Haier
Inspired living

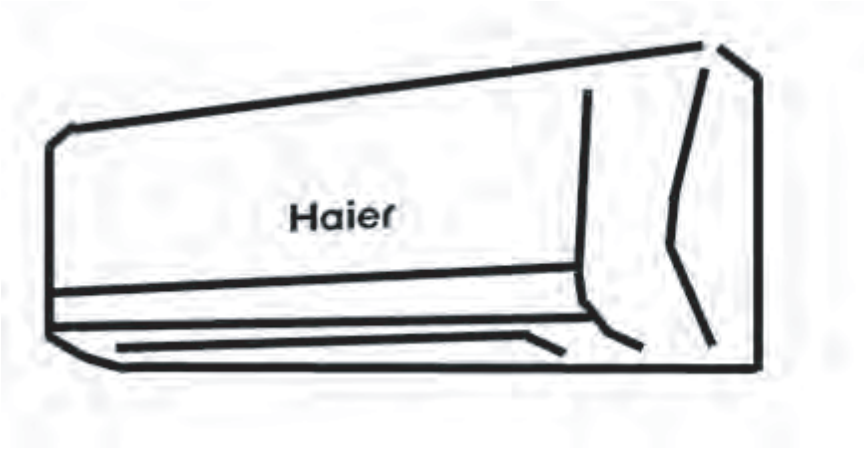
Domestic
Air conditioner

TECHNICAL DATA

ON/OFF

Wall mounted Type ARC-Series

HSU-09C03/Z1
HSU-12C03/Z1



CAUTION

1. READ THIS MANUAL CAREFULLY TO DIAGNOSE TROUBLE CORRECTLY BEFORE OFFERING SERVICE.
2. THIS MANUAL IS USED BY QUALIFIED APPLIANCE TECHNICIANS ONLY.
3. HAIER DOES NOT ASSUME ANY RESPONSIBILITY FOR PROPERTY DAMAGE OR PERSONAL INJURY FOR IMPROPER SERVICE PROCEDURES DONE BY ONE UNQUALIFIED PERSON.

Table of Contents

1 Features

Anti-mold filter: Catches most small particles and remove unpleasant odors effectively .

Child lock: Avoid the child's wrong operation on the remote controller .

Auto mode: According to the fixed temperature "26℃",the unit will adjust the operation mode automatically.

Auto restart: The function permits automatic return to previous peration conditions after asundden power blackout .

Sleep mode: The setting temprature and the indoor noise can be adjusted to a more comfortable level when you set the "sleep mode"during night sleep .

24Hour timer: Use the timer function to set on,or off,or from on to off,or from off to on .

4 Fan setting: Slect the fan speed LO,MED,HI,AUTO

Easy clean design: The panel is easy to wash and the airflow vents can be detached without any special tools for quick cleaning of the inside of the air conditioner .

2.Specifications

This information was not available at the time of publication

NOMINALCAPACITY and NOMINAL INPUT						
Model					HSU-09C03/Z1	HSU-12C03/Z1
NORMINAL CAPACITY(3-4)	Cooling(1)	norm.	kw		2.30	3.20
	Heating(2)	norm.	kw		-----	------
NORMINAL INPUT	Cooling	norm	kw		0.80	1.18
	Heating	norm.	kw		-----	------
EER	Cooling				2.90	2.71
COP	Heating				-----	-----
ENERGY LABEL(7-8)	Cooling				----	----
	Heating				----	----
ANNUAL ENERGY CONSUMPTION(9)	Cooling		kwh		396.5	530

TECHNICAL SPECIFICATIONS						
INDOOR UNITS					HSU-09C03/Z1	HSU-12C03/Z1
DIMENSIONS	Unit n	H	mm		265	
		W	mm		795	
		D	mm		182	
WEIGHT	U it		kg		7.2	
COLOR	Unit				white	
SOUND LEVEL	Sound pressure (cooling/heating)(5)	high	dB(A)		37	39
		medium	dB(A)		35	37
		low	dB(A)		30	30
	Sound power(cooling/heating)(6)	high	dB(A)		37	39
FAN	Air flow rate(cooling/heating)	high	m^3/min		7.6	9.6
		low	m^3/min		7.0	9.0
		super low	m^3/min		6.2	8.3
	Speed(cooling/heating)	steps			5steps,silent and auto	
		high	rpm		1150	1290
		medium	rpm		1100	1150
		low	rpm		920	1000
	Type				Cross flow fan	
	Motor output		W		16	16
AIR FILTER					Removable/washable/mildew proof	
REMOTE CONTROLLER					YL-M05EN	
TEMPERATURE CONTROL					Microcomputer control	
PIPING CONNECTIONS(external diameter)		liquid	mm		Φ6.35	Φ 6.35
		gas	mm		Φ 9.52	Φ 12.7
		drain	mm		Φ16	Φ16
INSULATION MATERIAL	Heat insulation type				both liquid and gas pipes	
HEAT EXCHANGGER	TYPE				ML fin - Φ9.52HI - XA tube	
	Row x stage x fin pinth		mm		2 x 8 x1.4	

TECHNICAL SPECIFICATIONS						
OUTDOOR UNITS					HSU-09C03/Z1	HSU-12C03/Z1
NET DIMENSIONS (stop valve, and bottom support is not included)	Unit	H	mm		430	
		W	mm		695	
		D	mm		245	
WEIGHT	Unit		kg		31	33
COLOR	Unit				white	
SOUND LEVEL	Sound pressure(cooling/heating)(5)	high	dB(A)		48	48
	Sound power(cooling/heating)(6)	high	dB(A)		48	48
FAN	Air flow rate(cooling/heating)	high	m^3/min		21	23
		low	m^3/min		-----	----
	Speed(cooling/heating)	high	rpm		860	1060
		low	rpm		---	---
	Type				Propeller fan	
	Motor output		W		60	60
REFRIGERANT CIRCUIT	Refrigerant type				R22	
	Refrigerant charge		kg		0.49	0.77
	Maximum allowable distance between indoor and outdoor		m		7	
	Maximum allowable level difference		m		5	
	Refrigerant control				----------	
COMPRESSOR	Type				rotary Compressor	
	Model				44R233BF-5JS	48R313AL-5ES
	Motor output		w		790	970
	Oil type				SUNISO 4GSI	SUNISO 4GSI
	Oil charge volume		L		0.27	0.52
PIPING CONNECTIONS	liquid		mm		Φ 6.35	
	gas		mm		Φ 9.52/ Φ 12.7	
	drain		mm		Φ 18	
INSULATION MATERIAL	Heat insulation type				both liquid and gas pipes	
HEAT EXCHANGGER	TYPE				ML - Φ 9.52HI - XAbube	
	Row x stage x fin pinth		mm		2 x 8 x1.4	

ELECTRICAL SPECIFICATIONS					
For indoor units only:				HSU-09C03/Z1	HSU-12C03/Z1
CURRENT	Nominal running current	cooling	A	0.15	0.15
		heating	A	------	-------
	Maximum running current	cooling	A	0.15	0.15
		heating	A	------	------

For combination indoor units+ outdoor units:				HSU-09C03/Z1	HSU-12C03/Z1
CURRENT	Nominal running current	cooling	A	3.8	5.6
		heating	A	------	------
	Maximum running current	cooling	A	5.0	7.3
		heating	A	-------	-------
	Starting current	cooling	A	20	32
		heating	A	-------	-------

For indoor units only:			HSU-09C03/Z1	HSU-12C03/Z1
POWER SUPPLY			VM	VM
NOMINAL DISTRIBUTION SYSTEM VOLTAGE	Phase		1PH	1PH
	Frequency	Hz	50	50
	Voltage	V	220V~	220V~

NOTES

1 Nominal cooling capacities are based on: indoor temperature 27°CDB/19°CWB * outdoor temperature 35°CDB * refrigerant piping length: 5m * level difference: 0m.
2 Nominal heating capacities are based on: indoor temperature 20°CDB * outdoor temperature 7°CDB/6°CWB * refrigerant piping length 5m (horizontal) * level difference 0m.
3 Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.
4 Units should be selected on nominal capacity. Maximum capacity is limited to peak periods.
5 The sound pressure level is measured via a microphone at a certain distance from the unit. For measuring conditions: please refer to item 6 of this chapter.
6 The sound power level is an absolute value indicating the ''power'' which a sound source generates.
7 Energy label: scale from A (most efficient) to G (less efficient).
8 The energy label Directive 2002/31/EC will enter into force once the relevant measurement standard will be published in the European official Standard.
9 Annual energy consumption: based on average use of 500 running hours per year at full load (= nominal conditions)

3 Remote controller lists

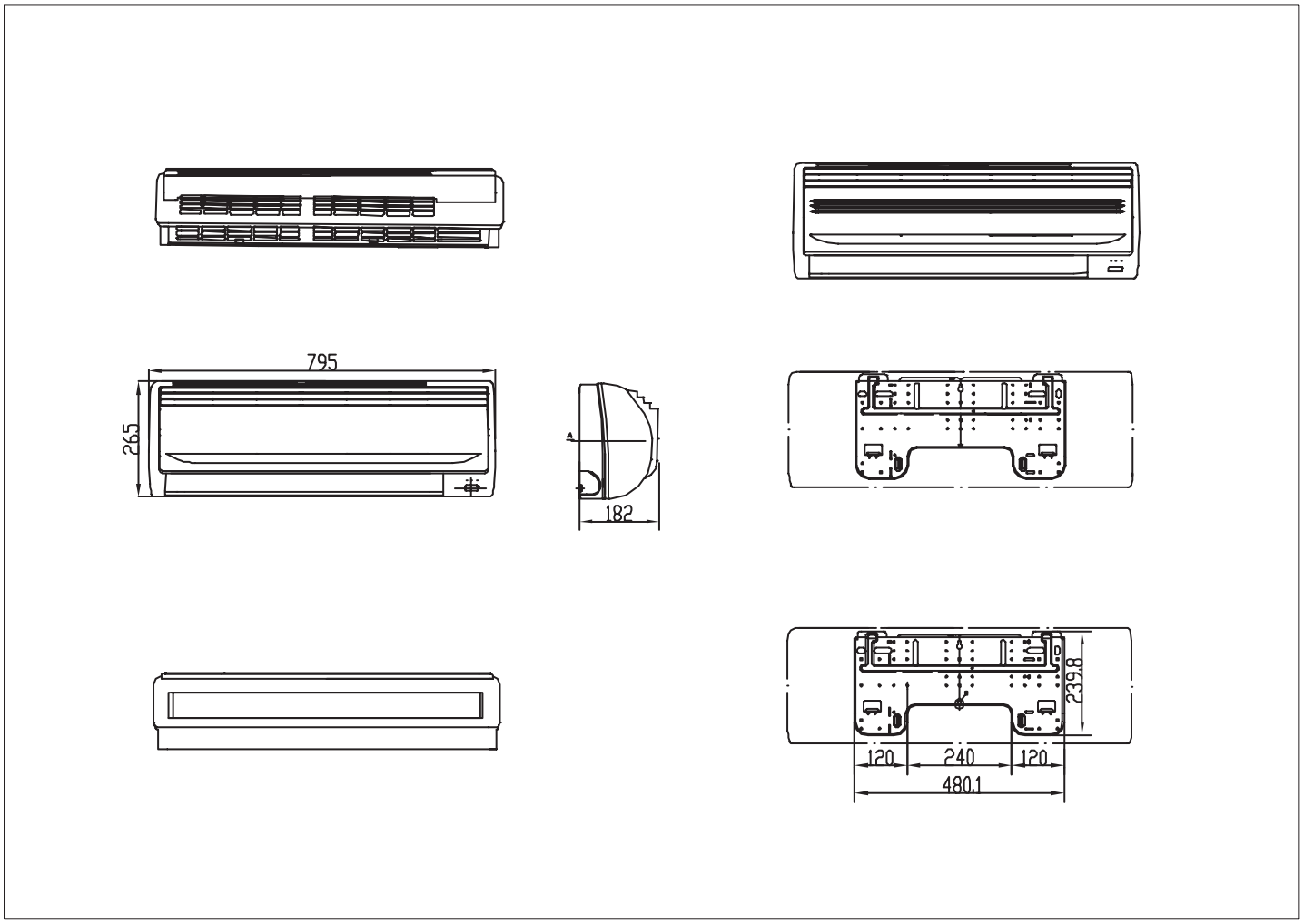
Model	HSU-09C03/Z1	HSU-12C03/Z1
YL-M05	Y	Y
YL-H10	Y	Y

4 Sensors lists

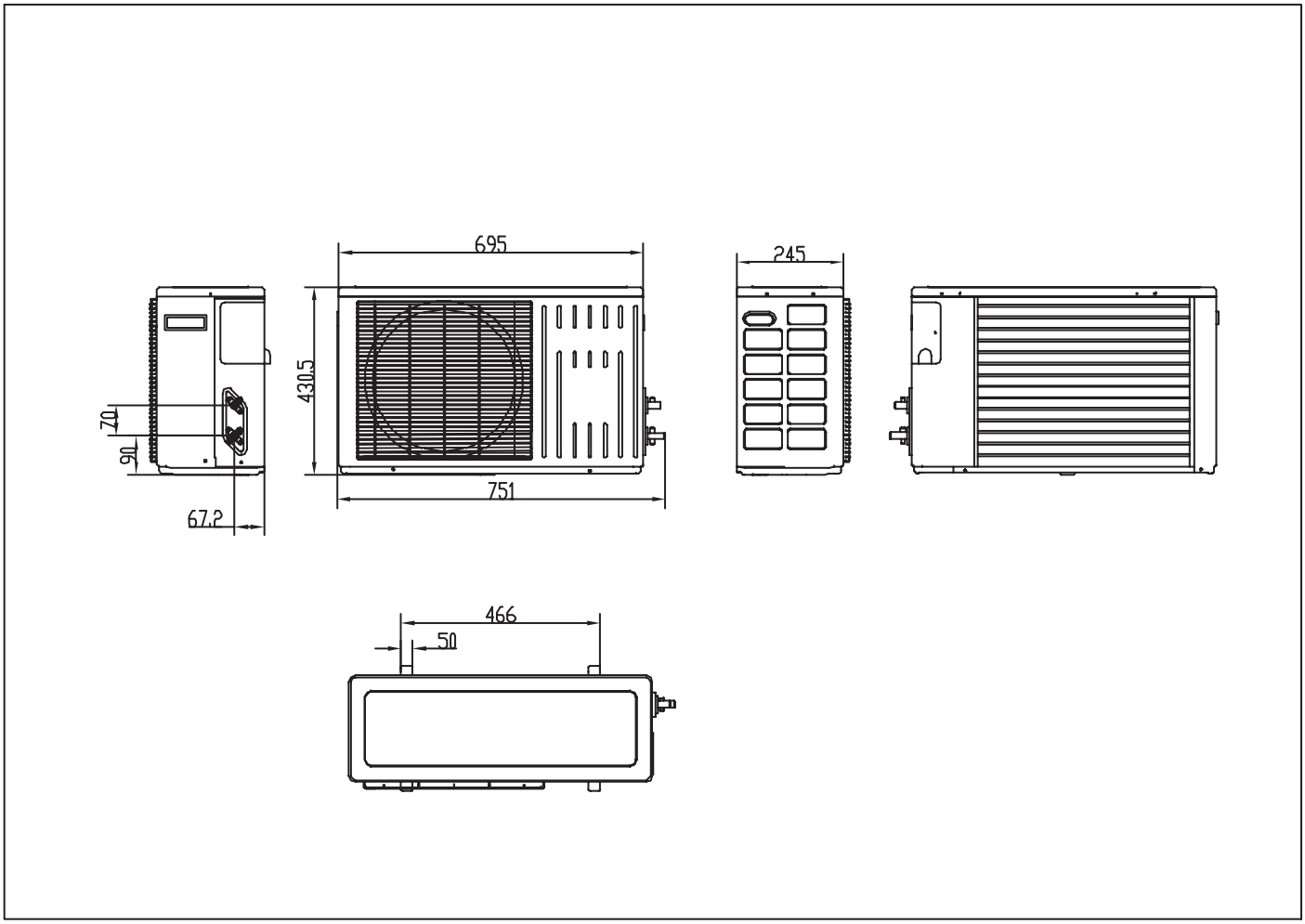
INDOOR UNIT		
type	Description	Qty
Room sensor	It's used for detecting room temperature	1
Pipe sensor	It's used for detecting temperature of evaporator	1

5 Dimensional drawings

Indoor unit

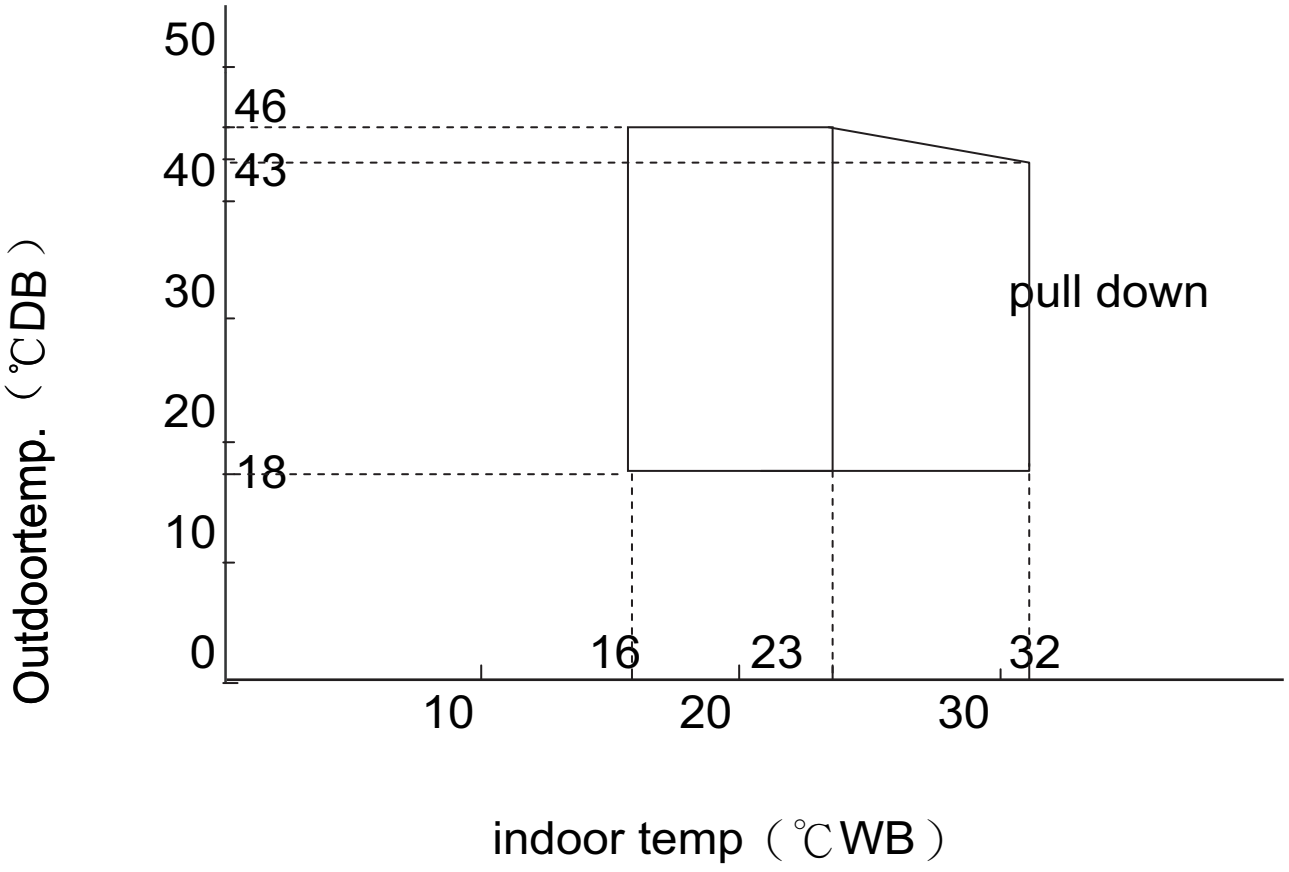


Outdoor unit



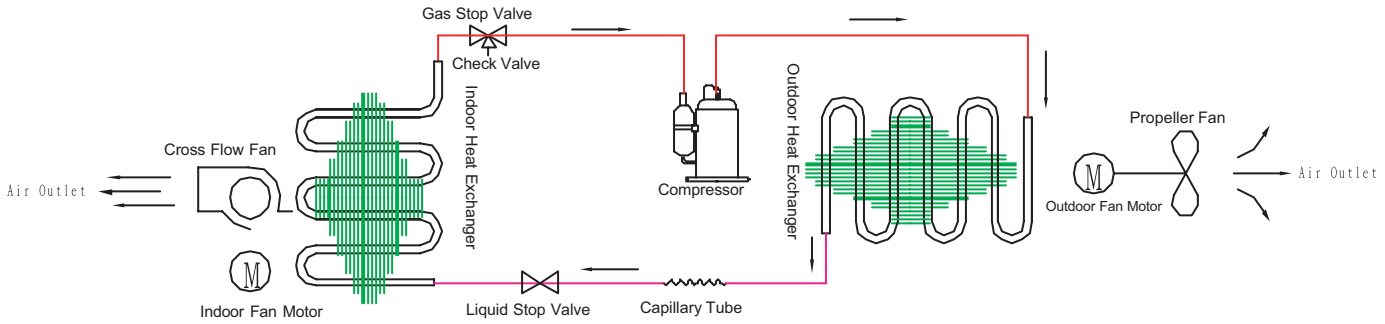
6 Operation range

The name of parts Cooling



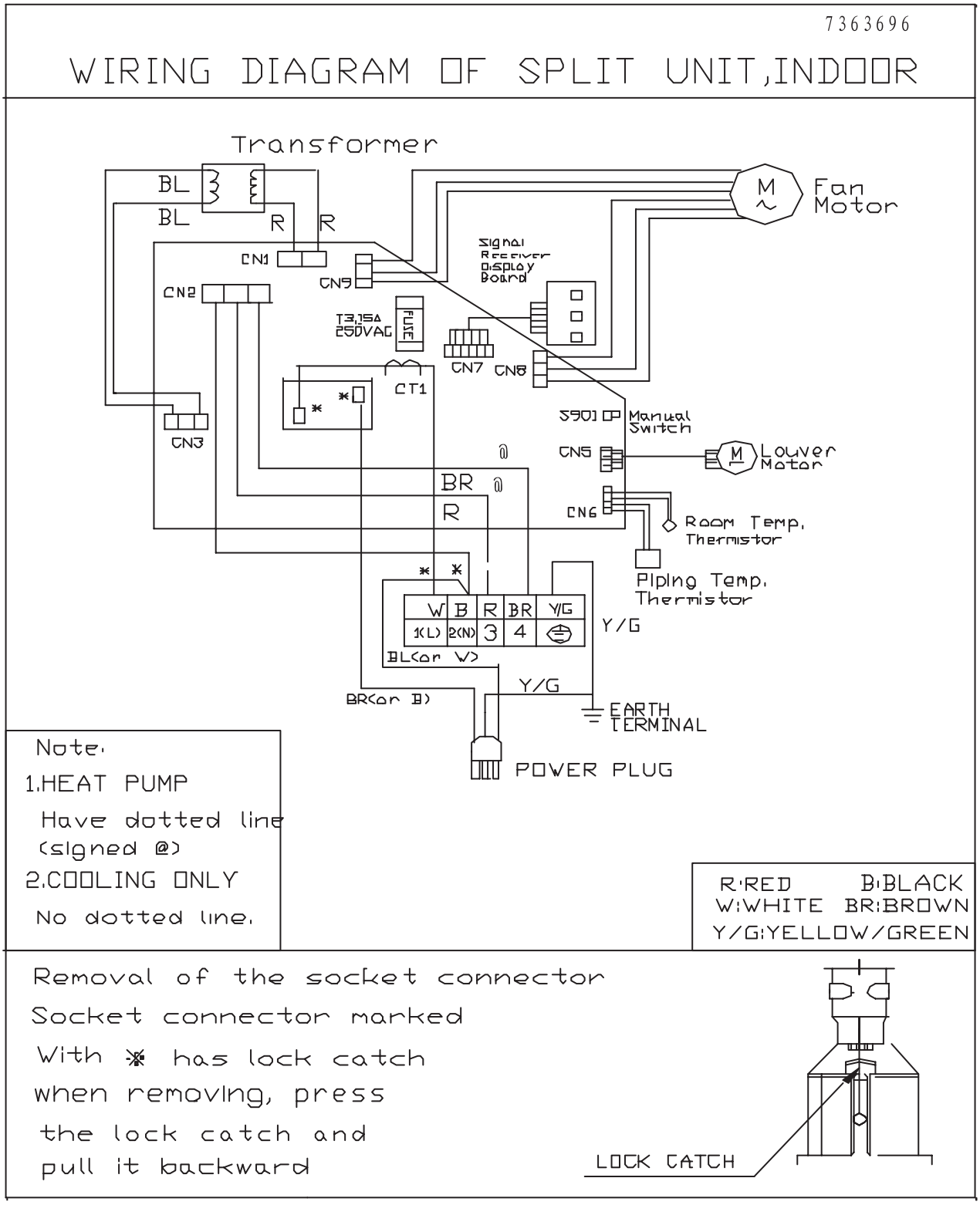
7 Piping diagrams

Cooling mode

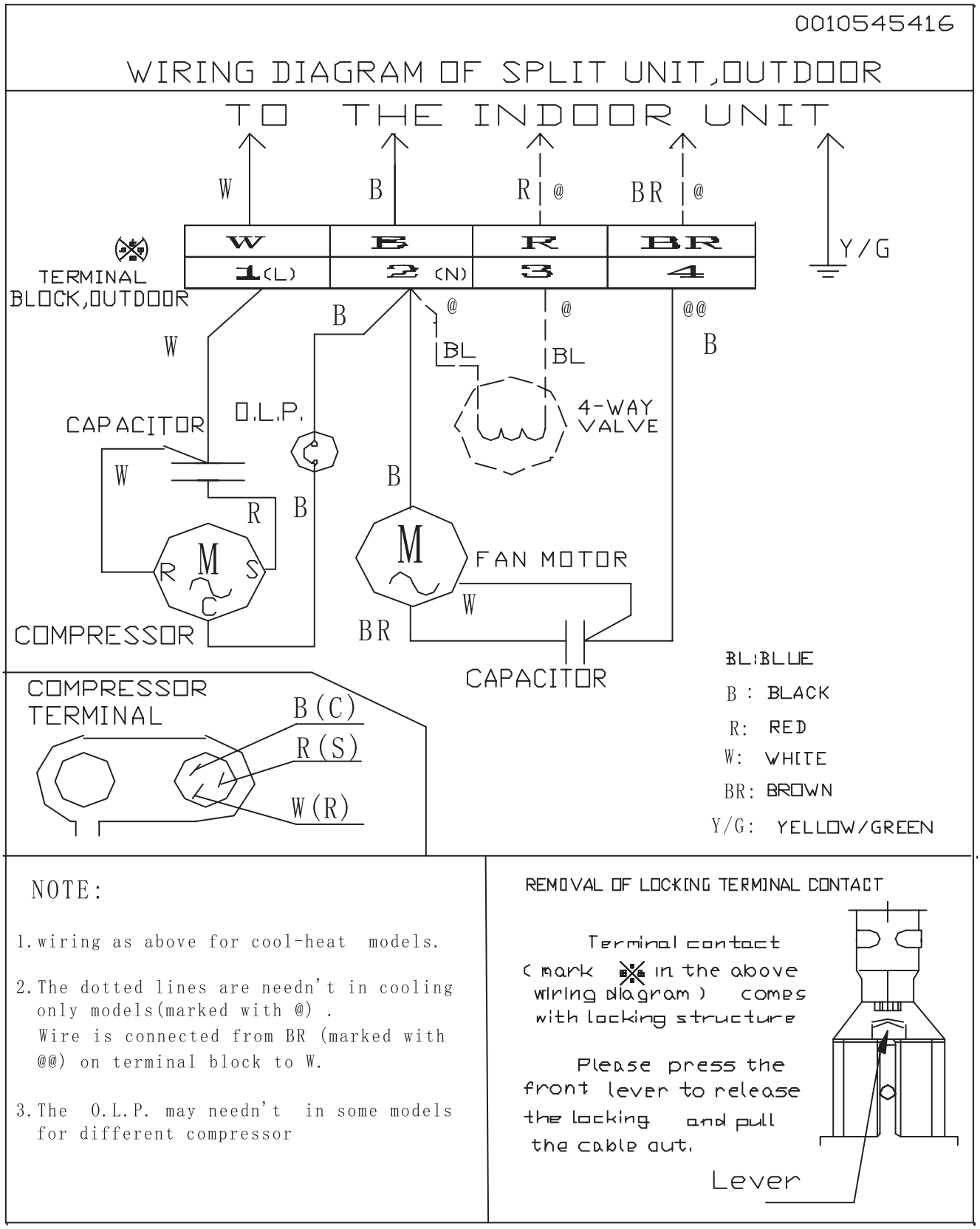


8 Wiring diagrams

Indoor unit



Outdoor unit



NOTE:

1. wiring as above for cool-heat models.
2. The dotted lines are needn't in cooling only models(marked with @) . Wire is connected from BR (marked with @@) on terminal block to W.
3. The O.L.P. may needn't in some models for different compressor

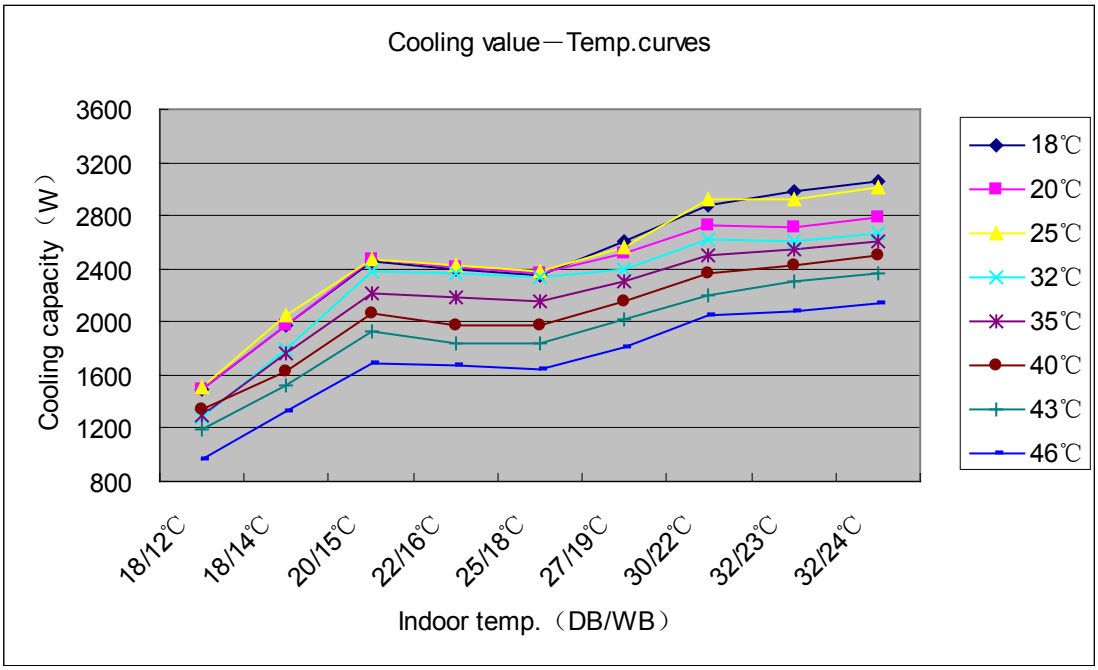
REMOVAL OF LOCKING TERMINAL CONTACT

Terminal contact (mark ※ in the above wiring diagram) comes with locking structure

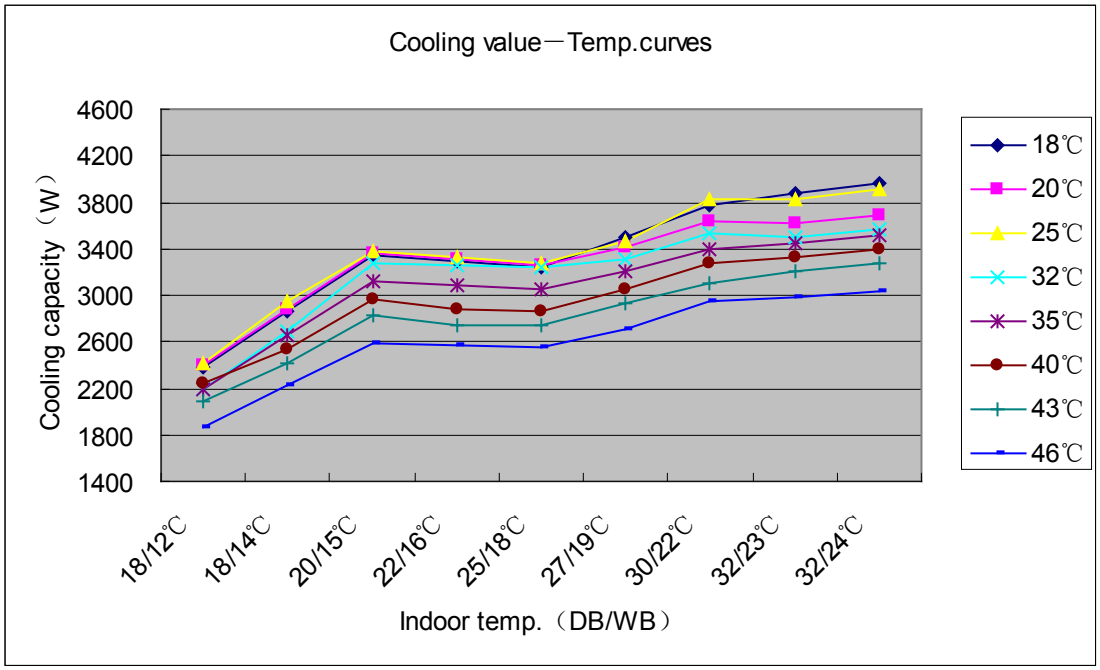
Please press the front lever to release the locking and pull the cable out.

9 Capacity tables and curves diagrams

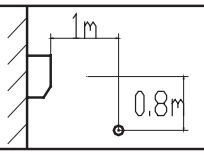
HSU-09CO3/Z1 performance curves								
cooling value-temerature talbe								
indoor temp	outdoor temp.(humidity 46%)							
DB/WB	18℃	20℃	25℃	32℃	35℃	40℃	43℃	46℃
18/12℃	1486	1497	1507	1286	1296	1339	1189	973
18/14℃	1969	1980	2047	1795	1758	1628	1516	1330
20/15℃	2451	2464	2477	2382	2220	2059	1923	1687
22/16℃	2397	2413	2430	2362	2187	1981	1842	1677
25/18℃	2344	2363	2382	2341	2154	1968	1845	1649
27/19℃	2605	2515	2565	2402	2300	2149	2026	1802
30/22℃	2882	2734	2922	2628	2498	2368	2196	2049
32/23℃	2982	2718	2928	2599	2542	2433	2305	2077
32/24℃	3061	2792	3006	2671	2613	2501	2370	2140



HSU-12CO3/Z1 performance curves								
cooling value-temerature talbe								
indoor temp	outdoor temp.(humidity 46%)							
DB/WB	18℃	20℃	25℃	32℃	35℃	40℃	43℃	46℃
18/12℃	2386	2397	2407	2186	2196	2239	2089	1873
18/14℃	2869	2880	2947	2695	2658	2528	2416	2230
20/15℃	3351	3364	3377	3282	3120	2959	2823	2587
22/16℃	3297	3313	3330	3262	3087	2881	2742	2577
25/18℃	3244	3263	3282	3241	3054	2868	2745	2549
27/19℃	3505	3415	3465	3302	3200	3049	2926	2702
30/22℃	3782	3634	3822	3528	3398	3268	3096	2949
32/23℃	3882	3618	3828	3499	3442	3333	3205	2977
32/24℃	3961	3692	3906	3571	3513	3401	3270	3040



10 Sound level

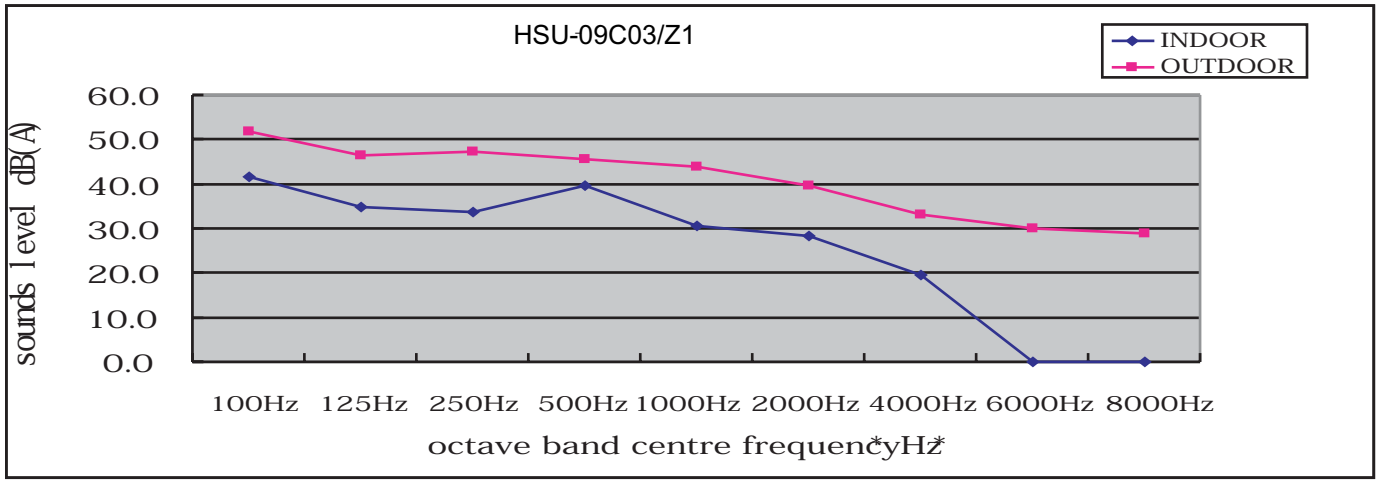
Model	Sound presure level				sound power level
	220 ~ V,50Hz			Measuring location Location of microphone	
	Cooling				
	H	L	SL		
HSU-09C03/Z1	37	35	30		37
HSU-12C03/Z1	39	37	30		39

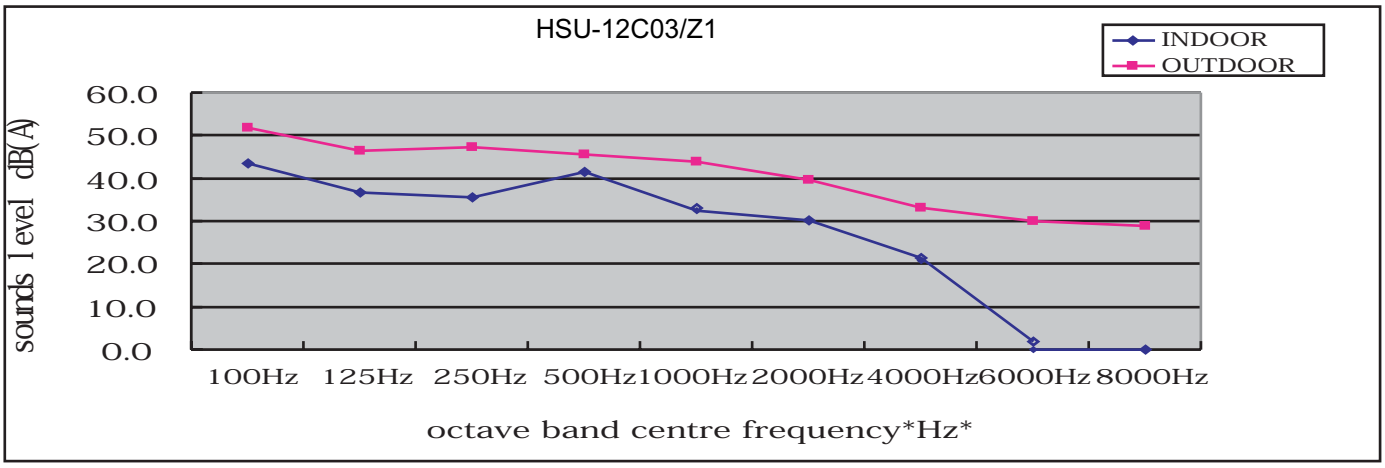
Sound level data

HSU-09C03/Z1	100Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	6000Hz	8000Hz
INDOOR	41.7	34.7	33.6	32.6	30.5	28.2	19.7	0.0	0.0
OUTDOOR	51.7	46.5	47.2	45.6	43.9	39.7	33.0	29.9	28.9

HSU-12C03/Z1	100Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	6000Hz	8000Hz
INDOOR	42.4	35.2	34.6	33.6	31.4	29.1	20.1	0.0	0.0
OUTDOOR	52.7	49.7	48.2	46.3	44.2	40.1	35.0	30.2	29.9

Sound pressure spectrum





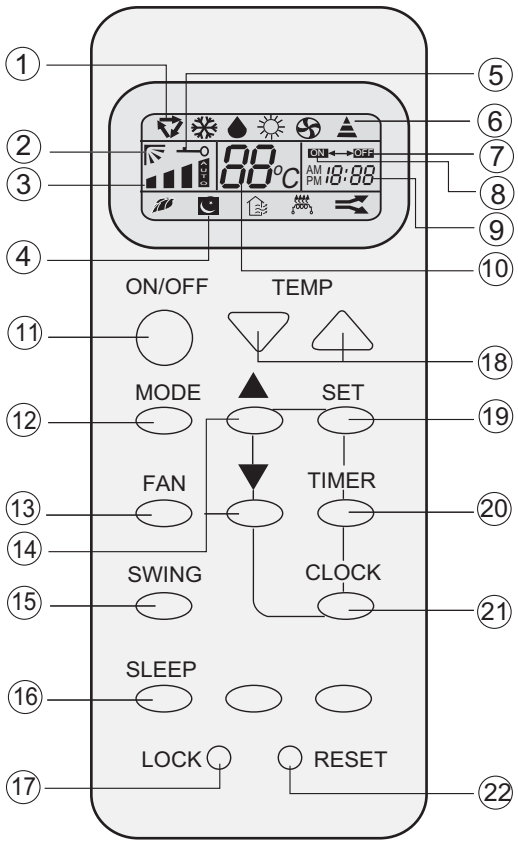
11 Accessories

Standard name	HSU-09C03/Z1	HSU-12C03/Z1
Drain hose	1	1
Plastic bag	1	1
screw assembly	1	1
Air purifier	2	2
Battery	2	2
Mounting plate	1	1
Remote controller	1	1
Installation manual	1	1
Operation manual	1	1

12 Control systems

Operation

Buttons and display of the remote controller.



1. Mode display
   AUTO
   COOL
   DRY
   HEAT
   FAN
2. SWING display
3. FAN SPEED display

4. SLEEP display
5. LOCK display
6. SIGNAL SENDING
7. TIMER OFF display
8. TIMER ON display
9. CLOCK display
10. TEMP display
11. POWER ON/OFF
    Used for unit start and stop.
12. MODE
    Used to select AUTO run, COOL, DRY, HEAT and FAN operation
13. FAN
    Used to select fan speed LO, MED, HI, AUTO
14. HOUR
    Used to set clock and timer setting.
15. SWING
    Used to set auto fan direction.
16. SLEEP
    Used to select sleep mode.
17. LOCK
    Used to lock buttons and LCD display.
18. TEMP.
    Used to select your desired temp.
19. SET
    Used to confirm timer and clock settings.
20. TIMER
    Used to select TIMER ON, TIMER OFF, TIMER ON-OFF
21. CLOCK
    Used to set correct time
22. RESET
    Used to reset the controller back to normal condition.

Clock set

When unit is started for the first time and after replacing batteries in remote controller, clock should be adjusted as follows:
Press CLOCK button, "AM" or "PM" flashes.
Press △ or ▽ to set correct time. Each press will increase or decrease 1min. If the button is kept depressed, time will change quickly.
After time setting is confirmed, press SET, "AM "and "PM" stop flashing, while clock starts working.

NOTE: Cooling only unit do not have displays and functions related with heating

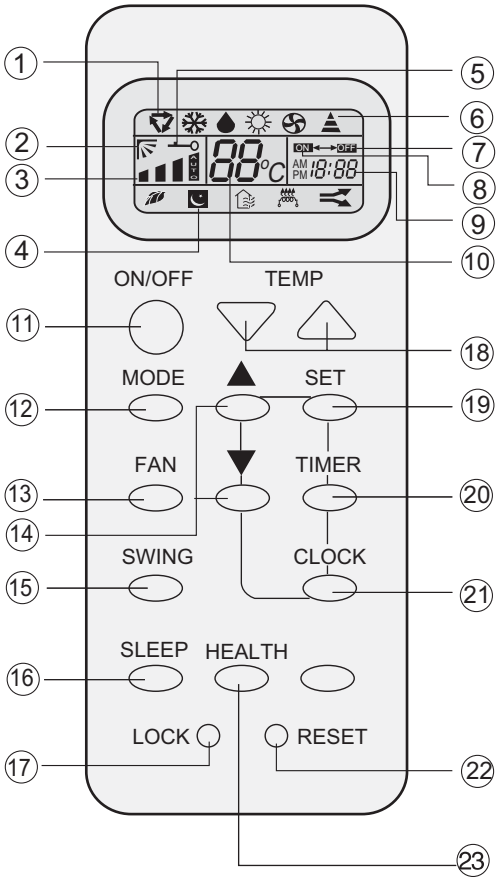
Hints

After replacing with new batteries, remote controller will conduct self-check, displaying all information on LCD. Then, it will become normal.

Operation

Buttons and display of the remote controller.

If the unit which you purchased has healthy function, Remote controller should like the following figure:



1. Mode display
   AUTO
   COOL
   DRY
   HEAT
   FAN
2. SWING display
3. FAN SPEED display 

4. SLEEP display
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    Used for unit start and stop.
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    Used to select AUTO run, COOL, DRY, HEAT and FAN operation
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    Used to select fan speed LO, MED, HI, AUTO
14. HOUR
    Used to set clock and timer setting.
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    Used to set auto fan direction.
16. SLEEP
    Used to select sleep mode.
17. LOCK
    Used to lock buttons and LCD display.
18. TEMP.
    Used to select your desired temp.
19. SET
    Used to confirm timer and clock settings.
20. TIMER
    Used to select TIMER ON, TIMER OFF, TIMER ON-OFF
21. CLOCK
    Used to set correct time
22. RESET
    Used to reset the controller back to normal condition.
23. HEALTH
    Used to set healthy operation

BRIEF INTRODUCTION TO HEALTH OPERATION

The anion generator in the air conditioner can generate a lot of anion to effectively balance the quantity of position and anion in the air and also to kill bacteria and speed up the dust sediment in the room and finally clean the air in the room.

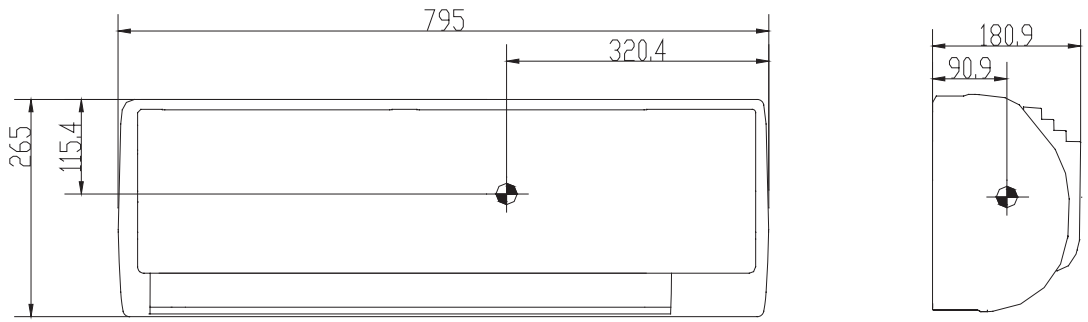
NOTE: Cooling only unit do not have displays and functions related with heating

Hints

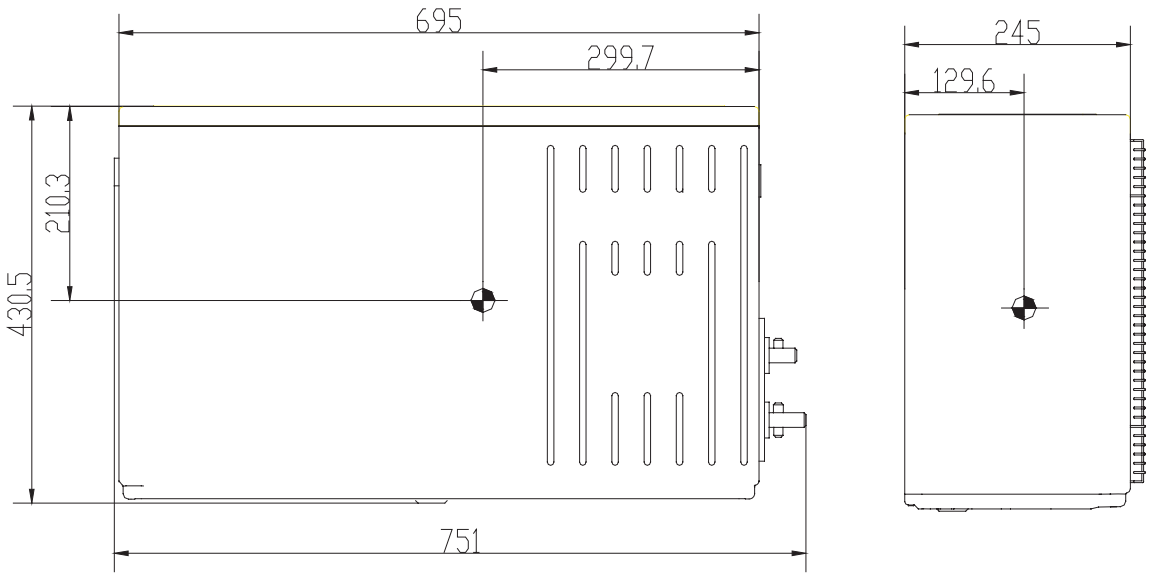
After replacing with new batteries, remote controller will conduct self-check, displaying all information on LCD. Then, it will become normal.

13 Center of gravity

Indoor unit



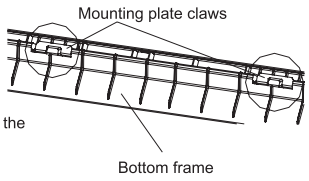
Outdoor unit

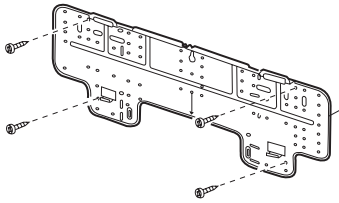


14 Installations

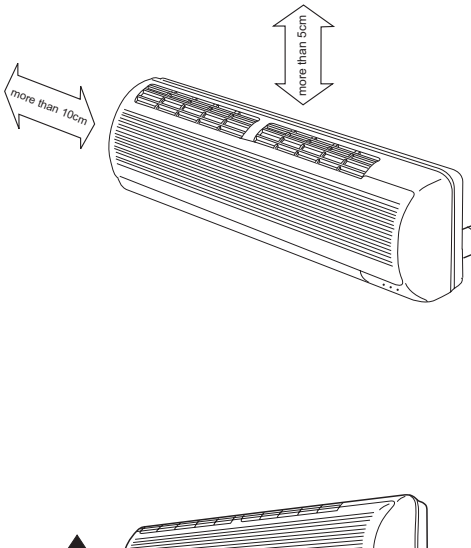
Indoor unit installation drawings

■ How to attach the indoor unit.
Hook the claws of the bottom frame to the mounting plate.
If the claws are difficult to hook ,remove the front panel.
■ How to remove the indoor unit.
Push up the marked area (at the lower part of the front panel) to release the the claws . If it is difficult to release ,remove the front panel .

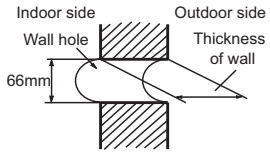


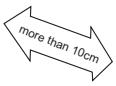


The mounting plate should be installed on a wall which can support the weight of the indoor unit.

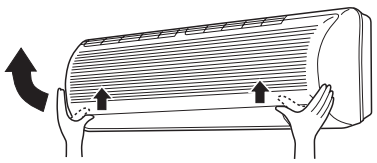


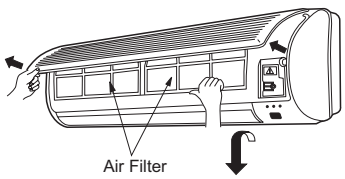
(Section of wall hole)

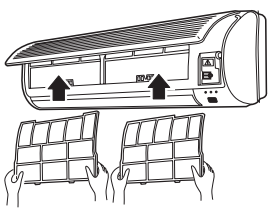




Cut thermal insulation pipe to an appropriate length and wrap it with tape, making sure that no gap is left in the insulation pipe's cut line .







How to remove the air filter.

Open the inlet grille by pulling it upward.

Push up the filter's center tab slightly until it is released from the stopper, and remove the filter downward.

How to Attach the air filter.

Attach the filter correctly so that the "FRONT" indication is facing to the front.Make sure that the filter is completely fixed behind the stopper.If the right and left filters are not attached correctly, that may cause defects.

Close the inlet grille.

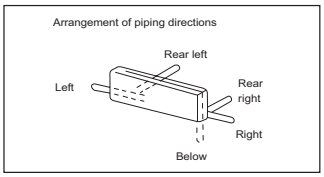
Outdoor unit installation drawings

HSU-09,12C03/Z1

Outdoor

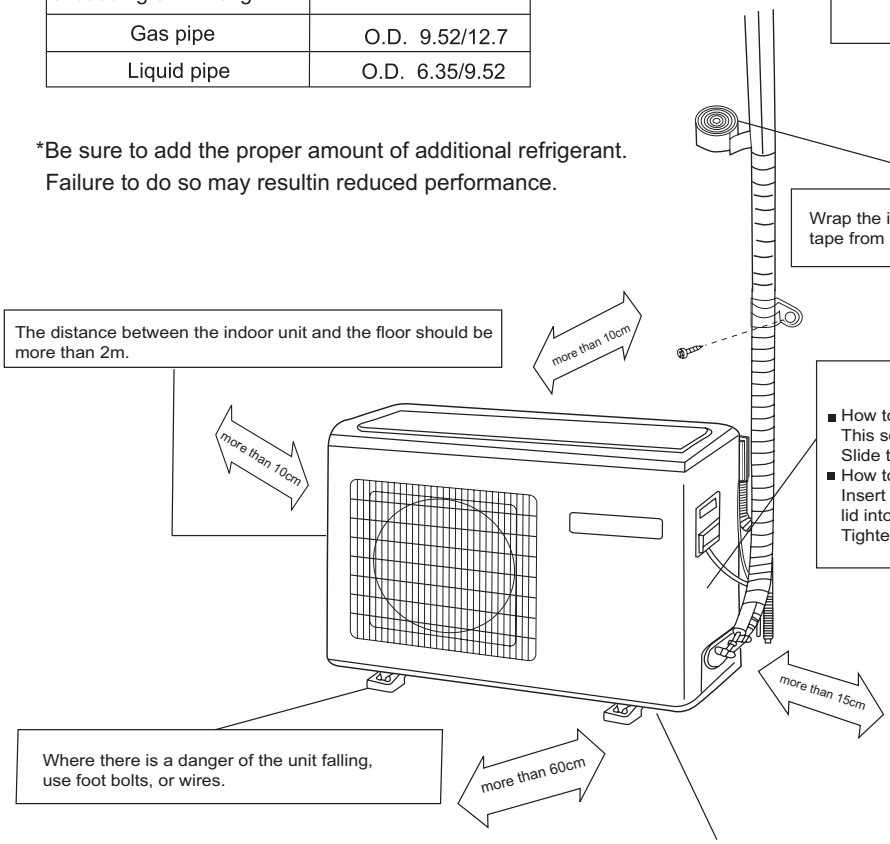
Model	26/28 class
Max.allowable length	Cooling only： 7 m Heat pump： 7 m
Max.allowable height	5m
Additional refrigerant required for refrigerant pipe exceeding 5m in length	16g/m
Gas pipe	O.D. 9.52/12.7
Liquid pipe	O.D. 6.35/9.52

*Be sure to add the proper amount of additional refrigerant.
Failure to do so may resultin reduced performance.



Wrap the installation pipe with the finishing tape from bottom to top Model 25 / 35 class

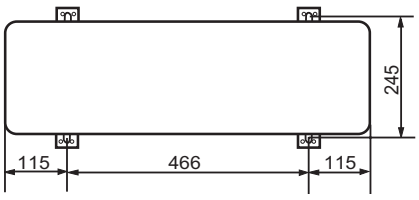
The distance between the indoor unit and the floor should be more than 2m.



Service lid
- How to remove the service lid.
  This service lid is an open/close type.
  Slide the lid downward to remove it.
- How to attach the service lid.
  Insert the upper part of the service lid into the outdoor unit to install.
  Tighten the screws.

Where there is a danger of the unit falling, use foot bolts, or wires.

- Fix the unit to concrete or block with bolts(ϕ10mm) and nuts firmly and horizontally.
- When fitting the unit to wall surface, roof or rooftop, fix a supporter surely with nails or wires in consideration of earthquake and strong wind.
- If vibration may affect the house, fix the unit by attaching a vibration-proof mat.



Sincere Forever

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