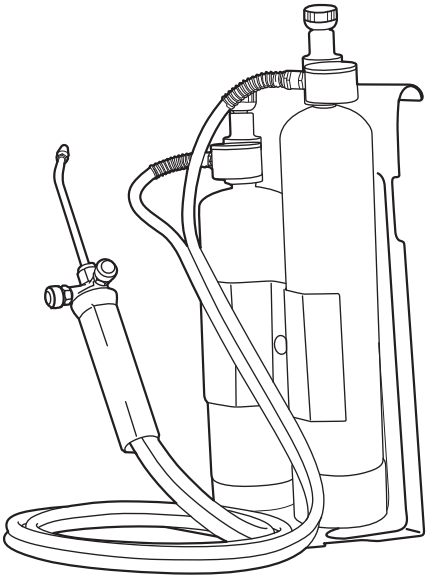
PRODUCT MANUAL

OXYPOWER Blow Torch Kit

PART NO: 212001



IMPORTANT

Read instructions before operation.
Save these instructions.

Congratulations on the purchase of your OXYPOWER Blow Torch Kit.

This equipment is designed for metal cutting, soldering, brazing, welding, hardening and heating of all ferrous and non-ferrous metals. This gas equipment is able to weld metal without the use of oxy-acetylene equipment. With a total weight of less than 5kg including cylinders, this kit allows you to carry out jobs similar to those performed by much heavier equipment in areas when larger equipment is not practical.

Please follow the instructions in order to obtain the best working performance of this equipment. Great care should be taken in using this equipment as it reaches very high working temperatures.

GENERAL INSTRUCTIONS

A gas such as TF/ULTRA GAS - Performance Gas – MAPP® Replacement* or Propane (referred to as fuel in this document) is liquefied in the cartridge and therefore the contents of the cartridge can be estimated by the weight of the cartridge.

Oxygen is compressed gas within the cartridge and the difference between the weight of a full cartridge and of an empty one is not easily recognised.

The oxygen regulator is fitted with a high- pressure gauge that allows you to check the contents of the oxygen cartridge. As the oxygen is stored in a gas state it is impossible to ascertain the contents of the oxygen cartridge by the weight of it. When the oxygen cartridge is full, the gauge should read 110 bar of pressure. This indicates that the oxygen cartridge is full. When the oxygen cartridge is empty the gauge should read 0 bar of pressure.

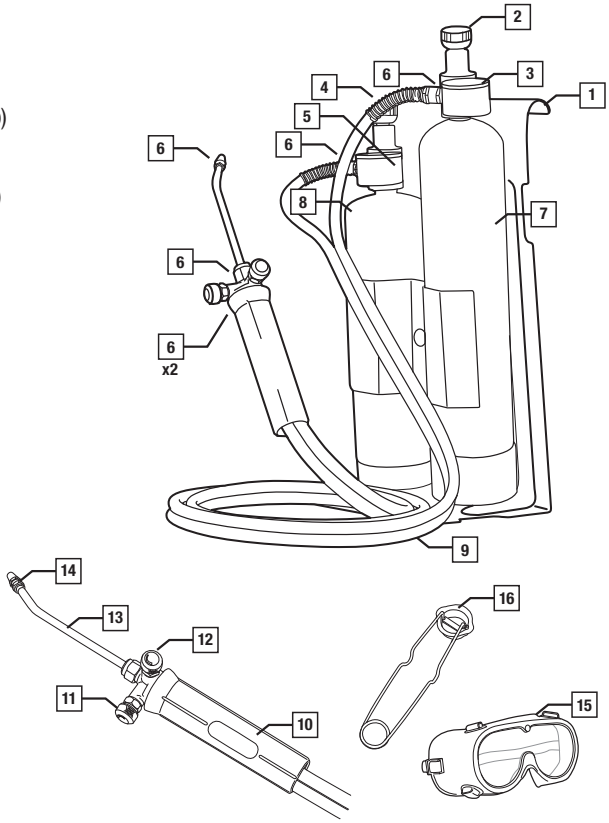
The fuel regulator is fitted with a low-pressure gauge that allows you to check and control the delivery of the fuel released from the fuel cartridge.

The quoted approximate use times have been calculated considering a correct mixture of oxygen and gas. Incorrect mixtures could alter these times considerably.

When storing this kit, we recommend removing the regulators from the cartridges completely.

PRODUCT IDENTIFICATION

1. Metal carry stand/cartridge holder
2. Oxygen pressure regulator (blue knob)
3. Oxygen pressure gauge
4. Fuel pressure regulator (orange knob)
5. Fuel pressure gauge
6. Flash back arrestors
7. Oxygen cartridge (not included)
8. Fuel cartridge (not included)
9. Hose
10. Torch handle
11. Torch oxygen control knob (blue)
12. Torch fuel control knob (orange)
13. Lance
14. Replaceable tip
15. Welding goggles
    (Do not use with electric welding)
16. Ignition striker



*MAPP® is a registered trademark of the Linde Group

TO ASSEMBLE

1. Ensure the fuel regulator valve is off (turn knob **4** fully clockwise to **-**).
2. Make sure the seal inside the fuel regulator is seated properly and is in good working condition.
3. Screw the fuel regulator **4** onto the fuel cartridge **8** in a clockwise direction, hand tighten only. DO NOT OVER TIGHTEN.
4. Ensure the oxygen regulator valve is off (turn knob **3** fully clockwise to **-**).
5. Make sure the seal inside the oxygen regulator is seated properly and is in good working condition.
6. Screw the oxygen regulator **2** onto the oxygen cartridge **7** in a clockwise direction, hand tighten only. DO NOT OVER TIGHTEN.

NOTE: It may be easier to screw the cartridges onto the regulators in a clockwise direction. Hand tighten only. DO NOT OVER TIGHTEN.

IMPORTANT: Before lighting the flame make sure that all connections have been properly made. Check that there are no leaks with the appropriate gas leak spray or a solution of soapy water. Repeat this operation every time a cartridge is replaced.

STAND ASSEMBLY INSTRUCTIONS

This equipment is supplied with a metal stand / cartridge holder.

1. Once you have connected the cartridges to the regulators, slide each cartridge into one side of the stand, making sure that the butterfly nut on the back of the stand is screwed onto the bolt just enough to hold the front metal cartridge strap in place.
2. Once you have both cartridges inserted into the stand, tighten the butterfly nut until it stops. Do not over tighten as you will damage the butterfly nut or the centre bolt.
3. When inserting the cartridges make sure that the hoses are not tangled, and the cartridges are put on the correct sides of the stand in order for the hoses not to be crossed.

INSTRUCTIONS FOR USE

The kit uses a non-refillable oxygen cartridge (white) and a non-refillable gas cartridge (yellow or blue). These must be purchased separately. See specifications on page 7.

Before beginning the work, ensure the valves of the torch are closed.

Make sure that:

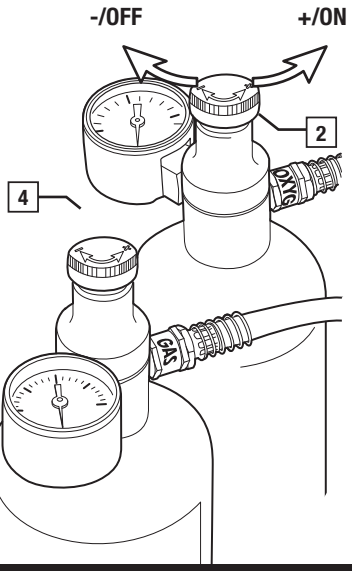
- **The 11 torch oxygen valve** is completely closed by turning the blue knob in a clockwise direction.
- **The 12 torch fuel valve** is completely closed by turning the orange knob in clockwise direction.
- **The 2 oxygen cartridge regulator valve** is completely closed by turning the blue knob in a clockwise direction.
- **The 4 fuel cartridge regulator valve** is completely closed by turning the orange knob in a clockwise direction.
- **Both pressure regulators** are completely tightened on the cylinder (clockwise direction).

TO IGNITE

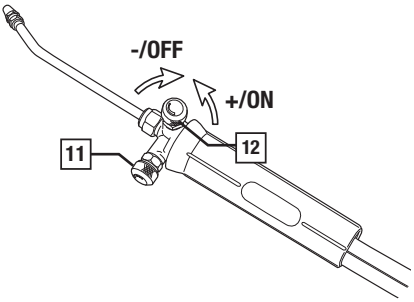
It is recommended that in normal use the pressure regulator knobs are opened completely, with flame adjustment controlled by the torch knobs. For storage, transport and cartridge replacement, the pressure regulator knobs should be completely closed.

1. Turn the blue knob of the oxygen cartridge pressure regulator 2 in an anti-clockwise direction until fully open. Turn the orange knob of the fuel cartridge pressure regulator 4 in an anti-clockwise direction until fully open.
2. Turn the orange fuel knob of the torch 12 anti-clockwise to open **and immediately** ignite the torch using an ignition source (striker 16 included with the kit). Note that if the fuel knob allows too much fuel, the flame will not ignite.
3. Regulate the pressure of the fuel using the fuel knob on the torch until the yellow flame remains attached to the tip of the torch.

Cartridge Regulator Knobs



Torch valve knobs



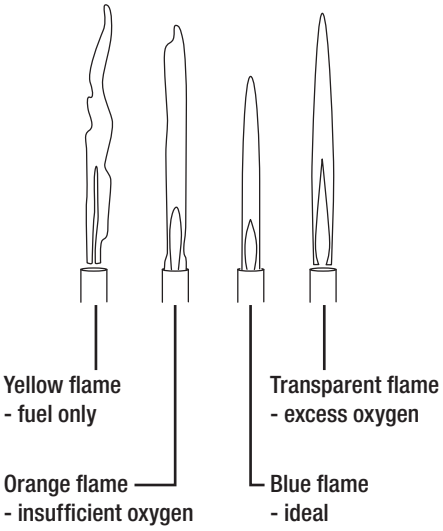
4. Slowly turn the blue oxygen knob of the torch [11] anti-clockwise to open until you obtain a light blue flame.
5. An excess of oxygen can cause the flame to separate from the torch tip or to extinguish. In this case close the oxygen and fuel valves and repeat the operation from point 1.

The equipment is now ready to perform your work.

By regulating the amount of fuel and oxygen it is possible to obtain several different flames for carrying out different types of work from heating to cutting.

We recommend only turning the fuel and oxygen on once the material for work is ready: this avoids wasting oxygen and fuel, and reduces the risk of accidental ignition.

Flame types



TO EXTINGUISH

1. Slowly close the blue oxygen knob of the torch [11] by turning it clockwise. The flame colour should change to a yellow colour indicating that the oxygen has now been removed from the flame.
2. Slowly close the orange fuel knob of the torch [12] by turning it anti-clockwise. This should then extinguish the flame all together.
3. Turn both the orange [4] and blue [2] knobs at the regulators in a clockwise direction. This will close off the gas and oxygen at the regulators.
4. To purge the fuel and oxygen from the hose and torch, turn both torch knobs in an anti-clockwise direction for a short period, then close again.

Storage

1. Always disconnect the regulators from the cartridges when not in use.
2. Store the torch and cartridges is a safe, dry place.
3. Keep out of reach of children.
4. Never expose cartridges to heat, sparks, or flame. Never leave in direct sunlight. Never store at temperatures above 49°C (120°F).
5. Never store in living spaces.
6. Never refill these cartridges. Refilling may cause explosion. It is illegal to refill these cartridges.
7. Never put in luggage or take on trains or aircraft.
8. To discard, contact local recycle centre. Never put in fire or incinerator. Do not puncture.

SAFETY

Welding equipment regulators ensure supply at low and constant pressure. In addition, the equipment has six flash back arrestors that ensure equipment safety.

Always inspect this equipment before use. This includes connections, hose and torch assembly. If you detect a leak in the equipment (gas smell), bring it immediately outside in a well-ventilated area with no flammable sources, where you can find and stop the leak. If any problems exist DO NOT attempt to use this equipment.

- Always extinguish the flame before placing torch on a surface.
- Ensure hose is not bent.
- Never point the flame towards cartridges (they should never get hot), hoses (they can burn), parts of the body or other persons.
- Do not operate the equipment in space-constrained sites.
- Place the equipment main body on a horizontal surface.
- Use the equipment outside or in a well ventilated place.
- Work in a safe and clean area and remove all oily and combustible materials, and fire hazards.
- Wear necessary equipment for eye protection.
- Avoid oily or greasy clothing.
- Wear protective gloves that avoid burns when handling hot materials and equipment, allow the welded material and the components to cool down before touching or moving them to a different location.
- Wear protective clothing to avoid contact of parts of the body with sparks and hot material.
- Do not try to move the equipment by pulling the hoses.

IN THE EVENT OF A FIRE

If safe to do so, immediately close oxygen cartridge valve; this should be enough to extinguish the flame. Close fuel cartridge valve as well and extinguish fire with appropriate firefighting equipment.

If the danger is too great to fight the fire, leave the equipment, evacuate the area and call the fire authorities.

TIP REPLACEMENT

Ensure all gas supply to the torch is turned off.

Use the appropriate tool to tighten and loosen the tips.

DO NOT over tighten.

Store tips in a clean, dry environment. Any dirt represents a blocking hazard for the tip.

CARTRIDGE REPLACEMENT

It may be easier to remove cartridges from the storage frame before attempting to replace one or both.

1. Close the pressure regulator completely by turning the knob in a clockwise direction (Blue 2 Oxygen, Orange 4 Fuel).
2. Unscrew the exhausted cartridge.
3. Screw the new cartridge and repeat the Assembly Instructions on page 3.

CARTRIDGE SPECIFICATION

For replacement fuel:

TF/ULTRA GAS Part No: 326439
Propane Part No: 326438

For replacement oxygen:

Oxygen Part No: 211423

OXYGEN AND FUEL CONSUMPTION

The rate of oxygen and fuel consumption is strongly influenced by the tip selection, flame size and nature of work.

As an estimate:

TEMP	OXYGEN	FUEL	TIP SIZE	OXYGEN TIME	FUEL TIME
3000°C	110 L Part No: 211423	TF/ULTRA GAS 400 g Part No: 326439	40 L/hr Part No: 211445	2 hr 30 min	14 hr 30 min
			50 L/hr Part No: 211456	2 hr	11 hr 30 min
			70 L/hr Part No: 211467	1 hr 40 min	9 hr
			100 L/hr Part No: 211478	1 hr 10 min	6 hr 30 min

WORK PREPARATION

When using this equipment proper preparation is ALWAYS required. This includes:

1. Cleaning the area to be worked on with sandpaper or a wire brush.
2. Removing any paint or other materials that may inhibit bonding.
3. Using flux when required.
4. Understanding what materials are being worked with and using the appropriate welding, brazing, or soldering rods or solder.

MAINTENANCE

- Use only genuine replacement parts.
- Never use equipment if any components appear damaged.
- Important: Do not carry out any type of operations on single parts; it may result in serious risks for the user. If the equipment does not function properly, contact Customer Service on 1300 555 197.
- Carefully follow instructions provided.
- For maintenance and storage of protective glasses, see the instructions for use provided with them.
- Regular inspection of equipment is required to ensure correct function.
- Many of the components used in this equipment cannot be repaired and are designed this way to ensure safety.

WARNING

- To avoid any injury or damage, only ignite the torch when it is clear of hands, clothing, or any other combustible materials.
- The torch becomes extremely hot during and after operation. Care must be taken to avoid accidental burns.
- Ensure the flame is completely extinguished after use.
- Protect from direct sunlight. Do not expose to temperature above 49°C/120°F.
- The kit is designed to use with flammable gas under pressure. Do not disassemble puncture or incinerate cartridges after use.
- For maximum protection always wear welding goggles (supplied with this kit), gloves and other appropriate safety equipment.
- Keep out of reach of children.
- The installation and adjustment made in the factory of this equipment should not be changed. Altering, removing components and /or using parts which are not recommended by the manufacturer can be very dangerous.
- It is strongly recommended that you only use original parts made for this equipment, oxygen cartridge Part No: 211423, fuel cartridge Part No: 326439 or 326438. Using different types of cartridges can be dangerous. Read the safety section and these instructions carefully before using this equipment.

Tradeflame

Distributed by
TradePem Idustrial Pty Ltd
www.tradeflame.com