Jacklamp™
Lights the End

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FAQ - 050820S

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Jacklamp™ FAQ

- Q: What is a Jacklamp™?
  - A: A Jacklamp™ is LED lamp in a jack package. Plug a powered cable into a Jacklamp™ and it provides light.

- Q: What is a jack?
  - A: A jack is a female connector designed to receive a male connector or plug and make a connection in an electrical circuit. A jacks is also known as a socket or receptacle.

- Q: How big are Jacklamps?
  - A: Jacklamps vary in size, most are about the size of a stack of 2 sugar cubes.

- Q: What is a LED?
  - A: It is a light source. A LED (Light Emitting Diode) is an electrical energy to radiant energy converter or transducer. Supply electricity to it and it lights up. I use the term LED generally to refer to all electrical energy to radiant energy converters or transducers, such as LEDs, OLEDs (organic LEDs), LDs (Laser Diodes), VCELs or VCSELs (vertical cavity surface emitting lasers).

- Q: What is a LED lamp?
  - A: A LED lamp is a LED with a current control circuit in the same package. Most LED lamps use a resistor for current control, if the voltage source, the temperature and the device parameters are all relatively constant.

- Q: Does the Jacklamp™ use a resistor?
  - A: No, operating environments are rarely constant, so the Jacklamp™ uses a temperature compensated constant current controller.

- Q: Why jacks?
  - A: Jacks receive plugs. There are billions of cables attached to bus powering devices, all with plugs on both ends.

- Q: Are there any other lamps that can receive a plug and exploit those billions of cables?
  - A: No, all other peripheral bus lamps are plugs and thus can't receive a plug from a cable. This limits the reach of other peripheral bus lamps because they have to be used at a port. Jacklamp™ reach is only limited by the cable used, enabling you to illuminate many meters from a power port, e. g., behind or under a desk or airline seat, inside a desk drawer or an airline bag, in and around an auto, a desk top computer, a server rack or a consumer electronics cluster, for reading, system setup, trouble shooting and repair in low or no light conditions.

- Q: What kind of jacks?
  - A: Jacks compatible with the cable you want to use, for example a USB type B Jacklamp™ for a USB cable with a USB type B downstream plug; a Firewire™ 6 or 9 pin Jacklamp™ for Firewire™ cables, etc.

- Q: What are bus powering devices?
  - A: Computer ports and powered hubs of many standard computer peripheral buses provide power for operation and recharging of their peripherals via cable, e.g. Apple Desktop Bus (ADB), Universal Serial Bus (USB), IEEE 1394 bus (Firewire™), and IEEE 802.3af or Power-over-Ethernet (PoE) bus. Peripherals are smaller, lighter and cheaper because they don't need their own internal power supply or power adapter. Many battery operated peripheral devices, reduce the number of cables portable computer users need to carry by using the same cable for operation and

recharging via port or power adapter-chargers, e.g. an AC/DC adapter-charger, a vehicle power adapter-charger (VPA) or an automotive IDB-1394 Customer Convenience Port (CCP). All of these bus powering devices are available to drive Jacklamps.

- Q: Does anyone else make Jacklamps or anything like Jacklamps?
  - A: No

- Q: How is a Jacklamp™ used?
  - A: Plug a compatible connected cable into the Jacklamp™ and direct its emitted radiant energy where desired, to render objects in that direction visible for illuminator applications or to make itself visible to observers in that direction for signal or indicator applications. A Jacklamp will task light areas limited only by the cable length, provide indication of the health of a cable circuit, and identify a single cable in a bundle.

- Q: What kind of radiant energy?
  - A: Jacklamps will be available in any wavelength (UV, visible, IR) or combination of wavelengths available in the industry. Initially only white, red (622-624 nm), UV-A (315-400 nm) and combinations like red and white or UV and white, will be made available. Please let me know of your special requirements.

- Q: Are they bright?
  - A: 4 cd (candelas) is very bright and Jacklamp™ whites are 6 to 12 cd and 22 to 24 cd! Reds are 5 to 7 cd and UV-As are 0.51 to 0.55 cd. These values are based on the suppliers claims. However: *WARNING : 4 cd (candelas) and up is extremely bright! DO NOT LOOK DIRECTLY INTO ANY JACKLAMP! IT IS POSSIBLE TO PERMANENTLY DAMAGE YOUR VISION!*

- Q: How do you direct the light?
  - A: Hold the Jacklamp™ on a cable in your hand like a flashlight, fix it on your work piece or mount it on a stand.

- Q: What is a Jacklamp™ mainly used for?
  - A: Task lighting, signaling, and indication.

- Q: What kind of task lighting?
  - A: Most people think of visible task lighting with white light illuminating in and around an auto, an aircraft, a desk top computer, a server rack or a consumer electronics cluster, for reading, system setup, trouble shooting and repair in low or no light conditions, etc.

- Q: What other task lighting besides white is there?
  - A: UV, blue, green, yellow, orange, red and IR.

- Q: What are some UV lighting tasks?
  - A: Point of Sale (POS) fluorescence checking, money checking, credit card checking, security ink checking, document checking, etc. UV lamps are also used for criminology (bodily fluids like blood and urine), sanitation inspections (pet and critter urine), oil-mining, mineralogy, antique (vaseline) glass and glass repair inspection, archeology, surveillance, chemical probe testing, biology, medical applications, chemistry, food checking, water pollution detection, etc.

- Q: What about blue task lighting?
  - A: Blue (~470 nm) is used for many of the same fluorescence applications as the UV, but without the safety concerns.

- Q: What about green task lighting?
  - A: Green (~555 nm) is the brightest to the human eye and hardest to see with IR night-vision equipment and by animals. <more later>

- Q: What about yellow task lighting?
  - A: <more later>

- Q: What about orange task lighting?
  - A: <more later>

- Q: What about red task lighting?
  - A: Red can be used for the same applications as the white, in situations were night vision must be preserved.

- Q: What about IR task lighting?
  - A: Infra Red (IR) can be used for the same applications as the white, in situations were night vision equipment is being used, also for IR photography and high power machine-vision illumination.

- Q: What do you mean by signaling?
  - A: Casting radiation in at least one direction to make the Jacklamp™ visible to observers in that direction. Observers may be humans, animals or instruments. The radiation may be constant to signal location or modulated with information for control or communications, e.g. IrDA protocol, voice, etc.

- Q: What do you mean by indication?
  - A: The passive Jacklamp™ may be used to indicate the health of a host and cable power circuit or whether or not it is even connected, by emitting or not. The active, i.e. controlled by bus signals, Jacklamp™ may be used to indicate the health of the whole host and cable circuit, by modulating its emission. This indication may be used on near or far (i.e. in another room or building) cable ends, to identify a single cable in a bundle.

- Q: Where did the Jacklamp™ idea come from?
  - A: I needed a bright light like the lamps that are used to illuminate laptop keyboards, that wasn't limited in reach and connection. Presently laptop lamps maximum reach is about 20 inches and can only connect to a USB type A host receptacles. There is no light that can be used with Power over Ethernet (PoE) and only one light that can be used with Firewire™ (the iSight camera LED light ring accessory that shares the cameras incoming cable called SightLight, www.griffintechnology.com/products/sightlight/). The SightLight is not a general purpose task light, it is a big special camera lamp. Absent from the market is a task light able to receive a plug from the billions of peripheral powered cables at hand. I needed a task light with a jack connector to exploit all those powered cables connected to ports and (AC/DC or auto) adapter-chargers.

- Q: Why not just use an gender changer/adapter with the USB light?
  - A: You could use a USB type A Female to USB type B Female Gender Changer, any USB cable with a USB light and have a Jacklamp™ equivalent for USB. But that leaves out PoE and Firewire™. Even if you find an adapter gender changer (USB/PoE or USB/Firewire™) you could burn up your USB light, because USB only provides 4.4 to 5.25 VDC, up to .5A or 2.25W, but Firewire™ provides 8 to 40VDC, up to 1.5A or 45W and PoE 48 VAC, up to 350mA or 12.95W. This rig is also limited to only the white or red light of USB lights.

- Q: Do you have legal protection for this new device?
  - A: I have patents pending on both the Jacklamp™ and the Jacklamp Caddy™.

Jacklamp Caddy™ FAQ

- Q: What is a Jacklamp Caddy™?
  - A: A portable, convenient, secure, storage and transportation accessory, that in the absence of another bus powering device, provides a means of independently powering a Jacklamp™ or a USB light (USB version only). Consisting of a compatible plug to store/transport a Jacklamp™ on, a jack to receive a compatible cable, a power source (initially a battery), a case and a switch to apply the power to either the jack or the plug.

- Q: What size battery does the Jacklamp Caddy™ use?
  - A: Initially a 9 volt just like your smoke alarm.

- Q: How big is the Jacklamp Caddy™?
  - A: Half the size of a 9 volt battery, without the battery. One and a half the height of a 9 volt with a battery.

- Q: Why jacks and plugs?
  - A: A Jacklamp™ is carried and powered on the plug or thru a cable on the jack.

- Q: What is the switch for?
    - A: It functions as a power on and off switch for both plug and jack. For a Jacklamp™ on the plug, power to the jack is " off" and power to the plug is " on". For a Jacklamp™ on a cable in the jack, power to the jack is " on" and power to the plug is " off".

- Q: How is a Jacklamp Caddy™ used?
    - A: As a convenient and secure transportation and storage accessory for pocket, purse, pack or tool box (Jacklamp™ on plug and power switched to jack).
    - A: As a hand held task light (Jacklamp™ on plug and power switched to plug).
    - A: As an extended task light, with Jacklamp™ on a cable plugged into the jack (" off" when power is switched to the plug and "on" when power is to the jack). As an extended task light the Jacklamp Caddy™ may be carried in your purse, pack or pocket and the Jacklamp™ on the end of the cable may be hand held or fastened to hat, head band, purse strap, pocket, belt, wrist or finger.

- Q: Are there other uses for the Jacklamp Caddy™?
    - A: I turned my laptop light into a handheld task light with the Jacklamp Caddy™. The USB Caddy version will power a USB light plugged into its jack ("off" power to plug, "on" power to jack). As a power source for a USB light the Jacklamp Caddy™ can act as a base when set on a flat surface or as counter weight when the light is hung over something or around your neck. I also use the Firewire™ version to power my G1 iPod when its battery goes dead.

- Q: Where did the Jacklamp Caddy™ idea come from?
    - A: The 1st Jacklamps I built were very handy, using the cables I already had and the power available from my bus powering devices. However carrying them around in my pocket caused some problems with lint, keys and coins. Also leaving them in my laptop bag meant a lot of times they were not handy, for example, in my car and around somebody else's computer insides or in a communications closet. So with the idea of finding/making a handy and safe carrier for those times I and the Jacklamps were in between powered cables, I looked at cigar tubes, reading glasses cases, a travel tooth brush caddy and old clunky pocket flashlight cases. The old flashlight cases worked well and made me think of not just carrying my jacklamps in them, but also powering them when a cable was unavailable.

- Q: Where are the Jacklamps and Jacklamp Caddy™ available?
    - A: Soon available here www.jacklamp.com - check back.