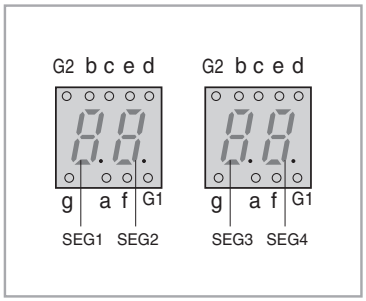
9-1-1 Initial Tracking(Check the Communication)-If an Error, display E2

1. The contents displayed on the display part of the outdoor unit may be changed by the outdoor unit whether it has the master unit or the sub unit.

1) Master Unit

- When inputting the power, the outdoor unit MICOM tries the communication with the indoor unit connected to the communication wire (F/F2).
- The two display parts on the left side display the main address of the indoor unit that the outdoor unit tries to the connection of communication in order. (Example: 0, 1, 2, ~, and 47)
- The two display parts on the right side display the main address of the indoor unit that the outdoor unit succeeded in the communication. (Example: 0, 1, 2, ~, and 47)
- If the number of indoor units, set on the outdoor unit, is not equal to the number of indoor units, succeeded in the communication, the four display parts display E201.

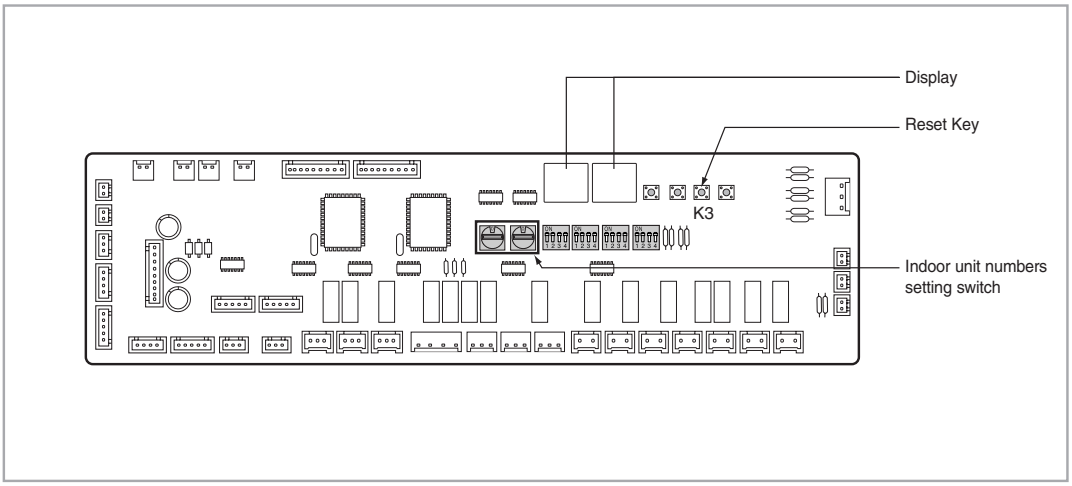


Outdoor Unit Display Part

2) Sub (Slave) Unit

- Display the MICOM address of the main PBA of the inside of the sub unit connected to the master unit alternately. (Example: C9, CA, CB, CC, CD, CE, and DF)

2. By using the indoor unit installation number setting switch, find out the number of the indoor unit connected to the outdoor unit.



The Indoor Unit Installation Number Setting Switch

Following is an example of the switch usage according to the indoor unit installation number.
The maximum number of connectable indoor units is up to 48.

3 units Connection		17 units Connection		31 units Connection		48 Units Connection	
Tenth Digit	Single Digit	Tenth Digit	Single Digit	Tenth Digit	Single Digit	Tenth Digit	Single Digit
0	3	1	7	3	1	4	8

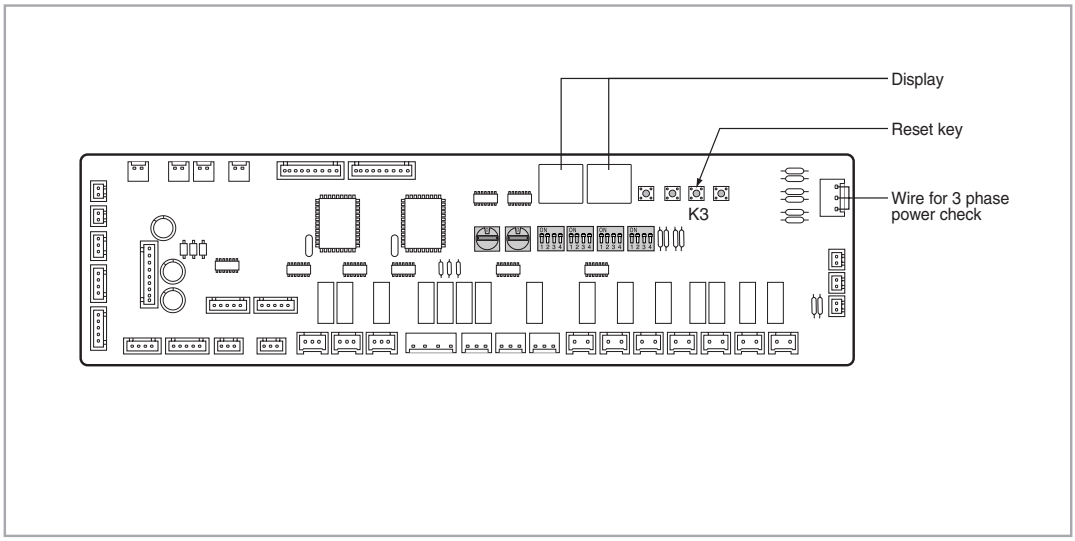
Tenth Digit (0~9) Single Digit (0~9)

3. If the number of the indoor units, founded by the indoor unit installation number setting switch, is not equal to the number of the indoor units, founded in the course of the tracking, Er and E2 are alternately displayed on the display part.

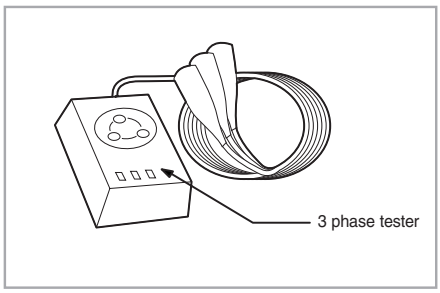
9-1-2 Reverse Phase/Missing Phase Detection (outdoor unit using 3 phase power)- E425 indicated if abnormal

1. If the power is on, check the power to be used for 3 phase power compressor.

If there is any change of order for 3 phase L1(R)-L2(S)-L3-(T) (reverse phase) or the phase power (missing phase) which means the power is not on, E425 are indicated alternately and the air conditioner is kept to stop.

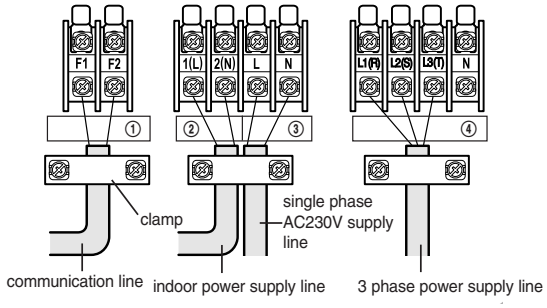


1) Check the L19(R)-L2(S) phase/L1(R)-L3(T) phase/L2(S)-L3(T) phase voltage.
2) If there is any terminal with not having the normal voltage, check the external power of the air conditioner and manage it.
3) If the 3 phase power is normal, check the phase of the power cable using 3 phase tester. When reverse phase is displayed, change the power cable connection.
4) Press reset key (K3) after above management and check the power again.



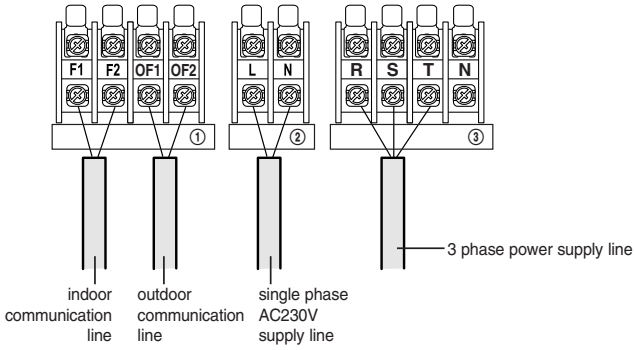
5) If there is abnormal condition even after one more check, check the cable color for 3 phase power. If there is no abnormal as a result of check, replace the PCB.

■ **mini DVM Series**



① communication part
② indoor power
③ power
④ power(Compressor)

■ **DVM Plus Series**



① communication part
② power
③ power(Compressor)

9-1-3 Compressor preheating - Ch indicated

1. Once the tracking is completed, check the temperature of compressor before starting the system operation.
   Ch is displayed at the display part at the time.

2. If it is the condition for compressor operation as the result of check, the flickering of Ch disappears and the indoor unit address trying to communicate with outdoor unit displays and the responding address on the right part.

3. If it is not the condition for the compressor operation at the moment, Ch is kept flickering on the display part and CCH (crank case heater) heats the compressor for 2 and half hours.
   The compressor cannot be operated for the time, but can be operated if Ch disappears due to the sufficient heating for 2 and half hours.

4. The check of operation ability by the temperature is performed only once at the initial stage.
   However, in case that the product is installed and operated for the first time, the power shall be put 6 hours before.

9-2 Self Diagnosis by Indoor Unit LED (Display Lamp) Display

Error type	LED lamp display					Operating
	Operation	Defrost	Timer	Fan	Filter	
Power reset	◑	×	×	×	×	
Error of temperature sensor in indoor unit (OPEN/SHORT)	×	×	◑	×	×	Displayed on appropriate indoor unit which is operating
Error of heat exchanger sensor in indoor unit Error of heat exchanger OUT sensor in indoor unit Error of outlet temperature sensor in indoor unit (OPEN/SHORT): For heat pump models only	◑	×	◑	×	×	Displayed on appropriate indoor unit which is operating
Error of mixed operation	×	◑	×	◑	×	
Error of outdoor temperature sensor Error of COND sensor Error of DISCHARGE sensor	◑	×	×	◑	×	Displayed on appropriate indoor unit which is operating Displayed on outdoor unit
1. No communication for 2 minutes between indoor unit and outdoor unit (communication error for more than 2 minutes) 2. Indoor unit receiving the communication error from outdoor unit 3. Outdoor unit tracking 3 minute error 4. When sending the communication error from outdoor unit due to the mismatching of the communication numbers and installed numbers after completion of tracking (communication error for more than 2 minutes)	×	×	◑	◑	×	1. Error of indoor unit: Displayed on the indoor unit regardless of operation 2. Error of outdoor unit: Displayed on the indoor unit which is operating

● : On ◑ : Flickering × : Off

Error Action	LED LAMP Display					Remarks
	Operation	Defrost	Timer	Fan	Filter	
Self diagnosis error display (Includes not detecting indoor units) 1. EEV close status defect 2. EEV open status defect 3. EVAP OUT sensor breakaway 4. EVAP IN sensor breakaway	×	×	◑	◑	◑	Relevant indoor unit error display (Display at only the indoor unit under the operation)
5. COND MID sensor breakaway 6. Refrigerant complete leakage 2nd detection 7. COND high temperature 2nd detection 8. DISCHARGE high temperature 2nd detection 9. Low pressure switch 2nd detection COMP DOWN 10. Reverse phase detection error 11. Freezing 6th detection compressor stop 12. Compression sensor self diagnosis (G8, G9) 13. Compressor down error by compression ratio control	×	×	◑	◑	◑	There is the separate display for the outdoor unit. (Display at only the indoor unit under the operation)
Plot switch detection	×	×	×	◑	◑	
Peripheral control device option setting error	×	×	◑	×	◑	
EEPROM error	◑	×	◑	◑	×	
EEPROM option error	◑	×	◑	◑	◑	
Indoor unit for 10 HP private use option setting error	×	×	×	×	◑	

● On ◑ Blink × Off

✳ When stopping the operation during an error is displayed, all lamps are off.

✳ When restarting after stopping an operation, redisplay the error status by deciding the error again on normal operation.

■ E440, E442 : Prohibit Compressor Starting according to the Outdoor Temperature

Outdoor unit display	E440 (Forbid heat mode operation when outdoor temperature is over 30°C) E442 (Forbid an operation during heat mode with refrigerant charging operation when outdoor temperature is over 15°C)
Indoor unit display	No display
Judgment method	E440 : An error occurs and starting is prohibited right before starting the heat mode of the outdoor unit by the remote control on signal of the indoor unit or when outdoor temperature is over 30°C. E442 : An error occurs and starting is prohibited right before starting the heat mode with refrigerant charging operation by the K1 switch of outdoor PCB or when outdoor temperature is over 15°C.
Causes	Operation prohibit mode according to the limit of outdoor temperature

1. Check Method

The above error code is not for the products' error. Because this specification is to protect the products by restricting the temperature ranges, use it by referring the temperature range of use condition in the manual.

If the above error code is occurred despite the condition does not correspond to the above judgment method, read the value of the outdoor inlet air temperature sensor by use of the view mode or S-net, and then if the value is different from the actual outdoor temperature, replace the temperature sensor.

■ E443 : Start prohibition by refrigerant pressure error

Outdoor unit display	E443
Indoor unit display	× (Operation) ◑ (Timer) ◑ (Fan) ◑ (Filter) × (Defrost)
Judgment method	Do not start when the price of high pressure sensor of main unit becomes below 3.1kg/cm²G on cooling or it becomes below 2kg/cm²G on heating during 3 seconds in continuation before Pump down start.(Restart is impossible, and Error message is indicated in the indoor unit.)
Causes	Refrigerant leaking / High pressure sensor error

1. Check Method

1) Check the pressure of system by Manifold Gauge at the state of the system being stopped.
2) Read the price of high pressure sensor by use of View mode or S-net.
3) If the prices of 1 and 2 are similar, the most of refrigerant is leaked. Discharge the remainder refrigerant, re-vacuum and recharge the refrigerant.
4) If the prices of 1 and 2 are very different, the contact of connector part or the sensor is defective. Check and exchange them if necessary.

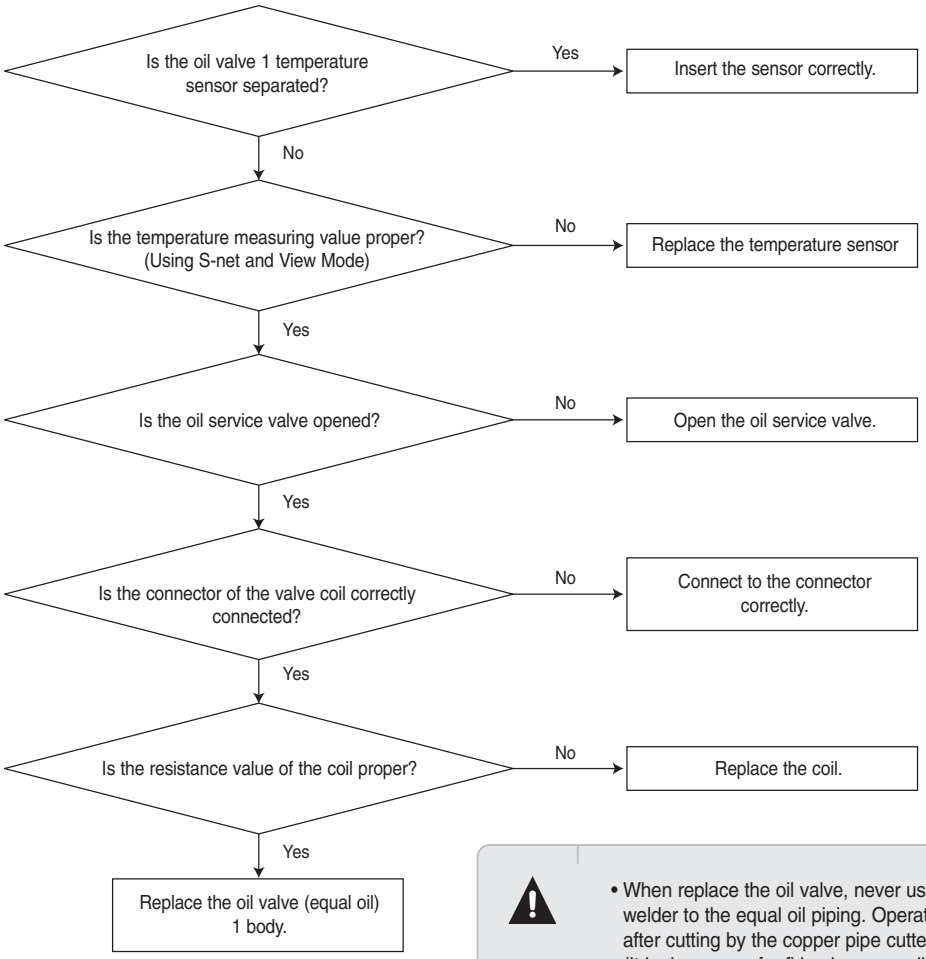
⚠

- Above error can be occurred because pressure is low on the low pressure side according to the refrigerant is only gathered at the outdoor heat exchanger after pump-down. In this case, after correctly connecting the pipe to the indoor unit and open the service valve, refrigerant circulates to the low pressure side; thus, the error is disappeared.

■ E431 : Oil Valve(Equal Oil Valve) 1 Self Diagnosis(Open or Close Error, Sensor Breakaway or Defect)

Outdoor unit display	E431
Indoor unit display	× (Operation) ◑ (Timer) ◑ (Fan) ◑ (Filter) × (Defrost)
Judgment method	1. In case only one outdoor unit is installed, do not judge. 2. When the oil valve (equal oil valve) 1 is broken during more than 2 outdoor unit is connected and exchange oil or when the temperature sensor for detecting a defect of the equal oil valve 1 is broken away, the error is displayed. 3. After closing the equal valve 1 before starting equal oil operation and opening the Hot Gas Bypass, if temperature is raised by over 5°C, the error is displayed. 4. After open the oil valve (equal oil valve) 1 on the oil discharging step during the equal oil operation and open the Hot Gas Bypass, if temperature is not changed by over 7°C, the error is displayed.
Causes	Oil valve (equal oil valve) temperature sensor breakaway / oil valve (equal oil valve) 1 defect / coil defect or terminal contact badness

1. Check Method

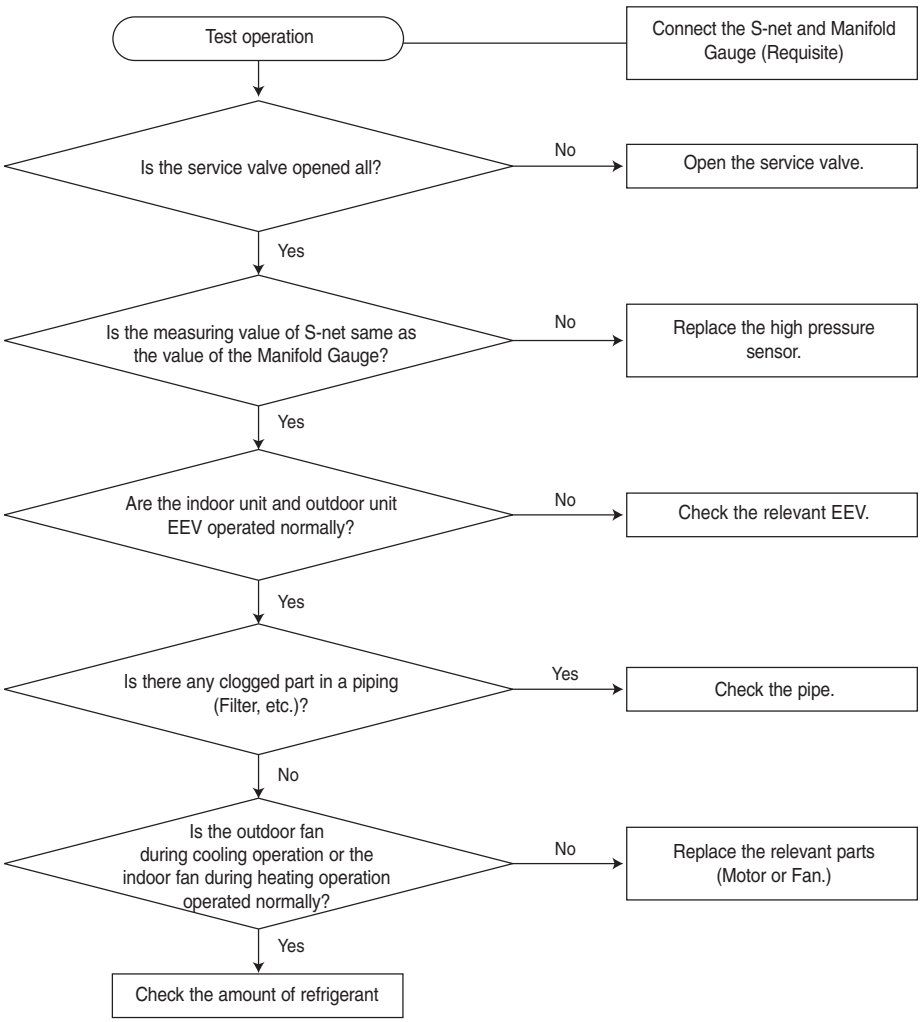


• When replace the oil valve, never use a welder to the equal oil piping. Operate after cutting by the copper pipe cutter. (It is dangerous for firing because oil is gathered to the equal oil piping.)

■ E407 : Compressor Down by High Pressure Protection Control

Outdoor unit display	E407
Indoor unit display	× (Operation) ◑ (Timer) ◑ (Fan) ◑ (Filter) × (Defrost)
Judgment method	Detect when the high pressure sensor value is over 41kg/cm²
Causes	**<Cooling operation>** Outdoor unit fan motor error (lock, defect) / Motor Driver defect or Wire short / Contamination of the outdoor unit heat exchanger / SSR defect for Fan control / Service Valve closeness / Excess amount of refrigerant **<Heating operation>** Indoor unit fan motor error (lock, defect) /Fan Motor Capacitor defect or Wire short / Service Valve closeness / Excess amount of refrigerant

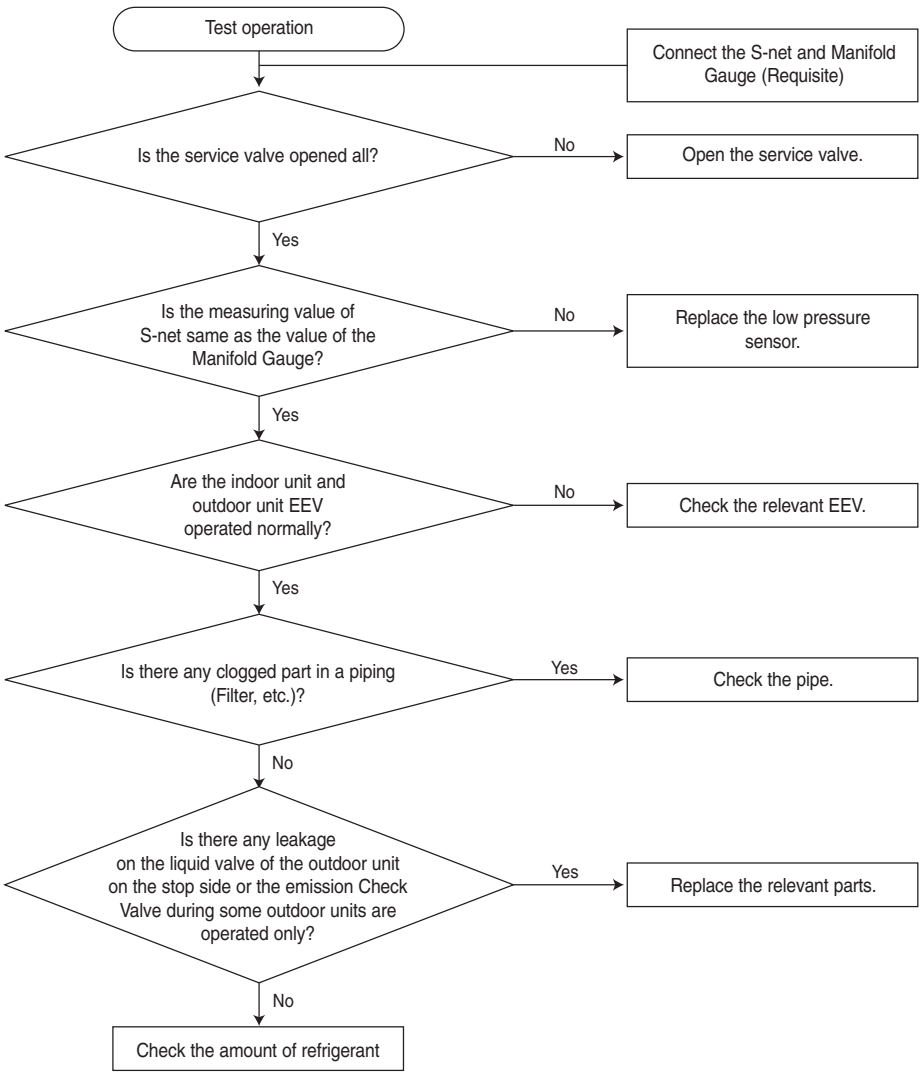
1. Check Method



■ E410 : Compressor Down by Low Pressure Protection Control

Outdoor unit display	E410
Indoor unit display	× (Operation) ◑ (Timer) ◑ (Fan) ◑ (Filter) × (Defrost)
Judgment method	Detect when the low pressure sensor value is under 2.6kg/cm² during cooling operation and when the value is under 1.4kg/cm² during heating operation.
Causes	Insufficient refrigerant / EV clogging / Service valve clogging / Compressor unloading defect / Low pressure sensor defect / Compressor Discharge Check Valve leakage of the outdoor unit on the stop side If use at the temperature that is far from the using condition (start when outside temperature is below -20°C during heating operation and when outside temperature is below -5°C during cooling operation), the relevant error can be occurred.

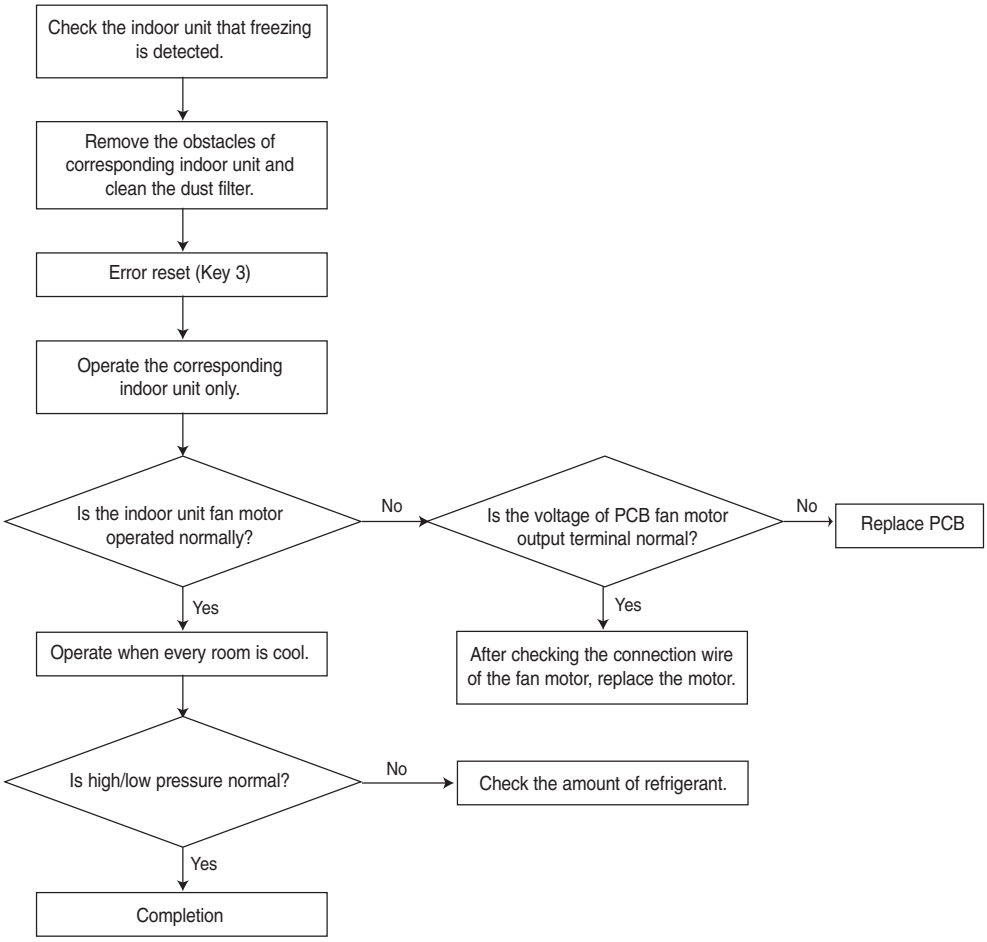
1. Check Method



■ E403 : Compressor Down by Indoor Unit Freezing Protection Control

Outdoor unit display	E403
Indoor unit display	× (Operation) ◑ (Timer) ◑ (Fan) ◑ (Filter) × (Defrost)
Judgment method	When the temperature of indoor unit heat exchanger during cooling operation maintains for over 5 minutes below -4°C
Causes	Indoor fan motor lock or defect EEV open error

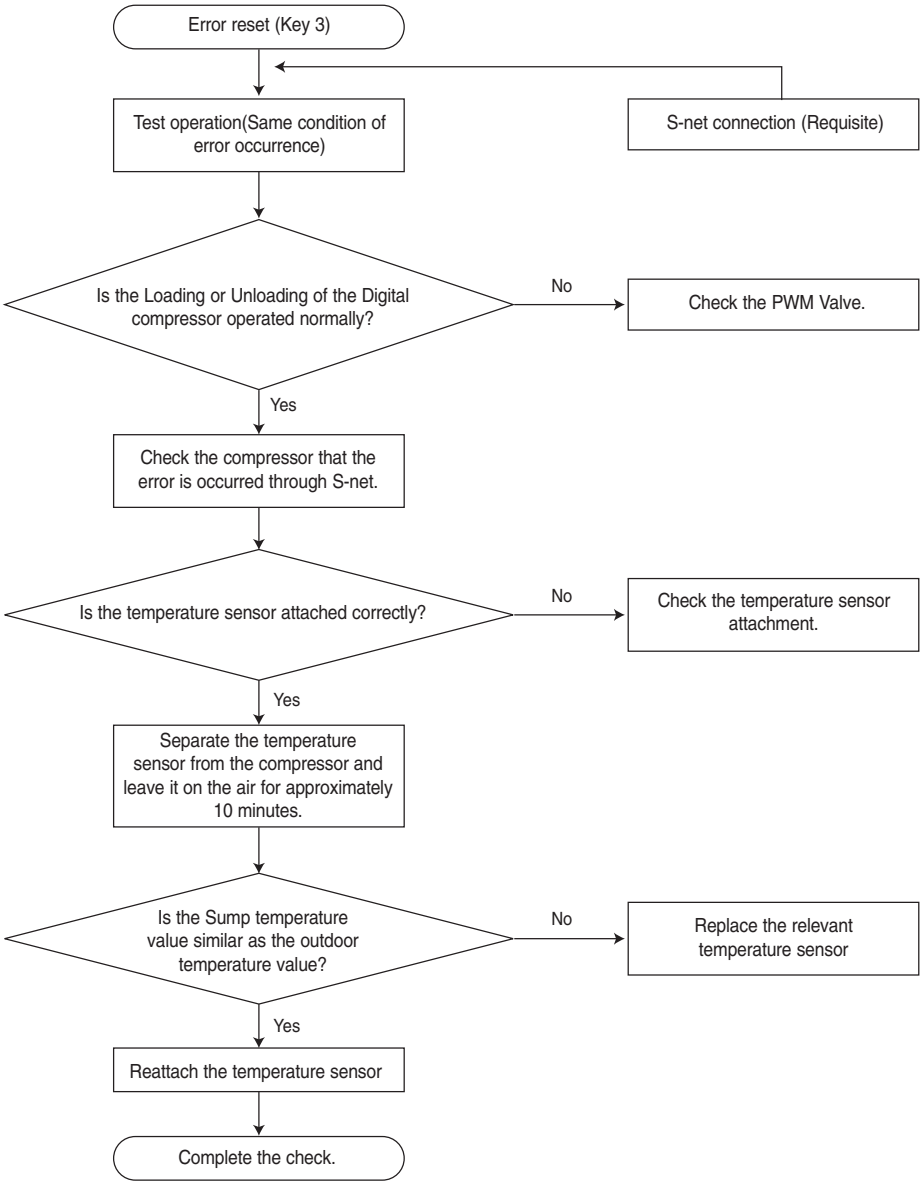
1. Check Method



■ E413 : Compressor Sump Temperature Protection Control

Outdoor unit display	E413
Indoor unit display	× (Operation) ◑ (Timer) ◑ (Fan) ◑ (Filter) × (Defrost)
Judgment method	Sump temperature maintains for over 5 minutes over 95°C
Causes	Compressor loading inferiority / Sump temperature sensor inferiority

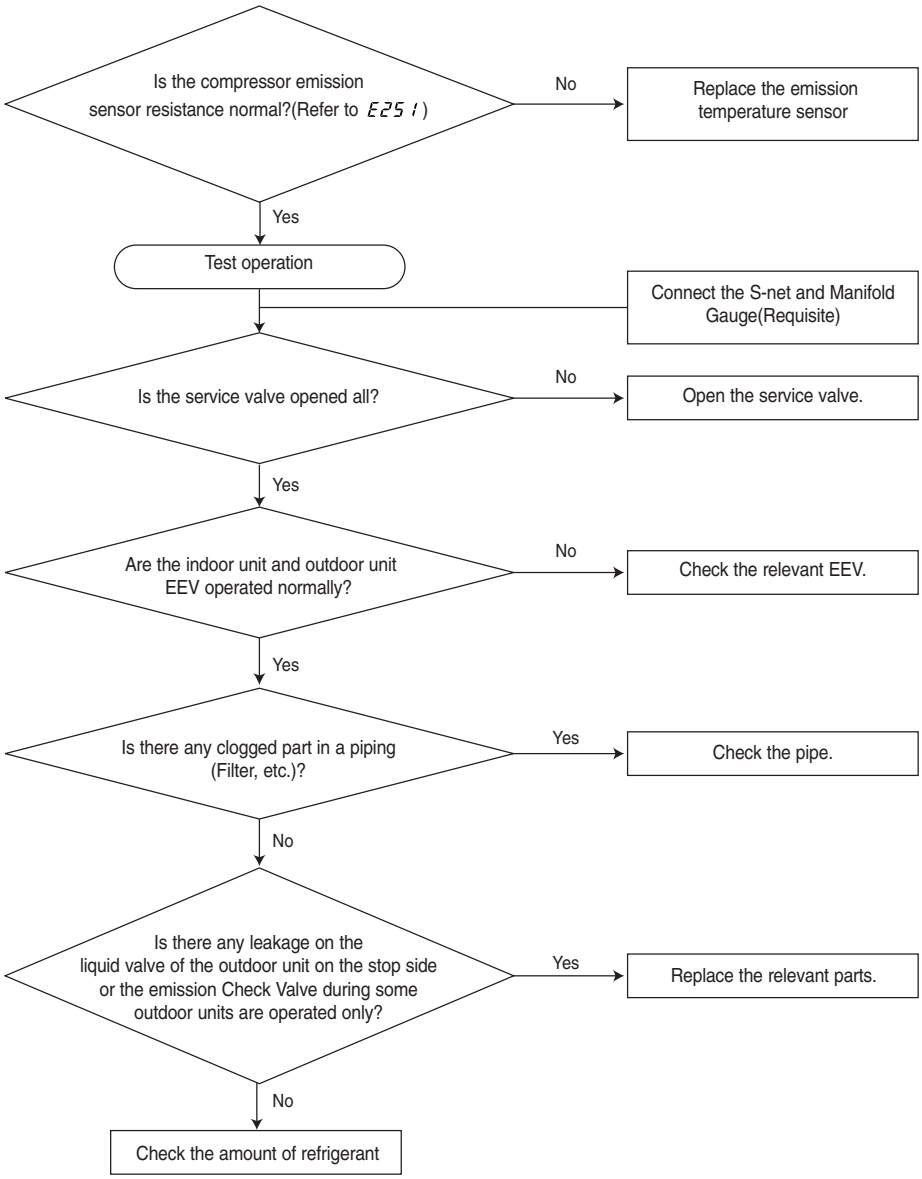
1. Check Method



■ E416 : Compressor Down by Compressor Emission Temperature Sensor

Outdoor unit display	E416
Indoor unit display	× (Operation) ◑ (Timer) ◑ (Fan) ◑ (Filter) × (Defrost)
Judgment method	Detect when the compressor emission temperature sensor value is over 135°C
Causes	Insufficient refrigerant / Indoor and outdoor EV clogging / Service valve clogging / Emission temperature sensor defect / Pipe and filter clogging / Liquid EEV break / Liquid Tube Valve break / Compressor Discharge Check Valve leakage of the outdoor unit on the stop side

1. Check Method



■ E241 : COND OUT Sensor Breakaway

Outdoor unit display	E241
Indoor unit display	× (Operation) ◑ (Timer) ◑ (Fan) ◑ (Filter) × (Defrost)
Judgment method	Refer to the below judgment method
Causes	Outdoor unit COND OUT sensor breakaway / sensor defect / corresponding path is blocked

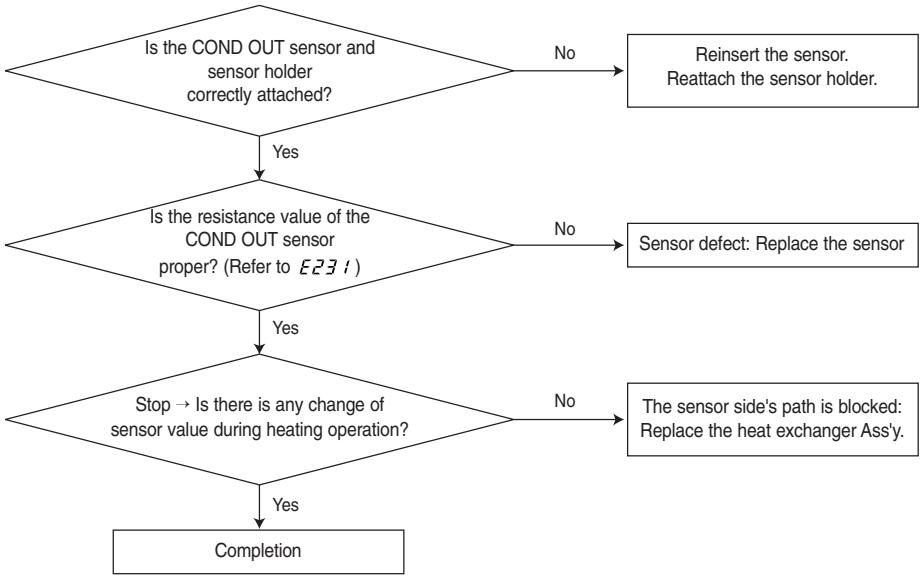
1. Judgment Method

1) Not detect during cooling operation

2) Heating operation (The below conditions should be satisfied for over 20 minutes.)

High pressure average > 25 kg/cm²	OK
Low pressure average < 8.5 kg/cm²	OK
Teva, out - Tair, in ≥ 3°C	OK
Teva, in - Tair, in ≥ 2°C	OK
Tcond, out - Tair, out ≤ -2°C	NO
Compressor running & indoor unit on and thermo on	OK
Error contents	Outdoor COND OUT sensor breakaway

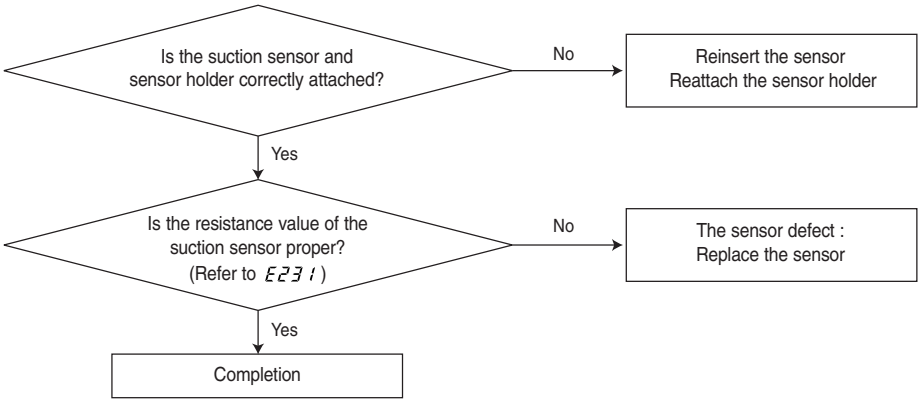
2. Check Method



■ E269 : Suction Temperature Sensor Breakaway

Outdoor unit display	E269
Indoor unit display	× (Operation) ◑ (Timer) ◑ (Fan) ◑ (Filter) × (Defrost)
Judgment method	Suppose the Suction temperature right before Compressor start that has high priority of start = Tsuc, ini and the Suction temperature of current Compressor = Tsuc, real. When | Tsuc, real - Tsuc, ini | < 2°C condition maintains for 30 minutes, the error is judged.
Causes	Suction temperature sensor breakaway / sensor defect

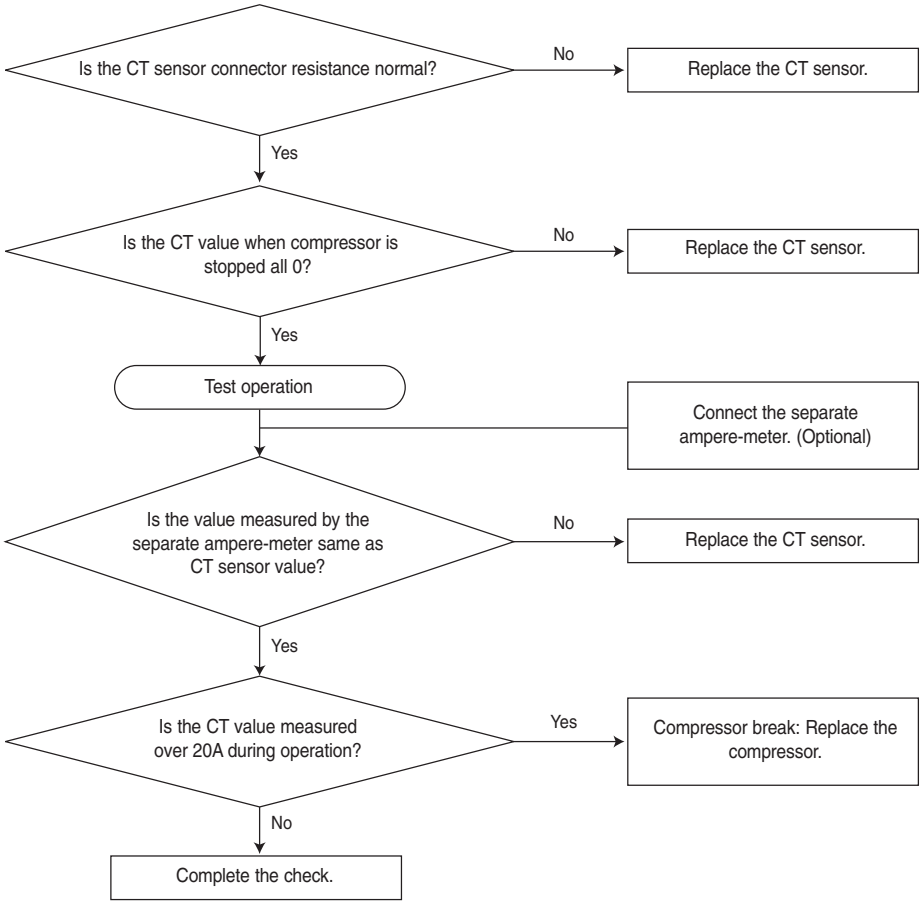
1. Check Method



■ E458 : Compressor Over Current Error

Outdoor unit display	E458
Indoor unit display	× (Operation) ◑ (Timer) ◑ (Fan) ◑ (Filter) × (Defrost)
Judgment method	When the CT sensor value of the relevant compressor is maintained for over 5 seconds at over 20A, the error is displayed.
Causes	Compressor break / CT sensor defect

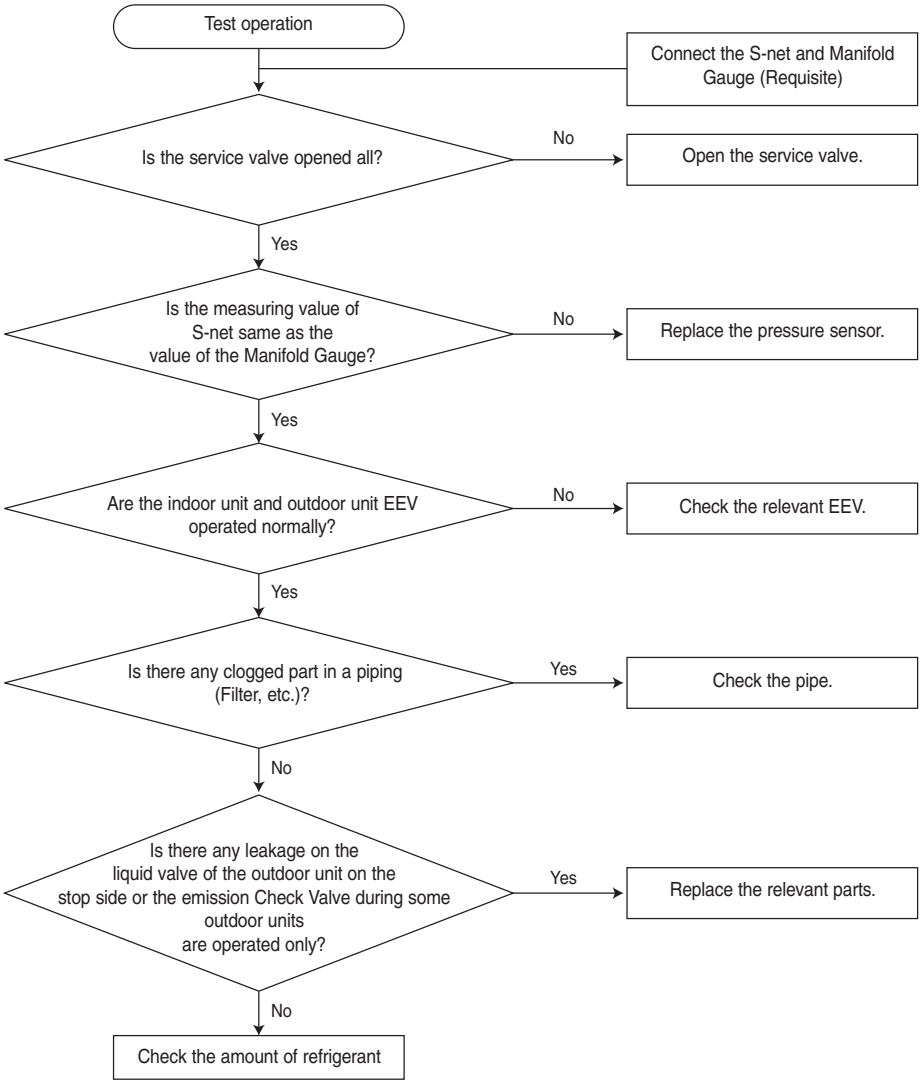
1. Check Method



■ E428 : Compressor Over Current Error

Outdoor unit display	E428
Indoor unit display	× (Operation) ◑ (Timer) ◑ (Fan) ◑ (Filter) × (Defrost)
Judgment method	When the ratio of (High pressure + 1) / (Low pressure + 1) is over 8.5 and it maintains for over 10 minutes.
Causes	Indoor & Outdoor EEV break and pipe clogging / High & Low sensor defect

1. Check Method

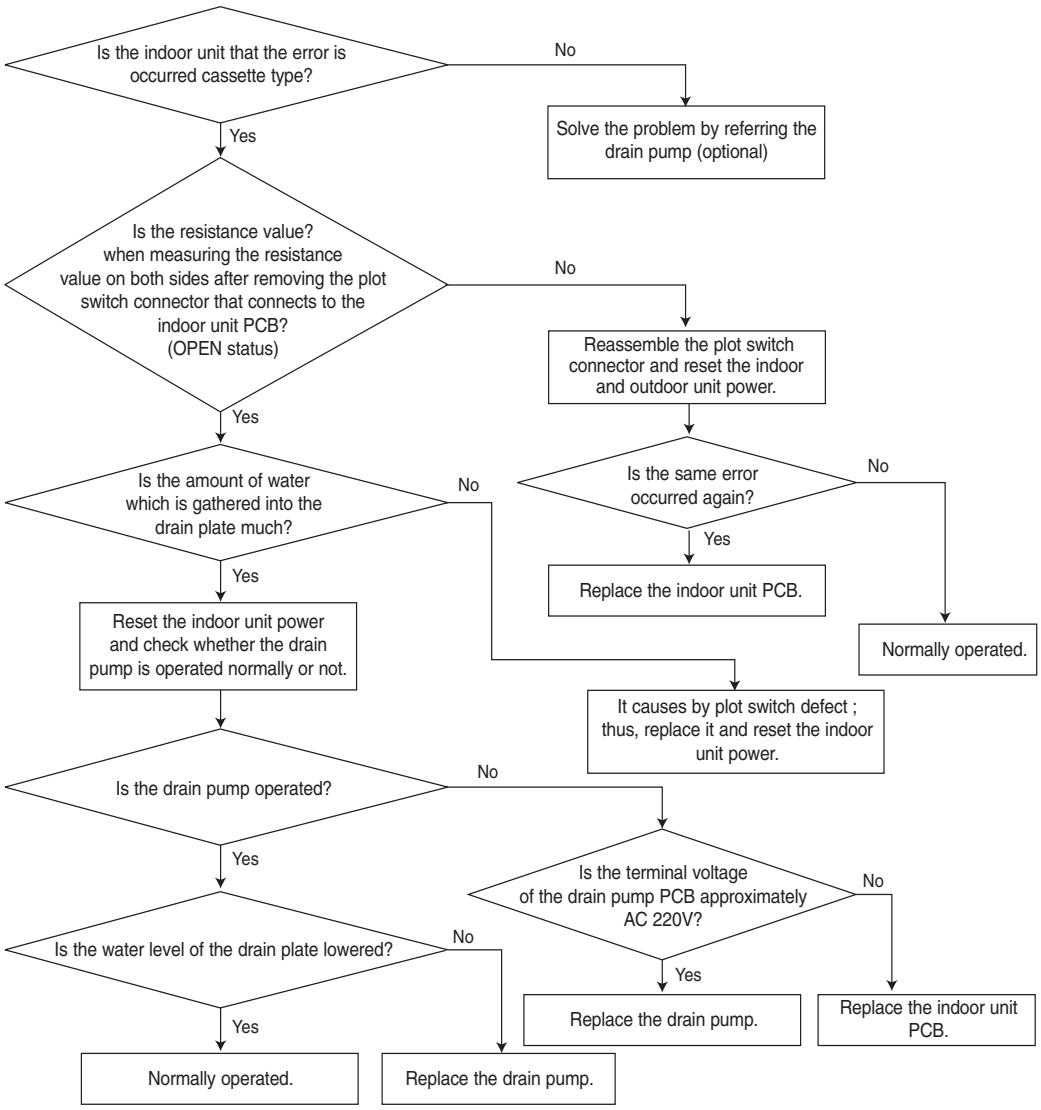


■ E153 (P701 for 1st Detection) Detection of Floating Switch of Indoor Unit Drain Pump

Outdoor unit display	1st detection : P701 (Display only outdoor unit) 2nd detection: E153 ↔ A*** (*** : Indoor unit address which an error is occurred)
Indoor unit display	× (Operation) × (Timer) ◑ (Fan) ◑ (Filter) × (Defrost)
Judgment method	Refer to the below judgment method
Causes	Rise of the water level of the drain plate according to the indoor unit drain pump break or detection sensor defect

✳ E153 error is removed when the indoor unit power is reset.

1. Check Method



■ E152 (P702 for 1st Detection) Indoor Unit EV Close Error

Outdoor unit display	1st detection : P702 (Display only outdoor unit) 2nd detection: E152 ↔ A*** (*** : Indoor unit address which an error is occurred)
Indoor unit display	× (Operation) ◑ (Timer) ◑ (Fan) ◑ (Filter) × (Defrost)
Judgment method	Refer to the below judgment method
Causes	Indoor unit EEV moving defect (electric valve is not opened)

1. Judgment Method

1) Cooling operation (The below conditions should be satisfied for over 20 minutes.)

Tcond, out > Tair, out > 3°C	OK
Tair, in > Teva, in > 4°C	NO
Tair, in > Teva, out > 4°C	NO
Compressor running & indoor unit on and thermo on	OK
Error contents	Indoor heat exchanger EVAP IN sensor breakaway

2) Heating operation (The below conditions must be satisfied all.)
- When more than 2 indoor units are operated under Thermo On heating operation
- When the high pressure average value is over 18 kg/cm^{2}G
- When 5 minutes is passed after completion of Safety Start
- When T(EVAP_IN) < T(Room) + 3°C and T(EVAP_OUT) < T(Room) + 3°C condition for indoor unit maintains for over 5 minutes

2. Check Method

1) Check whether the EEV wire is connected to the indoor unit PCB correctly.
2) Check whether the EEV coil is inserted into the body correctly.
3) Check with the naked eye whether rust is generated on the outside of the EEV coil, the resistance between each terminal of coils, and the open and short on the coil inside.
4) After pressing the outdoor unit Reset Key (K3), check that same error is occurred.
   - In case close error, do not operate the indoor unit that the error is occurred.
   - In case open error, do not operate the indoor unit that the error is occurred.
5) If no error is checked for the above check points, replace the relevant indoor unit EEV.
   - The replacement of EEV is inconvenient because it collects all refrigerant of the system; thus, before replacing it, must check the above points.

■ E151 (P703 for 1st Detection) : Indoor Unit EV Open Error

Outdoor unit display	1st detection : P703 (Display only outdoor unit) 2nd detection: E151 ↔ A*** (*** : Indoor unit address which an error is occurred)
Indoor unit display	× (Operation) ◑ (Timer) ◑ (Fan) ◑ (Filter) × (Defrost)
Judgment method	Refer to the below judgment method
Causes	Indoor unit EEV moving defect (refrigerant is leaked to the stopped indoor unit)

1. Judgment Method

Detect only during cooling operation (Not detect during heating operation)

When the inlet or outlet temperature of the indoor heat exchanger on the stop side during cooling operation maintains for over 20 minutes at below 0˚C.

2. Check Method

1) Check whether the EEV wire is connected to the indoor unit PCB correctly.
2) Check whether the EEV coil is inserted into the body correctly.
3) Check with the naked eye whether rust is generated on the outside of the EEV coil, the resistance between each terminal of coils, and the open and short on the coil inside.
4) After pressing the outdoor unit Reset Key (K3), check that same error is occurred.
   - In case close error, do not operate the indoor unit that the error is occurred.
   - In case open error, do not operate the indoor unit that the error is occurred.
5) If no error is checked for the above check points, replace the relevant indoor unit EEV.
   - The replacement of EEV is inconvenient because it collects all refrigerant of the system; thus, before replacing it, must check the above points.

■ E128 : Indoor Heat Exchanger EVAP IN Sensor Breakaway

Outdoor unit display	E128 ↔ A*** (*** : Indoor unit address which an error is occurred)
Indoor unit display	× (Operation) ◑ (Timer) ◑ (Fan) ◑ (Filter) × (Defrost)
Judgment method	Refer to the below judgment method
Causes	Indoor heat exchanger EVAP IN piping sensor breakaway

1. Judgment Method

1) Cooling operation

Tcond, out - Tair, out > 3°C	OK
Tair, in - Teva, in > 4°C	NO
Tair, in - Teva, out > 4°C	OK
Compressor running & indoor unit on and thermo on	OK
Error contents	Indoor heat exchanger EVAP IN sensor breakaway

2) Heating operation

High pressure average > 25 kg/cm^2	OK
Low pressure average < 8.5 kg/cm^2	OK
Teva, out - Tair, in ≥ 3°C	OK
Teva, in - Tair, in ≥ 2°C	NO
Tcond, out - Tair, out < -2°C	OK
Compressor running & indoor unit on and thermo on	OK
Error contents	Indoor heat exchanger EVAP IN sensor breakaway

2. Check Method

After checking whether the indoor heat exchanger EVAP IN sensor is separated or not, adjust after assembly.

■ E129 : Indoor Heat Exchanger EVAP OUT Sensor Breakaway

Outdoor unit display	E129 ↔ A*** (*** : Indoor unit address which an error is occurred)
Indoor unit display	× (Operation) ◑ (Timer) ◑ (Fan) ◑ (Filter) × (Defrost)
Judgment method	Refer to the below judgment method
Causes	Indoor heat exchanger EVAP IN sensor breakaway

1. Judgment Method

1) Cooling operation

Tcond, out - Tair, out > 3°C	OK
Tair, in - Teva, in > 4°C	OK
Tair, in - Teva, out > 4°C	NO
Compressor running & indoor unit on and thermo on	OK
Error contents	Indoor heat exchanger EVAP IN sensor breakaway

2) Heating operation

High pressure average > 25 kg/cm^2	OK
Low pressure average < 8.5 kg/cm^2	OK
Teva, out - Tair, in ≥ 3°C	NO
Teva, in - Tair, in ≥ 2°C	OK
Tcond, out - Tair, out < -2°C	OK
Compressor running & indoor unit on and thermo on	OK
Error contents	Indoor heat exchanger EVAP IN sensor breakaway

2. Check Method

After checking whether the indoor heat exchanger EVAP OUT sensor is separated or not, adjust after assembly.

■ E265 : Compressor Sump Temperature (Oil Temperature) Sensor Breakaway

Outdoor unit display	E265 (Digital compressor or fixed 1 compressor)
Indoor unit display	× (Operation) ◑ (Timer) ◑ (Fan) ◑ (Filter) × (Defrost)
Judgment method	Refer to the below judgment method
Causes	Sump (Oil) temperature sensor breakaway

1. Judgment Method

Suppose the Suction temperature right before Compressor start = Tsump, ini and the Suction temperature of current Compressor = Tsump, real. When the difference of the absolute value between Tsump, ini and Tsump, real is less than 2°C, in other words, |Tsump, real - Tsump, ini | < 2°C, maintains for 60 minutes after compressor is started, the error is judged. After 60 minutes after compressor is started, do not perform the detection of the Sump temperature sensor breakaway.

2. Check Method

After checking whether the relevant compressor sensor is broken away by the error code or not, assemble and adjust.

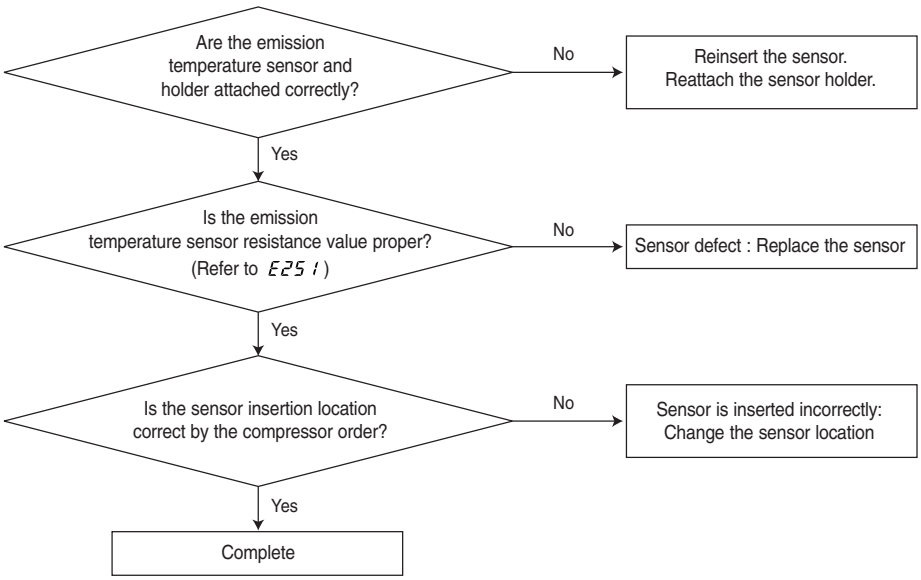
■ E262 , E263 , E264 : Compressor Emission Temperature Sensor Breakaway

Outdoor unit display	In case of the main outdoor unit: E262 (Digital compressor), E263 (Fixed1 compressor), E264 (Fixed2 compressor) In case of the sub outdoor unit: E262 (Fixed1 compressor), E263 (Fixed2 compressor), E264 (Fixed3 compressor)
Indoor unit display	× (Operation) ◑ (Timer) ◑ (Fan) ◑ (Filter) × (Defrost)
Judgment method	1) Relevant compressor current value (CT sensor value) is over 5A. 2) Relevant compressor emission temperature < High pressure saturation temperature When detect the above 1) and 2) conditions are detected for over 30 minutes continuously
Causes	Compressor Discharge sensor breakaway error / Sensor defect

✳ Must organize because the location of the compressor Discharge temperature sensor is different by the error code.

1. Check Method

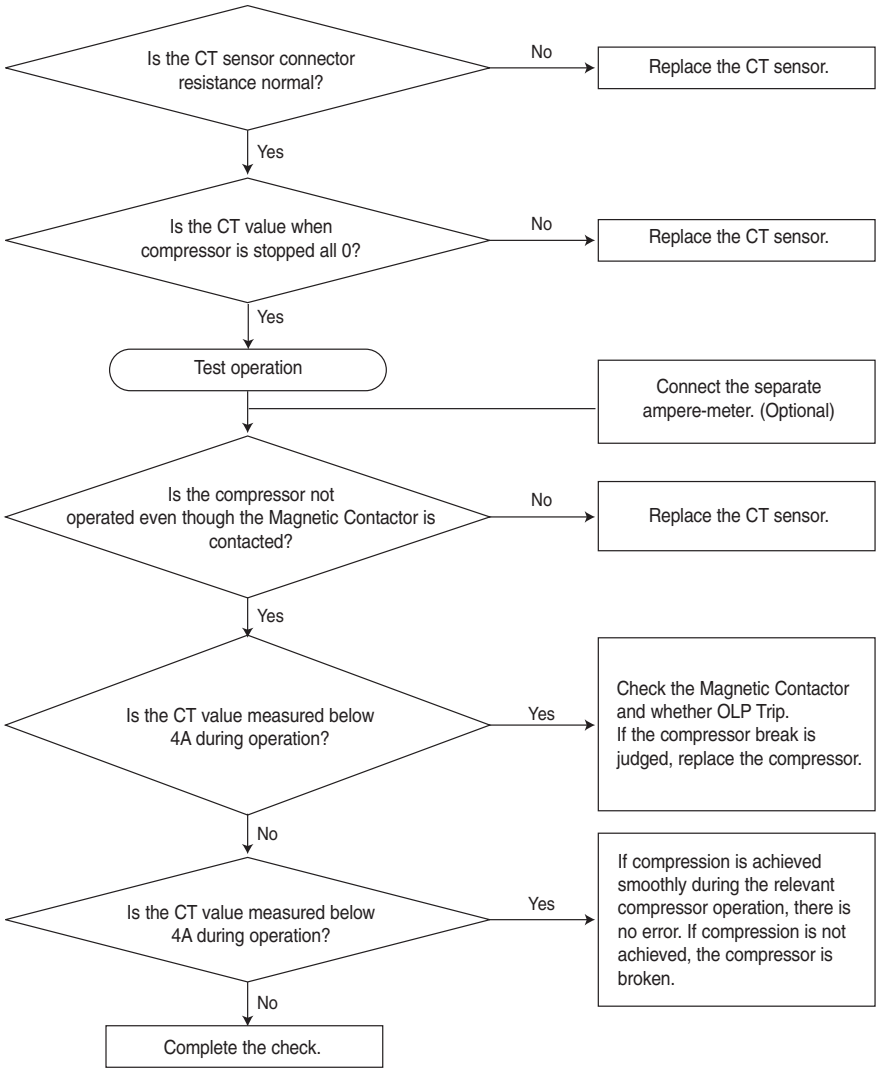
After checking whether the relevant compressor sensor is broken away by the error code or not, assemble and adjust.



■ E461 : Compressor Low Current Error

Outdoor unit display	E461
Indoor unit display	No display
Judgment method	When the CT sensor value of the relevant compressor is maintained for over 10 minutes at over 4A, the error is displayed.
Causes	Compressor break / CT sensor defect / OLP Trip

1. Check Method



■ Outdoor Unit Fan Motor High Temperature Error

Outdoor unit display	E453
Indoor unit display	-
Judgment method	When the temperature of the outdoor Fan Motor operated is overheated at over 110°C
Causes	Indoor unit Fan Motor lock or defect

1. Check Method

1) The system is programmed that operating after cooling the motor by lowering the number of rotation of the motor in case of the overload and error action as for the motor protecting action. If the motor is operated, there is no error.
2) Check whether there is rotation of the outdoor Fan Motor and whether there is a lock.
3) Possible to operate after removing the cause of the lock in case of the lock.

■ Outdoor Unit Fan Motor RPM Error

Outdoor unit display	E454
Indoor unit display	-
Judgment method	When the difference between the number of rotation of the outdoor Fan Motor under an operation and an ordered value is over 100rpm
Causes	Indoor unit Fan Motor lock or defect

1. Check Method

1) The system is programmed that operating by attempting to restart several times to operate the motor if an error signal is generated on the starting defect. If the motor is operated, there is no error.
2) Check whether the outdoor unit Fan Motor is rotated and locked or not.
3) Check the motor and the signal terminal connection status.
4) If the motor is not operated, the motor defect is judged.

■ Outdoor Unit Fan Motor IPM High Temperature Error

Outdoor unit display	E455
Indoor unit display	-
Judgment method	When the temperature of IPM during the operation of the outdoor Fan Motor is over 150°C
Causes	Indoor unit Fan Motor lock or starting defect

1. Check Method

1) Check whether the outdoor unit Fan Motor is rotated and locked or not.
2) When the above error is occurred in case there is no lock, check whether the motor is restarted after cooling the motor in case of the overload and error action as for protecting the inside circuit of the motor.
3) When E454 is occurred after E455 , the defect by the break of the inside circuit of the motor is judged.

■ Outdoor Unit Fan Motor Over Current Error

Outdoor unit display	E456
Indoor unit display	-
Judgment method	When the current value of the outdoor Fan Motor on operation maintains over 1 minute at over 7A
Causes	Indoor unit Fan Motor lock or starting defect It is occurred by fast start and overload

1. Check Method

1) Check whether the outdoor unit Fan Motor is rotated and locked or not.
2) When the above error is occurred in case there is no lock, the signal by overload and error action is judged.
The signal is to display the motor load status and it is not an error.
3) Need to check whether there is an error of Fan load status or not.

■ Outdoor Unit Fan Motor Reverse Rotation Error

Outdoor unit display	E457
Indoor unit display	-
Judgment method	When the rotation direction of the outdoor unit Fan Motor is rotated reversely before starting
Causes	Wind that let the Fan operate reversely is generated, ex) Typhoon

1. Judgment Method

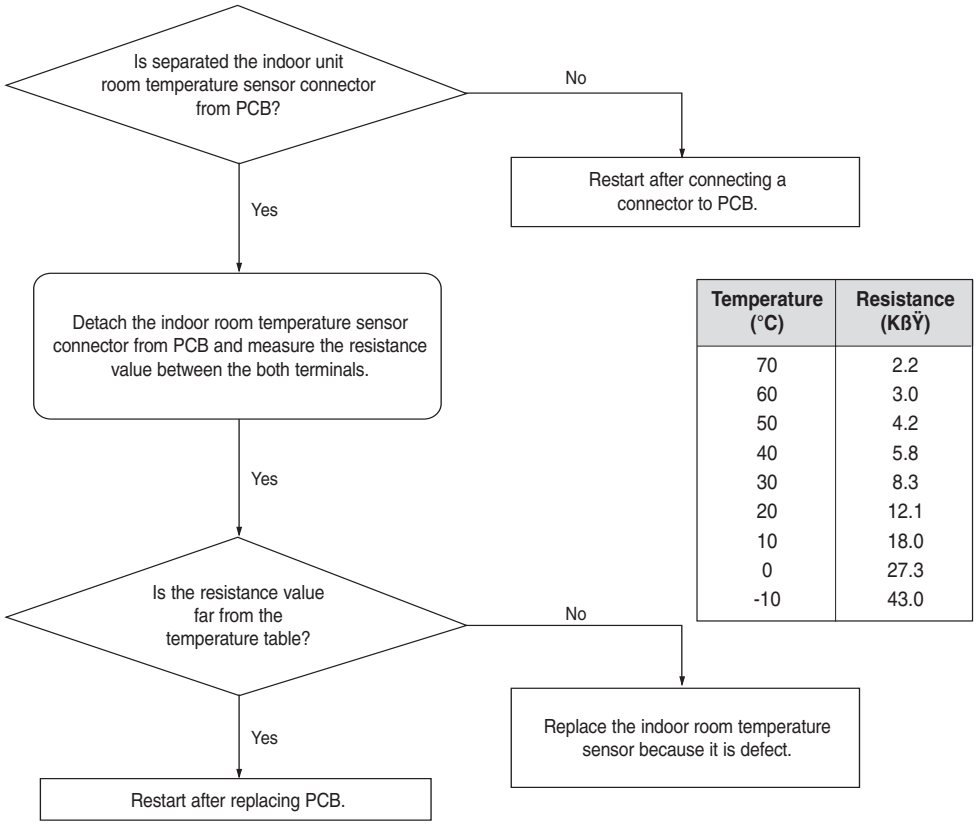
Check whether there is reverse rotation (CCW) before ordering of starting the outdoor unit Fan.

2. Check Method

1) This signal is for motor protection in order not to start under reverse rotation condition by checking the moving status when the power of the outdoor unit fan motor is not turned on.
2) Check there is outside wind which can rotate the fan by force in the place where the outdoor unit is installed.

■ Indoor Unit Room Temperature Sensor Error (Open/Short)

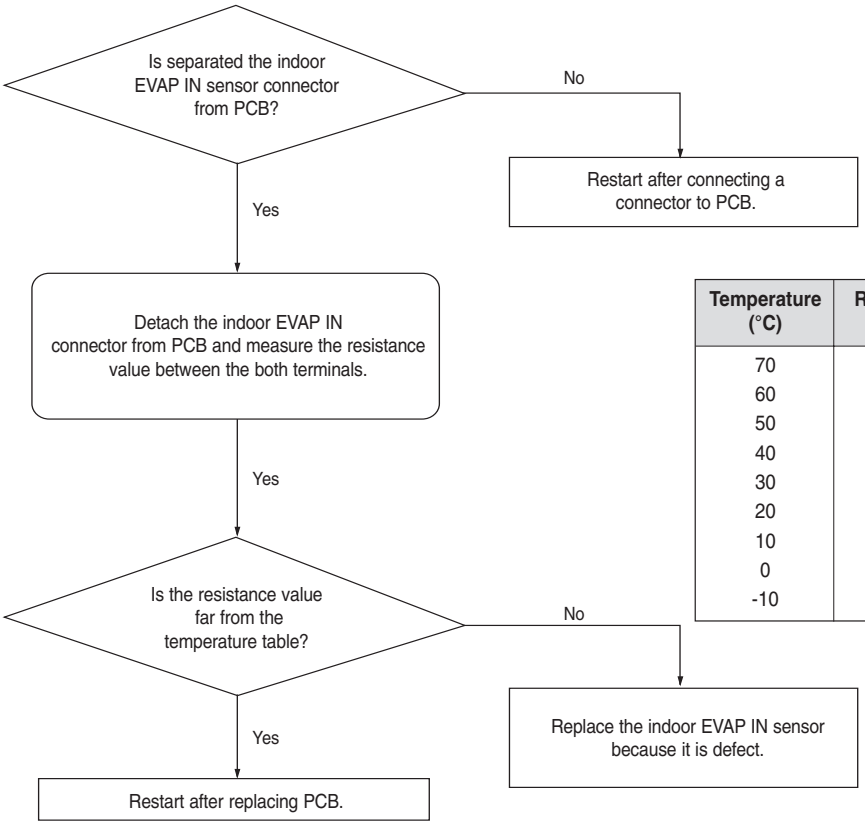
Outdoor unit display	E 121 ↔ A*** (***: Indoor unit address which an error is occurred)
Indoor unit display	× (Operation) ◑ (Timer) × (Fan) × (Filter) × (Defrost)
Judgment method	Refer to the below Judgment Method
Causes	Open/Short defect of the no. *** indoor unit room temperature sensor



Temperature (°C)	Resistance (KßŸ)
70	2.2
60	3.0
50	4.2
40	5.8
30	8.3
20	12.1
10	18.0
0	27.3
-10	43.0

■ Indoor Unit EVAP IN Sensor Error (Open/Short)

Outdoor unit display	E 122 ↔ A*** (***: Indoor unit address which an error is occurred)
Indoor unit display	◑ (Operation) ◑ (Timer) × (Fan) × (Filter) × (Defrost)
Judgment method	Refer to the below Judgment Method
Causes	Open/Short error of the no. *** indoor unit EVAP IN sensor



Temperature (°C)	Resistance (KΩ)
70	2.2
60	3.0
50	4.2
40	5.8
30	8.3
20	12.1
10	18.0
0	27.3
-10	43.0