



Global Pressure Sewer Solutions



PSS ECO/EMS KIT

Retro Kit
Installation Procedure



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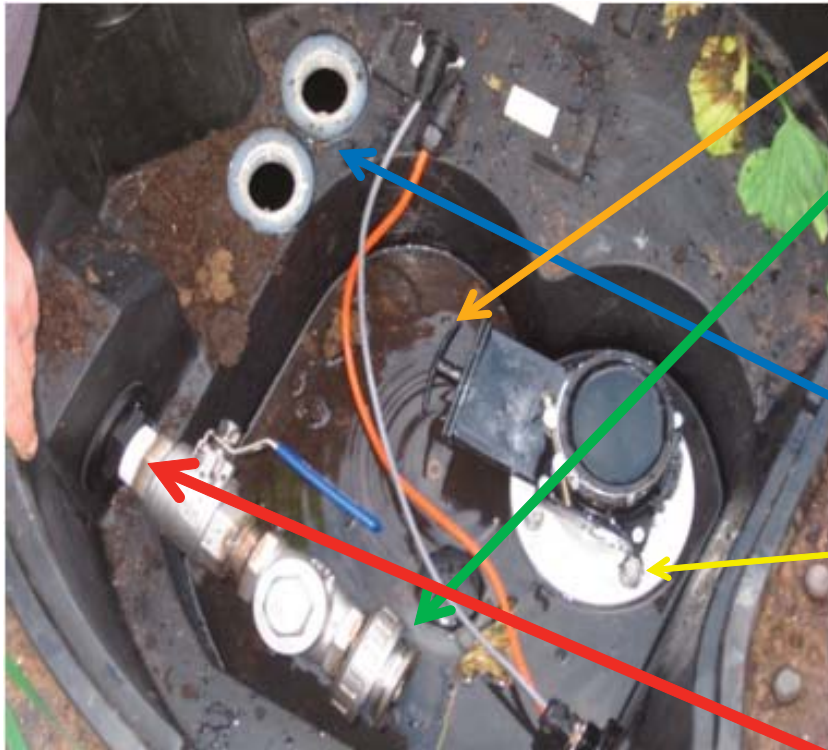
1. Isolate power at the control box to ensure and maintain safe working environment while retro fit is being conducted.

2. Hydraulically isolate the rising main by closing the isolation valve at the boundary kit.

3. Locate the discharge pipe outside of the tank and excavate to expose the connection in order to disassemble.



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4. Slide gate valve in to the closed position & loosen clamp on suction rubber sleeve.
5. Undo barrel union on the rigid discharge assembly (ensure that the discharge o-ring is retained on the pump discharge port)
6. Disconnect electrical connection & remove pump.
7. Unscrew air level sensors & remove from tank (retain alarm level sensor for trimming & re-use)
8. Undo the flange retaining bolts.
9. Open slide gate valve & remove pump inlet assembly with gate valve.
10. Undo retaining nuts and remove rigid discharge assembly.

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11. Install new telescopic pump inlet assembly.

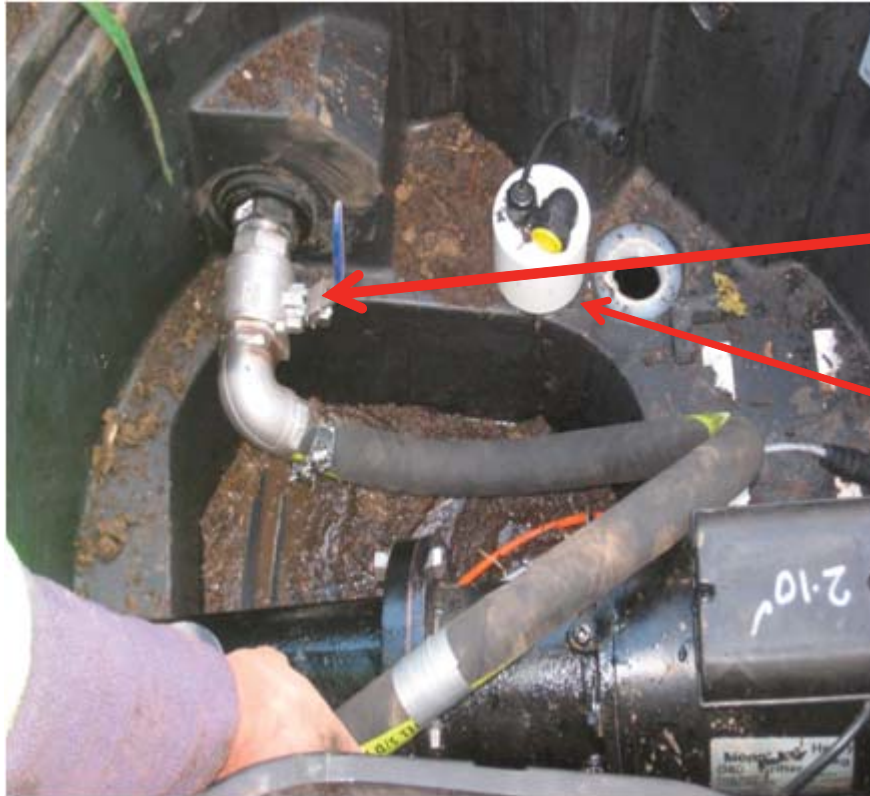
12. Ensure flange gasket is in place and the retaining bolts are secured with care.



13. Remove rigid discharge line on the outside of the tank.



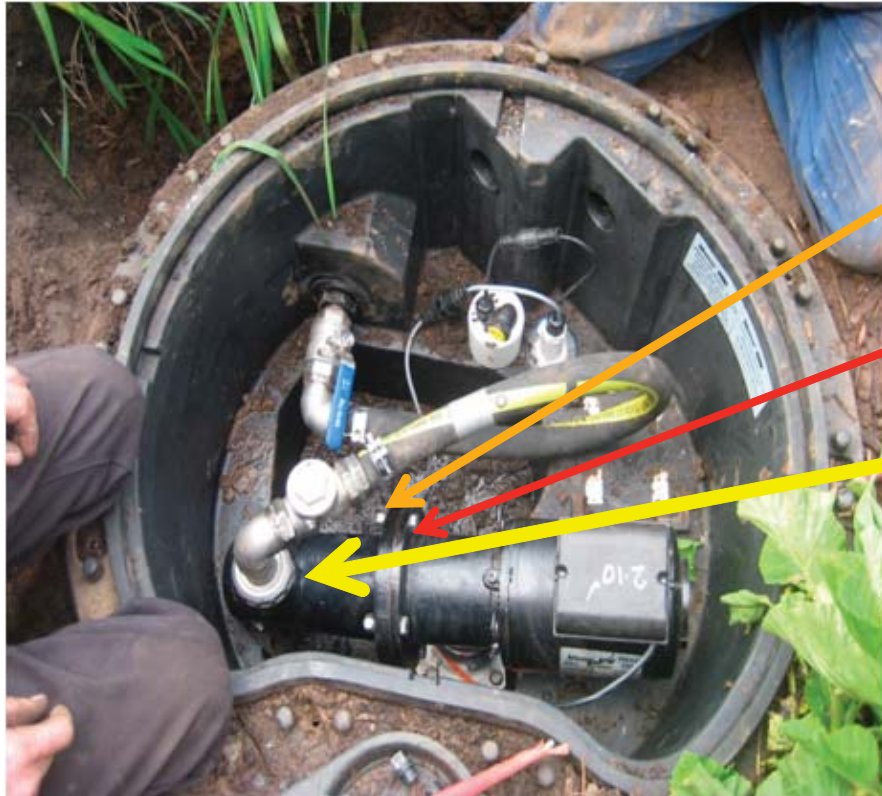
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14. Install flexi discharge line as shown (existing gaskets and retaining nuts can be re-used)

15. Install existing air level alarm sensor, after trimming to 500 mm to provide double redundancy for alarm activation

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16. Remove the four bolts used to secure the pump discharge chamber to the pump inlet section.

17. Rotate pump discharge chamber by 90° & re-secure the four bolts.

18. Ensure that the discharge port is in the vertical position (ensure the o-ring on the discharge port is in place)

19. Attach new flexi discharge line and valve set.

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- 18. Remove existing level control cable plug and replace with the upgrade plug supplied. (refer to wiring diagram/ instructions in the IOM manual)
- 19. Install MonoSense level sensor with thread tape/paste on thread.
- 20. Connect existing alarm level plug to the relevant plug attached to the new MonoSense level sensor.
- 21. Reconnect new level control cable plug to MonoSense level sensor plug.



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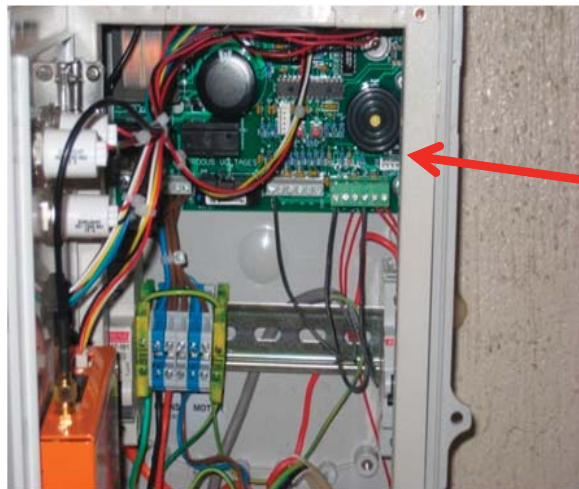


22. Reconnect external rising main to the new flexi discharge assembly.

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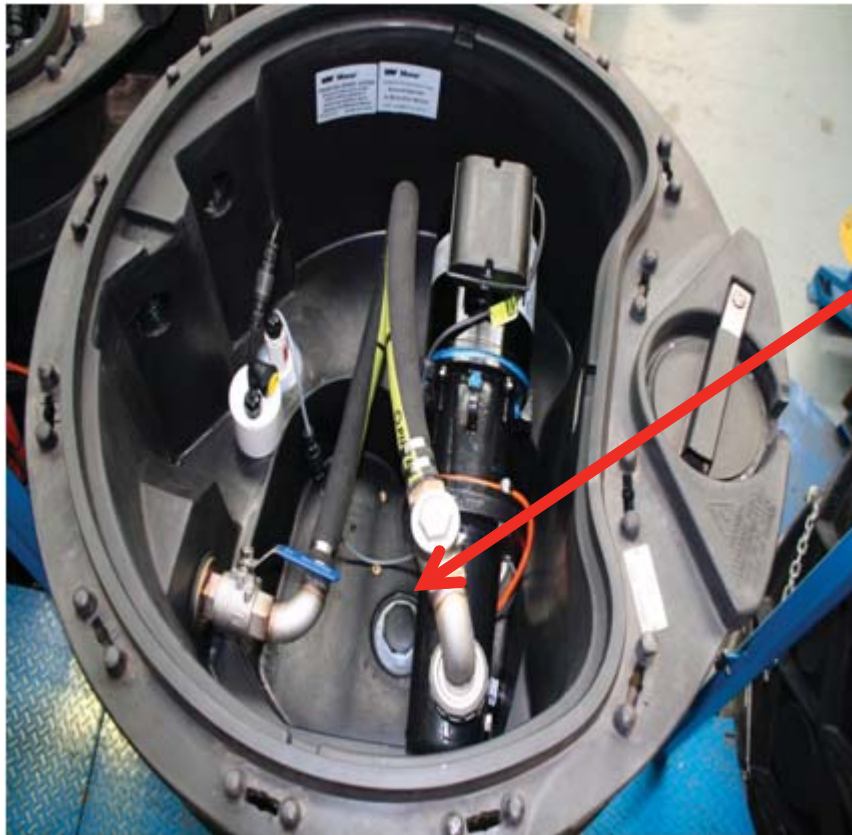
23. Change numbered wiring connection sequence in control box as per the IOM manual instructions/ diagram.



24. Simple, quick re-programming of PLC via Hand held Programmer connected to the circuit board



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25. Clean dry well chamber by draining the drywell into the wetwell via the drain plug.
26. Open boundary kit isolation valve.
27. Re-activate mains power.
28. Commission as per normal procedure in the IOM manual.

Instructions for updating the firmware of PSS Units.

Devices required:

- Hand Held Programming Device and the cables supplied with it. (The firmware will be preloaded on to this device)
- Hand Held Display unit with all functions enabled. (i.e. ability to enter * * functions)

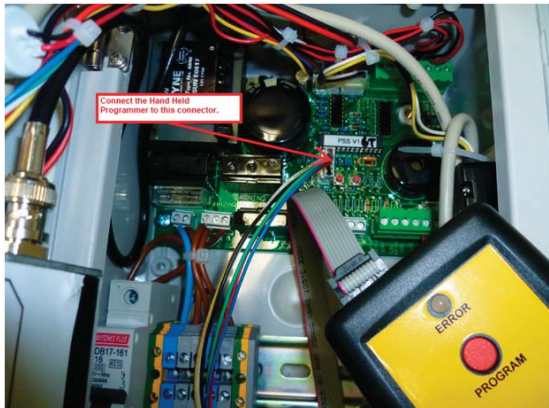
Instructions for Updating the Firmware



1. Open the PSS Controller door to gain access to the PCB.



2. Turn off the circuit breaker for the pump.



3. Disconnect the power to the Telemetry Radio, if one is fitted.
(Remove power leads on the radio)

4. Plug in the Hand Held Programmer on to the connector J3 on the PCB.
(The white colour connector near the microchip.)



5. Press the program button on the Hand Held Programmer
(Red button)

6. Observe green LED turned on, on the Hand Held Programmer.

7. After 10-15 seconds, the Green LED will blink 4 times and turn off. This indicates successful update of the firmware.

NOTE :

If at Step 7, The LED does not Blink 4 times in Green colour, execute step 8 and try again by going back to step 4.

If the LED is indicating a constant RED colour, change the battery of the Hand Held Programmer. This uses a 9V battery.

8. Disconnect the Hand Held Programmer from the PSS Circuit Board.
9. Power reset the PSS system if possible using the Main Circuit Breaker.
10. Turn on the Pump circuit Breaker.

Then go on to check software settings as per next page.



Instructions For Making the Correct Software Settings.

1. Make sure the power is disconnected to the Telemetry radio, if one is fitted.
2. Plug in the Hand Held device to the PSS System.



3. Press 9 # on hand held device.

Following will be displayed;
MONO PSS V2.0TLN

This further indicates that the firmware has been updated successfully.



If the PSS unit is NOT using radio telemetry, execute the following step. If the PSS unit uses radio telemetry then ignore this step.

4. Do the following on the hand held device:

Press * * 1 1 # - “1NO 2TEL 3GSM?” will appear on Hand Held Unit

Press 1 # - “ Y=1 Set? = 001” will appear on Hand Held Unit

Press 1 # - “Telemetry=001” will appear on Hand Held Unit

Press 9 # - “MONO PSS V2.0NLN” will appear on Hand Held Unit

If the PSS unit has a G80 pump fixed to it, execute the following step. If the PSS unit is fixed with a G60 pump then ignore this step.

5. Do the following on the hand held device:

Press * * 1 2 # -“1-G60 2-G80 ?” will appear on Hand Held Unit

Press 2 # - “Y=1 Set? = 002” will appear on Hand Held Unit

Press 1 # -“Pump Type =002” will appear on Hand Held Unit

Press 9 # -“MONO PSS V2.0NHN” will appear if step 4 was executed
“MONO PSS V2.0THN” will appear if step 4 was NOT executed



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Instructions For Making the Correct Software Settings Cont.

6. Remove the Hand Held Display Device from the PSS system.
7. Connect the power to the Radio, if one is fitted.
8. Close the panel door and insert screws to secure door.

Firmware update is now complete. Check for normal operation of PSS unit.

WARNING – All previous information stored on the System would have been lost.

The UNIT ID has to be entered if Radio Telemetry is used.

Procedure to enter Unit ID

1. Make sure power to the Radio unit is disconnected.
2. Press 1 9 #
3. Enter the Unit ID (a value less than 4095) and press #
4. Press 1 #
5. Press 19 # # to display the Unit ID that was entered.