



# Heating and Cooling Thermostat User Manual

## INSTRUCTIONS:

Thermostats are widely applied to aquariums, reptile markets, incubators, green houses and refrigerators, where constant temperature controlling is required (heating and cooling).

## MAIN FEATURES:

1. LED display, friendly interface, easy to read, operates and set the parameters.
2. Can choose COOL or HEAT mode.
3. Can switch between °C and °F

## MAIN FUNCTIONS AND PARAMETERS:

- ◆ Temperature controlling range: 16~40°C
- ◆ Temperature measuring range: -40~100°C
- ◆ Resolution: 0.1°C; Accuracy: ± 1.0°C
- ◆ Input: 1 NTC sensor
- ◆ Relay: 10A/220V
- ◆ Product consumption: ≤ 3W
- ◆ Input voltage: 110Vac± 15%
- ◆ Ambient Requirements: Temperature: -10~60°C; Humidity: 20%~85%°C
- ◆ Control load: ≤ 550W/110V

## KEYS:

KEY	ACTION	RESULT	STATUS
H/C	single press	switch between HEAT and COOL mode	In normal work status
SET	single press	enter into setting mode of DIFF and DELAY	In normal work status
	single press	save and exit	In setting status
	press 5 sec.	switch between °C and °F mode	In normal work status
UP	single press	enter into setting mode of stop temperature	In normal work status
UP	single press	upward adjust the parameter value	In setting status
DOWN	single press	downward adjust the parameter value	In setting status
DOWN	single press	enter into setting mode of stop temperature	In normal work status

## ICONS:

ICON	MEANING			STATUS
	Display	Not display	Flash	
SNOW	cool working	cool not working	/	In normal work status
SUN	heat working	heat not working	/	In normal work status
COOL	cool mode	non cool mode	/	In normal work status
HEAT	heat mode	non heat mode	/	In normal work status
DIFF	/	/	DIFF adjustable	In setting status
DELAY	/	/	DELAY adjustable	In setting status

**MENU INSTRUCTIONS:**

PARAMETER	SET RANGE	DEFAULT	INCREMENT	UNIT
Temperature	16.0~40.0	26	0.1	°C
DIFF	0.0~5.0	2.0	0.1	°C
DELAY	0~150	30	1	Second

**CONTROLLING FUNCTION:**

FUNCTION	CONDITIONS OF OUTPUT	CONDITIONS OF STOP OUTPUT
COOL	1. In cool mode	1. In cool mode
	2. Measuring temp. $\geq$ Stop temp. + DIFF	2. Measuring temp. $\leq$ Stop temp.
	3. Time period of first power on or the previous stop and this start $\geq$ DELAY	
HEAT	1. In heat mode	1. In heat mode
	2. Measuring temp. $\leq$ Stop temp. - DIFF	2. Measuring temp. $\geq$ Stop temp.

**PARAMETERS SETTING:**

Parameters would be set according to the following circular mode in the first time. All the parameters are set and saved instantly.

First of all, make sure the power is on.

**1. Choose HEAT/COOL mode:**

Press H/C key to switch mode between HEAT and COOL in normal working status.

**2. Set DIFF and DELAY (temperature difference and compressor delay):**

Press SET key in normal working status to display the default DIFF value while icon DIFF flashing, then press UP or DOWN key to adjust the ideal temperature difference you want.

Then press SET key to display the default DELAY value while icon DELAY flashing, then press UP or DOWN key to adjust the ideal compressor delay time you want. Then press SET to save and exit.

**3. Stop temperature setting:**

Press UP or Down key in normal working status to display the default stop temperature value while icon °C/°F flashing, then press UP or DOWN key to adjust the ideal stop temperature you want.

**1 Year Limited Warranty Service**

If the product will not work after you have read the troubleshooting guide and practiced the troubleshooting options, you are advised to return the Hydro Crunch™ product to the retailer you purchased it from. The dealer will be able to examine the product and test its components. If they are not able to repair the product, they will return it to us for examination and repair/replacement. Do not attempt to repair any product on your own, as serious injury or death may result. If the retailer is not able to help you and the product is still under manufacturer's warranty, you may contact us for technical support. In some cases, you will be issued an RMA# (return merchandise authorization number) to return the unit for factory repair. Complete the warranty form below and return the product with all original packaging, your receipt of purchase, and a valid RMA# to the address below. Please pack and ship the product in its original packaging. If it is damaged in shipment we cannot be responsible and the warranty may be voided. Once we receive RMA package, it will be repaired or replaced and shipped back to you. Please note if an additional warranty was purchased and include the extended warranty sales receipt with your return.

**RETURN FORM**

**Include the following if returning:**

- ✓ Proof of purchase
- ✓ This completed form
- ✓ RMA# on the outside of the box
- ✓ Extended warranty receipt

**Return Merchandise Authorization Number (Required):** \_\_\_\_\_

**Contact Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_

\_\_\_\_\_

**Phone #:** \_\_\_\_\_

**Email Address:** \_\_\_\_\_

**Please give a brief description of your technical issue:** \_\_\_\_\_

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**SEND TO:**

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