

INSTALLATION AND OPERATING INSTRUCTIONS

LUX[®] 602 SERIES MULTI-STAGE PROGRAMMABLE THERMOSTAT

Complete, Easy to Read
Programming And Installation
Instructions Inside

Instrucciones Completas y Fáciles
de Leer Para Su Programación
E Instalación Incluidas Dentro

LUX PRODUCTS CORPORATION • Mt. Laurel, New Jersey 08054, USA 43313
Rev A

IMPORTANT!

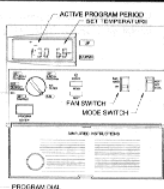
READ THE INSTALLATION INSTRUCTIONS FIRST

Thank you for your confidence in our product. To obtain the best results from your investment, please read these instructions 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 application. **Please save for future reference.**

FEATURES

- The Unit can be used with most one or two stage 24 volt gas, oil or electric heating and single stage air conditioning systems, single-stage heat pumps or gas millivolt heating systems. It cannot be used with 120 volt heating systems or multistage heat pumps. Ask your dealer for other LUX thermostats to control those systems.
- The Unit is programmable. There are four programming periods per day. Each period can be programmed separately.
- You can use the built-in time/temperature programs, or alter them to suit your schedule. The Unit provides separate programming for weekdays, Saturday and Sunday - for both heating and cooling. You can override the programmed temperatures for as little as one programming period or for an entire vacation.
- In cool weather, when the system switch is set to HEAT, the Unit will maintain cooler "set back" room temperatures to save energy. It will then change to warmer "comfort" settings - all automatically, at specified times during the day.
- In warm weather, when the system switch is set to COOL, the Unit will maintain warmer "set back" room temperatures to save energy. It will then change to cooler "comfort" settings - all automatically, at specified times during the day.
- A large liquid crystal display shows time, day of the week, and room and set temperatures. It will remind you when the filter should be changed in your blower and track your system's energy usage.
- Temperature swing adjustment lets you fine-tune your system for maximum comfort and economy.
- A 4-minute minimum on/off time in COOL prevents your air conditioning system from being damaged.
- Two "AA" batteries (not included) are used to retain your time and temperature programs.



CAUTION

- Your thermostat is a precision instrument. Please handle it with care.
- Turn off electricity to the appliance before installing or servicing thermostat or any part of the system. Do not turn electricity back on until work is completed.
- Do not short (jumper) across electric terminals at control on furnace or air conditioner to test the system. This will damage the thermostat and void your warranty.
- All wiring must conform to local codes and ordinances.
- This thermostat is designed for use with 24 volt and millivolt systems. The thermostat is limited to a maximum of 1.0 amps; higher amperage may cause damage to the thermostat. If you are in doubt, call your utility company.

INSTALLATION

Please read all instructions carefully before beginning installation.

TOOLS REQUIRED

- #1 Phillips screwdriver (small)
- Drill with 3/16-in. (4.8mm) bit

THERMOSTAT LOCATION

- On replacement installations, mount the new thermostat in place of the old one unless the conditions listed below suggest otherwise. On new installations, follow the guidelines listed below.
- Locate the thermostat on an inside wall, about 5 ft. (1.5m) above the floor, and in a room that is used often.
 - Do not install it where there are unusual heating conditions, such as: in direct sunlight; near a lamp, radio, television, radiator, register, or fireplace; near hot water pipes in a wall; near a stove on the other side of a wall.
 - Do not locate in unusual cooling conditions, such as: on a wall separating an unheated room; or in a draft from a stairwell, door, or window.
 - Do not locate in a damp area. This can lead to corrosion that will shorten thermostat life.
 - Do not locate where air circulation is poor, such as: in a corner or an alcove; or behind an open door.
 - Do not install the unit until all construction work and painting has been completed.
 - This thermostat does not require leveling.

CAUTION

To avoid electrical shock and to prevent damage to the furnace, air conditioner, and thermostat, disconnect the power supply before beginning work. This can be done at the fuse box, at the circuit breaker, or at the appliance.



REMOVING THE OLD THERMOSTAT

Switch electricity to the furnace and air conditioner OFF; then proceed with the following steps.

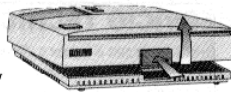
- Remove cover from old thermostat. Most are snap-on types and simply pull off. Some have locking screws on the side. These must be loosened.
- Note the letters printed near the terminals. Attach labels (enclosed) to each wire for identification. Remove and label wires one at a time. Make sure the wires do not fall back inside the wall.
- Loosen all screws on the old thermostat and remove it from the wall.

CAUTION

Read instructions carefully before removing any wiring from existing thermostat. Wires must be labeled before they are removed. When removing wires from their terminals, ignore the color of the wires since these may not comply with the standard.

MOUNTING THE UNIT ON THE WALL

- Strip insulation 3/8 in. (9.5mm) from wire ends and clean off any corrosion.
- Fill wall opening with non-combustible insulation to prevent drafts from affecting the thermostat
- Press up on the button on the bottom of the thermostat and swing the body away from the base and up to remove the body from the base.



CAUTION

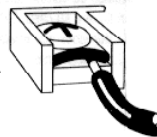
Be careful not to drop the body or disturb electronic parts. Leave the cover closed while the body is being removed from the base.

NOTE

If you are mounting the base to a soft material like plaster-board or if you are using the old mounting holes, the screws may not hold. Drill a 3/16-in. (4.8mm) hole at each screw location, and insert the plastic anchors provided. Then mount the base as described below.

ATTACHING WIRES

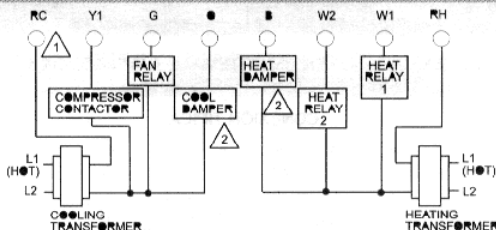
- Hold the base against the wall, with the wires coming through wherever it is convenient for wiring. Route the wires to below the terminal block. Position the base for best appearance (to hide any marks from an old thermostat). An optional wall plate is included for covering old mounting holes. Attach the base to the wall with the two screws provided.



CAUTION

Do not allow wires to touch each other or parts on thermostat. Wires must be trapped between black spacer and brass terminal. Also, be sure to tighten securely all 5 electrical terminal screws.

TYPICAL HOOKUP IN A MULTISTAGE HEATING AND COOLING SYSTEM



- JUMPER RC TERMINAL TO RH TERMINAL WHEN INSTALLED ON A TRANSFORMER SYSTEM.
- CAN BE USED FOR A CHANGE-OVER VALVE ON HEAT PUMP SYSTEMS.

NOTE

If you have an electric system and the blower does not operate after installation, find the electric/gas heat selector on the back of the body. Move the selector to the ELEC position.

INSTALLING BATTERIES

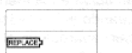
The Unit requires batteries to operate your furnace and retain its programming in memory. Replace the batteries when the REPLACE indicator appears in the display or **AT LEAST ONCE A YEAR.**

NOTE

When replacing batteries, you have approximately 1 minute before programs are lost.

- Remove fresh batteries from their carton.
- Remove body of thermostat as described at bottom of first column.
- Remove old batteries if applicable.
- Insert two new "AA" size alkaline batteries in the battery clip. Observe the polarity marking shown in the clip.
- Place body back on the wall. Hook the top of the body onto the base, swing the body down, and snap the body onto the base.

Installation is now complete. Be sure to turn the power back on to your heating and/or air conditioning system. If this is the first time you are installing batteries, the thermostat will display "SUN 12:00 AM". Within 90 seconds the thermostat will begin to display the room temperature alternately with the time. To correct the display, see "Setting the TIME and DAY," after you set the programs.



REPLACE BATTERIES WHEN INDICATOR APPEARS

CAUTION

The Unit is protected against normal static electric discharges. However, in extremely dry weather you should touch another metal object before the Unit to avoid potential loss of programs.

WARNING: Use Energizer[®] or DURACELL[®] Alkaline Batteries ONLY for all Lux thermostats requiring batteries.

OPERATION

The Unit alternately displays the current time and the room temperature. It also displays the day of the week and the currently active program period that is controlling the temperature: MORN, DAY, EVE, or NIGHT.

This thermostat is "armchair programmable". You can make any program or setting changes with the thermostat body off or on the wall thermostat base.

The set point temperature will appear in the right side of the display. In the winter, set the system switch to HEAT to control your heating system. In the summer, set the switch to COOL to control your air conditioner. In spring and fall or when windows are open, you can set the system switch OFF.

Setting the FAN switch to AUTO automatically runs your system's fan during heating and cooling. Setting the FAN switch to ON runs your system's fan continuously even without heating or cooling.

N O T E
The FAN switch works only if your system provides a wire for the Unit's "G" terminal.

The Built In Programs

Push in the RESET key. This sets the built-in heating and cooling programs. To review the built-in programs, press PROGRAM REVIEW.

You can use the built-in programs as shown, or change them as you wish. Each day is divided into four periods. Each period has its own starting time and temperature.

	PERIOD	HEAT	COOL
WEEKDAYS	MORN	6:00 AM 70°	6:00 AM 75°
	DAY	8:30 AM 60°	8:30 AM 85°
	EVE	3:00 PM 70°	3:00 PM 75°
	NITE	11:00 PM 65°	11:00 PM 80°
SAT. & SUN.	MORN	6:00 AM 70°	6:00 AM 75°
	DAY	6:15 AM 70°	6:15 AM 75°
	EVE	3:00 PM 70°	3:00 PM 75°
	NITE	11:00 PM 65°	11:00 PM 80°

PROGRAM REVIEW

While the dial is in the RUN position, you may press the PROGRAM REVIEW button. The thermostat will show the entire week's programming one period at a time in the display.

This is very helpful to review the thermostat's current programming before making adjustments.

DAY	PERIOD	HEAT		COOL		DAY	PERIOD	HEAT		COOL			
		TIME	TEMP	TIME	TEMP			TIME	TEMP	TIME	TEMP		
MON	MORN					TUE	EVE						
	DAY						WED	NITE					
	EVE							THUR	MORN				
	NITE								FRI	DAY			
TUE	MORN					SAT				EVE			
	DAY						SUN			NITE			
	EVE							MON		MORN			
	NITE								TUE	DAY			
WED	MORN					WED				EVE			
	DAY						THUR			NITE			
	EVE							FRI		MORN			
	NITE								SAT	DAY			
THUR	MORN					SUN				EVE			
	DAY						MON			NITE			
	EVE							TUE		MORN			
	NITE								WED	DAY			

PROGRAMMING THE UNIT

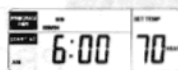
You can change any preset times and/or temperatures to suit your schedules for weekdays, Saturday and Sunday. Each period (Morning, Day, Evening, and Night) is programmed for HEAT and for COOL. A blank programming chart is provided below for you to record your temperature settings.

N O T E
HEAT and COOL may have different temperatures.

HEAT Select HEAT to program the thermostat for controlling your heater.

OR Select COOL to program the thermostat for controlling your air conditioner.

Rotate dial to SET WEEKDAY PROGRAMS. To program SATURDAY or SUNDAY, rotate the dial to SET SATURDAY OR SET SUNDAY PROGRAM. With dial on SET WEEKDAY PROGRAMS, you will see this display.



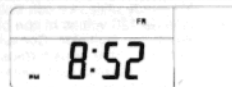
- UP** To change the start time for MONDAY MORN.
- DOWN**
- NEXT** To program temperature.
- UP** To change the temperature setting for MONDAY MORN
- DOWN**
- NEXT** To move to DAY.
- UP** To change start time for MONDAY DAY.
- DOWN**
- NEXT** To program temperature.
- UP** To change the temperature setting for MONDAY DAY.
- DOWN**
- NEXT** To move to MONDAY EVE.
- UP** To change the start time for MONDAY EVE.
- DOWN**
- NEXT** To program temperature.
- UP** To change the temperature setting for MONDAY EVE.
- DOWN**

- NEXT** To move to MONDAY NITE.
 - UP** To change start time for MONDAY NITE.
 - DOWN**
 - NEXT** To program temperature.
 - UP** To change the temperature setting for MONDAY NITE.
 - DOWN**
- Rotate dial to the RUN position to start the programs or SET SATURDAY or SET SUNDAY PROGRAM to continue programming.

Setting the TIME and DAY

Rotate the dial to the SET DAY/TIME position. The current DAY will flash.

- UP** To change the current DAY.
- NEXT** To program TIME. The current time will flash.
- UP** To change current time.
- DOWN**



Rotate the dial to the RUN position when finished.

Temperature OVERRIDE and Temperature HOLD

These features let you change the current Set Temperature without changing the programs stored in your thermostat's memory.

TEMPORARY TEMPERATURE OVERRIDE

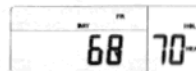
Press UP/DOWN to change the current temperature setting. The OVERRIDE indicator appears on display.

The Override feature will be automatically canceled at the start of the next program period. To cancel OVERRIDE prior to next program period press UP/DOWN until original set temperature appears. OVERRIDE indicator will disappear from display.



VACATION TEMPERATURE HOLD

- HOLD** Press HOLD.
- UP** Adjust temperature as desired with UP/DOWN.
- DOWN** Temperature setting will not change even after next program period begins.
- HOLD** To clear, press HOLD again.



Advanced Features

AIR FILTER MONITOR

The AIR FILTER Monitor counts the hours since the filter in your blower was last changed. After 250 hours of use,

"Filter" will appear in the display. After you change the filter, set the thermostat's AIR FILTER Monitor back to zero as follows.

- UP** To set the monitor back to zero.
- NEXT** To change the AIR FILTER limit
- UP** Hold NEXT for 3 seconds. Adjust between 000 (disable) and 500 hrs.
- DOWN**

TEMPERATURE SWING

A thermostat works by turning your heating or cooling system on and off

whenever the room temperature varies a certain number of degrees from the set-point temperature. This variation is the "swing." Your system should cycle on about 3 to 6 times per hour. A smaller swing number increases the number of cycles, so room temperature is more constant. A larger swing number decreases the number of cycles, to save energy in most cases.

- NEXT** Rotate the dial to AIR FILTER
- NEXT** Press both keys together.
- UP** To change the temperature swing between 1 - 9. (4 = approx. ±1°F)
- DOWN**

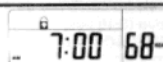
TEMPERATURE CALIBRATION

Rotate the dial to SET DAY/TIME

- NEXT** Press both keys together.
- UP** To adjust the thermostat.
- DOWN**

PROGRAM LOCK

To prevent tampering with set programs. The sequence of keys to lock and unlock the program:



NOTE: You must press reset after enabling the features below. This will require you to reprogram your thermostat. Please copy your programs into the blank chart provided below to assist reprogramming. Please reference the figure at the left which shows the JUMPER LOCATIONS.

CHANGING FROM °F TO °C AND A 12HR TO A 24HR CLOCK

- To change to Celsius - REMOVE J2
- To change to a 24HR clock - REMOVE J1
- Press the reset key on the front of the thermostat for the changes to take effect.
- Reprogram as necessary.

TECHNICAL SERVICE

If you have any problems installing or using this thermostat, please reread the instructions carefully. Be sure the batteries are good, and installed correctly. Press the RESET button if erratic operation is encountered.

Technical Service is available through our 900 telephone service. If you require assistance, please call our offices between 9:00 a.m. and 4:30 p.m. Eastern Standard Time, Monday through Friday. The number is 1-900-884-1000 and the cost is \$1.50 per minute.

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.