

SAFETY

Read and understand this installation and operating manual as well as the controls manual before operating your kiln. If you have any questions please contact Evenheat Kiln at 989-856-2281 or at evenheat-kiln.com.

Kilns are as safe as any other electrical appliance when used under normal and proper operating conditions. To create and maintain this safe environment observe all safety precautions.

Warning Symbol Descriptions

Warning symbols are used throughout this manual. These symbols alert the operator to certain hazards and important information. Pictured below are symbols used along with a description of each.



The Exclamation Point alerts you to particular cautions, hazards and information.



The Lightning Bolt alerts you to specific information regarding the risk of electric shock. Electric shock may result in injury or death.



The Heat Waves alert you to specific information regarding the risk of burn injury.

Emergency Shut Off Provision



The kilns power supply connection (plug/receptacle, breaker or disconnect) acts as the emergency electrical power shut off. Access to these devices should be unobstructed and safe at all times.

All electrical installations for direct wired models (those without a plug/receptacle connection) must include a power disconnect near the kiln and that is easily accessible and safe for emergency power shutoff.

Electrical Safety



A licensed electrician should be used for all electrical installation and service. All applicable local, state and federal electrical codes must be followed.

Use correct voltage, wire size and fuse or breakers. Kiln electrical requirements are located on the kiln nameplate. Make sure all electrical connections are tight. Avoid using aluminum wire.

Always use the proper electrical receptacle. Never alter the kiln cordset or cordset plug. Alterations can be dangerous. Alterations will void any warranties along with nullifying any Listing Agency markings.



Evenheat recommends that a voltage check be performed before placing the kiln into service, ideally before actual purchase. Operating voltage varies, with common operating voltages being 208V and 240V. The kilns operating voltage (printed on the kilns nameplate) must match the applied voltage (actual electrical service voltage). If it does not, do not install or operate the kiln as potential electrical and fire hazards exist. Contact Evenheat for guidance in such cases.

The kiln must be properly grounded.



Unplug or disconnect the kiln from the electrical service before accessing the chamber for servicing or vacuuming. Do not attempt to touch or replace the heating elements while the kiln is plugged in or connected to the electrical service. Electric shock may result in serious injury or death.

Never, ever use an extension cord to operate a kiln.

Kiln Location Safety

The best location for the kiln is a concrete floor. If not available, the kiln must be placed on a minimum of 2" of masonry extending at least 12" beyond the outside perimeter of the kiln.



Do not place or use kiln on combustible surface.

Place only on the metal stand provided by Evenheat Kiln, Inc.

The surface on which the kiln is placed shall be capable of safely supporting the combined weight of the kiln, kiln load and any operating personnel.

Observe all building, fire and safety codes when installing the kiln.

Do not install the kiln closer than 12" (31cm) from combustible wall surface or object or 36" from any ceiling surface in all opened and closed positions.

Install in a covered, well ventilated area.

Never place the kiln in a small, enclosed area such as a closet, cabinet or very small room. The room in which the kiln is placed into service shall be capable of safely dissipating all heat produced by the kiln.

Do not place the kiln in any structure resembling a carport or screened in porch. Avoid areas that are subject to outdoors weather.

Never install a kiln outside. Avoid moisture.

It is the user's responsibility to be knowledgeable regarding any and all contaminants, produced by the ware during firing, and take steps to properly and legally contain and dispose of these contaminants.

It is the user's responsibility to provide ventilation capable of removing all gases, fumes and other airborne contaminants produced by the ware during firing safely from work the area and building structure.



Do not store flammable or combustible products near or in the same room the kiln such as gasoline, paint, aerosol cans, paper, curtains, plastics, etc. Better yet, store these items in another separate structure designed for this purpose.

Position the power supply cables, power supply conduit, controller cables, pyrometer thermocouple leads and other materials in such a way as not to create a tripping hazard around the kiln.

The area around the kiln should be free of obstructions that interfere with the proper and safe operation of the kiln.

Never place anything under or above the kiln for storage. Absolutely nothing should be propped against the kiln.

Kiln Use Safety



The surface of the kiln is hot and burn injuries are possible. Keep all children and unsupervised personnel away. Always wear protective clothing, gloves and eyewear when operating and handling a hot kiln.



Use extreme care when accessing a functioning and/or hot kiln. Your kiln is equipped with a power interrupt switch assembly that is designed to remove electrical power from all heating elements when either the lid or chamber is opened. This power interrupt switch assembly is a mechanical devise and it can fail. Under no circumstances should you touch the heating elements with your body or any other devises like tools. Electrical shock may result in serious injury or death.



Use care when accessing or looking into a hot kiln, this includes looking through a cracked lid or peepholes. High heat escapes quickly and burn injury may result. When accessing or looking into a hot kiln, approach slowly and wear protective clothing and gloves designed to withstand high heat and eyewear capable of filtering Infrared and Ultraviolet light.

Protective clothing should be worn when operating the kiln and includes, but is not limited to, cotton clothing, heat resistant gloves and eyewear capable of filtering Infrared and Ultraviolet light.

Do not operate the kiln over the maximum temperature rating printed on the nameplate.

Never fire a kiln unattended beyond its anticipated firing time.

Never allow the power cord to touch the kiln. If the power cord, plug or receptacle becomes damaged discontinue use and replace immediately.

Do not remove the heat resistant, fiberglass sleeve affixed to the power cable. This sleeve protects the power cable from heat directed from the firing chamber.

Do not open the chamber with the lid in the open position.

Do not open the lid with the chamber in the open position.

Be sure that kilns Lid Support Bar and Chamber Security Bar are secured within the wireform catch before releasing the lid or chamber. The hardware used for these support and safety bars should be inspected periodically for damage and wear. If these devices are not operating properly discontinue kiln use until repair or adjustment is made.

It is recommended that a fire extinguisher, capable of dousing an electrical fire, be accessible in the event of fire. Smoke detectors within the kiln room are also recommended.

Keep the kiln lid and chamber closed when not in use.



It is the user's responsibility to have knowledge of the material intended to be fired. If you are unsure as to the safety of firing a particular material contact your materials supplier for guidance. If you remain unsure as to the safety of firing a particular material do not do it. Firing hazards include materials that explode or produce toxic gases. Finished ware hazards include materials containing lead. Materials containing lead should not be used for articles intended for food use.

Fire all ware according to the material manufacturer's instructions. Improper firing may result in damage to the kiln or ware.

Do not use the kiln to prepare food, heat a living space, dry clothes or ice laden articles or use as a storage devise. The kiln is designed for one purpose and one purpose only: the firing of glass materials.

All kiln models not equipped with an automatic shutoff devise (electronic control or kiln sitter) must not be allowed to exceed the rated operating temperature indicated on the kiln nametag. To prevent kiln from exceeding this maximum temperature disconnect it from the electrical power supply.

A kiln will remain very hot long after the firing is complete. All safety recommendations should be followed, even with the kiln unpowered, to avoid any burn injuries. Keep children and other unauthorized personnel away.

When firing is complete, and during periods of non-use, remove power from the kiln by unplugging or by throwing the disconnect or breakers to the OFF position.

Kiln Maintenance Safety



Disconnect electrical power from the kiln before performing any kiln maintenance. Failure to disconnect the electrical power supply may result in electrical shock which can cause serious injury or death.

Replace any worn, damaged or defective parts immediately with Evenheat Kiln replacement parts only. Discontinue use until parts are replaced.



When vacuuming the kiln use only HEPA filters on the vacuum. Prolonged expose to brick dust and other refractory materials can cause lung injury.

Inspect all electrical service connections periodically for wear.

Periodically check chamber jacket clamps for tightness. Tighten as necessary.

Studio Pro 41 Features



Dual Access Design

The Studio Pro 41 features a Dual Access Design. The Dual Access Design simply means you have the choice of entering the chamber through the Top or through the Front.

Front entry offers its many unique advantages. Front entry grants wide open access to the kiln floor. This wide open access is excellent for ware placement, particularly for ware that cannot be moved once positioned and lends itself especially well to glass placement found with large and architectural pieces. Front entry also makes possible the use of forming tools that require a horizontal approach.

Wall-free, front access also allows excellent opportunities for glass manipulation that require a horizontal approach such as raking or glass roll ups. Your work presents itself completely and without reservation.

Top entry offers many unique advantages. Top entry allows for the use of forming tools that require a vertical approach. It also offers easy placement of large ware such as slumping molds and forms.

Seamless Shelf

Large architectural and art pieces demand a firing shelf that is free of seams and joints. It's next to impossible to create large pieces that enjoy continuity and visual flow using a grouping of small shelves. A singular, seamless shelf is called for and the Studio Pro 41 delivers.

Our single, one piece shelf is designed exclusively for the Studio Pro 41 and offers 884 square inches (6.14 sq. feet) of uninterrupted firing surface. It's shaped perfectly for the firing chamber and measures 39.3" at its widest and 41" at its longest.

As a practical matter, the largest rectangular area of our single shelf measures 39.3" x 20.5" which gives 805 square inches. Compare this to two 20" x 20" square shelves butted up against each other that gives 800 square inches. While each offer about the same firing area, Evenheat's single, seamless shelf does so without seams.

Fiber Lid Construction

The lid of the Studio Pro 41 is constructed of a special fiber material that provides excellent thermal properties along with light weight. This design allows the heating elements to be positioned on the surface for maximum heat transfer and firing efficiency. We also position these lid heating elements left to right to prevent them from sagging or bunching-up with repeated opening and closing. It's a small but important detail that guarantees performance and satisfaction over the life of the kiln.

The Studio Pro 41's well engineered lid uses a variety of design principles to deliver strength, material support and flex where needed. Strength is provided by the center lid truss and shrewd use of metal bends. Material support is accomplished via a matrix of refractory rods and buttons. Flex is properly found in the stainless band ringing the lid itself. It works very well.

Swing View Adjustable Control

The Swing View Adjustable Control is a pivoting, swing-up enclosure that allows the user to rotate the Rampmaster control to a comfortable viewing and programming angle. It's that simple. You're going to really enjoy this feature.

The Swing View Adjustable Control is stock equipped on the Studio Pro 41.

Wonderful Handles

As with all of our kiln designs, the Studio Pro 41 is equipped with wonderfully designed handles for confident and easy use.

The lid handle is lowered and extended to offer a shorter, more relaxed movement. It's also wide enough to allow for easy gloved-hand operation. Our chamber handle spans the entire width of the chamber to lift only at the strong corners and is set away from the outer surface for a cool and confident grip.

Handles are a design priority at Evenheat. A kiln must be easy to use and handles are never an afterthought. We enjoy fitting our kiln designs with serious handles and you'll appreciate the effort.

Rampmaster with Express Mode

The Studio Pro 41 is stock equipped with our Rampmaster w/ Express Mode controller. The Rampmaster w/ Express Mode was designed exclusively for glass work. Express Mode offers an easy, 3 step programming process. Simply key in your glass COE, firing style and firing speed to create the firing program. It's quick, it's easy and it's accurate.

The Rampmaster with Express Mode also features many single key features like Skip Ahead, Add Time, Add Temp and Alarm. Of course the Rampmaster continues to offer Custom Mode programming for full artistic control. The Rampmaster with Express Mode has set a new standard for glass kiln design and control.

Spring Assist Lift

To assist in front opening the Studio Pro 41 includes a spring assist feature. This well designed mechanism travels cleanly and does not pull the artist into the kiln like lesser designs. Travel stops are included to prevent over extension of the chamber and to provide a consistent chamber opening angle. We've also included a safety bar to prevent the chamber from free-fall.

In the heat of battle you need a smooth and anxious-free movement and the Studio Pro 41 delivers.

Stout Hinge Design

The Studio Pro 41 chamber pivot is secured to the base of the kiln, not the floor. These strong and sturdy pivots support the load easily and are reinforced internally for exceptional strength.

The chamber pivots are critical to the overall performance and life of the kiln. It's the details that make Evenheat "Better by Design".

Corner Mounting Technique

The corners of the kiln body and lid provide excellent strength for mounting. The flat sides of the kiln don't offer this strength, especially on square shaped kilns.

We install our load bearing hinges, spring assist and handle brackets on these corners for this reason. Longer life, high reliability: solid design makes a difference.

Well Designed Stand

Kiln stands tend to get overlooked by some manufacturers. Not Evenheat. The stand on the Studio Pro 41 is more than a simple stand and was engineered from the ground up to take the loads and requirements of use.

The Studio Pro 41 stand is permanently attached to the kiln base itself and is shipped completely assembled. We don't use temporary or quick release fasteners as these are prone to failure. It's a solid design that quietly does its job.

Easy Set-up through Narrow Doorways and Halls

The Studio Pro 41 is shipped partially disassembled for easy set-up and passage through narrow doorways and halls. The floor and chamber are handled separately allowing for installations where other, comparably sized kilns would not fit.

Power Interrupt Switch

The Studio Pro 41 is standard equipped with a power interrupt switch which removes electrical power from all heating elements if either the lid or chamber is opened. This is important for those who may access the kiln during firing such as glass manipulation and roll-ups.

Studio Pro 41 Setup and Placement

Kiln Location

Before unpacking and setup of your Studio Pro 41 you will need to make sure your kiln location is adequate for unobstructed and safe operation.

Place your Studio Pro 41 in a location that offers a level, non combustible surface. The Studio Pro 41 should be placed no closer than 12" from any wall or 36" from any ceiling surface in all opened and closed positions. All flammable and combustible materials should be removed from the kiln area. Enjoy your kiln safely.

The kiln location must be strong enough to support the weight of the kiln, personnel as well as shelving and ware to be fired. Please note again that the surface on which the kiln is placed should be made of a non-combustible material.

The Studio Pro 41 is equipped with power supply cable fitted with a 240V, 50A plug (NEMA 6-50P). The corresponding 240V, 50A receptacle (NEMA 6-50R) should be located near the kiln's setup location. The position of the receptacle should be such that the kiln's plug easily reaches and plugs in nicely. Stretching the cable to plug it in can cause receptacle failure, avoid this. The power supply cable must also be positioned in such a way as to avoid a tripping hazard.

Kiln Installation

Your Studio Pro 41 has been shipped in 3 sections for easy placement. Narrow doorways and halls are possible to navigate with each of the 3, individual sections. This allows you to place the kiln where it would be otherwise impossible or impractical to do with a kiln of this size.

We have produced a separate installation manual that is included with your kiln. Please refer to this manual for proper and safe installation.

Kiln Operation

Plugging In the Kiln

Throw the kiln control panel power switch to the OFF position. Plug the Studio Pro 41's power plug into your receptacle. Be mindful that the power cord plug easily reaches the receptacle. If it does not, safely reposition the kiln and/or receptacle until it does.

The power supply cable on the Studio Pro 41 is sleeved with a heat resistant, fiberglass material. This material protects the power supply cable from heat directed from the kiln. Even with this special sleeve it is important that the power supply cable does not make contact with the kiln. Safely reposition the kiln and/or receptacle if necessary.

It should also be noted that the path of the power cable should not create a tripping hazard. It should be positioned in a no-traffic area. Safely reposition the kiln and/or receptacle if necessary.

Pre Fire

Evenheat suggests that you perform a test fire with your new kiln before putting it into service.

A pre fire gives you an opportunity to become familiar with the features and functions of the kiln before committing to an actual firing. It also allows your heating elements to form a protective oxide barrier. A light lubricant was used in the production of your heating elements. The pre fire will burn this off, almost immediately! You may notice a light smoke as this occurs. It's normal.

A separate control manual is included on the manuals disc included with your kiln. Refer to these manual(s) for controls programming instructions.



Scan this QR code to view instructional programming videos for both the Evenheat Set-Pro and Rampmaster controls.

You will also find these instructional videos and manuals on our web site www.evenheat-kiln.com

Program the control to reach 1200°F as fast as possible and hold for 15 minutes (see the included controls programming manual for instruction). Once the kiln reaches 1200°F it will begin to hold for 15 minutes. As it's holding you will notice audible clicks. These clicks are made by the control relays turning the heating elements on and off and it's a normal and welcome sound.

We would encourage you to repeat this pre fire procedure if you've never fired a kiln of this design before. You won't hurt anything. Kilns are wonderful machines and they're even more wonderful when you know what to expect and how to work them.

Your Firing Surface

Evenheat recommends, and supplies a full, seamless shelf for use in the Studio Pro 41 (part #07441.000). This full shelf measures 39.3" wide and 41" long. The corners of the shelf are shaved slightly for a perfect fit.

Regardless of your firing shelf choice, your shelf should be prepared by applying a coat of glass separator. Glass separator prevents your glass from sticking to the shelf during firing. You must use glass separator when firing directly on the kiln shelf. If you're using Evenheat supplied glass separator preparation and applications instructions are included.

You may also choose to fire on many of the fiber "papers" available.

You DO NOT want to fire your glass directly on the floor of the kiln. Doing so will most likely allow your glass to stick to the floor and damage it, and that's no fun. If you have not prepared your shelf do so now.

Placing Shelves into the Studio Pro 41

Evenheat recommends that shelves, forms and other firing surfaces (molds, forms, etc.) be loaded from the top. See "Loading the Studio Pro 41 from the Top" in this manual for proper Top Loading procedures.

Loading and positioning of the shelf or other firing surfaces from the top allows the artist to properly position these items within the chamber so as to allow for proper spacing to the chamber walls and thermocouple and to allow for error-free front access.

It's also recommended that 1" posts be used under the shelf or other firing surfaces (molds, forms, etc.). Other post heights are acceptable. Posts act to bring your shelf up off the floor which tends to reduce and eliminate bubbles. For typical glass firings using the full shelf, we recommend using at least 12 posts to support the shelf. If you're firing a large amount of glass, such as casting, we do recommend using more posts for added support.

When positioning the shelf or other forms it is recommended that these items be placed away from the thermocouple (temperature sensor) as much as possible. Any shelf or form should be at least 1" away from the thermocouple. The shelf should also be positioned below the thermocouple as placing it above may cause a low temperature reading.

Loading the Studio Pro 41 from the Front

To load the Studio Pro 41 via the front, throw the kiln control panel power switch to the OFF position and simply lift on the chamber handle. Take the chamber back until the chamber hinges make contact with the base rails (automatic stop).



As the chamber is opened, a safety bar on the left of the chamber will drop into position against a wireform catch. This safety bar is designed to stop the kiln chamber from closing from the open position. If this safety bar does not drop into the wireform catch DO NOT use the kiln until this safety feature is fixed and the safety bar operates properly. Contact Evenheat for assistance.

Your shelf or other firing surfaces should have already been loaded from the top. If you have not done, do so now.

Place your glass artwork onto the shelf or other firing surface. Avoid positioning the shelf, molds, glass etc. directly at the thermocouple (temperature sensor). The thermocouple needs some space around it in order to operate properly.

To close the chamber, pull the chamber safety bar towards you and gently lower the chamber using the chamber handle. Do not lower the chamber using the lid handle.

Open the lid and check for clearance, particularly with the thermocouple. Remember we want to give the thermocouple some space. Reposition your shelf and/or glass if necessary.

Loading the Studio Pro 41 from the Top

To load the Studio Pro 41 via the top, throw the kiln control panel power switch to the OFF position and simply lift on the lid handle. For best results grasp lid handle with both hands.

Take the lid all the way back until the lid support bar catches on the wireform catch located on the kiln chamber.



As the lid is opened, a support bar on the right of the lid will drop into position in a wireform catch. This support bar is designed to hold the kiln lid in the open position. If this support bar does not drop into the wireform catch DO NOT use the kiln until this feature is fixed and the support bar operates properly. Contact Evenheat for assistance.

Place your glass artwork onto the shelf or other firing surfaces. Avoid positioning the firing surfaces or glass directly at the thermocouple (temperature sensor). The thermocouple needs some space around it in order to operate properly.

To close the lid, move the lid support bar from the wireform catch and gently lower. For best results grasp the lid handle with both hands when lowering. When closing the lid be sure that your glass does not make contact with the lid or lid heating elements. This is possible when using tall forming molds and large pieces and must be avoided.

Firing the Studio Pro

Once the Studio Pro 41 has been properly loaded and closed you may now fire the kiln.

Throw the power switch, located on the kiln control panel, to the ON position. The temperature control will illuminate and programming of the control is now possible.

A separate instructional manual for the Set-Pro and Rampmaster controls was included with your new Studio Pro 41. Please refer to these manuals for all programming and operation details.

Venting

The Studio Pro 41 is designed to be vented if desired. Venting is accomplished by inserting a post, preferably 5" to 6" long, between the front center of the lid and the top of the firing chamber. Stainless steel plates are located at these areas to offer solid, damage-free operation.



Placing the post for venting purposes exposes the user to high heat. Heat resistant gloves should be worn when inserting and removing the post, as well as eyewear capable of filtering UV and IR light. High heat escapes quickly. Approach and act with care.

When placing a post between the lid and chamber for venting insert the post about 1" underneath. The remainder of the post will stick out for the purposes of handling.

The Studio Pro 41 is not designed for venting the chamber. That is to say, do not use this venting procedure between the kiln chamber and kiln floor. Doing so will destroy the brick at the chamber and floor.

Initial Kiln Maintenance (Chamber Tightening)

The Studio Pro 41 uses worm-gear clamps to secure the stainless steel chamber jacket to the brick chamber. During firing, particularly on a new kiln, the stainless steel jacket expands causing the worm-gear clamps to loosen slightly. These worm-gear clamps (located on the left side of the chamber) must be checked for tightness and tightened if necessary. While holding the worm-gear clamp securely with a pair of pliers or channel locks, use a 5/16" socket to tighten each worm-gear. Snug is good, do not overtighten.

Evenheat recommends that these clamps be checked for tightness after each of the first three firings and then after every other third firing.

Lid Heating Element Support Rod Maintenance

The Studio Pro 41 lid is constructed of a fiber material that is supported through the use of refractory buttons and rods. Initially the fiber is in a soft, blanket state and self-rigidizes as it's used. After this initial period, you may find that the element rods appear to have slack between the lid heating elements and fiber material. It's at this point that you may remove this slack and bring the element rods close to the fiber lid material once again.



Before performing this procedure remove power from the kiln by unplugging the kilns power cord from the wall receptacle. Failure to remove power before maintenance can expose the user to dangerous voltage which can lead to injury or death.

Remove the small, stainless vent plate attached to the bottom of the lid handle bracket.

Remove the lid spanning rod by removing a collar and pulling the lid spanning rod out.

Remove the 8 screws that secure the center lid box to the lid.

Pull away the center lid box to expose the element/rod connections.

Carefully open the lid all the way back until the lid support rod catches the wireform catch.

Locate and loosen each element rod connector you would like to remove slack from. Use channel locks or pliers to hold the brass barrel while loosening the silver colored bolt with a 1/4" socket or nutdriver.

Gently push the element rod up against the lid fiber and tighten the silver colored bolt. *Do apply force on the rod as you position it against the fiber. Simply move it against the fiber.*

Repeat this procedure for any remaining element rods you would like to tighten.

Once chosen element rods have been tightened reassemble in reverse order.