

Engineering Department

Engineering Change Order (ECO)

ECO #: PN4-001-ASSM-001

Effective Date: July 5, 2016

Title: GFCI Replacement

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Date: July 5, 2016

Engineering Approval: aeg

Date: July 25, 2016

Operations Approval: JJV

Date: July 29, 2016

Summary:

Internal GFCI circuit breaker (50270) will be replaced with external inline ELCI (52136) and panel mount circuit breaker (52137). An additional plate (52125) will be added to cover the circuit breaker on the panel.

Parts Affected:

Part Number	Notes	Removed	Added	Modified
PN4-001-ASSM	Panel Assembly Plate Top (Pro 4)	☐	☐	☒
ICB-018-4B	Panel Part GFCI Bracket Side (Pro 4)	☒	☐	☐
ICB-018-4A	Panel Part GFCI Bracket Rear (Pro 4)	☒	☐	☐
50270	Acti9 GFCI Circuit Breaker	☒	☐	☐
52136	Dual Voltage 10mA Trip Inline ELCI	☐	☒	☐
52137	Push to Reset Circuit Breaker 10A 250VAC	☐	☒	☐
52135	Push to Reset Circuit Breaker Housing	☐	☒	☐
52125	Pro4 ICB GFCI Badge	☐	☒	☐
91115A133	18-8 SS Female Threaded Hex Standoff 1/4" Hex, 1" Length, 6-32 Screw Size	☐	☒	☐
96640A117	Screw #6-32 x 1/2" Flat Head Phillips SS Black	☐	☒	☐
91772A148	Screw #6-32 x 1/2" Pan Head Phillips SS	☐	☒	☐
91771A108	Screw #4-40 x 3/8" Flat Head Phillips SS	☐	☒	☐
96640A056	Screw #4-40 x 3/8" Flat Head Phillips SS Black	☐	☒	☐

Detail:

Internal GFCI circuit breakers (50270) being used in Pro4 panels are rated operational for 230V/50Hz only. This is an issue when the panel is being operated at 120V/60Hz, the GFCI does not trip 100% of the time when tested. For safety reasons, the GFCI will be replaced with a dual voltage ELCI (52136) operational at 120V/60Hz and 240V/50Hz. A 10A panel mount circuit breaker (52137) will be added to protect the system from any potential shorts. Additionally, a plate (52125) will cover the circuit breaker for protection from AC components. The components implemented will comply with both European and American voltages.

Action Item:

Action	Department	Acknowledgement Initials
Remove all Internal GFCI (50270), Panel side bracket (ICB-018-4B) and panel rear bracket (ICB-018-4A) from inventory. Provide location for the ELCI (52136), Circuit breaker housing (52135), circuit breaker (52137) and plate (52125).	Inventory	SL
Quarantine all GFCI circuit breakers (5070)	QC	NS
Replace GFCI circuit breaker (50270) with 10A circuit breaker (52137) and assemble inline ELCI (52136). Assembly instruction will be provided.	Production	KK
Purchase enough parts to meet production demand. Notify Pro4 panel assemblers of the change and provide appropriate documentation.	Purchasing	NS

Modified / Referenced Documents:

Document	Current Revision
Circuit Breaker Assembly Instructions	1.0

-- END OF ORDER --