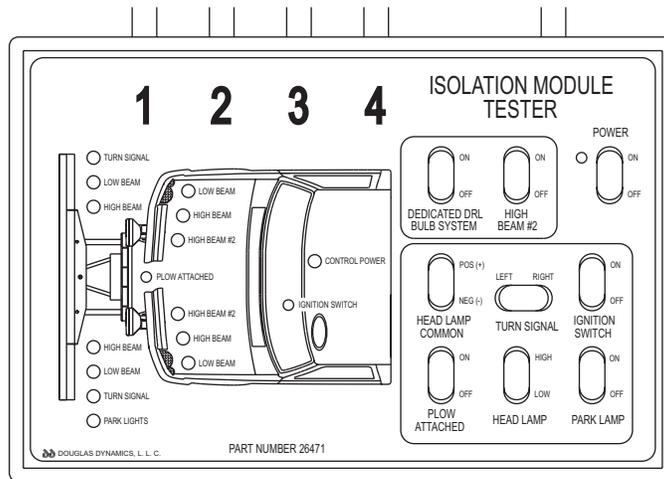




Operator's Manual for Isolation Module Tester



⚠ CAUTION

Read this document before testing any WESTERN® snowplows.

⚠ CAUTION

See your WESTERN® outlet for application recommendations. The Selection List has specific vehicle and snowplow requirements.

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SAFETY

SAFETY DEFINITIONS

⚠ WARNING

Indicates a potentially hazardous situation, that if not avoided, could result in death or serious personal injury.

⚠ CAUTION

Indicates a situation that, if not avoided, could result in damage to product or property.

NOTE: Identifies tips, helpful hints, and maintenance information the owner/operator should know.

BEFORE YOU BEGIN

⚠ WARNING

Lower blade when vehicle is parked. Temperature changes could change hydraulic pressure, causing the blade to drop unexpectedly or damaging hydraulic components. Failure to do this can result in serious personal injury.

⚠ WARNING

The tester shall keep bystanders clear of the blade during this test. Do not stand between the vehicle and the blade. A moving or falling blade could cause personal injury.

⚠ CAUTION

Before starting any test, the snowplow must be properly attached to the vehicle.

- Park the vehicle on a level surface, place shift lever in PARK or NEUTRAL and set parking brake.

PERSONAL SAFETY

- Wear only snug-fitting clothing while working on your vehicle or snowplow.
- Do not wear jewelry or a necktie, and secure long hair.
- Wear safety goggles to protect your eyes from battery acid, gasoline, dirt and dust.
- Avoid touching hot surfaces such as the engine, radiator, hoses and exhaust pipes.
- Always have a fire extinguisher rated BC handy, for flammable liquids and electrical fires.

FIRE AND EXPLOSION

⚠ WARNING

Gasoline is highly flammable and gasoline vapor is explosive. Never smoke while working on vehicle. Keep all open flames away from gasoline tank and lines. Wipe up any spilled gasoline immediately.

Be careful when using gasoline. Do not use gasoline to clean parts. Store only in approved containers away from sources of heat or flame.

BATTERY SAFETY

⚠ CAUTION

Batteries normally produce explosive gases which can cause personal injury. Therefore, do not allow flames, sparks or lit tobacco to come near the battery. When charging or working near a battery, always cover your face and protect your eyes, and also provide ventilation.

Batteries contain sulfuric acid which burns skin, eyes and clothing.

Disconnect the battery before removing or replacing any electrical components.

FUSES

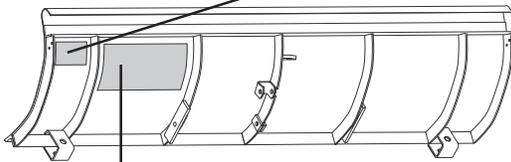
The vehicle control harness contains two automotive-style fuses. One fuse is for the snowplow park/turn lamp power and the other is for the snowplow control power. If a problem should occur and fuse replacement is necessary, the replacement fuse should be of the same value as the original. Installing a fuse of a larger value could damage the system.

SAFETY

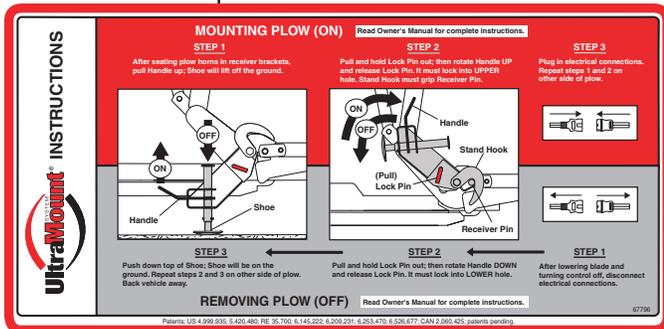
WARNING/CAUTION & INSTRUCTION LABELS

Become familiar with and inform users about the warning and instruction labels on the back of the blade.

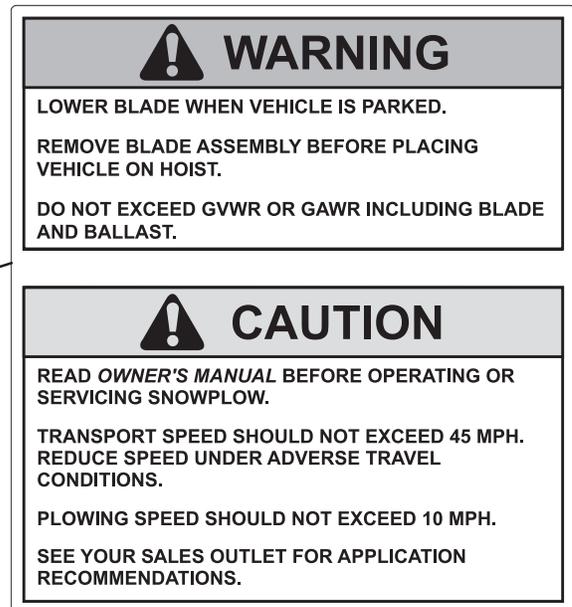
UltraMount® System with Straight Blades



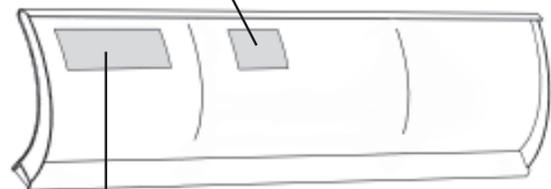
Instruction Label



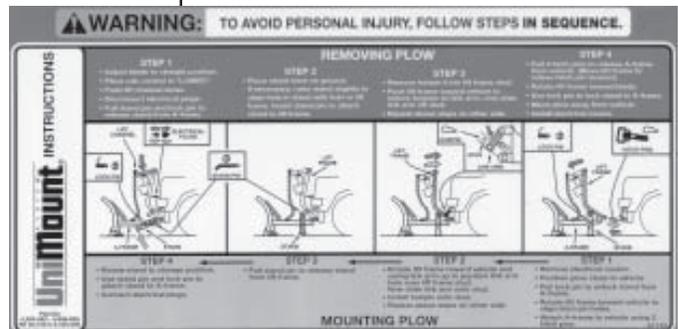
Warning/Caution Label



UniMount® System with Straight Blades

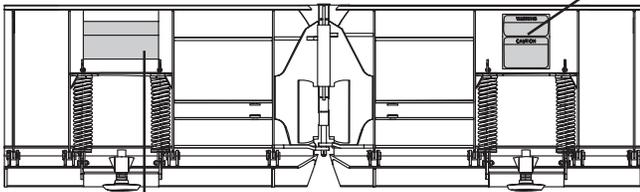


Instruction Label



SAFETY

UltraMount® System with MVP® Snowplow



Instruction Label

MOUNTING PLOW (ON) Read Owner's Manual for complete instructions.

<p>STEP 1 After seating plow horns in receiver brackets, pull Handle up. Shoe will lift off the ground.</p>	<p>STEP 2 Pull and hold Lock Pin out; then rotate Handle UP and release Lock Pin. It must lock into UPPER hole. Stand Hook must grip Receiver Pin.</p>	<p>STEP 3 Plug in electrical connections. Repeat steps 1 and 2 on other side of plow.</p>
<p>STEP 3 Push down top of Shoe; Shoe will be on the ground. Repeat steps 2 and 3 on other side of plow. Back vehicle away.</p>	<p>STEP 2 Pull and hold Lock Pin out; then rotate Handle DOWN and release Lock Pin. It must lock into LOWER hole.</p>	<p>STEP 1 After lowering blade and turning control off, disconnect electrical connections.</p>

REMOVING PLOW (OFF) Read Owner's Manual for complete instructions.

Patents: US 4,999,955; 5,425,480; RE 35,700; 6,145,202; 6,209,231; 6,253,470; 6,528,977; CAN 2,050,425; patents pending. 67706

Warning/Caution Label

WARNING

LOWER BLADE WHEN VEHICLE IS PARKED.

REMOVE BLADE ASSEMBLY BEFORE PLACING VEHICLE ON HOIST.

DO NOT EXCEED GVWR OR GAWR INCLUDING BLADE AND BALLAST.

CAUTION

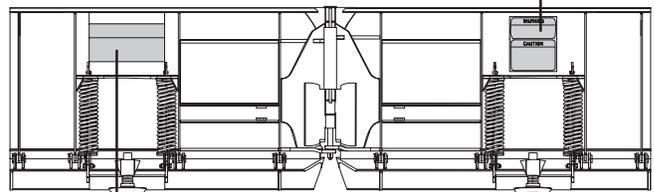
READ OWNER'S MANUAL BEFORE OPERATING OR SERVICING SNOWPLOW.

TRANSPORT SPEED SHOULD NOT EXCEED 45 MPH. REDUCE SPEED UNDER ADVERSE TRAVEL CONDITIONS.

PLOWING SPEED SHOULD NOT EXCEED 10 MPH.

SEE YOUR SALES OUTLET FOR APPLICATION RECOMMENDATIONS.

UniMount® System with MVP Snowplow



Instruction Label

WARNING: TO AVOID PERSONAL INJURY, FOLLOW STEPS IN SEQUENCE.

REMOVING PLOW			
<p>STEP 1 1. Lower blade to ground. 2. Turn control OFF. 3. Disconnect electrical connections.</p>	<p>STEP 2 1. Pull and hold Lock Pin out. 2. Rotate Handle DOWN. 3. Release Lock Pin. 4. Stand Hook must grip Receiver Pin.</p>	<p>STEP 3 1. Plug in electrical connections. 2. Repeat steps 1 and 2 on other side of plow.</p>	<p>STEP 4 1. Push down top of Shoe. 2. Repeat steps 2 and 3 on other side of plow. 3. Back vehicle away.</p>
MOUNTING PLOW			
<p>STEP 1 1. Push down top of Shoe. 2. Repeat steps 2 and 3 on other side of plow. 3. Back vehicle away.</p>	<p>STEP 2 1. Pull and hold Lock Pin out. 2. Rotate Handle UP. 3. Release Lock Pin. 4. Stand Hook must grip Receiver Pin.</p>	<p>STEP 3 1. Plug in electrical connections. 2. Repeat steps 1 and 2 on other side of plow.</p>	<p>STEP 4 1. Push down top of Shoe. 2. Repeat steps 2 and 3 on other side of plow. 3. Back vehicle away.</p>

SAFETY

Suburbanite™ Personal Plow

Warning/Caution Label

 **WARNING**

LOWER BLADE WHEN VEHICLE IS PARKED.

REMOVE BLADE ASSEMBLY BEFORE PLACING VEHICLE ON HOIST.

DO NOT EXCEED GVWR OR GAWR INCLUDING BLADE AND BALLAST.

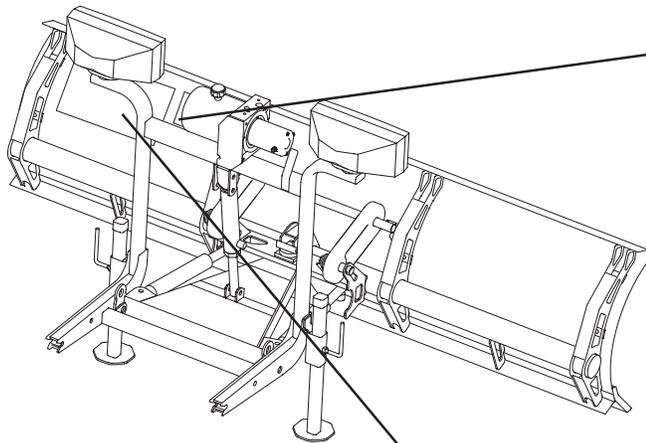
 **CAUTION**

READ *OWNER'S MANUAL* BEFORE OPERATING OR SERVICING SNOWPLOW.

TRANSPORT SPEED SHOULD NOT EXCEED 45 MPH. REDUCE SPEED UNDER ADVERSE TRAVEL CONDITIONS.

PLOWING SPEED SHOULD NOT EXCEED 10 MPH.

SEE YOUR SALES OUTLET FOR APPLICATION RECOMMENDATIONS.

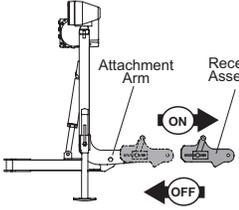
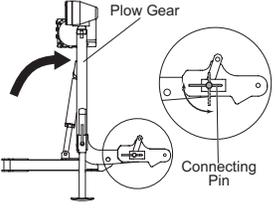
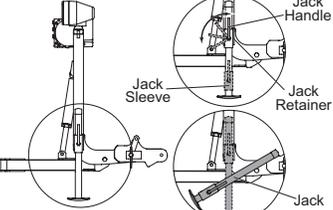


Instruction Label

This snowplow is for personal/homeowner use only.

ATTACH INSTRUCTIONS

1. Make certain both **connecting pins** are fully retracted.
2. Drive vehicle slowly to completely insert **attachment arms** into **receiver assembly** slots.
3. Twist both **connecting pins** to release spring tension, then push **plow gear** toward vehicle so **connecting pins** fully engage holes in **attachment arms**.
4. Loosen one **jack handle** and slide **jack sleeve** down below **jack retainer**. Remove **jack** and retighten **jack handle**. Repeat for other **jack** and store them.
5. Connect all electrical cables from vehicle to snowplow.

U.S. Patents 4,999,935; 5,420,480; 6,253,470; RE35,700; CAN Patent 2,060,425; and other patents pending. 27155

DETACH INSTRUCTIONS

5. Back vehicle away from snowplow.
6. See Owner's Manual for proper snowplow storage.
3. While pushing **plow gear** toward vehicle to release **connecting pin** tension, pull **connecting pin** out on one side and twist pin handle to keep pin retracted. Repeat procedure for other **connecting pin**.
4. Disconnect all electrical cables.
1. Put blade on ground using LOWER/FLOAT on snowplow control. Leave control ON and in FLOAT.
2. Attach **jacks**. Loosen **jack handle**, put **jack** on ground, and raise **jack sleeve** until fully engaging **jack retainer**. Tighten **jack handle**. Repeat for other **jack**.

Read *Owner's Manual* for Complete Instructions

ISOLATION MODULE TEST PROCEDURE

TEST PREPARATION

⚠ CAUTION

Read this document before testing any WESTERN® snowplows.

- When connecting the Isolation Module Tester to the battery, connect the red clip to the positive terminal and the black clip to the negative terminal. Connect the black clip last. When disconnecting, disconnect it first.
- If an Isolation Module Tester lamp (tester lamps are white, tester LED's are green and slightly smaller) does not come on, the fault could be an open lamp element, an open circuit, or both.
- All vehicle lamps must be operational. An open lamp may cause false test results.
- The Isolation Module Tester is protected by a fuse inside the tester that automatically resets itself. If the fuse activates, disconnect power from the Isolation Module Tester and wait several minutes. Then resume the test.
- The table below lists the user-serviceable parts inside the Isolation Module Tester.

REPLACEMENT PARTS		
PART	QTY	DESCRIPTION
26475	5	REPLACEMENT LAMPS
26476	1	REPLACEMENT HARNESS KIT
26517	1	REPLACEMENT CASE W/LABEL

ISOLATION MODULE ON-VEHICLE TEST

Set-Up

Before connecting the Isolation Module Tester to the Isolation Module, ensure the Isolation Module Tester switches are in the following positions.

Isolation Module Tester Switch	Position
POWER	OFF
PARK LAMPS	OFF
HEADLAMPS	LOW
PLOW ATTACHED	NO
IGNITION SWITCH	OFF
HEADLAMP COMMON	NEG (-)
HIGH BEAM #2	OFF
DEDICATED DRL BULB SYSTEM	OFF

Connection

Connect the Isolation Module Tester to the Isolation Module as follows:

1. Connect the Isolation Module Tester power cable to a 12-volt power source by attaching the red alligator clip to positive and the black alligator clip to negative.
2. Connect the Adapter Cable (part number 26472) to the Isolation Module Tester harness 2.
3. Connect the molded connector of the Adapter Cable to the vehicle lighting harness connector located at the grille of the vehicle. Isolation Module Tester harnesses 1, 3, and 4 are not used for this test.

Test Procedure

1. Turn the vehicle's ignition on, but **do not start engine**. Verify the vehicle's lights function properly by cycling the vehicle's park, turn, hazard, high beams, low beams, and DRL lamps. Then place the vehicle's headlamp switch in the low beam position. Turn off all vehicle lighting. Repair or replace any defective vehicle lamps before proceeding.
2. Turn the Isolation Module Tester POWER switch to the ON position. Only the POWER indicator should light.

ISOLATION MODULE TEST PROCEDURE

3. Turn on the vehicle's parking lamps. Verify the vehicle's parking lamps are on.
4. Turn on the vehicle's headlamps. Verify the vehicle's low beams are on.
5. Place the Isolation Module Tester PLOW ATTACHED switch in the YES position. Verify the vehicle's low beams go off and the following Isolation Module Tester indicators are lit: PLOW ATTACHED, plow PARK LIGHTS, and both plow LOW BEAMS.
6. Place the vehicle's headlamps in the high beam position. The Isolation Module Tester plow HIGH BEAM indicators should light.
7. Turn on the vehicle's left turn signal. Verify the vehicle's left turn signal is functioning properly and the Isolation Module Tester left TURN SIGNAL indicator is lit. Turn off vehicle's left turn signal.
8. Turn on the vehicle's right turn signal. Verify the vehicle's right turn signal is functioning properly and the Isolation Module Tester right TURN SIGNAL indicator is lit. Turn off vehicle's right turn signal.
9. Activate the vehicle's four-way flashers. Both the vehicle's turn signal lamps and the Isolation Module Tester TURN SIGNAL indicators should be flashing. Turn off the vehicle's four-way flashers.
10. Place the Isolation Module Tester PLOW ATTACHED switch in the NO position. The Isolation Module Tester HIGH BEAM, PARK LIGHTS and PLOW ATTACHED indicators should go off and the vehicle's high beams should be on.
11. Place the vehicle in the DRL mode. Verify the vehicle's DRL's are functioning properly.
12. Place the Isolation Module Tester PLOW ATTACHED switch in the YES position. The vehicle's DRL's should transfer to the Isolation Module Tester. The Isolation Module Tester mimics the vehicle's DRL's when the PLOW ATTACHED switch is in the YES position.

NOTE: Due to the many DRL systems available, it is the responsibility of the installer to fully understand the operation of the system being tested.

13. Return the Isolation Module Tester PLOW ATTACHED switch to the NO position. Place the Isolation Module Tester POWER switch in the OFF position. Turn the vehicle's ignition off. The vehicle portion of the test is complete. If the system passes, remove the Isolation Module Tester from the vehicle.

If the system fails the vehicle portion of the test, remove the adapter cable (part number 26472) from the Isolation Module Tester cable. Unplug the vehicle lighting harness from position 2 of the Isolation Module. Connect the Isolation Module Tester harness 2 to position 2 of the Isolation Module. Rerun the vehicle portion of the test from the beginning.

ISOLATION MODULE TEST PROCEDURE

ISOLATION MODULE 26400 (WHITE LABEL) OFF-VEHICLE TEST

Set-Up

Before connecting the Isolation Module Tester to the Isolation Module, ensure the Isolation Module Tester switches are in the following positions.

Isolation Module Tester Switch	Position
POWER	OFF
PARK LAMPS	OFF
HEADLAMPS	LOW
PLOW ATTACHED	NO
IGNITION SWITCH	OFF
HEADLAMP COMMON	NEG (-)
HIGH BEAM #2	OFF
DEDICATED DRL BULB SYSTEM	OFF

Connection

Connect the Isolation Module Tester to the Isolation Module as follows:

1. Connect Isolation Module Tester cable 1 to Isolation Module connector 1.
2. Connect Isolation Module Tester cable 2 to Isolation Module connector 2.
3. Connect Isolation Module Tester cable 3 to Isolation Module connector 3.
4. Connect Isolation Module Tester cable 4 to Isolation Module connector 4.
5. Connect the Isolation Module Tester power cable to a 12-volt power source by attaching the red alligator clip to positive and the black alligator clip to negative.

Test Vehicle Lights

1. Place the Isolation Module Tester POWER switch in the ON position. The green power indicator should light.
2. Place the PARK LAMPS switch in the ON position. The left and right side tester vehicle LOW BEAM lamps should light.

3. Place the HEADLAMP COMMON switch in the NEG (-) position and listen for the "click" of the configuration relay inside the Isolation Module Tester. The LOW BEAM indicator flickers as the relay changes state. Cycle the switch several times to verify the relay is functioning properly. Return the switch to the NEG(-) position.
4. Place the HEADLAMP switch in the HIGH position. The tester vehicle HIGH BEAM indicators should light.
5. Place the HIGH BEAM #2 switch in the ON position. The tester vehicle HIGH BEAM and HIGH BEAM #2 indicators should light. Release the switch and only the HIGH BEAM indicators should remain on.

Test Snowplow Lights

1. Place the PLOW ATTACHED switch in the YES position. The green PLOW ATTACHED indicator should light and both plow HIGH BEAM indicators and the plow PARK LIGHTS indicator should light.
2. Place the HEADLAMPS switch in the LOW position. The plow LOW BEAM indicators and PARK LIGHTS should light.
3. Place the IGNITION switch in the ON position. The green IGNITION SWITCH and CONTROL POWER indicators should light.
4. Press and hold the TURN SIGNAL switch in the LEFT position. The plow left TURN SIGNAL indicator should light. Release the switch.
5. Press and hold the TURN SIGNAL switch in the RIGHT position. The plow right TURN SIGNAL indicator should light. Release the switch.

The Isolation Module Test is complete. Turn the Isolation Module Tester OFF and disconnect the Isolation Module. Disconnect the Isolation Module Tester from the power source.

ISOLATION MODULE TEST PROCEDURE

ISOLATION MODULE 27781 (LIGHT GREEN LABEL) OFF-VEHICLE TEST

Set-Up

Before connecting the Isolation Module Tester to the Isolation Module, ensure the Isolation Module Tester switches are in the following positions.

Isolation Module Tester Switch	Position
POWER	OFF
PARK LAMPS	OFF
HEADLAMPS	LOW
PLOW ATTACHED	NO
IGNITION SWITCH	OFF
HEADLAMP COMMON	NEG (-)
HIGH BEAM #2	OFF
DEDICATED DRL BULB SYSTEM	OFF

Connection

Connect the Isolation Module to the Isolation Module Tester as follows:

1. Connect Isolation Module Tester cable 1 to Isolation Module connector 1.
2. Connect Isolation Module Tester cable 2 to Isolation Module connector 2.
3. Connect Isolation Module Tester cable 3 to Isolation Module connector 3.
4. Connect Isolation Module Tester cable 4 to Isolation Module connector 4.
5. Connect the Isolation Module Tester power cable to a 12-volt power source by attaching the red alligator clip to positive and the black alligator clip to negative.

Test Vehicle Lights

1. Place the Isolation Module Tester POWER switch in the ON position. The green power indicator should light.
2. Place the PARK LAMPS switch in the ON position. The left and right side tester vehicle LOW BEAM indicators should light.
3. Place the HEADLAMPS switch in the HIGH position. The tester vehicle HIGH BEAM indicators should light.

Test Snowplow Lights

1. Place the PLOW ATTACHED switch in the YES position. The green PLOW ATTACHED indicator should light and both plow HIGH BEAM indicators and the plow PARK LIGHTS indicator should light.
2. Place the HEADLAMPS switch in the LOW position. The plow LOW BEAM and PARK LIGHTS indicators should now light.
3. Place the IGNITION switch in the ON position. The green IGNITION SWITCH and CONTROL POWER indicators should light.
4. Press and hold the TURN SIGNAL switch in the LEFT position. The plow left TURN SIGNAL indicator should light. Release the switch.
5. Press and hold the TURN SIGNAL switch in the RIGHT position. The plow right TURN SIGNAL lamp should light. Release the switch.
6. Place the HEADLAMPS switch in the LOW position. The plow LOW BEAM indicators should light.
7. Place the DEDICATED DRL BULB SYSTEM switch in the ON position. The plow LOW BEAM indicators should dim.
8. Return the DEDICATED DRL BULB SYSTEM switch to the OFF position. The plow LOW BEAM indicators should return to their full brightness.

The Isolation Module Test is complete. Turn the Isolation Module Tester OFF and disconnect the Isolation Module. Disconnect the Isolation Module Tester from the power source.



WESTERN PRODUCTS
P.O. BOX 245038
MILWAUKEE, WI 53224-9538

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