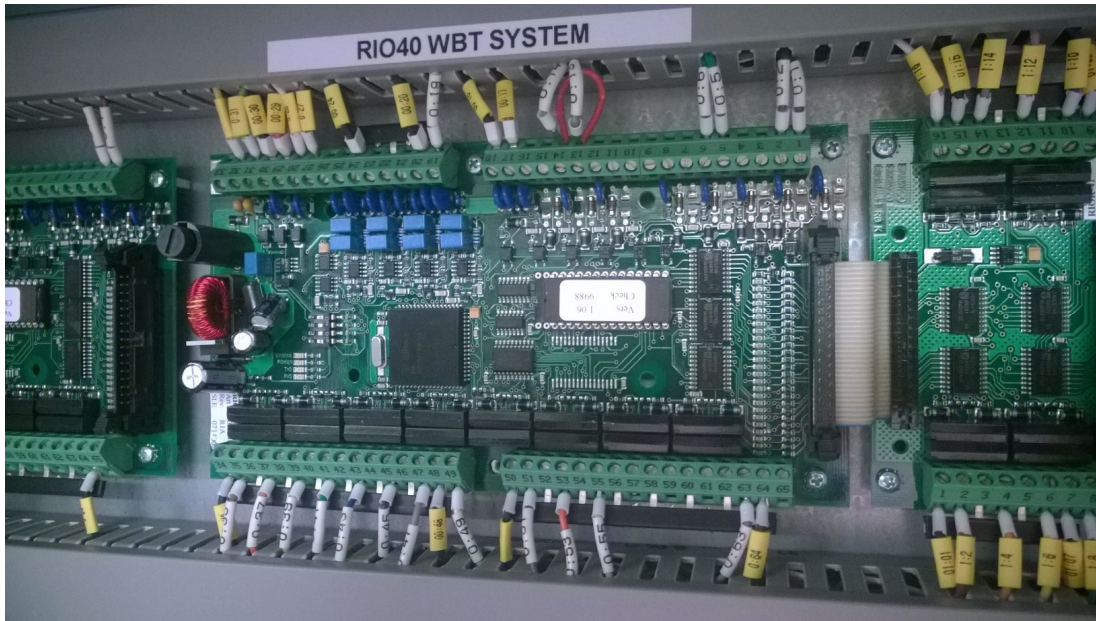


## **REPLACING IO Board RIO40 in SW2020 system**

This instruction applies to the SW2020 Gas sampling system and shows the replacement of the RIO40 board, Consilium article 019240, in Analyse units of all types of SW2020 Gas sampling systems.



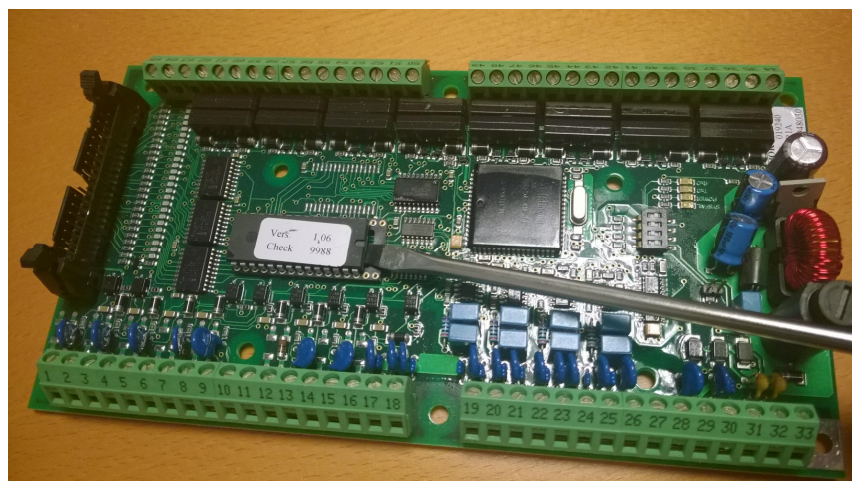
**Important note: When working on these panels, discharge possible EMC on your self and the used tools before any parts are dismantled. Best is to operate in a EMC protection environment, but as such an area is rarely available onboard its usually sufficient to touch ground/earth with the hands and let the tools used also have contact to ships earth prior to work. If the board is carried away to another area after removal, its advised to repeat the process by touching ground/earth a new before work commences. Do not open the EMC bag of the new board until the work is started.**

- First of all, make sure all cables are properly marked and in their correct terminals. This will enable a smooth re-mounting of the board and avoid further problems. Unmarked cables must be marked before removal from their terminals.
- Note that the existing Eprom labeled RIOP-GS 1.06 must be re-used on the new board. This eprom is almost never the reason of faults and new board is supplied without it for various reasons.

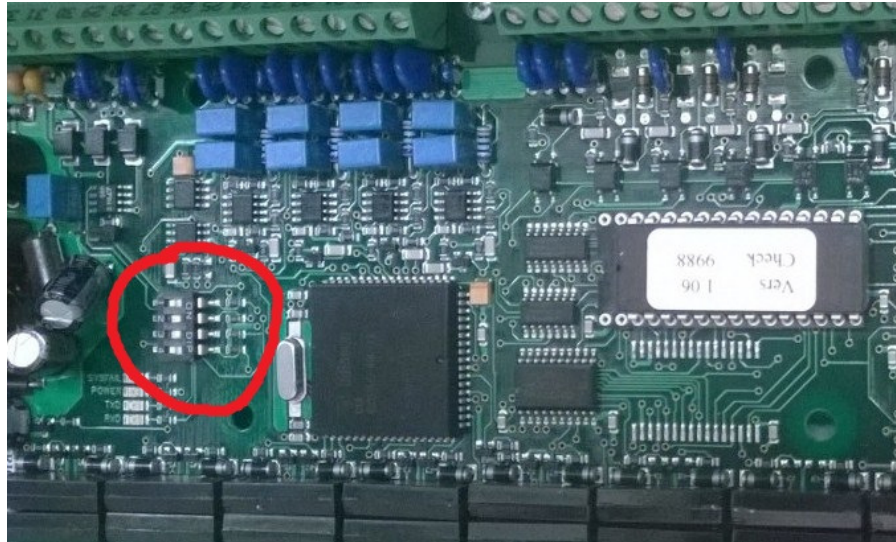
-Next step is to remove the power of the system, making it fully shut off! This is best done by opening up the fuse-breakers in the lower part of the cabinet, where main power is coming in.



-When the power is off and system fully shut down, unscrew all cables and screws of the RIO40 board and lift out the board. Put the old board on a flat smooth surface and remove the Eprom like shown in the picture. Use a flatblade screwdriver and pry it out carefully, don't use too much force. Take note of the position and direction of the eeprom, as it must be fitted in the exact same way on the new board.



When the eprom is removed, simply insert in exact same position on the new supplied RIO40. Now set the address on the RIO40 board, same setting as the existing board. Its done by moving the dipswitches on the small address selector as seen in the picture:



Set the dips 2 and 3 to “ON” position, 1 and 4 to “OFF” position!

When done, mount the RIO40 back into the SW2020, refit all the cables and don’t forget the “minus cams” that need to be moved from the old board to the new board too, to distribute the minus-power to all output relays on the lower row of the board.

Finally restart the system, by putting back the fuses/breakers in the lower part, and restart the system by pressing “START” button on the start-relay.

In General: The RIO40 board with the revision R1A can suffer from relay problems. The new supplied boards should be of type R1C with new type improved small relays from “Meder”.

For further questions and comments, please don’t hesitate to contact Consilium Service dept.

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