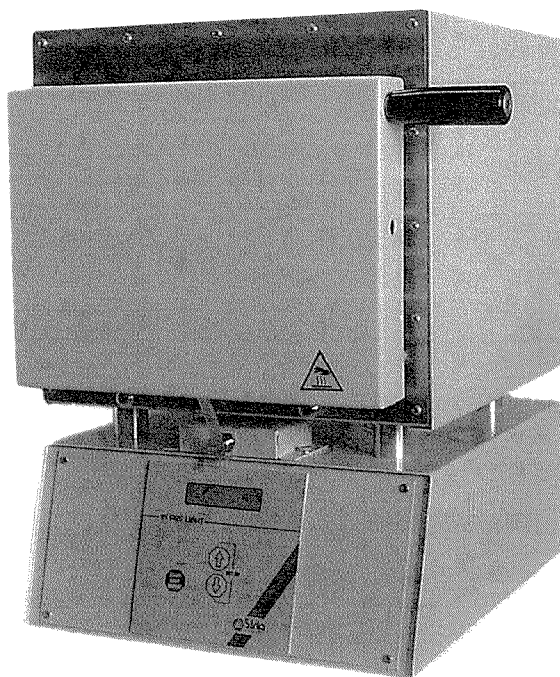




Pre-heating Cylinder Furnace
SR 725 "INfire Light"
USE AND MAINTENANCE



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Capitale sociale : € 60.000,00 i.v.

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1 -GENERAL INFORMATION

1.1 - Aim of the manual

This manual has been written by the manufacturer and it is an integral part of the machine.

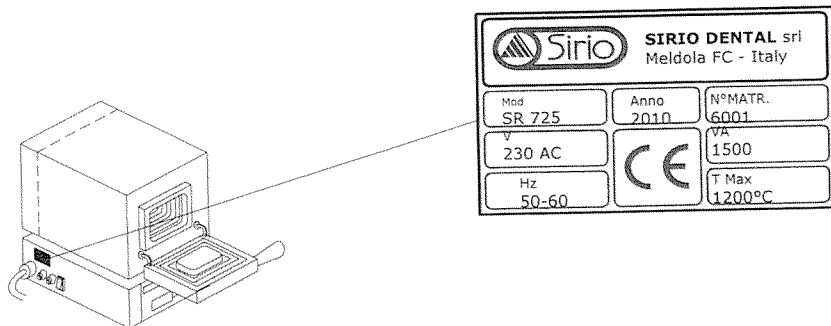
Its information are addressed to the user and contain all Safety Recommendations.

Before using this oven, it is recommended that you read this manual carefully, especially the first time, to ensure you know the control devices, their function and position. It is also advisable to make use tests.

This manual must be kept for future references.

1.2 - Identification of the machine manufacturer

On the machine find a label as shown on Pic. 1.



PIC. 1

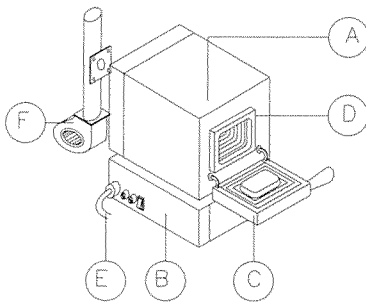
1.3 - Technical information

The "SR 725 INfire Light" furnace has been designed and manufactured to cast ceramic products and for the pre-heating of cylinder coatings for castings in dental and jewel laboratories. The SR 725 INfire Light furnace can operate with 2 heating cycles (or programs) (1 "Normal" program and 1 "Fast" program) which remain in memory until the user decides to change them.

The "Normal" cycle can contain up to 3 phases and for each phase you can set 3 values: temperature, rise speed and stand-by time. You can also set a delay in the ignition (delay ignition up to 100 hours) and the temperature you want

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the suction fumes vent to go On and Off (chimney), supplied as an optional beside the stand-by time in temperature at the end of the cycle.



PIC. 2

Legenda (PIC. 2):

- A

Muffle
- B

Electronic Control
- C

Door
- D

Refractory Chamber
- E

Power Supply 230 V 50Hz
- F

Suction Fumes Chimney
(Optional)

1.4 - Safety devices

The parts of the machine supplied by electricity are protected by fixed guards to avoid access by the operator. Only specialized and authorized personnel must have access to these parts for extraordinary maintenance and repairs.

1.5 - Technical Data

	725S	725M	725L
Power supply	230V-50/60Hz	230V - 50/60Hz	230V - 50/60Hz
Resistance	1600W	2000W	2500W
Chamber dimensions	cmt15x15x10	cmt18x23x11.5	cmt23x30x15
Weight - Kg	25	35	45
Number of programs	2	2	2
N° of Normal Programs	1	1	1
N° of Fast Progras	1	1	1
N° of phases Normal	3	3	3
Program			
Ignition Delay	OK	OK	OK
Fuses	16A	16A	16A

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2 - MOVING AND INSTALLING

2.1 - Packaging and un-packaging

The packaging is as follows:

- Polystyrene plates K10 protecting the machine on sides, top and bottom.
- Hard cardboard cover
- Strap

2.2 - Loading and unloading

This machine must be moved by carts or manually by at least 2 people. While moving the machine avoid absolutely any kind of bumping, dropping or tilting: they could seriously damage it. Obviously, the manufacturer is not responsible for damages caused by droppings, improper use and maintenance which are not in strict accordance with the manufacturer's instructions contained in this manual.

Packaging waste disposal must be done with respect to the environment and the law in force.

2.3 - Installation instructions

The machine must be located on a safe place and on a horizontal position. Make sure there is sufficient air where you position the machine.

It is duty of the user to ensure that the electric plant is in accordance with the safety laws in force. It is particular important to make sure that the grounding is well efficient. Furthermore, it is important to verify the network voltage: in case the voltage is too low (lower than 210V), the engine will start too slow and it might be necessary to install a voltage stabilizer.

After having placed the oven and gone through the above due verifications, follow these instructions:

- The general switch must be in the OFF (0) position.
- Connect the power supply plug to a 220-230 V AC outlet.

3 - USE INSTRUCTIONS

3.1 - Panel

On the furnace panel the following control and visualization elements can be found:

- 1 – **LCD Display** : the values, times and temperatures at play are shown

- 2 – **SET UP** Buttons : (arrow Up and arrow DOWN). They are used to change the values of the parameters during the setting of programs or to select programs.
- 3 – **START/STOP/ENTER** Tri-count button: it is used to start a program (START) from a Stand-by position, to stop a program while in use (STOP), confirm the shown data on the display (ENTER) and pass onto the next value.

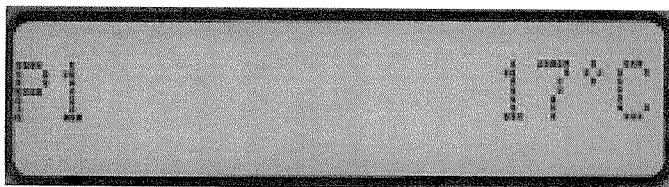
3.2 Performance and Use

As previously said the furnace SR725 INfire Light can work with 2 heating programs (P1 "Normal" and P2 "Fast") which are stored in memory until the user decides to change them. The "Normal" program can contain up to 3 phases, that is the user can set up to 3 temperatures holding stages (3 is the maximum because otherwise cycles with a lower number of phases can be set). For each phase the followings can be set: temperature, rise speed and stand-by time. An ignition delay can also be set. Furthermore a stand-by temperature time at the end of the cycle can be set (F): this allows the cylinders to be kept at a certain temperature and allows the user the due time to be ready for the next job.



3.3 – Turning ON

On turning ON the furnace the display will be set on the main screen which will be called from hereon "**STAND BY**":



On the left the last performed program is shown (P2 or P1) and on the right the inner temperature.

3.4 – PROGRAMS SET UP

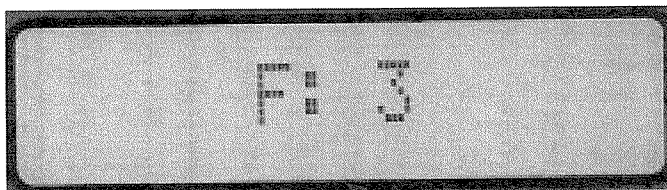
By moving the arrow buttons (UP and DOWN) you will move from one program to the next, either P1 or P2.

A –P1 Normal Program

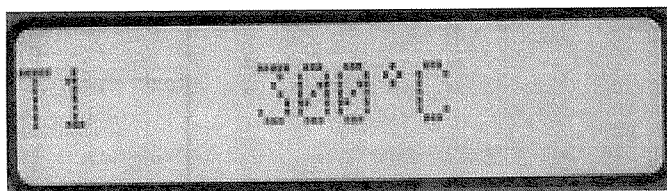
While in STAND BY place the display on P1.

To enter the set-up **PRESS SIMULTANEOUSLY BOTH THE ARROWS UP AND DOWN:**

The display will show the number of phases related to the program. With the arrow buttons you can choose 1, 2 or 3, that is the cycle that you are about to set up which contains 1, 2 or 3 phases.



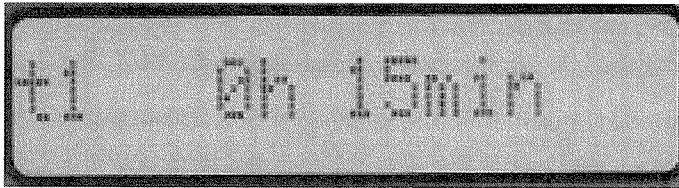
By confirming this with ENTER the cycle will contain 3 phases and you'll pass onto the next display:



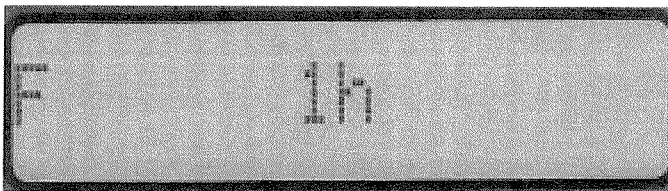
Set with the arrow buttons UP and DOWN the temperature T1 of the first phase and confirm with ENTER, the followings will be shown:



Set the rise speed V1 in C° min, confirm with ENTER, the followings will be shown:



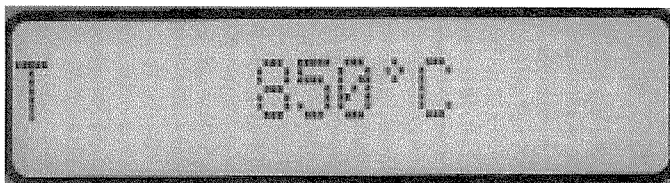
Set the stand-by time t1, choose first the hours and confirm with ENTER, set the minutes and confirm with ENTER and you'll pass onto the next phase with t2, you can set like this all the following phases. After having set the stand-by time of the last phase by pressing ENTER the followings will be shown:



This is the extra time of stand-by temperature at the end of the cycle, this is useful in case you need extra time in case there are more cylinders or if the user is temporarily out of the lab or not ready. The time is expressed in hours and the minimum time that can be set is 1 hour. By pressing ENTER the program set up will be finished and the display will go back to its STAND BY position.

B -P2 Fast Program

While in STAND BY place the display on P2.
To enter the set-up **PRESS SIMULTANEOUSLY BOTH THE ARROWS UP AND DOWN:** the followings will be shown



Set the cycle temperature T, confirm with ENTER and the followings will be shown:

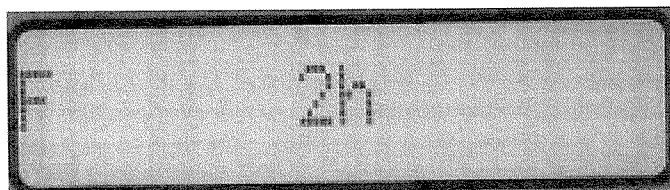
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Set the rise speed V1 in C° min, confirm with ENTER, the followings will be shown:



Set the stand-by time t, set the hours and confirm with ENTER, set the minutes confirm with ENTER the followings will be shown:



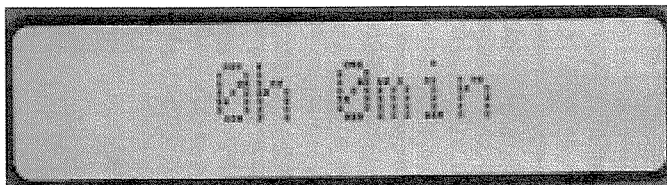
Set the final stand-by Temperature at the end of the cycle, (during this time you can set micro-cycles for each cylinder) in hours, confirm with ENTER and the display will go back to its STAND BY position.

3.5 -Program Performance

A -P1 "Normal" Program Performance

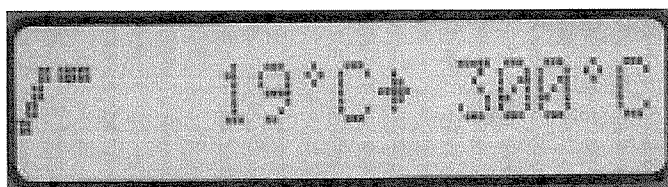
To carry out a P1 program please follow the instructions hereafter:

From the STAND BY position select P1 and press the START/STOP button, the followings will be shown:



What the display shows is the ignition delay in hours and minutes, if you wish the furnace to start immediately confirm with ENTER the value 0 for the hours and again with ENTER the value 0 for the minutes and the furnace will immediately start. Instead if you wish an ignition delay set with the arrow buttons the hours at the end of which you wish the furnace to start, confirm with ENTER and do the same thing for the minutes, confirm again with ENTER and the decreasing time will appear on the display, as the countdown will reach 0 the furnace will automatically start. PLEASE NOTE: to set the ignition delay the time is calculated with a countdown to the moment in which we want the furnace to be ready, that is the beginning of the cycle. Therefore if the cylinder in the furnace must be ready for a specific time, i.e. by 8.00 a.m. of the following morning and the time now is 6.00 p.m., considering that the cycle will last about 1 hour and half, we must assets the furnace to start at 6.30 a.m. and set an ignition delay of 12 hours and 30 minutes.

When the furnace starts (right away after having pressed ENTER or else after having elapsed the ignition delay time) the following swill be shown:



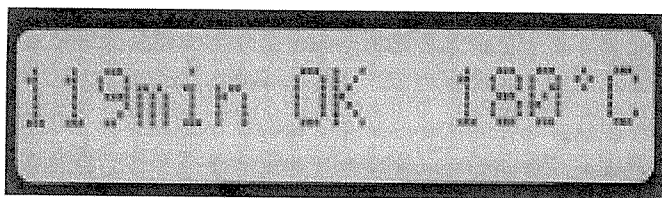
On the left a two-direction symbol can be found: an oblique and a horizontal one.

During the stage in which the temperature raises the oblique direction sign will flash and on the right the Phase temperature to be reached is shown and in the centre the Temperature read in that moment. During the T stand-by phases, the horizontal direction sign will flash, in the centre the decreasing time can be found and on the right the Temperature.

B – P2 Fast Program Performance

Follow all the indications given for the P1 program.

After having performed the heating and the stand-by time the furnace will enter the Final stand-by time and the followings will be shown:



During the stand-by time of the Final Temperature micro-cycles can be performed. **The micro-cycles can be done by opening the furnace door** in order to place a cylinder with fast coatings. By opening the door a Timer will be triggered and on the display the minutes you can set will be flashing. Place the cylinder inside the furnace, close the door and correct the value of the pre-set time with the arrow buttons and press START: the furnace will perform the time countdown and when it will be completely elapsed a DOUBLE BEEPING SOUND will be heard. The micro-cycle is over, the cylinder can be retracted from the furnace and eventually another one can be placed inside, correcting or confirming the time with ENTER. During all this time the Temperature is steady.

The furnace will turn itself Off when the final stand-by time is over, or else can be manually turned Off by the user by pressing and keeping pressed for at least 2 seconds the START/STOP button.

3.6 - CHIMNEY FAN

For this type of furnace a fume suction fan SR751 can be installed. It is an optional and if installed it will automatically start at the beginning of each cycle and will turn itself off when the temperature of 400°C is reached. Even during the P2 Fast program it will turn itself On during the micro-cycles and stay On until they are over.

4 – MAINTENANCE INFORMATION

4.1 – Ordinary Maintenance

It is strongly suggested, at the end of each cycle, to remove from the carter of the machine all the residues left by the wax combustion. Such residues if not removed can produce incrustations which could risk the correct functioning of the door springs and hinges. In order to carry out such cleaning use a damp cloth and DO NOT turn the furnace On until completely dry. Any cleaning must be done with the furnace OFF, COLD and only after having unplugged it. DO NOT USE any solvents, petrol or any other flammable or corrosive liquids, they could damage the external enamel and be absorbed by the refractory and therefore produce harmful gases when turned On.

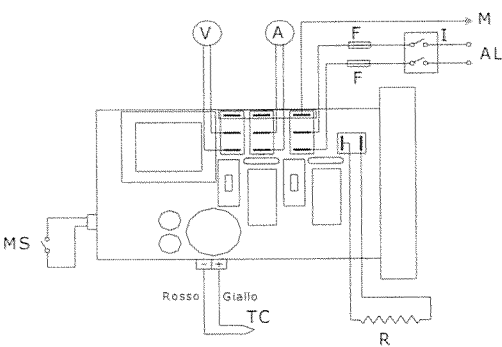
Other than the above, the furnace does not need any maintenance.

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4.2 – Extraordinary Maintenance

To repair the machine or replace some of its parts, the user should consult directly the manufacturer or only specialized technicians.
Absolutely avoid opening any of the fixed guards without proper precautions.
Disconnect the power supply plug from the outlet before any extraordinary maintenance operations.

4.3 – Electric Plan



- MS: Door micro-switch
TC: Termocouple
V: Internal fan
A: Fume suction (SR731)
R: Resistance 230V/2.5KW
F: Fuse 16°
I: Main Switch
M: Hearth cable
AL: General supply 230V AC

4.4 – Spare Parts

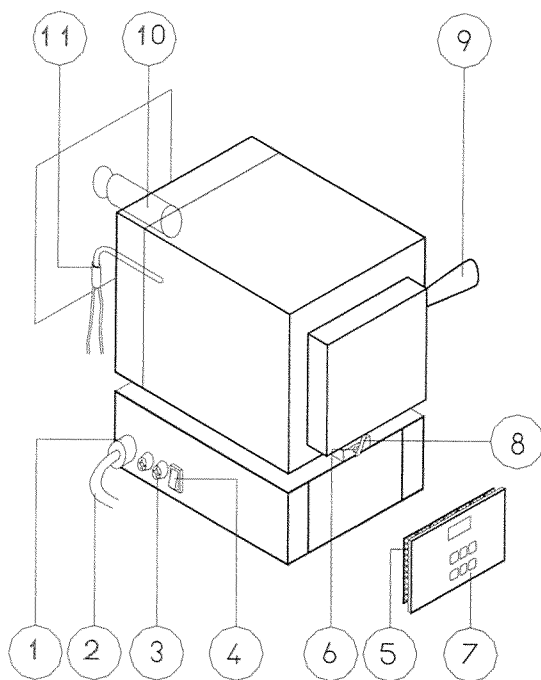
SPARE PARTS LIST SR 725

Pic. 5 -6

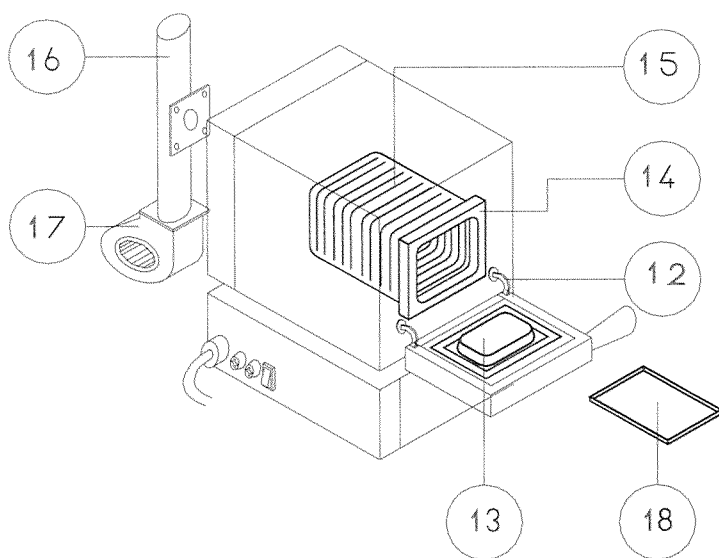
POS	DENOMINATION	CODE	SR 725S	SR 725M	SR 725L
1	Cable Lead	725.001			
2	Feeder Cable	725.002			
3	Fuse Holder	725.003			
4	General Switch	725.004			
5	Electronic Card	725.005			
6	Micro – Switch	725.006			
7	Polycarbonate panel	725.007			
8	Spring Micro	725.008			
9	Handle	725.009			
10	Chimney Tube	725.010			

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11	Thermocouple	725.011			
12	Flap Door Spring	725.012			
13	Flap door refractory		725.013S	725.013M	725.013L
14	Frontal refractory		725.014S	725.014M	725.014L
15	Muffle refractory (without resistance)		725.015S	725.015M	725.015L
15	Complete muffle (with resistance)		725.015RS	725.015R	725.015RL
15	Resistance			M	
16	External Chimney (without exhauster)	725.016			
17	Exhauster	725.017			
18	Dewaxing Plate		725.018S	725.018M	725.018L
	Ferrite Coils	725.19			
	Distance ring	725.20			



PIC.5



PIC.6



SIRIO DENTAL s.r.l.
PROGETTAZIONE E COSTRUZIONE DI APPARECCHIATURE
PER ODONTOTECNICI, DENTISTI ED ESTETISTI

DECLARATION OF CONFORMITY

Meldola 01/01/2013

Re: CEE Directives: 2006/42 CE(ex 89/392 CEE) - 2006/95 CE(ex 73/23 CEE)

2004/108 CE (ex 89/336 CEE)

SIRIO DENTAL S.r.l., Via A. Accardi 11, 47014 Meldola FC, in the name of Eng. Antonio Zaccarelli, President, declares that the equipment named

"SR 725 InFIRE LIGHT Cylinder Pre-Heating Oven"

and manufactured by Sirio Dental Srl complies with the above mentioned Directives.

This certificate shall not be re-produced except in full without the written approval of Sirio Dental Srl.

SIRIO DENTAL srl
Ing. Antonio Zaccarelli

SIRIO DENTAL Srl

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SIRIO DENTAL s.r.l.
PROGETTAZIONE E COSTRUZIONE DI APPARECCHIATURE
PER ODONTOTECNICI, DENTISTI ED ESTETISTI

GUARANTEE CERTIFICATE

MODEL : SR725 INfire Light (Versions S, M, L)

SERIAL N°: 250834

GUARANTEE LENGTH: Months 12

- 1- The guarantee has effect from the date of purchase of the machine, date certified by a sale document released by the seller (such as bill of lading, receipt of sale or fiscal slip) from which they are clearly stated the model and the serial number.
- 2- The guarantee includes substitution or repair of defective parts of the machine.
- 3 - The guarantee doesn't cover any defective parts due to negligence; improper use; improper maintenance; maintenance performed by non-qualified personnel or transportation damages; that is damages that cannot be considered manufacture defects for which the manufacturer cannot be hold responsible.
- 4 - The guarantee doesn't cover any case of improper use of the machine.
- 5 - Transportation cost of the machine and relative risks are at user's expense.

Meldola, 27-04-2022

SIRIO DENTAL srl
Ing. Antonio Zaccarelli

SIRIO DENTAL Srl

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