



MASONRY HEATER OWNERS MANUAL

Operating, Care, and Warranty Information

Welcome

Congratulations on your new Solid Rock Masonry heater. Built correctly and operated correctly, your heater will provide clean, radiant heat for generations. A masonry heater is fundamentally different from a wood stove. It is a radiant heat storage appliance. A single fast, hot fire of 2 to 3 hours stores heat in the masonry mass, which then radiates gently into your home over the following 12 to 24 hours. The instructions in this manual are not optional. Following them protects your heater, your home, and your 5-year warranty.

Masonry Curing Instructions

Before any fire is lit, the masonry itself must cure. Allow the masonry heater to cure for 14 days with all doors and dampers open after all masonry work, including finishing, is complete.

Washing the Exterior Masonry

Within 1 to 3 days after the brick or stone on the exterior is finished, wash the masonry to remove residual dust and mortar smears. **Do not acid wash soapstone, kacheln, stucco, or plaster finished heaters.**

- Dampen all masonry with clean water.
- Apply approximately 1 part vinegar to 10 parts water.
- Scrub with a very stiff brush, then rinse within 3 to 5 minutes.
- Hard stone or brick: use a wire brush on stubborn mortar spots.
- Soft stone or brick: scrub with a wooden dowel.
- Test a small area first. Adjust vinegar concentration as needed.
- If not cleaned within 7 days, you may need Prosoco SureKleen 600. Follow the manufacturer instructions.
- Protect steel doors with plastic and rinse thoroughly.

Curing the Mortar

- Mist the brick, stone, or stucco facing 2 to 3 times per day with clean water for the first 3 days.
- If the house is not closed in, cover the masonry lightly with plastic to shield from wind and blowing rain. Remove the plastic after 7 days.
- Store glass doors in a safe location during construction.
- Keep the room above 40F during the curing period. The heater can only go below 40F after drying and curing fires are complete.

Doors and dampers during curing. Leave the firebox door, bake oven door, and all cleanout doors open for the full 14-day curing period, along with the combustion air intake and all dampers. Airflow carries moisture out of the masonry, and closing it up slows the cure.

Efflorescence. You may see white, fuzzy, crystal-like growth on the brick and castings inside the firebox and cleanouts. This is mineral salt drawn to the surface out of the masonry as it dries. It is harmless, but it will stain if left in place. Wash it off with 1 part vinegar to 10 parts water and rinse.

Optional Stone Sealer

If you plan to seal your stone to bring out the colors, we recommend **Prosoco (or White Cap Co. Brand) Cure-N-Seal LV25**. This is a concrete curing sealer with low volatile organic compounds. Apply after the facing has been washed and cured. It will enhance the stone color and leave the surface shiny for the first year. The shine diminishes after the first year but the color enhancement remains. Stone is a natural product and will take up the sealer differently in areas.

- Apply with a brush or sprayer.
- Protect steel doors with painter tape and plastic.
- Strong VOC odor for the first 2 to 3 days. Apply only when windows can be open.
- Follow the manufacturer specifications. Protect doors, glass, and surrounding walls during installation.
- Not all stone sealers tolerate the 180F to 200F surface temperatures of a masonry heater. Our clients have had very good results with this product.

Curing Fires for a New Heater

A newly built heater must be cured slowly. The SR Core refractory castings and the surrounding mortar contain water. If you heat the castings too fast, that water turns to steam and can pop or crack the castings.

Do not use the masonry heater to cure drywall mud or when dry wall mud is curing.

Once the 14 days of masonry curing are complete, begin the curing fire schedule on the following pages. Each heater firebox is designed to burn a maximum 3/4 full firebox load by weight according to the model number. Do not exceed the maximum rated wood load in any 8-hour period during or after curing.

Curing Fire Schedule Summary

- Fires 1, 2, 3: approximately 5 lb of wood each, spaced every 8 hours.
- Fires 4, 5, 6: approximately 10 lb each.
- Fires 7, 8, 9: approximately 15 lb each.
- Fires 10, 11: approximately 20 lb each.
- Fires 12, 13: approximately 25 lb each.
- Fire 14: 30 lb. Fire 15: 35 lb.
- Continue increasing by 5 lb each fire (40, 45, 50, 55, 65 lb) until you reach the design size fuel load for your heater model.

Wood reference: a typical birch or maple log split to 3 to 4 inch diameter and 16 inches long weighs approximately 3 to 4 lb. Weigh a few pieces of your actual wood so you know how many logs equal each target weight.

Curing Fire Progression



Fires 1-3: approximately 5 lb of wood, spaced every 8 hours.



Fires 4-6: approximately 10 lb of wood, spaced every 8 hours.

Curing Fire Progression



Fires 7-9: approximately 15 lb of wood, spaced every 8 hours.



Fires 10-11: approximately 20 lb of wood, spaced every 8 hours.

Curing Fire Progression



Fire 14: 30 lb. Fire 15: 35 lb.

Curing Fire Progression



Fires 16+: continue increasing by 5 lb (40, 45, 50, 55, 65 lb) until you reach the design size fuel load for your heater model.



Daily Operating Procedure

A masonry heater is operated differently from a wood stove. The goal is a fast, hot, clean burn that charges the masonry mass with heat. You will then close dampers and let the masonry radiate that heat to your home over the next 12 to 24 hours. Never *damper down* a masonry heater while flames are present. That is the most common cause of creosote, poor performance, and warranty issues.

1. Open the Dampers

Open the combustion air damper on the firebox door fully. If a chimney damper is installed, open it fully. Both dampers must stay 100% open any time flames are present. Open the heated bench damper if you have one of those also.

2. Remove Ash

Rake residual ash through the grate into the ash box. Empty the ash box approximately once per week if you burn 2 fires per day, or every other week for 1 fire per day or less. Lift the grate, scoop ashes into a metal bucket with a tight lid, and place cool ashes in a compost heap, garden, or lawn. Never store ash in a combustible container.

3. Check for Draft

If you have not had a fire in the past 24 hours, verify draft before lighting. Light a match and crack the firebox door. If the flame is pulled into the firebox, you have draft. If flame or smoke pushes back into the room, the chimney is in downdraft and must be primed before you light a full fire.

To prime a cold chimney:

- Open the cleanout door nearest the chimney.
- Open any dampers.
- Light a half sheet of newspaper on fire and place inside the cleanout. Repeat until draft is established.
- Alternative method: Aim a lit propane plumbers torch into the cleanout until draft reverses and pulls up the chimney. This does not work as well as the flaming newspaper because there is less heat in the torch. But this method should be able to establish draft in most cases.
- Close the cleanout door before lighting the wood.



Daily Operating Procedure (continued)

4. Load the Firebox

Load the firebox with dry cordwood from 30% up to 100% of the rated design fuel load for your heater model. Wood can be stacked log cabin style, straight in, or tepee style. Place the kindling on top of the wood pile, or along the side of the pile for the larger 22 to 32 inch wide fireboxes. Burn directly on the firebrick floor. Do not use andirons.

Example: if your firebox is designed for a 55 lb load, you can burn up to 55 lb every 8 hours. Burning more than the rated load in 8 hours is over-firing and will cause premature damage that is not covered under warranty.

5. Ambiance or Extended Burns

If you want a longer fire for ambiance or company, do not load 100% of the wood at once. Start with 30% of the fuel load, then add 1 to 2 logs every hour or so up to the maximum rated load. Keep the damper 100% open the entire time. Do not damper down as you would with a wood stove. Dampering down chokes combustion, causes dirty burning, and can deposit creosote in the heat exchange channels and bells that are not easy to clean.

Masonry heaters inherently burn very clean when operated correctly with dry wood. If you ever see creosote, you are not following the correct procedure or your wood is wet with a moisture content greater than 20%. You can buy a good wood moisture meter online for around \$100. A properly run heating fire burns vigorously and lasts 2 to 3 hours start to finish.

6. Light the Fire and always use a TOP DOWN BURN

Light the fire from the top. Use newspaper, natural fire starters, or fine kindling. Never use flammable liquids of any kind. Burn only split cordwood or clean building lumber with a moisture content below 20% moisture. A top-down burn has been tested to be the fastest method to get a fire going and also the cleanest method to get a wood fire going.

Never burn OSB, plywood, other glued wood products, pressure-treated wood, painted wood, or trash. This will void the warranty.

7. Rake the Coals

When the large flames have died down and you see primarily small blue flames, rake the coals to the front of the firebox. This concentrates the remaining coals and burns them down faster so you can close the dampers sooner. At this coal stage you may close the air intake damper on the door by 50%.



Daily Operating Procedure (continued)

8. Finishing the Fire

How you close down depends on whether a chimney damper is installed:

No chimney damper installed:

- You may close the air intake damper on the firebox door when a small amount of coals is still burning.
- Any residual carbon monoxide will still vent up the chimney.

Chimney damper installed:

- When only coals remain (no large flames), close both the chimney damper and the door air intake by about 50%.
- Wait to close the chimney damper fully until **all coals have finished burning**.
- Closing the chimney damper too early traps carbon monoxide inside the house. This is dangerous.

Always have working carbon monoxide and smoke alarms installed to code. Install new batteries at the start of every heating season.

9. Damper Operation Rules

- Chimney damper and firebox air intake damper must be **100% open** whenever flames are present.
- Dampers may be closed by 50% when only coals remain (no large flames).
- If you smell wood smoke in the room, you closed the damper too early. Open it back up.
- Dampers may be fully closed only after all coals have burned out completely.

10. Firebox Capacity Ratings

Heat output is calculated at 7,000 Btu per pound of seasoned cordwood under 20 percent moisture content, at 78 percent average system efficiency. Maximum is 2 fires per day on every model.

Model	Firebox	Fuel Load per Fire	Max Load per 24 Hours	Heat Output, 1 Fire per Day	Heat Output, 2 Fires per Day
SR-13	13" w x 18" d	35 lb	70 lb	~191,100 Btu (~7,963 Btu/hr)	~382,200 Btu (~15,925 Btu/hr)
SR-18	17" w x 18" d	60 lb	120 lb	~327,600 Btu (~13,650 Btu/hr)	~655,200 Btu (~27,300 Btu/hr)
SR-22	22" w x 18" d	65 lb	130 lb	~354,900 Btu (~14,788 Btu/hr)	~709,800 Btu (~29,575 Btu/hr)
SR-24	24" w x 18" d	70 lb	140 lb	~382,200 Btu (~15,925 Btu/hr)	~764,400 Btu (~31,850 Btu/hr)
SR-32	32" w x 18" d	75 lb	150 lb	~409,500 Btu (~17,063 Btu/hr)	~819,000 Btu (~34,125 Btu/hr)

Burning more than the rated load in any 8-hour period is over-firing and is not covered under warranty.

What Not to Burn

- No flammable liquids to start fires.
- No OSB, plywood, particle board, or any glued wood products.
- No pressure-treated, painted, or stained wood.
- No trash, cardboard in volume, or household waste.
- No green or wet wood. Moisture content must be under 20%.

Firewood

Dry wood is the single biggest factor in clean, efficient masonry heater operation. Wet wood wastes energy boiling off water, burns cool, and causes creosote. Your wood should be seasoned one year in advance normally.

Size and Shape

- Split every piece to 3 to 6 inches in diameter, like the reference photos in this pdf.
- Cut to approximately 16 to 18 inches long.
- Uniform size burns more evenly and lights faster.

Seasoning and Moisture

- Any species of hardwood and even softwood cordwood is fine if it is dry (moisture content 20% or less).
- Wood must be cut, split, and stored under cover, off the ground, for 6 to 8 months minimum. Oak can take 2 years or more.
- Properly dried wood shows end-grain cracks and makes a sharp cracking sound when two pieces are banged together. A dull thud means it is still wet.
- Wood is not dry simply because it has been cut for a long time. It must be split, covered, and off the ground for 6 months or more after splitting.

Stack your wood off the ground on pallets or rails, and put a roof over the top of the stack. Leave the sides open so air can move freely through the pile. A tarp thrown over a pile of wood does not season it well. The tarp traps moisture against the wood and blocks air circulation, so the pile stays wet underneath. A simple shed roof, a lean-to, or a sheet of steel roofing set on top of the stack with the sides left open will dry wood far better than a tarp.

Matching Wood to Your Firebox Rating

If your firebox is rated to heat your house with 60 lb of wood, weigh a few pieces of your actual wood so you know what a 60 lb load looks like. Species density varies: 10 pieces of oak might weigh 60 lb, while 14 pieces of pine weigh the same 60 lb. Load by weight, not by piece count.

Annual Wood Supply

- Most houses use 2 to 4 full logger cords per heating season. The average is 3 full cords.
- Run your wood storage on a 2-year cycle. Split wood today for the season two years out.
- Never burn green wood. Green wood deposits creosote in the heat exchange channels that cannot be easily cleaned.



Daily and Weekly Maintenance

- Rake ashes into the ash grate daily and empty the ash box as needed.
- Clean the glass on the doors with newspaper dampened in water as needed. For stubborn spots, spray an orange-oil-based wood stove glass cleaner.
- Normal hot burning fires keep the glass mostly clean with minimal effort.
- Bake oven door glass does not stay clean because oven temperatures do not burn hot enough to clear soot. This is normal.

Annual Maintenance

- Replace the ash grate with a Pisle HTT 1B grate as needed, typically every 2 years. Supplier: NorthStone Heat, 360-687-2805.
- Vacuum or sweep out the bottom of all heat exchange chambers through the cleanout openings once per year. Use a shop vac for all horizontal surfaces inside the heater. Heater performance will suffer if this is not done. Channels eventually fill with fly ash and the heater will stop working.
- Clean your chimney every year or as needed. You should never have creosote in your chimney. Grey fly ash and none shiny black sooty deposits are all that should need to be cleaned out.
- Hire a professional chimney sweep if you have any questions about cleaning the chambers or chimney.

Firebox Lifespan

Your firebox has a double layer of bricks on all three sides and on the floor. These can be replaced when needed. Normal firebrick lifespan in the firebox is 20 to 50 years before replacement. Under normal use, the masonry heater itself will provide heat for generations, lasting hundreds of years with proper care.

When to Call Solid Rock Masonry

- Persistent poor draft or smoke spillage that cannot be resolved by priming the chimney.
- Cracks in castings or masonry that grow, leak smoke, or affect performance (minor hairline cracks are cosmetic and normal).
- Door seal failures, handle problems, or broken glass.
- Any warranty concern (see the next pages).



FIVE YEAR LIMITED WARRANTY

Version 3 - Revised - DIY Kits Two Year Coverage

Warranty Period

Solid Rock Masonry LLC ("SRM") warrants to the original purchaser that masonry heaters, cook stoves, bake ovens, fireplaces, and approved related components manufactured by SRM will be free from substantial defects in materials and workmanship under normal residential use and proper operation for a period of five (5) years from the date installation is completed.

For owner-installed or third-party-installed **DIY kit systems**, warranty coverage on SRM supplied materials shall be limited to **two (2) years** from the date of delivery or installation completion, whichever occurs first.

This warranty applies only to products permanently installed at the original installation address unless properly transferred under the transfer section below.

What is Covered

At SRM's sole option, warranty remedies may include repair, replacement, or supply of equivalent parts or materials for covered defects. Covered items include:

- SR Core firebox components and castable refractory materials manufactured by SRM.
- Structural masonry defects within internal heat exchange channels caused by defective workmanship.
- Doors, frames, handles, latches, and hardware supplied by SRM that fail due to manufacturing defects.
- Chimney components manufactured and supplied directly by SRM.
- Reasonable labor costs for approved warranty repairs when the original installation was performed by SRM.

For DIY kit installations, coverage applies to qualifying SRM supplied materials only. Labor, travel, masonry tear-out, rebuild work, and third-party costs are excluded.



What is Not Covered

This warranty does not cover:

- Damage caused by misuse, abuse, neglect, or improper operation.
- Over-firing, excessive fuel loads, repeated overheating, or operating contrary to the owners manual.
- Burning wet wood, green wood, treated wood, painted wood, glued wood products, trash, or prohibited fuels.
- Smoldering fires or intentionally restricting combustion air during active burn cycles.
- Normal wear items including door gaskets, replaceable firebrick, ash grates, glass, and consumable seals.
- Surface rust, discoloration, soot staining, minor expansion noises, or cosmetic changes from normal use.
- Hairline cracks, shrinkage cracks, or minor surface checking that do not affect safe operation or performance.
- Chimney components not manufactured or supplied by SRM.
- Existing chimneys, reused chimneys, or third-party chimney modifications.
- Foundation defects, structural movement, settling, or support failure not caused by SRM design error.
- Water intrusion, freeze/thaw damage, flooding, storms, earthquakes, lightning, fire, or other external causes.
- Labor, travel, crane, lift, finish repair, tile repair, stone replacement, access work, or lodging expenses unless specifically approved in writing by SRM.
- Commercial use, rental property abuse, or institutional use unless approved in writing.
- Incidental, consequential, indirect, special, punitive, or economic damages.



DIY Installation Requirements

For owner-installed or third-party-installed Solid Rock Masonry kits: warranty coverage applies to SRM supplied materials only for a period of **two (2) years**. Labor is excluded.

To maintain coverage, all of the following are required:

- Heater must be built exactly in accordance with the current SRM installation manual.
- Photo documentation of each course during construction from multiple angles.
- Photo documentation of backfill materials and placement.
- Photo documentation of caps, insulation stages, and completed assembly.
- Foundation must meet supplied engineering or specification requirements.
- Clearance requirements must be documented and compliant with applicable code.
- Chimney installation must be documented if SRM supplied components are used.
- Requested claim documentation must be supplied promptly.

Failure to provide adequate documentation may result in denial of coverage.

Chimney Coverage

- Chimney components manufactured by SRM are covered for defects in materials and workmanship.
- Third-party chimney systems may be covered only by their original manufacturer warranties.
- Labor to remove or replace chimney components is excluded unless originally installed by SRM.
- Existing chimneys, reused chimneys, or modified chimney systems are excluded.
- Chimney draft performance is not warranted due to weather, stack effect, building pressure, exhaust fans, height limitations, negative pressure, user operation, or site-specific conditions beyond SRM control.

General Warranty Requirements

To maintain warranty coverage:

- Heater must be operated according to the current SRM owners manual.
- Only seasoned firewood with moisture content below 20% may be burned.
- Dampers and combustion air controls must remain fully open during active flame combustion unless otherwise specified by SRM.
- No smoldering, restricted-air, or abusive operation is permitted.
- Reasonable annual maintenance and cleaning must be performed.
- Owner must use and maintain code-compliant smoke and carbon monoxide detectors.
- Claims must be submitted during the applicable warranty period.
- SRM must be given reasonable opportunity to inspect claimed defects.



Warranty Claim Procedures

- 1 Submit written notice describing the claimed defect during the applicable warranty period.
- 2 Include purchaser name, installation address, and approximate installation date.
- 3 Provide clear photographs or video of the issue.
- 4 Provide installation documentation if owner-installed or third-party installed.
- 5 Permit reasonable inspection access if requested.
- 6 Do not alter or repair the claimed defect before review unless required for safety.

Limitation of Liability

This limited warranty is the sole express warranty provided by Solid Rock Masonry LLC. SRM's sole obligation under this warranty shall be repair, replacement, or supply of equivalent materials or components at SRM's sole option.

To the fullest extent permitted by law, SRM shall not be liable for incidental, consequential, indirect, special, punitive, or economic damages, including loss of use, inconvenience, increased heating costs, or property-related expenses.

Some states do not allow certain exclusions or limitations, so portions of this section may not apply. This warranty gives you specific legal rights, and you may also have other rights that vary by state.

Governing Law and Venue

This warranty and any dispute arising from the sale, installation, warranty, or use of SRM products shall be governed by the laws of the State of Minnesota, without regard to conflict-of-law principles. Any legal action shall be brought exclusively in the state or federal courts located in St. Louis County, Minnesota, and the parties consent to jurisdiction therein.

Warranty Transfer and Modification

This warranty may be transferred to a subsequent owner of the permanently installed heater for the remaining unused portion of the original warranty term only. For DIY kit installations, any transferred coverage remains subject to the original **two (2) year** term.

Written notice must be received by SRM within thirty (30) days of property transfer. This warranty may not be modified except in writing signed by an authorized representative of SRM. Unauthorized alterations, structural changes, or modifications to the heater void warranty coverage.

Warranty Claims Contact

Eric Moshier, Certified Heater Mason
Solid Rock Masonry LLC
5347 Howard Gnesen Road
Duluth, MN 55803
218-343-2978
eric@solidrockmasonry.com
www.solidrockmasonry.com

Final Professional Note: No dealer, installer, contractor, salesperson, or third party is authorized to make warranties or representations beyond this written limited warranty.

Stay warm and enjoy. Thanks again from everyone at Solid Rock Masonry.