



TECHNICAL BULLETIN

➤ *Recommend Earliest Possible Action* ◀

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Reference #	147
Route to	Modernization Manager/Service Manager
From	MCE Technical Support Department (916-463-9200 then press "3")
Date	January 31, 2014
Pages	2
Subject	KEB F5 Drive & R6 Regenerative Drive Fusing
Equipment	All controllers with a KEB F5 & R6 Regenerative drives with Isolation Transformers shipped prior to October 1, 2013.
Description	<p>It has been brought to MCE's attention that some installations do not have properly sized main line disconnect fuses. Proper sizing of main line disconnect fuses is essential in order to protect elevator control equipment downstream. Proper sizing of the main line disconnect fuses becomes even more critical when an Isolation Transformer is being used in conjunction with the elevator controller. When an Isolation Transformer is used, it provides additional impedance which limits the available short circuit current due to a fault, which leads to the failure of the oversized fuses from opening and interrupting the fault current.</p> <p>MCE does not provide any recommendation on the sizing of main line disconnect fuses. However, MCE does provide the Full Load Amps (FLA) for the controller. It is the responsibility of the elevator contractor or electrical contractor to size the main line disconnect fuses based on the FLA provided by MCE</p> <p>Additionally, MCE has been notified by KEB that for F5 and R6 applications that might exhibit relatively high input impedances with use of an Isolation Transformer it is recommended that the RK5 fuses be replaced with fast acting RK1 fuses. RK1 fuses are similarly dimensioned to the RK5 fuses and can be swapped in the field (direct replacement or in some cases with an adaptor).</p>
Action	<p>Elevator Contractor/Electrical Contractor:</p> <ul style="list-style-type: none">• Verify the NEC and other locally applicable codes were followed when mainline disconnect fuses were sized.• If an Isolation Transformer is being used, ensure that the main line disconnect fuses are sized based on the KVA of the Isolation Transformer.

Action Item by MCE:

- Since MCE cannot recommend the sizing of the main line disconnect, MCE will size and determine the type of the secondary fuses. The secondary fuses are located inside the elevator controller, and wired between the secondary of the Isolation Transformer and the Drive. Sizing of the secondary fuses will be based on the actual motor FLA.
- MCE will offer to furnish replacement fuses for the Drive as well as the Regenerative drive on jobs which MCE has evaluated and recommends fuse replacement.

MCE Help

As always, should you require any additional technical assistance on this or any other issue:

- **Email: techsupport@nidec-mce.com**
- **Refer to the reference number above**