Performance Tool M624

Performance Tool M624 1/2-Inch Composite Impact Wrench User Manual

Model: M624

1. Introduction

This manual provides essential information for the safe and effective operation, maintenance, and troubleshooting of your Performance Tool M624 1/2-Inch Composite Impact Wrench. Please read this manual thoroughly before using the tool to ensure proper handling and to prevent injury or damage.

Figure 1: Performance Tool M624 1/2-Inch Composite Impact Wrench. This image shows the main view of the impact wrench, highlighting its compact composite housing and 1/2-inch drive.

The Performance Tool M624 is a powerful, compact 1/2-inch drive impact wrench featuring a composite housing for greater comfort and lighter weight. Its balanced design contributes to low vibration during operation. Constructed from a combination of PVC and aluminum, it is designed to be compact, lightweight, and durable, delivering up to 230 ft-lbs of torque and 1089 BPM (Blows Per Minute).

2. Important Safety Information

Always observe basic safety precautions when using this tool to reduce the risk of personal injury and damage to the tool. Failure to follow these instructions may result in serious injury.

- **Wear Eye Protection:** Always wear ANSI-approved safety goggles or a face shield when operating this tool.

- **Wear Hearing Protection:** Prolonged exposure to noise from power tools can cause hearing damage.
- **Wear Hand Protection:** Use appropriate gloves to protect hands from vibration and potential pinch points.
- **Maintain a Safe Work Area:** Keep the work area clean, well-lit, and free of clutter. Ensure proper ventilation when using pneumatic tools.
- **Secure Workpiece:** Always secure the workpiece to prevent movement during operation.
- **Check Air Supply:** Ensure the air compressor is set to the correct pressure and that air hoses are in good condition, free from kinks or leaks.
- **Disconnect Air Supply:** Always disconnect the air supply before making adjustments, changing accessories, or performing maintenance.
- **Avoid Accidental Starting:** Ensure the trigger is not depressed when connecting to the air supply.
- **Use Correct Accessories:** Only use impact-rated sockets and accessories with this impact wrench.
- **Proposition 65 Warning:** This product may contain chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm. Wash hands after handling.

3. Setup

3.1 Unpacking

Carefully remove the impact wrench and all accessories from the packaging. Inspect the tool for any signs of damage that may have occurred during shipping. If any damage is found, do not operate the tool and contact your supplier immediately.

Figure 2: Performance Tool M624 1/2-Inch Composite Impact Wrench in its retail packaging. The packaging highlights key features such as maximum torque, twin hammer clutch, and composite housing.

3.2 Air Supply Requirements

This impact wrench requires a clean, dry, regulated air supply. The recommended operating air pressure is typically between 90-100 PSI (6.2-6.9 bar). Ensure your air compressor can provide sufficient CFM (Cubic Feet per Minute) for continuous operation of the tool. A minimum 3/8-inch air hose is recommended for optimal performance.

3.3 Connecting to Air Supply

1. Apply a few drops of air tool oil into the air inlet of the impact wrench.
2. Attach an air quick coupler to the tool's air inlet.
3. Connect the air hose from your compressor to the quick coupler on the tool.
4. Set your air compressor regulator to the recommended operating pressure.

4. Operating Instructions

4.1 Controls and Features

- **Trigger:** Depress to activate the tool. Variable speed control is often achieved by varying trigger pressure.
- **Forward/Reverse Selector:** A switch or lever typically located near the trigger allows you to select the direction of rotation (tightening or loosening).
- **Power Regulator (if applicable):** Some models include a dial or lever to adjust the power output, which controls the torque. For the M624, the working torque range is 50-200 ft-lbs.
- **1/2-Inch Square Drive:** The output shaft where sockets are attached.

4.2 Operation

1. Select the appropriate impact-rated socket for the fastener size.
2. Attach the socket firmly onto the 1/2-inch square drive.
3. Set the forward/reverse selector to the desired direction (forward for tightening, reverse for loosening).
4. Place the socket squarely onto the fastener.
5. Depress the trigger to operate the tool. For tightening, apply torque in short bursts to avoid over-tightening. For loosening, apply continuous pressure until the fastener breaks free.
6. Always use a torque wrench to achieve final specified torque settings for critical applications.

5. Maintenance

5.1 Lubrication

Pneumatic tools require daily lubrication to ensure long life and optimal performance. Add 5-10 drops of high-quality air tool oil into the air inlet before each use or after every hour of continuous operation. If an in-line oiler is used, ensure it is regularly filled.

5.2 Cleaning

Keep the tool clean and free of debris. Wipe down the exterior with a clean cloth. Do not use harsh solvents that could damage the composite housing.

5.3 Storage

When not in use, disconnect the air supply and store the impact wrench in a clean, dry place, away from extreme temperatures and direct sunlight. Applying a light coat of oil to metal parts can help prevent rust.

5.4 Regular Checks

- Inspect air hoses and fittings for wear, damage, or leaks.
- Check the square drive for excessive wear.
- Ensure all fasteners on the tool are tight.

6. Troubleshooting

Refer to the table below for common issues and their potential solutions.

Problem	Possible Cause	Solution

Problem	Possible Cause	Solution
Tool not operating or low power.	Insufficient air pressure or volume; clogged air inlet; lack of lubrication; worn internal parts.	Check air compressor pressure and CFM; ensure air hose is not kinked or too small; clean air inlet filter; add air tool oil; if problem persists, seek professional service.
Air leaks from tool.	Loose fittings; damaged O-rings or seals.	Tighten fittings; replace damaged O-rings or seals.
Excessive vibration.	Worn internal components; unbalanced socket.	Inspect for worn parts; ensure socket is properly seated and not damaged.

7. Specifications

Key specifications for the Performance Tool M624 1/2-Inch Composite Impact Wrench:

Feature	Detail
Model Number	M624
Drive Size	1/2 inch
Maximum Torque	230 Foot Pounds
Working Torque Range	50-200 ft-lbs (as per product description)
Blows Per Minute (BPM)	1089 BPM
Operation Mode	Pneumatic
Material	Aluminum, Polyvinyl Chloride (Composite Housing)
Item Weight	3.13 Pounds
Item Length	22.86 Centimeters
Color	Black
UPC	039564506246

8. Warranty and Support

Performance Tool products are manufactured to high-quality standards and are backed by a limited warranty. For specific warranty details, claims, or technical support, please refer to the documentation included with your purchase or visit the official Performance Tool website.

You can also find additional information and support resources by visiting thePerformance Tool Store on Amazon.

A PDF version of the user manual may also be available for download:Download User Manual (PDF).