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BN-LINK T10

BN-LINK Digital Temperature Controller T10 Instruction Manual

Model: Digital T10 | Brand: BN-LINK

1. PRODUCT OVERVIEW

The BN-LINK Digital Temperature Controller T10 is a professional thermostat designed for precise temperature management. It features dual controlling outlets for both heating and cooling devices, offering versatile application across various environments.

- Dual Functions:** Equipped with two controlling outlets (one for heating, one for cooling) and three-prong grounded plugs, allowing simultaneous control of both heating and cooling devices.
- Versatile Applications:** Ideal for seedling germination, rooting, brewing, heating, fermentation, aquariums, reptile enclosures, and other environments requiring stable temperature ranges.
- Professional Grade Sensor:** Includes a 5.9 ft high-accuracy waterproof sensor probe with a working temperature range of -58°F to 230°F. The controller itself operates from -40°F to 176°F.
- User-Friendly Interface:** Features a clear digital display, flexible buttons, and sensitive socket contacts for easy setup and temperature adjustment. Supports both Fahrenheit and Celsius units.
- Safe & Reliable:** Rated for 125VAC 60Hz, supporting 15A/1875W resistive and general-purpose loads, 10A/1250W tungsten and electronic ballast, 1/2 HP, and TV-5 applications.

2. SAFETY INSTRUCTIONS

- Always ensure the controller is plugged into a grounded 125V AC power outlet.
- Do not exceed the maximum load capacity of 15A/1875W. Overloading can cause damage to the device and pose a fire hazard.
- The sensor probe is waterproof, but the main controller unit is NOT waterproof. Avoid immersing the main unit in water or exposing it to excessive moisture.
- Ensure all connections are secure before operating the device.
- Keep out of reach of children and pets.

3. PACKAGE CONTENTS

Your BN-LINK Digital Temperature Controller T10 package should include the following items:

- BN-LINK Digital Temperature Controller Unit
- Waterproof Temperature Sensor Probe (5.9 ft)
- Dual Outlet Power Strip (Heating & Cooling)
- User Manual

Video: Unboxing the BN-LINK Digital Temperature Controller. This video demonstrates the unboxing process, showing the main controller unit, the sensor probe, and the dual outlet power strip included in the package.

4. SETUP

1. **Plug in the Controller:** Insert the controller's main plug into a standard 125V AC power outlet.
2. **Connect the Sensor Probe:** Plug the waterproof temperature sensor probe into the designated port on the controller. Ensure it is fully plugged in.
3. **Position the Sensor:** Place the sensor probe in the area where you want to monitor and control the temperature (e.g., inside a reptile tank, near seedlings, in a fermenter).
4. **Connect Devices:** Plug your heating device into the 'HEATING' outlet and your cooling device into the 'COOLING' outlet on the power strip.
5. **Power On:** The digital display will illuminate, showing the current temperature (PV) and the set temperature (SV).
6. **Select Temperature Unit:** To switch between Fahrenheit (°F) and Celsius (°C), press and hold both the Up and Down arrow buttons simultaneously until the unit changes.

Video: Live demo on how it works. This video provides a live demonstration of connecting the sensor and devices, and the initial power-on sequence.

Video: See How It Works! Digital Temp Controlled Outlet. This video illustrates the practical setup and initial functionality of the digital temperature controller.

5. OPERATING INSTRUCTIONS

1. **Set Target Temperature (SV):** Press and hold the 'SET' button for 2 seconds until the SV display flashes. Use the Up and Down arrow buttons to adjust your desired target temperature. Press 'SET' again to confirm.
2. **Set Heating Differential (HD):** After setting SV, press 'SET' once to cycle to HD. Use the Up and Down arrow buttons to set the temperature difference below SV at which the heating device will activate.
3. **Set Cooling Differential (CD):** Press 'SET' again to cycle to CD. Use the Up and Down arrow buttons to set the temperature difference above SV at which the cooling device will activate.
4. **Lock Settings:** To prevent accidental changes, ensure the lock switch on the side of the controller is in the 'LOCK' position after setting your desired parameters.
5. **Alarm Function:** The controller will beep and alarm if the temperature goes above or below your set range ($SV \pm CD/HD$), indicating that the temperature is outside the desired limits.

Video: BN-LINK Digital Temperature Controller Instruction. This video provides a detailed guide on how to operate and set the temperature parameters on the controller.

6. ADVANCED SETTINGS

The controller offers advanced parameters for fine-tuning temperature control:

- **Heating Differential (HD):** This setting determines how many degrees below the Set Value (SV) the temperature must drop before the heating device activates. A larger HD value results in less frequent heating cycles.
- **Cooling Differential (CD):** This setting determines how many degrees above the Set Value (SV) the temperature must rise before the cooling device activates. A larger CD value results in less frequent cooling cycles.
- **Time Differential (PT):** After the system reaches the SV, the system will wait for at least the specified PT number of minutes before allowing any outputs to turn on again. This helps spread out cycles and prevent rapid on/off switching, especially useful for devices like air conditioners with internal controls.

7. APPLICATIONS

The BN-LINK Digital Temperature Controller T10 is suitable for a wide range of applications requiring precise temperature control:

- **Seedling Germination & Rooting:** Maintain optimal soil temperatures for healthy plant growth.
- **Homebrewing & Fermentation:** Ensure consistent temperatures for brewing beer, wine, or other fermented products.
- **Reptile & Aquarium Environments:** Create stable and safe habitats for pets by controlling heat lamps, heat mats, or chillers.
- **Incubation:** Regulate temperature for incubators, such as for hatching eggs.
- **Greenhouses:** Manage ambient temperature to protect plants from extreme conditions.

Two Stage Digital Thermostat

For home brew reptile vivarium



Image: The BN-LINK Digital Temperature Controller connected to a reptile vivarium, demonstrating its use for maintaining a stable environment for pets.



Breeding&Incubation



Seed Germination



Aquarium



Attic Fan



Home Brewing



Reptiles

Image: A collage showing the versatility of the controller across different uses like breeding, seed germination, aquariums, attic fans, home brewing, and reptile care.

8. MAINTENANCE

- Regularly inspect the sensor probe and cables for any signs of damage. Replace if necessary.
- Clean the controller's display and buttons with a soft, dry cloth. Do not use abrasive cleaners or immerse in liquids.
- Ensure the outlets are free from dust and debris to maintain proper electrical contact.

9. TROUBLESHOOTING

- **Display Not Working:** Check if the controller is properly plugged into a live power outlet.
- **Incorrect Temperature Readings:** Ensure the sensor probe is correctly connected and positioned. Verify the probe is not damaged.
- **Device Not Activating/Deactivating:** Check your SV, HD, and CD settings to ensure they are within the desired operational range. Verify that the heating/cooling devices are properly plugged into the correct outlets.
- **Alarm Sounding:** The alarm indicates the temperature is outside the set range. Adjust settings or environmental conditions as needed.
- **Overload Protection (T10 Model):** The T10 model does not feature an external overload reset button or a removable temperature sensor. In case of an overload, internal components may be affected. Consult a qualified electrician for repair if needed.

10. SPECIFICATIONS

Feature	Detail
Brand	BN-LINK
Model	Digital T10
Voltage	125 Volts
Max. Load	15A/1875W (Resistive/General Purpose), 10A/1250W (Tungsten/Electronic Ballast), 1/2 HP, TV-5
Sensor Probe Temp Range	-58°F to 230°F (-50°C to 110°C)
Controller Working Temp	-40°F to 176°F (-40°C to 80°C)
Temperature Accuracy	±1°C
Display Type	Digital
Color	Black
Item Weight	1.3 pounds
UPC	810079586547

11. WARRANTY AND SUPPORT

For warranty information, technical support, or any inquiries regarding your BN-LINK Digital Temperature Controller T10, please refer to the contact information provided in your product packaging or visit the official BN-LINK website.