

# **SPLIT AIR CONDITIONERS**

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# Service Manual

## **ComfortStar®**

### **CSA-S SERIES**

#### **IMPORTANT NOTE:**



Read this manual carefully before operating your new air conditioning unit. Make sure to save this manual for future reference.

Please check the applicable models, technical data, F-GAS(if any) and manufacturer information from the "Owner's Manual" in the packaging of the outdoor unit.

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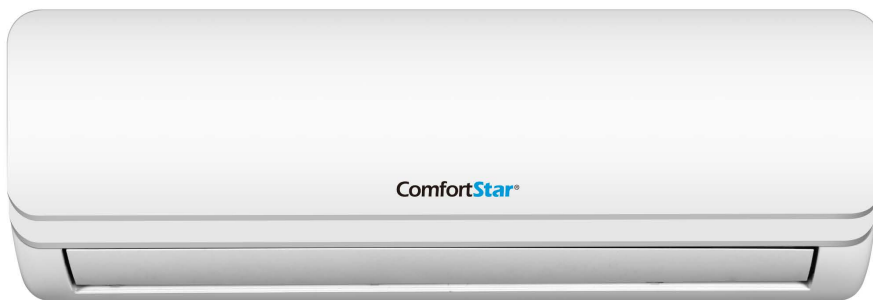
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# Chapter 1 Product Specification

## 1. 1 Photo of Product (for reference only)

Indoor unit



Outdoor unit



## 1.2 Outline Dimensions

### Indoor Unit

MODEL		12000BTU	18000BTU	24000BTU
W	mm	800	970	970
D	mm	292	310	310
H	mm	190	230	230

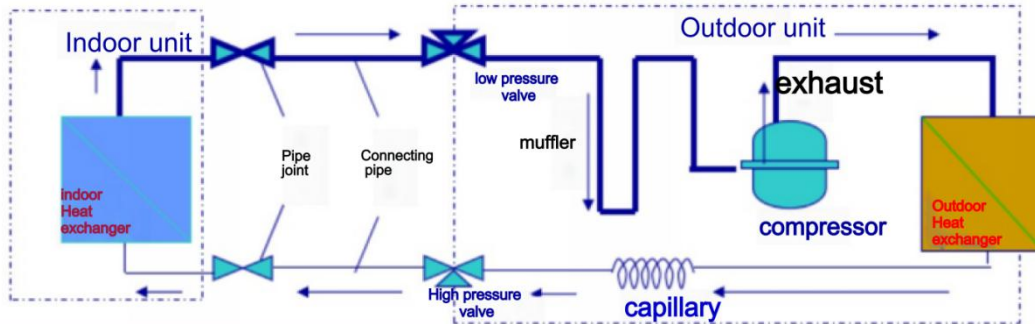
### Outdoor Unit

MODEL		12000BTU	18000BTU	24000BTU
W	mm	740	800	860
D	mm	302	302	378
H	mm	550	550	597

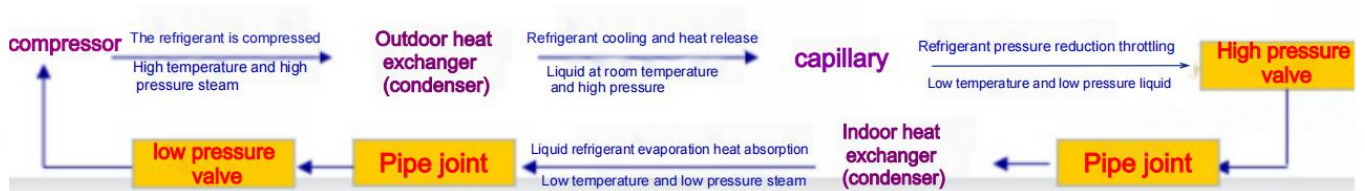
# Chapter 2 Refrigeration Diagrams

## Cooling Mode

1. System composition: compressor, outdoor heat exchanger (condenser), capillary, indoor heat exchanger (evaporator), high-pressure valve, low-pressure valve



## Cooling Cycle



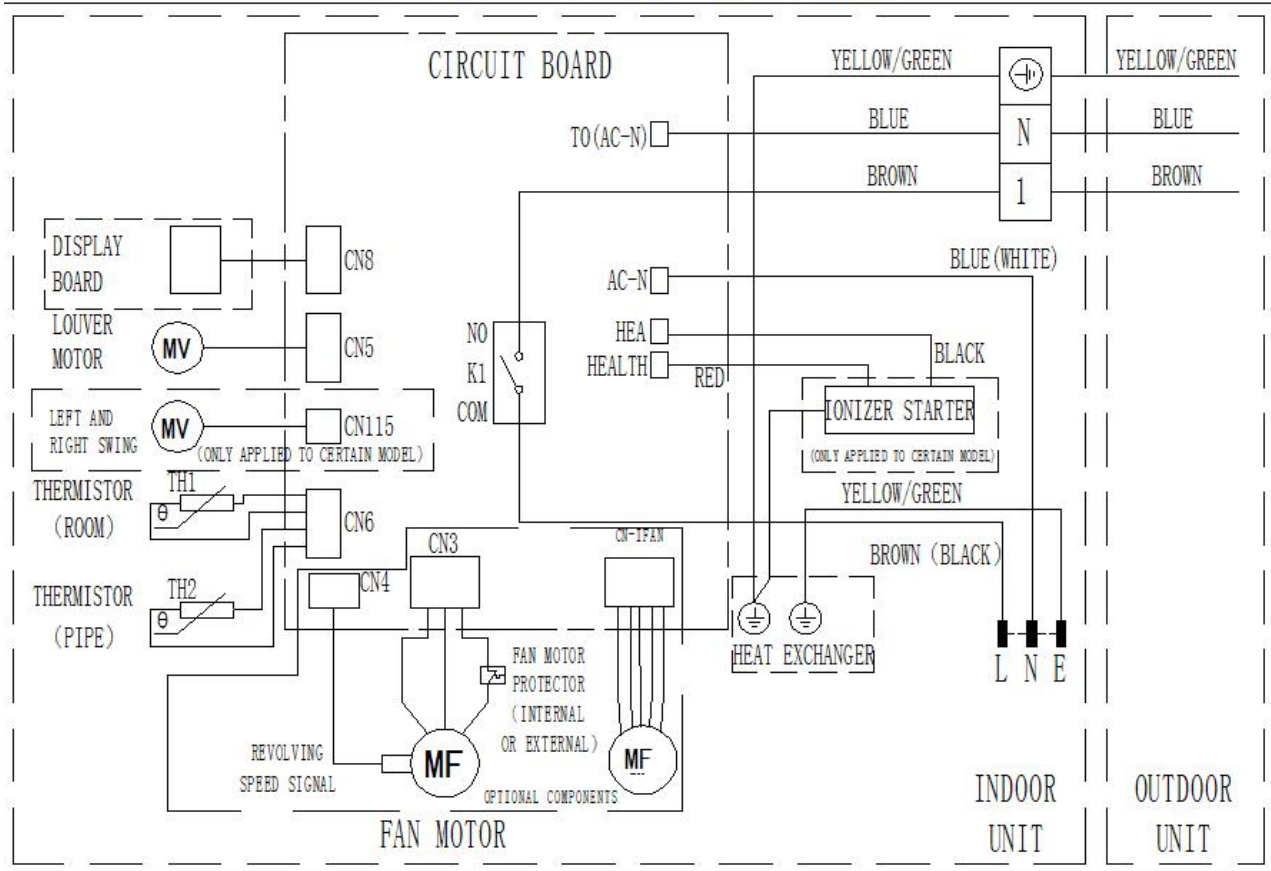
# Chapter 3 Wiring Diagram

## Electric chart for 12K

### Indoor unit

#### INDOOR UNIT WIRING DIAGRAM

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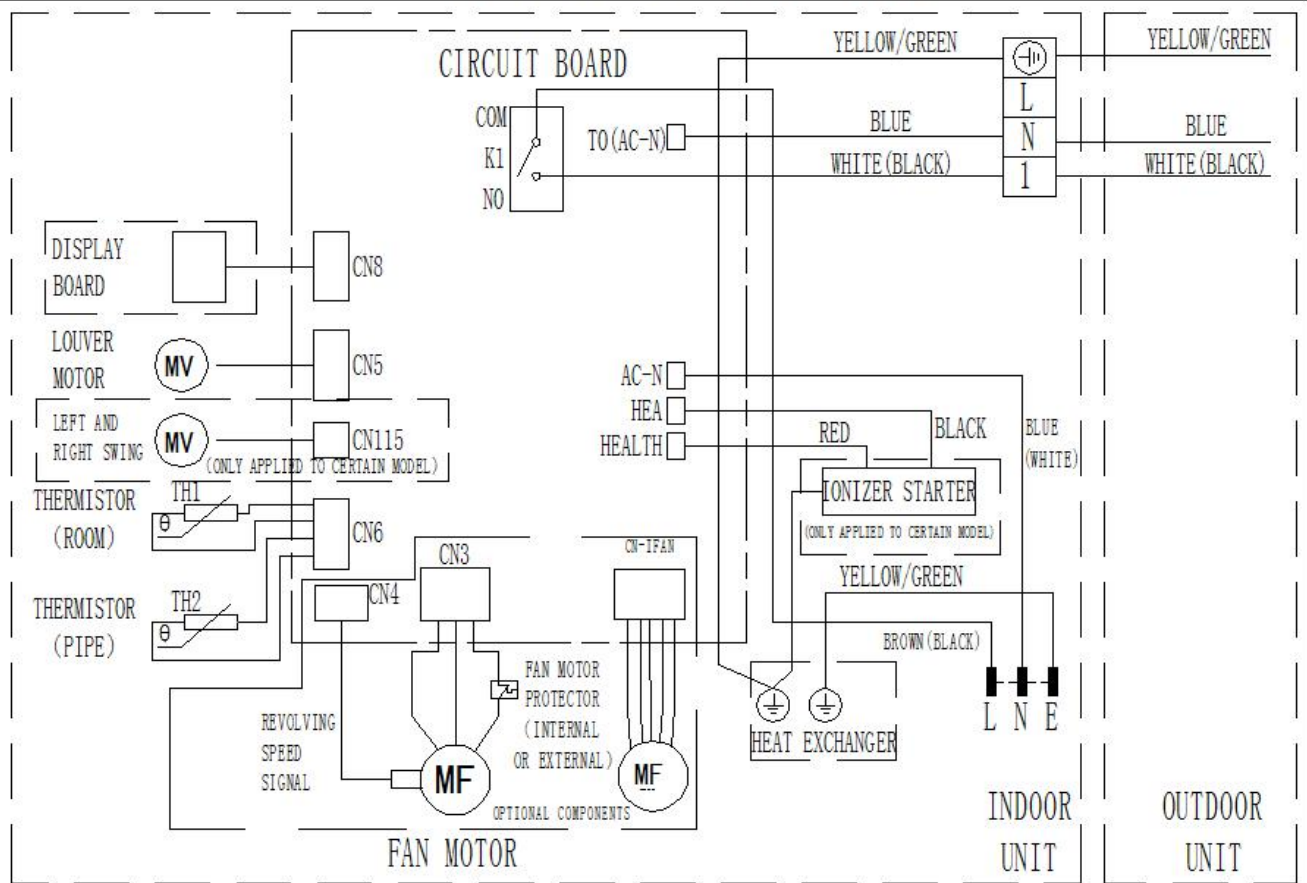


# Indoor unit

## Electric chart for 18 K

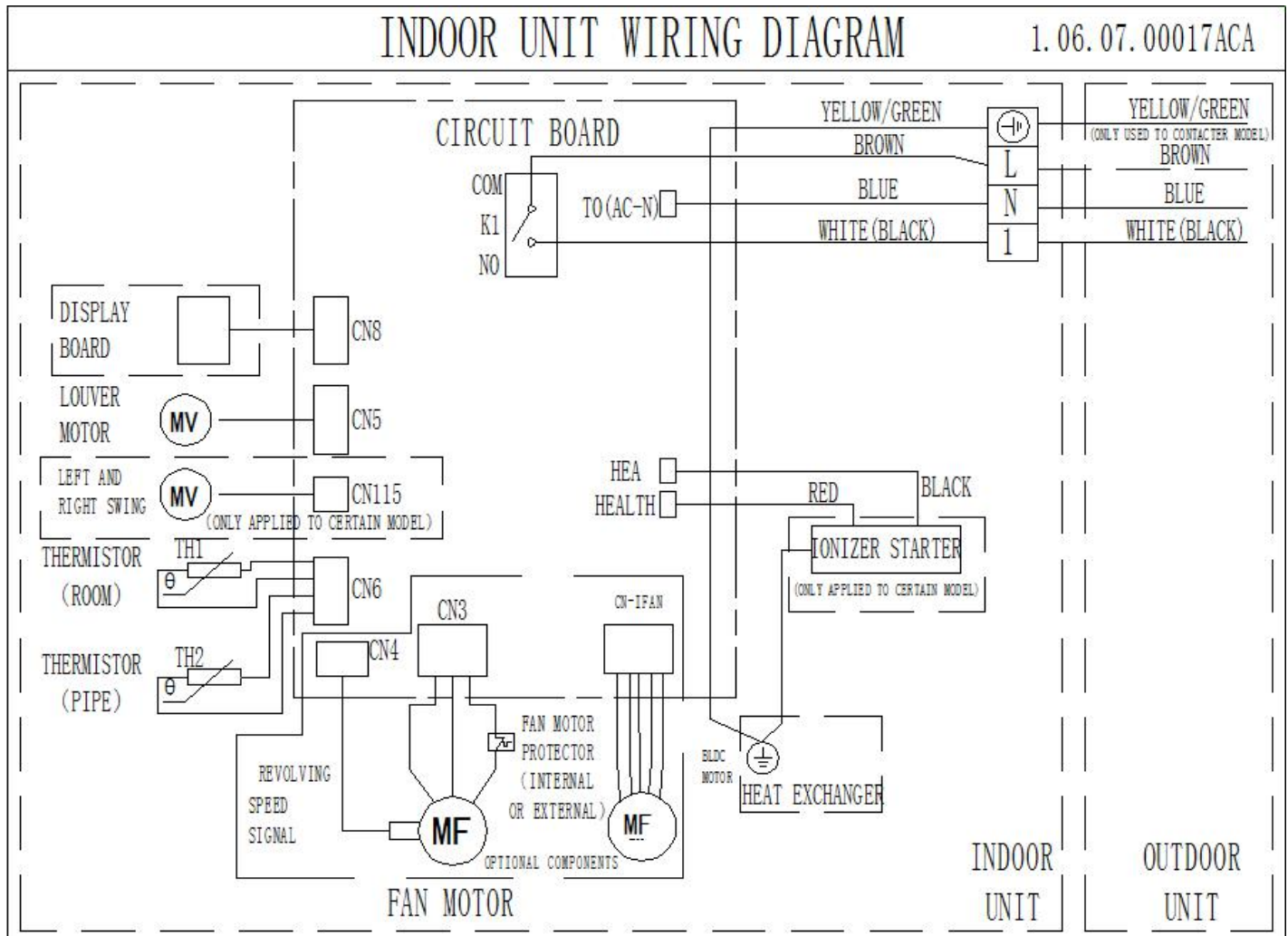
### INDOOR UNIT WIRING DIAGRAM

1.06.07.00017AAA



# Indoor unit

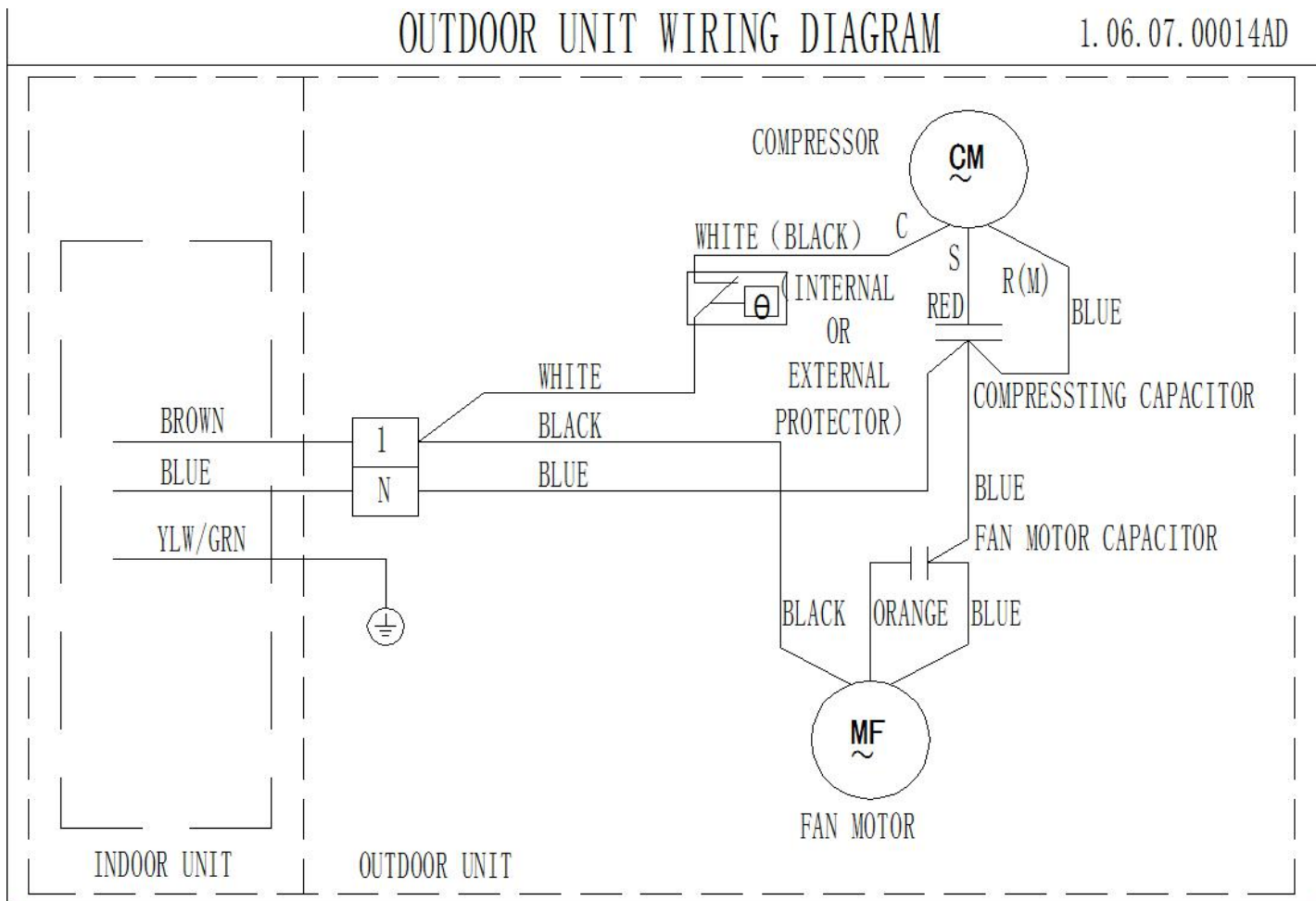
## Electric chart for 24 K





# Outdoor unit

## Electric chart for 12K/18K





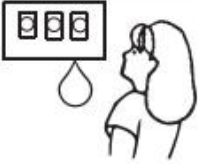
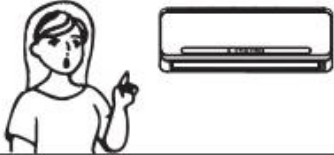


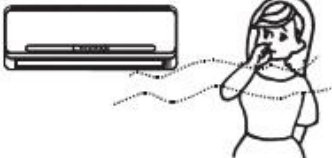
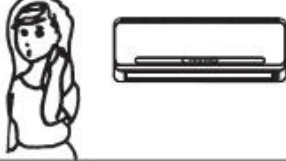


## Chapter 4 Troubleshooting Guide

### 4.1 Error Code

No.	Error Code	Problem
1	E1	RT sensor error
2	E2	IPT sensor error
3	E5	Outdoor protection
4	E6	Indoor fan motor error

## 4.2 Troubleshooting Guide

The following cases may not always be a malfunction, please check it before asking for service.

Trouble	Analysis
<p>Does not run</p> 	<ul style="list-style-type: none"> <li>• If the plug is not properly plugged.</li> <li>• If batteries in the remote controller exhausted.</li> <li>• If the protective device works to protect the appliance.</li> <li>• If the protector trip or fuse is blown.</li> </ul>
<p>No cooling or heating air</p> 	<ul style="list-style-type: none"> <li>• Are the intakes and outlets of the air conditioner blocked?</li> <li>• Is the temperature set properly?</li> <li>• Is the air filter dirty?</li> </ul>
<p>Ineffective control</p> 	<ul style="list-style-type: none"> <li>• If strong interference (from excessive static electricity discharge, power supply voltage abnormality) presents, operation will be abnormal. At this time, disconnect from the power supply and connect back 2-3 seconds later.</li> </ul>
<p>Does not operate immediately</p> 	<ul style="list-style-type: none"> <li>• Changing mode during operation, 3 minutes will delay.</li> </ul>
<p>Peculiar odor</p> 	<ul style="list-style-type: none"> <li>• This odor may come from another source such as furniture, cigarette etc, which is sucked in the unit and blows out with the air.</li> </ul>
<p>A sound of flowing water</p> 	<ul style="list-style-type: none"> <li>• Caused by the flow of refrigerant in the air conditioner, not a trouble.</li> <li>• Defrosting sound in heating mode.</li> </ul>
<p>Cracking sound is heard</p> 	<ul style="list-style-type: none"> <li>• The sound may be generated by the expansion or contraction of the front panel due to change of temperature.</li> </ul>
<p>Spray mist from the outlet</p> 	<ul style="list-style-type: none"> <li>• Mist appears when the room air becomes very cold because of cool air discharged from indoor unit during <b>COOLING</b> or <b>DRY</b> operation mode.</li> </ul>
<p>The compressor indicator (red) lights on constantly, and indoor fan stops.</p>	<ul style="list-style-type: none"> <li>• The unit is shifting from heating mode to defrost. The indicator will light off within ten minutes and returns to heating mode.</li> </ul>

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