

1 Introduction

This document summarizes purpose, new features of the new Software Version: 93 for the Projects Bordline® M130/M260 auxiliary converter Redesign. d-058639-063261: D709 Firmware for both variant of Aux Converter.

2 Release Notification

2.1 Major bug in former SW

- Isolation of Bur3 and Bur2 in case of BCC unbalance trip limited to failure of one fuse at the input terminal of battery charger.

Solution: Implementation of float mode of BC operation in case of one fuse failure to limit the unbalance current at the Bur output and improving redundancy.

- Isolation of Bur in case of output not available due to malfunctioning of GD Card of inverter.

Solution: Implementation of new protection for load shifting and improving redundancy in case load is unresponsive.

2.2 New features and extensions in the converter SW

- Protection Change of Output Unbalance current from isolation to warning to prevent isolation of aux converter during transient fault and improve reliability during operation.
- Improved contactor protection to prevent isolation of Spurious isolation of Bur in case of stuck off/on faults local to HB2 contactors in Bur2 and Bur3 (52_4/2/1 and 52_5/1/2).

3 Release Approval

- By the verification of modification, this software and firmware release is valid for installation or downloading on the target system.

3.1 Verification of Modification


All the modifications of the new SW will be verified by testing the new functionality on the converter on the vehicle and made valid to install in other locomotive.

4 Required tools / systems and versions for installing this SW

Tool Name	Version	Manufacturer	Function
PEC Tool	2.4.0.0	ABB	Download tool

5 Field Action

With the RTS test result and locomotive tests and feedback of V92_18, It is recommended to upload the software into the entire applicable fleet for improved converter reliability and to address the different issues reported by zonal railways.

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