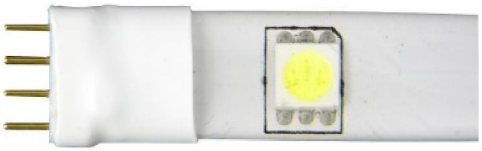
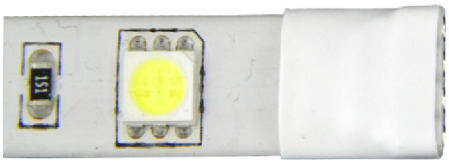
Easy Guide to Custom Tape Light System

Due to this demand, we have put together this easy to follow guide, explaining the system as well as installation instructions that can get the most of this new system. This guide will take you through step by step on how to choose the parts you need, what they do and how to install them correctly.

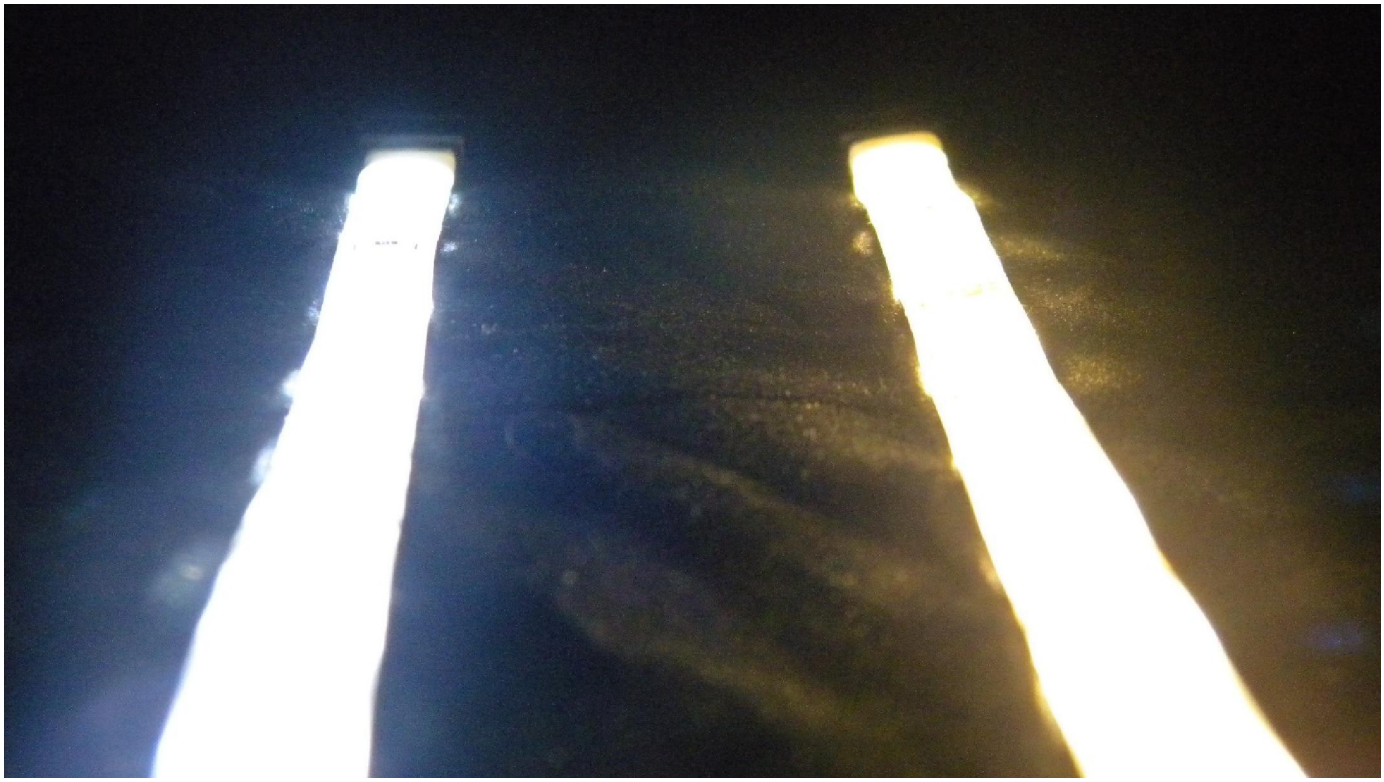
LED Tape Light Strips

This tape light system comes in strips of 3 different lengths: 8 inch, 12 inch and 16 inch lengths. Each strip has one 4 pin connector on each side, male and female.

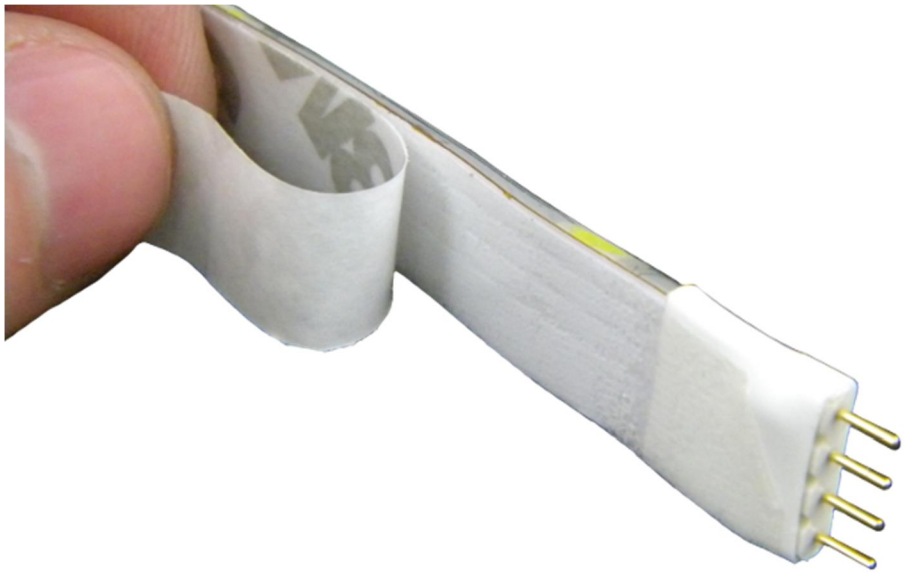




These strips can be chained together either directly to each other or connected via a jumper (used for areas where you don't wish to be lit but want to extend power to). They can come in either warm white or cool white and you can mix and match as much as you like in a single run. Shown below is a photo comparison of cool white and warm white, connected on a single run.



Mounting is incredibly simple and requires no hardware or tools. Each strip has 3M double side tape on the back that can adhere to almost any surface. Simply peel the coating off and press the strip where you would like to install it.



When connecting the first strip in a run to power, it is important to get the polarity in line with the strip configuration. Looking closely at the strip, you will be able to notice the designation of the pins. Starting at the top, the pin configuration is B R G 12V.

The Transformer

The transformer(s) chosen for this system was designed to make this system as simple as possible. UL listed and 12v, the transformer is perfect for supplying power to LED lights. This transformer plugs directly into any standard wall socket and comes in two different capacities, 24w and 40w.

The transformer requires a power connector to connect to the tape light system, converting from a circle plug to the 4 pin connector.

On the power adapter coming from the transformer to the tape light strip, there will be a small arrow on the connector that indicates the line for power.

This arrow must match with the 12v pin for the system to receive power. The power draw per foot is ~2.16w, meaning the max length of a single run is determined by the transformer. The max length of a 24w transformer is 11 feet and the max for a 40w transformer is 18.5 feet.

The Jumpers

For this system, we offer 3 different lengths of jumpers: 3 inch, 6 inch and 12 inch. The jumpers are designed for you to be able to jump over lengths without having it lit. For example, when lighting a series of cabinets, once you have wired the first cabinet, you can use the jumper to connect the second cabinet discretely to the same run, meaning only one power source would be required to power both cabinets. You can also use the same technique to jump from one shelf to another, running the jumper down the side of the cabinet and having the light restricted to only the shelves. They follow the same 4 pin configuration as the tape light strips themselves, having one male connector and one female connector. Also like the power adapter coming from the transformer, they have an arrow on the end of the connector, showing which pin must match up with the 12v pin.

How to Buy

This custom LED tape light system can be found here. When ordering this from our website, make sure you have all your measurements for your cabinets and know how many cabinets you wish to light. My personal advice when ordering this system is to think of each system as separate runs. Using this cabinet as a sample, this is how I would go about buying this system:

Start by measuring the area that needs to be lit, mostly likely the shelf length. In this example, we have a 34" cabinet with 3 shelves. The interior length of this cabinet is 32", meaning that each shelf requires (2) 16" LED tape light sections.

Since there are 3 shelves plus under cabinet, that means there are 4 levels to be lit. In total, you would need (8) 16" LED tape light strips to complete the job. The total length of these strips is 128 inches or 10 feet and 8 inches, meaning that a single 24w transformer is sufficient to power this system.

The distance between the shelves is just under 12", meaning 3 jumpers are required to light all the shelves and provide under cabinet lighting. So, at checkout for this system, the total count for this cabinet goes as following:

(8X) 16" LED tape light strips

(1X) 24w Transformer (with power adapter)

(3X) 12" Jumpers

For a single cabinet, this is what my page should look like this before I hit the “add to cart” button.

If you have multiple identical cabinets that you wish to light, simply change the quantity near the checkout button to match the number of cabinets. So if we had 3 of these cabinets, I would put 3 in the quantity box and in total, I would receive (24X) 16” LED tape light strips, (3X) 24w transformers and (9X) 12” jumpers, enough to set up 3 complete systems, one for each cabinet. The easiest way to buy this system is to think of each cabinet as an individual “project” and multiply by how “projects” you have.

So for this example, this is what my page would look like before I hit the checkout button for lighting 3 of these cabinets.

Custom LED Tape Light System

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Price:	$244.88
Brand:	AQL
* Bulb Temp:	Warm White / Cool White
* # of 16" sections:	8 (+$199.92)
* # of 12" sections:	0 (+$0.00)
* # of 8" sections:	0
# of 12" Jumpers:	3 (+$14.97)
# of 6" Jumpers:	-- None --
# of 3" Jumpers:	-- None --
# of 40w Transformers:	-- None --
# of 24w Transformers:	1 (+$29.99)
Quantity:	3

ADD TO CART

Tips for installing custom LED tape light system

The transformer and distance are the two limiting factors in this system, so when planning to buy this system keep these two in mind at all times. The transformer has the maximum length of LED tape light that it can support so depending on the size of the intended project, you may need multiple power sources. For example, if you have a large full size cabinet, it might take 20 feet of tape light to adequately light it, meaning that two 24w transformers would be required. As for the matter of distance, that is entirely dependent on your furniture layout. Depending on the physical distance from one cabinet to another, it might be easier to start a new system rather than extending from one cabinet to another.

Make sure you have enough room to hide the jumper going from one tape light section to the next if you want to hide the jumper from sight. Some cabinets come with pre-drilled holes for wiring or have enough gap to allow for wires to pass through but on the off-chance that it doesn't, it is up to you to modify the cabinet so that it does. You can accomplish this by either using a drill to create a hole large enough for the jumper to pass through or you can use a saw to shave off enough of the shelf for the jumper to slip between the cabinet wall and the shelf.

Use non-permanent means of mounting the power cord from the transformer and any jumpers you might be using for your system. The idea of this system is that you don't need hardware to mount the tape light as it is ideal for renters or homeowners that don't wish to perforate their furniture. Either 2 way tape or typical household adhesive is more than enough to get the job done without having to damage the cabinets themselves.

Always keep in mind the length of the run when considering adding to your system. Each of the transformers offered have a maximum amount they can sustain before failing and exceeding that limit can either damage the transformer or simply not cause the system to function. For each foot of tape light, the power draw is approximately 2.16w so to calculate the max length of your system, take the power rating of the transformer and divide it by 2.16 to provide the max length in feet your transformer can safely support.
The tape light sections can be trimmed down to a length but avoid doing so in the middle of a run. If you plan to continue past that trim, soldering will be required along with a 4 pin to 4 pin adapter; however, it is not recommended.

Remember, jumpers can be daisy chained together to reach the desired length. The jumpers have no power draw so it will not count against the maximum length supported by the transformer. This is great for corner cabinets or passing from one shelf to another.

If the adhesiveness of the tape light system begins to fail, glue or 2 way tape can be used to ensure a more secure mounting.

If you have any questions about this system, buying it online or over the phone, or installing it, please do not hesitate to contact us via email or phone. Our email address is sales@affordablequalitylighting.com or call us at 1-800-865-7221. We are always looking for feedback about either our products or our written documentation about them so customer input is always welcomed. Thank you for your time and we hope you love this product as much as we do.