



**Domestic Air Conditioner**

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# SERVICE MANUAL

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## Models

**HWR05XC5**

**HWF05XC5,HWF05XC6**

Part Number : AC-8888-131

## ● Features

- Top-Discharge Air Flow
- Ultra Quiet Operation
- Safty Power Cord
- EnvicoClean™ Coil
- Easy-Access Washable Filter

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## Product Code Illumination And Series Introduction

### 1.Model identification:

H	W	□	□	□	□	□	□
A	B	C	D	E	F	G	

A: Abbreviation of Haier

B: Abbreviation of Window

C: R-Remote Control

F-Mechanical Control

D: Nominal cooling capacity(BTU/h) with the first two numbers based on one thousand unit

E: The type of power supply

X: 115V/60HZ

V:208/220V/50HZ

F: Function code

C-Cooling only

H-Heating pump

E-Electric aided heating

G: Design code

Examples:

HWR05XC5

It represents remote control window air conditioner. Cooling capacity is 5000BTU/h and the power supply is 115V /60Hz.

### 2.Standard situation/conditions

No.	Operating condition	Indoor air state		outdoor air state	
		D.B.	W.B.	D.B.	W.B.
1	Nominal cooling	26.7	19.4	35	23.9
2	Nominal heating	/	/	/	/
3	Nominal electrical heating	/	/	/	/

## Specifications:

Item		UNIT	HWR05XC5	HWF05XC5	
Cooling capacity		BTU/h	5000	5000	
Heating capacity		BTU/h	/	/	
Power supply			1PH/115V/60Hz	1PH/115V/60Hz	
Cooling	Power input	W	515	515	
	Running current	A	4.8	4.8	
	EER	BTU/(hW)	9.7	9.7	
Heating	Power input	W	/	/	
	Running current	A	/	/	
	COP	BTU/(hW)	/	/	
Sound Level	Indoor side	dB(A)	/	/	
	Outdoor side	dB(A)	/	/	
Case	Height	mm	285	285	
	Width	mm	440	440	
	Depth	mm	340	340	
Packaging dimensions	Height	mm	327	327	
	Width	mm	502	502	
	Depth	mm	386	386	
Weight	Net	kg	18	18	
	Gross	kg	20	20	
Compressor	Type		Rotate	Rotate	
	Model		SD074SW	SD074SW	
	Running cap. for comp.	μF	35uf/4uf/ 250VAC	35uf/4uf/ 250VAC	
	Starting method		PSC	PSC	
Pressure	Heating side	MPa	380	380	
	Cooling side	MPa	170	170	
Refrigerant	Model		R22	R22	
	Charge	kg	0.3	0.3	
Fan	Type	indoor unit	Acentric fan	Acentric fan	
		outdoorunit	Axial fan	Axial fan	
	Fan speed	indoor unit	r/min	1085 ± 30/895 ± 50	1085 ± 30/895 ± 50
		outdoorunit	r/min	1085 ± 30/895 ± 50	1085 ± 30/895 ± 50
Air volume		CFM	210	210	
Moisture removal		M <sup>3</sup> /h	1.8 10 <sup>-3</sup>	1.8 10 <sup>-3</sup>	
Exchanging pipe type/ diameter		mm	Evaporator: 7condenser: 7	Evaporator: 7condenser: 7	
Fin material			Hydrophile aluminum foil	Hydrophile aluminum foil	

## Safety and Precaution

# SAFETY PRECAUTIONS

**WARNING:** *Following these basic precautions will reduce the risk of fire, electrical shock, injury or death when using your air conditioner.*



- 1) Air conditioner must be connected to proper electrical outlet with the correct electrical supply. (see table)
- ⚠ 2) Proper grounding must be ensured to reduce the risk of shock and fire. **DO NOT CUT OR REMOVE THE GROUNDING PRONG.** If you do not have a three-prong electric receptacle outlet in the wall, have a certified electrician install the proper receptacle. The wall receptacle **MUST** be properly grounded.
- ⚠ 3) Do not use if power cord is frayed or otherwise damaged. Also avoid using it if there are cracks or abrasion damage along the length, plug or connector.
- ⚠ 4) **DO NOT USE AN ADAPTER OR AN EXTENSION CORD.**
- ⚠ 5) When installing your air conditioner in a window, make sure the window is strong enough to hold the weight of the air conditioner. You also want to secure and correctly install your air conditioner properly to prevent it from falling. Extra brackets and or support may be required depending on your window.
- 6) Do not block airflow inside or outside the air conditioner with blinds, drapes, protective covers, shrubs or bushes.
- 7) Be careful of sharp edges on the front and rear fins of the unit that could cut and cause serious injury.
- 8) Be careful when lifting the air conditioner to install or remove the unit. Always use two or more people for this.
- 9) Always unplug the air conditioner before servicing it or moving it.

## Warning and Cautions

# WARNINGS



Following the safety messages is very important.

These messages can save you from being injured or killed.

**Warning** symbols alert you to be careful and means **Danger**. Always follow instructions to be safe and reduce chances of injury or death.

**Warning** and **Danger** signs will precede safety messages.

## Electrical Safety



**Grounding:** This room air conditioner must be grounded. Grounding reduces the risk of electric shock by providing an escape wire for the electric current. The power cord has a grounding wire with a grounding plug. Plug it into an outlet that is properly installed and grounded.

**WARNING:** Improper use of the grounding plug can result in a risk of electric shock. Call a qualified electrician if you don't understand the grounding instructions or if you are not sure if the air conditioner is properly grounded. If the wall outlet is not grounded, please contact an electrician to have it replaced with a properly grounded outlet.

**Do not, under any circumstances, cut or remove the third (ground) prong from the power cord.**

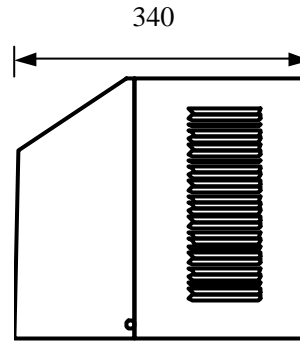
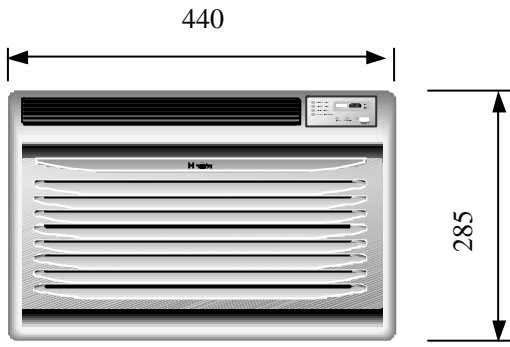
**Adapter Plug:** We strongly advise against using an adapter plug.

**Important:** Test power plug before each use:

1. Press "reset" button.
2. Press "test" button, unit should trip.
3. Press "reset" button again for use.

Do not use if above test fail.  
In the event this device trips, the cause of the malfunction is to be corrected before further use of the device.

## Net Demention



## Installation and Accessory Parts

### Installations

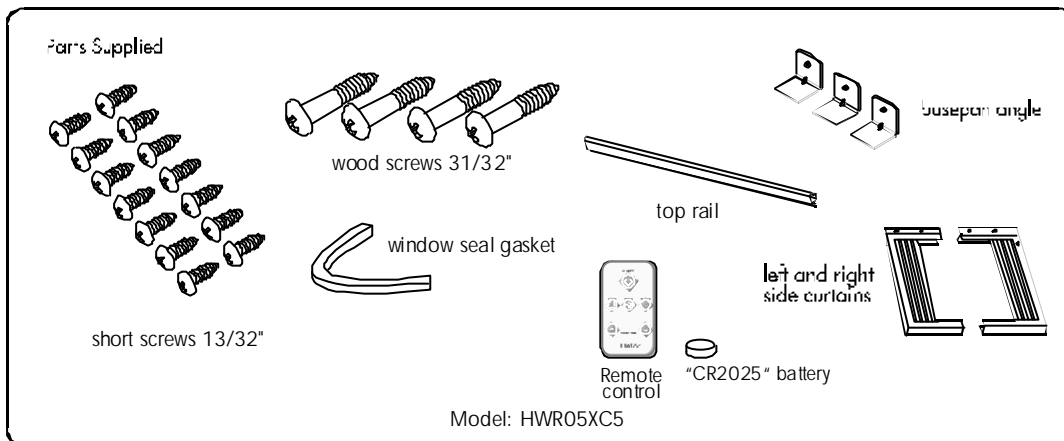
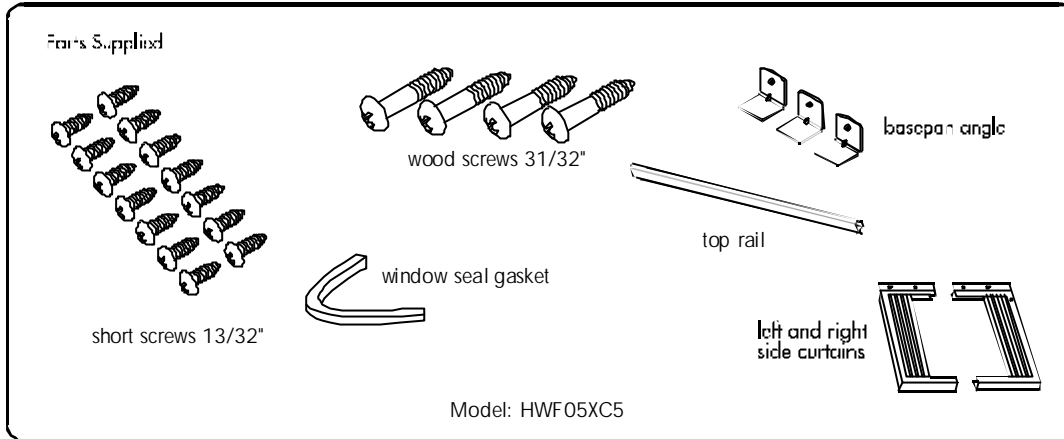
Before you install your air conditioner check the following:

- 1) The unit is free of all obstructions inside and outside the room e.g. drapes, curtains, furniture, plants, shrubs, bushes, trees, other structures like building, garage etc. Air conditioner must have clear unobstructed airflow through the condenser to remove the heat.
- 2) The window is strong enough to hold the weight of the air conditioner. Extra brackets or supports may be needed depending on your windows. (Brackets or Supports not provided in all models)
- 3) The window sill and track are strong enough to hold the weight of the air conditioner.
- 4) The wall is strong enough to hold the unit. Extra brackets or supports may be needed depending on the wall. (Brackets or Supports not provided in all models).
- 5) There is adequate and proper power supply near the air conditioner.
- ⚠ 6) Be careful of exposed sharp edges of the cabinet and sharp coils (fins) on the back of the unit that could cut and cause serious injury.
- ⚠ 7) DO NOT use adapter plugs.
- ⚠ 8) DO NOT use extension cords.
- ⚠ 9) DO NOT cut or remove the ground prong.
- ⚠ 10) DO NOT modify the plug or the electrical wall outlet in any way. If plug does not fit the electrical outlet have a certified electrician do the necessary change.
- ⚠ 11) DO NOT connect electrical power to the unit before installation.
- ⚠ 12) DO NOT use if power cord is worn out, frayed or otherwise damaged. Avoid using if there are cracks or abrasion damage along the length, plug or connection.
- ⚠ 13) DO NOT install into any existing cabinet or sleeve which does not have side and top air vents.



## Installation and Accessory Parts

### Parts



### Tools

You will need to have the following tools to help you in the installation of your air conditioner.

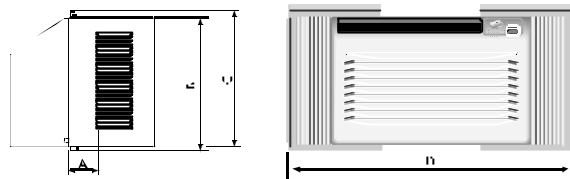
- Scissors
- Phillips Screwdriver
- Standard Screwdriver
- Pliers
- Wrench
- Drill and Drill Bits
- Tape Measure
- Gloves
- Level
- Sockets

## Installation and Accessory Parts

# Installing Unit into A Window

### Window Opening Requirements

The air conditioner is designed to fit into double or single hung sash type windows. Each of the units comes with an installation kit that provides adjustable mounting louveres, to fill the gaps between the sides of the unit, and the window frame. The chart below reflects the dimensions of the units with, and without installation kits. Measure your window opening width and compare it to the chart below to ensure that it meets the minimum and maximum window width requirements.



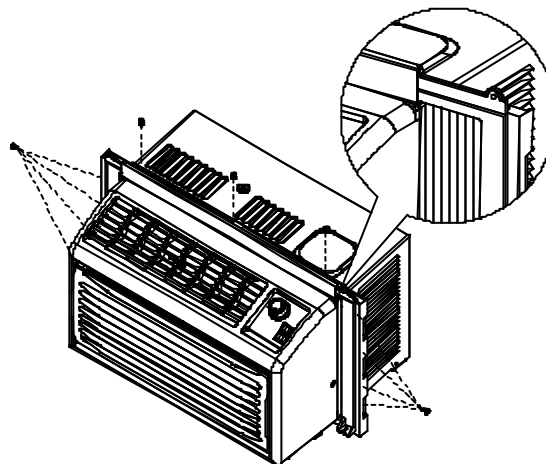
Model	HWF05XC5, HWR05XC5	
Dimension		
A(inch)		$1\frac{31}{32}$ "
B(inch)		$11\frac{5}{8}$ "
C(inch)		$11\frac{13}{16}$ "
D(inch) Max		$34\frac{7}{16}$ "
D(inch) Min		$20\frac{15}{32}$ "
Case High		$11\frac{7}{16}$ "
Case Width		$17\frac{5}{16}$ "
Case Depth		$13\frac{13}{32}$ "

### 1 ASSEMBLE CURTAINS/TOP RAIL

Install top rail with 3 short screws  $1\frac{3}{32}$ ".

Insert the side curtains into the top and bottom rails of the air conditioner. Fasten the curtains to the unit with 8 short screws  $1\frac{3}{32}$ ".

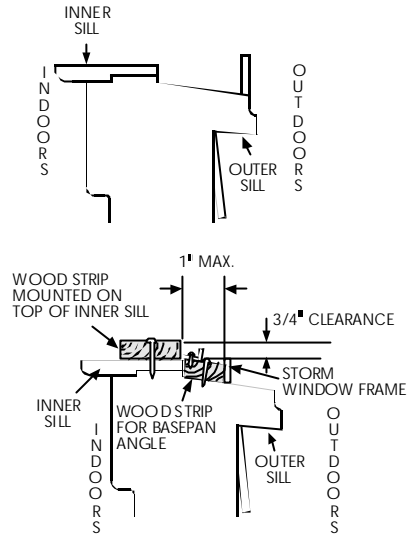
**Caution:** Never expose plastic front or grille to extreme temperatures.



## Installation and Accessory Parts

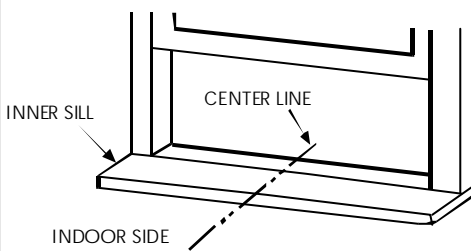
### 2 PREPARE WINDOW FOR INSTALLATION

1. This unit is designed for installation in standard double hung windows with actual opening widths of 21" to 35". The upper and lower sash must open sufficiently to allow a clear vertical opening of 12" from the bottom of the sash to the window stool.
2. If storm window presents interference, fasten a 2" wide wood strip (not included) (OUTER SILL) to the inner window sill across the full width of the sill. The wood strip should be thick enough to raise the height of the window sill so that the unit can be installed without interference by the storm window frame (STORM WINDOW FRAME) or wood strip (OUTDOORS) to help condensation to drain properly to the outside.
3. Install a second wood strip (approximately 6" long by 3/2" wide and same thickness as first strip) in the center of the outer sill flush against the back of the inner sill. This will raise basepan angle.
4. If the distance between STORM WINDOW FRAME and WOOD STRIP MOUNTED ON TOP OF INNER SILL is more than 1", two of wood strip are not necessary.



### 3 LOCATING UNIT IN WINDOW

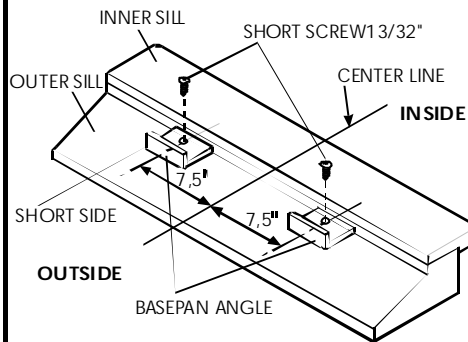
Open the window and mark center line on the center of the inner sill.



### 4 ATTACH BASEPAN ANGLE

Install the basepan angle behind the inner window sill, with the short side of basepan angle as shown. Use the 2 short screws 1 3/32" provided.

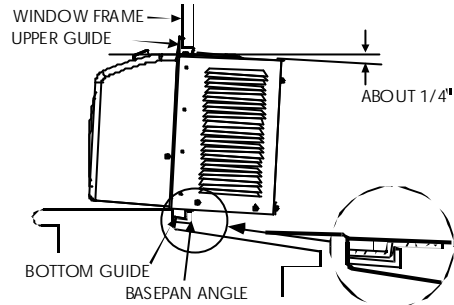
The basepan angle helps to hold unit securely in place. Be sure to place basepan angle edge flush against back of inner sill.



## Installation and Accessory Parts

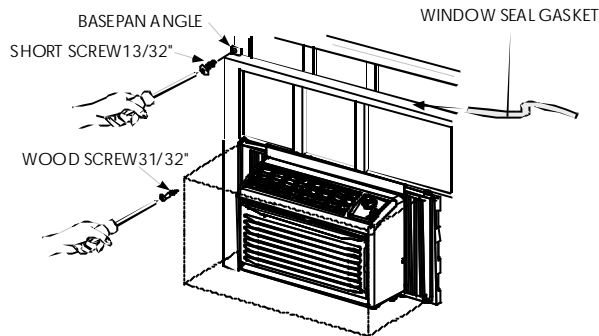
### 5 INSTALL THE AIR CONDITIONER IN THE WINDOW

Carefully lift the air conditioner and slide it into the open window. Make sure the bottom guide of the air conditioner drops into the notches of the basepan angle. While steadying the air conditioner, carefully bring the window sash down behind the upper guide of the air conditioner.

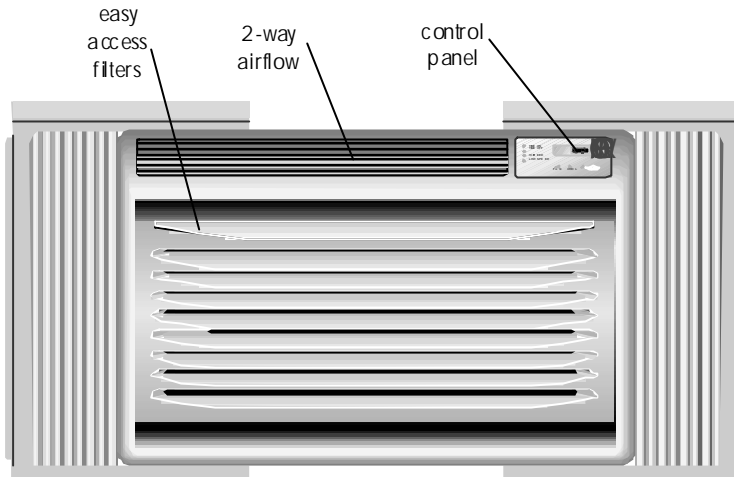


### 6 INSTALL THE SEAL GASKET AND SASH LOCK

Extend the side curtains to fill the window opening using 4 wood screws 3/16\" to secure them. Cut the seal gasket to the window width. Stuff the sash seal between the glass and the window to prevent air and insects from getting into the room. Fasten the basepan angle, using a short screw 1/4\".



## Parts and Functions



MODEL: HWR05XC5

### 1. Thermostat

This allows you to adjust the temperature of the air. The lower the setting the cooler the air temperature. With this you can set the temperature to your desired comfort level. You can set the temperature between 61° F and 86° F.

### 2. fan Speed

**You have 2 levels of Fan Speed to set at your desired comfort level.**

Pressing the Fan Speed button of remote control between High and Low speed.

### 3. Function.

Your air conditioner has 2 Functions.

#### a) COOL

Here the air conditioner will operate the compressor and the desired fan speed set to give you chilled cold air for your comfort.

#### b) Fan

You can run the fan only on not so hot days. The fan can be set to run at 2 speeds (HIGH fan and LOW fan.) as desired by you.

### 4. Timer

Your air conditioner can be set to go on or off at your desire. This can be done up to **24** hours in advance.

### 5. 2 Way Air Flow

These air directional louvers let you control the direction of the airflow in your required direction. The airflow can be directed right side – left side.

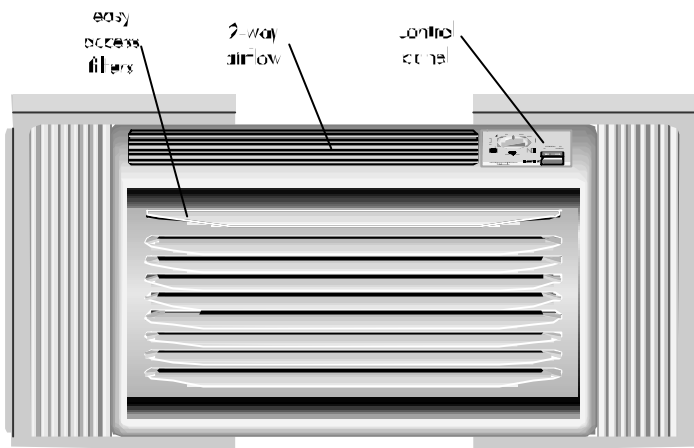
### 6. Window Install Kit

Enables you to install the air conditioner in a double hung window. Extra brackets or support may be needed depending on your window.

### 7. Remote Control

This full functional wireless remote allows you to operate your air conditioner from a distance. You need not have to get up to change the settings, the functions or to turn the unit on or off.

## Parts and Functions



**MODEL: HWF05XC5**

### 1. Temperature Set Knob

This knob adjusts the temperature of the air. The Higher the setting the cooler the air temperature. With this knob you can set the temperature to your desired comfort level. Min. Cool being the warmest and Max. Cool being the coldest.

### 2. MODE Set Switch

With this knob you can control the fan speed as well as the cooling speed.

You have 2 Fan speeds to choose from HI and LO.

### 3. 2-Way Air Flow

The air directional louvers let you control the direction of the airflow in your required direction. The airflow can be directed right side – left side.

### 4. Window Install Kit.

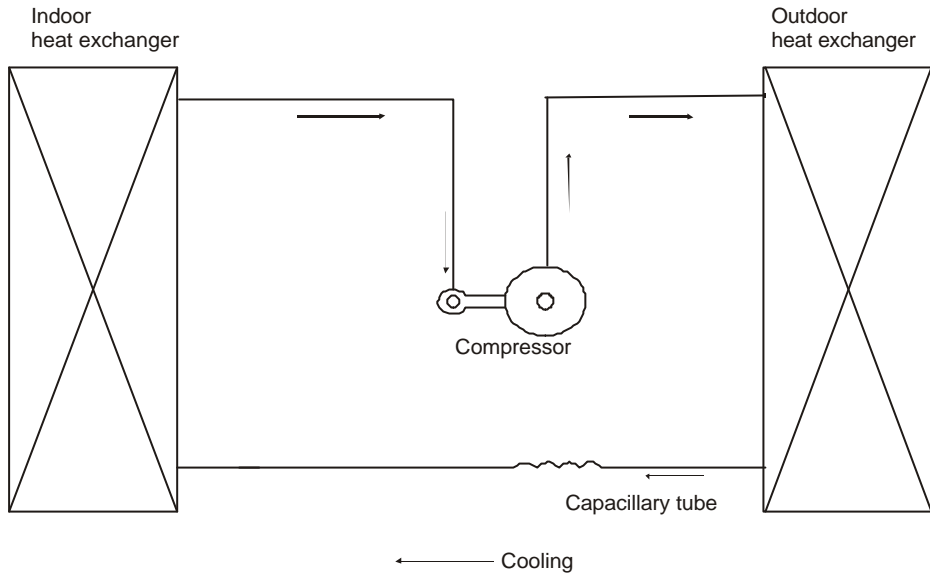
Enables you to install the air conditioner in a double hung window. Extra brackets or support may be needed depending on your window.

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## Abnormity Diagnose

1. Sensor diagnose: 2 seconds after the sensors open circuit or short circuit, the unit will turn off automatically and the LED will show E0 until the sensors resume.
2. Keystroke circuit error diagnose: When power on for the first time, the PCB will check the keystroke circuit, if the sampling value is different with the theory value, the LED will show E1, which means failed keystroke circuit. The keyboard is locked and so invalid, but the remote control is working normally.

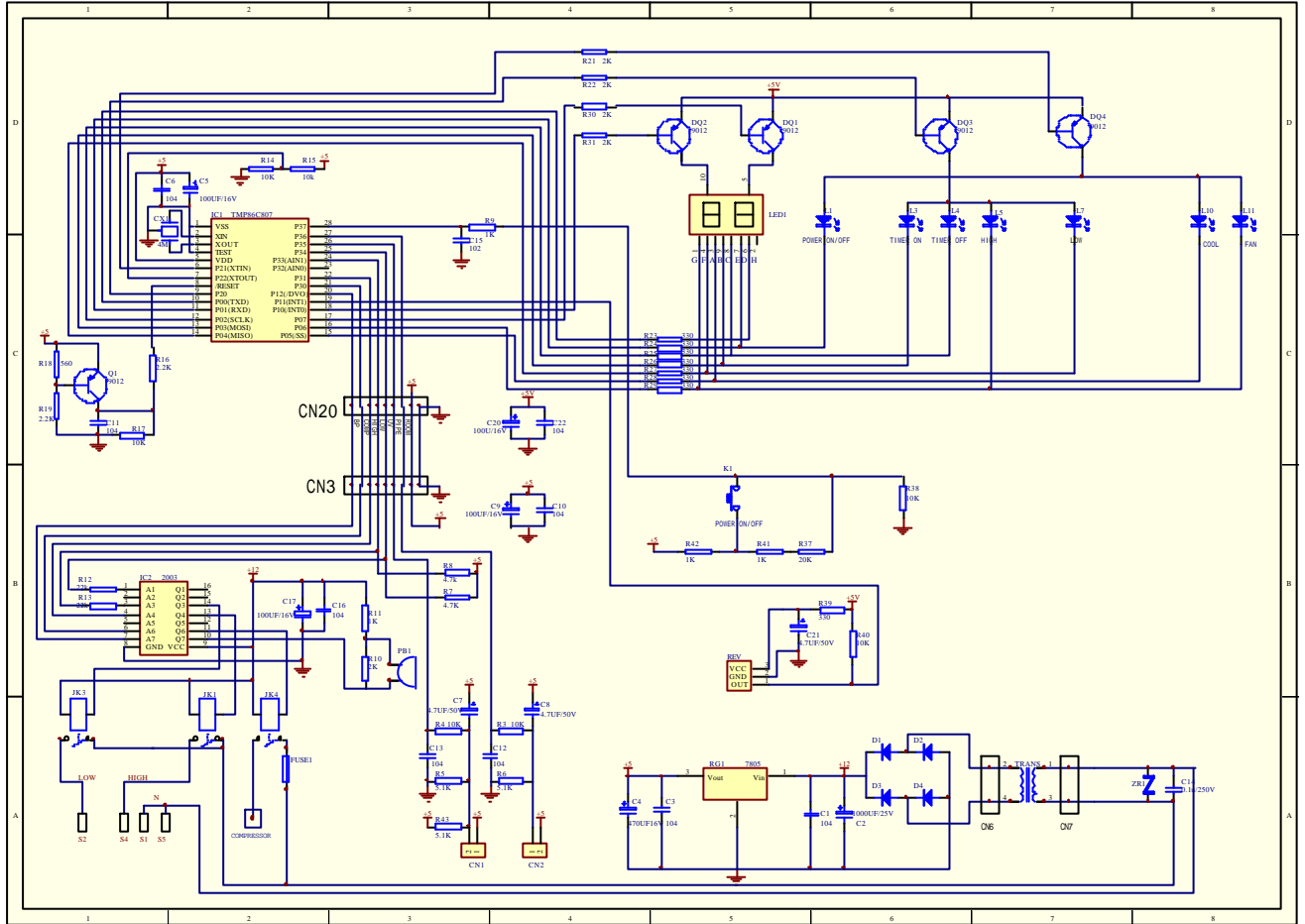
# System Flow Chart



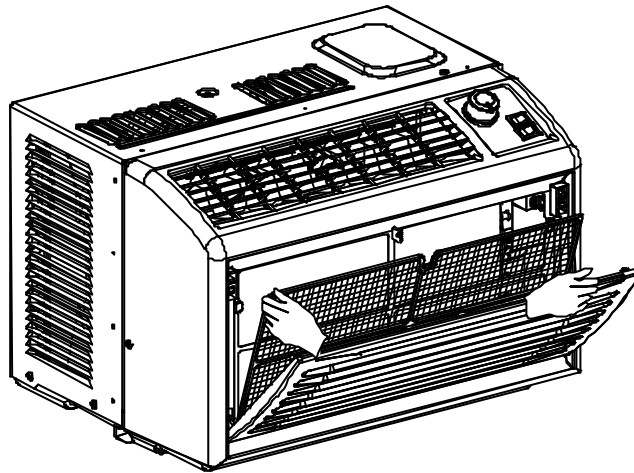


# Circuit Diagram

## HWR05XC5:



## Maintenance Service and Trouble Shooting



- **Always unplug your air conditioner before cleaning.**
- The air filter behind the inlet grille should be checked and cleaned at least once every 2 weeks (or as necessary) to maintain optimal performance of the air conditioner.

### ***How to remove the air filter***

1. The grille may be opened from the top for easy maintenance after installation.
2. Open the inlet grille by pulling off the exposed door on the top of the unit (based on the installation).
3. Pull the tab slightly to release the filter. Pull the filter in the same direction as the opening.
4. Clean the filter with warm, soapy water. The water should be below 40°C (104°F).
5. Rinse off and gently shake off excess water from the filter. Let it dry before replacing it.

**DO NOT use your air conditioner without the air filter in place.**

- **To clean the front panels or the cabinet DO NOT use harsh chemicals, abrasives, ammonia, chlorine, bleach, concentrated detergents, solvents or metal scouring pads.**  
Some of these chemicals may dissolve, damage and/or discolor your air conditioner.

- **Always use a soft cloth dampened with water or mild soap and water solution to wipe the front of the cabinet.**

Wipe dry with a soft cloth.

## Maintenance Service and Trouble Shooting

- To store your air conditioner, after the season, remove the unit from the window as per the installation guide. Repack the unit in its original box and store away. If you do not intend to remove it from the window then cover the outside with a winter cover.  
This can be purchased from the retailer where you purchased your air conditioner or from your local hardware store.
- Before putting away your unit make sure any water left in the pan is removed and drained away. Water left in the pan could lead to Rusting or damage to the electrical connections.

## Trouble-Shooting

### **If air conditioner does not operate:**

- Check if unit is plugged in. The plug may have come loose.
- Check if the unit is in "Off" mode.
- The fan control may be in "Off" position.

### **Air from air conditioner is warm:**

- The A/C setting may need to be raised.
- The temperature outside the room is below 65°F. The compressor will not cycle on if the temperature outside is below 65°F.

### **Ice formation on cooling coils:**

- Outside temperature too cold. Set the unit on fan only setting to defrost ice.
- Lower temperature setting. Temperature setting may be too cold.
- Unit BTU may be too high for the room.

## Maintenance Service and Trouble Shooting

### **Air conditioner working but room not cooling:**

- Room may have appliances that produce heat. Use an exhaust fan to remove excess heat.
- Redirect the airflow. Remove any obstacles.
- All doors and windows need to be closed so cool air does not escape the room.
- Air filter may need cleaning.
- Unit BTU may be too low for the required cooling area.
- On extreme hot & humid days air conditioners may take a little longer to cool.

### **Air conditioner is making noise when cooling:**

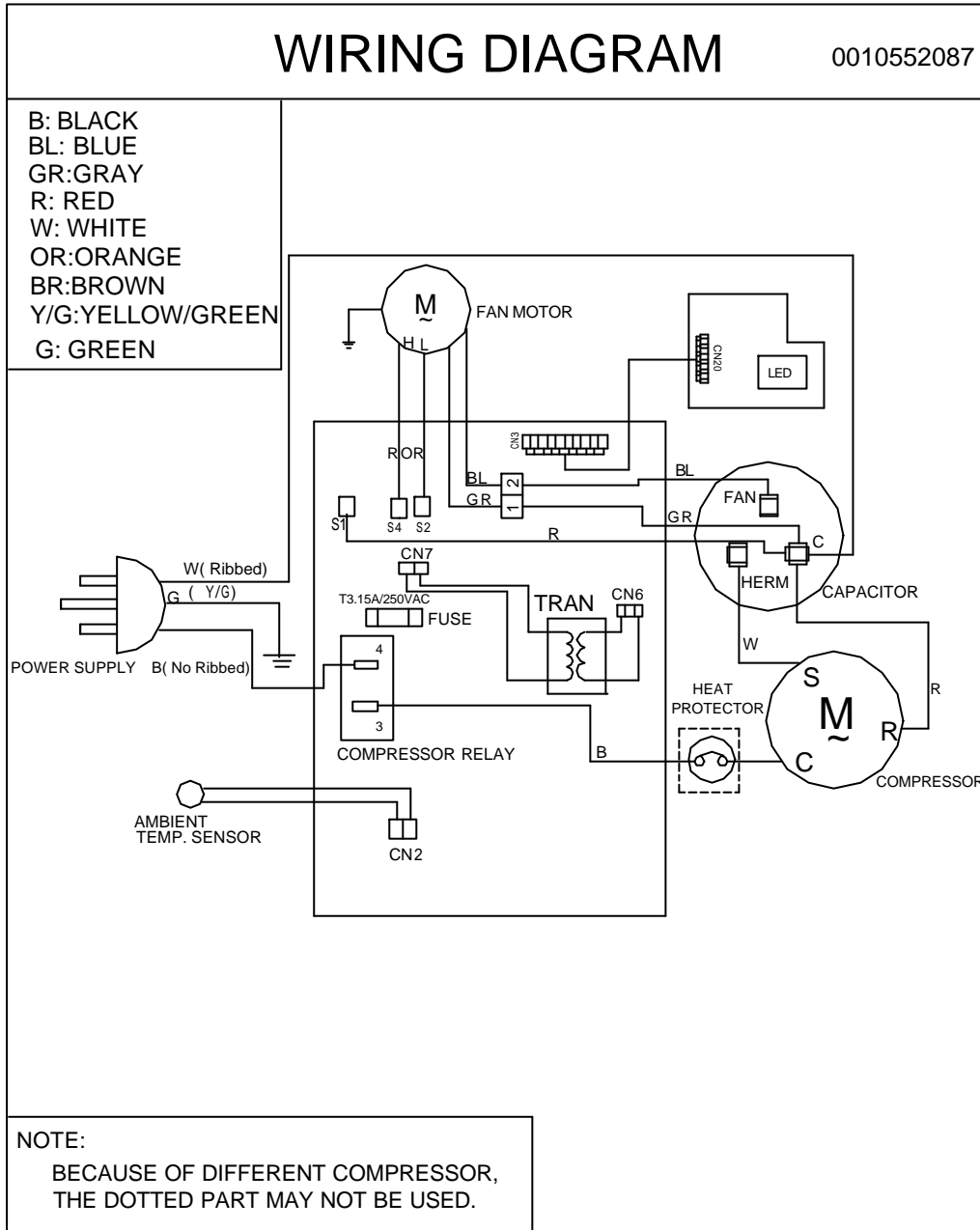
You may hear sounds of air movement, water, compressor clicking on and off or window vibrations. Please read Operating Guide – Normal Operating Sounds. (see page 8)

### **Water in the air conditioner cabinet:**

This is normal as your air conditioner not only cools but also dehumidifies the air. If there is water dripping inside the room, check the installation of the unit. The unit may need to be reinstalled.

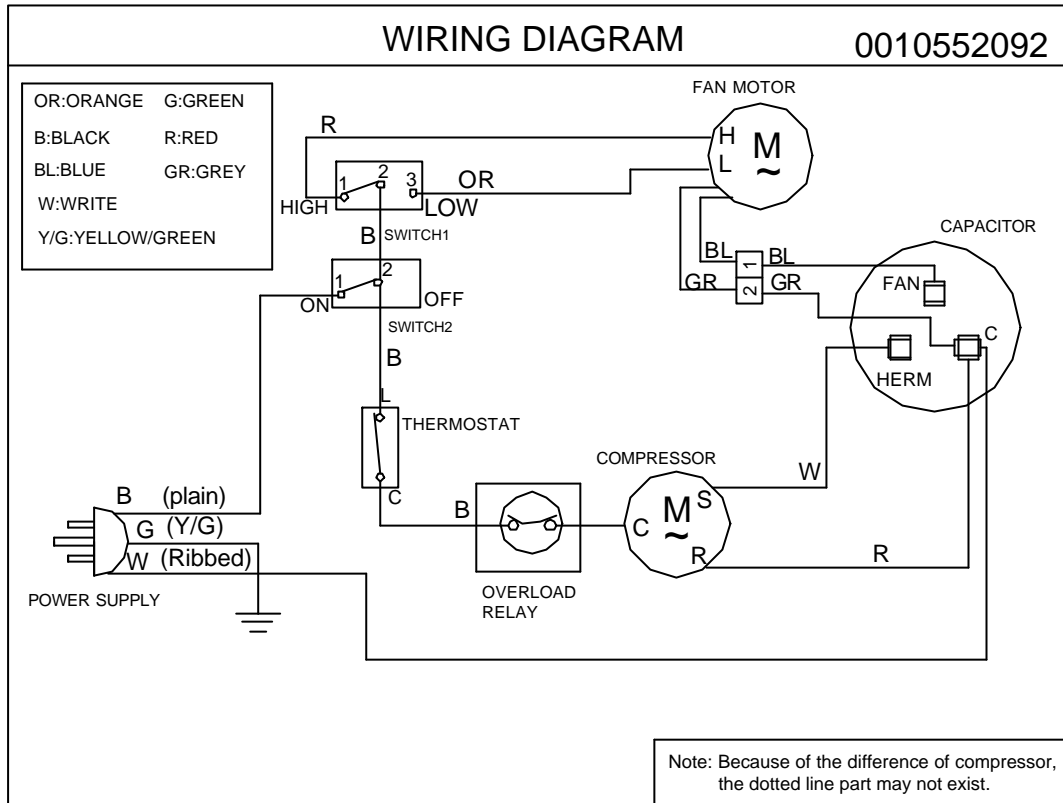
# Wiring Diagram

Model:HWR05XC5



# Wiring Diagram

Model:HWF05XC5



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