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3M TR-802N

3M Versaflo TR-802N Powered Air Purifying Respirator Unit Instruction Manual

Model: TR-802N

1. INTRODUCTION

This manual provides essential information for the proper use, setup, operation, and maintenance of the 3M Versaflo TR-802N Powered Air Purifying Respirator (PAPR) Unit. The TR-802N is a replacement intrinsically safe motor/blower unit designed to be integrated into a complete 3M Versaflo PAPR system. It is certified by UL with an intrinsically safe (IS) rating of Division 1: IS Class 1, II, III; Division 1 (includes Division 2) Groups C,D,E,F G; T4, under the most current standard (UL 60079, 6th Edition, 2013).

Please read this manual thoroughly before using the product. Retain this manual for future reference.

2. SAFETY INFORMATION

WARNING: Failure to follow these instructions and warnings may result in serious injury or death.

3M industrial and occupational products are intended, labeled, and packaged for sale to trained industrial and occupational customers for workplace use. These products are not intended, labeled, or packaged for sale to or use by consumers (e.g., for home, personal, primary or secondary school, recreational/sporting, or other uses not described in the applicable product packaging or literature). They must be selected and used in compliance with applicable health and safety regulations and standards (e.g., U.S. OSHA, ANSI), as well as all product literature, user instructions, warnings, and other limitations. The user must take any action required under any recall, field action, or other product use notice. Misuse of 3M industrial and occupational products may result in injury, sickness, death, or property damage.

For help with product selection and use, consult your on-site safety professional, industrial hygienist, or other subject matter expert. For additional product information, visit www.3M.com.

- Always ensure the TR-802N is combined with approved 3M Versaflo parts to form a NIOSH approved respirator assembly.
- Do not use this unit in environments with oxygen deficiency or immediately dangerous to life or health (IDLH) conditions unless specifically approved for such use with appropriate system configurations.
- Regularly inspect all components for damage or wear before each use.
- Ensure proper training is received before operating any PAPR system.

3. PRODUCT OVERVIEW

3.1. Unit Description

The 3M Versaflo TR-802N is a replacement motor/blower unit for the TR-800 series PAPR. It is designed to provide filtered air to a headtop, offering respiratory protection against certain particulates, vapors, and gases when used with appropriate filters/cartridges and headtops. This unit is intrinsically safe, making it suitable for use in hazardous environments where flammable gases, vapors, or dusts may be present.

Note: The TR-802N PAPR Unit is a component and does not include a filter, airflow indicator, belt, battery, or charger. These items must be purchased separately and combined with the TR-802N to create a complete, functional PAPR system.

3.2. Key Features

- **Intrinsically Safe (IS) Protection:** Rated at Division I for Classes I, II, and III under UL 60079, 6th Edition, 2013.
- **Versatile Protection:** Compatible with various particulate filters or gas and vapor combination cartridges.
- **User-Friendly Design:** Features intuitive, colored touchpoints and visual/audible low flow indicators.
- **Adjustable Airflow:** Multiple airflow rates allow users to control comfort levels.
- **Easy Maintenance:** Designed for compatibility with easy-to-clean belts and disposable breathing tube covers.

3.3. Product Images



Figure 1: Side view of the 3M Versaflo TR-802N Powered Air Purifying Respirator Unit. This image shows the compact, black blower unit with a yellow air outlet.

Advanced features that help make the 3M™ Versaflo™ TR-800 Powered Air Purifying Respirator stand above the rest.



A truly global respirator platform

The TR-800 will be launched globally, which gives multinational customers the option to standardize on one product platform with both NIOSH and CE versions available.

Designed for improved worker comfort, convenience and control.

Keep the air flowing – Multi-speed blower functions at altitudes up to 16,000 feet. Battery offers long run time and charges quickly, achieving 90% charge in approximately 3.5 hours.

More options for more tasks – Choose from particulate filters or gas and vapor combination cartridges for protection in a variety of environments.

Work at your own speed – Multiple airflow rates put you in control of your comfort.

Battery:

- Approximately 750 full charge/discharge cycles.
- Built in charge level indicator.
- Mechanical attachment of battery to help prevent battery removal during use.



Work with ease – Intuitive, colored touchpoints plus visual and audible lowflow indicators help make the TR-800 easy to use.

Figure 2: Diagram highlighting advanced features of the 3M Versaflo TR-800 series, including innovative materials, secure battery attachment, battery protection, and easy identification with bright yellow touchpoints.



Figure 3: The 3M Versaflo TR-802N unit shown with an attached airflow indicator, used to verify proper airflow.



Figure 4: Rear view of the 3M Versaflo TR-802N unit, displaying the product label with model information and certifications.



Figure 5: Another perspective of the 3M Versaflo TR-802N unit, highlighting its connection point for the airflow indicator.

4. SETUP

The TR-802N is a core component of a complete PAPR system. Proper setup involves integrating it with other approved 3M Versaflo parts. Refer to the specific instruction manuals for your chosen headtop, breathing tube, filter/cartridge, battery, and charger for detailed assembly instructions.

4.1. General Assembly Steps (Overview)

- 1. Attach Filter/Cartridge:** Securely twist or snap the appropriate filter or cartridge onto the TR-802N blower unit.
- 2. Insert Battery:** Place a charged 3M Versaflo TR-800 series battery into the battery compartment of the TR-802N. Ensure it clicks into place.
- 3. Connect Belt:** Attach the comfort belt to the TR-802N unit.
- 4. Connect Breathing Tube:** Securely connect one end of the breathing tube to the air outlet of the TR-802N and the other end to the chosen headtop.
- 5. Perform User Seal Check (if applicable):** For tight-fitting headtops, perform a user seal check as per the headtop's instructions.

6. **Verify Airflow:** Use an airflow indicator to confirm that the unit is providing adequate airflow.

Always consult the full system manual for detailed, step-by-step assembly and pre-use checks.

5. OPERATING INSTRUCTIONS

Once the complete PAPR system is assembled and pre-use checks are performed, the TR-802N unit can be operated.

5.1. Powering On/Off

Locate the power button on the TR-802N unit. Press and hold to power on. The unit will typically perform a self-diagnostic check. Press and hold again to power off.

5.2. Airflow Adjustment

The TR-802N offers multiple airflow rates. Refer to the full system manual for instructions on how to adjust the airflow to your preferred comfort level. Higher airflow rates may consume battery power more quickly.

5.3. Alarms and Indicators

The unit is equipped with audible and visual alarms to alert the user to low battery or low airflow conditions. Familiarize yourself with these indicators and their meanings as described in the comprehensive system manual. Respond promptly to any alarm by moving to a safe area if necessary.

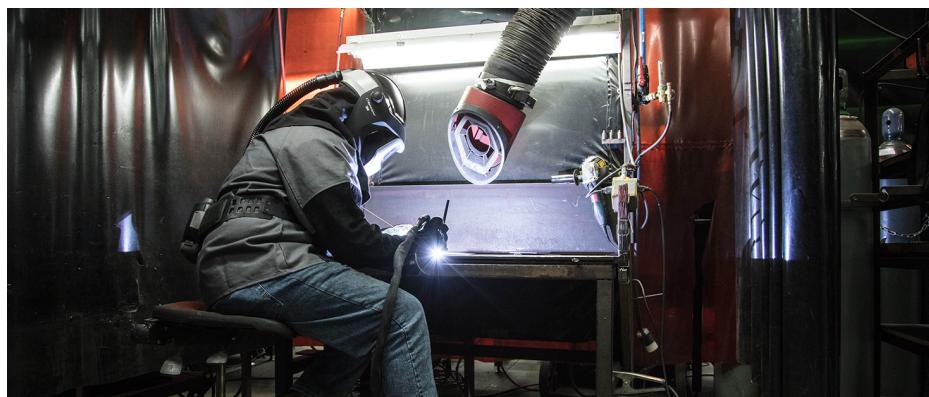


Figure 6: An individual utilizing a 3M Versaflo PAPR system while performing welding tasks, demonstrating the product in a typical industrial application.

6. MAINTENANCE

Regular maintenance is crucial for ensuring the continued performance and safety of your 3M Versaflo TR-802N unit and the entire PAPR system.

6.1. Cleaning

- Wipe the exterior of the TR-802N unit with a damp cloth and mild detergent. Do not immerse the unit in water.
- Clean the comfort belt and breathing tube according to their specific instructions. Disposable breathing tube covers can be replaced as needed.
- Ensure all components are dry before storage or next use.

6.2. Inspection

- Before each use, inspect the TR-802N unit for any cracks, damage, or signs of wear.
- Check the battery for damage and ensure it holds a charge.
- Inspect filters/cartridges for damage and replace them according to manufacturer guidelines or when airflow is reduced.
- Examine the breathing tube and headtop for holes, tears, or blockages.

6.3. Storage

Store the TR-802N unit and its components in a clean, dry place away from direct sunlight, extreme temperatures, and corrosive chemicals.

7. TROUBLESHOOTING

If you encounter issues with your 3M Versaflo TR-802N unit, consider the following common troubleshooting steps. For more detailed diagnostics, refer to the complete 3M Versaflo PAPR system manual.

- **No Power:** Ensure the battery is fully charged and correctly inserted. Check for any damage to the battery or unit contacts.
- **Low Airflow Alarm:** This could indicate a clogged filter/cartridge, a low battery, or a kinked/damaged breathing tube. Replace the filter/cartridge, charge/replace the battery, or inspect/replace the breathing tube.
- **Unit Not Turning On:** Verify the battery is charged and properly seated. If issues persist, contact 3M customer support.
- **Unusual Noise:** Power off the unit and inspect for any obstructions in the blower fan or damage to the casing. Do not attempt to repair internal components.

If troubleshooting steps do not resolve the issue, discontinue use and contact 3M customer service or a qualified service technician.

8. SPECIFICATIONS

Specification	Detail
Model Number	TR-802N (Part of 94242-case)
Intrinsically Safe Rating	Division 1: IS Class 1, II, III; Division 1 (includes Division 2) Groups C,D,E,F G; T4 (UL 60079, 6th Edition, 2013)
Product Dimensions	Approximately 11 x 8 x 3 inches
Item Weight	Approximately 2 Pounds (unit only)
Manufacturer	3M
Compatibility	Approved 3M Versaflo headtops, breathing tubes, filters, cartridges, batteries, and chargers.

9. WARRANTY AND SUPPORT

For information regarding the warranty of your 3M Versaflo TR-802N unit, please refer to the warranty documentation included with your purchase or visit the official 3M website. 3M provides comprehensive support for

its products.

For technical assistance, product inquiries, or to locate authorized service centers, please contact 3M customer service directly or visit their official website:

www.3M.com

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