

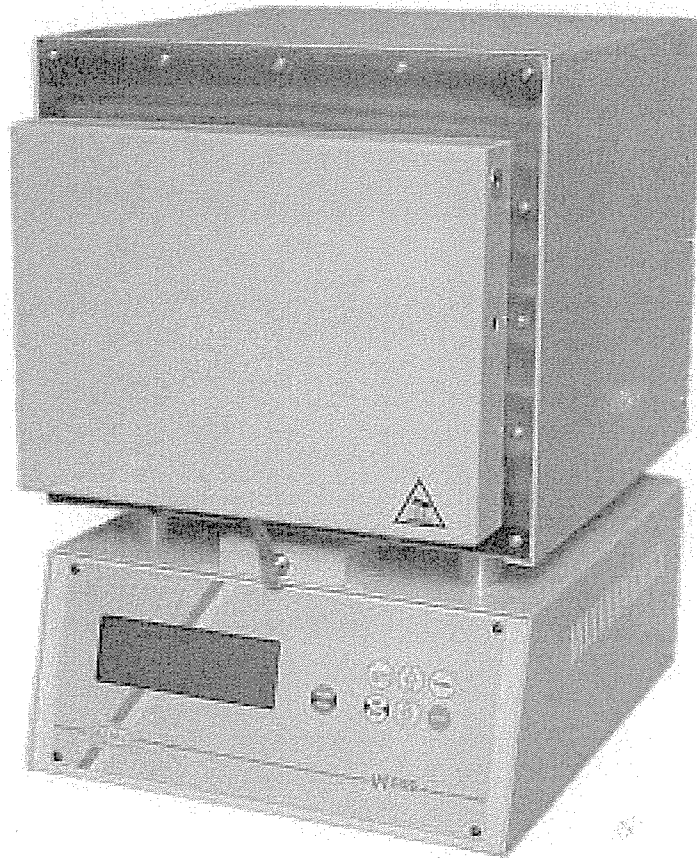
9/06/2023



*Pre-heating Oven*

**SR 750 "INfire"**

**USE & MAINTENANCE**



**SIRIO DENTAL Srl**

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Reg. Imprese di Forli-Cesena P.IVA e CF: 03694510409 Capitale sociale : € 60.000,00 i.v.

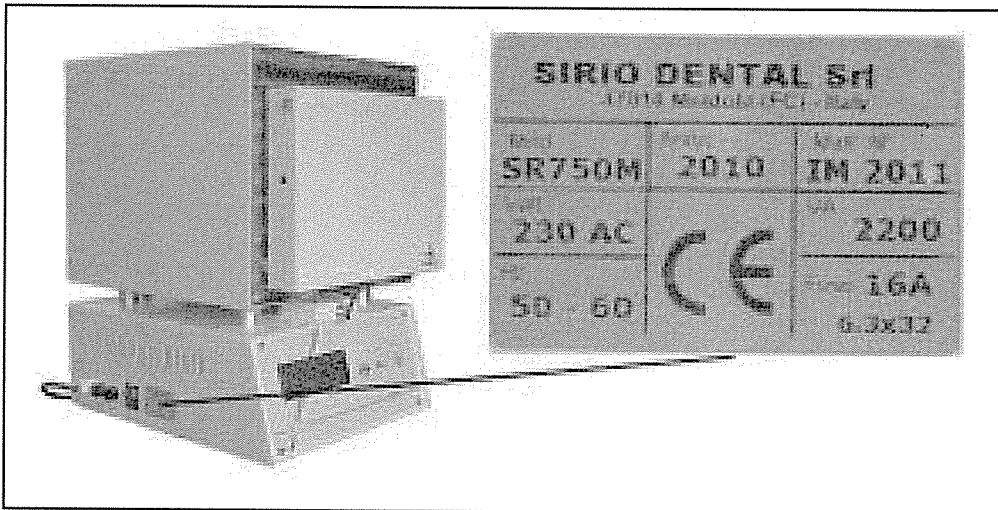
# 1 - GENERAL INFORMATION

## 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 machine, it is recommended that you read this manual carefully, especially if it is the first time, to ensure you know the control devices, their function and position. It is also advisable to make performance tests. This manual must be kept for future references.

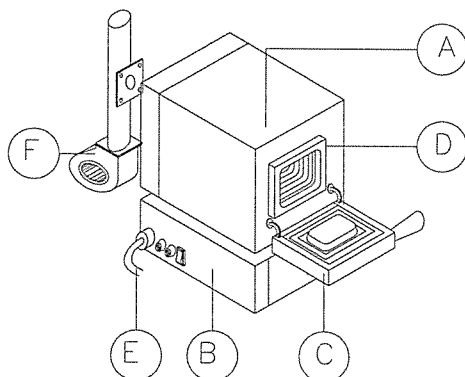
## 1.2 Identification of the machine manufacturer

On the machine you can find the identification label of the manufacturer and some information regarding technical data as shown in Pic. 1.



## 1.3 – Technical information

The cylinder pre-heating oven "SR750 INfire" is managed by a microprocessor electronic control and it has been designed for the firing and pre-heating of the coating of the cylinders to cast metals in dental technicians and goldsmiths labs. The oven SR750 can memorise up to 20 heating cycles (or programs, 15 "Normal" programs and 5 "Fast" Programs) which are kept in the memory until the operator decides to modify them. Each program contains 6 phases and for each phase it is possible to set 3 variables: temperature, increase rate, holding time. It is also possible to set an Starting Timer (up to 100 hours), fumes aspiration fan Off temperature (fume chimney) and a final temperature holding time at the end of the cycle.



## Legenda ( PIC. 2):

A	Muffle	E	Feeder 230V 50Hz
B	Electronic Control	F	Fumes Aspiration Chimney (Optional)
C	Door		
D	Refractory Chamber		

### 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

	750S	750M	750L
Power Supply	230V-50/60Hz	230V - 50/60Hz	230V - 50/60Hz
Resistances Power	1600W	2200W	2800W
Chamber dimensions	cm15x15x10	cm18x23x11.5	cm23x30x15
External DimensionsLxPxH	cm32x40x47	cm36x46x49	cm42x53x52
Weight – Kg	25	35	45
Number of "Normal" Programmes:	15	15	15
Number of "Fast" Programmes:	5	5	5
Number of Phases	6	6	6
Starting Timer	Yes	Yes	Yes
Fuses	16A	16A	16A

## 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 card-board 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 INFORMATION

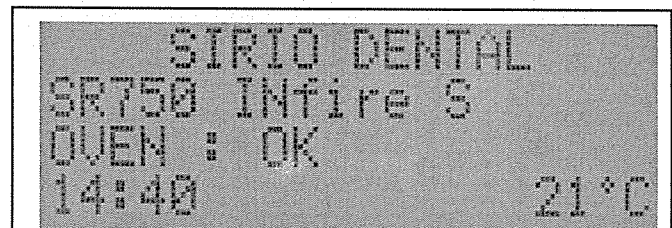
#### 3.1 – Performance and Use

The oven "SR750 INfire" as said earlier can memorise up to 20 pre-heating cycles (or programs, 15 "Normal" and 5 "Fast" Programs) which are kept in the memory until the operator decides to modify them. Each "Normal" program contains 6 phases, meaning that it is possible to set up to 6 temperature holds (this is the maximum of phases in fact cycles with less phases can be set with no problem) and for each phase it is possible to set 3 variables: temperature, increase rate, holding time. It is also possible to set an Starting Timer and the fumes aspiration fan Off temperature (fume chimney). Furthermore it is possible to set a final temperature holding time at the end of the cycle: this is to keep the cylinders at a certain temperature and allow some time for the operator to be ready with the next work.

#### 3.2 – Turning On

As turning n the oven the monitor will show:

- Name of manufacturer
- Type of Oven
- Date



#### 3.3 – SETUP MENU

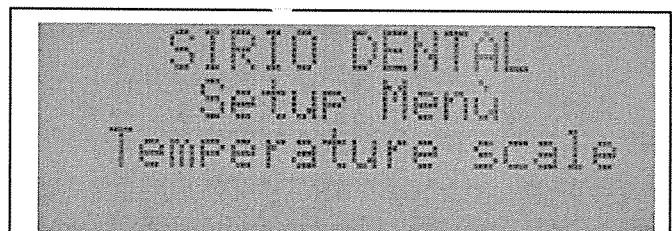
By pressing **SET/EXIT** you enter the configuration MENU and the following appears:

With this menu the operator can set a series of parameters good for all programs. These parameters are visualised one at a time. To pass from one parameter to the next use the bottom **ARROW UP**. To modify them press **ENTER** and you are ready to modify it. Modify the parameter value or use one of the pre-set options by using the buttons **ARROWS UP** and **DOWN** and confirm by pressing **ENTER**. By doing this you go back to the visualization of the parameter's name. The parameters are the following:

##### TEMP. UNIT OF MEAS.

We strongly advise not to change this parameter and to continue by pressing the button **ARROW UP**.

To modify press **ENTER**: the Celsius system is normally visualized, choose with



the buttons ARROWS UP and DOWN the system FAHRENHEIT and confirm with ENTER. By doing this you go back to the TEMP. UNIT OF MEAS., press ARROW UP and you go to the next parameter.

#### DATE SETTING

To modify the date press ENTER and the date will be visualised. The day will flash: modify the day by using the ARROWS and press ENTER, modify the month and press ENTER, modify the year and press ENTER, modify the hour and press ENTER, modify the minutes and press ENTER and you will go back to date setting.

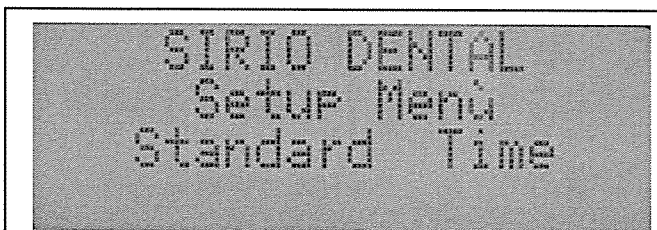
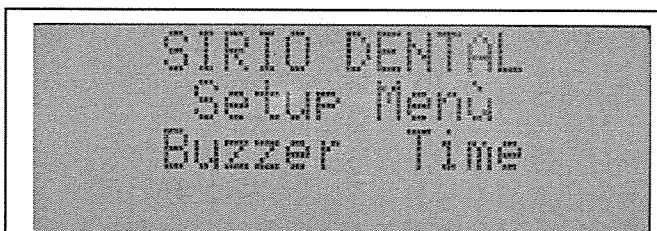
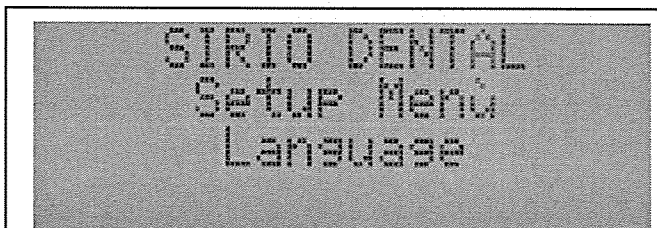
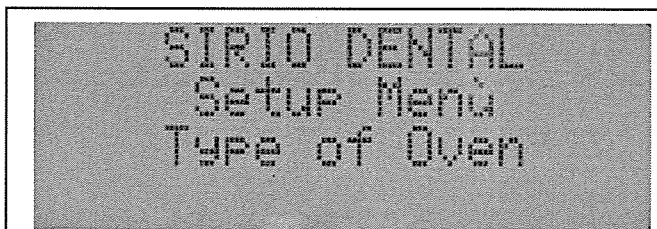
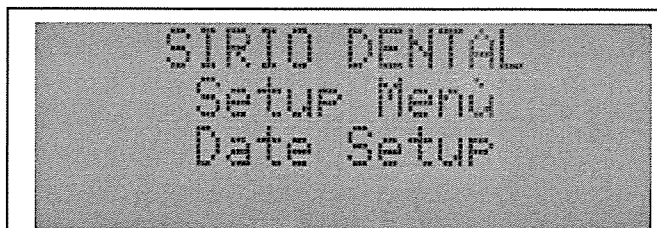
If you don't want to modify anything press ENTER until you go back to "Date Setting".

**TYPE OF OVEN:** (S, M, L) you follow the instructions above

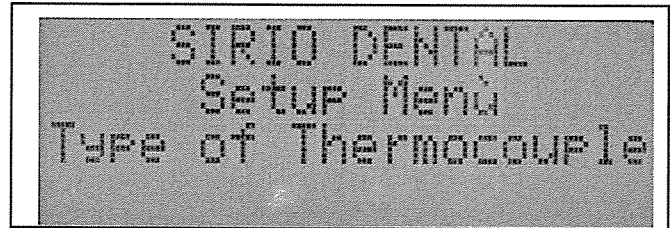
**LANGUAGE:** choice of available languages (Italian, English)

**BUZZER TIME:** stands for the buzzer time

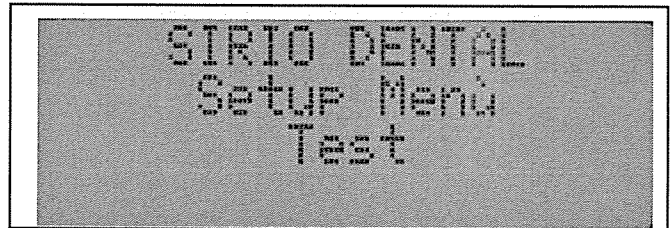
**STANDARD TIME:** it will be explained later for fast cycles



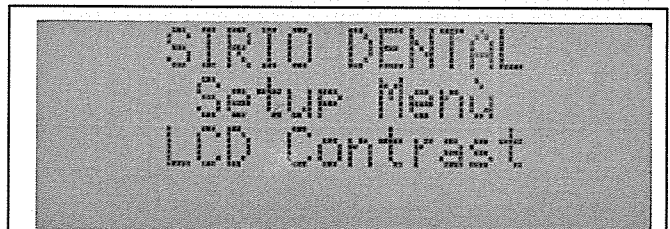
**TYPE OF THERMOCOUPLE:** to modify you need an Access Code



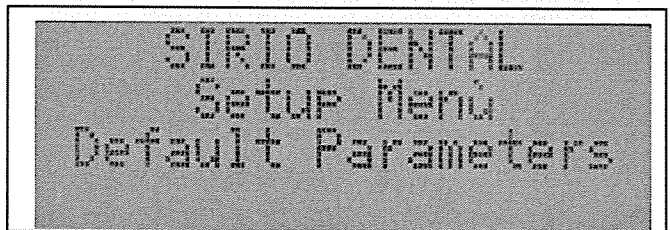
**TEST :** it is used to perform a working test after repairs and first tests. We strongly advise not to enter this parameter



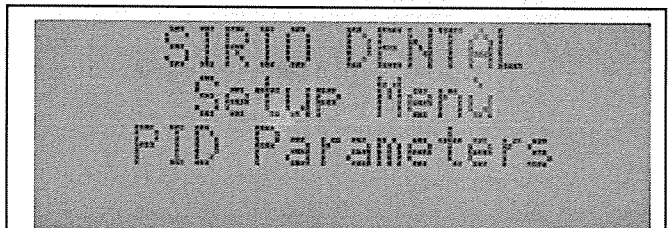
**LCD CONTRAST:** We strongly advise not to enter this parameter



**DEFAULT PARAMETER:** if some of the parameters have been willingly or unwillingly changed you can re-set the default parameters. We strongly advise not to enter this parameter

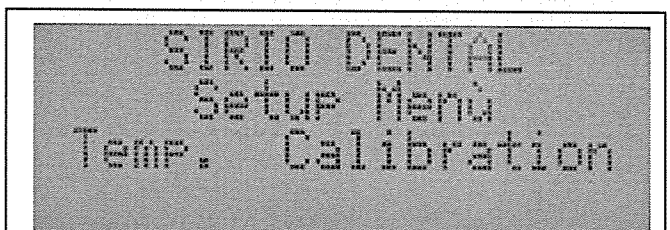


**PID PARAMETER:** an access code is necessary and in any case we strongly advise never to modify them



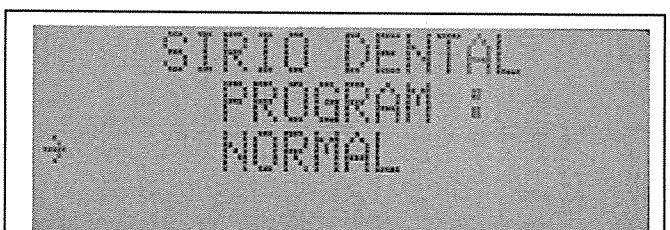
**TEMPERATURE CALIBRATION:** a code is necessary.

At the end by pressing SET/EXIT you exit this function and go back to the initial display.

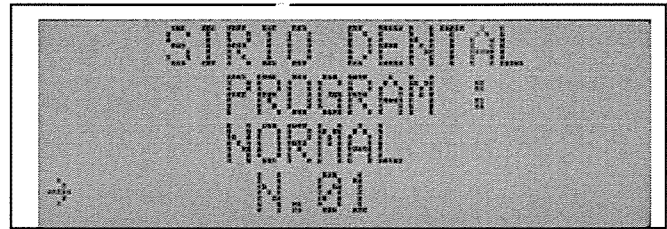


### 3.4 -PROGRAMS SETTING

From the Initial display by pressing PROG you will see:



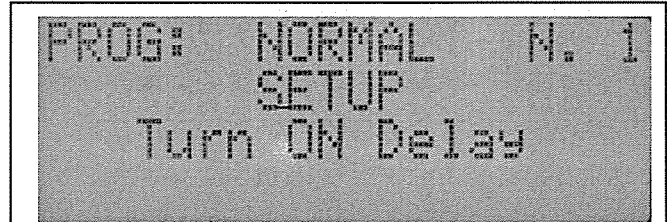
A NORMAL or FAST programme can be chosen: if you want to choose a NORMAL programme press ENTER and select the programme number: i.e. programme 2. You can choose a FAST programme by doing the same thing. The following will be displayed:



```
SIRIO DENTAL
PROGRAM :
NORMAL
N.01
```

**AWARE:** if you press ENTER you choose to exit this phase, so press PHASE.

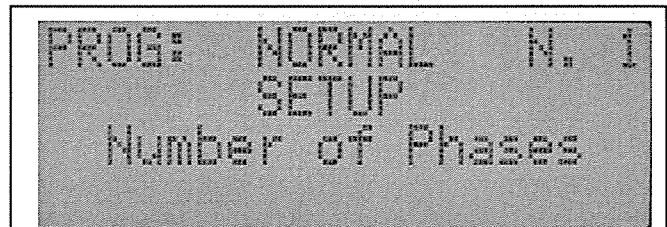
To continue in the setting **PRESS SET/EXIT twice** and you will see:



```
PROG:  NORMAL   N. 1
      SETUP
      Turn ON Delay
```

Press the button **ARROW UP** and you will enter:

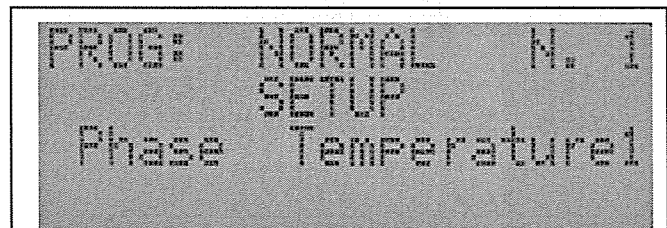
**Phases Number:** press ENTER and set how many phases the programme must contain. Later on only the chosen phases will be visualised. Confirm by pressing ENTER.



```
PROG:  NORMAL   N. 1
      SETUP
      Number of Phases
```

Press the button **ARROW UP** and you will enter:

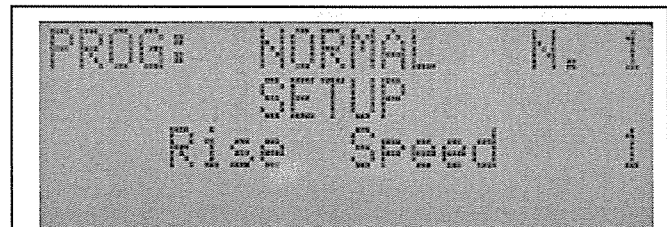
**Temperature phase 1:** set the temperature of phase 1. Press ENTER and select the temperature with the arrows and confirm with ENTER.



```
PROG:  NORMAL   N. 1
      SETUP
      Phase Temperature1
```

Press the button **ARROW UP** and you will enter:

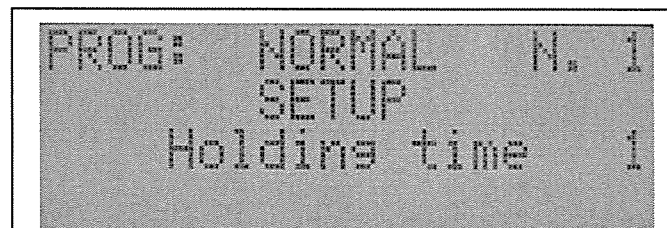
**Rise speed 1:** set the rise speed of phase 1. Press ENTER and select the temperature with the arrows and confirm with ENTER.



```
PROG:  NORMAL   N. 1
      SETUP
      Rise Speed 1
```

Press the button **ARROW UP** and you will enter:

**Holding time 1:** set the holding time of phase 1 expressed in hours and minutes by following the instructions written above.

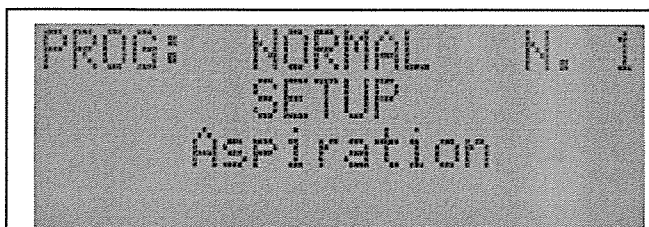


```
PROG:  NORMAL   N. 1
      SETUP
      Holding time 1
```

Set then all the values of the following phases.

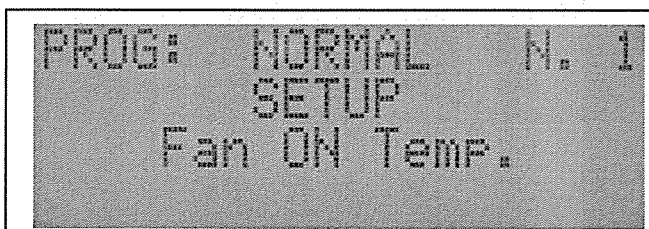
Once you have set the last phase read the followings:

**ASPIRATION:** (YES or NO) : you can choose to turn ON or leave OFF the fan connected to the 220V back plug.



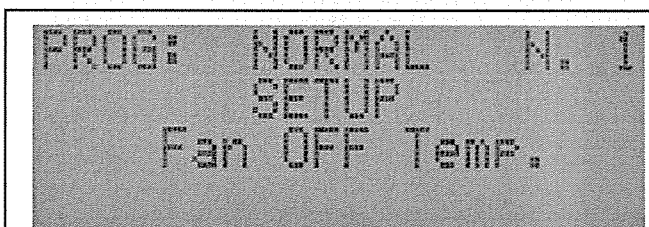
PROG: NORMAL N. 1  
SETUP  
Aspiration

**Temp. Start Fan:** set the temperature the aspiration will be turned ON (Usually 50/60°C)



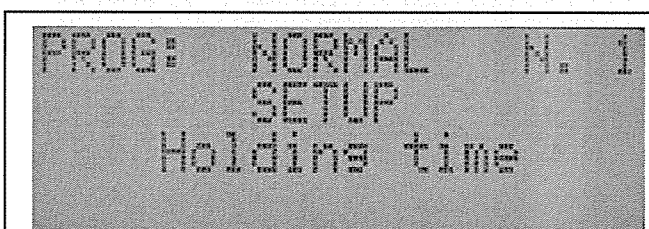
PROG: NORMAL N. 1  
SETUP  
Fan ON Temp.

**Temp. Stop Fan:** set the temperature the aspiration will be turned OFF (Usually 300/400°C)



PROG: NORMAL N. 1  
SETUP  
Fan OFF Temp.

**Final Holding Time:** it is the holding time of the final temperature. This time is necessary because the dental technician is not always ready for the melting at the end of the cycle, or there are many cylinders and it is necessary to keep the oven in temperature for a longer time that is until the last cylinder is taken out.



PROG: NORMAL N. 1  
SETUP  
Holding time

Then the oven can be turned Off by pressing and keeping pressed for about 2 seconds the button START/STOP. We suggest to set the holding time at about 2 or 3 hours.

This is the last value you can set so by pressing the **Arrow UP** you go back to Starting Timer. All the values can be visualised by using the Arrows.

Once the entire programme has been set you exit as followings:

SET/EXIT  
PHASE  
SET/EXIT

And you will go back to the initial display.

### 3.5 –PROGRAMME PERFORMANCE

To perform a programme do as follows:

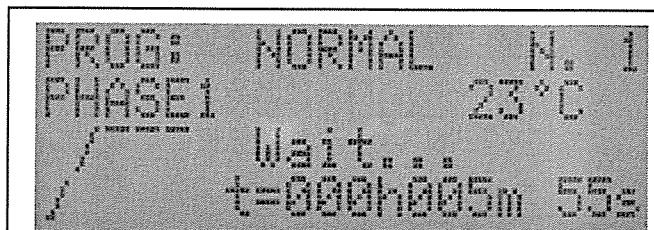
Press PROG and choose if you want to perform a NORMAL cycle.

Press ENTER to choose the programme number you want to perform.

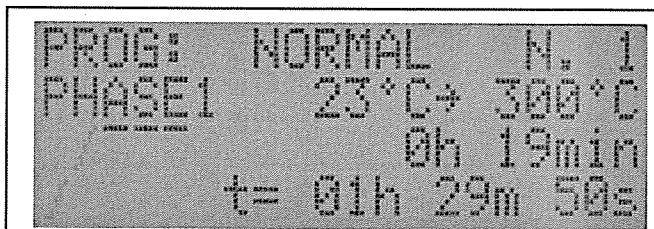
If you want to set a Starting Timer press SET twice and set the starting timer by choosing the date and time you want the oven to start, then exit with SET.



Press START/STOP and the programme will start. If a Starting Timer has been set the display will show "Wait" and the decreasing time.



Instead if no ignition time has been set the cycle will begin and the heating will start immediately. The following will be displayed (Performance Display):



**PROG. NORMAL N. 1**  
**PHASE 1 23°C > 300°C**

: programme number  
 : inside temperature and temperature to be reached during phase 1

**0h 19 min.**

: estimated time to finish the performance of what the oven is doing (arrival at 300°C)

**t = 01h 29m 50s**

: decreasing estimated total time to the end of the programme.

During the performance of a programme it is possible to see and modify the values which have not been performed yet. In order to do so press SET and you enter the programming where the values (not performed yet and therefore still changeable) are visualised. If phase 1 is being performed all the values from phase 2 on will be visualised. You can simply see them or modify them if you wish. To confirm and exit press once again SET and you will go back to the performing display.

### 3.6 – FAST programme setting

The FAST programmes have been set up as to easily allow the firing of the so called "fast" coatings, that is the coatings that are put inside the oven when the temperature is already high, for a short time (generally not more than 25 or 30 minutes). A fast programme is made by a main programme within which it is possible to set several micro-cycles for each cylinder (or group of cylinders) put inside the oven. Therefore in the MAIN programme the following values are set: a temperature, called FINAL TEMPERATURE, a Rise speed and a holding time.

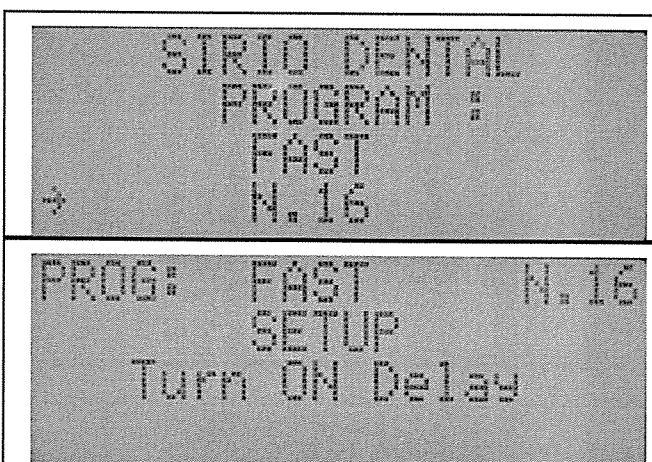
In the micro-cycles the following values needed for the cylinders firing are set: permanence time in the oven with constant Temperature, turning On and duration of the fan for the fumes disposal.

### 3.7 – MAIN programme setting

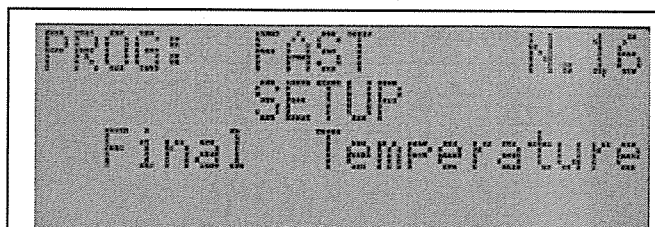
Press PROG and select FAST, then press ENTER to choose the programme number that you want to set: the fast programmes go from the number 16 to 20.

Press SET twice and you will see the following on the display:

The Turning On delay has to be set when you start the programme so please just go to the next step.



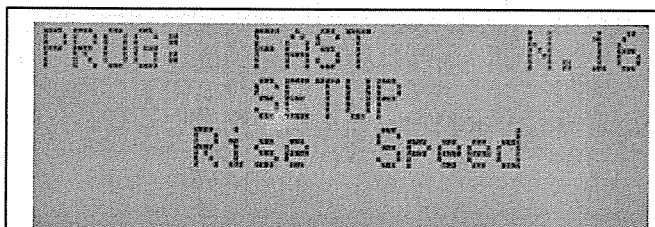
Press ARROW UP, you will see: Final Temperature



PROG: FAST N.16  
SETUP  
Final Temperature

Press ENTER: using the arrow buttons set the Final temperature and confirm with ENTER

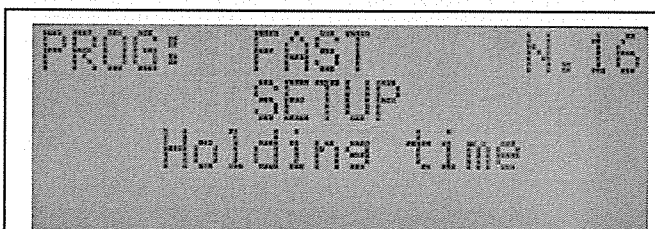
Press ARROW UP, you will see Rise Speed



PROG: FAST N.16  
SETUP  
Rise Speed

Press ENTER, set the desired value and confirm with ENTER.

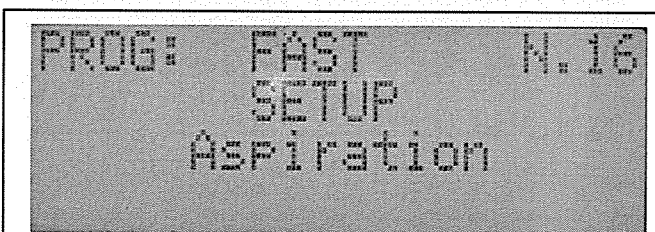
Press ARROW UP, the holding time will appear.



PROG: FAST N.16  
SETUP  
Holding time

Press ENTER, set the desired value and confirm with ENTER.

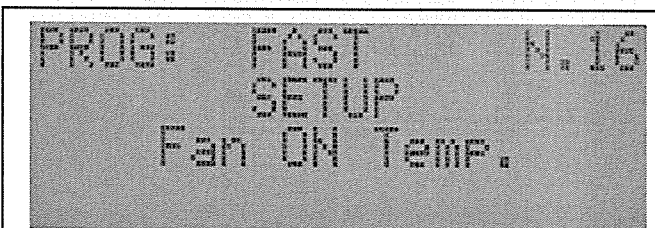
Press ARROW UP, ASPIRATION will appear (during the Temperature raising).



PROG: FAST N.16  
SETUP  
Aspiration

Press ENTER and choose YES/NO and confirm with ENTER

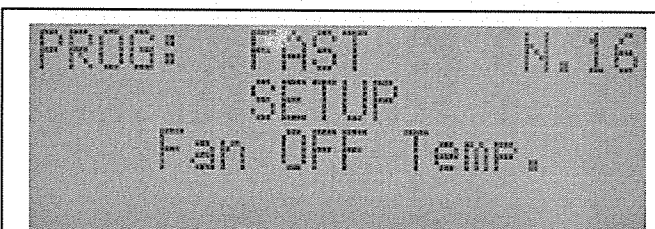
Press ARROW UP and the Temp. Start Fan will appear



PROG: FAST N.16  
SETUP  
Fan ON Temp.

Press ENTER, set the desired value and confirm with ENTER.

Press ARROW UP and the Temp. Stop Fan will appear



PROG: FAST N.16  
SETUP  
Fan OFF Temp.

Press ENTER, set the desired value and confirm with ENTER.

At the end press SET to exit the programming phase

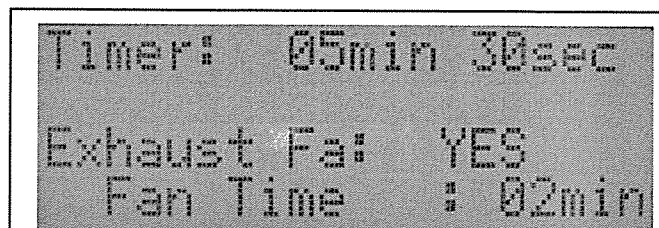
If you want the programme to start press START.

The oven will perform the programme and keep the temperature for the entire chosen keeping time set in the programme and for the additional time set at "Standard" time contained in the configuration menu (as described in point 2).

### 3.8 - MICRO-CYCLES setting

During the entire keeping time and the "Standard" time you can set micro-cycles.

In order to set a micro-cycle press and keep pressed for about 2 seconds the button ARROW UP and the following CV will be shown on the display:



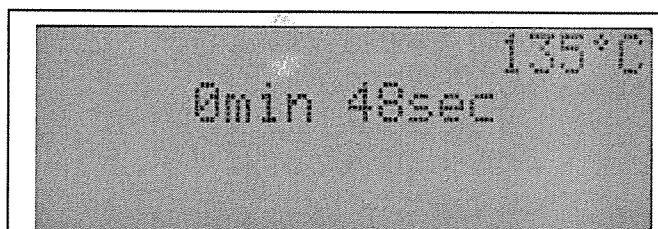
By pressing ENTER the first value will start flashing (30min) and you can change it using the arrow buttons.

Confirm with ENTER , the second value will start flashing (30sec), and you can change it using the arrow buttons.

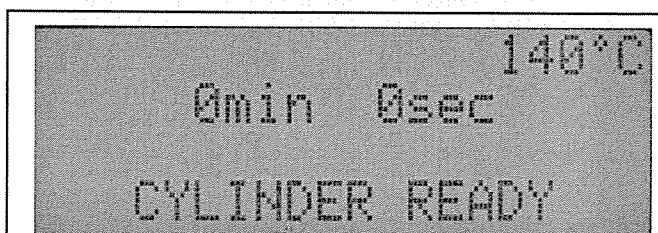
Confirm with ENTER , until you will have changed or confirmed all the values and then you can exit (no flashing) and the configuration will be displayed.

Press START

The fast micro-cycle will start and the remaining decreasing time expressed in minutes and seconds will be displayed.



At the end of the decreasing time the oven will signal with a prolonged beeping sound and the following will be displayed:



By opening the door and removing the cylinder you will have the first CV displayed and you are ready to set another micro-cycle.

To exit the CV display you can press SET and you will be back at Holding Time or Standard Time.

You can set fast cycles one after the other until the standard time has elapsed. Instead if you wish to exit completely press STOP.

## 4 – MAINTENANCE INFORMATION

### 4.1 – Cleaning and Ordinary Maintenance

Please be advised, after each working cycle, to remove from the carter of the oven all the remains left by the fumes produced by the wax melting. Such remains, if not promptly removed, can produce incrustations which may endanger the correct performance of the springs and hinges of the oven door. Proceed with this cleaning using a damp cloth and do not turn On the oven until it is completely dry.

This cleaning processing **MUST BE DONE** with the OVEN OFF and COOL and disconnected from the power supply wall outlet.

Never use any diluents, or gas or petrol or any other flammable or corrosive substances, these may melt the external varnish and be absorbed by the refractory and therefore produce later, at the heating of the oven, gases harmful to people.

Beside the cleaning the oven is maintenance free.

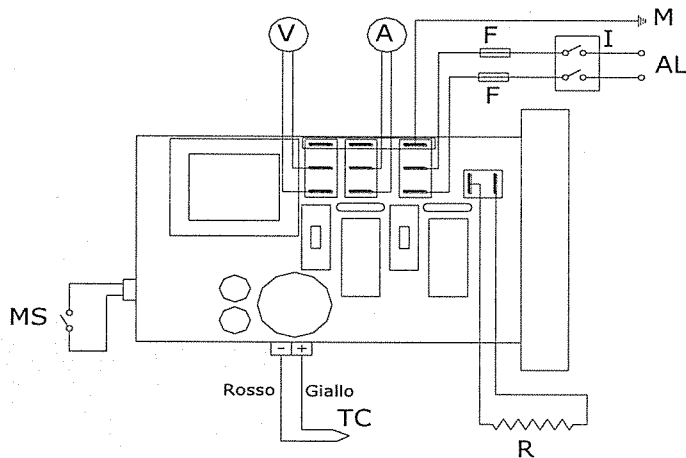
#### 4.2 – Extraordinary Maintenance

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 – List of spare parts

##### LIST OF SPARE PARTS OVEN SR 750

Fig. 5 -6

POS	DETAIL	CODE	SR 750S	SR 750M	SR 750L
1	Lead cable	750.001			
2	Feeding cable	750.002			
3	Fuse holder	750.003			
4	Switch	750.004			
5	Electronic Card	750.005			
6	Micro – Switch	750.006			
7	Panel	750.007			
8	Spring for Micro-switch	750.008			
9	Door handle	750.009			
10	Pipe for the chimney	750.010			
11	Thermocouple	750.011			
12	Door spring	750.012			
13	Door refractory		750.013S	750.013M	750.013L
14	Front refractory		750.014S	750.014M	750.014L
15	Muffel refractory (without resistance)		750.015S	750.015M	750.015L

15	Complete Muffel (with resistance)	750.015RS	750.015RM	750.015RL
15	Resistance	750.RS	750.RM	750.RL
16	External chimney (without suction fan)	750.016		
17	Aspirator	750.017		
18	Dewaxing plate	750.018S	750.018M	750.018L

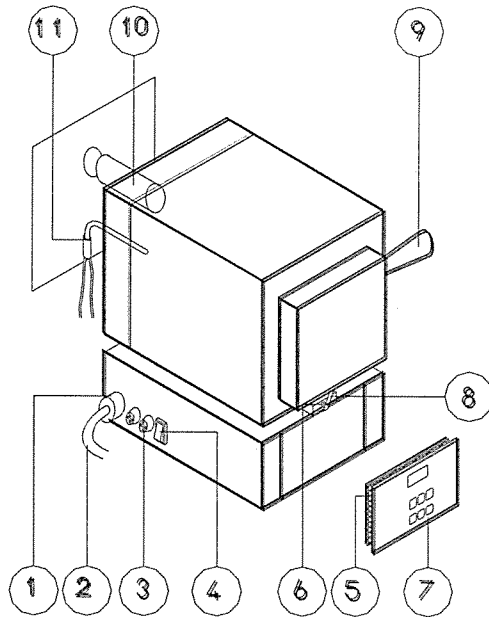


FIG.5

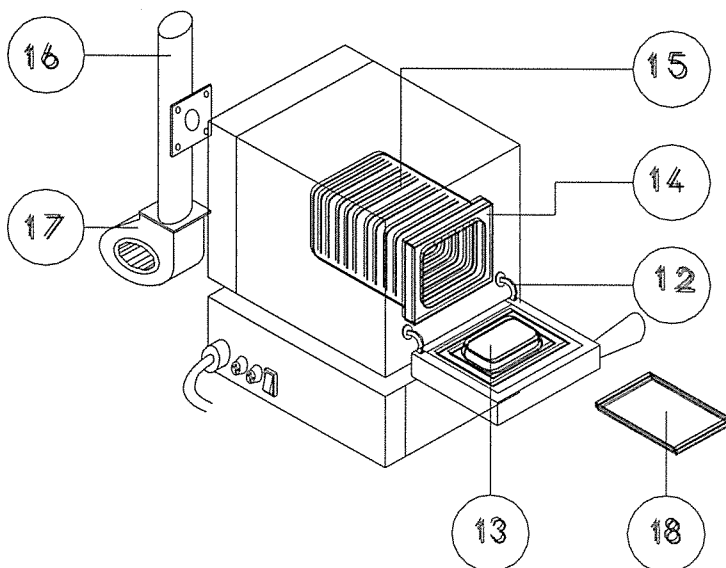


FIG.6





SIRIO DENTAL DIVISION

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

### DECLARATION OF CONFORMITY

Meldola 01/01/2013

With EEC Directives: EC 2006/42 (ex 89/392 A-type Appendix), EC 2006/95 (ex EEC 73/23), EC 2004/108 (ex EEC 89/336) including all later amendments to each directive.

SIRIO DENTAL S.r.l. declares that the machine named "SR750 INfire" (in the versions 750S, 750M, 750L), complies with the above-listed directives.

**SIRIO DENTAL Srl**  
**Eng. Antonio Zaccarelli**

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E.Mail: [sirio@siriodental.com](mailto:sirio@siriodental.com) Website: [www.siriodental.it](http://www.siriodental.it)  
Reg. Imprese di Forlì-Cesena P.IVA e CF: 03694510409 Capitale sociale : € 60.000,00 i.v.



SIRIO DENTAL DIVISION

**SIRIO DENTAL s.r.l.**

**PROGETTAZIONE E COSTRUZIONE DI APPARECCHIATURE  
PER ODONTOTECNICI, DENTISTI ED ESTETISTI**

### **GUARANTEE CERTIFICATE**

**MODEL: SR 750 INfire (Versions S, M, L)**

**SERIAL NUMBER:**

**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,

**SIRIO DENTAL Srl**  
**Eng. Antonio Zaccarelli**

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Reg. Imprese di Forli-Cesena P.IVA e CF: 03694510409 Capitale sociale : € 60.000,00 i.v.