Honeywell

Chronotherm[®] III Programmable Thermostat Owner's Manual

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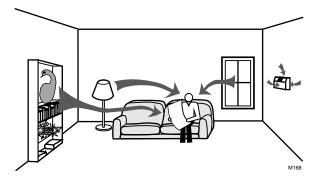
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Programmed Recovery

PROGRAMMED RECOVERY—BREAK-THROUGH TECHNOLOGY SENSES TEMPERATURE MORE LIKE YOU DO



Your new thermostat is so smart, it's almost human.

- Your body perceives temperature from a variety of sources, not only from the air in the room, but also from your surroundings—walls, windows and furnishings.
- Human beings feel differences in temperature as slight as one degree Centigrade.
- Common household thermometers and standard thermostats sense only air temperature, which may or may not reflect how hot or cold the room actually feels to a human being.
- Your new thermostat reads the temperature of the wall as well as the air—and responds to temperature changes as little as one degree Centigrade—so room temperature is more likely to feel right to you and your family.

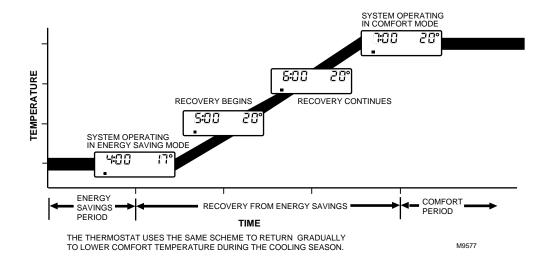
THE OPTIMUM COMFORT AND ENERGY SAVINGS SOLUTION

- This thermostat is actually a small but powerful computer. When calculating the exact time to turn on your furnace or air conditioner, it considers (1) air temperature, (2) the temperature of the wall and (3) when you want the comfort temperature established.
- During programmed recovery, the thermostat gradually increases the control temperature and turns the equipment on and off several times to save energy by avoiding overshooting the comfort temperature. You can see the current control temperature anytime during recovery by pressing the TEMPERATURE REQUISE key.
- This smart control learns from experience. Each day it checks how closely it hit the target and adjusts the recovery start time accordingly.

It typically takes four to eight days after installation for this thermostat to adjust to the weather, your life style, home construction and heating/cooling system. The thermostat calculates the SORTIE/RETOUR recovery separately from the COUCHER/REVEIL recovery.

■ With this thermostat you can choose whether you want to use Programmed Recovery or conventional recovery. Use Programmed Recovery if you want to choose the exact time that the room reaches your comfort temperature. Use conventional recovery if you prefer to choose the exact time your furnace or air conditioner comes on to start recovery.

IMPORTANT: With Programmed Recovery, program the times when you want your home comfortable. The thermostat will decide how early to begin the temperature changes.



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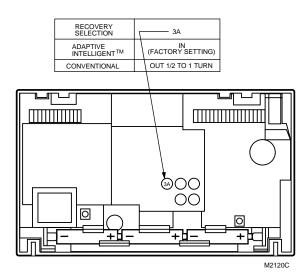
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Recovery Setting

Your thermostat includes a screw on the back marked 3A, allowing for the Programmed Recovery/conventional recovery choice.

Your thermostat was shipped from the factory with the screw positioned for Programmed Recovery. Your installer may have left the screw in this position, or may have changed it to conventional recovery. Before programming, you must know the recovery method selected for your thermostat.

- With Programmed Recovery, the dwelling will reach the comfort temperature at the exact time you have programmed into the thermostat. See pages 1-3 for detailed explanation of Programmed Recovery.
- With conventional recovery, the programmed time will mark the start of recovery; therefore, you should program the start time to be earlier than the desired comfort time. It may require some trial and error to arrive at the best starting time, and the best starting time will vary as the seasons change.

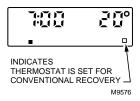


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To determine which type of recovery is set into your thermostat, make sure thermostat is powered with fresh batteries, or is mounted and powered on the wall (see page 16).

Press **EN PROGRAMME** key. Check thermostat display.

- If the □ shows in the lower right-hand corner (see illustration), the thermostat is set for conventional recovery. If you would rather have Programmed Recovery, remove thermostat from wallplate, turn screw 3A (on back of thermostat) clockwise until it bottoms. Do not overtighten.



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Programming Your Thermostat

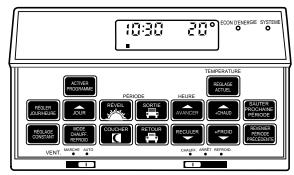
The thermostat can be programmed in your hand before it is installed or after it is on the wall if you make sure the batteries are installed. If you need to install or replace the batteries, refer to the Maintaining Your Thermostat section.

5-1-1 PROGRAMMING

The Program Schedule chart can be helpful for planning your program schedule of time and temperature settings for various times of the day.

Four time periods are available.

REVEIL is the time period when you want the house at a comfortable temperature while the family gets up and gets ready to leave for work or school. (This will be a higher temperature during the heating season, or a lower temperature during the cooling season.) This is the only period that must contain a time and a temperature.



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SORTIE is the time period you can set for an energysaving temperature while you are away at work or school. (This will be a lower temperature during the heating season, or a higher temperature during the cooling season.)

RETOUR is the time period when you want the house at a comfortable temperature for family activities in the evening.

COUCHER is the time period you can set for an energy-saving temperature while you are sleeping. Set it to start at your family's normal bedtime. (For more comfortable sleeping in the cooling season, some people choose not to raise the cool temperature during the night.)

You will set a different schedule for weekdays, Saturday and Sunday, because your requirements will probably be different for each.

Fill in the times and temperatures you desire for weekdays, Saturday and Sunday. If you decide not to program the thermostat, it will automatically control heating from 6:00 to 20:00 at 21° C. The temperature will be 16° C from 20:00 to 6:00. Cooling is automatically controlled at 26° C 24 hours a day. Also, you do not need to enter a time and temperature program for all periods if your schedule does not require it. For example, an area that is occupied during weekdays would only require programs for RÉVEIL and COUCHER.

IMPORTANT: Always press the keys with your finger or similar blunt tool. Use of sharp instruments like a pen or pencil point can damage the keyboard.

If you make an error at any time during programming, just press the **EN PROGRAMME** key, and continue from the last step.

Program Schedule

Weekdays RÉVEIL	Start Time	Heating Temperature 1	Cooling Temperature /1
SORTIE RETOUR CHOUCHER			
Saturday RÉVEIL SORTIE RETOUR CHOUCHER			
Sunday RÉVEIL SORTIE RETOUR CHOUCHER			

heating and cooling temperatures must be at least 2° C apart.

Set Current Day and Time

- 1. To set the day, press and release **RÉGLER JOUR/ HEURE** key.
- 2. Press and hold **JOUR** key until the current day appears in the display.
- To set the time, press and release RÉGLER JOUR/ HEURE key.
- 4. Press and hold **AVANCER** or **RECULER** key until the current time appears in the display.
 - Press ACTIVER PROGRAMME key.

Heating Program

- 1. Press and release **RÉVEIL** key. , the preprogrammed time and temperature appear on the display.
- Press and hold the JOUR key until the current day appears on the display. If the display reads cool, press and release MODE CHAUFF. REFROID. key to switch to heat.
- 3. Press and hold **JOUR** key until LU (or the desired day) is indicated.
- 4. Press and hold **AVANCER** or **RECULER** key until the display shows the time you want the temperature to be at the comfort setting.

- 5. Press and hold **+CHAUD** or **+FROID** key until the display shows the desired heating temperature.
- 6. Repeat steps 1-5 for the remaining periods—SOR-TIE, RETOUR and CHOUCHER—as desired.

You may cancel the SORTIE, RETOUR or CHOUCHER program by holding down the period key (SORTIE, CHOUCHER and RETOUR) until the time and temperature disappear from the display.

NOTE: If the display flashes while you are holding down the **+CHAUD** or **+FROID** key, you have reached the setting limit. For the automatic changeover models, the heating temperature must be at least two degrees below the cooling temperature. For example, if the cooling setting is 24° C, the maximum heating setting is 22° C. To set a higher heating temperature, you must first raise the cooling setting.

To set the Saturday and Sunday schedules, use the same procedure as for weekdays.

Cooling Program

The program times are the same for both heating and cooling. Program only the cooling temperatures if you have already programmed for heating. To set times as you program the cooling temperatures, use the **AVANCER** and **RECULER** keys. But if you change the times for cooling, you are also changing them for heating.

- Move the system switch to the REFROID. position, following the same instructions as for the heating program.
- 2. After programming, adjust fan and system switches as desired.
- 3. Press and release $\mbox{\bf ACTIVER}$ $\mbox{\bf PROGRAMME}$ key to start the program.

SETTING SYSTEM AND FAN SWITCHES

Depending on your thermostat model, some of the switch positions may not be available to you. Note the positions provided on your subbase and set the switch(es) as desired.

Fan Switch

Fan switching positions are as follows:

MARCHE: The fan runs continuously. Use for improved air circulation during special occasions or for more efficient electronic air cleaning.

AUTO: Normal setting for most homes and businesses. The fan goes on and off with the cooling equipment in the summer. In the winter, the fan on most systems starts a few minutes after the furnace comes on. It stops a few minutes after the furnace goes off. The fan starts and stops with the furnace in some electric heat systems and with the compressor in heat pump systems.

System Switch

System switching positions control thermostat operation as follows:

CHAUFF.: The thermostat controls your heating system. REFROID.: The thermostat controls your cooling system. ARRÊT: Both the heating and cooling systems are off.

You have finished programming your thermostat. If you have removed it from the wall to program, replace it by following the procedure. Read on to learn about the operating flexibility of your thermostat.

Operating Your Thermostat

TEMPORARILY CHANGING THE PROGRAM

These features let you customize the program for those times when you come home early, you are staying up late, or you plan to be out for the evening. Changes made with these keys are active for one program period and then are canceled.

Keep Current Temperature Through the Next Period Press and release SAUTER PROCHAINE PÉRIODE

key. The name of the period to be skipped will flash in the display until the start time of the skipped period. During the skipped period, the display will flash TEMP to show that the programmed temperature for this period is not being used.

To Go Back to the Temperature of the Previous Program Period

Press and release **REVENIR PÉRIODE PRÉCÉDENTE** key The display will show the name of the previous period and flash TEMP until the next regularly scheduled period starts.

To Temporarily Raise or Lower the Temperature for the Current Period Only

Press and hold the **+CHAUD** or **+FROID** key until the desired temperature is reached. The display will flash TEMP until the next programmed time period starts.

If you change your mind

Press and release **ACTIVER PROGRAMME** key to cancel any of the temporary settings.

PERMANENTLY CHANGING THE PROGRAM

If your scdedule changes or you want a different temperature, you can update any setting without affecting the rest of the program.

Programming

- 1. Press and release the desired period key (RÉVEIL, SORTIE, RETOUR, CHOUCHER).
- 2. Press and hold the **JOUR** key until the desired day schedule shows on the display.
- Press and hold the time keys (AVANCER or RECULER), then the temperature keys (+CHAUD or +FROID) until the display shows the desired new program.
- 4. Press and release **ACTIVER PROGRAMME** key to return to normal operation.

MANUALLY OPERATING THE THERMOSTAT

This feature is particularly useful when you go on vacation or other extended absences. It does not cancel your program.

- 1. Press and release the **RÉGLAGE CONSTANT** key.
- 2. Press and hold the temperature keys (**+CHAUD** or **+FROID**) to change the temperature setting. After a few seconds, the display will show the current temperature.
- 3. Press and release the **RÉGLAGE ACTUEL** key to check the temperature setting.
- 4. Press and release the **ACTIVER PROGRAMME** key to cancel manual control.

NOTE: Moving the system switch also cancels hold.

CANCELING PROGRAM SETTINGS

The thermostat requires time and temperature settings in the RÉVEIL period, but any of the others can be canceled. Weekdays, Saturday and Sunday settings are canceled separately.

- 1. Press and hold the desired period key (**RÉVEIL**, **SORTIE**, **RETOUR**, **CHOUCHER**) until the time and temperature clear from the display (about three seconds).
- 2. Press and release **ACTIVER PROGRAMME** key to return to normal operation.

CHECKING THE PROGRAM TIMES AND TEMPERATURES

You can check all the stored settings without affecting the permanent program.

- 1. Press and release the desired period key (**RÉVEIL**, **SORTIE**, **RETOUR**, **CHOUCHER**). The start time and temperature setting will appear on the display.
- 2. Press and release the **JOUR** key to display the next daily time and temperature for that period.
- 3. Press and release the **ACTIVER PROGRAMME** key to return to normal operation.

CHECKING THE CURRENT TEMPERATURE SETTING

Press a single key to compare the actual room temperature to the setting at any time. Press and release the **RÉGLAGE ACTUEL** key. The display will show the current temperature setting for several seconds, then revert to the room temperature.

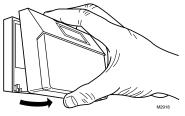
During recovery from energy savings, the setting displayed will not match the programmed setting. This is because the thermostat gradually changes the temperature setting during recovery to provide maximum comfort combined with the most efficient use of the heating or cooling equipment.

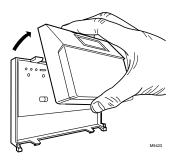
Maintaining Your Thermostat

REMOVING THE THERMOSTAT

- 1. Loosen the two captive screws at the bottom corners of the case.
- 2. Pull out the thermostat from the bottom.
- 3. Lift the thermostat up and off the base.

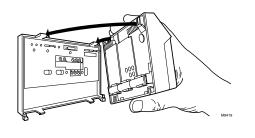


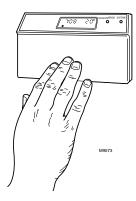


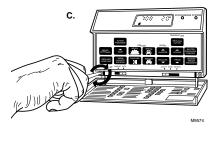


REPLACING THE THERMOSTAT

- 1. Hang the thermostat on the tabs at the top of the base.
- 2. Swing down and press on lower edge until thermostat snaps in place
- 3. Tighten the captive screws.







Maintaining Your Thermostat

REPLACING THE BATTERIES

Your thermostat uses three AAA alkaline batteries. We recommend Energizer® batteries. The display will flash "BAT" when the batteries get low. Unless the display is blank (indicating the batteries are dead) when you start, you won't have to reprogram the thermostat if you can insert the new batteries within 20 to 30 seconds of taking out the old ones.

To replace:

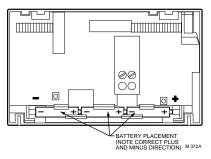
- Set the system switch to ARRÊT.
- Remove the thermostat from the wall. See page 14.
- Lift the batteries out of the holder.
- Insert the new batteries, making sure the positive (+) terminals all face toward the right.

- Replace the thermostat on the wall. See page 15.
- Reprogram, if necessary.

POWER OUTAGES

Backup batteries will hold the programming and keep the display on during most power outages. After the power is restored, the system will resume normal operation.

If the display goes off when power is lost, either the backup batteries need to be replaced or are not installed. When power is restored, the display will flash 13:00 to remind you to reprogram.



Glossary

Comfort temperature

The temperature you want when you're active and occupying the room.

Energy-saving temperature

The lower (heating) or higher (cooling) temperature that lets you save on heating and cooling costs when you're asleep or away. Also called the setback (heating) or setup (cooling) temperature.

Preprogrammed schedule

This is the schedule programmed into your thermostat at the factory. It sets a night program that provides energy savings if you don't set your own program, or if your personal schedule is lost for any reason.

		Temperature		
Period	Start Time	Heating	Cooling	
RÉVEIL	6:00	21° C	26° C	
SORTIE		 No program— 		
RETOUR		- No program—		
CHOUCHER	20:00	16° C	26° C	

Program

The times and temperatures you set to define the comfort and energy saving periods for each day's schedule.

Recovery

The time when the thermostat operates the heating or air conditioning equipment to return the house from the energy saving temperature to the comfort temperature. The thermostat starts the recovery period early so the house will be at the comfort setting by the time you've chosen.

Setback

Reducing the temperature in the house for a set period every day in winter for energy savings. The lower temperature is the energy saving temperature.

Setup

Raising the temperature in the house for a set period every day in summer for energy savings. The higher temperature is the energy saving temperature.

Setpoint

The thermostat temperature setting you select. The thermostat turns the heating or cooling equipment on and off to maintain this temperature at the thermostat location until another temperature setting (setpoint) goes into effect.

Time period

One of four program periods available with the thermostat. One period begins when the previous program period ends.



RÉVEIL— The time period when you want the house at a comfortable temperature while the family gets up and gets ready to leave for work or school. This is the only period that must contain a time and temperature.



SORTIE—The time period when you can set back (winter) or set up (summer) the temperature for energy savings because the family is usually away from home.



RETOUR—The time period when you want the zone at a comfortable temperature for family activities in the evening before bedtime.



CHOUCHER—The time period when you can set back (winter) or set up (summer) the temperature for energy savings because the family is sleeping. Set it to start at your family's normal bedtime. Often the CHOUCHER program is set only for the heating season so family members can sleep cool in summer.

18 69-0865 Two snowflake symbols appear on the LCD when the cooling is operating. One snowflake indicates the thermostat is in the cooling mode.

Two flame symbols appear on the LCD when the heating is operating. One flame indicates the thermostat is in the heating mode.

Troubleshooting Guide

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Display will not come on.

Display flashes during programming.

Display flashes during operation.

Program is lost due to power outage.

Temperature change occurs at the wrong times.

Heating will not come on.

THEN...

- Check that heat or cool system power is on. If you use batteries, replace with fresh ones.
- Make sure thermostat is correctly mounted on base.
- You have reached the temperature setting limit. The setting range is 7° C to 31° C. The cool temperature setting must be a least 2° C above the heat temperature setting.
- Programming has been lost because of a power outage. You must reprogram.
- Check that backup batteries are installed correctly. Replace if necessary. Reprogram the thermostat.
- Check the program times for the period in question. Make sure the current day and time are correct. Reprogram if necessary.
- Remember that the heating equipment or air conditioner comes on before the comfort temperature start times so the house will be at the desired temperature when the period starts.
- Check the fuse or circuit breaker and replace or reset if necessary.
- Check that switch on thermostat is set to CHAUFF.
- Allow at least five minutes for time guard protection to expire.
- If temperature setting is higher than current temperature, and display shows the *flame*, contact your heating and air conditioning contractor.

Cooling will not come on.

- Check the fuse or circuit breaker and replace or reset if necessary.
- Check that switch on thermostat is set to REFROID.
- The thermostat has a built-in time delay, which may add to time delays in the cooling equipment. Allow up to ten minutes after changing the setting before the air conditioner starts.
- If temperature setting is lower than current temperature, and display shows the *snow-flake*, contact your heating and air conditioning contractor.

The building is too warm or too cool.

- Press **RÉGLAGE ACTUEL** to check the current temperature setting.
- If desired, change the time or temperature setting. See page 10.
- Display shows flame symbol but no heat is coming from the registers.
- Allow time for the heating equipment to heat up and the fan to come on before checking for heat at the register.

Display flashes BAT or goes blank when power is turned off.

■ Install fresh alkaline batteries. We recommend Energizer® batteries.

When I press the RÉGLAGE ACTUEL key, I only see the heating temperature. How do I see the cooling temperature? ■ For automatic changeover models, press and hold **RÉGLAGE ACTUEL** to alternate between heating and cooling temperatures. For manual changeover models, move system switch from CHAUFF. to REFROID. and use **RÉGLAGE ACTUEL** to display heating or cooling temperature.

Quick Reference to Keys

Press these keys to:



Begin the current day or time programming.



Set the day of the week and select the program day during programming.



Switch between heat and cool modes during programming or when reviewing the program.





Select the time period to program or review. Comfort times depend on selection of programmed recovery or conventional recovery.









Set the time ahead and back. Hold down either key to change the setting faster.





Set the temperature while programming and temporarily change the temperature during operation. Hold down either key to change the setting faster.



Hold any temperature you desire for an extended period.



Change the temperature to the setpoint of the previous period.



Maintain the current temperature through the next program period.



Start your programmed schedule, and cancel temporary program changes and cancel RÉGLAGE CONSTANT.



See the current temperature setting. The setting may not match the programmed setting during recovery from energy savings.

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This equipment is a Class B digital apparatus which complies with Canadian Radio Interference Regulations. CC c 1374.

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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 Inc.

Return Goods Department

1050 Berkshire Lane

Plymouth, MN 55441-4437

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 our Customer Assistance Center, Honeywell Inc., P.O. Box 524, Minneapolis, MN 55440-0524 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, 740 Ellesmere Road, Scarborough, Ontario M1P 2V9.

