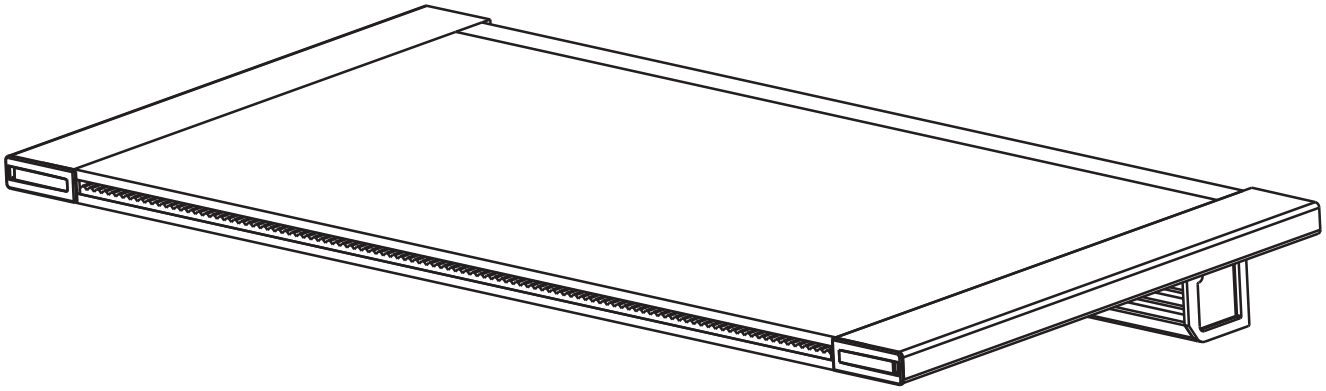
BRILLIANT WONDERS® LED WATERFALL 2

INSTALLATION INSTRUCTIONS & PRODUCT MANUAL

25776-XXX-XXX (BOTTOM PORT LED WATERFALL 2)
25777-XXX-XXX (BACK PORT LED WATERFALL 2)



Brilliant Wonders® LED WATERFALL 2

COVERED BY ONE OR MORE U.S. PATENTS
OR PENDING PATENT APPLICATIONS. SEE
WWW.C-M-P.COM/PATENTS FOR DETAILS.

IMPORTANT WARNINGS & SAFETY INSTRUCTIONS

⚠ DANGER Serious bodily injury or death can result if this waterfall is not installed and used correctly.

⚠ WARNING Installers, pool operators and pool owners must read these warning and all instructions before operating waterfalls.

⚠ 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 bodily injury, death or property damage.

⚠ WARNING This waterfall must be installed by a licensed or certified electrician or a qualified pool professional in accordance with the National Electric Code (NEC) or Canadian Electric Code (CEC), CSA C22.1.

⚠ CAUTION 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 electric shock. Always disconnect power to the LED lights before servicing.

⚠ WARNING Turn off power to lights before installation/service. CMP Brilliant Wonders LED Waterfall 2 is 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, **12V** transformer or power supply: Brilliant Wonders Color Wheel Control (25650-130-300) requires a **12V DC power supply;** Brilliant Wonders Smart Sync Adapter (25677-900-000) requires a **12V AC transformer**. Failure to comply will either damage or destroy the light and will void the warranty.

NOTICE Save these instructions. This installation and user 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.

PART LIST, TOOL LIST

INCLUDED PARTS

1. LED Waterfall Unit
2. Front Debris Guard
3. Inlet Debris Guard
4. Rock Trap
5. LED Light Strip (Factory Installed)
6. Power Cable with PVC Conduit Adapter
7. Door Unlatching Tool
8. Door Covers Five Colors (10)
9. Conduit Back Cover
10. Support Trimmer/Clean-out Tool
11. Sliding Cuttable Door (2)

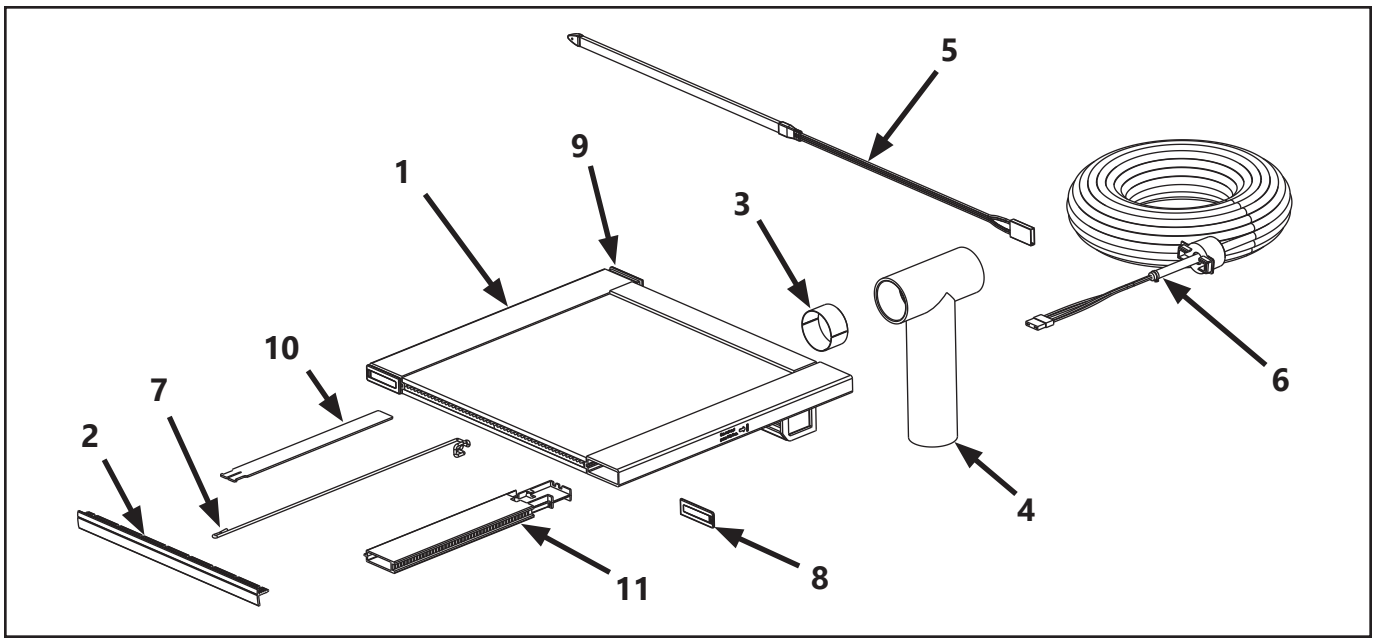


Figure 1: Parts List

ADDITIONAL TOOLS REQUIRED

1. Multi-purpose PVC Glue

PRE-INSTALLATION GUIDE

GENERAL PERFORMANCE GUIDE

- This waterfall must be installed as specified by these instructions.
- It is recommended to keep the unit in the packaging until the site is prepared for installation.
- CMP Brilliant Wonders waterfalls are available in varying sizes. The units use 1.25 gallons of water per inch of waterfall per minute. Please size your water pump accordingly.
- Reference Table 1 when choosing the correct pumps to use.

Brilliant Wonders Waterfall Width	Recommended GPM Required for Proper Performance
12"	15 GPM
18"	22.5 GPM
24"	30 GPM
36"	45 GPM
48"	60 GPM
60"	75 GPM
72"	90 GPM
84"	105 GPM
96"	120 GPM

Table 1: Required GPM for Proper Operation

PROTECTING DURING INSTALLATION

- Each Brilliant Wonders LED Waterfall 2 is shipped with a debris guard for the water outlet, and for the water inlet.
- These prevent debris from entering and damaging the waterfall unit during installation.
- Debris guards should not be removed until the waterfall is ready to run.
- Do not leave the waterfall in direct sunlight. This can cause permanent damage and warping to the waterfall unit. (see label)

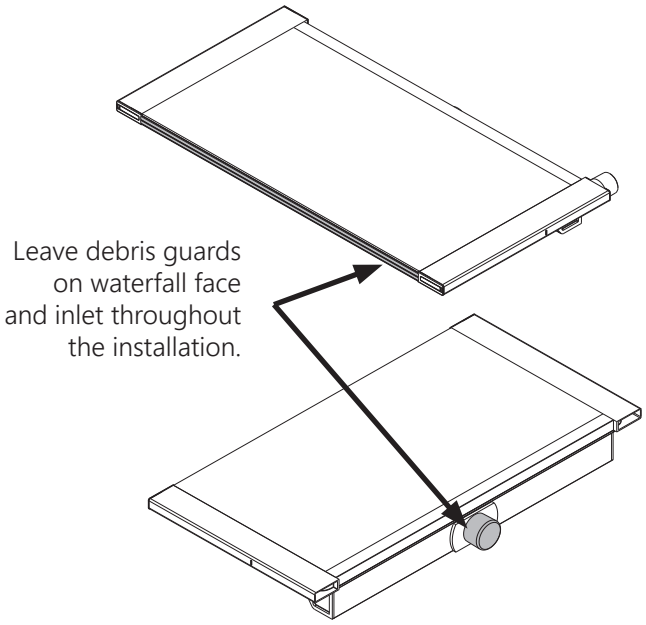


Figure 2: Debris Guards

NOTICE

Use only water that has been properly filtered by an in-line cartridge filter. Failure to properly filter water may result in a clogged waterfall and a voided warranty.

FORMING THE FOUNDATION

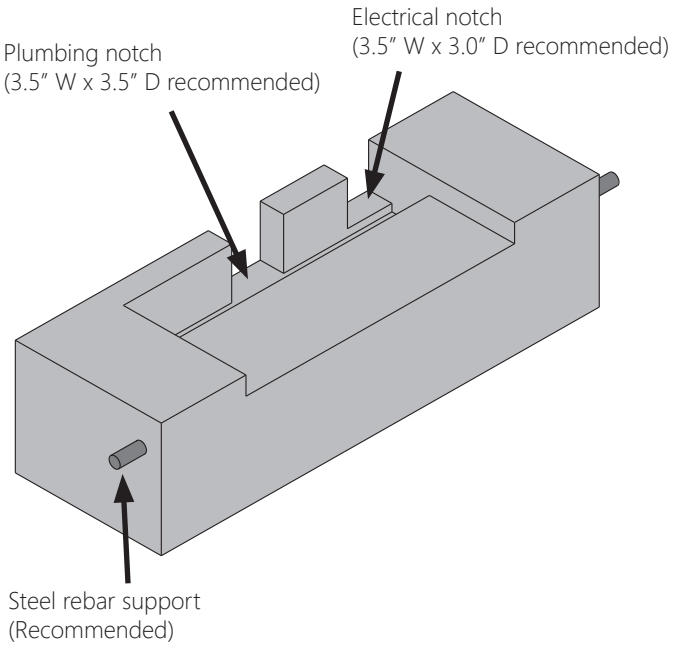
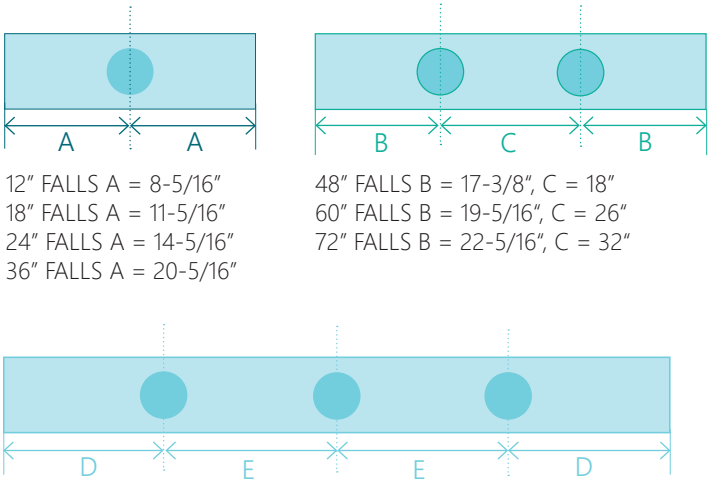


Figure 3: Concrete Forming Guide (12"-36")

INLET SPACING



12" FALLS A = 8-5/16"
18" FALLS A = 11-5/16"
24" FALLS A = 14-5/16"
36" FALLS A = 20-5/16"

48" FALLS B = 17-3/8", C = 18"
60" FALLS B = 19-5/16", C = 26"
72" FALLS B = 22-5/16", C = 32"

84" FALLS D = 20-13/16", E = 23-1/2"
96" FALLS D = 22-13/16", E = 27-1/2"

Figure 4: Inlet Spacing Guide

- The wall installation is very similar to the concrete/ substrate installation without the forming process. The dimensional requirements for installation will be the same.
- The lip of the waterfall must be fully supported by the poured substrate (usually gunite or concrete). It is also recommended that steel rebar be used to further support the waterfall inside the substrate.
- When forming the area for installation, note that plumbing and electrical notches must be provided (Figure 3 and 4).
- The waterfall must be installed with a minimum of 1/8" overhang from the finished surface (Figure 5). Mortar or thinset should be used to secure the waterfall in place.

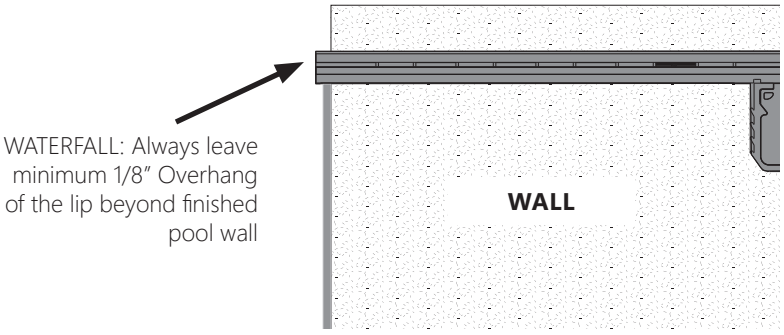


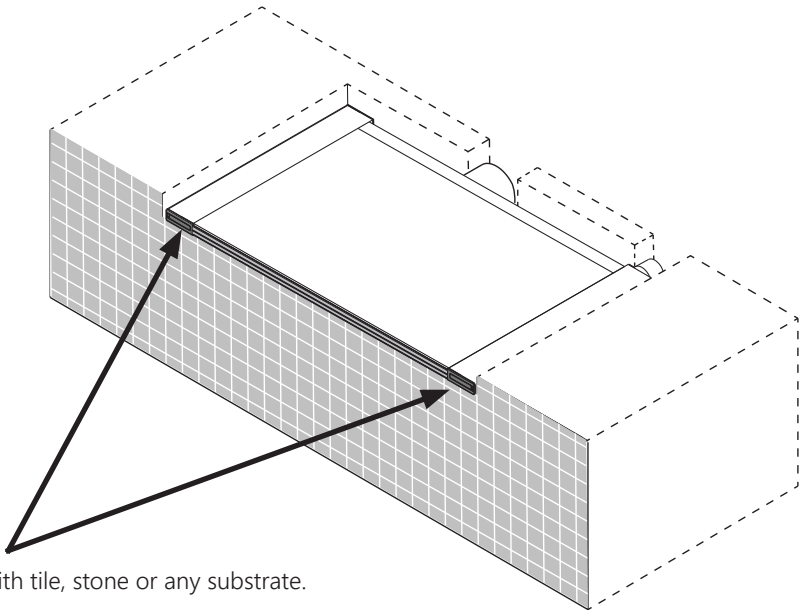
Figure 5: Overhang Lip 1/8"

SETTING THE WATERFALL

For standard pool applications, the waterfall must be installed before the deck and coping. Place the waterfall in the notches cut in the bond beam or wall application. Utilize substrate material such as tile, thinset or mortar to make sure that the waterfall is level with the top of the upper edge of the bond beam.

Fill the gaps around the unit with concrete or similar material in preparation for the tiles or other material. Cut the tile/material to fit under the lip of the waterfall using thinset or similar substance to secure in place. Ensure the waterfall is level front to back and across the length of the fall. Complete the electrical installation and plumbing before covering the top deck.

When installing the final fascia to the wall whether using tile, stone or other substrate, do not cover the access doors. These will be required for servicing the unit. (Figure 6)



Do not block access doors with tile, stone or any substrate.

Figure 6: Installation of the waterfall unit.

RECOMMENDED PLUMBING FOR THE WATERFALL

1. Use multiple pumps when installing multiple waterfalls.
2. The dedicated pump should be plumbed with a minimum of 2" PVC pipe.
3. VGB compliant suction covers must be used, and they must be installed 18” above the bottom of the pool.

4. A filter strainer is required between the pump and the waterfall.
5. Install the supplied Rock Trap (25577-950-000) just before the water line reaches the waterfall inlet. The Rock Trap does not replace a filter.

BALANCING THE FLOW

It is recommended to use a 3-way valve after the pump to allow the flow to be regulated between the waterfall and the pool return. The recommended location for this valve is after the filter near the equipment pad (Figure 7).

When plumbing two or more waterfalls, follow all of the previous instructions with the addition of a 2-way ball valve for each waterfall. The valve is necessary to balance the water flow between the units. Proper placement of the valve is shown in (Figure 8). CMP ball valve part numbers are 25800-151-000 for 1½" and 25800-210-000 for 2".

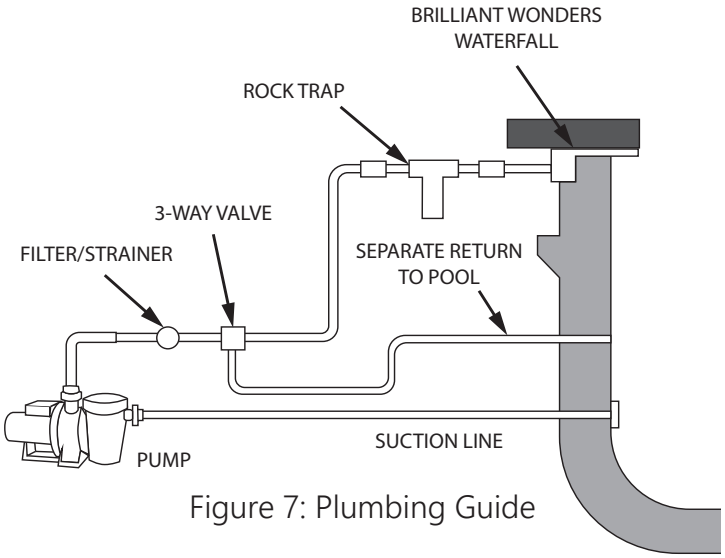


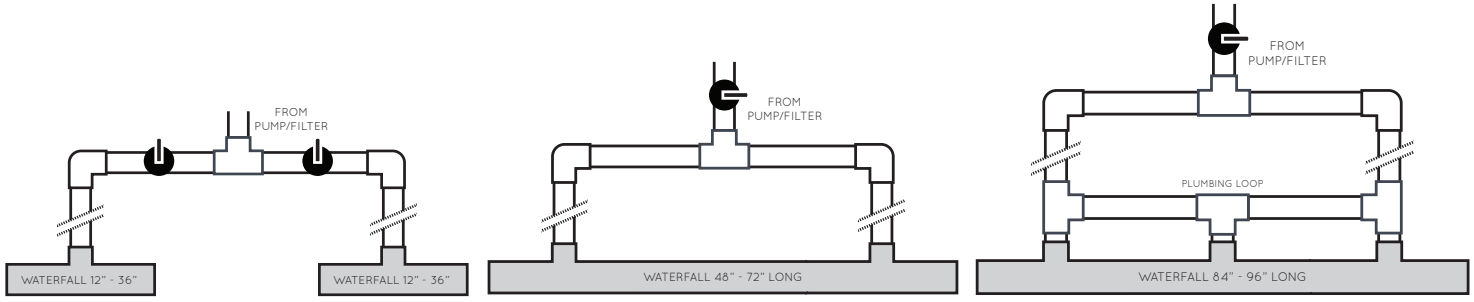
Figure 7: Plumbing Guide

Maximum Recommended Flow

1-1/2" Pipe	for 60 GPM
2" Pipe	for 100 GPM
2-1/2" Pipe	for 140 GPM
3" Pipe	for 225 GPM

Typical Performance at 50' of Head

1/2 HP	26 GPM
3/4 HP	58 GPM
1 HP	68 GPM
1-1/2 HP	93 GPM
2 HP	106 GPM
3 HP	140 GPM

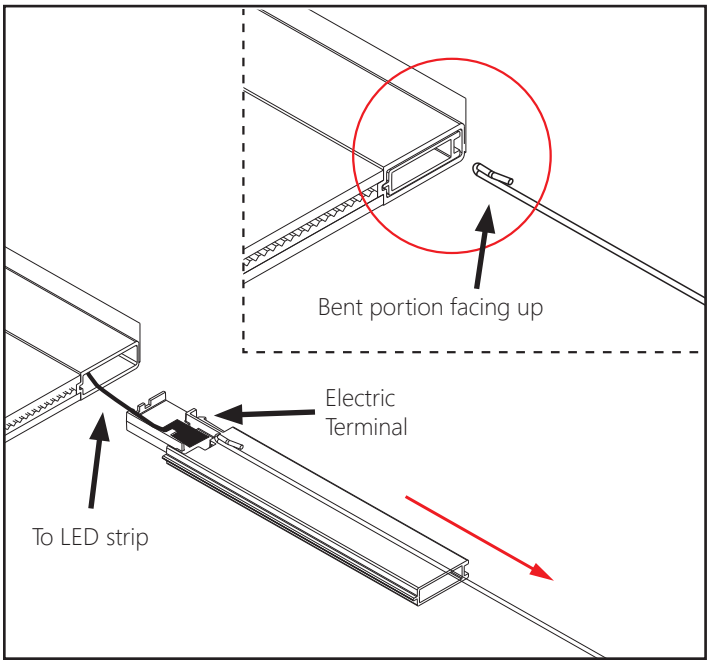


UP TO 36" LONG | 48" - 72" LONG | OVER 72" LONG

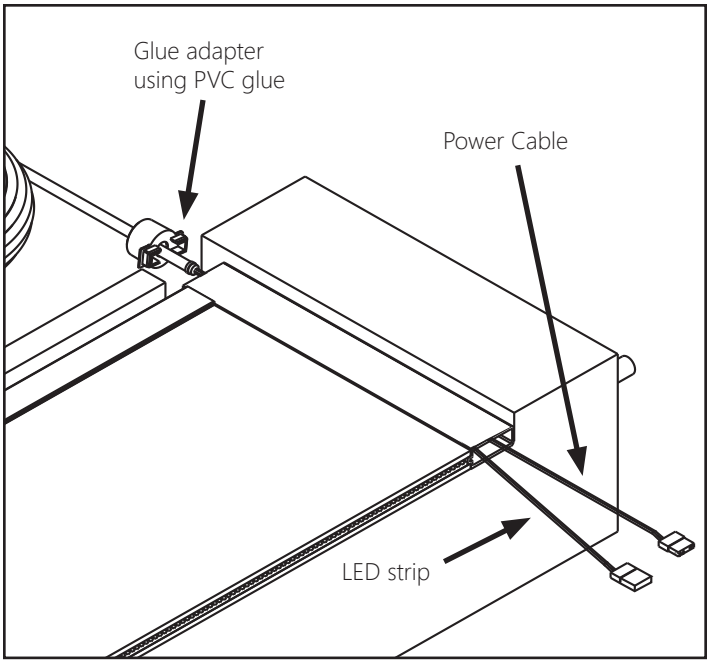
Figure 8: Recommended Pipe Configuration

NOTICE **Use only water that has been properly filtered by an in-line cartridge filter. Failure to properly filter water may result in a clogged waterfall and a voided warranty.**

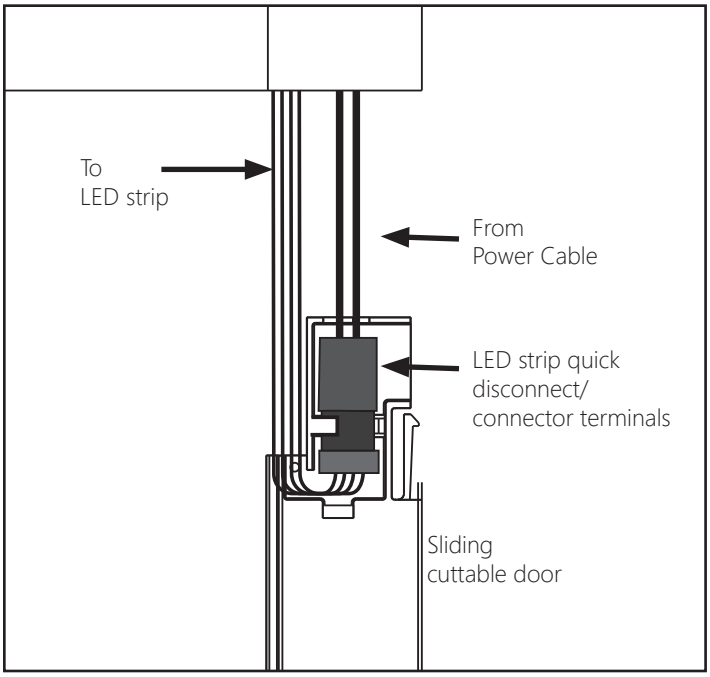
LED STRIP POWER CABLE CONNECTION



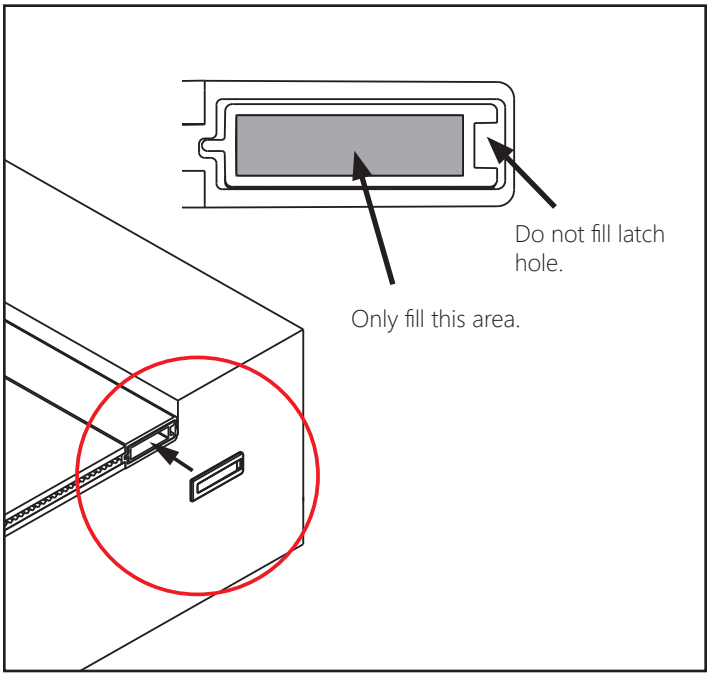
1. Insert door unlatching tool into the side holes of the cuttable doors with bent portion facing up. Once fully inserted, pull tool to remove door. Wire and terminal from LED strip will slide out with cuttable door.



2. Remove LED Strip terminal from the door. Pull power cable and LED strip through the front of the side conduit and glue adapter into the back.

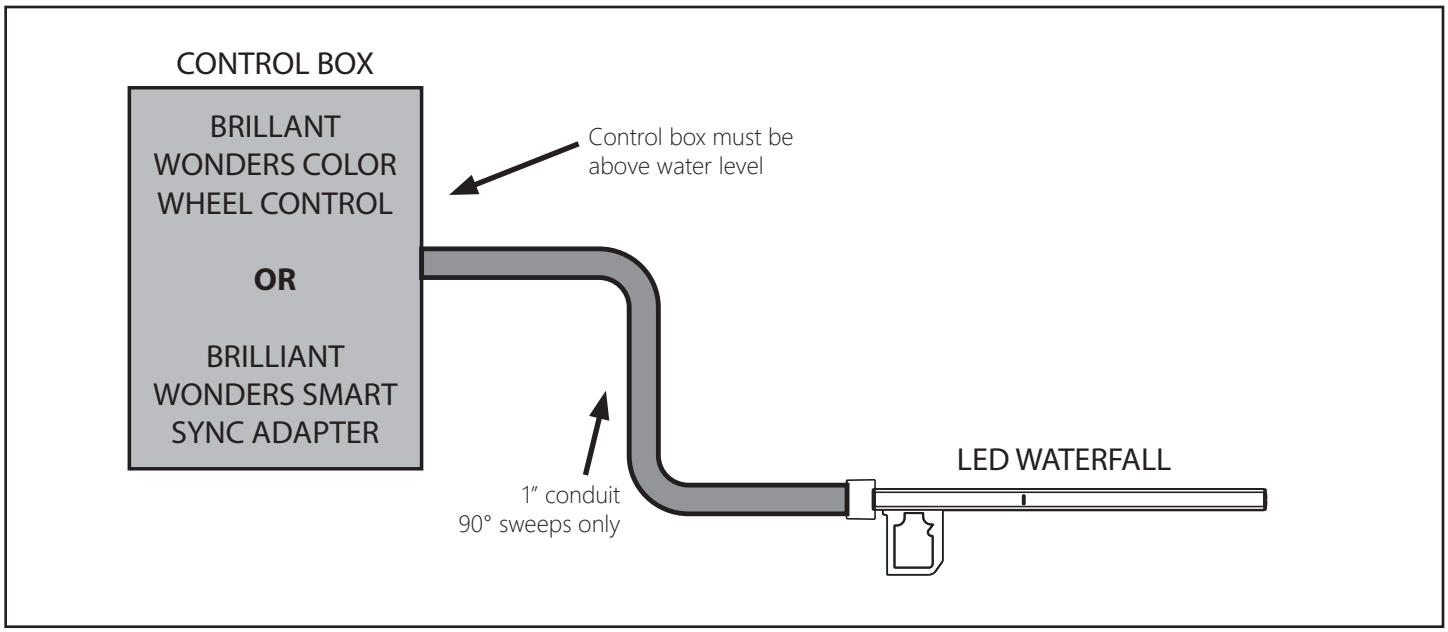


3. Connect power cable connector terminal to connector terminal of LED strip. Place both into the cuttable door as shown. Push cuttable door into side conduit while pulling electric cable from the back.

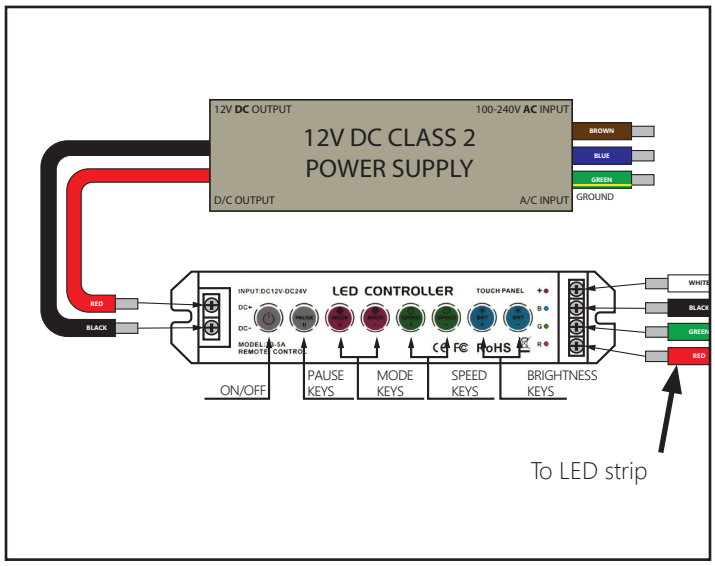


4. Glue door cover to cuttable door using PVC glue. OPTIONAL: Opening of cuttable door can also be filled with grout, plaster, caulk, etc. to match pool wall. Fill *only* opening of cuttable door, do not cover latch hole.

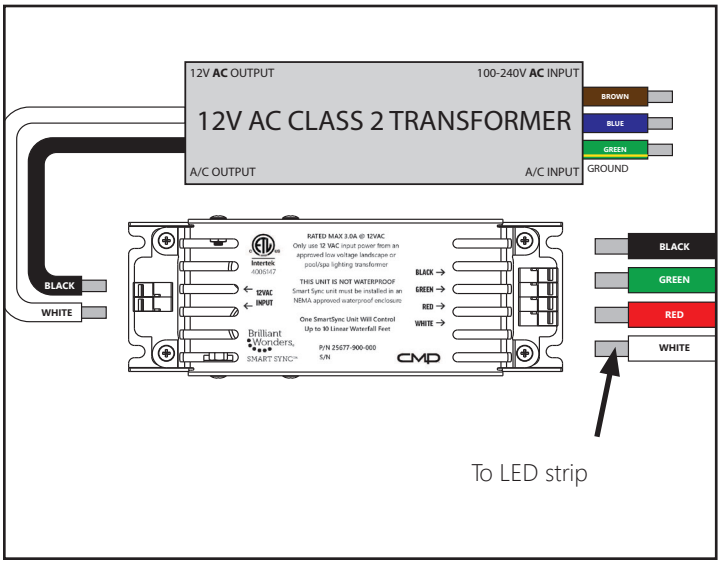
CONTROL WIRING



Install power cable through 1" conduit. Use only sweeps, no 90° elbows. Control box must be above water level. Connect cable to Brilliant Wonders Color Wheel Control, or Brilliant Wonders Smart Sync Adapter.



Control Option 1: Brilliant Wonders Color Wheel Control requires a 12V **DC** power supply (sold separately).

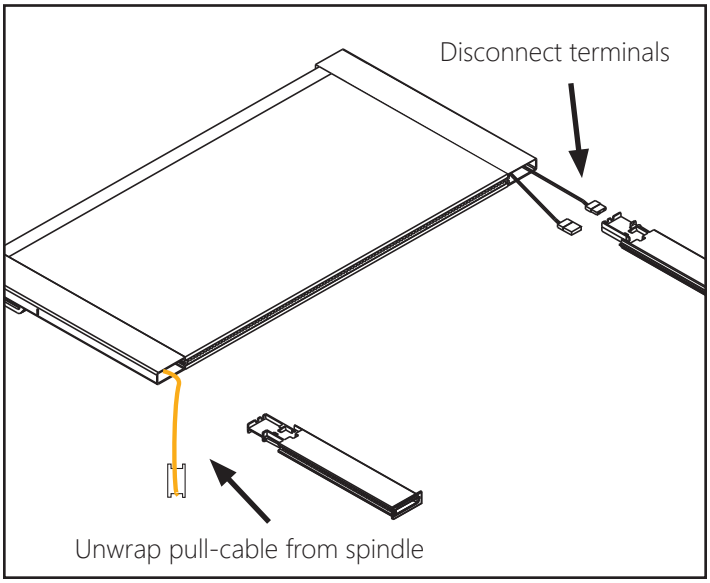


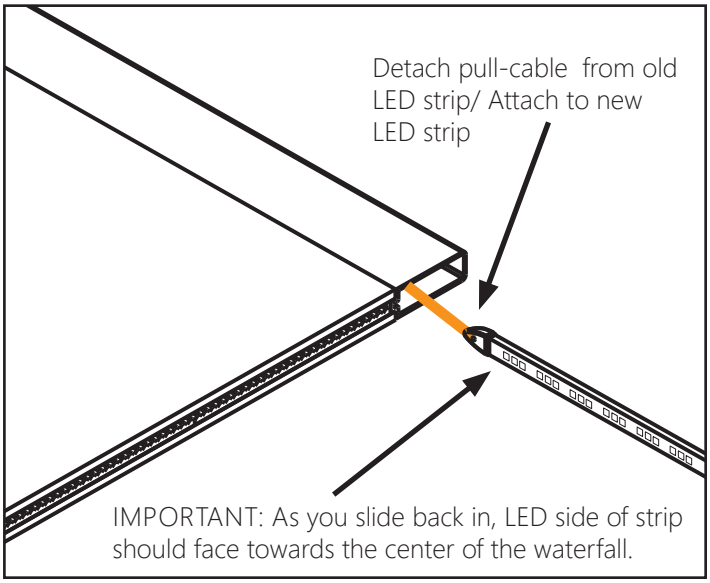
Control Option 2: Brilliant Wonders Smart Sync Adapter requires a 12V **AC** transformer (not included). Use Smart Sync Adapter option for Waterfalls installed with other LED products or automation

NOTICE Color Wheel Control and Smart Sync Adapter are incompatible and should not be used together.

For more detailed information please refer to instruction manuals for the Brilliant Wonders Color Wheel Adapter (25650-130-300), or Brilliant Wonders Smart Sync Adapter (25677-900-000).

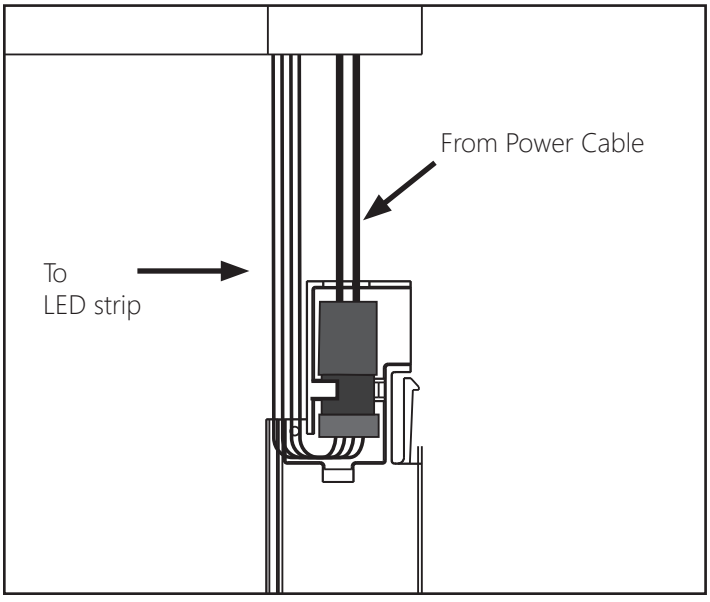
LED STRIP REMOVAL/REPLACEMENT GUIDE

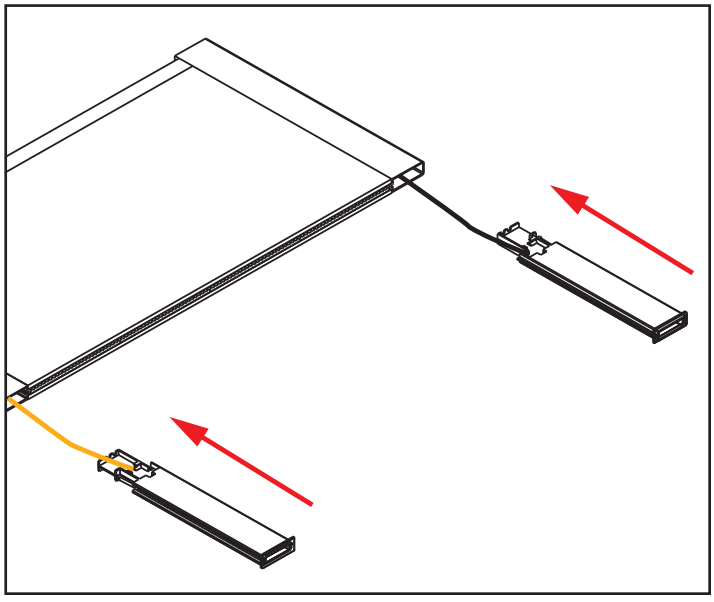




1. Use unlatching tool to remove both doors. (See detailed instructions on previous pages.) Disconnect wire terminals and unwrap pull-cable from spindle. Let cables hang freely.

2. Remove LED strip by gently pulling the wiring of the strip. Once removed, detach pull-cable from old LED strip and tie onto the new one. Start feeding the LED strip back into the side conduit while pulling the pull-cable from the other side.[1]





3. Reattach wire terminals and place them into cuttable door as shown. Re-wrap pull-cable around the spindle and place back into cuttable door.

4. Reinstall cuttable doors into waterfall. Slowly push in until latches snap into place. Door latch will "snap" into place once fully seated in the side conduit.

[1]TIP: *If the LED strip gets caught or stuck during installation or removal, the door unlatching tool may be used to help guide or reposition around the corners. Insert door unlatching tool into the side conduit using the rounded end to push the LED strip off the corner while pulling from the opposite side.*

TROUBLESHOOTING/FAQ

Situation	Solution 1	Solution 2
Can the lip be cut into a custom shape or radius?	Yes, Brilliant Wonders LED Waterfall 2 from CMP can come custom cut from the factory.	Contact CMP for more information on order placement.
Waterfall has breaks in the sheeting or does not have a smooth flow.	Debris may be caught in the lip. Use the clean out tool or a thin flat tool to clear the lip.	GPM may be inaccurate. Too little flow or too much flow through waterfall may prevent proper water flow. Reference the chart in this installation guide for proper GPM.
When using the Colorwheel Control the LED on my waterfall is only red or blue.	You may have the incorrect power supply. A DC transformer/power supply purchased from CMP is required to activate the controller.	Wires may be crossed between the controller and waterfall. Sequence top to bottom should be as follows: White, Black, Green, Red. See detailed wiring diagram on the controller instructions or quick reference card.
Do I always need to use the screen and rock trap that came with the waterfall?	We do not recommend using the screen if possible. Pet hair and other fine debris can build up over time and impede the water flow.	The rock trap is always recommended. Using the rock trap will capture debris in the pipes, and prevent it from building up in the waterfall. NOTE: During installation, do not “drag” the pipes along the ground or in the dirt. This fills the pipes with dirt and the waterfall will not work correctly after installation. (Yes, we have seen this happen before!)

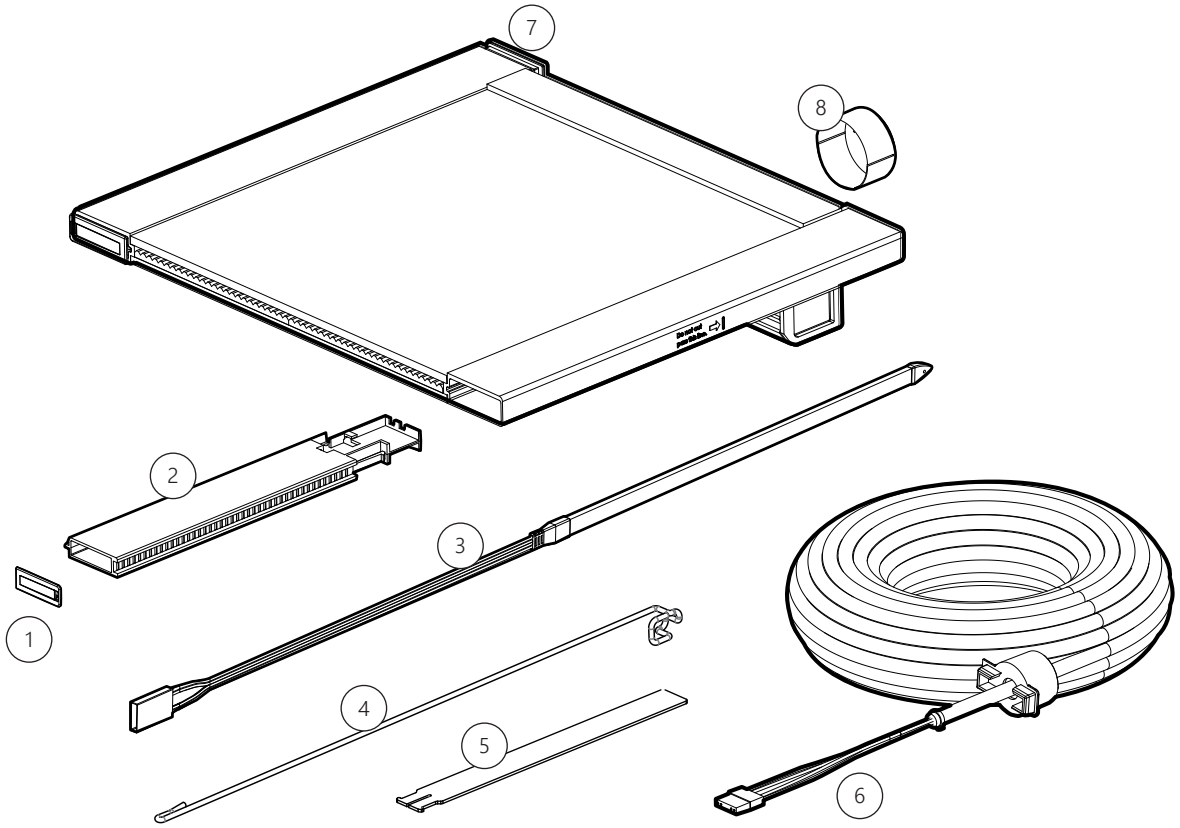
IMPORTANT: USE FILTERED WATER ONLY!

IF YOU HAVE ANY OTHER CONCERNS OR QUESTIONS, CONTACT CS@C-M-P.COM

TROUBLESHOOTING/FAQ

Situation	Solution 1	Solution 2
The LED Strip or cord are stuck, twisted or difficult to remove.	The door unlatching tool can be used to relieve binding inside the waterfall. Push the tool to the back of the side conduit and use it to reposition the LED strip inside the housing.	
I pushed the door unlatching tool in the side conduit but the door will not pull out.	Confirm that you can feel a small catch as the tool opens the latch.	Gently and slightly rotate the tool side to side to help catch the sliding door before pulling out.
One waterfall has more flow that other waterfalls installed in the pool.	The supply of water is not balanced correctly. To get equal flow from each waterfall unit, adjust the valves at each waterfall until the desired flow is achieved.	Review the Plumbing Guide in these instructions for details on a proper multiple waterfall plumbing setup.
The pull-cable broke or became unattached from the LED strip. How do I replace it?	If the cable breaks or is pulled through while untied, a shop vac can be used to guide it back through the channel. Push the new pull-cable into the side channel making sure to keep it along the inside wall (the door opening tool can be used to help guide the pull-cable into the channel). Place a shop vac hose over the opposite side channel opening and turn on the shop vac. The shop vac will "suck" the pull-cable through the waterfall. Reattach to the LED strip.	If the pull-cable actually tears through the end of the LED strip, the cable can be reattached by tying around the back of the black overmolded end. The door unlatching tool can be used to help guide the LED strip into the channel if it gets stuck.

AVAILABLE PARTS & ACCESSORIES



BRILLIANT WONDERS® LED WATERFALL 2		
REF	CMP P/N	DESCRIPTION
1	25777-009-100	DOOR COVER, 10 PACK ALL COLORS (FITS LEFT OR RIGHT SIDE)
2	25777-130-017	CUTTABLE SLIDING DOOR FOR 6" LIP WATERFALL
2	25777-130-007	CUTTABLE SLIDING DOOR FOR 12" LIP WATERFALL
3	25777-130-100	12" LED WATERFALL LIGHT STRIP 2
3	25777-180-100	18" LED WATERFALL LIGHT STRIP 2
3	25777-230-100	24" LED WATERFALL LIGHT STRIP 2
3	25777-330-100	36" LED WATERFALL LIGHT STRIP 2
3	25777-430-100	48" LED WATERFALL LIGHT STRIP 2
3	25777-530-100	60" LED WATERFALL LIGHT STRIP 2
3	25777-630-100	72" LED WATERFALL LIGHT STRIP 2
3	25777-730-100	84" LED WATERFALL LIGHT STRIP 2
3	25777-830-100	96" LED WATERFALL LIGHT STRIP 2
4	25777-130-030	DOOR UNLATCHING TOOL
5	25777-130-065	TRIMMING/ CLEANING TOOL
6	25777-130-200	100' LED POWER CABLE
7	25777-130-071	CONDUIT BACK PLUG
8	25777-130-074	BACK DEBRIS GUARD

For the most recent instructions, videos and product information visit www.c-m-p.com

NOTES

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Warranty Questions

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Support Resource & Videos Online

c-m-p.com/resourcecenter