

## Gladiator 504357110

# Gladiator Premium Starter Instruction Manual

Model:  504357110

## INTRODUCTION

This manual provides essential information for the installation, operation, and maintenance of your new Gladiator Premium Starter. This starter is designed to meet or exceed OEM specifications, ensuring reliable performance for compatible Ford New Holland TS Series Tractors with Iveco Engines, including models TS90, TS100, TS110, TS115, TS6.100, TS6.120, TS6.125, and TS6.140, as well as various Case Ag Tractor and New Holland Industrial Ag Tractor models. It is a 12 Volt, 3.0KW, 10-tooth unit, 100% computer load tested for reliability. For a comprehensive list of compatible models, please refer to the specifications section or the product description.

## SAFETY INFORMATION

Always prioritize safety when working with automotive components. Failure to follow these guidelines may result in injury or damage to equipment.

- Disconnect the battery's negative terminal before beginning any work on the electrical system.
- Wear appropriate personal protective equipment (PPE), including safety glasses and gloves.
- Ensure the vehicle is stable and properly supported before working underneath it.
- Refer to the vehicle's service manual for specific instructions and torque specifications.
- Keep all tools and work areas clean and organized.
- If unsure about any procedure, consult a qualified mechanic.

## SETUP AND INSTALLATION

Proper installation is crucial for the optimal performance and longevity of your new starter. These are general guidelines; always consult your vehicle's specific service manual.

1. **Preparation:** Ensure the vehicle's ignition is off and the parking brake is engaged. Disconnect the negative battery cable.
2. **Locate Old Starter:** Identify the existing starter motor, typically mounted on the engine block near the flywheel or transmission bell housing.

3. **Disconnect Wiring:** Carefully disconnect all electrical connections from the old starter, noting their positions for reinstallation. This usually includes a large battery cable and a smaller solenoid wire.
4. **Remove Mounting Bolts:** Unbolt the old starter from the engine block. Be prepared for the starter to be heavy.
5. **Install New Starter:** Position the new Gladiator Premium Starter in place and secure it with the mounting bolts. Ensure proper alignment.
6. **Reconnect Wiring:** Reattach all electrical connections to the new starter, ensuring they are tight and secure.
7. **Reconnect Battery:** Reconnect the negative battery cable.
8. **Test:** Attempt to start the engine to confirm proper operation. Listen for unusual noises.

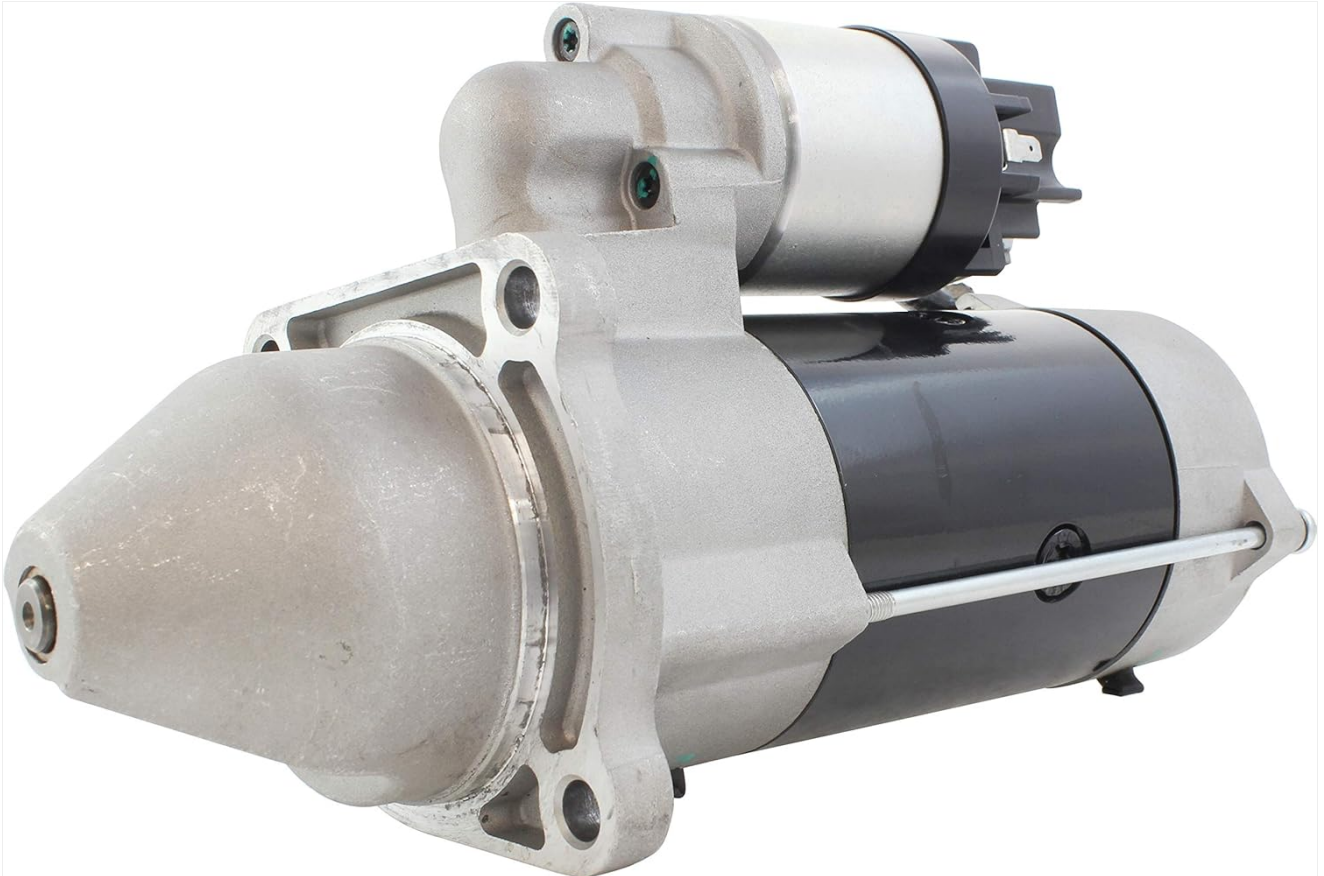


Figure 1: Front view of the Gladiator Premium Starter, showing the main body and solenoid. This image highlights the robust construction and primary components of the starter motor.

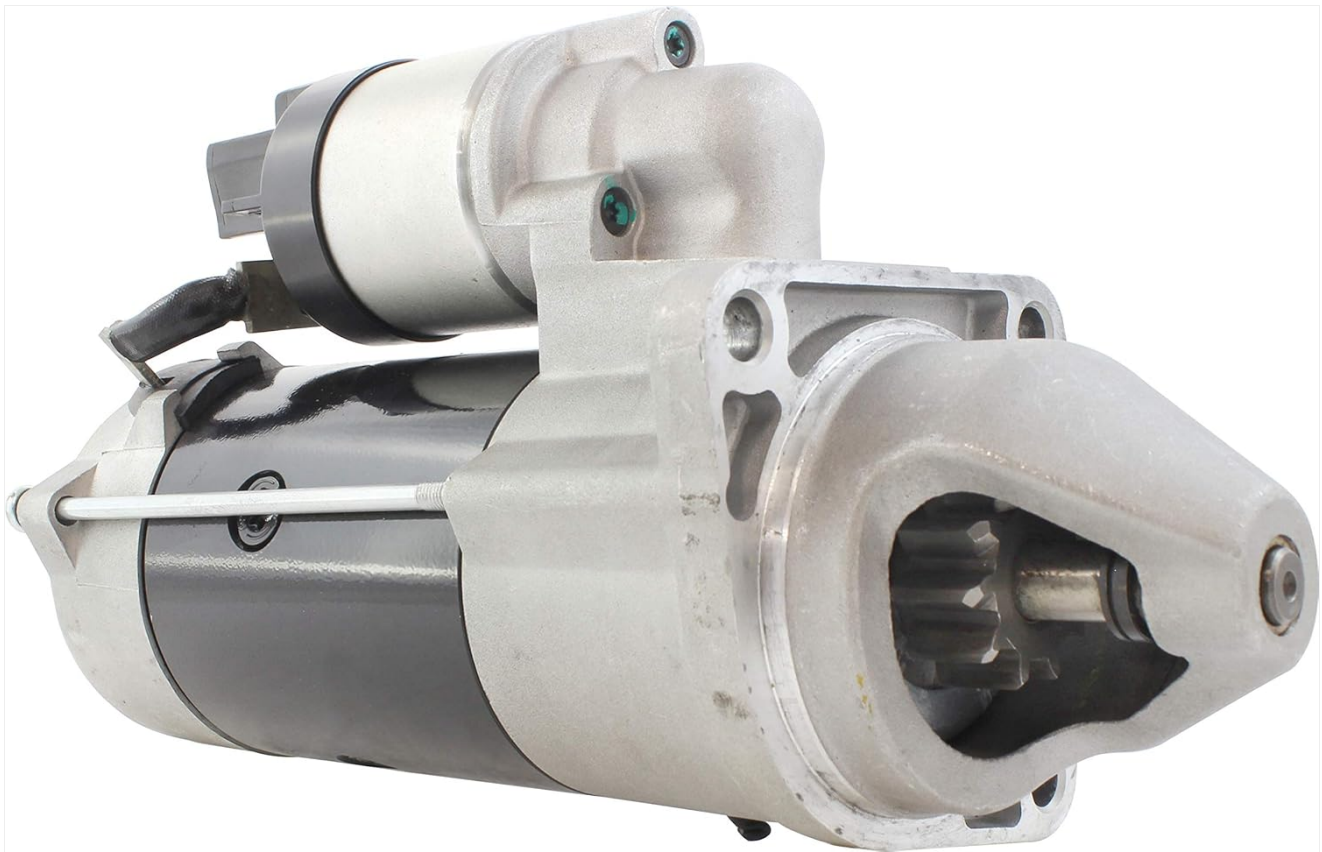


Figure 2: View of the Gladiator Premium Starter's pinion gear. This gear engages with the engine's flywheel to crank the engine during startup.

## OPERATING PRINCIPLES

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The starter motor is an electric motor that rotates the engine's flywheel to initiate the combustion process. When the ignition key is turned to the "start" position, electrical current flows from the battery to the starter solenoid. The solenoid then engages the starter's pinion gear with the engine's flywheel and simultaneously sends power to the starter motor. The motor spins the flywheel, cranking the engine until it starts. Once the engine begins to run, the solenoid disengages the pinion gear from the flywheel to prevent damage.

This Gladiator Premium Starter is designed for 12-volt systems and provides 3.0 kilowatts of power, ensuring sufficient cranking power for compatible diesel engines.

## MAINTENANCE

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Starters are generally low-maintenance components. However, regular checks of the associated electrical system can prolong its life and ensure reliable starting.

- **Battery Health:** Ensure your vehicle's battery is fully charged and in good condition. A weak battery can overwork the starter.
- **Cable Connections:** Periodically inspect battery cables and starter connections for corrosion or looseness. Clean and tighten as necessary.
- **Ground Connections:** Verify that all ground connections are clean and secure.
- **Avoid Excessive Cranking:** Do not crank the engine for more than 10-15 seconds at a time. Allow the starter to cool for a minute or two between attempts to prevent overheating.

## TROUBLESHOOTING

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If you experience issues with your starter, consider the following common problems and solutions:

Symptom	Possible Cause	Solution
Engine does not crank or cranks slowly	Weak or dead battery; Loose or corroded battery cables/connections; Faulty starter solenoid; Faulty starter motor.	Check battery voltage and charge/replace if necessary; Clean and tighten all connections; Test solenoid and starter motor.
Clicking sound when trying to start	Low battery voltage; Faulty starter solenoid.	Charge or replace battery; Test and replace solenoid if needed.
Starter spins but engine does not crank	Faulty starter drive (bendix) or pinion gear.	Replace the starter motor.
Burning smell or smoke from starter	Overheated starter due to excessive cranking or internal short.	Allow starter to cool; Check for shorts; Replace starter if damage is evident.
Starter remains engaged after engine starts	Faulty solenoid or ignition switch.	Immediately turn off engine; Test and replace solenoid or ignition switch.
Starter makes grinding noise	Damaged flywheel teeth or starter pinion gear.	Inspect flywheel and starter gear; Replace damaged components.
Starter works intermittently	Loose connections; Intermittent solenoid fault; Worn brushes inside starter.	Check and secure all connections; Test solenoid; Consider starter replacement.
Starter draws excessive current (drains battery quickly)	Internal short in starter motor.	Replace starter motor.
Starter does not engage with flywheel	Faulty solenoid (not pushing pinion out); Damaged pinion gear or drive.	Test solenoid; Inspect and replace starter if pinion or drive is damaged.

## SPECIFICATIONS

Key specifications for the Gladiator Premium Starter:

Feature	Detail
Brand	Gladiator
Model Number	504357110
Voltage	12 Volts
Wattage	KW
Pinion Teeth	10 Tooth
Item Weight	16 pounds (288 Ounces)
Product Dimensions (L x W x H)	5.5 x 7 x 4.5 inches
Material	Metal

Feature	Detail
OEM Specifications	Meets or Exceeds OEM Specifications
Testing	100% Computer Load Tested for Reliability
Compatible Part Numbers	0001262022, 19980N, 0-001-262-021, 0-001-262-022, 00012620213Z2

**Compatibility:** This starter is compatible with a wide range of Case Ag Tractor and New Holland Tractor models. Please verify fitment with your specific vehicle's requirements. Examples include:

- Case Ag Tractor: Farmall 85C, 95C, 95N; Maxxum 100, 110, 115, 120, 130; MXU100, MXU110, MXU115.
- New Holland Ind Ag Tractor: T4040, T4050, T6.120, T6.140, T6.150, T6.175, T7.170, T7.220, T7.260, T7.270, T7.230, TD5.105, TD5.95, TS6.120.
- New Holland Tractor: TS100, TS110, TS110A, TS115A, TS6.100, TS6.120, TS6.125, TS6.140, TS90, TT60A.

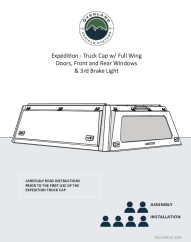
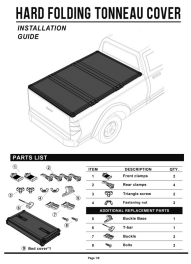
## WARRANTY AND SUPPORT





The Gladiator Premium Starter comes with a **One Year Warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use and service.

For warranty claims, technical support, or any questions regarding your product, please contact the seller or manufacturer directly through the platform where the purchase was made. Please have your purchase details and model number ready.

For additional resources, you may refer to the official Gladiator website or authorized service centers.

### Related Documents - 🔗 504357110

	<p><a href="#">Expedition Truck Cap Installation and Care Instructions</a></p> <p>Comprehensive guide for installing and caring for the Overland Vehicle Systems Expedition Truck Cap, including detailed steps for assembly, wiring, and vehicle-specific instructions for various truck models.</p>
	<p><a href="#">Hard Folding Tonneau Cover Installation Guide</a></p> <p>Detailed installation guide for a hard folding tonneau cover, including parts list and step-by-step instructions for various truck models.</p>

 <p>The cover of the 'Windshield Defense' installation guide features four small images showing the product being applied to different vehicle windshields. The text 'STEP-BY-STEP INSTALLATION GUIDE' is prominently displayed at the top right.</p>	<p><a href="#">Windshield Defense Installation Guide: Step-by-Step Instructions for Automotive Protection</a></p> <p>Comprehensive step-by-step installation guide for Windshield Defense, a three-layer windshield protection film. Learn how to properly apply the film to your vehicle, troubleshoot common issues, and ensure optimal results for INEOS, Jeep, Ford, and Mercedes-Benz models.</p>
 <p>The cover of the 'Eaton Performance Differentials' application guide shows a blue sports car on a racetrack. Below the car are four small images of different differential components. The Eaton logo is at the bottom.</p>	<p><a href="#">Eaton Performance Differentials Application Guide</a></p> <p>Comprehensive application guide for Eaton Performance Differentials, including Detroit Locker, ELocker, Detroit Truetrac, and Posi. This guide details product features, vehicle applications, and installation notes for a wide range of trucks, SUVs, cars, and more.</p>
 <p>The cover of the 'OPENROAD Truck Cap' installation instructions features a black truck cap. Below the image, it says 'Please carefully read the installation manual to avoid damaging parts or vehicles' and 'openroad4wd.com'.</p>	<p><a href="#">OPENROAD Truck Cap Installation Instructions</a></p> <p>Detailed installation guide for OPENROAD Truck Caps, featuring comprehensive parts lists, step-by-step assembly procedures, and third brake light wiring instructions for various truck models including Toyota Tacoma, Toyota Tundra, Jeep Gladiator, Ford F-150, Dodge RAM, and Chevy Colorado/GMC Canyon.</p>
 <p>The cover of the 'Gladiator GPB2 Terminal Blocks' guide shows several different terminal block models. It includes the 'Gladiator' logo and various certification marks like CE, ENEC, and others.</p>	<p><a href="#">Gladiator GPB2 Terminal Blocks: Features, Ratings, and Specifications</a></p> <p>Comprehensive guide to Gladiator GPB2 Terminal Blocks, detailing features, technical specifications, ratings, agency approvals, and wire/torque specifications for various models. Includes information on single-pole, three-pole, and flat conductor terminal blocks.</p>