

GBHJJ EC Series

GBHJJ Salt Water Pool Chlorinator System EC Series User Manual

Models: EC8, EC12, EC16, EC20

1. INTRODUCTION

Thank you for choosing the GBHJJ Salt Water Pool Chlorinator System. This manual provides essential information for the safe installation, operation, and maintenance of your salt chlorine generator. Please read this manual thoroughly before installation and operation to ensure proper use and to prevent damage to the unit or injury.

This system utilizes advanced microcomputer technology for efficient and reliable pool sanitation, converting salt into chlorine to keep your pool clean and clear. It features an automatic cleaning function, various protection mechanisms, and a user-friendly interface.

2. SAFETY INFORMATION

WARNING: Failure to follow these safety instructions can result in electric shock, fire, serious injury, or death.

- Always disconnect power to the unit before performing any service or maintenance.
- Installation must be performed by a qualified professional and in accordance with all local electrical and plumbing codes.
- Ensure the power supply voltage matches the specifications of the chlorinator.
- Do not operate the unit if the power cord or plug is damaged.
- Keep children away from the unit during operation.
- Maintain proper water chemistry as recommended by pool professionals.
- The unit is designed for use with salt water pools only.
- Avoid direct contact with the salt cell plates.

3. PACKAGE CONTENTS

Verify that all items are present in the package:

- 1 x Salt Chlorinator Unit

- 1 x Bottom Transformer
- 2 x Black Connectors
- 1 x User Manual (this document)

Fully Functional

Memory Function

Protection Function

Automatic Alarm Function

Automatic Cleaning Function

Water Level Detection Function



Integrated Design

Adopts an integrated design, the controller and generator are connected together, the volume design is compact, the floor space is small, it is very convenient to install, simple and convenient to use.

Figure 1: Included components of the GBHJJ Salt Water Pool Chlorinator System. This image shows the main chlorinator unit, the external transformer, and two black connectors, illustrating the integrated design where the controller and generator are connected.

4. PRODUCT OVERVIEW AND FEATURES

The GBHJJ Salt Water Pool Chlorinator System is designed for efficient and reliable pool sanitation. Key features include:

- **Advanced Microcomputer Technology:** Easy to operate with comprehensive functions.
- **Automatic Cleaning Function:** Self-cleaning by reversing polarity to prevent calcium accumulation and prolong cell life.
- **Protection Functions:** Includes water temperature protection (10-40 °C), water shortage protection, and water level

detection to extend the unit's lifespan.

- **Smart Adjustment:** Chlorine output is adjustable from 20% to 100% by pressing two buttons, catering to different pool needs.
- **Smart Alarm System:** Provides prompt alarms and salt fault alarms with error codes for easy troubleshooting.
- **Memory Function:** Automatically remembers the last working state upon power-on.
- **Integrated Design:** Compact unit with controller and generator connected, saving space and simplifying installation.



The salt chlorinator applied advanced micro-computer technology and customer oriented design, to provide the most energy saving and environmental friendly method to sanitize small and medium pools. To achieve this simple, smart and safe chlorine production, all the chlorinator require is only salt.

Smart Adjustment
Chlorine output is adjustable from 20% to 100% by simply pressing two buttons, satisfying different needs for different pools

Smart Protection
When the water temperature is too high or too low, the chlorinator will automatically stop running, in order to protect the unit and prolong the cell's life.

Smart Cleaning
Self-cleaning function by reversing the polarity automatically, prevents calcium from accumulating, prolong the cell's lifetime.

Smart Alarm
Fault auto alarm with error code, which is easy to find corresponding solutions

Figure 2: Overview of the GBHJJ Salt Chlorinator's smart features, including adjustable chlorine output, protection mechanisms, automatic cleaning, and an alarm system.



Figure 3: Visual representation emphasizing the intelligent operation, simple installation, automatic cleaning, and ease of use of the GBHJJ Salt Chlorine Machine.

5. SPECIFICATIONS

The GBHJJ Salt Water Pool Chlorinator System is available in several models, each designed for different pool volumes.

Model	Size (mm)	Working Voltage (V)	Working Current (A)	Max Chlorine Output (g/h)	Dia. of Water Inlet and Outlet	Max Pool Volume (m ³)
EC8	387x122x152	DC 24	4	8	1.5"/50mm	≤40
EC12	387x122x152	DC 24	4	12	1.5"/50mm	≤60
EC16	387x122x152	DC 24	4	16	1.5"/50mm	≤80
EC20	387x122x152	DC 24	4	20	1.5"/50mm	≤100

Overall Size: Approximately 387x152x122mm (15.24x5.98x4.8 inches)

Distance between ends: Approximately 298 mm (11.73 inches)

Input Voltage: 100-240V AC

Voltage Frequency: 50/60Hz

Water Temperature Protection: 10-40 °C



Product parameters

Professional quality

Model	Size (mm)	Working Voltage (V)	Working Current (A)	Max Chlorine Output (g/h)	Dia. of Water Inlet and Outlet	Max Pool Volume (m ³)
EC8	387x122x152	DC 24	4	8	1.5"/50mm	≤40m ³
EC12	387x122x152	DC 24	4	12	1.5"/50mm	≤60m ³
EC16	387x122x152	DC 24	4	16	1.5"/50mm	≤80m ³
EC20	387x122x152	DC 24	4	20	1.5"/50mm	≤100m ³

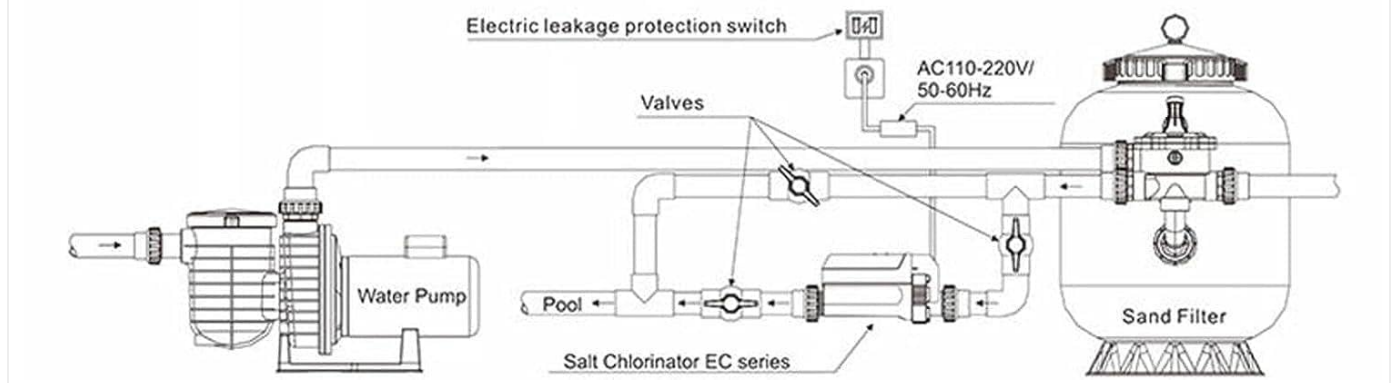


Figure 4: Detailed product parameters for the EC series models and a schematic diagram illustrating the typical installation of the salt chlorinator within a pool's filtration system.



Figure 5: Physical dimensions of the GBHJJ Salt Chlorinator unit, indicating its length (38.7cm/15.24in), width (15.2cm/5.98in), and height (12.2cm/4.8in).

6. SETUP AND INSTALLATION

Proper installation is crucial for the safe and efficient operation of your chlorinator. Refer to Figure 4 for a typical installation diagram.

1. **Choose Location:** Install the chlorinator after the filter and heater (if applicable), and before any return jets to the pool. Ensure it is easily accessible for maintenance.
2. **Plumbing:** The chlorinator unit connects directly into your pool's return plumbing line. The inlet and outlet diameter is 1.5 inches (50mm). Use appropriate PVC fittings and solvent cement to ensure a watertight seal.
3. **Electrical Connection:**
 - Ensure the main power to the pool equipment is OFF at the circuit breaker.
 - Connect the transformer to the chlorinator unit.
 - Connect the transformer to a dedicated, properly grounded 100-240V AC, 50/60Hz power supply. It is recommended to connect the chlorinator to the same timer as your pool pump to ensure it only operates when water is flowing.
 - All electrical connections must comply with local electrical codes.
4. **Add Salt to Pool:** Before operating the chlorinator, ensure your pool has the correct salt level. Consult your pool professional for recommended salt levels, typically 3000-4000 ppm (parts per million).
5. **Initial System Check:** After installation, turn on the pool pump and check for any leaks. Once water flow is established, turn on the power to the chlorinator.



Figure 6: The GBHJJ Salt Chlorine Generator in an installed setting near a pool, demonstrating its compact form factor and user-friendly control panel.

7. OPERATING INSTRUCTIONS

The GBHJJ Salt Water Pool Chlorinator System is designed for simple operation.

1. **Power On/Off:** Press the "STANDBY/ON" button to turn the unit on or off. The system will automatically remember its last working state when powered on.
2. **Adjust Chlorine Output:** Use the "+" and "-" buttons to adjust the chlorine output percentage. The output can be set from 20% to 100% to match your pool's sanitization needs.
3. **Boost Function:** If your unit has a "BOOST" button, pressing it will temporarily increase chlorine production for a set period, useful after heavy pool use or rain.
4. **Salinity Display:** The integrated display shows the current salinity level of your pool water, allowing for easy monitoring.
5. **Water Flow Detection:** The unit features a water level detection function. It will only operate when sufficient water flow is detected through the cell, preventing damage from dry running.

8. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your chlorinator.

- **Automatic Cleaning:** The chlorinator features an automatic self-cleaning function that reverses polarity to prevent calcium and scale buildup on the cell plates. This significantly reduces the need for manual cleaning.
- **Manual Cell Inspection:** Periodically inspect the salt cell for any excessive scale buildup. If significant buildup is observed despite the automatic cleaning, manual cleaning may be required.
 - To manually clean, turn off power to the unit and remove the cell.
 - Soak the cell in a solution of 1 part muriatic acid to 4 parts water for a short period (e.g., 15-30 minutes) until the scale dissolves.
 - Rinse thoroughly with fresh water before reinstallation. Always wear appropriate safety gear (gloves, eye protection) when handling muriatic acid.
- **Maintain Proper Salt Levels:** Regularly check your pool's salt level using the chlorinator's display or a separate salt test kit. Maintain levels within the recommended range (e.g., 3000-4000 ppm).
- **Water Chemistry:** Ensure proper pool water chemistry (pH, alkalinity, stabilizer) as recommended by pool professionals.

9. TROUBLESHOOTING

The chlorinator is equipped with an intelligent alarm system to indicate potential issues.

Problem	Possible Cause	Solution
No Chlorine Production	Low salt level, insufficient water flow, dirty cell, power issue.	Check salt level and add salt if necessary. Ensure pool pump is running and water flow is adequate. Inspect and clean the cell if scaled. Verify power supply.
"Salt Fault" Alarm	Salt level too low or too high, or sensor issue.	Test pool water salt level with a reliable kit. Adjust salt as needed. If levels are correct, contact support.
"No Flow" or "Water Shortage" Alarm	Insufficient water flow through the cell.	Ensure pool pump is running, filter is clean, and valves are open. Check for blockages in plumbing.
"High/Low Temp" Alarm	Water temperature outside operating range (10-40 °C).	Wait for water temperature to return to the acceptable range. The unit will automatically resume operation.
General Error Code Displayed	Internal system fault.	Note the error code and refer to the manufacturer's website or contact customer support for specific solutions.

10. WARRANTY AND SUPPORT

For warranty information and customer support, please refer to the documentation provided at the time of purchase or visit the official GBHJJ website. Keep your purchase receipt as proof of purchase.

For technical assistance or questions not covered in this manual, please contact GBHJJ customer service.



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