

The FLP11 programmable thermostat, specially designed for floor heating installations, is equipped with two ultra-precise sensors which allow temperature control by separately monitoring both floor and ambient settings, thus providing greater comfort.

### CONFIGURATION OF THE DIPSWITCHES

This control module has three dipswitches to select the following options:

#### Time & Temperature Display

- ▶ °F/12h
- ▶ °C/24h (default)

#### Early Start (E.S.)

- ▶ E.S. (activated)
- ▶ Normal (deactivated) (default)

This function calculates the optimum system start time to obtain the desired temperature by the set time.

When this function is enabled, the system can be activated a few hours before the program's start time.

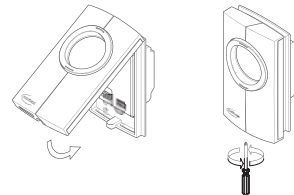
#### Temperature Control

This model offers the following three types of temperature control:

Temp. control	Switch position	Notes
Ambient with floor limits	DOWN (AF)	Requires a floor sensor
Floor	UP (F)	Requires a floor sensor
Ambient	DOWN (AF)	Use only when the floor sensor is not installed. This control type is not recommended for floor heating applications

### INSTALLATION OF THE CONTROL MODULE

Align the bracket tabs on the control module with the holes located on top of the previously installed power base and secure the module to the base.



**NOTE:** Keep the thermostat's air vents clean and free from obstructions.

#### First Power On

When power is applied for the first time, the screen displays 0:00 MO (Monday) as well as the ambient/floor temperature.



If a problem occurs, one of the following messages will be displayed:

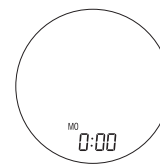
- LO: the temperature is below 0°C (32°F) The heating indicator is displayed and the system is activated.
- HI: the temperature is above 60°C (140°F) (temp. control F) or 50°C (122°F) (temp. control AF).  
Normal display: 0°C (32°F) to 60°C (140°F) (temp. control F) or 0°C (32°F) to 50°C (122°F) (temp. control AF).
- ER: the floor sensor is not connected properly or defective (temp. control F) or the ambient sensor is defective (temp. control AF).

To verify if the thermostat detects the floor sensor, select the temperature control F (see Configuration of the dipswitches). If the screen displays ER, the floor sensor is not connected properly or defective.

If the screen displays the temperature, the sensor is good.

#### Setting the Time and Day

- 1 Press **D**, **H** or **M** to access the menu.
- 2 Press **H** and **M** to set the time.
- 3 Press **D** to select the day.
- 4 Press **MODE/RET** to exit.



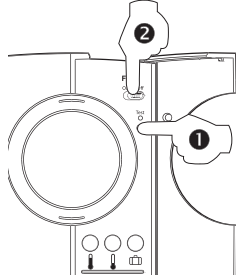
**NOTE:** If you remove the module from its base for more than two hours, the time and day must be reprogrammed.

## GROUND FAULT CIRCUIT INTERRUPTION (GFCI) TEST

The GFCI monitors the electrical flow for any loss of current; if there is a loss, the thermostat will cut off power to the heating system. The GFCI must be tested upon installation, and once a month thereafter to ensure it is operating properly.

**1 Press TEST:**

- Successful: the TEST warning light is ON and power to the floor heating system is cut off.
- Unsuccessful: the TEST warning light is OFF. Cut power to the floor heating system from the main power panel and call customer service.



**2 When successful, reset the thermostat (OFF/ON) to reset the GFCI circuit.**

**WARNING:** If the test warning light comes ON during normal operation, cut power to heating system from the main power panel and have an electrician verify the installation.

## CONFIGURATION OF THE SETPOINTS

### Comfort and Economy Setpoints

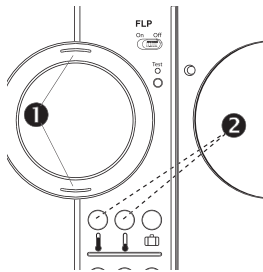
These setpoints are associated with the schedule's programs and are preprogrammed as follows:

**Comfort:** temp. control AF: 21°C (70°F)  
temp. control F: 28°C (82°F)

**Economy:** temp. control AF: 17°C (63°F)  
temp. control F: 20°C (68°F)

To modify a setpoint value:

- 1 Set the temperature using the adjustment ring.
- 2 Press and hold the setpoint button (↓ or ↑ or ☐) until the icon is displayed on the screen. Screen automatically returns to normal display after 5 seconds.



### Vacation Setpoint

This preprogrammed setpoint is used when the Vacation mode is activated. To modify this value, repeat above steps.

**Default:** 10°C (50°F) for all control types

### Floor minimum and maximum limits (AF only)

Ensures a minimum floor temperature at all times even if the setpoint is lower than this minimum limit. The maximum limit is to avoid damage to your floor and for added safety.

**Default:** min 5°C (40°F) and max 28°C (82°F)

- 1 Turn OFF the thermostat.
- 2 Press and hold CLR and turn ON the thermostat. Release CLR only when the minimum setpoint is displayed.
- 3 Select the minimum setpoint limit using the adjustment ring.
- 4 Press CLR to display the maximum value.
- 5 Select the maximum setpoint limit using the adjustment ring.
- 6 Press MODE/RET to exit.



## SELECTION OF THE OPERATING MODE

**NOTE:** For the AF temperature control (ambient with floor limits), the setpoint will always be maintained within the minimum and maximum floor limits.

### Automatic

Executes the schedule's programs.

- ▶ Press **MODE/RET** until the desired program number is displayed (1 to 4).



To temporarily bypass the current program, set a new temperature using the adjustment ring or press one of the predefined setpoint buttons (↓ or ↑). The new setpoint will be maintained until the beginning of the next program.

### Manual

Maintains a constant temperature.

- 1 Press **MODE/RET** until a hand icon is displayed.
- 2 Set the temperature using the adjustment ring or press one of the predefined setpoint buttons (↓ or ↑ or ☐).



### Vacation

Maintains the Vacation setpoint during a prolonged absence.

There are two ways to activate this mode:

- 1 From the thermostat: press ☐.
- 2 Remotely (using a telephone): see Econo Input Signal section (an optional control is required).



## PREPROGRAMMED SCHEDULE

The schedule is executed when the Automatic mode is activated. It controls your system by automatically switching from the Comfort setpoint to the Economy setpoint at the preset times.

The preprogrammed schedule contains four (4) daily programs:

Programs	MO	TU	WE	TH	FR	SA	SU
1  Comfort	6h	6h	6h	6h	6h	6h	6h
2  Economy	8h30	8h30	8h30	8h30	8h30	--:--	--:--
3  Comfort	17h	17h	17h	17h	17h	--:--	--:--
4  Economy	23h	23h	23h	23h	23h	23h	23h

### For savings:

Every degree the temperature is lowered during an eight-hour period may reduce energy consumption by 2%.

For example, if you program your thermostat to lower the temperature by 5°C (9°F) when you go to work and by another 5°C (9°F) while sleeping, you would reduce energy consumption by 20% (5°C (9°F) x 2% x 2 eight-hour periods). Since the temperature is lowered when your home is unoccupied and when occupants are sleeping, you save money without reducing comfort.

## SCHEDULE MODIFICATION

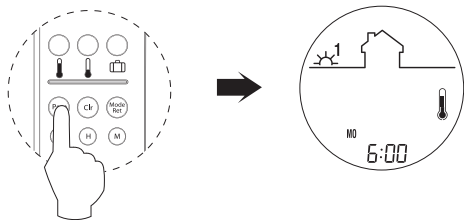
You can set up to four daily programs and each program can have a different time for a total of 28 programs.

Below is a sample schedule:

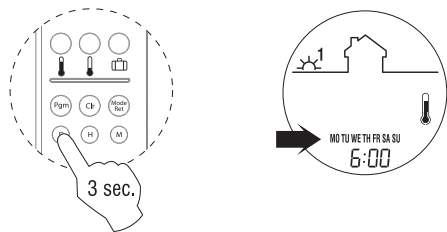
Programs	MO	TU	WE	TH	FR	SA	SU
1  Comfort	6h	7h	6h30	6h15	7h	9h	8h
2  Economy	8h30	9h30	7h15	8h	8h30	12h	--:--
3  Comfort	16h	17h	15h30	18h	16h	18h	--:--
4  Economy	23h	22h	22h30	23h	21h30	23h	23h

**NOTE:** It is sometimes easier to program the same schedule for the entire week and then modify the exception days.

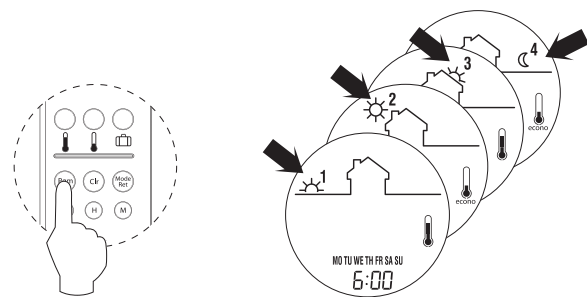
- 1 Press **PGM** to access the programming mode.



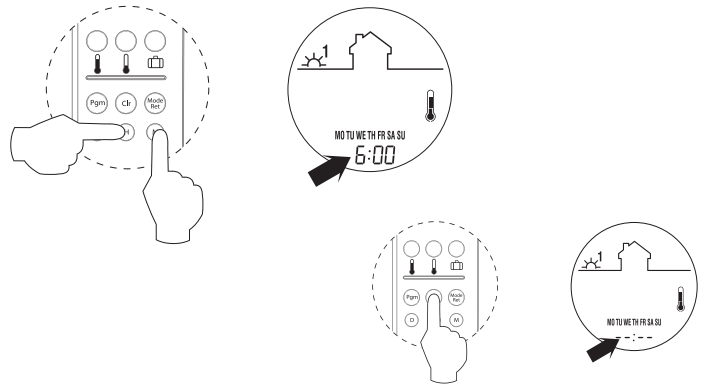
- 2 Press **D** to select the day to be programmed or hold for 3 seconds to select all days.



- 3 Use **PGM** to select the program number.



- 4 Use **H** and **M** to set the program's start time or use **CLR** to erase the time (--:-- the program is inactive).



- 5 Repeat steps 2 to 4 for the remaining programs.
- 6 Press **MODE/RET** to exit.

**NOTE:** After 60 seconds of inactivity the thermostat will automatically exit programming mode.

## ECONO INPUT SIGNAL

The FLP11 thermostat is equipped with an Econo input (dry contact) which allows connection of a telephone controller (optional CT240/CT241) or any other remote control system. Refer to the power base installation instructions for Econo input wiring.

When a signal is received through this input, the FLP11 thermostat automatically switches from normal operating mode to the Vacation mode, and vice-versa when the signal is removed.

## TEMPERATURE CONTROL

The FLP11 thermostat works differently than conventional electro-mechanical thermostats.

It is equipped with a proportional integral adaptive (P.I.A.) controller which determines heating cycles by analyzing the temperature behavior history within the room.

The P.I.A. controller reduces temperature swings providing an accurate temperature control while increasing user comfort.

The controller determines the amount of power required by the heating system to maintain the setpoint temperature.

1 to 25%	26 to 50%	51 to 75%	76 to 99%	100%
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## TECHNICAL SPECIFICATIONS

Model: FLP11

	AF	F
Temperature display range:	0°C to 50°C (32°F to 122°F)	0°C to 60°C (32°F to 140°F)
Temperature setting range:	5°C to 30°C (40°F to 86°F)	5°C to 40°C (40°F to 104°F)
Comfort setpoint:	21°C (70°F)	28°C (82°F)
Economy setpoint:	17°C (63°F)	20°C (68°F)
Vacation setpoint:	10°C (50°F)	

Accuracy:  $\pm 0.5^{\circ}\text{C}$  (0.9°F)

Storage:  $-20^{\circ}\text{C}$  to  $50^{\circ}\text{C}$  ( $-4^{\circ}\text{F}$  to  $120^{\circ}\text{F}$ )

Temperature control: Proportional integral adaptive (P.I.A.)  
15-minute heating cycles.

Memory backup: In the event of a power failure, an internal circuit will save the programming. Only the time will have to be reset if the power failure exceeds two (2) hours.

The thermostat will return to the same operating mode in effect before the power failure.

## WARRANTY

### FLEXTHERM LIMITED WARRANTY

Flextherm Canada Inc. (hereinafter "FLEXTHERM") warrants to the purchaser that the FLEXTHERM PROGRAMMABLE THERMOSTAT (hereinafter the "Product") and once installed in conformity with the instructions of FLEXTHERM, shall be free of defects, in either materials or workmanship as described in this document.

**COVERAGE PERIOD:** This Limited Warranty becomes effective on the date of the original purchase of the Product as supplied by FLEXTHERM and shall remain effective for a period of one (1) year (twelve (12) consecutive months) from such date.

**CONDITIONS:** This Limited Warranty is only applicable to new and unused Products purchased from FLEXTHERM, or its authorized re-sellers, provided the Installation Requirements contained herein are met. Claims made for coverage under this Limited Warranty must be addressed in writing, within seventy-two (72) hours from an event giving rise to a claim, or the appearance of a defect, to: Flextherm Canada Inc. 1-800-353-9843. Any parts replaced under the terms of this Limited Warranty become the property of FLEXTHERM.

**WHAT FLEXTHERM WILL/WILL NOT DO:** FLEXTHERM's obligations under this Limited Warranty are limited to, at its sole discretion, repairing or replacing the thermostat originally supplied in the Product that FLEXTHERM has determined to be defective in materials or workmanship. FLEXTHERM shall replace the defective thermostat goods free of charge "ex works" after the originals have been returned to us postage/freight prepaid. Replacement will only be made for defective parts; and no allowance or reimbursement shall be made for wages, labour and freight costs. With respect to the parts not manufactured by ourselves, we shall only warrant for these to the same extent as our suppliers undertake a warranty obligation towards ourselves.

Because of our ongoing commitment to product quality and innovation, FLEXTHERM reserves the rights, at any time and without incurring any obligations, to revise, change, modify or discontinue any specifications, features, designs or components.

**INSTALLATION REQUIREMENTS:** In addition to the requirements included in the current FLEXTHERM Installation Guide, which is incorporated herein by this reference, the Product must be installed in accordance with accepted standards.

**WARNING:** Failure to install the Product in conformity with your local electrical Codes, as well as the Installation Guide, may cause fires.

Failure to install the Product according to the directives in the installation guide may damage the cables/wiring and lead to Product failures, which are not covered under the Limited warranty.

**EXCLUSIONS ARE NOT WARRANTED:** Failures resulting from improper installation; Damage caused by abuse, improper installation, repairs, service, maintenance and/or storage, modifications or use of parts not manufactured or supplied by FLEXTHERM; Damage caused by abuse or neglect; regarding the Product; Damage caused by water, submersion, accident, fire or any act of God; Incidental, consequential or other damages (including labor costs, towing, inconvenience, loss of time or other of income).

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Neither Flextherm re-sellers, installers or any other person is entitled or authorized to make any affirmation, representation or warranty other than those contained in this Limited Warranty.


If the ownership of the Product is transferred during the Limited warranty Coverage period, the terms and conditions of the Limited Warranty shall apply to the new owner, provided the new owner has proof, satisfactory to FLEXTHERM, of the date of first purchase of the Product.

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