

CM-52 network protector remote racking device (Rem-Rack)



Remote racking unit integral to CM-52 network protector. The product can be retrofitted onto any CM-52 network protector; consult factory for details.

Eaton's CM-52 remote racking device provides a means of remotely connecting and disconnecting a network protector from the energized buswork while the door of the network protector remains bolted shut to help mitigate any chance of arc flash exposure.

The danger

Electric arcs result from thermal ionization that occurs when current flow is interrupted by the separation of conductors. Thermal ionization can generate temperatures as high as 35,000°F. Conductor materials melt into metal vapor, and the surrounding air is ionized. External arcs create a violent explosion, resulting in an inferno of ionized gases, molten debris, metal shrapnel and a flash of light (arc flash). Inside a network protector enclosure, an event would be in the unprotected zone as defined by IEEE® C57.12.44 Annex D.

Events in this area are not protected by upstream substation devices or the network protector relay.

The best way to limit exposure during the process of racking out or in is to put more distance between the person and the possible point of exposure

The Eaton network protector remote racking solution is integral to the breaker and allows operation while the network protector door remains closed.

Features

- Integral to breaker element
- No micro switches or position sensors
- Mechanical safety interlock prevents lifting manual crank shutter while breaker is closed
- Non-volatile memory
- Auto Learn configuration
- Front LEDs for position feedback
- Remote external contacts for position feedback through communications
- Advanced jam detection algorithm

Benefits

- Device gets operator outside the arc flash boundary
- Racking/operation of breakers can be done without having to wear cumbersome or restrictive PPE apparel
- Allows for manual crank out or in racking
- Can be retrofitted into existing CM-52 network protectors
- Can be controlled by hand-held pendant, control box mounted in vault, or remote communications using the VaultGard™ communication platform



Powering Business Worldwide



Figure 1. Remote racking unit can be operated by a hand-held pendant.

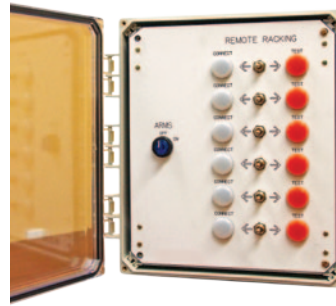


Figure 2. Network protectors can be racked out via an optional control box that can be installed in or near the vault.



Figure 3. Network protector shown with optional IP68 rated submersible stacklight. The LED colors are: Flashing Blue = NPArms mode, Red = Close, Green = Open, Yellow = Racked out to test position, White = Racked in or connected to energized bus.



Figure 4. The remote racking unit has a built-in manual crank override under a protective shutter.

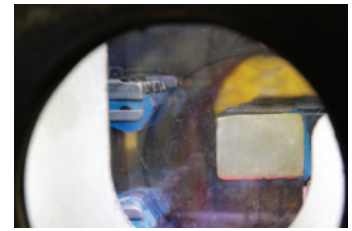
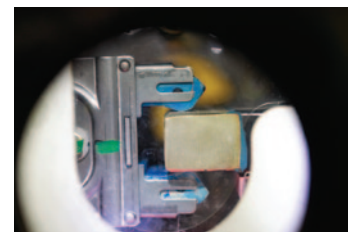


Figure 5. Shown with optional visible break windows in the CM-52 network protector.

Eaton Corporation
 Electrical Sector
 1111 Superior Ave.
 Cleveland, OH 44114
 United States
 877-ETN-CARE (877-386-2273)
 Eaton.com

© 2011 Eaton Corporation
 All Rights Reserved
 Printed in USA
 Publication No. PA02400009E / Z11640
 November 2011