

[Manuals.plus](#) /

› [BOSCH](#) /

› BOSCH GDS18V-221N 18V EC Brushless 1/2 In. Impact Wrench User Manual

BOSCH GDS18V-221N

BOSCH GDS18V-221N 18V EC Brushless 1/2 In. Impact Wrench User Manual

Model: GDS18V-221N | Brand: BOSCH

1. INTRODUCTION

The BOSCH GDS18V-221N 18V EC Brushless 1/2 In. Impact Wrench is engineered for demanding fastening applications, specifically designed for driving high-torque bolts, nuts, and anchors. Its robust design and advanced features ensure efficient and reliable performance in various professional and DIY settings.

Key features include an efficient EC Brushless motor for extended runtime, a powerful hammer-and-anvil system delivering up to 221 Ft.-Lbs. of torque, and a compact, lightweight design for improved ergonomics. The innovative Auto Bolt Release feature enhances safety and efficiency by preventing accidental dropping of fasteners during removal. This manual provides essential information for the safe and effective operation, maintenance, and troubleshooting of your impact wrench.



Figure 1.1: The BOSCH GDS18V-221N 18V EC Brushless 1/2 In. Impact Wrench, showcasing its compact and ergonomic design.

2. SAFETY INFORMATION

Always adhere to general power tool safety guidelines to prevent injury and damage. Read all safety warnings, instructions, illustrations, and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire, and/or serious injury.

- **Work Area Safety:** Keep your work area clean and well-lit. Cluttered or dark areas invite accidents. Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.
- **Electrical Safety:** Power tool plugs must match the outlet. Never modify the plug in any way. Do not abuse the cord. Never use the cord for carrying, pulling, or unplugging the power tool.
- **Personal Safety:** Always wear eye protection. Use appropriate personal protective equipment such as dust masks, non-skid safety shoes, hard hats, or hearing protection when necessary. Stay alert, watch what you are doing, and use common sense when operating a power tool.
- **Tool Use and Care:** Do not force the power tool. Use the correct power tool for your application. Disconnect the plug from the power source and/or remove the battery pack, if detachable, from the power tool before making any adjustments, changing accessories, or storing power tools.
- **Battery Tool Use and Care:** Recharge only with the charger specified by the manufacturer. Use power tools only with specifically designated battery packs.

3. COMPONENTS OVERVIEW

Familiarize yourself with the various parts of your BOSCH GDS18V-221N Impact Wrench to ensure proper operation and maintenance.



Figure 3.1: Detailed view of the BOSCH GDS18V-221N Impact Wrench with key components labeled for identification.

- **Compact Head:** Designed to accommodate hard-to-reach work areas, allowing for greater versatility in tight spaces.

- **Light Tool Weight:** Engineered for improved ergonomics, reducing user fatigue during prolonged operation.
- **EC Brushless Motor:** Provides efficient operation, maximizing battery runtime and delivering consistent power.
- **Ergonomically Designed Grip:** Features a soft grip for comfort and helps keep the head of the tool cooler during use.
- **LED Light:** Illuminates low-light or dark work areas, improving visibility and precision.
- **Friction Ring and Thru-Hole:** Securely holds the socket and allows it to be secured, preventing accidental dropping from heights.
- **Auto Bolt Release:** A safety feature that stops rotation when there is no torque on the tool, preventing accidentally dropping bolts and nuts during removal.

4. SETUP

4.1 Battery Installation

The BOSCH GDS18V-221N is a bare tool and does not include a battery or charger. These must be purchased separately. Ensure you use compatible BOSCH 18V Lithium-Ion batteries.

1. Ensure the tool is switched off and the trigger is not engaged.
2. Align the battery pack with the battery port at the base of the tool handle.
3. Slide the battery pack firmly into the port until it clicks securely into place.
4. To remove, press the battery release button (if present) and slide the battery pack out.

4.2 Attaching Accessories

The impact wrench features a 1/2-inch square drive with a friction ring and thru-hole for secure socket attachment.

1. Select the appropriate 1/2-inch drive impact-rated socket for your application.
2. Push the socket firmly onto the square drive until the friction ring engages and holds the socket securely. For sockets with a thru-hole, align the hole with the pin on the drive and insert a retaining pin or O-ring for maximum security.
3. To remove the socket, pull it firmly off the square drive.



Figure 4.1: The impact wrench in action, demonstrating its capability to fasten bolts into concrete, highlighting its application in heavy-duty tasks.

5. OPERATING INSTRUCTIONS

5.1 Powering On/Off and Direction Control

The tool is activated by pressing the trigger switch. The speed is variable depending on how far the trigger is depressed.

- **To Turn On:** Press the trigger switch. The LED light will illuminate the work area.
- **To Turn Off:** Release the trigger switch.
- **Direction Control:** A forward/reverse selector switch is located above the trigger. Push it to the left for forward (tightening) rotation and to the right for reverse (loosening) rotation. Ensure the tool has come to a complete stop before changing direction.

5.2 Auto Bolt Release Feature

This intelligent feature is designed to prevent accidental dropping of bolts and nuts during removal. When operating in reverse, the tool will stop rotation once the torque on the fastener is released, indicating that the fastener is loose and can be safely removed by hand.

5.3 Torque Application

The GDS18V-221N delivers up to 221 Ft.-Lbs. of torque, making it suitable for a wide range of heavy-duty fastening tasks.

- For tightening, apply steady pressure and allow the tool to impact until the desired tightness is achieved. Avoid over-tightening, which can damage fasteners or materials.
- For loosening, ensure the tool is set to reverse and apply firm pressure. The Auto Bolt Release feature will assist in preventing fastener drops.

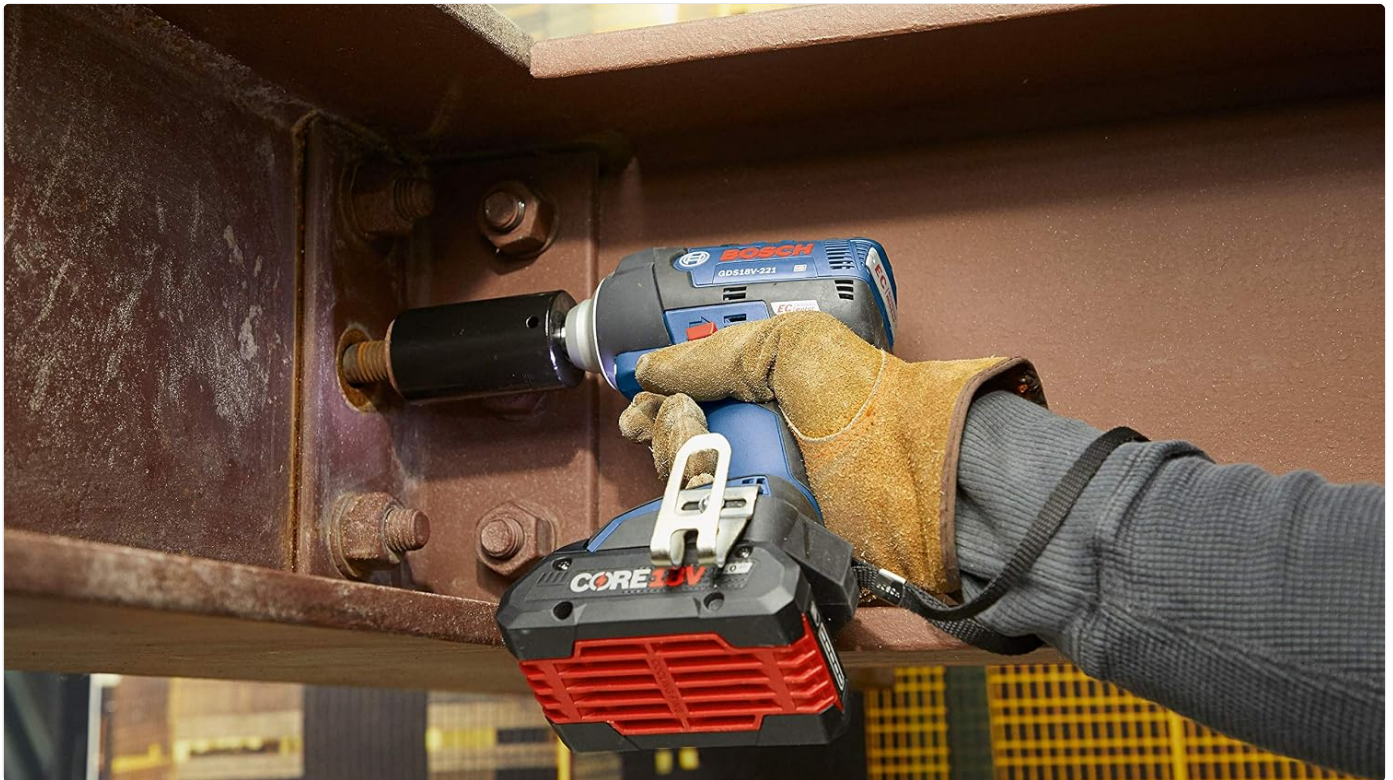


Figure 5.1: The impact wrench effectively tightening a large bolt on a metal beam, demonstrating its high-torque capabilities for structural applications.



Figure 5.2: The impact wrench in use on a pipe flange, illustrating its utility in plumbing and industrial maintenance tasks.

6. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your BOSCH GDS18V-221N Impact Wrench.

6.1 Cleaning

- Always disconnect the battery pack before cleaning.
- Use a clean, damp cloth to wipe down the exterior of the tool. Do not use harsh chemicals or abrasive cleaners.
- Keep the ventilation openings clear of dust and debris to prevent overheating. Use compressed air if necessary to blow out dust from vents.

6.2 Storage

- Store the tool in a dry, secure location, away from direct sunlight, moisture, and extreme temperatures.
- If storing for extended periods, remove the battery pack from the tool.
- Keep the tool out of reach of children and unauthorized users.

7. TROUBLESHOOTING

This section addresses common issues you might encounter with your impact wrench.

Problem	Possible Cause	Solution
Tool does not turn on.	Battery not inserted correctly or discharged.	Ensure battery is fully seated. Charge battery if necessary.
Insufficient torque for application.	Battery charge low; incorrect socket size; fastener too tight for tool's capacity.	Charge battery. Use correct impact-rated socket. For extremely tight fasteners, a breaker bar may be needed to initially loosen.

Problem	Possible Cause	Solution
Tool stops unexpectedly during operation.	Overload protection activated; battery discharged.	Reduce load on tool. Allow tool to cool down. Charge battery.
Socket does not stay on drive.	Friction ring worn; incorrect socket type.	Ensure you are using impact-rated sockets. If issue persists, contact customer support for inspection.

8. SPECIFICATIONS

Detailed technical specifications for the BOSCH GDS18V-221N Impact Wrench.

Specification	Value
Model Number	GDS18V-221N
Voltage	18 Volts
Drive Size	1/2 Inch Square Drive
Max Torque	221 Foot Pounds
No-Load IPM	0-3,400
No-Load RPM	0-2,400
Head Length	6.4 Inches
Item Weight (Tool Only)	2.77 Pounds
Material	Plastic
Power Source	Battery
Included Components	(1) GDS18V-221 18V EC Brushless 1/2 In. Impact Wrench with Friction Ring and Thru-Hole, (1) Belt Clip, (1) Lanyard

9. WARRANTY INFORMATION

The BOSCH GDS18V-221N 18V EC Brushless 1/2 In. Impact Wrench comes with a Limited 1 Year Warranty. For specific terms and conditions, please refer to the warranty card included with your product or visit the official BOSCH website.

10. CUSTOMER SUPPORT

For further assistance, technical support, or to inquire about replacement parts and accessories, please contact BOSCH customer service or visit their official website. You can often find FAQs, service center locations, and additional product documentation online.

Visit the official BOSCH website: www.boschtools.com

