Electrical

Question1:-When I go to turn my dimmer off, it is very hot. Is this a fire hazard?

Answer: - Dimmers are rated for how many watts they are designed to handle. If a dimmer has to operate at or close to its full capacity, it will heat up. Some dimmers have metal fins on the front of them to enable proper heat dissipation. You can either reduce the wattage connected to the dimmer to alleviate the problem, or put in a larger-rated dimmer.

Question2:- I put new bulbs in my recessed lights and they turn on, stay on for a while, and they go back out. After a while, they will come back on again. What's going on?

Answer: - Recessed lights are supplied with a thermal overload. Because the fixture is inside your ceiling, it is important that excessive heat from the bulbs do not cause a fire. Because of this, the thermal overload acts as a thermometer i.e. when the heat reaches a preset temperature, it will disconnect the electric. When the fixture cools down, the electricity is reconnected. To avoid this problem, lower wattage lamps will generate less heat, try changing them. The recessed can should have a sticker on the inside of it listing the lamps which are compatible with it.

Question3:- We still have the round fuses instead of circuit breakers. Is this a safety issue?

Answer: - No, it is not a safety issue unless the fuse box is damaged or deteriorating. Fuses are actually more sensitive than circuit breakers;

therefore they are safer than circuit breakers. The problem with circuit-breakers is twofold. 1. After a fuse protects your home from an overloaded circuit, you have to throw it away. Therefore you may go through many fuses. Secondly, the majority of insurance companies now require that fuse boxes be replaced with circuit breakers.

Question4:- Are our 2-prong outlets still ok to use in our home?

Answer: - Most appliances and electrical devices today come with 3-prong plugs. The third prong is for grounding purposes. For safety issues, it is advisable to have everything in your home properly grounded; therefore, you should change them.

Question5:- What is a GFI?

Answer: - A GFI is an abbreviation for a Ground Fault Interrupter. It is a specially designed outlet normally used in wet locations to protect an individual from electrical shock. A GFI measures the resistance on the "positive" and "negative" loads connected to it. If there is more resistance in either of the 2 loads, the GFI trips. The electrical code requires that GFI's be installed in all kitchens, baths, and laundry areas.

Quetion6:-What should children know about electrical safety when they play outside?

Answer: -Assume overhead lines are powerlines and stay away from them.

Do not climb trees, or fly kites near power lines.

Never attempt to remove something that may be caught on an overhead line.

Never touch anyone who is in contact with a power line

Get inside at the first sign of lightning. Do not seek shelter under a tree.

Question7:-Which is safer; alternating current (AC) or direct current (DC)?

Answer: -Alternating current (AC) and direct current (DC) have slightly different effects on the human body, but both are dangerous above a certain voltage. The risk of injury changes according to the frequency of the AC, and it is common for DC to have an AC component (called ripple). Someone with special equipment can measure this, but the effect on a particular person is very difficult to predict as it depends upon a large number of factors. As a consequence you should always avoid contact with high-voltage electrical conductors, regardless of the type of electrical current they are carrying.

Question8:- What is the difference between 3 phase and single-phase electricity?

Answer: - I suppose the textbook definition would be something like this:
A phase is the factional part of the period of a sinusoidal wave, usually expressed in electrical degrees.
A single-phase circuit is an alternating-current using only one, sine wave type, current flow.

A three-phase circuit consists of three different sine wave current flows, different in phase by 120 degrees from each other.Now let's have the more practical, "down to earth" definition - something that the average homeowner would at least have a chance of understanding:
Single phase: A circuit that consists of three wires – lives, neutral, and ground (earth). The main breaker in a single phase system is a single pole breaker, resembling the others in the panel, only with a higher capacity.
Three phase: A circuit where the main breaker switches off three poles. For most home owners this is the equivalent of having 3 separate main breakers that are divided among the circuits of the home. There are 5 wires that normally constitute a three phase line, although in many homes the three phases simply supply the main and sub panels, but continue throughout most of the home as single phase lines. In most homes there are not many devices that run on three phase electricity. However, examples may include a three phase central air conditioner, a three phase oven, a 3 phase swimming pool pump, or a large 3 phase hot water boiler.

Question9:- Do I need a surge protector for my computer?

Answer: -Most neighborhoods in Israel still have relatively frequent power surges. Most people are well acquainted with the normal surges that cause permanent damage to appliances in a blink of an eye. But few people are aware of the smaller surges that are going on all the time. Unlike the larger surges that wreck havoc all at once, these smaller surges can slowly wear out the wiring insulation and electronic circuitry in your appliances, causing them to operate improperly and wear out prematurely. A good quality surge protector can do a lot to protect your computer as well as other appliances.

I personally recommend buying a UPS for your computer. They may be slightly more expensive, but afford your computer much more protection. (For more information on surge protectors and UPSs see: "The Guide to Surge Protectors" and "Do You Need A UPS?")

Question10:- What is the difference between a surge protector and a UPS?

Answer: -A surge protector is a device that simply protects your computer (or any other appliance) from electrical surges, spikes, and other fluctuations in the voltage. Surge protectors vary greatly in both price and quality. It's usually wise to stay away from the "cheapy" models. They will give you very limited protection, if any.

A UPS (Uninterrupted Power Supply) usually has surge protection built in, but that's not all. It has a battery backup that offers you at least a few minutes time (if not longer), to save your work and turn off your computer (or other device) properly. Most have a communication cable between the computer and the UPS, to signal the computer when the UPS battery is low. This tells the computer to start shutting down automatically without you having to be there.

Another plus in having a UPS is that it eliminates the frequent, short blackouts or brownouts (common to many areas around Israel) which cause havoc with your hard drive. This can cause the drive to malfunction prematurely and have permanent damage.

(For more information on surge protectors and UPSs see: "The Guide to Surge Protectors" and "Do You Need A UPS?") Professional Electrician Isn't it about time that your electrical problems were solved? Jerusalem (Israel) and surrounding areas. Surge Protection Protect all your electronic

equipment with just one device in your electrical panel. Installed by a professional electrician.

Question11:- I have many appliances with two prong plugs, and my outlets are made to accept three prong plugs. Is using 2 prong plugs in the 3 prong outlets dangerous?

Answer: -Most appliances that are bought in the store with a two prong plug are either made of plastic and do not need a ground wire, or are double insulated, in which case it would actually be dangerous to have it grounded.

If the plug was installed by someone other than the factory or a reliable electrician, then it should be inspected by someone trustworthy.

Question12:- In the States, we bought air conditioners that were rated in BTU. Here they are rated in kilowatts. How do we convert one to the other?

Answer: -BTU/hour = 0.000293 KW

BTU (British Thermal Unit), is a British standard unit of energy. One BTU is the amount of heat energy needed to raise the temperature of one pound of water by one degree F. This is the standard measurement used normally in the western countries to measure the output of many air conditioning and heating devices.

There is also a kilowatt of energy which is sometimes used instead of BTU, but this can easily be confused with the more common use of kilowatt as a unit of power (which is actually 1000 watts).

Here in Israel, it is not uncommon for salesmen to try and sell you an air conditioning unit on the merit of its kilowatt consumption (power input)

instead of its cooling power, thus selling you a less efficient model. Therefore I recommend that you continue to ask for the BTU rating (which they must give you) when comparing the cooling capacity of air conditioning units.