SVC MANUAL (Exploded View)

Air Conditioner

Ceiling Concealed Duct

ENGLISH **FRANÇAIS**

MODEL

ZMNR30GM2A0 [KNUJB301A]
ZMNR36GM2A0 [KNUJB361A]
ZBNR42GM3A0 [KNSJB421A]
ZBNR48GM3A0 [KNSJB481A]

P/No.: MFL71484302
Rev.03_112525

www.lghvac.com
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This manual may contain images or content different from the model you purchased.

This manual is subject to revision by the manufacturer.

1. SPECIFICATION

Indoor

Model Name					ZMNR30GM2A0 [KNUJB301A]	ZMNR36GM2A0 [KNUJB361A]
Power Supply				V, Ø, Hz	208/230, 1, 60	208/230, 1, 60
Capacity				Btu/h class	30 000	36 000
Dimensions	Body		W x H x D	mm	1 250 x 270 x 700	1 250 x 270 x 700
			W x H x D	inch	49-7/32 x 10-5/8 x 27-9/16	49-7/32 x 10-5/8 x 27-9/16
Net Weight	Body			kg (lbs)	38.7 (85.3)	38.7 (85.3)
Heat Exchanger	(Row x Column x Fins per inch) x No.			-	(3 x 13 x 18) x 1	(3 x 13 x 18) x 1
	Face Area			m^2 (ft^2)	0.26 (2.82)	0.26 (2.82)
Fan	Type			-	Sirocco Fan	Sirocco Fan
	Air Flow Rate	High-static Mode (Factory Set)	H / M / L	m^3/min	28.0 / 24.0 / 21.0	32.0 / 28.0 / 24.0
			H / M / L	ft^3/min	989 / 848 / 741	1 130 / 989 / 848
			External Static Pressure	Pa (mmAq)	58.8(6)	58.8(6)
Fan Motor	Type			-	BLDC	BLDC
	Output			W x No.	350 x 1	350 x 1
Sound Pressure Level			H / M / L	dB(A)	34 / 33 / 32	36 / 34 / 33
Piping Connections	Liquid			mm(inch)	Ø 9.52 (3/8)	Ø 9.52 (3/8)
	Gas			mm(inch)	Ø 15.88 (5/8)	Ø 15.88 (5/8)
	Drain (O.D. / I.D.)			mm(inch)	Ø 32.0(1-1/4) / 25.4(1)	Ø 32.0(1-1/4) / 25.4(1)
Safety Devices				-	Fuse	Fuse
Power Cable(Included Earth)				No. x mm^2 (AWG)	3C x 0.82 (18)	3C x 0.82 (18)
Communication Cable				No. x mm^2 (AWG)	2C x 0.82(18)	2C x 0.82(18)

NOTE

1. Wiring cable size must comply with the applicable local and national code.
2. Due to our policy of innovation some specifications may be changed without notification.
3. Sound Level Values are measured at Anechoic chamber.
   Therefore, these values can be increased(maximum 3dB(A)) owing to ambient conditions during operation.

Conversion Formula
kW = Btu/h x 0.0002931
cfm = CMM x 35.3

Indoor

Model Name					ZBNR42GM3A0 [KNSJB421A]	ZBNR48GM3A0 [KNSJB481A]
Power Supply				V, Ø, Hz	208/230, 1, 60	208/230, 1, 60
Dimensions	Body		W x H x D	mm	1 250 x 360 x 700	1 250 x 360 x 700
			W x H x D	inch	49-7/32 x 14-3/16 x 27-9/16	49-7/32 x 14-3/16 x 27-9/16
Net Weight	Body			kg (lbs)	43.8 (96.6)	43.8 (96.6)
Heat Exchanger	(Row x Column x Fins per inch) x No.			-	(3 x 16 x 18) x 1	(3 x 16 x 18) x 1
	Face Area			m^2 (ft^2)	0.32 (3.44)	0.32 (3.44)
Fan	Type			-	Sirocco Fan	Sirocco Fan
	Air Flow Rate	High-static Mode (Factory Set)	H / M / L	m^3/min	40.0 / 34.0 / 28.0	50.0 / 45.0 / 40.0
			H / M / L	ft^3/min	1412 / 1200 / 988	1765 / 1589 / 1412
			External Static Pressure	Pa (mmAq)	58.8 (6)	58.8 (6)
Fan Motor	Type			-	BLDC	BLDC
	Output			W x No.	400 X 1	400 X 1
Sound Pressure Level			H / M / L	dB(A)	39 / 38 / 36	42 / 40 / 39
Piping Connections	Liquid			mm(inch)	Ø 9.52 (3/8)	Ø 9.52 (3/8)
	Gas			mm(inch)	Ø 15.88 (5/8)	Ø 15.88 (5/8)
	Drain (O.D. / I.D.)			mm(inch)	Ø 32.0(1-1/4) / 25.4(1)	Ø 32.0(1-1/4) / 25.4(1)
Safety Devices				-	Fuse	Fuse
Power Cable(Included Earth)				No. x mm^2 (AWG)	3C x 0.82 (18)	3C x 0.82 (18)
Communication Cable				No. x mm^2 (AWG)	2C x 0.82(18)	2C x 0.82(18)

NOTE

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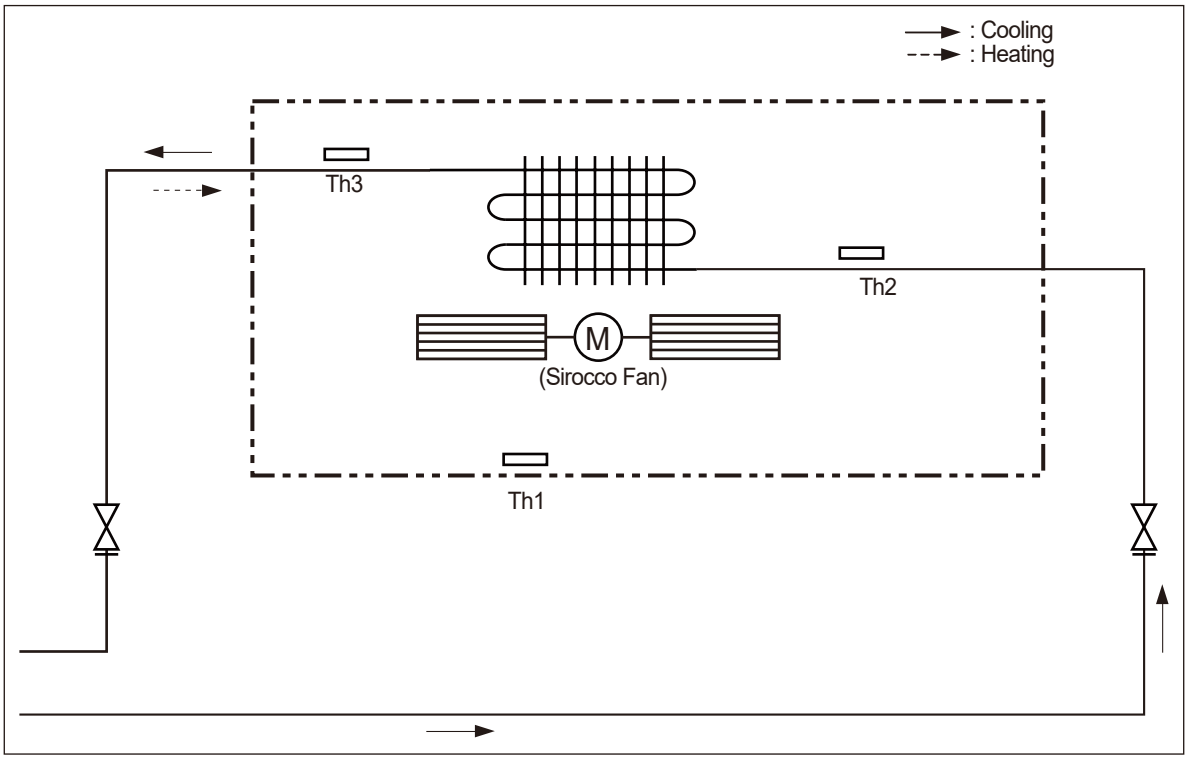
2. PIPING DIAGRAMS

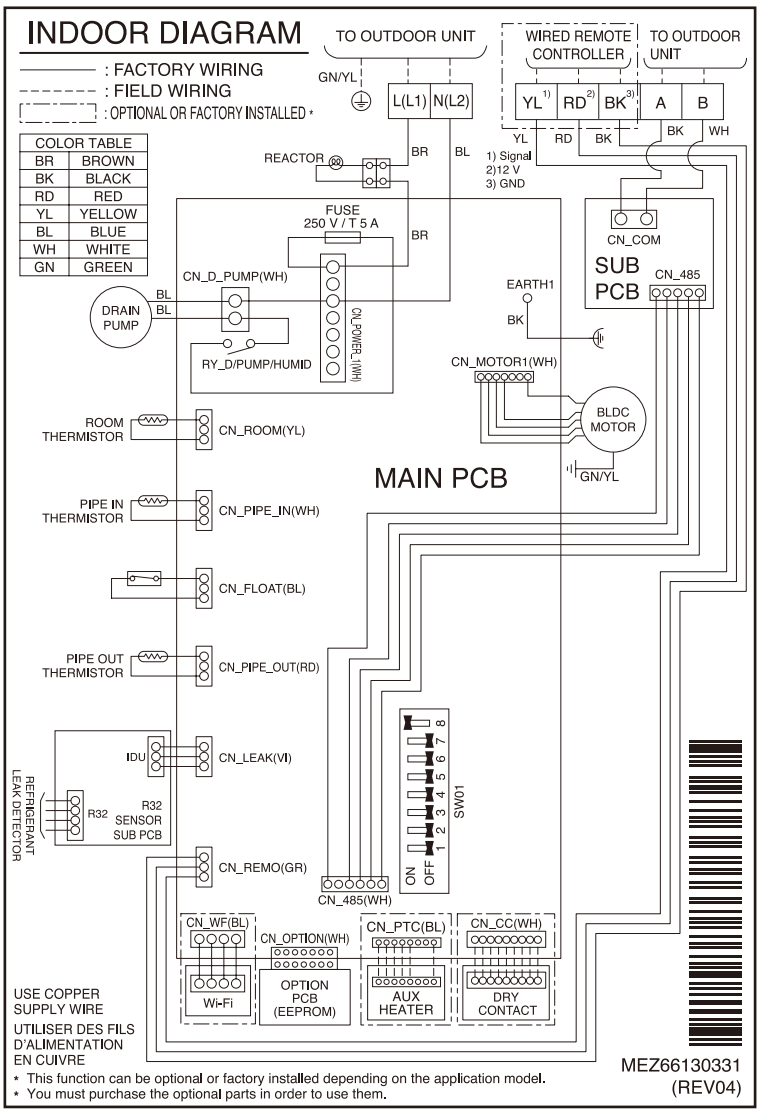
ZMNR30GM2A0 [KNUJB301A] / ZMNR36GM2A0 [KNUJB361A] / ZBNR42GM3A0[KNSJB421A] / ZBNR48GM3A0 [KNSJB481A]



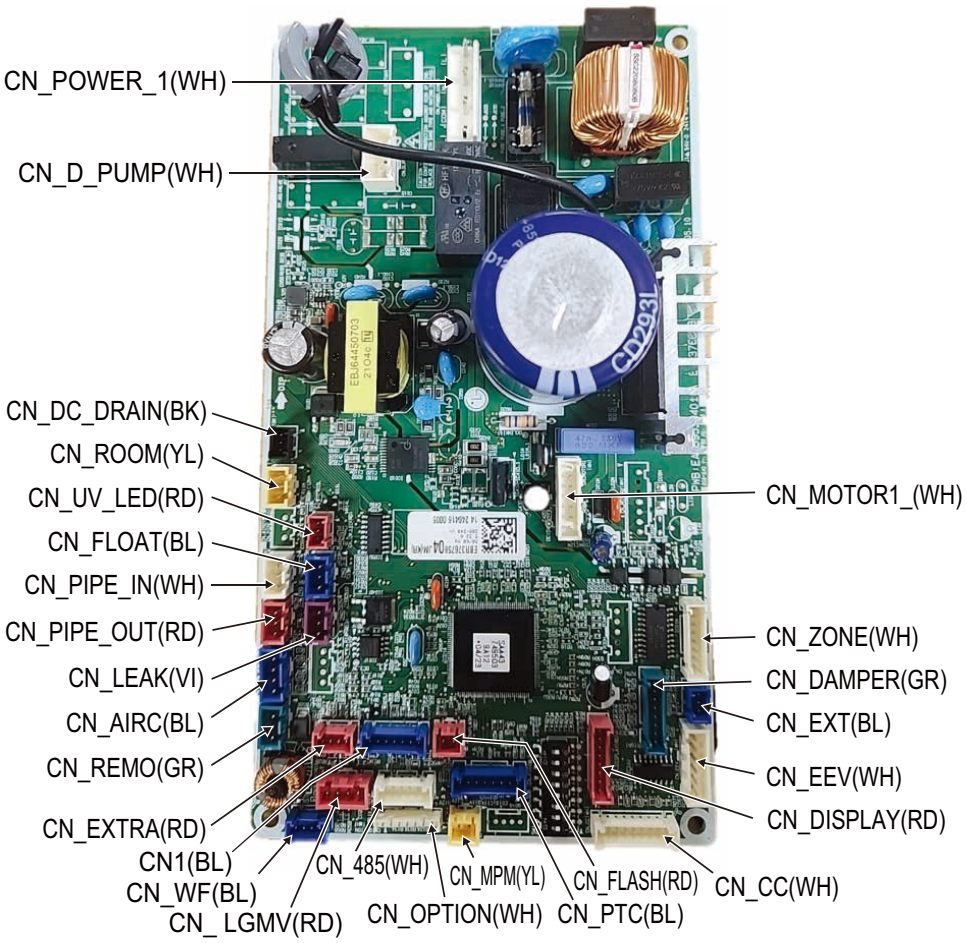
LOC.	Description	PCB Connector
Th1	Thermistor for Indoor air temperature	CN_ROOM
Th2	Thermistor for Evaporator in temperature	CN_PIPE_IN
Th3	Thermistor for Evaporator out temperature	CN_PIPE_OUT

3. WIRING DIAGRAMS

M2 / M3 Chassis



M2 / M3 Chassis

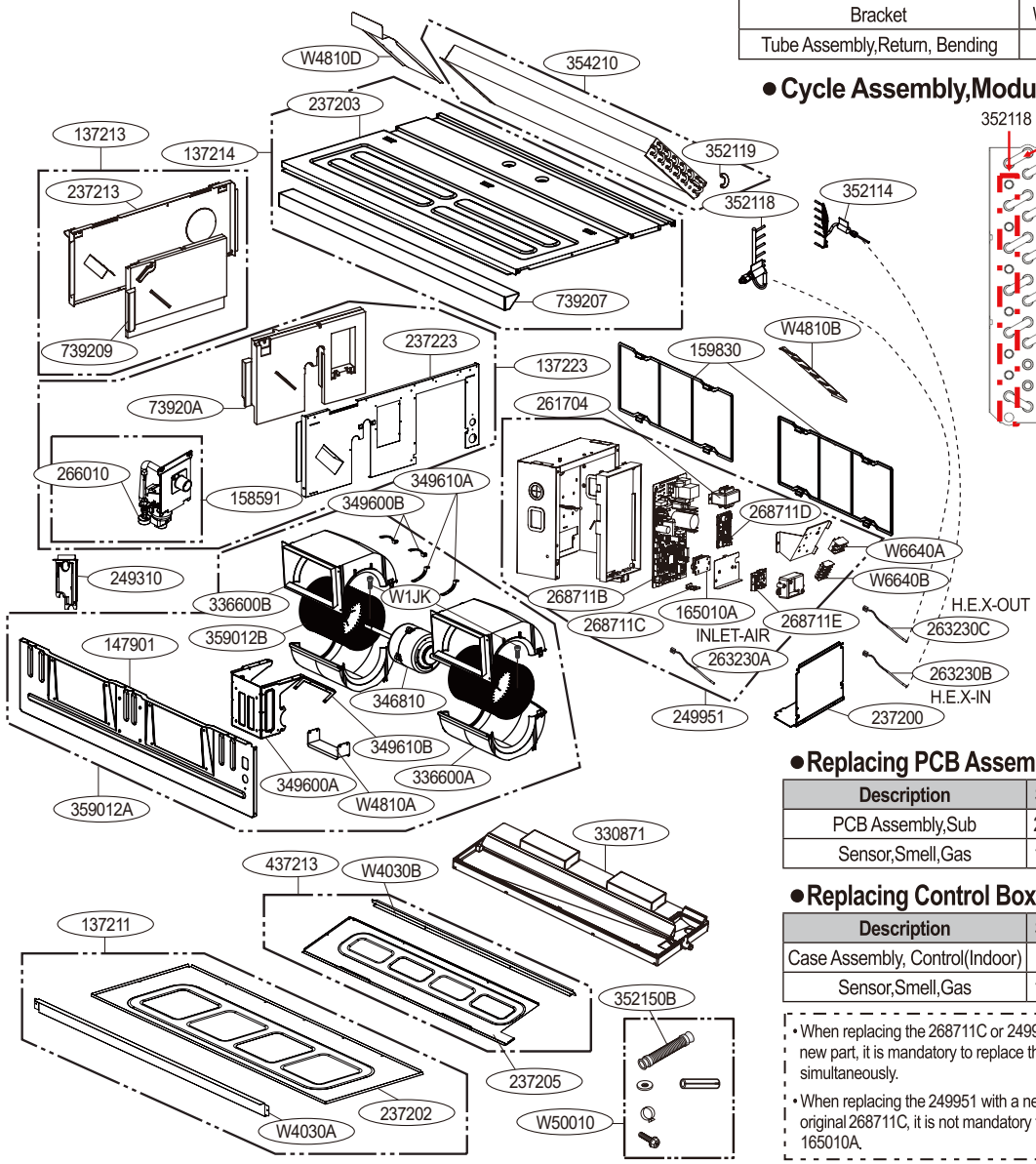


4. EXPLODED VIEW

M2 Chassis

● Evaporator Assembly Required Part

Description	Loc No.	Q'ty
Evaporator Assembly,First	354210	1
Tube Assembly,Distributor	352114	1
Tube Assembly,Manifold(Indoor)	352118	1
Bracket	W4810D	1
Tube Assembly,Return, Bending	352119	13



● Replacing PCB Assembly,Sub

Description	SVC Loc	Q'ty
PCB Assembly,Sub	268711C	1
Sensor,Smell,Gas	165010A	1

● Replacing Control Box Assembly

Description	SVC Loc	Q'ty
Case Assembly, Control(Indoor)	249951	1
Sensor,Smell,Gas	165010A	1

- When replacing the 268711C or 249951 with a new part, it is mandatory to replace the 165010A simultaneously.
- When replacing the 249951 with a new part, using original 268711C, it is not mandatory to replace the 165010A.

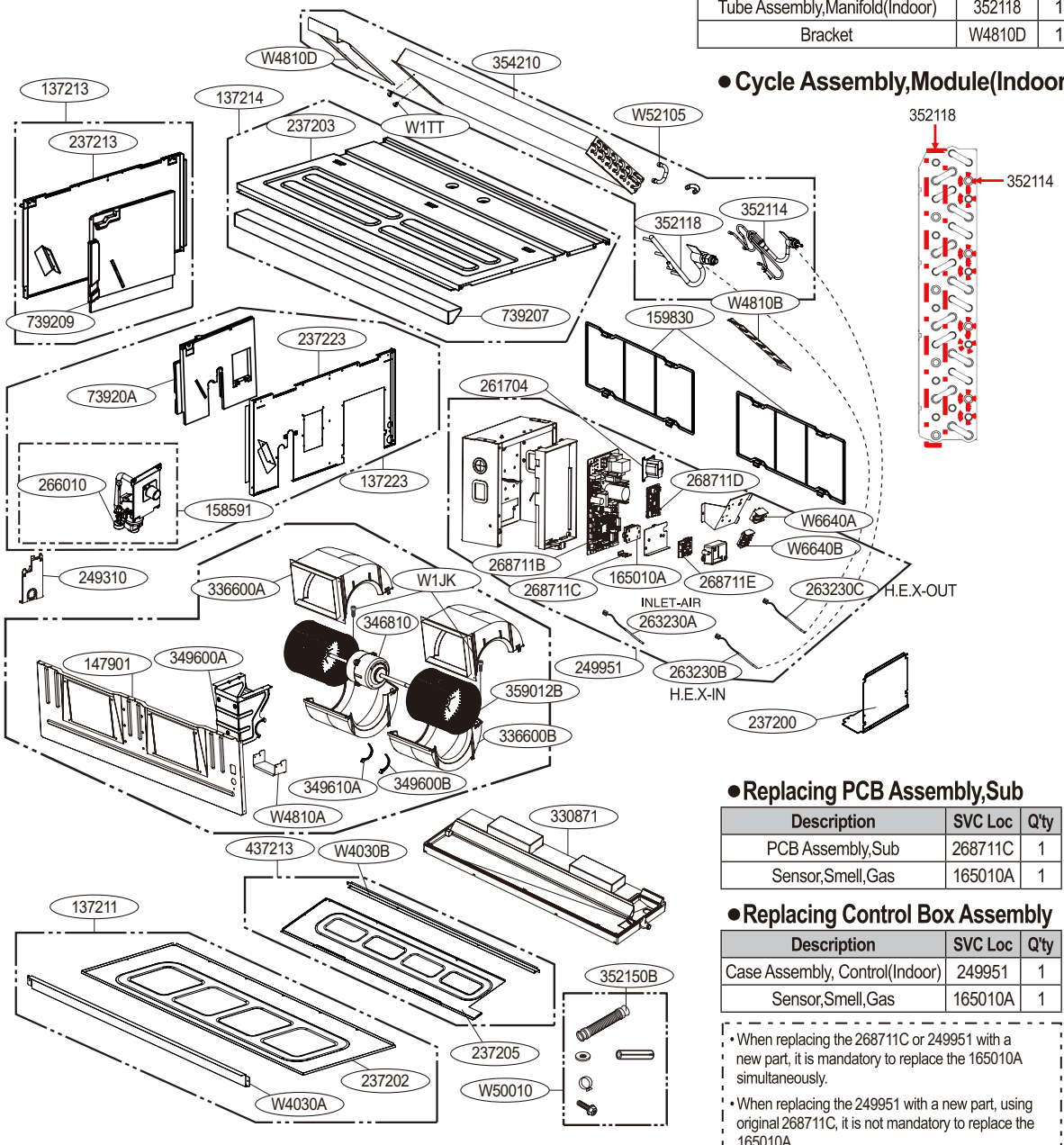
Loc No.	Description	Sensor Information	Housing color
263230A	Thermistor1(CN_ROOM)	Air-Inlet	Yellow
263230B	Thermistor2(CN_PIPE / IN)	Heat Exchanger In	White
263230C	Thermistor2(CN_PIPE / OUT)	Heat Exchanger Out	Red
165010A	Sensor,Smell,Gas	R32 Leakage Detection Sensor	White

M3 Chassis

● Evaporator Assembly Required Part

Description	Loc No.	Q'ty
Evaporator Assembly,First	354210	1
Tube Assembly,Distributor	352114	1
Tube Assembly,Manifold(Indoor)	352118	1
Bracket	W4810D	1

● Cycle Assembly,Module(Indoor)



● Replacing PCB Assembly,Sub

Description	SVC Loc	Q'ty
PCB Assembly,Sub	268711C	1
Sensor,Smell,Gas	165010A	1

● Replacing Control Box Assembly

Description	SVC Loc	Q'ty
Case Assembly, Control(Indoor)	249951	1
Sensor,Smell,Gas	165010A	1

- When replacing the 268711C or 249951 with a new part, it is mandatory to replace the 165010A simultaneously.
- When replacing the 249951 with a new part, using original 268711C, it is not mandatory to replace the 165010A.

Loc No.	Description	Sensor Information	Housing color
263230A	Thermistor1(CN_ROOM)	Air-Inlet	Yellow
263230B	Thermistor2(CN_PIPE / IN)	Heat Exchanger In	White
263230C	Thermistor2(CN_PIPE / OUT)	Heat Exchanger Out	Red
165010A	Sensor,Smell,Gas	R32 Leakage Detection Sensor	White

5. R32 LEAK DETECTION SYSTEM

R32 Leak Detection System is composed with R32 Sub PCB and R32 Sensor. R32 Sensor detects concentration of refrigerant(R32) in the air. When the concentration of the refrigerant in the air is over 5000 ppm or components have a problem, leak detection system will be activated.(CH228, 229, 230).

When leak detection system is activated, all the following actions will be operated automatically.

- All indoor and outdoor units connected with indoor unit error occurred will stop and display error code.
- All indoor and outdoor units cannot be controlled until error code disappears.
- Fan of indoor unit error occurred will operate high speed.(Some models will operate maximum speed)
- All the safety components connected with indoor unit error occurred will operate.

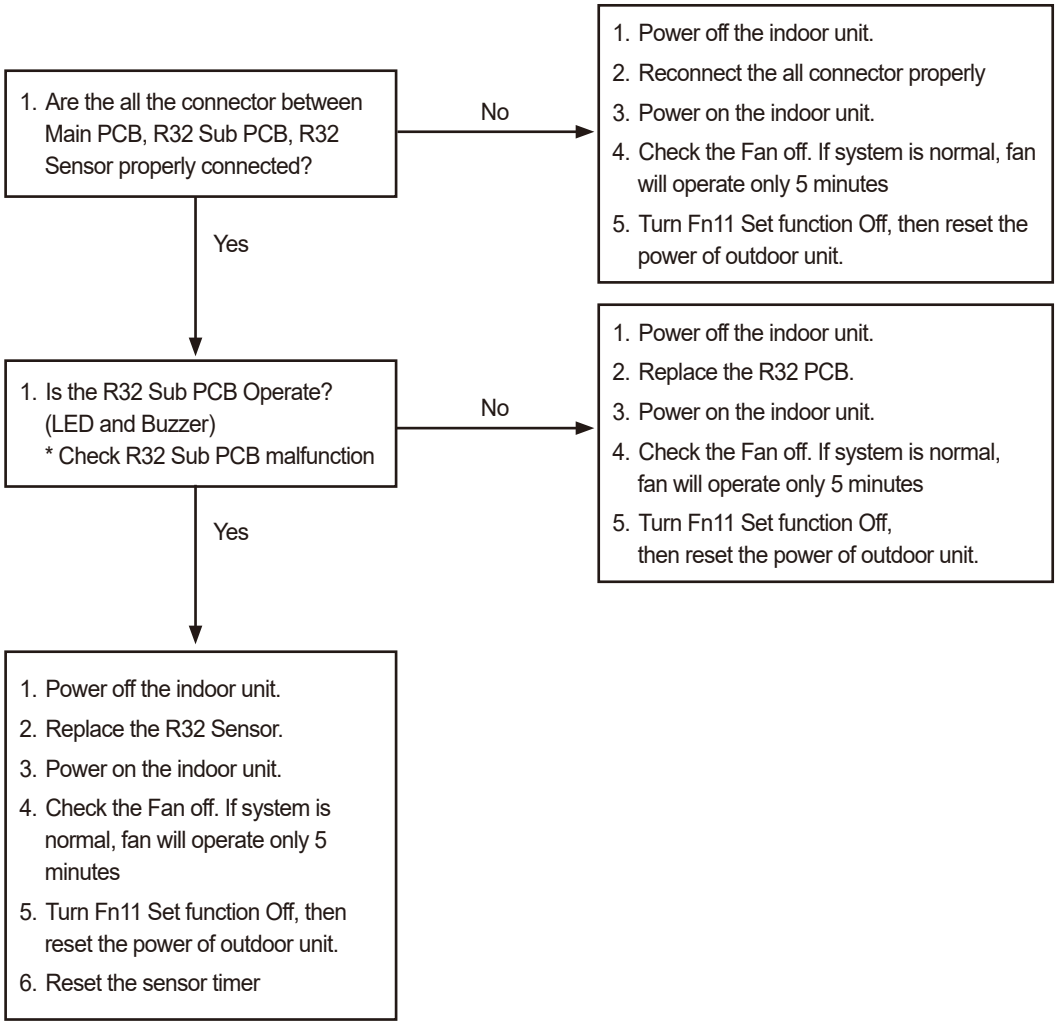
If leak detection system is activated, ventilate room and contact authorized personnel immediately.

Since the lifetime of the R32 sensor is 3,650 days, the sensor must be replaced before its lifetime reaches the end. The indoor unit will display error code(CH236) to indicate that the remaining lifetime is under six month. If there is an error code of 236, contact authorized personnel as soon as possible.

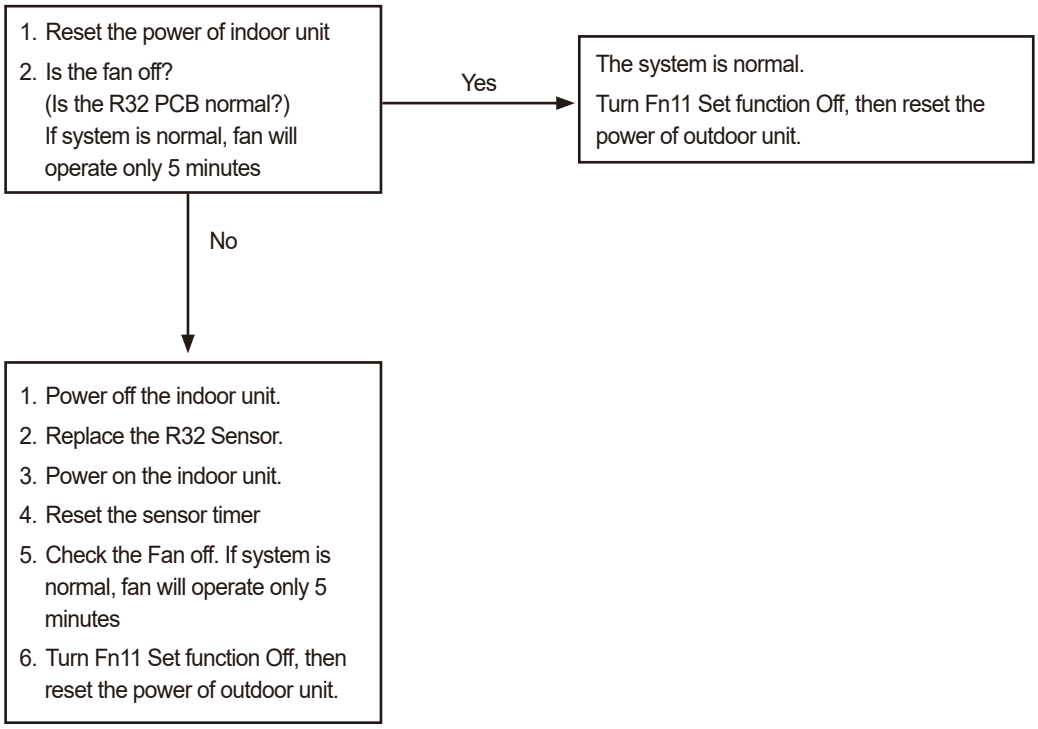
Trouble Shooting for R32 Leak Detection System

The following troubleshooting procedures shall be performed to restore the system to its normal operating state after activation of the leak detection system. All procedures must be carried out exclusively by authorized personnel.

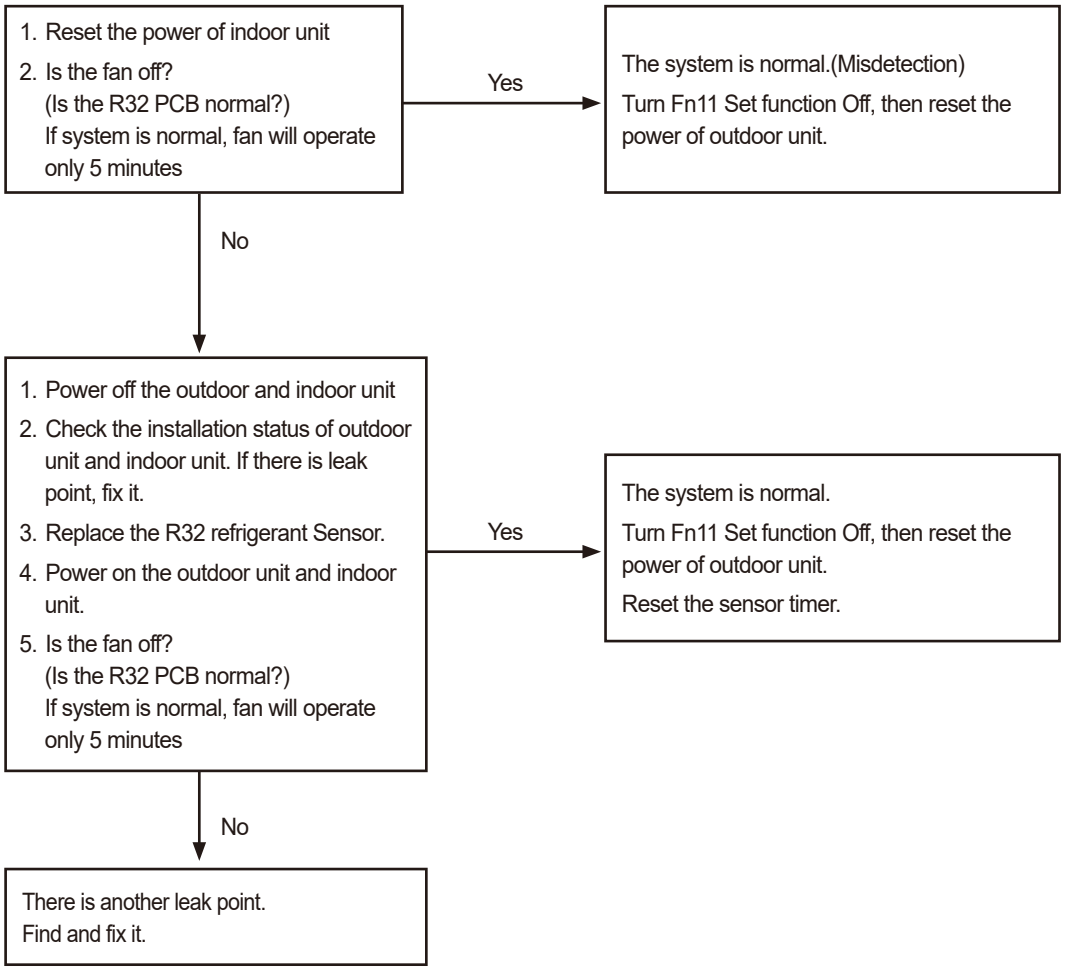
Error No.	Error Type	Error Point
CH 228	System malfunction Error	• R32 Sub PCB malfunction • R32 Sensor malfunction



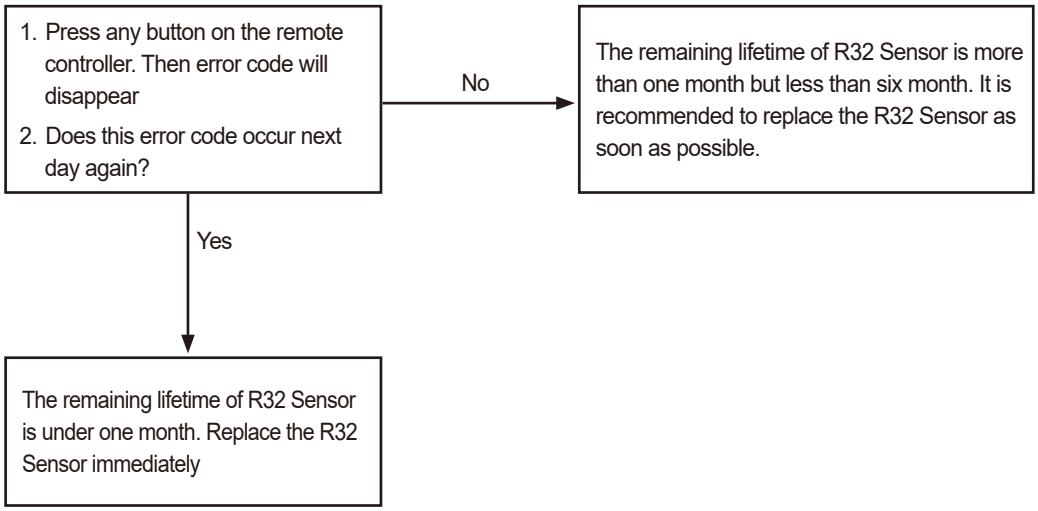
Error No.	Error Type	Error Point
CH 229	R32 Sensor Lifetime error	• The R32 sensor has reached the end of its lifetime.



Error No.	Error Type	Error Point
CH 230	Refrigerant Leak Detection Error	• Misdetection by other gases • There is leak point in the system.

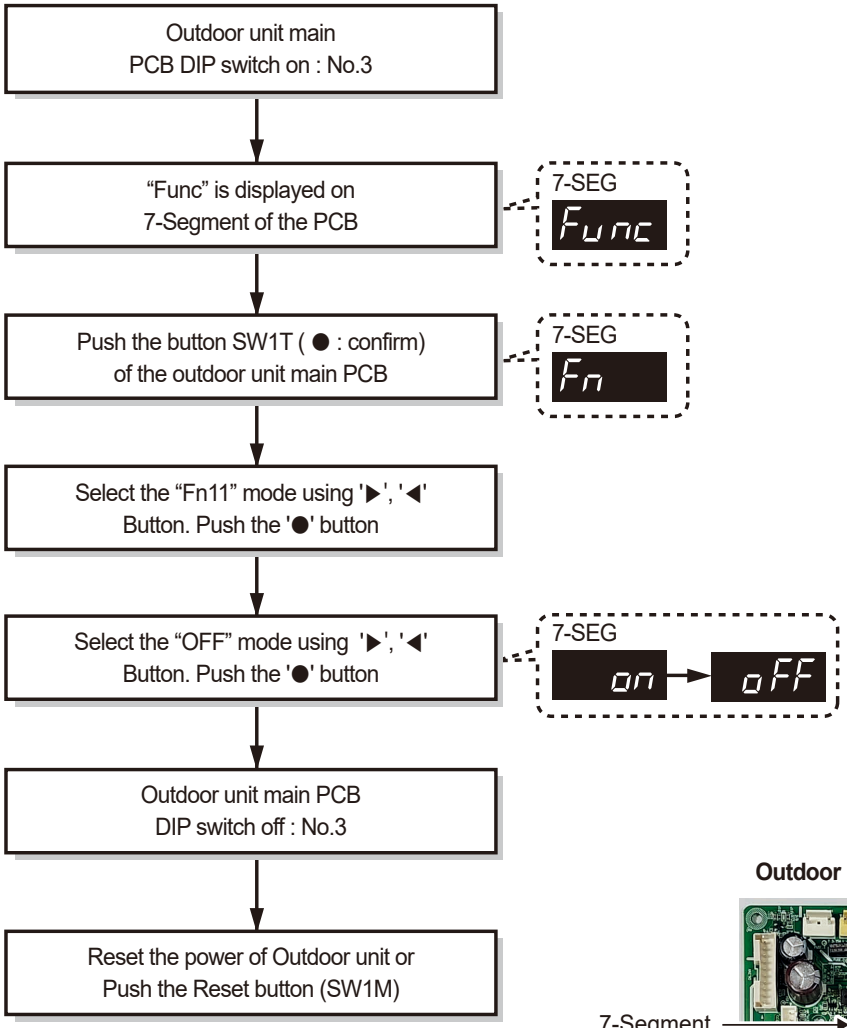


Error No.	Error Type	Error Point
CH 236	R32 Sensor Lifetime Pre Alarm	• The remaining lifetime of R32 Sensor is under six month.

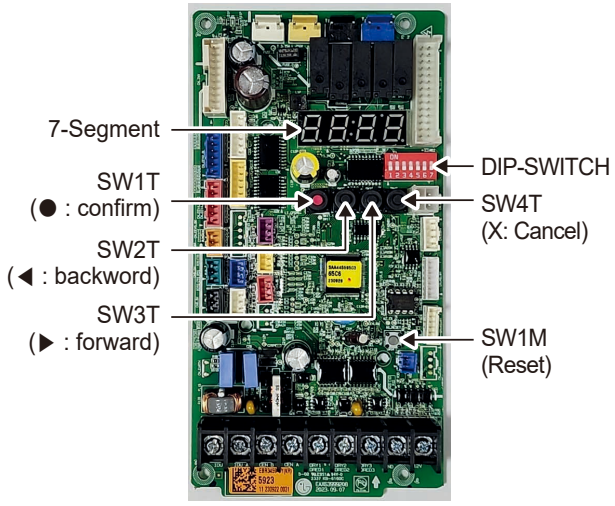


F11 Setting Process

After clear issue, F11 Set function should be deactivated from On to Off



Outdoor Unit Main PCB

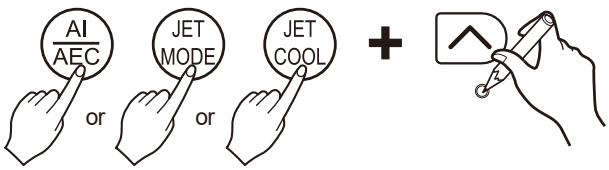


Reset the Refrigerant Leak Sensor Timer

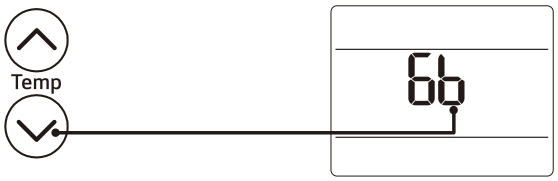
After Replace the R32 Sensor, the sensor timer should be reset

Wireless remote controller

1. With the AI AEC or JET MODE or JET COOL button pressed, press the reset button.



2. By using the ^ or v button, set the installer code “6B

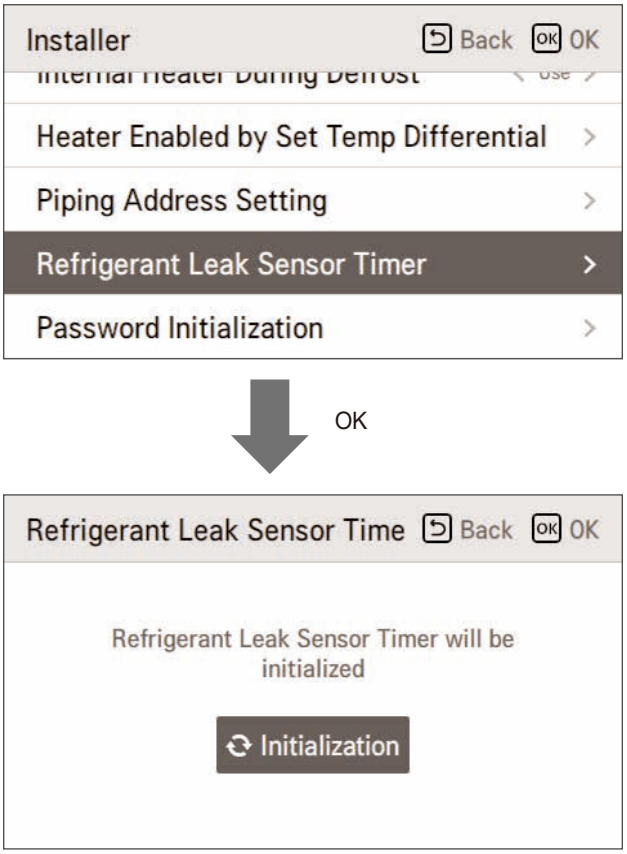


3. press the ⏻ button toward the indoor unit 1 time.
4. Reset the remote controller to use the general operation mode.V

Standard 3 Wired remote controller

This feature resets the life timer of the refrigerant leakage detection sensor.

• In the installer setting list, select Refrigerant Leak Sensor Timer category, and press [OK] button to move to the detail screen.



- Please make sure to reset the refrigerant leakage detection sensor, if you replaced it. The product may malfunction, if you don't reset it.

NOTE

• Depending on the version of remote control, this feature may not be activated.