

## Cummins AI-AF55020

# Cummins Fleetguard AF500 Direct-Flow Primary Air Filter User Manual

Model: AI-AF55020 | Brand: Cummins Fleetguard

## 1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of the Cummins Fleetguard AF500 Direct-Flow Primary Air Filter, DF390 Series. Designed for heavy-duty applications, this filter ensures optimal engine performance and longevity by effectively removing airborne contaminants.

Please read this manual thoroughly before installation and retain it for future reference.

## 2. PRODUCT FEATURES

- **Direct-Flow Design:** Engineered for efficient airflow and superior filtration.
- **Primary Air Filter:** Serves as the main filtration component in the air intake system.
- **Durable Construction:** Made with robust plastic outer material for longevity.
- **OEM Compatibility:** Direct replacement for J.L.G. Industries part number 70024177.
- **Optimized Engine Protection:** Helps prevent wear and tear on engine components by filtering out dust, dirt, and debris.

## 3. SETUP AND INSTALLATION

Proper installation is crucial for the air filter's performance and the protection of your engine. Always refer to your vehicle or equipment's service manual for specific instructions.

1. **Safety First:** Ensure the engine is turned off and cooled down before beginning any work. Disconnect the battery if necessary.
2. **Locate Air Filter Housing:** Identify the air filter housing, typically a large plastic or metal box connected to the engine's air intake.
3. **Open Housing:** Unlatch or unscrew the clips/bolts securing the air filter housing cover. Carefully remove the cover.
4. **Remove Old Filter:** Gently pull out the old air filter. Note its orientation for correct installation of the new filter.
5. **Clean Housing:** Inspect the inside of the air filter housing for any debris, dust, or leaves. Clean thoroughly with a damp cloth, ensuring no foreign objects remain.
6. **Install New Filter:** Insert the new Cummins Fleetguard AF500 filter into the housing, ensuring it fits snugly and is oriented correctly. Do not force the filter.
7. **Secure Housing:** Replace the housing cover and secure all clips or bolts. Ensure a tight seal to prevent unfiltered air from entering the engine.
8. **Final Check:** Double-check all connections and ensure no tools or loose parts are left in the engine bay.



Figure 1: Cummins Fleetguard AF55020 Direct-Flow Primary Air Filters. These filters are designed for efficient air intake and engine protection.

## 4. OPERATING CONSIDERATIONS

Once installed, the air filter operates passively as part of the engine's air intake system. No specific user interaction is required during operation. The filter continuously cleans the air entering the engine, protecting internal components from harmful particles. Ensure that the air filter housing remains sealed and free from damage to maintain optimal filtration efficiency.

## 5. MAINTENANCE

Regular maintenance of your air filter is essential for maintaining engine performance and fuel efficiency.

- Inspection:** Periodically inspect the air filter for signs of dirt, debris, or damage. The frequency of inspection depends on operating conditions (e.g., dusty environments require more frequent checks).
- Replacement Interval:** Replace the air filter according to the vehicle or equipment manufacturer's recommended service schedule, or sooner if operating in severe conditions. A clogged air filter can significantly reduce engine power and increase fuel consumption.
- Do Not Clean:** This type of filter is designed for replacement, not cleaning. Attempting to clean the filter (e.g., with compressed air or water) can damage the filtration media and reduce its effectiveness.

## 6. TROUBLESHOOTING

If you experience issues related to air intake, consider the following troubleshooting steps:

Symptom	Possible Cause	Solution
Reduced Engine Power / Poor Acceleration	Clogged or dirty air filter.	Inspect and replace the air filter if necessary.
Increased Fuel Consumption	Restricted airflow due to a dirty filter.	Replace the air filter.

Symptom	Possible Cause	Solution
Engine Misfires / Rough Idling	Severely clogged filter or unfiltered air entering the engine due to improper seal.	Replace filter. Check air filter housing for proper sealing and damage.
Unusual Engine Noises	Loose air filter housing or damaged filter.	Ensure housing is securely fastened. Inspect filter for damage and replace if found.

If issues persist after troubleshooting, consult a qualified mechanic or the equipment manufacturer's service department.

## 7. SPECIFICATIONS

Attribute	Value
Brand	Cummins Fleetguard
Model Number	AI-AF55020
Item Weight	3.39 pounds
Package Dimensions	12.5 x 9.5 x 8.25 inches
Outer Material	Plastic
Product Grade	Replacement Part
Vehicle Service Type	Vehicle Specific (J.L.G. Industries 70024177)



Figure 2: Fleetguard Brand Logo. Fleetguard is a brand of Cummins, specializing in filtration products.

## 8. WARRANTY AND SUPPORT

For specific warranty information regarding the Cummins Fleetguard AF500 Direct-Flow Primary Air Filter, please refer to the official Cummins or Fleetguard website, or contact their customer support directly. Warranty terms typically cover manufacturing defects.

For technical support or further inquiries, please visit the [Cummins Official Store on Amazon](#) or contact Cummins customer service.

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