LENNOX

SignatureStat

81M26
81M27
81M28

DELUXE PROGRAMMABLE THERMOSTATS

with Humidity Control

MONDAY   12:00 PM

70°F

HEAT
FAN ON
SET AT 70
OUTSIDE 40

30%RH

HOLD TEMP   MENU

LENNOX

SignatureStat

COOL   CHECK   HEAT

User's Manual

Menu Driven Display
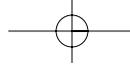
Fully Programmable

24 VAC with Worry-Free Memory Storage

1 Heat / 1 Cool, 2 Heat / 2 Cool and Heat Pump Models

110-1052F
504, 684M

ENERGY STAR

Five Year Warranty

IMPORTANT SAFETY INFORMATION

⚠ WARNING:

- DO NOT USE WITH COMMERCIAL EQUIPMENT.

- Always turn off power at the main power source by unscrewing fuse or switching circuit breaker to the off position before installing, removing, or cleaning this thermostat.

- Read all of the information in this manual before programming this thermostat.

- This is a 24V AC low-voltage thermostat. Do not install on voltages higher than 30V AC.

- All wiring must conform to local and national building and electrical codes and ordinances.

- Do not short (jumper) across terminals on the gas valve or at the system control to test installation. This will damage the thermostat and void the warranty.

- Do not connect ground to any terminal in this unit.

- This thermostat is equipped with automatic compressor protection to prevent potential damage due to short cycling or extended power outages. The short cycle protection provides a 5-minute delay between heating or cooling cycles to prevent the compressor from being damaged.

- Do not switch system to cool if the temperature is below 45°F (7°C). This can damage the cooling system and may cause personal injury.

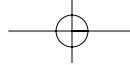- Use this thermostat only as described in this manual.
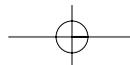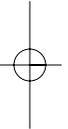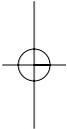
TABLE OF CONTENTS

How do I change the time of day and day of the week?

```
MONDAY          3:29 PM

                    COOL
78              FAN AUTO

                  SET AT
                      78

HOLD TEMP        MENU
```

From the main screen press MENU.

```
            MENU
                        BACK
DAY / TIME              ▲
FAN
USER SETTINGS
INSTALLER SETTINGS
   HOME          SELECT
```

Use the UP or DOWN arrows to highlight DAY/TIME.
Press SELECT.

```
        SET DAY & TIME

DAY              FRIDAY
HOUR             12 PM
MINUTES          06

   MAIN MENU        SET
```

Use the UP or DOWN arrow to highlight DAY, HOUR
or MINUTES. Press SET.

```
        SET DAY & TIME

DAY              FRIDAY
HOUR             12 PM
MINUTES          31

   MAIN MENU        SET
```

Use the UP or DOWN arrow to scroll through
the days of the week, hours or minutes.
Press SET to select desired value.
Press MAIN MENU when complete.
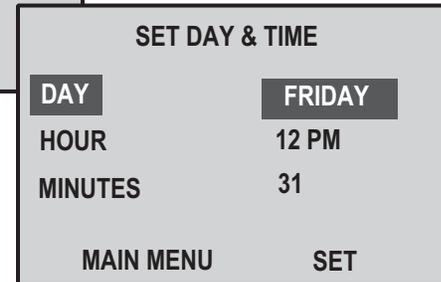
How do I turn on the heating or cooling cycles?

```
MONDAY          3:29 PM

                        COOL
78                  FAN AUTO

                      SET AT
                          78

HOLD TEMP        MENU
```

From the main screen press MENU.

```
              MENU

  PROGRAM

  HEAT / COOL

  DAY / TIME              ▼
  FAN                   MORE

          HOME        SELECT
```
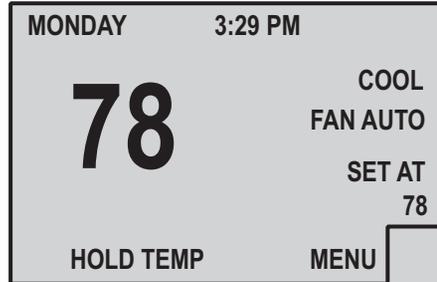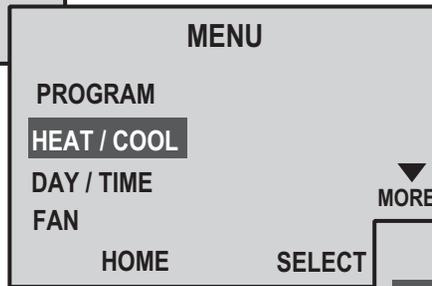
Use the UP or DOWN arrows to highlight HEAT/COOL. Press SELECT.

```
        HEAT / COOL SETTINGS

  HEAT

  COOL

  AUTO CHANGEOVER

  EMERGENCY HEAT

    MAIN MENU        SELECT
```
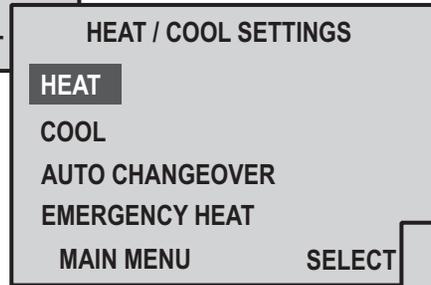
Use the UP or DOWN arrows to highlight HEAT, COOL or AUTO CHANGEOVER. Press SELECT. The SELECT button will turn on or off the desired cycle. You do not have to turn off HEAT to turn on COOL. When HEAT or COOL or AUTO CHANGEOVER is turned on, all others are automatically shut off. After pressing the SELECT button, the main screen will automatically appear.

```
        HEAT / COOL SETTINGS

  HEAT

  COOL

  AUTO CHANGEOVER

  EMERGENCY HEAT

    MAIN MENU        SELECT
```
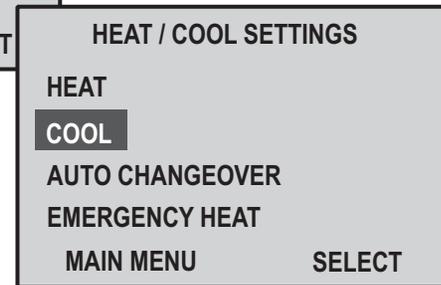
NOTE: Emergency heat is used only on the 81M28 model. It should only be used if the primary stage of heating cannot maintain the temperature of the conditioned space. (AUTO CHANGEOVER will appear in the menu only if it is enabled in Installer Settings.)

5

How do I cycle the fan?

MONDAY   3:29 PM

78
COOL
FAN AUTO
SET AT
78

HOLD TEMP   MENU

From the main screen press MENU.

MENU

PROGRAM
HEAT / COOL
DAY / TIME   ▼
FAN   MORE

HOME   SELECT
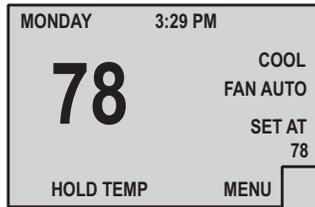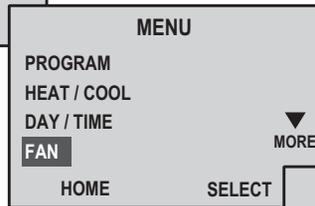
Use the UP or DOWN buttons until FAN is highlighted. Press SELECT.

FAN MENU

FAN SETTINGS

FAN PROGRAM

MAIN MENU   SELECT
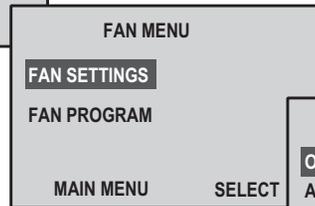
Use the UP or DOWN buttons to highlight FAN settings.
Press SELECT.

FAN SETTINGS

ON
AUTO
INTERMITTENT

MAIN MENU   SELECT
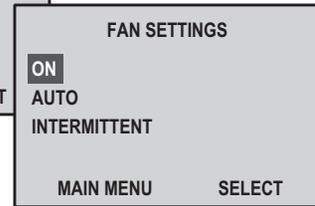
Three choices are available:
ON will turn the fan on continuously.
AUTO will turn the fan on only when there is a call for heating or cooling.
INTERMITTENT will turn the fan on for a set period of time for a given interval. Highlight the choice you desire and press SELECT.

How does INTERMITTENT FAN work?

INTERMITTENT FAN

ON   TIME   5   MIN

OFF   TIME   20 MIN

FAN MENU   SELECT
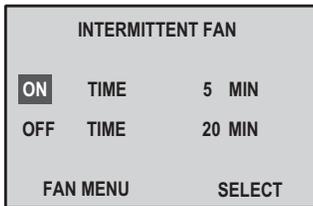
INTERMITTENT will turn the fan on for a set period of time for a given interval when the heating or cooling equipment is idle.

The thermostat will cycle the fan on for the set ON cycle. The fan will remain off for the set OFF cycle.

If the HVAC system runs for a longer period than the ON cycle, the OFF cycle will start counting over again when the system shuts off.

How do I temporarily change the temperature?

```
MONDAY          3:29 PM

                    COOL
78                  FAN AUTO

                    SET AT
                    78

HOLD TEMP       MENU
```
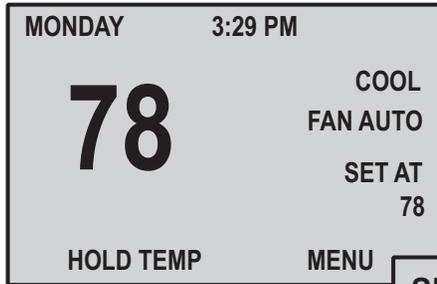
From the main screen, press the UP or DOWN button. The screen will change to the following.

```
SET TEMPERATURE AT

                        ▲
70 °F
                        ▼
UNTIL 6:29 PM

HOME            SET TEMP
```
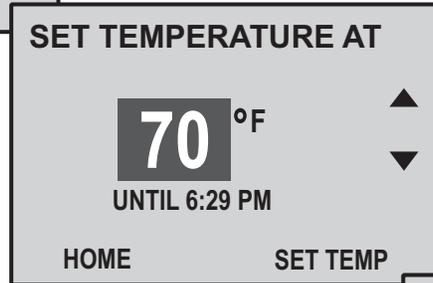
Use the UP or DOWN button to adjust to the desired temperature. This is a temporary 3-hour hold or until the next programmed event, whichever is shorter. For a longer duration see page 8.

```
SET AT 70°F UNTIL 6:29 PM

70 °F           COOL
                FAN AUTO
OUTSIDE 24˚F

RESUME
PROGRAM         MENU
```
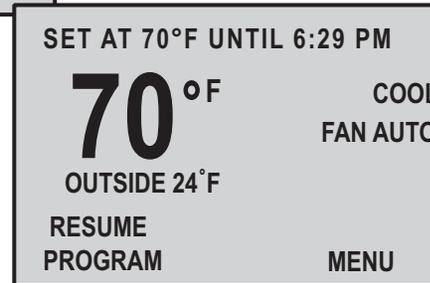
After pressing the SET TEMP button or after 5 seconds the screen will indicate the new setpoint and its duration. To return to the normal operating program mode, press RESUME PROGRAM.

NOTE: Temporary temperature changes override the Auto Changeover function.

Can I set a temporary adjustment for longer than 3 hours?

```
MONDAY          3:29 PM
                        COOL
 78             FAN AUTO
                        SET AT
                           78
HOLD TEMP       MENU
```
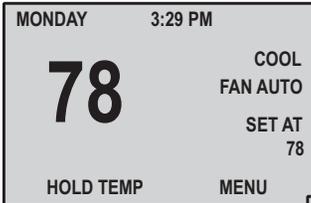
Yes you can! Press the HOLD TEMP button. The following screen appears.

```
    HOLD SETTINGS

PERMANENT HOLD
TEMPORARY HOLD
VACATION HOLD
    HOME         SELECT
```
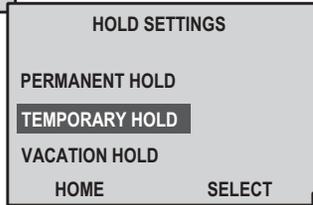
Press the DOWN button to highlight TEMPORARY HOLD. Press SELECT.

```
    TEMPORARILY AT

   70 °F          ▲

   UNTIL 3:49 PM   ▼

 HOME      SET TEMP
```
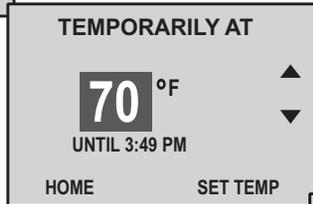
The temperature should be highlighted.
Press the UP or DOWN button to adjust
the temperature. Press SET TEMP.

The time should be highlighted. Press the UP or
DOWN button to adjust the time. Press SET TIME.

```
    TEMPORARILY AT

   70 °F          ▲

   UNTIL 3:49 PM   ▼

 HOME      SET TIME
```

```
SET AT 70°F UNTIL 8:29 PM

   77°F          COOL
                 FAN AUTO
 RESUME
 PROGRAM         MENU
```
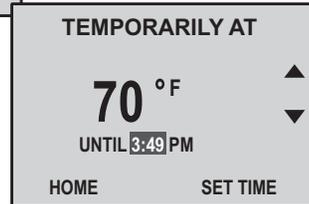
The main screen will now indicate a TEMPORARY HOLD until the
desired time. Press RESUME PROGRAM to return to the program
operating mode.
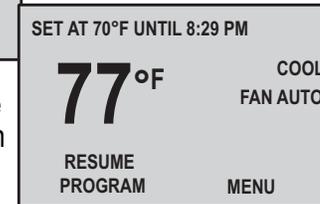
Can I set the thermostat to hold one temperature indefinitely?

MONDAY   3:29 PM

78

COOL
FAN AUTO

SET AT
78

HOLD TEMP   MENU
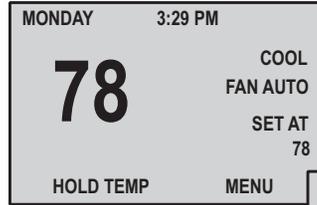
You can do that too! From the main screen press the HOLD TEMP button. The following screen appears.

HOLD SETTINGS

PERMANENT HOLD

TEMPORARY HOLD

VACATION HOLD

HOME   SELECT
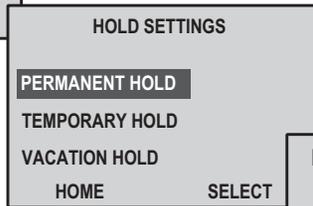
The PERMANENT HOLD feature should be highlighted. If it is not, use the UP or DOWN arrow to highlight it. Press SELECT.

PERMANENTLY AT

70 °F

▲
▼

HOME   SET TEMP
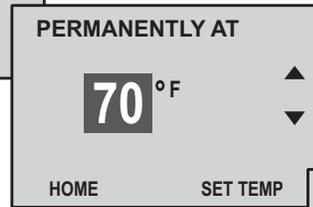
Use the UP or DOWN arrow to set the temperature to the desired level. Press SET TEMP.

PERMANENTLY SET AT 71°F

70 °F

COOL
FAN AUTO

OUTSIDE 24°F

RESUME
PROGRAM   MENU
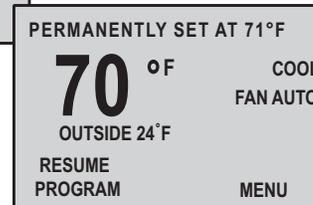
The main screen will now indicate a PERMANENT HOLD. Press RESUME PROGRAM to return to the program operating mode.

How do I return to the Program Mode after being in HOLD?

PERMANENTLY SET AT 71°F

70 °F

COOL
FAN AUTO

OUTSIDE 24°F

RESUME
PROGRAM   MENU
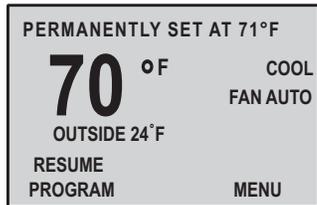
Simply press the RESUME PROGRAM button. This works from all HOLD screens.

How do I set the Vacation Mode?

MONDAY   **3:29 PM**

78   **COOL**
FAN AUTO

SET AT
78

HOLD TEMP   **MENU**
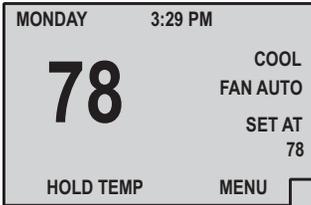
Take a trip and don't worry about the temperature! From the main screen press the HOLD TEMP button. The following screen appears.

HOLD SETTINGS

PERMANENT HOLD

TEMPORARY HOLD

VACATION HOLD

HOME   **SELECT**
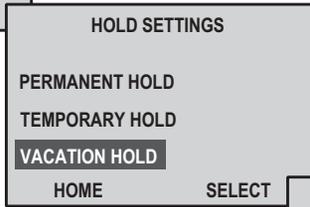
Use the UP or DOWN arrow to highlight the VACATION HOLD feature. Press SELECT.

VACATION SETTING

70°F   ▲

FOR 7 DAYS   ▼

HOME   **SET TEMP**
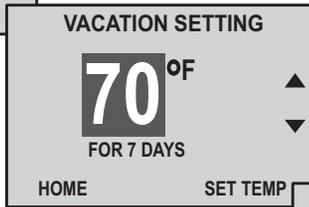
The temperature should be highlighted. Use the UP or DOWN arrow to change to the desired temperature. Press SET TEMP.

VACATION SETTING

70°F   ▲

FOR 7 DAYS   ▼

HOME   **SET DAY**

The number of days should be highlighted. Use the UP or DOWN arrow to set the length of your vacation. Press SET DAY.

SET AT 70°F FOR 7 DAYS

77°F   **COOL**
FAN AUTO

OUTSIDE 24°F

RESUME
PROGRAM   **MENU**
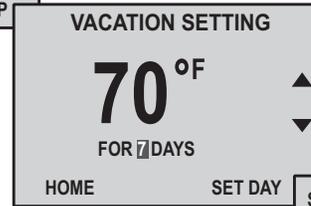
The main screen will now indicate the VACATION settings. Press RESUME PROGRAM to cancel and return to the program operating mode.

How do I program my thermostat?
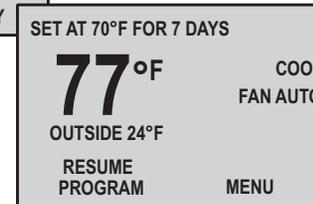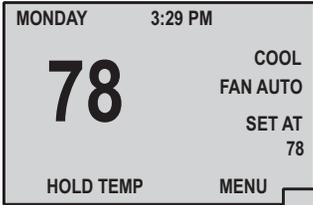
MONDAY **3:29 PM**	
78 COOL FAN AUTO SET AT 78	From the main screen press the MENU button.
HOLD TEMP **MENU**	

MENU

PROGRAM

HEAT / COOL
DAY / TIME   ▼
FAN   MORE

   HOME   **SELECT**
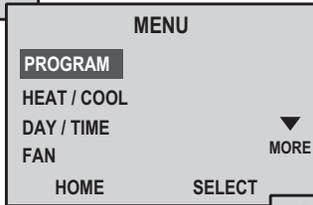
Use the UP or DOWN button to highlight PROGRAM. Press SELECT.

SELECT PROGRAM DAYS

MON TO SUN

MON TO FRI
SAT TO SUN
MONDAY   ▼
   MORE

   MAIN MENU   **SELECT**

You can select a variety of programming. Make your selection and press SELECT. MON-SUN allows every day to be set the same. MON-FRI allows for weekday programming while SAT-SUN will adjust weekends differently. You also can select each day of the week individually. NOTE: Even if you select MON-SUN, you still can go back and change individual days to suit your lifestyle.

MONDAY PROGRAM

		HEAT	COOL
WAKE	06:30A	70	78
MORN	08:30A	62	85
EVE	04:30P	70	78
NIGHT	10:30P	62	82

   MAIN MENU   **SELECT** ▼

Use the UP or DOWN button to select the event to program. You can choose 2, or 4 events per day. See USER SETTINGS for EVENTS PER DAY selection. After selecting the event to program, press SELECT.

Please go to the next page for a continued discussion on "How to program your thermostat."

How do I program my thermostat? (continued)

MONDAY PROGRAM		HEAT	COOL
WAKE	06:00A	70	78
MORN	08:30A	62	85
EVE	04:30P	70	78
NIGHT	10:30P	62	82
MAIN MENU		SET TIME ▼	

The time for the first event should be highlighted. Use the UP or DOWN key to change the time. Press SET TIME.

MONDAY PROGRAM		HEAT	COOL
WAKE	06:30A	70	78
MORN	08:30A	62	85
EVE	04:30P	70	78
NIGHT	10:30P	62	82
MAIN MENU		SET HEAT ▼	

The heating setpoint for the first event will be highlighted. Use the UP or DOWN key to change the desired temperature. Press SET HEAT.

MONDAY PROGRAM		HEAT	COOL
WAKE	06:30A	70	78
MORN	08:30A	62	85
EVE	04:30P	70	78
NIGHT	10:30P	62	82
MAIN MENU		SET COOL ▼	

The cooling setpoint for the first event will be highlighted. Use the UP or DOWN key to change the desired temperature. Press SET COOL.

The second event will now be highlighted. Use the UP or DOWN key to change events if desired. When the desired event is highlighted, press SELECT. Continue programming until all events are programmed.

MONDAY PROGRAM		HEAT	COOL
WAKE	06:30A	70	78
MORN	08:30A	62	85
EVE	04:30P	70	78
NIGHT	10:30P	62	82
MAIN MENU		SELECT ▼	

How do I copy one day's program to another day?

```
MONDAY PROGRAM        ▲

              HEAT    COOL
MORN    08:30A   62      85
EVE     04:30P   70      78
NIGHT   10:30P   62      82
COPY

  MAIN MENU        SELECT
```

In the program screen, press the DOWN button until COPY is highlighted.

```
COPY MONDAY TO

TUESDAY          YES
WEDNESDAY
THURSDAY
FRIDAY           YES    ▼

  FINISHED       YES / NO
```

Use the UP or DOWN button to highlight the day to copy to. Press YES / NO. A YES will appear next to the day. Do this for each day to which that program is to be copied. Press FINISHED when complete.

```
CONTINUE
PROGRAMMING?




NO                    YES
```

After pressing FINISHED, you can choose to program other days or exit. YES will take you back to the Select Program Days screen. NO will exit you to the main screen.
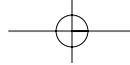
What is an event?

An event is a programming period. This could be the period in the morning when you are preparing for work or school. It could be the period when no one is at home. It could be the period when the household is asleep at night.

The time for an event is selected based on when you want the event to occur. For example, if you wake up at 6:30 AM, set the first event for 6:30 AM. The thermostat will automatically make sure that your home is at the desired temperature selected for that event by the time you wake.

This thermostat can be set for 2 or 4 events.

Two events should be selected if someone is home all day thereby requiring a constant temperature during the day and a different temperature at night.

Four events are the most common for working households. Event 1 (WAKE) is the morning period. Event 2 (DAY) is when everybody has left for school or work. Event 3 (EVE) is the return period, coming home from school or work. Event 4 (NIGHT) is the night period when everybody is asleep.

How do I know what program is right for me?

The thermostat is factory set with the US EPA ENERGYSTAR® recommended times and temperatures for optimal energy savings. You can change these to suit your lifestyle.

The best rule is to examine your schedule and set the times and temperatures that best fit. This thermostat is so versatile, you can easily change temperatures or programs at a whim.
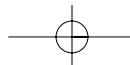
How do I set the Humidify Levels?

Humidification can occur only when the thermostat is in the HEAT mode. The humidify level is adjustable from 15% to 45% RH. From the Main Screen press MENU.

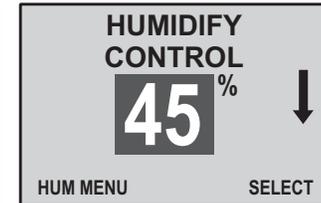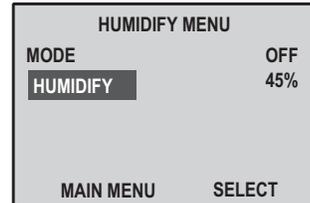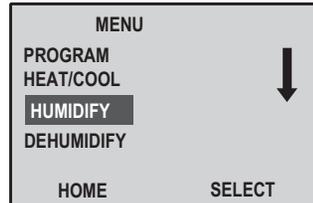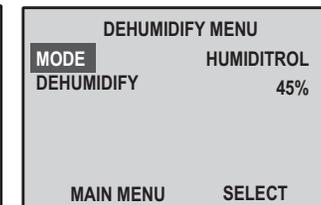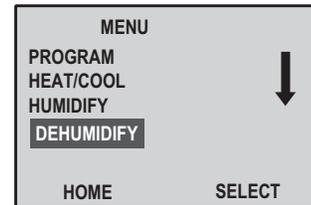Use the UP or DOWN arrow to highlight HUMIDIFY. Use the UP or DOWN arrow to again highlight HUMIDIFY. Use the UP and DOWN arrow to adjust the Humidify level.

```
          MENU
PROGRAM
HEAT/COOL               ↓
HUMIDIFY
DEHUMIDIFY

   HOME          SELECT
```

```
      HUMIDIFY MENU
MODE                 OFF
HUMIDIFY             45%



  MAIN MENU       SELECT
```

```
     HUMIDIFY
     CONTROL
     45  %        ↓

HUM MENU        SELECT
```

How do I set the Dehumidify Levels?

Dehumidification can occur only when the thermostat is in the COOL mode. The dehumidify level is adjustable from 45% to 60% RH. From the Main Screen press MENU. Use the UP or DOWN arrow to highlight DEHUMIDIFY. Use the UP or DOWN arrow to again highlight DEHUMIDIFY. Use the UP and DOWN arrow to adjust the Dehumidify level.

```
          MENU
PROGRAM
HEAT/COOL               ↓
HUMIDIFY
DEHUMIDIFY

   HOME          SELECT
```

```
     DEHUMIDIFY MENU
MODE              HUMIDITROL
DEHUMIDIFY              45%



  MAIN MENU       SELECT
```
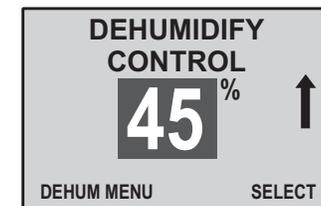
What is the difference between Basic and Precision modes?

In the Basic mode, the humidifier will turn on only with a call for heat. If there is a need for dehumidification, this will occur only with a call for cooling.

In the Precision mode, if the conditioned space requires humidification, the system will circulate air and turn on the humidifier to add moisture to the air regardless of whether there is a call for heat. If the conditioned space requires dehumidification, the air conditioner will turn on to reduce the humidity level to the desired setpoint regardless of whether there is a call for cooling.

During dehumidification, it is possible to over-cool the conditioned space by up to 2°F to achieve desired humidity levels.

If the HUMIDITROL accessory is enabled in the Installer Settings, the Precision mode selection will appear as HUMIDITROL. This selection allows for the most effective use of the HUMIDITROL equipment.

```
     DEHUMIDIFY MODE
OFF
HUMIDITROL



  DEHUM MENU      SELECT
```

```
    DEHUMIDIFY
     CONTROL
     45  %        ↑

DEHUM MENU      SELECT
```
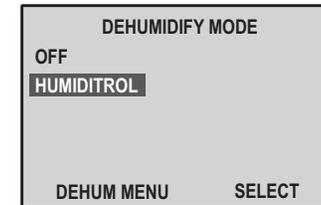
What happens if the mode is set to OFF?

The humidification and dehumidification are turned off. The thermostat will simply control to the temperature setpoint.

What is the difference between Basic and Basic/DP (same as Precision and Precision/DP)?

The DP stands for Dew Point. If the remote outdoor sensor (Part #46M98) is connected and Basic/DP or Precision/DP is selected, the thermostat will automatically optimize the indoor humidity level based on the desired indoor temperature and outdoor temperature. In Dew Point mode,the humidify control level (described on the previous page) is ignored.
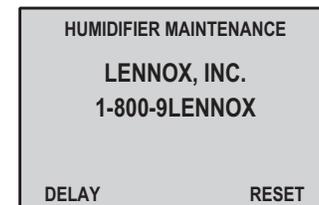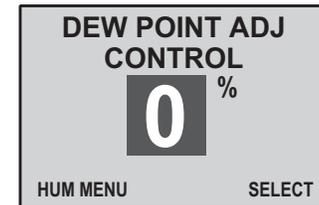
If Basic/DP or Precision/DP is chosen, a new menu DEW POINT ADJUSTMENT will be displayed.

What is the Dew Point Adjustment Function?

The Dew Point Adjustment can be set from -15% to +15%. These settings allow you to customize the Dew Point setting for your home. Some homes may require an adjustment to help maintain comfort. If you notice condensation on your windows, set the adjustment lower, between -15% to -5%. If your home feels dry, set the adjustment upwards, between +5 to +15%.

Can I change the Humidifier Maintenance Service Intervals?

No. This interval is fixed based on the run time of your system and if the humidifier has been turned on. When the recommended service interval has expired, the screen to the right will appear. Simply press DELAY to be reminded later or RESET to reset the interval.

HUMIDIFY MODE
BASIC
PRECISION
BASIC/DP
PRECISION/DP

HUM MENU   SELECT

DEW POINT ADJ
CONTROL
0 %

HUM MENU   SELECT

HUMIDIFIER MAINTENANCE

LENNOX, INC.
1-800-9LENNOX

DELAY   RESET
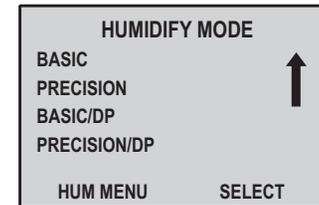
What are the USER settings?

```
MONDAY        3:29 PM
                    COOL
78              FAN AUTO
                    SET AT
                        78
HOLD TEMP       MENU
```
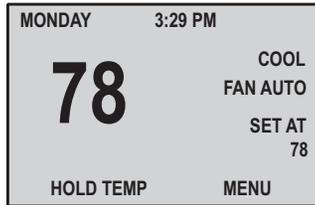
The USER SETTINGS can change the way information is displayed on the thermostat and help to optimize comfort. It's one way to truly personalize your new thermostat.

```
             MENU
DEHUMIDIFY             BACK
DAY / TIME              ▲
FAN
USER SETTINGS          ▼
                      MORE
     HOME       SELECT
```
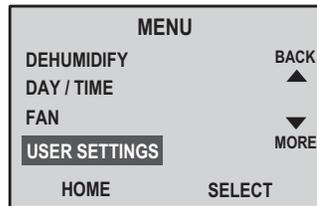
To get to the USER SETTINGS, press the MENU button from the main screen.

USER SETTINGS are below the FAN settings. Use the DOWN button to scroll below the screen. Press SELECT.

Choose the setting you would like to change. When the SETTING is highlighted, press SELECT. There are 10 USER SETTINGS in all as listed below. For detailed information on each user setting, please go to the next page.
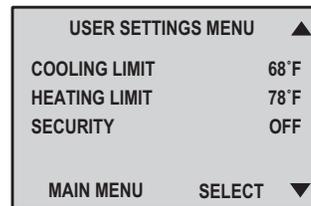
```
   USER SETTINGS MENU
F  OR  C              °F
12 OR 24hr            12
SHOW SET TEMP       YES
EVENTS / DAY          4
 MAIN MENU     SELECT ▼
```

```
   USER SETTINGS MENU    ▲
1ST STAGE DIFF       1°F
2ND STAGE DIFF       2°F
2ND DELAY             20
COOLING LIMIT       45°F
 MAIN MENU     SELECT ▼
```

```
   USER SETTINGS MENU    ▲
COOLING LIMIT       68°F
HEATING LIMIT       78°F
SECURITY            OFF
 MAIN MENU     SELECT ▼
```

18
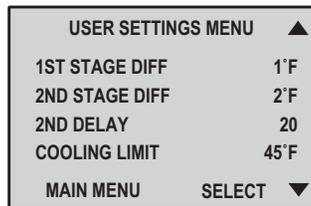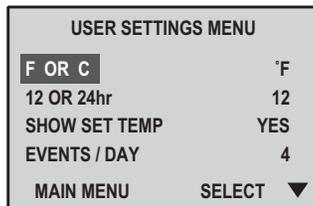
Detailed Information on the USER SETTINGS (Or what do these USER SETTINGS do?)
To select a USER SETTING, use the UP or DOWN button to highlight the desired value. Press SELECT to select desired value.

TEMPERATURE
°F
°C
USER MENU   SELECT
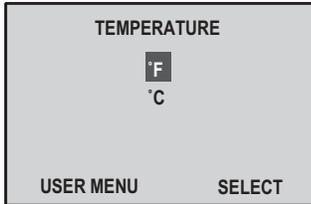
TEMPERATURE: Fahrenheit or Celsius
Temperature will be displayed in F or C.

CLOCK
12 HOUR
24 HOUR
USER MENU   SELECT

CLOCK SETTINGS
Displays time in standard 12-hour format or military format.

DISPLAY SET POINT TEMPERATURE ?
YES
NO
USER MENU   SELECT
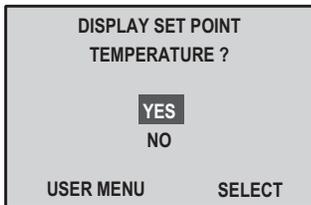
SETPOINT TEMPERATURE
Each event has a setpoint temperature. Choose whether to display this value or not.

SELECT EVENTS / DAY
EVENTS / DAY 4
0   6   12   18   24
USER MENU   SELECT
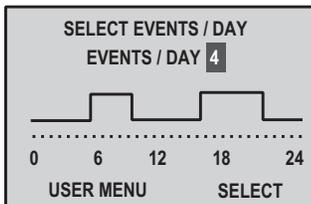
NUMBER OF EVENTS PER DAY
Select events per day. Choose from 2 or 4 events per day.
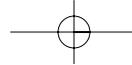
More Detailed Information on the USER SETTINGS

```
DIFFERENTIAL SETTING

1ST DIFF            1°F
2ND DIFF            2°F
2ND DELAY           20 MIN


USER MENU          SELECT
```

DIFFERENTIAL SETTINGS
The temperature differential is your comfort level. The differential is the difference from setpoint before your heating or cooling system will turn on. The 81M27 and 81M28 models also have 2nd stage differential. In the Heat mode, if the temperature falls below (or above for cooling) the setpoint by the 1st stage differential plus the 2nd stage differential, the second stage of heating (or cooling) will turn on.
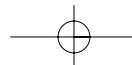
The 2nd stage delay is a timed delay before the second stage will turn on if the setpoint has not been achieved within that time frame, and if the difference between the setpoint and the actual temperature is bigger than the first stage differential but smaller than the first stage differential plus the second stage differential.

```
SET COOLING LIMIT


LOWEST COOLING      45 °F
SETTING ALLOWED


USER MENU          SELECT
```

```
SET HEATING LIMIT


HIGHEST HEATING     90 °F
SETTING ALLOWED


USER MENU          SELECT
```

HEATING and COOLING LIMITS
To prevent individuals (probably your kids) from adjusting the thermostat too hot or too cold, you can limit the maximum setting for the heating and cooling modes. This will help you save on energy costs.

More Detailed Information on the USER SETTINGS

```
          SECURITY

CHANGE TEMP. ONLY
PREVENT ALL CHANGES



USER MENU          SELECT
```
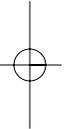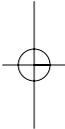
SECURITY SETTINGS
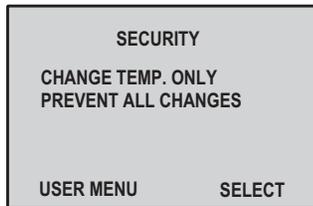In order to prevent tampering with the program and your desired settings, two levels of security are available.The first will allow only temporary changes to the temperature. It protects all other programmed setpoints. The second will restrict changes to EVERYTHING, including temporary changes to the temperature.

```
ENTER SECURITY CODE

  FOR TEMPERATURE        ▲

     0 0 0 0
                         ▼

USER MENU          SELECT
```

SECURITY CODE
In this screen you enter a four-digit code. Use the UP or DOWN button to change the first value, press SELECT. The second digit will be highlighted. Repeat for all four values. And don't forget your code. If you do, you will have to reset the entire thermostat and that will erase all the schedules you've programmed into the unit.
NOTE: After entering the security code to unlock the thermostat, the code will need to be re-entered to secure the thermostat after changes are made.

When would I need to change the USER settings?

About the only features you may need to change are the temperature differentials (if you desire additional comfort) and the security settings. All the other settings probably will not need to be changed.

What are the INSTALLER settings?

The INSTALLER SETTINGS are setup during the initial installation. They tell the thermostat how to function with your heating or cooling equipment. The following is a brief overview and discussion of these settings.

INSTALLER SETTINGS	
SYSTEM SETUP	GAS
RESIDUAL COOL	60
LOW BALANCE	45˚F
HIGH BALANCE	95˚F
HOME	SELECT ▼

*

INSTALLER SETTINGS	▲
AUTOCHANGEOVER	ON
EER	ON
DEADBAND	3˚F
HUMIDITROL	OFF
HOME	SELECT ▼

* DEADBAND is displayed only when AUTOCHANGEOVER is ON.

INSTALLER SETTINGS	▲
SECURITY	OFF
CONTACT INFO	
SERVICE INT	
REMINDER	RUN
MAIN MENU	SELECT

INSTALLER SETTINGS	▲
CONTACT INFO	
SERVICE INT	
REMINDER	RUN
TEMP OFFSET	0.0°F
MAIN MENU	SELECT

SYSTEM SETUP	
FURNACE	
HEAT PUMP	
INSTALL MENU	SELECT

SYSTEM SETUP
Choose the system component that the thermostat will control.
With the 81M26, either a furnace or a single-stage heat pump (with no auxiliary heat) can be used. If FURNACE is selected, then either a GAS/OIL or ELECTRIC furnace can be used.

1ST STAGE HEATING	
GAS / OIL	
ELECTRIC	
INSTALL MENU	SELECT

1st STAGE HEATING
With the 81M27, either a GAS/OIL or ELECTRIC furnace can be used.

INSTALLER settings (continued)

```
      AUXILIARY HEAT

STANDARD - COMP. =ON

ADD ON - COMP. =OFF


INSTALL MENU      SELECT
```

AUXILIARY HEAT
With the 81M28, either an electric or gas heat source can be used as an auxiliary backup to the heat pump. Choose STANDARD-COMP=ON if an electric backup source is to be used. Choose ADD ON-COMP=OFF is a gas backup source is to be used.

```
       RESIDUAL COOL


SECONDS DELAY      60


INSTALL MENU      SELECT
```

RESIDUAL COOL
In order to get greater efficiency from the cooling system, the fan can be programmed to run for 0 (OFF), 30, 60, 90, or 120 seconds after the air conditioner has shut off. Residual cool may interfere with proper system operation. Consult the system operating manual.

```
       BALANCE POINTS

LOW BALANCE      45 °F
HIGH BALANCE     95 °F


INSTALL MENU      SELECT
```

BALANCE POINTS
This screen will appear only when the outdoor sensor (Part #46M98) is connected to the 81M28 thermostat. When this sensor is used with the 81M28, you can set the lower and upper temperatures to disable or enable 2nd stage heat.
At outdoor temperatures above the high balance point, only the heat pump is allowed to run. At outdoor temperatures below the low balance point, only the auxiliary heat source is allowed to run. At outdoor temperatures between the high and low balance points, both the heat pump and the auxiliary heat source are allowed to run.

```
      AUTO CHANGEOVER

        DISABLE
        ENABLE


INSTALL MENU      SELECT
```

AUTO CHANGEOVER
When turned on, the thermostat will switch automatically between heating and cooling to maintain the optimal temperature in your home.
When Auto Changeover is enabled in Installer Settings, it will also appear in the HEAT/COOL menu described earlier. Auto Changeover must be enabled in both places in order to function.
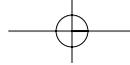
INSTALLER settings (continued)

```
ENERGY EFFICIENT
    RECOVERY

    DISABLE
    ENABLE


USER MENU        SELECT
```
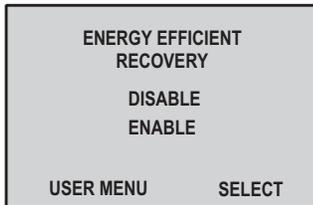
ENERGY EFFICIENT RECOVERY
When turned on, the thermostat will look up to two hours before the next event and anticipate when to turn on to reach the desired temperature.
NOTE: This will not allow the second stage to turn on until 20 minutes before the event.

```
DEADBAND SETPOINT


        ▲
3 °F
        ▼


USER MENU        SELECT
```
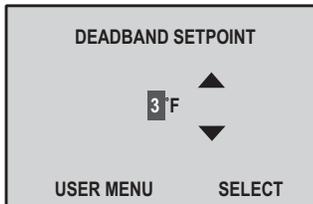
DEADBAND SETPOINT
Deadband is used only when the AUTO CHANGEOVER feature is enabled. The deadband is the temperature difference between the heating and cooling setpoints. This is adjustable from 3-8°F (2.0-4°C).
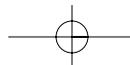
```
    HUMIDITROL


    DISABLE
    ENABLE


INSTALL MENU     SELECT
```
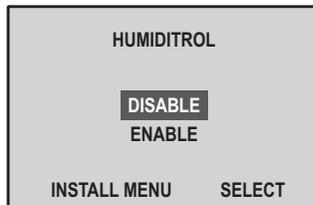
HUMIDITROL
If the HUMIDITROL accessory is present in the HVAC equipment, this feature should be enabled. Otherwise, it should be disabled.

```
ENTER SECURITY CODE

  FOR INSTALLER        ▲
    SETTINGS
    0 0 0 0            ▼

USER MENU        SELECT
```
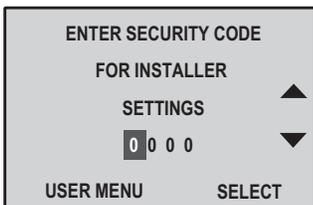
SECURITY CODE
Enter a code to prevent changes to the INSTALLER settings.

INSTALLER settings (continued)

```
     CONTACT INFORMATION

        AIR EXPERTS
        1-555-555-1212




    BACK            EDIT
```

```
   SERVICE MONITOR MENU

   SERVICE MONITOR 980
   FILTER MONITOR 980



   INSTALL MENU      SELECT
```

```
      REMINDER PERIOD

   RUN TIME
   CALENDAR TIME



   INSTALL MENU      SELECT
```

```
    TEMPERATURE OFFSET


        0.0 °F  ↕


   INSTALL MENU      SELECT
```

CONTACT INFORMATION
This allows the servicing HVAC contractor to put their name and phone number into the thermostat to remind you when service may be required.

SERVICE MONITOR MENU
Different service monitors are provided, depending on which model you have. The filter monitor is provided on all models. On the 81M26 and 81M27, the heat monitor and cool monitor is also provided. On the 81M28, the system monitor is provided. All monitors can be set based on the HVAC system run time or the calendar. See Reminder Interval.

All Service Monitors can be set from OFF to 360 days in 30 day increments or OFF to 980 in 20 hour increments.

REMINDER PERIOD
The Reminder Period can be set for either HVAC system run time or based on the calendar.

If Run Time is chosen, the service reminder will be set in hours. After the HVAC system has been operating for the selected number of hours, a Service Reminder will be displayed informing you that service is suggested for your system.

If Calendar Time is chosen, the service reminders will be set in days. After the selected number of days has passed, a Service Reminder will be displayed informing you that service is suggested for your system.

TEMPERATURE OFFSET
The temperature offset feature adds or subtracts the desired amount from the displayed room temperature reading. For example, if the displayed room temperature is 75 and, for some reason, you want it to read 73, simply enter a value of -2 for the temperature offset.
The temperature offset is selectable from -3 to +3 degrees.

When would I need to change the INSTALLER settings?

NEVER! The INSTALLER SETTINGS are selected based on the type of equipment you have in your home. This feature should be set only by a certified HVAC technician. Changing these settings could result in higher energy costs and may even damage your equipment. There is a security lock on this feature to prevent tampering. USE IT!
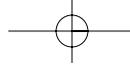
How does Energy Efficient Recovery™ (EER™) work?

Energy Efficient Recovery™ is an energy saving feature. During a set back period (or set up in cooling), it allows the thermostat to look up to two hours ahead to determine when to turn on the heating (cooling) system. During this time period, the second stage is locked out until 20 minutes before the next programmed event to allow the first (and most efficient stage) to bring your home to the desired temperature.

How does my remote outdoor sensor work?

The remote outdoor sensor (Part #46M98) can be used to aid in the comfort of your home or simply as a sensing device to inquire about outdoor conditions. In most applications, the thermostat will have a display of the temperature sensed by the remote outdoor sensor. With your heat pump system, the remote outdoor sensor can help determine when to turn on the second stage of heating for optimal comfort.

Where should I install a remote outdoor sensor?

The remote outdoor sensor should be installed on the northern wall of your home, away from direct sunlight or other heat sources that may affect its sensitivity.
NOTE: Use twisted pair wire (84X49) for the installation of the outdoor sensor.

## What do the lights below the display mean?

The lights indicate different operations of the HVAC equipment.

With a call for heating or cooling, the HEAT or COOL light will be illuminated on the 81M26 and 81M27.

The AUX light indicates the second (backup) stage of heating. This is used only on the 81M28 model.

The CHECK light is used on all models. It indicates the equipment should be serviced by a qualified technician.

The EMER light indicates that the emergency heat is enabled in the HEAT/COOL menu (regardless of heat demand). This light is used only on the 81M28 model.
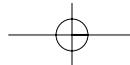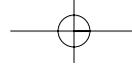
What should I do if my power goes out?

Make sure your family is safe and don't worry about the thermostat. Your thermostat automatically retains the time of day for approximately two hours in the event of a power outage. All other programmed parameters are stored permanently in memory. So, if your power is out for more than two hours, simply reset the clock. See page 4.

How do I reset the thermostat program to factory conditions?

To reset the thermostat to factory conditions, press the UP button and the LEFT button at the same time. Hold for 8 seconds. The time of day will display 12:00 indicating a reset has occurred.

NOTE: This will erase all programming and return the thermostat to the factory conditions (including the installer settings) along with erasing current security codes. Use this only as a last resort.

How do I know if the heating or cooling is on?

The display of the thermostat will indicate the operating mode, HEAT or COOL. When the temperature in your home decreases or increases, the heating or cooling cycle will come on based on the displayed mode. Also, lights along the bottom crease of the thermostat will indicate various equipment operations.

Who do I contact for more information?

Simply call 1-800-9LENNOX or visit us on the web at www.lennox.com.
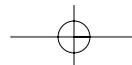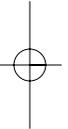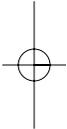
## My energy bills are too high. Is there anything I can do?

While we can't do anything about the high cost of energy, we can try to use less energy and thereby lower our heating and cooling costs.

Generally, the best way to do this is to use the EPA ENERGYSTAR® recommended setpoints for heating and cooling.

	ENERGYSTAR® Setpoints	
	Winter	Summer
	(Heating)	(Cooling)
Morning	70°F (21°C)	78°F (25°C)
Day	62°F (17°C)	85°F (29°C)
Evening	70°F (21°C)	78°F (25°C)
Night	62°F (17°C)	82°F (28°C)

Another way to contain costs is to cycle the heat pump or air conditioner with moderation. The thermostat controls the cycle rate based on temperature differentials. By maintaining a reasonable differential setting, 1°F for 1st stage and 2°F for 2nd stage, your furnace will cycle with moderation.

Finally, using the remote outdoor sensor coupled with the balance point feature (see INSTALLER SETTINGS, page 22) will allow your furnace to cycle to the most efficient stage for your heating or cooling needs.
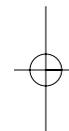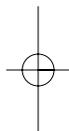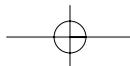
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