# RPG pH SENSOR REPLACEMENT INSTRUCTIONS

## For TechPro™ ARH1, PH1 and TechPro II™ TPH1, TH1

NOTE: Please read these instructions thoroughly and carefully — Damage caused by improper installation or mishandling will void the warranties of the instrument and the new sensor.

CAUTION: Moisture trapped in instrument will cause damage. Careful adherence to the following procedure will significantly reduce the potential for failure due to moisture contamination.

Enclosed with this new sensor is a new orange O-ring, and a moisture protective foam, install per instructions in III. 8. below. While the instrument is open, we recommend you replace the battery with a 9V alkaline type. For clarity, this procedure is broken down into four sections. **Follow each section carefully to avoid damage.** Refer to drawings on reverse as necessary.

#### I. Preparing and Opening Instrument Case.

- 1. Remove pH protective cap from sensor well, shake out fluid and dry sensor well thoroughly.
- 2. If the instrument is wet, dry it thoroughly before proceeding, paying particular attention to the bottom screw holes. Ensure hands are clean and dry. Moisture <u>will</u> damage the electronics.
- 3. Turn instrument over and set on a clean, dry surface.
- 4. Using a Phillips screwdriver, remove the 4 bottom screws.
- Open instrument carefully. While removing bottom case ensure sealing gasket does not stick to bottom, but stays
  in top case groove. If gasket comes out, handle carefully and reinstall in top case groove.
   Exercise extreme care not to allow any water to enter the open case.

#### II. Disconnecting and Removing Old pH Sensor.

- 1. Locate the cable connector and disconnect (unscrew using a 1/4 in. open-end wrench) cable from circuit board.
- 2. If you are right handed, hold the instrument in your left hand with the rounded end up, and locate the pH sensor and locking tab. See drawings B & C.
- 3. Using your left thumb, press the locking tab away from the sensor or toward the circuit board (the tab need only be moved approximately 1/16 in./1,5 mm).
- 4. While holding locking tab back, pull straight out on the cables and body of the sensor, wiggling slightly if necessary. Once the sensor moves upwards, you may let go of the tab and pull the sensor completely out.
- 5. Remove the old seal and wipe out <u>all</u> dirty residue from the sensor well.
- Thoroughly inspect and clean both top and bottom case (paying special attention to the case seal and O-rings), screw wells and screws.

#### III. Preparing and Installing New pH Sensor.

- Install new <u>ORANGE</u> O-ring in sensor well. See drawing C.
   Steps 2-4 should be performed AWAY from instrument.
- 2. Remove tape from around new sensor and protective boot. **CAUTION:** Protective boot is filled with a concentrated saline storage solution that will cause damage if allowed to come in contact with internal components.
- 3. Carefully remove protective boot from new sensor by lightly squeezing top half of boot and executing a slow twisting pull. Inspect to insure 2 O-rings are on sensor body.
- 4. Rinse sensor with clean water and dry thoroughly. Inspect to insure 2 O-rings are still on sensor body.
- 5. Align sensor with case (it will only go in one way see drawings B & C). Insure both O-rings on sensor slide evenly into sensor well. **CAUTION:** A damaged O-ring will allow water to leak into case.
- 6. Press sensor into sensor well until an audible snap is heard and locking tab is in place. See drawing C.
- 7. Reconnect the cable. Tighten securely.
- 8. Remove existing moisture protective foam (light colored) from the bottom case, peel backing from new moisture protective foam, and install inside bottom case in same location.

### IV. Closing Instrument Case

- 1. Align cable so that it will NOT obstruct or become pinched while reinstalling the bottom case.
- 2. Ensure the sealing gasket is installed in the groove of the top case.
- 3. Replace bottom, aligning it with the groove.
- 4. Install and start the 4 bottom screws.
- Tighten screws evenly and <u>securely</u>. An effective seal cannot be insured unless screws are <u>secure</u>.
   Uneven tightening will cause instrument to rock.
- 6. Turn instrument over and fill pH sensor well with Myron L pH Sensor Storage Solution. If unavailable, use a pH 4 Buffer or a saturated solution of table salt and tap water.
- 7. Reinstall protective cap on pH sensor well.

Your Instrument is now ready for calibration and use. See Operation Manual or Bottom Label for calibration instructions.



