

CG Power and Industrial Solutions Limited

Railway Transportation- Traction Electronics

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Our Ref: CLW/SW/TCN-VCU/2025/Feb 18

Date: 18-02-2025



Smart solutions.
Strong relationships.

To,
The Dy. Chief Electrical Engineer, (C D&D)
Chittaranjan Locomotive Works
Chittaranjan.

Kind Attention: Shri Pankaj Kumar (Dy.CEE-D&D-I /CLW)

SUB: Permission for uploading software version 16XX for Multi-Unit Locomotive in CGPISL make TCN-VCU

Ref. – i) RDSO MoM no. EL/11.5.5/21 dtd: 03.02.2025

Dear Sir,

This is with reference to reliability improvement of our IGBT based Traction Converter and as per the letter mentioned in reference, we had addressed the issue of the Multi unit functionality with different make of the WTB gateway (Hasler Rail & AMiT) for freight locomotive- WAG9H along with the feature of CAB redundancy.

Software version in FLG1 to be upload as 1608 for Hasler Rail make WTB gateway, 1609 in FLG1 for AMiT make WTB gateway and for interoperability FLG1 (1608) for Hasler Rail and FLG1 (1610) for AMiT make WTB gateway.

This upgraded version of software is uploaded in below mentioned locomotives and their performance found to be satisfactory.

Sr. No.	Loco No.	WTB make	Software version	Release Date
1	33681 MU 38806	33681- Hasler Rail (1000) 38806- Hasler Rail (1000)	1608	13.12.2024
2	38961 MU 38847	38961 -Hasler Rail (450) 38847 –AMiT	1608 & 1610	09.01.2025
3	41413 MU 43015	41413 –Hasler Rail (450) 43015 - Hasler Rail (450)	1608	18.01.2025
4	38858 MU 38964	38858 - AMiT 38964 – AMiT	1609	26.01.2025
5	41579 MU 41432	41579 –Hasler Rail (1000) 41432 -AMiT	1608 & 1610	30.01.2025

Hence we request for the approval and permission to upload this software with our equipped TCN-VCU. Thanking you and assuring for best services to Indian Railway all the times.

Thanking You.

With Best Regards,
Krishan Junwani
Sr. Manager – Design

Encl: 1) Joint Note copy attached.

2) Release Note

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Rolling Stock Software for CGL and ABB based full propulsion

Loco type	WAG9
Propulsion/ VCU Manufacturer	CGL
Version No WAG9	FLG1 & STB1 -1608,1609,1610 FLG2 & STB2-1608 HBB1 –1608, HBB2-1608
Date of release	12.02.2024
Description	Software for WAG9
Version	Release Version

Major modifications in present release:

1. Multi loco WTB software for WAG9 locomotives
2. Version to be loaded in FLG1:
 - a) 1608(FLG1) Version when WTB is HASLERAIL (1000) or HASLERAIL (450),
 - b) 1609(FLG1) for AMIT GATEWAY multi is formed between AMIT GATEWAY locos
 - c) When Multi is between 1610(FLG1) for AMIT and 1608(FLG1) for HASLERAIL GATEWAY, when coupled with loco of AMIT and HASLER



दक्षिणपूर्वरेलवे / South Eastern Railway



An ISO 9001:2015, ISO 14001:2015
& ISO 45001:2018 certified shed
CERT. NO.- QIBPLK1305,
EIBPLK1155, OIBPLK1124

कार्यालय/ Office of the
वरिष्ठमंडलविद्युतअभियन्ता (क. च. ०००००), बोकारो
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No: ELSB/E6/M/24/10/05

Date: 23/10/24

Joint note between M/s CGL and ELSB against the new test software for full redundancy given by CDAC based TCN VCU in loco no. 38808

OBSERVATION OF CAB-REDUNDANCY DURING TESTING

New test software for full redundancy given by CADAC loaded in loco no 38808

Software version loaded (As shown in DDU):

FLG1	1609	STB1	1609	SLG1	1D	HBB1	1609
FLG2	1608	STB2	1608	SLG2	1D	HBB2	1608

From both CAB FLG1 removed before battery on, then Main power off and all BUR got isolated with life sign missing message-

Details of the testes conducted by isolating MVB Life sing signal through D413 and its observations are as follows-

TESTING FROM CAB 2-

(A) FLG-1 isolated		Simulation mode not working-
S.N.	Equipments	Remarks
1	BPFA	Glows when fault comes.
2	LSFI	Blink when fault comes
3	BL	Ok

4	POP-UPS	Ok
5	PANTO	Ok
6	VCB	Ok
7	REVERSER	Ok
8	THROTTLE	Ok
9	SANDING	Ok
10	PVEF Operation	Ok
11	VIGILANCE	Normal
12	A9	Ok
13	SA9	Ok
14	BLCP	Working
15	BPCS	Working
16	BLHO	NA
17	P1 fault	Only DJ Trip no Panto lower
19	BE MCB tripped	Not checked
20	FLG 1 - L/S missing forced @504	Working normal
21	FLG 1 - L/S missing forced @550	Working normal
22	FLG 1 - L/S missing forced @590	DJ tripped. Again press ZPT and BLDJ found working normal. (VCB signal remain high) with redundant software in DIO card.
23	FLG 1 - L/S missing forced @596	DJ tripped. Again press ZPT and BLDJ found working normal. (VCB signal remain high) with redundant software in DIO card.

(B)HBB-1 isolated

S.N.	Equipments	Remarks
1	BPFA	Glows when fault comes.
2	LSFI	Blink when fault comes
3	BL	Ok
4	POP-UPS	Ok
5	PANTO	Ok
6	VCB	Ok
7	REVERSER	Ok
8	THROTTLE	Ok (RB working)
9	SANDING	Ok
10	PVEF Operation	Ok
11	VIGILANCE	Normal
12	A9	Ok
13	SA9	Ok
14	BLCP	Working
15	BPCS	Not checked
16	P1 fault	DJ trip without Panto lower
17	P2 fault	Message pop-up and working normal
18	BE MCB tripped	NA
19	HBB-1 - L/S missing forced @504	Working normal

20	HBB-1 - L/S missing forced @550	Working normal
21	HBB-1 - L/S missing forced @590	DJ tripped. Again press ZPT and BLDJ found working normal. (VCB signal changed) with redundant software in DIO card.
22	HBB-1 - L/S missing forced @596	DJ tripped. Again press ZPT and BLDJ found working normal. (VCB signal changed) with redundant software in DIO card.

(C)FLG-2 isolated		
S.N.	Equipments	Remarks
1	BPFA	Glows when fault comes.
2	LSFI	Blink when fault comes
3	BL	Ok(MCE not off)
4	POP-UPS	Ok
5	PANTO	Ok
6	VCB	Ok
7	REVERSER	Ok
8	THROTTLE	1) Angle transmitter failed and can be operated in failure mode and RB not working. 2) Angle transmitter failed message was logged on Pixy data and can be operated in failure mode and RB not working
9	SANDING	Not working
10	PVEF Operation	Working
11	VIGILANCE	Normal
12	A9	Ok
13	SA9	Ok

14	BLCP	Working
15	BPCS	Not checked
16	P1 fault	Only DJ Trip no Panto lower
17	P2 fault	Message pop-up and working normal
18	BE MCB tripped	NA
19	FLG 2 - L/S missing forced @504	Working normal.
20	FLG 2 - L/S missing forced @550	Working normal.
21	FLG 2- L/S missing forced @590	DJ tripped. Again press ZPT and BLDJ found working normal. (VCB signal changed) with redundant software in DIO card. Panto not down.
22	FLG 2 - L/S missing forced @596	DJ tripped. Again press ZPT and BLDJ found working normal. (VCB signal changed) with redundant software in DIO card. Panto not down.

(D)HBB-2 isolated		
S.N.	Equipments	Remarks
1	BPFA	Glow when fault comes.
2	LSFI	Blink when fault comes
3	BL	Ok
4	POP-UPS	OK
5	PANTO	Ok
6	VCB	Ok
7	REVERSER	Ok

8	THROTTLE	Traction working but RB not working.
9	SANDING	Not working
10	PVEF Operation	Not working
11	VIGILANCE	Working in standing position
12	A9	Ok
13	SA9	Ok
14	BLCP	Auto mode not working
15	BPCS	Not checked
16	P1 fault	Message pop-up and working normal. (VCB open)
17	P2 fault	Message pop-up and working normal.
18	BE MCB tripped	NA
19	HBB-2 - L/S missing forced @504	Working normal
20	HBB-2 - L/S missing forced @550	Working normal
21	HBB-2 - L/S missing forced @590	DJ tripped. Again press ZPT and BLDJ found working normal. (VCB signal changed) with redundant software in DIO card.
22	HBB-2 - L/S missing forced @596	DJ tripped. Again press ZPT and BLDJ found working normal. (VCB signal changed) with redundant software in DIO card.

TESTING FROM CAB 1-

(A) When FLG-1 isolated loco could not be energized.

(B)HBB-1 isolated

S.N.	Equipments	Remarks
1	BPFA	Not ok
2	LSFI	Not ok
3	BL	Ok
4	POP-UPS	Not show
5	PANTO	Ok
6	VCB	Ok
7	REVERSER	Ok
8	THROTTLE	Traction working but RB not working.
9	SANDING	Working
10	PVEF Operation	Not working
11	VIGILANCE	Not Working
12	A9	Ok
13	SA9	Ok
14	BLCP	Auto mode working
15	BPCS	Not checked.
16	P1 fault	Working normal.
17	P2 fault	Working normal.
18	BE MCB tripped	NA
19	HBB-1 - L/S missing forced @504	Working normal

20	HBB-1 - L/S missing forced @550	Working normal
21	HBB-1 - L/S missing forced @590	DJ tripped. Again press ZPT and BLDJ found working normal. (VCB signal changed) with redundant software in DIO card.
22	HBB-1 - L/S missing forced @596	DJ tripped. Again press ZPT and BLDJ found working normal. (VCB signal changed) with redundant software in DIO card.

(C)FLG-2 isolated		
S.N.	Equipments	Remarks
1	BPFA	Glows when fault comes.
2	LSFI	Blink when fault comes
3	BL	Ok(MCE not off)
4	POP-UPS	Ok
5	PANTO	Ok
6	VCB	Ok
7	REVERSER	Ok
8	THROTTLE	Message comes and throttle working.
9	SANDING	Working
10	PVEF Operation	Working
11	VIGILANCE	Normal
12	A9	Ok
13	SA9	Ok
14	BLCP	Working
15	BPCS	Not checked.

16	P1 fault	Only DJ Trip no Panto lower
17	P2 fault	Message pop-up and working normal
18	BE MCB tripped	NA
19	FLG 2 – L/S missing forced @504	Working normal.
20	FLG 2 – L/S missing forced @550	Working normal.
21	FLG 2– L/S missing forced @590	DJ tripped. Again press ZPT and BLDJ found working normal. (VCB signal changed) with redundant software in DIO card
22	FLG 2 – L/S missing forced @596	DJ tripped. Again press ZPT and BLDJ found working normal. (VCB signal changed) with redundant software in DIO card

(D)HBB-2 isolated		
S.N.	Equipments	Remarks
1	BPFA	Glows when fault comes.
2	LSFI	Blink when fault comes
3	BL	Ok
4	POP-UPS	Ok
5	PANTO	Ok
6	VCB	Ok
7	REVERSER	Ok
8	THROTTLE	Traction working but RB not working
9	SANDING	Not working

20

10	PVEF Operation	Working
11	VIGILANCE	Working in standing position
12	A9	Ok
13	SA9	Ok
14	BLCP	Auto mode not working
15	BPCS	Not checked
16	P1 fault	Message pop-up and working normal (VCB open)
17	P2 fault	Message pop-up and working normal
18	BE MCB tripped	NA
19	HBB-2 - L/S missing forced @504	Working normal
20	HBB-2 - L/S missing forced @550	Working normal
21	HBB-2 - L/S missing forced @590	DJ tripped. Again press ZPT and BLDJ found working normal. (VCB signal changed) with redundant software in DIO card.
22	HBB-2 - L/S missing forced @596	DJ tripped. Again press ZPT and BLDJ found working normal. (VCB signal changed) with redundant software in DIO card.

Cab redundancy related all wirings/cables checked by firm staff and found ok. Loco was given fit for normal service by firm staff. Firm has assured that this software will not affect the normal operation of loco.

Saigay R. Pandey
Sign of Firm representative

Wm. K. Kumar
9 SEP 2008 / 15:45
Sign of SSE/PPIO

W. K. Kumar
for Sign of SSE/E6

Countersign.
ADEE/ELSB

महान मडल विद्युत अभियन्ता (क.च.स्टा.)
Asst. Divisional Electrical Engineer (TRS)
विद्युत लोको शेंड, बी.के.एस.टी. द. पू. रेलवे
Electric Loco Shed, BKSC, S.E. Railway

JOINT NOTE

Electric loco shed
Rourkela

Date-21.09.2024

New test software for full redundancy given by CDAC based TCN VCU in locomotive 33847 on from 10.09.2024 to 21.09.2024

OBSERVATION OF CAB-REDUNDANCY DURING TESTING

New test software for full redundancy given by CDAC loaded in loco: 33847 and tested from 11.09.24 to 21.09.2024.

Software version loaded (As shown in DDU):

FLG1	1608	STB1	1608	SLG1	1D	HBB1	1608
FLG2	1608	STB2	1608	SLG2	1D	HBB2	1608

Details of the tests conducted by isolating by removing processor card and its observations are as follows-

TESTING FROM CAB2-

(A) FLG-1 isolated simulation mode not working.				
S.N.	Equipments	Function	Remarks given by ELS/ROU	Remarks given by CDAC representative
1	BPFA	Glows when fault comes.		
2	LSFI	Blink when fault comes.		
4	BL	OK		
5	POP-UPS	OK		
6	PANTO	OK		
7	VCB	OK		
8	REVERSER	OK		
9	THROTTLE	OK (TE/BE demand showing 0 but actual is ok.)		Not in the scope of CDAC DDU SW uploading required by ARC
10	SANDING	OK		
11	PVEF Operation	OK		
12	VIGILANCE	OK		
13	A9	OK		
14	SA9	OK		
15	BLCP	OK		
16	BLHO	OK		
17	P1 fault	DJ tripped but panto not lowered (lowered only if required as per priority message)		

		after acknowledge BLDJ pressed loco charged normal.		
18	P2 fault	Message popup and working normal.		
19	FLG1-L/S Missing forced @504	Working Normal.		
20	FLG1-L/S Missing forced @550	Working Normal .		
21	FLG1-L/S Missing forced @590	Only DJ tripped. Again after press BLDJ found working normal		
22	FLG1-L/S Missing forced @596	Only DJ tripped. Again after press BLDJ found working normal		

(B)HBB-1 isolated				
S.N.	Equipments	Remarks	Remarks given by ELS/ROU	Remarks given by CDAC representavie
1	BPFA	Glow when fault comes.		
2	LSFI	Blink when fault comes.		
3	BL	OK		
4	POP-UPS	OK		
5	PANTO	OK		
6	VCB	OK		
7	REVERSER	OK		
8	THROTTLE	OK		
9	SANDING	OK		
10	PVEF Operation	OK		
11	VIGILANCE	Normal		
12	A9	OK		
13	SA9	OK		
14	BLCP	Working		
15	BPCS	OK		
16	P1 fault	DJ tripped but panto not lowered (lowered only if required as per priority message)		
17	P2 fault	Message pop up and working normal.		
18	HBB-1 L/S Missing forced @504	Working Normal		

19	HBB-1 L/S Missing forced @550	Working Normal		
20	HBB-1 L/S Missing forced @590	Only DJ tripped. Again after press BLDJ found DJ closing normal		
21	HBB-1 -L/S Missing forced @596	DJ tripped after acknowledge press BLDJ found DJ closing normal.		

(C) FLG-2 isolated				
S.N.	Equipments	Remarks	Remarks given by ELS/ROU	Remarks given by CDAC representavie
1	BPFA	Glows when fault comes.		
2	LSFI	Blink when fault comes.		
3	BL	Loco not getting off by MCE. (Required BA OFF/ON)	Cable is not provided for redundancy by clw	
4	POP-UPS	OK		
5	PANTO	OK		
6	VCB	OK		
7	REVERSER	OK		
8	THROTTLE	Angle transmitter failed message was logged on Pixy data and can be operated in failure mode and RB not working.		As per MICAS logic analog value is not available, only digital value based operation possible. Brake blending is not possible because of non-availability of BP
9	SANDING	Not working	Cable is not provided for redundancy by clw	
10	PVEF Operation	OK		
11	VIGILANCE	VCD acting in normal condition also (i.e after VCD acting condition satisfied- BVigReset signal always low). So, VCD should be kept isolated.		As per MICAS logic Analog value is not available for throttle reset
12	A9	OK (in DDU BP showing zero).		As per MICAS logic BP pressure is not available
13	SA9	OK		
14	BLCP	Working		
15	BPCS	Not Working	Cable is not provided	

			for redundancy by clw	
16	P1 fault	DJ tripped but panto not lowered (lowered only if required as per priority message)		
17	P2 fault	Message pop up and working normal.		
18	FLG2-L/S Missing forced @504	Working normal		
19	FLG2-L/S Missing forced @550	Working normal		
20	FLG2-L/S Missing forced @590	Only DJ tripped. Again after press BLDJ found DJ closing normal.(VCB ON symbol remains high).		For VCB symbol high, DDU SW uploading required by ARC.
21	FLG2-L/S Missing forced @596	Only DJ tripped. Again after press BLDJ found DJ closing normal.(VCB ON symbol remains high).		For VCB symbol high, DDU SW uploading required by ARC.

(D)HBB-2 isolated				
S.N.	Equipments	Remarks	Remarks given by ELS/ROU	Remarks given by CDAC representavie
1	BPFA	Glows when fault comes.		
2	LSFI	Blink when fault comes.		
4	BL	OK		
5	POP-UPS	OK		
6	PANTO	In auto mode PT1 should raise, but PT2 is raising.	Cable is not provided for redundancy by clw	
7	VCB	OK		
8	REVERSER	OK		
9	THROTTLE	Traction working but RB not working.		
10	SANDING	Not working		
11	PVEF Operation	Not working.	Cable is not provided for redundancy by clw	
12	VIGILANCE	VCD acting at standstill condition, so loco can be operated only after vigilance isolation from rotary switch.	Cable is not provided for redundancy by clw	

13	A9	OK		
14	SA9	Working		
15	BLCP	Auto mode not Working, but manually working normal.	Cable is not provided for redundancy by clw	
16	BPCS	OK		
17	P1 fault	DJ tripped but panto not lowered (lowered only if required as per priority message		
18	P2 fault	Message pop up and working normal.		
19	HBB-2 L/S Missing forced @504	Working normal as per above point no (1-18)		
20	HBB-2 L/S Missing forced @550	Working normal as per above point no (1-18)		
21	HBB-2 L/S Missing forced @590	DJ tripped. And panto down Again after press ZPT and BLDJ found DJ closing normal.		As per cabling scheme provided in loco
22	HBB-2 -L/S Missing forced @596	DJ tripped after acknowledge press BLDJ found DJ closing normal.		As per cabling scheme provided in loco

TESTING FROM CAB1-

With CAB-1 leading, loco was powered and Throttle was given to check kN output. Operates during all processors in service like compressor,SA9,A9 Panto, VCB, Sander Vigilance ,PVEF, PFA, LSFI Various P1 and P2 faults etc. was tested. All are working normal.

(A)FLG-1 isolated simulation mode not working & Loco number will not show

S.N.	Equipments	Remarks	Remarks given by ELS/ROU	Remarks given by CDAC representavie
1	BPFA	Glows when fault comes. Turns Off once acknowledged.		
2	LSFI	Blinks when fault comes. Glows once acknowledged.		
3	BL	Unable to turn off loco.(Required BA OFF/ON)	Cable is not provided for redundancy by clw	
4	POP-UPS	OK		
5	PANTO	OK		
6	VCB	OK		
7	REVERSER	OK		

8	THROTTLE	Angle transmitter failed and Working only in Failure mode.(TE/BE demand showing zero).		For TE/BE Showing zero in DDU SW uploading required in DDU by ARC.
9	BPCS	Not working	Cable is not provided for redundancy by clw	
10	SANDING	Not working	Cable is not provided for redundancy by clw	
11	PVEF Operation	OK		
12	VIGILANCE	VCD acting in normal condition also (i.e after VCD acting condition satisfied- BVigReset signal always low). So, VCD should be kept isolated.		As per MICAS logic Analog value is not available for throttle reset
13	A9	OK		
14	SA9	OK		
15	BLCP	OK		
16	BLHO	-		
17	P1 fault	DJ tripped but panto not lowered (lowered only if required as per priority message)		
18	P2 fault	Message pop up and working normal		
19	FLG1-L/S Missing forced @504	Working normal		
20	FLG1-L/S Missing forced @550	Working normal		
21	FLG1-L/S Missing forced @590	Only DJ tripped. Again after press BLDJ found DJ closing normal.(VCB symbol remains high).		For VCB symbol high, DDU SW uploading required by ARC.
22	FLG1-L/S Missing forced @596	DJ tripped after acknowledge press BLDJ found DJ closing normal.(VCB symbol remains high).		For VCB symbol high, DDU SW uploading required by ARC.

****After FLG1 isolation inching mode working but status is not getting ON in DDU.***

(B) HBB-1 isolated				
S.N.	Equipments	Remarks	Remarks given by	Remarks given by

			ELS/ROU	CDAC representavie
1	BPFA	Glows when fault comes. Turns Off once acknowledged.		
2	LSFI	Blinks when fault comes.		
3	BL	OK		
4	POP-UPS	Pop up message not coming		DDU SW uploading required by ARC.
5	PANTO	OK		
6	VCB	OK		
7	REVERSER	OK		
8	THROTTLE	OK		
9	BPCS	OK		
10	SANDING	OK		
11	PVEF	Not working	Cable is not provided for redundancy by clw	
12	VIGILANCE	Working without buzzer.	Cable is not provided for redundancy by clw	
13	A9	Normal		
14	SA9	Normal		
15	BLCP	Working in auto mode only.	Cable is not provided for redundancy by clw	
16	BLHO	-		
17	P1 fault	DJ tripped but panto not lowered (lowered only if required as per priority message)		
18	P2 fault	Message popup and working normal.		
19	HBB-1 L/S Missing forced @504	Working normal		
20	HBB-1 L/S Missing forced @550	Working normal		
21	HBB-1 L/S Missing forced @590	Only DJ tripped. Again after press BLDJ found DJ closing normal		
22	HBB-1 -L/S Missing forced @596	DJ tripped after acknowledge press BLDJ found DJ closing normal		

(C) FLG-2 isolated				
S.N.	Equipments	Remarks	Remarks given by ELS/ROU	Remarks given by CDAC representavie
1	BPFA	Glows when fault		

		comes. Turns Off once acknowledged.		
2	LSFI	Blinks when fault comes. Glowing continuously after acknowledging.		
3	BL	OK		
4	POP-UPS	OK		
5	PANTO	In auto mode PT2 should raise, but PT1 is raising.	Cable is not provided for redundancy by clw	
6	VCB	OK		
7	REVERSER	OK		
8	THROTTLE	RB not working.		As per MICAS logic analog value is not available, only digital value based operation possible. Brake blending is not possible because of non-availability of BP
9	BPCS	OK		
10	SANDING	OK		
11	PVEF Operation	Working		
12	VIGILANCE	Working without buzzer		
13	A9	Normal (BP showing zero in DDU)		As per MICAS logic BP pressure is not available
14	SA9	Normal		
15	BLCP	Working		
16	BLHO	-		
17	P1 fault	DJ tripped but panto not lowered (lowered only if required as per priority message)		
18	P2 fault	Message popup and working normal.		
19	FLG2-L/S Missing forced @504	Working normal as per above point no (1-18)		
20	FLG2-L/S Missing forced @550	In auto mode PT2 down automatically but signal remains high in DDU, after pressing ZPT PT1 raised.		As per cabling scheme provided in loco
21	FLG2-L/S Missing	DJ tripped and panto lowered. Again after		As per cabling scheme provided in loco

	forced @590	press ZPT and BLDJ found DJ closing normal.		
22	FLG2-L/S Missing forced @596	DJ tripped and panto lowered. Again after press ZPT and BLDJ found DJ closing normal.		As per cabling scheme provided in loco

(D)HBB-2 isolated				
S.N.	Equipments	Remarks	Remarks given by ELS/ROU	Remarks given by CDAC representavie
1	BPFA	Glowes when fault comes. Turns Off once acknowledged.		
2	LSFI	Glowes when fault comes. Turns Off once acknowledged.		
3	BL	OK		
4	POP-UPS	OK		
5	PANTO	OK		
6	VCB	OK		
7	REVERSER	OK		
8	THROTTLE	RB not working.		Brake blending will not work
9	BPCS	Not Working	Cable is not provided for redundancy by clw	
10	SANDING	Not working.	Cable is not provided for redundancy by clw	
11	PVEF Operation	OK		
12	VIGILANCE	VCD acting at standstill condition, so loco can be operated only after vigilance isolation from rotary switch.		As per cabling scheme provided in loco
13	A9	Normal		
14	SA9	Normal		
15	BLCP	Manually Working but Auto mode not working.	Cable is not provided for redundancy by clw	
16	BLHO	-		
17	P1 fault	DJ tripped but panto not lowered (lowered only if required as per priority message)		
18	P2 fault	Message popup and working normal.		

19	HBB-2 L/S Missing forced @504	Working normal as per above point no (1-18)		
20	HBB-2 L/S Missing forced @550	Working normal as per above point no (1-18)		
21	HBB-2 L/S Missing forced @590	Only DJ tripped. Again after press BLDJ found DJ closing normal		
22	HBB-2 -L/S Missing forced @596	Only DJ tripped. Again after press BLDJ found DJ closing normal		

*For MU operation VCU SW 1608 for HASLER WTB and 1609 VCU sw for AMIT make WTB in FLG1 only.

*In MU AMIT and HASLER make WTB is not compatible for intermediate cab operation.

Saikat Nandy
21.09.24
(Saikat Nandy)
Executive of CGL

Arun Raj kumar K P
21.09.24.
(Arun Raj kumar K P)
Scientist 'E' CDAC

Sudhansu Mishra
21.09.24.
SSE/ELS/ROU
(Sudhansu Mishra)

Biswas
24.09.2024
ADEE/TRS/ROU

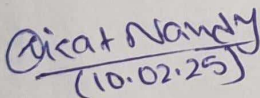
South Eastern Railway
Electric Loco Shed: Rourkela
Joint note for cab redundancy software

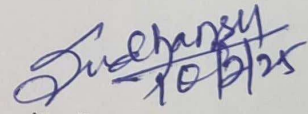
No. TRS/ROU/E6/02/25/05

Date-10.02.2025

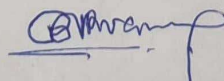
The following locos uploaded Cab redundancy software of CGL propulsion and given fit below mentioned date.

SL No	Loco No	WTB make	Cab Redundancy software	Release Date
1	33681 MU 38806	33681-HASERAIL (1000) 38806- HASERAIL (1000)	1608	13.12.2024
2	38961 MU 38847	38961-HASERAIL(450) 38847-AMIT	1608 & 1610	09.01.2025
3	41413 MU 43015	41413- HASERAIL(450) 43015- SAIRA (450)	1608	18.01.2025
4	38858 MU 38964	38858-AMIT 38964-AMIT	1609	26.01.2025
5	41579 MU 41432	41579- HASERAIL (1000) 41432-AMIT	1608 & 1610	30.01.2025


(10.02.25)
(Saikat Nandy)
Representative of CGL


(Sudhansu Mishra)
SSE/ELS/ROU

(countersign)


ADEE/TRS/ROU