

RST 19-01

Title: Event Recorder (ER) functionality testing

AUDIENCE	MAIN POINTS	VERSION HISTORY
<ul style="list-style-type: none">~ Plant Superintendent~ Manager, Maintenance Delivery	<ul style="list-style-type: none">~ ERs should record the changes to the controls in the control system regardless of whether the driver is directly controlling it~ Due to a number of factors there is no evidence that the Arrowvale ERs	<ul style="list-style-type: none">~ 1st Issue

1. Introduction

ITSR, Rail Safety Compliance Code: Data Loggers sets minimum requirements for rail vehicle including “in the event of an accident or incident the data logger will be capable of providing investigators with a minimum amount of accurate information”. The majority of the CRN fleet meet the criteria specified in the CRN Rolling Stock Standards that determines that an ER must be fitted.

This Technical Note is intended support validation testing of the Arrowvale Event Recorders and to set a precedent for future validation tests of Circuitlink Event Recorders of which represent the remainder of the CRN fleet.

2. Testing procedure

The testing requires that the Tamper and USP are to be operated in Coupled Consist with the operator to be commanding from the consist from the Tamper.

Setting up for testing

- Ensure that both vehicles are connect correctly and the connection is functioning
- Ensure that the test vehicle does not have a data card in the Arrowvale Event Recorder
- Ensure both vehicles are running and the USP is setup to follow the Tamper’s commands

Test actions

- Select forward and select each of these setting pausing for five (5) seconds
 - Electronic brake application
 - 50% Pneumatic brake application
 - 100% Pneumatic brake application
 - 50% throttle
 - Headlight (hi & low beam)
 - Sound horn (town & country) country horn for 2 seconds
- Select reverse and repeat the above commands

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- Proceed forward, achieving a maximum speed of 5 km/h and travelling at least 100m
- Set back, achieving a maximum speed of 5 km/h and stopping where the test started
- Insert data card and wait for the data transfer light to stop indicating

3. Reporting results

Follow the procedures for uploading the data from the data card to the viewing software. It is preferred to do a full data export to a comma separated variable (.csv) format file, if this function is not possible, sufficient screenshots are to be taken to demonstrate that the Arrowvale ER is accurately recording all of the commands issued to the USP via the Tamper under the testing conditions.

Authorised for issue



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