



FUJI ELECTRIC

SPLIT TYPE ROOM AIR CONDITIONER FLOOR CONSOLE / UNDER CEILING DUAL type (50Hz)

SERVICE MANUAL

| Models | Indoor unit | Outdoor unit |
|--------|-------------|--------------|
| | RYT-24AB | ROW-24AB |

C O N T E N T S

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Большая библиотека технической документации

<https://splitsystema48.ru/instrukcii-po-ekspluatácii-kondicionerov.html>

каталоги, инструкции, сервисные мануалы, схемы.

S P E C I F I C A T I O N S

| | | |
|------------------|-----|---------------|
| TYPE | | COOLING |
| INDOOR UNIT | | RYT-24AB |
| OUTDOOR UNIT | | ROW-24AB |
| COOLING CAPACITY | (W) | 6,550 - 6,750 |

ELECTRICAL DATA

| | | |
|--------------------|----------|---------------|
| POWER SOURCE | (V) | 220 - 240 |
| FREQUENCY | (Hz) | 50 |
| RUNNING CURRENT | (A) | 13.2 - 13.4 |
| INPUT WATTS | (W) | 2,670 - 2,780 |
| EER | (W/W) | 2.45 - 2.42 |
| MOISTURE REMOVAL | (l /hr) | 3.4 |
| AIR CIRCULATION-Hi | (m³/hr) | 900 |

COMPRESSOR

| | | |
|-------------|----------|--|
| TYPE | | Hermetic type, Permanent split condenser, 2 pole, Single phase, Induction motor |
| CODE | | 2JS438D5AA02 |
| REFRIGERANT | R-22 (g) | 1,870 |

FAN MOTOR

| | | |
|--------------|--------------------|-----------|
| POWER SOURCE | (V) | 240 |
| INDOOR UNIT | TYPE | MFA-24CTA |
| | HI-SPEED (r.p.m.) | 1,180 |
| | MED-SPEED (r.p.m.) | 1,040 |
| | LO-SPEED (r.p.m.) | 900 |
| OUTDOOR UNIT | TYPE | MFB-247FB |
| | FAN SPEED (r.p.m.) | 735 |

DIMENSIONS

| | | |
|--------------|----------------|-----------------|
| INDOOR UNIT | H x W x D (mm) | 199 x 990 x 655 |
| OUTDOOR UNIT | | 643 x 840 x 336 |

WEIGHTS

| | | |
|--------------|------------------|---------|
| INDOOR UNIT | GROSS / NET (kg) | 39 / 30 |
| OUTDOOR UNIT | | 68 / 60 |

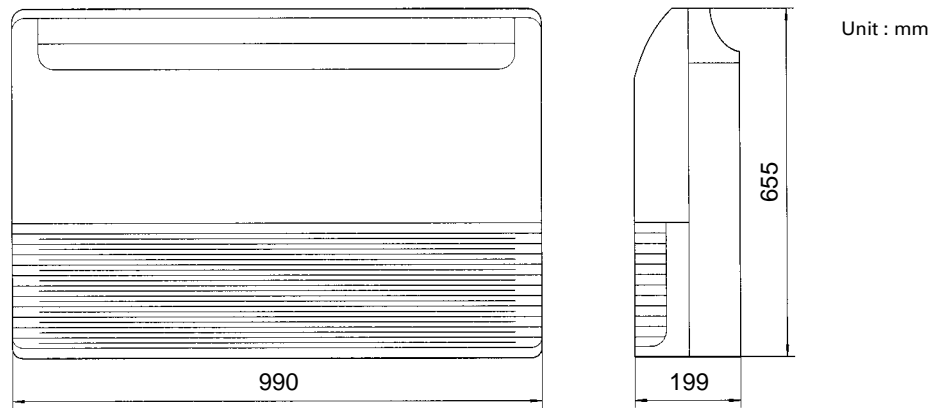
ADDITIONAL REFRIGERANT CHARGE

| | | | | | |
|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| PIPE LENGTH | 5 m (16 ft.) | 7 m (23 ft.) | 10 m (33 ft.) | 15 m (49 ft.) | 20 m (66 ft.) |
| FULL CHARGE AMOUNT | 1,870 g (66.0 oz.) | 1,902 g (67.1 oz.) | 1,950 g (68.8 oz.) | 2,030 g (71.6 oz.) | 2,110 g (74.4 oz.) |

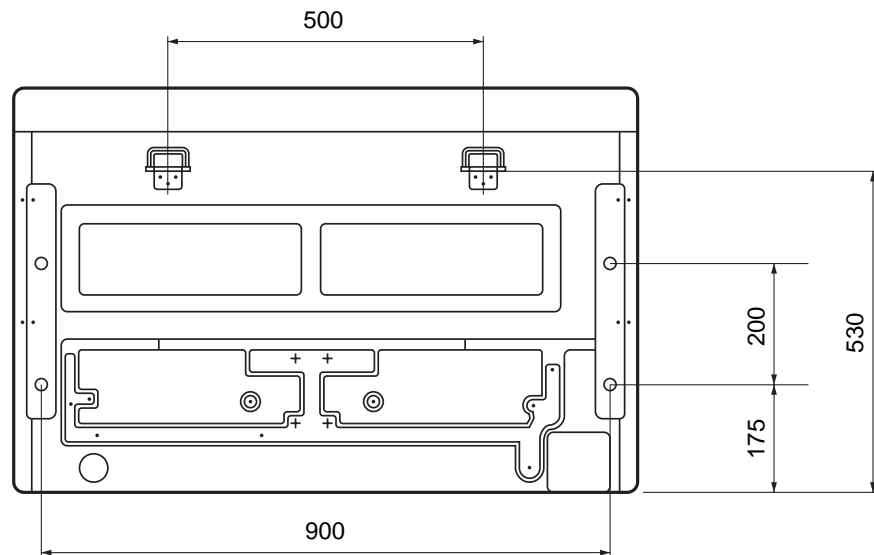
Note : In the case that 5 m are exceeded, when using a connection pipe other than that in the table, charge additional refrigerant with 16 g (0.56 oz.) / 1 m (3.3 ft.) as the criteria.

OUTLINE AND DIMENSIONS

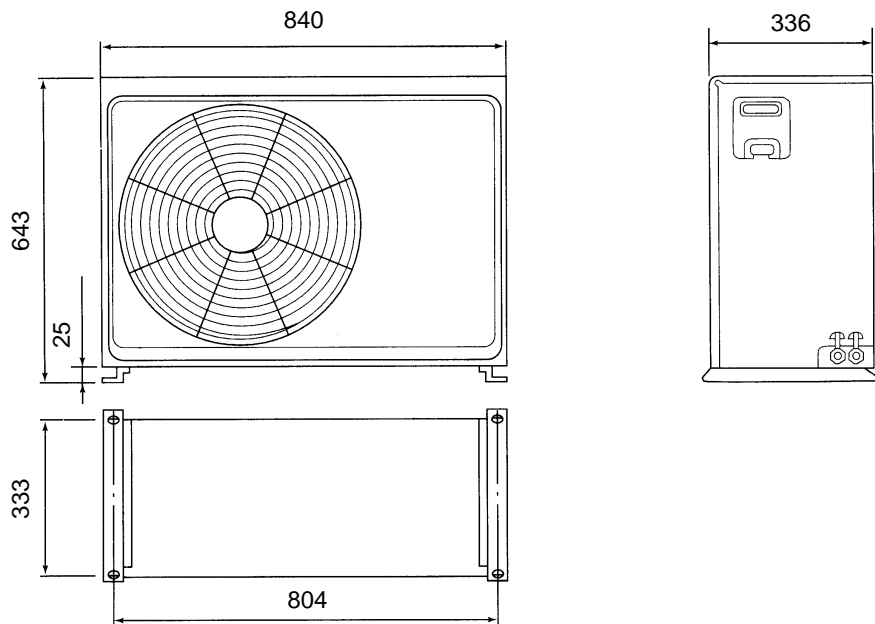
INDOOR UNIT



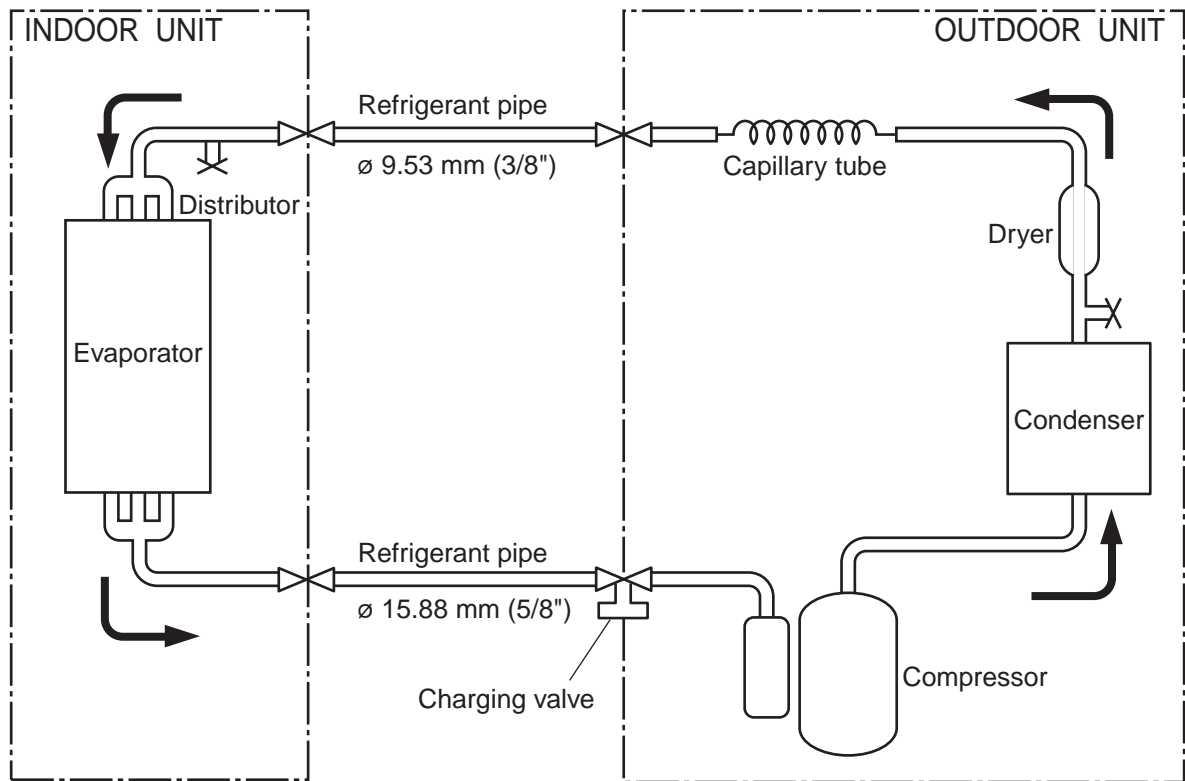
[Rear View]



OUTDOOR UNIT



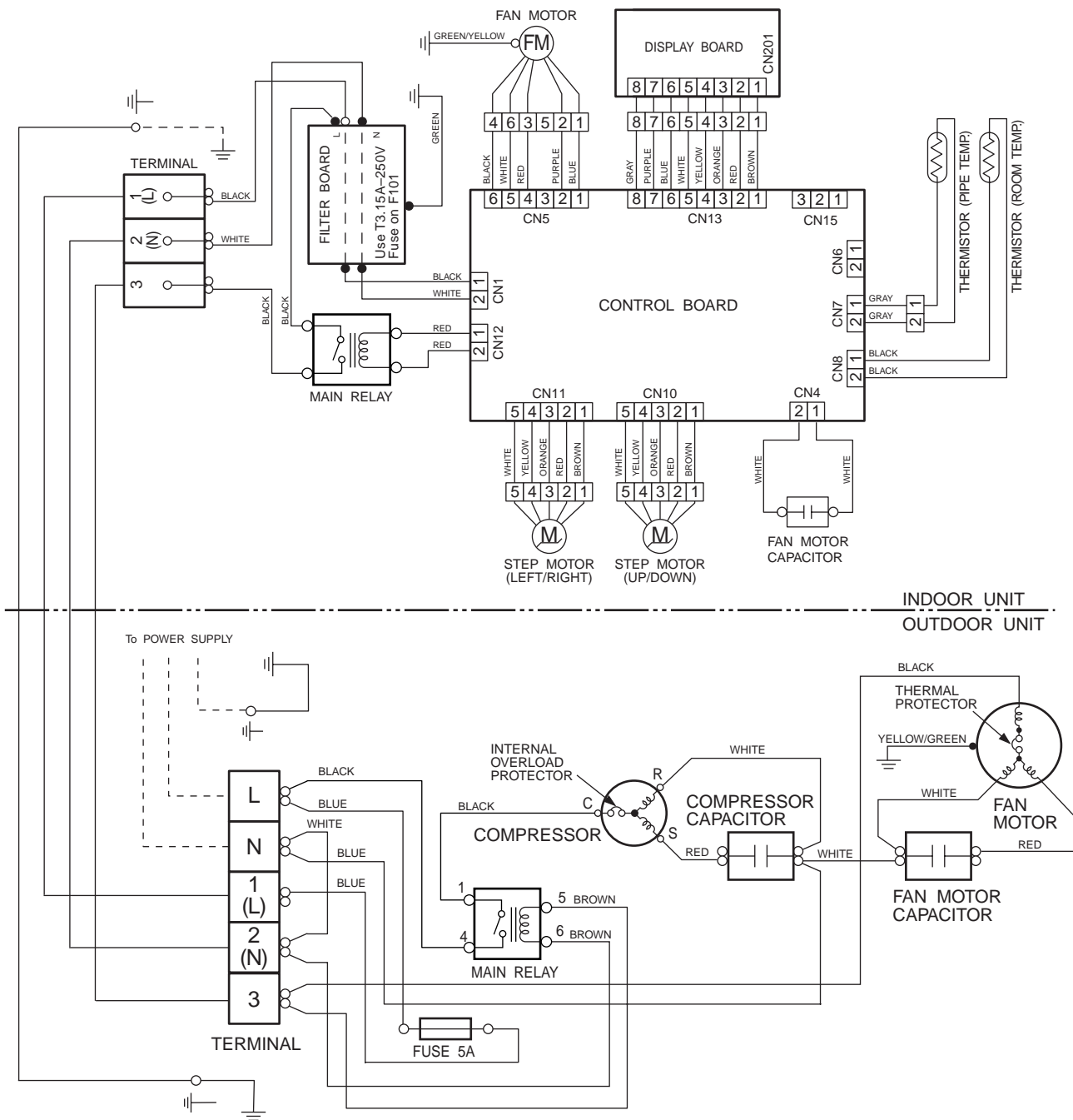
REFRIGERANT SYSTEM DIAGRAM



➔ Cooling
⊗ : Flare coupling

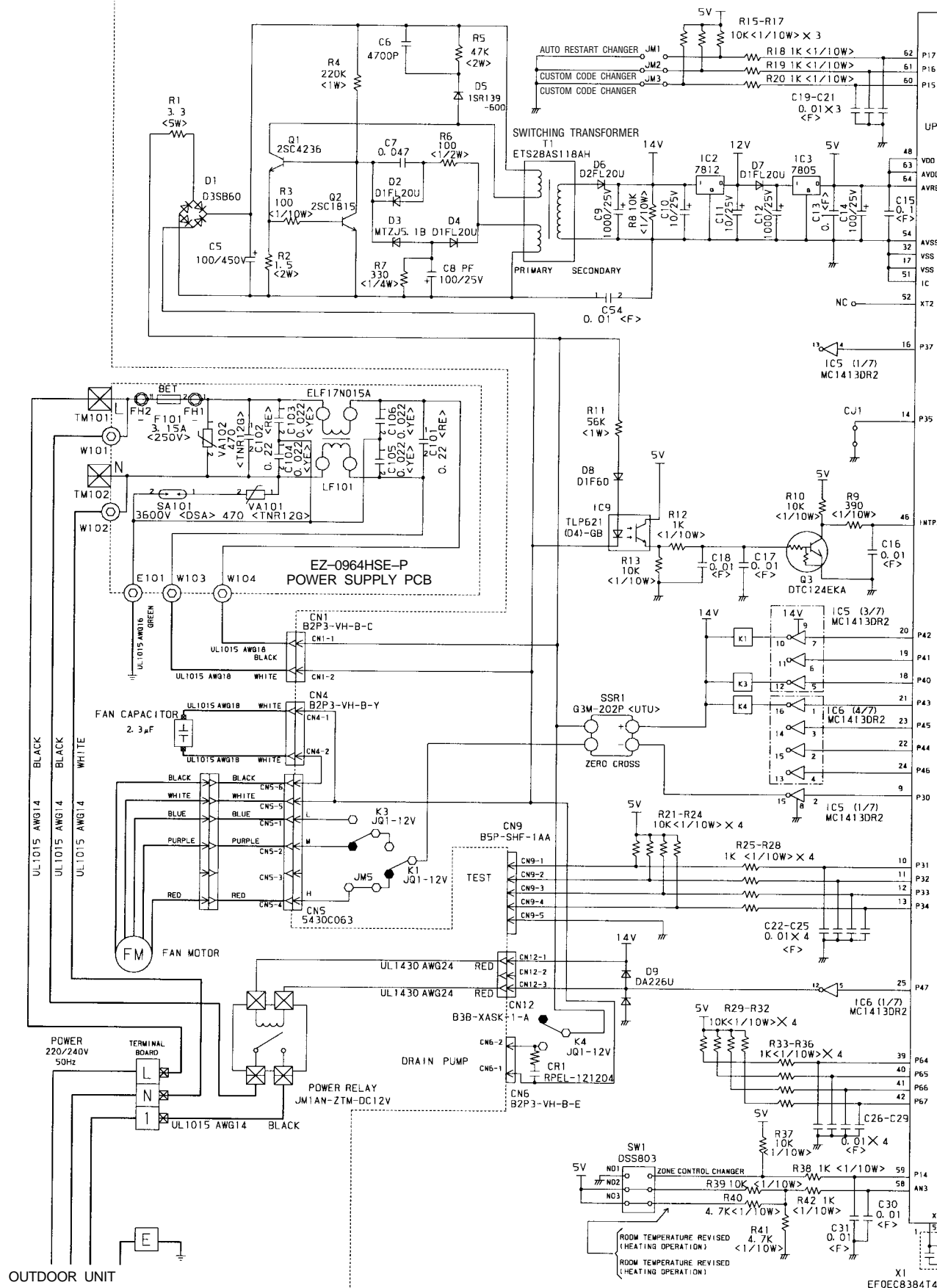
CIRCUIT DIAGRAM

Models : RYT-24AB / ROW-24AB

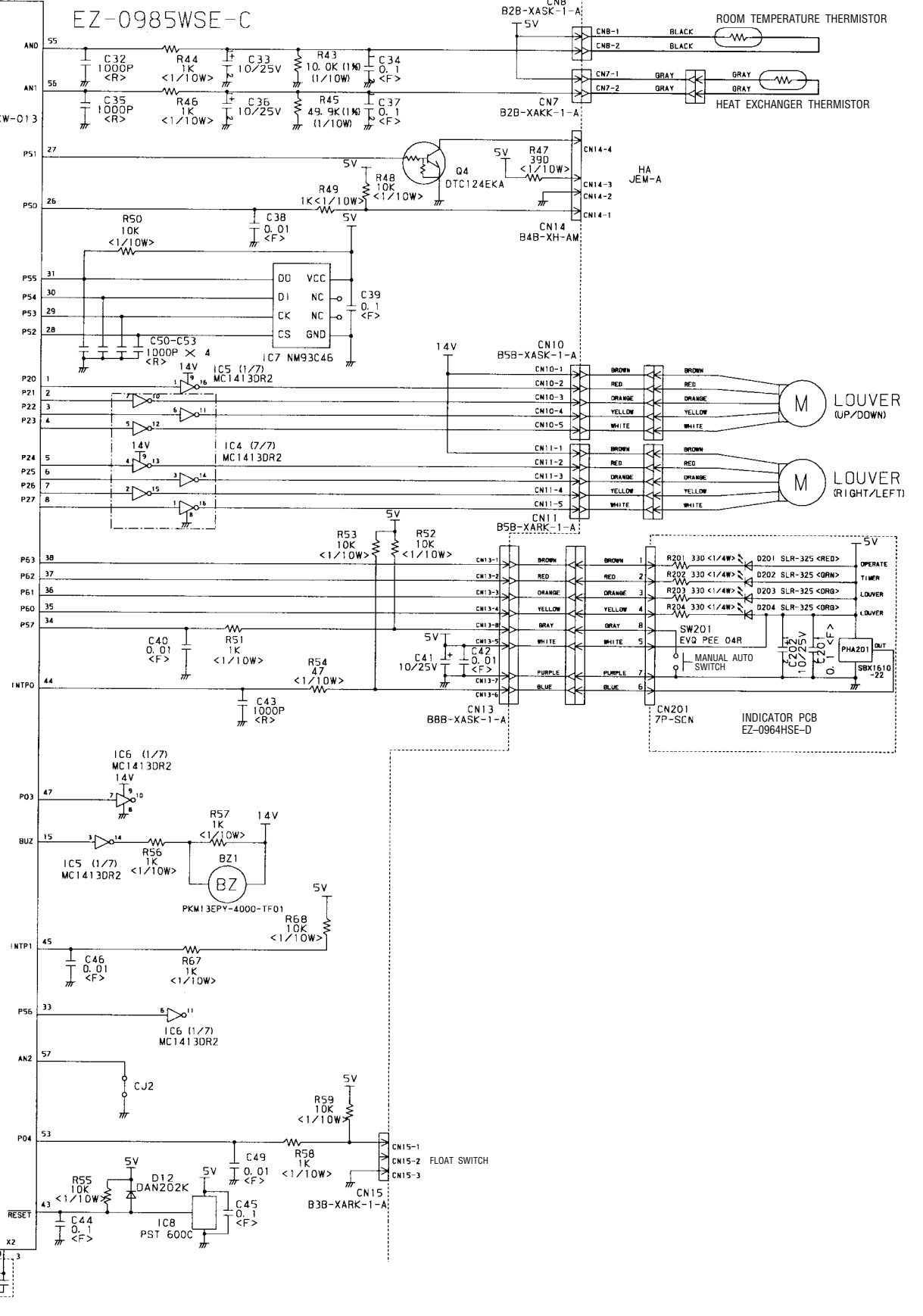


INDOOR PRINTED CIRCUIT BOARD CIRCUIT DIAGRAM

Model : RYT-24AB



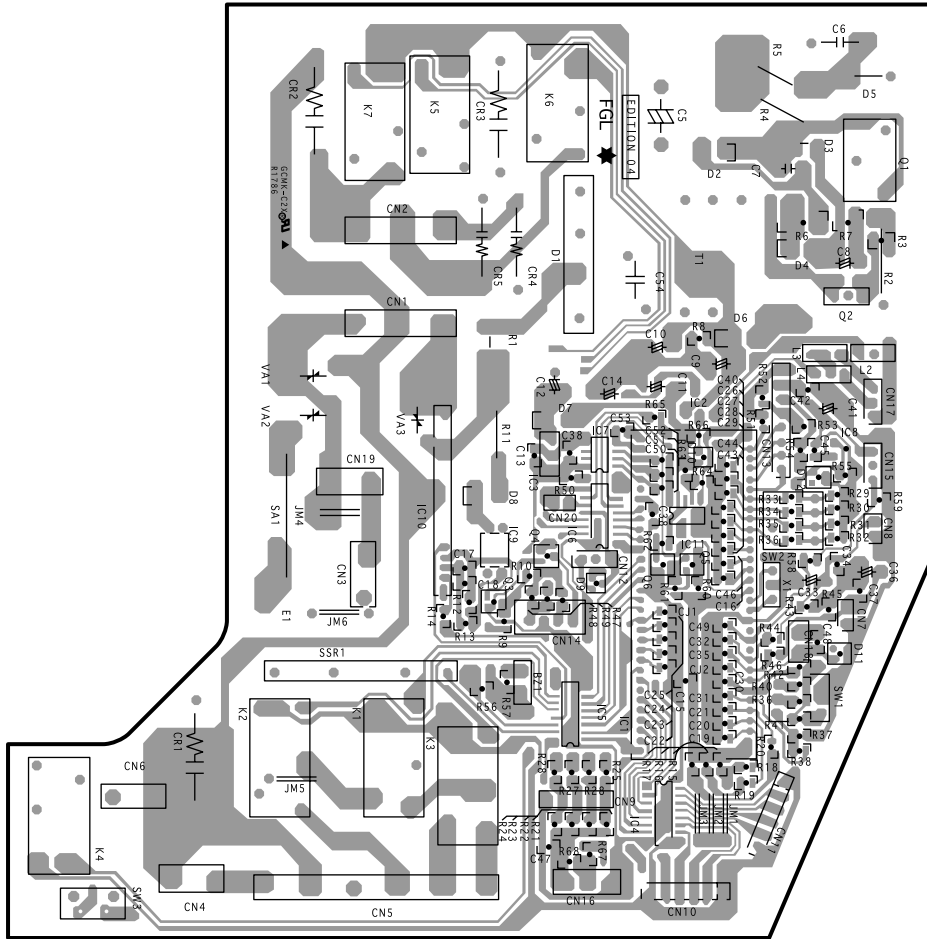
CONTROLLER PCB ASSEMBLY (MAIN PCB)



P. C. BOARD LAYOUTS

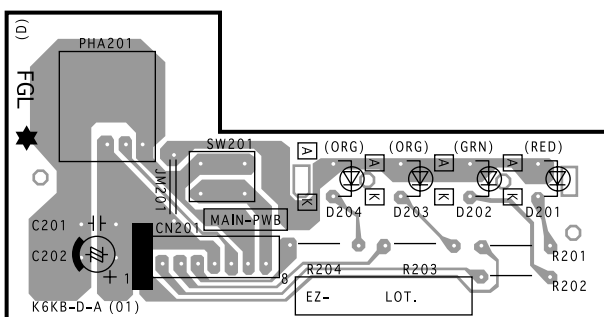
CONTROLLER P. C. BOARD ASSEMBLY

(Viewed from the solder side)



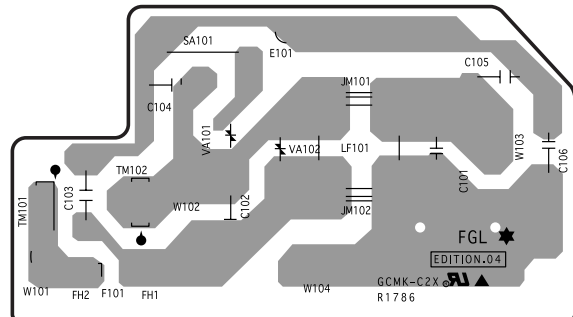
INDICATOR P. C. BOARD ASSEMBLY

(Viewed from the solder side)



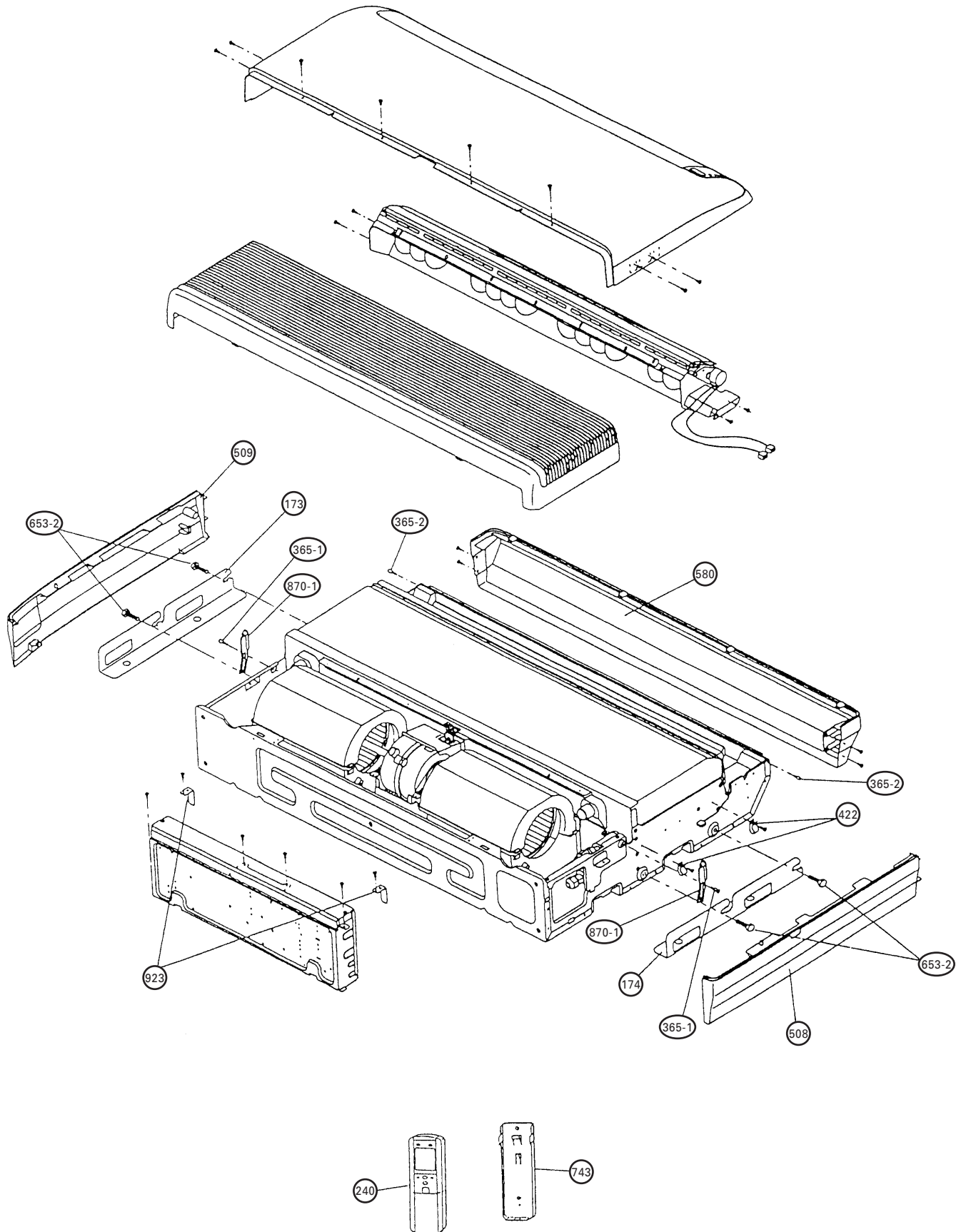
FILTER P. C. BOARD ASSEMBLY

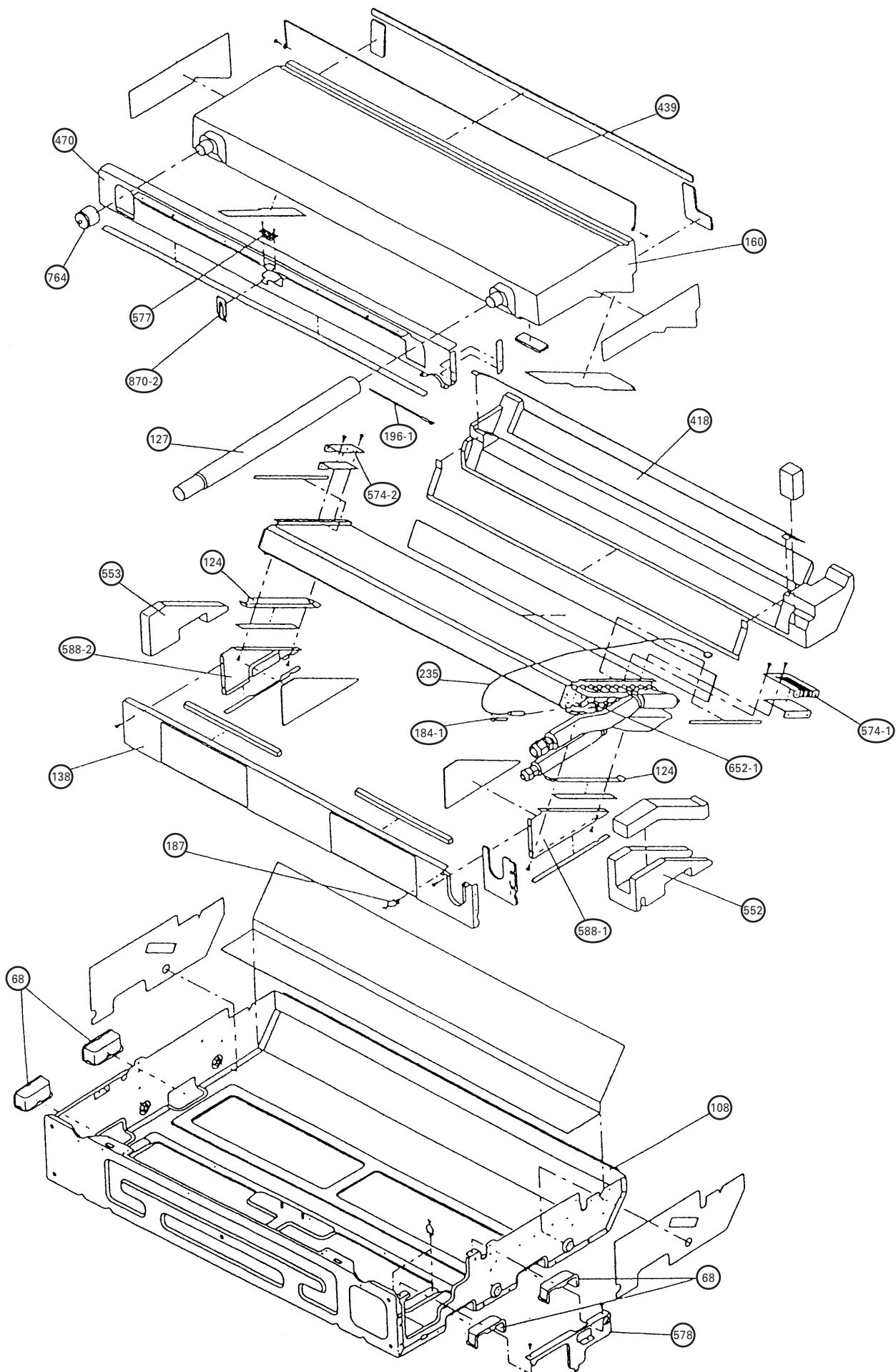
(Viewed from the solder side)

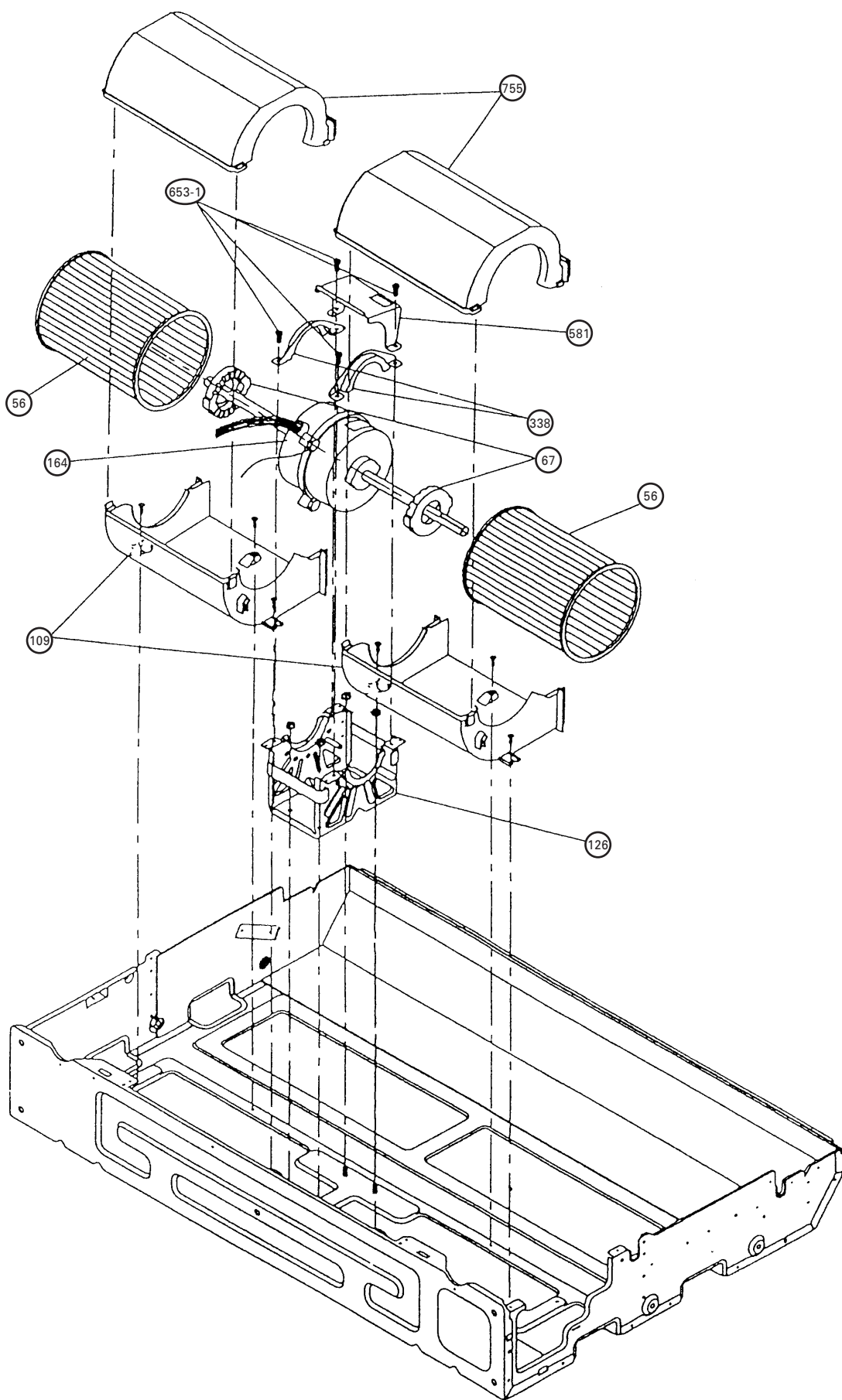


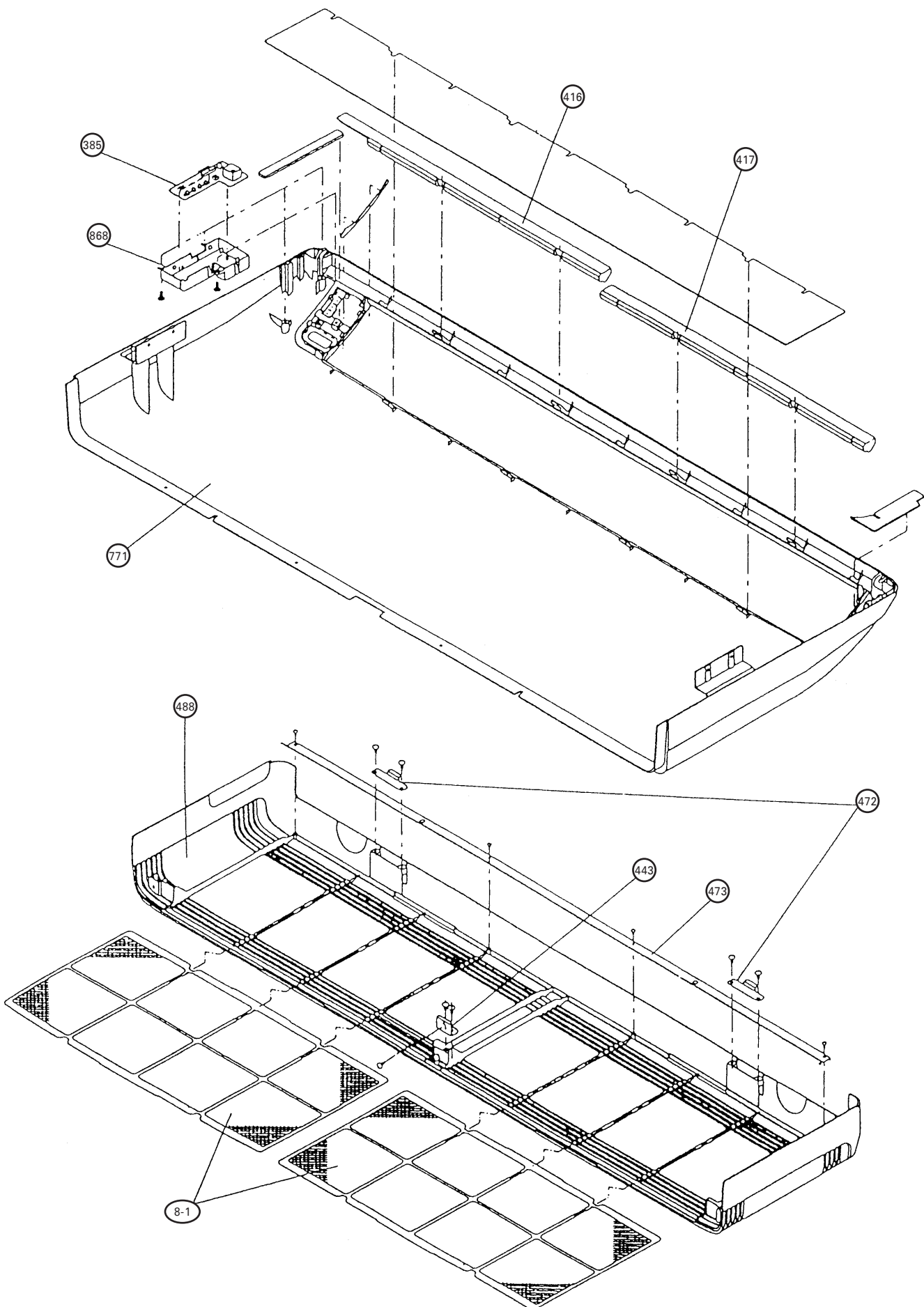
DISASSEMBLY ILLUSTRATION

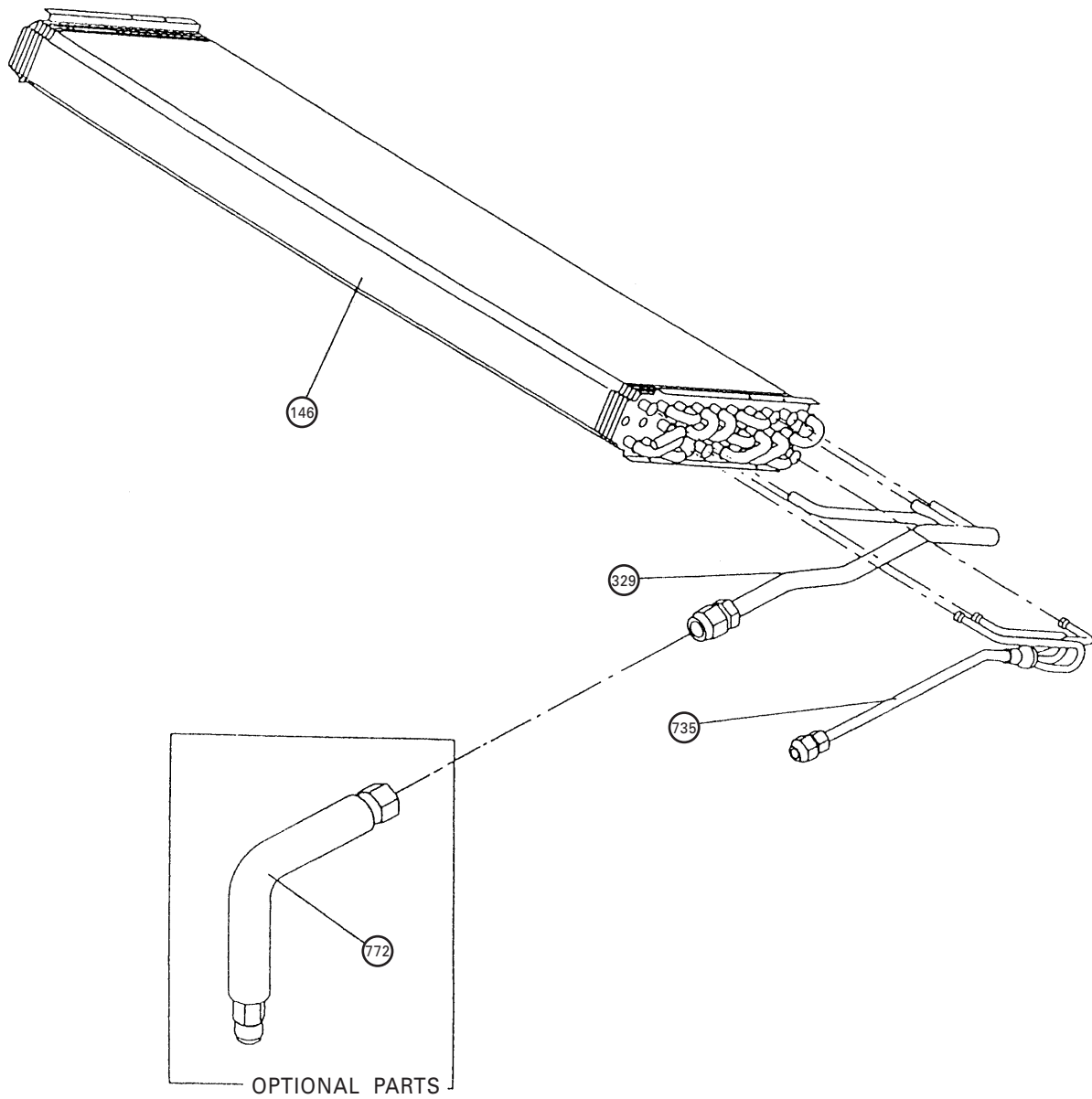
Model : RYT-24AB

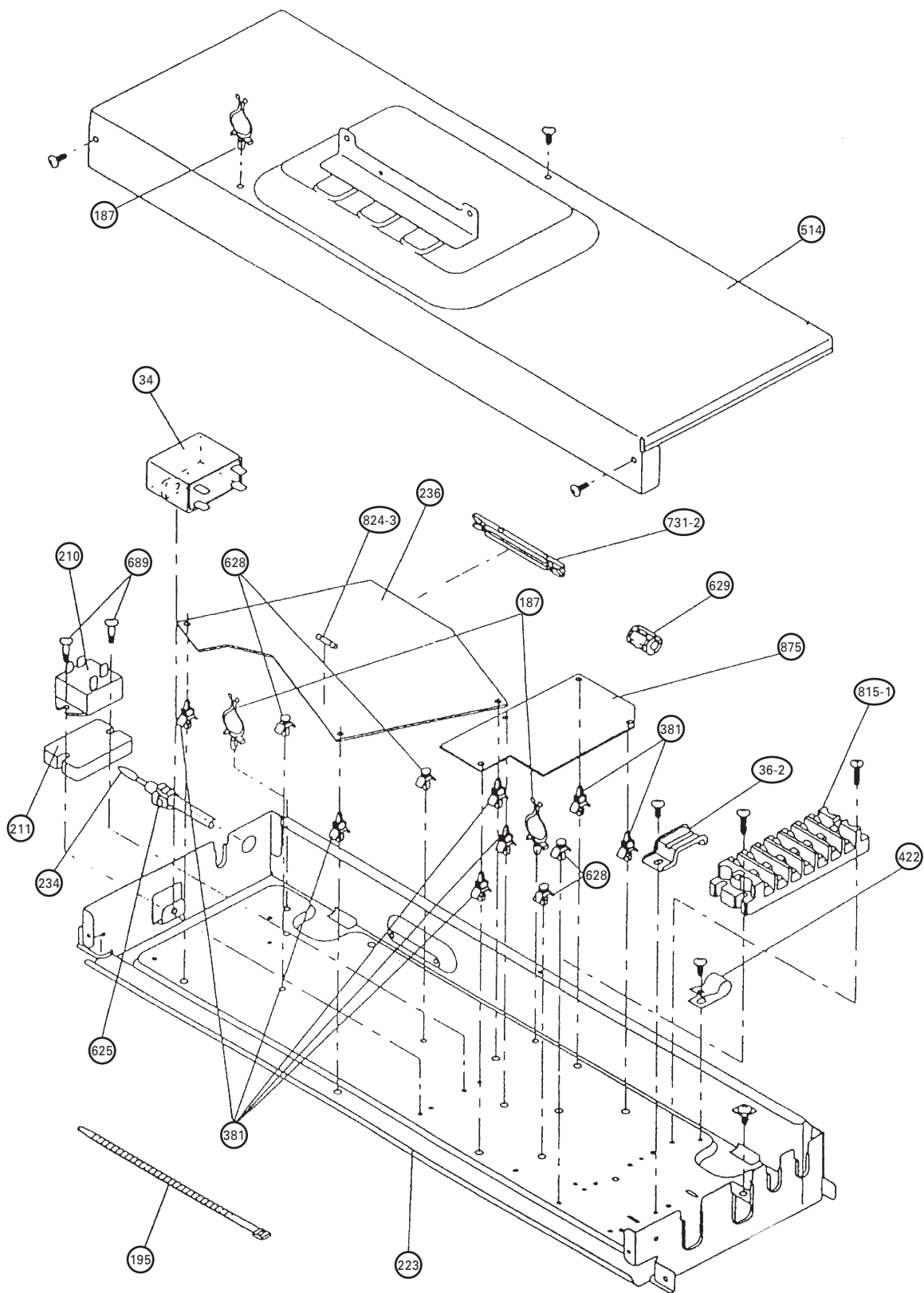


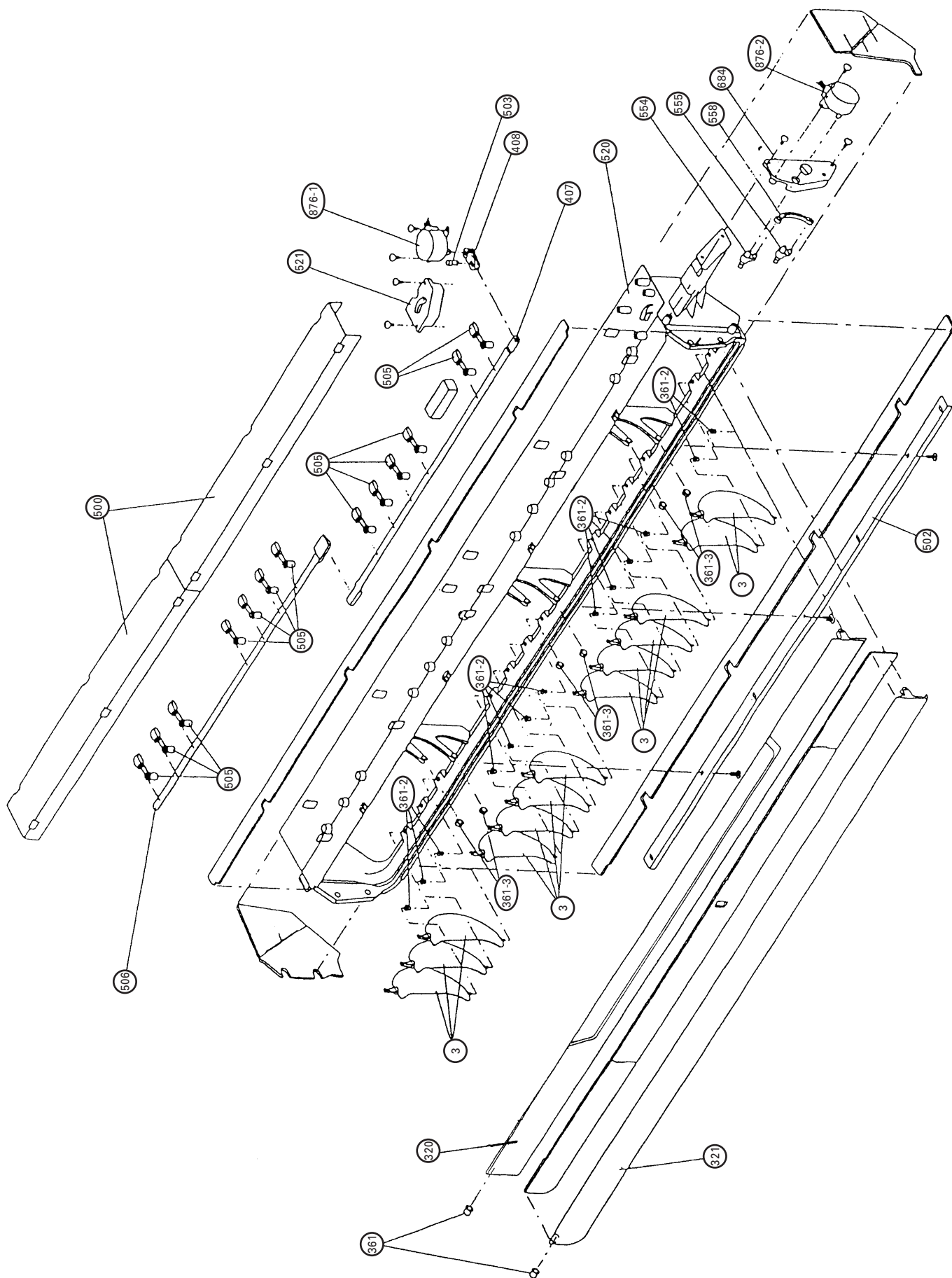




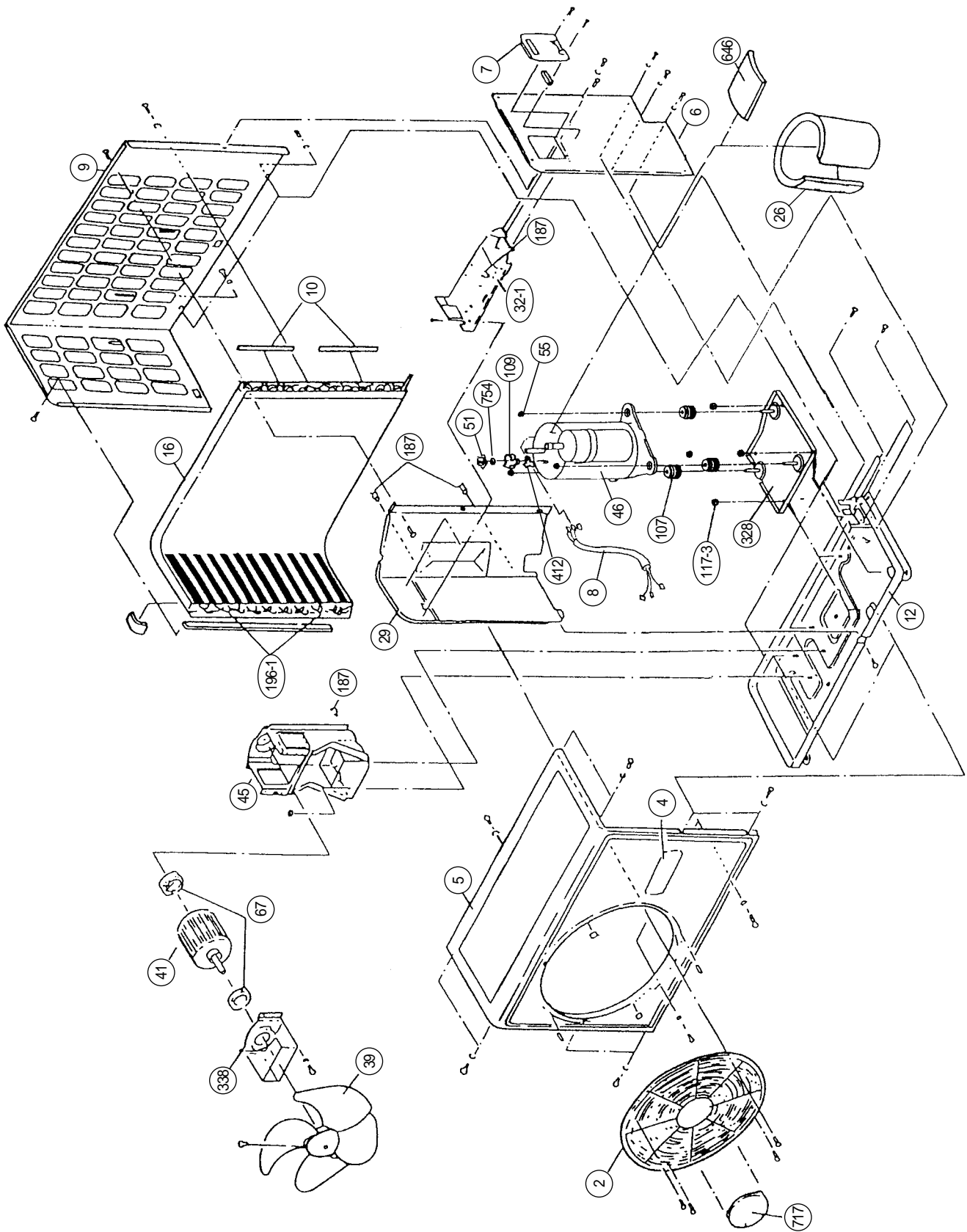




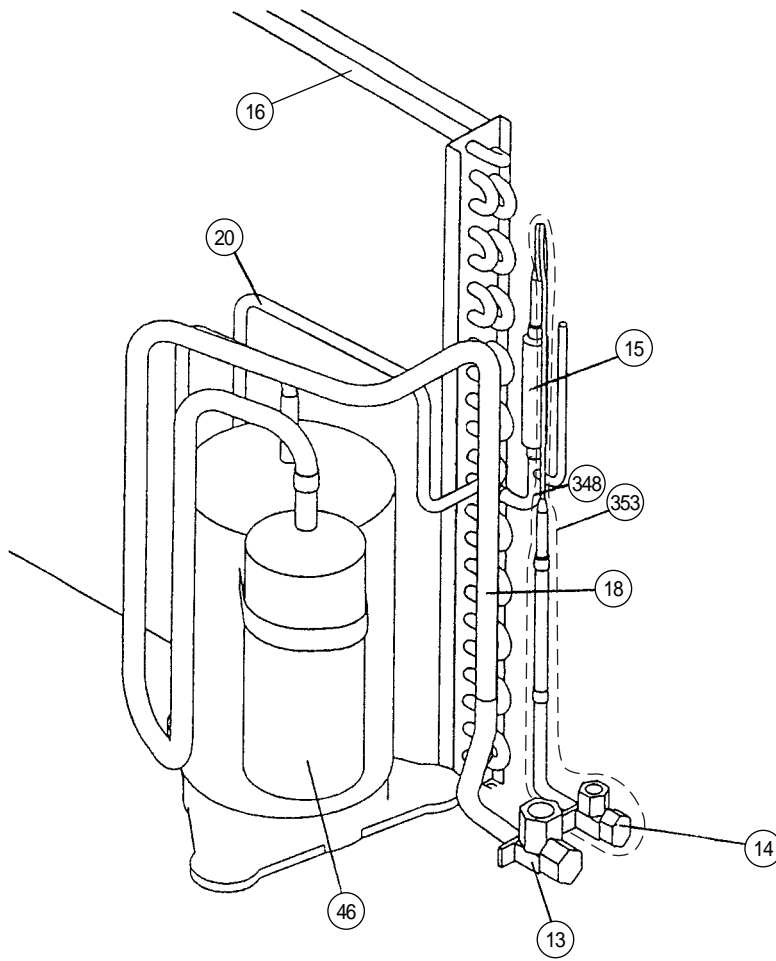




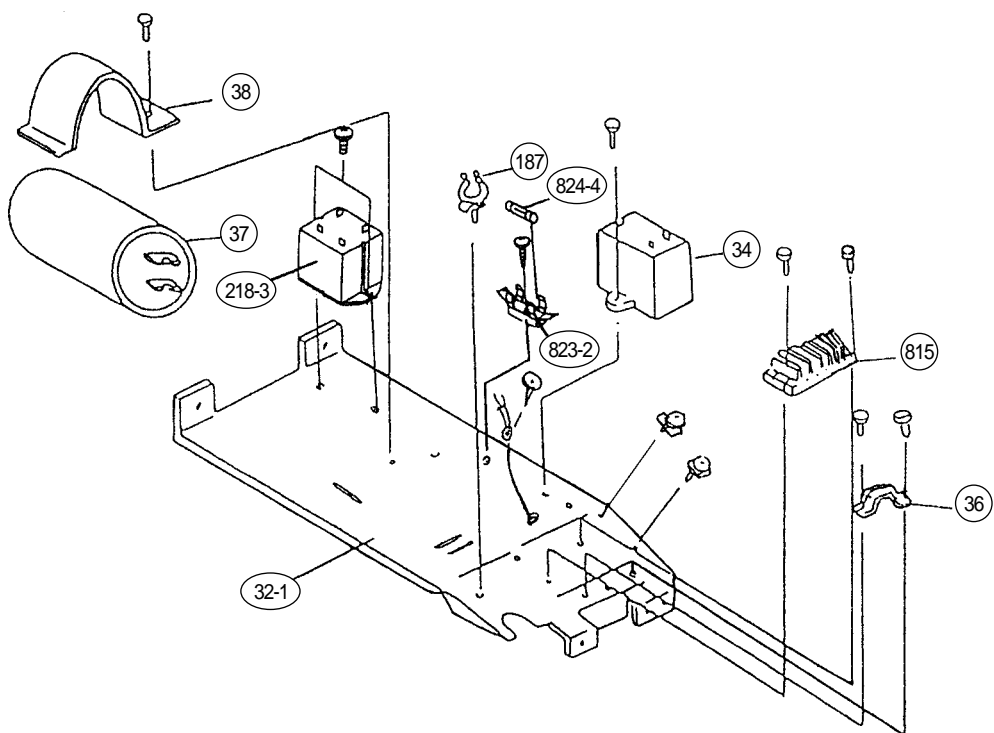
Model : ROW-24AB



Model : ROW-24AB



CONTROL UNIT



PARTS LIST

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

INDOOR UNIT

| Ref. No. | Description | Part No. | Ord. Q'ty | Ref. No. | Description | Part No. | Ord. Q'ty |
|----------|-------------------------------------|--------------|-----------|----------|--|--------------|-----------|
| 3 | Louver | 9358561010 | | 472 | Grille Support | 9358602003 | |
| 8-1 | Air Filter | 9358567012 | | 473 | Filter Bracket | 9358607008 | |
| 34 | Capacitor (Fan Motor) 2.3µF/450V | 9703306044 | | 488 | Grille-G | 9358533017 | |
| 36-2 | Cord Holder Metal | 9356362008 | | 500 | Protect Cover | 9358564004 | |
| 56 | Sirocco Fan Assy | 9358621004 | | 502 | Support Stay | 9358599006 | |
| 67 | Rubber (Vibration-proof) | 313659068604 | | 503 | Louver Shaft | 9358557006 | |
| 68 | Cap, Plastic | 9358563007 | | 505 | Louver Stopper | 9358555002 | |
| 108 | Base Assy | 9359061014 | | 506 | Louver Rod | 9358559000 | |
| 109 | Casing, Plastic | 9358543009 | | 508 | Cosmetic Panel-R | 9358535011 | |
| | | | | 509 | Cosmetic Panel-L | 9358536018 | |
| 124 | Dew Proof Plate | 9359196006 | | 514 | Control Box Cover | 9359097006 | |
| 126 | Motor Fixing Table Assy | 9358591000 | | 520 | Flap Base | 9358537015 | |
| 127 | Drain Hose Assy | 9359242000 | | 521 | Louver Link Cover | 9358558003 | |
| 138 | Separate Wall-A | 9358584002 | | 552 | Insulation (Eva.)-R | 9358575000 | |
| 146 | Evaporator Assy C688E | 9358870013 | | 553 | Insulation (Eva.)-L | 9358857007 | |
| 160 | Drain Pan Assy | 9358568002 | | 554 | Flap Link-Upper (Step Motor-V) | 9358551004 | |
| 164 | Fan Motor Assy-In MFA-24CTA | 9600364031 | | 555 | Flap Link-Lower (Step Motor-V) | 9358552001 | |
| 173 | Hanger Bracket-L | 9358596005 | | 558 | Motor Rod-A (Step Motor-V) | 9358550007 | |
| 174 | Hanger Bracket-R | 9358595008 | | 574-1 | Evaporator Fixture-R (Bracket) | 9358589007 | |
| 184-1 | Thermistor Spring-A | 313728262708 | | 574-2 | Evaporator Fixture-L (Bracket) | 9358590003 | |
| 187 | Clamp No. 1219 | 313361271706 | | 577 | Catch TL-119 | 9359096009 | |
| 195 | Clamp SKB-100 | 313361275805 | | 578 | Base Bracket (Reinforcement Metal) | 9358586006 | |
| 196-1 | Clamp SKB-3M | 312300787605 | | 580 | Top Cover | 9358534014 | |
| 210 | Main Relay JM1AN-ZTM-DC12V | 9356781007 | | 581 | Protector, Metal (For Motor) | 9359282006 | |
| 211 | Cushion Rubber | 313806328306 | | 588-1 | Evaporator Bracket-R | 9358587003 | |
| 223 | Control Box | 9358600016 | | 588-2 | Evaporator Bracket-L | 9358588000 | |
| 234 | Thermistor Assy-Room | 9703299025 | | 625 | Cord Bushing KR-51 | 9359240006 | |
| 235 | Thermistor Assy-Pipe | 9701102068 | | 628 | Locking Spacer-B | 313005446558 | |
| 236 | Controller PCB Assy EZ-096VWSE-C | 9701941094 | | 629 | EMI Filter | 0400197119 | |
| 240 | Remote Control Unit AR-DL6 | 9359913061 | | 652-1 | Thermistor Holder Pipe | 313806262805 | |
| 320 | Flap (Upper)-O | 9358540015 | | 653-1 | Bolt (Fan Motor Fixing) | 0700156014 | |
| 321 | Flap (Lower) | 9358541012 | | 653-2 | Bolt | 0700190018 | |
| 329 | Coupling Pipe Assy | 9358819005 | | 684 | Motor Base | 9358562000 | |
| 338 | Motor Fixture | 9358594001 | | 689 | Screw, Grip Tapping SN+4016 ZNY, w/Grip | 9357837000 | |
| 361 | Bushing | 9357942001 | | 731-2 | Holder (Guide Rail) | 0600241018 | |
| 361-2 | Bushing-B, Plastic | 9358554005 | | 735 | Distributor Assy | 9358814000 | |
| 361-3 | Bushing-C, Plastic | 9358553008 | | 743 | Remote Control Unit Holder | 9359955016 | |
| 365-1 | Special Screw | 9359092001 | | 755 | Casing Cover | 9358544006 | |
| 365-2 | Special Screw | 9359091004 | | 764 | Drain Cap | 9358746004 | |
| 381 | Locking Spacer, KGLS-4S | 313209391506 | | 771 | Panel Assy "FUJI ELECTRIC" | 9359076032 | |
| 385 | Indicator PCB Assy EZ-0964HSE-D | 9701873012 | | 815-1 | Terminal-3P | 9356488005 | |
| 407 | Motor Rod | 9358560006 | | 824-3 | Fuse BET 3.15A-250V | 0600222512 | |
| 408 | Louver Link | 9358556009 | | 868 | PCB Holder | 9358547007 | |
| 416 | Insulation (Panel)-A | 9358574003 | | 870-1 | Arm | 9358565001 | |
| 417 | Insulation (Panel)-B | 9358914007 | | 870-2 | Center Arm | 9359280002 | |
| 418 | Insulation (Flap Base) | 9358572009 | | 875 | Filter PCB Assy EZ-0964HSE-P | 9702081010 | |
| 422 | Clamp NK-10N | 9359183006 | | 876-1 | Step Motor-H | 9359106012 | |
| 439 | Drain Pan Wire | 9358598009 | | 876-2 | Step Motor-V | 9359105015 | |
| 443 | Arm Bracket | 9359281009 | | 923 | Control Box Bracket | 9358717004 | |
| 470 | Separate Wall-B | 9358585009 | | | | | |

OPTIONAL PARTS FOR INDOOR UNIT

| Ref. No. | Description | Part No. | Ord. Q'ty |
|----------|--------------|------------|-----------|
| 772 | Joint Pipe-A | 9302812021 | |

OUTDOOR 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 | Ref. No. | Description | Part No. | Ord. Q'ty |
|----------|-----------------------------|--------------|-----------|----------|----------------------------|--------------|-----------|
| 2 | Fan Cover | 9350214020 | | 41 | Fan Motor Assy-Out | 9600738023 | |
| 4 | Emblem-Rear "FUJI ELECTRIC" | 9301702019 | | 45 | Motor Fixing Table Assy | 313029311100 | |
| 5 | Cabinet-A, Painted | 9303876015 | | 46 | Compressor Assy | 9363019001 | |
| 6 | Cabinet-C, Painted | 9353549013 | | 51 | Special Nut M5 (For Comp.) | 9300301015 | |
| 7 | Connector Cover | 9358011010 | | 55 | Special Nut M8 (For Comp.) | 313252257701 | |
| 8 | Wire Assy (Shield)-D | 9359904076 | | 67 | Rubber (Vibration-proof) | 313659068604 | |
| 9 | Cabinet-B, Painted | 9303874011 | | 107 | Rubber Seat-A (For Comp.) | 9351049010 | |
| 10 | Noise Insulation-E | 313791106305 | | 109 | Terminal Cover (For Comp.) | 9351048013 | |
| 12 | Base Assy, Painted | 9353452054 | | 117-3 | Hex. Nut w/Spring Washer | 301721180114 | |
| 13 | 3-Way Valve Assy | 9364523002 | | 187 | Clamp No. 1219 | 313361271706 | |
| 14 | 2-Way Valve Assy | 9365021002 | | 196-1 | Clamp SKB-3M | 312300787605 | |
| 15 | Dryer | 9353789006 | | 218-3 | Power Relay | 9353619006 | |
| 16 | Condenser Assy | 9356015010 | | 328 | Compressor Plate-B | 9363049015 | |
| 18 | Suction Pipe Assy | 9363043013 | | 338 | Motor Fixture Metal | 313029297108 | |
| 20 | Discharge Pipe | 9363042016 | | 348 | Outlet Pipe (Cond.) | 9363041019 | |
| 26 | Compressor Cover-A | 9363020007 | | 353 | Valve-A Assy | 9364325002 | |
| 29 | Separate Wall | 313986033213 | | 412 | Terminal Gasket | 9351051013 | |
| 32-1 | Control Box Metal-A | 9353595003 | | 646 | Compressor Cover-B | 9363021004 | |
| 34 | Capacitor (Fan Motor) | 9357965017 | | 717 | Center Plate | 9351253011 | |
| 36 | Cord Holder Metal | 9356934007 | | 754 | Terminal Gasket, Washer | 9351053017 | |
| 37 | Running Capacitor | 9703107016 | | 815 | Terminal-5P | 9356497021 | |
| 38 | Capacitor Clamp Metal | 9351770013 | | 823-2 | Fuse Holder | 0500063024 | |
| 39 | Propeller Fan Assy | 9300855013 | | 824-4 | Fuse | 0600222529 | |

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

FILTER PCB ASSEMBLY (Ref. No. 875)

| Ref. No. | Description | Part No. | Ord. Q'ty | Ref. No. | Description | Part No. | Ord. Q'ty |
|------------|-----------------------|------------|-----------|-----------|-----------------------------|------------|-----------|
| C101, 102 | Cap. Plastic 0.22μF | 0300304099 | | F101 | Fuse BET 3.15A-250V | 0600222512 | |
| C105, 106 | Cap. Plastic 0.022μF | 0301052098 | | FH1, 2 | Fuse Holder PFC5000-0502 | 0500158072 | |
| SA101 | Arrester DSA-362MA-05 | 0600168032 | | E101 | Wire w/Terminal L=120mm GRN | 9702066062 | |
| VA101, 102 | Varistor TNR12G471K | 0000038010 | | W101 | Wire w/Terminal L=80mm BLK | 9702066017 | |
| TM101, 102 | Plug Contact 86028 | 0500536016 | | W102 | Wire w/Terminal L=100mm WHT | 9702066024 | |
| LF101 | EMI Filter ELF17N015A | 0400197119 | | W103, 104 | Wire #18 2P | 9702067014 | |


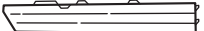

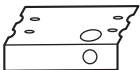
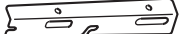
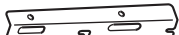
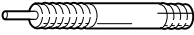








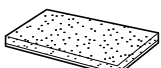

CONTROLLER PCB ASSEMBLY (Ref. No. 236)

| Ref. No. | Description | Part No. | Ord. Q'ty | Ref. No. | Description | Part No. | Ord. Q'ty |
|--------------|----------------------------|------------|-----------|-------------|------------------------------------|------------|-----------|
| IC1 | IC μPD78014HCW-013 | 9702426026 | | R43 | Res. 1/10W 10kΩ±5% | 0200279497 | |
| IC2 | IC NJM7812FA | 0100462104 | | R45 | Res. 1/10W 49.9kΩ±5% | 0200279824 | |
| IC3 | IC NJM7805FA | 0100462081 | | R54 | Res. 1/10W 47Ω±5% | 0200212425 | |
| IC4~6 | Xstr μPA2003GR | 0100028041 | | CJ1,2 | Res. 0Ω | 0200212012 | |
| IC7 | IC NM93C46M8-X | 0101622026 | | C5 | Cap. Elec. 450V 100μF | 0300256060 | |
| IC8 | IC PST600CMTR | 0101461120 | | C6 | Cap. Plastic 4700pF | 0300269091 | |
| IC9 | Photocoupler TLP621(D4)-GB | 0000117074 | | C7 | Cap. Plastic 50V 0.047μF | 0300169339 | |
| Q1 | Xstr 2SC42364009 | 0000164047 | | C8 | Cap. Elec. 25V 100μF | 0301197560 | |
| Q2 | Xstr 2SC1740S | 0000699235 | | C9 | Cap. Elec. 25V 1000μF | 0301196495 | |
| Q3,4 | Xstr DTC124EKA | 0000936033 | | C10,11,33, | Cap. Elec. 25V 10μF | 0301192312 | |
| D1 | Diode D3SB60 | 0000689045 | | 36,41 | | | |
| D2,4,7 | Diode D1FL20U | 0000746519 | | C12 | Cap. Elec. 25V 1000μF | 0301158264 | |
| D3 | Diode MTZJ5.1B | 0000852166 | | C13,15,34, | Cap. Ceramic 50V 0.1μF | 0300311752 | |
| D5 | Diode 1SR139-600 | 0000353120 | | 37,39,44,45 | | | |
| D6 | Diode D2FL20U | 0000906500 | | C14 | Cap. Elec. 25V 100μF | 0301192350 | |
| D8 | Diode D1F60 | 0000208024 | | C16~31,38, | Cap. Ceramic 50V 0.01μF | 0300311738 | |
| D9 | Diode DA226U | 0000625036 | | 40,42,46,49 | | | |
| D12 | Diode DAN202K | 0000684019 | | C32,35,43, | Cap. Ceramic 50V 1000pF | 0300308509 | |
| R1 | Res. Cement 5W 3.3Ω±5% | 0200244372 | | 50~53 | | | |
| R2 | Res. Metal 2W 1.5Ω±5% | 0201107119 | | C54 | Cap. Ceramic 50V 0.01μF | 0300727539 | |
| R3 | Res. 1/10W 100Ω±5% | 0200212500 | | K1,3,4 | Relay JQ1-12V | 9701316014 | |
| R4 | Res. Carbon 1W 220kΩ±5% | 0200111353 | | SSR1 | Relay G3M-202P-UTU | 9701829019 | |
| R5 | Res. Metal 2W 47kΩ±5% | 0201107652 | | T1 | Switching Transformer ETS28AS118AH | 9702727017 | |
| R6 | Res. 1/2W 100Ω±5% | 0200731506 | | X1 | Ceramic Resonator EF0EC8384T4 | 9701261017 | |
| R7 | Res. 1/4W 330Ω±5% | 0200708621 | | BZ1 | Buzzer PKM13EPY-4000-TF01 | 9701298013 | |
| R8,10,13, | Res. 1/10W 330Ω±5% | 0200213019 | | CR1 | Network RPEL-121204 | 9701125012 | |
| 15~17,21~24, | | | | CN1 | Plug, PCB B2P3-VH-B-C | 0500011773 | |
| 29~32,37, | | | | CN4 | Plug, PCB B2P3-VH-B-Y | 0500011827 | |
| 39,48,50, | | | | CN5 | Plug, PCB 5430C063 | 0500957026 | |
| 52,53,55, | | | | CN6 | Plug, PCB B2P3-VH-B-E | 0500011759 | |
| 59,68 | | | | CN7 | Plug, PCB B2B-XAKK-1-A | 0501045227 | |
| R9,47 | Res. 1/10W 390Ω±5% | 0200212647 | | CN8 | Plug, PCB B2B-XASK-1-A | 0501045012 | |
| R11 | Res. Metal 1W 56kΩ±5% | 0201106662 | | CN9 | Plug, PCB B5P-SHF-1AA | 0500006069 | |
| R12,18~20, | Res. 1/10W 1kΩ±5% | 0200212746 | | CN10 | Plug, PCB B5B-XASK-1-A | 0501045043 | |
| 25~28, | | | | CN11 | Plug, PCB B5B-XARK-1-A | 0501045517 | |
| 33~36, | | | | CN12 | Plug, PCB B3B-XASK-1-A | 0501045029 | |
| 38,42,44, | | | | CN13 | Plug, PCB B8B-XASK-1-A | 0501045074 | |
| 46,49,51, | | | | CN14 | Plug, PCB B4B-XH-AM | 0500005314 | |
| 56~58,67 | | | | CN15 | Plug, PCB B3B-XARK-1-A | 0501045319 | |
| R40,41 | Res. 1/10W 4.7kΩ±5% | 0200212906 | | | | | |

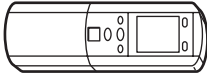



INDICATOR PCB ASSEMBLY (Ref. No. 385)

| Ref. No. | Description | Part No. | Ord. Q'ty | Ref. No. | Description | Part No. | Ord. Q'ty |
|-----------|--------------------------|------------|-----------|----------|-------------------------------------|------------|-----------|
| D201 | Diode SLR-325VC RED | 0000813259 | | PHA201 | Remote Control Amplifier SBX1810-22 | 0101525129 | |
| D202 | Diode SLR-325MC GRN | 0000813242 | | SW201 | Switch, EVQ-PAG-04K | 9700450016 | |
| D203, 204 | Diode SLR-325DC ORG | 0000813235 | | CN201 | Wire w/Connector JC25/XMR | 9701875016 | |
| C201 | Cap. Ceramic 0.1μF | 0300988251 | | | Lamp Holder 94N40 | 9358548004 | |
| C202 | Cap. Elec. 25V 10μF | 0300004258 | | JM201 | Wire 0.6dia. L=10mm | 9700025016 | |
| R201~204 | Res. Carbon 1/4W 330Ω±5% | 0201038659 | | | | | |


INDOOR UNIT ACCESSORIES

| Name and Shape | Use | Part No. |
|---|---|----------------|
| Cosmetic Panel-L  | | 9358536018 |
| Cosmetic Panel-R  | | 9358535011 |
| Tapping screw (ø4 x 10)  | | 301171164104 |
| Installation template  | For positioning the indoor unit. For under ceiling type. | 9359107002 |
| Hanger bracket-L  | For suspending the indoor unit from ceiling. | 9358596005 |
| Hanger bracket-R  | | 9358595008 |
| Anchor bolt (M12)  | | } 313806339400 |
| Special nut  | | |
| Spring washer  | | 301821112213 |
| Wall bracket  | For suspending the indoor unit on the wall. | 9358597002 |
| Tapping screw (ø4 x 20)  | For fixing the wall bracket. | 301141164200 |
| Coupler heat insulator (large)  | For indoor side pipe joint. (Large pipe) | 9350716012 |
| Coupler heat insulator (small)  | For indoor side pipe joint. (Small pipe) | 313209328104 |
| Nylon fastener (small)  | For fixing the drain hose. | 312300787605 |
| Drain hose  | | 9359242000 |
| Insulation (drain hose)  | Adhesive type 70 x 230 | 9359225003 |
| VT wire  | For fixing the drain hose L 280 mm | 313806350303 |

REMOTE CONTROL UNIT

| Name and Shape | Use | Part No. |
|---|---|--------------|
| Remote control unit  | Use for air conditioner operation | 9359913061 |
| Battery (penlight)  | For remote control unit | 0600185534 |
| Remote control unit holder  | For mounting the remote control unit | 9359955016 |
| Tapping screw (ø3 x 12)  | For remote control unit holder installation | 301141533125 |

OUTDOOR UNIT ACCESSORIES

| Name and Shape | Use | Part No. |
|---|---------------|------------|
| Hexagon wrench  | For air purge | 9351228019 |



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