EN08-2

LR7 Series

Preventive Maintenance and Inspection Checklist

Vehicle No. V150 Location CALGARY Date 7/10/25

Service Request # 6884710 Model # LR758 Serial # 0316FF4823

Odometer 209859.8 Hours Meter 18454.1 Inspector ROBERT

Open Altec Product Notices _____

Check for Altec Product Notices or other applicable documents provided by Altec for servicing the unit by calling 1-877-GO ALTEC (1-877-462-5832) or by contacting altec.connect@altec.com.

Perform all inspections, adjustments, repairs, and lubrication according to the specifications in all unit maintenance and/or service manuals. If tracking PTO hours using an approved method or device, follow the recommended hourly maintenance intervals. If performing maintenance based upon a calendar based schedule, follow the recommended monthly intervals. The required items apply to both tracking methods.

Perform the monthly preventive maintenance and inspection as well as the shift/monthly inspection outlined in the maintenance manual at the qualified operator level. The items in the maintenance manual may require minimal tools such as appropriate lubricants and/or a grease gun.

Intervals

- ☐ Prior to placing the unit in service
- ☐ Required maintenance
- ☐ 85 PTO hours/1 month
- ☑ 1,000 PTO hours/1 year
- ☐ 500 PTO hours/6 months
- ☐ 2,000 PTO hours/2 years

Symbols

- ✓/O = Okay or completed
- U = Unsafe to operate
- C = Corrected by inspector
- N/A = Not applicable
- R = Repair or replacement required

Prior to Placing the Unit in Service			
O	Perform the Preoperational Inspection (refer to the Operator's Manual)	**Rotation Bearing**	
		O	Turntable tilt measurement[2]: .062
Hydraulic Reservoir and System			
N/A	Check oil and collect oil sample for analysis[1]		
85 PTO Hours/1 Month			
O	Perform the Preoperational Inspection (refer to the Operator's Manual)	O	No leaks at platform
		O	No leaks at hose connections in lower boom
Covers/Placards		**General Condition**	
O	Condition, in place, secure	O	Clean debris from around upper boom cylinders
Traction Surfaces		O	Clean debris from around platform leveling sprockets
O	Friction tape, slip-resistant paint, diamond plating, expanded metal (condition, no peeling)	R	Clean debris and obstructions from around elevator
		Manuals	
Hydraulic Reservoir		O	Operator's Manual present
O	Oil level	O	Safety and Sentry documents present
Fiberglass		**Lubrication**	
O	Upper boom cleanliness	O	Lower boom cylinder spherical bearings
O	Upper boom surface damage	O	Rotation bearing ball race
O	Lower boom insulator cleanliness	O	Upper boom cylinder pivot bearing (base end)
O	Lower boom insulator surface damage	N/A	Lower boom cylinder pivot bearings (LR752 only)
Hydraulic System		N/A	Elevator cylinder pivot bearings
O	No leaks at pedestal	O	Rotation pinion and rotation bearing gear teeth
O	No leaks at turntable		

500 PTO Hours/6 Months			
O	Perform the 85 hour/1 month inspection	N/A	No leaks
PTO		N/A	Winch line
O	Operation	N/A	Winch line anchor point
O	Noise level	**Outriggers**	
O	No leaks	O	Mounting (welds intact, no deformation or cracks)
O	Mounting bolts tight	O	Outrigger motion alarm (operation)
Supplemental Brake Lock		O	Aerial device/outriggers selector valve (operation, no leaks)
N/A	Operation (holding, bleed-off)	O	Outrigger interlock system (operation holding w/o drift)
Pump		O	Check cylinder for signs of rubbing
O	Noise level	O	Structures (welds intact, no deformation or cracks)
O	No leaks	O	Pins and retainers secure, retaining cap screws tight
O	Mounting bolts tight	O	No leaks
O	Four bolt flange bolts tight	O	Hoses and tubes (routing and condition)
N/A	Drive line	O	Control valves (operation, no leaks)
Battery		**Hydraulic System Pressure**	
O	Mounting (vertically and horizontally secure)	O	Main system pressure 3067
O	Electrical connection (secure, clearance, no corrosion)	O	Maximum tool system pressure 2460
O	Routing (cables do not cross, fuses secure)	N/A	Standby pressure N/A
All Electrical		**Lower Control Station**	
O	Components and wiring (clearances, tightness, support, no insulation damage)	O	Lower control valve (operation, no leaks)
		N/A	Secondary stowage DC pump (operation, no leaks)
O	Connections (secure, no corrosion)	O	Station selector valve (operation, no leaks)
Unit Mounting		**Pedestal**	
O	Visual inspection of mounting fasteners	O	Structure (welds intact, no deformation or cracks)
O	Subbase mounting (fasteners secure, welds intact, no cracks)	O	Hoses and tubes (routing, condition)
		O	No leaks
O	Subbase structure (welds intact, no cracks)	O	Rotary joint drive pin (condition, cotter pin in place)
O	Pedestal mounting (welds intact, no cracks, bolts tight)	O	Rotary joint mounting bolts tight
O	Pedestal structure (welds intact, cracks)	**Turntable**	
O	Boom rest (welds intact, no deformation or cracks)	O	Structure (welds intact, no deformation or cracks)
O	Body mounting (bolts tight, welds intact, no cracks)	O	Lower boom pin (forged pin retainer condition, bolt tight and retaining rings in place)
Hydraulic Reservoir			
O	Mounting (cap screws tight, welds intact, no cracks)	O	Lower boom cylinder pivot pin (retainer condition, bolt tight and retaining rings in place)
O	No leaks		
O	Shutoff valve fully open	O	Hoses and tubes (routing, condition) no leaks
O	Drain water from bottom	O	Leveling chain anchor weldment (cap screws and nuts tight)
Filters			
O	Change return line filter	O	Rotary joint (loose mounting bolts)
Chassis Winch		O	Slip ring (loose mounting bolts)
N/A	Mounting secure	**Rotation Bearing and Gearbox**	
N/A	Drive line	O	Rotation bearing cap screws visual inspection
N/A	Gearbox (oil level)	O	No leaks
N/A	Brake (oil level)	O	Pinion gear teeth condition
N/A	Operation	O	Rotation bearing gear teeth condition

O	Gearbox mounting bolts visual inspection
O	Rotation motor mounting bolts tight
O	Operation (smoothness and noise level)
O	Check eccentric ring lock bar bolt tightness
O	Gearbox internal lost motion
O	Rotation bearing inspection and measurement [*after* 0.050" (1.27 mm) increased wear from initial measurement][2]
Lower Boom Cylinder	
O	Bearings secure within cylinder eyes
O	Operation
O	No leaks
O	Holding valves (operation, no leaks)
O	Chromed rod condition
Lower Boom	
O	Structure (welds intact, no deformation or cracks)
O	Lower cylinder pivot pin (retainer condition, bolt tight and retaining rings in place)
O	Visually inspect leveling chains/rods
O	Visually inspect jam nuts on leveling chain turnbuckles (in place, tight)
O	Remove any debris from inside lower boom
O	Insulator fasteners tight
O	Lower boom cylinder pivot pins
O	Slide pad bearings (loose cap screws)
O	Lower boom pin
O	Extension cylinder mounting (loose cap screws)
O	Lower platform leveling cylinder mounting pins
O	Boom slide blocks (cap screws tight, wear)
Upper Boom Cylinders	
O	Cylinder attachment pins (retainer condition, bolts tight with retaining rings in place)
O	Bearings secure within cylinder eyes (base end)
O	Operation
O	No leaks
O	Holding valves (operation, no leaks)
O	Chromed rod condition
O	Pin retainers secure
Elbow	
O	Measure upper boom drive link bearing wear
O	Upper boom drive mechanism link pins (retaining rings in place, bolts tight, welds intact on flanges)
O	Elbow bearing visual inspection
O	Elbow leveling chain sprocket (retaining ring and key in place, socket head cap screws tight)
O	Leveling system pivot tube (cap screws tight)
O	Elbow pivot pin (retainer condition, cap screw secure)
Upper Boom	
O	Structure (welds intact, no deformation or cracks)
O	Fiberglass condition (clean, undamaged)
O	Visually inspect jam nuts on leveling chain turnbuckle for tightness
O	Visually inspect leveling chains/rods
O	Hose assembly (routings, condition)
O	No leaks
O	Upper boom stow lock down strap (condition, all parts in place, lock works)
O	Upper boom stow pad (condition, in place)
O	Boom tip weldment (welds intact, no deformation or cracks)
O	Visually inspect the boom tip fasteners for tightness
O	Lanyard attachment welds
O	Loose boom tip sprocket
Parallel Links and Elevator Arms (LR760E70 units)	
N/A	Structure (welds intact, no deformation or cracks)
N/A	Pivot pins (retainer condition, no deformation)
Elevator Pedestals	
N/A	Wear pads (condition, mounting)
Boom Tip	
O	Platform pin
O	Hydraulic leveling cylinder (operation, mounting)
O	Boom tip weldment (welds intact, no deformation or cracks)
Platform	
O	Mounting bracket (welds intact, no deformation or cracks)
O	Mounting bracket covers (condition, mounting)
O	Platform mounting bolts tight
O	Lanyard attachment welds
O	Platform (condition, cleanliness)
O	Platform angle (leveling system tension correct)
O	Liner (condition, cleanliness)
O	Platform liner retention system (condition, in place)
O	Hoses (no leaks, routing, not pinched or pulled)
O	Fall protection system (condition, in place)
O	Platform accessory mounting brackets, i.e. saw or pruner (condition, mounting)
Platform Rotator	
N/A	Operation
N/A	No leaks
N/A	Fasteners (check for tightness)

N/A	Rotary actuator (inner/outer cap screws in place and tight)	R	Rubber boot
Platform Tilt System		**Tool Circuits**	
N/A	No leaks	O	Quick disconnects (condition, operation, no leaks)
N/A	Operation	R	Quick disconnect dust caps (condition, in place)
N/A	Tilt bracket (welds intact, deformation or cracks)	O	Hoses (condition, routing, no leaks)
Upper Controls Station		O	Operation
O	Operation (metering, proper direction)	N/A	Hose reel operation
O	Operation placard (condition, readable)	**Lubrication**	
O	No leaks	R	Outrigger inner leg outer surface
O	Mechanical linkage (operation, lubrication)	O	Control handle linkage
O	Hydraulic emergency stop (operation)	O	Leveling chains
O	Interlock linkage (adjustment)	O	Rotation gearbox output shaft upper bearing
Required Maintenance (Regardless of Hours)			
Annual Testing		N/A	Test hydraulic temperature indicator system functionality (if equipped) by activating test switch located in cab, with the chassis running and the PTO engaged; visually inspect temperature sensors and lead wires for damage
O	Dielectric test unit		
O	Dielectric test platform liner(s)		
O	Confirmation test of single handle control(s)		
O	Atmospheric vents (visually inspect all, verify operation)		
1,000 PTO Hours/1 Year			
Chassis Underside		**Pedestal**	
O	Hoses (routing, condition, no leaks)	O	Rotary joint mounting bolts tight
O	Exhaust shields	**Lower Boom**	
Hydraulic Reservoir and System		O	Insulator fasteners tight
O	Drain water from bottom of reservoir	**Gearbox**	
N/A	Collect oil sample for analysis[1]	O	Rotation gearbox mounting cap screw annual torque inspection
N/A	Clean suction filter element		
O	Reservoir cover gasket (condition)	**Elbow**	
N/A	Change filler breather cap	O	Upper boom drive link bearings (use link gauge or with pin-to-pin measurement)
N/A	Clean or change filler hole strainer		
Rotation Bearing		**Fiberglass**	
O	Cap screw annual torque inspection	R	Seal between insert and steel tubes
O	Rotation bearing inspection and measurement [*before* 0.050" (1.27 mm) increased wear from initial measurement][2]	O	Insert is clean and waxed
		O	Insert bond
		O	Seal between upper boom and steel tube
Upper Boom Tip		**Structures**	
O	Mounting to upper boom secure	O	All structures and welds included on 500 hour/6 month checklist (no significant corrosion)
Upper Controls			
O	Hoses and tubes (routing, condition)		
2,000 PTO Hours/2 Years			
	Perform the 1,000 hour/1 year inspection		Clean suction filter
Hydraulic Reservoir and System		**Rotation Bearing and Gearbox**	
	Change hydraulic oil		Pinion to rotation bearing gear backlash
	Flush hydraulic system	**Lubrication**	
	Clean inside of reservoir		Pump input shaft splines

Deficiency Report SR# 6884710 Serial# 0316FF4823 Page ___ of ___

Customer: _____ Date 7/10/25 Technician: ROBERT

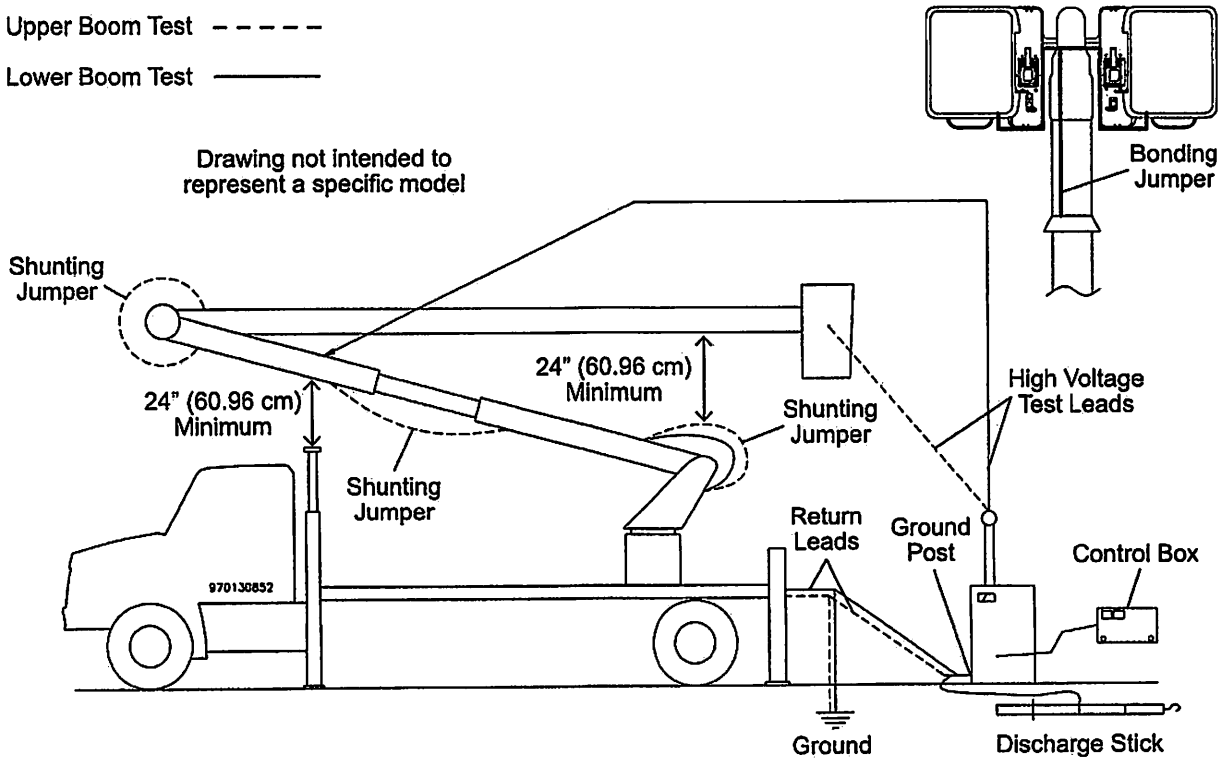
Item#	Def. Type[1]		Deficiency Description	Troubleshoot	Replace	Repair	Est. Hrs
1	D M N S N		OUTRIGGER LEGS NEEDS TO BE CLEAN		Repair		1
2	D M D S N		SEAL BETWEEN UPPER BOOM AND STEEL TUBE		Repair		2.5
3	D M N S N		PASSENGER SIDE TAIL MARKER		Replace		.2
4	D M M S N		WING NUT 3/8 MISSING RESERVOIR COVERT		Replace		.2
5	D M D S N		ANTI SLIP ON PLATFORM STEP WORN OUT		Replace		.3
6	D M M S N		UPPER CONTROL DUST CAP		Replace		.3
7	D M N S N		FORESTRY COVER NEEDS RE ADJUSTMENT		Repair		1.5
8	D M N S N		DEBRIS BEDISE RESERVOIR NEEDS TO BE CLEAN		Repair		.4
9	D M D S N		PASSENGER SIDE BIN LATCH KEY HOLE DAMAGE		Replace		1
	D M S N						
	D M S N						
	D M S N						

[1]Deficiency Type: D – Damage; S – Sublet; M – Missing; N – Note

DC Periodic Dielectric Test Form For All Category A, B, and C Insulating Articulating Aerials

Upper Boom Test - - - - -

Lower Boom Test ———



Keep a dated and signed service record for a period of five years or as required by applicable regulations.

1. Read and understand the dielectric test information in the Maintenance Manual, ANSI requirements, and the manual for the test device being used.
2. This procedure is for a DC test device with output current metering. However, some manufacturers use low-side current metering in series with the output as an equivalent or more conservative approach to output current metering. If equipped with a selector switch, set the switch to Ground Return.
3. The test area should be dry and appropriately roped off to prevent bystanders from entering the test area.
4. If equipped, visually inspect the atmospheric vents, and verify proper operation of each vent.
5. Visually inspect the inside of the insulating boom for cleanliness and foreign materials that could compromise the insulating properties of the component or system.
6. Operate the boom and platform functions to fill the hydraulic lines with oil.
7. Ground chassis, test device or control box, and discharge stick (if equipped) as shown.
8. No isolation pads are required under the vehicle tires or outriggers.
9. Electrically bond all metal at the boom tip to ensure all possible current paths are considered. Include all conductive brackets, air plunger switches, hydraulic valves, controls, cylinders, jib brackets, etc.
10. On Category A units with a nonconductive platform, install and bond a metal liner.
11. Attach the high voltage test lead and shunting jumpers as shown for the upper and lower boom test.
12. It is not necessary to use the meter receptacle on the upper boom of Category A and B aerial devices for the upper boom test. However, whether the meter receptacle is used or not, all internal connections to this receptacle must be checked to verify that all current paths through the boom are properly connected to ensure proper function.
13. Set up booms to maintain at least 24" (60.96 cm) of clearance between conductive components as shown.
14. Voltage and maximum allowable leakage for the upper boom test are as follows.
    a. Category C – 46 kV and below – 56 microamps at 56 kV after 3 minutes
    b. Category A/B – 46 kV and below – 28 microamps at 56 kV after 3 minutes
    c. Category A/B – 69 kV – 42 microamps at 84 kV after 3 minutes
    d. Category A/B – 138 kV – 84 microamps at 168 kV after 3 minutes

15. Voltage and maximum allowable leakage for the lower boom test is 100 microamps at 50 kV.
16. To test the upper boom, gradually increase the voltage to the proper level. Hold for three minutes. If flashover occurs or the leakage rate exceeds the maximum value, the unit has failed the test. Record leakage current. A leakage of zero microamps is typically not a passing test. Check test setup and/or test equipment.
17. To test the lower boom, it may be helpful, though not required, to move the boom to a more vertical position to help keep the high voltage lead from contacting the ground or other conductive components. Gradually increase the voltage to 50 kV. Hold for three minutes. If flashover occurs or the leakage rate exceeds 100 microamps, the unit has failed the test. Record leakage current. A leakage of zero microamps is typically not a passing test. Check test setup and/or test equipment.

Test performed by: CALGARY Other (specify) _____

Service request # 6884710 Altec model # LR758 Serial # 0316FF4823

Test device # 649 Test voltage 56kV Category/voltage rating C/46kV

Upper boom leakage current (microamp) 0.6mA Lower boom leakage current (microamp) 0.7mA

Meter receptacle and connections condition (step 12 from procedure) N/A

Pass O Fail (reason) _____

Comments PASS

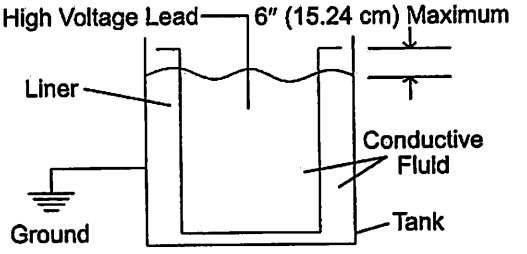
Signature of technician ROBERT Date of test 7/11/25

Periodic Dielectric Test Form for Platform Liners

Either method may be used.

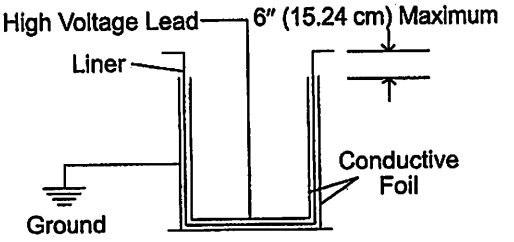
Wet Method Setup

1. Connect a ground lead to the steel tank.
2. Immerse the liner in the tank and fill with conductive fluid until the level around both the inner and outer surfaces of the liner is within 6" (15.24 cm) of the top of the liner.
3. Suspend the high voltage lead in the fluid within the liner.



Dry Method Setup

1. Refer to TRS-0001 to apply conductive foil to the liner and conduct the test.
2. Connect a ground to the outer conductive foil.
3. Connect the high voltage lead to the inner conductive foil.



Testing (Wet or Dry)

1. Apply the test voltage to the conductive fluid or foil. Voltage may be either 35 kV (60 hertz) for 1 minute or 100 kV DC for 3 minutes.
2. If flashover occurs, or the liner wall punctures, the liner has failed the test.
3. Turn off the test voltage (be sure the voltage meter indicates zero voltage). Remove the high voltage lead. Remove the liner from the tank or remove the foil covering.
4. The test for more than one liner may be recorded on the same form providing the same setup is used to eliminate external variables.

Conclusion

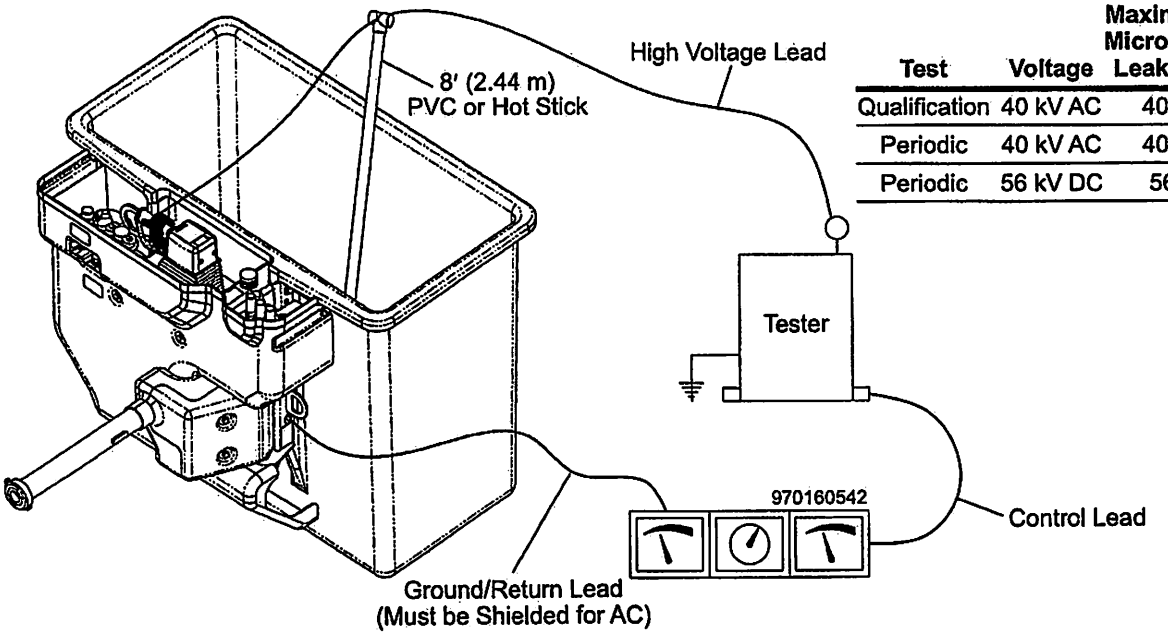
Unit Serial No.	Liner Part No.	Liner Serial No.	Pass (Initials)	Fail (Reason)
0316FF4823	970124021	1620034309	RI	

Wet/dry DRY Test voltage 100kV Test device number 649

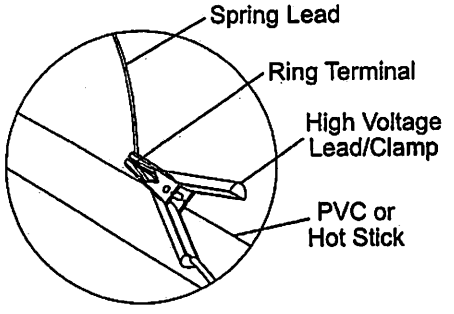
Comments PASS

Signature of technician ROBERT Date of test 7/11/25

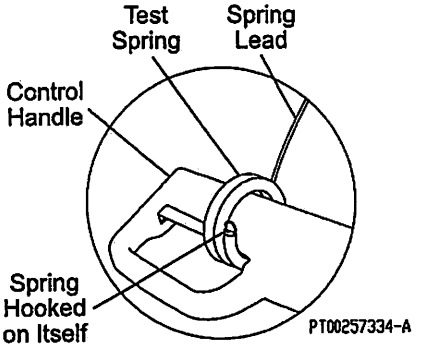
Confirmation Test of Upper Control Components With High Electrical Resistance (Green Single Handle) (Qualification and Periodic)



Test	Voltage	Maximum Microamp Leakage
Qualification	40 kV AC	400
Periodic	40 kV AC	400
Periodic	56 kV DC	56



High Voltage Lead



Test Spring

Drawing does not represent a specific setup

This test is to verify the high electrical resistance components in the green single handle control. In some cases, the high voltage test lead may short circuit to other nearby conductive components. First, verify that provided covers in the control area are intact. Then place insulating material(s), such as a piece of insulating blanket or liner, under and to the sides of the spring which wraps the high voltage test connections to prevent short circuiting from happening.

For AC testing – It is recommended that the high voltage test lead be elevated on an 8' (2.44 m) PVC pole or hot stick to reduce the capacitive leakage that is unrelated to the focus of the test. Use only a shielded return lead to further reduce capacitive leakage.

1. Read and understand the dielectric test information in the Maintenance Manual and ANSI standard.
2. Insulate the vehicle from ground by placing polyethylene pads beneath each tire and outrigger leg.
3. Upper control components must be clean and dry (including inside/outside of bellows) prior to testing. Use isopropyl alcohol to clean.
4. Wrap the test spring (refer to Service Tools and Supplies in the Maintenance Manual) around the control handle as shown above. Use the hook at the end of the spring to connect back to the spring on the control handle and away from conductive components.
5. Attach the high voltage lead (insulated from ground) to the spring lead. Use the length of spring lead to keep the high voltage clamp and high voltage lead away from conductive components and the platform control areas.

6. Attach the ground/return lead to the control base or platform mounting bracket. This lead must contact a bare metal surface. (The bellows must be in place for this test.)
7. It is not necessary to raise or extend the upper boom. The platform may be tested near the tallshelf for easier access.
8. A leakage of zero microamps is typically not a passing test. Check test setup and/or test equipment.
9. To test the control, gradually increase the voltage (refer to the chart). Hold at the appropriate voltage for three minutes continuously. If flashover occurs or the leakage rate exceeds the appropriate microamps from the chart, the control has failed the test. Record leakage current.

Test performed by: Altec CALGARY Other (specify) _____

Test type: Qualification _____ Periodic O Test conducted: AC _____ DC O

Service request # 6884710 Altec model # LR758 Serial # 0316FF4823

Test device # 649 Test voltage 56kV

Curb side control leakage current (microamp) 8mA Street side control leakage current (microamp) N/A

Pass O Fail (reason) _____

Comments PASS

Signature of technician ROBERT Date of test 7/11/25