

GE
Industrial Solutions

E9000* Low-Voltage Motor Control Center Remote Racking Device for Arc Flash Mitigation Units Instruction Guide



imagination at work

Remote racking device

The remote racking device is specially designed to operate with the full range of Arc Flash Mitigation (AFM) units. It is easily mounted with two heavy-duty bolts. High speed operation helps to ensure that the stabs are fully ENGAGED/ DISENGAGED within seconds. The operator controller gives clear information on the position of the stab at any point in time during operation. AFM remote racking devices come with a 40 feet cord length for operation outside the arc flash hazard zone. The remote racking device operates using torque-sensitive mechanism to protect your equipment from over or under racking. The power to the motor cuts off automatically when it reaches approximately 4.5 lb/ft.

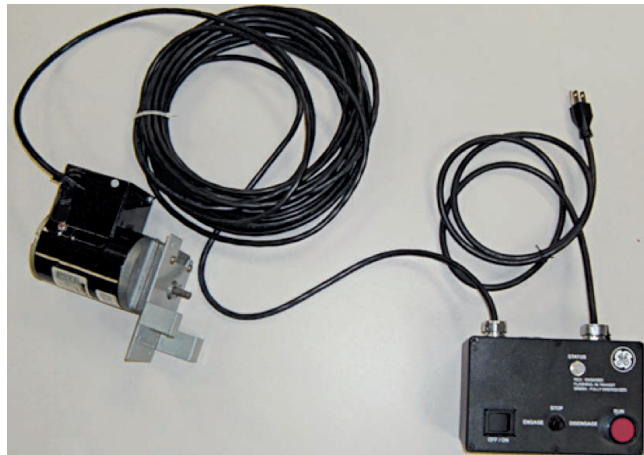


Figure 1a. Motor operator assembly with operator controller and power cord

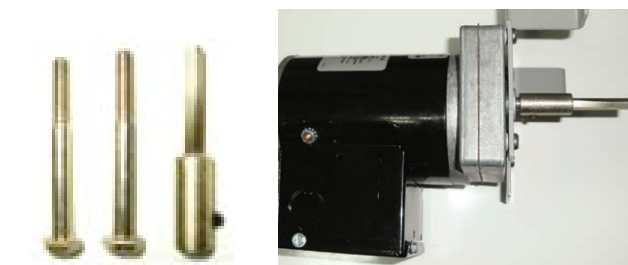


Figure 1b. Motor mounting screws and lead screw connector

Table 1. Parts List

Description	Quantity
Motor operator assembly	1
Motor mounting screw	2
Operator controller with power cord	1
Lead screw connector ¹	3

1. Only one screw connector will be used for racking operation. Additional 2 are spare.

WARNING: Before installing any accessories, turn the circuit breaker "OFF", disconnect it from all voltage sources. Never attempt to open the door before bringing the stab to completely "DISENGAGED" position.

E9000[®] LV Arc Flash Mitigation Remote Racking Device

- Duty Cycle = 1/min
- Racking time = approx. 25 sec
- Motor weight = 6.5 lbs
- Motor operator controller weight = 2 lbs
- Power cord length = 5.5 feet
- Motor to controller cord length = 40 feet

Follow the procedure mentioned in this guide for proper remote racking operation.

Step 1: Check that the package contains all the parts listed in Table 1. If any components are missing, contact the Customer Service Center.

Step 2: Verify the input supply voltage. The remote racking system operates at a supply voltage of 110 VAC.

Step 3: Turn the circuit breaker "OFF" and remove the lead screw cut out cover from the door as shown in Figure 2 before mounting the motor on the unit door.

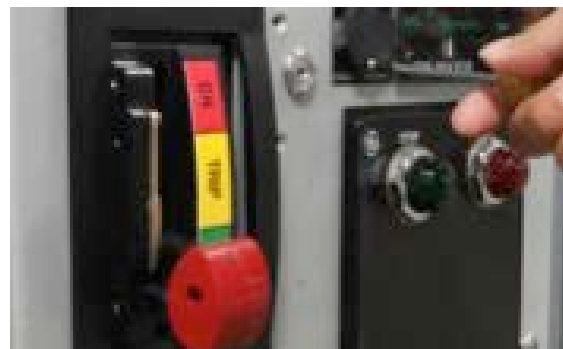


Figure 2a. Removing lead screw cover from door



Figure 2b. Lead screw not accessible in disconnect "ON" condition



Figure 2c. Lead screw cover after removing from door

Step 4: All Arc Mitigation unit doors will have blind rivet nuts clinched to the door for easy mounting of motor.

Step 5: Insert the motor connector to the unit lead screw slot and align the motor mounting screws in the door by slightly rotating the motor assembly as shown in Figure 3.



Figure 3. Mounting motor on door

Step 6: Fasten the motor on the door by the mounting screws provided with the kit as shown in Figure 4.



Figure 4a: Fastening motor on door.



Figure 4b. Assembled condition of motor on door.

Step 7: Connect the power cord to 110V AC supply. The system gets powered on by switching "ON" the power switch on the controller.

Step 8: TO ENGAGE THE STAB: Make sure the circuit breaker is in "OFF" position & check the indicator flags on the door to make sure the stab is in completely DISENGAGED position. This can be verified by the mechanical indicators. In "DISENGAGED" position the stab indicator will be "GREEN" and the shutter indicator will be "GREEN" as shown in Figure 5.



Figure 5. Mechanical Indicators showing DISENGAGED position

- a. Move the toggle switch towards the left as shown in the Figure 6a for engaging the stab.
- b. Press the "RUN" push button (you do not need to hold). The controller commands the motor to rotate in a clockwise direction.



Figure 6a. Pendant operation details

- c. The status light flashes in "RED" representing the transit state.
- d. It takes approximately 25 seconds to completely "ENGAGE" the stab. When the stab is completely engaged the motor stops automatically and the status light turns "RED" as shown in Figure 6b.



Figure 6b. Controller showing ENGAGED condition

Step 9: The ENGAGED position can also be verified by the mechanical indicators on the door. The stab and shutter indicator shows “RED” in ENGAGED position as shown in Figure 7.

Step 10: TO DISENGAGE THE STAB: Make sure the circuit breaker is in “OFF” condition and check the indicator flags on the door to make sure the stab is in the completely ENGAGED position. In the “ENGAGED” position the stab indicator will be “RED” and the shutter indicator will be “RED” as shown in Figure 7.



Figure 7. Mechanical indicators showing ENGAGED condition

- a. Move the toggle switch towards the right for disengaging the stab.
- b. Press the “RUN” push button (you do not need to hold). The controller commands the motor to rotate in counter-clockwise direction.
- c. The status light flashes in “RED” representing the transit state.

d. It takes approximately 25 seconds to completely “DISENGAGE” the stab. When the stab is completely disengaged the motor stops automatically and the status light turns “GREEN” as shown in Figure 8.



Figure 8. Pendant showing DISENGAGED position

Step 11: The DISENGAGED position can also be verified by the mechanical indicators on the door.

The stab and shutter indicator shows “GREEN” in DISENGAGED position as shown in Figure 5.

Step 12: After completing the required operation ENGAGE/ DISENGAGE switch OFF the controller and remove the motor from unit door by loosening the two fasteners.

Step 13: Restore the lead screw cover and ensure the cover is fastened properly.

Step 14: Store the remote racking device in a proper place for future use. Make sure the cables are handled carefully to avoid any damage to insulation.

GE
Industrial Solutions
41 Woodford Avenue
Plainville, CT 06062
www.geindustrial.com

© 2014 General Electric Company



* Trademark of General Electric Company

These instructions do not purport to cover all details or variations in equipment nor, to provide contingency to be met in connection with installation, operation, or maintenance. Should further information be desired, or should particular problems arise which are not covered sufficiently for the purchaser's purposes, the matter should be referred to GE.

DEI-007A 07/15