

Honeywell

T4700 Chronotherm™ Electronic Programmable Line Voltage Thermostat



OWNER'S GUIDE

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69-1396-2

Features

- **Digital temperature sensing and control for energy efficient precision operation.**
- **Flexibility of 5-1-1 day or 7-day programming**
- **Exceptional comfort control of resistance-rated heating equipment.**
- **Patented CoolSwitch™ design offers a long service life.**
- **Night and day setback of space temperature can save up to 29 percent of the energy used to heat a controlled zone.**
- **Offers up to a 12 percent energy saving during comfort periods compared with conventional bi-metallic electric heating thermostat, according to the Electric Power Research Institute.**

Welcome ... to the world of comfort and energy savings with your new Honeywell programmable thermostat.

Your new T4700 Chronotherm™ Programmable Electronic Line Voltage Thermostat is designed to provide you with reliable, precise temperature control. When you follow the simple programming instructions in this manual, your thermostat automatically controls the temperature in your home, saving energy and allowing you to awake (or return home) to a comfortable temperature in your home.

Please direct any questions about the operation of this thermostat to Honeywell Customer Assistance at 1-800-468-1502.

Contents

| | |
|--|----|
| Features | 2 |
| Specifications | 4 |
| Programming Thermostat..... | 5 |
| Initial Power-Up | 5 |
| Factory Set Programming | 5 |
| Thermostat Reset | 6 |
| Homeowner Programming | 6 |
| Setting the Current Day and Time | 7 |
| Setting the Daily Schedule (7-Days)..... | 8 |
| Copying Schedules to Another Day | 9 |
| Overriding a Program | 10 |
| Programming Additional Functions | 10 |
| Checkout | 12 |
| Troubleshooting | 12 |
| Customer Assistance..... | 13 |
| One-Year Limited Warranty | 14 |

Specifications

Models:

T4700A: SPST; makes heating circuit on temperature fall.

T4700B: DPST; makes heating circuit on temperature fall. Breaks both sides of 240 volt line with switch in OFF position.

Temperature Ratings:

Operating Range: -20 to +104°F (-30° to +40°C).

Control Range: 45 to 80°F (7 to 27°C) in 1° increments. Factory set at 16°C (61°F).

Humidity Ratings: 55 to 95 percent RH, non-condensing.

Wiring: 6 in. (150 mm) stranded copper leadwires, suitable for connection to aluminum wiring if approved special service CO/ALR connectors are used.

Electrical Ratings (Noninductive):

3800W, 16A maximum;
500W, 2A minimum at 240V, 60 Hz.

Sensing Element: Electronic thermistor.

Switching: Patented CoolSwitch®.

Programming Thermostat

Initial Powerup

When the thermostat is first powered up (or after eight hours of continuous power loss), the display blinks for two seconds and then undergoes a self-test — while 00E displays for about 15 seconds.

This is followed by the display flashing (1:00 PM); the internal checkout is complete and the thermostat is ready to be programmed.

To verify that the thermostat is turning on the baseboard heater, press the (+) key until the setpoint displayed exceeds the room temperature.

The (°) symbol is flashing. Feel for warmth in the area close to the heating element; the unit should be starting to generate heat.

Press and hold the Prog key to return the thermostat to the Run mode.

Factory Set Programming

The thermostat defaults to a normal non-programmable thermostat at power-up, indicated with Hold appearing in the display. Pressing the Prog key once enters the programming mode. The thermostat is preset with a factory set schedule for 7 days, see Table 1.

Table 1. Preset Factory Schedule for 7-days.

| Event | Time | Temperature |
|--------|----------|-------------|
| WAKE | 6:00 AM | 70°F (21°C) |
| LEAVE | 8:00 AM | 61°F (16°C) |
| RETURN | 6:00 PM | 70°F (21°C) |
| SLEEP | 10:00 PM | 61°F (16°C) |

Thermostat Reset

The T4700 can be reset to its default settings (Table 1) by inserting a bent paper clip or similar wire into the small hole on the front of the thermostat (next to the (+) key with the cover open). This resets only the clock; the programmed schedule is retained.

Homeowner Programming

IMPORTANT

After programming is complete, the device reverts to normal Run mode within five minutes, if no key was pressed, and any new setting is stored in its memory.

The thermostat is flexible and can be programmed to meet your lifestyle. Four time periods are available:

WAKE is the time the thermostat turns on the equipment after an energy saving period. When deciding what time to set for your **WAKE** period, include extra lead time, depending on the outside temperature and

your equipment response time, to give the equipment time to adjust the temperature before you get up.

LEAVE is the time you can set for an energy-saving temperature while you are away at work or school.

RETURN is the time the thermostat turns on the equipment after an energy saving period. When deciding what time to set for your **RETURN** period, include extra lead time, depending on the outside temperature and your equipment response time to give the equipment time to adjust the temperature before you arrive home.

SLEEP is the time you can set for an energy-saving temperature while you are sleeping.

IMPORTANT

Always press the keys with you fingertip or similar blunt tool. Sharp instruments like pens and pencil points can damage the keys.

See Tables 2 - 6 to program your thermostat.

Table 2. Setting the Current Day and Time.



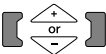

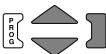
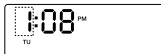
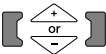


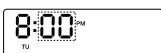
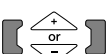


























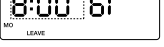






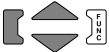

| Step | Press This Key | Display Shows | Description |
|------|---|---|-------------------------------------|
| 1 |  |  | Displays day of the week. |
| 2 |  |  | Displays changed day of the week. |
| 3 |  |  | Displays hour of the day. |
| 4 |  |  | Displays changed hour of the day. |
| 5 |  |  | Displays minute of the day. |
| 6 |  |  | Displays changed minute of the day. |

Table 3. Setting the Daily Schedule (7-Days).

| Step | Press This Key | Display Shows | Description |
|------|---|---|--|
| 1 |    |  | Scrolling through the display shows the first day to program, beginning with Monday. |
| 2 |    |  | Displays WAKE time. |
| 3 |     |  | Displays changed WAKE time in ten-minute increments. |
| 4 |    |  | Displays WAKE setpoint temperature. |
| 5 |     |  | Displays changed WAKE setpoint temperature. |
| 6 |    |  | Displays LEAVE time. |

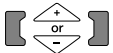
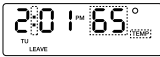

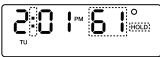
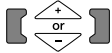



NOTE: Continue through LEAVE, RETURN, and SLEEP periods using the same procedure to set the time and temperature for each period. To easily copy one day schedule to another day, see Table 4.

Table 4. Copying Schedules to Another Day.

| Step | Press This Key | Display Shows | Description |
|------|---|---|---|
| 1 |  |  | Selects and displays the day to be copied; for example, MOnDay. |
| 2 |  |  | Displays COPY FROM day (MOnDay). |
| 3 |  |  | Displays COPY TO day (TUEsday). |
| 4 |  |  | Enters the program. (NOTE: Repeat sequence to copy additional days.) |

NOTE: To exit the programming mode: 1) press and hold the Prog key for three seconds and the display returns to Run mode, or 2) during the programming session, after five minutes elapsed time with no program change, the display reverts to Run mode. This does not change any of the programmed steps. Simply keep pressing the Prog key until you arrive at the desired mode.

Table 5. Overriding a Program.





| Step | Press This Key | Display Shows | Description |
|-----------------------------------|---|---|---|
| Temporarily Overriding a Program | | | |
| Temporary (TEMP) Mode |  |  | Changes to TEMPorary mode and controls at a new temperature until the next scheduled event (for example, RETURN). |
| Indefinitely Overriding a Program | | | |
| Hold (HOLD) Mode |  |  | Changes to HOLD mode and controls at the HOLD temperature indefinitely. |
| |  |  | Increases or decreases the HOLD temperature. |
| |  |  | Changes from the HOLD mode to the RUN mode. |

Programming Additional Functions

To change display or function (for example,

to °C or °F temperature setting, or to 7-day or 5-1-1 programming), see Table 6.

Table 6. Programming Additional Functions.

| Function | Press This Key | Display Shows | Description |
|--|---|---|--|
| Begin sequence to convert display or mode. |  | FF FF | Press and hold both the Prog and Func keys. Initially a random four-digit/letter display occurs (for example, FF FF). Continue to press Prog key until temperature symbol appears. |
| Convert to °C or °F. |  |  | Press Prog key a second time to display °C. Use (+) key to change to °F if desired (or °F to C°). |
| Convert 5-1-1 to 7 day. |  | 5 1 1 d | Press Prog key a third time to display 511d. Press (+) key to change mode to 7-day programming (or back to 5-1-1 programming). Then adjust using the (+) or (-) keys. |

NOTE: To exit the programming mode: 1) press and hold the Prog key for three seconds and the display returns to Run mode, or 2) during the programming session, after five minutes elapsed time with no program change, the display reverts to Run mode. This does not change any of the programmed steps. Simply keep pressing the Prog key until you arrive at the desired mode.

Checkout

After initial thermostat powerup (or after eight hours of continuous power loss), the display blinks for two seconds, then runs a self-test (when 00E displays) for 15 seconds. When the internal self-test checkout is complete, the display flashes (1:00 PM) and the thermostat is ready to be programmed.

1. Press the (+) key until the setpoint displayed exceeds the room temperature to verify that the thermostat is turning on the baseboard heater.
2. When the (°) symbol is flashing, feel for warmth near the heating element that indicates that the unit is generating heat.
3. Press and hold the Prog key until the thermostat returns to the RUN mode.

Troubleshooting

| Display Code | Cause | Action |
|--|-------------------------------|---|
| Oload | Connected load exceeds 3800W. | Ensure total baseboard wattage connected does not exceed 3800W. A fire hazard exists if wattage exceeds 3800W. Push Reset key to clear and reset clock. |
| 06E | Power failure detected. | Push Reset key to clear and reset clock. |
| Missing segment or other abnormal display. | Unknown. | Push Reset key to clear and reset clock. If problem persists, call Honeywell Customer Response Center at 1-800-468-1502. |

Customer Assistance

Please direct any questions about the operation of this thermostat to Honeywell Customer Assistance at 1-800-468-1502, Monday-Friday, 7:00 a.m. - 5:30 p.m. Central time.

Limited One-Year Warranty

Honeywell warrants this product, excluding battery, to be free from defects in the workmanship or materials, under normal use and service, for a period of one (1) year from the date of purchase by the consumer. If, at any time during the warranty period, the product is defective or malfunctions, Honeywell shall repair or replace it (at Honeywell's option) within a reasonable period of time.

If the product is defective,

- (i) return it, with a bill of sale or other dated proof of purchase, to the retailer from which you purchased it, or
- (ii) package it carefully, along with proof of purchase (including date of purchase) and a short description of the malfunction, and mail it, postage prepaid, to the following address:

Honeywell Return Goods
Dock 4 MN10-3860
1885 Douglas Dr N
Golden Valley, MN 55422

Canada:Honeywell Limited/Honeywell Limitée
Product Services ON15-FFE
740 Ellesmere Road
Scarborough, Ontario M1P 2V9

This warranty does not cover removal or reinstallation costs. This warranty shall not apply if it is shown by Honeywell that the defect or malfunction was caused by damage which occurred while the product was in the possession of a consumer.

Honeywell's sole responsibility shall be to repair or replace the product within the terms stated above. HONEYWELL SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE OF ANY KIND, INCLUDING ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING, DIRECTLY OR INDIRECTLY, FROM ANY BREACH OF ANY WARRANTY, EXPRESS OR IMPLIED, OR ANY OTHER FAILURE OF THIS PRODUCT. Some states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation may not apply to you.

THIS WARRANTY IS THE ONLY EXPRESS WARRANTY HONEYWELL MAKES ON THIS PRODUCT. THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IS HEREBY LIMITED TO THE ONE YEAR DURATION OF THIS WARRANTY. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

If you have any questions concerning this warranty, please write Honeywell Customer Assistance Center, 1985 Douglas Dr, Golden Valley, MN 55422 or call 1-800-468-1502, Monday-Friday, 7:00 a.m. to 5:30 p.m., Central time. In Canada, write Retail Products ON15-02H, Honeywell Limited/ Honeywell Limitée, 35 Dynamic Drive, Scarborough, Ontario M1V4Z9.

Honeywell

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