

ESSISH KWS-CH302

ESSISH KWS-CH302 Digital Temperature Controller User Manual

Model: KWS-CH302 | Brand: ESSISH

1. INTRODUCTION

Thank you for choosing the ESSISH KWS-CH302 Digital Temperature Controller. This multi-purpose thermoregulator is designed for precise temperature control in various applications, including refrigeration, defrosting, and general temperature management. It features an intelligent control system with a clear digital display and user-friendly interface. Please read this manual thoroughly before installation and operation to ensure proper use and optimal performance.

2. SAFETY INFORMATION

- **Electrical Safety:** Ensure the power supply voltage (AC110/220V) matches the device's requirements. All wiring should be performed by a qualified electrician to prevent electric shock or damage.
- **Installation:** Install the device in a dry, well-ventilated area, away from direct sunlight, high temperatures, and corrosive gases.
- **Maintenance:** Disconnect power before performing any maintenance or cleaning. Do not attempt to repair the device yourself; contact qualified personnel.
- **Usage:** Do not expose the device to water or excessive humidity. Keep out of reach of children.

3. PRODUCT OVERVIEW

The KWS-CH302 is a compact digital temperature controller featuring a bright LED display and intuitive button controls. It integrates multiple functions for comprehensive temperature management.



Figure 1: Front view of the KWS-CH302 Digital Temperature Controller.

Key Features:

- AI intelligent control for stable performance.
- Digital display for clear temperature readings.
- Multi-functional: Defrosting, Refrigerate, Freezing, Lamp control, Air blower.
- Wide temperature setting and display range.

FIVE FUNCTIONS

INTELLIGENT TEMPERATURE CONTROL



Figure 2: Visual representation of the five intelligent functions: Lamp control, Defrosting, Refrigerate, Freezing, and Air blower.

4. SPECIFICATIONS

Parameter	Value
Power Supply Voltage	AC110/220V 60/50HZ
Temperature Display Range	-50°C to 100°C
Temperature Setting Range	-30°C to 100°C
Working Humidity Range	5-90% RH
Temperature Resolution	0.5°C
Opening Size	71 x 28 mm

Parameter	Value
Overall Dimensions	83 x 75.8 x 35 mm
Item Weight	50 Grams
Control Type	Button Control
Backlight	Yes

5. SETUP AND INSTALLATION

5.1 Mounting

The KWS-CH302 is designed for panel mounting. Ensure the opening size in your panel is 71 x 28 mm. The overall dimensions of the device are 83 x 75.8 x 35 mm.



5.2 Wiring

The device comes with two wiring harnesses. Refer to the wiring diagram printed on the side of the unit or included in the packaging for correct connections. Ensure all connections are secure and insulated. Incorrect wiring can damage the device or cause electrical hazards.

- **Power Input:** Connect the AC110/220V power supply to the designated terminals.
- **Sensor Input:** Connect the temperature sensor to its respective terminals.
- **Output Relays:** Connect the controlled loads (e.g., compressor, heater, fan, lamp) to the appropriate relay output terminals.

Always verify the wiring diagram for your specific unit before making any connections.

6. OPERATING INSTRUCTIONS

6.1 Power On/Off

Once wired correctly, apply power to the unit. The digital display will illuminate, showing the current temperature.

6.2 Setting Temperature

1. Press the **SET** button once. The display will show the current set temperature.
2. Use the **Up (^)** and **Down (v)** arrow buttons to adjust the desired temperature.
3. Press the **SET** button again to confirm and save the new temperature setting. If no button is pressed for a few seconds, the device will automatically save the setting and return to displaying the current temperature.

6.3 Function Modes

The KWS-CH302 supports various intelligent control functions. Specific settings for defrosting cycles, refrigeration modes, freezing, lamp control, and air blower operation are typically accessed through advanced parameter settings. Refer to the detailed parameter menu in the full product documentation for configuration of these modes.

- **Refrigerate/Freezing:** Controls cooling equipment to maintain a set low temperature.
- **Defrosting:** Manages defrost cycles to prevent ice buildup in refrigeration units.
- **Lamp Control:** Controls an auxiliary light source.
- **Air Blower:** Manages fan operation for air circulation.

7. MAINTENANCE

7.1 Cleaning

To clean the device, first disconnect it from the power supply. Use a soft, dry cloth to wipe the display and casing. Do not use abrasive cleaners, solvents, or immerse the device in water.

7.2 Sensor Care

Ensure the temperature sensor is kept clean and free from obstructions. Do not bend or damage the sensor cable.

8. TROUBLESHOOTING

Problem	Possible Cause	Solution
Display is blank	No power supply or incorrect wiring.	Check power connections and ensure voltage is correct. Verify wiring according to the diagram.
Temperature reading is inaccurate	Sensor faulty or improperly placed.	Check sensor connection. Ensure sensor is in the correct environment and not damaged. Replace if necessary.
Controller not responding to settings	Buttons stuck or internal fault.	Ensure buttons are not physically stuck. Power cycle the device. If issue persists, contact support.
Output relay not activating	Incorrect temperature setting or faulty relay.	Verify set temperature and differential. Check wiring to the load.

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation provided at the time of purchase or contact your seller directly. Keep your purchase receipt as proof of purchase.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question