092100C RevB

HAYWARD®

Cell Tester

Electrolytic Cell Tester

Assembly & Operation

Contents

GLX-CELL-TESTER
GLX-PCB-TESTER

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Assembly Instructions

The GLX-Cell-Tester is shipped in two cartons. One carton contains the electronic control and reference cell. The other contains the stand up frame and plumbing.

1. **Construct the Frame and attach the Plumbing**

Refer to the instructions included in the frame carton.

2. **Install Reference Cell**

Install the reference cell on the right side of the plumbing. Mount the cell so that the cable faces downward. Hand tighten the cell union (no tools).

3. **Route cable through holes**

Route the Reference Cell cable through the holes on the frame as shown above.

4. **Mount control on frame**

Using the supplied hardware, mount the control on the frame as shown above. Use washers and wingnuts to fasten.

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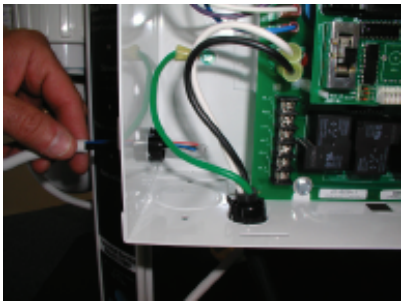
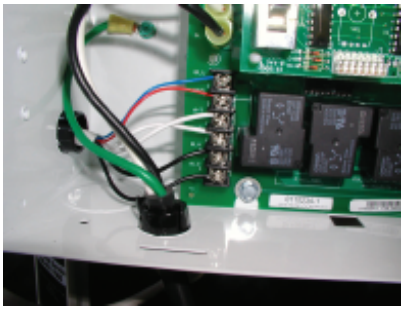
5. Remove panel from control

Unscrew the two fasteners and remove the panel from the control.



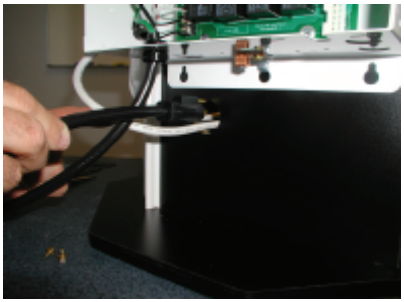
6. Route cell cable into control

Route the Reference Cell cable through the knockout grommet and into the control.



7. Attach cell cable wires

Attach the six conductors from the Reference Cell cable to the proper screw terminals on the control. The colors are designated on the printed circuit board.



8. Route power cord through hole

Route the control's power cord through the hole shown above.

9. Cover hole with cap

Cover the hole with the supplied cap. The GLX-CELL-TESTER assembly is now complete. Refer to the Operating Instructions section for information on how to use the Cell Tester.

Operating Instructions

Thoroughly read each of the following steps before attempting to test a cell.

1. **Inspect customer's cell**

Before testing a cell, visually inspect the cell for white deposits between the plates inside of the cell. If no deposits are found (picture to the left), the cell may have to be held towards ample amounts of light and angled in different directions to reveal smaller white deposits deeper inside the cell. If this method shows no deposits, then go to Step 3. If small deposits are visible, a high pressure water hose should be used to try to remove the deposits. If the deposits remain, cleaning the cell with a muriatic acid solution is necessary (see Step 2).

2. **Cleaning the cell**

(If Using A Container)

Using gloves and proper eyewear, prepare a solution of 2 parts water, 1 part muriatic acid in a suitable cleaning container by adding 2.5" of acid to 5" of water. **NOTE: ALWAYS ADD ACID TO WATER; NEVER ADD WATER TO ACID.**

Stand the cell vertically in the solution. The level of the solution should be slightly over the product label. Let the cell stand in the solution for 10 minutes, then flip the cell over and let stand on the other end for an additional 10 minutes. Although the cord can be submerged, be sure that the connector does not come in contact with the solution.

Inspect the cell after both sides have soaked. If there are no deposits after soaking, rinse with water and go to step 3. If there are still deposits after soaking, repeat the soaking procedure until clean.

The water/muriatic acid mixture can be stored for later use or it can be disposed. Follow chemical manufacturer's recommendations when storing or disposing the water/acid solution.

(If Using The Hayward T-Cell Cleaning Stand)

Using gloves and proper eyewear, prepare a solution of 2 parts water, 1 part muriatic acid in a suitable container. Mix enough solution to fill the inside of the cell (~1.5 qts). **NOTE: ALWAYS ADD ACID TO WATER; NEVER ADD WATER TO ACID.**

Fasten the cell to the T-Cell Cleaning Stand with the cord side down (see photo above). Before filling cell with muriatic acid solution, put a container underneath to avoid any spills that could damage the surrounding area. Fill the cell to the top with the solution and let soak for 10 minutes. Empty the cell and inspect. If the cell is clean, rinse with water and go to Step 3. If there are still deposits after soaking, repeat the soaking procedure until clean.

The water/muriatic acid mixture can be stored for later use or it can be disposed. Follow chemical manufacturer's recommendations when storing or disposing the water/acid solution.

3. **Install customer's cell**

Install the customer's cell in the cell tester. Hand tighten the cell union (no tools) and make sure that the drain valve is closed. Do not attempt to test a cell with visible deposits.

4. **Plug the cell into the front panel**
   Put switch in the proper position

Plug the customer's cell into the control using the designated cell connector. Determine which model you are testing, T-CELL-15 or T-CELL-5. This information should be found on the customer's cell label. If there is any question as to which model you are testing, call technical support at (908)-355-7995. After determining the model, perform the following:

a. With switch in "Off" position, plug in power cord.
b. Move switch to "Select Cell Type".
c. Repeatedly press "Select Cell" pushbutton until correct model is displayed ("t15", "t9", "t5", or "t3").
d. Slide switch to "Test".

5. **Prepare salt solution**

In a 1 gallon jug, add 2 teaspoons (use the included spoon) of non-iodized table salt to 1 gallon of room temperature tap water. Shake well. This procedure should yield a concentration of ~3200ppm.

NOTE: The accuracy of the test is dependent that both the water and the customer's cell, are at room temperature. If the customer's cell comes in from the outdoors and is unusually warm or cold, do not perform the test until it reaches room temperature.

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6. **Pour salt solution into cell**

Pour the salt solution into the customer's cell until the level rises to within ½" of the top of BOTH cells. This will ensure that the solution completely covers the fins inside of the cells.

7. **Begin test**

Push the "Start Test" button on the control. The test will take roughly 70 seconds. When the test is finished, the "Replace Cell" or "Cell Good" LED will light.

If the "Replace Cell" LED lights before the end of the test, put the switch to the "Off" position and disconnect the cell cable. Reinsert the cell cable firmly, put the switch back to the proper position and retest. If you get the same result, the cell is bad and should be replaced.

Check Reference Cell – This LED will light if the control determines that there may be an error with the Reference Cell.

Check Test Water – This LED will light if the control determines that the salt solution is outside of the usable range. 3200ppm is recommended.

8. **Drain and discard solution**
Remove cell

With a hose connected to the drain valve, remove all of the salt solution after the test is complete. Note that the solution is now heavily chlorinated and should be handled with care. Discard the solution by following the instructions below.

SOLUTION DISPOSAL: *All salt solution must be tested for chlorine residual prior to disposal. The salt solution may NOT be disposed of until chlorine residual registers 0 PPM. To neutralize approximately one gallon of chlorinated salt solution, add a pinch of chlorine neutralizer and mix. Retest salt solution and add additional chlorine neutralizer one pinch at a time until chlorine residual registers 0 PPM [Note: retest for chlorine residual after each addition of chlorine neutralizer]. Neutralized salt solution may then be poured down the sink (sanitary sewer) with the water running. Eye protection in the form of safety glasses or goggles should be worn during the neutralization process.*

9. **Explain the results to the customer**
If the cell test reveals that the cell is good, take the opportunity to learn more about the customer's pool and why they have brought the cell in for testing. Suggest solutions to any problems that they may be experiencing.

If the cell test reveals that the cell should be replaced, offer a replacement and go over the basics of salt chlorination. Make it known that a lower than recommended salt concentration in their pool may cause accelerated wear to the cell.

Also, stress the importance of balanced pool chemistry. A balanced pool with proper Cyanuric Acid levels requires less chlorine generation which results in less overall wear on the cell.

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