



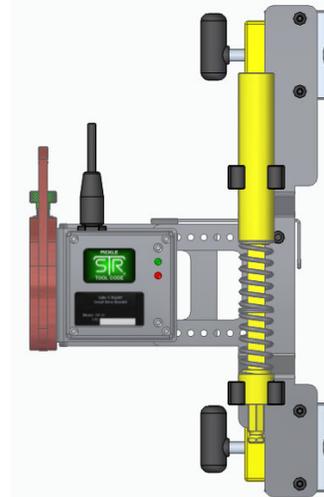
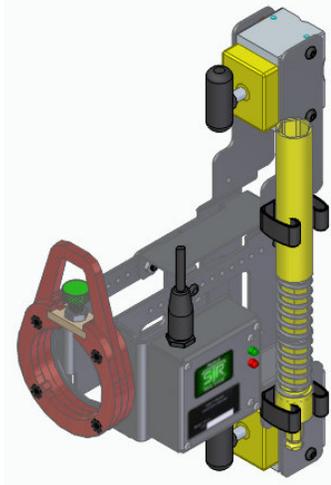
SAFE-T-RACK
by remote solutions, llc

**Operation
Manual**



SR-U

SDB-52VB-1321-NM



General Electric

Powervac VB

5000-27kV

1200-3000A

Our products are built to spec in our 23,000 sq ft., state-of-the-art facility by our team of designers and engineers in Tucson, Arizona. Each product is custom designed to individually fit each breaker, cubical door, switch gear, or variant so you know you're getting the safest, most reliable product on the market. We built the best so your team stays safe.

Distance is the best arc protection



REMOTE SOLUTIONS, LLC

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Safety First

Always observe all safety precautions and use all personal protective equipment (PPE) as required by Local Site Procedures. This equipment is designed to minimize exposure risk to the operator. Please use the cables, explained below, to attain a safe distance from the breakers during racking. Always use appropriate PPE. Above all, adhere to site specific regulations and requirements.

Before beginning the racking process, be sure that the breaker is open, verify that a lockout/tag out is in place (LOTO) and allows racking of the breaker.

Parts List

Part/Image	Quantity	Description
	1 each	The Smart Drive Bracket (SDB) uses the Tool Adapter Assembly (TAA) to engage with the breaker and perform the racking in/out functions.
	1 each	Portable Kit includes: One Motor Drive Unit (MDU), one 50' comm. cable, two 28V batteries, and one SR-U Handheld Controller (HHC)



Operation Manual

Overview

Depicted In figs. 1.1 and 1.2, the Smart Drive Bracket (SDB) is fully attached to the breaker. The SDB utilizes a Tool Adapter Assembly (TAA), which engages with the racking shaft to rack the breaker in/out.

In fig. 1.1, the TAA is engaged with the racking shaft inside the breaker. In 1.2, the tool is secured in its stored location on the SDB.

The SDB is attached to the breaker door by two magnet switches located at the top and bottom of the bracket. Once the SDB is aligned with the racking shaft and secured by the magnet switches, the Motor Drive Unit may be engaged to begin performing the racking process.

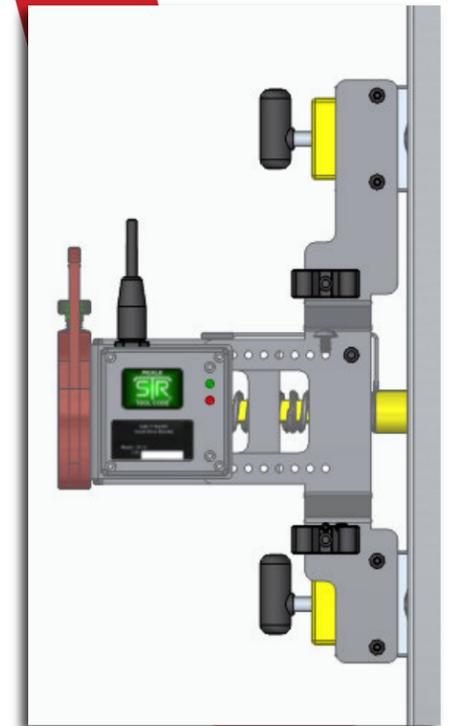


Fig. 1.1

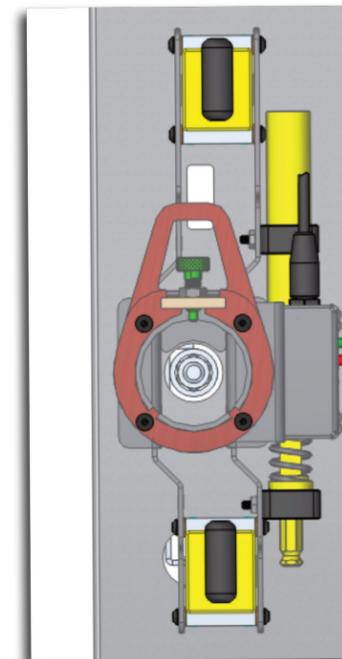


Fig. 1.2

Smart Drive Bracket Mount

In fig. 1.3, the Intermediate Tool Assembly has been removed from the SDB. Guide the SDB toward the racking shaft by looking through the mounting rings, depicted in red, and align the arched guide with the access port. Once in line, firmly hold the SDB against the arc shield and activate the switch magnets by turning the black handles to the locked position. Once secured, the magnets will hold the SDB in place.

Sequence Process

1. Locate racking shaft access port.
2. Align arched guide with access port.
3. Firmly hold the SDB to the arc shield.
4. Engage Switch Magnets until handle reaches the secure, locked location.

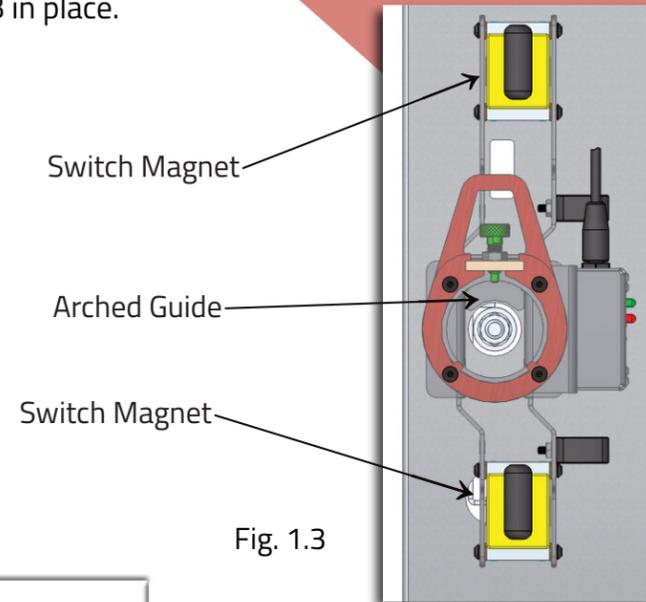


Fig. 1.3

Tool Adapter Mount

The SDB is equipped with a Tool Adapter Assembly (TAA). The Motor Drive Unit (MDU) is equipped with a quick-connect tool coupling, which uses a collar that slides back and the TAA inserts in to the coupling. When the coupling is released, the TAA is secured in place.

Sequence Process

1. Slide out the collar on the MDU.
2. Insert the TAA in to the quick-connect tool coupling.
3. Release the collar and shake and twist the TAA to ensure its locked in place.

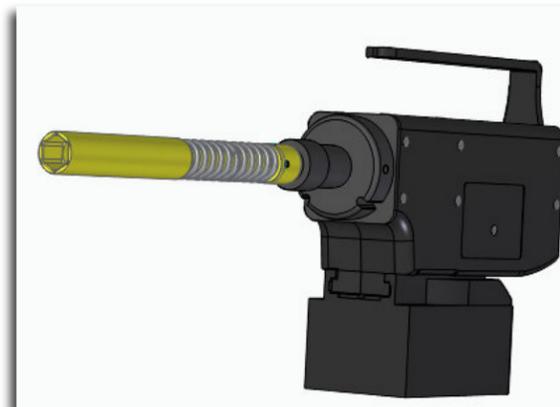


Fig. 1.4

Motor Drive Unit Mount

The Portable Kit includes two 28V batteries. Before connecting the battery to the system, make sure the battery is fully charged and is attached to the MDU. If preferred, an AC Power Supply is available, negating the need of a battery.

The MDU intuitively fits into the SDB mounting rings (depicted in red), on top of which is a locking pin (depicted in green, fig. 1.5). Set the locking pin to the open position. Insert the MDU and align the UTAA with the Intermediate Tool Adapter, then lock the MDU into place by releasing the locking pin. When the pin fully engages, the MDU is secure.

Once the MDU is secured to the SDB and fully connected to the Tool Adapter, connect the 50' SDB Automation Cable to the Motor Drive Unit.

Sequence Process

1. Attach a fully charged battery to the MDU.
2. Set the locking pin to the open position.
3. Insert the MDU equipped with the TAA through the mounting rings.
4. Align and engage the TAA with the racking shaft.
5. Release the locking pin, securing the MDU in place.
6. Connect the SDB Automation Cable to the MDU.

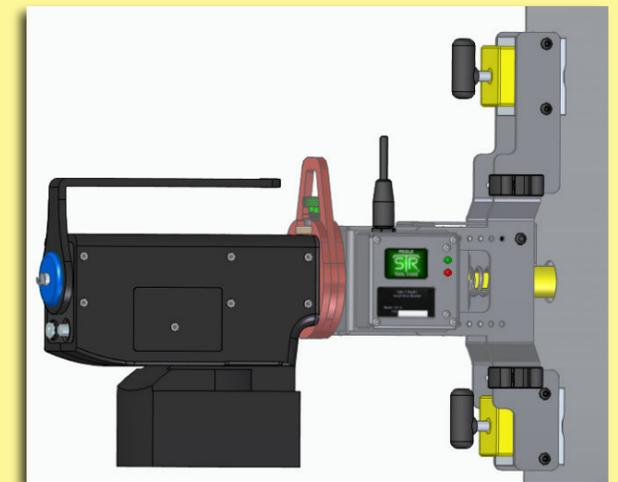


Fig. 1.5



Handheld Controller

The Handheld Controller connects to the MDU via a 50' Automation Cable. If necessary three cables may be tethered to achieve a safe distance of 150'. Once plugged in and turned on, the Handheld Controller guides the user through the racking in/out procedure.

Sequence Process

1. Connect the Handheld Controller with the 50' Comm. Cable.
2. Move a safe distance from the breaker.
3. Turn on the Handheld Controller and follow the on-screen prompts.

Error Recovery

When racking in/out, if an obstruction or mechanism failure occurs, the system will attempt to recover the breaker to a safe position. Actions will be displayed with an asterisk (*) in front of them. When done, the position of the breaker will be displayed as determined by the recovery. Note the location and approach with caution. Determine the cause of the failure and remedy the situation prior to attempting additional remote racking.

NOTE: Attempting to stop or shutting down the system mid-process once it has started is not recommended, as this will leave the breaker in an unknown position. The Remote Racking System will only operate from "known" positions: connect or disconnect. The Remote Racking System will not engage when the breaker is at a mid-point.



Care/Maintenance

To ensure longevity from the Portable Kit and the Smart Drive Bracket, store the tools in the provided polymer case in a dry, temperate environment. The tools are weather resistant but should be used with care in rain and snow.

For any questions, concerns, information, or missing/replacement parts, contact Remote Solutions below or follow the QR link to our website.



Because Distance is the Best Arc Flash Protection

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