



# Generator Installation

## WALL MOUNT

Bracket wall mount screw holes must be 10 inches center to center. Mount brackets to wall and housing will slip over screw heads and fit snug into slotted holes in housing back. This allows for easy removal of housing from wall brackets. Make certain bracket screws are secure in wall and use good judgement when choosing mounting location.

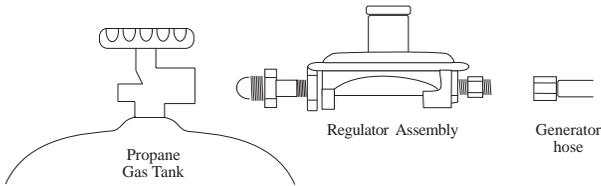
## SUSPENDED

Use chain, eyebolts and ceiling hooks found in hardware pack. Hang unit from sturdy location at least 18 inches from ceiling. The unit must operate in level upright position. "CAUTION" Should unit fall during operation fire may result.

## FREE STANDING

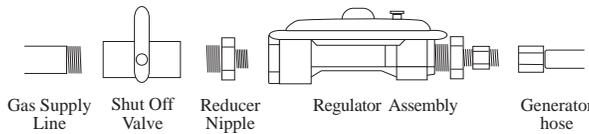
Remove the four screws holding the bottom plate to the housing. Locate the holes on the bracket to match and replace the screws.

## Propane Hook-up



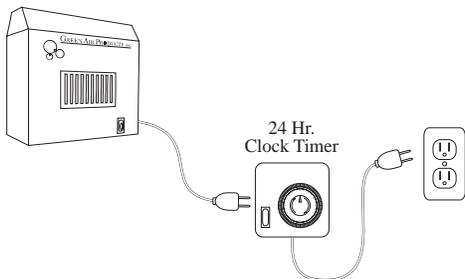
1. For propane applications use a propane tank that has been filled to only 80% of it's capacity. This is very important for all propane burning mechanisms. Failure to observe this common rule will make your generator hard to ignite and will not stay lit (refer to troubleshooting).
2. Carefully thread the regulator flange nut in the tank valve counterclockwise with your fingers until you feel the flange seat. Tighten firmly with adjustable end wrench. **DO NOT USE PLIERS!** Fasten hose between regulator and generator gas inlet in same fashion.
3. Turn the propane tank valve to wide open "ON" position.
4. Check for gas leaks. A solution of 25% hand dish soap and 75% water in a spray bottle will work well for detecting gas leaks. Apply solution to all previously connected fittings. Bubbles will occur around loose connections. Always use two wrenches when tightening multiple fittings.

## Natural Gas Hook-up

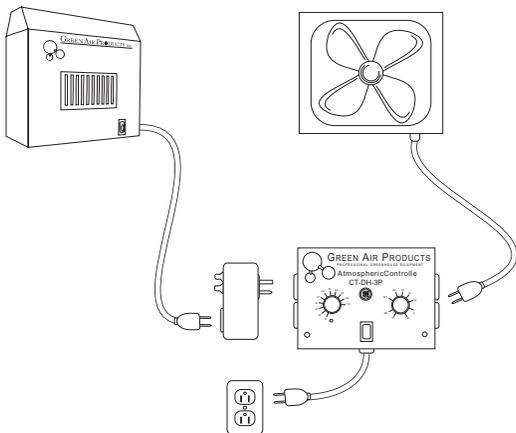


1. Turn gas supply off before you begin work. Now connect a gas shut off valve (not included) onto your incoming gas supply line. If needed reduce to 1/2 male nipple to accept enclosed regulator. Note gas flow direction indicator arrow. Use gas compatible pipe compound on all pipe thread fittings and tighten securely.
2. Connect regulator to shut off valve nipple with compound and tighten.
3. Check for gas leaks. A solution of 25% hand dish soap and 75% water in a spray bottle will work well detecting gas leaks. Apply solution to all previously connected fittings. Bubbles will occur around loose connections. Always use two wrenches when tightening gas fittings.

## Control Diagram



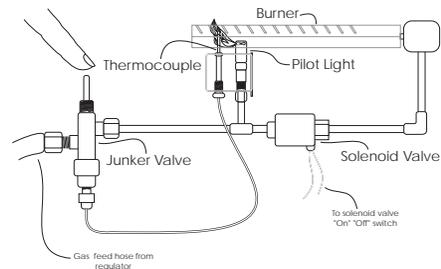
This example shows the simplest method of CO<sub>2</sub> generator control. Set the Green Air Products Timestat, Cyclestat or PDT-1 timer for short intervals during light hours only.



This diagram demonstrates an exhaust synchronized system where the CO<sub>2</sub> equipment is disabled during exhaust functions and immediately replenished when exhaust is completed. The CT-DH-3P temperature and humidity controller activates the exhaust fan and shuts off the CO<sub>2</sub> during the exhaust cycle. It has a built in photo sensor to limit CO<sub>2</sub> enrichment to photoperiods only. Enrichment will only occur when exhaust fan is off and light is present. The CO<sub>2</sub> "On" cycles are timed by the Cyclestat repeat cycle timer which cycles the CO<sub>2</sub> equipment according to your preset periods. An example might be that the timer is set for 5 minutes every hour. The CO<sub>2</sub> generator would be operated according to that hour schedule. In the event that there is an exhaust function at any time the CO<sub>2</sub> will come on for 5 minutes immediately after the exhaust cycle is completed. It will repeat again one hour after that point. Replenishment of CO<sub>2</sub> will always follow an exhaust cycle to maintain a constant and continuous enrichment level.

# Igniting Pilot Burner

1. Plug the transformer into a grounded 110 volt timer or other power source.
2. Depress the RED button located on the inside of the generator for 90 seconds to clear the air from the hose.
3. Once gas is present at the pilot let up button and wait 60 seconds for excess gas to clear from the housing. Now depress the RED button again and light the pilot burner. Maintain holding the button down for an additional 30 seconds to allow the thermocouple to heat to operating temperature.
4. Push the front on-off switch to the "ON" position. Fuel will pass through the solenoid valve and the main burner will be ignited by the pilot flame. As your timer cycles on and off so will the main burner flame.
5. For the CD-18 and CD-36, the brass needle valve may be used to vary the flame size. This will increase or decrease the time that the unit needs to charge the area with CO<sub>2</sub>. The specs are based on the valve being fully open.



Trouble Shooting Tips (see [www.greenair.com](http://www.greenair.com) for further information)

### PILOT LIGHT FAILS TO IGNITE:

Make sure propane tank has fuel and valve is fully open. For natural gas generators make sure gas supply is "On" and shut off valve is open. Make sure propane tank has not been overfilled. If so, take tank outdoors and open valve to release gas for a few seconds and reconnect. Remember red button must be depressed to light pilot.

### PILOT LIGHT WON'T STAY LIT:

Hold the red button down to clear all pockets of air from inside the hose. Make sure the propane tank has not been overfilled. If so, take tank outdoors and open valve to release gas for a few seconds and reconnect. Remember, red button must be depressed for 30 seconds or until the thermocouple heats to operating temperature and holds pilot open.

### BURNER FAILS TO IGNITE:

Check that the tank valve is fully open. Be sure all air has bled from the hose and gas is present. Make sure the transformer is plugged into a working power source. Make sure power indicator switch is in "ON" position. Check that needle valve is open.

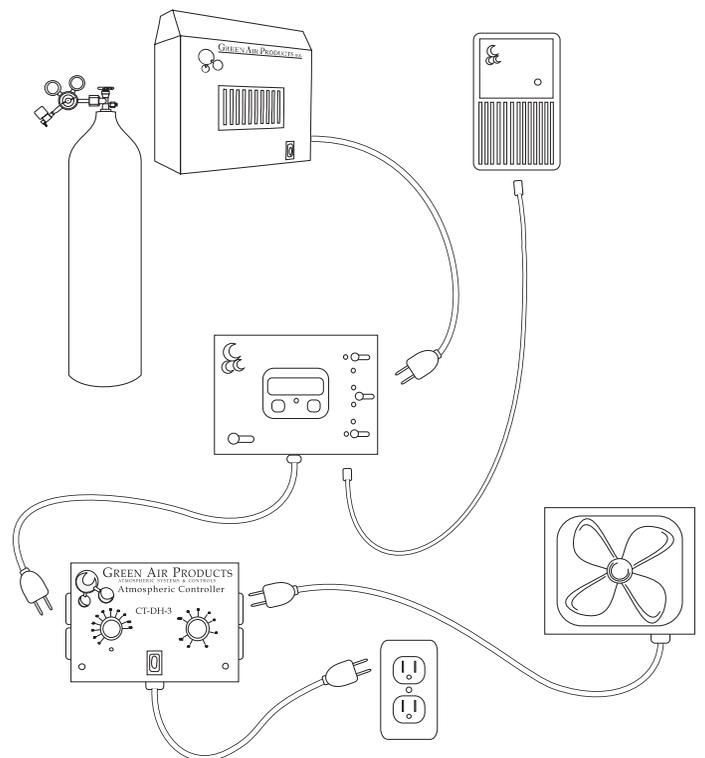
### BURNER WON'T STAY LIT:

Check that needle valve is open enough to support a strong minimum flame. Check timer and power source operation.

### FLAME BURNS IRREGULAR:

Dirt or residue could constrict burner orifice. Low fuel pressure due to depleted or contaminated fuel supply. Lack of oxygen content in room due to inadequate fresh air intake. Excessive air movement or gust from fan or ventilation. Generator not setting level.

## Exhaust Synchronized Operation



This system is the ultimate in precise automated CO<sub>2</sub> control. The CDM-6000 sensor continuously determines atmospheric CO<sub>2</sub> values. The CDDS-2 controller interprets these values and provides flexible set point adjustments to sequence CO<sub>2</sub> equipment functions. The CDDS-1 has a built in photo sensor to disable CO<sub>2</sub> production during darkness. The CDMC-2 system can be combined with the CT-DH-3 temperature and humidity controller to defeat CO<sub>2</sub> production during exhaust functions. The CO<sub>2</sub> generator (or emitter system) and the monitor are plugged into the CDDS-2 controller. CDDS-2 controller and the fan are plugged into the CT-DH-3 as shown. Plug the power cord from the CDDS-2 controller into the left hand equipment outlet on the CT-DH-3. The power to the sequencer will be interrupted when ever the temperature or humidity conditions constitute an exhaust function. CO<sub>2</sub> production will resume immediately after exhaust cycle is completed. CO<sub>2</sub> levels will be maintained precisely and automatically. Order the CDMC-6 for this Carbon Dioxide Monitor Controller combination.