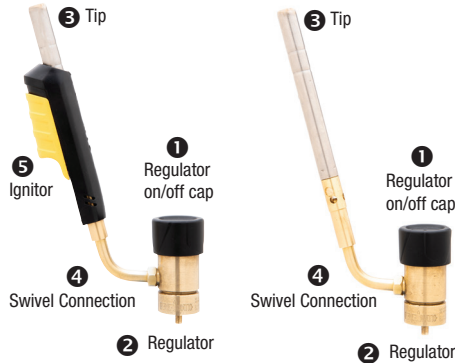




A LINCOLN ELECTRIC COMPANY

HTS99 & HTM9 SWIVEL TORCHES OPERATING INSTRUCTIONS



HTS99 - Figure 1

HTM9 - Figure 2

PROPER FLAMES - DRAWING A



Flame too short - Tip will overheat, causing damage



Incorrect, unstable flame pattern - Too much gas



Correct, stable flame pattern - 1/2" - 1" minimum flame

⚠ DANGER

Torch is used with a flammable product. Failure to comply with these warnings and instructions may result in an explosion or fire that may cause property damage, serious personal injury or death.

Read and comply with the instructions and warnings in this manual and become familiar with Torch before lighting and using.

Review instructions and warnings periodically to maintain awareness. Do not try to operate before reading instructions.

Torch is to be used only with handheld gas cylinders specifically designated for use with torches. To avoid possible severe electrical shock, DO NOT use Torch if was previously damaged, modified or immersed in water. If Torch was

modified or damaged, replace or repair. If Torch is still in wet condition, allow Torch to thoroughly dry before using the igniter feature.

⚠ WARNING

Materials used in the construction of this device may contain brass (which may contain lead). Lead is a chemical known to the State of California to cause birth defects or other reproductive harm.

Combustion by-products produced when using this device contain chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

- Keep Torch out of reach of children and anyone who has not read instructions. Do not point Torch towards face, other persons or flammable objects. Never attempt to use Torch as a cigarette lighter.
- Disconnect cylinder when not in use.
- Never attempt to modify Torch construction.
- Never use unapproved accessories or fuels.
- Do not drop, throw, or otherwise abuse the Torch.
- Do not use a leaking, damaged or malfunctioning Torch.
- Always wear safety glasses and protective gloves. Use proper tools to handle hot-work.
- Radiant energy can harm the eyes. Wear approved glasses having an appropriate lens shade number (see 29 CFR 1926.102).
- Work only in well-ventilated areas. Avoid fumes from fluxes, lead-based paint, and all metal heating applications, as well as fumes from cadmium plating and galvanized metal. Remove any coatings from the area to be heated by filing or sanding prior to using Torch.
- Never use Torch to strip lead paint.
- Be careful when using Torch in bright light or windy conditions. Bright light makes it difficult to see the Torch's flame. Windy conditions may carry the Torch's heat or flame back towards the operator or other areas not intended. Windy conditions may also cause sparks to be blown into other areas with combustible materials.
- Heating a surface may cause adjoining surfaces to become combustible or pressurized. Always check to make sure no unintended parts or materials are being heated.
- The tip of the torch will get extremely hot during use and remain hot for a period of time after use. Take precautions to protect the operator and others from accidental burns.
- Never use Torch on or near combustibles. Use caution around motor vehicles or any other gasoline-fueled equipment. Be aware of hidden fuel lines and tanks.
- Always make certain Torch is placed on a level surface when connected to the fuel cylinder to reduce the risk of accidental tip over. Be sure Torch is not pointed in a direction that could cause nearby objects to ignite when Torch is set down.
- Be careful not to overheat surrounding materials. Use a heat shield when necessary.
- Never leave Torch unattended when lit.
- Never attempt to repair or heat a gasoline tank, chemical drum, aerosol can, or compressed gas container that previously held flammable liquid

or gas, or any other chemical. Heating these is extremely dangerous, even after they have been emptied because vapors may still be in the container.

- Always have a fire extinguisher and bucket of water near Torch and work area.
- Torch consumes oxygen and must only be used in well-ventilated areas. Do not use in a confined space.

ASSEMBLY

1. Make sure regulator valve is OFF by turning Regulator On/Off Cap ❶ clockwise until it stops. Hand tighten only. Do not force.
2. Hold Torch upright so that Tip ❸ is pointed away from persons and flammable materials. Turn and thread gas cylinder into Torch/Regulator connection keeping cylinder vertical. Hand tighten only. Do not force.
3. Hold Torch so that burn Tip ❹ is pointing away from persons and flammable materials. Turn and thread gas cylinder into Regulator/Torch body. Hand tighten only. Do not force.
4. Check all joints and couplings periodically to ensure against loose connections. With valve open, without igniting, test all connections with soapy water using an approved leak detecting solution. If bubbles appear, gas is leaking and Torch must be repaired or replaced. **NEVER USE AN OPEN FLAME TO CHECK FOR LEAKS. Make sure this test is done in a well-ventilated area free of all sources of ignition.**

LIGHTING AND OPERATION

⚠ CAUTION

Tipping the gas cylinder more than 60 degrees from its upright position may cause Torch to flare. Torch has a built-in regulator that controls pressure and reduces the risk of pulsating or yellow flames when used in other than an upright position. The Torch is also equipped with a "Swivel Connection" feature. For best performance, it is recommended to start working with a full hand torch cylinder at room temperature and to keep Torch upright as much as possible.

Model HTS99 Electronic Ignition: Figure 1:

1. Open regulator valve by turning Regulator On/Off Cap ❶ counter clockwise 1 ½ - 2 full turns. Care must be taken to open Regulator On/Off Cap when igniting with enough flow to prevent damage to Torch and/or ignition system. (Drawing A) Never look into the Tip ❸ or point in an unsafe direction.
2. Push the Igniter. ❹ If it fails to ignite, repeat as necessary while adjusting the Regulator On/Off Cap ❶ in small increments.
3. After Torch ignites, the Igniter button may be released and the flame may be adjusted.
4. To adjust to the proper flame, grasp the Regulator with one hand and use the other hand to turn the Regulator On/Off Cap ❶ to the Proper Flame setting. (Drawing A)
5. To adjust the flame direction, grasp the Regulator ❷ and rotate the Swivel Connection ❹ to the desired position.
6. To extinguish the flame and turn off Torch

system, turn Regulator On/Off Cap ❶ clockwise until it stops turning. Do not force.

Model HTM9 Manual Ignition: Figure 2:

1. Open Regulator valve fully by turning Regulator On/Off Cap ❶ counter clockwise 1-½ to 2 full turns. Care must be taken to open Regulator On/Off Cap ❶ when igniting with enough flow to prevent damage to the torch or ignition system. (Drawing A)
2. Never look into the Tip ❸ or point in an unsafe direction.
3. Always use an approved Torch igniter (striker, spark lighter) to ignite the flame while holding it at a 45 degree angle at the tip opening. If the flame fails to ignite, repeat as necessary while adjusting the Regulator On/Off Cap ❶ in small increments.
4. After Torch ignites, the flame may be adjusted.
5. To adjust the flame, grasp the Regulator with one hand and use the other hand to turn the Regulator On/Off Cap ❶ to the Proper Flame setting. (Drawing A)
6. To adjust the flame direction, grasp the Regulator ❷ and rotate the Swivel Connection ❹ to the desired position.
7. To extinguish the flame turn, the Regulator On/Off Cap ❶ clockwise until it stops turning. Do not force.

⚠ ADDITIONAL WARNINGS

- Make sure Torch is cool before installing or removing cylinder and accessories. Using Torch with a low flame can cause damage to the torch system.
- Check all joints and couplings periodically to ensure against loose connections. With valve open, without igniting, test all connections with soapy water using an approved leak detecting solution. If bubbles appear, gas is leaking and Torch must be repaired or replaced. **NEVER USE AN OPEN FLAME TO CHECK FOR LEAKS. Make sure this test is done in a well-ventilated area free of all sources of ignition.**
- In cold weather, the size of the flame will be smaller. To produce a larger flame, pre-warm the cylinder to room temperature prior to use.

STORAGE

REMOVE CYLINDER FROM TORCH WHEN NOT IN USE

1. Turn Ignition Button ❷ to the LOCKED position. Make sure valve is closed by turning Flame Adjustment Knob ❶ clockwise until it stops turning. Do not force.
2. When Torch is cool, disconnect cylinder and store Torch and cylinder separately and out of reach of children. Observe precautions on cylinder label.
3. Do not expose cylinders to temperatures in excess of 120°F.
4. Store cylinders in well-ventilated areas.

MORE INFORMATION

For further questions regarding service or the safe and proper operation of Torches, please contact:

The Harris Products Group Technical Service Dept.
at 1.800.733.4043 or harrisproductsgroup.com.

