This sheet covers use of PREST-O-LITE tips which attach directly to the 401 handle. Supplementary instructions are supplied with SWIRLJET air-propane (F-11-895), SWIRLJET air-acetylene tips (F-12-207), and with leak detectors (F-9372).

The valve on the No. 401 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 (it does not adjust the flame size). The inner control is the pilot needle valve. The pilot valve may be adjusted to keep a small pilot flame burning at the stem tip when the shutoff valve is closed.

**CONNECTING**

1. Attach a regulator to your acetylene or propane tank, following the 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 with a wrench.
3. Then insert the tip (stem) 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 shutoff and pilot needle valve on the 401 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 connections, and torch connection. 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

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 sheets supplied with those tips.

2. Having set or reset your regulator to 5 psi delivery pressure, open the shutoff valve on the 401 handle, and light the gas at the tip with a friction lighter.

3. After lighting the torch, adjust the flame size, if necessary, by changing the setting of the regulator pressure-adjusting screw.

4. To adjust the pilot flame:
   a. With the torch lit, open the pilot needle valve wide (the knurled knob).
   b. Slowly close the shutoff valve. The shutoff valve should never be ‘snapped’ off.
   c. Slowly close the pilot needle valve until the flame is as small as it can be made before it starts to smoke.
   d. Open the shutoff valve. The torch is ready to use.

NOTE: For very fine work, the pilot may be used as the working flame.

SHUTTING OFF

1. For short intervals, merely close the shutoff valve on the torch handle.
2. For longer periods, or if you are going to leave the outfit unattended, close the tank valve as well as the torch valve.

PRECAUTIONS & SAFE PRACTICES

A. DON'T let acetylene or LP-Gas escape near any possible source of ignition. Accumulations of either in certain proportions may explode if ignited.
B. NEVER store acetylene or LP-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. DON'T attempt any repairs to an acetylene or LP-Gas tank, except to tighten the packing-gland nut on the valve.
H. DON'T 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 piers on a tank valve equipped with a handwheel. On small acetylene tanks, always use PREST-O-LITE valve wrench (box type, P/N 505LO0).
K. DON'T 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. DON'T use hose that is worn, or any equipment that is in need of repairs.
Q. DON'T 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 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 (6123-0848) and lift off thumb lever (24Z85). Un-screw needle valve stem (48Z40). Un-screw valve screw (35Z85). 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 (stem) 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.

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**STANDARD TORCH TIPS**

<table>
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<tr>
<th>Tip No.</th>
<th>Part No.</th>
<th>Type</th>
<th>Replaceable Parts</th>
<th>Other Replacement Parts</th>
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<tr>
<td></td>
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<td></td>
<td>Mixer Disk</td>
<td>Filter Screw</td>
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<td>Part No.</td>
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<td>Multiflame</td>
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* Uses filter screen 85Z52

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**OTHER REPLACEMENT PARTS**

Soldering Iron Tips:
- Chisel . . . 23S20
- Pointed . . . 23S32

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**SWIRLJET TIP PART NUMBERS**

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