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IXITAB STC-3008, STC-3018, STC-3028

STC-3008, 3018, 3028 Dual Digital Temperature Controller Hygrometer User Manual

Brand: IXITAB | Models: STC-3008, STC-3018, STC-3028

INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of the IXITAB STC-3008, STC-3018, and STC-3028 series of digital temperature and humidity controllers. These devices are designed for precise control in various applications, including aquariums, terrariums, incubators, and industrial temperature/humidity control systems.

Product Variants

- **STC-3008:** Dual Digital Temperature Controller with two temperature probes.
- **STC-3018:** Dual Digital Temperature Controller with two temperature probes.
- **STC-3028:** Digital Temperature and Humidity Controller with one combined temperature and humidity sensor.

Key Features

- Dual display for simultaneous monitoring of two temperatures or temperature and humidity.
- Two independent relay outputs for controlling heating/cooling or humidification/dehumidification devices.
- Wide range of power supply options (AC 110V/220V, DC 12V/24V) depending on the model.
- High precision sensors for accurate readings.
- User-friendly interface for setting parameters.

SAFETY PRECAUTIONS

To ensure safe operation and prevent damage to the device, please observe the following precautions:

- Always disconnect power before performing any wiring or maintenance.
- Ensure that the power supply voltage matches the requirements of your specific controller model.
- Strictly distinguish the interface of the relay, sensor, and power connections to avoid short circuits or damage.
- Ensure all wiring connections are secure and properly insulated.

- Keep the sensor and power wires separate and maintain a proper distance to prevent interference.
- Do not expose the device to water or excessive moisture.



Image: Top view of the STC-3018 controller showing the display, buttons, and a label with wiring instructions and safety notes. The label indicates power supply options (110-220VAC, 12V, 24V) and relay outputs (10A/220VAC). A temperature probe is connected to the device.

PRODUCT OVERVIEW

Components

- Main Controller Unit (with digital displays and control buttons)
- Temperature Sensor (for STC-3008/3018 models)
- Temperature and Humidity Sensor (for STC-3028 model)

STC-3008 DC 24V





Image: Front view of the STC-3008 DC 24V model, featuring two digital displays (red and blue) showing temperature readings, and two connected temperature probes. The model name "STC-3008" is visible on the front panel.




Image: A collage showing three different models: STC-3018 (top left), STC-3008 (top right and bottom left), and STC-3028 (bottom right). Each model is shown with its respective sensor, highlighting the visual differences and sensor types (temperature probe for 3008/3018, combined temperature/humidity sensor for 3028).


TEMPERATURE SETTING


Long press Δ 3 seconds, the starting temperature value flashes (default 20 °C) Press the plus or minus button to adjust, long press ∇ 3 seconds, stop the temperature value flash (default 30 °C) press the plus or minus button to adjust.
 Long press Δ 3 seconds, the starting humidity value flashes (default 40 %RH) Press the plus or minus button to adjust, long press ∇ 3 seconds, stop the humidity value flash (default 60 %RH) press the plus or minus button to adjust.
 Press ∇ 3 seconds to reset the factory settings.




Starting Temperature < Stop Temperature → Heating



Starting Humidity < Stop Humidity → Humidity



Starting Temperature > Stop Temperature → Cooling



Starting Humidity > Stop Humidity → Dehumidification

Image: A close-up view of the STC-3028 model, showcasing its dual digital display for temperature and humidity, along with the connected combined temperature and humidity sensor.

SPECIFICATIONS

Parameter	Value
Model	STC-3008, STC-3018, STC-3028
Power Supply	AC 110V/220V, DC 12V/24V (model dependent)
Temperature Measurement Range	-50°C to 110°C (-58°F to 230°F)
Humidity Measurement Range (STC-3028)	0% RH to 99% RH
Output Relay Capacity	10A/220VAC
Sensor Type	NTC sensor (temperature), integrated sensor (humidity for STC-3028)
Dimensions	Approx. 1.18 x 0.79 x 0.39 inches (main unit)
Item Weight	Approx. 1.76 ounces
Country of Origin	China

INSTALLATION AND WIRING

Important: Ensure power is disconnected before performing any wiring to prevent electric shock or damage to the device.

Wiring Diagram

WIRING DIAGRAM



Image: Detailed wiring diagram for the STC-3018 model. It illustrates connections for power supply (110V/AC220V, 12V, 24V), two sensor inputs, and two relay outputs (10A/220VAC). Examples of connected loads like a refrigerator, fan, and water heater are shown.

Wiring Steps

- Power Supply:** Connect the appropriate power supply (AC 110V/220V or DC 12V/24V) to terminals 1 and 2. Verify that the voltage matches your specific controller model.
- Sensors:** Connect the temperature sensors to terminals 3 and 4, and 5 and 6 (for STC-3008/3018). For the STC-3028, connect the combined temperature/humidity sensor to its designated terminals.
- Output Relays:** Connect your heating/cooling or humidification/dehumidification devices to terminals 7 and 8 (Relay 1) and 9 and 10 (Relay 2). These are dry contacts, meaning they act as switches, and your load will require its own power source.
- Mounting:** The controller is designed for panel mounting. Insert the unit into a suitable cutout and secure it using the integrated clips on the sides.

OPERATING INSTRUCTIONS

Button Functions

- **Set Button:** Used to enter parameter setting mode and confirm selections.
- **Up (▲) Button:** Increases values, navigates through menu options.

- **Down (▼) Button:** Decreases values, navigates through menu options.
- **Rst Button:** Short press to view current settings; long press (3 seconds) to reset to factory default settings.

Temperature/Humidity Setting



Image: A visual guide demonstrating the temperature and humidity setting process on the STC-3028 model. It shows how to set starting and stopping values for both temperature (heating/cooling) and humidity (humidification/dehumidification) using the control buttons.

1. **Setting Starting Temperature/Humidity:** Long press the **Up (▲)** button for 3 seconds. The starting value on the display will flash. Use the **Up (▲)** or **Down (▼)** buttons to adjust to your desired starting value. Press the **Set** button to confirm and exit.
2. **Setting Stopping Temperature/Humidity:** Long press the **Down (▼)** button for 3 seconds. The stopping value on the display will flash. Use the **Up (▲)** or **Down (▼)** buttons to adjust to your desired stopping value. Press the **Set** button to confirm and exit.
3. **Reset to Factory Settings:** Long press the **Rst** button for 3 seconds until the display shows "888" or similar indication of reset.

The controller will automatically activate or deactivate the connected relays based on the set starting and stopping values to maintain the desired temperature or humidity range. For temperature control, if the starting temperature is lower than the stopping temperature, it operates in heating mode. If the starting temperature is higher than the stopping temperature, it operates in cooling mode. Similar logic applies to humidity control for humidification/dehumidification.

MAINTENANCE

Proper maintenance ensures the longevity and accuracy of your controller:

- Keep the device clean and free from dust and debris. Use a soft, dry cloth for cleaning.

- Ensure adequate ventilation around the unit to prevent overheating.
- Periodically inspect all wiring connections to ensure they remain secure and free from corrosion.
- Avoid exposing the unit or sensors to extreme temperatures, high humidity, or corrosive environments outside their specified operating ranges.
- Do not attempt to disassemble the unit beyond what is described in this manual.

TROUBLESHOOTING

If you encounter issues with your controller, refer to the table below for common problems and solutions:

Problem	Possible Cause	Solution
Display not working	No power, incorrect wiring, faulty unit.	Check power supply connections. Verify wiring against the diagram. If problem persists, contact support.
Relay not switching	Incorrect temperature/humidity settings, faulty relay, load issue.	Review your set starting and stopping values. Check the wiring to the load device. Test the load device independently.
Inaccurate readings	Sensor damaged, sensor not properly placed, environmental interference.	Inspect sensor for physical damage. Ensure sensor is in the correct environment and not obstructed. Avoid placing sensor near heat sources or drafts.
"LLL" or "HHH" on display	Sensor open circuit (LLL) or short circuit (HHH).	Check sensor connection for looseness or damage. Replace sensor if it appears faulty.
Display shows "---"	Sensor not connected or faulty.	Ensure sensor is securely connected. Replace sensor if necessary.

WARRANTY AND SUPPORT

For warranty information or technical support regarding your IXITAB STC-3008, STC-3018, or STC-3028 controller, please refer to the documentation provided with your product at the time of purchase or contact IXITAB customer service through the platform where you purchased the item.

When contacting support, please be prepared to provide your product model number (STC-3008, STC-3018, or STC-3028) and details of your purchase.