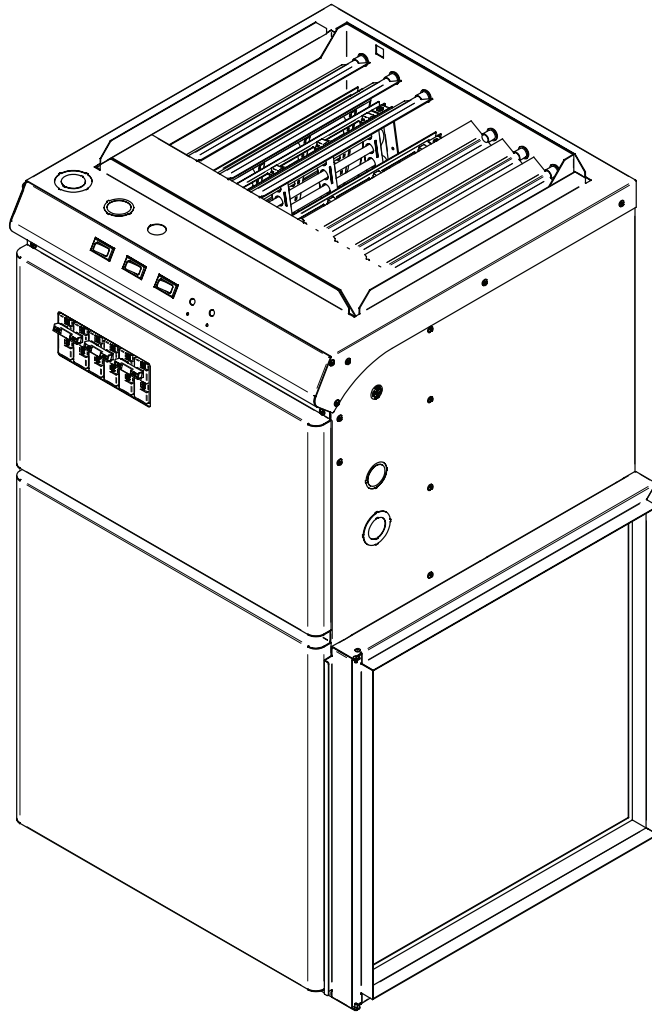




USER'S GUIDE

SEF SERIES ELECTRIC FURNACE

REPLACEMENT COMPONENT LIST INCLUDED



This unit complies with CSA and UL standards



This unit is approved according to the Canadian and American manufacturing standards.

**This section must be read carefully by the installer.
The installer must also read the user's guide since it contains other important information.**



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.

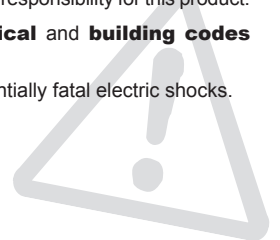
The following instructions must be adhered to in order to avoid personal injuries or property damages, serious injuries and potentially fatal electric shocks.

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.





WARNING

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

If the unit's capacity is insufficient for the size of the house, it will be in operation continuously, and may become prematurely defective.

Respect distances and positions indicated in the installation section.

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

This unit must not come into contact with a water source and must be protected from splashes (e.g. a wet mop). Do not use if any part has been immersed. Moreover, do not turn it on or off when standing in water or if your hands are wet.

When cutting a piece of steel for the installation of the return duct, be careful not to damage the electrical wiring of the unit.

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. Let the unit cool down for a few minutes before handling (it stays warm for some time after shut-down).

Never block 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.

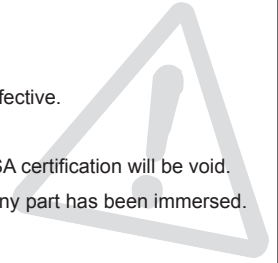
This unit has hot and arcing or sparking parts inside. It is not designed to be used or stored in wet areas or areas containing flammable liquids, combustible materials or corrosive, abrasive, chemical, explosive and flammable substances such as, but not limited to, gasoline, paint, chlorine and cleaning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

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

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).

Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation.



Note: When a part of the product specification must be changed to improve operability or other functions, priority is given to the product specification itself. In such instances, the instruction manual may not entirely match all the functions of the actual product. Therefore, the actual product and packaging, as well as the name and illustration, may differ from the manual.

OPERATION

The "SEF" series furnace has three operating modes (see table below).

OPERATING MODES					
POWER		FAN CONTROL - CONTINUOUS LOW SPEED		2.5 KW LOW SPEED	
LOW	HIGH	OFF	ON	ON	OFF
Heating capacity reduced to roughly one half (to be used during transition months when there is less of a heating demand).	Full heating capacity (to be used during the coldest months of the year).	Waiting for heating or airconditioning demands, as applicable.	Continuous ventilation ensuring temperature uniformity in all rooms and improving filtration and humidification systems.	2.5 kW heating in continuous ventilation mode (to avoid cold drafts and reduce the number of demands from the heating mode. Ensures increased temperature uniformity).	No heating (0 kW) N.B. The 2.5 kw pilot light lights up when there is a heating demand if the 2.5 kw switch is ON, even though the continuous fan switch is OFF.

N.B. It is important to put the Power mode control switch to "HIGH" during the coldest months or when a thermostat with outdoor sensor or a 2-stage thermostat is used. Moreover, you must ask your installer to show you the locations of the switches and disconnects. You must be able to quickly identify them in case of an emergency.

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 finish. If the unit is used in a very dusty location, use a vacuum brush to remove dust and other foreign objects from the grills. Note that cigarette smoke could yellow the discharge grill 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. 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.

PREVENTIVE MAINTENANCE

Do not try to repair your furnace yourself. Call a qualified technician. However, before calling a technician, check the following points.

1. Make sure fuses or circuit breakers are activated.
2. Adjust the temperature set point of the thermostat above the ambient temperature. If heating does not start, cut off the power supply and call a technician.

N.B. When calling a technician for maintenance or to order a replacement part, specify the model of your furnace as well as its serial number.

AIR FILTER

Excessive dust or dirt accumulation can block the airflow, forcing the unit to work harder to maintain the desired temperature. Therefore, it uses more energy and increases heating costs.

Since the air filter supplied is disposable, you should replace it two to four times a year, according to the model used and the installation area. Dirtier areas can require more than four filter changes.

To replace a dirty filter, open the access door to the filter, remove the old filter and insert the new one inside the rack. Make sure the new filter has the same technical specifications and size as the previous one.

N.B. Never operate the unit without a filter in place.

Every time a filter is changed, you should check the following points.

- Excessive accumulation of dirt or dust on furnace components.
- Damaged components or surfaces.
- Presence of water inside or outside the furnace.

If you encounter any of these problems, do not operate the furnace. Call a qualified technician.

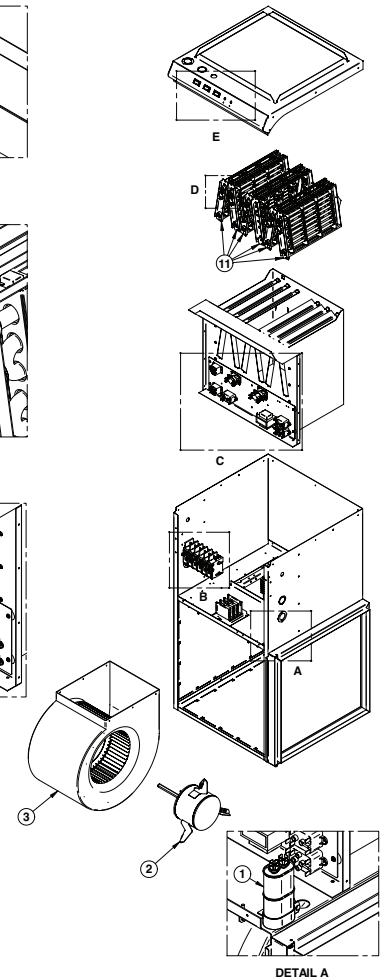
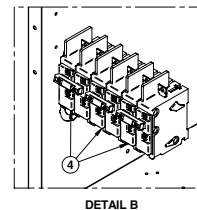
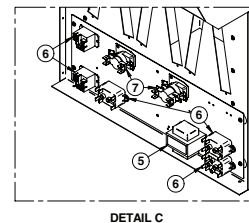
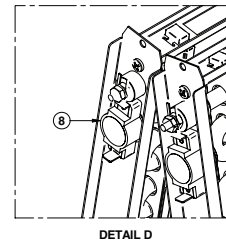
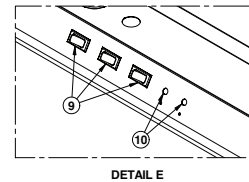
BLOWER

The blower motor is sealed and permanently lubricated, so it is not necessary to lubricate it.

Even if you change the filter frequently, the blower's blades and motors will become dust laden after a few months. The entire blower assembly should be inspected annually. If needed, vacuum out the dust. If you cannot clean the blower without removing it from the furnace, this service must be performed by a qualified technician.

REPLACEMENT COMPONENT LIST

REF. #	PART #	DESCRIPTION
1	CAP-002	CAPACITOR 20 UF FOR 1 HP AT 240 V WITH SUPPORT
1	CAP-010	CAPACITOR 6 UF FOR 1/3 HP AT 240 V WITH SUPPORT
2	MOSEF1023	REPLACEMENT KIT SEF MOTOR/BLOWER 10-23 KW
2	MOSEF2730	REPLACEMENT KIT SEF MOTOR/BLOWER 27-30 KW
2	MOSEF1023WB	REPLACEMENT KIT SEF MOTOR ONLY 10-23 KW
2	MOSEF2730WB	REPLACEMENT KIT SEF MOTOR ONLY 27-30 KW
3	BLO-004	SQUIRREL CAGE & BLOWER 10-8 FOR 10 TO 23 KW.
3	BLO-005	SQUIRREL CAGE & BLOWER 12-11 FOR 27 & 30 KW.
4	BREA-001	BREAKER 30 AMPS 120/240 VOLTS 2-POLE
4	BREA-002	BREAKER 40 AMPS 120/240 VOLTS 2-POLE
4	BREA-003	BREAKER 50 AMPS 120/240 VOLTS 2-POLE
5	TRF200040D	TRANSFO 240-208/24/50VA (SEC. 10.5 & 13)
6	REL-004	RELAY 24 V, FORM X, 18 A RES.
6	REL-005	RELAY 240 V, FORM X, 18 A RES.
6	REL-003	RELAY 24 V, FORM C, 20 A NO, 10 A NC
7	SEQ-005	DOUBLE SEQUENCER 24 V, H1-20 C40-90, H30-90 C1-30
7	SEQ-003	SINGLE SEQUENCER 24 V, H30-90 C1-30
7	SEQ.-007	DOUBLE SEQUENCER 24 V, H40-100 C1-30, H25-60 C25-45
8	PROT-010	THERMAL PROTECTION L-160-40 - 10KW TO 23 KW
8	PROT-019	THERMAL PROTECTION L-140-40 - 27KW & 30 KW
9	SWI-004	SPDT SWITCH WITHOUT MARKINGS 16 A, 250 V, 3/4 HP, 250 V, T85
10	PL-001	GREEN PILOT LIGHT 28 V, 04 A
10	PL-002	GREEN PILOT LIGHT 250 V, 1/3 W
11	ELF-SEF0521	ELEMENT ASSEMBLY 5KW
11	ELF-SEF0421	ELEMENT ASSEMBLY 4KW
11	ELF-SEF0321	ELEMENT ASSEMBLY 3.5 KW
11	ELF-SEF0221	ELEMENT ASSEMBLY 2 X 2.5 KW



TROUBLESHOOTING

PROBLEM	DEFECTIVE PART OR PART TO CHECK
The unit does not work	<ul style="list-style-type: none"> - Defective thermostat or wrong thermostat setting or location - Open circuit breaker or fuse
The unit runs continuously	<ul style="list-style-type: none"> - Blower control switch is on the continuous position
Overheating	<ul style="list-style-type: none"> - Defective motor - Defective thermostat or wrong thermostat setting or location - Dirty or blocked filter
The on/off cycles of the motor are too short or too long	<ul style="list-style-type: none"> - The heat anticipator is incorrectly set or is burned out (if applicable)
The thermostat must be set at a much higher or lower temperature than the desired ambient temperature	<ul style="list-style-type: none"> - The thermostat is not level, needs calibration or is installed in an improper location
The desired room temperature cannot be reached	<ul style="list-style-type: none"> - The thermal protection opens the circuit because of duct obstructions or dirty filters

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).

LIMITED WARRANTY

This limited warranty is offered by Stelpro Design inc. ("Stelpro") and applies to the following products made by Stelpro: SEF10, SEF15, SEF18, SEF20, SEF23, SEF27, SEF30 models. **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: **5 years**. 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, shutdowns, 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.