

## HALO™ pH PROBE

### QUICK START INSTRUCTION GUIDE

Thank you for selecting a Hanna Instruments product. Please read this manual before using the HALO™ probe with Hanna Lab App or with edge®blu. For additional information on probe maintenance and calibration consult the Hanna Lab App "HELP" section or the edge blue instruction manual.

**IMPORTANT!** During servicing and measurement, *handle probe with care. Do not drop probe on a hard surface. It will permanently damage the probe.* During storage or transport, utilize the clear protective cap to protect and keep the pH bulb hydrated.

#### **PREPARATION:**

Remove the probe from the plastic storage tube by unscrewing the top collar to vent the cap before removing. Save cap and collar for probe storage.

1. Rinse off any storage solution or salts that may be on the glass body.
2. Verify if there is solution inside the pH bulb, shaking the probe down can restore continuity as the solution may have moved up the stem during shipping.

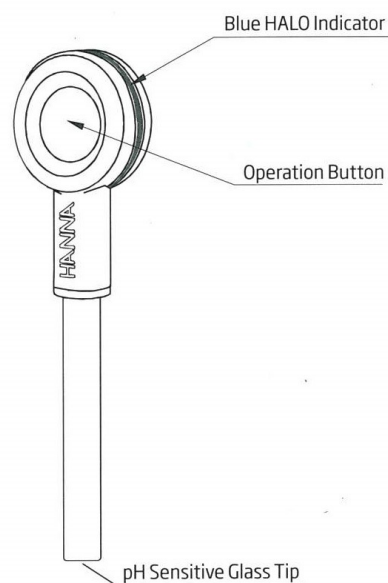
#### **CONNECTION:**

Using Hanna Lab App:

1. To begin using the HALO™ probe, start the Hanna Lab app and tap the Bluetooth icon.
2. Press the operation button located on the top of the probe. The blue LED halo will begin to flash in half second intervals, indicating it's in discoverable mode and the probe ID will appear in the list of probes.
3. Touch the probe ID once it appears in the list of probes. The blue LED will slow down and flash every 2 seconds.

Using edge®blu:

1. To begin using the HALO™ probe, turn ON edge®blu. The meter will start scanning for probes.
2. Press the operation button located on the top of the probe. The blue LED halo will begin to flash in half second intervals, indicating it's in discoverable mode and the probe ID will appear in the list of probes.
3. Select your probe in the list of visible probes and press CFM. While connection, the blue LED will flash 4 times a second. Once connected, it will slow down and flash every 2 seconds.



**MEASUREMENT SETUP:**

1. Calibrate the pH probe.
2. Take measurements using the pH probe.
3. When probe is not in use, place the hard protective storage cap over glass bulb.

**MEASUREMENT GUIDES:**

1. Always clamp or support probe during use.
2. Frequent calibrations are suggested for critical pH applications.
3. To eliminate thermal or sample gradients stir buffers and samples using a magnetic stirrer.

**CALIBRATION:**

1. Calibration can be performed using up to five calibration buffers. For accurate measurements, a minimum of a three-point calibration is recommended.
2. Enter calibration screen (using Hanna Lab App or edge®blu).
3. Place the probe in the first buffer.
4. Confirm the calibration point when the reading is stable.
5. Repeat the procedure for up to five calibration points. For details, please see edge®blu manual or Hanna Lab App HELP section.

**STORAGE:**

1. Rinse off the HALO™ probe with deionized water to remove sample.
2. Blot off using a soft tissue.
3. Pour 1 cm of HI70300 storage solution into plastic storage cap. Place probe bulb into cap and tighten the threaded collar.

QR14142 03/17