



Installation and Operation Guide

Halco ProLED® Color-Changing LED Pool and Spa Light Fixture



**IMPORTANT SAFETY INSTRUCTIONS
READ, FOLLOW AND SAVE THESE INSTRUCTIONS**



Norcross, Georgia

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TECHNICAL SUPPORT

Halco ProLED® Customer Service at:
800.374.1927





Halco ProLED® Color-Changing installation manual and operation guide for following part numbers series only:

FLCP, FLCs

Halco ProLED® Color-Changing LED Pool and Spa Light Fixtures Available in 120VAC and 12VAC models

Halco ProLED® Color-Changing LED pool and spa light fixtures offer superior, color illumination for your pool and spa. This owner's manual contains important information on installing and using your new Halco ProLED® Color-Changing LED pool and spa light fixture. Read and follow all instructions contained in this manual. Please keep it in a safe place for future reference.

Halco ProLED® Color-Changing LED Pool and Spa Light Fixture Niche Compatibility

For FLCP Series ONLY

Pentair®: 78210400, 78210500, 78210600,
78210700, 79206700

Hayward®: SP0604C, SP0600U

Jandy®: PLNICLRG, SSNICLRG1R, SSNICLRG1S

Jacuzzi®: 94131234

Sta-Rite® SwimQuip®:

PSQ Faceplate Version Only

For FLCs Series ONLY

Pentair®: 78244200, 78244300, 78243200,
78243300, 79206600 Hayward®:

SP0606C, SP0610C

Jandy®: PLNICSM, SSNICSM1R,

SSNICSM1S

⚠ WARNING

HALCO PROLED® COLOR-CHANGING LED ENHANCED FUNCTIONALITY WITH CERTAIN PENTAIR® AND JANDY® AUTOMATION SYSTEMS.

Certain Pentair® and Jandy® automation systems have a mode setting for controlling "Pentair IntelliBrite® 5g LED Color" light fixtures. This setting can also be used to operate Halco ProLED® Color-Changing LED light fixtures. When the Pentair and Jandy automation system is set to "IntelliBrite" mode, users will **NOT** see proprietary colors and show names displayed on the control screen. (See *Halco ProLED® cross reference guide to assist users with selecting light shows and colors on automation systems set to "IntelliBrite" mode.*) **NOTE: Halco ProLED® Color-Changing LED Pool and Spa light fixtures will not synchronize with any other manufacturer's pool or spa light fixtures.**

⚠ WARNING

Halco ProLED® Color-Changing LED lighting is **NOT** compatible with the Pentair® IntelliBrite® Controller (**Part Number: 600054**). Installation of Halco ProLED® light fixture with an IntelliBrite controller will permanently damage the Halco ProLED® fixture and **VOID** Halco Lighting Technologies warranty.

⚡ DANGER! FAILURE TO PROPERLY INSTALL AND USE THIS PRODUCT CAN RESULT IN SERIOUS BODILY INJURY OR DEATH.

⚠ WARNING

COMPLY WITH ALL RELATED CODES FOR THE INSTALLATION AND USE OF THIS PRODUCT.

Most states and local codes regulate the construction, installation, and operation of public pools and spas, and the construction of residential pools and spas. It is important to comply with these codes, many of which directly regulate the installation and use of this product. Consult your local building and health codes for more information.

INSTALLER NOTICE: This Installation and Operation Guide contains important information about this LED light. Be sure to give this guide to the owner and/or operator of the LED light for reference regarding the proper installation, operation and use of this product.

⚠ WARNING

BEFORE INSTALLING OR USING THIS LIGHT, READ ALL WARNINGS AND INSTRUCTIONS CONTAINED IN THIS MANUAL.

Read and follow all warning notices and instructions contained in this guide before installing or using the product. Severe injury, death or property damage may result if the warnings and instructions contained in this manual are not followed.

⚠ WARNING

RISK OF ELECTRICAL SHOCK OR ELECTROCUTION.

Always disconnect power to the pool and/or spa light at the circuit breaker panel before attempting to service the light. Failure to do so could result in serious injury or death due to electrical shock. Installation must be performed in accordance with all applicable federal, state & local installation codes and ordinances by a licensed or certified electrician or a qualified pool professional. Improper installation may result in death or serious injury to pool and/or spa users, installers or others due to electrical shock. In addition, improper installation may cause property damage. **This device is not intended for use in anything other than in-ground pools/spas.**

⚠ WARNING

IMPORTANT SAFETY INFORMATION FOR LIGHT INSTALLATION.

Do not, under any circumstances, splice wire underwater or behind the light niche during the installation of this light.

INSTALLER NOTICE: This light's external cord cannot be replaced and should be handled with care. Any damage to this external cord necessitates replacing the light.

RATED FIXTURE LIFE: The illumination generated by Halco ProLED® Color-Changing LED light fixtures are based on Light Emitting Diode (LED) technology. The average expected fixture life is rated 50,000 elapsed time hours under normal operating conditions. Pool Water Temp: 33°F to 97°F (1°C to 36°C), humidity: 0-95% non-condensing.

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HALCO ProLED® COLOR-CHANGING LED POOL AND SPA LIGHT FIXTURE INSTALLATION (EXISTING POOL AND/OR SPA)

⚠ DANGER! RISK OF ELECTRICAL SHOCK OR ELECTROCUTION!

Installation of this light must be completed by a licensed or certified electrician or a qualified pool professional in accordance with the National Electrical Code and any applicable local codes and ordinances. Improper installation may result in death or serious injury to pool users, installers or others due to electrical shock. In addition, improper installation may cause property damage.

Always disconnect power to the pool and/or spa light at the circuit breaker panel before attempting to service the light. Failure to do so could result in serious injury or death due to electrical shock.

Confirm that the pool or spa meets the current National Electrical Code requirements and any applicable local codes or ordinances. The electrical system must be installed by a licensed or certified electrician to meet or exceed those requirements prior to installation of the light. This includes, but is not limited to, the following National Electrical Code requirements:

- Installation of a ground fault circuit interrupter (GFCI) for line voltage models on the lighting circuit with an appropriately rated circuit breaker.
- A junction box or low voltage transformer is located at least 8 inches above the maximum pool water level and at least 48 inches from the pool edge; reference Figure 1.
- Proper electrical bonding of the light fixture and all metal items within 5 feet of the pool and/or spa.
- Proper wet niche installation with the top edge of the underwater light's lens at least 18 inches below the surface of the water in the pool and not more than 20" in Canada; reference Figure 1.
- Proper electrical wet niche bonding and grounding using the #8 AWG ground connector at the rear of the niche; reference Figure 1.
- The wet niche is properly electrically bonded and grounded via the No. 8 AWG ground connector located at the rear of the niche; see Figure 1.

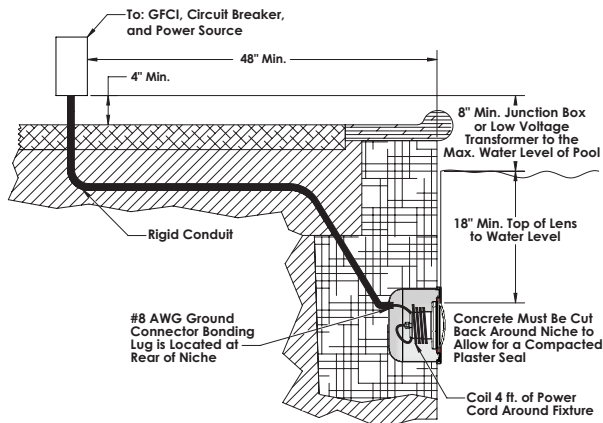


Figure 1

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EXISTING CONSTRUCTION INSTALLATION STEPS (ONCE ALL ELECTRICAL REQUIREMENTS ARE MET)

The following steps detail installation of the Halco ProLED® Color-Changing LED light fixture into an existing pool. Read this section in its entirety prior to beginning any installation.

⚠ WARNING

POOL OR SPA ELECTRICAL SYSTEM MUST MEET CURRENT CODE REQUIREMENTS.

Failure to bring the pool and/or spa electrical system up to current code requirements prior to light installation may create an electrical shock hazard resulting in death or serious injury to users, installers, or others due to electrical shock, and may also cause property damage.

1. Disconnect the main electrical switch or circuit breaker and the switch which operates the installed light.
2. Remove the existing light per the original manufacturer's instructions. Place the light fixture on the deck.
3. Leaving the light fixture on the deck, cut the light cord. Be sure to leave at least six (6) inches of cord in order to connect it to the replacement light cord. Discard the light fixture.
4. Remove the existing cord by pulling it up out of the niche and onto the deck. Carefully strip the outer cord jacket to expose six (6) inches of the underlying three insulated wires..

⚠ WARNING

USE ONLY THE STAINLESS STEEL SCREW PROVIDED WITH THIS UNDERWATER LIGHT.

This special pilot screw secures and electrically grounds the fixture to the mounting ring and wet niche. Failure to install the stainless steel pilot screw provided could create an electrical shock hazard, resulting in death or serious injury to pool users, installers or others.

5. Tape the three existing light wires to the replacement light cord with electrical insulating tape. Avoid wrapping too much tape around the cords. Otherwise, the thickness will be too great for the cord to be able to be pulled through the conduit to the junction box.

INSTALLER NOTICE: This light's external cord cannot be replaced and should be handled with care. Any damage to this external cord necessitates replacing the light.

6. After removing the junction box cover, disconnect the light fixture wires. Then, pull the cord through the conduit until it is visible in the junction box conduit. Remove the tape from the cords and separate the wires..
7. Carefully strip the outer cord jacket from the new light cord to expose six (6) inches of the underlying three insulated wires.

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EXISTING CONSTRUCTION INSTALLATION STEPS (ONCE ALL ELECTRICAL REQUIREMENTS ARE MET) CONT.

8. Connect these three (3) wires to their corresponding junction box circuit wires and secure the junction box cover in place.
9. Be sure to leave at least four (4) feet of cord at base of the fixture to coil around the light to ensure ease of servicing; reference Figure 1.
10. Install the Halco ProLED® Color-Changing light fixture into the niche.
11. Using the stainless steel pilot screw provided, install the Halco ProLED® Color-Changing light fixture assembly into the niche, carefully tightening the pilot screw. (Reference Figure 1)
12. Make a final check to confirm proper light operation by switching “on” the main switch or circuit breaker and the light switch. The light should illuminate when power is switched “on”. If the light is not operating, go back to Step 1 to recheck each installation step for proper completion.

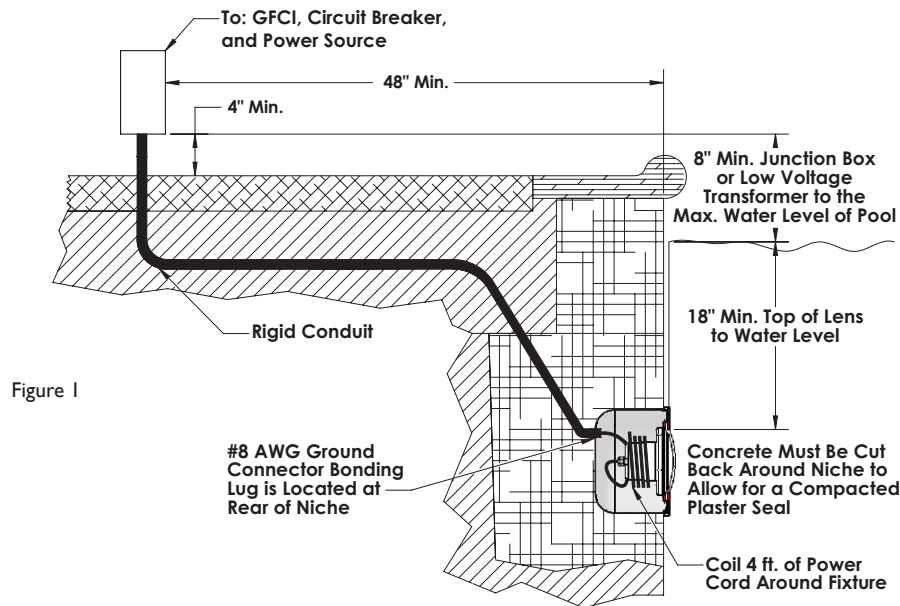


Figure 1

OPERATION FOR 120VAC AND 12VAC HALCO ProLED® COLOR-CHANGING LED POOL AND SPA LIGHT FIXTURES

Halco ProLED® Color-Changing LED Pool and Spa light fixtures are operated through the light's switch. No special controller or interface is required*. Use a junction box to connect and operate multiple lights with a single switch.

⚠ WARNING

HALCO ProLED® COLOR-CHANGING LED ENHANCED FUNCTIONALITY WITH CERTAIN PENTAIR® AND JANDY® AUTOMATION SYSTEMS.

Certain Pentair® and Jandy® automation systems have a mode setting for controlling “Pentair IntelliBrite® 5g LED Color” light fixtures. This setting can also be used to operate Halco ProLED® Color-Changing LED light fixtures. When the Pentair and Jandy automation system is set to “IntelliBrite” mode, users will **NOT** see proprietary colors and show names displayed on the control screen. (See *Halco Lighting Technologies cross reference guide to assist users with selecting light shows and colors on automation systems set to “IntelliBrite” mode.*)

NOTE: Halco ProLED® Color-Changing LED Pool and Spa light fixtures will not synchronize with any other manufacturer's pool or spa light fixtures.

⚠ WARNING

Halco ProLED® Color-Changing LED lighting is **NOT** compatible with the Pentair® IntelliBrite® Controller (**Part Number: 600054**). Installation of Halco ProLED® Color-Changing LED light fixture with an IntelliBrite controller will permanently damage the Halco light fixture and **VOID** Halco Lighting Technologies warranty.

LIGHT SHOWS, SOLID COLORS AND FUNCTIONS

Halco ProLED® Color-Changing LED light fixtures are pre-programmed and synchronous with each other while offering a wide array of lighting effects and options. They offer seven different light shows (1-7) and five solid colors (8-12) to choose from; as well as a Color Lock (13) and Return (14) feature which allows you to “lock” the light on a color shown during an active light show and can return to the last locked color effect. LED Light Fixture features are selectable by turning the existing pool light power switch off and on, known as power cycling.

LIGHT SHOWS

Your Halco ProLED® Color-Changing LED Light fixture has seven light shows from which you can choose. (See full description of light shows on page 10)

- | | | | |
|----------------------|-----------|---------------|-----------------|
| 1. Tranquil | 2. Strobe | 3. Deep Space | 4. Emerald Seas |
| 5. Stars and Stripes | 6. Sunset | 7. Galaxy | |



HALCO ProLED® LIGHT SHOWS, SOLID COLORS AND FUNCTIONS CONT.

SOLID COLORS

Your LED light fixture has five colors available for you to experience. Available colors are:

- | | | |
|-----------------|----------|---------|
| 8. Blue | 9. Green | 10. Red |
| 11. Lilac White | 12. Pink | |

COLOR LOCK AND RETURN

Your LED light fixture can stop a light show and “color lock” on a color shown during an active light show and can also return to the last locked color effect.

- | | |
|----------------|------------|
| 13. Color Lock | 14. Return |
|----------------|------------|

⚠ WARNING

During off/on power cycling, prior to the selected show/color displaying, no illumination will occur. This is normal during the cycling process. During this period the pool/spa will be dark and precautions should be taken to avoid any unforeseen accidents. Failure to observe this warning may result in serious injury or death to pool/spa users.

LIGHTING OPERATION: HOW TO CHANGE LIGHT SHOW, SELECT SOLID COLORS AND FUNCTIONS

CHANGE LIGHT SHOW

Changing light shows: Power cycle pool light switch off/on as many times needed to match the desired light show's specified number. Example: If you are on (10) Red and want to display (3) Deep Space light show, power cycle three (3) times to select and activate Deep Space.

SELECT SOLID COLORS

Similar to selecting a light show, power cycle pool light switch off/on as many times needed to match the desired solid color's specified number. Example: If you are on (6) Sunset and want to display (11) Lilac White, power cycle eleven (11) times to select and display Lilac White.

NOTE: During power cycle process, before the selected light show or color is displayed, temporarily there will be no illumination. This is normal during the switching process.

HALCO ProLED® LIGHTING OPERATION: HOW TO CHANGE LIGHT SHOW, SELECT SOLID COLORS AND FUNCTIONS CONT.

COLOR LOCK FEATURE

You can select a non-standard solid color at anytime by activating the “color lock” feature. The color lock feature allows you to stop a Light show and “lock” on any color shown during an active light show. To “lock” onto a solid color, power cycle the pool light switch off/on thirteen (13) times when the desired color is displayed during the active light show.

RETURN FEATURE

You can return to the last color locked color effect while in a light show mode or fixed solid colors by activating the “return” feature. To return to the last color locked color effect, power cycle fourteen (14) times, and after five seconds the last saved color lock effect will be displayed.

MEMORY MODE

When your Halco ProLED® Color-Changing light fixtures are turned off for longer than 10 seconds, the light show or solid color on display will be stored. The next time the power is turned on, the fixture will display that saved memory light show or color.

NOTE: Your Halco ProLED® Color-Changing light fixtures are “synchronous”, meaning that multiple Halco ProLED® Color-Changing light Fixtures on the same light circuit will sync together so that they all display the same light show or solid color at the same time. However, all of the light fixtures must be on the same electrical circuit for this feature to be operational. Halco ProLED® Color-Changing LED light fixtures may not synchronize with any other pool/spa light fixtures. Halco ProLED® Color-Changing LED light fixtures will synchronize with the LLCS Series replacement lamps. Please consult a qualified electrician to determine your specific pool and spa circuit configuration.

DESCRIPTION OF LIGHT SHOWS AND COLORS

1. TRANQUIL (FACTORY DEFAULT LIGHT SHOW):

Show: Rapid cross-fades between white, magenta, blue and green.

Cycle: 16 second color sequence cycle through with rapid cross-fade between colors. Fixture will stay on each solid color for 4 seconds before moving to the next.

2. STROBE:

Show: Rapid and random flashes through all five solid colors.

Cycle: 1/2 second color sequence cycle with fast change between colors



DESCRIPTION OF LIGHT SHOWS AND COLORS CONT.

3. DEEP SPACE:

Show: Slow cross-fade through all five solid colors.

Cycle: Two minute color sequence cycle with slow cross-fade between colors. Fixture will hold on each solid color for 8 seconds before moving to the next.

4. EMERALD SEAS:

Show: Slow cross-fade between green and blue.

Cycle: 24 second color sequence cycle with slow cross-fade between solid colors.

5. STARS AND STRIPES:

Show: Cross-fade through red, white and blue only.

Cycle: 11 second color sequence cycle with quick cross-fade between colors. Fixture will stay on each solid color for 3 seconds before moving to the next.

6. SUNSET:

Show: Cross-fade through orange, red and magenta.

Cycle: 24 second color sequence cycle with cross-fade between colors.

7. GALAXY:

Show: Cross-fade transition through all five solid colors.

Cycle: 2 second color sequence cycle with fast change between colors.

8. BLUE: *Fixed color*

9. GREEN: *Fixed color*

10. RED: *Fixed color*

11. LILAC WHITE: *Fixed color*

12. PINK: *Fixed color*

13. COLOR LOCK: *Lock and save the current color effect during a color show.*

14. RETURN: *Return to the last saved color effect.*

TROUBLESHOOTING

Problem	Reason/Cause
The light fixture will not illuminate	Check the GFCI ground fault wiring and reset the GFCI if necessary
Light fixture does not function properly	Check the fixture wiring connection to the junction box at the pool side and the AC power switch. Be sure that there is proper AC power applied to the fixture.

WARNING

HALCO ProLED® COLOR-CHANGING LED ENHANCED FUNCTIONALITY WITH CERTAIN PENTAIR® AND JANDY® AUTOMATION SYSTEMS.

Certain Pentair® and Jandy® automation systems have a mode setting for controlling “Pentair IntelliBrite® 5g LED Color” light fixtures. This setting can also be used to operate Halco ProLED® Color-Changing LED light fixtures. When the Pentair and Jandy automation system is set to “IntelliBrite” mode, users will **NOT** see proprietary colors and show names displayed on the control screen. **(See Halco Lighting Technologies cross reference guide to assist users with selecting light shows and colors on automation systems set to “IntelliBrite” mode.)**

Halco ProLED® Color-Changing LED light fixtures will work with most pool/spa automation systems. **NOTE:** If the automation system does not have a mode setting for Pentair IntelliBrite LED; will need to be controlled via the traditional on/off sequence to advance colors and light shows.

Please refer to the Pentair or Jandy automation manufacturer’s product user guide to determine if the system has a mode setting for Pentair IntelliBrite 5g LED color and for information on how to set it up. Halco Lighting Technologies does not provide service or informational support for Pentair or Jandy automation products.

NOTE: Halco ProLED® Color-Changing LED Pool and Spa light fixtures will not synchronize with any other manufacturer’s pool or spa light fixtures.

WARNING

Halco ProLED® Color-Changing LED lighting is **NOT** compatible with the Pentair IntelliBrite Controller **(Part Number: 600054)**. Installation of Halco ProLED® LED light fixture with an IntelliBrite controller will permanently damage the Halco ProLED® light fixture and **VOID** Halco Lighting Technologies warranty.

HALCO ProLED® COLOR-CHANGING LED POOL AND SPA LIGHT FIXTURES WHEN USED WITH ADVANCED AUTOMATION SYSTEM

When Halco ProLED® Color-Changing LED light fixtures are integrated with certain Pentair® or Jandy® automation systems, selecting shows and colors will be done through the automation controls and not through power cycling off/on. **NOTE:** When using Pentair or Jandy automation, the system needs to be set to operate IntelliBrite® 5g LED. When in "IntelliBrite" mode, Halco Lighting Technologies proprietary color and show names will not be displayed, but the cross reference guide below will assist users in selecting their desired color or show. For information on how to program a Pentair or Jandy automation system to operate IntelliBrite 5g Color LED Pool or Spa Lights, please refer to the manufacturers product user guide.

LIGHT SHOW AND COLOR COMPARISON CHART TO PENTAIR® INTELLIBRITE® 5G COLOR LED POOL/SPA LIGHT

<i>Pentair® Intellibrite® 5G</i>	<i>Halco ProLED® Color-Changing</i>	<i>Light Show/Solid Color</i>
1. SAm® Mode	1. Tranquil	Cycles through white, magenta, blue and green colors.
2. Party Mode	2. Strobe	Rapid color changing building energy and excitement.
3. Romance Mode	3. Deep Space	Slow color transitions creating a mesmerizing and calming effect.
4. Caribbean Mode	4. Emerald Seas	Transitions between a variety of blues and greens.
5. American Mode	5. Stars and Stripes	Patriotic red, white and blue transition.
6. California Sunset Mode	6. Sunset	Dramatic transitions of orange, red and magenta tones.
7. Royal Mode	7. Galaxy	Richer, deeper color tones.
8. Blue	8. Blue	Fixed color.
9. Green	9. Green	Fixed color.
10. Red	10. Red	Fixed color.
11. White	11. Lilac White	Fixed color.
12. Magenta	12. Pink	Fixed color.
13. Hold	13. Color Lock	Save the current color effect during a color light show.
14. Recall	14. Return	Activate the last saved color effect.

HALCO LIGHTING TECHNOLOGIES, 2-YEAR LIMITED WARRANTY HALCO PROLED® COLOR-CHANGING LED LIGHT FIXTURES

Halco Lighting Technologies ("Halco") warrants its LED Light Fixtures to be free from defects in material and workmanship, under normal use, conditions and service, from the date of purchase and warrants its products as follows:

Product Line	Structural Housing	LED Module
Pool/Large Fixture	Two (2) Year	Two (2) Year *
Spa/Small Fixture	Two (2) Year	Two (2) Year *

*If during the first twenty-four (24) months (Pool/Large Fixture) and first twelve (12) months (Spa/Small Fixture) of the warranty period, the LED Module fails to operate due to a defect in material or workmanship, Halco will, at its option, repair or replace fixture at no charge. If during months thirteen (13) through twenty-four (24) (Spa/Small Fixture), the LED Module fails to operate due to a defect in material or workmanship, Halco will grant the purchaser a pro-rated credit for purchase of a Halco ProLED® Light Fixture, as the purchaser's sole remedy.

TERMS AND CONDITIONS

This warranty is available to the original purchaser of the product(s) only. This warranty applies only when products are properly installed in an in-ground pool/spa; any other use voids the warranty. Products must be used in lighting equipment designed and approved for the application and in environmental conditions within the normal specified operating range. This warranty does not apply to any abnormal use of product(s), 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, LLC (UL), Standards for the American National Standards Institute (ANSI). This warranty will not apply in the event of conditions demonstrating abnormal use or stress, under/over voltage/current conditions, excessive switching cycles or operating hours or outside the recommended operating conditions. This warranty does not apply to color shifts or dimming caused by emissions. LED color shifts and dimming occur normally over time. This warranty does not cover damage occurring during shipment, damage or failure resulting from alteration, accident, acts of God, theft, abuse, negligent installation, improper service, unauthorized repairs, freezing or where adequate care has not been taken to prevent damage to the product(s). Tampering with any internal component of this product(s) will void the warranty.

This warranty gives you specific rights. You may have other rights that vary according to the laws of your state.

LIMITATION OF LIABILITY

THE FOREGOING SHALL CONSTITUTE THE EXCLUSIVE REMEDY OF THE PURCHASER AND IS IN LIEU OF ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING ALL WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND ALL WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OR TRADE. THE LIABILITY OF HALCO UNDER THIS WARRANTY SHALL BE LIMITED TO THE REPLACEMENT, REPAIR OR PRO-RATED CREDIT OF THE PRODUCT(S) AS STATED HEREIN. HALCO IS NOT RESPONSIBLE FOR SHIPPING OR TRANSPORTATION COSTS RELATED TO OBTAINING WARRANTY SERVICE. IN NO EVENT SHALL HALCO BE LIABLE FOR ANY OTHER COSTS OR DAMAGES, INCLUDING LOST PROFITS OR REVENUES, LABOR CHARGES OR FOR ANY INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES.

Halco reserves the right to change the warranty and/or warranty period without prior notice and without incurring obligation.

To obtain warranty service, retain the failed Product; retain the installation invoice showing product purchase price and contact Halco ProLED® Pool Customer Service at 800.374.1927