VEVOR

Upgrade · The Home Creator Way

# Gas Welding And Cutting Torch Kit

**Model: 1C016-0061**

## VEVOR Support Center

1C016-0061

VEVOR
Upgrade·The Home Creator Way

# GAS WELDING AND CUTTING TORCH KIT

**Model: 1C016-0061**

This is the original instruction, please read all manual instructions carefully before operating. VEVOR reserves a clear interpretation of our user manual. The appearance of the product shall be subject to the product you received. Please forgive us that we won't inform you again if there are any technology or software updates on our product.

## SAFETY INSTRUCTIONS

| | |
|---|---|
|  | Read the instruction manual. |
|  | Warning-Be sure to wear gloves when using this product. |
|  | Warning- Be sure to wear eye protectors when using this product. protectors when using this product. |

**Warning**

-To reduce the risk of injury, user must read instructions manual carefully.

-The product complies with relevant standards and regulations.

Installation of this device must comply with all applicable regulations, and it should only be operated in well-ventilated areas. Please read the user manual before installing and using this equipment.

-This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

-Children shall not play with the appliance.

-This appliance shall not be used by children. Keep the appliance and its accessories out of reach of children.

-Please properly keep product. Check whether the product is abnormal before use. If it is abnormal, please stop using it.

Please use the product according to the intended use, warn of potential injury from misuse.

## SPECIFICATIONS

| | |
|---|---|
| Regulators | Oxygen:CGA540 Acetylene:CGA200 |
| Welding Nozzle | VM-W,welds up to 1/16 IN. |
| Hose Size | 15 FT.Lx3/16 IN.inside diameter |

| | |
|---|---|
| Hose type | Color coded Twin Hose<br>(green:oxygen, red; acetylene) |
| Torch Inlet Thread | 9/16IN.x18 |
| Hose Fitting Threads | Oxygen:Right-Hand<br>Acetylene:Left-Hand |
| Cylinders Not included | 20 CU.FT.oxygen 10 CU.FT.acetylene |
| Accessories | Goggles,Spanner,Tip cleaner Striker |

Capable of welding from 1/32" up to 1-1/4"with the appropriate welding nozzle

## IMPORTANT SAFETY INSTRUCTIONS

In this manual,on the labeling,and all other Information provided with this product:

This is the safety alert symbol.t is used to alert you to potential personal injury hazards.Obey all safety messages that follow this symbol to avoid possible injury or death.

**DANGER**

DANGER indicates a hazardous situation which,if not avoided,will result in death or serious injury.

**WARNING**

WARNING indicates a hazardous situation which,if not avoided, could result in death or serious injury.

**CAUTION**

CAUTION used with the safety alert symbol, indicates a hazardous situation which, if not avoided,could result in minor or moderate injury.

**NOTICE**

NOTICE is used to address practices not related to personal injury.

**CAUTION**

CAUTION without the safety alert symbol,is used to address practices not related to personal injury.

**Safety Warnings**

WARNING Read all safety warnings and instructions. Failure to follow

the warnings and instructions may result in explosion,fire and/or serious injury. Save all warnings and instructions for future reference.
The warnings,precautions,and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur.It must be understood by the operator that common sense and
caution are factors which cannot be built into this product,but must be supplied by the operator.

## Work Area Safety

1.Keep your work area clean and well lit.
Cluttered benches and dark areas invite accidents
2. Keep bystanders,children,and visitors away while operating.Distractions can cause you to lose control.Protect others in the work area from intense heat.Do not allow others close enough to look at the flame as eye damage is a real possibility.Provide barriers or shields as needed.
3. **When possible,move the work to a location well away from combustible materials.**If relocation is NOT possible,protect the combustibles with a cover made of fire resistant material.Remove or
make safe all combustible materials for a radius of 35 feet(10 meters) around the work area.
4.Enclose the work area with portable fire resistant screens.Use a fire resistant material to block all openings and protect combustible walls,ceilings,floors,etc.
5 .If working near/on a metal wall,ceiling,floor,etc.,prevent ignition of combustibles on the other side by moving the combustibles to a safe location.If relocation of combustibles is NOT possible,designate someone to act as a fire watch equipped with a fire extinguisher during the welding or cutting process and for at least one half hour after the welding or cutting project is completed.
6. Do not place the Torch on any material other than bare concrete until it has cooled completely.
7.Do not weld or cut any material that has a combustible coating or a combustible internal structure,such as drums or tanks,without an approved method for eliminating the hazard.
8.Do not dispose of hot slag in containers holding combustible materials.

9. Keep a fully charged fire extinguisher close by and know the proper way to use it.After welding or cutting make a thorough check for evidence of fire and be aware the easily visible flame or smoke may not be present for some time after a fire has started

11.Do not weld or cut in atmospheres containing dangerously reactive or flammable gases,vapors,liquids,or dust.

12.Clean and purge containers before applying heat.Do not apply heat to a container that has held an unknown substance or a combustible material whose contents,when heated,can produce flammable or explosive vapors. Vent closed containers,including castings,before preheating,welding,or cutting.

## Personal Safety

1. Wearing and using personal safety clothing and safety devices reduce the risk of injury.Wear the following:

a.Fire-resistant clothing (Do not wear pants with cuffs,shirts with open pockets,or any clothing that can catch and hold molten metal or sparks.)

b.Fire-resistant leather leggings and work boots.

c.Dry,insulating leather welding gloves

d.NIOSH-approved respirator

e.Shade 5 or higher welding goggles

f.Appropriate head covering to protect head and neck protect head and neck

g.Fire-resistant ear plugs or ear muff (if welding or cutting overhead or in confined spaces)

Keep clothing and safety equipment free of grease. oil,solvents and any other flammable substances.

2. Stay alert.Watch what you are doing,and use common sense when operating this Torch.Do not use while tired or under the influence of drugs,alcohol,or medication. A moment of inattention while operating may result in serious personal injury.

3. Do not overreach.Keep proper footing and balance at all times.Proper footing and balance enables better control in unexpected situations.

4.  INHALATION HAZARD:

Welding and Cutting Produce TOXIC FUMES.

Exposure to welding or cutting exhaust fumes can increase the risk of developing certain cancers,such as cancer of the larynx and lung cancer Also,some diseases that may be linked to exposure to welding or cutting exhaust fumes are:

·Early onset of Parkinson's Disease

·Heart disease ·Ulcers

·Damage to the reproductive organs

·Inflammation of the small intestine or stomach

·Kidney damage

·Respiratory diseases such as emphysema,bronchitis,or pneumonia

 Use natural or forced air ventilation and wear a respirator approved by NIOSH to protect against the fumes produced to reduce the risk of developing the above illnesses.

5.Avoid overexposure to fumes and gases.Keep your head out of the fumes.Do not breathe fumes.Use enough ventilation or exhaust,or both to keep fumes and gases away from your breathing area.Where ventilation is questionable,have a qualified technician take an air sampling to determine the need for corrective measures.If necessary,use mechanical ventilation to improve air quality.If this is not possible,use an approved respirator.Do not work in confined areas unless they are well ventilated or you are wearing an air supplied ventilator.

Always follow OSHA guidelines for Permissible Exposure Limits (PEL's) for various fumes and gases.Follow the American Conference of Governmental Industrial Hygienists recommendations for the Threshold Limit Values (TLV's) for fumes and gases.Have a recognized specialist in Industrial Hygiene or Environmental Services check the operation and air quality and make recommendations for the specific welding or cutting situation.

5.**WARNING**:This product,when used for welding.cutting,soldering,or similar applications,produces chemicals known to the State of California to cause cancer and birth defects(or other reproductive harm).(California Health &Safety Code $25249.5,et seq.)The brass components of this product contain lead. a chemical known to the State of California to cause birth defects (or other reproductive harm). (California Health &Safety Code $25249.5,et seq.)

### Equipment Setup Safety

1.Make sure you are prepared to begin work before opening gas supply.
2. To prevent explosion,use reverse-low check valves and flashback arrestors (sold separately) on the base of the Torch
3.Use with oxygen and acetylene only. Do not modify this torch or use it for a purpose for which it is not intended.
4.Set Acetylene Regulator no greater than 15 PSI.Acetylene is unstable and can explode if over-pressurized.
5. Do not use oil.grease or thread seal tape on any connector.
6.Use clamps(not included) or other practical ways to secure and support the work piece to a stable platform. Holding the work by hand or against your body is unstable and may lead to loss of control,fire and/or personal injury.
7. Use only accessories that are recommended by the manufacturer for your model Torch. Accessories that may be suitable for one Torch may become hazardous when used on another Torch.Only use proper gas hoses.

### Cylinder Safety

1.Do not use dented or damaged cylinders.
2.Secure cylinders to a cart, wall, or post to prevent them from falling.Use and store cylinders in an upright position only.If using the included case to hold the cylinders,secure the case to a cart, wall or post
3.Use cylinder caps when moving or storing cylinders.
4.Do not store cylinders in temperatures 120°F or higher.
5.EMPTY CYLINDERS:DO NOT DROP, STRIKE,PUNCTURE, HEAT ORSET FIRE TO A CYLINDER, EVEN IFITIS EMPTY.Keep empty cylinders in specified areas and clearly mark "empty". Contact local solid waste authorities for instructions on correct disposal or recycling of empty cylinders.
6.KEEP WRENCH ONACETYLENE CYLINDER'S VALVE.whenever cylinder is in use to allow quick shutoff in case of emergency

## Equipment Inspection

1.DO NOT USE FLAME TO DETECT LEAKS.1.
2.INSPECT BEFORE EVERY USE.Look for the following. and do not use kit if any

damage is noted:

**a**.Inspect the tapered seating surfaces on the Nozzles,and the Tip Nut. Have a qualified technician resurface the seat area if it has dents. burrs. or is burned. A poor seating surface may result in backfire or flashback

**b**. Examine all hoses for cuts.cracks.burns,worn areas,or other damage.
Do not use if damaged.

**C**.Check for loose connections using soapy water solution.Tighten or repair any leaks found.

**d.** Do not use the Torch Kit if either gas does not turn off completely when the Oxygen Torch Valve and Acetylene Torch Valve are closed.Leakage of gas from the tip is a substantial safety risk.If gas cannot be turned off at the Torch Handle, it is dangerous and must be replaced.

**e**.Inspect for any other defects or damage.Do not use any damaged parts.Tag damaged parts "Do not use" until repaired.

## Operation Safety

1. Inspect before every use,see previous warning section.
2. Use only with proper ventilation.
3. Do not touch work-piece or tip until cool.
4.Keep hoses away from hot parts,from cut area, and from flame.
5.Never leave the Torch unattended when it is attached to a gas supply.
6.Allow sufficient time for the Torch to completely cool before storing.
7. Any material discharged from the work area during use will be extremely hot. Use care to not get burned by slag or other waste products.
8.BACKFIRE:When the flame goes out with a loud "pop", it is called a backfire. Backfire can be caused by:
a. Operating the Torch at lower pressures than required for the Tip used.
b. Touching the Tip against the work-piece.
c. Overheating the Tip
d. An obstruction in the Tip.
If backfire occurs, close the Torch Handle Valves(oxygen first, then acetylene) and after remedying the cause, relight the torch.

9.**FLASHBACK**:Flashback is a condition that results when the flame flashes back into the Torch and burns inside with a shrill hissing or squealing noise.
If flashback occurs, close the Torch Handle Valves (oxygen first, then acetylene) MMEDIATELY! Flashback generally indicates a problem that should be repaired before proceeding with the job at hand.A clogged Tip, improper functioning of the Valves,or incorrect acetylene/oxygen pressure could lead to flashback. Find and correct the cause before relighting the Torch.If the cause is not found, have the kit serviced by a qualified technician before returning to your project.
10.Beware of leaking gas.If while you are using this Torch you notice the odor of acetylene, IMMEDIATELY close the oxygen first,then the acetylene.
Extinguish all open flames and carefully check all hoses and connections for leaks using soapy water.NEVER check for leaks using a flame.
If the odor continues do not use the Torch.Call acetylene supplier for assistance.
11.Read and understand all instructions and safety precautions as outlined in the manufacturer's manual for the material you will weld or cut.
12.After use,bleed lines and store all components out of reach of children and other untrained persons. Torches are dangerous in the hands of untrained users.

## Service

1.Torch service must be performed only by qualified repair personnel.
Service or maintenance performed by unqualified personnel could result in a risk of injury.
2.When servicing,use only identical replacement parts.Follow instructions in the "Inspection,Maintenance,and Cleaning" section of this manual.Use of unauthorized parts or failure to follow maintenance instructions may create a risk of fire or injury.
3.Maintain product labels and nameplates.These carry important information.If unreadable or missing, contact Harbor Freight Tools for a replacement.

## Work-piece and Work Area Setup

1.Designate a work area that is clean and well-lit.The work area must not allow access by children or pets to prevent distraction and injury.
2.Remove all combustible material from area and/or cover surfaces with fire resistant material.
3.The work area must have a fireproof floor.
4.Secure loose work-pieces using a vise or damps (not included) to prevent movement while working.
**Note**:Proper weld preparation can be complicated,and is outside the scope of this manual.

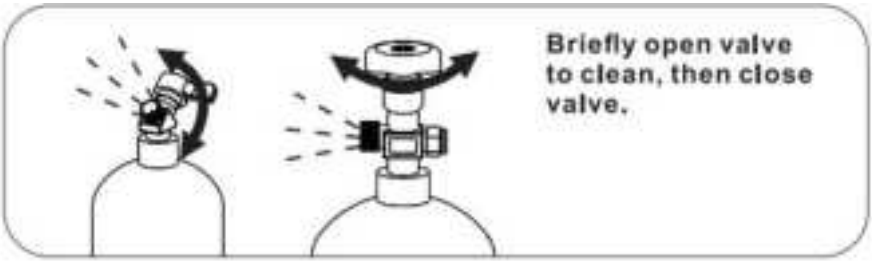
## Tool Set Up 1 of 3-Assembly

Read the ENTIRE IMPORTANTSAFETY INFORMATION section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

**AWARNING**

TO PREVENT SERIOUS INJURY FROM EXPLOSION:
Turn the Oxygen and Acetylene Torch Valves fully clockwise (closed, oxygen first and acetylene second) before making any adjustments or performing any inspection or service to this Torch Kit.

**Note**: For additional information regarding the parts listed in the following pages,refer to the Assembly Diagram near the end of this manual.All instructions in this manual are for oxygen and acetylene gas only.
1.Secure cylinders to a cart,wall.or post to prevent them from falling.Do not place Acetylene Cylinder on its side.
WARNING!TO PREVENT FIRE AND EXPLOSION: Make sure there is no oil,grease,or ignition sour (such as a hot weld,electric motor,or another welding operation) nearby before proceeding with the next step.
2.While standing to one side,"crack"each cylinder valve."Cracking" is to quickly open and close the valve,allowing a small amount of gas to escape and clearing the valve of any foreign material.WARNING! If oil or grease
Is found,discontinue using cylinder and immediately contact your gas supplier.




## Assembly Step 2:Crack Each Cylinder Valve

**WARNING!** KEEP WRENCH ONACETYLENE CYLINDER'S VALVE whenever cylinder is in use to allow quick shutoff in case of emergency.

NOTE: Wrench not included.

3.Attach the Green labeled Oxygen Regulator to the Oxygen Cylinder and the green oxygen hose to the regulator.

4.Attach the Red labeled Acetylene Regulator to the Acetylene Cylinder and the red acetylene hose to the regulator,tighten counterclockwise-threads are reversed.

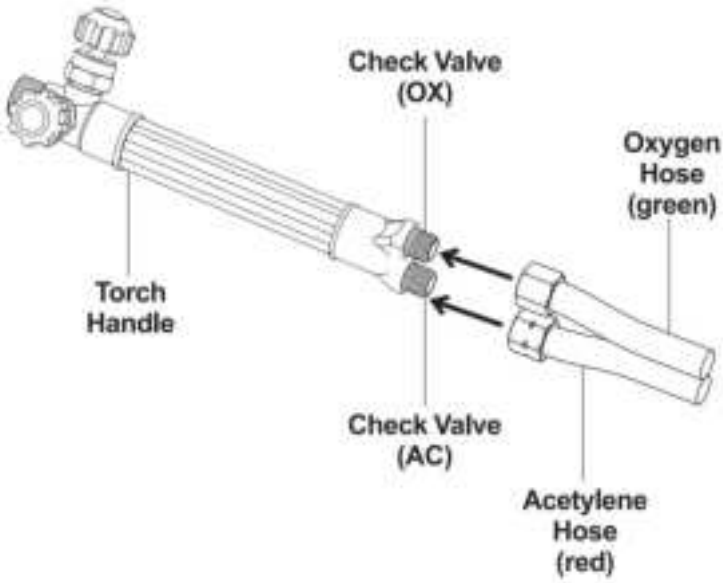
5.To set up the Torch Handle:

a.Remove the plastic inlet covers.

b.Make sure both check valves are in place on the torch handle.

c.Connect the green-Oxygen hose to the oxygen Check Valve on the Torch Handle.

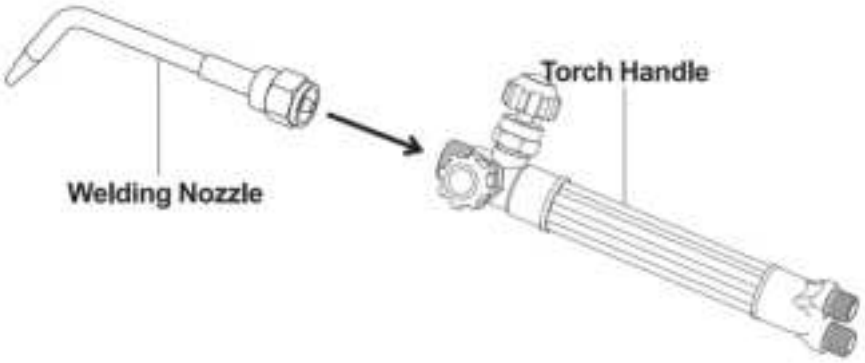
d.Connect the red-acetylene hose to the acetylene Check Valve on the Torch Handle. tighten counterclockwise threads are reversed.




**Assembly Step 5:Torch Handle Setup**

6. Welding Setup

Connect the Welding Nozzle to the Torch Handle.



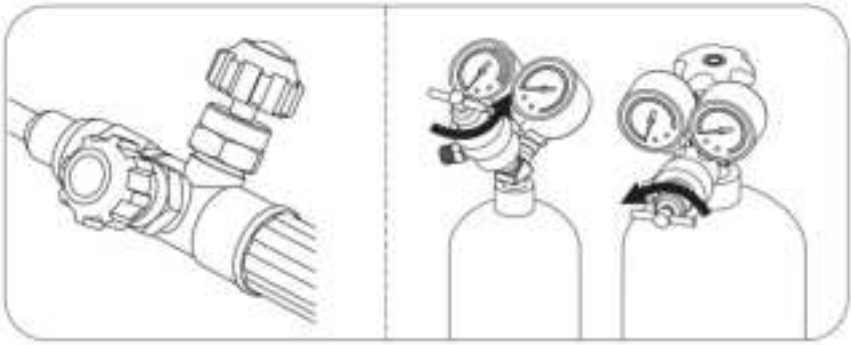

**Assembly Step 6 :Welding Setup**

7. Before operation,the leak tests on the following pages must be done after connection to check for leaks in the system.

## Tool Set Up 2 of 3-First Leak Test:Soapy Water

This test detects major leaks.

1.After everything is connected,close both Torch Handle Valves, turning clockwise. Close regulators, turning knobs counterclockwise until loose.



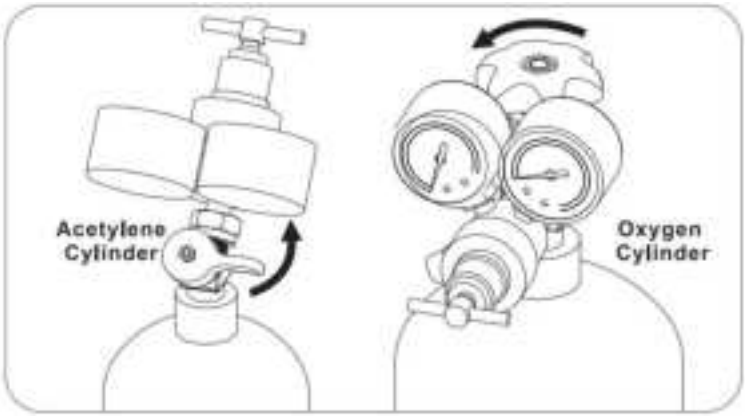
Close Valves (Turn clockwise)

Close Regulators (Turn counterclockwise until loose)

**Leak Test 1 Step 1**

2.Open the cylinder valves turning counterclockwise only until the gas starts flowing.

**WARNING!** Only open Acetylene Cylinder Valve 1/4 to 1/2 turn.



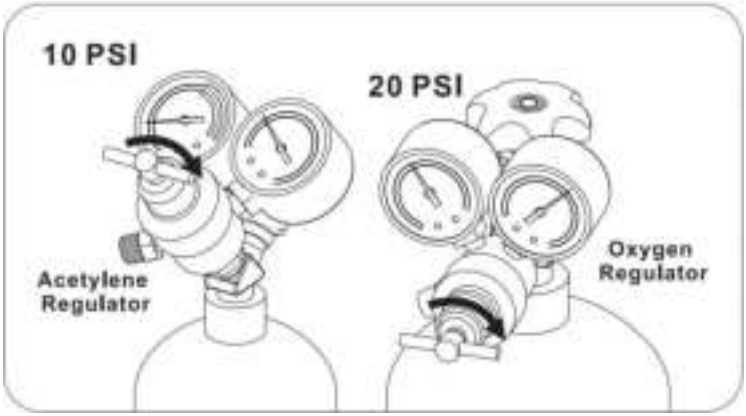

**Leak Test 1 Step 2: Open cylinder Valves**

**WARNING!** KEEP WRENCH ON ACETYLENE CYLINDER'S VALVE whenever cylinder is in use to allow quick shut off in case of emergency

3.Adjust the oxygen regulator to deliver 20 PSIG.

4.Adjust the acetylene regulator to deliver 10 PSIG.

DO NOT EXCEED 15 PSI ACETYLENE PRESSURE




**Leak Test 1 Step 3: Set Testing Pressures**

4.Check all connections for leaks using soapy water ·If leaks are found,tighten connections.

·If a leak persists,discontinue use and call gas supplier.

·If no leaks are found with this test.

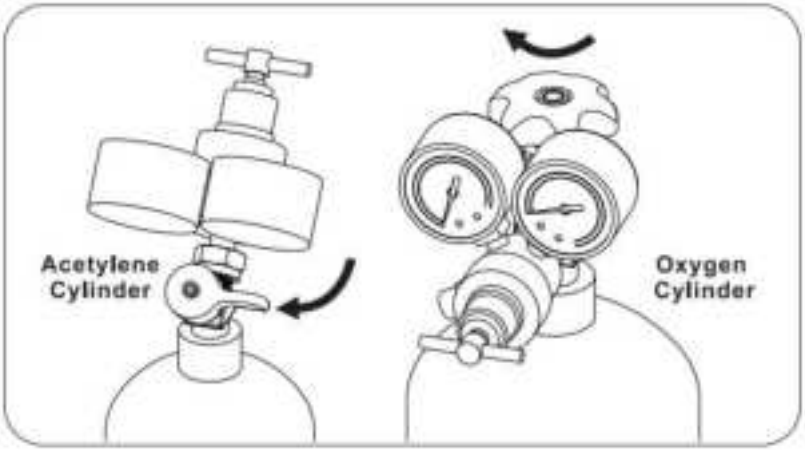
move on to the Gauge Monitoring test.

## Tool Set Up 3 of 3-Second Leak Test:Gauge Monitoring

This test detects minor leaks.

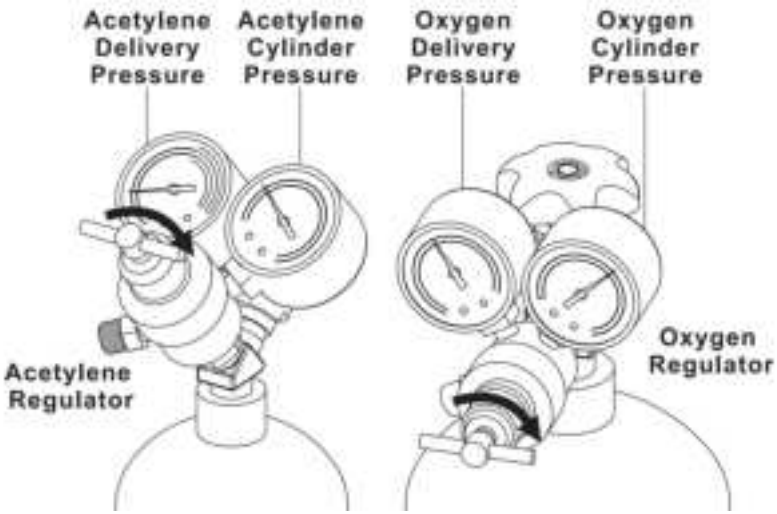
1.Follow all steps in the Soapy Water test above to prepare for the gauge monitoring test.

2.Close both cylinder valves,turning clockwise.



Leak Test 1 Step 2:Open Cylinder Valves

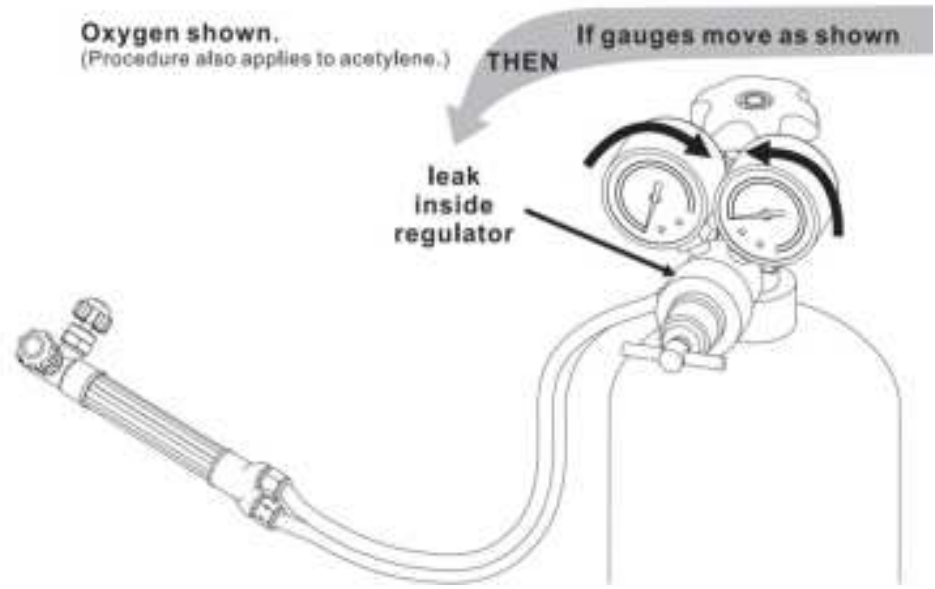
3. Monitor gauges on both regulators for five minutes.



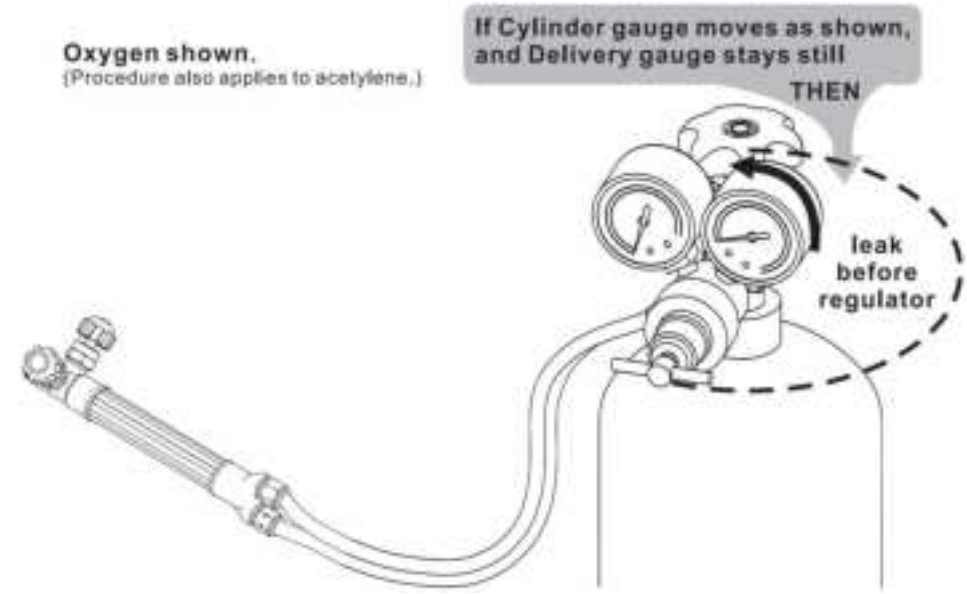

**Leak Test2 Step 3:Monitor Gauges**

·If the readings do not change, the test is completed and the system has no leaks.
·If any reading changes,there is a leak on that side of the system.Follow Gauge.Leak Analysis on the next page to diagnose.

## Gauge Leak Analysis




If the Cylinder Pressure decreases and the Delivery Pressure increases
There is a leak in the regulator seat.
Have the regulator repaired by a qualified technician.



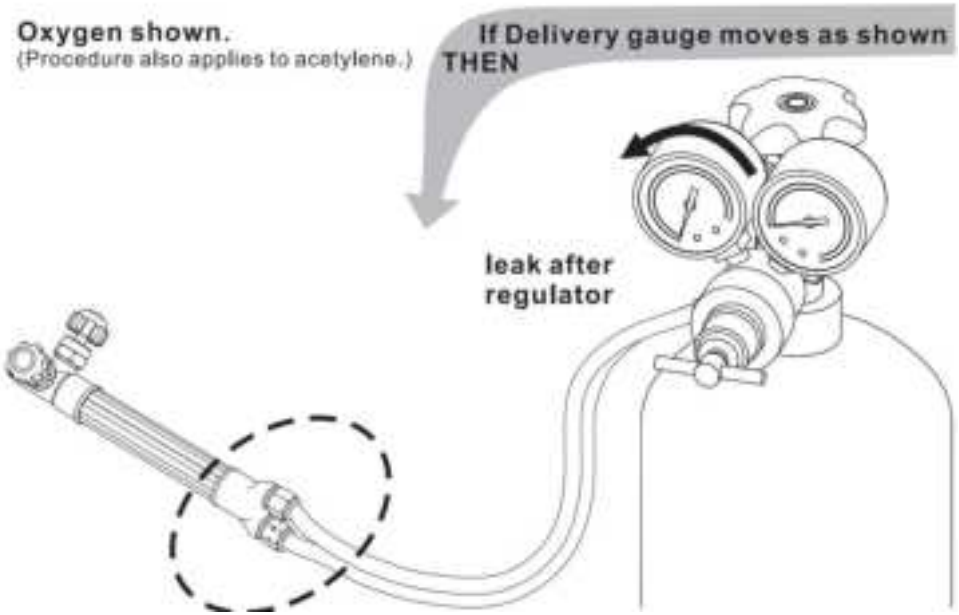

If Cylinder Pressure decreases but the Delivery Pressure remains constant .The

leak is at cylinder valve or connection between regulator and cylinder valve.

**DANGER!** To prevent serious injury and DEATH:
DO NOT TIGHTEN OR ADJUSTANY CONNECTION between the cylinder and cylinder valve, or force the cylinder valve.If the cylinder valve is leaking, move the cylinder outside and notify your gas supplier immediately.

1. Release pressure from the system.
2. Tighten the connection between regulator and cylinder valve.
3.Repeat Gauge Leak Test.

a. If the gauges do not change, the test is completed and the system has no leaks.
b. If the connection still leaks try with a different cylinder.
c. If the connection leaks with the different cylinder, have the regulator examined by a qualified technician.



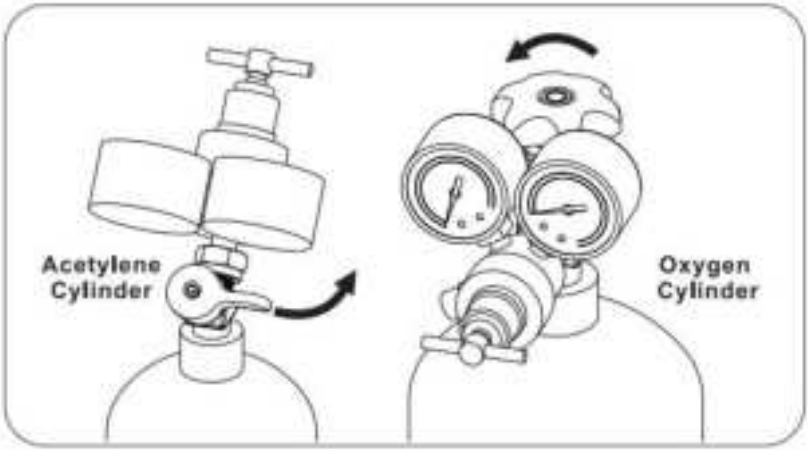

If Delivery Pressure decreases:
The leak is at the regulator outlet connection.within the hose, at the torch inlet connection or at the Torch Valve on the Torch Handle.

1. Release pressure from the system.
2. Tighten the regulator outlet connection.

3. Tighten the Torch Handle Inlet connection.
4. Repeat Gauge Leak Test.
a. If the gauges do not change, the test is completed and the system has no leaks.
b. If the connections are still leaking, have the regulator, Torch Handle, and hoses examined by a qualified technician. If the hoses are leaking.replace them, do not attempt to repair the hoses.

## No Leaks Found

If the leak testing has been completed and the unit is found to be working properly, open the cylinder valves,turning counterclockwise, and proceed to operation.
**WARNING!** Only open Acetylene Cylinder Valve 1/4 to 1/2 turn to allow quick shutoff.




Open Cylinder Valves Only After Testing Confirms There Are No Leaks

**WARNING!** KEEP WRENCH ON CYLINDER'S VALVE whenever cylinder is in use to allow quick shutoff in case of emergency.

### Welding Tip Pressure Settings

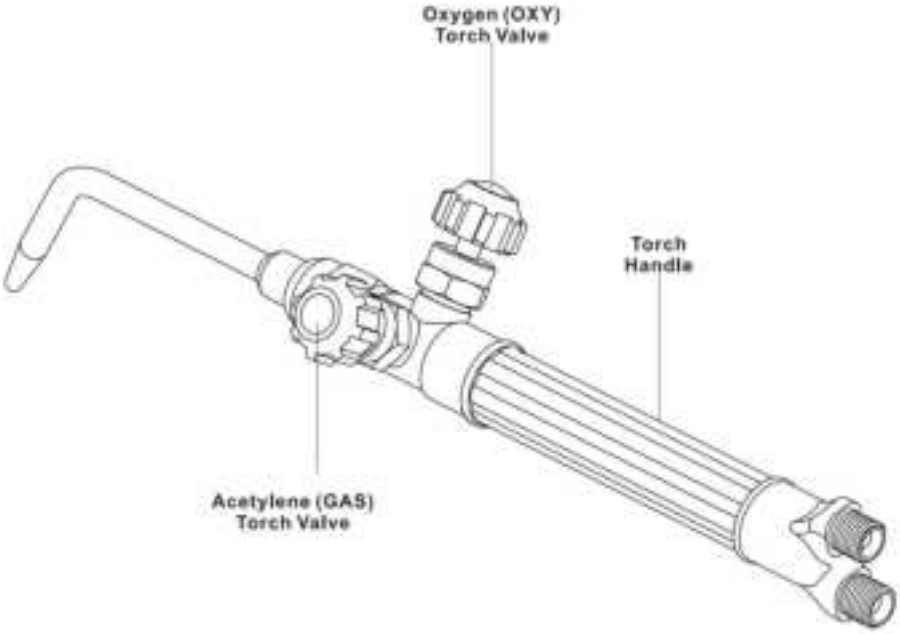
This Torch Handle is capable of welding metals from 1/32"up to 1-1/4"thick. The included Welding Nozzle,size 0,will weld metals up to 1/16"thick.

Check the thickness of the metals to be welded and use the chart below to choose the size nozzle for the job. If welding metals other than 1/32"to 1/16"thick,a different welding nozzle will be needed.

Note: Welding the thicker metals noted below will require special techniques, such as edge chamfering,that are outside the scope of this manual.

**Table A:Welding Nozzle Flow Data**

| Metal Thickness (inches) | Nozzle Size | Tip Orifice Diameter (inches) | Oxygen Pressure (PSIG) | Acetylene Pressure (PSIG) | Acetylene (CFH) |
|---|---|---|---|---|---|
| 1/32 | 000 | 0.024 | 3-5 | 3-5 | 1~2 |
| 3/64 | 00 | 0.028 | 3~5 | 3-5 | 1.5-3 |
| 1/16 | 0 | 0.031 | 3-5 | 3-5 | 1.7~3.4 |
| 5/64 | 1 | 0.035 | 3~5 | 3~5 | 2~4 |
| 3/32 | 2 | 0.039 | 3~5 | 3~5 | 3~6 |
| 1/8 | 3 | 0.051 | 3~6 | 3-6 | 5~10.5 |
| 1/4 | 4 | 0.067 | 4~6 | 4~6 | 8.5~19 |
| 3/8 | 5 | 0.079 | 5~7 | 5~7 | 11.5~26 |
| /2 | 6 | 0.091 | 6~8 | 5~8 | 15~35 |
| 1-1/4 | 7 | 0.126 | 8-10 | 8~10 | 30~60 |



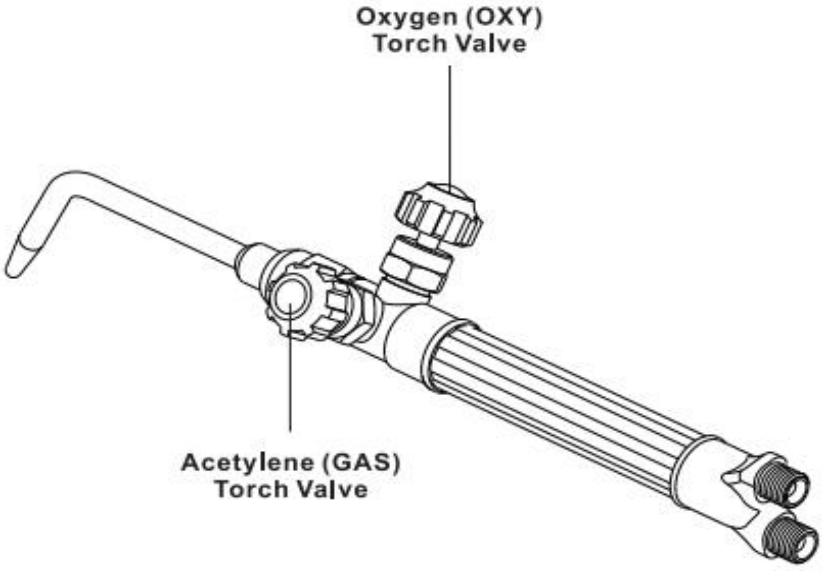

## Welding Instructions

Read the ENTIRE IMPORTANT SAFETYINFORMATION section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

Inspect tool before use, looking for leaking, damaged, loose, and missing parts.If any problems are found, do not use tool until repaired.

1.Set up for cutting according to instructions .

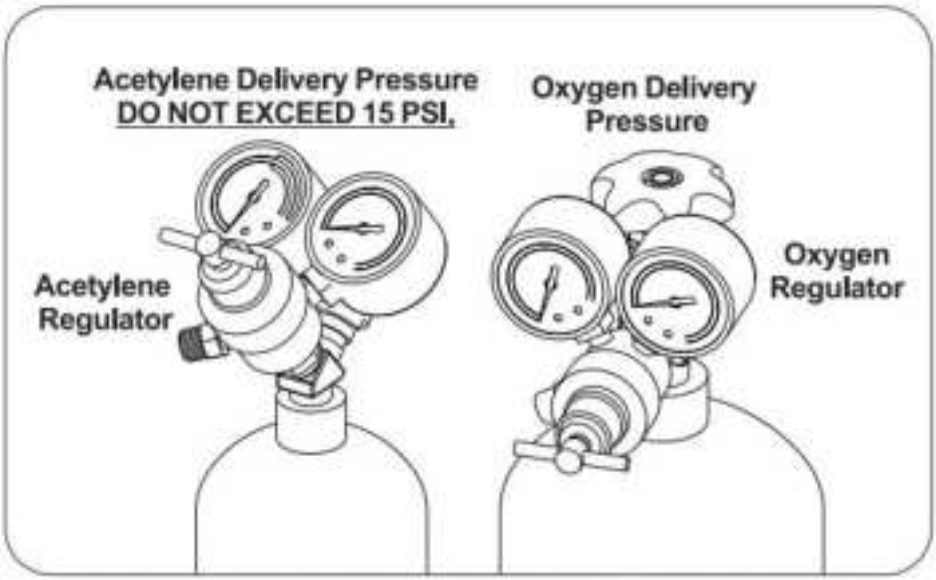
2.Close both valves on the Torch Handle securely.




**Welding Step 2 : Close Valves**

3. Adjust the Acetylene and Oxygen Regulators to their proper working pressures, see Table A .

DO NOTEXCEED15 PSIACETYLENE PRESSURE.

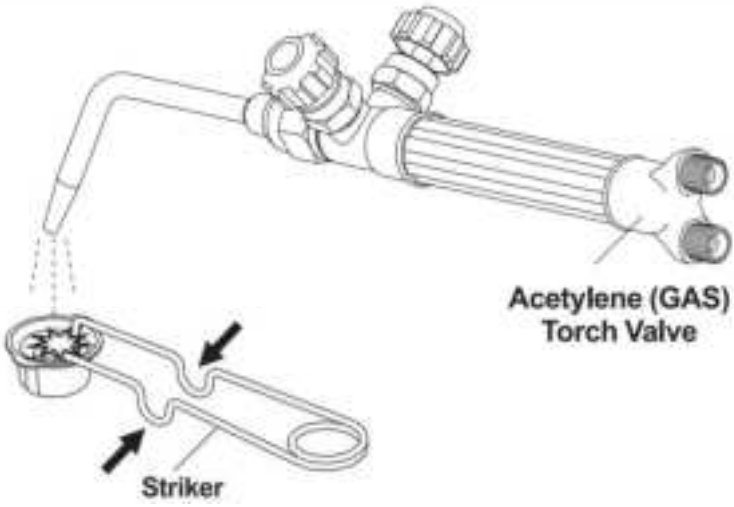


**Welding Step 3:Set Welding Pressures See Table B .**

4.Hold the Torch Handle in one hand and the striker in the other hand.

5. Open the Acetylene Torch Valve about 1/4 turn,and quickly ignite the acetylene gas coming out of the Nozzle by squeezing the handle of the striker, creating a spark.

**WARNING!** Do not use matches or a butane lighter to light the Torch.




**Welding Step 5 : Lighting Acetylene**

6. Put the striker down on a fireproof surface.Slowly open the Acetylene Torch Valve farther until the flame feathers at its edge slightly, as shown below.

Cutting Step 6:Slowly Open Acetylene Torch Valve Until Flame Feathers

7. Flame Adjustment:

a. Starting to Add Oxygen:Slowly open the Oxygen Torch Valve The flame will change to a carbonizing flame with a blue/white inner core, a white halo surrounding the core and a light orange flame as shown in Welding Step 7 illustration, below left.

b. Proper Oxygen Mix:Continue slowly opening the Oxygen Torch Valve until the large light orange section of the flame becomes nearly colorless and the center of

the flame has a white core with little or no halo.This is the "neutral" flame needed for operation as shown in Welding Step 7 illustration, below center.

c. Too Much Oxygen:If you open the Oxygen Torch Valve too far. The large section of the flame will be bluish-orange and the inner core will be small as shown in Welding Step 7 illustration, below right.Close the Oxygen Torch Valve slightly until you achieve the flame described in step b above.

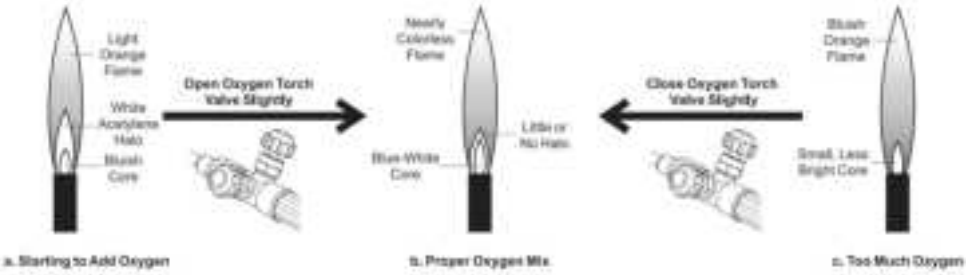
**WARNING!**Wear appropriate welding goggles.

8.After the flame is adjusted as explained and illustrated, proceed with welding.

**Note:**Oxygen-acetylene welding is a two-handed process:

one hand controls the torch.while the other hand controls a filler rod (sold separately).Proper welding techniques and weld preparation are outside the scope of this manual.Welding books and classes are recommended to teach proper methods and technique.

9. After welding, follow shutdown instructions on facing page.

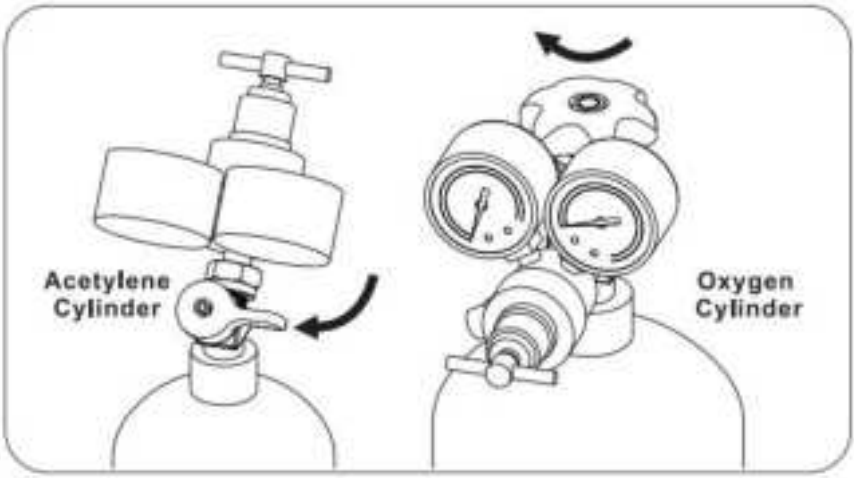



Welding Step 7:Welding Flame Adjustment

## Welding Shutdown Instructions

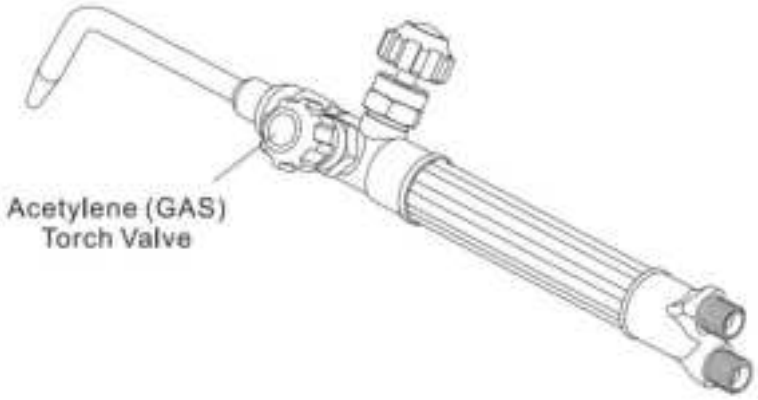
1. After work is complete,close the Oxygen Torch Valve first clockwise, then close the Acetylene Torch Valve clockwise  .

2.Fully close both cylinder valves,turning clockwise.



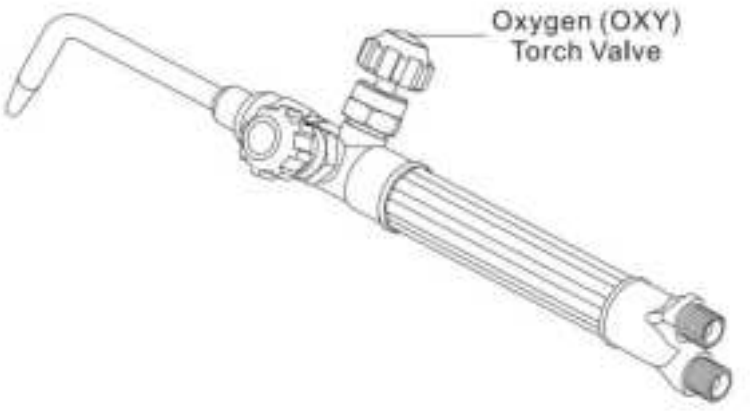

**Shutdown Step 2:Close Cylinder Valves**

3.Open the Acetylene Torch Valve counterclockwise to allow all the pressure to bleed out.




**Shutdown Step 3:Open Acetylene Valve**

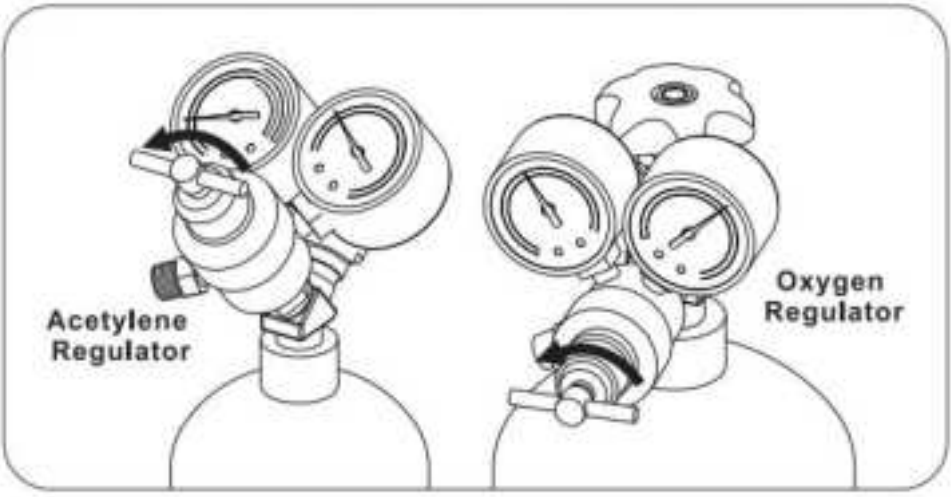
4. Open the Oxygen Torch Valve counter clockwise to allow all the pressure to bleed out.




**Shutdown Step 4:Open Oxygen Valve**

5.After releasing pressure,turn the Pressure Adjusting Screws counterclockwise and remove them from the regulators.

**IMPORTANT!** Failure to do this may permanently damage the Regulators.




**Shutdown Step 5:Close Regulators**
**(Turn counterclockwise until loose.)**

## Maintenance Instructions

Procedures not specifically explained in this manual must be performed only by a qualified technician.

 AWARNING

TO PREVENT SERIOUS INJURYFROM ACCIDENTAL OPERATION:

Close the oxygen,then acetylene and allow the torch to cool completely,then disconnect the hoses before performing any inspection,maintenance,or cleaning procedures.

TO PREVENT SERIOUS INJURY FROM TOOL FAILURE:

Do not use damaged equipment.If abnormal noise,vibration,or leaking gas occurs,have the problem corrected before further use.

1. BEFORE EACH USE,inspect the general condition of the Torch Kit.Check for loose hose connections,cracked or worn hoses,and any other condition that may affect its safe operation.

If any abnormal condition occurs or is noticed,have the problem corrected before further use.**Do not use damaged equipment.**

2.Periodically use a tip cleaner to clean out Cutting Tip and Welding Nozzle.

3.To clean the outer body of the Cutting Attachment use a clean,dry,cloth.Do not immerse any part of the Cutting Attachment in ANY liquid.

Do not use solvents or other flammable agents to clean the Cutting Attachment

| MAINTENANCE CHART | | |
|---|---|---|
| Maintenance Type | Before Use | After Use |
| Inspect tool for damage. | X | X |
| Use tip cleaner to clean tip opening | X | X |
| Wipe off with clean.dry cloth<br>NEVER USE SOLVENTS TOWIPE DOWN THIS CUTTING ATTACHMENT. | | X |

## Troubleshooting

| Problem | Possible Causes | Likely Solutions |
|---|---|---|
| Before turning on Torch, gas odor is noticed. | 1.Hose connections loose. 2.Crack in hose.<br>3.Cylinder leak at neck. | 1.Tighten all connections.<br>2.Check hoses.If any cracks are found, replace entire hose. DO NOT PATCH OR TAPE GAS HOSES.<br>3.Check neck area of cylinders.<br>If cracks or damage are found,do not use. Secure upright,in a well-ventilated area,well away from sources of ignition.Contact gas supplier IMMEDIATELY. Replace cylinders before proceeding with work. |
| Flame is irregular | 1.Cutting tip clogged or dirty<br>2.Gas low. | 1.Close gas,oxygen first.then acetylene. Let Torch cool completely.<br>Remove Tip,check for dirt and debris.<br>Use tip cleaner to clean Tip or replace if necessary.<br>2.Check gas level and refill if needed. |
| Follow all safety precautions whenever diagnosing or servicing the tool. Disconnect air supply before service. | | |

## Parts List and Assembly Diagram

| Part | Description | Qty |
|---|---|---|
| 1 | Carry Tote | 1 |
| 2 | Acetylene Regulator | 1 |
| 3 | Oxygen Regulator | 1 |
| 4 | Welding Tip | 2 |
| 5 | Wrench | 2 |
| 6 | Torch Handle | 1 |
| 7 | Hose | 1 |
| 8 | Goggle | 1 |
| 9 | Lighter | 1 |
| 10 | Tip Cleaner | 1 |
| 11 | 88-3 Check Valve | 2 |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