



**Mig Series  
OWNER'S HANDBOOK**

# Parker Torchology Mig Welding Torch

## Owner's handbook

Serial number and product warranty code

### Owners guide for

- TWC
- BND
- TRG
- PNA

This guide gives you basic information for the product you have purchased

### Product supplied by



## Basic product data and conformity information



### Basic product data to IEC/EN60974-7

**Process:** This data covers Mig products

**Guidance:** Auto torches are mechanically guided

All other torches are manually guided

**Voltage rating:** 113V Peak value

**Rating:** Please refer [www.parkertorchology.com](http://www.parkertorchology.com) for the individual rating corresponding to your model.

**Gas:** Argon, Argon, CO<sub>2</sub> and mixed gas

**Torch length:** In accordance with your order

**Wear parts:** Have been supplied in accordance with your order and the torch part number.

**Cooling:** Either Gas ( Air ) or Liquid-Cooled in accordance with your order.

Liquid-cooled minimum flow rate is 1.1 l/per min

**Rating of electrical controls incorporated in the torch:**

1A AC/250V AC

**Operating Temperature:** -10°C to +40°C

**Transportation Temperature:** -25°C to +55°C

**Relative Humidity of the Air:** Upto 50% at 40°C / Upto 90% at 20°C

**Maximum and Minimum Bar Gas Pressure at the Inlet:** Minimum 0.4 / Maximum 2.0 Bar

**Maximum Cooling Liquid Pressure:** 5.0 Bar

**Minimum Cooling Liquid Pressure:** 2.5 Bar

**Minimum Water Flow:** Please refer to the specification sheet for your model

**Minimum Cooling Power:** Please refer to the specification sheet for your model

### Conformity information

A sample of this product has been tested and found to be in conformity with the following standards

- IEC /EN 60974-7: Arc welding equipment Part 7 Torches
- 2006/95/EEC Low voltage directive
- Supporting documentation in accordance with EN ISO/IEC 17050-2;2004
- RoHS2 compliance to 2011/65/EU
- REACH compliance to 1907/2006/EC





## Important Safety Instructions

### Read all instructions before using this product

Parker Torchology Mig Welding torches are safe products to use, but like all modern tools they can be dangerous in untrained hands. Welding torches are not Do-It-Yourself (DIY) products. They are to be used only by fully trained welding professionals. You should be fully aware through your training of the dangers and consequences of misuse and the dangers to other persons in the vicinity of your welding operation.

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### Notice of Risk

This product can at times involve substantial risk of injury, property damage, and other dangers. Dangers peculiar to welding activities include but are not limited to:

#### Electric Shock

Electric shock can lead to severe injury or death, either from the shock itself or from a fall caused by the reaction to a shock.

#### Fumes and Gases

Welding fumes contains potentially harmful complex metal oxide compounds from consumables, base metal and the base-metal coatings. You should always assume that all metal vapours given off during the welding process are harmful. Always refer to the MAC (Maximum Allowable Concentration) values for your country of working. Work pieces that have been cleaned with chlorinated solvents should be thoroughly washed in clear water otherwise there is a risk of phosgene gas formation. For the same reasons, no welding should take place in the vicinity of degreasing plants containing Chlorine.

#### Fire and Explosion

The welding arc creates extreme temperatures and may pose a significant fire and explosions hazard if safe practices are not followed. Whilst the welding arc may reach temperatures of over 5000°C, the real danger is not from the arc itself, but rather the intense heat near the arc and the heat, sparks and spatter created by the arc. This spatter can reach up to 10mt from the welding position. It is common sense to make sure there are no flammable materials close to the welding process and always ensure that there are no residual risks of fire after the completion of the weld process. It is always advisable to have fire extinguishers close to hand.

#### Burns

By its nature, welding is a hot process, always be aware that previously welded parts may still be hot. Always wear protective clothing suitable for the process.

#### UV Light Damage

Also known as Arc-eye, or welder's flash, is an inflammation of the cornea and is a result of ultraviolet (UV) radiation released by a welding arc. UV radiation can also cause burns to the skin.

Welding can also be Noisy and because the welder is generally close to the arc, this noise can damage your hearing. It is most important therefore to select welding helmets or goggles with the correct scale of filter for the radiation produced by the welding process and to wear appropriate hearing protection.

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### Pacemaker Users

All welding operations give off some form of magnetic and electrical interference. If you have a pacemaker or some other medical device controlled by an electric current, we strongly recommend you consult your doctor before using any welding or cutting equipment.

Disclaimer. Because these are hand held products, Parker Torchology cannot be held liable for any accidents, incidents, damage to property, the environment, persons or any other incident however caused by the use of its welding products.

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## General Advice

### Performance

All products are rated as per the advertised data and duty cycles. These ratings have been established after extensive testing. Adherence to these values and regular maintenance will ensure a long and satisfactory service life. Using the products outside of these values will result in the melting of some or all components.

### Protective Clothing

Always wear protective clothing that is appropriate for the welding operation being carried out. You will be aware of what to wear from your welding training.

### Connections

Always make sure all connections are clean and tight. We use brass and copper in all connections, be careful not to overtighten these joints. Where ball joints are the prime connection method, always clean the ball seating before making the connection.

If you have ordered a Digital torch, please refer to the separate operations guide. These are specialist products and need specific connection advice. Advice is available from the Technical support team.

### Liquid Cooling

If you are using a Liquid-Cooled product it is recommended that your liquid recirculator is fitted with a flow cut off valve. These valves are set to cut off the electric supply should the liquid flow fall below a preset limit. For Parker Torchology Mig products this is 1.2 litres per minute. Failure of the cooling supply will instantly burn out the power cable. The burnt cable will also destroy the internal cable set components and hoses.

If you are not going to use your Liquid-Cooled torch for any length of time, it is recommended that it is stored in such a way as to allow all the cooling liquid to drain from the torch but not in such a way that the torch will be subjected to excessive bending whilst hung up to dry.

### Contact Tips.

Contact Tips are manufactured from copper and the thread will be damaged if overtightened. 3 n/m is recommended for contact tip tightening.

### Liner Replacement

Liners are precision manufactured parts. Regular maintenance by cleaning with compressed air blown from the back to the front of the liner will remove any welding wire debris accumulating in the liner. Always be careful where the open end is pointing.

After time, the liner will need replacing and can be replaced as follows.

- Lay the torch out straight and with no twists
- Remove the contact tip
- Remove the old liner by removing the liner retaining nut at the back-end connection and pull the liner out of the rear housing
- Using compressed air, blow out the liner conduit
- Inspect the new liner for bends or kinks. If there are any present, then discard the liner. It will only give feed problems. The new liner must be straight and uniform
- Insert the new liner into the torch and re-fit the liner retaining nut. Note the condition of any fitted O-Rings. These effect a good gas seal. Tighten the liner nut using the contact tip spanner to 2.5 n/m
- The liner must now be trimmed at the tip end. Be careful not to twist the torch. Twisting the torch clockwise will cause the liner to extend out of the torch, twisting anti-clockwise will cause it to retract into the torch. The torch needs to be straight with no twists.

- Using a very sharp pair of wire cutters, cut the liner and leave a 5mm stick out. When assembling the tip, the liner should be under slight compression.
- The liner cut must ensure that the liner cut end is pointing to the outside of the liner. If it is pointing into the liner bore it will affect wire feeding. If the wire has been cut into the bore, a small power grinder or hand held carborundum stone will remove the burr.
- Refit the tip

### **Tip Adaptor**

After time the tip adaptor may need replacing.

Unscrew the old adaptor, replace with a new adaptor and retighten to 3 n/m.

It is good practice to replace the diffuser and carry out a general inspection of the neck for any damage at the same time.

### **Swan Neck**

Depending on the torch model, all handles have to be opened to replace the swan neck. The product catalogues include a self-explanatory diagram showing all parts. Whilst the handle is open, it is always advisable to replace the trigger. When reassembling, be careful not to trap any wires.

### **Nozzle.**

It is always good practice to clean nozzles of spatter build up. Clean nozzles will improve gas flow and the resultant weld.

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## **GUARANTEE**

Every Parker Torchology product is manufactured to the highest standards and is guaranteed for 3 months from the date of sale to the end user.

The guarantee covers, and is limited to, a fault developing as a result of faulty workmanship or faulty materials.

### **What is covered?**

- Defective materials used in the manufacture of the product
- Faulty workmanship in the manufacture of the product

### **What is not covered?**

- Incorrect use or damage.
- Normal wear and tear to either the product, or the consumables, supplied with the product.
- Direct or indirect costs of any form arising as a result of a suspected, or actual, defective product

### **How to make a claim**

- This guarantee is limited to the original purchaser of the product, it is not transferable.
- If a fault is suspected, Parker Torchology's sales agent must be contacted and informed of the fault before the product is returned

### **Other Issues**

- Whilst Parker Torchology products will give long and lasting service, due to the harsh and demanding working environment in which the products operate, Parker Torchology retain the right to deal with any fault in a manner that best suits Parker Torchology.
- This guarantee is an addition to Parker Torchology's standard terms and conditions and Parker Torchology's standard Terms and Conditions of Sale will always take precedence over this guarantee.

### **MW May 19**



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