

ERV-24-SUPER

With FanCycler®

Owner's Manual

Cat. P048046
Rev. 2.4 07.06



**Systems
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Please read this manual carefully before installation and use.

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1. Operating Manual

1.1 On/Off button

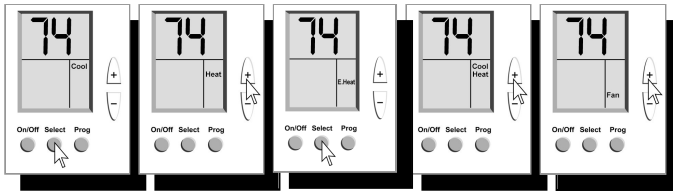
- Press the **On/Off** button to activate the thermostat - The word "ON" will appear on the display next to the measured temperature.
- Press and hold (4 sec) the **On/Off** button to deactivate the thermostat - The word "OFF" will appear on the display.

1.2 Select button

1.2.1 System Mode (Cool, Heat, Cool/Heat, Fan)

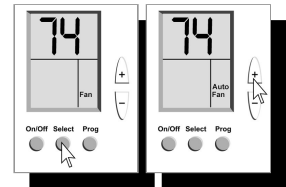
- Press the **Select** button once.
- Use the **(+)** or **(-)** buttons to switch between modes:
 - Cool –"Cool" will appear on the display.
 - Heat –"Heat" will appear on the display.
 - Emergency Heat –"E.Heat" will appear on the display (Available in HP type only).
 - In Emergency Heat, the heating element will turn on and the compressor will turn off.

- This option is suitable for very cold days when the heat pump is active in heat.
- Cool/Heat (Auto change-over) – “Cool” and “Heat” will appear on the display.
- Fan –“Fan” will appear on the display.



1.2.2 Fan Mode

- Press the **Select** button a second time.
- Use the **(+)** or **(-)** buttons to switch between fan modes:
 - Fan – “Fan” will appear on the display - The fan will work continuously.
 - Auto Fan – “Auto Fan” will appear on the display - The fan will work depending on cooling or heating demand.
- Press the **Select** button a third time to exit to normal display mode.



The unit will automatically return to normal display mode if no changes are made within 30 seconds.

1.3 Temperature set-point adjustment

In Cool mode

- Press the (+) or (-) buttons - the temperature will flash and "COOL" and "SET" will appear on the display.
- Change the cooling set-point temperature using the (+) or (-) buttons.
- Press the **Select** button to exit or wait to return to normal display mode.



In Heat mode

- Press the (+) or (-) buttons - the temperature will flash and "HEAT" and "SET" will appear on the display.
- Change the heating set-point temperature using the (+) or (-) buttons.
- Press the **Select** button to exit or wait to return to normal display mode.

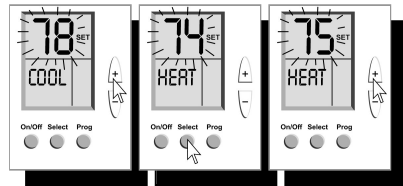


In Cool/Heat mode (Auto change-over)

- Press the **(+)** or **(-)** buttons - the temperature will flash and "COOL" and "SET" will appear on the display.
- Change the cooling set-point temperature using the **(+)** or **(-)** buttons.
- Press the **Select** button again or wait - the temperature will flash and "HEAT" and "SET" will appear on the display.
- Change the heating set-point temperature using the **(+)** or **(-)** buttons.
- Press the **Select** button again or wait to return to normal display mode.



The thermostat keeps a minimum differential of at least 2 degree between the Heat set-point and the Cool set-point, with Heat always being less than Cool.



1.4 Locking the Thermostat's Buttons

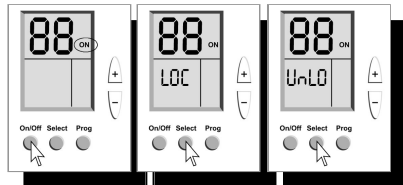
Lock the thermostat's buttons to prevent any unwanted changes by an unauthorized person.

Lock the thermostat

- Press the **On/Off** button to turn the thermostat ON.
- Press and hold (15 sec.) the **Select** button until "LOC" appears on the display.

Unlock the thermostat

- Press and hold (15 sec.) the **Select** button until "UnLO" appears on the display.
- Press the **Select** button 2 more times to exit to normal display mode.



2. Programming

The thermostat is 5-1-1 programmable:

5-Monday through Friday, 1-Saturday, and 1-Sunday all have individual programs.

There are four program periods per day: 1-Wake, 2-Day, 3-Return, 4-Sleep

If you want to operate the thermostat manually, without the program, you can easily disable programming.

To disable the program, press and hold (5 seconds) the **Prog** button – the word Program will disappear from the display. To re-enable the program, press and hold the **Prog** button again. See Section 2.5 below.



Note: If the thermostat was setup to be Non-Programmable by the installing technician, contact the installer, or refer to the Technician Settings document for enabling the Program via the internal DIP switch.

Before programming your thermostat you should be familiar with the display of the unit:

2.1 Thermostat Display

1. Temperature digits

The normal display will show the temperature in the room.

When (+) or (-) is pressed, it will flash and show the set-point for the selected system mode.

2. Days of the week

When setting the program, it will display the period that you are setting.

Example: When display shows: MON-TUE-WED-THU-FRI, you are setting the weekdays program.

(The program will repeat on each of these days).

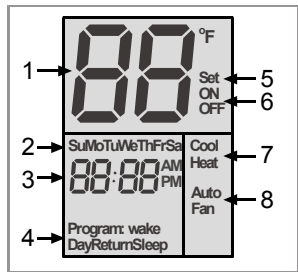
In normal display mode, only the actual day of the week will be displayed.

3. Real time clock, AM/PM

Note: When changing the program, "COOL" or "HEAT" will be displayed in place of the time to indicate which system mode you are setting the temperature for.

4. Program period (the one currently being adjusted will be indicated)

- Wake 1st program of day.
- Day 2nd program of day.



- Return 3rd program of day.
- Sleep 4th program of day

5. **Set Temperature**

When changing the temperature set-point, the temperature digits will flash, and "Set" will appear on the display.

6. **On/Off**

The thermostat is active or not.

7. **System Modes**

Heat: Heating mode; Cool: Cooling mode; if both Heat and Cool are displayed, that is Auto change-over mode; Fan: Continuous Fan mode.

The current active mode will flash when the equipment is operating.

8. **Fan Mode**

When the display shows "Auto Fan" - the Fan will operate automatically with heating and cooling.

When the display shows "Fan" – the Fan will operate continuously.

Normal display

In normal display mode, the display will show:

- Ambient temperature in the room
- Thermostat ON or OFF
- Current day of the week

- Current time of day
- Current active program period
- System Mode
- Fan Mode.

2.2 Programming defaults from the factory.

Monday to Friday	1 (Wake)	2 (Day)	3 (Return)	4 (Sleep)
Start time	6:30 AM	8:00 AM	5:30 PM	10:00 PM
Cool Set-point	78°F	85°F	78°F	82°F
Heat Set-point	70°F	62°F	70°F	62°F

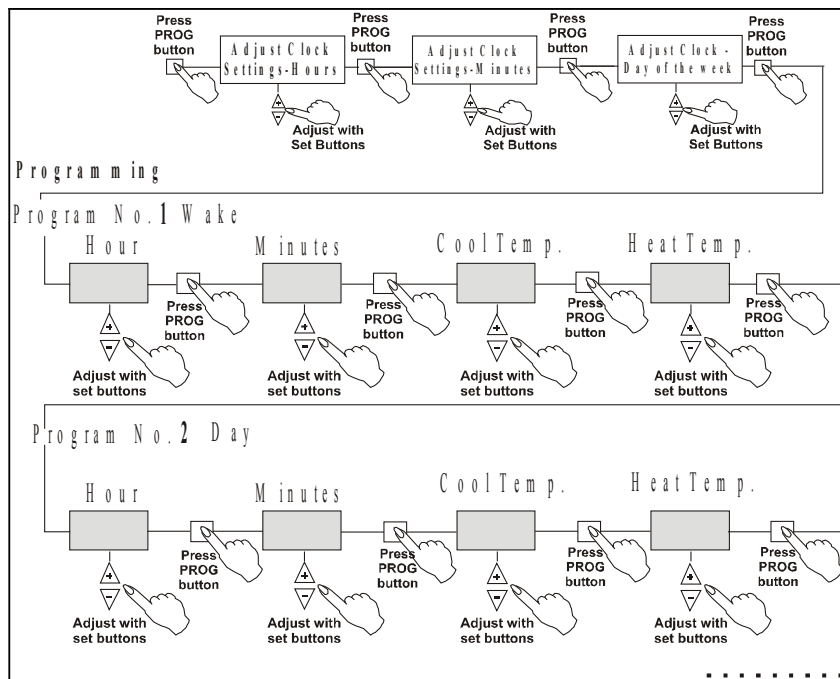
Saturday & Sunday	1 (Wake)	2 (Day)	3 (Return)	4 (Sleep)
Start time	7:30 AM	12:30 PM	6:00 PM	11:30 PM
Cool Set-point	76°F	74°F	72°F	78°F
Heat Set-point	70°F	70°F	70°F	65°F

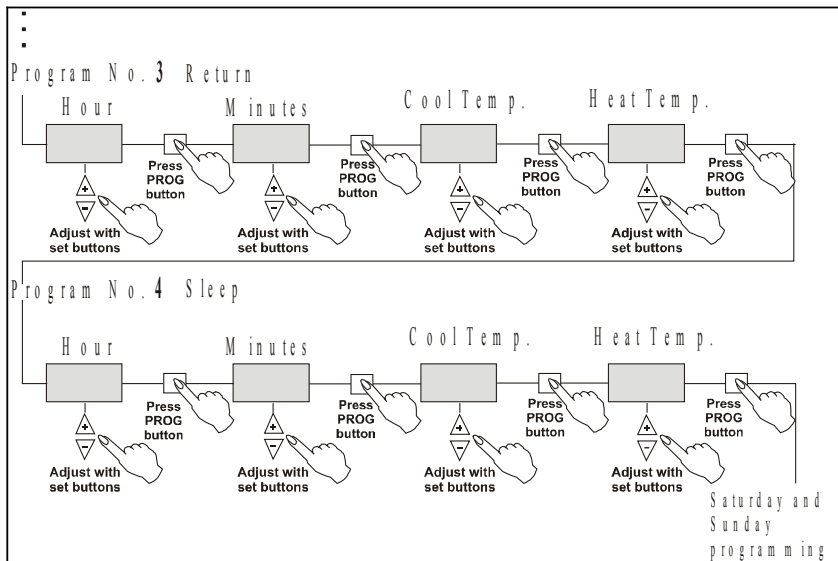
- The following chart will help to simplify making normal adjustments (System Mode, Fan Mode) and setting the program.
- We recommend that you fill out the chart BEFORE setting the weekly program.
- On the chart, select a cooling and a heating set-point temperature.

- Remember to keep a safe differential between Heat and Cool for Auto change-over.
- The display will show the program (weekday, Saturday or Sunday).
- If no key is pressed for 30 seconds, the thermostat will return to normal display mode.

2.3

Step by step program chart.







Follow the steps above to set the programs for Saturday and Sunday.



At any time during the programming you may exit to normal display mode by pressing the Select button.

2.4 **Manually override the set-point temperature:**

You can manually override the set-point temperature of the current program period without stepping into the programming procedure. When you override the set-point, it will only be applicable until the end of the current program period. To change the set-point temperature at any time, press the (+) or (-) buttons until the temperature you desire appears on the display. The new temperature will be retained until the next program period starts.

Also see the illustrated steps described in section 1.3 to override the programmed set-point temperature.



When overriding a program period – no program period name will appear on the display.

2.5 **Putting the program on hold**

The thermostat can be operated manually – without the program – at anytime, and the program can be reactivated again anytime later.

Putting the program on hold

The thermostat must be turned “ON”

Press and hold (5 seconds) the **Prog** button until the hours on the display stop flashing.

The word “Program” will disappear from the display.

Reactivate the program

Press and hold (5 seconds) the **Prog** button until the hours on the display stop flashing.

The word “Program” will appear on the display.

Note: The thermostat will remain in Override mode until the next program period begins.

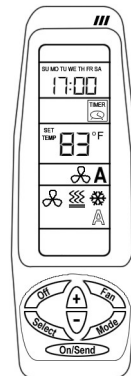
3. RT04 - Hand held remote control – Option – Purchase separately

3.1 General

This remote control is Infrared; the remote must be pointed at the thermostat to operate.

Every time you change a parameter in the Remote Control, you must send it to the thermostat by pressing the **On/Send** button.

Every time that the information is sent to the thermostat, the Back Light will turn ON for a few seconds.



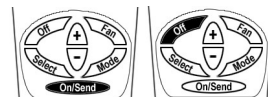
3.2 Operating Manual

On/Send, Off

- Press the **On/Send** to activate the air conditioner and/or updating information.
- Press **OFF** to turn the thermostat off and update information.



When sending information to the thermostat – the remote control must point towards the thermostat.



Fan:

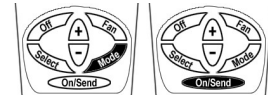
- Press **Fan** button to change between:
FAN ON (🌀) or AUTO FAN (A).



- Press the **On/Send** button to send information to the thermostat.

Mode:

- Press **Mode** button to change between:
COOL, HEAT, AUTO CHANGE and FAN ONLY.



- Press the **On/Send** button to send information to the thermostat.

Temperature Set Point:

Cool Mode:

- Press the set buttons (+) or (-).
"COOL" & digits will flash.
- Select the desired temperature.
- Press the **On/Send** button to send information to the thermostat.



Heat Mode:

- Press the set buttons (+) or (-).



- “HEAT” & digits will flash.
- Select the desired temperature.
- Press the **On/Send** button to send information to the thermostat.

Auto Change Mode:

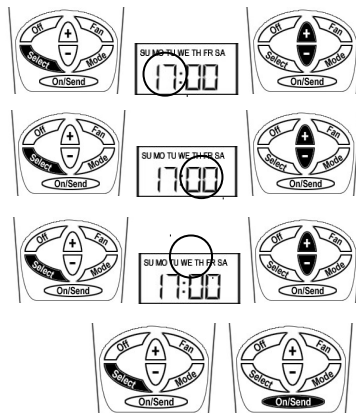
- Press the adjustment buttons (+) or (-)
- “COOL” and “SET TEMP” will flash.
- Set cooling with (+) or (-) buttons.
- Press the **Select** button.
- “HEAT” and “SET TEMP” will flash.
- Set the heating set point with (+) or (-) buttons.
- Press the **Select** button again or Press the **On/Send** button to send information to the thermostat.



The thermostat keeps a minimum differential of at least 1 degree between Heat set and Cool set (Heat is always less than Cool).

Real Time Clock and Day:

- Press the **Select** button - CLOCK SET will flash.
- Press the **(+)** or **(-)** buttons - the hours will flash.
- Adjust the hours with **(+)** or **(-)** buttons.
- Press the **Select** button again - minutes will flash.
- Adjust the minutes with **(+)** or **(-)** buttons.
- Press the **Select** button again - weekday will flash.
- Adjust the day with **(+)** or **(-)** buttons.
- Press the **Select** button again to exit from program or
Press the **On/Send** button to send information to the thermostat.



Programming:

Set the Program times and Temperature settings for the week:

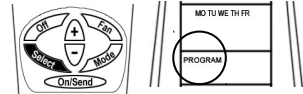
- The remote is 5-1-1 programmable: weekdays (Monday to Friday), Saturday, and Sunday can be programmed differently.
- 4 program events per day: 1 (Morning), 2 (Day), 3 (Evening), 4 (Night)



The program can be set away from the thermostat and can be sent later on.

To send the program to the thermostat, follow the steps below without adjusting times and temperatures. Only press the On/Send button each time the word SEND blinks on the display (point the remote control to the thermostat)

- To enter programming: Press and hold **Select** button for three seconds. "PROGRAM" (flashing) and the days Mon-Fri will appear on the display.



- Press the **(+)** or **(-)** buttons, "PROGRAM 1" & "START" (flashing) will appear.



- Press the **(+)** or **(-)** button - the hours will flash.
- Adjust the hours with **(+)** or **(-)** buttons.



- Press the **Select** button - the minutes will flash.
- Adjust the minutes with **(+)** or **(-)** buttons.



- Press the **Select** button – “COOL” (flashing) & Temperature will appear.
- Adjust the temperature with **(+)** or **(-)** buttons.



- Press the **Select** button – “HEAT” (flashing) & Temperature will appear.
- Adjust the temperature with **(+)** or **(-)** buttons.



The controller keeps a safety differential of at least 1 degree between Heating set point and Cool set point (Heat is always less than Cool).



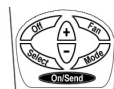
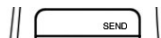
After selecting the heating set point, you cannot reduce the cooling set point less than the heating set point.

- Press the **Select** button: “PROGRAM 2” & “START” (flashing) will appear.
- Press the **(+)** or **(-)** buttons and adjust the hours, minutes and temperature, **the same way as in PROGRAM 1**
- Press the **Select** button: “PROGRAM 3” & “START” (flashing) will appear.

- Press the (+) or (-) buttons and adjust the hours, minutes and temperature, **the same way as in PROGRAM 1**

- Press the **Select** button: "PROGRAM 4" & "START" (flashing) will appear.

- Press the (+) or (-) buttons and adjust the hours, minutes and temperature, the **same way as in PROGRAM 1**



- "SEND" will flash, Press the **On/Send** button to send the information to the thermostat.

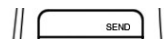
- "PROGRAM" (flashing) and "SA" (Saturday) will appear in display.

- Set programming for Saturday the same way as programming MON to FRI.

- "SEND" will blink, Press the **On/Send** button to send the information to the thermostat.

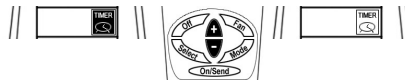
- "PROGRAM" (flashing) and "SU" (Sunday) will appear in display.

- Adjust the programming for Sunday the same way as programming MON to FRI.

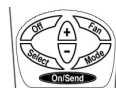
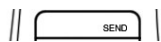


- "SEND" will blink; Press the **On/Send** button to send the information to the thermostat.

- The **TIMER** will blink; using the (+) or (-) buttons, Select **TIMER ON** or **OFF**.



- If you changed between TIMER ON (programmable) or OFF (non-programmable), “SEND” will blink.
- Press the **On/Send** button to send the information to the thermostat.



- If you did not change between them, press the **Select** button to end programming. (Programmable or non-programmable).



Review

If you want to review your program or to change part of it:

- Enter the programming - press and hold (3 seconds) the **Select** button.
- Select between MON-FRI, SAT, SUN programming and TIMER on or off by pressing the **Select** button.
- Enter a specific program - Press the **(+)** or **(-)** button when appropriate indication appears and continue as previously explained.

Comments

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SCI - Systems Controls & Instruments can offer a WIDE range of products for the HVAC industry, Such as:

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Your suggestions or comments regarding these units would be appreciated.

At our web site, you can find technical details regarding the units, as well as, operating manuals, electrical drawings, Etc.

The company reserves the right to change the specifications any time without prior notice