

USER MANUAL

Kirami® CUBE Outside hot tub heater



Read this manual carefully and store for future reference.

NOTICE! Minimum water level before fire! See page 6!



Contents

- CUBE heater: marine aluminium (AlMg3)
- Fire grate: cast iron 2 pcs
- L-shaped grate 1 pcs
- Furnace door with steel plate inside
- Ø75mm rubber hoses for connecting the heater 2 pcs
- Hose clamps Ø80-85mm 4 pcs
- Xylan Torx25 self drilling screws 6 pcs
- Torx 25 head for drill
- Ash shovel
- This user manual

Depending on the model of the heater (two or three connection pipes) are connection hoses and possible connection plates delivered accordingly. Three pipe heaters are only delivered as replacement for old heaters in old aluminium tubs. This manual does not include instructions for those models. Also special models like left side version are not covered in this manual.

Necessary tools

You will need a 13mm wrench or similar for fixing the heater to the barrel. And for installation on an aluminium tub you also need a battery screwdriver where you can use the head supplied.

NOTICE! Minimum water level before fire!

See page 6!

INSTALLATION

The installation procedure varies between different barrel / tub models. Common to them all is that you use two rubber hose pieces and hose clamps to fix the heater in its place. Using of the fixing pieces and installation height varies.

The following is common to all installations:

- It is advisable to spray silicon spray or other lubricant like soap inside the rubber hoses to tighten the hose clamps evenly and to prevent the hoses from wrinkling.
- Connection hoses are installed first on the heater pipes.
- The heater fixing plates are always placed between the fixing plates on the tub. The horizontal part of the heater plates keep them from bending in.
- Check that the connection hoses are not wrinkled before tightening them.
- To make sure that the heater is installed perpendicular to the tub. Measure the distance on both sides (measure X in the pictures) before fixing the screws. This makes sure that the screws will hit both plates.
- Make sure that the heater is horizontal or leaning just a bit towards the tub. So that the heater will become empty when emptying the tub.

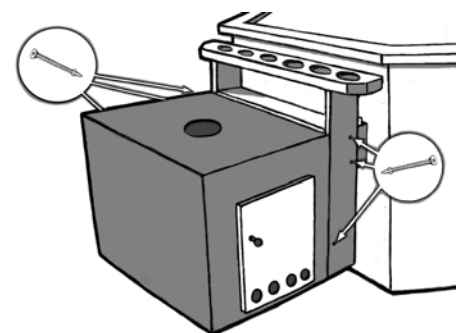
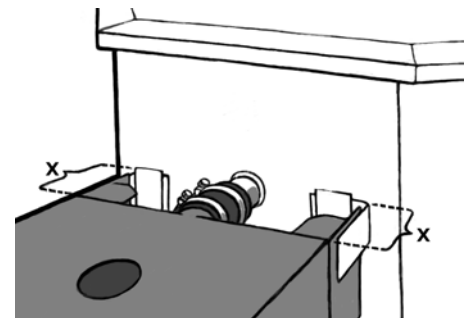
Installation into different tubs is written in the following.

Installation for Premium Norma/Optima tubs

Kirami aluminium tubs have Ø75mm connection pipes and connection plates. The heater is fixed to the tub with two rubber hoses and two plates on the sides. (Picture on the right)

- 1) In the DIY versions of the tubs the plates are installed for correct width by inserting the plates into the holder from the outside. In the panelled tubs the plates are preinstalled.
- 2) The heater is pushed into its place so that the tub pipes go inside the hoses on the heater. And the heater remains in horizontal position.
- 3) Tighten the hose clamps from both ends.
- 4) Use the supplier self-drilling screws to fix the heater to the tub's plates. The screws are meant to drill through the wooden panel, the tub plates and the heater plates. There should be three screws on each side of the heater. Four top ones make the actual fixing and the two lower ones fix the panel so that it stays in nice vertical position. If a drink holder / panels is not installed the only two screws are used on both sides.

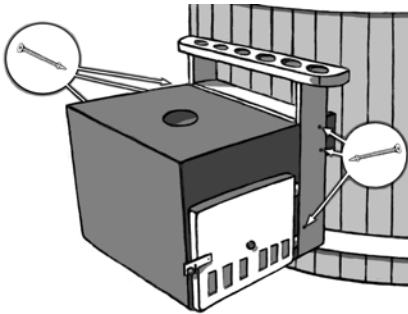
The heater will be hanging on the wall of the tub by the hoses and plates. Some support can be added underneath the heater if necessary.



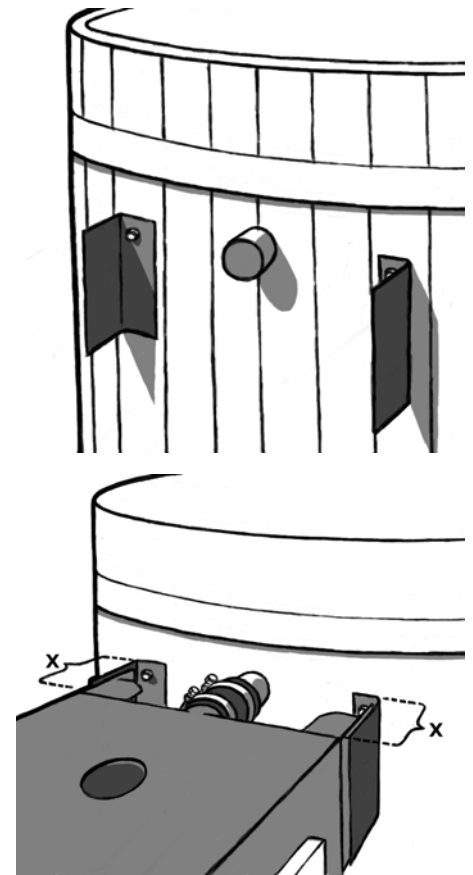
Installation for Original Woody tubs

Kirami wooden tubs have $\varnothing 75\text{mm}$ connection pipe pieces and preinstalled holes with bolts and nuts to fix the connection plates delivered with the tub.

- 1) Install the delivered plates and leave them loose, it makes the insertion of the heater easier.
- 2) The heater is pushed into its place so that the tub pipes go inside the hoses on the heater. And the heater remains in horizontal position.
- 3) Tighten the hose clamps from both ends. And the tub plates.
- 4) Use the supplier self-drilling screws to fix the heater to the tub's plates. The screws are meant to drill through the wooden panel, the tub plates and the heater plates. There should be three screws on each side of the heater. Four top ones make the actual fixing and the two lower ones fix the panel so that it stays in nice vertical position. If a drink holder / panels is not installed the only two screws are used on both sides.

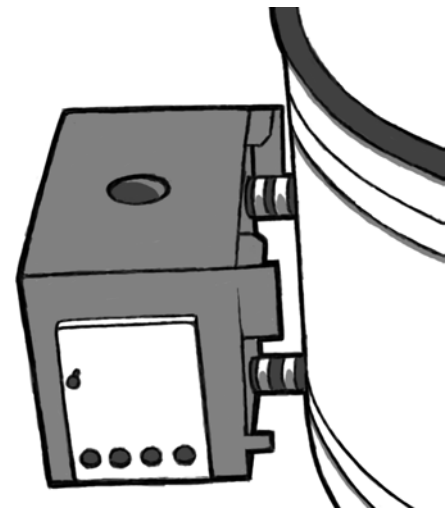


The heater will be hanging on the wall of the tub by the hoses and plates



Installation for Original Easy and Comfort Cozy tubs

The plastic Easy and Cozy hot tubs do not have connection plates. So the heater is connected just with the hoses and clamps just like Woody installation points 2) and 3). If you have purchased a Macu drink holder or version of the hot tub with covering side plates those can be attached with included screws to the heater plates. With plastic hot tubs the heater must have some supports underneath so that it will not hang from the hoses.

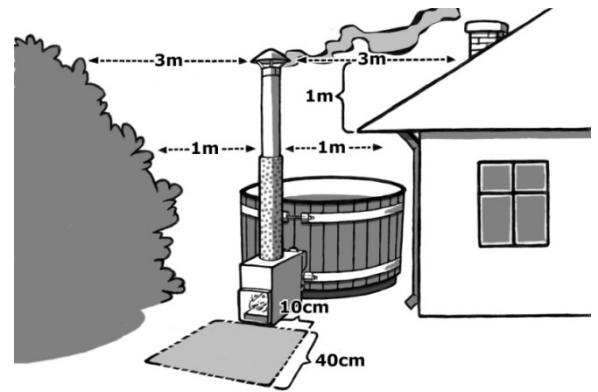


Installation further away from the tub

The standard heater should not be installed further away from the tub. If you are planning installation further away from the tub then you should purchase a special version with extra emptying valve + air release valve on top. And also buy a separately sold extension tube set with intermediate pipes, extra clamps and rubber hoses. When installing further away the heater must be a bit lower than the tub so that the natural circulation of heated water works. Remember to install the emptying valve and air release valve on the heater in this case. Also build a support for the heater when it is not fixed on the tub. And remember to empty the heater from its own valve after use.

FIRE SAFETY

If the heater is located near buildings, for example on the side of a terrace, the distance of the chimney from any combustible materials must be adequate. Remember to check the distance both laterally and vertically so that there isn't any risk of fire. Safe minimum distance, from the chimney's upper end, laterally is three (3) meters. Shorter distance laterally is adequate in other parts of the chimney. If the chimney is closer to any combustible materials you must use special insulated chimney, which has to be purchased separately.

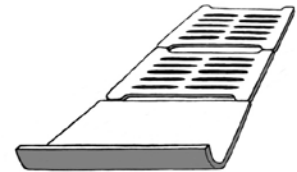


When positioned close to the roof or when taken through it, the top end of the insulated chimney must be at least one (1) meter above the surface of the roof. Ask your local fire officer for more information.

Notice also the fire safety in front of the furnace. There shouldn't be any combustible materials in front of the furnace. There should be an area, which is demonstrated in the picture that should be made of incombustible material such as concrete, sand or metal.

Grates

For the CUBE heater, two cast iron grates and one L-shaped iron plate will be delivered. Those are to be positioned on the tracks in the heater. The order of the grates is shown on the right side. L-shaped iron plate is to be installed bended edge upwards. It will deflect the air and also prevent the firewood to drop out from the heater.



Chimney

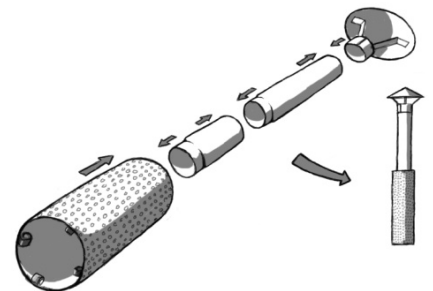
You can use a Ø150mm outer diameter acid-proof chimney with this heater. The reduced end of the chimney fits inside the heater. The chimney parts can be purchased separately in three different lengths: 20 cm, 50 cm and 100 cm. There are also available adjustable chimney corners and 100 cm long protective sleeves for the lower part of the chimney.

We recommend a chimney kit for the heater. This package includes 200 cm chimney + 100cm protective sleeve and a standard hat. There are also spark protective hats available for the chimney.

If you have purchased a chimney kit with the heater. It is supplied in a separate box and has four parts (see picture right) and it has to be assembled.

Remove the protective film from the thermal protection and place the assembled chimney to the chimney outlet of the stove.

Be careful, the edges of the chimney are very sharp. Use protective gloves!

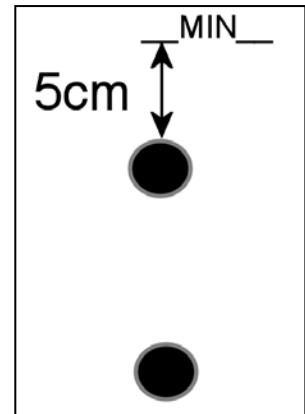


USAGE

Warning!

Never start the fire when the tub is empty or the water level is insufficient! Heating a non full tub will destroy the heater!

The tub must always be filled so that the water level is at least 5 cm above the upper pipe of the heater (picture on the right). Only then it is safe to start the fire.



Do not start emptying the tub until the fire in the heater is completely out! Heating a non full tub will destroy the heater!

The water in the tub must not be allowed to freeze during the winter. Empty the tub or make sure that the water is heated adequately.

The heater cannot be connected with a circulation pump! It will not stand the pressure, since it has been designed to use only gravitational free circulation.

Before using the tub for the first time, we recommend to rinse the stove's water circulation pipes carefully. Rinse the inside of the heater through upper pipes with water so that possible garbage comes out of the heater. When filling the tub, make sure that the rubber hoses used for connecting the stove do not leak. If necessary, tighten the hose clamps.

When using lighter fluid act according to the instructions of the fluid. Never use any other fluids than those that are made for it. We recommend the use of burning pieces, for example Burner-paraffin bags.

Do not overheat the water. We recommend a bathing temperature of no more than +37°C.

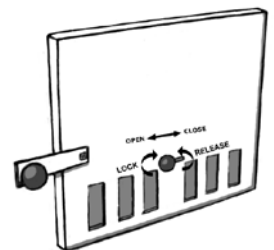
Empty the heater from ashes after every use. If the grates stay inside the ashes, it will shorten the lifetime of the grates considerably.

Use only small and dry firewood for the heater. The use of big and moist wood will easily double the heating time. Use of common alder is not recommended, since it causes more soot and stickier soot than other firewood.

The use of the heater that is loaded from outside of the barrel is as easy as the use of any other normal fireplace. We recommend the use of small firewood when starting the fire and then gradually add bigger ones, if needed.

While heating the water, it is advisable to keep up a fair-sized fire in the heater so that the wood would burn properly and the maximum output can be achieved. When keeping a small fire the heating time will be much longer.

Air intakes in the furnace door should be adjusted according to your needs. When fully open the fire runs well but power might not be optimal. Please find the best



position for your needs.

Cleaning and chemicals

Take care of the sanitation and hygiene of the barrel by washing and drying it often enough. You can wash the barrel with pine soap and scrubbing brush, or using some other bio soap. If the barrel is in public use it is important to use chemicals that kill bacteria, in other words chlorine. When the barrel is only in home use there are oxygen-based alternatives for chlorine. These chemicals are suitable for disinfecting small tubs. You can find the instructions for dosages on the packages of the chemicals, and the instructions should be followed carefully. Over dosages might cause corrosion of the barrel / heater parts. **NOTICE!** When using chemicals, it is important to follow the pH level of the water and it should remain within 7,0 - 7,6. The use of chemicals usually lowers the pH level, which might again result in corroding the barrel parts. The use of trichlorine-based and other tablet combinations is prohibited in the barrels, except for 20 g tablets, which do not raise the concentrations too high. **Use only chemicals recommended by the manufacturer.**

WARRANTY

Our products have a 24 month warranty on materials and workmanship.
The warranty is valid when the user reads the product instructions and follows them.

NOTE! Differing from the above mentioned. Products used for commercial purposes are granted only 6-month warranty period.

Warranty does not cover normal wear and tear caused by use, such as deformed, rusted or burnt through grates and fire plates.

The guarantee does not cover damage caused by misuse.

The guarantee does not cover damage caused by freezing, because they can be avoided with correct use.

The guarantee does not cover corrosion due to the faulty use of chemicals. Especially the pH value should be appropriate and the dosages of chemicals cannot be too high. Do not use automatic chemical dispensers in the tub.

The warranty does not cover any indirect costs incurred, e.g. costs of building or disassembling the terrace.

Contact the dealer about guarantee matters. If you try to repair the product yourself, it will cancel the guarantee.

DISPOSAL OF THE PRODUCT

The metal parts of the product are to be taken to metal recycling, the wooden parts can be burned. Other parts belong to mixed waste.

Kirami wishes you enjoyable bathing experiences.

We hold the rights for changes in the product without separate notice. If this manual is supplied with a third party hot tub, Kirami is not responsible for any issues with the tub.

