

## TRITON WARRANTY

Thank you for purchasing a Triton Powered Respirator Router.

To register your warranty complete the attached Warranty Registration Card and return it to your local Triton office, within 28 days of purchase.

Alternatively, register online at [www.triton.com.au](http://www.triton.com.au)

Your details will be included on our mailing list for information on future releases. Details provided will not be made available to any third party.

### YOUR PURCHASE RECORD

Date of Purchase: \_\_\_\_/\_\_\_\_/\_\_\_\_

Model: **PRA001**

Serial Number: \_\_\_\_\_  
(Located on base of air filter unit)

Retain your receipt as proof of purchase

Triton Manufacturing & Design Co. Pty. Ltd. warrants to the purchaser of this product that if any part proves to be defective due to faulty materials or workmanship within **12 MONTHS** from the date of original purchase, Triton will repair, or at its discretion replace, the faulty part free of charge.

This Warranty excludes industrial use and damage caused by misuse, neglect, accident or normal wear & tear.

If this product is faulty or requires service please return it to the place of purchase or contact your nearest Triton office (details on below) for arrangements to repair or replace the product. Warranty does not include any freight to and from the user.

## TRITON OFFICES

### Australia:

Triton Manufacturing & Design Co. Pty. Ltd.  
14-18 Mills Street  
Cheltenham Vic. 3192  
Ph: (03) 9584 6977  
Fax: (03) 9584 5510

### Canada:

Triton Woodworking Systems  
PO Box 523  
Cornwall, Ontario, K6H-5T2  
Ph: 1 888 874 8661  
Fax: (613) 938 8089

### Japan:

Japan Australia Corp. Pty. Ltd.  
195 - 1 Kanaido SOJA-shi  
Okayama Ken 719-1114  
Ph: (0866) 90 1415  
Fax: (0866) 90 1417

### New Zealand:

Hills Industries (NZ) Ltd.  
52 Ash Road Wiri, Auckland 1701  
Ph: (09) 262 3052  
Fax: (09) 262 3053

### South Africa:

Tritonova  
PO Box 6391  
Welgemoed 7538  
Ph: 0800 600432  
Fax: (021) 987 6073

### United Kingdom:

Triton Workshop Systems (UK) Ltd  
Pontygwindy Industrial Estate  
Caerphilly South Wales CF83 3HU  
Ph: 0800 856 7600  
Fax: (029) 2085 0118

### USA:

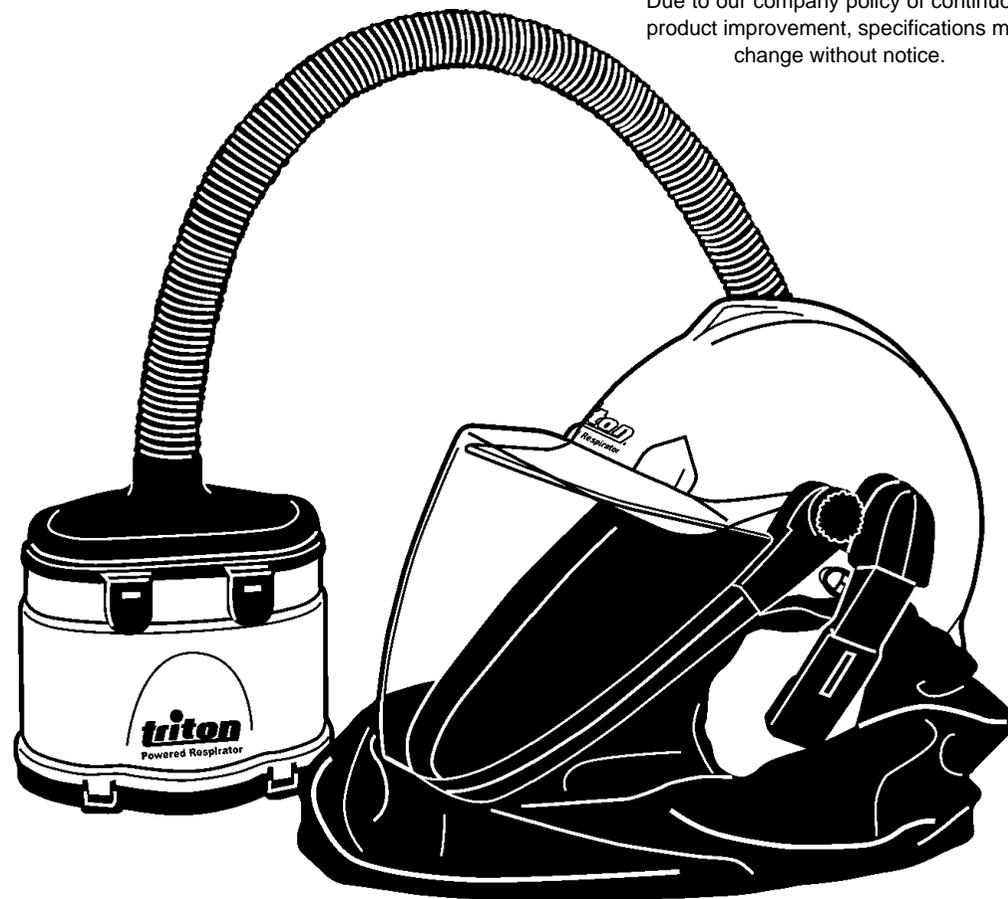
Triton Woodworking Systems  
PO Box 794 Roosevelttown,  
New York 13683-0794  
Ph: 1 888 874 8661  
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A  Hills Company

# POWERED RESPIRATOR

## OPERATING & SAFETY INSTRUCTIONS

Due to our company policy of continuous product improvement, specifications may change without notice.



Thank you for purchasing a Triton Powered Respirator.

These instructions contain information necessary for safe and effective operation of this product. Please keep this manual close to hand and ensure all users have read and fully understand these instructions prior to use.

## LIMITATIONS OF USE

1. The Triton Powered Respirator **DOES NOT** provide protection against:
  - Poisonous dusts, eg. Garden pesticides.
  - Mists, gases or vapour.
  - Low oxygen atmospheres (less than normal atmospheric oxygen).
2. The Triton Powered Respirator is not suitable for use in atmospheres containing flammable gases or explosive dusts (eg spray painting, grain handling facilities, powder coating etc).
3. The Triton Powered Respirator is not recommended for use outside the temperature range from -6°C to 50°C.
4. The Triton Powered Respirator will give reduced respiratory protection if used:
  - with an air flow delivery less than the lower limit, as measured with the supplied flow meter or without the recommended filters in place (refer "Flow Testing");
  - without the air filter unit or with the air filter unit fan "OFF";
  - at very high work rates (eg. running) or in high winds.

## TECHNICAL SPECIFICATIONS

### Respiratory Protection

- The Triton Powered Respirator provides respiratory protection conforming with AS/NZS 1716 "Respiratory protective devices" to performance Class PAPR P1 or PAPR P2 when the recommended filters are used (see "Filters").
- Filtered air flow rate approximately 120 litres per minute (5.3 cfm)
- Running time on full charge - minimum 4 hours.

### Head Protection

The Triton Powered Respirator incorporates a standard industrial hard hat approved to AS/NZS 1801. Fits headband size 53 – 60 cm.

### Eye Protection

The Triton Powered Respirator incorporates a visor conforming with AS/NZS 1337 "Eye protectors for industrial applications" to "high impact resistance" performance level.

### Hearing Protection

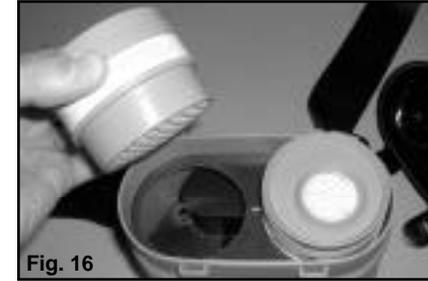
The Triton Powered Respirator incorporates standard earmuffs approved to AS/NZS 1270 "Acoustics - Hearing protectors", 23dB rating.

### Fitting CIGWELD 455481 Filter Cartridges

These filters will only fit one way - with the cylindrical extensions through the holes in the foam sealing face.

Refit the lid, ensuring that the filters are held firmly in place by the two springs on the underside of the lid and are not dislodged during closure. Clip the four hinged catches closed. **Fig. 16.**

Fig. 16



**Important: Do not use activated carbon and chemical type filters.** The high air flow rate will exhaust their protective capacity too quickly to provide any protection.

## SHROUD REMOVAL & REFITTING

The shroud is made from a smooth nylon material to minimise dust and dirt retention. If necessary it can be removed for cleaning purposes:

### Removal:

1. Disconnect the hose from the overhead air duct at the rear of the helmet.
2. Pull the earmuff pads out of the elasticised holes in the shroud.
3. Unhook the elastic loops from near the visor pivot on each side.
4. Pull the air duct hose tail out of the elasticised hole at the rear of the shroud.
5. Separate the hook and loop fastening near the visor pivot point on each side.
6. There is a rubber cord sewn into the front hem of the shroud, pull it out of the trench running around the visor support rim.

### Refitting:

1. **Note:** The shroud has a silver lining, which goes to the inside. Pull the air duct hose tail through the (single) elasticised hole at the rear of the shroud. **Fig. 17.**
2. Push the earmuffs through the two elasticised holes, taking care not to dislodge the earmuff pads.
3. Stretch the shroud around the rear rim of the helmet and locate the elastic loops over the hooks near the visor pivots. **Fig. 18.** There are two elastic cords sewn into the shroud hem, one cord runs above the helmet rim, the other cord runs below.
4. Push the hemmed rubber cord into the trench running around the visor support. **Hint:** Use a smooth edged tool (eg. tooth brush handle). Do not use a sharp edged tool (such as a screwdriver) as this will cut the shroud fabric. **Fig. 19.**
5. Join the hook and loop sections together near the visor pivot point on each side.

Fig. 17

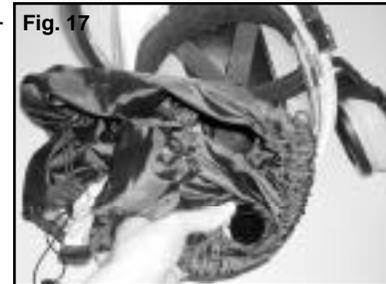


Fig. 18



Fig. 19



## FILTERS

The Triton Powered Respirator uses one cleanable pre-filter and two disposable filter cartridges. A spare pre-filter is also supplied.

**Reduced airflow will result from dirty filters - maintenance should be carried out as detailed below.**

### THE PRE-FILTER

The pre-filter clicks into place in the the base of the air filter unit. Use the finger tab near the on/off switch to aid removal. **Fig. 12.**

### Clean the pre-filter by:

1. Brushing the outside (ribbed) face. **Fig. 13;** or
2. Vacuuming the outside (ribbed) face; or
3. Washing it under running water from the inside (unribbed) face - allowing it to dry completely before use.

If damaged or misplaced, replacement Pre-filters can be ordered through your local Triton outlet by quoting part no. PRA009.

### FILTER CARTRIDGES

The Triton Powered Respirator uses commonly available Protector RC 64 Filter Cartridges (supplied as standard) and CIGWELD 455481 Filter Cartridges.

When used in the Triton Powered Respirator, Protector cartridges meet with the requirements of Performance Class PAPR P1 in AS/NZS 1716 "Respiratory Protective Devices" while CIGWELD meet with Class PAPR P2 requirements. Defined as follows:

**Class P1 (relevant for Protector Cartridges)** - intended for use against mechanically generated particulates of sizes most commonly encountered in industry, e.g. silica (ie. suitable for woodwork); and

**Class P2 (relevant for CIGWELD Cartridges)** - intended for use against both mechanically and thermally generated particulates, e.g. metal fume. (ie. Suitable for woodwork and welding).

The filter cartridges are located in the top of the air filter unit. They are removed by unclipping the lid of the air filter unit via the 4 hinged catches (if tight, push down on the lid whilst releasing the catches). **Fig. 14.**

### Fitting Protector RC 64 Filter Cartridges

Fit the filters, black face down onto the foam seal in the filter unit (note that flow is in the opposite direction to the arrows marked on the filter, this is intentional and has no effect on filter performance). **Fig. 15.**



Fig. 14



Fig. 15

## BATTERY CHARGING

The Triton Powered Respirator air filter unit uses rechargeable Nickel Cadmium (NiCad) batteries. With proper use and care the battery life should be several years and/or 1,000 recharging cycles.

On a full charge, with batteries in good condition, the Triton Powered Respirator should operate for a minimum of 4 hours before the air flow rate falls away.

### For best battery life and performance:

- Recharge the air filter unit as soon as the airflow falls. Refer "Flow Testing". Do not allow it to run until the fan completely stops - this can damage the batteries.
- Avoid repeated recharging of partially discharged batteries - it can lead to NiCad "memory" which reduces run time. "Memory" effect can in some cases be reduced or eliminated by several full charge and discharge cycles.
- Do not leave batteries permanently connected to charge as this will reduce battery life. Charging for periods as long as 72 hours will not damage the batteries.
- Long periods of storage, particularly in a discharged state, can reduce battery life. It is recommended that approximately once per month the Triton Powered Respirator is fully recharged, then run until the flow drops below normal (see Flow Testing), then again fully charge to minimise both memory and storage effects.

### Initial Charging

1. With the air filter unit switched "off", plug the AC adaptor jack into its' socket next to the on/off switch on the underside of the air filter unit.
2. Connect the AC adaptor to mains power and switch on. The red LED on the filter will illuminate when properly connected.
3. Charge for at least 15 hours prior to use. **Note:** It is normal for both the charger and the batteries to heat up during charging.

### Recharging

- Once the airflow begins to fall, recharge the batteries as outlined above. NiCad batteries provide an almost constant performance until they are almost fully discharged - at this point performance will fall rapidly. Although obvious to the user, it can be confirmed using the flow meter supplied (see "Flow Testing").

**Warning:** Use only the AC adaptor supplied with this product. **Do not "fast charge"**.

### Battery Replacement

- If battery life has expired a replacement Power Module (part no. PRA008 - **Fig. 1**) can be ordered through your local Triton outlet **Note:** Individual batteries cannot be replaced.

For high continuous use a spare complete Air Filter Unit (part no. PRA030 - **Fig. 2**) is recommended.

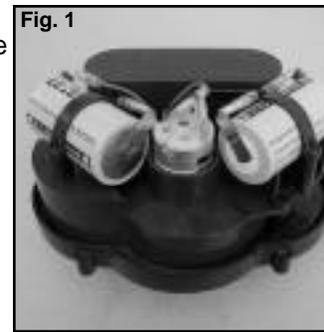


Fig. 1



Fig. 2

## FLOW TESTING

Before use and whenever a reduction in air flow is noted, a flow test using the supplied flow meter is recommended.

1. Check that the 2 filter cartridges and pre-filter are correctly fitted (See "Filters").
3. With the hose disconnected from the air filter unit hold the large end of the flow meter hard against the air outlet. **Fig 3.**
2. Switch on the air filter unit, ensuring that the air entry into the pre-filter is not restricted (ie. not sitting on a bench), and note the position of the floating ball in the flow meter. Air flow is adequate if the ball is within or above the circle. If the ball is below the circle air flow is insufficient.



**NOTE: Full air flow performance may not be achieved until the motor "runs in" after 1 to 2 hours of operation.**

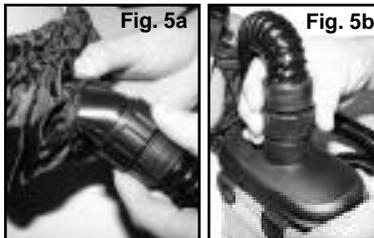
5. If air flow is insufficient possible causes and actions are:
  - Discharged batteries – recharge air filter unit.
  - Dirty pre-filter – clean or replace the pre-filter (see "Filters").
  - Dirty filter cartridges – replace (see "Filters").

## FITTING & OPERATING

Before each use:

- Check the flow rate as specified in "Flow Testing".
- Check the shroud for correct fitting (See "Shroud Removal & Fitting"). Any small gaps or openings will reduce respiratory protection.

1. Adjust the helmet headband to suit your head size using the winder inside the rear of the helmet. **Fig. 4.** This adjustment is best done while you are wearing the helmet. The headband should be comfortable, but firm enough to stop the helmet from flopping forward.
2. Fit one end of the hose onto the air inlet at the rear of the helmet. Screw the loose cuff clockwise to tighten the hose firmly into position. **Fig. 5a.** Tighten the other end of the hose onto the air outlet on the top of the air filter unit. **Fig. 5b.**
3. Strap the air filter unit to your waist, adjusting the belt for comfort.
4. Raise the visor and place the helmet on your head while pulling the earmuffs outward (away from each other) until they click in the "out" position. **Fig. 6.**



5. Slide the air filter unit around the belt to your side. Push-fit the hose onto it and relocate the hose clamp to secure the hose to the unit. Turn on the unit via the switch on the underside and close the visor. Reposition the unit for comfort as desired.



6. Adjust the drawstring around your neck until it is only possible to slip one finger inside the drawstring (similar to the fit of a business shirt collar and tie). **Important:** This adjustment is necessary for maximum performance and respiratory protection. **Fig. 7.**

7. Engage the earmuffs by pushing them inward until they "click" fully home. **Fig. 8.** **Note:** It may be necessary to rock the helmet sideways a little until they "click" fully in. When hearing protection is not required, "click" the earmuffs outward. **Fig. 9.**



**Important:** Do not remove the earmuffs as the holes left in the shroud will dramatically reduce the respiratory protection performance during use.

8. Switch on the air filter unit then lower the visor until it "clicks" fully closed - you may need to press down on the top of the visor. **Note:** If necessary the visor pivot tension can be adjusted by tightening or loosening the visor pivot bolts.

## VISOR CLEANING, REMOVAL & REFITTING

**Cleaning:** If necessary the visor can be wiped clean using mild soapy warm water. Do not use solvents or abrasive cleaners of any kind.

Although the visor is moulded from a high grade, scratch resistant polycarbonate, it may eventually need replacing. Replacement visors can be ordered through your local Triton outlet by quoting part no. PRA015.

**REMOVE THE VISOR** by unscrewing the two knurled plastic pivot bolts.

### REFITTING THE VISOR

1. Behind the visor pivot mount is a spring loaded plastic nut. Insert a flat bladed screwdriver behind the pivot mount and push to centralise the nut and slightly compress the spring. **Fig. 10.** Sight through the pivot hole to ensure the nut is properly centred.
2. With the spring compressed, fit the visor to the pivot mount and screw the knurled plastic pivot bolt into place, manoeuvring the nut as necessary. **Fig. 11.** Repeat the procedure on the opposite side.
3. Adjust the pivot bolt until the visor pivots smoothly yet will hold in the open position.



# WARRANTY REGISTRATION

Mr/Mrs/Ms: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_ P/Code: \_\_\_\_\_

Ph: (Private) (\_\_\_\_\_) \_\_\_\_\_

Ph: (Work) (\_\_\_\_\_) \_\_\_\_\_

*I don't wish to be included on your mailing list.*

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Serial No:** \_\_\_\_\_ **Purchase date:** \_\_\_\_/\_\_\_\_/\_\_\_\_  
(Located on base of air filter unit)

**Retailer:** \_\_\_\_\_

**Age:**  Under 25  25-35  36-45  46-55  56-65  over 65

**Occupation:** \_\_\_\_\_

**For what jobs do you intend using the Triton Powered Respirator:**-----*FOLD HERE*-----

\_\_\_\_\_  
\_\_\_\_\_

**Please list any other Triton products you own:**

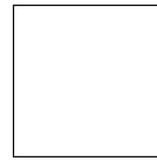
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**COMMENTS / SUGGESTIONS**

Our aim is to provide innovative quality products which are excellent value for money. If you have any comments on how we can improve our products or service, please let us know.

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Enclose additional comments / sketches if required.



Triton Manufacturing & Design Co. Pty. Ltd

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