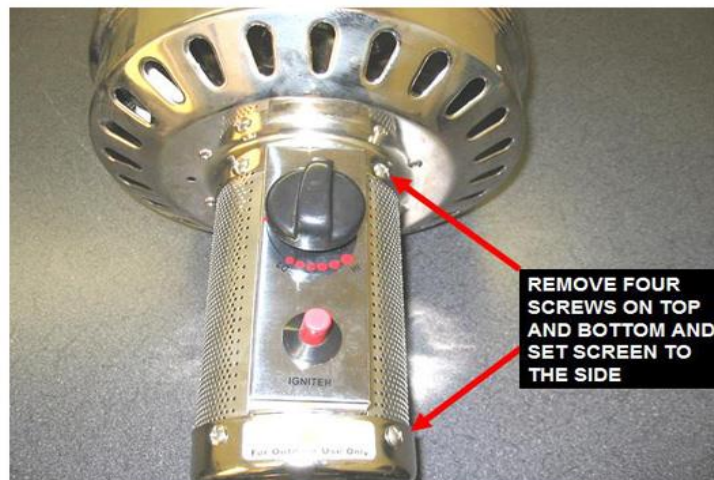


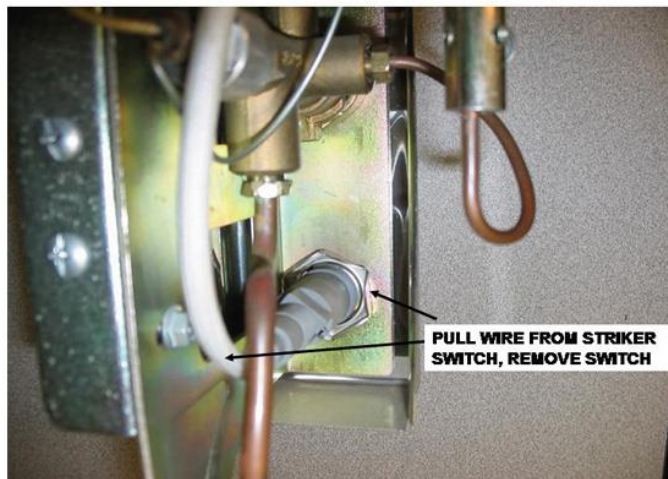


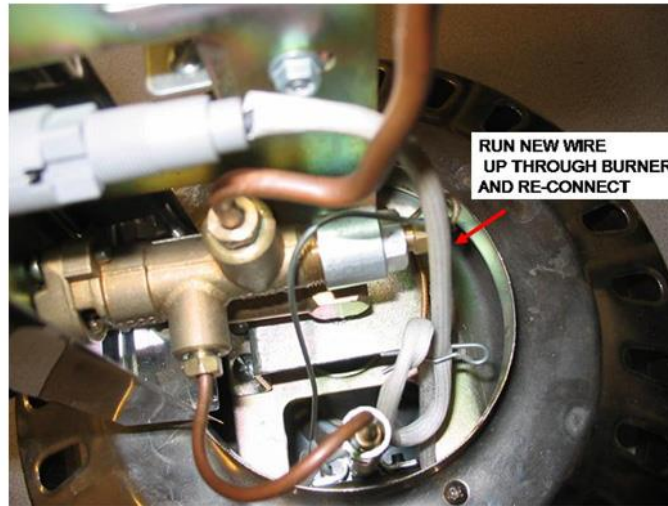
Troubleshooting

1. How do I replace starting striker switch on a tall patio heater?
2. How do I clean out carbon build up in the pilot feed tube?
3. How do I adjust pilot on portable table top and replace and replace anti tilt on tall heater?
4. How do I adjust the pilot feed tube on all heaters?
5. Where do I find Patio Heater Manuals?
6. Can I convert LP gas patio heater into a natural gas patio heater?
7. Why won't my pilot light?
8. Why is my burner flame low?
9. Why does my propane bottle and regulator freeze up on my table top heater when using the 16 oz. cylinders?
10. Why does my pilot light, but goes out when heater is turned on high or low?
11. Why do I get a yellow flame and black smoke?
12. Why does my unit burn low or won't stay ignited?
13. Should I smell propane when staring my heater?
14. I need help with my diesel heater!

1. How do I replace starting striker switch on a tall patio heater?

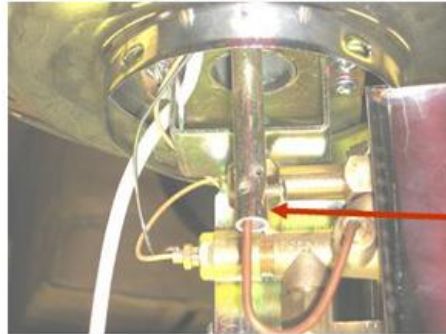






2. How do I clean out carbon build up in the pilot feed tube?

CLEANING OUT CARBON BUILD IN PILOT TUBE



Remove the mesh around the igniter and pilot button. There are four screws above the control panel and below the panel. Once you remove the mesh you will see the inside guts of the unit. Look for this. This is called your pilot tube adjustment. In the brass tube there can be a carbon buildup that can prevent propane from getting to the top of the unit where the pilot light is to ignite. This needs to be cleaned out.

1

GETTING TO THE PILOT FEED

Propane Feed



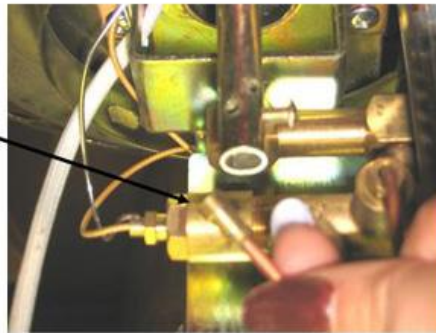
Pilot Tube

To clean the inside of the pilot tube loosen the holding screw on the side of the pilot tube. Do not unscrew it all the way or it can get lost and the heater will not work correctly. The copper tube that goes into the brass tube is the propane feed.

2

TAKING THE TUBE OUT AND CLEANING

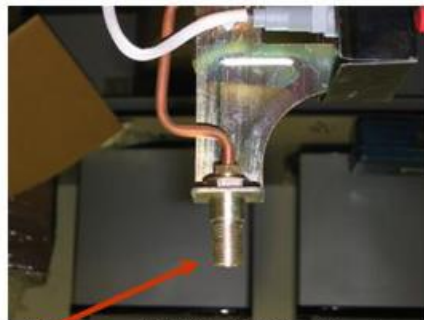
This is the tip of the propane feed. There is a small hole on the tip to release the propane. This needs to be free of blockages.



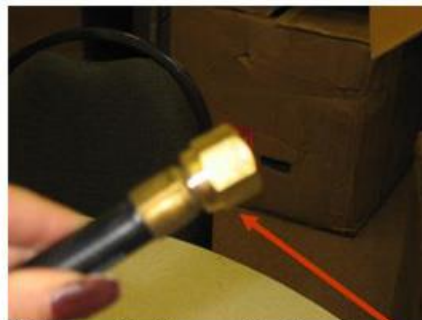
Gently pull out the propane feed and wipe off the tip where the propane is released. If there is a lot of black coming out just tap on the side of the pilot tube with a screw driver to get all the buildup out. Put everything back together and start your heater. This should be done once a month for assuring a long life of your heater.

3

Checking the fittings



To ensure a tight fit add Teflon Tape to the threads of the heaters bottom connection



Make sure that the regulator hose has no cracks in it and is sealed around the fitting.

Sometimes in moving of the unit the fittings can become loose and cause a small leak. This will present a problem when lighting the unit. Also this will result in a fire in the control panel. We recommend that every so often to recheck the fittings on your heater to see that they are still tight and no leaks.

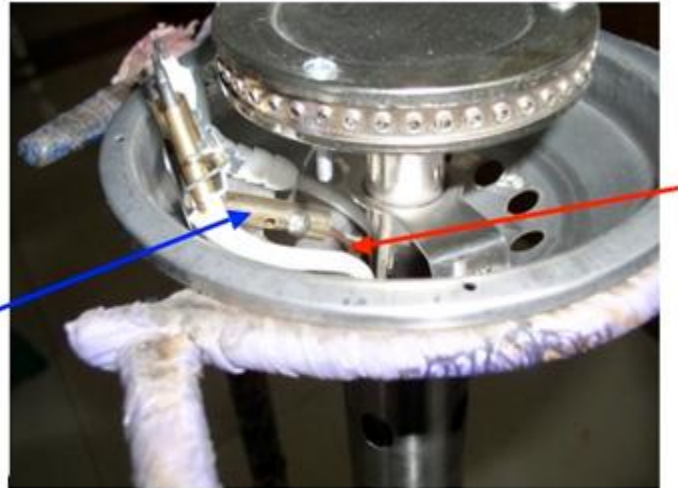
5

3. How do I adjust pilot on portable table top and replace and replace anti tilt on tall heater?

****COMMON TROUBLE SHOOTING
DEPENDING ON LOCATION OR
ALTITUDE**

The thin brown tube (red arrow) is pilot nozzle feed tube. The position should be adjusted if the following happens:

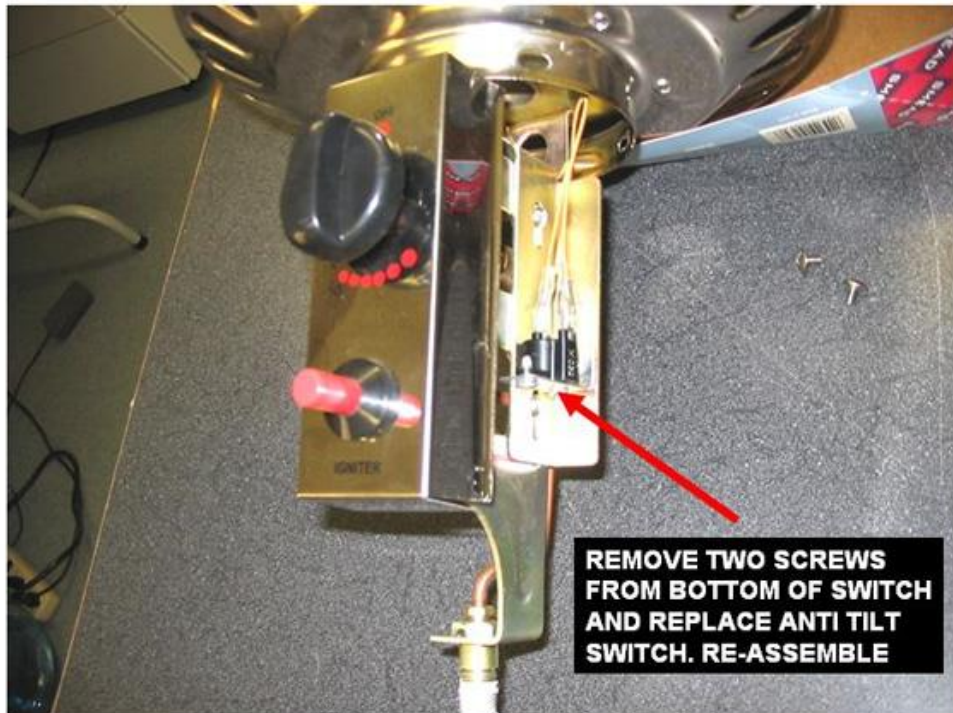
1) If the pilot light is long and yellow in color, it indicates that the burner is lacking sufficient air for gas-air mixture in the pilot tube (thick tube (venturi tube) marked with the blue arrow) Move the pilot nozzle feed tube back (out) approximately $\frac{1}{8}$ " to $\frac{1}{4}$ " to allow more air flow and the pilot light should be normal in size. Solid blue flame about $\frac{1}{2}$ " tall in size.



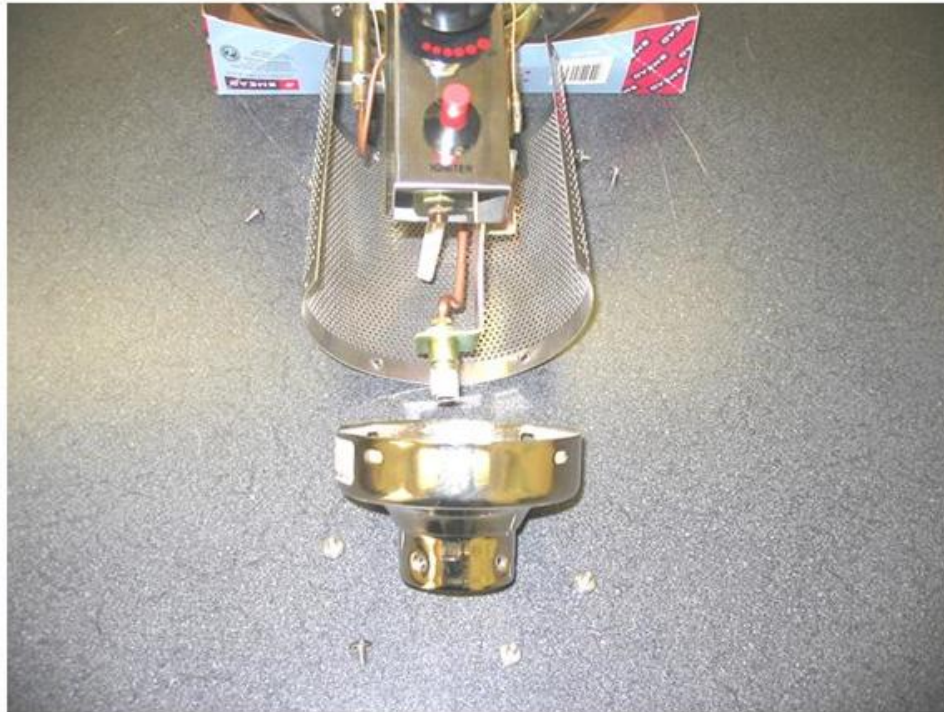
2) The pilot light just flickers but will not stay lit. This tells us that the LPG (propane) in the pilot tube is not sufficient enough to light the pilot and the rate of air is too high. In this case we need to move the pilot tube inward approximately $\frac{1}{8}$ " to $\frac{1}{4}$ " to reduce air mixture flow.

**IDEAL PILOT LIGHT
 $\frac{1}{4}$ " to $\frac{1}{2}$ " Tall**

Tall Heater Anti Tilt Switch replacement



**REMOVE TWO SCREWS
FROM BOTTOM OF SWITCH
AND REPLACE ANTI TILT
SWITCH. RE-ASSEMBLE**



4. How do I adjust the pilot feed tube on all heaters?

****COMMON TROUBLE SHOOTING DEPENDING ON LOCATION OR ALTITUDE**

The thin brown tube (red arrow) is pilot nozzle feed tube. The position should be adjusted if the following happens:

1) If the pilot light is long and yellow in color, it indicates that the burner is lacking sufficient air for gas-air mixture in the pilot tube (thick tube (venturi tube) marked with the blue arrow) Move the pilot nozzle feed tube back (out) approximately $\frac{1}{8}$ " to $\frac{1}{4}$ " to allow more air flow and the pilot light should be normal in size. Solid blue flame about $\frac{1}{2}$ " tall in size.

2) The pilot light just flickers but will not stay lit. This tells us that the LPG (propane) in the pilot tube is not sufficient enough to light the pilot and the rate of air is too high. In this case we need to move the pilot tube inward approximately $\frac{1}{8}$ " to $\frac{1}{4}$ " to reduce air mixture flow.



IDEAL PILOT LIGHT

$\frac{1}{4}$ " to $\frac{1}{2}$ " Tall Blue Flame

5. Can I convert LP gas patio heater into a natural gas patio heater?

No, Our propane patio heaters are designed, tested and approved for propane use only. Conversion kits are not available by our corporation. Propane patio heater regulators supply 11" in a column of water and natural gas 7" to 10". Also, propane gas line tubing is made of copper and must be stainless steel for natural gas.

Can I purchase an adapter that will allow me to use a larger cylinder for my portable table top heater? You can purchase a 5" hose that works off of a 20 lb. propane tank from our web site or mass merchant.

6. Why won't my pilot light?

- Blockage in venturi tube that houses the pilot feed tube (very common for spiders to build webs which will block venturi feed tube. Burnt sentiment from pilot light will also block venturi tube (back out pilot feed tube and use pipe cleaner to remove debris. Use compressed air if possible to thoroughly clean.
- Pilot feed tube clogged (replace pilot feed tube)
- Propane Tank empty or not open.
- Striker piazza switch not working (replace piazza switch)

7. Why is my burner flame low?

- Propane gas may be low (check propane level)
- Leakage at regulator and possibly with connection fittings (perform leak test)
- Outside temperature below 40 degree's. (Wrap propane tank or move to warmer location)
- Faulty regulator (replace regulator)

8. Why does my propane bottle and regulator freeze up on my table top heater when using the 16 oz. cylinders?

- Very common problem with 16 oz. disposable tanks. (When problem occurs reduce volume setting to allow propane to flow evenly to burner).
- You can purchase an 5" adapter hose that will convert your heater to 20 lb. propane tank which will eliminate the problem.

9. Why does my pilot light, but goes out when heater is turned on high or low?

- Faulty Anti-Tilt switch (Disconnect the anti-tilt switch and connect the two wires together for verification. If heater starts and performs properly replace the anti-tilt switch)
- Faulty Thermocouple (Replace Thermocouple)

10. Why do I get a yellow flame and black smoke?

- Possible blockage in the burner venturi tube which houses your pilot feed tube. Clean the venturi tube by backing out your pilot feed tube for access. Use pipe cleaner to remove all debris. Use compressed air when possible to remove all particles.
- A minor adjustment to your pilot tube setting may also remove this condition. Pilot light should be no longer than $\frac{1}{4}$ to $\frac{1}{2}$ inches tall for proper operation.
- Unit should be cleaned every year.

11. Why does my unit burn low or won't stay ignited?

- Propane temperature needs to be above 40 degrees F. Propane will freeze at or below 40 degrees F and will not perform properly.
- Solution: Wrap propane bottle with a towel or blanket or relocate temporarily to area where temperature is above 40 degrees F.
- Faulty propane gas regulator (replace gas regulator)
- Fittings and hoses from regulator to burner are not tight. (Tighten all fittings and check for leakage)

12. Should I smell propane when starting my heater?

- No!! Our heaters are designed to operate based on a lit pilot light which emits a very low pressure which generally is detected if all fittings are tight and sealed. (Not typical to a gas barbeque or other propane gas appliances).