Instruction Leaflet **IL008003EN** Effective February 2013

Elevator Control Remote Shunt Trip Modification Instructions

The Eaton Corporation Elevator Control Switch is designed to meet all the required NFPA and NEC codes for Elevator Disconnect, Battery lowering, and Fire panel interfaces. The standard product offered from the factory will satisfy the majority of the state and local authorities having jurisdiction (AHJ) without any modification.

In some jurisdictions however, local AHJ's require all three phase power in the elevator equipment room (including feeders) to be de-energized. In these cases, the elevator control switch can be modified to provide the code-required monitoring as well as a signal to operate a remote shunt trip device to shut down incoming power. This will allow the ECS to provide all required functions and meet these local requirements.

This instruction leaflet has been developed to guide the installer on a method to meet the conflicting local codes. This will fully utilize the Eaton Elevator Control Switch capabilities while providing a solution that is acceptable to the AHJ.

The changes detailed in the these instructions will allow the installer to modify the assembly to remove the wiring for the internal shunt trip within the Eaton Elevator Control Switch and moves it to an external shunt trip device capable of operating on 120VAC/60Hz provided that the electrical system has an upstream feeder breaker with a shunt trip

Remote Shunt Trip Field Modification Instructions

1. Remove power upstream, lockout all upstream devices per local safety codes and good electrical principles. Validate power is off with appropriate metering.
2. Route two external shunt trip device conductors into the Eaton Elevator Control Switch enclosure using code-compliant methods. Ensure any conduit entry does not impact the NEMA rating noted on the internal publication of the enclosure.
3. Remove the yellow wire from the relay base CR1 terminal 7 using a Phillips-head screwdriver. It should be the only yellow control wire in the enclosure. This wire will not be used and can be insulated and tied back.
4. Connect the external shunt trip device "positive" input to this location (CR1 Terminal 7).

   Note: This will provide the secondary voltage noted on the transformer (120VAC) out of this enclosure to the external shunt trip device which should be the upstream feeder to this elevator control switch.
5. Connect the external shunt trip device return or "neutral" to the terminal block location marked "N" or any open terminal connected to the "N" terminal location.

   Note: This will provide the closed secondary voltage noted on the transformer out of this enclosure to the external shunt trip device and is required to complete the shunt trip circuit.
6. Complete any wire tie adjustments needed and route control wires appropriately. Avoid any moving parts within the enclosure.
7. Close case and restore power.
8. To test the shunt trip, provide line power to the Eaton Elevator Control Switch. Turn the "key to test" switch to activate the shunt trip. Verify that the upstream feeder trips and there is no power to the Elevator Control Switch. If no "key to test" is provided, a signal from the Fire Alarm Control panel will activate the external shunt trip device.

⚠ WARNING

VERIFY WITH LOCAL CODES THE PROPER WAY TO MARK THE EXTERNAL DEVICE NOTING THAT THE SHUNT TRIP IS POWERED FROM A "DOWNSTREAM" SOURCE. LOCK- OUT TAG-OUT MEASURES FOR THIS ENCLOSURE MUST BE FOLLOWED FOR ALL SOURCES WHEN WORKING ON THE EXTERNAL SHUNT TRIP DEVICE.

FAQ

Q: What is the rating of the output for the external shunt trip device?

A: The transformer is set to 120VAC/60Hz nominal and fused at 2A. The short term trip level has been validated to 570VA nominal at 60Hz.

Q: What type and gauge of wiring should be used to make the external connections?

A: Follow local NEC requirements for wire sizing and insulation ratings. The control signal is 120VAC @ 60Hz.

Q: What do I do with the yellow wire?

A: Once disconnected, this wire will not have any voltage on it. Use all appropriate practices to end terminate it and tie it away from all moving and conducting parts.

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

Printed in USA
Publication No. IL008003EN /TBG01057
February 2013

Powering Business Worldwide