

**HANNA  
INSTRUMENTS  
ELECTRODE  
INSTRUCTION  
GUIDE**

**Code:**

---



**KYNAR® BODY**

Kynar® is the best plastic material that you can use for the electro-analytical instruments.

Kynar® gives to your electrode the MAXIMUM PROTECTION AGAINST AGGRESIVE CHEMICALS.

**PREPARATION**

- Remove the protective cap. DO NOT BE ALARMED IF ANY SALT DEPOSITS ARE PRESENT. This is normal with electrodes and they will disappear when rinsed with water.
- Shake the electrode down as you would do with a clinical thermometer to eliminate any air bubbles inside the glass bulb.
- If the bulb and/or junction are dry, soak the electrode in HI 80300 storage solution for at least one hour.

**For refillable electrodes:**

- If the fill solution (electrolyte) is less than 1 cm (½") below the fill hole, add HI 8082 for double junction or HI 8071 for single junction electrodes.

**MEASUREMENT**

- Rinse the electrode tip with distilled water.
- Immerse the tip in the sample and stir gently for approx. 30 seconds.
- For a faster response and to avoid cross contamination of the samples, rinse the electrode tip with a few drops of the solu-

tion to be tested, before taking measurements.

**STORAGE**

- To minimize clogging and ensure a quick response time, the glass bulb and the junction should be kept moist and not allowed to dry-out.

Replace the protective cap with a few drops of HI 80300 storage solution or, in its absence, filling solution (HI 8071 for single junction or HI 8082 for double junction electrodes) or pH 7.01 or pH 4.01 buffers (HI 8007 or HI 8004 respectively).

Follow Preparation above before taking measurements.

**Note:** NEVER STORE THE ELECTRODE IN DISTILLED WATER.

**PERIODIC MAINTENANCE**

- Inspect the electrode for any scratches or cracks. If any present, replace the electrode.
- Rinse off any salt deposits with water.

**For refillable electrodes:**

Drain the reference chamber with a syringe and refill it with fresh electrolyte (HI 8071 for single junction or HI 8082 for double junction electrodes). Allow the electrode to stand upright for 1 hour.

- Follow the Storage Procedure above.

### CLEANING PROCEDURE

- General - Soak in 0.1M HCl Solution (HI 8061) for approximately 1 hour.
- Removal of films, dirt or deposits on the membrane/junction:  
Protein - Soak in Hanna Solution HI 8073 for 15 minutes.  
Oil and grease - Rinse with Hanna Solution HI 8077.

**IMPORTANT:** After performing any of the cleaning procedures rinse the electrode thoroughly with distilled water, drain and refill the reference chamber with fresh electrolyte, (not necessary for GEL filled electrodes) and soak the electrode in HI 80300 storage solution for at least 1 hour before taking measurements.

### TROUBLE SHOOTING:

**pH Meter:** Follow attentively the meter's operating and calibration procedures from the instruction manual.

**Electrode:** Evaluate your electrode performance based on the following possibilities.

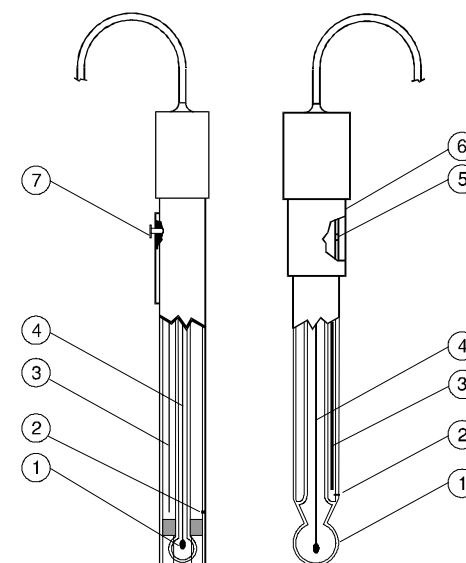
- **Noise** (Readings fluctuate up and down) could be due to:
- **Clogged/Dirty Junction:** Refer to Cleaning Procedure above.
- **Loss of shielding** due to low electrolyte level (in refillable electrodes only): Empty electrolyte with a syringe and refill with fresh HI 8071 for single junction or HI 8082

for double junction electrodes.

- **Dry Membrane/Junction:** Soak in storage solution HI 80300 for at least 1 hour.
- **Drifting:** Soak the electrode tip in warm 3.5M KCl solution (HI 8082) for one hour then flush tip with distilled water. Refill with fresh HI 8071 for single junction electrodes and HI 8082 for double junction electrodes.
- **Low Slope:** Refer to Cleaning Procedure above.
- **No Slope:** Check electrode for cracks in glass stem or bulb and replace the electrode.
- **Slow Response/Excessive Drift:** Soak the tip in 0.1M HCl solution (HI 8061) for 30 minutes, rinse thoroughly in distilled water and then follow Cleaning Procedure above.

KYNAR® BODY

GLASS BODY



- 1) Glass Bulb
- 2) Reference Junction
- 3) Reference Wire
- 4) Sensitive Wire
- 5) Reference Fill Hole
- 6) Fill Hole Sleeve Cover
- 7) Fill Hole Screw

Made in  
Canada