Self-diagnosis display function (indoor side display)

While the "timer lamp" (orange), of the indoor unit is blinking, troubleshoot the product while referring to the table below.

1. How to count the lamp blinking frequency
   - The product will repeat blinking with 2-second intermissions.
   - The blinking speed is as follows: on for 0.35 seconds and off for 0.35 seconds.

[An example of 5-time blinking]

2. If you wish to try another operation while the lamp is blinking, operate the START/STOP button on the remote control unit twice. The first push will reset the indoor microcomputer, while the second will activate the product

DESCRIPTION OF THE SELF-DIAGNOSIS INDICATION

REFER TO THE TABLE BELOW IF THE TIMER INDICATOR(ORANGE) IS BLINKING.

LAMP BLINKING MODE	MAIN DEFECTIVE
2 sec — — — — — ONCE	REFRIGERANT CYCLE DEFECTIVE
2 sec — — — — 2 TIMES	FORCED COOLING OPERATION
2 sec — — — 3 TIMES	INTERFACE DEFECTIVE(INDOOR)
2 sec — — — 4 TIMES	OUTDOOR UNIT DEFECTIVE
2 sec — 9 TIMES	INDOOR THERMISTOR DEFECTIVE
2 sec — 10 TIMES	ABNORMAL ROTATING NUMBERS OF DC FAN MOTOR
2 sec — 12 TIMES	INTERFACE DEFECTIVE(OUTDOOR)
2 sec — 13 TIMES	IC531 DEFECTIVE

(— — LIGHTS FOR 0.35 SEC AT INTERVAL OF 0.35 SEC.)

*IF THE INTERFACE CIRCUIT IS DEFECTIVE WHEN THE POWER IS TURNED ON.
THE SELF-DIAGNOSIS INDICATION WILL NOT WORK.

*IF THE INDOOR UNIT CAN NOT BE OPERATED AT ALL,

REFER TO THE TABLE BELOW IF THE INDOOR UNIT DOSE NOT WORK AT ALL.

CHECK POINT	ACTION/REPLACEMENT PARTS, etc
FU1(3.15A)FUSE BLOWN	REPLACE THE PART WHICH CAUSED BLOWING /DISCONNECTION OF FU1(3.15A)FUSE
COME OFF OR DISCONNECTION OF THE CONNECTOR FOR INDICATING P.W.B	FIX CN16 CONNECTOR
FAILURE OF CONTROL P.W.B	REFER TO THE SERVICE GUIDE FOR HOW TO DETERMINE THE FAILED PART

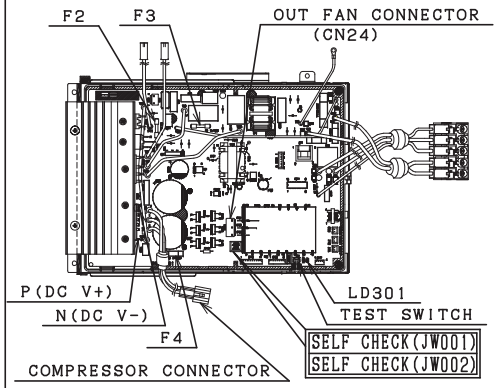
SELF-DIAGNOSIS LIGHTING MODE

MODEL RAC-18/25/35WEC
RAC-10/14WECI

⚠⚠ DANGER (DC350V)

- CUT THE POWER SOURCE AND WAIT MORE THAN 10 MINUTES BEFORE SERVICE WORK.

- CONFIRM THE DC VOLTAGE AT THE MEASURING POINT SHOWN IN BELOW FIGURE MUST BE LESS THAN 10V.

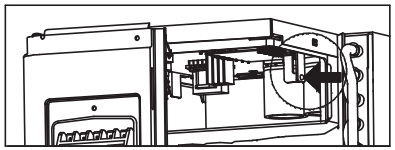


※OTHERS CHECK POINTS

1. DIAGNOSIS FOR 『REVERSING VALVE OPERATION ERROR』 ;
⇒CHECK REVERSING VALVE WIRE CONNECTION EITHER WIRE BROKEN OR NOT. IF OK CHECK 3.15A FUSE. IF BROKEN REPLACE FUSE.
2. 『WHEN DISPLAY THE COMMUNICATION ERROR OR THE OUTDOOR DO NOT RUN AT ALL』.
⇒PLEASE CHECK THE CONTINUITY OF THE INDOOR⇔OUTDOOR CONNECTING CORD(F CABLE).

『OUTDOOR FAN MOTOR CHECK』DIAGNOSIS METHOD

1. PUT THE POWER OFF.
2. REMOVE THE OUTDOOR FAN MOTOR'S CONNECTOR FROM" CN24
3. ROTATE THE FAN MOTOR BY HAND AND CHECK WHETHER THE FAN MOTOR IS LOCKED OR NOT.
4. MEASURE THE RESISTANCE BETWEEN EACH TERMINAL OF THE FAN MOTOR CONNECTOR. NORMAL RESISTANCE BETWEEN EACH TERMINAL:20~50Ω
※INSERT THE FAN MOTOR'S CONNECTOR AFTER FINISHING STEPS 1 TO 4.



DURING STOP	
LD301 LIGHT	CONTENTS
2 SEC LIGHTING AND 0.3 SEC LIGHTS OUT REPETITION	NORMAL OPERATION
	OVERLOAD OPERATION (NORMAL OPERATION)

IN CASE OF DIFFICULT TO JUDGE THE ABNORMAL WITH ODU CONTROLLER OR THE COMP., BLINKING IN 2, 3, 4 OR 5 TIMES AT SELF-DIAGNOSIS IN THE STOPPING STATUS, PLEASE PERFORM THE MEGA CHECK AND CONFIRM THE INSULATION WITH THE COMPRESSOR. AS THERE IS NOT ABNORMAL FOR THE INSULATION WITH COMPRESSOR, PLEASE PERFORM 『SELF-CHECK』.

『SELF-CHECK』DIAGNOSIS METHOD

1. PUT THE POWER OFF.
2. CUTTING 『JW001』BY NIPPER OR BEING SHORT CIRCUIT BETWEEN 『JW001』AND『JW002』(FASTEN TOGETHER WITH A CLIP).
3. PUT THE POWER ON AND OPERATE INDOOR UNIT WITH VENTILATION MODE.
4. PRESS TEST/SERVICE SWITCH FOR 1 SECOND OR MORE (WITHIN 3 MINUTES).
5. SELF-CHECK RESULT WILL DISPLAY AT LD301. SEE THE ABOVE TABLE(『SELF-CHECK』DIAGNOSIS RESULT) FOR THE DETAIL.
6. PUT THE POWER OFF, THEN RELEASE BACK JW001 AND JW002 TO ORIGINAL CONDITION (NO SHORT CIRCUIT CONDITION).

※IF FORGET TO RELEASE BACK JW001 AND JW002, THE TIMER LAMP OF THE INDOOR UNIT BLINKS 12 TIMES.

『SELF-CHECK』 DIAGNOSIS RESULT

SELF-DIAGNOSIS BLINKING MODE ▨:BLINK

LD301 (RED)	SELF-DIAGNOSIS CONTENTS	HOW TO REPIAR
▨ ONCE	NOT CONTROLLER DEFECTIVE	·CHANGE THE COMPRESSOR
▨ 2 TIMES	FOUND PEAK CURRENT ERROR	·CHANGE ODU CONTROLLER
▨ 7 TIMES	COMPRESSOR CURRENT ABNORMAL	·CHECK THE COMPRESSOR ·CONNECTOR AND CONNECT IT PROPERLY ·IF ABOVE ARE OK, CHANGE THE ODU CONTROLLER
▨ 10 TIMES	ABNORMAL DC VOLTAGE	·REACTOR IS DISCONNECTION, →CONNECT IT PROPERLY ·IF AC VOLTAGE INPUT ABNORMAL (OVER STANDARD VOLTAGE±10%) →FOLLOW STANDARD AC VOLTAGE INPUT ·IF AC VOLTAGE INPUT IS NORMAL (WITHIN±10%)→CHANGE P.W.B
▨ 13TIMES	EEPROM READING ERROR	·CHANGE ODU CONTROLLER

RIGHT SIDE ARROW INDICATE THE POSSITION OF TEST SWITCH LEVER ON THE SIDE PANEL (SHOWN IN LEFT FIGURE.)

DURING STOP

SELF-DIAGNOSIS BLINKING MODE ▨:BLINK □:OFF

LD301 (RED)	SELF DIAGNOSIS CONTENTS	MAIN CHECK POINT	HOW TO REPAIR
□ OFF	NORMAL STOP (STOPPED BY INDOOR THERMO-STAT OR MAIN OPERATION OFF)	1. NO NEED TO CHECK ⟷	1. NOT ANY MALFUNCTION
▨ ONCE	FAN MODE OPERATION, RESET STOP	1. INDOOR AIR CLEAN OPERATION ⇒ 2. OTHER CAUSE ⟷	1. NOT ANY MALFUNCTION 2. CHANGE ODU CONTROLLER
▨ 2 TIMES	PEAK CURRENT CUT	1. ODU CONTOROLLER DEFECTIVE ⇒ 2. COMPRESSOR ABNORMAL LOAD ⟹	1. CHANGE ODU CONTROLLER 2. CHECK THE COMPRESSOR
▨ 3 TIMES	ABNORMAL LOW SPEED ROTATION	1. ODU CONTROLLER DEFECTIVE ⟹ 2. COMPRESSOR ABNORMAL LOAD ⟹	1. CHANGE ODU CONTROLLER 2. CHECK THE COMPRESSOR
▨ 4 TIMES	SWITCHING FAILURE	1. COMPRESSOR CONNECTOR OPEN ⇒ 2. COMPRESSOR ABNORMAL LOAD ⟹ 3. ODU CONTROLLER DEFECTIVE ⟹	1. INSERT THE CONNECTOR 2. CHECK THE COMPRESSOR 3. CHANGE ODU CONTROLLER
▨ 5 TIMES	OVERLOAD LOWER LIMIT CUT	1. OBSTACLE SURROUND THE ODU MAY CAUSE ⟷ 2. OTHER CAUSE ⟷	1. REMOVE THE OBSTRUCTION 2. CHECK CYCLE PIPE
▨ 6 TIMES	OH THERMISTOR TEMPERATURE RISE	1. DUE TO OPEN CONNECTOR ⟹ 2. LEAKAGE OF REFRIGERANT ⟹ 3. OTHER CAUSE ⟷	1. INSERT THE CONNECTOR 2. CHECK THE CYCLE PIPE AND RECHARGE THE REFRIGERANT 3. CHANGE ODU CONTROLLER
▨ 7 TIMES	THERMISTOR ABNORMAL	1. CONNECTOR INSERT MISS ⟹ 2. OPEN CIRCUIT/SHORT CIR-CUIT OF THERMISTOR WIRE ⟹ 3. ODU CONTROLLER DEFECTIVE ⟹	1. INSERT PROPERLY 2. CHANGE THE THERMISTOR 3. CHANGE ODU CONTROLLER
▨ 9 TIMES	COMMUNICATIONS ERROR	1. F CABLE MISS CONNECTION ⟹ 2. F CABLE DISCONNECTION ⟹ 3. ODU CONTROLLER DEFECTIVE ⟹	1. F CABLE CONNECT PROPERLY 2. CHANGE THE F CABLE 3. CHANGE ODU CONTROLLER
▨ 10 TIMES	ABNORMAL POWER SOURCE	1. REACTOR IS UNCONNECTED ⟹ 2. ABNORMAL AC INPUT: OUT OF THE RANGE (230±10%) ⟹ 3. AC INPUT IS NORMAL ⟷	1. CONNECT REACTOR PROPERLY 2. CONNECT TO NORMAL AC POWER SOURCE 3. CHANGE ODU CONTROLLER
▨ 11 TIMES	ODU FAN STOP BY STRONG REVERSE WIND	1. OUTDOOR FAN STOP BY STRONG REVERSE WIND ⟷	1. IT WILL RE-START AFTER THE WIND BECOME WEAK
▨ 12 TIMES	OUTDOOR FAN LOCK ERROR	1. OUTDOOR FAN STOP BY STRONG REVERSE WIND ⟷ 2. PROPELLER FAN LOCK ⟷ 3. OUTDOOR FAN MOTOR LOCK ⟹ 4. OUTDOOR FAN MOTOR OK ⟷	1. AUTOMATICALLY RE-START AFTER WIND BECOME WEAK 2. REMOVE THE OBSTRUCTION 3. CHANGE THE FAN MOTOR 4. CHANGE ODU CONTROLLER
▨ 13 TIMES	EEPROM READ ERROR	·CHANGE OUTDOOR UNIT CONTROLLER	
▨ 14 TIMES	ACTIVE VOLTAGE ABNORMAL	1. ABNORMAL OUTDOOR CONTROLLER ⟷ 2. ABNORMAL COMPRESSOR LOAD ⟹	1. CHANGE ODU CONTROLLER 2. CHECK THE COMPRESSOR
▨ 16 TIMES	HIGH LORD STOP	1. SERVICE VALVE CLOSE ⟷ 2. OBSTACLE SURROUND THE ODU UNIT MAY CAUSE ⟷ 3. CLOGGED FILTER IN INDOOR UNIT CAUSE. ⟹	1. CHECK SURVICE VALVE 2. REMOVE THE OBSTRUCTION 3. CHECK FILTER

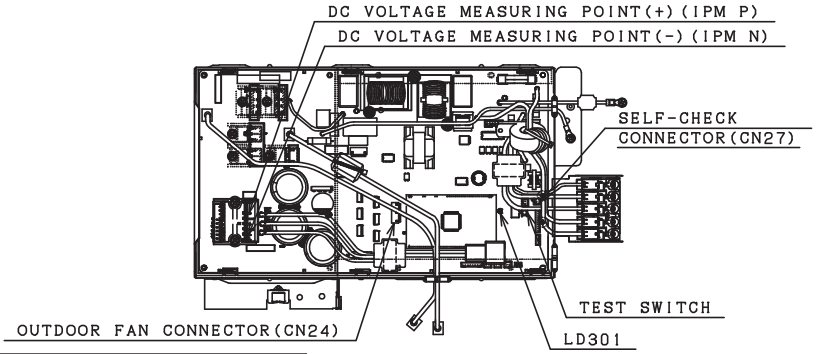
SELF-DIAGNOSIS LIGHTING MODE

MODEL RAC-50WEC
RAC-20WECI

⚠ DANGER(DC350V)

- CUT THE POWER SOURCE AND WAIT MORE THAN 10 MINUTES BEFORE SERVICE WORK.
- CONFIRM THE DC VOLTAGE AT THE MEASURING POINT SHOWN IN BELOW FIGURE MUST BE LESS THAN 10V.

DURING STOP	
LD301	CONTENTS
LIGHT	NORMAL OPERATION
2 SEC LIGHTING AND 0.3 SEC LIGHTS OUT REPETITION	OVERLOAD OPERATION(NORMAL OPERATION)



DURING STOP

SELF-DIAGNOSIS BLINKING MODE ▨:BLINK □:OFF

LD301 (RED)	SELF DIAGNOSIS CONTENTS	MAIN CHECK POINT	HOW TO REPAIR
□ OFF	NORMAL STOP (STOPPED BY INDOOR THERMO-STAT OR MAIN OPERATION OFF)	1. NO NEED TO CHECK ⟹	1. NOT ANY MALFUNCTION
▨ ONCE	FAN MODE OPERATION, RESET STOP	1. INDOOR AIR CLEAN OPERATION ⟹ 2. OTHER CAUSE ⟹	1. NOT ANY MALFUNCTION 2. CHANGE ODU CONTROLLER
▨ 2 TIMES	PEAK CURRENT CUT	1. ODU CONTOROLLER DEFECTIVE ⟹ 2. COMPRESSOR ABNORMAL LOAD ⟹	1. CHANGE ODU CONTROLLER 2. CHECK THE COMPRESSOR
▨ 3 TIMES	ABNORMAL LOW SPEED ROTATION	1. ODU CONTROLLER DEFECTIVE ⟹ 2. COMPRESSOR ABNORMAL LOAD ⟹	1. CHANGE ODU CONTROLLER 2. CHECK THE COMPRESSOR
▨ 4 TIMES	SWITCHING FAILURE	1. COMPRESSOR CONNECTOR OPEN ⟹ 2. COMPRESSOR ABNORMAL LOAD ⟹ 3. ODU CONTROLLER DEFECTIVE ⟹	1. INSERT THE CONNECTOR 2. CHECK THE COMPRESSOR 3. CHANGE ODU CONTROLLER
▨ 5 TIMES	OVERLOAD LOWER LIMIT CUT	1. OBSTACLE SURROUND THE ODU MAY CAUSE ⟹ 2. OTHER CAUSE ⟹	1. REMOVE THE OBSTRUCTION 2. CHECK CYCLE PIPE
▨ 6 TIMES	OH THERMISTOR TEMPERATURE RISE	1. DUE TO OPEN CONNECTOR ⟹ 2. LEAKAGE OF REFRIGERANT ⟹ 3. OTHER CAUSE ⟹	1. INSERT THE CONNECTOR 2. CHECK THE CYCLE PIPE AND RECHARGE THE REFRIGERANT 3. CHANGE ODU CONTROLLER
▨ 7 TIMES	THERMISTOR ABNORMAL	1. CONNECTOR INSERT MISS ⟹ 2. OPEN CIRCUIT/SHORT CIR-CUIT OF THERMISTOR WIRE ⟹ 3. ODU CONTROLLER DEFECTIVE ⟹	1. INSERT PROPERLY 2. CHANGE THE THERMISTOR 3. CHANGE ODU CONTROLLER
▨ 9 TIMES	COMMUNICATIONS ERROR	1. F CABLE MISS CONNECTION ⟹ 2. F CABLE DISCONNECTION ⟹ 3. ODU CONTROLLER DEFECTIVE ⟹	1. F CABLE CONNECT PROPERLY 2. CHANGE THE F CABLE 3. CHANGE ODU CONTROLLER
▨ 10 TIMES	ABNORMAL POWER SOURCE	1. REACTOR IS UNCONNECTED ⟹ 2. ABNORMAL AC INPUT: OUT OF THE RANGE (230±10%) ⟹ 3. AC INPUT IS NORMAL ⟹	1. CONNECT REACTOR PROPERLY 2. CONNECT TO NORMAL AC POWER SOURCE 3. CHANGE ODU CONTROLLER
▨ 11 TIMES	ODU FAN STOP BY STRONG REVERSE WIND	1. OUTDOOR FAN STOP BY STRONG REVERSE WIND ⟹	1. IT WILL RE-START AFTER THE WIND BECOME WEAK
▨ 12 TIMES	OUTDOOR FAN LOCK ERROR	1. OUTDOOR FAN STOP BY STRONG REVERSE WIND ⟹ 2. PROPELLER FAN LOCK ⟹ 3. OUTDOOR FAN MOTOR LOCK ⟹ 4. OUTDOOR FAN MOTOR OK ⟹	1. AUTOMATICALLY RE-START AFTER WIND BECOME WEAK 2. REMOVE THE OBSTRUCTION 3. CHANGE THE FAN MOTOR 4. CHANGE ODU CONTROLLER
▨ 13 TIMES	EEPROM READ ERROR	·CHANGE OUTDOOR UNIT CONTROLLER	
▨ 14 TIMES	ACTIVE VOLTAGE ABNORMAL	1. ABNORMAL OUTDOOR CONTROLLER ⟹ 2. ABNORMAL COMPRESSOR LOAD ⟹	1. CHANGE ODU CONTROLLER 2. CHECK THE COMPRESSOR
▨ 15 TIMES	CIRCUIT ABNORMAL	·CHANGE OUTDOOR UNIT CONTROLLER	
▨ 16 TIMES	HIGH LORD STOP	1. SERVICE VALVE CLOSE ⟹ 2. OBSTACLE SURROUND THE ODU UNIT MAY CAUSE ⟹ 3. CLOGGED FILTER IN INDOOR UNIT CAUSE. ⟹	1. CHECK SURVICE VALVE 2. REMOVE THE OBSTRUCTION 3. CHECK FILTER

※EXAMPLE OF BLINKING (5TIMES) ▮▮▮▮▮ 2SEC (▮··LIGHTS FOR 0.25 SEC AT INTERVAL OF 0.25 SEC.) ODU:OUTDOOR UNIT

IN CASE OF DIFFICULT TO JUDGE THE ABNORMAL WITH ODU CONTROLLER OR THE COMP., BLINKING IN 2, 3, 4 OR 5 TIMES AT SELF-DIAGNOSIS IN THE STOPPING STATUS, PLEASE PERFORM THE MEGA CHECK AND CONFIRM THE INSULATION WITH THE COMPRESSOR. AS THERE IS NOT ABNORMAL FOR THE INSULATION WITH COMPRESSOR, PLEASE PERFORM 『SELF-CHECK』.

『SELF-CHECK』DIAGNOSIS METHOD

1. PUT THE POWER OFF.
2. REMOVE THE SELF-CHECK CONNECTOR"CN27".
3. PUT THE POWER ON. (LD301:4 SEC LIGHTING AND 2 SEC LIGHTS OUT).
4. PUSH 『TEST SWITCH』DURING 1 SEC OR MORE.
5. 『SELF-CHECK』DIAGNOSIS RESULT WILL DISPLAY AT LD301. SEE THE BELOW TABLE FOR THE DETAIL.
6. PUT THE POWER OFF AND CONNECT THE SELF-CHECK CONNECTOR"CN27".

※IF FORGET TO CONNECTING THE "CN27", THE TIMER LAMP OF THE INDOOR UNIT BLINKS 12 TIMES.

『SELF-CHECK』 DIAGNOSIS RESULT

SELF-DIAGNOSIS BLINKING MODE ▨:BLINK

LD301 (RED)	SELF-DIAGNOSIS CONTENTS	HOW TO REPIAR
▨ ONCE	NOT CONTROLLER DEFECTIVE	·CHANGE THE COMPRESSOR
▨ 2 TIMES	FOUND PEAK CURRENT ERROR	·CHANGE ODU CONTROLLER
▨ 7 TIMES	COMPRESSOR CURRENT ABNORMAL	·CHECK THE COMPRESSOR ·CONNECTOR AND CONNECT IT PROPERLY ·IF ABOVE ARE OK, CHANGE THE ODU CONTROLLER
▨ 10 TIMES	ABNORMAL DC VOLTAGE	·REACTOR IS DISCONNECTION, →CONNECT IT PROPERLY ·IF AC VOLTAGE INPUT ABNORMAL (OVER STANDARD VOLTAGE±10%) →FOLLOW STANDARD AC VOLTAGE INPUT ·IF AC VOLTAGE INPUT IS NORMAL (WITHIN±10%)→CHANGE P.W.B
▨ 13 TIMES	EEPROM READING ERROR	·CHANGE ODU CONTROLLER

『OUTDOOR FAN MOTOR CHECK』DIAGNOSIS METHOD

1. PUT THE POWER OFF.
2. REMOVE THE OUTDOOR FAN MOTOR'S CONNECTOR FROM"CN24".
3. ROTATE THE FAN MOTOR BY HAND AND CHECK WHETHER THE FAN MOTOR IS LOCKED OR NOT.
4. MEASURE THE RESISTANCE BETWEEN EACH TERMINAL OF THE FAN MOTOR CONNECTOR. NORMAL RESISTANCE BETWEEN EACH TERMINAL:20~50Ω

※INSERT THE FAN MOTOR'S CONNECTOR AFTER FINISHING STEPS 1 TO 4.

※OTHERS CHECK POINTS

1. DIAGNOSIS FOR 『REVERSING VALVE OPERATION ERROR』 ;
⇒CHECK REVERSING VALVE WIRE CONNECTION EITHER WIRE BROKEN OR NOT. IF OK CHECK 3.15A FUSE. IF BROKEN REPLACE FUSE
2. 『WHEN DISPLAY THE COMMUNICATION ERROR OR THE OUTDOOR DO NOT RUN AT ALL』.
⇒PLEASE CHECK THE CONTINUITY OF THE INDOOR ⇔ OUTDOOR CONNECTING CORD(F CABLE).