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## IMAYCC 2STROKE Engine 100CC KITS

# IMAYCC 100CC 2-Stroke Gas Bicycle Engine Conversion Kit Instruction Manual

Brand: IMAYCC | Model: 2STROKE Engine 100CC KITS

## 1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your IMAYCC 100CC 2-Stroke Gas Bicycle Engine Conversion Kit. This kit is designed to convert compatible 26-28 inch wheeled bicycles into motorized bikes. Please read this manual thoroughly before beginning installation or operation to ensure safe and correct usage.



Image: An assembled bicycle with the IMAYCC 100CC engine kit installed, showcasing the complete motorized bike.

## 2. SAFETY INFORMATION

Operating a motorized bicycle carries inherent risks. Adhere to all safety precautions to prevent injury or damage.

- **Professional Installation Recommended:** If you lack basic hardware skills or experience with engine kits, seek professional assistance.
- **Wear Safety Gear:** Always wear a helmet, eye protection, gloves, and appropriate clothing when operating the motorized bicycle.
- **Fuel Handling:** Gasoline is highly flammable. Handle fuel in a well-ventilated area, away from open flames or sparks. Store fuel in approved containers.
- **Engine Break-in:** Follow the recommended fuel mixing ratio for the engine break-in period (20:1 after 500km) to ensure longevity.
- **Regular Inspections:** Before each ride, check all fasteners, cables, and components for tightness and proper function.
- **Local Regulations:** Be aware of and comply with all local laws and regulations regarding motorized bicycles in your area.

### 3. PACKAGE CONTENTS

Verify that all components listed below are included in your kit:



Image: A comprehensive layout of all parts included in the IMAYCC 100CC Bicycle Engine Kit.

- Engine (1)
- Fuel Tank (1)
- Carburetor (1)
- Sprocket (1) - 44 teeth
- Chain (1) - 110 knots
- Chain Cover (1)
- Clutch Lever (1)
- Tensioner (1)
- Rubber Pad Cleats (2)
- Spark Plug (1)
- Fuel Filter (1)
- Round Rubber Pads (2)
- Clutch Lever Sleeve (1)
- Throttle Handle (1)
- Spark Plug Wrench (1)
- CDI Ignition (1)
- 6mm Drill Bit (1)
- Exhaust Manifold Mounting Piece (1)
- Chain Remover (1)
- Kill Switch (1)
- Throttle Cable (1)

- Clutch Cable (1)
- Exhaust Pipe (1)
- Bolts (with Spring Washers and Nuts) (9)
- 3.5mm Multi-Purpose Fish Head Wrenches (2)
- Exhaust Manifold Mounting Screws & Nuts (3)
- 5mm Hardened L-Type Allen Wrench (1)
- 1/4 Short Set of 10mm Internal and External Hexagon Sockets (1)
- Fuel Line Clamps (5)
- Fuel Line (1)
- Small Spring (1)
- Large Spring (1)
- Fuel Tank Switch (1)
- Gear Removal Tool (1)

## 4. INSTALLATION GUIDE

The installation process requires basic hardware skills and tools. Refer to the video below for a visual guide. It is recommended to watch the entire video before starting the installation.

Your browser does not support the video tag.

Video: Detailed installation steps for the IMAYCC 100CC Bike Motor Kit. This video demonstrates the assembly process from start to finish, covering each component's placement and securing.

### 4.1. Compatibility Check

This kit is suitable for most 26-28 inch wheeled bikes (mountain bikes, cruisers, motorcycles, road bikes) with V-frames. Ensure there is at least 10 inches of clearance between the bottom bracket and the top bar of the frame, especially for 26-inch bikes.

# Suitable for 26-28 Inch Bikes

Ensure at least 10" of clearance between the bottom bracket and the top bar for proper fitment, especially 26" bike.

Please confirm the installation space in advance, alternatively visit the 'Contact Seller'



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

Image: A diagram illustrating the required clearance and dimensions for installing the engine kit on a bicycle frame.

## 4.2. Step-by-Step Installation

### 1. **Step 1: Install the Sprocket** (Video: 0:20 - 1:29)

Remove the rear wheel. Disassemble the existing sprocket if necessary. Cut the rubber pads to fit the spokes. Place the rubber pads, sprocket, and mounting plates onto the wheel hub. Secure them with bolts and nuts, ensuring the sprocket is centered and tight. Reinstall the rear wheel.

### 2. **Step 2: Installation of Engine and Carburetor** (Video: 1:30 - 3:27)

Install the spark plug into the engine cylinder head. Assemble the carburetor by inserting the throttle needle and spring into the throttle slide, then attach the throttle cable. Mount the carburetor onto the engine intake manifold. Position the engine within the bicycle frame's V-frame. Secure the engine using the provided mounting plates, bolts, and nuts. Ensure the engine is level and does not interfere with pedals or other bike components.

### 3. **Step 3: Installation of Chain** (Video: 3:28 - 6:06)

Install the chain tensioner onto the bicycle frame. Route the drive chain from the engine sprocket to the rear wheel sprocket, passing through the chain tensioner. Adjust the chain length by marking and removing excess links using the chain breaker tool. Connect the chain ends with the master link. Adjust the chain tensioner to ensure proper chain tension.

### 4. **Step 4: Installation of The Throttle Handle** (Video: 6:07 - 6:59)

Disassemble the throttle handle housing. Insert the throttle cable into the throttle mechanism. Mount the throttle handle onto the right handlebar. Secure the throttle handle housing with screws. Ensure the throttle operates smoothly and returns to the idle position when released.

5. **Step 5: Installation of Clutch Lever and Clutch Cable** (Video: 7:00 - 7:39)

Attach the clutch cable to the clutch lever. Mount the clutch lever onto the left handlebar. Route the clutch cable to the engine's clutch arm. Connect the clutch cable to the clutch arm, ensuring proper tension for smooth clutch engagement and disengagement.

6. **Step 6: Installing The Ignition** (Video: 7:40 - 8:18)

Mount the CDI ignition unit to a suitable location on the bicycle frame, typically using zip ties or clamps. Connect the ignition wires: blue to blue, black to black. The white wire from the magnetic coil does not need to be connected; insulate it with electrical tape. Connect the spark plug cap to the spark plug.

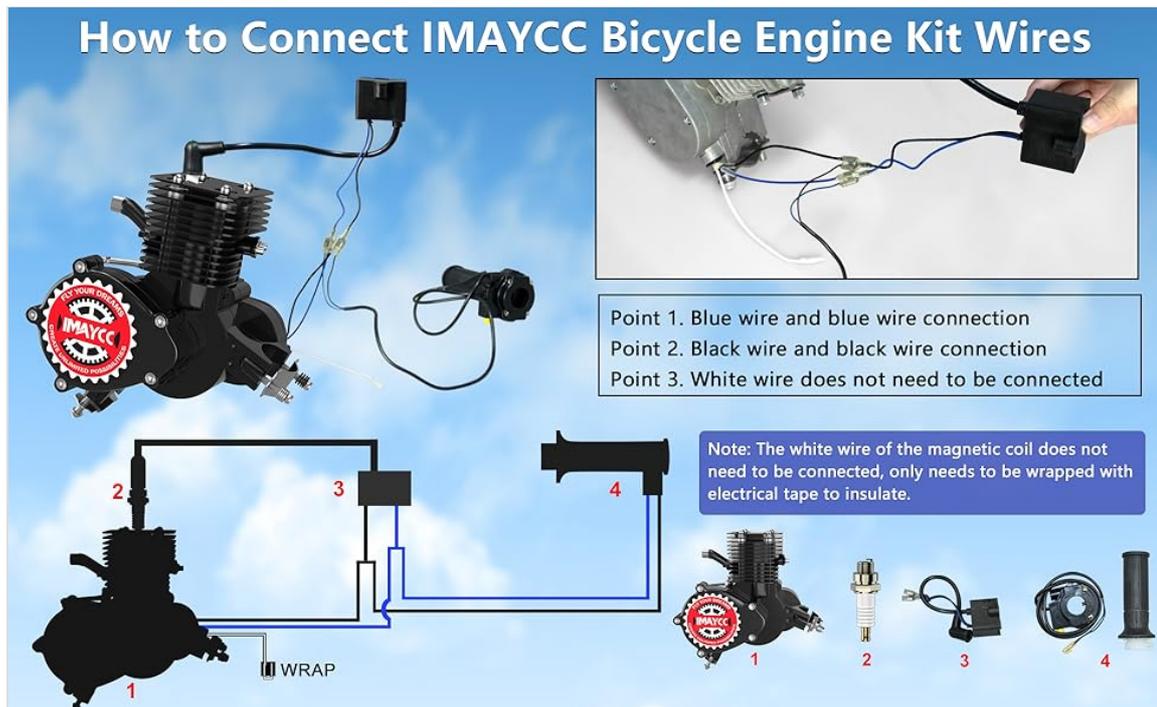


Image: A diagram illustrating the correct wiring connections for the CDI ignition unit and kill switch.

7. **Step 7: Installation of Fuel Tank, Exhaust, and Chain Cover** (Video: 8:19 - 1:18:00)

Install the fuel tank onto the top tube of the bicycle frame using the provided mounting hardware. Attach the fuel valve and fuel filter to the fuel tank. Connect the fuel line from the fuel filter to the carburetor. Install the exhaust pipe onto the engine cylinder, securing it with bolts. Attach the chain cover to protect the drive chain, ensuring it does not interfere with moving parts.



Image: A visual guide detailing the steps for installing the fuel tank, including the fuel valve and filter connections.

## 5. OPERATING INSTRUCTIONS

### 5.1. Fuel Mixing

This is a 2-stroke engine and requires a specific gasoline-to-engine oil mixture. Use 90# gasoline.

- **New Equipment:** 16:1 (Fuel:Engine Oil)
- **After Run-in Period (after 500km):** 20:1 (Fuel:Engine Oil)

Mix thoroughly before adding to the fuel tank. Always close the fuel valve when parking the bicycle.

### 5.2. Starting the Engine

1. Open the fuel valve.
2. Engage the choke (if cold starting).
3. Disengage the clutch.
4. Pedal the bicycle to gain some speed (approx. 5-10 mph).
5. Slowly release the clutch lever. The engine should engage and start.
6. Once the engine starts, gradually disengage the choke.

### 5.3. Riding

- Control speed using the throttle handle.
- Use the clutch for smooth starts and stops.
- Maintain a speed of 35-40 km/h for optimal fuel consumption (2.5L per 100km). Maximum speed limit is 50 km/h.

### 5.4. Stopping the Engine

- Engage the clutch.

- Press the kill switch to turn off the engine.
- Close the fuel valve when the engine is off or the bike is parked.

## 6. MAINTENANCE

- **Fuel System:** Regularly check the fuel filter for debris and replace if necessary. Inspect fuel lines for cracks or leaks.
- **Spark Plug:** Inspect the spark plug periodically for wear and carbon buildup. Clean or replace as needed.
- **Chain:** Keep the drive chain clean and lubricated. Adjust tension as required to prevent slippage or excessive wear.
- **Fasteners:** Periodically check all nuts, bolts, and clamps for tightness, especially after the initial break-in period. Vibrations can loosen components.
- **Air Filter:** Clean or replace the carburetor's air filter regularly to ensure proper air intake and engine performance.

## 7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Engine does not start	<ul style="list-style-type: none"> <li>◦ No fuel or incorrect fuel mix</li> <li>◦ Spark plug issue</li> <li>◦ Ignition wiring incorrect</li> <li>◦ Kill switch engaged</li> </ul>	<ul style="list-style-type: none"> <li>◦ Check fuel level and mix ratio.</li> <li>◦ Inspect spark plug, clean or replace.</li> <li>◦ Verify all ignition wires are correctly connected (blue-blue, black-black).</li> <li>◦ Ensure kill switch is disengaged.</li> </ul>
Loss of power / Poor performance	<ul style="list-style-type: none"> <li>◦ Clogged fuel filter</li> <li>◦ Dirty air filter</li> <li>◦ Incorrect carburetor adjustment</li> <li>◦ Worn spark plug</li> </ul>	<ul style="list-style-type: none"> <li>◦ Replace fuel filter.</li> <li>◦ Clean or replace air filter.</li> <li>◦ Adjust carburetor settings (refer to online resources if needed).</li> <li>◦ Replace spark plug.</li> </ul>
Unusual engine noises	<ul style="list-style-type: none"> <li>◦ Loose fasteners</li> <li>◦ Chain tension incorrect</li> <li>◦ Internal engine issue</li> </ul>	<ul style="list-style-type: none"> <li>◦ Check and tighten all bolts and nuts.</li> <li>◦ Adjust chain tension.</li> <li>◦ Consult a professional mechanic for internal engine problems.</li> </ul>

## 8. SPECIFICATIONS

Feature	Detail
Engine Type	Single-cylinder, Air-cooled, Two-stroke

Feature	Detail
Engine Model	1E47FA
Displacement	100CC
Power/Speed	2kW / 6500rpm
Starting Method	Foot Pedal Starting
Ignition Method	CDI Ignition
Spark Plug Model	Z4C
Drive Chain	415 heavy duty chain
Sprocket Tooth Count	44 teeth
Chain Length	110 knots
Fuel Tank Capacity	3L
Fuel Type	90# Gasoline
Fuel Consumption	2.5L per 100km (at 35-40km/h)
Product Dimensions	17.6 x 8.2 x 17.6 inches; 26.46 Pounds

## 9. WARRANTY AND SUPPORT

IMAYCC is committed to providing high-quality products and services. If there is any quality problem with your purchased product, IMAYCC offers one year of long-term guidance or free replacement of brand new products.

For product support, please visit the 'Contact Seller' option in your Amazon order details. We are here to assist you.