

Storage

Never attempt to store the torch while it is hot. When the torch is stored indoors, the connection between the LP-Gas supply cylinder and the torch must be disconnected and the cylinder removed from the torch and stored in accordance with Chapter 5 of ANSI/NFPA 58, the standard for storage and handling of liquefied petroleum gases. Do not store the torch in locations where it may be damaged.

WARNING

The gas supply hose shall be protected from traffic, building materials and contact with hot surfaces during use and while in storage.

Maintenance

- Surfaces of the torch may be cleaned with soap or detergent and water solutions. Do not use petroleum-based cleaners to clean any components of the torch or the torch body.
- Remove any debris and combustible material from the torch. The torch must be kept clear and free from combustible materials, gasoline and other flammable vapors and liquids.
- The supply hose assembly shall be visually inspected prior to each torch use. If there is excessive abrasion or wear, or the hose is cut, it must be replaced prior to the torch being put into operation. The replacement hose assembly shall be specified by Flame Engineering, Inc. Contact Flame Engineering for further information.



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Red Dragon Torches

Operating Instructions & Parts Manual



Models

VT 1½ - 12 C VT 3 - 60 C
LT 2½- 30 C LT 3-60 C

Please read and retain this information for future reference.

- This device is intended for outdoor use only.

WARNING:

DO NOT OPERATE THIS EQUIPMENT IF:

- You are subject to seizures, loss of consciousness, or fainting.
- You have been drinking alcohol, using illicit drugs, or prescription drugs that might effect your judgment or balance.
- You have not read or do not understand the operator's manual.
- You are not capable of safely operating this type of equipment.

DO NOT ALLOW CHILDREN TO OPERATE THIS EQUIPMENT.

FOR YOUR SAFETY!

If You Smell Gas:

1. Shut off gas to the device.
2. Extinguish any open flame.
3. Check the device for leaks using soapy water.
4. DO NOT attempt to relight the device until leaks are repaired and there is no gas smell

DO NOT use this device in areas where gasoline or other liquids having flammable vapor are stored or used.

VT-LT-INST-ENG-6-2010

Assembly Instructions Model VT 1½-12 C and LT 2½-30 C

Note: Unpack and inspect for damage.

1. Using the thread compound capsule supplied with torch kit, connect the male end of the adjusting needle valve to the female threaded end of the torch handle. Tighten securely.
2. Using thread compound, connect male end of the hose to the female end of the adjusting needle valve. Tighten securely.
3. Using thread compound, connect the female end of the hose to the 1/4" male end of the P-3200W P.O.L. Tighten securely.

Assembly Instructions Model VT 3-60 C and LT 3-60 C

Note: Unpack and inspect for damage.

1. Using the thread compound capsule supplied with torch kit, connect the male end of the adjusting needle valve to the female threaded end of the torch handle. Tighten securely.
2. Using thread compound, connect male end of the hose to the female end of the adjusting needle valve. Tighten securely.
3. Using thread compound, connect P.O.L. fitting to inlet of regulator. Tighten Securely.
4. Using thread compound, connect male end of hose to outlet of regulator. Tighten Securely.

Connecting To The Supply Cylinder

The propane supply cylinder used with this torch should be no less than 20 lb. capacity and must be designed, fabricated, tested and marked in accordance with regulations of the U.S. Department of Transportation, the Canadian Transport Commission or the Interstate Commerce Commission. Supply cylinders must be arranged to provide for vapor withdrawal from the operating cylinder.

IMPORTANT NOTE:

VT 1½-10 C and VT 3-60 C Torch Kits require use with a *Vapor Withdrawal Cylinder*.

LT 2½-30 C and LT 3-60 C Torch Kits require use with a *Liquid Withdrawal Cylinder*.

1. Inspect the nut/nipple of the P.O.L. connection on the LP-Gas hose. Check for dents or physical damage. The O-ring should be present on nipple fitting. If damage is evident, call for replacement parts.
2. Be certain the supply cylinder valve is fully turned off. Remove the protective plastic plug from the cylinder valve outlet connection.
3. Connect the P.O.L. nut/nipple fitting on the hose to the propane supply cylinder by turning the left hand threaded P.O.L. nut counter clockwise into the cylinder valve outlet. Snug the connection tight with a wrench. **DO NOT OVER TIGHTEN.**
4. Slowly open the cylinder valve. Check all LP-gas connections for leaks using soapy water or suitable leak detection solution. **DO NOT USE MATCHES OR OPEN FLAME TO CHECK FOR LEAKS.** Do not attempt to operate the torch if there is evidence of a leak or at any time the odor of gas is detected.

Lighting Instructions

IMPORTANT NOTE

The P.O.L. contains an integral flow-check valve. Opening the LP-Gas cylinder valve rapidly can cause the valve to check. If the P.O.L. flow valve checks, close the LP-Gas cylinder valve, wait 10-15 seconds and *slowly* open the LP-Gas cylinder valve.

- If no leaks are found, proceed with lighting the torch.
- Always use a flint lighter to ignite the torch. **DO NOT USE MATCHES OR CIGARETTE LIGHTER TO IGNITE THE TORCH.**
- Be certain the flame adjusting valve is closed before opening the LP-Gas cylinder valve.

1. Slowly open the LP-Gas cylinder valve. Check all gas connections to the torch for leaks with a leak detection solution, such as soapy water. Leaks will be indicated by forming bubbles around the source. Please allow one minute for bubbles to appear. Repair all leaks and test for leaks prior to lighting torch.
2. Open the flame adjusting valve 1/8 turn or until a small amount of gas is heard escaping. Using a flint lighter, ignite the torch. Do not place your hand or any part of your body in the path of the burner while lighting or operating the torch. **DO NOT USE MATCHES OR CIGARETTE LIGHTER TO IGNITE THE TORCH.**
3. Adjust the size of the flame by using the flame adjusting valve.

Torch Shut-Off

1. Close the LP-Gas cylinder valve.
2. Allow the gas to burn out of hose. After the flame is no longer visible, turn the flame adjusting valve to the closed or "off" position. **TO RESTART** follow lighting instructions.

Safety Check List

- Gloves should be used at all times. Long sleeves, long pants and boots are recommended.
- Use only vapor torches on cylinders equipped with vapor withdrawal valves.
- Secure cylinders in a level, upright position. Do not invert or lay cylinders on their sides.
- Do not apply flame to cylinders to check for leaks or to increase gas pressure.
- Keep torches, open flame and sources of ignition away from cylinders, regulators and hose.
- Do not operate torches or any equipment if the odor of LP-Gas is evident. Immediately shut off all valves and, using soapy water, check all equipment for leaks.
- Cylinder valves must be protected. Do not hoist a cylinder by the valve.
- Do not leave the torch unattended while in operation.
- Do not stand or prop the torch on the burner end while in operation.
- This equipment is for outdoor use only with adequate ventilation.
- Have a type ABC fire extinguisher on the job site, easily accessible to the person operating the torch.

For More Information

Consult your local LP Dealer, Flame Engineering, NPGA, or NFPA Pamphlet 58. This information is provided as a general guide for safe LP-Gas use *and in no way constitutes a complete safety program.*

Daily Equipment Check List

- Visually inspect all parts of the torch equipment for damage and wear. If the hose shows excessive abrasion or wear, or if the hose is cut, replace it before operating the torch. Replace torch hose assembly with test laboratory listed LP-Hose, 350 P.S.I. working pressure.
- Using a soapy water solution, check all connections and fittings for leaks. **DO NOT USE A MATCH OR OPEN FLAME TO TEST FOR LEAKS.**

Daily Equipment Check List Continued

- Check LP cylinders for dents, damage to collar, damage to valve, or corroded foot ring. Do not use damaged cylinder. Know if you are using liquid or vapor withdrawal.

IMPORTANT NOTE:

VT 1½-10 C and VT 3-60 C Torch Kits require use with a **Vapor Withdrawal Cylinder**.
LT 2½-30 C and LT 3-60 C Torch Kits require use with a **Liquid Withdrawal Cylinder**.

- For outdoor use only.
- Ignite torch. Check operation of valve and other adjustable parts. *Note: when extinguishing a torch, shut-off cylinder valve first and allow gas to burn out of lines.*

WARNING

Use extreme caution at all times. You are using an intense open flame. This torch produces an extremely hot and nearly invisible flame. Read and follow the Safety Check List and Daily Equipment Check List before attempting to operate this torch.

CAUTION

- Propane is heavier than air which can cause it to accumulate in low areas. Be certain all areas are well ventilated.
- Propane has a distinct ODOR. If you smell it, **IMMEDIATELY** discontinue work, extinguish all flames, locate the leak and correct it, ventilate area before lighting torch.
- Use extreme caution at all times. This device has an intense open flame. Disregard of safe practices can result in severe fire damage, personal injury, or possible death.

Disconnecting From The Supply Cylinder

1. Be certain supply cylinder valve is turned off.
2. Disconnect the P.O.L. nut/nipple fitting on the LP hose to the propane supply.
3. Replace the protective plastic plug into the cylinder valve outlet.

Parts List

- VT 3-60 C Torch Kit • VT 1½-12 C Torch Kit
- LT 3-60 C Torch Kit • LT 2½-30 C Torch Kit

