TOUCHSCREEN
COMFORTSENSE® 7000
7-Day Programmable Thermostat

PRODUCT SPECIFICATIONS
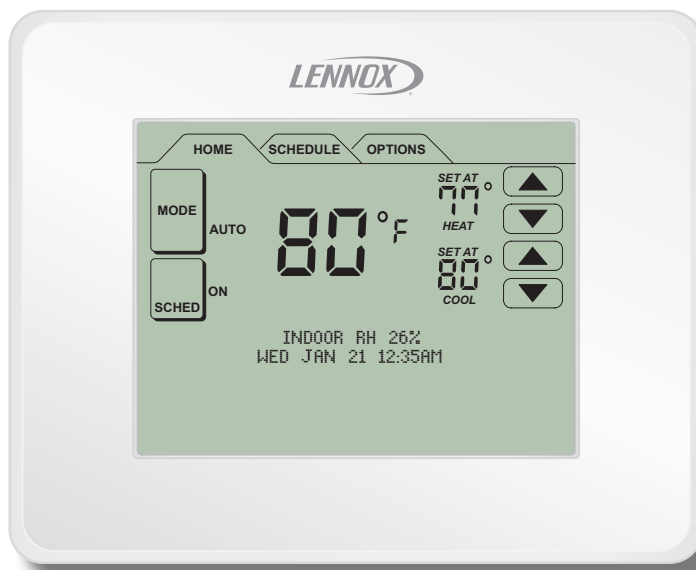
4 Heat / 2 Cool Universal Multi−Stage

MODEL NUMBER IDENTIFICATION

L 7 7 4 2 U

Brand
L = Lennox

Series
7 = Digital Programmable Touchscreen

Programming
7 - 7 Day

Heating Stages
4 = Four Stages

Cooling Stages
2 = Two Stages

System Type
U - Universal Compatibility
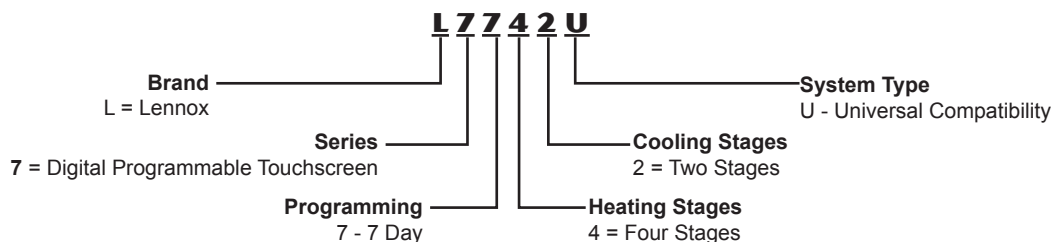
FEATURES

The ComfortSense® 7000 is an electronic 7-day, universal, multi-stage, programmable, touchscreen thermostat. It also offers enhanced capabilities including humidification / dehumidification / dewpoint measurement and control, Humiditrol® Enhanced Dehumidification Accessory (EDA), and equipment maintenance reminders.

• Large, clear display with backlight shows the current and set temperature, day/date/time, indoor relative humidity and outdoor temperature (if optional outdoor sensor is used).

• Menu-driven programming guides user through the scheduling process showing only necessary information on each screen.

• Touchscreen interaction.

• Ergonomic design.

• Smooth Setback Recovery starts system early to achieve setpoint at start of program period.

• Compressor short-cycle protection (5 minutes).

• Real-time clock keeps time during power failures and automatically updates to daylight savings.

• Maintenance reminders let user know when to service or replace filters, humidifier pads, ultraviolet lamps, plus two user or installer defined custom reminders.

• Program Hold options allow user to override the program schedule as desired by time and date

• Select individual days or groups of days to set programming.

• Programmable fan offers increased air quality when combined with a whole house air indoor air quality product.

• Outdoor temperature display (with optional outdoor sensor) shows current outdoor temperature

• Permanent memory storage of programs.

• Remote Lennox Systems Operation Monitor (LSOM monitoring (for Lennox equipped LSOM outdoor units using the L terminal.

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. ENERGY STAR® Qualified.
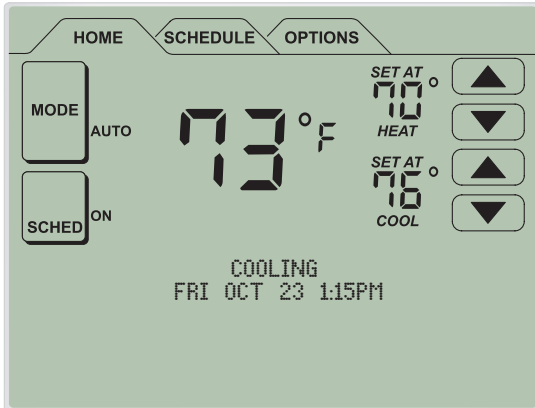
APPLICATIONS

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

Provides temperature control for gas, oil, electric and heat pumps for up to 4 heat / 2 cool multi-stage systems (includes dual fuel operation).

TOUCHSCREEN DISPLAY

Home Screen

- Large display of indoor temperature
- Current heating setpoint temperature (SET AT HEAT)
- Current cooling setpoint temperature (SET AT COOL

  NOTE - Both setpoint temperatures and adjustment arrows are displayed if System is set to Auto mode.

- Raise / Lower temperature settings (Up / Down Arrows for temporary override
- Outdoor temperature (Outdoor)
  (with optional remote Outdoor Temperature Sensor)
- Cooling or Heating mode or other System modes
- Compressor short-cycle protection (WAIT)
- Day of Week, Month and Day and Time of Day

  NOTE - Information in this area changes depending on thermostat configuration and user interface (scheduling, indoor humidity, hold settings, service reminders, dealer information, etc.).

- **MODE** (system) area
  (HEAT / COOL / AUTO / OFF / EM HEAT)
- **SCHED** (Schedule) mode area
 (ON / OFF)

Temperature Overrides

During SCHED ON user can temporarily override the program schedule as desired by time and date.

User can maintain existing heat/cool temperatures or adjust them as needed (in one degree increments) using the Up / Down arrows on the Home screen.

User can also select how long to to hold temperatures by time (in ten minute increments) and calendar date Default is three hours.

SCHED OFF maintains current setpoints indefinitely.

Schedule Screen
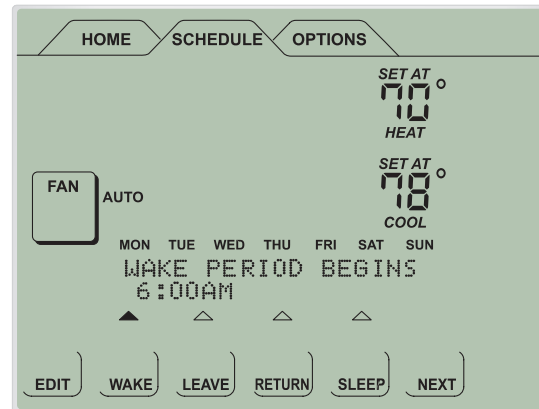
- Current heating setpoint temperature (SET AT HEAT)
- Current cooling setpoint temperature (SET AT COOL)
- Raise / Lower temperature settings (Up / Down Arrows
- Up / Down arrows for adjusting time
- Each day of week (MON . . . SUN)
- Schedule periods (WAKE / LEAVE / RETURN / SLEEP)
- Fan (ON / AUTO / CIRC)
- Edit schedule settings (CANCEL / EDIT)
- Advance to next setting (NEXT)
- Save schedule changes (SAVE)

Schedule Periods (WAKE / LEAVE / RETURN / SLEEP)

7 day programming.
Individual programming for each day of the week or by specific groups of days:

- Monday through Sunday (7 individual days)
- Monday through Friday + Saturday and Sunday (5 + 2)
- Monday through Sunday (All days have same program)

  NOTE - Individual days within a group of days can also be changed if required.
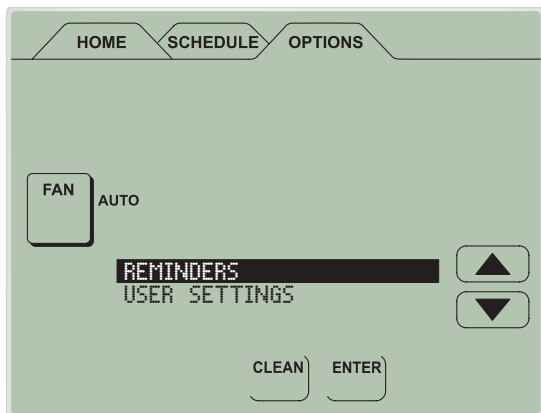
2 or 4 schedule periods per day (see User Settings).

Schedule times are spaced in 10 minute intervals.

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

TOUCHSCREEN DISPLAY (CONTINUED)

```
  HOME    SCHEDULE   OPTIONS



 ┌─────┐
 │ FAN │  AUTO
 └─────┘
          ┌──────────────────────────┐  ┌───┐
          │ REMINDERS                │  │ ▲ │
          │ USER SETTINGS            │  └───┘
          └──────────────────────────┘  ┌───┐
                                         │ ▼ │
                                         └───┘

            CLEAN    ENTER
```

Options Screen
• **FAN** mode area (ON / AUTO / CIRC / AUTO / ON)
• Maintenance reminders (REMINDERS)
• User configuration (USER SETTINGS)
• Installer configuration (INSTALLER SETTINGS)
• Clean screen button (CLEAN)

Fan Modes
Fan Modes can be changed directly from the Home screen or on the Options screen.

User can select three different "Fan" modes:

 1. Auto Fan operates only when equipment is operating and follows a schedule.

   NOTE - In AUTO mode, fan can operate in AUTO mode, ON mode or CIRC mode if it is programmed as such for the current schedule.

 2. On Fan runs continuously for improved air circulation.

 3. Circ Intermittent fan operation when equipment is not operating. Fan operates for a programmed percentage of time per hour.
   Fan is adjustable to 15%, 25%, 35%, 45% for improved air circulation.

Fan Circulation Times:
 • 15% - 9 minutes on per hour.
 • 25% - 15 minutes on per hour.
 • 35% - 21 minutes on per hour (default).
 • 45% - 27 minutes on per hour.

NOTE - Fan can be set to operate at any of the 3 modes above during any programmed schedule.

Reminders
Reminders notify user when routine maintenance is required.
• Filter Media (REPLACE FILTER MEDIA)
• Ultraviolet Lamp (REPLACE UV LAMP)
• Humidifier Pad (REPLACE HUM PAD)
• System Maintenance (ROUTINE SYS CHECK-UP)
• PureAir™ Maintenance (PUREAIR MAINTENANCE)
• (REMINDERS) See Installer Settings

Two custom reminders can also be set (see Installer Settings)

User can turn on and off individual reminders (default is OFF).

Reminders can be set to chronological time or equipment run time from 1 to 24 months.

Reminders can be reset (snooze) at any time.

Reminders that are due are displayed on the HOME screen.

In case of power interruption:
• If the lithium battery is charged, the chronological time or total accumulated equipment run time (depending on reminder setting) is maintained.
• If the lithium battery is not charged, due dates for reminders are maintained.

Touchscreen Cleaning
Pressing CLEAN locks the thermostat for 30 seconds to allow cleaning of the screen.

SPECIFICATIONS
NOTE - For use with residential equipment only.

Order No. - Y2081

Temperature Setting Range
• Heating - 45 to 90°F
• Cooling - 50 to 99°F

Humidity Settings
• Operating range - 10 to 90% relative humidity
• Humidity setpoint (Humidification mode) - 10 to 45% relative humidity
• Humidity setpoint (Dehumidification mode) - 35 to 60% relative humidity

Power Supply
• 24VAC (18 to 30VAC maximum), 60Hz

Clock Accuracy
• ± 10 minutes per year

Terminals
• 4 heat / 2 cool multi-stage
• R, H, W1, W2, O, L, Y1, Y2, G, D, B, C, T, T

Dimensions (H x W x D)
5-7/8 x 8-1/2 x 1-1/4 in. (149 x 216 x 31 mm)

Backup
Non-volatile memory maintains all programming in the event of a power outage.
Lithium battery (furnished) provides backup for chronological (clock) time in case of power failure.

OPTIONS

Outdoor Temperature Sensor

When installed outdoors, sensor (**X2658**) allows thermostat to display outdoor temperature. Sensor is auto-detected when connected to thermostat.

NOTE - Sensor is required for dual fuel operation if thermostat controls dual fuel system operation. Also required with Humiditrol® applications and *Humidity Settings / Humidity / Dewpoint* operation (see Installer Settings).

USER SETTINGS

DATE / TIME
• Set Month, Day, Year, Hour and Minute

F / C
• Fahrenheit (default) or Celsius

12 OR 24 HOUR
• 12 (default) or 24 hour clock

EVENTS DAILY 2 OR 4
• Number of schedule periods (default 4) per day

VIEW CONTACT INFO
• Displays dealer informaation

DISPLAY INFO (View alternates)
• OUTDOOR TEMP
  Information display shows outdoor temperature
  if equipped with Optional Outdoor Temperature
  Sensor (default is off)
• INDOOR RH
  Indoor Relative Humidity (default is off)
• CONTACT INFO

HUMIDITROL ADJUST
• MAX, MID, MIN (if equipped)
 • MIN - 2°F below the cooling setpoint
 • MAX - 2°F above the heating setpoint
 • MID - halfway between MIN and MAX

FAN CIRCULATE
• See Fan Modes on previous page for % settings
  available

COOLING LIMIT
• Cooling Limit, 45°F (default) adjustable (45 to 90°F)

HEATING LIMIT
• Heating Limit, 90°F (default) adjustable (90 to 45°F)

SECURITY LOCK
• Prevents tampering with thermostat settings, 3-digit
  security code

HUMIDITY SETTING
• Humidity setpoint 45% (default), adjustable (15% to
  45%)
• Dehumidify setpoint 50% (default), adjustable (45%
  to 60%)

BACKLIGHT SETTINGS
• Power save (default) or continuous

BACKLIGHT INTENSITY
• 100% (default) adjustable (20 to 100%)

INSTALLER SETTINGS

SYSTEM SETUP

NON HEAT PUMP (default)
- Gas / Oil (Default)
- Electric
- No Heat

HEAT PUMP
- Dual Fuel (Gas / Oil)
- Electric
- No Backup Heat

COMPRESSOR STAGES (1 default or 2)

INDOOR HEAT STAGES (1 default or 2 Stages)

OUTDOOR SENSOR
- YES or NO (default)

RESIDUAL COOL
- 0 (default), 30, 60, 90, 120 seconds

LOW BALANCE POINT (Multi-stage Heat Pump)
- 25°F (default), adjustable (-20°F to high balance point)

HIGH BALANCE POINT (Multi-stage Heat Pump)
- 50°F (default), adjustable (Low balance point to 75°F)

DEADBAND
- 4°F (default), adjustable (3 to 8°F)

SMOOTH SETBACK RECOVERY
- Off (default) or On

SMOOTH SETBACK RECOVERY STAGE 2 LOCKOUT
- 20 min. (default), adjustable (20 to 120 minutes)

HUMIDITY SETTING
  HUMIDIFY
- Off (default), Dewpoint, Precision, Basic, adjustable (15 to 45%) 45% default setting
  DEHUMIDIFY
- Off (default), Humiditrol, Precision, Basic, adjustable (45 to 60%) 50% default setting

  NOTE - Dewpoint and Humiditrol settings are only available with optional remote Outdoor Temperature Sensor

STG DELAY TIMERS
- On (default) or Off

STG 1 DIFF
- 1.0°F (default), adjustable (0.5 to 8.0°F)

STG 2 DIFF
- 0.5°F (default), adjustable (0.5 to 8.0°F)

STG 2 DELAY
- 20 min. (default), adjustable (5 to 120 minutes)

STG 3 DIFF
- 0.5°F (default), adjustable (0.5 to 8.0°F)

STG 3 DELAY
- 20 min. (default), adjustable (5 to 120 minutes)

STG 4 DIFF
- -0.5°F (default), adjustable (0.5 to 8.0°F)

STG 4 DELAY
- 20 min. (default), adjustable (5 to 120 minutes)

H/C STGS LOCKED IN
- YES or NO (default) turns heating stages off separately

STG 2 HP LOCK TEMP
- OFF (default) for dual fuel (lock out 2nd stage compressor) applications, adjustable (-45 to 75°F)

DAYLIGHT SAVINGS
- On (default) or Off

CONTACT INFORMATION
- 2 lines of up to 19 alphanumeric characters

CUSTOM REMINDER1

CUSTOM REMINDER2
- User defined reminders can be a custom text message (up to 19 alphanumeric characters)
- Also displays dealer information

RESET SETTINGS
- Restores thermostat to original factory settings

  NOTE - A "hard" reset option is also available. See Programming and Application Guide.

ENERGY STAR DEFAULT
- Sets thermostat to conform to EPA ENERGY STAR® recommended setpoints.
  WAKE - 6 AM, 70°F Heat, 78°F Cool
  LEAVE - 8 AM, 62°F Heat, 85°F Cool
  RETURN - 5 PM, 70°F Heat, 78°F Cool
  SLEEP - 10 PM, 62°F Heat, 82°F Cool

TEMPERATURE OFFSET
- 0°F (default), adjustable (-5 to 5°F). Offset displayed temperature ± 5°F.

HUMIDITY OFFSET
- 0% (default), adjustable (-10 to 10%)

COMPRESSOR PROTECT
- On (default) or Off

SYSTEM TEST MODES
Installer run tests to check all cooling, heating, emergency heating and fan outputs. Tests confirm signals between thermostat and unit are being sent and received.

TEST OUTPUTS
- OFF
- Y1 ON
- Y2 ON
- Y2 OFF
- W1 ON
- W1 OFF
- W2 ON
- W2 OFF
- FAN (G) ON
- FAN (G) OFF
- H ON
- H OFF
- D ON
- D OFF
- O ON (B OFF)
- B ON (O FF)

REVISIONS

Product	
	New catalog number - Y2081
	Redesigned case
	Fan button moved to "Options" tab
	Dealer contact information can now scroll on the home screen
	Dealer info "button" when a reminder expires

LENNOX

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Contact us at 1-800-4-LENNOX