ENGINEERED
TO BE THE
BEST

Lochinvar®
EnergyRite®
Pool & Spa Heater

Attention to Every Detail Satisfies Every Need!

Adding a high-end pool or spa reflects a desire for the good life. It's an investment that enhances lifestyle – an oasis of relaxation and recreation, accessible any time, right outside the door.

Today, pool and spa builders must promise fast heat-up and comfortable water temperature, available quickly and efficiently. The master builder's pool heater checklist also includes...

– *Superior quality for trouble-free performance, backed by service-friendly design*

– *Attention to details for fast, easy installation to reduce labor and material costs*

– *Installation flexibility to work seamlessly with the aesthetics of the new pool or spa*

Lochinvar® Is the most innovative manufacturer of water heaters and heating boilers, serving the extraordinary demands of commercial buildings throughout the world. Our engineering excellence and commitment to understanding customer needs has produced EnergyRite®, the industry's most advanced pool and spa heater, for homeowners who want the best of everything.

Hot Performance, Cool for the Environment!

EnergyRite heats up fast, saves money and helps conserve our natural resources with Low-NOx emissions that meet or exceed the most stringent "green" standards, anywhere in the country!

EnergyRite®
Pool & Spa Heater

Heat up faster!

Five EnergyRite models offer power to guarantee speed-heating for any size pool or spa...from 150,000 Btu/hr to an industry-maximum 400,000 Btu/hr. And Lochinvar's engineering delivers the highest thermal efficiency in its class. It's a combination that provides the industry's fastest heat-up time, and uses less energy so homeowners save money every time they heat their pool or spa!

The formula for the fastest comfort heat-up is simple.

1. *Provide enough heating power to raise water temperature quickly, on demand.*

2. *Engineered for efficiency, driving maximum heat into the water.*

Easy venting for every installation:

Outdoor Venting –
Standard from factory. NOTE: Factory vent kit required for all indoor installations.

Conventional Venting –
Draws air from inside room, vents into conventional vertical flue or vent breaching using Type B double-wall vent.

E-Rite Side Wall –
Draws in outdoor air, vents up to 20 equivalent feet. Uses Category IV vent.

Power DirectAire® –
Draws in outdoor air, vents up to 75 equivalent feet using powered vent cap and Type B double-wall vent.

Powered Side Wall –
Draws air from inside room, vents horizontally up to 75 equivalent feet using powered vent cap and Type B double-wall vent.

DirectAire® Vertical w/ Side Wall Inlet –
Draws in outdoor air horizontally through outside wall, vents through vertical flue using Type B double-wall vent.

DirectAire® Vertical w/ Rooftop Inlet –
Draws in outdoor air vertically through roof, vents through vertical flue using Type B double-wall vent.

Dive into EnergyRite Quality

Lochinvar's time-proven commitment to advanced water heating technology is reflected in every detail and every component of EnergyRite. It's a standard no other pool and spa heater can match, backed by a 3-year limited warranty on the heat exchanger and a 2-year limited warranty on all parts!

Commercial-grade heat exchanger

– Highly efficient copper-finned tube design, time-proven in Lochinvar commercial water heaters and boilers. Also available with Cupro-Nickel tubes.

– Advanced heat exchanger design with no O-rings, virtually eliminates leaks and failures

– Polymer headers, ideal for pool and spa heaters – ASME certified cast iron headers optional with slip-fit or threaded connections

Advanced combustion system

– Direct-Spark ignition for superior reliability and efficiency

– High-efficiency stainless steel burners

Built-in floor shield

– Install on combustible flooring, no need to purchase a separate kit

Installer-friendly CPVC connections

– Adaptable for PVC pipe, using threaded or slip-fit connections

Fully sealed combustion chamber

– Windproof design for safe operation

– Keeps out wasps, spiders & pests

– Commercial-grade galvanized, painted steel jacket

Convenient, flexible terminal strip

– For easy wiring connections, including third-party remotes

– 240V or 120V electrical service

Service-Friendly Control System

– *Fingertip setup, temperature adjustment and troubleshooting*

– *Separate control capability for pool and spa*

– *2-line, 16-character display in words instead of confusing codes*

– *Equipped for third-party remote operation*
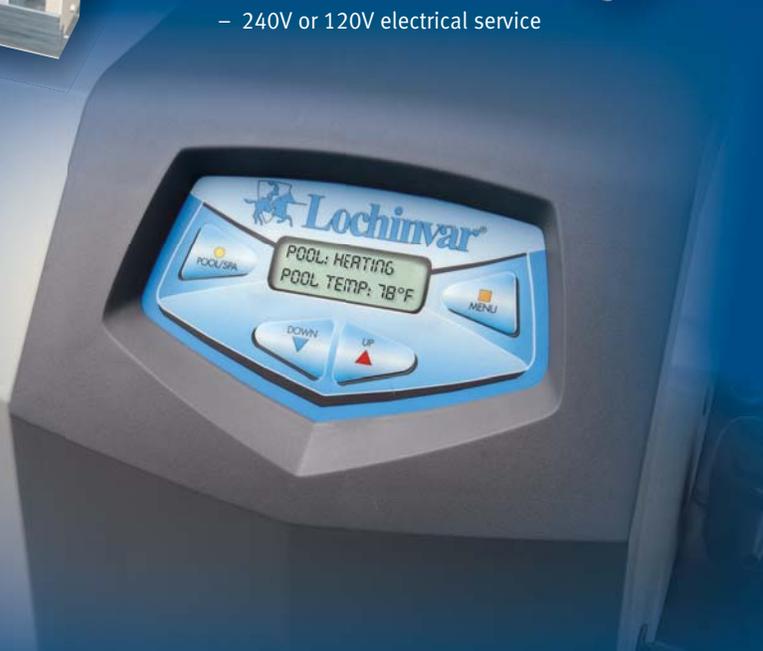
STANDARD FEATURES

- 2-Line, 16-Character Digital Display
- Pool & Spa Temperature Control
- Password Security
- CPVC or PVC Ready
- 3rd-Party Remote Compatible
- Sealed Combustion Chamber
- Fan-Assisted Combustion
- Built-in Combustible Floor Shield
- Direct-Spark Ignition
- Stainless Steel Burners
- Loch-Heat Ceramic Tile
- 24V Terminal Strip
- Dual Voltage - 240 V or 120V/60HZ
- On/Off Switch
- Built-in Air & Water Pressure Switches
- Inlet & Outlet Temperature Sensors
- Automatic Reset High Limit Safety
- Polymer Header with Built-in Bypass
- Low-NOx Emissions Meet the Most Stringent Standards
- Flame View Port
- Outdoor Venting
- 3-Year Limited Warranty on Heat Exchanger
- 2-Year Limited Warranty on Parts

OPTIONAL EQUIPMENT

- ASME Construction
- ASME Pressure Relief Valve
- Cupro-Nickel Heat Exchanger
- Stack Frame
- Indoor Vent Kits
- Flow Switch

POOL SIZING GUIDE

- Determine your pool's surface area in square feet.
- Determine the desired temperature rise by subtracting the average air temperature from the desired pool temperature.
- In the table below, locate the surface area equal to or just greater than your pool's surface area at the desired temperature rise.
- Read to the left for the appropriate EnergyRite model number.

AREA = R x R x 3.14

AREA = (A + B) x L x .45

AREA = L x W
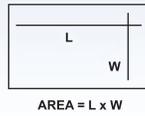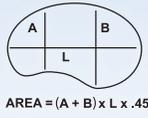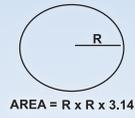
| | DESIRED TEMPERATURE RISE | | | | |
| MODEL | 10°F | 15°F | 20°F | 25°F | 30°F |
	POOL SURFACE AREA IN SQ. FT.				
ERN152	1257	838	629	503	419
ERN202	1676	1117	838	670	559
ERN252	2095	1397	1048	838	698
ERN302	2514	1676	1257	1006	838
ERN402	3352	2235	1676	1341	1117

NOTE: Sizing is based on a 3-1/2 MPH average wind velocity for elevations up to 2,000 feet above sea level. For each 1,000 feet above 2,000 feet elevation, add 4% to the surface area of the pool.

SPA & HOT TUB SIZING GUIDE

- Determine your spa/hot tub's capacity in U.S. gallons by multiplying the surface area (in square feet) by the average depth (in feet), then by a conversion factor of 7-1/2 (1 ft³ = 7-1/2 gallons).
- The table below lists the time required (in minutes) to raise the temperature of different size spa/hot tubs by 30°F.
- In the table below, locate the gallon capacity equal to or just greater than your spa/hot tub's size in gallons.
- Select the desired heat-up time.
- Read to the left for the appropriate EnergyRite model number.

| GAL. | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
MODEL	TIME (MINUTES) REQUIRED TO RAISE TEMPERATURE								
ERN152	23	34	45	57	68	80	91	102	114
ERN202	17	26	34	43	51	60	68	77	85
ERN252	14	20	27	34	41	48	55	61	68
ERN302	11	17	23	28	34	40	45	51	57
ERN402	9	13	17	21	26	30	34	38	43

NOTE: Spa/Tub Size in U.S. Gallons. Sizing is based on a 30°F temperature rise.
To adjust for other temperature rises, divide the time listed in the table by the temperature ratio.
*Example: for a 15°F temperature rise, divide by 2 (30/2=15).*

DIMENSIONS

EASY ORDERING KEY

E R   N   302

EnergyRite Series   Fuel Type   Btu/hr Input

This key shows the model number of an **E**nergy**R**ite **N**atural Gas Pool Heater with **300,000** Btu/hr input.
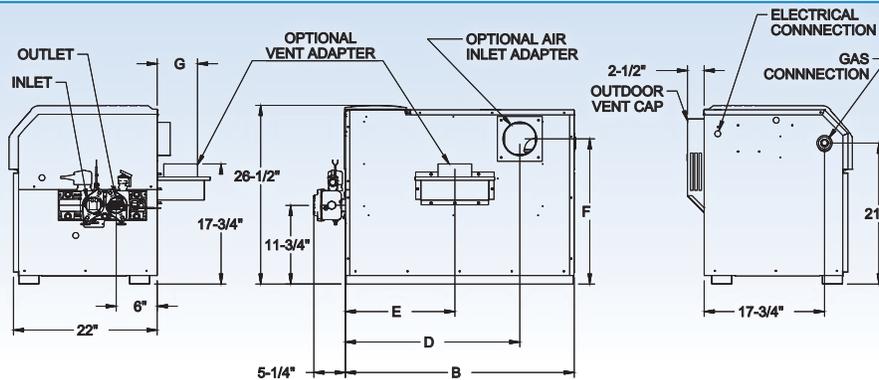
| MODEL NUMBER | BTU/HR INPUT | DIMENSIONS | | | | | AIR INTAKE | VENT SIZE | E-RITE/POWERED SIDEWALL VENT | SHIPPING WEIGHT (LBS.) |
		B	D	E	F	G				
ERN152	150,000	23"	18"	10-1/4"	22"	5-1/2"	4"	5"	4"	183
ERN202	199,999	26-1/2"	20-3/4"	12"	22"	6"	4"	5"	4"	195
ERN252	250,000	30"	21-1/2"	13-3/4"	22"	6"	5"	6"	5"	217
ERN302	300,000	33-3/4"	25-3/4"	16-1/4"	21-1/2"	6-1/2"	5"	6"	5"	240
ERN402	399,999	41"	29-1/2"	20"	21-1/2"	6-1/2"	5"	6"	6"	269

Note: Change "N" to "L" for LP gas models. No deration for LP.
Water connections are 2" NPT on 4-1/2" centers. Gas connections are 3/4" NPT.