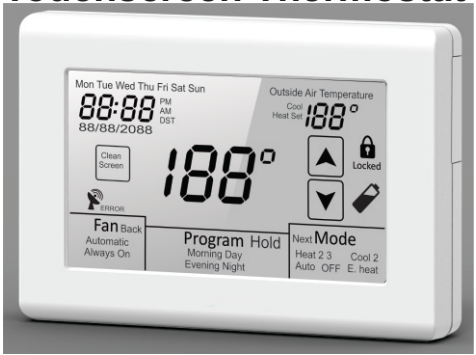
Smart Temp

44-850 Apollo Touchscreen Thermostat



User Manual

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INTRODUCTION

Your new 44-850 is a feature-rich touchscreen thermostat has been manufactured using the highest quality components and design currently available. When properly installed and configured by a professional heating and air conditioning contractor, the 44-850 will provide years of dependable operation.

The 44-850 has been designed to be an attractive, highly reliable and easy-to-use thermostat. By taking time to read and understand this User Manual, you can take advantage of the many features offered in this premium product.

Although great care has been taken in the preparation of this manual, Smart Temp takes no responsibility for errors or omissions contained herein. It is the responsibility of the installer to ensure that this thermostat and the equipment connected to it operate in a safe and efficient manner.

Due to ongoing product improvements, Smart Temp reserves the right to change the specifications of the 44-850 thermostat or its components without notice.

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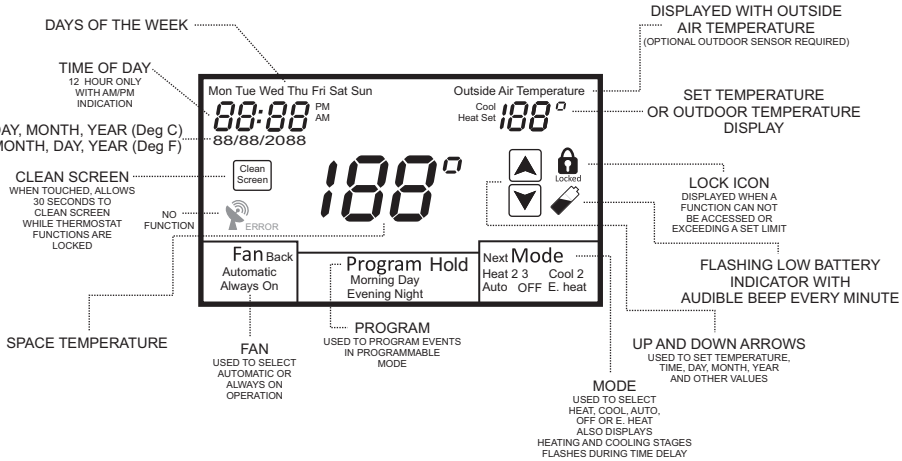
USING THE TOUCHSCREEN DISPLAY

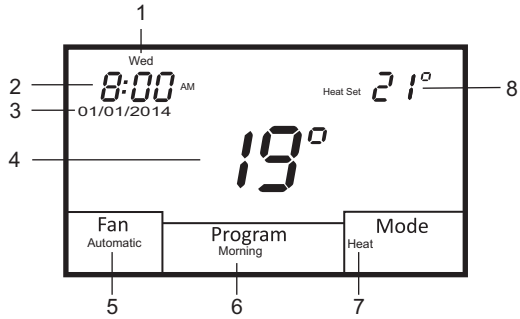
To simplify use, the 44-850 only displays information relevant to the current mode of operation. When adjustments are required, the thermostat will display additional information or functional icons. Based on the thermostat configuration, some information and icons may not be displayed. The illustration below shows all the LCD segments and icons along with abbreviated definitions.



TYPICAL DISPLAY

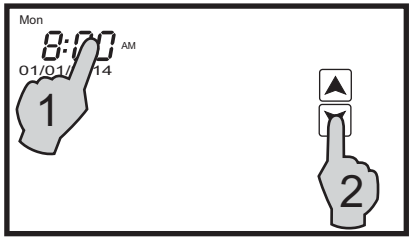
During normal operation, the 44-850 typically displays the following:

1. Day of the week
2. Time of day
3. Calendar
4. Space temperature
5. Fan selection
6. Program period (programmable mode only)
7. Mode of operation
8. Set temperature



SETTING THE DAY, TIME AND CALENDAR

Touch the display to bring on the back light then touch and hold the clock with your finger. The thermostat will beep. The hour will flash. Touch the UP or DOWN arrow to change the hour making sure that AM or PM are correct. Touch the clock again and the minutes will flash. Touch the UP or DOWN arrow and change the minutes and then touch the clock. The calendar day will flash. Touch the UP or DOWN arrow to change the day then touch the clock. The day of the month will flash. Touch the UP or DOWN arrow to change the day of the month and then touch the clock. The year will flash. Touch the UP or DOWN arrow to change the year and then touch the clock. After a few moments, the thermostat will return to its operating mode.



BASIC FUNCTIONS

MODE CONFIGURATIONS

Your contractor can configure the thermostat with different mode selections based on user preference and/or equipment type. Mode configurations can be as follows:

CONVENTIONAL HEATING AND COOLING EQUIPMENT (GAS/ELECTRIC)

Manual Changeover (Heat/Cool/Off)
Auto Changeover (Heat/Cool/Auto/Off)
Heat Only (Heat/Off)
Cool Only (Cool/Off)

HEAT PUMP AND FOSSIL FUEL EQUIPMENT

Manual Changeover (Heat/Cool/*E.Heat/Off)
Auto Changeover (Heat/Cool/Auto/*E.Heat/Off)
Heat Only (Heat/*E.Heat/Off)
Cool Only (Cool/Off)

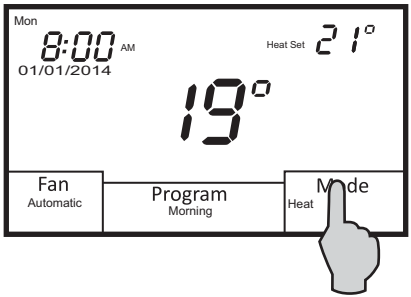
* When the thermostat is placed in the E.Heat (Emergency Heat) mode, only the auxiliary heat source is used and the heat pump is locked out.

BASIC FUNCTIONS

MODE SELECTION

To select a mode of operation, simply touch the **Mode** box on the screen. Based on the equipment and thermostat configuration, mode selection can be as follows:

Off - Thermostat will not call for heating or cooling.
Heat - Thermostat will only call for heating.
Cool - Thermostat will only call for cooling.
Auto - Thermostat will call for both heating and cooling.
E.Heat - Thermostat only controls emergency heat when configured for heat pump or fossil fuel equipment.



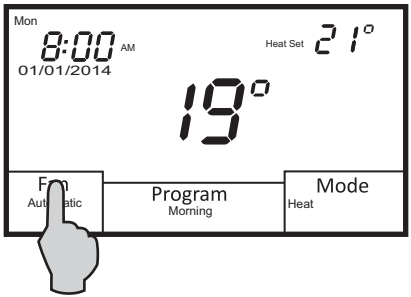
BASIC FUNCTIONS

FAN SELECTION

Touch the **Fan** box on the screen to select **Automatic** or **Always On** fan mode. In Automatic mode, the fan operates with a heating or cooling call. If set to Always On, the fan will run continuously. If the thermostat is turned Off while the fan is set to Always On, the fan will continue to run until it is placed in the Automatic mode.

PROGRAMMABLE FAN (OPTION)

If your thermostat has been configured for Programmable Fan, you can change the fan mode for each scheduled program event. For example, you might wish to have **Always On** for the morning schedule and **Automatic** for the Day schedule. Each time the thermostat changes schedules, the selected fan mode will automatically be implemented. (See Page 18 for further details)



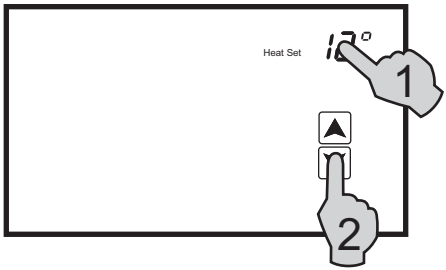
BASIC FUNCTIONS

CHANGING THE HEATING OR COOLING TEMPERATURE SETTING

Manual Heat/Cool Mode

In manual changeover mode, only the heating or cooling temperature setting will be displayed. To change the setting, simply touch the temperature displayed on the screen. Depending on the mode, either Heat Set or Cool Set will flash.

Touch the UP or DOWN arrow to change the setting. Touch the temperature display again or wait 10 seconds and the thermostat will return to its operating mode. The new set temperature will be displayed.



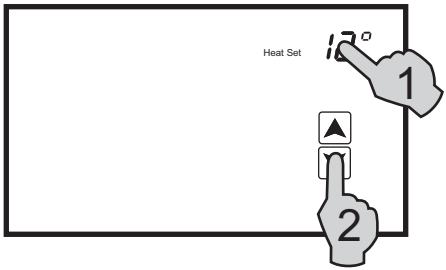
BASIC FUNCTIONS

CHANGING THE HEATING OR COOLING TEMPERATURE SETTING

Auto Mode

In auto changeover mode, the heating and cooling temperature setting alternate on the screen. To change the settings, simply touch the temperature displayed on the screen. **Cool Set** will flash three times and then **Heat Set** will flash three times.

To change the cooling setting, touch the UP or DOWN arrow to change the setting when **Cool Set** is flashing. To change the heating setting, touch the UP or DOWN arrow to change the setting when **Heat Set** is flashing. Touch the temperature display and the thermostat will return to its operating mode, or simply wait for 10 seconds to auto exit set point adjustment. The new heating and cooling temperatures will alternately be displayed.



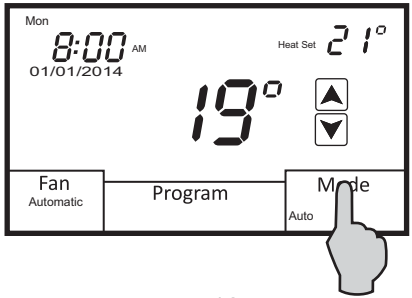
PROGRAMMING

7-DAY SCHEDULE (4 OR 2 DAILY EVENTS)

Your installer can configure the 44-850 with two programming options for 7-day scheduling. You can elect to have 4 daily events (**Morning, Day, Evening, Night**) or 2 daily event (**Day, Night**) for each day of the week.

You can program both heating and cooling temperatures for each scheduled event when the thermostat is in the **Auto** (auto changeover) or manual changeover (**Heat**, **Cool**) mode. The thermostat can not be programmed in the **Off** mode. If the thermostat is configured for heat only or cool only, then only that mode can be programmed. Simply touch **Mode** to select **Auto**, **Heat** or **Coo**l.

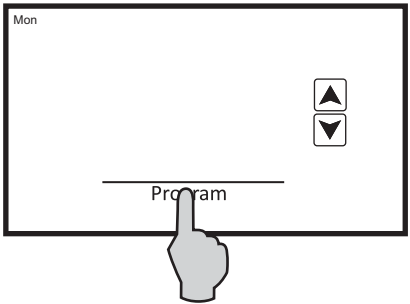
At any time you wish to exit programming mode touch and hold the lower right of the display (where the mode would normally be shown).



PROGRAMMING

7-DAY SCHEDULE (4 OR 2 DAILY EVENTS)
Your installer can configure the 44-850 with two programming options for 7-day scheduling. You can elect to have 4 daily events (**Morning, Day, Evening, Night**) or 2 daily event (**Day, Night**) for each day of the week.

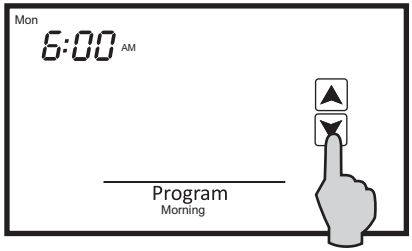
4 DAILY EVENTS
Press and hold **Program**. **Mon** (Monday) along with the UP and DOWN arrows will appear on the screen.



PROGRAMMING

Touch **Program** again and the Morning start time will appear. The hour and AM or PM will flash. Touch the UP or DOWN arrow to change the Morning start time hour. The factory default is 6:00 AM.

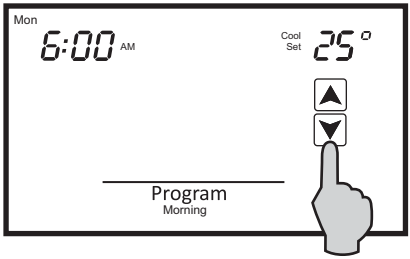
Touch **Program** again and the minutes will flash. Touch the UP or DOWN arrow to change the minutes which can be adjusted in 10 minute increments.



PROGRAMMING

Touch **Program** again and the Morning **Cool Set** temperature will be displayed and flash. Touch the UP or DOWN arrow to change the cooling temperature. The factory default if 25° for the morning schedule.

Touch **Program** again and the Morning **Heat Set** temperature will be displayed and flash. Touch the UP or DOWN arrow to change the heating temperature. The factory default is 16°.



PROGRAMMING

Touch **Program** again and the Day start time will appear. The hour will flash along with AM or PM. Follow the same steps as in the Morning sequence. The factory defaults for the Day event are **8:00 AM, Cool Set 25°, Heat Set 16° C**.

After setting the Day **Heat Set** temperature, touch **Program** again and the Evening start time will appear. Follow the same steps. The factory defaults for the Evening event are **6:00 PM, Cool Set 24°, Heat Set 21° C**.

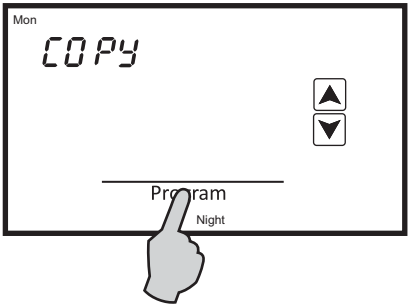
After setting the Evening **Heat Set** temperature, touch **Program** again and the Night start time will appear. Follow the same steps. The factory defaults for the Night event are **10:00 PM, Cool Set 28°, Heat Set 10° C.**

Touch **Program** again and the word **cpy** (copy) will appear. If you want to copy the Monday schedule to consecutive days of the week, touch the UP arrow to add additional days. Each day that you select will flash. For example, you might want to copy the Monday schedule to Tuesday and Wednesday. Once **Tue** and **Wed** are flashing, touch **Program** and **cpy** will flash confirming that the Monday schedule is being copied to Tuesday and Wednesday. The thermostat will then advance to **Thu** (Thursday).

If you elect to have a different schedule for each day of the week, simply touch **Program** when **cpy** appears. The thermostat will automatically advance to the next day.

PROGRAMMING

If you elect to have a different schedule for each day of the week, simply touch **Program** when **COPy** appears. The thermostat will automatically advance to the next day.



2 DAILY EVENTS

Seven day scheduling for 2 daily events uses the same programming steps as 4 daily events other than you only have to program **Day** and **Night**. Once programming is completed, the thermostat will resume normal operation in 10 seconds.

PROGRAMMING

PROGRAMMABLE FAN

If your installer has configured the 44-850 with the Programmable Fan Option, you will be able to select **Automatic** or **Always On** fan with each programmed event. When programming the thermostat, the Programmable Fan Option will appear at the end of each programming event. When the word **Automatic** begins to flash, touch the UP arrow to change to **Always On** or simply touch Program to maintain **Automatic** fan operation for the program period. Just like Temporary Temperature Override, the fan mode can be changed simply by touching **Fan**. The program event will flash confirming the Programmable Fan mode is in override. To resume normal operation, touch **Program**. **Hold** will appear. Touch **Hold** and the thermostat will resume programmed operation.

Automatic fan mode allows the equipment fan to run whenever there is a call for heating or cooling.

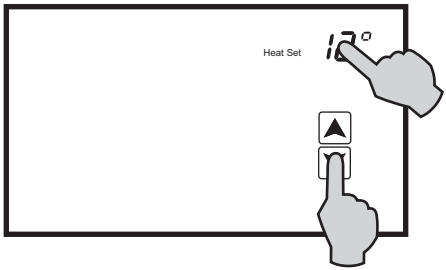
Always On fan mode allows the fan to run continuously with or without a call for heating or cooling.

OVERRIDES

When the 44-850 is configured for programmable operation, there are two types of temperature overrides available.

TEMPORARY TEMPERATURE OVERRIDE

Temporary Temperature Override is designed to allow you to adjust the heating or cooling temperature without affecting the programmed temperatures. For example, if you want to change the heating temperature, simply touch the displayed temperature. When **Heat Set** flashes, touch the UP or DOWN arrows to adjust the setting. The thermostat will resume normal operation in 10 seconds and display the new heating temperature. The program period (**Morning, Day, Evening, Night**) or (**Day, Night**) will flash continuously to provide confirmation that the temperature has been changed.



OVERRIDES

The new heating temperature will remain active until the next scheduled event takes place at which time it will be deleted and only the programmed temperatures will be used. To manually cancel Temporary Override, touch **Program** until **Hold** appears and then touch **Hold**. The thermostat will resume normal programmed operation and the override period will stop flashing.

PERMANENT HOLD

There may be times when a permanent override is required such as during a vacation or holiday period. To place the thermostat in Permanent Hold, simply touch **Program** and the word **Hold** will appear. Next, touch the displayed temperature. While **Set Heat** or **Set Cool** are flashing, touch the UP or DOWN arrow to adjust the permanent hold temperature(s) that you want to maintain.

Whenever you want the thermostat to resume normal programmed operation, simply touch **Hold**. **Program** will again appear and the thermostat will resume programmed operation.

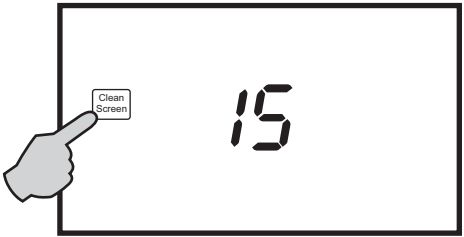
OTHER OPTIONS AND FEATURES

ADAPTIVE RECOVERY OPTION

If your thermostat has been configured for programmable operation, your installer can add the Adaptive Recovery Option. Adaptive Recovery compares the space temperature deviation from the set temperature for the next scheduled event and rate of recovery history to bring the equipment on and reach the next temperature setting at the scheduled event start time. Example: If you program a heating temperature to be 21 degrees at 6:00 PM, Adaptive Recovery will calculate when to bring the equipment on so that the temperature will be 21 degrees at 6:00 PM.

CLEAN SCREEN

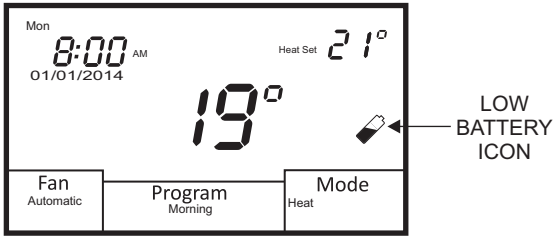
It is recommended that the touch screen be cleaned periodically. Use a slightly moistened clean, non-abrasive cloth. Touch the screen until the LCD lights up. Touch the Clean Screen window. All normal operating functions will be hidden and locked. The thermostat will count down from 15 seconds while you clean the screen. If more time is required, simply touch the Clean Screen box again.



OTHER OPTIONS AND FEATURES

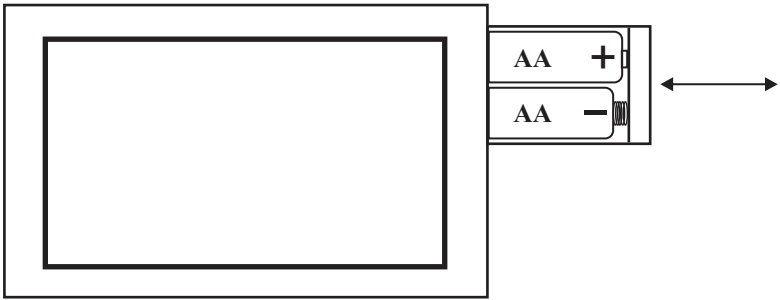
LOW BATTERY INDICATION

Your thermostat uses two AA Alkaline batteries to keep the time-of-day clock running in case of a power failure. In some applications, battery power is also used to control the heating and air conditioning equipment. When the Low Battery icon appears on the screen, change the batteries immediately.



CHANGING THE BATTERIES

Press in on the battery access compartment and slide the drawer out. Install two AA alkaline batteries matching the + (Positive) and - (Negative) orientation. Push the battery compartment in until it clicks shut. When the batteries are properly installed, the touchscreen display will resume normal operation with no loss of programming. If the batteries are swapped out quickly (less then 5 minutes) the current time will remain unaffected.



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