



# INSTALLATION AND USERS GUIDE

**SAVI LED BUBBLER COLOR** Part#: BUB-XMEL100  
&  
**SAVI LED BUBBLER WHITE** Part#: BUB-XMB100

## IMPORTANT WARNING & SAFETY INSTRUCTIONS

**DANGER** - SERIOUS BODILY INJURY OR DEATH CAN RESULT IF THESE LIGHTS ARE NOT INSTALLED AND USED CORRECTLY

**DANGER** - INSTALLERS, POOL OPERATORS AND POOL OWNERS MUST READ THESE WARNINGS AND ALL INSTRUCTIONS BEFORE USING THESE LIGHTS

**WARNING** - Before installing this product, read and follow all warning notices and instructions in this Guide. Failure to follow warnings and instructions can result in severe injury, death or property damage. For more information contact company at numbers contained within Guide.

**WARNING** - These underwater swimming pool lights MUST BE installed by a licensed or certified electrician or a qualified pool professional in accordance with the National Electric Code (NEC) or the Canadian Electric Code (CEC), CSA C22.1. All applicable local installation codes and ordinances must also be adhered to. Improper installation will create an electrical hazard which could result in death or serious injury to pool users, installers or others due to electrical shock.

**ALWAYS DISCONNECT THE POWER TO THE POOL LIGHT(S) BEFORE SERVICING.**

**IMPORTANT NOTICE - ATTENTION INSTALLER:** This Installation and Users Guide contains important information about the installation, operation and safe use of this swimming pool/spa light. This Guide should be given to the owner and/or operator of this equipment.

**READ AND FOLLOW ALL INSTRUCTIONS**  
**SAVE THESE INSTRUCTIONS**



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5,617,496 5,617,497 5,789,471  
5,528,714 5,33,228 6,200,012  
6,48,952 6,422,730 6,367,100  
6,398,397 6,393,192 6,375,342  
7,204,602 7,229,027

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**Color or White LED Lighted Bubbler Kit**  
**GUNITE POOL SAVI-BUBBLER-KIT**

(1 LED Nichless Pool Light & Bubbler)

**SAVE THESE**  
**INSTRUCTIONS!**

The SAVI LED Bubbler Kit, either in White Light or Color is a very simple device to provide lighted water for small fountains and sun shelf areas. The SAVI 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. The Kit comes standard with 100ft of cord with an optional 150ft model available.

**IMPORTANT:**

**Be sure to Read the entire Installation and Operating Instructions completely and carefully to assure you understand the system before you start your Installation!**

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. SAVI recommends, to reduce the risk of bad connections and unwanted voltage drops, all Power Cords on lights run directly to the Low Voltage Transformer.

The SAVI 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. See instructions regarding Service.

**The SAVI-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 adjust to desired flume while LED Light is set at the wanted color setting or show.

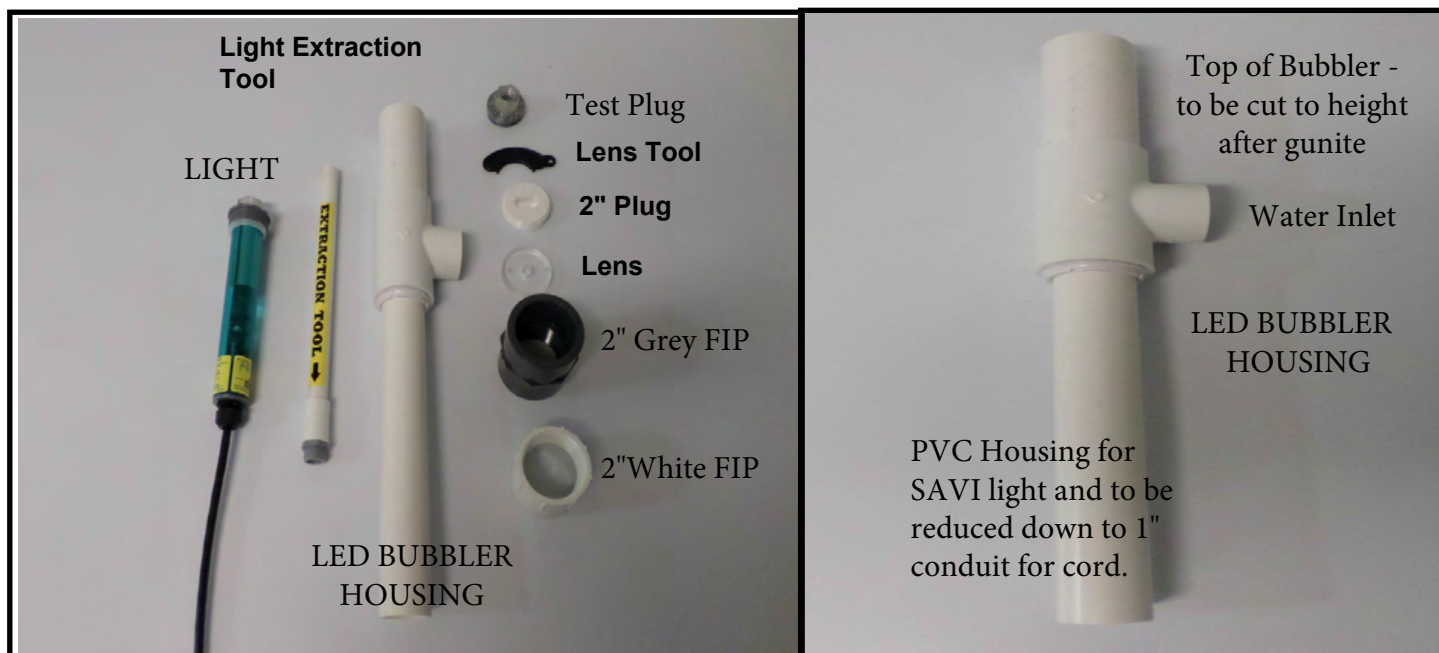
Water Depth 2" 4" 6" 8"				
GPM	2"	4"	6"	8"
15	X	26"	16"	11"
20	X	30"	22"	17"
25	X	X	X	X
30	X	X	X	X

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

Input Power: 12V AC  
 Blanco: 10 Watts  
 Melody: 14 Watts



1. The SaVi-Bubbler is designed to be installed during the Guniting phase of the 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 - NO 90 Deg fittings are to be used - Only 45 deg. 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 SAVI LED Bubbler power cord should be installed such that it runs from the bubbler directly to the 12VAC UL Listed transformer



The SAVI LED Bubbler comes with a top flange that is threaded. These threads are for the utilization of the enclosed Threaded 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 - SAVI HAS A PRESSURE TEST PLUG ALREADY INSTALLED. DO NOT REMOVE THIS UNTIL BUBBLER HOUSING IS READY TO HAVE OUR SAVI LIGHT INSTALLED.

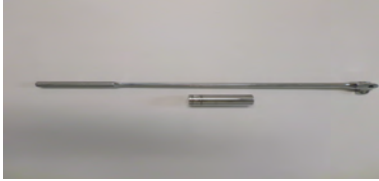


Pre-installed Pressure Test Plug within LED Bubbler Housing

To remove SAVI's pre-installed TEST Plug. Follow the directions in Manual for Light Removal. This will require an 1 1/8" Socket, Socket wrench, and the use of the enclosed Extraction Tool.

Using the socket and wrench - loosen Test Plug from internal threads. Remove socket and thread the Extraction Tool into the threads on the Test Plug. Then remove Test Plug from SAVI LED Bubbler Housing.

You are now ready to install one of our SAVI Lights into the Bubbler Housing.



**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**



SAVI has include both a GREY and WHITE 2" FIP fitting so that either can be used to best match your pools interior.

After trimming the 2" PVC Bubbler top - glue on your choice of FIP



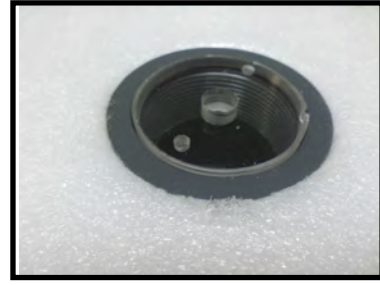
Install the 2" Plug into the FIP BEFORE PLASTERING. This will ensure that the FIP threads remain clean and that no debris falls into the LED Bubbler Housing.

Backfill the "cove" area around the LED Bubbler pipe and FIP.



After plastering - remove 2" plug and install the SAVI LED Light included in the LED Bubbler Kit.

The SaVi-Bubbler may be installed in many different methods of application, such as -Flush with Interior Surface



Raised above the water surface – typically fountains.



**NOTE:**

This **Extension Piece** is made up by installer. It is comprised of: 2" MIP Fitting on bottom, 2" FIP for top and a section of 2" PVC pipe cut to the correct size to achieve the desired height that is required.

READ AND FOLLOW ALL INSTRUCTIONS CAREFULLY

**⚠ CAUTION! SAFETY PRECAUTIONS**

SAVI Lights are a low voltage light and should NEVER be electrically connected to a power source other than an approved pool "Safety Rated" UL Listed outdoor rated Class 3, 12VAC Transformer. Failure to comply will either damage or destroy SAVI Lights and VOID the Warranty.



**TURN OFF MAIN POWER TO LIGHT BEFORE INSTALLATION /SERVICE**

**NOTE: No separate ground or bonding wire is required for SAVI LED low voltage lights**

Snake the 2-conductor electric cord through the conduit outlet of the wall fitting, into the conduit and up to the location of the 12VAC pool transformer. Cut off excess cord after allowing for service and length of run to the transformer. Pull the fixture snug to the wall fitting. 18"-24" of excess cord recommended as service loop.

NOTE: Make sure all protective coverings have been removed.

An example of an approved pool transformer is the Intermatic model PX-100 or PX-300. Refer to WIRE GAUGE AND WIRE LENGTH guide for proper wire gauge size in reference to the use of Junction Boxes installations. NOTE: SAVI Lights can be used with any UL Listed outdoor rated Class 3, 12VAC transformer provided the wattage and amperage is not exceeded by the total wattage and amperage in use.

After connecting SAVI-Pool Light Power Cord to the Transformer (12Vac), turn on the water supply.

Adjust the water volume to achieve the desired water flume/lighting effect.

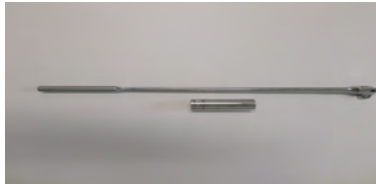
## INSTALLATION/SERVICING OF LED LIGHTED BUBBLER

If servicing of the LED light is required, the following steps should be followed:

**Remove Lens**



**Using a 1 1/8" Socket w/Extension position socket over Hex Head Lens**

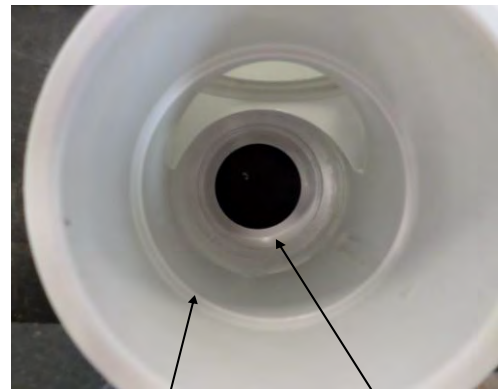


**Loosen or Tightening  
Light from its base**

The Lens for the Bubbler Light is specially molded to fit a 1-1/8" Socket to tighten or loosen the Bubbler Light for assisting in easy Installation or Extraction from the threaded Bubbler Light Housing.



1 1/8" Hex Head - Inside Threads



Seat for LED Light Gasket    Threads

**Once Loosened - Use Extraction tool to thread into light lens and remove from bubbler assembly**



**Proceed to LIGHT CARTRIDGE REPLACEMENT INSTRUCTIONS**

**UPON COMPLETION OF CARTRIDGE REPLACEMENT - REINSTALL BY REVERSING DIRECTIONS FOR REMOVAL**

# LIGHT CARTRIDGE REPLACEMENT

**LED LIGHT FIXTURES SHOULD NEVER BE ELECTRICALLY CONNECTED TO A POWER SOURCE OTHER THAN AN APPROVED POOL "SAFETY" UL LISTED OUTDOOR RATED CLASS 3, 12VAC TRANS-FORMER. THE SAVI NOTE SHOULD ONLY BE CONNECTED TO THE SAVI M4 CONTROLLER. FAILURE TO COMPLY WILL EITHER DAMAGE OR DESTROY THE LIGHT FIXTURE AND VOID THE WARRANTY.**

**! TURN OFF MAIN POWER TO LIGHT BEFORE INSTALLATION**

## STEP 1

TURN OFF MAIN POWER TO LIGHT BEFORE REPLACING LIGHT CARTRIDGE. Be sure the light fixture is in a dry environment. Remove the (8) eight 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.

## STEP 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.

## STEP 3

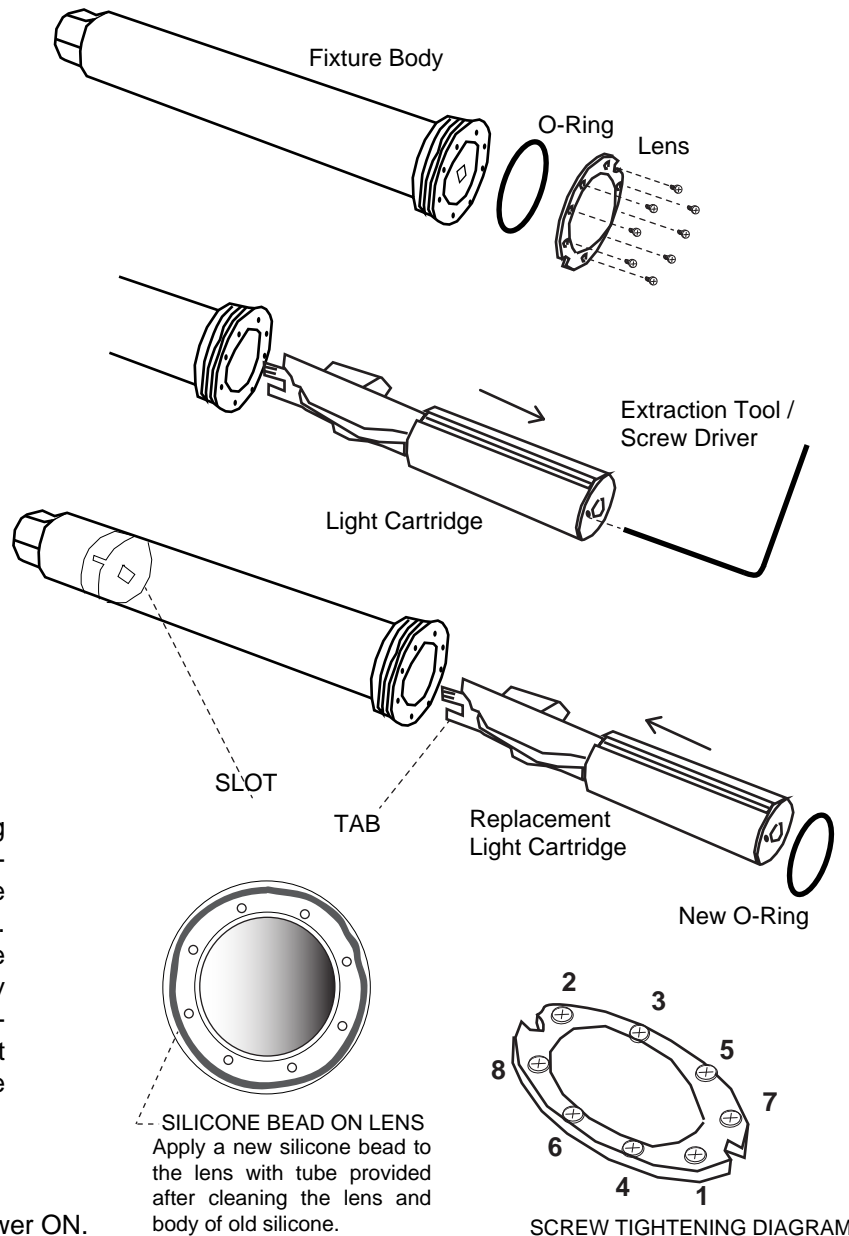
Insert the replacement cartridge into the housing body. Line up the TAB at the end of the circuit board with the receiving slot inside the housing body. It may be necessary to slowly turn the Light Cartridge until the TAB lines up with the SLOT.

## STEP 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 to the right. Once all screws are tight, slowly submerge in water, checking for any air bubbles - quickly remove from water bubbles appear as it indicates the seal is not water tight. Retighten the screws and test for bubbles again.

## STEP 5

Reset the fixture into the wall fitting and turn the power ON.



REPLACEMENT LIGHT CARTRIDGE KIT PART NUMBERS

**BLANCO-CARTRIDGE-KIT  
MELCARTRIDGE-KIT**

# SAVI LED LIGHTING PRODUCTS

## BASIC TROUBLESHOOTING GUIDE - FOR ADDITIONAL INFORMATION CONTACT TECHNICAL SERVICES AT TELEPHONE NUMBERS LISTED BELOW

**ALL LIGHTS FAIL TO ILLUMINATE** - Check 120V power supply into transformer - Check for 12V output at transformer - check or reset GFCI. Make sure 120 volts has not been used in the installation of these lights - damage is assured and is NON WARRANTY.

**ONE OR MORE LIGHTS DIM** - This is generally caused by a poor connection or improper wire gauge. To determine if light or lights has fault - separate each light from all other lights and independently wire 12V to this light only. Repeat process on each light. If junction box is used - recheck for proper connection of light cord. **AGAIN IF A JUNCTION BOX IS BEING USED - VERIFY THAT THE CORRECT WIRE GAUGE IS BEING USED BETWEEN TRANSFORMER AND JUNCTION BOX. EVEN THOUGH OTHER LIGHTS MIGHT WORK CORRECTLY - IMPROPER WIRE GAUGE SIZE COULD ALLOW 1 OR MORE LIGHTS TO WORK IMPROPERLY.** Measure and verify that proper low voltage is being supplied to lights - see **WIRE GAUGE & WIRE LENGTH GUIDE CHART.**

**BLINKING, FLASHING, NON WORKING LIGHTS** - This is generally caused by a poor connection or improper wire gauge. To determine if light or lights has fault - separate light from all other lights and independently wire 12V to this light only. Repeat process on each light. If junction box is used - recheck for proper connection of light cord. **AGAIN IF A JUNCTION BOX IS BEING USED - VERIFY THAT THE CORRECT WIRE GAUGE IS BEING USED BETWEEN TRANSFORMER AND JUNCTION BOX. EVEN THOUGH OTHER LIGHTS MIGHT WORK CORRECTLY - IMPROPER WIRE GAUGE SIZE COULD ALLOW 1 OR MORE LIGHTS TO WORK IMPROPERLY.** Measure and verify that proper low voltage is being supplied to lights - see **WIRE GAUGE & WIRE LENGTH GUIDE CHART. MOST IMPORTANTLY SEE CHART FOR MIN/MAX VOLTAGE & CORD LENGTH CHART.**

**COLORED LIGHTS OUT OF SYNCH** - Follow Synchronization Instructions in this Guide. Be very patient and read instruction carefully. If lights fail to synchronize - verify that proper wire connections are being achieved for those lights that are out of step with others. Generally a lights failure to sync with the rest is: improper voltage supply or poor connection to light.

**NOTE:** In most situations problems come down to 4 main faults: improper voltage supply, improper wiring gauge, improper/poor wiring connections or the light itself.

**SAVI 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.**

**DO NOT PULL LIGHT AND CORD ENTIRELY FROM CONDUIT UNLESS INSTRUCTED BY COMPANY.**  
**SAVI POOL AND SPA WILL NOT ACCEPT ENTIRE LIGHTS BEING RETURNED FOR SERVICE UNLESS INSTRUCTED BY COMPANIES TECHNICAL SERVICES DEPARTMENT**  
**ONLY LED LIGHT CARTRIDGES SHOULD BE REPLACED OR EXCHANGED WITH THE 2013/14 PRODUCT**

Refer to the Light Cartridge Replacement Instructions included in this Guide for light replacement.

**WARNING:** All servicing of Savi LED Lights should be done by a licensed or certified electrician or a qualified pool professional in accordance with the National Electric Code (NEC) or Canadian Electric Code (CEC)

For additional troubleshooting assistance or installation advice please contact Technical Services at telephone number below.



9400 SOUTHRIDGE PARK COURT, SUITE 200, ORLANDO, FL 32819 USA  
TEL: 407.855.5630 FAX: 407.210.8679



**Minimum and Maximum Cord Lengths Per Voltage Input**

**Voltages** are determined by the measured Voltage level @ the Bus Bar where the Transformer and Cords are connected while on White

**MELODY (Color) BLANCO (White) MIN/MAX VOLTAGE CORD LENGTH**

CORD LENGTH	Min. Voltage	Max. Voltage
15 Feet	7.8Vac	12.0Vac
30 Feet	8.6Vac	12.2Vac
50 Feet	9.4Vac	12.4Vac
100 Feet	10.7Vac	13.2Vac
150 Feet	11.82V	13.8Vac

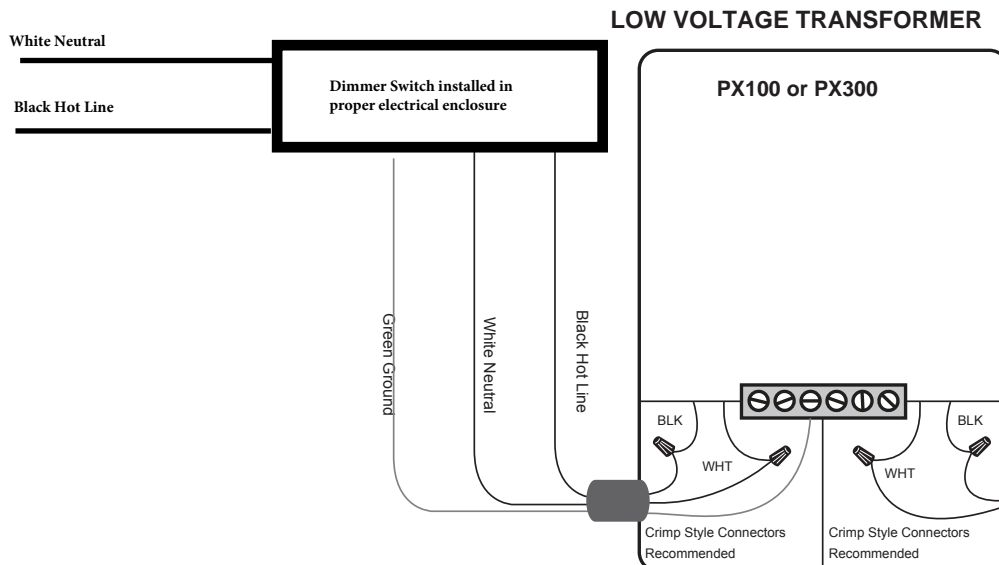
SAVI provides these guidelines as a reference for proper operation. Failure to adhere specifications could result in improper operation or synchronization of lights.

**ALL VOLTAGE READINGS ARE TAKEN WHILE LIGHTS ARE ALL SET TO WHITE**

As these Charts address the Minimum - please remember that at no time should the MAXIMUM distance with or without J Box extend past 150 ft.

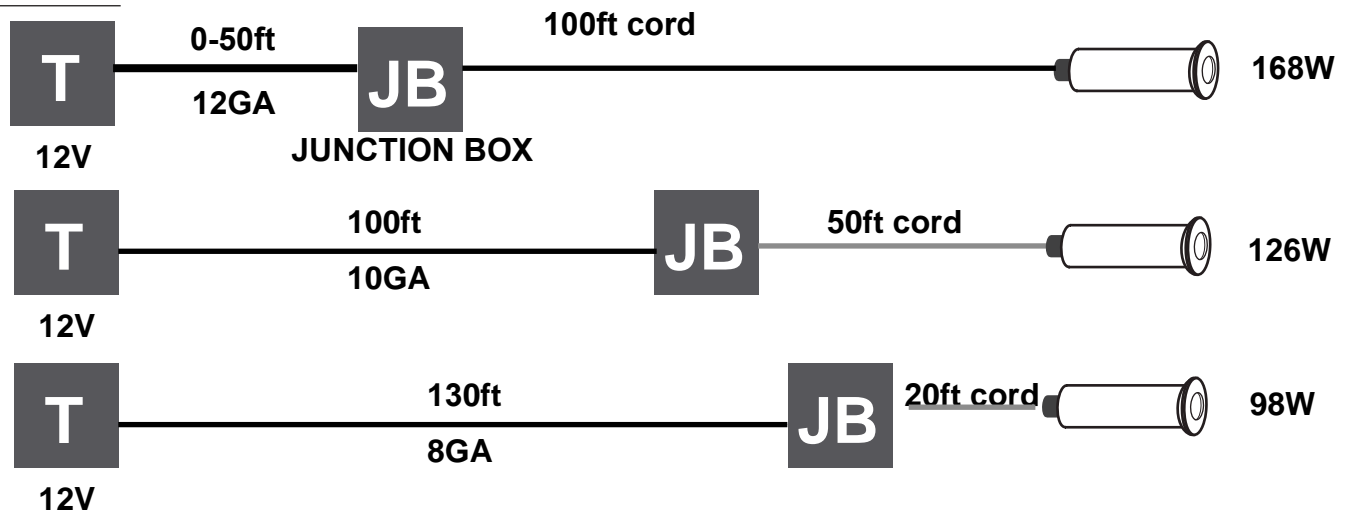
**THE FOLLOWING INFORMATION IS FOR GENERAL INSTALLATION OF DIMMING SWITCHS OR CONTROLS FOR USE WITH SAVI BLANCO, MINI BLANCO, BLANCO PRO WHITE LED LIGHTS. THIS INCLUDES BLANCO PRO WHITE LED LIGHT DRIVERS.**

**All WHITE LED Savi Lights can be dimmed by the use of simplistic dimming switches. These directions specify those switches that are for independent or stand a lone use. For achieving dimming by the use of automatic or home based energy control systems please consult those controls systems instructions. AT NO TIME SHALL ANY SWITCH OR CONTROL BE INSTALLED ON THE 12V SIDE OF THE TRANSFORMER IN AN ATTEMPT TO DIM LIGHTS. DOING SO MAY DAMAGE THE LED LIGHT CARTRIDGE AND VOID WARRANTY.**



**PX100 / PX300**

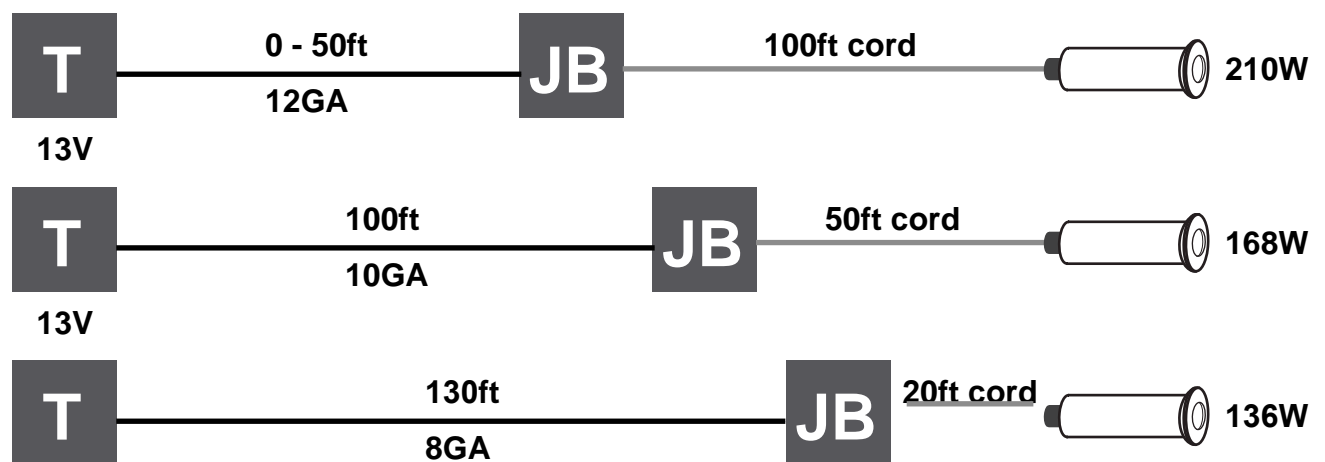
**MAX WATTAGE**



**PX100 / PX300**

**JUNCTION BOX  
BUS BAR**

**MAX WATTAGE**



**NOTE:** Please use appropriate low voltage supply to pool lights, ie. if 12V is appropriate voltage DO NOT use 13V or 14V tap on transformer output (if so equipped),

**WARNING - DO NOT** run 120V and Low Voltage wires in the same conduit or enclosures.

ALL Savi LED Colored Lights including Savi Color LED Light Drivers are designed to work or synchronize with each other. Please follow all installations for proper installation and follow Synchronization Instructions for proper operation. OUR SAVI STANDARD LED LIGHTS WILL NOT WORK WITH P, H or J SERIES LED LIGHTS

All Savi White LED Lights and White LED Drivers are designed to allow for the option of dimming or light output reduction. See enclosed information regarding general guidelines for dimming of our Savi LED White Lights.

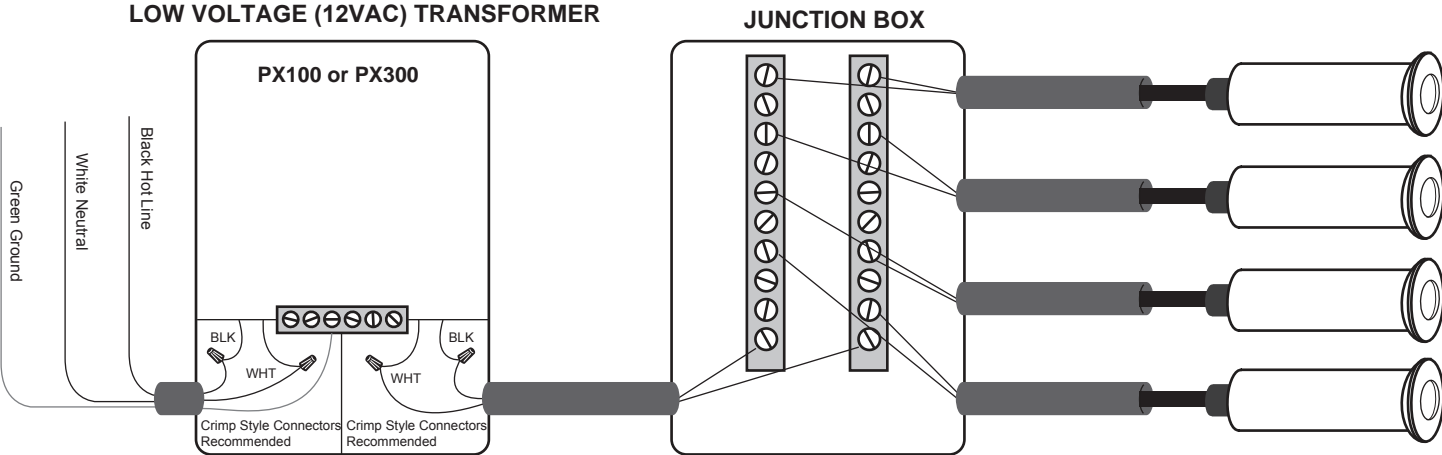
# IMPORTANT: READ FIRST

**SAVI LED UNDERWATER LIGHTS ARE LOW VOLTAGE FIXTURES. IMPROPER WIRE GAUGE AND WIRE LENGTH CAN AFFECT THE PERFORMANCE OF THESE PRODUCTS. FOLLOW THE GUIDES BELOW TO DETERMINE THE PROPER OPERATION AND OPTIMUM PERFORMANCE OF SAVI LIGHTS.**

## WIRE GAUGE & WIRE LENGTH GUIDE

**NOTE:** Min. 12VAC: / Max 13VAC. The maximum run of service between transformer and lights should not exceed 150ft in total length, inclusive of the use of J Box or not.

When J-Box used all voltage readings are to be taken at J-Box when all Lights are set on WHITE. When Lights are connected directly to transformer, voltage readings are taken at transformer with Lights on WHITE.



**NOTE:** This Diagram is to be used as a guide line only for a typical System Installation and should only be used as such. It is the Installers sole responsibility to verify and assure that proper gauging of secondary wiring from the Transformer to the J-Box are in compliance with your local, State and National Electrical Codes.

**NOTE:** The use of Solid Core over Stranded wire and terminating at Bus Bars is strongly recommended.

PX100 / PX300	JUNCTION BOX BUS BAR	MAX WATTAGE
<div style="border: 1px solid black; padding: 5px; width: 40px; height: 40px; margin: 0 auto; text-align: center; font-size: 24px; font-weight: bold;">T</div> <p>12V</p>	<p>0-50ft 12GA</p> <div style="border: 1px solid black; padding: 5px; width: 40px; height: 40px; margin: 0 auto; text-align: center; font-size: 24px; font-weight: bold;">JB</div>	<p>100ft cord</p> <p>168W</p>
<div style="border: 1px solid black; padding: 5px; width: 40px; height: 40px; margin: 0 auto; text-align: center; font-size: 24px; font-weight: bold;">T</div> <p>12V</p>	<p>100ft 10GA</p> <div style="border: 1px solid black; padding: 5px; width: 40px; height: 40px; margin: 0 auto; text-align: center; font-size: 24px; font-weight: bold;">JB</div>	<p>50ft cord</p> <p>126W</p>
<div style="border: 1px solid black; padding: 5px; width: 40px; height: 40px; margin: 0 auto; text-align: center; font-size: 24px; font-weight: bold;">T</div> <p>12V</p>	<p>130ft 8GA</p> <div style="border: 1px solid black; padding: 5px; width: 40px; height: 40px; margin: 0 auto; text-align: center; font-size: 24px; font-weight: bold;">JB</div>	<p>20ft cord</p> <p>98W</p>

## LIMITED PRORATED WARRANTY

Savi Pool & Spa (herein referred to as "the Company"), warrants its products, excluding lamps, to be free from defects in material and/or workmanship, under normal condition, use and service, for a period of Five (5) years from the date of manufacture. During the first two (2) years 100% coverage on all parts, 3rd (3) year all warranty parts will be replaced at 35% of the then current List Price of such part and in years Four & Five (4&5) all warranty parts will be replaced at 50% of the then current List price of such part. This specific warranty is for parts only and specifically excludes all labor charges associated with warranty items.

### TERMS AND CONDITIONS:

This warranty only applies when the Company's products are properly wired and installed together as a system; and operated within the electrical values shown on the Company's specification sheets; used in lighting equipment designed and approved for the application and environmental conditions (temperature, humidity) within the normal specified operating range of the system. This warranty does not apply to any abnormal use in violation of any applicable standard, code or instructions for use in installations including those contained in the latest National Electrical Code (NEC), the Standards for Safety of Underwriters Laboratory, Inc. (UL), Standards for the American National Standards Institute (ANSI), in Canada, the Canadian Standards Association (CSA), Europe (CE), Australia (C-Tick). This warranty will not apply in the event of conditions demonstrating abnormal use or stress, including under/over voltage conditions, excessive switching cycles, excessive operating hours, alterations, accident, theft, misuse, abuse and damaged caused by negligent installation, improper maintenance or where adequate care has not been taken to prevent damage to the lighting system. Replacement of the Company's product components with any other manufacturer will void the entire warranty.

### WARRANTY SERVICE CLAIMS:

The Company must issue a Return Material Authorization (RMA) number for all requests for warranty review. To expedite service, please contact the Company's Customer Representative where you purchased the product. If you are unsure whether a situation exists that is covered by this warranty, please contact the Company's customer service department from the company or division where you purchased the product for assistance. In the event of a defect in material or workmanship during the warranty period, the Company will repair or replace (at its own discretion) its products under the conditions of the warranty.

A complete list of the Company's brands and their warranty service contact information can be found at the end the warranty.

### RETURN OF DEFECTIVE PRODUCT:

After contacting the proper company or division and receiving the RMA#, the purchaser / user shall promptly return the product after receiving instructions regarding if, when and where to ship product. Product must be returned within 30 days of receiving RMA#. Shipping box must be clearly marked with RMA#. Failure to follow this procedure shall void this warranty. The company will cover expenses for material but will not cover shipping costs. Products returned without an RMA# will be refused and returned to sender at the senders expense.

### REPLACEMENT OF PRODUCT, LIMITS OF LIABILITY:

The foregoing shall constitute the exclusive remedy of the purchaser and the sole liability of Savi Pool & Spa regarding its products and component warranty. NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS MADE OR IS TO BE IMPLIED. In no event shall Savi Pool & Spa be liable for any other costs or damages including labor charges, lost profits or revenues, incidental, special or consequential damages. The Company reserves the right to examine all failed products and components to determine the cause of failure and patterns of usage and reserves the right to be the sole judge as to whether any product or component is defective and covered under this warranty. THIS WARRANTY IS ONLY TO THE ORIGINAL PURCHASER OF PRODUCT AND DOES NOT TRANSFER. October 1, 2013

