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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** |