Picture guide

Start-up of chillers type **Chilly**

230V / single phase

Important notes:
The following picture guide is additional information to the official instruction manual and does not replace it. The instructions in the manual are to be considered before this document.

Electrical and water installation and the start-up should be done by qualified personnel

Dear Chilly user – Brewer, winemaker, hobby user!
Congratulations on your new CHILLY unit !!

The following guide includes pictures to show you the step-for-step installation and start-up of your new Chilly to help you get started fast and easy.

Pic.1: Your new CHILLY would be delivered secured on a pallet with protective foil and safety bands, eventually in carton packaging.
Please check at arriving on possible transport damages and claim these immediately to the transporter.
If you are not sure please unpack the unit together with the transporter.
Transport damages cannot enforcement later!!

Correct place of installation:

In a well aired room.
If set outside, the unit should be under an awning or in a shed providing protection from the elements (sunshine, rain, snow) and well aired.

The unit operates between the ambient temperatures:
Min. +10°C / 50°F
Max. + 42°C / 107°F

Distance / placement:
Free space in front of the cool air intake min. 0,5 meter / 2 feet
Free space in front of the hot air outlet min. 1,0 meter / 3,5 feet

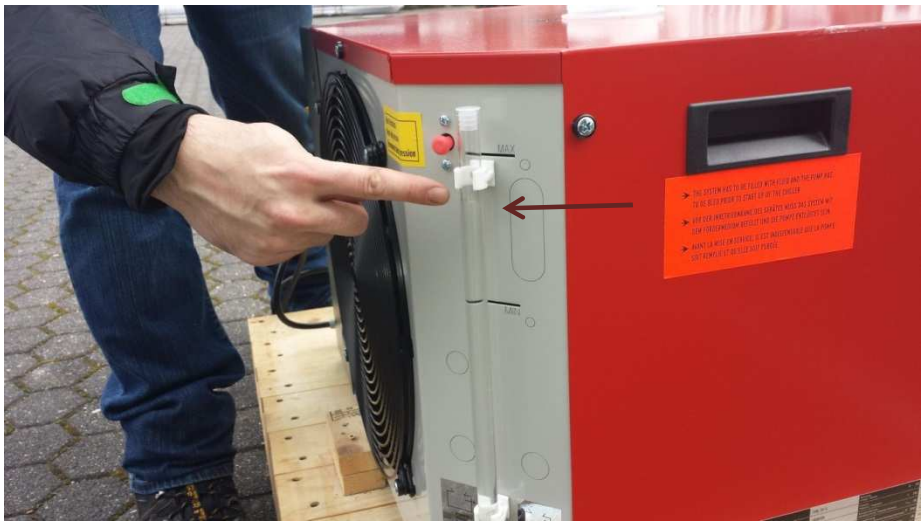
For exact installation conditions, please refer to the manual.

Pic.2: When unpacking the Chilly, you will find its official **Instruction Manual**. This Manual pertains to your specific unit by means of its Serial Number. The electrical diagram in this manual pertains to your unit. Unit Serial Number appears on the name plate attached to it (8 digit number).

Pic. 3: View inside of the open tank – the heat-exchanger (evaporator) in spiral type is visible

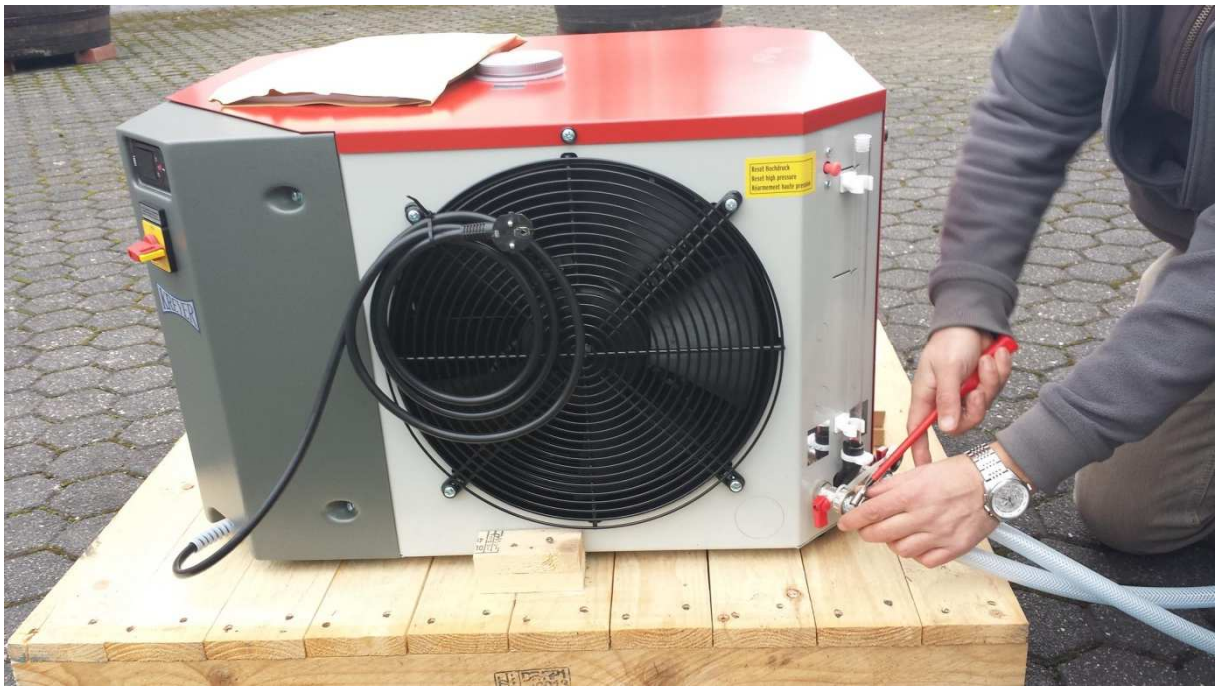
Pic. 4: Fill the tank with clear water

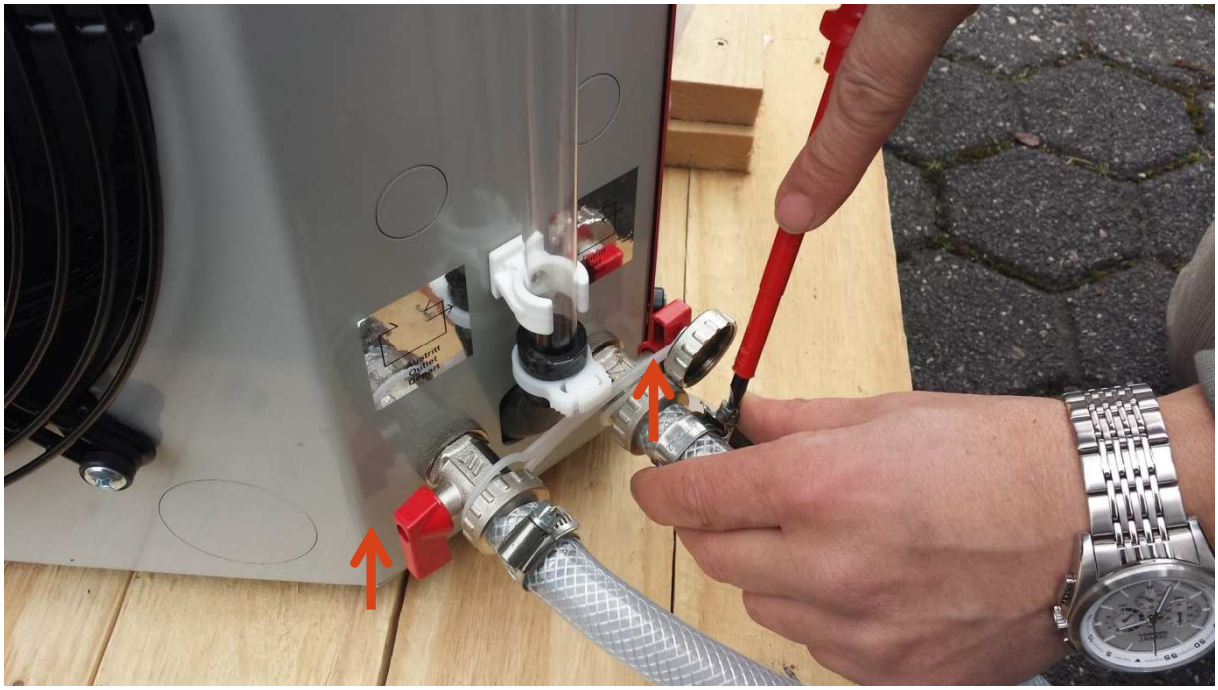
Pic. 5: Add 'food-safe' grade glycol (anti-frost protection) to the water. The concentration of the Glycol in the total quantity of water in your system depends on the water temperatures you want to set your Chilly to produce, and the instructions from the Glycol manufacturer. Typically, you need to have about 25% - 30% of Glycol part in the total quantity of water in your system. (Necessary for low temp Chillys, if ambient temperature can reach negative temperature or in case of cooling below +8°C is needed)



Pic. 6: Controlling the level of filled water/glycol-mix in the sight glass - it should **always** be between MIN (minimum) and MAX (maximum), also when the unit is in full operation.

If the water level went down after you started using the unit and water is circulating in your tanks – top up the water and make sure to add Glycol in the right quantity as well!





Pic. 7 + 8: Connection of the systems water pipes/hoses to the chiller. At this point the valves are closed and pointing upwards (see arrow direction).

Pic. 9: Bleeding of the pump (letting out air from the pump) – disconnect the tube/hose of the **chiller water outlet and open the outlet valve** . At first the water will flow out in spurts. Keep the valve open until the water comes out in a constant flow. This tells you that all air has been pushed out of the pump by the water. Close the valve again and top up the water in the tank if necessary. **Remember your Glycol!**

Attention: Please check the pressure capacity of the unit pump. Please ensure that all components in your water system are compatible with the maximum pump pressure. If

necessary, use pressure-reducer elements (e.g. bypass-valve) in your water system. Pump capacity and further information are inside the unit manual.

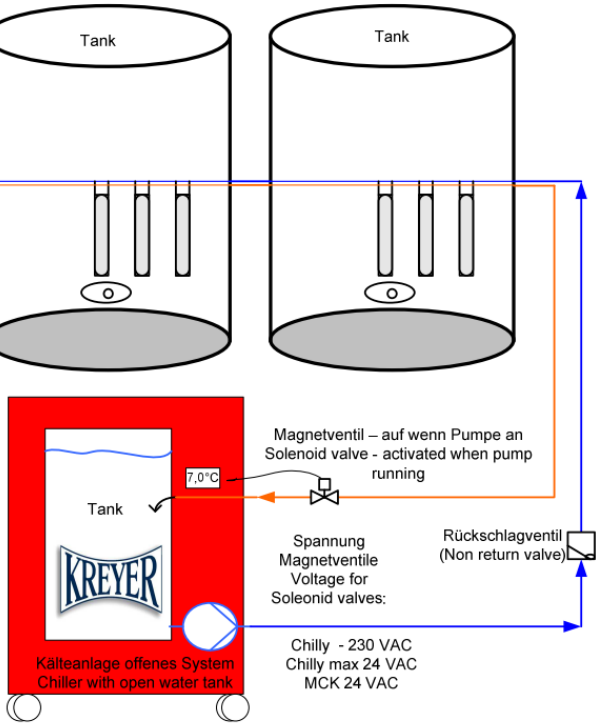
Pic. 10: Reconnect the tube/hose to the chillers outlet. Then open both valves (The valves are open when they are parallel to the tube, see arrows).

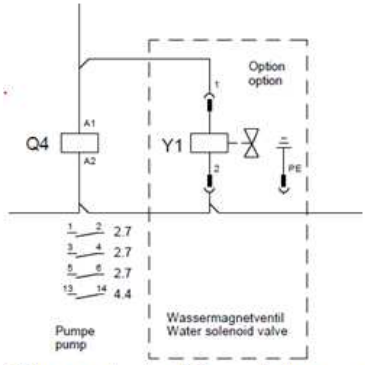
Optional: Overflow protection kit

The unit CHILLY is working as an open water system. Water users (e.g. tanks) should be installed on the same level as the chiller or below to avoid an overflow of the chillers buffer tank when the unit/pump is off.

If this isn't possible you should install an overflow protection kit (consisting of a solenoid valve, a solenoid connection cable and a non-return valve – available from **WTG / KREYER**). For the right voltage of the solenoid valve respect absolutely the available control voltage of the chiller –> check inside the electrical diagram appearing at the end of the instruction manual.

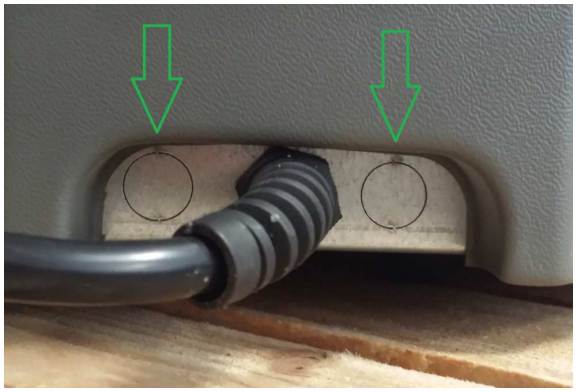
Install the non-return valve in the outlet pipe/flow line (for the right fitting position respect the flow direction indicated by an arrow on the non-return valve) and the solenoid valve in the inlet pipe/return line of your chiller (see picture in the example below





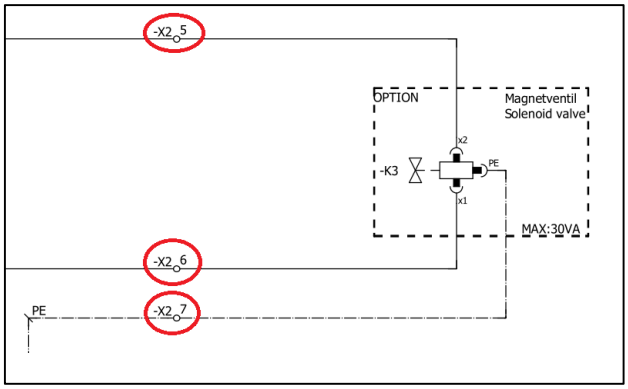
Or contacts 13 - 14 on contactor.

Insert the solenoid connection cable in one of the free cable inlets at the side of the chiller (see green arrows -> remove one of the pre-cut openings + install a screwed cable gland) and lead it through to the control cabinet:

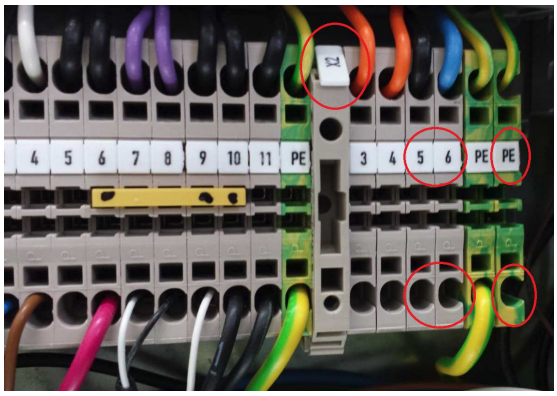


Check the electrical diagram of the chiller appearing at the end of the instruction manual where to connect the cable of the solenoid valve (in this example here the contact inside the control cabinet is X2 -> clips 5, 6 and 7=earth). It doesn't matter whether you connect the brown or the blue cable to clip 5 or 6:

Please check and compare volage on name plate with your local voltage – if not correlating please contact your supplier!



Please check the individual electrical plan of your Chilly to verify contact number!



- End of the optional overflow protection kit -

Pic. 11 + 12: Take the plug and connect it to your power supply.
Note: Chilly units are used in many countries. It can happen that your unit comes with a plug which is not the standard in your country. You may need to replace the plug on the unit to your local type.

NOTE:

Please close the lid of the Chilly unit when you have finished the installation.
The unit should operate when the lid is closed for proper transfer of cold air from the fan into the condenser.

Keep lid closed while the unit is in operation!

By open lid, the air sucked into the unit is drawn from the warm ambience all around the unit, and not only through the fan which cools it properly on the way to the condenser. This may cause in some cases a stop due high-pressure, and may reduce significantly the cooling capacity of the unit, so low temperatures may not be reached as set.

Pic. 13 + 14: Switching on the unit by turning the main switch to ON (dashed line appears in the display)

Operating mode: The Chilly displaying the actual temperature (11°C)

Pic.15 (left): Adjusting the Set-Temperature (this picture is in Celsius degrees, in the next page and in the official manual you will find how to change your unit to show F° Fahrenheit degrees)

Pic. 16 (right): Chiller displaying the actual temperature

Instructions to adjust the regulator PJ Easy

Set the temperature setpoint:	"SET" button for 1 second until the current set value is displayed. Setting the value with "UP" / "DOWN" and save it with the "SET"
ON/OFF of the Controller:	Push "UP" for more than 3 seconds.
Manual defrost:	Push "DOWN" for more than 3 seconds.
Continuous operation:	Push "UP" and "DOWN" for more than 3 seconds.
Change control parameters (F and C)	Push "Set" for more than 3 seconds (Display shows "PS") For access to all parameters password "22" type ("SET" 22 "SET") F parameters are accessible without a password Change parameter by parameter selection - "SET" - ▲ - ▼ - "SET Final Save the changes by pressing "SET" button for 3 seconds.

Parameter to change temperature from °C to °F (regulator PJ Easy):

/5: select °C/°F
Defines the unit of measure used for temperature control.
/5=0 to work in °C
/5=1 to work in °F.

Warning:

- when changing from one unit of measure to the other, all the values of the temperature parameters are modified to the new unit of measure.
- The max and min limits of the absolute temperature parameters are the same for both °C that °F. The range of temperatures allowed is therefore different between °C and °F:

Optional: regulator ELIWELL ST 120

1. Switch On/Off: (Option)

   Push the button ⏻ long (>5 seconds) to switch from operation mode „Off“ to „On“ and converse.

   In the mode „Off“ the display will show **Off.**

2. Normal display:
   The actual **medium temperature** is displayed.

3. Adjusting the setpoint:

   a. Fixed value regulation (absolute control)

push set 1x short	⇒	**SEt** is displayed
push set 1x short	⇒	the setpoint appears in the display, you can adjust it by pressing ⌄⌄ or ⌃⌃
		It will be saved in the controller by pressing set The display will switch back to **Set.**
push ⏻ 1x short	⇒	The actual mediumtemperature is displayed

4. Fault:

   As soon as one or more faults appear this will be displayed by this symbol ((●))
   To get the list of the existing faults displayed proceed as follows:

push set 1x short	⇒	((●)) is displayed
push set 1x short	⇒	**AL** is displayed
push set 1x short	⇒	List of fitting mistakes, those can be shown with the following button: ⌄⌄ and ⌃⌃
push ⏻ 1x short	⇒	**AL** is displayed
push ⏻ 1x short	⇒	The controler will be shown as standard indication.

Parameter to change temperature from °C to °F (regulator ELIWELL ST120):

- Press and hold set for longer than 5 seconds
- Search "**PA2**" by pressing ⌄⌄ or ⌃⌃ and confirm with set
- Type "**22**" by pressing ⌃⌃ and confirm with set
- Search "**diS**" by pressing ⌄⌄ or ⌃⌃ and confirm with set
- Search "**dro**" by pressing ⌄⌄ or ⌃⌃ and confirm with set
- Select the unit of measurement used when displaying the temperature recorded by the probes with ⌄⌄ or ⌃⌃ : **value 0 = °C, value 1 = °F** and confirm with set
- Press ⏻ to return to the standard operation menu

  IMPORTANT NOTE: switching between °C and °F DOES NOT modify the SEt, diF values etc. (e.g. Setpoint=10°C becomes 10°F)

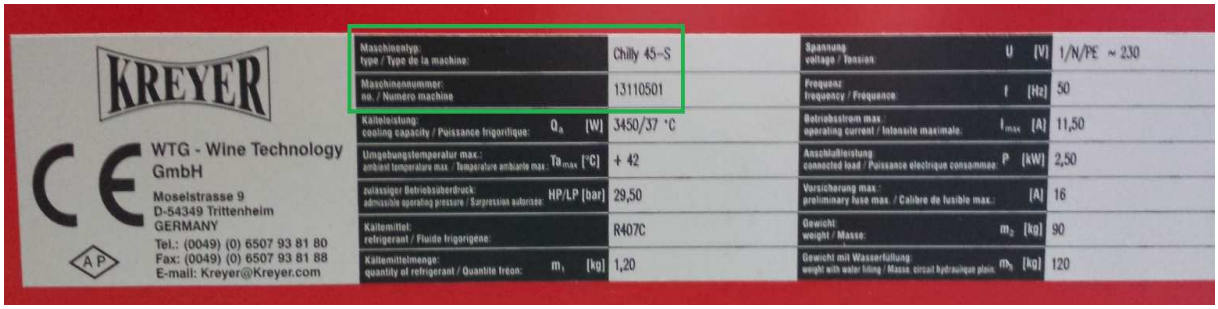
Optional: Differential pressure switch

Installed in most of the CHILLYs in the USA

When the pump pressure is correctly set adapted to your tank installation - the integral pump inside the cooling unit would switch-off when all tank valves are closed and there is temporarily no requirement for cooling/heating -> this needs to be adjusted.

To adjust take a screw driver, open the casing of the differential pressure switch (installed nearby the pump) and adjust it corresponding to the description in the instruction manual. Afterwards close the casing of the pressure switch and close the open cover panel of the unit

Your Chilly is now ready to cool your tanks!



If you have Chilly 400V / 3 phase – (Chilly 350, Chilly 450) –
Please check the unit manual for the correct electrical connection.

In case of technical questions or problems please always indicate the machine type and its serial number - see green box in the picture above! You will find this information on the type plate mounted on the outer side of each machine.

It is recommended to save this manual and the operation manual of your unit within reach and to keep another copy in your office as back-up.

For questions and assistance please contact your local Chilly provider or contact us at KREYER Germany:

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