

## INSTARTING 04-035

# INSTARTING Alternator Voltage Regulator User Manual

Model: 04-035

## 1. PRODUCT OVERVIEW

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The INSTARTING Alternator Voltage Regulator is a critical component designed to maintain a stable output voltage from your vehicle's alternator. It ensures that the electrical system receives a consistent 14V supply, protecting sensitive electronic components and ensuring proper battery charging. This regulator is manufactured with new premium quality components, engineered to meet or exceed OEM specifications, and tested for reliability, durability, and performance.



Front view of the INSTARTING Alternator Voltage Regulator, showing the main body and electrical connector.

## 2. KEY FEATURES

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- A-Circuit design for efficient operation.
- Voltage Set Point: 14V for optimal charging.
- Soft Start: 30% for smooth power delivery.
- LRC (Load Response Control): 5 seconds.
- Brand New - Manufactured With New Premium Quality Components.
- Engineered To Meet Or Exceed OEM Specifications.
- All Items Tested For Reliability, Durability And Performance.

## 3. COMPATIBILITY

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This voltage regulator is compatible with a wide range of alternators. Please cross-reference the following OEM part numbers to ensure proper fitment for your application:

- F00M225200
- F00M255200
- F00M255202
- 235460
- 160661
- ARB0200UT
- VRB394
- IB200
- RB0200A
- 310N10151Z

- 01220AA1H0
- 01220AA1J0
- 0122468015
- 12311705483
- ALB1632LK
- ALB1632NW
- ALB9632NW
- ALB9632WA

## 4. INSTALLATION GUIDE

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**Important Safety Notice:** Installation of automotive electrical components can be complex and may require specialized tools and knowledge. It is highly recommended that installation be performed by a qualified automotive technician to ensure proper function and safety. Disconnect the vehicle's battery before beginning any work on the electrical system.

1. **Preparation:** Ensure the vehicle's ignition is off and the negative terminal of the battery is disconnected to prevent electrical shorts or injury.
2. **Locate Alternator:** Identify the alternator in your vehicle's engine bay. The voltage regulator is typically mounted on the back or side of the alternator.
3. **Remove Old Regulator:** Carefully disconnect any electrical connectors and unbolt the old voltage regulator from the alternator. Note the orientation and connection points for reassembly.
4. **Inspect Alternator:** While the regulator is removed, inspect the alternator's slip rings and brushes for wear. Replace if necessary.
5. **Install New Regulator:** Position the new INSTARTING voltage regulator, ensuring all mounting holes align. Secure it with the appropriate bolts.
6. **Connect Electrical:** Reconnect all electrical connectors firmly to the new regulator. Ensure no wires are pinched or loose.
7. **Re-connect Battery:** Reconnect the negative terminal of the vehicle's battery.
8. **Test System:** Start the vehicle and check the charging system. Monitor the battery voltage, which should be around 13.8V to 14.4V with the engine running.



Angled view of the voltage regulator, highlighting the electrical connector and mounting points.

## 5. OPERATING PRINCIPLES

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The alternator voltage regulator plays a crucial role in your vehicle's charging system. Its primary function is to control the output voltage of the alternator by regulating the current supplied to the alternator's field coil. When the engine is running, the alternator generates AC power, which is then rectified into DC power. The voltage regulator monitors the system voltage and adjusts the field current to maintain a constant 14V output, regardless of engine speed or electrical load. This ensures that the battery is properly charged and all electrical accessories receive a stable power supply, preventing overcharging or undercharging of the battery and protecting sensitive electronics from voltage fluctuations.

## 6. MAINTENANCE

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The INSTARTING Alternator Voltage Regulator is designed for long-term reliability and typically requires minimal maintenance. However, periodic inspection of the surrounding components can help ensure its longevity and proper function:

- **Visual Inspection:** Periodically inspect the regulator and its connections for any signs of corrosion, loose wires, or physical damage.
- **Wiring Integrity:** Ensure all wiring connected to the alternator and regulator is secure and free from fraying or damage.
- **Battery Health:** A healthy battery is essential for the proper functioning of the charging system. Ensure your battery is in good condition and holds a charge.
- **Alternator Belt:** Check the tension and condition of the alternator drive belt. A slipping belt can lead to insufficient charging.



Bottom view of the voltage regulator, displaying the metallic heat sink plate and mounting holes.

## 7. TROUBLESHOOTING

If you experience issues with your vehicle's charging system, the voltage regulator could be a contributing factor. Consult the table below for common symptoms and potential solutions. Always consult a qualified technician for diagnosis and repair.

Symptom	Possible Cause	Solution
Battery light on dashboard	Faulty voltage regulator, worn brushes, bad alternator	Test charging system, replace regulator/alternator as needed
Dimming or flickering lights	Unstable voltage output from regulator	Check regulator connections, test regulator, replace if faulty
Overcharging (battery fluid boiling, strong sulfur smell)	Voltage regulator stuck in high output mode	Immediately stop vehicle, replace faulty regulator
Undercharging (dead battery, slow cranking)	Voltage regulator not allowing sufficient charge	Test battery and charging system, replace regulator if necessary
Electronic component malfunction	Voltage spikes or drops due to regulator failure	Diagnose charging system, replace regulator

## 8. TECHNICAL SPECIFICATIONS

Specification	Value
Brand	INSTARTING

Specification	Value
Model	Regulator
Item Model Number	04-035
Manufacturer Part Number	04-035
OEM Part Numbers	F00M225200, F00M255200, F00M255202, 235460, 160661, ARB0200UT, VRB394, IB200, RB0200A, 310N10151Z, 01220AA1H0, 01220AA1J0, 0122468015, 12311705483, ALB1632LK, ALB1632NW, ALB9632NW, ALB9632WA
Item Weight	300 g
Voltage Set Point	14V
Soft Start	30%
LRC	5 sec
Manufacturer	Lishui Instarting Technology Co.Ltd
Date First Available	May 3 2023

## 9. WARRANTY AND SUPPORT

For specific warranty information and technical support regarding your INSTARTING Alternator Voltage Regulator, please refer to the documentation provided with your purchase or contact the manufacturer directly. Ensure you have your model number (04-035) and purchase details available when seeking support.