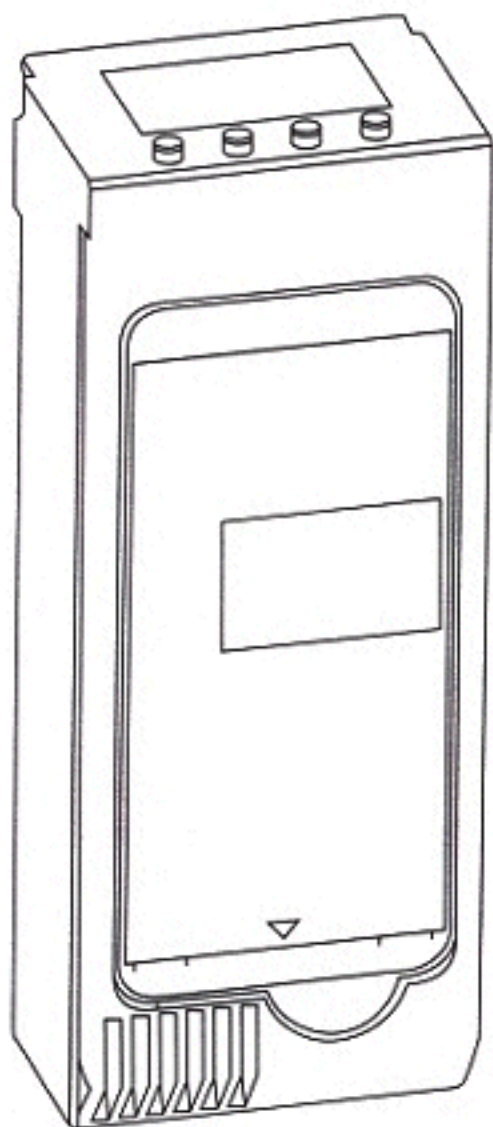


PROGRAMMER MODULE 7392-FP

Installation and operating instructions



CONVECTAIR



PROGRAMMER MODULE 7392-FP INSTALLATION AND OPERATING INSTRUCTIONS

WARNING: Installation of a multi-heater CONVECTAIR programming system involves some specific wiring requirements. CONVECTAIR recommends that such an installation be performed and checked by a licensed electrical contractor.

1) INTRODUCTION

The CONVECTOR PROGRAMMER MODULE is a tool for controlling your CONVECTAIR heating system. It allows you to maximize your energy savings in perfect comfort by scheduling periods of comfort heating and energy-saving temperature setbacks.

The PROGRAMMER MODULE liquid crystal screen lets you:

- View the time, the day of the week, the program for the day and the present heating mode (Comfort, Economy or Frost Protection).
- Set the time, day and programming options.

The PROGRAMMER MODULE is designed to be mounted on the control panel of CONVECTAIR heater models; ALTO, MEZZO, SOLO or TENOR (7384, 7383, 7382 or 7715).

2) OPERATING OPTIONS

The PROGRAMMER MODULE offers a choice of 7 pre-selected programs or a customized program for each day of the week.

All programs offer 2 heating modes:

- Comfort: ideal temperature for the room. ————— *
- Economy: setback of 2° to 7° C (4° to 13° F) from Comfort mode, or 4° C (7° F) for Jazz, Calypso and other heaters with non-adjustable setbacks. — D

It is also possible to override the current program by selecting the Frost Protection mode, which maintains a temperature of approximately 8° C (45° F), for energy savings during long periods of absence from the house.

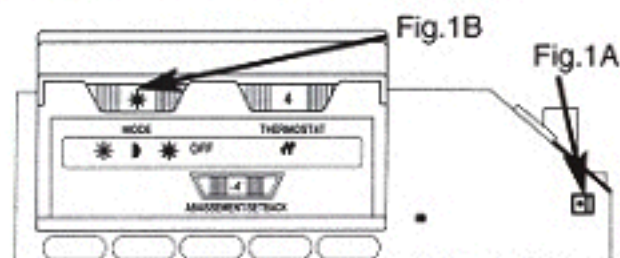
3) INSTALLATION AND CONNECTIONS

A) INSTALLATION

The PROGRAMMER MODULE can only be installed in the control panel of CONVECTAIR ALTO, MEZZO, SOLO or TENOR heaters (7384, 7383, 7382 or 7715).

To install the PROGRAMMER MODULE, press down on the clip (Fig. 1A), using a pointed object. Remove the cover. Insert the PROGRAMMER MODULE in its socket. Allow 15 minutes for the PROGRAMMER MODULE to become fully charged and activate the LCD screen.

On the thermostat control panel, turn the Mode Selector to Program Setting (Fig. 1B). The heater will now be able to receive the PROGRAMMER MODULE signal.



B) CONNECTING OTHER CONVECTAIR HEATERS TO THE PROGRAMMER MODULE

Up to 20 CONVECTAIR heaters (including model numbers 7382, 7383, 7384, 7715, 7375, 7376, 7377, 7825 and 7618) **can be programmed by a PROGRAMMER MODULE.**

BASIC WIRING DIRECTIONS

CONVECTAIR recommends that all electric heaters be installed by a licensed electrical contractor in compliance with applicable local and national codes. **WARNING:** Convectair heaters must be connected to a 208-volt or 240-volt 60 Hz circuit. To avoid shock and damage to the unit, disconnect the power supply before doing any wiring or electrical connection work.

- Use a **three-conductor cable** (+ ground) to connect to the power supply (using the red and black wires) all heaters that will be controlled by the PROGRAMMER MODULE. Make sure to maintain the same wire phase from one circuit to the next. **(Check the service panel to ensure that there is zero voltage between all red wires and zero voltage between all black wires, phase A and B.)**
- The third wire (white jacket), is used as a communication cable from the PROGRAMMER MODULE to the heaters.

WARNING: Do not use the ground wire as a communication wire. Do not ground the white communication cable (Canadian Electrical Code 10-200, US National Electrical Code 1999, article 250).

- Although the PROGRAMMER MODULE can control up to 20 other CONVECTAIR heaters in a given Comfort Zone, the installation must respect the allowable load: 3750W on a 20A circuit, for example (C.E.C. 62-114, NEC 210). If the installation involves more heaters, several heating circuits must be used.

(For Canada) It is therefore necessary to install a large enough junction box near the service panel to connect the communication cables from each heating circuit together.

(For USA) Connection of the communication cables can be done in the service panel (NEC 373, 384).

- **IMPORTANT:** Communication cables carry 120V. Since a Comfort Zone may have several circuits, **switch the breakers for each circuit in the Comfort Zone to the OFF position on the service panel before accessing the connection box of any heater.**
- Place the **stickers provided with the PROGRAMMER MODULE** on the service panel and junction box (Canada only) so as to have the information available for future service.
- **Identify each white wire with a coloured piece of tape** (not white, black, red or green for Canada, not green, white or grey for USA) in the pull box, junction boxes and connection boxes of each unit, to show that they are current-carrying conductors (C.E.C. 4-034, NEC 200, 250).
- **(For Canada)** Connect the white wires and purple wires of each unit using the **terminal block supplied with the PROGRAMMER MODULE** (C.E.C. 14-414).

Note: In an existing building wired with regular two-conductor wires, it is possible to install the PROGRAMMER MODULE by linking the CONVECTAIR unit to the other heaters using any approved construction wire with a minimum of 300V insulation.

It is also possible to use a Fire Alarm System cable (FAS 105° C 300V 18-2) unshielded wire (without aluminum wrapping) and without armored covering. This wire is approximately 1/4" in diameter and is easy to handle, but it **must not be exposed to outside damage** (C.E.C. 12-516, NEC 300, 725).

Single-unit programming:

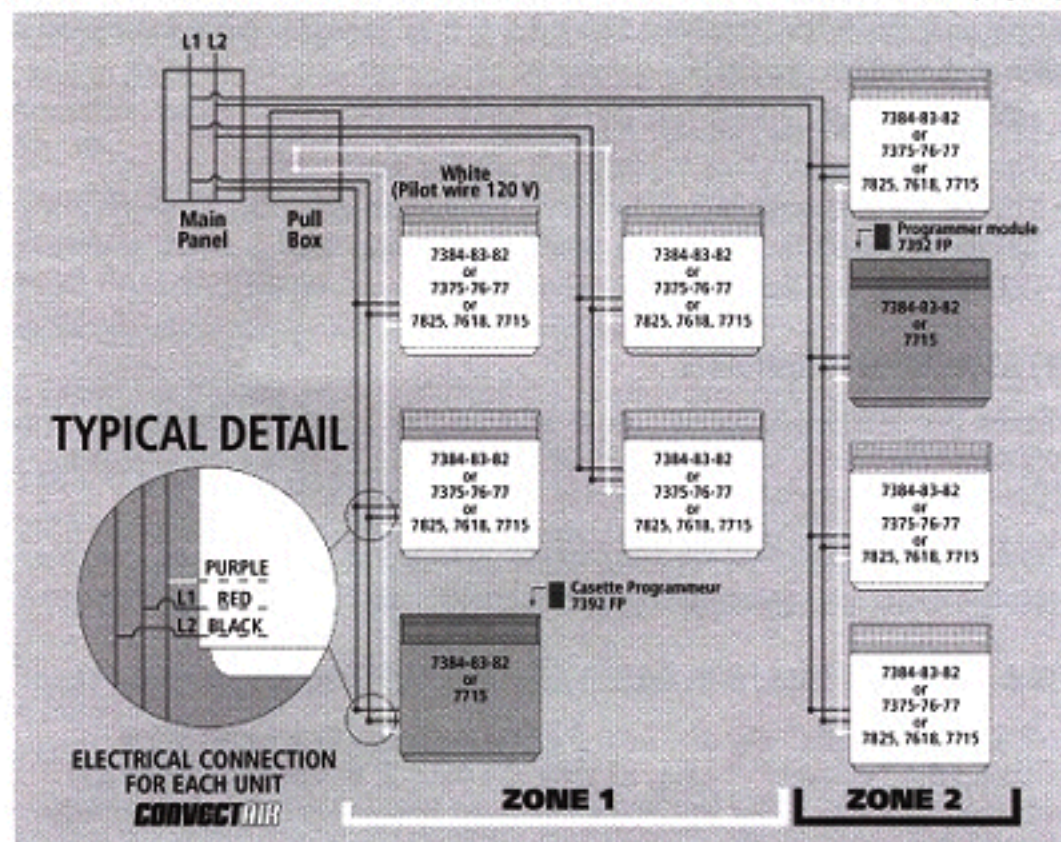
For a single-heater installation, no communication cable connection is required.

Comfort Zone configuration: Example

The communication cable of the CONVECTAIR heater that holds the PROGRAMMER MODULE is connected to other heaters to be programmed. All the heaters receive the same program command (Comfort, Economy or Frost Protection) and constitute a Comfort Zone. The Comfort and later the Economy temperature is set on each individual heater.

Figure 2 shows the wiring of 9 CONVECTAIR heaters in 2 different Comfort Zones (requiring 2 separate PROGRAMMER MODULES)

(Fig. 2)

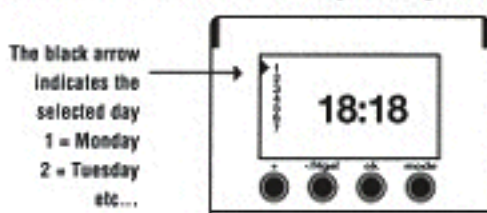


WARNING:

- You must not install 2 PROGRAMMER MODULES units in the same zone.
- It is imperative to respect the connection polarities of all convectors of one zone.
- The communication cable must not be grounded.

4) OPERATION:

- NOTE:**
- The PROGRAMMER MODULE is equipped with a capacitor that allows programmed information to remain stored up to 6 hours in case of a power failure. There are no batteries to replace.
 - The PROGRAMMER MODULE can be programmed either directly on the CONVECTAIR heater (while connected to power) or out of its socket (when fully charged).
 - During the charging period (approximately 15 minutes), the signal through the communication cable is Comfort. No other signal can be transmitted until the PROGRAMMER MODULE is fully charged.



A) SETTING OF THE CLOCK

Note: Two Instruction labels (English and French) are provided with the PROGRAMMER MODULE. Attach the desired version directly on the PROGRAMMER MODULE case.

Make sure the PROGRAMMER MODULE is fully charged (the screen will display a blinking "00:00")

- Depress the "mode" key for 2 seconds.
- Set the hour with "+" or "-" key and confirm with "OK".
- Set the minutes with "+" or "-" key and confirm with "OK".
- Set the day with "+" or "-" key and confirm with "OK".
(Ex. Monday = 1, Tuesday = 2 ... Sunday = 7)

B) ASSIGNING PROGRAMS

Seven pre-selected programs are detailed on the instruction label and permanently stored in the PROGRAMMER MODULE. Temperature mode (Comfort or Economy) is recorded in 1-hour increments.

NOTE: Time is shown using the 24-hour system:

0h 2h 4h 6h 8h 10h 12h 14h 16h 18h 20h 22h 24h

=
0am 2am 4am 6am 8am 10am 12am 2pm 4pm 6pm 8pm 10pm 12pm

- Press the "mode" key and hold for two seconds, then press again.
- Using the "+" and "-" keys, choose the desired program for each day (starting with day 1) for any of the standard programs (P1 to P7), or the customized program (P =).

* If using a standard program, press "OK" to confirm your selection and to go to the next day.

* To build your customized program:

- Press the "mode" key again.
- For each hour, choose Comfort with the "+" key or Economy with the "-" key.
- After completing the 24-hour cycle, press "OK" to go to the next day.

NOTE: - It is possible to assign a different customized program for each day of the week.

- To return to the clock setting, you must complete the full 7-day programming cycle. Simply press "OK" if no change is required.

WARNING: Heaters switching from Economy to Comfort mode may become very hot to the touch. Please keep children away from heaters at all times. Once the room reaches the Comfort temperature, heaters will begin to cycle again at a more moderate level.

5) OTHER FEATURES

A) FROST PROTECTION MODE

To switch to Frost Protection mode, press the “-/Hgel” key for 4 seconds. With the “+” or “-” key, select the number of days desired (01 to 99) and confirm with “OK”.

All CONVECTAIR heaters in the PROGRAMMER MODULE'S Comfort Zone will switch to Frost Protection mode with no possibility of override.

Countdown starts immediately, and the original program will resume at midnight when the selected number of days is over.

To cancel the Frost Protection mode at any time, press the “-/Hgel” key again. The clock display will reappear and normal programming will resume.

WARNING: Depending on the type of construction and the location of the water pipes in your house, it may not be advisable to use the Frost Protection mode during extended periods of below-freezing temperature.

B) MANUAL OVERRIDE

It is also possible to override a program temporarily on any individual convection heater by turning the dial of the mode selector on the unit itself (Fig. 1B).

- Comfort mode.....mode selector on *
- Economy mode.....mode selector on D
- Frost Protection mode.....mode selector on *
- Shut offmode selector on “OFF”

To cancel the bypass and to return to the original program, turn the dial of the mode selector of each unit back to the program setting ●.

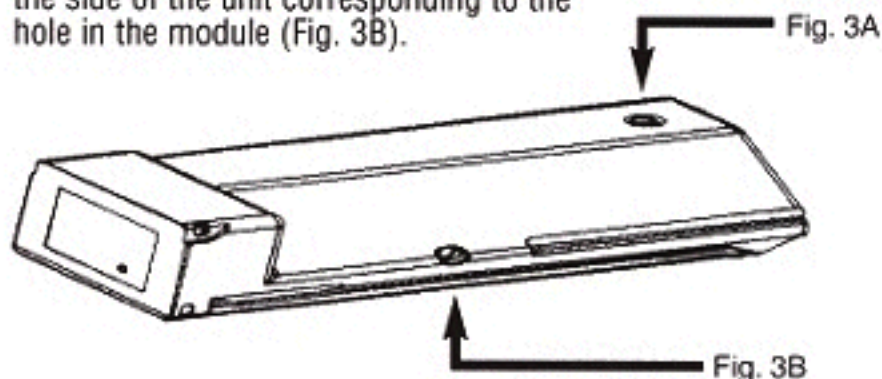
C) IN CASE OF A POWER FAILURE

- In the event of a power failure exceeding one hour, the PROGRAMMER MODULE may lose its charge. Only a few seconds are needed to reset the time and day. The programs, pre-selected or customized, are protected at all times.

The screen will display a blinking “00:00.” Simply reset the time and day of the week.

6) LOCKING THE PROGRAMMER MODULE

A special screw is provided with the PROGRAMMER MODULE. When installed correctly, this screw makes it impossible to remove the module from its socket. Remove the screw from the module (Fig 3A), replace the module in the socket and fasten the screw through the protruding lug on the side of the unit corresponding to the hole in the module (Fig. 3B).



7) PROGRAMMING: EXAMPLE

A) SETTING THE TIME AND DAY:

It is Friday, and the time is 6:20 p.m. (18:20 h).

Press "**mode**" for 2 seconds.

The Hour display begins flashing.

Using the "+" or "-" key, set the hour display to 18.

Confirm with "**OK**" and go to Minutes.

The Minutes display is now flashing.

Using the "+" or "-" key, set the Minutes display to 20.

Confirm with "**OK**" and go to the Day.

The Day is now flashing.

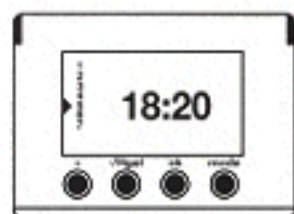
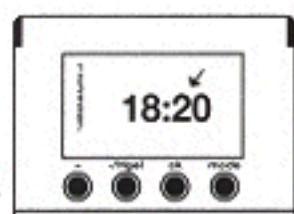
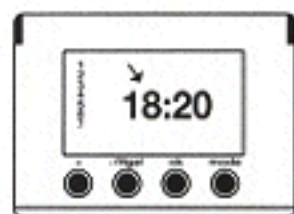
Using the "+" or "-" key, set the day display to 5.

(Monday = 1, Tuesday = 2... Friday = 5)

Confirm with "**OK**".

The PROGRAMMER MODULE is now set for Friday at 6:20 p.m. (18:20 h).

Now start the actual programming.



B) PROGRAMMING EXAMPLE USING P1 FOR MONDAY TO WEDNESDAY AND P2 FOR THURSDAY AND FRIDAY.

Press "**mode**" for 2 seconds. The time is displayed. Press once again quickly, to get to the day (Monday). The P1 program is now flashing.

Using the "+" or "-" key, choose the standard program desired for Monday.

Assign program P1 for Monday.

Confirm with "**OK**" and go to the next day.

For Tuesday (2) and Wednesday (3), choose the same program as for Monday (1).

Press "**OK**" to confirm P1 for each day and go to Thursday (4).

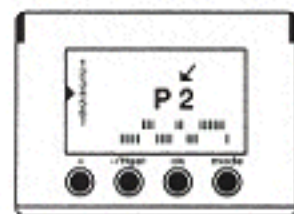
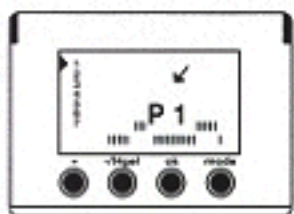
P1 is now flashing.

Using the "+" or "-" key, choose P2.

Confirm with "**OK**".

Friday is set the same as Thursday.

Confirm with "**OK**" and go to Saturday to customize a program.



C) CHOOSE A CUSTOMIZED PROGRAM FOR THE WEEKEND.

Saturday (6) is automatically selected following the last entry.

Using the "+" or "-" key, go to P = (a).

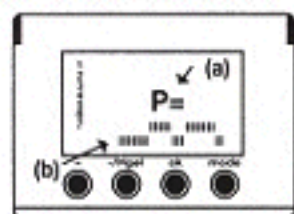
Press "**mode**".

The first cursor of the program is flashing (b).

Assign either a Comfort or Economy setting for each hour of the day, using the "+" or "-" key.

After completing the 24-hour cycle, confirm with "**OK**" and go to Sunday.





For Sunday, use the same procedure as above, confirm with "**OK**" and go back to the original screen.



The programming schedule is now complete for the entire week.

8) TESTING THE SYSTEM

In order to verify that the PROGRAMMER MODULE signal reaches all heaters in a Comfort Zone, follow these simple steps:

- STEP 1: Make sure all heaters are ON (208V or 240V) and that the PROGRAMMER MODULE is fully charged.
- STEP 2: Set the time and day on the display screen of the PROGRAMMER MODULE and replace it in its socket.
- STEP 3: Turn the dial of the mode selector of each heater to the program setting .
- STEP 4: Check that the indicator light of each heater matches the signal transmitted by the PROGRAMMER MODULE  or , depending on the time of day).
- STEP 5: Set the PROGRAMMER MODULE to Frost Protection ("**-/Hgel**").
- STEP 6: Check that the frost protection indicator light  of each heater is on.

This test ensures that all the CONVECTAIR units in the programming zone receive the signal transmitted by the PROGRAMMER MODULE.

9) TROUBLESHOOTING

- *No display:* Check power supply to heater. Make sure the PROGRAMMER MODULE is fully charged.
- *No signal / Wrong signal:* Make sure that you have the same wire phase from one heating (heaters do not respond) circuit to the other. Check the main panel to ensure that there is zero voltage between all red wires and zero voltage between all black wires.
- *Blinking "00:00":* May be caused by a power failure. Simply reset the time and day.
- *Display flashes and timer can not be adjusted:* Exit the existing mode by pressing "**OK**" to return to the beginning of the programming sequence.

10) WARRANTY

2 years against all defects

This CONVECTAIR unit is covered by a 2-year warranty on all parts against material and manufacturing defects. This protection is valid from the date of purchase (keep your sales receipt) in accordance with the terms of the warranty included with each heater.

11) REPAIR CENTRES

For the location of the nearest repair centre, please contact CONVECTAIR:

Canada and USA:

1-800-463-6478

Fax:

1-877-434-3166

E-mail:

support@convectair.ca