

## RYOBI RY3716

# RYOBI 16-inch 37cc 2-Cycle Gas Chainsaw (Model RY3716) Instruction Manual

Your guide to safe and effective operation, maintenance, and troubleshooting.

## INTRODUCTION

Thank you for choosing the RYOBI 16-inch 37cc 2-Cycle Gas Chainsaw, Model RY3716. This manual provides essential information for the safe assembly, operation, maintenance, and troubleshooting of your chainsaw. Please read and understand all instructions before operating the tool. Keep this manual for future reference.

## IMPORTANT SAFETY INFORMATION

**WARNING: Failure to follow these safety instructions can result in serious injury or death.**

- **Personal Protective Equipment (PPE):** Always wear appropriate safety gear, including a hard hat, eye protection (safety glasses or goggles), hearing protection, heavy-duty gloves, and sturdy footwear. Chainsaw protective chaps are highly recommended.
- **Work Area Safety:** Ensure the work area is clear of bystanders, children, and pets. Operate the chainsaw in a well-ventilated outdoor area. Clear away any obstacles that could cause you to trip or lose balance.
- **Fuel Handling:** Mix and store fuel in a well-ventilated area, away from sparks or open flames. Use a 2-cycle engine oil/gasoline mixture as specified by the manufacturer. Do not smoke while handling fuel.
- **Kickback Prevention:** Be aware of the risk of kickback. The RYOBI RY3716 chainsaw is equipped with a Safe-T-Tip to help protect against rotational kickback and an inertia-activated chain brake to stop the chain automatically. Always maintain a firm grip with both hands and avoid cutting with the tip of the guide bar.
- **Proper Grip:** Always hold the chainsaw firmly with both hands, with your thumbs and fingers encircling the handles.
- **Inspection Before Use:** Before each use, inspect the chainsaw for loose parts, damage, or wear. Ensure the chain is sharp and properly tensioned. Check fuel and oil levels.

- **Avoid Fatigue:** Do not operate the chainsaw when tired or under the influence of drugs or alcohol.

## CHAINSAW COMPONENTS

Familiarize yourself with the main parts of your RYOBI RY3716 chainsaw.



**Figure 1:** Front view of the RYOBI 16-inch 37cc 2-Cycle Gas Chainsaw, highlighting the guide bar, chain, and engine housing.



**Figure 2:** Side view of the RYOBI RY3716 chainsaw, showing the rear handle, front handle, and engine controls.

- **Guide Bar:** The metal bar that guides the saw chain.
- **Saw Chain:** The cutting chain with teeth that rotates around the guide bar.
- **Front Handle:** For gripping the chainsaw with your left hand.
- **Rear Handle:** For gripping the chainsaw with your right hand, containing the throttle trigger.
- **Chain Brake:** A safety device designed to stop the chain quickly in case of kickback.
- **Fuel Tank Cap:** For filling the fuel tank.
- **Oil Tank Cap:** For filling the chain oil reservoir.
- **Side-Access Chain Tensioner:** Allows for easy adjustment of chain tension.
- **Safe-T-Tip:** A protective tip on the guide bar to reduce the risk of rotational kickback.

## SETUP AND ASSEMBLY

### 1. Fuel and Chain Oil Mixture

The RYOBI RY3716 is a 2-cycle gas chainsaw and requires a specific fuel mixture. Use fresh, unleaded gasoline mixed with high-quality 2-cycle engine oil at the ratio specified in your engine oil's instructions (typically 50:1 or 40:1). Always use a separate container for mixing and shake well before filling the fuel tank.

- Fill the fuel tank (marked with a fuel pump icon) with the correct fuel mixture.
- Fill the chain oil reservoir (marked with an oil can icon) with quality bar and chain oil. The automatic oiler system requires this oil for proper chain lubrication.

## 2. Guide Bar and Chain Installation (if not pre-assembled)

1. Ensure the chain brake is disengaged.
2. Remove the chain cover nuts and the chain cover.
3. Place the chain around the sprocket and guide bar, ensuring the cutting edges of the chain teeth face forward in the direction of rotation.
4. Position the guide bar studs through the holes in the guide bar.
5. Replace the chain cover and hand-tighten the nuts. Do not fully tighten yet.

## 3. Chain Tension Adjustment

Proper chain tension is critical for safe and efficient operation. The RYOBI RY3716 features a side-access chain tensioner for easy adjustments.

1. Loosen the chain cover nuts slightly.
2. Use the side-access chain tensioner screw to adjust the chain tension. The chain should be snug against the guide bar, but still able to be pulled freely by hand. There should be no sag on the underside of the guide bar.
3. Once tension is correct, fully tighten the chain cover nuts.



**Figure 3:** View of the chainsaw highlighting the side-access chain tensioner for easy adjustment.

## OPERATING INSTRUCTIONS

### 1. Starting the Chainsaw

Always start the chainsaw on a firm, flat surface, ensuring the chain is clear of any objects. Engage the chain brake before starting.

1. Place the chainsaw on the ground.
2. Engage the chain brake by pushing the front hand guard forward.
3. Set the choke to the "FULL CHOKE" position.
4. Press the primer bulb several times until fuel is visible.
5. Pull the starter rope firmly until the engine "pops" or attempts to start. Do not pull the rope to its full extension.

6. Move the choke to the "HALF CHOKE" or "RUN" position (refer to your specific model's controls).
7. Pull the starter rope again until the engine starts.
8. Once the engine starts, disengage the chain brake by pulling the front hand guard back towards the handle. Allow the engine to warm up for a few moments before cutting.

## 2. Cutting Techniques

Always maintain a balanced stance and a firm grip on both handles. Plan your cuts to avoid kickback and ensure the tree or limb falls in a safe direction.

- **Felling Trees:** Requires advanced training and should only be attempted by experienced operators. Always use proper felling cuts (notch and back cut).
- **Limbing:** Remove branches from a fallen tree. Work from the base of the tree towards the top, cutting smaller branches first. Be aware of branches under tension.
- **Bucking:** Cutting a fallen log into shorter sections. Support the log to prevent pinching the guide bar.



**Figure 4:** An operator demonstrating proper technique while cutting a log with the RYOBI chainsaw.

## MAINTENANCE

Regular maintenance ensures the longevity and safe operation of your chainsaw.

### 1. Chain Sharpening and Replacement

- A sharp chain is essential for efficient cutting and to prevent kickback. Sharpen the chain regularly using a round file of the correct diameter for your chain.
- Replace the chain when teeth are worn down, damaged, or if the chain is stretched beyond adjustment.

### 2. Guide Bar Maintenance

- Clean the guide bar groove regularly to remove sawdust and debris.

- Flip the guide bar periodically to ensure even wear.
- Check for burrs on the guide bar rails and file them smooth if present.

### 3. Air Filter Cleaning

The RYOBI RY3716 features a tool-free air filter cover for easy service and maintenance.

- Remove the tool-free air filter cover.
- Remove the air filter and clean it with warm, soapy water. Allow it to dry completely before reinstallation. Replace if damaged.

### 4. Spark Plug Inspection

- Inspect the spark plug periodically. Clean or replace if it is fouled or damaged. Ensure the gap is set correctly.

### 5. Automatic Oiler

The adjustable automatic oiler ensures longer bar and chain life. Regularly check the oil level and ensure the oiler is functioning by observing oil spray from the chain tip during operation.

### 6. Storage

When storing the chainsaw for extended periods, drain the fuel tank or run the engine dry. Clean the chainsaw thoroughly and store it in a dry, secure location, preferably in its heavy-duty case.

## TROUBLESHOOTING

Problem	Possible Cause	Solution
Engine will not start	No fuel, incorrect fuel mixture, fouled spark plug, clogged fuel filter, incorrect starting procedure.	Check fuel level and mixture. Clean/replace spark plug. Check fuel filter. Review starting instructions.
Engine starts but stalls	Incorrect carburetor adjustment, clogged air filter, old fuel.	Adjust carburetor (consult service manual). Clean air filter. Use fresh fuel.
Chainsaw cuts poorly or slowly	Dull chain, incorrect chain tension, insufficient chain oil.	Sharpen or replace chain. Adjust chain tension. Fill chain oil reservoir.
Excessive smoke from engine	Incorrect fuel/oil mixture (too much oil), engine issues.	Ensure correct fuel/oil ratio. If problem persists, seek professional service.

## SPECIFICATIONS

Feature	Detail
Brand	RYOBI
Model Number	RY3716

Feature	Detail
Engine Displacement	37cc
Engine Type	2-Cycle Gas
Guide Bar Length	16 inches
Power Source	Gas Powered
Horsepower	1.5 Horsepower
Item Weight	8 Pounds
Product Dimensions	28"L x 10"W x 11"H
UPC	659821609383

## WARRANTY AND SUPPORT

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For warranty information, technical support, or to locate authorized service centers, please refer to the warranty card included with your product or visit the official RYOBI website. Keep your purchase receipt as proof of purchase.

**Manufacturer:** RYOBI

**Contact:** Refer to RYOBI's official customer support channels for assistance.