz 208 V

MODEL NAME : 30KS12W

		RATED CAPACITY : 27,000 BTU/H			AIR FLOW RATE : 710 CFM					
EVAPORATOR		CONDENSER								
ENTERING TEMP °F(°C)		AMBIENT TEMP °F(°C)								
W.B	D.B		75(23.9)	85(29.4)	95(35)	105(40.6)	115(46.1)			
59 (15.0)		TC KW	26,730 2.01	25,520 2.19	24,300 2.39	22,920 2.58	21,060 2.84			
	72 (22.2)	SHC	19,470	18,850	18,240	17,560	16,660			
	76 (24.4)	SHC	21,940	21,320	20,710	20,030	19,130			
	80 (26.7)	SHC	24,530	23,910	23,300	22,620	21,060			
	84 (28.9)	SHC	26,730	25,520	24,300	22,920	21,060			
	88 (31.1)	SHC	26,730	25,520	24,300	22,920	21,060			
63 (17.2)		TC KW	27,650 2.03	26,780 2.22	25,730 2.43	24,330 2.63	22,410 2.90			
	72 (22.2)	SHC	16,390	15,980	15,490	14,850	14,000			
	76 (24.4)	SHC	18,860	18,450	17,970	17,330	16,470			
	80 (26.7)	SHC	21,450	21,040	20,550	19,910	19,060			
	84 (28.9)	SHC	23,920	23,520	23,030	22,390	21,530			
	88 (31.1)	SHC	26,390	25,990	25,500	24,330	22,410			
67 (19.4)		TC KW	28,400 2.05	27,950 2.24	* 27,000 2.45	25,520 2.67	23,760 2.96			
	72 (22.2)	SHC	13,200	13,010	12,600	11,980	11,260			
	76 (24.4)	SHC	15,680	15,480	15,080	14,460	13,740			
	80 (26.7)	SHC	18,260	18,070	17,660	17,040	16,320			
	84 (28.9)	SHC	20,740	20,540	20,140	19,520	18,800			
	88 (31.1)	SHC	23,210	23,010	22,610	21,990	21,270			
71 (21.7)		TC KW	29,300 2.07	28,810 2.27	28,080 2.49	26,810 2.74	25,250 3.03			
	72 (22.2)	SHC	9,930	9,740	9,460	8,980	8,390			
	76 (24.4)	SHC	12,400	12,220	11,940	11,450	10,870			
	80 (26.7)	SHC	14,990	14,800	14,520	14,040	13,460			
	84 (28.9)	SHC	17,460	17,280	17,000	16,510	15,930			
	88 (31.1)	SHC	19,940	19,750	19,470	18,990	18,400			
75 (23.9)		TC KW	29,860 2.11	29,540 2.30	28,890 2.52	27,860 2.81	26,730 3.10			
	76 (24.4)	SHC	9,150	9,030	8,810	8,460	8,070			
	80 (26.7)	SHC	11,730	11,620	11,390	11,040	10,660			
	84 (28.9)	SHC	14,210	14,090	13,870	13,520	13,130			
	88 (31.1)	SHC	16,680	16,570	16,340	15,990	15,610			

TC:Total Cooling Capacity (BTU/H)

SHC:Sensible Heat Capacity (BTU/H)

KW:Compressor Input (KW)

Rating conditions(*MARK) are

:Outdoor Ambient Temp.95°F D.B.

:Indoor Unit Entering Air Temp.80°F D.B./67°F W.B.

COOLING CAPACITY 1PHASE 60Hz 230 V

MODEL NAME : 36KS12W

EVAPORATOR		CONDENSER					
ENTERING TEMP °F(°C)		AMBIENT TEMP °F(°C)					
W.B.	D.B.		75(23.9)	85(29.4)	95(35)	105(40.6)	115(46.1)
59 (15.0)		TC KW	33,660 2.51	32,130 2.74	30,600 2.98	28,870 3.23	26,520 3.55
	72 (22.2)	SHC	23,770	22,960	22,150	21,260	20,090
	76 (24.4)	SHC	26,550	25,730	24,930	24,040	22,870
	80 (26.7)	SHC	29,460	28,640	27,840	26,950	25,770
	84 (28.9)	SHC	32,240	31,420	30,600	28,870	26,520
	88 (31.1)	SHC	33,660	32,130	30,600	28,870	26,520
63 (17.2)		TC KW	34,820 2.53	33,730 2.78	32,400 3.03	30,630 3.29	28,220 3.63
	72 (22.2)	SHC	20,210	19,680	19,030	18,190	17,070
	76 (24.4)	SHC	22,990	22,450	21,810	20,970	19,850
	80 (26.7)	SHC	25,890	25,360	24,720	23,880	22,760
	84 (28.9)	SHC	28,670	28,140	27,500	26,660	25,540
	88 (31.1)	SHC	31,450	30,920	30,270	29,430	28,220
67 (19.4)		TC KW	35,770 2.56	35,190 2.80	* 34,000 3.06	32,130 3.34	29,920 3.70
	72 (22.2)	SHC	16,510	16,260	15,730	14,910	13,970
	76 (24.4)	SHC	19,290	19,030	18,510	17,690	16,750
	80 (26.7)	SHC	22,200	21,940	21,410	20,590	19,650
	84 (28.9)	SHC	24,980	24,720	24,190	23,370	22,430
	88 (31.1)	SHC	27,750	27,500	26,970	26,150	25,210
71 (21.7)		TC KW	36,890 2.58	36,280 2.83	35,360 3.11	33,760 3.43	31,790 3.78
	72 (22.2)	SHC	12,720	12,470	12,110	11,470	10,710
	76 (24.4)	SHC	15,500	15,250	14,880	14,250	13,490
	80 (26.7)	SHC	18,400	18,160	17,790	17,160	16,390
	84 (28.9)	SHC	21,180	20,940	20,570	19,930	19,170
	88 (31.1)	SHC	23,960	23,710	23,350	22,710	21,950
75 (23.9)		TC KW	37,600 2.63	37,200 2.88	36,380 3.15	35,090 3.50	33,660 3.87
	76 (24.4)	SHC	11,710	11,560	11,260	10,800	10,300
	80 (26.7)	SHC	14,610	14,460	14,170	13,710	13,200
	84 (28.9)	SHC	17,390	17,240	16,950	16,480	15,980
	88 (31.1)	SHC	20,170	20,020	19,720	19,260	18,760

TC:Total Cooling Capacity (BTU/H)

SHC:Sensible Heat Capacity (BTU/H)

KW:Compressor Input (KW)

Rating conditions(*MARK) are

:Outdoor Ambient Temp.95°F D.B.

:Indoor Unit Entering Air Temp.80°F D.B./67°F W.B.

COOLING CAPACITY 1PHASE 60Hz 208 V

MODEL NAME : 36KS12W

		RATED CAPACITY : 33,000 BTU/H			AIR FLOW RATE : 690 CFM					
EVAPORATOR		CONDENSER								
ENTERING TEMP °F(°C)		AMBIENT TEMP °F(°C)								
W.B	D.B		75(23.9)	85(29.4)	95(35)	105(40.6)	115(46.1)			
59 (15.0)		TC KW	32,670 2.52	31,190 2.75	29,700 2.99	28,020 3.24	25,740 3.56			
	72 (22.2)	SHC	23,050	22,260	21,480	20,610	19,470			
	76 (24.4)	SHC	25,730	24,930	24,150	23,290	22,140			
	80 (26.7)	SHC	28,530	27,730	26,950	26,080	24,940			
	84 (28.9)	SHC	31,200	30,400	29,620	28,020	25,740			
	88 (31.1)	SHC	32,670	31,190	29,700	28,020	25,740			
63 (17.2)		TC KW	33,790 2.54	32,740 2.79	31,450 3.04	29,730 3.30	27,390 3.64			
	72 (22.2)	SHC	19,620	19,100	18,470	17,660	16,570			
	76 (24.4)	SHC	22,290	21,770	21,150	20,530	19,240			
	80 (26.7)	SHC	25,090	24,570	23,940	23,130	22,040			
	84 (28.9)	SHC	27,770	27,240	26,620	25,800	24,710			
	88 (31.1)	SHC	30,440	29,920	29,290	28,480	27,390			
67 (19.4)		TC KW	34,720 2.56	34,160 2.81	* 33,000 3.07	31,190 3.35	29,040 3.71			
	72 (22.2)	SHC	16,060	15,800	15,290	14,490	13,580			
	76 (24.4)	SHC	18,730	18,480	17,960	17,170	16,250			
	80 (26.7)	SHC	21,530	21,270	20,760	19,970	19,050			
	84 (28.9)	SHC	24,200	23,950	23,430	22,640	21,720			
	88 (31.1)	SHC	26,870	26,620	26,110	25,310	24,400			
71 (21.7)		TC KW	35,810 2.59	35,210 2.84	34,320 3.12	32,770 3.44	30,860 3.79			
	72 (22.2)	SHC	12,400	12,160	11,800	11,180	10,440			
	76 (24.4)	SHC	15,070	14,830	14,470	13,860	13,110			
	80 (26.7)	SHC	17,870	17,630	17,270	16,650	15,910			
	84 (28.9)	SHC	20,540	20,300	19,940	19,330	18,580			
	88 (31.1)	SHC	23,220	22,980	22,620	22,000	21,250			
75 (23.9)		TC KW	36,500 2.64	36,100 2.89	35,310 3.16	34,060 3.52	32,670 3.88			
	76 (24.4)	SHC	11,410	11,270	10,980	10,530	10,040			
	80 (26.7)	SHC	14,210	14,060	13,780	13,330	12,840			
	84 (28.9)	SHC	16,880	16,740	16,450	16,000	15,510			
	88 (31.1)	SHC	19,560	19,410	19,120	18,680	18,190			

TC:Total Cooling Capacity (BTU/H)

SHC:Sensible Heat Capacity (BTU/H)

KW:Compressor Input (KW)

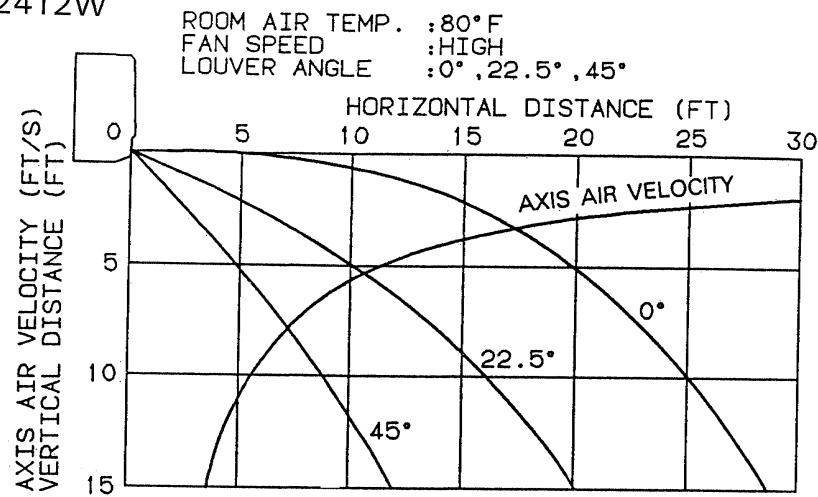
Rating conditions(*MARK) are

:Outdoor Ambient Temp. 95°F D.B.

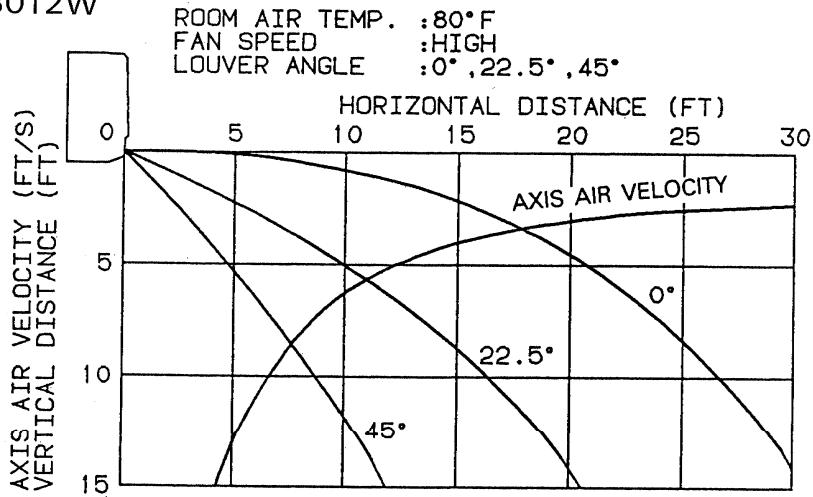
:Indoor Unit Entering Air Temp. 80°F D.B./67°F W.B.

6. AIR THROW DISTANCE CHART

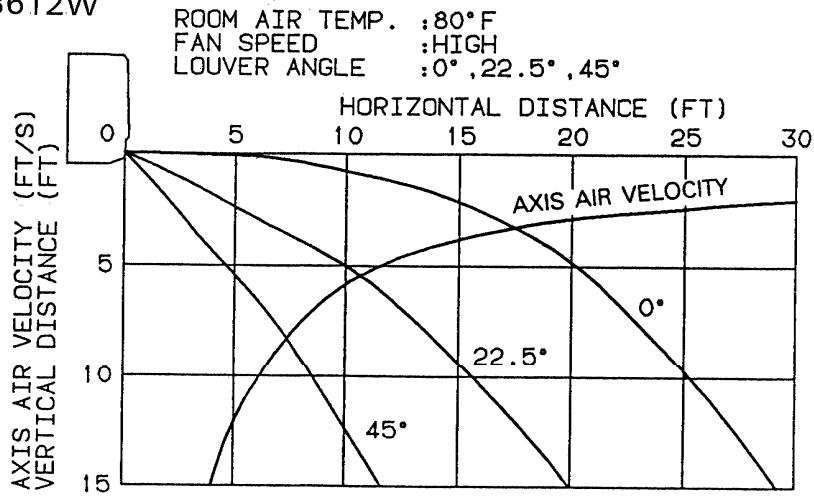
MODEL : KS2412W



MODEL : KS3012W



MODEL : KS3612W



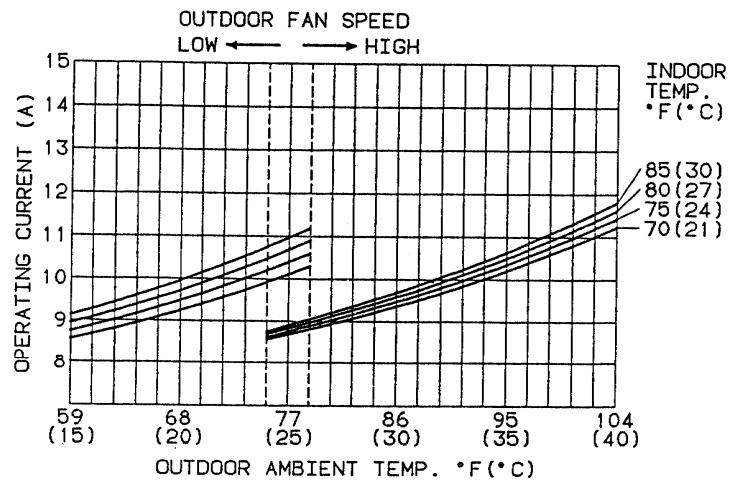
7. PERFORMANCE CHART

(1) 24KS12W

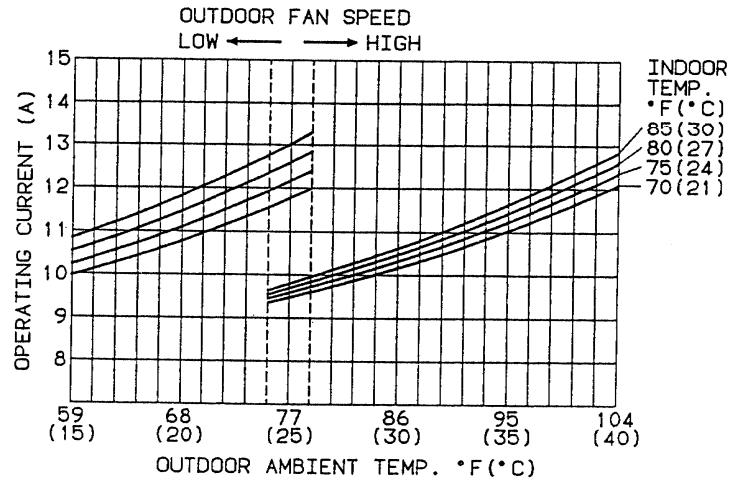
230 V (60 Hz)

Cooling characteristics

Operating current characteristics versus outdoor ambient temperature and indoor temperature (Indoor relative humidity: 50%, indoor fan speed: High, overall value for indoor and outdoor shown.)



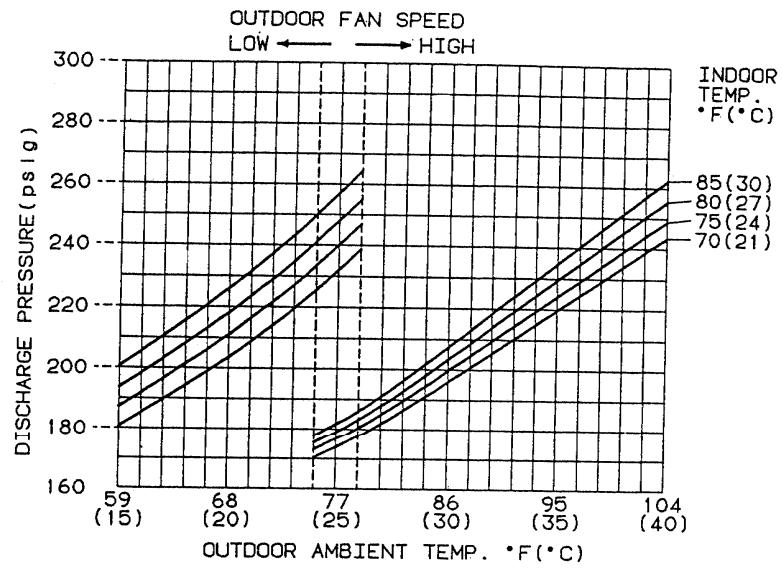
208 V (60 Hz)



230 V (60 Hz)

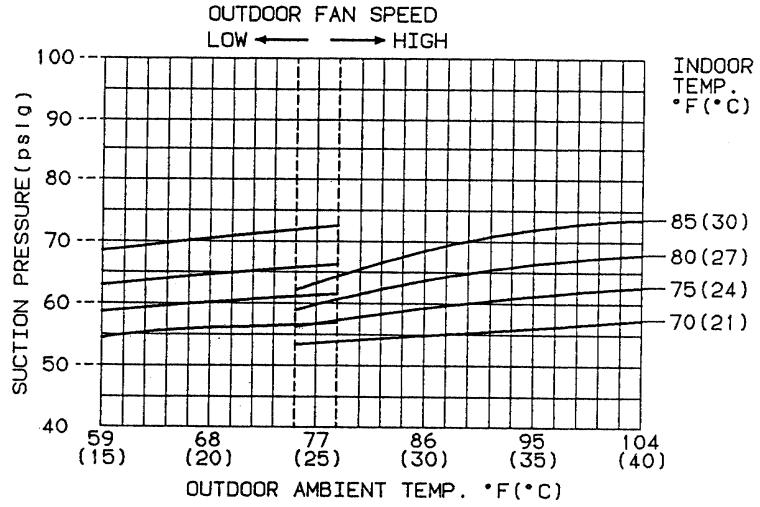
Cooling characteristics

High pressure characteristics versus outdoor ambient temperature and indoor temperature (Indoor relative humidity: 50%, indoor fan speed: High.)



Cooling characteristics

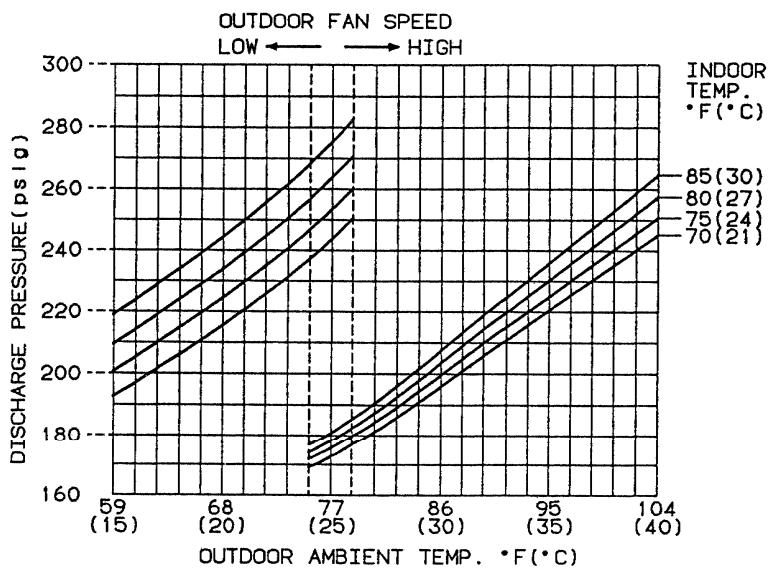
Low pressure characteristics versus outdoor ambient temperature and indoor temperature (Indoor relative humidity: 50%, indoor fan speed: High.)



208 V (60 Hz)

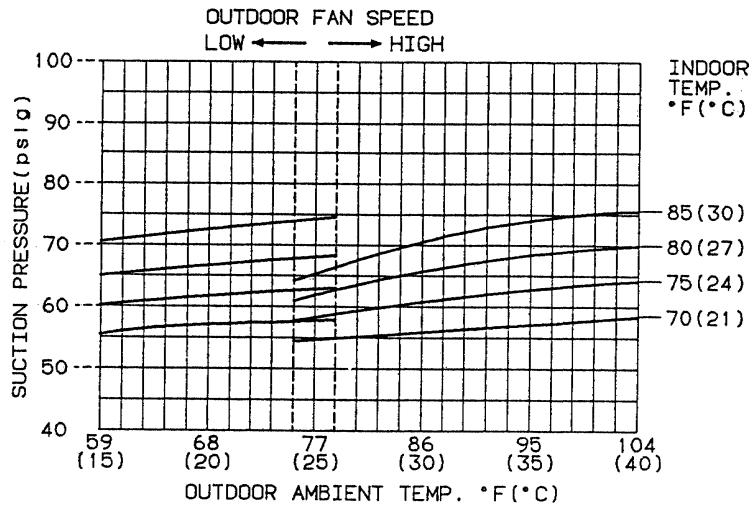
Cooling characteristics

High pressure characteristics versus outdoor ambient temperature and indoor temperature (Indoor relative humidity: 50%, indoor fan speed: High.)



Cooling characteristics

Low pressure characteristics versus outdoor ambient temperature and indoor temperature (Indoor relative humidity: 50%, indoor fan speed: High.)

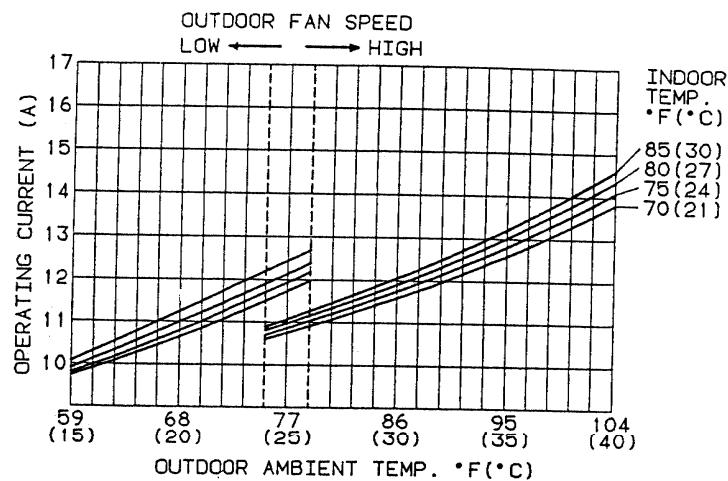


(2) 30KS12W

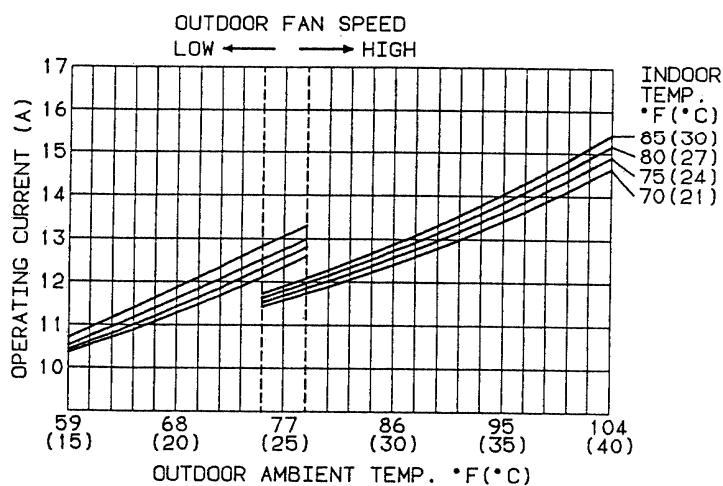
Cooling characteristics

Operating current characteristics versus outdoor ambient temperature and indoor temperature (Indoor relative humidity: 50%, indoor fan speed: High, overall value for indoor and outdoor shown.)

230 V (60 Hz)



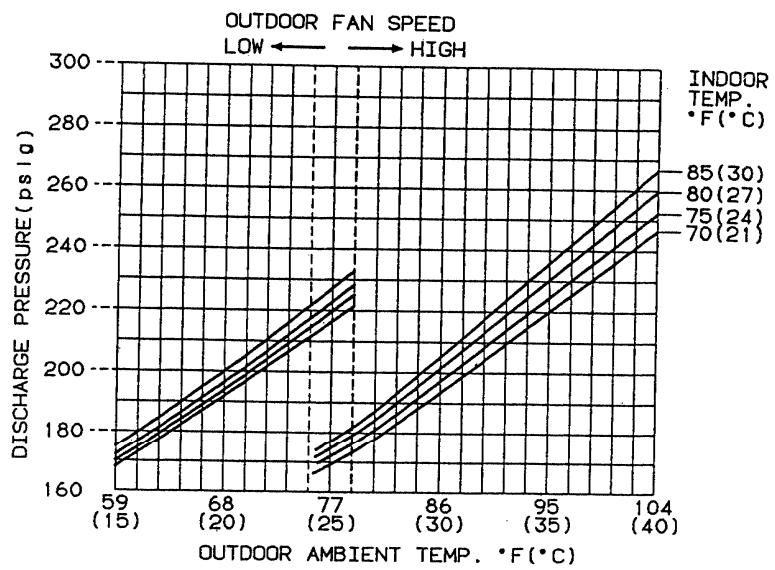
208 V (60 Hz)



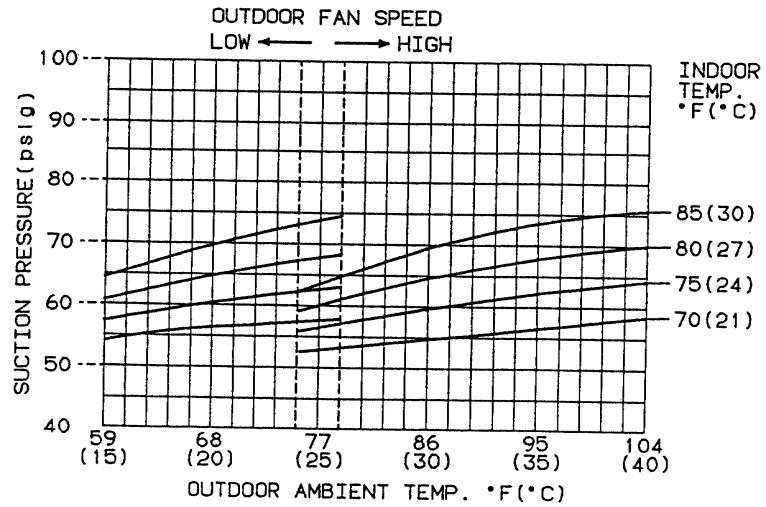
230 V (60 Hz)

Cooling characteristics

High pressure characteristics versus outdoor ambient temperature and indoor temperature (Indoor relative humidity: 50%, indoor fan speed: High.)

**Cooling characteristics**

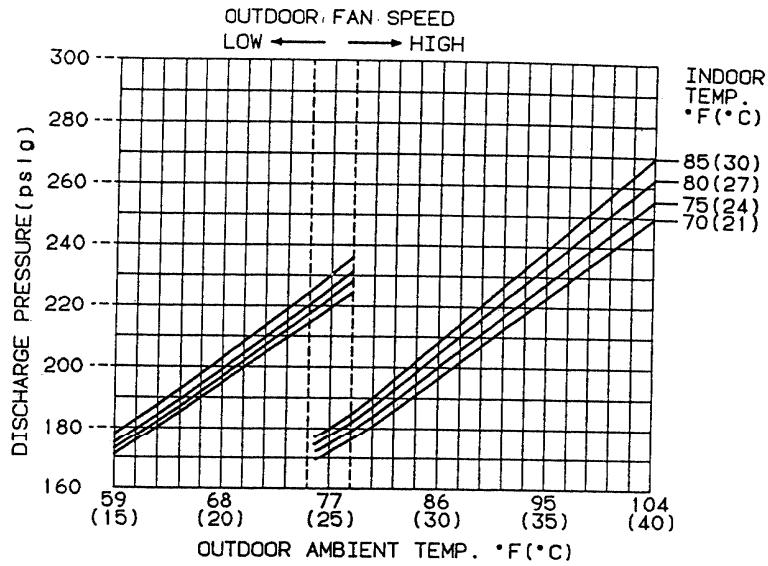
Low pressure characteristics versus outdoor ambient temperature and indoor temperature (Indoor relative humidity: 50%, indoor fan speed: High.)



208 V (60 Hz)

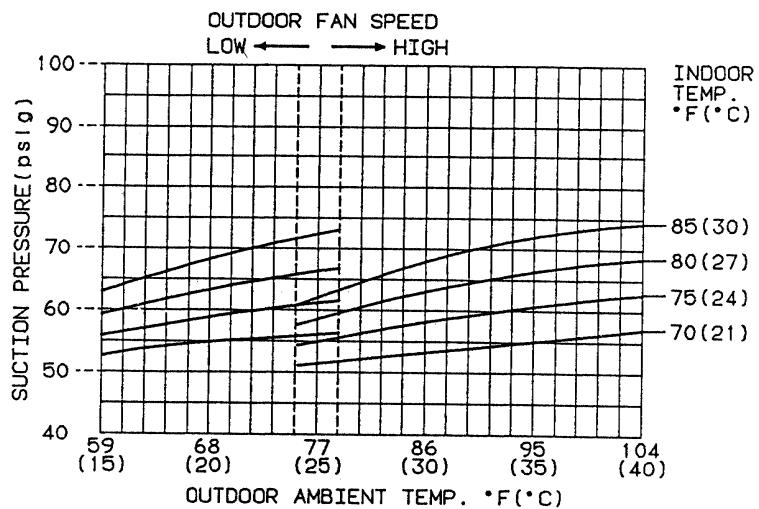
Cooling characteristics

High pressure characteristics versus outdoor ambient temperature and indoor temperature (Indoor relative humidity: 50%, indoor fan speed: High.)



Cooling characteristics

Low pressure characteristics versus outdoor ambient temperature and indoor temperature (Indoor relative humidity: 50%, indoor fan speed: High.)

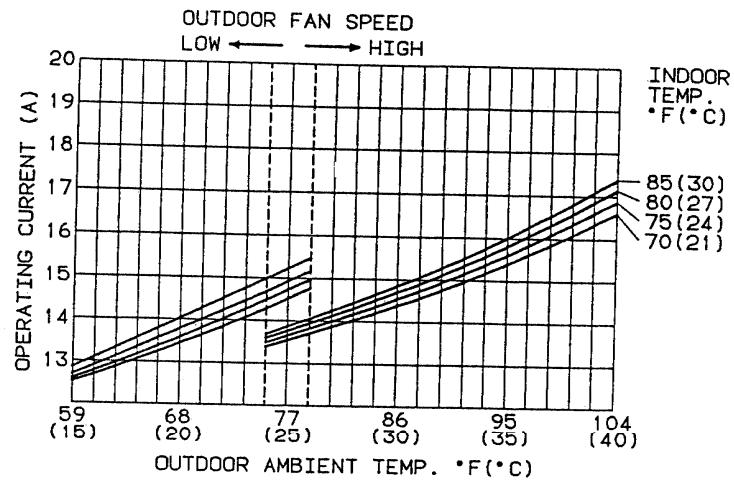


(3) 36KS12W

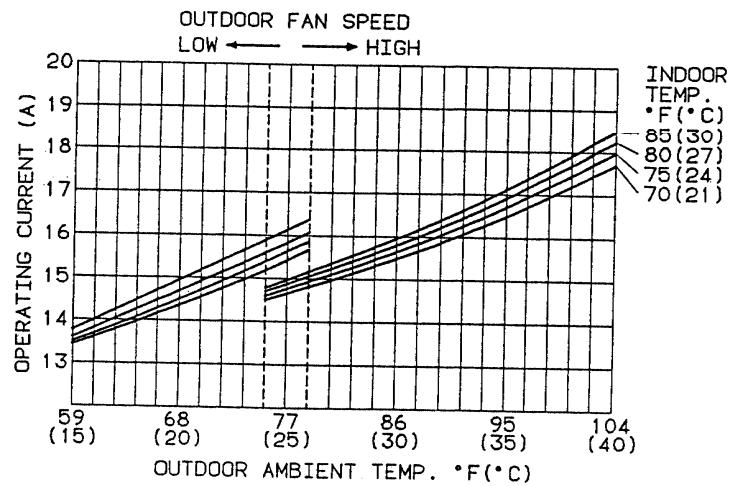
230 V (60 Hz)

Cooling characteristics

Operating current characteristics versus outdoor ambient temperature and indoor temperature (Indoor relative humidity: 50%, indoor fan speed: High, overall value for indoor and outdoor shown.)



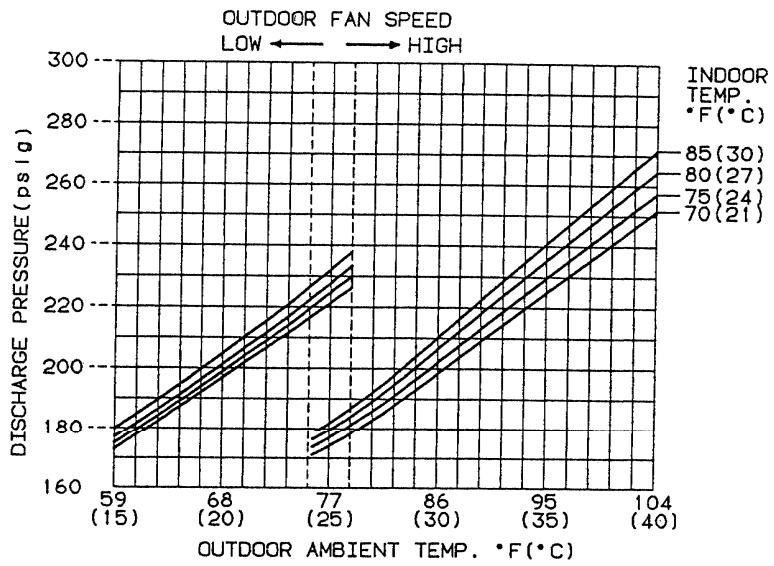
208 V (60 Hz)



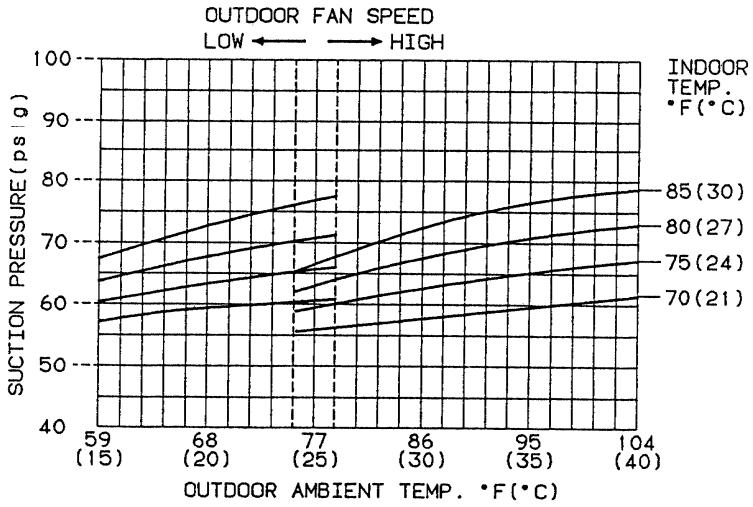
230 V (60 Hz)

Cooling characteristics

High pressure characteristics versus outdoor ambient temperature and indoor temperature (Indoor relative humidity: 50%, indoor fan speed: High.)

**Cooling characteristics**

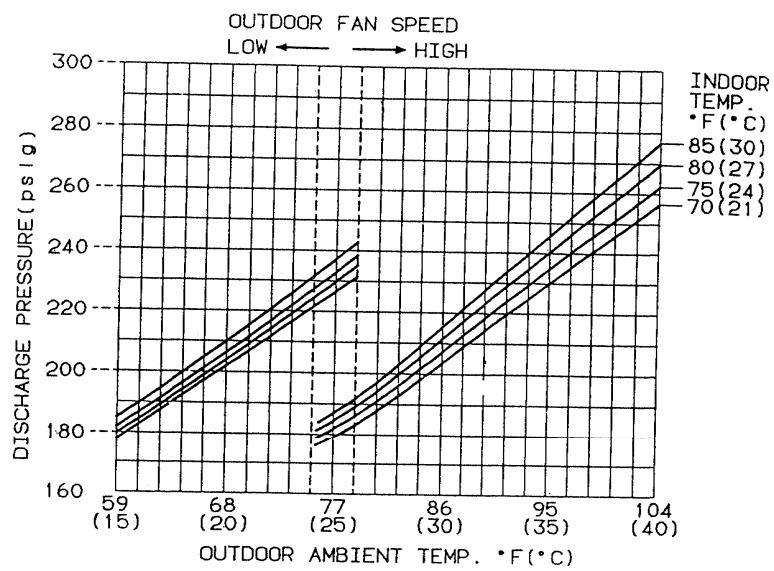
Low pressure characteristics versus outdoor ambient temperature and indoor temperature (Indoor relative humidity: 50%, indoor fan speed: High.)



208 V (60 Hz)

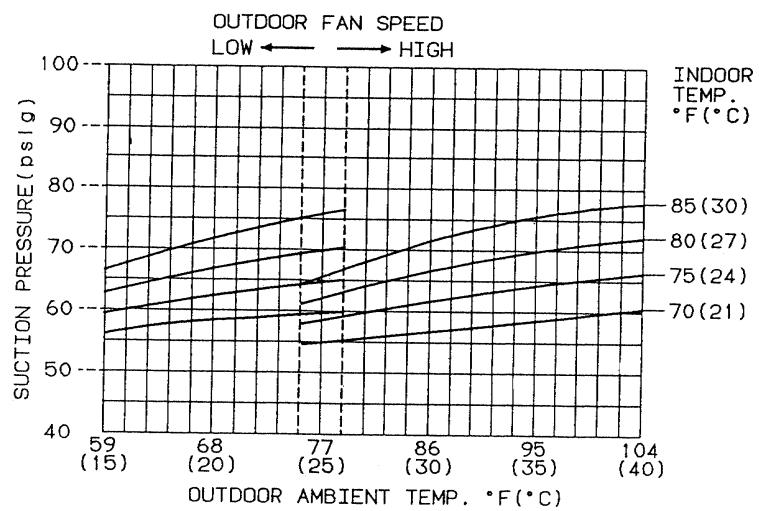
Cooling characteristics

High pressure characteristics versus outdoor ambient temperature and indoor temperature (Indoor relative humidity: 50%, indoor fan speed: High.)



Cooling characteristics

Low pressure characteristics versus outdoor ambient temperature and indoor temperature (Indoor relative humidity: 50%, indoor fan speed: High.)



8. OPERATING INSTRUCTIONS

Names of Parts

This air conditioner consists of an indoor unit and an outdoor unit. You can control the air conditioner with the remote control unit.

Air Intake

Air from the room is drawn into this section and passes through air filters which remove dust.

Air Outlet

Cool air is blown out of the air conditioner through the air outlet.

Remote Control Unit

The wireless remote control unit controls power ON/OFF, operation mode selection, temperature, fan speed, timer setting, and air sweeping.

Refrigerant Tubes

The indoor and outdoor units are connected by copper tubes through which refrigerant gas flows.

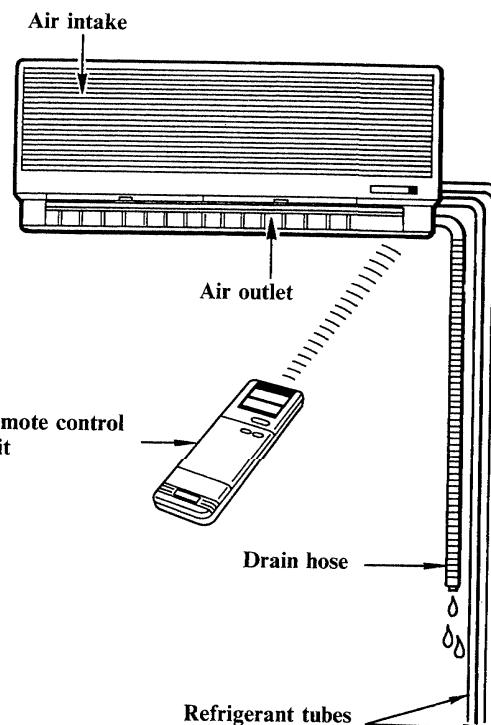
Drain Hose

Moisture in the room condenses and drains off through this hose.

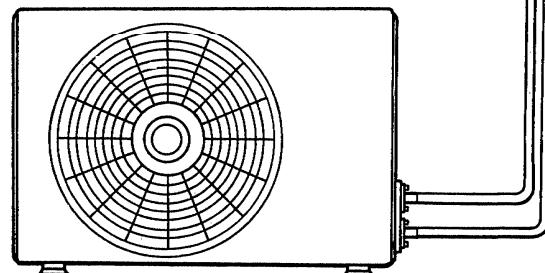
Outdoor (Condensing) Unit

The outdoor unit contains the compressor, fan motor, heat exchanger coil, and other electrical components.

INDOOR UNIT



OUTDOOR UNIT



NOTE

This illustration is based on the external view of the 18KS12W model. Consequently, the shape and dimensions may differ from those of the appliance which you have selected.

Unit Display and Operation Selector

(1) REMOTE CONTROL receiver

This section picks up infrared signals from the remote control unit (transmitter).

(2) OPERATION lamp

This lights when the system is in the continuous COOL or FAN mode.

(3) TIMER lamp

This lamp lights when the system is being controlled by the timer.

(4) Operation selector

ON position

This position is for operating the air conditioner with the wireless remote control unit. Set the selector normally in this position.

OFF position

Switch the selector to the OFF position if you are not going to use the air conditioner for a few days or longer.

TEST position

This position is used only for servicing the air conditioner, so don't leave the selector in this position.

WARNING

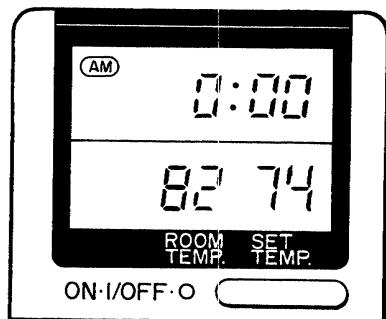
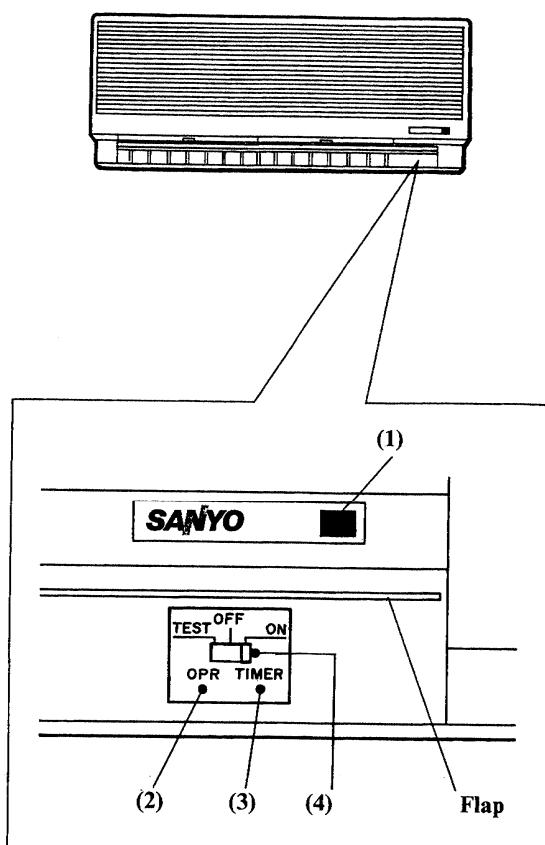
The OFF position does not disconnect the power. Use the main power switch to turn off power completely.

NOTE

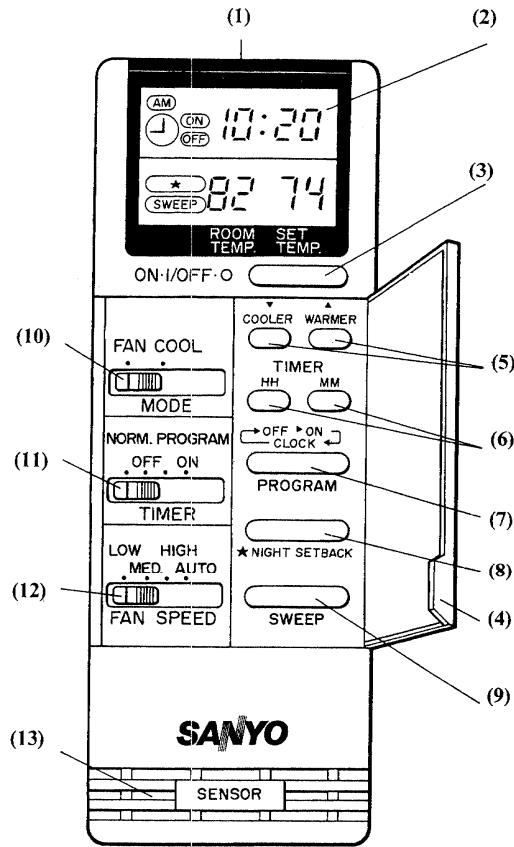
Concerning the 12:00 indication

The clock on this remote control unit is a 12 hour type with AM and PM indications. The time is based on 0:00. The 0:00 indication means 12:00 (for both AM and PM).

INDOOR UNIT



Remote Control Unit



(1) Transmitter

When you press the buttons or move the switches on the remote control unit, the lamp at the tip of the unit flashes to transmit the setting changes to the receiver in the air conditioner.

(2) Display

Information is displayed while the remote control unit is switched on. The display shows the time and the room temperature at the remote control unit when the unit is switched off.

(3) ON/OFF operation button

This button is for turning the air conditioner on and off.

(4) Cover

The cover opens from the left. Just pull it open.

(5) Temperature setting buttons

▼ COOLER

Press this button to change the set temperature down.

▲ WARMER

Press this button to change the set temperature up.

NOTE

You can press the temperature setting buttons keeping the cover closed.

(6) Timer setting buttons

First, press the PROGRAM button (7) to select the mode you want.

HH

Each time you press this button, the hours advance by one.

MM

Each time you press this button, the minutes advance by one.

(7) PROGRAM button

For details, see "Setting the Timer".

Press this button to select the mode you want to program.

(8) NIGHT SETBACK button

For details, see "Night Setback Mode".

When you press this button in the COOL mode, the mark appears at the lower left of the display, and the microcomputer in the remote control unit will adjust the set temperature to save energy.

(9) SWEEP button

When you press this button, the SWEEP mark will appear at the lower left of the display, and the flap in the air outlet starts moving up and down to deliver air over the sweep range set. To stop sweeping, just press the SWEEP button again.

(10) COOL/FAN selector switch

FAN:

The air conditioner works only as a circulation fan.

COOL:

The air conditioner makes the room cooler.

(11) Timer selector switch

NORM.:

The timer does not operate.

OFF:

The air conditioner stops at the set time.

ON:

The air conditioner starts at the set time.

PROGRAM:

The air conditioner stops and starts, or starts and stops, at the set times every day.

(12) Fan speed selector switch

AUTO:

Fan speeds are automatically decided by the microcomputer.

HIGH:

High speed for fast cooling

MED.:

Medium speed

LOW:

Low speed

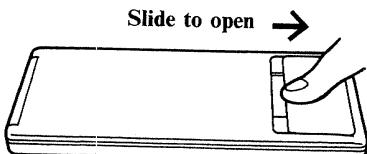
(13) SENSOR

A temperature sensor inside the remote control unit senses the room temperature.

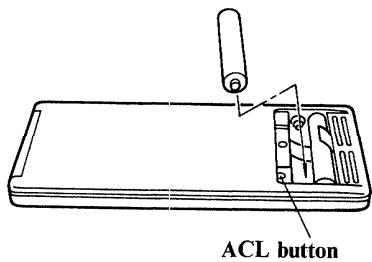
Using the Remote Control Unit

How to Install Batteries

1. Press and slide the lid on the back of the remote control unit in the direction of the arrow.



2. Install two AAA alkaline batteries. Make sure the batteries point in the direction marked in the battery compartment.



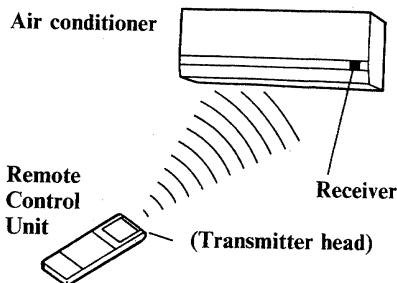
3. Press the ACL button, then replace the lid.
If you press it, the current time, ON time, and OFF time are all reset to 0:00. This may make it easier for you to reset those times. (See "Setting the Timer".)

CAUTION

- The batteries last about six months, depending on how much you use the remote control unit. Replace the batteries when the remote control unit's lamp fails to light, or when the remote control cannot be used to change the air conditioner's settings.
- Use two fresh leak-proof type-AAA alkaline batteries.
- In replacing batteries, follow the instructions as mentioned in the sub-section "How to Install Batteries".
- If you do not use the remote control unit more than 1 month, take out the batteries.

How to Use the Remote Control Unit

When using the remote control unit, always point the unit's transmitter head directly at the air conditioner's receiver.



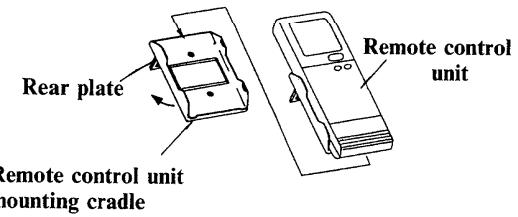
Remote Control Unit Installation Position

The indoor remote unit may be operated either from a non-fixed position or from a wall-mounted position. To ensure that the air conditioner operates correctly, do not install the remote control unit in the following places:

- In direct sunlight
- Behind a curtain or other place where it is covered
- More than 25ft. away from the air conditioner
- In the path of the air conditioner's airstream
- Where it may become extremely hot or cold
- Where it may be subject to electrical or magnetic noise

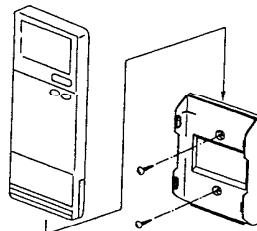
1. If Non-fixed Position

Raise the rear plate of the remote control unit mounting cradle and insert the remote control unit. The unit can be used either in that position (placed on a table, for instance) or held in the hand



2. If Wall-mounted Fixed Position

Install the remote control unit at a convenient location on a nearby wall. However, before attaching the remote control unit mounting cradle, check that the remote control unit can operate from the desired wall position.



Operation with the Remote Control Unit

Check that the circuit breaker on the power panel is turned on and the operation selector of the indoor unit is in the ON position.

1. Cooling

- STEP 1:** Set the COOL/FAN selector switch to COOL.
- STEP 2:** Set the timer selector switch to NORM.
- STEP 3:** Press the ON/OFF operation button.
- STEP 4:** Press the COOLER or WARMER button to set a cooler or warmer temperature.
- Each time you press these buttons, the set temperature varies by 2°F.
84°F max.
64°F min.
- STEP 5:** Set the fan speed selector switch to the setting you want.

To stop the air conditioner, press the ON/OFF operation button again.

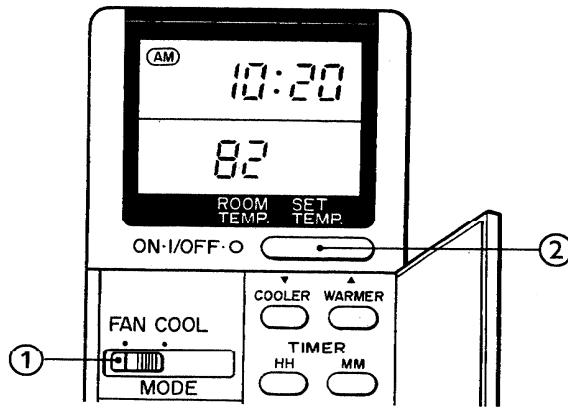
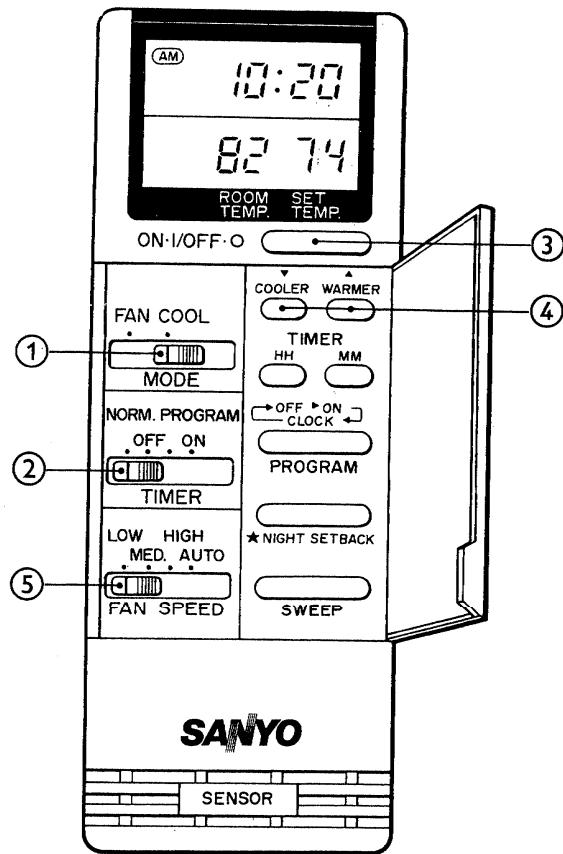
IMPORTANT

- Choose the best position in the room for the remote control unit, which also acts as the sensor for room comfort and transmits the operating instructions. Once you've found this best position, always keep the remote control unit there.
- To prevent the appliance from malfunctioning, do not set any selector switch between two indicated positions. Make sure that it clicks into position.
- This appliance has a built-in 3-minute time delay circuit to ensure reliable operation. If the operation button is pressed, the compressor will start running after three minutes. In the event of power failure, the unit will stop. When the power is applied, the unit will re-start automatically after 3 minutes.

2. Fan Only

If you want to circulate air without any temperature control, follow these steps:

- STEP 1:** Set the COOL/FAN selector switch to FAN.
- STEP 2:** Press the ON/OFF operation button.



3. Night Setback Mode

STEP 1: Press the NIGHT SETBACK button in cooling.

The  mark appears at the lower left of the display

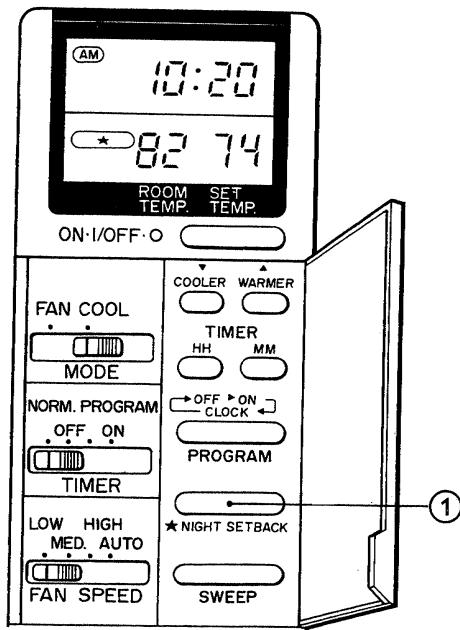
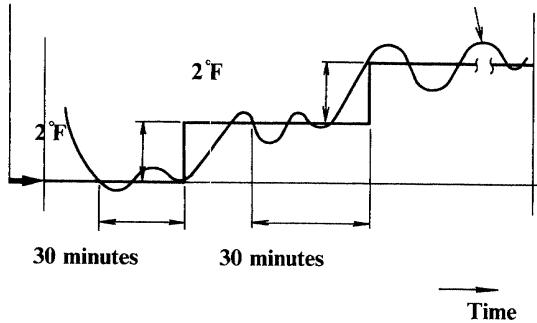
Press the NIGHT SETBACK button again to release the night setback function. This button has no effect in the FAN mode.

What does the Night Setback mode mean?

In this mode, the air conditioner will cool the room to the set temperature, and then the thermostat will make the unit pause. After about 30 minutes, the air conditioner will automatically raise the set temperature by 2°F. When the room temperature reaches the newly set valve, the thermostat will cause the unit to pause. After about 30 minutes the temperature will again be raised by 2°F. This enables you to save energy without sacrificing comfort. This function is convenient when gentle cooling is needed.

Setting Temperature

Room Temperature



Operation without the Remote Control Unit

If you have lost the remote control unit or it has trouble, follow the steps below.

1. When the air conditioner is stopped.

If you want to turn on the air conditioner, switch the operation selector to the OFF position, and then to the ON position.

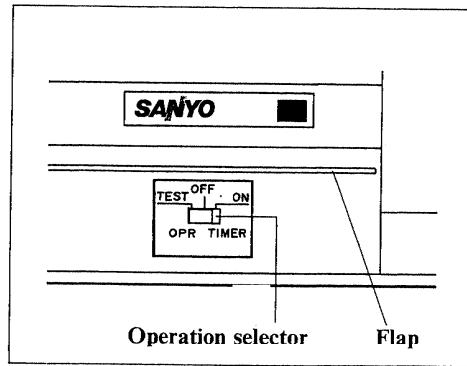
NOTE

The set temp. and fan speed are automatically set at the latest selection before stopping.

2. When the air conditioner is running.

If you want to turn off the air conditioner, switch the operation selector to the OFF position.

INDOOR UNIT



Setting the Timer

1) How to set the present time

(Example) To set to 9:10 p.m.

	<ol style="list-style-type: none"> Press the PROGRAM button three times. The time indication alone flashes. <ul style="list-style-type: none"> Press the HH button until 9 and PM are displayed. Press the MM button until 10 is displayed. The display will automatically stop flashing except for the ":" symbol after 10 sec. 	Flashing Flashing
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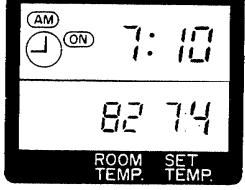
2) How to set the OFF time

(Example) To stop the air conditioner at 11:30 p.m.

Operation	Indication
<ol style="list-style-type: none"> Press the PROGRAM button once. The timer OFF and time indications flash. 	Flashing
<ol style="list-style-type: none"> Press the HH button until 11 and PM are displayed. Press the MM button until 30 is displayed. The display will change automatically back to show the present time after 10 sec. Set the timer switch(s) to OFF. Press the ON/OFF button to start the air conditioner. 	Flashing

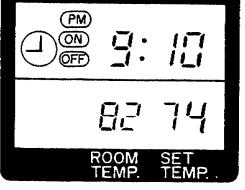
3) How to set the ON time

(Example) To start operation at 7:10 a.m.

	<ol style="list-style-type: none"> Press the PROGRAM button twice. The timer ON and time indications flash. <ul style="list-style-type: none"> Press the HH button until 7 and AM are displayed. Press the MM button until 10 is displayed. The display will change automatically back to show the present time after 10 sec. Set the timer switch(s) to ON. Press the ON/OFF button to start the air conditioner. 	Flashing Flashing
---	---	----------------------

4) How to set for daily ON/OFF operation

(Example) To start operation at 7:10 a.m. and stop the air conditioner at 11:30 p.m.

	<ol style="list-style-type: none"> Set the timer ON/OFF times as shown in 2) and 3). Set the timer switch(s) to PROGRAM. Press the ON/OFF button to start the air conditioner. 	
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Adjusting the Air Flow Direction

A. Horizontal

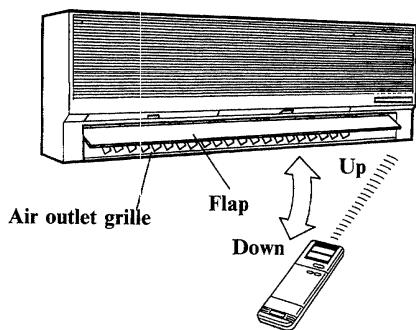
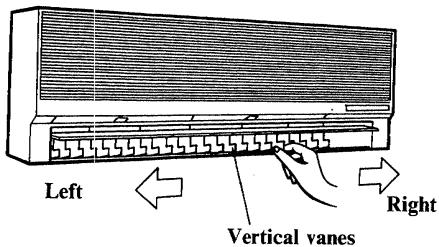
The horizontal air flow can be adjusted by moving the vertical vanes to the left or right.

B. Vertical

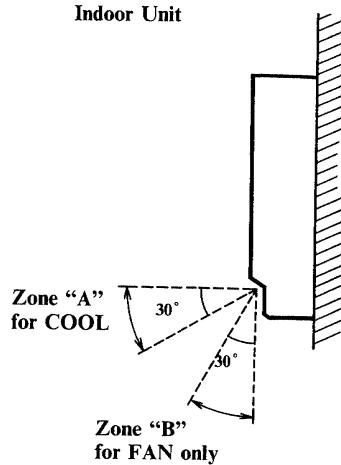
Confirm that the remote control unit has been turned on. Press the SWEEP button to start the flap moving up and down. If you want to stop the flap movement and to direct the air in the desired direction, press the SWEEP button again. In the COOL mode, don't direct the flap down more than 30°; otherwise, condensation may drip on to the floor.

CAUTION

Do not move the flap with your hands.



Indoor Unit



Care and Cleaning

For safety, be sure to turn the air conditioner off and also to disconnect the power before cleaning.

Casing and Grille (Indoor Unit)

Clean the casing and grille of the indoor unit with a vacuum cleaner brush, or wipe them with a clean, soft cloth.

If these parts are stained, use a clean cloth moistened with a mild liquid detergent.

When cleaning the grille, be careful not to force the vanes out of place.

CAUTION

1. Do not pour water on the unit to clean it. This will damage the internal components and cause an electric shock hazard.
2. Never use solvents, or harsh chemicals. Do not wipe the plastic casing using very hot water.

Outdoor Unit

CAUTION

1. Some metal edges and the condenser fins are sharp and may cause injury if handled improperly; be especially careful when you clean these parts.
2. The internal coil and other components of the outdoor unit must be cleaned every year. Consult your dealer or service center.

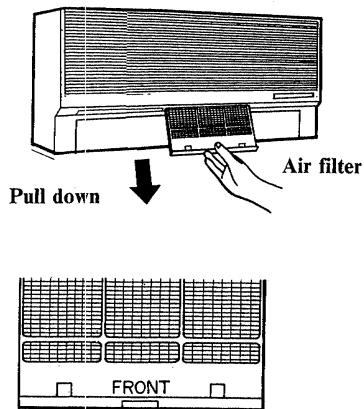
Air Filter

The air filter behind the air intake grille should be checked and cleaned at least once every two weeks.

How to remove the filter

1. Move the flap on the air outlet grille to its lowest position.
2. Hold the air filter by the tab at the bottom, and pull downward.

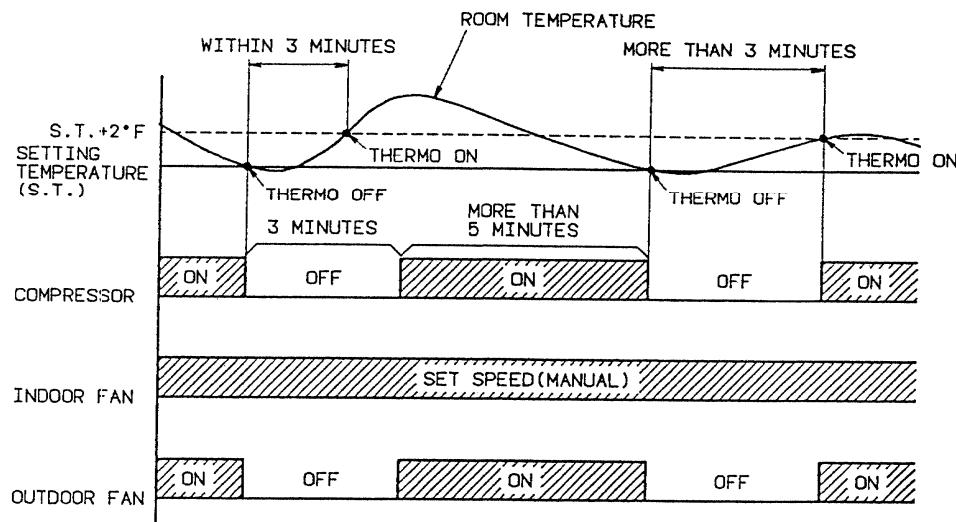
Use a vacuum cleaner to remove light dust. If there is sticky dust on the filter, wash the filter in lukewarm, soapy water, rinse it in clean water, and dry it. When replacing the filter, make sure that the FRONT mark is facing you.



9. FUNCTION

1) Temperature control

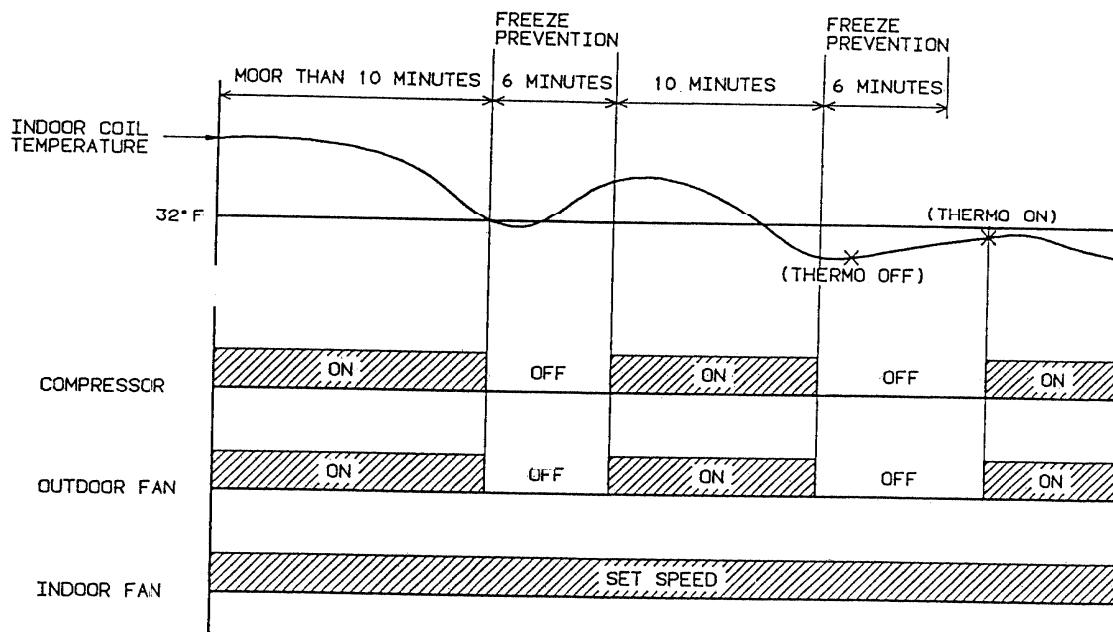
- Temperature control is obtained by cycling the compressor ON and OFF under control of the room temperature sensor in the remote control unit.
- The compressor turn to OFF below the thermostat setting temperature, and turn to ON above 2°F from setting temperature.



- In order to keep the compressor from stalling out when trying to start against the hight side refrigerant pressure, the control circuit has a built-in automatic time delay to allow the internal pressure to equalize. The control circuit will not try to start the compressor until it has been off for three (3) minutes.
- The compressor keep to turn forced for five (5) minutes, but the operation button is set to OFF, the compressor stop to turn.
- The compressor is not controlled by thermostat while the compressor run within five (5) minutes, or stop to run within three (3) minutes.

2) Freeze prevention

If the indoor coil temperature falls below 32°F when the compressor has been turning for 10 minutes or more, the controller signals to stop turning to the compressor and outdoor fan. The compressor and outdoor fan motor will start to turn after 6 minutes.



3) Outdoor fan speed control

In low temperature areas, the outdoor fan is set automatically to LOW to prevent freezing. When the outdoor air temperature falls below 75°F, the outdoor fan is set to LOW. When the outdoor air temperature rises to 79°F, the outdoor fan is set to HIGH.

4 Remote Control Unit

Keep the remote control unit where its signals can reach the receiver of the air conditioner (a distance of 25ft(7.5m) is allowed). When you select the timer operation, the remote control unit automatically transmits a signal to the main unit at the specified time.

Indication range of room temperature
38 °F ~ 98 °F

Indication range of setting room temperature (Thermostat)
64 °F ~ 84 °F (~ 88 °F at Night setback mode)

Initialized indication

Clock :	0:00
Timer :	0:00
Setting room temperature :	76 °F

Functions and Indications

Operation Mode		Indication (and function)								Operation of Unit			
		Remote Control unit						Unit					
		Clock	Temperature		NSB	Sweep	Timer		Ope	Timer	Fan	Fan	Comp
			Room	Set			ON	OFF					
Off		○	○	-	-	-	-	-	-	-	-	-	-
Fan		○	○	-	-	□	□	□	○	□	○	-	-
Cool mode	Normal	○	○	○	○	□	-	-	○	-	○	○*	○*
	OFF Timer	○	○	△	△	□	-	○	○	○	○	○*	○*
	ON Timer	○	○	△	△	□	○	-	○	-	-	-	-
	Program OFF Timer	○	○	△	△	□	○	○	○	○	○	○*	○*
	ON Timer	○	○	△	△	□	○	○	○	-	-	-	-

○* : Fan and compressor of outdoor unit are turned off at room thermostat Off.

Th ON: Thermostat ON Th OFF: Thermostat OFF NSB: Night setback Ope: Operation lamp
In-U: Indoor unit Out-U: Outdoor unit

□, △ : These functions can be set at each operation mode tabulated above.
△ : These functions can be set at cooling mode only.

10. INSTALLATION INSTRUCTIONS

1) Installation Site Selection

Indoor Unit

AVOID:

- areas where leakage of flammable gas may be expected.
- places where large amounts of oil mist exist.
- direct sunlight.
- nearby heat sources that may affect performance of the unit.
- locations where remote control will be splashed with water or affected by dampness or humidity.
- installing remote control unit behind curtains or furniture that obstruct air circulation.

DO:

- select an appropriate position from which every corner of the room can be uniformly cooled. (High on the wall is best.)
- select a location that will hold the weight of the unit.
- select a location where piping and drain pipe have shortest run to the outside. Fig. 1.
- allow room for operation and maintenance as well as unrestricted air flow around the unit.
- install unit within the maximum height (H) up or down of outdoor unit and within a total piping length (L) from outdoor unit stipulated in Table. 1. Fig. 2
- allow room for mounting control unit about 1 m (4 ft.) off the floor, in an area that is not in direct sunlight or in the flow of cool air from the unit.

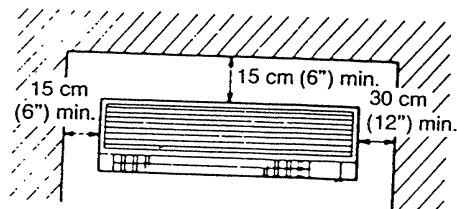
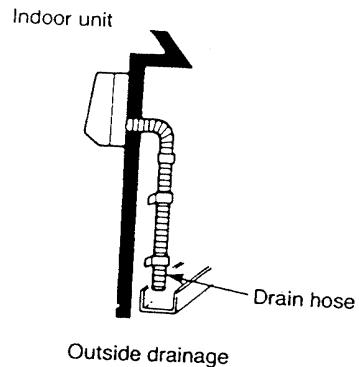


Fig. 1

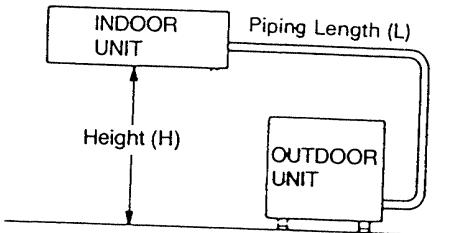


Fig. 2

Model	Max. allowable piping length at shipment (ft)	Limit of piping length (L) (ft)	Limit of elevation difference (H) (ft)	Required amount of additional refrigerant* (oz/ft)	Refrigerant amount charged at shipment (lb)
24KS12W	10 ~ 50	100	50	0.38	6.8
30KS12W	10 ~ 50	100	50	0.8	9.5
36KS12W	10 ~ 50	130	50	0.85	9.9

* No additional charge of compressor oil is required.

Table. 1

Outdoor Unit

AVOID:

- heat sources, exhaust fans, etc. Fig. 3.
- damp, humid or uneven locations.

DO:

- choose a place that is well ventilated and outside air temperature does not exceed 115°F constantly.
- allow enough room around unit for air intake/exhaust and possible maintenance. Fig. 4
- provide a solid base; concrete, about 4" above ground level to reduce humidity and avoid possible water damage in unit and decreased service life.
- use leg bolts or equal to bolt down unit, reducing vibration and noise.

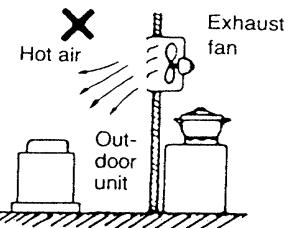


Fig. 3

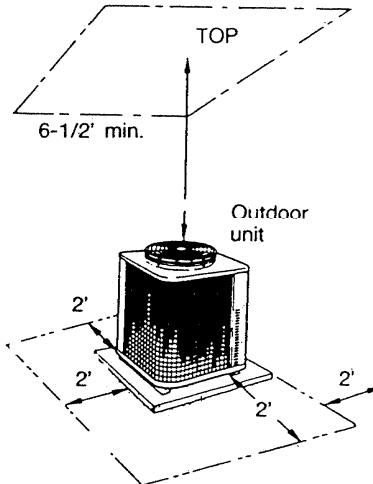


Fig. 4

- 2) Connecting Pipes between Indoor and Outdoor Units**
- Connect the indoor side refrigerant piping extended from the wall with the outdoor side piping tightly.
 - Flare nut on large dia. pipe should be torqued to 520 ~ 560 lbs. in. (5/8" pipe) and 600 ~ 680 lb. in. (3/4" pipe)
Flare nut on the narrow pipe should be torqued to 300 - 340 lbs-in. (3/8" pipe) Fig. 5
 - After performing a leak test on the connecting part, insulate it with an insulation and finish with a vinyl masking tape over it. Fig. 6

3) Insulation of Refrigerant Piping

To prevent heat loss and wet floors due to dripping of condensation, wide pipe must be well insulated with proper insulation material. Thickness of insulation material should be min. 5/16". Fig. 7

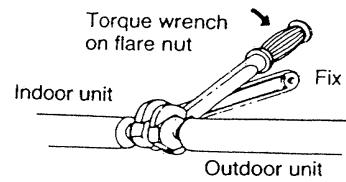


Fig. 5

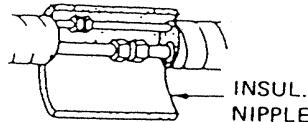


Fig. 6

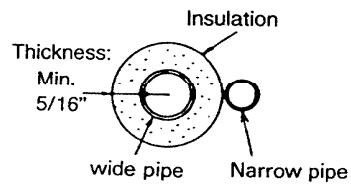


Fig. 7

4) Wiring Instructions

Wiring system diagram

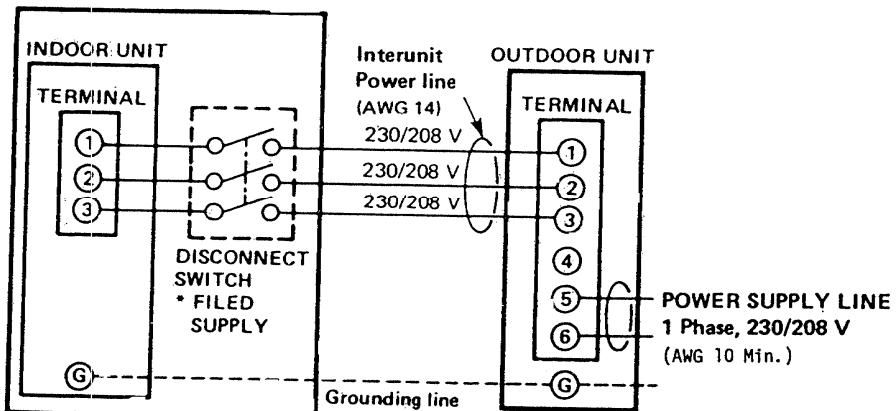


Fig. 8

5) Air Purging

Air does not function as a refrigerant, because it can not be liquefied in the condenser. Air and moisture remaining in the refrigerant system have undesirable effects as indicated at right. Therefore, they must be purged completely.

- 1) The pressure in the system rises.
- 2) The operating current rises.

- 3) Cooling efficiency drops.
Water contained in the air may freeze and block the capillary tube.
- 4) Water may lead to corrosion of parts in the refrigerant circuit.

CAUTION

**Refrigerant has been factory charged in the outdoor unit at the time of shipment.
Don't use this refrigerant gas for air purging.**

■ TUBING DIAGRAM FOR AIR PURGING (Example: 24KS12W)

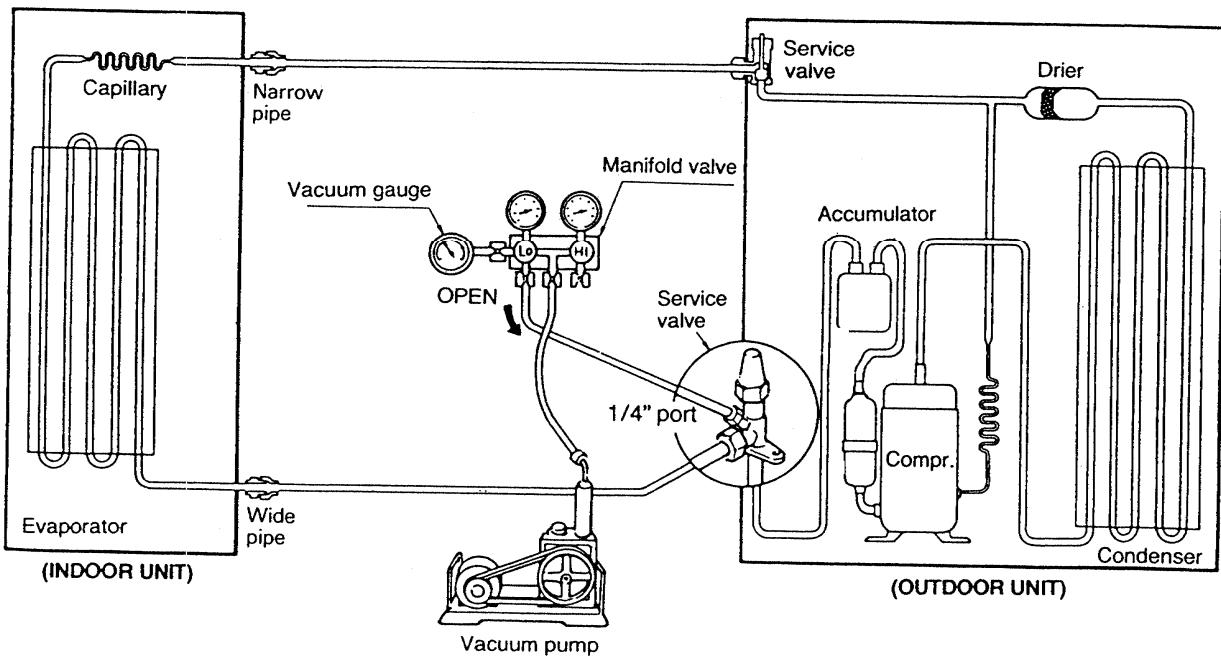


Fig. 9

Air Purging Procedure (Conventional evacuation system)

- a) Check gas leakage of all joints with liquid soap. Fig. 10
- b) If no gasleakage is confirmed, connect both vacuum pump and vacuum gauge to service valve through 1/4" port with a flare nut. See Fig. 9.
- c) Next, run the vacuum pump until the pressure reaches to 1.5 mm Hg abs. or less value than that.
- d) Close the low pressure side knob on the gauge manifold valve and stop evacuation.
- e) Remove the cap from the wide pipe service valve and turn the spindle gradually until it is back seated. Fig. 11.
- f) Disconnect vacuum pump and gauge manifold valve from the service valve. Then replace bonnet and flare nut to 1/4" port of service valve.
- g) The spindle of narrow pipe service valve shall be fully back seated. Then, tighten the valve seal cap with the copper gasket.
- h) The all air purge procedure has been completed and the unit is ready for trial opeeration.

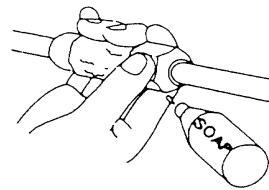


Fig. 10

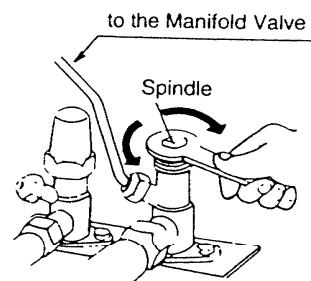


Fig. 11

Air Purging Procedure (If piping length will not exceed more than 50 ft.)

- a) Connect refrigerant charging cylinder to narrow pipe service valve, and open the valve of the charging cylinder. Fig. 12.
- b) When gas begins to be expelled, stop the flow for about 5 seconds by holding your finger over the outlet, then remove it and allow gas to flow out freely for about 10 seconds. Repeat this operation 6 times.
- c) Tighten the flare nuts quickly with bonnets on both charging ports right after hold no pressure before air comes in.
- d) The spindle of both sevice valve shall be fully back seated. then, tighten the valve seal cap with the copper gasket.

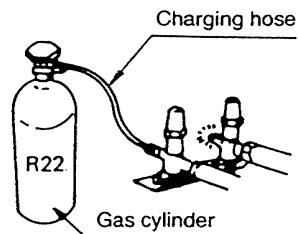


Fig. 12

■ SERVICE VALVE CONSTRUCTION

- **Valve Position -a-**

The valve spindles of both wide & narrow pipes are turned all the way in. The unit is shipped from the factory in this position (Fig. 13-a)

- **Valve Position -b-**

The valve spindles of both wide & narrow pipes are turned all the way out ("BACK SEAT" position). This is the normal operating position. (Fig. 13-b)

- **Valve Position -c-**

The valve stems of both wide and narrow pipes are turned halfway-down position. This position is used for pressure measurement and gas charging. (Fig. 13-c)

- **Valve Position -d-**

Like position -a- but with the flare nut of wide pipe open. This position is used for air purging. (Fig. 13-d)

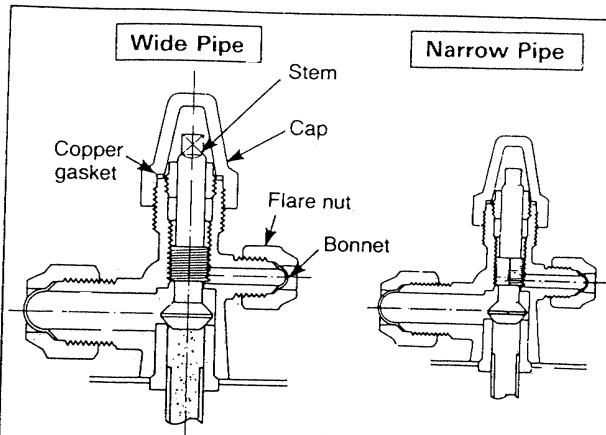


Fig. 13-d -a- Condition at Shipping

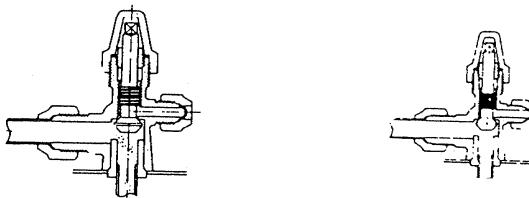


Fig. 13-a -b- Condition for Operation

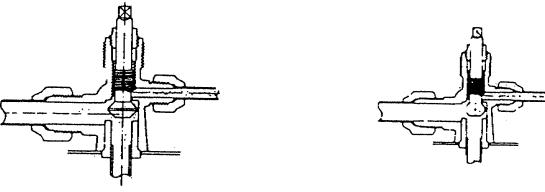


Fig. 13-b -c- Condition at Gas Charging

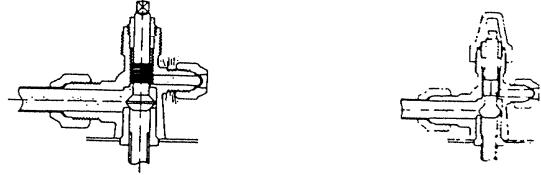


Fig. 13-c -d- Condition at Air Purging

CAUTION

Be sure to use the service valve wrench or ratchet wrench when opening or closing the shut-off valve spindle.

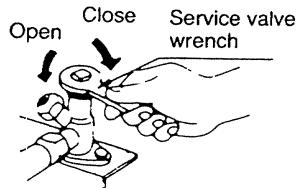


Fig. 14

■ PUMP DOWN

Pump down means collecting all refrigerant in the system back into the outdoor unit without losing refrigerant gas. Pump down is used when unit is moved or for servicing the refrigerant circuit.

- 1) Close valve on wide pipe halfway (2 turns).
- 2) Close valve on narrow pipe all the way (4 turns).
- 3) Turn unit on (cooling) for approximately 3 minutes then shut off.
- 4) Close valve on wide pipe all the way (2 additional turns).
- 5) Disconnect pipes slowly allowing pressure to equalize inside and out.
- 6) When piping is disconnected provide dust covers for both valves and pipes until unit is reconnected.

6) Remote Control Unit Installation Position

The remote control unit can be operated from either a non-fixed position or a wall-mounted position.

To ensure that the air conditioner operates correctly, do not install the remote control unit in the following places:

- In direct sunlight
- Behind a curtain or other place where it is covered
- More than 25 ft. away from the air conditioner
- In the path of the air conditioner's airstream
- Where it may become extremely hot or cold
- Where it may be subject to electrical or magnetic interference

6-1. If Non-fixed Position

Raise the rear plate of the remote control unit mounting cradle and insert the remote control unit. The unit can be used either in that position (placed on a table, for instance) or held in the hand. (Fig. 15)

6-2. If Wall-mounted Fixed Position

Install the remote control unit at a convenient location on a nearby wall. However, before attaching the remote control unit mounting cradle, check that the remote control unit can operate from the desired wall position. (Fig. 16)

7) Address Switches

If you are installing more than one indoor unit (up to four) in the same room, it is necessary for you to assign each unit its own address so they each can be operated by their remote control unit. You assign the addresses by matching the switch positions of each indoor unit with the switch positions of its remote control unit. The switches of the remote control unit are shown in Fig. Fig. 17.

For instance, to set up two indoor units, switch Unit A's address switches and the switches of its remote control unit to OFF – OFF. Then switch Unit B's address switches and the switches of its remote control unit to ON – OFF. *It is important that you match the switches of the air conditioner unit with the switches of its remote control unit.*

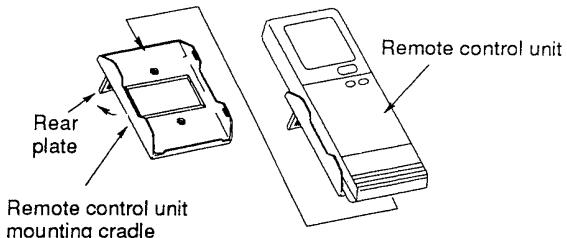


Fig. 15

NOTE

An indoor unit cannot be remote controlled if its remote control unit is too far away ('more than 25 ft.). If the remote control unit does not seem to work correctly, bring it closer to the unit being operated and try again. For this reason, if the remote control unit is to be used from a fixed position, operation should be checked at that position before mounting

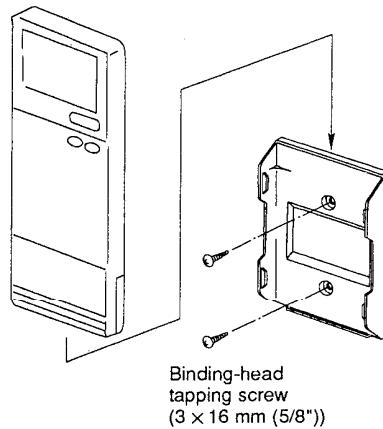


Fig. 16

7-1. Address switch position

How to find the address switches

Remote Control Unit

Remove the lid and unit's 2 batteries. You can see the switches inside the battery compartment. (Fig. 17)

Indoor Unit KS2412

Remove the casing, then follow the steps below.

- Unscrew the cover plate of the electrical component box. (Fig. 18)
- Disconnect the wiring connectors. (Fig. 19)
- Press each head of the 2 spacers to free the P.C.B. (Fig. 19)
- Pull out the P.C.B. to access the address switch. (Fig. 20)

7-2. Switch Positions for Up to Four Units

Table 2 shows the positions you can use for up to four indoor units installed in the same room.

Table 2

Unit No.	Remote Control		Indoor Unit	
	1	2	1	2
1	OFF	OFF	OFF	OFF
2	ON	OFF	ON	OFF
3	ON	ON	ON	ON
4	OFF	ON	OFF	ON

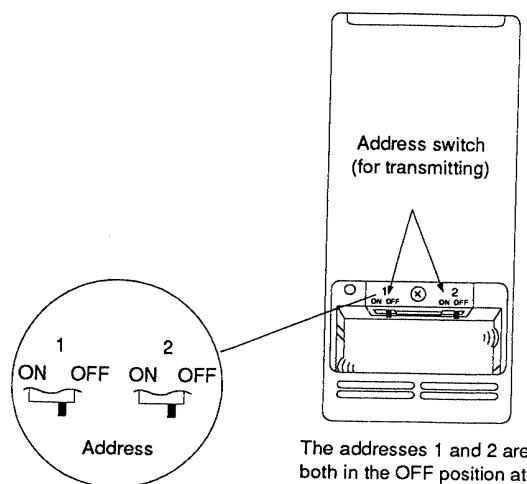


Fig. 17

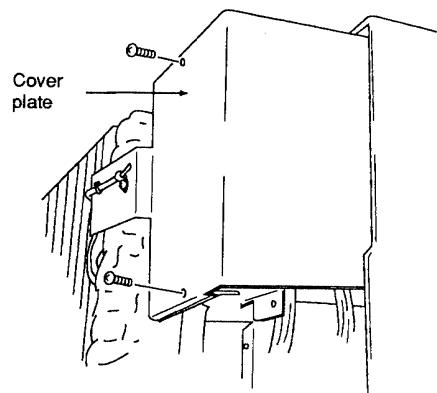


Fig. 18

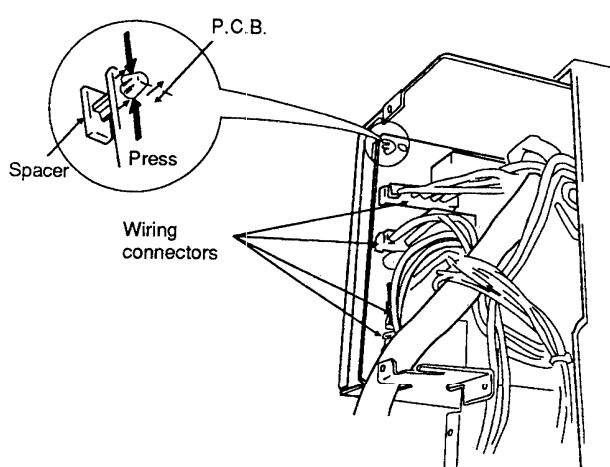


Fig. 19

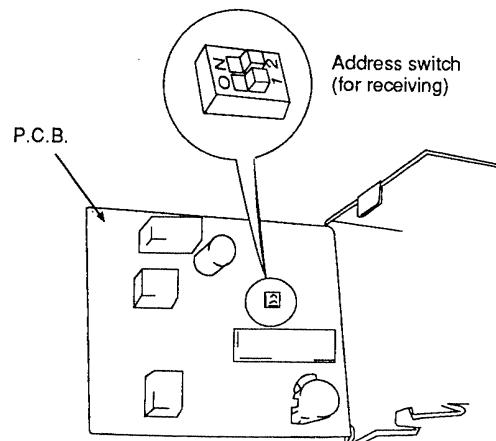


Fig. 20

Indoor Unit KS3012, KS3612

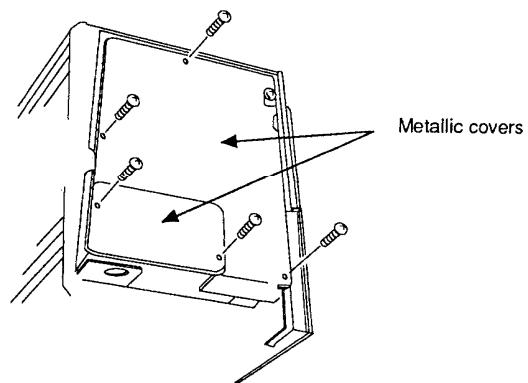
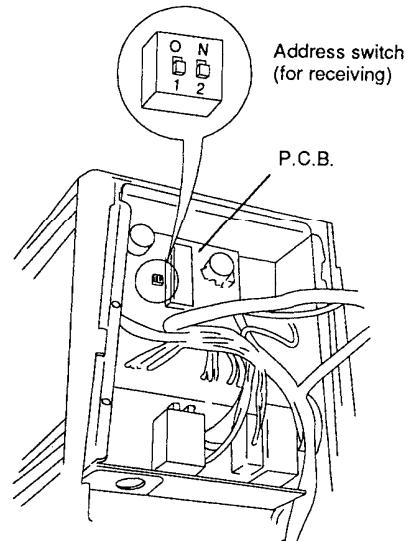
Remove the side cover, then unscrew the 2 metallic covers. (Fig. 21 and 22)

7-3. Switch Positions for Up to 4 Units

Table 3 shows the positions you can use for up to four indoor units installed in the same room.

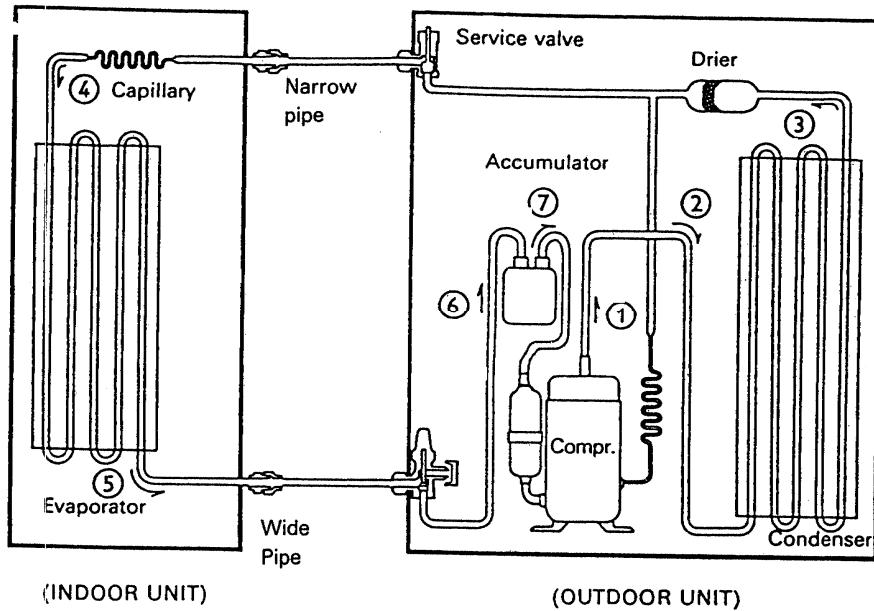
Table 3

Unit No.	Remote control		Indoor unit	
	1	2	1	2
1	OFF	OFF	OFF	OFF
2	ON	OFF	ON	OFF
3	ON	ON	ON	ON
4	OFF	ON	OFF	ON

**Fig. 21****Fig. 22**

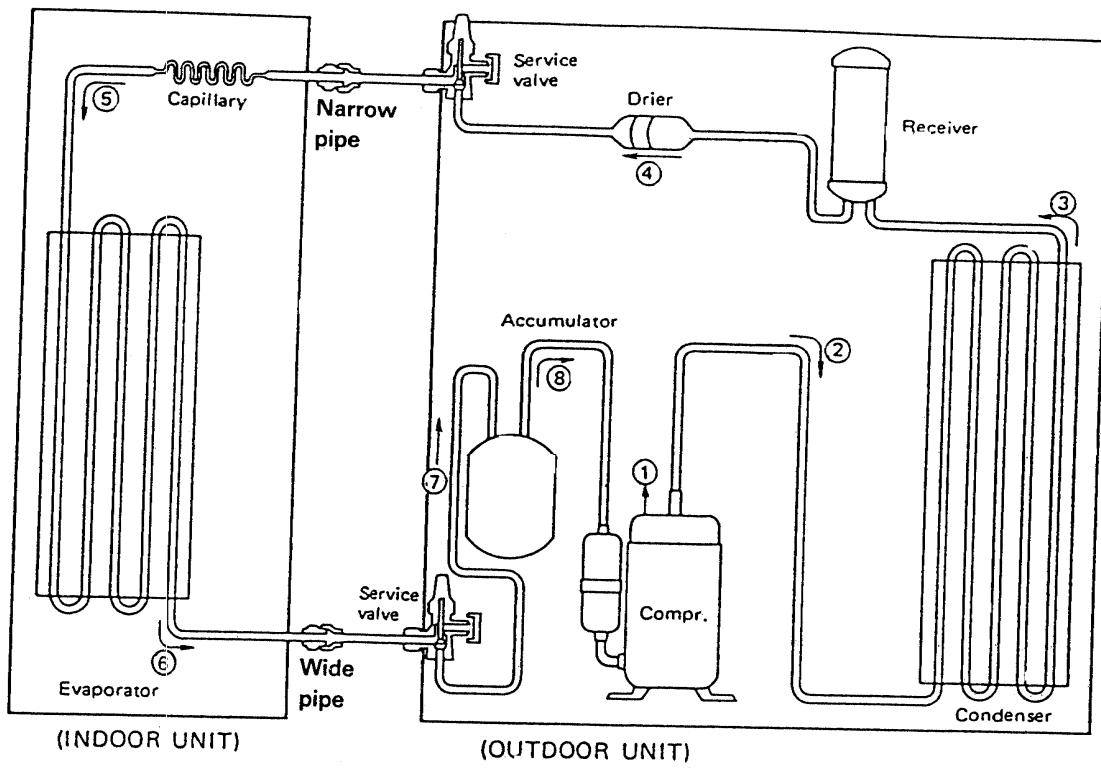
11. REFRIGERANT FLOW DIAGRAM

MODEL : 24KS12W

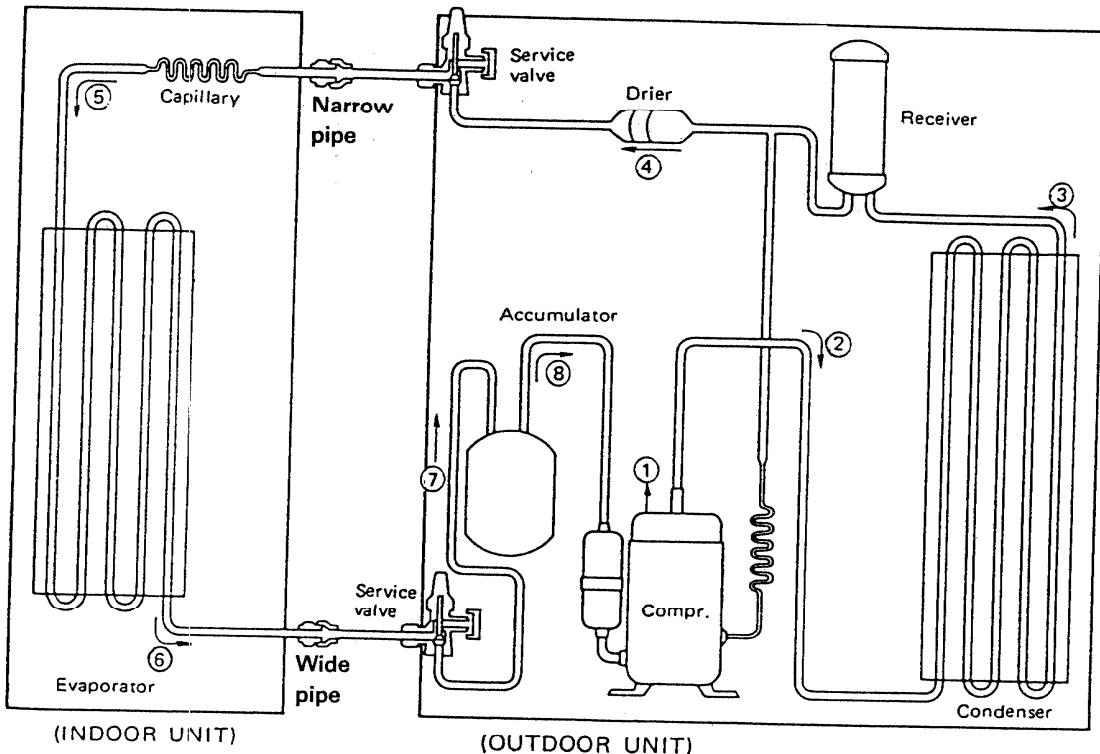


REFRIGERANT FLOW DIAGRAM

MODEL : 30KS12W



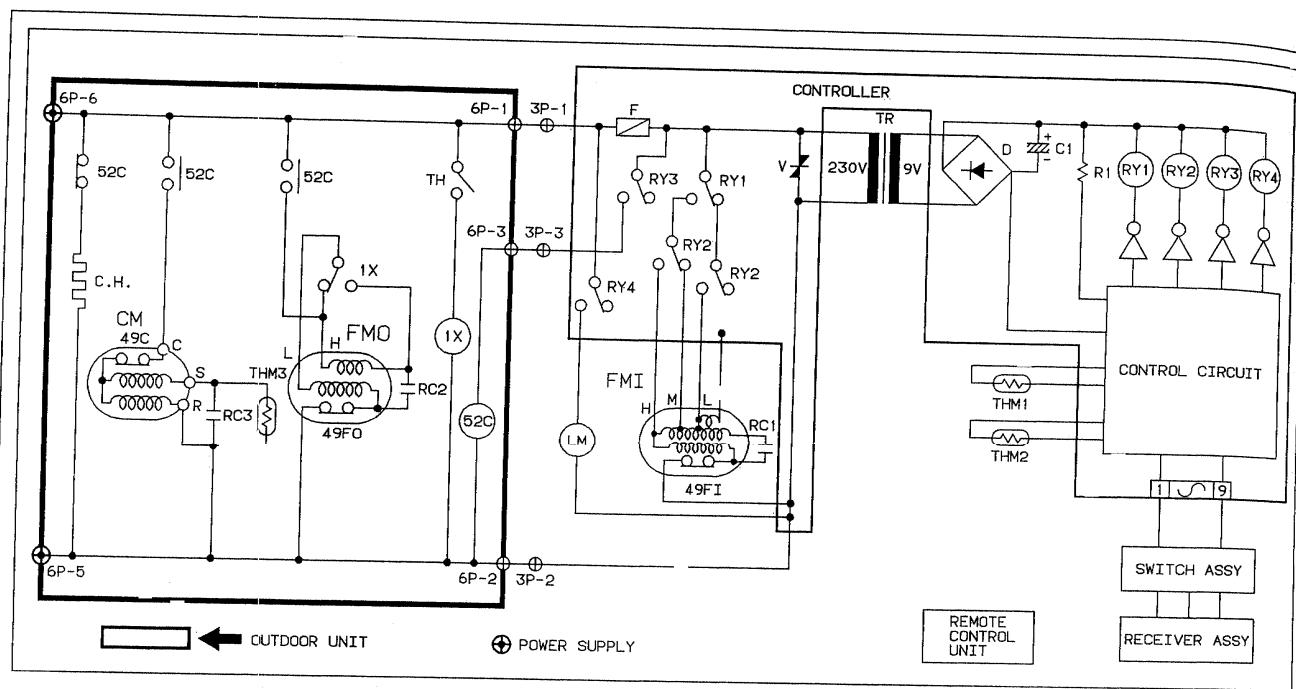
MODEL : 36KS12W



12. ELECTRICAL DATA

- Schematic Diagram

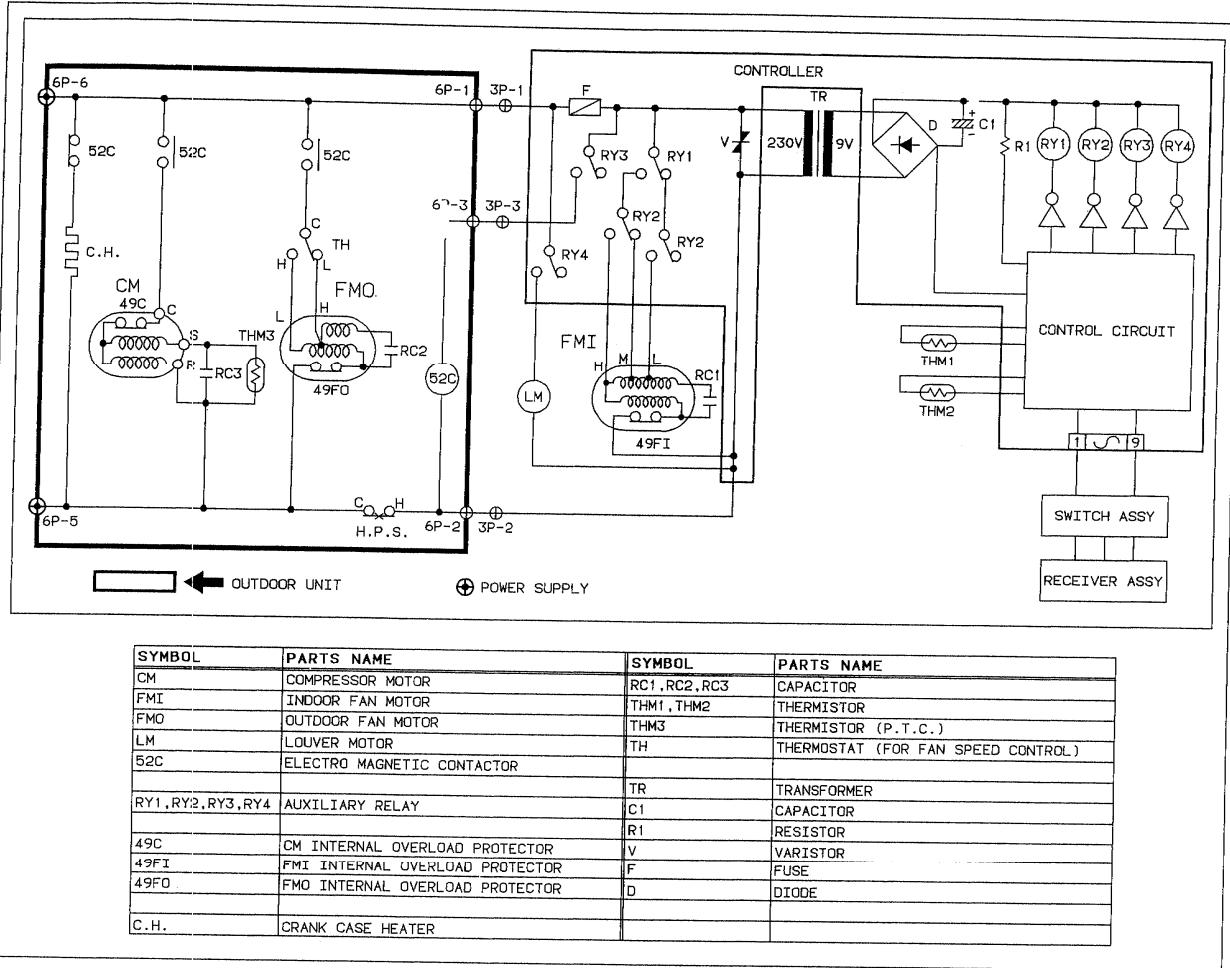
24KS12W



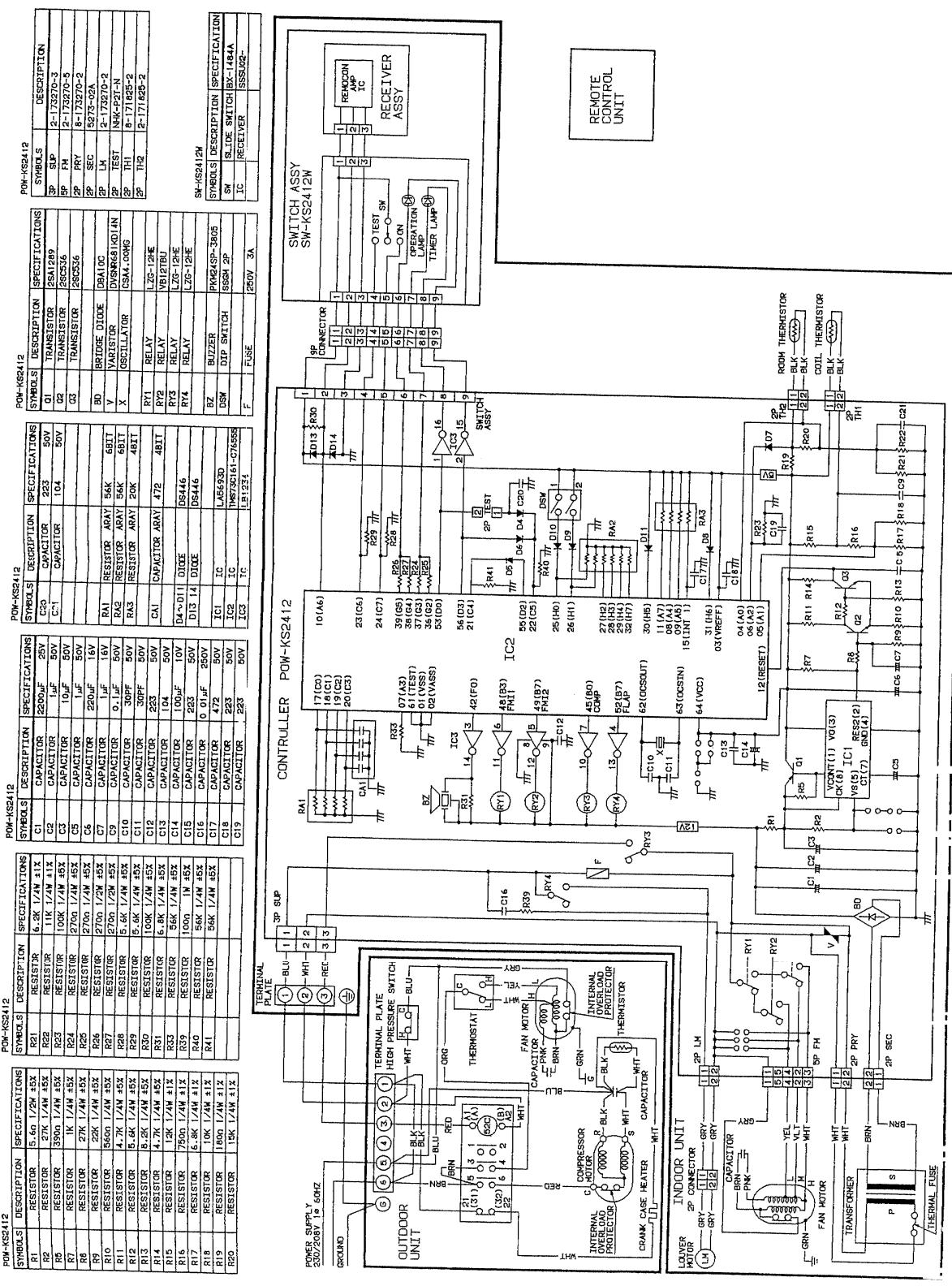
SYMBOL	PARTS NAME	SYMBOL	PARTS NAME
CM	COMPRESSOR MOTOR	RC1, RC2, RC3	CAPACITOR
FMI	INDOOR FAN MOTOR	THM1, THM2	THERMISTOR
FMO	OUTDOOR FAN MOTOR	THM3	THERMISTOR (P.T.C.)
LM	LOUVER MOTOR	TH	THERMOSTAT (FOR FAN SPEED CONTROL)
52C	ELECTRO MAGNETIC CONTACTOR		
1X	FAN MOTOR RELAY	TR	TRANSFORMER
RY1, RY2, RY3, RY4	AUXILIARY RELAY	C1	CAPACITOR
49C	CM INTERNAL OVERLOAD PROTECTOR	R1	RESISTOR
49FI	FMI INTERNAL OVERLOAD PROTECTOR	V	VARISTOR
49FO	FMO INTERNAL OVERLOAD PROTECTOR	F	FUSE
C.H.	CRANK CASE HEATER	D	DIODE

● Schematic Diagram

30KS12W, 36KS12W

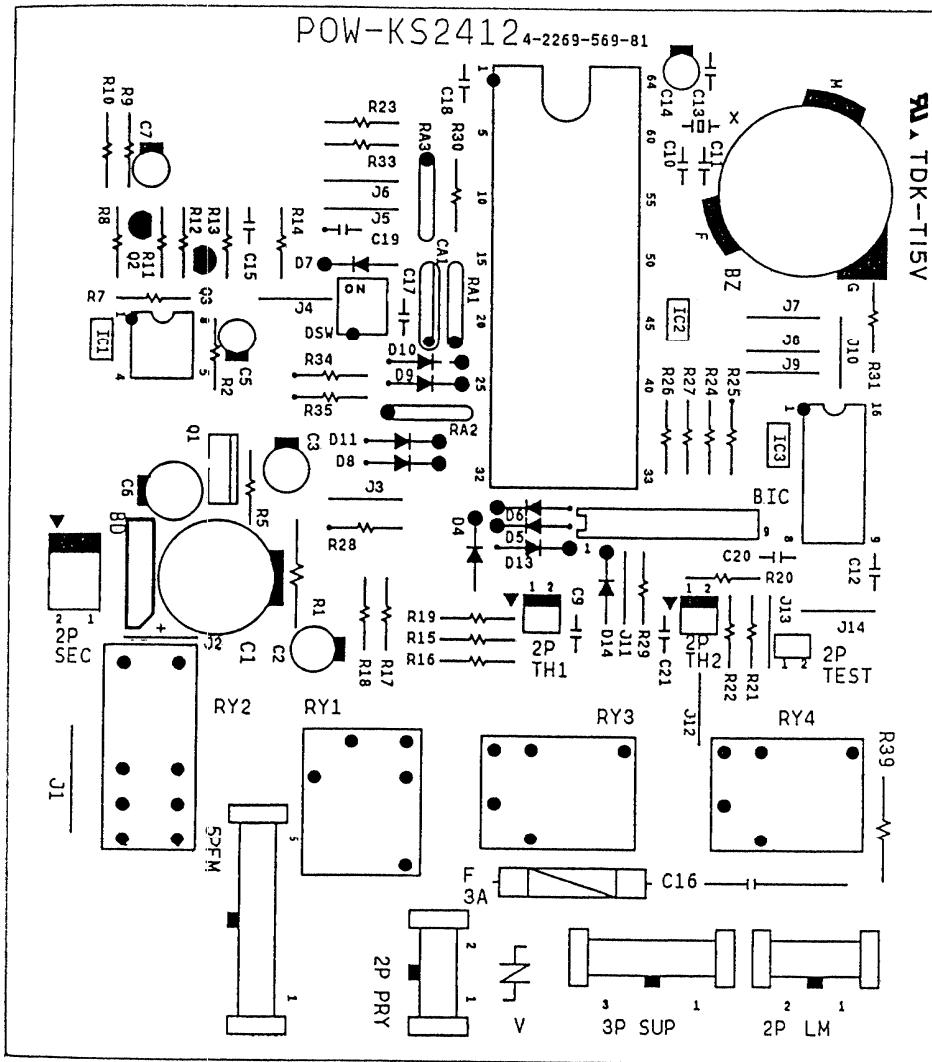


Electrical Wiring Diagram (P. C. B. Ass'y) 30KS12W, 36KS12W



• P.C.B. Ass'y (Printed Pattern)

POW-KS2412



- Electrical Characteristics

2 4 K S 1 2 W

Performance at 230/208V - 1 ϕ - 60Hz		Indoor Unit		Outdoor Unit		Complete Unit
		Fan Motor	Fan Motor	Compressor		
Rated Conditions	A	0.40/0.40	1.20/1.20	8.9/9.8	10.5/11.4	
	W	80/70	250/230	2,070/2,050	2,400/2,350	
Locked Rotor Amperes	A	0.46/0.42	2.34/2.29	72	-	

3 0 K S 1 2 W

Performance at 230/208V - 1 ϕ - 60Hz		Indoor Unit		Outdoor Unit		Complete Unit
		Fan Motor	Fan Motor	Compressor		
Rated Conditions	A	0.60/0.50	1.45/1.42	10.9/11.9	13.0/13.9	
	W	110/100	330/280	2,460/2,450	2,900/2,830	
Locked Rotor Amperes	A	0.65/0.60	1.95/1.77	81	-	

3 6 K S 1 2 W

Performance at 230/208V - 1 ϕ - 60Hz		Indoor Unit		Outdoor Unit		Complete Unit
		Fan Motor	Fan Motor	Compressor		
Rated Conditions	A	0.60/0.60	1.45/1.42	13.7/14.8	15.8/16.9	
	W	120/100	330/280	3,060/3,070	3,510/3,450	
Locked Rotor Amperes	A	0.65/0.65	1.95/1.77	98	-	

Remarks: Rated Conditions : Outdoor unit entering air temperature 95°F D.B./75°F W.B.
 Indoor unit entering air temperature 80°F D.B./67°F W.B.

13. TROUBLESHOOTING

— Quick Access Index —

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1. Check before and after "TROUBLESHOOTING"

(1) Check power supply conductors

- Check if power supply conductors are connected to terminals No.5 and No.6 at terminal block in the outdoor units.

Refer to page 47 WIRING SYSTEM DIAGRAM.

(2) Check interunit power line.

- Check interunit power wires are connected properly from outdoor unit to indoor unit.

Refer to page 47 WIRING SYSTEM DIAGRAM.

(3) Check power supply.

- Is voltage in specified range ($\pm 10\%$ of the rating) ?

Refer to Unit Specifications

- Be sure whether power is presented.

If checking of following Troubleshooting must be done in conditions that power is supplied, an uninsulated live part that can cause ELECTRIC SHOCK shall be taken care so that protection against unintentional contact is provided.

(4) Check lead wires and connectors in indoor and outdoor units.

- Check if insulation of lead wires are damaged.
- Check if lead wires and connectors are connected firmly.
- Check if wiring is correct.

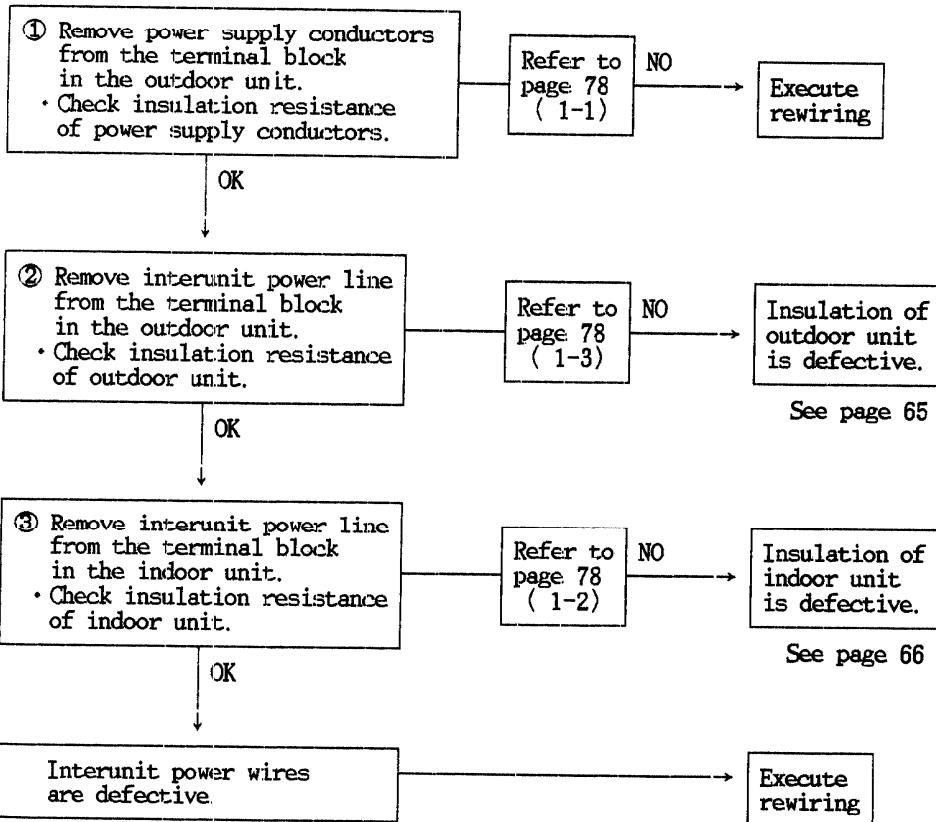
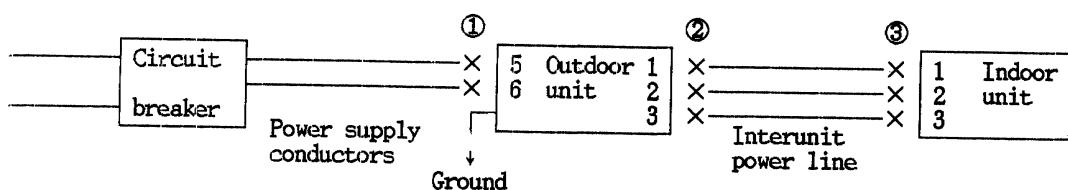
2 . Air conditioner does not operate

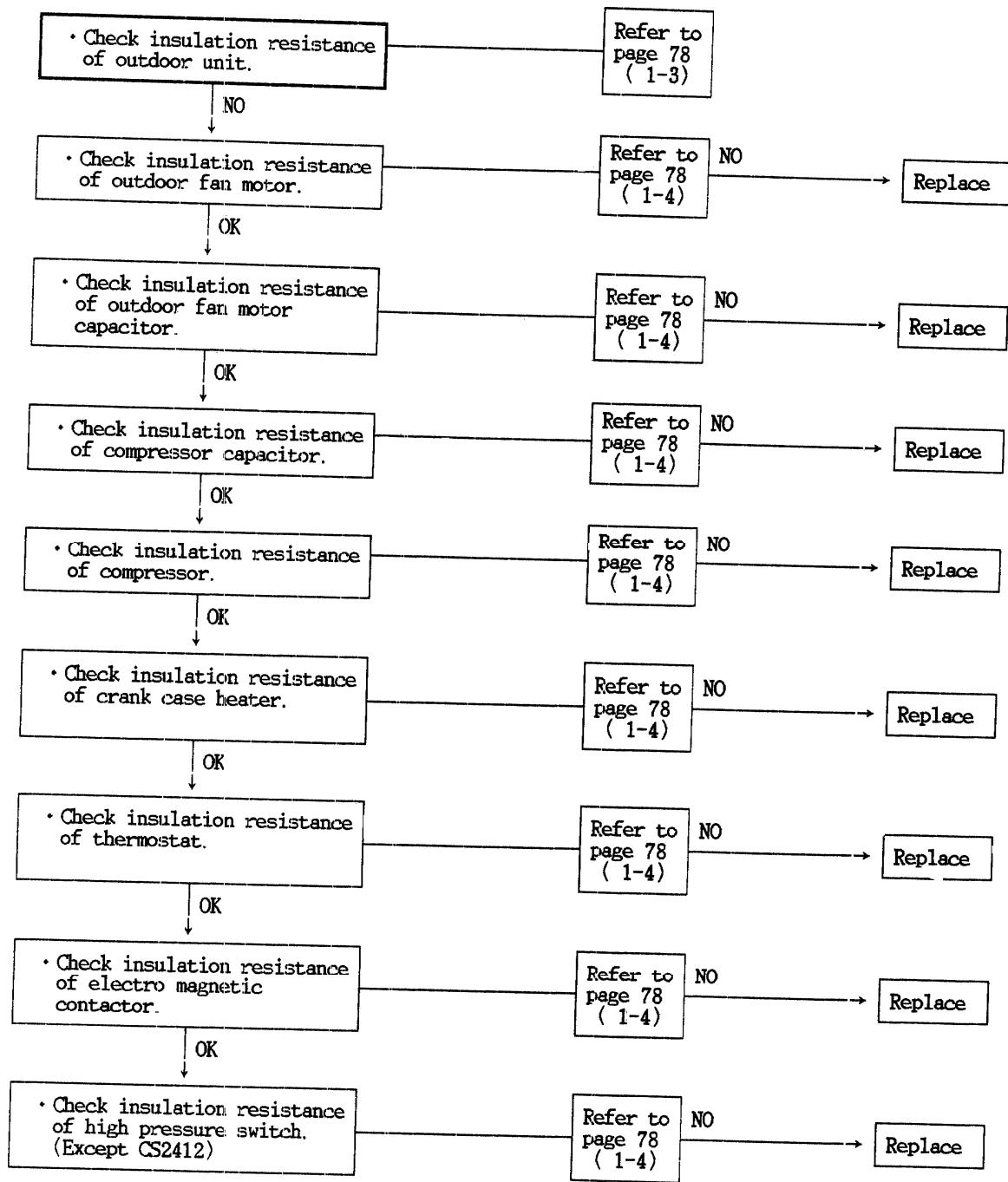
(1) Circuit breaker trips (or fuse blows).

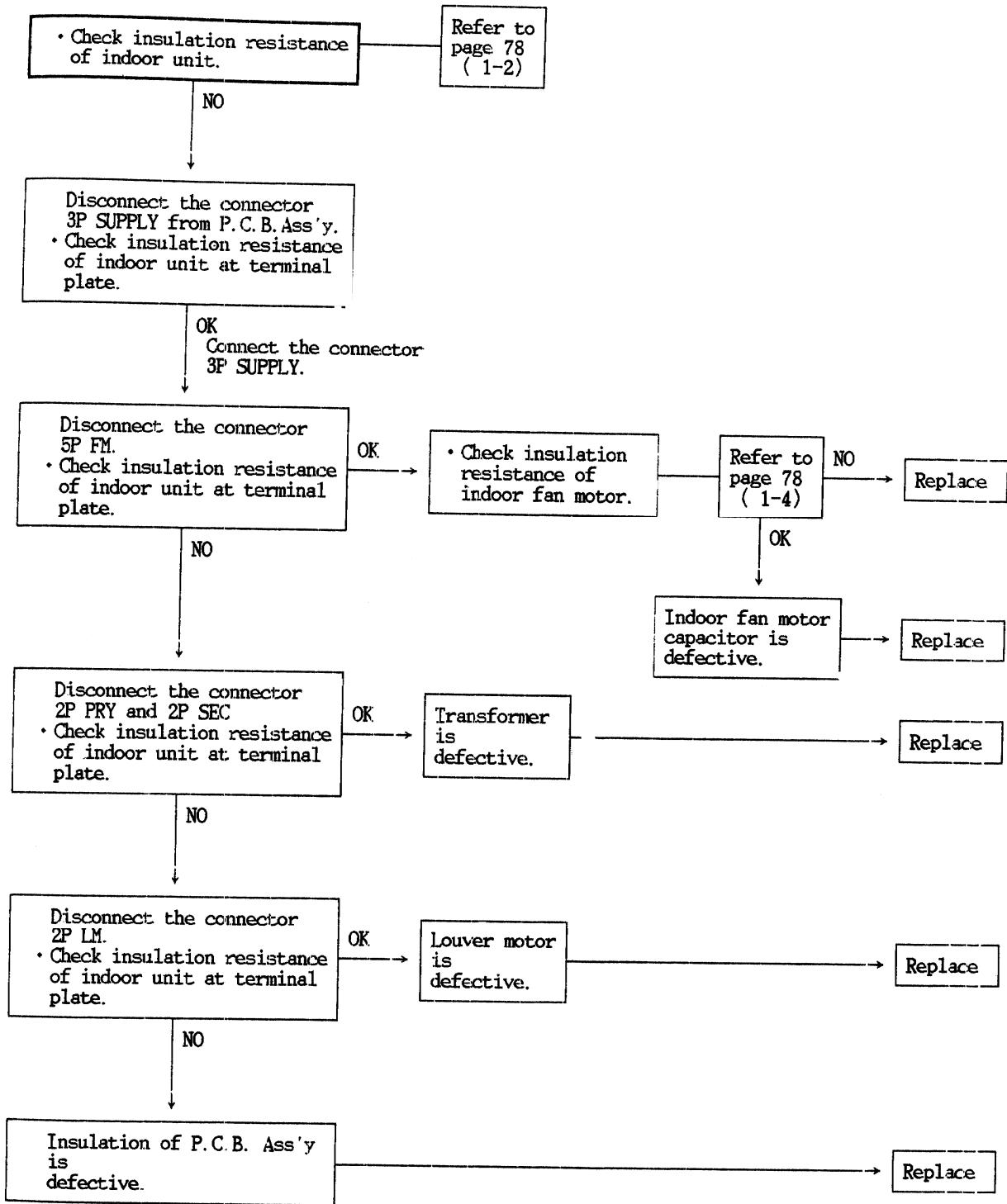
a) When circuit breaker is set to ON, it is tripped soon.
(Resetting is not possible.)

- There is a possibility of ground fault.
- Check insulation resistance.

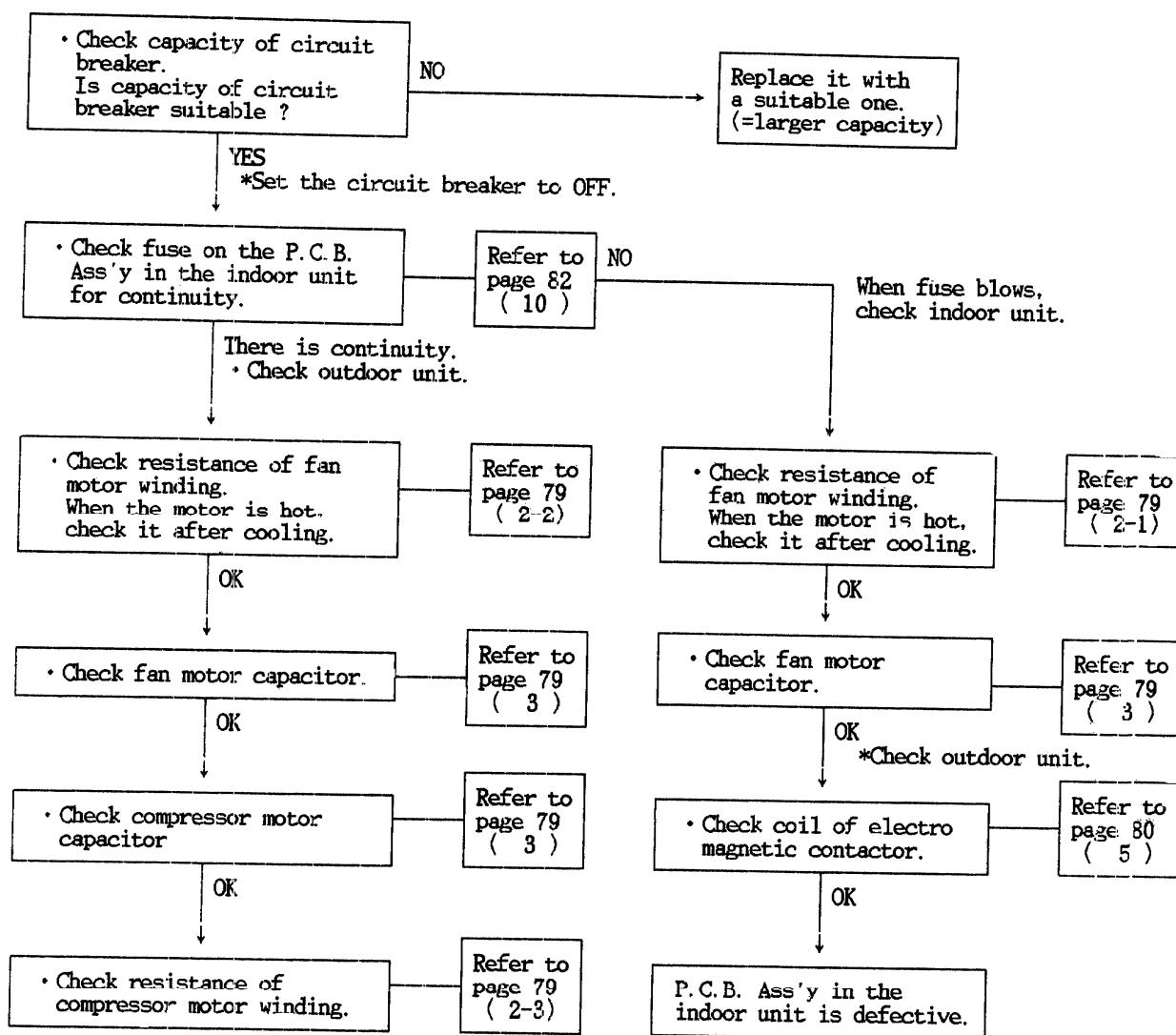
If resistance value is $1M\Omega$ or less, it is a defect of insulation (NO).





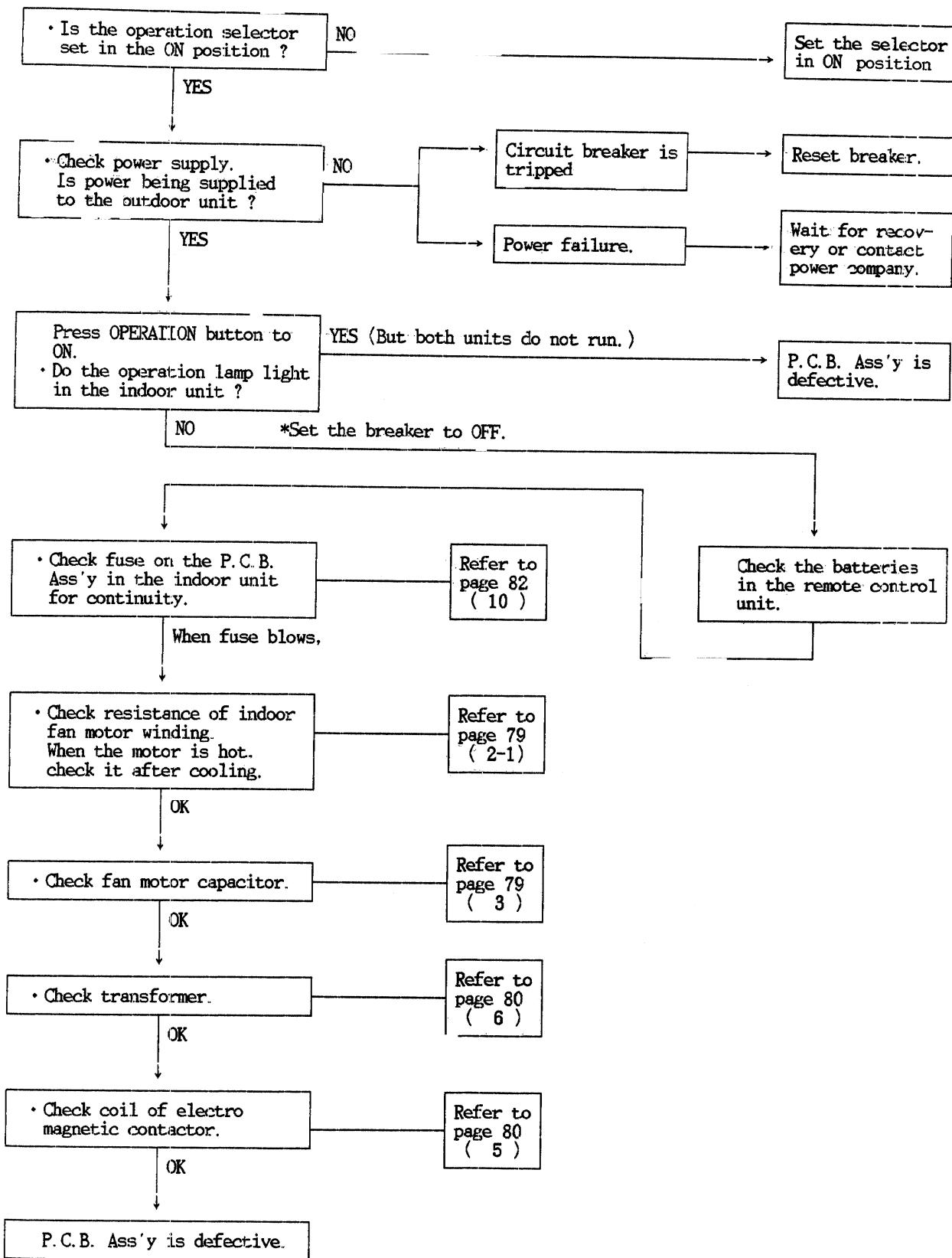


b) Circuit breaker trips when the operation button is depressed.



N O T E :
In case of defect,
replace the respective p

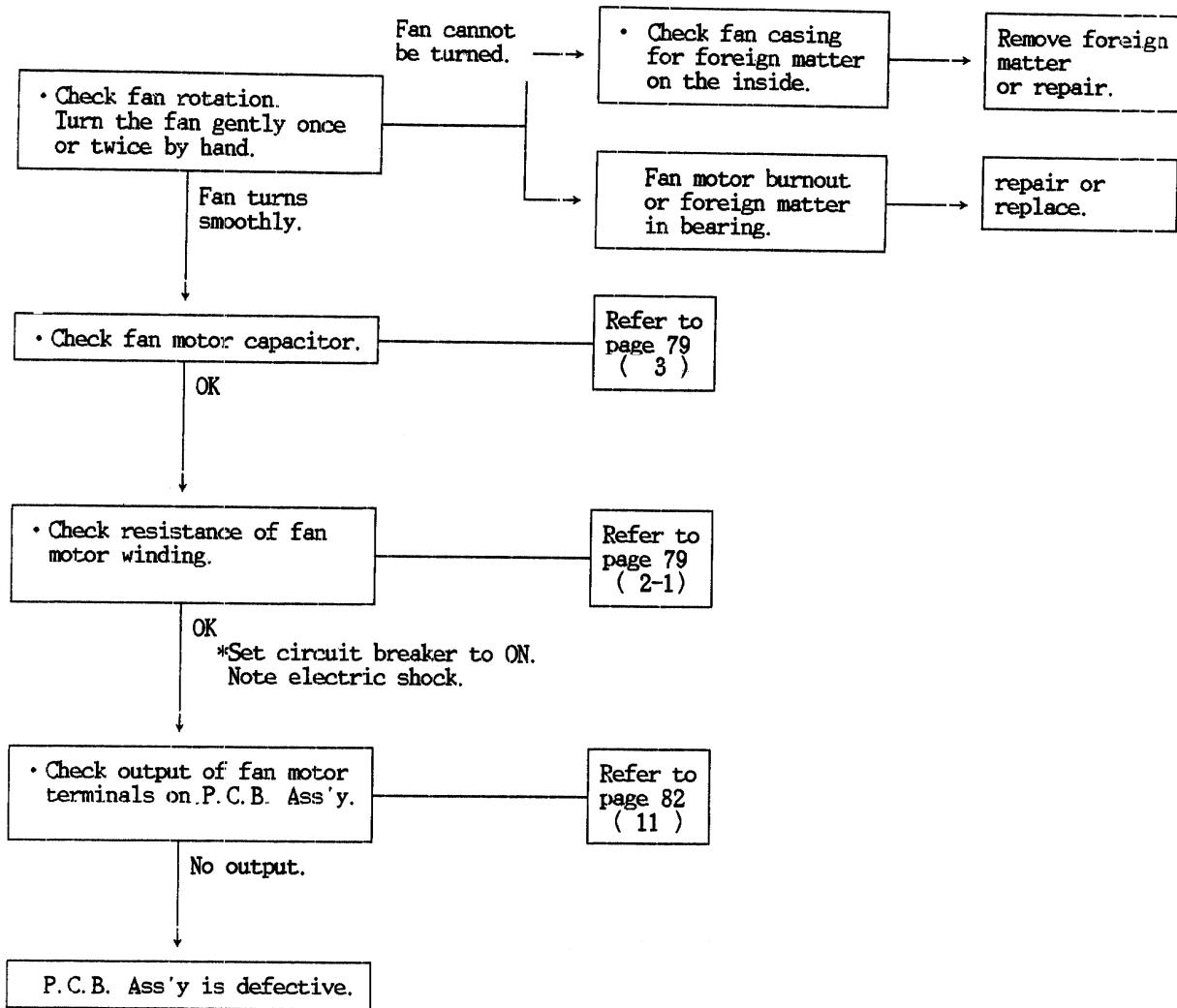
(2) Neither indoor unit nor outdoor unit runs.



N O T E :
In case of defect
replace the respective part.

3 . Some part of air conditioner does not operate.

(1) Only indoor fan does not run.

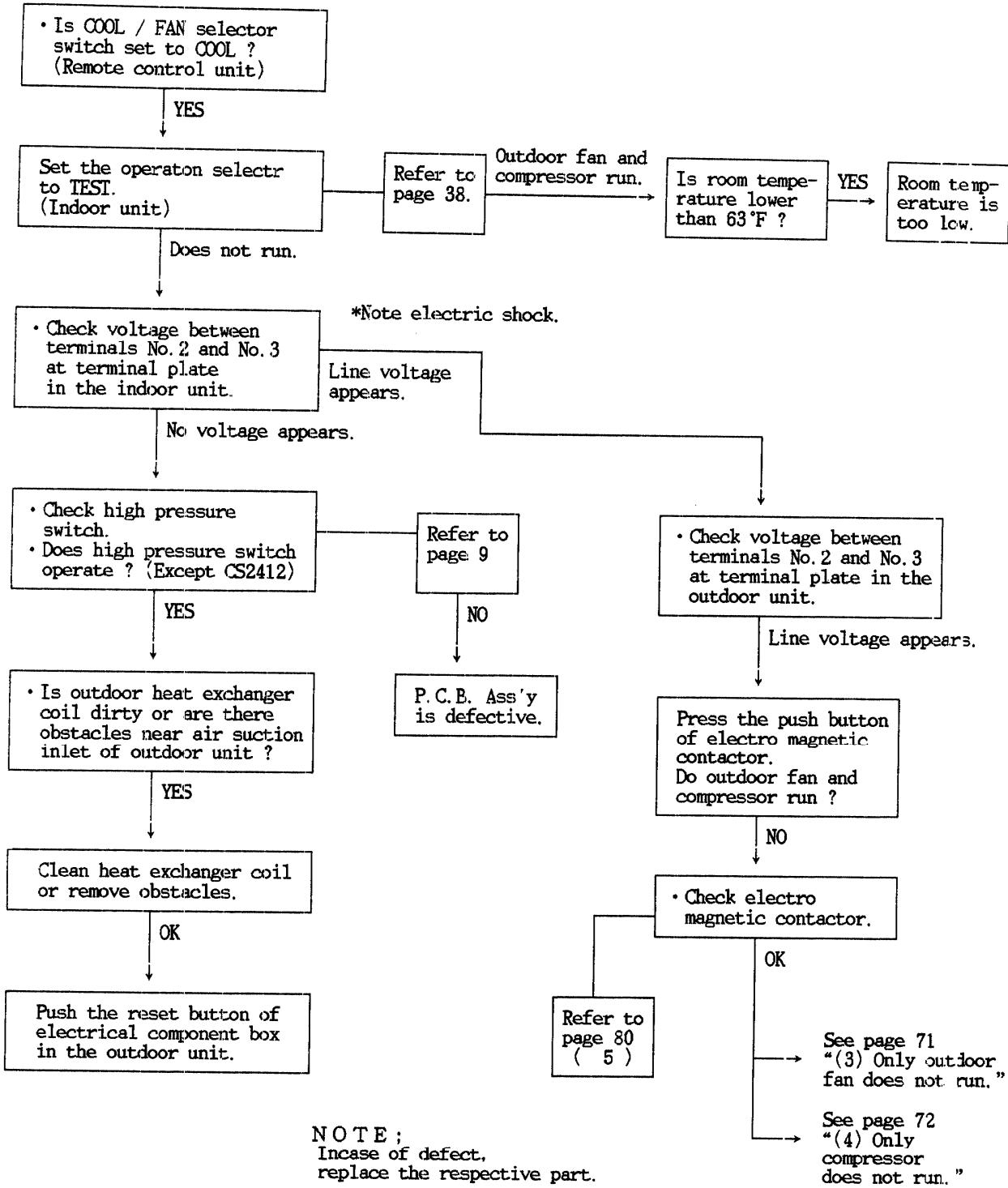


N O T E :
In case of defect,
replace the respective part.

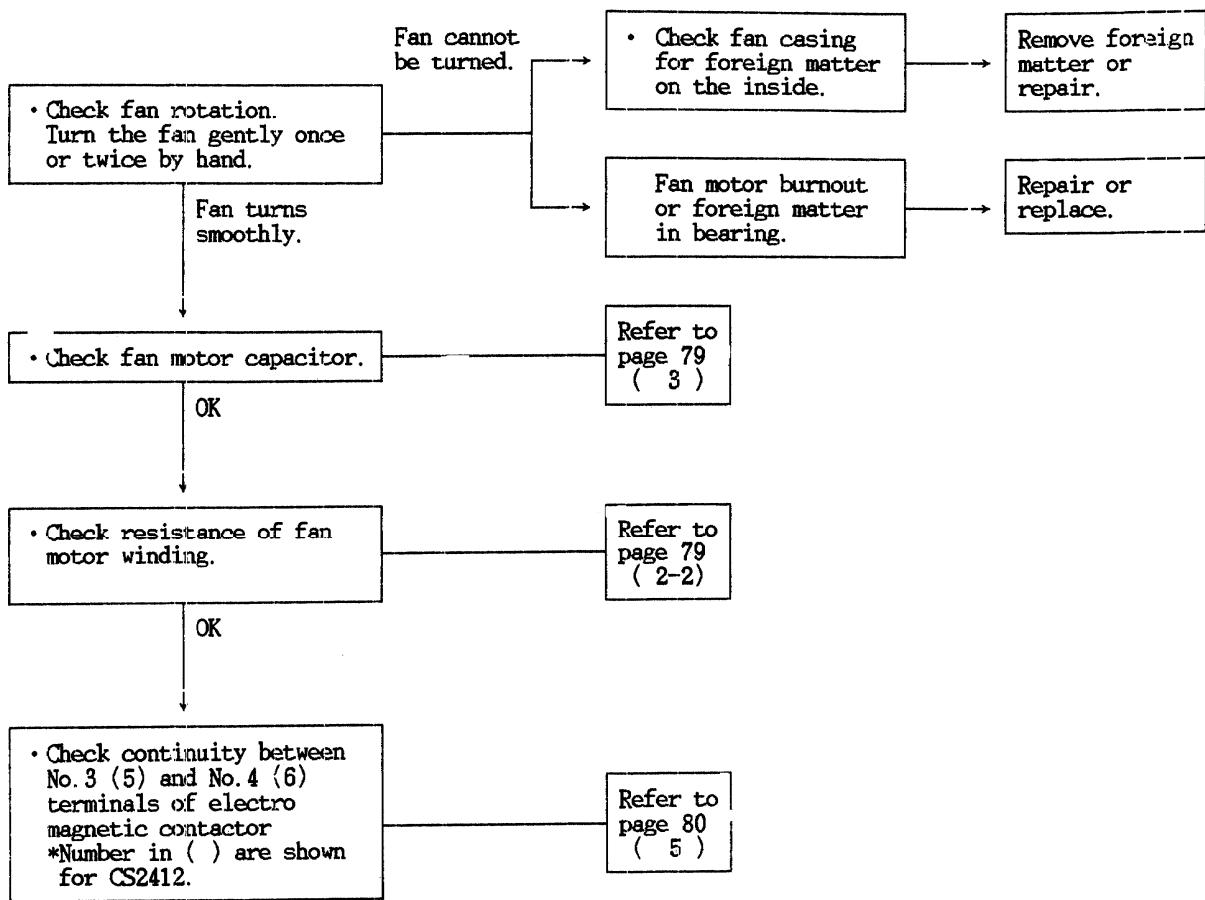
(2) Neither outdoor fan nor compressor runs.

Note : Check following points at first:

1. Is thermostat setting suitable ?
2. Has 3 minutes timer operated ? (No operation for 3 minutes after power ON.)
3. Does freeze prevention thermostat operate ? (Wait for about 6 minutes.)

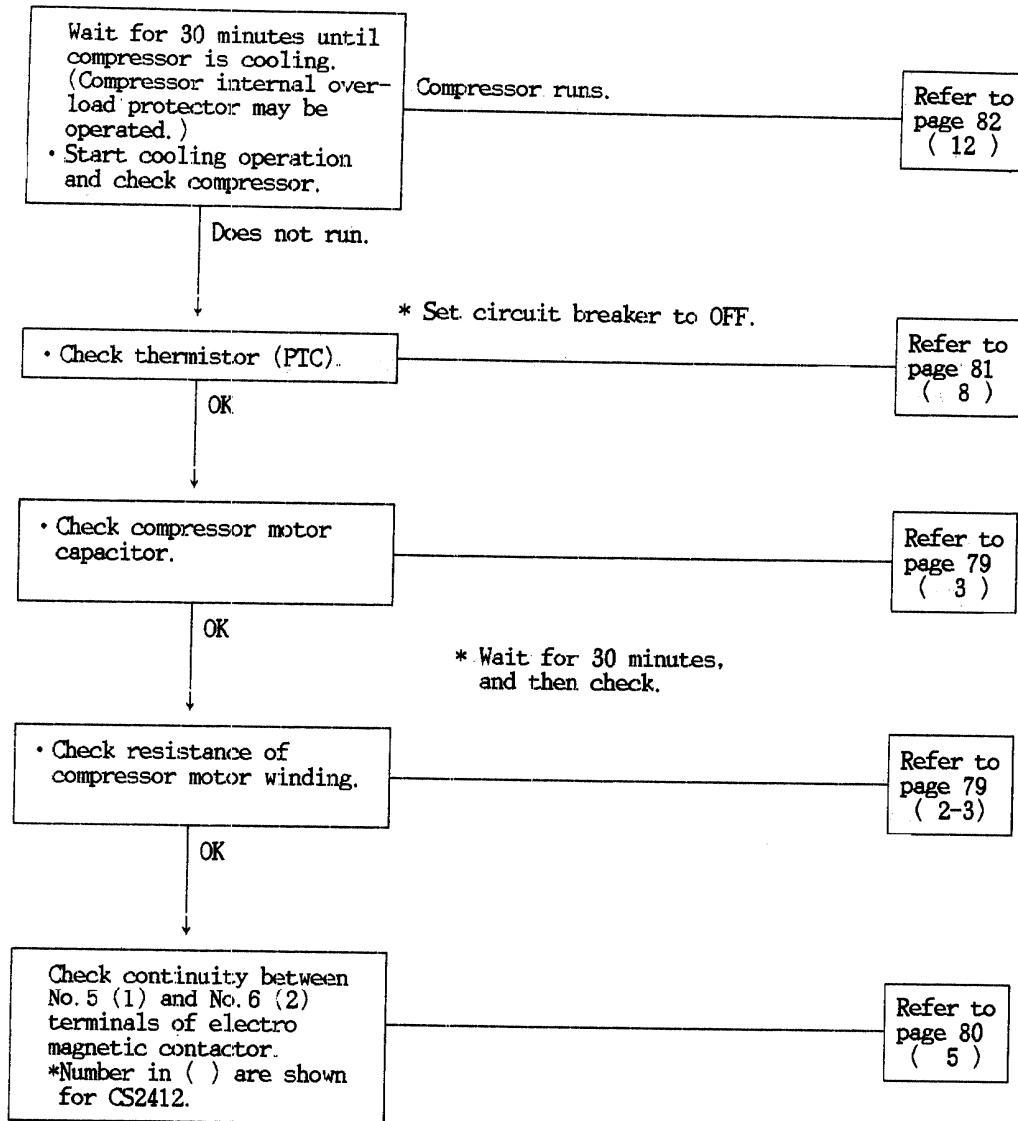


(3) Only outdoor fan does not run.



N O T E :
In case of defect,
replace the respective part.

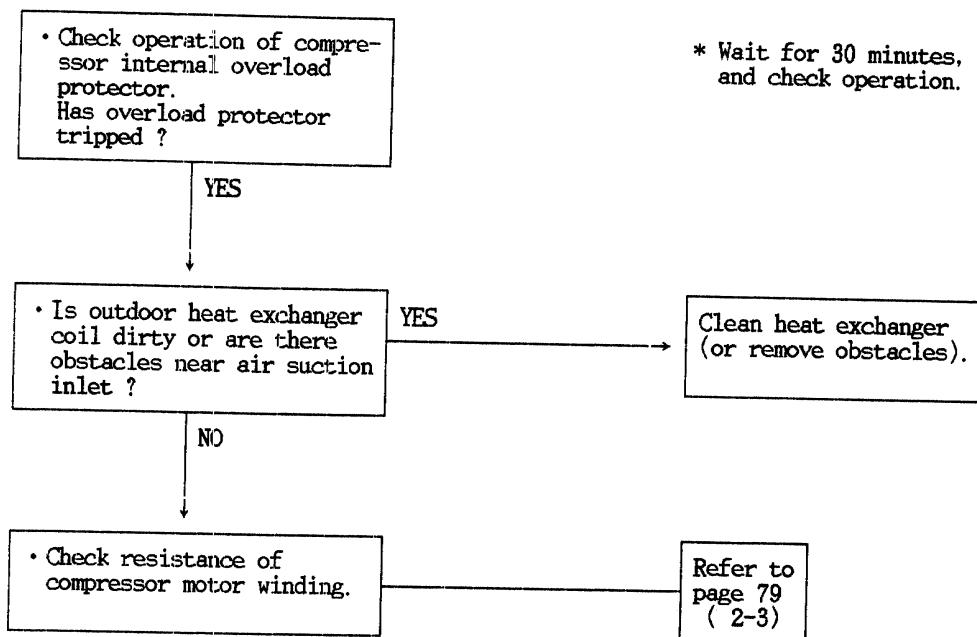
(4) Only compressor does not run.



NOTE ;
In case of defect.
replace the respective part.

(5) Compressor frequently repeats ON and OFF.

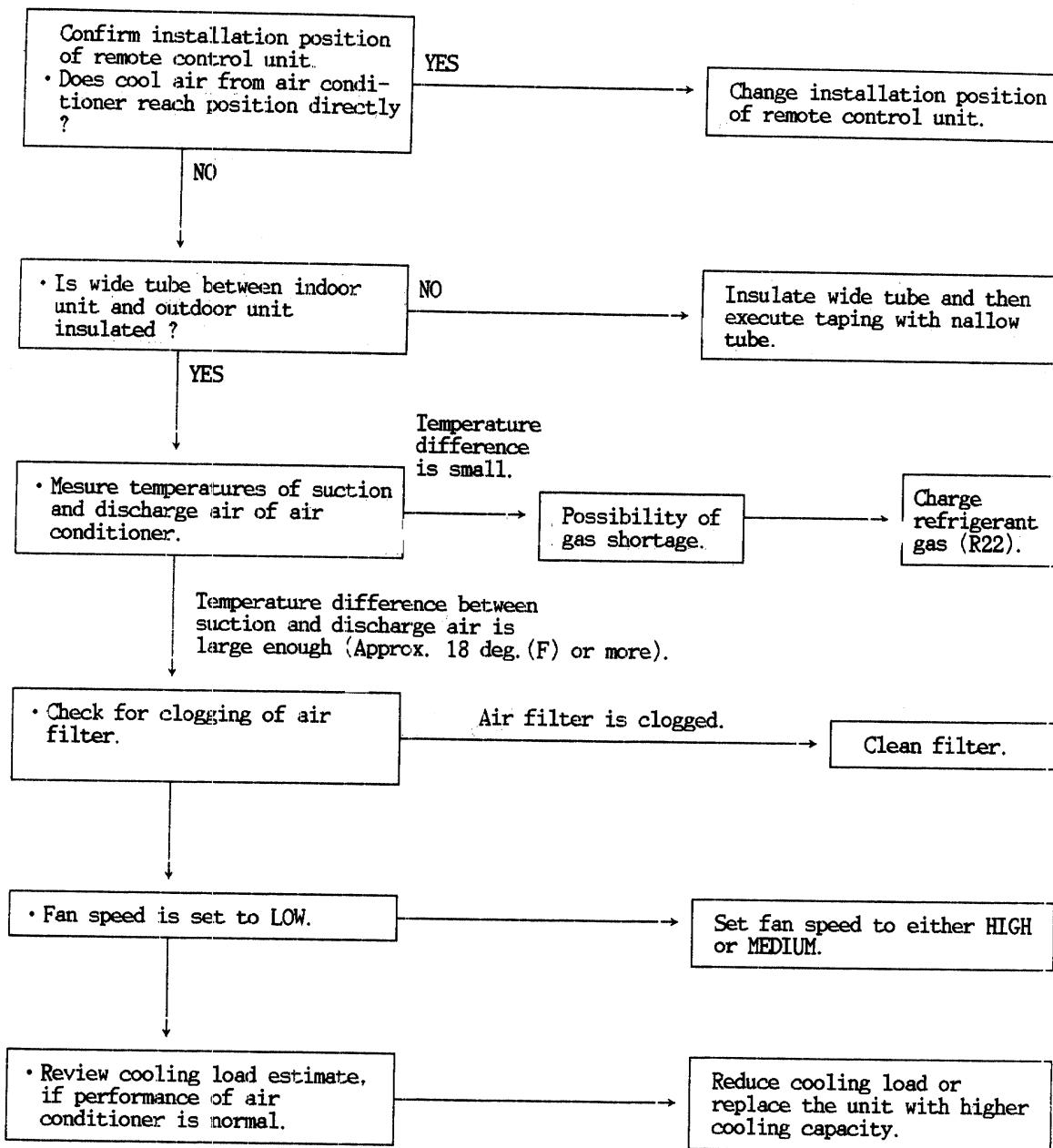
(Only compressor repeats ON and OFF, while indoor unit and outdoor fan run without fail.)



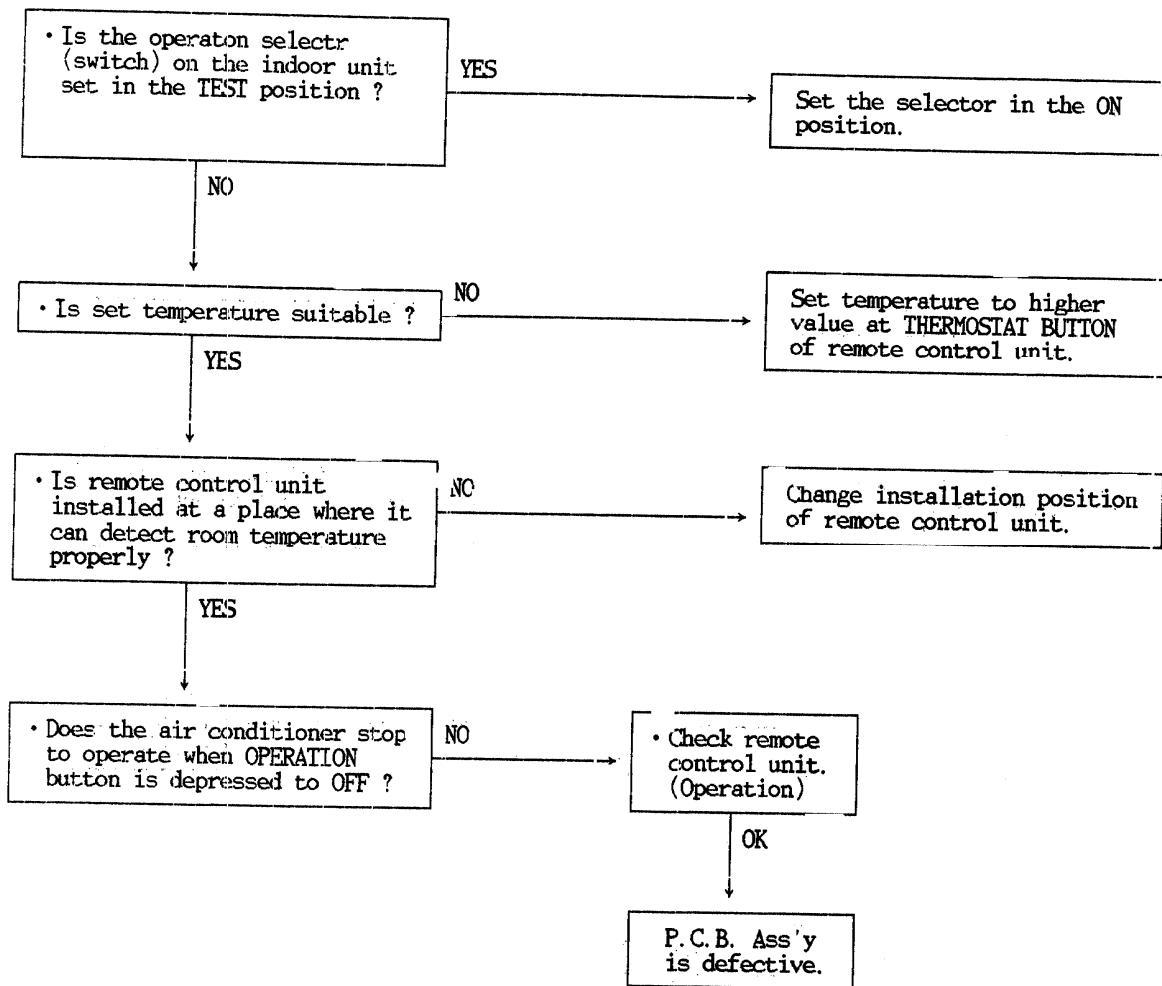
N O T E :
In case of defect
replace the respective part.

4. Air conditioner operates, but abnormalities are observed.

(1) Poor cooling



(2) Excessive cooling



NOTE ;
In case of defect,
replace the respective part

5 . I f s o m e s e n s o r i s d e f e c t i v e

(1) Indoor (heat exchanger) coil temp. sensor is defective.

1) Open

Even the air conditioner does not Thermo. OFF, compressor and outdoor fan repeat ON for 10 minutes and OFF for 6 minutes.

2) Shortage

When the water being dehumidified is frozen in the indoor coil, "Freeze prevention" does not operate.

(2) Room temp. sensor (in remote control unit) is defective.

1) Open (= Always Thermo. OFF)

Neither outdoor fan nor compressor runs.

2) Shortage (= Always Thermo. ON)

Outdoor fan and compressor does not stop. - Excessive cooling.

14. CHECKING AND REPLACING ELECTRICAL COMPONENTS

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1. Measurement of Insulation Resistance

- The insulation is in good condition if the resistance exceeds 1 MΩ

1-1 Power Supply Cords

Clamp the ground line of the Power Supply Cord with a lead clip of the insulation resistance tester and measure the resistance by placing a probe on either of the two power lines.

Then also measure the resistance between the ground line and the other power line. (Fig. 1)

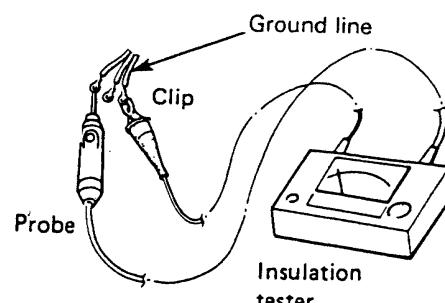


Fig. 1

1-2 Indoor Unit

Clamp the aluminum plate fin or copper tube with a lead clip of the insulation resistance tester and measure the resistance by placing a probe on ①, and then ② on the terminal plate. (Fig. 2)

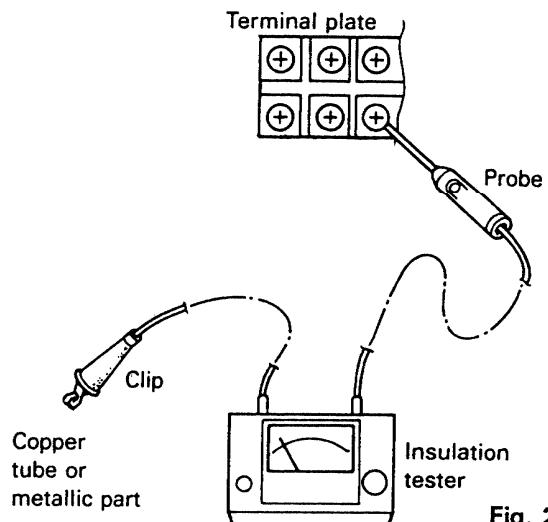


Fig. 2

1-3 Outdoor Unit

Clamp the metallic part of the unit with a lead clip of the insulation resistance tester and measure the resistance by placing a probe on ①, and then ② on the terminal plate. (Fig. 2)

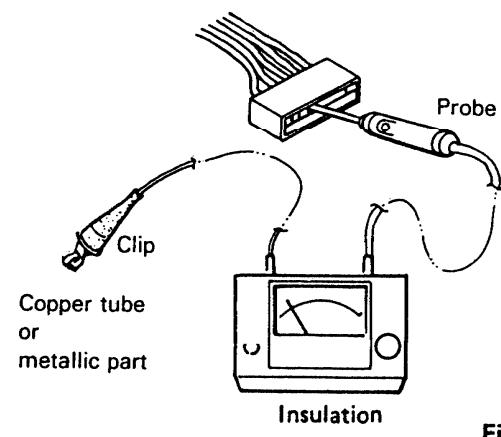


Fig. 3

1-4 Measurement of Insulation Resistance for Electric Parts.

Disconnect the lead wires of electric part from terminal plate, P.C.B. Ass'y or capacitor etc. Like remote the connector.

Then measure the insulation resistance by method of Fig. 1~4.

Refer to Electric Wiring Diagram.

Note:

If the probe does not enter the pole because the hole is too narrow then use a probe with a thinner pin.

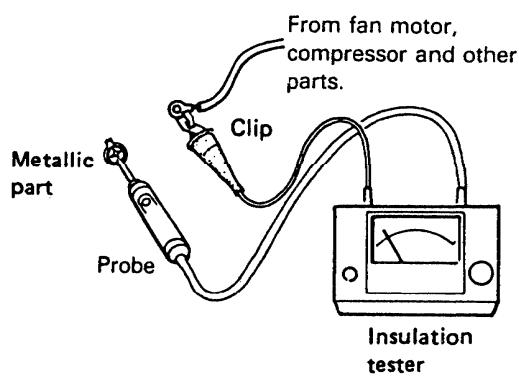


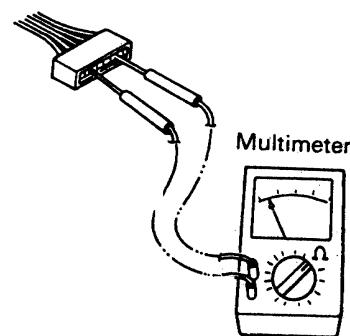
Fig. 4

2. Checking of the Motor Winding

- Refer to Major Component Specifications (Coil resistance)

2-1 Indoor Fan Motor

See page 4, 5, 6



2-2 Outdoor Fan Motor

See page 4, 5, 6

Fig. 5

2-3 Compressor Motor

Remove the terminal cover of the compressor motor, set the resistance measuring range of the multimeter to "X1Ω" and check the continuity between each pair out of the 3 terminals as indicated in Fig. 6

See page 4, 5, 6

2-4 Synchronous Motor (Louver Motor)

See page 7.

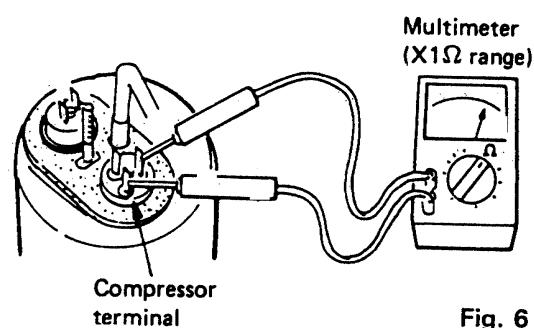


Fig. 6

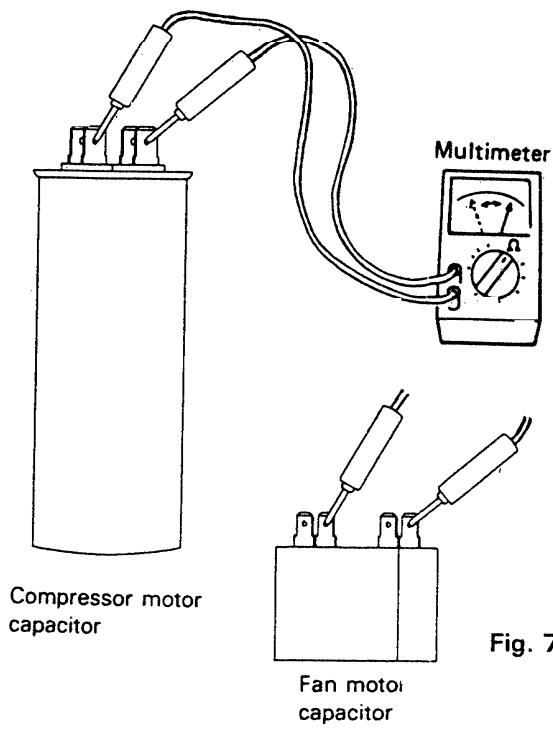
3. Checking of the Motor Capacitor

Checking of any of the indoor fan motor capacitor, outdoor fan motor capacitor and compressor motor capacitor can be done by the same method.

Remove both the lead wire terminals connected to the capacitor, place the probe on the capacitor terminals as shown in the Fig. 7 and observe the deflection of the pointer, setting the resistance measuring range of the multimeter to the maximum value.

For good condition of the capacitor the pointer bounces to a great extent and then gradually returns to its original position.

The range of deflection and deflection time differ according to the capacity of the capacitor.



4. Checking of the Relay

- Refer to Other Component Specifications.

See page 8

MY2F-T1-USTS

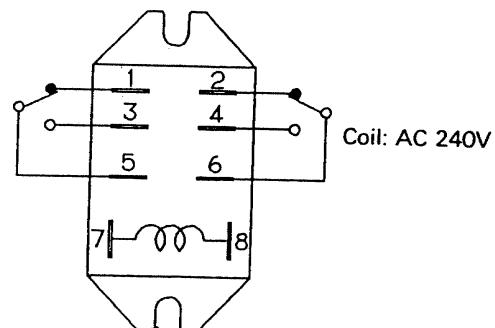


Fig. 8

5. Checking of the Electro Magnetic Contactor

- Refer to Other Component Specifications.

5-1 Coil

Measure the resistance between No. A and No. B.
Refer to Fig. 9.

5-2 Continuity

- Fig. 9. (b) shows the coil is not excited condition.
- When the push button is depressed, the coil become excited condition.

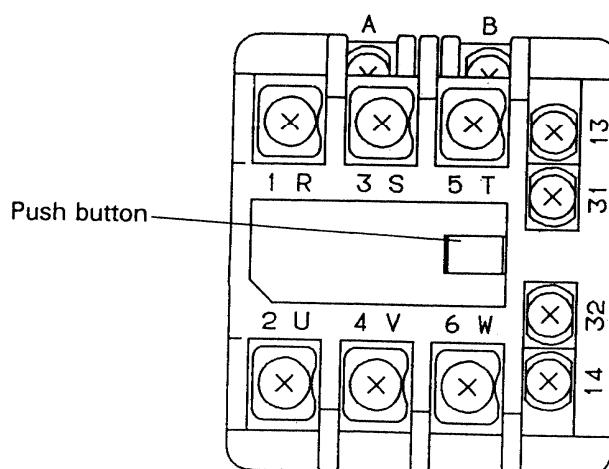


Fig. 9 (a)

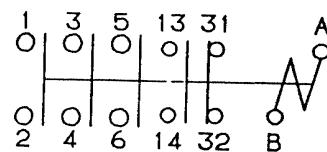


Fig. 9 (b)

6. Checking of the Transformer

- Refer to Other Component Specifications
See page 7

7. Checking of the Thermistor (Indoor coil temp. sensor)

- Refer to Other Component Specifications.
See page 7

8. Checking of the Thermistor (PTC)

Measure the resistance.
Refer to Other Component Specifications.

9. Checking of the Remote Control Unit Proper

Replace the batteries when the remote control unit's lamp fail to light when the remote control unit cannot be used to change the air conditioner's setting.

CAUTION:

Do not disassemble the Remote Control Unit.

It is supplied as a complete assembly and is carefully adjusted in the factory by skillful workmanship. Inexperienced disassembly will cause trouble and malfunction in the unit.

10. Checking of the Continuity of Fuse on the P.C.B. Ass'y

Check the continuity by the multimeter as shown in Fig. 10.

If it is difficult to check in this way, remove the lamp board ass'y connector and then check it.

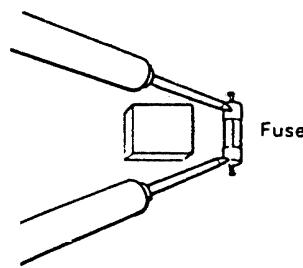


Fig. 10

NOTE Method to Replace Fuse on the P.C.B. Ass'y

1. Remove the P.C.B. ass'y.
2. Pull out the fuse at the metal clasp by a pair of pliers while heating the soldered leads on the back side of the P.C.B. ass'y with a soldering iron (30W or 60W). Fig. 11.
3. Remove the fuse ends one by one. For replacement, insert a fuse of the same rating and solder it. (Allow time to radiate heat during soldering so that the fuse does not melt).

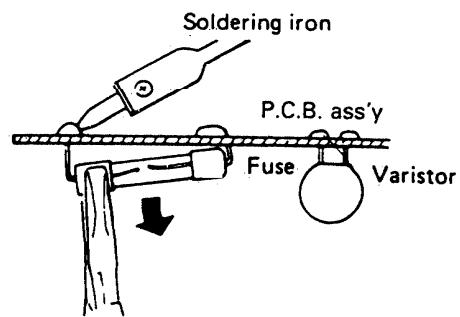


Fig. 11

11. Checking of the Output of the P.C.B. Ass'y for Fan Motor Terminals

Take out the fan motor connector from P.C.B. Ass'y and be sure that there is no danger of short circuit in other parts before supplying electricity to the unit. After that, supply electricity to the unit and set the selector to "MANUAL". Then, turn on the operation switch.

Now measure the voltage between these pins by the multimeter. The P.C.B. Ass'y is in good working condition if the voltage output becomes same as those shown in the below tables.

Pair of Pins	FAN		
	Low	Med.	High
1 - 4	*	0	0
1 - 2	0	*	0
1 - 3	0	0	*

* Line voltage

12. Checking of the Compressor Overload Relay

Remove both lead wires connected to the compressor overload relay. Set the resistance measuring range of the multimeter to "X1Ω" and check the continuity between terminals of the overload relay. After leaving the Compressor Overload Relay at room temperature at least half an hour, perform the measurement.

15. DISASSEMBLY PROCEDURES

— Quick Access Index —

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OUTDOOR UNIT

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INDOOR UNIT

1. Casing — Removal

KS2412W

- a) Unscrew the plastic cover and the metallic cover. (Fig. 1a)
- b) Unscrew the clamp for the wiring connector. (Fig. 1b)
- c) Disconnect the 2 wiring connectors. (Fig. 1c)
- d) Set the flap in the horizontal position. (Fig. 1d)
- e) Remove the 3 screws. (Fig. 1d)
- f) Remove the casing. (Fig. 1d)

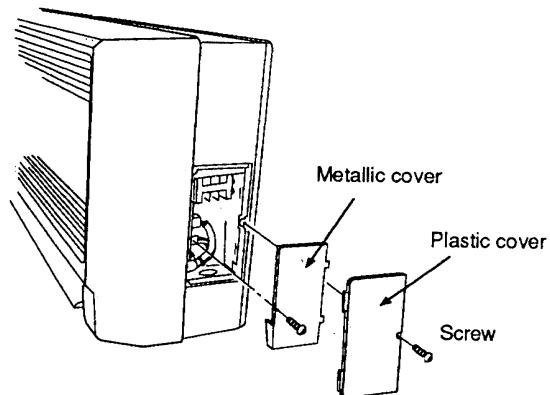


Fig. 1a

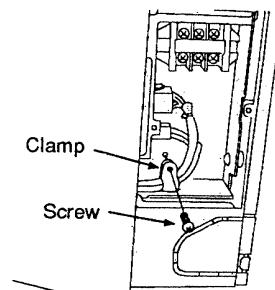


Fig. 1b

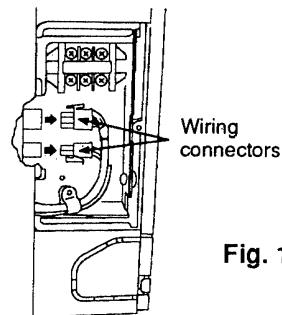


Fig. 1c

KS3012W, KS3612W

- 1) Remove the side cover **A** by unfastening two screws. (Fig. 2)
- 2) Remove the front panel **B** by unfastening three screws and then **B**, other panels can be done by the same method.
- 3) Remove the remote control receiver from the front panel **B**.

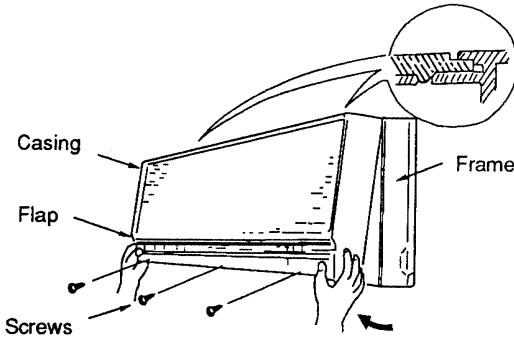


Fig. 1d

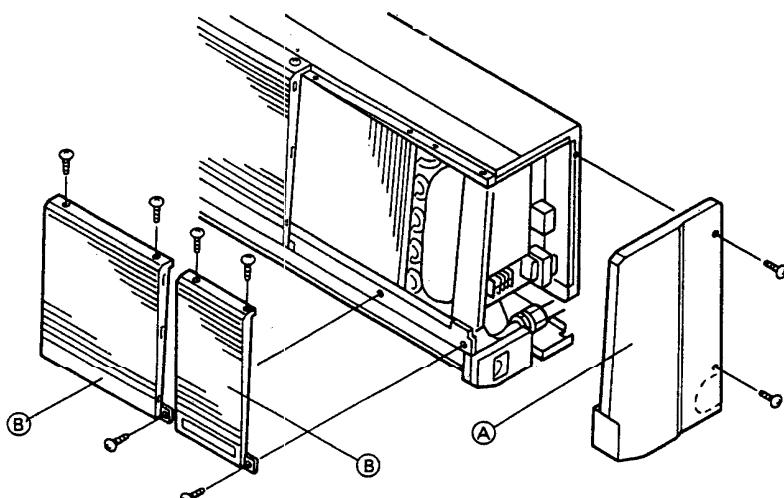


Fig. 2

2. Electrical Component Box — Access and Removal

- 1) Remove casing.

KS2412W

- CAUTION** Before accessing inside the electrical component box, be sure to check that power to the unit is disconnected.
- 2) In case of KS2412W, remove the cover plates A and B by unfastening a screw.
 - 3) Disconnect the interunit wires from the terminal plate.
 - 4) Remove or loosen the connector socket and lead wires.

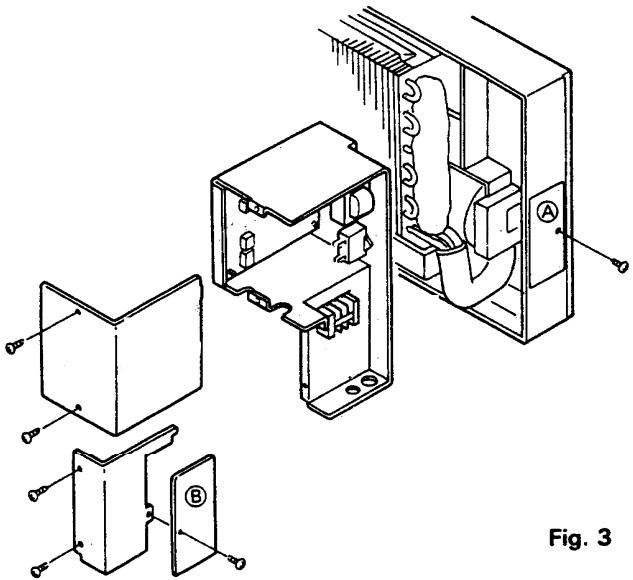


Fig. 3

CAUTION

- Do not apply an excessive force when removing the connector socket or lead wires.
- 5) Unfasten the screws in accordance with Fig. 3,4
The electrical component box can be pulled out.

KS3012W, KS3612W

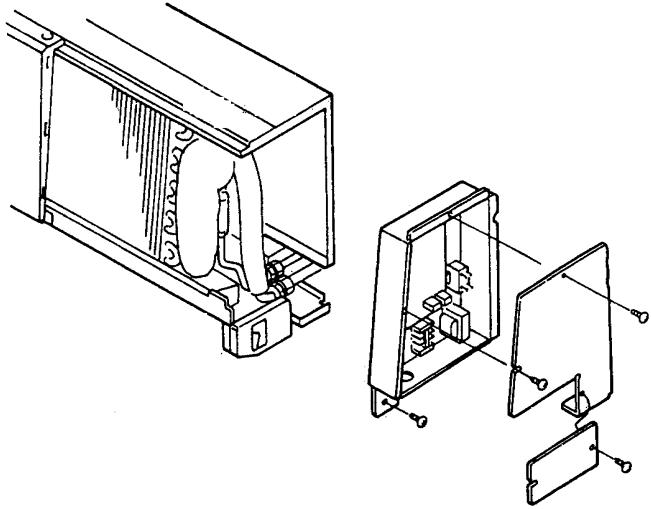


Fig. 4

3. Evaporator (Indoor Heat Exchanger) and Drain Pan—Removal

KS2412W

- 1) Remove the electrical component box.
- 2) Remove the refrigerant piping holder **A**.
- 3) The drain pan can be pulled out after removing the screws shown in Fig. 5.
- 4) Loosen the fixing screws of the evaporator mounting plates **B** and **C**, and remove them respectively.
- 5) Lift up the evaporator with both hand, then withdraw the evaporator together with the piping.

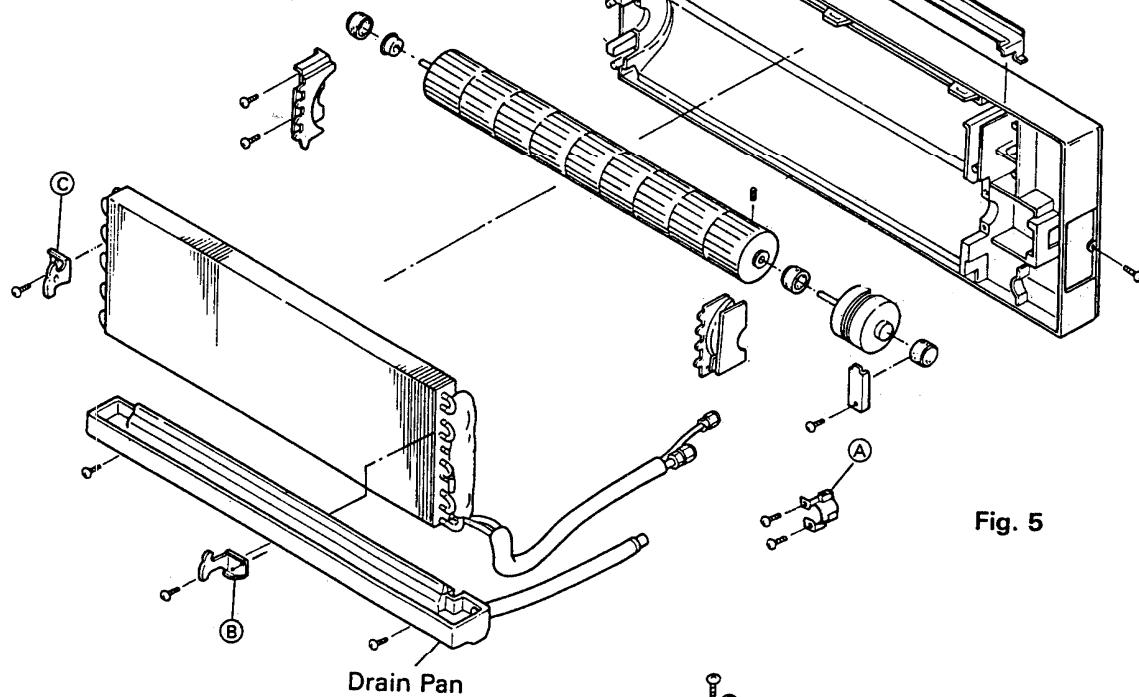


Fig. 5

KS3012W, KS3612W

- 1) Remove the electrical component box.
- 2) Loosen the fixing screws of the flap Ass'y and louver motor, and remove the flap Ass'y.
- 3) Remove the refrigerant piping holder **A**.
- 4) Remove the evaporator mounting plate **D**.
- 5) The evaporator and drain pan can be pulled out after removing the screws shown in Fig. 6.

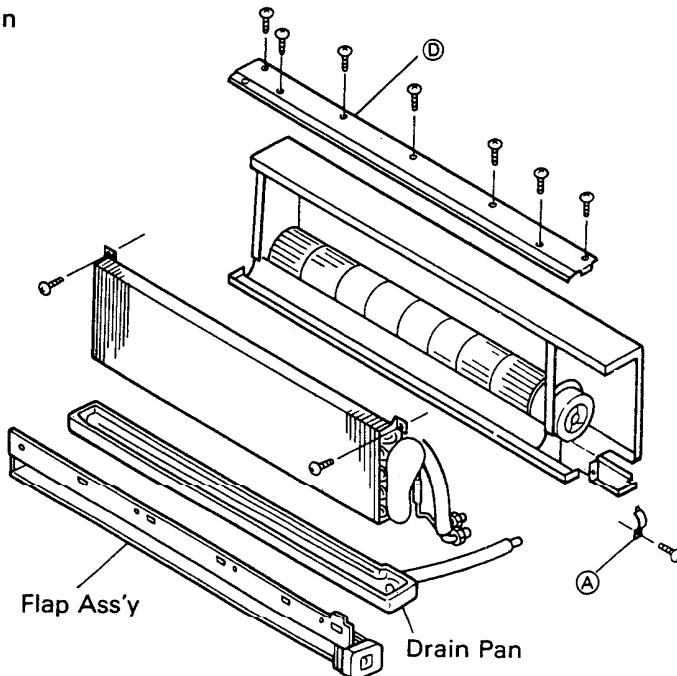


Fig. 6

4. Fan and Fan Motor—Removal

KS2412W

- 1) As shown in Fig. 7 loosen the screws of the plastic mounting plates **A**, **B** and **C** which secure the fan, then remove the fan and fan motor.
- 2) When withdrawing the fan from the motor, first loosen the fan fixing bolts using a hexagonal key.
- 3) Withdraw the Bearing Ass'y **D** retaining the left side of the fan, by hand, then pull the fan to the left and withdraw it from the motor shaft.

KS3012W, KS3612W

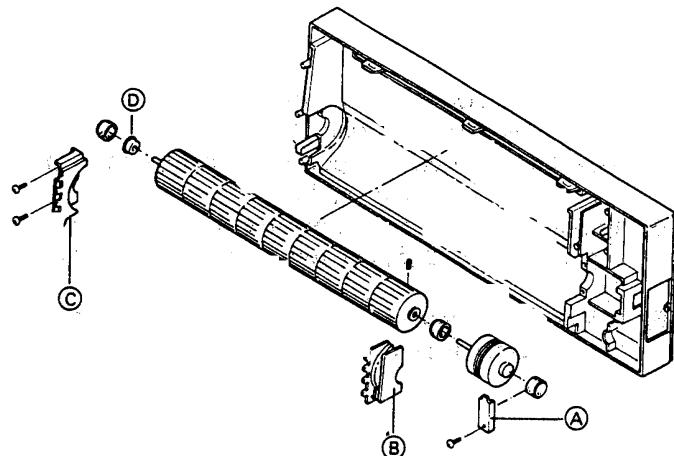


Fig. 7

- 1) Loosen the fan fixing bolts.
- 2) As shown in Fig. 8 loosen the four screws which secure the fan motor.
- 3) Pull the fan motor to the right and withdraw it from the unit.
- 4) Slide the fan to the right and pull out it from the bearing case retaining the left side.
- 5) The fan can be removed in front.

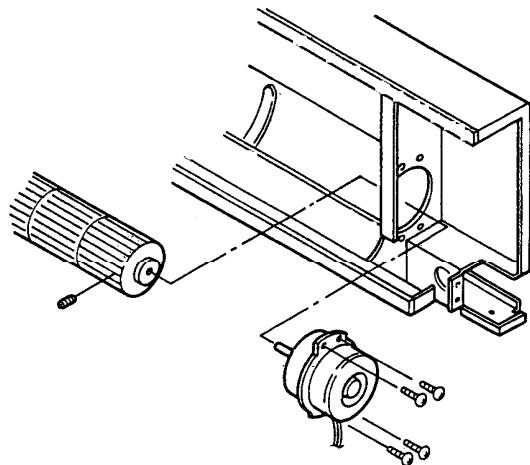


Fig. 8

OUTDOOR UNIT

5. Cabinet-Removal

- 1) Remove the outer panels in the order of front panel, side panel (A), and side panel (B).
- 2) Remove the cover plates (C) and (D).
- 3) Remove the mounting plate. Fig. 9

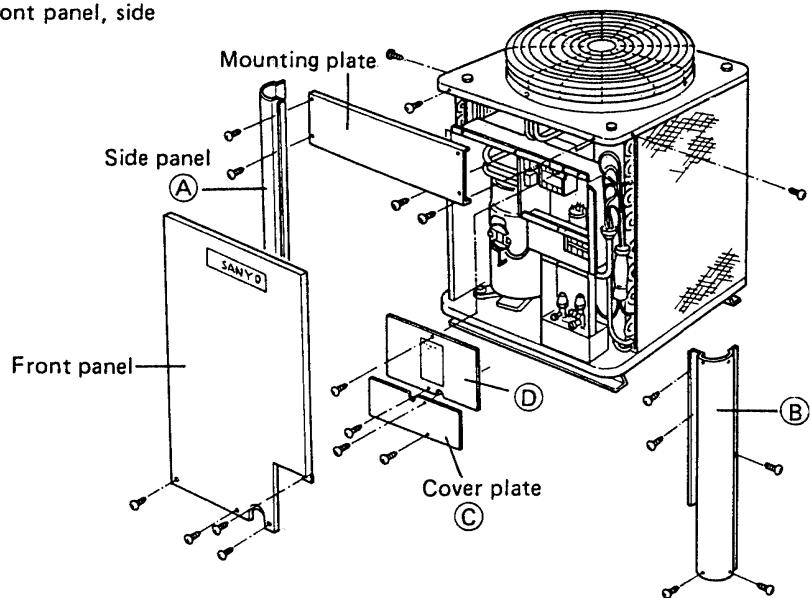


Fig. 9

6. Fan and Motor-Removal

- 1) Remove the guard first, and then remove two bolts (a) of the propeller fan to remove the propeller fan by lifting it up.
- 2) Remove the fan motor wire from the electrical component box, and remove the top cover with the fan motor fixed to the top cover. Fig. 10.

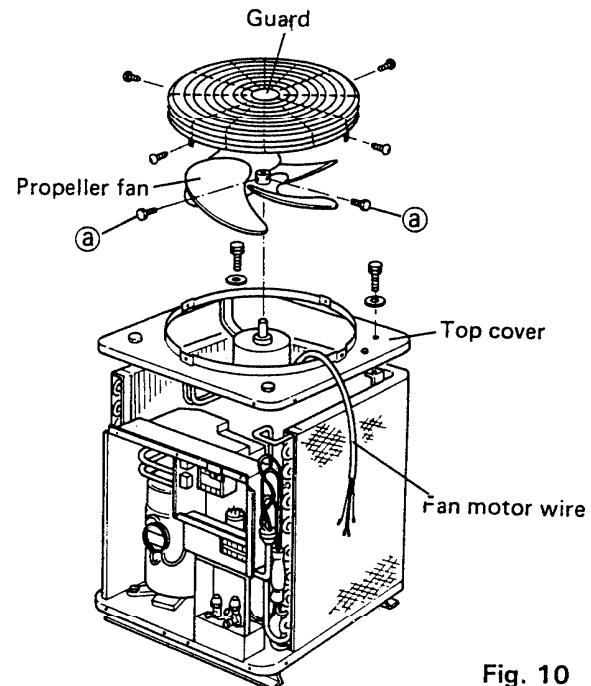


Fig. 10

7. Electrical Component Box-Removal

- (1) Disconnect the following wires from the electrical component box.
 1. Compressor wire
 2. Crankcase heater wire
- (2) Remove the cover plate **A** and the sensor **B**.
- (3) The electrical component box can now be removed by unscrewing one screw **C**. Fig. 11.

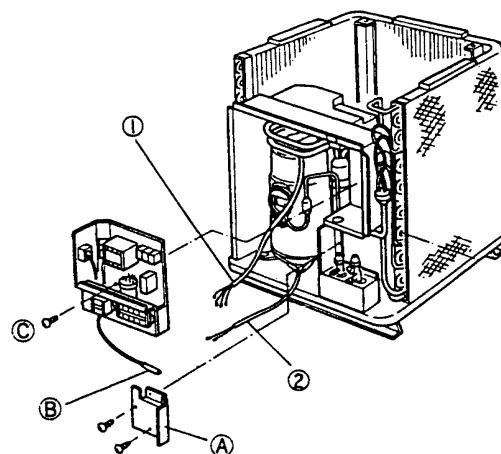


Fig. 11

8. Compressor Cover-Removal

Unfasten four screws fixing the cover **A**. The cover can be removed by lifting it upward. Fig. 12.

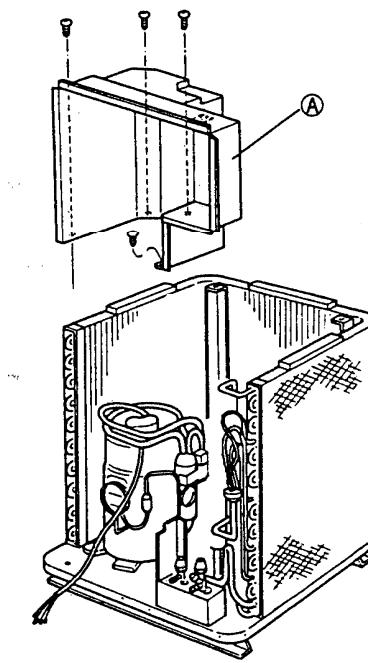


Fig. 12

9. Compressor-Removal

Take apart three joints **A**, **B** and **C** (Except CS3012) brazed to the compressor by brazing torch (Fig. 13)

CAUTION

- 1) Many wires have to be removed. When removing wires, carefully check the electric diagram on the rear side of the cover plate **D** Fig. 9.
Reconnect the wires correctly after replacing the compressor.
- 2) Three sections of the replacement compressor **A**, **B** and **C** (Except CS3012) are sealed to avoid entry of dust and water.
Remove this seals, then connect to the unit tubing when replacing the compressor Fig. 14.

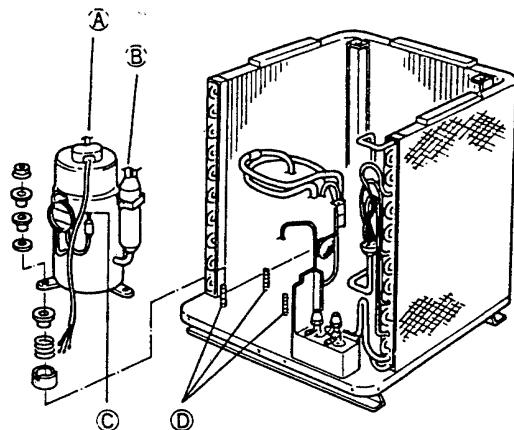


Fig. 13

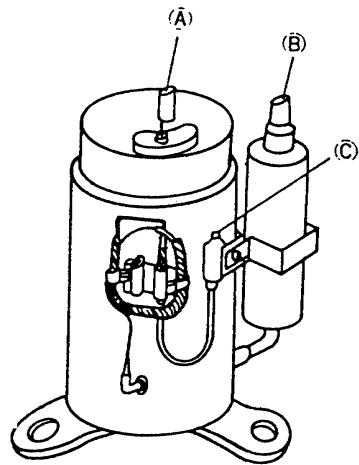
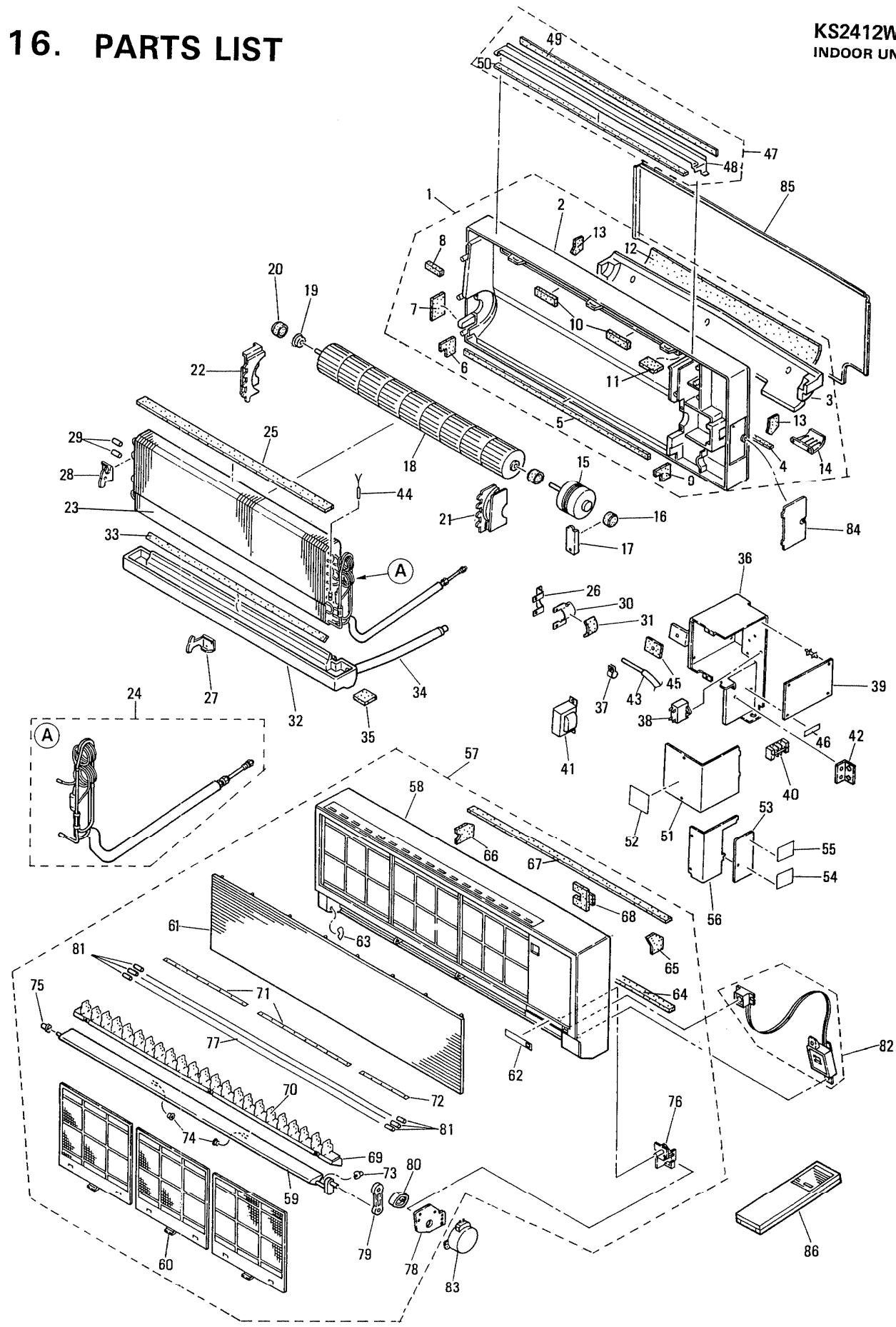


Fig. 14

16. PARTS LIST

KS2412W
INDOOR UNIT



ATTENTION !

To ensure correct parts supply, please let us know followings,
when you make service parts order:

1. Part No. 2. Description 3. Q'ty 4. Volts-Hz-Ph 5. Product Model No.

Key No.	Part No.	Description	Q'ty	Reference No.
1	623 096 8592	Frame Ass'y (incl. No. 2~14)	1	854-2-2250-101H5
2	623 108 1139	Frame	1	854-2-2250-10130
3	623 108 1146	Insulation, Rear Cover	1	854-2-1406-34710
4	623 108 1153	Insulation	1	854-2-1403-14010
5	623 108 1160	Insulation	1	854-2-1403-14110
6	623 108 1177	Insulation	1	854-2-1403-14210
7	623 108 1184	Insulation	1	854-2-1403-14310
8	623 108 1191	Insulation	1	854-2-1403-14410
9	623 108 1207	Insulation	1	854-2-1403-14510
10	623 108 1214	Insulation	2	854-2-1403-14610
11	623 108 1221	Insulation	1	854-2-1403-14710
12	623 096 8608	Insulation, Rear Cover	1	854-2-1406-35210
13	623 108 1238	Insulation	2	854-2-1403-14810
14	623 050 5995	Mounting Plate	1	852-2-2309-38801
15	623 107 5206	Fan Motor KFH4Q-31A6P	1	525-0-0000-31806
16	623 092 9463	Cushion Rubber	2	854-2-2534-14000
17	623 096 4600	Mounting Plate, Fan Motor	1	854-2-2513-18110
18	623 092 9487	Cross-Flow Fan Ass'y	1	854-0-2501-19700
19	623 042 0069	Bearing Housing Ass'y	1	852-0-2510-11900
20	623 053 2182	Cushion Rubber, Fan Motor	1	852-2-2511-13600
21	623 096 4617	Cover Plate	1	854-2-2342-33310
22	623 096 4624	Cover Plate	1	854-2-2342-33410
23	623 096 4631	Evaporator Ass'y (incl. No. 24)	1	854-0-4118-58600
24	623 108 8985	Tube Ass'y	1	854-0-4204-97700
25	623 096 8950	Insulation, Evaporator	1	854-2-2404-22210
26	623 092 9531	Mounting Plate	1	854-2-4134-36301
27	623 050 5636	Mounting Plate	1	852-2-2309-32701
28	623 050 5704	Mounting Plate	1	852-2-2309-33701
29	623 096 8967	Sleeve	2	854-2-2344-11000
30	623 092 9548	Mounting Plate	1	854-2-4134-36201
31	623 096 8974	Packing	1	854-2-2336-89910
32	623 096 4662	Drain Pan Ass'y (incl. No. 33)	1	854-0-2301-359H2
33	623 108 1245	Insulation	1	854-2-2401-67410
34	623 096 3931	Drain Pipe Ass'y	1	854-0-4297-13000
35	623 096 8981	Packing	1	854-2-2336-55810
36	623 108 1252	Elec. Component Box Ass'y	1	854-0-5301-45201
37	623 109 0131	Mounting Plate	1	854-2-5312-65900
38	623 001 2066	Fixed Capacitor 440V 1.8MFD	1	4-2239-56255
39	623 106 0738	P.C.B. Ass'y POW-KS2412	1	851-0-5158-54200
40	623 096 3979	Terminal Base JTU20-3	1	4-2379-56227
41	623 107 5909	Transformer ATR-H122U	1	4-2519-56265
42	623 108 1276	Mounting Plate	1	854-2-5312-66001
43	623 108 1283	Thermistor Ass'y PTC-41E-S4	1	851-0-5259-26100
44	623 107 5930	Thermistor Ass'y SDT-500B-6	1	851-0-5259-26200
45	623 109 0148	Packing	1	854-2-1361-14810
46	623 060 3561	Label	1	852-6-4729-17300
47	623 096 4716	Partition Plate Ass'y (incl. No. 48~50)	1	854-2-2314-227H2
48	623 108 1290	Partition Plate	1	854-2-2314-22701
49	623 108 1306	Insulation Partition	1	854-2-2403-50110
50	623 108 1313	Insulation Partition	1	854-2-2403-50210

NOTE: Metal and plastic parts will be supplied basically
with necessary heat insulation pads or packing.

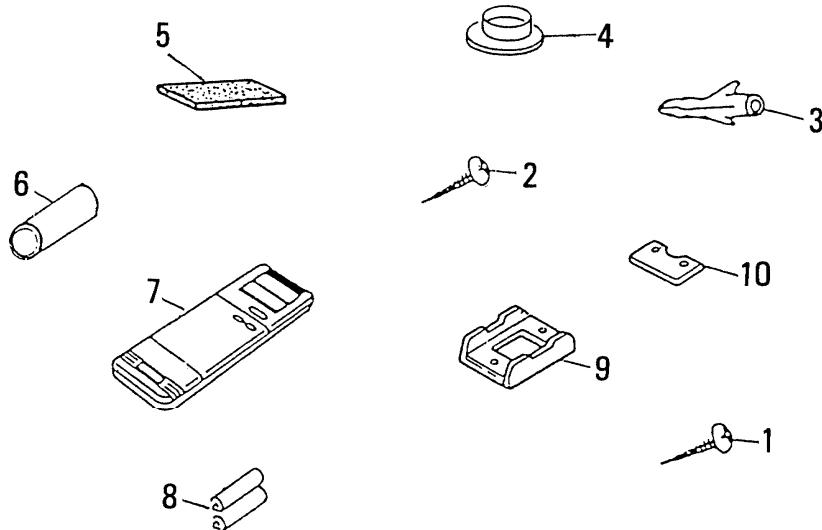
ATTENTION !

To ensure correct parts supply, please let us know followings,
when you make service parts order:

1. Part No. 2. Description 3. Q'ty 4. Volts-Hz-Ph 5. Product Model No.

Key No.	Part No.	Description	Q'ty	Reference No.
51	623 108 1320	Cover Plate	1	854-2-5304-34201
52	623 108 1337	Elec. Wiring Diagram	1	851-2-5251-99101
53	623 108 1344	Cover Terminal Ass'y (incl. No. 54, 55)	1	854-2-5305-132H1
54	623 084 8269	Label	1	854-6-4729-71600
55	623 074 1782	Label	1	854-2-1358-46700
56	623 108 1351	Cover Plate	1	854-2-5304-343H1
57	623 109 4047	Grille Ass'y (incl. No. 58-81)	1	854-2-1150-105J1
58	623 108 1368	Grille	1	854-2-1150-105I0
59	623 096 8615	Flap	1	854-2-1515-10110
60	623 096 6871	Air Filter Ass'y	3	854-0-1302-14410
61	623 096 8622	Ornamental Plate	1	854-2-1308-25010
62	623 092 9081	Badge	1	854-2-1354-19701
63	623 093 5747	Label	1	854-2-1358-50801
64	623 108 1375	Insulation	1	854-2-1401-77110
65	623 108 1382	Insulation	1	854-2-1401-77210
66	623 108 1399	Insulation	1	854-2-1401-77310
67	623 108 1405	Insulation	1	854-2-1401-77410
68	623 108 1412	Insulation	1	854-2-1361-14910
69	623 109 4054	Ornamental Plate	1	854-2-1308-25110
70	623 108 1436	Blade Air Guide	23	854-2-1520-14910
71	623 096 8646	Fastener Blade	2	854-2-1521-11710
72	623 096 8653	Fastener Blade	1	854-2-1521-11810
73	623 092 9647	Fastener Blade	1	854-2-1521-11601
74	623 096 3337	Mounting	2	852-2-1514-32502
75	623 049 1472	Mounting	1	852-2-1514-26802
76	623 108 1443	Mounting Plate, Blade	1	854-2-2524-10810
77	623 108 1450	Wire	3	854-2-1310-24001
78	623 108 1467	Mounting Plate	1	854-2-5312-63601
79	623 049 1557	Mounting	1	852-2-1514-27101
80	623 051 5901	Cam	1	852-2-2382-10101
81	623 096 4242	Cap	6	852-2-2350-11800
82	623 107 6043	Switch Ass'y SW-KS2412W	1	851-0-5152-13600
83	623 107 3882	Synchro Motor M2EA24ZA01	1	528-0-0000-07006
84	623 096 4808	Cover Plate	1	854-2-1133-23010
85	623 092 9685	Hook Plate	1	854-2-1130-15101
86	623 106 0714	Remote Control Switch RCS-KS2412W	1	851-0-0051-49200
•	623 108 1481	Installation Instructions	1	854-6-4139-72700
•	623 107 6081	Operation Manual	1	852-6-4119-90600

NOTE: Metal and plastic parts will be supplied basically
with necessary heat insulation pads or packing.



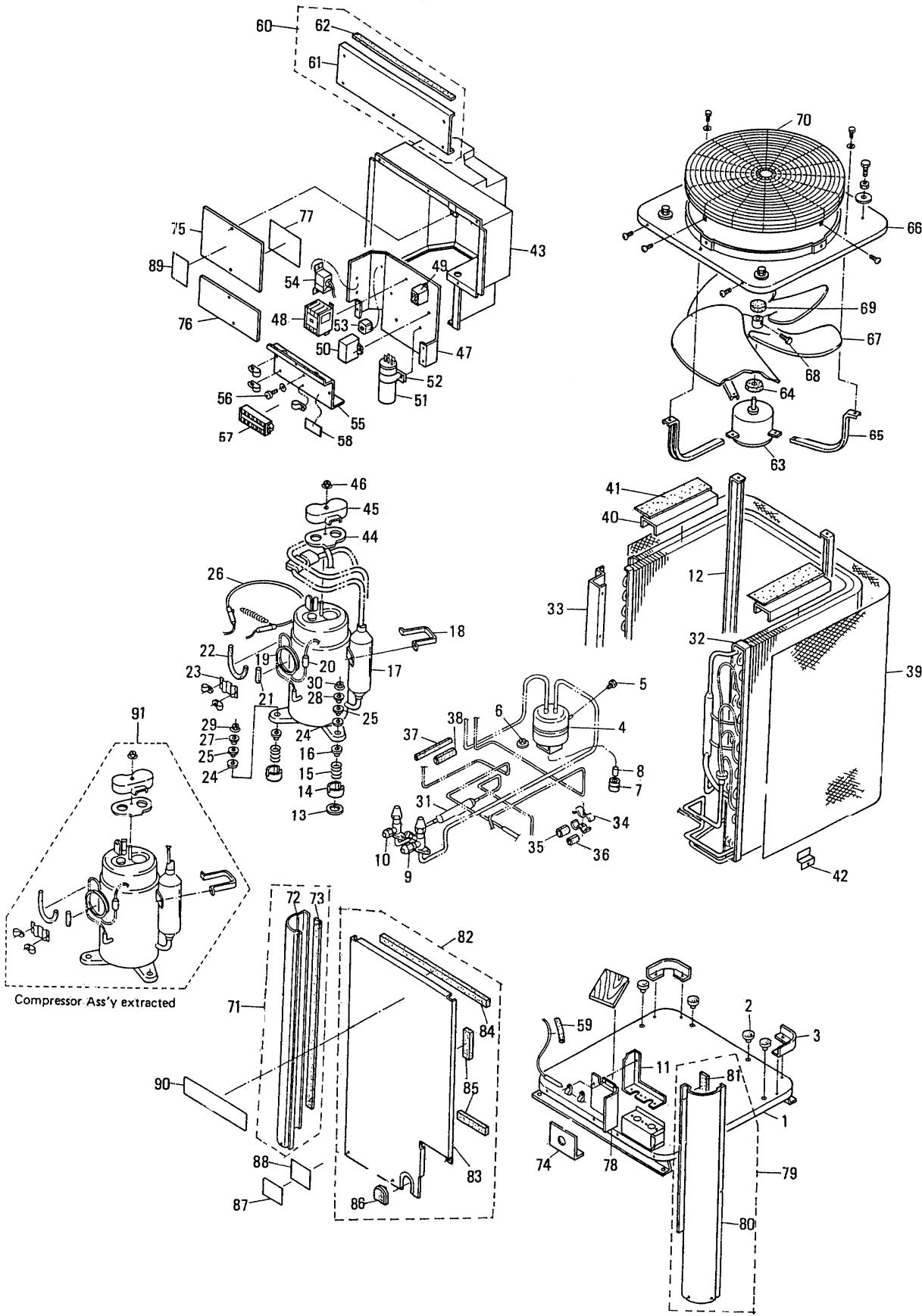
ATTENTION !

To ensure correct parts supply, please let us know followings,
when you make service parts order:

1. Part No. 2. Description 3. Q'ty 4. Volts-Hz-Ph 5. Product Model No.

Key No.	Part No.	Description	Q'ty	Reference No.
1	623 108 8169	Screw BATA 3X16	2	3-9223-31601
2	623 090 8185	Screw TOTA 4X10	10	3-9219-41601
3	623 045 3685	Bolt Special	10	852-2-1311-11600
4	623 051 5468	Cover	1	852-2-2369-13900
5	623 052 8086	Insulation	1	852-2-2414-12400
6	623 077 4391	Joint Drain	1	854-2-2334-13600
7	623 106 0714	Remote Control Switch RCS-KS2412W	1	851-0-0051-49200
8	623 101 2744	Dry Cell	2	4-6619-56154
9	623 050 6145	Mounting Plate	1	852-2-2309-40301
10	623 049 2134	Mounting	1	852-2-1514-30001

NOTE: Metal and plastic parts will be supplied basically
with necessary heat insulation pads or packing.



ATTENTION !

To ensure correct parts supply, please let us know followings,
when you make service parts order:

1. Part No. 2. Description 3. Q'ty 4. Volts-Hz-Ph 5. Product Model No.

**CS2412
OUTDOOR UNIT**

Key No.	Part No.	Description	Q'ty	Reference No.
1	623 067 4189	Bottom Plate Ass'y	1	854-0-2204-36101
2	623 073 3831	Sheet Rubber	4	854-2-1353-11000
3	623 078 5205	Mounting Plate	2	854-2-2360-19100
4	623 070 8495	Accumulator Ass'y	1	854-0-4517-19201
5	623 081 4554	Fusible Plug	1	854-2-4306-10600
6	623 029 6534	Nut Special Ass'y	1	851-0-2395-10501
7	623 077 2373	Cushion Rubber	1	854-2-2318-10600
8	624 081 8054	Sleeve	1	831-2-4307-10100
9	623 070 6156	Valve Ass'y 5/8 in.	1	854-0-4506-17900
10	623 070 9256	Valve Ass'y 1/4 in.	1	854-0-4521-12700
11	623 072 2798	Cover Plate	1	854-2-1133-17501
12	623 067 4936	Frame Ass'y	2	854-0-2206-18100
13	623 093 6423	Washer	1	3-9021-04100
14	623 035 0144	Cushion Rubber	3	851-2-2390-14000
15	623 034 5836	Spring	3	851-2-2380-13201
16	623 078 4819	Protection Rubber	3	854-2-2356-10500
17	623 070 8488	Accumulator Ass'y	1	854-0-4517-19100
18	623 034 9452	Band Mounting	1	851-2-2356-16901
19	623 096 9018	Capillary Tube	1	854-2-4231-31600
20	623 043 4059	Strainer Ass'y	1	852-0-4506-14000
21	623 051 0128	Packing	1	852-2-2353-19500
22	623 065 2422	Mounting Rubber, Capillary	1	853-2-4310-10300
23	623 050 5742	Mounting Plate	1	852-2-2309-34101
24	623 078 4826	Protection Rubber	3	854-2-2356-10600
25	623 078 4376	Spacer	3	854-2-2349-12201
26	623 003 6772	Heater 230V 30W	1	4-2459-56195
27	623 078 4802	Protection Rubber	2	854-2-2356-10400
28	623 078 4833	Protection Rubber	1	854-2-2356-10700
29	623 068 1125	Nut Special Ass'y	2	854-0-2321-10201
30	623 029 6558	Nut Special Ass'y	1	851-0-2395-10702
31	623 043 3568	Dehydrator Ass'y	1	852-0-4505-13600
32	623 068 9848	Condenser Ass'y (incl. No. 33)	1	854-0-4106-19300
33	623 080 3435	Mounting Plate	1	854-2-4134-32100
34	623 081 5940	Mounting Plate, Tube	2	854-2-4316-12600
35	623 081 5834	Mounting Rubber, Tube	1	854-2-4315-15600
36	623 081 5605	Mounting Rubber, Tube	1	854-2-4315-13200
37	623 081 5582	Mounting Rubber, Tube	1	854-2-4315-12400
38	623 081 5810	Mounting Rubber, Tube	1	854-2-4315-15400
39	623 071 9910	Guard	1	854-2-1113-12400
40	623 078 5182	Mounting Plate Ass'y (Incl. No. 41)	2	854-2-2360-189H0
41	623 108 2136	Packing	2	854-2-1851-88700
42	623 078 5281	Mounting Plate	3	854-2-2360-21111
43	623 068 2771	Cover Ass'y	1	854-0-2325-16900
44	626 040 0338	Gasket Terminal	1	801-2-5303-13100
45	626 040 0673	Cover Terminal	1	801-2-6194-12100
46	626 040 0956	Nut, Compressor	1	819-2-6919-10100
47	623 071 0733	Elec. Component Box Ass'y	1	854-0-5301-33001
48	623 096 4884	Relay FMCA-1UL	1	4-2329-56319
49	623 002 4809	Relay MY2F-T1-USTS	1	4-2329-56287
50	623 001 1878	Fixed Capacitor 440V 5MFD	1	4-2239-56224

NOTE: Metal and plastic parts will be supplied basically
with necessary heat insulation pads or packing.

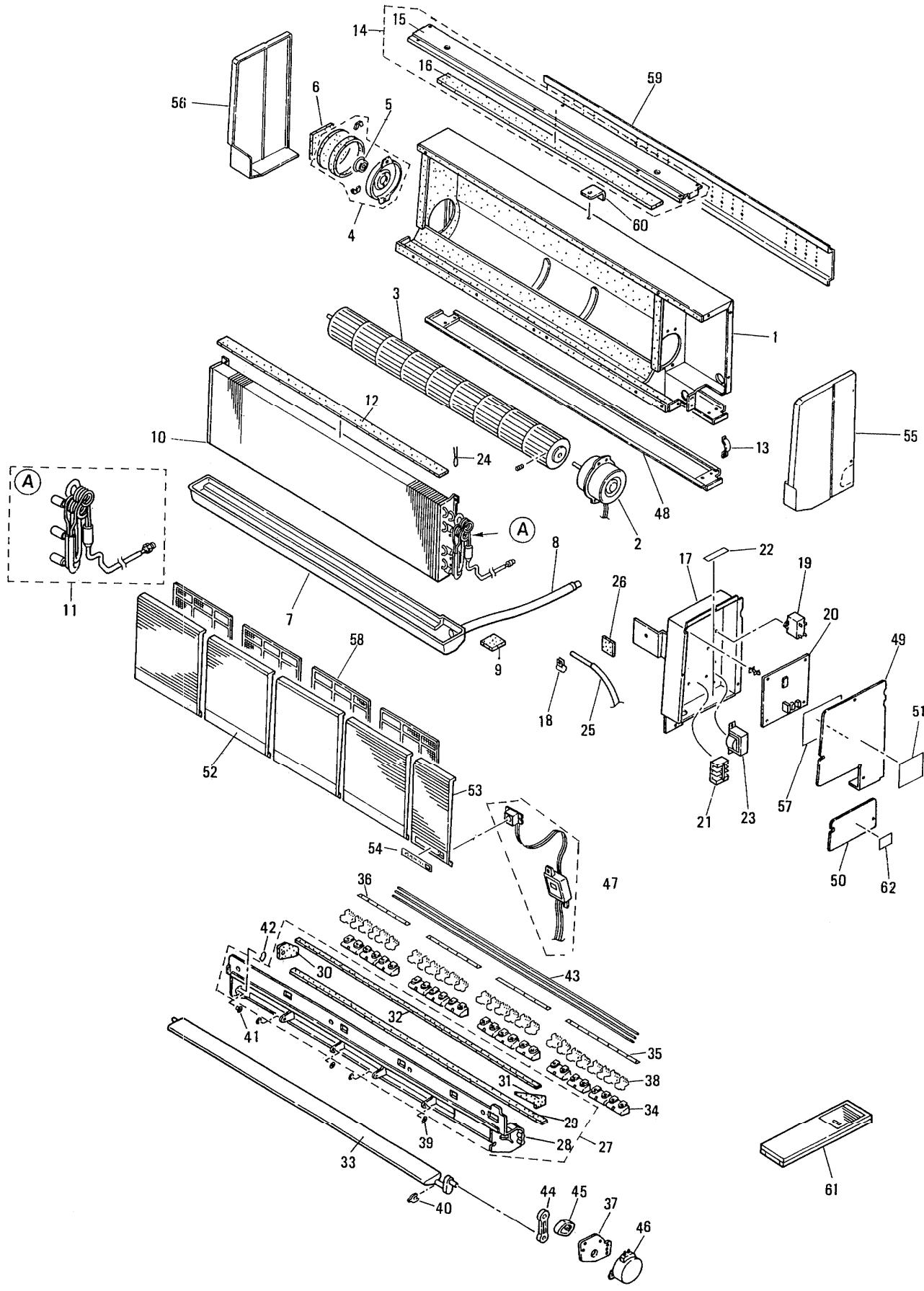
ATTENTION !

To ensure correct parts supply, please let us know followings,
when you make service parts order:

1. Part No. 2. Description 3. Q'ty 4. Volts-Hz-Ph 5. Product Model No.

Key No.	Part No.	Description	Q'ty	Reference No.
51	623 001 2580	Fixed Capacitor 400V 35MFD	1	4-2239-56339
52	623 054 7964	Clip, Capacitor	1	852-2-5301-20600
53	626 100 0049	Thermistor TDK 101YV	1	4-2049-60102
54	623 002 9231	Thermostat YTB-4U201F	1	4-2339-56195
55	623 071 0962	Elec. Component Box Ass'y	1	854-0-5301-35301
56	623 051 6977	Screw Special M5X12	1	852-2-2396-10103
57	623 003 3085	Terminal Base JTU30-6	1	4-2379-56175
58	623 060 3561	Label	1	852-6-4729-17300
59	623 081 4622	Mounting Rubber, Capillary	1	854-2-4310-10100
60	623 076 7928	Mounting Plate Ass'y (incl. No. 61, 62)	1	854-2-2208-195H0
61	623 108 2143	Mounting Plate Ass'y	1	854-2-2208-19501
62	623 108 2211	Packing	1	854-2-1351-42810
63	623 107 6333	Fan Motor KFH4Q-31A6P	1	525-0-0000-22306
64	623 053 2465	Cover Rubber	1	852-2-2514-10700
65	623 068 6410	Support Motor Ass'y	3	854-0-2511-14401
66	623 066 5682	Top Cover Ass'y	1	854-0-1106-20201
67	623 068 3631	Propeller Fan Ass'y (incl. No. 68)	1	854-0-2501-18100
68	623 079 9431	Set Screw, Blower M6 L16	1	854-2-2529-10101
69	623 078 3935	Cap	1	854-2-2346-11400
70	623 066 8997	Guard Ass'y	1	854-0-1113-13801
71	623 066 2612	Side Panel Ass'y (incl. No. 72, 73)	1	854-0-1102-233H0
72	623 108 2150	Side Panel Ass'y	1	854-0-1102-23301
73	623 108 2167	Packing	1	854-2-1351-42510
74	623 078 5519	Mounting Plate	1	854-2-2360-26801
75	623 081 9788	Cover Plate	1	854-2-5304-26000
76	623 081 9795	Cover Plate	1	854-2-5304-26100
77	623 096 4921	Elec. Wiring Diagram	1	851-2-5251-69001
78	623 072 3030	Cover Plate	1	854-2-1133-20101
79	623 066 2629	Side Panel Ass'y (incl. No. 80, 81)	1	854-0-1102-234H0
80	623 108 2174	Side Panel Ass'y	1	854-0-1102-23401
81	623 108 2167	Packing	1	854-2-1351-42510
82	623 066 1370	Front Panel Ass'y (incl. No. 83~86)	1	854-0-1101-301H0
83	623 108 2754	Front Panel Ass'y	1	854-0-1101-30101
84	623 108 2181	Packing	1	854-2-1351-42610
85	623 108 2198	Packing	2	854-2-1351-43810
86	623 045 7690	Eyelet Rubber	1	852-2-1320-10500
87	623 084 8603	Label	1	854-6-4729-78000
88	623 084 8269	Label	1	854-6-4729-71600
89	623 074 1782	Label	1	854-2-1358-46700
90	623 089 0367	Mark	1	852-2-1316-26201
91	623 096 5904	Compressor Ass'y C-R170HGS	1	852-0-4516-19700

NOTE: Metal and plastic parts will be supplied basically
with necessary heat insulation pads or packing.



ATTENTION !

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1. Part No. 2. Description 3. Q'ty 4. Volts-Hz-Ph 5. Product Model No.

Key No.	Part No.	Description	Q'ty	Reference No.
1	623 099 6182	Rear Panel Ass'y	1	854-0-1109-214H4
2	623 098 7975	Fan Motor SFC4T-41A6P	1	525-0-0000-33306
3	623 093 5860	Cross-Flow Fan Ass'y	1	854-0-2501-19900
4	623 099 5970	Mounting Ass'y, Bearing	1	854-2-2520-132H2
5	623 042 0083	Bearing Housing Ass'y	1	852-0-2510-12200
6	623 099 5987	Insulation Cover	1	854-2-1408-35010
7	623 093 5884	Drain Pan Ass'y	1	854-0-2301-36100
8	623 096 3931	Drain Pipe Ass'y	1	854-0-4297-13000
9	623 096 8981	Packing	1	854-2-2336-55810
10	623 098 7791	Heat Exchanger Ass'y (incl. No. 11)	1	854-0-4118-59400
11	623 107 5244	Distributor Ass'y	1	854-0-4111-46000
12	623 109 0209	Insulation, Evaporator	1	854-2-2404-22110
13	623 093 5914	Band	1	854-2-2313-16401
14	623 099 5994	Top Plate Ass'y (incl. No. 15, 16)	1	854-0-1105-279H2
15	623 098 7821	Top Plate Ass'y	1	854-0-1105-27901
16	623 108 1559	Insulation	1	854-2-1407-78210
17	623 108 1566	Elec. Component Box Ass'y	1	854-0-5301-45301
18	623 109 0155	Mounting Plate	1	854-2-5312-66200
19	623 001 1861	Fixed Capacitor 440V 4.5MFD	1	4-2239-56223
20	623 106 0738	P.C. B. Ass'y POW-KS2412	1	851-0-5153-54200
21	623 096 3979	Terminal Base JTU20-3	1	4-2379-56227
22	623 060 3561	Label	1	852-6-4729-17300
23	623 107 5909	Transformer ATR-H122U	1	4-2519-56265
24	623 108 1580	Thermistor Ass'y PBC-41E-S4	1	851-0-5259-24700
25	623 108 1597	Thermistor Ass'y SDT-500B-6	1	851-0-5259-24800
26	623 109 0162	Packing	1	854-2-1361-15010
27	623 108 1610	Support Louver Ass'y (incl. No. 28-32)	1	854-2-1111-225H1
28	623 109 4085	Support Louver	1	854-2-1111-22510
29	623 108 1627	Packing	1	854-2-1351-92510
30	623 109 0179	Insulation Cover	1	854-2-1408-35510
31	623 108 1634	Insulation Cover	1	854-2-1408-35610
32	623 108 1641	Insulation Special	1	854-2-2410-55810
33	623 108 1658	Flap	1	854-2-1515-10410
34	623 098 7890	Mounting Plate, Blade	13	854-2-2524-10910
35	623 098 7906	Fastener Blade	1	854-2-1521-11910
36	623 098 7913	Fastener Blade	3	854-2-1521-12010
37	623 108 1467	Mounting Plate	1	854-2-5312-63601
38	623 098 7937	Blade Air Guide	26	854-2-1520-14810
39	623 096 3337	Mounting	4	852-2-1514-32502
40	623 049 1533	Mounting	1	852-2-1514-27002
41	623 049 1472	Mounting	1	852-2-1514-26802
42	623 093 5747	Label	1	854-2-1358-50801
43	623 099 6175	Wire	3	854-2-1310-23701
44	623 049 1557	Mounting	1	852-2-1514-27101
45	623 051 5901	Cam	1	852-2-2382-10101
46	623 107 3882	Synchro Motor M2EA24ZA01	1	528-0-0000-07006
47	623 109 0186	Switch Ass'y SW-KS3012W	1	851-0-5152-18300
48	623 093 6027	Bottom Plate	1	854-2-2227-28601
49	623 098 7951	Cover Plate	1	854-2-5304-32301
50	623 098 7968	Cover Terminal	1	854-2-5305-12501

NOTE: Metal and plastic parts will be supplied basically
with necessary heat insulation pads or packing.

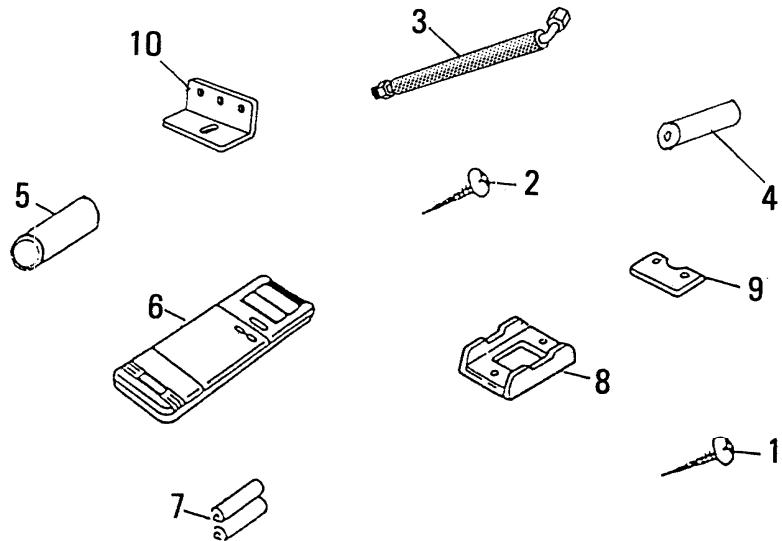
ATTENTION !

To ensure correct parts supply, please let us know followings,
when you make service parts order:

1. Part No. 2. Description 3. Q'ty 4. Volts-Hz-Ph 5. Product Model No.

Key No.	Part No.	Description	Q'ty	Reference No.
51	623 074 1782	Label	1	854-2-1358-46700
52	623 098 7845	Ornamental Plate	4	854-2-1308-25210
53	623 098 7852	Ornamental Plate	1	854-2-1308-25310
54	623 092 9081	Badge	1	854-2-1354-19701
55	623 098 7869	Side Panel (R)	1	854-2-1102-35510
56	623 098 7876	Side Panel (L)	1	854-2-1102-35610
57	623 109 0216	Elec. Wiring Diagram	1	851-2-5251-99201
58	623 096 6871	Air Filter Ass'y	4	854-0-1302-14410
59	623 072 2170	Hook Plate	1	854-2-1130-13001
60	623 072 2941	Cover Plate	1	854-2-1133-18901
61	623 106 0714	Remote Control Switch RCS-KS2412W	1	851-0-0051-49200
62	623 084 8269	Label	1	854-6-4729-71600
•	623 108 1689	Installation Instructions	1	854-6-4139-72800
•	623 107 6081	Operation Manual	1	852-6-4119-90600

NOTE: Metal and plastic parts will be supplied basically
with necessary heat insulation pads or packing.



ATTENTION !

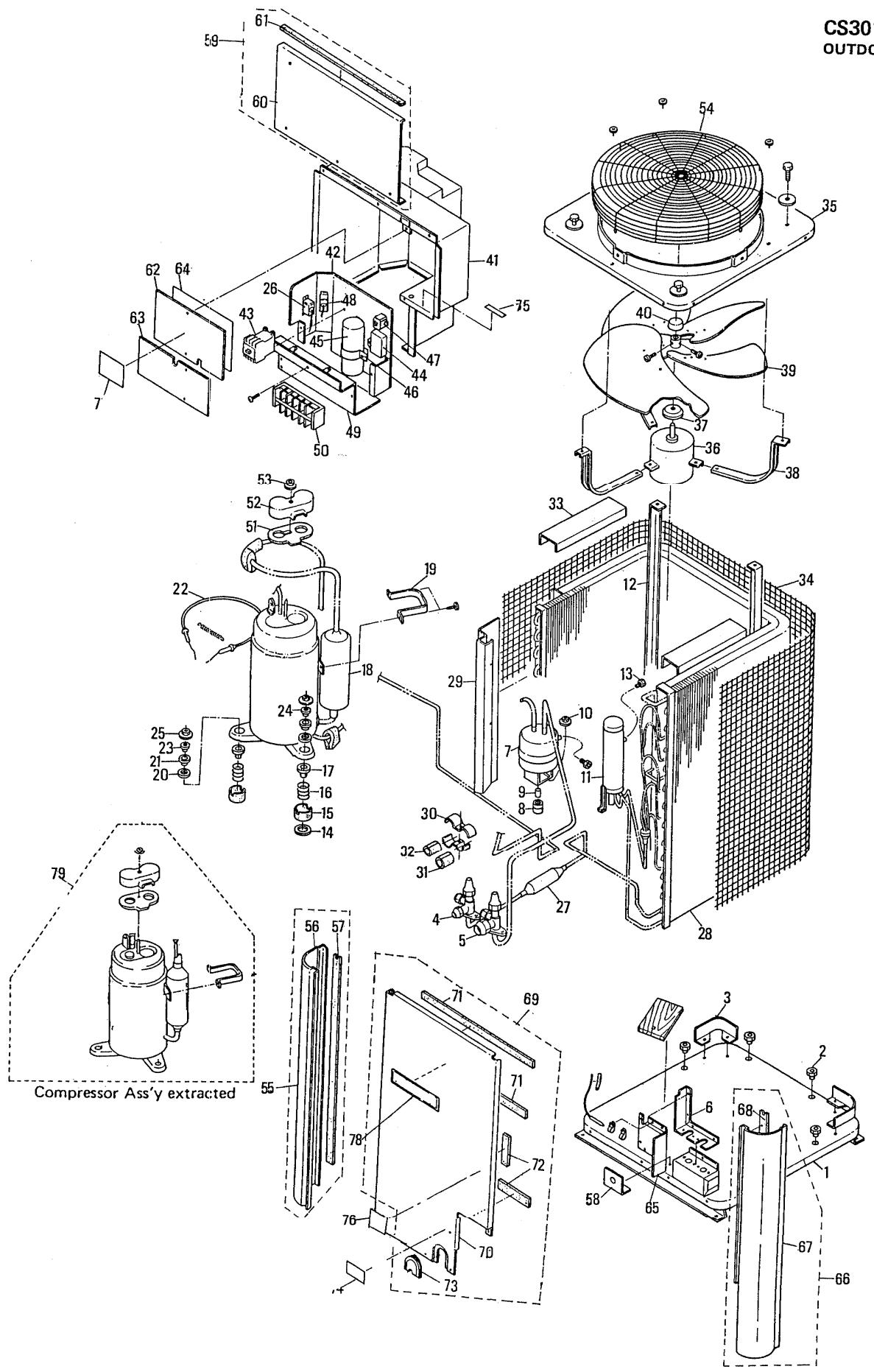
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1. Part No. 2. Description 3. Q'ty 4. Volts-Hz-Ph 5. Product Model No.

Key No.	Part No.	Description	Q'ty	Reference No.
1	623 108 8169	Screw BATA 3X16	2	3-9223-31601
2	623 093 1503	Screw TOTA 4X25	20	3-9219-42501
3	623 093 1497	Tube Ass'y	1	854-0-4204-93200
4	623 079 4634	Insulation Special	2	854-2-2410-37600
5	623 077 4391	Joint Drain	1	854-2-2334-13600
6	623 106 0714	Remote Control Switch RCS-KS2412W	1	851-0-0051-49200
7	623 101 2744	Dry Cell	2	4-6619-56154
8	623 050 6145	Mounting Plate	1	852-2-2309-40301
9	623 049 2134	Mounting	1	852-2-1514-30001
10	623 072 2941	Cover Plate	1	854-2-1133-18901

NOTE: Metal and plastic parts will be supplied basically
with necessary heat insulation pads or packing.

CS3012
OUTDOOR UNIT



ATTENTION !

To ensure correct parts supply, please let us know followings,
when you make service parts order:

1. Part No. 2. Description 3. Q'ty 4. Volts-Hz-Ph 5. Product Model No.

**CS3012
OUTDOOR UNIT**

Key No.	Part No.	Description	Q'ty	Reference No.
1	623 067 4189	Bottom Plate Ass'y	1	854-0-2204-36101
2	623 073 3831	Sheet Rubber	4	854-2-1353-11000
3	623 078 5205	Mounting Plate	2	854-2-2360-19100
4	623 070 5128	Valve Ass'y 3/8 in.	1	854-0-4504-13300
5	623 070 6156	Valve Ass'y 5/8 in.	1	854-0-4506-17900
6	623 072 2798	Cover Plate	1	854-2-1133-17501
7	623 070 8495	Accumulator Ass'y	1	854-0-4517-19201
8	623 077 2373	Cushion Rubber	1	854-2-2318-10600
9	624 081 8054	Sleeve	1	831-2-4307-10100
10	623 029 6534	Nut Special Ass'y	1	851-0-2395-10501
11	623 069 0523	Receiver Tank Ass'y	1	854-0-4110-15501
12	623 067 4943	Frame Ass'y	2	854-0-2206-18200
13	623 081 4554	Fusible Plug	2	854-2-4306-10600
14	623 000 0209	Washer	1	3-9022-01000
15	623 035 0144	Cushion Rubber	3	851-2-2390-14000
16	623 034 5836	Spring	3	851-2-2330-13201
17	623 078 4819	Protection Rubber	3	854-2-2356-10500
18	623 070 8488	Accumulator Ass'y	1	854-0-4517-19100
19	623 034 9452	Band Mounting	1	851-2-2356-16901
20	623 078 4826	Protection Rubber	3	854-2-2356-10600
21	623 078 4376	Spacer	3	854-2-2349-12201
22	623 003 6772	Heater 230V 30W	1	4-2459-56195
23	623 078 4802	Protection Rubber	2	854-2-2356-10400
24	623 078 4833	Protection Rubber	1	854-2-2356-10700
25	623 068 1125	Nut Special Ass'y	3	854-0-2321-10201
26	623 001 8198	Switch FTB-2UC01	1	4-2819-56254
27	623 043 3465	Dehydrater Ass'y	1	852-0-4505-11100
28	623 069 5351	Evaporator Ass'y	1	854-0-4118-42900
29	623 080 3565	Mounting Plate	1	854-2-4134-34300
30	623 081 5940	Mounting Plate, Tube	2	854-2-4316-12600
31	623 061 5605	Mounting Rubber, Tube	1	854-2-4315-13200
32	623 081 5865	Mounting Rubber, Tube	1	854-2-4315-16000
33	623 078 5199	Mounting Plate	2	854-2-2360-18900
34	623 071 9859	Guard	1	854-2-1113-11700
35	623 066 5682	Top Cover Ass'y	1	854-0-1106-20201
36	623 009 7261	Fan Motor KFCGS-161A6P	1	525-142-06
37	623 053 2465	Cover Rubber	1	852-2-2514-10700
38	623 068 6410	Support Motor Ass'y	3	854-0-2511-14401
39	623 068 3693	Propeller Fan Ass'y	1	854-0-2501-18900
40	623 078 3935	Cap	1	854-2-2346-11400
41	623 068 2832	Cover Ass'y	1	854-0-2325-17500
42	623 071 1075	Elec. Component Box Ass'y	1	854-0-5301-36901
43	623 096 4884	Relay FMCA-1UL	1	4-2329-56319
44	623 001 1854	Fixed Capacitor 440V 4MF	1	4-2239-56222
45	623 001 2721	Fixed Capacitor 370V 40MF	1	4-2239-56381
46	623 082 0838	Mounting Plate	1	854-2-5312-45200
47	626 100 0049	Thermistor TDK 101YV	1	4-2049-60102
48	623 096 5218	Thermostat YTB-4U305F	1	4-2339-56274
49	623 071 1082	Elec. Component Box Ass'y	1	854-0-5301-37001
50	623 003 3085	Terminal Base JTU30-6	1	4-2379-56175

NOTE: Metal and plastic parts will be supplied basically
with necessary heat insulation pads or packing.

ATTENTION !

To ensure correct parts supply, please let us know followings,
when you make service parts order:

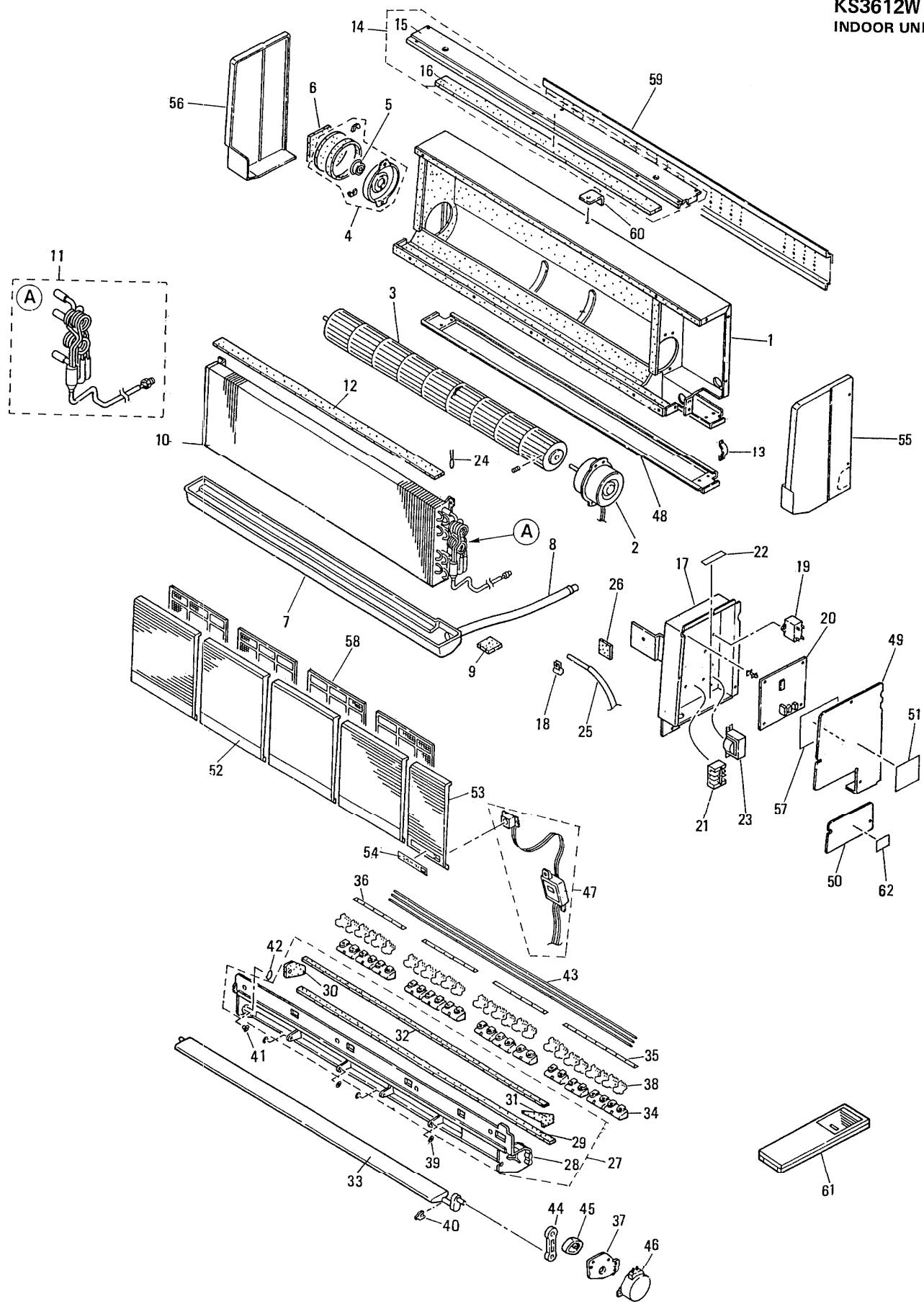
1. Part No. 2. Description 3. Q'ty 4. Volts-Hz-Ph 5. Product Model No.

**CS3012
OUTDOOR UNIT**

Key No.	Part No.	Description	Q'ty	Reference No.
51	626 040 0338	Gasket Terminal	1	801-2-5303-13100
52	626 040 0673	Cover Terminal	1	801-2-6194-12100
53	626 040 0956	Nut, Compressor	1	819-2-6919-10100
54	623 066 8997	Guard Ass'y	1	854-0-1113-13801
55	623 066 2728	Side Panel Ass'y (L) (incl. No. 56, 57)	1	854-0-1102-243H1
56	623 066 2735	Side Panel Ass'y	1	854-0-1102-24301
57	623 108 2204	Packing	1	854-2-1351-43310
58	623 078 5519	Mounting Plate	1	854-2-2360-26801
59	623 076 7997	Mounting Plate Ass'y (incl. No. 60, 61)	1	854-2-2208-226H1
60	623 098 8033	Mounting Plate Ass'y	1	854-2-2208-22601
61	623 108 2211	Packing	1	854-2-1351-42810
62	623 082 0074	Cover Plate	1	854-2-5304-29400
63	623 082 0081	Cover Plate	1	854-2-5304-29500
64	623 098 8057	Elec. Wiring Diagram	1	851-2-5251-74401
65	623 072 3030	Cover Plate	1	854-2-1133-20101
66	623 066 2742	Side Panel Ass'y (R) (incl. No. 67, 68)	1	854-0-1102-244H1
67	623 066 2759	Side Panel Ass'y	1	854-0-1102-24401
68	623 108 2204	Packing	1	854-2-1351-43310
69	623 066 1486	Front Panel Ass'y (incl. No. 70-72)	1	854-0-1101-315H1
70	623 066 1493	Front Panel Ass'y	1	854-0-1101-31501
71	623 108 2181	Packing	2	854-2-1351-42610
72	623 108 2198	Packing	2	854-2-1351-43810
73	623 045 7690	Eyelet Rubber	1	852-2-1320-10500
74	623 084 8436	Label	1	854-6-4729-74900
75	623 060 3561	Label	1	852-6-4729-17300
76	623 084 8269	Label	1	854-6-4729-71600
77	623 074 1782	Label	1	854-2-1358-46700
78	623 089 0367	Mark	1	852-2-1316-26201
79	623 098 8019	Compressor Ass'y C-R191H6S	1	852-0-4516-20100

NOTE: Metal and plastic parts will be supplied basically
with necessary heat insulation pads or packing.

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ATTENTION !

To ensure correct parts supply, please let us know followings,
when you make service parts order:

1. Part No. 2. Description 3. Q'ty 4. Volts-Hz-Ph 5. Product Model No.

Key No.	Part No.	Description	Q'ty	Reference No.
1	623 099 6182	Rear Panel Ass'y	1	854-0-1109-214H4
2	623 098 8071	Fan Motor SFC4T-51A6P	1	525-0-0000-33406
3	623 093 5860	Cross-Flow Fan Ass'y	1	854-0-2501-19900
4	623 099 5970	Mounting Ass'y, Bearing	1	854-2-2520-132H2
5	623 042 0083	Bearing Housing Ass'y	1	852-0-2510-12200
6	623 099 5987	Insulation Cover	1	854-2-1408-35010
7	623 093 5884	Drain Pan Ass'y	1	854-0-2301-36100
8	623 096 3931	Drain Pipe Ass'y	1	854-0-4297-13000
9	623 096 8981	Packing	1	854-2-2336-55810
10	623 098 8064	Evaporator Ass'y (incl. No. 11)	1	854-0-4118-59500
11	623 107 5268	Distributor Ass'y	1	854-0-4111-46100
12	623 108 1542	Insulation, Evaporator	1	854-2-2404-22410
13	623 093 5914	Band	1	854-2-2313-16401
14	623 099 5994	Top Plate Ass'y (incl. No. 15, 16)	1	854-0-1105-279H2
15	623 098 7821	Top Plate Ass'y	1	854-0-1105-27901
16	623 108 1559	Insulation	1	854-2-1407-78210
17	623 108 1566	Elec. Component Box Ass'y	1	854-0-5301-45301
18	623 109 0155	Mounting Plate	1	854-2-5312-66200
19	623 001 1854	Fixed Capacitor 440V 4MFD	1	4-2239-56222
20	623 106 0738	P.C.B. Ass'y POW-KS2412	1	851-0-5158-54200
21	623 096 3979	Terminal Base JTU20-3	1	4-2379-56227
22	623 060 3561	Label	1	852-6-4729-17300
23	623 107 5909	Transformer ATR-H122U	1	4-2519-56265
24	623 108 1580	Thermistor Ass'y PBC-41E-S4	1	851-0-5259-24700
25	623 108 1597	Thermistor Ass'y SDT-500B-6	1	851-0-5259-24800
26	623 109 0162	Packing	1	854-2-1361-15010
27	623 108 1610	Support Louver Ass'y (incl. No. 28~32)	1	854-2-1111-225H1
28	623 109 4085	Support Louver	1	854-2-1111-22510
29	623 108 1627	Packing	1	854-2-1351-92510
30	623 109 0179	Insulation Cover	1	854-2-1408-35510
31	623 108 1634	Insulation Cover	1	854-2-1408-35610
32	623 108 1641	Insulation Special	1	854-2-2410-55810
33	623 108 1658	Flap	1	854-2-1515-10410
34	623 098 7890	Mounting Plate, Blade	13	854-2-2524-10910
35	623 098 7906	Fastener Blade	1	854-2-1521-11910
36	623 098 7913	Fastener Blade	3	854-2-1521-12010
37	623 108 1467	Mounting Plate	1	854-2-5312-63601
38	623 098 7937	Blade Air Guide	26	854-2-1520-14810
39	623 096 3337	Mounting	4	852-2-1514-32502
40	623 049 1533	Mounting	1	852-2-1514-27002
41	623 049 1472	Mounting	1	852-2-1514-26802
42	623 093 5747	Label	1	854-2-1358-50801
43	623 099 6175	Wire	3	854-2-1310-23701
44	623 049 1557	Mounting	1	852-2-1514-27101
45	623 051 5901	Cam	1	852-2-2382-10101
46	623 107 3882	Synchro Motor M2EA24ZA01	1	528-0-0000-07006
47	623 109 0186	Switch Ass'y SW-KS3012W	1	851-0-5152-18300
48	623 093 6027	Bottom Plate	1	854-2-2227-28601
49	623 098 7951	Cover Plate	1	854-2-5304-32301
50	623 098 7968	Cover Terminal	1	854-2-5305-12501

NOTE: Metal and plastic parts will be supplied basically
with necessary heat insulation pads or packing.

ATTENTION !

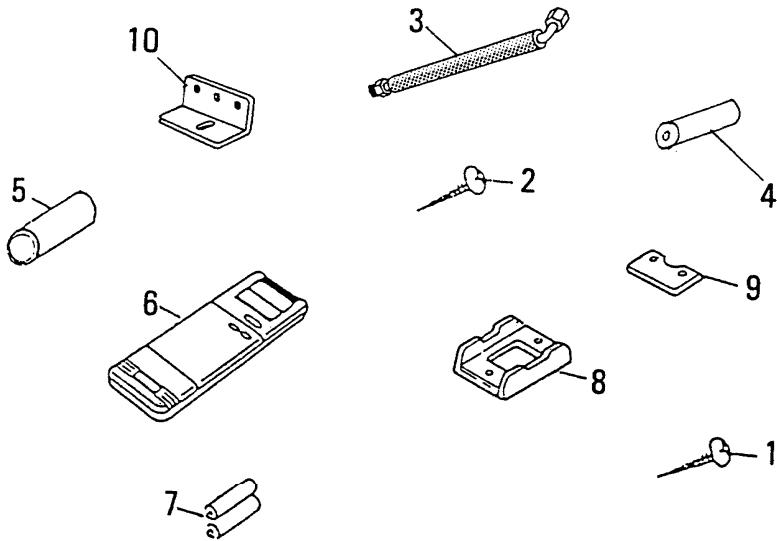
To ensure correct parts supply, please let us know followings,
when you make service parts order:

1. Part No. 2. Description 3. Q'ty 4. Volts-Hz-Ph 5. Product Model No.

**KS3612W
INDOOR UNIT**

Key No.	Part No.	Description	Q'ty	Reference No.
51	623 074 1782	Label	1	854-2-1358-46700
52	623 098 7845	Ornamental Plate	4	854-2-1308-25210
53	623 098 7852	Ornamental Plate	1	854-2-1308-25310
54	623 092 9081	Badge	1	854-2-1354-19701
55	623 098 7869	Side Panel (R)	1	854-2-1102-35510
56	623 098 7876	Side Panel (L)	1	854-2-1102-35610
57	623 108 1665	Elec. Wiring Diagram	1	851-2-5251-99202
58	623 096 6871	Air Filter Ass'y	4	854-0-1302-14410
59	623 072 2170	Hook Plate	1	854-2-1130-13001
60	623 072 2941	Cover Plate	1	854-2-1133-18901
61	623 106 0714	Remote Control Switch RCS-KS2412W	1	851-0-0051-49200
62	623 084 8269	Label	1	854-6-4729-71600
•	623 108 1689	Installation Instructions	1	854-6-4139-72800
•	623 107 6081	Operation Manual	1	852-6-4119-90600

NOTE: Metal and plastic parts will be supplied basically
with necessary heat insulation pads or packing.



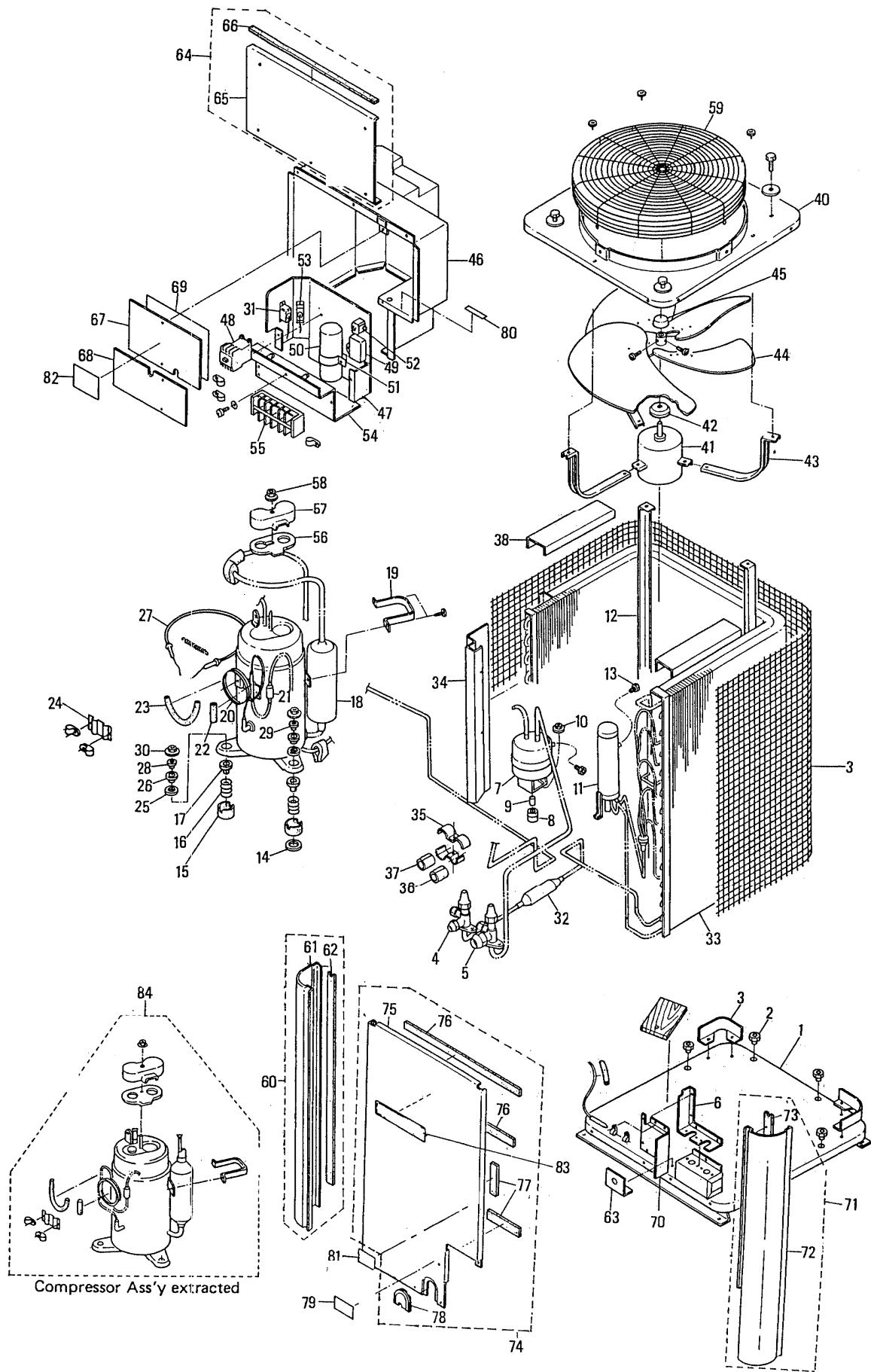
ATTENTION !

To ensure correct parts supply, please let us know followings,
when you make service parts order:

1. Part No. 2. Description 3. Q'ty 4. Volts-Hz-Ph 5. Product Model No.

Key No.	Part No.	Description	Q'ty	Reference No.
1	623 108 8169	Screw BATA 3X10	2	3-9223-31601
2	623 093 1503	Screw TOTA 4X25	20	3-9219-42501
3	623 093 1510	Tube Ass'y	1	854-0-4204-93600
4	623 079 4634	Insulation Special	2	854-2-2410-37600
5	623 077 4391	Joint Drain	1	854-2-2334-13600
6	623 106 0714	Remote Control Switch RCS-KS2412W	1	851-0-0051-49200
7	623 101 2744	Dry Cell	2	4-6619-56154
8	623 050 6145	Mounting Plate	1	852-2-2309-40301
9	623 049 2184	Mounting	1	852-2-1514-30001
10	623 072 2941	Cover Plate	1	854-2-1133-18901

NOTE: Metal and plastic parts will be supplied basically
with necessary heat insulation pads or packing.



ATTENTION !

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1. Part No. 2. Description 3. Q'ty 4. Volts-Hz-Ph 5. Product Model No.

Key No.	Part No.	Description	Q'ty	Reference No.
1	623 067 4189	Bottom Plate Ass'y	1	854-0-2204-36101
2	623 073 3831	Sheet Rubber	4	854-2-1353-11000
3	623 078 5205	Mounting Plate	2	854-2-2360-19100
4	623 070 5128	Valve Ass'y 3/8 in.	1	854-0-4504-13300
5	623 070 6590	Valve Ass'y 3/4 in.	1	854-0-4507-15400
6	623 072 2798	Cover Plate	1	854-2-1133-17501
7	623 070 8495	Accumulator Ass'y	1	854-0-4517-19201
8	623 077 2373	Cushion Rubber	1	854-2-2318-10600
9	624 081 8054	Sleeve	1	831-2-4307-10100
10	623 029 6534	Nut Special Ass'y	1	851-0-2395-10501
11	623 069 0528	Receiver Tank Ass'y	1	854-0-4110-15501
12	623 067 4943	Frame Ass'y	2	854-0-2206-18200
13	623 081 4554	Fusible Plug	2	854-2-4306-10600
14	623 000 0209	Washer	1	3-9022-01000
15	623 035 0144	Cushion Rubber	3	851-2-2390-14000
16	623 034 5836	Spring	3	851-2-2330-13201
17	623 078 4819	Protection Rubber	3	854-2-2356-10500
18	623 070 8488	Accumulator Ass'y	1	854-0-4517-19100
19	623 084 9452	Band Mounting	1	851-2-2356-16901
20	623 080 9871	Capillary Tube	1	854-2-4219-58100
21	623 043 4059	Strainer Ass'y	1	852-0-4506-14000
22	623 051 0128	Packing	1	852-2-2353-19500
23	623 065 2422	Mounting Rubber, Capillary	1	853-2-4310-10300
24	623 050 5742	Mounting Plate	1	852-2-2309-34101
25	623 078 4826	Protection Rubber	3	854-2-2356-10600
26	623 078 4376	Spacer	3	854-2-2349-12201
27	623 003 6772	Heater 230V 30W	1	4-2459-56195
28	623 078 4802	Protection Rubber	2	854-2-2356-10400
29	623 078 4833	Protection Rubber	1	854-2-2356-10700
30	623 068 1125	Nut Special Ass'y	3	854-0-2321-10201
31	623 001 8198	Switch FTB-2UC01	1	4-2319-56254
32	623 043 3465	Dehydrater Ass'y	1	852-0-4505-11100
33	623 069 5351	Evaporator Ass'y	1	854-0-4118-42900
34	623 080 3565	Mounting Plate	1	854-2-4134-34300
35	623 081 5940	Mounting Plate, Tube	2	854-2-4316-12600
36	623 081 5605	Mounting Rubber, Tube	1	854-2-4315-13200
37	623 081 5865	Mounting Rubber, Tube	1	854-2-4315-16000
38	623 078 5199	Mounting Plate	2	854-2-2360-18900
39	623 071 9859	Guard	1	854-2-1113-11700
40	623 066 5682	Top Cover Ass'y	1	854-0-1106-20201
41	623 009 7261	Fan Motor KFC6S-161A6P	1	525-142-06
42	623 053 2465	Cover Rubber	1	852-2-2514-10700
43	623 068 6410	Support Motor Ass'y	3	854-0-2511-14401
44	623 068 3693	Propeller Fan Ass'y	1	854-0-2501-18900
45	623 078 3935	Cap	1	854-2-2346-11400
46	623 068 2832	Cover Ass'y	1	854-0-2325-17500
47	623 071 1075	Elec. Component Box Ass'y	1	854-0-5301-36901
48	623 002 5059	Relay FMCA-1SUL	1	4-2329-56320
49	623 001 1854	Fixed Capacitor 440V 4MF	1	4-2239-56222
50	623 001 2721	Fixed Capacitor 370V 40MF	1	4-2239-56381

NOTE: Metal and plastic parts will be supplied basically
with necessary heat insulation pads or packing.

ATTENTION !

To ensure correct parts supply, please let us know followings,
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1. Part No. 2. Description 3. Q'ty 4. Volts-Hz-Ph 5. Product Model No.

Key No.	Part No.	Description	Q'ty	Reference No.
51	623 082 0838	Mounting Plate	1	854-2-5312-45200
52	626 100 0049	Thermistor TDK 101YV	1	4-2049-60102
53	623 096 5218	Thermostat YTB-4U305F	1	4-2339-56274
54	623 071 1082	Elec. Component Box Ass'y	1	854-0-5301-37001
55	623 003 3085	Terminal Base JTU30-6	1	4-2379-56175
56	626 040 0338	Gasket Terminal	1	801-2-5303-13100
57	626 040 0673	Cover Terminal	1	801-2-6194-12100
58	626 040 0956	Nut, Compressor	1	819-2-6919-10100
59	623 066 8997	Guard Ass'y	1	854-0-1113-13801
60	623 066 2728	Side Panel Ass'y (L) (incl. No. 61, 62)	1	854-0-1102-243H1
61	623 066 2735	Side Panel Ass'y	1	854-0-1102-24301
62	623 108 2204	Packing	1	854-2-1351-43310
63	623 078 5519	Mounting Plate	1	854-2-2360-26801
64	623 076 7997	Mounting Plate Ass'y (incl. No. 65, 66)	1	854-2-2208-226H1
65	623 098 8083	Mounting Plate Ass'y	1	854-2-2208-22601
66	623 108 2211	Packing	1	854-2-1351-42810
67	623 082 0074	Cover Plate	1	854-2-5304-29400
68	623 082 0081	Cover Plate	1	854-2-5304-29500
69	623 098 8118	Elec. Wiring Diagram	1	851-2-5251-74402
70	623 072 3030	Cover Plate	1	854-2-1133-20101
71	623 066 2742	Side Panel Ass'y (R) (incl. No. 72, 73)	1	854-0-1102-244H1
72	623 066 2759	Side Panel Ass'y	1	854-0-1102-24401
73	623 108 2204	Packing	1	854-2-1351-43310
74	623 066 1486	Front Panel Ass'y (incl. No. 75~77)	1	854-0-1101-315H1
75	623 066 1493	Front Panel Ass'y	1	854-0-1101-31501
76	623 108 2181	Packing	2	854-2-1351-42610
77	623 108 2198	Packing	2	854-2-1351-43810
78	623 045 7690	Eyelet Rubber	1	852-2-1320-10500
79	623 084 8436	Label	1	854-6-4729-74900
80	623 060 3561	Label	1	852-6-4729-17300
81	623 084 8269	Label	1	854-6-4729-71600
82	623 074 1782	Label	1	854-2-1358-46700
83	623 089 0367	Mark	1	852-2-1316-26201
84	623 043 7517	Compressor Ass'y (80658946)	1	852-0-4516-16300

NOTE: Metal and plastic parts will be supplied basically
with necessary heat insulation pads or packing.