

KILNcare



ARTIZAN Range Instructions

Thank you for choosing to purchase one of the ARTIZAN range of kilns for your ceramics work.

We hope you will have many years of happy use out of your kiln.

Since 1982 we have been dedicated to producing high quality kilns for ceramics.

The ARTIZAN range embodies four decades of experience and knowledge, offering a modern kiln for the contemporary potter.

Please take the time read this manual thoroughly to familiarize yourself with your kiln before use.

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Safety notices

Your ARTIZAN is designed and built to meet all European Directives and British Standards, as well as many other standards applicable throughout the world. However, as with all kilns, there are certain measures that you must take to ensure optimum safety.

Your ARTIZAN



- 1. Door interlock
- 2. Red Mains On light
- 3. Orange Kiln Heating light
- 4. Door vent
- 5. Door clamps
- 6. Roof vent
- 7. Roof vent T handle
- 8. Control socket and mains cable inlet
- 9. Bolt down positions.

Electricity

The ARTIZAN range meets all Electrical Safety Directives, including a door safety Interlock switch. However, as the kilns are electric, certain measures must be taken.

Keep the kiln dry.

Never attempt to remove any of the kiln covers or perform any repair work when the kiln is plugged into a mains electricity socket or with the isolator turned on.

Never use the kiln if external cables are damaged.

Have the kiln tested by a competent person at least every 12 months.

Hot Surfaces

The kiln will have hot surfaces. Do not touch the kiln when it has been on for any period of time, as the case temperatures will rise with time.

Keep pets clear at all times.

Ensure the kiln clear of flammable items such as curtains, etc.

BOLT DOWN!

ARTIZAN 265 is a tall kiln.

Whilst the kiln is tested to be stable, **we do recommend that the kiln is bolted to the floor for optimum safety.**

This fixing must be of a heavy duty, floor bolt type and not a lightweight plug and screw type.

It is important that the recommended minimum distance at the rear of the kiln is maintained as this will allow for safe servicing and repair of the kiln, as once it is bolted, it cannot be moved for this work to be carried out.

Your new arrival

For your records

Date of purchase. _____

Company purchased from _____

First date of use _____

Unpacking your kiln

Once unpacked, please show consideration to the environment when disposing of your kiln packaging.

Where to install your kiln

Position the kiln allowing a minimum of 30cm clearance around the front both sides.

The kiln casing will get hot, so any combustible material must be kept at a safe distance. Never leave combustible materials on the kiln or touching the kiln during a firing.

Do not site the kiln close to flammable items such as curtains etc.

We advise leaving 60cm at the rear of the kiln to allow for engineer space.

Consideration must be given to the ceiling area above the kiln, as heat will radiate upwards from the kiln.

Also there will be high temperatures vented through the roof chimney if it is used to cool the kiln especially. For this reason we recommend a minimum of 80cm clearance between the roof of the kiln and the room ceiling.

If in any doubt, use a vented canopy or some other form of heat protection for the room ceiling.

IMPORTANT. It is advised that the kiln is left untouched until the kiln has finished it's given program and fully cooled. Remember, whilst the kiln is cooling, it may be possible that the external case temperature actually increase.

KEEP PETS AND CHILDREN AWAY FROM THE KILN DURING ITS FULL CYCLE AND UNTIL COOL.

Do not site the kiln outside.

It is advised to site the kiln in a room that has ventilation.

After the first couple of firings there are almost no emissions from the kiln but there will always be vapour etc released by whatever you are firing in the kiln, especially stains. Therefore room ventilation is always advisable in these cases. The type of room venting required depends on many factors and so it is best to contact a ventilation specialist if in any doubt.

Electrical connection

All ARTIZAN kilns will require connection to a suitable electrical supply.

If the kiln is to be used on a 3-phase supply, a neutral must also be supplied.

The electrical supply **MUST** have a sound earth connection.

Your ARTIZAN range kiln is supplied ready for connection to a 3-phase supply. If your supply is single phase then use the connection link fixed to the floor of your connection panel. The link fits across the 3 fused terminals as shown below in diagram 1.4.

Make sure to tighten all 3 screws.

We recommend that the centre terminal is then used to make your live connection with the wire sitting under the fork rather than on top of it.

The terminals are for use with cable of a size up to 10mm.

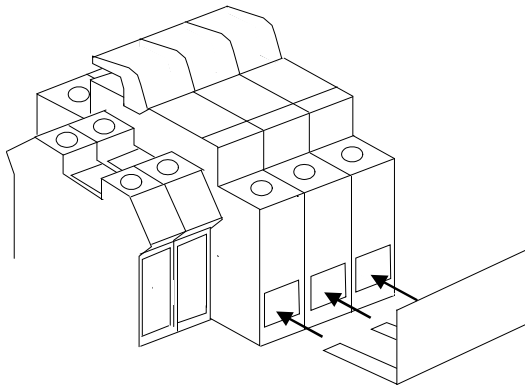
REMEMBER that if the kiln is then re-connected to a 3-phase supply, then the link **MUST** be removed.

The black and green terminals are for Neutral and Protective Earth respectively.

As always we recommend that the connections are done by a qualified electrician.

There is a 20mm inlet hole precut into the rear leg triangle above the control socket. See diagram 1.5 opposite.

Diagram 1.4



KILNS AND R.C.D. "TRIPS"

Due to the reasons stated above and the properties of insulation materials , a certain amount of leakage to earth will probably be evident, therefore the fitting of a 30mA R.C.D. in the circuit can create a fault condition at low temperatures if the kiln is damp, at higher temperatures as the kiln insulation heats up, when first fired or used after a long period of inactivity.

This problem is relatively rare but can be solved by the fitting of a 100ma R.C.D.

Consult us or a fully qualified electrician for advice.

Connecting the controller

The controller supplied with your kiln will be fitted with a connecting plug. It will mate to a matching socket fitted inside the rear leg triangle as Shown below.

Diagram 1.5



The socket is sided, allowing the plug to be inserted only in the correct manner.

Once the plug is inserted lock it into place using the securing clamp. Always ensure the mains power to the kiln is turned off before fitting or removing the plug.

Initial firing

Before using the kiln it is advisable to fire the kiln empty to a temperature of 800 degrees centigrade at a rate of around 100 degrees per hour.

Leave the top vent open.

This will dry and "settle" the kiln.

Your KCR32C, KCR32Z has this already programmed in for you at program 22.

Also, if you have purchased the kiln furniture set with the kiln it is advisable to load the furniture into the kiln for drying. The kiln furniture will have been cut with a wet cutter and invariably contains a large amount of water. Load the kiln furniture using the props supplied to allow air space between the batts.

On the first firings, a slight odour will be emitted, this is the remnants of binding resins that may be in the insulation and should stop after two or three firings depending on temperature of the firings.

For this initial firing we recommend that the kiln is in a well ventilated area.

We suggest that prior to the initial firing, that you use this instruction manual, and the controller manual to ensure you are familiar with all aspects of the kiln and usage of the controller.

Control

The controller supplied with this kiln has already been set and the characteristics of the kiln have been entered in to it.

The kiln and the controller will have already been put through a test firing at the factory.

Please read the instructions on control before starting to use your ARTIZAN kiln.

Operation

The vents

ARTIZAN kilns have a roof and a door vent.

The door vent is a flap system and also has the facility to be locked using a small padlock for additional safety.

The roof vent, if in standard manual configuration, has a red T handle at roof level on the side of the kiln that the door opens from.

The handle in a horizontal position is vent closed and when vertical is vent open.

The vents are there to release moisture from the kiln while it is drying wear during a biscuit firing, to release vapours from glazes and to aid in cooling of the kiln.

For a biscuit firing the vent in the roof would normally be open up to a temperature of around 600c in order to allow all moisture from the work to be released from the kiln chamber. The door vent need not be opened during this cycle if not required.

After the drying temperature has been reached the vent would then be closed to allow the kiln to reach its final temperature.

For glaze vapour release, the vents will be closed after the glaze has finished releasing.

For cooling, the vents can be opened at any point after the final temperature has been reached. At this point it may be of advantage to open the door vent also to increase cooling. However, when and how the vents are opened for cooling is very much a preference action due to the risk of thermal shock to the ware.

The front vent can be locked closed and in a safe state by using a small standard padlock using the padlock hole shown below.

Diagram 1.6



Automatic dampers

If your kiln is fitted with automatic roof vent (damper) then the operation of this vent is controlled via the controller and is covered in the controller instructions. The section directly applicable to automatic vent setting is the “Event” section.

Closing the door

Artizan kilns have swing/turn clamps. Close the door then the swing is closed over the matching locators on the door,,then gently turn the black twist grip on the swing/turn clamp until the door is closed fully. This needs to be tightened but not using any excessive force, just until the door feels like it is sitting nicely to its seal.

These clamps are self adjusting.

These clamps also have a padlock facility similar to the door vent flap to lock the kiln during the firing if required. Shown in diagram 1.7 on the next page.

Diagram 1.7



The Interlock

ARTIZAN kilns use a captive key interlock system to prevent electric shock caused by accidental touching of the exposed elements in the kiln chamber. When the interlock key is removed, the elements are disconnected automatically from the electrical supply.

After the door is closed and the clamps set, engage the interlock into its slot in the kiln front.

The interlock key is rectangular and will only fit in the correct way.

To turn the interlock on, turn 90 degrees clockwise, to disengage turn 90 degrees anti-clockwise. This movement is spring assisted and requires only slight effort. Once it starts to turn it will engage fully with the help of its internal spring,

DO NOT FORCE THE INTERLOCK ONCE ITS FINAL POSITION IS REACHED. The interlock will not be “any more on” but you may damage the internal mechanism.

Loading

Before loading the kiln it is advisable to turn the kiln off at the mains supply, even though your safety is ensured by the door interlock switch.

You may have purchased the kiln with a kiln furniture set or you may be using your existing furniture.

The primary consideration when stacking kiln furniture is stability.

Place 2 of the batts onto the kiln floor pillars so that the floor elements are covered, this is your base to start to build up from.

How and where you place your ware will be very much a matter of preference.

If the kiln is supplied with half batts, i.e. two shelves per layer, you may find that 3 props will be sufficient, or you may be happier using a prop in each corner. There is no fixed way of loading kiln furniture, the important thing is that the batt has adequate support.

When loading the kiln furniture be careful, remember, the batts are harder than the brick wall of the kiln and in our experience a large proportion of kiln wall damage is caused by careless kiln furniture loading.

For obvious reasons, care must always be taken when loading larger objects into deeper kilns to avoid back strain.

What to expect on the initial firing

Once the interlock has been engaged and the power turned on, a click will be heard at the back of the kiln, this is the safety contactor, the red “mains on” light on the kiln should illuminate and the controller should illuminate. If there is no display on the controller at this point check that the on-off button on the underside of the controller is in the “on” position..

Once the controller has been programmed and started, a second click will be heard and the orange “heat on” light will illuminate. This click and the orange light will simultaneously go on and off as the controller operates the kiln.

The kiln is now firing, ensure that the door clamps are fully closed and that the vent plugs are in or out as required. (or roof dampers in the required position).

As mentioned earlier there may be odours from the kiln.

Kiln brickwork cracking.

After the initial firing, small or hairline cracks may appear at various points in the kiln brickwork and possibly again at the first higher stoneware temperatures. This is normal and is due to expansion and contraction of the kiln bricks. After only a few firings the cracking will stop. Please don't hesitate to call us if you have any concerns about this.

Looking after your kiln

A large contributing factor to element failure is often that debris from general kiln use starts to clog up the grooves that the elements sit in causing them to overheat. This is especially evident in the grooves holding the base elements. Periodically clean out these grooves and remove the dust and debris. This can be done by brushing gently with a suitable brush or by using a filtered vacuum cleaner.

REMEMBER. After the first few firing the elements become less supple and so when cleaning the grooves be gentle with the elements and try not to disturb them too much.

As always when working with refractory materials, wear protective clothing and use a suitable dust mask.

If an element starts to “curl” out of the groove it can be saved but the earlier you try the better the result.

Heat around the area that is starting to curl out with a gas gun and, once the element is orange, ease it back into position with a heat resistant tool.

This repair can result in burns if care is not taken and so if in doubt, contact a recognised kiln engineer.

Depending on use it advisable to check all electrical connections are tight every 6 months or so and that no cables are discolouring due to heat.

It is advisable to have the kiln periodically checked by a qualified person to ensure all electrical components are in a healthy condition.

Safety contactor circuit

All kilns are fitted with a safety contactor and the controller houses an internal heat fuse circuit as secondary back up against any failure or incorrect setting of the controller.

Such protection will protect the kiln, it will not protect the medium being fired from the effects of reaching the pre-set protection temperature.

Kiln control instructions

As standard, your kiln will have been supplied with one of the following two types of control. KCR32C or KCR32Z. (ST535C)
Both controllers operate identically.

For full instructions for the controller supplied with your kiln consult the separate instruction manual supplied with the controller.

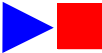
KCR32C instructions

On power up controller will go into test mode, for a few seconds it will show the software version of the kiln, then the thermocouple type that the system is running on, then it will settle down and show the present kiln temperature in the top display.

Before starting, make sure that only the top display and the segment window

are illuminated, if any other lights are lit press, the “start/ stop” as button to extinguish them.

Buttons index

Start / stop 

Step 

Back 

Up 

Down 

Function **Fn**

Advance 

Pause **||**

Event 

Information *i*

To set a program

If whilst in programming mode no buttons are pressed for a few seconds, the controller will time out and go back to kiln display.

The KCR32C and KCR32Z have 32 settable programs. Each program has 32 segments.

Press the “Step” button. The top display shows the program number, for instance 1 . The bottom display shows “Pn”. Use the up or the down buttons to

select the program required.

Press "Step". Top display will show a ramp rate, for instance "85", "FULL" or "END". The bottom display will show 1, this is segment 1. This segment is how fast you would like the kiln to reach its first temperature in degrees per hour. A slow firing might require the first temperature to be reached "50" degrees per hour. Whilst a fast firing would be set to reach temperature as quickly as possible so the rate required would be "FULL".

*If the automatic roof vent option is fitted to the kiln and is required to be closed during this first ramp, hold the "Function" button and press the "Event" button. The event light should illuminate to show the roof vent will be closed. When the event light is not illuminated the vent will remain open.

Press "Step" and the top display will show a temperature for instance "600". The bottom display will still show 1 and a light will illuminate above temperature. This temperature is in Celsius. This temperature is your first temperature. Use the "Up" or "Down" buttons to select the desired temperature.

Press "Step". The top display will show a time, for instance "0.30" or "PASS". The bottom display, again will show "1" and the triangle above dwell will illuminate. Dwell is the time in hours and minutes that you require the kiln to hold the first temperature.

*Again, choose by holding the Function BUTTON and pressing the Event key whether your roof vent will be open or closed during this soak period.

Press "Step". Top display will show a time, for instance "85", "FULL" or "END". The bottom display will show 2, this is segment 2. . This segment is how fast you would like the kiln to reach its second temperature.

*Again, choose by holding the "Function" button and pressing the "Event" button whether your roof vent will be open or closed during this ramp period.

At this point, if the kiln is required to finish, press the "down" key until "END" is shown in the top display.

End is below 00. All the above is segment 1, the controller has 32 segments and so for more complicated firings carry on as above by setting the next time, temperature and dwell. When you have programmed all you require, select "END" at the start of the following segment.

*If the kiln is fitted with the automatic roof vent option, it is worth bearing in mind that the vent will automatically open once the program is finished. If you select end after the top temperature is reached, the vents will open at that given temperature once any dwell time is finished. This may mean that the vents are opened too hot for your work.

If the vent is required to remain shut until a lower temperature and additional segment will need to be added with the vent programmed to remain closed.

P r o g	Prog. type	Seg. 1 Ramp c/hr	Seg. 1 Temp	Seg. 1 Hold Hr/min	Seg. 2 Ramp c/hr	Seg. 2 Temp	Seg. 2 Hold Hr/min	Seg. 3 Ramp c/hr
11	Slow Bisque	60	600	00	FULL	1000	00	END
12	Normal Bisque	100	600	00	FULL	1000	00	END
13	High Bisque	100	600	00	FULL	1140	00	END
14	Brush-On Earthenware Glaze Cone 6	100	300	00	FULL	1000	00	END
15	Standard Earthenware Glaze	100	300	00	FULL	1100	00	END
16	Earthenware High Temp. Glaze	100	300	00	FULL	1140	00	END
17	Mid-Range Stoneware Glaze	100	300	00	FULL	1200	00	END
18	Standard Stoneware Glaze	100	300	00	FULL	1245	00	END
19	Onglaze	100	400	00	FULL	780	00	END
20	Lustre	100	400	00	FULL	750	00	END

Simply repeat the steps above for segments 1 and 2, this time as segment 3. Set the ramp rate to FULL and after pressing "Step", select the required temperature that you are happy for the vent to open. Add 00:00 for the dwell time and then enter "END" at the start of segment 4, or the next segment.

Press "start" and the controller will display kiln temperature again.

To run a program

Press "Step" bottom display will show "Pn" and the top display will show the program number. Use the "up" or "down" buttons to select the program number required.

Press "Start" the top display will show kiln temperature and the bottom display will go blank.

Press "Start" again and the top display will briefly display the program number then it will begin the program.

Depending on the program contents, the delay triangle or the ramp triangle will flash and the segment number will be displayed in the bottom display.

If a delay has been set the delay triangle will flash and the top display will act as a count down timer showing the hours and minutes remaining before the kiln starts to fire.

As the kiln fires, the top display will show the kiln temperature and the bottom display will show the segment number.

If the kiln is climbing the upward facing ramp triangle will flash.

When the kiln is holding temperature the dwell light will flash.

To stop a program

Press "Start".

To pause a program

Press and hold the "Function" button then press the "Pause" button.

The top display will alternate between the current temperature and " - - ". This temperature will be held indefinitely or until the "Pause" button is pressed again. A warning reminder will be sounded every 10 seconds during the pause. When the pause is stopped the kiln will continue through the program from where it was paused.

To forward a program

At any time, the controller can be made to skip to the next segment. To do this, hold the "Function" button and press "Advance". This can be useful if the pause button is used. It may be that at the end of the manual pause you do not require

To view entered program data

This can be done whether the kiln is firing or not. Press the "Step" button, each press will forward the display to the next section. Once viewed, press the "Start"

button once to return the control display to kiln temperature.

To alter program data while the kiln is firing

Press the "Step" button until the desired value is displayed. Alter it using the "Up" or "Down" buttons. Press the "Start" button once and the new value will be stored and the kiln will continue.

Example program

If you require the kiln to start a 7am, fire at 85c per hour to 600c then full speed to 1060c and no soak. The automatic vent option* is to be open on the first ramp and then closed for the remainder of the firing.

It would be programmed like so. We will presume that it is being programmed at 5pm the evening before. We will make this program 24.

Press "Step". Use "Up" or "Down" buttons to select 24 in the top display.

Press "Step". Use "Up" or "Down" buttons to enter "85" for ramp time.

Press "Step". Use "Up" or "Down" buttons to enter "600" for temperature.

*Press "Fn" and "Event" buttons to extinguish the event light.

Press "Step". Use "Up" or "Down" buttons to select a dwell time of "0.00" hours.

Press "Step". Use "Up" or "Down" buttons to enter "FULL" for ramp time.

Press "Step". Use "Up" or "Down" buttons to enter "1060" for temperature.

*Press "Fn" and "Event" buttons to illuminate the event light.

Press "Step". Use "Up" or "Down" buttons to select a dwell time of "0.00" hours

Press "Step" Use "Down" button to select "END".

Press "Start" Use "Up" or "down" buttons to select a delay time of "14.00" hours.

Main display will show "14.00" with a flashing dot as the time counts down.

After 14 hours the kiln will start.

Top display will flash program number then "14.00" with a flashing dot. The bottom window will show "- " and the delay triangle will flash.

◆ Sections marked with * are only applicable to ARTIZAN kilns that have the optional automatic roof vent fitted.

Preset Programs

On page 15 is the list of ceramics programs that are programmed into your KCR32C / KCR32Z.

Programs 1—10 are preset for glass firings as the KCR32C / KCR32Z are multi use controllers and are our default controller across our wide range of applications. These programs can be overwritten to suit if you prefer to use them for your own ceramics cycles.

PROG 22 is preset for your INITIAL firing to 600c with the vents open and your kiln furniture placed in the kiln as it would be during a firing to allow moisture to escape.

Troubleshooting

Control has no lights

If the “mains on” light is not illuminated on the kiln :-

Check that the socket outlet that the kiln is plugged into is turned on or that the mains isolator is turned on.

Check that the controller is securely plugged into the kiln.

With the kiln unplugged or turned off, check the cable from the kiln to the controller for damage.

If the “mains on” light is illuminated:-

Check that the door is fully closed and the interlock is properly engaged.

Is the control on/off switch on the controller, located on the under side of the controller, in the off position?

With the mains turned off a competent person should be used to check the condition of the 2 x glass 1 amp fuses in the rear floor panel of the kiln. Access to these fuses is by removing the rear panel from the kiln.

Whilst there, the heat fuse will need to be checked. For advice on checking items inside the rear of the kiln it is advised that the competent person contact Kilncare.

If the above appear correct, contact Kilncare.

The control is working correctly, is showing that the kiln is receiving power but the kiln is not heating up.

With the kiln unplugged, check the cable from the kiln to the controller for damage.

Check that the controller is securely plugged into the kiln.

With the mains turned off, a competent person should be used to check the condition of the internal wiring and electrical contact points.

If there is no obvious damage then the kiln will need to be checked over with an electrical meter.

Controller shows an ERROR message.

Consult the controller manual and contact Kilncare.

A crackling noise can be heard when the kiln is firing.

This will be a loose connection and needs to be fixed immediately by a

competent person.

Continued use will almost certainly result in the connection failing.

Kiln is not reaching temperature or is slow.

This could be either an element failure, a burnt connection a loss of supplied power or a component failure.

Get the kiln checked by a competent kiln engineer.

Cracks in the kiln brickwork.

Minor cracking is to be expected, see page 11 of this manual.

Back up

We pride ourselves on our back up and after sales service and so in the unlikely event of any problems please do not hesitate to call our staff for friendly help and advise.

Contact us

Worldwide contact

Kilncare Ltd, The Kiln Works,
907 Leek New Road,
Baddeley Green,
Stoke on Trent,
Staffordshire,
United Kingdom.
ST2 7HQ,

Tel 0044 1782 535915

E-mail sales@kilncare.co.uk, Web www.kilncare.com



European Declaration of Conformity.

Kilncare Limited, The Kiln Works, 907 Leek New Road, Baddeley Green,
Stoke on Trent, Staffordshire, United Kingdom, ST2 7HQ.

We declare that the equipment described below was manufactured ourselves
to comply with directives listed.

We do not give any assurance that the equipment is suitable for any purpose
other than that listed below and must be operated and maintained in
accordance with our operating instructions.

Products.

ARTIZAN range of kilns.

Directives.

LVD - Low Voltage Directive 2006/95/EC.

EMC - Electromagnetic Compatibility Directive 2004/108/EC.#

#The equipment is intended for use only in premises having a service current capacity of 100 A
per phase, supplied from a distribution network having a nominal voltage of 400/230 V,
The user should determine in consultation with the supply authority, if necessary, that the service
current capacity at the interface point is sufficient for the equipment.

Harmonized Standards.

BS EN 1088:1995+A2:2008, BS EN 55014-1:2006, BS EN 55014-2:1997.

Description.

Ceramics kiln

Purpose of use.

Firing of ceramic items up to the maximum temperature
stated on the kiln data plate.

Product serial number.

As per affixed data plate.

Manufacture year.

2023

Technical documentation is held for this product.

Lee Sherwin,
Director,



ARTIZAN Range
Instruction manual.

2023

Want regular updates, offers and future sneak
peaks?

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