LENNOX™

Commercial Touchscreen Thermostat
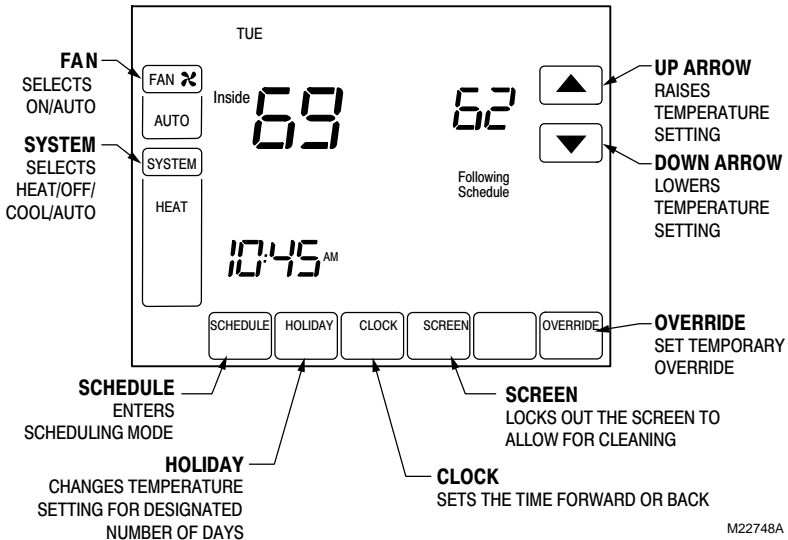
OWNER'S GUIDE

CONTENTS

IMPORTANT

The thermostat has a touch screen interface. Touch keys appear, as necessary, to complete tasks. Always press the screen witha fingertip. Sharp instruments like a pen or pencil point can damage the thermostat.

FEATURES

- **Large, Clear Display with Backlighting-current temperature, set temperature and time are easy to read and all are displayed on the main screen.**
- **Menu Driven Programming-Provides guidance through the scheduling process, showing only necessary information and choices on each screen.**
- **Ability to Select Multiple Days-allows easy customizing for unique schedules.**
- **Real-Time Clock-keeps time during power failure; automatically updates for daylight savings.**
- **Armchair Programming-can remove thermostat from wall to set the schedule.**
- **Precise Temperature Control (±1°F)-reliable, consistent comfort.**
- **Multiple OVERRIDE options-can modify schedule indefinitely or for a specific period of time.**
- **Programmable Fan-increases indoor air quality when combined with air cleaning equipment.**
- **Outdoor Temperature Indication-displays current outdoor temperature to help plan outdoor activities.**
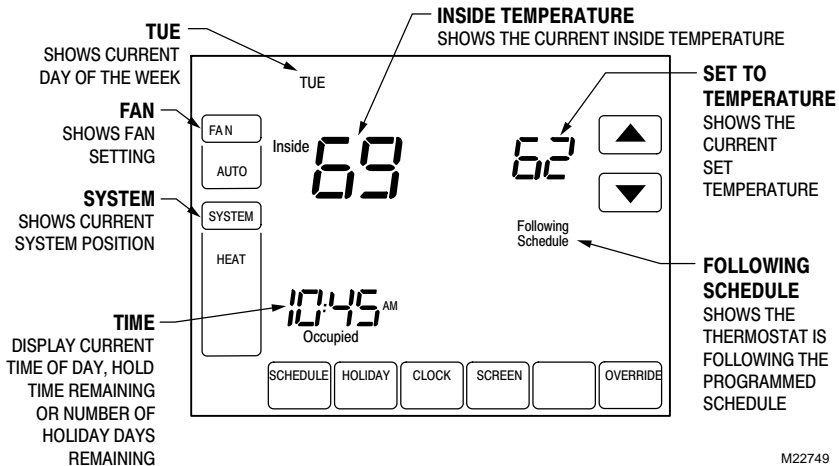
NOTE: The main screen can differ slightly, depending on the heating, ventilation and air conditioning (HVAC) system and the thermostat settings for the system type.

Main Screen Selections

FAN
SELECTS ON/AUTO

SYSTEM
SELECTS HEAT/OFF/COOL/AUTO

TUE

FAN

AUTO

SYSTEM

HEAT

Inside

69

62

Following Schedule

UP ARROW
RAISES TEMPERATURE SETTING

DOWN ARROW
LOWERS TEMPERATURE SETTING

10:45 AM

SCHEDULE HOLIDAY CLOCK SCREEN OVERRIDE

OVERRIDE
SET TEMPORARY OVERRIDE

SCHEDULE
ENTERS SCHEDULING MODE

HOLIDAY
CHANGES TEMPERATURE SETTING FOR DESIGNATED NUMBER OF DAYS

CLOCK
SETS THE TIME FORWARD OR BACK

SCREEN
LOCKS OUT THE SCREEN TO ALLOW FOR CLEANING

M22748A

Main Screen Display

TUE
SHOWS CURRENT
DAY OF THE WEEK

INSIDE TEMPERATURE
SHOWS THE CURRENT INSIDE TEMPERATURE

SET TO TEMPERATURE
SHOWS THE CURRENT SET TEMPERATURE

FAN
SHOWS FAN SETTING

SYSTEM
SHOWS CURRENT SYSTEM POSITION

FOLLOWING SCHEDULE
SHOWS THE THERMOSTAT IS FOLLOWING THE PROGRAMMED SCHEDULE

TIME
DISPLAY CURRENT TIME OF DAY, HOLD TIME REMAINING OR NUMBER OF HOLIDAY DAYS REMAINING

TUE

FAN

AUTO

SYSTEM

HEAT

Inside **69**

62

Following Schedule

10:45 AM
Occupied

| SCHEDULE | HOLIDAY | CLOCK | SCREEN | | OVERRIDE |

M22749

5

Programming Heating and Cooling Schedule

The thermostat can control up to four different schedule periods per day:
OCC 1-Work arrival time. Period to keep space at a comfortable temperature.
UNOCC1-Work exit time. Period to keep space at an energy-saving temperature.
OCC 2-Second occupied period.
UNOCC2 -Second unoccupied period.

NOTE: Available schedule times are at 15-minute intervals.

Editing Schedule
1. Press SCHEDULE.
2. Press EDIT.

NOTES:
- The first time a change is made, the screen appears mostly blank.
- Multiple days can be selected.

3. Select any combination of days to edit.

NOTE: Checkmarks appear next to selected days. These are scheduled with identical times and temperatures.
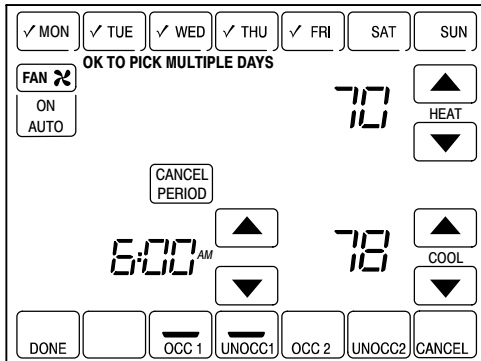

M19954

4. Press OCC 1. Once pressed, OCC 1 flashes to show it is selected.

5. Press Up and Down to modify time and temperatures from this screen.

NOTE: Fan settings for the selected period can be programmed for ON or AUTO. See Fan Schedule section for more information.

6. Press UNOCC1 and repeat step 5.

NOTE: With default settings, only OCC 1 and UNOCC1 can be configured. To use OCC 2 and UNOCC2, enter the Installer Setup and change the appropriate parameter.

7. Press OCC 2 and repeat step 5.

8. Press UNOCC2 and repeat step 5.

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9. When complete, press DONE. SAVING CHANGES appears on the screen to indicate changes are being saved to the day(s) modified.

NOTE: To schedule the remaining days of the week, repeat steps 1-9.

10. To exit schedule without saving changes, press CANCEL any time.

```
┌─────────────────────────────────────┐
│  MON   TUE   WED   THU   FRI         │
│                                      │
│                                      │
│                                      │
│                 SAVING               │
│                 CHANGES              │
│                                      │
│                                      │
│                                      │
│  ┌──┐ ┌──┐ ┌──┐ ┌──┐ ┌──┐ ┌──┐      │
│  └──┘ └──┘ └──┘ └──┘ └──┘ └──┘      │
└─────────────────────────────────────┘
                              M22751
```

Cancelling a Schedule Period

NOTE: To accommodate special needs, a period can be cancelled.
For example, if the space is always unoccupied during the weekend, cancel all Saturday and Sunday (occupied and unoccupied) periods. The thermostat then controls to the final Friday UNNOC temperature until the Monday OCC 1 period.

1. Press SCHEDULE.
2. Press EDIT.
3. Select the Day(s) of the week desired.
4. Press the schedule period to cancel (OCC 1, UNOCC1, OCC 2 or UNOCC2). Once selected, the period flashes.

5. Press CANCEL PERIOD. The time, temperature(s) and fan setting disappear. The bar above the selected period is removed, indicating the scheduled period was cancelled.

NOTE: To reinstate a schedule period, press an arrow to set desired time and temperatures.

6. Press DONE.

M22752

Setting Time

1. Press CLOCK.
2. Use arrows to set current time.
3. Press DONE.

IMPORTANT

> *The current day of the week should already be set correctly. If not, see the Advanced Settings section to set the day.*

Operating the Thermostat

Setting Fan and System

M19958

SETTING FAN

Fan selections vary based on the HVAC system type.

ON-fan runs continuously. Use this setting for improved air circulation or for more efficient central air cleaning.

AUTO-fan follows fan program schedule. See Fan Schedule section for more information.

SETTING SYSTEM

The System selections vary based on the HVAC system type.

HEAT - thermostat controls the heating system.

OFF - both heating and cooling systems are off.

COOL - thermostat controls the cooling system.

AUTO - thermostat controls both the heating and cooling systems based on temperature.

Setting Temperature Overrides

There are three temperature override options:
- Hold Temperature Until
- Override, and
- Holiday.

HOLD TEMPERATURE UNTIL

Holds the temperature temporarily until the time set by the user, or the next scheduled period time.

1. Press the Up or Down arrow next to the temperature to adjust. The Hold Temperature Until time appears on the screen. The time defaults to the next scheduled period start time.

   NOTE: Time Up and Down arrows are shown for approximately seven seconds. Pressing the screen time (where the "Hot Temperature Until" time displays) causes the arrows to reappear.

2. Press Up or Down arrow next to the hold time to set desired time for the thermostat to resume schedule.

NOTE: The installer setup can limit the length of time for an override to 1, 2, 3, or 4 hours beyond the current time.

3. Press CANCEL or SCHEDULE to cancel "Hold Temperature Until" and resume the schedule.

TUE

FAN
AUTO

Inside **70**   *Set* **72**

▲
▼

SYSTEM
HEAT

Hold Temperature Until
6:00 PM
Occupied

▲
▼

SCHEDULE | HOLIDAY | CLOCK | SCREEN | | CANCEL

M22753

NOTE: Once the Hold Temperature Until time is reached, the thermostat displays "Following Schedule" to indicate that the Hold (Override) has ended.

OVERRIDE
Changes temperature setting until the next period takes effect. For use during Unoccupied periods.

1. Press OVERRIDE. The settings change by default to the next Occupied period.

NOTE: Changes are limited to those allowed by the lockout level.
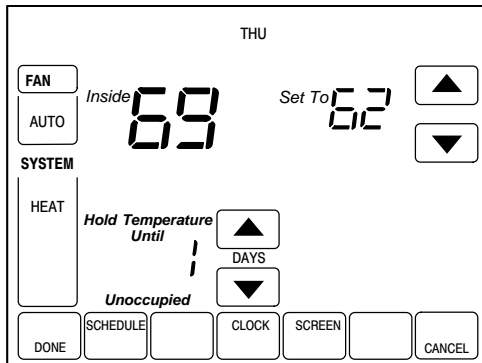
2. Press Up or Down arrow to change the override time and temperature.

HOLIDAY

Changes temperature setting for a designated number of days.

1. Press HOLIDAY. The screen shows "Hold Temperature Until 1 DAYS".
2. Press Up or Down arrow to change the number of days desired for the thermostat to override the schedule.
3. Press the Up or Down arrow to change the desired temperature for the duration of the holiday.

NOTE: The DAYS Up and Down arrows appear for approximately seven seconds. Pressing the screen just below Hold Temperature Until allows the DAYS Up and Down arrows to reappear.

M22754

4. To cancel the Holiday Override early, press CANCEL.

NOTE: When the number of Holiday Override days expires, the screen shows "Following Schedule" to indicate that the Holiday Override has ended.

13

Fan Schedule

Press FAN while in the SCHEDULE screen to program the system fan. Choices available from the SCHEDULE screen:

AUTO (default position)-fan runs with equipment. Programmable for all SCHEDULE periods (OCC 1, UNOCC1, OCC 2 and UNOCC2).
ON -fan runs continuously (programmable for all SCHEDULE periods).

Fan Status Displayed on Main Screen

If the fan program is scheduled, the scheduled mode (AUTO or ON) appears. When the thermostat is running the fan, the fan blade symbol ✿ appears next to FAN to indicate the thermostat has the fan on.

NOTE: If the thermostat is not controlling the fan-typical for many gas, forced-air heating systems-the the fan blade symbol ✿ will not appear even though the fan may be running.

Manual Override of Fan Schedule

AUTO-fan is automatically following the FAN schedule (choices are AUTO and ON).
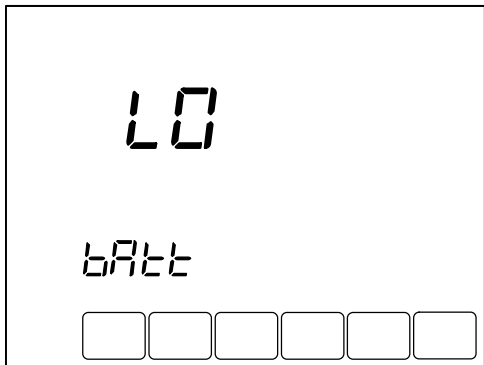**ON** -overrides FAN schedule. The fan is continuously on.

Replacing Batteries

Not all thermostat models require batteries. If the thermostat has batteries, a low battery warning flashes on the main screen for approximately 30 days.

NOTES:

- If batteries are not replaced when the Low Battery warning is flashing, the LO batt screen displays continuously and the thermostat stops operating until batteries are replaced.
- The thermostat has a low battery indicator. However, it is recommended that you replace the batteries once each year. Do this to prevent leakage and prevent the thermostat and HVAC system from shutting down due to lack of thermostat battery power.
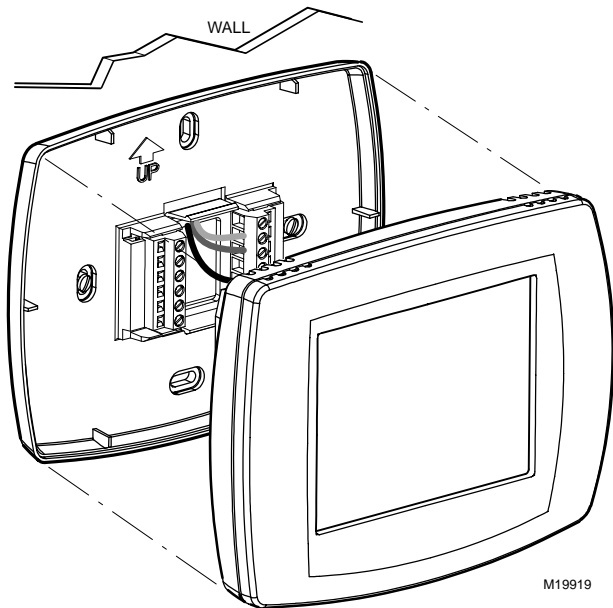
LO

bAtt

M22755

15

Replace the batteries as follows:

1. Remove the thermostat from the base by pulling it straight out.
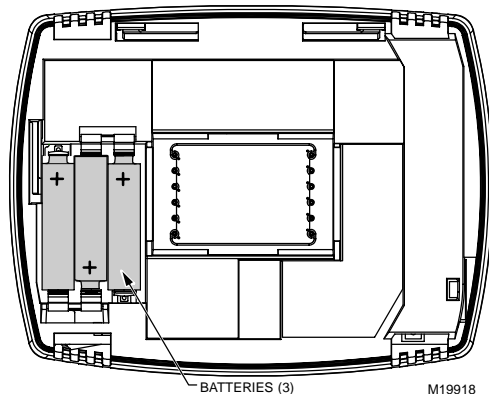2. Install three new AAA alkaline batteries with proper polarization.

NOTES:
- Always use AAA alkaline batteries.
- All programming (Schedule, Date and Time) information is retained during battery replacement.

WALL

M19919

3. Place the thermostat back on its base by aligning the terminal screw blocks with the pins on the back of the thermostat.

4. Push the thermostat straight onto the base.

BATTERIES (3)

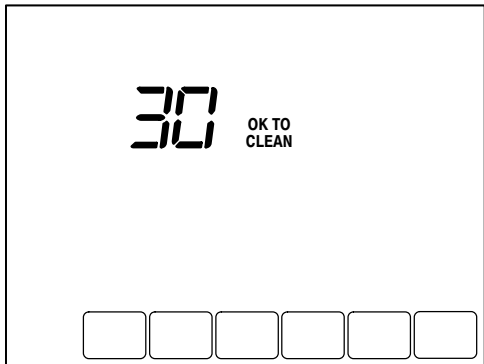M19918

Cleaning Thermostat Screen

The thermostat has a touch screen interface. Follow these steps to clean the screen without making thermostat changes:

1. Press SCREEN. Thermostat locks out the keypad for 30 seconds to allow for cleaning.

IMPORTANT

> *Do not spray any liquid directly on the screen. If using household glass cleaner, spray cleaner on cloth. Then use the cloth wipe the screen clean.*

2. Use damp cloth slightly moistened with water or household glass cleaner to clean the screen.
3. Repeat above steps, as necessary.
4. Press DONE to return to the main screen and normal operation.

NOTE: If no button is pressed for two minutes, the device automatically returns to the main screen.

M22756

Reading Remote Indoor Temperature

If connected to an installed remote indoor temperature sensor, the thermostat displays the indoor temperature from the remote sensor(s).
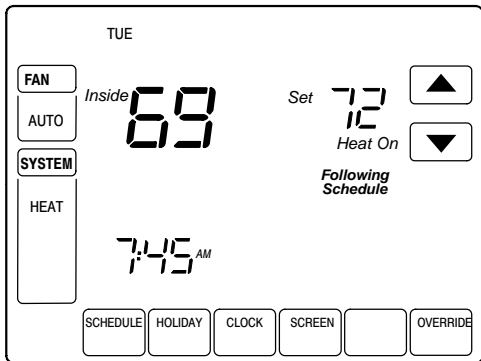
NOTE: When connected to an installed remote indoor temperature sensor, the thermostat internal sensor is not used.

ONE REMOTE INDOOR SENSOR INSTALLED
If one remote indoor temperature sensor is used, the screen showing the *Inside* temperature reading displays the temperature at the indoor remote sensor location.

```
  TUE

FAN    Inside  69      Set  72
AUTO                        Heat On
SYSTEM                      Following
HEAT                        Schedule

       7:45 AM

SCHEDULE  HOLIDAY  CLOCK  SCREEN         OVERRIDE
```

M22758

MULTIPLE REMOTE INDOOR SENSORS INSTALLED
If more than one remote indoor sensor is used, the screen showing the *Inside* temperature reading displays the average of all the remote indoor sensors.
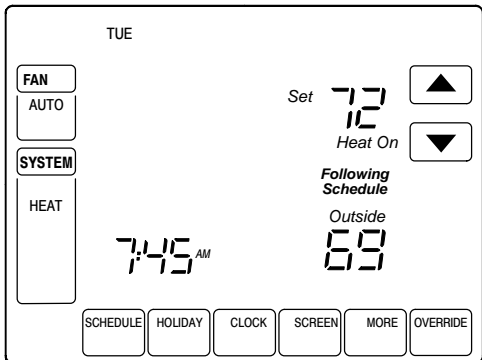
Reading Outdoor Temperature

If connected to an outdoor sensor, the thermostat displays the *Outside* temperature.

VIEW OUTSIDE TEMPERATURE

The *Outside* temperature is located in the lower right corner of the main screen. If it is not on the main screen, view the outdoor temperature by pressing MORE until the outside temperature shows.

M22757

Screen Locked

Portions of the touch screen interface can be fully or partially locked. See the Advanced Settings section for information to use these features. When the thermostat displays SCREEN LOCKED, the touch screen interface is either fully or partially locked.
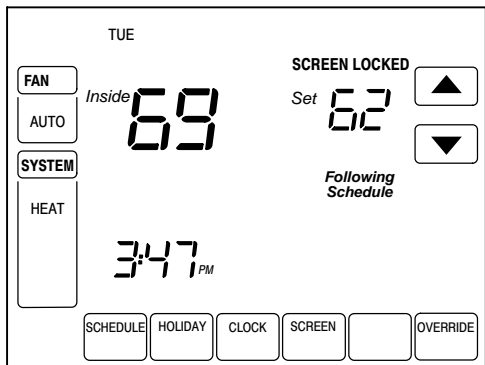
Fully Locked Screen

In this mode, the entire interface is locked and not functional. To unlock screen, see the Advanced Settings section. The screen continuously displays SCREEN LOCKED.

M22759

Partially Locked Screen

When partially locked:
- Pressing a locked key prompts the screen to indicate SCREEN LOCKED for five to seven seconds.
- Pressing an unlocked key with SCREEN LOCKED active removes SCREEN LOCKED from the display.

PARTIAL LOCKOUT 1

This mode locks all keys except HOLIDAY,OVERRIDE, and temperature Up/Down arrows:

- User can change the temperature setpoint, but cannot change schedule settings.
- The temporary temperature change lasts until next scheduled period. The screen displays that time.
- User can change the temperature setpoint, but cannot change schedule settings.
- Pressing HOLIDAY sets the temperature to the Unoccupied setting for the selected period of time. The next Occupied period switches back to the program settings.
- Pressing OVERRIDE sets the temperature to the Occupied setting for the selected period of time. The next Unoccupied period switches back to the program settings.
- To cancel the temperature override and follow the programmed schedule, press CANCEL.
- To unlock the screen, see Advanced Settings section.
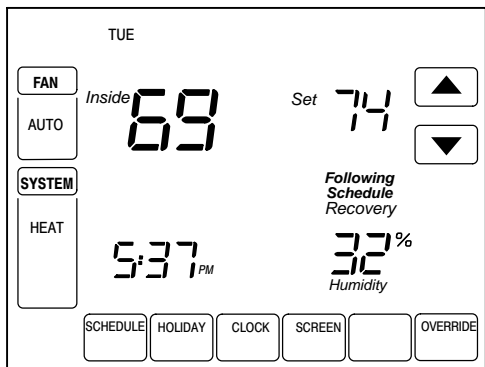
PARTIAL LOCKOUT 2

This mode locks all keys except HOLIDAY and OVERRIDE:

- Pressing HOLIDAY sets the temperature to the Unoccupied setting for the selected period of time. The next Occupied period switches back to the program settings.
- Pressing OVERRIDE sets the temperature to the Occupied setting for the selected period of time. The next Unoccupied period switches back to the program settings.
- To cancel the temperature override and follow the programmed schedule, press CANCEL.
- To unlock the screen, see Advanced Settings section.

Temperature Recovery

The thermostat is equipped with a feature to eliminate guesswork when setting a schedule. That is, the user need not know the amount of time for the HVAC system to bring the space to temperature (without overshoot) prior to the scheduled time. The thermostat manages that automatically.

Simply set the program schedule to the desired time to have the space at comfort temperature. In addition, program the temperature to this comfort temperature. The thermostat activates the heating or cooling at the proper time to reach the scheduled temperature at the scheduled time.

M22760

NOTE: The setpoint changes gradually to use economical stages and avoid overshoot.

For example-the space will be occupied at 8:00 AM and the desired temperature is 70°F. Set the OCC 1 period for 8:00 AM and 70°F. The thermostat turns on the heat prior to 8:00 AM to raise the temperature to 70°F by 8:00 AM.

The thermostat provides an alert that the heating or cooling system is coming on before a scheduled time by displaying "Recovery" on the screen.

23

Setting Calendar

This thermostat is designed to, under normal use, automatically keep current time and day in memory for up to ten years once the calendar is set. There are two ways to set the calendar for this thermostat:
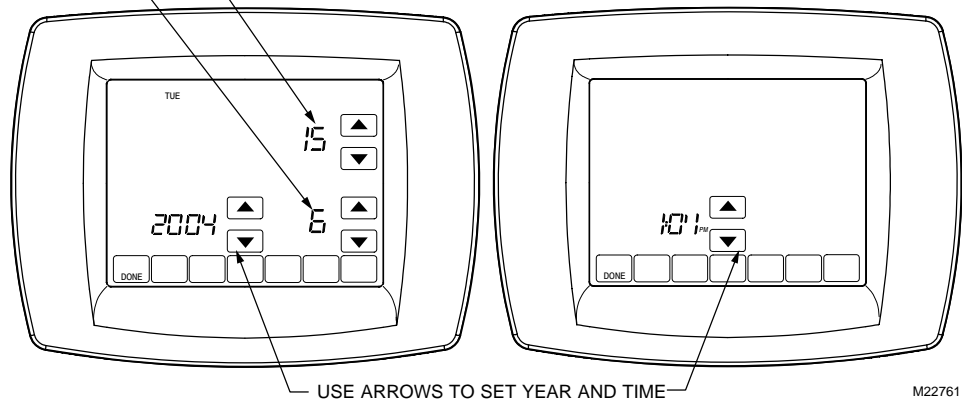
SETTING CALENDAR AFTER THERMOSTAT IS ALREADY FUNCTIONING

See steps 1 through 4, in the Advanced Settings section, to set year, month and day.

SETTING CALENDAR WHEN THERMOSTAT IS FIRST POWERED

When first powered, the thermostat proceeds through a sequence of screens to set the calendar.

SET CURRENT DAY
SET MONTH

TUE

15

2004   6

1:11 PM

DONE

DONE

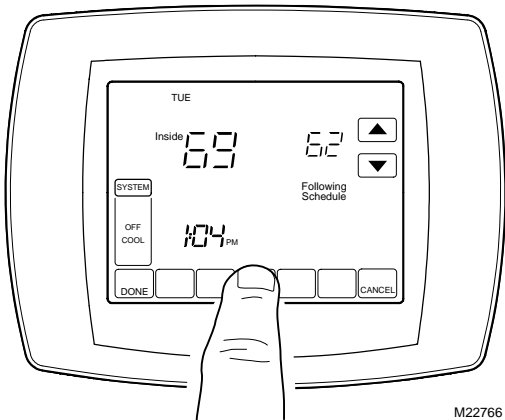USE ARROWS TO SET YEAR AND TIME

M22761

Advanced Settings

The thermostat has many advanced settings to match the HVAC system. These settings can be adjusted to match specific needs:

1. From the main screen, press SYSTEM. Five blank touch keys show on the bottom of the screen between DONE and CANCEL.
2. Press and hold the center blank key approximately five seconds.
3. The Setup Number displays to the lower-left area of the screen. It is a four-digit code beginning with zero. The current setting is displayed to the right.

NOTE: To cycle through the Setup Numbers, press the up or down arrow.

M22766

Step 1. User Setup Number 0120: First Two Digits of Current Calendar Year.

To change current setting, press the Up or Down arrow to the right of the two-digit number in the lower right corner of the screen. Options:
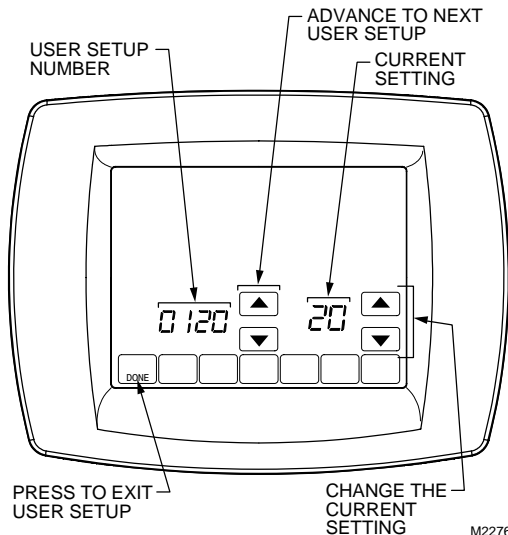20 - for years **20**xx.
21 - for years **21**xx.

Step 2. User Setup Number 0130: Last Two Digits of Current Calendar Year.

To change Options, press the Up or Down arrow to the right of the two-digit number in the lower right corner of the screen. Options:
01 through 99 - for years 2x**01** through 2x**99**.

USER SETUP NUMBER

ADVANCE TO NEXT USER SETUP

CURRENT SETTING

0120   20

DONE

PRESS TO EXIT USER SETUP

CHANGE THE CURRENT SETTING

M22762

Step 3. User Setup Number 0140: Current Calendar Month.

To change Options, press the Up or Down arrow to the right of number in lower right corner of the screen. Options:

1 through 12 - for January through December.

Step 4. User Setup Number 0150: Current Calendar Date.

To change Options, press the Up or Down arrow to the right of the number in the lower right corner of the screen. Options: 1 through 31 - for first of a month to 31 st of a month.

Step 5. User Setup Number 0160: Schedule Options.

To change Options, press the Up or Down arrow to the right of the number in the lower right corner of the screen. Options:

0 - non-programmable. Thermostat is nonprogrammable.
4 - programmable. Thermostat is fully programmable, allowing all 7 days to be programmed.

Step 6. User Setup Number 0320: Display Temperature Shown in °F or °C.

To change Options, press the Up or Down arrow to the right of the number in the lower right corner of the screen. Options:

0 - Fahrenheit.
1 - Celsius.

Step 7. User Setup Number 0330: Daylight Saving Time On or Off.

To change Options, press the Up or Down arrow to the right of the number in the lower right corner of the screen. Options:

0 - Off. Thermostat time does not adjust automatically for Daylight Saving Time.

1 - On. Thermostat time adjusts automatically for Daylight Saving Time in Fall and Spring.

Step 8. User Setup Number 0540: Programmable Periods per Day.

To change Options, press the Up or Down arrow to the right of the number in the lower right corner of the screen. Options:

2 - 2 periods per day.

4 - 4 periods per day.

Step 9. User Setup Number 0640: Time Format.

To change Options, press the Up or Down arrow to the right of the number in the lower right corner of the screen. Options:

12 - 12 hour clock.

24 - 24 hour clock.

Step 10. Exit User Setup

Press DONE to exit Advanced Settings and return to the main screen.

Frequently Asked Questions and Answers

Q: Some or all keys on the display do not work; why not?
A: Thermostat screen is locked.

Q: Backlighting seems dim; is it designed to be dim?
A: When using batteries for power, install fresh AAA alkaline batteries.

Q: Thermostat is asking for heating or cooling to come on (screen shows -Heat On- or -Cool On- in display) but there is no heating or cooling running.
A: Call your local heating and/or cooling contractor to check your heating and/or cooling system.

Q: Why doesn't the thermostat respond when I touch the screen?
A: Check to determine if the screen is in the Locked or Clean mode. See Screen Locked and Cleaning Thermostat Screen sections.

Q: The thermostat only allows selection of one day to program. Why is this?
A: Check the screen to ensure it shows OK TO PICK MULTIPLE DAYS. You may need to simply press EDIT.