## **1.1.Touchscreen Panel Overview**



### **A:Communication Status**

This symbol serves to indicate whether communication is functioning correctly. When the symbol is blue, then the communication between the heat pump and indoor unit is operational. If the symbol turns grey, communication has been broken.

### **B:** Current Mode

This symbol shows the current working mode. If the system is changing its mode of work, then the mode switch symbol will be displayed [G]. If more than one working mode is simultaneously active, the corresponding working mode symbols will be indicated on the display. The three available working mode symbols are shown below.

- <b>: (</b>	Heating mode
藏	Cooling mode
<b>*</b>	Hot water mode

### **C: Functions**

The function icon shows the current real-time active task of the heat pump. Below is a list of available functions.

٤	Sleep Mode	<b>&gt;</b>	Floor Curing
ø	Interruption	×	Sanitization Mode
	Sanitary Hot Water Storage Mode	***	Defrosting Mode

# **1.1.Touchscreen Panel Overview**

## **D:** Warnings

If the system experiences a failure, or enters into protection mode, an alert will be shown in this location. Enter the "Info" menu to receive more detail on the cause of this alert. A list of more commonly occurring alerts is provided in Chapter 2.

Yellow——Outdoor unit protection or failure
Red——System protection or failure

## E: On/Off

This on-screen button turns on (or off) the heat pump operation. When the unit is powered on, the home page will be shown on-screen by default. After a restart, the unit recovers back to the same working mode and settings prior to shutoff.



## F: Touchscreen Panel Readings

This panel displays real-time updates and live readings of various temperatures, both inside and outside.





# **1.1.Touchscreen Panel Overview**

Quick Setting: Press numbers follow different icons under main interface, can activate "Quick Setting " for related functions.



## **1.1.Touchscreen Panel Overview**

## G: Working Mode Switcher

This button funcions to switch the current working mode of the unit. Modes cycle through the following: HEATING, COOLING, HOT WATER, AUTO. Current mode is displayed under [B].

In AUTO mode, the system will switch between COOLING, HEATING, and HOT WATER modes automatically, according to the current setting.



### **H: Settings**

Press the settings button to enter the detailed configurations menu. Detailed explanations of each setting can be found in the chapters that follow in this manual.



# 2. Common Front Page Warnings

## **2.1.Protection Information and their Meanings**

Some information, such as system protection protocols and failure warnings, that are more likely to happen will be shown on the front page, so that users may see them more easily. A list of examples is found below.



### 1. Coil Temperature Too Low

The indoor coil temperature is too low. This occurs during the unit's cooling operation. Too low of a coil temperature may cause the water inside the plate heat exchanger to freeze up and cause damage. The system recovers automatically when the coil temperature goes over the safe temperature threshold again. When this warning occurs, take the following steps:

- Check if the set cooling temperature is too low, whether the system has too low of a water flow rate, and if the system water filter is functioning properly.
- Measure if the system has a sufficient amount of refrigerant inside by measuring the evaporating pressure.
- Make sure the ambient temperature is not lower than  $15^{\circ}$ C

### 2. Water Flow Rate Too Low

The system water flow rate is less than the minimum allowable. Check and verify the water system, filter, and pump.

### 3. Water Flow Switch Failure

The water flow switch should be "open" when the unit circulation pump is working. If not, the system will think that the flow switch is broken. Verify that the flow switch is operational and connected correctly. Verify the working status of the separate pump that circulates water throughout the unit when the primary unit circulation pump is working, if applicable.

### 4. Communication Failure

Communication between the operation panel, indoor PCB, and the outdoor PCB has lossy data. Verify that the communication cable is not longer than 30 meters. Check for an interference source near the unit, and if so, remove it.

#### 5. Serial Port Connection Error

Communication between the operation panel and indoor or outdoor PCB has not been successfully set up. Check the cable connection integrity in between. Confirm that the last three switches on both the indoor and outdoor PCB are set to 001.

#### 6. Cooling Water Temperature Too Low

The compressor stops if the outlet water temperature is too low when in cooling mode. This temperature may make water freeze up inside the plate heat exchanger and cause damage. Check and verify that the water temperature sensor Tc is both functional and well-connected. Ensure the set water temperature is not too low, and the flow rate is not too small.

### 7. Outlet Water Temperature Too High

The compressor stops if the outlet water temperature is too high when in heating or hot water mode. This temperature may lead to the system having an overly high condensing pressure, which can cause unit malfunction. Check and verify that the temperature sensors Tc and Tw are both functional and well-connected. Ensure that the set water temperature is not too high, and that the flow rate is not too small.

## **2.1.Protection Information and their Meanings**

### 8. Defrosting Failure

If the unit continuously fails to complete a defrosting operation for three times, it will stop and give failure code S08. This can be circumvented by restarting the machine. However, check whether the water temperature is actually too low for the unit to defrost, to prevent risk of the plate heat exchanger from freezing up.

#### 9. System Initialization

When the unit has just been powered on, this information may be shown. It will disappear by itself after initialization has been completed.

#### 10. Frequent Too Low Water Flow Rate Failure

If the unit stops due to the #2 error in this list (Water Flow Rate Too Low) for over three times in a set block of time, the unit will stop and give this S10 error code. It can only be removed by restarting the unit. Check the water system, especially the water filter, as well as the working status of the water pump.

#### 11. Indoor Anti-Freezing Protection While Cooling Failure

If the unit stops due to error #1 in this list (Coil Temperature Too Low) for over three times in a set block of time, the unit will stop and give this S11 error code. It can only be removed by restarting the unit, after taking care of the error.