

GILES CHEMICAL		
COMPANY PROCEDURE		
Standard Operating Procedure	Page : 1 of 4	Revision :07/01/2008 Date :05/01/2007
Author: Patrick Owen	Title: Changing a pH Meter Box	

**Personnel responsible:**

1. Technical

**Safety equipment:**

Safety glasses and safety shoes. Sulfuric acid is in use in the Digesters; take necessary precautions to prevent contact.

**Summary:**

Sometimes the cable for the pH Meter Box may need to be replaced. This procedure informs you how to do it.

**Procedure:**

**Removing the Old Meter and mounting the New Meter**

1. Inform the Lead Operator of what you are doing.
2. Stop the Digester (see the procedure for this)
3. Unplug the pH Meter.
4. Using a screwdriver, unscrew the 4 screws on the pH meter readout.
5. Using a screwdriver, remove the black plastic "ESD Shield"
6. Using a small screwdriver, loosen all cable connections.
7. Gently pull all of the wires loose from the readout.
8. Using a small screwdriver, push the hinge pin out of the hinge until you can pull it out with your hand.
9. The meter box is now loose, remove it.
10. Align the new meter box on the holder and insert the hinge pin.
11. Push the pin completely in place with a small screwdriver.
12. Remove the "ESD Shield" with a screwdriver.

**Making Electrical Connections**

13. The panel is labeled for the wires, so the following convention matches the panel.
14. Connect the electric cable white wire to terminal 19.
15. Connect the electric cable black wire to terminal 20.
16. Connect the large Green and Yellow wire to "shield".
17. Connect the small Green wire to "RTD D". The letter D will be in a box.
18. Connect the small White wire to "RTD E". The letter E will be in a box.
19. Connect the large Black wire to terminal 1, "meas el."
20. Connect the small Red wire to terminal 2, "ref el."
21. Connect the small Blue wire to terminal 3, "aux. el."
22. Tighten all connections.
23. Clip the small gray wire and tape the end.
24. Gently squeeze the wires to the side and replace the "ESD Shield"

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### **Closing up the Box**

25. Be very careful about bending the probe cable too sharply because it is very weak at this end.
26. Close the box and tighten the screws on the face of the panel.
27. Plug in the pH Meter
28. Calibrate the meter..
29. Start the Digester.

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## TRAINING DOCUMENTATION

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### REVISION HISTORY

Revision Date

2007  
07/01/2008

Revision Number

01  
02

Revision Description

- Revision not recorded  
-Added Blue wire to  
Cable connection for  
disposable probes.