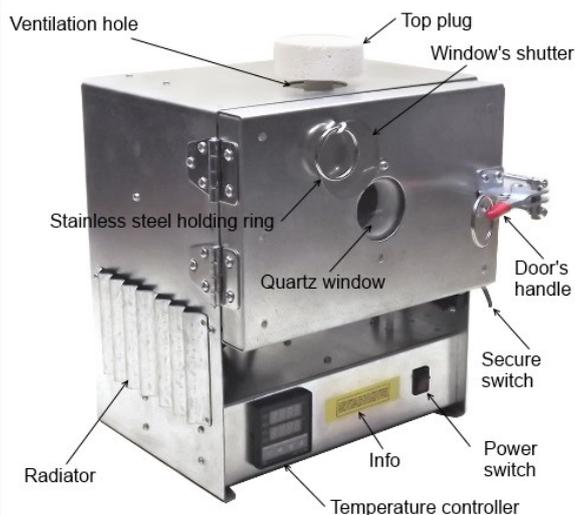


R14-UNIVERSAL(U) ELECTRICAL MUFFLE KILN USER MANUAL

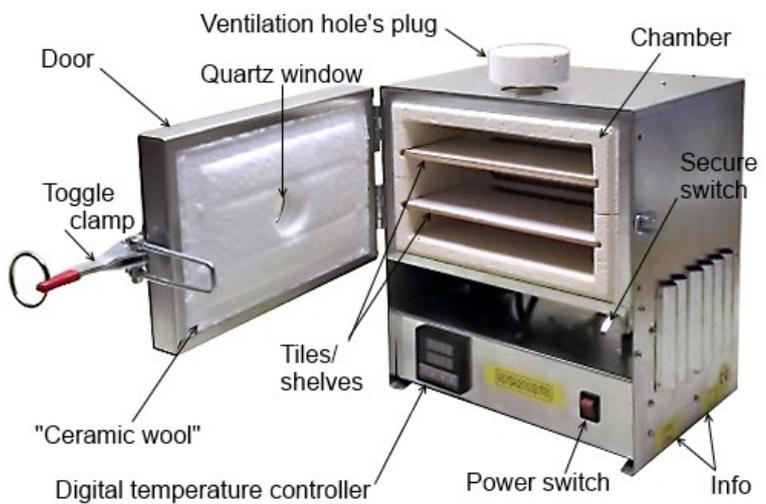
PRODUCT INTRODUCTION:

This digitally controlled, electrical muffle kiln is especially designed to heating up to 1000 C / 1832 F for work with most popular materials and processes such as: annealing metals, enamelling, metal clays firing, glass fusing etc. The R14-U kiln has a standard digital temperature controller that can reach any single temperature between a room temperature and 1000°C (1832°F) once settled. It will hold the reached temperature until you will pre-set a different temperature or switch this kiln off manually. This model of kiln is supplied with two tile-shelves, one ventilation hole with a plug on the top and one 1.1/2" (40 mm in diameter) quartz window with a shutter on the door helps to monitor heating objects in process. This kiln reaches the maximum possible temperature of 1000°C (1832°F) approximately in 50 minutes depending of the quantity and size of heating objects inside the chamber. This kiln has also a toggle clamp on the door as a door's handle and, at same time, as a latch that allows you to open/close the door by one hand. The new type of digital temperature controller is useful as well because will shows you at same time a real temperature inside the chamber (on top line) and pre-settled temperature on bottom line for your convenience. Stainless steel rings on the toggle clamp and window's shutter will help you safety catch the clamp and shutter by gloves on top temperatures. This kiln also has a secure switch under the door that for your safety will disconnect a heating element inside the chamber when the door will opened or not closed properly.

Pic:1



Pic: 2



MODEL:	R14-U-1000C-2016	ADJUSTED TEMPERATURE RANGE	0 C - 1000 C (32 F - 1832 F)
INPUT:	115/220/240V ON REQUEST	ACCURACY:	+/- 1 %
POWER:	750 WATT	INSULATION MATERIALS:	MUFFLE & CERAMIC FIBER
MAXIMUM TEMPERATURE:	1000 C / 1832 F	CRUCIBLE DIMENSIONS (MM):	175(W)x100x100(H)
		(INCH):	7"(W)x4"x4"(H)
ESTIMATED HEATING TIME TO 1000 C:	50 MINUTES	KILN DIMENSIONS WITH DOOR'S HANDLE (MM/INCH):	250(W)x250x275(H) 10"(W)x10"x11"(H)
MATERIAL OF CHAMBER:	MUFFLE (no asbestos)	QUARTZ WINDOW:	Yes
VENTILATION HOLE:	Yes	TILE SHELF:	2
CONTINUOUSLY WORKINGTIME:	12 HOURS	WEIGHT:	4.8KG

PREPARING FOR WORK and FIRST STEPS:

- Remove the kiln from its original box/s.
- Put this kiln on a heat-resistant work-top such as sheet of metal or a ceramic tile.
- Originally brand new kiln's controller is already settled at 1000° C (1832 F) on factory. If the required temperature is different you can pre-set it your self at any time in future. The information is provided on next page in step-by-step instruction: [how to pre-set a required temperature](#). At this moment please still keep the factory's setting of 1000 C (1832 F).
- When used for the *first time* take out the *top ventilation plug*, close quartz *window* by moving the *window's shutter* anti-clockwise by its ring and heat up the kiln for approximately 2-3 minutes to 200°C — 300°C (392 F — 572 F) to evaporate water, oil and other materials from the chamber and the inside of the kiln (light smoke can be seen in few minutes). Otherwise there is a risk of causing small cracks to the chamber. Let the kiln cooling down in full before start your works. If this kiln will used less than once per month please repeat this process each time before use.

Now you can connect your kiln to a power source and start your work. For this:

- Before connect it to a power source please check that the kiln's power switch on front panel is turned 'OFF'.
- Open kiln's door by pooling a red-handle toggle clamp on right side of kiln (See Pic 2) by stainless steel ring.
- If you need it - insert inside the chamber (in special slots) one or two shelves.
- If you need it - take out the top ventilation hole's plug to allow smoke easily go out from inside of the chamber during a firing process.
- Place inside the chamber firing object/s. To avoid an electrical shock please make sure that these object/s or accessories inside the chamber accidentally do not contacted heating element on back wall of the chamber when door will be closed.
- Close the door back by its toggle clamp. When you closing the door please ensure that the secure switch on right side of kiln under the door will be properly pressed down by the door to "Click" and is NOT smashed between the door and body of kiln. Please do NOT unbend this switch by any purpose - it can cause an electrical shock when you will accidentally contact the heating element in future by, for example, hand or a metal tweezers. This is a secure switch that installed on your kiln by reason.
- Now close the quartz window moving the shutter by its stainless steel ring anti-clockwise: it will help you to avoid heat leaking through the window to reach a required temperature inside the chamber quicker and cheaper. Open this window only when checking firing objects.
- Now press on Power switch (Pic 1) - to pre-set required temperature and start your works.

SAFETY AND USEFUL TIPS FOR BEGINNERS:

- ◆ Always work with heat-resistant gloves because this kiln is very compact and gets hot whilst working on high temperatures.
- ◆ Always place this kiln on a heat resistant work-top. A masonry or concrete floor is recommended, but other protective material like metal or ceramic tiles can be used as well.
- ◆ Do not open the window by shutter too often. Each time you open it temperature inside the chamber drops and it will require more time to re-heat.
- ◆ If not in use please disconnect it from a power supply.
- ◆ Keep away from all inflammable materials and from any heating devises.

WORKING WITH TEMPERATURE CONTROLLER:

Pic: 3 Digital temperature controller:
(Shows temperature only in C)



1. Setting/Confirmation button. To be used for the setup of controller's parameters.
2. "Arrow Left" - segment's selector (any one from four segments).
3. "Arrow Down" - value decrement (Use to setup a required temperature).
4. "Arrow Up" - value increment (Use to setup a required temperature).

NOTE: You can find more information about available controller's settings and functions in an instruction manual provided, but we cannot recommend you to change the manufacture's setting yourself as it can cause the loss of factory's setting that will require re-setting and/or re-calibration in future.

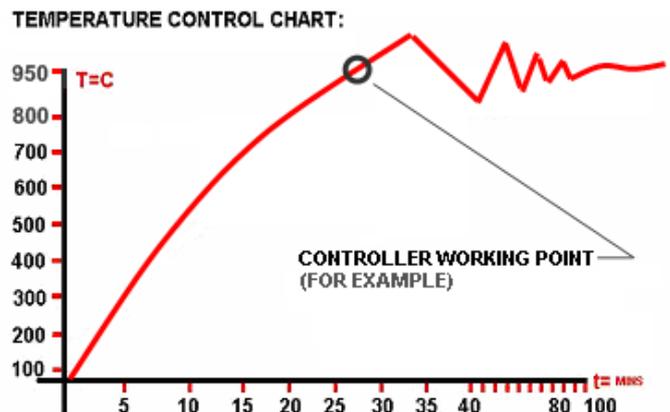
HOW TO PRE-SET A REQUIRED TEMPERATURE:

1. Connect your furnace to a power supply.
2. Open kiln's door (to avoid starting a heating process) and switch it 'On'.
3. Short-press button '1' ("Set") - the bottom line of display will starts twinkle.
4. Use buttons 3 and 4 to change temperature on the bottom line of display (up or down). Use button 2 (Arrow Left) to change segments for changing digits on display during it is twinkle (30 seconds).
5. When required temperature is pre-settled just release all button and wait about 30 seconds. During that time the controller will remember new setting and return back to show you on the top line a real temperature inside the chamber. Or short-press button 1 ("Set") again if you do not want to wait.
6. Now you can close the door and start heating up your objects inside the kiln to required temperature.
7. Please note that the factory's setting is 1000 C (1832 F). Physically you can re-set this controller on higher temperatures, but for avoiding heating element's bourn out problem - it still will heating up maximum only to 1000 C.

TEMPERATURE STABILISATION PROCESS:

Pic 4: Sample of stabilisation process:

Temperature stabilisation process is normal process for temperatures below 200 C that required time for soaking required temperature on same level. Please see the temperature control chart sample of stabilisation process:



DELIVERY SPECIFICATION:

- R14-U-1000C (Universal) electrical muffle kiln;
- Two tile-shelves;
- One top ventilation hole's plug;
- User manual and useful information;
- One year manufacturer warranty.

KEEP OUT OF REACH OF CHILDREN AND NEVER LEAVE IT UNATTENDED IN WORK

DANGER: This is an electrical, high temperature equipment: always follow all health and safety rules and regulations for this equipment in your country.

MADE IN UK