



# **CLEARZONE WATER MANAGEMENT SYSTEM**

## **INSTALLATION INSTRUCTIONS**

### **EXPORT MODELS ONLY**

**1.** Please read the following directions carefully **before** installing your ClearZone Water Management System.

**2.** Please check to be sure that you have received the following parts in the CZWMS kit before you begin:

**Parts List Part # 3200-10E**

- 1 - ClearZone Water Management System Assembly
  - A. CZWMS Bracket - #1710-1002
  - B. Laing Circulation Pump-88 Watt (50hz) #1512-84
  - C. ClearZone CD Ozone Generator (50hz) #1560-1009E
- 1 - Mounting screw - #1021-32 – 10-32x1.25" PPH
- 3 - Mounting nuts - #1021-04 – 10-32 kep nuts
- 1 – J & J pigtail Connector- #1510-196E
- 2 – Worm screw band clamps for Laing Circulation Pump - # 1150-08
- 4 - Wood screws (for mounting of circulation pump & ozone on tight fit models)
- 1 – Mounting Screw w/washer for Ozone Generator - #01011-08, 01031-06
- 1 - 3' Length of clear tubing
- 1 - White check valve
- 1 - ¼" Barb fitting
- 2 - Speedy clamps
- 1-12" x ¾" Vinyl tubing

**3. To Install ClearZone Water Management System:**

**Add Warning /Caution Electrical Shock Hazard Symbol here.** Possible Electrical Shock Hazard.

1. Turn off the main spa circuit breaker located in the disconnect box or house panel. Verify that all power has been turned off before continuing installation.
2. Remove the front spa panel.

**4. Electrical Installation**

*Note: All Electrical connections should be completed and spa pack cover secured before plumbing installation is started.*

**Install new J&J connector (part #1510-196E) for circulation pump inside of spa pack.**

1. Open the spa pack (See figures 4) and remove the protective cover plate on Circ. Pump/Aux. hole from the side of the spa pack, right below Ozone plug.  
(See figures 5). **Add Pic here.**

Open spa pack  
Figure 4



Remove Circ. Pump/Aux hole cover  
Figure 5



2. Insert rubber J&J connector into hole labeled Circ.Pump/Aux (Hole right below Ozone plug). Install connector by pushing firmly until connector is fully seated and watertight. See figure 6 & 7. **Add Pic here.**

Install J&J connector  
Figure 6



Installed J&J connector  
Figure 7



3. Using the wiring schematic as a guide, install the wire leads as follows:
1. Blue wire to P32
  2. Brown wire to P18
  3. Green wire w/yellow stripe to Grnd. Lug
4. Attach colored leads firmly to appropriate numbered connectors on PCB (See figure 8). **Caution:** Take special care not to damage or disconnect any electrical components during installation of circulation pump leads. Attach ground ring to lug using supplied kep-nut (See figure 9). Make sure that grounding nut is tightened securely. **Add Pic here.**

Install colored leads  
Figure 8



Attach ground ring securely  
Figure 9



5. After installation of the circulation pump connector, jmp2 needs to be moved from its factory setting to cover the two right pins. Use jumper table located on wiring schematic as a guide.

**Caution:** Be careful when moving jumper so as not to bend or damage jumper pins (See figure 10). After installing circulation pump connector and moving jmp2, close spa pack and secure lid. **Add Pic here.**

Move jmp #2  
Figure 10



## 5. CZWMS Bracket Installation

- 5A. Locate mounting ears on back of spa pack. Using mounting screw and nuts provided, mount bracket with circulation pump and ozone generator to back side of spa pack (Companion HP & all other tight fit situations, see 5B below.). Tighten mounting nuts securely (See figure 11). Plug circulation pump and ozone generator electrical cords into corresponding connectors on side of spa pack (See figure 12). Move on to step 6. **Add pictures here.**

Install assembly on back of pack.  
Figure 11



Plug pump & ozone generator into pack.  
Figure 12





5B. **Circulation Pump & Ozone Generator Installation / Companion HP & All Tight Fit Conditions**

**Note:**

*On Companion HP models & other models that are a tight fit, the circulation pump and ozone generator must be removed from bracket **prior** to installation (See figure 13). Mount circulation pump behind spa pack on plywood skid using wood screws provided. Make sure that the circulation pump cord can reach connector on left side of spa pack before screwing down (See figure 14). The Ozone generator can be mounted on the right hand side of the pump skid using wood screws provided, (See figure 15).*

To install the Circulation Pump & ClearZone Ozone Generator unit on Companion HP & all other tight fit conditions, complete the following:

1. Remove all components from bracket. (See figure 13).
2. Locate and screw down circulation pump on left side behind pack (See figure 14).
3. In the lower right side of the equipment compartment, locate the Ozone unit on the plywood skid under the 2" plumbing.
4. Screw down Ozone unit ensuring that the plug can reach to the other side of the spa pack. Orientate the unit so the outlet for the ozone is on the right hand side (See figure 15).

Remove circulation pump.  
Figure 13



Install circulation pump behind pack.  
Figure 14



Install ozone generator in tight fit conditions.  
Figure 15



## **6. Plumbing / Circulation Pump Installation** **Add Water/Caution Hazard Symbol here.**

Attach circulation pump to existing plumbing as follows:

1. First drain spa completely. An alternative to draining the spa, is to clamp the tubing closed using two pairs of needle nose vise-grip pliers sealing off clear vinyl hose before cutting.
2. Locate white 2" x 2" x  $\frac{3}{4}$ " Tee fitting on left hand side of spa pack. This fitting has a  $\frac{3}{4}$ " clear vinyl tube attached to it with a hose clamp. There may be excess foam around the tee fitting that needs to be removed (See figure 16). **Add Pic here.**

Find "Tee" fitting; Clear away foam  
Figure 16



3. Cut  $\frac{3}{4}$ " vinyl tubing to allow a sweeping loop with no kinks from the tee, to the inlet of the circulation pump. **Caution:** Avoid spilling water on spa pack and electrical connectors (See figure 17). Use supplied clamp #1150-08 to attach tubing to inlet side of circ. pump making sure to tighten securely (See figure 18). **Add Pic here.**

Cut vinyl tubing.  
Figure 17



Attach w/hose clamp to pump intake.  
Figure 18



4. Using other clamp #1150-08, attach other end of  $\frac{3}{4}$ " vinyl tubing to outlet side of circulation pump (See figure 19). Avoid kinking tubing & make sure to tighten clamp securely. See figure 20 for completed installation. **Add Pic here.**

Connect vinyl tube to outlet w/hose clamp.  
Figure 19



Completed pump connections.  
Figure 20



## **7. Ozone Hose Connection**

To install the ClearZone Ozone Generator tubing, complete the following:

1. In the lower right side of the equipment compartment, locate the piece of blue 3/8" tubing with a white PVC fitting and a black plastic plug (See figures 21 & 22).
2. Unscrew the black plug and thread the provided 1/4" barb into the fitting using Teflon tape to seal the connection (See Figure 22). Slide the end of the clear tubing from ozone generator onto the 1/4" barb fitting (See figure 23).

Locate blue ozone tubing.  
Figure 21



Remove plug & install barb fitting.  
Figure 22



Install clear tubing on barb fitting.  
Figure 23



Completed ozone assembly.  
Figure 24





3. Verify that the plug for the ClearZone Ozone Generator is plugged into receptacle on the left side of the spa control pack.
4. make sure that outlet tube is correctly connected to ozone generator(See figures 25 & 26)

Connect ozone tube to CD unit.  
Figure 25



Completed Ozone connections.  
Figure 26



## **8. Start-up Procedure**

Once all the above steps have been completed the spa is ready to restart.

1. First refill spa, if necessary, and add any needed chemicals to the water.
2. Verify that all new water connections are not leaking.
3. Verify that all new components are plugged into spa pack.
4. Turn the main spa circuit breaker ON.
5. The circ pump should now be operating and the CD ozone generator should be illuminated.

## **9. Finishing**

After verifying all water connections are leak free, and ozone and circulation pump are working, secure the equipment access panel to the spa.

## **ClearZone Operation for @ Home Spas**

**Note:** The CZWMS circulation pump will not act as a call for heat pump.

The ClearZone Water Management System provides 24hr filtration, circulation and ozonation. The circulation pump will run continuously until water temperature reaches 2 degrees above set point. When the jet button or light button is pushed, the ozone generator will turn off. When the jets are in high, the circulation pump will also turn off. The circulation pump will turn back on when the jet pump is turned off or turned to the low speed. The ozone generator will restart 30 minutes after the last button is pushed.