



HIGH POWER MULTI AIR CONDITIONER WALL MOUNTED CASSETTE type

SERVICE MANUAL



Models

Indoor unit

RSM-12UA
RSM-7UA

Outdoor unit

ROM-20UA2



RCM-12UA
RSM-7UA

ROM-20UA2



C O N T E N T S

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SPECIFICATIONS

TYPE	COOL & HEAT			COOL & HEAT	
INDOOR UNIT	RSM-12UA	RSM-7UA	RCM-12UA	RSM-12UA + RSM-7UA	RCM-12UA + RSM-7UA
OUTDOOR UNIT	ROM-20UA2			ROM-20UA2	
COOLING CAPACITY (kW)	3.45	2.25	3.50	5.70	5.75
HEATING CAPACITY (kW)	4.00	2.70	4.00	6.70	6.70

ELECTRICAL DATA

POWER SOURCE (V)	230			230	
FREQUENCY (Hz)	50			50	
RUNNING CURRENT (A)	COOLING	5.8	3.9	5.8	9.5
	HEATING	6.2	4.1	6.2	9.4
INPUT WATTS (kW)	COOLING	1.32	0.87	1.32	2.13
	HEATING	1.40	0.90	1.40	2.09
E.E.R. (kW/kW)	COOLING	2.61	2.59	2.65	2.68
	HEATING	2.86	3.00	2.86	3.21
MOISTURE REMOVAL (ℓ/hr)	1.3	1.0	1.3	2.3	2.3
AIR CIRCULATION-Hi (m³/hr)	520	420	550	3,000 (Outdoor unit)	3,000 (Outdoor unit)

COMPRESSOR (Two compressors in one outdoor unit)

TYPE	Hermetic type, Permanent split condenser, 2 pole, Single phase, Induction motor, Rotary		
POWER SOURCE	230V 50Hz		
DISCRIMINATION	802-354-35B	802-100-65B	802-354-35B
REFRIGERANT R410A (g)	1,000	800	1,000

FAN MOTOR

POWER SOURCE (V)	230		
INDOOR UNIT COOL (HEAT)	HI-SPEED (r.p.m.)	1,310 (1,310)	1,250 (1,270) 760 (760)
	MED-SPEED (r.p.m.)	1,260 (1,180)	1,140 (1,140) 690 (690)
	LO-SPEED (r.p.m.)	1,190 (1,030)	1,070 (1,030) 610 (610)
	QUIET (r.p.m.)	1,100 (970)	1,000 (970) -
OUTDOOR UNIT	HI-SPEED (r.p.m.)	750	
	LO-SPEED (r.p.m.)	450	

DIMENSIONS

INDOOR UNIT H x W x D (mm)	257 x 808 x 187	235 x 580 x 580 + 70
OUTDOOR UNIT	700 x 900 x 350	

WEIGHT

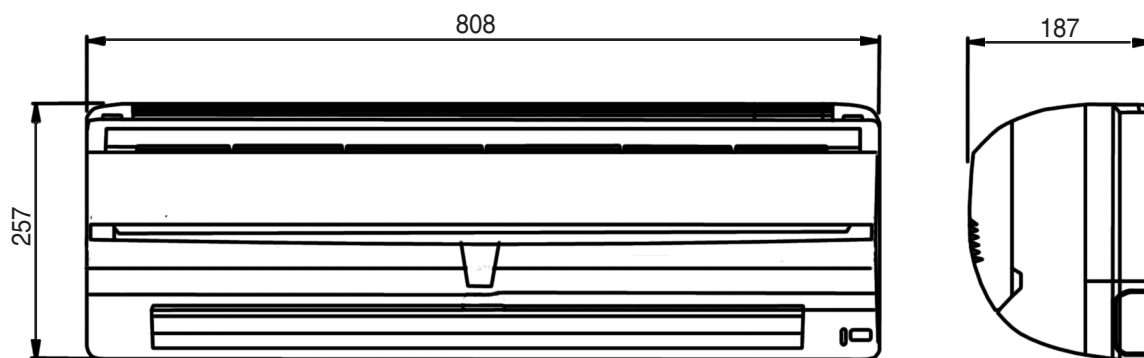
INDOOR UNIT GROSS / NET (kg)	10 / 8	23 / 18
OUTDOOR UNIT	74 / 68	

OUTLINE AND DIMENSIONS

Unit : mm

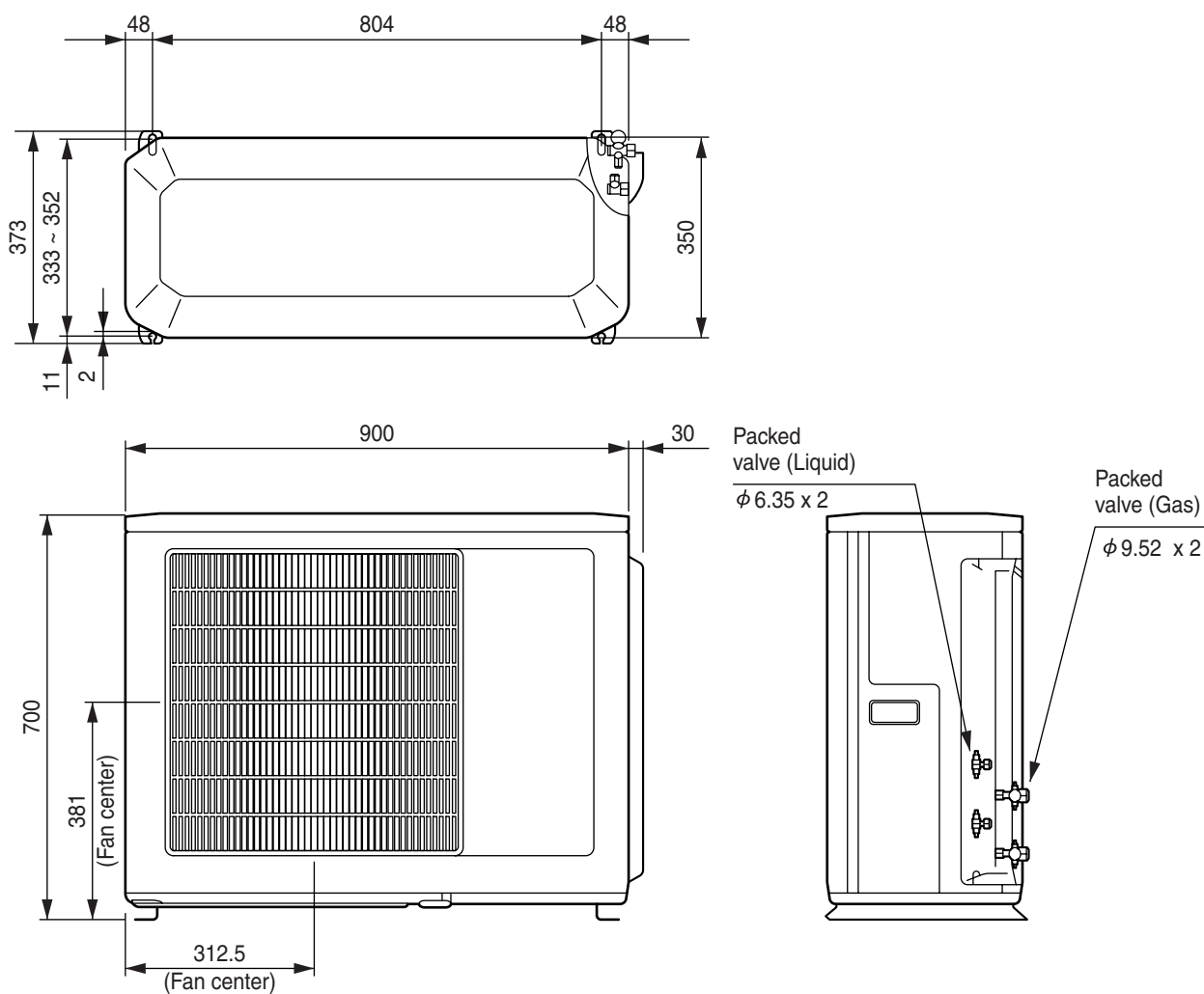
INDOOR UNIT

Models : RSM-12UA
RSM-7UA



OUTDOOR UNIT

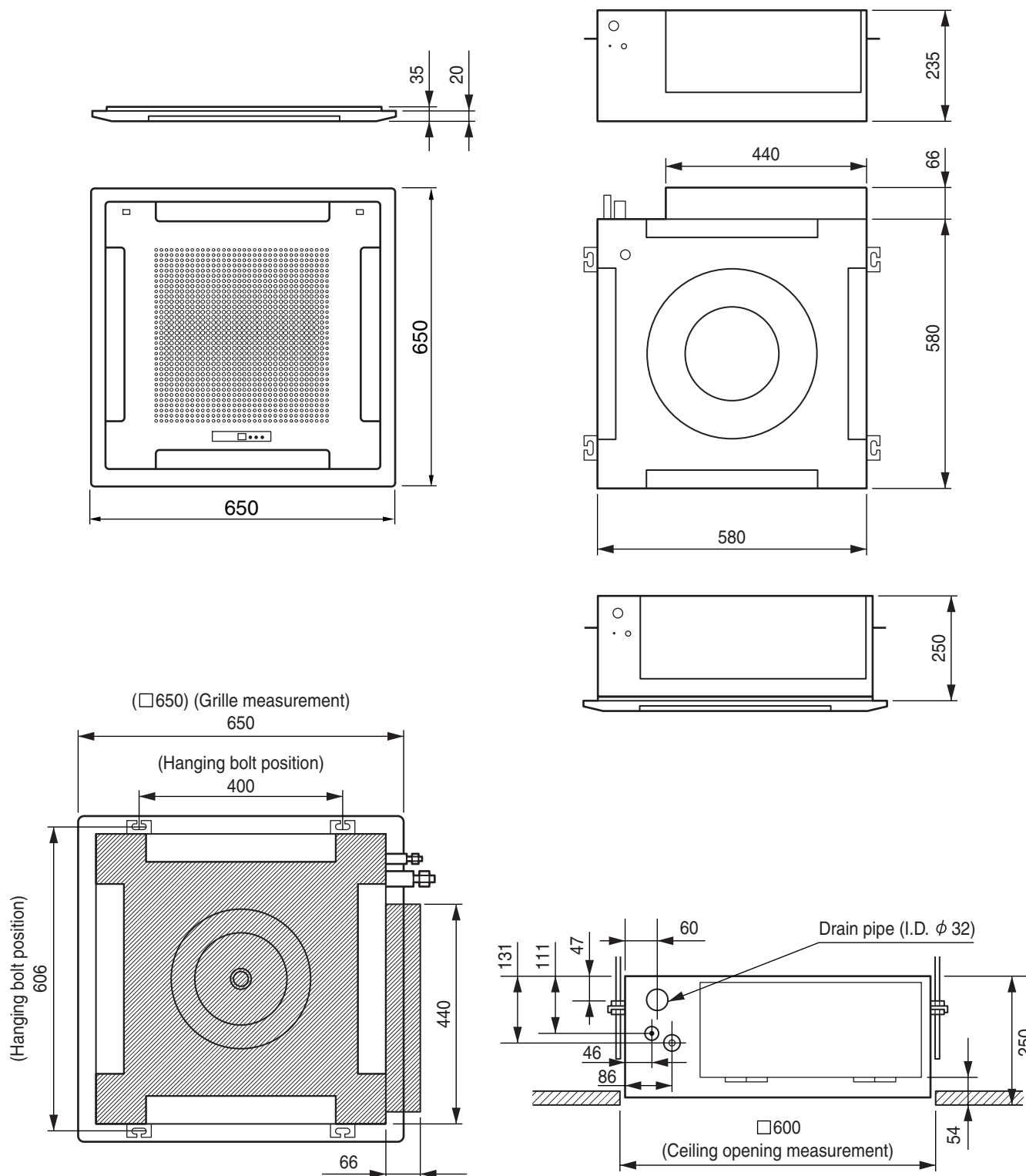
Model : ROM-20UA2



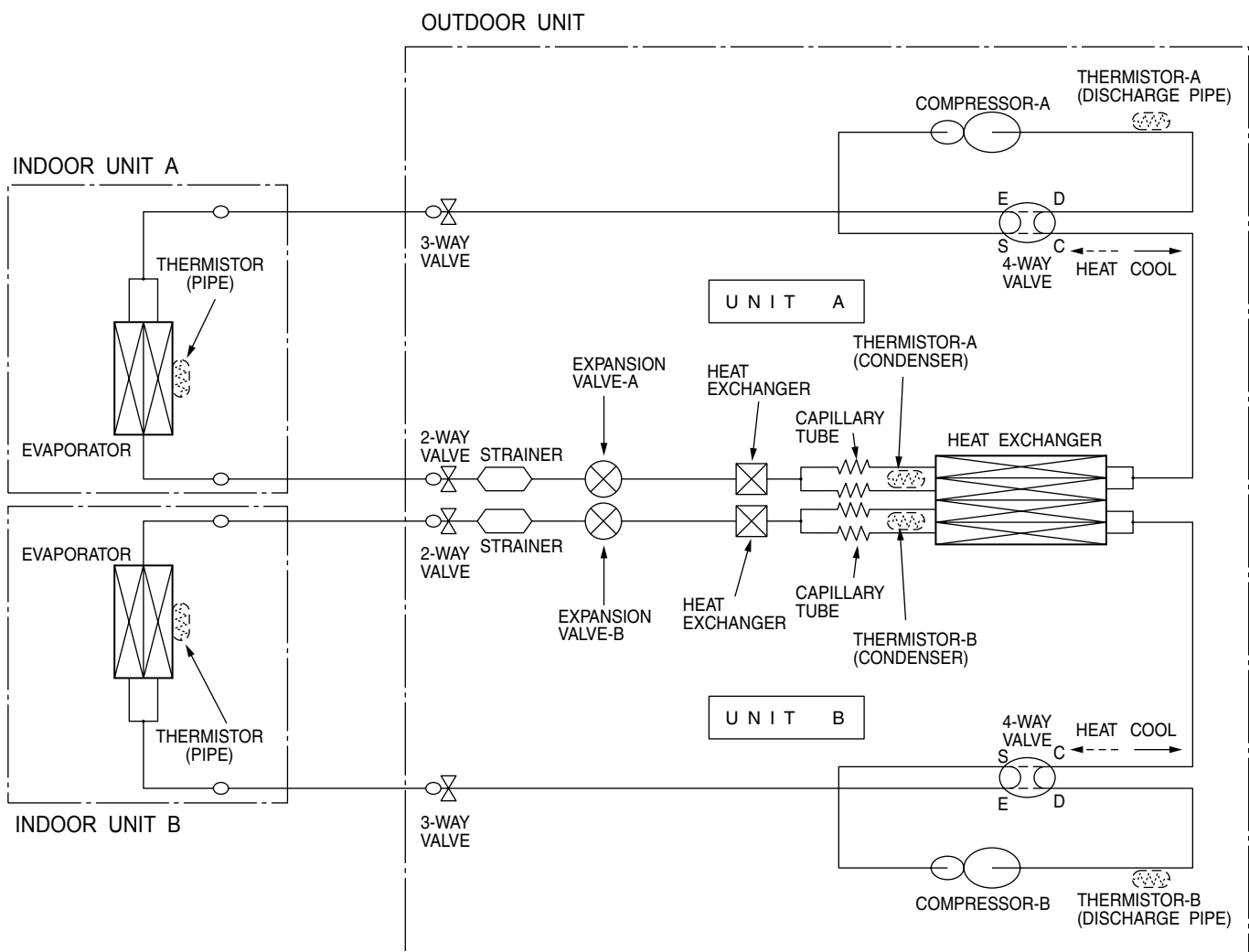
INDOOR UNIT (Cassette type)

(unit : mm)

Model : RCM-12UA



REFRIGERANT SYSTEM DIAGRAM



ERROR DISPLAY

INDOOR UNIT (Wall Mounted type)

○ : Fast flashing ● : Slow flashing

Operation lamp : Red lamp

Timer lamp : Green lamp

Large division indication			Small division indication		
Error contents	LED indication		Error contents	LED indication	
thermistor error	Red lamp Green lamp	● (2 times) ○	thermistor error (room temp.)	Red lamp	○
			thermistor error (heat exchanger)	Green lamp	● (2 times)
control unit error (indoor unit)	Red lamp Green lamp	● (4 times) ○	MANUAL AUTO button error	Red lamp	○
			power source Hz decision error	Green lamp	● (2 times)
serial error	Red lamp Green lamp	● (5 times) ○	serial reverse transmission error	Red lamp	○
			serial order transmission error	Green lamp	● (2 times)
fan motor error (indoor unit)	Red lamp Green lamp	● (6 times) ○	lock error	Red lamp	○
			r.p.m error	Green lamp	● (2 times)
				Red lamp	○
				Green lamp	● (3 times)

When an error occurs, "Large division indication" is indicated first.

Secondly, "Small division indication" is indicated by pushing "Test" button of remote controller.

OUTDOOR UNIT

○ : Fast flashing ● : Slow flashing

LED indication		Contents	
D8	○	Signal reception (from indoor unit A) error	Model information error
	●	—	
D15	○	Signal reception (from indoor unit B) error	0.1s ON/OFF
	●	—	
D10	● (2 times)	Thermistor (discharge pipe) A error	(All LED blink)
	● (3 times)	Thermistor (discharge pipe) B error	
	● (4 times)	Thermistor (heat exchanger) A error	
	● (5 times)	Thermistor (heat exchanger) B error	
	● (6 times)	Thermistor (outdoor temp.) error	
D17		—	
D9	● (2 times)	UNIT A : Heating overload protection	
	● (3 times)	UNIT A : Cooling deicing	
	● (4 times)	—	
	● (5 times)	UNIT A : Discharge temp. protection	
	3s ON / 1s OFF repeated	UNIT A : Heating defrost operation	
D16	● (2 times)	UNIT B : Heating overload protection	
	● (3 times)	UNIT B : Cooling deicing	
	● (4 times)	—	
	● (5 times)	UNIT B : Discharge temp. protection	
	3s ON / 1s OFF repeated	UNIT B : Heating defrost operation	

INDOOR UNIT (CASSETTE TYPE)

○ : Fast flashing ● : Slow flashing

Error display			Error contents
OPERATION lamp	TIMER lamp	SWING lamp	
○	○	Goes off	Model information abnormal (permanent type)
● 4 times	○	Goes off	Drain abnormal (permanent type)
● 6 times	○	Goes off	Indoor fan abnormal
● 2 times	○	Goes off	Room air temperature thermistor open circuit
		○	Room air temperature thermistor short circuit
● 3 times	○	Goes off	Piping thermistor open circuit
		○	Piping thermistor short circuit
● 5 times	○	Goes off	Indoor unit - outdoor unit miswiring

CIRCUIT DIAGRAM

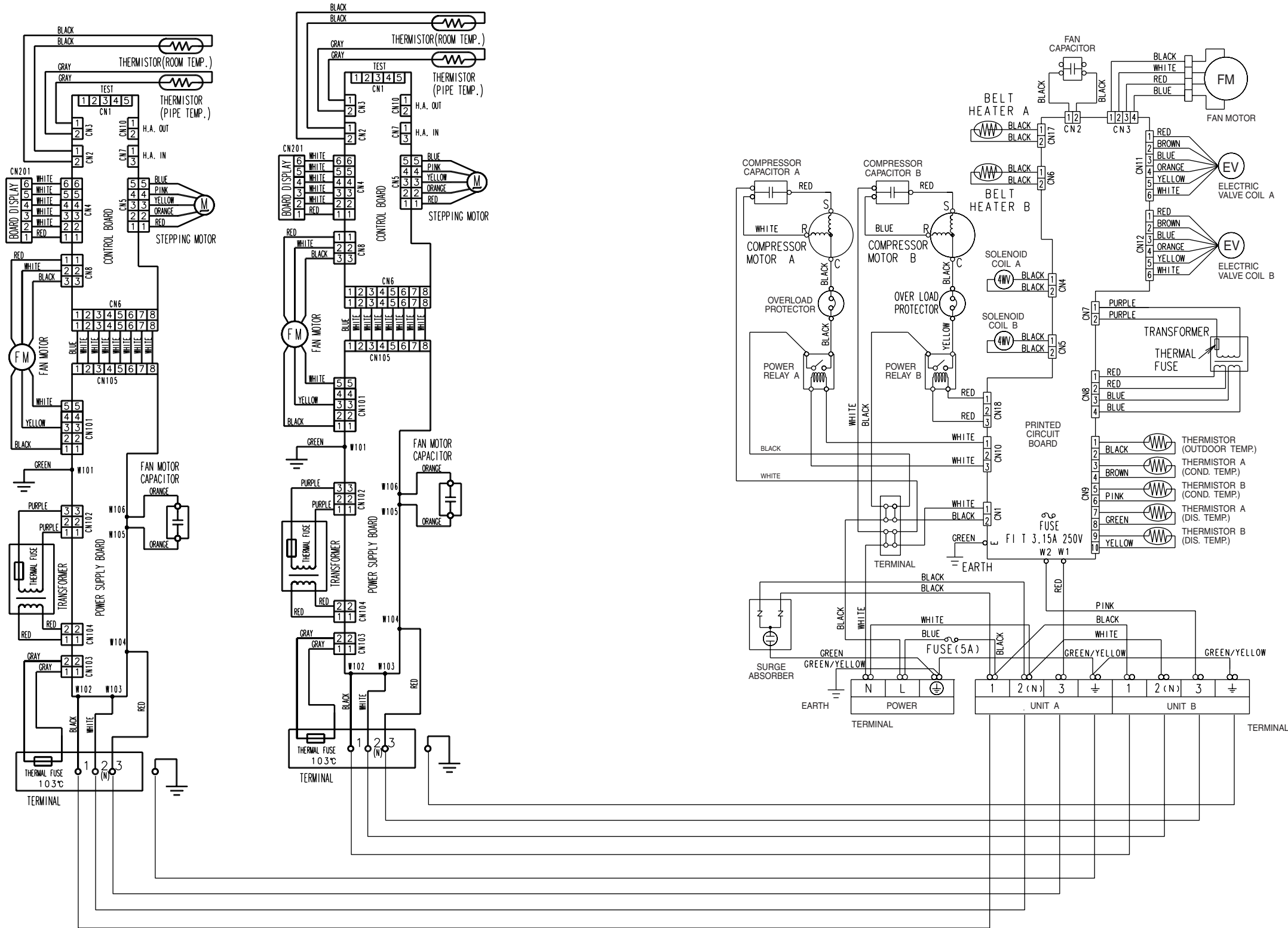
Models : RSM-12UA
RSM-7UA
ROM-20UA2

INDOOR UNIT

OUTDOOR UNIT

UNIT A

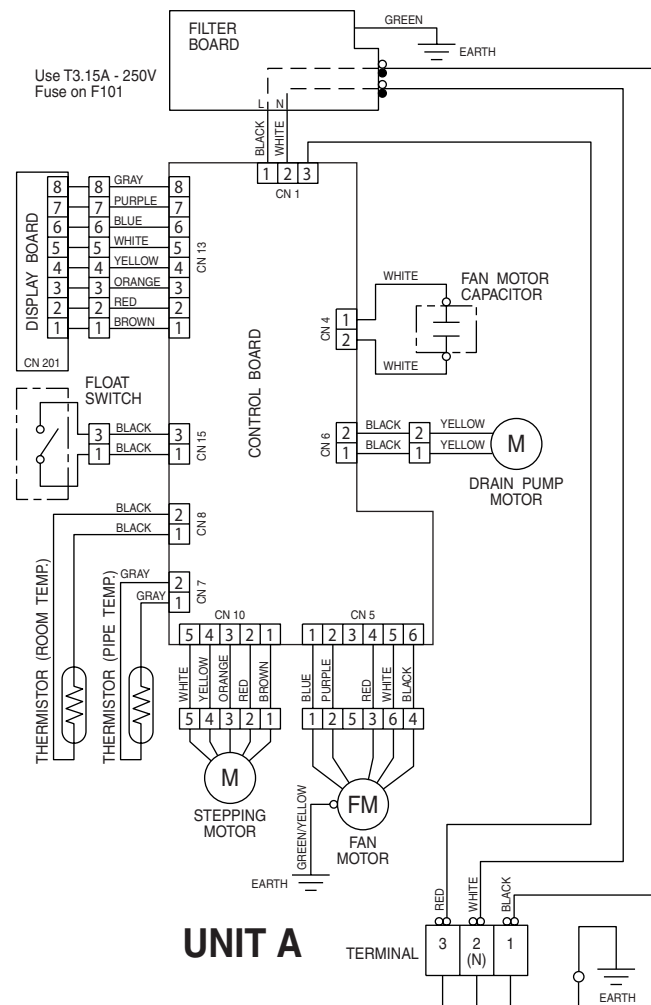
UNIT B



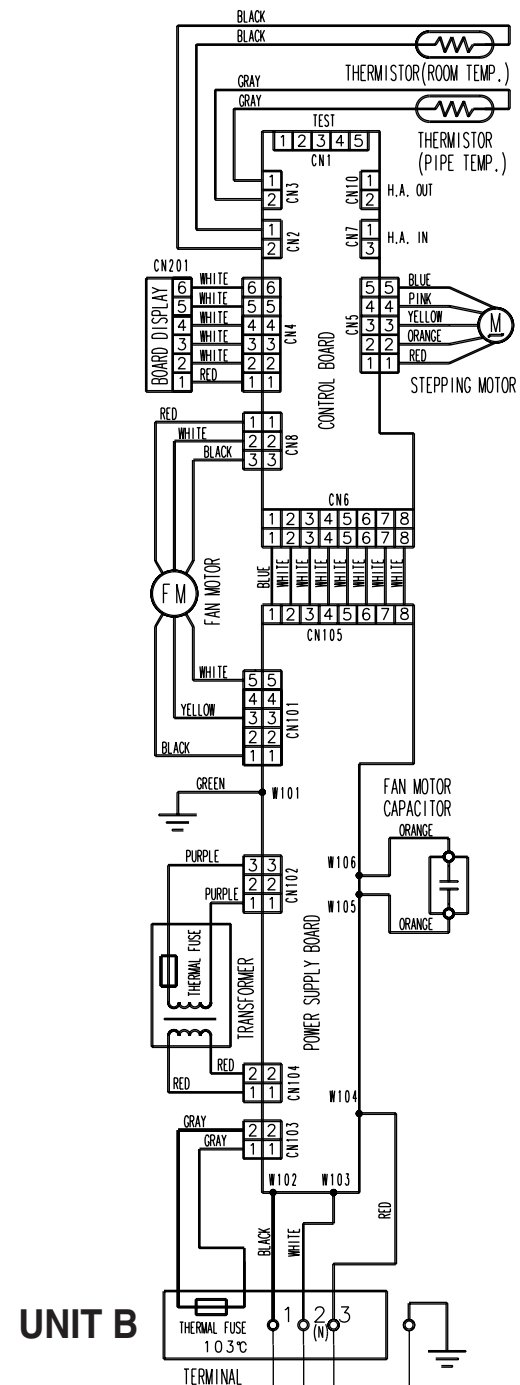
**Models : RCM-12UA
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ROM-20UA2**

INDOOR UNIT

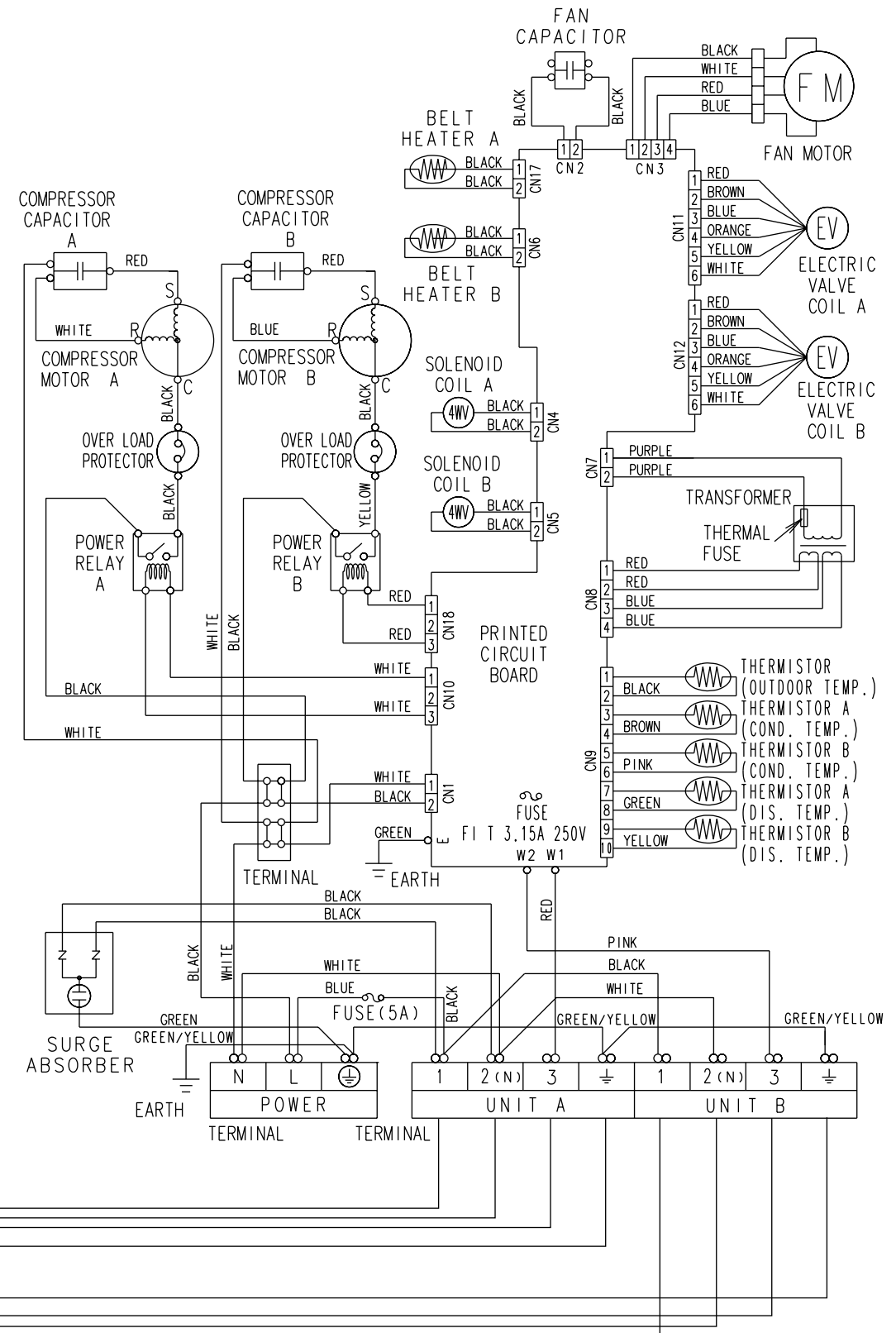
Cassette type



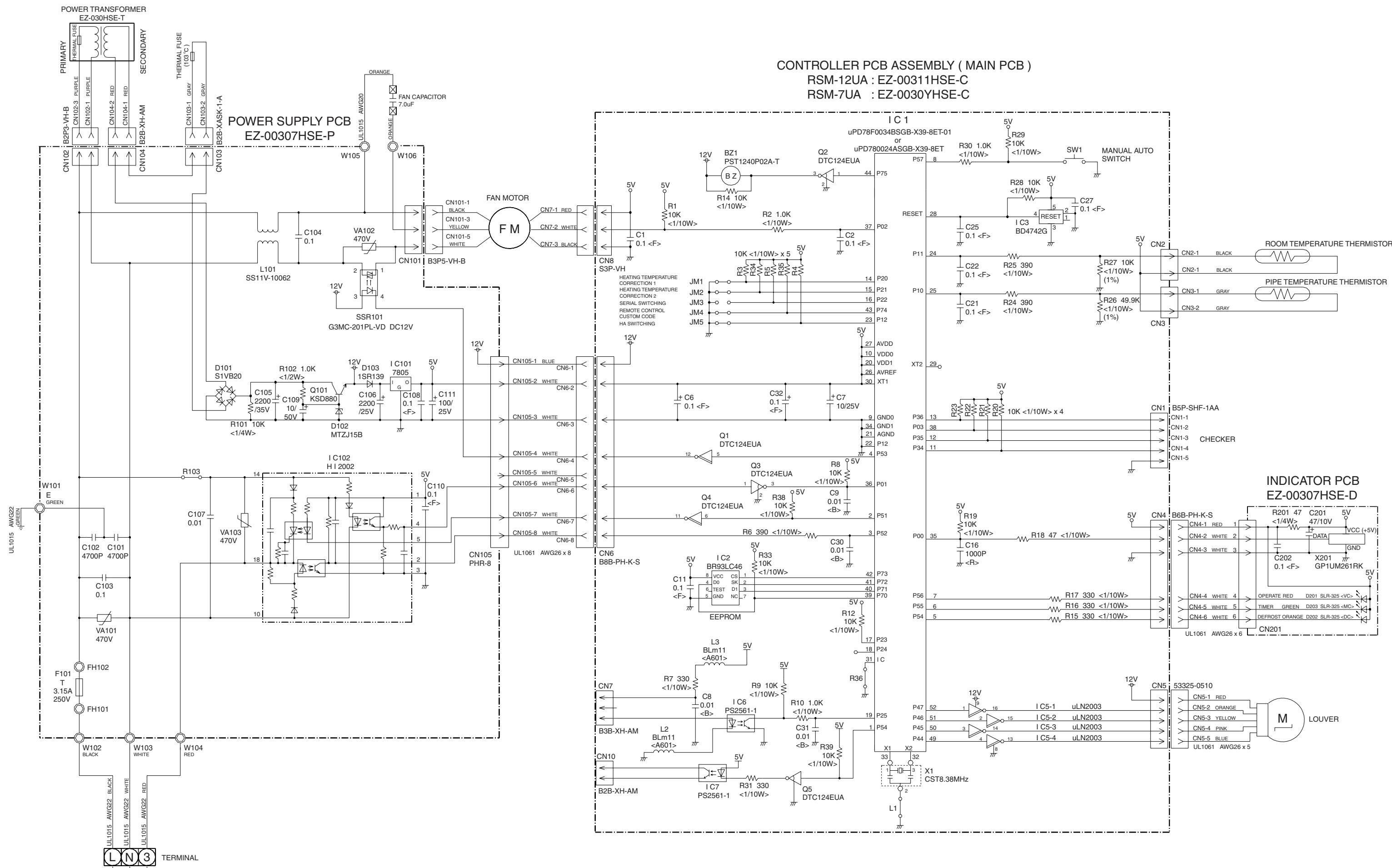
Wall Mounted type



OUTDOOR UNIT



Models : RSM-12UA
RSM-7UA



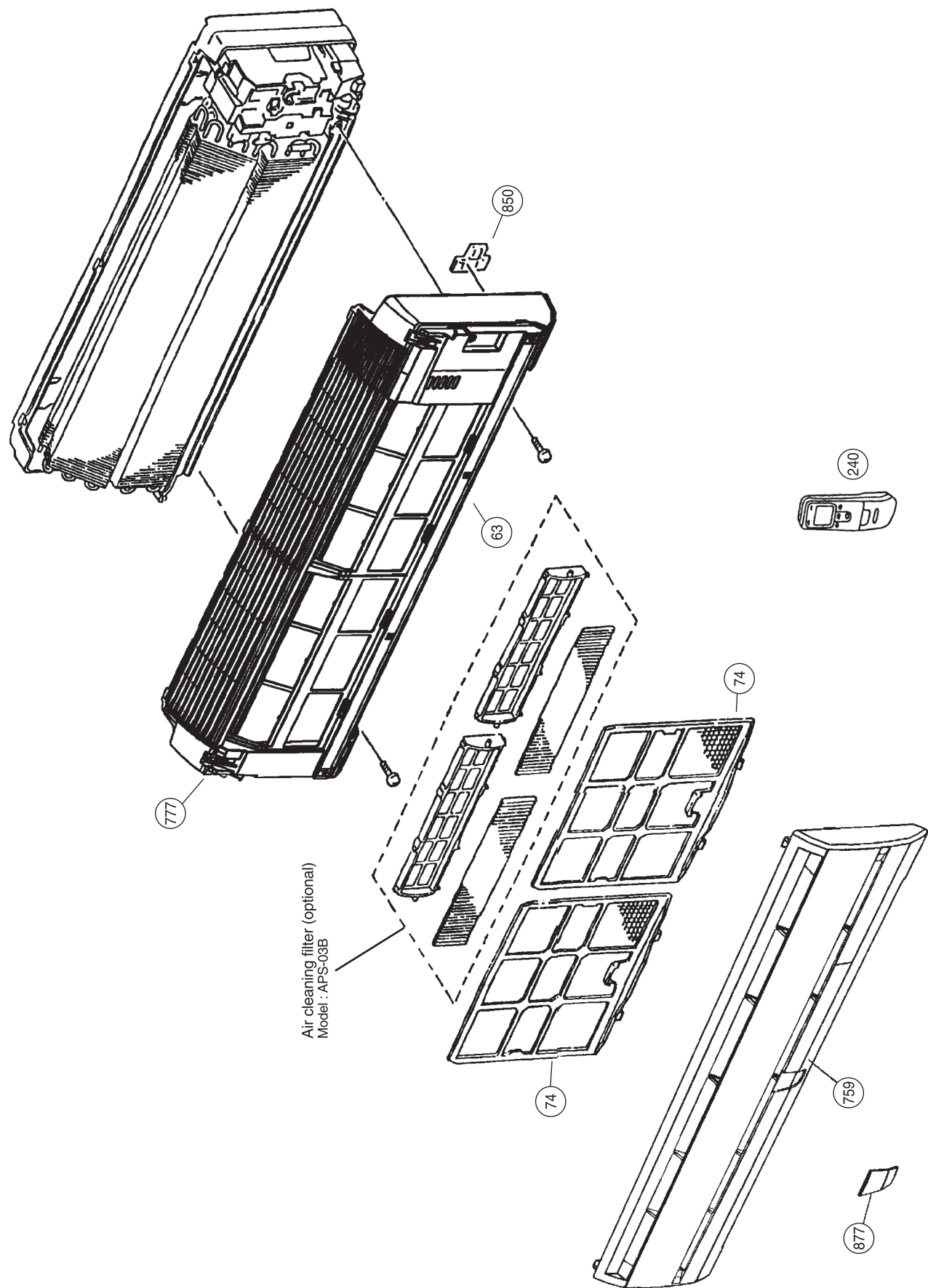
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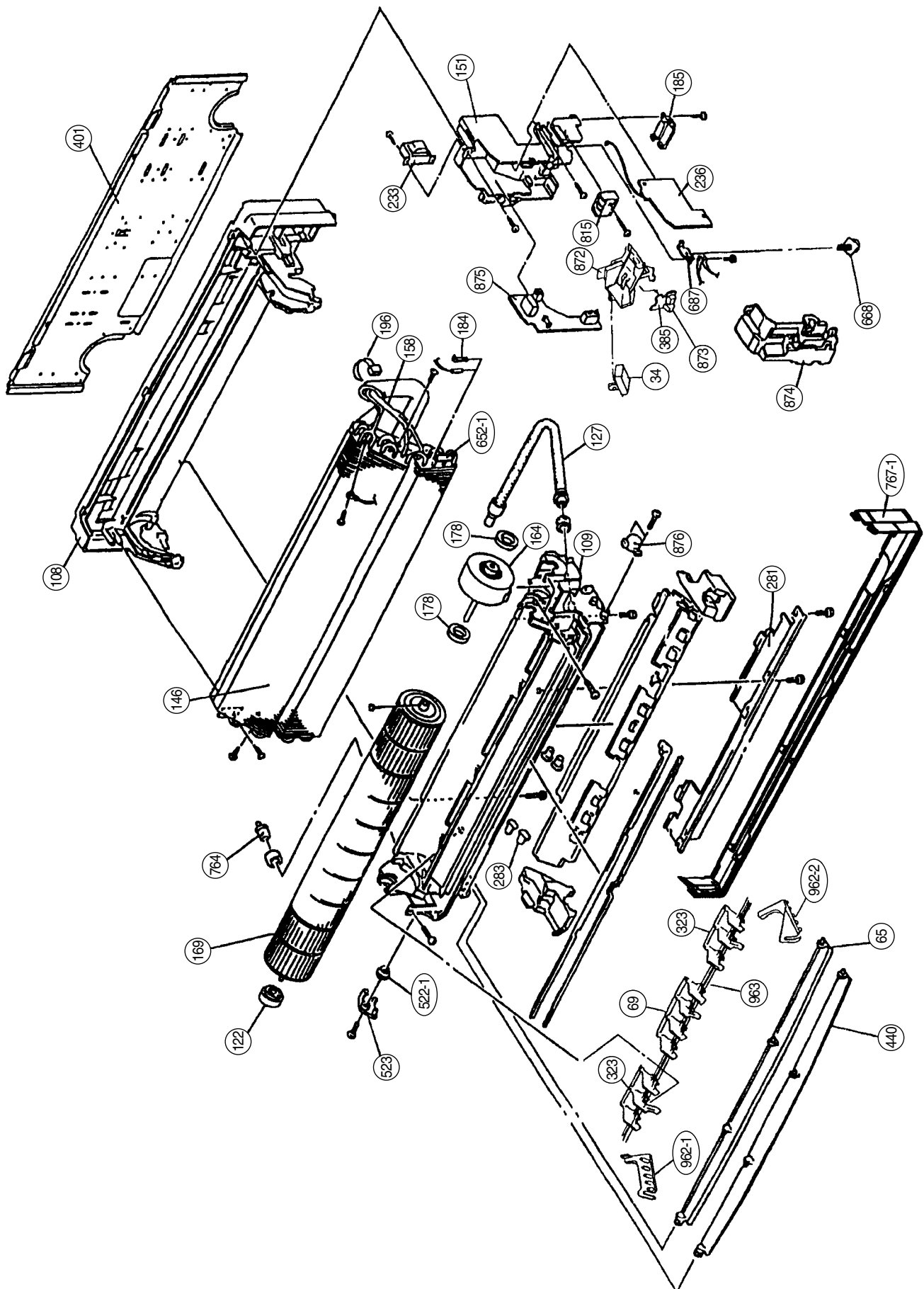


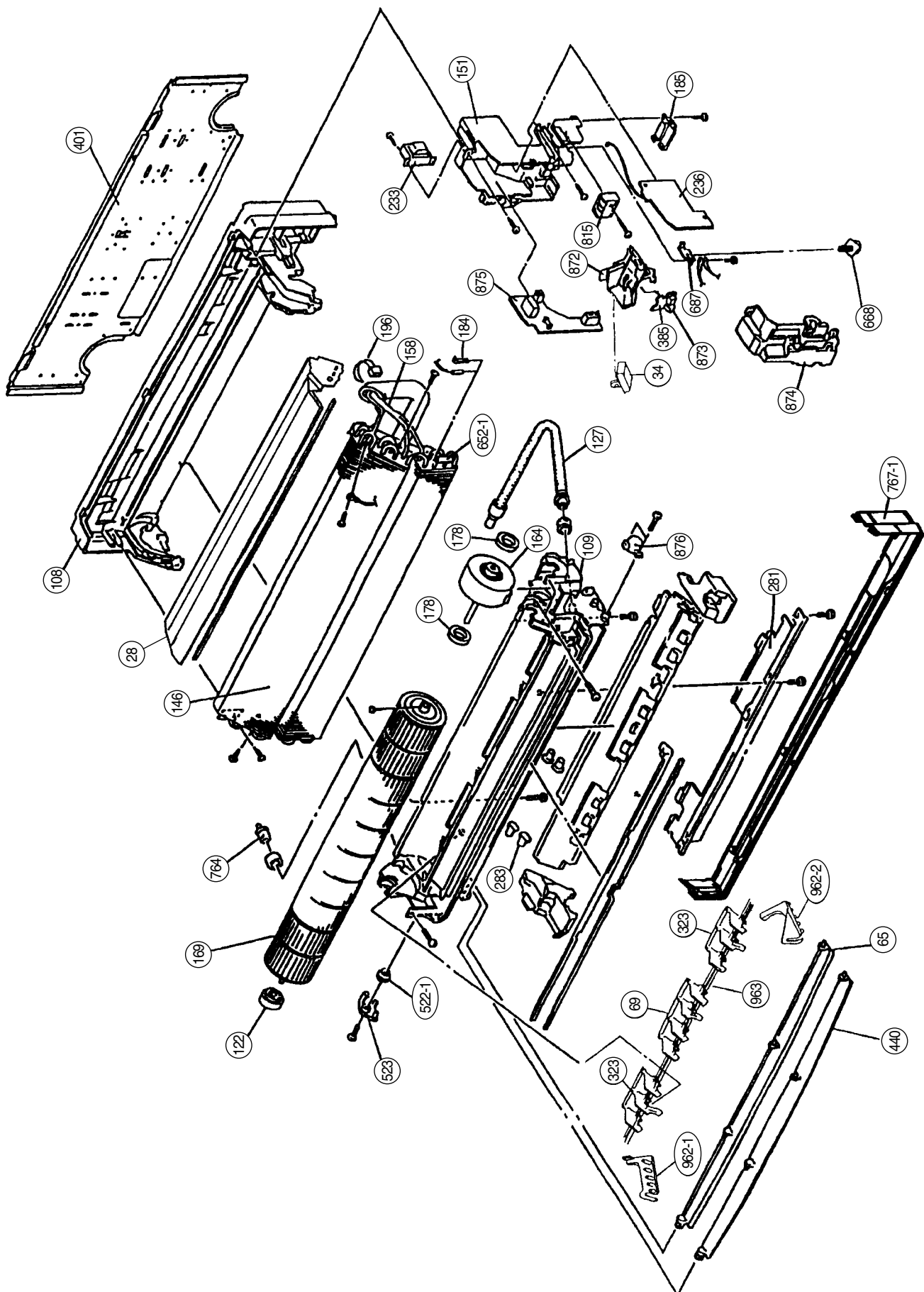
DISASSEMBLY ILLUSTRATION

Models : RSM-12UA
RSM-7UA

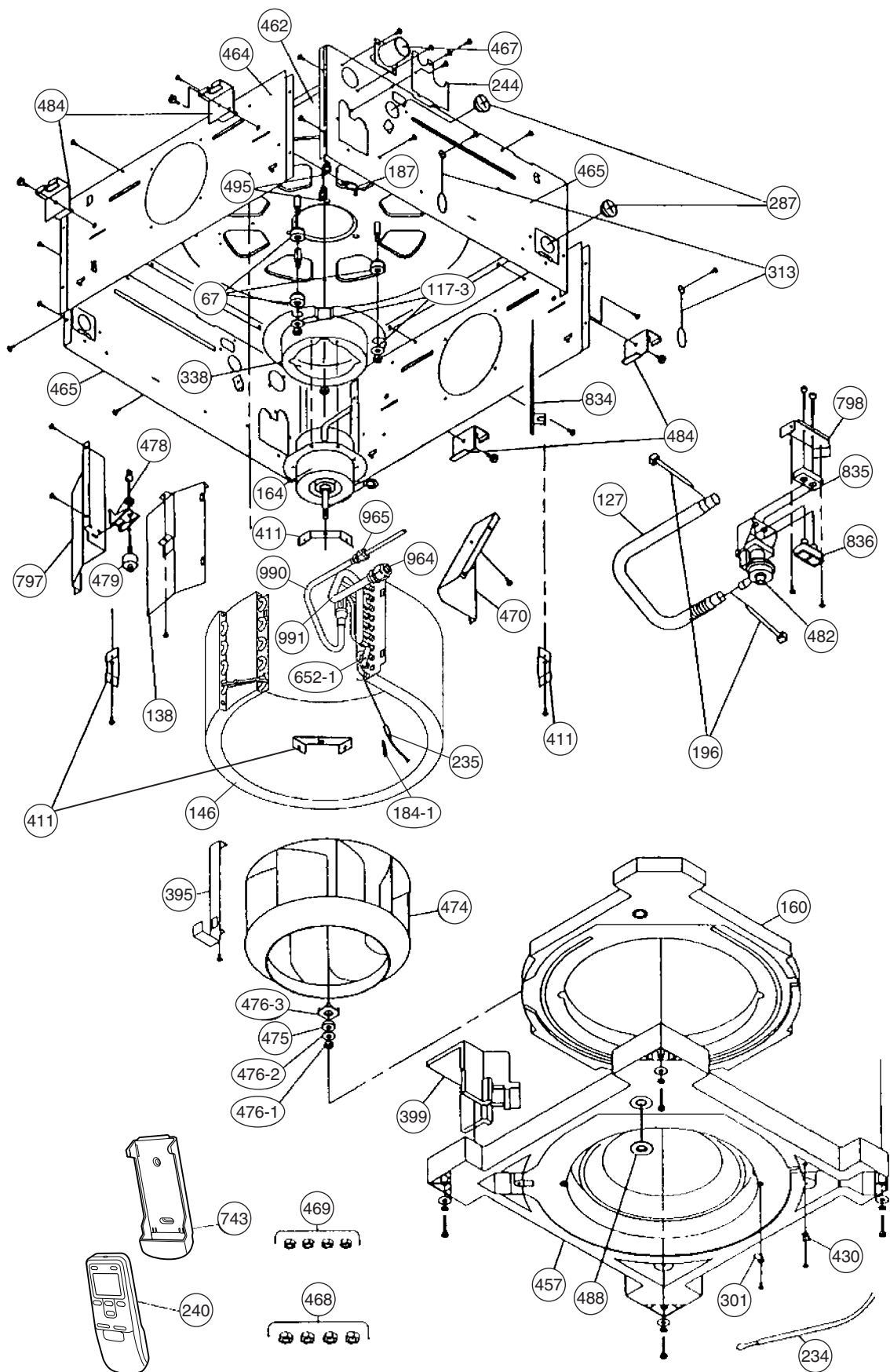


Model : RSM-12UA

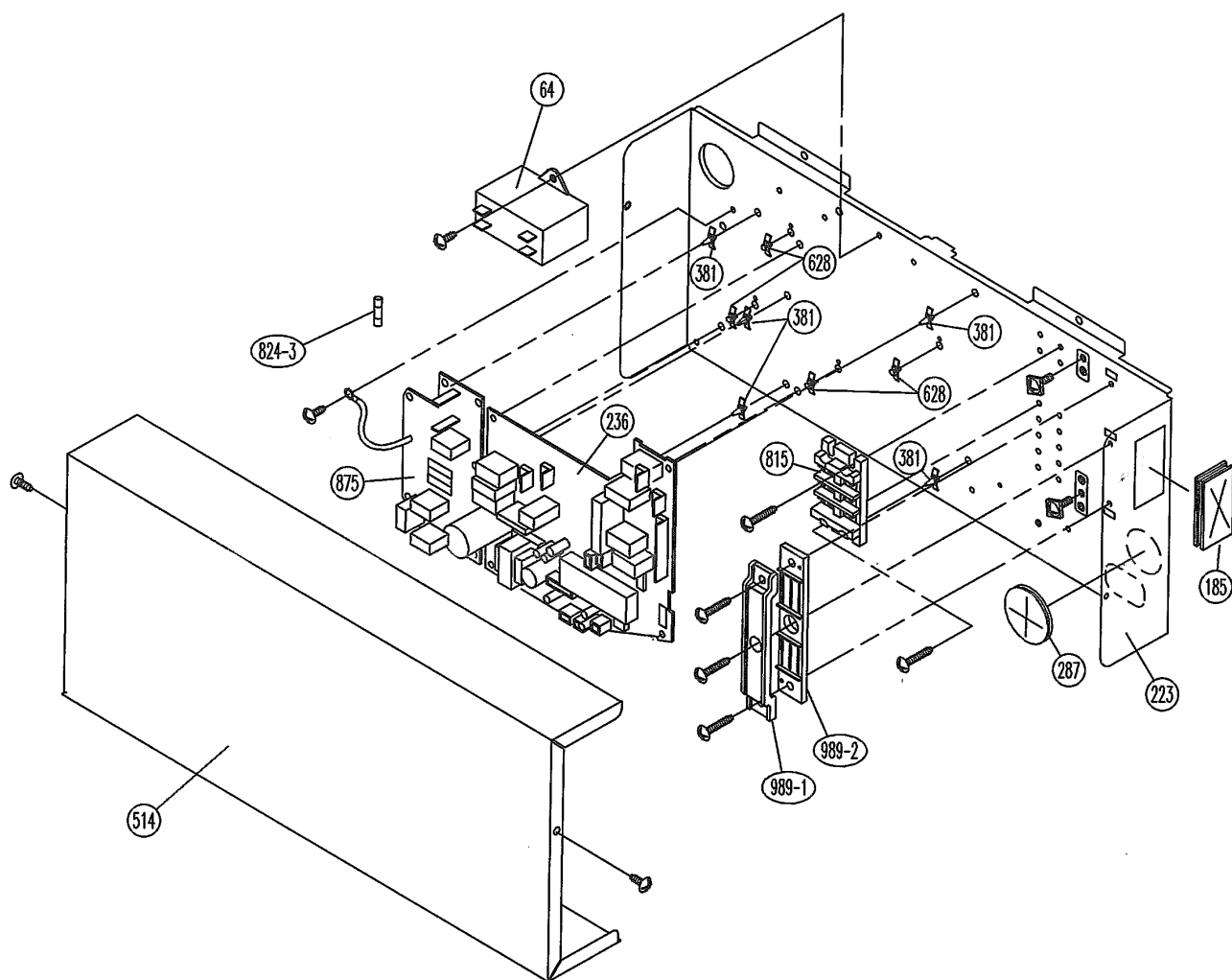


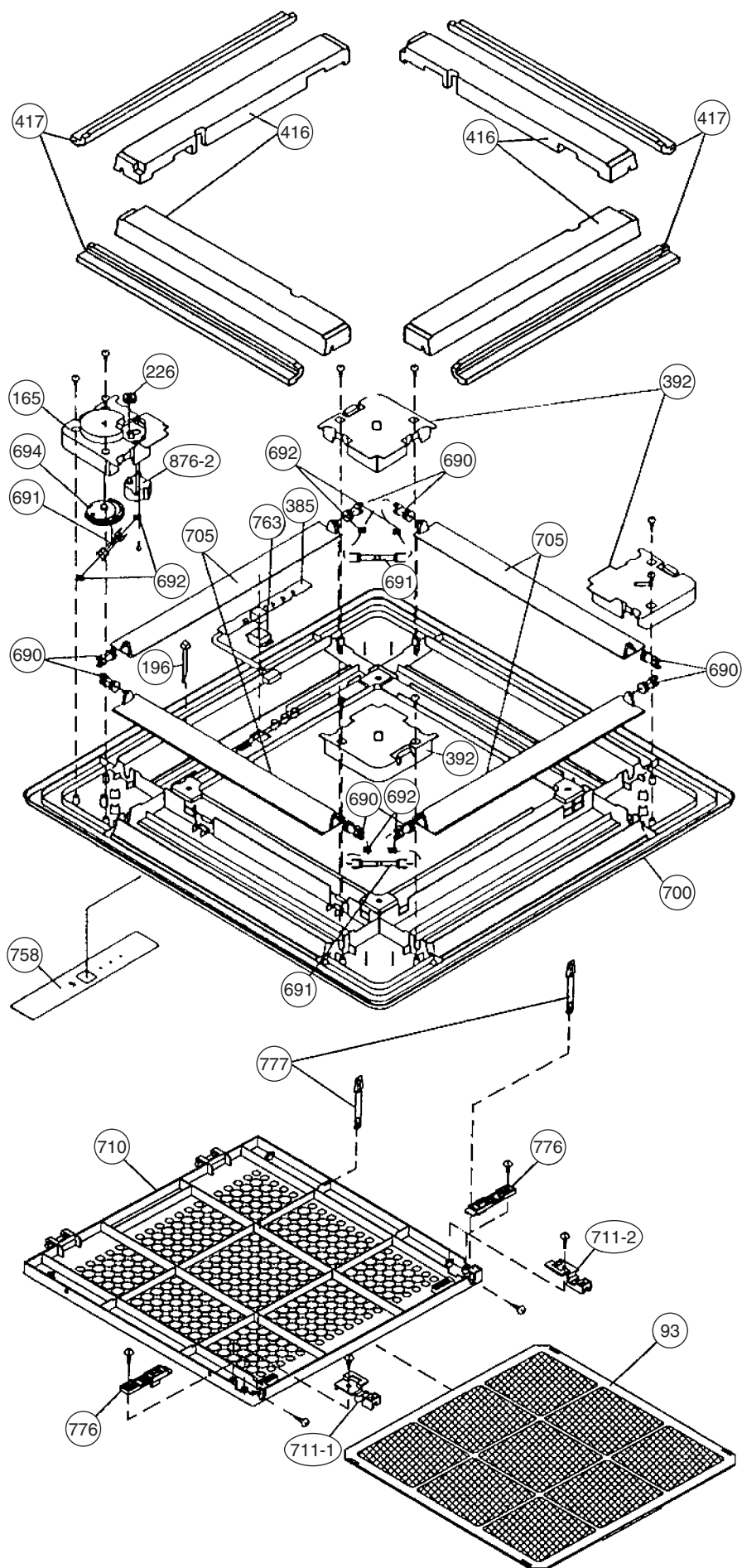


Model : RCM-12UA

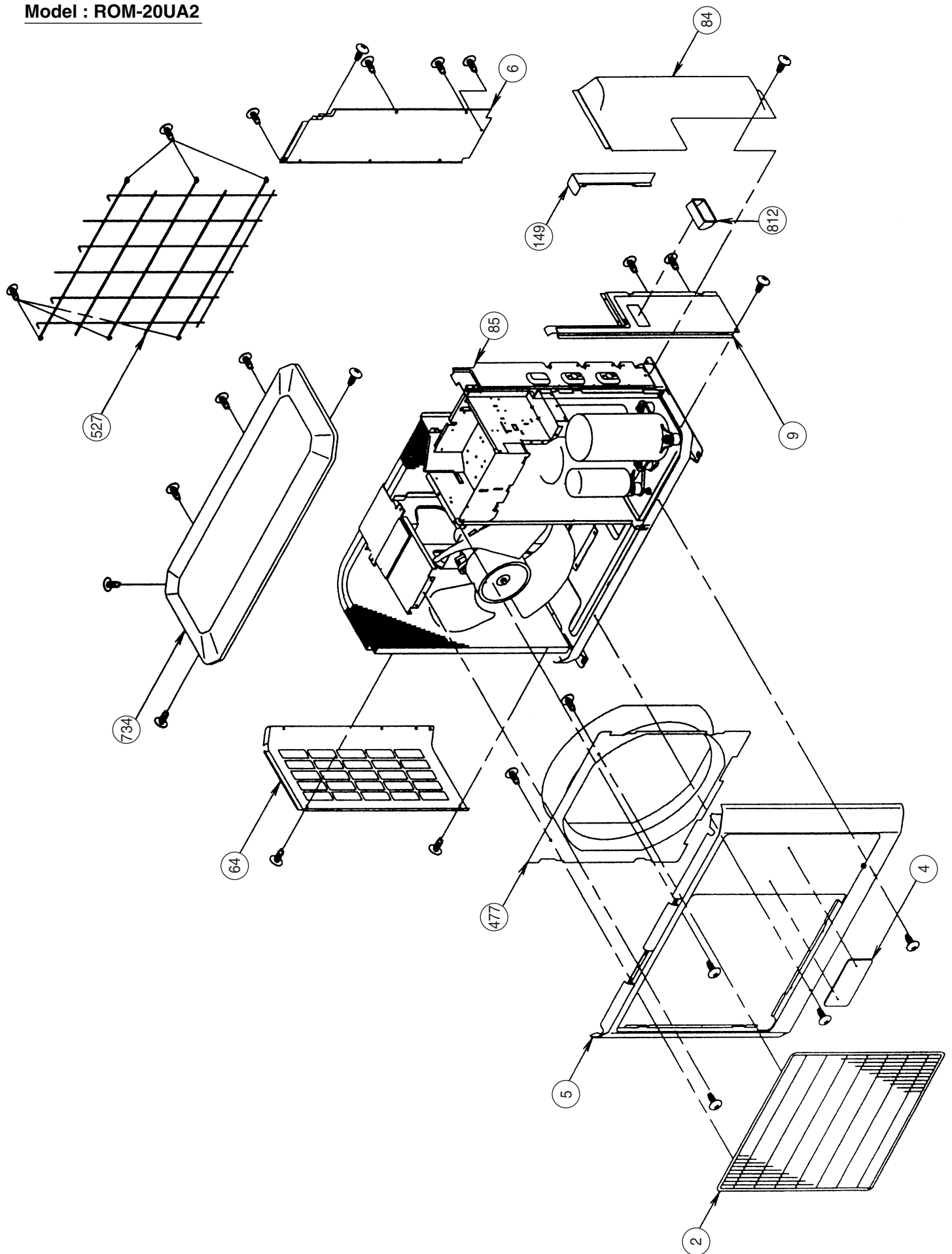


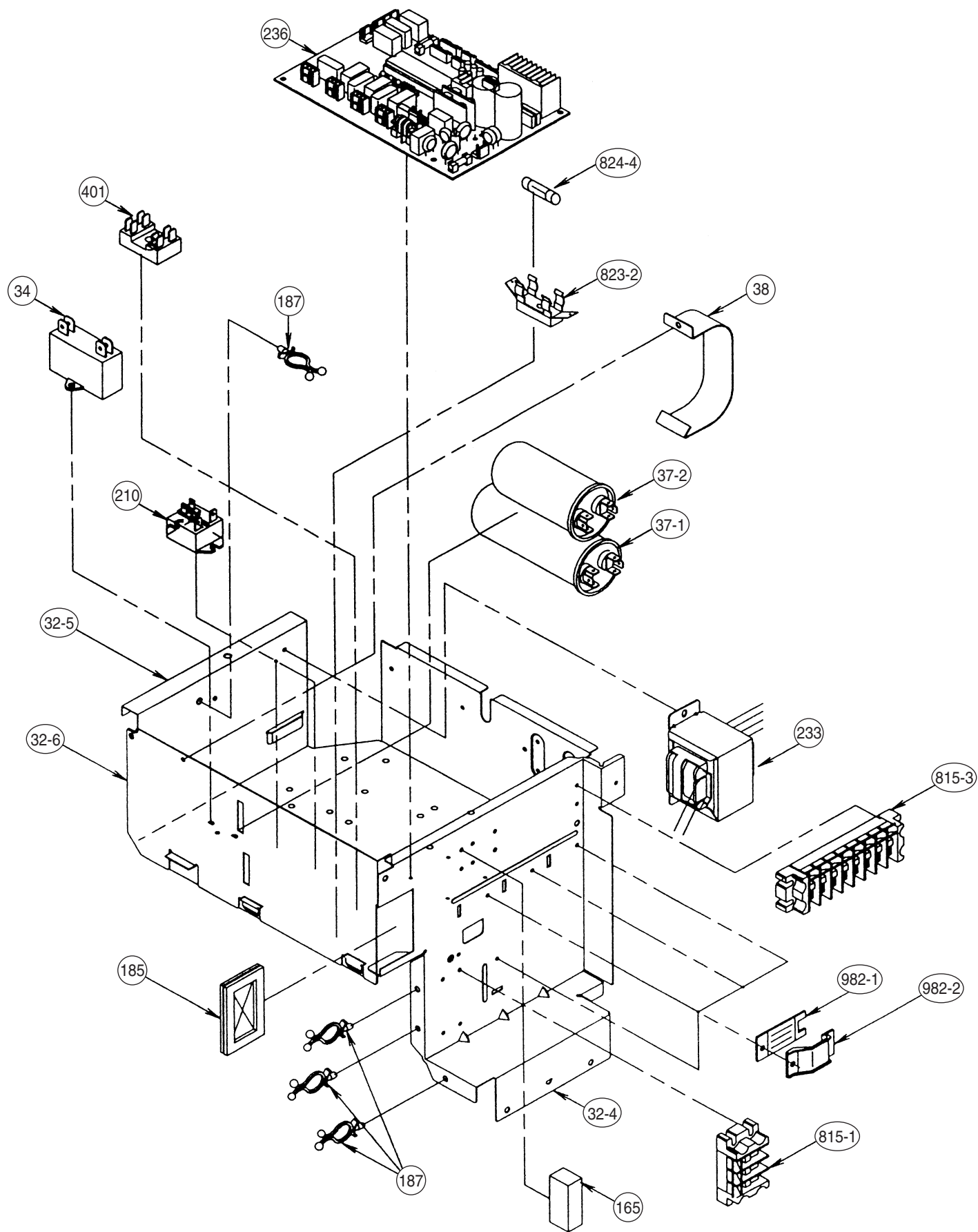
Model : RCM-12UA



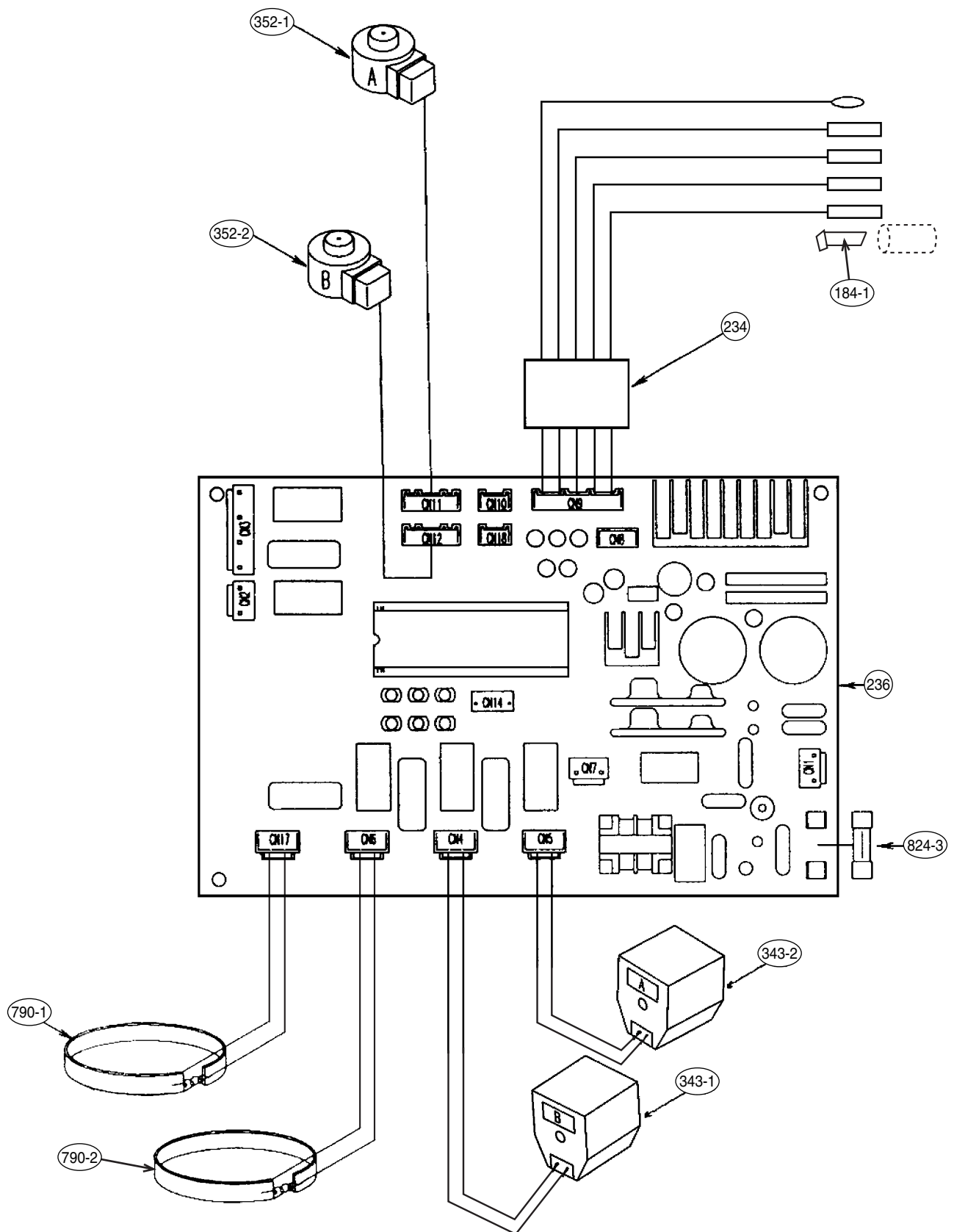


Model : ROM-20UA2

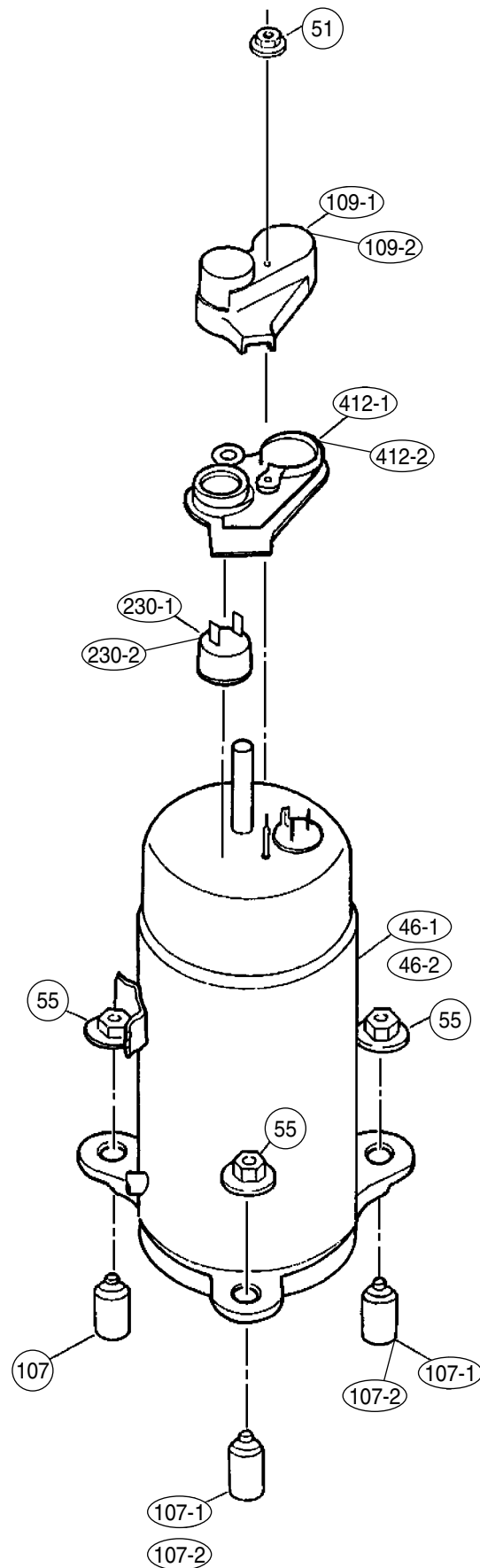




Model : ROM-20UA2



Model : ROM-20UA2



PARTS LIST

INDOOR UNIT

When you order parts, please make a photocopy of this page and fill the number of the parts in the "Order" column.

Ref. No.	Description	Part No.		Ord. Q'ty
		RSM-12UA	RSM-7UA	
28	Blower Cover	-----	9306462000	
34	Capacitor (Fan motor)	9900089061	9900089061	
63	Front Panel Assy	9312172092	9312172092	
65	Flow Control Panel-Z	9306058043	9306058043	
69	Louver-A	9306055028	9306055028	
74	Filter	9305444014	9305444014	
108	Base	9309755062	9309755062	
109	Casing	9306052027	9306052027	
122	Shaft Holder-B	9303066010	9303066010	
127	Drain Hose Assy	9305550029	9305550029	
146	Evaporator Assy	9373044017	9308559036	
151	Control Box	9330007017	9330007017	
158	Connecting Pipe Assy	9306416010	9306698003	
164	Fan Motor Assy-IN	9601172017	9601172017	
169	Cross-Flow Fan Assy	9307836015	9307836015	
178	Motor Cushion-M	9601302018	9601302018	
184	Thermistor Spring	313728262708	313728262708	
185	Wire Clamp	9330015012	9330015012	
196	Clamp SKB-150	313035356905	313035356905	
233	Power Transformer	9701803026	9701803026	
236	Controller PCB Assy	9705289062	9705289048	
240	Remote Control Unit	9307113055	9307113055	
281	BRACKET(PIPE)	9330011014	9330011014	
283	Bushing-A	9303529010	9303529010	
323	Louver-B	9306056025	9306056025	
385	Indicator PCB Assy	9705296015	9705296015	
401	Wall Hook Bracket	9304358008	9304358008	
440	Flow Control Panel-U	9306057046	9306057046	
522-1	Gear-A	9306062002	9306062002	
523	Gear Bracket	9306407001	9306407001	
652-1	Thermistor Holder Pipe	313714262805	313714262805	
668	Screw w/Washer	313681304205	313681304205	
687	Earth Terminal	9330012011	9330012011	
759	Intake Grille	9330002029	9330002029	
764	Drain Cap Assy	9304150008	9304150008	
767-1	Bottom Cover	9330004016	9330004016	
777	CLAMPER(GRILL)	9306755010	9306755010	
815	Terminal	9900040055	9900040055	
850	Window (Receiver)	9330003019	9330003019	
872	Indicator Case	9330009011	9330009011	
873	Lamp Cover	9330014015	9330014015	
874	Control Box Cover	9330008014	9330008014	
875	Power Supply PCB Assy	9705294011	9705294011	
876	Step Motor	9900139018	9900139018	
962-1	Guard Holder-L	9306678012	9306678012	
962-2	Guard Holder-R	9306677015	9306677015	
963	Fan Guard	9305751013	9305751013	

INDOOR UNIT (Cassette type)

When you order parts, please make a photocopy of this page and fill the number of the parts in the "Order" column.

Ref. No.	Description	Part No.	Ord. Q'ty
		RCM-12UA	
64	Capacitor (Fan Motor)	9704305046	
67	Rubber (Vibration-proof)	9361279001	
117-3	Special Washer M6	313306391007	
127	Drain Hose	9359659013	
138	Special Wall-A	9359647003	
146	Evaporator Assy	9373214014	
160	Drain Pan	9359651000	
164	Fan Motor Assy-In	9601040019	
184-1	Thermo. Spring-A	313728262708	
185	Rubber Bushing	313005066051	
187	Clamp No. 1219	313361271706	
223	Control Box	9359661016	
234	Thermistor Assy-Room	9703299032	
235	Thermistor Assy-Pipe	9703297014	
236	PWB Sub Assy	not available	
237	Controller PCB Assy	9704557605	
238	Power PWB Assy	9704561046	
240	Remote Assy	9371190037	
244	Pipe Cover	9359646006	
287	Cap (Power)	9352173011	
301	Clamp NK-2N	313985355201	
313	Hooking Wire	9359983002	
338	Motor Fixture	9359656005	
381	Locking Spacer	313209391506	
395	Eva Holder	9373179016	
399	Air Duct	9359660002	
411	Supporter-A	9359655008	
430	Clamp NK-7N	313095365602	
457	Drain Pan Support	9359652007	
462	Top Cover Plate	9359642015	

Ref. No.	Description	Part No.	Ord. Q'ty
		RCM-12UA	
464	Body-A	9359643005	
465	Body-B	9359645009	
467	Drain Port	313005415658	
468	Special Nut-A (Large)	313005446653	
469	Special Nut-B (Small)	313005446759	
470	Separate Wall-B	9359648000	
474	Turbo Fan	9359658009	
475	Cushion(Turbo Fan)	9366013006	
476-1	Special Nut M8	313005360755	
476-2	Special Washer	301801185049	
476-3	Special Washer	9359954002	
478	Sensor M. Bracket	9359654001	
479	Float Switch	313005416154	
482	Pump Unit	9359974000	
484	Hanger Metal	9359644002	
488	Drain Pan Plug	9359653004	
495	Clamp No. 2U46	9352715006	
514	Control Box Cover	9359662006	
628	Locking Spacer-B	313005446558	
652-1	Thermistor Holder Pipe	313806262805	
743	Remocon Holder	9305642014	
797	Separate Wall-C	9359649007	
798	Pump Hook Bracket	9359650003	
815	Terminal-3P	9900203016	
824-3	Fuse	0600222512	
834	Wire Cover	9359878001	
835	Cushion-A (For Pump)	9352211003	
836	Cushion-B (For Pump)	9356084016	
875	Filter PCB Assy	9704561046	
964	Flare Nut-A	not available	
965	Flare Nut-B	9351062019	
989-1	Cord Clamp-A	9359822011	
989-2	Cord Clamp-B	9359823018	
990	Distributor Assy	9373034049	
991	Coupling Pipe Assy	not available	

GRILLE ASSY

Ref. No.	Description	Part No.	Ord. Q'ty
93	Filter	9359632009	
165	Motor Cover	9359623014	
196	Clamp SKB-150	313035356905	
226	Motor Gear	9359629009	
385	Indicator PCB Assy	9702224011	
392	Cover-A	9359622017	
416	Insulation (Panel)-A	9359620006	
417	Insulation (Panel)-B	9359621003	
690	Joint-A	9359626008	
691	Joint-B	9359627005	

Ref. No.	Description	Part No.	Ord. Q'ty
692	Joint Shaft	9359625001	
694	Cam Gear	9359628002	
700	Panel	9359619017	
705	Louver	9359624011	
710	Intake Grille	9370126006	
711-1	Filter Clamp-A	9359634003	
711-2	Filter Clamp-B	9359635000	
758	Decoration Plate-A	9360039019	
763	Receiver Cover	9359630005	
776	Grille Stopper	9359633013	
777	Grille Hook	9359761006	
876-2	Step Motor	9360307019	

OUTDOOR UNIT

Ref. No.	Description	Part No.	Ord Q'ty
		ROM-20UA2	
2	Fan Cover	9371187013	
4	Emblem "FUJI"	9361328006	
5	Cabinet-A, Painted	9359797043	
6	Cabinet-C, Painted	9359825029	
9	Cabinet-B, Painted	9359824022	
12	Base Assy, Painted	9359813019	
13-1	3-Way Valve	9372205044	
14-2	2-Way Valve	9372204054	
15	Strainer Assy	9366602019	
16	Condenser Assy	9373071013	
18-1	Suction Pipe-A Assy	9372997062	
18-2	Suction Pipe-B Assy	9373070078	
26	Compressor Cover	9364595009	
29	Separate Wall	9359805014	
32-4	Control Box Metal-D	9361247000	
32-5	Control Box Metal-E	9361248007	
32-6	Control Box Metal-F	9361249004	
34	Capacitor (Fan Motor)	9704305015	
37-1	Running Capacitor	9704436122	
37-2	Running Capacitor	9704436016	
38	Clamp Metal (Capacitor)	9352123009	
39	Propeller Fan	9359837015	
41-1	Fan Motor Induction-Out (MFB-30DFT)	9600832011	
41-2	Fan Motor Induction-Out (MFB-30NTAT)	9601754015	
45-3	Motor Bracket-A	9369627002	
45-4	Motor Bracket-B	9371439013	
45-5	Motor Bracket-C	9369629006	
45-6	Motor Bracket-D	9369630002	
45-7	Motor Bracket center da	9373076018	
46-1	Compressor Assy (802 354 35B)	9373010012	
46-2	Compressor Assy (802 100 65B)	9373010036	
51	Special Nut (For Comp.)	313199233602	
55	Special Nut M8 (For Comp.)	9355091008	
64	Cabinet-Left, Painted	9359840046	
84	Valve Cover	9359834014	
85	Valve Plate Assy, Painted	9361251021	
107-1	Rubber Seat (For Comp.) A (UNIT A)	9351813017	
107-2	Rubber Seat (For Comp.) A (UNIT B)	9351507015	
109-1	Terminal Cover (Comp.) (UNIT A)	9351120009	
109-2	Terminal Cover (Comp.) (UNIT B)	9302419008	
117-3	Hex. Nut	301721180114	
149	Water Seal Plate	9359841029	
165	Surge Absorber	9702968014	
184-1	Thermo. Spring-A	313728262708	
185	Rubber Bushing	313005066051	
187	Clamp No. 1219	313361271706	
210	Main Relay	9356781007	
230-1	Ocr Assy (MRA99908-9201) (UNIT A)	9312899005	
230-2	Ocr Assy (MRA99170-9201) (UNIT B)	9309128002	
233	Power Transformer	9701156016	

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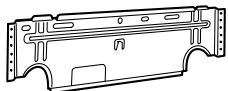
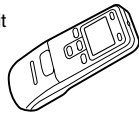
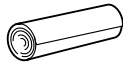
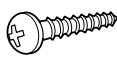
OUTDOOR UNIT (Continued)

Ref. No.	Description	Part No.	Ord Q'ty
		ROM-20UA2	
234	Thermistor Assy	9900123017	
236	Controller PCB Assy	9702766047	
328	Compressor Plate Assy	9359830023	
343-1	Solenoid Coil-A	9900165055	
343-2	Solenoid Coil-B	9900165062	
344-2	4-Way Valve	9900162016	
352-1	Expansion Coil-A	9970021015	
352-2	Expansion Coil-B	9970021022	
401	Terminal-2P	9701971015	
412-1	Terminal Gasket (comp) (UNIT A)	9351121006	
412-2	Terminal Gasket (comp) (UNIT B)	9351505011	
450-2	Discharge Pipe-A Assy	9372997017	
450-3	Discharge Pipe-B Assy	9373070054	
477	Bellmouth	9359809012	
527	Protective Net	9359845010	
646	NOISE INSULATION B	9355788007	
653-1	Bolt (Fan Motor Fixing) CUP SCREW	9385089020	
678	Bracket (Thermistor)	9367369010	
734	Top Plate, Painted	9359799023	
790-1	Belt Heater (UNIT A)	9361140141	
790-2	Belt Heater (UNIT B)	9361140172	
812	Grip	9352157004	
815-1	Terminal-3P	9358660027	
815-3	Terminal-8P	9358660119	
823-2	Fuse Holder	0500063024	
824-3	Fuse (3.15A-250V)	0600222512	
824-4	Fuse (5A-250V)	0600222529	
825	Expansion Valve	9970020018	
825-1	Expansion Valve-A Assy	9360821065	
825-2	Expansion Valve-B Assy	9360822062	
827	Capillary-A Assy	9360814135	
828	Capillary-B Assy	9360815132	
829-2	MUFFLER A SUB ASSY	9373022015	
829-5	2 WAY VALVE PIPE A1	9372996362	
830-2	MUFFLER B SUB ASSY	9373023012	
830-5	2 WAY VALVE PIPE B1	9372996386	
838-1	INLET PIPE A ASSY	9360832047	
838-2	DISCHARGE PIPE A3	9372996041	
840-1	INLET PIPE B ASSY	9360833051	
840-2	DISCHARGE PIPE B3	9372996089	
982-1	Cord Clamp	9356857009	
982-2	Cord Clamp-B	9356858006	
990-1	SUCTION PIPE A3	9372996423	
990-2	SUCTION PIPE A4	9372996430	
991-1	SUCTION PIPE B3	9372996461	
991-2	SUCTION PIPE B4	9372996478	

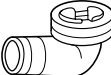
When you order parts, please make a photocopy of this page and fill the number of the parts in the "Order" column.

STANDARD ACCESSORIES

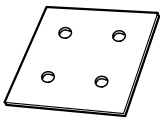
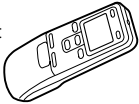
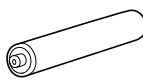
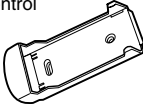
INDOOR UNIT ACCESSORIES (Wall Mounted type)

Name and Shape	Q'ty	Part No.
Wall hook bracket 	1	9304358008
Wall cap-B 	1	313714296205
Remote control unit 	1	9307113055 (AR-DB5)
Battery (penlight) 	1 set	0600185534
Remote control unit holder 	1	9305642014
Cloth tape 	1	9308117007
Tapping screw (big) (ø4 x 25) 	8	0700076046
Tapping screw (small) (ø3 x 12) 	2	0700019036

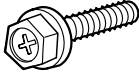
OUTDOOR UNIT ACCESSORIES

Name and Shape	Q'ty	Part No.
Binder 	2	312300787605
Putty 	1	303020200114
Hexagon wrench 	1	9351228019
Drain pipe 	1	9303029015
Drain cap 	2	313166024302

INDOOR UNIT ACCESSORIES (Cassette type)

Name and Shape	Application	Part No.
Coupler heat insulation 	For indoor side pipe joint	9350716029
		9352766015
Special nut A (large flange) 	For installing indoor unit	313005446653
Special nut B (small flange) 	For installing indoor unit	313005446759
Template 	For ceiling hole cutting	9360256003
Remote control unit 	Use for air conditioner operation	9371190037 (Cooling & Heating model)
Battery (penlight) 	For remote control unit	0600185534
Remote control unit holder 	For mounting the remote control unit	9305642014
Tapping screw (ø 3 x 12) 	For remote control unit holder installation	301141533125

GRILLE ASSY ACCESSORIES

Name and Shape	Application	Part No.
Bolt 	For opening the refrigerant valve on the outdoor unit	0700139116
Washer 	For mounting grille	301801155020
Blower cover insulation 	For discharged air	9360047007

