

## PRORUN PCS420C

# PRORUN 42.0cc 18-inch Gas-Powered 2-Cycle Commercial Chainsaw

## MODEL: PCS420C - INSTRUCTION MANUAL

### 1. Important Safety Information

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Operating a chainsaw can be dangerous. Always prioritize safety to prevent serious injury or death. Read and understand all safety warnings and instructions before operating this chainsaw.

#### 1.1 Personal Protective Equipment (PPE)

- **Head Protection:** Wear a safety helmet.
- **Eye Protection:** Always wear safety glasses or a face shield.
- **Hearing Protection:** Use earplugs or earmuffs.
- **Hand Protection:** Wear heavy-duty work gloves.
- **Leg Protection:** Wear chainsaw protective chaps or trousers.
- **Foot Protection:** Wear steel-toed safety boots with good grip.

#### 1.2 Fuel Handling Safety

- Mix and store fuel in a well-ventilated area, away from sparks or open flames.
- Use a 50:1 fuel-to-oil ratio for the 2-cycle engine.
- Never refuel a hot engine. Allow the chainsaw to cool down before adding fuel.
- Wipe up any spilled fuel immediately.

#### 1.3 Operating Environment

- Operate the chainsaw only in well-lit conditions.
- Ensure a clear work area, free from obstacles and bystanders.
- Do not operate in wet conditions or rain.
- Maintain a firm footing and balance at all times.

#### 1.4 Kickback Prevention

- Avoid contact of the guide bar tip with any object.
- Always hold the chainsaw firmly with both hands.

- Do not overreach or cut above shoulder height.

## 2. Product Overview and Components

Familiarize yourself with the various parts of your PRORUN chainsaw for safe and effective operation.



**Figure 2.1:** Labeled diagram illustrating key components of the PRORUN 42.0cc 18-inch Gas Chainsaw, including the inertia-activated chain brake, Oregon Pro Speedcut Narrow Kerf 18-inch bar and chain, chrome-plated cutters, spring assist starting, 41.9cc full crank 2-cycle engine, transparent oil level window, aluminum crankcase, bucking spikes, and Oregon LubriTec automatic oiling system. Additional features shown are a 6-point anti-vibration system, toolless single-panel cover for air filter access, adjustable bar and chain oiler, and side-access chain adjustment with captive bar nuts.

- **Guide Bar:** The metal bar that guides the saw chain.
- **Saw Chain:** The cutting chain that rotates around the guide bar.
- **Chain Brake:** A safety device designed to stop the chain quickly in case of kickback.
- **Front Handle:** For gripping the chainsaw with the left hand.
- **Rear Handle:** For gripping the chainsaw with the right hand, containing the throttle trigger.

- **Throttle Trigger:** Controls engine speed and chain movement.
- **Fuel Cap:** Covers the fuel tank opening.
- **Oil Cap:** Covers the chain oil reservoir opening.
- **Starter Handle:** Used to pull the starter cord and start the engine.
- **Air Filter Cover:** Provides access to the air filter for cleaning or replacement.
- **Bucking Spikes:** Metal teeth that help grip the wood during cutting.

### 3. Setup and Assembly

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#### 3.1 Unpacking and Included Contents

Carefully remove all components from the packaging. Inspect for any damage. The package should contain:

- PRORUN 42.0cc 18-inch Gas Chainsaw
- Scabbard (Bar & Chain Cover)
- Srench Multi Tool
- File

# PRORUN®



**Fully Assembled**



**Bar & Chain Cover**



**Maintenance Tools**



**PRORUN Warranties**

Bar & chain oil required for proper operation (sold separately)

## 41.9cc 18-in. Gas Chainsaw - PCS420C

**Figure 3.1:** The PRORUN 41.9cc 18-inch Gas Chainsaw (Model PCS420C) shown fully assembled, alongside its included accessories: a bar & chain cover, maintenance tools (screwdriver and file), and badges indicating 3-year residential and 1-year commercial limited warranties. The image also highlights the 50:1 fuel oil ratio.

### 3.2 Fuel and Chain Oil Preparation

This chainsaw requires a mixture of gasoline and 2-cycle engine oil. Use unleaded gasoline with an octane rating of 89 or higher.

- **Fuel Mixture:** Mix gasoline with high-quality 2-cycle engine oil at a **50:1 ratio** (2.6 fl. oz. of oil per 1 gallon of gasoline).
- **Chain Oil:** Fill the chain oil reservoir with good quality bar and chain oil. The automatic oiling system requires a constant supply of oil.



**Figure 3.2:** A close-up view of the PRORUN Chainsaw's red fuel cap and the transparent fuel level window, allowing users to monitor fuel levels during operation.

### 3.3 Bar and Chain Installation (if not pre-assembled)

1. Ensure the chain brake is disengaged.
2. Remove the side cover by loosening the two nuts.
3. Place the chain around the clutch drum, ensuring the cutting edges face forward on the top of the bar.
4. Fit the guide bar over the bar studs and engage the chain drive links into the groove of the guide bar.
5. Replace the side cover, ensuring the chain tensioner pin engages with the hole in the guide bar. Hand-tighten the nuts.

### 3.4 Chain Tension Adjustment

Proper chain tension is crucial for safe and efficient cutting. The chain should be snug against the guide bar, but still able to be pulled freely by hand.

- Loosen the side cover nuts slightly.
- Use the side-access chain adjustment screw (often located near the bar studs) to adjust tension.
- Tighten the side cover nuts securely once the correct tension is achieved.

## 4. Operating Instructions

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### 4.1 Starting the Engine

The PRORUN chainsaw features a spring-assisted pull handle for easier starting.

1. Place the chainsaw on a firm, flat surface.

2. Engage the chain brake by pushing it forward.
3. For a cold engine, set the choke to the 'ON' position (or as per specific instructions in your manual, noting that some models may require 'OFF' for initial pulls to prevent flooding).
4. Press the primer bulb several times until fuel is visible.
5. Pull the starter handle firmly and smoothly until the engine attempts to start (a 'pop' sound).
6. Once it 'pops', move the choke to the 'OFF' position (or half-choke if applicable).
7. Pull the starter handle again until the engine starts.
8. Allow the engine to warm up for a few moments before disengaging the chain brake and beginning work.

## 4.2 Cutting Techniques

- Always hold the chainsaw with both hands, wrapping your thumbs and fingers around the handles.
- Keep the chainsaw close to your body for better control.
- Never cut with the tip of the guide bar to avoid kickback.
- Plan your cuts to ensure the wood falls safely and does not bind the chain.

## 4.3 Stopping the Engine

To stop the engine, simply move the ignition switch to the 'OFF' position.

# 5. Maintenance

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

## 5.1 Chain Sharpening

A sharp chain is essential for efficient and safe cutting. Use the included file or a suitable chain sharpener to maintain the cutting edges.

## 5.2 Air Filter Cleaning

The PRORUN chainsaw features a toolless, single-panel cover for easy access to the air filter. Clean the air filter regularly to maintain engine performance.

- Remove the air filter cover.
- Remove the air filter and clean it with compressed air or wash it with warm, soapy water. Allow it to dry completely before reinstallation.

## 5.3 Spark Plug Inspection

Inspect the spark plug periodically for wear or carbon buildup. Clean or replace as necessary to ensure reliable starting and engine performance.

## 5.4 General Cleaning and Lubrication

- Clean the chainsaw thoroughly after each use, removing sawdust and debris.
- Ensure the automatic oiling system is functioning correctly by checking the oil flow to the bar and chain.
- Lubricate moving parts as recommended in the full manual.

# 6. Troubleshooting

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This section addresses common issues you might encounter with your PRORUN chainsaw.

| Problem                  | Possible Cause                                                       | Solution                                                                                                                                                                                                                                                |
|--------------------------|----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Engine will not start    | Incorrect choke setting, no fuel, flooded engine, fouled spark plug. | Check fuel level and mixture. Ensure choke is set correctly for starting (refer to manual for specific cold/warm start procedures, noting that some models may require choke 'OFF' for initial pulls to prevent flooding). Clean or replace spark plug. |
| Chain loosens quickly    | New chain stretching, improper tensioning.                           | Adjust chain tension more frequently during initial use. Ensure side cover nuts are securely tightened after adjustment.                                                                                                                                |
| Poor cutting performance | Dull chain, incorrect chain tension, insufficient chain oil.         | Sharpen the chain. Adjust chain tension. Check chain oil level and ensure automatic oiler is functioning.                                                                                                                                               |
| Engine lacks power       | Dirty air filter, incorrect fuel mixture, fouled spark plug.         | Clean air filter. Verify correct 50:1 fuel mixture. Inspect and clean/replace spark plug.                                                                                                                                                               |

## 7. Specifications

Key technical specifications for the PRORUN 42.0cc 18-inch Gas-Powered 2-Cycle Commercial Chainsaw (Model PCS420C).

| Feature             | Specification                  |
|---------------------|--------------------------------|
| Brand               | PRORUN                         |
| Model Number        | PCS420C                        |
| Engine Displacement | 42.0cc (41.9cc)                |
| Power Source        | Gas Powered, 2-Cycle           |
| Horsepower          | 2.3 HP                         |
| Guide Bar Length    | 18 inches                      |
| Item Weight         | 12.4 Pounds                    |
| Product Dimensions  | 31.9"L x 9.9"W x 10.8"H        |
| Fuel Mix Ratio      | 50:1 (Gasoline to 2-Cycle Oil) |
| UPC                 | 850025750165                   |

## 8. Warranty and Support

PRORUN stands behind its products with comprehensive warranty coverage.

### 8.1 Warranty Information

- **Residential Warranty:** 3-Year Limited Warranty
- **Commercial Warranty:** 1-Year Limited Warranty

Please retain your proof of purchase for warranty claims. The warranty covers defects in materials and workmanship under normal use.

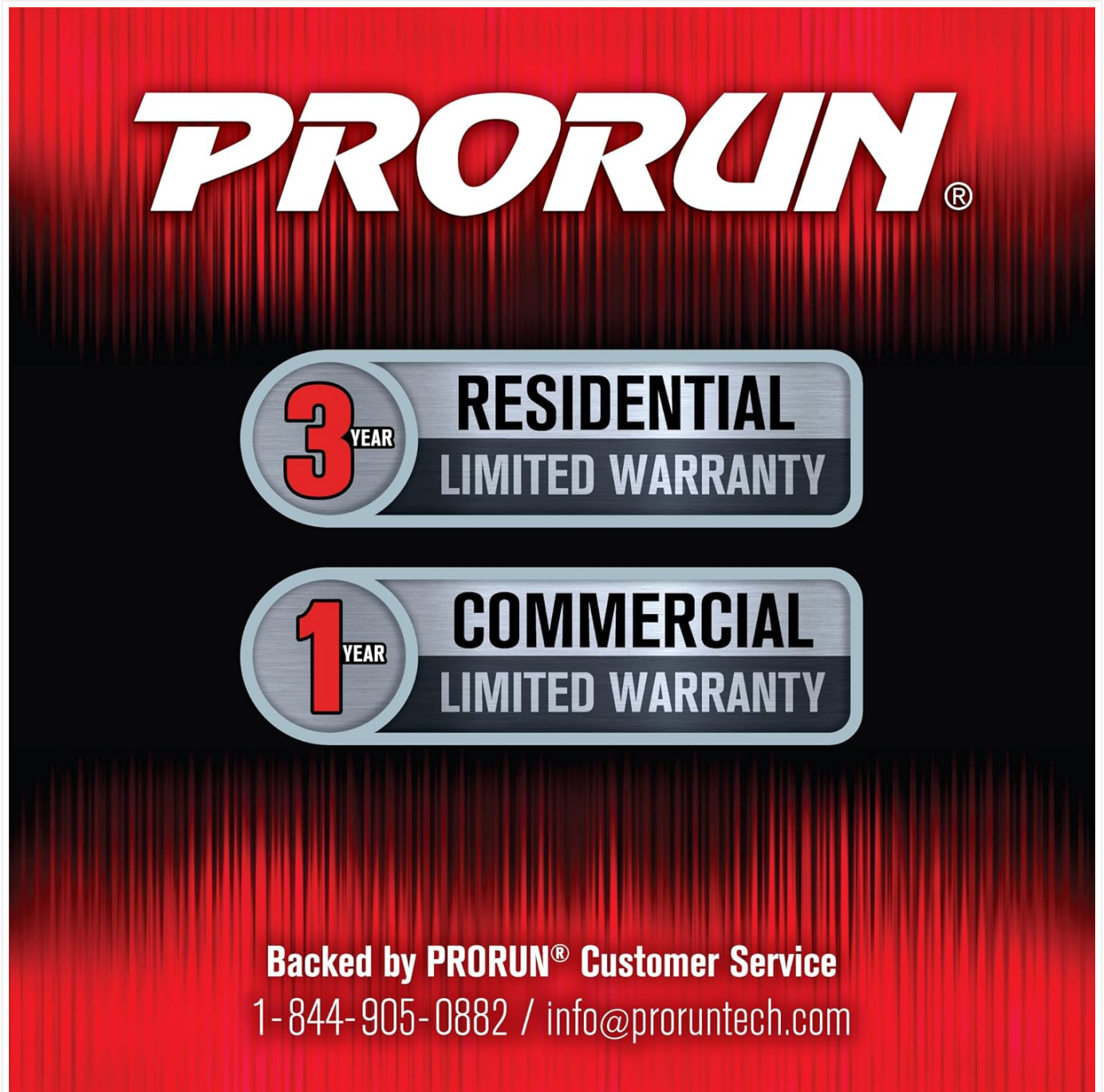


**Figure 8.1:** Visual representation of PRORUN's warranty policy, highlighting the 3-year residential limited warranty and the 1-year commercial limited warranty.

## 8.2 Customer Support

For technical assistance, warranty inquiries, or parts, please contact PRORUN Customer Service:

- **Phone:** 1-844-905-0882
- **Email:** info@proruntech.com

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Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

**Name**

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

**Question**

Example: How do I reset this device or fix this error?

**Details**

Model number, symptoms, what you tried, or the section of the manual you are using.

**Submit question**