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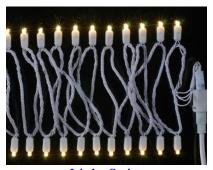
Versaline Plug-and-Play Chasing LED Christmas Lights

Customize eye-catching chasing Christmas light installations, with Versaline Plug-and-Play. This 3-Channel Plug-and-Play system allows you to connect a variety of light strings, icicle strings, net lights, and supernova lights into a stunning display of flashing lights. We developed this system in response to heavy demand for multi-channel chasing Christmas lights.

Versaline is constructed of high grade commercial components and is designed for indoor and outdoor use. The system runs on 24 volts, which enables safe, low voltage installation. No other low voltage products offer the versatility of this system. The lights and infrastructure components can be used in conjunction with each other. Add a controller and the entire light display is capable of phasing, flashing, chasing and more. Use multiple controllers on one system to create varied effects with different lighting objects at the same time.

A unique feature of this system is that the connectors have up to five wires, allowing the lines to carry two 24-volt power lines, plus three signal lines. This provides a convincing 3-channel chase, allowing the controllers to create delightful effects other light strings cannot achieve. Linkable in long lines! That's unusual in a chasing string. This is a super-deluxe LED design we developed because so many people were looking for it and not finding it. Well, here it is!

We offer three versatile controllers, an 8-function, a simple 10-function, and a 10-function with digital display. Any of the controllers can be used with the full complement of LED Christmas lights we offer, including:



Light Strings



Supernova Strings



Net Lights



Icicle Strings



Crab Light Strings

Video Links

Here are some video links you can use to observe the lights in action. Our web site has additional videos.

- 3-Channel Chasing LED Christmas Light System
- Versaline LED 3 Channel Chasing Lights
- Versaline 3-Channel LED Christmas Light System
- C6 Multi-Colored 3-Channel LED Christmas Lights
- C6 White 3-Channel LED Christmas Lights
- 3-Channel LED Chasing Christmas Lights (Multi-Color)
- 3-Channel LED Chasing Christmas Lights (Warm White) with Green Wire
- 3-Channel LED Chasing Christmas Lights (Warm White) with White Wire
- 3-Channel LED Chasing Christmas Lights (Pure White)
- 3-Channel LED Chasing Christmas Lights (Red)
- 3-Channel LED Chasing Christmas Lights (Green)
- 3-Channel LED Chasing Christmas Lights (Blue)
- 3-Channel LED Chasing Christmas Lights (Gold)
- 3-Channel LED Chasing Christmas Lights (Purple)
- 3-Channel LED Chasing Christmas Lights (Pink)
- 3-Channel LED Chasing Christmas Lights (Orange)
- 3-Channel LED Chasing Christmas Nets
- 3-Channel LED Chasing Christmas Icicles
- Versaline 3-Channel LED Icicle Lights
- 3-Channel LED Chasing Christmas Crab Lights
- How to Create a LED Light Curtain for Christmas
- How to Create Halloween LED Light Curtains
- Versaline Plug-and-Play Tether
- Versaline ColorFlip LED Christmas Lights
- Casino LED Chasing Lights

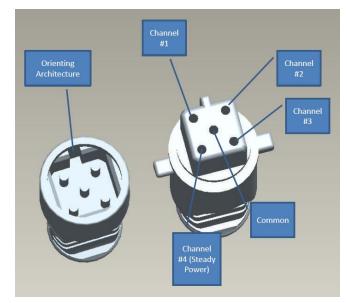
The Versaline system operates on 24 volts DC, but allows you to connect thousands of bulbs. You'll need a power supply, controller, some connectors and lights, and all the light sets above are interoperable.



Beautiful, shimmering, capable of large installations and rugged—the Versaline is a fantastic light system for serious Christmas decorators, including consumers and pros.

Features

- True 3-channel chase and other features. System contains all the wires necessary to do what few Christmas lights can.
- Commercial grade construction for high reliability and longevity.
- Weather-proof twist-lock connectors are rugged and very easy to connect quickly. They are superior to screw-on connectors because they are faster to connect, which is helpful for large-scale jobs. The fitting compresses an O-ring seal to keep the water out.



Guaranteed to stay connected during a nasty ice storm, unlike 2-prong plugs on most strings.

• Linkability: Branch length limits are as listed below.

Туре	Limit
Strings	20
Strings-Color Flip	10
Nets	8
Icicles	8
Crab Lights	5
Supernova (4ft)	3
Supernova (3ft)	4
Supernova (2ft)	8

If you use more than the listed limit in one branch, the lights will be a little dimmer near the end. We recommend creating additional branches instead. For example, the branch length limit for 24-bulb strings is 20 strands. Instead of putting 30 strings linked end-to-end in one branch, you can buy a 3-way splitter and create 2 branches of 15 strings, or 3 branches of 10 strings.

- "Infrastructure" limits: We recommend a maximum of 25 feet of extension cables or motherlines on one branch. Again, if you need more, simply create additional branches.
- Bright, high quality LEDs and optical-grade conical prismatic optics really sparkle.
- Indoor/outdoor use. Controllers and power supplies have IP44 or better ingress rating (protected against solid objects of 1mm diameter and splashing water.)
- RoHS (Reduction of Hazardous Substances) compliant. Lead was not used to make these products.
- Power supplies are ETL and/or CSA certified.
- The controllers remember their setting. If you use a timer, the controller always turns on in your favorite mode!

Elements of a System

Lights



Light Strings

Supernova Strings (Comes with built-in 6-function controller and 12 Watt supply)



Icicle Strings



Crab Light Strings (Comes with 8 Watt supply)



Net Lights

Controllers

The 10-function controller with digital display will help you make the most of your system's capabilities because it has advanced functions, a dimmer and a timer. The basic 10-function and 8-function controllers are less expensive, but still versatile.



8-Function Controller Up to 480 bulbs

1100784



10-Function Controller Up to 480 bulbs

1101135



10-Function Digital Display Controller Up to 4,800 bulbs 1101059



10-Function Wireless
Digital Display Controller
Up to 4,800 bulbs
1101130







Sound-to-Light Controller STL-6A

Versaline Sound-to-Light Controller Lead Wire (6ft) 1101571

Waterproof Power Supplies (120 Volts AC input 24 Volts DC output)



8 Watt up to 267 bulbs 120 VAC input non-polar 2-prong 1100781



12 Watt up to 400 bulbs 100-240 VAC input non-polar 2-prong 1101061



60 Watt up to 2,000 bulbs 100-240 VAC input 6-foot cord 3-prong plug 1100631



100 Watt up to 3,333 bulbs 100-240 VAC input 6-foot cord 3-prong plug 1100826 or 1101060

Waterproof Power Supplies (12 Volts AC input 24 Volts DC output) and Wire Nuts

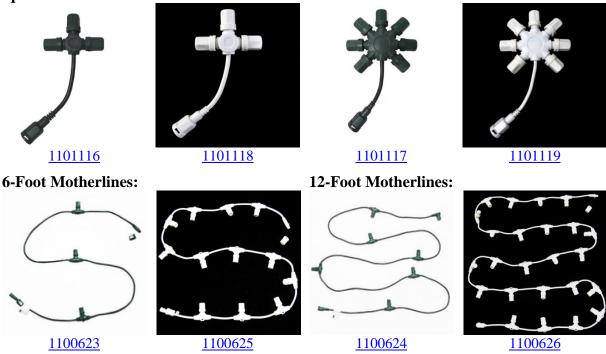
These unique waterproof landscape adapters let you connect your Versaline 24 VDC lights to a 12 VAC traditional landscape system. That means you can put your lights in remote locations without running 120 VAC extension cords. So if you have 12 Volt AC Landscape lights far from your house and don't want extension cords running over the grass, walks and driveways, you can just attach these supplies to your landscape lines and then attach the lights to these supplies. The supplies are built to operate at input voltage from 9 to 15 VAC, so whether you have a weak 9 VAC far from the transformer or an exceptionally strong 15 VAC right next to a transformer using a 15 VAC output tap for voltage loss compensation, your lights will receive the required 24 VDC. Ingenious, and much sought-after!



The wire nuts above are designed for direct burial and include specially formulated grease to keep moisture away from the bare wire.

Connectors ("Infrastructure Products")

Splitters:



Tether for Digital Display 10-Function Controller:



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Extension Cords:

6-Foot Extension



1100617



1100620

12-Foot Extension





1100621

25-Foot Extension





1100622

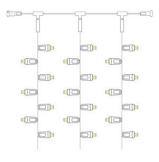
All "infrastructure products" have 5 wires, including power. The light strings, supernova strings, and nets carry only 4 lines (ground plus 3 signal lines). They do not carry the steady power line. This saves money and keeps the strings from being bulky. Therefore, your controller must be connected either directly to a power supply, or through the Versaline splitters, motherlines or extensions to a power supply.

Note that you can connect several controllers to one power supply; however, no controller can come after a light string or net. Use the infrastructure products instead.

Using the Motherlines to Create Curtains

Motherlines can be used to create large light curtains. Simply connect a string, meteor light set onto each "T" tap on the motherline, as shown at right.

You can also connect several motherlines end-to-end to extend your light curtain along the horizontal plane. Add additional strings if you wish to extend the light curtain vertically.



Light curtains are wonderful in hotels, corporate lobbies and on gutterlines of homes or other buildings.

8- and 10-Function Versaline Controllers

The 8- and 10-Function Controllers create impressive three channel chasing, flashing and blinking effects. They are specifically designed to work with our Versaline products. They will not operate other light strings. Nor will other controllers operate Versaline light strings. All Versaline strings will operate in steady burn mode with just a power supply and no controller, except for the supernova strings. Supernova strings each come with a built-in controller and 12W power supply for easy 6-function lighting modes and daisy chain options.

The Versaline controllers will not operate non-Versaline strings. The Versaline strings will not work with non-Versaline controllers.

8-Function Versaline Controller

The 8-function controller is a handy and inexpensive controller that does much of what the 10-function controller does at a fraction of the price. The 8 functions are:

- Steady On
- Combination
- In Waves
- Sequential
- Slow-Glow
- Chasing/Flash
- Slow Fade
- Twinkle/Flash

The 8-function controller can control up to 480 lights total.

10-Function Versaline Controller: 1101135

The 10-function is an inexpensive controller that allows you to easily control your Versaline lights. The 10 functions are:

- Steady Glow
- Chaser
- Shuffle
- Starfield
- Ray Gun
- Twinkle
- Sparkle
- 123/321
- Shimmer
- Combo

10-Function Versaline Controller with Digital Display: 1101059

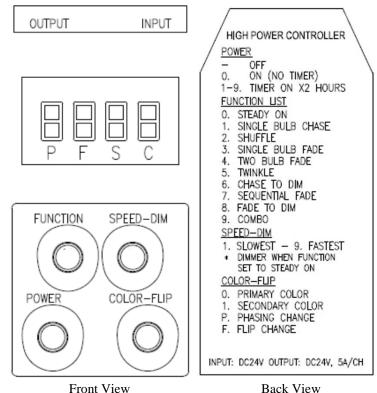
The 10-function controller is connected between the power supply and the lights. The four buttons are:

Power: Select on (0), off (no number) or timer (1-9).

When you select timer mode (1-9), the lights come on for **X2 hours selected**, every 24 hours at the time you made the timer selection. So if you select "timer = 2" at 6:00 pm, the lights will come on for 4 hours from 6:00 pm to 10:00 pm every night.



- Function: Choose a setting (0-9) from the 10 functions listed on the drawing below.
- Speed: Change the speed from 1 slowest to 9 fastest. In Steady On mode, the Speed control is a dimmer.
- Color-flip: Choose a setting 0-1, P, or F as described in the drawing below. This color-flip function only works when the controller is used with Versaline Color-flip lights.



The 10-function controller can control 4,800 lights, which is a little more than the 3,333 that a 100 watt power supply can drive, so the practical limit of this controller is 3,333 lights. If you are using a landscape supply, which can drive up to 4,000, then the practical limit is 4,000 lights.

10-Function Wireless Versaline Controller with Digital Display: 1101130

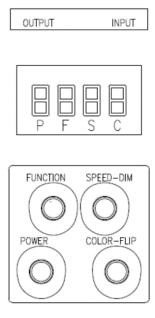
The 10-function controller is connected between the power supply and the lights. Wirelessly use the controller via Bluetooth by downloading the free Versaline App on your smart device.

1. Turn the controller on by plugging in the 24V power adapter into a 120V outlet

- Search for Versaline in the app store of your <u>android</u> or <u>apple</u> smart device and download the free app.
- 3. Open the app and press "Get Started".
- 4. The controller should show up under "Available VERSALINE". Click on the device to pair and it should now be under "Connected VERSALINE".
- 5. Select "Control-FX" on the bottom of the window.







The options to control the lights on either the Versaline app or the controller are:

• **Power**: Select on (0), off (no number) or timer (1-9 on the controller).

When you select timer mode (1-9) on the controller, the lights come on for **X2 hours selected**, every 24 hours at the time you made the timer selection. So if you select "timer = 2" at 6:00 pm, the lights will come on for 4 hours from 6:00 pm to 10:00 pm every night.

If using the Versaline app, the number of hours selected under "Timer" will be the exact number of hours the lights will stay on for.

• **Function**: Choose a setting (0-9 on the controller, "Function" on the app) from the 10 function options. Functions are listed on page 8 and on the back of the controller.

- **Speed**: Change the speed from 1 slowest to 9 fastest. In Steady On mode, the Speed control is a dimmer.
- Color-flip: If using Versaline Color-Flip lights, you can choose a setting 0 (Primary), 1(Secondary), P(Phased), or F(Flip).

The 10-function controller can control 4,800 lights, which is a little more than the 3,333 that a 100 watt power supply can drive, so the practical limit of this controller is 3,333 lights. If you are using a landscape supply, which can drive up to 4,000, then the practical limit is 4,000 lights. Each controller is designed to function independently and control the effects of lights directly connected to the controller.

Important note: when the functioning mode is set to "Steady On", the speed setting acts as a dimmer. This is a wonderful and sought-after feature; however, if you are not aware of that, you may be dimming your lights unintentionally. <u>If you operate your lights in "steady on" mode, be sure to adjust the "speed" control to the brightness you desire.</u>

If you wish to extend your installation beyond the practical limit defined per controller, we suggest using the Versaline Plug-and-Play Tether. This tether allows multiple high power 10-function controllers to be linked in series for synchronous effects. There is no limit to the number of controllers you can link together in this master slave configuration.

Simply plug the single male **Data In** end to the output port of the desired master controller, then insert the male **Data Out** on the Y split end to the input of the next controller. The female **Data Link** connector connects to the Data In of the next tether, if needed. Connect as many tethers together in series as you wish. The first controller



acts as the master and will synchronously control the function of all of the lights to the slave controllers.

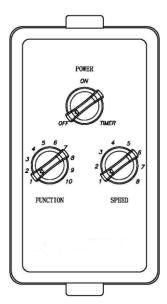


Input and Output Tether Ports

10-Function Versaline Controller (no display): (DISCONTINUED)

The 10-function controller is connected between the power supply and the lights. The three knobs control:

- Power: Select on, off or timer. When you select timer mode, the lights come on for six hours every 24 hours at the time you made the timer selection. So if you select "timer" at 6:00 pm, the lights will come on from 6:00 pm to midnight every night.
- Function: Choose from the 10 functions listed on the drawing at right.





• Speed: Change the speed from low to high, in eight increments. In Steady On mode, the Speed control is a dimmer.

Note: when using the "Steady On" function, the speed dial functions as a dimmer. This is a wonderful and sought-after feature; however, if you are not aware of that, you may be dimming your lights unintentionally. <u>If you operate your lights in "steady on" mode, be sure to adjust the "speed" knob to the brightness you desire.</u>

Controller and Power Supply Capacities

Your power supply plugs into the wall. Your controller plugs into the power supply. Your lights plug into the controller. The number of lights you can operate is determined by the weakest link.

First, decide if you want the timer, dimmer and extra functions included in 10-function controller with digital display. If not, and you want to save money the basic 8-function and 10-function controllers are an option, as long as you don't need to control more than 480 bulbs. If you want to control more than 480 bulbs, you need to buy a 10-function controller with digital display, because it can handle up to 4,000, using the 100 watt supply.

After you decide on the controller, then choose a power supply that is large enough to handle your load. To simplify the calculations, the chart below lists the maximum limit for all lights, based on the controller and power supply you choose.

	Bulbs		Lights	Maximum	Maximum Total Lights on All Branches								
	per String,	Power	Per	Per	Controllers			Plug-in Power Supplies				Landscape Supplies	
	Net, Etc.	(Watts)	Branch	Branch	8-Func.	10-Func.	10-Func.	8 Watt	12 Watt	60 Watt	100 Watt	60 Watt	120 Watt
Part #					1100784	1101135	1101059	1100781	1101061	1100631	1101060	1101133	1101134
							1101330				1100826		
Capacity (watts)					14.4	14.4	144.0	8.0	12.0	60.0	100.0	60.0	120.0
			_										
	Capacity (bulbs)>				480	480	4,800	267	400	2,000	3,333	2,000	4,000
Strings	24	0.72	480	20	20	20	200	11	16	83	138	83	166
Strings-Color Flip	48	0.72	480	10	10	10	100	5	8	41	69	41	83
Nets	96	2.88	768	8	5	5	50	2	4	20	34	20	41
Icicles	120	3.60	960	8	4	4	40	2	3	16	27	16	33
Crab Strings	240	7.20	1,200	5	2	2	20	1	1	8	13	8	16
4' Supernova	128	3.84	384	3	3	3	37	2	3	15	26	15	31
3' Supernova	96	2.88	384	4	5	5	50	2	4	20	34	20	41
2' Supernova	48	1.44	384	8	10	10	100	5	8	41	69	41	83

^{*}Controller can handle 4,800 LED bulbs, but 100 Watt plug-in power supply can only handle 3,333. The 120 Watt landscape supply can handle up to 4,000.

Example 1: If you purchase the 8-Function Controller and a 12 Watt plug-in power supply, then your maximum capacity is 16 strings. The weakest link or limiting factor is this case is the power supply, which has a maximum capacity of 400 bulbs. Specifically, (400 bulbs)/(24 bulbs per string) = 16.67. This is equivalent to 16 strings total.

Example 2: You want to control 10 strings, 4 nets, 5 icicles and 3 crab strings, all on one controller. That's (10x24)+(4x96)+(5x120)+(3x240)=1,944 bulbs total. That's too much for the basic controllers. You must buy the 10-function controller with digital display, and the 60 watt power supply, because it can handle up to 2,000 bulbs, whereas you have only 1,944. If you think you might add to the installation later, you should get the 100 watt plug-in supply, which would allow you to put a total of 3,333 bulbs on the controller.

Example 3: You want to control 50 strings, 10 nets, 8 icicles and 5 crab strings. That's (50x24)+(10x96)+(8x120)+(5x240)=4,320 bulbs. The 10-function controller with digital display can handle that, but our largest power supply can only handle 4,000 bulbs. Therefore, you cannot build a system this large. You need to remove items with at least 320 bulbs.

Note: the bulbs themselves are not removable from the strings. This "integral" one-piece construction has proven both economical and very reliable. The lights should last a very long time.

Linkability: This is not the same as power capacity. You can put 166 strings on a 10-function controller, but only 20 strings per branch. That means you'll need to use taps and/or motherlines to split things up. If you put more than 20 strings on a branch, the ones at the end will be dimmer

Troubleshooting

If these products fail to light, please check the following:

- Disconnect the power supply from the outlet and be sure that the power supply is not being overloaded with too many lights connected.
- Check to confirm that the first connector is properly and securely connected to the power supply, and all connectors in between are also securely connected.

If your lights appear dim, and you are using the 10-function controller with digital display in "steady on" mode, use the speed knob on the controller to adjust the brightness to your desired level.

If your controller is not operating, note that no controller may come after a light string or net. Use the infrastructure products instead. This topic is covered above.

If your lights near the end of a branch appear dim, you probably exceeded the branch length limits mentioned earlier, so use taps or mother lines to split the installation into additional branches to keep the voltage up.

If your controller (not just the lights) blinks on and off, you overloaded the supply. You probably did not damage the supply. You either used too many lights, you have a defective string with a short in it or you used metal staples or some other technique that created a short (connection) between 2 wires that shouldn't be connected. Follow these steps:

- 1. Try lighting just one string with the supply. Do not use the controller or anything else-just the supply and one string. If it doesn't work, try a couple of other strings. If they don't work, your supply is bad.
- 2. If one string works on the power supply, connect half your installation to the supply (still with no controller.) If it works, your bad string is in the other half. Try half the chain with the bad string until you find the bad one. If you have, say 32 strings, your first test will narrow it down to 16 strings, then 8, then 4, then 2, and finally you'll know the bad string. So in just a few minutes, you should be able to identify the culprit.
- 3. Take the bad string out of the installation and see if you can get everything going on the supply without the controller. (Two bad strings are unlikely, but possible.)
- 4. Once you have everything working without the controller, insert the controller, verify everything is working and call us to replace the bad component. We're sorry for your inconvenience.