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› [IMAYCC](#) /

› [IMAYCC 100cc 2-Stroke Bicycle Engine Kit Instruction Manual](#)

## IMAYCC 2STROKE Engine 100CC KITS

# IMAYCC 100cc 2-Stroke Bicycle Engine Kit Instruction Manual

Model: 2STROKE Engine 100CC KITS

## 1. INTRODUCTION

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This manual provides detailed instructions for the installation, operation, and maintenance of the IMAYCC 100cc 2-Stroke Bicycle Engine Kit. This kit is designed to convert standard 26-28 inch bicycles with a V-frame design into motorized bicycles. Please read this manual thoroughly before attempting installation or operation to ensure safe and correct usage.

## 2. SAFETY INFORMATION

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**WARNING: Operating a motorized bicycle carries inherent risks. Always wear appropriate safety gear, including a helmet, eye protection, and gloves. Ensure all components are securely fastened before each ride.**

- **Read All Instructions:** Familiarize yourself with all assembly and operating procedures before use.
- **Mechanical Aptitude Required:** Installation requires basic tools and mechanical knowledge. If you are unsure about any step, seek professional assistance.
- **Fuel Handling:** Gasoline is highly flammable. Handle fuel in a well-ventilated area, away from open flames or sparks. Store fuel in approved containers.
- **Ventilation:** Operate the engine in a well-ventilated area to avoid carbon monoxide poisoning.
- **Regular Inspections:** Before each ride, check all nuts, bolts, and connections for tightness. Vibrations can cause components to loosen.
- **Road Safety:** Obey all local traffic laws and regulations. Be aware of your surroundings and other road users.
- **Children and Pets:** Keep children and pets away from the engine, especially when it is hot or running.

## 3. PACKAGE CONTENTS

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Verify that all components listed below are present in your kit. If any parts are missing or damaged, please contact customer support.



Image: All components of the IMAVCC 100cc 2-Stroke Bicycle Engine Kit laid out for inspection.



Image: Detailed diagram showing all included parts and their labels.

The kit typically includes:

- 100cc 2-Stroke Engine
- Fuel Tank (3L Black Teardrop)
- Carburetor
- Muffler/Exhaust Pipe
- 44-Tooth Drive Sprocket
- 415 Heavy Duty Drive Chain (110 knots)
- CDI Ignition Unit
- Spark Plug
- Clutch Lever and Cable
- Throttle Handle and Cable
- Fuel Line and Fuel Filter
- Chain Tensioner
- Mounting Hardware (bolts, nuts, washers, rubber pads)
- Basic Installation Tools (wrenches, screwdriver, drill bits)

## 4. COMPATIBILITY

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This engine kit is designed to fit most common 26-28 inch wheel bicycles featuring a V-frame design. Ideal bicycle styles include Mountain, Cruiser, and Road bikes.

**Critical Requirement: Ensure at least 10 inches (25.4 cm) of clearance between your bike's bottom bracket and the top bar for proper engine fitment.**

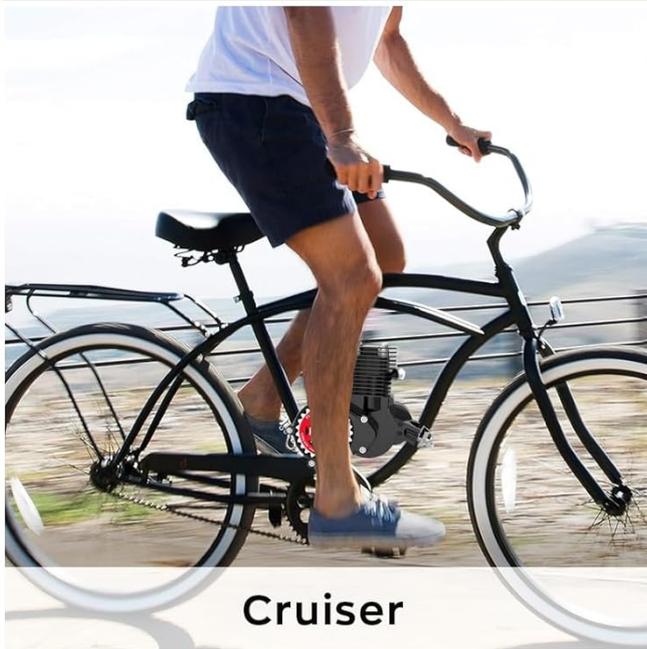
# Suitable for 26-28" Wheel Bicycles

Featuring a V-frame design (ideal for Mountain, Cruiser, Road styles)



Maximum front pipe diameter:	40mm	Maximum rear pipe diameter:	35mm
Number of sprocket teeth:	44 teeth	Number of chain teeth:	110 knots

Image: Bicycle frame diagram with required clearance measurements for engine kit installation.



**Cruiser**



**Beach bike**



**Road bike**



**Mountain bike**

Image: Visual examples of compatible bicycle types: Cruiser, Beach bike, Road bike, and Mountain bike.

## 5. SETUP AND INSTALLATION

Installation typically takes 2-4 hours and requires basic mechanical skills. For detailed visual guidance, it is highly recommended to search for "IMAYCC Bicycle Engine Kit" installation videos on YouTube.

### 5.1 Fuel Tank Installation

The 3L teardrop fuel tank needs to be securely mounted and connected.

1. Mount the fuel tank securely to the bicycle frame.
2. Connect the fuel line from the tank to the fuel filter, and then from the fuel filter to the carburetor.
3. Ensure all connections are tight to prevent leaks.
4. The fuel valve has an UP position for OFF and a DOWN position for ON. Always close the fuel valve when parking the bicycle.

# IMAYCC Fuel Tank Installation Procedure

- **Capacity:**  
3L
- **Fuel Type:**  
90#, mixture of gasoline and engine oil above 90#
- **Mixing Ratio of Fuel and Engine Oil:**  
16:1 for new equipment, 20: 1 the run-in period (after running 500km)
- **Note:**  
mix thoroughly before adding to the tank
- **Fuel Consumption:**  
2.5L/100km



Image: Step-by-step diagram for installing the fuel tank, fuel line, and filter.

## 5.2 Electrical Connections

Proper wiring is essential for engine operation. Refer to the diagram below for connections.

- Connect the blue wire from the engine to the blue wire of the CDI unit.
- Connect the black wire from the engine to the black wire of the CDI unit.
- The white wire from the magnetic coil does not need to be connected; it should be wrapped with electrical tape for insulation.
- Connect the kill switch wires as per the diagram.

# How to Connect IMAYCC Bicycle Engine Kit Wires

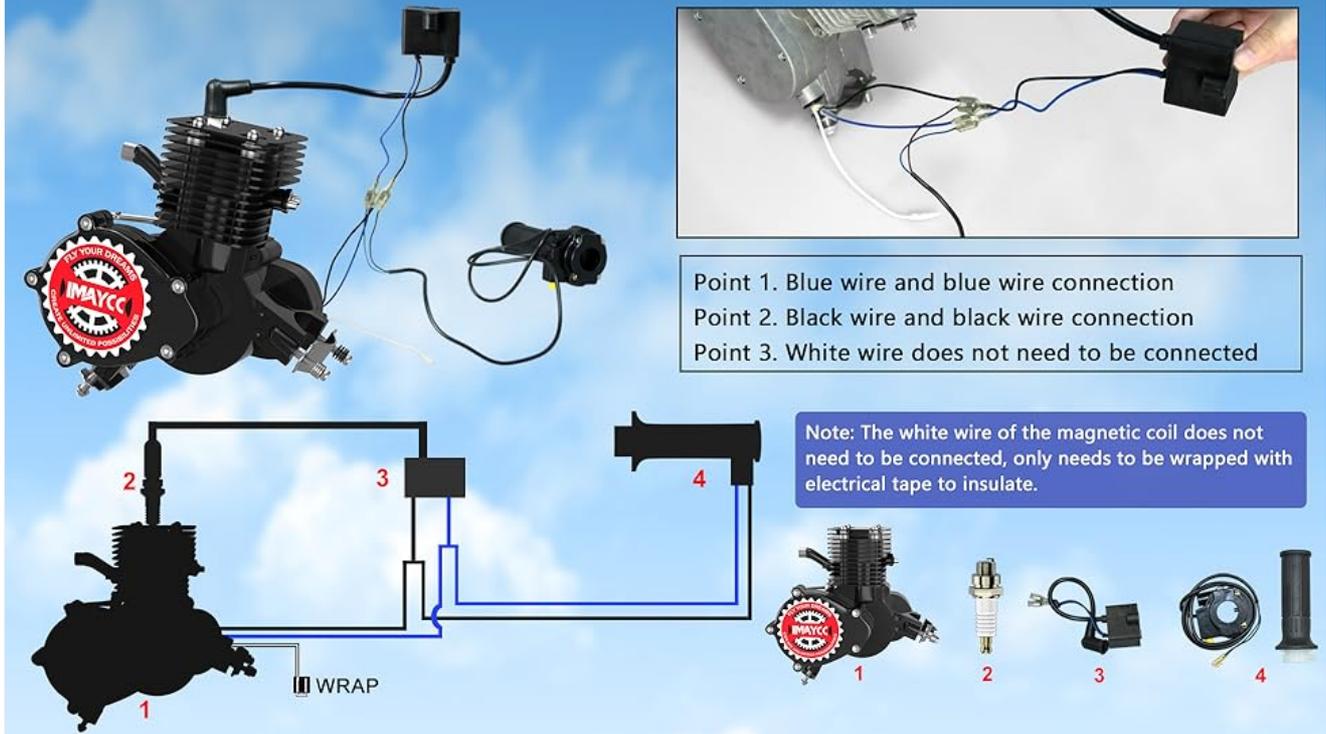


Image: Wiring diagram showing connections for the engine, CDI, spark plug, and throttle handle with kill switch.

## 5.3 Fuel Mixture

The 2-stroke engine requires a specific fuel-to-oil mixture. Use 90# (or higher) gasoline.

- **Initial Break-in Period (First 500km):** Mix fuel and 2-stroke engine oil at a ratio of **16:1** (16 parts gasoline to 1 part oil).
- **After Break-in (Beyond 500km):** Shift to a mixture ratio of **20:1** (20 parts gasoline to 1 part oil).

**Note: Mix fuel and oil thoroughly before adding to the fuel tank.**

## 6. OPERATING INSTRUCTIONS

### 6.1 Starting the Engine

The engine uses a foot pedal start mechanism.

1. Ensure the fuel valve is in the ON (DOWN) position.
2. Engage the clutch lever.
3. Pedal the bicycle to gain some speed (approximately 5-10 mph).
4. Release the clutch lever smoothly while continuing to pedal. The engine should engage and start.
5. Once the engine starts, you can use the throttle to control speed.

### 6.2 Run-in Period

The first 500km of operation is crucial for the engine's longevity. During this period:

- Avoid prolonged high-speed operation.
- Do not operate at full throttle for extended periods.
- Vary engine RPMs to allow components to seat properly.
- Use the 16:1 fuel-to-oil mixture.

## 6.3 Performance Guidelines

For optimal performance and engine longevity, maintain a speed of 35-40 km/h (approximately 22-25 mph) on smooth roads. The maximum speed limit for this engine is approximately 50 km/h (31 mph).

Fuel consumption is approximately 2.5L per 100km under normal operating conditions.

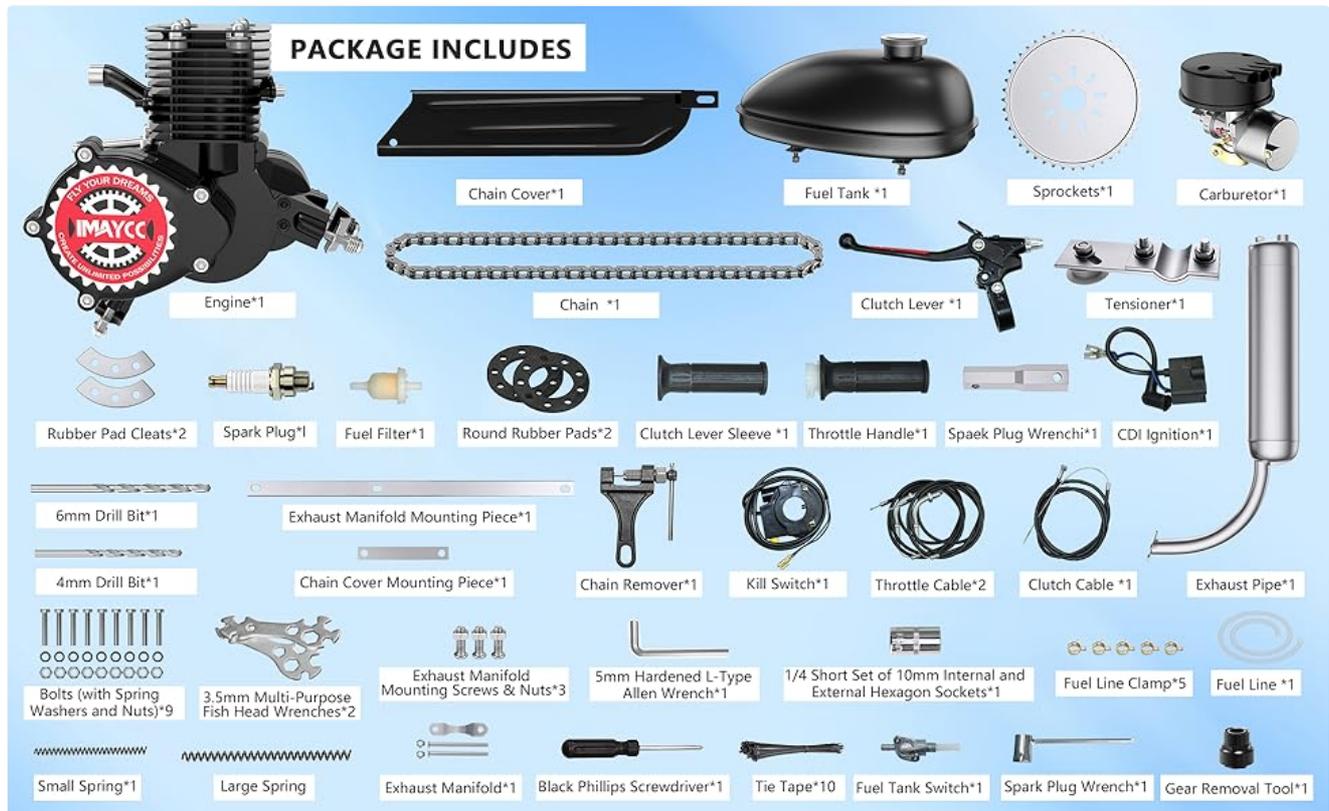


Image: A rider on a motorized bicycle demonstrating typical usage.

## 7. MAINTENANCE

Regular maintenance is essential to ensure the safe and reliable operation of your motorized bicycle.

- **Check Fasteners:** Periodically inspect all nuts, bolts, and screws for tightness, especially after the initial break-in period. Apply thread locker where appropriate to prevent loosening due to vibration.
- **Chain Maintenance:** Keep the drive chain clean and properly tensioned. Lubricate the chain regularly.
- **Spark Plug:** Inspect the spark plug periodically for wear and proper gap. Replace if necessary.
- **Fuel Filter:** Check the fuel filter for clogs and replace if dirty.
- **Carburetor:** Ensure the carburetor is securely mounted and free from leaks.
- **Exhaust System:** Check the muffler and exhaust pipe for secure mounting and any damage.
- **Tire Pressure:** Maintain correct tire pressure for your bicycle.

## 8. TROUBLESHOOTING

This section addresses common issues you might encounter.

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
Engine does not start	<ul style="list-style-type: none"> <li>No fuel or incorrect fuel mixture</li> <li>Spark plug issue (fouled, damaged, incorrect gap)</li> <li>CDI unit malfunction</li> <li>Kill switch engaged</li> <li>Loose electrical connections</li> </ul>	<ul style="list-style-type: none"> <li>Check fuel level and mixture ratio.</li> <li>Inspect spark plug; clean, gap, or replace.</li> <li>Verify CDI connections and functionality.</li> <li>Ensure kill switch is in the OFF position.</li> <li>Check all wiring connections for tightness.</li> </ul>
Engine runs poorly or stalls	<ul style="list-style-type: none"> <li>Incorrect carburetor adjustment</li> <li>Clogged fuel filter</li> <li>Air leak in intake or exhaust</li> <li>Improper fuel mixture</li> </ul>	<ul style="list-style-type: none"> <li>Adjust carburetor settings (idle, air/fuel screw).</li> <li>Clean or replace fuel filter.</li> <li>Check for loose connections around carburetor and exhaust.</li> <li>Verify correct fuel-to-oil ratio.</li> </ul>
Excessive vibration or noise	<ul style="list-style-type: none"> <li>Loose mounting bolts</li> <li>Chain tension incorrect</li> <li>Damaged engine components</li> </ul>	<ul style="list-style-type: none"> <li>Inspect and tighten all engine and component mounting bolts.</li> <li>Adjust chain tension.</li> <li>Inspect engine for any visible damage or wear.</li> </ul>
Fuel leaks	<ul style="list-style-type: none"> <li>Loose fuel line connections</li> <li>Damaged fuel line or tank</li> <li>Carburetor float bowl leak</li> </ul>	<ul style="list-style-type: none"> <li>Tighten fuel line clamps.</li> <li>Inspect fuel line and tank for cracks; replace if damaged.</li> <li>Inspect carburetor for leaks.</li> </ul>

## 9. SPECIFICATIONS

Feature	Specification
Engine Type	Single-cylinder, Air-cooled, 2-Stroke
Engine Model	1E47FA
Displacement	100cc
Power Output	2kW / 6500rpm
Ignition System	CDI
Starting Method	Foot Pedal Start
Spark Plug Model	Z4C
Fuel Tank Capacity	3 Liters (approx. 0.79 US gallons)

Feature	Specification
Drive Chain	415 Heavy Duty Chain, 110 knots
Sprocket Tooth Count	44 teeth
Compatible Bike Size	26-28 inch wheels (V-frame design)
Product Dimensions	17.6 x 17.6 x 8.2 inches
Item Weight	26.4 Pounds



Image: Engine dimensions (25cm/9.8in height, 23cm/9.1in width).

## 10. WARRANTY AND SUPPORT

IMAYCC is committed to providing quality products and support. If you encounter any quality issues with your purchased product, IMAYCC offers one year of long-term guidance or free replacement of brand new products. For any product support inquiries, please utilize the 'Contact Seller' option available in your Amazon order details.

Our team is available to assist you.