## REMOTE RACKING SYSTEM

SPECIFICALLY DESIGNED FOR:

SAFE-T-RACK by Remote Solutions LLC

Because Distance is the Best Arc Flash Protection

BREAKER: AK-25, AK-50

MANUFACTURER: General Electric

**VOLTAGE: 480V** 

**CURRENT: 225A - 2000A** 



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- LIGHTWEIGHT AND PORTABLE
- EASY-TO-USE HANDHELD CONTROLLER
- STANDARD 50' CABLE (WITH OPTIONAL EXTENSIONS) ASSURES SAFE DISTANCE FROM BREAKER DURING RACKING SEQUENCE
- ERROR RECOVERY & EMERGENCY STOP CAPABILITY
- MOUNTING HARDWARE INSTALLED ON CUBICLE FACE

### PARTS & ACCESSORIES

Smart Drive Bracket,
Tool Adapter Assembly, Motor Drive
Unit. and 50' Communications Cable

All of our products are designed, built to spec, and shipped from our state-of-the-art facility in Tucson, Arizona. Each product is created and tested by our knowledgeable team of designers and engineers to fit each individual breaker, cubicle door, switchgear, or variant. When you choose Safe-T-Rack, you're getting the safest, most reliable product on the market.

OUR TEAM GOES TO WORK EVERY DAY TO MAKE SURE YOUR TEAM COMES HOME SAFE.









# OPERATION MANUAL

BREAKER: AK-25, AK-50

MANUFACTURER: General Electric

**VOLTAGE: 480V** 

**CURRENT: 225A, 2000A** 

### SAFETY FIRST

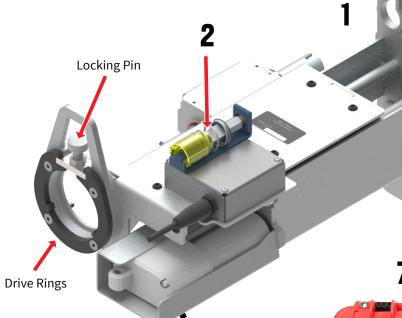
Always observe safety precautions and use personal protective equipment (PPE) as required by local site procedures. This equipment is designed to further minimize exposure risk to the operator.

### **PARTS LIST**

- 1. Smart Drive Bracket (SDB)
- 2. Tool Adapter Assembly (TAA)
- 3. Motor Drive Unit (MDU)
- 4. Two (2) batteries with charger
- 5. One (1) SR-U Handheld Controller (HHC)
- 6. 50' communication cable\*
- 7. Polymer Storage Case



Power/E-Stop Button



### **CUBICLE KIT REQUIRED**

This application requires an installed cubicle kit onto which the SDB is mounted. For questions or installation requests, contact Remote Solutions LLC.



### **MARNING**

This product can expose you to chemicals including Di(2-ethylhexyl), phthalate (DEHP), which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.p65warnings.ca.gov.

### SETUP SEQUENCE

#### SMART DRIVE BRACKET (SDB)

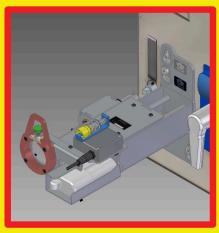
- 1. Assure that cubicle is fitted with Cubicle Kit and that Smart Drive Bracket and Cubicle are both labeled with BLACK color code.
- 2. Hang Smart Drive Bracket (SDB) from cubicle using installed Shoulder Nuts. SDB will suspend securely from keyhole slots.
- 3. Intermediate shaft will align with breaker shaft and bracket will auto align with racking shaft cross pin.

### MOTOR DRIVE UNIT (MDU) & TOOL ADAPTER ASSEMBLY (TAA)

- 1. Using Quick Change Coupling, insert Tool Adapter Assembly (TAA) into Motor Drive Unit (MDU). Assure that TAA is secured before proceeding.
- 2. Attach fully charged battery to MDU.
- Set the locking pin on SDB to an open position and insert MDU & attached TAA into the drive rings on SDB.
- 4. Ring dogs on SDB and MDU assure correct orientation of device. Once aligned, release locking pin to hold MDU in place. Assure that MDU is securely connected before proceeding.
- 5. Connect SDB communication cable to port in MDU. Note: Red line on communication cables indicates correct alignment with port.

### HANDHELD CONTROLLER (HHC)

- 1. Connect 50' Communication Cable to second port in MDU.
- 2. Connect other end of 50' Communication Cable to Handheld Controller (HHC)\*.
- 3. Move a safe distance away from the breaker.



SDB SECURED TO BREAKER USING CUBICLE KIT SHOULDER BOLTS



MDU WITH ATTACHED TAA



MDU WITH ATTACHED TAA
PROPERLY ENGAGED WITH
DRIVE RINGS AND LOCKING PIN,
READY FOR SDB AND HHC
COMMUNICATION CORDS

\*Note: Multiple cables can be used to increase safe distance from breaker. Additional cables sold separately. Contact Remote Solutions LLC for more information.

### **POWER ON**

- 1. Twist the E-Stop switch on HHC to activate the system.
- 2. Several screens will flash as unit powers up. Once HHC has powered up, verify correct application screen is displayed.

### SYSTEM OPERATION

1. Follow the on-screen prompts to complete racking procedure. Navigate selections using perimeter buttons on HHC (backlit in green). "Up" and "Down" will toggle through options on screen. "Right" and "Left" will confirm selections.

2. Navigating HHC in this manner, select current location and desired destination of breaker. When selection is highlighted, click center button

initiate the racking process.

3. System will perform action as selected, displaying progress on screen.

(backlit in red) to confirm selection. This will

4. Upon successful operation, HHC will display a completed racking screen.

### **POWER DOWN & STORAGE**

- 1. Power down the unit by pressing the E-Stop button. Remove battery from MDU.
- 2. Unplug power cord and HHC communication cord from SDB.
- 3. Stow 50' Communication Cable, HHC, MDU, and batteries in storage case.
- 4. Remove TAA from MDU and return it to storage clip on SDB.
- 5. Remove SDB from cubicle and store in provided polymer case.

### BATTERY REQUIREMENT

Note: System will ask to verify battery level.
Check battery level is at 4 bars before attempting to rack. If racking multiple breakers, please verify battery level between each racking attempt.



**BUTTON** 

CARE & MAINTENANCE

To ensure longevity of the Portable Kit and SDB, 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.

### **ERROR RECOVERY**

If a problem occurs, programmed recoveries will happen automatically and the system will attempt to recover the breaker to a known position.

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 on

HHC with an asterisk (\*) in front of them. When the HHC has completed recovery operations, HHC will display current expected location of the breaker. Note the expected location and approach the breaker with caution. Determine cause of the failure and remedy the situation prior to

attempting additional remote racking.

NOTE: Attempting to stop or shutting down the system midprocess 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.

### **EMERGENCY STOP**

The red E-Stop button on the HHC serves as both the power and Emergency Stop button. If an E-stop is initiated, the system will shut down. Operator must then manually recover the breaker to a known position. Follow all safety procedures and wear appropriate PPE when recovering a breaker manually.

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



