If you smell gas
• Discontinue use until the gas leak is discovered and corrected or the unit is replaced.
• Check the regulator and its connections using soapy water. Tighten if necessary.
• Check the hose connection to the unit using soapy water (this connection does not require Teflon tape, it seals with a flare fitting). If there is a gas leak coming from the hose connection try to tighten but use a backup wrench and don’t over tighten. If there is still a leak at the hose connection remove the hose and inspect the brass gas inlet, it should be smooth with no nicks or gouges and should be clean. If there is a problem with this adapter either clean it off if it is dirty or contact Hydro Innovations for a replacement adapter.
• Check the gas adapter that comes installed on the unit with soapy water. If there is a leak at this connection use a backup wrench on the unit and remove the gas adapter. Clean the threads of any sealant and reattach using Teflon tape. Do not over tighten.
• If no external leaks were detected using soapy water and the smell of gas is coming from inside the unit do not use and contact Hydro Innovations.

If you have water dripping out of the bottom of the unit
• Most likely you are experiencing condensation dripping from the copper tubing inside the unit. This is caused by incoming water temperatures being too low, humidity in your garden being too high, or a combination of both. This is similar to a cold glass of water sweating and happens when the water cools the tubing below the dew point in the room. We don’t have control over the humidity in your garden or your water temperature we do not cover damage to the unit caused by condensation. The water must be warmed to above the dew point or the humidity must be lowered in the garden which lowers the dew point to below the water temperature.
• If using a recirculation system turn up the chiller slowly until the condensations stops.
• For drain to waste cooling the water can be stored in a reservoir and allowed to warm up to room temperature. You would use a pump to supply water to the MiniGEN and the water would still be drained to waste.

• The incoming water for the MiniGEN can be run through our Ice Box heat exchanger with a fan attached. The exiting water from the Ice Box should be connected to the inlet of the MiniGEN. With the fan running and the water flowing heat from the grow room will slightly warm the water that is used to cool the MiniGEN typically raising it above the dew point. As an added bonus cold air is blown in to your garden. This will typically cause the Ice Box to sweat which does not cause any damage and this water can be collected and removed from your grow room bringing down humidity levels.
• If using drain to waste the cooling the user can be switch to a recirculation system to completely stop condensation.
• Check and tighten hose barb connections.

MiniGEN does not try to light or relight, no clicking is heard.
• Check to make sure there is not air in the gas hose. After changing the bottle or after installation, you may need to cycle the unit on and off a few times before the air expelled.
• Check to make sure that the unit is plugged in and that the outlet has power.
• Check to make sure that the power cord is securely attached to the unit.
• Check for gas leaks, there is a sensor that detects internal gas leaks and if a leak is detected the unit will not run. Turn the unit off and smell for gas, if you smell gas coming from inside the unit, discontinue use and contact Hydro Innovations.
• Check to make sure that the propane bottle valve is on.
• Check bottle level, keep in mind bottles feel heavy even when empty.
• Check for kinks in the gas line.
• Check to make sure that the unit does not have direct airflow from a fan. Too much airflow around the unit can cause the flame to blow out.
• Make sure the unit is level in both directions, there is an out of level sensor that turns off the gas valve.
Installation:
The MiniGEN can be wall mounted or hung by chains. If wall mounting, secure the unit using the two holes at the top. The unit must be mounted securely and not just attached to the sheetrock. Make sure that at least 1 of the screws is installed in a stud. If hanging the unit by chains make sure that they chains are securely fastened and are also not just attached to the sheetrock. The unit must be mounted at least 16” from the ceiling in your room or hut. The unit must be hung exactly upright or the anti-tip sensor will not allow the unit to function. Make sure that the unit is not installed in an area with strong air flow as it can blow out the flame.

Attaching Gas Line:
Inspect the brass fitting and the brass inlet of the MiniGEN for damage of any kind. If damaged DO NOT USE. Otherwise, screw the brass fitting of the supplied hose to the brass gas inlet on the MiniGEN. This connection does not need teflon tape but should be installed firmly. Be careful not to overtighten. The gas line supplied has an attached regulator with a plastic bottle fitting that MUST be used. The bottle fitting is designed for 20lb and 40lb propane bottles. Make sure that the valve on the propane bottle is turned off completely by turning it clockwise. Attach the other end of the hose to the propane bottle by screwing on the bottle fitting. If it doesn't easily attach you may be using the wrong size bottle or wrong bottle type. Once the hose is firmly attached, turn the valve of the bottle counter clockwise to allow gas to flow. Check all connections for leaks by applying soapy water to the connections (including the regulator) and looking for bubbles. If there are bubbles at any of the connections do not use the product until the leak is fixed. Also smell for gas inside the unit, if you smell raw gas at all DO NOT USE (or discontinue use).

Attaching Water Lines:
The MiniGEN heat exchanger has hose Barb inlet and outlets designed for 1/2” inside diameter tubing. Slip the tubing over the hose bars to install. We recommend high quality kink resistant tubing that should be secured with the supplied hose clamps. Circulate water though the lines and check for leaks before operating the unit.

Pump:
We recommend a pump with a flow rate of at least 500 GPH if you choose to water cool the MiniGEN.

Cooling:
You can use a small (5 gallon) reservoir with a small chiller or, if you’d prefer not to use a chiller, a larger reservoir alone (minimum 25 gallons; depending on your application, a larger reservoir might be required).

Removing the Heat Exchanger (for use without the water cooling feature):
The MiniGEN is approved to be used with or without water flow but we do recommend that you remove the heat exchanger if you choose to use it without water flow. Make sure the unit is not running and has had ample time to cool off. Unscrew the four screws and two brass nuts to remove the front panel. Facing the heat exchanger, lift either the left or right side and slide it out. Reinstall the front cover after removing the heat exchanger.

Attaching Power Cord:
The supplied power cord plugs in to the standard 120V power outlet of your CO2 monitor or a timer (not recommended) and includes a 12v transformer that supplies power to the MiniGEN.

Operating the Unit:
Once every step above has been followed, most importantly checking for and correcting any gas leaks, the MiniGEN is ready for operation. If applicable, turn on the water and leave flowing while the unit is operation. Make sure the propane bottle is full and the bottle gas valve is on. Turn on the power switch for the unit and make sure that the power cord is energized by your CO2 monitor. If the monitor outlet is powered on, the MiniGEN will light, check the sight glass to verify. When the powered outlet on the CO2 monitor is turned, off the unit will turn off. If the MiniGEN does not light the first time there is probably air in the gas hose. Turn off the power switch, wait 60 seconds, and try again. This may have to be done several times to bleed all of the air out.)

Condensation:
If during operation there is condensation collecting on the lines and dripping out of the unit you must raise your water temperature to the point that the condensation stops. Condensation damage is not covered by warranty and is a problem that should be addressed immediately to avoid damage to the unit. Condensation occurs when any object inside your growing environment is colder than the dew point temperature. The incoming water temperature must be above the dew point in order to curb the problem.