

# 1 Introduction

This document summarizes purpose, new features of the new Software Version: 91 for the Projects Bordline® M130/M260 auxiliary converter.

## 2 Release Notification

### 2.1 Major bug in former SW and FW

- Isolation of BUR-3 in case of battery charger failure
- Coolant flow < limit in traction converter

### 2.2 New features and extensions in the converter SW

- State machine of the inverter has been adapted for proper built up of DC link voltage.
- Battery charger faults are now segregated from BUR-3 faults. Earlier this was causing the rectifier to stop pulsing resulting into BUR-3 isolation.
- Converter ramp up time has been adjusted for coolant flow<limit issue

## 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 and FW release 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	2.5.2.1	ABB	Download tool

## 5 Field Action

The new software and firmware version will be downloaded in locomotive to confirm the implemented feature during field trial to validate the software. Already this version has been tested in one of the locomotives in the shed.

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