

Hayward 12V Lighting

ColorLogic 80/40

General Overview & Installation



TTP-UCL305c

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Overview

Overview: How it Works

- The ColorLogic 80/40 LED lights are ½" diameter lights for use in SCH40 PVC pipe or rigid conduit that do not require a niche.
- These lights are suitable for both wet or dry environments and are listed for both pool or landscape use and synchronize with Hayward 12V ColorLogic colors and shows (matching UCL and CL 320).
- They are offered in two levels of brightness (80 = 1/4th the brightness of a CL 320 and 40 = 1/8th the brightness of a CL 320).
- Their low profile makes them ideal for: waterfalls, fountains, or hardscapes.



Overview: Compatibility

Standard Switch Mode

LMCUS11050 (80)
LNCUS11050 (40)

LMCUSPS005
(Driver up to 5 LEDs)

LTBUY11300 (300W)
LTBUY11H70 (New Install)
LRBUY11H70, LRBUY11H65

Compatible with any high voltage
relay based Automation System.



Lights are offered in
50' length ONLY.



+



+



These lights are
also compatible
with the ColorLogic
Light Controller.



Overview: SKU Breakdown & Power Consumption

SKU Breakdown - Lights

Type	Brightness	Mode	Cord Length (ft.)
ColorLogic 80	LM	CUS11	050
ColorLogic 40	LN	CUS11	050

SKU Breakdown - Driver

Description	Part Number
Driver (1 required per 5 LEDs)	LMCUSPS005

Consumption

Model	Input
LMCUS11050	3.3 VAC 60 Hz, 2.6W
LNCUS11050	3.3 VAC 60 Hz, 1.3W
LMCUSPS005	14 VAC 60 Hz, 13W

Overview: Spare Parts

Replacement Parts		
Part Number	Description	Quantity
GLXCL80HDW	Strain Relief Hardware & Gasket Kit	5
GLXCL80PCB	PCB and Power Pigtail	1
GLXCL80GKT	Cover Gasket with Screw Pack (8)	1
GLX5POSCON	Light Connector	5

Installation

Installation: Electrical - Overview

Controller



Transformer

120VAC



14VAC



*Driver



14VAC



Lights



***The driver MUST be wired for 14 Volts. DO NOT supply 120VAC to the Driver. Also, the driver is only compatible with CL 80/40 LEDs, DO NOT wire any other Hayward lights into the driver.**

Installation: Electrical - Transformer Sizing

A light driver with all five lights connected will draw up to 23 watts.

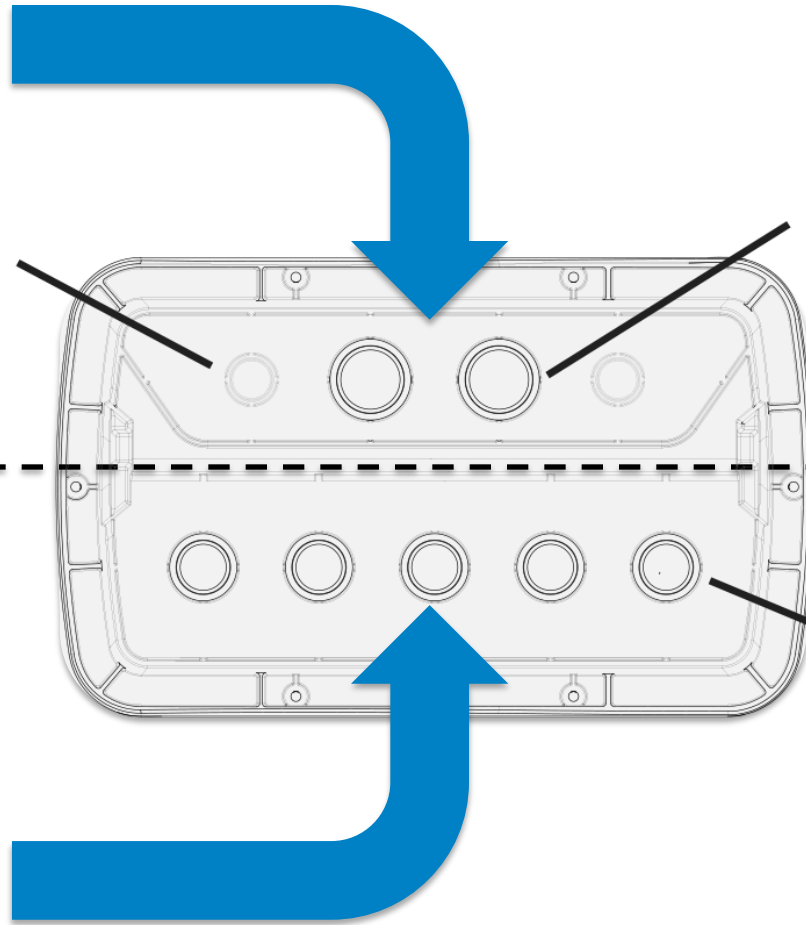
Number of Drivers per Transformer		
Transformer Type	Number of Drivers	Total Lights
300W (LTBUY11300)	13	65
70W	2	10

Installation: Electrical – Input / Output

14VAC Input

2 recessed holes to aid in mounting - use ½" rebar or copper pipe

2 access holes for low voltage power in and out - use ¾" conduit



3.3VAC Outputs to 80/40 LEDs

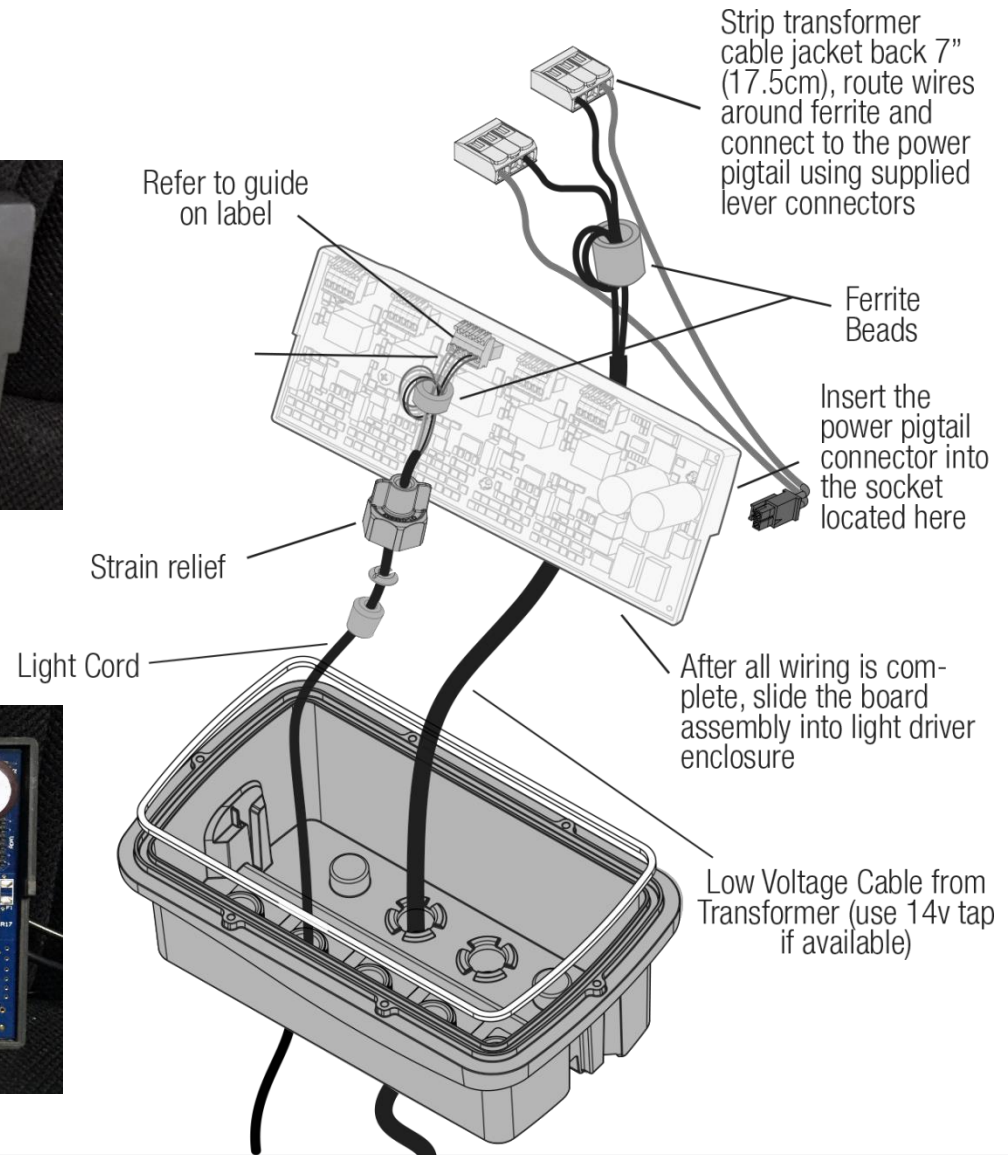
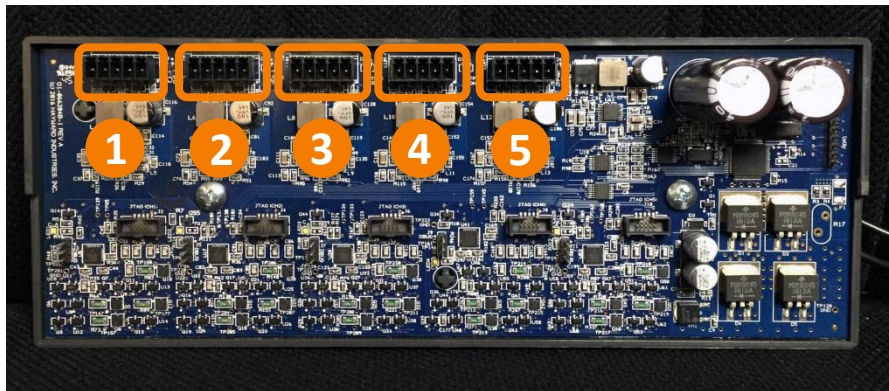
5 access holes for lights - use ½" conduit when lights are installed in a body of water

Installation: Electrical - Input / Output (cont.)

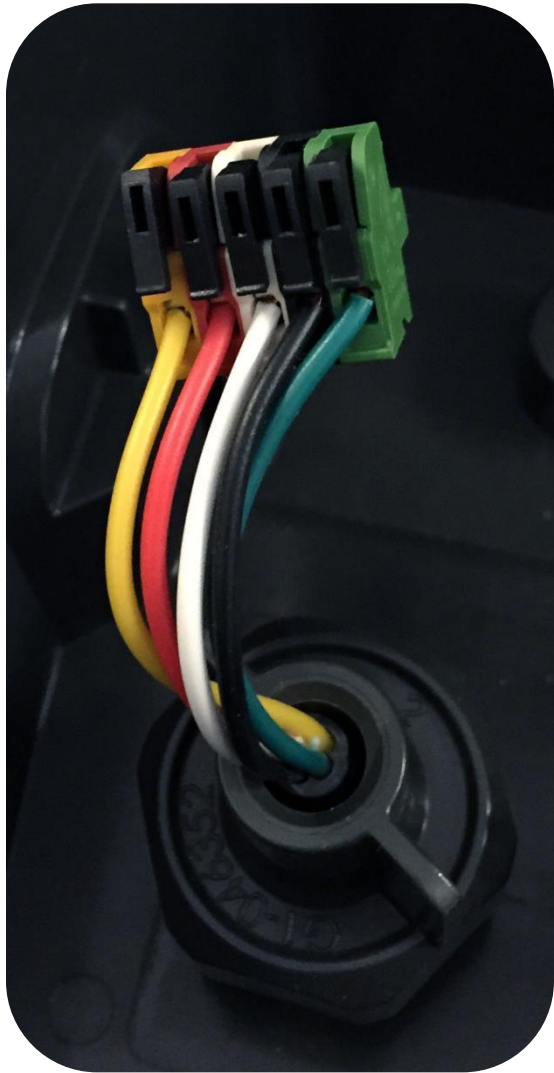
Driver Input Side:



Driver Output Side:



Installation: Electrical – Attaching LEDs to Connector



When attaching the 80/40 LEDs:
Make sure the wire colors match those found on the connector.

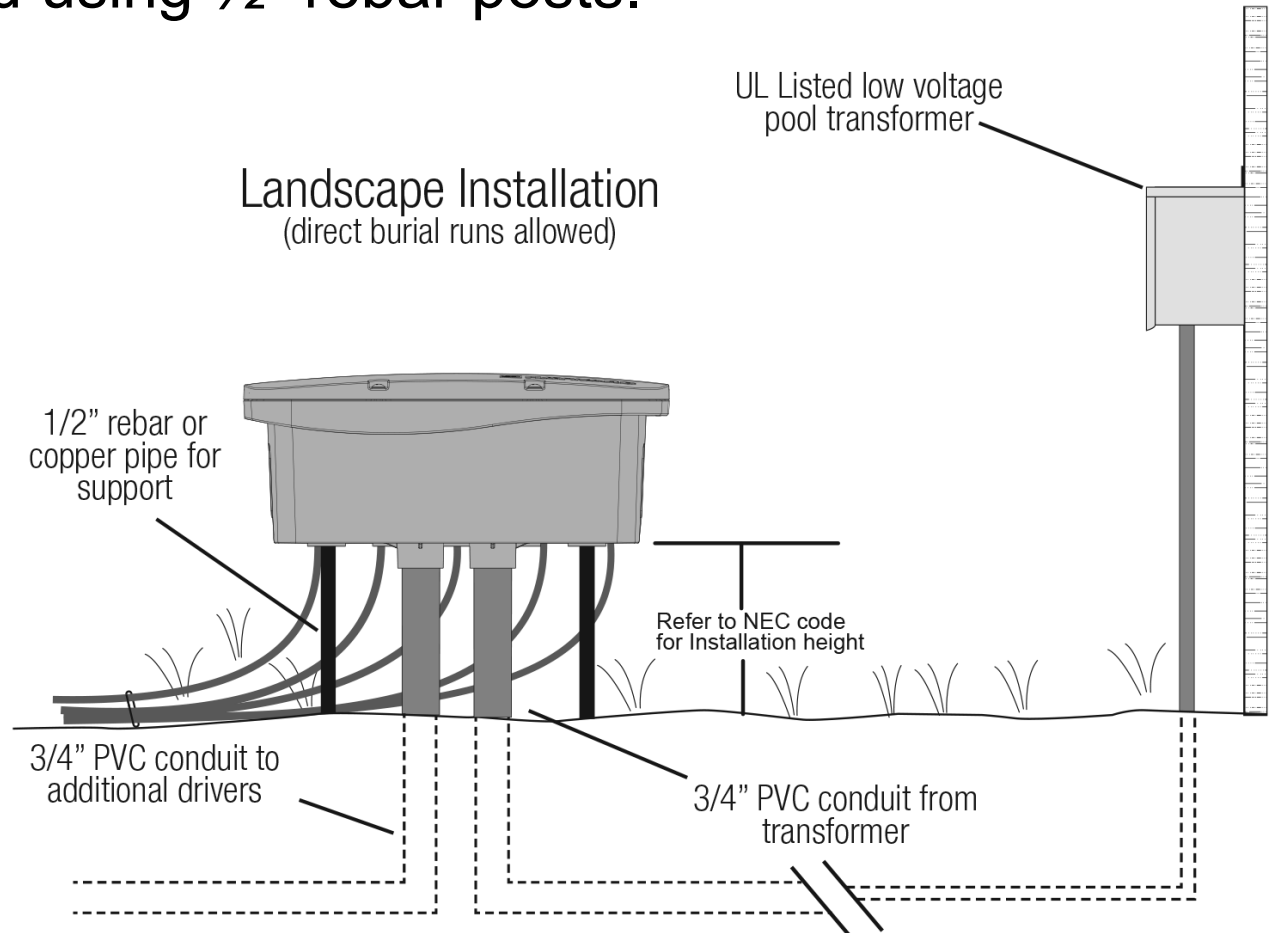


Observe
color codes
marked on
the connector

1. Strip cable jacket back 3" (7.5cm)
2. Strip wires to .25" (6mm) length
3. Route wires around Ferrite
4. Open levers on light connector
5. Insert wires (observe color)
6. Close levers

Installation: Electrical – Landscape

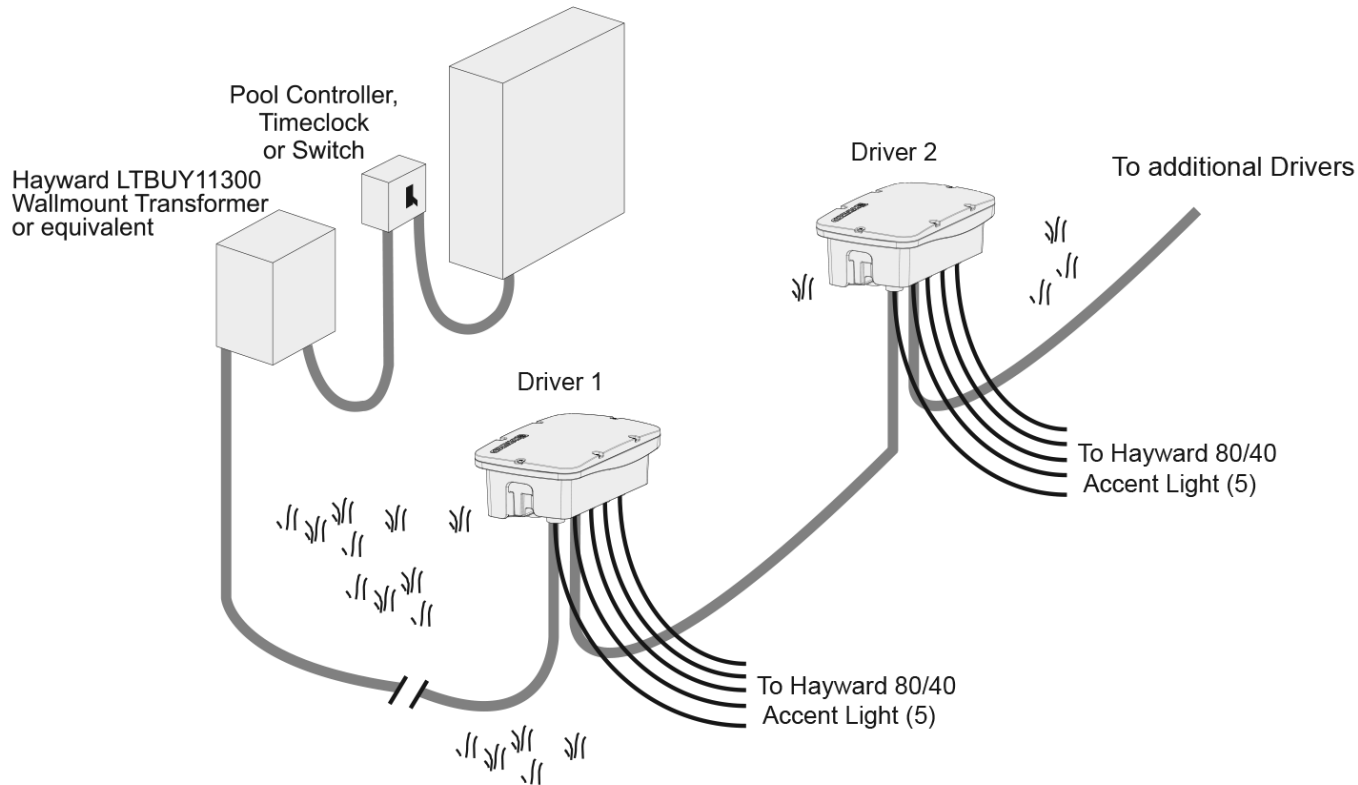
Landscape Installations: The driver may be supported using 1/2" rebar posts.



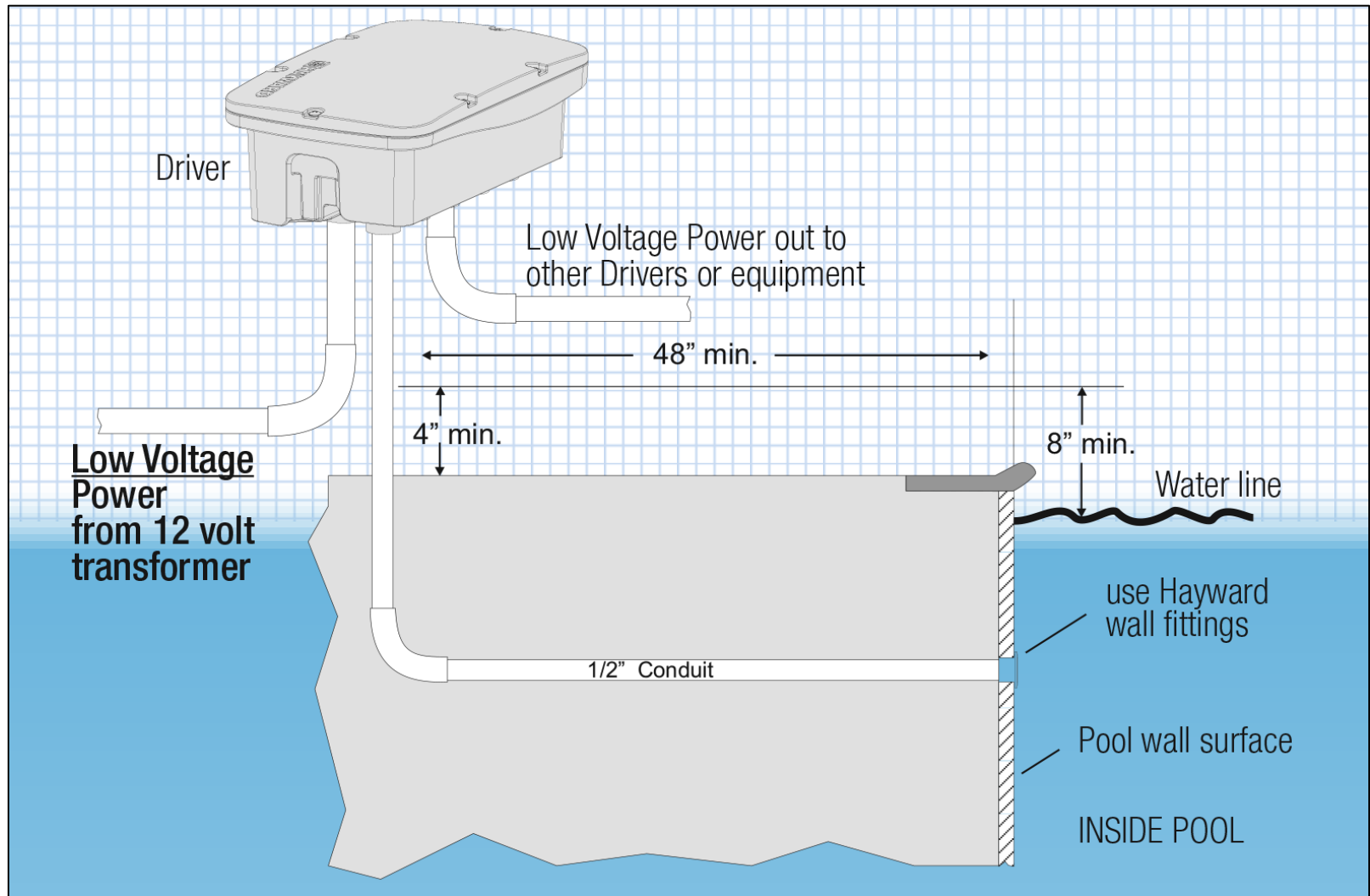
Installation: Electrical – Multiple Drivers

When connecting multiple drivers to a 300W transformer:
it is recommended to daisy chain from one driver to another.

Wiring Multiple Drivers

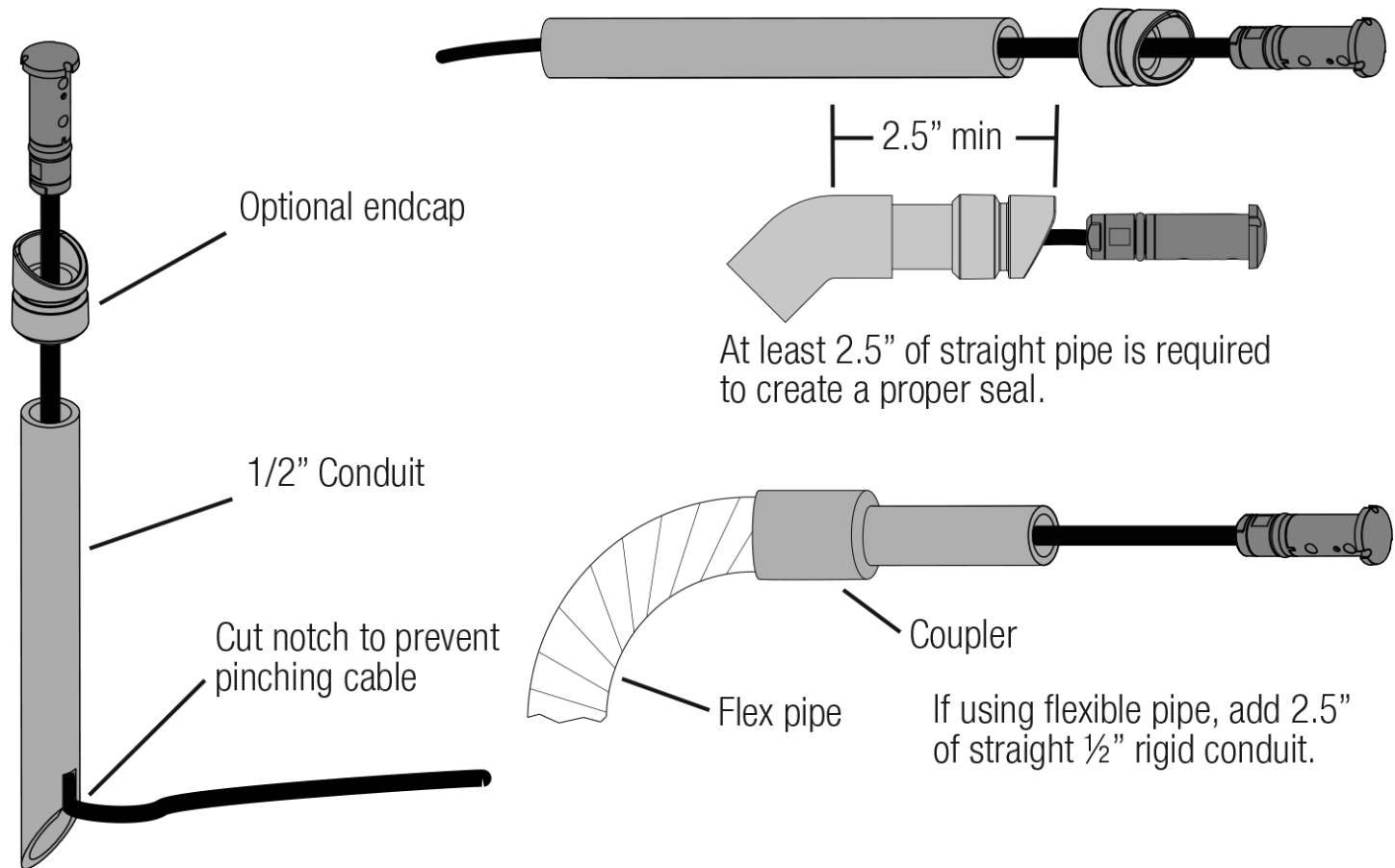


Installation: 80/40 Pool Plumbing

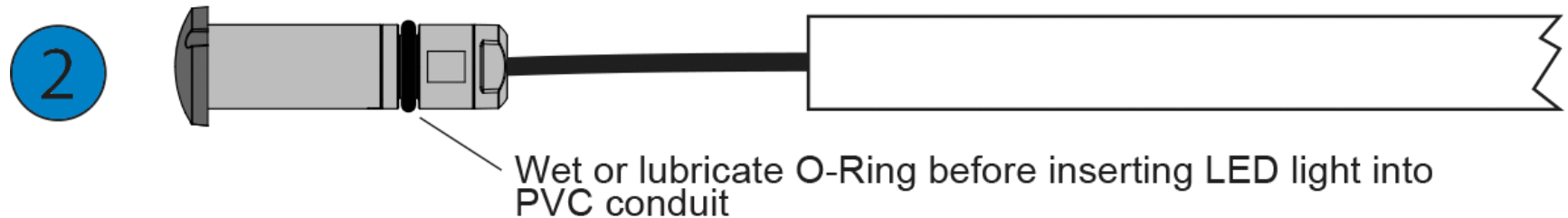
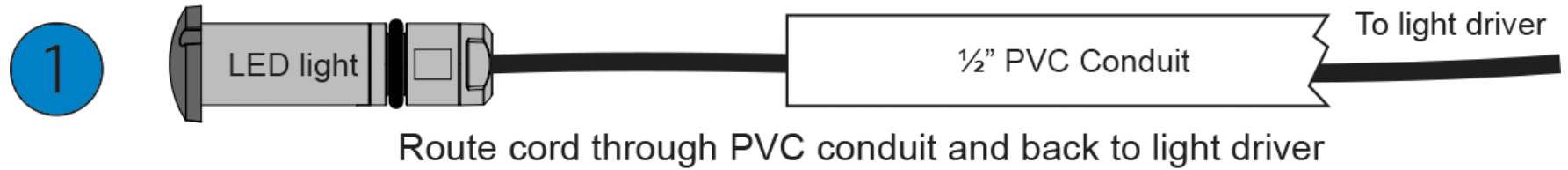


Installation: Conduit Options

A few suggested recommendations: Each CL 80/40 come with an optional light hood.

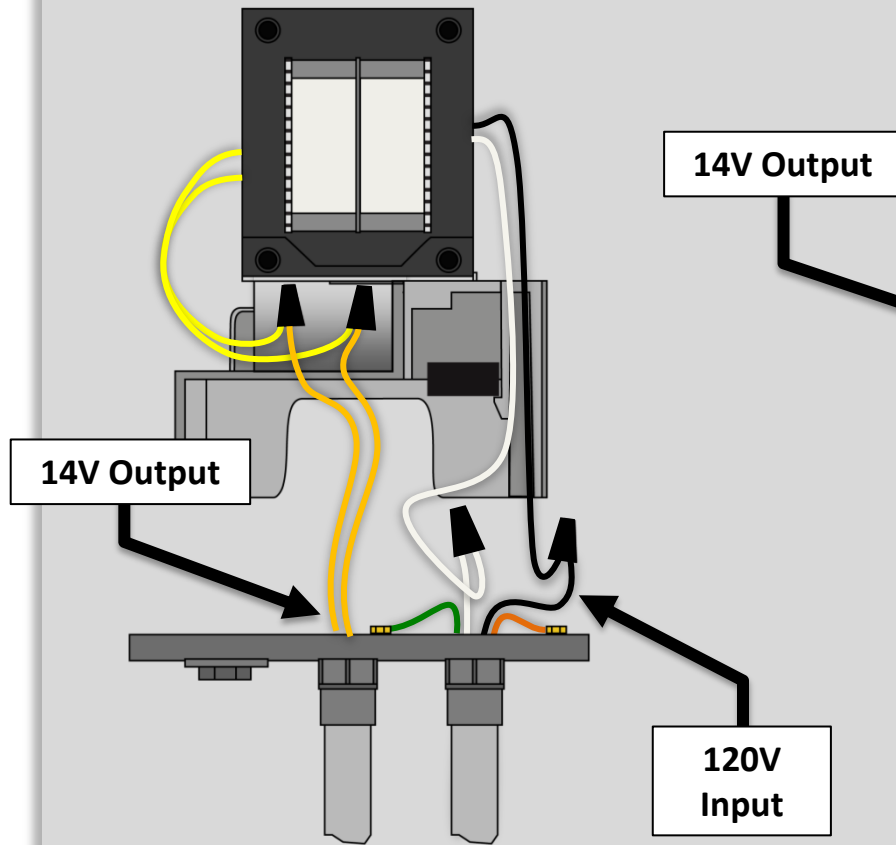


Installation: Securing the CL80/40 to Conduit

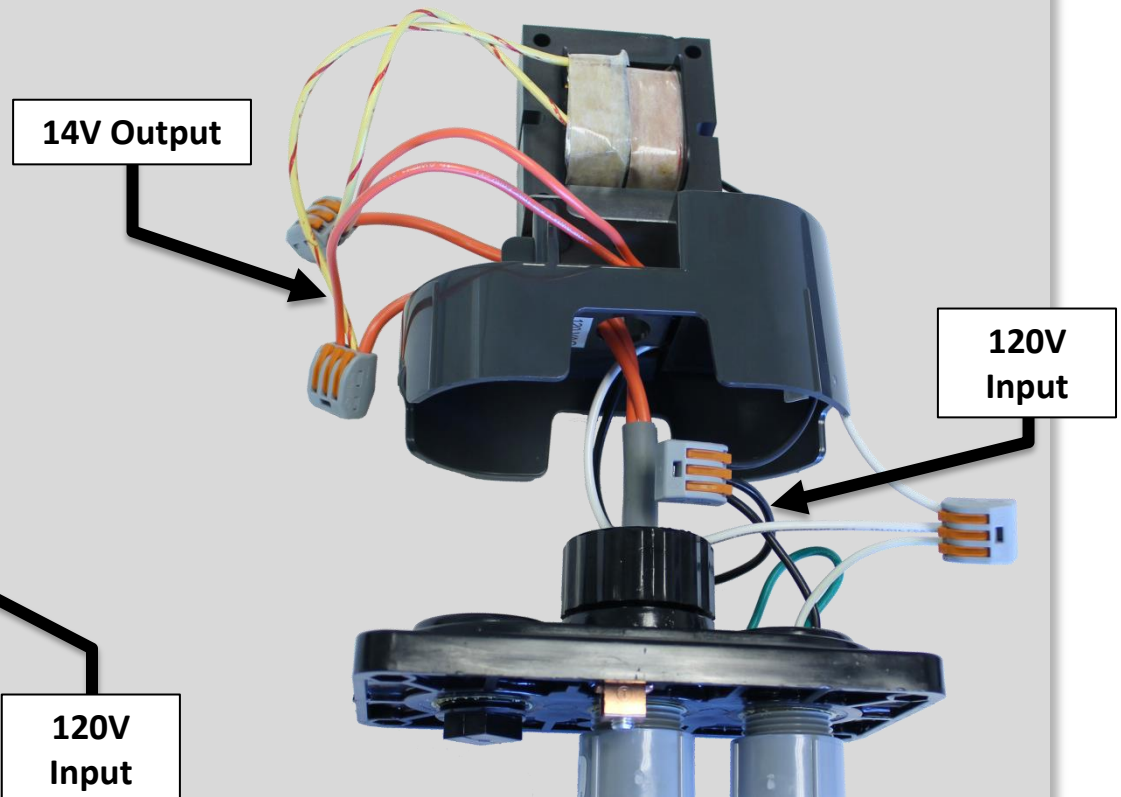


Installation: 70W Transformer Wiring

Wiring Diagram

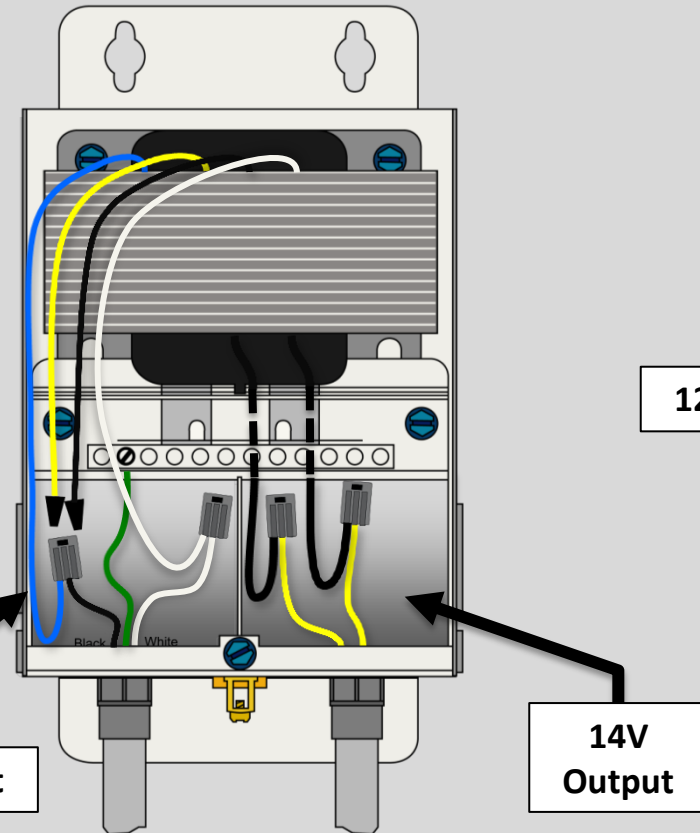


Reference Picture

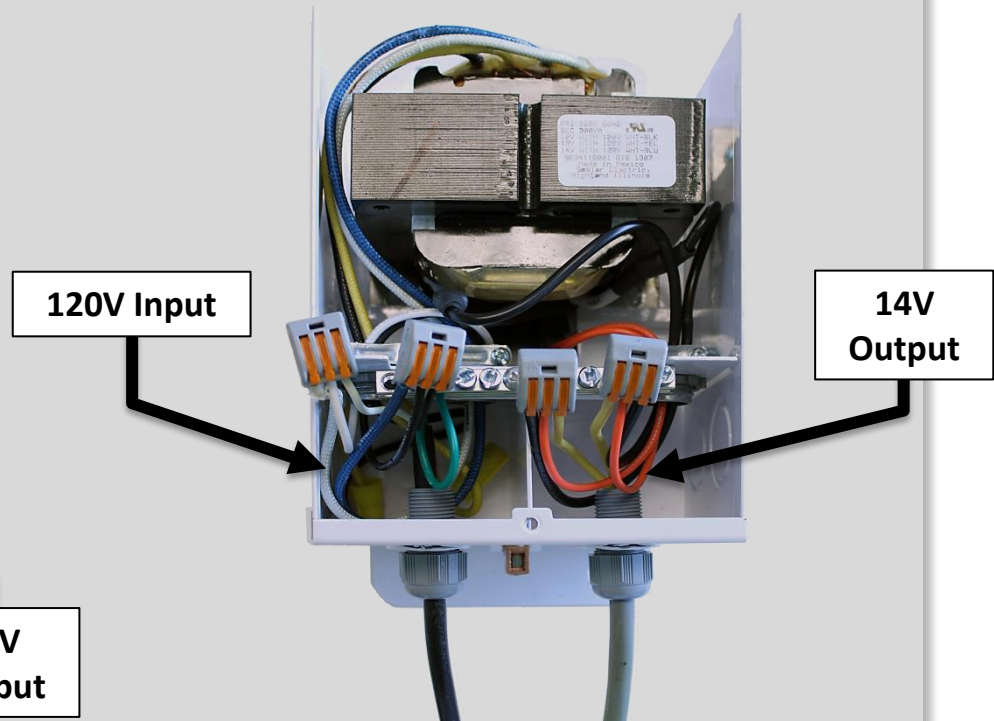


Installation: 300W Transformer Wiring

Wiring Diagram



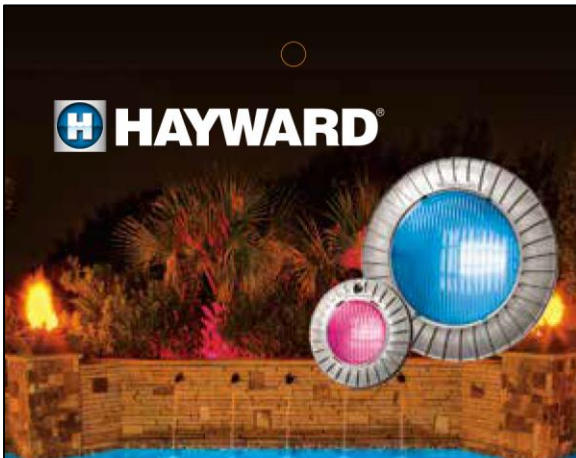
Reference Picture



Note: When wiring the Hayward 300W Transformer (LTBUY11300), Supply the **Blue & White** wires (shown on the left with 120V (primary side) to ensure the transformer's output is 14V (secondary side).

Operation

Operation: Light Shows and Colors



Universal ColorLogic®

Universal ColorLogic offers 10 vibrant solid fixed colors and 7 color-changing shows in stand-alone mode. They can be programmed to match ColorLogic 2.5, 4.0, 320/160 and Pentair® SAm® stand-alone light shows.

When integrating Universal ColorLogic using the network model, enjoy 101 solid colors and 11 color-changing light shows, all adjustable for speed, motion and brightness.*


















OPERATING INSTRUCTIONS

Universal ColorLogic features include 10 fixed colors and 7 color-changing shows to be controlled in the following manner. To configure to match existing lights, please see the manual for configuration instructions.





CYCLING CONTROL:

1. Initial power on — 15 seconds of white followed by last program shown.
2. Each on/off power cycle at less than 10 seconds will go to the next program.
3. Any off position for between 11 and 14 seconds will reset to program #1.
4. Any off position longer than 60 seconds will set the program to begin as 15 seconds of white followed by last program on.

PROGRAM ORDER:











 1 Voodoo Lounge	 7 Cloud White	 13 Tranquility
 2 Deep Blue Sea	 8 Warm Red	 14 Gemstone
 3 Royal Blue	 9 Flamingo	 15 USA
 4 Afternoon Skies	 10 Vivid Violet	 16 Mardi Gras
 5 Aqua Green	 11 Sangria	 17 Cool Cabaret
 6 Emerald	 12 Twilight	

ADDITIONAL LIGHT SHOWS WITH NETWORK MODELS*

 18 Rainbow	 19 Harmony	 20 Custom Fade	 21 Custom Chase
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Choose any color to create the ambiance you desire. Featuring 101 colors, choose any color to create the ambiance you desire.*

*Must Purchase ProLogic PS model, network lighting, network module and couplers.

Deep Blue Sea	Afternoon Skies	Emerald	Warm Red	Vivid Violet
				
Royal Blue	Aqua Green	Cloud White	Flamingo	Sangria
				

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 **HAYWARD**

LITUCLCARD15

LITUCLCARD15:

- The following card is included in all 80/40 drivers.
- The Card outlines the 17 colors and shows in sequential order.
- Network models supported with a network module integrated into a ProLogic PS series controller offers 4 additional shows and 101 customizable colors.

Operation: Light Toggling and Sequences

1. Voodoo Lounge*
2. Deep Blue Sea
3. Royal Blue
4. Afternoon Skies
5. Aqua Green
6. Emerald
7. Cloud White
8. Warm Red
9. Flamingo
10. Vivid Violet
11. Sangria
12. Twilight*
13. Tranquility*
14. Gemstone*
15. USA*
16. Mardi Gras*
17. Cool Cabaret*

*Shows

Switch Mode Lighting

Included part numbers:

- LPCUS, LSCUS, LACUS, LYCUS, LMCUS, LNCUS
- Changing between Colors and Shows via power interruption.

Network Mode Lighting (not applicable for CL80/40).

Included part numbers:

- LPCUN, LSCUN, LACUN, LYCUN,
- Changing between Colors and Shows via power line communication. *This mode of operation also requires a ProLogic PS series controller, a ColorLogic network module, and a network coupler for every transformer used.

Operation: Not Supported

Toggle Brightness:

Unlike the CL320 the CL80 DOES NOT support the 50% dimming function.

No Network Mode Offering:

The CL80/40 product line is NOT compatible with network lighting functionality. If existing lighting features network functionality, the CL80/40 will have to be wired as switch lights and will have to work independently.

UCL Mode ONLY:

Like the CL 320s, the CL80/40 lights DO NOT support legacy light modes such as: 4.0, 2.5, or SaM mode.

Light Synchronization

Light Synchronization: Manual Process

Follow the instructions below for manually synchronizing our 12V LED lights. DO NOT use a remote AND the OFF cycle is time sensitive.

1. Turn the Lights on for about 60 seconds



2. Turn switch OFF for 11-13 seconds



3. Turn switch back ON, lights should now be synchronized*



*If lights are still out of sync, repeat process.

Light Synchronization: OmniLogic



1.

Simply PRESS the Resync icon (lower right) and the OmniLogic will go conduct the synchronization procedure.*



NOTE: When the lights are in the process of synchronizing the message: “Light is busy, please wait.” will appear on the OmniLogic Lights screen.

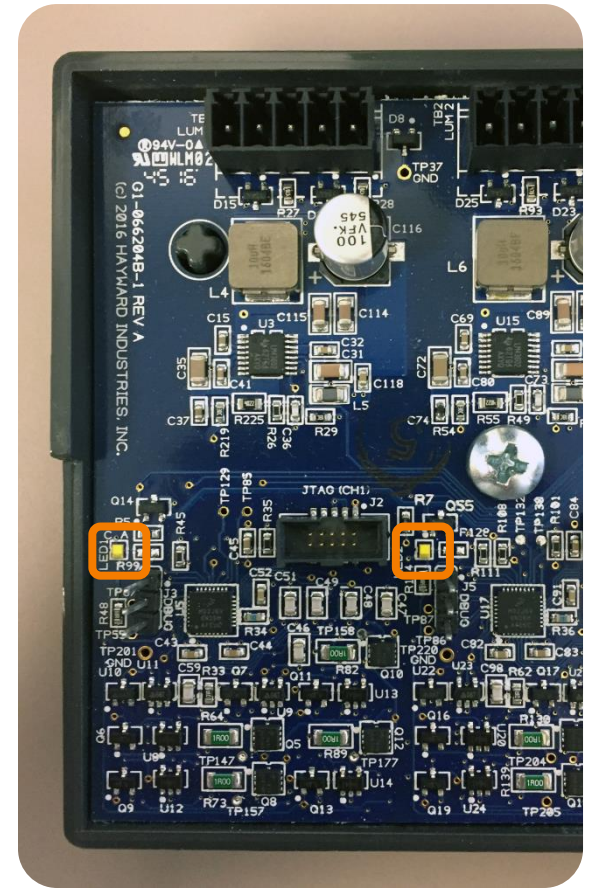
***If lights are still out of sync, repeat process.**

Troubleshooting

CL80/40: Operation

When LEDs are working as expected the status LEDs on the driver board will blink once slowly:

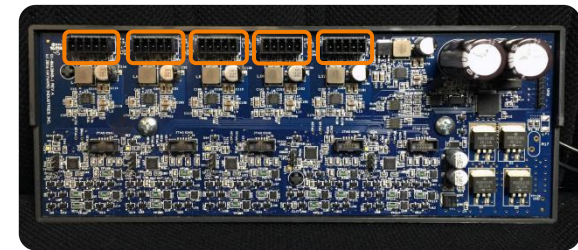
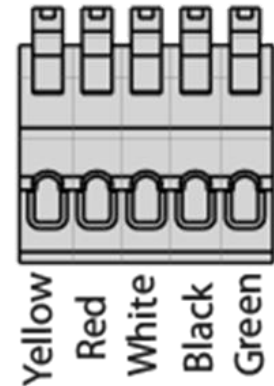
- All terminals that do not have a CL 80/40 attached will blink 5 times rapidly and repeat.
- IF the LED on the driver board is blinking 3 times rapidly, then the CL80/40 will not operate due to temperature related conditions.
- IF lights are dimmer than expected, verify the transformer is wired on the 14VAC tap and look for voltage drop.



1. CL80/40: Light(s) Not Recognized

When 80/40s are not found, the LED(s) on the main driver will blink 5 times rapidly:

1. First verify all wire connections are correct and that the shielding on the wire is cut back .25" (in order to make a proper connection).
2. Verify the LED cable is not damaged.
3. IF one/some LEDs are working, plug a working LED into the suspect terminal to verify if the problem is isolated to the driver board or the light.



2. CL80/40: No Driver LEDs are Illuminated

IF no driver LEDs are illuminated, verify the driver is receiving 14VAC:

1. Disconnect and measure for 14VAC off the incoming power connector.
 - a. IF no/low power is present, then work backwards toward the power source to determine the power disconnect.
 - b. IF power is correct, then restore connection and replace the driver board if necessary.

