Makita DUC101Z

Makita DUC101Z 18V LXT Brushless 100mm Pruning Saw User Manual

Model: DUC101Z

1. Introduction

This manual provides essential instructions for the safe and effective operation, maintenance, and care of your Makita DUC101Z 18V LXT Brushless 100mm Pruning Saw. Please read this manual thoroughly before using the tool to ensure proper handling and to prevent injury or damage. Keep this manual accessible for future reference.



Figure 1: Makita DUC101Z 18V LXT Brushless 100mm Pruning Saw. This image shows the complete pruning saw unit, highlighting its compact design and the 100mm guide bar.

2. Safety Instructions

Always follow basic safety precautions to reduce the risk of fire, electric shock, and personal injury. This section outlines general safety guidelines for power tools and specific precautions for pruning saws.

General Power Tool Safety

- **Work Area Safety:** Keep the 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. Avoid body contact with earthed or grounded surfaces.
- **Personal Safety:** Always wear eye protection. Use hearing protection when operating noisy tools. Wear appropriate clothing; avoid loose clothing or jewelry. Secure long hair.
- **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 before making any adjustments, changing accessories, or storing power tools.

Pruning Saw Specific Safety

- **Kickback Prevention:** Kickback may occur when the nose or tip of the guide bar touches an object, or when the wood closes in and pinches the saw chain in the cut. Avoid contact with the guide bar tip.
- **Proper Grip:** Always hold the pruning saw firmly with both hands when operating. Ensure a secure grip on the handle.
- **Personal Protective Equipment (PPE):** Wear heavy-duty gloves, safety glasses, and sturdy footwear. Consider a hard hat and leg protection for extensive work.
- **Clear Work Area:** Ensure no bystanders, especially children or pets, are in the immediate work area. Clear away debris and obstacles before starting.
- **Battery Safety:** Use only Makita LXT 18V Lithium-Ion batteries. This tool is not compatible with G-Series batteries.

3. Package Contents

The Makita DUC101Z Pruning Saw package typically includes the following components:

- 1 x Makita DUC101Z 18V LXT Brushless 100mm Pruning Saw (Tool Only)
- Guide Bar
- Saw Chain
- Guide Bar Cover
- Instruction Manual

Note: Batteries and charger are not included with the DUC101Z model and must be purchased separately. Ensure you use compatible Makita 18V LXT Lithium-Ion batteries.

4. Setup

4.1 Battery Installation

1. Ensure the pruning saw is switched off and the lock-off lever is engaged.
2. Align the battery pack with the battery port on the tool.
3. Slide the battery into the port until it clicks securely into place.
4. To remove, press the release button on the battery and slide it out.

4.2 Chain and Guide Bar Installation/Tension Adjustment

The DUC101Z features tool-less chain replacement and tension adjustment.

1. Ensure the battery is removed.
2. Locate the lever on the side cover of the saw.
3. Lift the lever and rotate it counter-clockwise to loosen the side cover.
4. Remove the side cover.
5. Carefully place the saw chain around the sprocket and guide bar. Ensure the cutting edges of the chain are facing the correct direction.
6. Re-attach the side cover.
7. Rotate the lever clockwise to tighten the side cover.
8. To adjust chain tension, rotate the lever to the desired tension. The chain should be snug against the guide bar but still able to be pulled freely by hand.



Figure 2: Tool-less chain tension adjustment. This image illustrates the lever mechanism for adjusting chain tension and replacing the chain without additional tools.

4.3 Filling Chain Oil

The saw features automatic chain lubrication. Ensure the oil tank is filled before operation.

1. Ensure the battery is removed.
2. Locate the oil tank cap on the side of the saw.
3. Unscrew the cap and fill the tank with appropriate chain lubricant oil (not included). The tank capacity is 55ml.
4. Monitor the oil level through the chain oil viewing window during operation.
5. Securely replace the oil tank cap.



Figure 3: Chain oil viewing window and cap. This image shows the transparent oil tank and the cap for refilling, allowing users to easily monitor the oil level.

5. Operating Instructions

The Makita DUC101Z is designed for easy pruning of garden and orchard trees.

5.1 Basic Operation

1. Ensure the battery is fully charged and correctly installed.
2. Verify the chain tension and oil level are correct.
3. Hold the saw firmly with both hands. The rear hand guard provides additional safety.
4. To start the saw, depress the lock-off lever (accessible from both sides) and then pull the trigger switch.
5. Allow the chain to reach full speed before beginning a cut.
6. Apply light pressure and let the saw do the work. Avoid forcing the saw through the material.
7. The electric brake will stop the chain quickly once the trigger is released.



Figure 4: User pruning a small branch. This image demonstrates the saw being used to cut a small branch, showing proper grip and application.



Figure 5: User pruning a tree branch. This image shows the saw in action, cutting a branch from a tree, illustrating its use for overhead or elevated pruning tasks.



Figure 6: User cutting a wood plank. This image shows the versatility of the saw for cutting smaller pieces of wood, such as planks, on a workbench.

5.2 Key Features

- **Brushless Motor:** Provides increased power, longer run time, and extended tool life compared to brushed motors.
- **XPT (eXtreme Protection Technology):** Offers enhanced protection against dust and dripping water in harsh job site conditions.
- **Guide Bar:** The movable guard covers the top of the guide bar and opens as the branch is cut for added protection and convenience.



Figure 7: Makita DUC101Z features diagram. This diagram highlights key components and features of the saw, including the rear hand guard, brushless motor, XPT, electric brake, and guide bar.

6. Maintenance

Regular maintenance ensures optimal performance and extends the life of your pruning saw.

6.1 Cleaning

- Always remove the battery before cleaning.
- Clean the saw body with a soft, damp cloth. Do not use harsh chemicals or abrasive cleaners.
- Remove sawdust and debris from the guide bar, chain, and sprocket area.

6.2 Chain Lubrication

The saw features an automatic chain lubrication system. Regularly check the oil level via the viewing window and refill as necessary with quality chain lubricant oil.

6.3 Chain Sharpening and Replacement

- A dull chain will reduce cutting efficiency and increase kickback risk. Sharpen the chain regularly or replace it when necessary.
- Refer to Section 4.2 for tool-less chain replacement and tension adjustment.
- Ensure the replacement chain matches the specifications: pitch 0.325”, gauge 1.1mm, type 80 TXL, 26 chain links.



Figure 8: Close-up of saw chain and guide bar. This image provides a detailed view of the chain and guide bar, essential components for cutting, and areas requiring regular inspection and maintenance.

7. Troubleshooting

This section addresses common issues you might encounter with your Makita DUC101Z Pruning Saw.

Problem	Possible Cause	Solution

Problem	Possible Cause	Solution
Saw does not start	Battery not charged or improperly installed; Lock-off lever not engaged; Faulty switch.	Charge battery and ensure proper installation; Engage lock-off lever before pulling trigger; Contact service center if switch is faulty.
Poor cutting performance	Dull chain; Incorrect chain tension; Insufficient chain oil.	Sharpen or replace chain; Adjust chain tension (refer to Section 4.2); Refill chain oil tank (refer to Section 4.3).
Chain stops during operation	Overload; Battery low; Chain pinched in wood.	Reduce cutting pressure; Recharge or replace battery; Release chain from pinch, then restart.
Excessive vibration	Loose chain; Damaged chain or guide bar.	Adjust chain tension; Inspect chain and guide bar for damage and replace if necessary.

8. Specifications

Feature	Specification
Model Number	DUC101Z
Brand	Makita
Power Source	Battery Powered (18V LXT Lithium-Ion)
Voltage	18 Volts
Wattage	320 watts
Blade Length	100 mm (4 inches)
Chain Pitch	0.325 inches
Chain Gauge	1.1 mm
Chain Type	80 TXL
Number of Chain Links	26
Oil Tank Capacity	55 ml
Special Features	Brushless Motor, Electric Brake, Automatic Chain Lubrication, Tool-less Chain Adjustment, XPT
Item Weight	2 Kilograms (4.4 pounds)
Product Dimensions	14.17"L x 5.91"W x 9.84"H
Surface Recommendation	Wood
UPC	088381775175

9. Warranty and Support

For information regarding warranty coverage, service, or technical support for your Makita DUC101Z Pruning Saw, please refer to the warranty card included with your purchase or visit the official Makita website. You may also contact Makita customer service

directly for assistance.
Makita Official Website: www.makitatools.com

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