

SIGNAL DIRECTORATE
RESEARCH DESIGNS AND STANDARDS ORGANISATION
MANAK NAGAR, LUCKNOW - 226011

Title: Monthly Maintenance Schedule For HBL STCAS - RIU (Remote Interface Unit)

SN	Issue	Version	Reason of Amendment
1	First	1.0	First Issue

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Firm's Representative with Name, Designation and Date	Railway Representative with Name, Designation and Date
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Monthly Maintenance Report — STCAS

Zone: ER

RIU No: 7634656

Station: Barddhaman

Equip No: 5636336

SI No	Location	Description	Action Taken / Range	Observation
1	NMS	Ensure E1 network is always healthy and RIU communication is stable.	Verify communication with STCAS unit.	ggfdf
2	NMS	Backup the Events & Fault data logs of RIU	Store the log files & Downloaded data from Google drive	fggg
3	NMS	Ensure RIU inputs are operated	Check all the RIU field inputs (Signals, Points, Track circuits, etc.,) are operated properly in NMS.	fgfg
4	Power Supply (LC Gate/Junction Cabins/ IB Location Box/ IB Hut or IB Room)	Check the Voltage level at 230 v AC Mains input voltage to both the Battery chargers	220 - 260V AC	
5	Power Supply (LC Gate/Junction Cabins/ IB Location Box/ IB Hut or IB Room)	Check the working of the A/C input supply monitoring relay for both the channels of A/C 230 V supply input to RIU	Ensure that the A/C supply monitoring relays are in ON condition when A/C power is available.	
7	Power Supply (LC Gate/Junction Cabins/ IB Location Box/ IB Hut or IB Room)	Check the Power voltages at Equipment End of Ch-A & Ch-B	The voltage shall be in the range of 22V to 26.5V	
8	Power Supply (LC Gate/Junction Cabins/ IB Location Box/ IB Hut or IB Room)	Check the mounting arrangement of Input fuse (If Any)	Ensure fuses are fastened securely	
9	Power Supply (LC Gate/Junction Cabins/ IB Location Box/ IB Hut or IB Room)	Check the output Power Supply voltage for both Battery charger bank	21.6 ~ 28.8V DC to be observed for final O/P Voltage for both battery banks.	
10	Power Supply (LC Gate/Junction Cabins/ IB Location Box/ IB Hut or IB Room)	Check the connections of the diodes in the charging path from both the battery charger output to batteries.	Ensure that the diodes are firmly connected to TB1 and TB2 in channel 1 and TB3 and TB4 in channel 2 respectively.	
11	Power Supply (LC Gate/Junction Cabins/ IB Location Box/ IB Hut or IB Room)	To check that RIU battery back up is available.	Switch OFF MCBs, ensure that RIU works on battery back up.	
12	Power Supply (LC Gate/Junction Cabins/ IB Location Box/ IB Hut or IB Room)	Clean the Battery Charger and Batteries	To be free from dust	
13	Power Supply (LC Gate/Junction Cabins/ IB Location Box/ IB Hut or IB Room)	Check the voltages at Equipment end of INTERNAL (RIU) Supply	21.6V to 28.8V DC to be observed	
14	Power Supply (LC Gate/Junction Cabins/ IB Location Box/ IB Hut or IB Room)	Check the voltages at Equipment end of EXTERNAL	21.6V to 28.8V DC to be observed	
15	Power Supply (LC Gate/Junction Cabins/ IB Location Box/ IB Hut or IB Room)	Check the all wago fuse indications	Disconnect type fuse wago indications should not glow	

SI No	Location	Description	Action Taken / Range	Observation
19	RIU Equipment (LC Gate/ Junction Cabins/ IB Location Box/ IB Hut or Room)	Visually examine all the cards are inserted properly and tighten the corresponding screws	Ensure the tightness of the cards	
20	RIU Equipment (LC Gate/ Junction Cabins/ IB Location Box/ IB Hut or Room)	Visually examine all PS, communication cables are tighten all the connections / Terminations / Wagoterminals	Ensure the tightness of the cables connectors	
21	RIU Equipment (LC Gate/ Junction Cabins/ IB Location Box/ IB Hut or Room)	Check the RIU Internal and External wirings	1. Check the firmness of wiring Connections from FSC module to Rly. FieldInputs. 2.Check the firmness ofCommunication cable connections between RIU communication to F M S Unit 3.Check the firmness of wiring connections between Battery Charger .	
22	RIU Equipment (LC Gate/ Junction Cabins/ IB Location Box/ IB Hut or Room)	Check the output Supply voltage of 24 Volts charger provided for relay input wiring	The voltage measured should be approx. 21V - 29V DC.	
23	RIU Equipment (LC Gate/ Junction Cabins/ IB Location Box/ IB Hut or Room)	Check voltage from contacts of field input relays at terminals. witred to RIU.	The voltage on the terminals when the relay is picked up should be between 20 to 29V DC.	
24	Communication Module	Check the Quad/OFC	1. Check the firmness of wiring/OFC patch card termination to communication card. 2. Ensure OFC routing is properly done with avoiding 90 degree bending	
25	Communication Module	Check the Quad/OFC	1. Check the firmness of wiring/OFC patch card termination to communication card. 2. Ensure OFC routing is properly done with avoiding 90 degree bending	
26	Communication Module	Check the communication status	Ensure Tx and Rx LED should Glow/Blink	
27	Communication Module	Visually examine all the communication cables areConnected properly and Communication card had tightened	Ensure the tightness of the patch card and communication module.	
28	Earthing & SPD	Clean surface of the Earth electrode/MEEB/SEEB	Surface should be kept clean	
29	Earthing & SPD	Measure the Resistance and fillwater in the Earth Pits to keep low soil resistance	R e s i s t a n c e S h o u l d	
30	Earthing & SPD	Check the SPD devices for any signs of physical degradation	Check the Indication LED status of SPD. (If SPD indicates FAIL then replace it)	