

Manuals.plus /

› JFG RACING /

› JFG RACING 18mm CVK PD18J Carburetor Instruction Manual for GY6 50cc 4-Stroke Scooters

JFG RACING U12140015

JFG RACING 18mm CVK PD18J Carburetor Instruction Manual

Model: U12140015

1. INTRODUCTION

This manual provides essential information for the installation, operation, maintenance, and troubleshooting of your JFG RACING 18mm CVK PD18J Carburetor. Designed for 4-stroke GY6 50cc 139QMB 139QMA scooters and mopeds, this carburetor is a critical component for optimal engine performance. Please read these instructions carefully before proceeding with installation or use.



An overview image of the JFG RACING CVK PD18J Carburetor, emphasizing its identity as a crucial component for engine performance. A motocross rider is visible in the background, suggesting its application in powersports.

2. PRODUCT FEATURES

- **Easy to Install:** Designed for straightforward installation.
- **Durable Construction:** Wear-resistant and corrosion-resistant materials ensure longevity.
- **Strong Power Delivery:** Optimizes fuel-air mixture for enhanced engine performance.
- **Sturdy and Practical:** Robust design for reliable operation.
- **Effective Operation:** Ensures consistent and efficient engine function.
- **Long Service Life:** Built to last, providing extended use.
- **Lightweight Design:** Does not significantly impact the overall weight of the vehicle, suitable for high-performance applications.



This image displays the JFG RACING 18mm CVK PD18J Carburetor from two angles, highlighting its key features: easy installation, wear-resistant and corrosion-resistant construction, strong power delivery, sturdy and practical design, effective operation, and long service life. Dimensions of 114mm height, 85mm width, and 120mm length are also indicated.



Flexible to use

Easy to install

Professional manufacturing

Excellent performance

A detailed view of the carburetor, highlighting its benefits: flexible to use, easy to install, professional manufacturing, and excellent performance. A blurred image of a motocross rider is in the background.

3. PRODUCT FUNCTION

The carburetor serves as the 'heart' of your engine, playing a crucial role in its operation. It automatically adjusts the air and gasoline concentration ratio to produce the optimal mixture required by the engine under different operating conditions. This process, known as atomizing the fuel, ensures efficient combustion, smooth engine running, prevents issues like oil shortage or overflow, and contributes to fuel efficiency.

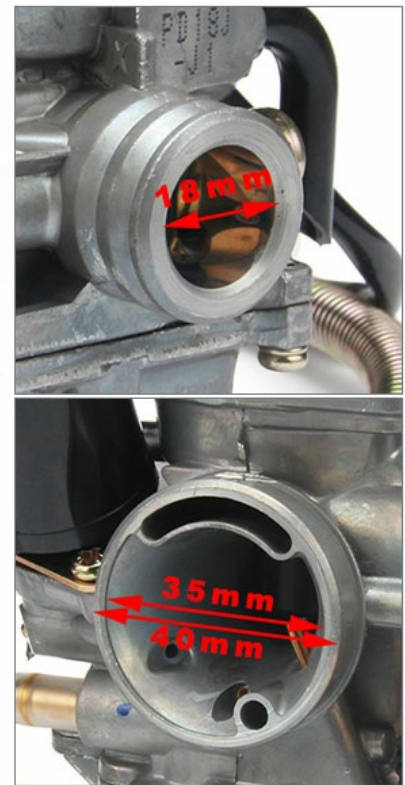
The important role of the carburetor on the engine can be called the "heart" of the engine. The carburetor will automatically match the corresponding concentration according to the requirements of the different working conditions of the engine, and output the corresponding amount of mixed gas, which has the effect of atomizing the fuel for the normal operation of the machine.

This image shows two views of the carburetor, accompanied by text explaining its function: automatically matching air and gasoline concentration ratios to produce the correct mixture, ensuring smooth engine operation, preventing oil shortage or overflow, and saving fuel. It describes the carburetor as the 'heart' of the engine, atomizing fuel for normal operation.

4. SPECIFICATIONS

Feature	Detail
Brand	JFG RACING
Model	U12140015 (CVK PD18J)
Intake Side Inner Diameter	18 mm
Intake Side Outer Diameter	28 mm
Air Filter Mount Inner Diameter	35 mm
Air Filter Mount Outer Diameter	40 mm
Material	Aluminum
Fuel Type	Gasoline
Flange Type	Spread Bore
Specific Use	Performance Upgrade
UPC / GTIN	721352604172

Intake Side inner Diameter :18mm
Intake Side Outer Diameter :28mm
Air Filter Mount inner Diameter :35mm
Air Filter Mount Outer Diameter :40mm
Material: Aluminum



This image provides critical dimensions for the carburetor: Intake Side inner Diameter: 18mm, Intake Side Outer Diameter: 28mm, Air Filter Mount inner Diameter: 35mm, Air Filter Mount Outer Diameter: 40mm. The material is specified as Aluminum. Close-up views of the intake and air filter mounts are included.

5. COMPATIBILITY

This JFG RACING 18mm CVK PD18J Carburetor is compatible with various 4-stroke GY6 49cc/50cc Chinese scooters and mopeds that utilize the 139QMA or 139QMB engine codes. This includes, but is not limited to, models from brands such as:

- Roketa (e.g., 2008 Roketa 50cc, Maui, Sicily)
- Tank (e.g., Urban 50, Sporty50)
- Baotian (e.g., BT49QT-2, BT49QT-7, BT49QT-9, BT50QT-11)
- Sunl (e.g., SL50QT-7, SL50QT-2, Sporty 50)
- Dazon Diamondback
- Hammerhead/Adly Jet 50, Fox 50
- Lance GTR50
- Jonway (e.g., Beta50, Lambda 50, YY50QT)
- Jmstar Breeze, Z-bike
- Longbo (e.g., LB50QT-6, LB50QT-22)
- Motofino (e.g., MF50QT-7)
- Eagle 49cc, Excalibur Vanguard 50
- Taotao (e.g., 49cc scooter, CY50-A, CY50-B, Funny50, Roman50, Retro50, Venus50)
- Zongshen (e.g., ZS50QT-4, Metro 50 Sunl)
- Kymco (e.g., Agility 50 4T, People 50 4T, Super 8 50 4T, Sento 50)
- Jintun 50cc scooter
- Sunny 50cc scooter
- NST 50cc scooter

Always verify your vehicle's existing carburetor specifications and engine code (139QMB/139QMA) to ensure proper fitment before purchase and installation.



A list of compatible scooter and moped models for the JFG RACING CVK PD18J Carburetor, including various 4-stroke GY6 50cc 139QMB 139QMA models from various brands. A workshop background with a motorcycle is visible.



The JFG RACING CVK PD18J Carburetor is shown alongside text indicating its applicability for GY6 50CC 139QMB 139QMA Dirt Bike, Motocross, Go Karts, Scooter, and Quad ATV engines. This clarifies the range of vehicles it can be used with.

6. SETUP AND INSTALLATION

Safety First: Before beginning any work on your vehicle, ensure the engine is off and cool. Disconnect the battery's negative terminal to prevent accidental starts. Wear appropriate safety gear, including gloves and eye protection.

General Installation Steps:

1. **Preparation:** Gather necessary tools (wrenches, screwdrivers, pliers, fuel line clamps). Place a drip pan under the carburetor area to catch any spilled fuel.
2. **Remove Air Filter Box:** Loosen the clamp securing the air filter box to the carburetor and remove the box.
3. **Disconnect Fuel Line:** Clamp the fuel line to prevent fuel flow. Disconnect the fuel line from the carburetor. Be prepared for a small amount of fuel spillage.
4. **Disconnect Vacuum and Choke Lines:** Carefully disconnect any vacuum hoses and the automatic choke

wiring (if applicable). Note their positions for reinstallation.

5. **Disconnect Throttle Cable:** Loosen the throttle cable adjustment and carefully detach the throttle cable from the carburetor slide mechanism.
6. **Remove Old Carburetor:** Loosen the bolts or clamps securing the carburetor to the intake manifold. Carefully remove the old carburetor. Inspect the intake manifold gasket; replace if damaged.
7. **Install New Carburetor:** Position the new JFG RACING CVK PD18J Carburetor, ensuring new gaskets are properly seated between the carburetor and the intake manifold. Secure the carburetor with its mounting bolts/clamps.
8. **Reconnect Components:** Reattach the throttle cable, ensuring smooth operation. Reconnect all vacuum hoses and the automatic choke wiring. Reconnect the fuel line and remove the clamp.
9. **Reinstall Air Filter Box:** Attach the air filter box and tighten its clamp.
10. **Initial Checks:** Double-check all connections for tightness and proper routing. Ensure no fuel leaks.



This image displays three close-up views of the JFG RACING CVK PD18J Carburetor during or after installation on an engine, showing how it connects to the intake manifold and air filter housing. These details are crucial for proper setup.

APPLICABLE MOTORCYCLE

For GY6 50CC 139QMB 139QMA Dirt Bike Motocross
Go Karts Scooter Quad ATV.



A detailed view of the JFG RACING 18mm CVK PD18J Carburetor, showcasing its internal components and construction. This helps users understand the various parts involved in fuel delivery and mixing.

7. OPERATING INSTRUCTIONS

After successful installation, the carburetor is designed to provide optimal performance. Most CVK PD18J carburetors come pre-tuned for standard GY6 50cc engines, minimizing the need for immediate adjustments.

Initial Start-up:

1. Ensure the fuel petcock (if present) is in the 'ON' or 'RES' position.
2. If your scooter has a manual choke, engage it for cold starts. Automatic chokes will activate automatically.
3. Start the engine as per your scooter's manufacturer instructions. Allow the engine to warm up for a few minutes.
4. Once warm, disengage the manual choke (if used). The engine should idle smoothly.

Adjustments (if necessary):

While typically pre-set, minor adjustments may be needed for optimal performance in varying conditions or after break-in. Consult a qualified mechanic if you are unsure about making carburetor adjustments.

- **Idle Speed Screw:** Adjusts the engine's idle RPM. Turn clockwise to increase idle, counter-clockwise to decrease.
- **Air/Fuel Mixture Screw:** Fine-tunes the air-to-fuel ratio at idle and low RPMs. Adjust in small increments (1/8 to 1/4 turn) and observe engine response. Turning it out (counter-clockwise) typically enriches the mixture, while turning it in (clockwise) leans it.

8. MAINTENANCE

Regular maintenance of your carburetor is crucial for sustained performance and engine longevity. Neglecting maintenance can lead to poor fuel economy, reduced power, and starting issues.

Recommended Maintenance:

- **Fuel Quality:** Always use fresh, high-quality gasoline. Stale or contaminated fuel is a primary cause of carburetor issues. Consider using a fuel stabilizer if the vehicle is stored for extended periods.
- **Fuel Filter:** Regularly inspect and replace the in-line fuel filter to prevent debris from reaching the carburetor.
- **Air Filter:** Ensure your air filter is clean and properly installed. A dirty air filter can restrict airflow, causing a rich fuel mixture and poor performance.
- **Carburetor Cleaning:** Periodically clean the carburetor, especially if the vehicle is used infrequently or experiences performance issues. This involves removing the float bowl and cleaning jets and passages with carburetor cleaner. For thorough cleaning, disassembly and ultrasonic cleaning may be required by a professional.
- **Inspection:** Check all hoses, clamps, and gaskets connected to the carburetor for cracks, leaks, or wear. Replace any damaged components.



Four distinct close-up views of the JFG RACING CVK PD18J Carburetor, showcasing its aluminum construction and various components from different angles. This helps in identifying parts and understanding the overall build quality.



This image provides a composite view of the carburetor, with hexagonal insets highlighting specific details such as the intake, float bowl, choke mechanism, and various adjustment screws. This helps users understand the different components of the carburetor.

9. TROUBLESHOOTING

If you encounter performance issues, refer to the common problems and solutions below. For complex issues, it is recommended to consult a professional mechanic.

Problem	Possible Cause	Solution
Engine won't start or hard to start	No fuel, clogged fuel filter, clogged jets, faulty choke, vacuum leak	Check fuel level, replace fuel filter, clean carburetor jets, inspect choke operation, check for loose hoses/cracked manifold
Poor idle or stalls at idle	Incorrect idle speed, clogged idle jet, air/fuel mixture incorrect, vacuum leak	Adjust idle speed screw, clean idle jet, adjust air/fuel mixture screw, check for vacuum leaks
Engine bogs or lacks power	Clogged main jet, restricted air filter, incorrect float level, fuel delivery issue	Clean main jet, clean/replace air filter, check float level, ensure adequate fuel flow
Engine runs rich (black smoke, strong fuel smell)	Clogged air filter, stuck choke, high float level, incorrect jetting	Clean/replace air filter, check choke, adjust float level, verify correct jet sizes
Engine runs lean (overheating, backfiring)	Vacuum leak, low float level, clogged fuel filter, incorrect jetting	Check for vacuum leaks, adjust float level, replace fuel filter, verify correct jet sizes
Fuel leaks	Damaged float bowl gasket, loose drain screw, cracked fuel line, stuck float needle	Replace gasket, tighten drain screw, replace fuel line, clean float needle and seat

10. WARRANTY AND SUPPORT

For information regarding the warranty period and terms for your JFG RACING 18mm CVK PD18J Carburetor, please refer to the product packaging or contact JFG RACING customer support directly. Keep your proof of purchase for any warranty claims.

If you require technical assistance, have questions about installation, or need further troubleshooting guidance, please reach out to JFG RACING customer service. Our team is dedicated to providing high-quality products and support to our customers.