



Manufacturer Direct OE Warranty Request Form

15603 Centennial Drive
Northville, Michigan 48168
TEL: 1-888-MELCO4U, ext. #2
INTL TEL: 1-734-437-9435
FAX: 734-453-6212

Please use the attached diagnostic worksheet to confirm product failure. Serviceable product will be rejected.

This Form must accompany returned part for warranty processing. All fields must be filled out for warranty remittance

Step 1: Vehicle & Repair Information

1. Vehicle VIN	<input style="width: 90%;" type="text"/>	Replacement starter must be a Mitsubishi starter to be a valid claim	
2. Year	<input style="width: 90%;" type="text"/>	7. Failed Mitsubishi Part Number	<input style="width: 90%;" type="text"/>
3. Truck Make/Model	<input style="width: 90%;" type="text"/>	8. Failed Part In-Service Date	<input style="width: 90%;" type="text"/>
4. Engine Make/Model	<input style="width: 90%;" type="text"/>	9. Failed Part Replacement Date	<input style="width: 90%;" type="text"/>
5. Truck Odometer	<input style="width: 80%;" type="text"/> <input type="checkbox"/> M <input type="checkbox"/> km	10. New Replacement Part Number	<input style="width: 90%;" type="text"/>
6. Please check the voltage of the circuit before removing the failed starter	Reading at Battery: <input style="width: 60%;" type="text"/> Reading at Starter: <input style="width: 60%;" type="text"/>	Description of the problem:	<input style="width: 90%; height: 40px;" type="text"/>

Step 2: Payment Information

Payment for warranty claims will be made directly to the customer submitting the claim. Please fully complete this section for proper remittance. All remittance will be made by check.

Customer/Company	<input style="width: 90%;" type="text"/>	Pay to:	<input style="width: 90%;" type="text"/>
Address	<input style="width: 90%;" type="text"/>	Phone #	<input style="width: 90%;" type="text"/>
City	<input style="width: 90%;" type="text"/>	E-Mail	<input style="width: 90%;" type="text"/>
State/Province	<input style="width: 90%;" type="text"/>	Fax #	<input style="width: 90%;" type="text"/>
Country	<input style="width: 90%;" type="text"/>	Claim Amount Requested:	<input style="width: 90%; height: 40px;" type="text"/>
ZIP/Postal Code	<input style="width: 90%;" type="text"/>		

Step 3: Return Product for Analysis—All failed products must be returned to our Analysis Center

1. Please contact Mitsubishi Electric Automotive America for a Return Materials Authorization (RMA) and UPS account number
RMA **Tel: 1-888-MELCO4U ext #2, or by email: warrantyreturns@meaa.meaa.com**

2. **For proper payment, you must include copies of the following documents with your shipment:**
 This fully completed warranty request form—All fields must be completed along with an RMA number from Mitsubishi
AND EITHER:
For Authorized Dealership Replacements **OR** For Non-Dealer Installed Replacements
 Invoice for replacement product and installation labor. Invoice for the replacement product
 Dealer shop order for installation of replacement product

Note: claims submitted without an RMA # and copies of above noted invoices and shop orders cannot be processed.

3. Failed unit must be shipped to Mitsubishi Electric for analysis via **UPS-Ground**. Mitsubishi Electric special UPS account number will be provided at the time the RMA number is issued.

Please use the box of the replacement product for return shipment to: Mitsubishi Electric Automotive America, Inc.
 ATTN: HD Warranty Returns
 15603 Centennial Drive, Northville MI 48168

Return Product ? In the unlikely event that this claim is denied, please specify if you would like your starter returned to you.
 Yes No **Product will be shipped freight collect.**

Safety Pre-cautions:

- Always perform diagnosis with transmission set in neutral or park, parking brake set, and all electrical loads off.
- Wear face and eye protection at all times while performing diagnosis.

Following this worksheet will help determine if there is an issue with a starter motor and help prevent warranty denials for No Trouble Found (NTF).

Step 1 - Test Individual Batteries

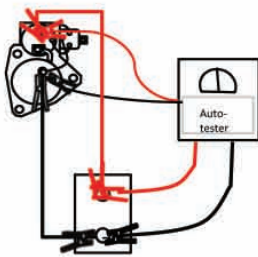
1. Follow the battery manufacturer's specification for checking state-of-charge. Each battery must have at least a 75% charge.
2. Check the open circuit voltage (OCV - see Figure 1) of each battery. The difference between each battery cannot be more than .1 Volts.

Step 2 - Test Battery Cables

Mitsubishi Electric recommends using an automated charge/start system analyzer. In-lieu of an automated analyzer, a voltmeter and carbon pile load tester can be used. Both methods are shown below.

Step 2A - Testing Battery Cables with Automated Tester

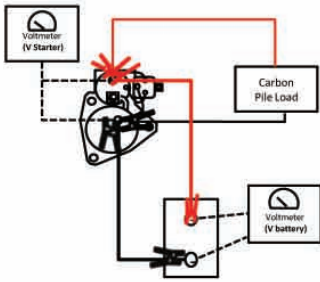
Figure 2A - Battery Cable Test



1. Connect tester as shown.
2. Follow automated tester procedure for testing battery cables.
3. Battery cable circuit resistance must be less than 2 mΩ.
4. Check results, if OK proceed to Step 3.

Step 2B - Testing Battery Cables with Carbon Pile Load

Figure 2B - Battery Cable Test

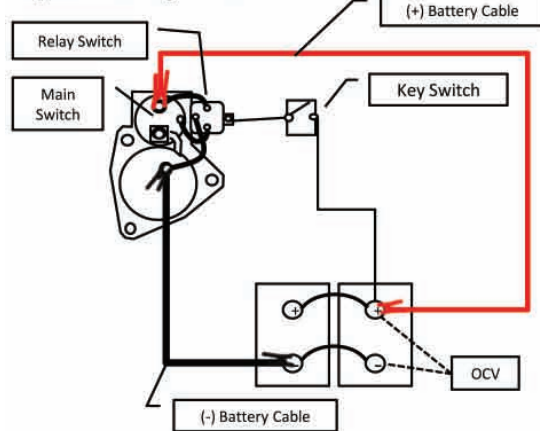


1. Connect devices as shown.
2. Maintain 500 amp load using Carbon Pile.
3. Measure voltage drop at starter. Use formula below to calculate voltage drop.

$V_{\text{battery}} - V_{\text{Starter}} = \text{Voltage Drop}$

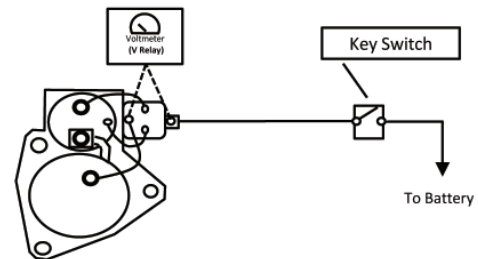
4. If the voltage drop is greater than 1 volt this indicates a problem with the battery cables.

Figure 1 - Starting Circuits



Step 3 - Test Control Circuit

Figure 3 - Control Circuit



1. Connect the measurement devices as shown.
2. Ensure parking brake is set and all electrical loads are off.
3. Turn Key Switch to crank position.
4. Check Relay voltage. Voltage must be at least 11.4 v.
5. If voltage is greater than 11.4 v and starter does not engage, replace the starter.

**To submit a Starter Warranty Claim,
please see your dealer or visit:
www.specmystarter.com**