




























5. TROUBLE DIAGNOSIS

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5-1. Contents of Remote Controller Switch Alarm Display

ON: ○ Blinking: ☼ OFF: ●


Possible cause of malfunction			Wired remote control display	Wireless remote controller receiver display			
				 Operation	 Timer	 Standby	
Serial communication errors Missetting	Failure in receiving serial signal from remote controller's indoor unit	Faulty remote controller	E01	Operating lamp blinking 			
		Disconnection/Contact failure of remote controller wiring					
		CHK(check) pins on the indoor unit control PCB are short circuited					
	Settings of system address, indoor unit address and group control are not made	In the case of non-group control: • Power supply OFF of outdoor unit • Disconnection / Contact failure of inter-unit wiring In the case of group control: Automatic address operation was not carried out.					
	Setting failure of nonvolatile memory IC	Faulty setting of EEPROM on indoor unit					
	Failure in indoor unit serial signal from remote controller	Faulty remote controller					E02
		Wrong wiring of remote controller					
	Error in indoor unit receiving signal from remote controller (central)			E03			
	Failure in indoor unit receiving serial signal from outdoor unit	Disconnection / Contact failure of inter-unit wiring	E04	Standby lamp blinking 			
		• Faulty indoor unit control PCB • Faulty outdoor unit control PCB • Communication circuit fuse on indoor unit control PCB opened					
		• Fuse on outdoor unit control PCB opened Since failure of an outdoor fan motor is considered as a cause, both outdoor unit control PCB and outdoor unit fan motor are exchanged simultaneously.					
	Failure in outdoor unit receiving serial signal from indoor unit	• Disconnection / Contact failure of inter-unit wiring	E06				
		• Disconnection of inter-unit wiring • Communication circuit fuse on indoor unit control PCB opened					
		Indoor unit control PCB address setting error					
	Duplication of indoor unit address	Duplication of indoor unit address setting	E08				
	Duplication of main remote controller setting	Error because of more than one remote controller setting to main	E09				
	Communication error between main and fan motor PCB	• Power supply to indoor fan motor power PCB is OFF / Switch on the power supply • Indoor fan motor power PCB fuse open / Replace fuse • Power supply wiring wrong connection or open / Correct the wiring • Indoor fan motor power PCB malfunction / Replace PCB • Indoor control board LM wire disconnect / Reconnect the connecting wire	E10	Operating lamp blinking 			
	Improper setting	Automatic address setting start is prohibited	E12				
		Duplication of main unit in group control	E14				
	Communication error between main and sub indoor units	• Disconnection of wiring between main unit and additional units • Contact failure of wiring • Faulty indoor unit control PCB (Main or Addition)	E18				
	Automatic address settings failure	Automatic Address Alarm The total capacity of indoor units is too low	E15	Standby lamp blinking 			
		Automatic Address Alarm The total capacity of indoor units is too high	E16				
		Automatic Address Alarm No indoor unit connected	E20				
Outdoor unit Communication error			E24				
Outdoor unit Communication error			E29				
Indoor & outdoor unit type miss-matched	Setting error, indoor/outdoor unit type/model miss-matched	L02	Operating and standby lamps blinking simultaneously 				
Duplication of group control's main indoor unit	Duplication of main indoor unit address in group control	L03					
Group control wiring is connected to individual control indoor unit	Group control wiring is connected to individual control indoor unit	L07					
Indoor unit address is not set			L08				
Indoor unit capacity is not set			L09				
Duplication of outdoor unit address			L04	Operating and standby lamps blinking simultaneously 			
Outdoor unit capacity is not set or setting error			L10				
Indoor unit type setting error Type of indoor/outdoor units is different			L13				
4-way valve locked trouble / operation failure			L18				

















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ON: ○ Blinking: ☼ OFF: ●

Possible cause of malfunction			Wired remote control display	Wireless remote controller receiver display		
				☼ Operation	☼ Timer	● Standby
Activation of protective device	Faulty wiring connections of (ceiling) indoor unit panel		P09			
	Activation of float switch wiring	Faulty drain pump	P10			
		Drainage failure				
		Contact failure of float switch wiring				
	Faulty drain pump	Faulty drain pump	P11			
		Drain pump locked				
	Indoor unit fan motor trouble (DC fan)	Indoor unit fan motor locked Faulty wiring connections of indoor unit fan motor	P12	●	☼	☼
	Valve error	Valve error Refrigerant circuit error Wrong installation for refrigerant piping and wiring	P13			
	O ₂ sensor error	O ₂ sensor detected	P14			
	Discharge temperature protective alarm	Compressor discharge temperature trouble	P03			
	Activation of high pressure switch	Compressor discharge pressure trouble	P04			
	Power supply failure	Open phase detected AC power supply trouble	P05			
	Insufficient gas	Insufficient gas level detected	P15			
	Compressor overcurrent trouble		P16	☼	●	☼
	Fan motor locked/reversed airflow detected	Outdoor unit fan motor trouble Outdoor unit fan trouble	P22			
	Inverter compressor trouble		P29			
	Group control trouble	Indoor unit in group control trouble	P31			
	Activation of current control compressor's protective device	Primary (input) overcurrent detected	H01			
	PAM trouble (overcurrent/over-voltage), Activation of compressor's protective device	PAM trouble	H02			
	Primary current control, Activation of compressor's protective device	Primary current CT sensor failure	H03	●	☼	●
	HIC trouble	HIC trouble DC voltage not detected	H31			
Thermistor fault	Indoor unit thermistor open/short	Indoor heat exchanger temperature sensor (E1) trouble	F01			
		Indoor heat exchanger temperature sensor (E2) trouble	F02			
		Indoor air temperature sensor (TA) trouble	F10	☼	☼	●
	Outdoor unit thermistor open/short	Compressor discharge temperature sensor (TD) trouble	F04			
		Outdoor heat exchanger temperature sensor (C1) trouble	F06			
		Outdoor heat exchanger temperature sensor (C2) trouble	F07			
		Outdoor air temperature sensor (TO) trouble	F08	☼	☼	○
		Compressor suction temperature sensor (TS) trouble	F12			
Nonvolatile memory failure	Indoor unit EEPROM trouble		F29			
	Outdoor unit EEPROM trouble		F31			

5-2. Outdoor Unit Control Panel LED Display

(○ : ON  : Blinking ● : OFF)

LED1	LED2	Display meaning
		After the power is turned ON (and automatic address setting is not in progress), no communication with the indoor units in that system is possible.
(Both ON)		
		After power is turned ON (and automatic address setting is not in progress), 1 or more indoor units are confirmed in that system; however, the number of indoor units does not match the number that was set.
(OFF)	(ON)	
		Automatic address setting was completed successfully. (After the power is turned ON, the number of detected indoor units connected to that system matches the number that was set, and regular communications are occurring.)
(Both OFF)		
		Automatic address setting is in progress.
(Blinking alternately)		
		Alarm display LED 1 blinks M times, then LED 2 blinks N times. The cycle then repeats. M = 2: P alarm 3: H alarm 4: E alarm 5: F alarm 6: L alarm N = Alarm No. Example: LED 1 blinks 2 times, then LED 2 blinks 16 times. The cycle then repeats. Alarm is “P16”.
(Blinking alternately)		
		PUMP DOWN is in progress.
LED 1 : Blinking LED 2 : ON		
 (0.8 / 0.3) *		P04 (High pressure trouble) Pre-trip display
LED 1 : Blinking LED 2 : OFF		
 (0.5 / 0.5)		Other Pre-trip display
LED 1 : Blinking LED 2 : OFF		

* Blinking (0.8 / 0.3) indicates that the lamp illuminates for 0.8 seconds, and then is OFF 0.3 seconds.

5-3. PAC System Alarm Codes

Alarms for outdoor units

Alarm Code	Alarm Meaning
E01	Remote Controller Reception Error
E02	Remote Controller Transmission Error
E03	Error in Indoor Unit Receiving Signal from Remote Controller (central)
E04	Error in Indoor Unit Receiving Signal from the Outdoor Unit
E05	Error in Indoor Unit Transmitting Signal to the Outdoor Unit
E06	Outdoor Unit Failed to Receive Serial Communication Signals from Indoor Unit
E08	Duplicate Indoor Unit Address Settings Error
E09	More Than One Remote Controller Set to Main Error
E10	Faulty Communication between Main & Fan Motor PCB
E12	Automatic Address Setting Start is Prohibited while Auto-address Setting in Progress.
E14	Main Unit duplication in Simultaneous-operation Multi Control (detected outdoor unit)
E15	Automatic Address Alarm (The total capacity of indoor units is too low.)
E16	Automatic Address Alarm (The total capacity of indoor units is too high or the total number of indoor units is too many.)
E18	Faulty Communication in Group Control Wiring
E20	Connection Problem of Indoor/Outdoor Units

F04	Compressor Discharge Temperature Sensor (TD) Trouble
F06	Inlet Temperature Sensor (C1) in Heat Exchanger Trouble
F07	Intermediate Temperature Sensor (C2) in Heat Exchanger Trouble
F08	Outdoor Air Temperature Sensor (TO) Trouble
F12	Compressor Inlet Suction Temperature Sensor (TS) Trouble
F31	Outdoor Unit Nonvolatile Memory (EEPROM) Trouble

H01	Primary (input) Overcurrent Detected
H02	PAM Trouble
H03	Primary Current CT Sensor (current sensor) Failure
H31	HIC Trouble

L04	Outdoor Unit Address Duplication
L10	Outdoor Unit Capacity not Set or Invalid
L13	Indoor Unit Type Setting Error
L18	4-way Valve Operation Failure

P03	Compressor Discharge Temperature Trouble
P04	High Pressure Trouble
P05	AC Power Supply Trouble
P13	Alarm Valve Open
P14	O2 Sensor Detect
P15	Insufficient Gas Level Detected
P16	Compressor Overcurrent Trouble
P22	Outdoor Unit Fan Motor Trouble
P29	Lack of INV compressor wiring, INV compressor actuation failure (including locked), DCCT failure
P31	Group Control Error

Symptoms and Parts to Inspect

Remote controller alarm display	Alarm contents	Judgement conditions	Eliminating condition of alarm	Judgement and correction
P03	Abnormal discharge temperature error • Discharge temp. detected at or above the specified value	Stops when temp. exceeds 101 °C. Alarm output on 5 pre-trips	Recovery at restart	1. Check refrigerant cycle (gas leak). 2. Trouble with electronic expansion valve 3. Check discharge temperature sensor (TD).
P05	CT disconnected or AC power supply error DC voltage charge failure	The current value transmitted from the microcomputer on the outdoor unit control substrate is low. When no AC power input for more than 30 seconds to 5 minutes : Single alarm	Recovery at restart	1. Check outdoor unit control PCB. 2. Lack of reactor wire 3. Check power frequency.
P15	Insufficient gas level detected.	• Discharge temperature is 95 °C or higher. • Electronic expansion valve is at Step 480. When the above has continued for 1 minute. Indoor air sucking due to body thermostat max (E1 or E2) - TA ≤ 4 °C • Secondary current ≤ Current value of gas shortage determination	Recovery at restart	1. Check refrigerant cycle (gas leak). 2. Trouble with electronic expansion valve 3. Check outdoor unit valve opening.
L18	4-way valve operation failure • Judged after heating operating for 5 minutes consecutively.	The indoor unit heat exchanger temperature drops even though the compressor is switched on during the heating mode: To +20 °C ≤ C1 Pre-trip 1 time	Recovery at restart	1. Check 4-way valve. 2. Check 4-way valve wiring. 3. Check outdoor unit control PCB.
P04	High-pressure protection error	High pressure switched ON → OFF (Alarm is output when switch opened.) Pre-trip 4 times	Recovery at restart	Overload operation of refrigerant cycle
P22	Outdoor unit fan motor trouble • Inverter protection circuit was activated, or lock was detected at outdoor unit fan motor.	Inverter stops after alarm is detected. Pre-trip 10 times	Recovery at restart	1. Position detection trouble. 2. Outdoor unit fan motor over-current Protection circuit is activated. • Check outdoor unit control PCB. • Refer to outdoor unit fan judgement methods.
P29	Lack of INV compressor wiring, INV compressor actuation failure, DCCT failure	Inverter stops after alarm is detected. Alarm is output when inverter stops (pre-trip) consecutively 10 times.	Recovery at restart	1. Stops immediately even when operations restarted. • Layer short on the compressor 2. Check HIC circuit. • Wiring trouble
H31	HIC trouble	Pre-trip consecutively 10 times	Temperature dropped	Heat sink and PCB (HIC) • Contact trouble

Check Prior to Auto Address Setting

* If an outdoor unit displays an alarm, conduct this process after diagnosing the problem.

1 Auto Address	1-1	Is the power of the indoor unit(s) and outdoor unit(s) on?	Yes	2-1
			No	Power on.
2 Indoor/ outdoor control line	2-1	Has the wiring of the indoor/outdoor control line been completed? Is it all connected?	Yes	2-2
			No	Connect the wiring.
	2-2	Has high voltage (over AC200V) been applied to the control line circuit? Has the fuse on the control PC board blown? (Check each board of the indoor unit(s) and outdoor unit(s).)	Yes	2-3
			No	3-1
	2-3	The power line and indoor/outdoor control line are miswired. Turn off the power, check & correct the miswiring and then make connections of the indoor/outdoor control lines to the emergency side of all the control PC boards and controllers.		
3 Installation or setting related	3-1	Be sure that the indoor and outdoor units are connected with correct combination written in catalog.	Yes	3-2
			No	Correct the connection.
	3-2	Is the indoor/outdoor control line connected to more than one outdoor unit? (Network wired?)	Yes	3-3
			No	3-6
	3-3	Is the Terminal resistor select switch (CN-TERMINAL) on the outdoor control PC board set to just one unit?	Yes	3-4
			No	Correct the setting.
	3-4	Are other outdoor units using a duplicate setting?	Yes	3-5
			No	3-6
	3-5	When units are networked, first set the system address for each outdoor unit in the order 1-2-3 and then run auto address setting.		
	3-6	Run the auto address setting.		

E04 Error in Indoor Unit Receiving Signal from the Outdoor unit

1. Error Detection Method

When there is no communication within a 3-minute period from the outdoor unit. Or, judged an error when no reply comes from the outdoor unit.

- The outdoor unit is not turned on.
- When the network of indoor/outdoor operation line was wired, the (SHORT) setting of the terminal resistor switch on the outdoor control PC board was set on multiple units (four or more).
- When the power was turned on after auto address setting was completed, the number of indoor units had been changed.
- Forgot to turn on the indoor unit.
- The CHK pin and/or TEST pin on the indoor unit's control PC board are shorted.
- Forgot to install the nonvolatile memory (EEPROM) when replacing the indoor unit control PC board.
- Mistakenly set the indoor unit address to Not Set in the remote control's detailed settings mode.
- When indoor unit addresses are duplicated.
- There is a short, open, wrong contact or grounding of the indoor/outdoor operation line.
- There is an error in the receiving circuit on the signal output PC board (optional control PC board).
- Malfunctions of the outdoor unit
- High voltage was applied (over AC200V) in the indoor/outdoor operations line circuit.
- The thermistor inside the indoor unit is grounded.

2. Error Diagnosis

1 Power Source	1-1	Is/was the power to the outdoor unit cut off?	Yes	After turning the power on, wait three minutes.	
			No	1-2	
	1-2	Is the indoor unit powered off?	Yes	Power on.	
			No	2-1	
2 Indoor/ outdoor control line	2-1	Is the indoor/outdoor operation line shorted, opened, grounded or has a wrong contact?	Yes	Correct the wiring.	
			No	2-2	
	2-2	When the network of indoor/outdoor operation line was wired, was the (SHORT) setting of the terminal resistor switch (CN-TERMINAL) on the outdoor control PC board set on multiple units (four or more)?	Yes	Normally the (SHORT) setting is just one unit.	
			No	2-3	
	2-3	Was a high voltage (over AC200V) applied in the indoor/outdoor operations line circuit?	Yes	3-2	
			No	3-1	
3 No. of Indoor Units	3-1	Was the number of indoor units increased or decreased after auto address setting was complete?	Yes	3-2	
			No	3-3	
	3-2	Conduct checks prior to auto address setting.			
	3-3	Check the indoor unit addresses from the remote control's detailed settings mode. Is it Not Set (99), or is the indoor unit's address duplicated?	Yes	3-2	
			No	4-1	
4 Indoor unit control PC board	4-1	Are the CHK pin and/or TEST pin on the indoor unit control PC board short-circuited?	Yes	Remove the short.	
			No	4-2	
	4-2	Is the wireless remote controller connected to on the indoor unit's control PC board?	Yes	4-3	
			No	4-5	
	4-3	Disconnect the connector mentioned above on the control PC board of the indoor unit control PC board, and see whether the E04 goes off after several minutes. (When doing so, if two remote controllers are being used and the wireless remote controller is the main remote controller, set the other remote controller as the main.)	Yes	4-4	
			No	4-5	
	4-4	Replace wireless remote control parts including wiring.			
	4-5	Is the LED on the indoor unit control PC board blinking?	Yes	4-6	
			No	4-7	
	4-6	The nonvolatile memory (EEPROM) on the indoor unit's control PC board is either not installed, improperly installed or the nonvolatile memory is faulty. Correct this or after replacing the nonvolatile memory, write model data to it in the remote control detailed settings mode.			
4-7	Are all the remote controllers of the other indoor units connected to that outdoor unit displaying E04?	Yes	Replace the outdoor unit control board.		
		No	Replace the indoor unit control board.		

E06 Outdoor Unit Failed to Receive Serial Communication Signals from Indoor Unit

(When indoor unit(s) are connected)

1. Error Detection Method

It is judged an error when there is no transmission (reply) from the indoor unit to the outdoor unit for a period of three minutes.

- The indoor unit is not turned on.
- The DISP pin of the indoor unit is shorted.
- There is a short, open, wrong contact or grounding of the indoor/outdoor operation line.
- The signal output control PC board (optional control PC board) inside the indoor unit has failed.
- The thermistor inside the indoor unit is grounded.

2. Error Diagnosis

1 Indoor unit power	1-1	Is the indoor unit powered off?	Yes	Power on.
			No	2-1
2 Indoor/outdoor operation line	2-1	Is the indoor/outdoor operation line shorted, opened, grounded or has a wrong contact?	Yes	Correct the wiring.
			No	3-1
3 Indoor units control PC board	3-1	Are the DISP pin and CHK pin on the indoor unit control PC board short-circuited?	Yes	Remove the short.
			No	3-2
	3-2	Is the wireless remote controller connected to on the indoor unit's control PC board?	Yes	3-3
			No	3-5
	3-3	Disconnect the connector mentioned above on the control PC board of the indoor unit control PC board, and see whether the E06 goes off after several minutes. (When doing so, if two remote controllers are being used and the wireless remote controller is the main remote controller, set the other remote controller as the main.)	Yes	3-4
			No	3-5
	3-4	Replace wireless remote control parts including wiring.		
	3-5	Indoor unit control PC board failure → Replace board.		

- For information on the procedures for replacing the indoor unit's control board, refer to the manual that is packaged with the indoor unit control PCB.

High Static Pressure Ducted Type S-200PE4E, S-250PE4E



E15 Automatic Address Alarm (The total capacity of indoor units is too low.)

1. Error Detection Method

Connecting indoor unit

It is judged an error the total capacity of indoor units replied by communication is lower than that of outdoor unit.

- The total capacity of indoor units is lower than that of outdoor unit.
- Some indoor unit(s) are connected but power is not turned on.
- The CHK pin (CN062/CN071) and/or TEST pin (CN064) of the indoor unit is shorted when its power is turned on.
- High voltage was applied (over AC200V) in the indoor/outdoor operations line circuit.

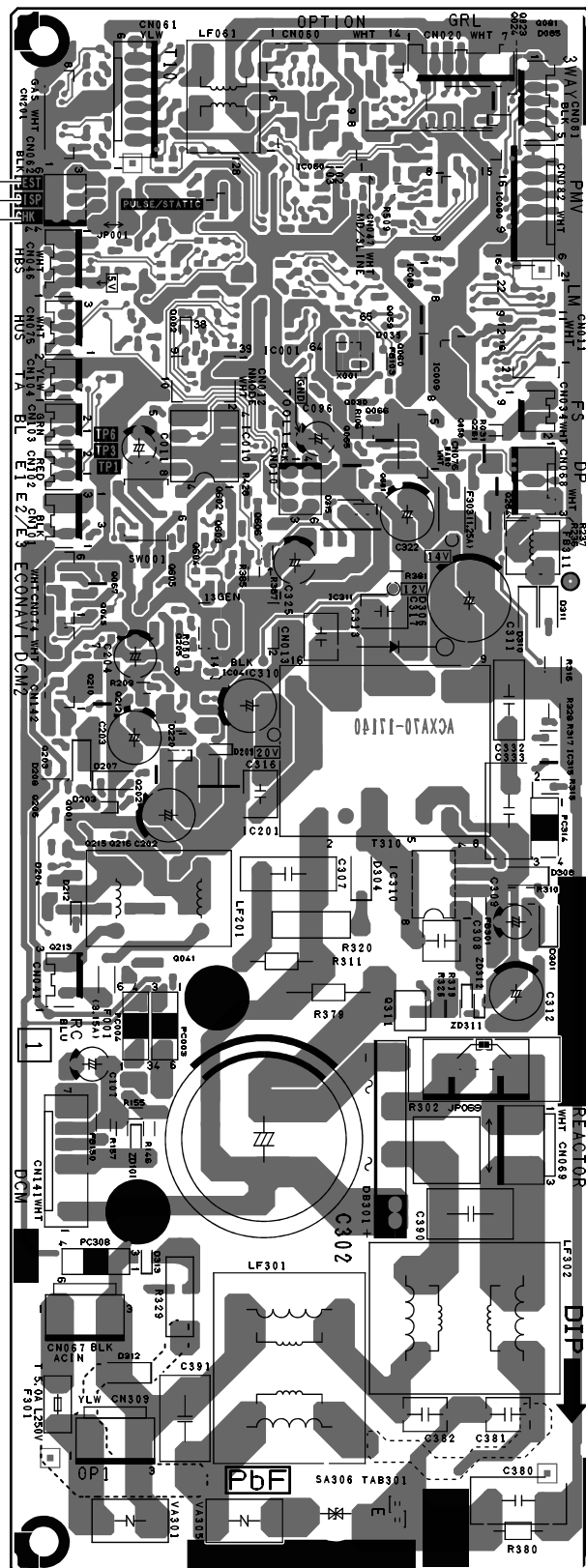
2. Error Diagnosis

1 Power Source	1-1	Is the indoor unit powered off?	Yes	Power on.
			No	2-1
2 Indoor/ outdoor control line	2-1	Is the indoor/outdoor control line opened or shorted?	Yes	Correct the wiring.
			No	2-2
	2-2	Was a high voltage (over AC200V) applied in the indoor/outdoor operations line circuit?	Yes	3-2
			No	3-1
3 No. of Indoor Units	3-1	Was the number of indoor units changed after auto address setting finished?	Yes	3-2
			No	4-1
	3-2	Conduct checks prior to auto address setting.		
4 Indoor unit control PC board	4-1	Are the CHK pin and TEST pin on the indoor unit control board short-circuited?	Yes	Remove the short.
			No	4-2
	4-2	Is the wireless remote controller connected to on the indoor unit's control PC board?	Yes	4-3
			No	4-5
	4-3	Disconnect the connector mentioned above on the control PC board of the indoor unit control PC board and see whether the E15 goes off after several minutes. (When doing so, if two remote controllers are being used and the wireless remote controller is the main remote controller, set the other remote controller as the main.)	Yes	4-4
			No	4-5
	4-4	Replace wireless remote control parts including wiring.		
	4-5	Is the LED blinking on the indoor unit's control PC board?	Yes	4-6
			No	5-1
4-6	The nonvolatile memory (EEPROM) on the indoor unit's control board is either not installed, improperly installed or the nonvolatile memory is faulty. Correct this or after replacing the nonvolatile memory, write model data to it in the remote control detailed settings mode.			
5 Outdoor unit control PC board	5-1	Check all items under the section "Check Prior to Auto Address Setting".		

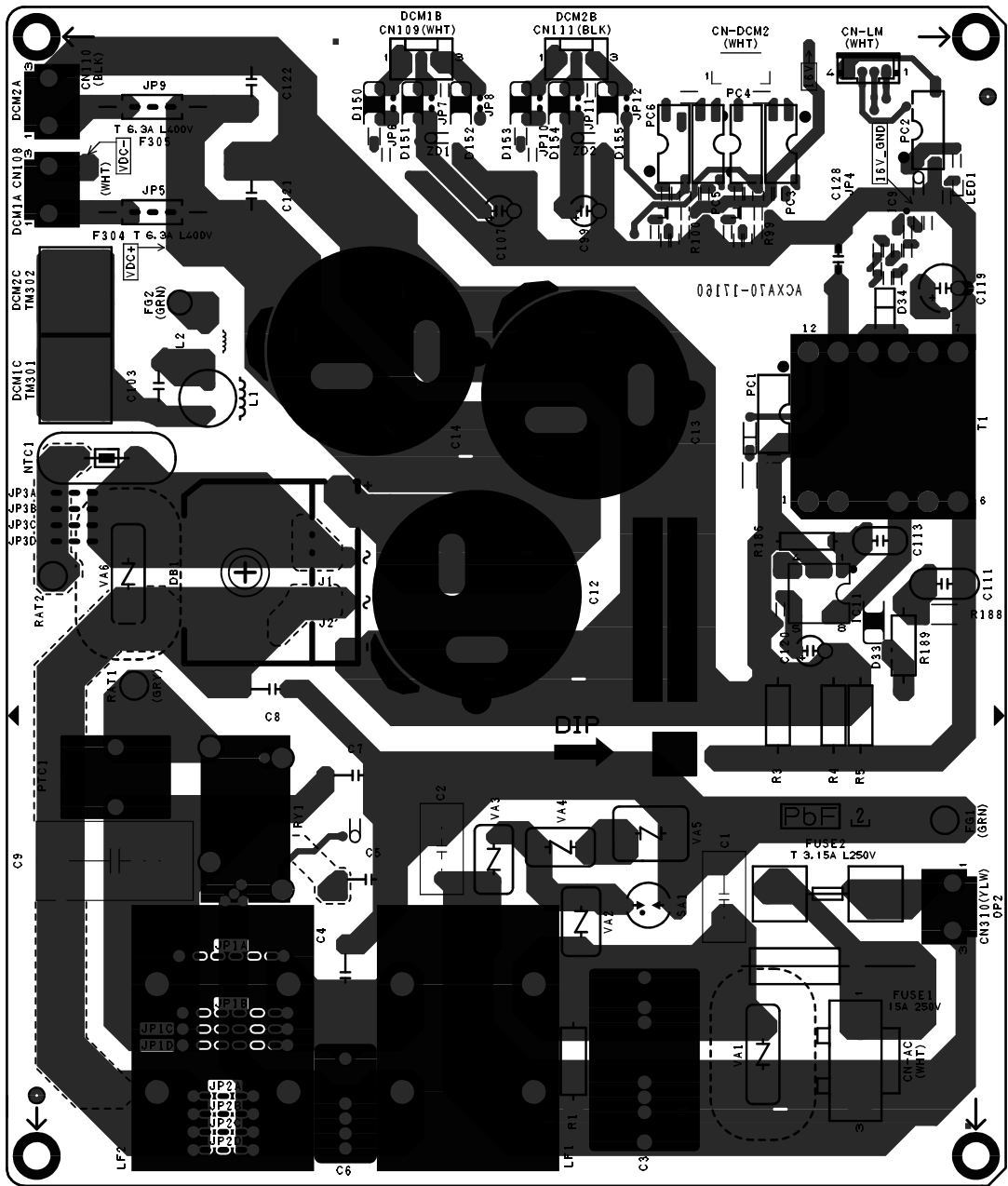
- For information on the procedures for replacing the nonvolatile memory (EEPROM) of the indoor unit, refer to the manual that is packaged with the indoor unit service board.
- For information on the remote control's detailed settings, refer to the Reference Materials.

Indoor Unit Control Board
High Static Pressure Ducted Type S-200PE4E, S-250PE4E

TEST PIN
DISP PIN
CHK PIN



Indoor Unit Fan Motor Control Board



E16 Automatic Address Alarm (The total capacity of indoor units is too high.)

1. Error Detection Method

It is judged an error the total capacity of indoor units is too high or the total number of indoor units is too many.

- The total capacity of indoor units is too high.
- The total number of indoor units is too many.

2. Error Diagnosis

1 Auto Address	1-1	Check all items under the section "Check Prior to Auto Address Setting".
----------------	-----	--

F04 Compressor Discharge Temperature Sensor (TD) Trouble

1. Error Detection Method

It is judged an error based on the criteria listed below.

- Open circuit or Short circuit

2. Error Diagnosis

1 Sensor	1-1	Sensor connector is connected to PC board properly.	Yes	1-2
			No	Reconnect and check.
	1-2	Sensor is correctly installed at holder side.	Yes	Replace sensor.
			No	Correct and see what happens. 1-3
	1-3	Abnormal temperature exists even after replacing sensor.	Yes	2-1
			No	See what happens.
2 PC board	2-1	Resistance between connector pins on PC board is less than 1 k ohm.	Yes	Replace PC board.
			No	2-2
	2-2	Abnormal temperature exists even after replacing PC board.	Yes	3-1
			No	See what happens.
3 Operating status	3-1	Peripheral temperature of outdoor unit is over 46°C.	Yes	Correct
			No	3-2
	3-2	Tends to have insufficient refrigerant charge in the system.	Yes	Adjust the amount of refrigerant.
			No	3-3
	3-3	Check noise.		

F06 Inlet Temperature Sensor (C1) in Heat Exchanger Trouble

1. Error Detection Method

- In case of open or short

2. Error Diagnosis

1 Sensor Trouble	1-1	Is the connector properly connected to PCB?	Yes	1-2
			No	Reconnect & check.
	1-2	Is the resistor between the sockets infinity or 0 ohm?	Yes	Replace sensor.
			No	2-1
2 Control PCB Failure	2-1	Outdoor unit control PCB failure Replace PCB with a new one.		

F07 Intermediate Temperature Sensor (C2) in Heat Exchanger Trouble

1. Error Detection Method

It is judged an error when open circuit or short circuit.

2. Error Diagnosis

1 Sensor	1-1	Sensor connector is connected to PC board properly.	Yes	1-2
			No	Reconnect and check.
	1-2	Resistance between sockets is infinity or 0 ohm.	Yes	Replace sensor.
			No	2-1
2 PC board	2-1	Replace PC board because of outdoor control PC board failure.		

F08 Outdoor Air Temperature Sensor (TO) Trouble

1. Error Detection Method

It is judged an error when open circuit or short circuit.

2. Error Diagnosis

1 Sensor	1-1	Sensor connector is connected to PC board properly.	Yes	1-2
			No	Reconnect and check.
	1-2	Resistance between sockets is infinity or 0 ohm.	Yes	Replace sensor.
			No	2-1
2 PC board	2-1	Replace PC board because of outdoor control PC board failure.		

F12 Compressor inlet Suction Temperature Sensor (TS) Trouble

1. Error Detection Method

It is judged an error when open circuit or short circuit.

2. Error Diagnosis

1 Sensor	1-1	Sensor connector is connected to PC board properly.	Yes	1-2
			No	Reconnect and check.
	1-2	Resistance between sockets is infinity or 0 ohm.	Yes	Replace sensor.
			No	2-1
2 Outdoor control PC board	2-1	Replace PC board because of outdoor control PC board failure.		

F31 Outdoor Unit Nonvolatile Memory (EEPROM) Trouble

1. Error Detection Method

It is judged an error based on the criteria listed below.

- When power initially turned ON for the first time, nonvolatile memory (EEPROM) is not installed.
- Read values after writing onto nonvolatile memory (EEPROM) is inconsistent.

2. Error Diagnosis

1 PC board	1-1	Does EEPROM exist on the control PC board?	Yes	1-2
			No	Install EEPROM.
	1-2	Is EEPROM installed properly? (Check: Bent IC pin or incorrect installation, etc.)	Yes	1-3
			No	Correct
	1-3	Incorrect EEPROM Replace with correct EEPROM.		

H01 Primary (input) Overcurrent Detected

1. Error Detection Method

- Primary current effective value detected overcurrent (trip current value).

Trip current value HP = horse power

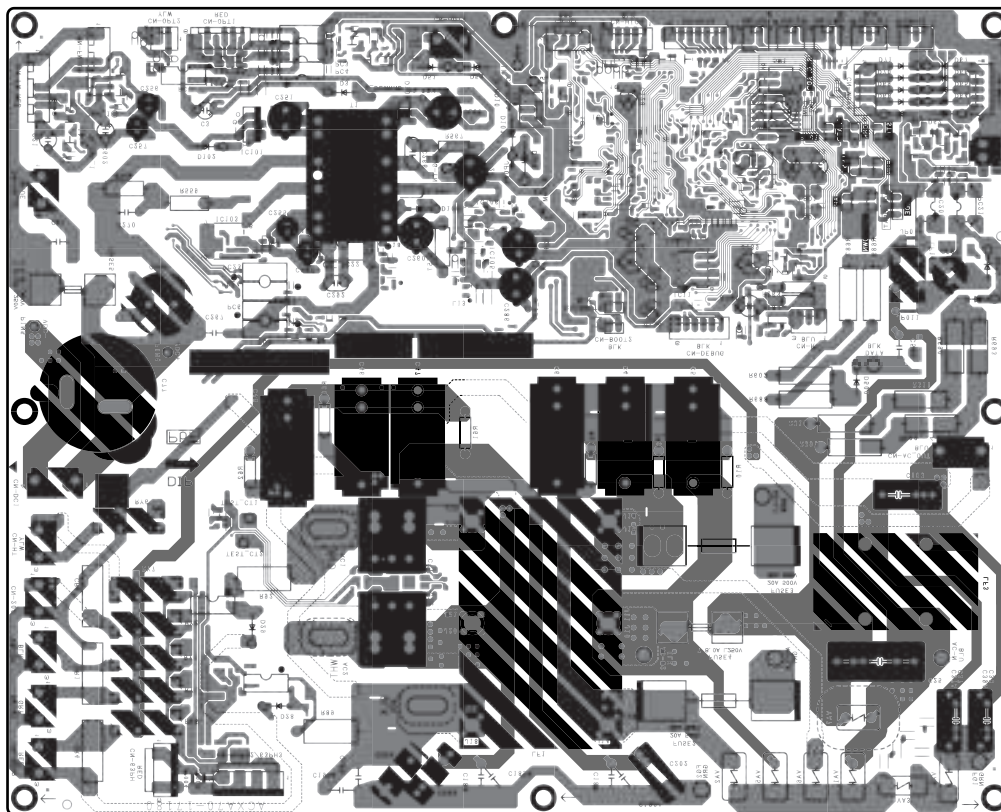
3-phase model	8 HP	10 HP
Heating	18.0A	19.5A
Cooling	15.5A	17.0A

2. Error Diagnosis

1 Power supply*	1-1	Not satisfied with $\pm 10\%$ rated supply voltage	Yes	Check power supply.
			No	1-2
	1-2	Extreme voltage fluctuations	Yes	Check power supply.
			No	1-3
	1-3	Extreme distortion of voltage waveform	Yes	Check power supply.
			No	1-4
	1-4	Instantaneous blackout may sometimes occur.	Yes	Check power supply.
			No	2-1
2 PC board wiring	2-1	Has FUSE1-A / FUSE2 / FUSE3 blown? Check the electrical conduction with tester.	Yes	2-3
			No	2-2
	2-2	Loose electrical wire connection	Yes	Correct wiring.
			No	2-3
	2-3	Replace CR board.		

* Check not only in the outdoor unit stop mode but in the drive mode.

U-200PZH4E8, U-250PZH4E8



H03 Primary Current CT Sensor (current sensor) Failure

1. Error Detection Method

It is judged an error based on the criteria listed below.

- If 18A or greater is detected when the compressor is stopped (alarm triggered even if the connector is unplugged).
- If no current is detected even though a compressor is running.

2. Error Diagnosis

1 Check the control PC board	1-1	Turn the power on again and run the outdoor unit. Is alarm occurred after operation?	Yes	Replace CR board.
			No	See what happens.

H05 Sensor Failure, Compressor Discharge Temperature Sensor (TD) Disconnected

1. Error Detection Method

- (In case of outdoor temperature over 5°C) For 10 minutes since started, variation of discharge temperature is always detected within 2°C comparing with the temperature just before starting.
- (In case of outdoor temperature less than 5°C) For 30 minutes since started, variation of discharge temperature is always detected within 2°C comparing with the temperature just before starting.

1 Sensor Trouble	1-1	Is the sensor properly installed at the holder side?	Yes	1-2
			No	Reinstall correctly.
	1-2	Replace the sensor with a new one.		

H31 HIC Trouble

1. Error Detection Method

It is judged an error if the computer detects an error signal from the HIC.

An error signal is issued by the HIC if abnormal heat occurs inside the HIC or if there is an overcurrent.

However, it is judged an error in the same way if the signal line from the HIC is not connected properly or opened.

- HIC overcurrent due to HIC fault
- HIC abnormal heat caused by defective HIC or HIC radiation error
- Signal line is not connected properly or opened between the HIC and the outdoor CR board.

2. Error Diagnosis

1 Wiring between HIC & outdoor control PC board	1-1	The wiring (power cord and signal line) between the HIC and the outdoor CR board is connected properly.	Yes	1-2
			No	Correct wiring (connector).
	1-2	Everything is normal in the wiring (power cord & signal line) between the HIC and the outdoor CR board. Check the wiring one by one with a tester if there is opened and grounding.	Yes	3-1 : Single-phase model 2-1 : 3-phase model
			No	Replace wiring.
2 Check the outdoor unit CR PC board.	2-1	The connector CN-RY on the CR PC board is connected properly (locked). (3-phase only)	Yes	3-1
			No	Correct wiring (connector).
3 HIC poor radiation	3-1	The heat dissipating surface on the back of the HIC is in good contact with the heat sink (heat dissipating fins) of the electrical box. Check for looseness in the fastening screws and the condition of the heat-conducting putty.	Yes	3-2
			No	Tighten screw(s), add putty.
	3-2	A good flow of cooling air passes through the heat sink (heat dissipating fins) of the electrical box. Check for debris blocking the fins.	Yes	4-1
			No	Remove foreign matter.
4 HIC overcurrent	4-1	The results of the pass/fail tests for the following HIC board IPM show it to be outside the range of the resistance of a conforming part.	Yes	Replace the HIC PC board.
			No	4-2
	4-2	The inverter compressor was stopped/started more than 10 times and it triggered H31 at a high rate. If alarm code P16 occurs at times, refer to the alarm code P16.	Yes	Replace the HIC PC board.
			No	Refer to alarm code P16.

• HIC board IPM Pass/Fail Tests

- Measure with an analog tester. (Set to the k ohm range)
- Measure the board by itself. (Remove wires connected from other parts.)
- Measure using IPM terminals.

★ Conforming part resistance value (measure with an analog tester)

Tester terminals								
+	P				NU			
-	U	V	W	NU	U	V	W	P
Resistance value (ohm)	1 k to 5 k	1 k to 5 k	1 k to 5 k	5 k to 10 k	100 k to ∞	100 k to ∞	100 k to ∞	100 k to ∞

Tester terminals								
-	P				NU			
+	U	V	W		U	V	W	
Resistance value (ohm)	100 k to ∞	100 k to ∞	100 k to ∞		1 k to 5 k	1 k to 5 k	1 k to 5 k	

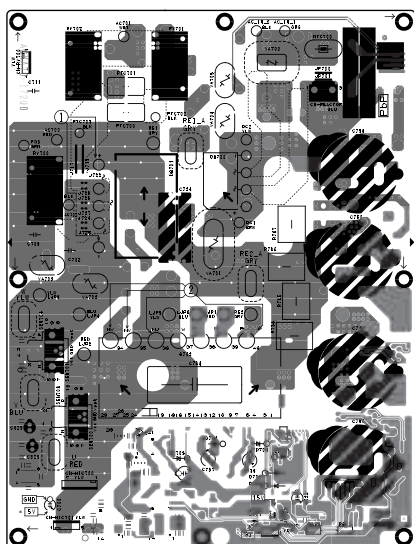
- Excepting the parts of "100 k to ∞", it is acceptable if a small resistance value appears as a reference value unless the value is "0 = short-circuit".

Tester terminals								
+	HIC+				HIC-			
-	U	V	W	HIC-	U	V	W	HIC+
Resistance value (ohm)	1 k to 10 k	1 k to 10 k	1 k to 10 k	5 k to 20 k	20 k to ∞	20 k to ∞	20 k to ∞	20 k to ∞

Tester terminals								
-	HIC+				HIC-			
+	U	V	W		U	V	W	
Resistance value (ohm)	20 k to ∞	20 k to ∞	20 k to ∞		1 k to 10 k	1 k to 10 k	1 k to 10 k	

- Excepting the parts of “ 20 k to ∞ ”, it is acceptable if a small resistance value appears as a reference value unless the value is “0 = short-circuit”.

■ Outdoor Unit Control HIC PCB
(U-200PZH4E8, U-250PZH4E8)
(3-phase outdoor unit HIC PC board)



L04 Outdoor Unit Address Duplication

1. Error Detection Method

It is judged an error when the identical self-address communication on the indoor and outdoor wirings is received over 5 times within 3 minutes.

2. Error Diagnosis

1 System address	1-1	Are other outdoor units using a duplicate setting?	Yes	2-1
			No	2-2
2 Installation or setting related	2-1	When units are networked, first set the system address for each outdoor unit in the order 1-2-3 and then run auto address setting.		
	2-2	Run the auto address setting.		

L10 Outdoor Unit Capacity not Set or Invalid

1. Error Detection Method

It is judged an error when outdoor unit capacity not yet setup or systematically unauthorized setting.

2. Error Diagnosis

1 Check the control PC board	1-1	Was EEPROM replaced when PC board was replaced?	Yes	2-1
			No	Replace EEPROM.
2 Installation or setting related	2-1	Set an applicable capacity value on the item code 81 display of maintenance remote controller.		

- Check : Connect the outdoor maintenance remote controller and check whether item code 81 outdoor capacity value shows "0" or unauthorized capacity is set on the detailed settings mode display of the outdoor EEPROM.
If the capacity value of the item code 81 with the outdoor maintenance remote controller is incorrect, recorrect and set it again.

* After setting the capacity value, be sure to reset the power supply switches of both indoor and outdoor units.

L13 Indoor Unit Type Setting Error

1. Error Detection method

- Discordance model(s) between outdoor and indoor units are detected.

1 Discordance Unit	1-1	Are models for outdoor and indoor units matched respectively? (Ex: Are multiple indoor units connected to commercial outdoor units?)	Yes	2-1
			No	Replace indoor units.
2 Installation Failure	2-1	Check the indoor unit's motor valve with the remote control detailed settings mode (2C code) and commercial indoor unit is set to "2" and multiple indoor unit is "0".	Yes	3-1
			No	Change installation.
3 Operating Wires for Indoor & Outdoor Units	3-1	Check whether or not indoor and outdoor unit operating wires are short circuit, disconnection, loose connection or earth fault.		

L18 4-way Valve Operation Failure

1. Error Detection Method

It is judged an error when during heating operation (Comp. ON), the highest detected temperature at an outdoor unit heat exchanger (C1) was 20°C or more above the outdoor air temperature (Air Temp.) continuously for 5 minutes or longer.

2. Error Diagnosis

1 PC board wiring	1-1	Is the connector wired from the 4-way valve plugged in the CN-HOT1 or CN-HOT2 connector on the HIC PC board properly?	Yes	1-2
			No	Correct connector.
	1-2	Has the 4-way valve wiring become opened?	Yes	Correct wiring.
			No	1-3
	1-3	Is the wire from the coil for controlling the 4-way valve firmly connected to the 4-way valve?	Yes	2-1
			No	Correct connector.
2 4-way valve	2-1	During heating mode (Comp. ON), insert and remove the connector wired from the 4-way valve into or from CN-HOT1 or CN-HOT2 connector on the HIC PC board. At the same time, does the ON & OFF sounds occur from the 4-way valve?	Yes	2-2
			No	Replace HIC PC board.
	2-2	During heating mode (Comp. ON), does the alarm code L18 reproduce for 5 minutes or longer after insertion and removal of CN-HOT1 or CN-HOT2 connector wired from the 4-way valve connector on the HIC PC board?	Yes	2-3
			No	See what happens.
	2-3	The parts inside the 4-way valve might have fixed at the cooling side. Replace the 4-way valve.		

P03 Compressor Discharge Temperature Trouble

1. Error Detection Method

- When the discharge temperature is over 106°C.

2. Error Diagnosis

1 Adjustment to refrigerant charge	1-1	Not additional refrigerant charged	Yes	Additional refrigerant charge
			No	2-2
	1-2	Tends to have insufficient refrigerant charge in the system.	Yes	Adjust the refrigerant amount.
			No	Replace CR board.
2 Blockage in refrigerant circuit	2-1	Service valve inside the outdoor unit closed	Yes	Open service valve.
			No	2-2
	2-2	Are the tubes clogged?	Yes	Avoid clogging.
			No	2-3
	2-3	Is the outdoor unit's electronic control valve operating correctly? (Check for debris clogging the electronic control valve, a problem with the electrical coil and/or the control PC board.)	Yes	2-4
			No	Replace the electronic control valve.
	2-4	Is it observable difference in status of the dew or frost between the strainer's primary and secondary sides?	Yes	Replace the strainer.
			No	Replace CR board.

P04 High Pressure Trouble

1. Error Detection Method

It is judged an error if the internal circuit of the high pressure switch is dead.

The electronic circuitry of the high pressure switch is cut off if the pressure at the pressure sensor port of the high pressure switch reaches 3.80 MPa. Once it is cut off, it remains cut off until the pressure drops to 3.15 MPa.

- The high pressure switch is malfunctioning.
- Service valve inside the outdoor unit closed
- There is a short air circuit through the outdoor unit's heat exchanger. (when cooling)
- The outdoor unit's fan is broken. (when cooling)
- The outdoor unit's heat exchanger is clogged. (when cooling)
- There is a short air circuit at the indoor unit. (when heating)
- The filter of the indoor unit is clogged. (when heating)
- The fan of the indoor unit is broken or the fan motor is malfunctioning. (when heating)
- The refrigerant circuit is closed and the high pressure is increasing abnormally high. (Solenoid valve or expansion valve not activated, a stuck check valve, etc.)
- Refrigerant overcharged
- Nitrogen or air contaminated in the refrigerant system

2. Error Diagnosis

1 High pressure switch	1-1	The socket of the high pressure switch is securely inserted in the PC board. The wiring is not opened.	Yes	1-2
			No	Correct connection and/or wiring.
	1-2	Even if parts near the high pressure switch are shaken quite a lot, the high pressure cut off will be activated. Even if the covering is in good condition, in several cases vibration has caused wiring inside to open.	Yes	Replace the high pressure switch (wiring).
			No	2-1
2 Service valve	2-1	Service valve inside the outdoor unit closed	Yes	Open the service valve.
			No	2-2
	2-2	There is an extreme difference in temperature in/out of the service valve.	Yes	2-3
			No	3-1
	2-3	Check the flare connection, someone may have forgotten to remove the bonnet. If there is a problem within the service valve, replace the valve.		
3 Problem around the heat exchanger	3-1	While cooling is operating an alarm is occurred.	Yes	3-2
			No	3-5
	3-2	The intake temperature (ambient temperature) of the outdoor unit's heat exchanger is above 46°C.	Yes	Prevent air short circuit.
			No	3-3
	3-3	The outdoor unit's heat exchanger is clogged.	Yes	Clean the heat exchanger.
			No	3-4
	3-4	Check whether the outdoor unit fan is normal or if the sockets are firmly pressed onto the plugs on the outdoor PC board, as well as if any wiring is opened. Are these checking finished without fail?	Yes	4-1
			No	Replace the outdoor unit fan. Correct connection and/or wiring.
	3-5	While heating is operating an alarm is occurred.	Yes	3-6
			No	4-1

3 Problem around the heat exchanger	3-6	The intake temperature (ambient temperature) of the indoor unit is above 36°C.	Yes	Prevent air short circuit.
			No	3-7
	3-7	The filter of the indoor unit is clogged.	Yes	Clean the filter.
			No	3-8
	3-8	The fan of the indoor unit is broken or the fan motor is faulty.	Yes	Replace the indoor fan (motor).
			No	4-1
4 Blockage in the refrigerant circuit	4-1	Is the outdoor unit's electronic control valve operating correctly? (Check for debris clogging the electronic control valve, a problem with the electrical coil and/or the control PC board.)	Yes	4-3
			No	Repair the electronic control valve of the outdoor unit.
	4-2	The indoor unit's expansion valve is operating correctly. (Check for debris clogging the valve, a problem with the electrical coil and/or the control PC board.)	Yes	4-3
			No	Repair the expansion valve of the indoor unit.
	4-3	If an alarm is occurred with the high pressure below 3.80 MPa, with the pressure measured as displayed by the manifold gauge, check the check valve in the compressor discharge line. Are these checking finished without fail?	Yes	4-4
			No	Replace the check valve in the compressor discharge line.
	4-4	The electronic control valve is faulty. In systems where the solenoid valve kits and the ice thermal storage tank are connected, check these solenoid valves.	Yes	Replace the electronic control valve and/or solenoid valve.
			No	5-1
5 Overcharging	5-1	Error occurs when the system is operating in cooling mode.	Yes	5-3
			No	5-2
	5-2	Error occurs when the system is operating in heating mode.	Yes	5-4
			No	5-5
	5-3	An alarm is occurred with the high pressure at 3.80 MPa, with the pressure measured either as displayed by the monitoring software or with a manifold gauge, at which time the temperature of liquid in the outdoor unit's heat exchanger is detected to be at the temperature of the outside air.	Yes	5-5
			No	Contact the service representative.
	5-4	An alarm is occurred with the high pressure at 3.80 MPa, with the pressure measured either as displayed by the monitoring software or with a manifold gauge, at which time the temperature of liquid in the indoor heat exchanger is detected to be at room temperature (intake temperature).	Yes	5-5
			No	Contact the service representative.
	5-5	The system may be overcharged. Check how much refrigerant was added during installation. When a system is inspected for airtightness, it is seldom that enough nitrogen has been expelled, so some remains in the circuit. In this case, it is necessary to collect the refrigerant and then recharge the system.		

P05 AC Power Supply Trouble

1. Error Detection Method

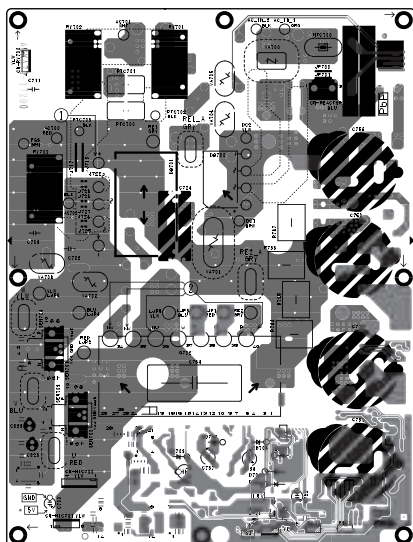
- Instantaneous blackout
- Zero-cross (waveform input of power supply) error
- DC voltage charge failure

2. Error Diagnosis

Note : The work involved in diagnosing each of the items is extremely dangerous, so turn the power off at the breaker before performing the tests.

1 Check the power supply & the wiring	1-1	Is the voltage on each of the terminal boards within $\pm 10\%$ of the rated voltage?	Yes	1-4 : Single-phase model 1-2 : 3-phase model
			No	Check for open circuit and the voltage at the breaker. If a problem is found, fix it and check again.
	1-2	Power wiring N-phase is connected.	Yes	Correct wiring.
			No	1-3
	1-3	Power wiring L2 and N are reverse connected. (3-phase only)	Yes	Correct wiring.
			No	1-4
	1-4	Turn the power back on and check again. Is the alarm triggered again?	Yes	3-1 : Single-phase model 2-1 : 3-phase model
			No	4-1
2 Check the outdoor unit CR PC board	2-1	The connector CN-RY on the outdoor CR PC board is connected properly (locked). (3-phase only)	Yes	3-1
			No	Correct wiring. (connector)
3 Check the outdoor unit HIC PC board	3-1	Are the wires (RE1, RE2) from the reactor firmly installed?	Yes	3-2
			No	Correct wiring.
	3-2	Turn the power back on and check again. Is the alarm triggered again?	Yes	Replace the outdoor unit HIC PC board.
			No	4-1
4 Final check	4-1	There may be a instantaneous blackout failure. If there is nothing abnormal, see what happens.		

■ Outdoor Unit Control HIC PCB U-200PZH4E8, U-250PZH4E8 (3-phase outdoor unit HIC PC board)



P13 Alarm Valve Open

1. Error Detection Method

Detection is performed only in the test run. When once detected or the test run finished without any error, the second detection will not be done.

In case of forgetting to open a valve, P04 (high-pressure switch operational alarm) is occasionally preceded due to the following conditions.

- The status of small temperature change of the operating indoor unit continues for the first 7 minutes since the cooling test run has started.

2. Error Diagnosis

1 Service valve	1-1	Service valve inside the outdoor unit closed	Yes	Open the service valve.
			No	2-1
2 Adjustment to refrigerant change	2-1	Not additional refrigerant charged	Yes	Additional refrigerant charge
			No	3-1
3 Blockage in refrigerant circuit	3-1	Are the tubes clogged?	Yes	Avoid clogging.
			No	3-2
	3-2	Is the outdoor unit's electronic control valve operating correctly? (Check for debris clogging the electronic control valve, a problem with the electrical coil and/or the control PC board.)	Yes	3-3
			No	Replace the electronic control valve.
	3-3	As the second detection is not done, restart and see what happens if there is no error.		

P14 O₂ Sensor Detect

1. Error Detection Method

- It is judged an error whenever the outdoor unit receives the signal "O₂ Alarm Occurred" from the indoor unit.
- With the indoor unit's EEPROM setting (item code 0B) set to 0001, the EXCT input was shorted.

2. Error Diagnosis

1 System configuration	1-1	Is an O ₂ sensor being used?	Yes	3-1
			No	2-1
2 Indoor unit's EEPROM setting	2-1	Is the indoor EEPROM setting, item code 0B, on the indoor unit's control PC board set to 0001?	Yes	After correcting the setting, 3-1
			No	4-1
3 Indoor EXCT wiring	3-1	Is the indoor EXCT socket (wire) shorted?	Yes	Correct wiring.
			No	4-1
4 Indoor unit's control PC board	4-1	Is the alarm triggered if the indoor EXCT socket (wire) is disconnected, and the power is reset?	Yes	4-3
			No	4-2
	4-2	Since there is no error, see what happens.		
	4-3	Indoor unit control PC board error → Replace PC board.		

P15 Insufficient Gas Level Detected

1. Abnormal Detection Method

Alarm occurs in the following cases:

- Compressor's current value shows lower than a certain value.
- Compressor's discharge temperature exceeds 95°C.
- Electronic expansion valve is fully opened.
- The difference between indoor unit heat exchanger temperature and intake temperature is less than 4K.

2. Error Diagnosis

1 Adjustment of refrigerant amount	1-1	Insufficient gas level (Check whether or not pressure level is normal.)	Yes	Recharge with additional refrigerant.
			No	1-2
	1-2	Check leakage of refrigeration (leak test).	Yes	Replace leaking part with a new one.
			No	See what happens.

P16 Compressor Overcurrent Trouble

1. Meaning of Alarm

- Secondary current effective value detected the overcurrent (trip current value).
3-phase model (8HP & 10HP) : Trip current = 25.0 A
- Secondary current instantly detected overcurrent (trip current value).
3-phase model (8HP & 10HP) : Trip current = 38.0 Apeak

2. Check of content

0 Multiple factors	0-1	Replaced the compressor (added oil, if it was necessary) but it occurred again immediately.	Yes	7-1
			No	-
	0-2	Replaced the board, but it occurred again immediately.	Yes	Replace compressor along with adding oil, then recheck from 1-1.
1 Power Source	1-1	Power cord connections are loose.	Yes	Correct the wiring.
			No	1-2
	1-2	Rated power voltage is not within $\pm 10\%$.	Yes	Test the power supply.
			No	1-3
	1-3	Extreme fluctuations in voltage.	Yes	Test the power supply.
			No	1-4
	1-4	An open phase state is observed.	Yes	Test the power supply.
			No	2-1
2 Board wiring	2-1	Disconnected parts, miswiring and/or poor connections (loose) are observed in the connections on the CR board and/or in the connections of components that are connected by wiring from the CR board.	Yes	Correct
			No	2-2
	2-2	Disconnected parts, miswiring and/or poor connections (loose) are observed in the connections of outdoor board(s) that are connected by wiring from the CR board.	Yes	Correct
			No	2-3
	2-3	Disconnected parts, miswiring and/or poor connections (loose) are observed in the connections of outdoor board(s) that are connected by wiring from the HIC board.	Yes	Correct
			No	2-4
	2-4	Disconnected parts, miswiring and/or poor connections (loose) are observed in the connections of HIC boards connected by wiring from the CR board.	Yes	Correct
			No	2-5
	2-5	Disconnected parts, miswiring and/or poor connections (loose) are observed in the connections of HIC board(s) that are connected by wiring from the outdoor board.	Yes	Correct
			No	2-6
	2-6	Disconnected parts, miswiring and/or poor connections (loose) are observed in the connections of HIC board(s) that are connected by wiring to a compressor.	Yes	Correct
			No	3-1
3 Compressor wiring	3-1	Disconnections and/or miswiring are observed in the connecting location of the compressor terminals.	Yes	Correct
			No	3-2
	3-2	Conditions such as burned terminal covers and/or discolored terminals are observed in the connecting location of the compressor terminals.	Yes	Eliminate looseness by changing the terminals, or crimping the terminals again.
			No	4-1

4 Check the situation	4-1	Outdoor air intake temperature is high.	Yes	Take measures.
			No	4-2
	4-2	May be caused by poor outdoor unit air flow (dirty or clogged heat exchanger, blocked discharge port, etc.)	Yes	Correct
			No	4-3
	4-3	Air short circuit has occurred. This is a phenomenon when discharged air (exhaust heat) from the outdoor unit is drawn back into the suction vent.	Yes	Prevent air short circuit.
			No	4-4
	4-4	Indoor air intake temperature is high.	Yes	Take measures.
			No	4-5
	4-5	The filter of the indoor unit is clogged.	Yes	Clean the filter.
			No	4-6
	4-6	Air short circuit has occurred. This is a phenomenon when discharged air (exhaust heat) from the indoor unit is drawn back into the suction vent.	Yes	Prevent air short circuit.
			No	5-1
5 Check operation	5-1	Possible to operate.	Yes	5-2
			No	6-1
	5-2	Operating pressure is affected by pressure overload.	Yes	5-3
			No	5-4
	5-3	Tends to have an overcharge of refrigerant in the system.	Yes	Adjust the amount of refrigerant.
			No	5-4
	5-4	Tends to operate for a long time turning gas back into liquid.	Yes	Check the operation of functional parts.
			No	5-5
	5-5	Tends to have insufficient refrigerant charge in the system.	Yes	Adjust the amount of refrigerant.
			No	5-6
	5-6	Even though the high pressure saturation temperature is 43°C or less, the secondary current of the inverter is high. (The frequency (Hz) ends up dropping due to the current.)	Yes	Replace the compressor.
			No	See what happens.
6 Check history	6-1	Dividing the outdoor EEPROM INV operation time by the number of times oil was supplied to the system yields 3 hours or less.	Yes	6-2
			No	6-2
	6-2	There is a history of H31 in the pre-trip counter of the outdoor EEPROM alarm history.	Yes	Replace the compressor and add oil. However, if 6-1 was "no", it is not necessary to add oil.
			No	7-1
7 Check the HIC boards	7-1	The results of HIC board IPM Pass/Fail Tests show the outside the range of the resistance of a conforming part listed in the next page.	Yes	Replace HIC board.
			No	8-1
8 Check the compressor	8-1	The compressor is causing a failure in the insulation.	Yes	Replace the compressor.
			No	8-2
	8-2	The winding resistance of the compressor is abnormal. Standard winding resistance HP: horse power (8HP & 10HP) U-V : 0.735 ohm U-W : 0.715 ohm V-W : 0.715 ohm	Yes	Replace the compressor.
			No	9-1

9 Check the HIC PC boards	9-1	Replace the HIC PC board and operate the unit. (Apply putty and screws must not be loose) Does it operate normally?	Yes	See what happens.
			No	10-1
10 Check the outdoor unit main PC board	10-1	Replace the control PC board and operate the unit.	See what happens.	

- (Check content of 7) The test check of the HIC board is only a check on the output level, so the input stage may not be working.
- With the filter board broken, alarm P16 may not be triggered.

• HIC board IPM Pass/Fail Tests

- Measure with an analog tester. (Set to the k ohm range.)
- Measure the board by itself. (Remove wires connected from other parts.)
- Measure using IPM terminals.

★ Conforming part resistance value (measure with an analog tester)

Tester terminals								
+	P				NU			
-	U	V	W	NU	U	V	W	P
Resistance value (ohm)	1 k to 5 k	1 k to 5 k	1 k to 5 k	5 k to 10 k	100 k to ∞	100 k to ∞	100 k to ∞	100 k to ∞

Tester terminals								
-	P				NU			
+	U	V	W		U	V	W	
Resistance value (ohm)	100 k to ∞	100 k to ∞	100 k to ∞		1 k to 5 k	1 k to 5 k	1 k to 5 k	

- Excepting the parts of “100 k to ∞”, it is acceptable if a small resistance value appears as a reference value unless the value is “0 = short-circuit”.

Tester terminals								
+	HIC+				HIC-			
-	U	V	W	HIC-	U	V	W	HIC+
Resistance value (ohm)	1 k to 10 k	1 k to 10 k	1 k to 10 k	5 k to 20 k	20 k to ∞	20 k to ∞	20 k to ∞	20 k to ∞

Tester terminals								
-	HIC+				HIC-			
+	U	V	W		U	V	W	
Resistance value (ohm)	20 k to ∞	20 k to ∞	20 k to ∞		1 k to 10 k	1 k to 10 k	1 k to 10 k	

- Excepting the parts of “20 k to ∞”, it is acceptable if a small resistance value appears as a reference value unless the value is “0 = short-circuit”.

P22 Outdoor Unit Fan Motor Trouble

1. Error Detection Method

- It is judged an error when the outdoor fan motor's rotating signal cannot be detected normally.

2. Error Diagnosis

1 Wiring	1-1	Are the connectors "CN-FM_UP" and "CN-FM_LO" firmly connected to the outdoor control PC board (lock engaged)?	Yes	2-1
			No	Correct the connector connections.
2 Outdoor fan motor	2-1	Disconnect the connectors "CN-FM_UP" and "CN-FM_LO" from the outdoor control PC board and rotate the outdoor fan by hand; does it rotate freely? (Check the outdoor fan motor lock.)	Yes	3-1
			No	Replace the outdoor fan motor.
3 Outdoor control PC board	3-1	Turn the power on and run the unit again; Is P22 triggered again? Can you see or hear anything wrong in its rotation?	Yes	3-2
			No	3-3
	3-2	Replace the outdoor control PC board. (If it fails to operate normally even after replacing the outdoor control PC board, replace the outdoor fan motor.)		
	3-3	If there is nothing particularly out of the ordinary, see what happens.		

P29 Lack of INV compressor wiring, INV compressor actuation failure (including locked), DCCT failure

1. Error Detection Method

- Abnormal current is detected at DCCT before start-up.
- Start-up failed during overcurrent and/or step-out detected.
- Open-wire of compressor and/or backspin detected.
- Secondary current is not detected during INV compressor is running.

2. Error Diagnosis

1 Wiring	1-1	Disconnected parts, miswiring and/or poor connections (loose) are observed in the connections of HIC PC board(s) that are connected by wiring to a compressor. *1	Yes	Correct wiring connections.
			No	1-2
	1-2	Disconnected parts, miswiring and/or poor connections (loose) are observed in the connections of outdoor board(s) that are connected by wiring from the HIC PC board. *1	Yes	Correct wiring connections.
			No	2-1
2 Compressor wiring	2-1	Disconnections and/or miswiring is observed in the connections of the compressor terminals. *1	Yes	Correct
			No	2-2
	2-2	Conditions such as burned terminal covers and/or discolored terminals are observed at the connectors of the compressor terminals. *1	Yes	Eliminate looseness by changing the terminals, or crimping the terminals again.
			No	3-1
3 Check the HIC PC boards	3-1	The results of the pass/fail tests for the following HIC PC board IPM show it to be outside the range of the resistance of a conforming part.	Yes	Replace the HIC board.
			No	3-2
	3-2	Replace the HIC PC board and operate the unit. (Apply putty and screws must not be loose) Does it operate normally?	Yes	See what happens.
			No	4-1
4 Check the outdoor control PC board	4-1	Replace the control PC board and operate the unit.	See what happens.	

*1 Checking for looseness of compressor terminals by wiggling them has the adverse effect of loosening them, so do not do it. Evaluate them by discoloration of wire insulation near the terminal.

• HIC board IPM Pass/Fail Tests

- Measure with an analog tester. (Set to the k ohm range)
- Measure the board by itself. (Remove wires connected from other parts.)
- Measure using IPM terminals.

★ Conforming part resistance value (measure with an analog tester)

Tester terminals	P				NU			
+								
-	U	V	W	NU	U	V	W	P
Resistance value (ohm)	1 k to 5 k	1 k to 5 k	1 k to 5 k	5 k to 10 k	100 k to ∞	100 k to ∞	100 k to ∞	100 k to ∞

Tester terminals	P				NU			
-								
+	U	V	W		U	V	W	
Resistance value (ohm)	100 k to ∞	100 k to ∞	100 k to ∞		1 k to 5 k	1 k to 5 k	1 k to 5 k	

- Excepting the parts of "100 k to ∞", it is acceptable if a small resistance value appears as a reference value unless the value is "0 = short-circuit".

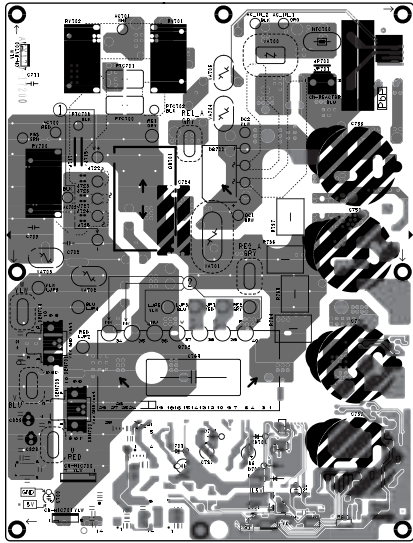
Tester terminals	HIC+				HIC-			
+								
-	U	V	W	HIC-	U	V	W	HIC+
Resistance value (ohm)	1 k to 10 k	1 k to 10 k	1 k to 10 k	5 k to 20 k	20 k to ∞	20 k to ∞	20 k to ∞	20 k to ∞

Tester terminals	HIC+				HIC-			
-								
+	U	V	W		U	V	W	
Resistance value (ohm)	20 k to ∞	20 k to ∞	20 k to ∞		1 k to 10 k	1 k to 10 k	1 k to 10 k	

- Excepting the parts of "20 k to ∞", it is acceptable if a small resistance value appears as a reference value unless the value is "0 = short-circuit".

■ Outdoor Unit Control HIC PCB

U-200PZH4E8, U-250PZH4E8
(3-phase outdoor unit HIC PC board)



P31 Group Control Error

1. Error Detection Method

- Other indoor unit alarms within the group.

1 Other indoor unit	1-1	Survey the indoor unit that alarms other than “P31” in the indoor unit group and specify the causes of failure.
---------------------	-----	---

5-4. Inspection of Parts (Outdoor Unit)

(1) Electronic control valve (MOV1)

- MOV1: Measure the voltage between plug pin 5 and pins 1 through 4 at the CN-MOV1 connector (5P, white) on the outdoor unit control PCB. (Because of the pulse output, a simplified measurement method is used. Set the tester to the 12 V range; if the value displayed is approximately 4 V, then the voltage is normal.)
If the voltage is normal, measure the resistance between connector pin 5 and pins 1 through 4.
Resistance between pin 5 and pins 1 through 4 should be approximately 46 ohm for all. (If the result is 0 ohm or, ∞ then replace the coil.)

(2) Outdoor Unit Fan Motor

Model No.	Part No.
U-200PZH4E8, U-250PZH4E8	L6CBYYYYL0486

(3) Coil Resistance of Compressor

Model No.	Part No.	Inverter compressor (at 20°C)		
		U - V	V - W	U - W
U-200PZH4E8	9VD550XAA21	0.735	0.715	0.715
U-250PZH4E8	9VD550XAA21	0.735	0.715	0.715

5-5. Symptom: Thermostat in OFF continues or cycles OFF & ON too frequently

1. How to detect abnormality

- Abnormality does not occur. Protective function can be checked when the outdoor maintenance remote controller is connected.

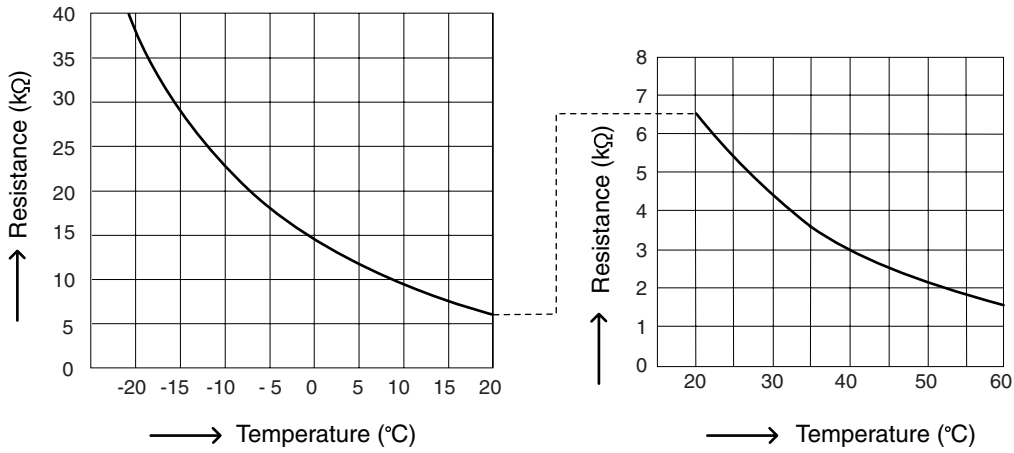
2. Error Diagnosis

1 Indoor control PC board	1-1	Setting temperature reaches the level set ON thermostat. Setting temperature is too low in heating mode and too high in cooling and dry mode.	Yes	Adjust setting temperature.
			No	1-2
	1-2	Check if the sensors are connected correctly. Are all connection made properly? Room temp. (TA) in yellow, heat exchanger (E1) in red, heat exchanger (E2) in black.	Yes	Connect correctly.
			No	1-3
	1-3	DISP (display mode) is applied.	Yes	Turn OFF(OPEN).
			No	1-4
	1-4	With a thermostat OFF in heating mode, wind speed (item code 05) is out of range 0 - 6. (Use Simple Setting Function on standard timer remote controller.)	Yes	Choose one of 0 to 6.
			No	1-5
	1-5	DEMAND is applied.	Yes	Turn OFF(OPEN).
			No	2-1
2 Outdoor control PC board	2-1	Outdoor unit and protective function of a system are operating. (Connect outdoor maintenance remote controller to RC socket on outdoor unit main control PC board and check alarm messages.)	Yes	See operational status.
			No	2-2
	2-2	Discharge temperature is over 80°C in stop mode and does not decrease. (Connect outdoor maintenance remote controller to RC socket on outdoor unit main control PC board and check alarm messages.)	Yes	Replace discharge temperature sensor.
			No	2-3
	2-3	Demand value always stays low. (The value is lower than 70. Excluding -1 (unlimited))(Connect outdoor maintenance remote controller to RC socket on outdoor unit main control PC board and check alarm messages.)	Yes	Increase values (over 70).
			No	2-4
	2-4	DEMAND is applied.	Yes	Turn OFF(OPEN).
			No	3-1
3 Control equipment	3-1	Demand setting is made by control units (P-AIMS, Seri-Para I/O unit for outdoor unit, Seri-Para I/O each indoor unit.)	Yes	Turn OFF.
			No	4-1
4 System	4-1	When operating in cooling (including auto cooling & heating) and dry mode, lowest temp. of indoor E1 and E2 sensor is less than 2°C (under anti-freeze control).	Yes	Wait until more than 2°C reaches.
			No	4-2
	4-2	During defrosting operation	Yes	Wait for a few minutes to 10 minutes or so.
			No	4-3
	4-3	Outdoor unit PC board failure → Replacement		

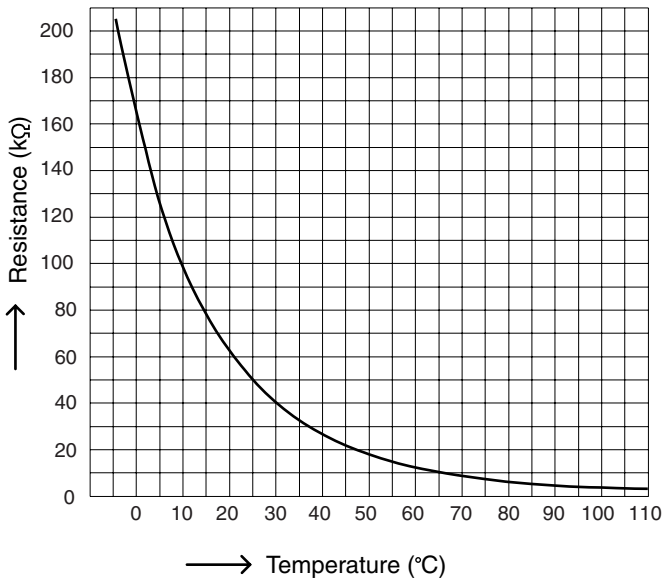
- According to a type of model, the indoor sensors will not be supplied in some cases.
- According to a type of model, the outdoor DEMAND will not be supplied in some cases.
- When LINE Checker is used, the temperature sensors can be observed (display, record) simultaneously.
- According to some areas, some of the models are unreleased.

5-6. Table of Thermistor Characteristics

(1) Outdoor Air Temp. (TO) Sensor,
Intake Temp. (TS) Sensor,
Heat Exchanger Temp. (C1) Sensor,
Heat Exchanger Temp. (C2) Sensor

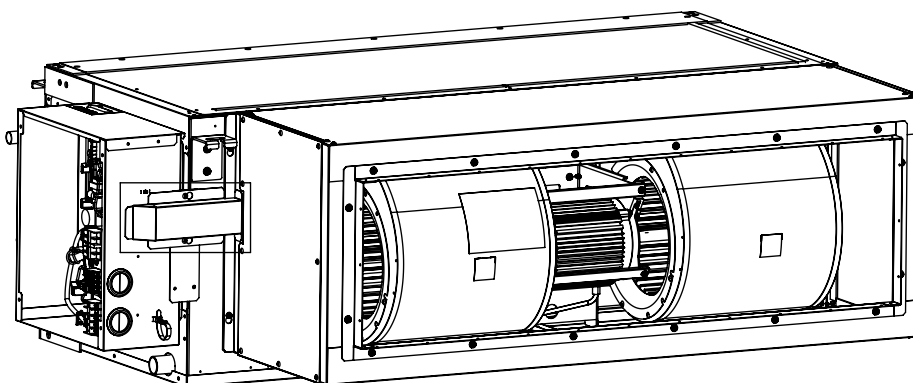
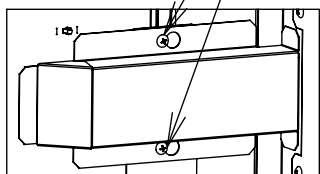


(2) Discharge Temp. (TD) Sensor

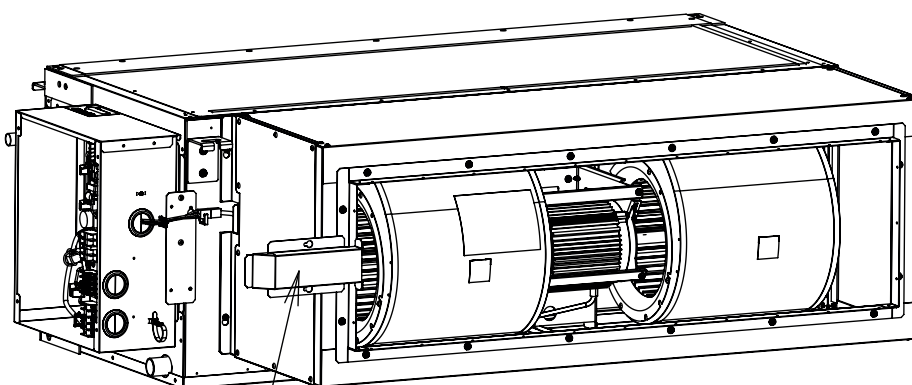
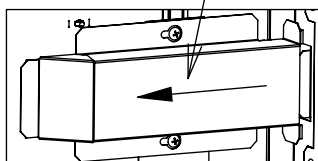


5-7. How to Remove Fan Motor (S-200PE4E)

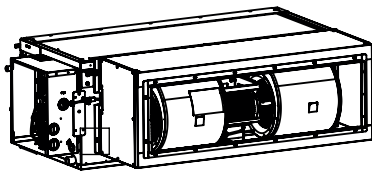
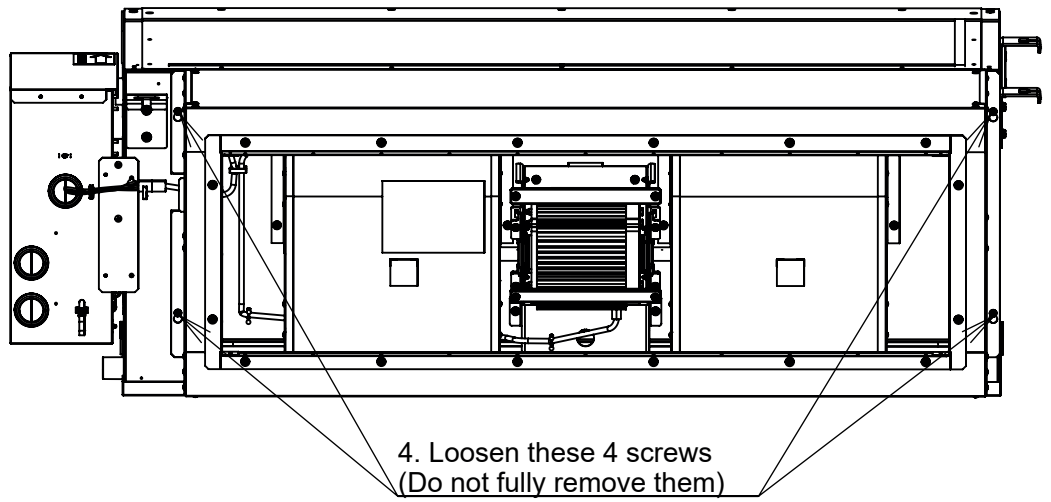
1. Loosen the 2 screws here.
(Do not fully unscrew and remove)



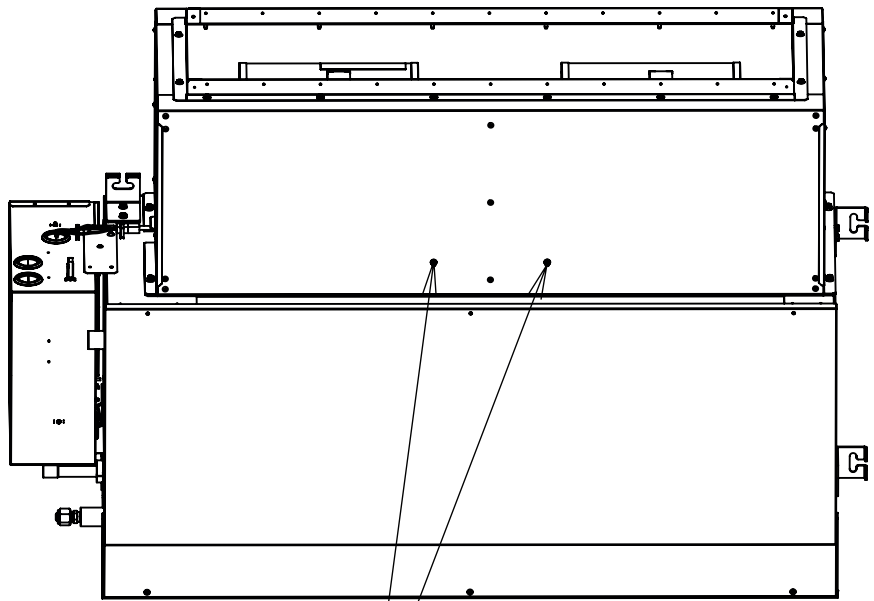
2. Move the cover to left side



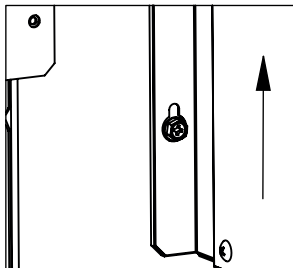
3. Remove the cover



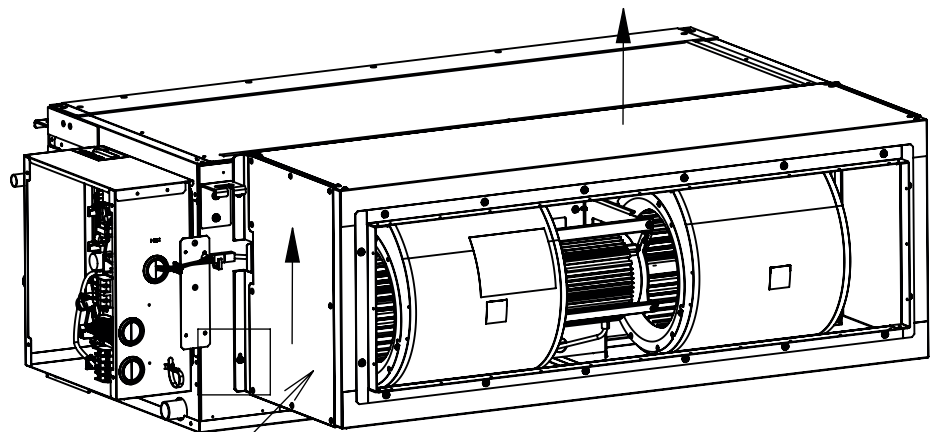
Look from bottom
of the unit

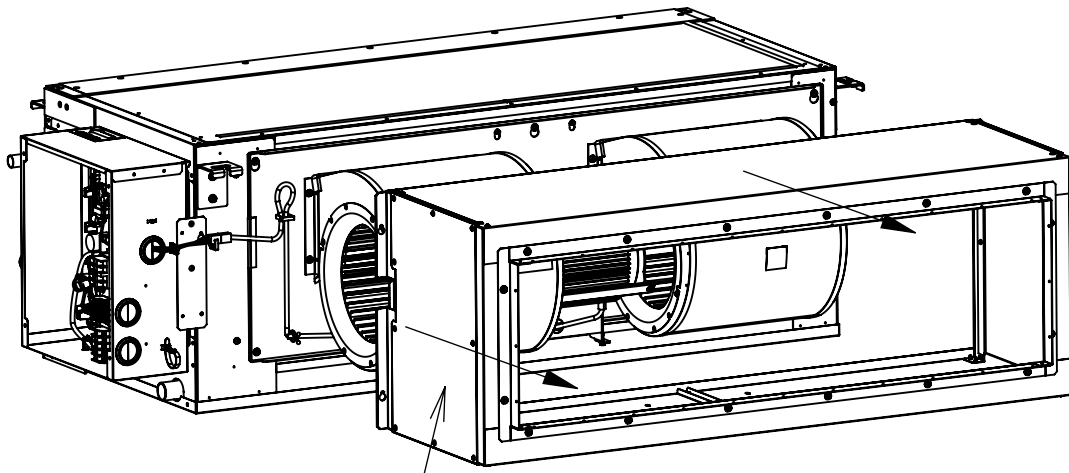


5. Fully unscrew these 2
screws from these locations.



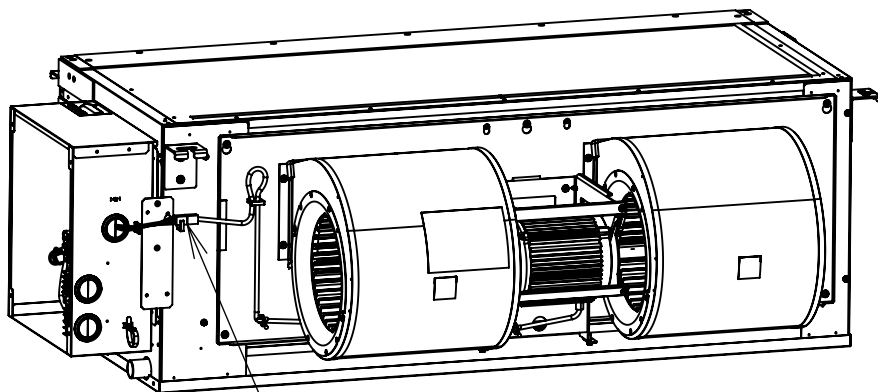
6. Lift the fan
cover unit upwards





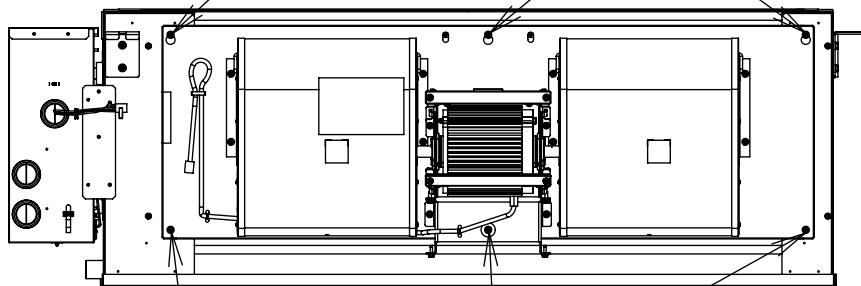
7. Remove the fan cover unit through the round hole

5

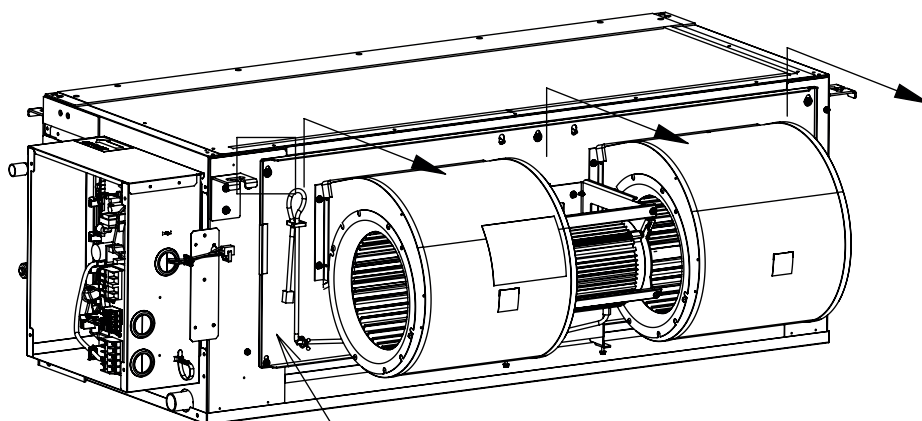
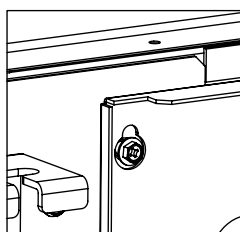


8. Disconnect the fan motor wire.

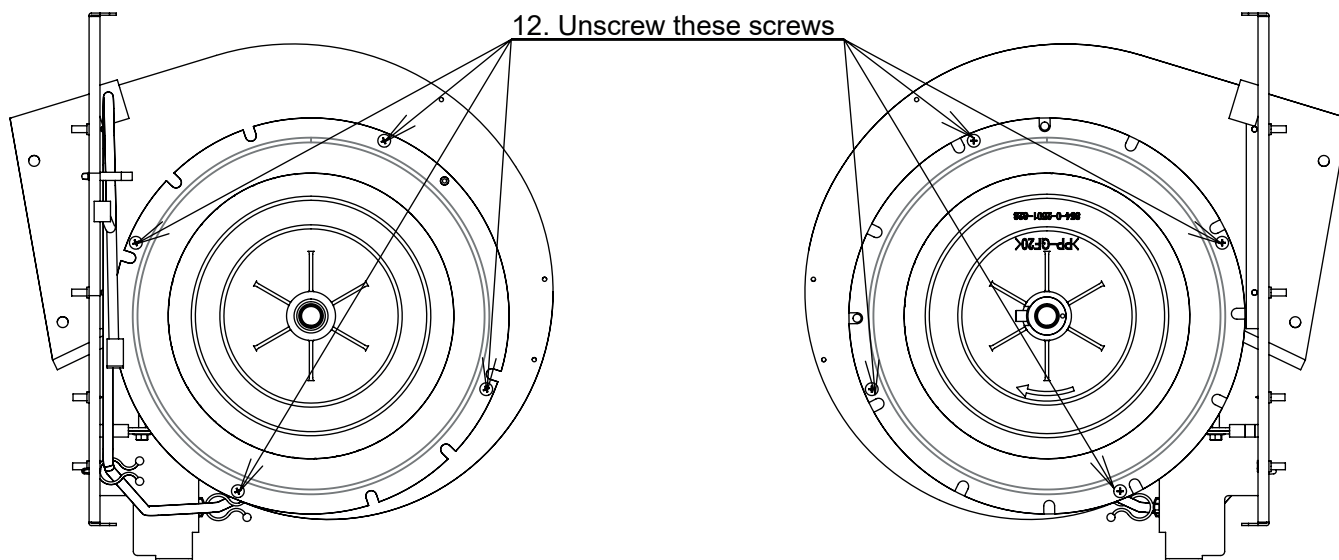
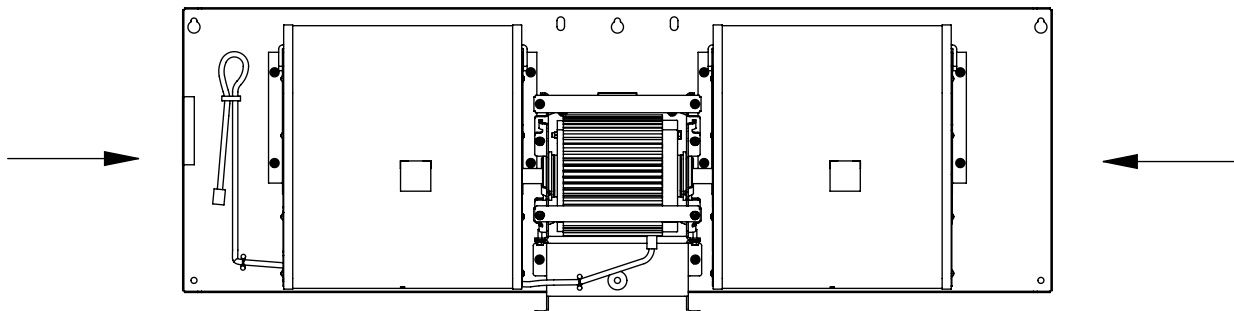
9. Loosen these 3 screws
(Warning: Do not fully
unscrew and remove them)



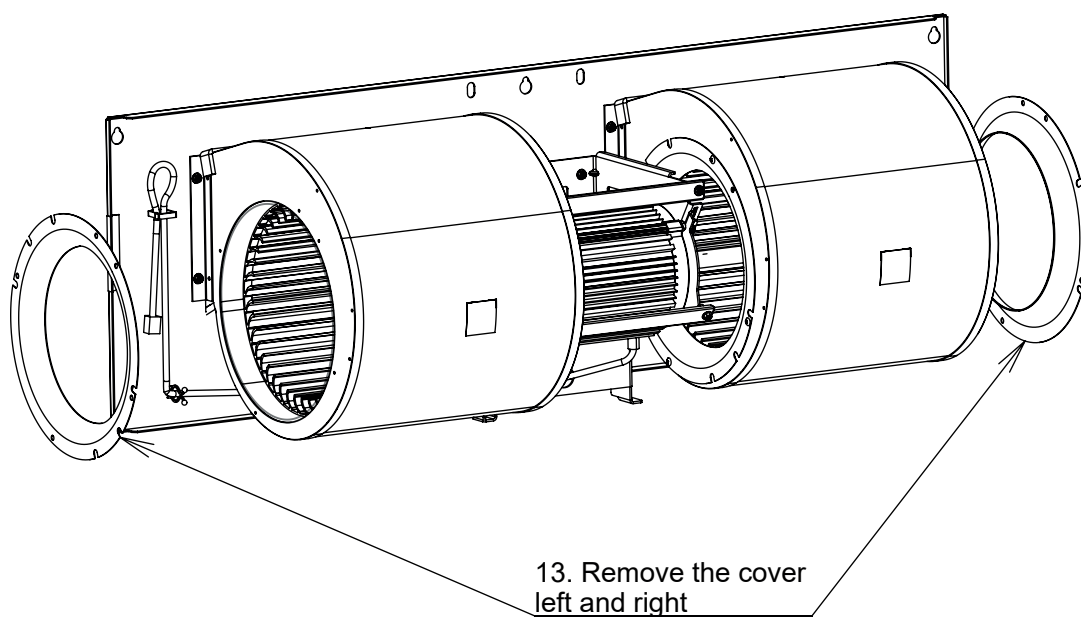
10. Fully unscrew and
remove these 3 screws.



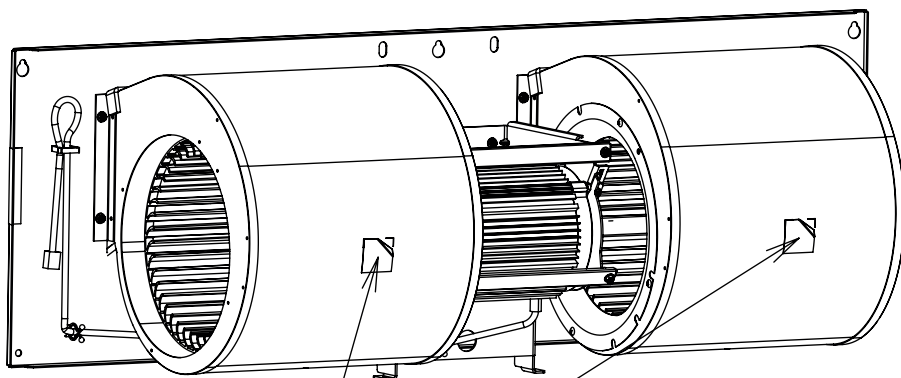
11. Lift the motor unit upwards and
remove it through the round hole.



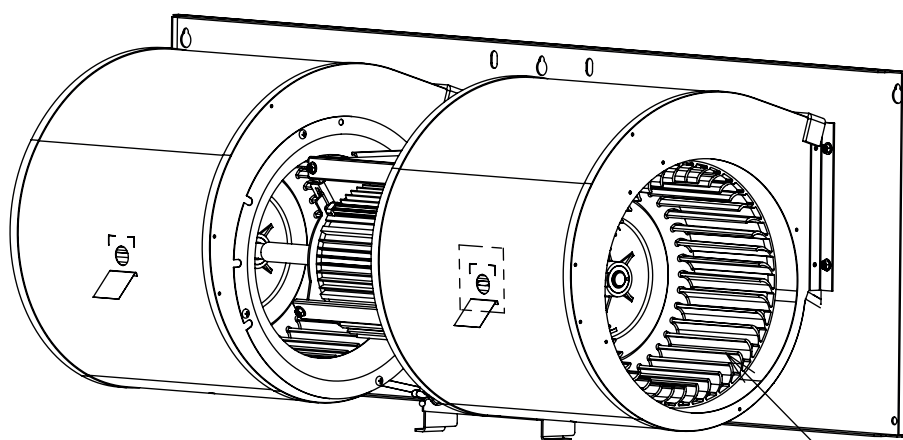
12. Unscrew these screws



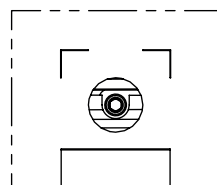
13. Remove the cover
left and right

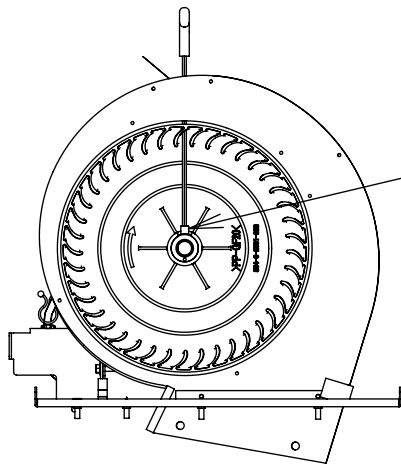
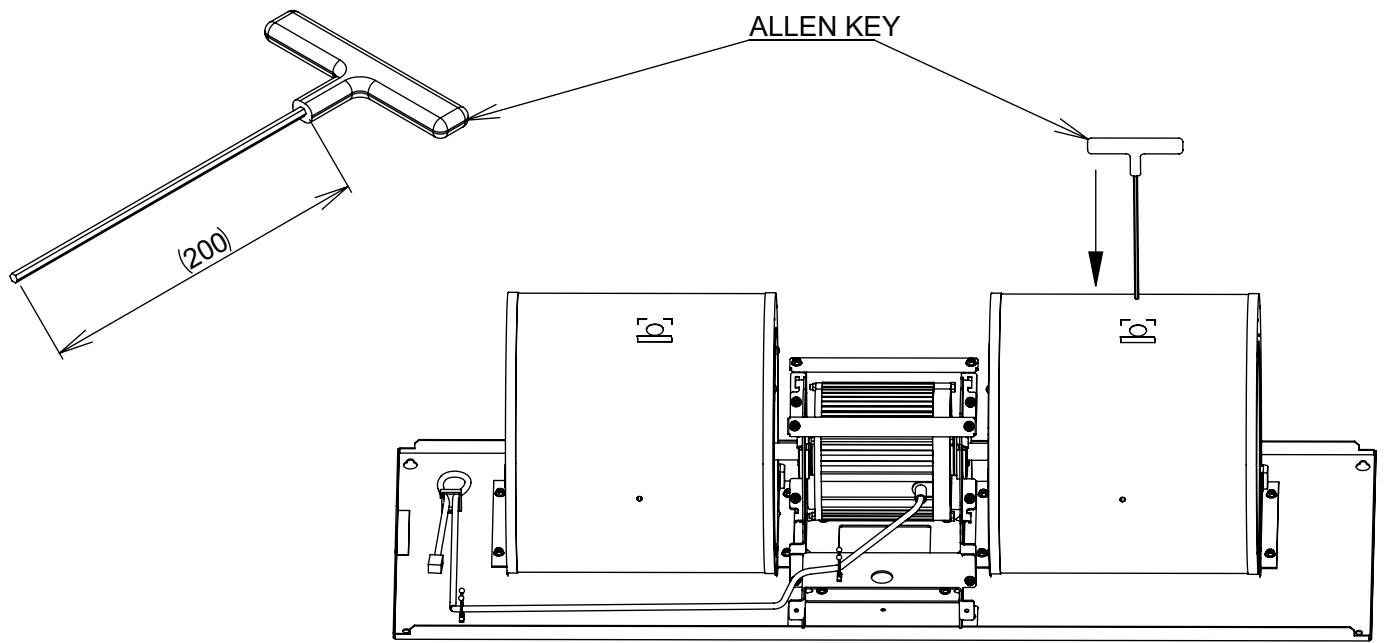


14. Partially peel off
the aluminium sheets.

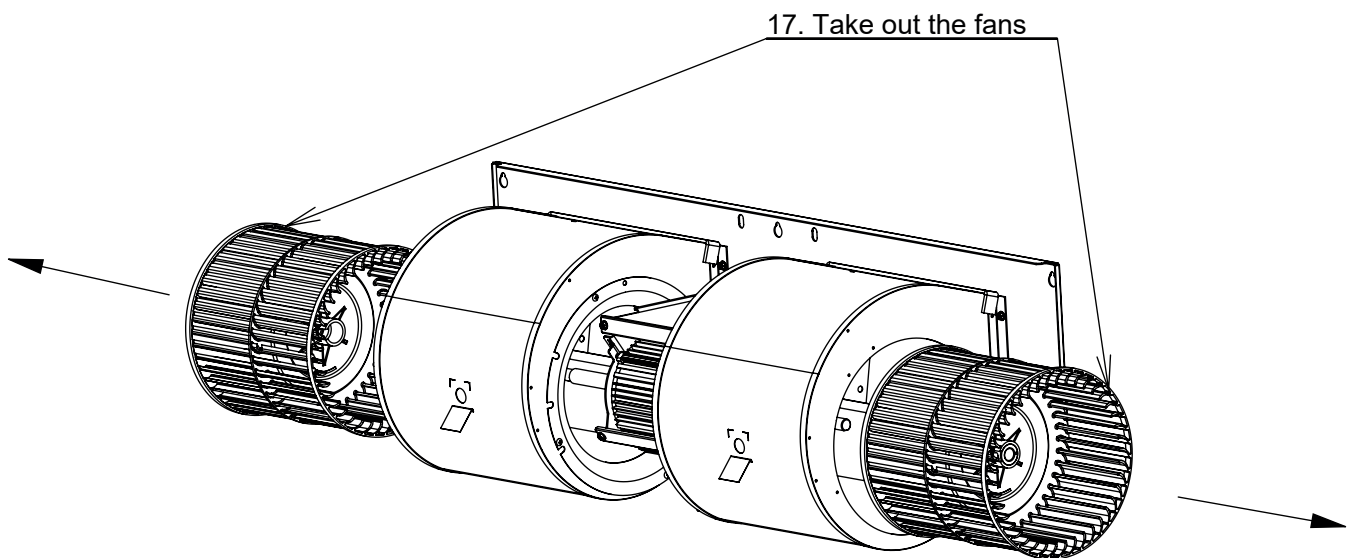


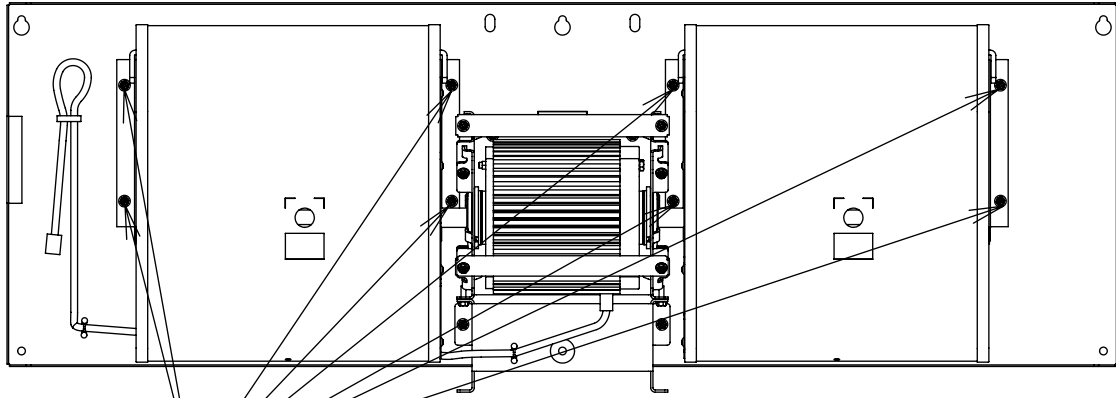
15. Rotate the wheel manually
until can see the nut.



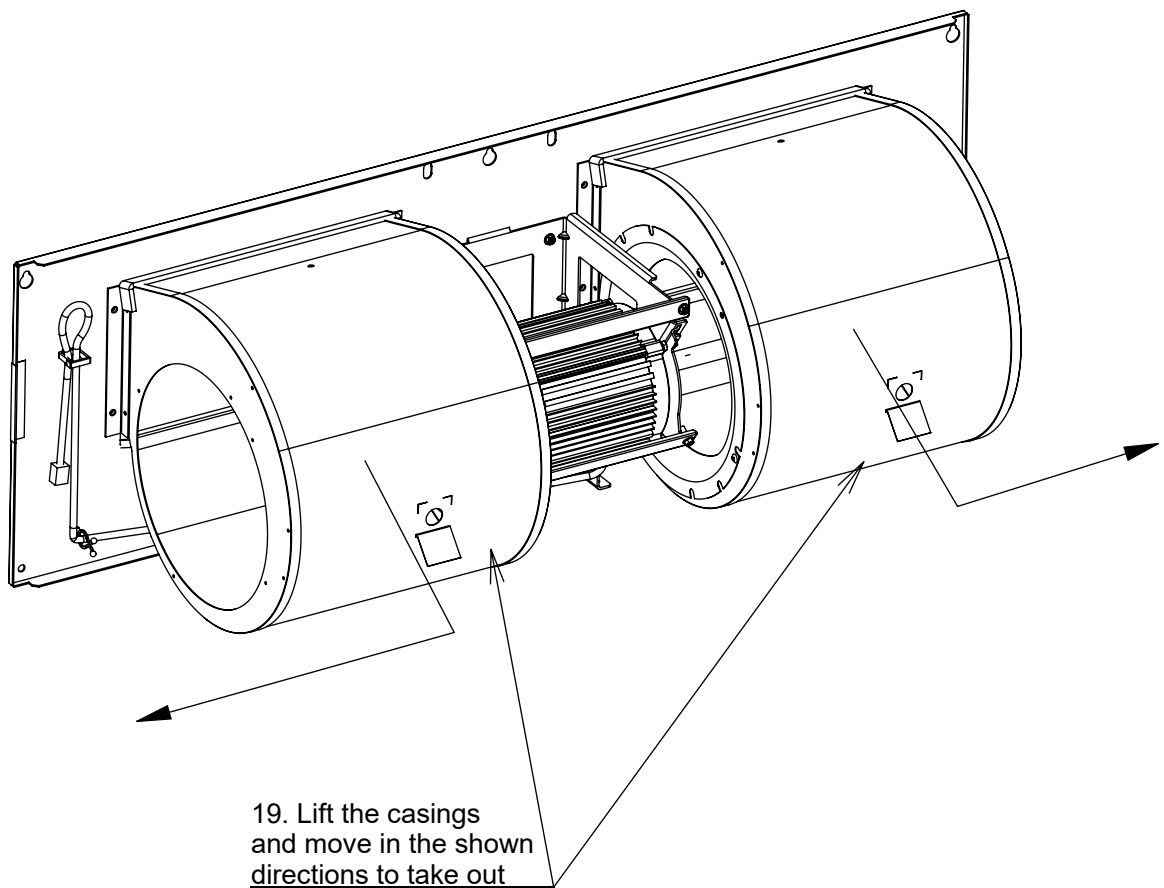


16. LOOSEN THE NUT OF THE FAN BY ROTATING ALLEN KEY ANTI-CLOCKWISE

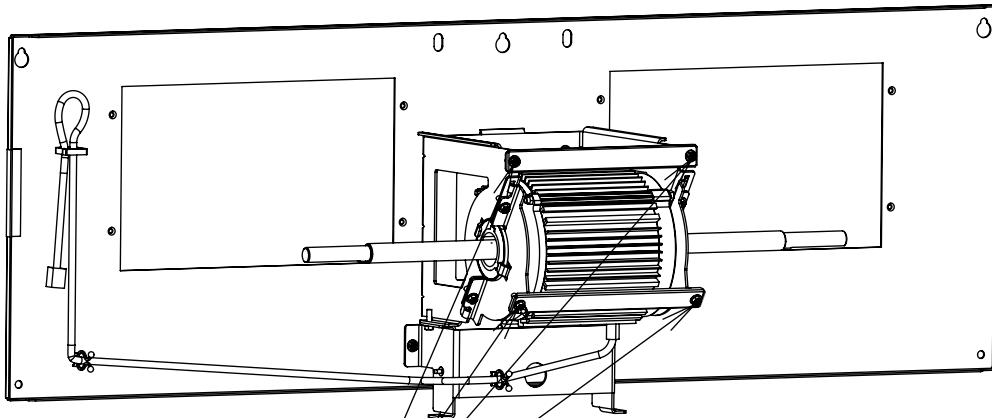




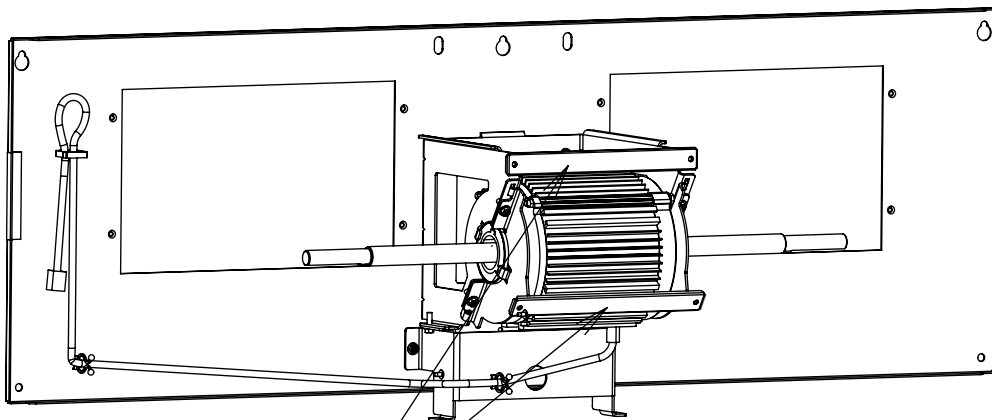
18. Unscrew and
remove these screws



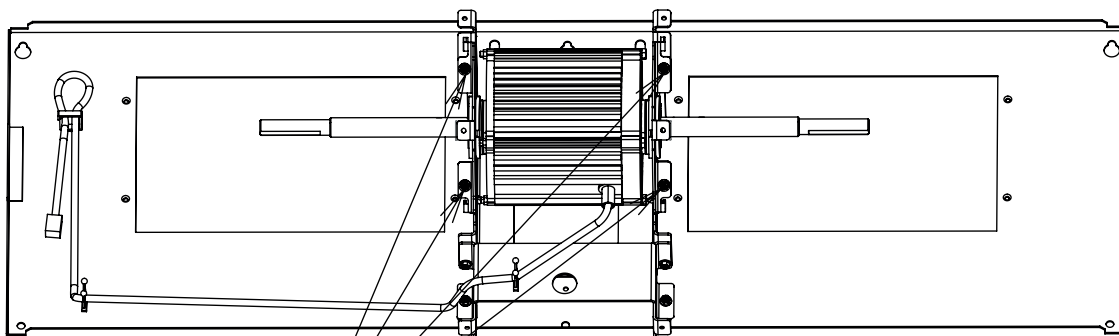
19. Lift the casings
and move in the shown
directions to take out



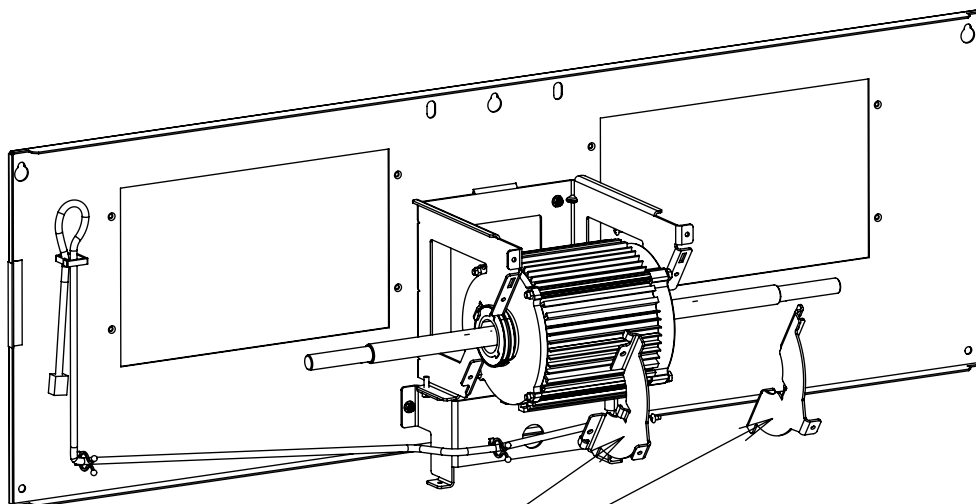
20. Unscrew
these 4 screws



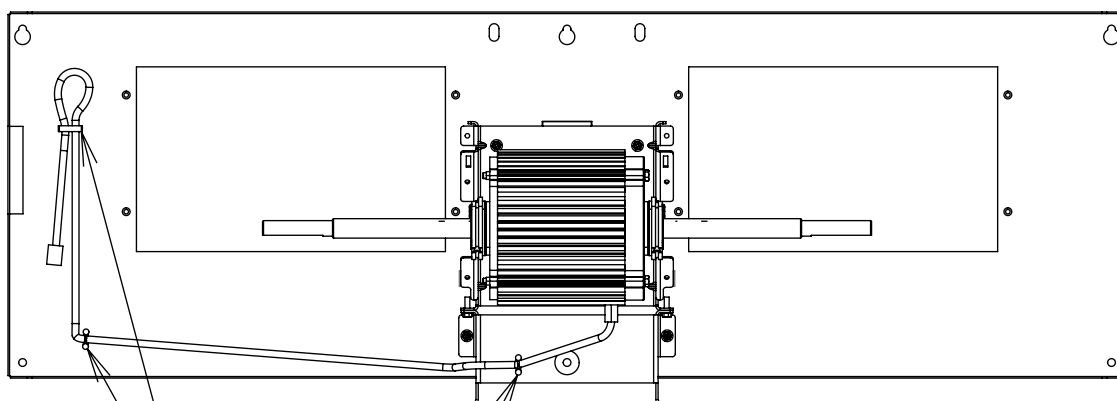
21. Remove
these 2 plates



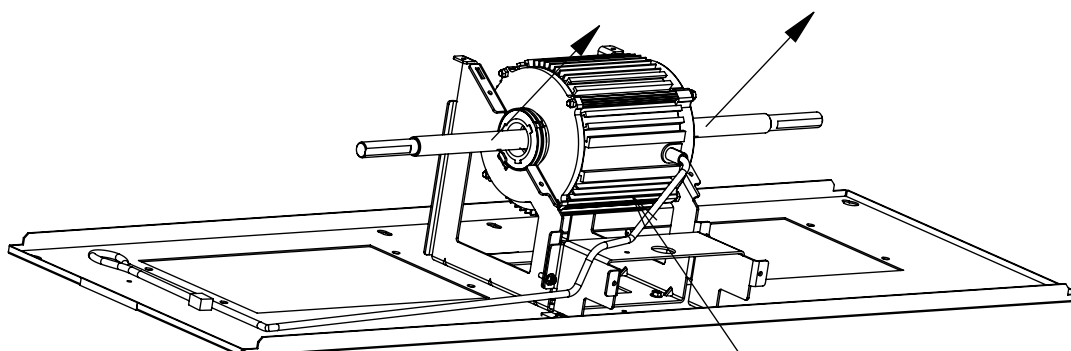
22. Unscrew and
remove these 4 screws.



23. Remove
these 2 plates.



24. Untie the wire
from these bands.



25. Lift the fan motor
carefully from the
mounting structure.

5-8. How to Remove the Compressor

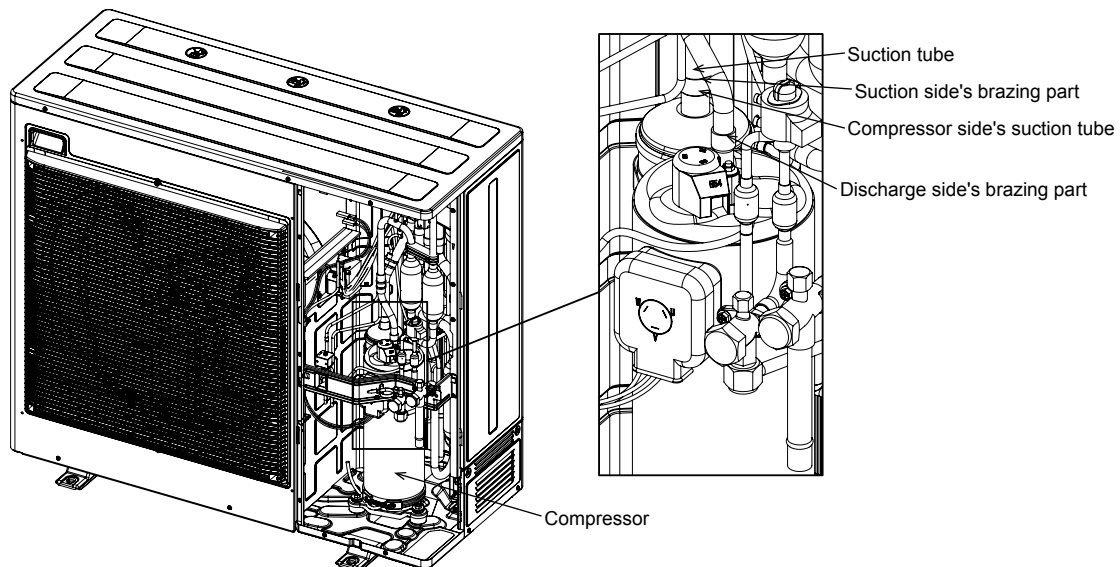
Pay careful attention to prevent water or foreign objects from entering into the refrigerant tubing when removing or installing the compressor.

Removing

1. After collecting the refrigerant in the system, replace nitrogen gas from the service port of the gas tubing valve.
2. Remove the sound absorbing material protecting the compressor.
3. Remove the cap of the compressor's terminal and then remove the power source terminal and TD sensor.
4. Remove the crank case heater.
5. Remove the bolts (×3) and then remove the washer and rubber spacer.
6. Cut off the compressor side's suction tube because the suction tube is solid and unmovable. See the diagram below.
7. Remove the discharge side's brazing part (×1). See the diagram below.

NOTE: Protect the sensor part, sheet metal, rubber, lead wire and clumper.

8. Pull the compressor toward you.
9. Remove the suction side's brazing part (×1) of the cut-off compressor side's suction tube connected to the suction tube.



5-9. How to Remove the Electrical Component Box

Removing

1. Remove the front panel and inspection panel from the outdoor unit.
2. Remove all local wires connected to the electrical component box.
3. Remove the wires (temperature sensor, coils of every sort of valve, pressure switch, fan motor and wires for connecting compressor) connected to the electrical component box in the unit.

 **Caution!** When handling electronic controller, be careful of electrostatic discharge.

- 1 Remove the 2 screws and slide down the Cabinet Front Panel.

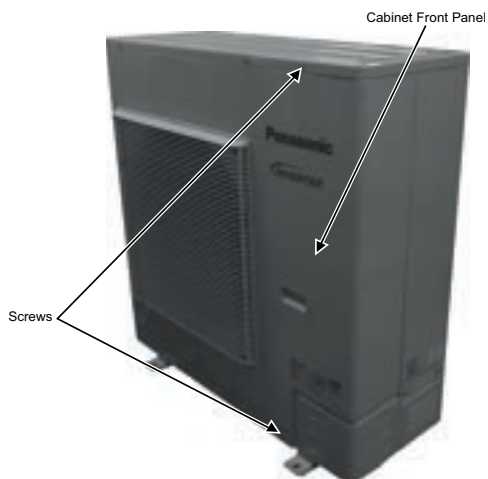


Fig. 1

- 2 Remove the Electronic Controller (CR).

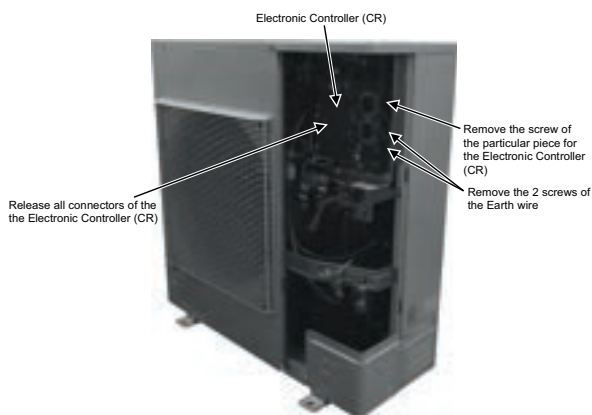


Fig. 2

- 3 Remove the 6 screws of the Electronic Controller (CR).

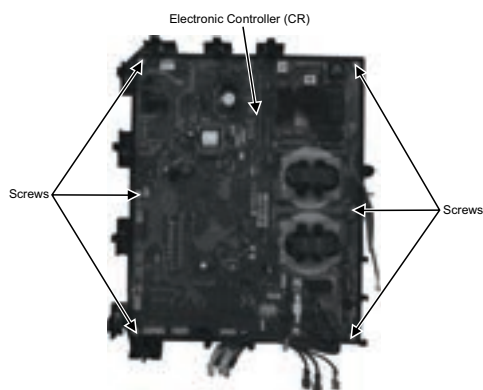


Fig. 3

- 4 Remove the 6 screws of the Control Board casing.

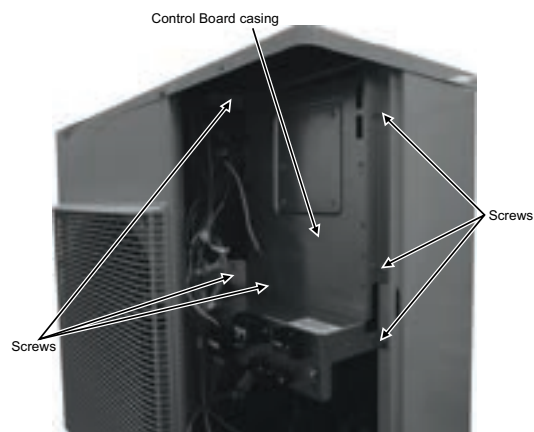


Fig. 4

- 5 Remove the Electronic Controller (HIC).

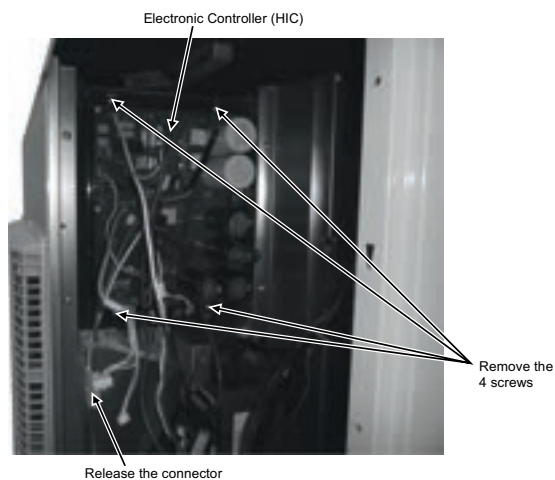


Fig. 5

- 6 Remove the 6 screws of the Electronic Controller (HIC).

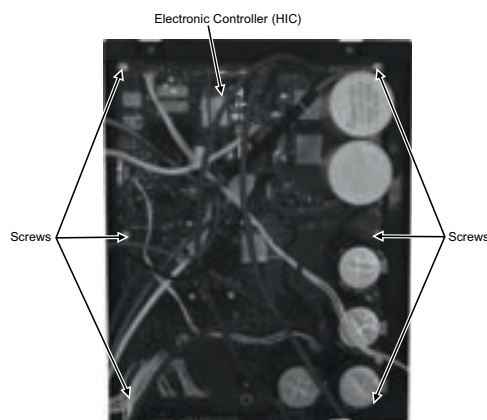


Fig. 6

5.10. Symptom: Thermostat in OFF continues or cycles OFF & ON too frequently

1. How to detect abnormality

- Abnormality does not occur. Protective function can be checked when the outdoor maintenance remote controller is connected.

2. Error Diagnosis

1 Indoor control PC board	1-1	Setting temperature reaches the level set ON thermostat. Setting temperature is too low in heating mode and too high in cooling and dry mode.	Yes	Adjust setting temperature.
			No	1-2
	1-2	Check if the sensors are connected correctly. Are all connection made properly? Room temp. (TA) in yellow, heat exchanger (E1) in red, heat exchanger (E2) in black.	Yes	Connect correctly.
			No	1-3
	1-3	DISP (display mode) is applied.	Yes	Turn OFF(OPEN).
			No	1-4
	1-4	With a thermostat OFF in heating mode, wind speed (item code 05) is out of range 0 - 6. (Use Simple Setting Function on standard timer remote controller.)	Yes	Choose one of 0 to 6.
			No	1-5
	1-5	EXCT(demand control) is applied.	Yes	Turn OFF(OPEN).
			No	2-1
2 Outdoor control PC board	2-1	Outdoor unit and protective function of a system are operating. (Connect outdoor maintenance remote controller to RC socket on outdoor unit main control PC board and check alarm messages.)	Yes	See operational status.
			No	2-2
	2-2	Discharge temperature is over 80°C in stop mode and does not decrease. (Connect outdoor maintenance remote controller to RC socket on outdoor unit main control PC board and check alarm messages.)	Yes	Replace discharge temperature sensor.
			No	2-3
	2-3	Demand value always stays low. (The value is lower than 70. Excluding -1 (unlimited)) (Connect outdoor maintenance remote controller to RC socket on outdoor unit main control PC board and check alarm messages.)	Yes	Increase values (over 70).
			No	2-4
	2-4	DEMAND or EXCT(demand control) is applied.	Yes	Turn OFF(OPEN).
			No	3-1
3 Control equipment	3-1	Demand setting is made by control units (P-AIMS, Seri-Para I/O unit for outdoor unit, Seri-Para I/O each indoor unit.)	Yes	Turn OFF.
			No	4-1
4 System	4-1	When operating in cooling (including auto cooling & heating) and dry mode, lowest temp. of indoor E1 and E2 sensor is less than 2°C (under anti-freeze control).	Yes	Wait until more than 2°C reaches.
			No	4-2
	4-2	During defrosting operation	Yes	Wait for a few minutes to 10 minutes or so.
			No	4-3
	4-3	Outdoor unit PC board failure → Replacement		

- According to the type of models, the indoor sensors will not be supplied in some cases.
- According to the type of models, the outdoor DEMAND or EXCT will not be supplied in some cases.
- When LINE Checker is used, the temperature sensors can be observed (display, record) simultaneously.
- According to some areas, some of the models are unreleased.

6. REMOTE CONTROLLER FUNCTIONS SECTION

- 6-1. Simple Settings Function..... 6-2
- 6-2. List of Simple Setting Items..... 6-4
- 6-3. Detailed Settings Function..... 6-5
- 6-4. List of Detailed Setting Items..... 6-7
- 6-5. Simple Setting Items..... 6-10
- 6-6. Detailed Setting Items 6-12
- 6-7. Remote Controller Servicing Functions 6-15
- 6-8. Test Run Function..... 6-17

6-1. Simple Settings Function

- This allows the filter lifetime, operating mode priority change, central control address, and other settings to be made for an individual or group-control indoor unit to which the remote controller used for simple settings is connected.

When simple settings mode is engaged, operation stops at the individual or group-control indoor unit to which the remote controller for simple settings is connected.

<Procedure of CZ-RTC4 / CZ-RTC4A>

- Press and hold the and buttons simultaneously for 4 seconds or longer.
- "SETTING", unit No. "1-1" (or "ALL" in the case of group control), item code "01," and settings data "00XX" are displayed blinking on the remote controller LCD display (Fig. 7-1). At this time, the indoor unit fan (or all indoor unit fans in the case of group control) begins operating.
- If group control is in effect, press the button and select the address (unit No.) of the indoor unit to set. At this time, the fan at the indoor unit begins operating.
* If unit No. "ALL" is displayed, the same setting will be made for all indoor units.
- Press the temperature setting / buttons to select the item code to change.
- Press the timer time / buttons to select the desired setting data.

* For item codes and setting data, refer to the following page.

- Press the button. (The display stops blinking and remains lit, and setting is completed.)
- Press the button to return to normal remote controller display.

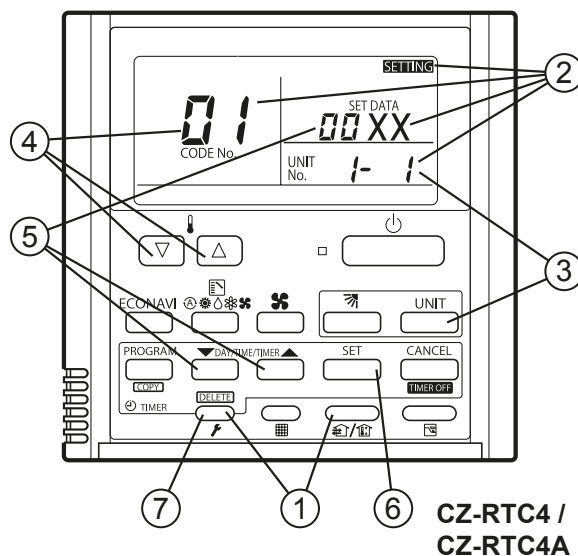


Fig. 6-1

CZ-RTC4 /
CZ-RTC4A

<Procedure of CZ-RTC5B>

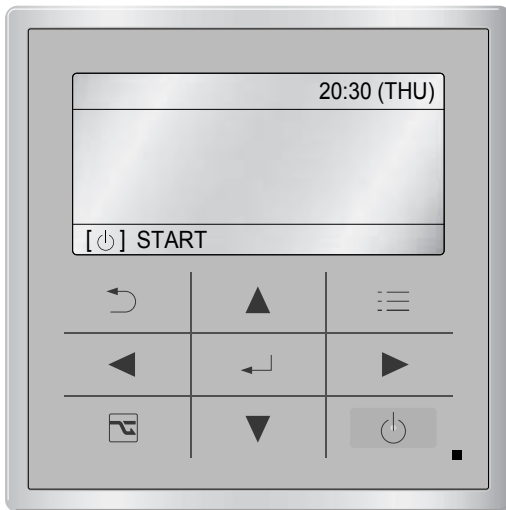


Fig. 6-2

- ① Keep pressing the , and buttons simultaneously for 4 or more seconds. The "Maintenance func" screen appears on the LCD display.

Maintenance func	20:30 (THU)
1. Outdoor unit error data	
2. Service contact	
3. RC setting mode	
4. Test run	
◀ Sel. ▶ Page [↵] Confirm	

- ② Press the or button to see each menu. If you wish to see the next screen instantly, press the or button. Select "7. Simple settings" on the LCD display and press the button.

Maintenance func	20:30 (THU)
5. Sensor info.	
6. Servicing check	
7. Simple settings	
8. Detailed settings	
◀ Sel. ▶ Page [↵] Confirm	

The "Simple settings" screen appears on the LCD display.

Select the "Unit no." by pressing the or button for changes.

Simple settings		20:30 (THU)
Unit no.	Code no.	Set data
1-1	01	0001
◀ Sel. ▶ Next		

- ③ Select the "Code no." by pressing the or button. Change the "Code no." by pressing the or button.

Simple settings		20:30 (THU)
Unit no.	Code no.	Set data
1-1	01	0001
◀ Sel. ▶ Next		

- ④ Select the "Set data" by pressing the or button. Select one of the "Set data" by pressing the or button. Then press the button.

Simple settings		20:30 (THU)
Unit no.	Code no.	Set data
1-1	01	0002
▲ Sel. [↵] Confirm		

- ⑤ Select the "Unit no." by pressing the or button and press the button. The "Exit simple settings and restart?" (Simple setting-end) screen appears on the LCD display. Select "YES" and press the button.

A screenshot of a device's simple settings menu. The background menu is partially visible, showing options like 'Simple settings', 'Unit no.', 'Code no.', and 'Set data'. A white dialog box is overlaid in the center, containing the text 'Exit simple settings and restart?'. At the bottom of the dialog box are two buttons: 'YES' with a right-pointing arrow, and 'NO'.

A screenshot of a device screen showing a confirmation dialog box. The dialog box has a black background with white text that reads "Exit simple settings and restart?". Below the text are two options: "YES" with a right-pointing arrow, and "NO". The background of the screen is partially visible, showing some text like "Simple settings" and "Unit no.".

6-2. List of Simple Setting Items

Item code	Item	Setting data				
		No.	Description			
01	Filter sign ON time (filter life time)	0000	Not displayed			
		0001	150 hours			
		0002	2,500 hours			
		0003	5,000 hours			
		0004	10,000 hours			
		0005	Use the filter clogging sensor.			
02	Degree of filter fouling	0000	Standard (setting at time of shipping)			
		0001	Highly fouled (Filter sign ON time is reduced to one-half the set time.)			
03	Central control address	0001	Central control address 1			
		0002	Central control address 2			
		0003	Central control address 3			
		}	{			
		0064			Central control address 64	
		0099			No central control address set (setting at time of shipping)	
04	Operating mode priority change	0000	Normal (setting at time of shipping)			
		0001	Priority			
05	Fan speed when heating thermostat is OFF		Compressor ON	Compressor OFF		
		0000	Lo 1 min., LL 3 min.	LL		
		0001	Lo	LL		
		0002	LL	LL		
		0004	Lo 1 min., LL 3 min.	Lo		
		0005	Lo	Lo		
		0006	LL	Lo		
06	Heating intake temperature shift	0000	No shift			
		0001	Shifts intake temperature 1 °C down.			
		0002	Shifts intake temperature 2 °C down.			
		0003	Shifts intake temperature 3 °C down.			
		0004	Shifts intake temperature 4 °C down.			
		0005	Shifts intake temperature 5 °C down.			
		0006	Shifts intake temperature 6 °C down.			
07	Electric heater installation	0000	No heater			
		0001	Heater installed			
08	Humidifying when heater thermostat is OFF	0000	No (setting at time of shipping)			
		0001	Yes			
0d	Permit/prohibit automatic heating/cooling	0000	Permit			
		0001	Prohibit			
0F	Cool-only	0000	Normal			
		0001	Cool only (Set “1” for item code OD.)			

NOTE









- In order to avoid water leakage and damage to the fan, do not set for humidifying when the thermostat is OFF unless a vaporizing humidifier is used.
- Consider the device purpose and type when changing the settings. Incorrect settings may result in malfunction.
- Do not change any setting data that does not appear in this list.

6-3. Detailed Settings Function



- This allows the system address, indoor unit address, and other settings to be made for the individual or group-control indoor unit to which the remote controller used for detailed settings is connected.

When detailed settings mode is engaged, operation stops at the individual or group-control indoor unit where the remote controller used for detailed settings is connected. Simple settings items can also be set at this time.

<Procedure of CZ-RTC4 / CZ-RTC4A>

- Press and hold the ,  and  buttons simultaneously for 4 seconds or longer.
- "SETTING", unit No. "1-1" (or "ALL" in the case of group control), item code "10", and settings data "00XX" are displayed blinking on the remote controller LCD display (Fig. 7-3). At this time, the indoor unit fan (or all indoor unit fans in the case of group control) begins operating.
- If group control is in effect, press the  button and select the address (unit No.) of the indoor unit to set. At this time, the fan at the indoor unit begins operating.
- Press the temperature setting  /  buttons to select the item code to change.
- Press the timer time  /  buttons to select the desired setting data.

*For item codes and setting data, refer to the following page.

- Press the  button. (The display stops blinking and remains lit, and setting is completed.)
- Press the  button to return to normal remote controller display.

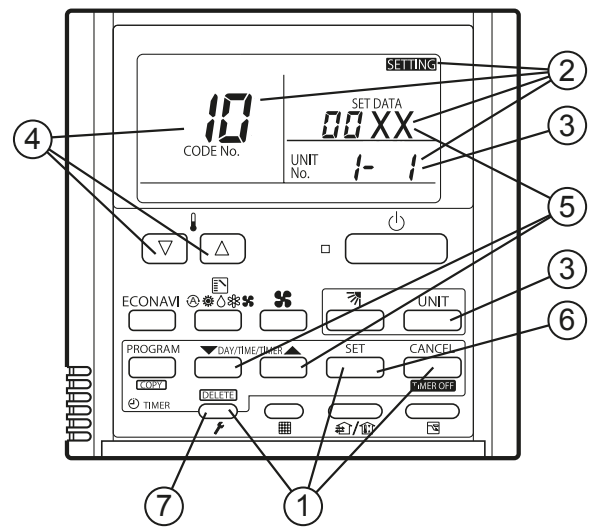


Fig. 6-3

<Procedure of CZ-RTC5B>

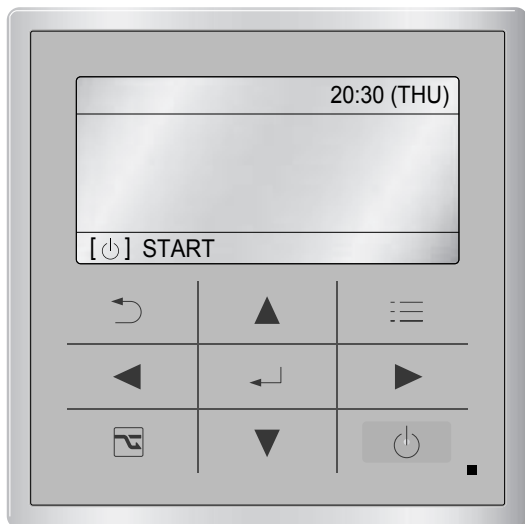


Fig. 6-4

- ① Keep pressing the , and buttons simultaneously for 4 or more seconds. The “Maintenance func” screen appears on the LCD display.

Maintenance func	20:30 (THU)
1. Outdoor unit error data	
2. Service contact	
3. RC setting mode	
4. Test run	
◀ Sel. ▶ Page [↵] Confirm	

- ② Press the or button to see each menu. If you wish to see the next screen instantly, press the or button. Select “8. Detailed settings” on the LCD display and press the button.

Maintenance func	20:30 (THU)
5. Sensor info.	
6. Servicing check	
7. Simple settings	
8. Detailed settings	
◀ Sel. ▶ Page [↵] Confirm	

The “Detailed settings” screen appears on the LCD display.

Select the “Unit no.” by pressing the or button for changes.

Detailed settings		20:30 (THU)
Unit no.	Code no.	Set data
1-1	10	0001
Sel. Next		

- ③ Select the “Code no.” by pressing the or button. Change the “Code no.” by pressing the or button (or keeping it pressed).

Detailed settings		20:30 (THU)
Unit no.	Code no.	Set data
1-1	10	0006
◀ Sel. ▶ Next		

- ④ Select the “Set data” by pressing the or button. Select one of the “Set data” by pressing the or button. Then press the button.

Detailed settings		20:30 (THU)
Unit no.	Code no.	Set data
1-1	10	0006
▲ Sel. [←] Confirm		

- ⑤ Select the “Unit no.” by pressing the or button and press the button. The “Exit detailed settings and restart?” (Detailed setting-end) screen appears on the LCD display. Select “YES” and press the button.

Exit detailed settings
and restart?

YES ▶

NO

Exit detailed settings and restart?
YES ▶ NO

6-4. List of Detailed Setting Items

Item code	Item	Setting data									
		No.	Description	No.	Description	No.	Description				
10	Type	0000	_____	0001	_____	0002	_____				
		0003	_____	0005	_____	0006	High Static Pressure Duct S-160PE3R High Static Pressure Ducted S-180, 200, 224PE4R				
		0007	_____	0008	_____	0010	_____				
		0011	_____		_____		_____				
11	Indoor unit capacity	0001	_____	0003	_____	0005	_____				
		0007	_____	0009	_____	0011	_____				
		0012	_____	0015	_____	0017	_____				
		0019	180 (Type 160)	0020	200 (Type 180)	0021	224 (Type 200)				
		0022	250 (Type 224)		_____		_____				
12	System address	0001	Unit No. 1								
		0002	Unit No. 2								
		0003	Unit No. 3								
		}	{								
		0030						Unit No. 30			
		0099	Not set								
13	Indoor unit address	0001	Unit No. 1								
		0002	Unit No. 2								
		0003	Unit No. 3								
		}	{								
		0064						Unit No. 64			
		0099	Not set								
14	Group control address	0000	Individual (1:1 = Indoor unit with no group wiring)								
		0001	Main unit (One of the group-control indoor units)								
		0002	Sub unit (All group-control indoor units except for main unit)								
		0099	Not set								
17	Cooling intake temperature shift	-010	Shifts intake temperature 10°C down.								
		-009	Shifts intake temperature 9°C down.								
		}	{								
		-001						Shifts intake temperature 1°C down.			
		0000	No intake temperature shift								
		0001	Shifts intake temperature 1°C up.								
		}	{								
		0009						Shifts intake temperature 9°C up.			
0010	Shifts intake temperature 10°C up.										
18	Automatic stop time after operation start	0000	Function disabled								
		0001	Stops automatically 5 minutes after operation starts.								
		0002	Stops automatically 10 minutes after operation starts.								
		}	{								
	0123	Stops automatically 615 minutes after operation starts.									
	0124	Stops automatically 620 minutes after operation starts.									
	* Can be set in 5-minute units.	0125	Stops automatically 625 minutes after operation starts.								

Item code	Item		Setting data		
			No.	Description	
1b (1B)	Forced thermostat ON		0000	5 minutes	
			0001	4 minutes	
1c	Cooling discharge temperature shift		–010	–10°C	
			–009	–9°C	
			–008	–8°C	
			}	}	
			0010	10°C	
1d	Heating discharge temperature shift		–010	–10°C	
			–009	–9°C	
			–008	–8°C	
			}	}	
			0010	10°C	
1e	Temperature shift for cooling/heating change in auto heat/cool mode		0001	± 1°C	
			0002	± 2°C	
			0003	± 3°C	
			}	}	
			0007	± 7°C	
1f (Upper limit) 20 (Lower limit)	Change to remote control temperature setting range	Cooling	0018	18°C (Lower limit at shipment)	
			0019	19°C	
			}	}	
			0029	29°C	
			0030	30°C (Upper limit at shipment)	
		Heating	0016	16°C (Lower limit at shipment)	
			0017	17°C	
			}	}	
			0029	29°C	
0030			30°C (Upper limit at shipment)		
Drying		0018	18°C (Lower limit at shipment)		
		0019	19°C		
		}	}		
		0029	29°C		
		0030	30°C (Upper limit at shipment)		
Auto heat/cool		0017	17°C (Lower limit at shipment)		
		0018	18°C		
		}	}		
		0026	26°C		
		0027	27°C (Upper limit at shipment)		
29		Humidifier operation		0000	Normal
				0001	Ignore heat exchanger temperature conditions.
2A		Filter (CN70) input switching		0000	Filter input (differential pressure switch input)
				0001	Alarm input (for trouble input about air cleaner or similar device)
				0002	Humidifier input (Operates linked with drain pump when humidifier is ON.)
2c		Indoor unit electronic control valve		0000	None
	0002			Present (Setting at shipment)	
2E	T10 terminal switching		0000	Normal (Used as optional relay PCB or JEMA standard HA terminal.)	
			0001	Used for OFF reminder	
			0002	Fire prevention input	

Item code	Item	Setting data			
		No.	Description		
31	Ventilation fan operation	0000	None		
		0001	Ventilation fan operated by remote controller.		
32	Wired remote controller sensor	0000	Not used. (Body sensor is used.)		
		0001	Remote controller sensor is used.		
34	“Operation change control in progress” display	0000	Normal (displayed)		
		0001	Not displayed		
35	OFF reminder function for when weekly timer is used	0000	None		
		0001	Only stop time setting is enabled.		
3C	Heat exchanger temperature for cold air discharge (Heat exchanger control point for control to prevent cold air)	0013	Control temperature 13°C		
		0014	Control temperature 14°C		
		}	{		
		0025	Control temperature 25°C		
		0026	Control temperature 26°C		
3d	Fan output switching	0000	Output linked with fan. (ON when indoor unit fan is operating.)		
		0001	Fan mode operation output		
5d	Fan tap setting (External static pressure of the rated air flow volume)	0001	Type 180: 60Pa	Type 200: 75Pa	Type 224: 75Pa
			(Setting at shipment)		
		0002	Type 180: 100Pa	Type 200: 120Pa	Type 224: 130Pa
5F	Repeat timer switching	0000	Function disabled		
		0001	Function enabled		
60	Timer function change prohibit	0000	Function disabled		
		0001	Function enabled		

NOTE

- Consider the device purpose and type when changing the settings. Incorrect settings may result in malfunction.
- Do not change any setting data that does not appear in this list.

6-5. Simple Setting Items

Item code	Item	Description
01	Filter sign ON time setting (filter lifetime)	Changes the indoor unit filter lifetime when a high-performance filter or other optional product is installed.
02	Degree of filter fouling	Reduces the filter sign ON time to 1/2 of the standard time (setting at the time of shipping) for cases when filter fouling is more severe than normal.

Filter sign ON times for each model

Model data	Model	Filter sign ON time			
		Standard		Long-life	
		Standard	High fouling	Standard	High fouling
0006	High Static Pressure Duct S-160PE3R High Static Pressure Ducted S-180, 200, 224PE4R	×	×	×	×

NOTE

- × indicates that there is no corresponding filter.

Item code	Item	Description
03	Central control address	Set when using a central control device. Used when setting the central control address manually from the remote controller.

When the operating mode at the priority remote controller is changed, the operating modes of other remote controllers change as shown below.

Mode change at priority remote controller		Operating modes at other remote controllers	
Current mode	New mode	Current mode	New mode
Cooling or dry	Heating	Cooling or dry	Heating
		Fan	Fan (not changed)
Heating	Cooling	Heating	Cooling
		Fan	Fan (not changed)
Cooling	Dry	Cooling	Cooling (not changed)
		Dry	Dry (not changed)
Heating	Dry	Heating	Cooling
		Fan	Fan (not changed)
Cooling or dry	Fan	Cooling	Cooling (not changed)
		Dry	Dry (not changed)
		Fan	Fan (not changed)
Heating	Fan	Heating	Heating (not changed)
		Fan	Fan (not changed)

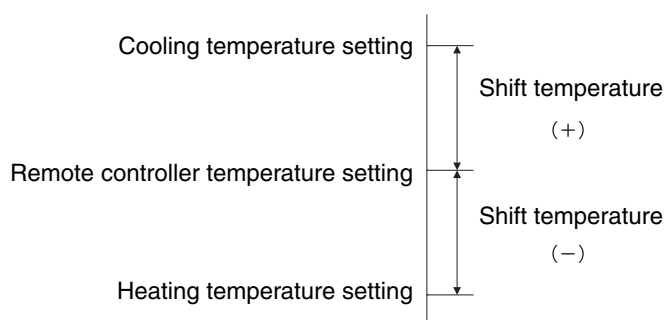
Item code	Item	Description
05	Fan speed setting when heating thermostat is OFF	Changes the fan speed setting when the heating thermostat is OFF.
06	Heating intake temperature shift	Shifts the intake temperature during heating. Can be set when the body thermostat is used.
07	Electric heater installation	Set when cost distribution is performed using an AMY central control system or similar system, and when an optional electric heater is installed. (This is unrelated to control of the electric heater.)
08	Humidifying when heater thermostat is OFF	Normally humidifying does not occur when the thermostat is OFF during heating operation. However, this setting can be changed in order to increase the amount of humidifying. Caution: In order to avoid water leakage and damage to the fan, do not use this setting unless a vaporizing humidifier is used.
0D	Permit/prohibit automatic heating/cooling	This setting can be used to prevent the automatic heating/cooling display on the remote controller if the unit configuration permits automatic heating/cooling operation.
0F	Cooling-only	This setting allows a heat pump indoor unit to be operated as a cooling-only unit.

NOTE

- In order to avoid water leakage and damage to the fan, do not set for humidifying when the thermostat is OFF unless a vaporizing humidifier is used.
- Consider the device purpose and type when changing the settings. Incorrect settings may result in malfunction.
- Do not change any setting data that does not appear in this list.

6-6. Detailed Setting Items

Item code	Item	Description
10	Unit type	Set when the indoor unit EEPROM memory is replaced during servicing.
11	Indoor unit capacity	
12	System (outdoor unit) address	These are not set at the time of shipping from the factory. These must be set after installation if automatic address setting is not performed.
13	Indoor unit address	
14	Group address	
17	Cooling intake temperature shift	Shifts the intake temperature during cooling and dry operation. (Enabled only when the body thermostat is used.) Increase this value when it is difficult to turn the thermostat ON.
18	Automatic stop time after operation start	The time at which an indoor unit is automatically stopped after operation starts can be set in increments of 5 minutes.
1b	Forced thermostat ON time	Use this setting to change the time for forced operation at installation or servicing from 5 minutes to 4 minutes.
1E	Temperature shift for cooling / heating change in "auto heat / cool" mode	"Auto heat / cool" selects the operating mode automatically based on the difference between the room temperature and the temperature set on the remote controller. This setting establishes a shift temperature for the heating / cooling temperature setting relative to the remote controller temperature setting.



Item code	Item		Description
1F (Upper limit) 20 (Lower limit)	Change to the remote control temperature setting range	Cooling	This setting changes the temperature range (upper limit and lower limit) which is set from the remote controller or central control device. The set upper limit must be greater than or equal to the lower limit. If the temperature setting is to be a single point, set the upper limit and lower limit to the same temperature.
21 (Upper limit) 22 (Lower limit)		Heating	
23 (Upper limit) 24 (Lower limit)		Drying	
25 (Upper limit) 26 (Lower limit)		Auto heat/cool	
2A		Filter input switching	This setting switches the filter input according to the purpose of use.
2C	Indoor unit electronic control valve		This setting indicates whether or not an indoor unit electronic control valve is present. At the time of shipping, this setting is set according to the conditions of the indoor unit.
2E	T10 terminal input switching		Ordinarily, the T10 terminal is used as the HA terminal at the time of shipping. However, this setting is used when the T10 terminal is used for OFF reminder or for fire prevention input.
31	Ventilation fan operation from remote controller		It is possible to install a ventilation fan in the system, which can be started and stopped by the wired remote controller. The ventilation fan can operate linked with the start and stop of the indoor unit, or can be operated even when the indoor unit is stopped. Use a ventilation fan that can accept the no-voltage A contact as the external input signal. In the case of group control, the fans are operated together. They cannot be operated individually.
32	Switching to remote controller sensor		This setting is used to switch from the body sensor to the remote controller sensor. Check that "remote controller sensor" is displayed. Do not use this setting with models that do not include a remote controller sensor. Do not use this setting if both the body sensor and remote sensor are used.
34	ON/OFF of "Operation change control in progress" display		In a MULTI system with multiple remote controllers, switching between heating and cooling is restricted, and "Operation change control in progress" is displayed. This setting is used to prevent this display from appearing. Refer to the item concerned with operating mode priorities.
35	OFF reminder function for weekly timer		This setting switches the operation when the weekly timer is connected to the remote controller. This can be used to prevent cases in which the unit is accidentally left ON. There is no change when this setting is ON, however, it is necessary to set the weekly timer ON time.

(Continued)

(Continued from previous page)

Item code	Item	Description
3C	Heat exchanger temperature for cold air discharge	The heat exchanger temperature control point for prevention of cold air discharge during heating operation can be changed.
3d	Fan output switching	The indoor unit PCB optional output for the fan can be switched according to the purpose of use.
5d	DC fan tap setting	Sets the DC fan tap according to the purpose of use. Change the settings data at the same time.
5F	Stop at time set for OFF timer after operation starts	This setting enables a function that stops operation when the amount of time set for the OFF timer has passed after remote controller operation was started.
60	Timer function change prohibit	This function prohibits changes from being made to the remote controller time setting.

NOTE

- Consider the device purpose and type when changing the settings. Incorrect settings may result in malfunction.
- Do not change any setting data that does not appear in this list.

6-7. Remote Controller Servicing Functions

- The remote controller includes a number of servicing functions. Use these as needed for test runs and inspections.

<Procedure of CZ-RTC4 / CZ-RTC4A>

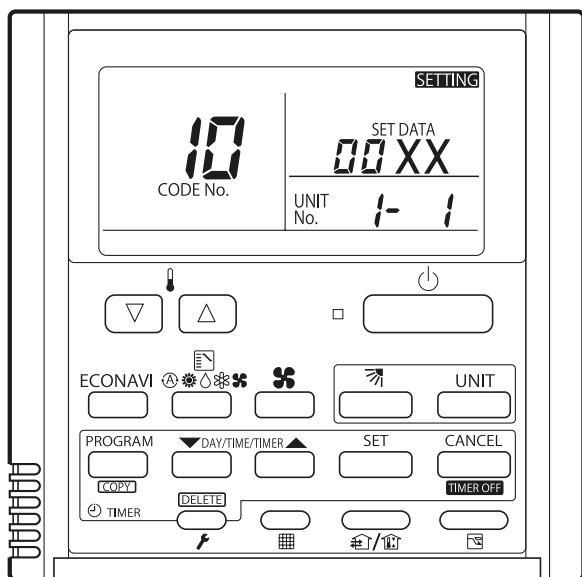









Fig. 6-5

List of Servicing Functions

Functions	Description	Button operation	Reset operation	Unit status
Test run	Operation with forced thermostat ON	Press and hold the button for 4 seconds or longer.	Press the button.	Current operation is maintained.
Sensor temperature display	Temperature display from each sensor	Press and hold the and buttons for 4 seconds or longer.		
Servicing check display	Alarm history display	Press and hold the and buttons for 4 seconds or longer.		
Simple settings	Filter lifetime, operating mode priority, central control address, and other settings	Press and hold the and buttons for 4 seconds or longer.		
Detailed settings	System address, indoor unit address, central control address, and other settings	Press and hold the , and buttons for 4 seconds or longer.	Automatic reset	Entire system stops.
Automatic address	Automatic address setting based on command from the wired remote controller	Press and hold the and the timer operation buttons for 4 seconds or longer.		
Address change	Change of indoor unit address	Press and hold the and the timer operation buttons for 4 seconds or longer.	Press the button.	

<Procedure of CZ-RTC5B>

Display of "maintenance function" screen

- ① Keep pressing the ,  and  buttons simultaneously for 4 or more seconds.
The "Maintenance func" screen appears on the LCD display.
- ② Press the  or  button to see each menu.
If you wish to see the next screen instantly, press the  or  button.

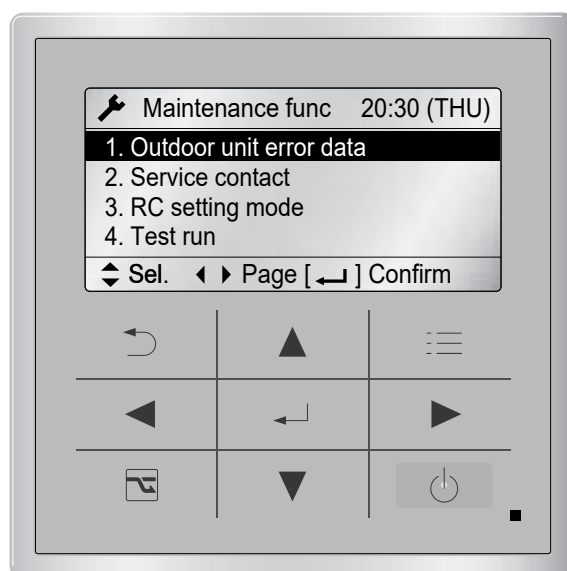








Fig. 6-6

 Maintenance func 20:30 (THU) 0. ECONAVI info. 1. Outdoor unit error data 2. Service contact 3. RC setting mode ▼ Sel. ▶ Page [Left Arrow] Confirm	 Maintenance func 20:30 (THU) 4. Test run 5. Sensor info. 6. Servicing check 7. Simple settings ◆ Sel. ◀ ▶ Page [Left Arrow] Confirm	 Maintenance func 20:30 (THU) 8. Detailed settings 9. Auto address 10. Set elec. consumption 11. Set touch key ◆ Sel. ◀ ▶ Page [Left Arrow] Confirm	 Maintenance func 20:30 (THU) 12. Check touch key 13. nanoe X 14. Initialize controller 15. datanavi ◆ Sel. ◀ ▶ Page [Left Arrow] Confirm
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Maintenance function screen



List of Servicing Functions

Functions	Description	Menu selection	Reset operation	Unit status
ECONAVI • CZ-CENSC1	Display from each sensor	0. ECONAVI info.	Press the  button.	
Test run	Operation with forced thermostat ON	4. Test run		
Sensor temperature display	Temperature display from each sensor	5. Sensor info.		
Servicing check display	Alarm history display	6. Servicing check		
Simple settings	Filter lifetime, operating mode priority, central control address, and other settings	7. Simple settings	Press the  button. (Restart)	When settings are made from a remote controller, the indoor unit where that remote controller is connected stops.
Detailed settings	System address, indoor unit address, central control address, and other settings	8. Detailed settings		
Automatic address	Automatic address setting based on command from the wired remote controller	9. Auto address	Automatic reset	Entire system stops.

6-8. Test Run Function


Operates the unit with the thermostat forced ON.

<Procedure of CZ-RTC4 / CZ-RTC4A>

- (1) Press and hold the  button for 4 seconds or longer.
- (2) "TEST" appears on the remote controller LCD display (Fig. 7-7).
- (3) Press the  button to start the test run.

- The temperature cannot be adjusted in Test Run mode.
(This mode places a heavy load on the machines.
Therefore use it only when performing the test run.)
- The test run can be performed using the HEAT, COOL,
or FAN operation modes.

NOTE The outdoor units will not operate for approximately 3 minutes after the power is turned ON and after operation is stopped.

- If correct operation is not possible, an error code is displayed on the remote controller LCD display.
- (4) Press the  button to return to normal remote controller display.
 - To prevent continuous test runs, this remote controller includes a timer function that cancels the test run after 60 minutes.
 - The operation is possible even if the cassette-type ceiling panel has not been installed.
("P09" display does not occur.)

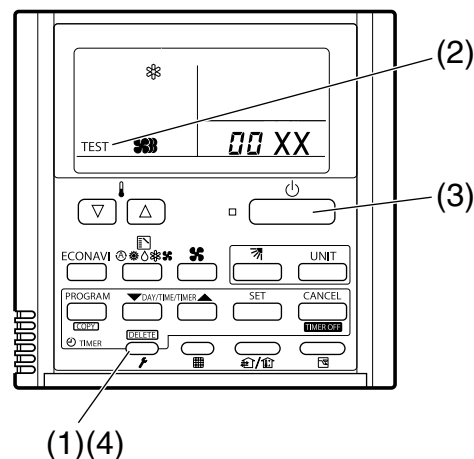



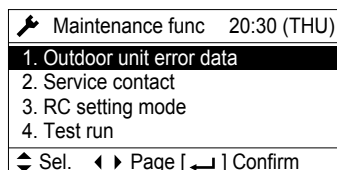







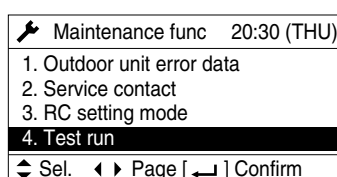
Fig. 6-7




<Procedure of CZ-RTC5B>

- ① Keep pressing the ,  and  buttons simultaneously for 4 or more seconds. The "Maintenance func" screen appears on the LCD display.



- ② Press the  or  button to see each menu. If you wish to see the next screen instantly, press the  or  button. Select "4. Test run" on the LCD display and press the  button.



Change the display from OFF to ON by pressing the  or  button. Then press the  button.

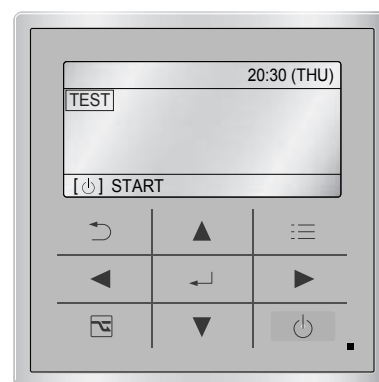
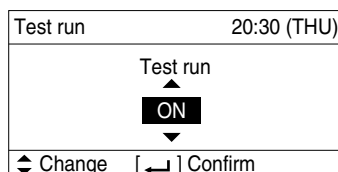

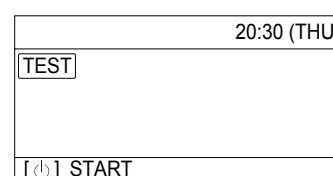

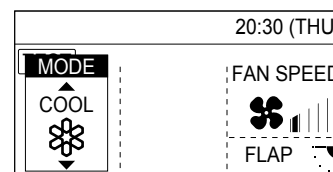


Fig. 6-8

- ③ Press the  button. "TEST" will be displayed on the LCD display.



- ④ Press the  button. Test run will be started. Test run setting mode screen appears on the LCD display.



- ⑤ Finish the test operation. Perform step 1 and 2, and then select [OFF] in step 3. ([TEST] display disappears.)
- The test operation can be performed in Heat or Cool mode.
 - Temperature cannot be changed.
 - The test operation mode is automatically turned off in 60 minutes. (To prevent continuous test operation)
 - Outdoor units do not operate for approx. 3 minutes after the power is turned on or operation is stopped.







Attention

- Do not use this mode for purposes other than the test operation. (To prevent overload of the units)
- Read the installation instructions supplied with the units.

■ Sensor Temperature Display Function (displayed regardless of whether unit is operating or stopped)

The procedure below displays the sensor temperatures from the remote controller, indoor unit, and outdoor unit on the remote controller.

<Procedure of CZ-RTC4 / CZ-RTC4A>

- ① Press and hold the  and  buttons simultaneously for 4 seconds or longer.
- ② The unit No. "X-X" (main unit No.), item code "XX" (sensor address), and servicing monitor "00 YY" (sensor temperature) are displayed on the remote controller LCD display. (See Fig. 7-9 at right.)
- ③ Press the temperature setting  /  buttons and select the item code to the address of the sensor to monitor.
- ④ If group control is in effect, press the  button to select the unit to monitor.
Press the temperature setting buttons to select the item code to change.
- ⑤ Press the  button to return to normal remote controller display.

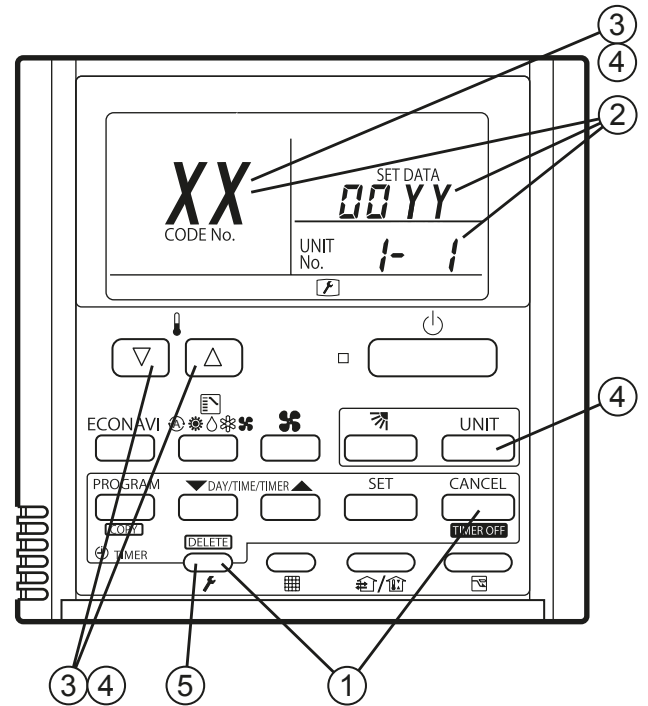





Fig. 6-9






	Item code	Meaning of Code
Indoor unit data	02	Indoor unit intake temp.
	03	Indoor unit heat exchanger temp. (E1)
	04	Indoor unit heat exchanger temp. (E2)
	05	—
	06	—
	07	—
	08	—
	09	—
	0A	Discharge temp. (TD)
Outdoor unit data	0b	—
	0C	—
	0d	Intake temp. (TS)
	0E	Outdoor unit heat exchanger temp. (C1)
	0F	Outdoor unit heat exchanger temp. (C2)
	10	—
	11	Outdoor air temp. (TO)
	12	—
	13	Current value (CTL2)
	14	Current value (CTL1)
	15	Outdoor MV value (MOV1)
	16	—
	19	Frequency

* Depending on the model, some items may not be displayed.



<Procedure of CZ-RTC5B>

- ① Keep pressing the  ,  and  buttons simultaneously for 4 or more seconds. The “Maintenance func” screen appears on the LCD display.

Maintenance func		20:30 (THU)
1. Outdoor unit error data		
2. Service contact		
3. RC setting mode		
4. Test run		
Sel. ◀ ▶ Page [↵] Confirm		

- ② Press the  or  button to see each menu.
- If you wish to see the next screen instantly, press the  or  button.
- Select “5. Sensor info.” on the LCD display and press the  button.

Maintenance func		20:30 (THU)
5. Sensor info.		
6. Servicing check		
7. Simple settings		
8. Detailed settings		
Sel. ◀ ▶ Page [↵] Confirm		

Select the “Unit no.” by pressing the  or  button for changes.

Sensor info.		20:30 (THU)
Unit no.	Code no.	Data
▲	00	0026
1-1	01	0028
▼	02	0026
Sel. ▶ Next		

Then press the  button.

Display sensor information of the unit.

Sensor info.		20:30 (THU)
Unit no.	Code no.	Data
1-1	00	0026
	01	0028
	02	0026
Scroll		











Refer the information by pressing the  or  button.





Fig. 6-10

■ Automatic address setting






<Procedure of CZ-RTC5B>

- ① Keep pressing the ,  and  buttons simultaneously for 4 or more seconds.
The "Maintenance func" screen appears on the LCD display.
- ② Press the  or  button to see each menu.
If you wish to see the next screen instantly, press the  or  button.
Select "9. Auto address" on the LCD display and press the  button.

Maintenance func	20:30 (THU)
9. Auto address	
10. Set elec. consumption	
11. Set touch key	
12. Check touch key	
◆ Sel. ◀ ▶ Page [↩] Confirm	

- ③ The "Auto address" screen appears on the LCD display.
Change the "Code no." to "A1" by pressing the  or  button.

Auto address	20:30 (THU)
Code no.	O/D unit no.
A1	1
◆ Sel. ▶ Next	

- ④ Select the "O/D unit no." by pressing the  or  button.
Select one of the "O/D unit no." for automatic address by pressing the  or  button.
Then press the  button.
Approximately about 10 minutes are required.
When automatic address setting is completed, the units return to normal stopped status.

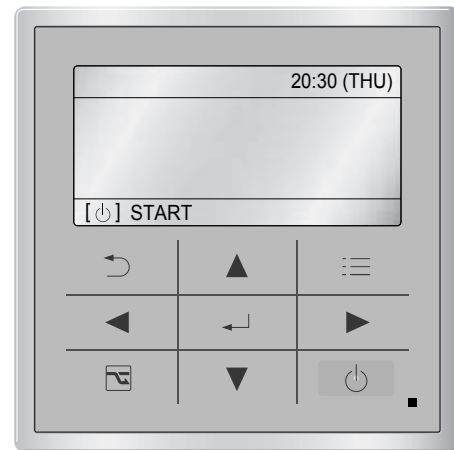










Fig. 6-11

■ Checking indoor unit addresses



- ① Keep pressing the ,  and  buttons simultaneously for 4 or more seconds.
The "Maintenance func" screen appears on the LCD display.

Maintenance func	20:30 (THU)
1. Outdoor unit error data	
2. Service contact	
3. RC setting mode	
4. Test run	
◆ Sel. ◀ ▶ Page [↩] Confirm	

- ② Press the  or  button to see each menu.
If you wish to see the next screen instantly, press the  or  button.
Select "7. Simple settings" on the LCD display and press the  button.

Maintenance func	20:30 (THU)
5. Sensor info.	
6. Servicing check	
7. Simple settings	
8. Detailed settings	
◆ Sel. ◀ ▶ Page [↩] Confirm	

The "Simple settings" screen appears on the LCD display.

Select the "Unit no." by pressing the  or  button for changes.





Simple settings		20:30 (THU)
Unit no.	Code no.	Set data
1-1	01	0001
▲ Sel ▶ Next		



The indoor unit fan operates only at the selected indoor unit.

■ Check of ECONAVI Operational Status


The status of ECONAVI operation can be checked instantly.
It is available to check the operation when installing the indoor unit.


<Procedure of CZ-RTC5B>

- ① Keep pressing the ,  and  buttons simultaneously for 4 or more seconds.
The "Maintenance func" screen appears on the LCD display.
- ② Select "0. ECONAVI info." on the LCD display and press the  button.

	Maintenance func	20:30 (THU)
	0. ECONAVI info.	
	1. Outdoor unit error data	
	2. Service contact	
	3. RC setting mode	
▼ Sel.	▶ Page [] Confirm	


- ③ Press the  or  button to see each menu.

Select "Status info." on the LCD display and press the  button.

ECONAVI info.	20:30 (THU)
Setting info.	
Sensor unit info.	
System settings	
Status info.	
◆ Sel. [] Check	


- ④ There are four patterns of operational status display as shown below.

(1) Under normal operation

Status info.	20:30 (THU)
ECONAVI Status	ON Normal
[] Close	

State of no energy-saving operation

(2) Under temperature shift

Status info.	20:30 (THU)
ECONAVI Status	ON Shift
[] Close	

State of energy-saving
(temperature shift) operation

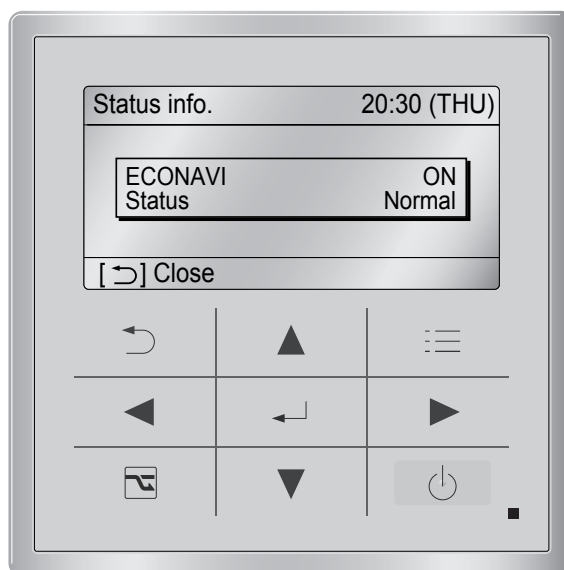



Fig. 6-12

(3) Under suspension with absentee


Status info.	20:30 (THU)
ECONAVI Status	ON Vacant
[] Close	

State of energy-saving (suspended)
operation

*Shows that air conditioner operation was suspended because no person was detected for a certain period.

This state remains until operation is restarted.

(4) Under sensor communication error

Status info.	20:30 (THU)
ECONAVI Status	ON Error
[] Close	

Shows that the connected
ECONAVI sensor is in error state.


<Procedure of CZ-RTC6 series>


Setting


Preparation: Turn on the circuit breaker of units and then turn the power on. The remote controller starts, and wait until the [Assigning] display disappears.
(If [Assigning] continues to blink for 10 minutes or more, check the address setting of indoor units. Refer to indoor/outdoor unit installation details.)




Menu

Language

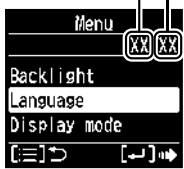
1 ■ When stopped
Press .





■ When operating
Press  repeatedly until the menu screen is displayed.

• To return to the top screen, press .

2 Select [Language].
Press   → .

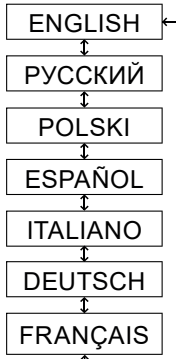

Total number of items
Number for the selected item



3 Select the language to display from among 7 languages shown on the right.
Press   →  → .

(Press to finish.)
• Default setting : ENGLISH




Language

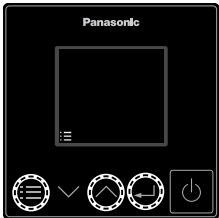





Maintenance func

■ RC. setting mode ■ Auto address ■ Detailed settings ■ Sensor info. ■ Service check


Check this item as necessary.
Steps 1 and 2 are common operations for each item.

1 Press and hold the 3 buttons simultaneously, for at least 4 seconds.
Press , , .







2 Select the item to set.
Press   → .

Total number of items
Number for the selected item

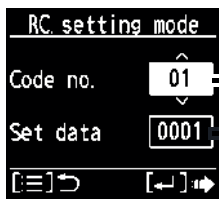


RC. setting mode

3 Set.
(Select the Code no. and Set data.)
Press   → . (Repeat)

4 Press .
• After Selecting [YES], the unit restarts.

RC. setting mode



Code no. 01 → Code no.
Set data 0001 → Set data

Code no.		Set data	
01	Main/sub	Set this when using 2 remote controllers.	• 0000: Sub • 0001: Main (factory setting)
2F	Password change	Set the administrator password.	• 0000 to 9999 • 0000 (factory setting)

Auto address

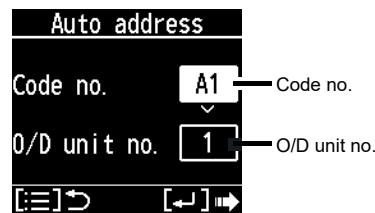
3 Set.

(Select the Code no. [A1] and O/D unit no.)

Press → . (Repeat)

4 Press .

- After Selecting [YES], the unit restarts.



Code no.

O/D unit no.

A1	Set the Auto address for each O/D unit no. Select the O/D unit no. (outdoor unit) for Auto address.	• Outdoor unit number
----	--	-----------------------

Attention

- Set Auto address after all units are turned on and 90 seconds or more have passed.
- Operate the units after Auto address is set and 90 seconds or more have passed.

Detailed settings

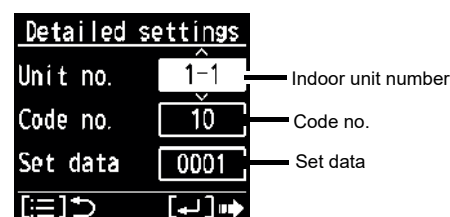
3 Set.

(Select the indoor unit number, Code no. and Set data.)
(When selecting Code no., refer to the following table.)

Press → . (Repeat)

4 Press .

- After Selecting [YES], the unit restarts.



Code no.

Set data

31	Vent output setting	Set this when connecting a commercially sold fan, etc. to the ventilation fan output "FAN DRIVE:2P (White)" on the indoor control board. *Dedicated cables (optional) are required.	• 0000: Not connected • 0001: Connected
32	Temp sensor setting	Set this when measuring the room temperature with the room temperature sensor of the remote controller. • When using the main and sub remote controllers, the main one is enabled. • When using with the remote sensor in combination, set the indoor unit setting data. * This setting is not available during group-controlling.	• 0000: Indoor unit • 0001: Remote controller
33	Temp display setting	Set the type of temperature display.	• 0000: °C • 0001: °F

* Depending on the type of indoor unit, Code no. may be displayed with 6 digits. In this case, read as follows.
e.g. 10 → 000010

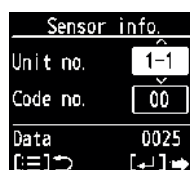
Sensor info.

This displays each sensor temperature of the remote controller, indoor units and outdoor units.

3 Select.

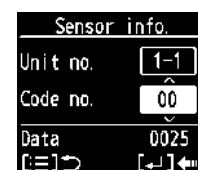
(Select the unit number and Code no.)

Press → . (Repeat)



4 Confirm the content.

- press .
- Pressing will return to the Maintenance func screen.



Service check

This displays the alarm history.

3 Confirm the content.




Press .

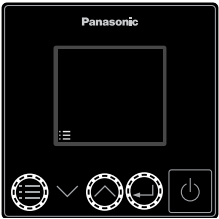
Information of the last 4 errors is displayed.
[-] shows that no error has occurred.

- Pressing will return to the Maintenance func screen.
- To delete the error history, press and select [YES].

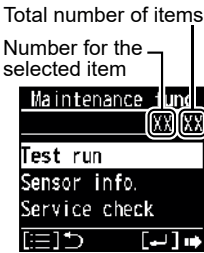
Service check		
	Unit no.	Alarm
1	1-1	E04
2	1-1	F10
3	1-2	P01
[-] [-] [-] [-] Delete		




Test run

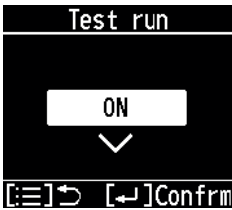
- Press and hold the 3 buttons simultaneously, for at least 4 seconds.**
 Press  ,  ,  .



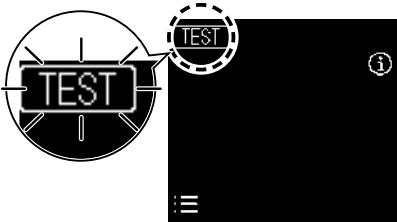
- Select [Test run].**
 Press   →  .




- Select [ON].**
 (The unit enters the test operation mode. Then, [TEST] turns on.)
 Press   →  .



Press  .



- Perform the test operation.**
 Press  .



- Finish the test operation.**
 Perform step 1 and 2, and then select [OFF] in step 3. ([TEST] display disappears.)
 - The test operation can be performed in Heat or Cool mode.
 - Temperature cannot be changed.
 - The test operation mode is automatically turned off in 60 minutes. (To prevent continuous test operation)
 - Outdoor units do not operate for approx. 3 minutes after the power is turned on or operation is stopped.

Attention

- Do not use this mode for purposes other than the test operation. (To prevent overload of the units)
- Read the Installation Instructions supplied with the units.

Specifications

Model No.	CZ-RTC6 Series
Dimensions	(H) 86 mm × (W) 86 mm × (D) 25 mm
Weight	0.09 kg
Temperature/Humidity range	0 °C to 40 °C / 20 % to 80 % (no condensation)*Indoor use only.
Power Source	DC16 V (supplied from indoor unit)
Number of connected indoor units	Indoor unit: Up to 8 units (Within group-controlling)

7. HOW TO INSTALL THE WIRELESS (INFRARED) REMOTE CONTROLLER RECEIVER

7-1. Important Safety Instructions	7-1
7-2. Wireless (Infrared) Remote Controller CZ-RWS3	7-2-1-1
7-2-1. Operating Instructions	7-2-1-1
7-2-1-1. Names and Operations	7-2-1-1
7-2-1-2. Installing Batteries	7-2-1-3
7-2-1-3. Setting the Current Time	7-2-1-3
7-2-1-4. Operation	7-2-1-4
7-2-1-5. Timer Operation	7-2-1-5
7-2-1-6. Lock Individual Flap	7-2-1-6
7-2-1-7. Operating Multiple In / Outdoor Units Simultaneously (Group Control)	7-2-1-6
7-2-1-8. Using the Remote Controller	7-2-1-7
7-2-1-9. Pairing Addresses	7-2-1-7
7-2-1-10. Emergency Operation	7-2-1-9
7-2-1-11. Miscellaneous Settings	7-2-1-10
7-2-1-12. Button Control	7-2-1-10
7-2-1-13. nanoe™ X Setting	7-2-1-11
7-2-1-14. ECONAVI Setting	7-2-1-11
7-2-1-15. Ventilation Setting	7-2-1-11
7-2-1-16. Energy Saving Setting	7-2-1-11
7-2-1-17. Temperature Automatic Return	7-2-1-12
7-2-1-18. Troubleshooting	7-2-1-13
7-2-2. Installation Instructions	7-2-2-1
7-3. Setting for the Receiver	7-3-1-1
7-3-1. Infrared Receiver	7-3-1-1
7-3-1-1. Common to Infrared Receiver	7-3-1-1
7-3-1-2. CZ-RWRC3	7-3-1-3
7-3-2. Test Operation	7-3-2-1

7-1. Important Safety Instructions

WARNING

Installation Precautions

- Do not install yourself
Installation should always be performed by your dealer or a professional service provider.
Electric shock or fire may result if an inexperienced person performs any installation or wiring procedures incorrectly.
- Use only specified air conditioners
Always use only air conditions specified by the dealer.

Precautions for Use

- Do not touch switches with wet hands
Electric shock and damage to the system can result.
- Protect the remote controller from water Damage to the system can result.
- Stop the system and turn the power off if you sense unusual smells or other irregularities
Continuing operation when the system is out of order can result in electric shock, fire, and damage to the system.
Contact your dealer.
- Do not swallow the battery.

Moving and Repair Precautions

- Do not repair
Never repair the system by yourself.
- Contact your dealer before moving the system
Contact your dealer or a professional service provider about moving and reinstalling the system.
Electric shock or fire may result if an inexperienced person performs any installation procedures incorrectly.

7-2. Wireless (Infrared) Remote Controller CZ-RWS3

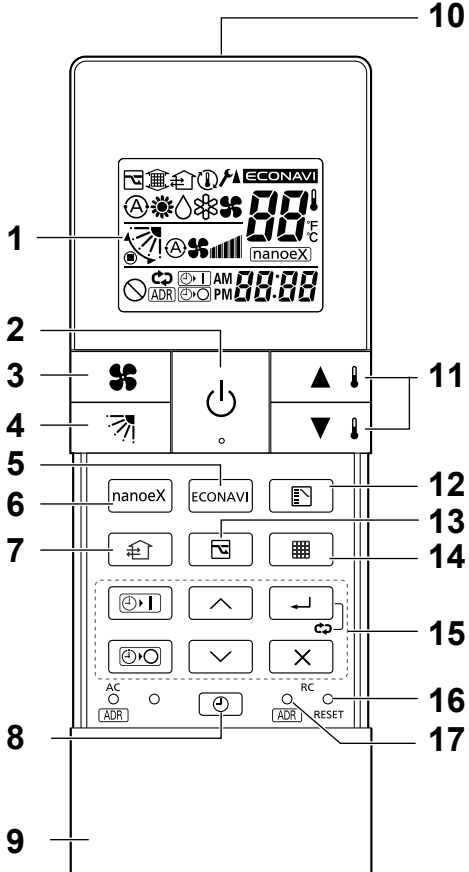
7-2-1. Operating Instructions


1 remote controller can control a group of up to 8 indoor units.
(See “7-2-1-7. Operating Multiple In / Outdoor Units simultaneously (Group Control)”)

7-2-1-1. Names and Operations

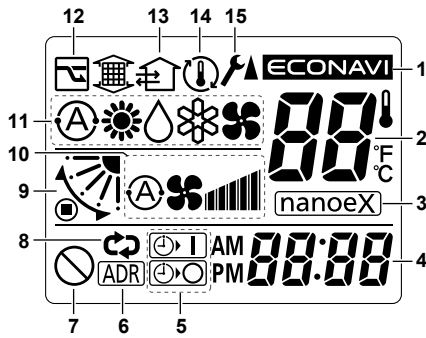
REMOTE CONTROLLER

1. Operation Display	Displays the operation status. (The figure shows all the statuses.)	14. Filter button	Press to turn off the filter lamp on the receiver.
2. Start/Stop button	Pressing this button once starts and pressing again stops the operation.	15. Timer setting buttons	Use for operating with a timer.
3. Fan speed button	Press to change the fan speed.	16. RC reset button	Use this button after changing the batteries.
4. Flap button	Press to change the flap direction.	17. RC address button	Press to set addresses.
5. ECONAVI button	Press to set ECONAVI.		
6. nanoe™ X button	Press to set nanoe™ X.		
7. Ventilation button	Use this when connected to an aftermarket fan.		
8. Clock button	Use this to set the clock.		
9. Cover	Press at the top centre and then slide down.		
10. Transmitter			
11. Temperature setting buttons	▲ raises the temperature setting 1 °C at a time. ▼ lowers the temperature setting 1 °C at a time.		
12. Mode Select button	Press to switch the operation mode.		
13. Energy saving button	Press to enable or disable energy saving.		



From this page, the names of remote controller's buttons will be indicated with the above illustrations.
E.g.: Start/Stop button → 

Screen display



- 1 Appears when ECONAVI is being set to ON.
- 2 Indicates the set temperature.

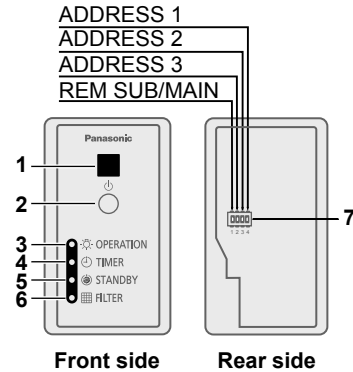
- 3 Appears when nanoe™ X is being set to ON.
- 4 Displays the present time.
- 5 Timer program indication
 : The indoor unit starts operation at the programmed time.
 : The indoor unit stops operation at the programmed time.
- 6 Indicates the remote controller addresses are set.
- 7 Appears when the function is not available.
- 8 The ON timer or the OFF timer will operate repeatedly every day.
- 9 Indicates the flap position.

- 10 Indicates the fan speed.
- 11 Displays the selected operation mode. (AUTO /HEAT / DRY /COOL /FAN)
- 12 Energy saving operation is in process.
- 13 Appears when a fan available in the market is installed and is operating.
- 14 "Temperature Automatic Return" is set.
- 15 Appears when the setting screen is displayed.





RECEIVER

1. Receiver	Receives the signal sent from the remote controller.
2. Emergency operation button	See "8-2-1-10. Emergency Operation". Indicator lamps When an error occurs, one of the lamps flashes. When an indicator lamp is flashing, see "8-2-1-18. Troubleshooting".
3. OPERATION lamp	Lights up when the unit is operating.
4. TIMER lamp	Lights up when the timer is set.
5. STANDBY lamp	The lamp in the HEAT mode lights up at the following times: during the startup, during the thermostat operation, and during the defrosting.
6. FILTER lamp	This lamp is for notifying you when the filter needs to be cleaned.
7. Address switch	See "8-2-1-9. Pairing Addresses".

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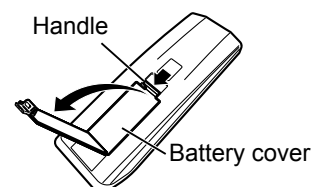
NOTE

- If a heat pump type is being used, it will beep twice and the operating lamp will light up on the display; if the timer and standby lamps blink alternately, a conflict between the heating and cooling exists, so the unit cannot operate in the desired mode. (On models that do not have an Auto function, even if Auto is selected, it works in the same way.)
- When the local operation is disabled by centralized control or similar cause, and if the Start/Stop , Mode , or Temperature setting button   is pressed, the unit will beep five times and the change will not be made.

7-2-1-2. Installing Batteries

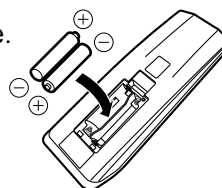
1. Remove the battery cover.

- Pinch the handle and open while pressing it towards the ▼ mark.



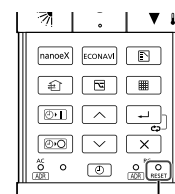
2. Insert two LR03 size batteries.

Put the batteries in with the polarity [+/-] as shown in the figure.

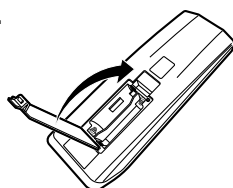


3. Gently insert one end of an unfolded paper clip (or a similar object that can fit) into the RC reset hole and press the RC reset button inside the hole.

- Take the batteries out and insert again if the time display is not “0:00” or “AM 12:00”.



4. Put the battery cover back on.



RC reset button

■ Notes on batteries

- The battery life is approximately 1 year.
- Reception may become poor or display on the remote controller fades when batteries are low.
- If the remote controller will not be used for a long period of time, remove the batteries. (In order to avoid a battery leak.)
- Emergency operations can be performed on the unit when the batteries run out. (See “8-2-1-10. Emergency Operation”)

■ Replacing batteries

- Replace both batteries at the same time with 2 LR03 size batteries.
- Do not use rechargeable batteries (NiCd, NiMH, etc.) because their size, shape, and some performance are different.
- Dispose of the old batteries at the designated sites in your community.
- The unit is restored with the factory setting when batteries are removed.
- After changing the batteries, reset the current time. (See “8-2-1-3. Setting the Current Time”)

7-2-1-3. Setting the Current Time

1. Press for 2 seconds or longer.

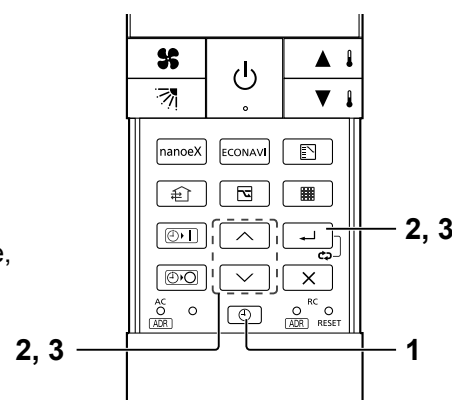
- The time display flashes. (The colon lights up.)

2. Press / to set the hour, then press .

3. Press / to set the minutes, then press .

Note

- If the buttons are not pressed for a certain duration while setting the time, the displayed time is set.
- Adjust the time periodically.









7-2-1-4. Operation

Hold the remote controller with your hand and point its transmitter at the receiver.











Power: Turn on the circuit breaker beforehand, see Section “2. TEST RUN”.

1. Press .





2. Press  to select the operation mode.

- Every time you press , it cycles from “Auto  → Heat  → Dry  → Cool  → Fan .
- Models that only provide the cooling function cannot operate in the Auto or Heat mode.
- The available functions differ depending on the indoor unit being used. See “8-2-1-11. Miscellaneous Settings” for how to change the operation mode display.

3. Press  to select the fan speed.











- Every time you press , it cycles from “ →  →  →  →  (Auto)”.
- Auto does not work in Fan mode.
- If the unit is not heating very effectively with a fan speed “”, switch the fan speed to “” or “”.
- The available functions differ depending on the indoor unit being used.
- “” is displayed if the function is not available.

4. Press  /  to set the temperature.

	MAX (°C)	MIN (°C)
Auto 	27	17
Heat 	30	16
Dry  / Cool 	30	18

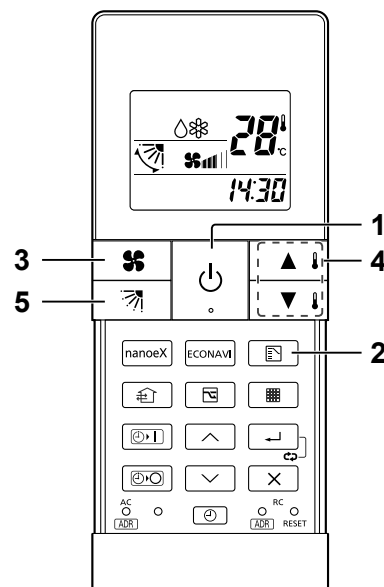
- Temperature settings cannot be made in Fan mode.
- The temperature range that can be set varies depending on the model.
- The maximum temperature varies depending on the system and operating condition. See “8-2-1-11. Miscellaneous Settings” for how to change the maximum temperature.

5. Press  to select the flap direction. (This section is not used.)

- Every time you press , it cycles from “ →  →  →  →  →  (Swing) →  (Stop)”.
- If you press  again while the flap is swinging, you can stop the flap from swinging and set it in place as desired.
- When the unit is in heating standby, the flap (up-down wind direction plate) faces upwards.
- The available functions differ depending on the indoor unit being used.
- “” is displayed if the function is not available.
- **Never try to manually move the flap (up-down wind direction plate) that is operated by the remote controller.**

Stop: Press .

- If you cannot turn the air conditioner off in the normal way, disconnect the power to the indoor unit and contact the dealer where the product was purchased.
- When the unit is stopped with the remote controller, the fan on the outdoor unit may continue to run for a while.



< Auto operation >

It heats or cools automatically via the differences between the set temperature and the room temperature. Auto operation is available only when identical refrigerant system inside all the indoor units or cooling/heating free-type are under control as 1 group.



7-2-1-5. Timer Operation

- When setting the timer, make sure the current time on the remote controller is accurate.
- The timer's clock can only be set when the display of the remote controller is ON.
- After setting the timer, put the remote controller for in a place where its signal will reach the receiver of the indoor unit.



1. Press or twice.

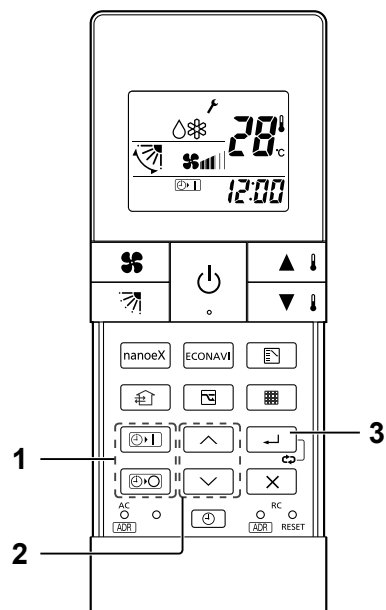
- The time last set on the timer starts blinking. (“- -: - -” blinks when the timer is not set or after replacing batteries.)

2. Press / to set the timer to the desired time.

- Every time you press  / , the time changes in 10 minute increments.
- If you press and hold the button, the time changes quickly.

3. Press .

- The timer display stops blinking and the display reverts to the current time after 3 seconds.
- “ / ” is displayed when set.



Combining ON and OFF Timers

1. The ON and OFF timers can be set respectively.

Checking the timer setting

1. Press or .




- The scheduled time is displayed for 4 seconds.
- When the timer is not set or after replacing batteries, it displays “- -: - -”. (Initial setting)

Changing a timer setting

1. Perform Step 1 to 3 noted above as you did when setting.




Canceling a timer setting

1. Press .

- If you wish to cancel the setting for either the  or the  timer, press  while the scheduled time is displayed.

Using the same timer setting every day

1. Press for 2 seconds or longer.



- “” is displayed when set.
- If you press  again for 2 seconds or longer, “” goes off and the timer operates only once.


7-2-1-6. Lock Individual Flap (This section is not used.)

(Supported models: 4-way ceiling cassette type)

You can set the flap for each air outlet individually according to the room condition.



- Even if the flap setting is changed with  (See Step 5. of “8-2-1-4. Operation”), the flap directions set here are not changed.





1. Press  and  at the same time for 4 seconds or longer.

- “” starts blinking and the setting screen is displayed.









2. Press  /  to select the indoor unit to set, then press .

- Every time you press / to switch between “U1 ↔ U2 ↔ ... ↔ U8 ↔ AL (All indoor units that are connected to the remote controller)”, the buzzer sounds from the corresponding receiver.
- When settable: 1 short beep
- When not settable*: 1 short beep followed by 1 long beep
- * When the indoor unit is not connected or does not support this function.



3. Press  /  to select the air outlet.

- Every time you press  / , it cycles from “F1 ↔ F2 ↔ F3 ↔ F4 ↔ AL (All the air outlets)”.
- The square mark (indented ) on the panel of the indoor unit indicates air outlet No. 1.
There are some models that do not have a square mark (indented ).
- The air outlet No. changes according to the installation direction.
Check by actual operation.


4. Press  /  to select the flap direction, then press .

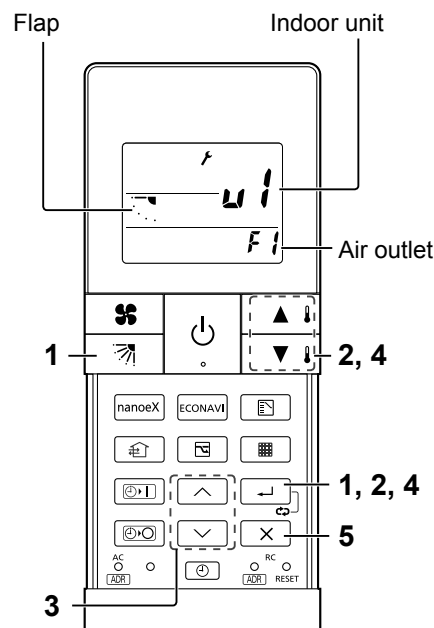
- Every time you press  / , it cycles from “ (Unlock) ↔  (Swing) ↔  ↔  ↔  ↔ ”.


5. Press .

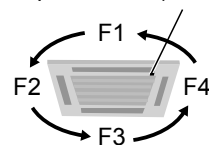
- You can return to Step 2 to continue setting if you press  instead of .

Note

- Press  to stop operation in the middle.



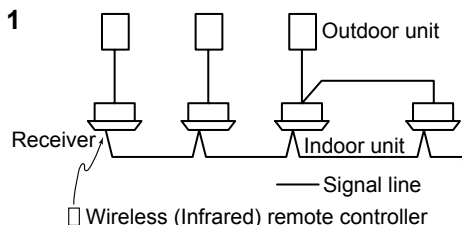
Square mark (indented )



7-2-1-7. Operating Multiple In / Outdoor Units Simultaneously (Group Control)

Group control works well for providing air conditioning to 1 large room with more than 1 air conditioning units.

- 1 remote controller can operate up to 8 indoor units.
- All the indoor units have identical settings.
- Set temperature sensing to the indoor unit (Main sensor).
(See “7-2-1-1. Names and Operations”)



7-2-1-8. Using the Remote Controller

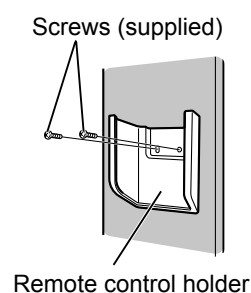
- Hold the remote controller with your hand and point its transmitter at the receiver. When the signal is received properly, it will beep.
- Signals can travel a direct distance of 6 metres. This distance should be used only as a guide. It depends on battery strength.
- Make sure nothing is between the remote controller and the receiver that could block the signal.
- Do not leave the remote controller in direct sunlight, where the wind from the air conditioner can blow directly on it, or near any other heat source.
- Take care not to drop, throw, or wash the remote controller with water.
- The signal from the remote controller may not be received in rooms with rapid start fluorescent lighting or inverter lights.

For more information, please contact the dealer where the product was purchased.


Wall Mount Use

■ Mounting the holder

1. Fasten the remote control holder with screws.

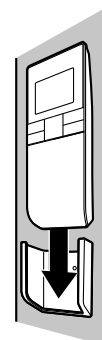


2. Slide the remote controller down into the holder.

- Press  from the location you wish to mount the remote controller and make sure the signal is received properly.

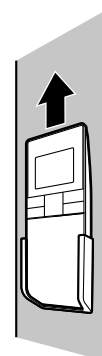
Note

- You cannot operate if the distance between the remote controller and the receiver is greater than that signals can travel.



■ Detaching the controller

1. Pull the remote controller up.



7-2-1-9. Pairing Addresses


When more than 1 indoor units are installed in the same room with a compatible remote controller, addresses can be set up to avoid crosstalk.

You can control up to 6 indoor units individually by the supported remote controller by pairing the address on the remote controller and the number on the address switch on the receiver.

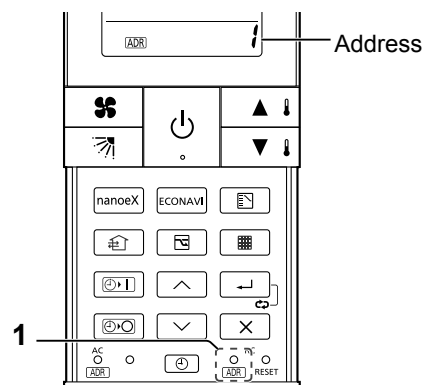
There are separate address settings: receiver addresses for the receivers, and transmitter addresses for the remote controller.

Units will not be controlled if the setting do not match.

Checking Addresses

1. Press  with one end of an unfolded paper clip (or a similar object that can fit).




- Its current address appears on the display for 5 seconds.
- If this address corresponds to the address of a receiver, the buzzer sounds. (If it is on ALL, the buzzer will always sound.)
- If it is on ALL, it can be operated regardless of receiver addresses. Point the remote controller at the receiver you wish to operate and transmit.




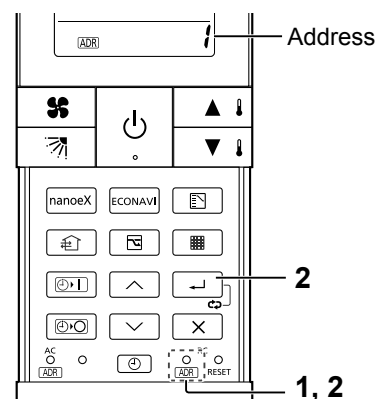
Matching Up Addresses

■ If not wall mounted type indoor unit

< Setting Remote Controller Addresses >

1. Press  with one end of an unfolded paper clip (or a similar object that can fit) for 4 seconds or longer.
 - The current address number starts blinking.
2. Press  to select the address of the receiver you want to control, and press .

- Every time you press , it cycles from "ALL (All the addresses) → 1 → 2 → 3 → 4 → 5 → 6".
- If it corresponds to the receiver's address setting, the buzzer sounds.



Note

- Set the address of the receiver as instructed in the operating instructions of your receiver. Do not set by yourself. Contact the dealer where the product was purchased.

7-2-1-10. Emergency Operation

Use [Emergency Operation] (⏻) in the following situations when there is an urgent need.

- When the remote controller's batteries have failed.
- When the remote controller is broken.
- When the remote controller is lost.

*See the following figures regarding Emergency button.

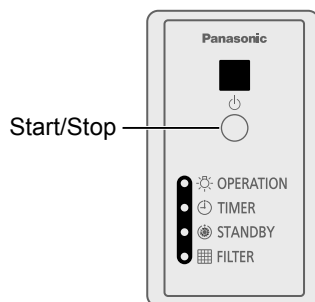
1. Press [Emergency Operation] (⏻) of the receiver.

- The OPERATION lamp is lit.
- Auto operation starts. If Auto operation is not possible, the unit starts cooling if the room temperature at the time is 24 °C or higher; otherwise, the unit starts heating.
- The operation stops if you press [Emergency Operation] (⏻) again.

Note

- If non-cooling/heating free type is being used, it will beep twice and the operating lamp will light up on the display; if the timer and standby lamps blink alternately, a conflict between the heating and cooling exists, so the unit cannot operate in the desired mode. (On models that do not have an Auto function, even if Auto is selected, it works in the same way.)
- When the local operation is disabled by a central control device or similar cause, and if the Start/Stop (⏻), Fan speed (🌀), Flap (🌀), Temperature setting (▲/▼), Mode select (📄) or Energy saving (📄) button is pressed, the unit will beep 5 times and the change will not be made.

CZ-RWRC3





7-2-1-11. Miscellaneous Settings










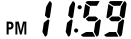


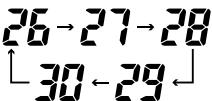
A variety of changes can be made to settings, depending on the indoor unit being used.

Operation mode indicator, time display (24 hour, AM/PM), heating maximum temperature

- These settings are saved in nonvolatile memory in the remote controller, so even when its batteries are changed, the settings do not have to be made again.
- First check the display of the remote controller when the unit is stopped and then make any desired settings

How to Operate

- While holding down the buttons below, the remote controller’s display changes every time  is pressed.
- Whatever is being displayed when you release  is set.


Setting Item	Operation Button	Setting Content	Remote Controller Display
Remote controller operation mode display setting when  is pressed	Press  while pressing 	Heat Pump (with Auto)	
		Heat Pump (without Auto)	
		Dedicated air conditioner	
Clock display setting	Press  while pressing 	24-hour	
		AM/PM	
Max possible temperature setting in the Heat mode	Press  while pressing 	Maximum heating temperature range is 26 °C – 30 °C	





7-2-1-12. Button Control

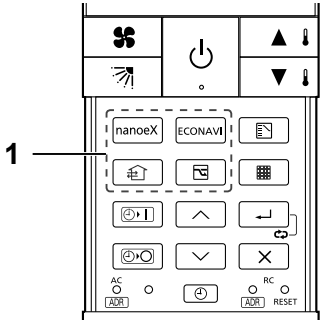
You can enable or disable the following buttons for some indoor units.

nanoe™ X, ECONAVI, Ventilation, Energy saving

1. Press the button for desired setting for 4 seconds or longer.





- You can toggle between enable and disable each time you press the button for 4 seconds or longer.
- “” is displayed when you press a disabled button, and the function cannot be used.

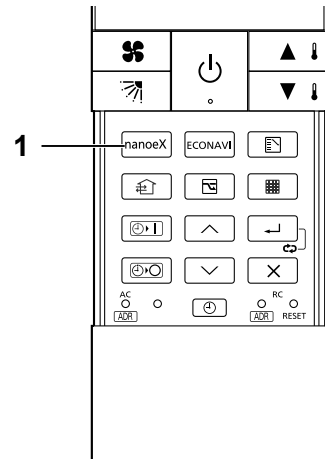
Buttons	Setting content
	Enabling or disabling the button for nanoe™ X.
	Enabling or disabling the button for ECONAVI.
	Enabling or disabling the button for ventilation.
	Enabling or disabling the button for energy saving.



7-2-1-13. nanoe™ X Setting

1. Press during operation.






- You can toggle between ON and OFF each time you press .
- “” is displayed when this setting is ON.
- When the nanoe™ X setting is ON, “nanoe” (atomised water particle) is released from the indoor unit while in operation (Cool, Dry, Heat, Fan, Auto).
- If the receiver emits 1 short beep followed by 1 long beep after pressing , the indoor unit does not support this function. See “8-2-1-12. Button Control” for how to enable or disable the button.
- “” is displayed if the function is not available.

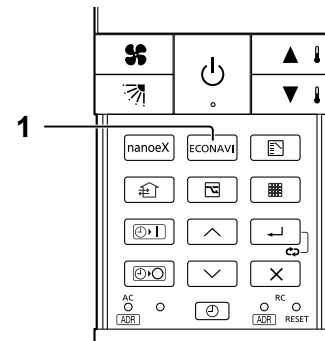


7-2-1-14. ECONAVI Setting

(ECONAVI can be set using the separately sold ECONAVI panel or by connecting the holder on the wall.)



1. Press during operation.

- You can toggle between ON and OFF each time you press .
- “” is displayed when this setting is ON. *
- The ECONAVI sensor detects human activity and conserves energy based on the activity level.
- Even when target temperature is changed through the ECONAVI function, the set temperature shown in the remote controller does not change.
- When operating more than 1 indoor unit, the energy-saving effect may be reduced depending on the room condition.
- If the receiver emits 1 short beep followed by 1 long beep after pressing , the indoor unit does not support this function. See “8-2-1-12. Button Control” for how to enable or disable the button.
- “” is displayed if the function is not available.
- * “” is not displayed in Fan mode.






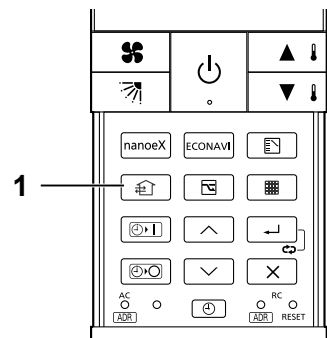
7-2-1-15. Ventilation Setting

(When connected to an aftermarket fan)

 button is disabled as the factory setting. Enable the  button if you have connected the ventilation fan. (See “8-2-1-12. Button Control”)





1. Press .

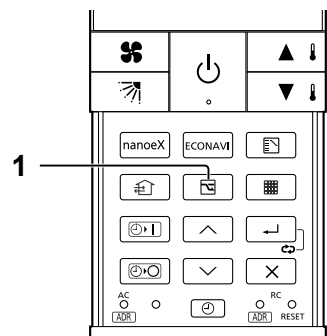
- You can toggle between ON and OFF each time you press .
- “” appears on the display of the remote controller when the fan is operating.
- When the air conditioner is started or stopped, the fan starts or stops at the same time.
- “” is displayed if the function is not available.



7-2-1-16. Energy Saving Setting

1. Press during operation.

- You can toggle between ON and OFF each time you press .
- “” is displayed when this setting is ON.
- The energy saving operation restricts the maximum current value, resulting in decreased cooling/heating performance. (If the current of outdoor units does not reach the peak due to low load operation, the current value is not restricted.)
- If the receiver emits 1 short beep followed by 1 long beep after pressing , the indoor unit does not support this function. See “8-2-1-12. Button Control” for how to enable or disable the button.
- “” is displayed if the function is not available.



7-2-1-17. Temperature Automatic Return

You can restore the changed temperature to the originally set temperature automatically after a specified time elapses.

- Set the time and temperature for each operation mode.

1. Press and at the same time for 4 seconds or longer.
• “” starts blinking and the setting screen is displayed.

2. Press to select the operation mode, then press .

- Every time you press to switch between “Dry / Cool → Heat → Auto ”, the buzzer sounds from the corresponding receiver.
- When not set: 1 short beep
- When already set: 2 short beeps

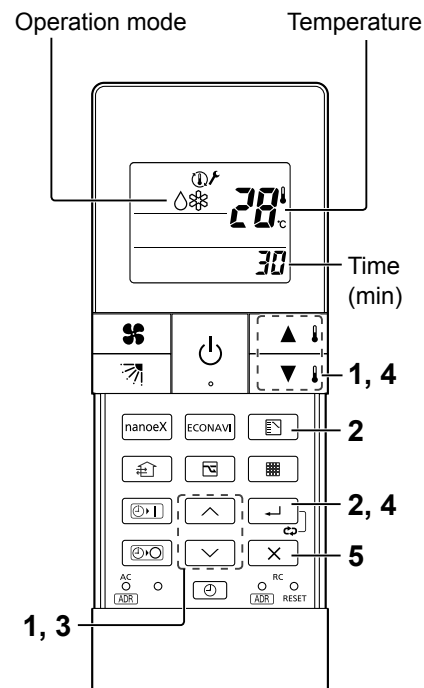
3. Press / to set the time to return to the set temperature.
• Setting range: 10 to 240 min (by the 10 min)

4. Press / to set the temperature, then press .

	MAX (°C)	MIN (°C)
Auto	27	17
Heat	30	16
Dry / Cool	30	18

- The temperature range that can be set varies depending on the model.

5. Press .
• You can return to Step 2 to continue setting if you press instead of .



Changing the setting

Perform Step 1 to 5 noted above as you did when setting.

Cancelling the setting

1. Press and at the same time for 4 seconds or longer.
2. Press to select the operation mode, then press for 4 seconds or longer.


- The receiver emits 1 short beep.
- Press for 10 seconds or longer to cancel settings for all operation modes.

Note

- Press to stop operation in the middle.

7-2-1-18. Troubleshooting

Before requesting service, please check the followings.

Problem	Cause	Solution
The unit doesn't work even when  is pressed on the remote controller.	The power to the indoor unit is not ON.	Make sure the power to the indoor unit is ON.
	Are the remote controller's batteries dead?	Change the batteries.
	Is there a mismatch between the display lamp and cooling/heating or is it set to something other than Auto? (The operating lamp stays lit, while the timer lamp and the standby lamp blink alternately.)	Change the operating mode.
	Do the addresses match one another?	Check the addresses of the receiver and the remote controller. (See "Checking Addresses" on page 8-2-1-8)
The air conditioner starts and stops on its own.	Has the timer been set to repeat?	Check the timer settings. (See "Checking the timer setting" on page 8-2-1-5)
Although the unit is for air conditioning only, either Auto or Heat is indicated in the display.		Make settings to the remote controller's operation mode display. (See "8-2-1-11. Miscellaneous Settings")
After the batteries are put in the remote controller, even when it is operated, the display does not change.		Press the RC reset button on the remote controller. (See Step 3. of "8-2-1-2. Installing Batteries")
The timer cannot be set.		Make the settings when the remote controller is in Operation Display. (See "8-2-1-5. Timer Operation")

If the problem persists even after you check the foregoing items, stop the unit, disconnect the power to the indoor unit and contact the dealer where the product was purchased with the model number and problem you are having. As it is dangerous, under no circumstances should you undertake repairs yourself.

Further, when the receiver's lamps are blinking; please contact your retailer with that information.

Specifications

CZ-RWS3

Model No.	CZ-RWS3
Dimensions	(H) 165 mm × (W) 59 mm × (D) 22 mm
Weight	100 g (Batteries and remote control holder are not included)
Temperature / Humidity range	0 °C to 40 °C / 20 % to 80 % (No condensation) *Indoor use only
Power Source	Two LR03 size batteries

CZ-RWRC3

Model No.	CZ-RWRC3
Dimensions	(H) 120 mm × (W) 70 mm × (D) 20 mm
Weight	75 g
Temperature / Humidity range	0 °C to 40 °C / 20 % to 80 % (No condensation) *Indoor use only.
Power Source	DC16 V (supplied from indoor unit)

7-2-2. Installation Instructions

Read before installation

This controller must be installed by the sales dealer or installer. These instructions are all you need for most installation sites and maintenance conditions. If you require help for a special problem, contact our sales / service outlet or your certified dealer for additional instructions.

Safety Precautions

We assume no responsibility for accidents or damages resulting from methods other than those described in the installation instructions or methods without using specified parts.

Malfunctions that occurred due to the unauthorised installation methods are not covered by the product warranty.

- Read the installation instructions supplied with indoor units as well.
- After the installation is complete, perform test operation to confirm that no abnormality is present.
- When relocating or repairing this controller, provide the Installation Instructions to the servicing personnel.
- Do not clean inside the controller by users. Engage authorised dealer or specialist for cleaning.

⚠ WARNING This symbol refers to a hazard or unsafe practice which can result in severe personal injury or death.

⚠ CAUTION This symbol refers to a hazard or unsafe practice which can result in personal injury or product or property damage.

⚠ WARNING

- Turn off the circuit breaker of the units before installation.
- Select an installation location which is rigid and strong enough to support or hold the controller, and select a location for easy maintenance.
- This controller must not be modified or disassembled under any circumstances. Modified or disassembled controller may cause fire, electric shock or injury.

⚠ CAUTION

- Do not allow infants and small children to prevent them from accidentally swallowing the batteries.
- Do not use the controller at the following locations.
 - Location where condensation occurs
 - Location where flammable gases, etc. may leak
 - Location where corrosive gases, etc. may leak
 - Location with lots of water or oil droplets (including machine oil)
 - Location where there is a machine producing electromagnetic radiation
 - Location where droplets of organic solvents spread
 - Location where acidic or alkaline solutions or special sprays are frequently used
- Do not wash with water.
- Do not operate with wet hands.
- Do not drop or throw. (It may cause malfunction.)
- Do not insert the battery the wrong terminals (+ and -). (It may cause electrolyte leakage and may cause a fire.)

NOTICE The English text is the original instructions. Other languages are translation of the original instructions.

Supplied accessories

• Remote Control Holder	<1>	< >: Number of pieces
• Screw M4×15.5	<2>	
• LR03 Size Battery (for test)	<2>	
• Operating Instructions	<1>	
• Installation Instructions	<1>	
• Instructions Disc	<1>	

Installation Precautions

- The controller uses a very weak infrared light for its signal, which can result in the signal not being received because of the following influences, so take care in where the indoor unit is installed.
 - Inverter or rapid-start type fluorescent lights (Models without glow lamps)
 - Plasma display or LCD televisions
 - Direct sunlight or other sources of bright light
- Install in a location that does not interfere the operation
 - You cannot operate if the distance between the remote controller and the receiver is greater than that signals can travel.
 - Make sure nothing is between the remote controller and the receiver that could block the signal.
 - Confirm that the normal operation is possible at the location to install.
- Avoid the following locations for installation.
 - Under direct sunlight
 - Location near heat source
 - Location where the controller will be splashed with water or affected by dampness or humidity
 - Uneven surface
 - Location that is subject to excessive vibration or physical impacts. (Fixing screws may come off, and the controller may drop.)
 - Location with large amount of oil smoke or steam (such as kitchen or machine factory)
- Install the controller vertically to the floor.
- Install the controller at a location with suitable temperature and humidity for using.
- Do not install controller at the locations with the equipment (medical equipment, etc.) which generates the high-frequency emissions. (It may interfere with the equipment and may cause accidents due to malfunction.)
- Install at least 1 m away from TV, radio, PC, etc. (To prevent fuzzy images or noise)
- If a remote controller is to be operated from a remote control holder that is hung on a wall, turn on the lights in the room as well as any electrical appliances and then check to make sure the air conditioner works with the remote controller in the location where it will be installed. If it works, continue with installation.

Before Starting

Install this controller see "8-2-1. Operating Instructions".

- (1) Insert the batteries. (Installing Batteries)
- (2) Set the current time. (Setting the Current Time)
- (3) Install the remote control holder. (Using the Remote Controller)
- (4) Perform the pairing address setting, if required. (Pairing Addresses)

Miscellaneous Settings

The functions of the wireless (infrared) remote controller can be set on site.

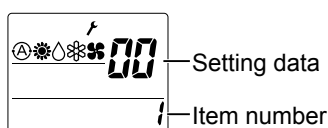
Note

Only service personnel should make the settings because the operation of the air conditioner may be affected, depending on the settings made.

- These settings are saved in nonvolatile memory in the remote controller, so even when its batteries are changed, the settings do not have to be made again.
- Furthermore, making changes to these settings may cause actual operation to deviate from what is printed in the Operating Instructions, so be sure to fully explain this to the customer.
- Do not change any settings other than those items in table below.

1. Press , and at the same time for 4 seconds or longer when the unit is stopped (displaying the current time only).

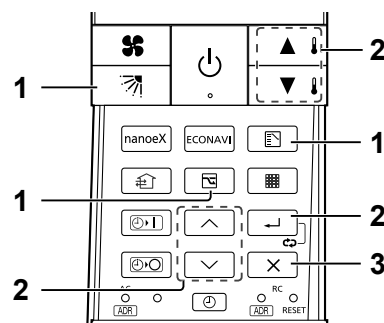
- “” starts blinking and the setting screen is displayed.



Setting data

Item number

2. Press / to select item number, press / to select setting data, and press .



3. Press .

Item Number	Setting item	Setting data		Factory setting	Check
1	Operation Mode ^{*1}	00: / / / /	03: / / / /	00: / / / /	
2	Flap Display	00: 5 levels (Cool in 5 levels) + Swing + Stop 01: 5 levels (Cool in 3 levels) + Swing + Stop 02: 5 levels (Cool in 3 levels) + Swing	03: Swing 04: No switchable function	00: 5 levels (Cool in 5 levels) + Swing + Stop	
3	Select Fan Speed	00: 5 levels (1 to 5, Auto) 01: 3 levels (Low (1), Medium (3), High (5), Auto) 02: 3 levels (Low (1), Medium (3), High (5))	03: Low (1), Medium (3) 04: No switchable function	00: Speed 5 (1 to 5, Auto)	
4	Temperature Display	00: °C	01: °F	00: °C	
5	Clock Display	00: 24-hour	01: AM/PM	00: 24-hour	
6	Ventilation Fan Setting ^{*2}	00: Off	01: On	00: Off	
7	Cool Temp Max	5 – 35°C		30	
8	Cool Temp Min	5 – 35°C		18	
9	Heat Temp Max	5 – 35°C		30	
10	Heat Temp Min	5 – 35°C		16	
11	Dry Temp Max	5 – 35°C		30	
12	Dry Temp Min	5 – 35°C		18	
13	Auto Temp Max	5 – 35°C		27	
14	Auto Temp Min	5 – 35°C		17	
18	Energy Saving Setting ^{*2}	00: Off	01: On	01: On	
19	ECONAVI Setting ^{*2}	00: Off	01: On	01: On	
20	nanoe™ X Setting ^{*2}	00: Off	01: On	01: On	

*1 Set to [02: / / / /] or [03: / / / /] if you are using the unit only for cooling.







*2 Press the function setting button for 4 seconds or longer while current time is displayed to switch the function On/Off.

Note

Make sure to fill the setting status in the check column after making changes to these settings.

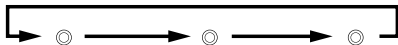
Auto Address

Set the Auto Address for each O/D unit no. (outdoor unit number) Select the O/D unit no. for Auto Address.

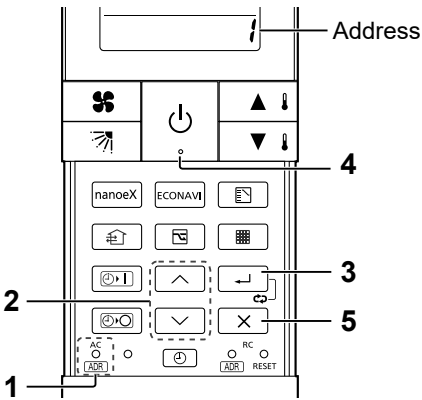
- Press  for 4 seconds or longer.
 - “” starts blinking and the setting screen is displayed.
- Press   to select the unit number (O/D unit no.) from 1 to 30.
- Press  to set the Auto Address.
- Press  to check the Auto Address status.


(See the following table for the Auto Address status.)

 - Proceed to step 5 when the status is “Completion” or “Error” .
 - If “Running” keeps for 10 minutes or longer, check the unit number.

Auto Address Status	Buzzer of the receiver	Indication lamp on the receiver		
		OPERATION	TIMER	STANDBY
Running	2 times			
Completion	1 time	-	-	-
Error	5 times	●	●	◎

● : OFF, ○ : ON (Illuminated), ◎ Blinking (0.5 seconds interval)



- Press  for 4 seconds or longer to exit the Auto Address setting.
 - Auto Address setting is canceled while running or error occurring.
 - Set the Auto Address again after resolve the error cause if an error occurs.

Attention

- Set Auto address after all units are turned on and 90 seconds or more have passed.
- Operate the units after Auto address is set and 90 seconds or more have passed.

7-3. Setting for the Receiver

7-3-1. Infrared Receiver

7-3-1-1. Common to Infrared Receiver

CZ-RWRC3

Read before installation

This receiver must be installed by the sales dealer or installer. These instructions are all you need for most installation sites and maintenance conditions. If you require help for a special problem, contact our sales/service outlet or your certified dealer for additional instructions.

Safety Precautions

We assume no responsibility for accidents or damages resulting from methods other than those described in the installation instructions or methods without using specified parts.

Malfunctions that occurred due to the unauthorised installation methods are not covered by the product warranty.

- Read the installation instructions supplied with indoor units as well.
- After the installation is complete, perform test operation to confirm that no abnormality is present.
- When relocating or repairing this receiver, provide the Installation Instructions to the servicing personnel.
- Do not clean inside the receiver by users. Engage authorised dealer or specialist for cleaning.

WARNING

This symbol refers to a hazard or unsafe practice which can result in severe personal injury or death.

CAUTION

This symbol refers to a hazard or unsafe practice which can result in personal injury or product or property damage.

WARNING

- Turn off the circuit breaker of the units before installation.
- This receiver shall be installed in accordance with National Wiring Regulations.
- Connect and fix the specified cables for wiring securely.
- Do not allow the connection to be exposed to the external force of the cables.
- Select an installation location which is rigid and strong enough to support or hold the receiver, and select a location for easy maintenance.
- This receiver must not be modified or disassembled under any circumstances.
Modified or disassembled receiver may cause fire, electric shock or injury.

CAUTION

- Do not use the receiver at the following locations.
 - Location where flammable gases, etc. may leak
 - Location where corrosive gases, etc. may leak
 - Location with lots of water or oil droplets (including machine oil)
 - Location where droplets of organic solvents spread
 - Location where acidic or alkaline solutions or special sprays are frequently used
- Do not wash with water.
- Do not operate with wet hands.

NOTICE

The English text is the original instructions. Other languages are translation of the original instructions.

Installation Precautions

- The receiver uses a very weak infrared light for its signal, which can result in the signal not being received because of the following influences, so take care in where the indoor unit is installed.
 - Inverter or rapid-start type fluorescent lights (Models without glow lamps)
 - Plasma display or LCD televisions
 - Direct sunlight or other sources of bright light
- Do not bundle together with the power source wiring or store in the same metal tube. Operation error may occur.
- Be careful not to connect cables to other terminals of indoor units (e.g. power source wiring terminal). Malfunction may occur.
- Avoid the following locations for installation.
 - Location where condensation occurs
 - Location where voltage fluctuation frequently occurs
 - Location where there is a machine producing electromagnetic radiation

Installation when setting Main/Sub for the remote controller and the receiver

It is possible to operate one or more indoor units using two remote controllers.

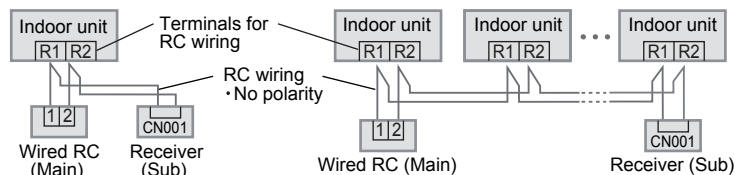
After installation, set one to [Main] and the other to [Sub].

When using the infrared remote controller and the wired remote controller in combination, set the wired remote controller to [Main].

<Installation example>

■ Using 1 indoor unit

■ Using more than 1 indoor unit



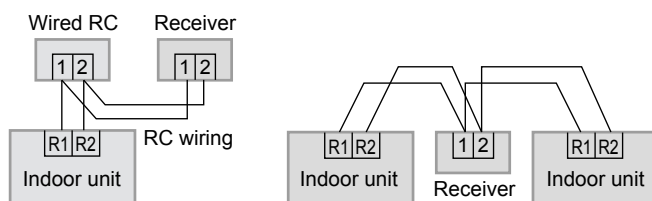
Note

- The receiver can be connected to any indoor unit for operation.
- Wiring connected via remote controllers is prohibited.
- Also see "1-11-1. Installation Instructions of Indoor Unit" or refer to the "Installation Instructions" supplied with the wired remote controller when performing remote control with the main and sub remote controllers or group-controlling.

Attention

- Multiple wireless (infrared) remote controllers cannot be used simultaneously for a single indoor unit.
- Be careful not to connect cables to other terminals of indoor units (e.g. power source wiring terminal). Malfunction may occur.
- Do not bundle together with the power source wiring or store in the same metal tube. Operation error may occur.
- If noise is induced to the unit power supply, attach a noise filter.

*Wiring shown below is prohibited.

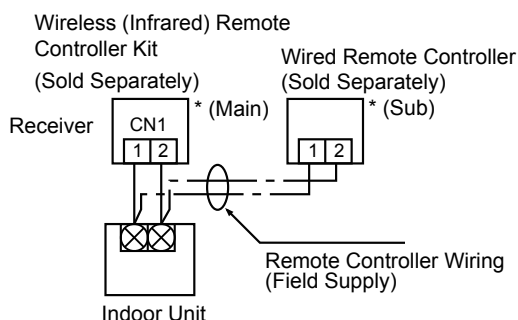


Note

The remote controller and the receiver can be connected to any indoor unit for operation.

When 1 indoor unit is operated by 2 remote controllers:

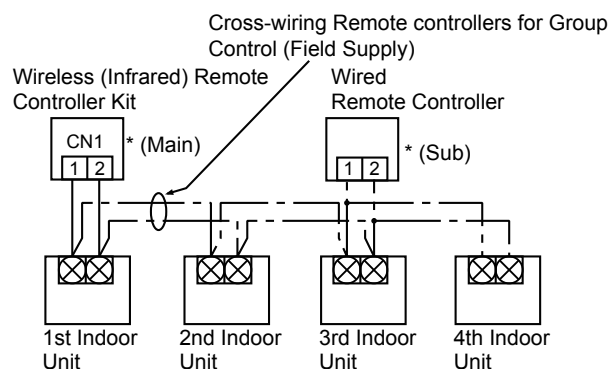
- * Either of the remote controllers can be set to main/sub.



- Use wiring of 0.5 mm² to 2 mm² for field supply.
- Use a total wire length of no more than 400 m.

If a group of units are to be controlled by 2 remote controllers:

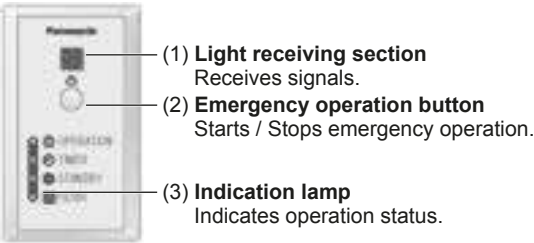
- * Main/sub remote controllers will work regardless of which indoor unit they are installed.



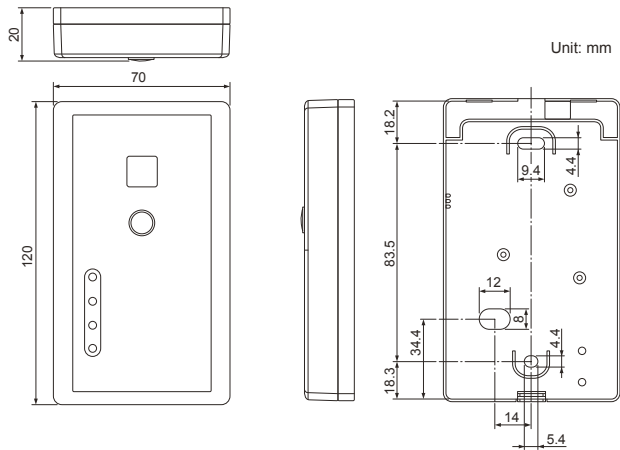
- Use wiring of 0.5 mm² to 2 mm² for field supply.
- Make the total wire length when cross-wiring a group no more than 200 m.

7-3-1-2. CZ-RWRC3

Part Names



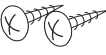
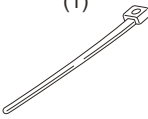

Dimensions



Installation Precautions

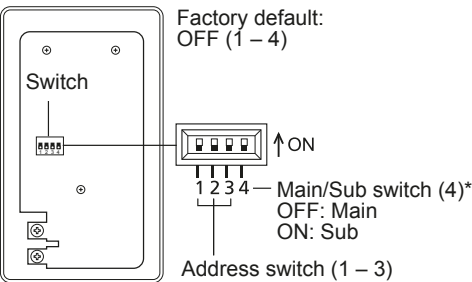
- Install at the height of 1 to 1.5 m from the floor.
- Install vertically against the floor.
- When installing more than 1 remote controller next to each other, keep distance of 5 mm on the right and left and 50 mm on top and bottom.
- Install the receiver at a location with suitable temperature and humidity for using.

1. Accessories

Supplied accessories		
screw M4 × 15.5 (2) 	Clamper (1) 	Installation Instructions (1) 

2. Setting








Remove the cover from the receiver when performing the settings.



* When using the infrared remote controller and the wired remote controller in combination, set the wired remote controller to [Main].

Address Setting

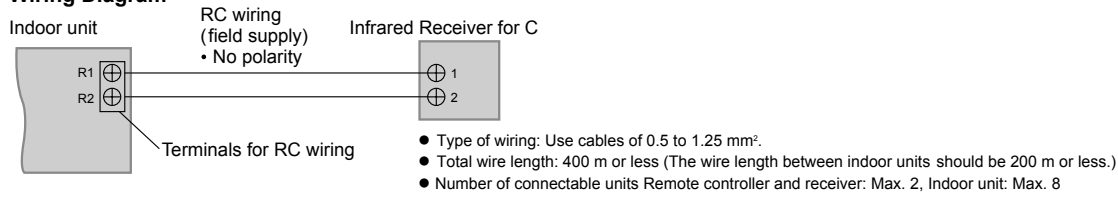
- When more than 1 receiver is installed in the same room, setting addresses prevents interference.
- For how to change addresses of infrared remote controller, see “8-2-1. Operating Instructions”.

Infrared remote controller address display	Address ALL	Address 1	Address 2	Address 3	Address 4	Address 5	Address 6	ON/OFF States
Infrared receiver address switch positions	Receiving is possible at all address positions.							

3. Wiring

Connect the wires from the receiver to the terminals for RC wiring on the indoor unit.

Wiring Diagram



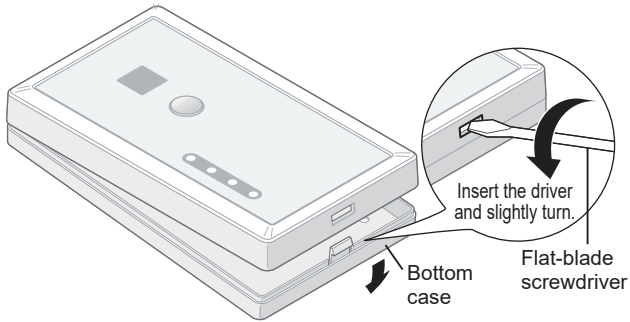
Note

- The receiver can be connected to any indoor unit for operation.
- Wiring connected via remote controllers is prohibited.
- Also see "1-11-1. Installation Instructions of Indoor Unit" or refer to the "Installation Instructions" supplied with the wired remote controller when performing remote control with the main and sub remote controllers or group-controlling.
- Use the field supplied RC wiring with at least 1 mm in thickness of insulation part including the sheath. Regulations on wire diameters differ from locally to locally.
For field wiring rules, please refer to your LOCAL ELECTRICAL CODES before beginning.
You must ensure that installation complies with relevant rules and regulations.

4. Mounting

See "2. Setting" before mounting.

1 Remove the bottom case.



2 Mount to the wall.

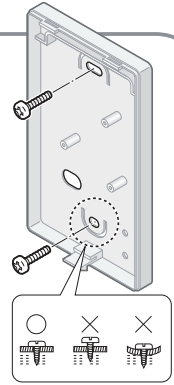
Attention

Mounting the bottom case

- Tighten the screws securely until the screw heads touch the bottom case. (Otherwise, loose screw heads may hit the PCB and cause malfunction when mounting the top case.)
- Do not over-tighten the screws. (The bottom case may be deformed, resulting in fall of the unit.)

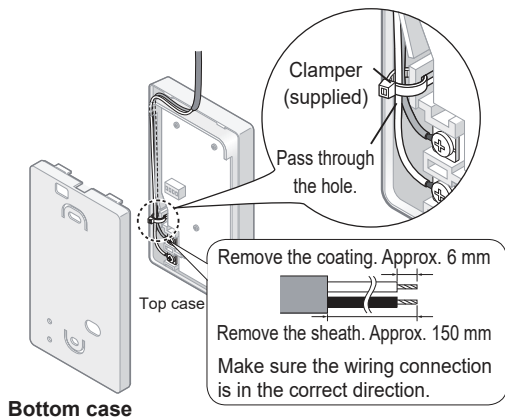
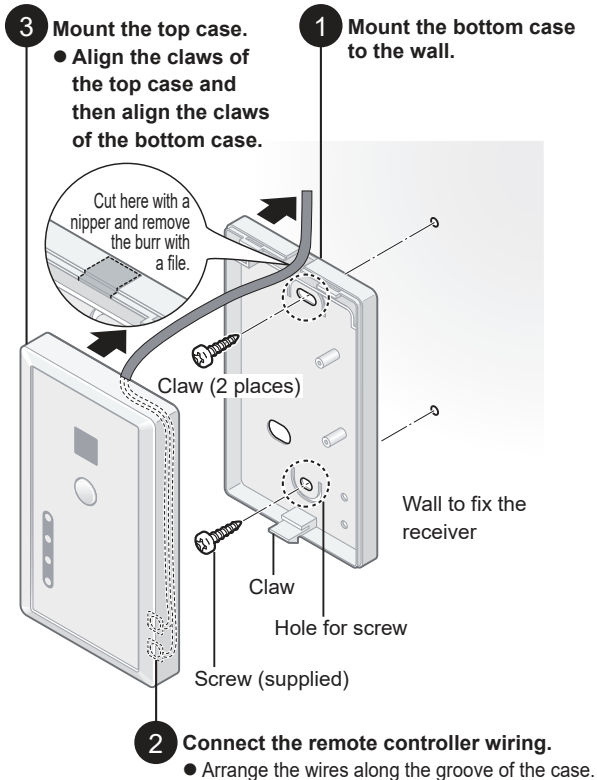
Connecting the remote controller wiring

- Arrange the wires as shown in the illustration for ② in step 2, avoiding unnecessary wires being stored in the case. (Caught wires may destroy the PCB.)
- Avoid wires touching parts on the PCB. (Caught wires may destroy the PCB.)



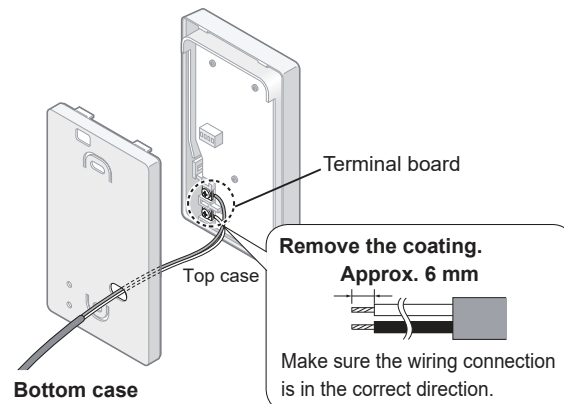
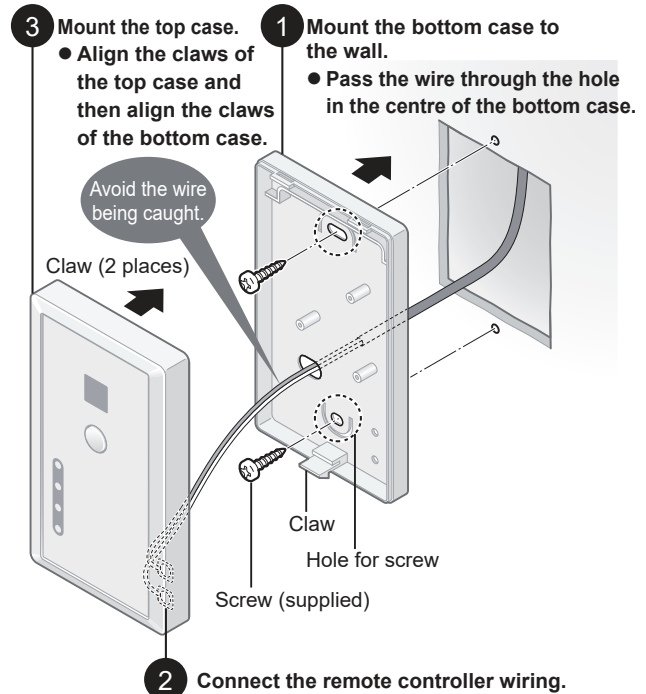
Exposed type

Preparation: Make 2 holes for screws using a driver.



Embedded type

Preparation: Make 2 holes for screws using a driver.



7-3-2. Test Operation

Preparation: Turn on the circuit breaker of units and then turn the power on. After the power is turned on, infrared remote controller operation is ignored for approx. 1 minute because setting is being made. This is not malfunction.

(Contents received while setting are disabled.)

- 1 Press and hold the emergency operation button for 10 seconds.
- 2 The indication lamps (OPERATION, TIMER, STANDBY) blink during test operation.
- 3 To finish test operation, press and hold the emergency operation button for 10 seconds.

ATTENTION

- Do not use this mode for purposes other than the test operation. (To prevent overload of the units)
- Read the installation instructions supplied with the units.
The test operation can be performed in Heat or Cool mode.
- Temperature cannot be changed.
- The test operation mode is automatically turned off in 60 minutes. (To prevent continuous test operation)
- Outdoor units do not operate for approx. 3 minutes after the power is turned on or operation is stopped.

Self-diagnostics table and detected contents

The “Alarm Display” shown in the table below expresses the alarm contents displayed when the wired remote controller is connected. For how to handle the alarms, see Section 2 “Contents of Remote Controller Switch Alarm Display” and Section 5 “Contents of Remote Controller Switch Alarm Display”.

Detected contents	Alarm Display	Indication lamp on the receiver			Blinking
		OPERATION	TIMER	STANDBY	
Communication error in the remote controller circuit	E01–E03, E08–E14, E17, E18	◎	●	●	
Communication error either in the in / outdoor operation line or the sub-bus of the outdoor unit	E04–E07, E15, E16, E19–E31	●	●	◎	
Operation of indoor protection device	P01, P09–P14	●	◎	◎	Alternately
Operation of outdoor protection device	P02–P08, P15–P31	◎	●	◎	Alternately
Error in the indoor thermistor	F01–F03, F10–F11	◎	◎	●	Alternately
Error in the outdoor thermistor	F04–F09, F12–F28	◎	◎	○	Alternately
Error in the indoor EEPROM	F29	◎	◎	●	Simultaneously
Error in the outdoor EEPROM	F30, F31	◎	◎	○	Simultaneously
Error related to the compressor	H01–H31	●	◎	●	
Error in indoor settings	L01–L03, L05–L09	◎	●	◎	Simultaneously
Error in outdoor settings	L04, L10–L31	◎	○	◎	Simultaneously
Error in the gas heat pump air conditioner	A01–A31	●	◎	◎	Simultaneously
Inconsistency in Cooling/Heating (Including an auto-temp setting for a model without auto-temp settings)		○	◎	◎	Alternately
Oil alarm (Same as operation of outdoor protection device)		◎	●	◎	Alternately
Auto addressing in progress (when it is performed with an infrared remote controller)		┌ ◎ → ◎ → ◎ ┐			Sequentially
Test operation		◎	◎	◎	Simultaneously

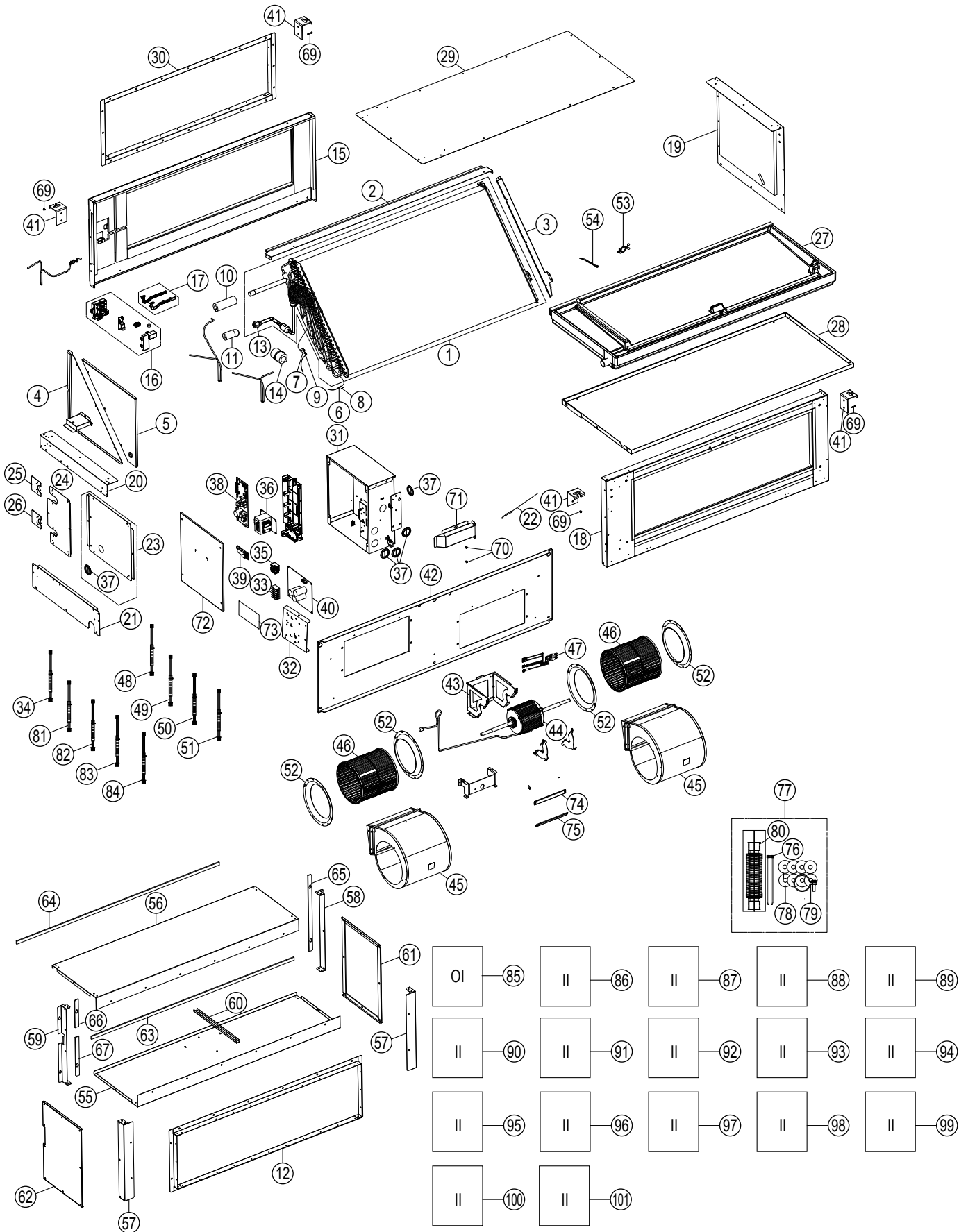
●: OFF ○: ON (Illuminated) ◎: Blinking (0.5 seconds interval)

8. EXPLODED VIEW AND REPLACEMENT PARTS LIST

8-1. Indoor Unit8-2

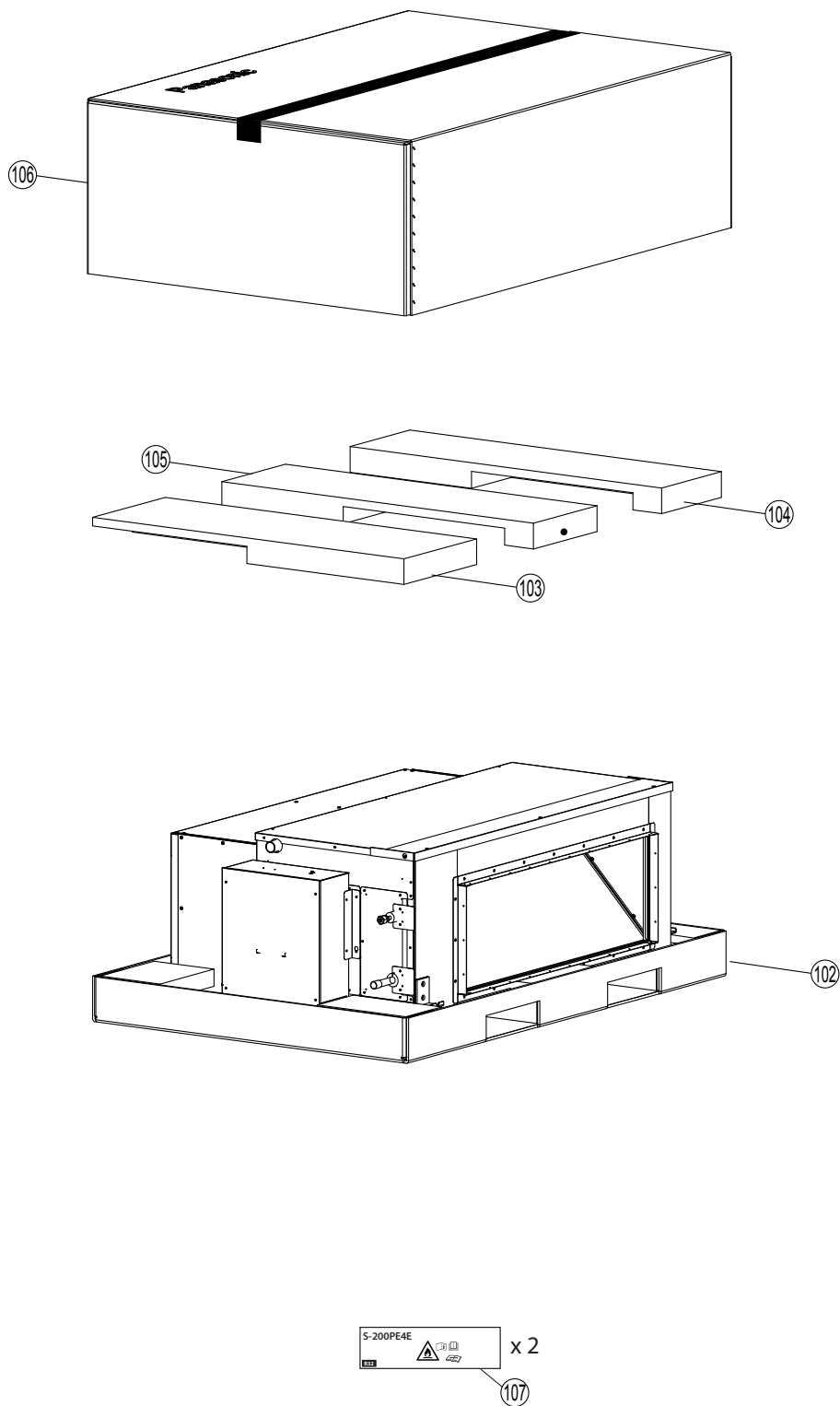
8-2. Outdoor Unit8-12

8-1. Indoor Unit S-200PE4E



Note

The above exploded view is for the purpose of parts disassembly and replacement.
The non-numbered parts are not kept as standard service parts.



Note

The above exploded view is for the purpose of parts disassembly and replacement.
The non-numbered parts are not kept as standard service parts.

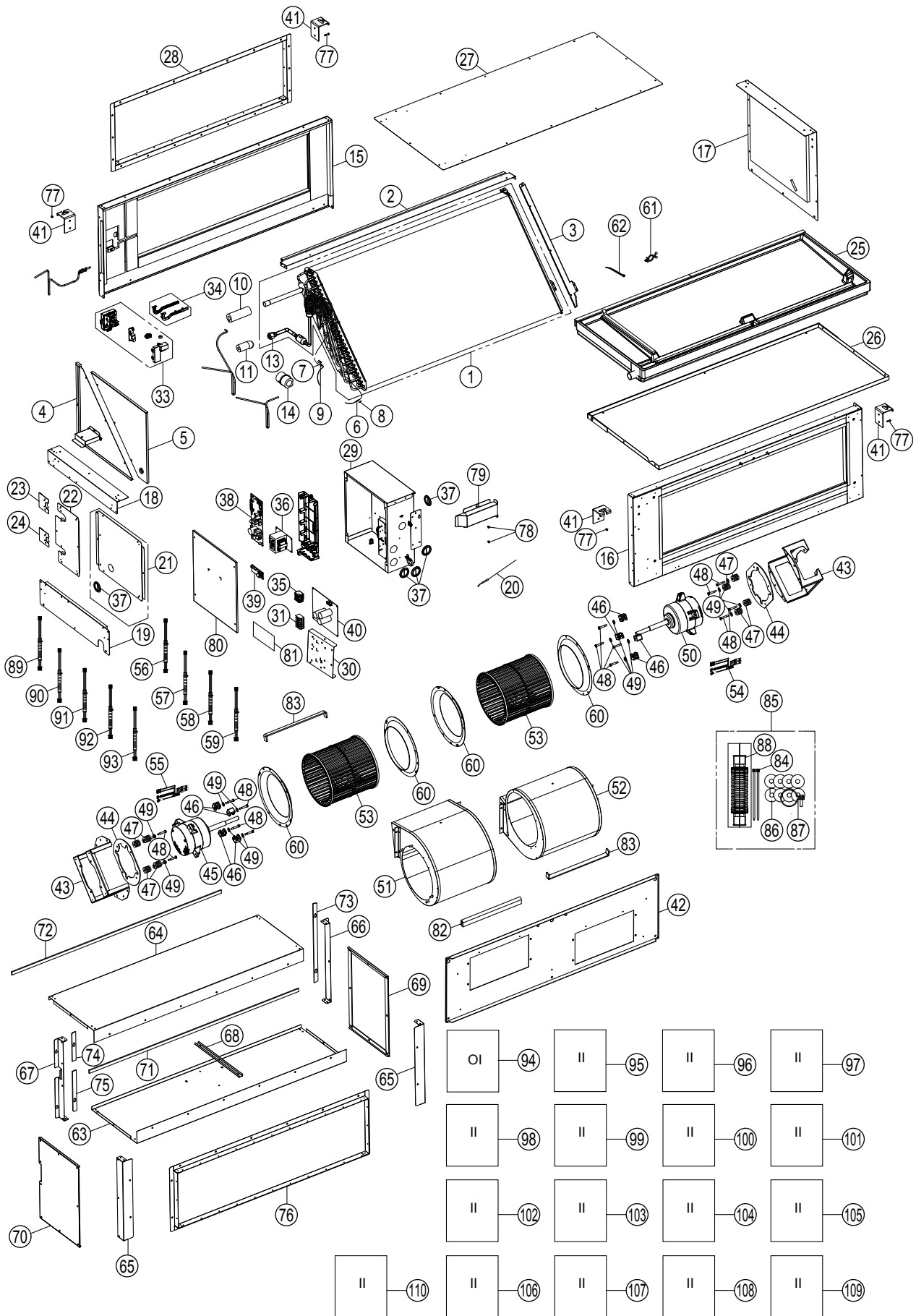
SAFETY	REF. NO.	PART NAME & DESCRIPTION	QTY.	S-200PE4E	REMARK
	1	FIN & TUBE EVAPORATOR ASSY	1	ACXB30K02250	O
	2	EVAPORATOR COVER-COMplete	1	ACXD11C00040	
	3	AIR REGULATING PLATE COMPLETE	1	ACXD21C00020	
	4	AIR REGULATING PLATE COMPLETE	1	ACXD21C00070	
	5	AIR REGULATING PLATE COMPLETE	1	ACXD21C00040	
⚠	6	SENSOR COMPLETE (E1)	1	ACXA50C19180	O
⚠	7	SENSOR COMPLETE (E2)	1	ACXA50C19190	O
	8	PLATE SPRING (E1)	1	CWH711010	
	9	PLATE SPRING (E2)	1	CWH711013	
	10	ADH. POLY-E. FOAM	1	ACXG12-06940	
	11	ADH. POLY-E. FOAM	1	CWG123168	
	12	DUCT ASSY	1	ACXD22K00070	
	13	UNION NUT	1	CWT251032	
	14	ADH. POLY-E. FOAM	1	CWG123573	
	15	CABINET FRONT PLATE-COMplete	1	ACXE06C04820	
⚠	16	GENERATOR COMPLETE	1	ACXH94C01810	O
	17	DUCT-COMplete	1	ACXD22C00450	
	18	CABINET REAR PLATE-COMplete	1	ACXE02C00840	
	19	CABINET SIDE PLATE-COMplete	1	ACXE04C08800	
	20	CABINET SIDE PLATE-COMplete	1	ACXE04C04780	
	21	CABINET SIDE PLATE-COMplete	1	ACXE04C04790	
⚠	22	SENSOR-COMplete (TA)	1	ACXA50C19200	O
	23	CABINET SIDE PLATE-COMplete	1	ACXE04C04800	
	24	EVAPORATOR COVER-COMplete	1	ACXD11C00010	
	25	EVAPORATOR COVER-COMplete	1	ACXD11C00021	
	26	EVAPORATOR COVER-COMplete	1	ACXD11C00032	
	27	DRAIN PAN-COMplete	1	ACXH40C01170	
	28	CABINET BOTTOM PLATE-COMplete	1	ACXE05C00200	
	29	CABINET TOP PLATE-COMplete	1	ACXE03C01370	
	30	DUCT ASS.Y	1	ACXD22K00060	
	31	CONTROL BOARD ASSY	1	ACXH10K03221	
	32	CONTROL BOARD	1	ACXH10-10650	
⚠	33	TERMINAL BOARD ASSY (POWER SUPPLY)	1	CWA28K1188	O
⚠	34	LEAD WIRE CO - CN-AC	1	ACXA61C01720	O
⚠	35	TERMINAL BOARD	1	ACXA28-00140	O
⚠	36	REACTOR	1	G0C193J00023	O
	37	PACKING	5	ACXB81-00030	
⚠	38	ELECTRONIC CONTROLLER - MAIN	1	ACXA74C06390	O
⚠	39	ELECTRONIC CONTROLLER - COMMUNICATION	1	ACXA73-47790	O
⚠	40	ELECTRONIC CONTROLLER - FM POWER	1	ACXA73-47570	O
	41	INSTALLING HOLDER	4	ACXH36-00580	
	42	BULKHEAD-COMplete	1	ACXD53-01931	
	43	FAN MOTOR BRACKET	1	ACXD54-04970	
⚠	44	FAN MOTOR 1 DC 750W 3PH	1	L6CBYYL0463	O
	45	AIR GUIDER B.W.ASSY	2	ACXD32K00400	
	46	BLOWER WHEEL ASSY	2	ACXH01K00370	
⚠	47	LEAD WIRE CO DC MTR 1	1	ACXA60C98551	O
⚠	48	LEAD WIRE CO - CN-LM	1	ACXA60C96270	O
⚠	49	LEAD WIRE CO - DCM2	1	ACXA60C96260	O

SAFETY	REF. NO.	PART NAME & DESCRIPTION	QTY.	S-200PE4E	REMARK
	50	LEAD WIRE CO - S-LINK	1	ACXA60C96240	O
	51	LEAD WIRE CO - CN-MD	1	ACXA60C96250	O
	52	NOZZLE	4	ACXH43-00230	
	53	BAND	2	CWH881123	
	54	BAND	1	CWH881202	
	55	CABINET	1	ACXE00-00720	
	56	CABINET	1	ACXE00-00270	
	57	CABINET	2	ACXE00-00280	
	58	CABINET	1	ACXE00-00291	
	59	CABINET	1	ACXE00-00301	
	60	STABILIZER	1	ACXD20-00030	
	61	CABINET-COMplete	1	ACXE00C00430	
	62	CABINET-COMplete	1	ACXE00C00440	
	63	POLY-E.FOAM	1	ACXE3A16-1174	
	64	POLY-E.FOAM	1	ACXE5A16-1174	
	65	ADH. POLY-E. FOAM	1	ACXG12-24410	
	66	ADH. POLY-E. FOAM	1	ACXG12-24420	
	67	ADH. POLY-E. FOAM	1	ACXG12-24430	
	69	SCREW	4	CWH551159	
	70	SCREW	2	CWH55440J	
	71	TERMINAL COVER COMPLETE	1	ACXH17C00010	
	72	CONTROL BOARD COVER	1	ACXH13-06310	
	73	WIRING DIAGRAM (CS)	1	ACXF20-16270	
	74	POLY-E.FOAM	2	ACXE8A50-316	
	75	POLY-E.FOAM	2	ACXE5A20-375	
	76	BAND	2	ACXH88-00090	
	77	ACCESSORY-COMplete	1	ACXH82C25450	
	78	PLAIN WASHER	8	XWH10J34FJ	
	79	WIRE SPRING	1	CWH722003	
	80	FLEXIBLE PIPE	1	CWH851032	
	81	LEAD WIRE CO CN-RC	1	ACXA60C96190	O
	82	LEAD WIRE CO - CN-AC IN	1	ACXA60C96280	O
	83	LEAD WIRE CO - CN-OC	1	ACXA60C96290	O
	84	LEAD WIRE CO - MD IN	1	ACXA60C96300	O
	85	OPERATING INSTRUCTION	1	ACXF55-39240	
	86	INSTALLATION INSTRUCTION	1	ACXF60-54690	
	87	INSTALLATION INSTRUCTION	1	ACXF60-54700	
	88	INSTALLATION INSTRUCTION	1	ACXF60-54710	
	89	INSTALLATION INSTRUCTION	1	ACXF60-54720	
	90	INSTALLATION INSTRUCTION	1	ACXF60-54730	
	91	INSTALLATION INSTRUCTION	1	ACXF60-54740	
	92	INSTALLATION INSTRUCTION	1	ACXF60-54750	
	93	INSTALLATION INSTRUCTION	1	ACXF60-54760	
	94	INSTALLATION INSTRUCTION	1	ACXF60-54770	
	95	INSTALLATION INSTRUCTION	1	ACXF60-54780	
	96	INSTALLATION INSTRUCTION	1	ACXF60-54790	
	97	INSTALLATION INSTRUCTION	1	ACXF60-54800	
	98	INSTALLATION INSTRUCTION	1	ACXF60-54810	
	99	INSTALLATION INSTRUCTION	1	ACXF60-54820	

SAFETY	REF. NO.	PART NAME & DESCRIPTION	QTY.	S-200PE4E	REMARK
	100	INSTALLATION INSTRUCTION	1	ACXF60-54830	
	101	INSTALLATION INSTRUCTION	1	ACXF60-54840	
	102	BASE BOARD-COMPLETE	1	ACXG62C02911	
	103	SHOCK ABSORBER	1	ACXG70-09732	
	104	SHOCK ABSORBER	1	ACXG70-09742	
	105	SHOCK ABSORBER	1	ACXG70-10172	
	106	C.C.CASE	1	ACXG50-64820	
	107	MODEL LABEL	2	ACXF87-27300	

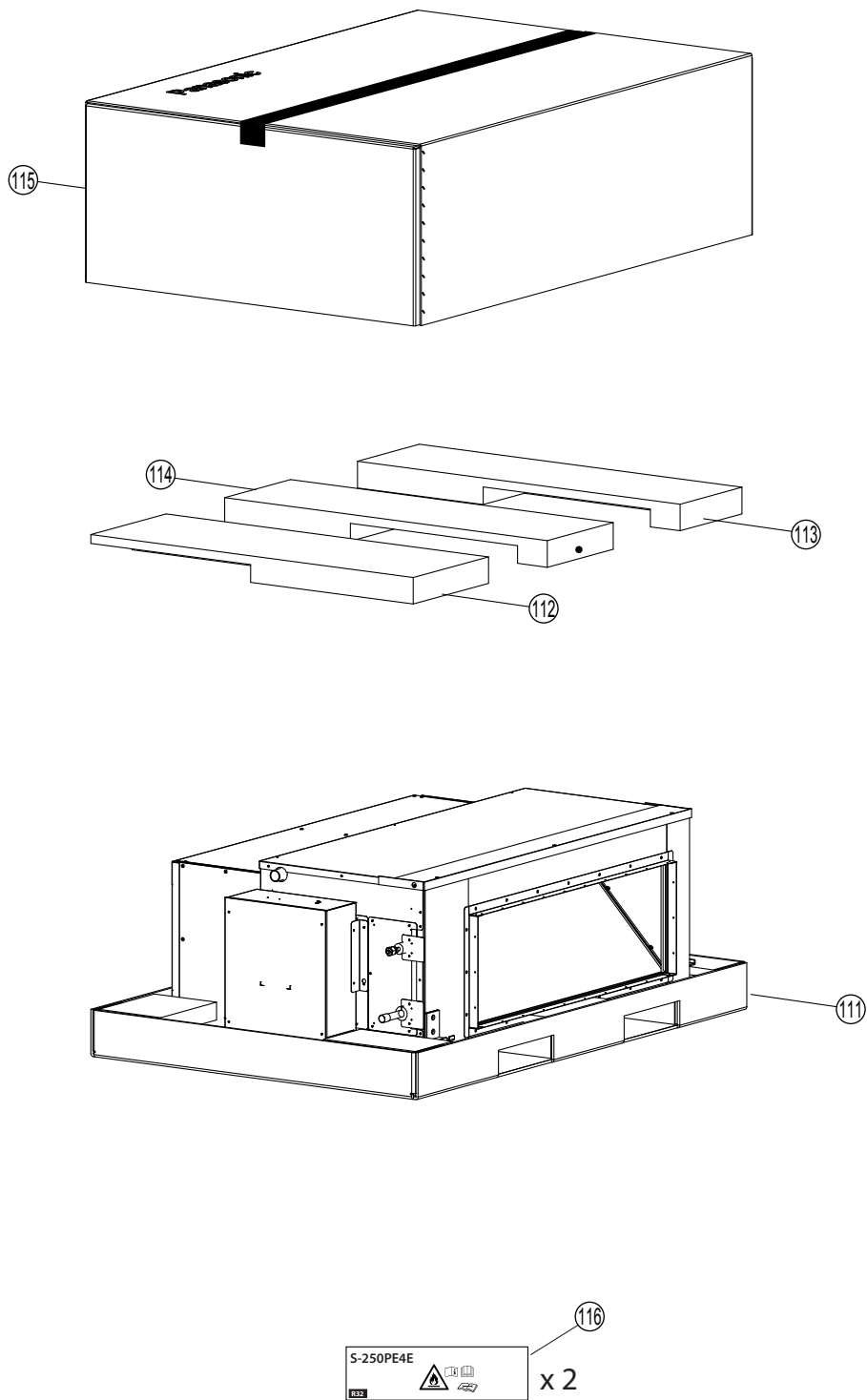
(Note)

- All parts are supplied from PAPAMY, Malaysia (Vendor Code: 00029488).
- "O" marked parts are recommended to be kept in stock.



Note

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Note

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SAFETY	REF. NO.	PART NAME & DESCRIPTION	QTY.	S-250PE4E	REMARK
	1	FIN & TUBE EVAPORATOR ASSY	1	ACXB30K02250	O
	2	EVAPORATOR COVER-COMPLETE	1	ACXD11C00040	
	3	AIR REGULATING PLATE COMPLETE	1	ACXD21C00020	
	4	AIR REGULATING PLATE COMPLETE	1	ACXD21C00070	
	5	AIR REGULATING PLATE COMPLETE	1	ACXD21C00040	
⚠	6	SENSOR COMPLETE (E1)	1	ACXA50C19180	O
⚠	7	SENSOR COMPLETE (E2)	1	ACXA50C19190	O
	8	PLATE SPRING (E1)	1	CWH711010	
	9	PLATE SPRING (E2)	1	CWH711013	
	10	ADH. POLY-E. FOAM	1	ACXG12-06940	
	11	ADH. POLY-E. FOAM	1	CWG123168	
	13	UNION NUT	1	CWT251032	
	14	ADH. POLY-E. FOAM	1	CWG123573	
	15	CABINET FRONT PLATE-COMPLETE	1	ACXE06C04820	
	16	CABINET REAR PLATE-COMPLETE	1	ACXE02C00840	
	17	CABINET SIDE PLATE-COMPLETE	1	ACXE04C08800	
	18	CABINET SIDE PLATE-COMPLETE	1	ACXE04C04780	
	19	CABINET SIDE PLATE-COMPLETE	1	ACXE04C04790	
⚠	20	SENSOR-COMPLETE (TA)	1	ACXA50C19200	O
	21	CABINET SIDE PLATE-COMPLETE	1	ACXE04C04800	
	22	EVAPORATOR COVER-COMPLETE	1	ACXD11C00010	
	23	EVAPORATOR COVER-COMPLETE	1	ACXD11C00021	
	24	EVAPORATOR COVER-COMPLETE	1	ACXD11C00032	
	25	DRAIN PAN-COMPLETE	1	ACXH40C01170	
	26	CABINET BOTTOM PLATE-COMPLETE	1	ACXE05C00200	
	27	CABINET TOP PLATE-COMPLETE	1	ACXE03C01370	
	28	DUCT ASS.Y	1	ACXD22K00060	
	29	CONTROL BOARD ASSY	1	ACXH10K03221	
	30	CONTROL BOARD	1	ACXH10-10650	
⚠	31	TERMINAL BOARD ASSY (POWER SUPPLY)	1	CWA28K1188	O
⚠	33	GENERATOR COMPLETE	1	ACXH94C01810	O
	34	DUCT-COMPLETE	1	ACXD22C00450	
⚠	35	TERMINAL BOARD	1	ACXA28-00140	O
⚠	36	REACTOR	1	G0C193J00023	O
	37	PACKING	5	ACXB81-00030	
⚠	38	ELECTRONIC CONTROLLER - MAIN	1	ACXA74C06400	O
⚠	39	ELECTRONIC CONTROLLER - COMMUNICATION	1	ACXA73-47790	O
⚠	40	ELECTRONIC CONTROLLER - FM POWER	1	ACXA73-47580	O
	41	INSTALLING HOLDER	4	ACXH36-00580	
	42	BULKHEAD-COMPLETE	1	ACXD53C01420	
	43	FAN MOTOR BRACKET ASSY	2	ACXD54K01810	
	44	FAN MOTOR BRACKET	2	ACXD54-03060	
⚠	45	FAN MOTOR 2 DC 750W 3PH	1	L6CBYYL0238	O
	46	ANTI-VIBRATION BUSHING	8	ACXH50-00890	
	47	ANTI-VIBRATION BUSHING	8	ACXH50-00900	
	48	SCREW	16	ACXH55-05160	
	49	PLAIN WASHER	16	XWH8	
⚠	50	FAN MOTOR 1 DC 750W 3PH	1	L6CBYYL0237	O

SAFETY	REF. NO.	PART NAME & DESCRIPTION	QTY.	S-250PE4E	REMARK
	51	AIR GUIDER B.W.ASSY	1	ACXD32K00370	
	52	AIR GUIDER B.W.ASSY	1	ACXD32K00380	
	53	BLOWER WHEEL ASSY	2	ACXH01K00370	
	54	LEAD WIRE CO DC MTR 1	1	ACXA60C96221	
	55	LEAD WIRE CO DC MTR 2	1	ACXA60C96231	
	56	LEAD WIRE CO - CN-LM	1	ACXA60C96270	
	57	LEAD WIRE CO - DCM2	1	ACXA60C96260	
	58	LEAD WIRE CO - S-LINK	1	ACXA60C96240	
	59	LEAD WIRE CO - CN-MD	1	ACXA60C96250	
	60	NOZZLE	4	ACXH43-00230	
	61	BAND	1	CWH881123	
	62	BAND	1	CWH881202	
	63	CABINET	1	ACXE00-00260	
	64	CABINET	1	ACXE00-00270	
	65	CABINET	2	ACXE00-00280	
	66	CABINET	1	ACXE00-00290	
	67	CABINET	1	ACXE00-00300	
	68	STABILIZER	1	ACXD20-00030	
	69	CABINET-COMPLETE	1	ACXE00C00430	
	70	CABINET-COMPLETE	1	ACXE00C00440	
	71	POLY-E.FOAM	1	ACXE3A16-1174	
	72	POLY-E.FOAM	1	ACXE5A16-1174	
	73	ADH. POLY-E. FOAM	1	ACXG12-24410	
	74	ADH. POLY-E. FOAM	1	ACXG12-24420	
	75	ADH. POLY-E. FOAM	1	ACXG12-24430	
	76	DUCT ASS.Y	1	ACXD22K00070	
	77	SCREW	4	CWH551159	
	78	SCREW	2	CWH55440J	
	79	TERMINAL COVER COMPLETE	1	ACXH17C00010	
	80	CONTROL BOARD COVER	1	ACXH13-06310	
	81	WIRING DIAGRAM (CS)	1	ACXF20-16280	
	82	POLY-E.FOAM	1	ACXE8A50-316	
	83	POLY-E.FOAM	2	ACXE5A20-375	
	84	BAND	2	ACXH88-00090	
	85	ACCESSORY-COMPLETE	1	ACXH82C25450	
	86	PLAIN WASHER	8	XWH10J34FJ	
	87	WIRE SPRING	1	CWH722003	
	88	FLEXIBLE PIPE	1	CWH851032	
	89	LEAD WIRE CO - CN-AC	1	ACXA61C01720	O
	90	LEAD WIRE CO CN-RC	1	ACXA60C96190	O
	91	LEAD WIRE CO - CN-AC IN	1	ACXA60C96280	O
	92	LEAD WIRE CO - CN-OC	1	ACXA60C96290	O
	93	LEAD WIRE CO - MD IN	1	ACXA60C96300	O
	94	OPERATING INSTRUCTION	1	ACXF55-39240	
	95	INSTALLATION INSTRUCTION	1	ACXF60-54690	
	96	INSTALLATION INSTRUCTION	1	ACXF60-54700	
	97	INSTALLATION INSTRUCTION	1	ACXF60-54710	
	98	INSTALLATION INSTRUCTION	1	ACXF60-54720	
	99	INSTALLATION INSTRUCTION	1	ACXF60-54730	

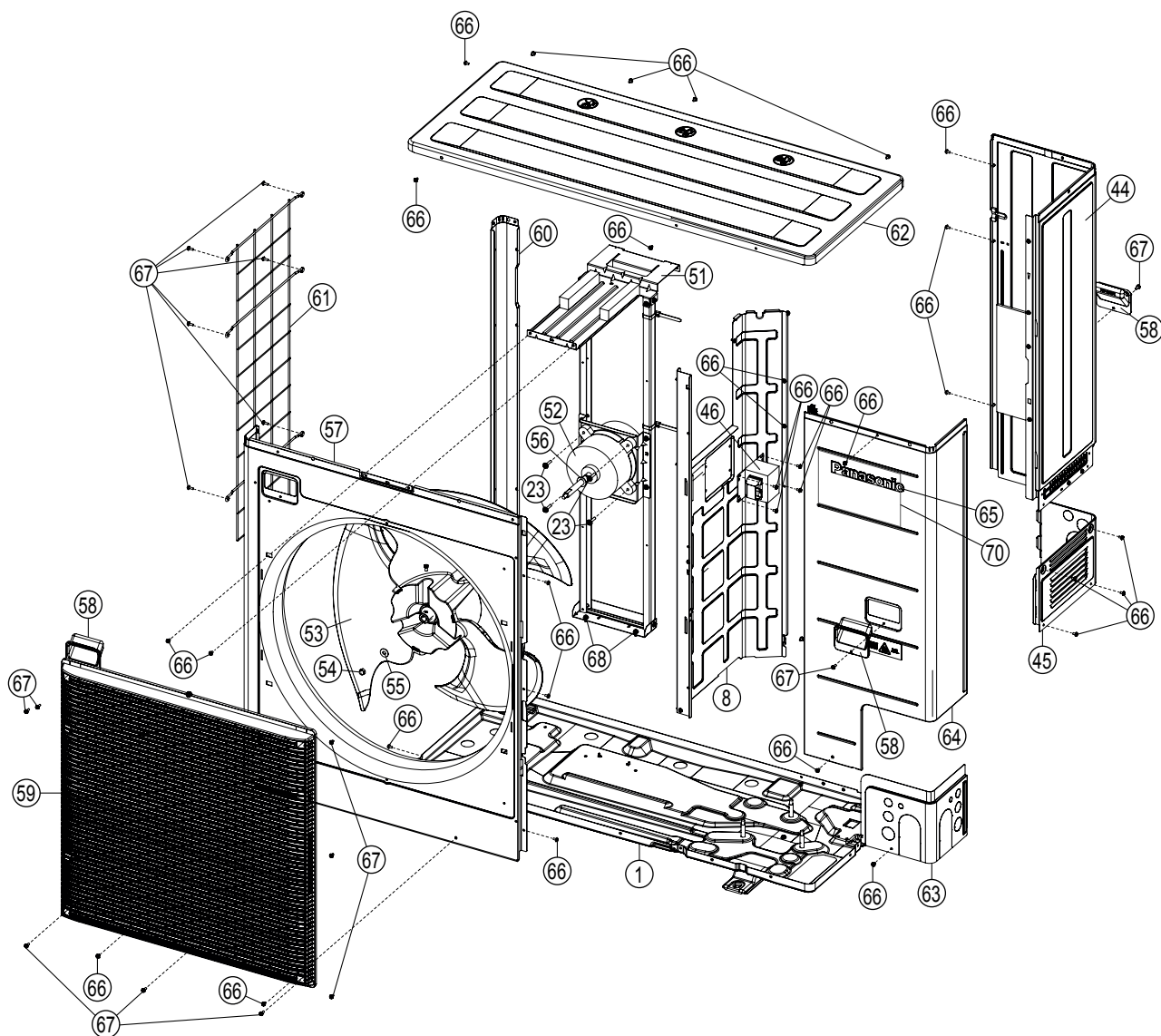
SAFETY	REF. NO.	PART NAME & DESCRIPTION	QTY.	S-250PE4E	REMARK
	100	INSTALLATION INSTRUCTION	1	ACXF60-54740	
	101	INSTALLATION INSTRUCTION	1	ACXF60-54750	
	102	INSTALLATION INSTRUCTION	1	ACXF60-54760	
	103	INSTALLATION INSTRUCTION	1	ACXF60-54770	
	104	INSTALLATION INSTRUCTION	1	ACXF60-54780	
	105	INSTALLATION INSTRUCTION	1	ACXF60-54790	
	106	INSTALLATION INSTRUCTION	1	ACXF60-54800	
	107	INSTALLATION INSTRUCTION	1	ACXF60-54810	
	108	INSTALLATION INSTRUCTION	1	ACXF60-54820	
	109	INSTALLATION INSTRUCTION	1	ACXF60-54830	
	110	INSTALLATION INSTRUCTION	1	ACXF60-54840	
	111	BASE BOARD-COMPLETE	1	ACXG62C02911	
	112	SHOCK ABSORBER	1	ACXG70-09732	
	113	SHOCK ABSORBER	1	ACXG70-09742	
	114	SHOCK ABSORBER	1	ACXG70-10172	
	115	C.C.CASE	1	ACXG50-64820	
	116	MODEL LABEL	2	ACXF87-27310	

(Note)

- All parts are supplied from PAPAMY, Malaysia (Vendor Code: 00029488).
- "O" marked parts are recommended to be kept in stock.

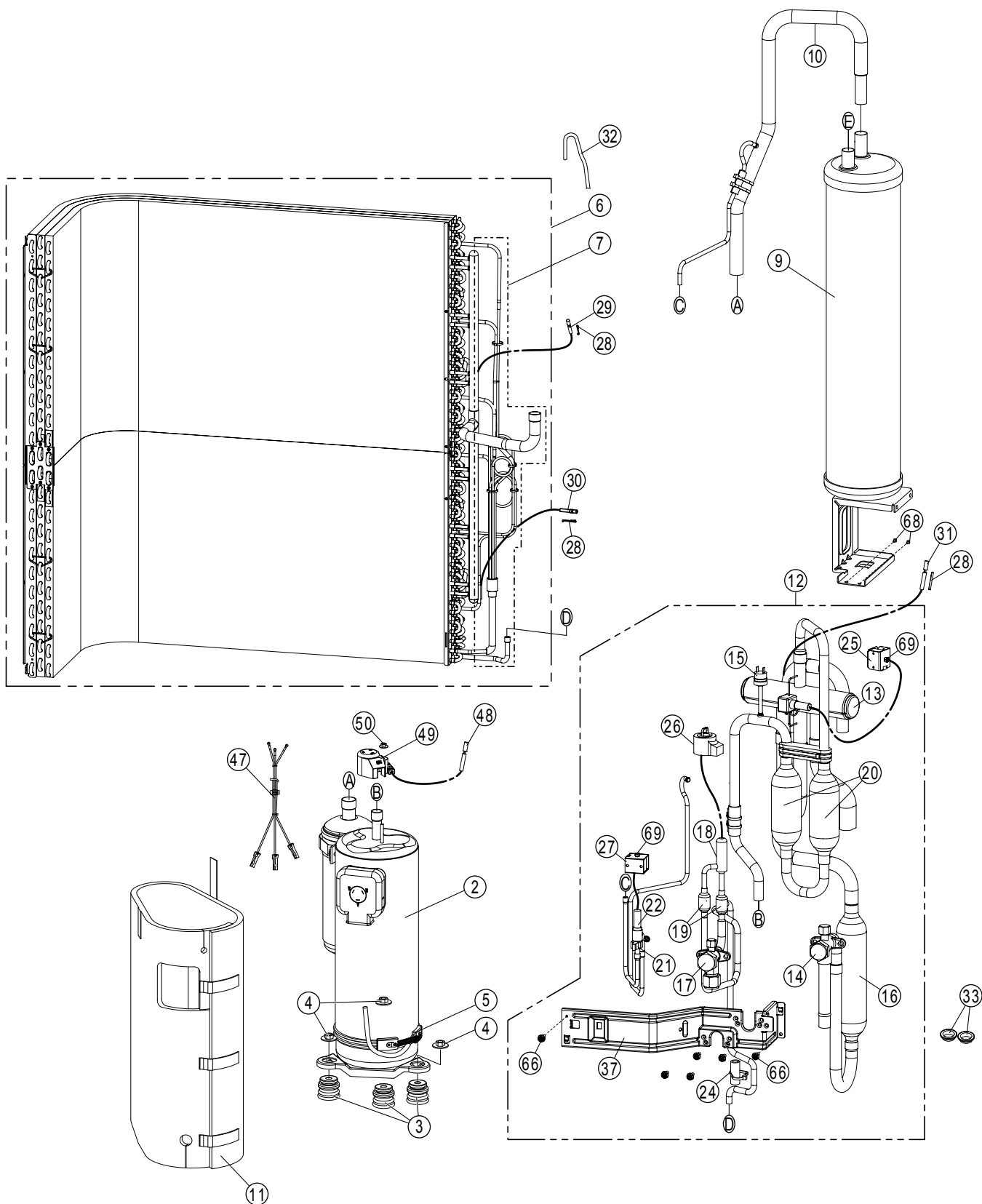
8-2. Outdoor Unit

U-200PZH4E8 U-250PZH4E8



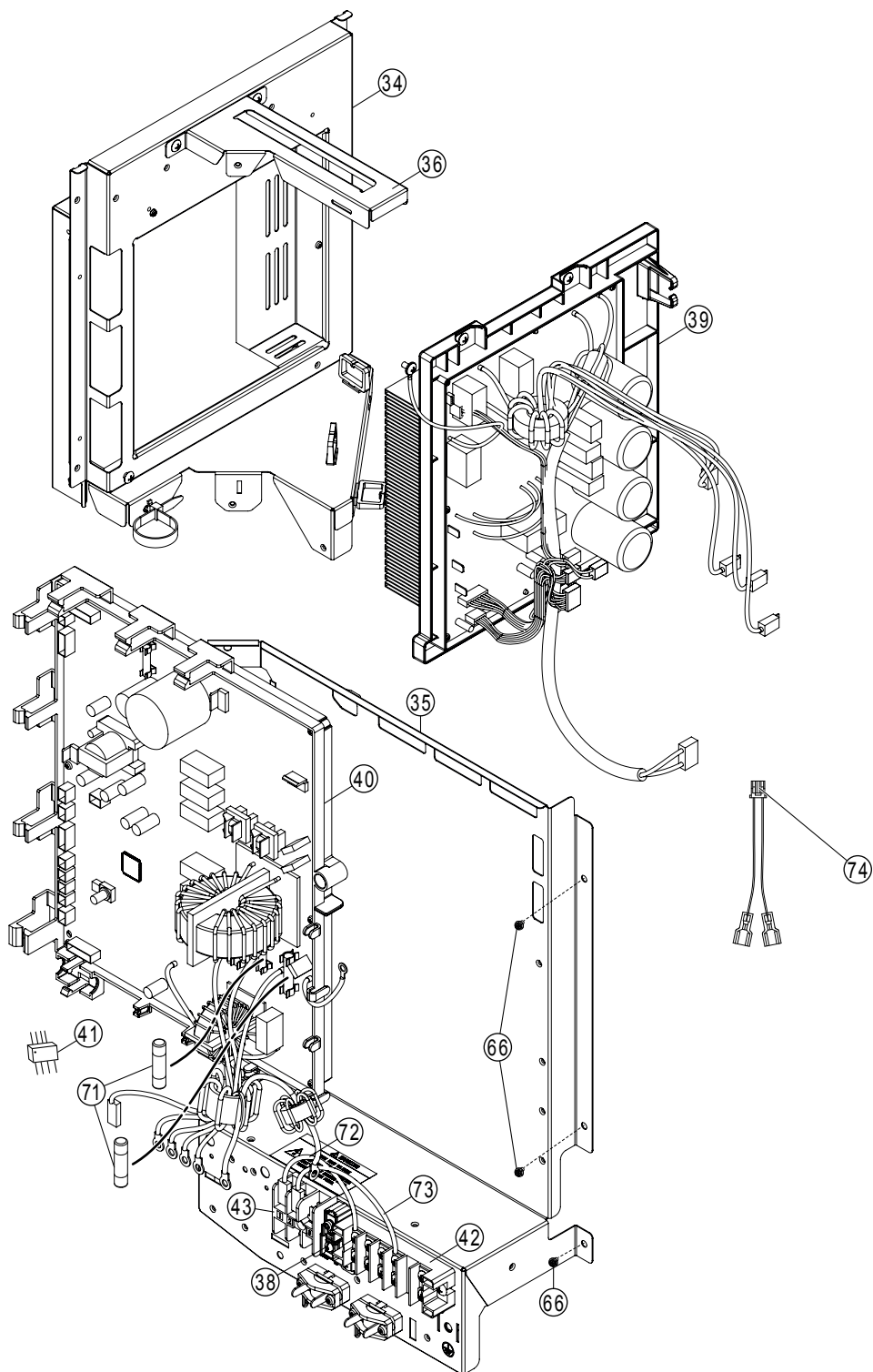
Note

The above exploded view is for the purpose of parts disassembly and replacement.
The non-numbered parts are not kept as standard service parts.

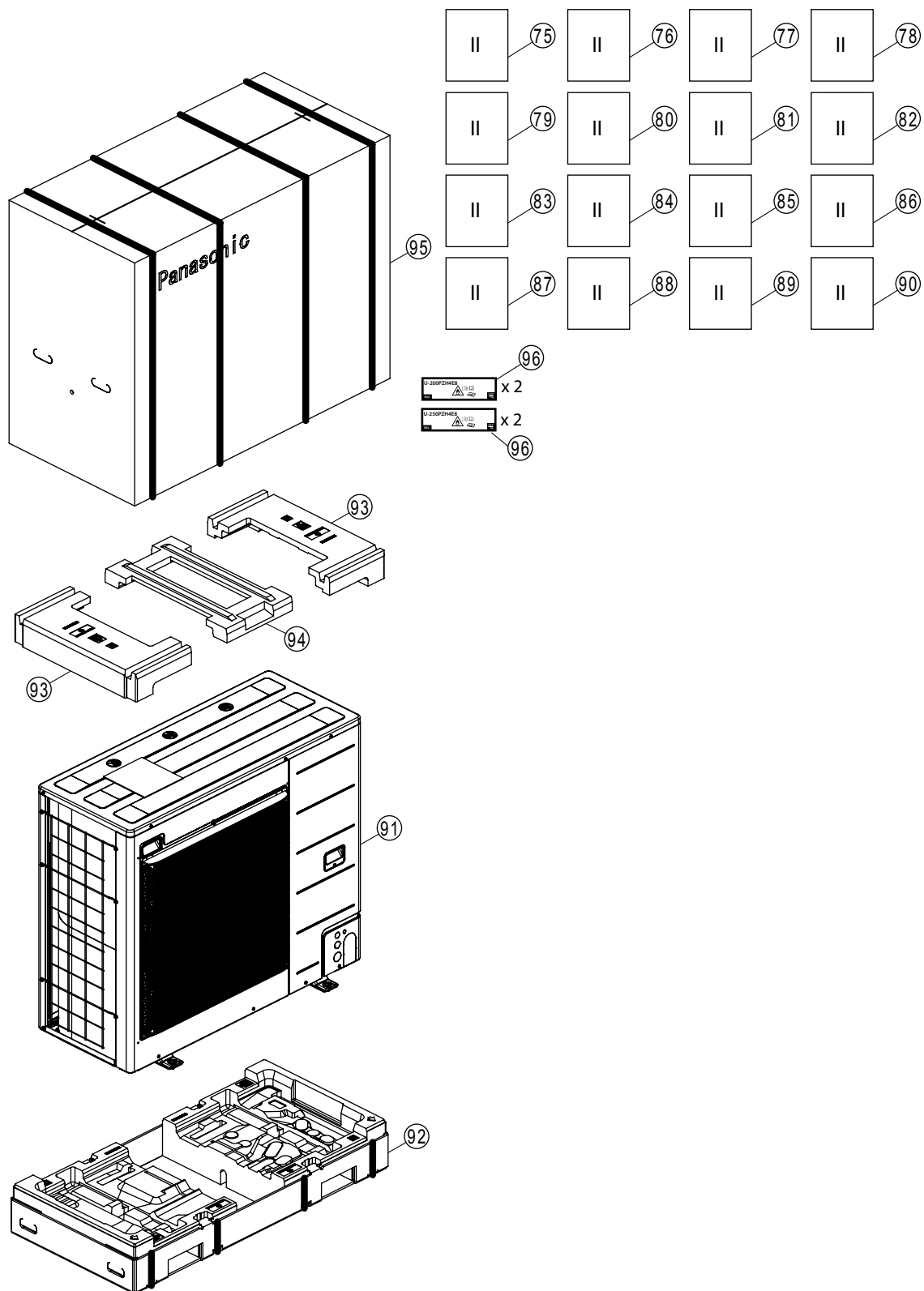


Note

The above exploded view is for the purpose of parts disassembly and replacement.
The non-numbered parts are not kept as standard service parts.



Note
The above exploded view is for the purpose of parts disassembly and replacement.
The non-numbered parts are not kept as standard service parts.



Note

The above exploded view is for the purpose of parts disassembly and replacement.
The non-numbered parts are not kept as standard service parts.

SAFETY	REF. NO.	PART NAME & DESCRIPTION	QTY.	U-200PZH4E8	U-250PZH4E8	REMARK
	1	BASE PAN ASSY	1	ACXD52K05550A	←	
⚠	2	COMPRESSOR	1	9VD550XAA21	←	
	3	ANTI-VIBRATION BUSHING	3	ACXH50-00480	←	
	4	NUT	3	CWH561049	←	
⚠	5	HEATER	1	ACXA34-02200	←	
	6	FIN & TUBE CONDENSER COMPLETE	1	ACXB32C28400	←	
	7	MANIFOLD TUBE ASSY	1	ACXT07C01801	←	
	8	SOUND-PROOF BOARD	1	ACXH15-04190	←	
	9	ACCUMULATOR	1	ACXB13-01130	←	
	10	TUBE ASSY	1	ACXT00C47820	←	
	11	SOUND PROOF MATERIAL (COMP. BODY)	1	ACXG30-08950	←	
	12	TUBE ASSY-COMPLETE	1	ACXT00C47831	←	
	13	4-WAYS VALVE	1	ACXB00-01620	←	
	14	3-WAYS VALVE (GAS)	1	ACXB01-06560	←	
⚠	15	PRESSURE SWITCH	1	ACXA10-00640	←	
	16	DISCHARGE MUFFLER	1	CWB121082	←	
	17	3-WAYS VALVE (LIQUID)	1	ACXB01-06550	←	
	18	EXPANSION VALVE	1	CWB051095	←	
	19	STRAINER	2	CWB111062	←	
	20	DISCHARGE MUFFLER	2	CWB121083	←	
	21	BUSHING	1	CWH511119	←	
	22	2-WAYS VALVE	1	CWB021637	←	
	23	SCREW	4	CWH551455	←	
	24	RUBBER	1	CWG251015	←	
⚠	25	V-COIL COMPLETE(HOT2)	1	ACXA43C08060	←	
⚠	26	V-COIL COMPLETE (MOV)	1	ACXA43C00140	←	
⚠	27	V-COIL COMPLETE (BPV)	1	ACXA43C08070	←	
	28	PLATE SPRING	3	CWH711010	←	
⚠	29	THERMISTOR (C1)	1	ACXA50C13280	←	
⚠	30	THERMISTOR (C2)	1	ACXA50C00170	←	
⚠	31	THERMISTOR (TS)	1	ACXA50C13320	←	
⚠	32	THERMISTOR (T0)	1	ACXA50C17000	←	
	33	BUSHING	2	CWH511089	←	
	34	CONTROL BOARD ASSY	1	ACXH11K00250	←	
	35	CONTROL BOARD ASSY	1	ACXH10K02490	←	
	36	PARTICULAR PLATE	1	ACXD90-30510	←	
	37	PARTICULAR PLATE	1	ACXD90-30500	←	
	38	PARTICULAR PIECE	1	CWD932521	←	
⚠	39	ELEC.CONTROLLER-COMPLETE (HIC)	1	ACXA73C96100	←	
	40	ELEC.CONTROLLER-COMPLETE (CR)	1	ACXA74C06200	←	
	41	EEPROM IC	1	ACXA52C04900	←	
⚠	42	TERMINAL BOARD ASSY(POWER SUPPLY)	1	ACXA28K02650	←	
⚠	43	TERMINAL BOARD ASSY(INDOOR/OUTDOOR CONNECTION)	1	CWA28K1076J	←	
	44	CABINET REAR PLATE-COMPLETE	1	ACXE02C01980	←	
	45	L-SHAPED PLATE	1	ACXD60-04970A	←	
⚠	46	FIXED INDUCTORS	1	G0C392J00021	←	
⚠	47	LEAD WIRE-COMPLETE (COMPRESSOR)	1	ACXA61C00580	←	
⚠	48	THERMISTOR (TD)	1	ACXA50C13290	←	

SAFETY	REF. NO.	PART NAME & DESCRIPTION	QTY.	U-200PZH4E8	U-250PZH4E8	REMARK
	49	TERMINAL COVER	1	CWH171054	←	
	50	NUT	1	CWH7080300J	←	
	51	FAN MOTOR BRACKET ASSY	1	ACXD54K02670	←	
⚠	52	DC MOTORS (BRUSHLESS GENERAL USE)	1	L6CBYYL0486	←	
	53	FAN ASSY	1	ACXH00K00120	←	
	54	NUT	1	CWH561092	←	
	55	WASHER	1	CWH571067	←	
	56	WASHER	1	CWH571068	←	
	57	CABINET FRONT PLATE	1	ACXE06-05560A	←	
	58	HANDLE	3	CWE161024	←	
	59	DISCHARGE GRILLE	1	ACXE20-03110	←	
	60	CABINET SIDE PLATE	1	ACXE04-04940A	←	
	61	WIRE NET.RESIN NET	1	ACXD04-03370A	←	
	62	CABINET TOP PLATE-COMPLETE	1	ACXE03C02480	←	
	63	L-SHAPED PLATE	1	CWD601316A	←	
	64	CABINET FRONT PLATE-COMPLETE	1	ACXE06C05190	←	
	65	BADGE	1	CWE373439	←	
	66	SCREW	47	ACXH55-07200	←	
	67	SCREW	15	ACXH55-07290	←	
	68	SCREW	4	CWH551040J	←	
	69	SCREW	2	CWH551068J	←	
	70	WIRING DIAGRAM (CU)	1	ACXF22-11351	←	
⚠	71	FUSE 30A 500V	2	K5D303YYA059	←	
⚠	72	LEAD WIRE-COMPLETE - L1	1	ACXA60C81990	←	
⚠	73	LEAD WIRE-COMPLETE - N	1	ACXA60C82000	←	
⚠	74	LEAD WIRE-COMPLETE(63PH)	1	ACXA60C64520	←	
	75	INSTALLATION INSTRUCTION	1	ACXF60-53551	←	
	76	INSTALLATION INSTRUCTION	1	ACXF60-53560	←	
	77	INSTALLATION INSTRUCTION	1	ACXF60-53570	←	
	78	INSTALLATION INSTRUCTION	1	ACXF60-53580	←	
	79	INSTALLATION INSTRUCTION	1	ACXF60-53590	←	
	80	INSTALLATION INSTRUCTION	1	ACXF60-53600	←	
	81	INSTALLATION INSTRUCTION	1	ACXF60-53610	←	
	82	INSTALLATION INSTRUCTION	1	ACXF60-53620	←	
	83	INSTALLATION INSTRUCTION	1	ACXF60-53630	←	
	84	INSTALLATION INSTRUCTION	1	ACXF60-53640	←	
	85	INSTALLATION INSTRUCTION	1	ACXF60-53650	←	
	86	INSTALLATION INSTRUCTION	1	ACXF60-53660	←	
	87	INSTALLATION INSTRUCTION	1	ACXF60-53670	←	
	88	INSTALLATION INSTRUCTION	1	ACXF60-53680	←	
	89	INSTALLATION INSTRUCTION	1	ACXF60-53690	←	
	90	INSTALLATION INSTRUCTION	1	ACXF60-53700	←	
	91	BAG	1	ACXG86-06630	←	
	92	BASE BOARD-COMPLETE	1	ACXG62C03010	←	
	93	SHOCK ABSORBER	2	ACXG70-16080	←	
	94	SHOCK ABSORBER	1	ACXG70-16090	←	

SAFETY	REF. NO.	PART NAME & DESCRIPTION	QTY.	U-200PZH4E8	U-250PZH4E8	REMARK
	95	C.C.CASE	1	ACXG50-64340	←	
	96	MODEL LABEL	2	ACXF87-21800	ACXF87-20260	

(Note)

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