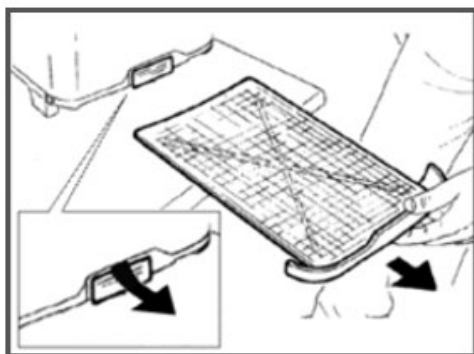
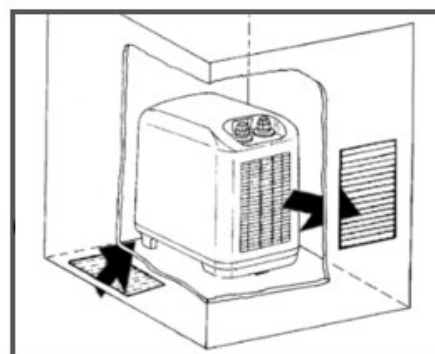


A



B





Technical support guide

ATTENTION!

Many of the following actions require to open the chiller, they should therefore be done by technical staff.

General information

To open the chiller proceed in this way:

- switch off the chiller pushing the on/off button (19)
- disconnect the supply cable (23)
- close the taps of water inlet and outlet (16) and unscrew the ring nuts (13)
- unscrew the fairing ring nuts (14) and pull out the air filter (6)
- pull the bottom of the fairing from the frontal part in order to separate it from the base (picture A)

NOTE: in the models TR-TC5 unscrew the two screws on the basement to remove the fairing

- to replace the fairing proceed in backward

AL on the display

- 1** The unit is installed into a cabinet
 - check if the hot air, coming out from the back of the chiller, is well conveyed out of the cabinet through an appropriate hole on the cabinet's wall. The hole have to be arranged in correspondence of the back grate of the chiller and must have the same dimensions of the back grate of the chiller (picture B)
NOTE: the distance between the back grate of the chiller and the wall have to be at least of 20cm
 - check if it has been arranged a hole for the air inlet on the bottom of the cabinet (picture B).
- 2** Check if the air filter is clean
 - pull out the air filter (6) and clean it with compressed air
- 3** Check if the fans are working properly

If the fans (21) are not working or are working slowly, open the chiller as indicated in the section "General information" and check if the electrical connections are well jointed.
If the connections are well jointed proceed with the replacement of the fans (21) as below indicated:

 - disconnect the electrical connections of the fans
 - unscrew the screws that fix the fans to the exchanger
 - fix the new fans and joint the electrical connections
 - close the fairing and restore the electrical and water connections

AL2 on the display

- 1** The UV-C bulb is exhausted

Remove the fairing as indicated in the section "General information" and proceed to replace the UV-C bulb (29) as follow:

 - pull out the UV-C bulb from its location inside the exchanger and disconnect it
 - without touching the glass of the new UV-C bulb connect it and put it inside the exchanger restoring also the rubber stopper in its position inside the ring nut for waterproof
 - close the fairing and restore the electrical and water connections
 - switch on the chiller and hold down the UV-C button for 10 seconds to reset the timer



E1 on the display

- ① The water temperature probe is defecting
Remove the fairing as indicated in the section "General information" and proceed to replace the probe (20) as follow:

- disconnect the white connector from the thermostat and pull out the probe form its location inside the exchanger
- place the new probe inside the exchanger and restore the insulating paste to insulate the probe
- connect the white connector to the thermostat
- close the fairing and restore the electrical and water connections

NOTE: to check if the problem is due to the probe or to the thermostat we suggest to proceed with this quick test:

- disconnect the two probes' connectors from the thermostat and connect the white one to the red one and opposite
- connect the supply cable and switch on the unit
- if on the display will appear once again the alarm E1, the problem is due to the thermostat (27) that should be replace (see point 3 of the section "The display does not light-up")

E2 on the display

- ① The overheating probe is defecting
Remove the fairing as indicated in the section "General information" and proceed to replace the probe (20) as follow:

- disconnect the red connector from the thermostat and pull out the probe form its location on the copper pipe
- place the new probe and connect the red connector to the thermostat
- close the fairing and restore the electrical and water connections

NOTE: to check if the problem is due to the probe or to the thermostat we suggest to proceed with this quick test:

- disconnect the two probe connectors from the thermostat and connect the white one to the red one and opposite
- connect the supply cable and switch on the unit
- if on the display will appear once again the alarm E2, the problem is due to the thermostat (27) that should be replace (see point 3 of the section "The display does not light-up")

The temperature on the display is different from the one on the thermometer of the tank

- ① Calibrate the water temperature probe
- to calibrate the probe hold down SET button for 10 seconds you will enter into the menu
 - the first value is the histeresy DO NOT CHANGE THIS VALUE (the correct parameter is 1 or 1.5)
 - press SET again
 - with the tow arrows set this value as the one you read on the thermometer of the tank, the new value will be automatically saved after few seconds

The display does not light-up

- ① Check if the supply cable is well connected
- ② Check if the fuse is burned
The fuse (24) is placed under the socket of the chiller. With a screwdriver open the fuse holder and check if the fuse is burned, if so replace it with the new one located in the same holder

- ③ Even after have check all the above points the display does not light-up
The thermostat (27) is defecting, remove the fairing as indicated in the section "General information" and proceed as follow:
- disconnect all the electrical connections and unhook the cable holder (7) from the thermostat
 - unscrew the screws that fix the transformer to the bracket (3)
 - pull out the thermostat
 - place the new thermostat, hook the cable holder (7), fix the transformer to the bracket (3) and restore the electrical connections
 - close the fairing and restore the electrical and water connections

The chiller does not cool down the temperature

- ① Check the histeresy value
- hold down SET button for 10 seconds you will enter into the menu
 - the first value is the histeresy, it should be set at 1 or 1.5 if not using the arrows restore it, the new value will be automatically saved after few seconds
- ② Check if the pump is working properly and check the pipes they must not be crushed
- ③ Check if on the display appears AL
See the section "AL on the display"
- ④ Check if there are gas leakages
Remove the fairing as indicated in the section "General information" and proceed as follow:
- the exchanger must be empty of water
 - switch on the chiller and set the temperature to 10°C so that the compressor will start working
 - after 5 minutes check if the discharge pipe of the compressor (no insulation) is hot and if the suction pipe (with insulation) is freezing
 - if the two pipes of the compressors are not like above described, with a gas leak detector check all the welding
 - once detected the leaking point, weld it, make the vacuum for at least 2 hours and refill of the gas type and quantity reported on the technical labels

If the gas leakage is inside the exchanger (26) or on the lockring you will have to replace the exchanger. Remove the fairing as indicated in the section "General information" and proceed as follow:

- disconnect all the electrical connections and unhook the cable holder (7) from the exchanger
- unscrew the screws that fix the fans (21) to the exchanger and remove them
- remove the heater (14), the UV bulb and the quartz tube (27) from their location inside the exchanger
- take out the two polystyrene parts at the bottom of the exchanger and unscrew the two screws that fix the exchanger at the basement
- unweld the exchanger suction pipe next to the lockring
- cut the capillary next to the filter dryer (10)
- remove the exchanger from its location, place the new one, fix it at the basement with the two screws and restore the two polystyrene parts

NOTE: anytime the refrigerant circuit have to be open we suggest to replace also the filter dryer

- unweld the filter dryer (10) and weld the new one
- insert the capillary into the bottom part of the filter dryer and weld it
- protect the lockring with a wet duster (attention: do not let humidity penetrate into the refrigerant circuit) and weld the suction pipe
- check with a gas leak detector all the welding
- make the vacuum for at least 2 hours and refill with the gas type and quantity indicated on the technical label
- hook the cable holder (7) at the exchanger, fix the fans (21), replace the heater (14) and the UV bulb and quartz tube (27) and restore all the electrical connections
- close the fairing and restore the electrical and water connections

- ⑤ Even after have check all the above points the problem is not solved
The compressor is broken

The break of the compressor (9) could be due to a too high temperature inside the chiller. In case of overheating on the display of the chiller appears the alarm AL, if any action is done to solve the cause of this alarm the internal temperature grows and when it reaches too high levels the electrical protections of the compressor stop it till the temperature returns to safety levels than they start the compressor again. Too many on / off of the compressor can cause its brake.
Check the section "AL on the display" for further information.

Water leakage

- ① Check where is the water leakage

From the taps (17); replace them as well as the related o-ring (12)

From the bottom of the chiller; in this case the water is leaking from the exchanger (26) that have to be replaced. Remove the fairing as indicated in the section "General information" and proceed as follow:

- disconnect all the electrical connections and unhook the cable holder (7) from the exchanger
- unscrew the screws that fix the fans (21) to the exchanger and remove them
- remove the heater (14), the UV bulb and the quartz tube (27) from their location inside the exchanger
- take out the two polystyrene parts at the bottom of the exchanger and unscrew the two screws that fix the exchanger at the basement
- unweld the exchanger suction pipe next to the lockring
- cut the capillary next to the filter dryer (10)
- remove the exchanger from its location, place the new one, fix it at the basement with the two screws and restore the two polystyrene parts

NOTE: anytime the refrigerant circuit have to he open we suggest to replace also the filter dryer

- unweld the filter dryer (10) and weld the new one
- insert the capillary into the bottom part of the filter dryer and weld it
- protect the lockring with a wet duster (attention: do not let humidity penetrate into the refrigerant circuit) and weld the suction pipe
- check with a gas leak detector all the welding
- make the vacuum for at least 2 hours and refill with the gas type and quantity indicated on the technical label
- hook the cable holder (7) at the exchanger, fix the fans (21), replace the heater (14) and the UV bulb and quartz tube (27) and restore all the electrical connections
- close the fairing and restore the electrical and water connections



How to arrange a general check of the chiller

Electrical test

- connect the chiller to the socket and start it
- check if the thermostat lights-up, if it doesn't proceed as indicated in the section "The display does not light-up"
- check if all the buttons are working properly
check if the histeresy is correctly set to 1 or 1.5, if not proceed as indicated in the section "The chiller does not cool down the temperature"

Working test

NOTE: we suggest to test few units together in order to find more quickly any possible defect

- plug and switch on the chiller
- set the temperature lower than the room temperature, the green led on the display lights-up and the compressor will start working
- check if all the units reach the set temperature at the same time, if not proceed as indicated in the section "The chiller does not cool down the temperature", point 3
- put a finger into the water inlet or outlet and fill if the titanium pipe is cold, if not proceed as indicated in the section "The chiller does not cool down the temperature", point 3
- check if the fans are working properly, if not proceed as indicated in the section "AL on the display", point 3
- remove the fairing as indicated in the section "General information" and check if the electrical connections are well jointed

Water leakage test

- the chiller must be switch off
- fix the manometer on the water inlet or outlet and close the other one with the exchanger box stopper, o-ring and ring nut supplied with the chiller
- check if the pressure on the manometer is 0,5 bar (TR/TC5-10-15-20)
- check if after few minutes the pressure on the manometer is stable at 0,5 bar (TR/TC5-10-15-20), if not there is a leakage inside the exchanger and you have to replace it, proceed as indicated in the section "water leakage", second part "water from the bottom part of the chiller"

Gas leakage test

- remove the fairing as indicated in the section "General information"
- switch on the chiller and check if the suction pipe of the compressor (with insulation) is freezing and if the discharge (no insulation) pipe is hot, if not the is a gas leakage, with a gas leakage detector check all the welding