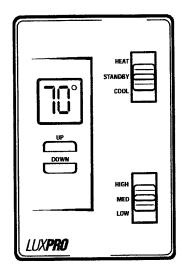
## INSTALLATION AND OPERATING INSTRUCTIONS



# PSDFC159 COOL ONLY PSDFC150 HEAT/COOL

LUX PRODUCTS CORPORATION • Mt. Laurel, New Jersey 08054, USA
43342 REV A



Lux Fan Coil Thermostats control line voltage valves of a fan coil unit in cooling only or manual changeover heating-cooling systems. One or two valves may be controlled directly by the thermostat. The fan switch controls air circulation.

NOTE

This thermostat is for use on 120 / 240 Vac loads only.

## **IMPORTANT!**

READ THE INSTALLATION INSTRUCTIONS FIRST. Thank you for your confidence in our product. To obtain the best results from your investment, please read this manual and acquaint yourself with your purchase before installing your new thermostat. Then follow the installation procedures, one step at a time. This will save you time and minimize

the chance of damaging the thermostat and the systems it controls.

These instructions may contain information beyond that required for your particular installation. Please save for future reference.

# **FEATURES**

- Low, Medium and High fan speeds are supported.
- A Large easy to read display show you the current room temperature at all times
- A press of either the Up or Down button will reveal the current set temperature.
- Built in digital control system to accurately control temperature.
- Learns the temperature characteristics of the space on a daily basis and customizes the control to give the best comfort possible from a digital thermostat.
- Can also select a tighter temperature control if closer\_comfort is preferred.
- Fahrenheit Celsius Selectable
- Compressor protection. A standard 5 minute minimum on/off time can be adjusted to 2 minutes if desired.
- Thermostat does not require a neutral from the power source for operation.
- No batteries required. Thermostat gathers its power from the heating or cooling system.

## **ELECTRICAL RATINGS and SPECIFICATIONS**

| THERMOSTAT (valve load) |                 |  |
|-------------------------|-----------------|--|
| Normal (A)              | Inrush (A)      |  |
| 0.32                    | 1.00            |  |
| 0.16                    | 0.50            |  |
|                         | Normal (A) 0.32 |  |

| FAN SWITCH |               |                  |  |
|------------|---------------|------------------|--|
|            | Full Load (A) | Locked Rotor (Å) |  |
| 120 Vac    | 5.5           | 33.0             |  |
| 240 Vac    | 2.75          | 16.5             |  |

Optional Wallplate Dimensions: . . . . . . 5"W x 4.8"H

UL/CSA Listed

# **INSTALLATION NOTES**

# WHEN INSTALLING THIS PRODUCT

- Read these instructions carefully. Failure to follow them could damage the product or cause a hazardous condition.
- 2. Check the ratings given in the instructions and on the product to make sure the product is suitable for your application.
- 3. Thermostat should be mounted on a standard vertical outlet box.
- 4. Installer must be a trained, experienced service technician.
- After the installation is complete, check out product operation as provided in these instructions.

## CAUTION!

Disconnect power supply to prevent electrical shock or equipment damage.

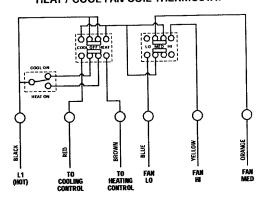
## WIRING

- Disconnect power supply before installation to avoid electrical shock or equipment damage.
- 2. All wiring must comply with local codes and ordinances.
- If replacing an old thermostat, remove the old thermostat from the wall, carefully noting the wire connections on the old unit. Record the wire color and terminal legends in the space provided.
- For new installations, mark your wire colors from the wall in the space provided. You may follow the wiring schematics below for reference.

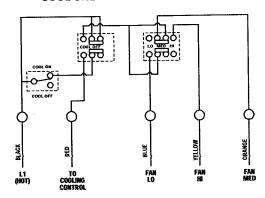
| TERMINAL FUNCTION | THERMOSTAT<br>WIRE COLOR | CABLE WIRE<br>COLOR |
|-------------------|--------------------------|---------------------|
| 120/240 Vac       | BLACK                    |                     |
| Cooling           | RED                      |                     |
| Heating           | BROWN                    |                     |
| Fan Low           | BLUE                     |                     |
| Fan Medium        | ORANGE                   |                     |
| Fan High          | YELLOW                   |                     |

#### WIRING SCHEMATICS

# **HEAT / COOL FAN COIL THERMOSTAT**



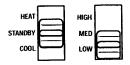
#### **COOL ONLY FAN COIL THERMOSTAT**



Place optional wallplate behind the thermostat if desired. Use solderless connectors or other approved methods to wire thermostat into the system. Six-inch color-coded leadwires provided.

## MOUNTING

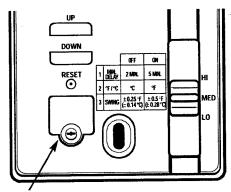
- Push excess cable wires back into the wall while positioning the thermostat on the wall box. You may place the optional wallplate behind the thermostat if necessary to cover any holes around the
- 2. With short screws provided, mount the thermostat to the wallbox.



- 3. Move System switch to STANDBY and Fan switch to LOW
- 4. Restore power to your system.

## **OPERATION**

1. Within 90 seconds the thermostat will begin to display the room temperature.



Screw Locked Cover

- 2. Inside the cover, beneath the UP and DOWN button is a small screw locked cover. Inside this cover, you may change between 5min / 2min minimum on/off time; °F / °C display; and ±0.5° to ±0.25° swing value by following the printed chart on the thermostat. The thermostat defaults to 5 minutes minimum on/off time; °F display; and ±0.5° swing. These setting should be suitable for most applications. After making a change, you must press the reset button for the changes to take effect.
- 3. Snap the cover in place.
- 4. Select System
  - HEAT: As the temperature drops, the thermostat will open a valve that allows hot water to flow through the coil.
  - STANDBY: The thermostat closes all valves and cuts the power to the Fan.
  - COOL: As the temperature rises, the thermostat will open a valve that allows cold water to flow through the coil.
- 5. Select Fan speed
  - When the system switch is in the HEAT or COOL position, the speed of the fan is controlled by setting the Fan switch to High, Medium or Low.
- You can adjust the temperature by pressing the Up or Down button. The Set Temperature will be displayed and will change with each press of a button.

## CHECKOUT

- · Check the thermostat before leaving the installation
- During these tests you may encounter the 5 minute minimum on/off time. If you do not wish to wait, you may press the reset button inside the cover.
- In heating, raise the temperature to start the heating cycle.
- In cooling, lower the temperature to start the cooling cycle.
   You may encounter the 5 minute minimum
- · Verify the fan speeds using the Fan Switch.

## **TECHNICAL SERVICE**

If you have problems installing this thermostat, please reread the instructions carefully.

Press the RESET button if erratic operation is encountered. If you still have problems, call Technical Service at 1-856-234-8803 between 8:00 a.m. and 4:30 p.m. Eastern Standard Time, Monday through Friday. Please refer to "Digital Fan Coil Thermostat".

# WARRANTY

Limited Warranty: If this unit fails because of defects in materials or workmanship within one year of date of original purchase, LUX will, at its option, repair or replace it. This warranty does not cover damage by accident, misuse, or failure to follow installation instructions. Implied warranties are limited in duration to one year from date of original purchase. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. Please return malfunctioning or defective units to the participating retailer from which purchase was made, along with proof of purchase. Please refer to Technical Service Section before returning thermostat.

Purchaser assumes all risks and liability for incidental and consequential damage resulting from installation and use of this unit. Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state. Applicable in the U.S.A. only.