

Remote Switch Actuators (RSA) & Remote Switch Kits (RSK)

CBS ArcSafe® Remote Switch Actuators (RSAs) are designed to remotely charge, close, and/or trip various styles and types of electrical equipment. Any RSA can be custom built for any electrical device. RSAs are most commonly assisted by strong magnets, so that no modifications are required to your switchgear. Magnets also allow operators to easily move the RSA from one breaker to another.

Chicken Switch® Remote Switch Kits (RSK) are portable devices designed to remotely operate control switches with pistol-grip-style handles. Several models are available to work with different control switches. RSKs are ideal in environments where weight and portability are a consideration. With no need to purchase a separate power source, the price point is appealing.



RSA-12A



RSK-CS01



OPTIONAL RSA FEATURES

- Radio remote with up to 300-foot range
- Wireless video camera system with LCD monitor
- Rugged protective case assembly

BENEFITS

- Lightweight, portable construction
- Mechanical and/or electrical safety protection
- Adjustable to fit unique electrical equipment configurations
- Fast and easy to set up
- Reduces need for a full-body arc-flash suit
- Adds safety and helps comply with NFPA 70E
- No modifications required
- Complete kit includes actuator, handheld controller, batteries, control cable, instruction manual, and carrying case *RSK only

Remote Switch Operators (RSO)

CBS ArcSafe® Remote Switch Operators (RSO) systems enable service personnel to stand outside the arc-flash protection boundary while operating electrical equipment, reducing or eliminating the need for a full-body arc-flash hazard suit. The RSOs can be used in conjunction with the CBS ArcSafe remote racking system or independently as a stand-alone device.



RSO-IIIID

1. Operating pushbuttons, such as circuit breaker trip and close buttons
2. Operating levers, such as those equipped on motor control centers
3. Operating charging handles requiring single or multiple cycles
4. Operating rotary switches, such as pistol-grip SBM switches
5. Engaging or disengaging mechanical interlocks, such as circuit breaker interlock foot-pedals



RSO-IAR

1. Operating pushbuttons, such as circuit breaker trip and close buttons
2. Operating levers, such as those found on motor control center buckets
3. Operating charging handles requiring single strokes
4. Operating rotary and pistol-grip switches, such as breaker control switches
5. Engaging or disengaging mechanical interlocks, such as circuit breaker interlock foot-pedals



RSO-IV

1. Works with RRS-3 Single-Use Remote Racking Systems
2. Installing and removing any switchgear utilizing a rotary racking mechanism
3. Installing and removing any switchgear utilizing a non-rotary racking mechanism
4. Engaging or disengaging mechanical or electrical interlocks, such as circuit breaker interlock foot-pedals or buttons

All CBS ArcSafe products are compatible with all switchgear manufacturers, including:

- | | | | |
|------------------|----------------------------|-----------------|-----------------|
| ■ ABB | ■ Federal Pacific Electric | ■ McGraw-Edison | ■ Siemens |
| ■ Allis-Chalmers | ■ Federal Pioneer | ■ Merlin Gerin | ■ Siemens-Allis |
| ■ Alstom | ■ General Electric | ■ Mitsubishi | ■ Square D |
| ■ BBC | ■ Hyundai | ■ Powell | ■ Toshiba |
| ■ Cutler-Hammer | ■ ITE | ■ Reyrolle | ■ Westinghouse |
| ■ Eaton | | | |

NOTE: All manufacturers' names, trademarks, and part numbers are used for reference purposes only. CBS ArcSafe, Inc. is not an authorized distributor or representative of manufacturers shown. Designated trademarks, brand names and brands appearing herein are the property of their respective owners.

GROUP CBS AFFILIATES

Advanced Electrical & Motor Controls Inc. | AEAMC.com

Advanced Electrical & Motor Controls is a certified UL508A industrial control panel builder and specialist in the sales and service of insulated case circuit breakers, molded case circuit breakers, bolted pressure switches, panelboards, switchboards, motor controls, bus plugs, bus ducts, and renewal and replacement parts.

Irving, TX — Ph: 800-289-2757 | Elgin, IL — Ph: 847-741-4638

CBS ArcSafe, Inc. | CBSArcSafe.com

Remote racking systems, remote switch actuators, and handheld motorized racking tools for low- and medium-voltage switchgear.

Denton, TX — Ph: 877-4-SAFETY | Charleston, WV — Ph: 800-248-4958

CBS Nuclear Services, Inc. | CBSNuclear.com

Specializes in shop and on-site field servicing of Class 1E safety-related low- and medium-voltage switchgear and circuit breakers. Also services industrial and non-nuclear-related circuit breakers and related switchgear and substations.

Matthews, NC — Ph: 704-882-1875

Circuit Breaker Analyzer, Inc. | CBAAnalyzer.com

Providing new circuit breaker testing methods that utilize vibration analysis combined with internet data transfer and sophisticated condition-based analysis to determine the condition of all types of circuit breakers.

Farmers Branch, TX — Ph: 972-290-0074

Circuit Breaker Sales Co., Inc. | CircuitBreaker.com

World's largest inventory of low- and medium-voltage circuit breakers and parts. Also offers CBS MagVac magnetic latching medium-voltage breakers and Tough Duty Power/Vac® roll-in replacement breakers. Regional service centers provide repair, remanufacture, upgrade, and life extension of electrical equipment, in addition to preventive maintenance and emergency on-call services.

Gainesville, TX — Ph: 800-232-5809

REGIONAL SERVICE CENTERS:

Chicago Service Center
Rockford, IL — Ph: 800-232-5809

Florida Service Center
Lakeland, FL — Ph: 863-646-5099

St. Louis Service Center
Pinckneyville, IL — Ph: 618-357-6300

Detroit Apparatus Service Center
Detroit, MI — Ph: 734-357-8005

Midwest Service Center
Crown Point, IN — Ph: 219-213-2095

Circuit Breaker Sales & Repair, Inc. | CBSalesAndRepair.com

Servicing the Gulf Coast with shop and field service, as well as repair, upgrade, reconditioning, life extension, and replacement of industrial electrical equipment.

La Porte, TX — Ph: 281-479-4555 | Gonzales, LA — Ph: 225-673-2278

Circuit Breaker Sales NE, Inc. | CircuitBreakerSalesNE.com

A leader in providing power distribution products and services, specializing in life-extension services and offering an expansive inventory of new, surplus, and reconditioned circuit breakers, switchgear, motor controls, transformers, and other power apparatus.

Boston, MA — Ph: 781-438-7770 | Seymour, CT — Ph: 203-888-7500

Johnstown, PA — Ph: 814-254-4457

Circuit Breaker Store, Inc. | CBStore.com

Your online source for all Group CBS products; a powerful solutions provider with a specialty vendor network that can supply factory new, surplus new, and reconditioned circuit breakers, electrical distribution, control equipment, parts, and remote racking equipment.

Gainesville, TX — Ph: 855-227-8673

Solid State Exchange & Repair, Inc. | SolidStateRepair.com

Quality, reliable, on-time service and support for all brands and types of solid state power electronics, including circuit breaker trip devices, protective relays, motor overload relays, and rating plugs.

Denton, TX — Ph: 877-TRIP-FIX (874-7349)

Transformer Sales Co. | CBSales.com/transformers/index.htm

Offers a complete line of new, surplus, and reconditioned dry-type, cast-coil, and liquid-filled power transformers from 1000 to 5000 kVA with primary voltages from 2400 V to 34.5 kV.

Gainesville, TX — Ph: 940-665-4484

Vacuum Interrupters, Inc. | VacuumInterruptersInc.com

Provides replacement vacuum interrupters, MAC-TS4 predictive vacuum interrupter and CBT-1201 for circuit breaker test sets, and new replacement encapsulated poles for Power/Vac® circuit breakers.

Farmers Branch, TX — Ph: 214-442-5877 | Denton, TX — VI Manufacturing

Western Electrical Services, Inc. | WesternElectricalServices.com

Serving the Western U.S. with on-site electrical testing and maintenance, electrical engineering studies, and sales, repair, upgrade, and life-extension services for circuit breakers, switchgear, motor controls, and transformers. Also custom manufacturing of engineered and reversed-engineered parts.

HEADQUARTERS: Phoenix, AZ — Ph: 888-395-2021

REGIONAL SERVICE CENTERS:

Summer, WA
Salt Lake City, UT

Reno, NV
Vancouver, WA

CBS ArcSafe®

A Group CBS Company



Distance is Safety®

WHAT STANDS BETWEEN YOU AND ARC-FLASH DANGER?

WE DO.



CBSArcSafe.com

(877) 4-SAFETY

(877) 472-3389

CBS ArcSafe®

A Group CBS Company

AS A GROUP CBS COMPANY, CBS ArcSafe®, Inc. provides you access to the industry's largest inventory of low- and medium-voltage switchgear remote systems for racking and operations. We have parts, on-site service, and comprehensive shop repair, remanufacturing, and life-extension capabilities. CBS ArcSafe products keep technicians well outside the arc-flash danger zone.

We take pride in being available and capable of responding anytime, anywhere.

- Group CBS members are located across the U.S.
- Largest inventory of new, surplus, and reconditioned low- and medium-voltage power equipment and replacement parts available in North America
- Servicing of Class 1E nuclear-rated switchgear and circuit breakers (in compliance with 10CFR50 Appendix B)
- Modern shop facilities with skilled engineers and technicians
- Comprehensive quality repair, rebuild, retrofit, and life-extension capabilities
- On-site scheduled or emergency field service
- We rent most equipment in our vast inventory
- Quick access to charter aircraft and hot-shot trucks for emergency requirements

CBS ArcSafe, Inc.'s personnel are available to assist you at all times.

For after-hours or emergency support, contact us 24/7 via our emergency phone number: (940) 736-0943.

Assistance is also available from other Group CBS companies, which are listed on the back cover. We continue to develop new solutions for our customers on a daily basis. If you do not see what you need in our catalog, give us a call.

CBS ArcSafe Facilities

Based in Denton, TX, CBS ArcSafe's facilities comprise three buildings, including administrative and design offices, a warehouse and manufacturing plant, and our new CBS ArcSafe Institute for customer training.

When visitors first arrive at CBS ArcSafe, they enter the 13,000-square-foot administrative, sales, research and development, and engineering offices. This location includes custom milling machines for R&D projects and custom single-use remote switching and handheld racking solutions designed to specific customer requirements, as well as cutting-edge computing, CAD design, and 3D printing additive manufacturing systems.

Behind our administrative offices is a 9,500-square-foot warehouse comprising large-scale manufacturing, millwork, and testing equipment. All CBS ArcSafe equipment is manufactured in the United States at our Denton, TX, and Charleston, WV facilities, ensuring the highest quality components and systems.



CBS ArcSafe Institute

Inside the newly constructed 11,000-square-foot CBS ArcSafe Institute, our technical staff will guide end users through the key features of their remote racking, switching, and operating equipment, including proper ways to maintain and store the equipment, as well as how to safely and most efficiently use the equipment with their switchgear.

The hands-on training is not a "one-size-fits-all" approach; rather, it is tailored to each facility's individual needs and requirements. This is a unique benefit to CBS ArcSafe customers made possible through our affiliation with Group CBS, which includes several electrical equipment suppliers and more than one million square feet of electrical inventory, including one of most extensive inventories of circuit breakers, switchgear, panel boards, and motor control centers in the U.S.

At the conclusion of the training, end users are equipped with all the information needed to properly utilize their switchgear remotely from a distance and in the safest, most effective manner that exists today.



CBS ArcSafe®

A Group CBS Company

2616 Sirius Road | Denton, TX 76208 | Ph: 877-4-SAFETY | Fax: 940-382-9435 | Info@CBSArcSafe.com

CBSArcSafe.com

RRS-1 Remote Racking System

For Rotary Circuit Breakers



By permitting the automatic racking of the circuit breaker from a remote location, the CBS ArcSafe® remote racking system replaces the manual racking operation and removes the operating personnel from manual contact with the circuit breaker. The unique design of the CBS ArcSafe remote racking system, with its specially manufactured drive shafts and tooling, enables the system to operate with all types of circuit breakers produced by the major switchgear manufacturers. The CBS ArcSafe remote racking system can operate with draw-out types of air, SF6, oil, and vacuum circuit breakers that have either a horizontal or vertical racking operation.

BENEFITS

- Remote operation places operator outside the arc-flash protection boundary
- Compatible with low- and medium-voltage circuit breakers produced by all major switchgear manufacturers
- Use with horizontal and vertical types of air, SF6, oil, and vacuum circuit breakers
- Height and angle of the drive is easily adjusted
- Quick-release drive shafts and couplings simplify setup
- Redundant over-racking protection provided
- Seamless transfer AC/DC power
- Hand-truck design provides easy mobility

SPECIFICATIONS

WEIGHT . . . 200 lbs
BATTERY LIFE . . . > 50 Operations*
SYSTEM VOLTAGE . . . 24V DC
INPUT VOLTAGE . . . 120±10% VAC, 47-63 Hz†
MAXIMUM AC CURRENT . . . 12.2 A
DRIVE MOTOR POWER . . . 250 W
DRIVE ASSEMBLY SPEED . . . 80 RPM
CHARGE TIME . . . Approx. 6 hours
DIMENSIONS . . . 74" H x 26" W x 38.1" D
OPERATING DISTANCE . . . 35 feet‡

*Number of operations is dependent on the nature of the operation
 †May be custom ordered to match different local power standards
 ‡Standard configuration, contact CBS ArcSafe® for other options
 US PATENT NO. 8,151,452B2

RRS-1 LT Lightweight Remote Racking System

For Rotary Circuit Breakers



The RRS-1 LT system is CBS ArcSafe's lightweight and compact counterpart to the industry-leading RRS-1 universal rotary remote racking system. The RRS-1 LT is designed specifically for applications and environments where a weight and/or size constraint may limit the use of the RRS-1. In order to meet the design requirements for the RRS-1 LT, CBS ArcSafe had to make major alterations to the unit in order to minimize the size and weight, therefore decreasing the rating of the unit. CBS ArcSafe recommends the RRS-1 LT be primarily used on low-voltage circuit breakers requiring no more than 20 ft-lb of racking torque.

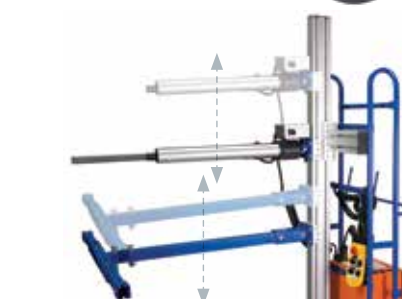
SPECIFICATIONS

WEIGHT . . . 135 lbs
BATTERY LIFE . . . > 50 Operations*
SYSTEM VOLTAGE . . . 24V DC
INPUT VOLTAGE . . . 120±10% VAC, 47-63 Hz†
PERMISSIBLE TORQUE . . . 20 ft-lb
DRIVE MOTOR POWER . . . 200 W
DRIVE ASSEMBLY SPEED . . . 60 RPM
CHARGE TIME . . . Approx. 4 hours
DIMENSIONS . . . 60" H x 22" W x 27" D
OPERATING DISTANCE . . . 300 feet‡

*Number of operations is dependent on the nature of the operation
 †May be custom ordered to match different local power standards
 ‡Standard configuration, contact CBS ArcSafe® for other options

RRS-2 Remote Racking System

For Extraction-Style Circuit Breakers



The CBS ArcSafe RRS-2 is a portable and highly configurable remote racking system built to rack all circuit breakers with non-rotary racking mechanisms while keeping the operator outside of the arc-flash boundary. The operator is able to manipulate the breaker-specific tooling, available for numerous makes and models of switchgear, via either a wired or wireless pendant station from up to 300 feet away. The RRS-2 is powered by a redundant AC/DC system that utilizes either standard AC power or the internal battery to run the unit. Absolutely no modifications to the switchgear or circuit breaker are necessary to perform remote racking with the RRS-2. Prior to ordering, CBS ArcSafe recommends an on-site evaluation be performed by a company representative in order to ensure the proper equipment may be provided for each customer based on their particular switchgear and specific requests.

SPECIFICATIONS

WEIGHT 160 lbs
BATTERY LIFE > 50 Operations*
SYSTEM VOLTAGE 24V DC
INPUT VOLTAGE 120±10% VAC, 47-63 Hz†
MAXIMUM AC CURRENT 12.2 A
EXT. ACTUATOR FORCE 600 lbs
EXT. ACTUATOR SPEED 1.0"/second
CHARGE TIME Approx. 6 hours
DIMENSIONS 60" H x 26" W x 36" D
OPERATING DISTANCE 35 feet‡

*Number of operations is dependent on the nature of the operation
 †May be custom ordered to match different local power standards
 ‡Standard configuration, contact CBS ArcSafe® for other options

RRS-2 BE Remote Racking System

For Motor Control Center Buckets Only



The RRS-2 BE is designed specifically for motor control center (MCC) bucket removal applications where users normally would be required to perform the install or remove operation manually — exposing them to the potential hazards of an arc flash and its lethal consequences. Designed to be extremely versatile, the RRS-2 BE is suited for use in all environments — from grueling applications in a power-generation facility to clean rooms at a high-tech manufacturing plant.

SPECIFICATIONS

WEIGHT . . . 105 lbs
BATTERY LIFE . . . > 50 Operations*
SYSTEM VOLTAGE . . . 24V DC
INPUT VOLTAGE . . . 120±10% VAC, 47-63 Hz†
CHARGE TIME . . . Approx. 4 hours
DIMENSIONS . . . 74" H x 25" W x 32" D
OPERATING DISTANCE . . . 300 feet‡

*Number of operations is dependent on the nature of the operation
 †May be custom ordered to match different local power standards
 ‡Radio remote control standard on RRS-2 BE

Ask about the SecureConnect Remote Operator for Allen-Bradley® CENTERLINE® 2100 MCC.



Optional Equipment Remote Racking Systems

For Extraction-Style and Rotary-Type Circuit Breakers

CCM Radio Remote

The CCM radio remote option allows users to operate the RRS and monitor the racking status wirelessly from up to 300 feet away. Ideal for users with extended distance requirements or those who wish to monitor the status of the racking operation remotely.



Pneumatic Tires

The air-filled pneumatic tires provide a cushioning effect and reduce wear on the RRS unit during transport. Ideal for customer applications where transportation or use on uneven, rocky, or gravel surfaces is likely to occur.



Wireless/Wired Video System

The wireless/wired video system allows users to monitor the remote racking operation from up to 300 feet away using an RRS-mounted camera and stand-alone monitor. Ideal for users who will be visually separated from the RRS during the remote operation.



Front Casters

The front casters allow for maximum mobility even in the tightest spaces, simplifying installation and setup in these locations. Ideal for tight or constrained areas where users may otherwise have difficulty maneuvering the RRS.



Stair Climber Rails

The stair climber rails provide a low-friction surface for use when transporting the RRS up and down stairs and provide a level of protection to the control cabinet during everyday use. Ideal for applications requiring transportation up or down stairways.



Wired Pendant Extensions

The wired pendant extension(s) allows users to operate the RRS from extended distances while remaining tethered to the unit. Ideal for use in facilities with extended distance requirements that also restrict radio-controlled device transmission.



Low-Speed/Jog

The low-speed/jog option consists of a high-torque/low-speed gearbox, as well as manual jog control for the RRS operation. Ideal for applications requiring added torque output and/or more precise control.



Power Slide

The power slide system utilizes a motor to raise and lower the drive assembly instead of the standard handle. Ideal for applications requiring users to quickly and easily switch between racking heights for different breakers.



LED Light

The LED light accessory adds a forward-facing, high-intensity light source with pan and tilt capability to the front of the RRS. Ideal for personnel setting up the RRS or installing RRS tooling in low-light environments.



Water-Resistant Cover

It is recommended that the RRS be stored in a dry, temperature-controlled environment. However, because this is not always possible, CBS ArcSafe offers a water-resistant cover that protects the RRS from contact with small amounts of liquid from above.



Magne-Blast Supervisory Link

The MBSL option allows the RRS to interface with the pre-existing control circuit and cubicle-mounted limit switches within GE Magne-Blast gear. Ideal for users who want to control the RRS by utilizing the pre-existing Magne-Blast control scheme.



High Lift

The high lift option is required to remotely rack any equipment with a racking mechanism more than 66 inches off the ground. Ideal for users who wish to rack breakers with extremely high racking mechanisms that would otherwise cause issues during manual operation.



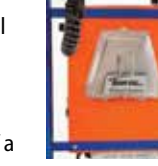
Tether System

The tether kit is used to provide a universal link between the RRS and the electrical equipment being remotely racked. Ideal for users who wish to remotely rack breakers with moving racking mechanisms.



PD Alert Sensor

PD Alert provides an additional layer of safety for technicians tasked with racking or removing circuit breakers and motor control centers. In the event of a breakdown in line-to-line or line-to-ground insulation, the programmable PD Alert radio frequency (RF) non-contact sensor issues a visual strobe alarm or digital alarm via email or SMS text message. Compatible with RRS-1, RRS-1LT, RRS-4, and RRS-2; also works as stand-alone sensor.



RRS-3 Single-Use Portable Remote Racking Systems

CBS ArcSafe Single-Use Remote Racking Systems (RRS-3s) are designed to remotely rack a single style of circuit breaker utilizing a portable, stand-alone device. The RRS-3 units are most commonly assisted by strong magnets, meaning that no modifications are required to the switchgear. This also allows operators to easily move the RRS-3 from one breaker to another.

The RRS-3 system is an inexpensive single-application remote racking system that allows the operator to install and remove a breaker while standing 25 to 75 feet away with a hand-control unit. Each CBS ArcSafe RRS-3 is custom built to your electrical equipment so that it can safely operate your switchgear.

RRS-3 MBII



RRS-3 MDS



RRS-3 VB



Radio Remote Pendant Station

MAX. OPER. DISTANCE . . . 300 feet (Line Of Sight)
FREQUENCY . . . Direct Sequence Spread Spectrum (DSSS) Technology
OPERATING TEMP. . . . -4°F to 131°F
TRANSMITTER POWER . . . +3.6V to +4.5V (Three AAA Batteries)
AUTO SHUTDOWN . . . 4 Minutes
INDICATORS . . . Green — Transmit
 Red — Receive
 Amber — Link
LOW BATTERY WARNING . . . 3.3V and Below
 (Green LED will blink approx. once per second regardless of operational status)
LOW BATTERY SHUTDOWN . 3.1V and Below
TRANSMITTER WEIGHT . . . 7.2 Oz.
TRANSMITTER SIZE . . . 5.37" x 2.68" x 0.92"
TRANSMIT BUTTON LIFE . . . 5 Million Operations

RSO-IV for the RRS-3

All RRS-3s require the RSO-IV to operate.

The RSO-IV is a rechargeable 24V DC power supply that, when used in conjunction with an appropriate RRS-3, will remotely perform any racking operation that would normally require local operation by trained personnel. Tasks the RSO and RRS-3s can perform include, but are not limited to, the following operations:

- Installing and removing any switchgear utilizing a rotary racking mechanism
- Installing and removing any switchgear utilizing a non-rotary racking mechanism
- Engaging or disengaging mechanical or electrical interlocks, such as circuit breaker interlock foot-pedals or buttons

WEIGHT . . . 23 lbs
BATTERY LIFE . . . 8 amp-hours
OUTPUT VOLTAGE . . . 24V DC
INPUT VOLTAGE . . . 100-240 VAC/50-60Hz
FULL LOAD AMPS . . . 2 A
ENCLOSURE RATING . . . Type 1
ENCLOSURE MATERIAL . . . Polypropylene copolymer

NOTE: Some RRS-3 units will require the RSO-IV IL or the RSO-IV AR, depending on the application. These styles of the RSO-IV will allow the user to defeat the interlocks before the racking process is started.

RSO-IV PATENT PENDING

All CBS ArcSafe products are compatible with all switchgear manufacturers, including:

- ABB
- Allis-Chalmers
- Alstom
- BBC
- Cutler-Hammer
- Eaton
- Federal Pacific Electric
- Federal Pioneer
- General Electric
- Hyundai
- ITE
- McGraw-Edison
- Merlin Gerin
- Mitsubishi
- Powell
- Reyrolle
- Siemens
- Siemens-Allis
- Square D
- Toshiba
- Westinghouse

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