


Rosemount 2410 Tank Hub

Upgrade Instruction for Primary Bus and Secondary Bus



1.1 Safety

Procedures and instructions in this section may require special precautions to ensure the safety of the personnel performing of the operations. Information that raises potential safety issues is indicated by a warning symbol . Refer to the following safety messages before performing an operation preceded by this symbol.

WARNING

Failure to follow these installation guidelines could result in death or serious injury:

- Make sure only qualified personnel perform the installation.
- Use the equipment only as specified in this manual. Failure to do so may impair the protection provided by the equipment.

Explosions could result in death or serious injury

- Verify that the operating environment of the transmitter is consistent with the appropriate hazardous locations specifications.
- To prevent ignition of flammable or combustible atmospheres, disconnect power before servicing.

Electrical shock can result in death or serious injury

- Use extreme caution when making contact with the leads and terminals.
- Make sure the main power is off and the lines to any other external power source and disconnected or not powered while wiring the transmitter.

WARNING

Any substitution of non-authorized parts of repair, other than exchanging the complete transmitter head or probe assembly, may jeopardize safety and is prohibited.

Unauthorized changes to the product are strictly prohibited as they may unintentionally and unpredictably alter performance and jeopardize safety.

Unauthorized changes that interfere with the integrity of the welds or flanges, such as making additional perforations, compromise product integrity and safety. Equipment ratings and certifications are no longer valid on any products that have been damaged or modified without the prior written permission of the Emerson Process Management. Any continued use of product that has been damaged or modified without the written authorization is at the customer's sole risk and expense.

1.2 Introduction

This instruction describes how to upgrade a Primary/Secondary Fieldbus on existing 2410 Tank Hub.

Note

The upgrade must be documented. This includes stating the serial number of the device, date of upgrade, type of upgrade and name of the person performing the upgrade.

1.3 The upgrade kit

The modification kit consists of the following parts:

- Screw M3×6
- Plate for Main Label
- Main and Spare Part Label
- PCM Modem Board (if applicable)
- Start Code (if applicable)

1.3.1 Tools

The following tools are required

- A small screwdriver used for disconnecting the cables from 2410.
- A torx T-20 screwdriver for dismounting the 2410 device.

1.4 Installation procedure

When upgrading the 2410 Tank Hub, make sure to follow and observe local safety regulations when working with electrical equipment within the hazardous locations.

Always make sure to have the necessary site permissions before starting any kind of work within the hazardous locations. If unsure, consult the local personnel on site.

1.5 Upgrading procedure

Note

If the upgrade only requires a new start code proceed to 23.

1. ⚠ Power off the device at the power source.
2. Disconnect all cabling.
3. If necessary, move the device head to a safe, non-hazardous area.

⚠ WARNING

Bring the transmitter head to a suitable location for maintenance work and continue with the exchange and make sure to follow proper protection procedures in order to avoid damage from Electrostatic Discharge (ESD).

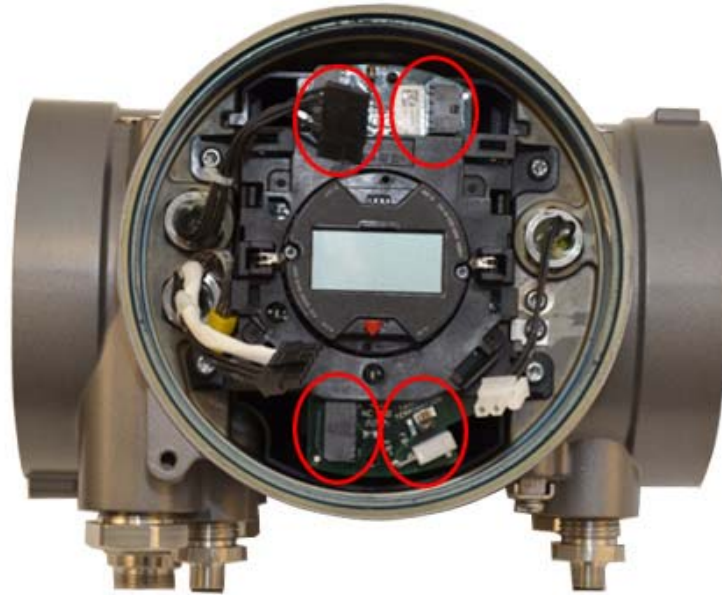
4. Remove the cover from the transmitter.



5. Unsnap the display cover by pressing two plastic clips upwards.



6. Disconnect the cables from the mother board.



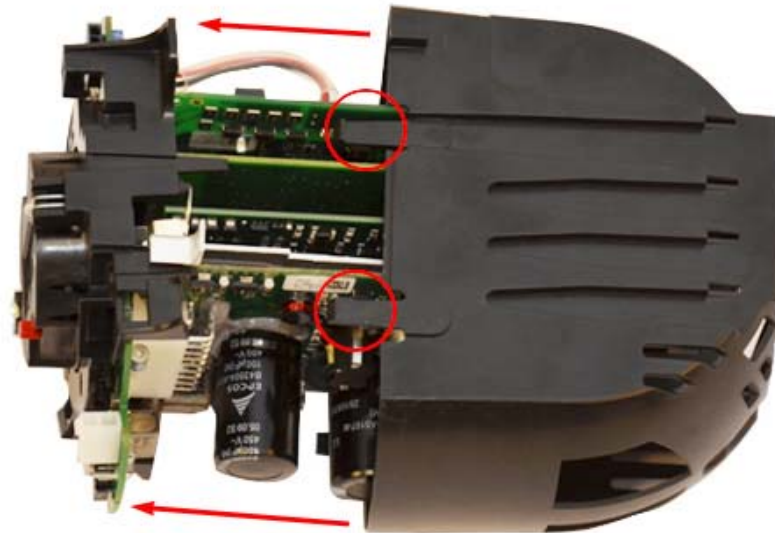
7. Remove all the 6 screws holding the plastic holder inside the housing.



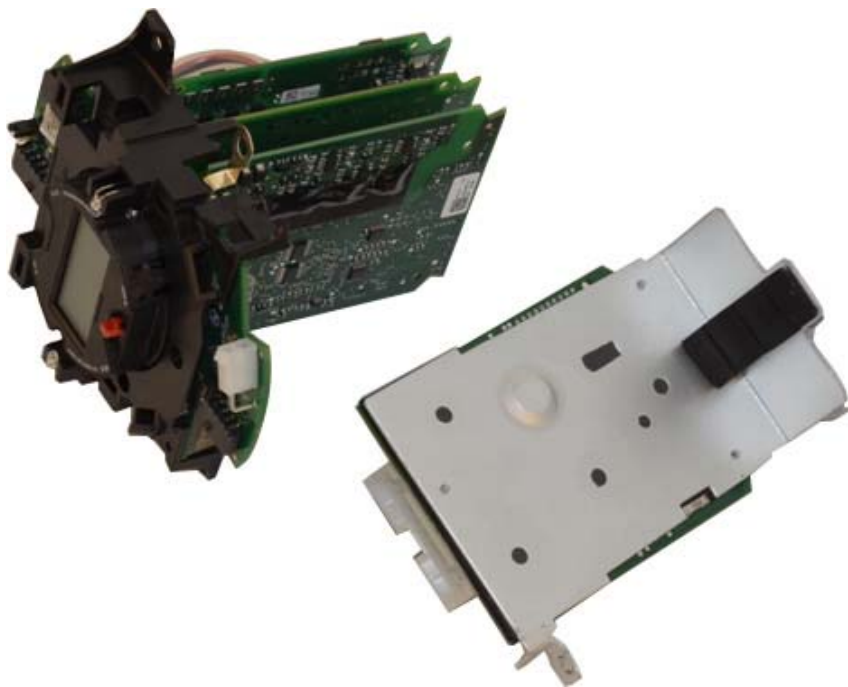
8. Remove the plastic holder from the housing.



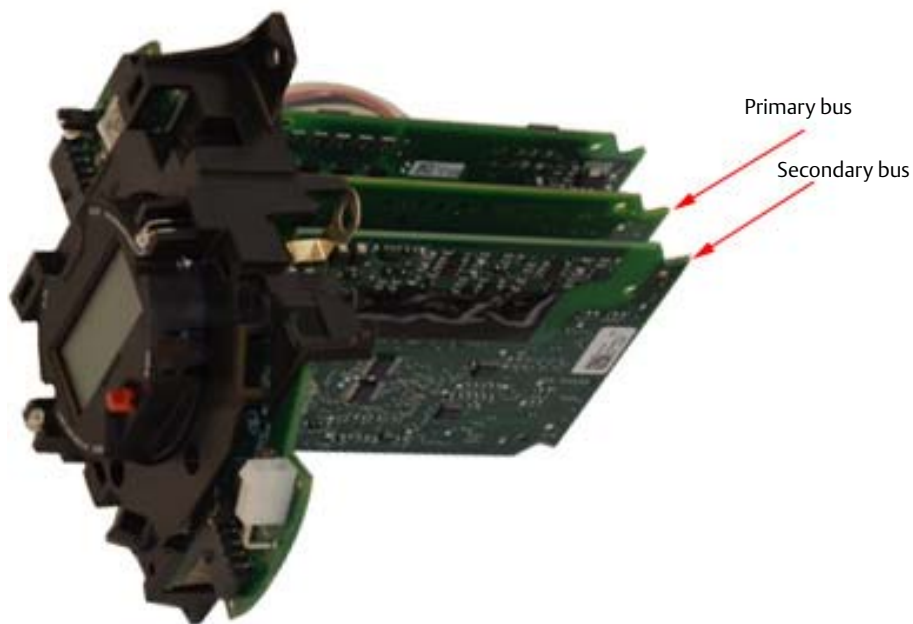
9. Press down the plastic clips to detach the electronics. Detach and remove the electronics package from the plastic holder.



10. Remove the plate that holds the power supply in place. This will allow for easy access to the primary and secondary bus boards.



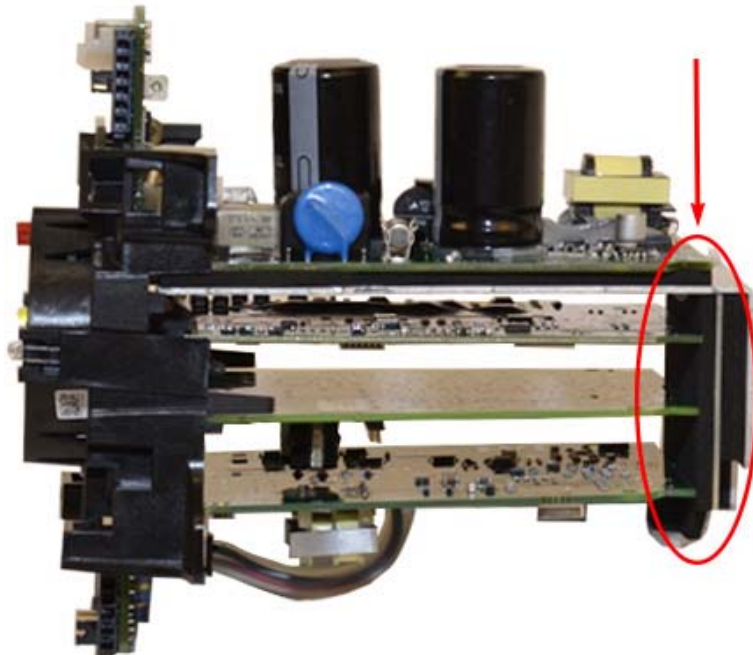
11. Exchange the primary or secondary bus board depending on the desired configuration. Add or exchange the primary/secondary board depending on desired configuration.



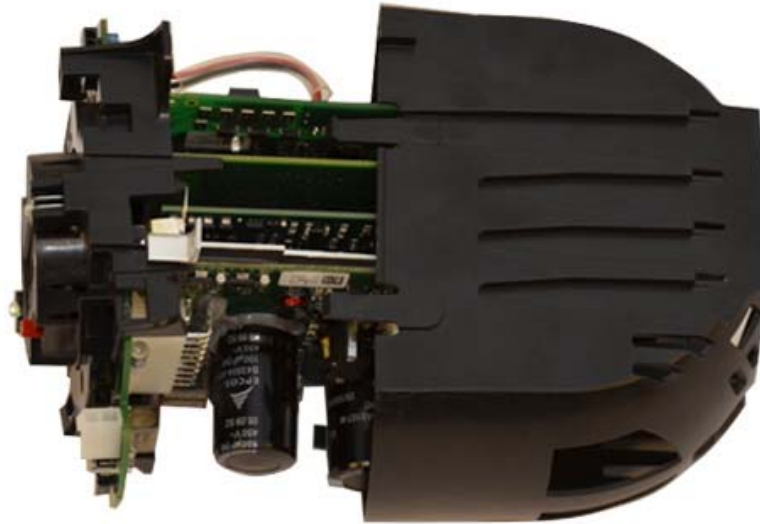
12. If an IS board is mounted on the primary side make sure the connection cable is placed under the secondary bus board if such board is present.



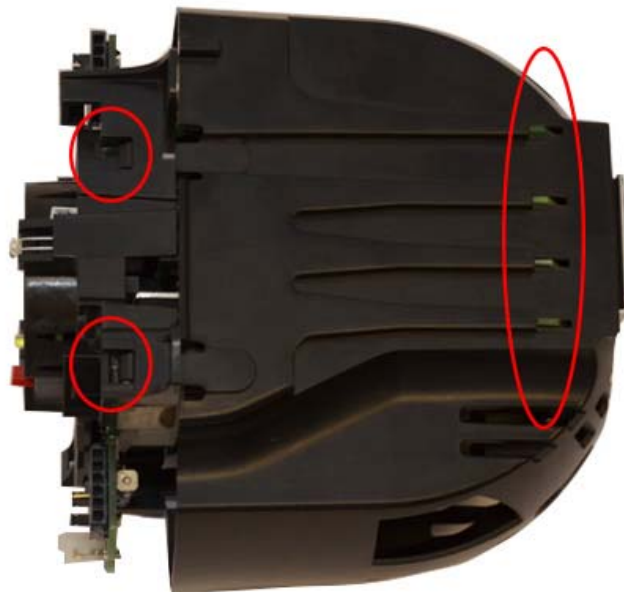
13. Attach the power supply board back to the main board, ensure that all boards are aligned and properly resting against the board support.



14. Steer the boards into the grooves of the holder; make sure the heat sink is properly aligned against the bottom of the holder.



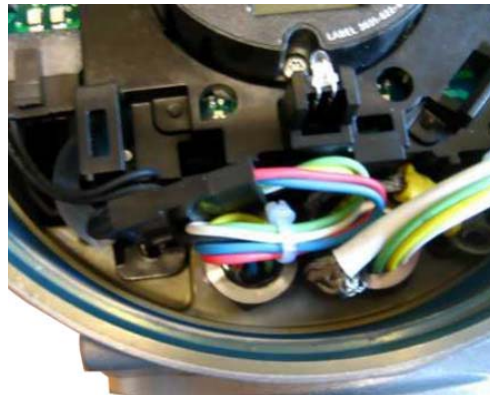
15. Push the two parts together all the way until the holder snaps in place and the boards are visible in the inspection holes.



16. Place the electronic package back into the housing and secure it with the screws.
17. Connect all the cables back to the mother board where applicable.



18. Make sure that cables are not pushed down in the space next to the IS Component (if present), the cabling might otherwise impair Intrinsic Safety of the Board.



19. Arrange the cables so that they can't be damaged by the threads when mounting the housing cover.
20. Snap on the Display cover or the Label Display Cover (depending on the version).
21. Inspect the O-ring on the housing cover, make sure it is not damaged, and if it is dry apply some grease on the O-ring and the threads. Damaged O-ring must be replaced with a new one.
22. Tighten the cover.

23. Remove the old label plate and replace it with the new one.



24. Apply the new main label on the plate.
25. Connect the device and power it on, if a display is present make sure the device is working properly. When there is no display present contact the control room and verify that the device is back on-line.
26. If a start code is included with the upgrade it must be entered before full functionality can be achieved.
27. Start *WinSetup board*, find the upgraded 2410 Device, right click on it and select **properties**. Under *Advanced* tab select on **Upgrade Device** button.
28. Enter the Start Code as specified in the information provided with the upgrade. Select **OK** and **Apply** to close the *properties* window.
29. Your 2410 device is now upgraded. You may need to make additional configuration adjustments based on type of upgrade. See 2410 Tank Hub Reference Manual (Document No. 00809-0100-2410) for more details

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