

DUCT SERIE H5

Service manual

MUCR-H5



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※The specifications, designs, and information in this book are subject to change without notice for product improvement.

Part 1

General Information

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1. External Appearance

1.1 Indoor Units

Super slim cassette



Duct (MUCR-H5)



Ceiling-Floor



Compact Four-way cassette



Console



2.2 Outdoor Units



Single fan outdoor unit



Double fan outdoor unit

Part 2

Indoor Units

Super Slim Cassette Type	4
Duct Type MUCR-H5	19
Ceiling & Floor Type	35
Four-way Cassette Type (Compact)	44

Super Slim Cassette Type

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1. Features

1.1 Overview

- Compact design, super slim body size, less space requiring in installation
- Each louver can be separately controlled, more comfort air blowing is possible.
- Auto-lifting panel design, more convenient to clean and maintain the filter. (optional)

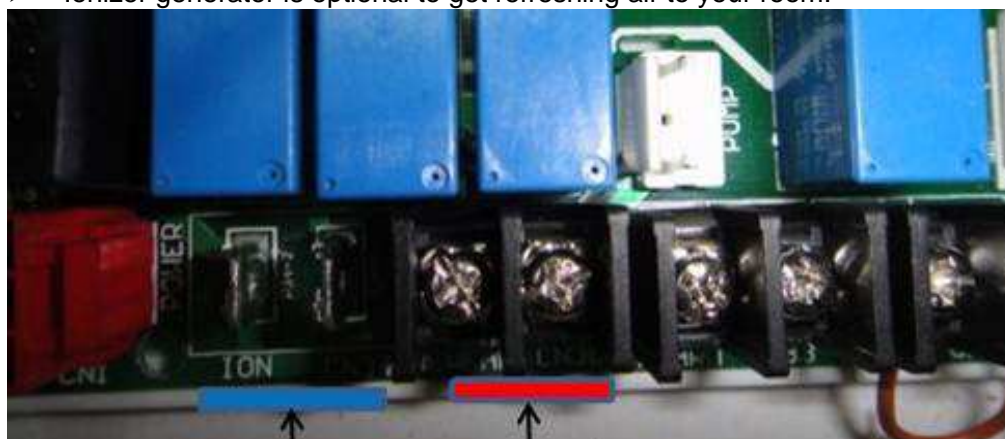
1.2 Fresh air intake function

- Fresh air fulfills air quality more healthy and comfortable.
- Ventilation motor is optional to increase the effect of fresh air.



1.3 Optional ionizer generator

- Ionizer generator is optional to get refreshing air to your room.



Ionizer generator
connector

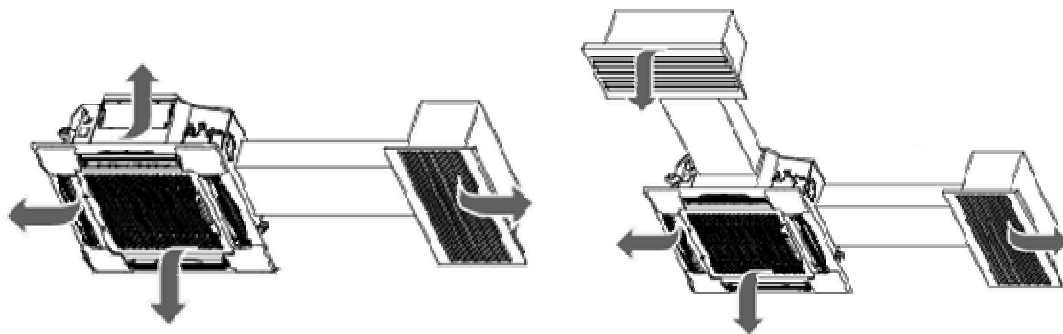
Ventilation motor
connector

- Ionizer can be switched on or off by remote controller. When pressing the Clean Air button on the remote controller, Ionizer will work and the indicator light on display board will shine.



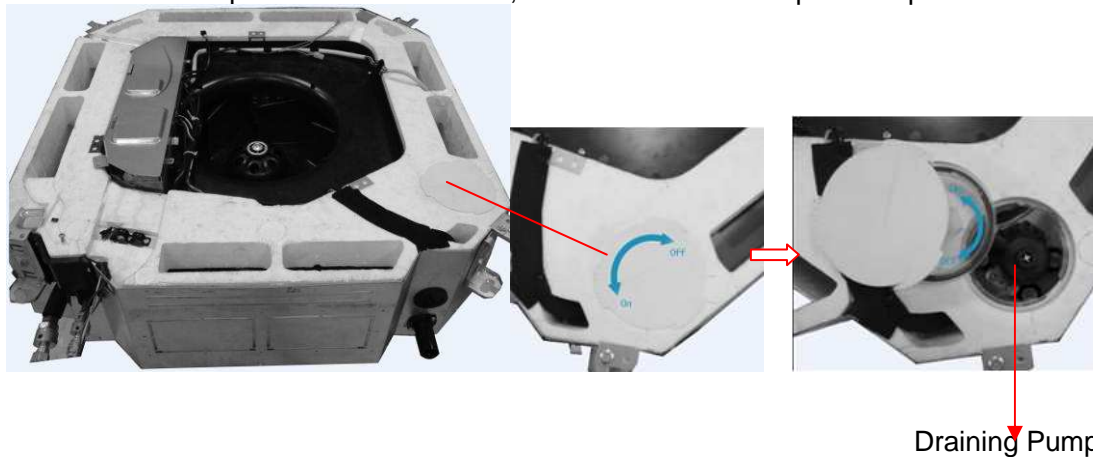
1.4 External air duct design

- Reserve external air duct, more flexible for the air supply.

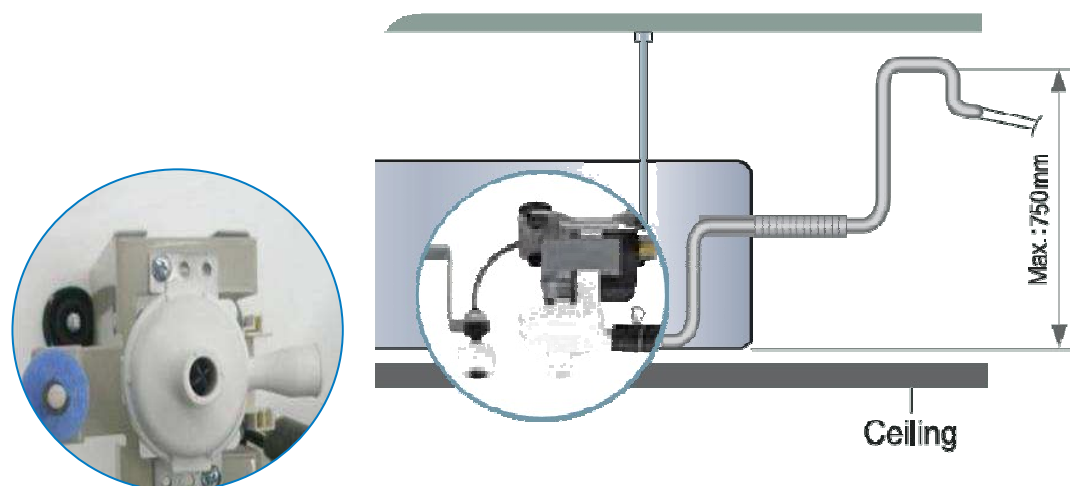


1.5 Built-in draining pump

- Due to the improvement of structure, more convenient to repair or replace the draining pump.

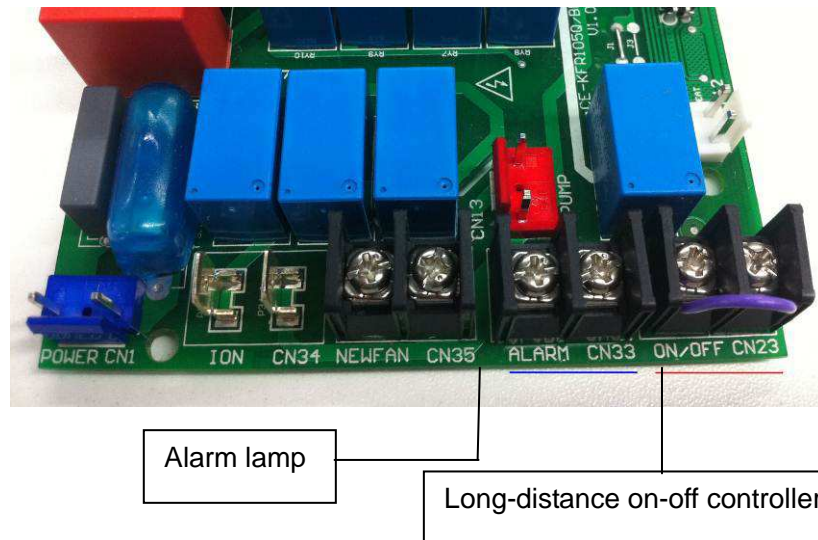


- Built-in draining pump to make sure condensed water drain out reliably.



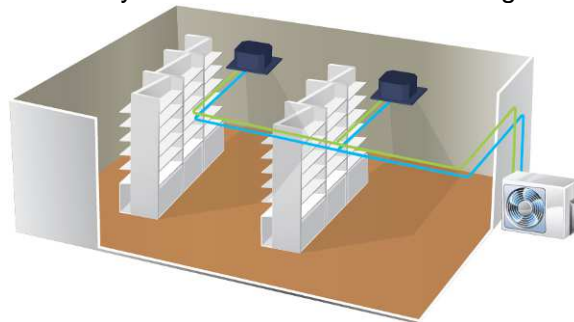
1.6 Terminals for alarm lamp and long-distance on-off controller connection are standard

- Reserve terminals for the connection of alarm lamp and long-distance on-off controller, more human control.

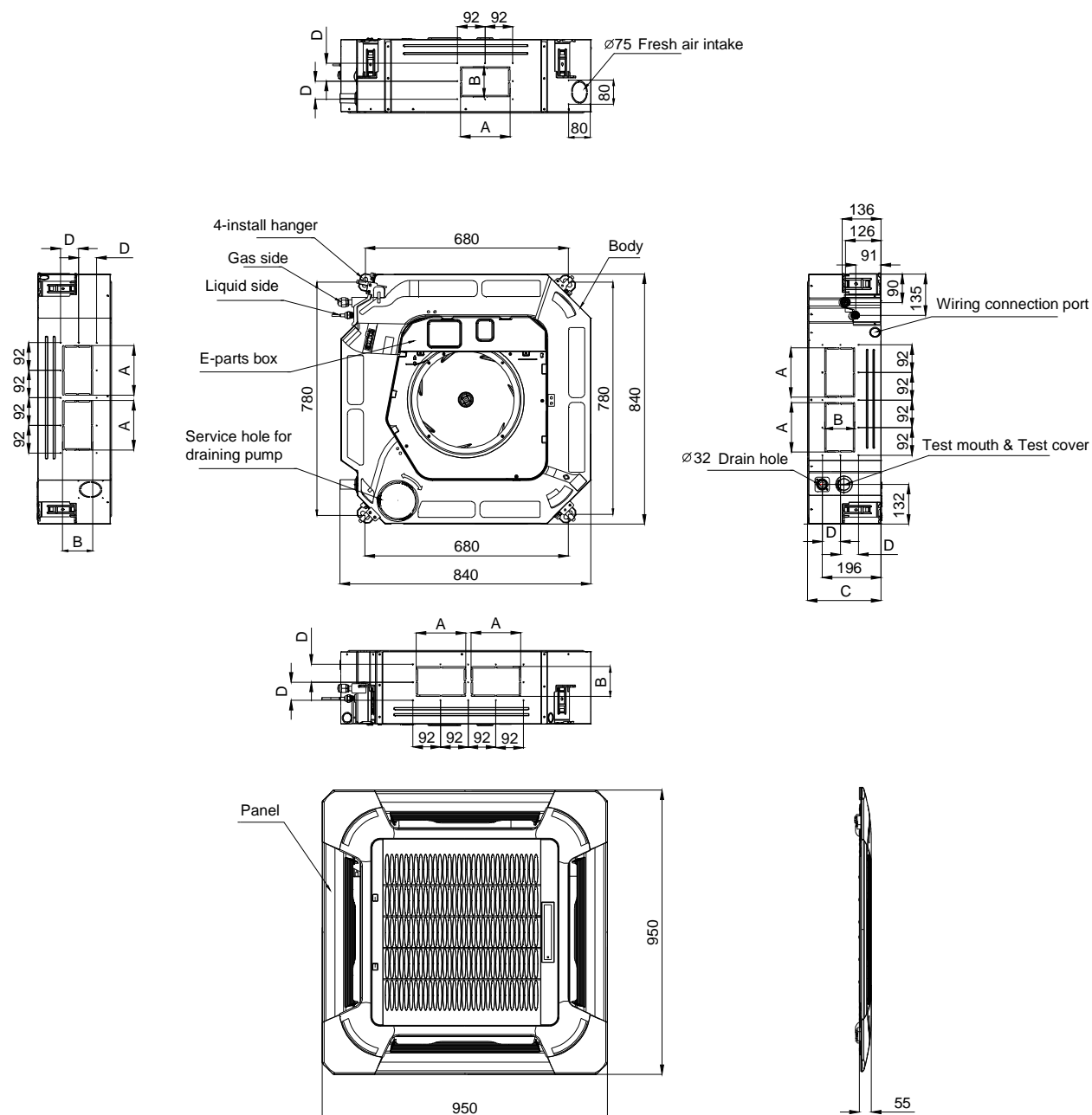


1.7 Twins Combination(18k-30k)

- The units can be installed as Twin systems: one outdoor unit can connect with two indoor units. The indoor units can be combined in any of the different available ratings.

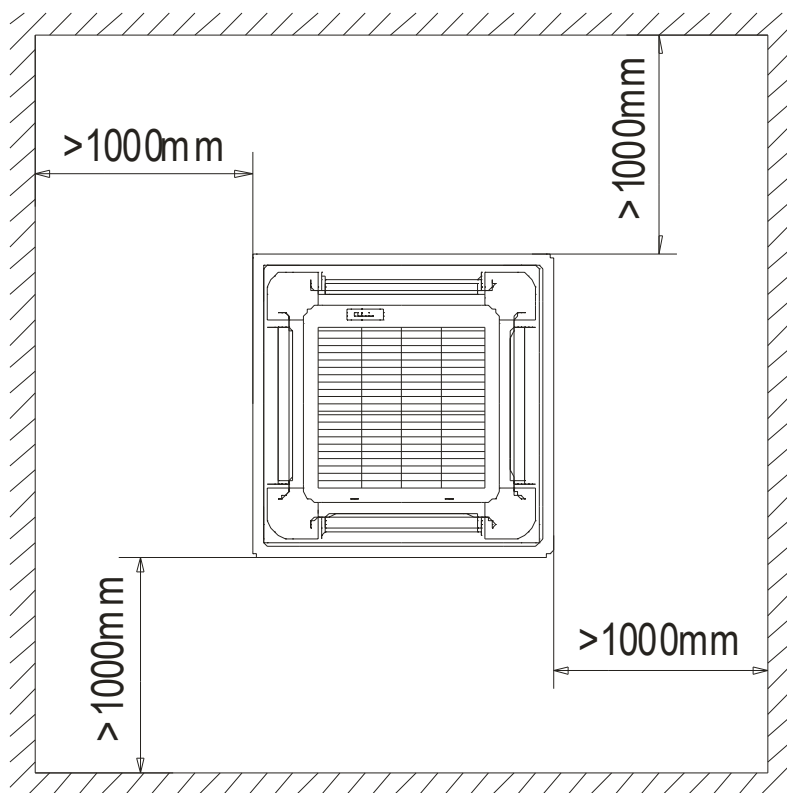


2. Dimensions



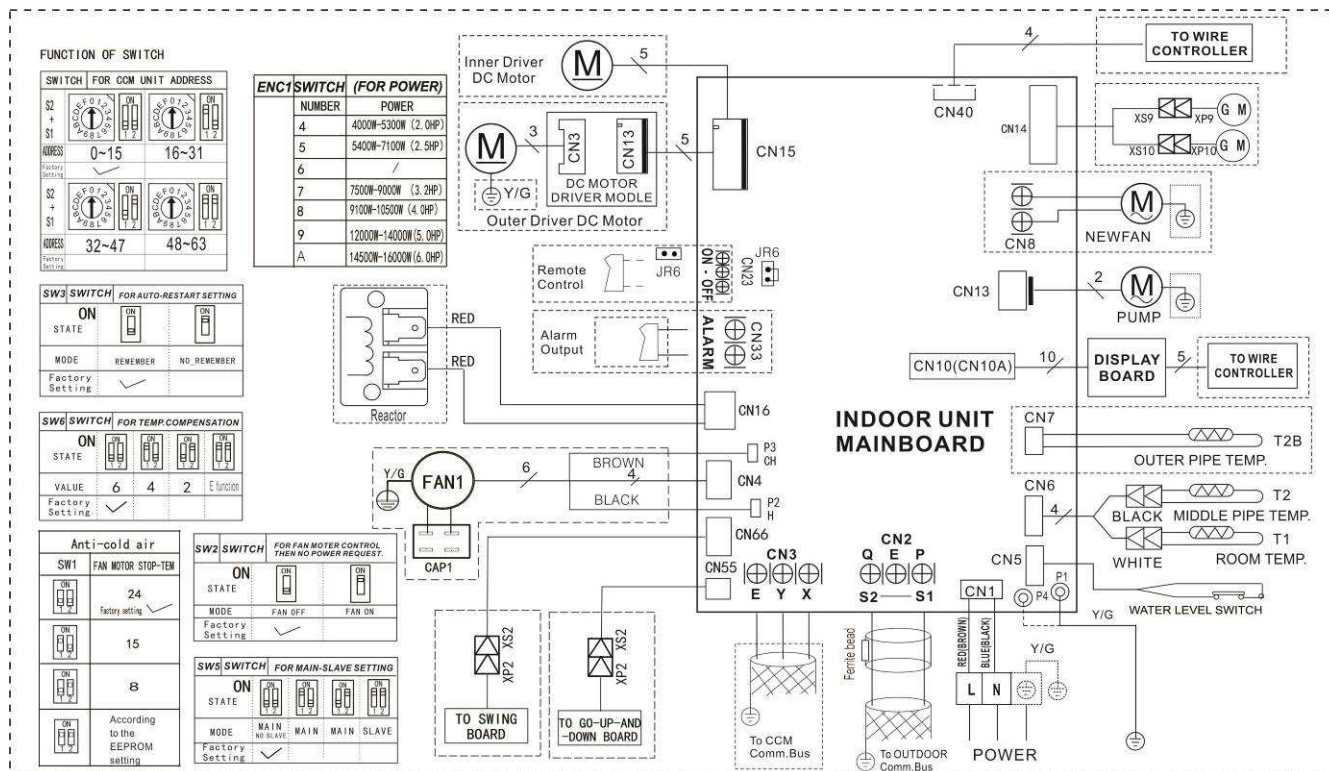
Unit: mm				
Model	A	B	C	D
18K	160	75	205	50
24K	160	95	245	60
30K				
36K				
42K	160	95	287	60
48K				
55K				

3. Service Space



4. Wiring Diagrams

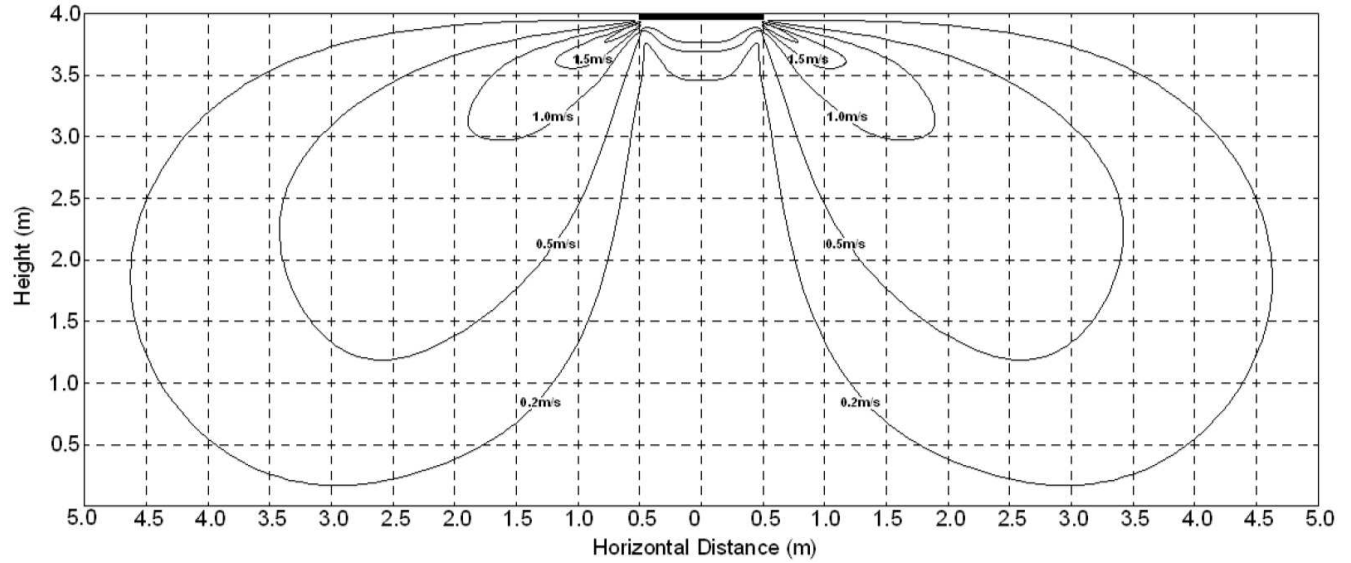
18K, 24K, 30K, 36K, 42K, 48K & 55K



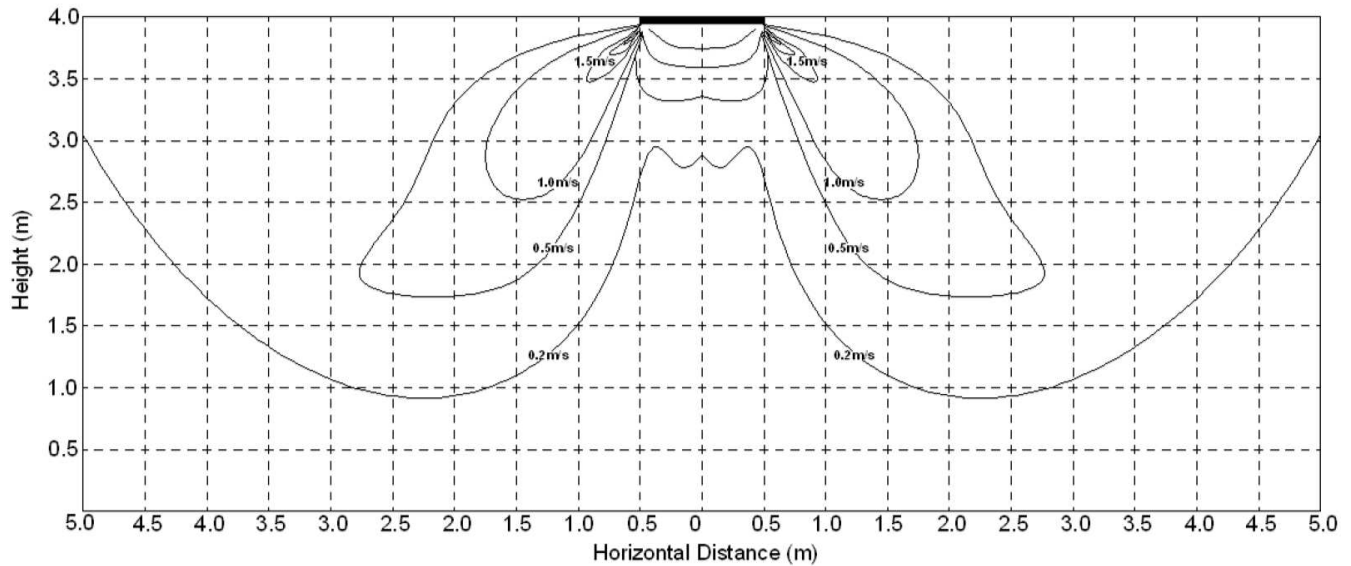
5. Air Velocity Distributions (Reference Data)

18-24K:

Cooling:

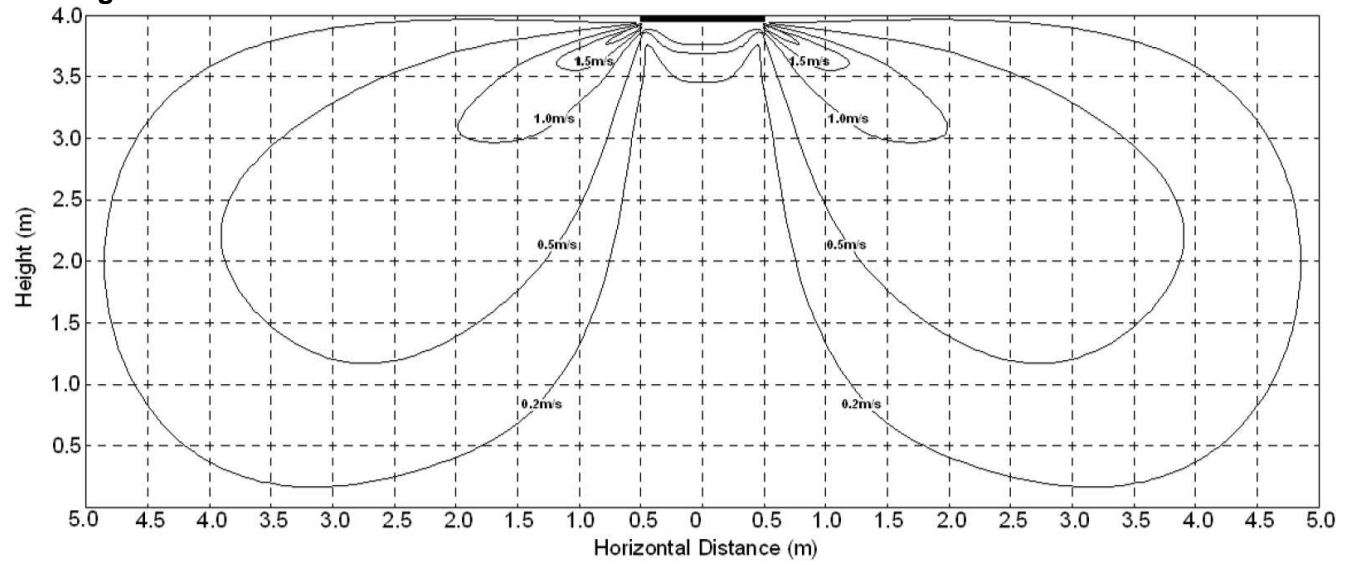


Heating:

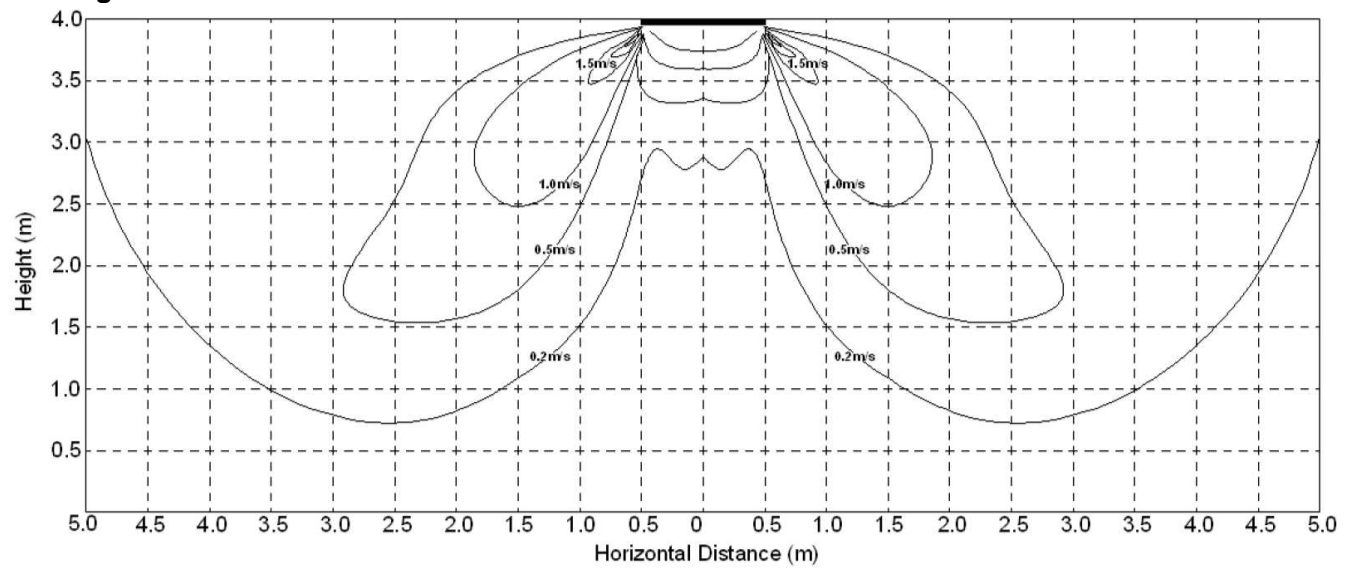


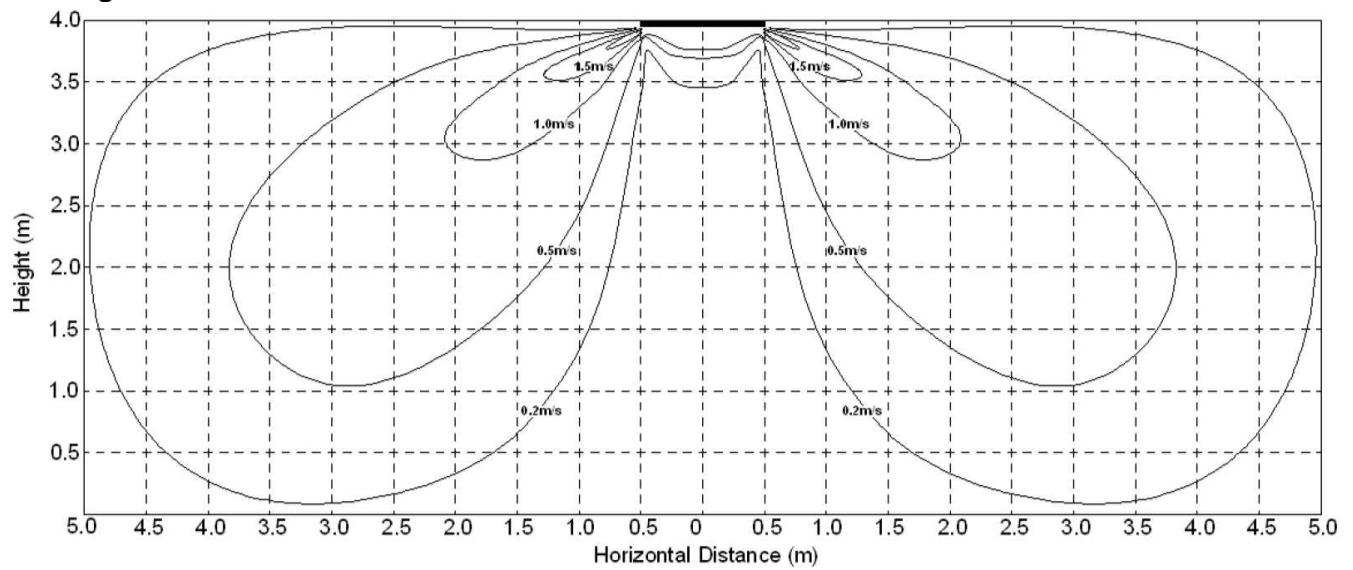
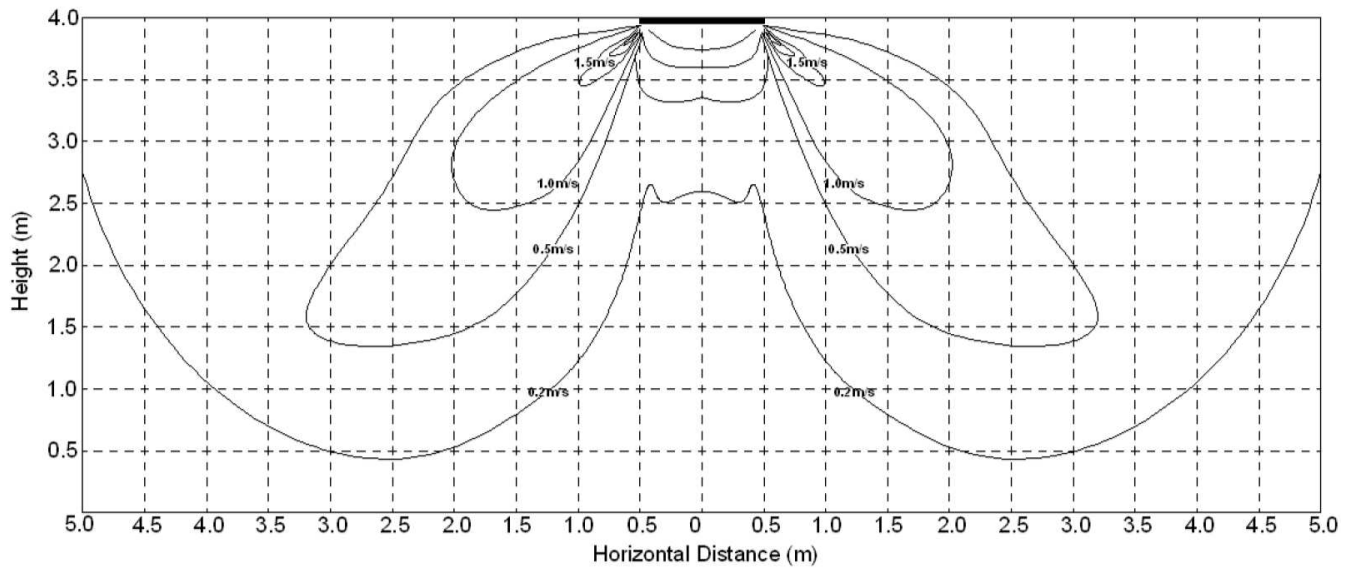
30-42K:

Cooling:



Heating:



48-55K:**Cooling:****Heating:**

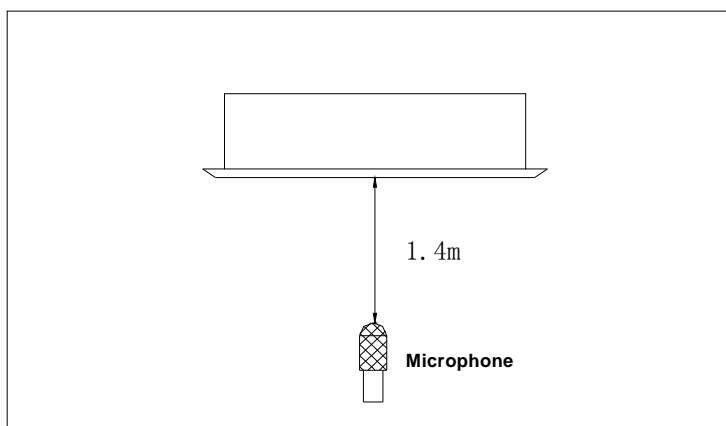
6. Electric Characteristics

Model	Indoor Unit				Power Supply
	Hz	Voltage	Min	Max	MFA
18K	50	220-240	198	254	10
24K	50	220-240	198	254	10
30K	50	220-240	198	254	10
36K	50	220-240	198	254	10
42K	50	220-240	198	254	10
48K	50	220-240	198	254	10
55K	50	220-240	198	254	10

Notes:














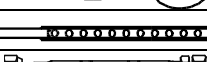
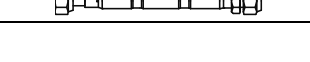

MFA: Max. Fuse Amps. (A)

7. Sound Levels



Model	Noise Power dB(A)	Noise level dB(A)		
		H	M	L
18K	58	48	43	38
24K	59	47	42	37
30K	59	48	44	40
36K	62	48	44	40
42K	62	51	47	44
48K	/	51	47	44
55K	/	51	47	44

8. Accessories

	Name	Shape	Quantity
Installation Fittings	Installation paper board		1
Tubing & Fittings	Soundproof / insulation sheath		1
Drainpipe Fittings	Out-let pipe sheath		1
	Out-let pipe clasp		1
	Drain joint		1
	Seal ring		1
Remote controller & Its Frame (The product you have might not be provided the following accessories)	Remote controller & Its Frame		1
	Remote controller holder		1
	Mounting screw(ST2.9x10-C-H)		2
	Remote controller manual		1
	Alkaline dry batteries (AM4)		2
Others	Owner's manual		1
	Installation manual		1
Installation accessory (The product you have might not be provided the following accessories)	Expansable hook		4
	Installation hook		4
	Orifice		1

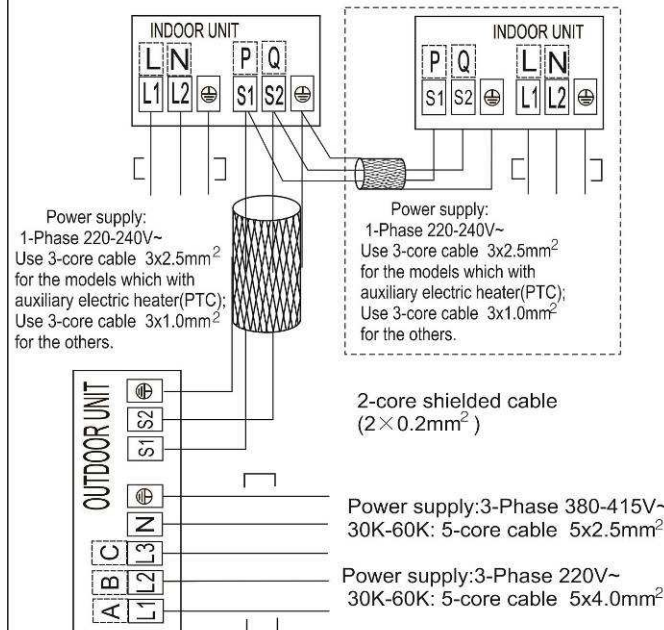
9. The Specification of Power

Model		18000-24000Btu/h	30000 Btu/h	36000 Btu/h	36000 Btu/h
INDOOR UNIT POWER	Phase	1-phase	1-phase	1-phase	1-phase
	Frequency and Voltage	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz
	POWER WIRING (mm ²)	3×1.0	3×1.0	3×1.0	3×1.0
	CIRCUIT BREAKER / Fuse (A)	15/10	15/10	15/10	15/10
OUTDOOR UNIT POWER	Phase	1-phase	1-phase	1-phase	3-phase
	Frequency and Voltage	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz	380-420V, 50Hz
	POWER WIRING (mm ²)	3×2.5	3×2.5	3×4.0	5×2.5
	CIRCUIT BREAKER / Fuse (A)	30/20	40/30	40/30	30/20
Indoor/Outdoor Connecting Wiring (Weak Electric Signal) (mm ²)		3×0.5	3×0.5	3×0.5	3×0.5
Indoor/Outdoor Connecting Wiring (Strong Electric Signal) (mm ²)		—————	—————	—————	—————

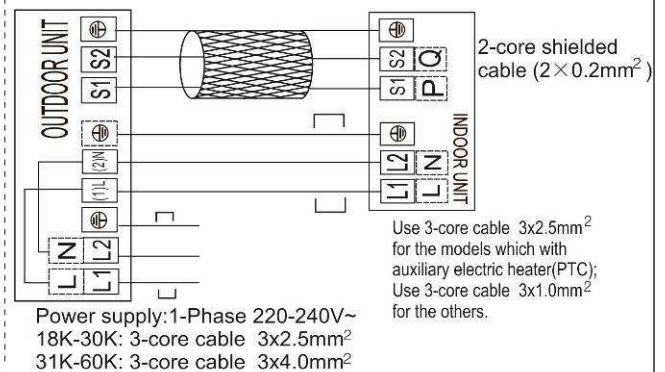
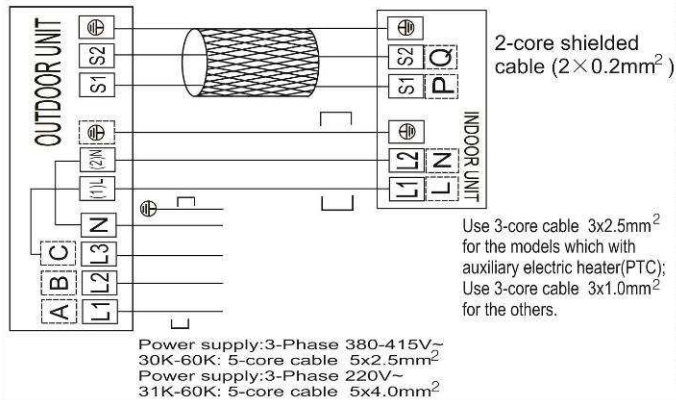
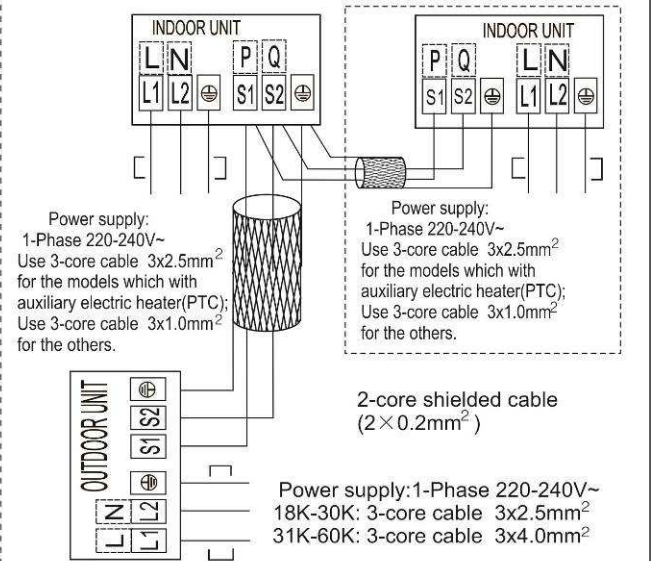
Model(Btu/h)		48000	42000-60000
INDOOR UNIT POWER	Phase	1-phase	1-phase
	Frequency and Voltage	220-240V, 50Hz	220-240V, 50Hz
	Power Wiring (mm ²)	3×1.0	3×1.0
	Circuit Breaker/Fuse (A)	15/10	15/10
OUTDOOR UNIT POWER	Phase	1-phase	3-phase
	Frequency and Voltage	220-240V, 50Hz	380-415V, 50Hz
	Power Wiring (mm ²)	3×4.0	5×2.5
	Circuit Breaker/Fuse (A)	40/35	30/25
Indoor/Outdoor Connecting Wiring (Weak Electric Signal) (mm ²)		3×0.5	3×0.5
Indoor/Outdoor Connecting Wiring (Strong Electric Signal) (mm ²)		—————	—————

10. Field Wiring

Air Condition Link-Circuit



202044790380



Duct Type MUCR-H5

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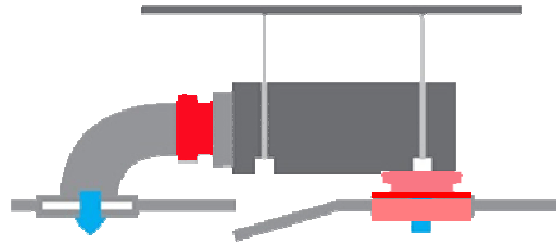
1. Features

1.1 Installation accessories: (Optional)

- Front Board, Canvas Air Passage, Filter, Panel, for easy installation



Front Board



Canvas Air Passage



Filter



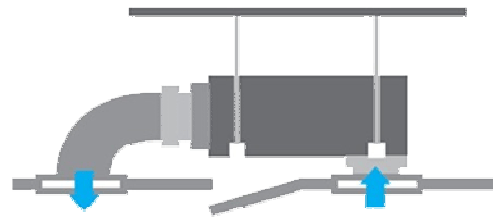
Panel

1.2 Easy Installation: Two air inlet styles (Bottom side or Rear side)

- Air inlet from rear is standard for all capacity; air inlet from bottom is optional.
- The size of air inlet frame from rear and bottom is same, it's very easy to move the cover from bottom to rear side, or from rear to the bottom, in order to matching the installation condition.



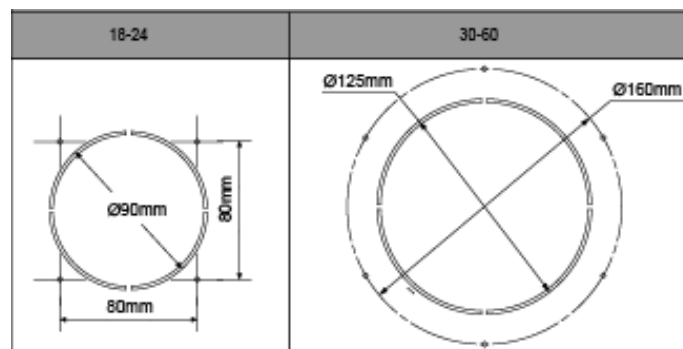
Air intake from rear (Standard)



Air intake from bottom (Optional)

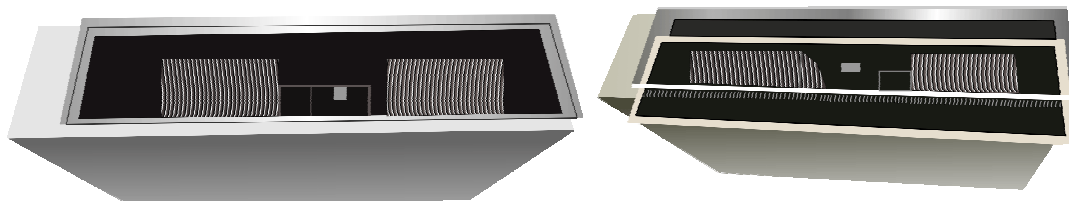
1.3 Fresh air intake function(Optional for 18~60k)

- Install one duct from the reserved fresh-air intake to outdoor. Continually inhale the fresh air to improve the quality of the indoor air, fulfills air quality more healthy and comfortable.

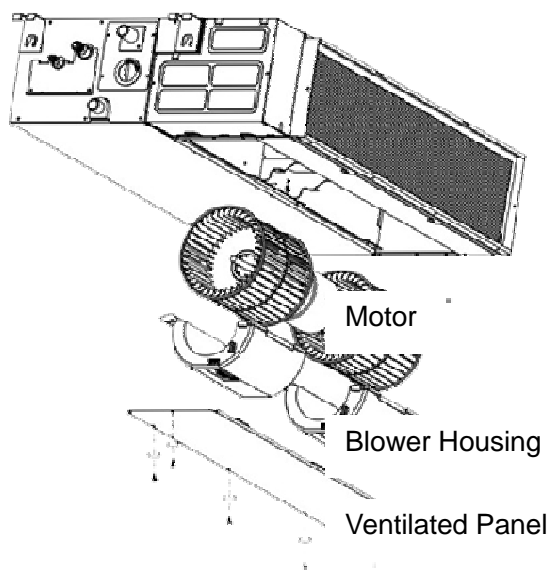


1.4 Easy maintenance

- Clean the filter (Optional, standard product without filter)
It is easy to draw out the filter from the indoor unit for cleaning, even the filter is installed in rear side or bottom side.

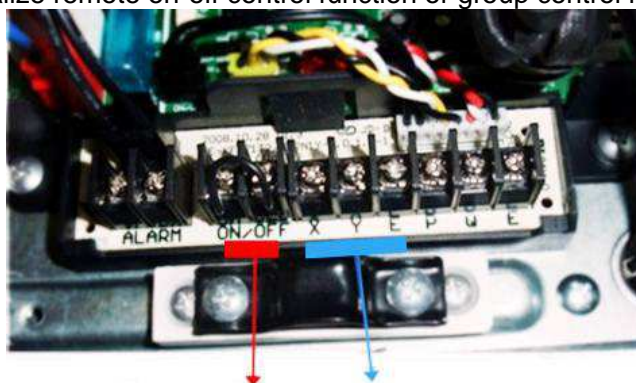


- Replace the motor or centrifugal fan
Remove the ventilated panel firstly. Remove a half of blower housing and take out the motor with centrifugal fan. Directly remove two bolts, and then replace the motor or centrifugal fan easily.



1.5 Reserved remote on-off and central control ports

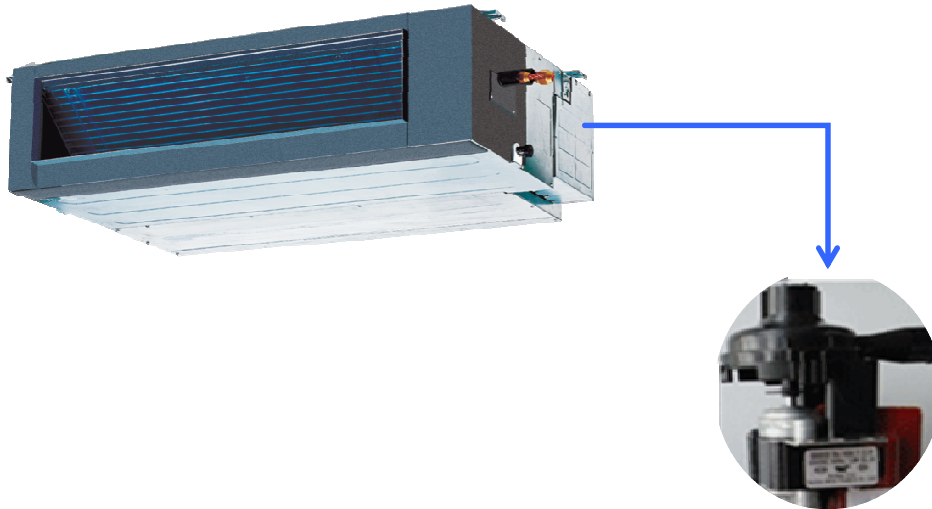
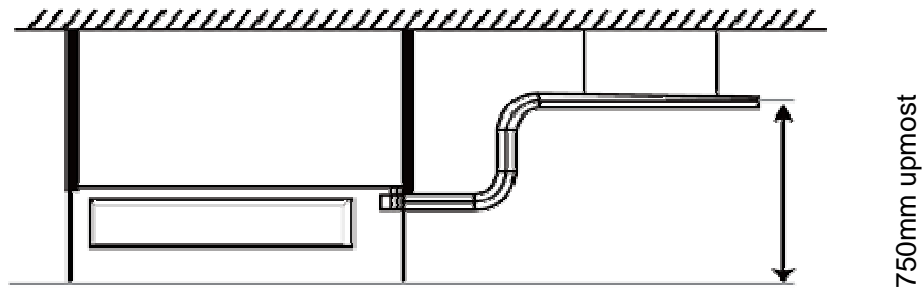
- Reserved remote on-off ports and central control ports, can connect the cable of an on-off controller or a central controller to realize remote on-off control function or group control function.



Remote on-off ports Central control ports

1.6 Built-in drain pump (Optional):

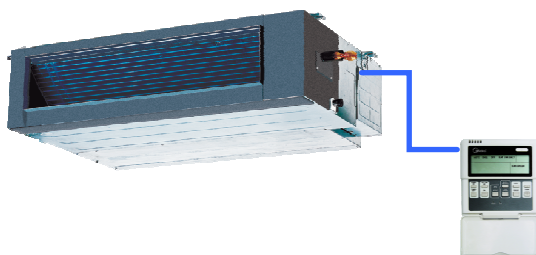
- Built-in drain pump can lift the water to 750mm upmost. It's convenient to install drainage piping under most space condition.



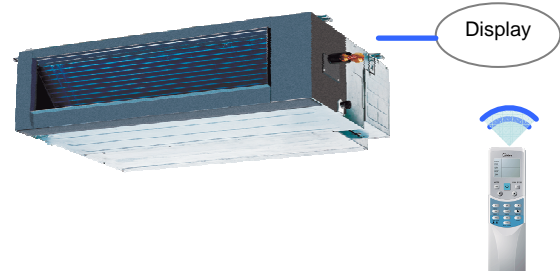
1.7 Built-in display board

- The standard indoor unit can be controlled by wired controller.
- There is a display board with a receiver in the E-box. Move out the display, and fix it in other place, even in the distance of 10m. The unit will realized remoter control.
- The wired controller and the display board can display the error code or production code when the chips detect some failure.

Wired Controller (Standard)

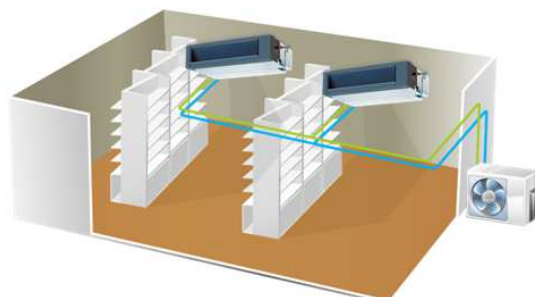


Remote Controller (Optional)

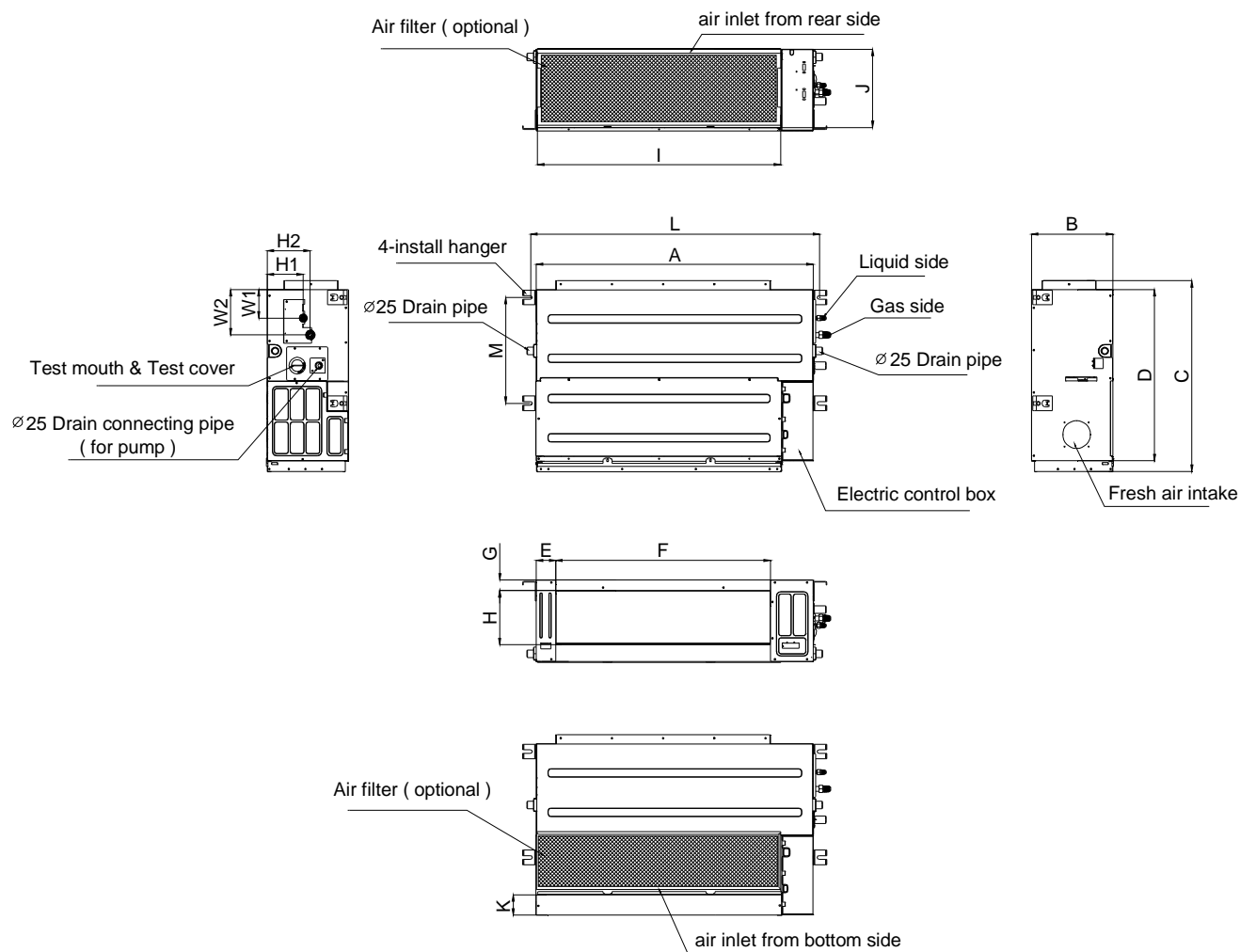


1.8 Twins Combination

- The units can be installed as Twin systems: one outdoor unit can connect with two indoor units. The indoor units can be combined in any of the different available ratings.



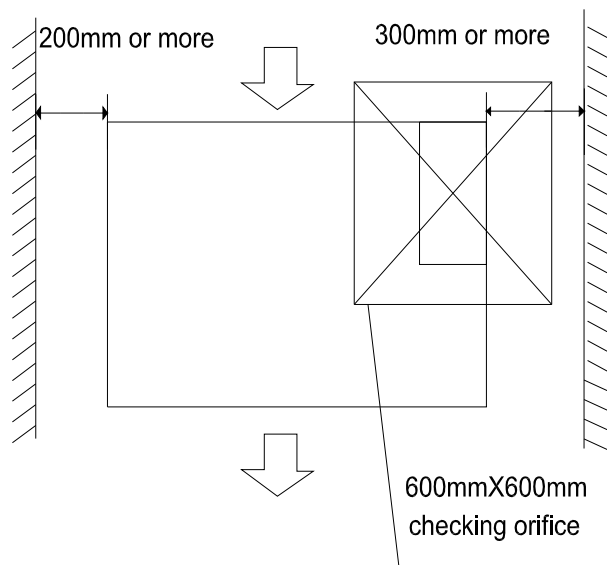
2. Dimensions



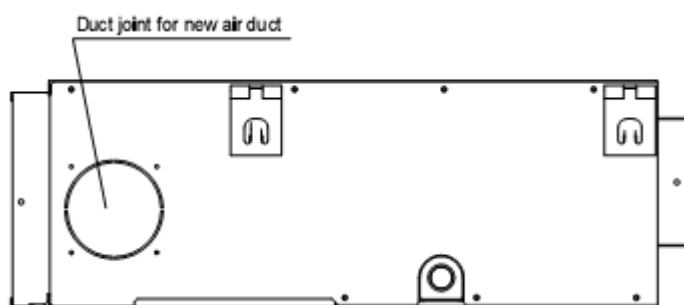
Note: standard product without filter														Unit: mm			
Model	Outline dimension(mm)				Air outlet opening size				Air return opening size			Size of install hanger		Size of refrigerant pipe			
	A	B	C	D	E	F	G	H	I	J	K	L	M	H1	H2	W1	W2
12K	700	210	635	570	65	493	35	119	595	200	80	740	350	120	143	95	150
18K 24K	920	270	635	570	65	713	35	179	815	260	20	960	350	120	143	95	150
30K	1140	270	775	710	65	933	35	179	1035	260	45	1240	500	120	143	95	150
36K 42K 48K 55K	1200	300	865	800	80	968	40	204	1094	288	45	1240	500	175	198	155	210

3. Service Space

Ensure enough space required for installation and maintenance.



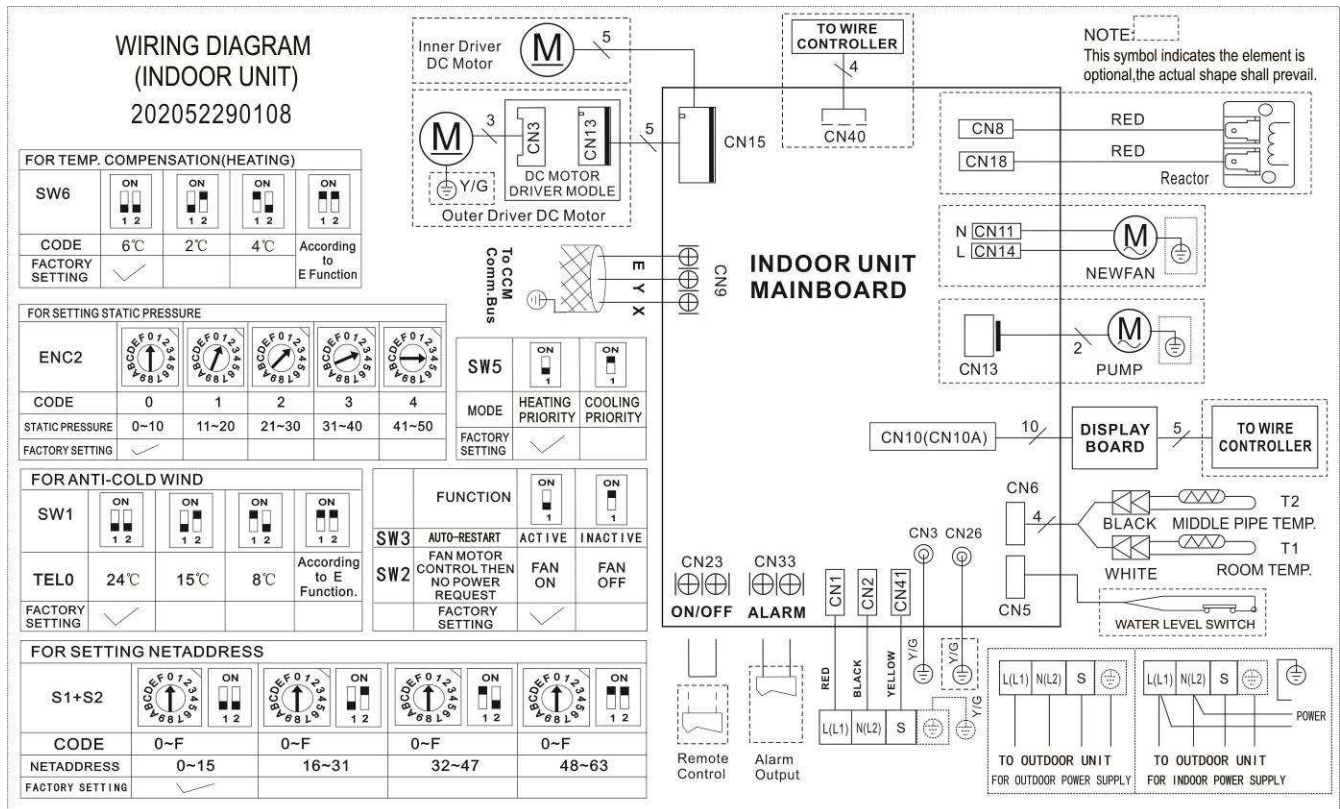
All the indoor units reserve the hole to joint the fresh air pipe. The hole size as following:



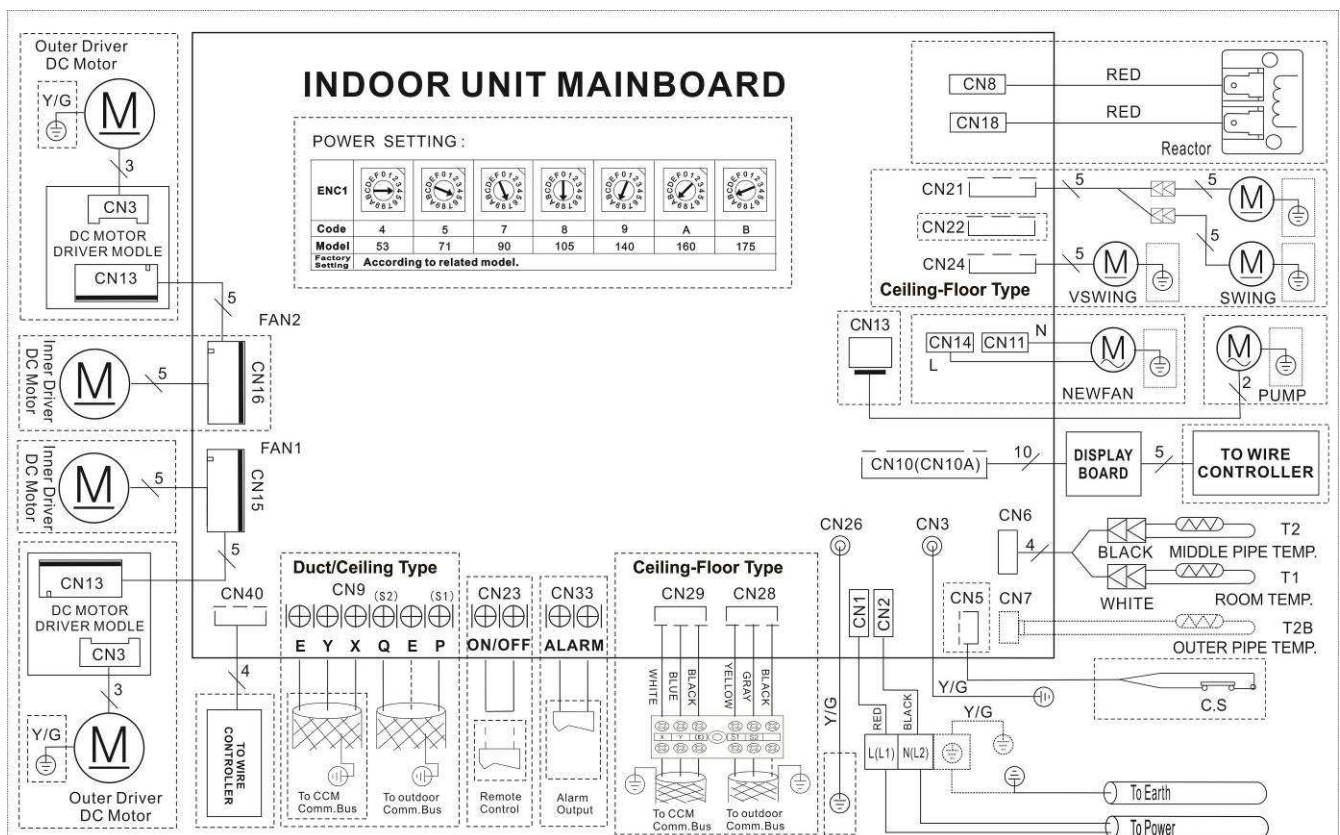
MODLE	
12-24	30-60

4. Wiring Diagrams

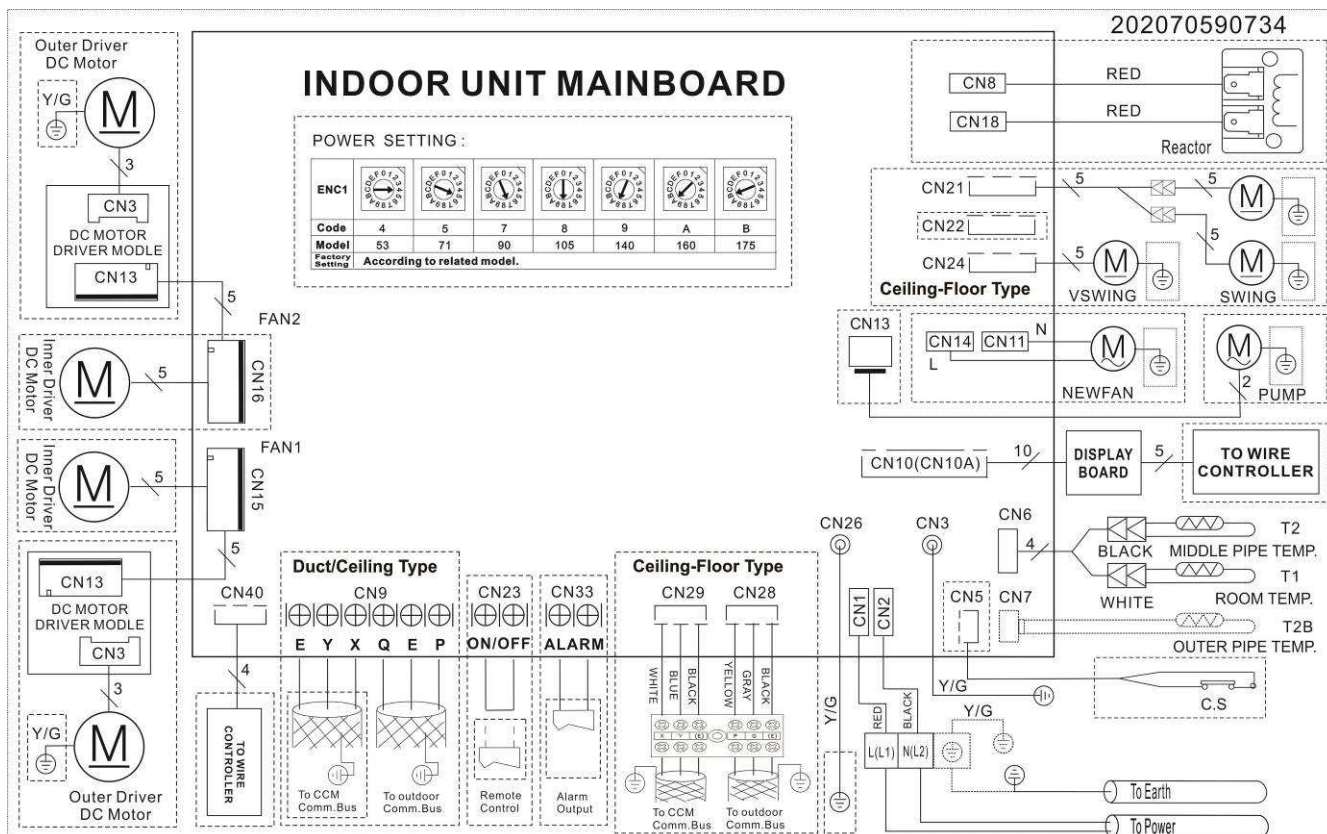
12K



18K



24K, 30K, 36K, 42K, 48K & 55K



Pre-setting Instructions

FOR SETTING POWER							
ENC1							
CODE	4	5	7	8	9	A	B
POWER	≤53	54~71	72~90	91~105	106~140	141~160	≥161
FACTORY SETTING	ACCORDING TO RELATED MODEL.						

FOR SETTING NETADDRESS							
S1+S2							
CODE	0~F	0~F	0~F	0~F	0~F	0~F	0~F
NETADDRESS	0~15	16~31	32~47	48~63			
FACTORY SETTING	✓						

FOR SETTING STATIC PRESSURE(MIDDLE STATIC PRESSURE MODEL)							
ENC2							
MODEL (K Btu/h)	CODE	0	1	2	3	4	
	MODEL ≤ 12	10(Pa)	25(Pa)	37(Pa)	50(Pa)	60(Pa)	
	12 < MODEL ≤ 24	10(Pa)	25(Pa)	37(Pa)	50(Pa)	75(Pa)	
	24 < MODEL ≤ 42	25(Pa)	37(Pa)	50(Pa)	75(Pa)	100(Pa)	
	42 < MODEL ≤ 60	25(Pa)	50(Pa)	75(Pa)	100(Pa)	125(Pa)	
FACTORY SETTING		✓					

FOR SETTING STATIC PRESSURE(HIGH STATIC PRESSURE MODEL)							
ENC2							
MODEL (K Btu/h)	CODE	0	1	2	3	4	
	MODEL ≤ 24	15(Pa)	25(Pa)	37(Pa)	50(Pa)	75(Pa)	
	24 < MODEL ≤ 42	25(Pa)	37(Pa)	50(Pa)	75(Pa)	100(Pa)	
	42 < MODEL ≤ 60	25(Pa)	50(Pa)	75(Pa)	100(Pa)	150(Pa)	
FACTORY SETTING		✓					

FOR ANTI-COLD WIND							
SW1							
TEL0	24°C	15°C	Fan motor do not stop.	According to the E Function.			
FACTORY SETTING	✓						

FOR SETTING FAN MOTOR CONTROL THEN NO POWER REQUEST							
SW2							
MODE	FAN OFF	FAN ON					
FACTORY SETTING	✓						

FOR SETTING AUTO-RESTART							
SW3							
AUTO-RESTART	ACTIVE	INACTIVE					
FACTORY SETTING	✓						

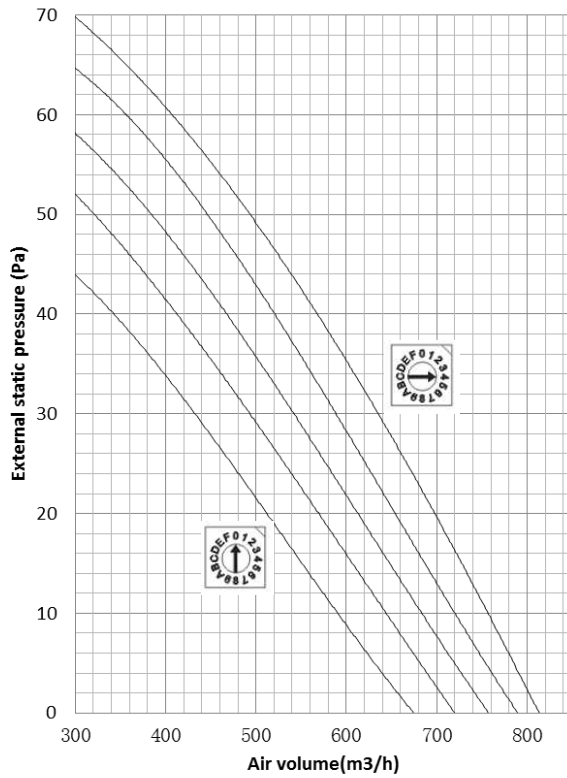
FOR TEMP. COMPENSATION							
SW6							
DUCT TYPE	6°C	2°C	4°C	According to E Function.			
FACTORY SETTING	✓						

FUNCTION SETTING INDICATION 202070590810

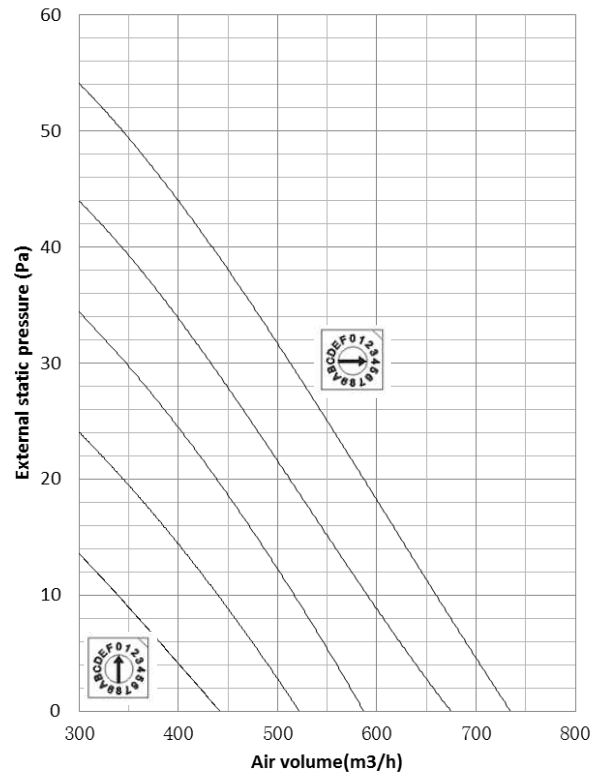
5. Static Pressure

12K

High Speed

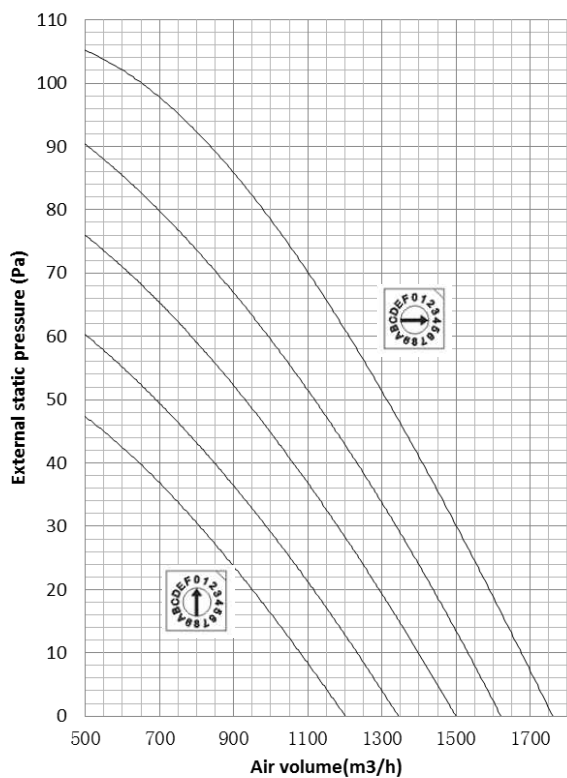


Low Speed

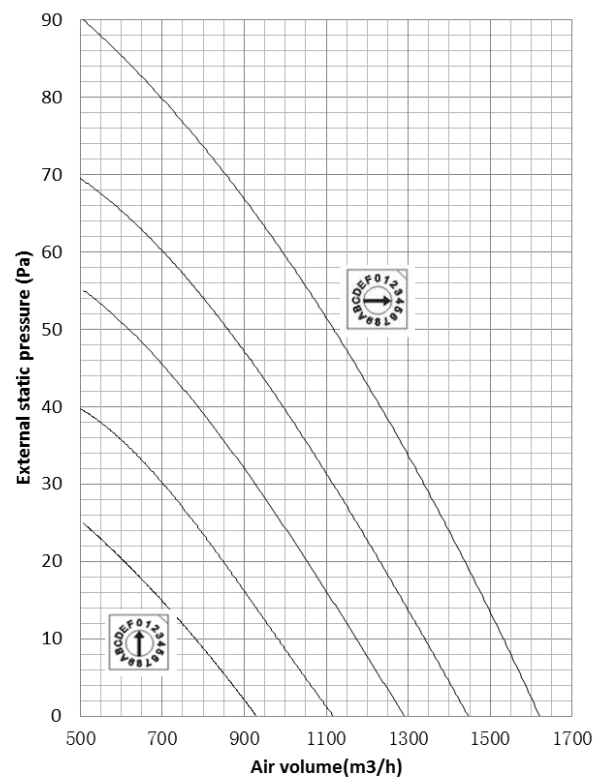


18K

High Speed

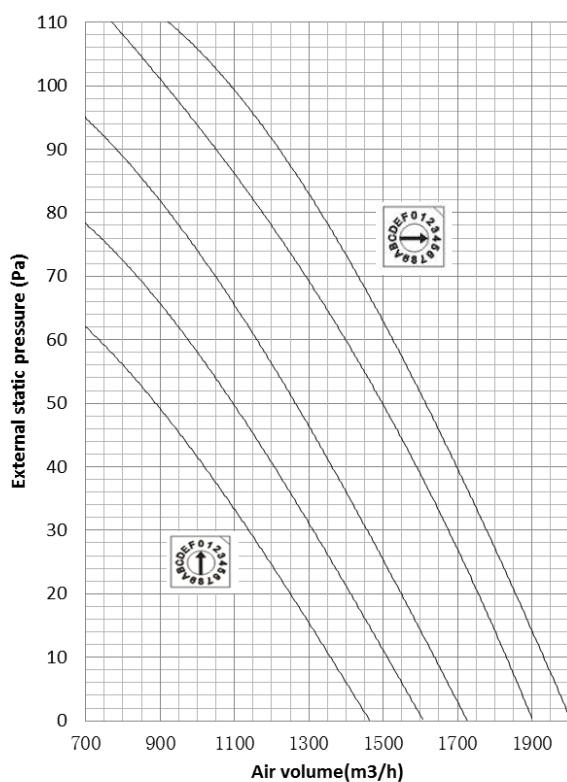


Low Speed

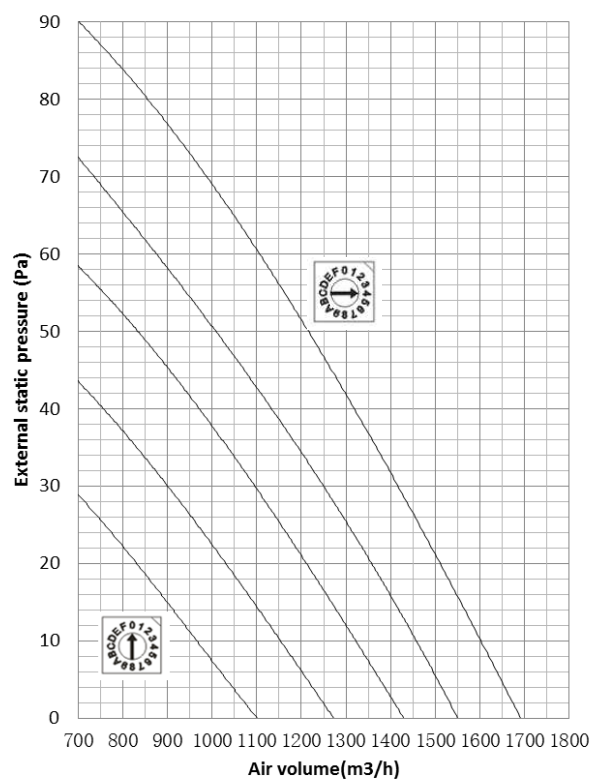


24K

High Speed

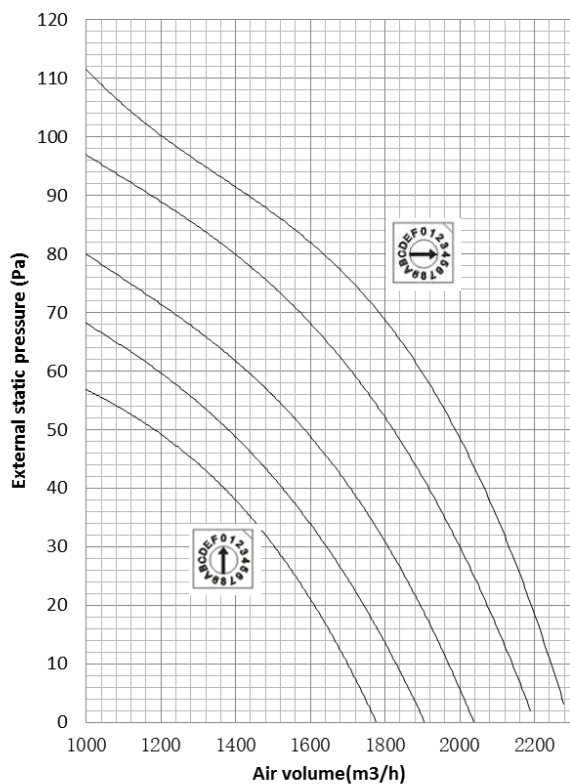


Low Speed

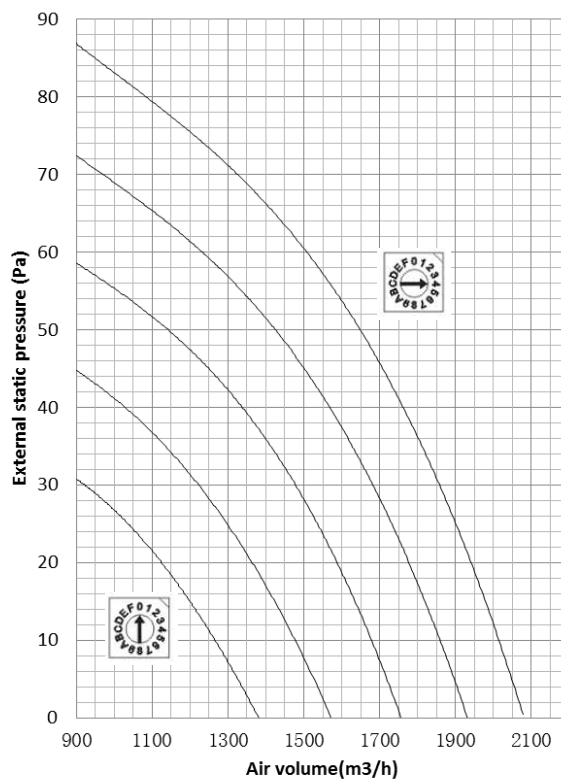


30K

High Speed

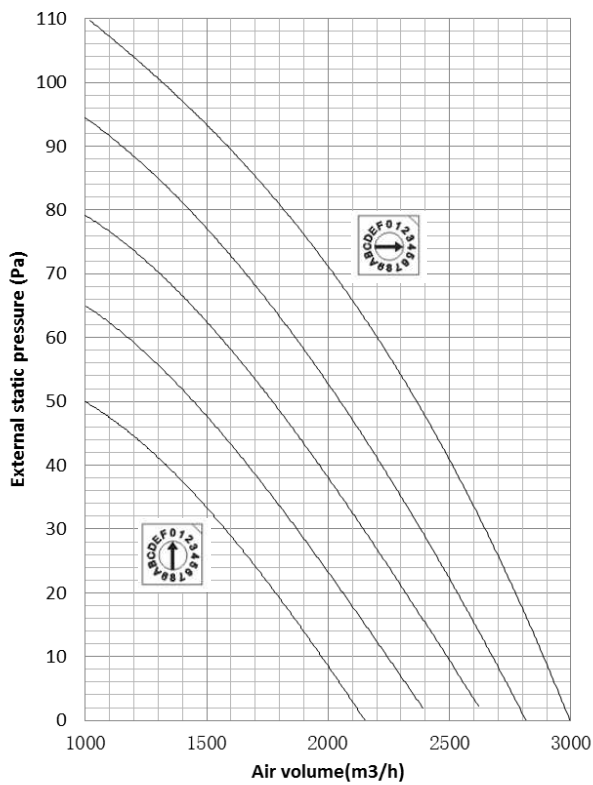


Low Speed

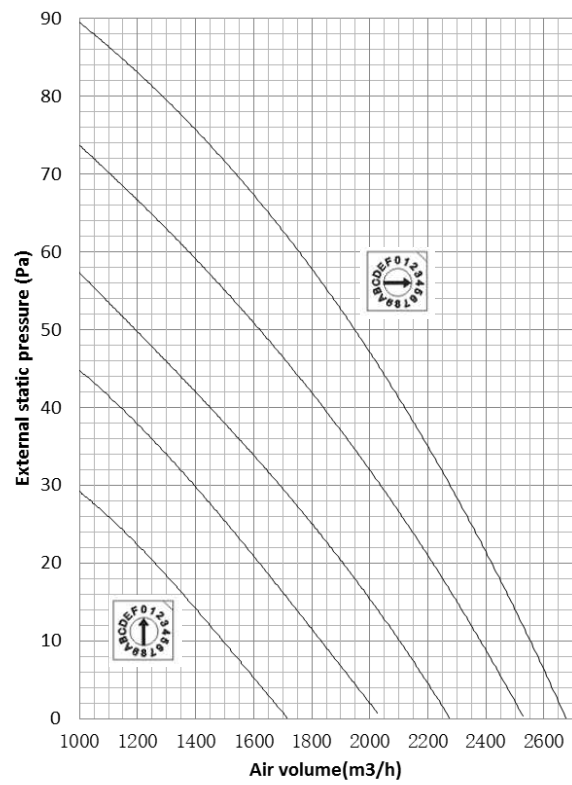


36K

High Speed

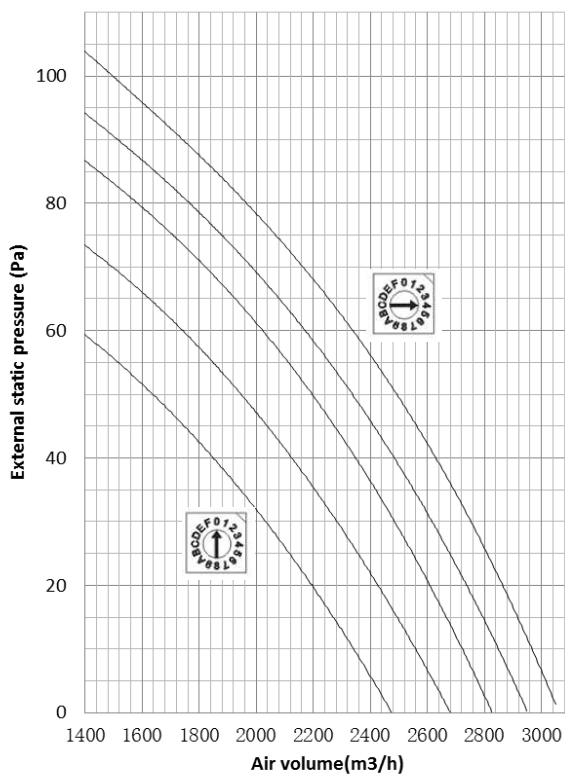


Low Speed

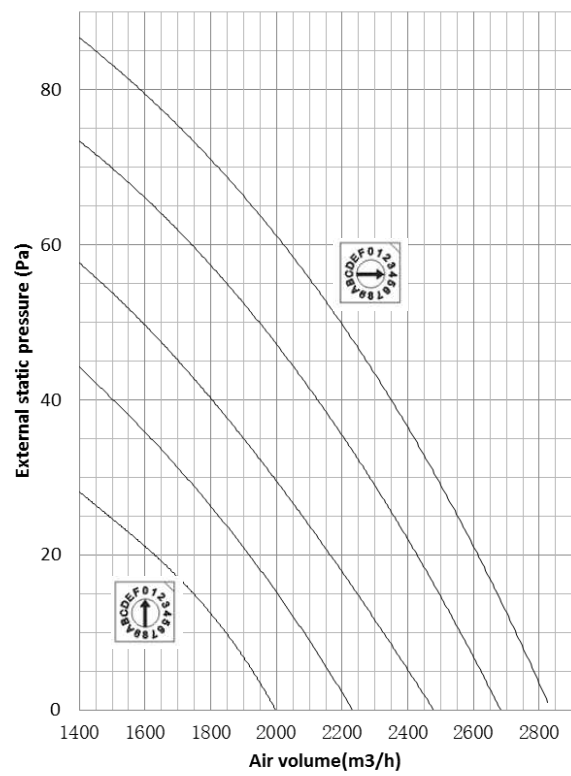


42K, 48K & 55K

High Speed



Low Speed



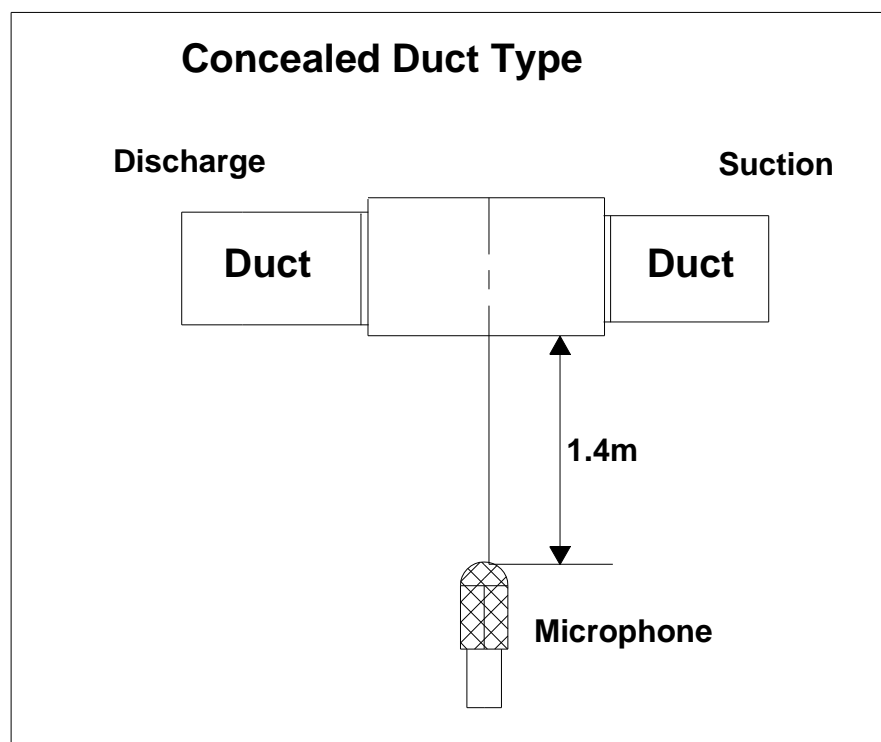
6. Electric Characteristics

Model	Indoor Unit				Power Supply
	Hz	Voltage	Min.	Max.	MFA
12K	50	220-240	198	254	16
18K	50	220-240	198	254	10
24K	50	220-240	198	254	10
30K	50	220-240	198	254	10
36K	50	220-240	198	254	10
42K	50	220-240	198	254	10
48K	50	220-240	198	254	10
55K	50	220-240	198	254	10

Note:


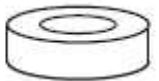






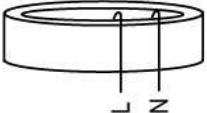
MFA: Max. Fuse Amps. (A)

7. Sound Levels



Model	Sound Power dB(A)	Noise level dB(A)		
		H	M	L
12K	57	40	37	35
18K	59	45	42	39
24K	59	41	38	35
30K	58	41	36	31
36K	63	45	41	38
42K	65	47	43	39
48K	64	49	44	40
55K	64	40	38	36

8. Accessories

	Name	Shape	Quantity
Tubing & Fittings	Soundproof / insulation sheath		2
	Binding tape		1
	Seal sponge		1
Drainpipe Fittings (for cooling & heating)	Drain joint		1
	Seal ring		1
Wired controller & Its Frame	Wired controller		1
Others	Owner' s manual		1
	Installation manual		1
EMS & It's fitting	Magnetic ring (twist the electric wires L and N around it to five circles)		1

9. The Specification of Power

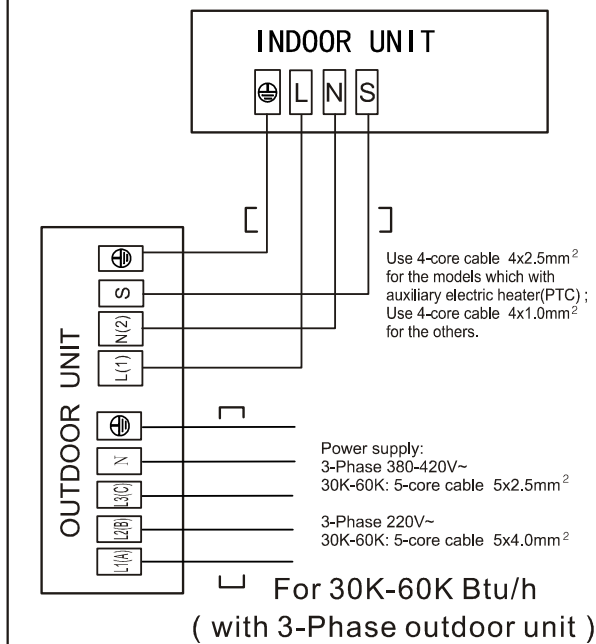
Model		12000 Btu/h	18000-24000Btu/h	30000 Btu/h	36000 Btu/h	36000 Btu/h
INDOOR UNIT POWER	Phase	—————	1-phase	1-phase	1-phase	1-phase
	Frequency and Voltage	—————	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz
	POWER WIRING (mm ²)	—————	3×1.0	3×1.0	3×1.0	3×1.0
	CIRCUIT BREAKER/ Fuse (A)	—————	15/10	15/10	15/10	15/10
OUTDOOR UNIT POWER	Phase	1-phase	1-phase	1-phase	1-phase	3-phase
	Frequency and Voltage	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz	380-420V, 50Hz
	POWER WIRING (mm ²)	3×2.5	3×2.5	3×2.5	3×4.0	5×2.5
	CIRCUIT BREAKER/ Fuse (A)	20/16	30/20	40/30	40/30	30/20
Indoor/Outdoor Connecting Wiring(Weak Electric Signal) (mm ²)		—————	3×0.5	3×0.5	3×0.5	3×0.5
Indoor/Outdoor Connecting Wiring(Strong Electric Signal) (mm ²)		4×1.0	—————	—————	—————	—————

Model(Btu/h)		48000	60000	48000-60000
INDOOR UNIT POWER	Phase	1-phase	1-phase	1-phase
	Frequency and Voltage	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz
	Power Wiring (mm ²)	3×1.0	3×1.0	3×1.0
	Circuit Breaker/Fuse (A)	15/10	15/10	15/10
OUTDOOR UNIT POWER	Phase	1-phase	1-phase	3-phase
	Frequency and Voltage	220-240V, 50Hz	220-240V, 50Hz	380-415V, 50Hz
	Power Wiring (mm ²)	3×4.0	3×4.0	5×2.5
	Circuit Breaker/Fuse (A)	40/35	50/40	30/25
Indoor/Outdoor Connecting Wiring (Weak Electric Signal) (mm ²)		3×0.5	3×0.5	3×0.5
Indoor/Outdoor Connecting Wiring (Strong Electric Signal) (mm ²)		—————	—————	—————

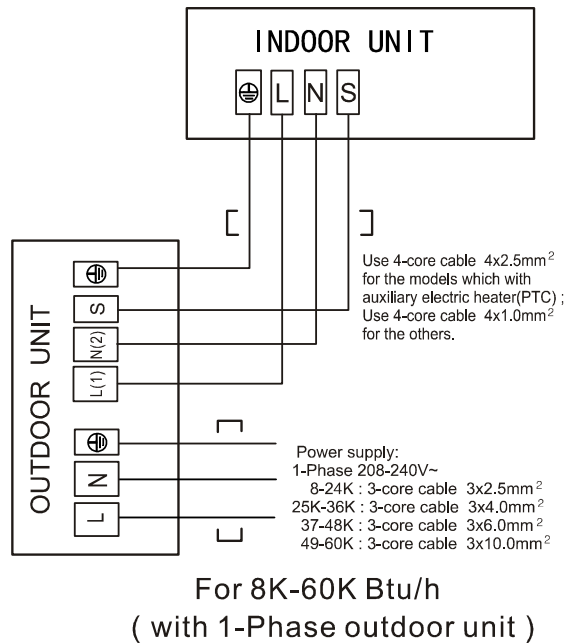
10. Field Wiring

12K

Air Condition Link-Circuit

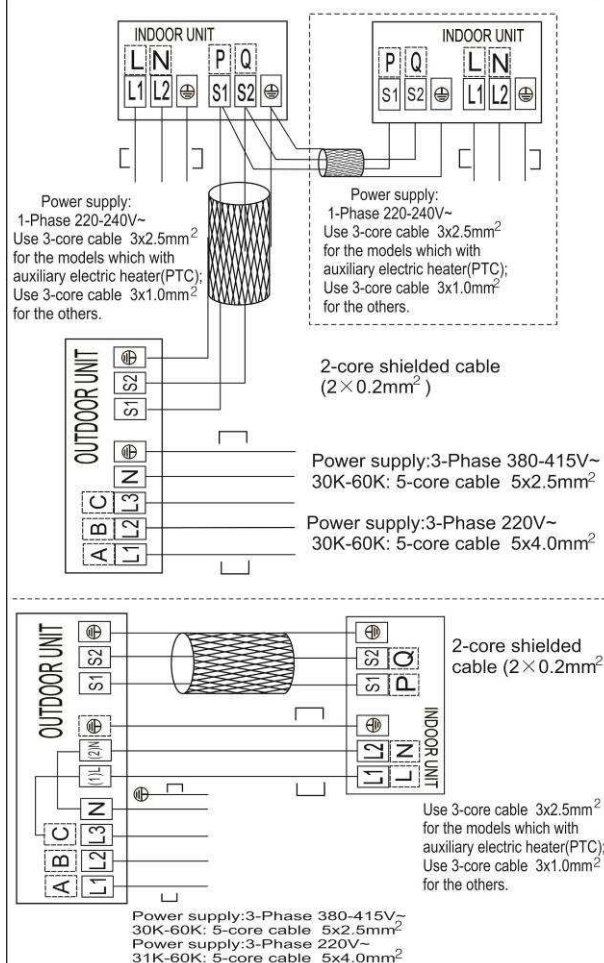


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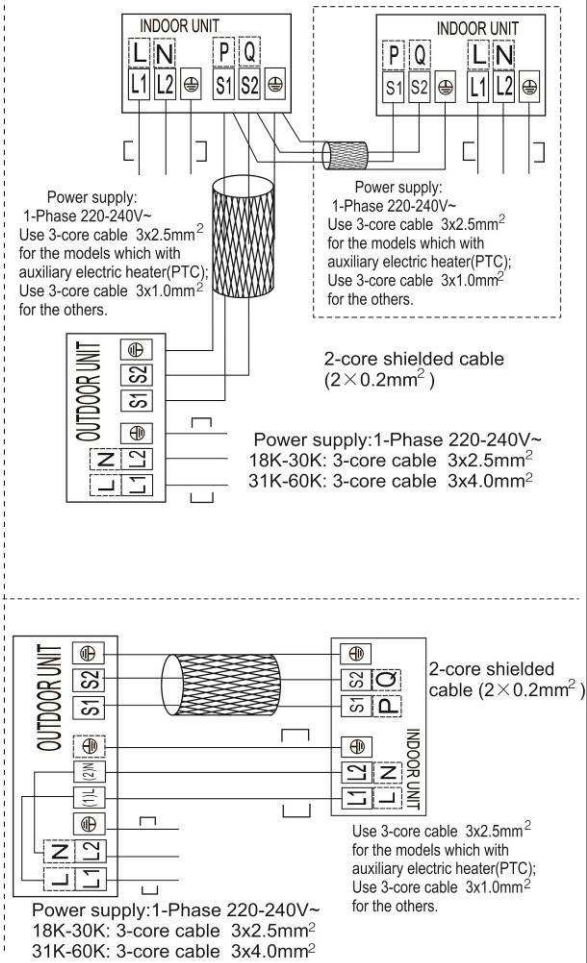


18K, 24K, 30K, 36K, 42K, 48K & 55K

Air Condition Link-Circuit



202044790380



Ceiling & Floor Type

1. Features	36
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6. Sound Levels.....	41
7. Accessories	42
8. The Specification of Power	42
9. Field Wiring	43

1. Features

1.1. New design, more modern and elegant appearance.

1.2.

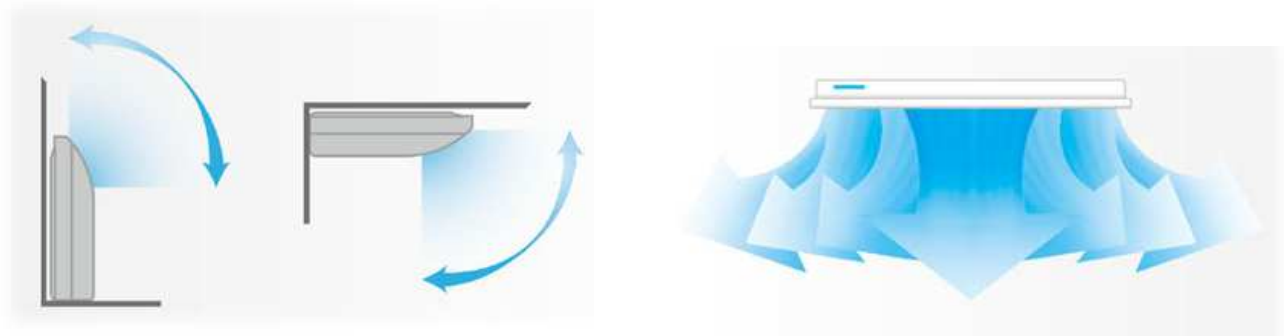


1.2. Convenient installation

- The ceiling type can be easily installed into a corner of the ceiling even if the ceiling is very narrow
- It is especially useful when installation of an air conditioner in the center of the ceiling is impossible due to a structure such as one lighting.

1.3. Two direction auto swing (vertical & horizontal) and wide angle air flow,

- Air flow directional control minimizes the air resistance and produces wider air flow to vertical direction.
- The range of horizontal air discharge is widened which secures wider air flow distribution to provide more comfortable air circulation no matter where the unit is set up



1.4. Three level fan speed, more humanism design, meets different air-supply requirement.

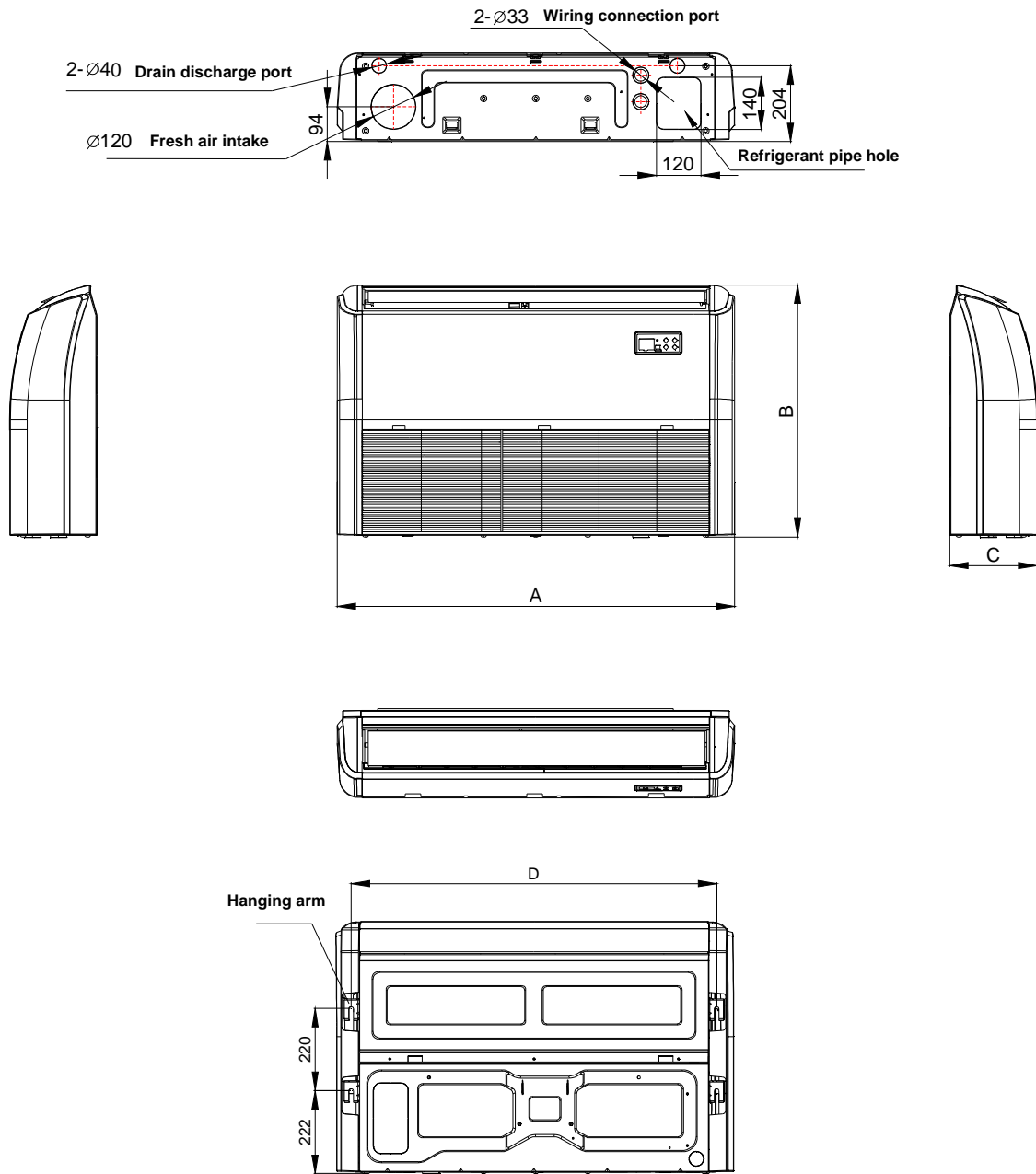
1.5. New foam drain pan with plastic-spraying inner surface



1.6. Easy operation.

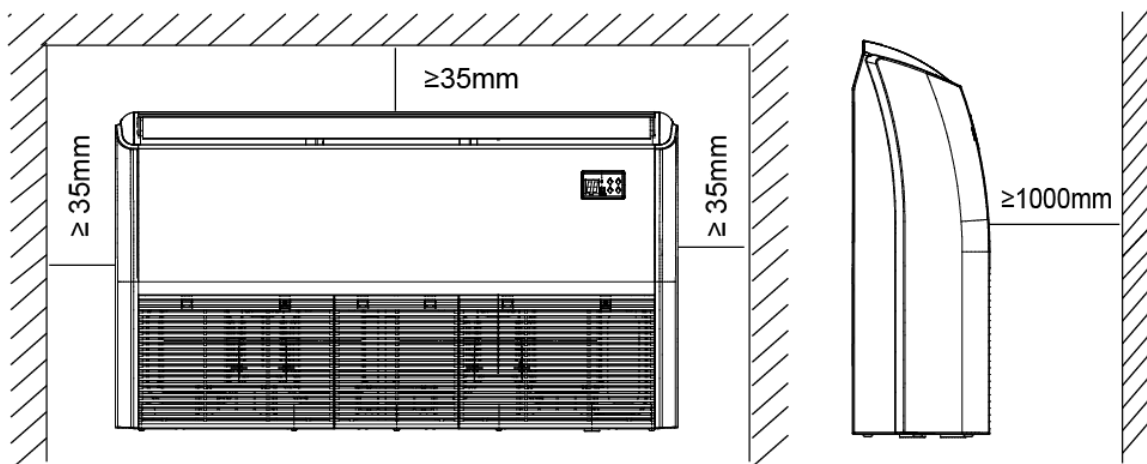
1.7. Remote control and optional wired control method.

2. Dimensions



Capacity (Btu/h)	A	B	C	D
18K	1068	675	235	983
24K				
30K	1285	675	235	1200
36K	1650	675	235	1565
42K				
48K				
55K				

3. Service Space



Pre-setting Instructions

For Setting NEAddress			
S1+S2			
Code	0~F 00	0~F 01	0~F 10
NEAddress	0~15	16~31	32~47
Factory Setting	✓		

FOR ANTI-COLD WIND			
SW1			
TEL0	24°C	15°C	Fan motor do not stop. According to the EFunction.
FACTORY SETTING	✓		

FOR SETTING POWER			
ENC1			
CODE	4	5	7
POWER	≤53	54~71	72~90
FACTORY SETTING	ACCORDING TO RELATED MODEL.		

For temp. compensation			
SW6			
CEILING AND FLOOR TYPE	0°C	2°C	4°C
For Setting CEILING TYPE or FLOOR TYPE	FLOOR TYPE	CEILING TYPE	According to EFunction
Factory Setting	✓		

For Setting Fan Quantity (optional)			
SW4			
Mode	Single Fan	Double Fan	
Factory Setting		✓	

FOR SETTING AUTO-RESTART			
SW3			
AUTO-RESTART	ACTIVE	INACTIVE	
FACTORY SETTING	✓		

For Setting Fan Motor Control then No Power Request			
SW2			
Mode	Fan OFF	Fan ON	
Factory Setting	✓		

**FUNCTION SETTING
INDICATION**
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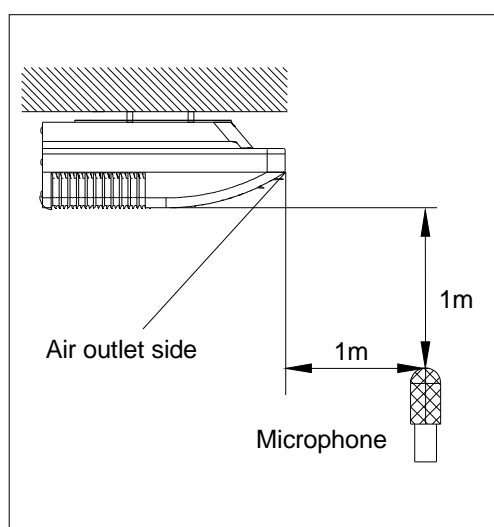
5. Electric Characteristics

Model	Indoor Units				Power Supply
	Hz	Voltage	Min.	Max.	MFA
18K	50	220-240	198	254	10
24K	50	220-240	198	254	10
30K	50	220-240	198	254	10
36K	50	220-240	198	254	10
42K	50	220-240	198	254	10
48K	50	220-240	198	254	10
55K	50	220-240	198	254	10

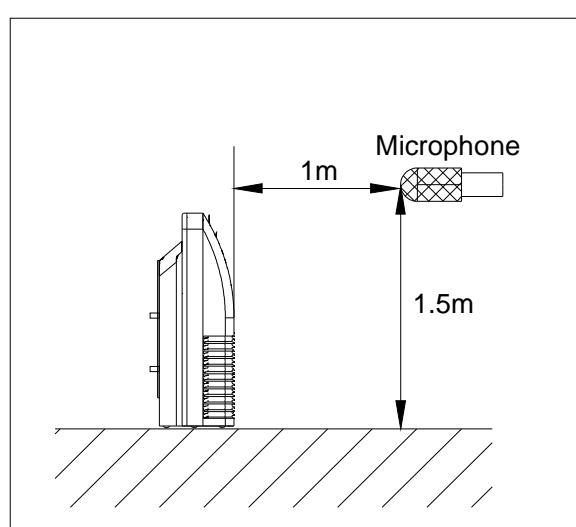
Note:

MFA: Max. Fuse Amps. (A)

6. Sound Levels










Ceiling



Floor

Model	Sound Power dB (A)	Noise level dB(A)		
		H	M	L
18K	56	42	39	35
24K	60	45	42	43
30K	62	51	47	43
36K	63	53	50	47
42K	64	54	49	44
48K	63	54	49	45
55K	65	53	48	43

7. Accessories

	Name	Shape	Quantity
Remote controller & Its holder(The product you have might not be provided the following accessories)	1. Remote controller		1
	2. Remote controller holder		1
	3. Mounting screw (ST2.9x10-C-H)		2
	4. Alkaline dry batteries (AM4)		2
Others	5. Owner's manual		1
	6. Installation manual		1
	7. Remote controller manual		1

8. The Specification of Power

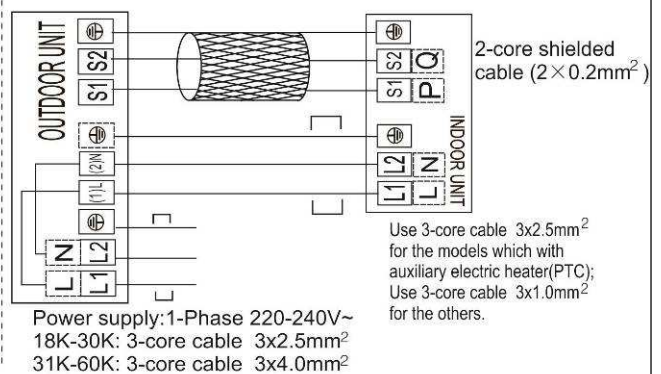
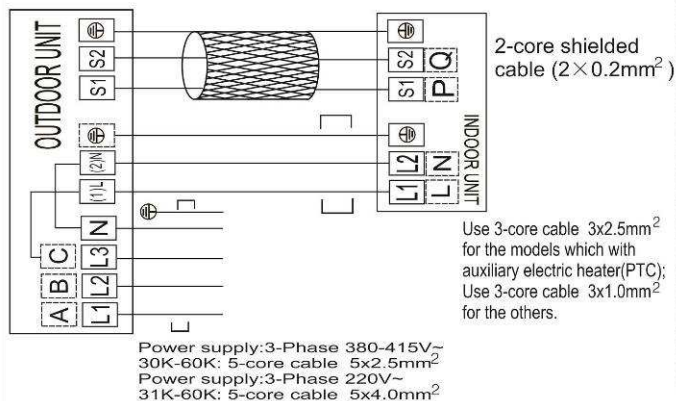
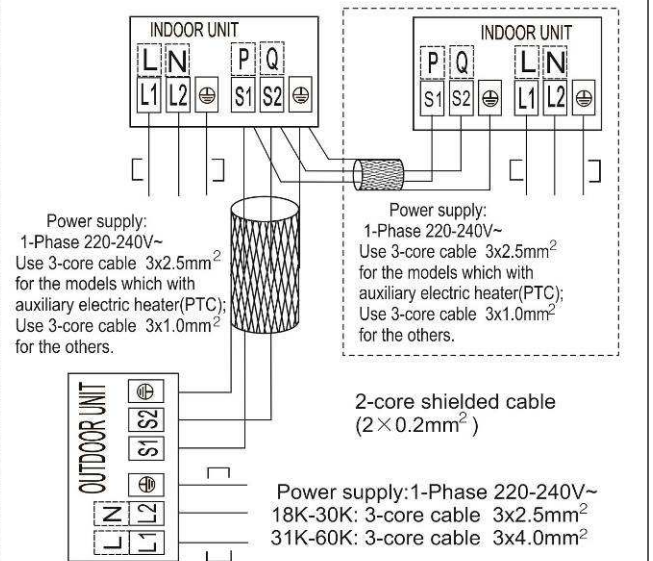
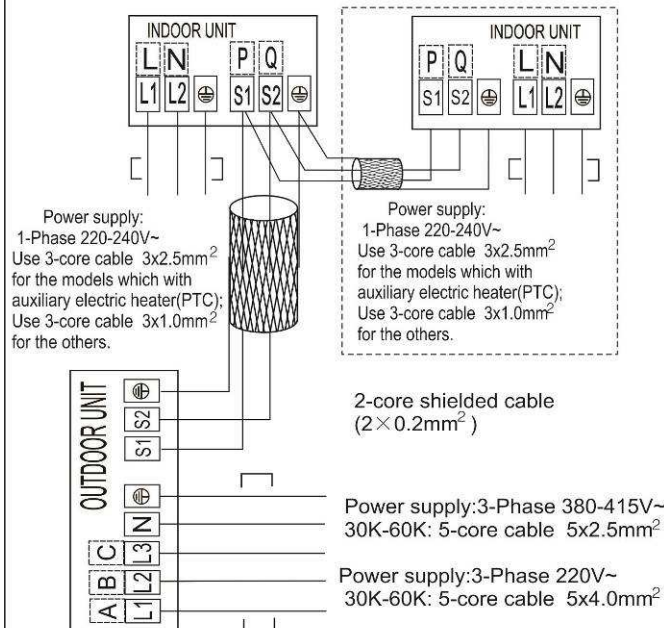
Model		12000 Btu/h	18000-24000Btu/h	30000 Btu/h	36000 Btu/h	36000 Btu/h
INDOOR UNIT POWER	Phase	—————	1-phase	1-phase	1-phase	1-phase
	Frequency and Voltage	—————	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz
	POWER WIRING (mm ²)	—————	3×1.0	3×1.0	3×1.0	3×1.0
	CIRCUIT BREAKER/ Fuse (A)	—————	15/10	15/10	15/10	15/10
OUTDOOR UNIT POWER	Phase	1-phase	1-phase	1-phase	1-phase	3-phase
	Frequency and Voltage	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz	380-420V, 50Hz
	POWER WIRING (mm ²)	3×2.5	3×2.5	3×2.5	3×4.0	5×2.5
	CIRCUIT BREAKER/ Fuse (A)	20/16	30/20	40/30	40/30	30/20
Indoor/Outdoor Connecting Wiring (Weak Electric Signal) (mm ²)		—————	3×0.5	3×0.5	3×0.5	3×0.5
Indoor/Outdoor Connecting Wiring (Strong Electric Signal) (mm ²)		4×1.0	—————	—————	—————	—————

Model(Btu/h)		48000	60000	42000-60000
INDOOR UNIT POWER	Phase	1-phase	1-phase	1-phase
	Frequency and Voltage	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz
	Power Wiring (mm ²)	3×1.0	3×1.0	3×1.0
	Circuit Breaker/Fuse (A)	15/10	15/10	15/10
OUTDOOR UNIT POWER	Phase	1-phase	1-phase	3-phase
	Frequency and Voltage	220-240V, 50Hz	220-240V, 50Hz	380-415V, 50Hz
	Power Wiring (mm ²)	3×4.0	3×4.0	5×2.5
	Circuit Breaker/Fuse (A)	40/35	50/40	30/25
Indoor/Outdoor Connecting Wiring (Weak Electric Signal) (mm ²)		3×0.5	3×0.5	3×0.5
Indoor/Outdoor Connecting Wiring (Strong Electric Signal) (mm ²)		—————	—————	—————

9. Field Wiring

Air Condition Link-Circuit

202044790380



Four-way Cassette Type (Compact)

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10. Field Wiring	52

1. Features

1.1 New panel

- 360°surrounding air outlet design, affords comfortable feeling



1.2 Compact design

- The body size is 570×260×570mm, it's just smaller than the ceiling board, so it's very easy for installation and will not damage the decoration. The panel size is 647×50×647mm.
- The hooks are designed in the four corners of the body, which can save installation space.



1.3 Electric control box built-in design

- The E-box is simply and safely built inside the indoor unit. It's convenient for installation and maintenance. Can check the control part easily, you only need to open the air return grille.



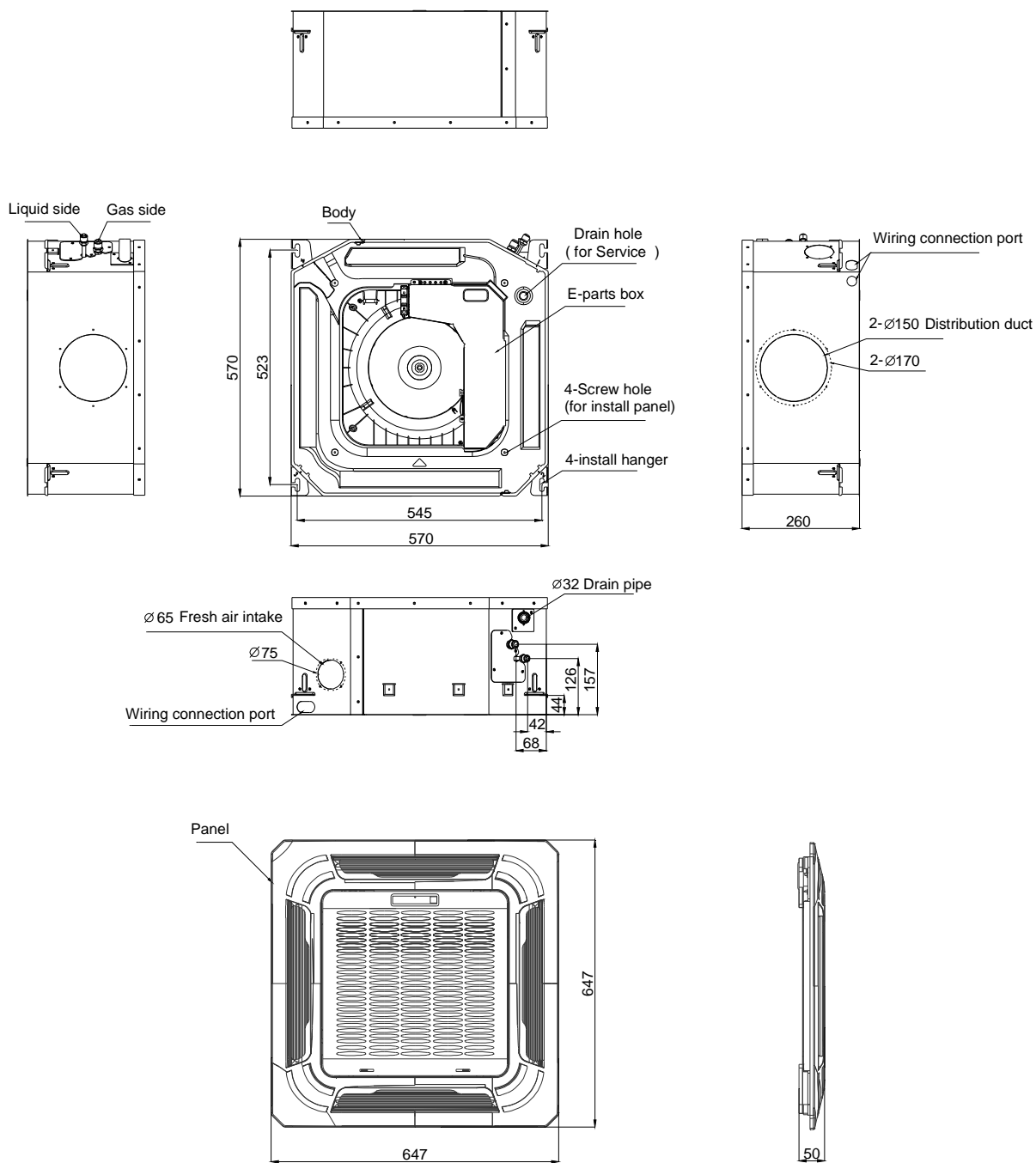
1.4 Air passage function

- Reserves the space for air outlet from the side of indoor unit; It's availed to connect air duct from the two sides to the nearby small rooms.

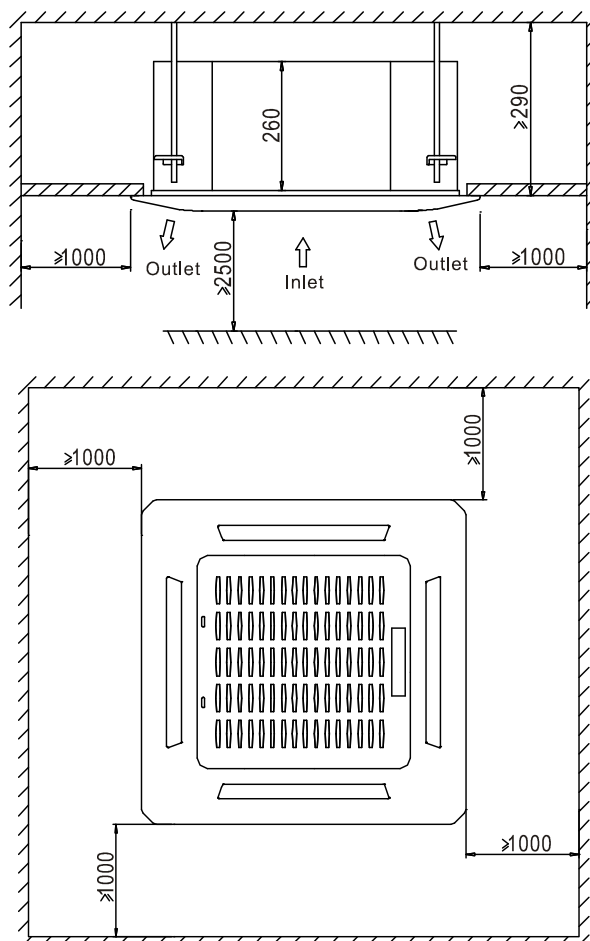


2. Dimensions

12K & 18K

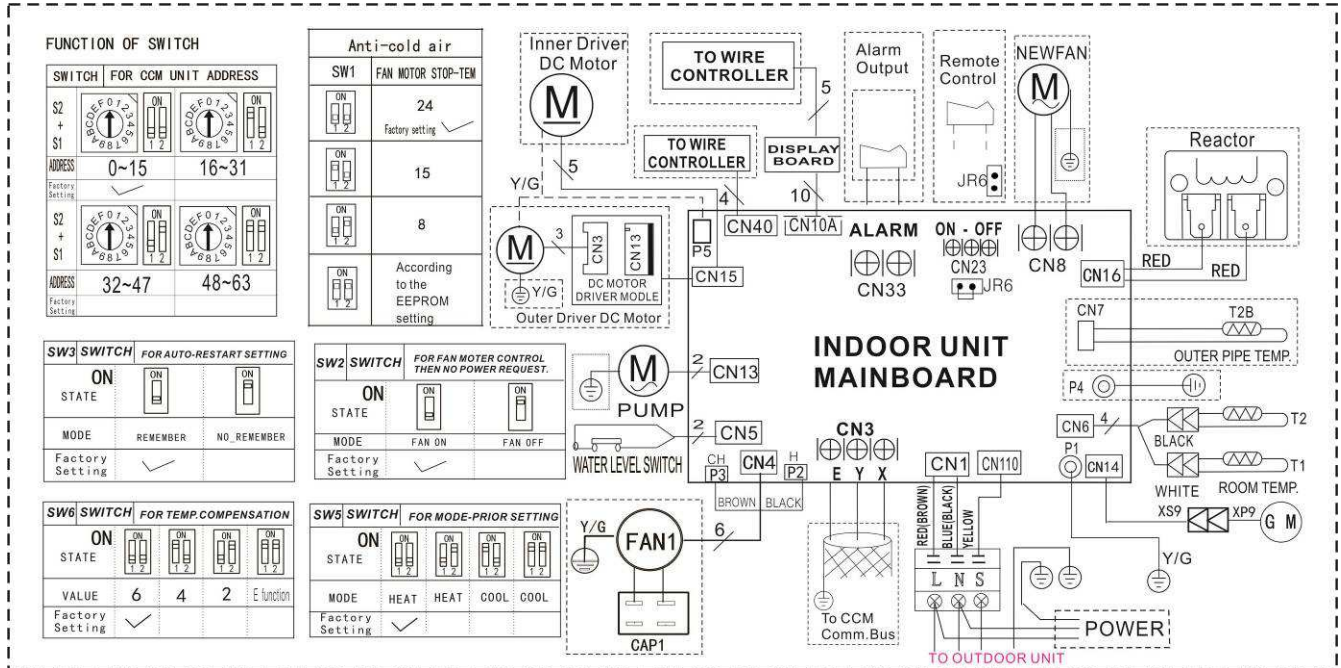


3. Service Space

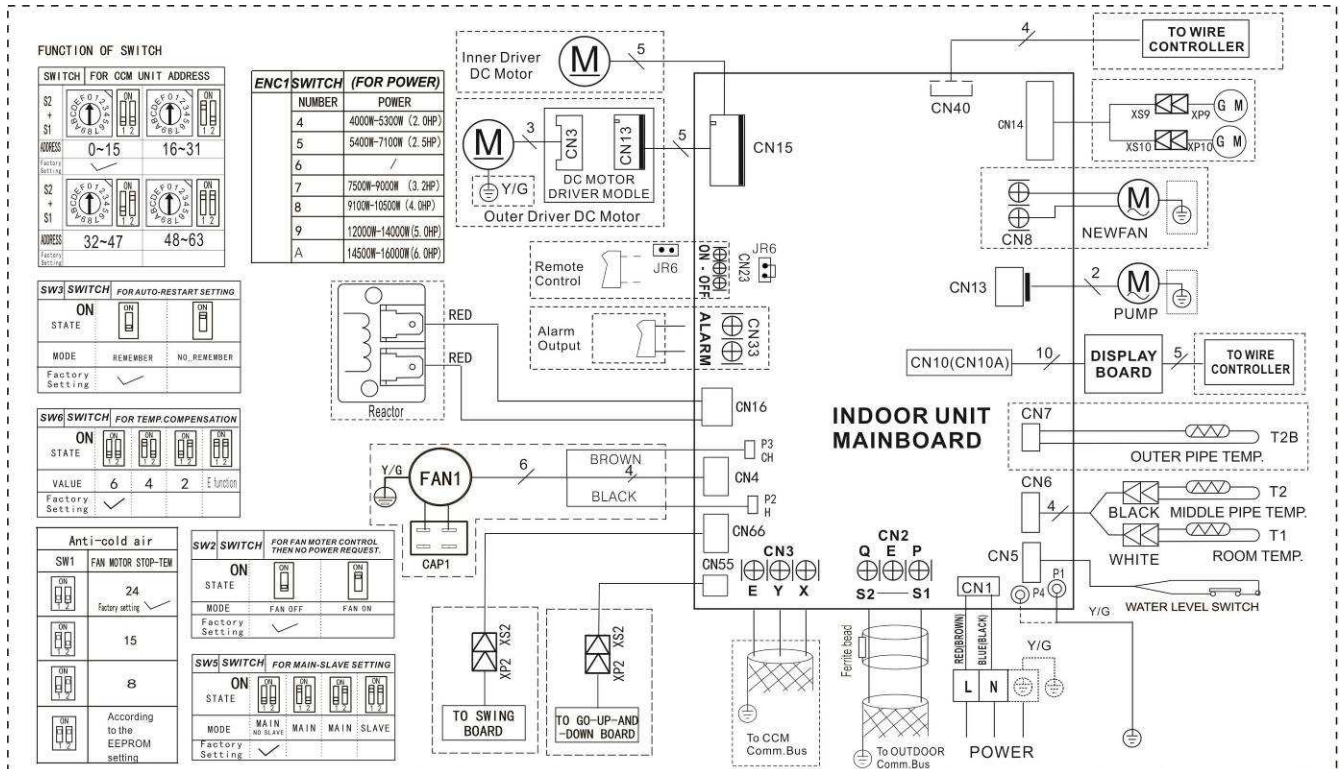


4. Wiring Diagrams

12K

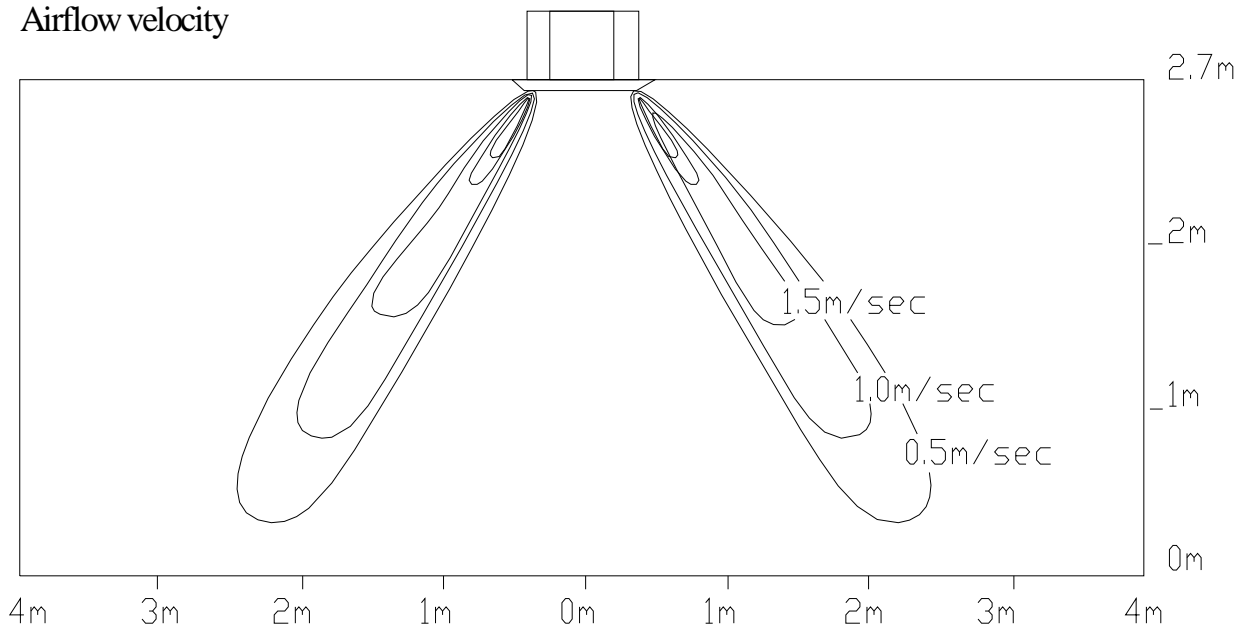


18K

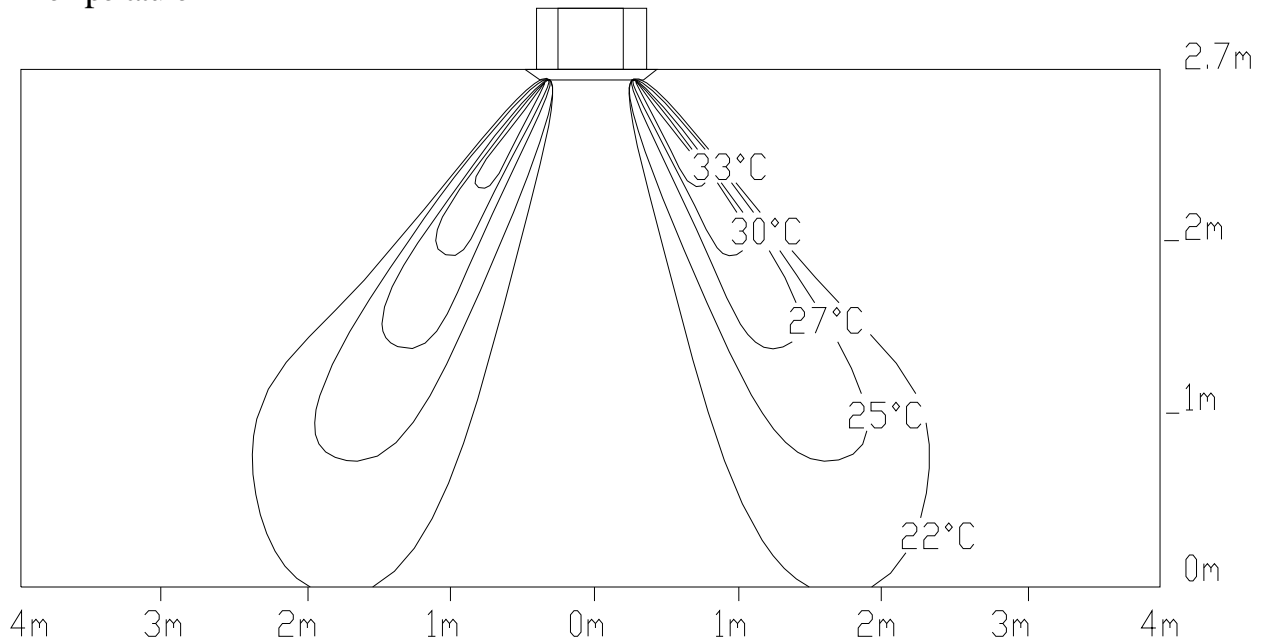


5. Air Velocity and Temperature Distributions (Reference Data)

Airflow velocity



Temperature



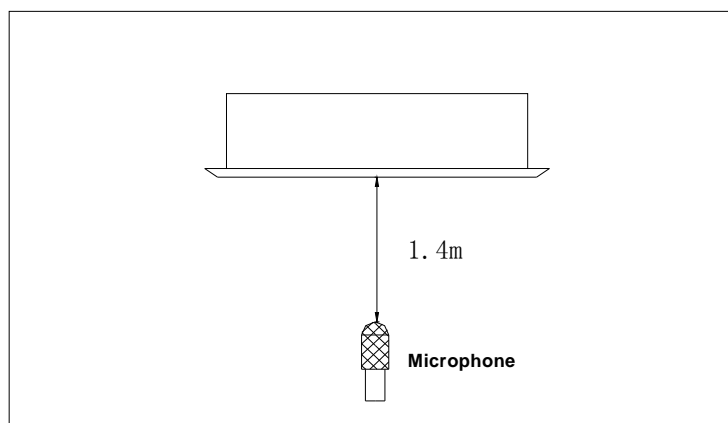
6. Electric Characteristics

Model	Indoor Units				Power Supply
	Hz	Voltage	Min.	Max.	MFA
12K	50	220-240	198	254	20
18K	50	220-240	198	254	20

Note:














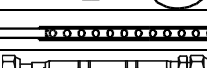


MFA: Max. Fuse Amps. (A)

7. Sound Levels



Model	Noise Power dB(A)	Noise level dB(A)		
		H	M	L
12K	54	45	42	39
18K	59	48	40	33

8. Accessories

	Name	Shape	Quantity
Installation Fittings	Installation paper board		1
Tubing & Fittings	Soundproof / insulation sheath		1
Drainpipe Fittings	Out-let pipe sheath		1
	Out-let pipe clasp		1
	Drain joint		1
	Seal ring		1
Remote controller & Its Frame (The product you have might not be provided the following accessories)	Remote controller & Its Frame		1
	Remote controller holder		1
	Mounting screw(ST2.9×10-C-H)		2
	Remote controller manual		1
	Alkaline dry batteries (AM4)		2
Others	Owner's manual		1
	Installation manual		1
Installation accessory (The product you have might not be provided the following accessories)	Expansive hook		4
	Installation hook		4
	Orifice		1

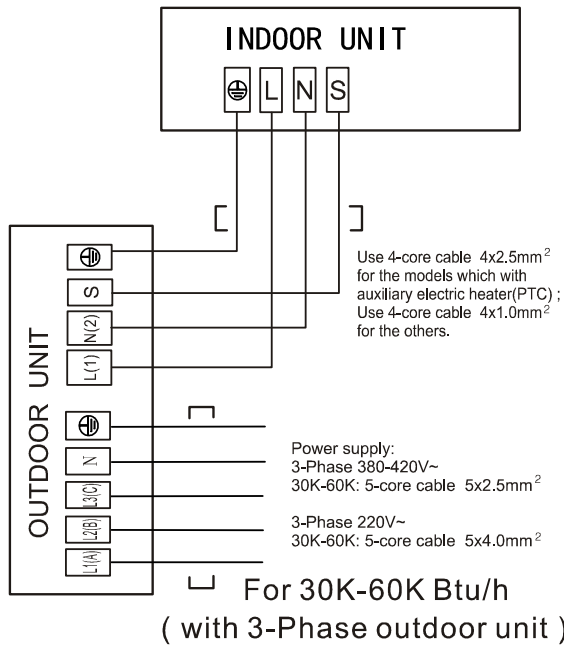
9. The Specification of Power

MODEL		12000 Btu/h	18000 Btu/h
Power	Phase	1-phase	1-phase
	Frequency and Voltage	220-240V, 50Hz	220-240V, 50Hz
Circuit Breaker/ Fuse (A)		25/20	25/20
Indoor Unit Power Wiring (mm2)		———	3x1.0
Indoor/Outdoor Connecting Wiring (mm2)	Ground Wiring	2.5	2.5
	Outdoor Unit Power Wiring	3x2.5	3x2.5
	Strong Electric Signal	4x1.0	———
	Weak Electric Signal	———	3x0.5

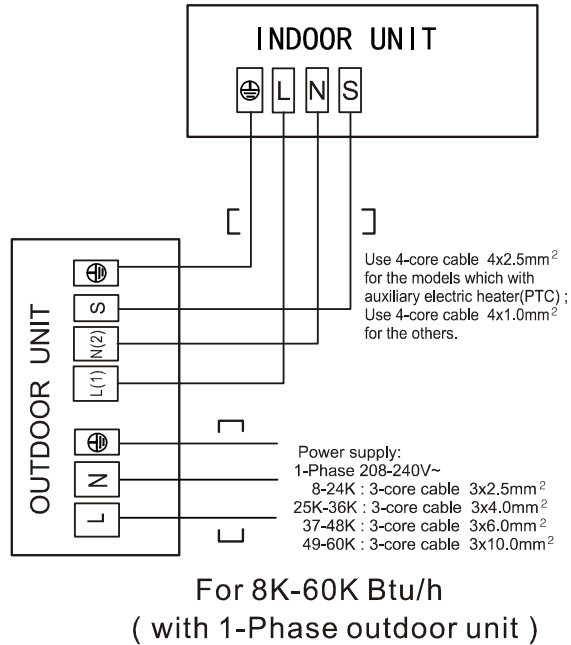
10. Field Wiring

12K

Air Condition Link-Circuit

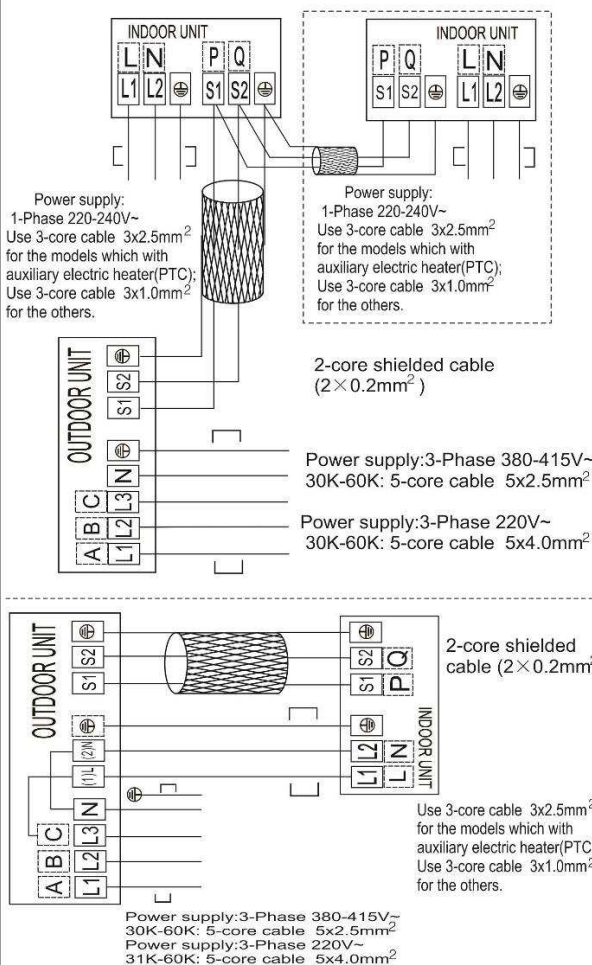


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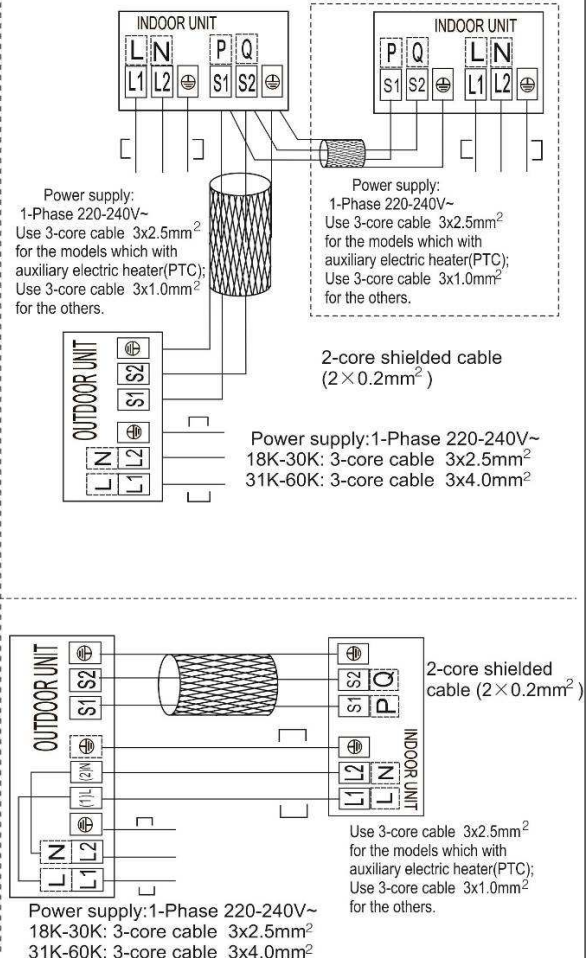


18K

Air Condition Link-Circuit



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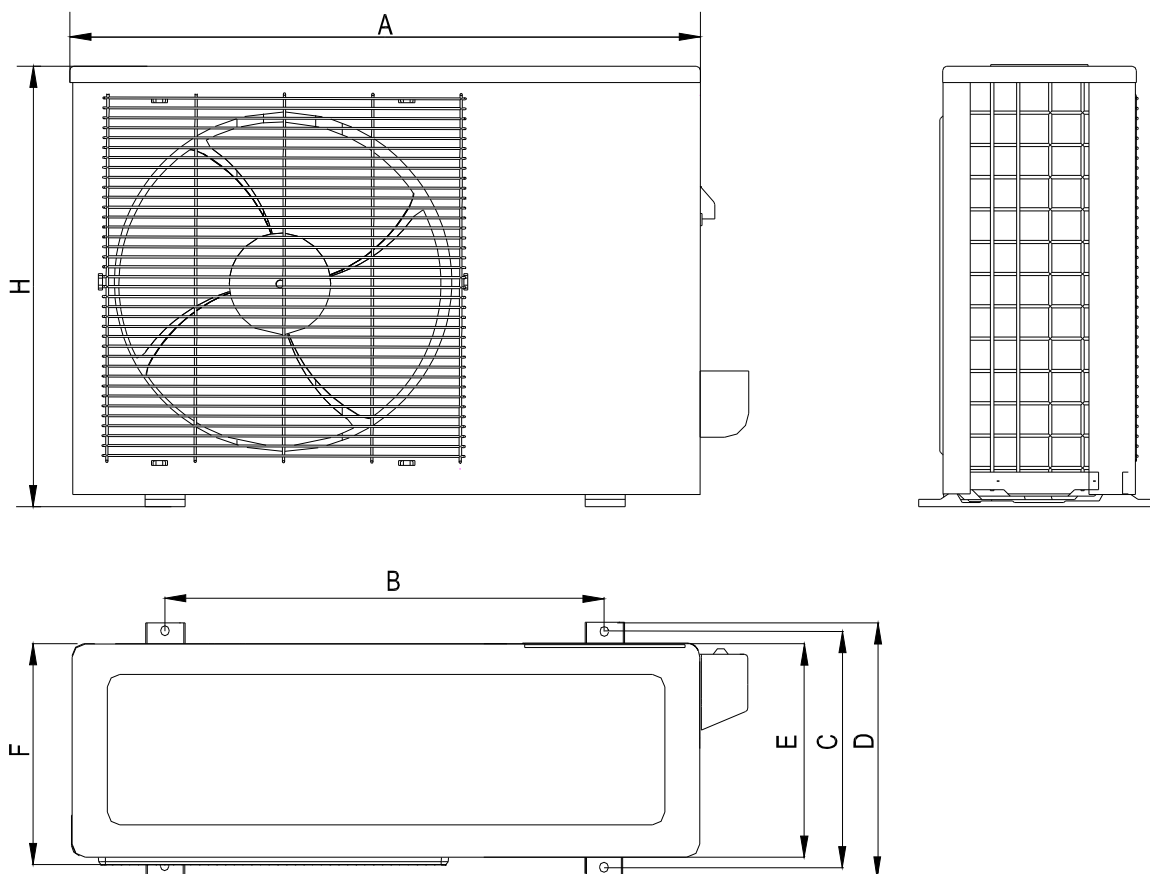


Part 3

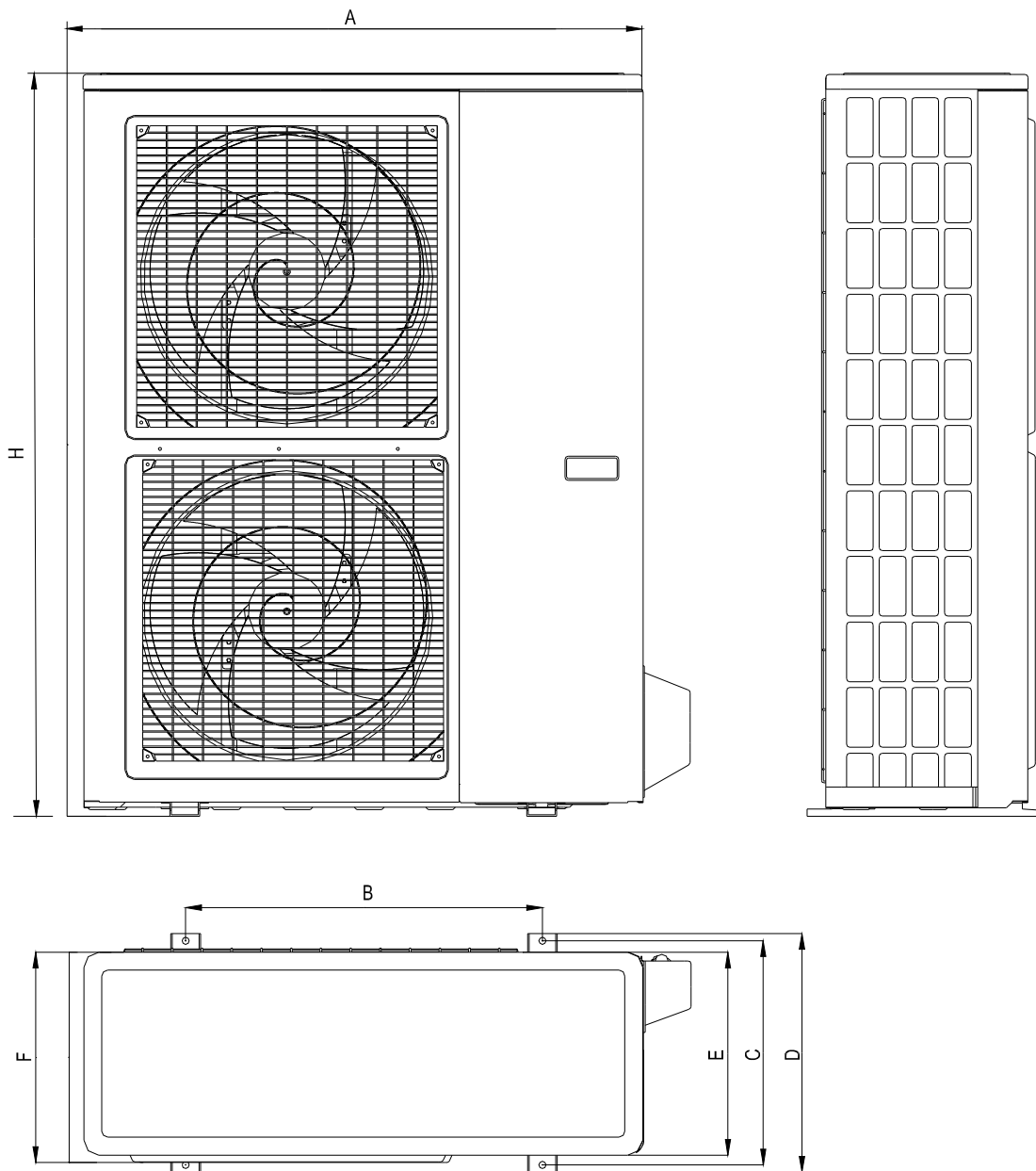
Outdoor Units

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- 6. Operation Limits.....64
- 7. Sound Levels.....65

1. Dimensions

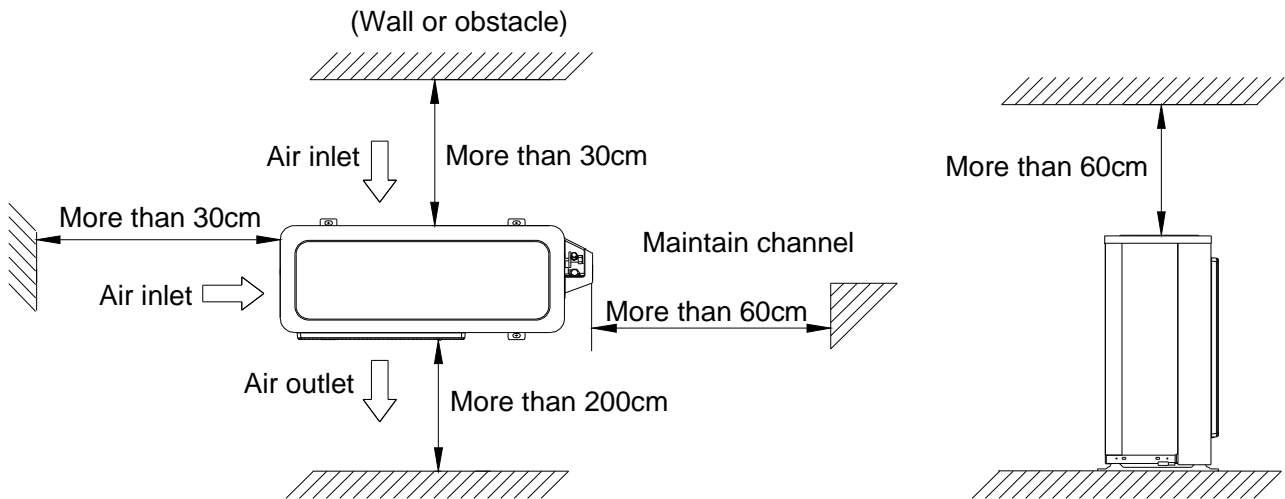


Model	Unit: mm						
	A	B	C	D	E	F	H
12K	810	549	325	350	305	310	558
18K	810	549	325	350	305	310	558
24K	845	560	335	360	312	320	700
30K	945	640	405	448	385	395	810
36K	945	640	405	448	385	395	810
36K (3 – PH)	945	640	405	448	385	395	810
42K (3 – PH)	945	640	405	448	385	395	810



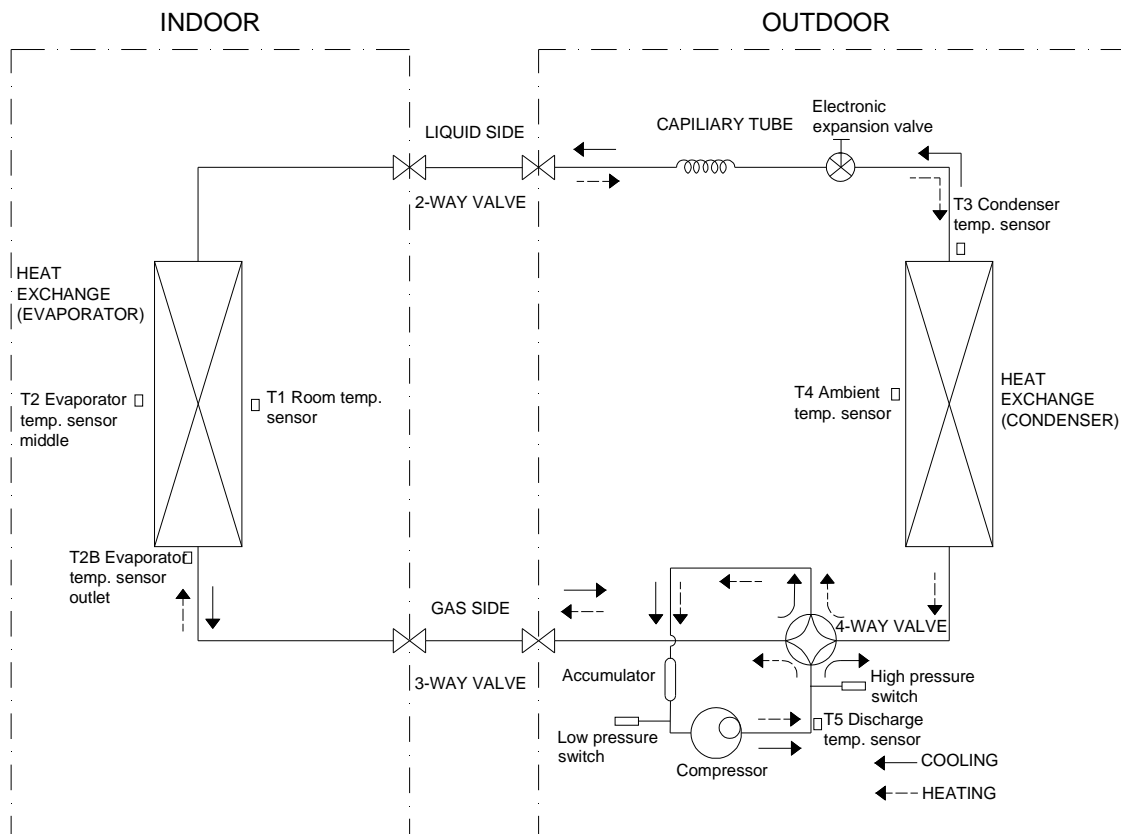
Model	Unit: mm						
	A	B	C	D	E	F	H
48K	938	634	404	448	370	392	1369
48K (3 – PH)	938	634	404	448	370	392	1369
55K (3 – PH)	938	634	404	448	370	392	1369

2. Service Space



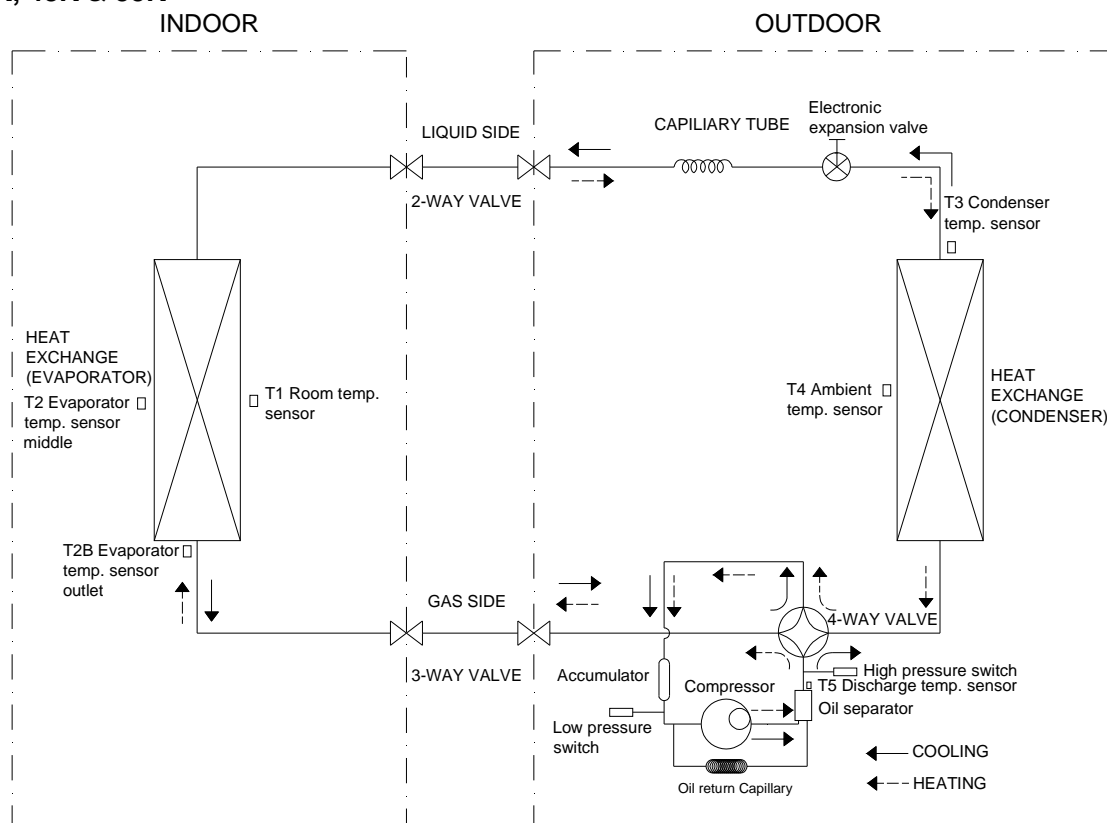
3. Piping Diagrams

12K, 18K, 24K & 30K



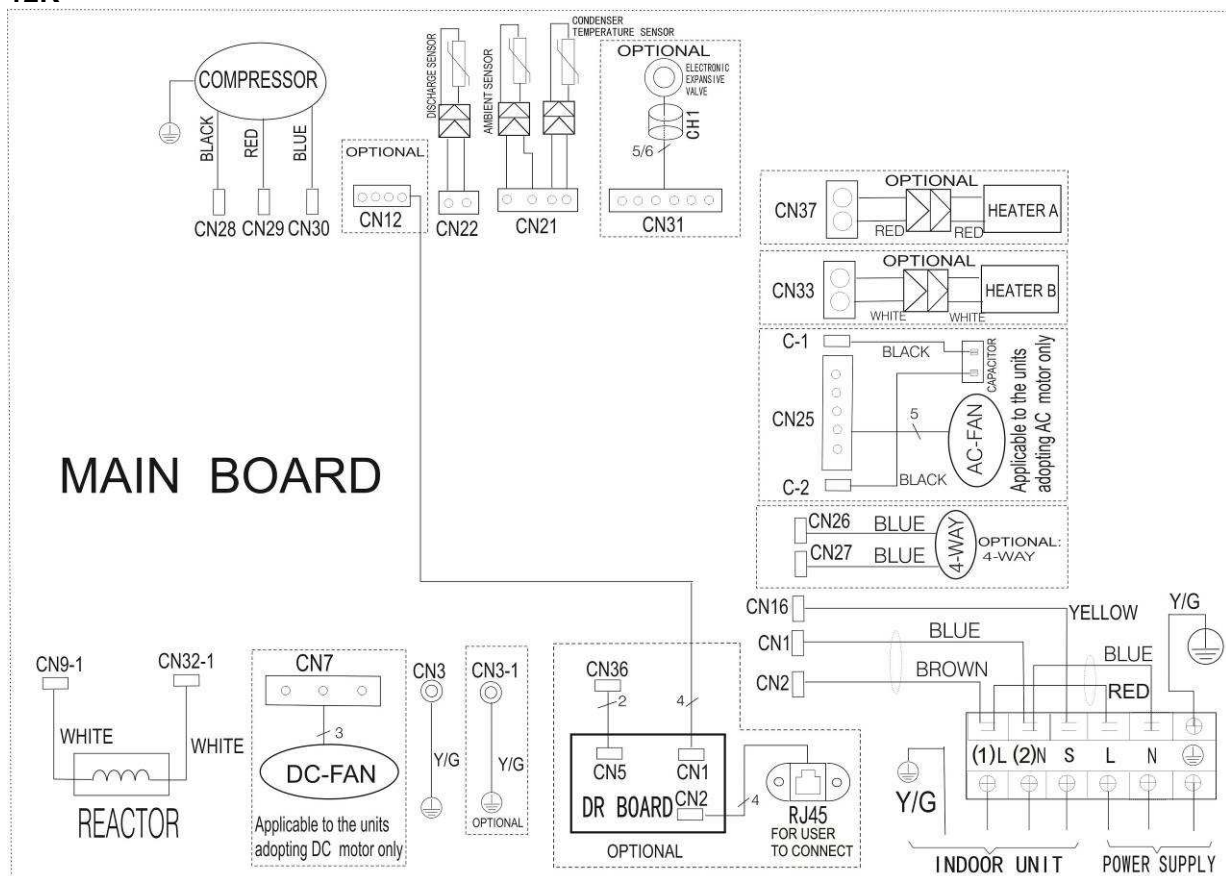
For 12K, 18K and 24K, there are no high pressure switch and low pressure switch.

36K, 42K, 48K & 55K

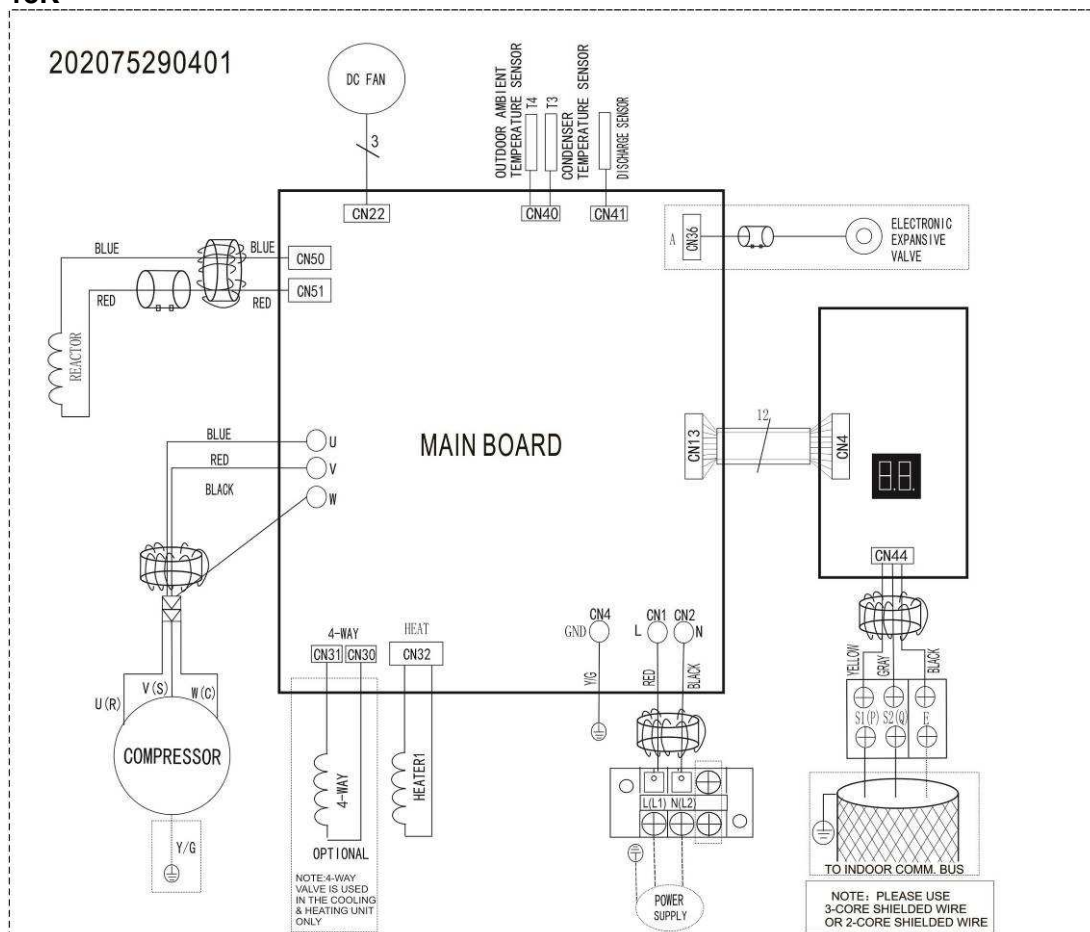


4. Wiring Diagrams

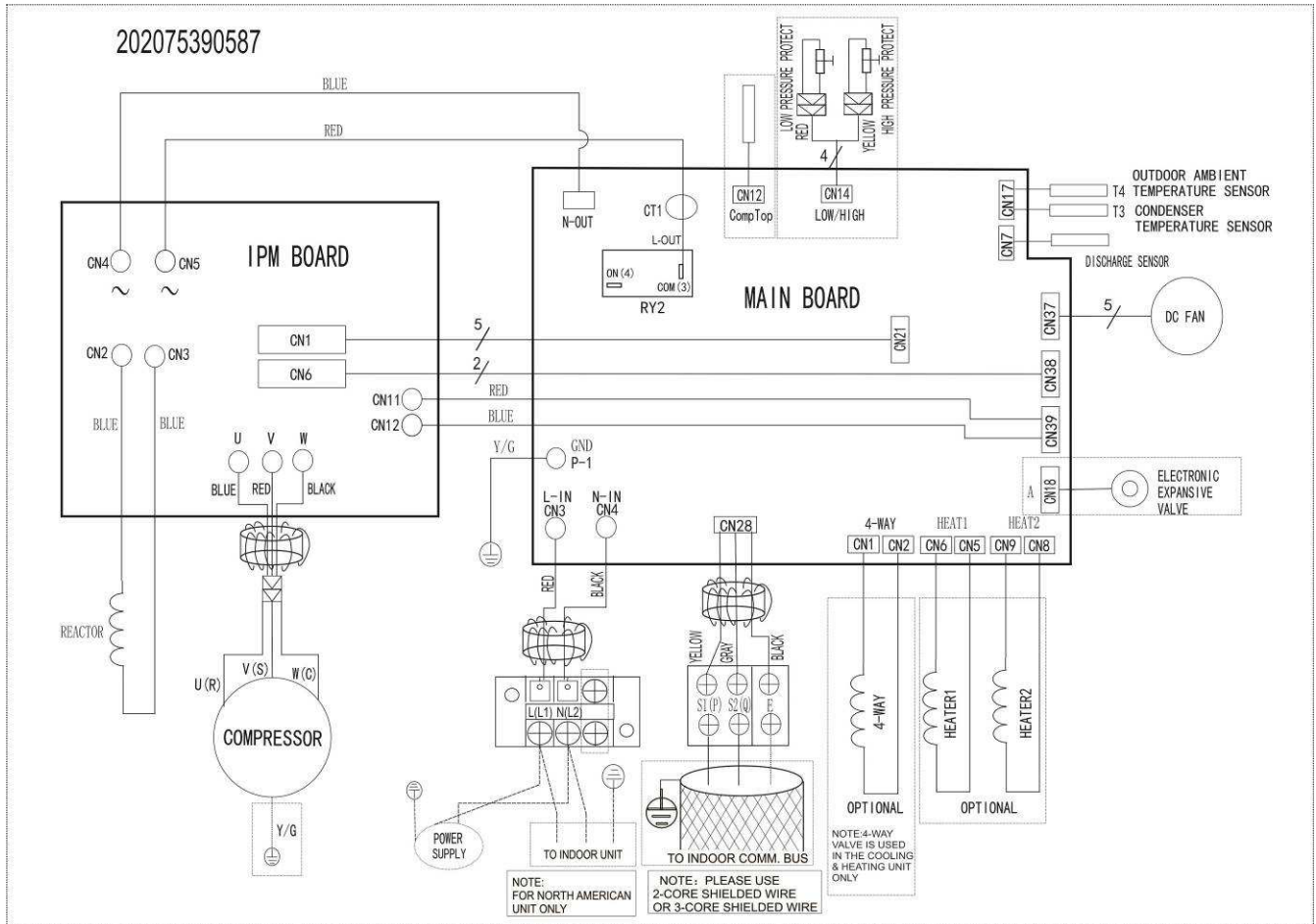
12K



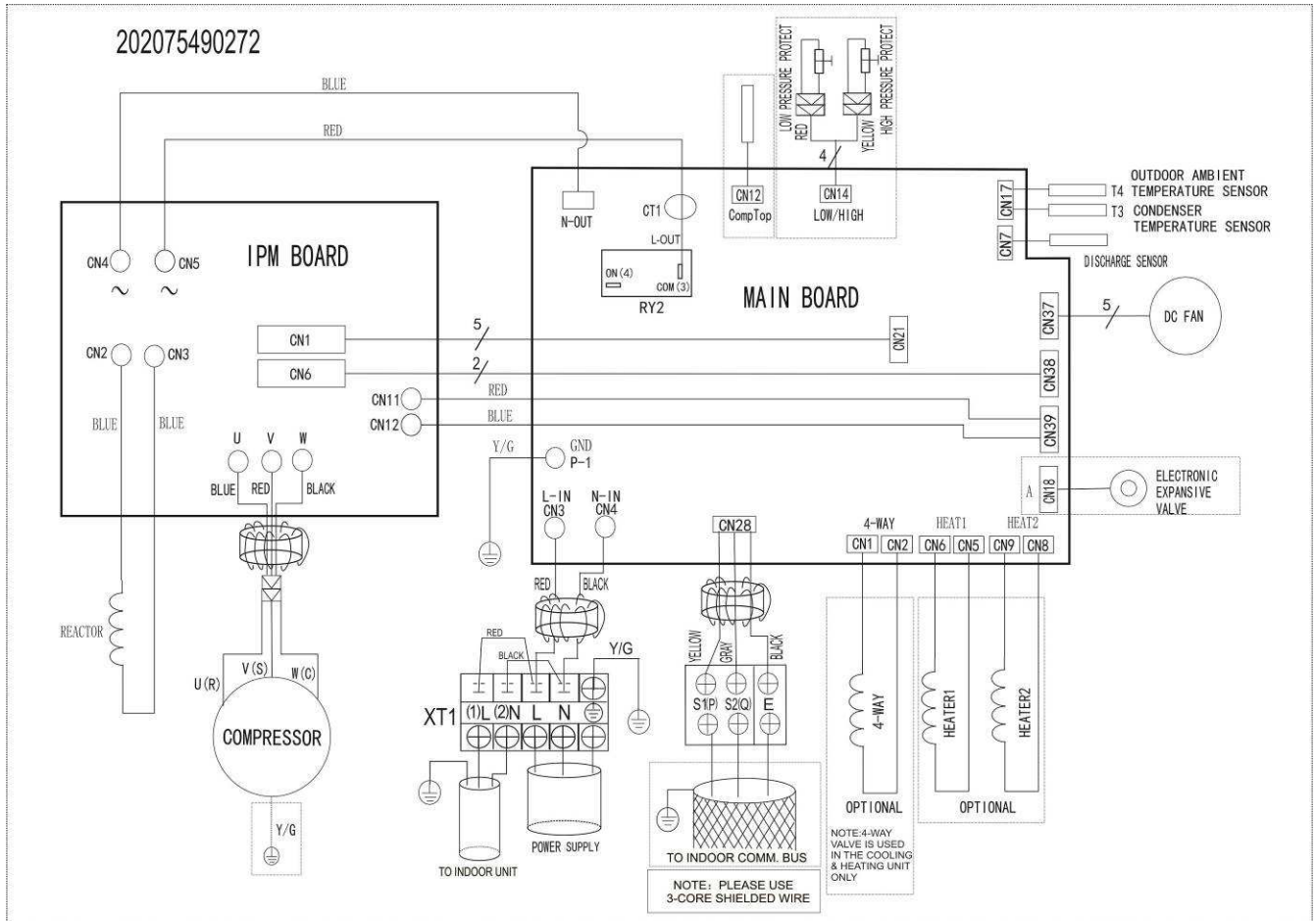
18K



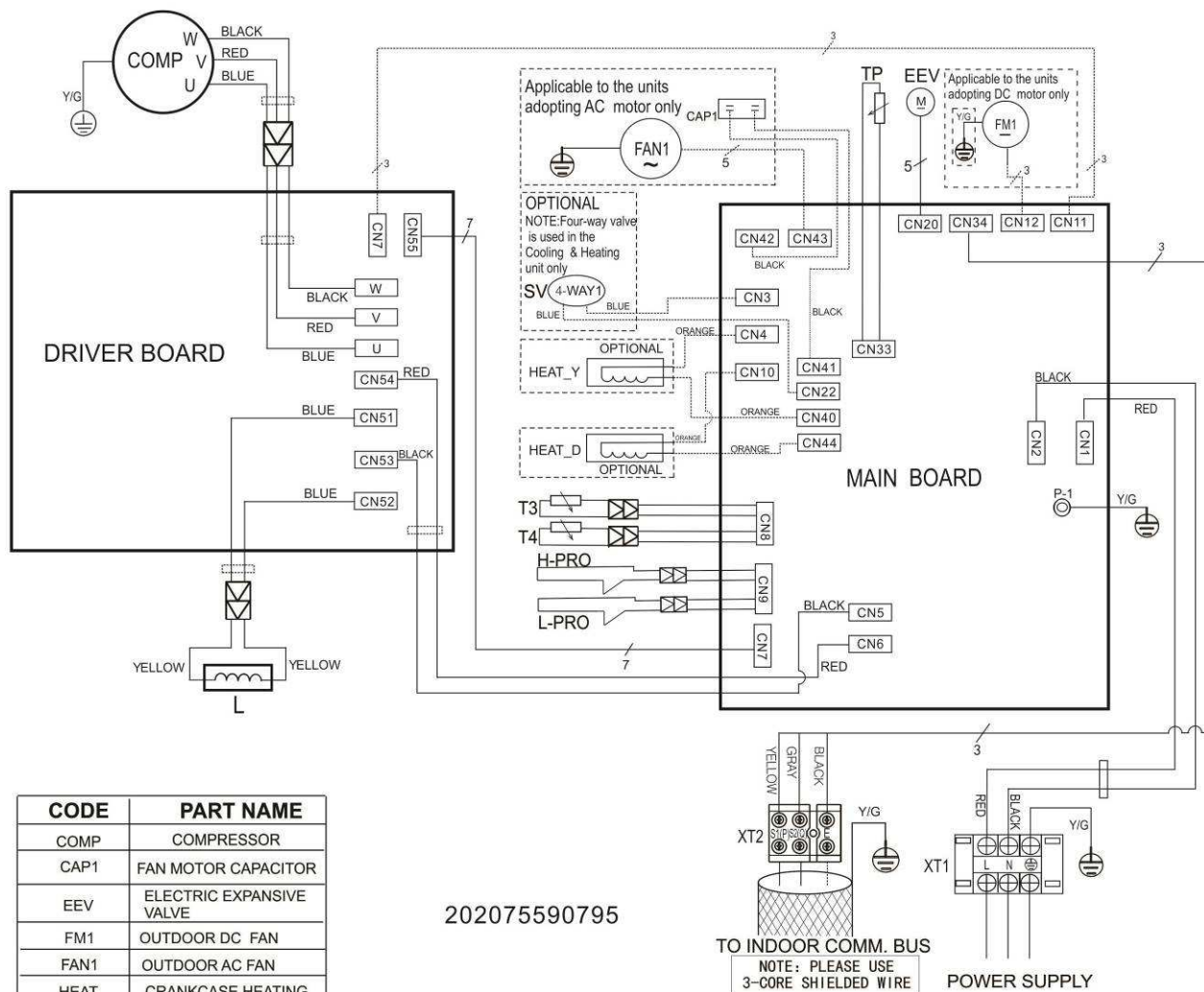
24K



30K

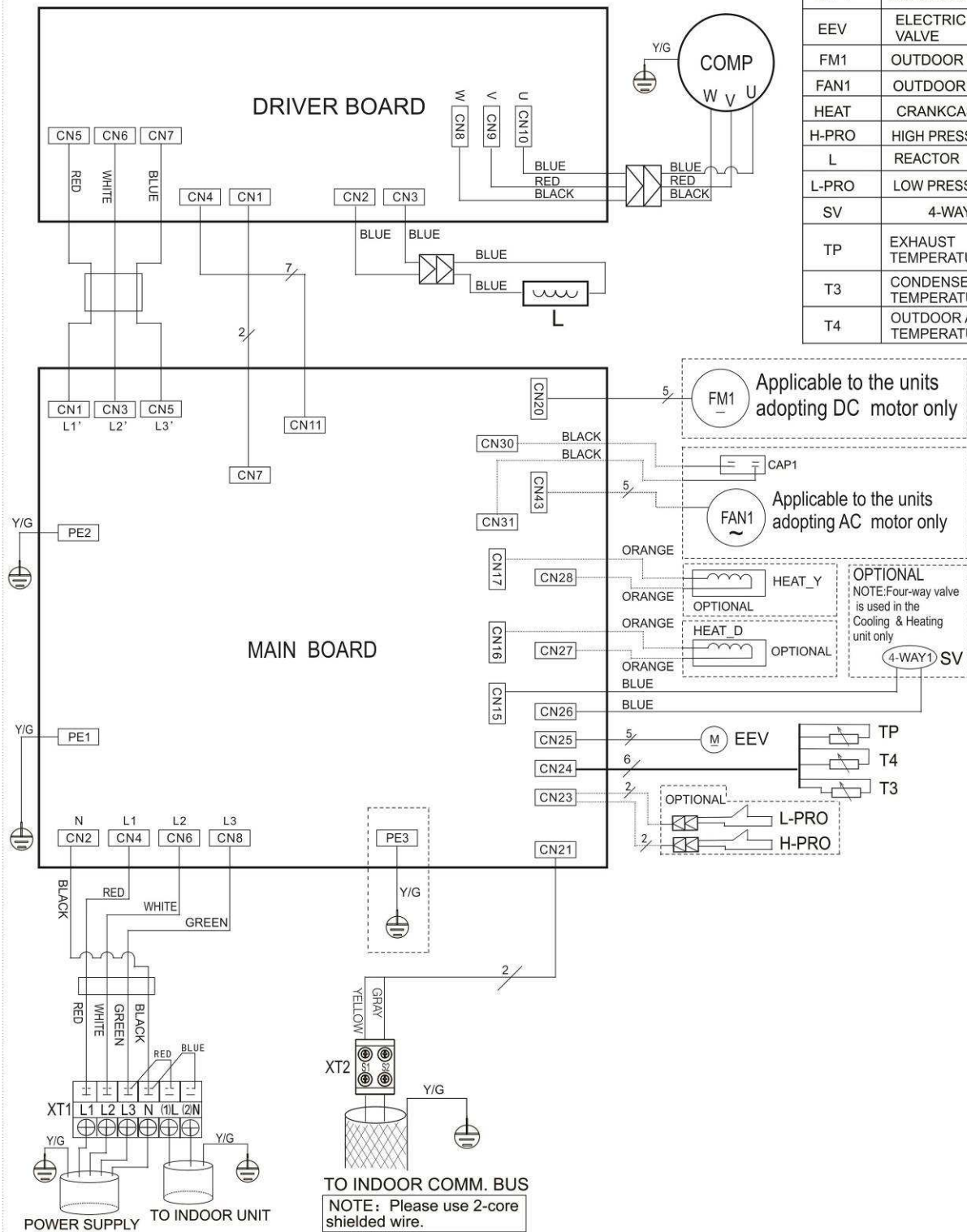


36K

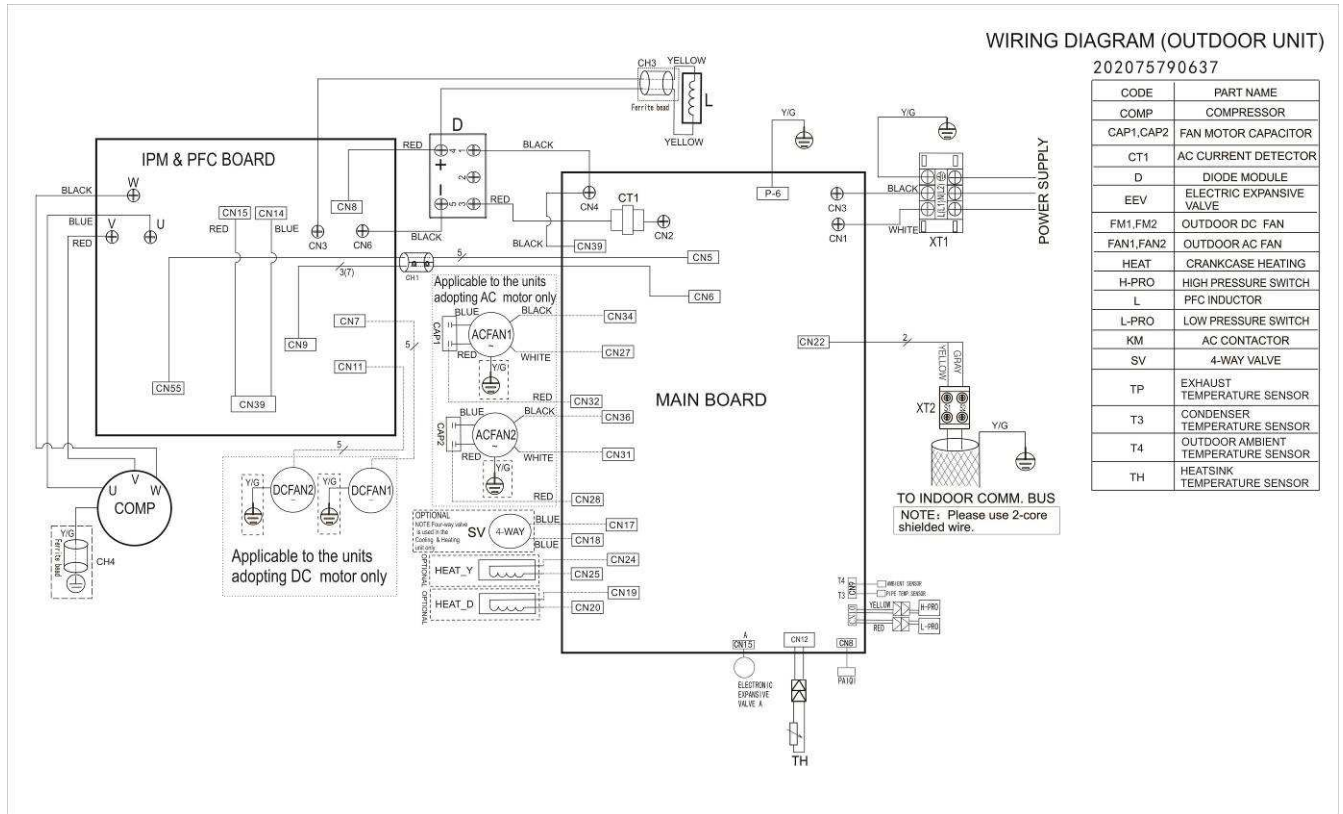


36K (3 – PH) & 42K (3 – PH)

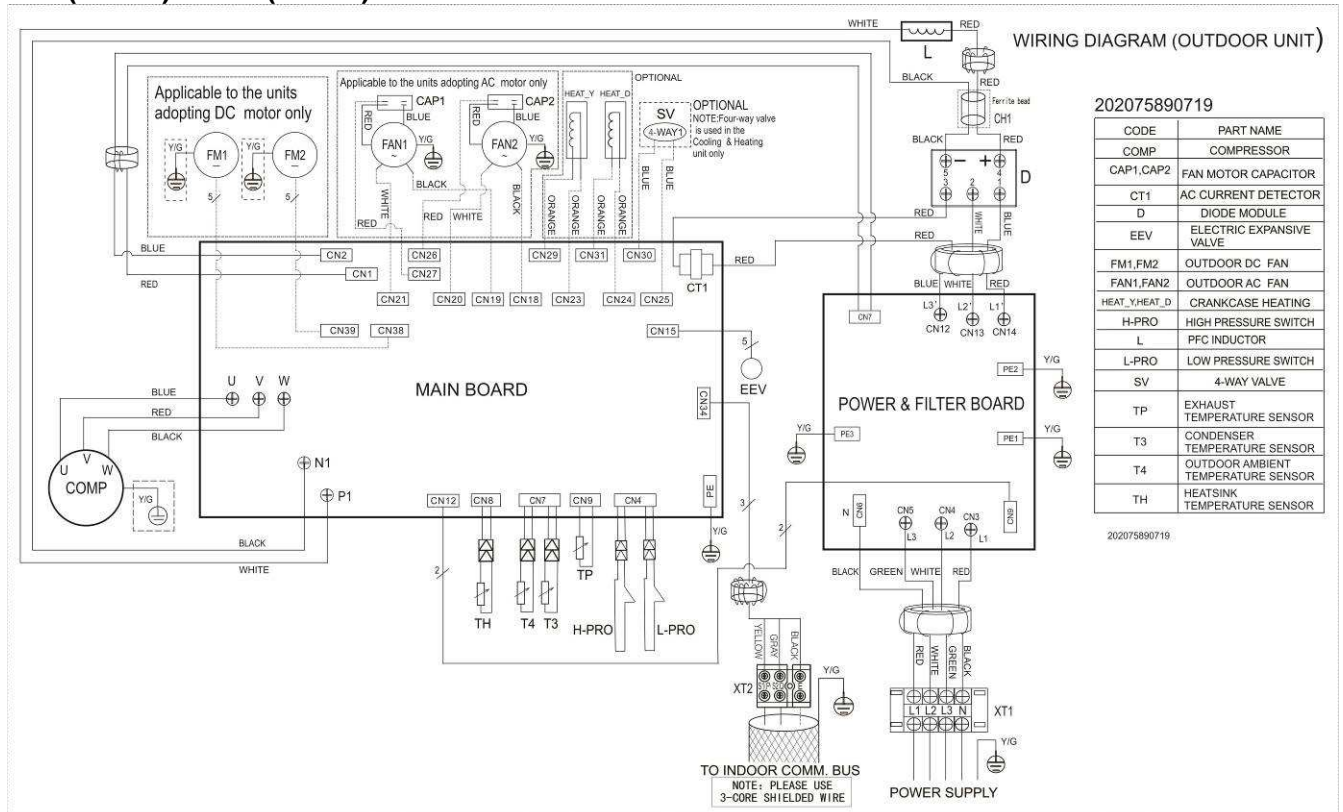
WIRING DIAGRAM (OUTDOOR UNIT)



48K



48K (3 - PH) & 55K (3 - PH)



5. Electric Characteristics

Model	Outdoor Unit			
	Hz	Voltage	Min.	Max.
12K	50	220-240V	198V	254V
18K	50	220-240V	198V	254V
24K	50	220-240V	198V	254V
30K	50	220-240V	198V	254V
36K	50	380-415V	342V	440V
36K (3 – PH)	50	380-415V	342V	440V
42K (3 – PH)	50	380-415V	342V	440V
48K	50	220-240V	198V	254V
48K (3 – PH)	50	380-415V	342V	440V
55K (3 – PH)	50	380-415V	342V	440V

6. Operation Limits

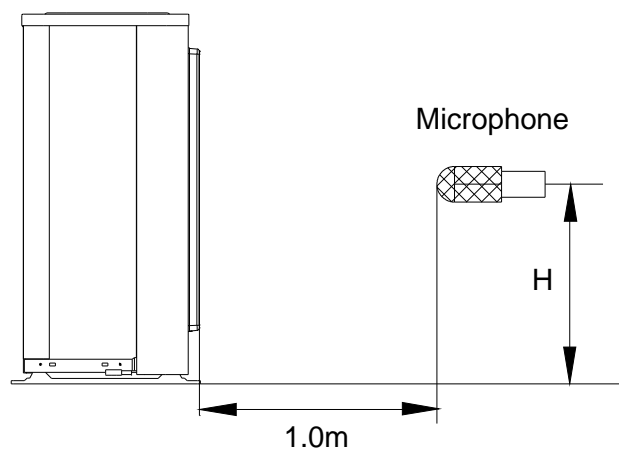
Mode \ Temperature	Cooling operation	Heating operation	Drying operation
Room temperature	17°C~32°C	0°C~30°C	17°C~32°C
Outdoor temperature	0°C~50°C	-15°C~24°C	0°C~50°C
	(-15°C~50°C: For the models with low temperature cooling system)		

CAUTION:

1. If the air conditioner is used beyond the above conditions, certain safety protection features may come into operation and cause the unit to operate abnormally.
2. The room relative humidity should be less than 80%. If the air conditioner operates beyond this figure, the surface of the air conditioner may attract condensation. Please set the vertical air flow louver to its maximum angle (vertically to the floor), and set HIGH fan mode.
3. The optimum performance will be achieved during this operating temperature zone.

7. Sound Levels

Outdoor Unit



Note: $H = 0.5 \times \text{height of outdoor unit}$

Model	Noise Power dB(A)	Noise level dB(A)
12K	61	58
18K	65	60
24K	65	60
30K	65	54
36K	69	62
36K (3 – PH)	69	62
42K (3 – PH)	70	62
48K	/	60
48K (3 – PH)	/	63
55K (3 – PH)	/	64

Part 4

Electrical Control System

1. Electrical Control Function	67
2. Troubleshooting	81
3. Controller	109

1. Electrical Control Function

1.1 Definition

T1: Indoor room temperature

T2: Coil temperature of indoor heat exchanger middle.

T2B: Coil temperature of indoor heat exchanger outlet.

T3: Coil temperature of condenser

T4: Outdoor ambient temperature

T5: Compressor discharge temperature

1.2 Main Protection

1.2.1 Time delay at restart for compressor.

1.2.2 Temperature protection of compressor discharge

For 12K units:

When the compressor discharge temp. is getting higher, the running frequency will be limited as below rules:

---Compressor discharge temp. $T5 > 115^{\circ}\text{C}$ for 5s, compressor stops and restarts up till $T5 < 90^{\circ}\text{C}$

--- $110 < T5 < 115^{\circ}\text{C}$, decrease the frequency to the lower level every 2 minutes.

--- $105 < T5 < 110^{\circ}\text{C}$, keep running at the current frequency.

---- $T5 < 105^{\circ}\text{C}$, no limit for frequency.

For other units:

When the compressor discharge temp. is getting higher, the running frequency will be limited as below rules:

----If $102^{\circ}\text{C} < T5 < 115^{\circ}\text{C}$, decrease the frequency to the lower level every 2 minutes till to F1.

---If $T5 > 115^{\circ}\text{C}$ for 10 seconds, the compressor will stop and restart till $T5 < 90^{\circ}\text{C}$.

1.2.4 Sensor protection at open circuit and breaking disconnection.

1.2.5 Indoor fan delayed open function

For M floor-standing:

When the unit starts up, the louver will be active immediately and the indoor fan will open 5s later.

If the unit runs in heating mode, the indoor fan will be also controlled by anti-cold wind function.

For other models:

When the unit starts up, the louver will be active immediately and the indoor fan will open 10s later.

If the unit runs in heating mode, the indoor fan will be also controlled by anti-cold wind function.

1.2.6 Fan speed is out of control(for units used DC motor)

For super slim cassette: When indoor fan speed keeps too low (lower than 200RPM) for 50s, the unit will stop and the LED will display the failure.

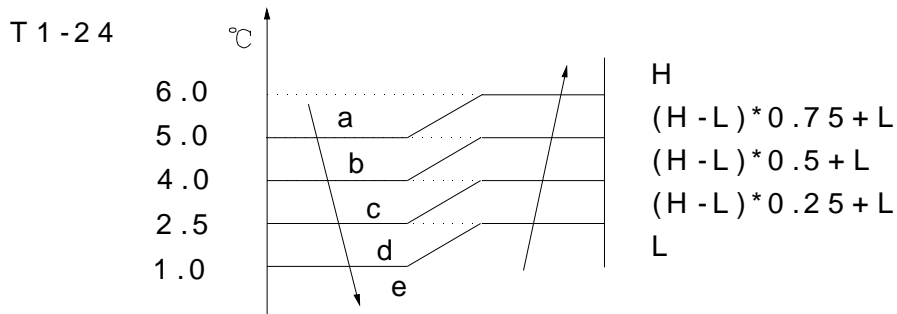
For M floor-standing: When indoor fan speed keeps too low (lower than 300RPM) for 10s, the unit will stop and the LED will display the failure.

For other models: When indoor fan speed keeps too low (lower than 300RPM) for 50s, the indoor fan will shut off and restart 30s later, if protection happened 3 times when fan motor restart continuously, the unit will stop and the LED will display the failure.

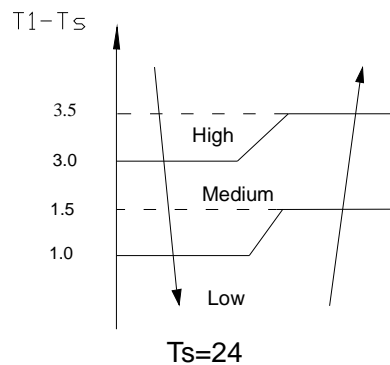
1.3 Operation Modes and Functions

1.3.1 Fan mode

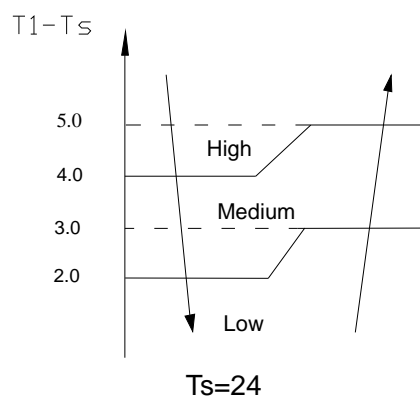
- (1) Outdoor fan and compressor stop.
- (2) Temperature setting function is disabled, and no setting temperature is displayed.
- (3) For Console& Compact cassette(12K): Indoor fan can be set to high/med/low/ breeze, for other models: Indoor fan can be set to high/(med)/low/auto;
- (4) The louver operates same as in cooling mode.
- (5) Auto fan:
For Console:



For Compact cassette(12K),A5(12K),Ceiling& floor(12K)



For other models:



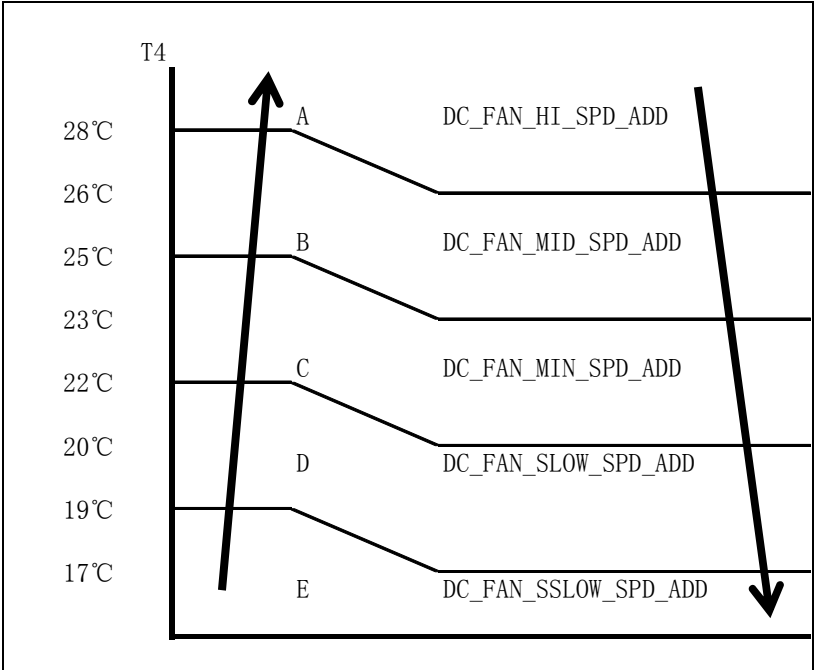
1.3.2 Cooling Mode

1.3.2.1 Electronic Expansion Valve (EXV) Control

- 1.EXV will be fully closed when turning on the power. Then EXV will be standby with 300P open and will open to target angle after compressor starts.
- 2.EXV will close with -160P when compressor stops. Then EXV will be standby with 300P open and will open to target angle after compressor starts.

The unit is working in cooling mode with the EXV open 300P(For 12K, it is 220P) for 3 minutes, then adjusting EXV open angle according to the temperature of compressor discharge every 2 minutes.

1.3.2.2 Outdoor fan running rules



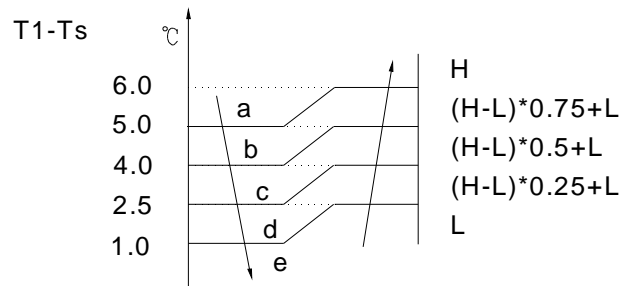
1.3.2.3 Indoor fan running rules

For Console(12K):

In cooling mode, indoor fan runs all the time and the speed can be selected as high, medium, low, auto and silent. When the compressor is running, the indoor fan is controlled as below:

Setting Fan speed	T1-Ts		Actual fan speed
H	4.5	A	$H+(H+=H+G)$
	3.0	B	$H (=H)$
	1.5	C	$H- (H-=H-G)$
M	4.5	D	$M+(M+=M+Z)$
	3.0	E	$M(M=M)$
	1.5	F	$M-(M-=M-Z)$
L	4.5	G	$L+(L+=L+D)$
	3.0	H	$L(L=L)$
	1.5	I	$L-(L-=L-D)$

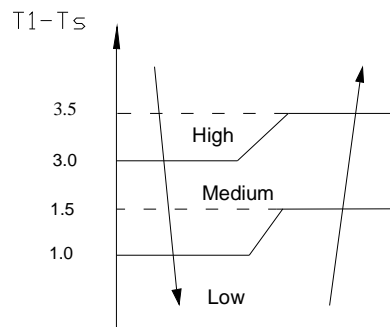
The auto fan acts as below rules:



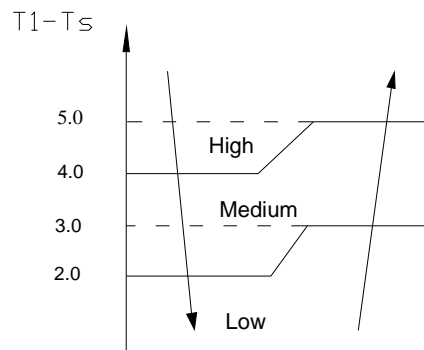
For Compact cassette(12K),A5(12K),Ceiling& floor(12K):

In cooling mode, indoor fan runs all the time and the speed can be selected as high, medium, low, auto and silent.

The auto fan:



For other models:



1.3.2.4 Evaporator low temperature T2 protection.

For 12K models:

--- $T2 < 0^{\circ}\text{C}$, the compressor will stop and restart when $T2 \geq 5^{\circ}\text{C}$.

--- $0^{\circ}\text{C} \leq T2 < 4^{\circ}\text{C}$, the compressor frequency will be limited and decreased to the lower level

--- $4^{\circ}\text{C} \leq T2 < 7^{\circ}\text{C}$, the compressor will keep the current frequency.

--- $T2 > 7^{\circ}\text{C}$, the compressor frequency will not be limited.

For other models: When $T2 < 2^{\circ}\text{C}$ and lasts for 3 minutes, the indoor has no capacity demand and resume till $T2 \geq 7^{\circ}\text{C}$.

1.3.2.5 Condenser high temperature T3 protection

For 12K models :

--- $55^{\circ}\text{C} < T3 < 60^{\circ}\text{C}$, the compressor frequency will decrease to the lower level until to F1 and then runs at F1.If

$T3 < 55^{\circ}\text{C}$, the compressor will keep running at the current frequency.

--- $T_3 < 52^{\circ}\text{C}$, the compressor will not limit the frequency and resume to the former frequency.

--- $T_3 > 60^{\circ}\text{C}$ for 5 seconds, the compressor will stop until $T_3 < 52^{\circ}\text{C}$.

For other models: When $T_3 > 65^{\circ}\text{C}$ for 3 seconds, the compressor will shut off. When $T_3 < 52$, the compressor will restart.

1.3.3 Heating Mode

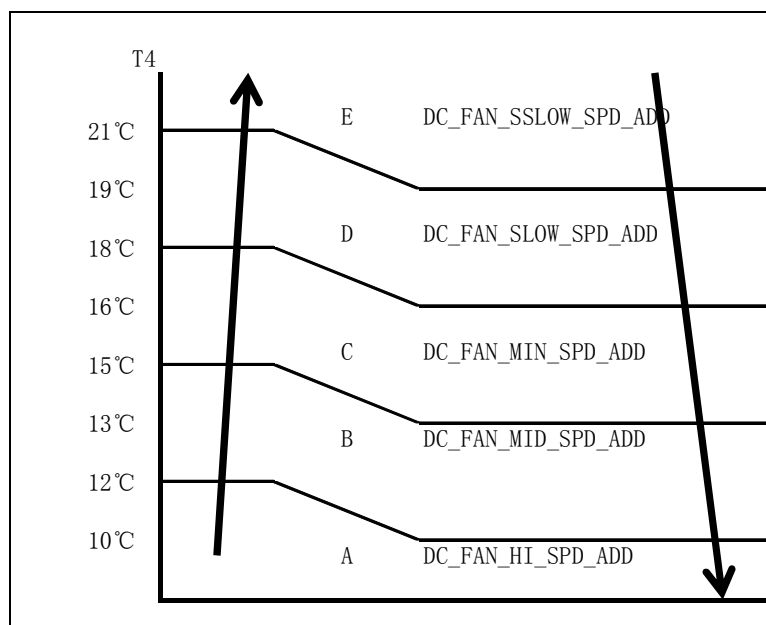
1.3.2.1 Electronic Expansion Valve (EXV) Control

1. EXV will be fully closed when turning on the power. Then EXV will be standby with 300P open and will open to target angle after compressor starts.

2. EXV will close with -160P when compressor stops. Then EXV will be standby with 300P open and will open to target angle after compressor starts.

The unit is working in heating mode with the EXV open 300P (For 12K, it is 480P) for 3 minutes, then adjusting EXV open angle according to the temperature of compressor discharge every 2 minutes.

1.3.3.2 Outdoor fan running rules:

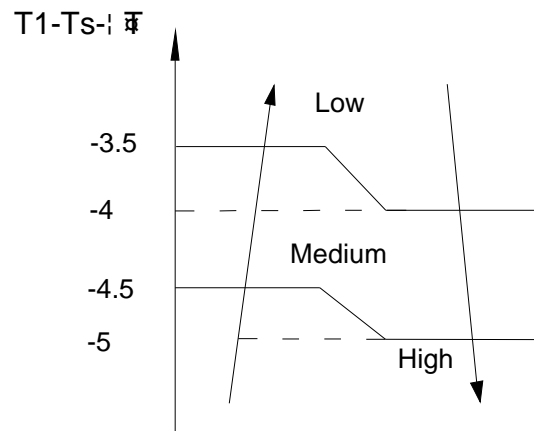


1.3.3.3 Indoor fan running rules:

For Compact cassette (12K), Duct MUCR-H5 (12K), Ceiling& floor(12K):

When the compressor is on, the indoor fan can be set to high, medium, low, auto and silent. And the anti-cold wind function has the priority.

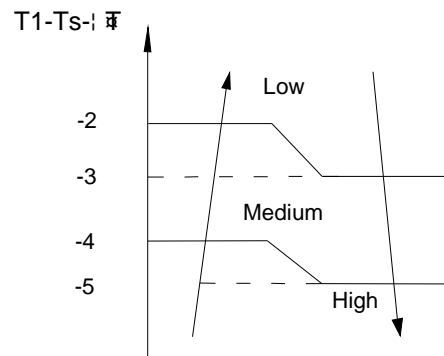
Auto fan action:



For other models:

When the compressor is on, the indoor fan can be set to high/medium/low/auto. And the anti-cold wind function has the priority.

Auto fan action:



1.3.3.4 Defrosting mode:

For 12K models:

Condition of defrosting:

If any one of the following items is satisfied, AC will enter the defrosting mode.

After the compressor starts up and keeps running, mark the minimum value of T_3 from the 10th minutes to 15th minutes as T_{30} .

1) If the compressor cumulate running time is up to 29 minutes and $T_3 < T_{CDI1}$, $T_3 + T_{30SUBT3ONE} \leq T_{30}$.

2) If the compressor cumulate running time is up to 35 minutes and $T_3 < T_{CDI2}$, $T_3 + T_{30SUBT3TWO} \leq T_{30}$.

3) If the compressor cumulate running time is up to 29 minutes and $T_3 < T_{CDI3}$ for 3 minutes.

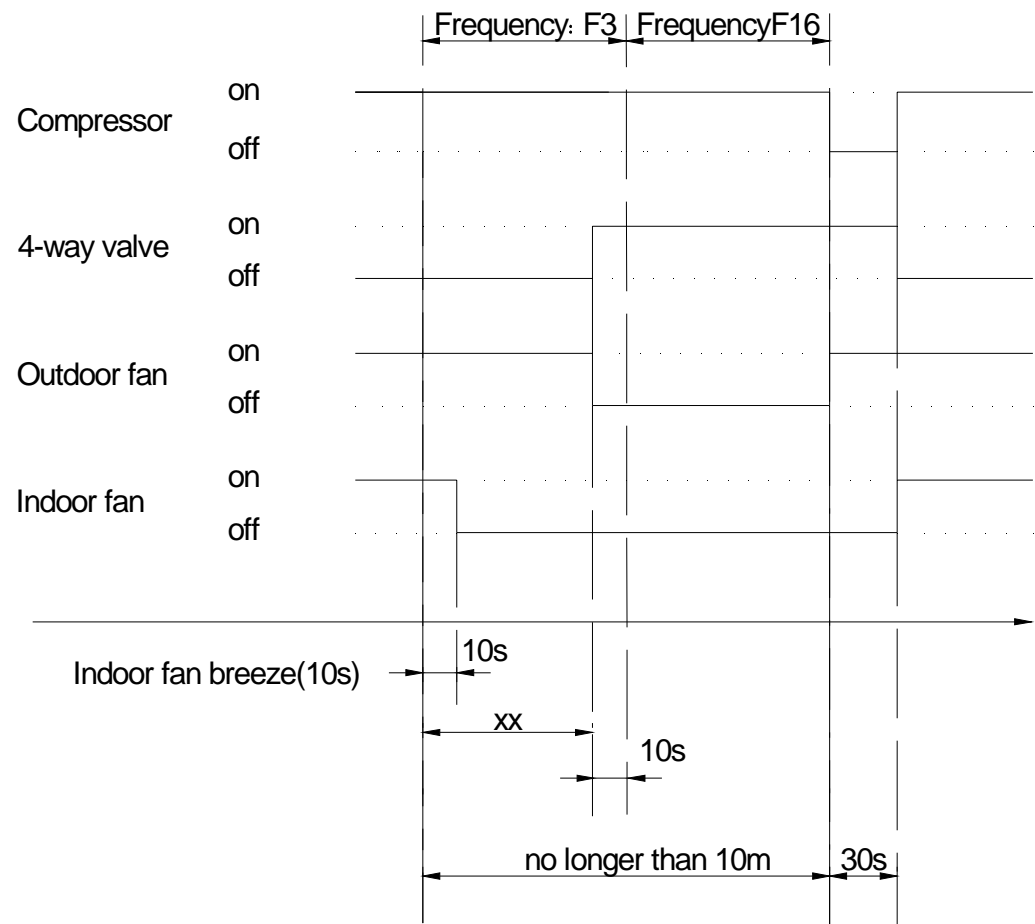
4) If the compressor cumulate running time is up to 120 minutes and $T_3 < -15^\circ\text{C}$.

Condition of ending defrosting:

If any one of the following items is satisfied, the defrosting will finish and the machine will turn to normal heating mode.

- T3 rises to be higher than TCDE1℃.
- T3 keeps to be higher than TCDE2℃ for 80 seconds.
- The machine has run for 10 minutes in defrosting mode.

Defrosting action:



xx=90

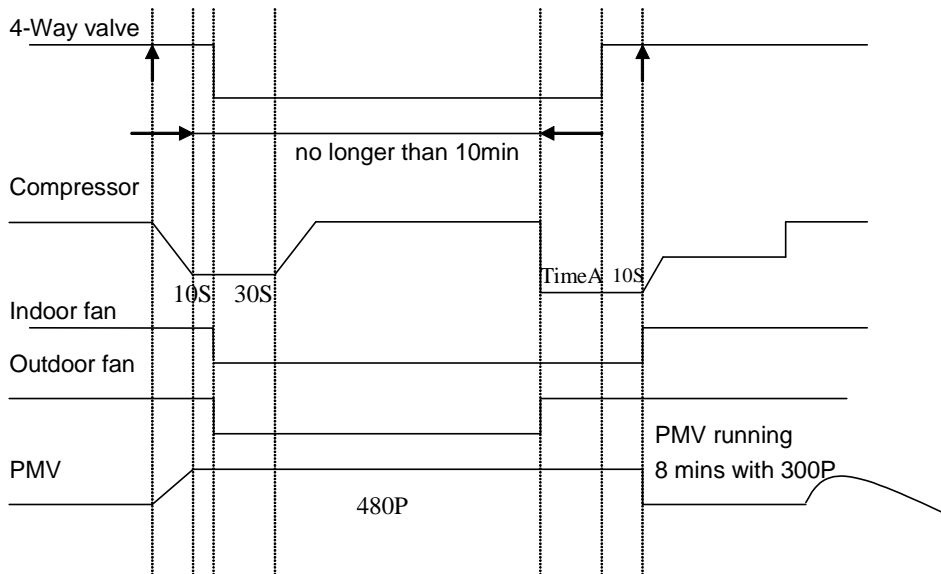
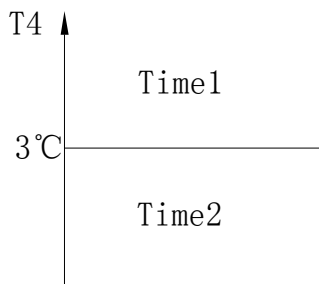
Model 36K (ERP 3.4) :

Condition of defrosting:
T3≤TempEnterDefrost_ADD ℃ and lasts for 40 minutes.

Condition of ending defrosting:

If any one of following items is satisfied, defrosting will stop and the machine will turn to normal heating mode.

- ① T3 > TempQuitDefrost_ADD ℃;
- ② The defrosting time achieves 10min.

Defrosting action:**The other models:****Condition of defrosting:****Time conditions:****time1**

Time conditions (Meet the following conditions)

1. Running in heating mode
2. $T_4 \geq 3^\circ\text{C}$
3. Compressor is on
4. $T_3 \leq \text{TempEnterDefrost_ADD } ^\circ\text{C}$

Cleared conditions (Meet any one of the following conditions)

1. Compressor is off.
2. $T_3 > \text{TempEnterDefrost_ADD } ^\circ\text{C}$

Time2

Time conditions (Meet the following conditions)

1. Running in heating mode
2. $T_4 < 3^\circ\text{C}$
3. Compressor is on
4. $T_3 \leq \text{TempEnterDefrost_ADD } ^\circ\text{C}$

Cleared conditions (Meet any one of the following conditions)

1. Compressor is off and $T3 > \text{TempEnterDefrost_ADD} + 2^{\circ}\text{C}$ last for 20 minutes
2. Running in cooling mode.
3. Compressor is off for 1 hour.

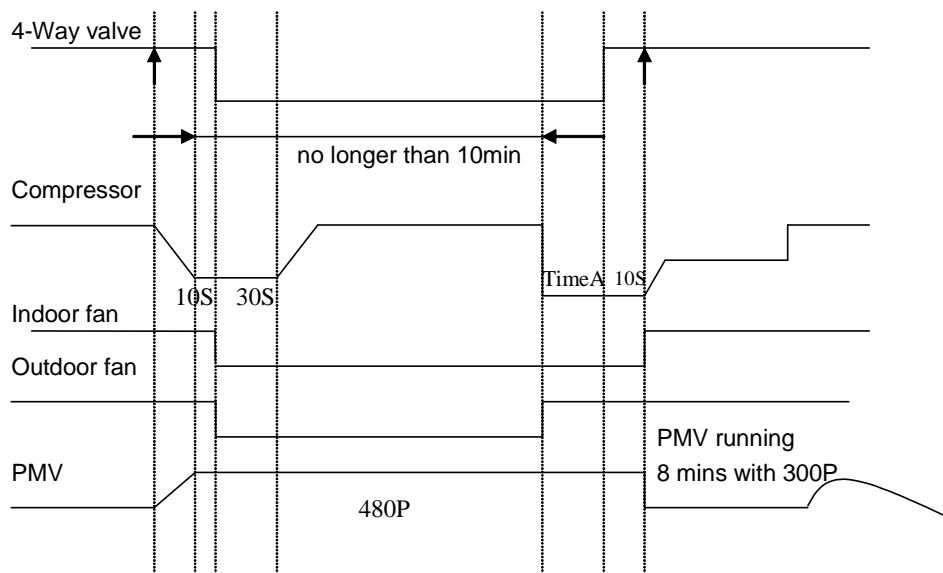
Condition of entry defrosting:

$\text{time1} + \text{time2} \geq 40$ minutes, When defrosting is end, time1 and time2 are cleared.

Condition of ending defrosting:

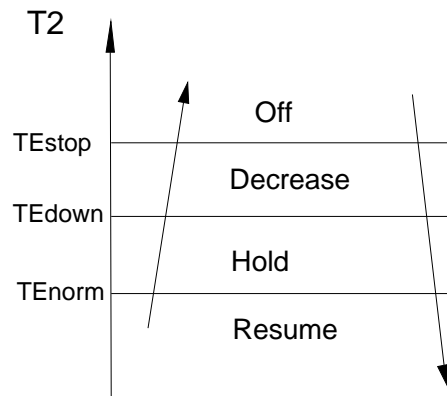
If any one of following items is satisfied, defrosting will stop and the machine will turn to normal heating mode.

- ① The defrosting time achieves 10min;
- ② $T3 \geq 15^{\circ}\text{C}$;
- ③ $T3 \geq 7^{\circ}\text{C}$ for 60seconds.

Defrosting action:

1.3.3.5 High evaporator coil temp.T2 protection:

For 12K models:



Off: Compressor stops.

Decrease: Decrease the running frequency to the lower level.

Hold: Keep the current frequency.

Resume: No limitation for frequency.

For other models: $T_2 > 60^\circ\text{C}$, the compressor will stop and restart when $T_2 \leq 54^\circ\text{C}$.

1.3.4 Auto-mode

This mode can be chosen with remote controller and the setting temperature can be changed between $17\sim 30^\circ\text{C}$.

In auto mode, the machine will choose cooling, heating or fan-only mode according to ΔT ($\Delta T = T_1 - T_s$).

For 12K models:

$\Delta T = T_1 - T_s$	Running mode
$\Delta T > 1^\circ\text{C}$	Cooling
$-1 < \Delta T \leq 1^\circ\text{C}$	Fan-only
$\Delta T \leq -1^\circ\text{C}$	Heating

For other models:

$\Delta T = T_1 - T_s$	Running mode
$\Delta T \geq 2^\circ\text{C}$	Cooling
$-1 \leq \Delta T < 2^\circ\text{C}$	Fan-only
$\Delta T < -1^\circ\text{C}$	Heating

Indoor fan will run at auto fan of the relevant mode.

The louver operates same as in relevant mode.

If the machine switches mode between heating and cooling, the compressor will keep stopping for 15 minutes and then choose mode according to $T_1 - T_s$.

If the setting temperature is modified, the machine will choose running function again.

1.3.5 Drying mode

For 12K models:

Indoor fan speed is fixed at breeze and can't be changed. The louver angle is the same as in cooling mode.

Low indoor room temperature protection

In drying mode, if room temperature is lower than 10°C, the compressor will stop and not resume until room temperature exceeds 12°C.

All protections are active and the same as that in cooling mode.

For other models: Drying mode works the same as cooling mode in low speed.

All protections are active and the same as that in cooling mode.

1.3.6 Timer function

1.3.6.1 Timing range is 24 hours.

1.3.6.2 Timer on. The machine will turn on automatically when reaching the setting time.

1.3.6.3 Timer off. The machine will turn off automatically when reaching the setting time.

1.3.6.4 Timer on/off. The machine will turn on automatically when reaching the setting "on" time, and then turn off automatically when reaching the setting "off" time.

1.3.6.5 Timer off/on. The machine will turn off automatically when reaching the setting "off" time, and then turn on automatically when reaching the setting "on" time.

1.3.6.6 The timer function will not change the AC current operation mode. Suppose AC is off now, it will not start up firstly after setting the "timer off" function. And when reaching the setting time, the timer LED will be off and the AC running mode has not been changed.

1.3.6.7 The setting time is relative time.

1.3.7 Economy function

1.3.7.1 The sleep function is available in cooling, heating or auto mode.

1.3.7.2. Operation process in sleep mode is as follow:

When cooling, the setting temperature rises 1°C (be lower than 30°C) every one hour, 2 hours later the setting temperature stops rising and the indoor fan is fixed at low speed.

When heating, the setting temperature decreases 1°C (be higher than 17°C) every one hour, 2 hours later the setting temperature stops rising and indoor fan is fixed at low speed. (Anti-cold wind function has the priority).

1.3.7.3 Operation time in sleep mode is 7 hours. After 7 hours the AC quits this mode but doesn't turns off, but for console, the unit will turn off.

1.3.7.4 Timer setting is available

1.3.8 Auto-Restart function

The indoor unit is equipped with auto-restart function, which is carried out through an auto-restart module. In case of a sudden power failure, the module memorizes the setting conditions before the power failure. The unit will resume the previous operation setting (not including economy function and auxiliary functions) automatically after 3 minutes when power returns.

1.3.9 Drain pump control (For Cassette)

Adopt the water-level switch to control the action of drain pump.

Main action under different condition :(every 5 seconds the system will check the water level one time)

1. When the A/C operates with cooling (including auto cooling) and forced cooling mode, the pump will start running immediately and continuously, till stop cooling.
2. Once the water level increase and up to the control point, LED will alarm and the drain pump open and continue checking the water level. If the water level fall down and LED disarmed (drain pump delay close 1 minute) and operate with the last mode. Otherwise the entire system stop operating (including the pump) and LED remain alarming after 3 minutes.

1.3.10 Follow me

- 1) If the indoor PCB receives the signal which results from pressing the FOLLOW ME button on remote controller, the buzzer will emit a sound and this indicates the follow me function is initiated. But when the indoor PCB receives signal which sent from remote controller every 3 minutes, the buzzer will not respond. When the unit is running with follow-me function, the PCB will control the unit according to the temperature from follow-me signal, and the temperature collection function of room temperature sensor will be shielded.
- 2) When the follow-me function is available, the PCB will not respond according to the setting temperature from follow-me signal every 3 minutes.
- 3) The PCB will take action to the mode change information from remote controller signal, and the follow-me function will be turned off. (if the wired remote controller does not initiate follow me function).
- 4) When the unit is running with follow-me function, if the PCB doesn't receive any signal from remote controller for 7 minutes or pressing FOLLOW ME button again, the follow-me function will be turned off automatically, and the temperature collection function of room temperature sensor will be available, the PCB will control the unit according to the room temperature detected from its own room temperature sensor and setting temperature.
- 5) When the indoor PCB receives the follow-me signal from wired remote controller, the control is the same as that from wireless remote controller, but buzzer will not respond. When the PCB receives turning-off follow-me signal from wired remote controller, the unit will quit follow-me function at once. The follow-me function controlled by wired remote controller prevails that by wireless remote controller.

1.3.11 Point Check Function(Excluding 12K)

There is a check switch in outdoor PCB.

Press the switch SW1 to check the states of unit when the unit is running.

Press the switch N times it will display the content corresponding to No. N. After getting into the check function, it will display No. N with 1.5s, meanwhile the low bit decimal of digit display flashing, indicated to

get into the check function display. After 1.5s, it will display the content corresponding to No. N.

the digital display tube will display the follow procedure when push SW1 each time.

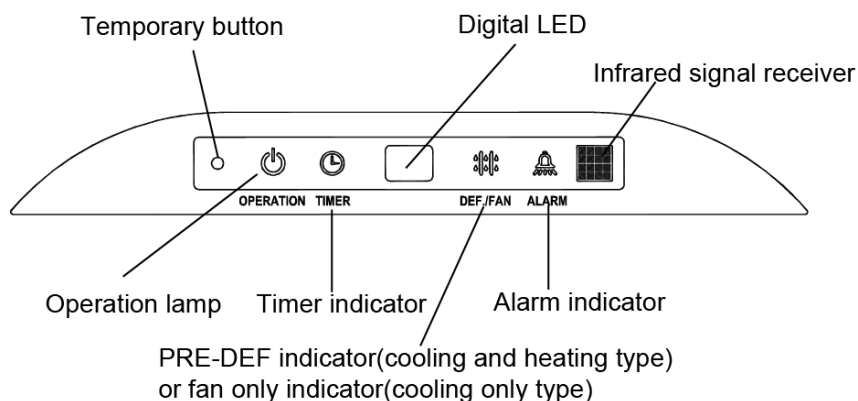
N	Display	Remark		
00	Normal display	Display running frequency, running state or malfunction code		
01	Indoor unit capacity demand code	Actual data*HP*10 If capacity demand code is higher than 99, the digital display tube will show single digit and tens digit. (For example, the digital display tube show "5.0",it means the capacity demand is 15. the digital display tube show "60",it means the capacity demand is 6.0)		
02	Amendatory capacity demand code			
03	The frequency after the capacity requirement transfer			
04	The frequency after the frequency limit			
05	The frequency of sending to 341			
06	Indoor unit evaporator outlet temp.(heating T2, cooling T2B)	If the temp. is lower than 0 degree, the digital display tube will show "0".If the temp. is higher than 70 degree, the digital display tube will show "70".		
07	Condenser pipe temp.(T3)	If the temp. is lower than -9 degree, the digital display tube will show "-9".If the temp. is higher than 70 degree, the digital display tube will show "70". If the indoor unit is not connected, the digital display tube will show: "——"		
08	Outdoor ambient temp.(T4)			
09	Compressor discharge temp.(T5)	The display value is between 13~129 degree. If the temp. is lower than 13 degree, the digital display tube will show "13".If the temp. is higher than 99 degree, the digital display tube will show single digit and tens digit. (For example, the digital display tube show "0.5",it means the compressor discharge temp. is 105 degree. the digital display tube show "1.6",it means the compressor discharge temp. is 116 degree)		
10	AD value of current	The display value is hex number.		
11	AD value of voltage			
12	Indoor unit running mode code	Off:0, Fan only 1,Cooling:2, Heating:3		
13	Outdoor unit running mode code	Off:0, Fan only 1,Cooling:2, Heating:3, Forced cooling:4		
14	EXV open angle	Actual data/4. If the value is higher than 99, the digital display tube will show single digit and tens digit. For example ,the digital display tube show "2.0",it means the EXV open angle is 120x4=480p.)		
15	Frequency limit symbol	Bit7	Frequency limit caused by IGBT radiator	The display value is hex number. For example, the digital display tube show 2A,then Bit5=1, Bit3=1, Bit1=1. It means frequency limit caused by T4,T3 and current.
		Bit6	Frequency limit caused by PFC	
		Bit5	Frequency limit caused by T4.	
		Bit4	Frequency limit caused by T2.	
		Bit3	Frequency limit caused by T3.	
		Bit2	Frequency limit caused by T5.	
		Bit1	Frequency limit caused by current	
		Bit0	Frequency limit caused by voltage	
16	DC fan motor speed			
17	IGBT radiator temp.	The display value is between 30~120 degree. If the temp. is lower than 30 degree, the digital display tube will show "30".If the temp. is higher than 99 degree, the digital display tube will show single digit and tens digit. (For example, the digital display tube show "0.5",it means the IGBT radiator temp. is 105 degree. the digital display tube show "1.6",it means the IGBT radiator temp. is 116 degree)		

18	Indoor unit number	The indoor unit can communicate with outdoor unit well. General:1, Twins:2
19	Condenser pipe temp. of 1# indoor unit	If the temp. is lower than 0 degree, the digital display tube will show "0". If the temp. is higher than 70 degree, the digital display tube will show "70". If the capacity demand is 0, , the digital display tube will show "0. If the indoor unit is not connected, the digital display tube will show: "——"(heating T2, cooling T2B)
20	Condenser pipe temp. of 2# indoor unit	
21	Reserved	
22	1# Indoor unit capacity demand code	Actual data*HP*10 If capacity demand code is higher than 99, the digital display tube will show single digit and tens digit. (For example, the digital display tube show "5.0",it means the capacity demand is 15. the digital display tube show "60",it means the capacity demand is 6.0). If the indoor unit is not connected, the digital display tube will show: "——"
23	2# Indoor unit capacity demand code	
24	Reserved	

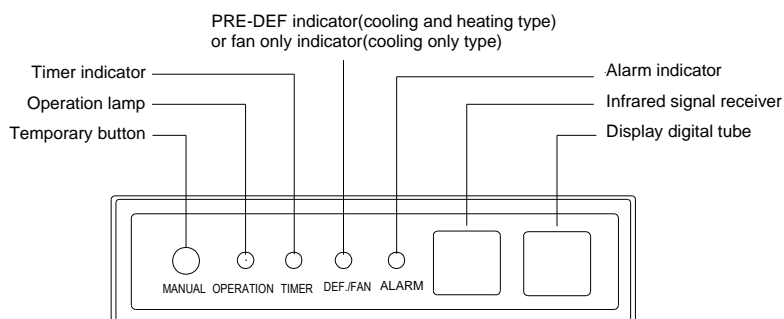
2. Troubleshooting

2.1 Display board

2.1.1 Icon explanation on indoor display board (Super slim cassette).



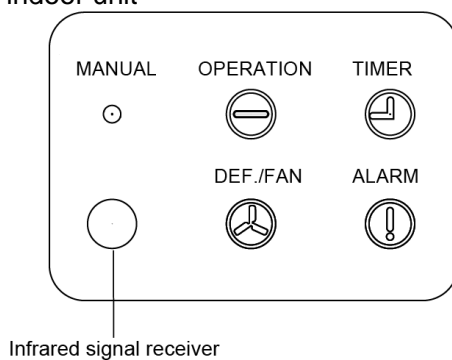
2.1.2 Icon explanation on indoor display board Duct MUCR-H5



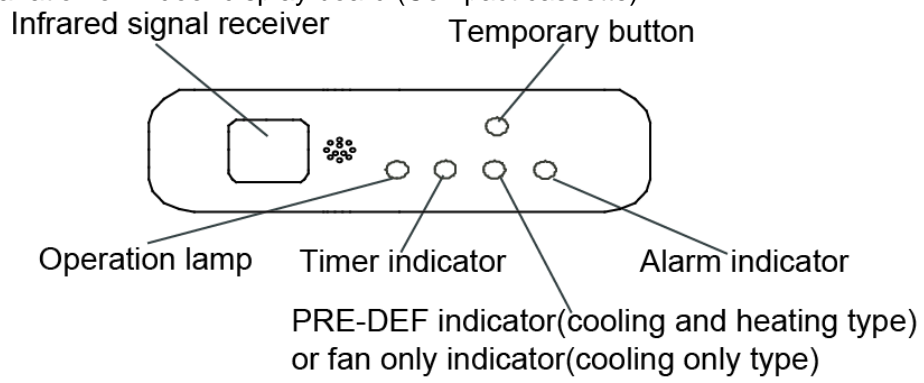
2.1.3 Auto-lifting panel of 4 way cassette



2.1.4 Display board of Ceiling-floor indoor unit



2.1.5 Icon explanation on indoor display board (Compact cassette).



2.2 Indoor unit malfunction

For Compact cassette (12K), Duct MUCR-H5 (12K), Ceiling & floor (12K)::

NO.	Malfunction	Defrosting lamp	Alarm lamp	Running lamp	Timer lamp	Display(digital tube)
1	Open or short circuit of T1 temperature sensor	X	X	☆	X	E0
2	Open or short circuit of T2 temperature sensor	☆	X	X	X	E1
3	Communication malfunction between indoor and outdoor units	X	X	X	☆	E2
4	Water-level alarm malfunction	X	☆	X	X	E3
5	Indoor EEPROM malfunction	X	X	☆	☆	E4
6	IPM module protection	X	O	☆	X	E5
7	Open or short circuit of T3 or T4 temperature sensor or Outdoor EEPROM malfunction	X	X	☆	O	E6
8	Outdoor fan speed has been out of control	☆	X	☆	O	E7
9	Refrigerant leakage detection	☆	☆	O	X	EC
10	Over voltage or over low voltage protection	X	O	☆	O	P0
11	Top temperature protection of compressor	O	X	☆	X	P1
12	Outdoor current protection	☆	X	☆	☆	P2
13	Inverter compressor drive error	X	◎	X	X	P4
14	Indoor fan speed has been out of control.	O	X	☆	O	F5
O (on) X(off) ☆(flash at 5Hz) ◎(flash at 0.5Hz)						

For other models:

NO.	Malfunction	Defrosting lamp	Alarm lamp	Running lamp	Timer lamp	Display(digital tube)
1	Communication malfunction between indoor and outdoor units	X	X	X	☆	E1
2	Open or short circuit of T1 temperature sensor	X	X	☆	X	E2
3	Open or short circuit of T2 temperature sensor	X	X	☆	X	E3
4	Open or short circuit of T2B temperature sensor	X	X	☆	X	E4
5	Indoor EEPROM malfunction	☆	X	X	X	E7
6	Indoor fan speed has been out of control	☆	☆	X	X	E8
7	Refrigerant leakage detection	☆	☆	O	X	EC
8	Outdoor unit malfunction	X	◎	X	X	Ed
9	Water-level alarm malfunction	X	☆	X	X	EE
10	Communication malfunction between main PCB and up-down panel PCB	☆	☆	☆	X	F0
11	Up-down panel malfunction	☆	☆	X	☆	F1
12	Up-down panel is not closed	☆	☆	X	O	F2
13	Communication malfunction between master unit and slave unit	X	☆	X	☆	F3
14	Other malfunction of master unit or slave unit	X	☆	☆	X	F4
<p>O (on) X(off) ☆(flash at 5Hz) ◎(flash at 0.5Hz)</p> <p>F0,F1,F2 are only available for super-slim cassette</p> <p>F3,F4 are only available for the unit with TWINS function</p> <p>Note: Digital display is only available for super slim cassette & duct type.</p>						

2.3 Outdoor unit malfunction

18~36K

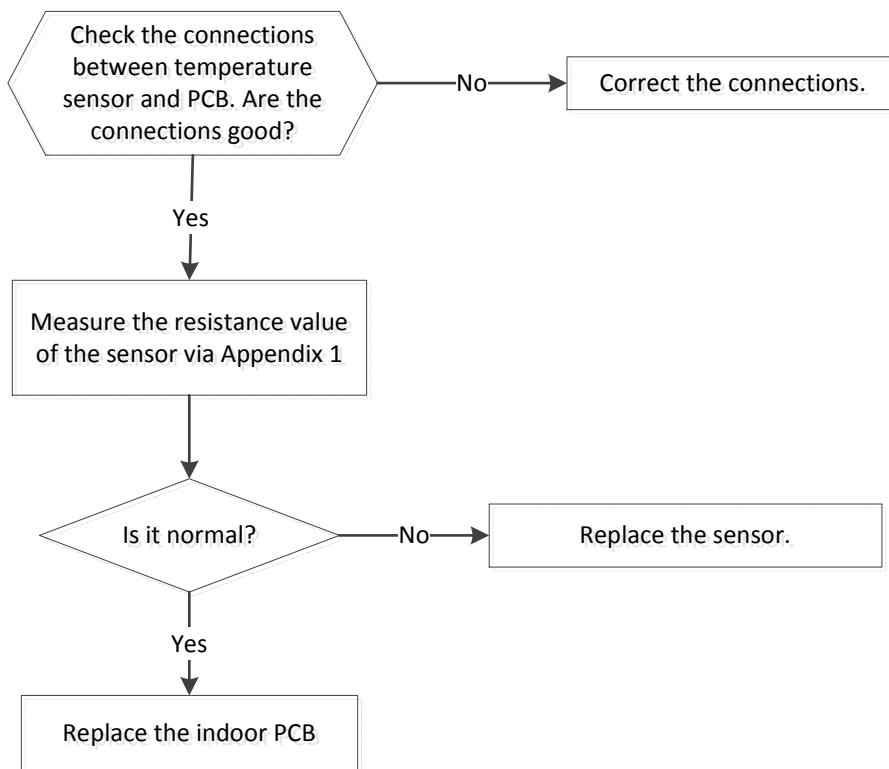
Display	Malfunction or Protection
E0	Outdoor EEPROM malfunction
E2	Communication malfunction between indoor and outdoor units.
E3	Communication malfunction between IPM board and outdoor main board
E4	Open or short circuit of outdoor temperature sensor
E5	Voltage protection of compressor
E8	Outdoor fan speed has been out of control
P0	Top temperature protection of compressor
P1	High pressure protection (For 36k models)
P2	Low pressure protection(For 36k models)
P3	Current protection of compressor
P4	Discharge temperature protection of compressor
P5	High temperature protection of condenser
P6	IPM module protection
P7	High temperature protection of evaporator

In low ambient cooling mode, the LED displays “LC” or alternative displays between running frequency and “LC”(each displays 0.5s)

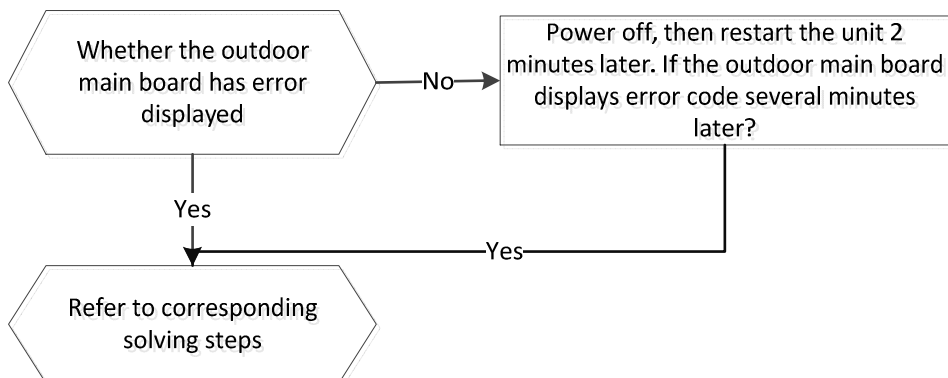
2.4 Solving steps for typical malfunction

2.4.1 For the indoor unit

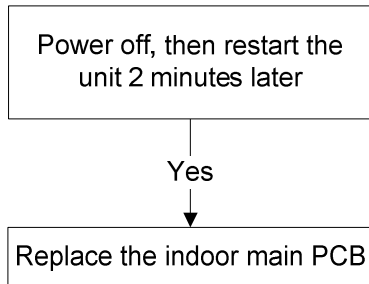
2.4.1.1 Open or short circuit of temperature sensor



2.4.1.2. Outdoor unit malfunction

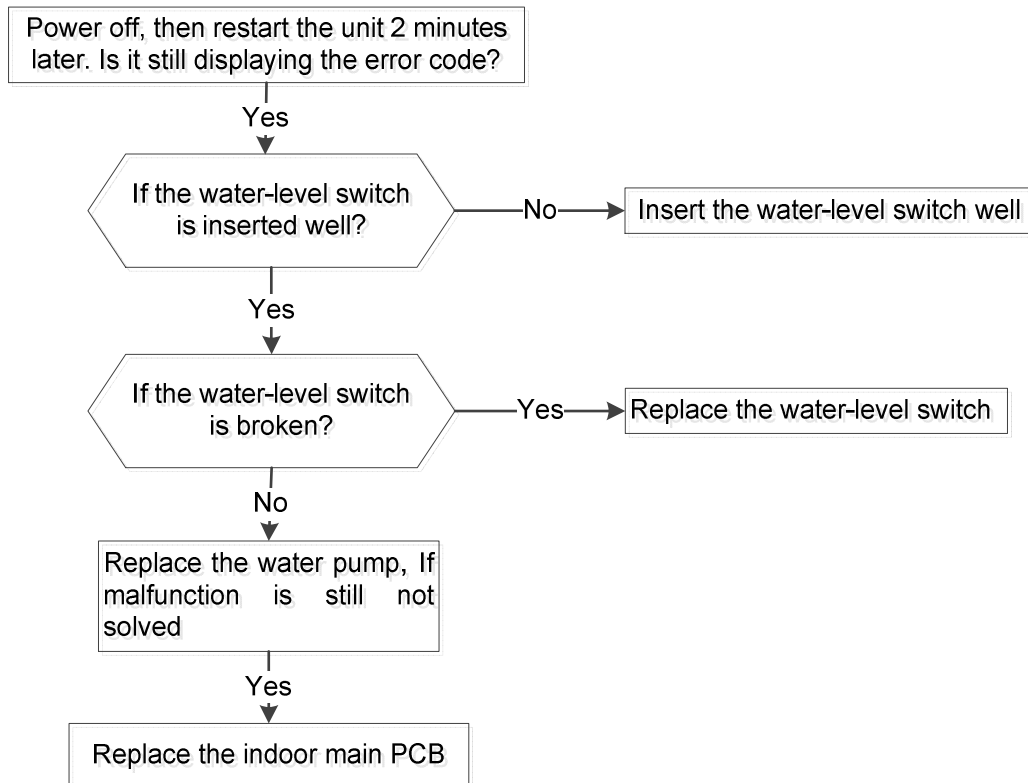


2.4.1.3. Indoor EEPROM malfunction

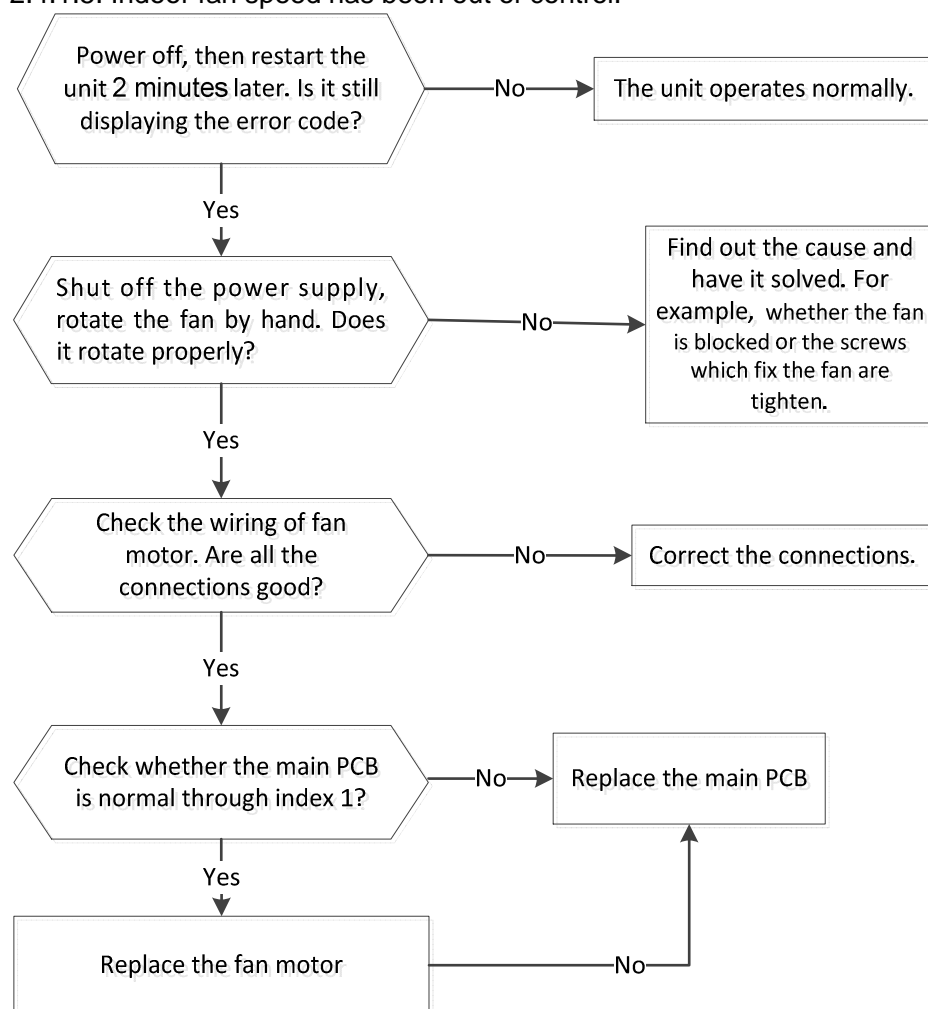


EEPROM: An electrically erasable programmable read-only memory whose contents can be erased and reprogrammed using a pulsed voltage.

2.4.1.4. Water-level alarm malfunction



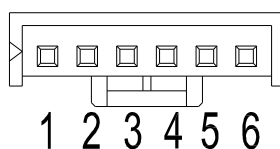
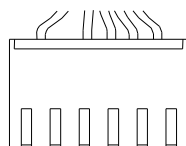
2.4.1.5. Indoor fan speed has been out of control.



Index 1:

1. Indoor DC fan motor(control chip is inside fan motor)

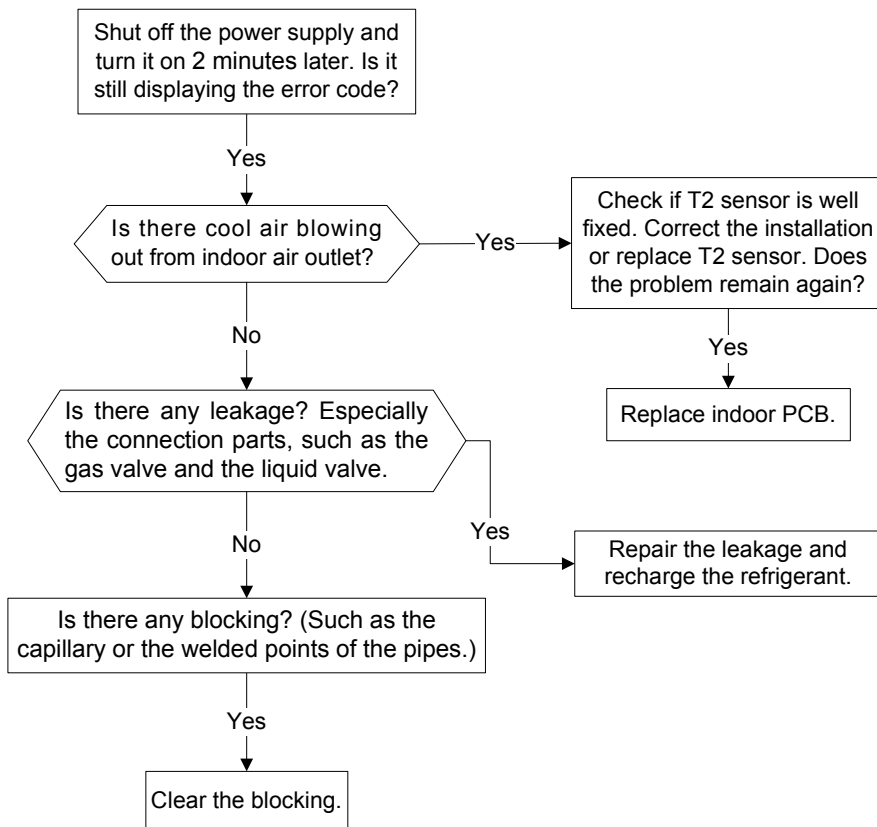
Power on and when the unit is in standby, measure the voltage of pin1-pin3, pin4-pin3 in fan motor connector. If the value of the voltage is not in the range showing in below table, the PCB must have problems and need to be replaced.



DC motor voltage input and output

NO.	Color	Signal	Voltage
1	Red	Vs/Vm	200V~380V
2	---	---	---
3	Black	GND	0V
4	White	Vcc	13.5-16.5V
5	Yellow	Vsp	0~6.5V
6	Blue	FG	13.5-16.5V

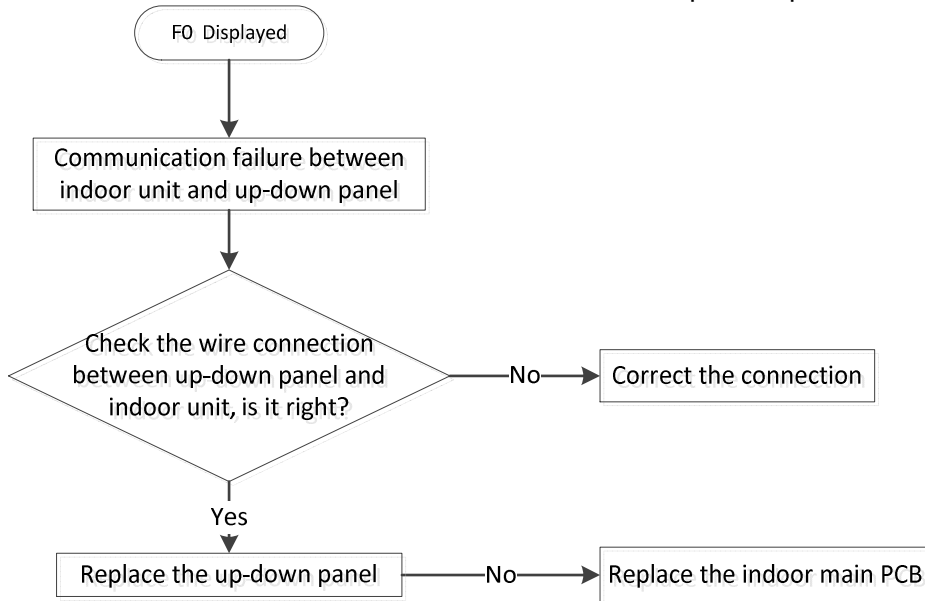
2.4.1.6. Refrigerant Leakage Detection



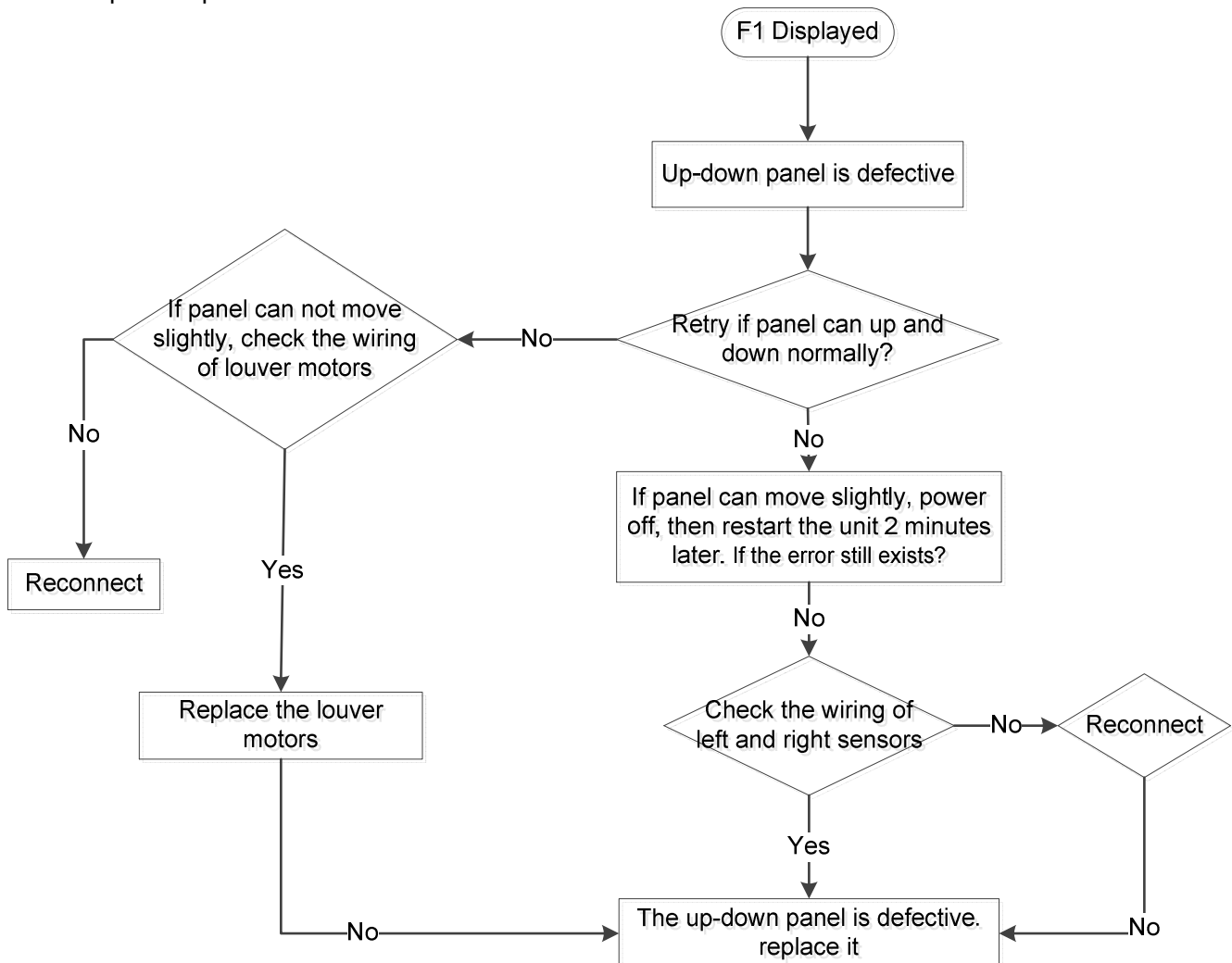
2.4.1.7 Communication malfunction between indoor and outdoor units
The same as E2 in outdoor.

2.4.2 For the super-slim cassette with up-down panel

2.4.2.1 Communication error between indoor unit and up-down panel

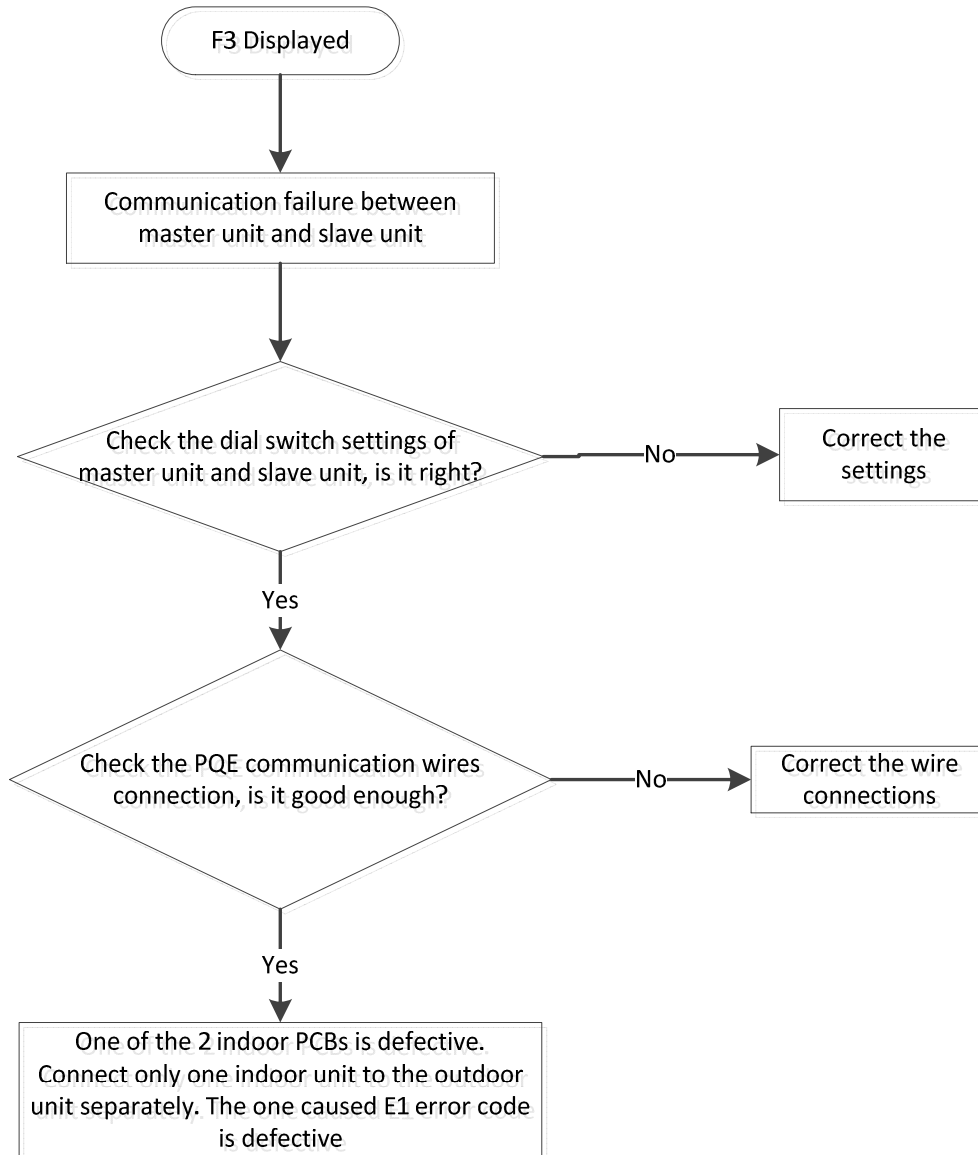


2.4.2.2 Up-down panel is defective



2.4.3 For the unit with TWINS function(For the super-slim cassette & A5 duct)

2.4.3.1 Communication malfunction between master unit and indoor unit

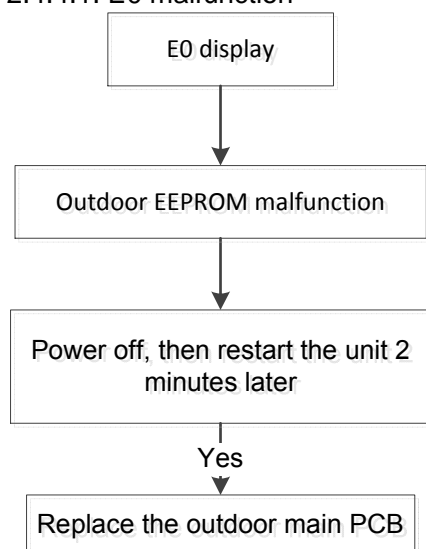


2.4.3.2 Other malfunction between master unit and indoor unit

One indoor unit displays "F4", which means another indoor unit is faulty. Check another indoor unit's error code and then follow the appropriate solutions to solve the malfunction.

2.4.4 For the outdoor unit

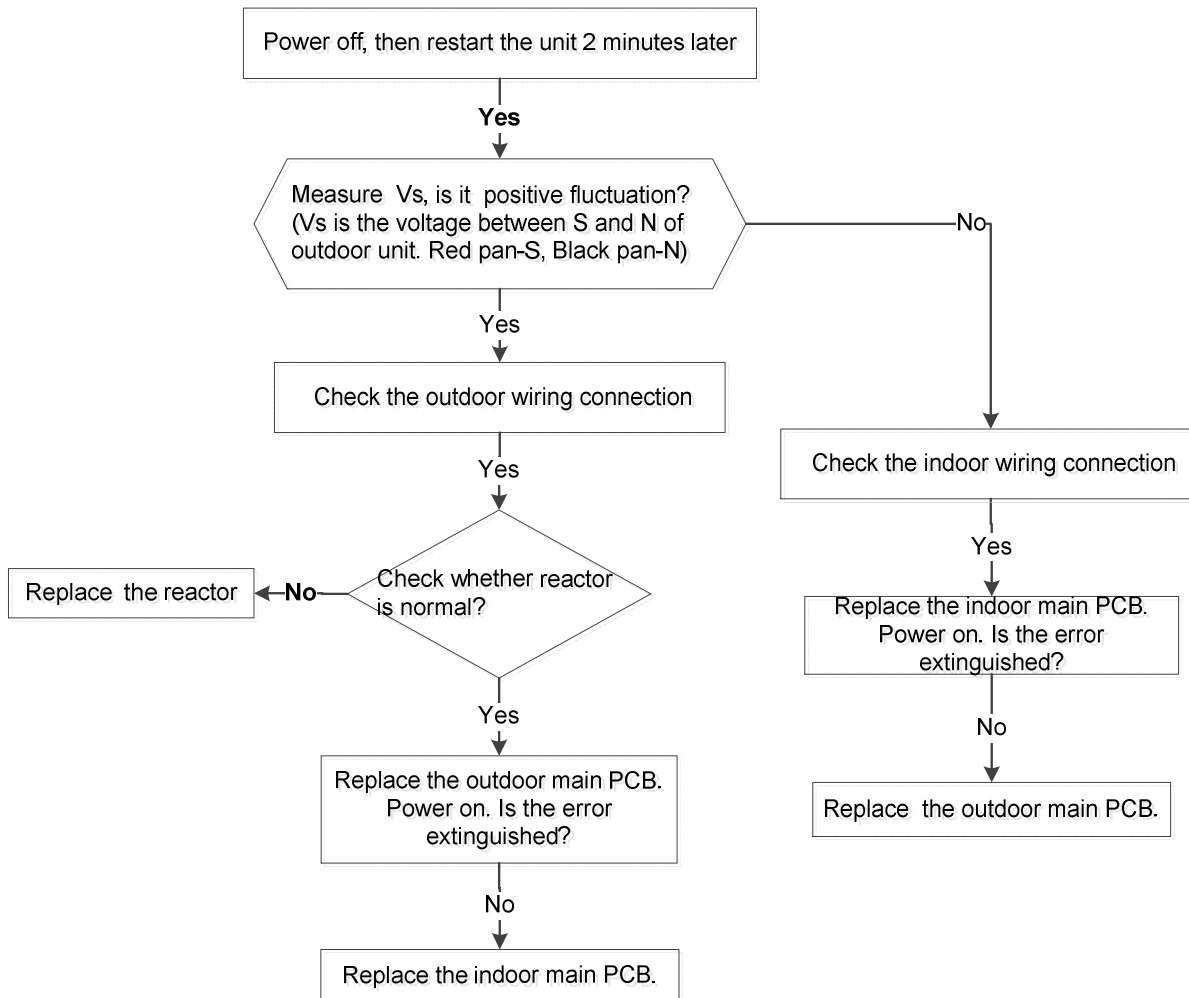
2.4.4.1. E0 malfunction



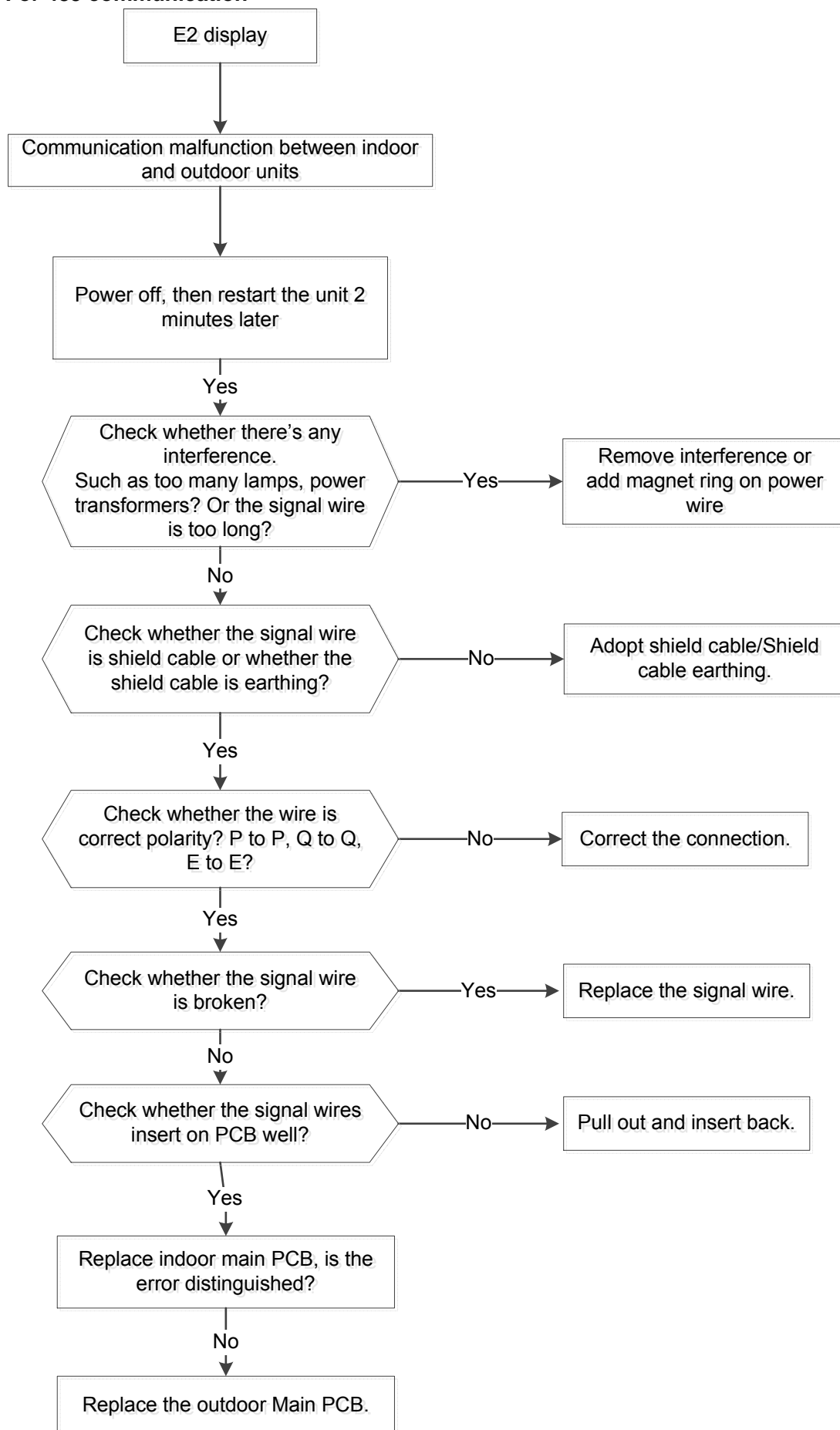
EEPROM: An electrically erasable programmable read-only memory whose contents can be erased and reprogrammed using a pulsed voltage.

2.4.4.2. E2 malfunction

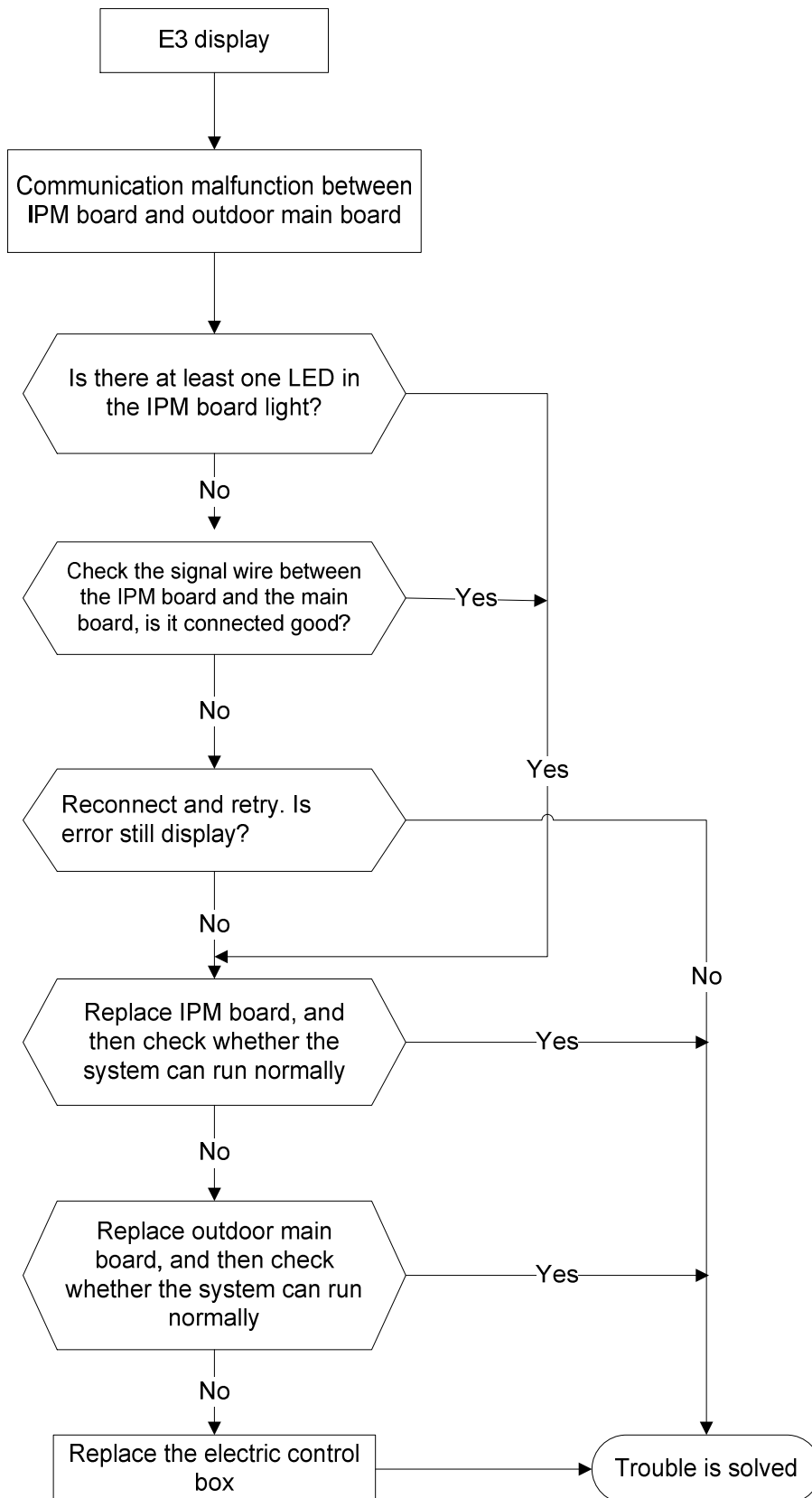
For current loop communication:



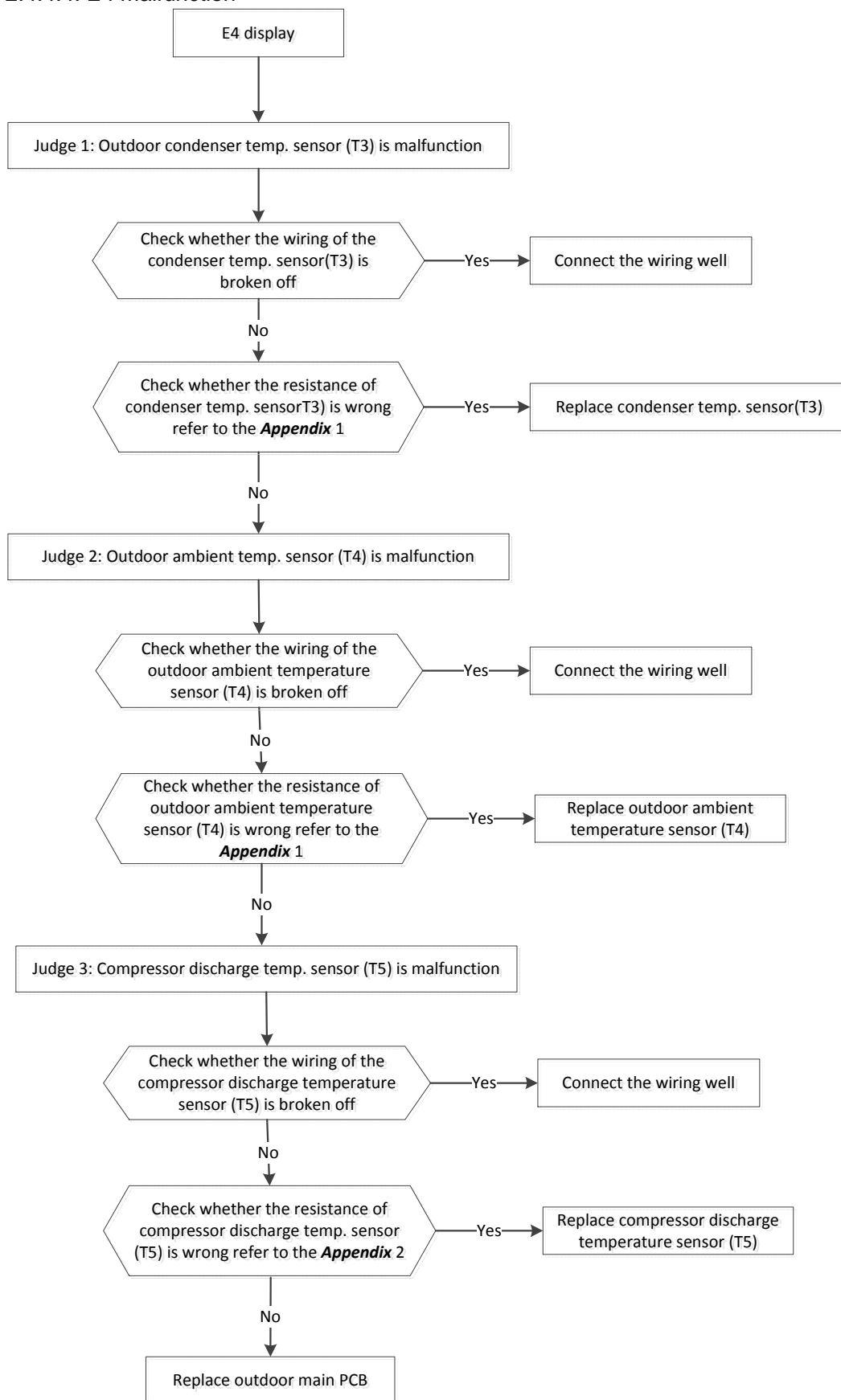
For 485 communication



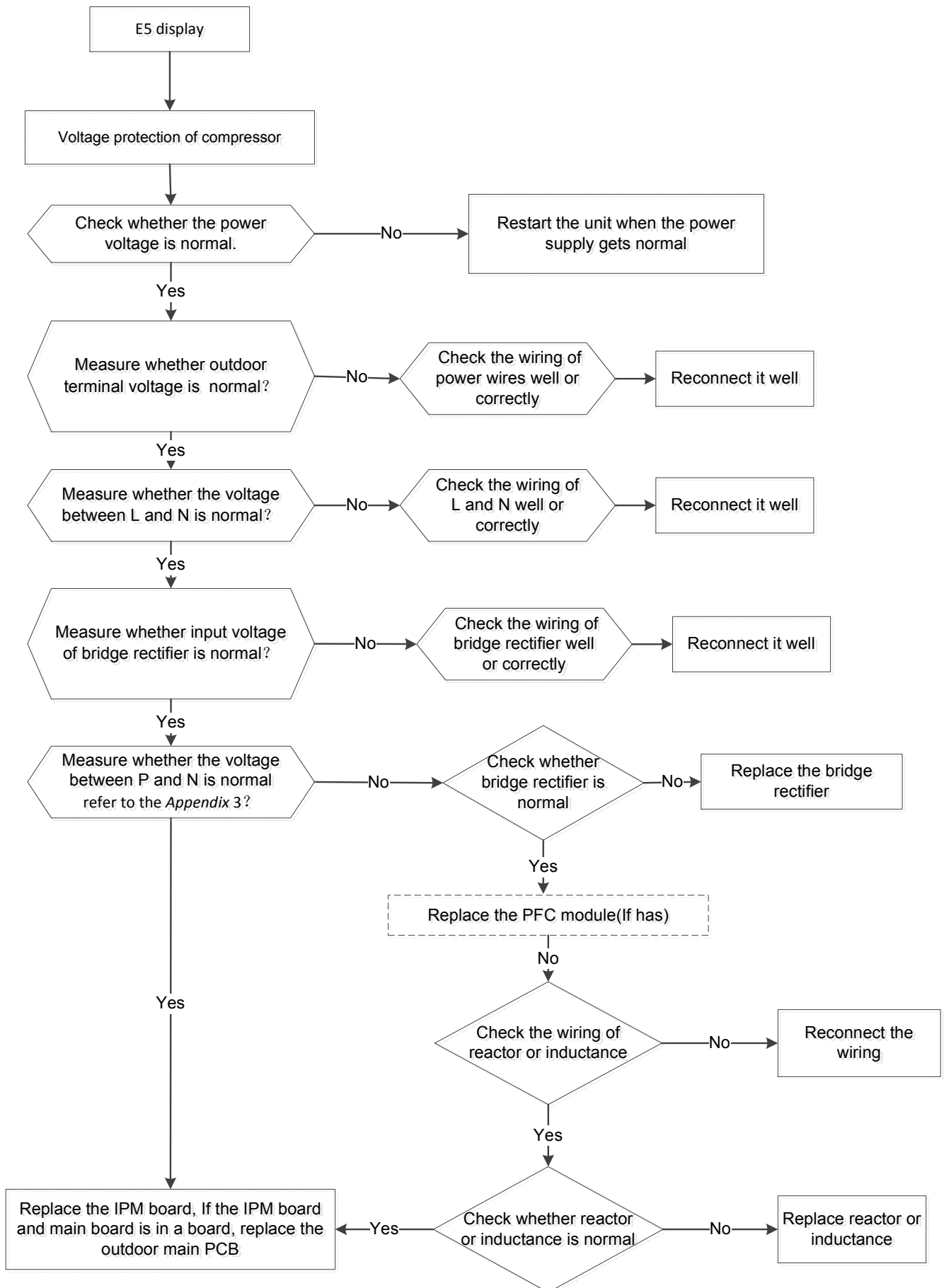
2.4.4.3. E3 malfunction



2.4.4.4. E4 malfunction



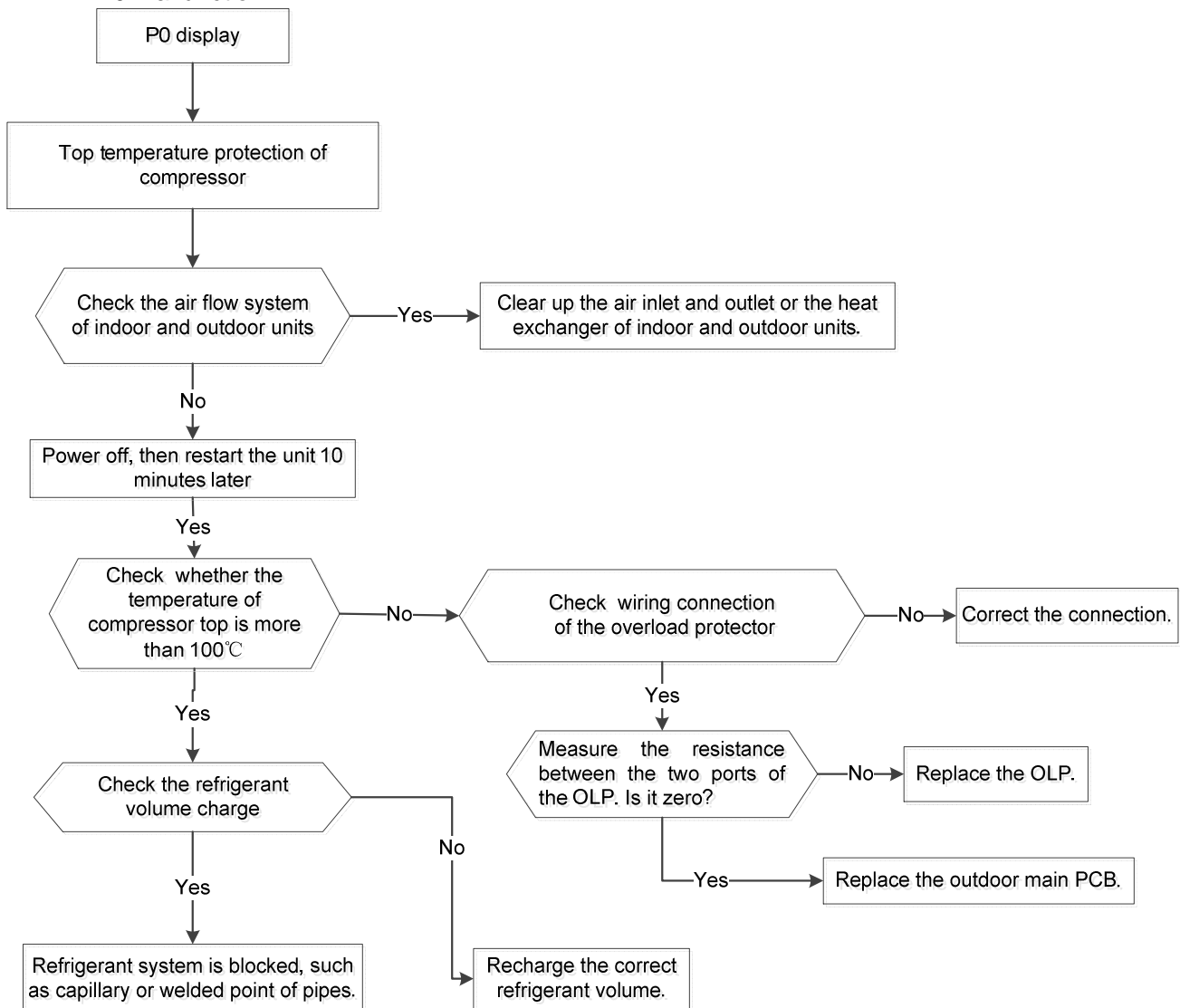
2.4.4.5. E5 malfunction



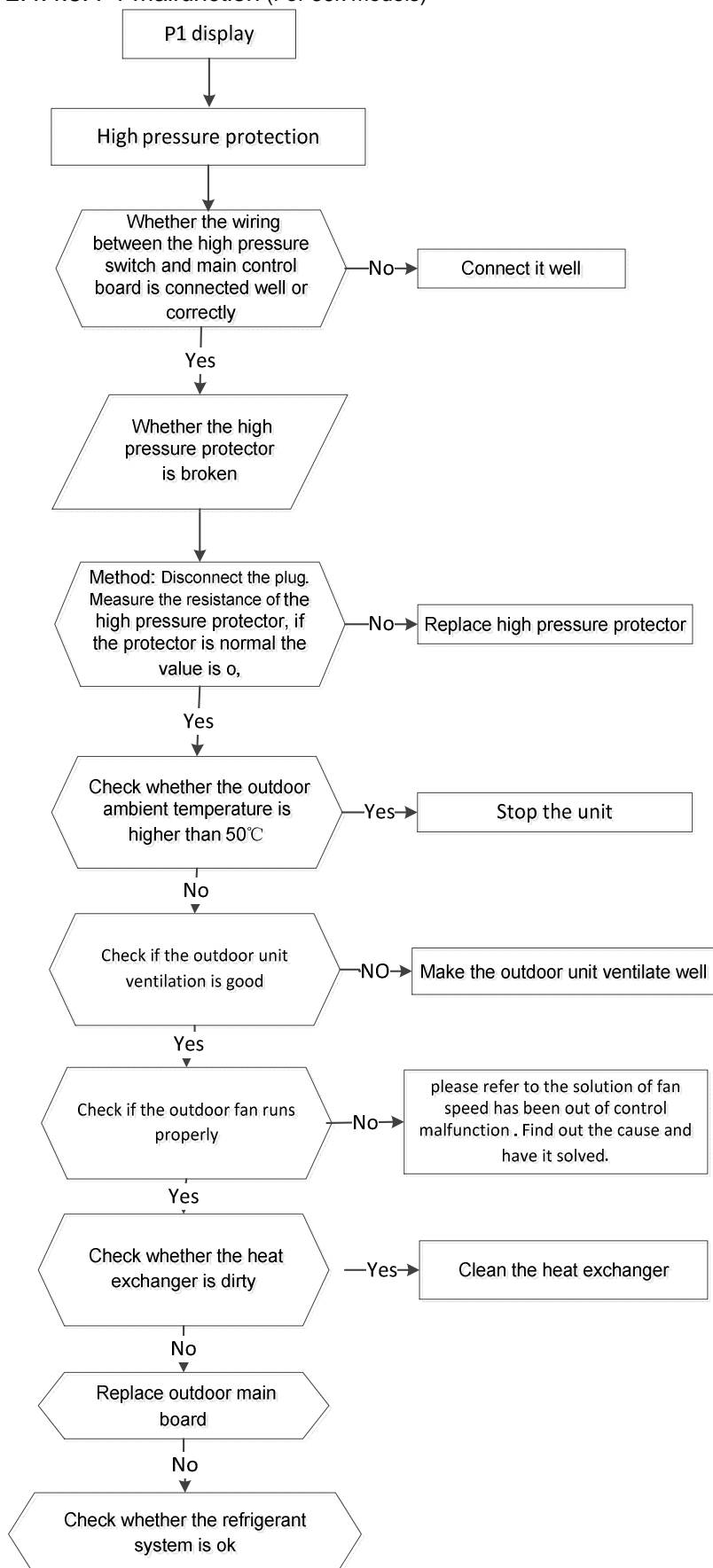
2.4.4.6. E8 malfunction

The same as E8 in indoor.

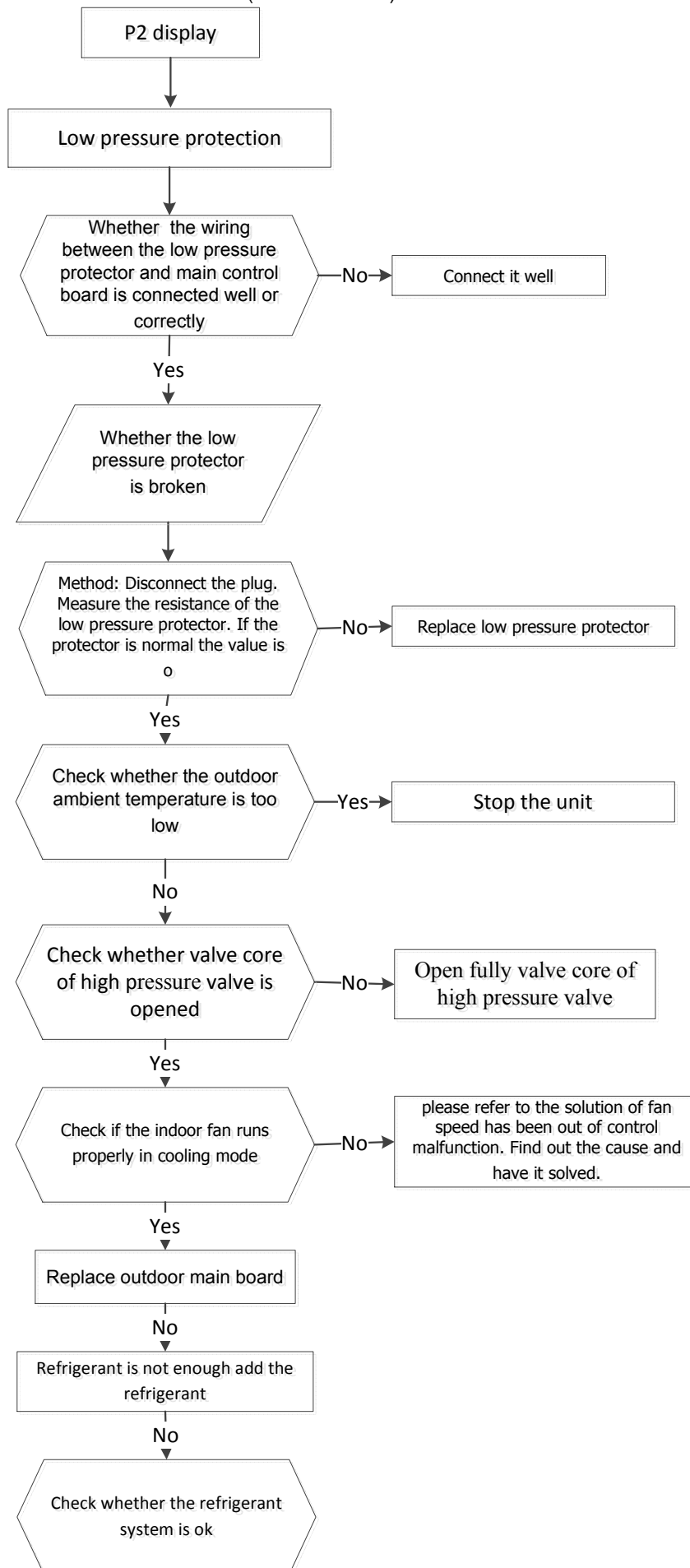
2.4.4.7. P0 malfunction



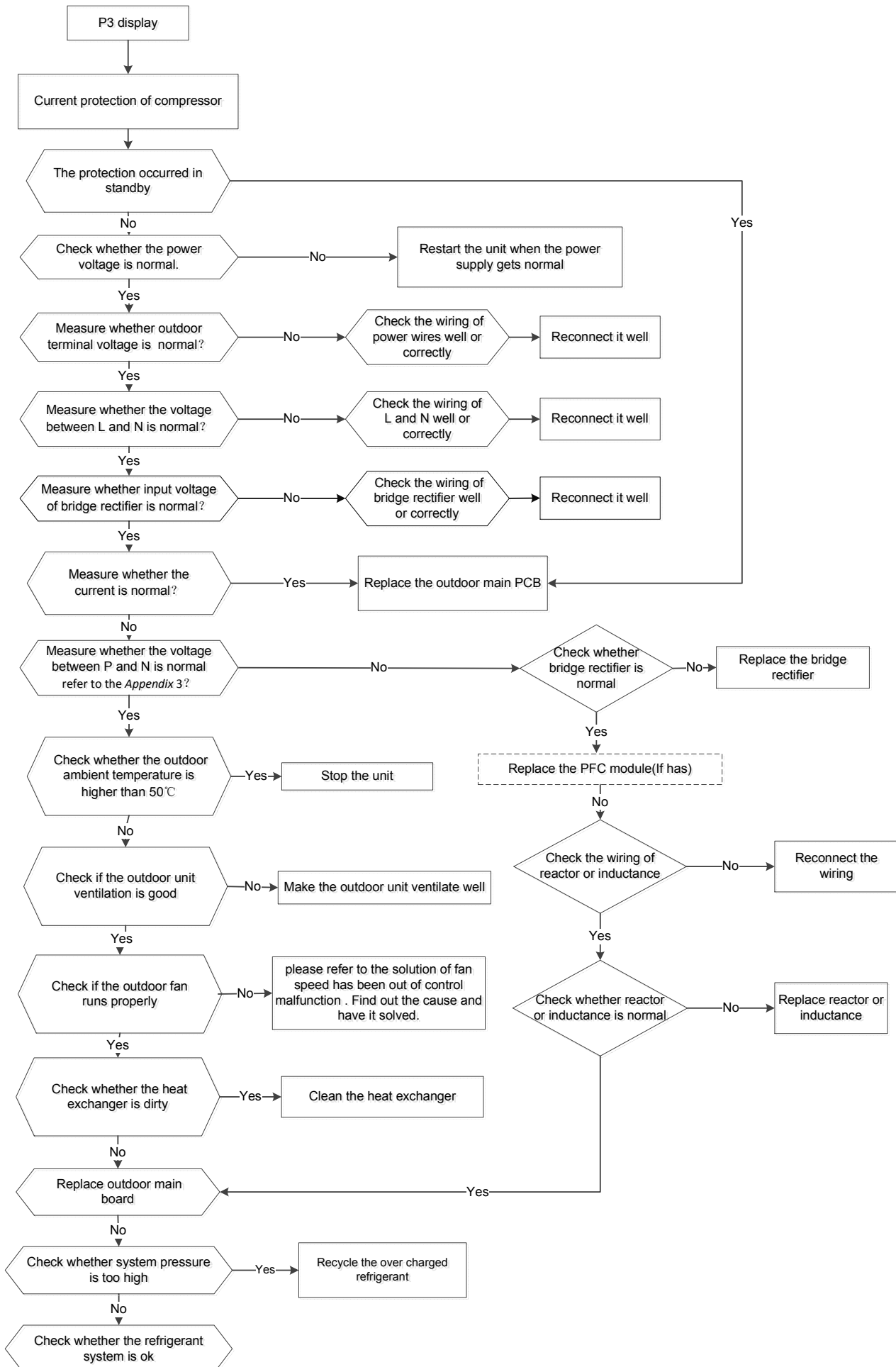
2.4.4.8. P1 malfunction (For 36k models)



2.4.4.9. P2 malfunction (For 36k models)

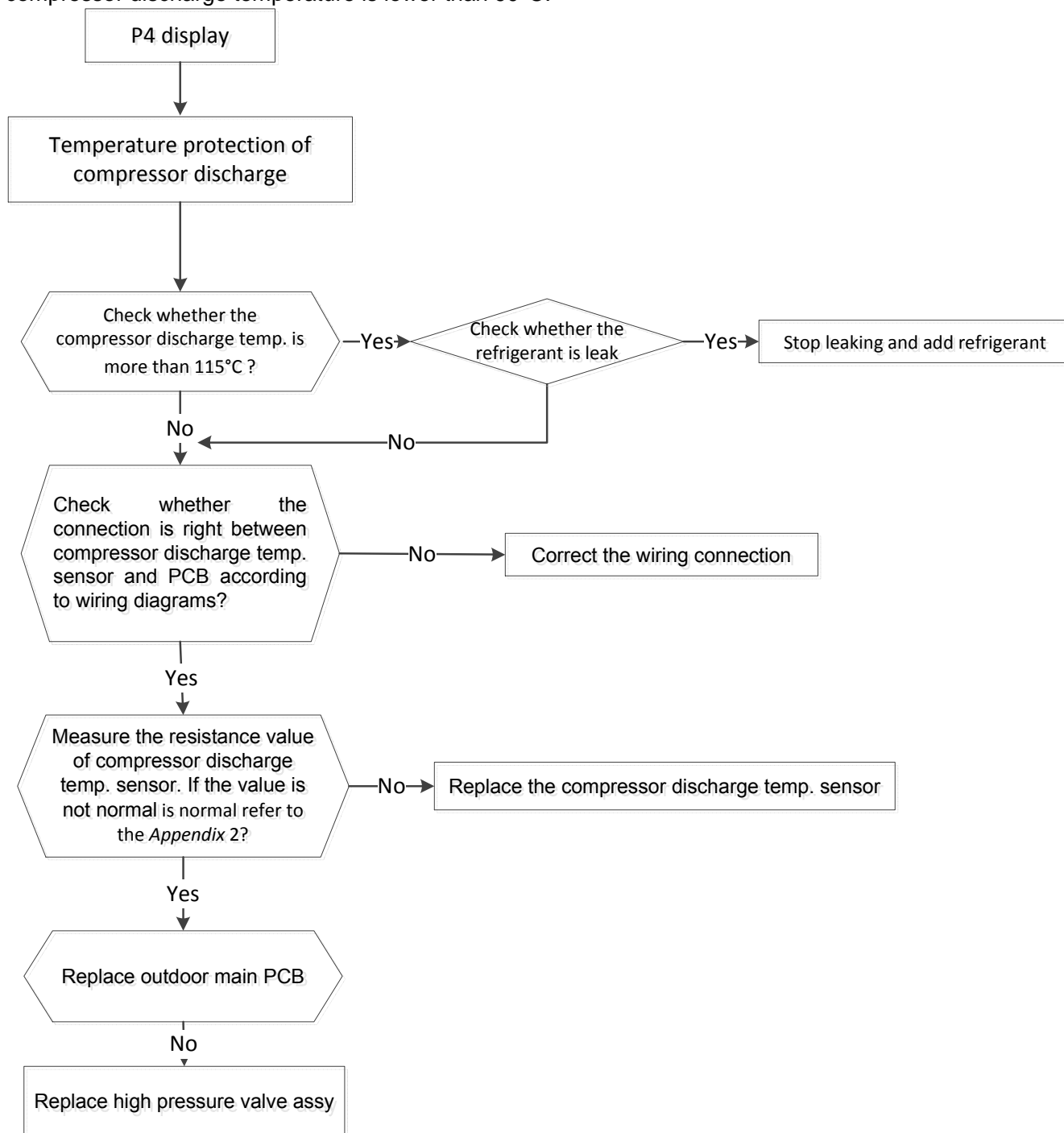


2.4.4.10. P3 malfunction



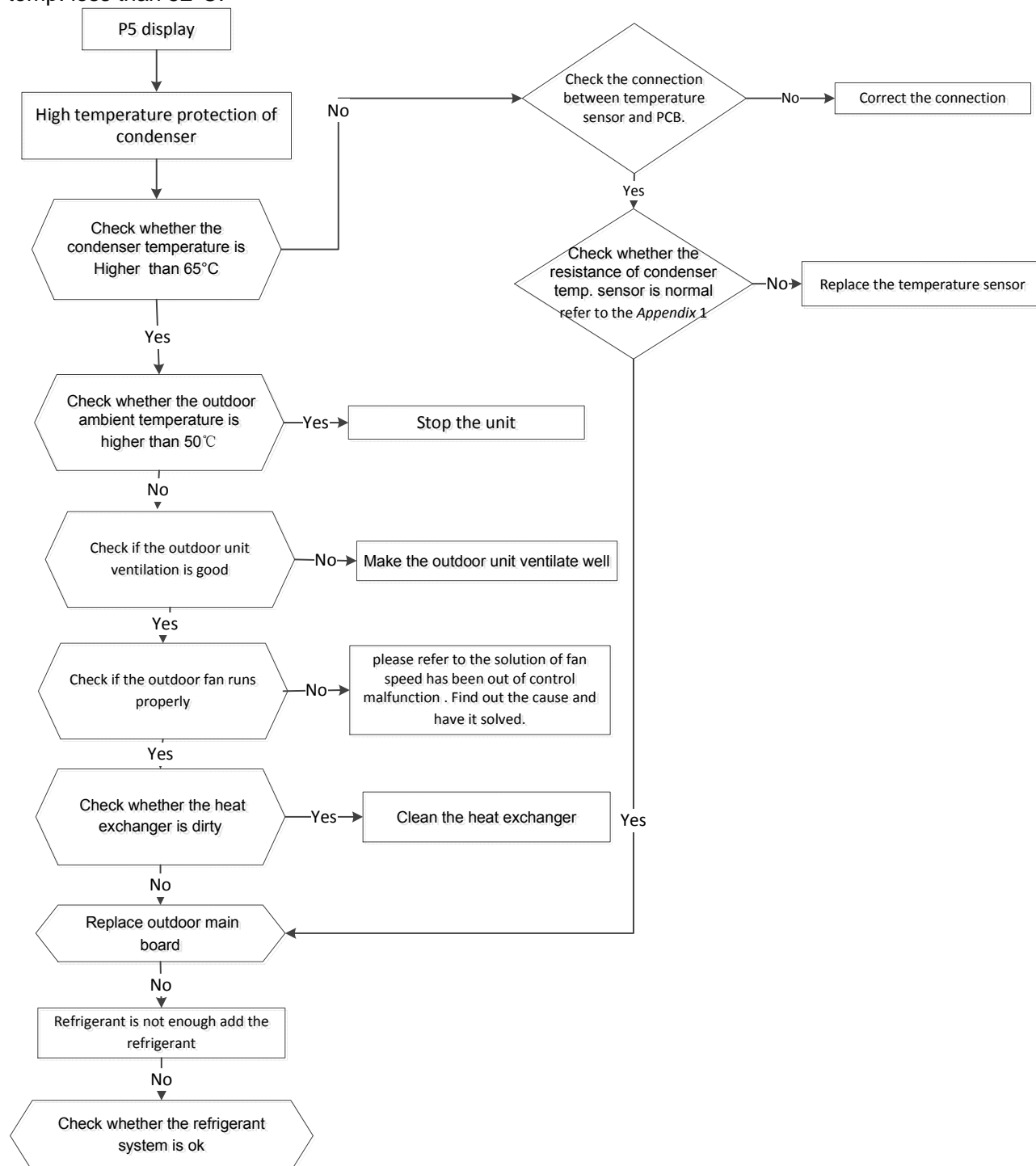
2.4.4.11. P4 malfunction

When compressor discharge temperature is higher than 115°C, the unit will stop, and unit runs again when compressor discharge temperature is lower than 90°C.



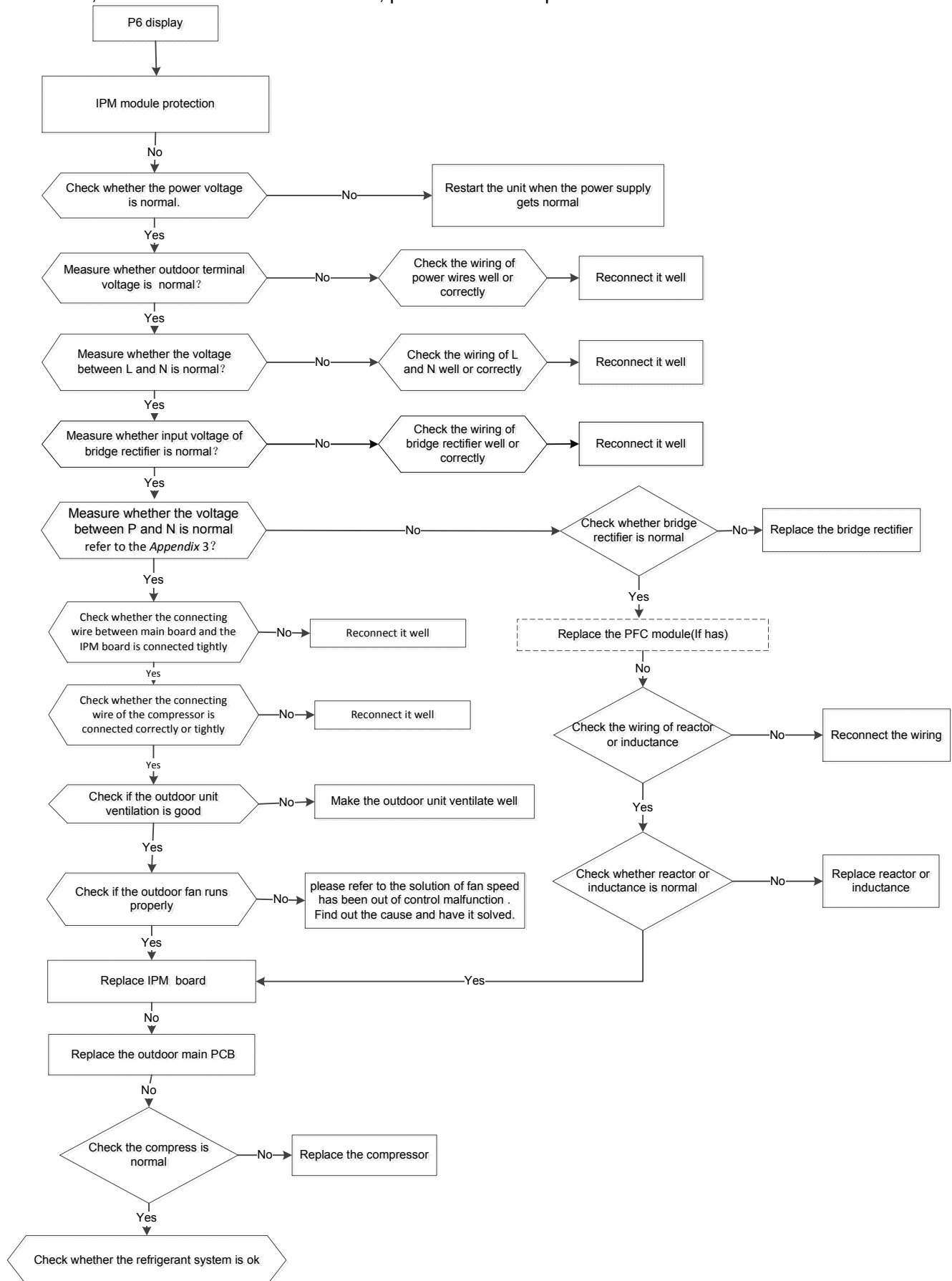
2.4.4.12. P5 malfunction

When condenser high temp. is more than 65°C, the unit will stop, and unit runs again when outdoor pipe temp. less than 52°C.

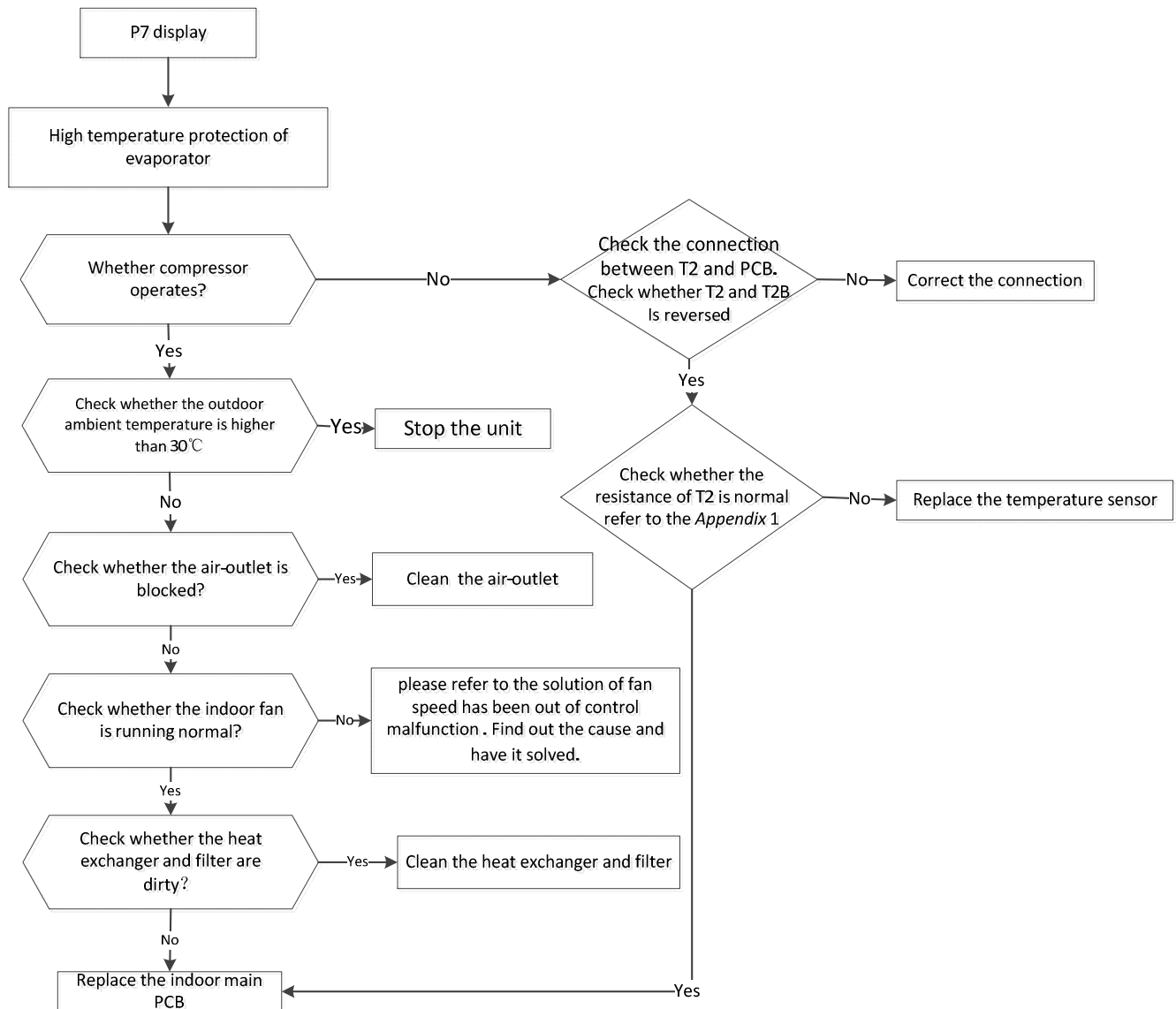


2.4.4.13. P6 malfunction

At first test the resistance between every two ports of U, V, W of IPM and P, N. If any result of them is 0 or close to 0, the IPM is defective. Otherwise, please follow the procedure below:



2.4.4.14. P7 malfunction



Appendix 1 Temperature Sensor Resistance Value Table (°C--K)

°C	K Ohm	°C	K Ohm	°C	K Ohm	°C	K Ohm
-20	115.266	20	12.6431	60	2.35774	100	0.62973
-19	108.146	21	12.0561	61	2.27249	101	0.61148
-18	101.517	22	11.5000	62	2.19073	102	0.59386
-17	96.3423	23	10.9731	63	2.11241	103	0.57683
-16	89.5865	24	10.4736	64	2.03732	104	0.56038
-15	84.2190	25	10.000	65	1.96532	105	0.54448
-14	79.3110	26	9.55074	66	1.89627	106	0.52912
-13	74.5360	27	9.12445	67	1.83003	107	0.51426
-12	70.1698	28	8.71983	68	1.76647	108	0.49989
-11	66.0898	29	8.33566	69	1.70547	109	0.48600
-10	62.2756	30	7.97078	70	1.64691	110	0.47256
-9	58.7079	31	7.62411	71	1.59068	111	0.45957
-8	56.3694	32	7.29464	72	1.53668	112	0.44699
-7	52.2438	33	6.98142	73	1.48481	113	0.43482
-6	49.3161	34	6.68355	74	1.43498	114	0.42304
-5	46.5725	35	6.40021	75	1.38703	115	0.41164
-4	44.0000	36	6.13059	76	1.34105	116	0.40060
-3	41.5878	37	5.87359	77	1.29078	117	0.38991
-2	39.8239	38	5.62961	78	1.25423	118	0.37956
-1	37.1988	39	5.39689	79	1.21330	119	0.36954
0	35.2024	40	5.17519	80	1.17393	120	0.35982
1	33.3269	41	4.96392	81	1.13604	121	0.35042
2	31.5635	42	4.76253	82	1.09958	122	0.3413
3	29.9058	43	4.57050	83	1.06448	123	0.33246
4	28.3459	44	4.38736	84	1.03069	124	0.32390
5	26.8778	45	4.21263	85	0.99815	125	0.31559
6	25.4954	46	4.04589	86	0.96681	126	0.30754
7	24.1932	47	3.88673	87	0.93662	127	0.29974
8	22.5662	48	3.73476	88	0.90753	128	0.29216
9	21.8094	49	3.58962	89	0.87950	129	0.28482
10	20.7184	50	3.45097	90	0.85248	130	0.27770
11	19.6891	51	3.31847	91	0.82643	131	0.27078
12	18.7177	52	3.19183	92	0.80132	132	0.26408
13	17.8005	53	3.07075	93	0.77709	133	0.25757
14	16.9341	54	2.95896	94	0.75373	134	0.25125
15	16.1156	55	2.84421	95	0.73119	135	0.24512
16	15.3418	56	2.73823	96	0.70944	136	0.23916
17	14.6181	57	2.63682	97	0.68844	137	0.23338
18	13.9180	58	2.53973	98	0.66818	138	0.22776
19	13.2631	59	2.44677	99	0.64862	139	0.22231

Appendix 2

Unit: °C---K				Discharge temp. sensor table			
-20	542.7	20	68.66	60	13.59	100	3.702
-19	511.9	21	65.62	61	13.11	101	3.595
-18	483	22	62.73	62	12.65	102	3.492
-17	455.9	23	59.98	63	12.21	103	3.392
-16	430.5	24	57.37	64	11.79	104	3.296
-15	406.7	25	54.89	65	11.38	105	3.203
-14	384.3	26	52.53	66	10.99	106	3.113
-13	363.3	27	50.28	67	10.61	107	3.025
-12	343.6	28	48.14	68	10.25	108	2.941
-11	325.1	29	46.11	69	9.902	109	2.86
-10	307.7	30	44.17	70	9.569	110	2.781
-9	291.3	31	42.33	71	9.248	111	2.704
-8	275.9	32	40.57	72	8.94	112	2.63
-7	261.4	33	38.89	73	8.643	113	2.559
-6	247.8	34	37.3	74	8.358	114	2.489
-5	234.9	35	35.78	75	8.084	115	2.422
-4	222.8	36	34.32	76	7.82	116	2.357
-3	211.4	37	32.94	77	7.566	117	2.294
-2	200.7	38	31.62	78	7.321	118	2.233
-1	190.5	39	30.36	79	7.086	119	2.174
0	180.9	40	29.15	80	6.859	120	2.117
1	171.9	41	28	81	6.641	121	2.061
2	163.3	42	26.9	82	6.43	122	2.007
3	155.2	43	25.86	83	6.228	123	1.955
4	147.6	44	24.85	84	6.033	124	1.905
5	140.4	45	23.89	85	5.844	125	1.856
6	133.5	46	22.89	86	5.663	126	1.808
7	127.1	47	22.1	87	5.488	127	1.762
8	121	48	21.26	88	5.32	128	1.717
9	115.2	49	20.46	89	5.157	129	1.674
10	109.8	50	19.69	90	5	130	1.632
11	104.6	51	18.96	91	4.849		
12	99.69	52	18.26	92	4.703		
13	95.05	53	17.58	93	4.562		
14	90.66	54	16.94	94	4.426		
15	86.49	55	16.32	95	4.294	B(25/50)=3950K	
16	82.54	56	15.73	96	4.167		
17	78.79	57	15.16	97	4.045	R(90°C)=5KΩ±3%	
18	75.24	58	14.62	98	3.927		
19	71.86	59	14.09	99	3.812		

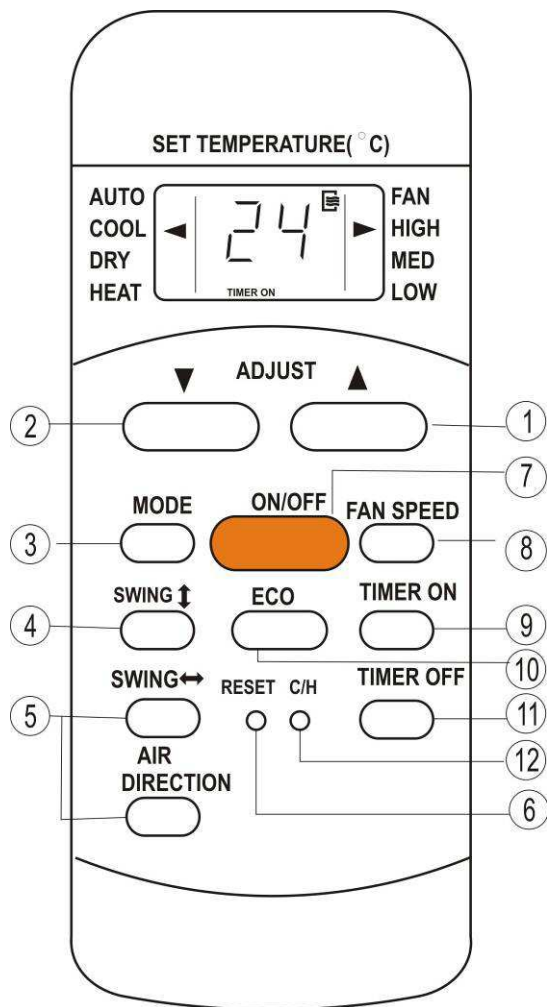
Appendix 3

Normal voltage of P and N			
208-240V(1-phase,3-phase)			380-420V(3-phase)
In standby			
around 310VDC			around 530VDC
In operation			
With passive PFC module	With partial active PFC module	With fully active PFC module	/
>200VDC	>310VDC	>370VDC	>450VDC

3. Controller

3.1 Wireless Remote Controller

3.1.1RG51Q1/BGE



General Function for wireless remote controller:

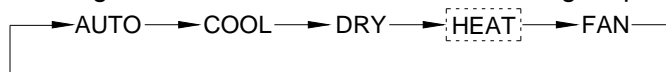
Model	RG51Q1/BGE
Rated voltage	3.0V(2pieces of LR03 7 # batteries)
Min voltage for sending signal of CPU	2.4V
Effective receiving distance	8m~11m
Operation condition	-5~60℃

Buttons and functions

1. **Adjust ▼** : Decrease the set temp. Keeping pressing will decrease the temp with 1℃ per 0.5s.

2. **Adjust ▲** : Increase the set temp. Keeping pressing will increase the temp with 1℃ per 0.5s.

3. **MODE**: Once pressing, running mode will be selected in the following sequence:



NOTE: No heating mode for cool only type unit.

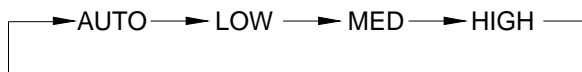
4. **VERT SWING**: Used to stop or start horizontal louver movement or set the desired up/down air flow direction. The louver changes 6 degree in angle for each press. If keep pushing more than 2 seconds, the louver will swing up and down automatically.

5. **HORIZ SWING**: Used to stop or start vertical louver movement.

6. **AIR DIRECTION**: Used to set the desired up/down air flow direction. The louver changes 6 degree in angle for each press.

7. **ON/OFF**: For turning on or turning off the air conditioner.

8. **FAN SPEED**: Fan speed will be selected in following sequence once pressing this button:



9. **TIME ON**: For time ON setting. Once pressing this button, the time will increase by 0.5 hour. When the set time exceeds 10 hours, pressing the button will increase the time by 1 hour. Adjusting the figure to 0.00 will cancel time ON setting.

10. **ECO**: Activate or turn off economic operation mode. It is suggested to turn on this function when sleeping. (Only available when remote controller is used with corresponding unit.)

11. **TIME OFF**: For time OFF setting. Once pressing this button, the time will increase by 0.5 hour. When the set time exceeds 10 hours, pressing the button will increase the time by 1 hour.

Adjust the figure to 0.00 will cancel time ON setting.

12. **C/H** (inner located): Press this button with a needle of 1mm to shift the mode between Cooling only and Cooling & Heating according to the feature of the machine.

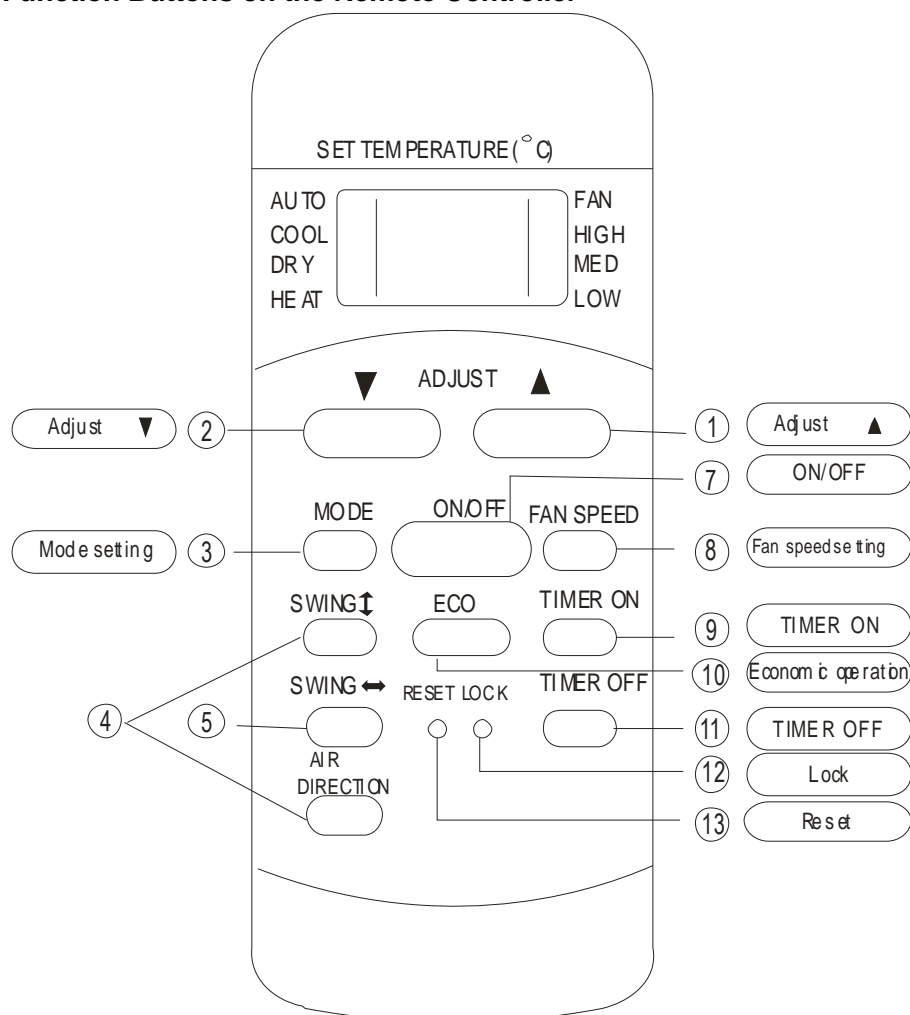
13. **RESET** (inner located): Press this button with a needle of 1mm to cancel the current setting and reset remote controller.

3.1.2 RG51C/E

Remote Controller Specifications

Model	RG51C/E
Rated Voltage	3.0V(2pieces of LR03 7 # batteries)
Lowest Voltage of CPU Emitting Signal	2.0V
Reaching Distance	8m (when using 3.0 voltage, it can get 11m)
Environment Temperature Range	-5℃~60℃

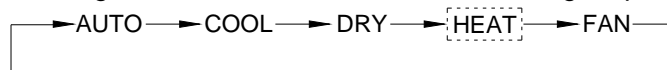
Introduction of Function Buttons on the Remote Controller



1. **Adjust ▼** : Decrease the set temp. Keeping pressing will decrease the temp with 1℃ per 0.5s.

2. **Adjust ▲** : Increase the set temp. Keeping pressing will increase the temp with 1℃ per 0.5s.

3. **MODE**: Once pressing, running mode will be selected in the following sequence:



NOTE: No heating mode for cool only type unit.

4. **VERT SWING**: Used to stop or start horizontal louver movement. The louver will swing up and down automatically if push this button.

AIR DIRECTION: Used to set the desired up/down air flow direction. The louver changes 6 degree in angle for each press.

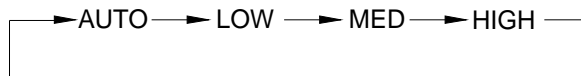
5. **HORIZ SWING**: Used to stop or start vertical louver movement.

6. **FAN SPEED+ MODE**: Press the Mode and Fan speed button simultaneously for 2 seconds. The remote

controls into faceplate setting state and the LCD shows F2. Press the TEMPUP(▲) to control the faceplate up and press the TEMP DOWN(▼) to control the faceplate down. Press any button to exit the faceplate setting state, then the LCD back to the normal display.

7. ON/OFF: For turning on or turning off the air conditioner.

8. FAN SPEED: Fan speed will be selected in following sequence once pressing this button:



9. TIME ON: For time ON setting. Once pressing this button, the time will increase by 0.5 hour. When the set time exceeds 10 hours, pressing the button will increase the time by 1 hour. Adjusting the figure to 0.00 will cancel time ON setting.

10. ECO: Select this function during the sleeping time. It can maintain the most comfortable temperature and save energy. This function is available on COOL, HEAT or AUTO mode only .

NOTE: While the unit is running under Energy-saving mode, it would be cancelled if press MODE, FAN SPEED or ON/OFF button.

11. TIME OFF: For time OFF setting. Once pressing this button, the time will increase by 0.5 hour. When the set time exceeds 10 hours, pressing the button will increase the time by 1 hour.

Adjust the figure to 0.00 will cancel time ON setting.

12. LOCK (inner located): Push this button to lock in all the current settings, and the remote controller will not accept any operation except that of the LOCK. Use the LOCK mode when you want to prevent settings from being changed accidentally. Press the LOCK button again to cancel the LOCK function. A lock symbol will appear on the remote controller display when the lock function is activated.

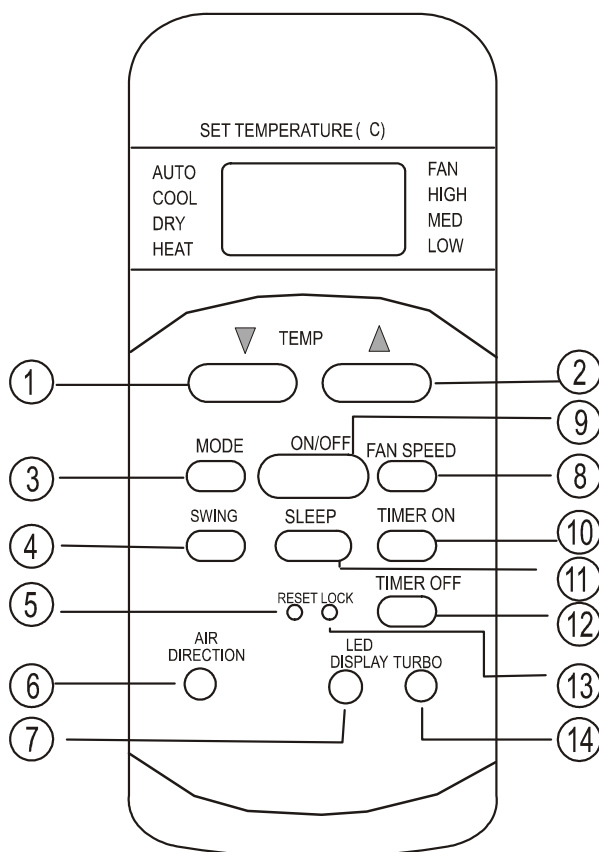
13. RESET (inner located): Once the recessed RESET button is pressed, all of the current settings will be cancelled and the controller will return to the initial settings..

3.1.3 R51M/(C)E

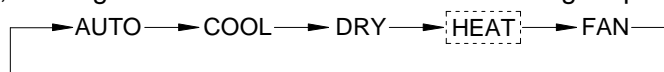
Remote Controller Specifications

Model	R51M/(C)E
Rated Voltage	3.0V
Reaching Distance	8m
Environment Temperature Range	-5℃～60℃

Introduction of Function Buttons on the Remote Controller

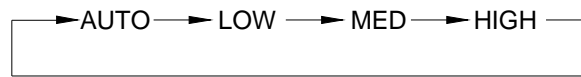


1. **Adjust ▼** : Decrease the set temp. Keeping pressing will decrease the temp with 1℃ per 0.5s.
2. **Adjust ▲** : Increase the set temp. Keeping pressing will increase the temp with 1℃ per 0.5s.
3. **MODE**: Once pressing, running mode will be selected in the following sequence:



NOTE: No heating mode for cool only type unit.

4. **SWING**: Used to stop or start horizontal louver movement. The louver will swing up and down automatically if push this button.
5. **RESET** (inner located): Once the recessed RESET button is pressed, all of the current settings will be cancelled and the controller will return to the initial settings.
6. **AIR DIRECTION**: Press this button to change the swing angle of the louver. The swing angle of the louver is 60° for each press. When the louver swing at a certain angle which would affect the cooling and heating effect of the air conditioner, it would automatically change the swing direction. No symbol will appear in the display area when press this button. (Not applicable to units without this function).
7. **LED**: Press this button to clear the digit display in the air conditioner, press it again to activate it (Not available for the units without LED display window).
8. **FAN SPEED**: Fan speed will be selected in following sequence once pressing this button:



9. ON/OFF: For turning on or turning off the air conditioner

10. TIME ON: For time ON setting. Once pressing this button, the time will increase by 0.5 hour. When the set time exceeds 10 hours, pressing the button will increase the time by 1 hour. Adjusting the figure to 0.00 will cancel time ON setting.

11. SLEEP: Press this button to go into the Energy-Saving operation mode. Press it again to cancel. This function is only can be used on COOL, HEAT and AUTO mode and maintain the most comfortable temperature for you.

12. TIME OFF: For time OFF setting. Once pressing this button, the time will increase by 0.5 hour. When the set time exceeds 10 hours, pressing the button will increase the time by 1 hour.

Adjust the figure to 0.00 will cancel time ON setting.

13. LOCK (inner located): Push this button to lock in all the current settings, and the remote controller will not accept any operation except that of the LOCK. Use the LOCK mode when you want to prevent settings

from being changed accidentally. Press the LOCK button again to cancel the LOCK function. A lock symbol will appear on the remote controller display when the lock function is activated.

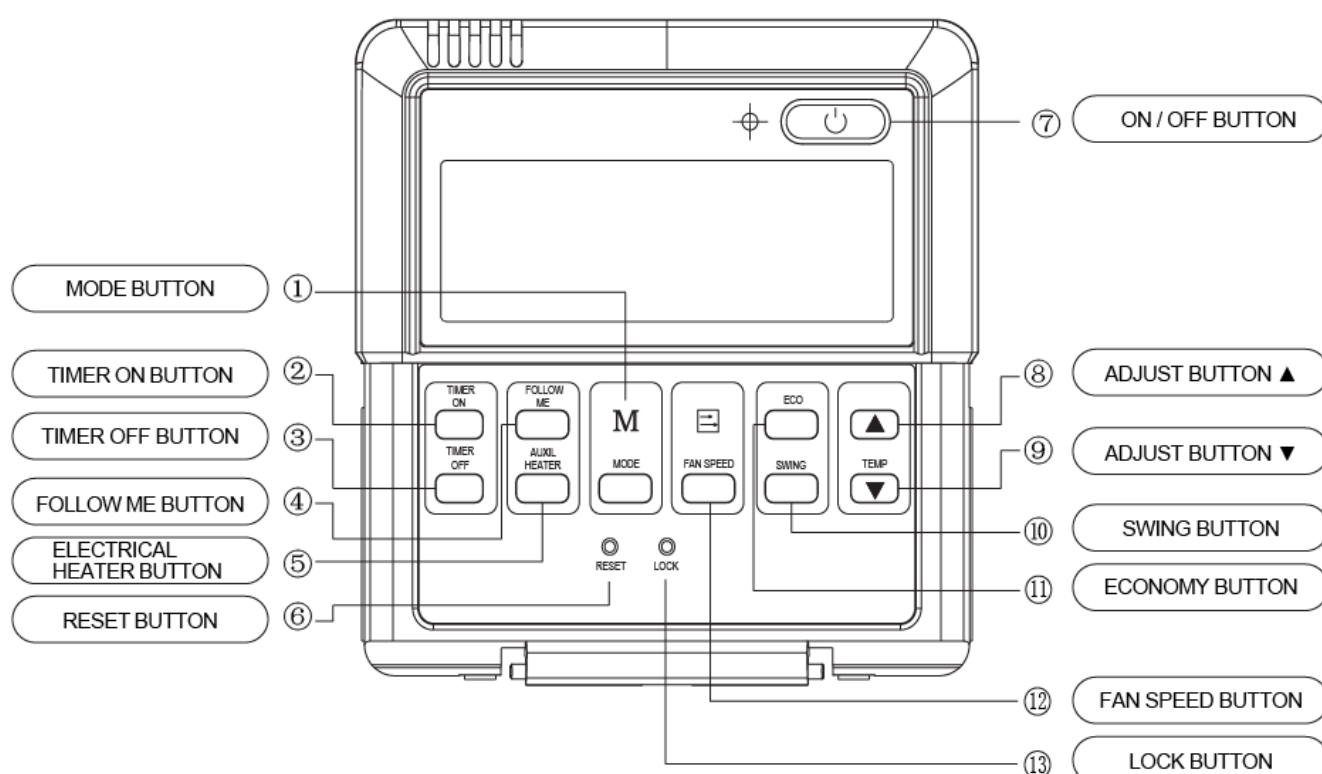
14. TURBO: Push this button to activate/cancel the Turbo function which enables the unit to reach the preset temperature in the shortest time. On cooling mode, the unit will blow strong cooling air with super high fan speed. On heating mode (applicable to the unit adopts PTC only), the PTC will bring fast heating operation.

3.2 Wired Remote Controller

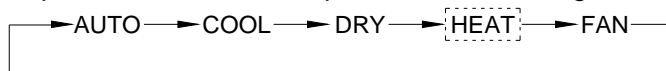
3.2.1 KJR-12B



Name and functions of buttons on the wire controller



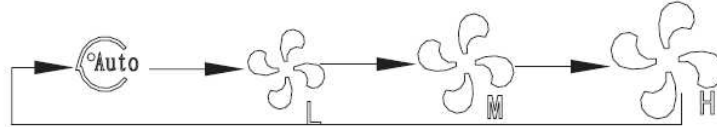
1. Mode button: When press this button, the operation mode change as the following sequence:



Remark: For the cooling only model, the heating mode is skipped.

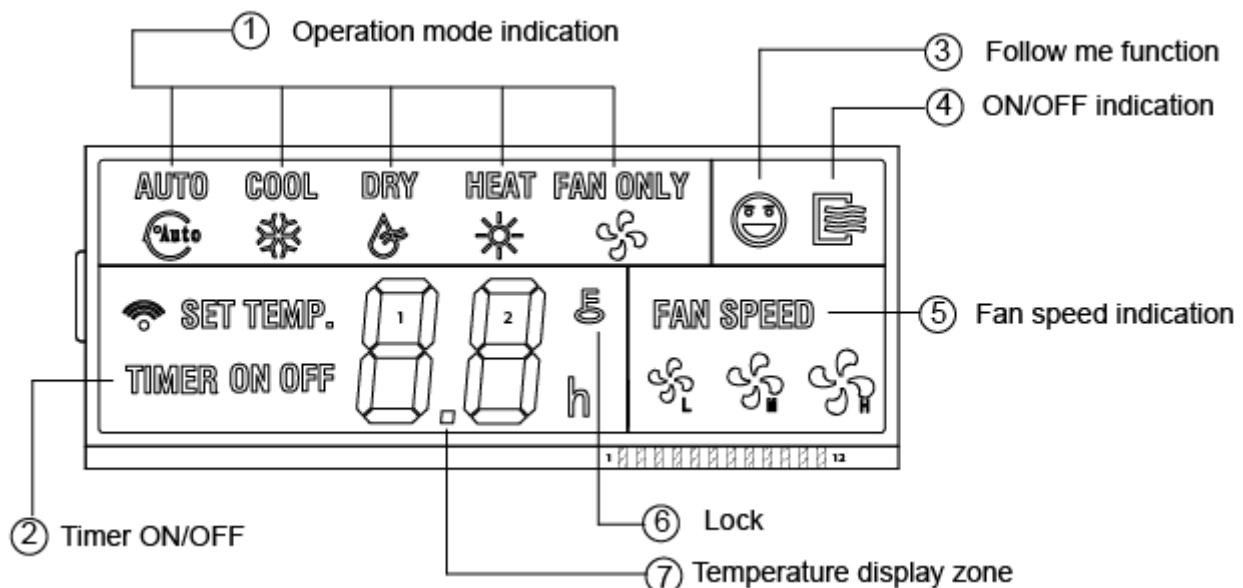
2. Timer on button: Press this button, timer on function is active. Then every press, the time increase 0.5h, after 10h, 1h increasement after each press. If cancel this Function, just set it to "0.0"
3. Timer off button: Press this button, timer off function is active. Then every press, the time increase 0.5h, after 10h, 1h increasement after each press. If cancel this function, just set it to "0.0" .
4. Follow me button: When under cool, heat and auto mode, press this button, follow me function is active. Press again, this function is ineffective.
5. Electrical heater button: If press this button in heat mode, electrical heater function become ineffective.
6. Reset button (hidden): Use a 1mm stick to press in the little hole , then the current setting is canceled . The wire controllers enter into original state.
7. ON/OFF button: When in off state, press this button, the indicator is on, the wire controller enter into on state, and send setting information to indoor PCB. When in on state, press this button, the indicator is off, and send instruction. If timer on or timer off has been set, it cancel this setting then send instruction to stop the machine.

8. Adjust button: Set indoor temperature up. If press and hold on, it will increase at 1degree per 0.5 second.
9. Adjust button: Set indoor temperature down. if press and hold on, it will decrease at 1degree per 0.5 Second.
10. Swing button: First press, start swing function; second press, stop swing. (Match to some model with swing function).
11. Economy operation button: press this button, the indoor unit operates in economy mode, press again, exit this mode (it may be ineffective for some models)
12. Fan speed button: press this button consecutively; the fan speed will circle as follow:



13. Lock button (hidden): When you push the LOCK button, all current settings are locked in and the wire controller does not accept any operation except that of the LOCK button. Use the lock mode when you want to prevent setting from being changed accidentally or play fully. Push the LOCK button again when you want to cancel the LOCK mode.

Name and function of LCD on the wire controller



1. Operation mode indication: When press" MODE" button, the following mode can be selected in circle.
Auto Cool Dry Heat Fan only Auto.
Auto→ Cool→ Dry →Heat→ Fan only →Auto
For cooling only model, heat mode is skipped.
2. Timer: When adjust setting on time or only on time is set, the "ON" is lighted. When adjust setting off time or only off time is set, the" OFF" is lighted. If on and off timer are both set, the "ON" and "OFF" are both lighted.
3. Follow me function: There is a temperature sensor inside the wire controller, after setting temperature, it will compare the two temperatures, and the space of wire controller will be the same as setting temperature. It is available under cooling, heating, auto mode.
4. ON/OFF indication: When it is on, the icon display, otherwise it is extinguished.
5. Fan speed indication: There are four fan modes: low, middle, high, auto. For some models, no middle fan then the middle fan is seen as high speed.
6. Lock: When the "LOCK" button is pressed, the icon appears and other buttons is unable, press again, the icon disappears.
7. Temperature display zone: Generally it displays setting temperature; it can be adjusted by press temperature button▲and▼ .But in fan mode, no display here.

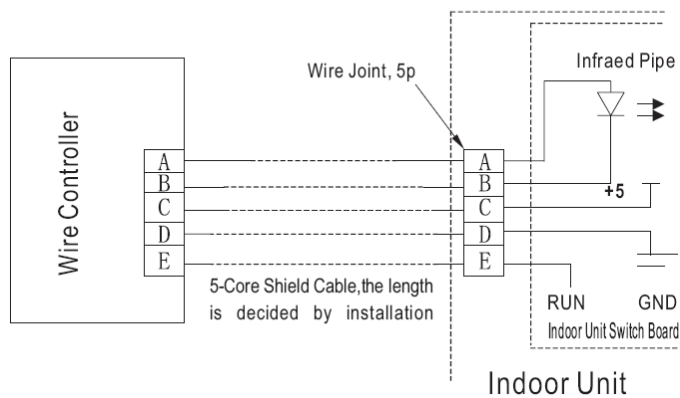
Remark:

The wired controller will reset to factory setting with auto mode, auto fan and 24°C setting temperature when the air conditioner restarts after power failure.

And this may cause inconsistent displays on the wired controller and on the air conditioner. You need to readjust the running status through the wired controller.

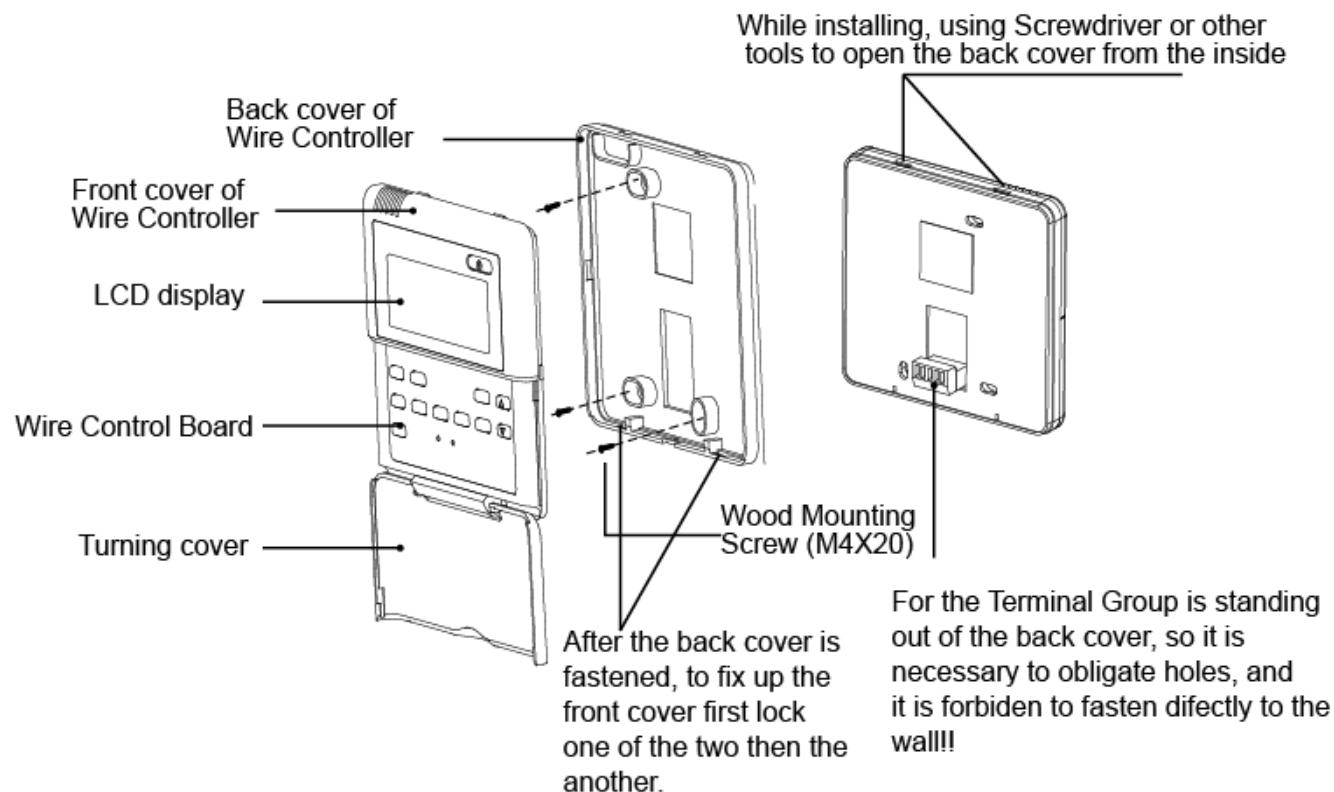
Installation

Wiring Principle Sketch:



Installation Notice:

When the air conditioner needs the constant frequency wire controller, be sure adding a wire joint with 5 terminal named A, B, C, D, E in indoor unit, and fixing an infrared emitter whose anode and cathode connecting with A and B near the receiver in the indoor unit switch board, then connecting the terminal +5v, GND, Run in the switch board to C,D,E respectively.



NOTE

- The connecting wire should be a little longer as to take away the switch board easily for maintenance.
- The connecting wire should be a little longer as to take away the controller easily for maintenance.



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