INSTRUCTIONS
for Prest-O-Lite
TRADE MARK
AIR-ACETYLENE AND
LP-GAS APPLIANCES

A. IF YOUR HANDLE HAS A NEEDLE VALVE, you MUST use a regulator. The 402 can be converted to a 403 Handle by soft soldering the needle valve (19X39) to the end of the handle tube. Therefore, regardless of the stamping on the handle, if it is equipped with a needle valve you must use a regulator to avoid the danger of subjecting the hose to full tank pressure. At the left, below, is the setup you must use if you are using a handle equipped with a needle valve. Either a "B" or "MC" tank can be used in this setup. With the "B" tank, a 411-B regulator is used. With the "MC" tank, a 411-MC regulator is used. With LP-Gas, an R-412b Regulator is used.

B. IF YOUR HANDLE DOES NOT HAVE A NEEDLE VALVE, use of a regulator is optional. Use of a regulator permits more accurate flame control and eliminates adjustments of the tank valve as pressure in the tank decreases. At the right, below, is the setup to follow when using a regulator. Follow the setup at the right when not using a regulator. In this setup either the "B" or "MC" tank can be used. Use a "B" union supplied with a "B" tank. With an "MC" tank, an "MC" union is used.

1. Open the tank valve slightly for an instant only, to blow out dust and dirt from the valve outlet. Use a Prest-O-Lite tank key to open the valve. NEVER use pliers.

2. Connect the regulator (shown at the left) or the tank union (shown at the right) to the tank valve. Tighten the nut securely with a wrench. (If you are using the old-style non-adjustable Prest-O-Lite regulator, see the special note at top of page 2.)

3. Connect a 1/16-in. hose assembly to an R-411 Regulator or to the tank union, and to the handle. Tighten the connection nuts with a wrench.

4. Insert the correct size torch stem (see page 4) into the handle locking nut of the handle. Hold the stem in position as you tighten the nut hand tight to lock the stem in place.

Be sure this information reaches the operator. You can get extra copies through your supplier.
NOTE
To connect an old-style non-adjustable PREST-O-LITE regulator to a 402 or 403 Handle, either:
1. Attach an Adaptor (Part No. 51508) on the regulator outlet, and connect a 3/16-in. hose assembly to
the handle and to the adaptor;

or

2. Attach an Adaptor (Part No. 19X23) on the hose connection end of the handle, and connect a length
of 1/4-in. hose (with 1/4-in. hose clamps) to the regulator and the adaptor.

To Operate

A. To Light (Except Nos. 9 and 3 MF Stems)
1. IF YOUR TORCH HAS A NEEDLE VALVE, be
   sure the needle valve is closed.
   (a) Open the tank valve one turn, using a PREST-
       O-LITE tank key. NEVER USE PLIERS.
   (b) Adjust the regulator pressure-adjusting
       screw. Follow the directions in the booklet
       packed with the regulator. (If using the old-
       style PREST-O-LITE regulator, open the
       regulator needle valve one complete turn.)
   (c) Open the torch handle needle valve and light
       the gas at the tip with a friction lighter.
       Adjust the needle valve to obtain the correct
       flame size.

2. IF YOUR TORCH DOES NOT HAVE A NEEDLE
   VALVE and you are using a regulator.
   (a) Open the tank valve one turn, using a PREST-
       O-LITE tank key. NEVER USE PLIERS.
   (b) Turn in the regulator pressure-adjusting
       screw until the gas flowing from the tip can
       be lit. Light the gas with a friction lighter.
   (c) Adjust the regulator to obtain the desired
       flame length.

3. IF YOUR TORCH DOES NOT HAVE A NEEDLE
   VALVE and you are not using a regulator.
   (a) Open the tank valve slightly (never more
       than 1/4 turn) until the gas flowing from the
       tip is just enough to be lit. Light the gas
       with a friction lighter.
   (b) Adjust the tank valve to obtain the correct
       flame size.

B. To Light (Nos. 9 and 3 MF Stems)
NOTE: The recommended operating pressure for
the paint burner stem and the No. 3 MF (Multiflame)
stem is from 5 to 10 lb. per sq. inch. DO NOT use
an operating pressure below 3 lb. per sq. inch. Below
this pressure the flames will become so short that
burning within the stem may occur.
1. If you are using a regulator
   Adjust the pressure to from 5 to 10 lb. per
   sq. in. by means of the pressure-adjusting screw,
   following the instructions in the booklet packed
   with the regulator. If your handle has a needle
   valve, the valve should be closed during the
   pressure adjustment.

IMPORTANT: Open the torch valve and wait at
least 15 seconds, until a full flow of acetylene
is obtained at the stem, indicating that all the
air has been cleared from the hose, handle and
stem.

2. If you are not using a regulator
   Open the tank valve 1/4 turn and wait until there
   is a good flow of gas at the tip. DO NOT merely
   crack the tank valve. A 1/4 turn is necessary for
   sufficient gas flow to light the torch.

3. Light the torch at the tip. The flame should burn
   with the usual well defined light blue inner cone
   characteristics of all PREST-O-LITE torch
   stems. If the inner cone is long and stringy, not
   well defined, and burns with a roar, burning
   within the stem is taking place. To prevent dam-
   age to the stem, shut off the torch immediately.
   Wait a few minutes before relighting.

C. To Shut Off
1. IF YOUR TORCH HAS A NEEDLE VALVE you
   can use it to shut off the torch for short inter-
   vals. For longer intervals, close the tank valve,

2. IF YOUR TORCH DOES NOT HAVE A NEEDLE
   VALVE, shut off the torch by closing the tank
   valve.

3. When using a regulator, the regulator may be left
   as originally set so that work may be resumed
   by opening the tank valve and lighting the torch.

D. Operating Precautions
1. PREST-O-LITE gas is acetylene. Don’t let
   acetylene escape near any possible source of
   ignition. Accumulations of acetylene in certain
   proportions may explode if ignited.

2. Keep tanks away from fire and heat. Each
   PREST-O-LITE tank is equipped with one or
   more fusible inserts—devices designed to relieve
   excessive tank pressure caused by fire or heat.

3. Don’t use hose that is worn, or any equipment that
   is in need of repair.
Replacement Parts for PREST-O-LITE 402 and 403 Handles

**Maintenance Notes**

**A. To Replace Handle Casing**
1. Remove the valve stem assembly (09M24) from the needle valve.
2. Heat the front part of the needle valve body (keep the flame off the plastic casing) sufficiently to melt the soft solder joint, then unscrew the valve body from the handle tube.
3. Remove the jam nut (37Z67) and pull the casing back off the handle.
4. Align the new casing so that the pin projecting from the torch body fits into the recess in the casing. If necessary, hold a block of wood against the casing and tap it "home" with a hammer.
5. Replace the jam nut.
6. Screw the needle valve onto the handle tube and soft solder it in place using care to keep the flame from the plastic handle.
7. Replace the valve stem in the needle valve. Tighten the packing nut securely.

**B. To Replace "O" Sealing Ring (85W64) in Head**
1. Using 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.
2. Squeeze the new ring down into the head and using scriber or wire, push it back evenly into recess under the nut.

**C. Valve Leakage**
If the valve turns too easily or leaks around the valve stem, tighten the packing nut. If this does not help, remove and replace the valve stem assembly.

If a valve does not shut off completely:
1. Remove the valve stem assembly.
2. Wipe the seating portion of the valve stem and body with a clean cloth.

3. If the valve stem is marred or bent, or if its seating surfaces are nicked, it should be replaced with a new valve stem assembly.
4. If the valve still leaks, replace the complete valve with a new one.

**D. Maintenance of Torch Stems**
If the flow of acetylene (or LP gas) through the torch stem appears to be restricted, replace the mixer disc and filter (located in the torch end of the stem) as follows:
1. Remove the socket type filter screw with a 1/8-in. socket key. The mixer disc will then fall out.
2. Insert new mixer disc and screw in the new filter screw (see page 4 for part numbers).

Stem Nos. 6 and 11MF have filter screens instead of a mixer disc and mixer screw. To replace the filter screens, pick out the old screens, clean the mixer orifice with any needle pointed object, and insert new screens.

**E. Operating Precautions**
1. PREST-O-LITE gas is acetylene. Don't let acetylene or other fuel gases escape near any possible source of ignition. Accumulations of fuel gas in certain proportions may explode if ignited.
2. Keep tanks away from fire and heat. Each PREST-O-LITE tank is equipped with one or more fusible inserts—devices designed to relieve excessive tank pressure caused by fire or heat.
3. Don't use hose that is worn, or any equipment that is in need of repair.

A 402 handle can be converted to a 403 by soft soldering needle valve 19X39 to the end of the 402 handle tube (following instructions in paragraphs A-1, A-6 and A-7, above). You must use a regulator with a handle that has a needle valve.
What's Your Problem?

The PREST-O-LITE stems listed below provide the answers to hundreds of problems in the shop and in the home. These stems and your PREST-O-LITE handle can be used to perform a wide variety of jobs—from delicate soldering operations to heavy heating jobs.

**STEMS**

The stems illustrated are for acetylene. The LP-Gas stems are much the same except that they include a stainless steel flame cup at the tip.

<table>
<thead>
<tr>
<th>Acetylene Stem</th>
<th>LP-Gas Stem</th>
<th>Part No.</th>
<th>Part No.</th>
<th>Size</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>00X26</td>
<td>11X19</td>
<td>No. 6</td>
<td></td>
<td></td>
<td>Extra Heavy Work—Solder-type joints in 3/4&quot; or larger copper pipe.</td>
</tr>
<tr>
<td>00X23</td>
<td>11X12</td>
<td>No. 3</td>
<td></td>
<td></td>
<td>Medium Work—Body and fender, solder-type joints in 3/4&quot; to 1-1/2&quot;-in. copper pipe.</td>
</tr>
<tr>
<td>00X22</td>
<td>11X11</td>
<td>No. 2</td>
<td></td>
<td></td>
<td>Light Work—Soldering light sheet metal, joints in 3/8&quot; to 1/2-in. copper pipe.</td>
</tr>
<tr>
<td>00X21</td>
<td>11X10</td>
<td>No. 1</td>
<td></td>
<td></td>
<td>Fine Work—Automobile radiator fins, toy manufacture.</td>
</tr>
<tr>
<td>00X27</td>
<td></td>
<td>No. 7</td>
<td></td>
<td></td>
<td>Very Fine Work—Switchboards, jewelry, radios.</td>
</tr>
<tr>
<td>00X28</td>
<td></td>
<td>No. 8</td>
<td></td>
<td></td>
<td>Same as No. 2 except it has a straight tip.</td>
</tr>
<tr>
<td>00X29</td>
<td></td>
<td>No. 8-C</td>
<td></td>
<td></td>
<td>Same as No. 8 with chisel copper.</td>
</tr>
<tr>
<td>20X78</td>
<td>21X76</td>
<td>No. 8</td>
<td></td>
<td></td>
<td>Small size soldering iron with pointed copper.</td>
</tr>
<tr>
<td>10X18</td>
<td>21X76</td>
<td>No. 8-C</td>
<td></td>
<td></td>
<td>Same as No. 8 with chisel copper.</td>
</tr>
<tr>
<td>00X18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Paint Burner—produces brush-type flame.</td>
</tr>
</tbody>
</table>

**REPLACEMENT PARTS**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>30529</td>
<td>Chisel Soldering Head</td>
</tr>
<tr>
<td>20322</td>
<td>Pointed Soldering Head</td>
</tr>
</tbody>
</table>

For stems having filter screws: 82252 filter screw

For stems having filter screw and replaceable mixer disc

For stems having filter screw and replaceable mixer disc

30Y02 Filter and Locking Screw (All Stems)

10Z20 Mixer Disc for Acetylene Stems—Nos. 1, 2, 8, 9-C

10Z24 Mixer Disc for Acetylene Stems—Nos. 2 & 7 and LP-Gas stem No. 5 (Soldering Iron)

10Z24 Mixer Disc for Acetylene Stems—Nos. 3, 3MF & 5MF

10Z24 Mixer Disc for Acetylene Stems—Nos. 4 & 9

10Z24 Mixer Disc for Acetylene Stem No. 5

*NOTE: See special operating instructions for Nos. 9 and 3MF stems on Page 2.*

10X35 No. 3MF Multiflame Heating Stem—For bending, straightening, forming and other operations requiring a "soaking" heat over a broad surface.

10X36 No. 10MF Multiflame Heating Stem—For heating and soldering tubing or cylindrical parts from 3/8 to 1/2 inches in diameter.

11X5 No. 11MF Multiflame Heating Stem—For heating and soldering tubing or cylindrical parts from 2 to 4 inches in diameter.