

JEN-KEN KILNS KNIFE OVEN MANUAL FOR VERTICAL AIR BATH AND FIBER FRONT LOADERS

Safety First - Read and understand all operating instructions before operating your kiln.

SAFETY PRECAUTIONS: Kilns are as safe as any other electrical appliance when used under normal and proper operating conditions. All safety precautions throughout this manual should be observed.

- Do Not install kiln closer than 12 inches from any surface
 - Do Not place the kiln on any flammable surface (i.e. Carpet, Wood, Linoleum, etc.)
 - Make sure all electrical specifications are followed. Use correct voltage, wire size and breaker. Make sure all connections are tight. Avoid using aluminum wire.
 - Always use the proper receptacle.
 - Install in covered, well-ventilated area. Fumes from the ware must be vented to the outside. Never use your kiln outside! Avoid moisture.
 - Always keep children and unsupervised personnel away. Surface will get hot and a burn could result. Be extremely careful when working near a kiln!
 - Do not operate kiln over maximum temperature rating. (Knives and Heat Treating to 2100°F)
 - Fire knives only to the manufacturer's recommended firing temperature. Improper fire temperatures could result in damage to your kiln.
 - Replace any worn or defective parts with ONLY genuine **JEN-KEN Kiln** replacement parts.
 - Never place anything above or under the kiln for storage, nor should anything be propped up against the kiln.
 - Do not store or use flammable products near your kiln such as gasoline, paint, aerosol cans, paper, curtains, plastic, etc.
 - A qualified electrician or service person should be used for all electrical service or repairs.
 - If the kiln power cord becomes damaged or corroded, replace the cord immediately.
 - Unplug the kiln before servicing or vacuuming.
 - Do not touch or attempt to replace the elements while the kiln is plugged in.
 - Kiln must be properly grounded.
 - Never allow the power cord to touch the kiln. Never use an extension cord.
 - Do not drop or slam the lid shut.
 - **NEVER LEAVE THE KILN FIRING UNATTENDED.**
 - Use common sense while installing and using.
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NOTE: If you are in doubt about anything turn the kiln off, unplug it, and call your dealer or the factory at (863) 648-0585 Tues-Fri 8-4 Eastern Time. Emails to jenkenkilns@gmail.com

ABOUT YOUR KILN

Introduction

All of the Jen-Ken Controllers are outstanding units that we have developed for a range of Jen-Ken kilns. The controller has been designed and programmed for Jen-Ken Kilns by Orton Ceramics and TAP controllers.

Elements

Elements are the coils of wire that produce heat inside the kiln. They are made from a high quality, high-temperature wire. During the firing, they become very soft and when cool become brittle. Life expectancy of the elements will depend on the number of firings, the firing temperatures, and the products being fired. At lower temperatures, the elements will last longer than firing at higher temperatures. Care should be taken to make sure that no foreign matter comes in to contact with the elements. This will greatly reduce their life expectancy. Regular vacuuming of the kiln lid, bottom and the element grooves is recommended.



In a digital kiln, the coils as a group turn on and off during firing. You will hear the clicking of the relays. It will click more if a slow rate of rise in temperature is used and less if the kiln is told to fire quickly. Your Jen-Ken Kiln has one relay in the single coil kilns and separate relays for the top and side elements models to increase the life of the relays.

SAFETY FIRST: In a digital kiln, if a relay fails, the section that the relay controls might not heat up, or could stay on continuously. If this happens, turn off the kiln at the breaker and unplug. At this point, you will need to replace the relay. Call Jen-Ken Kiln Company for assistance. Kilns with two or more coils have multiple relays so that if one relay fails the kiln cannot heat too high in temperature. Kilns with one coil need to be watched more.

Kiln Brick

All Jen-Ken kilns are made of hand selected 2300°F refractory brick. The brick is strong as a whole and has a very long life. The brick can chip easily, and care should be taken to avoid bumps while loading and unloading shelves. Frequently vacuum, using a soft vacuum brush, the brick lid, the grooves that the elements are in and the bottom of the kiln, will keep ashes from the shelf paper out of the kiln. This will also remove the dust, debris and loose kiln wash from the kilns.



Kiln Jacket

Your kiln is encased in a stainless-steel jacket and is also equipped with handles for easy moving. Due to the high temperatures, discoloration may appear on the stainless jacket. A good metal polish will remove this discoloration.

RECOMMENDED KILN ACCESSORIES



Always wear **Safety Glasses** whenever you look directly into a hot kiln to protect your eyes from infrared and ultraviolet light.



Hot gloves made of Kevlar and a Lid Lifter: An operating kiln is very hot. These items can help preclude burns. Caution: A hot handle looks like a cold handle and if the kiln is hot inside the handle is hot also.

CHOOSING A LOCATION:

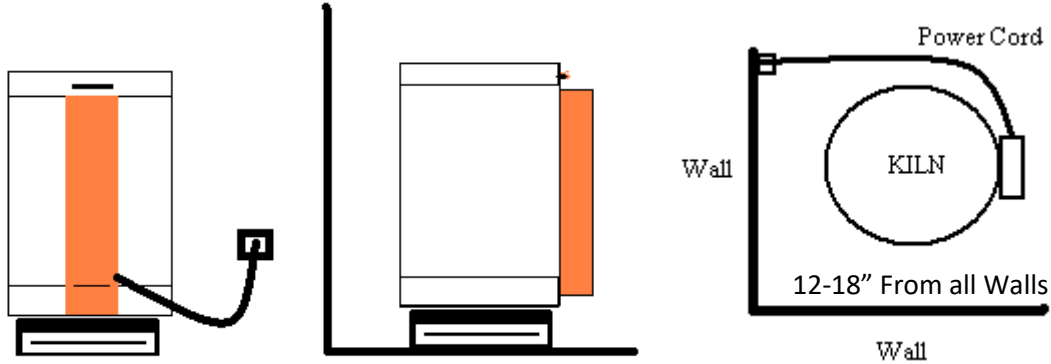
The proper location is as important as choosing the right kiln. Below are some safety guidelines:

- The best and safest place for your kiln is on a cement floor. (If not, some type of adequate fireproof material should be used beneath the kiln to prevent a possible fire hazard or prevent discoloration of the floor.) There must be an air space under all kilns.
- Concrete blocks may be used to raise the kiln or a metal stand that is available from **JEN-KEN** Kilns.
- Proper electrical service must be available. Refer to the section on Electrical Specifications.
- Area should be free from flammable or combustible materials such as gasoline, paper, paints, plastics, etc.
- Area should be covered, dry and with good ventilation to the outside. Kilns do not produce foul odors and fumes, but some products go through a chemical change in the kiln. They could release fumes in the air, that with ample cross-ventilation to the outside, can be kept to a minimum. If ventilation is a problem, then call to see if an Orton Vent System is applicable.
- A minimum of 12 inches should be allowed between the kiln sides and the nearest non-combustible wall or object. If the kiln is a 22" more in height the kiln will need 18" or more in wall distance for the additional heated area of the kiln. If the wall behind the kiln gets hot then the kiln is too close.
- Never place the kiln in a small enclosed area (such as a closet, cabinet or very small room). The room a kiln is in should have an open front to dissipate the heat. The room temperature will increase past a reasonable level quickly. Air circulation and ventilation are needed to remove heat and vapors that may be released in the firing. In a larger room, the exterior of the kiln will stay cooler than in a very small room.
- Since the exterior of the kiln gets very hot, place the kiln out of the way of children, traffic and work areas.
- Never install a kiln outside and avoid undue moisture.
- Never let the power cord come in to contact with the kiln. The kiln may need to be rotated a little for the cord not to touch the kiln. If the cord makes a right-angle cord to the plug, have the receptacle installed so that the cord goes down and not up. The cord should not make a loop in the air.
- Level the kiln using a level across the top of the open kiln.

The kiln receptacle should be located to the back right of the kiln, about 1 to 2 feet from the ground. Review the diagram on the next page

Installation Diagrams:

Store Nothing
Above the Kiln



Cement Floor
Cord Not
Touching Kiln

A Minimum of 12" Away
From a Block Wall
A Minimum of 18" for All
Other Materials.

Kilns must also have an Air Space Under the Kiln. Kilns cannot sit directly on a floor or any surface. Use a kiln stand or concrete blocks with the holes up and down at a minimum. Small Table Top Kilns can be used with a kiln stand or the kiln bricks supplied, as long as the material under the kiln is not combustible. For kilns with base brick put a large smooth stepping stone on the table first, then the base bricks under the kiln to the outside, then the kiln on top of the base brick.



This Location has the kilns out of the way with a vent hood to remove fumes and heat from the room. Around the alcove cement board has been placed with an air space in between to reduce heat from the higher temperatures the ceramic kilns produce.

ELECTRICAL SPECIFICATIONS:

To operate the kiln safely and efficiently, your kiln needs the proper electrical outlet with the correct electrical capacity and voltage. The chart below will assist you the selection of the proper wire and breaker size for your **JEN-KEN** Kiln. A licensed electrician or the local power company should determine if you have the proper voltage. A kiln that is manufactured for 240 volts of service will not run properly on 208 volts. This difference of 32 volts is about a 25% reduction in power, which hinders a kiln from reaching high temperatures. Likewise, if you have 240 volts and you install a kiln manufactured for 208 volts, it will heat so rapidly it will hurt the ware in the kiln. Improper elements can be dangerous. Be sure to have the proper elements in your kiln to match the electrical service.

If you have 208 volts of service, you might NEED 208 volt coils.

If you have 240 volts of service, you NEED 240 volt coils.

Any changes to your kiln or improper electrical installation will void the warranty.

ELEMENTS: Elements are the coils of wire that produce heat inside the kiln. They are made from a high quality, high-temperature wire. During the firing, they become very soft and when cool become brittle. Life expectancy of the elements will depend on the number of firings, the firing temperatures, and the products fired. At lower temperatures, the elements will last longer than firing at higher temperatures. Care should be taken to make sure that no foreign matter comes in contact with the elements. This will greatly reduce their life expectancy. Regular vacuuming of the kiln lid, bottom and the element grooves is recommended.

JEN-KEN KINFE KILNS

MODELS AF3P, Auto Fire, and TAP	Voltage	Amperage Draw	Wire Size Required	Fuse Required	Receptacle
VAB 16	240	15	12	20	6-20R
VAB 21	240	23	10	30	6-30R
VAB 30	240	26	10	30	6-30R
VAB 48	240	36	8	40-50	6-50R
FFL 12	120	15	12	20	6-20R
FFL 18	240	17	12	20	6-20R
FFL 24	240	17	12	20	6-20R
<p>IF YOUR KILN IS OVER 30 FEET FROM THE BREAKER YOU MAY HAVE TO GO TO THE NEXT HEAVY GAUGE OF WIRE, PLEASE CONSULT YOUR ELECTRICIAN. THE FARTHER THE ELECTRICAL RUN THE HEAVIER THE WIRE HAS TO BE!!!!</p>					

SETTING UP YOUR KILN

- Assemble the kiln stand and place it on the floor in your work space. The round top carriage bolts are on top and the 8 hex head bolts are used on the side of the stand. Tighten all bolts and make sure the stand is sturdy before putting the kiln on top of the stand.
- Remove all packaging from the kiln and place it on the stand. Do not plug it in yet.
- Make sure that your kiln sits completely level. It may be necessary to use a level to determine
- Open the lid of the kiln and inspect the interior looking for anything unusual like broken brick.
- Carefully inspect both the heating element coils to make sure that they are seated back in the grooves. Try to avoid touching the coils with your fingers, as oil from your skin may cause premature element failure.
- Vacuum out the interior of your kiln and along the grooves in the lid to remove any debris that may come loose when you close the lid or during firing.
- Your kiln has been pre-fired at the Jen-Ken factory, and should not require a pre-firing prior to its first use. However, should you choose to do one anyway, you may select any of the built-in programs.
- You're now almost ready to plug in the kiln and fire it for the first time. Before we go there, however, it's important for you to get acquainted with your AF3P controller.



Make sure your kiln sits level.



Vacuum any loose debris

Kiln controllers are not a safety device. The controller provides 12VDC outputs to operate relays, which in turn enable/disable kiln heating elements. It is possible for relays to fail in the on position. This controller cannot protect against relay failure.

NEVER LEAVE THE KILN UNATTENDED

The following programs were made available to us by DogHouse Forge

All hardening hold times are listed without additional working time. Users will need to adjust final hold length based on oven load size and speed of processing.

This information should be used as a guideline for processing blade steel. Users will need to adjust for oil speed, oven load size, and personal experience. DHF recommends running complete thermal cycling and grain refinement programs with all high carbon blade steels to achieve the highest quality results.

High Carbon Blade Steel standards

1084

1095

52100

5160

440C

Hold Times at Key Temperatures

Hold times are an important part of the firing cycle. These are temps that are used repeatedly in the firing process. "Speed Dial" type control or access would be ideal.

1275° - General Destress with a 10-minute hold

Used repeatedly throughout the process. Hold times not needed longer than 10 minutes

1400° to 1450° - Are the general midpoint temps for all grain refinement programs with 10-minute holds (used on all "10 series" steels)

Used on all "10 Series" Steels. Longer hold times not needed.

1475° - Is the steel hardening temp for most carbon steels with a hold time of 30-minutes (30-minutes allows for temperature equalization and added work time when cycling multiple batches of blades)

30 minutes allows for temperature equalization and added work time when cycling multiple blade batches

1550° - Is a high hardening temp with a 30-minute hold (30-minutes allows For temperature equalization and added work time when cycling multiple batches of blades)

30 Minutes allows for temperature equalization and added work time when cycling multiple blade batches

2000° - Is a stainless steel start point

350°, 400°, 450°, 500° - are standard tempering temp with 2 hour holds

1084HC

Normalization –

Full ramp to 1600° with a 5-minute hold. Cool to 800° in air

Full ramp to 1475° with a 5-minute hold. Cool to 800° in air

Full ramp to 1425° with a 5-minute hold. Cool to 800° in air

Stress Relieving –

Full ramp to 1275°. Repeat as needed.

Hardening –

As treated from mill with no Normalization or grain refinement

Full ramp to 1450° with 10 minutes for equalization. Quench in oil.

As treated with normalization and Thermal cycling

Full ramp to 1490° with 10-minute soak for equalization

Oil quench - Faster oil speed recommended

-Forge Oven- Programs For 1084HC

FO	Program	Rate	Temp	Hold	Quench
Pr01	1084HC Normalization Part 1	Full	1600°	00.05	Cool in air to 800°
Pr02	1084HC Normalization Part 2	Full	1475°	00.05	Cool in air to 800°
Pr03	1084HC Normalization Part 3	Full	1425°	00.05	Cool in air to 800°
Pr04	1084HC Stress Relieving	Full	1275°	00.00	Repeat as needed
Pr05	1084HC Hardening Part1	Full	1450°	00.10	Quench
Pr06	1084HC Hardening Part 2	Full	1490°	00.10	Quench

1084 Tempering - As Quenched 65

Degree Fahrenheit	Resulting Hardness HRC
300°	65
350°	63
400°	60
450°	57
500°	55

1095HC

Normalization –

Full ramp to 1575° with a 5-minute hold. Cool to 800° in air

Full ramp to 1450° with a 5-minute hold. Cool to 800° in air

Full ramp to 1400° with a 5-minute hold. Cool to 800° in air

Stress Relieving –

Full ramp to 1275°. Repeat as needed.

Hardening –

As treated from mill with no normalization or grain refinement

Full ramp to 1475° with 10 minutes for equalization. Quench in oil.

As treated with normalization and Thermal cycling

Full ramp to 1500°/1550° with 10-minute soak for equalization

Oil quench - Faster oil speed recommended
 (slower oil speed use higher range of hardening temperatures)

-Forge Oven- Programs For 1095HC

FO	Program	Rate	Temp	Hold	Quench
Pr01	1095HC Normalization Part 1	Full	1575°	00.05	Cool in air to 800°
Pr02	1095HC Normalization Part 2	Full	1450°	00.05	Cool in air to 800°
Pr03	1095HC Normalization Part 3	Full	1400°	00.05	Cool in air to 800°
Pr04	1095HC Stress Relieving	Full	1275°	00.00	Repeat as needed
Pr05	1095HC Hardening Part1	Full	1450°	00.10	Quench
Pr06	1095HC Hardening Part 2	Full	1500°/1550°	00.10	Quench

1095 Tempering - As Quenched 66 HRC

Degree Fahrenheit	Resulting Hardness HRC
300°	65
350°	63
400°	62
450°	61
500°	59

52100HC

Normalization –

Full ramp to 1625° with a 5-minute hold. Cool to 800° in air

Stress Relieving –

Full ramp to 1275°. Repeat as needed.

Hardening –

As treated from mill with no normalization or grain refinement

Full ramp to 1550° with 10 minutes for equalization. Quench in oil.

As treated with normalization and Thermal cycling

Full ramp to 1580° with 10-minute soak for equalization

Oil quench - Faster oil speed recommended

-Forge Oven- Programs For 52100HC

FO	Program	Rate	Temp	Hold	Quench
Pr01	52100HC Normalization Part 1	Full	1625°	00.05	Cool in air to 800°
Pr02	52100HC Stress Relieving	Full	1275°	00.00	Repeat as needed
Pr03	52100HC Hardening Part1	Full	1550°	00.10	Quench
Pr04	52100HC Hardening Part 2	Full	1580°	00.10	Quench

52100 Tempering - As hardened 65/67 HRC

Degree Fahrenheit	Resulting Hardness HRC
300°	63
350°	61
400°	60
450°	58
500°	55

5160HC

Normalization –

Full ramp to 1600° with a 5-minute hold. Cool to 800° in air

Stress Relieving –

Full ramp to 1275°. Repeat as needed.

Hardening –

Full ramp to 1525° with 10 minutes for equalization. Quench in oil.

Oil quench - Faster oil speed recommended

-Forge Oven- Programs For 5160HC

FO	Program	Rate	Temp	Hold	Quench
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Pr01	5160HC Normalization Part 1	Full	1600°	00.05	Cool in air to 800°
Pr02	5160HC Stress Relieving	Full	1275°	00.00	Repeat as needed
Pr03	5160HC Hardening Part1	Full	1525°	00.10	Quench

5160 Tempering - As hardened 63 HRC

Degree Fahrenheit	Resulting Hardness HRC
300°	60
350°	59
400°	58
450°	57
500°	56

440C HC

Hardening –

Segment 1 Destress – Full ramp to 1200°, equalize and hold 20 min

Segment 2 – Full ramp to 1400°, equalize and hold 20 min

Segment 3 – Full ramp to 1900°, hold 45 minutes at temperature

Quench – can use air, positive pressure vacuum, interrupted oil. Cool to 150°

-Forge Oven- Programs For 440C HC

FO	Program	Rate	Target	Hold	Quench
Pr01	440C HC Normalization Part 1	Full	1625°	00.05	Cool in air to 800°
Pr02	440C HC Stress Relieving	Full	1275°	00.00	Repeat as needed

Pr03	440C HC Hardening Part1	Full	1550°	00.10	Quench
Pr04	440C HC Hardening Part 2	Full	1580°	00.10	Quench

AS Quenched 440C - 59 HRC

Degree Fahrenheit	Resulting Hardness HRC
300°	NOT RECOMMENDED
350°	59
400°	58
450°	57
500°	56

8. Warranty

This limited warranty is given only to the immediate purchaser ('Buyer') of the TAP Kiln Controller Assembly ("5358440-1"). This limited warranty is not transferable. SDS Industries warrants the controller Main Board, CPU Module, Display Board, and LCD Screen installed in the TAP Kiln Controller Assembly to be in good working order under normal operating conditions for a period of three (3) years from the date of purchase. Should the TAP Kiln Controller Assembly fail to be in good working order at any time during the stated three (3) year period, SDS Industries will, at its option, repair or replace the TAP Kiln Controller Assembly as set forth below. The liability of SDS Industries is limited to replacement and/or repair at its factory of the TAP Kiln Controller Assembly that does not remain in good working order. Repair parts will be furnished on an exchange basis and will be either refurbished or new. All replaced parts or products become the property of SDS Industries. Following receipt of notice from Buyer of a valid warranty claim and the TAP Kiln Controller Assembly, SDS Industries will perform its obligations under this limited warranty within 7 business days.

Limited warranty services may be obtained by delivering the TAP Kiln Controller Assembly during the warranty period to your TAP Kiln Controller Supplier or to SDS Industries, INC., 37 Nobody's Road, Cheshire, MA 01225 and providing written proof of purchase and a description of the defect or problem. Buyer will be responsible for shipping and handling incurred by SDS Industries in returning the TAP Kiln Controller Assembly to the Buyer after completion of limited warranty service.

This warranty does not apply to any damage to the TAP Kiln Controller Assembly resulting from:

- Operation beyond electrical rating.
- External sources including, but not limited to, chemicals, heat abuse and improper care.
- Improper or inadequate maintenance by Buyer • Parts or equipment not supplied by SDS Industries
- Unauthorized modification or misuse.

- Operation outside environmental specifications
- Improper installation
- Over firing (melting of materials being fired) regardless of the cause of the over firing.

TAP Kiln Controller Assemblies returned for service where no warranted defect is found will be subject to service and shipping fees.

If the TAP Kiln Controller Assembly is not in good working order as warranted above, Buyer's sole remedy shall be repair or replacement of the TAP Kiln Controller Assembly as provided above. To the extent permitted by law, ALL EXPRESS AND IMPLIED WARRANTIES FOR THE TAP KILN CONTROLLER ASSEMBLY INCLUDING THE WARRANTIES OF THE MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED TO THE THREE YEAR WARRANTY PERIOD COMMENCING ON THE DATE OF PURCHASE, AND NO OTHER WARRANTY WHETHER EXPRESS OR IMPLIED WILL APPLY TO THIS PERIOD. To the extent permitted by law, SDS INDUSTRIES, INC'S REMEDY AND BUYER'S SOLE REMEDY IS LIMITED SOLELY AND EXCLUSIVELY TO REPAIR OR REPLACEMENT AS SET FORTH HEREIN. SDS INDUSTRIES, INC. SHALL NOT BE LIABLE FOR, AND BUYER'S REMEDY SHALL NOT INCLUDE ANY INCIDENTAL, CONSEQUENTIAL OR OTHER DAMAGES OF ANY KIND WHATSOEVER, WHETHER A CLAIM IS BASED UPON THEORY OF CONTRACT, NEGLIGENCE OR TORT. Buyer shall determine suitability of the TAP Kiln Controller Assembly for the intended use and assume all risk and liability therewith. Some states do not allow this exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which carry from State to State.

The above limitation does not apply in the event that any TAP Kiln Controller Assembly is determined by a court of competent jurisdiction to be defective and to have directly caused bodily injury, death or property damage; provided that in no event shall SDS Industries, INC. liability exceed the greater of \$1,200.00 or the purchase price of the specific TAP controller that caused such damage.

JEN-KEN KILN WARRANTY

JEN-KEN KILNS are warranted to the original purchaser to be free from defects in materials and workmanship when used under normal and proper conditions for the periods specified below. The warranty period begins at the date of original purchase from **JEN-KEN KILNS**, a **JEN-KEN KILN** authorized distributor or dealer.

JEN-KEN KILNS are warranted for 2 years from date of original purchase.

AutoFire 3 Button panels are warranted by a separate 1 year plan from the manufacturer.

AutoFire 12 Button and Slide panels are warranted by a separate 2 year plan from the manufacturer.

TAP Controllers are Warrantied for 2 years by their manufacturer

To Claim under the Warranty, the purchaser must:

- 1) Provide written proof of the date of purchase.
- 2) Notify **JEN-KEN KILN** (or distributor/dealer) from whom the kiln was purchased.

3) You may need to mail a control box or part in to get serviced.

FOR WARRANTY REPAIRS:

- 1) Warranty repairs should be handled from where you purchased the kiln and they will arrange for any repairs or replacement of parts under the terms of the warranty and upon receipt of the kiln or defective part(s). Warranty work, other than that performed at the factory, DOES NOT include labor, just parts. The defective parts may be returned to **JEN-KEN KILNS** (postage prepaid) 3615 Ventura Drive West, Lakeland, Florida USA 33811. Include your name and address, a letter of explanation and the name and address from where you purchased the kiln. If, after factory examination the part is found to be defective, a new or repaired part will be sent prepaid by **JEN-KEN KILNS**.
- 2) If the entire kiln is to be returned to the factory, all transportation costs are the responsibility of the purchaser. The purchaser should notify **JEN-KEN KILNS** (863) 648-0585 prior to shipping. We will advise the best shipping method and if it is necessary to return the whole kiln or only certain parts. Factory warranty work will be performed within 30 days after the defective part is returned to the factory.
- 3) **JEN-KEN KILN** reserves the right, as its option, to replace the entire kiln or any part of it in order to fulfill its obligation under this warranty.

This Warranty DOES NOT Cover:

- 1) Freight damage.
- 2) Kilns altered in any way after leaving our factory.
- 3) Abuse or neglect, moisture, improper storage.
- 4) Improper installation.
- 5) Kiln Overfires (exceeding the melting temperatures of the materials being fired) regardless of the cause of the overfire. (This does not occur in kilns that are monitored while firing. If in doubt during a firing, turn the kiln off)
- 6) Dawson Kiln Sitter or Limit Timer.
- 7) Kilns operated on incorrect voltage.
- 8) Improper electrical installation.
- 9) Kiln furniture.
- 1) Kiln ware.
- 2) Kilns used for purposes other than firing ceramic or glass materials.
- 3) Kilns operated in excess of the temperature rating of the kiln.
- 4) Damage that may occur from kilns that are fired on or near combustible materials (i.e.: wood floors).

This Warranty is in lieu of all other warranties, expressed or implied. **JEN-KEN KILN** neither assumes nor authorizes any distributor, dealer, retailer or employee to assume for it any other obligation of liabilities in connection with **JEN-KEN KILNS**.

This warranty is limited, as specified above and excludes incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific rights and you may also have other rights why vary from state to state.

JEN-KEN KILNS Manufactured by Sir Ramic Porcelain, Inc.3615 Ventura Drive West Lakeland, Florida USA 33811
(863) 648-0585