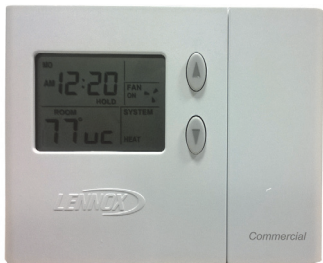




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Dallas, Texas, USA



**THIS MANUAL MUST BE LEFT WITH THE OWNER
FOR FUTURE REFERENCE**

Shipping and Packing List

Shipped with Product

- 1 - Thermostat
- 2 - Plastic wall anchors
- 2 - Screws
- 1 - Operation manual

Optional Accessories (not included)

- Remote indoor sensor: 47W37
- Wall Plate: X2659

INSTALLATION INSTRUCTION

C0STAT05FF1L CS3000 Commercial Programmable Thermostat

CONTROLS

507517-01
3/2016
Supersedes 2/2015

C0STAT05FF1L 5/2 Day Programmable Thermostat

The Lennox ComfortSense® 3000 Series Commercial Programmable Thermostat, Model C0STAT05FF1L (11Y05) is a 5/2 day programmable and 2-heat / 2-cool electronic thermostat. This thermostat is suitable for the following *Lennox Commercial* systems:

- Heat/cool systems (conventional)
- Packaged heat pumps (2-20 tons)
- Split heat pump systems (7-10 tons)

NOTE - *Not for use with small 3-5 ton split heat pump systems.*



0316

507517-01

It includes a programmable filter change reminder, equipment maintenance reminder and a system check indicator to notify the user when the equipment requires service.

The remote indoor sensor when connected and configured will act as a room temperature sensor instead of internal temperature sensor available with the thermostat. The dip switch is used to select either built-in or external remote indoor temperature sensor used for temperature control.

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⚠ CAUTION

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.

⚠ IMPORTANT

Read all of the information in this manual before using this thermostat.

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

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

⚠ WARNING

Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury or loss of life. Installation and service must be performed by a qualified installer, service agency or the gas supplier

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.

Requirements

Be sure that power routed to the thermostat has been powered off before beginning installation.

This thermostat should be used only as described in this manual.

Do not install the thermostat on outside walls (where there is unconditioned space on opposite side of wall) or in locations where direct sunlight may be present.

Install thermostat about 5 feet up from the floor.

Installation

NOTE - *If this thermostat is replacing an existing thermostat, carefully label the existing thermostat wires so that they can be identified later.*

1. If a previously-installed thermostat exists, remove it; if none exists, identify the location for installation (locate, or install wiring as necessary). To facilitate installation, enlarge the hole where the thermostat wires protrude through the wall to about 3/4" wide by 3/4" high.
2. Pull about 3 inches of the thermostat wiring through the wall opening. Strip 1/4" of the insulation from the ends of the thermostat wires.
3. Use a screwdriver to remove the thermostat sub-base from the body. Carefully pry the sub-base away from the body along the bottom edge of the sub-base near the two mounting snaps; then lift the sub-base upward.
4. Use the sub-base as a template to mark the desired mounting hole locations on the wall.
5. Drill two 3/16" holes at the marked locations on the wall. Insert the provided plastic wall anchors provided into the holes. Press the anchors into the holes until anchors are flush with the wall.
6. Align the sub-base over the plastic anchors and secure it to the wall using the provided screws.
7. Use a small slotted screwdriver to secure all wires to the sub-base terminal block. Make thermostat connections as described in table 1.
8. After wiring is complete, thoroughly seal the hole in the wall with a suitable material to prevent unconditioned air in the wall space from entering the thermostat.
9. Set the thermostat DIP switches as required for the application. See table 3 for DIP switch settings.
10. Carefully attach the thermostat body to the sub-base by first engaging the hinges at the top of the unit, then pivoting the body downward until it snaps onto the sub-base.

The thermostat is now ready for operation. Turn on power to the thermostat and refer to the appropriate *5/2 Programmable Thermostat Operation Manual*.

11. Remove the clear protective film from the face of the thermostat display.

NOTE - After this film is removed, some dark streaks or lines may temporarily appear on the display. These are normal and should disappear within a few minutes.

Removing Thermostat

The thermostat hinges on tabs on the top of the sub-base. After installation is complete, no tool is needed to remove the thermostat from the sub-base. Pivot the bottom of the thermostat outward (releasing the snaps), then lift up to remove.

Thermostat Terminals

On Lennox Commercial heat pumps listed below the reversing valve is controlled by W1 through a transfer relay.

- Commercial packaged heat pumps (2-20 tons)
- Commercial split heat pump systems (7-10 tons)

NOTE - Not for use with small 3-5 ton split heat pump systems.

Table 1. Terminal Designations

Terminal	Description
R	24VAC
Y1	Compressor Stage 1 cooling
W1	Stage 1 heating (gas, electric or heat pump heating on certain size and types systems*.)
Y2	Compressor Stage 2 cooling
W2	Stage 2 heating (electric)
G	Fan
L	Service indicator
C	Common 24VAC
T	Remote Indoor Temperature Sensor connection 1
T	Remote Indoor Temperature Sensor connection 2
OC	Occupancy output (economizer)

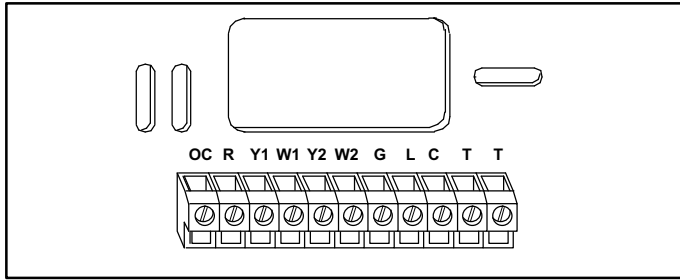


Figure 1. Terminal Strip (11Y05)

DIP Switch Settings

DIP Switch Settings

This thermostat includes six DIP switches which are located on the back side of the thermostat body. These switches may be used to re-calibrate the thermostat (Cal 1, Cal 2 and Cal±) and to select the internal or remote indoor temperature sensor.

Thermostat includes a DIP switch used to indicate whether electric or gas heat will be used. Also, SSR (Smooth Setback Recovery) can be enabled or disabled. When enabled, this feature provides additional comfort when changing from one program period to the next. If SSR is disabled, the HVAC equipment will respond to a program change at the time the change is set to occur.

However, if SSR is enabled, the HVAC equipment will respond to a program change before the change is set to occur. Refer to table 3 for DIP switch function descriptions.

Thermostat Calibration

Cal 1, Cal 2, Cal± DIP switches may be used to offset or recalibrate the room temperature display. Table 2 provides DIP switch settings and corresponding temperature offset values.

Table 2. DIP Switch Temperature Offset

Cal 1	Cal 2	Cal +/-	Temperature Offset
Off	Off	Off	+0°F (no offset)
On	Off	Off	+1°F
Off	On	Off	+2°F
On	On	Off	+3°F
Off	Off	On	-0°F (no offset)
On	Off	On	-1°F
Off	On	On	-2°F
On	On	On	-3°F

Table 3. DIP Switch Function Description

ID	Dip switch	Description	Off	On	Default
1	Cal 1	Room temperature offset: 1°F	0°F	1°F	0°F
2	Cal 2	Room temperature offset: 2°F	0°F	2°F	0°F
3	Cal +/-	Room temperature offset: Sign	Positive	Negative	Positive
4	Temp Sensor (I/R)	Select Int / Ext (Remote) for selecting temperature sensor	Internal	Remote	Internal
5	Fan option (E/G)	Select electric (E) or gas (G) heating fan operation	G	E	G
6	SSR	Enable or disable Smooth Setback Recovery	Disable	Enable	Disable