



Surface Mount
Installation

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Before You Start *Make sure all code requirements are fulfilled. If your home theater project is going to require an electrical permit, you will be subject to the local electrical code requirements. Though it's not always easy to tell if your project requires a permit, it is best to consult with your local permitting authority.*

Electrical codes generally follow the National Electric Code (NEC), which is published by the National Fire Protection Association. The main purpose of the NEC is to prevent hazards to human health and safety from electrical shock, tendency to start or perpetuate a fire, and production of toxic fumes when exposed to fire.

Twilight panels are made with "Class A" fiberglass and covered in a "Class A" material and or fabric. Wiring harnesses are made from CL2 and CL3 or higher. If installing in a plenum, installer must supply CL2P, CL3P or CMP, and as always, confirm and conform to local codes before installing.

Quick Installation Overview

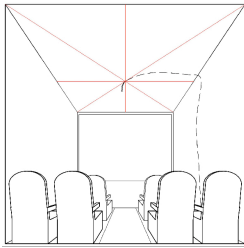
- Put latex gloves on to keep panels clean when handling
- Orient first panel
- Install Leader Cable
- Mark mounting locations
- Attach Mounting Anchors
- Turn on power
- Inspect to see that the stars are on
- Reposition Panel
- Engage hex tool
- Apply steady pressure
- Turn hex counter clockwise 1-2 turns
- DO NOT OVER TIGHTEN
- Panel installation complete
- For additional panels repeat

Measure Twice, Install Once

Square up the room. Just because it looks square, doesn't mean that it is square. Measure twice, since all the panels are aligned off of the first panel, it's alignment in the room is critical. Being a little out of square with the first panel could mean you are way out of square when you get to the end of the room, so take your time squaring up the first panel. Using masking tape, pencil marks, and chalk lines will also assist in keeping your installation square and true. Locate where your first panel will be installed.

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Running The Power



Based on site conditions and project design, generally you will have three options for power. The recommended way is using a Remote Driver and pre-installing an Twilight Leader Cable, or pre-wire an 18 AWG wire. Another option is to order the optional “Cloud Mount” anchors, and hang the panels from the ceiling by chain (note that this will require at least 4 or more inches of total height and may not be an option for low ceilings.) This allows the installer to plug the Driver to a ceiling outlet and locate the Driver on top of the panel. The third and alternate way is the Embedded Driver (see below.) **As always, check and observe local building codes.**

Remote Driver recommended method

The plug in power supply has an I.E.C. connector for the input of the line voltage.

The selected outlet for powering the Driver should be controlled from a remote switch, or control system.

Locate the Driver in a proper equipment area that is accessible and within 30 feet of the first Twilight star ceiling panel (generally in the center of the ceiling.) At this point, connect the Twilight Leader Cable and start daisy chaining the panels together, (not to exceed 50 panels) using the supplied Jumper Cables. Your leader cable should not be longer than 30 feet. Consult with Twilight if a longer leader cable is required.

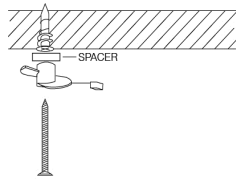
(option) Embedded Driver

Only a licensed electrician should embed the Driver into an Twilight panel. It may be necessary to install the Driver into the Surface Mount Panel where the switched line voltage is already located in the ceiling, and running new low voltage wire is not an option. This may be more common in existing older homes and retro fits. The Driver is a line voltage device and will require access to it (according to most electrical codes); therefore, a cut out in the panel will be required to access the Driver. Use the Twilight Cut Out Kit to mark and cut the panel. **Check and observe local building codes.**

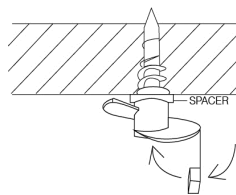
Mounting The First Panel

Place the first panel on the ceiling true and square in its proper orientation (this should be performed by at least two people, and no less than three when installing the larger 48” panels.) Push the awl through the center of the round stickers to make an indent the ceiling. This is done from the finished fabric side of the panel. Once all mounting points are marked on the ceiling, remove the panel.

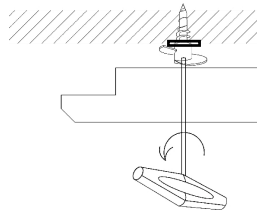
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IMPORTANT: THE EZ ANCHORS ARE FOR DRYWALL INSTALLATION ONLY AND ARE NOT INTENDED FOR MOUNTING TO ANY OTHER MATERIAL OTHER THAN DRYWALL. ONLY USE THE EZ MOUNT ANCHORS IN 5/8" DRYWALL WITH WOOD FRAMING. ALL OTHER CONDITIONS WILL REQUIRE THE INSTALLER TO SOURCE AND PROVIDE AN ALTERNATE MEANS OF ATTACHING THE MOUNTING ANCHORS.



Screw the Drywall Anchor into the dents you have made with the awl on the ceiling. Use the screw to anchor the yellow Mounting Anchor to the ceiling. **Check and make sure the Mounting Anchor Still rotates freely.** Mount all anchors for the panel. Use a #2 phillips screw driver to push the hex cap into place until it snaps.



FOR CLOUD ANCHOR INSTALLATION, use the same process as above, however, install the "eye hook" in the ceiling, and screw cloud anchor into the back of the panel, hang with desired chain length.

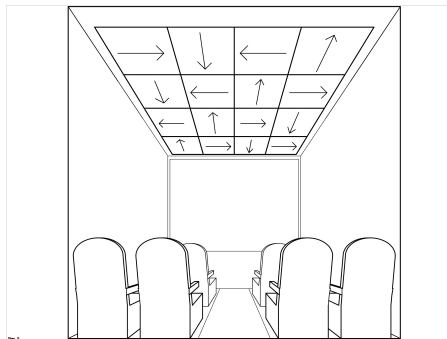
Connect the Leader Cable to the first panel and turn on the Driver. Inspect to see that there is power to the panel by looking for to see if the stars are illuminated, if not, check all connections and refer to the Trouble Shooting Guide. Carefully insert four Hex Drivers through the marked holes on the panels face (these are the same holes used to mark the mounting points with the awl.) Insert all four Hex Tools and engage them into each of the Mounting Anchors. While applying gentle upward pressure on the panel, rotate one of the Hex Drivers counter clockwise until it has engaged into the panel. Rotate about one to two full turns, until you feel it pull up flush to the ceiling. **DO NOT OVER TIGHTEN.** You may find it best to engage each Mounting

Anchor half way at first, then snug the panel to the ceiling.

Rotate The Panels

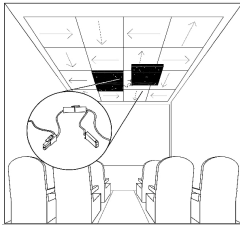
Each panel is marked with an arrow on the back. This arrow indicates the panels orientation. Every panel gets rotated one quarter turn in order to provide a more random starry night experience.

Remember to rotate panels 90° for random effect



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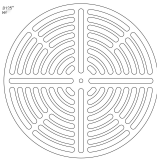
Installing Additional Panels



Leave the plugs hanging off the side so you can connect the next panel. Connect a Jumper Jack to the first panel and run it to the location of the next panels Star Engine. Because of the flat design of the Jumper Cable plugs, you can “sandwich” the Jumper Cables between the ceiling and panel, or run them along the 2” light cove on the back of all Surface Mount Panels. You may find that using white gaffers tape, glue dots, or double sided tape is helpful in organizing the Jumper Cables during installation.

Up to 50 Twilight Panels can be connected together in any configuration. If your installation requires more than 50 Twilight Panels, then add an additional Driver and Leader Cable.

How To Use The Cut-Out Template



This template is a universal marking guide and cut-out stencil used for marking the center of a down-light, vent, speaker, or any hole that needs to be marked and cut in an Twilight Panel.

Secure the large thumbtack in the center of the Cut-Out Templet using double sided tape. Then use double sided tape, or thumbtacks, to hold the template centered on the ceiling over the opening, or area you need to cut out. Properly aline the panel and push it up into the thumbtack

(s).

Take the panel down, note the location of the thumb tack mark on the back of the panel. From the backside, insert the awl all the way through so it marks the fabric front of the panel. Mark the location of the hole on the fabric face of the panel. Now flip the panel over so it is fabric side up. Place the template centered over the hole and insert the awl. Now you have the template such that it rotates around the awl.

Note: The circumference of the hole that is required (this hole should be slightly larger than what is required for the fixture opening, but smaller than the fixtures trim ring.) Place the hot knife in the appropriate slot on the template, and slowly rotate the hot knife and template all the way around the cut and cinch the fabric. Remove the awl, and template, peel off the fabric circle and use the serrated knife to cut the two inches of insulation. Your perfectly located hole is done.

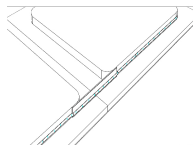


Caution: When using the wood burner, do not touch the metal tip, it will be hot and may cause a severe burn!

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Adding Optional ThiGlow Lighting

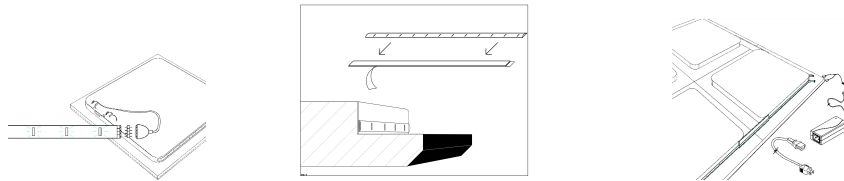
Add the Thinglow Lighting Advantage to your installation to create more depth and drama. Mount the Thinglow LED Lighting Strip on the sides of the panels light cove where you want the light to originate. Spanners are used to provide a bridge between panels for the Thinglow Lighting. Spanners are installed after the panels have been mounted. Each spanner comes with two adhesive pieces at each end. Remove the protective plastic, and adhere it to the one inch high white vertical surface on the panels light cove.



HELPFUL HINT: If after installing the Thinglow Lighting you notice some undesirable "light leak" at the panels seams, cut a 10" spanner in half, remove the plastic protective tape, and lay the 5" piece on top of the seam to block out the "light Leak."

Installing ThinGlow Lighting

Up to 25 feet of Thinglow can be powered from one end, and a total of 50 feet can be connected end to end if power is supplied from both ends. Each 3 amp Driver will power up to 50 feet of Thinglow. It is suggested to use a separate Driver for the Thinglow so it can be controlled independently from the stars. Follow the same procedures above for "Running The Power." **Note:** You may want to locate (or run) the Leader Cable for the Thinglow to the outside of the panels edge.



Connect the Thinglow Strip to the panel via the supplied double sided tape. Locate the Thinglow at the bottom (see above middle diagram) for the best light diffusion and to minimize the *viewing angle. An end to end connector must be used to attach each of the Thinglow pieces together.

*Note that good lighting design says that you want to see the effects of the light, not the light itself.

If dimming the Thinglow Lighting is desirable, a third party Pulse Width Modulation control would be required at this time. Visit our web site, or call for additional information.