

GLASS TORCH TECHNOLOGIES, INC.



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INSTRUCTIONS FOR YELLOW JACKET HAND TORCHES:

- Set **Propane Tank Regulator** from 1 to 10 lbs. of pressure.
- Set **Oxygen Regulator** from 5 to 25 lbs. of pressure.
- **Red Valve** on torch controls Fuel.
- **Green Valve** is the main outer oxygen. This valve is the most important oxygen control because it helps to keep the torch cool and keeps the flame from burning too close to the burner jet orifices. If this valve is not set right, the burner jet orifices will glow orange and you may also notice orange streaks in the blue flame. If this occurs, turn on the Green Valve a little more until the orifices stop glowing.
- **Blue Valve** controls the flame characteristics. This valve will focus the flame, give the flame thrust, and sharpen the flame. If you want a brushy flame, use less of the Blue Valve or completely shut off the Blue Valve. With this valve you can get and produce very big long flames. (The Blue Valve is the secondary inner oxygen).
- **To Start**, turn the Red Valve slowly until you get the torch lit. Once it is lit, get about a 3 inch yellow flame going. Next, turn on the Green Valve until the flame is a nice blue color. You can work between the Red and Green Valves and adjust up from there for the desired flame. You can run a little more yellow candle tip in the flame than you can on a standard torch without reducing. To get a tighter flame with more thrust, get the flame out to about 4 to 6 inches long with the Red and Green Valves. (Note: Make sure the flame is smooth and not distorted to get the maximum control from the Blue Valve (secondary oxygen control)). Start to open the Blue Valve and you will notice the flame tightening up and leaning out. Then start to add more fuel (Red Valve) and keep going up with the Red and Blue Valves until you get the desired flame setting. With the Red, Green and Blue Valves turned on is good for larger bead and marble work and for borosilicate work. When adjusting for borosilicate you can run much longer candle tip lengths, 1 to 1 1/2 inch, than you can for soft glass. Note: if you hear any excessive hissing or crackling noises, it means the Blue Valve is open too much. Just back it down a little until it gets quiet. You can get a bigger soft flame with the Blue Valve by first getting the flame as big as you can with the Red and Green Valves (without distorting the flame or excessive noise), then open the Blue Valve a little bit until you see the flame lean out a little. Then start adding more fuel (Red Valve) and more oxygen (Green Valve). Don't add any more Blue Valve (secondary oxygen) or very little if any.
- **If you want a very small sharp flame** use the Red, Blue and Green Valves. Use all 3 valves to go from 1/16 of an inch long up to approximately 16 inches long. The smaller lengths are for detail work and the longer lengths for inside-out working on the Red, Blue and Green Valve settings. Always keep the flame tight and focused. Do not run a soft flame, except for Silver Fuming when you run the flame length out to about 3 inches and soften it up a little (cut back on the Blue Valve a little). For Gold Fuming, keep the flame tighter. Watch for any orange glowing on the burner jets or face of burner. If you see any, add more Blue Valve until they stop glowing. This is mainly when running shorter flame lengths.
- **If you need soft brushy type flames** only use the Red and Green Valve controls.
- **If you need a small very focused type of flame** use the Red and Blue and Green Valve controls.
- **If you need a very hot flame**, use all three valve controls. You will also get the widest range of flame characteristics by using all three valves.
- **Never run a soft low or short flame.** This will cause the burner to overheat.
- **To shut burner off**, turn the Blue Valve off, then the Green Valve and finally the Red Valve.

WARNINGS:

- 1. Never leave the area with the torch running.**
- 2. Never leave the tank valves turned on if you leave the area; be sure to relieve pressure off torch.**
- 3. Never get any oil on the lines and connections.**
- 4. Use hose clamps or other approved connectors on the hose adaptors. Always check for and beware of any leaks and correct them immediately.**
- 5. Never touch the torch on the barrel or nozzle end while it is running, or for 15 minutes or more after running.**
- 6. Always wear Phillips Safety Eyewear or Didymium Glasses.**
- 7. Have good ventilation in work area.**
- 8. Keep flammable objects out of work area.**
- 9. Keep burner pointed in a safe direction and be sure nothing flammable is within 4 feet or more, or have a fireboard backstop.**
- 10. Secure burner to the work table if applicable.**
- 11. Always have a fire extinguisher in its proper place.**
- 12. Always have a small container of water by your work area to put hot glass scraps in.**

We recommend taking a glass working class.

PORT CLEANING WIRE:

**Any questions call: (570) 835-9777
Glass Torch Technologies, Inc., 55 N. Main Street, Tioga, Pa. 16946**

WARNINGS

Never leave the area with the torch running.

Never leave the main tank valves turned on if you leave the area, be sure to relieve pressure off torch.

Always make sure torch base and lines are anchored and secure.

Always be alert for gas and oxygen leaks. Fix them right away no matter how insignificant they may seem.

Have good exhaust ventilation in work area.

Keep flammable objects and lighters away from work table area.

Have non-flammable tabletop and back wall.

Secure gas and oxygen tanks with strap or chain them to wall; never let tanks free standing.

Always have a small container of water by your work area to put hot glass scraps in.

Always use Phillips Safety Eyewear or Didymium Glasses to protect your eyes from glare and flying pieces of glass.

Always keep a fire extinguisher close by in the work area.

Never get any oil or grease on the lines or connections.

Never touch the torch on the barrel or nozzle end while it is running, or for 15 minutes or more after running.

Use hose clamps or other approved connectors on the hose adaptors. Always check for and beware of any leaks and correct them immediately.

Never remove adaptors or any component with filter screens present. Removing filter screens may allow foreign material into the torch potentially damaging valve seats and clog internal components.

Do not strike torch with glass or other hard object. Dents or damage may occur.

Do not subject the torch to excessive heat, flame, kilns, ovens or hand torches.

Do not install premix torches in the same supply hose with any other torch. Flashback can occur and damage the other torches. If a premix torch is installed it **MUST** have flashback arrestors installed on the premix torch hoses *before* the connection to the main supply hose. Flashback arrestors placed at the tank will only protect the tank and regulators, not other torches in the system.

DO NOT REMOVE ANY FACTORY INSTALLED COMPONENTS. FAILURE TO FOLLOW DIRECTIONS AND WARNINGS WILL VOID FACTORY WARRANTY.

**FAILURE TO OBSERVE SAFETY RULES
COULD RESULT IN INJURY OR DEATH.**