These INSTRUCTIONS are for experienced operators. If you are not fully familiar with the principles of operation and safe practices for air-fuel gas equipment, we urge you to read Linde's free booklet "Precautions and Safe Practices," Form 2035. Do NOT permit untrained persons to operate this equipment. Do NOT attempt to operate this equipment until you have read and fully understand these instructions. If you do not fully understand these instructions, contact your supplier for further information.

This booklet covers the use of PREST-O-LITE tips which attach directly to the 401M torch handle. Supplementary instructions are supplied with SWIRLJET air-fuel gas (L11-895), SWIRLJET air-acetylene tips (L12-207), and with leak detectors (L9372).

The valve on the No. 401M Handle is a dual purpose valve - it has two controls, one inside the other. The outer control is a thumb lever to turn the gas on and off. The inner control is the flame adjustment valve. After making the initial flame adjustment, the flame can be extinguished and relit without any further flame adjustment.

CONNECTING

1. Attach a regulator to your acetylene or fuel gas tank. Be sure to follow all instructions supplied with the regulator.
2. Connect a 3/16-in. hose assembly with 'A'-size left-hand-thread fittings to the regulator outlet and to the handle. Tighten the connection nuts firmly with a wrench. Do not overtighten.
3. Then insert the tip into the locking nut at the front of the handle. Holding tip in position, tighten the locking nut by hand to lock the stem in place.

TESTING FOR LEAKS

Close the on-off valve on the 401M handle. Open the tank valve, set the regulator to deliver 10 psi (see instructions supplied with regulator).

Using a thick solution of soap and water, applied with a small brush, test for leaks at the tank valve, regulator, and torch connections. If you find a leak, correct it before continuing. (A leak around the stem of a small acetylene tank valve can often be corrected by tightening the valve packing nut with a wrench. If this will not stop the leak, remove the tank, tag it to indicate valve stem leakage, and place it outdoors in a safe spot until you can return it to your supplier.)

LIGHTING AND FLAME ADJUSTMENT

1. If you have set the regulator to 10 psi delivery pressure for testing, you may wish to reset it before lighting the flame, since only a few tips require a pressure that high. Unless you are sure 10 psi is needed, we suggest the regulator be reset for 5 psi ('B' setting on the R-411 Regulators) before you light your torch.

IMPORTANT: When using SWIRLJET tips, be sure to follow the pressure recommendations given in the instruction booklets supplied with those tips.

2. Having set or reset your regulator to 5 psi delivery pressure, open the needle valve on the 401M about 1/4 turn counterclockwise. Then open the on-off valve on the 401M handle, and light the gas at the tip with a friction lighter.
3. After lighting the torch, adjust needle valve to get the desired flame size. If necessary, change the setting at the regulator by turning the regulator pressure-adjusting screw.

**SHUTTING OFF**

1. For short intervals, merely close the on-off valve on the torch handle.

2. For longer periods, or if you are going to leave outfit unattended, you should release pressure from the regulator as follows:
   a. Close the tank valve.
   b. Open the torch handle on-off valve.
   c. When the gauge needle drops to zero, back out regulator pressure-adjusting screw.
   d. Close the torch handle on-off valve.

**PRECAUTIONS & SAFE PRACTICES**

A. **DO NOT** let acetylene or fuel gas escape near any possible source of ignition. Accumulations of either in certain proportions may explode if ignited.

B. **NEVER** store acetylene or fuel gas tanks (cylinders) in a closed or confined space, such as a closet, tool box, or automobile trunk.

C. **NEVER** solder a container that contains or has contained flammable liquids or vapors (including gasoline, benzene, solvents, and other similar materials) unless the container has been thoroughly purged of all traces of flammable material and vapors.

D. Before starting work always test for leaks around all joints with a soapy water solution.

E. **NEVER** use a flame to test for leaks of flammable gases.

F. **NEVER** use a tank with a leaking valve.

G. **DO NOT** attempt any repairs to an acetylene or fuel gas tank, except to tighten the packing-gland nut on the valve.

H. **DO NOT** abuse or drop tanks or handle them roughly.

I. **NEVER** use a tank as a roller or support.

J. **NEVER** use a hammer, wrench, or pliers on a tank valve equipped with a handwheel. On small acetylene tanks, always use PREST-O-LITE valve wrench (box type, P/N 505L00).

K. **DO NOT** open tank valve more than 1-1/2 turns. (Preferably no more than 3/4 of a turn.)

L. Leave valve wrench on tank valve stem so that tank valve can be closed quickly in case of emergency.

M. **NEVER** allow full tank pressure to enter the hose. Always use a regulator when there is a needle valve on the torch handle.

N. **NEVER** lay a torch down unless the gas flow has been shut off. If you want to maintain a pilot flame when you stop work for short intervals, provide a rack or stand for the torch, away from combustible materials. Do not leave it unattended unless you are sure there is no danger of its being disturbed by unauthorized person.

O. Examine your hose for leaks frequently. Dipping it in a bucket of clean water, with the pressure in the hose, is the quickest and easiest way.

P. **DO NOT** use hose that is worn, or any equipment that is in need of repairs.

Q. **DO NOT** start fires. Be very careful when working near combustible material.

R. Fuel gas tanks (cylinders) are equipped with fusible-metal safety devices. **NEVER** store tanks near radiators, furnaces, or other heat sources.

S. **DO NOT** alter equipment. Use only recommended replacement parts.

**MAINTENANCE**

1. **To Replace Handle Casing.** Remove jam nut (37Z67) and pull casing back off handle. Align new casing so that pin projecting from torch body fits into a recess in casing. If necessary, lightly tap the casing with block of wood and hammer to fit it into place.

2. **To Replace ‘O’ Sealing Ring (85W64) in Head.** Use a scriber or wire with a hook on the end of it. Hook into the ‘O’ ring and pull it out through the nut which locks the stem in place. Squeeze the new ring down into the recess under the nut.

3. **To Disassemble Shutoff Valve.** Using a 1/16-in. Allen wrench remove setscrew (6133-0848) and lift off thumb lever (24Z85). Unscrew needle valve stem (48Z40). Un-screw valve screw (17202). Always replace ‘O’ sealing rings with new ones, being especially careful to replace the smaller one in the groove provided for it.

4. **Each torch tip** is equipped with a filter-screw, which holds a mixer disc in place. If flow of gas through the tip appears to be restricted, remove the filter-screw with a 1/8-in. socket key (‘Allen Wrench’) and replace both filter-screw and mixer disc.
Replacement Parts for PREST-O-LITE No. 401M Handle - Part No. 17200

STANDARD TORCH TIPS

<table>
<thead>
<tr>
<th>Tip No.</th>
<th>Part No.</th>
<th>Type</th>
<th>Replaceable Parts</th>
<th>Filter Screw</th>
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<td>Mixer Disk Part No.</td>
<td>Part No.</td>
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<td>10X26</td>
<td>Extra-Heavy</td>
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<td>8</td>
<td>11X18</td>
<td>Soldering Iron (pointed)</td>
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<td>8-C</td>
<td>11X17</td>
<td>Soldering Iron (chisel)</td>
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<td>9</td>
<td>10X29</td>
<td>Paint Burner</td>
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♦ Uses filter screen 85Z52

'SWIRLJET' TIP PART NUMBERS

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<th>Air-Fuel Gas</th>
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OTHER REPLACEMENT PARTS

Soldering Iron Tips:

Chisel...23S20   Pointed...23S32