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| **Signalling Like for Like Renewal Work Instruction** | | | | | | **WO No.** | |
| **Page 1 of 2** | |
| **Scope:** | |  | | | | **Date:** | |
| **Team Leader:** | | | |  | **Axle Counter Type:** |  | |
| **Activity:** | | | | **FADC R2 IO-EXB101 BOARD LIKE FOR LIKE RENEWAL** | | | |
| **Reference:** PR S 4009, PR S 40051, MN S 41589 | | | | | | | |
| **Activity No.** | **Task No.** | | **WORK DESCRIPTION** | | | | **Completed**  **Name/Sign** |
|  |  | | **APPARATUS INSPECTION & PREPARATION** | | | |  |
| **1** | **1A** | | Ensure the new IO-EXB board is of correct type and version. | | | |  |
|  | **1B** | | Ensure the new IO-EXB board is free from damage. | | | |  |
| **2** | **2A** | | Confirm which IO-EXB board has failed by observing an error 'E' message on the LCD or no LEDs or display segments are illuminated on the IO-EXB101. if no error message is displayed confirm if any AEB 'Sys1' or 'Sys2' LEDs are flashing at a fast rate. The AEBs associated IO-EXB shall have a hardware failure. | | | |  |
|  | **2B** | | Use the ASD tool to determine the meaning of the error code and confirm if IO-EXB101 needs to be replaced | | | |  |
|  | **2C** | | If the IO-EXB101 is determined to be faulty and requires replacement, the connected AEB101 will also be in an error state ('Sys1' or 'Sys2' LEDs on the AEB shall be flashing at a fast rate) | | | |  |
|  | **2D** | | Document the failed IO-EXB board on the circuit diagram. | | | |  |
|  | **2E** | | Conduct an apparatus inspection of the condition of all remaining installed boards | | | |  |
|  |  | | **SAFEWORKING & DISCONNECTION FROM INTERLOCKING** | | | |  |
| **3** | **3A** | | Determine if the Frauscher FAdC R2 equipment and any associated signalling are required to be booked out of use. | | | |  |
|  | **3B** | | If required, disconnect the affected Frauscher FAdC R2 equipment and associated signalling, in accordance with PR S 40009 – Disconnection of Signalling Apparatus. | | | |  |
|  |  | | **DISCONNECTION, REMOVAL AND INSTALLATION** | | | |  |
| **4** | **4A** | | Unscrew the locking tab at the base of the failed IO-EXB101 board. | | | |  |
|  | **4B** | | Lift the locking tab to release the failed IO-EXB101 board | | | |  |
|  | **4C** | | Carefully remove the IO-EXB101 board. Ensure the board is pulled out in a continuous direction. | | | |  |
| **5** | **5A** | | Carefully install the new IO-EXB101 board. Ensure the new board is aligned and follows the chassis tracks. | | | |  |
| **NOTE** | | | The IO-EXB101 requires no configuration | | | |  |
|  | **5B** | | Push the locking tab to lock the new IO-EXB101 board in place | | | |  |
|  | **5C** | | Tighten (do not over tighten) the screw within the locking tab at the base of the new IO-EXB board. | | | |  |
| **6** | **6A** | | Confirm the IO-EXB is operational via the illumination of the 'status' light’ | | | |  |
| **FADC R2 IO-EXB101 BOARD LIKE FOR LIKE RENEWAL** | | | | | | | **Page 2 of 2** |
| **NOTE** | | | The affected AEB101 board shall require power cycling to reset the connection between it and the IO-EXB101. | | | |  |
| **7** | **7A** | | Unscrew the locking tab of the affected AEB101 | | | |  |
|  | **7B** | | Lift the locking tab to release the affected AEB101 board | | | |  |
|  | **7C** | | Carefully slide out the affected AEB101 board. Ensure the board is pulled out in a continuous direction. | | | |  |
|  | **7D** | | Carefully re-install the same AEB101 board. Ensure the board is aligned and follows the chassis tracks. | | | |  |
|  | **7E** | | Push the locking tab to lock the AEB101 board in place | | | |  |
|  | **7F** | | Tighten (do not over tighten) the screw within the locking tab at the base of the new AEB101 board. | | | |  |
| **NOTE** | | | If the replacement is successful, the AEB101 will no longer be in a hardware error state and the IO-EXB will be operating as expected | | | |  |
| **8** | **8A** | | Use the ASD tool to determine the state of the AEB101 and therefore the IO-EXB101. | | | |  |
|  |  | | **CERTIFICATION** | | | |  |
| **9** | **9A** | | Verify that the new IO-EXB board has been installed in the correct position and the LED are illuminated correctly | | | |  |
| **10** | **10A** | | Verify that the AEB101 board has been reinstalled in the correct position and the LEDs are illuminated correctly and flashing at a steady rate | | | |  |
| **NOTE** | | | A reset of the track section shall be required in accordance with PR S 40051. | | | | |
| **11** | **11A** | | If applicable, book the FAdC R2 axle counter back into use. | | | |  |

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| **I certify \_\_\_\_\_\_ IO-EXB board at \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ location has been inspected and tested and is fit for service.**  **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **Print Name Position**  **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_**  **Signature Date** |