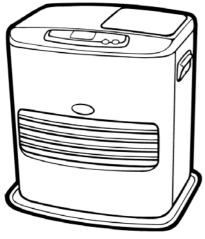


### **INSTRUCTIONS**

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### **INSTRUCTION MANUAL**

We thank you for purchasing our product. Please read this owners manual carefully before using the Heater. It is important that you handle and use the Unit according to the instructions to ensure its long life and to avoid problems and accidents. After reading this guide, keep it for future reference.





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# SUMMARY OF THE SAFETY PRECAUTIONS

#### **IMPORTANT - DANGER - CAUTION**

- Be sure to shut off operation before you sleep or go out (p. 34)
- Never use highly volatile fuels, such as gasoline, etc (p. 35)
- Shut off operation when refuelling (p. 35)
- Check to see there is no oil leakage (p. 35)
- Do not touch the warm air outlet during operation and immediately after the shutoff (p. 35)
- Do not use the unit at the following places (p. 36)
- Only top-quality liquid combustible for mobile heater, with the aromatics removed and totally free of impurities (max 1 % of aromatics and a flash-point above 61°) should be used (p. 42)
- Check the flame for ignition (p. 45)
- Preventing tampering (child safety lock) (p. 50)
- This heater has been designed with an Air-sensor device based on the direct measurement of the CO2 rate in the room. Abnormal conditions of use of your heater (bad ventilation or too small a room) will automatically provoke the shut-off of your heater and the Air-sensor light will come on. (p.51)
- Any tampering with or modification to the safety system is prohibited. Apart from invalidating the guarantee, this would
  risk causing a failure of the system which is there for your safety (p. 51)
- This heater may not be used in rooms which are hermetically sealed, such as caravans, boats, passenger compartments of vehicles etc. (p. 51)
- Use your heater in a room which is properly ventilated and free of inflammable vapours.
- Each room that the heater is used in must be adequately ventilated (the ventilator window must have min a surface area of 50 cm2) (p. 51)
- Do not use your heater in too small a room . (p. 51)
- In case of damage to the power cord, it must only be replaced by a workshop recognised by the manufacturer (or distributor). (p. 51)
- Always preserve a minimum clearance of 1 meter from other objects (p. 51)
- Do not use your heater in rooms situated under the floor level (p. 51)
- Whenever any of these safety systems is triggered, ventilate the room and check and eliminate the cause, and then reignite. (p. 51)
- Never disconnect electric parts and never replace it with non standard parts. (p. 51)
- Never disconnect neither the valve of the combustion control nor the combustion system (p. 51)
- In case of damage to the power cord, it must only be replaced by a workshop approved by the manufacturer (or distributor) because some tools are necessary. (p. 51)
- Maintenance and regular maintenance (p. 52, 53 and 54)

### SUMMARY OF THE OPERATION

#### **IGNITION – SHUTTING OFF – FASTEN IGNITION**

To ignite your heater, press the switch ON, the operation lamp goes red. During ignition (+/- 2 minutes), a calculation will be done from 5 to 1 then the apparatus ignites.

To shut off your heater, press the switch OFF, the operation lamp goes out, the blower fan will remain on for approximately 3 minutes to cool down your heater.

#### ADJUSTING THE TEMPERATURE

The preset temperature will be set at 20° C, to raise the temperature, press on + and to lower the temperature, press on -. You can set the temperature between 2°C and 30°C.

#### SETTING THE TEMPERATURE - AUTO OPERATION

To use the regulation of you heater, press AUTO switch, the AUTO lamp will come on. You just have to select the temperature with switch + and –. The heater will not shut off but will adjust his power in function with the room temperature.

#### SETTING THE TEMPERATURE - ECO/SAVE OPERATION

To use the thermostat of your heater, press SAVE switch, the SAVE lamp will come on. You just have to select the shutting off temperature with switch + and -. The heater will shut off 3 to 5°C above the setting temperature and will re-ignite when the setting temperature is reached.

#### SETTING THE TEMPERATURE - MODE MIN

To set the maximum power of your heater at 800 Watt (for Kero Sre 3002) and 1100 Watt (for Kero sre 4602), press MIN switch, the MIN lamp will come on. The heater will work at his minimal power whatever the selected temperature or that of the room.

#### **SET THE TIME**

To set the time, press MODE switch, the clock set lamp is lit, the digitally displayed time is flashing at 00:00 at time of purchase. Press on switches + and – to set the time. The time setting will be completed after you have wait for few seconds.

#### **TIMER OPERATION - MODE TIMER**

You have first to set the time, then press switch ON (it is not necessary if the heater is working). Press switch TIMER, the heater will turn off or is not working. The display shows automatically "6:00", you can set the start time with switches + and – as for the setting off time. Once the start time is selected, wait for a few seconds and the setting will be completed. The timer operation works only if the TIMER switch is green.

#### PREVENTING TAMPERING - CHILD SAFETY LOCK

To set the child safety lock, press CHILD SAFETY LOCK switch for more than 3 seconds, the child safety lock lamp will come on. To cancel, press CHILD SAFETY LOCK switch for more than 3 seconds again and the operation switch will turn off.

### SPECIAL PRECAUTIONS FOR SAFETY

Special precautions are very important for you to use your fan heater.

Ŵ

### **DANGER**

Extremely dangerous to cause high risk of death or fatal casualty.



### WARNING

Very dangerous to cause high risk of death or serious casualty.



### CAUTION

May cause high risk of serious casualty or other physical damage.



### **DANGER!**



#### NO GASOLINE

Never use highly volatile fuel, such as gasoline or inferior, deteriorated or impure kerosene.

They cause a fire.





### **WARNING!**



Ventilate room frequently

DO NOT use the heater for a long time without ventilating the room properly.

Ventilate the room at least once or twice (1~2 minutes each time) every hour.

Lack of oxygen causes imperfect combustion, which may cause highly toxic carbon monoxide emissions in the room. It is very dangerous.

DO NOT use the heater in the basement with no ventilation device, or rooms with no windows.



Keep away spray

KEEP AWAY any kind of spray (cosmetic spray, insecticide spray, etc., that emits flammable gas such as thinners or benzene, etc.) from the blower unit.

Heated spray containers may be explosive, which may cause fire or mechanical breakdown.



KEEP AWAY all objects, such as cloth, paper, and other flammables, from blower unit.

Obstructing objects may cause imperfect combustion or fire.

Do not put on anything on the heater.



TURN OFF the heater and make sure flames are completely extinguished before going bed or leaving the room.

### **⚠** CAUTION

AVOID locations close to drapes of flammable material.

DO NOT put laundries, sofas, too close to the blower unit.

Flammable material or objects may cause fire.



Keep away 100 cm or more

Flammable material

DO NOT touch the blower grill while heater is on or immediately after use, to avoid fatal burning. Keep children away from them. Protecting Guard is available as an option (CFK-RG12).

Kep away children



Very hot part

AVOID direct exposure to the heated air for a long time of period.

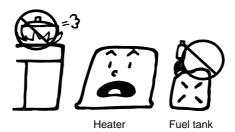
Long, direct exposure to the heated air may cause hypothermic burning or dehydration, especially on children and the aged.

Keep heater distant away



ALWAYS TURN OFF the heater before filling with liquid combustible for mobile heater.

AVOID fire or heated area when filling with liquid combustible for mobile heater.



CHECK the fuel leak. Fasten the fuel tank cap securely. Hold the tank with top-side down to make sure it is not leaking.

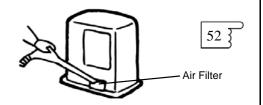
Leaking fuel can easily catch fire.

Fuel is leaking



CLEAN air filter and intake once a week. Dirty air filter may cause imperfect combustion.

Clean Air Filter



DO NOT use the heater in the case extraordinary flames, smells, sounds are noticed.



45 }

DO NOT disassemble the heater unit for repairment or conversion purpose.

Stop using the heater if the system does not work properly or is damaged.

Inappropriate repairment may cause further serious problems.



EMPTY fuel tank if the heater is unused for a long time, or when it is stored.

It must be stored in an upright position, never in a tipped position or on its side.

Failure to the instruction may cause fuel leak, and fire.



58 {

### SPECIAL PRECAUTIONS FOR SAFETY



#### HANDLE WITH CARE the power cord.

- The power cord mustn't be given stressful force or nothing must be rested on it. Also keep it away from heated blow wind.
- Do not hold and pull the cord when unplugging.

#### ENSURE that the electrical socket is properly plugged.

Do not use any damaged socket or worn out cord. It may cause unexpected fire.

#### MAINTAIN the electrical socket clean.

Unplug the socket once a while and wipe out any dust, and check the damage.
 Dust clog may cause electrical insulation defect and/or unexpected fire.

ENSURE when starting timer operation that no flammable material is around the heater.

#### UNPLUG when the heater is not in use.

\* Also be sure to unplug when cleaning the unit or removing liquid combustible for mobile heater.

#### DO NOT USE THE HEATER;

- if the floor surface is not flat and even;
- in the confined area such as under a mantelpiece;
- either above or under an unstable shelf;
- at places where the flammable gases may be generated or accumulate;
- at the isolated areas where no one is around nearby;
- at places where strong wind blows, draughts, corridor or near the entrance;
- at places where it is dusty or damp;
- in vehicles such as an automobile or a boat;
- in direct sunlight or at the place where the temperature tends to rise quickly;
- in places where gas or chemicals (e.g. freon gas, chloride compounds) are used, such as beauty salons, barber shops, chemical plants, laundries, etc.;
- at the high locations more than 400 meters above sea level.

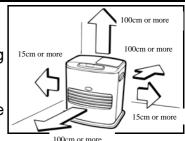
See adjustment

Adjustment is necessary before using the heater. See `Elevation Adjustment'.

Fallure to follow any one of above may cause unexpected accident.

KEEP all obstructions and flammable materials away from the heater unit. Keep the proper space between the heater unit and flammable walls, following the minimum distances shown on the illustration.

Obstructions in front of the air blower may heat up the heater unit, which consequently may distort the plastic components in the system, or may cause the entire breakdown.



#### **CAUTION!**

Use the heater only on the heat-resistant floor.

Heat may cause colour change in a rug texture, or distortions or crackings on the floor surface.

#### Remove dust on the warm air blower (louvers).

Burnt dust may smell or may catch fire to cause unexpected accident.

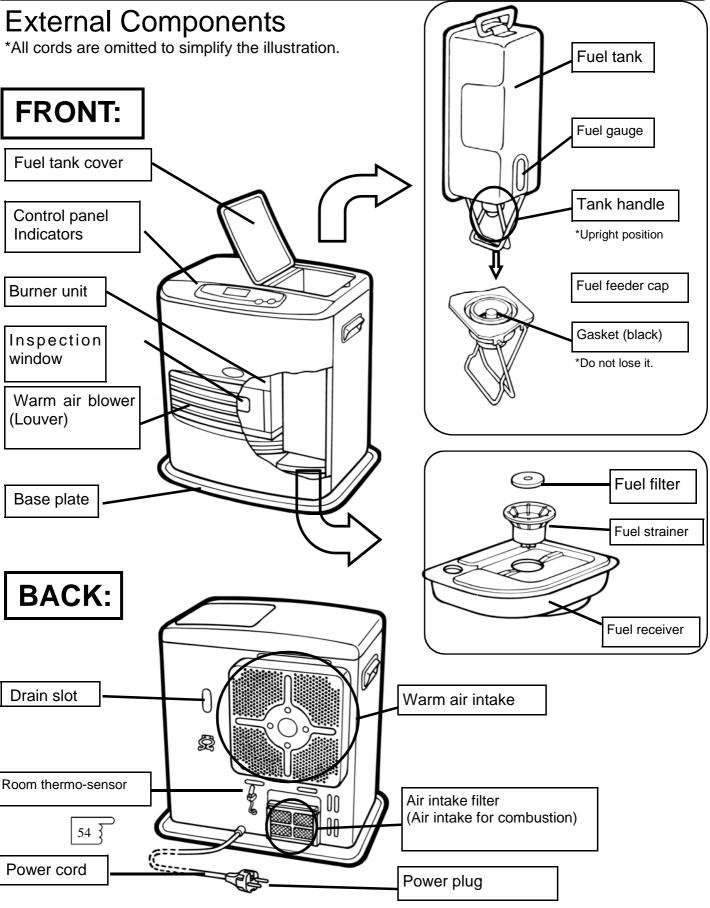
#### Do not use any chemical containing silicone near the heater.

Hair conditioners, cosmetics, or polishing chemicals containing silicone may cause flaming disorder.

Do not dry hair with the heater because some shampoos also contain silicones.



### LIST OF PARTS

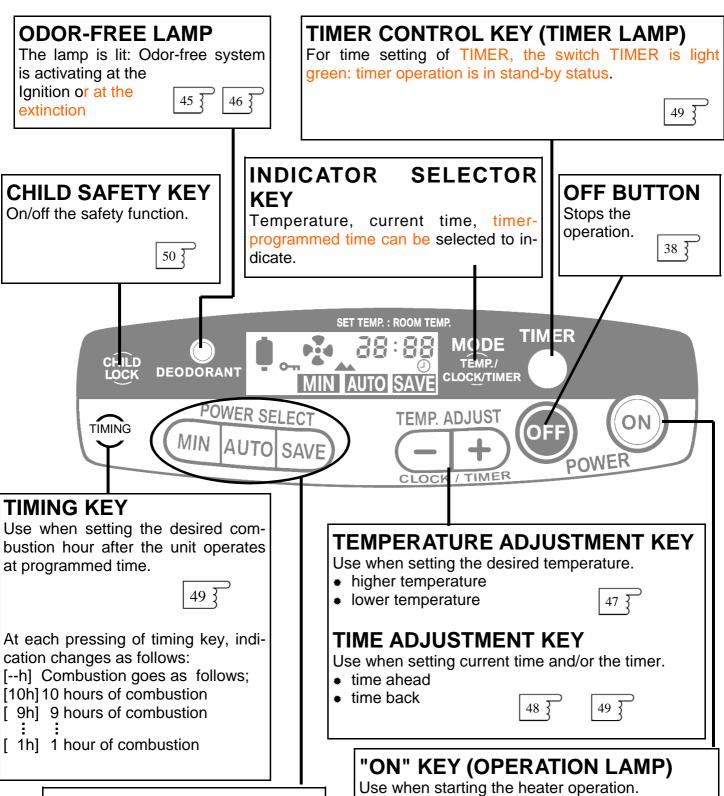


POWER: 230 a.c./ 50Hz household use ONLY

### LIST OF PARTS

### **Control Panel/Indicators for SRE 3002**

\*All indicators are illustrated "lit" status for descriptions.



#### POWER SELECTOR KEY

Use MIN/AUTO/SAVE for using purpose respectively.

47 {

The lamp is lit (red): under operation, pre-heating The lamp is flashing (red) + buzzer: flame is extinguished and the display shows a

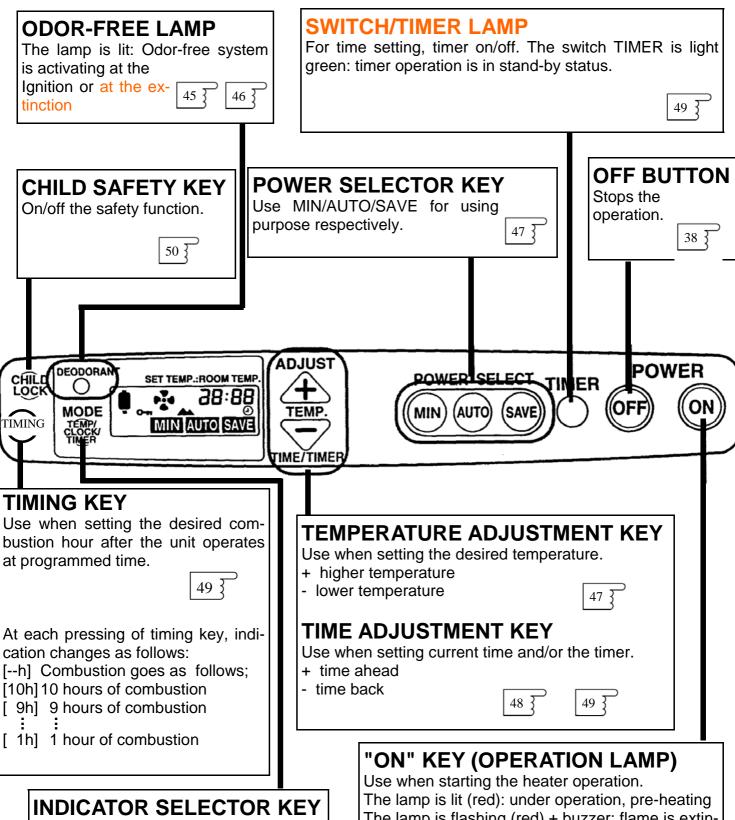
code error or an alarm.

56 }

### LIST OF PARTS

### **Control Panel/Indicators for SRE 4602**

\*All indicators are illustrated "lit" status for descriptions.



Temperature, current time, timerprogrammed time can be selected to indicate.

The lamp is flashing (red) + buzzer: flame is extinguished and the display shows a

code error or an alarm.

56 }

#### DIGITAL INDICATORS

Indicates pre-heating, errors, elevation, temperature, current time, and timer-programmed time.

\* Pre-heating

\* Errors

45 }

05

<u>E2</u>

Indication on Fuel filling

Flash + Buzzer...

 The unit buzzers and the filling sign lights 30 minutes and 5 minutes before the heater is turned off.

Elevation adjustment is done.

Elevation lamp is lit

- 5

Blink + Melody....

The heater is turned off because the fuel is consumed.

Indications will change by pressing INDICATOR SELECTOR.

\* Temperature lamp is lit
Indicates pre-set temperature and current temperature under automatic operation mode.

(Example shows pre-set temperature at 22 and the current temperature at 16)

Indication on Ventilation Flash + Buzzer....

Ventilating the room is needed.

 The unit buzzers every 5 minutes until the ventilation is completed.

\* Time lamp is light off Indicates current time.

48 }

Blink + Buzzers....

\* The heater turned off because the ventilation is insufficient.

 Timer-set time lamp is lit Indicate the pre-set time for the timer.

49 }

5:0<u>(</u>



#### **CHILD SAFETY LAMP**

The lamp is lit: the child safety mode is on.

50 {

#### **HEAT POWER LAMP**

Indicates the heat power selected.

47 }

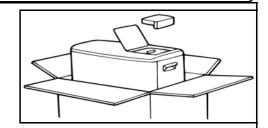
24 18 AVIO

(Example shows AUTO heat power at the current temperature of 20 degrees.)

### PREPARATION PROCEDURES

#### **Unpacking**

- \* Remove a protection sheet on the top.
- Open a fuel tank cover, remove the tank stopper to pull out the tank.
- Remove all the adhesive tapes.
- \* Keep the box for the later storage use.



When a power socket is plugged, current temperature will be indicated.



current temperature at 12 degrees

#### <u>Pre-ignition Preparation and Check Points</u> Level:

- F Set the heater at even level.
- F When the heater is located at the positioned level, Auto Shut-off Device may be activated improperly.
- F When the heater is located at the even level, Auto Shut-off Device will be automatically set on.

#### Power:

Use household currency AC230V-50Hz.



- remaining liquid combustible for mobile heater of the previous season;
- liquid combustible for mobile heater directly sunlighted, or stored in the place with high temperature.
- liquid combustible for mobile heater kept in a white polypropylene container, or in an uncapped container for long time.

Always use the proper liquid combustible container.

#### Impurified liquid combustible are:

- \* liquid combustible mixed with even a small amount of any kind of oil (gasoline, thinner, kitchen oil, lubricant, heavy oil, light oil, etc.).
- liquid combustible mixed with water or dust.
- liquid combustible that dehydrate chemical agent or combustion improper was added.

Deteriorated/impurified liquid combustible will cause imperfect combustion and/or entire system breakdown.

#### **CAUTION!**

In case of accidental use of the deteriorated/impurified liquid combustible... Replace whole content in the fuel tank, and remove all the remaining in the fuel receiver.

#### Fuel to be used

More than 95 % of problems are due to using a wrong type of liquid combustible for mobile heater. Those problems are not covered by our guarantee.

Only top-quality liquid combustible for mobile heater, with the aromatics removed and totally free of impurities (max 1 % of aromatics and a flash-point above 61°).

Never use contaminated liquid combustible for mobile heater, or which has been chemically treated, contains water or petrol.

Your container should be clean and empty when you fill it at a station-service. No impurities or other liquids (water, diesel, gasoline, etc.) should remain. You ought to keep a container specifically for filling your heater.

#### STORAGE OF THE LIQUID COMBUSTIBLE FOR MOBILE HEATER

Store your liquid combustible for mobile heater away from the sun, heat, rain, dust and from other heat sources.

Liquid combustible for mobile heater which has been stored too long loses its purity and thus its efficiency.

# Liquid combustible for mobile heater

Be sure to use only pure liquid combustible for mobile heater Never use gasoline, deteriorated combustible, impurified combustible How to distinguish gasoline and liquid combustible for mobile heater:

Take a sample on your finger tip and breath out upon it.
Gasoline will evaporate and instantly your finger tip will dry out.

Kerosene will remain your on finger tip for a while.

(Be sure to do this where no heat or fire is around.)



#### ADDING LIQUID COMBUSTIBLE FOR MOBILE HEATER

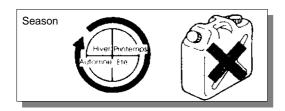
When your tank is out of the unit, the heater can still be used for a certain period. You have to fill your heater:

- When your heater has stopped.
- Or in a room other than the one where the heater is installed.

You always have to check that the tank cap is well fastened. Please check away from any other heat source or fire.

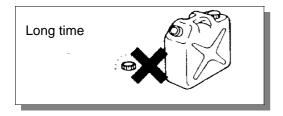
#### What is liquid combustible for mobile heater of bad quality or unrefined?

- \* liquid combustible for mobile heater of the last season.
- \* liquid combustible for mobile heater exposed to the sun or high humidity





- \* liquid combustible for mobile heater stored in a container not well closed or the colour of the container is not dark.
- \* liquid combustible for mobile heater mixed with some water or dust or an other type of fuel different from kerosene.





- \* liquid combustible for mobile heater of bad quality has a yellow colour and a acid smell.
- \* Use up fuel within the season.

#### WHAT HAPPENED IF YOU USE BAD LIQUID COMBUSTIBLE FOR MOBILE HEATER?

- \* Tar form in evaporator, and ignition and extinguishment become difficult.
- \* May cause abnormal combustion and shut off during operation.

### WHAT YOU HAVE TO DO IF YOU INADVERTENTLY USE LIQUID COMBUSTIBLE FOR MOBILE HEATER OF BAD QUALITY?

\* Drain the combustible in both fuel tank and fixed tank and clean with clean liquid combustible for mobile heater 2 or 3 times.

Note: Repair service for trouble due to deteriorate / impure liquid combustible for mobile heater should be charged to user even within warranty period.

#### Fuel filling

- \*Be sure that flames are completely extinguished before filling the liquid combustible for mobile heater.
- \* Your heater will turn off automatically when you take out the mobil tank. The display will indicate E4.

# 1. Lift fuel tank cover and pull out the tank. Put the tank on the ground.

Tank removed, your heater will automatically shutt off.

- Place the fuel tank on a floor.
- Upright two tank handles and hold them together as illustrated to pull up and remove the filler cap (for SRE 4602) or

unscrew the stopper (SRE 3002)

#### 2. Fill the tank.

- \* Place the tank on a flat, even floor, and use a fuel feeder.
- Stop filling when a colour of a half of the fuel gauge turns from silver to black.

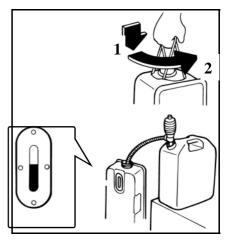
#### 3. Fasten the cap.

- Match △ marks on the cap and the tank, turn the cap clockwise as pushing it down hard, until it completely stops.
- ullet Ensure that  $\triangle$  mark and  $\bigcirc$  mark are matched.
- \*Improper fastening may cause leaks and a fire.
- \* Wipe out any drops of kerosene.
- Hold the tank upside down to check leaks.
- \*When carrying the tank, always hold two handles together for the safety.
- \*Avoid hitting the filler cap to be distorted. Distorted filler cap may cause liquid combustible leaks.
- \*Be careful not to drop the tank.

#### 4. Replace the tank.

• Carefully replace the filled tank into tank compartment.

- 1. Push down hard the filler cap.
- 2. Turn the handles counterclockwise.



- \* Filling over the halfway may cause overflow when fastening the cap.
- \* Keep water and dust away from fuel tank.



#### **CAUTION!**



Be sure to wipe out any oil drop on and around the cap and threads with cloth.

Be careful not to stick fingers into gaps to prevent from being injured.

#### **Elevation Adjustment**

Because the low air pressure makes combustion imperfect, it is necessary to adjust the system accordingly.

Adjustment should be done with an electrical socket plugged but in off-operation status.

Press <TIMER CONTROL>, and <CHILD SAFETY> keys all together for 3 seconds. Nothing changes even pressing longer.

Indication changes at each press as illustrated:

The property of the press as illustrated:

For use at 400~750 m

For use at 740~1250 m

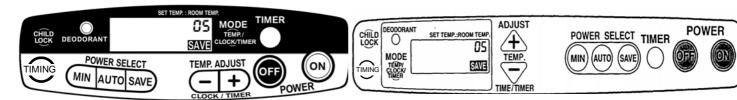
For use at 400 m and lower elevation (For ordinary use)

<sup>\*</sup>Once adjustment is completed, the data will remain in the memory even after it is unplugged.

### **IGNITION**

**For SRE 3002** 

#### For SRE 4602



### **Ignition**

#### Press < ON> key.

52 }

Operation lamp (same as <ON> key) will lit red.

The lamp is red under any of the heat power modes.

Preheating begins with "05" shown on the digital indicator.

Indication continues to "04""03""02""01" and about 2 minutes later combustion begins and warm air will be generated.

<ODOR-FREE> lamp lits at the time of starting then cuts it self.

### Check the state of the flame through window.

#### **Normal flames:**

Blue-colour flames with partially red flames tips.

At the minimum power heating burner will turn red without blue



flames.

#### Abnormal flame:

#### **Red-colour flames**

#### [Causes]

Lack of fresh air.

Dust on the intake filter.

Improper air intake because of

the heater location too close to wall or drapes.



Ventilate the room to get fresh air.

Remove dust on the intake filter.

Relocate the heater to proper places.

#### **Unstable flames**

#### [Cause]

Stuck fuel flow caused by dirties along pumping system.

#### [Recovery]

Stop the operation and consult with local distributor.



Contact your local distributor or your nearest customer service agent if any other extraordinary flame state is observed.

#### NOTES!

The heater may not ignite at once when using it for the first time.

<ON> key flashes red, indicating "E1". Press <OFF> key first, then <ON> key.

The Unit will not start when <ON> key is pressed for 5 seconds or longer.

<ON> key flashes red, indicating "E0". Press <OFF> key first, then <ON> key.

It is guite normal that when the Unit is being lit, it makes a low sound of ignition.

Some burning smell may be come out at ignition or extinguishment. Ventilate the room atmosphere.

### TURNING OFF

#### **TURNING OFF**

#### Press <OFF> key.

- \* Flames go out, and "ON" lamp goes off.
- \* Odor-free lamp stay lits during the cycle of extinction and then cuts off.
  - \*Fan rotation may sound louder as the odor-free system is activated.
  - \*Digital indicators will indicate whatever the modes selected during operation.
- \* Extinguishment will be completed when the odor-free lamp goes off and the fan continues to run for about 3 minutes to cool down the Unit.

After ignition, your heater will function at full power during +/- 5 minutes; the temperature will begin regulating after this 15 min period.

#### **CAUTION:**

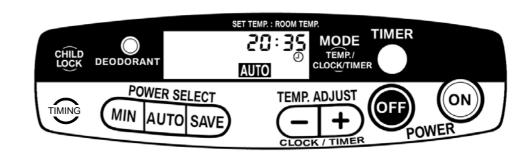
NEVER try to switch off your heater by hitting, shoving or taking out the plug.

#### **NOTES:**

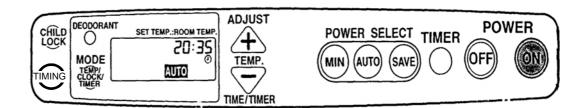
Odor-free system will not work when flames go out in false extinguishment.

### ROOM TEMPERATURE ADJUSTMENT

**For SRE 3002** 



**For SRE 4602** 



#### <u> 20 18</u>

#### **ROOM TEMPERATURE ADJUSTMENT**

The Unit is preset to bring room temperature to 20 centigrade. This is adjustable by pressing <TEMP. ADJUST SELECTOR> keys.

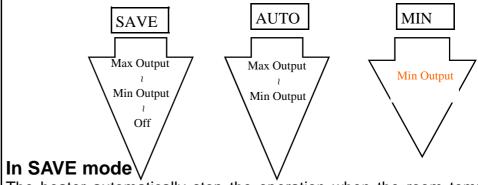
The system will automatically adjust the heat power according to the programmed temperature.

Press <-(down)> key or <+(up)> key of <TEMPERATURE> key for desired room temperature.



#### **MODE SELECTION**

Depending on your selection , you can select three modes, SAVE , AUTO and MINI.



The heater automatically stop the operation when the room temperature goes up 2 centigrade higher than the setting temperature.

#### NOTES:

Preset temperature may not necessarily be in accordance with the actual temperature indicated on the room thermometer, depending on the conditions.

The room temperature may reach above the programmed temperature; this may happen with high outdoor temperatures or a small room.

# **Time Adjustment**

### **Time Adjustment**

Time adjustment is available both on- and off-operation status. Ex. To adjust to PM. 8:35

1. Press on switch MODE one or two times for the hour appear on the electronic display.

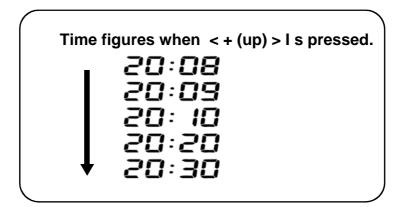
The display indicate "-:- - "

# 2. Press the button - or + to select the hour

- Press the key once and digital display will indicate «0:00», then the current time.
- Time figure can be changed from the second press.

### 3. Adjust to the correct time

- Minutes can be adjusted by one minute at each press.
- \* Keep the key pressed for a few seconds and the figure will continue to change.
- After the minute reaches 10, figure changes by every ten minutes as shown in the illustration.



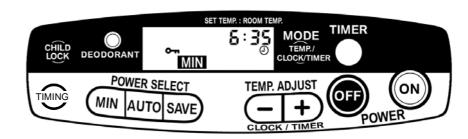
• Press the key one at a time for the minute adjustment.

### 4. Adjustment is now completed.

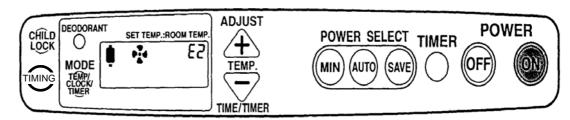
Wait few second without press and the selection of the hour will be memorised

### **TIMER OPERATION**

**For SRE 3002** 



**For SRE 4602** 



#### TIMER OPERATION

Timer operation is available only after the current time is entered.

\*When < TIMER CONTROL > key is pressed, buzzer sounds as the current time is displayed.

EX: To program AM. 6:35

### 1. Press < ON > key.

- Operation lamp lits.
- \*This step is not necessary while the heater is already in operation.

### 2. Press < TIMER CONTROL > key.

- Operation stops and the operation lamp goes off.
- \* Timer operation lamp lits, and digital indicator shows restarting time 6:00.

# 3. Enter restarting time

- \* Time indication changes by minute at each pressing of time key.
- Press the key for a few seconds and the figure will continue to change.
- \* After the minutes reaches 10, figure changes by every ten minutes.
- Press the key one at a time for minute adjustment.

### **4.** Press <TIMING> key, and program the working duration.

• [--h] indicates the combustion goes on without stop, [10h] indicates 10 hours, [9h] does 9 hours, ... and [1h] does 1 hour of combustion.

# **5.** Timer programming is now completed.

- \*Confirm that the timer lamp is lit.
- \*Digital indicator shows the mode selected.
- \* The Unit restarts at the programmed time.

#### NOTES:

The stating hour of the TIMER can be modified when you want. You must only press on the switch MODE and adjust the hour with the button + and -.

### **CHILD SAFETY DEVICES**

#### Timer Release

#### Press <OFF> key.

Timer lamp goes off.

Once the restarting time is programmed, the heater can be operated thereafter with following procedure:

#### 1. Press < ON > key.

Operation lamp lits.

\*This step is not necessary while the heater is already in operation.

#### 2. Press < TIMER CONTROL > key.

- \* The Unit restarts at the programmed time.
- \* To restart the Unit before the programmed time, press timer control key.

#### CHILD SAFETY DEVICES

Press <CHILD SAFETY> key for 3 seconds. "Child safety" is indicated with peep sound.

#### **Under <ON> operation:**

All functions except extinguishment [ off ] key are restricted.

#### **Under <OFF> operation:**

All functions except cancellation of child safety system are restricted.

Cancellation of child safety system can be done by pressing <CHILD SAFETY> key for 3 seconds. "Child safety" indication goes off.

#### **CAUTION!**

If any error code is indicated, cancel the child safety system and then follow steps  $\frac{1}{56}$  and  $\frac{1}{57}$ 

#### **NOTES:**

Blackouts and earthquakes after timer programming:

In case of power failure caused by blackouts, programmed data will be cancelled, and after power is back, digital indicator will show the current room temperature. In case of power failure caused by earthquakes, digital indicator will show "E4", and red operation lamp will flash.

In either case, timer lamp is not on. Press <OFF> key, then follow the procedure for current time adjustment and timer programming.

### $\bigwedge$

#### **CAUTION!:**

Be sure to clear all flammable materials around the heater.

### **SECURITY ADVERTISMENT**

#### **AIR-SENSOR DETECTOR**

This heater has been designed with an Air-sensor device based on the direct measurement of CO2 rate in the room.

Abnormal conditions of use of your heater (bad ventilation or too small a room) will automatically provoke the shut-off of your heater and the Air-sensor light will come on.

#### **IMPORTANT**

Any tampering with or modification to the safety system is prohibited. Apart from invalidating the guarantee, this would risk causing a failure of the system which is there for your safety.

#### RESTRICTION ON USE

This heater may not be used in rooms which are hermetically sealed, such as caravans, boats, passenger compartments of vehicles etc.

The utilisation of this heater in a public room must be the subject of a reglemented step. You must take information close to competent autorities.

#### **IMPORTANT**

- Use your heater in a room which is properly ventilated and free of inflammable vapours.
- Each room that the heater is used in must be adequately ventilated (the ventilator window must have min a surface area of 50 cm²).
- Do not use your heater in too small a room: 3000 watts: min 46 M3, 4600 watts: min 71 M3.
- In case of damage to the power cord, it must only be replaced by a workshop recognized by the manufacturer (or distributor).
- Whenever any of these safety systems is triggered, ventilate the room and check and eliminate the cause, and then reignite. Never disconnect electric parts and never replace it with non approved parts.
- Never disconnect neither the valve of the combustion control nor the combustion system.
- Always preserve a minimum clearance of 1 meter from other objects



DO NOT USE YOUR HEATER IN ROOMS SITUATED UNDER THE FLOOR LEVEL.

#### WARNING for the replacement of the power cord

In case of damage to the power cord, it must only be replaced by a workshop approved by the manufacturer (or distributor) because some tools are necessary.

### **MAINTENANCE**

#### **WARNING!**

All cleaning and maintenance must be done after putting out flames, disconnecting the plug from outlet after the Unit is entirely cooled down.

Do not disassemble safety devices, electromagnetic pumping unit, and other electrical components.

#### After Each Use:

- Always check that there is no flammable object such as cloth, paper, around the heater.
- Check that there is no oil leak or clog, or other liquid leaks on a base plate or inside the Unit.
- \* if oil leak or clog cannot be completely gotten rid of or remains even after wiping out, stop using the heater immediately and consult local distributor or your nearest customer service agent.



#### At Least Once A Week:

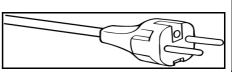
- Use soft cloth to clean the Unit body.
- Use a vacuum cleaner to remove dust on the warm air blower (louver).
- The warm air blower should be cleaned frequently to avoid burning of dust which may cause unremovable stains on the Unit.
- Diluted domestic chemical detergent on cloth may be effective to the extreme stains.
  - Never use alkaline or acid-oriented detergent to avoid rusting.
- An air intake clogged with dust and/or lint is a potential cause of imperfect combustion leading to accidental cease or ignition failure.
- Pull up an air filter to remove it from the Unit, and clean it with a vacuum cleaner or by washing.
- Dry the filter completely after washing, and reset it to the Unit.





#### ⚠ WARNING!

Remove dust or metallics, if any, on the space between blades. It may catch fire (known as "a tracking phenomenon").



#### At Least Once A Year:

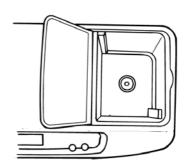
Shove the Unit while it is operating, to check that Auto Shut-off Device functions properly and flames go out. (Confirm that digital indicator displays "E4" code.)

#### At Least Once A Month:

Dust or water in a fuel filter may prevent smooth flow of kerosene, which potentially leads to ignition failure or accidental cease.

- 1. Unplug the Unit.
  Remove fuel tank out of the Unit.
- 2. Remove fuel strainer from fuel receiver.

  Be careful not to drop any dust or water onto the receiver.
- 3. Rinse the fuel strainer with clean, pure liquid combustible for mobile heater. Never rinse it with water.
- 4. Reset the fuel strainer to the Unit.
  Wipe out any oil remaining, if any, on the receiver before resetting the fuel strainer.



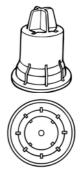


#### Replacement of Fuel Filter:

Fuel filter is available at your local store. Replace the fuel filter with new one if usual cleaning procedure does not work.

- 1. Place a fuel strainer upside down.

  Tap the base of the strainer and remove the filter.
- 2. Set a new filter by fixing four clutches onto the strainer.



### **MAINTENANCE**

#### **∧ WARNING!**

When pumping fuel out of the tank, be sure to put out all flames, and unplug the Unit, otherwise it may cause imperfect combustion.

#### Water Drain/Oil Drain of Fuel Receiver

In such case that water is mixed into fuel, and that stops combustion, take the following steps to drain water.

1. Unplug the Unit.

#### 2. Remove fuel strainer.

 See the steps for the cleaning of fuel filter on the previous page.



 Insert a fuel feeder through a hole on the back panel, and pump out the content.

#### 4. Replace the fuel strainer.

Wipe out dripped water/oil around the strainer.

Absorb wasted water/oil into used newspapers and dispose them,

If imperfect combustion remains despite of the above procedure, contact your local distributor or the nearest customer service agent.

### **REGULAR MAINTENANCE**

# It is recommendable to conduct the following regular maintenance at least once every two years.

- Every component parts of the Unit goes inferior in quality as time passes.
   It is suggested that regular check-up be taken once every two years so as to maintain the Unit at its best.
- For more details on regular maintenance, contact your local distributor or the nearest customer service agent.

#### Component parts subject to replacement:

Following items are tend to wear out in the long term of use;

......Packing materials, fuel filter

#### Following items are tend to be affected by poor quality oils;

......Electromagnetic pump, oil duct, burner body, frame rods, fuel filer, burner head (metal net)

### TROUBLE-SHOOTING Guide

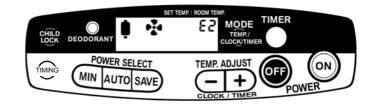
The following phenomena may arise during normal operation. You should check the potential causes before consulting your local distributor.

	Description		Cause & Solution	
Ignition And Extinguishment Processes	At the time the purcha after the Hused for so	Smoke and smell come out from the Unit	Floor and wall covering and/or dust may be burning. Ventilate the room for about 10 ~ 15 minutes to let smoke and smell go out and bring your heater to SAV.	
	At the time of the first use after the purchase, of the season, or after the Heater has not been used for some time.	Electromagnetic pump makes jittering sound, or flames are not stable.	Unnecessary air bubble may arise in the pumping system. As air bubble disappears, flames will be stable.	
		tinguishments, fuel gas over	Sufficient fuel may not have reached the burner unit. If error code "E1" is indicated on the digital indicator, press <off> key first, then <on> key.</on></off>	
Processe	Sometimes small sounds comes out.  The Unit does not reignite instantaneously once extinguished.		Sounds are caused by metal expansion and contraction. They are all normal.	
Š			It requires 1 to 2 minutes of preheating.	
Burner head turns red.		d turns red.	It turns red at minimum heating power. It is normal unless there is false ignition or flames accidentally go out.	
During Combustion			They usually glow when heated and it is normal. This happens especially under the following circumstances: The Unit is used in salty air, such as near the seaside. The Unit is used in dusty air. The Unit is used in a humid environment. The Unit is used along with a ultrasonic humidifier.	
	There is a running-water-like sound or a bubbling sound.		This happens when fuel flows from the fuel tank to the fuel receiver. It is normal.	
Prog	Timer canno	ot be programmed correctly.	Current time may not be adjusted.	
During Timer- Programmed Opera-	The Unit does not restart at the programmed time.		It may not work properly if there was power failure, earthquake or any other form of physical shock.  Set the timer program again.  Check if the entered time is correct.	
	Fuel leaks from fuel tank.  Fuel indicator lamp flashes and combustion does not occur even if the fuel tank is full. No response to key operation.		Fuel tank cap is loose, resulted from clogging dust or worn out packing.    37   44	
Others			filter. Clean and remove them.  [53]  Child safety device may be set	
		<b>E</b> 1	Release the function.	

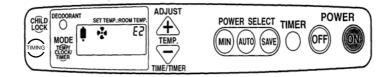
# **TROUBLE-SHOOTING Guide**

Error codes along with lamp lights indicates malfunctions.

**For SRE 3002** 



**For SRE 4602** 



Error Codes/ Lamps	Indications (Devices/systems triggered)	

E0	<on> key has been pressed for longer than 5 seconds.</on>	
E !	Ignition failure or state of flames is unstable. (Safety Ignition System has been triggered.) Unnecessary water in the Unit. (Safety Ignition System has been triggered.)	
E2	State of flames became unstable and flames abruptly go ou (Combustion Control System has been triggered.) Unnecessary water or scale in the drains in the Unit. (Combustion Control System has been triggered.)	
E4	Earthquakes (seismic scale 5 or larger), strong impact on the Unit (Auto shut-off Device has been triggered.) The mobil tank is not in his place.	
E7	Overheat inside the Unit. (Anti-overheat device has been triggered.)	
95	Warm air blower (louver) is blocked, resulting overheating.	

All indication lamps are glows:	Plug is not properly in place. Power failure (Safety Device has been triggered.)	
<pre><fan-mark> lamp glows / flashes :</fan-mark></pre>	Air intake filter is clogged with dust. (Combustion Stabilizer has been triggered.) Ventilation required. (Combustion Stabilizer has been triggered.)	
<fuel> lamp glow / flashes :</fuel>	No fuel. Unnecessary dust and/or water in fuel tank, fuel receiver, or fuel filter.	

- If recovery is unsuccessful or other error codes not listed below were shown, unplug the Unit once and then place plug properly again, and press <ON> key.
- If recovery is still unsuccessful, contact your local distributor or the nearest customer service agent.

### **Recovery Procedures** Press <OFF> key first, then <ON> key. Press <OFF> key first, then <ON> key. Remove water from fuel receiver. Clean air filter. Remove water from fuel receiver. Check that the Unit is placed on flat and even ground surface and that its surrounding is safe. Wait till the Unit cools down and clean the warm air intake. 52 Remove blocking object, if any, from the warm air blower (louver). Remove blocking object, if any. 36 } Plug properly in power outlet. Press <OFF> key first and then <ON> key, after power resumes. Ventilate the room, and clean the air intake filter. Though Combustion Stabilizer is designed for the safety purpose, it is Refill after pressing <OFF> key, and then press <ON> to restart. Clean fuel tank. Clean fuel filter. 53 Drain water from fuel receiver, and clean it. 54

<sup>\*</sup>Odor-free System will not be activated when flames go out because of false operation.

### REPLACEMENT

In case you need any parts replacement, contact your nearest customer service agent.

\*It is user's liability to use specified parts of our product.

Any damage to the product or operational failure due to the false parts replacement is subject to the user's liability.

### **STORAGE**

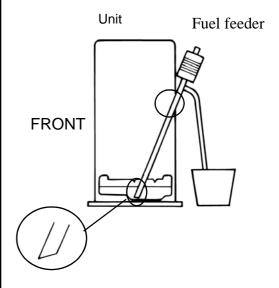
- 1. Unplug the Unit.
- 2. Empty fuel tank and fuel receiver. Remaining liquid may cause rust or metal erosion.

54 }

3. Clean the Unit body, air intake filter and warm air intake with dry cloth.



- 4. Check every part of the Unit for any damage. If any, ask for repairment.
- 5. Put the Unit into its box and humidity-free storage area. Keep it in an up- right position, never in a tipped position or on its side.



# **SPECIFICATIONS**

SPECIFICATIONS KERO				
MODELE		SRE 3002/ FR 32	SRE 4602 / FR 46	
Туре		Gasification at direct injection		
Ignition		Coil high voltage		
Fuel max		Liquid combustible for mobile heater		
Fuel consumption	MAX	250	383	
(g/h)	Average	158	236	
	MIN	65	90	
Fuel consumption	MAX	0.32 l/h	0.49 l/h	
(l/h	Average	0.20 l/h	0.28 l/h	
	MIN	0.08 l/h	0.11 l/h	
Nominal output	MAX	3000	4600	
(Watt)	Average	1890	2840	
	MIN	775	1080	
Fuel tank capacity (L)		4.0 L	7.1 L	
Continuous	MAX	49.4 h	64.5 h	
combustion capacity	MIN	12.5 h	14.5 h	
Suitable room size in m³ MAX		120	184	
Unit overall dimensions (HxWxD) mm		415x400x300	455x500x310	
Weight kg		10.8 kg	13.6 kg	
Voltage and frequency		230V Mono phase, 50HZ		
Rated power consumption(W)		30 W	35 W	
Fuse		Tube type 6.3 A		
Safety devices		Auto Shut-off Device, Anti-Overheat Device, CO2 Detector, Presence of tank detector, Power Failure Safety Device, Combustion Stabilizer, Safety Ignition System, Combustion Control System		