LOAD-RANGER® XLT Load Break Tool

Operation Manual

USLR-XLT-1 Up To 27 kV Load Break Tool
USLR-XLT-2 27 kV - 38 kV Load Break Tool

Available Options:

H - Hard Case	E - Extended Hood	NC - No Counter
S - Soft Case	P - Pad Mount	

Applications

The LOAD-RANGER® XLT Portable Load Break Tool is designed to be used on "hook equipped" disconnects, cutouts, switches and power fuses up to 34.5 kV and 150 BIL or less.

The LOAD-RANGER® XLT Portable Load Break Tool can safely:

- break associated cable charging currents, line charging currents, and transformer magnetizing currents providing the transformers carry greater than 5% load
- switch magnetizing current of ungrounded primary transformers providing the transformers carry greater than 5% load
- operate switches and fuses in metal enclosures and switchgear such as pad-mounted gear up to 25kV. It is recommended that the tool is fitted with an optional insulated extension hood (-E version), or a Pad-Mount option is available with an extended hood and a low profile mounting arm (-P version)
- switch single capacitor banks found on distribution systems

Capacitor Ratings

Catalog Number	Capacitor Bank Rating kVAC Three-Phase	Nominal System Voltage Three-Phase (kV)	Capacitor Bank Connection	System
USLR-XLT-1	1800	Up to 14.4	Grounded Wye Connected	Grounded System
USLR-XLT-1	2400	Up to 16	Grounded Wye Connected	Grounded System
USLR-XLT-1	3000	Up to 23.9	Grounded Wye Connected	Grounded System
USLR-XLT-1	3600	Up to 26	Grounded Wye Connected	Grounded System
USLR-XLT-1	1800	Up to 14.4	Ungrounded Wye Connected	Grounded System
USLR-XLT-1	2400	Up to 16	Ungrounded Wye Connected	Grounded System
USLR-XLT-1	1800	Up to 14.4	Ungrounded Wye Connected	Ungrounded System
USLR-XLT-1	2400	Up to 16	Ungrounded Wye Connected	Ungrounded System
USLR-XLT-2	3000	Up to 23.9	Grounded Wye Connected	Grounded System
USLR-XLT-2	3600	Up to 27.6	Grounded Wye Connected	Grounded System
USLR-XLT-2	4800	Up to 34.5	Grounded Wye Connected	Grounded System
USLR-XLT-2	3000	Up to 23.9	Ungrounded Wye Connected	Grounded System
USLR-XLT-2	3600	Up to 27.6	Ungrounded Wye Connected	Grounded System
USLR-XLT-2	3000	Up to 23.9	Ungrounded Wye Connected	Ungrounded System
USLR-XLT-2	3600	Up to 27.6	Ungrounded Wye Connected	Ungrounded System

Single bank capacitors only. Do not use LOAD-RANGER® XLT Portable Load Break Tools for switching back-to-back / parallel capacitor banks.

Single-Pole Switching

The nature of any single pole switching on distribution circuits has the potential for excessive voltages due to a variety of factors, such as KVA, loading and transformer connections. For applications on ungrounded primaries or single phase units connected in a delta configuration above 21.96kV, any single pole switching should only be performed if each phase is carrying at least 5% load; or if the primary neutral is grounded during switching operations. The primary neutral shall also be grounded prior to any single pole switching of lightly loaded banks rated 150kVA or less (3PH) or 50KVA or less (1PH) at voltages above 21.96kV.

Safety Procedures

Do not use this tool on applications where the maximum system voltage exceeds the maximum design voltage rating of the tool. Likewise, do not use a tool that is "over-rated" for the application. The XLT-2 model should NOT be used inside padgear or cabinets.

Acquaint yourself with all operational features prior to use. It is also recommended that the user practice using the tool on un-energized equipment to gain familiarity with proper operation.

⚠ DANGER ⚠

Contact with high voltage will cause death or grievous personal injury to the operator. Only use this device in conjunction with safe operating practices around energized lines and equipment.

⚠ WARNING ⚠

Only trained and qualified personnel should operate, inspect and maintain this device.

⚠ WARNING ⚠

Carefully read and fully understand this manual prior to operating, maintaining or testing this device. Improper operation, handling or maintenance of this device can result in death, grievous personal injury and or equipment damage.

Phone (828)323-8914
Email *sales@utilitysolutionsinc.com*
Web www.utilitysolutionsinc.com
101 33rd Street Drive SE · Hickory, NC 28602

C-00409 USLR-XLT Manual (2-14-20)

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Tool Operation

1. Review the ***USLR Field Inspection Guide*** (B-01548) before use.
2. Attach the tool to an insulated fiberglass stick.
   - Line up the aluminum arm as shown (Figure 1) and securely fasten to the spline end. The arm should be in-line with the stick.
3. Determine the best location to approach the cutout/switch.
   - The LOAD-RANGER® XLT Portable Load Break Tool requires reaching across the face of the cutout/switch at an angle. The bottom of the black tube should angle in towards the cutout/switch slightly.
   - Always approach the cutout/switch from below. A 45° angle below horizontal is recommended.
   - Determine an operator placement that ensures both a firm footing and allows for proper control during operation.
   - Approach the cutout/switch from the side that is least congested and avoids contact with other equipment.
4. Attach the tool to the cutout/switch (Figure 2).
   - Always reach across the front of the cutout/switch with the tool. Never attach the tool on the same side of the cutout/switch as you approach.
   - Attach the hook loop over the arcing horn on the opposite side from your position. **DO NOT attach to the arcing horn closest to you.**
   - Carefully swing the LOAD-RANGER® XLT Portable Load Break Tool in an arc across the cutout/switch to engage the clip assembly onto the pull ring of the cutout/switch.
   - The tool may need to be slightly extended to permit the clip assembly and the pull ring to properly align and engage.
5. Open the cutout/switch (Figure 3).
   - Pull the tool completely open with a smooth, firm pull. The tool will automatically lock when extended.
6. Remove the tool from the cutout/switch.
   - Maintain firm contact between the hook loop and the cutout/switch arcing horn (slight downward pressure). Rotate or "roll" the tool inward toward the cutout/switch to remove the clip assembly from the pull ring. The fuse/switch will drop and swing free. Lift the tool off the arcing horn to remove.
7. Push the black reset button to reset the tool for the next operation.

Figure 1 - Installing on stick

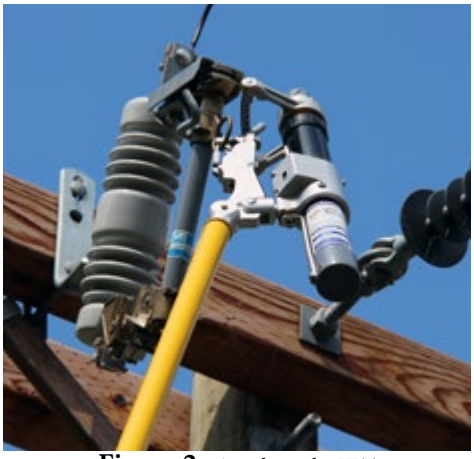

Figure 2 - Attaching the XLT

Figure 3 - Opening the cutout

Maintenance

It is recommended to fully inspect and service the tool after every 1,500-2,000 operations. Users of counter models should not rely solely on the counter to determine maintenance scheduling and operating life. Tool life is not strictly dependent on number of uses. Performing load break operations at or near the maximum amperage rating of the tool will result in more frequent maintenance (breaking a higher amperage electrical load will result in more tool degradation than breaking a low amperage electrical load). Therefore 1,500-2,000 operations between inspections or service is only a benchmark. The state the tool is stored in also affects the tool life of the device.

Storage

The LOAD-RANGER® XLT Portable Load Break Tool should be stored in a clean, dry place. Damp and/or high humidity environments should be avoided. Utility Solutions recommends storing in a hard case (USLR-XLT-HARDCASE) or soft case (USLR-XLT-SOFTCASE).

Warranty

Utility Solutions warrants the LOAD-RANGER® XLT Portable Load Break Tool for any defects in manufacturing for the period of one year. If the tool is returned within that time period, Utility Solutions will repair or replace the tool free of charge.

WARNING

These instructions are not intended to replace or be a substitute for proper safety training procedures. Failure to select the proper tool in regards to minimum system requirements can result in death, grievous personal injury and or equipment damage.

WARNING

Follow safe work procedures and practices when utilizing this device. Failure to use this device in a safe manner can result in death, grievous personal injury and or equipment damage.

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