



OWNER'S MANUAL

ENGLISH | FRANÇAIS | ESPAÑOL



Jandy Pro Series Nicheless LED Lighted Bubbler

1 WARNING

FOR YOUR SAFETY - This product must be installed and serviced by a contractor who is licensed and qualified in pool equipment by the jurisdiction in which the product will be installed where such state or local requirements exist. The maintainer must be a professional with sufficient experience in pool equipment installation and maintenance so that all of the instructions in this manual can be followed exactly. Before installing this product, read and follow all warning notices and instructions that accompany this product. Failure to follow warning notices and instructions may result in property damage, personal injury, or death. Improper installation and/or operation will void the warranty.



Improper installation and/or operation can create unwanted electrical hazard which can cause serious injury, property damage, or death.

ATTENTION INSTALLER - This manual contains important information about the installation, operation and safe use of this product. This information should be given to the owner/operator of this equipment.

Table of Contents

Contents

- Section 1. Important Safety Instructions 3**
- Section 2. Installing the Jandy® Pro Series Nicheless LED Lighted Bubblers ... 4**
 - 2.1 Installation Preparations..... 4
 - 2.2 Installing the LED Lighted Bubblers Housing 6
 - 2.3 Test Plug Removal 8
 - 2.4 LED Light Installation 8
- Section 3. Wiring Options for Controlling Jandy Pro Series Nicheless LED Lights 8**
 - 3.1 Wiring to an AquaLink® RS Control System 9
 - 3.2 Wire Gauge and Length 9
 - 3.3 Wiring to a Switch..... 10
 - 3.4 Twelve (12) Volt Installation..... 11
- Section 4. Jandy Pro Series Nicheless Underwater LED Light Operating Instructions 12**
 - 4.1 Light Synchronization 12
 - 4.2 Operating the Light..... 12
- Section 5. Designer Lens Series Options.... 12**
- Section 6. Light Cartridge Replacement..... 13**
- Section 7. Winterizing..... 14**
- Section 8. Troubleshooting..... 15**

Section 1. Important Safety Instructions

IMPORTANT SAFETY INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS READ AND FOLLOW ALL INSTRUCTIONS

When installing and using this electrical equipment, basic safety precautions should always be followed, including the following:

DANGER

RISK OF ELECTRICAL SHOCK OR ELECTROCUTION. This underwater light must be installed by a licensed or certified electrician in accordance with the National Electrical Code® and applicable local codes and ordinances. In Canada, the Canadian Electrical Code and all applicable local codes and ordinances must be adhered to. Improper installation will create an electrical hazard, which could result in death or serious injury to pool or spa users, installers, or others due to electrical shock, and may also cause damage to property. Read and follow the specific instructions below.

WARNING

Before installing this underwater lighted bubbler, read and follow all warning notices and instructions accompanying this light. Failure to follow safety warnings and instructions can result in severe injury, death, or property damage.

Visit www.zodiacpoolsystems.com for additional free copies of these instructions or call Zodiac Technical Support at 800.822.7933 (U.S.) or 888.647.4004 (Canada)

WARNING

RISK OF ELECTRICAL SHOCK OR ELECTROCUTION, which could result in serious injury or death. The Jandy® Pro Series Nicheless LED Lights are only available for 12-volt AC power. For supply connection, use only an isolating low voltage power supply with ungrounded output, evaluated and listed by a NRTL for swimming pool use.



ATTENTION INSTALLER

This manual contains important information about the installation, operation and safe use of this product. This information should be given to the owner/operator of this equipment.

SAVE THESE INSTRUCTIONS

Section 2. Installing the Jandy® Pro Series Nicheless LED Lighted Bubblers

WARNING

Risk of Electrical Shock or Electrocutation. This underwater light must be installed by a licensed or certified electrician or a qualified pool serviceman in accordance with the National Electrical Code® (Canadian Electrical Code, in Canada) and all applicable local codes and ordinances. Improper installation will create an electrical hazard, which could result in death or serious injury to pool or spa users, installers or others due to electrical shock, and may also cause damage to property.

Always disconnect the power to the light at the circuit breaker before installing or servicing the light. Failure to do so could result in death or serious injury to serviceman, pool or spa users or others due to electrical shock.

The Jandy Pro Series Nicheless LED Lighted Bubblers Kit, either in White Light or Color is a very simple device to provide lighted water for small fountains and sun shelf areas. The Bubbler Housing is preassembled for easy connection to a water supply line (1) and a conduit connection for the LED light cord to run through. The 18-2 cord is permanently connected to the Light through a water tight cord connector.

NOTE: Be sure to read the entire Owner's Manual completely and carefully to assure you understand the system before you start your installation.

2.1 Installation Preparations

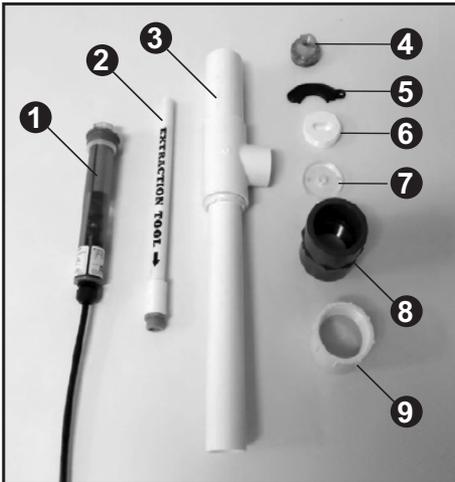
The conduit for the low voltage supply cord (12Vac) can be run directly to a Junction Box where Light(s) connections and Low Voltage wires from the Transformer (sized correctly) are made. To reduce the risk of bad connections and unwanted voltage drops, all Power Cords on lights should run directly to the Low Voltage Transformer.

The LED Bubbler LED lights are field serviceable. Should an unforeseen failure occur, the light's cartridge can be removed and replaced. There is no need to pull and return the complete LED light fixture. **The LED Bubbler is designed so that the lens of the tube is approximately 4"- 8" underwater, but can be deeper as long as the water supply can be increased.**

Keep in mind that the deeper the lens is underwater the less lighting effect will be above the water. Water flow should be adjusted to the desired flume while LED light is set to the desired color mode. Use the table below to determine the approximate flume height.

Water Depth	2"	4"	6"	8"
15 GPM	X	26"	16"	11"
20 GPM	X	30"	22"	17"
25 GPM	X	X	X	X
30 GPM	X	X	X	X

X = Though the height of the flume can be substantially higher, the light output has to be viewed as to verify if the lighting effect is acceptable to the end user



1 - Jandy® Pro Series Nicheless LED Light

2 - Light Extraction Tool

3 - LED Bubbler Housing

4 - Test Plug

5 - Lens Tool

6 - 2" Plug

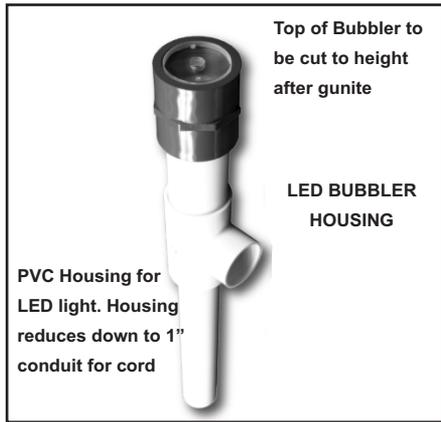
7 - Lens

8 - 2" Grey FTP (female threaded pipe)

9 - 2" White FTP (female threaded pipe)

The LED Bubbler comes with a top flange that is threaded. These threads are for the utilization of the enclosed Threaded Test Plug used for pressure testing assembly for field inspections. **DO NOT** throw away the 2" Plug - Save it for use for winterization. These threads are also to be used, once plug is undone, to allow our Bubbler lens to be threaded in place.

Inside the LED Bubbler housing - a pressure test plug has already been installed. Do not remove this until bubbler housing is ready to have the light installed.



Once the housing is installed and the pool pressure tests have been done, you can remove the Pressure Test Plug. This will need to be removed before you install the LED light.

2.2 Installing the LED Lighted Bubbler Housing

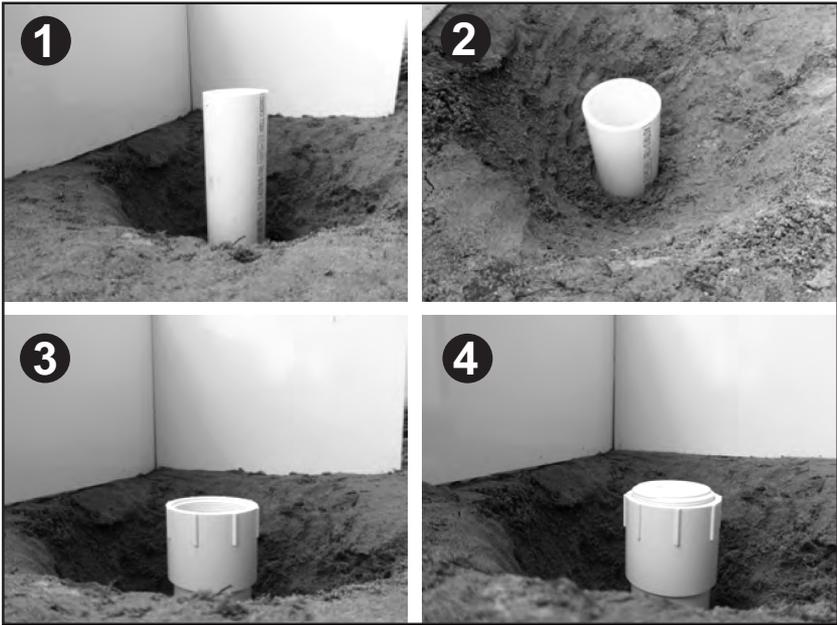
1. The LED Lighted Bubbler is designed to be installed during the gunite phase of pool building.
2. Two conduits should be run to the Bubbler, though the bubbler “T” is a standard 2” PVC fitting - PVC adapter fittings should be used to reduce down to the following sizes:
 - a. 1.5” PVC Pipe for water supply and
 - b. 1” conduit for Pool Light Fixture Power Cord.

NOTE: Do NOT use 90 degree fittings. Only 45 degree or sweep elbows are to be used.

3. The 1.5” PVC pipe supplying the water to the Bubbler should have a gate valve or ball valve installed to adjust the water supply flow to create desired water/lighting flume.
4. The conduit for the LED Bubbler power cord should be installed such that it runs from the bubbler directly to the 12 VAC UL Listed transformer.

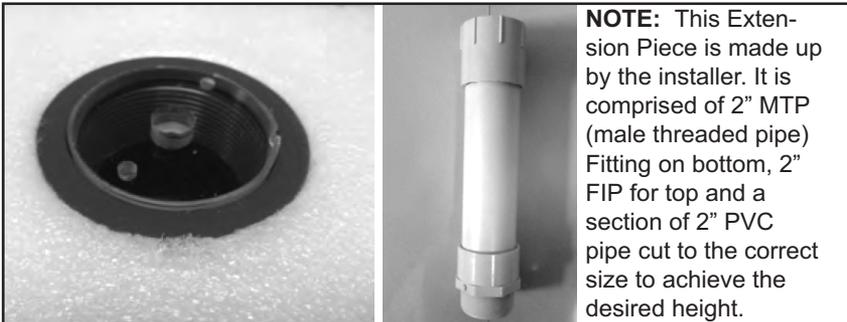
NOTE: A Pressure Test Plug is pre-installed into the LED Bubbler housing. Do not remove this until the pool pressure tests have been completed and you are ready to install the LED light.

Important: After gunite you need to “cove” around the 2 “ PVC top part of the LED Bubbler. This is so that the 2” PVC can be cut to the proper length to ensure that the Bubbler top will be flush with the interior surface.



1. Dig a cove around the top of the LED Bubbler housing.
2. Trim the top of the housing to be flush with the interior surface.
3. There is a GREY and a WHITE 2" FTP (female threaded pipe) fitting included so that either can be used to match your surface color. Glue on your choice of FTP.
4. Install the 2" Plug into the FTP before plastering. This will ensure that the FTP threads remain clean and that no debris falls into the LED Bubbler Housing.
5. Backfill the "cove" area around the LED Bubbler pipe and FTP.
6. After plastering - remove 2" plug and install the LED light included.

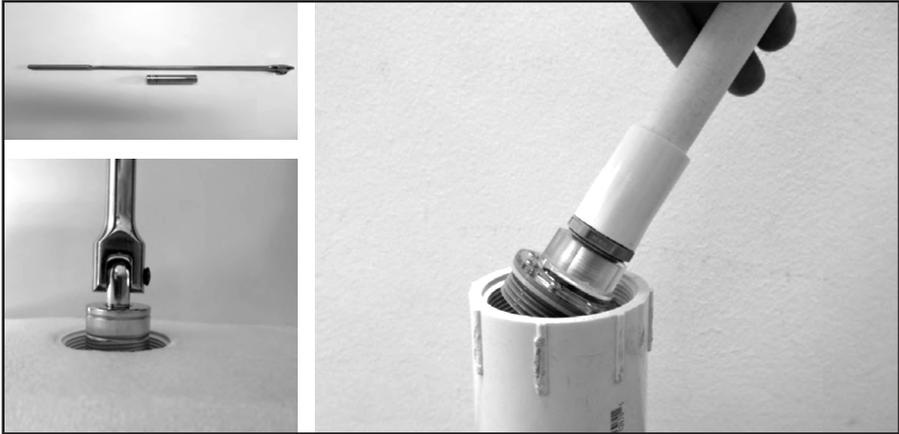
The Bubbler may be installed flush to the interior surface or Raised above the water surface as shown below.



NOTE: This Extension Piece is made up by the installer. It is comprised of 2" MTP (male threaded pipe) Fitting on bottom, 2" FIP for top and a section of 2" PVC pipe cut to the correct size to achieve the desired height.

2.3 Test Plug Removal

Using a 1 1/8" socket wrench, loosen the Test Plug from the internal threads. Remove the socket wrench and thread the Extraction Tool into the threads on the Test Plug. Then remove the Test Plug from the LED Bubbler Housing.



2.4 LED Light Installation

A Jandy® Pro Series Nicheless LED Light is included in the LED Lighted Bubbler kit. Once the pressure tests have been completed and the Test Plug has been removed, you are ready to install the Jandy Pro Series LED light into the Bubbler housing.

1. Feed the power cable through the housing and conduit to the power source. Allow 18"-24" slack for service loop.
2. Using a 1 1/8" socket wrench, place the LED Light into the Bubbler and tighten into the threaded housing.
3. Thread the lens into place by using the provided lens tool.

Section 3. Wiring Options for Controlling Jandy Pro Series Nicheless LED Lights

NOTE: Always consider the cable length when calculating the input voltage at the transformer. The maximum run of service between transformer and lights should not exceed 150ft. in length, inclusive of the use of J Box or not.

To the extent allowed by local installation codes in effect in the installation jurisdiction and capacity of the electrical equipment, multiple Jandy Pro Series lights may be controlled with a single switch and transformer so their colors may be synchronized.

IMPORTANT NOTE: All fixtures must be tied into the same transformer, circuit or switch for synchronization to occur. The use of Solid Core over Stranded wire and terminating Bus Bars is strongly recommended.

3.1 Wiring to an AquaLink® Controller

The Jandy Pro Series Nicheless LED Lights can be controlled by an AquaLink® controller. Connect the transformer powering the lights to one of the auxiliary relays in the AquaLink.

Refer to Figure 4 to connect the Jandy Pro Series Nicheless LED Lights to the Power Center.

3.2 Wire Gauge and Length

CAUTION

Jandy® Pro Series Nicheless Underwater LED Lights are low voltage fixtures. Improper wire gauge and wire length can effect the performance of these products. Follow the guidelines below to determine the proper operation and optimum performance of the lights.

Voltages are determined by the measured voltage level at the Bus Bar where the transformer and cords are connected.

NOTE: Each color mode has a slightly different power draw

JLU4C9W/JLUW9W/JLU4C20W/JLUW20W Min/Max Voltage per cord length		
Cord Length	Min. Voltage	Max. Voltage
50 Feet	9.4VAC	12.4VAC
100 Feet	10.7VAC	13.2VAC
150 Feet	11.8VAC	13.8VAC

JLU4C30W & JLUW30W Min/Max Voltage per cord length		
Cord Length	Min. Voltage	Max. Voltage
50 Feet	10.3VAC	12.5VAC
100 Feet	10.9VAC	13.5VAC
150 Feet	11.4VAC	14.1VAC



WARNING

RISK OF ELECTRICAL SHOCK OR ELECTROCUTION, which could result in serious injury or death. A Ground Fault Circuit Interrupter (GFCI) must be provided for 120 Volt transformers. The conductors on the load side of the GFCI circuit shall not occupy conduit, boxes, or enclosures containing other conductors unless the additional conductors are also protected by a GFCI. Refer to local codes for complete details.



WARNING

RISK OF ELECTRICAL SHOCK OR ELECTROCUTION, which could result in serious injury or death. The Jandy Pro Series Nicheless LED Lights are only available for 12-volt AC power. For supply connection, use only an isolating low voltage power supply with ungrounded output, evaluated and listed by a NRTL for swimming pool use.

3.3 Wiring to a Switch

The Jandy® Pro Series Nicheless LED Lights can be wired to a switch to manually operate the lights. Refer to Figure 4 to connect the lights into the switch.

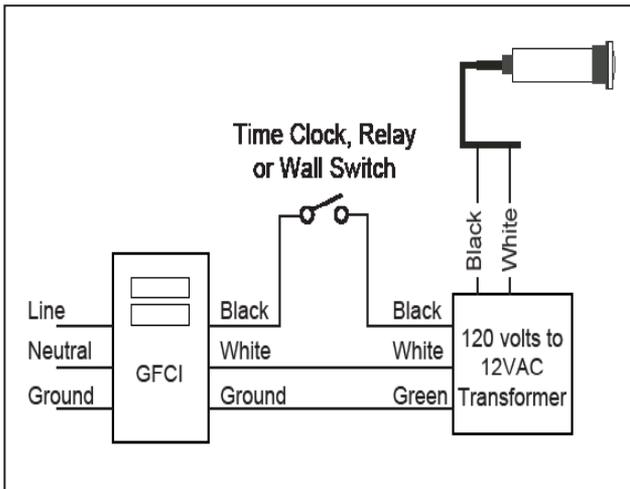


Figure 4. Wiring Jandy Pro Series Nicheless Underwater Lights

Section 4. Jandy® Pro Series Nicheless Underwater LED Light Operating Instructions

4.1 Light Synchronization

NOTE This section only applies to the color (RGBW) lights. All fixtures must be tied into the same transformer, circuit or switch for synchronization to occur.

1. Turn the light **ON**. If the light has been off for 7 seconds or longer, the light will turn on at the last color selected.
2. To synchronize multiple lights to the same color mode, you will need to reset to the beginning of the color mode sequence. With the lights **ON**, turn them **OFF** for five (5) seconds, then turn **ON** again. All of the lights will reset to the Alpine White color mode. If all of the lights are not in the Alpine White color mode, they have not been synchronized, repeat step 2.

4.2 Operating the Light

3. To change the color mode, turn the light **OFF** for one 1-3 seconds. Continue turning **OFF** and **ON** until the desired light color mode is reached. See Table 1 for the color mode sequence.

Example: If you followed step 3 and are now on Sky Blue and want the lights to be Violet, then the lights must be turned off and on 7 seven times to bring you to Violet.

Sequence Order	Color Modes
1	Alpine White
2	Sky Blue
3	Cobalt Blue
4	Caribbean Blue
5	Spring Green
6	Emerald Green
7	Emerald Rose
8	Magenta
9	Violet
10	Slow Color Splash
11	Fast Color Splash
12	America the Beautiful
13	Fat Tuesday
14	Disco Tech

Table 1. Color Mode Sequence

4. The lights have memory. If the lights are off for 7 seconds or more, the next time the lights are turned on, they will return to the last color mode they were on prior to being turned off (Step 1 listed above). This function allows you to keep your lights returning to your favorite color mode every time the lights are turned back on.

NOTE To synchronize colors on multiple Jandy® Pro Series Nicheless Underwater LED Light systems wired to separate switches, perform the above actions on all of their switches simultaneously. All Jandy Pro Series Nicheless Underwater LED Lights will synchronize automatically if activated by the same switch. No other accessories are required.

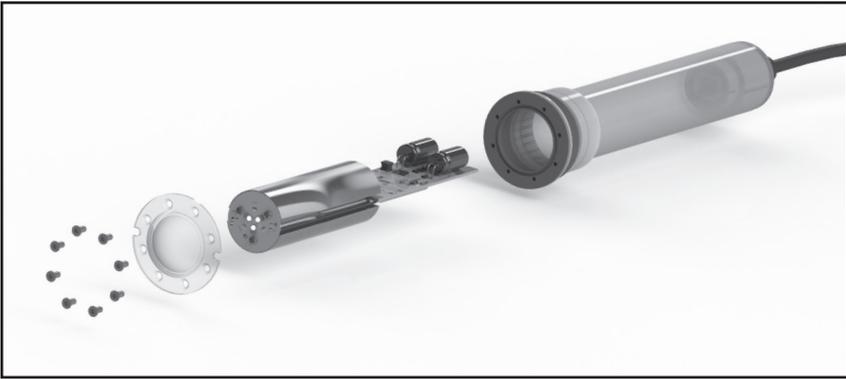
Section 6. Light Cartridge Replacement

WARNING

RISK OF ELECTRICAL SHOCK OR ELECTROCUTION, which could result in serious injury or death. The Jandy Pro Series Nicheless LED Lights are only available for 12-volt AC power. For supply connection, use only an isolating low voltage power supply with ungrounded output, evaluated and listed by a NRTL for swimming pool use.

Always disconnect the power to the light at the circuit breaker before installing or servicing the light. Failure to do so could result in death or serious injury to serviceman, pool or spa users or others due to electrical shock.

1. Verify that the light has been disconnected from the power source and be sure that the light fixture is in a dry environment. Remove the eight (8) screws from the lens with the tool provided. Pull the lens from the fixture body. Remove and discard the O-ring between the Lens and Fixture Body.
2. Using the tool provided, insert and turn the threaded portion into the extraction hole in the face of the light cartridge. Pull the light cartridge from the housing body.
3. Insert the replacement cartridge into the housing body. Line up the TAB at the end of the circuit board with the receiving slot inside the housing body. It may be necessary to slowly turn the light cartridge until the TAB lines up with the slot.



4. Clean the lens and the enclosure of any remaining old silicone before applying new silicone and replacing the lens. Replace the O-ring with the new one provided. Attach the lens onto the fixture body. Tightly secure the eight (8) screws indicated in the diagram below. Once all screws are tight, slowly submerge in water, checking for any air bubbles - quickly remove from water if bubbles appear, as it indicates the seal is not water tight. Retighten the screws and test for bubbles again.



SILICONE BEAD ON LENS
Apply a new silicone bead to the lens with tube provided after cleaning the lens and body of old silicone.



SCREW TIGHTENING DIAGRAM

5. Reset the fixture into the Bubbler Housing and turn the power ON.

Section 7. Winterizing

The water level should be lowered to approximately 12 inches below the pool lights. Make certain that the water is drained out of the wall housing. Consult a Local Swimming Pool Professional for proper winterization. Minimum safeguard requires dropping the water level 2"-4" below the light. At NO TIME should there be water removed from the pool without checking ground water tables.

Section 8. Troubleshooting

Use the troubleshooting information in the following table for suggestions.

Symptom	Problem	Corrective Action
All lights fail to illuminate	Lights are not receiving power	Check 120VAC power supply into transformer. Check for 12VAC output at transformer. Check or reset GFCI. Make sure 120 volts has not been used in the installation - damage is assured and is NON WARRANTY.
One or more lights are dim, blinking or not working	Poor connection or improper wire gauge	Separate each light and independently wire 12V to the single light only. Repeat this process on each light. If junction box is being used, check for proper connection of light cord. Verify that the correct wire gauge is being used between the transformer and junction box.
Colored lights out of synch	Improper voltage supply or poor connection to the light	Verify that proper wire connections are being achieved for the lights that are out of synch. Reset all the lights to white by turning lights OFF for five (5) seconds, then turning ON.

Jandy® Pro Series Nicheless Underwater LED Lights are field servicable and the cord and light body fixture should not be removed completely from the conduit or pool. There should be enough cord supplied in the service loop to remove light from wall fitting and lifted above water level for LED light cartridge replacement. If there is not enough cord in service loop or it cannot be accessed, pool water can be drained below light to access front of light.

Zodiac Pool Systems, Inc.

2620 Commerce Way, Vista, CA 92081
1.800.822.7933 | www.ZodiacPoolSystems.com

Zodiac Pool Systems Canada, Inc.

2115 South Service Road West, Unit 3 Oakville,
ON L6L 5W2
1.888.647.4004 | www.ZodiacPoolSystems.ca



ETL LISTED
CONFORMS TO
UL STD 676

CERTIFIED TO
CAN/CSA C22.2 NO.89

ZODIAC® is a registered trademark of Zodiac International, S.A.S.U., used under license. All trademarks referenced herein are the property of their respective owners.

©2015 Zodiac Pool Systems, Inc. H0533600 REV A