SAFE-T-RACK
by remote solutions, llc

# Safe-T-Rack
# Type SR-U
# Guide Form Specifications

## Horizontally Racked Low Voltage and Medium Voltage Switchgear



Because Distance is the Best Arc Flash Protection

MADE IN THE USA

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# Sales, Service, and Installation

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# Safe-T-Rack Type SR-U Remote Racking System

For

Horizontally Racked Low Voltage and
Medium Voltage Switchgear

Table of Contents

# 1. Key Features

- Safe-T-Rack (STR®) allows the operator to rack a breaker while remaining at a distance of 50+ feet. Provides protection against the deadly possibilities of an arc-flash incident with a safe working distance between the operator and the switchgear.

- Safe-T-Rack (STR®) distance has a unique advantage over cumbersome flash suits designed only to decrease exposure to burns.

- Safe-T-Rack (STR®) increases operator distance to help protect against airborne projectiles often associated with arc-flash fatalities.

- Protects racking mechanism from excessive force which causes mechanical damage.

- Supports virtually all manufacturers' circuit breaker applications.

- System controls and protection features eliminate costly racking mechanism damage.

- Does not modify original controls or interlocks.

- Incorporates battery operation which provides safe racking in the event of no available input power.

- No-tool-required interchangeable motor drive units.

- Smart application drive bracket identifies itself to the system and contains the appropriate racking parameters.

- Portable drive mounting brackets incorporates breaker interlock automation where necessary.

- Torque limited output dependent on breaker type prevents breaker racking hardware damage due to overtorquing.

- Real time breaker racking travel display.

- Expected and actual turn count displayed in real time.
- Emergency stop at any time during racking.
- Flexible architecture allows for expansion to virtually any breaker type.
- Various cubicle adapter plate designs with disparate features including positive interlock actuating mechanisms, gimbal mounted transmission collars, positioning guides, and insertion locks.
- Allows confident blind use during door closed racking.
- Fully portable system stores in an ultra high-impact copolymer resin waterproof case.
- NFPA & OSHA compliant
- ANSI C37.59 performance tested
- Installed at numerous Commercial, Industrial, Power Generation and T & D locations in North America.

# 2. Guide Form Specifications

Suggested Specifications for SR-U
Circuit Breaker Remote Racking Systems

Including but not limited to the following:

1. The remote racking system shall be highly compact and light weight with the portable kit weight not to exceed 25 lbs.

2. The remote racking system shall not bypass any switchgear manufacturer supplied safety systems, interlocks, etc.

3. The remote racking system shall be battery operated such that it can be used regardless of the availability of AC line power.

4. The remote racking system shall be supplied with interchangeable batteries such that in the event of a discharged battery, it can be replaced with a charged one in seconds without tools.

5. The battery charging system shall have all relevant regulatory approvals and be available for all common world-wide line power standards.

6. The remote racking system shall permit the end user to perform all necessary operations without tools.

7. The remote racking system shall have multiple redundant mechanisms to both limit the possibility of a user incorrectly operating the device and also prevent damage to the switchgear in the event of incorrect operation.

8. The remote racking system shall have automatic recovery to known safe location in the event of:
   a. Turn count mismatch
   b. Excessive torque
   c. Failure to observe interlock change of state when expected (application specific)

9. The remote racking system shall provide application specific procedure checklists to promote user awareness and improve human performance.

10. The remote racking system shall have a secure interface that allows adjustment of application specific parameters without external tools. The security of this mechanism is such to prevent everyday users from making such adjustments while permitting installers and trained maintenance personnel to make such adjustments as necessary.

11. The remote racking system shall have various protected levels of real time data for the commissioning technician to evaluate racking failures and fine tune parameters to prevent future recurrence.

12. The remote racking system shall rack LV and MV circuit breakers, starters and switches.

13. The remote racking system shall have a physical wire connecting the racking operator to the user interface. This provides absolute electrical noise immunity and helps the user recognize their distance from the switchgear.

14. The user interface shall be rated to a minimum of IP54, and be capable of withstanding 5g impact without impairing operation.

15. All cable connections shall be rated to a minimum of 2,000 mating cycles.

16. The user interface shall make use of high grade pushbuttons with firm tactile feedback suitable for use with multi-layer work gloves.

17. The user interface will have a daylight viewable display with back-light option.

18. Drive brackets will be equipped with embedded application intelligence.

19. The remote racking tools will not require operator alignment to the racking shaft.

20. The remote racking system will be manufactured by Remote Solutions LLC.

21. The remote racking system shall use SABT™ as the primary method of operation.

22. The remote racking system shall be the Safe-T-Rack® SR-U, system.

23. The remote racking system hand held interface shall be connected to the system with a CAN bus cable that is a minimum of 50’ in length.


Distance… The best arc-flash protection!

www.Safe-T-Rack.com