

# 1 Introduction

This document summarizes purpose, new features of the new Software Version: 94 for the Projects Bordline® M130/M260 auxiliary converter Redesign.

## 2 Release Notification

### 2.1 Major bug in former SW

- Optimized current limitation to match transient current variation.  
**Solution:** Setpoint adjusted and controller optimized to have improved current limitation at the transient conditions.
- Isolation of Bur in case of input voltage low.  
**Solution:** Protection changed to warning from isolation as the primary detection of primary voltage lies with the Traction Converter.

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

- DDS added to detect float charging.
- Additional data trigger added to collect fault data in case of spurious battery charger faults.

## 3 Release Approval

- By the verification of modification, this software 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 and 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, 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.

Prepared	Sutanu Ganguly	04.06.2021	Project	CLW 3-Phase Locomotives	No of pages 1	
Reviewed	Praveen Shetty	04.06.2021	Title	Change note for Software Ver-94		
Approved	Ramu S	04.06.2021	Converter	Bordline® M130/M260 Redesign		
Department	MO-TR		Document No.	Language	Rev. Ind.	Page
<b>ABB</b> ABB India Ltd.			2UDB260260 ZAB 906	en	-	1

134

Power and productivity  
for a better world™ **ABB**

Ref. No: ABB/4118/CLW/SER/CC1500\_R/0035

Date: 24.06.2021

To,  
Dy.CEE/D&D-IV/CLW/CRJ  
Centre for Design & Development  
Chittaranjan Locomotive Works  
PIN 713331  
Fax No: 0341 2526153/ 2525641

*A.K. Kumar  
Please refer to  
on file  
24/06/21*

Email: [dyceedd@clw.railnet.gov.in](mailto:dyceedd@clw.railnet.gov.in)

**Kind Attn:** Sri Pankaj Kumar  
**Subject:** Request for approval of software version – 94 to upload in IGBT based re-design Auxiliary converters fitted WAG9/WAP7/WAP5 locomotives.

Dear Sir,  
With reference to the above subjective matter, we are pleased to submit the software release note for the software version – 94 to address below issues faced in different Electric loco sheds.

- Optimized current limitation to match transient current variation  
**Solution:** Setpoint adjusted and controller optimized to have improved current limitation at the transient conditions.
- Isolation of Bur in case of Input voltage low  
**Solution:** Protection changed to warning from isolation as the primary detection of primary voltage lies with the Traction Converter.

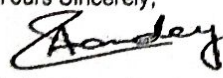
Accordingly find herewith enclosed:  
2) Change note for Software Version-94 Doc. No: 2UDB280280 ZAB 908, Rev-0

(Software ver-94 for redesign Auxiliary converter)

Hence, herewith request you to provide the approval to upload this software version 94 in running fleet. We will submit the status of software implementation for software uploading status to your office on a regular basis.

We are pleased to revert, in case if any additional information required.

Thanking you and assuring you the best of our services, we remain.

Yours Sincerely,  
  
Arvind Kumar Pandey  
Service Head- Traction  
ABB India Limited.  
Mo-91-9513500140

Encl-Release note attached

**ABB India Ltd**

Postal Address	Phone	Fax	Web address
Survey No. 88/3, 88/4 Basavanahalli, Kasaba Hobli, Nelamangala Taluk, Bangalore-562123	+91 80 2294 6532	+91 80 2294 6560	<a href="http://www.abb.com/railway">www.abb.com/railway</a>