



INDUSTRIAL MAPP & PROPANE GAS BRAZING TORCH

MODEL NO: **SMGT02**

Thank you for purchasing a Sealey product. Manufactured to a high standard, this product will, if used according to these instructions, and properly maintained, give you years of trouble free performance.

IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS & CAUTIONS. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. KEEP THESE INSTRUCTIONS SAFE FOR FUTURE USE.



Refer to
instruction
manual



Wear eye
protection



Wear a mask



Wear protective
gloves

1. SAFETY

1.1. GENERAL SAFETY

- ✓ **Important:** Read these instructions for use carefully so as to familiarize yourself with the appliance before connecting it to its gas cartridge or gas cylinder. Keep these instructions for future reference.
- ✓ This manual is a guide to the safe and efficient operation of a propane, MAPP, and MAP//Pro brazing / soldering apparatus.
- ✓ If the apparatus is not used in a propane, MAP//Pro or MAPP brazing / soldering application, the operator must still follow those safety and operating procedures that do apply to that particular application. Read this booklet thoroughly and carefully before operating this equipment.
- ❑ **WARNING! DO NOT** attempt to use this apparatus unless you are trained in its proper use or are under competent supervision. For your safety, practice the safety and operating procedures described in this booklet every time you use the apparatus. Deviating from these procedures may result in fire, explosion, property damage, and/or operator injury. If at any time the apparatus you are using does not perform in its usual manner, or you have any difficulty in the use of the apparatus, STOP using it immediately. **DO NOT** use the apparatus until the problem has been corrected!
- ❑ **WARNING!** Service or repair of apparatus should be performed only by a qualified repair technician capable of servicing gas apparatus. Improper service repair or modification of the product could result in damage to the product or injury to the operator.

1.2. FIRE PREVENTION

- ✓ Brazing and soldering operations use fire or combustion as a basic tool. The process is very useful when properly controlled. However, it can be extremely destructive if not performed correctly in the proper environment:
 1. The work area must have a fireproof floor.
 2. Work benches or tables used must have fireproof tops.
 3. Use heat resistant shields or other approved material to protect nearby walls or unprotected flooring from sparks etc.
 4. Keep an approved fire extinguisher of the proper size and type in the work area. Inspect it regularly to ensure that it is in proper working order. Know how to use the fire extinguisher.
 5. Move combustible materials away from the work site. If you can not move them, protect them with fireproof covers.
- ❑ **WARNING! NEVER** use on a container that has held toxic, combustible, or flammable liquids, or vapours. **NEVER** use in an area containing combustible vapours, flammable liquids, or explosive dust. **NEVER** on a closed container or vessel, which may explode when heated.
- ✗ **DO NOT** leave the torch unattended with flame burning.
- ✗ **DO NOT** modify the product.

1.3. PERSONAL PROTECTION

- ✓ Gas flames produce infrared radiation which may have a harmful effect on the skin and especially on the eyes. Select goggles or a mask with tempered lenses as appropriate to protect your eyes from injury and provide good visibility of the work. Always wear protective gloves and flame resistant clothing to protect skin and clothing. Keep collars, sleeves and pockets buttoned, **DO NOT** roll up sleeves or cuff trousers.

1.3.1. VENTILATION:

- ✓ Use only in a well-ventilated area: The appliance must be used in a well-ventilated location in accordance with national requirements, for the supply of combustion air and to avoid the dangerous building up of unburnt gases.
- ✓ Certain combinations of metals, coatings, and gases generate toxic fumes. Use respiratory protection equipment in these circumstances. When welding/brazing, read and understand the Material Safety Data Sheet for the welding/brazing materials being used.
- ✓ This appliance shall only be used with the correct gas cylinder, See Specification below.
- ✗ **DO NOT** use the appliance if it has damaged or worn seals.
- ✗ **DO NOT** use an appliance which is leaking, damaged or which does not operate properly.
- ✓ Use the product away from flammable materials.
- ✓ Gas cylinder shall be changed in a well-ventilated location, preferably outside, away from any sources of ignition, such as naked flames, pilots, electric fires and away from other people.
- ✓ If there is a leak on your appliance (smell of gas), take it outside immediately into a well-ventilated flame free location where the leak may be detected and stopped. If you wish to check for leaks on your appliance, do it outside. Do not try to detect leaks using a flame, use soapy water.
- ✗ **DO NOT** modify the product.
- ✓ Professional repair only.

1.4. SAFETY: CHANGING CYLINDER

- ✓ Check that burners are extinguished before disconnecting the gas cartridge or gas cylinder.
- ✓ Check the seals before connecting a new gas cartridge or gas cylinder to the appliance.
- ✓ Change the gas cartridge or gas cylinder outside and away from people.
- ✓ Check that the cartridge is empty before changing it (shake to hear the noise made by the liquid).

2. INTRODUCTION

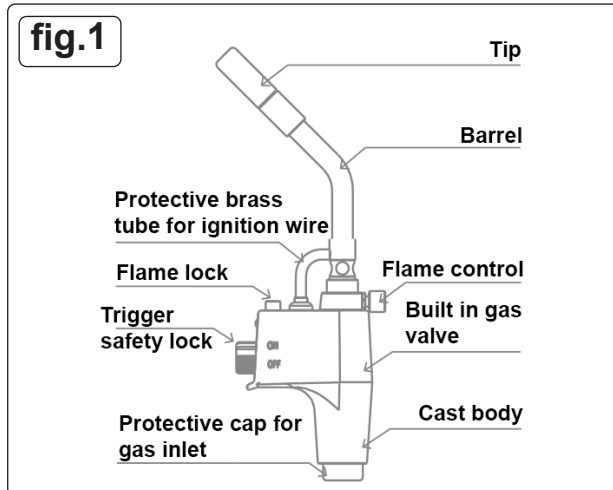
Auto-start/stop ignition, instant cut off and auto flame lock for continuous use. Torch can be used for soldering and brazing copper pipes, automotive repairs, loosening rusted nuts and lots of other heat-treating jobs. Valve on the side of the torch allows you to precisely adjust the flame depending on the desired application. Nozzle keeps flame stable and consistent even when torch is tilted or upside down. 100% Rugged brass inter-structure avoids any potential gas leaks. Suitable for use with Sealey Mapp Gas (MAPP/400) and propane gas bottles.

3. SPECIFICATION

Model No:SMGT02
Weight:..... 0.55kg

Consumption of Mapp gas: 3.5g/min/0.035 kW/hr

4. FEATURES

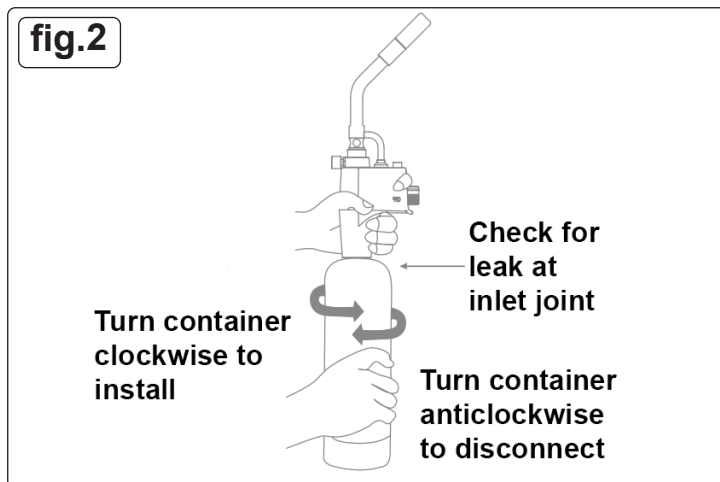


Mapp bottle not supplied

5. ASSEMBLY

5.1. FIT GAS BOTTLE

- 5.1.1. Ensure the Trigger Lock is in the "OFF" position (Figure 1).
- 5.1.2. Install a Propane, MAP/Pro or Mapp container into the inlet connections of the torch. Hold torch and tank upright; install tank into torch inlet connection by turning tank counter clockwise until it is attached securely, fig.2.
- 5.1.3. Check connections for leaks.



- ❑ **WARNING!** This is a flame producing device using liquefied fuel gas under pressure. Improper assembly, abuse, or misuse may allow the fuel to leak. Before using, check all connections for leaks using a soapy-water solution. Do this away from flames, sparks or spark producing devices.
- ✗ **DO NOT** use flames to test for leaks. Test with pressure on low for no more than 30 seconds at a time. If a leak is detected, retighten and check again. **DO NOT** use if the leak can not be corrected. Return to place of purchase.
- 5.2. When disconnecting equipment from a fuel cylinder, do so away from flames, sparks or smoking materials.
NOTE: The use of acetylene or any fuel gas other than MAPP/400, used this torch may cause a fire or explosion.

6. OPERATION

6.1. LIGHTING THE TORCH

- 6.2. Squeeze trigger slowly, allowing gas to flow into tube. Continue to squeeze trigger until torch lights.
- 6.3. If torch does NOT light, squeeze trigger again.
- 6.4. Adjust the gas flow after ignition until a satisfactory flame size, fig.3.

fig.3



CORRECT ADJUSTMENT:

Compact flame-dark blue points
Extending from tip about 25-30mm beyond end of tip.
Tip remains cool.



TOO LITTLE GAS:

Soft flame-pressure too low to achieve proper mix. Tip will overheat. Darker blue portion of flame barely visible from end of tip. Flame pink in colour.



TOO MUCH GAS

Darker blue portion of flame comes out from tip. Combustion taking place beyond flame tube.

6.5. FLAME SETTING

- 6.5.1. This equipment is an oxygen-free combustion supporting welding torch. All the oxygen required during combustion is sucked in by itself near the nozzle.
- 6.5.2. The flame forms about 25mm inside the nozzle of the torch barrel, and the cooling of the barrel is completely maintained by the air sucked in by itself.
- 6.5.3. The opening degree of the gas volume valve determines the flame intensity. Lower flame intensity will not meet the cooling requirements of the barrel, and in severe cases, it will cause the nozzle of the barrel to burn red or even burn out the automatic ignition system. This is completely different from oxygen combustion supporting torches, such as oxygen-acetylene welding, where the flame is formed outside the barrel, and the oxygen required for combustion is provided by the combustion supporting oxygen cylinder.

6.6. HEATING TECHNIQUE

- 6.6.1. The maximum heat zone is very concentrated. It is located between 10-20mm away from the end of the tip, fig.4.
- 6.6.2. If you hold the torch too close or too far away, there will be noticeably less heat. Adjusting the heating angle can also increase the heat of the target, fig.5.

Maximum heat zone



fig.4

- a) To obtain maximum target heat
- b) Less effective heating angle

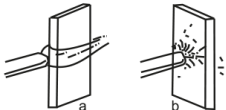


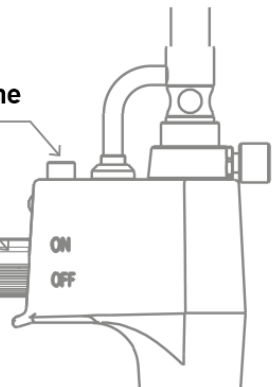
fig.5

fig.6

Press to lock flame

Trigger knob groove

Squeeze to open valve and ignite



6.7. TEMPERATURE CONTROL

- 6.7.1. To reduce the heating temp, several approaches are recommended:
Move the flame farther away from the target.
Use propane fuel instead of MAPP fuel.

NOTE: DO NOT lower regulator pressure to reduce heat output. This will cause the tip to overheat or may even burn out the automatic ignition system.

❑ **WARNING!** Remember the torch tip may be HOT and can cause a burn if touched.

6.8. TRIGGER LOCK ENGAGE

- 6.8.1. Make sure the trigger is in the "ON" position, fig.6.
Pull the Trigger fully inward and push the Lock Button downward.
- 6.8.2. Hold the Lock Button and release the Trigger.

6.9. TRIGGER LOCK DISENGAGE

- 6.9.1. Pull the Trigger inward and the Lock Button will pop up.
Turn the trigger into Off position.

NOTE: NEVER leave the torch unattended with flame burning.

6.10. FLARING

- 6.10.1. Operating the torch in an upside down position is not recommended. Increased flame size, known as "flaring" can occur when the torch is operated in an upside down position over a period of time at cold temperatures (below 4°C). Liquid fuel requires heat to change to a gaseous state and upside down operation causes the regulator to cool rapidly, thus liquid may enter the torch causing flaring.

NOTE: Flaring is usually preceded by noticeable sputtering or spitting of the flame.

6.11. TORCH DISASSEMBLY

- 6.11.1. Release the trigger to extinguish the flame.
- 6.11.2. In a well-ventilated area away from flame or source of ignition, disconnect the fuel container by turning it counterclockwise.
- 6.11.3. Slightly pull the Trigger to vent the remaining fuel inside the torch.

NOTE: Torch may light and momentarily burn the remaining gas.

6.12. STORAGE

6.12.1. After disassembly, position the Lock Button in the "OFF" position.

- **WARNING!** Store the torch and fuel container in a well-ventilated area away from any flame or source of ignition. Always separate torch and fuel container after use. **DO NOT** store the tanks in a room used for habitation, closed or confined space, near open flames, heaters, or in direct sunlight. Protect tank and torch from damage. Keep out of the reach of children.

7. MAINTENANCE FIG.7

7.1. TORCH CLEANING

7.1.1. The Tip end and nozzle may require periodic cleaning. This condition is noticeable when the flame softens or has a change in appearance

NOTE: Make sure there is no any remaining gas inside torch.

7.1.2. Torch cleaning or parts replacement should be carried out by professionally trained persons.

- ✖ **DO NOT** attempt to clean nozzle with a wire or other object. Nozzle hole may become enlarged which will cause air/fuel tip to operate improperly.

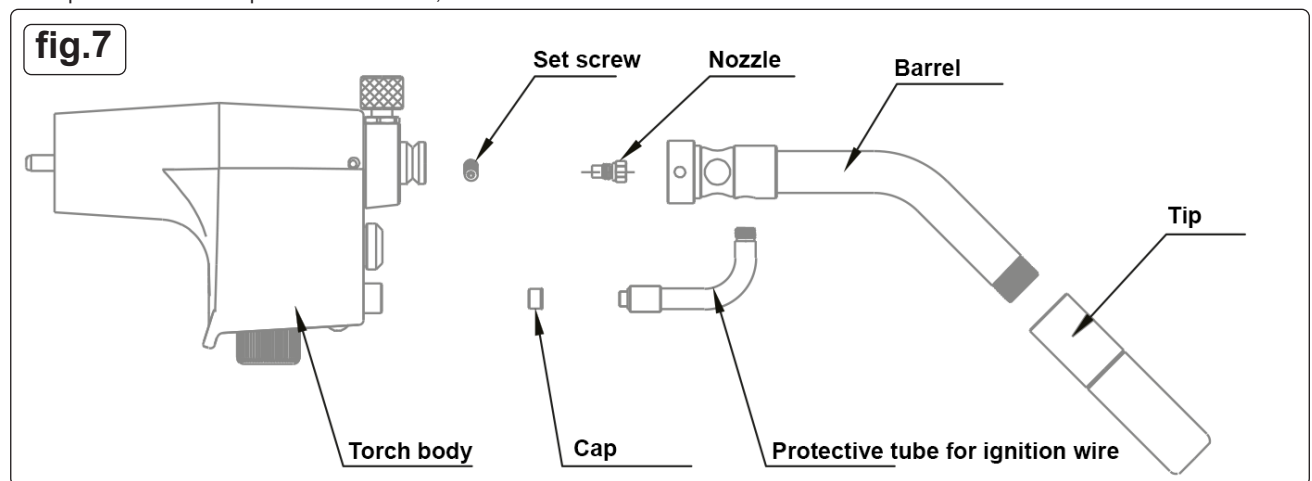
7.1.3. Users can replace appropriate torch head according to their needs.

7.1.4. Using an S=2mm hex wrench to remove the set screw what fix the barrel assembly, remove the barrel assembly as a whole,

7.1.5. clean or replace the orifice kit.

7.1.6. In the case of replacing the high-voltage ignition wire, refer to Figure 7.

7.1.7. Once parts have been replaced on the torch, re-check connections for leaks.



8. TROUBLESHOOTING

Symptom	Possible Cause	Remedy
Torch will not light	Regulator pressure incorrectly set	Set the flame control knob opening at 1/4 ~ 1/2.
	Trigger pulled too quickly	Pull Trigger slowly and steadily, let the fuel gas flow to the tip before ignition.
	Fuel cylinder empty	Replace with full cylinder.
	Orifice, filter screen, or tip end clogged with debris	Clean clogged components.
	Excessive moisture.	Remove tip end to dry all parts.
Flame softens, turns yellow, or does not heat effectively	Orifice, filter screen or tip end clogged with debris	Clean clogged components
Tip end overheats or turns red	Regulator pressure set too low	Set flame control knob opening to greater than 2/3
	Orifice, filter screen or tip end clogged with debris	Clean clogged components
	Fuel supply nearly empty	Replace with full fuel cylinder
Unstable or erratic flame	Torch operated in wind	Avoid operating in windy conditions
	Leak present	Check for leaks and correct as necessary



ENVIRONMENT PROTECTION

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.



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PURCHASE HERE

Note: It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice.

Important: No Liability is accepted for incorrect use of this product.

Warranty: Lifetime guarantee. Proof of which is required for any claim.

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