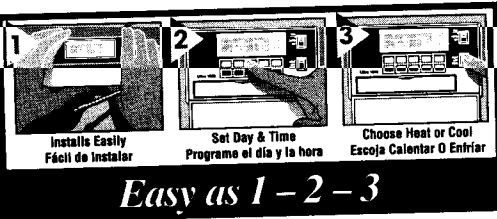


OWNER'S MANUAL

MODEL TX1000 SMART TEMP ELECTRONIC THERMOSTAT

43205



*Complete, Easy To Read
Programming And Installation
Instructions Inside*

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

LUX
LUX PRODUCTS CORPORATION
Mt. Laurel, New Jersey
08054 USA

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.

If you encounter problems, please refer to the Technical Service section of this manual. **Technical Service can be reached at 1-800-421-1130.**

This manual may contain information beyond that required for your particular installation. Please save this manual for future reference.

1

FEATURES

- The TX1000 can be used with most 24 volt gas, oil or electric heating and 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 TX1000 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 TX1000 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.

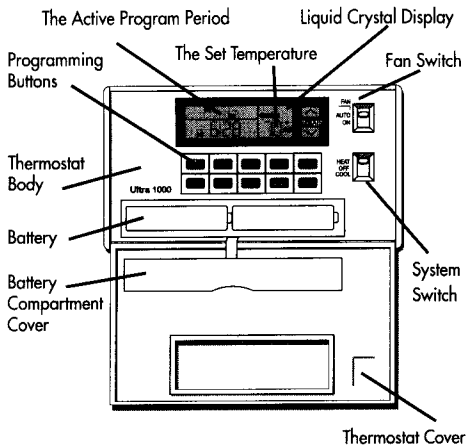
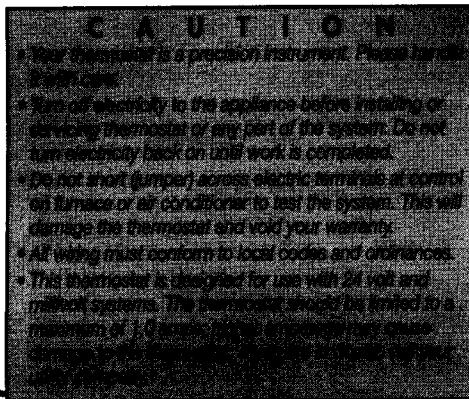


FIGURE A

2

- **In cool weather**, when the system switch is set to HEAT, the TX1000 will first change to a cooler room temperature to save energy. Later, it will return to warmer "comfort" settings — all automatically, at specified times during the day.
- **In warm weather**, when the system switch is set to COOL, the TX1000 will first change to a warmer setting and then return to a more comfortable, cooler setting later in 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.
- **Temperature swing adjustment** lets you fine-tune your system for maximum comfort and economy.
- **A 4-minute minimum 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.



3

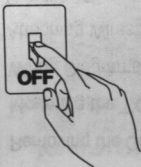
CONTENTS

Features	2	Operation (See Figure A)	16
Contents	4	Temperature Override and Temperature Hold	16
Installation	5	Programming the TX1000 (See Figure A)	17
Tools Required	5	Maintenance (See Figure A)	18
Thermostat Location	5	Batteries	18
Removing the Old Thermostat	6	Filter Usage Monitor	18
Mounting the TX1000 on the Wall (See Figure A)	6	Temperature Swing	18
Wiring Diagrams	8	Programming Chart	19
Attaching Wires	7	Technical Service	Back Cover
Installing Batteries (See Figure A)	15	Warranty	Back Cover
Setting the TIME and DAY	15		
The Built-In Programs	15		

4

INSTALLATION

Please read all instructions carefully before beginning installation.



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.

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.

1. Locate the thermostat on an inside wall, about 5 ft. (1.5m) above the floor, and in a room that is used often.
2. 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.
3. 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.
4. Do not locate in a damp area. This can lead to corrosion that will shorten thermostat life.
5. Do not locate where air circulation is poor, such as: in a corner or an alcove; or behind an open door.
6. Do not install the unit until all construction work and painting has been completed.
7. This thermostat does not require leveling.

5

REMOVING THE OLD THERMOSTAT

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

1. 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.



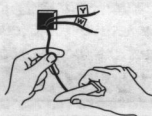
CAUTION

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.

2. 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.
3. Loosen all screws on the old thermostat and remove it from the wall.

MOUNTING THE TX1000 ON THE WALL

(See Figure A)

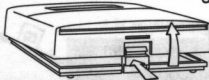


1. Strip insulation 3/8 in. (9.5mm) from wire ends and clean off any corrosion.

2. Fill wall opening with non-combustible insulation to prevent drafts from affecting the thermostat.



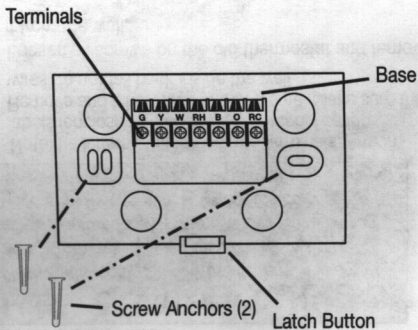
3. Press up on the button on bottom of thermostat and swing the body away from the base and up to remove the body from the base.



CAUTION

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

6

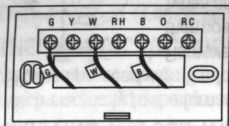


NOTE

If you are mounting the base to a soft material like plasterboard 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.

4. 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). Attach the base to the wall with the two screws provided.

ATTACHING WIRES



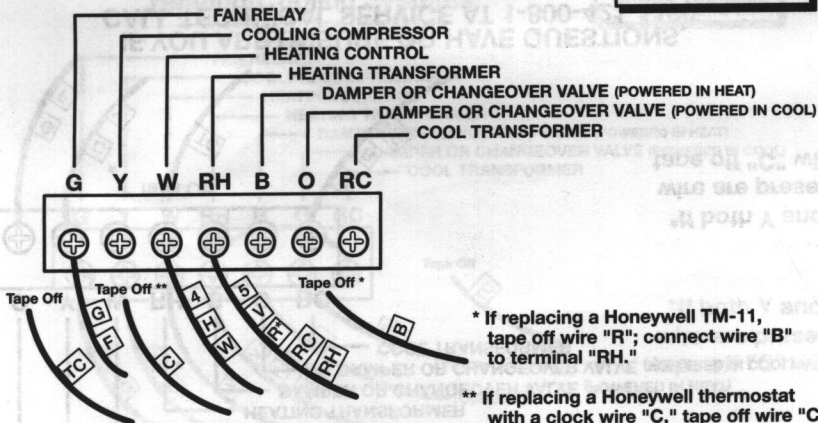
CAUTION

Do not allow wires to touch each other or parts on thermostat. Wires must be routed to below the terminal block, or they will hit parts on the cover. Also, be sure to tighten securely all 7 electrical terminal screws.

7

Heating Systems

Wiring Diagram



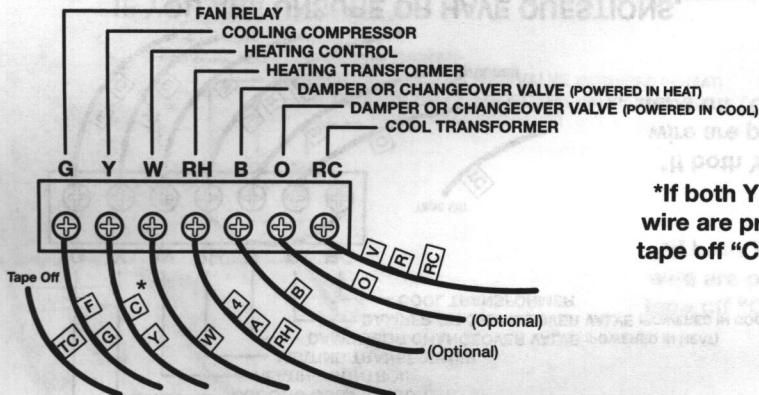
**IF YOU ARE UNSURE OR HAVE QUESTIONS,
 CALL TECHNICAL SERVICE AT 1-800-421-1130.**

8

Heating/Cooling Systems

5- or 6-Wire with Two Transformers

Wiring Diagram



***If both Y and C wires are present, tape off "C" wire.**

**IF YOU ARE UNSURE OR HAVE QUESTIONS,
 CALL TECHNICAL SERVICE AT 1-800-421-1130.**

**TYPICAL HOOKUP FOR 2-WIRE
 24V HEATING SYSTEM AND
 MILLIVOLT SYSTEM**

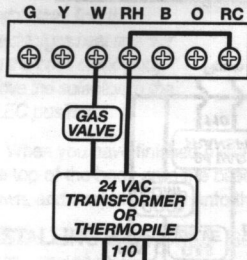


Figure 8

**TYPICAL HOOKUP FOR 3-WIRE
 HEAT SYSTEM IF THIRD
 WIRE IS FAN WIRE**

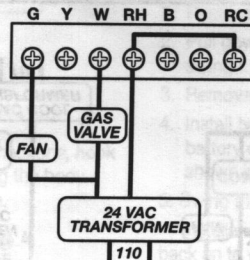


Figure 9

**TYPICAL COOLING AND
 HEATING SYSTEM
 (4-WIRE)**

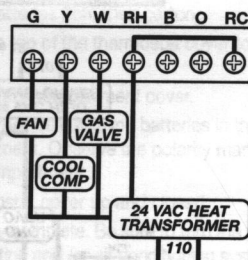


Figure 10

These diagrams are provided for new installations or unreferenced wires.

TYPICAL COOLING AND HEATING SYSTEM (5-WIRE)

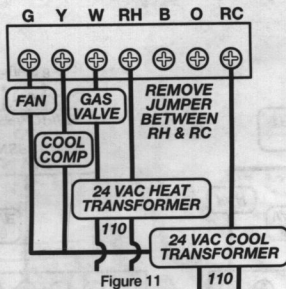


Figure 11

TYPICAL SINGLE-STAGE HEAT PUMP WIRING

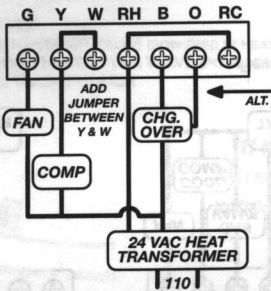


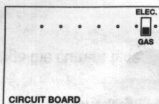
Figure 12

These diagrams are provided for new installations or unreferenced wires.

13

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.

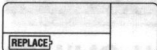


When you have finished making connections, hook the top of the body onto the base, swing the body down, and snap the body onto the base.

INSTALLING BATTERIES (See Figure A)

The TX1000 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.

REPLACE BATTERIES WHEN INDICATOR APPEARS



NOTE

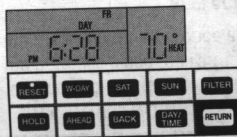
When replacing batteries, you have approximately 1 minute before programs are lost.

1. Remove fresh batteries from their carton.
2. Pull down on the top of the thermostat cover to swing it open.
3. Remove the battery compartment cover.
4. Install two new "AA" size alkaline batteries in the battery compartment. Observe the polarity marking shown in the compartment.
5. Swing the thermostat cover up and closed.

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."

14

SETTING THE TIME AND DAY



CAUTION

The TX1000 is protected against normal static electric discharges. However, in extremely dry weather you should touch another metal object before the TX1000 to avoid potential loss of programs.

Pull down on the top of the thermostat cover to swing it open. Press the RETURN key. You should see the current time and room temperature alternating in the display. (If you do not see this, replace the batteries.) Then press other keys as follows. When you are finished, swing the thermostat cover up and closed.

- DAY/TIME** To set the current day. The day (e.g., "FR") will be flashing.
- AHEAD** To change the current day.
- DAY/TIME** To set the current time. The time (e.g., "6:28") will be flashing.
- AHEAD** **BACK** To change the current time.
- RETURN** To store changes.

THE BUILT-IN PROGRAMS

The RESET key sets the built-in heating and cooling programs. To review the built-in programs, press W-DAY or SAT or SUN repeatedly; when you are done, press RETURN.

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 preprograms	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. preprograms	MORN	6:00 AM 70°	6:00 AM 75°
	DAY	6:15 AM 70°	6:15 AM 75°
	EVE	6:00 PM 70°	6:00 PM 75°
	NITE	11:00 PM 65°	11:00 PM 80°

15

OPERATION (See Figure A)

The TX1000 alternately displays the current time and the room temperature. It also displays the day of the week and the currently active control program that is controlling the temperature: MORN, DAY, EVE, or NITE.

In the winter, set the system switch to HEAT to control your heating system. The set point temperature will appear in the right side of the display. 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.

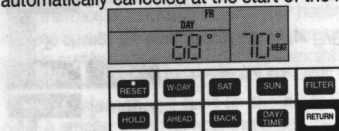
Setting the FAN switch to AUTO automatically runs your system's fan during heating and cooling. Setting the FAN switch to ON runs your system's fan continuously even without heating or cooling.

NOTE

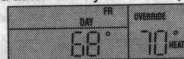
The FAN switch works only if your system provides a wire for the TX1000's "G" terminal.

TEMPERATURE OVERRIDE AND TEMPERATURE HOLD

These features let you change the current Set Temperature without changing the programs stored in your thermostat's memory. The Override feature will be automatically canceled at the start of the next program.



To change the current temperature setting. (Setting will be canceled automatically when next program period begins.)



HOLD

Temperature setting will not change even after next program period begins.



RETURN

To cancel OVERRIDE and HOLD.

16

PROGRAMMING THE TX 1000 (See Figure A)

You can change the three preset time and temperature programs to suit your schedules for Weekdays, Saturdays, and Sundays. Each day is divided into four periods: Morning, Day, Evening, and Night. Each period is programmed for HEAT and for COOL.

A blank programming chart is provided at the end of this book for you to record your temperature settings in that chart.

NOTE

MORN and EVE must have the same temperature. HEAT and COOL may have different temperatures.

HEAT
OFF
COOL



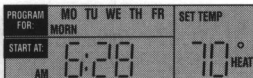
Select HEAT to program the TX1000 for controlling your heater.

OR

Select COOL to program the TX1000 for controlling your air conditioner.

W-DAY

To program weekdays, press the W-DAY button. (In the following steps, to program Saturdays, press SAT instead; to program Sundays, press SUN instead.) You should see the following display.



AHEAD

BACK

To change the start time for the displayed period (e.g., MORN).



TEMP



To change the temperature setting for the displayed period.

W-DAY

To move to the next period (e.g., DAY).

AHEAD

BACK

To change the start time for DAY.



TEMP



To change the temperature setting for DAY.

W-DAY

To move to EVE.

AHEAD

BACK

To change the start time for EVE.



TEMP



To change the temperature setting for EVE.

W-DAY

To move to NITE.

AHEAD

BACK

To change the start time for NITE.



TEMP



To change the temperature setting for NITE.

RETURN

To store changes. (Automatic after 20-second delay.)

17

MAINTENANCE

(See Figure A)

BATTERIES

The TX1000 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. (See "Installation.")

FILTER USAGE MONITOR

The FILTER Monitor counts the hours since the filter in your blower was last changed. After 250 hours of use, the "Filter" enunciator will appear in the display. After you change the filter, set the thermostat's FILTER Monitor back to zero as follows.

FILTER

To display the FILTER Monitor.



AHEAD

To reset display to 000.

AHEAD

To undo the previous "reset display to 000."

RETURN

To return to normal mode. (Automatic after 20-second delay.)

To change the FILTER Usage Monitor limit:

FILTER

Hold for 3 seconds to display the FILTER Monitor limit.

AHEAD

BACK

To adjust the limit between 100 and 500 hours.

RETURN

To store changes. (Automatic after 20-second delay.)

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 setpoint 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.

AHEAD



BACK

Press simultaneously to display current setting. The nominal setting of "3" equals approximately $\pm 1^\circ\text{F}$ (0.55°C) variation.



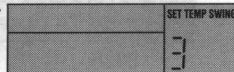
TEMP



To change the Temperature Swing setting (range: 1-9).

AHEAD

To store changes. (Automatic after 20-second delay.)



18

PROGRAMMING CHART

DAY	PERIOD	HEAT		COOL	
		TIME	TEMP.	TIME	TEMP.
MON. THRU FRI.	MORN				
	DAY				
	EVE				
	NITE				
SAT.	MORN				
	DAY				
	EVE				
	NITE				
SUN.	MORN				
	DAY				
	EVE				
	NITE				

19

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.

If you still have problems, call Technical Service toll-free at 1-800-421-1130 between 9:00 AM and 4:00 PM Eastern Standard Time, Monday through Friday. Please refer to Model TX1000.

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.

TECHNICAL SERVICE 1-800-421-1130

43205