

LK PLUS & LK PREMIUM SAUNA LINER KITS

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USE FOR ALL KITS WITH 2X4 BENCH TOPS

BEFORE YOU BEGIN READ ALL THE INSTRUCTIONS AND REVIEW THE MATERIAL LIST

Remember the old carpenters proverb: "Measure Twice, Cut Once"

SPECIAL NOTE FOR CONTRACTORS

If you have previous experience constructing saunas/steambaths we still recommend you read all instructions and carefully review the material list before you begin. Material is supplied in specified lengths for particular uses.

Be sure to confirm the cedar direction on the sauna ceiling.

The kit has been checked and vetted thoroughly before leaving the SaunaFin workshop. Typically when "shortages" are encountered this is a result of pieces being cut incorrectly, leaving a shortfall elsewhere.

CEDAR GRADING AND SELECTION:

Clear cedar kits use the finest "Grade 'A' & Better" tongue & groove cedar for lining material. But even with this top grade, you may find certain boards that you do not like. Pre-sort your sauna kit to find this material and make an effort to "hide" these boards. Install these boards behind the bench where they will not be visible. In the case of front wall boards, cut them so that you can hide less attractive boards behind the heater.

Knotty cedar kits use STK (Select Tight Knot) boards for cedar lining.

Bench tops are always Clear cedar The cedar is finished on two sides to give you more flexibility in selecting the face you prefer. When assembling benches, select nicer side to be bench top.

ALL MATERIALS ARE FIT FOR PURPOSE

The supplied Material List itemizes the lengths provided and for which wall (based on quotation and order placed). DO NOT reassign or reallocate material without first speaking with us.

The material supplied for the ceiling is clearly indicated.

If the material delivered does not correspond to your sauna design or layout, contact us before you install it. Do not cut down boards intended for something else. We will not provide additional material in these circumstances.





FRAMING

This instruction manual has no details for general framing. It is assumed that you possess basic carpentry skills to install this kit and have the know-how to frame the walls and hang a door.

The instructions note blocking as required to support the benches and heater. Use 2" x 4" kiln-dried SPF (spruce, pine, fir) studs to frame the walls and ceiling.

Unless otherwise specified, kits up to 8' x 8' are lined horizontally (drawing #1). Kits over 8'x 8' are usually lined vertically and should be strapped horizontally (see drawing #2 on Page 10).



Standard framed height is 83-1/2". (Check material list to confirm your sauna height as ordered.)

Provide extra blocking for heater mounting brackets and bench cleats (supports). (See drawing #3 & #4).

See Material List for your door rough opening.

Frame the walls at 16" on centre. If the walls are already framed and you wish to change the direction, they should be strapped using 1" x 2" spruce strapping at 16" on centre.

FRAME SIZE

Frame sauna to size ordered (see material list). For example, if sauna is 5' x 7', frame walls to 5' x7'. Actual sauna interior will be about one inch smaller. Unless otherwise ordered, standard framed height is 83-1/2"

VENTING (See vent drawings #1, #6 & #7)

Sauna venting does not mean exhaust venting as you would for a shower. Venting aims to optimize the sauna's function by pulling hot air from the heater and dragging it to the far corner. Inlet and outlet vents should be on opposite sides and not be on the same wall.

For indoor saunas, venting shouldn't be channeled outdoors and can be directed to the sauna's indoor environment.

In general, for outdoor saunas, you'll have access to all the walls after construction, which means you could choose not to install vents initially, knowing they may be required later.



Inlet and Outlet Vents

One outlet slide vent cover is included with your kit. An inlet vent is typically a series of holes drilled through the cedar lining. The heater conceals the holes. If there is a gap under the door and the heater is closed, the door gap can act as the inlet vent. An exterior grill is not included, but if you wish to install one, use painted aluminum (or other similar materials) to match the exterior decor.

The outlet vent requires a 4.5" x 4.5" opening. Most of these use spruce studs for the box openings. The inlet area should be 19 square inches. Sometimes, what is outside the sauna can limit the ability to install simple vents through the wall easily. In such cases, ducting over a drop ceiling and venting to an open indoor area may be possible.

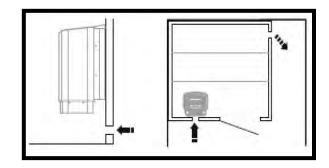
Poor ventilation can lead to:

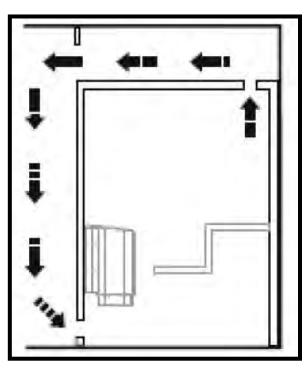
- Insufficient heat at the benches furthest from the heater.
- The sauna heater's integral high limit switch "tripping" because heat is trapped.

THE DOOR (See page #8)

See your "Material List" to verify your door selection and rough opening size. These are the typical options:

- Frameless Glass door rough opening is 27-1/2" x 76-1/2 to the finished floor. It allows for the 74" jamb and the 1-1/2" spacer with gap to install below the jamb threshold. (Door = 24" x 72")
- The rough opening of the Cedar Framed Insulated Glassdoor is 26" x 76-1/2" to the finished floor. (Door = 24" x 74"). There is a gap under the door to allow for a backup air inlet.
- **Jamb Extension**: (See drawing #8a). A 1×2 trim is provided for jamb extension where required, with frameless glass doors and 11/16" lined kits.





WIRING

For wiring information, see electrical wiring drawings included with the selected heater/control.

NOTE: Wiring should only be installed by a qualified electrician.

An electrician should do the electrical rough-in wiring at this time. The wire size and wire pathway are dependent on the heater model and size. If you're using an outside control (not built into the heater), the thermostat should be installed at this stage. Install on the wall outside the sauna with the sensing bulb as indicated in the heater instruction manual.

- Tylo Sport & Saaku. These supply wires to the heater are controlled on the heater and have built-in sensors.
- **Tylo Plus or Combi with Pure or Elite control.** These supply wire to the heater. Sensor from the heater to 1" down from the ceiling, 3" from the edge of the heater (NOT in the corner). Note: The control cable is 15' from the bottom of the heater to control location. (50' available as option.)
- Sauna Craft Controls. A TPT3 or EL13, 3-gang box is provided with control for installation outside the sauna. Controls are line voltage. Locate the sensing bulb 1" maximum from the ceiling 1'- 2' from the heater.

For heaters up to 6kw, the supply wire goes first to the control and then from the control to the heater.

For heaters up to 7.5 kW and larger, there is a magnetic contactor and additional wires for the control circuit (field supplied).

 The standard light fixture. This is included as a surface-mounted marine light. A wall mount is recommended, and it requires an octogen electrical box, which is not included.

The light has a separate 120-volt power supply. A light switch is not provided.

If you have Tylo with Plus or Elite control, you can direct 120v through the heater and use the control to operate the light.

Optional recessed ceiling lights may be used in place of wall lights.





INSULATION

The walls and ceiling should be insulated using the 3 1/2", R-12 fiberglass insulation. Rockwool can be used as well.

FOIL BARRIER

To install the aluminum foil, staple it to the inside edge-face of the studs over the insulation. Overlap the seams by approximately 3". If it is paper-backed, install with the "shiny" side facing into the sauna.

DO NOT TAPE THE SEAMS. The foil is intended more as a heat reflector than a vapor barrier. Taping the seams can impede airflow. If the seams are taped, properly installed sauna vents are imperative.



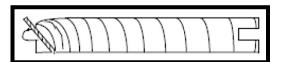
TONGUE & GROOVE LINING (See drawing #1 & #5)

While not required, most sauna owners choose to line the ceiling first.

Before you begin, examine all the tongue and groove cedar pieces. You may find certain boards you do not like, whether due to a knot or color. You can "hide" these boards by installing them behind benches or heater where they will not be visible.

The kit comes with several extra pieces of T&G cedar at no additional charge.

Use the specified lengths of tongue and groove cedar (see "Material Packing List"). Cedar generally comes 1/4" below the foot. You are expected to trim each board to fit. Nail through the tongue to conceal all the nail heads (For blind nailing - See drawing #5).





HORIZONTAL LINING (See drawing #1)

The cedar wall pieces should be left about 1/2" off the floor. You should start above the base if a tile baseboard has been installed. Start on the floor and work your way up, ensuring the first board is level. Check the level every 4-6 boards. The first cedar piece should be installed with the tongue facing up. There is up to a 1/32" variation in width. Corners may not line up perfectly. Corner molding is supplied.

VERTICAL LINING (See drawing #2)

The cedar wall pieces should be left about 1/2" off the floor. If a tile baseboard has been installed, you can start above the base or overlap it. Corner molding is supplied.

EXTERIOR

These are NOT included unless ordered as an option. For exterior walls, drywall or paneling may be used to match your decor.

BENCHES (See drawings #9, #10, #11, #12, #13 for bench assembly details)

Clear cedar 2×4 boards for the bench TOPS (and floor supports where required). Bench GIRTHS (sleepers) are knotty.

BEFORE DOING ANY FASTENING

Select the boards to ensure the BETTER side of the board comes out on the sitting surface.

While you build the benches, the better side will be faced down because you are fastening from the bottom. (That way you do not get any screws showing up on the finished surface.) Use the 2-1/2" screws supplied. (See drawings #9 to #13 for bench assembly.)

If the sauna is 5' or more deep, the top bench is 20" wide (5 boards + eased edge) and bottom bench is 16" wide (4 boards + eased edge). If the sauna is under 5' deep, make the bottom bench 8".

BENCH SUPPORTS (for 2×4 bench tops)

Bench cleats are 2×4 with cut corner; girths are 2×4 (square) (see drawing #1, #10 & #12).

Cleats are clear cedar. Girths may be Knotty Cedar.

Bench girths and cleats are provided as follows:

20" deep bench Cleat/Girth = 18" 16" deep bench Cleat/Girth = 14"

(For 12" deep bench, cut down to 10") (For 8" deep bench, cut down to 6")

BENCH GIRTHS (drawing #10) (Knotty Cedar) Girths screwed from bottom of bench

Up to 6' long --4 Girths
7' + longer --5 Girths
Benches over 6' & "L" benches have center floor support.







BENCH CLEATS (drawing #12) Bench cleats are screw through cedar into spruce stud support 2-1/2" screws provided.

Top bench - Use the 18" bench cleats (cut down if bench to be narrower than 20"). Mount 33" from the floor to top of the cleats, tight to the back wall. If the bench is 7' or longer, install a center floor support.

Bottom bench - Use the 14" bench cleats (cut down if bench is narrower than 16"). Mount 15" from the floor to the top of the cleat, 20-1/4" from the back wall (drawings #1 & #3). If the bench is 7' or longer, install a centre floor support.

"L" SHAPED RETURN BENCH (drawing #13)

Where there is only a single tier, L"- shaped return bench along the side wall, it is typically installed as a top bench. For an "L"- bench, the bench supports should be installed as follows:

Use an 18" cleat where the bench meets the (front) sauna wall. Fasten the other cleat to the face of the back wall bench at the same height off the floor. Material is provided to build a floor support. Install floor support in front of the main bench.



HEATER

Sauna Craft heaters (up to 9kw) can be mounted in the corner or on a straight wall. Generally, the least space is occupied by mounting the heater on the wall, 2" from the corner. Tylo and Saaku heaters can only be mounted on a straight wall.

GUARD RAIL (See drawing #14)

Use the 2×2 for the vertical posts and the 1×3 for the horizontal rails.

Tylo Heaters have a cool-touch shell, and some sauna owners choose not to install the guard. However, a guard is provided for you, and it is recommended that you install it.



METAL FASTENERS

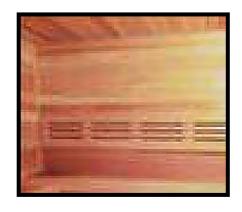
Nails are galvanized. Screws are treated.



Use 1×4 cedar, square edge laid over 1×4 knotty cedar sleepers. Top boards should be spaced 1/2" apart. The sleepers should be placed at 1'-0" on centre.



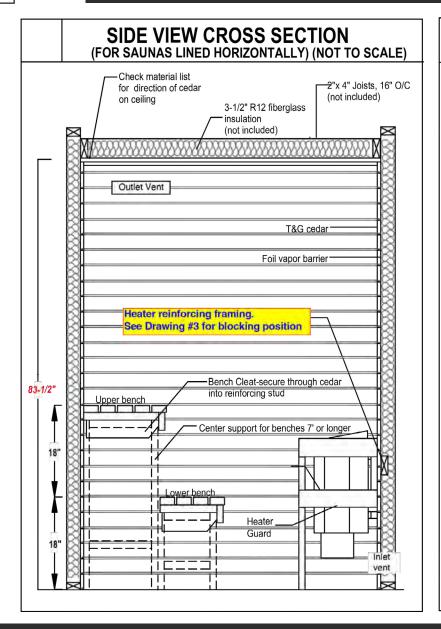
Use 1X3 square edge cedar fro glass stops and casing

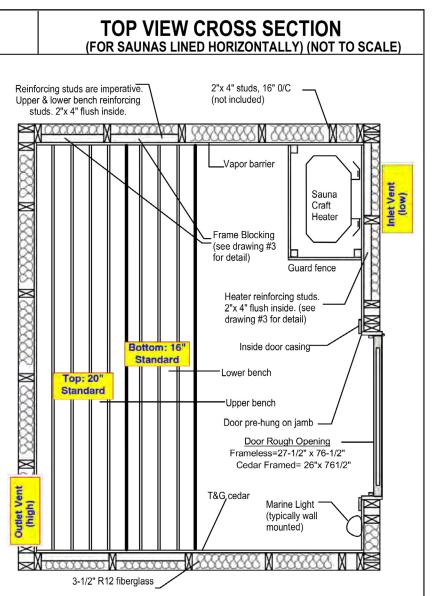






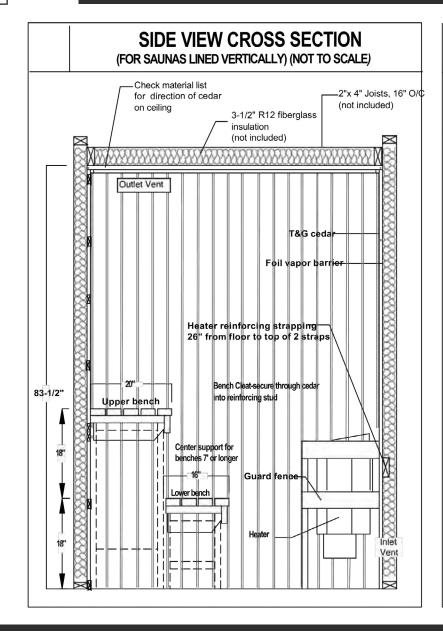
HORIZONTAL LINING IS STANDARD. CHECK YOUR MATERIAL LIST TO CONFIRM YOUR SAUNA LINING

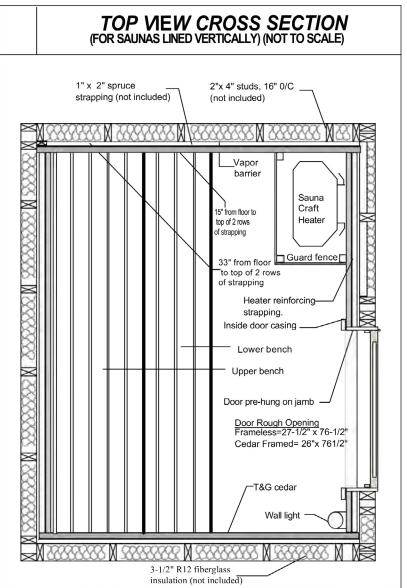




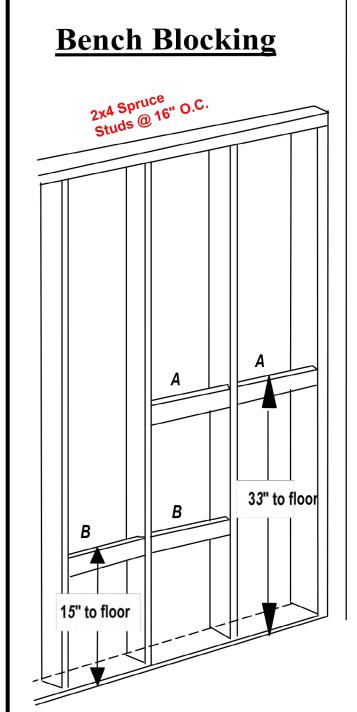
NOTE: This drawing shows standard sizes & dimensions. It may not reflect your exact sauna. Check your Material List for specifics for your sauna

VERTICAL LINING WHERE SPECIFIED. CHECK YOUR MATERIAL LIST TO CONFIRM YOUR SAUNA LINING





REINFORCING STUDS FOR 2X4 BENCHES AND HEATERS

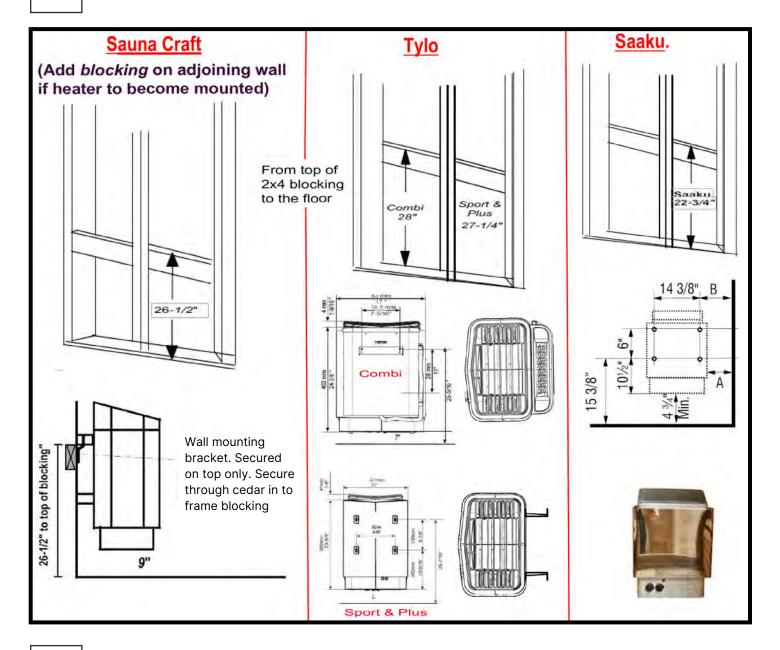






A = Top bench blocking. 33" from floor to top edge of blocking
B = Bottom bench blocking. 15" from floor to top edge of blocking.

REINFORCING STUDS FOR HEATERS



#5

TONGUE & GROOVE HIDDEN NAILING

1 – 1/4" galvanized finishing nails for lining (supplied). Many prefer to use their own brand of nail gun for this task. Nail through the tongue and hide the inside groove.

VENT DETAILS

Proper sauna venting is essential to sauna heater operation and to heat the sauna room effectively. Sauna ventilation is passive, and there is no mechanical fan. It is not part of the HVAC or bathroom exhaust.

INLET goes low behind the heater (usually on the front wall). Typically, it is simply holes drilled through cedar on the sauna side.

Fixed cedar grill (instead of holes) is available as an option. The exterior has an aluminum grill (not included) to match the exterior decor.



Fixed cedar grill: Optional with LK Plus. Incl with LK Premium







OUTLET is located high on the wall, diagonal from the inlet.

Cedar slide cover on the outlet (sauna side). The exterior has an aluminum grill (not included) to match the exterior decor.



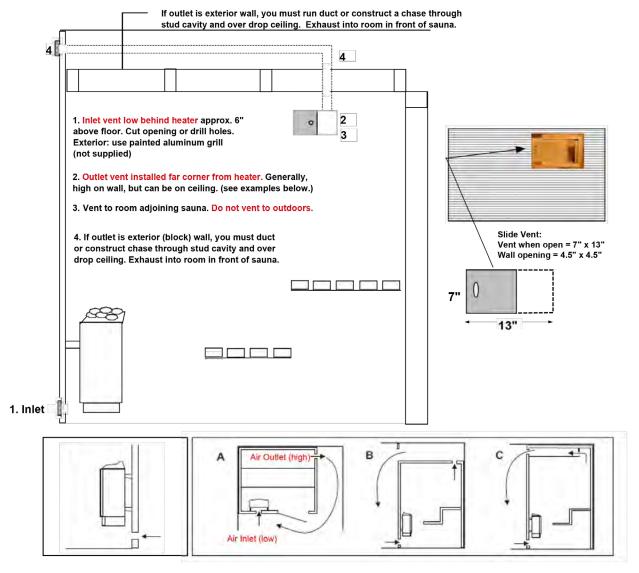




Slide Vent Cover: One is included with every sauna material kit.

Exterior Grill: This is not included. Select one to match your décor.

SLIDE VENT COVER



The inlet vent should be driven straight through the wall directly below the center of the heater. The cross-section of the vent for a wall-mounted sauna is approx. 19 sq.in. For larger saunas, approx. 40 sq.in.

Position the air inlet and outlet vents as far away from one another as possible (diagonally opposite). The outlet vent should be located high on a wall or in the ceiling and should have the same cross-section area as the inlet vent. Spent air should always be led back into the house – not discharged directly to the outside.

CAUTION: Do not install inlet and outlet vents on the same wall. Bad ventilation can be worse than no ventilation.

A: Outlet vent through the sauna wall (seen from above). The vent is placed high up, near the ceiling.

B: Outlet vent through the cavity above the sauna ceiling (seen from the side).

C: Outlet vent through a drum under the ceiling in the sauna (seen from the side). The outlet duct should be placed at an angle between the ceiling and the wall. The drum can be built out of wooden paneling and have the same area as the outlet vent.

Inlet: If you're drilling holes for an inlet, these must equal the specified sq-inch requirement. Six 2" or eight 1.75" holes are sufficient.

SAUNA DOORS

#8

NOTE: Rough Opening means above the "finished" floor, i.e., above the tile.



Frameless R/O=27-1/2" x 76-1/2 incl bottom spacer with gap

(Hinge is reversible)



Cedar Framed Insulated Glass R/O=26" x 76-1/2 gap under the door (non-reversible)

NOTE: Gap or spacer can be deleted if you have effective cross ventilation as detailed in the manual.





Tips If you don't want to see screws on the jamb, you can screw behind the stops.

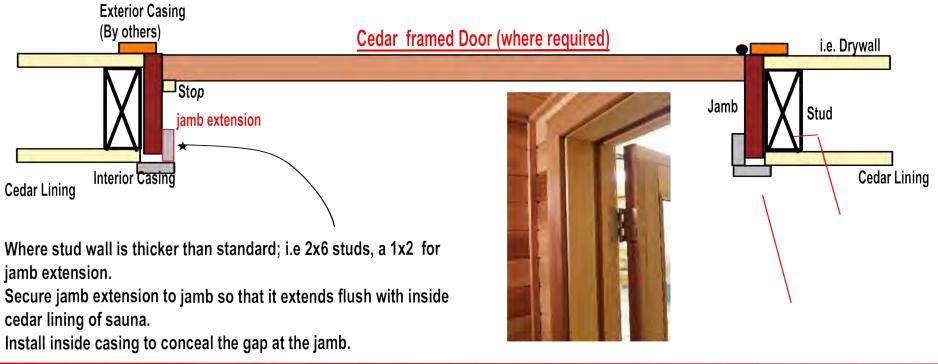


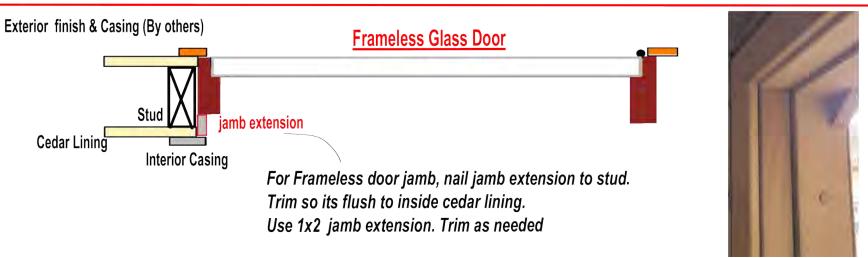
After installing the door, replace the center screw on each hinge with the longer screws provided with the kit.



NOTE: We do not provide instructions for how to hang a door. That is not something unique to saunas. We assume the installer knows how to shim, square, and secure a door in place. If not, there are numerous YouTube video demonstrations.

JAMB EXTENTION DETAIL



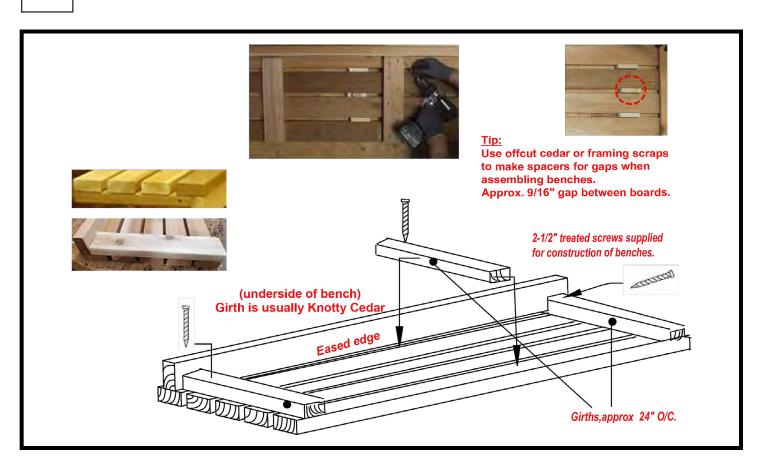


BENCH TOPS

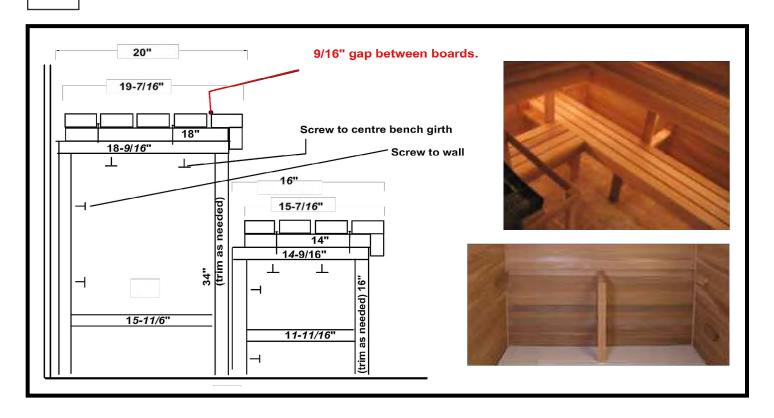


#10

BENCH GIRTHS

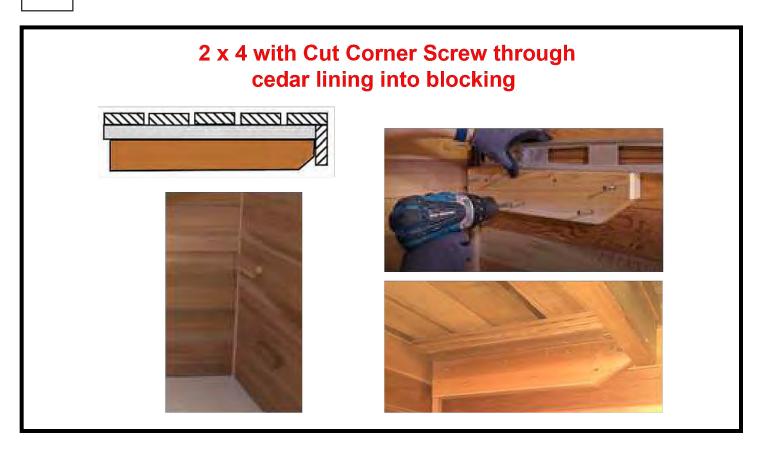


CENTER FLOOR SUPPORT FOR BENCHES 7' OR LONGER

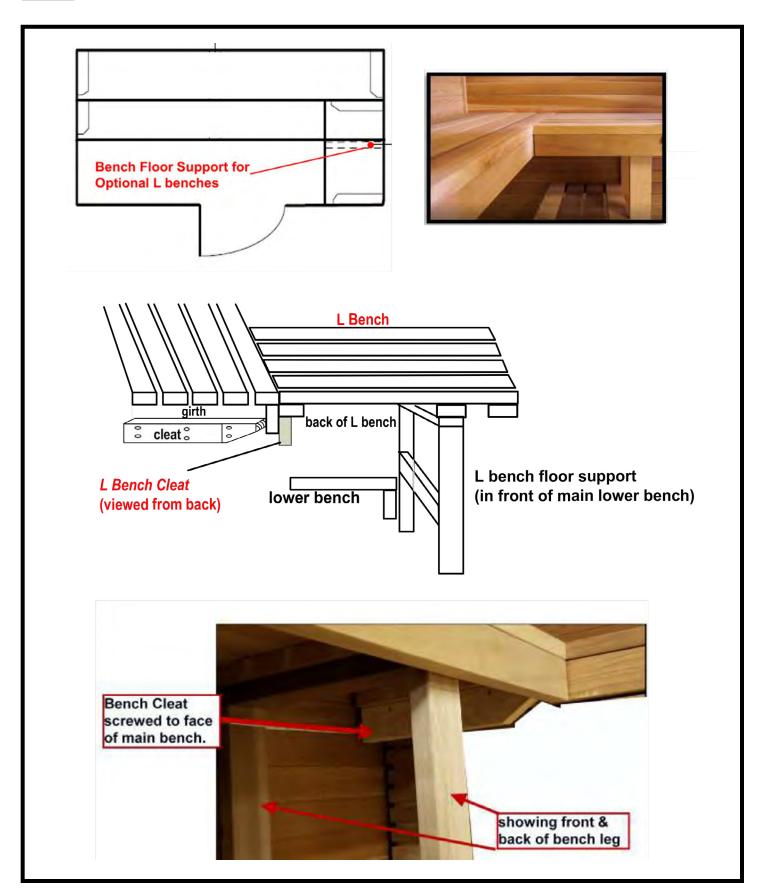


#12

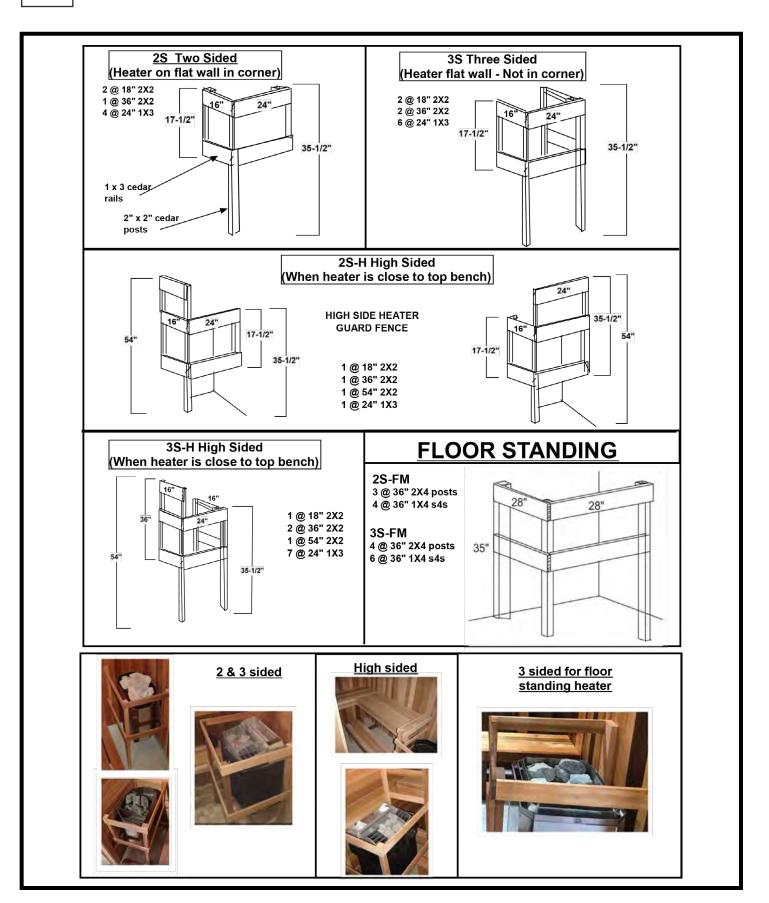
BENCH CLEAT (WALL HANGERS)



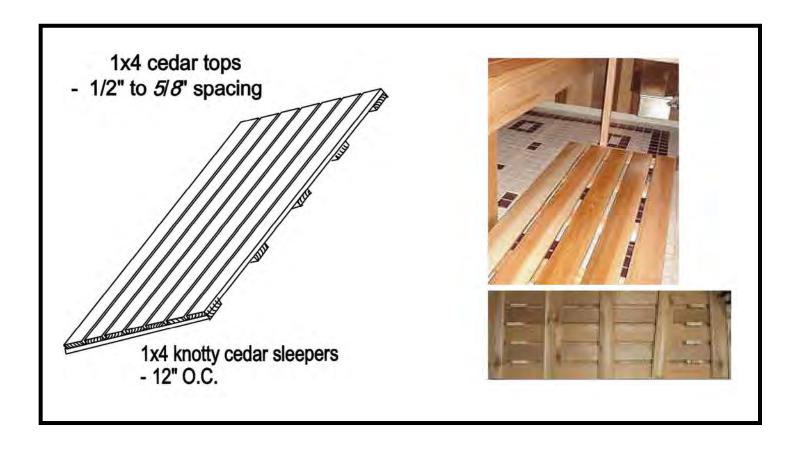
OPTIONAL "L" BENCH SUPPORT DETAIL



HEATER GUARD FENCES

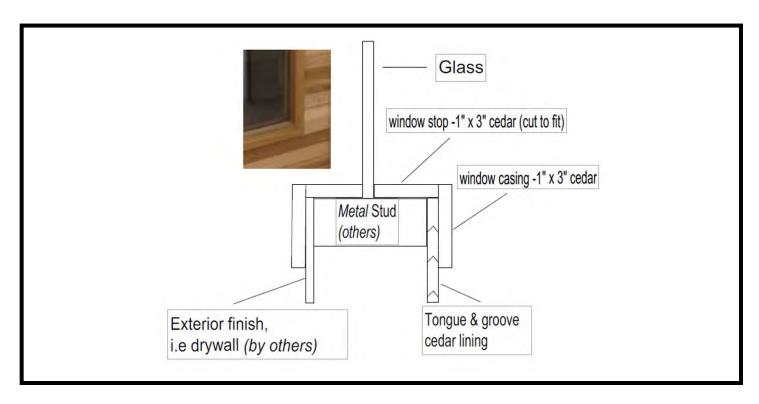


OPTIONAL 1" X 4" DUCKBOARD FLOOR (WHERE ORDERED)



#16

OPTIONAL CEDAR WINDOW TRIM (WHERE ORDERED)



(Included with all LK Premium kits and LK Plus where added as option)

Bench Skirt (top riser)

1×2 s4s cedar tops (1×3 may be substituted).

 $1\times4\times12$ " s4s cedar sleepers.

Assemble skirt from back so nicer surface is facing front.

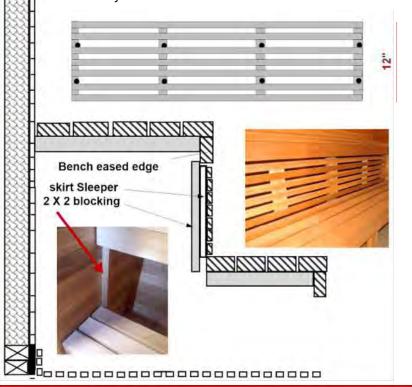
Nail using 1" nails with heads provided

Approx. 1/2" gap between bench tops for 12" height Sleepers approx. every 2'.

Install 2×2 cedar blocks to side wall at each end flush with bench floor support.

Secure skirt to centre bench support and end posts

Tip: Nailing skirt looks nicer. Screws are more visible. Screw if you want skirt to be removable.



DESIGNER BACKREST



Walls and backrest all from Clear cedar Color variation is normal and expected with cedar



1×4 & 1×2 s4s cedar tops.

1×4 × 12" s4s cedar sleepers.

Assemble backrest from back, so nicer surface is facing front.

Nail using 1" nails with heads provided.

Approx. 5/8" gap between bench tops for 12" height.

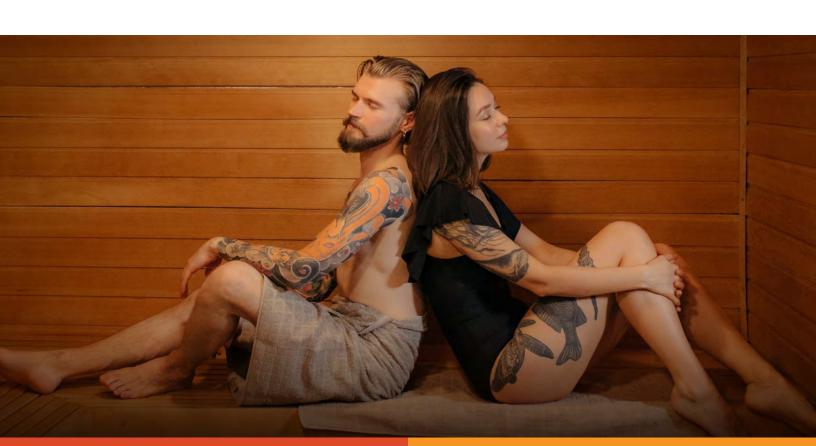
Sleepers approx. every 2'.

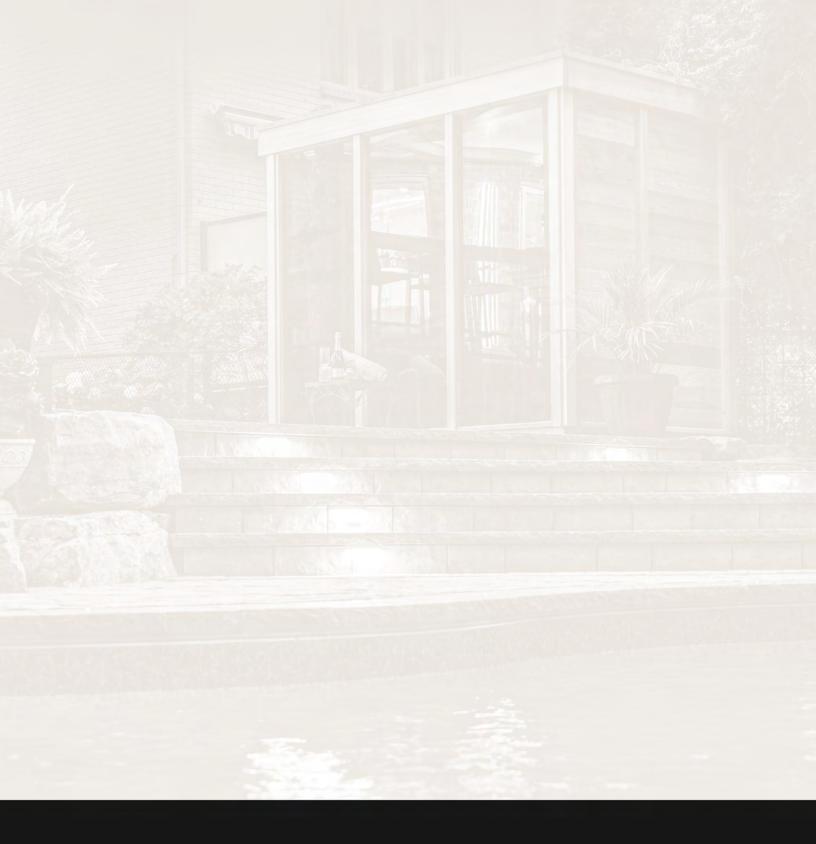
Tip: Nailing backrest to wall looks nicer. Screws are more visible

HOW TO TAKE A SAUNA

- Start with a brief shower using warm water and soap. Rinse thoroughly. Do not towel dry.
- 2. Enter the pre-heated sauna set to 80°-90°C (176°-194°F). Relax and allow your body to perspire freely in the soft, dry heat. Do not throw water on the rocks in this first session. Do not expect to begin and finish your sauna in a few minutes. Even in the extreme heat of a sauna, it takes time for your body temperature to rise so you perspire freely.
- 3. Cool off with a cold shower.
- 4. How long you stay in the sauna is up to you. It depends on your comfort level. It is not an endurance test. People often start at 5–10 minute intervals and work up to longer periods.
- 5. Re-enter the sauna. Sprinkle water on the hot rocks to add steam and increase the humidity. Adding water will increase the feeling of heat and assist the perspiration process. Add a few drops of scented essence, such as eucalyptus, into the water you splash on the rocks. It will disperse throughout the sauna.
- 6. Take a cold shower. Repeat the sauna/cold water cycle as often as you desire.
- 7. Dry yourself completely, then sit or lie down, letting your body relax.
- 8. Dress and have a light post-sauna snack.

NOTE: When used for the first time, you will notice smoke coming off the heater elements. This process is normal. Leave the door open and allow the sauna to run for about 20 minutes.







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