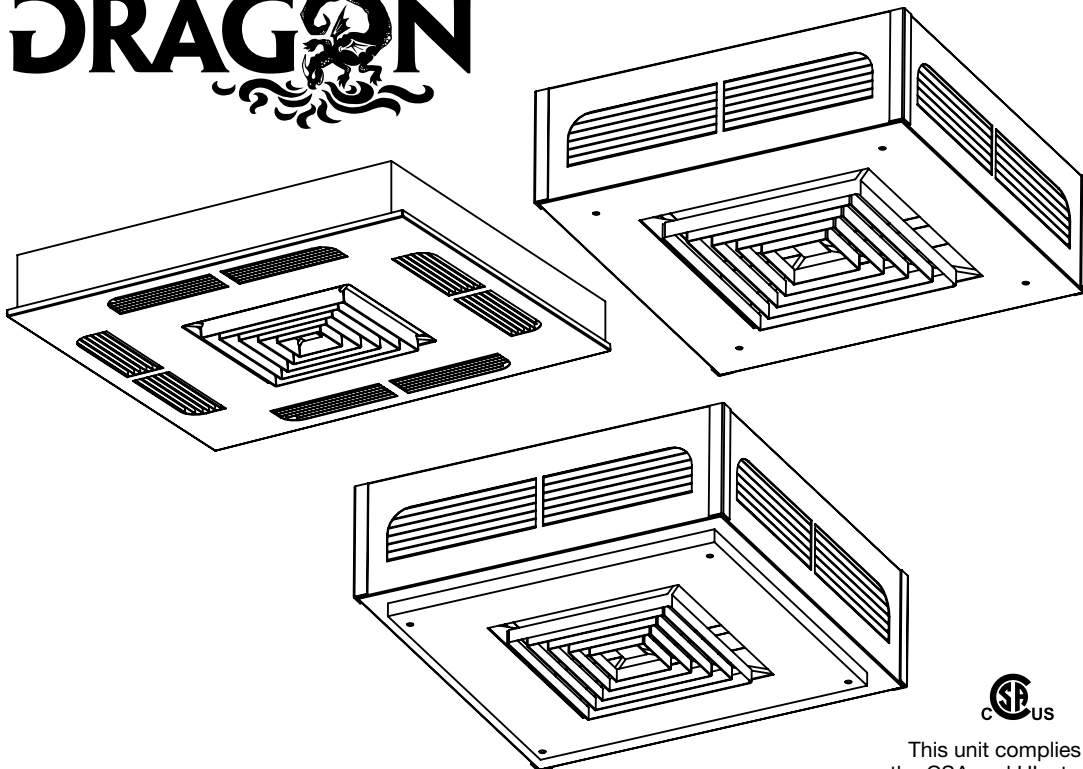


# User's guide

## “DR” series Ceiling fan heater

Replacement component list included

**DRAGON**



This unit complies with  
the CSA and UL standards

For further information or to consult this guide online, please visit our Web site.

 **WARNING**  **WARNING**  **WARNING**  **WARNING** 

Before installing and operating this product, the user and/or installer must read, understand and follow these instructions and keep them handy for future reference. If these instructions are not followed, the warranty will be considered null and void and the manufacturer deems no further responsibility for this product.

This product must be installed by a qualified person and connected by a **certified electrician**, according to the **electrical and building codes** effective in your region.

The following instructions must be adhered to in order to avoid personal injuries or property damages, serious injuries and potentially fatal electric shocks.

Protect the heating unit with the appropriate circuit breaker or fuse, in accordance with the nameplate.

Make sure the line voltage (volt) is consistent with that indicated on the unit's nameplate.

This unit must be **grounded**.

Switch off the power at the circuit breaker/fuse before installing, repairing and cleaning the unit.

Make sure the unit is appropriate for the intended use (if needed, refer to the product catalog or a representative).

**Recommended heating capacity :**

**1.25 W/cubic foot (0.03 m<sup>3</sup>).**

It corresponds to **10 W/square foot (0.09 m<sup>2</sup>)** based on a standard ceiling height of 8 feet (2.44 m). The recommended capacity is usually sufficient for normal heating needs. Please note that the insulation quality of walls and windows are some of the factors that influence heat losses, which modify the required capacity to heat a room. If needed, refer to a specialist (industrial and commercial buildings) who will be able to calculate these heat losses and optimize the required capacity or consult the "Online heating calculation" section of the Stelpro Design Web site (residential buildings). To heat a large room and to increase your comfort, it is recommended to install several units instead of one. For example, 2 X 1000 W rather than 1 X 2000 W.

If the unit capacity is insufficient for the size of the room, it will be in operation continuously, and may become defective earlier and turn yellow.

**Respect distances and positions** indicated in the installation section

If the installer or the user modifies the unit, he will be held responsible for any damage resulting from this modification, and the CSA certification could be void.

This unit must not come into contact with a water source and must be protected from splashes. Do not use it if any part has been immersed.

When mounting the unit, make sure that the anchorage used can support the total weight of the unit with the mounting brackets.

When cutting or drilling into a ceiling, do not damage electrical wiring and other hidden utilities.

When starting up the unit for the first time or after a long period, it is normal that it produces some temporary odours and whitish smoke.

Because this unit is hot when in use, it may pose risks even in normal operation. Therefore, be careful and responsible when using it. To avoid burns, do not let bare skin touch hot surfaces. The unit must cool down for few minutes since it will stay warm for some time after shut down.

All units require a minimum mounting height of 8 feet (2.44 m) from finished floor. Depending on the model, keep at least 12 or 24 inches away from any vertical surfaces or walls (see the installation section). However, make sure flammable objects or pieces of furniture do not come into contact with the unit and keep them at least **24 inches (61 cm)** from the unit since they are more flammable than walls and ceilings. Failure to comply with this warning could lead to a fire. Some materials are more heat-sensitive than others, so make sure those near the unit can withstand heat.

Never block unit air vents. This obstruction could lead to overheating, which could result in a fire.

Do not insert or allow foreign objects to enter any air vent as this may cause electric shocks, fires, or damages to the unit.

This unit has hot and arcing or sparking parts inside. It is not designed to be used or stored in wet areas or areas containing flammable liquids, combustible materials or corrosive, abrasive, chemical, explosive and flammable substances such as, but not limited to, gasoline, paint, chlorine, sawdust and cleaning products. Store it in a dry place when not using it.

Some areas are dustier than others. Thus, it is the user's responsibility to evaluate if the unit **must be cleaned** based on the amount of dirt accumulated on and inside air vents. Accumulated dirt can lead to a component malfunction or discoloration (yellow). It may cause a fire hazard if not installed and maintained in accordance with these instructions.

The thermal protection activation indicates that the unit has been subjected to abnormal operating conditions. If the thermal protection remains activated or activates and deactivates repeatedly, it is recommended that a qualified electrician or a certified repair centre examine the unit in order to make sure it is not damaged. (Refer to the limited warranty)

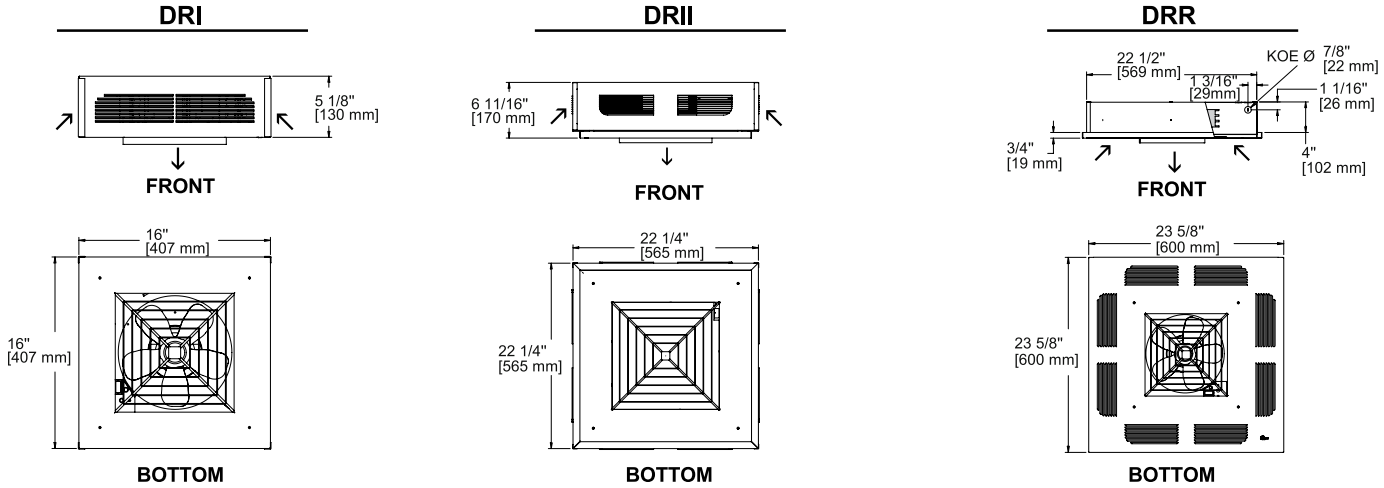
If the unit is damaged or defective, cut off power supply at circuit breaker/fuse and call a certified repair centre. (Refer to the limited warranty)

# SPECIFICATIONS

## CEILING FAN HEATER

MODELS	DRI	DRII	DRR
VOLTS	208 V / 240 V	208, 240, 277, 347, 480 et 600 V	208, 240, 277, 347, 480 et 600 V
WATTS	2000 to 5000 W	2000 to 10000 W	2000 to 5000 W
WEIGHT	16 lb / 7,2 kg	45 lb / 20,4 kg	16 lb / 7,2 kg
LENGTH	16" / 407 mm	22 1/4" / 564 mm	23 5/8" / 600 mm
WIDTH	16" / 407 mm	22 1/4" / 564 mm	23 5/8" / 600 mm
HEIGHT	5 1/8" / 130 mm	6 11/16" / 170 mm	4 3/4" / 121 mm

## TECHNICAL DRAWINGS



## INSTALLATION

**N.B. Cut off power supply at circuit breaker/fuse before proceeding to the installation.**

This unit is designed to be recessed (DRR), installed on the surface of a finished ceiling or suspended from the ceiling (DRI, DRII). All the other parts required for a suspended installation are not provided with the unit.

All units require a minimum mounting height of 8 feet (2.44 m) from finished floor.

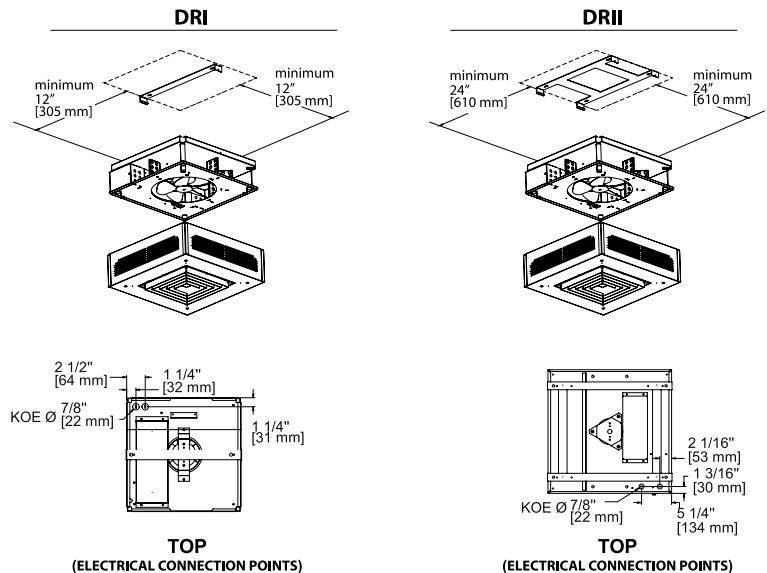
**For best results, do not exceed the following recommended mounting heights:**

2000 to 5000 watts	10 feet (3.05 m)
7500 to 10 000 watts	12 feet (3.66 m)

Depending on the model, keep at least 12 or 24 inches away from any vertical surfaces or walls (see illustrations below).

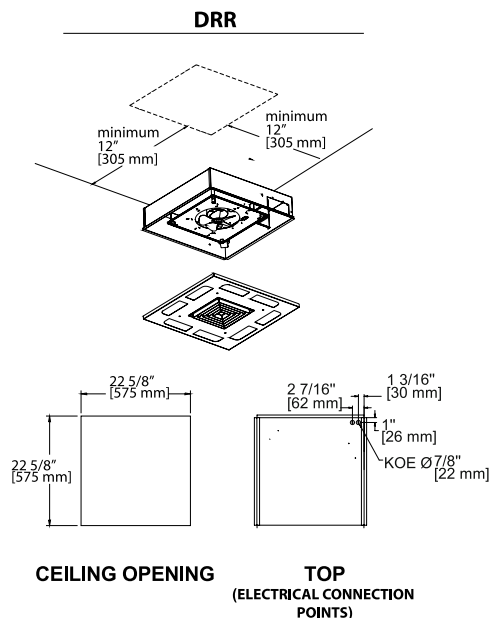
### DRI and DRII

1. Remove the external cover of the unit and set it aside (4 screws).
2. Remove the mounting bracket (1 or 2 screws and hinges depending on the model).
3. Screw the mounting bracket to the ceiling and make sure the ceiling structure is strong enough to support the unit. Make sure the mounting bracket is installed in such a way that the unit will sit straight and level.
4. Remove the wiring compartment cover and set it aside.
5. Hook the slotted side of the internal assembly to the mounting bracket. Let the unit hang from the bracket.
6. If your model is not equipped with the optional built-in thermostat, a wall-mounted thermostat must be installed to control the heater.
7. Run the electrical supply cable up to the wiring compartment of the unit. Provide a sufficient length of wire to facilitate the connections, which are made while the unit is still hanging from the bracket.
8. Make the electrical connections using the supplied wire connectors (marrettes). Connect the ground wire to the grounding screw. Make sure all connections are secure and tight. (For a 2-wire installation, connect the F and L2 wires to one of the power supply leads and connect the L1 wire to the other power supply lead. Note that the Fan mode option will not be available with this type of installation.)
9. Replace the wiring compartment cover. Swing the other half of the interior assembly into position and screw the assembly to the bracket with the screw(s) previously removed in step 2.
10. Replace the external cover and screw it into place with the four screws removed in step 1.
11. Test the unit to make sure it is running properly.



**N.B. This product has been designed to be installed into a suspended ceiling, not into a closed ceiling. Keep in mind that if you intend on recessing it into a closed ceiling, you will not have access to it for maintenance and/or repair purposes in the future.**

1. Remove the wiring compartment cover and set it aside.
2. Run the electrical supply cable up to the wiring compartment of the unit.
3. Make the electrical connections using the supplied wire connectors (marrettes). Connect the ground wire to the grounding screw. Make sure all connections are secure and tight. (For a 2-wire installation, connect the F and L2 wires to one of the power supply leads and connect the L1 wire to the other power supply lead. Note that the Fan mode option will not be available with this type of installation.)
4. Replace the wiring compartment cover.
5. If your model is not equipped with the optional built-in thermostat, a wall-mounted thermostat must be installed to control the heater.
6. This product has been designed to be installed into a suspended ceiling, therefore there are no mounting brackets supplied with the unit; it must be supported by the metal framing of the suspended ceiling.
7. Test the unit to make sure it is running properly.



## MAINTENANCE

**N.B. In order for the warranty to be valid, the unit must be cleaned regularly.**

Cut off power supply at circuit breaker/fuse before cleaning the unit. Use a soft rag for dusting. When cleaning, use only a damp rag and non-abrasive dish soap. Do not use abrasive or chemical cleaners because they may damage the finishing. If the unit is used in a very dusty location, use a vacuum brush to remove dust and other foreign objects from the grilles. Note that cigarette smoke could yellow the discharge grille and that the best way to prevent it is to clean the unit on a regular basis.

**Do not use cleaning products identified with these symbols:**   

**N.B. Note that there is electrical current linked to the unit even if the thermostat is set off. This means that there is a risk of electric shock as long as the unit is energized.**

## TROUBLESHOOTING

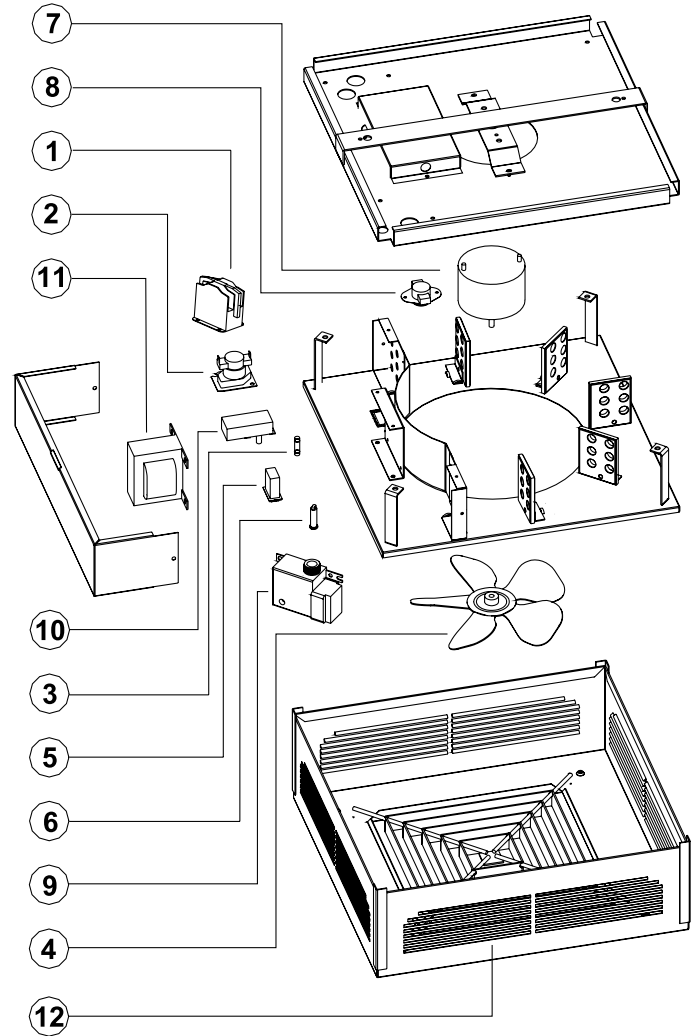
PROBLEM	DEFECTIVE PART OR PART TO CHECK
The unit does not work	- Defective thermostat or wrong thermostat setting - Open circuit breaker or fuse - The thermal protection has been activated - Faulty connections
The unit runs continuously	- Defective thermostat or wrong thermostat setting - Heat losses higher than the unit capacity
The enclosure is extremely hot	- Defective thermal protection - Blocked air vents - Defective motor
The unit cycles under control of the thermal protection (overheat indicator)	- Blocked air vents - Defective motor
Overheating	- Defective motor - Defective thermostat or wrong thermostat setting
The breaker trips when the heater is turned on	- Faulty connections - Voltage higher than that written on the nameplate
Elements are on, but the motor does not work	- Defective motor
The desired room temperature cannot be reached	- One or more elements are defective - Defective thermostat or wrong thermostat setting - Voltage lower than that written on the nameplate - Heat losses higher than the unit capacity

**N.B. If you do not solve the problem after checking these points, cut off the power supply at the main electrical panel and contact our customer service (see the "Limited warranty" section to obtain the phone numbers).**

# REPLACEMENT COMPONENT LIST

Modèles DRI, DRII et DRR

N°	DESCRIPTION
1	CONT-3022 CONTACTOR 30A 2 POLES 240/208 V
1	CONT-3002 CONTACTOR 30A 2 POLES 24 V
1	CONT-3512 CONTACTOR 35A 2 POLES 120 V
1	CONT-3503 CONTACTOR 35A 3 POLES 24 V
1	CONT-4023 CONTACTOR 40A 3 POLES 208/240 V
1	CONT-4013 CONTACTOR 40A 3 POLES 120 V
1	CONT-5013 CONTACTOR 50A 3 POLES 120 V
2	PROT-014** FAN DELAY F120 (15 to 30 kW)
3	FS-001** FUSE 1,5 A
4	BLA-005 BLADE 9" 26" 5B (2 to 5 kW)
4	BLA-009 BLADE 10" 26" (7.5 to 10 kW)
5	SWI-006 SWITCH (SPDT)
5	SWI-002** SWITCH (DPDT) Hi/Low
6	PL-240 PILOT LIGHT 240 V
6	PL-120 PILOT LIGHT 120 V
6	PL-028 PILOT LIGHT 24 V
7	MO-016 ENCLOSED MOTOR 240 V (2 to 5 kW)
7	MO-020 MOTOR 240 V (7.5 to 10 kW)
7	MO-024** MOTOR 600 V/3PH (15 to 40 kW)
8	PROT-006 PROTECTION L150
9	REL-002** RELAY 240 V
9	R841C1011 RELAY 208/24 V
9	R841C1029 RELAY 240/24 V
10	ST-005 THERMOSTAT SP (240 V max)
10	ST-007 THERMOSTAT SP (347/600 V)
11	TRF800025 TRANSFORMER 208/24/25VA
11	TRF200025 TRANSFORMER 240/24/25VA
11	TRF300025 TRANSFORMER 347/24/25VA
11	TRF320100 TRANSFORMER 347/240/100VA
11	TRF410200D TRANSFORMER 347/240/200VA
11	TRF320150 TRANSFORMER 347/240/150VA
11	TRF600025 TRANSFORMER 600/24/25VA
11	TRF620100 TRANSFORMER 600/240/100VA
11	TRF620200 TRANSFORMER 600/240/200VA
11	TRF620025 TRANSFORMER 600/240/25VA
11	TRF620150 TRANSFORMER 600/240/150VA
11	TRF210025D TRANSFORMER 240-480/120-240/25VA
11	TRF310025D TRANSFORMER 347-380/120-240/25VA
11	TRF500025D TRANSFORMER 240-480/12-24/25VA
11	TRF510100D TRANSFORMER 240-480/120-240/100VA
11	TRF520150 TRANSFORMER 480/240/150VA
11	TRF520200D TRANSFORMER 240-480/120-240/200VA
11	TRF610025D TRANSFORMER 480-600/120-240/25VA
11	TRF610050D TRANSFORMER 600/120-240/50VA
11	TRF700025 TRANSFORMER 277/24/25VA
11	TRF810025D TRANSFORMER 208-416/120-240/25VA
12	M-DR100A1 GRILLE (DRI)
12	M-DR200A1 GRILLE (DRII)
12	M-DRR00A1 GRILLE (DRR)



## Limited warranty

This limited warranty is offered by Stelpro Design Inc. ("Stelpro") and applies to the following products made by Stelpro: models DRI, DR11 and DRR. **Please read this limited warranty carefully.** Subject to the terms of this warranty, Stelpro warrants its products and their components against defects in workmanship and/or materials for the following periods from the date of purchase: **10 years (heating element)** and **1 year (other components)**. This warranty applies only to the original purchaser; it is non-transferable and cannot be extended.

### **Claim procedure**

If at any time during the warranty period the unit becomes defective, you must cut off the power supply at the main electrical panel and contact 1) your installer or distributor, 2) your service center or 3) Stelpro's customer service department. In all cases, you must have a **copy of the invoice** and provide the **information written on the product nameplate**. Stelpro reserves the right to examine or to ask one of its representatives to examine the product itself or any part of it before honoring the warranty. Stelpro reserves the right to replace the entire unit, refund its purchase price or repair a defective part. Please note that repairs made within the warranty period must be authorized in advance in writing by Stelpro and carried out by persons authorized by Stelpro.

Before returning a product to Stelpro, you must have a Stelpro authorization number (RMA). To obtain it, call the customer service department at: **1-800-363-3414** (electricians and distributors - French), **1-800-343-1022** (electricians and distributors - English), or **1-866-766-6020** (consumers). The authorization number must be clearly written on the parcel or it will be refused.

### **Conditions, exclusions and disclaimer of liability**

This warranty is exclusive and in lieu of all other representations and warranties (except of title), expressed or implied, and Stelpro expressly disclaims and excludes any implied warranty of merchantability or implied warranty of fitness for a particular purpose.

Stelpro's liability with respect to products is limited as provided above. Stelpro shall not be subject to any other obligations or liabilities whatsoever, whether based on contract, tort or other theories of law, with respect to goods or services furnished by it, or any undertakings, acts or omissions relating thereto. Without limiting the generality of the foregoing, Stelpro expressly disclaims any liability for property or personal injury damages, penalties, special or punitive damages, damages for lost profits, loss of use of equipment, cost of capital, cost of substitute products, facilities or services, shut-downs, slowdowns, or for other types of economic loss or for claims of a dealer's customers or any third party for such damages. Stelpro specifically disclaims all consequential, incidental and contingent damages whatsoever.

This warranty does not cover any damages or failures resulting from: 1) a faulty installation or improper storage; 2) an abusive or abnormal use, lack of maintenance, improper maintenance (other than that prescribed by Stelpro) or a use other than that for which the unit was designed; 3) a natural disaster or an event out of Stelpro's control, including, but not limited to, hurricanes, tornadoes, earthquakes, terrorist attacks, wars, overvoltage, flooding, water damages, etc. This warranty does not cover any accidental or intentional losses or damages nor does it cover damages caused by negligence of the user or owner of the product. Moreover, it does not cover the cost of disconnection, transport, and installation.

The warranty is limited to the repair or the replacement of the unit or the refund of its purchase price, **at the discretion of Stelpro**. Any parts replaced or repaired within the warranty period with the written authorization of Stelpro will be warranted for the remainder of the original warranty period. This warranty will be considered null and void and Stelpro will have the right to refuse any claims if **products have been altered** without the written authorization of Stelpro and if the nameplate numbers have been removed or modified. This warranty does not cover scratches, dents, corrosion or discoloration caused by excessive heat, chemical cleaning products and abrasive agents. It does not cover any damage that occurred during the shipping.

Some states and provinces do not allow the exclusion or limitation of incidental or consequential damages and some of them do not allow limitations on how long an implied warranty lasts, so these exclusions or limitations may not apply to you. This warranty gives you specific legal rights and you may have other rights which vary from state to state or from province to province.



This unit complies with the CSA and UL standards  
Stelpro Design Inc.  
Saint-Bruno-de-Montarville (Quebec) J3V 6L7