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L3532H 5/2 Day Programmable Thermostat

The Lennox ComfortSense™ 3000 Series model L3532H 5/2 day programmable electronic thermostat has a large, easy-to-read display and provides excellent temperature control. It includes a programmable filter change reminder, an equipment maintenance reminder, and a system check indicator to notify the user when the equipment requires service.

Thermostat model L3532H is suitable for heat pump, 3-stage heat/2-stage cool applications using a gas or electric auxiliary heat source. An optional outdoor temperature sensor provides auxiliary heat lockout, balance point operation, and dual-fuel compatibility.

General

These instructions are intended as a general guide and do not supersede local codes in any way. Consult authorities having jurisdiction before installation.

Check equipment for shipping damage. If you find any damage, immediately contact the last carrier.

Introduction

This document describes the operation of the Lennox model L3532H thermostat. Refer to the installation manual for instructions regarding installation and wiring of the thermostat.

Initial Thermostat Power-up

When power is initially applied to the thermostat, the display will appear as shown in figure 1.

OPERATION MANUAL

ComfortSense™ 3000 Series Model L3532H 5/2 Day Programmable Thermostat
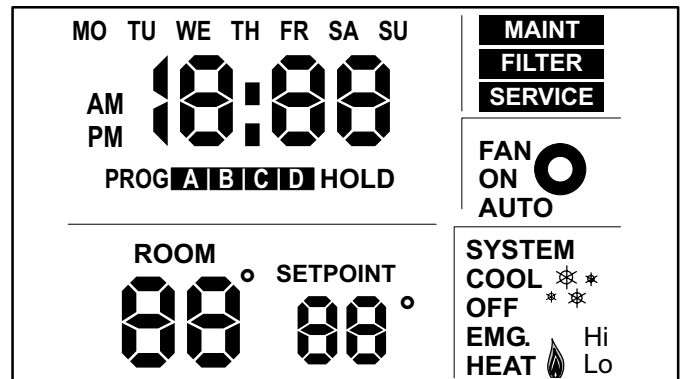
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Figure 1. Initial Power-Up Display

All display segments are momentarily activated. This occurs as a normal part of thermostat initialization.

Within a few seconds, the Home Screen appears (see figure 2) with default settings as shown. After about 1 minute of initialization time, the actual room temperature will be displayed.

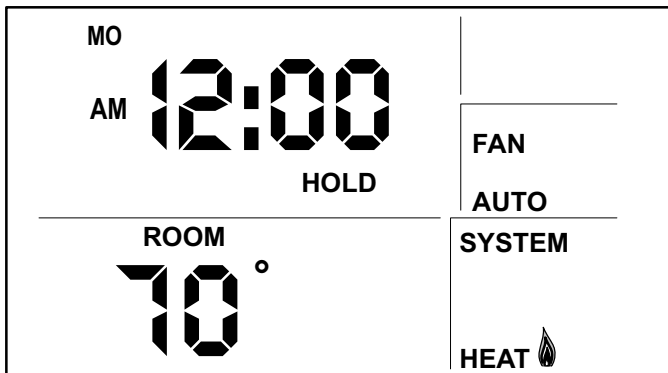*NOTE - Tables 2 and 3 on page 8 show all system and programming defaults.*

Figure 2. Home Screen

At this point, the thermostat will be fully functional; its default temperature setpoint (not shown) is 70°F. At this point, if the equipment has been fully powered and if a heat demand were present, the system would begin operating.

NOTE - Temperature scale default is Fahrenheit units but may be reset to show Celsius, if desired. See page 8.

Buttons, Backlight, Timers & Settings

Buttons are located behind the small door on the right-hand side of the thermostat (see figure 3).

⚠ IMPORTANT

Do NOT begin pressing buttons until after you read the following section describing each button.

A pale blue display backlight illuminates for 30 seconds each time any button is pressed.

When PROG or DAY/TIME is pressed, a field begins flashing, expecting another input. Start making changes within 15 seconds or the HOME screen will return.
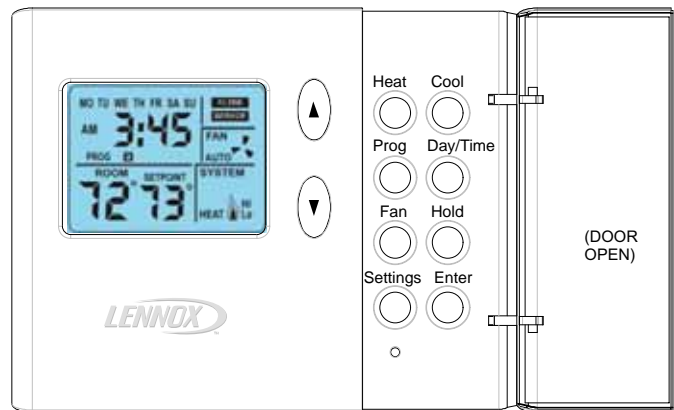

Figure 3. Thermostat Buttons

When an Arrow, HOLD, HEAT, or COOL button is pressed, SETPOINT and the temperature setting appears for 15 seconds. If desired, start making changes within 15 seconds or the HOME screen will return. The backlight will turn off 15 seconds after the HOME screen reappears.

DAY/TIME - Setting the Day and Time

Press the DAY/TIME button and set the CURRENT hour, minute, and day of week as follows:

1. "AM12" will flash on the screen. Press the Up/Down arrows buttons to change the hour. ("AM" or "PM" must correspond to time of day.) Press DAY/TIME **_OR_**, *if adjusting for daylight savings time, pressing ENTER stores the single change and exits to the HOME screen, bypassing minutes and day of wee*k.

2. Minutes will flash. Use the Up/Down arrow buttons to display the minutes past the hour. Press DAY/TIME.

3. Day "MO" (Monday) will flash. Use Up/Down arrow buttons to display the current day. Day selections are abbreviated as "MO", "TU", "WE", "TH", "FR", "SA", and "SU". Press DAY/TIME.

4. The HOME screen reappears; confirm day and time are correct. This completes day and time setting.

HEAT - Using the Heat Mode

Normal Heat Mode

In normal heat mode, both the heat pump and the backup heat source are used to provide heat. If the thermostat detects that the heat pump is not able to provide enough heat (as may be the case in very cold weather), then the backup heat source is activated.

Emergency Heat Mode

In emergency heat mode, only the backup heat source provides heat —the heat pump is disabled. The backup heat source is activated only when there is a heat demand.

Enabling Normal Heat Mode

Use the HEAT button to select normal heat mode, emergency heat mode, or to disable heat modes as desired. If the thermostat is in OFF or COOL mode, pressing the Heat button enables Heat mode. This is indicated by HEAT in the SYSTEM box as shown in figure 4.
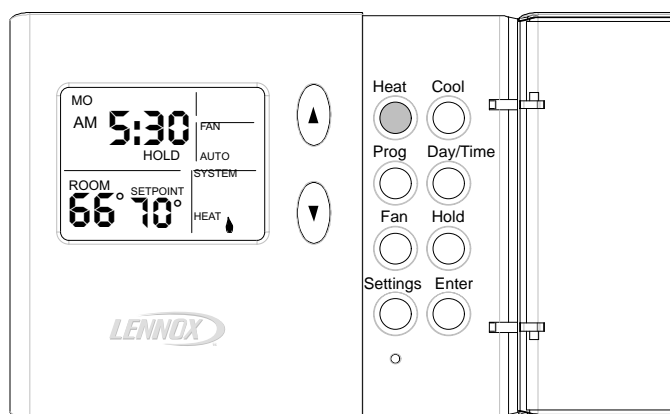

Figure 4. Turn Heat ON/OFF

Enabling Emergency Heat Mode

If the thermostat is in heat mode, pressing the Heat button enables EMG. HEAT mode (see figure 5). If the thermostat is in normal heat mode when the HEAT button is pressed, then emergency heat mode is enabled.

Figure 5. Emergency Heat Mode Enabled

Disabling Heat Mode

If the thermostat is in emergency heat mode when the HEAT button is pressed, then heat modes are disabled. This is indicated by OFF in the SYSTEM box as shown in figure 6.

Figure 6. Heat Mode Disabled

Heating Demand

The thermostat must be in either normal or emergency heat mode in order to properly control the heating equipment. In either heat mode, when the actual temperature is lower than the temperature setpoint (as shown in figure 7), the thermostat detects a heating demand and activates the heating equipment to satisfy the demand. Heating operation is indicated by a flame icon in the SYSTEM box.

Figure 7. Heating Demand

When the actual temperature rises above the temperature setpoint, the flame icon will disappear. This indicates that the heating demand has been satisfied and that the heating equipment has been turned off.

Heat pump operation is locked out for 5 minutes after a demand has been satisfied. If another heat pump demand occurs during this 5-minute interval, the flame icon will flash; however, the heat pump will not run until the 5-minute delay has elapsed.

NOTE - The heat pump is activated for at least 4 minutes if no buttons are pressed during the demand interval. The backup heat source is activated for at least 3 minutes if no buttons are pressed during the demand interval.

If your system supports 3-stage heating (as does the L3532H thermostat), you may notice various heating levels being delivered during a demand.

If a small heat pump heating demand is present, "Lo" is displayed in the SYSTEM box; if a large heat pump heating demand is present, "Hi" is displayed (see figure 8).

Figure 8. Large Heat Demand

COOL - Using the Cool Mode

Enabling and Disabling Cool Mode

Use the COOL button to enable or disable cool mode as desired. If the thermostat is in HEAT or OFF mode, cool mode is enabled when the COOL button is pressed. This is indicated by COOL in the SYSTEM box (see figure 9).
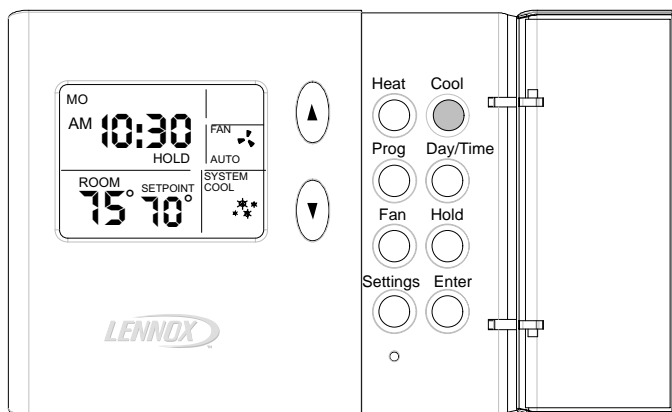

Figure 9. Turn Cool ON/OFF

If the thermostat is in cool mode, pressing the Cool button disables COOL mode (indicated by OFF in the SYSTEM box - see figure 10).

Figure 10. Cool Mode Disabled

Cooling Demand

Set the thermostat to cool mode to control the cooling equipment. Then, if the room temperature is higher than the temperature setpoint, as shown in figure 11, the thermostat detects a cooling demand and will activate the cooling equipment to satisfy the demand.
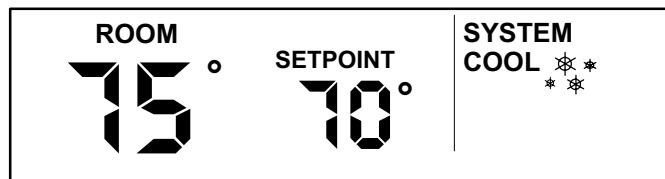

Figure 11. Cooling Demand

Cooling operation is indicated by flashing "snowflake" icons in the SYSTEM box. When the actual temperature drops below the temperature setpoint, the snowflake icons will disappear. This indicates that the cooling demand has been satisfied and that the cooling equipment has been turned off.

If your system supports 2-stage cooling (as does the L3532H thermostat), you may notice various cooling levels being delivered during a demand. Also, if a small cooling demand is present, "Lo" will be displayed in the SYSTEM box. However, if a large cooling demand is present, "Hi" will be displayed in the SYSTEM box (shown in figure 11).

NOTE - If no buttons are pressed during a demand for cooling, the equipment must operate for at least 4 minutes. After a demand has been satisfied, cooling equipment operation is locked out for 5 minutes. If another cooling demand occurs during this 5-minute interval, "COOL" and the snowflakes will flash; however, the cooling equipment will not operate until the 5-minute delay has elapsed.

HOLD - Using Temperature Hold Modes

When HOLD is displayed at the HOME screen, the thermostat is in a temperature hold condition. This means that the temperature program data is ignored and the thermostat functions much like a non-programmable thermostat.

Adjusting Temperature Setpoint in Hold Mode

The temperature setpoint represents the desired temperature of the space around the thermostat. The default temperature setpoint in Hold mode is 70°F.

To adjust the setpoint, press the UP or DOWN (▲▼) arrow buttons (see figure 12); the existing setpoint is displayed to the right of the actual room temperature. Each button press adjusts the setpoint up or down by 1 degree.
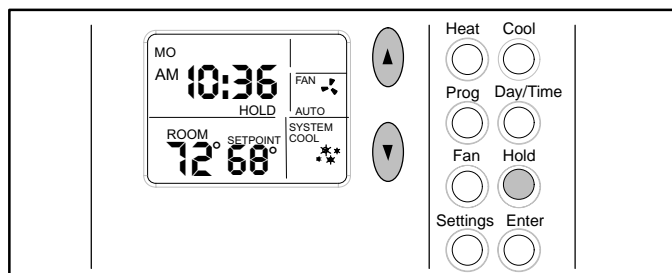

Figure 12. Hold Temperature Mode

After the desired setpoint is reached, the HOME screen will reappear after about 15 seconds.

Permanent Hold Mode

At any time the program is running, from the HOME screen, set a permanent hold (program override) by pressing the HOLD button (see figure 12). The thermostat now functions much like a non-programmable thermostat. Use the Up/Down arrow buttons to adjust the hold setpoint. To return to the program, press HOLD again.

Temporary (2-Hour) Hold

At any time the program is running, from the HOME screen, set a temporary 2-hour hold by pressing the Up/Down arrow buttons until the desired setpoint is displayed; "HOLD" flashes (see figure 13). This overrides the program for 2 hours from the last button press, then returns to the program.
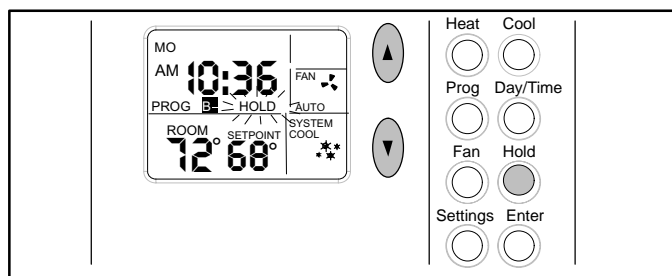

Figure 13. Temporary Hold Temperature Mode

While in Temporary Hold, press HOLD once to switch to Permanent Hold (HOLD displays solid; PROG not displayed); press HOLD again to return to the program (PROG displays; HOLD not displayed).

PROG - Thermostat Programming

The L3532H thermostat can be programmed to perform a set of either heating or cooling events (but not a combination of heat and cool) for 5 consecutive days using a set of 4 unique events per day. The remaining 2 days can then be set for a different set of 4 unique events per day. Both the consecutive days and the events/temperature are set by the homeowner.

To Change Consecutive Days...

To alter the 5 consecutive days, **press and hold** the PROG button for 5 seconds. The 5 consecutive day period is then displayed (default is MOnday thru FRiday). To change to a different 5-consecutive days, use the Up/Down arrow buttons. Any 5 consecutive-day span may be selected, for example, in figure 14, Saturday through Wednesday is defined as the 5-day programming (Thursday and Friday would constitute the 2-day programming). Press the PROG button when finished.
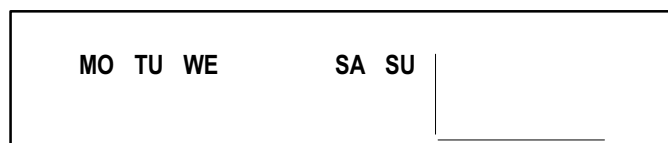

Figure 14. Change Consecutive days

To Set Program Events and Temperatures...

Figure 15 gives an example of how the two sets of programs can be set for a normal workweek and weekend.

In the 5-day bar graph, note how programs **A** and **C** reflect the desired warmth while the home IS occupied (72°); **B** allows less heating while the home is NOT occupied; **D** reflects a cooler sleeping temperature. The 2-day bar graph would support day-long occupancy and, because the first program begins later, a less-demanding time schedule.
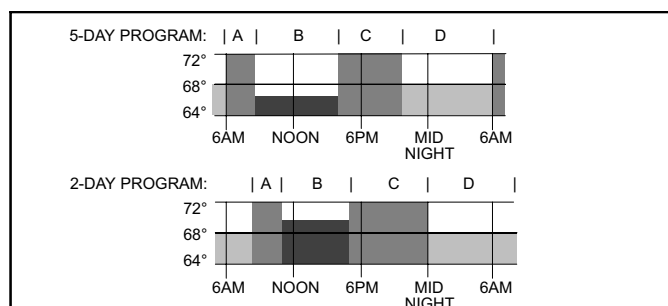
Figure 15. 5/2 Day Program Example

NOTE - Pressing ENTER during the following programming steps, saves and exits to the HOME screen.

To program events and temperatures, perform the following steps, once with Cool selected and once with Heat selected.

1. Press and release PROG. "AM 6:00", period "A", and the 5 consecutive days are displayed; "AM 6" flashes.
2. Use the Up/Down arrow buttons to select the desired hour; press PROG when the desired hour is reached.
3. Use the Up/Down arrow buttons to select the desired minute; press PROG.
4. Use the Up/Down arrow buttons to select the desired temperature setpoint; press PROG.

5. Repeat steps 2 through 4 for periods B, C, and D.
6. Repeat steps 1 through 5 for the 2-day program.

NOTE - This thermostat will NOT automatically switch from heating to cooling, or vice versa; operator involvement is required. At the change of seasons, or to accomodate abnormal seasonal temperature swings, you must manually select to the opposite conditioning (Heat or Cool) program.

FAN - Controlling the Fan Operation

Use the FAN button to select either continuous fan mode or auto fan mode.

To change from continuous to auto fan mode (or vice versa), press the FAN button. Note whether a fan icon in the FAN box is present (indicating that the fan is running) or not (fan not running).

If continuous fan mode is enabled (ON displayed in FAN box - see figure 16), the fan will run continuously regardless of whether the heating or cooling equipment is running.
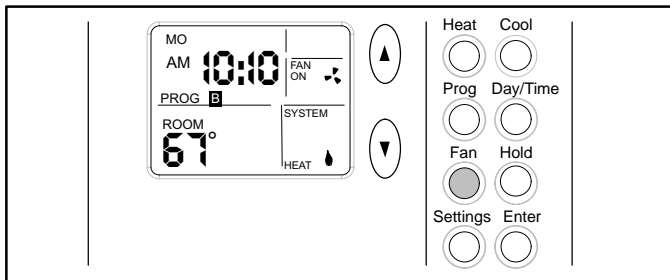

Figure 16. Using Fan ON

If auto fan mode is selected (AUTO displayed in FAN box - see figure 17), the fan will only run when the heating or cooling equipment is running.
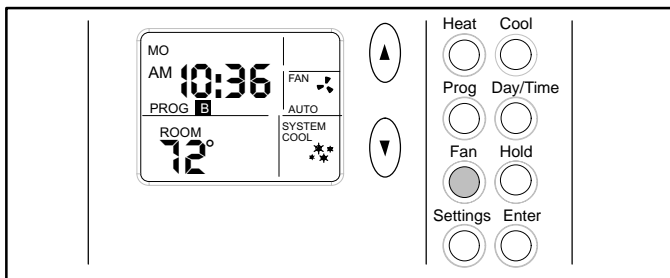

Figure 17. Using Fan AUTO

SETTINGS - Filter/Maintenance Reminders

The L3532H thermostat is designed to remind you when the filter needs changing or when routine maintenance is required, as (and if) defined, by you. These optional reminders are not enabled until you activate them. To do so, press the Settings button (shown below the Fan button in figure 17) once or twice for the desired reminder as shown in figure 18 and as described in table 1.
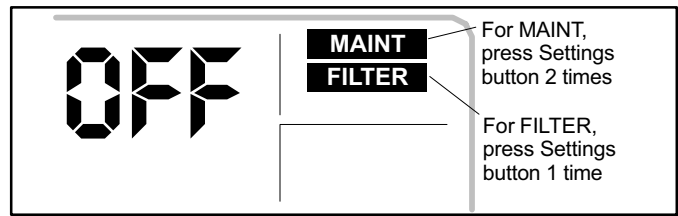

Figure 18. Reminder Settings Display

The default setting for the reminders is OFF (disabled). Press Up/Down arrow buttons to select the desired reminder intervals.

Table 1. Filter and Maintenance Reminders

Buttons to Use	Reminder	Available Settings and How to Use
Settings (1st press) then **Arrows** to scroll selections	FILTER	Total fan run time expressed in months (Off, 1, 3, 6, 12); for example, if fan runs 12 hours a day, 1 month reminder displays in 2 calendar months.
Settings (2nd press) then **Arrows** to scroll selections	MAINT	Elapsed chronological time in months (Off, 6, 12). Use this, for example, to remind yourself when to perform routine checks or when to call a technician for perodic preventive maintenance.
Enter		Stores settings.

NOTE - The HOME screen will reappear about 15 seconds after the final arrow button press. OR, press ENTER at any time to store any changes and exit to the HOME screen.

After either programmed interval has elapsed, the reminder will be displayed as shown in figure 19.
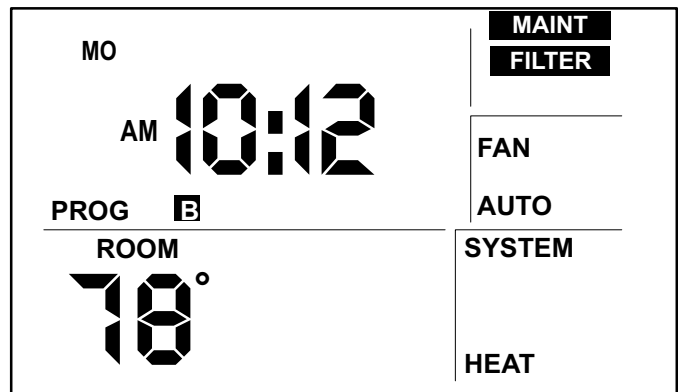

Figure 19. Reminders

After the filter has been changed or maintenance performed, reset the reminder by pressing the SETTINGS button for 4 seconds. The screen will blink for a few moments to indicate that the timer has been reset.

SETTINGS - Balance Point

NOTE - The balance point is only available with the outdoor sensor.

If the optional outdoor sensor (X2658) is connected to the thermostat, balance point adjustment is available. The balance point feature allows the measured outdoor temperature to govern operation of the heat pump and backup heat source.

Use the SETTINGS button to access the balance point setting. If the outdoor sensor is attached to the thermostat, press the SETTINGS button three times to access the Balance Point Settings screen (see figure 20).
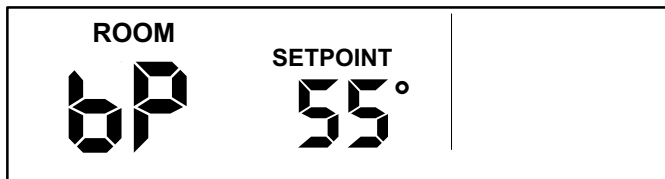

Figure 20. Balance Point Setting

The balance point can be set at any temperature between 1°F and 55°F (-17°C to 13°C). A balance point setting of zero disables the balance point function (in this case, the thermostat behaves as if no outdoor sensor is attached). The default balance point setting is 55°F.

To adjust the balance point up or down, press the Up/Down arrow buttons to the right of the display screen. The balance point setting increases by 1°F each time the Up button is pressed and decreases by 1°F each time the Down button is pressed.

After the desired balance point is reached, the HOME screen will reappear after about 15 seconds.

NOTE - The balance point feature allows the outdoor temperature to rise or fall 3°F above or below the balance point. This prevents excessive cycling of the equipment when the outdoor temperature is near the balance point. For example, if the balance point is 40°F and the actual outdoor temperature is 35°F, the outdoor temperature must rise to 43°F before equipment adjustment occurs. Conversely, if the balance point is 40°F and the actual outdoor temperature is 45°F, the outdoor temperature must drop to 37°F before equipment adjustment occurs.

Service Indicator

When abnormal equipment operation is detected, the SERVICE indicator will flash on the screen (see figure 21). This indicates that the equipment requires service from a qualified service technician.
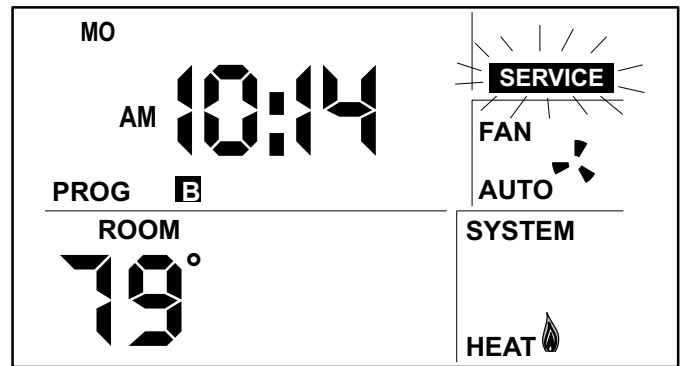

Figure 21. Service Indicator Flashing

Thermostat RESET

Under some abnormal conditions, it may be necessary to "reset" the thermostat to its default condition. Such a RESET would delete all programming and settings and therefore should only be used on rare occasions when the the thermostat fails to function as designd and/or as programmed. Such an instance can occur as a result of a power surge or similar electrical disturbance (e.g. after an electrical storm or power outage). The RESET button can be used to recover from this situation.

> ⚠ **CAUTION**
>
> **When the RESET button is pressed, ALL settings revert back to the defaults, including the default program (see tables 2 and 3).**

The RESET button is an unlabeled, recessed button located behind the door, on the right-hand side of the thermostat, below the SETTINGS button (see figure 3). Use a paper clip or small pencil to press the RESET button; ALL thermostat settings will be reset to the defaults listed in the Default Thermostat Settings section.

Removing/Installing Thermostat

The thermostat hinges on tabs on the top of the subbase; no tool is needed to remove the thermostat from the subbase. Pivot the bottom of the thermostat outward (releasing the snaps), then lift up to remove.

To replace it, first position the top tilted toward the wall bracket and align it until you feel the tabs and slots engage; then, while the top is in place, pivot the bottom toward the wall until the thermostat snaps into place.

Default Thermostat Settings

Default thermostat settings are shown in table 2 and the default program is shown in table 3.

Table 2. Default Thermostat Settings

Mode	Heat (Permanent Hold Mode)
Setpoint	70°F (or 21°C)
Fan	Auto
Filter Reminder	OFF
Maintenance Reminder	OFF
Equipment Protection Timers	Reset Back to Zero

Table 3. Default Program Settings

Programs	Time	Temperature (Heat)	Temperature (Cool)
Weekday - A	6:00am	70°F / 21°C	78°F / 26°C
Weekday - B	8:00am	62°F / 17°C	85°F / 29°C
Weekday - C	6:00pm	70°F / 21°C	78°F / 26°C
Weekday - D	10:00pm	62°F / 17°C	82°F / 28°C
Weekend - A	6:00am	70°F / 21°C	78°F / 26°C
Weekend - B	8:00am	62°F / 17°C	85°F / 29°C
Weekend - C	6:00pm	70°F / 21°C	78°F / 26°C
Weekend - D	10:00pm	62°F / 17°C	82°F / 28°C
Weekday	Monday, Tuesday, Wednesday, Thursday, Friday		
Weekend	Saturday, Sunday		

Technical Specifications

Thermostat Type

Electronic programmable thermostat for heat pump, 3-stage heat/2-stage cool.

NOTE - 2 stages of heat pump heat and one stage of auxiliary (gas or electric) backup heat are supported.

Power Supply Range

18VAC - 30VAC (24VAC nominal), 60Hz

⚠ CAUTION

24VAC is present on the terminals of the thermostat bracket. If removing the thermostat from the wall, use caution and avoid touching any of the connector terminals on the wall bracket.

Also, when working with the thermostat dip switches, use a non-conductive tool and take caution to avoid making any contact with the circuit board, its imprinted circuitry and its connector prongs.

Temperature Display

Display Scale: Fahrenheit or Celsius user selectable (via DIP switch; see figure 22)
Display range: 35°F (2°C) to 99°F (37°C)
Display resolution: 1°F (1°C)
Display Accuracy: +/-1°F

If the Fahrenheit/Celsius display must be changed, use a plastic, non-conductive tool to push the dip switch to the right position (see figure 22).

F/C (Fahrenheit/Celsius) switch shown in Celsius position

PLUG IN (Use Care To Avoid Bending Prongs.)
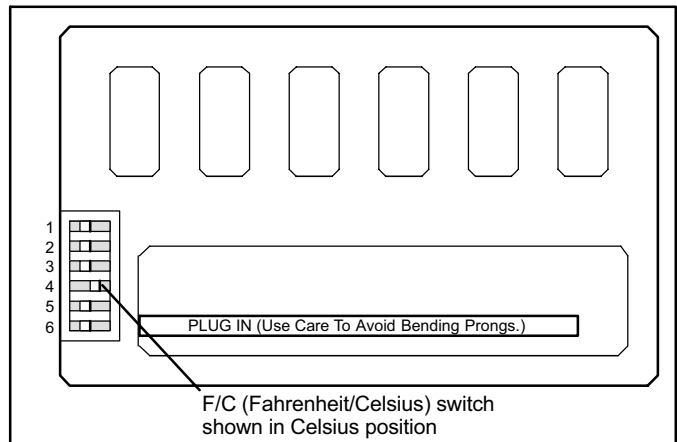
Figure 22. Changing Fahrenheit/Celsius Setting

Temperature Measurement Range

Measurement Scale: Fahrenheit
Measurement Range: 35°F to 99°F
Measurement Resolution: 0.5°F
Measurement Accuracy: +/-1°F
Field Offset: via DIP switches to +/-3°F
Sampling Method: temperature measurements sampled every 15 seconds. Displayed temperature is the average of the last four measurements.

Temperature Setpoint Range

Setting range: 50°F (10°C) to 90°F (32°C)
Setting resolution: 1°F (1°C)

Smart Setback Recovery (via DIP switch #6)

Smart Setback Recovery (SSR) affects the way the thermostat responds to program events. If SSR is disabled, the thermostat will react to a program event at the time the event occurs. However, if SSR is enabled, the thermostat will react to a program event before the event occurs such that the desired temperature is reached at the time of the event, not after.

Fan Control

AUTO or ON modes.

I/O Relays

All thermostat relays are latching type to minimize power consumption.

Table 4. L3532H Terminal Designations

Term.	Description
B	Reversing valve, heat active
O	Reversing valve, cool active
R	24VAC
Y1	First-stage cooling/heating, compressor energized
W1*	Auxiliary heating, furnace energized
Y2	Second-stage cooling/heating, compressor energized
E*	Emergency heat
G	Fan control
L	Service Indicator
C	24VAC common
T	Outdoor temperature sensor connection 1
T	Outdoor temperature sensor connection 2

* For most applications, E will be jumpered to W1. If separate wires are not provided for both E and W1, jumper the E terminal to the W1 terminal on the thermostat subbase. For applications involving the use of a balance point (whereby the outdoor temperature is to be used to restrict either heat pump operation or backup heat source operation), the optional outdoor sensor (part number X2658) MUST be installed.

Equipment Protection Timers

Minimum Compressor OFF time: 5 minutes
Minimum Compressor ON time: 4 minutes
Minimum Furnace ON time: 3 minutes

Minimum furnace cycle time (elapsed time between any furnace activation and the next furnace activation): 6 minutes.

Minimum elapsed time between any compressor activation and the next compressor activation: 6 minutes.

NOTE - All protection timers (except the compressor OFF timer) can be over-ridden if a heating or cooling demand is initiated or terminated using the UP, DOWN, HEAT, or COOL buttons.

Equipment Protection Override

Both the minimum compressor OFF timer and the minimum equipment cycle timer can be over-ridden by pressing and holding either the HEAT or COOL button down for 4 seconds.

Over-Temperature Protection

Thermal-mechanical switch opens W1, Y1, Y2, and E at 93°F+/-6°F.

Filter Reminder

Settings of Off, 1, 3, 6 or 12 (months of fan run time) are available. When programmed time has elapsed, a FILTER indicator is displayed.

Maintenance Reminder

Settings of Off, 6 or 12 (months of chronological time) are available. When programmed time has elapsed, a maintenance indicator "MAINT" is displayed.

Service Reminder

The SERVICE indicator is displayed only under the following conditions:

- if the thermostat Y1 terminal has been activated with 24VAC for at least 5 minutes, AND the L terminal is shorted to the R terminal;

    OR

- if the thermostat Y1 terminal has been activated with 24VAC for at least 5 minutes, AND the L terminal is shorted to the C terminal.

Power Loss/Recovery

Thermostat memory is retained for a minimum of 24 hours during a power loss (includes retention of program information, HOLD status, programmed temperature setpoint, heat/cool and fan mode settings, filter reminder status, maintenance reminder status, and equipment protection timers). After 24 hours of power loss, programmed settings will be lost and replaced with default settings.

> ## ⚠ IMPORTANT
>
> **Power must be applied for at least six consecutive hours prior to a power loss in order for memory to be retained for the specified time.**

LCD Backlight

Activated for 30 seconds when any button is pressed.

NOTE - During an electrical storm or similar disturbance, the backlight may activate for a few seconds. This is normal and will no longer occur after the electrical disturbance has passed.

Thermostat Operating Conditions

35°F to 105°F, 5% to 90% RH

Thermostat Storage Conditions

-40°F to 185°F, 5% to 95% RH

Thermostat Output Table

Table 5 depicts the L3532H thermostat output states for various input conditions. The following notes described terms used in the table.

NOTES:

- *X = output is activated with 24VAC.*
- *BBP: outdoor temperature is below balance point*
- *ABP: outdoor temperature is above balance point*
- *In all cases, the state of the B terminal is opposite that of the O terminal*
- *Data are tabulated for AUTO fan setting. If the fan setting is ON, the G output is activated in all cases*
- *Upstage timers:*

  30 minutes (when upstaging from small to large demand)

  15 minutes (HEAT MODE ONLY - when upstaging from large to very large demand)

- *The temperature ranges expressed in the following definitions of "SMALL/LARGE/VERY LARGE" demands are for guidance only; actual temperatures may vary:*

  *With a small HEAT demand, temperature is: below **setpoint –0.5F** but above **setpoint –1.5F** <u>AND</u> 30-minute upstage timer HAS NOT expired.*

  *With a large HEAT demand, temperature is: less than **setpoint –1.5F** <u>OR</u> 30-minute upstage timer HAS expired.*

  *With a very large heat demand, temperature is: below **setpoint –2.5F** <u>OR</u> 15-minute 2nd upstage timer HAS expired.*

  *Emergency heat demand (only if emergency heat is enabled): temperature is below **setpoint –0.5F**.*

  *With a small COOL demand, temperature is: above **setpoint +0.5F** but below **setpoint +1.5F** <u>AND</u> 30-minute upstage timer HAS NOT expired.*

  *With a large COOL demand, temperature is: above **setpoint +1.5F** <u>OR</u> 30-minute upstage timer HAS expired.*

Table 5. L3532H Thermostat Outputs

Demand Condition	W1	E	Y1	Y2	G	O
Cooling Demands						
SMALL			X		X	X
LARGE			X	X	X	X
No Demand						X
Heating Demands						
w/Electric Backup (no outdoor sensor)						
SMALL			X		X	
LARGE			X	X	X	
Very LARGE	X		X	X	X	
Emergency		X			X	
No Demand						
w/Gas Backup (dual fuel; no outdoor sensor)						
SMALL			X		X	
LARGE			X	X	X	
Very LARGE	X					
Emergency		X				
No Demand						
w/Electric Backup (outdoor sensor attached)						
SMALL (Above Balance Point)			X		X	
LARGE (ABP)			X	X	X	
Very LARGE (ABP)			X	X	X	
SMALL (Below Balance Point)			X		X	
LARGE (BBP)			X	X	X	
Very LARGE (BBP)	X		X	X	X	
Emergency		X			X	
No Demand						
w/Gas Backup (dual fuel; outdoor sensor attached)						
SMALL (ABP)			X		X	
LARGE (ABP)			X	X	X	
Very LARGE (ABP)	X					
SMALL (BBP)	X					
LARGE (BBP)	X					
Very LARGE (BBP)	X					
Emergency		X				
No Demand						