Weeding Tips

- Most generally it is not necessary to reduce weeds and undesirable plants to ashes. Your Torch will generate sufficient heat to kill at a slow walk. Within hours you will witness green weeds wilting and dieing.
- 2. Flaming is not a cure-all. It may be necessary to repeat weeding several times per year, depending on the plant species and whether seeds germinate during the growing season. Some weeds are more heat resistant than others and may require several flamings. Always remain a safe distance from flowers, desirable plants and trees. In time you will determine the range of your torch and may operate in and around plants with ease. Practice makes perfect!
- **3.** If in doubt, don't. This philosophy will save your lawn, garden and peace of mind.
- **4.** Always keep a type ABC fire extinguisher handy.
- **5**. Avoid desirable lawn and garden plants as the torch does not distinguish between desirable and undesirable growth.
- **6.** To determine effectiveness, press flamed weed leaf between thumb and forefinger. A fingerprint usually indicates a good kill.
- **7.** Whenever possible, flame small weeds the more tender, the easier to kill.
- **8.** Always remain a safe distance from evergreens, pine needles, and all conifers. Highly flammable and easily ignited, pine needles are a fire hazard.
- **9.** Do not flame poison oak, ivy or any plant capable of causing a skin rash. Smoke will contain skin irritants if plants are flamed.

Flame Engineering, Inc.

Operating Instructions & Parts Manual



Please read and retain this information for future reference.

- This device is intended for outdoor use only.
 - This torch is designed for a disposable LP Gas Cylinder 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.

Assembly Instructions

Note: Unpack and inspect for damage.

- 1. The Mini Dragon Lawn and Garden Weeder is pre-assembled.
- 2. Take time now to inspect your Mini Dragon.
- 3. Make sure all parts are in place as shown on the parts list.

Connecting To The Disposable Supply Cylinder

The propane supply cylinder used with this torch should be no less than a 14.0 ounce capacity disposable supply cylinder.

- 1. Be certain the VT1-32C Mini Dragon torch needle valve is completely turned off. The needle valve should be turned in a clockwise direction until the valve is completely turned off.
- 2. Remove the plastic cover of the male fitting of the disposable propane cylinder. Connect the male fitting of the disposable propane cylinder fitting to the female fitting of the VT1-32C Mini Dragon torch by turning the propane cylinder in a clockwise direction. Be careful not to cross thread the connection between the torch and the disposable propane cylinder.
- 3. Tighten the propane cylinder until it is fully seated by hand tighten. Do not over tighten the torch fitting to the disposable propane cylinder.
- 4. The VT1-32C Mini Dragon is designed for use with disposable propane cylinders only.
- 5. Slowly open the flame adjustment 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

- 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.
- At the initial lighting BLOW-OUT is possible until the mixture of propane to air is achieved, this should only take a few moments.
- BLOW-OUT is also possible when the torch is held too close to the ground or in windy conditions.
- 1. Slowly open the flame adjustment valve. Check all fitting connections on the torch and at the cylinder for leaks with a leak detection solution, such as soapy water. Leaks will be indicated by forming bubbles around the source. Repair all leaks and test for leaks prior to lighting torch.
- 2. Slowly 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.

ALWAYS USE THE TORCH WITH THE CYLINDER IN THE UPRIGHT POSITION

WARNING:

If the cylinder is tilted toward the horizon or in a horizontal position liquid gas will reach the burner tip. Operating the VT1-32C Mini Dragon torch in this position will produce a large yellow flame. Immediately return the VT1-32C Mini Dragon torch to the upright position and turn the needle valve knob to the off position. Beware that once liquid propane has entered the torch body, closing the flame adjustment valve will not shut the flame off immediately. It will be necessary to allow the remaining liquid propane flame to burn itself out.

Torch Shut-Off

- 1. Turn the flame adjustment valve clockwise to the closed position.
- 2. Wait until the flame is completely extinguished. This may take up to 60 seconds.
- 3. Remove the cylinder from the VT1-32C Mini Dragon torch body by rotating it counter clockwise. Select a non-combustible surface to allow the torch bell to cool down before placing the torch in storage. Remember the torch bell will remain hot. Allow a minimum of 30 minutes for the torch bell to cool.

Safety Check List

- Gloves should be used at all times. Long sleeves, long pants and boots are recommended.
- Use only disposable propane cylinders.
- 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.
- 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.

WARNINGS

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.
- Never direct the torch flame toward any person, animal, or unknown materials or chemicals.
- This torch is not a toy. Do not allow children under16 to operate this torch.
- Do not operate this torch if you are under the influence due to the use of alcohol, or prescribed medication that would cause the operator to be physically or mentally not alert or inhibited from operating the torch as instructed.
- Do not allow anyone to operate the torch that has not read and understood the operating instructions of this torch.
- Do not modify the torch design or construction.
- Do not use the torch indoors for space heating.
- Do not leave the torch unattended.

Daily Equipment Check List

- Visually inspect all parts of the torch equipment for damage and wear.
- Use a soapy water solution, check connections and fittings for leaks. DO NOT USE A MATCH OR OPEN FLAME TO TEST FOR LEAKS.
- Check the disposable cylinder for dents or damage to the threads of the cylinder.
- The VT 1-32 C Mini Dragon is for outdoor use only.

Storage

Never attempt to store the torch while it is hot. When the torch is stored indoors, or outdoors, the connection between the propane disposable cylinder and the VT1-32C Mini Dragon torch must be DISCONNECTED. The disposable cylinder full or partially full must be stored in a location to minimize exposure to excessive temperature rises, physical damage, or tampering. A secure outdoor location is recommended.

It is the responsibility of the owner of the VT1-32C Mini Dragon torch to follow all local, state, and federal laws when disposing of the used or empty propane cylinder.

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.
- DO NOT use lubricants on any part of the torch.
- Remove any debris and combustible material from the torch. The torch must be kept clear and free from combustible materials, gasoline and other flammable vapor and liquids.

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.*





FLAME ENGINEERING, INC. PO Box 577 • W. HWY 4 LaCrosse, Kansas 67548 785-222-2873 • FAX 785-222-3619 Toll Free 800-255-2469

www.FlameEngineering.com

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