

The FLEXTHERM electronic dial thermostat FLK11-GA is a non-programmable thermostat specifically designed to control its floor heating systems.

INSTALLATION

Installation Guidelines

! To avoid electrical shock, turn off power to the heating system at the main electrical panel. The installation must be performed by qualified electrician.

- ▶ Install the thermostat on an expanded (deep) electrical box.
- ▶ Choose a location about 1.5 m (5 ft.) above the floor and on an inside wall.
- ▶ Avoid locations where there are air drafts (top of staircase, air outlet), dead air spots (behind a door), direct sunlight or concealed chimneys or stove pipes.

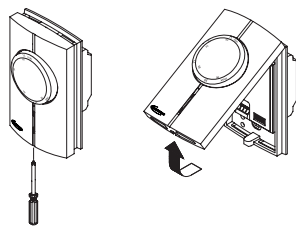
Supplied Parts

- ▶ One (1) thermostat (control module and power base)
- ▶ Two (2) screws
- ▶ One (1) 4.6 m (15 ft.) floor sensor
- ▶ One (1) flat-tip screwdriver
- ▶ Four (4) solderless connectors for copper wires

! *NOTE: Special CO/ALR solderless connectors must be used when connecting with aluminum conductors.*

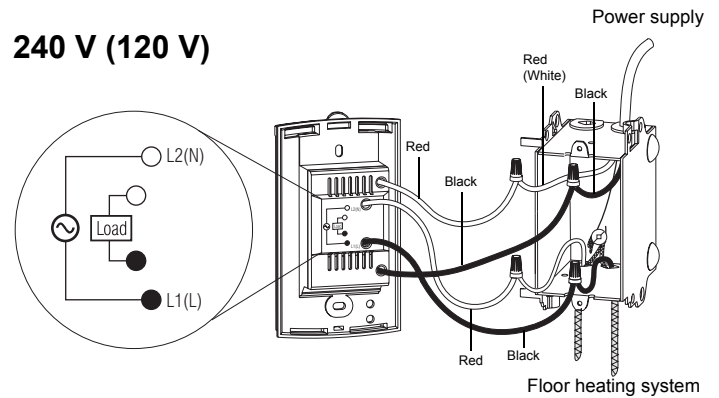
1) Separate the control module from the power base

Loosen the screw and separate the control module from the power base. The screw remains captive on the power base.



2) Connect the thermostat wires

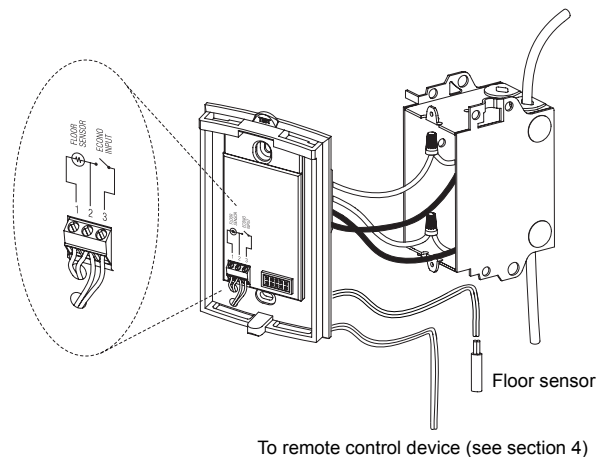
240 V (120 V)



Connect the thermostat to the floor heating system (load) and to the power supply ☺ using solderless connectors for copper wires.

The floor heating braided shields or green wire as well as the power supply copper ground wires must be secured to the ground terminal.

3) Connect the floor sensor



! *NOTE: Using an ohmmeter, verify the sensor's integrity. It must read between 8 to 12 K Ohms in order to obtain temperature readings between 20°C and 30°C (68°F to 86°F).*

- Insert the sensor wires through one of the two openings on the power base and connect them to terminals 1 and 2 (no polarity).
- The wire must be centered between the heating cables at a distance of 30 to 60 cm (1 to 2 ft.) within the heating zone. **Do not cross the probe wire over the heating cables.**
- The sensor should be placed in a neutral location, not near any other heating or cooling sources.
- Secure the sensor to the floor using hot glue. It is necessary to embed the sensor in the floor surface so it is at the same level as the heating cables.

4) Connect the Econo Input (optional)


The thermostat is equipped with an Econo input which allows connection of any remote control device equipped with a dry contact. When the contact closes, the thermostat automatically lowers the setpoint by 6.3°F (3.5°C). When the contact opens, the thermostat returns to its original setpoint.

Insert the wires (use an 18 to 22 gauge flexible wire cable) through one of the two openings on the power base.

Connect one end of the wires to terminals 2 and 3 of the power base and the other end to the dry contact of a remote control device (no polarity).

5) Complete Installation

Install the power base onto the electrical box using the provided screws and return the control module on the power base. Apply power to the floor heating system.

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

GROUND FAULT CIRCUIT INTERRUPTER

This thermostat has a built-in Ground Fault Circuit Interrupter (GFCI). In the event of a ground fault, the GFCI trips and quickly stops the flow of electricity to prevent serious injury.

Definition of a ground fault

Instead of following its normal safe path, electricity passes through a person's body to reach the ground. For example, a defective floor heating mat can cause a ground fault.

The GFCI **does not protect** against circuit overloads, short circuits, or electrical shocks. For example, you can still receive an electrical shock if you touch bare wires while standing on a non-conducting surface such as a wood floor.

Ground Fault Protection Reset

When the GFCI trips, the **TEST** button illuminates (red). To reset the GFCI, switch the thermostat to **OFF** and back to **ON**. The **TEST** button light will go off.

If the **TEST** button illuminates during normal operation, check if the fault has been caused by an external interference such as a halogen light or an electric motor. In this case, reset and test the GFCI. However, if the fault occurs again for unknown reasons, cut power to the floor heating system from the main electrical panel and have the installation verified by an electrician.

GFCI Test

To ensure the GFCI is always in working order, test it once the thermostat is installed and every month thereafter.

- 1 Increase the temperature sufficiently to start heating.
- 2 Wait for about 5 seconds until the heating indicator light turns on.
- 3 Press the **TEST** button at the top of the thermostat.
 - If the **TEST** button does NOT illuminate, **the test has failed**. Cut power to the heating system at the main electrical panel, have an electrician verify the installation and, if necessary, replace the thermostat.
 - If the **TEST** button illuminates, continue to step 4.
- 4 Switch the thermostat to Off, then back to On.
 - If the **TEST** button light goes off, **the test has passed**. Set the thermostat back to the desired temperature and ignore the remaining steps. The test is now completed.
 - If the **TEST** button light remains on, **the test has failed**. Continue to step 5.
- 5 Switch the circuit breaker (at the service panel) of the heating system to off, then back to on.
- 6 Repeat the test. If the test fails again, cut power to the heating system at the main electrical panel, have an electrician verify the installation and, if necessary, replace the thermostat.

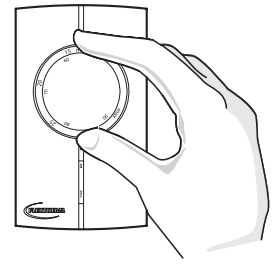
CONFIGURATION OF THE SETPOINT

To adjust the setpoint, turn the dial to the desired temperature.

The minimum setpoint (min) is 7°C (45°F).

The maximum setpoint (max) is 35°C (95°F).

Temperature range: 7°C (45°F), from 15°C (60°F) to 35°C (95°F).



TECHNICAL SPECIFICATIONS

Supply	120 VAC, 60 Hz	240 VAC, 60 Hz
Maximum load	15 A (1800 W)	15 A (3600 W)

GFCI: 5 mA

Temperature range: 7°C (min), from 15°C to 35°C (max)
45°F (min), from 60°F to 95°F (max)

Accuracy: ± 0.5°C (0.9°F)

WARRANTY

FLEXTHERM LIMITED WARRANTY

Flextherm Canada Inc. (hereinafter "FLEXTHERM") warrants to the purchaser that the FLEXTHERM 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. This Limited Warranty is valid for products purchased and installed in Canada only.

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. Persons making claims for coverage must present FLEXTHERM with proof of purchase as well as any documents FLEXTHERM may require.

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 its 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 loss of income).

LIMITATIONS OF LIABILITY:


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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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