

# UNDERCABINET LIGHTING FAQ'S



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**Q) Which undercabinet light fixtures are the coolest?**

A) All of the fluorescent light fixtures give off very little heat. The xenon (pronounced ze-non) light fixtures are hotter than the fluorescent light fixtures but are still cooler than halogen light fixtures.

**Q) Which under cabinet light fixtures are dimmable?**

A) The Xenon Line Voltage Task Lights, the Xenon Low Voltage White Task Lights, and the Xenon Light Strip are all fully dimmable. Depending on which transformer is used (a hard wire transformer OR a cord & plug transformer) the Xenon Puck Lights, the Xenon Triangle Lights, and the Xenon Low Voltage Ultra-Slim Lights may or may not be dimmable. If a hard-wire transformer is selected, then these xenon under cabinet light fixtures ARE dimmable. If, however, they are powered by a cord & plug transformer, then they are NOT dimmable. None of the fluorescent light fixtures can be dimmed.

**Q) Which under cabinet light fixtures are the most energy efficient?**

A) All of the fluorescent under cabinet light fixtures are the most energy efficient to operate. Fluorescent fixtures are always more efficient than incandescent fixtures including xenon and halogen light fixtures.

**Q) Which fluorescent under cabinet light fixtures turn on instantly with no flickering?**

A) All of the fluorescent fixtures turn on instantly without flickering because they all have instant start electronic ballasts. All of the xenon fixtures, of course, turn on instantly because they are forms of incandescent lighting.

**Q) Which under cabinet light fixtures can be hard-wired to power?**

A) To “hard wire” a light fixture means to connect it electrically by using a Romex wire. If the fixture receives its power by plugging a cord & plug into the nearest electrical receptacle, then this is NOT considered to be a hard-wired connection. The Xenon Line Voltage Task Lights (the hard-wire model OR the cord & plug model), the Xenon Low Voltage Task Lights, the Xenon Light Strip, and the Fluorescent Thin-Inch Fixtures can all be easily hard-wired to power. The Xenon Puck Lights, the Xenon Triangle Lights, and the Xenon Ultra-Slim Lights can be hard-wired to power if a “remote” transformer is used. The Microfluorescent Light Fixtures and the Fluorescent Swing-Down Fixtures can be hard-wired to power if the proper Hard-Wire Box option is selected.

**Q) Which under cabinet light fixtures are the hottest?**

A) Any under cabinet light fixture that uses LINE VOLTAGE (120 volts) halogen lighting with NO transformer is the hottest type of under cabinet light fixture. It is for this reason that any under cabinet fixtures of this type are generally not recommended for safety reasons.

**Q) Which under cabinet light fixtures are the easiest to install?**

A) If a single light fixture is being installed, the Microfluorescent T4 Fixtures, the Fluorescent Low-Profile Fixtures, or the Fluorescent Swivel Sticks are probably the easiest to install. If a group of light fixtures is being installed, the Microfluorescent T4 Fixtures or the Fluorescent Low-Profile Fixtures are probably the easiest to install. The Xenon Light Strip is probably the most difficult to install.

**Q) Which under cabinet light fixtures are the longest?**

A) The longest under cabinet light product is the Xenon Light Strip. Because of its very nature it can be almost any length that it needs to be. Excluding this lighting product the longest light fixture is the 59.0in Fluorescent Extra Long Light Fixture. If you are confused about which length fixtures that you should purchase please consult the Selection Guides found with each of the under cabinet fixtures.

**Q) Which under cabinet light fixtures are supplied with light bulbs?**

A) All of the under cabinet light fixtures are supplied with their own light bulbs EXCEPT for the Xenon Low Voltage Light Strip and the Fluorescent Extra Long Light Fixtures. With these two light fixtures the light bulbs must be purchased separately.

**Q) Which under cabinet light fixtures produce light that is similar to incandescent light?**

A) All of the xenon light fixtures use xenon light bulbs, which ARE incandescent light sources with a little bit of xenon gas introduced into the glass envelope to help lengthen the life of the lamp. Therefore, all the xenon light fixtures produce the familiar warm glow (low color temperature) of an incandescent light bulb. If the fluorescent light fixture uses a warm white fluorescent light bulb or one that has a low color temperature of 3200K or lower, then it, too, will look very much like an incandescent light bulb.

**Q) Which under cabinet light fixtures are considered to be line voltage fixtures?**

A) Any light fixture that uses the available voltage (usually 120 volts) directly and does NOT use a transformer to step down the voltage from line voltage to low voltage (12 volts or 24 volts) is considered to be a line voltage fixture. Thus, the Xenon Line Voltage Task Lights and all of the fluorescent fixtures are considered to be line voltage light fixtures.

**Q) Once installed, which undercabinet light fixtures can be adjusted?**

A) The Fluorescent Swing-Down Fixtures and the Fluorescent Swivel Sticks can be adjusted after they're installed. Once they are mounted, each of these fixtures can be rotated a full 180 degrees.

**Q) Which under cabinet fixtures are linkable?**

A) The term, "linkable", means that two light fixtures can be easily connected electrically by simply plugging in a Flexible Connector into the two fixtures. The Xenon Line Voltage Task Lights, the Microfluorescent Light Fixtures, the Fluorescent Low-Profile Light Fixtures, the Fluorescent Extra Long Light Fixtures, and the Fluorescent Swing-Down Light Fixtures are all linkable. More than two "linkable" fixtures can be linked in one long line of fixtures. Most of the fixtures that are NOT "linkable" may be connected electrically to each other but this connection requires the use of household Romex wire.

**Q) Which under cabinet light fixtures are considered to be low voltage fixtures?**

A) Any light fixture that uses a transformer so that the light bulbs operate on 12 volts or 24 volts is considered to be a low voltage fixture. The transformer may be located inside the fixture or it may be located outside the fixture at a "remote" location; thus, the low voltage fixture will have either an integral transformer or a remote transformer. The Xenon Low Voltage Task Lights (integral), the Xenon Light Strip (remote), the Xenon Puck Lights (remote), the Xenon Triangle Lights (remote), and the Xenon Ultra-Slim Lights (remote) are all considered to be low voltage light fixtures. None of the fluorescent light fixtures are considered to be low voltage light fixtures.

**Q) Which under cabinet light fixtures can be plugged in to the nearest electrical outlet?**

A) The Xenon Line Voltage Task Lights (cord & plug model only), the Xenon Low Voltage Task Lights, the Xenon Puck Lights, the Xenon Triangle Lights, the Microfluorescent Light Fixtures, the Fluorescent Low-Profile Light Fixtures, the Fluorescent Extra Long Light Fixtures, the Fluorescent Swing-Down Light Fixtures, and the Fluorescent Swivel Sticks may all be plugged into the nearest receptacle using a cord & plug.

**Q) Which under cabinet light fixtures are the most popular?**

A) The Xenon Line Voltage Task Lights and the Xenon Low Voltage White Task Lights are our most popular under cabinet light fixtures.

**Q) Which under cabinet light fixtures have the lowest profile?**

A) The Xenon Light Strip has dimensions of only 7/8in inches total width by 1.0 inches total height (including the Mounting Channel) while the Microfluorescent Fixtures have dimensions of only 0.75 inches wide by 1.38 inches high. Both the Xenon Puck Lights and the Xenon Ultra-Slim Lights, when recessed mounted, stick down only 0.25 inches from the "ceiling" of the cabinet.

**Q) Which under cabinet light fixtures may be recessed mounted?**

A) The Xenon Puck Lights and the Xenon Ultra-Slim Lights may be recessed mounted. All of the other under cabinet light fixtures may only be surface mounted.

**Q) Which under cabinet light fixtures may be surface mounted?**

A) A light fixture that is surface mounted is simply mounted ON a surface whereas a recessed mounted fixture is mounted IN a surface. All of the under cabinet fixtures may be surface mounted whereas only two of them may also be recessed mounted if need be.

**Q) Which under cabinet light fixtures may be connected to each other with household Romex wire?**

A) Romex wire is used throughout your household behind walls to wire your entire house. It usually is made up of 3 wires: one wire with white insulation, one wire with black insulation, and one copper wire with NO insulation and white insulation around all 3 wires holding them together. The Romex wire that is used to connect lighting fixtures is usually described as "14/2 with ground" (although this MAY vary with geographical location). The "14/2" refers to the two insulated wires that are each 14 gauge in diameter and the "ground" refers to the uninsulated copper wire. The Xenon Line Voltage Task Lights, the Xenon Low Voltage Task Lights, and the Fluorescent Thin-Inch Fixtures are connected to power using Romex wire and may be connected to each other using Romex wire. The Microfluorescent T4 Fixtures, the Fluorescent T5 Low-Profile Fixtures, and the Fluorescent T5 Extra Long Fixtures are simply too small in their profile for a Romex wire to be inserted in them.

**Q) Which under cabinet light fixtures come with their own On/Off switches?**

A) Both the Xenon Line Voltage Task Lights and the Xenon Low Voltage Task Lights come with their own Hi/Lo/Off rocker switches. Most of the Microfluorescent Light Fixtures, all of the Fluorescent Low-Profile Light Fixtures, all of the Fluorescent Swing-Down Fixtures, all of the Fluorescent Thin-Inch Fixtures, and all of the Fluorescent Swivel Sticks come with their own On/Off rocker switches.

**Q) Which under cabinet light fixtures can be installed so that a group of them can be controlled by one light switch?**

A) When several under cabinet light fixtures are being installed all of the xenon light fixtures and five of the six fluorescent light fixtures can all be controlled by only one wall light switch but only when they are hard-wired to power. Only a group of Fluorescent Swivel Sticks cannot be controlled by one wall light switch; each of these units is plugged into a separate receptacle and, therefore, works independently.

## **VALUABLE UNDER CABINET LIGHTING INFORMATION**

Under cabinet lights come in a variety of sizes and lamp wattages from two different light sources - xenon and fluorescent.

### **The Functionality of Under Cabinet Lighting**

Under cabinet lights can be quite functional by providing very good and sometimes badly needed task lighting in a given situation such as under cabinet kitchen lighting, desk lighting, or even bookshelf lighting. Under cabinet lighting can make a kitchen, an office, or a hospital nurses' station a brighter, safer, and more pleasant place to perform tasks where one is not working in one's own shadows.

### **The Aesthetics of Under Cabinet Lighting**

The light provided by an under cabinet light can also be used to light an attractive vase, sculpture, framed photo, piece of china, curio, or crystal. Under cabinet lighting has the ability to give both a professional look and the look of warmth by

providing another “layer of light” to the entire space. When under cabinet lighting is used properly it can give the space a look as though a professional may have been involved with the lighting design.

### The Light Sources In Under Cabinet Lights

Under cabinet lights may use xenon, halogen, fluorescent, or traditional incandescent light sources. Under cabinet lights with any of these light sources might provide a good deal of light, a modest amount of light, or just a hint of light. It is sometimes a good idea to control the under cabinet lighting with a dimmer switch since this can provide a good deal of lighting flexibility. This cannot usually be done with fluorescent light sources but fluorescent lighting is generally the most efficient in providing a given amount of light. Fluorescent light sources are also the coolest of all the light sources. This property can be extremely important in some instances depending on what is stored in the cabinet immediately above the light fixture or even what is lying 12 inches to 18 inches below the light fixture.

### Where Can Under Cabinet Lighting Be Used?

Because of its small size an under cabinet light simply cannot provide good ambient lighting for a large space. At night, however, it might provide good “mood lighting” for a space or enough light to safely see when all the other lights are turned off. Under cabinet lighting can be used very successfully wherever there are cabinets and a need for good task lighting or accent lighting in a confined space: under kitchen cabinets, in museum display cases, within some trade show exhibits, on office desk tops, at hospital work stations, in bookcases in studies or libraries, in display cases in restaurants, under tavern shelves or under bars, in bathroom linen closets, within bedroom shelving, in wall nooks along hallways or stairways, in dining room hutches, in living room shelving, and family room entertainment centers.

### Where Should Under Cabinet Lighting Be Placed?

When under cabinet lighting is being used for task lighting such as in a kitchen it should be installed at or near the front of the cabinet to which it is attached. Your contractor may insist that you install it near the back wall but we suggest that you insist that it be installed as close to the face of the cabinet as possible. This position will provide the best and safest task lighting for working in the kitchen. If, on the other hand, the under cabinet lighting in question is intended to provide accent lighting for a work of art housed in a single cabinet, for example, then this under cabinet light fixture should be positioned just forward of center in order to properly light the art piece.

A PRACTICAL COMPARISON of LIGHT SOURCES					
Light Source	Operation	Type of Light	Strengths	Weaknesses	Comments
Fluorescent	When electricity passes through mercury vapor in a glass tube the invisible light given off interacts with the coating in the glass and produces visible light	All types of white light (e.g., warm white, cool white, daylight) with good to very good color rendition	Gives off a lot of light and is very energy-efficient; newer, compact models can fit some residential fixtures	Older versions of fluorescent light bulbs can make you look gray-green; many fluorescent fixtures cannot be dimmed	New fluorescents with new coatings give fluorescent lights a MUCH more flattering glow
	Similar to incandescent except that a small amount	Crisp white light with very good color	Good for illuminating art and fitting into small areas;	The light can be too bright for living rooms or some	Have become increasing popular

Halogen	of a halogen gas has been added to the inside of the glass envelope	rendition	need to be changed less often than incandescent bulbs; can be dimmed; better beam control allows light to be carefully focused	decorative fixtures; light bulbs and fixtures can become very hot; touching glass will shorten the life of the light bulb	because of their ability to light well
Incandescent	When electricity passes through a metal filament to the point of "incandescence" the filament gives off light as well as plenty of heat	Yellowish light with good color rendition	Emits a warm light that flatters pretty much all skin tones; inexpensive to purchase; easily dimmable	Cheaper models burn out quickly; use a lot more energy than fluorescents or halogens; emit a lot of heat	The "daylight" varieties (with a bluish tint) are closer to outdoor light than typical incandescent light bulbs
LED	When electricity passes through certain diodes (electronic components) they give off light and become a Light Emitting Diodes	Many colors are available including warm white and cool white	Uses very little energy or space; is inexpensive to operate; gives off with very little heat; can last for years	Are not yet widely available for home use and certain types of fixtures can be expensive to purchase; cannot be dimmed	Quickly becoming a standard in car dashboards, traffic lights, and taillights; home LEDs often require extra parts to operate
Xenon	Very similar to incandescent except a small amount of xenon gas has been added to the inside of the glass envelope	Similar to incandescent light only slightly less yellow	Lasts longer than standard incandescent; can be dimmed; unlike halogen light bulbs the glass can be touched without reducing the life of the light bulb	Not very energy-efficient; emit some heat but not as hot as halogen	Becoming VERY popular for under cabinet lighting

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