



ENGINEERING DATA

Digital Programmable Thermostats

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1 Heat / 1 Cool Single Stage
3 Heat / 2 Cool Multi-Stage

FEATURES

- Large, clear display with backlight shows the current and set temperature and time
- Menu-driven programming guides user through the scheduling process showing only necessary information on each screen.
- Touchscreen interaction
- Ergonomic design
- Intelligent recovery starts system early to achieve setpoint at start of program period
- Real-time clock keeps time during power failures and automatically updates to daylight savings
- "Saving Changes" notification lets user know when the schedule changes have been saved
- Change/check reminders let user know when to service or replace filters, humidifier pads, ultraviolet lamps and thermostat batteries
- Multiple Hold options allow user to override the program schedule as desired
- Select multiple days to set same programming for all.
- Armchair programming allows user to remove the thermostat from the wall for programming
- Programmable fan offers increased air quality when combined with a whole house air cleaner
- Outdoor temperature display (with optional outdoor sensor) shows current outdoor temperature

WARRANTY

Five-year limited warranty in residential applications. Refer to Lennox Equipment Limited Warranty certificate included with unit for specific details.

APPROVALS

Factory preset program settings conform to EPA ENERGY STAR® recommended setpoints.

APPLICATIONS

Fully programmable thermostats provides universal system compatibility, precise comfort control and easy programmability.

Provides temperature control for gas, oil, electric and heat pumps for 1 heat / 1 cool single stage (**X4146**) or 3 heat / 2 cool multi-stage (**X4147**) systems (3 heat / 2 cool model includes dual fuel operation).

FULLY PROGRAMMABLE

7 day programming. Any number of days of the week may have the same schedule.

2 or 4 schedule periods per day.

Battery back-up maintains all programming in the event of a power outage.

TOUCHSCREEN DISPLAY**Home Screen**

- Indoor temperature (*Inside*)
- Setpoint temperature (*Set To*)
- Outside temperature (*Outside*) (with optional remote Outdoor Temperature Sensor)
- Current time, hold time remaining or number of vacation days remaining
- Day of week
- SYSTEM mode
(HEAT / OFF / COOL / AUTO) 1 heat / 1 cool
(EM. HEAT / HEAT / OFF / COOL / AUTO) 3 heat / 2 cool
- FAN mode (ON / AUTO / CIRC)
- Enter scheduling mode (SCHED)
- Hold mode (HOLD)
- Time set (CLOCK)
- Screen cleaning (SCREEN)
- Raise / lower temperature setting (*Up / Down Arrows*)
- Additional system information (*MORE*)

FEATURES

TOUCHSCREEN DISPLAY (CONTINUED)

Programming Screen

- Each day of week (*MON . . . SUN*)
- Schedule periods (*WAKE / LEAVE / RETURN / SLEEP*)

USER SETTINGS

Schedule Periods (WAKE / LEAVE / RETURN / SLEEP)

User can select any combination of days to have the same time and temperature schedules (examples - Monday through Friday, Saturday and Sunday).

Schedule times are spaced in 15 minute intervals.

Schedule periods can be cancelled (skipped) during programming to maintain the currently operating period (example; cancel the *LEAVE* period and keep the *WAKE* period operating until the *SLEEP* period occurs)

Fan setting can also be programmed for *ON*, *AUTO* or *CIRC* operation for each period.

Temperature Overrides

User can select three different "Hold" schedules.

1. **Hold Temperature Until** (Holds the temperature until the next scheduled period time or until the user cancels (press *CANCEL* or *SCHED* to cancel and resume normal schedule)
2. **Permanent Hold** (Holds the temperature until cancelled by user).
3. **Vacation Hold** (Holds the temperature for a user designated number of days).

Fan Schedule

User can select three different "Fan" schedules.

1. **Auto** (default) (fan only operates when equipment is operating).
2. **On** (Fan runs continuously for improved air circulation).
3. **Circ** (Fans runs randomly for 35% of scheduled period for improved air circulation - approximately 12 minutes every 1/2 hour).

Fan Override

Fan setting can be changed to any of the 3 fan schedules above during any time period. Fan operation will return to normal programmed operation when the next scheduled time period begins

Maintenance Reminders

Reminders notify user when to replace filters, humidifier pads or ultraviolet lamps.

Thermostat flashes *Change . . . Filter*, *Change . . . Humidifier Pad*, *Change . . . UV Lamp* until user resets reminder (*RESET* key).

Touchscreen Cleaning

Pressing *SCREEN* locks the thermostat for 30 seconds to allow cleaning of the screen.

Pressing *DONE* resumes thermostat operation.

BATTERY BACKUP

Three AAA alkaline batteries (furnished) provide backup in case of power failure.

LO batt indicator flashes on screen for approximately 30 days before batteries must be replaced.

LED INDICATOR

LED is located in the upper right-hand corner of the thermostat - only visible when lit.

When equipment monitor is connected to thermostat L terminal, LED lights if monitor send a check or failure signal to thermostat.

INSTALLER SETTINGS

Date

- Year/first two digits (factory setting is 20)
- Year/last two digits (factory setting is 05)
- Month (factory setting is 8)
- Day (factory setting is 19)

Schedule

- 7-day programming (factory setting)
- Non-programmable

System Type

- Single Stage Heat/Cool - Gas, oil or electric heating with central air conditioning (factory setting)
- Single Stage Heat Pump - no back-up or aux. heat)
- Heat Only w/o fan (conventional)
- Heat Only w/ fan (conventional)
- Hot Water Heat Only (conventional) gas or oil hot water heat. Power open/power close hot water zone valves or normally open valves
- Cooling Only (conventional) central air conditioning only

(3 Heat / 2 Cool Models only)

- 2 Heat / 1 Cool Heat Pump - heat pump w/ back-up or aux. heat
- 2 Heat / 2 Cool Multi-Stage (conventional)
- 2 Heat / 1 Cool Multi-Stage (conventional)
- 1 Heat / 2 Cool Multi-Stage (conventional)
- 2 Heat / 2 Cool Heat Pump - no aux. heat
- 3 Heat / 2 Cool heat Pump - w/ aux. heat

Fan Control Heating (3 Heat / 2 Cool Models only)

- Gas or Oil Heat (factory setting)
- Electric Heat

Auxiliary Heat Source (3 Heat / 2 Cool Models only)

- Electric Heat (factory setting)
- Fossil Fuel (heat pump applications)

External Fossil Fuel Kit

- No External Kit Controlling Heat Pump Aux. Heat - Thermostat controls dual fuel operation (optional Outdoor Temperature Sensor required)
- External Fossil Fuel Kit Controls Heat Pump Aux. Heat

Additional Installer settings are available for the following:

- Cycle Per Hour for Cooling and Heating Stages
- Backlight Operation
- Compressor Lock-out
- Changeover
- Deadband
- Fahrenheit or Celsius Temperature Display
- Daylight Savings
- Outdoor Temperature Sensor
- Lock-out for Heat Pump Compressor and Aux. Heat
- Intelligent Recovery
- Number of Periods
- Min. Compressor "Off" Time
- Heat / Cool Temperature Range
- Clock Format
- Heat / Cool Extended Fan "On" Time
- Maintenance Reminders
- Keypad Lock-out
- Heat / Cool Temperature Control
- Temperature Display Offset
- Reset Thermostat

Please refer to the Installation Instructions for detailed information.

FEATURES

INSTALLER SYSTEM TESTS

Four tests are available for the Installer to check the HVAC system after thermostat set-up has been completed.

1. Installer Test Cool
2. Installer Test Fan
3. Installer Test Heat
4. Installer Test Emergency Heat

Please refer to the Installation Instructions for detailed information.

SPECIFICATIONS

For use with residential equipment only.

Temperature Setting Range

Heating - 40 to 90°F (4.5 to 32°C)

Cooling - 50 to 99°F (10 to 37°C)

Power Supply

24VAC (20 to 30VAC maximum), 50/60Hz
or 3 AAA batteries only (furnished)

Clock Accuracy

± 1 minute per month

Terminals

1 heat / 1 cool single stage

R, C, W, Y, G, O/B, L, S1, S2

3 heat / 2 cool multi-stage

R_C, R, C, W, W₂, Y, Y₂, G, O/B, L, E, AUX, S1, S2

Dimensions (H x W x D)

5-1/2 x 7-7/8 x 1-5/16 in. (140 x 200 x 33 mm)

OPTIONAL ACCESSORIES - ORDER EXTRA

OUTDOOR TEMPERATURE SENSOR

When installed outdoors, sensor (X4148) allows thermostat to display outdoor temperature.

NOTE - Sensor is required for dual fuel operation if thermostat controls dual fuel system operation.

REVISIONS

Sections	Description of Change
Front page	Removed Elite® designation.



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Contact us at 1-800-4-LENNOX

NOTE - Due to Lennox' ongoing commitment to quality, Specifications, Ratings and Dimensions subject to change without notice and without incurring liability. Improper installation, adjustment, alteration, service or maintenance can cause property damage or personal injury. Installation and service must be performed by a qualified installer and servicing agency.

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