

Service Manual

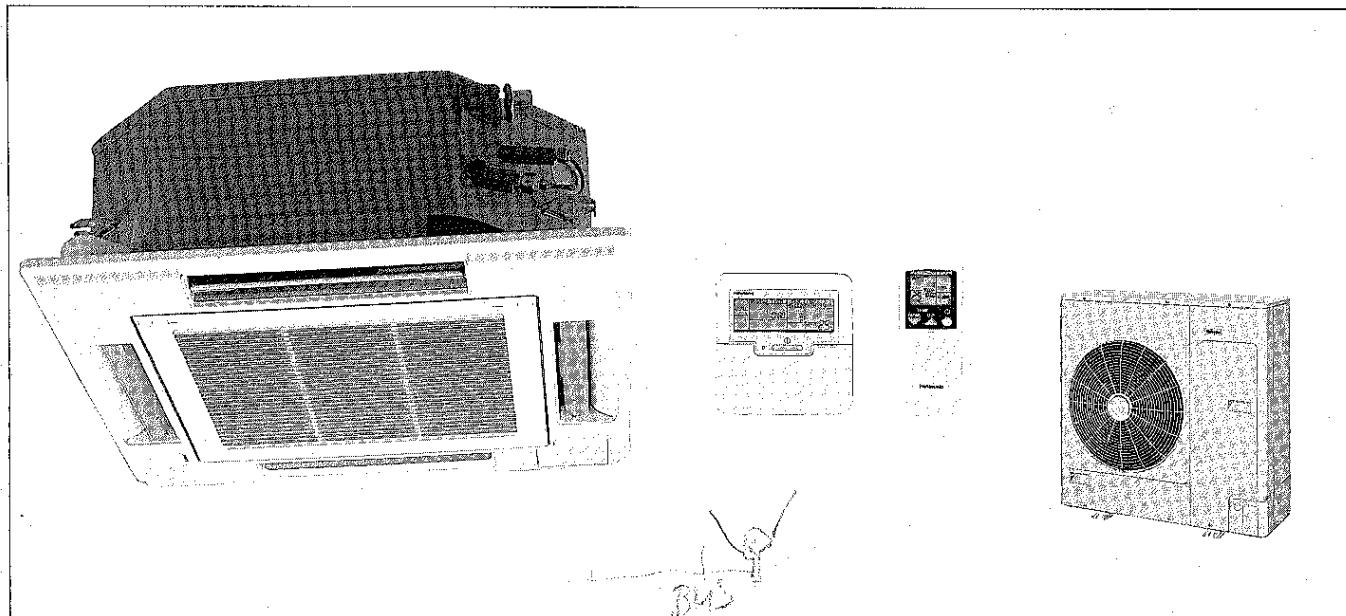
PACKAGED AIR CONDITIONER
MINI CASSETTE TYPE

■HEAT PUMP MODEL

CS-40U32JP(CU-40C52HP) CS- 80U32JP(CU- 80C52XP)
CS-50U32JP(CU-50C52HP) CS-112U32JP(CU-112C52XP)
CS-71U32JP(CU-71C52HP) CS-140U32JP(CU-140C52XP)
CS-71U32JP(CU-71C52XP) CS-160U32JP(CU-160C52XP)
CS-80U32JP(CU-80C52HP)

■COOLING ONLY MODEL

CS-40U32JP(CU-40C02HP) CS- 80U32JP(CU- 80C02XP)
CS-50U32JP(CU-50C02HP) CS-112U32JP(CU-112C02XP)
CS-71U32JP(CU-71C02HP) CS-140U32JP(CU-140C02XP)
CS-71U32JP(CU-71C02XP) CS-160U32JP(CU-160C02XP)
CS-80U32JP(CU-80C02HP)



Panasonic

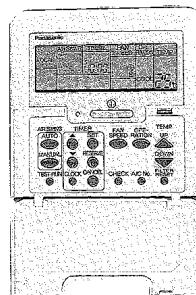
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CONTENTS

| | |
|--|-----|
| 1. FEATURES | 2 |
| 2. SPECIFICATIONS (HEAT PUMP TYPE) | 7 |
| 3. SPECIFICATIONS (COOLING ONLY TYPE) | 16 |
| 4. TECHNICAL DRAWING | 25 |
| 5. CIRCUIT DIAGRAM | 35 |
| 6. OPERATION INSTRUCTION | 60 |
| 7. REFRIGERATION CYCLE | 61 |
| 8. OPERATION RANGE | 65 |
| 9. PIPE LENGTH | 67 |
| 10. OPERATING CHARACTERISTICS | 68 |
| 11. FAN PERFORMANCE | 69 |
| 12. SAFETY DEVICE | 72 |
| 13. COMPONENT SPECIFICATION | 73 |
| 14. CAPACITY AND POWER CONSUMPTION | 74 |
| 15. DISCHARGE AND SUCTION PRESSURE | 76 |
| 16. POSITION OF THE CENTER GRAVITY | 76 |
| 17. REACHING DISTANCE | 77 |
| 18. SOUND DATA | 80 |
| 19. TWIN AND TRIPLE | 85 |
| 20. WIRING MISTAKE PREVENTION | 94 |
| 21. TEST OPERATION AND SELF DIAGNOSIS | 95 |
| 22. SETTING OF SAVE ENERGY AND THERMISTOR SWITCH | 99 |
| 23. GROUP CONTROL | 100 |
| 24. TROUBLE SHOOTING | 101 |
| 25. EMERGENCY OPERATION | 108 |
| 26. CONTROL | 109 |
| 27. ACCESSORY PARTS | 122 |
| 28. WIRED REMOTE CONTROL UNIT INSTALLAION MANUAL | 131 |
| 29. WIRELESS REMOTE CONTROL UNIT INSTALLATION MANUAL | 140 |
| 30. INSTALLATION <INDOOR UNIT> | 149 |
| 31. INSTALLATION <OUTDOOR UNIT> | 160 |
| 32. REPLACEMENT PARTS | 171 |
| 33. COOLING CAPACITY PERFORMANCE DATA | 203 |

1. FEATURES

Wired Remote Controller



CZ-10RT32P

- The new design includes an easily-visible red pilot lamp. The power can be turned on and off at a single touch, without opening the cover.
- Has a built-in thermistor, allowing indoor temperature detection in accordance with indoor conditions by switching with main unit thermistor.
- Twin non-polar wires make installation work easy. (10 m cable supplied as accessory.)

Wireless Remote Controller



- New design with compact size. (Operation range within approximately 8 m.)
- Built-in timer with ON/OFF time setting (within 24 hours)

| | Wired | Wireless |
|-----------|------------|------------|
| Cooling | CZ-10RT32P | CZ-10RW01P |
| Heat pump | CZ-10RT32P | CZ-10RW51P |

*Both above remote controller is packed separately from Indoor unit.

2. SPECIFICATIONS (HEAT PUMP TYPE)

| ITEM | MODEL | | Indoor unit | Outdoor unit |
|--|---|---|--|---|
| | Main body | Panel | CS-40U32JP | CU-40C52HP |
| | Remote Controller | CZ-10RT32P(wired) CZ-10RW51P(wireless) | | |
| (1) Cooling Capacity | kW kcal/h BTU/h | | 4.00 3,440 13,760 | |
| (2) Heating Capacity | kW kcal/h BTU/h | | 4.10 3,530 14,120 | |
| (3) Heating Capacity | kW kcal/h BTU/h | | 4.50 3,870 15,480 | |
| Refrigerant Charge-less | m | | 30 | |
| Standard Air Volume for High, Medium and Low Speed | m³/min cfm | Hi 13 459 | Me 12 424 | Lo 10 353 |
| Outside Static Pressure | mmHg in W.G. | 0 | 0 | — |
| Air Inlet | | | Lower sided Suction | Back sided Suction |
| Air Outlet | | | Lower sided blow-out | Front blow-out |
| Duct Connection | | | *1 Available | — |
| Outside Dimension(H×W×D) | mm inch | (266+28)×750×750 (10-15/32+1-3/32)×29-17/32×29-17/32 | 640×790×300 25-3/16×31-3/32×11-13/16 | |
| Net Weight | kg lbs | 21.5(17.0+4.5) 47(37+10) | 49 108 | |
| Piping Connection | Refrigerant Gas Liquid | mm(inch) mm(inch) | O.D.Φ12.7(1/2) Flared type O.D.Φ6.35(1/4) Flared type | |
| Drain | | mm | O.D.Φ32(Accessory drain hose: I.D.Φ32) | ID 20×1 |
| Compressor | Type, number of set | | — | Hermetic-1(Rotary),1 |
| | Starting Method | | — | Direct on-line starting |
| | Capacity Control | % | — | 0.100 |
| Motor | Type | | — | 2-pole signal phase induction motor |
| | Input | kW | — | Cool/Heat 1.45/1.34 |
| | Rated Output | kW | — | 1.2 |
| Fan | Type, number of set | unit | Turbo fan-1 | Prop fan-1 |
| | Air Volume Control | | Three-Step and Auto mode(Remote Controller) | — |
| | Motor | Type | 6-pole single phase induction motor | 6-pole single phase induction motor |
| | | Input | 0.09 | 0.07 |
| | | Rated Output | 0.035 | 0.035 |
| | Air-heat exchanger | | Louver-fin type | Louver-fin type |
| | Refrigerant Control | | Capillary tube | Capillary tube |
| | Refrigeration oil(Charged) | ℓ | — | ATMOS M60(0.65) |
| | Refrigerant(Charged) | kg lbs | — | R-22(2.0) (4.4) |
| Running Adjustment | Control Switch | | Wireless or Wired Remote Controller | — |
| | Room Temperature | | Thermostat(Main Body) | — |
| | Anti-vibration and Anti-sound Materials | | Cabinet(urethane frame attached) | Compressor(Anti-vibration rubber) |
| | Safety Devices | | Internal thermostat for F.M., Crankcase heater | Drain over-flow switch, High pressure switch, Current Trans |
| | External Finish | | ABS resin(Decorative panel) | Powder coating |
| | Air Filter(Factory set) | | Polypropylene regin Honeycomb(Washable) | — |
| Noise level | dB(A) | Hi 38 Me 36 Lo 34 | — | Hi 45 |

(1) Cooling capacities are based on indoor temp.27° CD.B.(80.6° FD.B.), 19.0° CW.B.(66.2° FW.B.), and outdoor air temp. 35° CD.B.(95° FD.B.), 24° CW.B.(75.2° FW.B.)

(2) Cooling capacities are based on indoor temp.27° CD.B.(80.6° FD.B.), 19.0° CW.B.(66.2° FW.B.) and outdoor air temp. 32° CD.B.(89.5° FD.B.), 24° CW.B.(75.2° FW.B.)

(3) Heating capacities are based on indoor temp.20° CD.B.(68.0° FD.B.) and outdoor air temp.7° CD.B.(44.6° FD.B.), 6° CW.B.(42.8° FW.B.)

(4)*1 Supply duct and fresh air duct are connectable. Supply duct requires the special parts.

(5) Net weight for indoor unit indicate main body and decorative panel.

ELECTRICAL DATA(50Hz)

| ITEM | MODEL | | CS-40U32JP, CU-40C52HP | | |
|-------------------|-------|--------------|------------------------|--------------|--------------|
| | Volt | Phase | 220 | 230 | 240 |
| Power Consumption | kW | Cool Heat | 1.50 1.40 | 1.50 1.40 | 1.50 1.40 |
| Running Current | A | Cool Heat | 7.4 7.0 | 7.2 6.8 | 7.0 6.6 |
| Starting Current | A | Cool Heat | 22.9 9.0 | 23.9 9.0 | 24.8 8.9 |
| Power Factor | % | Cool Heat | 92.6 90.9 | 90.9 89.3 | 89.4 88.0 |

*Power Factor means total figure of compressor, indoor fan motor and outdoor fan motor.

Panasonic Power source AC. 1~220V,230V,240V 50Hz

2. SPECIFICATIONS (HEAT PUMP TYPE)

| ITEM | MODEL | | Indoor unit | Outdoor unit |
|---|----------------------------|---|--|-------------------------------------|
| | Main body | CS-50U32JP | CU-50C52HP | |
| | Panel | CZ-02KPU01P | | |
| (1) Cooling Capacity | kW kcal/h BTU/h | 5.20 4,500 16,000 | | |
| (2) Cooling Capacity | kW kcal/h BTU/h | 5.35 4,620 18,480 | | |
| (3) Heating Capacity | kW kcal/h BTU/h | 5.55 4,800 19,200 | | |
| Refrigerant Charge-less | m | 30 | | |
| Standard Air Volume for High, Medium and Low Speed | m³/min cfm | Hi 13 459 | Me 12 424 | Lo 10 353 |
| Outside Static Pressure | mmAq in W.G. | 0 0 | | — |
| Air Inlet | | Lower sided Suction | Back sided Suction | |
| Air Outlet | | Lower sided blow-out | Front blow-out | |
| Duct Connection | | *1 Available | — | |
| Outside Dimension(H×W×D) | mm inch | (266+28)×750+750 (10-15/32+1-3/32)×29-17/32×29-17/32 | 640×790×300 25-3/16×31-3/32×11-13/16 | |
| Net Weight | kg lbs | 21.5(17.0+4.5) 47(37+10) | 52 115 | |
| Piping Connection | Refrigerant Liquid | mm(inch) mm(inch) | O.D.Φ 12.7(1/2) Flared type O.D.Φ 6.35(1/4) Flared type | |
| | Drain | mm | O.D.Φ 32(Accessory drain hose: I.D.Φ 32) | ID 20×1 |
| Compressor | Type, number of set | | — | Hermetic-1(Rotary),1 |
| | Starting Method | | — | Direct on-line starting |
| | Capacity Control | % | — | 0.100 |
| | Type | | — | 2-pole single phase induction motor |
| Motor | Input | kW | — | Cool/Heat 1.71/1.66 |
| | Rated Output | kW | — | 1.5 |
| | | | | |
| Fan | Type, number of set | unit | Turbo fan-1 | Prop fan-1 |
| | Air Volume Control | | Three-Step and Auto mode(Remote Controller) | — |
| | Type | | 6-pole single phase induction motor | 6-pole single phase induction motor |
| | Motor | kW | 0.09 | 0.07 |
| Air-heat exchanger | Rated Output | kW | 0.035 | 0.035 |
| | | | | |
| | | | Louver-fin type | Louver-fin type |
| Refrigerant Control | | | Capillary tube | Capillary tube |
| | Refrigeration oil(Charged) | ℓ | — | ATMOS M60(0.67) |
| | Refrigerant(Charged) | kg lbs | — | R-22(2.2) (4.9) |
| Running Adjustment | Control Switch | | Wireless or Wired Remote Controller | — |
| | Room Temperature | | Thermostat(Main Body) | — |
| Anti-vibration and Anti-sound Materials | | | Cabinet(urethane fram attached) | Compressor(Anti-vibration rubber) |
| | | | Internal protector for compressor, Internal thermostat F.M, Crankcase heater | |
| Safety Devices | | | Drain over-flow switch, High pressure switch, Current Trans | |
| | | | ABS resin(Decorative panel) | Powder coating |
| External Finish | | | Polypropylene regin Honeycomb(Washable) | — |
| | | | | |
| Air Filter(Factory set) | | | | |
| | | | | |
| Noise level | dB(A) | Hi 39 | Me 37 | Lo 35 |
| | | | Hi 45 | |

(1) Cooling capacities are based on indoor temp.27° CD.B.(80.6° FD.B.), 19.0° CW.B.(66.2° FW.B.) and outdoor air temp.

35° CD.B.(95° FD.B.), 24° CW.B.(75.2° FW.B.)

(2) Cooling capacities are based on indoor temp.27° CD.B.(80.6° FD.B.), 19.0° CW.B.(66.2° FW.B.) and outdoor air temp.

32° CD.B.(89.5° FD.B.), 24° CW.B.(75.2° FW.B.)

(3) Heating capacities are based on indoor temp.20° CD.B.(68.0° FD.B.) and outdoor air temp.7° CD.B.(44.6° FD.B.), 6° CW.B.(42.8° FW.B.)

(4)*1 Supply duct and fresh air duct are connectable. Supply duct requires the special parts.

(5) Net weight for indoor unit indicate main body and decorative panel.

ELECTRICAL DATA(50Hz)

| ITEM | MODEL | | CS-50U32JP, CU-50C52HP | | |
|-------------------|-------------------------|--------|------------------------|------|--|
| | Condition by JIS B 8616 | | | | |
| Volts | V | 220 | 230 | 240 | |
| Phase | Single | Single | Single | | |
| | Cool | 1.87 | 1.87 | 1.87 | |
| Power Consumption | Heat | 1.82 | 1.82 | 1.82 | |
| | Cool | 8.8 | 8.5 | 8.2 | |
| Running Current | Heat | 8.6 | 8.3 | 8.0 | |
| | Cool | 45.5 | 47.6 | 49.5 | |
| Starting Current | Heat | 95.5 | 95.7 | 95.0 | |
| | Cool | 96.2 | 95.3 | 94.6 | |
| Power Factor | % | | | | |
| | Heat | | | | |

*Power Factor means total figure of compressor, indoor fan motor and outdoor fan motor.

Panasonic Power source AC, 1~220V,230V,240V 50Hz

2. SPECIFICATIONS (HEAT PUMP TYPE)

| ITEM | MODEL | | Indoor unit | Outdoor unit |
|---|----------------------------|---|--|-------------------------------------|
| | Main body | CS-71U32JP | CU-71C52HP | |
| | Panel | CZ-02KPU01P | | |
| (1) Cooling Capacity | kW kcal/h BTU/h | 6.50 5,600 22,400 | | |
| (2) Cooling Capacity | kW kcal/h BTU/h | 6.70 5,800 23,200 | | |
| (3) Heating Capacity | kW kcal/h BTU/h | 6.95 6,000 24,000 | | |
| Refrigerant Charge-less | m | 30 | | |
| Standard Air Volume for High, Medium and Low Speed | m³/min cfm | Hi 17 600 | Me 15 530 | Lo 13 459 |
| Outside Static Pressure | mmAq in W.G. | 0 0 | | — |
| Air Inlet | | Lower sided Suction | Back sided Suction | |
| Air Outlet | | Lower sided blow-out | Front blow-out | |
| Duct Connection | | *1 Available | — | |
| Outside Dimension(H×W×D) | mm inch | (296+28)×750+750 (10-21/32+1-3/32)×32-9/32×32-9/32 | 900×900×320 35-7/16×35-7/16×12-19/32 | |
| Net Weight | kg lbs | 24(19.5±4.5) 53(43±10) | 71 156 | |
| Piping Connection | Refrigerant Liquid | mm(inch) mm(inch) | O.D.Φ 15.88(5/8) Flared type O.D.Φ 6.35(1/4) Flared type | |
| | Drain | mm | O.D.Φ 32(Accessory drain hose: I.D.Φ 32) | ID 20×1 |
| Compressor | Type, number of set | | — | Hermetic-1(Rotary),1 |
| | Starting Method | | — | Direct on-line starting |
| | Capacity Control | % | — | 0.100 |
| | Type | | — | 2-pole single phase induction motor |
| Motor | Input | kW | — | Cool/Heat 2.3/2.17 |
| | Rated Output | kW | — | 1.9 |
| | | | | |
| Fan | Type, number of set | unit | Turbo fan-1 | Prop fan-1 |
| | Air Volume Control | | Three-Step and Auto mode(Remote Controller) | — |
| | Type | | 6-pole single phase induction motor | 6-pole single phase induction motor |
| | Motor | kW | 0.09 | 0.11 |
| Air-heat exchanger | Rated Output | kW | 0.035 | 0.050 |
| | | | | |
| | | | Louver-fin type | Louver-fin type |
| Refrigerant Control | | | Capillary tube | Capillary tube |
| | Refrigeration oil(Charged) | ℓ | — | DIAMOND MS22(N-1) (1.3) |
| | Refrigerant(Charged) | kg lbs | — | R-22(2.7) (6.0) |
| Running Adjustment | Control Switch | | Wireless or Wired Remote Controller | — |
| | Room Temperature | | Thermostat(Main Body) | — |
| Anti-vibration and Anti-sound Materials | | | Cabinet(urethane fram attached) | Compressor(Anti-vibration rubber) |
| | | | Internal protector for compressor, Internal thermostat F.M, Crankcase heater | |
| Safety Devices | | | Drain over-flow switch, High pressure switch, Current Trans | |
| | | | ABS resin(Decorative panel) | Powder coating |
| External Finish | | | Polypropylene regin Honeycomb(Washable) | — |
| | | | | |
| Air Filter(Factory set) | | | | |
| | | | | |
| Noise level | dB(A) | Hi 41 | Me 39 | Lo 37 |
| | | | | Hi 46 |

(1) Cooling capacities are based on indoor temp.27° CD.B.(80.6° FD.B.), 19.0° CW.B.(66.2° FW.B.) and outdoor air temp.

35° CD.B.(95° FD.B.), 24° CW.B.(75.2° FW.B.)

(2) Cooling capacities are based on indoor temp.27° CD.B.(80.6° FD.B.), 19.0° CW.B.(66.2° FW.B.) and outdoor air temp.

32° CD.B.(89.5° FD.B.), 24° CW.B.(75.2° FW.B.)

(3) Heating capacities are based on indoor temp.20° CD.B.(68.0° FD.B.) and outdoor air temp.7° CD.B.(44.6° FD.B.), 6° CW.B.(42.8° FW.B.)

(4)*1 Supply duct and fresh air duct are connectable. Supply duct requires the special parts.

(5) Net weight for indoor unit indicate main body and decorative panel.

ELECTRICAL DATA(50Hz)

| ITEM | MODEL | | CS-71U32JP, CU-71C52HP | | |
|-------------------|-------------------------|--------|------------------------|------|--|
| | Condition by JIS B 8616 | | | | |
| Volts | V | 220 | 230 | 240 | |
| Phase | Single | Single | Single | | |
| | Cool | 2.50 | 2.50 | 2.50 | |
| Power Consumption | Heat | 2.37 | 2.37 | 2.37 | |
| | Cool | 12.7 | 12.2 | 11.7 | |
| Running Current | Heat | 12.2 | 11.7 | 11.2 | |
| | Cool | 63 | 63 | 63 | |
| Starting Current | Heat | 89.5 | 89.1 | 89.0 | |
| | Cool | 88.3 | 88.1 | 88.2 | |
| Power Factor | % | | | | |
| | Heat | | | | |

*Power Factor means total figure of compressor, indoor fan motor and outdoor fan motor.

Panasonic Power source AC, 1~220V,230V,240V 50Hz

2. SPECIFICATIONS (HEAT PUMP TYPE)

| ITEM | MODEL | | Indoor unit | Outdoor unit |
|---|---------------------|---|---|---|
| | Main body | CS-71U32JP, CU-71C52XP | | |
| | Panel | CZ-02KPU01P | | |
| (1) Cooling Capacity | | | kW kcal/h BTU/h | 6.50 5,600 22,400 |
| (2) Heating Capacity | | | kW kcal/h BTU/h | 6.70 5,800 23,200 |
| (3) Heating Capacity | | | kW kcal/h BTU/h | 6.05 6,000 24,000 |
| Refrigerant Charge-less | | | m | 30 |
| Standard Air Volume for High, Medium and Low Speed | m³/min cfm | Hi 17 600 | Me 15 530 | Lo 13 459 |
| Outside Static Pressure | mmHg in W.G. | 0 0 | | — |
| Air Inlet | | Lower sided Suction | | Back sided Suction |
| Air Outlet | | Lower sided blow-out | | Front blow-out |
| Duct Connection | | *1 Available | | |
| Outside Dimension(H×W×D) | mm inch | (296+28)X750X750 (11-21/32+1-3/32)X32-9/32X32-9/32 | | 900X900X320 35-7/16X35-7/16X12-19/32 |
| Net Weight | kg lbs | 24(19.5+4.5) 53(43+10) | | 71 156 |
| Piping Connection | Refrigerant | Gas Liquid | mm(inch) mm(inch) | O.D.φ 15.88(5/8) Flared type O.D.φ 6.35(1/4) Flared type |
| Drain | | mm | O.D.φ 32(Accessory drain hose: I.D.φ 32) | |
| Compressor | Type, number of set | | | — |
| | Starting Method | | | Hermetic-1(Rotary),1 |
| | Capacity Control | % | | — |
| | Type | | | 0.100 |
| Motor | Input | kW | | 2-pole 3-phase induction motor |
| | Rated Output | kW | | Cool/Heat 2.28/2.15 |
| Fan | Type, number of set | unit | Turbo fan-1 | |
| | Air Volume Control | | Three-Step and Auto mode(Remote Controller) | |
| | Motor | Type | 6-pole single phase induction motor | 6-pole single phase induction motor |
| | | Input | kW | 0.09 |
| | | Rated Output | kW | 0.035 |
| | | | | 0.11 |
| | | | | 0.050 |
| Air-heat exchanger | | | Louver-fin type | |
| Refrigerant Control | | | Capillary tube | |
| Refrigeration oil(Charged) | ℓ | — | DIAMOND MS32(N-1) (1.3) | |
| Refrigerant(Charged) | kg lbs | — | R-22(2.7) (6.6) | |
| Running Adjustment | Control Switch | Operation Switch (Remote Controller) | — | |
| | Room Temperature | Thermostat(Main Body) | — | |
| Anti-vibration and Anti-sound Materials | | Cabinet(urethane fram attached) | Compressor(Anti-vibration rubber) | |
| Safety Devices | | Internal thermostat for F.M, Crankcase heater | — | |
| External Finish | | Drain over-flow switch, High pressure switch, Current Trans | — | |
| Air Filter(Factory set) | | ABS resin(Decorative panel) | Powder coating | |
| Noise level | dB(A) | Hi 41 Me 39 Lo 37 | — | |
| | | | Hi 46 | |

(1) Cooling capacities are based on indoor temp.27° CD.B.(80.6° FD.B.), 19.0° CW.B.(66.2° FW.B.) and outdoor air temp. 35° CD.B.(95° FD.B.), 24° CW.B.(75.2° FW.B.)

(2) Cooling capacities are based on indoor temp.27° CD.B.(80.6° FD.B.), 19.0° CW.B.(66.2° FW.B.) and outdoor air temp. 32° CD.B.(69.5° FD.B.), 24° CW.B.(75.2° FW.B.)

(3) Heating capacities are based on indoor temp.20° CD.B.(68.0° FD.B.) and outdoor air temp.7° CD.B.(44.6° FD.B.), 6° CW.B.(42.8° FD.B.)

(4)*1 Supply duct and fresh air duct are connectable. Supply duct requires the special parts.

(5) Net weight for indoor unit indicate main body and decorative panel.

ELECTRICAL DATA(50Hz)

| ITEM | MODEL | | CS-71U32JP, CU-71C52XP | | |
|-------------------|-------------------------|--------------|------------------------|------|--|
| | Condition by JIS B 8616 | | | | |
| Volts | V | 380 | 400 | 415 | |
| Phase | | 3N | 3N | 3N | |
| Power Consumption | kW | Cool 2.50 | 2.50 | 2.50 | |
| | | Heat 2.37 | 2.37 | 2.37 | |
| Running Current | A | Cool 4.70 | 4.50 | 4.20 | |
| | | Heat 4.20 | 4.10 | 4.00 | |
| Starting Current | A | Cool 22 | 22 | 22 | |
| | | Heat 85.7 | 80.7 | 82.8 | |
| Power Factor | % | Cool 80.8 | 80.7 | 82.8 | |
| | | Heat 85.7 | 83.4 | 82.4 | |

*Power Factor means total figure of compressor, indoor fan motor and outdoor fan motor.

Panasonic Power source AC, 3N~380V,400V,415V 50Hz

2. SPECIFICATIONS (HEAT PUMP TYPE)

| ITEM | MODEL | | Indoor unit | Outdoor unit |
|---|---------------------|--|---|---|
| | Main body | CS-80U32JP, CU-80C52HP | | |
| | Panel | CZ-04KPU01P | | |
| (1) Cooling Capacity | | | kW kcal/h BTU/h | 7.30 6,300 25,200 |
| (2) Heating Capacity | | | kW kcal/h BTU/h | 7.60 6,650 26,200 |
| (3) Heating Capacity | | | kW kcal/h BTU/h | 7.75 6,700 26,800 |
| Refrigerant Charge-less | | | m | 30 |
| Standard Air Volume for High, Medium and Low Speed | m³/min cfm | Hi 19 671 | Me 17 600 | Lo 15 529 |
| Outside Static Pressure | mmHg in W.G. | 0 0 | | — |
| Air Inlet | | Lower sided Suction | | Back sided Suction |
| Air Outlet | | Lower sided blow-out | | Front blow-out |
| Duct Connection | | *1 Available | | |
| Outside Dimension(H×W×D) | mm inch | (296+28)X820+820 (11-21/32+1-3/32)X32-9/32X32-9/32 | | 900X900X320 35-7/16X35-7/16X12-19/13 |
| Net Weight | kg lbs | 30.5(25+5.5) 67(55+12) | | 73 161 |
| Piping Connection | Refrigerant | Gas Liquid | mm(inch) mm(inch) | O.D.φ 15.88(5/8) Flared type O.D.φ 9.52(3/8) Flared type |
| Drain | | mm | O.D.φ 32(Accessory drain hose: I.D.φ 32) | |
| Compressor | Type, number of set | | | — |
| | Starting Method | | | Hermetic-1(Rotary),1 |
| | Capacity Control | % | | — |
| | Type | | | 0.100 |
| Motor | Input | kW | | 2-pole single phase induction motor |
| | Rated Output | kW | | Cool/Heat 2.73/2.49 |
| Fan | Type, number of set | unit | Turbo fan-1 | |
| | Air Volume Control | | Three-Step and Auto mode(Remote Controller) | |
| | Motor | Type | 6-pole single phase induction motor | 6-pole single phase induction motor |
| | | Input | kW | 0.09/0.09 |
| | | Rated Output | kW | 0.035 |
| | | | | 0.11 |
| | | | | 0.05 |
| Air-heat exchanger | | | Louver-fin type | |
| Refrigerant Control | | | Capillary tube | |
| Refrigeration oil(Charged) | ℓ | — | DIAMOND MS32(N-1) (1.3) | |
| Refrigerant(Charged) | kg lbs | — | R-22(3.8) (6.4) | |
| Running Adjustment | Control Switch | Operation Switch (Remote Controller) | — | |
| | Room Temperature | Thermostat(Main Body) | — | |
| Anti-vibration and Anti-sound Materials | | Cabinet(urethane fram attached) | Compressor(Anti-vibration rubber) | |
| Safety Devices | | Internal protector for compressor, Internal thermostat F.M, Crankcase heater | — | |
| External Finish | | Drain over-flow switch, High pressure switch, Current Trans | — | |
| Air Filter(Factory set) | | ABS resin(Decorative panel) | Powder coating | |
| Noise level | dB(A) | Hi 41 Me 39 Lo 37 | — | |
| | | | Hi 46 | |

(1) Cooling capacities are based on indoor temp.27° CD.B.(80.6° FD.B.), 19.0° CW.B.(66.2° FW.B.) and outdoor air temp. 35° CD.B.(95° FD.B.), 24° CW.B.(75.2° FW.B.)

(2) Cooling capacities are based on indoor temp.27° CD.B.(80.6° FD.B.), 19.0° CW.B.(66.2° FW.B.) and outdoor air temp. 32° CD.B.(69.5° FD.B.), 24° CW.B.(75.2° FW.B.)

(3) Heating capacities are based on indoor temp.20° CD.B.(68.0° FD.B.) and outdoor air temp.7° CD.B.(44.6° FD.B.), 6° CW.B.(42.8° FD.B.)

(4)*1 Supply duct and fresh air duct are connectable. Supply duct requires the special parts.

(5) Net weight for indoor unit indicate main body and decorative panel.

ELECTRICAL DATA(50Hz)

| ITEM | MODEL | | CS-80U32JP, CU-80C52HP | | |
|-------------------|-------------------------|--------------|------------------------|--------|--|
| | Condition by JIS B 8616 | | | | |
| Volts | V | 220 | 230 | 240 | |
| Phase | | Single | Single | Single | |
| Power Consumption | kW | Cool 2.73 | 2.73 | 2.73 | |
| | | Heat 2.49 | 2.49 | 2.49 | |
| Running Current | A | Cool 13.4 | 13.4 | 12.9 | |
| | | Heat 12.5 | 12.5 | 12.0 | |
| Starting Current | A | Cool 70 | 70 | 70 | |
| | | Heat 92.6 | 92.6 | 92.0 | |
| Power Factor | % | Cool 90.5 | 90.5 | 90.2 | |
| | | Heat 91.7 | 91.7 | 90.2 | |

*Power Factor means total figure of compressor, indoor fan motor and outdoor fan motor.

Panasonic Power source AC, 1~220V,230V,240V 50Hz

2. SPECIFICATIONS (HEAT PUMP TYPE)

| ITEM | MODEL | | | Indoor unit | Outdoor unit | |
|---|------------------------------------|--|--|---|-------------------------------------|--|
| | Main body | CS-80U32JP | | CU-80C52XP | | |
| | Panel | CZ-04KPU01P | | | | |
| (1) Cooling Capacity | kW kcal/h BTU/h | 7.30 6,300 25,200 | | | | |
| (2) Cooling Capacity | kW kcal/h BTU/h | 7.60 6,550 26,200 | | | | |
| (3) Heating Capacity | kW kcal/h BTU/h | 7.75 6,700 26,800 | | | | |
| Refrigerant Charge-less | m | 30 | | | | |
| Standard Air Volume for High, Medium and Low Speed | m³/min cfm | Hi 19 671 | Me 17 600 | Lo 15 529 | Hi 50 1766 | |
| Outside Static Pressure | mmAq in W.G. | 0 0 | | — | | |
| Air Inlet | | Lower sided Suction | | Back sided Suction | | |
| Air Outlet | | Lower sided blow-out | | Front blow-out | | |
| Duct Connection | | *1 Available | | — | | |
| Outside Dimension(H×W×D) | mm inch | (296+28)×820×820 (11-21/32+1-3/2)×32-9/32×32-9/32 | | 900×900×320 35-7/16×35-7/16×12-19/32 | | |
| Net Weight | kg lbs | 30.5(25-5.5) 67(55+12) | | 73 161 | | |
| Piping Connection | Refrigerant Gas Liquid | mm(inch) mm(inch) | O.D.Φ 15.89(5/8) Flared type O.D.Φ 9.52(3/8) Flared type | | | |
| | Drain | mm | O.D.Φ 32(Accessory drain hose: I.D.Φ 32) | | ID 20×1 | |
| Compressor | Type, number of set | | — | | Hermetic-1(Rotary), 1 | |
| | Starting Method | | — | | Direct on-line starting | |
| | Capacity Control | % | — | | 0.100 | |
| | Type | | — | | 2-pole 3-phase induction motor | |
| Motor | Input | kW | — | | Cool/Heat 2.53/2.29 | |
| | Rated Output | kW | — | | 2.0 | |
| | Type, number of set | unit | Turbo fan-1 | | Prop fan-1 | |
| Fan | Air Volume Control | | Three-Step and Auto mode(Remote Controller) | | — | |
| | Type | | 6-pole single phase induction motor | | 6-pole single phase induction motor | |
| | Input | kW | 0.09 | | 0.11 | |
| | Rated Output | kW | 0.035 | | 0.050 | |
| Air-heat exchanger | | | Louver-fin type | | Louver-fin type | |
| Refrigerant Control | | | Capillary tube | | Capillary tube | |
| Refrigeration oil(Charged) | ℓ | | — | | DIAMOND MS32(N-1) (1.3) | |
| Refrigerant(Charged) | kg lbs | | — | | R-22(3.6) (8.4) | |
| Running Adjustment | Control Switch Room Temperature | | Operation Switch (Remote Controller) | | — | |
| Anti-vibration and Anti-sound Materials | | | Thermostat(Main Body) | | — | |
| Safety Devices | | | Cabinet(urethane fram attached) | | Compressor(Anti-vibration rubber) | |
| External Finish | | | Internal thermostat for F.M, Crankcase heater Drain over-flow switch, High pressure switch, Current Trans | | | |
| Air Filter(Factory set) | | | ABS resin(Decorative panel) | | Powder coating | |
| Noise level | dB(A) | | Polypropylene regin Honeycomb(Washable) | | — | |
| | | | Hi 41 Me 39 Lo 37 | | Hi 46 | |

(1) Cooling capacities are based on indoor temp.27°CDB.(80.6°FDB.), 19.0°CWB.(66.2°FWB.) and outdoor air temp. 35°CDB.(95°FDB.), 24°CWB.(75.2°FWB.)

(2) Cooling capacities are based on indoor temp.27°CDB.(80.6°FDB.), 19.0°CWB.(66.2°FWB.) and outdoor air temp. 32°CDB.(89.5°FDB.), 24°CWB.(75.2°FWB.)

(3) Heating capacities are based on indoor temp.20°CDB.(68.0°FDB.) and outdoor air temp.7°CDB.(44.6°FDB.), 6°CWB.(42.8°FWB.)

(4)*1 Supply duct and fresh air duct are connectable. Supply duct requires the special parts.

(5) Net weight for indoor unit indicate main body and decorative panel.

ELECTRICAL DATA(50Hz)

| ITEM | MODEL | | | CS-80U32JP, CU-80C52XP | | |
|-------------------|-------------------------|------|------|------------------------|------|--|
| | Condition by JIS B 8616 | | | | | |
| Volts | V | | 380 | 400 | 415 | |
| Phase | | | 3N | 3N | 3N | |
| Power Consumption | kW | Cool | 2.73 | 2.73 | 2.73 | |
| | | Heat | 2.49 | 2.49 | 2.49 | |
| Running Current | A | Cool | 5.0 | 4.9 | 4.8 | |
| | | Heat | 4.6 | 4.4 | 4.2 | |
| Starting Current | A | | 25 | 26 | 26 | |
| | | | | | | |
| Power Factor | % | Cool | 83.0 | 80.4 | 82.5 | |
| | | Heat | 82.2 | 81.7 | 83.5 | |

*Power Factor means total figure of compressor, indoor fan motor and outdoor fan motor.

Panasonic Power source AC, 3N~380V,400V,415V 50Hz

2. SPECIFICATIONS (HEAT PUMP TYPE)

| ITEM | MODEL | | | Indoor unit | Outdoor unit | |
|---|------------------------------------|--|---|---|-------------------------------------|--|
| | Main body | CS-112U32JP | | CU-112C52XP | | |
| | Panel | CZ-04KPU01P | | | | |
| (1) Cooling Capacity | kW kcal/h BTU/h | 7.30 9,000 36,000 | | 10.45 9,000 36,000 | | |
| (2) Cooling Capacity | kW kcal/h BTU/h | 7.60 9,400 37,600 | | 10.90 9,400 37,600 | | |
| (3) Heating Capacity | kW kcal/h BTU/h | 7.75 9,600 38,400 | | 11.15 9,600 38,400 | | |
| Refrigerant Charge-less | m | 30 | | 30 | | |
| Standard Air Volume for High, Medium and Low Speed | m³/min cfm | Hi 24 847 | Me 21 741 | Lo 18 635 | Hi 75 2647 | |
| Outside Static Pressure | mmAq in W.G. | 0 0 | | — | | |
| Air Inlet | | Lower sided Suction | | Back sided Suction | | |
| Air Outlet | | Lower sided blow-out | | Front blow-out | | |
| Duct Connection | | *1 Available | | — | | |
| Outside Dimension(H×W×D) | mm inch | (296+28)×820×820 (11-21/32+1-3/2)×32-9/32×32-9/32 | | 900×900×320 35-7/16×35-7/16×12-19/32 | | |
| Net Weight | kg lbs | 33.5(28-5.5) 74(62-12) | | 98 216 | | |
| Piping Connection | Refrigerant Gas Liquid | mm(inch) mm(inch) | O.D.Φ 19.05(3/4) Flared type O.D.Φ 9.52(3/8) Flared type | | | |
| | Drain | mm | O.D.Φ 32(Accessory drain hose: I.D.Φ 32) | | ID 20×1 | |
| Compressor | Type, number of set | | — | | Hermetic-1(Scroll), 1 | |
| | Starting Method | | — | | Direct on-line starting | |
| | Capacity Control | % | — | | 0.100 | |
| | Type | | — | | 2-pole 3-phase induction motor | |
| Motor | Input | kW | — | | Cool/Heat 3.07/3.07 | |
| | Rated Output | kW | — | | — | |
| | Type, number of set | unit | Turbo fan-1 | | Prop fan-2 | |
| Fan | Air Volume Control | | Three-Step and Auto mode(Remote Controller) | | — | |
| | Type | | 6-pole single phase induction motor | | 6-pole single phase induction motor | |
| | Input | kW | 0.09/0.09 | | 0.11×2 | |
| | Rated Output | kW | 0.045 | | 0.05×2 | |
| Air-heat exchanger | | | Louver-fin type | | Louver-fin type | |
| Refrigerant Control | | | Capillary tube | | Capillary tube | |
| Refrigeration oil(Charged) | ℓ | | — | | SONTEX 200LT(1.24) | |
| Refrigerant(Charged) | kg lbs | | — | | R-22(4.7) (10.4) | |
| Running Adjustment | Control Switch Room Temperature | | Wireless or Wired Remote Controller | | — | |
| Anti-vibration and Anti-sound Materials | | | Thermostat(Main Body) | | — | |
| Safety Devices | | | Cabinet(urethane fram attached) | | Compressor(Anti-vibration rubber) | |
| External Finish | | | Internal protector for compressor, Internal thermostat for F.M, Crankcase heater Drain over-flow switch, High pressure switch, Current Trans | | | |
| Air Filter(Factory set) | | | ABS resin(Decorative panel) | | Powder coating | |
| Noise level | dB(A) | | Polypropylene regin Honeycomb(Washable) | | — | |

(1) Cooling capacities are based on indoor temp.27°CDB.(80.6°FDB.), 19.0°CWB.(66.2°FWB.) and outdoor air temp. 35°CDB.(95°FDB.), 24°CWB.(75.2°FWB.)

(2) Cooling capacities are based on indoor temp.27°CDB.(80.6°FDB.), 19.0°CWB.(66.2°FWB.) and outdoor air temp. 32°CDB.(89.5°FDB.), 24°CWB.(75.2°FWB.)

(3) Heating capacities are based on indoor temp.20°CDB.(68.0°FDB.) and outdoor air temp.7°CDB.(44.6°FDB.), 6°CWB.(42.8°FWB.)

(4)*1 Supply duct and fresh air duct are connectable. Supply duct requires the special parts.

(5) Net weight for indoor unit indicate main body and decorative panel.

ELECTRICAL DATA(50Hz)

| ITEM | MODEL | | | CS-112U32JP, CU-112C52XP | | |
|-------------------|-------------------------|------|------|--------------------------|------|------|
| | Condition by JIS B 8616 | | | | | |
| Volts | V | | 380 | 400 | 415 | |
| Phase | | | 3N | 3N | 3N | |
| Power Consumption | kW | Cool | 3.40 | 3.40 | 3.40 | |
| | | Heat | 3.40 | 3.40 | 3.40 | |
| Running Current | A | Cool | 6.40 | 6.40 | 6.10 | 5.90 |
| | | Heat | 6.40 | 6.40 | 6.10 | 5.90 |
| Starting Current | A | | 40 | 40 | 40 | 40 |
| | | | | | | |
| Power Factor | % | Cool | 80.7 | 80.5 | 80.2 | |
| | | Heat | 80.7 | 80.5 | 80.2 | |

*Power Factor means total figure of compressor, indoor fan motor and outdoor fan motor.

Panasonic Power source AC, 3N~380V,400V,415V 50Hz

2. SPECIFICATIONS (HEAT PUMP TYPE)

| ITEM | MODEL | | | Indoor unit | Outdoor unit |
|---|-----------------------|---|----------------------|--|-----------------------------------|
| | Main body | CS-140U32JP | | CU-140C52XP | |
| | Panel | CZ-06KPU01P | | | |
| (1) Cooling Capacity | kW kcal/h BTU/h | 13.00 11,200 44,800 | | | |
| (2) Cooling Capacity | kW kcal/h BTU/h | 13.40 11,550 46,200 | | | |
| (3) Heating Capacity | kW kcal/h BTU/h | 14.15 12,200 48,800 | | | |
| Refrigerant Charge-less | m | 30 | | | |
| Standard Air Volume for High, Medium and Low Speed | m³/min cfm | Hi 30 1059 | Me 25 883 | Lo 20 706 | Hi 80 2825 |
| Outside Static Pressure | mmHg in.W.G. | 0 0 | | — | |
| Air Inlet | | Lower sided Suction | | Back sided Suction | |
| Air Outlet | | Lower sided blow-out | | Front blow-out | |
| Duct Connection | | — *1 Available | | — | |
| Outside Dimension(H×W×D) | mm inch | (296+28)×930×930 (11-21/32+1-3/32)×36-5/8×36-5/8 | | 1220×1100×320 48-1/32×43-5/16×12-19/32 | |
| Net Weight | kg lbs | 40(33+7) 88(73+15) | | 112 247 | |
| Piping Connection | Refrigerant | Gas Liquid | mm(inch) mm(inch) | O.D.ø 19.05(3/4) Flared type O.D.ø 9.52(3/8) Flared type | |
| | Drain | | mm | O.D.ø 32(Accessory drain hose: I.D.ø 32) | |
| | Type, number of set | | | — | |
| | Starting Method | | | Hermetic-1(Scroll),1 | |
| Compressor | Capacity Control | % | | — | |
| | Motor | Type | | 0.100 | |
| | | Input | kW | — | |
| | | Rated Output | kW | 2-pole 3-phase induction motor Cool/Heat 3.74/3.74 | |
| | | | | — | |
| | | | | 3.54 | |
| Fan | Type, number of set | unit | | Turbo fan-1 | Prop fan-2 |
| | Air Volume Control | | | Three-Step and Auto mode(Remote Controller) | |
| | | Type | | 6-pole single phase induction motor | |
| | Motor | Input | kW | 0.20 | |
| | | Rated Output | kW | 0.08 | |
| | | | | 0.11×2 | |
| | | | | 0.05×2 | |
| Air-heat exchanger | | | | Louver-fin type | Louver-fin type |
| Refrigerant Control | | | | Capillary tube | Capillary tube |
| Refrigeration oil(Charged) | | ℓ | | SONTEX 200LT(2.13) | |
| Refrigerant(Charged) | | kg lbs | | — | |
| | | | | R-22(5.2) (11.5) | |
| Running Adjustment | Control Switch | | | Wireless or Wired Remote Controller | |
| | Room Temperature | | | Thermostat(Main Body) | |
| Anti-vibration and Anti-sound Materials | | | | Cabinet(urethane fram attached) | Compressor(Anti-vibration rubber) |
| Safety Devices | | | | Internal protector for compressor, Internal thermostat for F.M. High pressure switch | |
| External Finish | | | | Drain over-flow switch, crankcase heater, Current Trans | |
| Air Filter(Factory set) | | | | ABS resin(Decorative panel) | Powder coating |
| Noise level | | dB(A) | | Hi 44 Me 40 Lo 37 | Hi 51 |

(1) Cooling capacities are based on indoor temp.27° CD.B.(80.6° FD.B.), 19.0° CW.B.(66.2° FW.B.) and outdoor air temp. 35° CD.B.(95° FD.B.), 24° CW.B.(75.2° FW.B.)

(2) Cooling capacities are based on indoor temp.27° CD.B.(80.6° FD.B.), 19.0° CW.B.(66.2° FW.B.) and outdoor air temp. 32° CD.B.(89.5° FD.B.), 24° CW.B.(75.2° FW.B.)

(3) Heating capacities are based on indoor temp.20° CD.B.(68.0° FD.B.) and outdoor air temp.7° CD.B.(44.6° FD.B.), 6° CW.B.(42.8° FW.B.)

(4)*1 Supply duct is connectable. Supply duct requires the special parts.

(5) Net weight for indoor unit indicate main body and decorative panel.

ELECTRICAL DATA(50Hz)

| ITEM | MODEL | | | CS-140U32JP, CU-140C52XP | | |
|-------------------|-------------------------|------|------|--------------------------|------|--|
| | Condition by JIS B 8616 | | | | | |
| Volts | V | | 380 | 400 | 415 | |
| Phase | | | 3N | 3N | 3N | |
| Power Consumption | kW | Cool | 4.16 | 4.16 | 4.16 | |
| | | Heat | 4.16 | 4.16 | 4.16 | |
| Running Current | A | Cool | 7.50 | 7.30 | 7.10 | |
| | | Heat | 7.50 | 7.30 | 7.10 | |
| Starting Current | A | Cool | 46.5 | 46.5 | 50 | |
| | | Heat | 84.3 | 82.3 | 81.5 | |
| Power Factor | % | Cool | | | | |
| | | Heat | 84.3 | 82.3 | 81.5 | |

*Power Factor means total figure of compressor, indoor fan motor and outdoor fan motor.

Panasonic Power source AC, 3N~380V,400V,415V 50Hz

2. SPECIFICATIONS (HEAT PUMP TYPE)

| ITEM | MODEL | | | Indoor unit | Outdoor unit |
|---|-----------------------|---|----------------------|--|-----------------------------------|
| | Main body | CS-160U32JP | | CU-160C52XP | |
| | Panel | CZ-06KPU01P | | | |
| (1) Cooling Capacity | kW kcal/h BTU/h | 14.50 12,500 50,000 | | | |
| (2) Cooling Capacity | kW kcal/h BTU/h | 15.10 13,000 52,000 | | | |
| (3) Heating Capacity | kW kcal/h BTU/h | 15.70 13,500 54,000 | | | |
| Refrigerant Charge-less | m | 30 | | | |
| Standard Air Volume for High, Medium and Low Speed | m³/min cfm | Hi 34 1201 | Me 29 1024 | Lo 24 848 | Hi 95 3355 |
| Outside Static Pressure | mmHg in.W.G. | 0 0 | | — | |
| Air Inlet | | Lower sided Suction | | Back sided Suction | |
| Air Outlet | | Lower sided blow-out | | Front blow-out | |
| Duct Connection | | — *1 Available | | — | |
| Outside Dimension(H×W×D) | mm inch | (286+28)×930×930 (11-21/32+1-3/32)×36-5/8×36-5/8 | | 1220×1100×320 48-1/32×43-5/16×12-19/32 | |
| Net Weight | kg lbs | 40(33+7) 88(73+15) | | 118 260 | |
| Piping Connection | Refrigerant | Gas Liquid | mm(inch) mm(inch) | O.D.ø 19.05(3/4) Flared type O.D.ø 9.52(3/8) Flared type | |
| | Drain | | mm | O.D.ø 32(Accessory drain hose: I.D.ø 32) | |
| | Type, number of set | | | — | |
| | Starting Method | | | Hermetic-1(Scroll),1 | |
| Compressor | Capacity Control | % | | — | |
| | Motor | Type | | — | |
| | | Input | kW | 0.100 | |
| | | Rated Output | kW | 2-pole 3-phase induction motor Cool/Heat 4.53/4.49 | |
| | | | | — | |
| | | | | 4.1 | |
| Fan | Type, number of set | unit | | Turbo fan-1 | Prop fan-2 |
| | Air Volume Control | | | Three-Step and Auto mode(Remote Controller) | |
| | | Type | | 6-pole single phase induction motor | |
| | Motor | Input | kW | 0.09/0.09 | |
| | | Rated Output | kW | 0.12×2 | |
| | | | | 0.055×2 | |
| Air-heat exchanger | | | | Louver-fin type | Louver-fin type |
| Refrigerant Control | | | | Capillary tube | Capillary tube |
| Refrigeration oil(Charged) | | ℓ | | SONTEX 200LT(1.77) | |
| Refrigerant(Charged) | | kg lbs | | — | |
| | | | | R-22(5.4) (11.9) | |
| Running Adjustment | Control Switch | | | Wireless or Wired Remote Controller | |
| | Room Temperature | | | Thermostat(Main Body) | |
| Anti-vibration and Anti-sound Materials | | | | Cabinet(urethane fram attached) | Compressor(Anti-vibration rubber) |
| Safety Devices | | | | Internal protector for compressor, Internal thermostat F.M. Crankcase heater | |
| External Finish | | | | Internal protector for compressor, Internal thermostat F.M. Crankcase heater | |
| Air Filter(Factory set) | | | | Drain over-flow switch, High pressure switch, Current Trans | |
| Noise level | | dB(A) | | ABS resin(Decorative panel) | Powder coating |

(1) Cooling capacities are based on indoor temp.27° CD.B.(80.6° FD.B.), 19.0° CW.B.(66.2° FW.B.) and outdoor air temp. 35° CD.B.(95° FD.B.), 24° CW.B.(75.2° FW.B.)

(2) Cooling capacities are based on indoor temp.27° CD.B.(80.6° FD.B.), 19.0° CW.B.(66.2° FW.B.) and outdoor air temp. 32° CD.B.(89.5° FD.B.), 24° CW.B.(75.2° FW.B.)

(3) Heating capacities are based on indoor temp.20° CD.B.(68.0° FD.B.) and outdoor air temp.7° CD.B.(44.6° FD.B.), 6° CW.B.(42.8° FW.B.)

(4)*1 Supply duct is connectable. Supply duct requires the special parts.

(5) Net weight for indoor unit indicate main body and decorative panel.

ELECTRICAL DATA(50Hz)

| ITEM | MODEL | | | CS-160U32JP, CU-160C52XP | | |
|-------------------|-------------------------|------|------|--------------------------|------|--|
| | Condition by JIS B 8616 | | | | | |
| Volts | V | | 380 | 400 | 415 | |
| Phase | | | 3N | 3N | 3N | |
| Power Consumption | kW | Cool | 4.99 | 4.99 | 4.99 | |
| | | Heat | 4.95 | 4.95 | 4.95 | |
| Running Current | A | Cool | 9.20 | 8.90 | 8.60 | |
| | | Heat | 9.20 | 8.90 | 8.60 | |
| Starting Current | A | Cool | 55 | 55 | 55 | |
| | | Heat | 81.7 | 80.3 | 80.1 | |
| Power Factor | % | Cool | 82.4 | 80.9 | 80.7 | |
| | | Heat | 82.4 | 80.9 | 80.7 | |

*Power Factor means total figure of compressor, indoor fan motor and outdoor fan motor.

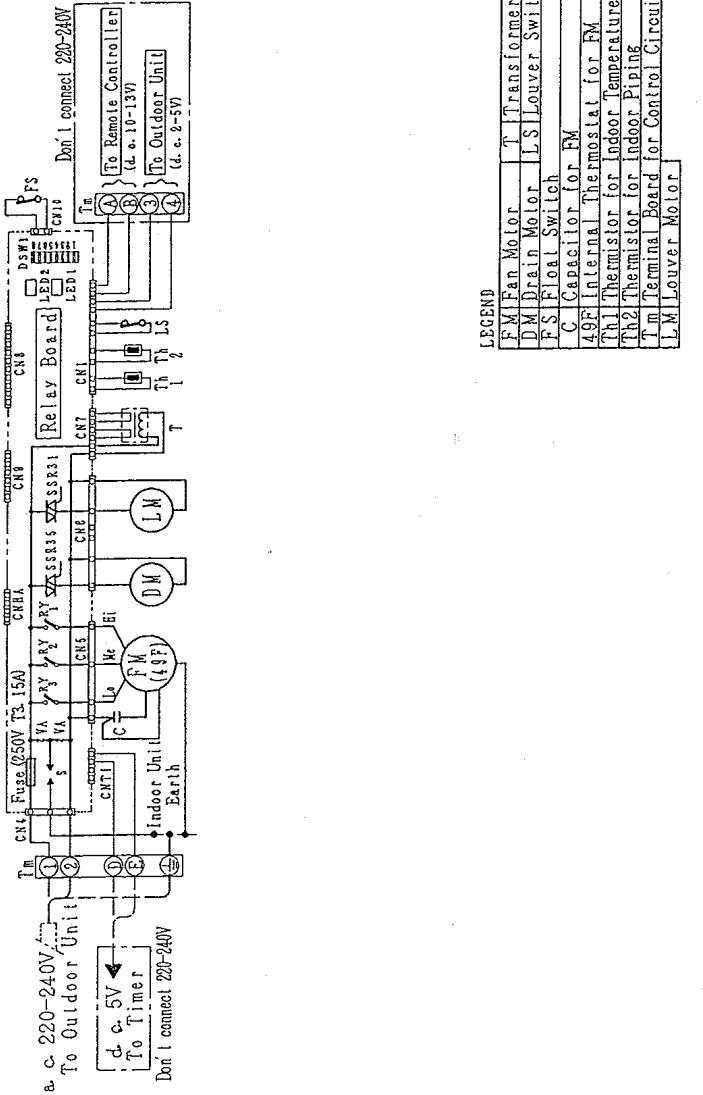
Panasonic Power source AC, 3N~380V,400V,415V

5. CIRCUIT DIAGRAM

CS-40U32JP, CS-50U32JP, CS-71U32JP

CONNECTION DIAGRAM (Indoor Unit)

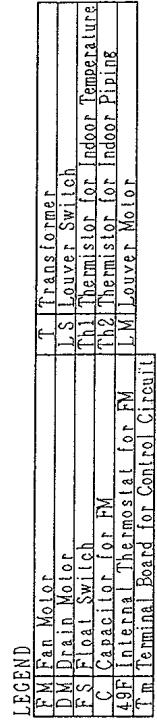
(INDOOR UNIT)



5. CIRCUIT DIAGRAM

CS-80U32JP, CS-112U32JP

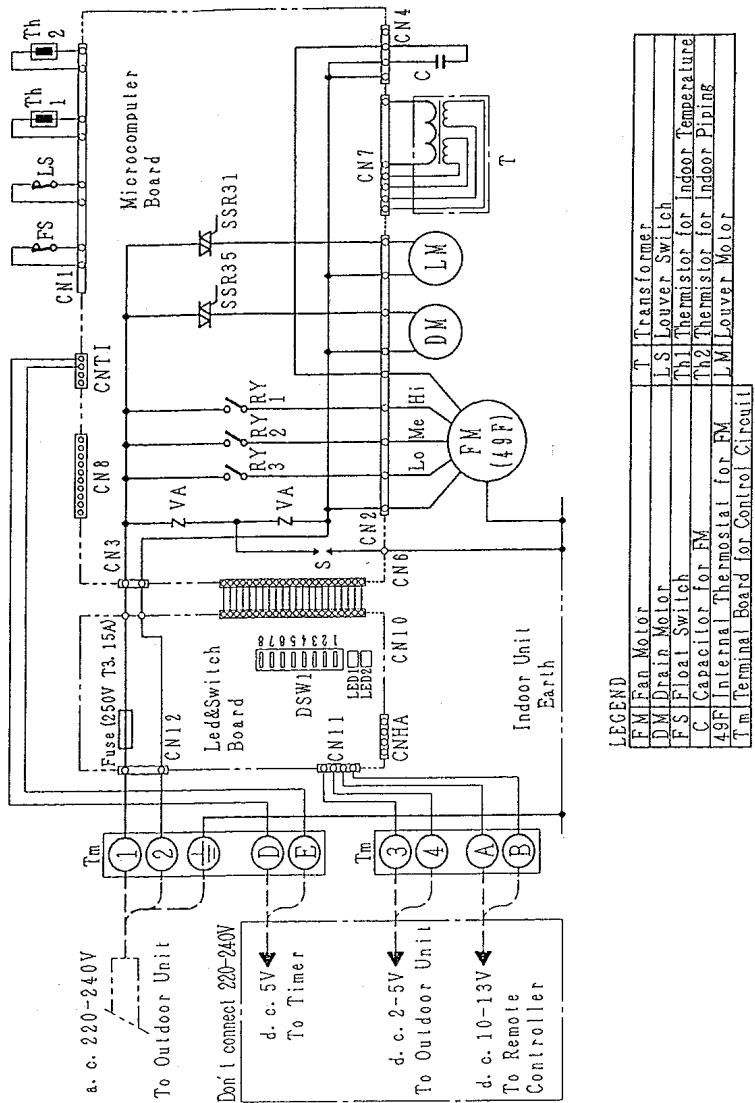
CONNECTION DIAGRAM (Indoor Unit)



5. CIRCUIT DIAGRAM

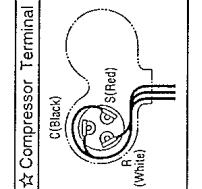
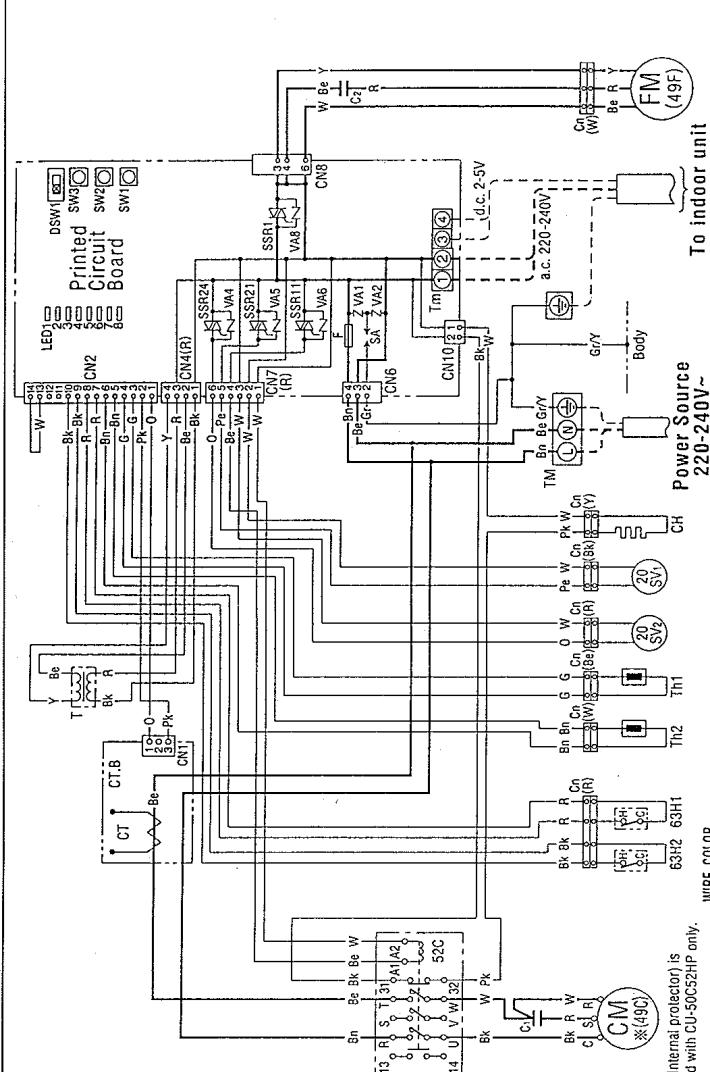
CS-140U32JP, CS-160U32JP

CONNECTION DIAGRAM (Indoor Unit)



5. CIRCUIT DIAGRAM(HEAT PUMP TYPE)

CU-40C52HP, CU-50C52HP



WIRE COLOR

| | | |
|--------|------|---|
| Red | 20SV | Reversing Valve |
| Yellow | 20SV | Bypass Magnetic Valve |
| Blue | 20SV | TM: Terminal Board for Main Circuit |
| Orange | 20SV | CT-B: Current Transistor for Main Circuit |
| White | 20SV | Th1: Thermistor for CM |
| Brown | 20SV | 52C: Magnetic Contactor for CM |
| Pink | 250V | CT-I: Current Transistor for CM |
| Gray | 250V | C1: Capacitor for CM |
| Black | 250V | CH: Crankcase Heater for CM |
| Purple | 250V | 63H1: High Pressure Switch |
| Green | 250V | 63H2: High Pressure Switch on Heat-pump |

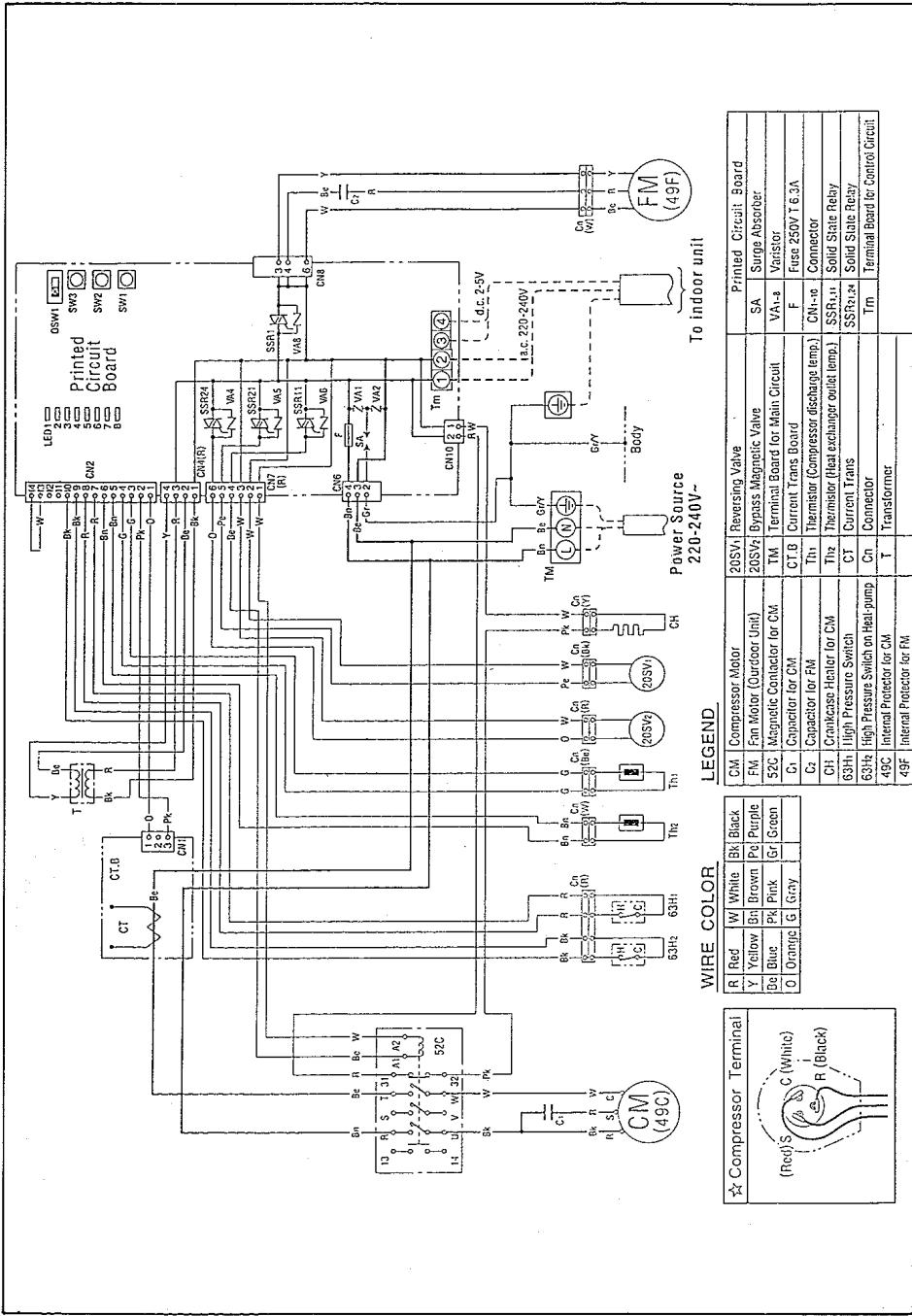
* 49C (internal protector) is applied with CU-50C52HP only.

COMPRESSOR TERMINAL

| | |
|-------------|--------------------------------|
| C (Black) | CM: Compressor Motor |
| O (Black) | 49C: Internal Protector for CM |
| O (Orange) | FM: Fan Motor (Outdoor Unit) |
| W (White) | 49F: Internal Protector for FM |
| Bn (Brown) | SSR1:11: Solid State Relay |
| Pk (Pink) | SSR1:24: Solid State Relay |
| G (Gray) | CT: Connector |
| Bk (Black) | T: Transformer |
| Pb (Purple) | Cn: Connector |
| G (Green) | T: Transformer |

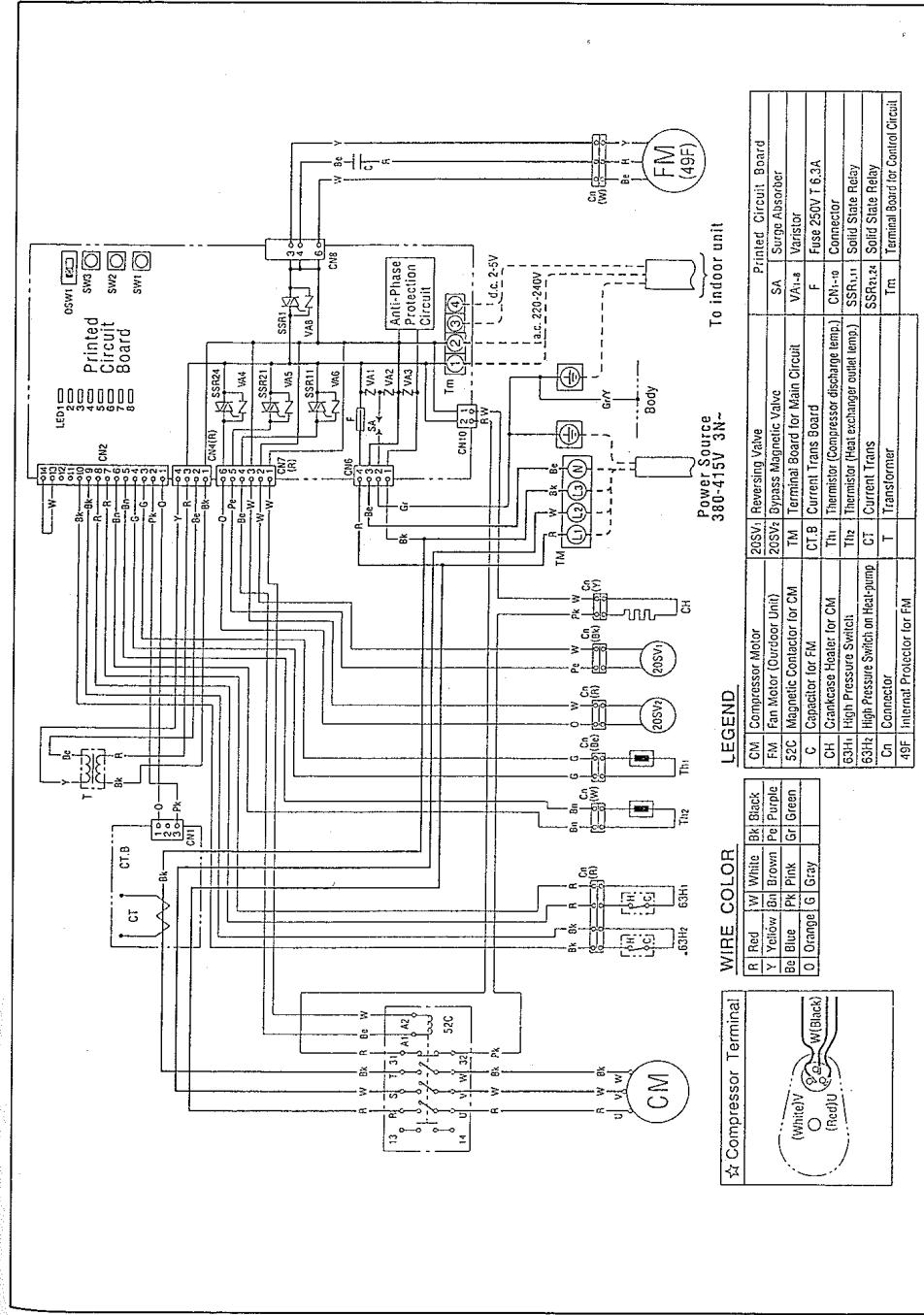
5. CIRCUIT DIAGRAM(HEAT PUMP TYPE)

CU-71C52HP, CU-80C52HP



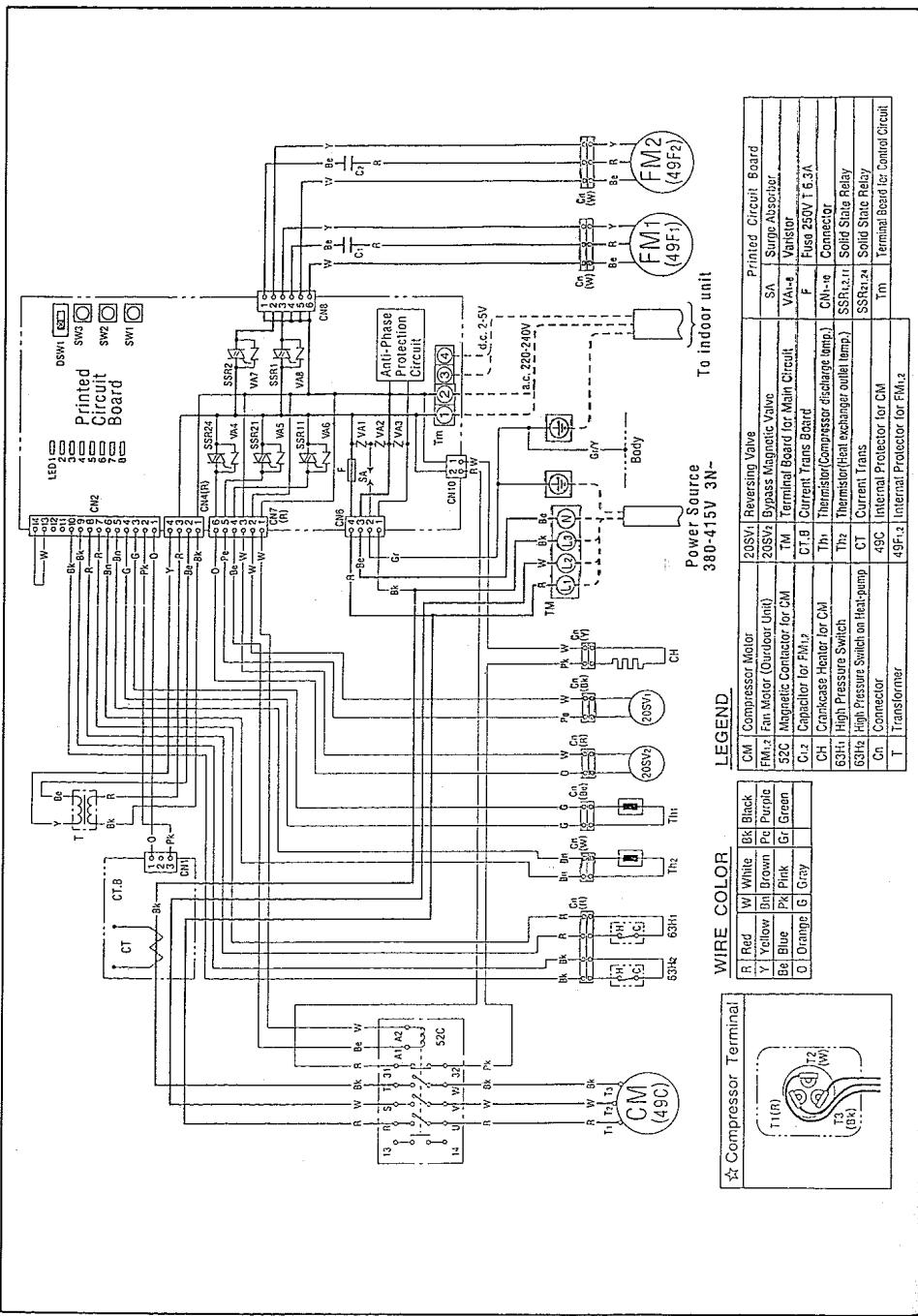
5. CIRCUIT DIAGRAM(HEAT PUMP TYPE)

CU-71C52XP, CU-80C52XP



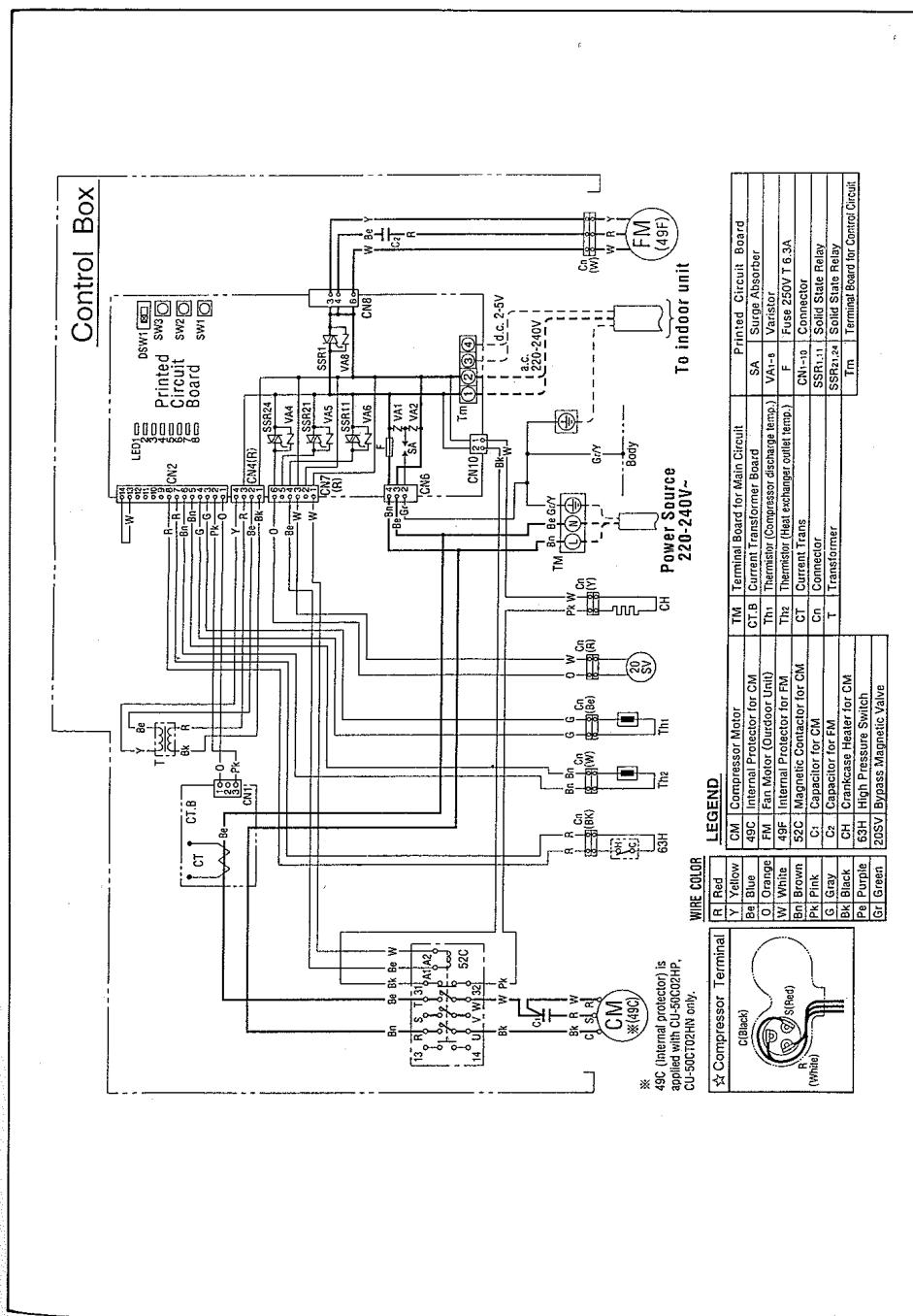
5. CIRCUIT DIAGRAM(HEAT PUMP TYPE)

CU-112C52XP, CU-140C52XP, CU-160C52XP



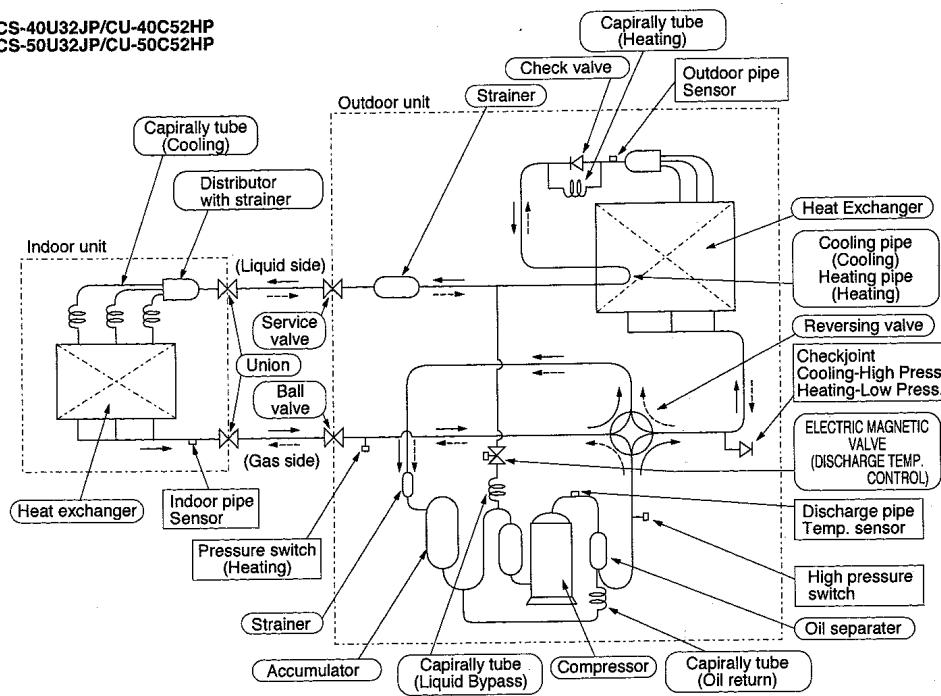
5. CIRCUIT DIAGRAM(COOLING ONLY TYPE)

CU-40C02HP, CU-50C02HP

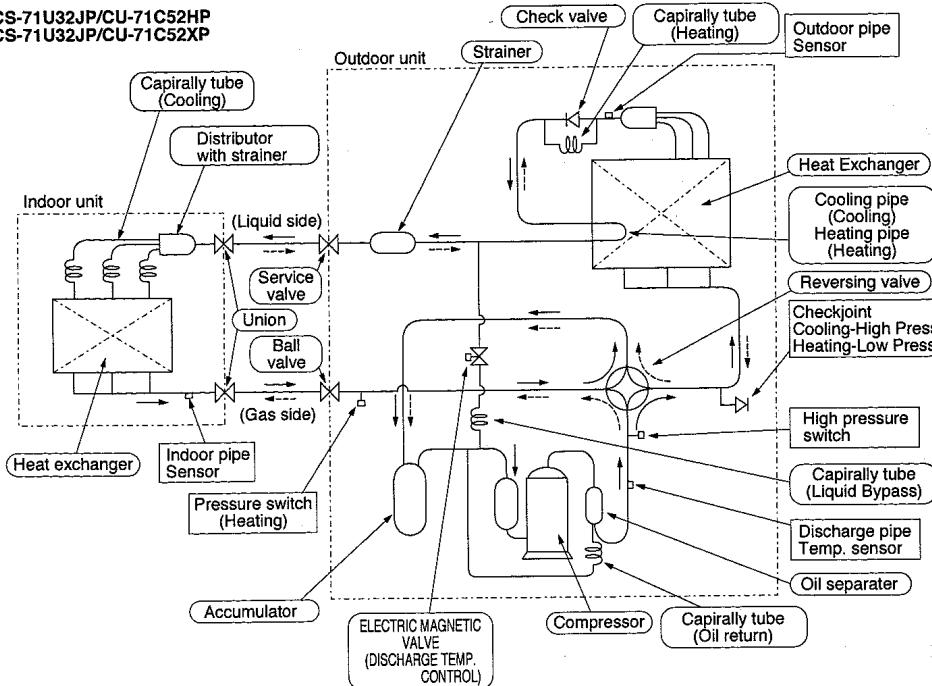


7. REFRIGERATION CYCLE(HEAT PUMP TYPE)

CS-40U32JP/CU-40C52HP
CS-50U32JP/CU-50C52HP

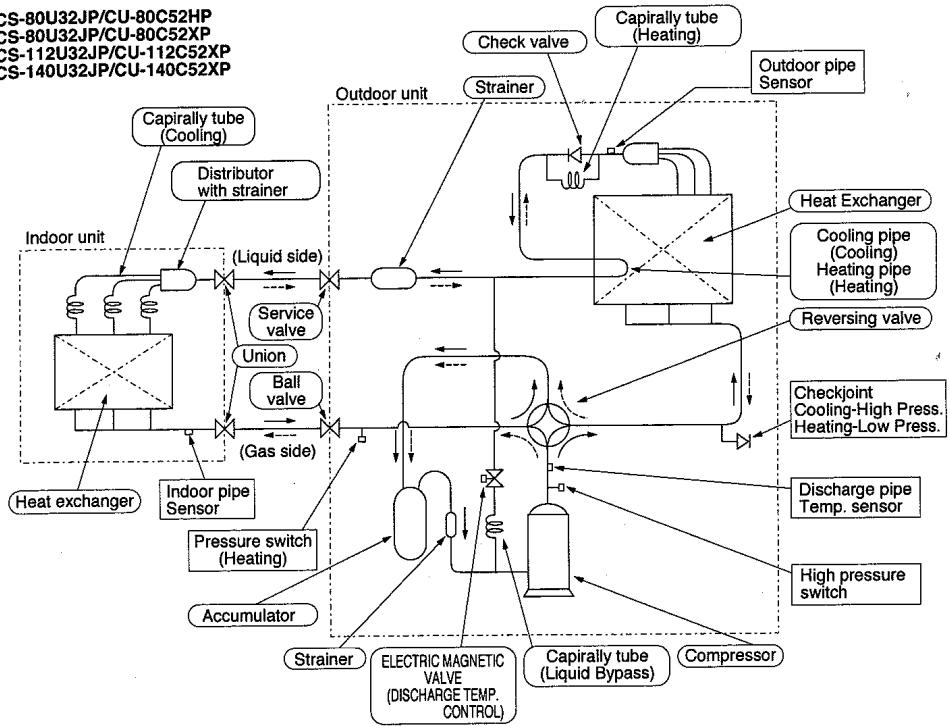


CS-71U32JP/CU-71C52HP
CS-71U32JP/CU-71C52XP

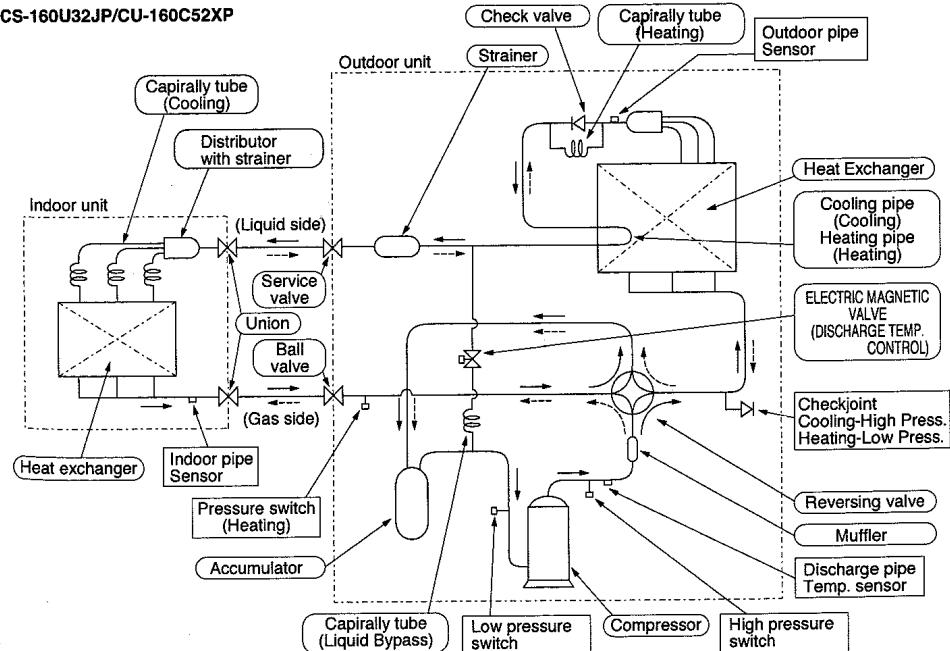


7. REFRIGERATION CYCLE(HEAT PUMP TYPE)

CS-80U32JP/CU-80C52HP
CS-80U32JP/CU-80C52XP
CS-112U32JP/CU-112C52XP
CS-140U32JP/CU-140C52XP



CS-160U32JP/CU-160C52XP



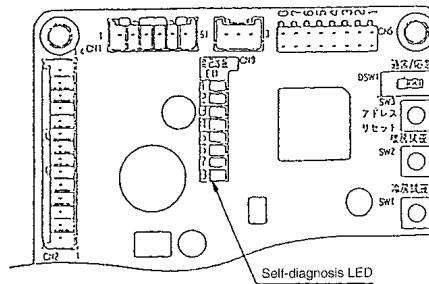
Test operation and self-diagnosis

Test operation

- Always be sure to use a properly-insulated tool to operate the switch on the circuit board. (Do not use your finger or a metallic object.)
- Never turn on the power supply until all installation work has been completed.
- Turn on the circuit breaker before test operation extends past 6 hours. (The crankcase heater will become energized, which will warm the compressor and prevent liquid compression.)
- For three-phase models, check that the phase is not reversed. (If the phase is reversed, the LED on the printed circuit board will flash.)
- Check that the voltage is 198 V or higher when starting the unit. (The unit will not operate if the voltage is less than 198 V.)
- Carry out test operation for 5 minutes or more using the remote controller or the switch on the outdoor unit printed circuit board.
- Always carry out cooling first during test operation, even during the warm season. (If heating is carried out first, problems with operation of the compressor will result.)

Test operation from the outdoor unit

(Outdoor unit printed circuit board)



<Heating operation>

- Press the HEAT test operation switch for 1 second. The LEDs on the printed circuit board will flash as indicated in the table below.

<Cooling operation>

- Press the COOL test operation switch for 1 second. The LEDs on the printed circuit board will flash as indicated in the table below.

During outdoor unit emergency operation or test operation, the LEDs on the printed circuit board will flash.

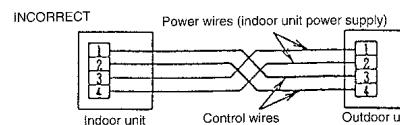
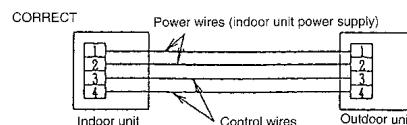
| | LEDs on outdoor unit printed circuit board | | | | | | | |
|--|--|------|------|------|------|------|------|--|
| | LED2 | LED3 | LED4 | LED5 | LED6 | LED7 | LED8 | |
| Emergency operation display | | | | | | | | |
| Cooling test operation from outdoor unit | ON | ON | ON | ON | | | | |
| Heating test operation from outdoor unit | ON | ON | ON | ON | ON | ON | ON | |

To cancel test operation, press the TEST or RUN switch once more while test operation is being carried out.

(Test operation will stop automatically after 30 minutes have passed.)

NOTE:1

These units are equipped with connection error prevention circuits. If the units do not operate, it is possible that the connection error prevention circuits have operated. In such cases, check that the drive wires (connected to terminals [1] and [2]) and the control wires (connected to terminals [3] and [4]) are connected correctly. If they are connected incorrectly, connect them correctly. Normal operation should then commence.

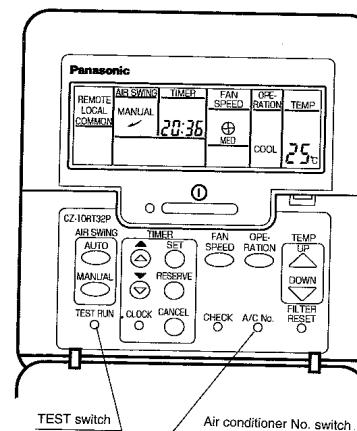


NOTE:2

Do not short the remote control unit wires to each other. (The protection circuit will be activated and the units will not operate.)

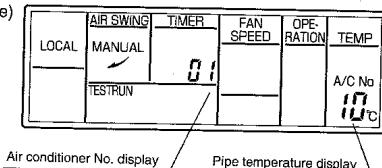
Once the cause of the short is eliminated, normal operation will then be possible.

Test operation using the wired remote controller



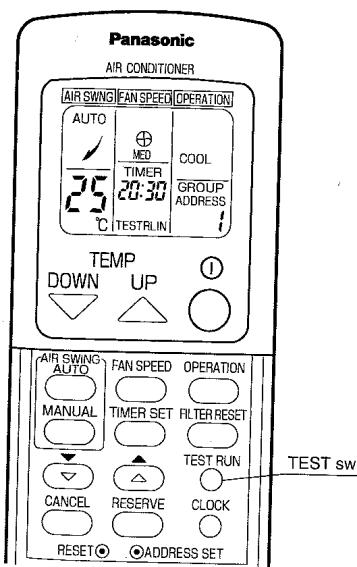
- Check that "COOL" is displayed on the operation mode display, and then press the RUN switch to start test operation.
- Within 1 minute of pressing the RUN switch, press the TEST RUN switch.
- The pipe temperature (gas pipe) will then be displayed in the temperature setting display of the remote controller

(Example)



- During group control, the number appearing in the timer display will change each time the air conditioner No. switch is pressed, and the pipe temperature for the indoor unit corresponding to the number displayed will appear in the temperature setting display.
- Check that the temperature in the pipe temperature display starts dropping after operation has been continuing for some time.
(The temperature will increase during heating operation.)

Test operation using the wireless remote controller



- Within 1 minute of pressing the RUN switch, switch to cooling operation and then press the TEST switch.

- If more than 1 minute passes, test operation cannot be started. In this case, press the RUN switch once more to repeat the operation.
- Use the OPERATION MODE switch to change the operation. The current operation mode will appear in the operation mode display.

- When test operation starts, "TEST" will appear in the timer display of the LCD., and operation will be carried out in accordance with the operation mode display (COOL or HEAT) appearing at that time.

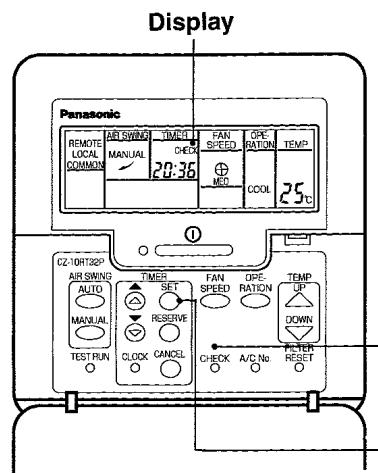
However, the number in the temperature setting display will not change.

(Canceling test operation)

- Press the RUN switch, the TEMPERATURE SETTING Δ or ∇ switches, the OPERATION MODE switch, the FAN SPEED ADJUST switch or the TEST RUN switch to cancel test operation.

■ Self-diagnosis function

- The wired remote controller display and the self-diagnosis LEDs (red) on the outdoor unit printed circuit board indicate where the abnormality has occurred.
- Recalling the error display



(Example)

| LOCAL | AIR SWING | TIMER | FAN SPEED | OPERATION | TEMP |
|-------|-----------|-------|-----------|-----------|------|
| | MANUAL | CHECK | MED | COOL | 25°C |
| | | 20:36 | | | |

When an abnormality occurs at this unit, "CHECK" flashes in the display.

Press the CHECK switch while the display is flashing.

(Example)

| LOCAL | AIR SWING | TIMER | FAN SPEED | OPERATION | TEMP |
|-------|-----------|-------|-----------|-----------|------|
| | MANUAL | CHECK | MED | COOL | 25°C |
| | | F 15 | | | |

The timer display will change and an error code from F15 to F49 will appear in place of the time. (The temperature setting display will also change to show the air conditioner No.)

Press the TIMER ON/OFF switch while the error is displayed.

(Example)

| LOCAL | AIR SWING | TIMER | FAN SPEED | OPERATION | TEMP |
|-------|-----------|-------|-----------|-----------|------|
| | MANUAL | CHECK | MED | COOL | 25°C |
| | | - 01 | | | |

The F15 - F49 display will change to the detail display.

<Air conditioner No. >

- The air conditioner No. "01" appears during normal installation and use. When using group control, a different number may appear. The air conditioner No. can be displayed by pressing the air conditioner No. switch.

After checking the error display and the detail display, refer to the self-diagnosis error code table on the following page and check the location of the problem.

If the problem is repaired and operation returns to normal, the CHECK display on the remote controller will put out, but the self-diagnosis LED will remain illuminated until operation starts again.

How to display the past error message

If the "CHECK" display on the wired remote controller is not flashing, press the CHECK button continuously for 5 seconds or more to display the problem details for the last problem or the problem before that. You can then switch between the displays for the previous problem and the problem before that by pressing the TIMER, FORWARD or BACK buttons.

(Last problem display: 1F15 - 1F49)

(Second-last problem display: 2F15 - 2F49)

Press the CHECK button once more to return to the normal display.

(Example of last problem display)

| LOCAL | AIR SWING | TIMER | FAN SPEED | OPERATION | TEMP |
|-------|-----------|-------|-----------|-----------|------|
| | MANUAL | CHECK | MED | COOL | 25°C |
| | | 1F 15 | | | |

An error code from 1F15 to 1F49 will be displayed.

(The temperature setting display will also change to show the air conditioner No.)

(Example)

| LOCAL | AIR SWING | TIMER | FAN SPEED | OPERATION | TEMP |
|-------|-----------|-------|-----------|-----------|------|
| | MANUAL | CHECK | MED | COOL | 25°C |
| | | 1- 01 | | | |

If the TIMER ON/OFF switch is pressed while the error code from 1F15 to 1F49 is being displayed, the display screen will change to show the details of the last problem display.

(If 2F15 to 2F49 is being displayed, the details of the second-last problem display will appear.)

● Self-diagnosis error code table

○: Flashing ○: Illuminated Blank: Off

| Error display | Wired | Wireless | Indoor unit | Outdoor unit | | | | | | | | Error display | |
|---------------|-------|----------|-------------|--------------|------|------|------|------|------|------|------------------|---------------|---|
| | | | | LED2 | LED3 | LED4 | LED5 | LED6 | LED7 | LED8 | (Check location) | | |
| F15 | -01 | ○ | ○ | ○ | | | | | ○ | ○ | (※2) | (※2) | Drain level float switch problem |
| F16 | -01 | ○ | ○ | | | ○ | | | ○ | ○ | (※2) | (※2) | Drain pump and drain pipe, indoor unit connectors CN6 & CN10, or relay connector |
| F17 | -01 | ○ | ○ | ○ | ○ | ○ | | | ○ | ○ | (※2) | (※2) | Louver switch problem |
| F20 | -01 | ○ | ○ | ○ | | | | | ○ | ○ | (※2) | (※2) | Louver motor, veneer panel connection terminal, or indoor unit connectors CN1 & CN6 |
| F21 | -01 | ○ | ○ | | | | | | ○ | ○ | (※2) | (※2) | Option problem |
| F25 | -01 | ○ | ○ | | | | | | ○ | ○ | (※2) | (※2) | Option connection terminals |
| F26 | -01 | ○ | ○ | | | | | | ○ | ○ | (※2) | (※2) | Indoor temperature thermistor problem |
| F27 | -01 | ○ | ○ | | | | | | ○ | ○ | (※2) | (※2) | Indoor temperature thermistor lead wire or indoor unit connector CN1 |
| F29 | -01 | ○ | ○ | | | | | | ○ | ○ | (※2) | (※2) | Indoor temperature thermistor lead wire or indoor unit connector CN1 |
| F29 | -02 | ○ | ○ | | | | | | ○ | ○ | (※2) | (※2) | Centralised control address overlap problem |
| F29 | -12 | ○ | ○ | | | | | | ○ | ○ | (※2) | (※2) | Check settings for optional centralised control circuit board address switch |
| F30 | -02 | ○ | ○ | | | | | | ○ | ○ | (※2) | (※2) | Remote control transmission wire open circuit problem |
| F30 | -06 | ○ | ○ | | | | | | ○ | ○ | (※2) | (※2) | Remote control unit cable and connection terminals |
| F30 | -07 | ○ | ○ | | | | | | ○ | ○ | (※2) | (※2) | Remote control transmission problem |
| F31 | -02 | ○ | ○ | | | | | | ○ | ○ | (※2) | (※2) | Check the transmission wave pattern |
| F33 | -01 | ○ | ○ | | | | | | ○ | ○ | (※2) | (※2) | Indoor/outdoor unit transmission wire open circuit problem |
| F33 | -02 | ○ | ○ | | | | | | ○ | ○ | (※2) | (※2) | Indoor/outdoor unit connection cable and connection terminals, or indoor unit and outdoor unit power supplies |
| F40 | -41 | ○ | ○ | | | | | | ○ | ○ | (※2) | (※2) | Indoor/outdoor unit transmission problem |
| F40 | -61 | ○ | ○ | | | | | | ○ | ○ | (※2) | (※2) | Check the transmission wave pattern |
| F41 | -02 | ○ | ○ | | | | | | ○ | ○ | (※2) | (※2) | Indoor unit setting problem |
| F41 | -03 | ○ | ○ | | | | | | ○ | ○ | (※2) | (※2) | Abnormal setting of the indoor p.c. board |
| F42 | -01 | ○ | ○ | | | | | | ○ | ○ | (※2) | (※2) | Indoor unit setting problem |
| F42 | -01 | ○ | ○ | | | | | | ○ | ○ | (※2) | (※2) | Abnormal setting of the indoor p.c. board |
| F49 | -01 | ○ | ○ | | | | | | ○ | ○ | (※2) | (※2) | Indoor unit setting problem |
| F49 | -02 | ○ | ○ | | | | | | ○ | ○ | (※2) | (※2) | Indoor unit setting problem |
| | | | | | | | | | | | | | Insufficient gas |
| | | | | | | | | | | | | | Compressor discharge temperature protection |
| | | | | | | | | | | | | | Compressor discharge temperature thermistor problem |
| | | | | | | | | | | | | | Discharge temperature thermistor lead wire, outdoor unit connector CN2, or relay connector |
| | | | | | | | | | | | | | Heat exchanger outlet temperature thermistor problem (Outdoor unit) |
| | | | | | | | | | | | | | Heat exchanger outlet temperature thermistor lead wire, outdoor unit connector CN2, or relay connector |
| | | | | | | | | | | | | | High-pressure switch open circuit problem |
| | | | | | | | | | | | | | High-pressure switch lead wire, outdoor unit connector CN2, or relay connector |
| | | | | | | | | | | | | | Heating pressure switch open circuit problem |
| | | | | | | | | | | | | | Heating pressure switch lead wire, outdoor unit connector CN2, or relay connector |
| | | | | | | | | | | | | | Current detector open circuit or compressor current problem |
| | | | | | | | | | | | | | Outdoor unit connector CN2, compressor internal protection system activated, or blown main power supply fuse |
| | | | | | | | | | | | | | Outdoor unit setting problem |
| | | | | | | | | | | | | | Abnormal setting of the outdoor p.c. board |
| | | | | | | | | | | | | | Outdoor unit setting problem |
| | | | | | | | | | | | | | Abnormal setting of the outdoor p.c. board |

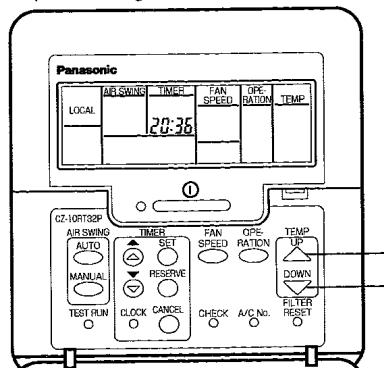
If more than one error occurs between the indoor and outdoor units, the problem display on the remote controller may not match the LED display on the outdoor unit printed circuit board. In such cases, check both locations and remove the causes of the problems.

| LED7 | LED8 | Unit display for twin/triple system |
|------|------|-------------------------------------|
| (※2) | ○ | Master unit error |
| ○ | ○ | Slave unit 1 error |
| ○ | ○ | Slave unit 2 error |

● The LED1 (green) illuminates to indicate that the microprocessor on the microprocessor circuit board is operating normally. If the LED is switched off or is flashing irregularly, check the power supply, and turn it off and then back on again.

• Energy save setting

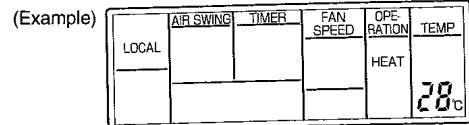
Upper and lower limits can be set for the setting temperature during cooling and heating operation. (The factory shipment setting has an upper limit of 31°C and a lower limit of 16°C.)



1 While operation is stopped, press the UP and DOWN switches simultaneously.



The display will change.



2 To set an upper limit

Press the OPERATION MODE switch until HEAT is displayed.



Press the UP or DOWN switch to set the temperature.



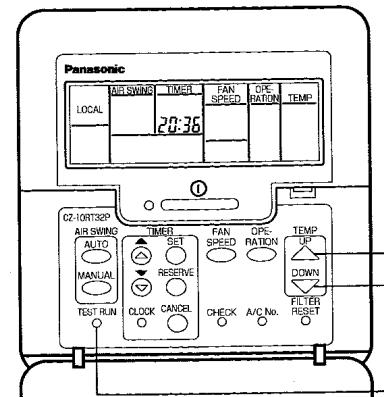
Press the RESERVE switch to complete the upper limit setting.

Example: If the heating display is set to 28°C, setting the temperature to higher than 28°C will not be possible.

*Upper and lower limits cannot be set at the same time.

• Switching to the remote controller thermistor

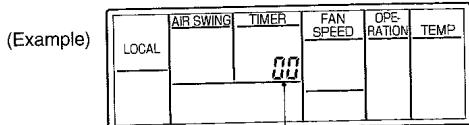
The temperature detection thermistor used for detecting the indoor temperature can be switched between the thermistor at the indoor unit and the thermistor at the remote control unit. (The factory shipment setting is at the indoor unit side.)



1 While operation is stopped, press and hold the TEST RUN switch, UP switch and DOWN switches simultaneously.



The time display on the timer display panel will change.



"00" ... Indoor unit thermostat detection setting

"01" ... Remote controller thermostat detection setting

Press the FORWARD or BACK timer switches to change the detection setting.

2 Press the RESERVE switch to complete the setting.

To change the setting, repeat the above operation.

(1) Setting group control for 1 remote control unit

- When using a remote-controlled thermostat, the thermostat setting is used for all indoor units in the group.
- During group control, up to a maximum of 16 indoor units can be connected. (Do not mix heat pump units and cooling-only units.)
- Do not mix manual settings and automatic settings. (manual settings take priority.)
- The master unit and slave units can all be centrally controlled during group control.

(Automatic setting for group control)

- If the power supplies for indoor units which are connected are turned on simultaneously, the indoor unit numbers will be determined automatically after approximately 1 minute. (DIP switch settings are not necessary.)

NOTE:

- Correct wiring connections are a basic requirement for automatic setting. If the wires are connected incorrectly when the power is turned on, the settings will not be made correctly and operation will not be possible.
- When address numbers are set automatically, you will not know which address number corresponds to which indoor unit.
- Do not turn off the power supply for at least 1 minute during automatic address setting, otherwise the settings will not be made correctly.

(Manual setting for group control)

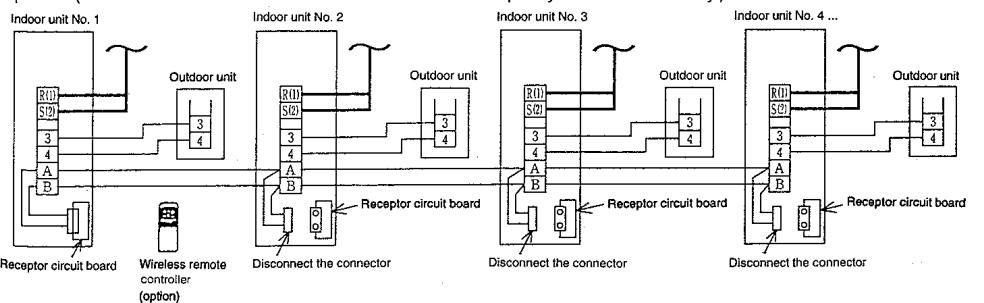
| | Indoor unit No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|----------------|---|---|--|--|---|--|---|---|--|
| Manual setting | DIP switch (DSW1) setting on indoor unit printed circuit board Air conditioner No. setting | OFF ON 1 2 3 4 5 6 7 8 No operation necessary 1 is ON | OFF ON 1 2 3 4 5 6 7 8 2 is ON | OFF ON 1 2 3 4 5 6 7 8 1 and 2 are ON | OFF ON 1 2 3 4 5 6 7 8 3 is ON | OFF ON 1 2 3 4 5 6 7 8 1 and 3 are ON | OFF ON 1 2 3 4 5 6 7 8 2 and 3 are ON | OFF ON 1 2 3 4 5 6 7 8 1, 2 and 3 are ON | |
| | Indoor unit No. | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| | DIP switch (DSW1) setting on indoor unit printed circuit board Air conditioner No. setting | OFF ON 1 2 3 4 5 6 7 8 4 is ON | OFF ON 1 2 3 4 5 6 7 8 1 and 4 are ON | OFF ON 1 2 3 4 5 6 7 8 2 and 4 are ON | OFF ON 1 2 3 4 5 6 7 8 1, 2 and 4 are ON | OFF ON 1 2 3 4 5 6 7 8 3 and 4 are ON | OFF ON 1 2 3 4 5 6 7 8 1, 3 and 4 are ON | OFF ON 1 2 3 4 5 6 7 8 2, 3 and 4 are ON | OFF ON 1 2 3 4 5 6 7 8 1, 2, 3 and 4 are ON |

<Automatic address resetting for group control>

After setting DIP switches 1 to 4 to OFF and stop operation. Then press the 'AIR SWING AUTO' OPERATION MODE' and 'Air conditioner No.' switches simultaneously. The addresses will be momentarily reset, and then automatic address setting will be carried out once more.

• Note with regard to the Mini-cassette

When carrying out group control of a Mini-cassette system using a single remote control unit, be sure to disconnect the connectors for all receptor circuit boards except the one for indoor unit No. 1 before turning on the power. (The same action as for the slave units in twin and triple systems is necessary.)



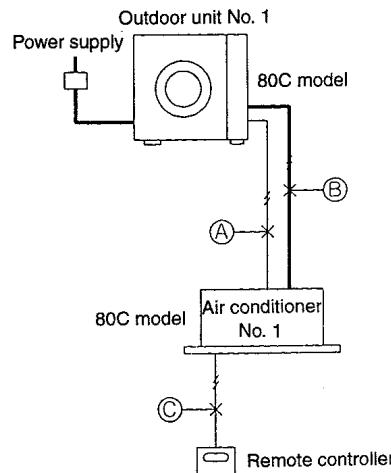
If test operation does not proceed correctly

Carry out test operation after approximately 6 hours have passed since the power was turned on (crankcase heater is energized).

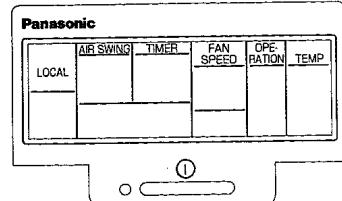
If operation is started by using the remote controller within 1 minute of turning on the power, the outdoor unit settings will not be made correctly and correct operation will not be possible.

If the following symptoms occur after turning on the power, check the wiring connections once more.

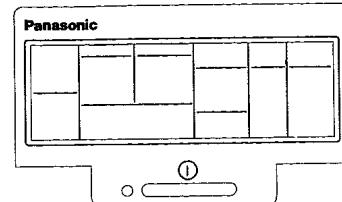
**For standard installation
(System example)**



(When remote controller display shows "Power supply")



(When remote controller display shows "No power supply")



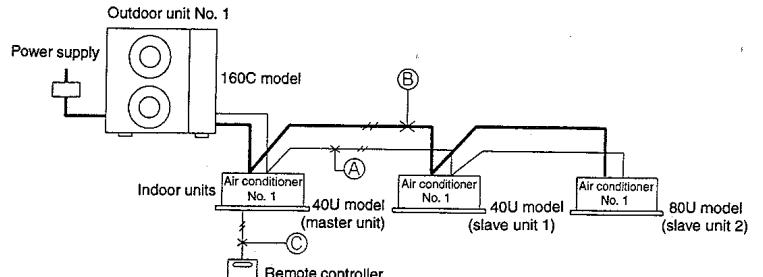
NOTE: The "CHECK" display on the remote controller and the flashing of LEDs on the printed circuit boards will not occur immediately. They will appear 3-6 minutes after the main power is turned on.

1. The main power is turned on while the indoor-outdoor transmission wires are not connected (open circuit at section A)
Symptom: Remote control unit . . . "CHECK" flashes
NOTE: Indoor unit . . . LED2 on printed circuit board flashes
Outdoor unit . . . LED 3 and LED 7 on printed circuit board flash
2. The main power is turned on while the indoor-outdoor power supply wires are not connected (open circuit at section B)
Symptom: Remote control unit . . . Display of "No power supply"
NOTE: Indoor unit . . . No display
Outdoor unit . . . LED 3 and LED 7 on printed circuit board flash
3. The main power is turned on while the remote control unit connection cord is not connected (open circuit at section C)
Symptom: Remote control unit . . . Display of "No power supply"
NOTE: Indoor unit . . . LED1 on printed circuit board stays illuminated
Outdoor unit . . . LED1 on printed circuit board stays illuminated

Remedy

1. Turn off the main power.
↓
2. Connect the disconnected wires correctly.
↓
3. Turn the main power back on.
↓
4. After 1 minute, start operation using the remote controller.
(Indoor unit . . . Operation will start according to the remote controller setting.)
(Outdoor unit . . . Operation will start after 3-5 minutes.)

**●During twin/triple operation
(System example)**



1. The main power is turned on while the transmission wires between the indoor unit(s) are not connected (open circuit at section A)

Symptom: Nothing abnormal appears on the remote controller display. If operation is then started in this condition, the combination of the 160C outdoor unit and the 40U indoor unit (master unit) will cause abnormal operation to occur.

- ↓
- Remote controller . . . "CHECK" flashes
 - Indoor unit (master) . . . The LEDs on the printed circuit board flash and operation stops
 - Indoor unit (slave) . . . LED1 on the printed circuit board illuminates and the unit does not operate at all
 - Outdoor unit . . . The LEDs on the printed circuit board flash and operation stops
2. The main power is turned on while the power supply wires between the indoor unit(s) are not connected (open circuit at section B)

Symptom: Same as above. If operation continues, an abnormality will occur on the refrigeration cycle and operation will stop.

- ↓
- Remote controller . . . "CHECK" flashes
 - Indoor unit (master) . . . The LEDs on the printed circuit board flash
 - Indoor unit (slave) . . . The LEDs on the printed circuit board do not illuminate and the unit does not operate at all
 - Outdoor unit . . . The LEDs on the printed circuit board flash and operation stops
3. The main power is turned on while the remote controller connection cord is not connected (open circuit at section C)

Symptom: •Remote control unit . . . Display of "No power supply"

- Indoor unit (master) . . . LED1 on the printed circuit board stays illuminated and the unit does not operate
- Indoor unit (slave) . . . LED1 on the printed circuit board stays illuminated and the unit does not operate
- Outdoor unit . . . LED1 on the printed circuit board stays illuminated and the unit does not operate

Remedy

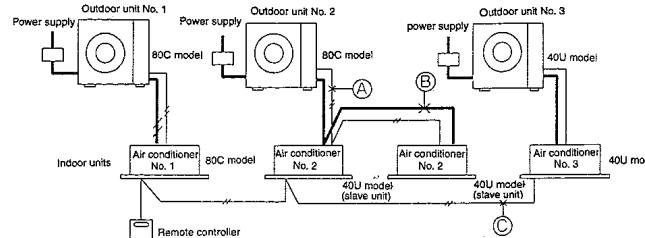
1. Turn off the main power.
↓
2. Connect the disconnected wires correctly.
↓
3. Turn the main power back on.
↓
4. After 1 minute, start operation using the remote controller.
(Indoor units . . . Operation will start according to the remote controller setting.)
(Outdoor unit . . . Operation will start after 3-5 minutes.)

If slave units do not operate even after the wiring has been corrected (automatic addressing is not possible)

1. Check that DIP switches 1 to 4 and DIP switch 8 are all set to OFF, and then stop operation.
↓
2. Press the ADDRESS RESET switch (SW3) at the outdoor unit for approximately 4 seconds
(The self-diagnosis LEDs 2 to 8 will illuminate in order, and the system is reset once they are all illuminated.)

The above procedure cannot be used to carry out automatic address resetting during group control.

- During group control operation
(System example)



1. The main power is turned on while the transmission wires between the indoor unit and the outdoor unit are not connected (open circuit at section A)

Symptom: Operation of indoor unit No. 1 and indoor unit No. 3 is possible.

However, "CHECK" flashes in the remote control unit display for 3-5 minutes after the main power is turned on.

- Remote controller "CHECK" flashes
- Indoor unit No. 2 LED2 on the printed circuit board flashes (both master and slave units)
- Outdoor unit No. 2 LED3 and LED7 on the printed circuit board flash

2. The main power is turned on while the power supply wires between the indoor units are not connected (open circuit at section B)

Symptom: Operation of indoor unit No. 1 and indoor unit No. 3 is possible

However, if operation is then started in this condition, the combination of the 80C outdoor unit and the 40U indoor unit (master unit) will cause abnormal operation of indoor unit No. 2 to occur

If operation continues, an abnormality will occur on the refrigeration cycle and operation will stop.

- Remote controller "CHECK" flashes (indoor unit No. 2 abnormality)
- Indoor unit No. 2 LED2 on the printed circuit board flashes (both master and slave units)
- Outdoor unit No. 2 The LEDs on the printed circuit board flash

3. The main power is turned on while the remote controller connection cord is not connected (open circuit at section C)

Symptom: Nothing abnormal appears on the remote controller display, and operation of indoor unit No. 1 and indoor unit No. 2 is possible.

However, indoor unit No. 3 cannot be operated.

Remedy

1. Turn off the main power.
↓
2. Connect the disconnected wires correctly.
↓
3. Turn the main power back on.
↓
4. After 1 minute, start operation using the remote controller.
(Indoor units . . . Operation will start according to the remote controller setting.)
(Outdoor unit . . . Operation will start after 3-5 minutes.)

If slave units do not operate even after the wiring has been corrected (automatic addressing is not possible)

1. Check that DIP switches 1 to 4 and DIP switch 8 are all set to OFF, and then stop operation.
↓
2. Press the 'AIRSWING AUTO', 'OPERATION' and 'A/C No.' switches simultaneously.
The addresses will be momentarily reset, and then automatic address setting will be carried out once more.

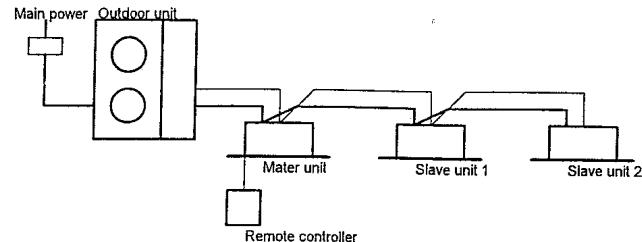
The above procedure cannot be used to carry out automatic address resetting of twin/triple control.

(Note on automatic address setting)

The printed circuit boards automatically store the connected system configuration when power is supplied. As a result, once the power has been turned on for these printed circuit boards, the units can not be changed about within the system, even if the units are of the same model and have the same capacity.

ADDRESS SETTING FOR TWIN/TRIPLE SYSTEM

(Example)

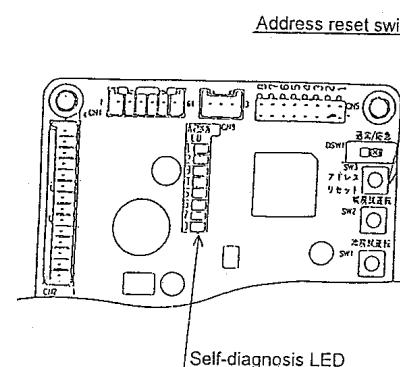


1. Automatic address setting (no need to have dip-switch set)

If the wiring connected properly as above example, the address is set automatically by the main power supply. A indoor unit with remote controller will be set as the master. If the power source is installed to indoor units and outdoor separately, turn on the switch as the following procedure: outdoor unit, indoor unit with controller, and other indoor units.

When the slave units do not operate (when address cannot be set)

Reset the address as the following procedure:



1. After making sure that dip-switch No. 1 to 4 and No. 8 are OFF, stop the operation.

2. Push address reset switch (SW3) on the outdoor unit PC board for 4 seconds. Self-diagnosis LED No. 2 to 8 will start blinking by order. And when all 7 pieces of LED (No. 2 ~ 8) are illuminated, address reset will be finished. Then the address for the slave unit will be reset.

Important: The address for the group control cannot be reset, using the above mentioned procedure.

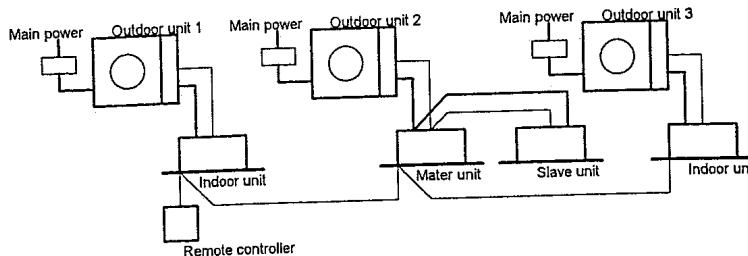
Manual address setting (by dip-switch DSW1)

When you set the address manually, set the dip-switch of the PC board in the indoor unit as follow:

| Master unit | Slave unit (Slave No. 1 of Triple) | Slave unit (Slave No. 2 of Triple) |
|---|--------------------------------------|--------------------------------------|
| No need to set address for the RC of the master unit | DSW1 ON OFF 1 2 3 4 5 6 7 8 | DSW1 ON OFF 1 2 3 4 5 6 7 8 |
| The address for the master unit will be set in the unit with RC | No. 8 ON, The others no change | No. 1 and 8 ON, The others no change |

ADDRESS SETTING FOR GROUP CONTROL SYSTEM

(Example)

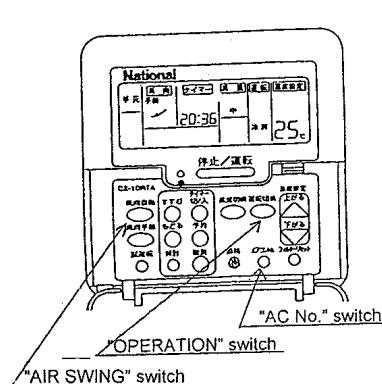


1. Automatic address setting (no need to have dip-switch set)

If the wiring connected properly as above example, the AC numbers are set automatically by the main power supply. A indoor unit with remote controller will be set as the master.

If the power source is installed to indoor units and outdoor separately, turn on the switch as the following procedure: outdoor unit, indoor unit with controller, and other indoor units. The AC number will be set at random.

When the slave units do not operate (when address cannot be set)



Reset the address as the following procedure:

1. After making sure that dip-switch No. 1 to 4 and No. 8 are OFF, stop the operation.
2. Push simultaneously the following switches: "AIR SWING", "OPERATION", and "AC No.". The address will be reset and new address will be set.

Important: The address for the Twin/Triple control cannot be reset, using the above mentioned procedure.

Manual address setting (by dip-switch DSW1)

When you set the address manually, set the dip-switch of the PC board in the indoor unit as follow:

| Master unit | Slave unit (Slave No. 1 of Triple) | Slave unit (Slave No. 2 of Triple) |
|---|---|---|
| No need to set address for the RC of the master unit The address for the master unit will be set in the unit with RC | DSW1 ON: OFF: No. 8 ON, The others no change | DSW1 ON: OFF: No. 1 and 8 ON, The others no change |

Manual address setting (by dip-switch DSW1)

When you set the address manually, set the dip-switch of the PC board in the indoor unit as follow:

| Indoor unit No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|-----------|------------|------------|-------------|------------|-------------|-------------|---------------|
| Dip-switch on the PCB of the indoor unit (DSW1) | OFF: ON 1 | OFF: ON 1 | OFF: ON 1 | OFF: ON 1 | OFF: ON 1 | OFF: ON 1 | OFF: ON 1 | OFF: ON 1 |
| | No change | No.1 ON | No.2 ON | No.1, 2 ON | No.3 ON | No.1, 3 ON | No.2, 3 ON | No.1,2,3 ON |
| Indoor unit No. | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Dip-switch on the PCB of the indoor unit (DSW1) | OFF: ON 1 | OFF: ON 1 | OFF: ON 1 | OFF: ON 1 | OFF: ON 1 | OFF: ON 1 | OFF: ON 1 | OFF: ON 1 |
| | No.4 ON | No.1, 4 ON | No.2, 4 ON | No.1,2,4 ON | No.3, 4 ON | No.1,3,4 ON | No.2,3,4 ON | No.1,2,3,4 ON |

Procedure for delete of memory at twin / triple control system.

1. Set the 'off' position for main power supply switch .
2. Set the 'on' position for No.8 pin of dip switch (DSW1) on indoor unit P.C.board.
3. Take main power supply switch 'on' for one minutes, and then main power supply switch off.
4. Set the 'off' position for No.8 pin of dip switch(DSW1).

Procedure for delete of memory at group control system.

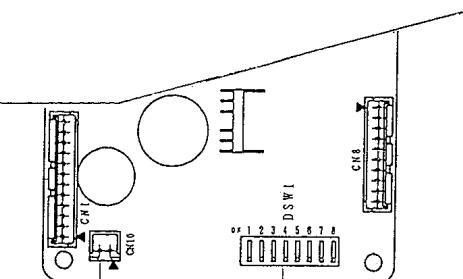
1. Set the 'off' position for main power supply switch .
2. Set the 'on' position for No.1 pin to No.4 pin of dip switch (DSW1) on indoor unit P.C.board.
(No.8 pin of dip switch (DSW1) should be 'off' position)
3. Take main power supply switch 'on' for one minutes, and then main power supply switch off.
4. Set the 'off' position for No.1 ,No.2, No.3 and No.4 pin of dip switch(DSW1).

(Important notice)

Above procedure is for delete of memory on indoor unit P.C. board. And it is not for Address reset .

Indoor unit P.C.board layout.

Below drawing has showing the location of dip switch 1(DSW1) on the indoor unit P.C. board.



Dip switch1(DSW1). [to use for manual setting]

■Emergency operation**●Emergency operation of outdoor unit**

Emergency operation can be carried out by setting the DSW1 switch on the printed circuit board inside the outdoor unit to the EMERGENCY position. However, emergency operation is only carried out when an abnormality is detected by the indoor/outdoor temperature thermistors. The resistance values of each thermistor are measured as shown in the table below to determine if there is an abnormality.

<Thermistor resistance table>

| Temperature | Resistance value (kΩ) ±5% | |
|-------------|-----------------------------|-----------------------------|
| | Room temperature thermistor | Pipe temperature thermistor |
| -20°C | 205.8 | 197.8 |
| -10°C | 114.6 | 111.9 |
| -5°C | 87.3 | 85.4 |
| 0°C | 67.0 | 65.8 |
| 5°C | 51.8 | 51.0 |
| 10°C | 40.4 | 39.9 |
| 15°C | 31.7 | 30.7 |
| 20°C | 25.1 | 25.0 |
| 25°C | 20.0 | 20.0 |
| 30°C | 16.1 | 16.0 |
| 40°C | 10.4 | 10.6 |
| 50°C | 6.9 | 7.1 |
| 60°C | 4.7 | 4.9 |
| 70°C | — | 3.5 |
| 80°C | — | 2.5 |
| 90°C | — | 1.8 |
| 100°C | — | 1.4 |

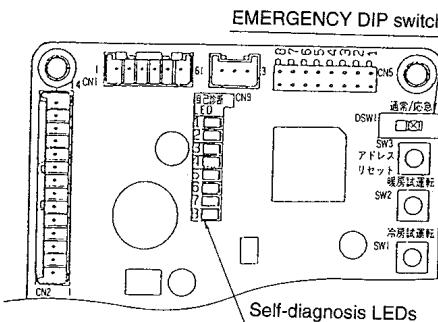
The pipe temperature thermistor resistance values are the same for the indoor and outdoor units.

<When a thermistor abnormality is judged to have occurred>

•Set only the thermistor which shows an abnormality to the condition shown in the table below to carry out emergency operation.

| | Thermistor | Cooling mode | Heating mode |
|-------------|------------------|---------------|--------------|
| Indoor unit | Room temperature | Fixed at 25°C | |
| | Room temperature | Shorted | Open |

| | Thermistor | Cooling mode | Heating mode |
|--------------|-----------------------------------|--------------|--------------|
| Outdoor unit | Discharge temperature | Open | Shorted |
| | Heat exchanger outlet temperature | Shorted | Open |



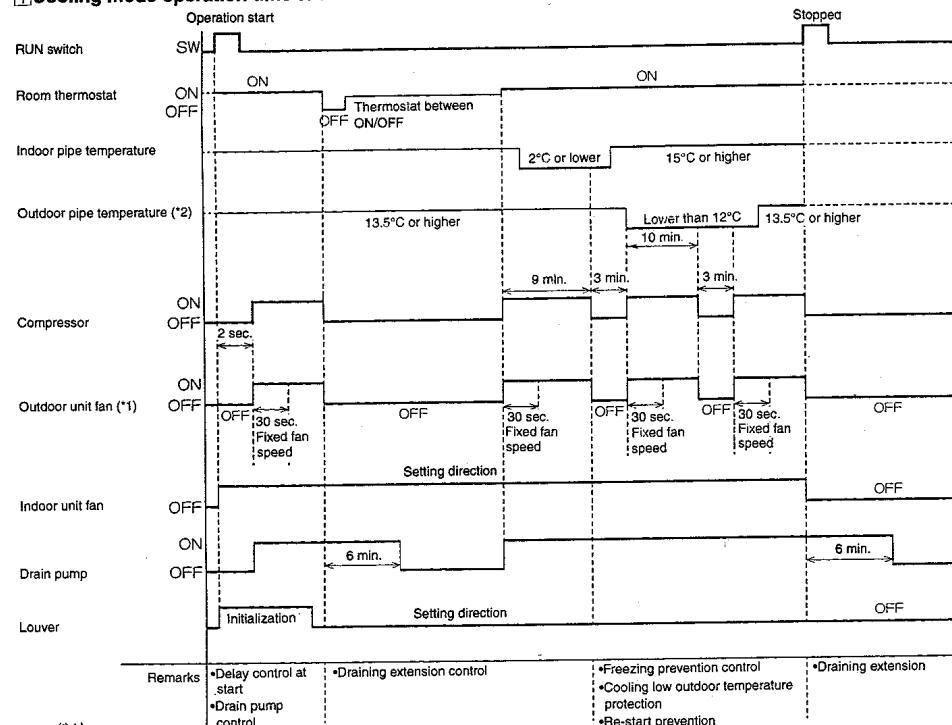
NOTE: •Any abnormalities detected by the temperature thermistors are ignored during emergency operation, so that long-term operation in this mode should be avoided.

•After emergency mode operation has been completed and normal operation is to be resumed, turn the power supplies for the indoor and outdoor units off and return the DIP switch to the NORMAL position.

•Self-diagnosis LEDs 4 to 6 will flash during emergency operation.

■Description of basic Functions

① Cooling mode operation time chart



(*1) Outdoor unit fan start control during cooling

At the start of cooling mode and drying mode operation, the outdoor unit heat exchanger outlet temperature is detected in order to set the fan speed.

Operation is carried out at the fan speed detected for 30 seconds.

| Heat exchanger outlet temperature detected (T) | Outdoor unit fan start speed |
|--|------------------------------|
| T < 0°C | SUPER LOW |
| 0°C ≤ T < 10°C | LOW |
| 10°C ≤ T < 20°C | MEDIUM |
| 20°C ≤ T < 25°C | HIGH |
| 25°C ≤ T | SUPER HIGH |

After 30 seconds, the heat exchanger outlet temperature is detected and the outdoor unit fan speed is changed automatically.

(*2) Cooling low outdoor temperature protection

When the heat exchanger outlet temperature drops to less than 12°C for a continuous period of 10 minutes, the outdoor unit stops running.

This is canceled after 3 minutes (re-start prevention).

•Remote controller displays and indoor unit operation continue during this time.

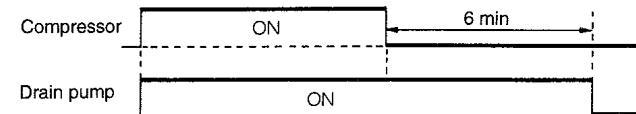
•The 10-minute countdown is cleared if the compressor stops or if the temperature at the outdoor unit outlet rises to 13.5°C or higher.

■Drain pump control

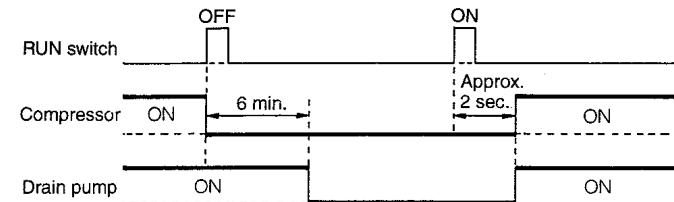
1. Basic operation

During cooling mode, dry mode or defrost mode operation, the drain pump turns on when the compressor turns on.(The drain pump turns on during freezing prevention control.)

•When the thermostat turns off and the compressor then turns off, the drain pump continues operating for 6 minutes and then stops.



•If the drain pump is running when operation stops or when the operating mode is changed, the drain pump continues operating for 6 minutes and then stops.



2. Drain water problems

① Starting

If it is detected that the float switch is off, the drain pump turns on for 5 minutes. If the float switch is still found to be off after these 5 minutes have passed, or if the float switch is found to turn off twice during a 30-minute period, a drain water error is generated.

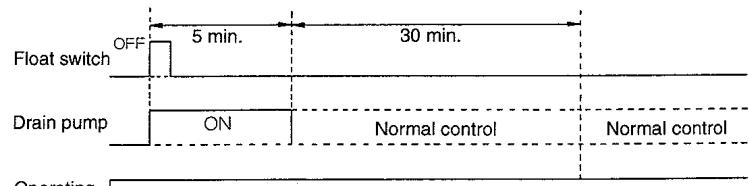
② Normal operation

After extension control (louver initialization and pre-heating cancel), the indoor units and outdoor units stop running. LED2 on the indoor unit self-diagnosis LED panel will flash, and "CHECK" will appear on the wired remote controller display.

The error code (F15-01) can be displayed by pressing the CHECK switch.

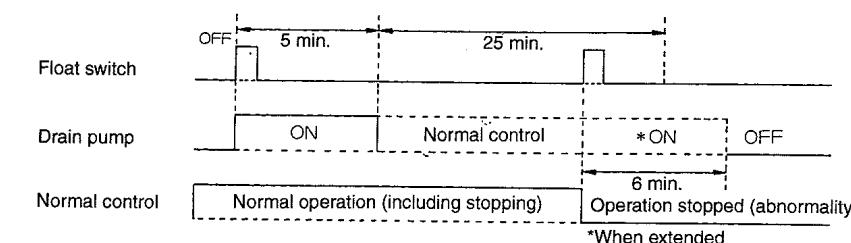
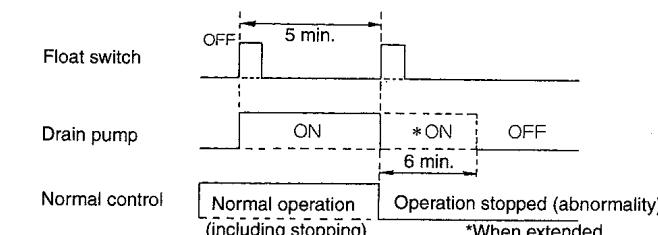
When the wireless remote controller is being used, the RUN indicator on the receptor will flash.

<If the float switch does not operate again after turning off>



Operating condition | Normal operation (including stopping) | Continuous operation (normal)

(When float switch is continuously off)



③ Freezing prevention control

① Operation

During cooling mode operation, after 9 minutes have passed since the compressor turned on, the outdoor units stops operating when the temperature detected by the indoor unit pipe temperature sensor is 2°C or lower.

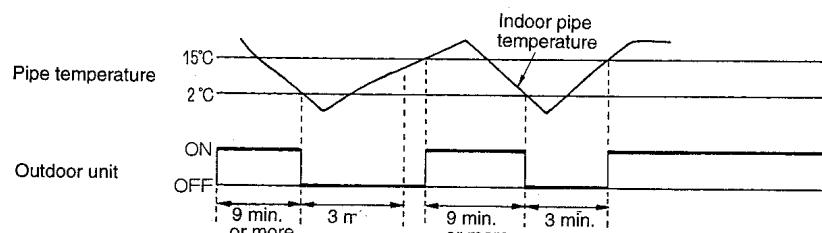
The indoor unit continues operating at the fan speed set by the remote control unit. (The remote control unit display does not change.)

③ Canceling

This control is canceled when the temperature detected by the indoor unit pipe temperature sensor is 15°C or higher.

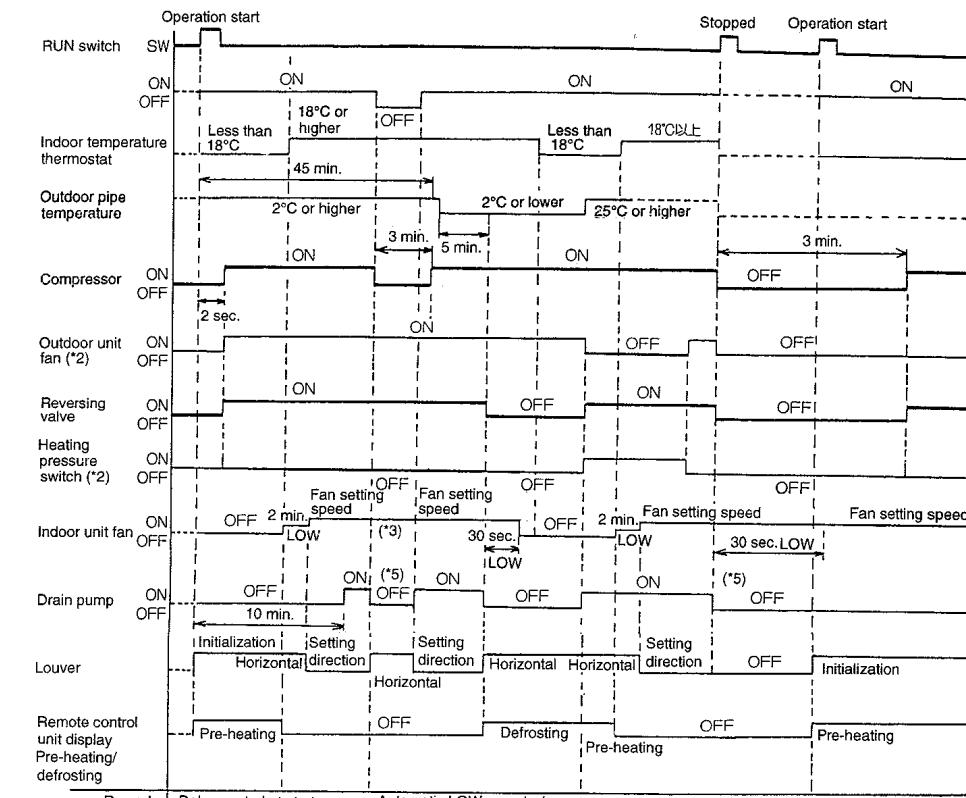
(If the outdoor unit stops even though the temperature is 15°C or higher, restart prevention control will activate and the outdoor unit will not start again for 3 minutes.)

(The 9-minute countdown is cleared while the compressor is stopped.)



(The above illustration shows the operation when there are no conditions for turning the outdoor unit off other than freezing prevention.)

④ Heating mode operation time chart



- | | | | | |
|----------------|---|---|--|---|
| Remarks | <ul style="list-style-type: none"> • Delay control at start • Hot start control • Louver control | <ul style="list-style-type: none"> • Automatic LOW speed when heating thermostat off • Defrosting period • No-load defrosting prevention • Defrosting start temperature • Restart prevention | <ul style="list-style-type: none"> • Hot start control • Heating overload control • Excess heat dissipation | <ul style="list-style-type: none"> • Hot start control • Restart prevention |
|----------------|---|---|--|---|

(*3) Refer to "⑥ Indoor unit fan control when thermostat is off during heating mode operation"

(*4) Refer to "⑨ Indoor thermostat characteristics"

(*5) Refer to "② Drain pump control"

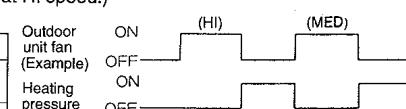
(*2)

Outdoor unit fan control during heating mode operation

Under conditions when the compressor is on during heating mode operation (except during defrosting and when the liquid bypass valve is on), the outdoor unit fan is controlled by means of input (CN2) indicating whether the contact of the heating pressure switch on the outdoor unit circuit board is open or closed.

(At the start of heating mode operation, the fan operates at HI speed.)

| Heating pressure switch contact | Outdoor unit fan operation |
|---------------------------------|--|
| ON (open) - OFF (closed) | One step down from fan speed before stopping |
| ON (open) | Stopped |



The heating pressure switch turns on at 2.35 MPa and off at 1.96 MPa.

5 Hot starting

1. When heating mode operation starts

①Start

Hot start control commences when heating mode operation starts.

②Operation

"PREHEAT" appears on the remote controller display. (Other displays remain unchanged.)

At the indoor unit, the indoor unit fan stops. In addition, during hot starting, the louver stays at the horizontal position (angle 0°).

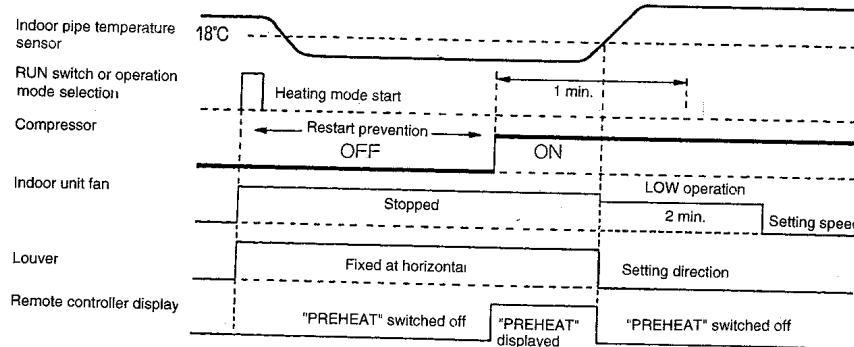
③Canceling

After 1 minute has passed since heating mode operation started, or if the compressor has turned on, hot starting is canceled when the temperature detected by the indoor unit pipe temperature sensor is 18°C or higher.

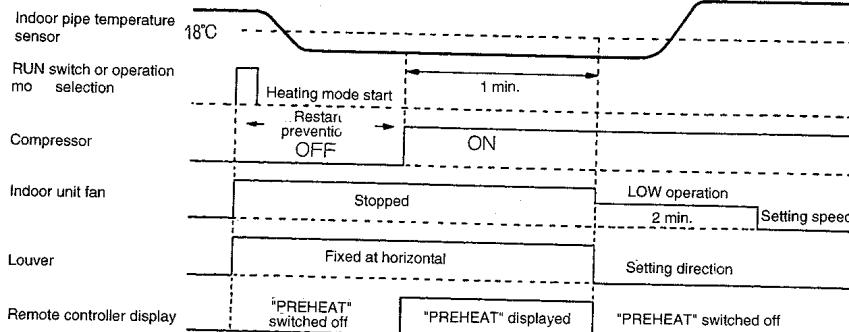
After cancellation, the "PREHEAT" display on the remote controller disappears and the louver operation returns to the previous setting.

(However, for 2 minutes after cancellation, the indoor unit fan operates at LOW speed, and then returns to the previous setting.)

<When hot start operation is canceled by temperature>



<When hot start operation is canceled by time>



2. When defrosting is complete

①Start

Hot start control commences when defrosting is complete.

②Operation

"PREHEAT" appears on the remote controller display. (Other displays remain unchanged.)

At the indoor unit, the indoor unit fan stops. In addition, during hot starting, the louver stays at the horizontal position (angle 0°).

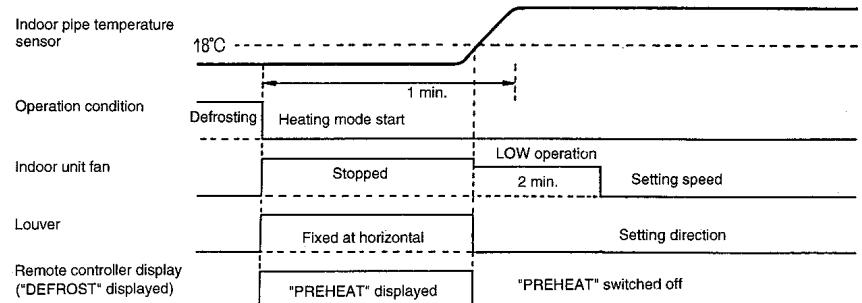
③Canceling

Hot starting is canceled when the temperature detected by the indoor unit pipe temperature sensor is 18°C or higher, or after a maximum 1 minute has passed since defrosting was completed.

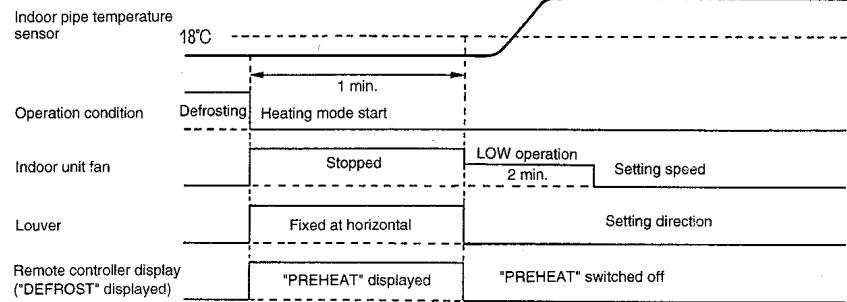
After cancellation, the "PREHEAT" display on the remote controller disappears and the louver operation returns to the previous setting.

(However, the indoor unit fan operates at LOW speed for 2 minutes after cancellation, and then returns to the previous setting.)

<When hot start operation is canceled by temperature>



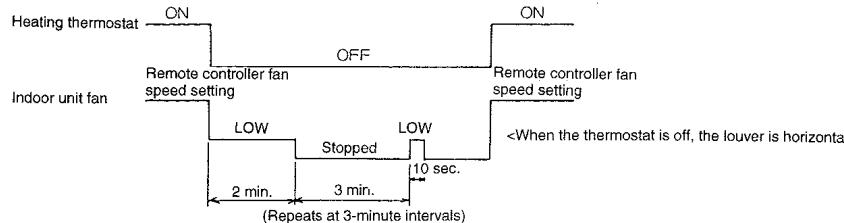
<When hot start operation is canceled by time>



⑥ Indoor unit fan control when thermostat is off during heating mode operation

< >

When the thermostat of the indoor unit turns off during heating mode operation, the indoor unit fan operates for 2 minutes at LOW and then stops. In addition, 5 minutes after the thermostat of the indoor unit turns off, the indoor unit fan again runs at LOW for 10 seconds, and at 3-minute intervals after that it switches back to LOW operation for 10 seconds.

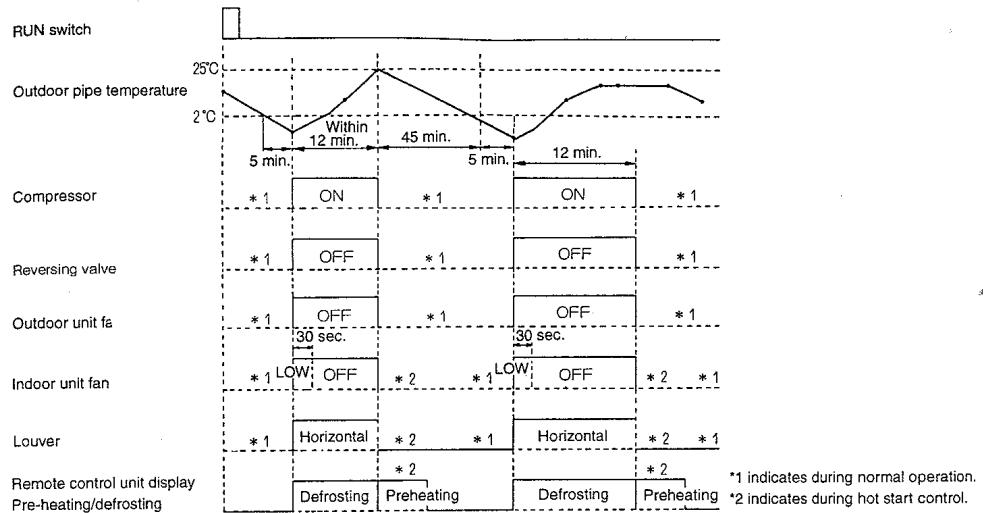


⑦ Excess heat dissipation for indoor unit

The indoor unit fan continues operating for 30 seconds after heating mode operation turns off in order to dissipate excess heat.

- ① When heating mode operation has stopped
(LOW operation for 30 seconds)
- ② When operation is set to a mode other than heating by means of the OPERATION MODE switch
- ③ If operation starts again during the 30 seconds mentioned in (1) above
(The fan operates at LOW speed for the remainder of the 30 seconds in (1), and then hot start commences.)

⑧ Defrost mode operation time chart



1. Start and completion of defrosting

① Start

During heating mode operation (including automatic heating), after the 45-minute defrosting cycle time has passed, defrosting starts if the temperature detected by the outdoor unit heat exchanger outlet sensor is 2°C or lower for a continuous 5-minute period.

However, if the outdoor unit fan is stopped, the start of defrosting will be delayed by 5 minutes.

The defrosting cycle is 50 minutes from the start of heating mode operation.

② Completion

Defrosting mode operation stops 12 minutes after it starts, or if the temperature detected by the outdoor unit heat exchanger outlet sensor is 25°C or higher.

After defrosting is complete, hot starting commences.

③ Forced defrosting

If P8 on the outdoor unit circuit board is shorted while the compressor is on during heating mode operation and the temperature detected by the outdoor unit heat exchanger outlet sensor is 25°C or lower, defrosting is carried out regardless of the current starting conditions.

2. Operation

① During defrosting, the outdoor unit turns on the compressor and turns off the outdoor unit fan and the reversing valve.

② The indoor unit fan operates at LOW for 30 seconds after defrosting starts. After this, the indoor unit fan turns off until defrosting is complete.

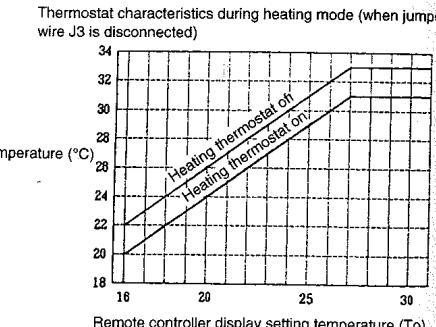
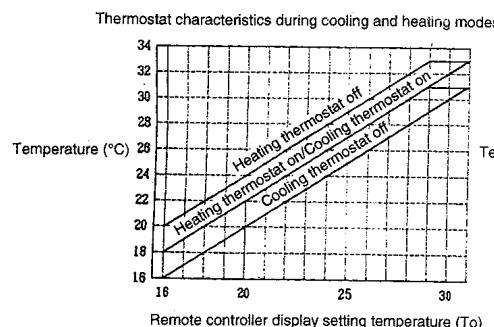
(During defrosting, the louver of the indoor unit stays at the horizontal.)

⑨ Indoor thermostat characteristics

1. Thermostat characteristics during cooling and heating modes

| Operation mode | Setting temperature (To) | Room temperature (°C) | | |
|----------------|--------------------------|-----------------------|--------------|-------|
| | | Operation | Differential | |
| | | | 2.0K | 4.0K |
| Cooling | 16 | O N | 18.0 | _____ |
| | | O F F | 16.0 | _____ |
| | 31 | O N | 33.0 | _____ |
| | | O F F | 31.0 | _____ |
| Heating *1 | 16 | O N | 18.0 | 20.0 |
| | | O F F | 20.0 | 22.0 |
| | 29~31 *1(27~31) | O N | 31.0 | 31.0 |
| | | O F F | 33.0 | 33.0 |

*1 If jumper wire J3 on the indoor unit circuit board is disconnected, the thermostat characteristics during heating become 2 K or higher.



NOTE: If the remote control unit display setting temperature (To) is 29°C or higher, the heating thermostat turns on when the room temperature is 31°C.

2. Thermostat characteristics during dry mode

During dry mode operation, cooling mode operation is carried out in accordance with the indoor temperature as shown in the table below.

| Mode | Indoor Temperature (°C) T | Operation details | |
|------|---------------------------|---|-----------------------|
| | | Cooling thermostat on | LO, Louver horizontal |
| ① | $T \geq 28$ | Cooling thermostat on | LO, Louver horizontal |
| *② | $28 > T \geq 25$ | Cooling thermostat on 10 min./fan 5 min., alternate operation | LO, Louver horizontal |
| *③ | $25 > T \geq 21$ | Cooling thermostat on 5 min./fan 10 min., alternate operation | LO, Louver horizontal |
| ④ | $21 \geq T$ | Cooling thermostat off | LO, Louver horizontal |

(Differential is 1.5 K)

*When modes ② and ③ are active, dry mode operation starts when the cooling thermostat turns on.

When modes ② and ③ have been stopped, the 10 min./5 min. times have no relevance. However, if the indoor temperature is less than or equal to the remote control unit setting temperature, mode ④ is forcibly activated.

3. Thermostat characteristics during automatic changeover operation

① Settings at the start of automatic changeover operation

When operation starts, or when operation changes from some other mode to automatic changeover mode, it starts at the temperature characteristics given in the table below.

| Indoor temperature (T) °C | Initial setting |
|---|---|
| $T < \text{remote controller display temperature} - 2$ (°C) | Heating mode operation, thermostat on |
| Remote controller display temperature $\geq T$ | Heating mode operation, thermostat off (fan mode operation) |
| Remote controller display temperature $\leq T$ | Cooling mode operation, thermostat off (fan mode operation) |
| Remote controller display temperature $+ 2$ (°C) $< T$ | Cooling mode operation, thermostat on |

2 (°C): Thermostat differential

② Thermostat characteristics when switching between cooling and heating mode operation

Switching between cooling mode and heating mode operation is carried out as shown in the table below. However, during automatic operation, the operation does not change again until 10 minutes after the thermostat has switched off in either cooling mode or heating mode.
(The 10-minute timer is canceled when operation is changed to another mode or when operation stops and the thermostat turns on.)

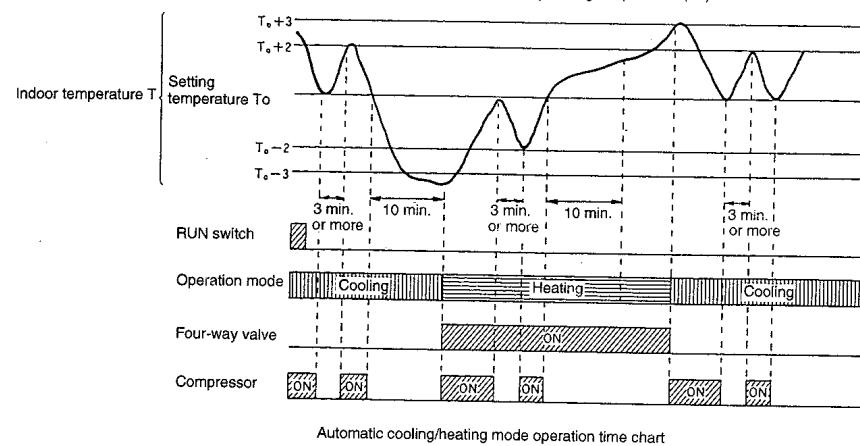
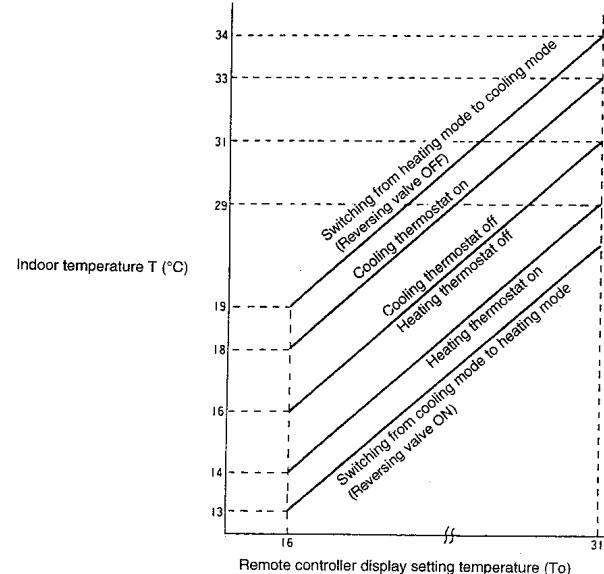
| Indoor temperature (T) °C | Operation switching |
|--|---|
| $T \geq \text{Remote controller display temperature} + 3$ (°C) | Heating mode \rightarrow Cooling mode |
| $T \leq \text{Remote controller display temperature} - 3$ (°C) | Cooling mode \rightarrow Heating mode |

③ Thermostat characteristics during cooling mode and heating mode operation

The thermostat on/off characteristics in both operation modes are given in the table below.

| Operation mode | Indoor temperature (T) °C | Operation |
|----------------|--|------------------------|
| Cooling mode | $T > \text{Remote control unit display temperature} + 2 (\text{°C})$ | Cooling thermostat on |
| | $T \leq \text{Remote control unit display temperature}$ | Cooling thermostat off |
| Heating mode | $T < \text{Remote control unit display temperature} - 2 (\text{°C})$ | Heating thermostat on |
| | $T \geq \text{Remote control unit display temperature}$ | Heating thermostat off |

Indoor temperature thermostat characteristics during automatic changeover operation



⑩ Indoor unit fan control

1. Fixing at LO, MED or HI

When LO, MED or HI is set, the relay switches and operation is carried out at that setting.

2. Automatic fan speed

When set to AUTO, the indoor unit fan operation changes as shown in the table below.

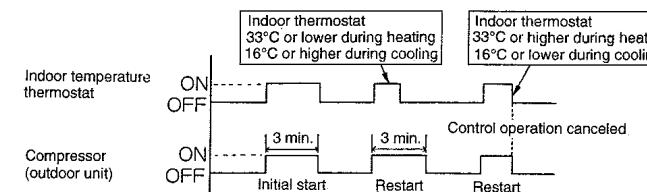
(Indoor temperature)-(Setting temperature) (Units: K)

| | HI | MED | LO |
|--------------|---------------------------------|-------------|-----------------|
| Cooling mode | + 3 or higher | + 1.5 ~ 3 | Less than + 1.5 |
| Heating mode | - 3 or lower | - 1.6 ~ - 3 | More than - 1.5 |
| Fan mode | MED irrespective of temperature | | |

⑪ Forced operation during restart

The compressor will not stop operating for 3 minutes after cooling mode or heating mode operation starts, even if the indoor unit thermostat turns off.

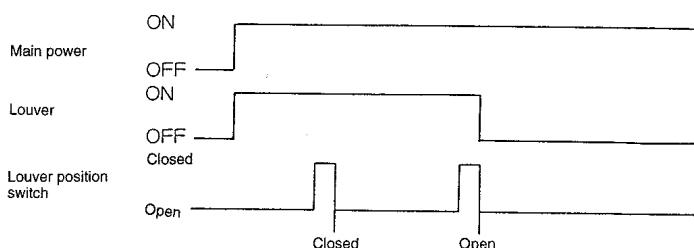
(However, the compressor will stop operating during this time if the indoor unit air intake temperature exceeds 33°C during heating mode operation or if the indoor unit air intake temperature drops below 16°C during cooling mode operation.)



⑫ Louver control (models with louver)

① When main power is turned on

When the power is turned on, indoor unit louver position detection is carried out twice and then the indoor unit louver stops.



② At start of operation

When the RUN switch is pressed to start operation, the louver moves through one full cycle, and then it swings automatically (if AUTO has been set using the remote controller) or moves to the setting angle (if MANUAL has been set using the remote controller).

③ When operation stops

When the RUN switch is pressed to stop operation, the louver moves through one full cycle, and then stops in the down position, regardless of the remote controller setting.

④ When thermostat is off

When operation is stopped by the indoor thermostat, the louver moves through one full cycle, and then stops in the horizontal position, regardless of the remote control unit setting.

13 Outdoor unit fan excess heat dissipation control**① Start**

Carried out when the compressor switches from on to off (when the remote control unit is used to stop operation)

② Operation

The outdoor unit fan runs at SUPER HI speed for approximately 60 seconds and then stops.

14 Discharge temperature control**① Operation**

When the discharge temperature sensor detects a temperature of 100°C or higher during cooling mode operation, the liquid bypass valve is turned on.

② Canceling

When the discharge temperature sensor detects a temperature of 70°C or lower, the liquid bypass valve is turned off.

15 Emergency operation

When the emergency operation switch (DSW1) on the outdoor unit printed circuit board is set to the emergency setting, then emergency operation is enabled. This allows normal operation to continue, with all abnormalities other than a discharge temperature abnormality, high pressure abnormality or overcurrent abnormality being ignored.

16 DIP switch settings**• Indoor unit printed circuit board (DSW1)**

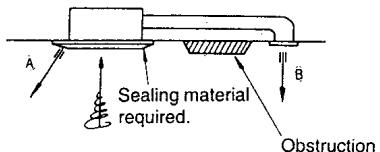
| No. | Setting type | Factory shipment | Remarks |
|-----|--------------------------------|------------------|--|
| 1 | | OFF | |
| 2 | Group address setting | OFF | When group operation is being carried out using the remote controller, this address is set in order to control the order of starting for the indoor units. |
| 3 | (twin/triple address setting) | OFF | (If No. 8 is ON, twin/triple address setting is carried out.) |
| 4 | | OFF | |
| 5 | Automatic restart | ON | When set to ON, operation after a power outage resumes at the settings which were in effect before the outage. (The backup time is semipermanent.) |
| 6 | Filter sign time | ON | When set to ON, the filter sign times can be set to 2,500 times. |
| 7 | Louver control | *ON | When set to OFF, louver control is disabled. |
| 8 | Twin/triple slave unit setting | OFF | When set to ON, the unit is designated as a slave unit. |

■ Short duct specification (Air outlet)**• Applicable models.....ALL MODEL**

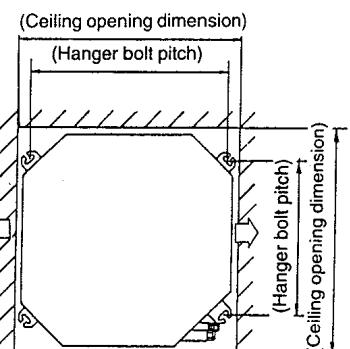
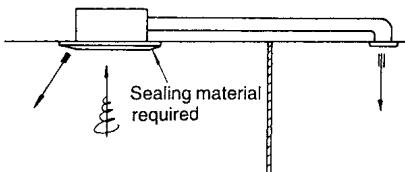
The air conditioner body is provided with air outlet knock-outs for duct connection. However, the connection of a short duct is possible on only one side, either left or right.

• Reasons for using a short duct

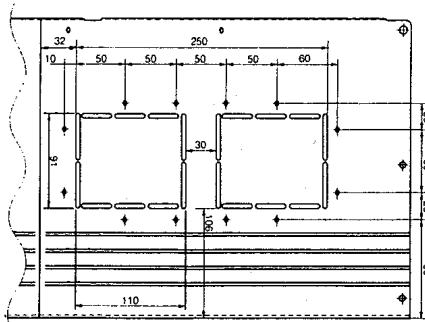
1. The use of a short duct will improve airflow distribution if there is an obstruction (such as a lighting fixture) or in a long, narrow room or an L-shaped room.



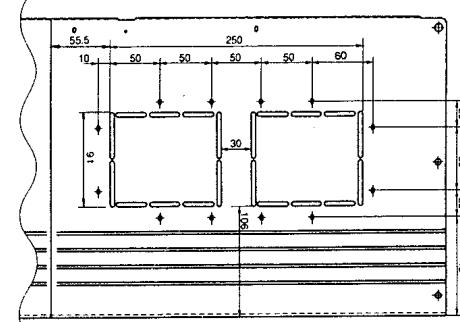
2. For air conditioning of two rooms simultaneously. (In this type of installation, a return duct and other parts are also required.)



(A short duct can only be connected in one of the directions indicated by the arrows.)

• Possible opening dimensions for duct connection (1)

●CS-40U32JP, CS-50U32JP
●CS-71U32JP



●CS-80U32JP
●CS-112U32JP

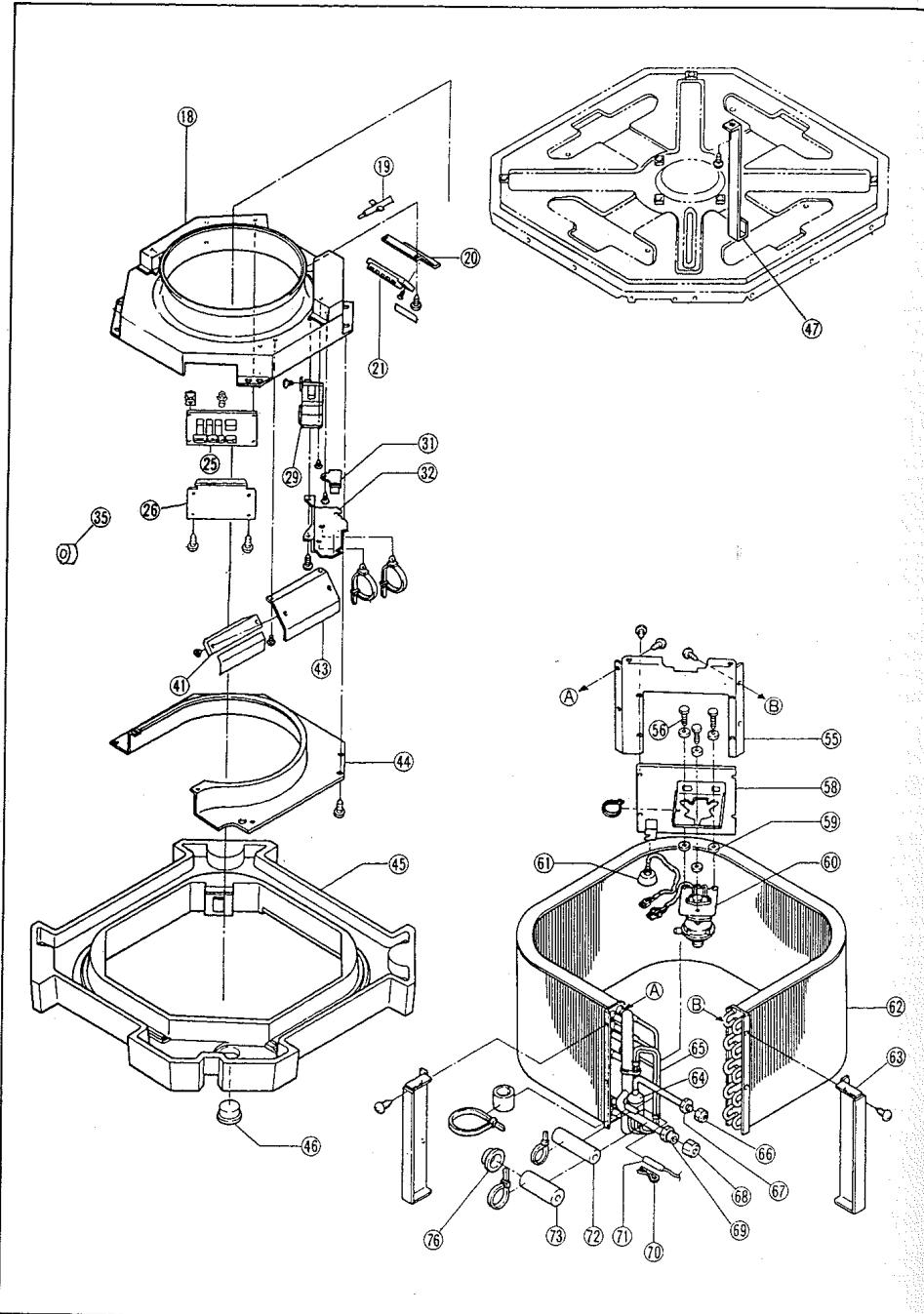
<Caution>

1. Refer to the blower specifications table when designing the duct.
2. Avoid using a short duct on which the air outlet grille can be completely closed, because freezing of the evaporator could occur if the grille is completely closed.
3. In order to prevent condensation from forming, when installing the short duct, be sure that there is sufficient thermal insulation and no leakage of cold air.

32. REPLACEMENT PARTS

INDOOR UNIT

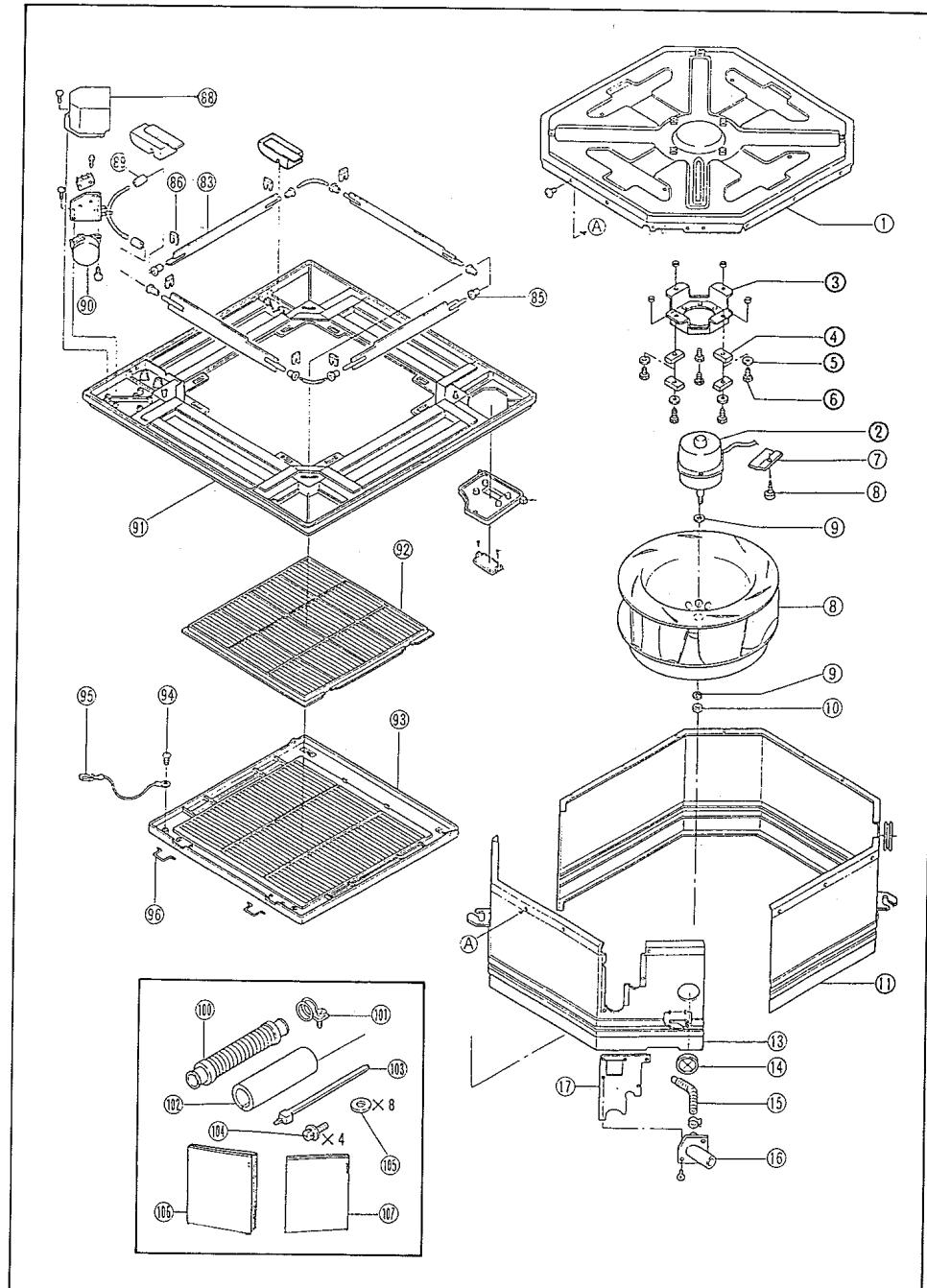
CS-40U32JP, CS-50U32JP, CS-71U32JP, CS-80U32JP, CS-112U32JP



32. REPLACEMENT PARTS

■ INDOOR UNIT

CS-40U32JP, CS-50U32JP, CS-71U32JP, CS-80U32JP, CS-112U32JP



32. REPLACEMENT PARTS

| REF.NO. | PARTS NAME | PARTS NUMBER CNR | QUANTITY PER 1 UNIT | | | | | **REC PARTS |
|---------|-----------------------|------------------|---------------------|---------|---------|---------|----------|-------------|
| | | | 40U32JP | 50U32JP | 71U32JP | 80U32JP | 112U32JP | |
| 1 | Cabinet As | 42-571840 | 1 | 1 | 1 | - | - | |
| | | 42-572040 | - | - | - | 1 | - | |
| | | 42-571850 | - | - | - | - | 1 | |
| 2 | Fan motor | 06-855820 | 1 | 1 | - | - | - | ※ |
| | | 06-854040 | - | - | 1 | 1 | - | ※ |
| | | 06-854050 | - | - | - | - | 1 | ※ |
| 3 | Fan motor base | 06-816310 | 1 | 1 | 1 | 1 | - | |
| | | 06-817660 | - | - | - | - | 1 | |
| 4 | Fan motor mount | 06-817950 | 4 | 4 | 4 | 4 | 4 | |
| 5 | 6 washer | 38-490120 | 4 | 4 | 4 | 4 | 4 | |
| 6 | Nut 5TS27 | 38-193610 | 4 | 4 | 4 | 4 | 4 | |
| 7 | Washer | 05-803630 | 1 | 1 | 1 | 1 | 1 | |
| 8 | Turbo Fan | 05-851210 | 1 | 1 | 1 | 1 | 1 | |
| 9 | 8 spring washer | 38-427080 | 1 | 1 | 1 | 1 | 1 | |
| 10 | 8 nut | 38-817010 | 1 | 1 | 1 | 1 | 1 | |
| 11 | Cabinet side As(B) | 42-562720 | 1 | 1 | - | - | - | |
| | | 42-562200 | - | - | 1 | - | - | |
| | | 42-562950 | - | - | - | 1 | 1 | |
| 12 | Cabinet side As(F) | 42-562710 | 1 | 1 | - | - | - | |
| | | 42-562190 | - | - | 1 | - | - | |
| | | 42-562940 | - | - | - | 1 | 1 | |
| 13 | Square rubber | 06-847100 | 1 | 1 | 1 | 1 | 1 | |
| 14 | Rubber bush | 39-251090 | 1 | 1 | 1 | 1 | 1 | |
| 15 | Drain tube | 02-669170 | 1 | 1 | - | - | - | |
| | | 02-869010 | - | - | 1 | 1 | 1 | |
| 16 | Lead Pipe drain | 06-845510 | 1 | 1 | 1 | 1 | 1 | |
| 17 | Pipe cover | 02-869080 | 1 | 1 | - | - | - | |
| | | 02-868160 | - | - | 1 | 1 | 1 | |
| 18 | Relay Box As | 46-936400 | 1 | 1 | - | - | - | |
| | | 46-936430 | - | - | 1 | - | - | |
| | | 46-936610 | - | - | - | 1 | 1 | |
| 19 | Thermister As | 06-853650 | 1 | 1 | 1 | 1 | 1 | ※ |
| 20 | Terminal Stay (A) | 06-846450 | 1 | 1 | 1 | - | - | |
| | | 06-847220 | - | - | - | 1 | 1 | |
| 21 | Terminal As(5P) | 06-839680 | 1 | 1 | 1 | 1 | 1 | |
| 25 | Printed circuit board | 46-936310 | 1 | 1 | 1 | 1 | 1 | ※ |
| 26 | P.C.Bord Stay | 06-853950 | 1 | 1 | 1 | - | - | |
| 29 | Transformer As | 06-855610 | 1 | 1 | 1 | 1 | 1 | ※ |
| 31 | Capacitor (Fan motor) | 06-855660 | 1 | 1 | - | - | - | ※ |
| | | 06-835440 | - | - | 1 | - | - | |
| | | 06-833610 | - | - | - | 1 | - | ※ |
| | | 06-835340 | - | - | - | - | 1 | ※ |
| 32 | Transformer cover As | 06-845530 | 1 | 1 | 1 | - | - | |
| | | 06-847210 | - | - | - | 1 | 1 | |
| 35 | EMI core | 06-841970 | 1 | 1 | 1 | 1 | 1 | |
| 41 | Terminal As(4P) | 06-838530 | 1 | 1 | 1 | 1 | 1 | |
| 43 | Terminal Stay (B) | 06-846460 | 1 | 1 | 1 | - | - | |
| | | 06-847230 | - | - | - | 1 | 1 | |
| 44 | Cover Relay Box | 06-846530 | 1 | 1 | 1 | - | - | |
| | | 06-846970 | - | - | - | 1 | 1 | |
| 45 | Drain Pan As | 45-590960 | 1 | 1 | - | - | - | |
| | | 45-590350 | - | - | 1 | - | - | |
| | | 45-591410 | - | - | - | 1 | 1 | |

32. REPLACEMENT PARTS

| REF.NO. | PARTS NAME | PARTS NUMBER CNR | QUANTITY PER 1 UNIT | | | | | **REC PARTS |
|---------|-------------------------|------------------|---------------------|---------|---------|---------|----------|-------------|
| | | | 40U32JP | 50U32JP | 71U32JP | 80U32JP | 112U32JP | |
| 46 | Drain seal cap | 05-811470 | 1 | 1 | 1 | 1 | 1 | |
| 47 | Evaporator holder | 05-852020 | 1 | 1 | - | - | - | |
| | | 05-851170 | - | - | - | 1 | 1 | |
| | | 05-852730 | - | - | - | - | 1 | |
| 55 | Eva.center plate | 05-851970 | 1 | 1 | - | - | - | |
| | | 05-851140 | - | - | - | 1 | - | |
| | | 05-852690 | - | - | - | - | 1 | |
| 56 | Bolt 5TS 27 | 38-193610 | 3 | 3 | 3 | 3 | 3 | |
| 58 | Panel drain pump As | 46-861190 | 1 | 1 | 1 | 1 | 1 | |
| 59 | Mount | 06-487720 | 3 | 3 | 3 | 3 | 3 | |
| 60 | Drain pump As | 06-851140 | 1 | 1 | 1 | 1 | 1 | ※ |
| 61 | Float Switch As | 46-928590 | 1 | 1 | 1 | 1 | 1 | ※ |
| 62 | Evaporater&Distributor | 45-907140 | 1 | - | - | - | - | |
| | | 45-907150 | - | 1 | - | - | - | |
| | | 45-907220 | - | - | 1 | - | - | |
| | | 45-907230 | - | - | - | 1 | - | |
| | | 45-907240 | - | - | - | - | 1 | |
| 63 | Seal Plate eva. | 05-851990 | 1 | 1 | - | - | - | |
| | | 05-851120 | - | - | 1 | - | - | |
| | | 05-852720 | - | - | - | 1 | 1 | |
| 64 | Distributer As | 45-591520 | 1 | - | - | - | - | |
| | | 45-591800 | - | 1 | - | - | - | |
| | | 45-907270 | - | - | 1 | - | - | |
| | | 45-591390 | - | - | - | 1 | - | |
| | | 45-592080 | - | - | - | - | 1 | |
| 65 | Capillary tube | 05-852910 | 3 | - | - | - | - | |
| | | 05-852170 | - | 3 | - | - | - | |
| | | 05-829460 | - | - | 3 | - | - | |
| | | 05-865440 | - | - | 2 | - | - | |
| | | 05-832740 | - | - | - | 3 | - | |
| | | 05-848630 | - | - | - | 2 | - | |
| | | 05-851060 | - | - | - | - | 8 | |
| 66 | Distributer | 05-978710 | 1 | 1 | - | - | - | |
| | | 05-851110 | - | - | 1 | 1 | - | |
| | | 05-852660 | - | - | - | - | 1 | |
| 67 | Flare nut(2/8) | 38-890070 | 1 | 1 | 1 | - | - | |
| | | 38-890080 | - | - | - | 1 | 1 | |
| 68 | Union(2/8) | 05-974740 | 1 | 1 | 1 | - | - | |
| | | 05-399710 | - | - | - | 1 | 1 | |
| | | 38-890090 | 1 | 1 | - | - | - | |
| | | 38-890100 | - | - | 1 | 1 | - | |
| | | 38-890110 | - | - | - | - | 1 | |
| 69 | Flare nut(4/8) | 05-962170 | 1 | 1 | - | - | - | |
| | | 05-399720 | - | - | 1 | 1 | - | |
| | | 05-950050 | - | - | - | - | 1 | |
| 70 | Union(4/8) | 05-840710 | 1 | 1 | 1 | 1 | 1 | |
| 71 | Sensor spring | 06-826390 | 1 | 1 | 1 | 1 | 1 | ※ |
| 72 | Coil sensor | 06-826390 | 1 | 1 | 1 | 1 | 1 | |
| | | 05-974990 | 1 | 1 | 1 | - | - | |
| | | 05-974240 | - | - | - | 1 | - | |
| 73 | Heat insulation tube(6) | 05-852900 | 1 | 1 | - | - | - | |
| | | 05-968630 | - | - | 1 | - | - | |
| | | 05-960830 | - | - | - | 1 | 1 | |

32. REPLACEMENT PARTS

Attached parts

| REF.NO. | PARTS NAME | PARTS NUMBER CNR | QUANTITY PER 1 UNIT | | | | | ※REC PARTS |
|---------|---------------------------|------------------|---------------------|---------|---------|---------|----------|------------|
| | | | 40U32JP | 50U32JP | 71U32JP | 80U32JP | 112U32JP | |
| 100 | Drain horse | 05-809090 | 1 | 1 | 1 | 1 | 1 | |
| 101 | Crip Drain | 05-955910 | 1 | 1 | 1 | 1 | 1 | |
| 102 | Heat insulation tube (26) | 05-975080 | 1 | 1 | - | - | - | |
| 102 | Heat insulation tube (34) | 05-957540 | - | - | 1 | 1 | - | |
| 102 | Heat insulation tube (43) | 05-957680 | - | - | - | - | 1 | |
| 104 | Screw | 38-791590 | 4 | 4 | 4 | 4 | 4 | |
| 105 | 10 washer | 38-490450 | 8 | 8 | 8 | 8 | 8 | |
| 106 | Operation Instruction | 07-966420 | 1 | 1 | 1 | 1 | 1 | |
| 107 | Installation manual | 07-966480 | 1 | 1 | 1 | 1 | 1 | |

OPTIONAL ACCESSORY PARTS

| REF.NO. | PARTS NAME | PARTS NUMBER CNR | CZ-02KPU01P | | CZ-04KPU01P | | | ※REC PARTS |
|---------|--------------------|------------------|-------------|---------|-------------|---------|----------|------------|
| | | | 40U32JP | 50U32JP | 71U32JP | 80U32JP | 112U32JP | |
| 83 | Louver As | 43-519090 | 4 | 4 | 4 | - | - | |
| | | 43-519110 | - | - | - | 4 | 4 | |
| 84 | Flexible shaft | 03-422010 | 2 | 2 | 2 | - | - | |
| | | 03-422020 | - | - | - | 2 | 2 | |
| 85 | Wing supporter | 03-422009 | 8 | 8 | 8 | 8 | 8 | |
| 86 | Louver holder | 03-421390 | 8 | 8 | 8 | 8 | 8 | |
| 87 | Cover panel | 03-422630 | 1 | 1 | 1 | 1 | 1 | |
| 88 | Louver motor cover | 06-826360 | 1 | 1 | 1 | 1 | 1 | |
| 89 | Shaft tube | 03-422030 | 2 | 2 | 2 | - | - | |
| | | 03-422040 | - | - | - | 2 | 2 | |
| 90 | Louver motor As | 46-832530 | 1 | 1 | 1 | 1 | 1 | * |
| 91 | Grill outer | 03-419320 | 1 | 1 | 1 | - | - | |
| | | 03-419160 | - | - | - | 1 | 1 | |
| 92 | long life filter | 03-419410 | 1 | 1 | 1 | - | - | |
| | | 03-419240 | - | - | - | 1 | 1 | |
| 93 | Inlet grill | 03-419400 | 1 | 1 | 1 | - | - | |
| | | 03-419230 | - | - | - | 1 | 1 | |
| 95 | Wire As | 47-502100 | 2 | 2 | 2 | 2 | 2 | |
| 96 | Hinge wire | 03-419430 | 2 | 2 | 2 | 2 | 2 | |

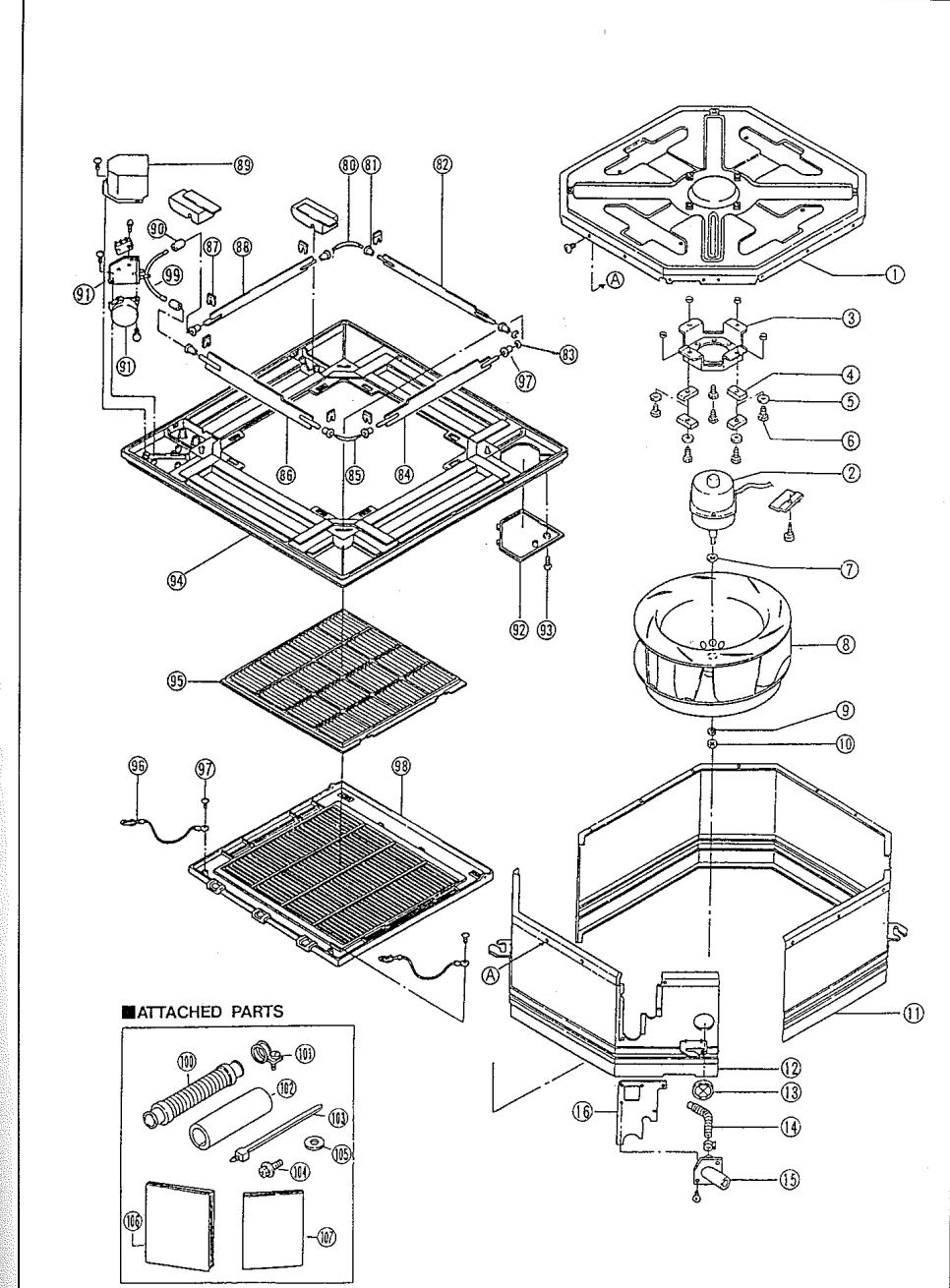
| REF.NO. | PARTS NAME | PARTS NUMBER CNR | CZ-10RT32P | | | | ※REC PARTS |
|---------|-------------------------|------------------|------------|---------|---------|---------|------------|
| | | | 40U32JP | 50U32JP | 71U32JP | 80U32JP | |
| 110 | Wired remote controller | 06-855930 | 1 | 1 | 1 | 1 | 1 |
| 111 | Code | 06-855500 | 1 | 1 | 1 | 1 | 1 |
| 112 | Installation manual | 07-966690 | 1 | 1 | 1 | 1 | 1 |

| REF.NO. | PARTS NAME | PARTS NUMBER CNR | CZ-10RW51P | | | | ※REC PARTS |
|---------|----------------------------|------------------|------------|---------|---------|---------|------------|
| | | | 40U32JP | 50U32JP | 71U32JP | 80U32JP | |
| 120 | Wireless remote controller | 06-855850 | 1 | 1 | 1 | 1 | 1 |
| 121 | Holder | 06-852910 | 1 | 1 | 1 | 1 | 1 |
| 122 | Dry battery (1 set) | 47-598450 | 1 | 1 | 1 | 1 | 1 |
| 123 | Photo receiver unit As | 46-936730 | 1 | 1 | 1 | 1 | 1 |
| 124 | Installation manual | 07-966730 | 1 | 1 | 1 | 1 | 1 |

32. REPLACEMENT PARTS

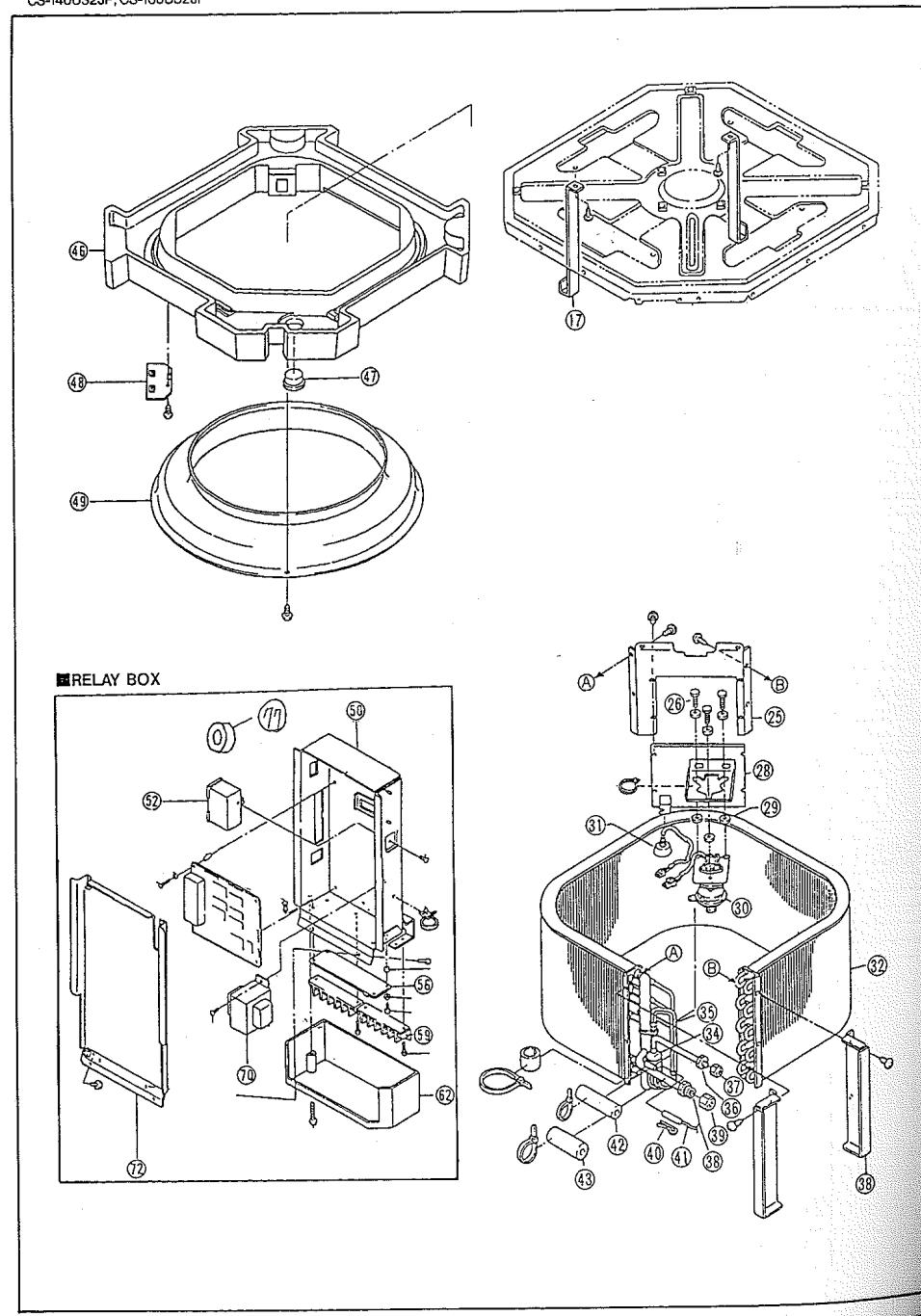
INDOOR UNIT

CS-140U32JP, CS-160U32JP



32. REPLACEMENT PARTS

■ INDOOR UNIT
CS-140U32JP, CS-160U32JP



32. REPLACEMENT PARTS

| REF.NO. | PARTS NAME | PARTS NUMBER CNR | QUANTITY PER 1 UNIT | | ※REC PARTS |
|---------|--------------------------|------------------|---------------------|----------|------------|
| | | | 140U32JP | 160U32JP | |
| 1 | Cabinet As | 42-572100 | 1 | 1 | |
| 2 | Fan motor | 06-851190 | 1 | 1 | |
| 3 | Fan motor base | 06-848730 | 1 | 1 | |
| 4 | Fan motor mount | 06-830250 | 3 | 3 | * |
| 5 | 6 washer | 38-490120 | 3 | 3 | |
| 6 | Nut 5TS27 | 38-193610 | 3 | 3 | |
| 7 | Washer | 08-406060 | 1 | 1 | |
| 8 | Turbo Fan | 45-598170 | 1 | 1 | |
| 9 | 8 spring washer | 38-427080 | 1 | 1 | |
| 10 | 8 nut | 38-817010 | 1 | 1 | |
| 11 | Cabinet side As(F) | 42-570160 | 1 | 1 | |
| 12 | Cabinet side As(B) | 42-570170 | 1 | 1 | |
| 13 | Rubber bush | 39-251090 | 1 | 1 | |
| 14 | Drain tube | 02-869010 | 1 | 1 | |
| 15 | Lead Pipe drain | 06-845510 | 1 | 1 | |
| 16 | Pipe cover | 02-868160 | 1 | 1 | |
| 17 | Evaporator holder | 05-852730 | 2 | 2 | |
| 25 | Eva.center plate | 05-855950 | 1 | 1 | |
| 26 | Bolt 5TS 27 | 38-193610 | 3 | 3 | |
| 28 | Panel drain pump As | 46-921550 | 1 | 1 | |
| 29 | Mount | 06-487720 | 3 | 3 | |
| 30 | Drain pump As | 06-846350 | 1 | 1 | |
| 31 | Float Switch As | 46-848140 | 1 | 1 | |
| 32 | Evaporater As | 45-907290 | 1 | 1 | * |
| 33 | Seal Plate eva. | 05-855970 | 1 | 1 | * |
| 34 | Distributer As | 45-907460 | 1 | 1 | |
| 35 | Capillary tube | 05-855930 | 6 | 6 | |
| 35 | Distributer | 05-855920 | 1 | 1 | |
| 36 | Union(3/8) | 05-399710 | 1 | 1 | |
| 37 | Flare nut(3/8) | 38-890080 | 1 | 1 | |
| 38 | Union(6/8) | 05-950050 | 1 | 1 | |
| 39 | Flare nut(6/8) | 38-890110 | 1 | 1 | |
| 40 | Sensor spring | 05-840710 | 1 | 1 | |
| 41 | Coil sensor | 06-833080 | 1 | 1 | |
| 42 | Heat insulation tube(10) | 05-974240 | 1 | 1 | |
| 43 | Heat insulation tube(16) | 05-844380 | 1 | 1 | * |
| 46 | Drain Pan As | 45-594620 | 1 | 1 | |
| 47 | Drain seal cap | 05-811470 | 1 | 1 | |
| 48 | Drain pan code holder | 05-858070 | 1 | 1 | |
| 49 | Orifice ring | 05-856010 | 1 | 1 | |
| 50 | Relay Box As | 46-936470 | 1 | 1 | |
| 52 | Capacitor (Fan motor) | 06-833100 | 1 | 1 | |
| 56 | Printed circuit board | 06-855780 | - | 1 | * |
| 59 | Terminal As(5P) | 06-849260 | 2 | 2 | * |
| 62 | Cover Relay Box | 06-848790 | 1 | 1 | |
| 67 | Relay board | 46-936480 | 1 | 1 | |
| 70 | Transformer As | 06-855670 | 1 | 1 | * |
| 72 | Relay box support stay | 46-922980 | 1 | 1 | * |
| 76 | Thermister As | 06-849580 | 1 | 1 | * |
| | EMI core | 06-841970 | 3 | 3 | * |

32. REPLACEMENT PARTS

Attached parts

| REF.NO. | PARTS NAME | PARTS NUMBER CNR | QUANTITY PER 1 UNIT | | *REC PARTS |
|---------|---------------------------|------------------|---------------------|----------|------------|
| | | | 140U32JP | 160U32JP | |
| 100 | Drain horse | 05-809090 | 1 | 1 | |
| 101 | Crip Drain | 05-955910 | 1 | 1 | |
| 102 | Heat insulation tube (43) | 05-957680 | 1 | 1 | |
| 104 | Screw | 38-791590 | 4 | 4 | |
| 105 | 10 washer | 38-490450 | 8 | 8 | |
| 106 | Operation Instruction | 07-966420 | 1 | 1 | |
| 107 | Installation manual | 07-966480 | 1 | 1 | |

OPTIONAL ACCESSORY PARTS

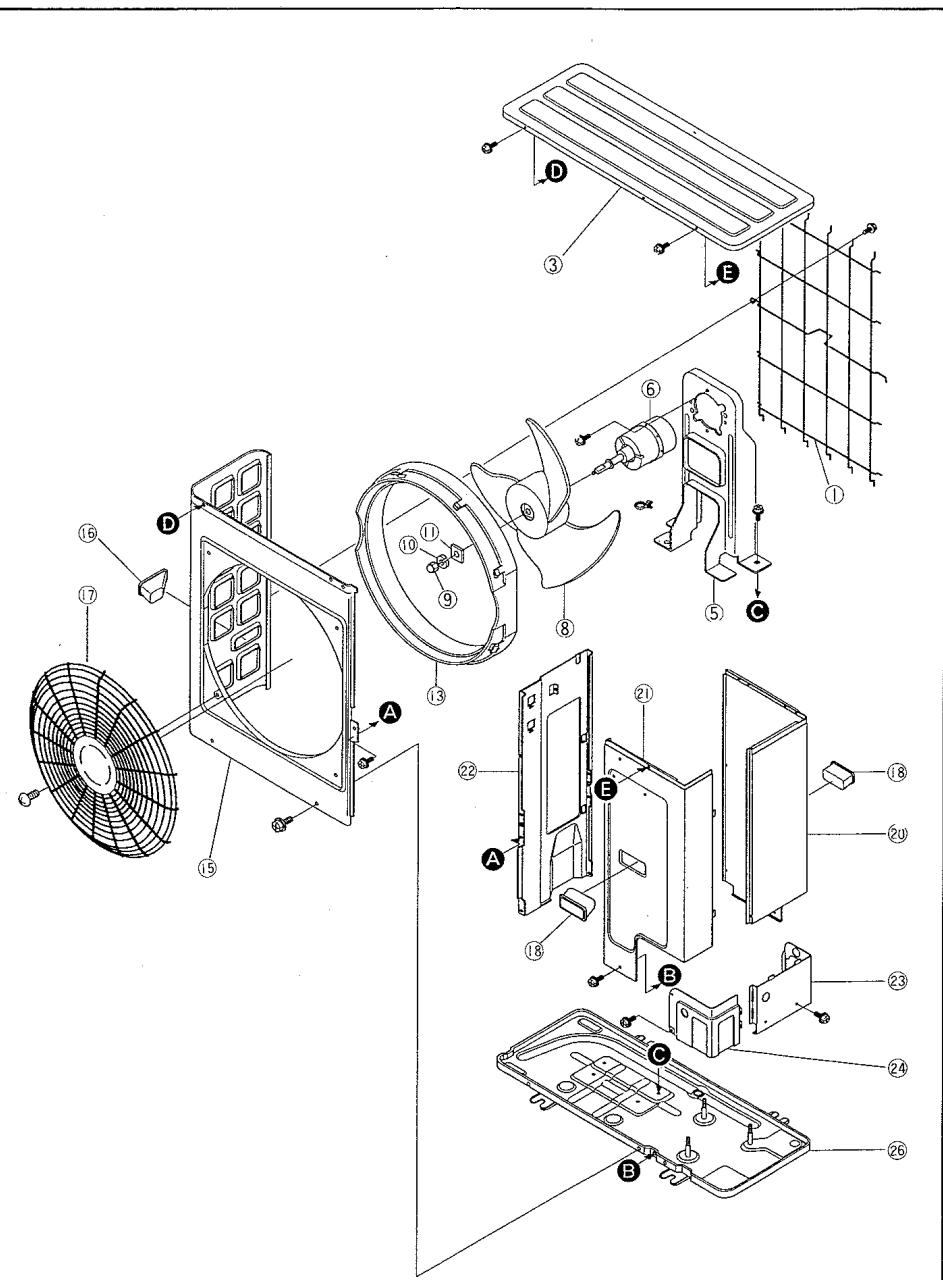
| REF.NO. | PARTS NAME | PARTS NUMBER CNR | CZ-06KPU01P | | *REC PARTS |
|---------|--------------------|------------------|-------------|----------|------------|
| | | | 140U32JP | 160U32JP | |
| 80 | Flexible shaft S | 03-421360 | 1 | 1 | |
| 81 | Wing supporter | 03-421350 | 6 | 6 | |
| 82 | Louver L A As | 43-518920 | 1 | 1 | |
| 83 | E ring | 39-030020 | 2 | 2 | |
| 84 | Louver S A As | 43-518940 | 1 | 1 | |
| 85 | Flexible shaft L | 03-421370 | 1 | 1 | |
| 86 | Louver M A As | 43-518980 | 1 | 1 | |
| 87 | Louver holder | 03-421390 | 6 | 6 | |
| 88 | Louver LL A As | 43-518990 | 1 | 1 | |
| 89 | Louver motor cover | 06-826360 | 1 | 1 | |
| 90 | Shaft tube | 03-421380 | 2 | 2 | |
| 91 | Louver motor As | 46-832530 | 1 | 1 | * |
| 92 | Cover panel | 03-421650 | 1 | 1 | |
| 93 | Rolet screw | 08-405940 | 1 | 1 | |
| 94 | Grill outer | 03-421260 | 1 | 1 | |
| 95 | long life filter | 03-421560 | 1 | 1 | |
| 96 | Wire As | 47-502100 | 2 | 2 | |
| 97 | Collar louver | 03-421640 | 2 | 2 | |
| 98 | Inlet grill | 03-421550 | 1 | 1 | |
| 99 | Crank arm As | 43-518970 | 1 | 1 | |

| REF.NO. | PARTS NAME | PARTS NUMBER CNR | CZ-10RT32P | | *REC PARTS |
|---------|-------------------------|------------------|------------|----------|------------|
| | | | 140U32JP | 160U32JP | |
| 110 | Wired remote controller | 06-855930 | 1 | 1 | |
| 111 | Code | 06-855500 | 1 | 1 | |
| 112 | Installation manual | 07-966690 | 1 | 1 | |

| REF.NO. | PARTS NAME | PARTS NUMBER CNR | CZ-10RW51P | | *REC PARTS |
|---------|----------------------------|------------------|------------|----------|------------|
| | | | 140U32JP | 160U32JP | |
| 120 | Wireless remote controller | 06-855850 | 1 | 1 | |
| 121 | Holder | 06-852910 | 1 | 1 | |
| 122 | Dry battery (1 set) | 47-598450 | 1 | 1 | |
| 123 | Photo receiver unit As | 46-936730 | 1 | 1 | |
| 124 | Installation manual | 07-966730 | 1 | 1 | |

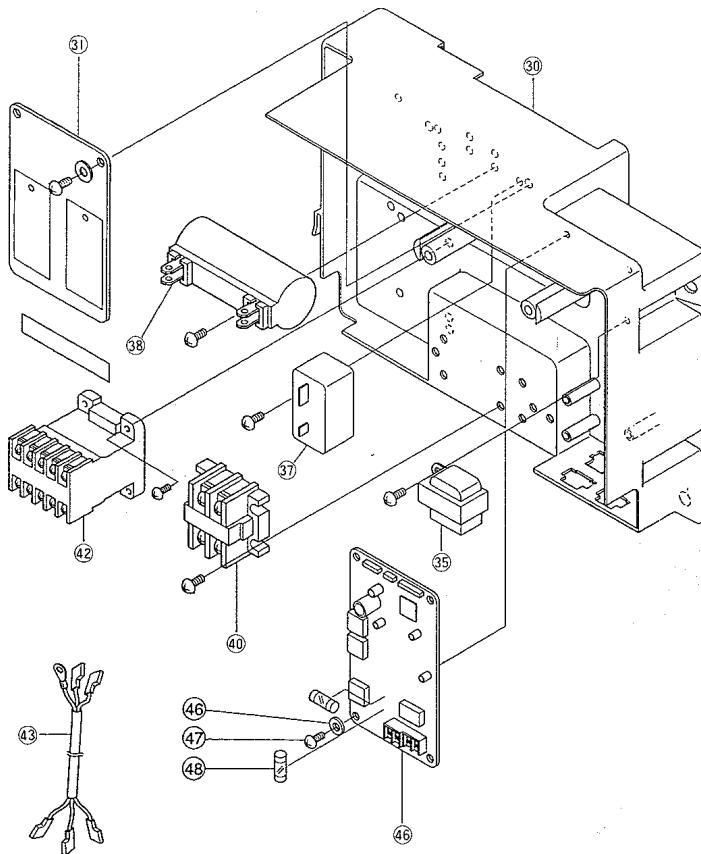
32. REPLACEMENT PARTS

CU-40C52HP, CU-50C52HP, CU-40C02HP, CU-50C02HP



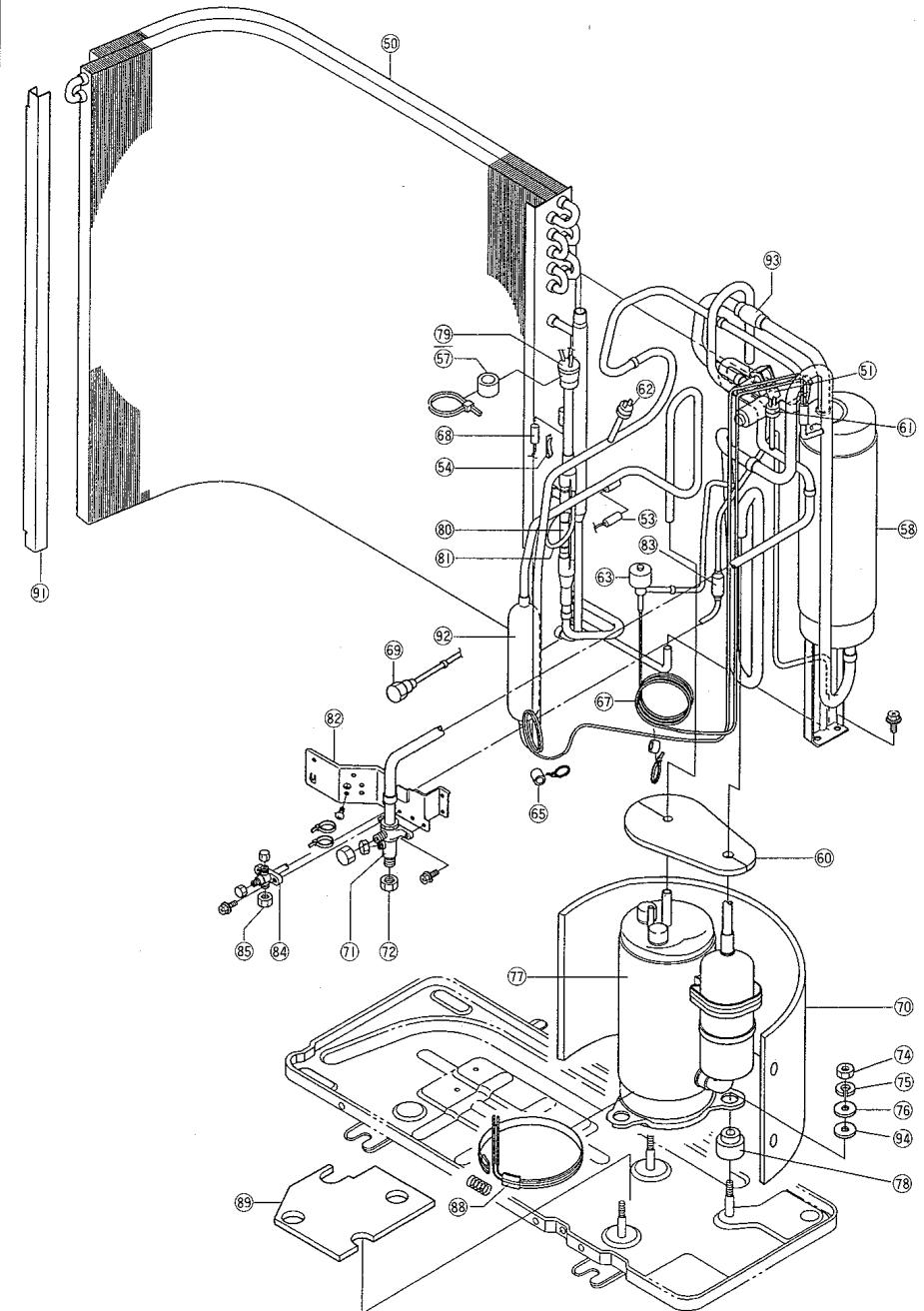
32. REPLACEMENT PARTS

CU-40C52HP, CU-50C52HP, CU-50C02HP, CU-50C02HP

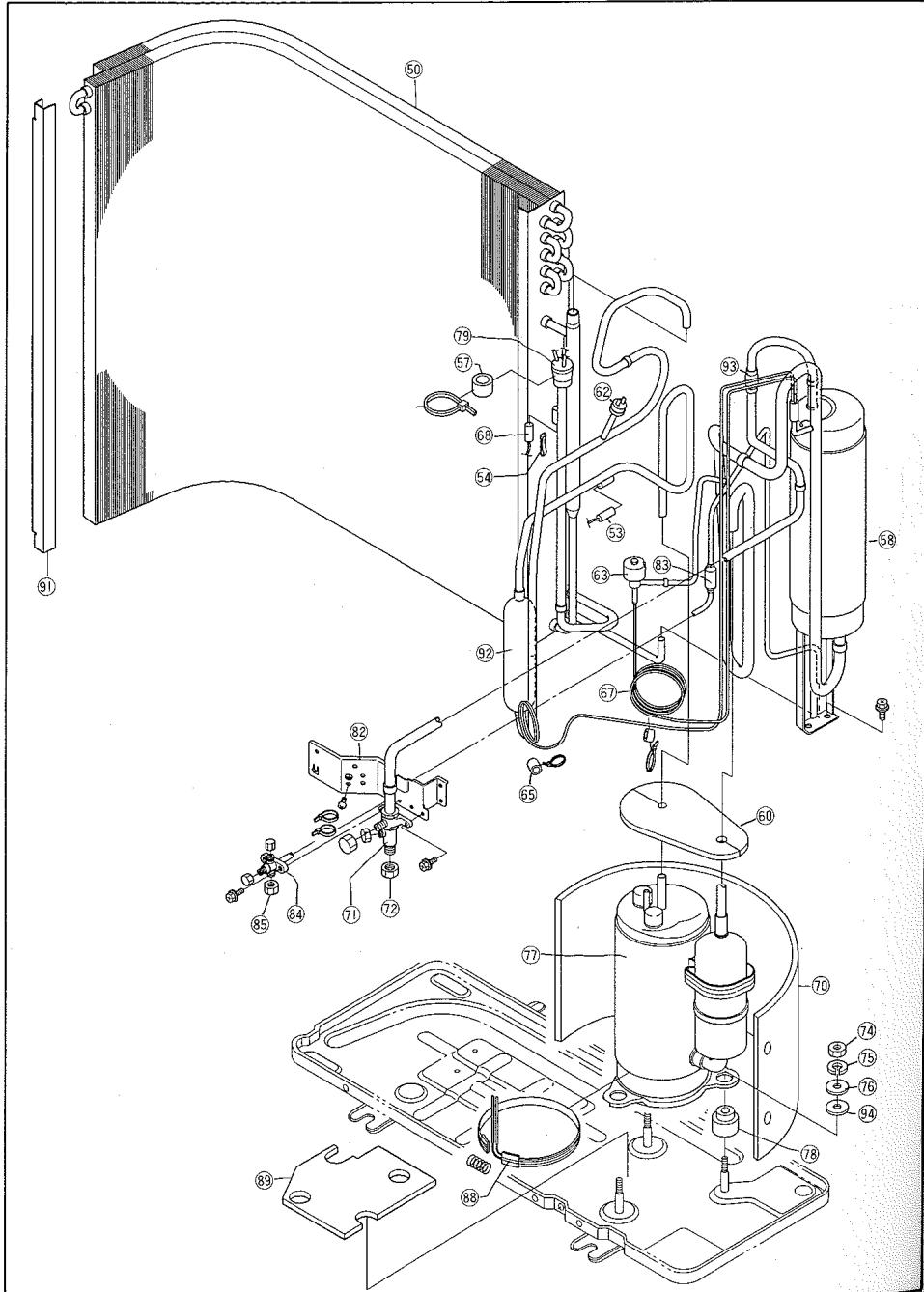


32. REPLACEMENT PARTS

CU-40C52HP, CU-50C52HP, (Heat pump model)



CU-40C02HP, CU-50C02HP (Cooling only model)



■HEAT PUMP MODEL

| REF.NO. | PARTS NAME | PARTS NUMBER CNR | QUANTITY PER 1 UNIT | | ※REC PARTS |
|---------|----------------------------------|------------------|---------------------|---------|------------|
| | | | 40C52HP | 50C52HP | |
| 1 | Condenser guard | 02-880230 | 1 | 1 | |
| 3 | Top plate As | 02-880240 | 1 | 1 | |
| 5 | Motor stay | 02-880170 | 1 | 1 | |
| 6 | Fan motor | 06-855810 | 1 | 1 | * |
| 8 | Prop fan | 05-866200 | 1 | 1 | |
| 9 | 10 Nut | 08-405150 | 1 | 1 | |
| 10 | 10 Sp washer | 08-405160 | 1 | 1 | |
| 11 | Washer for fan | 05-962730 | 1 | 1 | |
| 13 | Orifice ring | 02-880210 | 1 | 1 | |
| 15 | Orifice plate | 02-880200 | 1 | 1 | |
| 16 | Hanger shell(B) | 02-879430 | 1 | 1 | |
| 17 | Fan guard | 42-574220 | 1 | 1 | |
| 18 | Hanger shell(A) | 02-879420 | 2 | 2 | |
| 20 | Side panel | 02-880250 | 1 | 1 | |
| 21 | Front panel | 02-880280 | 1 | 1 | |
| 22 | Seal plate | 02-880180 | 1 | 1 | |
| 23 | Pipe cover B | 02-880270 | 1 | 1 | |
| 24 | Pipe cover F | 02-879360 | 1 | 1 | |
| 26 | Unit base As | 42-573730 | 1 | 1 | |
| 30 | Control box | 06-854680 | 1 | 1 | |
| 31 | CT board | 06-855400 | 1 | 1 | * |
| 35 | Transformer | 06-855430 | 1 | 1 | * |
| 37 | Electric capacity for fan motor | 06-832990 | 1 | 1 | * |
| 38 | Electric capacity for compressor | 06-834470 | 1 | 1 | * |
| | | 06-856000 | - | 1 | * |
| 40 | Terminal(3P) | 06-803020 | 1 | 1 | |
| 42 | Compressor relay | 06-846910 | 1 | - | * |
| | | 06-845730 | - | 1 | * |
| 43 | Compressor cord As | 46-934800 | 1 | - | |
| | | 46-934800 | - | 1 | |
| 46 | Printed circuit board | 46-936850 | 1 | - | * |
| | | 46-936860 | - | 1 | * |
| 50 | Condenser&Distributer | 45-908320 | 1 | - | |
| | | 45-908330 | - | 1 | |
| 51 | Reversing valve | 05-401290 | 1 | 1 | * |
| 51 | Reversing valve coil | 06-855890 | 1 | 1 | * |
| 53 | Piping thermistor(Discharge) | 46-930790 | 1 | 1 | * |
| 54 | Spring for sensor | 05-840710 | 2 | 2 | |
| 57 | Pipe holder rubber | 05-867200 | 2 | 2 | |
| 58 | Accumulator As | 45-908570 | 1 | 1 | |
| 60 | Compressor cover top | 02-881600 | 1 | 1 | |
| | | 02-881610 | 1 | 1 | |
| 61 | Pressure switch(Heating) | 06-826230 | 1 | 1 | * |
| 62 | High pressure switch | 06-830840 | 1 | 1 | * |
| 63 | Electric magnetic valve coil | 06-855910 | 1 | 1 | * |
| 64 | Electric magnetic valve | 05-809320 | 1 | 1 | * |
| 65 | Pipe clamp rubber | 05-964690 | 1 | 1 | * |
| 67 | Capillary tube for valve | 05-866920 | 1 | 1 | |

32. REPLACEMENT PARTS

■ HEAT PUMP MODEL

| REF.NO. | PARTS NAME | PARTS NUMBER CNR | QUANTITY PER 1 UNIT | | *REC PARTS |
|---------|-------------------------|------------------|---------------------|---------|------------|
| | | | 40C52HP | 50C52HP | |
| 68 | Piping thermistor(Coil) | 46-930800 | 1 | 1 | * |
| 69 | Check joint | 05-822330 | 1 | 1 | |
| 70 | Compressor cover | 02-862710 | 1 | - | |
| | | 02-868880 | - | 1 | |
| 71 | Ball valve(4/8) | 05-822430 | 1 | 1 | |
| 72 | Flare nut(4/8) | 38-890090 | 1 | 1 | |
| 74 | 8 Nut | 38-817010 | 3 | 3 | |
| 75 | Spring washer | 38-427080 | 3 | 3 | |
| 76 | 8 washer | 38-490740 | 3 | 3 | |
| 77 | Compressor | 05-868040 | 1 | - | * |
| | | 05-868030 | - | 1 | * |
| 78 | Mount rubber | 05-838620 | 3 | 3 | |
| 79 | Distributor | 05-866550 | 1 | 1 | |
| 79 | Capillary tube | 05-866570 | 3 | 3 | |
| 80 | Check valve | 05-478500 | 1 | 1 | |
| 81 | Heating capillary tube | 05-866590 | 1 | - | |
| | | 05-866560 | - | 1 | |
| 82 | Valve stay | 02-880190 | 1 | 1 | |
| 83 | Strainer | 05-984840 | 1 | 1 | |
| 84 | Service valve (2/8) | 05-864470 | 1 | 1 | |
| 85 | Flare nut(2/8) | 38-890070 | 1 | 1 | |
| 86 | Crankcase heater | 06-855990 | 1 | 1 | * |
| 89 | Base compressor cover | 02-880500 | 1 | 1 | |
| 90 | Drain elbo As | 47-598250 | 1 | 1 | |
| 91 | Coil seal plate | 02-880160 | 1 | 1 | |
| 92 | Oil separator | 05-821760 | 1 | 1 | |
| 93 | Strainer | 05-822310 | 1 | 1 | |
| 94 | Mount rubber cap | 05-839500 | 3 | 3 | |

32. REPLACEMENT PARTS

Cooling only model

| REF.NO. | PARTS NAME | PARTS NUMBER CNR | QUANTITY PER 1 UNIT | | *REC PARTS |
|---------|----------------------------------|------------------|---------------------|---------|------------|
| | | | 40C02HP | 50C02HP | |
| 1 | Condenser guard | 02-880230 | 1 | 1 | |
| 3 | Top plate As | 02-880240 | 1 | 1 | |
| 5 | Motor stay | 02-880170 | 1 | 1 | |
| 6 | Fan motor | 06-855810 | 1 | 1 | * |
| 8 | Prop fan | 05-866200 | 1 | 1 | |
| 9 | 10 Nut | 08-405150 | 1 | 1 | |
| 10 | 10 Sp washer | 08-405160 | 1 | 1 | |
| 11 | Washer for fan | 05-962730 | 1 | 1 | |
| 13 | Orifice ring | 02-880210 | 1 | 1 | |
| 15 | Orifice plate | 02-880200 | 1 | 1 | |
| 16 | Hanger shell(B) | 02-879430 | 1 | 1 | |
| 17 | Fan guard | 42-574220 | 1 | 1 | |
| 18 | Hanger shell(A) | 02-879420 | 2 | 2 | |
| 20 | Side panel | 02-880250 | 1 | 1 | |
| 21 | Front panel | 02-880280 | 1 | 1 | |
| 22 | Seal plate | 02-880180 | 1 | 1 | |
| 23 | Pipe cover B | 02-880270 | 1 | 1 | |
| 24 | Pipe cover F | 02-879360 | 1 | 1 | |
| 26 | Unit base As | 42-573730 | 1 | 1 | |
| 30 | Control box | 06-854680 | 1 | 1 | |
| 31 | CT board | 06-855400 | 1 | 1 | * |
| 35 | Transformer | 06-855430 | 1 | 1 | * |
| 37 | Electric capacity for fan motor | 06-832990 | 1 | 1 | * |
| 38 | Electric capacity for compressor | 06-834470 | 1 | - | * |
| | | 06-856000 | - | 1 | * |
| 40 | Terminal(3P) | 06-803020 | 1 | 1 | |
| 42 | Compressor relay | 06-845730 | 1 | 1 | * |
| 43 | Compressor cord As | 46-934800 | 1 | - | |
| | | 46-934800 | - | 1 | |
| 46 | Printed circuit board | 46-937500 | 1 | - | * |
| | | 46-937510 | - | 1 | * |
| 50 | Condenser&Distributer | 45-908800 | 1 | - | |
| | | 45-908810 | - | 1 | |
| 53 | Piping thermistor(Discharge) | 46-930790 | 1 | 1 | * |
| 54 | Spring for sensor | 05-840710 | 2 | 2 | |
| 57 | Pipe holder rubber | 05-867200 | 1 | 1 | |
| 58 | Accumulator As | 45-908570 | 1 | 1 | |
| 60 | Compressor cover top | 02-881600 | 1 | 1 | |
| | | 02-881610 | 1 | 1 | |
| 62 | High pressure switch | 06-830840 | 1 | 1 | * |
| 63 | Electric magnetic valve coil | 06-855910 | 1 | 1 | * |
| 64 | Electric magnetic valve | 05-809320 | 1 | 1 | * |
| 65 | Pipe clamp rubber | 05-952140 | 1 | 1 | |
| 67 | Capillary tube for valve | 05-866920 | 1 | 1 | |

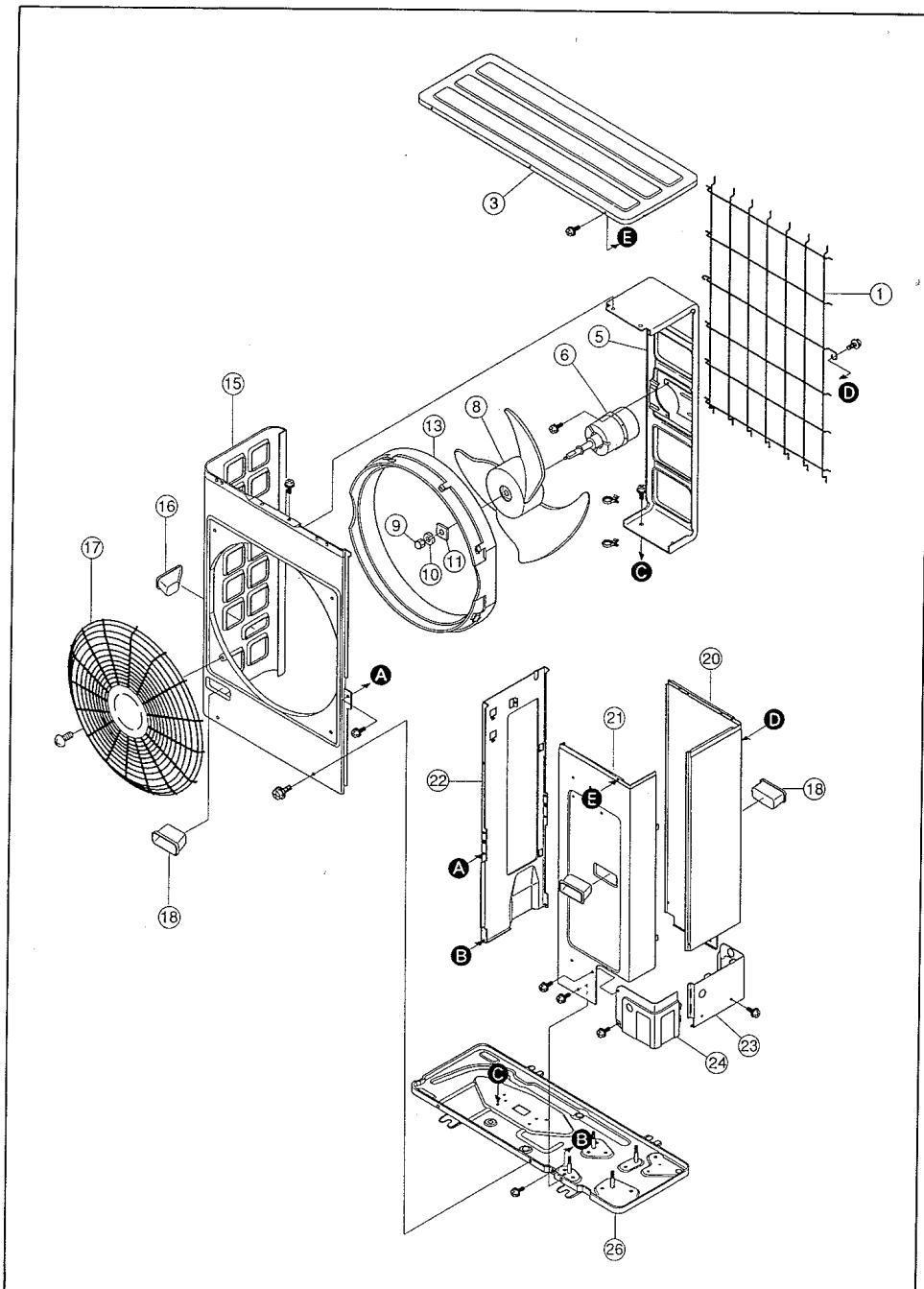
32. REPLACEMENT PARTS

Cooling only model

| REF.NO. | PARTS NAME | PARTS NUMBER CNR | QUANTITY PER 1 UNIT | | ※REC PARTS |
|---------|-------------------------|------------------|---------------------|---------|------------|
| | | | 40C02HP | 50C02HP | |
| 68 | Piping thermistor(Coil) | 46-930800 | 1 | 1 | ※ |
| 70 | Compressor cover | 02-862710 | 1 | - | |
| | | 02-866980 | - | 1 | |
| 71 | Ball valve(4/8) | 05-822430 | 1 | 1 | |
| 72 | Flare nut(4/8) | 38-890090 | 1 | 1 | |
| 74 | 8 Nut | 38-817010 | 3 | 3 | |
| 75 | Spring washer | 38-427080 | 3 | 3 | |
| 76 | 8 washer | 38-490740 | 3 | 3 | |
| 77 | Compressor | 05-868040 | 1 | - | ※ |
| | | 05-868030 | - | 1 | ※ |
| 78 | Mount rubber | 05-838620 | 3 | 3 | |
| 79 | Distributor | 05-866550 | 1 | 1 | |
| 79 | Capillary tube | 05-866570 | 3 | 3 | |
| 82 | Valve stay | 02-880190 | 1 | 1 | |
| 83 | Strainer | 05-984840 | 1 | 1 | |
| 84 | Service valve (2/8) | 05-864470 | 1 | 1 | |
| 85 | Flare nut(2/8) | 38-890070 | 1 | 1 | |
| 88 | Crankcase heater | 06-855990 | 1 | 1 | ※ |
| 89 | Base compressor cover | 02-880500 | 1 | 1 | |
| 91 | Coil seal plate | 02-880160 | 1 | 1 | |
| 92 | Oil separator | 05-821760 | 1 | 1 | |
| 93 | Strainer | 05-822310 | 1 | 1 | |
| 94 | Mount rubber cap | 05-839500 | 3 | 3 | |

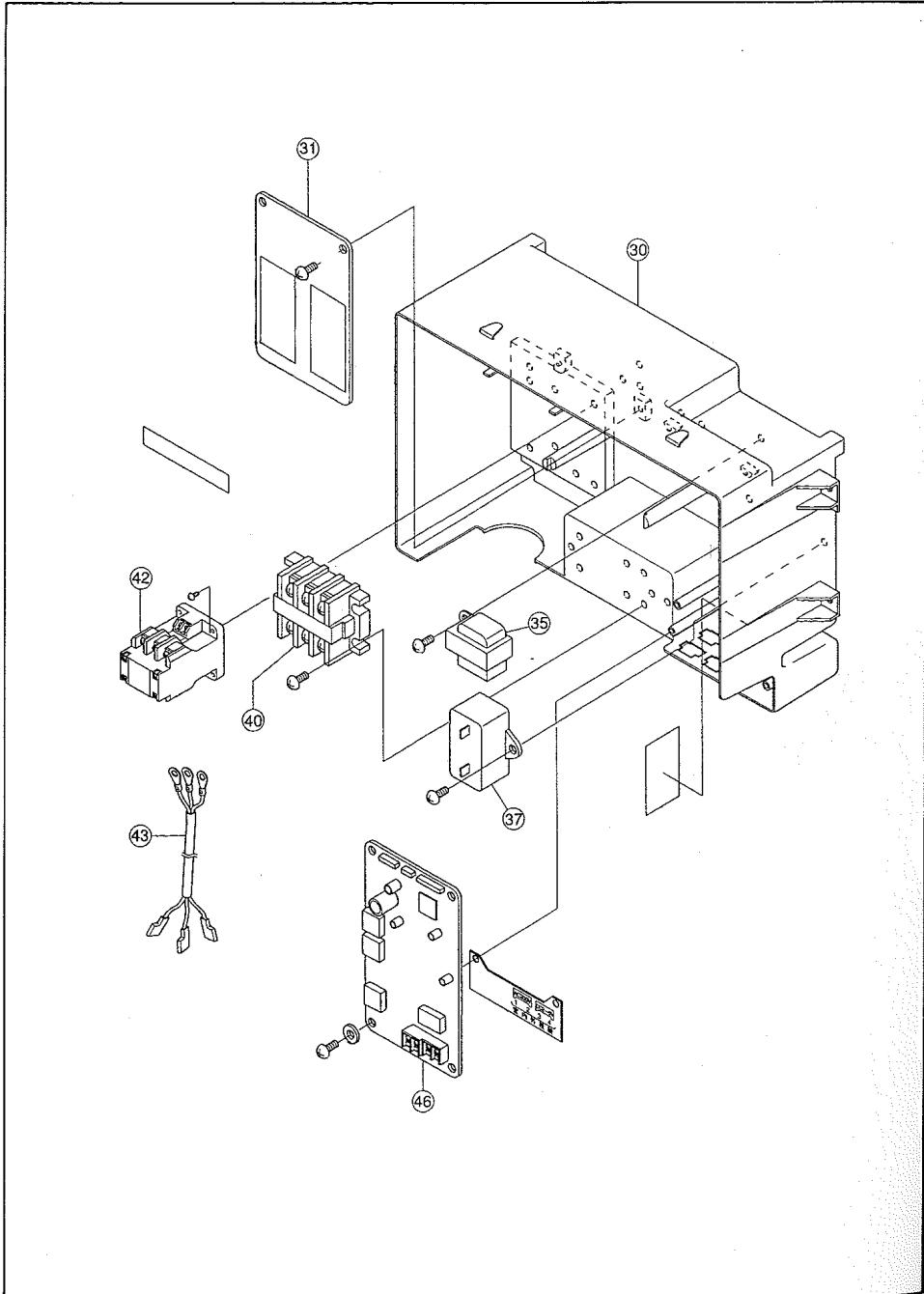
32. REPLACEMENT PARTS

CU-71C52HP, CU-71C52XP, CU-80C52HP, CU-80C52XP



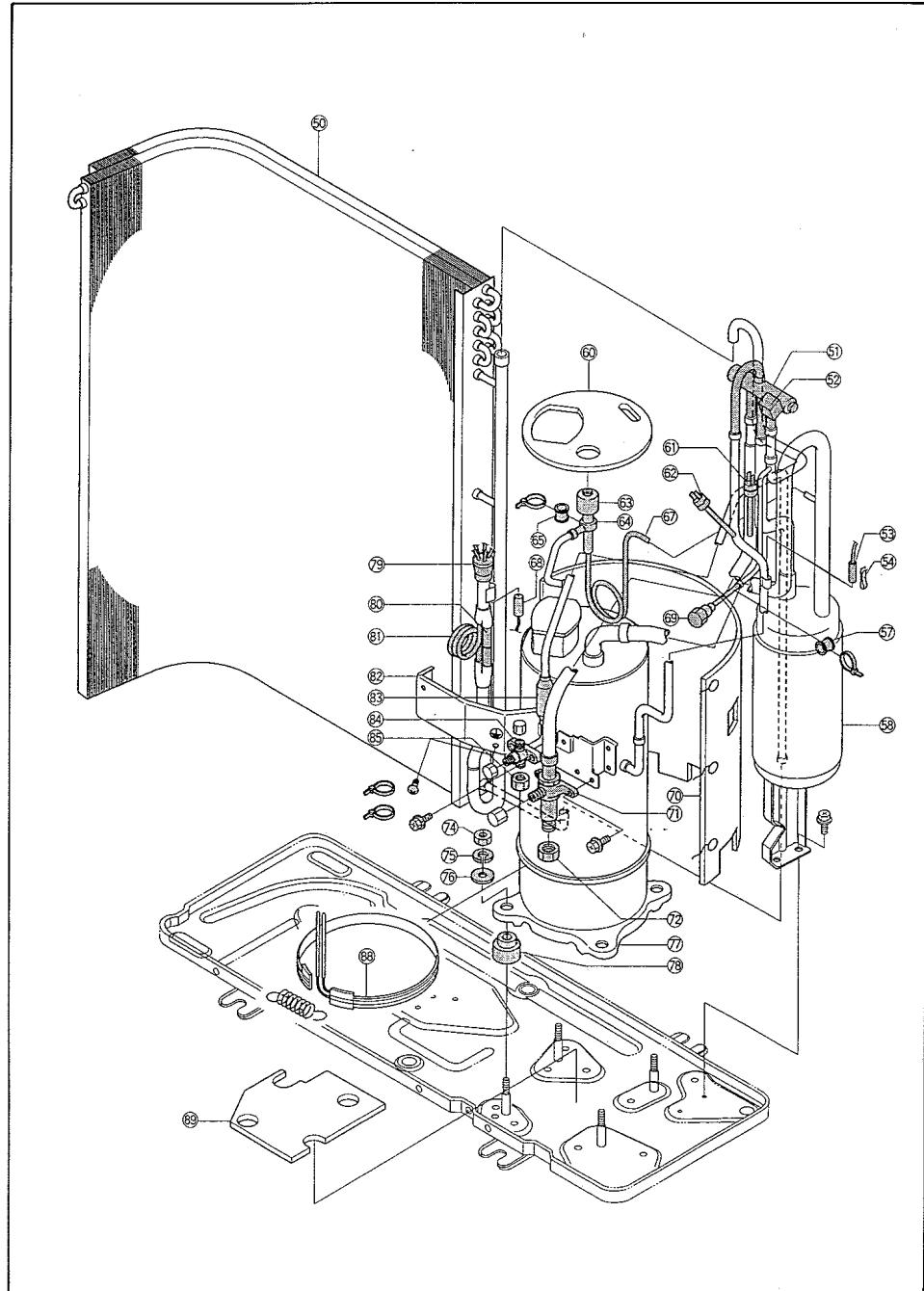
32. REPLACEMENT PARTS

CU-71C52HP, CU-71C52XP, CU-80C52HP, CU-80C52XP

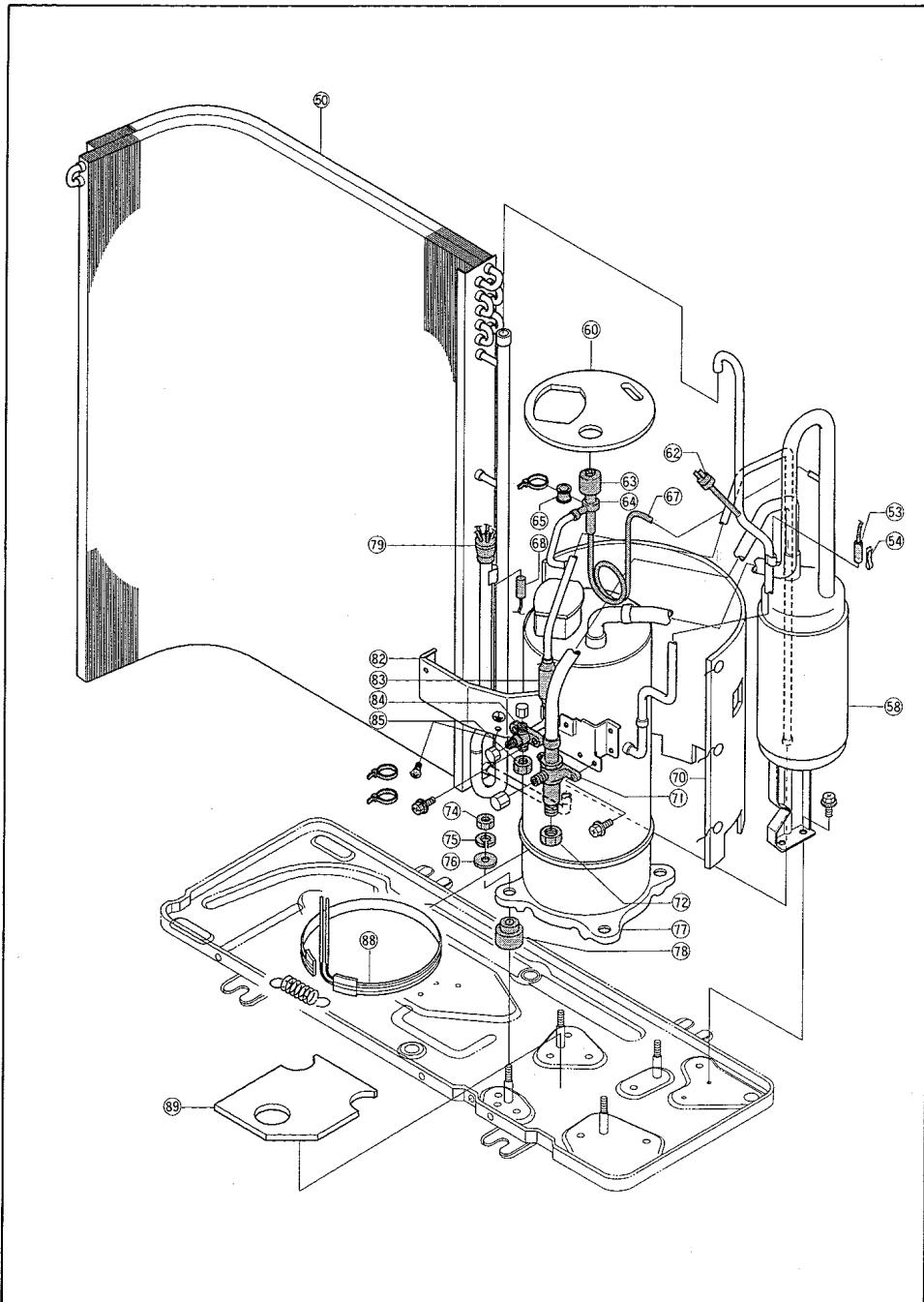


32. REPLACEMENT PARTS

CU-71C52HP, CU-71C52XP, CU-80C52HP, CU-80C52XP (Heat pump model)



CU-71C02HP, CU-71C02XP, CU-80C02HP, CU-80C02XP (Cooling only model)



Heat pump model

| REF.NO. | PARTS NAME | PARTS NUMBER CNR | QUANTITY PER 1 UNIT. | | | | ※REC PARTS |
|---------|----------------------------------|------------------|----------------------|---------|---------|---------|------------|
| | | | 71C52HP | 71C52XP | 80C52HP | 80C52XP | |
| 1 | Condenser guard | 02-879330 | 1 | 1 | 1 | 1 | |
| 3 | Top plate As | 02-879340 | 1 | 1 | 1 | 1 | |
| 5 | Motor stay | 02-879300 | 1 | 1 | 1 | 1 | |
| 6 | Fan motor | 06-855620 | 1 | 1 | 1 | 1 | * |
| 8 | Prop fan | 05-864390 | 1 | 1 | 1 | 1 | |
| 9 | 10 Nut | 08-405150 | 1 | 1 | 1 | 1 | |
| 10 | 10 Sp washer | 08-405160 | 1 | 1 | 1 | 1 | |
| 11 | Washer for fan | 05-962730 | 1 | 1 | 1 | 1 | |
| 13 | Orifice ring | 02-879410 | 1 | 1 | 1 | 1 | |
| 15 | Orifice plate | 02-879320 | 1 | 1 | 1 | 1 | |
| 16 | Hanger shell(B) | 02-879430 | 1 | 1 | 1 | 1 | |
| 17 | Fan guard | 42-574190 | 1 | 1 | 1 | 1 | |
| 18 | Hanger shell(A) | 02-879420 | 3 | 3 | 3 | 3 | |
| 20 | Side panel | 02-879350 | 1 | 1 | 1 | 1 | |
| 21 | Front panel | 02-879380 | 1 | 1 | 1 | 1 | |
| 22 | Seal plate | 02-879310 | 1 | 1 | 1 | 1 | |
| 23 | Pipe cover B | 02-879370 | 1 | 1 | 1 | 1 | |
| 24 | Pipe cover F | 02-879360 | 1 | 1 | 1 | 1 | |
| 26 | Unit base As | 42-573150 | 1 | 1 | 1 | 1 | |
| 30 | Control box | 06-852690 | 1 | 1 | 1 | 1 | |
| 31 | CT board | 06-855400 | - | 1 | - | 1 | * |
| | | 06-854280 | 1 | - | 1 | - | |
| 35 | Transformer | 06-855430 | 1 | 1 | 1 | 1 | * |
| 37 | Electric capacity for fan motor | 06-833100 | 1 | 1 | 1 | 1 | * |
| 38 | Electric capacity for compressor | 06-855440 | 1 | - | - | - | * |
| | | 06-855450 | - | - | 1 | - | * |
| 40 | Terminal(3P) | 06-803020 | 1 | - | 1 | - | |
| 40 | Terminal | 06-855360 | - | 1 | - | 1 | |
| 42 | Compressor relay | 06-844690 | 1 | - | 1 | - | * |
| | | 06-845730 | - | 1 | - | 1 | * |
| 43 | Compressor cord As | 46-936440 | 1 | - | 1 | - | |
| | | 46-931300 | - | 1 | - | 1 | |
| 46 | Printed circuit board | 46-935860 | 1 | - | - | - | * |
| | | 46-935870 | - | 1 | - | - | * |
| | | 46-935880 | - | - | 1 | - | * |
| | | 46-935890 | - | - | - | 1 | * |
| 50 | Condenser&Distributer | 45-905630 | 1 | 1 | - | - | |
| | | 45-905640 | - | - | 1 | 1 | |
| 51 | Reversing valve | 05-401290 | 1 | 1 | 1 | 1 | * |
| 52 | Reversing valve coil | 06-855890 | 1 | 1 | 1 | 1 | * |
| 53 | Piping thermistor(Discharge) | 46-930790 | 1 | 1 | 1 | 1 | * |
| 54 | Spring for sensor | 05-840710 | 2 | 2 | 2 | 2 | |
| 57 | Pipe clamp rubber(5/8) | 05-867200 | 1 | 1 | 1 | 1 | |
| 58 | Accumulator As | 45-905670 | 1 | 1 | - | - | |
| | | 45-905950 | - | - | 1 | 1 | |
| 60 | Compressor cover top | 05-867370 | 1 | 1 | 1 | 1 | |
| 61 | Pressure switch(Heating) | 06-826230 | 1 | 1 | 1 | 1 | * |
| 62 | High pressure switch | 06-830840 | 1 | 1 | 1 | 1 | * |
| 63 | Electric magnetic valve coil | 06-855910 | 1 | 1 | 1 | 1 | * |
| 64 | Electric magnetic valve | 05-809320 | 1 | 1 | 1 | 1 | * |
| | | 05-493370 | 1 | 1 | - | - | |
| | | 05-867130 | 1 | 1 | - | - | |
| | | 05-867140 | - | - | 1 | 1 | |

32. REPLACEMENT PARTS

Heat pump model

| REF.NO. | PARTS NAME | PARTS NUMBER CNR | QUANTITY PER 1 UNIT | | | | ※REC PARTS |
|---------|--------------------------|------------------|---------------------|---------|---------|---------|------------|
| | | | 71C52HP | 71C52XP | 80C52HP | 80C52XP | |
| 67 | Capillary tube for valve | 05-864480 | 1 | 1 | - | - | |
| | | 05-864490 | - | - | 1 | 1 | |
| 68 | Piping thermistor(Coil) | 46-930800 | 1 | 1 | 1 | 1 | ※ |
| 69 | Check joint | 05-822330 | 1 | 1 | 1 | 1 | |
| 70 | Compressor cover | 05-867350 | 1 | 1 | 1 | 1 | |
| 71 | Ball valve(5/8) | 05-820630 | 1 | 1 | 1 | 1 | |
| 72 | Flare nut(5/8) | 38-890100 | 1 | 1 | 1 | 1 | |
| 74 | 8 Nut | 38-817010 | 3 | 3 | 3 | 3 | |
| 75 | 8SP Washer | 38-427080 | 3 | 3 | 3 | 3 | |
| 76 | 8 Washer | 38-490740 | 3 | 3 | 3 | 3 | |
| 77 | Compressor | 05-983920 | 1 | - | - | - | ※ |
| | | 05-983790 | - | 1 | - | - | ※ |
| | | 05-802470 | - | - | 1 | - | ※ |
| | | 05-978160 | - | - | - | 1 | ※ |
| | | 05-867570 | 4 | 4 | 4 | 4 | |
| 78 | Mount rubber | 05-864120 | 1 | 1 | 1 | 1 | |
| 79 | Distributor | 05-864120 | 1 | 1 | 1 | 1 | |
| 79 | Capillary tube | 05-463000 | 5 | 5 | 5 | 5 | |
| 80 | Check valve | 05-478500 | 1 | 1 | 1 | 1 | |
| 81 | Heating capillary tube | 05-864180 | 1 | 1 | - | - | |
| | | 05-864190 | - | - | 1 | 1 | |
| 82 | Valve stay | 02-881200 | 1 | 1 | 1 | 1 | |
| 83 | Strainer | 05-984840 | 1 | 1 | - | - | |
| | | 05-815080 | - | - | 1 | 1 | |
| 84 | Service valve (2/8) | 05-864470 | 1 | 1 | - | - | |
| | Service valve (3/8) | 05-864350 | - | - | 1 | 1 | |
| 85 | Flare nut(2/8) | 38-890070 | 1 | 1 | - | - | |
| | Flare nut(3/8) | 38-890080 | - | - | 1 | 1 | |
| 88 | Crankcase heater | 06-855410 | 1 | 1 | 1 | 1 | ※ |
| 89 | Base compressor cover | 02-880780 | 1 | 1 | 1 | 1 | |
| 90 | Drain elbo As | 47-598250 | 1 | 1 | 1 | 1 | |

32. REPLACEMENT PARTS

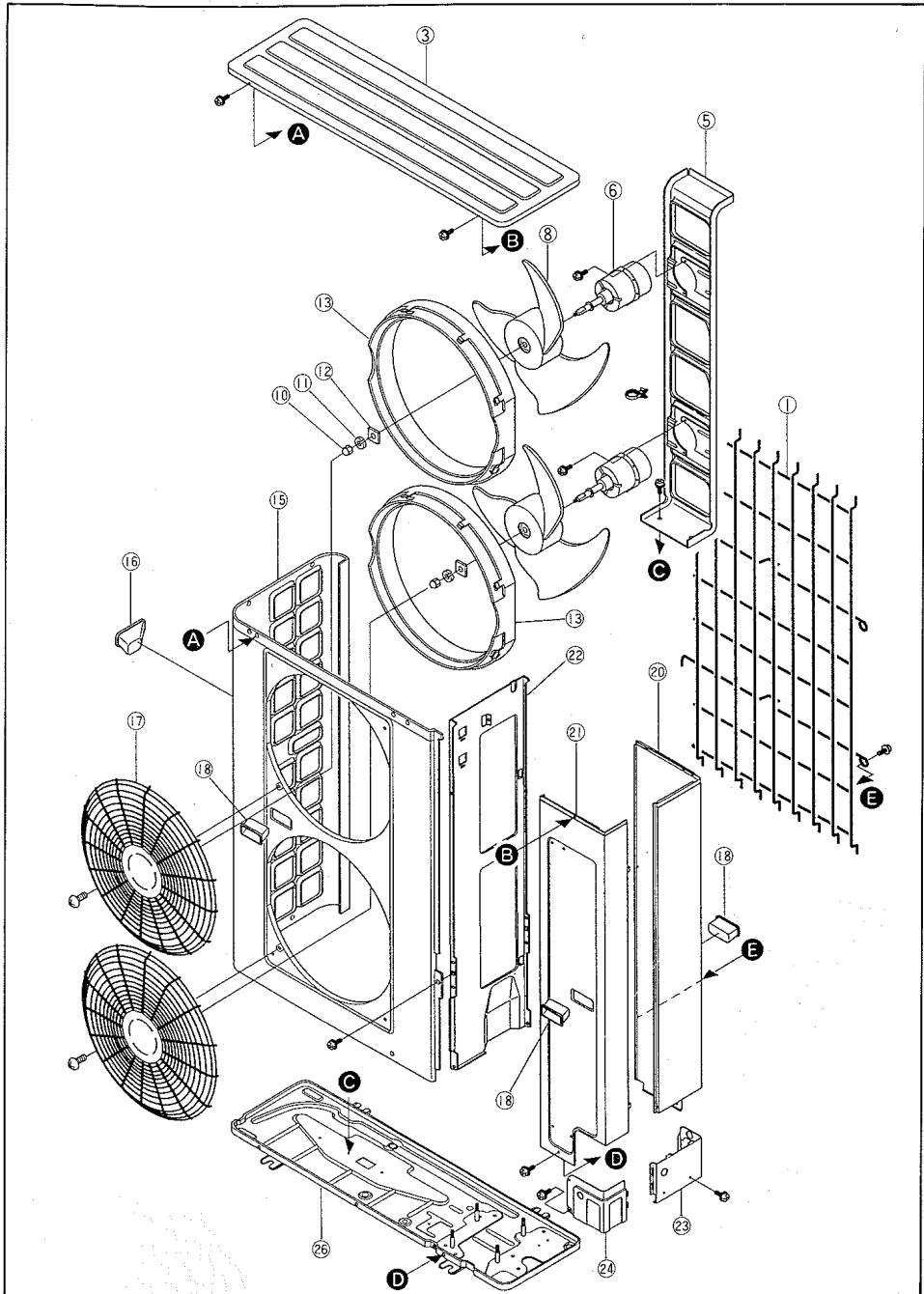
Cooling only model

| REF.NO. | PARTS NAME | PARTS NUMBER CNR | QUANTITY PER 1 UNIT | | | | ※REC PARTS |
|---------|----------------------------------|------------------|---------------------|---------|---------|---------|------------|
| | | | 71C02HP | 71C02XP | 80C02HP | 80C02XP | |
| 1 | Condenser guard | 02-879330 | 1 | 1 | 1 | 1 | |
| 3 | Top plate As | 02-879340 | 1 | 1 | 1 | 1 | |
| 5 | Motor stay | 02-879300 | 1 | 1 | 1 | 1 | |
| 6 | Fan motor | 06-855620 | 1 | 1 | 1 | 1 | ※ |
| 8 | Prop fan | 05-864390 | 1 | 1 | 1 | 1 | |
| 9 | 10 Nut | 08-405150 | 1 | 1 | 1 | 1 | |
| 10 | 10 Sp washer | 08-405160 | 1 | 1 | 1 | 1 | |
| 11 | Washer for fan | 05-962730 | 1 | 1 | 1 | 1 | |
| 13 | Orifice ring | 02-879410 | 1 | 1 | 1 | 1 | |
| 15 | Orifice plate | 02-879320 | 1 | 1 | 1 | 1 | |
| 16 | Hanger shell(B) | 02-879430 | 1 | 1 | 1 | 1 | |
| 17 | Fan guard | 42-574190 | 1 | 1 | 1 | 1 | |
| 18 | Hanger shell(A) | 02-879420 | 3 | 3 | 3 | 3 | |
| 20 | Side panel | 02-879350 | 1 | 1 | 1 | 1 | |
| 21 | Front panel | 02-879380 | 1 | 1 | 1 | 1 | |
| 22 | Seal plate | 02-879310 | 1 | 1 | 1 | 1 | |
| 23 | Pipe cover B | 02-879370 | 1 | 1 | 1 | 1 | |
| 24 | Pipe cover F | 02-879360 | 1 | 1 | 1 | 1 | |
| 26 | Unit base As | 42-573150 | 1 | 1 | 1 | 1 | |
| 30 | Control box | 06-852690 | 1 | 1 | 1 | 1 | |
| 31 | CT board | 06-855400 | - | 1 | - | 1 | ※ |
| | | 06-854280 | 1 | - | 1 | - | |
| 35 | Transformer | 06-855430 | 1 | 1 | 1 | 1 | ※ |
| 37 | Electric capacity for fan motor | 06-833100 | 1 | 1 | 1 | 1 | ※ |
| 37 | Electric capacity for compressor | 06-855440 | 1 | - | - | - | ※ |
| 40 | Terminal(3P) | 06-803020 | 1 | - | 1 | - | |
| 40 | Terminal | 06-855360 | - | 1 | - | 1 | |
| 42 | Compressor relay | 06-844690 | 1 | - | 1 | - | ※ |
| | | 06-845730 | - | 1 | - | 1 | ※ |
| 43 | Compressor cord As | 46-936440 | 1 | - | 1 | - | |
| | | 46-931300 | - | 1 | - | 1 | |
| 46 | Printed circuit board | 46-937120 | 1 | - | - | - | ※ |
| | | 46-937130 | - | 1 | - | - | ※ |
| | | 46-937140 | - | - | 1 | - | ※ |
| | | 46-937150 | - | - | - | 1 | ※ |
| 50 | Condenser&Distributer | 45-905730 | 1 | 1 | - | - | |
| | | 45-905740 | - | - | 1 | 1 | |
| 53 | Piping thermistor(Discharge) | 46-930790 | 1 | 1 | 1 | 1 | ※ |
| 54 | Spring for sensor | 05-840710 | 2 | 2 | 2 | 2 | |
| 57 | Pipe clamp rubber(5/8) | 05-867200 | 1 | 1 | 1 | 1 | |
| 58 | Accumulator As | 45-905670 | 1 | 1 | - | - | |
| | | 45-905950 | - | - | 1 | 1 | |
| 60 | Compressor cover top | 05-867370 | 1 | 1 | 1 | 1 | |
| 62 | High pressure switch | 06-830840 | 1 | 1 | 1 | 1 | ※ |
| 63 | Electric magnetic valve coil | 06-855910 | 1 | 1 | 1 | 1 | ※ |
| 64 | Electric magnetic valve | 05-809320 | 1 | 1 | 1 | 1 | ※ |
| 65 | Pipe clamp rubber | 05-493370 | 1 | 1 | - | - | |
| | | 05-867130 | 1 | 1 | - | - | |
| | | 05-867140 | - | - | 1 | 1 | |

Cooling only model

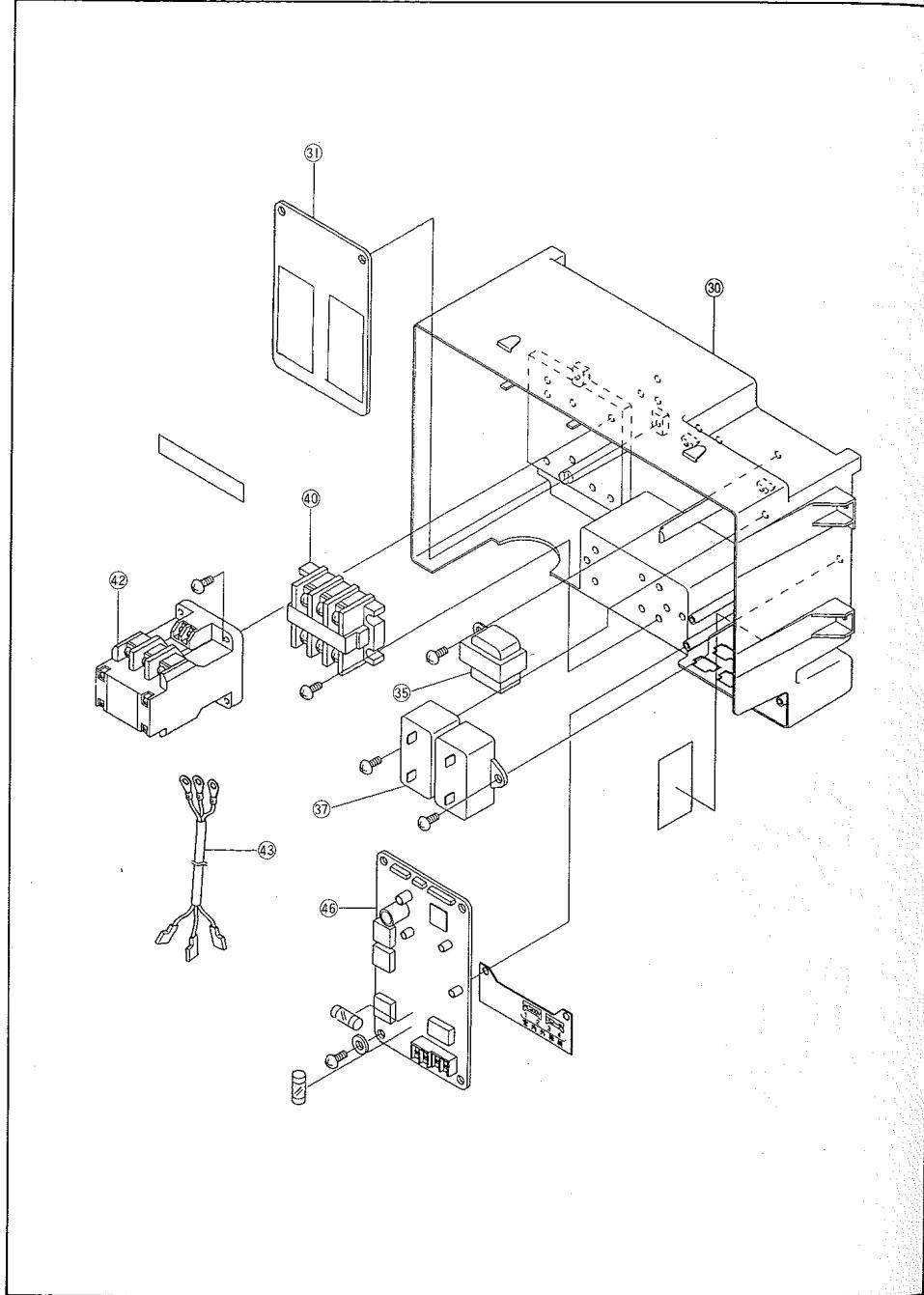
| REF.NO. | PARTS NAME | PARTS NUMBER CNR | QUANTITY PER 1 UNIT | | | | ※REC PARTS |
|---------|--------------------------|--|---------------------|------------------|------------------|------------------|------------|
| | | | 71C02HP | 71C02XP | 80C02HP | 80C02XP | |
| 67 | Capillary tube for valve | 05-864480 05-864490 | 1 - | 1 - | - 1 | - 1 | |
| 68 | Piping thermistor(Coil) | 46-930800 | 1 | 1 | 1 | 1 | ※ |
| 70 | Compressor cover | 05-867350 | 1 | 1 | 1 | 1 | |
| 71 | Ball valve(5/8) | 05-820630 | 1 | 1 | 1 | 1 | |
| 72 | Flare nut(5/8) | 38-890100 | 1 | 1 | 1 | 1 | |
| 74 | 8 Nut | 38-817010 | 3 | 3 | 3 | 3 | |
| 75 | 8SP Washer | 38-427080 | 3 | 3 | 3 | 3 | |
| 76 | 8 Washer | 38-490740 | 3 | 3 | 3 | 3 | |
| 77 | Compressor | 05-983920 05-983790 05-802470 05-978160 | 1 - - - | - 1 - - | - 1 - 1 | - - - ※ | |
| 78 | Mount rubber | 05-867570 | 4 | 4 | 4 | 4 | |
| 79 | Distributor | 05-864120 | 1 | 1 | 1 | 1 | |
| 79 | Capillary tube | 05-463000 | 5 | 5 | 5 | 5 | |
| 82 | Valve stay | 02-881200 | 1 | 1 | 1 | 1 | |
| 83 | Strainer | 05-984840 05-815080 | 1 - | 1 - | - 1 | - 1 | |
| 84 | Service valve (2/8) | 05-864470 | 1 | 1 | - | - | |
| | Service valve (3/8) | 05-964350 | - | - | 1 | 1 | |
| 85 | Flare nut(2/8) | 38-890070 | 1 | 1 | - | - | |
| | Flare nut(3/8) | 38-890080 | - | - | 1 | 1 | |
| 88 | Crankcase heater | 06-855410 | 1 | 1 | 1 | 1 | ※ |
| 89 | Base compressor cover | 02-880780 | 1 | 1 | 1 | 1 | |

CU-112C52XP, CU-140C52XP, CU-160C52XP



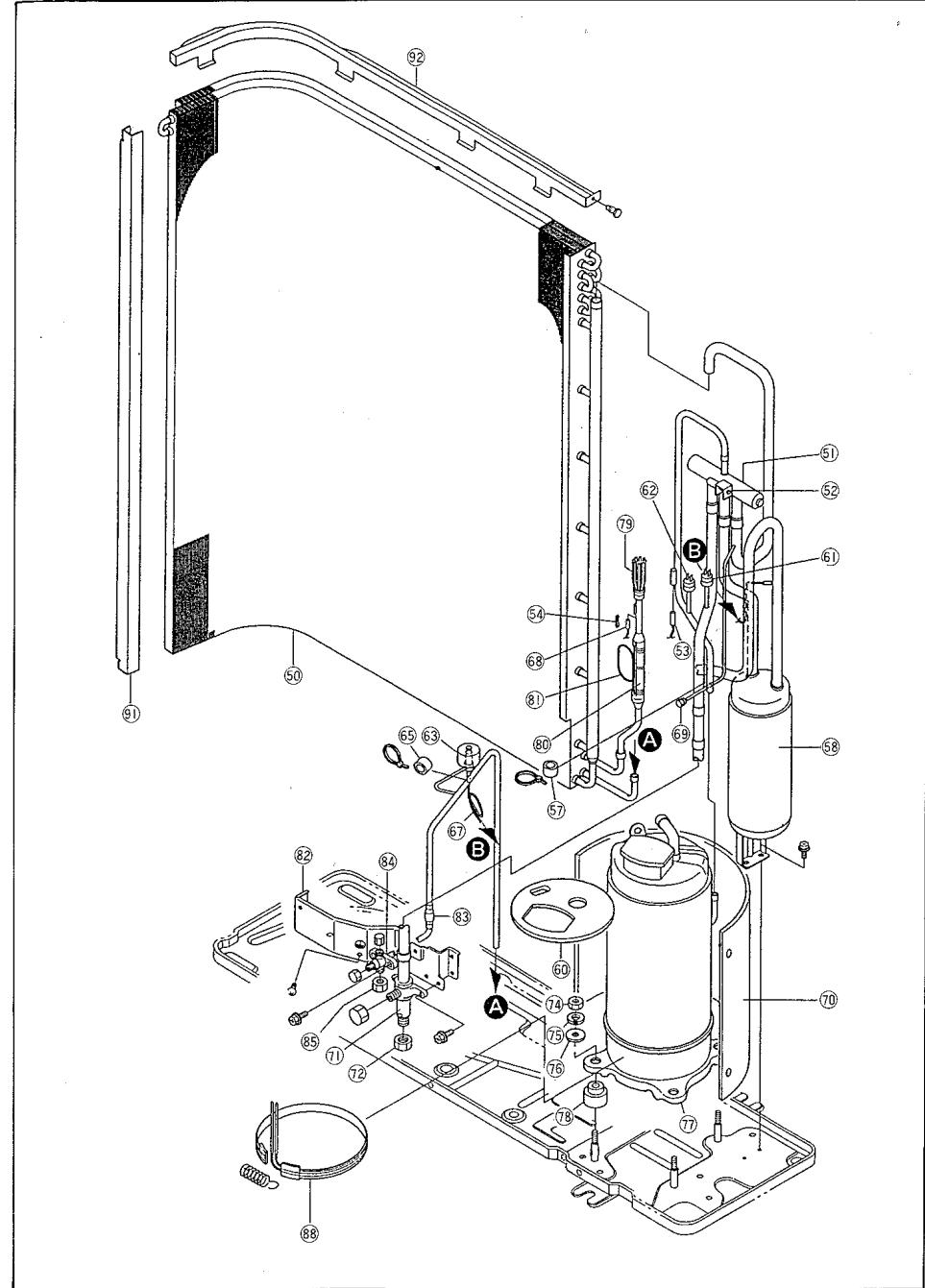
32. REPLACEMENT PARTS

CU-112C52XP, CU-140C52XP, CU-160C52XP

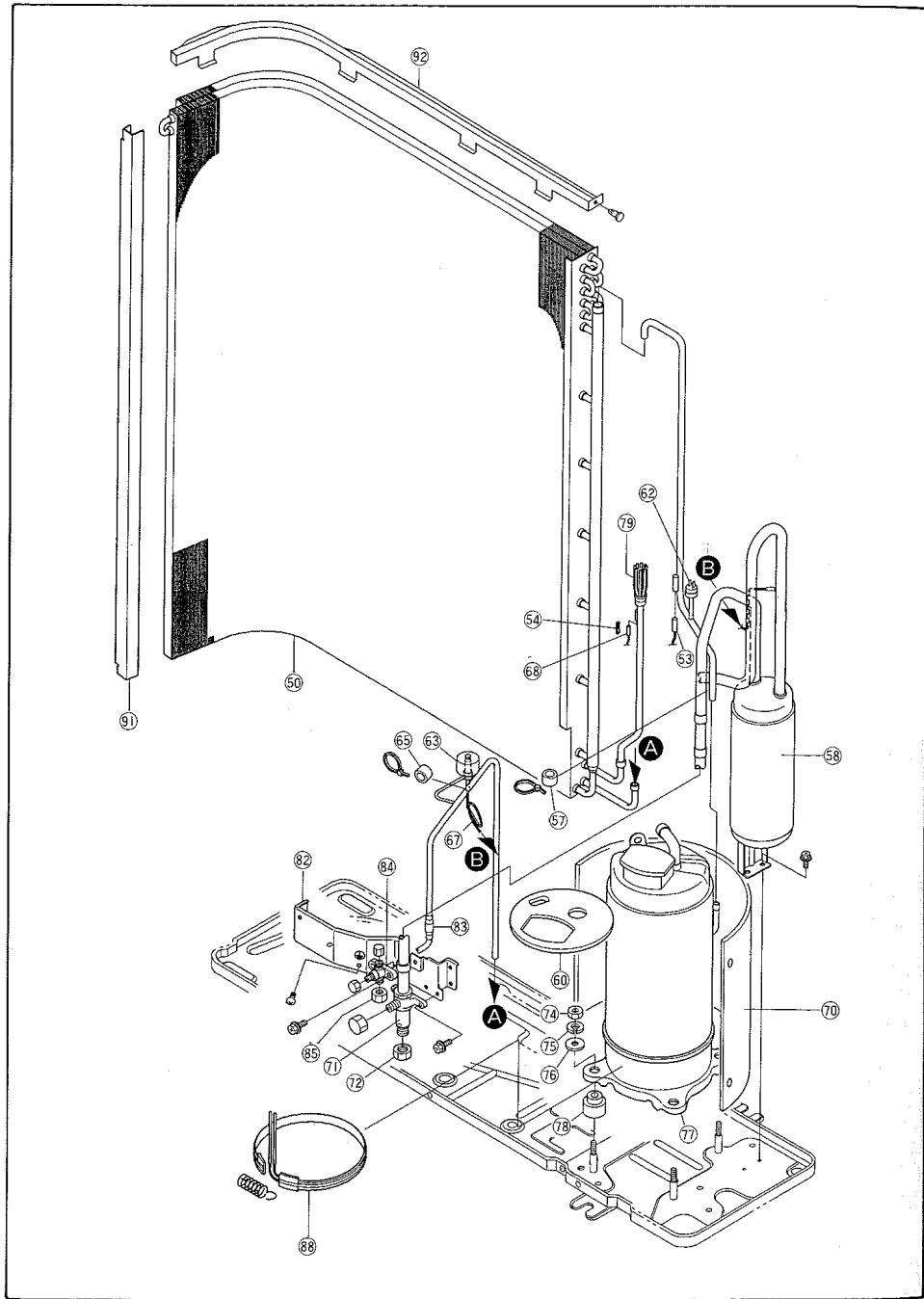


32. REPLACEMENT PARTS

CU-112C52XP, CU-140C52XP, CU-160C52XP (Heat pump model)



CU-112C02XP, CU-140C02XP, CU-160C02XP (Cooling only model)



Heat pump model

| REF.NO. | PARTS NAME | PARTS NUMBER CNR | QUANTITY PER 1 UNIT | | | REC PARTS |
|---------|---------------------------------|-------------------------------------|---------------------|----------|----------|-----------|
| | | | 112C52XP | 140C52XP | 160C52XP | |
| 1 | Condenser guard | 02-879510 02-879900 | 1 | - | 1 | - |
| 3 | Top plate As | 02-879340 02-879910 | 1 | - | 1 | |
| 5 | Motor stay | 02-879490 | 1 | 1 | 1 | |
| 6 | Fan motor | 06-855620 06-855630 | 2 | 2 | - | ** |
| 8 | Prop fan | 05-864390 | 2 | 2 | 2 | |
| 9 | 10 Nut | 08-405150 | 2 | 2 | 2 | |
| 10 | 10 Sp washer | 08-405160 | 2 | 2 | 2 | |
| 11 | Washer for fan | 05-962730 | 2 | 2 | 2 | |
| 13 | Orifice ring | 02-879410 | 2 | 2 | 2 | |
| 15 | Orifice plate | 02-879500 02-879890 | 1 | - | - | |
| 16 | Hanger shell(B) | 02-879430 | 1 | 1 | 1 | |
| 17 | Fan guard | 42-574190 | 1 | 1 | 1 | |
| 18 | Hanger shell(A) | 02-879420 | 3 | 3 | 3 | |
| 20 | Side panel | 02-879480 | 1 | 1 | 1 | |
| 21 | Front panel | 02-879520 | 1 | 1 | 1 | |
| 22 | Seal plate | 02-881160 | 1 | 1 | 1 | |
| 23 | Pipe cover B | 02-879370 | 1 | 1 | 1 | |
| 24 | Pipe cover F | 02-879360 | 1 | 1 | 1 | |
| 26 | Unit base As | 42-574050 42-574130 | 1 | - | - | |
| 30 | Control box | 06-852690 | 1 | 1 | 1 | |
| 31 | CT board | 06-855400 | 1 | 1 | 1 | ** |
| 35 | Transformer | 06-855430 | 1 | 1 | 1 | ** |
| 37 | Electric capacity for fan motor | 06-833100 | 2 | 2 | 2 | ** |
| 40 | Terminal | 06-855360 | 1 | 1 | 1 | |
| 42 | Compressor relay | 06-844690 | 1 | 1 | 1 | ** |
| 43 | Compressor cord As | 46-936330 | 1 | 1 | 1 | |
| 46 | Printed circuit board | 46-935900 46-935910 46-935920 | 1 | - | - | ** |
| 50 | Condenser&Distributer | 45-906240 45-907490 45-907750 | 1 | - | - | |
| 51 | Reversing valve | 05-495730 05-814560 | 1 | - | - | ** |
| 52 | Reversing valve coil | 06-855900 | 1 | 1 | 1 | ** |
| 53 | Piping thermistor(Discharge) | 46-931350 | 1 | 1 | 1 | ** |
| 54 | Spring for sensor | 05-840710 | 2 | 2 | 2 | |
| 57 | Pipe holder rubber | 05-867620 | 1 | 1 | 1 | |
| 58 | Accumulator As | 45-909310 45-909440 45-909450 | 1 | - | - | |
| 60 | Compressor cover top | 05-867920 05-867940 | 1 | - | - | |
| 61 | Pressure switch(Heating) | 06-826230 | 1 | 1 | 1 | ** |
| 62 | High pressure switch | 06-830840 | 1 | 1 | 1 | ** |
| 63 | Electric magnetic valve coil | 06-855920 | 1 | 1 | 1 | ** |

32. REPLACEMENT PARTS

Heat pump model

| REF.NO. | PARTS NAME | PARTS NUMBER CNR | QUANTITY PER 1 UNIT | | | *REC PARTS |
|---------|--------------------------|------------------|---------------------|----------|----------|------------|
| | | | 112C52XP | 140C52XP | 160C52XP | |
| 64 | Electric magnetic valve | 05-809320 | 1 | 1 | 1 | ※ |
| 65 | Pipe holder rubber | 05-867200 | 1 | 1 | 1 | |
| 67 | Capillary tube for valve | 05-864490 | 1 | - | - | |
| | | 05-866020 | - | 1 | - | |
| | | 05-868030 | - | - | 1 | |
| | | 46-931360 | 1 | 1 | 1 | ※ |
| 68 | Piping thermistor(Coil) | 05-822330 | 1 | 1 | 1 | |
| 69 | Check joint | 05-867910 | 1 | - | - | |
| 70 | Compressor cover | 05-867930 | - | 1 | 1 | |
| 71 | Ball valve(6/8) | 05-865070 | 1 | 1 | 1 | |
| 72 | Flare nut(6/8) | 38-890110 | 1 | 1 | 1 | |
| 74 | 8 Nut with washer | 08-405360 | 3 | 3 | 3 | |
| 77 | Compressor | 05-867360 | 1 | - | - | ※ |
| | | 05-867410 | - | 1 | - | ※ |
| | | 05-863010 | - | - | 1 | ※ |
| 78 | Mount rubber | 05-849460 | 4 | 4 | 4 | |
| 79 | Distributor | 05-864820 | 1 | - | - | |
| 79 | Capillary tube | 05-865740 | - | 1 | 1 | |
| | | 05-864830 | 6 | - | - | |
| | | 05-864830 | - | 8 | 8 | |
| 80 | Check valve | 05-478500 | 1 | - | - | |
| 81 | Heating capillary tube | 05-465490 | - | 1 | 1 | |
| | | 05-864870 | 1 | - | - | |
| | | 05-865990 | - | 1 | - | |
| 82 | Valve stay | 05-866000 | - | - | 1 | |
| | | 02-881170 | 1 | 1 | 1 | |
| | | 05-815080 | 1 | 1 | 1 | |
| 83 | Strainer | 05-868750 | 1 | 1 | 1 | |
| 84 | Service valve (3/8) | 38-890080 | 1 | 1 | 1 | |
| 85 | Flare nut(3/8) | 06-855420 | 1 | - | - | ※ |
| 88 | Crankcase heater | 06-855690 | - | 1 | 1 | ※ |
| 90 | Drain elbo As | 47-598250 | 1 | 1 | 1 | |
| 91 | Coil seal plate | 02-879460 | 1 | 1 | 1 | |
| 92 | Coil spacer | 02-879530 | 1 | - | - | |
| | | 02-879860 | - | 1 | 1 | |
| 93 | Electric noise killer | 06-814710 | 1 | 1 | 1 | |

32. REPLACEMENT PARTS

Cooling only model

| REF.NO. | PARTS NAME | PARTS NUMBER CNR | QUANTITY PER 1 UNIT | | | *REC PARTS |
|---------|---------------------------------|------------------|---------------------|----------|----------|------------|
| | | | 112C02XP | 140C02XP | 160C02XP | |
| 1 | Condenser guard | 02-879510 | 1 | - | - | |
| | | 02-879900 | - | 1 | 1 | |
| 3 | Top plate As | 02-879340 | 1 | - | - | |
| 5 | Motor stay | 02-879490 | 1 | 1 | 1 | |
| 6 | Fan motor | 06-855620 | 2 | 2 | - | ※ |
| | | 06-855630 | - | - | 2 | ※ |
| 8 | Prop fan | 05-864390 | 2 | 2 | 2 | |
| 9 | 10 Nut | 08-405150 | 2 | 2 | 2 | |
| 10 | 10 Sp washer | 08-405160 | 2 | 2 | 2 | |
| 11 | Washer for fan | 05-962730 | 2 | 2 | 2 | |
| 13 | Orifice ring | 02-879410 | 2 | 2 | 2 | |
| 15 | Orifice plate | 02-879500 | 1 | - | - | |
| | | 02-879890 | - | 1 | 1 | |
| 16 | Hanger shell(B) | 02-879430 | 1 | 1 | 1 | |
| 17 | Fan guard | 42-574190 | 1 | 1 | 1 | |
| 18 | Hanger shell(A) | 02-879420 | 3 | 3 | 3 | |
| 20 | Side panel | 02-879480 | 1 | 1 | 1 | |
| 21 | Front panel | 02-879520 | 1 | 1 | 1 | |
| 22 | Seal plate | 02-881180 | 1 | 1 | 1 | |
| 23 | Pipe cover B | 02-879370 | 1 | 1 | 1 | |
| 24 | Pipe cover F | 02-879360 | 1 | 1 | 1 | |
| 26 | Unit base As | 42-574050 | 1 | - | - | |
| | | 42-574130 | - | 1 | 1 | |
| 30 | Control box | 06-852690 | 1 | 1 | 1 | |
| 31 | CT board | 06-855400 | 1 | 1 | 1 | ※ |
| 35 | Transformer | 06-855430 | 1 | 1 | 1 | ※ |
| 37 | Electric capacity for fan motor | 06-833100 | 2 | 2 | 2 | ※ |
| 40 | Terminal | 06-855360 | 1 | 1 | 1 | |
| 42 | Compressor relay | 06-844690 | 1 | 1 | 1 | ※ |
| 43 | Compressor cord As | 46-936330 | 1 | 1 | 1 | ※ |
| 46 | Printed circuit board | 46-937260 | - | - | - | ※ |
| | | 46-937410 | - | 1 | 1 | |
| | | 46-937420 | - | - | 1 | |
| 50 | Condenser&Distributer | 45-906410 | 1 | - | - | |
| | | 45-907750 | - | 1 | 1 | |
| 53 | Piping thermistor(Discharge) | 46-931350 | 1 | 1 | 1 | ※ |
| 54 | Spring for sensor | 05-840710 | 2 | 2 | 2 | |
| 57 | Pipe holder rubber | 05-867620 | 1 | 1 | 1 | |
| 58 | Accumulator As | 45-909310 | 1 | - | - | |
| | | 45-909440 | - | 1 | - | |
| | | 45-909450 | - | - | 1 | |
| 60 | Compressor cover top | 05-867920 | 1 | - | - | |
| | | 05-867940 | - | 1 | 1 | |
| 62 | High pressure switch | 06-830840 | 1 | 1 | 1 | ※ |
| 63 | Electric magnetic valve coil | 06-855920 | 1 | 1 | 1 | ※ |
| 65 | Pipe holder rubber | 05-867140 | 1 | 1 | 1 | |
| 67 | Capillary tube for valve | 05-864490 | 1 | - | - | |
| | | 05-866020 | - | 1 | - | |
| | | 05-866030 | - | - | 1 | |
| 68 | Piping thermistor(Coil) | 46-931360 | 1 | 1 | 1 | ※ |
| 70 | Compressor cover | 05-867930 | - | 1 | 1 | |
| | | 05-865070 | 1 | 1 | 1 | |
| 71 | Ball valve(6/8) | 38-890110 | 1 | 1 | 1 | |
| 72 | Flare nut(6/8) | 08-405360 | 3 | 3 | 3 | |
| 74 | 8 Nut with washer | 05-867360 | - | - | - | ※ |
| 77 | Compressor | 05-867410 | - | 1 | - | |
| | | 05-863010 | - | - | 1 | ※ |
| 78 | Mount rubber | 05-849460 | 4 | 4 | 4 | |
| 79 | Distributor | 05-864820 | 1 | - | - | |
| | | 05-865740 | - | 1 | 1 | |
| 79 | Capillary tube | 05-864830 | 6 | - | 8 | |
| | | 05-864830 | - | 8 | 8 | |
| 82 | Valve stay | 02-881170 | 1 | 1 | 1 | |
| 83 | Strainer | 05-815080 | 1 | 1 | 1 | |
| 84 | Service valve (3/8) | 05-868750 | 1 | 1 | 1 | |
| 85 | Flare nut(3/8) | 38-890080 | 1 | 1 | 1 | |
| 88 | Crankcase heater | 06-855420 | 1 | - | - | ※ |
| 91 | Coil seal plate | 02-879460 | 1 | 1 | 1 | |
| 92 | Coil spacer | 02-879530 | - | 1 | 1 | |
| | | 02-879860 | - | 1 | 1 | |
| 93 | Electric noise killer | 06-814710 | 1 | 1 | 1 | |