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## World Power Systems MCR12115NAA1

# Alternator Instruction Manual

Model: MCR12115NAA1 | Brand: World Power Systems

## 1. PRODUCT OVERVIEW

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This manual provides essential information for the proper installation, operation, and maintenance of your new World Power Systems Alternator, model MCR12115NAA1. This unit is a 100% brand new replacement, engineered and tested to exceed OEM specifications, ensuring reliable performance for your vehicle or equipment.

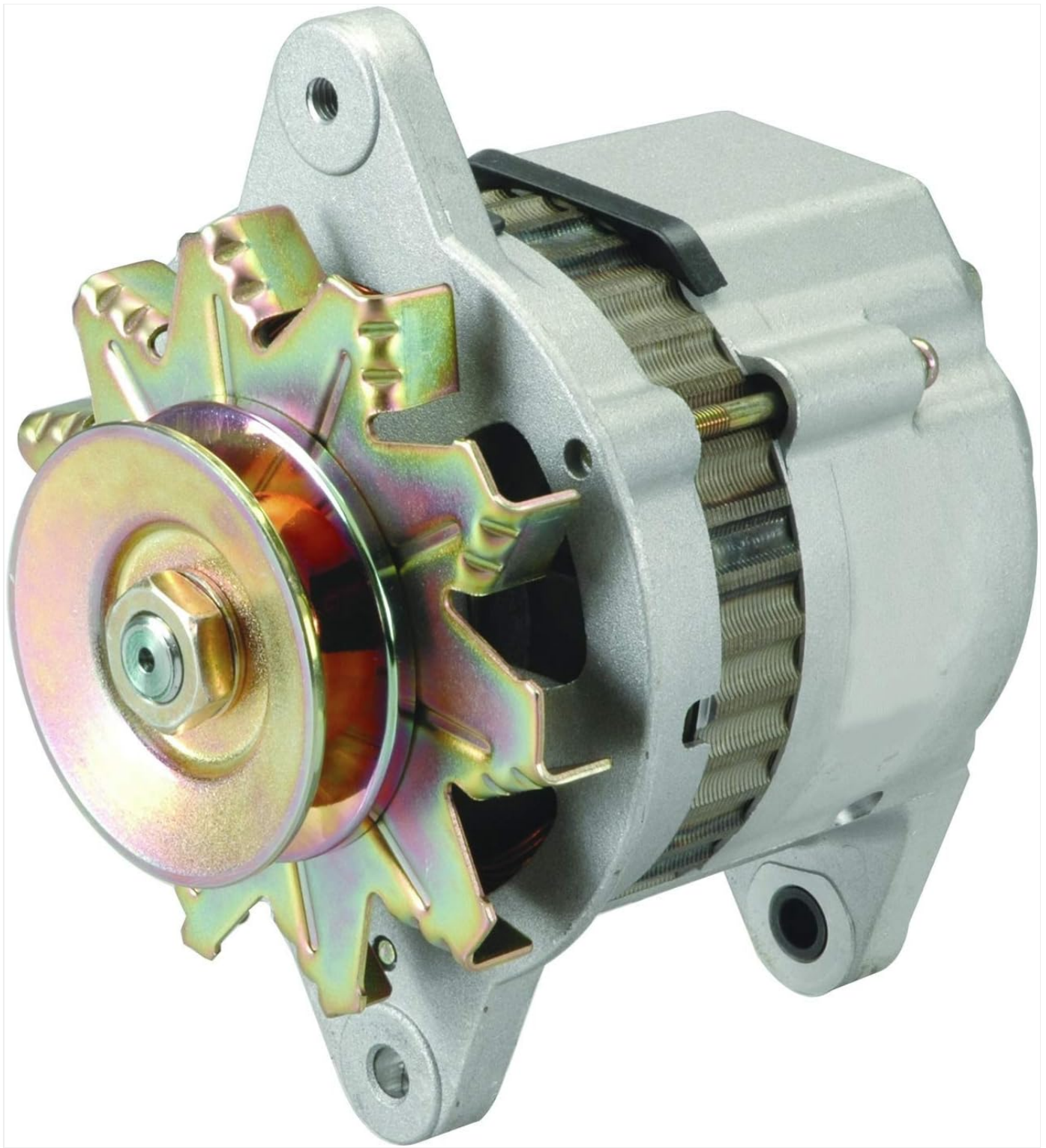


Figure 1: Front view of the World Power Systems Alternator, showing the pulley and cooling fan.

## 2. COMPATIBILITY

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This alternator is compatible with and serves as a direct replacement for various OEM units and vehicle/equipment models. Please verify your existing part numbers to ensure correct fitment.

### Compatible OEM Part Numbers:

- **Hitachi:** GD204293-E, GD205008-E, LR135-115, LR135-116, LR135-127, LR135-127N, LR135-86, LR135-86C, LR135-86F, LR135-95, LR135-95B, LR135-95BN, LR135-95BR
- **Iseki:** 6581-200-338-0, 6581-200-338-0A, 6581-200-349-0
- **Isuzu:** 5812003381, 5812003410, 5812003411, 8944237560, 436530

## Compatible Vehicle/Equipment Models (Years):

- **GEHL:** (1985-1997)
- **ISEKI:** (1982-1988)
- **ISUZU:** (1986-2007)
- **TAKEUCHI:** (1986-1992)
- **TCM EQUIPMENT:** (1984-2005)



Figure 2: Rear view of the World Power Systems Alternator, highlighting the electrical connection points.

### 3. INSTALLATION (SETUP)

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**Important Safety Notice:** Installation of automotive electrical components, such as alternators, requires specialized knowledge and tools. It is highly recommended that installation be performed by a qualified automotive technician to ensure proper function and safety. Improper installation can lead to vehicle damage, electrical system failure, or personal injury.

#### General Installation Guidelines (For Professional Reference):

1. **Disconnect Battery:** Always disconnect the negative battery terminal first to prevent electrical shorts.
2. **Access Alternator:** Locate and gain access to the existing alternator. This may involve removing other components.
3. **Remove Drive Belt:** Release tension on the serpentine or V-belt and remove it from the alternator pulley.
4. **Disconnect Wiring:** Carefully disconnect all electrical connections from the old alternator (main power wire, regulator wires). Note their positions.
5. **Remove Mounting Bolts:** Unbolt the old alternator from its mounting brackets.
6. **Install New Alternator:** Position the new World Power Systems alternator into place and secure it with the mounting bolts. Ensure proper alignment.
7. **Reconnect Wiring:** Reattach all electrical connections securely. Ensure terminals are clean and tight.
8. **Install Drive Belt:** Route the drive belt correctly and apply the specified tension.
9. **Reconnect Battery:** Reconnect the negative battery terminal.
10. **Test System:** Start the engine and check for proper charging voltage (typically 13.5V to 14.8V) and ensure no battery warning lights are illuminated.

### 4. OPERATING PRINCIPLES

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The alternator is a crucial component of your vehicle's electrical system. Its primary function is to convert mechanical energy from the engine's rotating crankshaft (via the drive belt) into electrical energy. This electrical energy is then used to:

- **Recharge the Vehicle Battery:** After starting the engine, the alternator replenishes the power drawn from the battery.
- **Power Electrical Systems:** While the engine is running, the alternator supplies electricity to all vehicle electrical components, including lights, radio, air conditioning, power windows, and the ignition system.

A voltage regulator, often integrated within the alternator, ensures that the output voltage remains stable within a safe operating range, protecting sensitive electronic components from overcharging or undercharging.

### 5. MAINTENANCE

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Proper maintenance can extend the life of your alternator and ensure optimal vehicle performance. While alternators are generally robust, periodic checks are recommended:

- **Inspect Drive Belt:** Regularly check the condition and tension of the serpentine or V-belt that drives the alternator. A worn, cracked, or loose belt can lead to insufficient charging.
- **Check Electrical Connections:** Ensure all wiring connections to the alternator are clean, tight, and free from corrosion. Loose or corroded connections can impede current flow.
- **Battery Health:** A weak or failing battery can put undue strain on the alternator. Ensure your battery is in good condition and holds a charge properly.
- **Avoid Overloading:** Minimize the use of excessive electrical accessories when the engine is off or at low RPMs to

reduce strain on the charging system.

## 6. TROUBLESHOOTING

If you experience issues with your vehicle's charging system, consider the following common symptoms and potential causes. Always consult a qualified technician for accurate diagnosis and repair.

### Common Symptoms of Alternator Issues:

- **Battery Warning Light:** An illuminated battery light on your dashboard typically indicates a problem with the charging system.
- **Dimming Lights/Electrical Malfunctions:** Headlights, dashboard lights, or other electrical components may dim or flicker, especially at idle.
- **Dead Battery:** If the battery repeatedly dies, even after being charged, the alternator may not be recharging it properly.
- **Unusual Noises:** A grinding or whining noise from the alternator area could indicate worn bearings.
- **Burning Smell:** An odor of burning rubber or hot wires could indicate a slipping belt or an overloaded alternator.

### Basic Checks (Before Professional Diagnosis):

- **Battery Terminals:** Ensure battery terminals are clean and securely fastened.
- **Alternator Belt:** Check the drive belt for proper tension and signs of wear or damage.
- **Fuses:** Inspect relevant fuses in the vehicle's fuse box that are connected to the charging system.

If these basic checks do not resolve the issue, professional diagnostic testing of the alternator and charging system is recommended.

## 7. SPECIFICATIONS

| Attribute                | Detail                                                                                                                                                                                                                                                                              |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Brand                    | World Power Systems                                                                                                                                                                                                                                                                 |
| Manufacturer Part Number | MCR12115NAA1                                                                                                                                                                                                                                                                        |
| Item Weight              | 9.6 pounds                                                                                                                                                                                                                                                                          |
| Country of Origin        | China                                                                                                                                                                                                                                                                               |
| OEM Part Numbers         | GD204293-E, GD205008-E, LR135-115, LR135-116, LR135-127, LR135-127N, LR135-86, LR135-86C, LR135-86F, LR135-95, LR135-95B, LR135-95BN, LR135-95BR (Hitachi); 6581-200-338-0, 6581-200-338-0A, 6581-200-349-0 (Iseki); 5812003381, 5812003410, 5812003411, 8944237560, 436530 (Isuzu) |
| Condition                | 100% Brand New Replacement                                                                                                                                                                                                                                                          |

## 8. WARRANTY INFORMATION

World Power Systems stands behind the quality of its products. This alternator comes with a comprehensive warranty to ensure your peace of mind:

- **Agriculture & Industrial Components:** 1-year warranty
- **All Other Components (including this alternator):** 2-year warranty

For specific warranty claims or details, please refer to the terms and conditions provided at the time of purchase or contact your retailer.

**FACTORY FIT REPLACEMENTS**  
No mods needed.  
Please contact us to confirm fitment or address any concerns you may have.

**INDUSTRY EXPERTS SINCE 1963**  
Using our years of experience to develop many innovative and unique solutions for Charging & Starting problems. We search out the best for you because we value quality, attention to detail, and specifications.

**EXTENDED WARRANTIES**  
Agriculture & Industrial - 1 year  
All other components - 2 years

**MCR**  
BUY MCR

STARTERS // ALTERNATORS // GENERATORS // WIPER MOTORS  
SOLENOIDS // IGNITION COILS // DC MOTORS // RECTIFIERS  
OEM QUALITY AFTERMARKET REPLACEMENTS FOR:  
**BOSCH // DELCO // DENSO // FORD // HITACHI  
LETRIKA // LUCAS // MANDO // MITSUBISHI // NIKKO**  
PLUS THOUSANDS OF OTHER LISTINGS  
FOR OTHER CATEGORIES AND APPLICATIONS.

Figure 3: World Power Systems overview, highlighting commitment to quality and warranty details.

## 9. SUPPORT

For any questions regarding compatibility, installation, or performance of your World Power Systems Alternator, it is recommended to:

- **Consult a Qualified Technician:** For professional advice and installation.
- **Verify Part Numbers:** Always double-check your vehicle's existing part numbers against the compatibility list to ensure correct replacement.
- **Contact Your Retailer:** For product-specific inquiries or support, reach out to the point of purchase.

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### ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

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**Question**

Example: How do I reset this device or fix this error?

**Details**

Model number, symptoms, what you tried, or the section of the manual you are using.

**Submit question**