

Laser Engraving High-Tech Gadgets

Written by Mike Dean, director of sales and marketing, Epilog Laser

The awards and engraving market is rapidly expanding to include customization of all types of products – from already-assembled items to hand-made one-of-a-kind trinkets.

One of the hottest trends right now is the personalization of tech-gadgets such as mobile phones, mp3 players, digital cameras, laptop covers and beyond. These high-tech gadgets are mass produced, so it's no surprise to learn consumers want their tech-toys to be truly unique – especially when millions of other people have the same device. This increased demand for customization of personal tech-gadgets is an excellent way for business owners to expand their laser engraving services and increase profit potential.

High Price Tag – Higher Risk?

Engraving expensive tech-gadgets may seem off-putting because of their high price tag; however, because speed and power settings are so precise, laser engraving tech-toys such as iPods, cell phones and laptops is very non-invasive. Almost any tech-gadget can be engraved “as-is” without worrying about disassembling the gadget to protect the internal components. The laser engraving technique is so gentle that it will not destroy the inner workings of the devices.

The image below illustrates an engraved iPod Shuffle. The engraving process resulted in a very nice surface etch with absolutely no damage to the device.



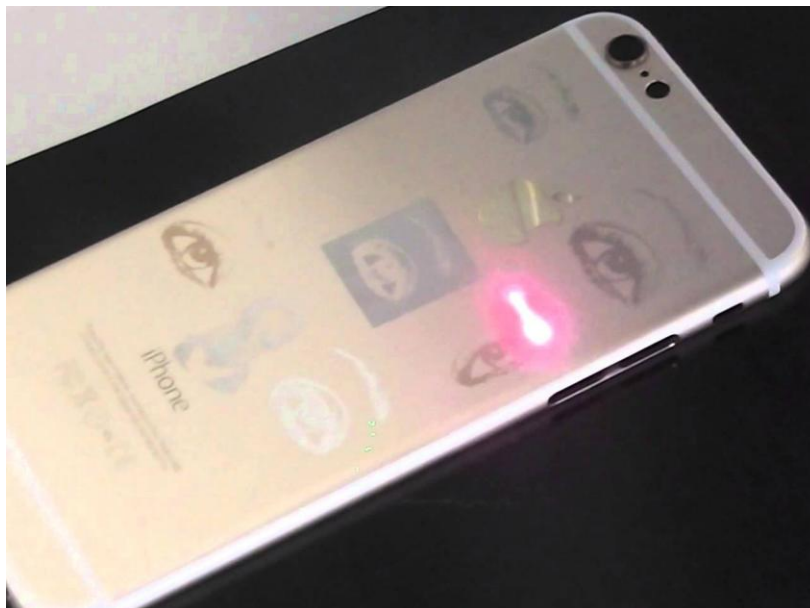
Material Matters

Materials for consumer-tech products are relatively limited. Most gadgets are created from engraveable plastic, bare aluminum, anodized aluminum, or stainless steel. These materials all engrave well with a CO2 laser, but the mark that is produced can vary dramatically from one material to the other. The challenge lies in determining what type of material you're working with and what the end result will look like. Many of today's high-tech plastics are so well engineered that they actually look and feel like metal. Luckily, stainless steel is easily identified and the other three materials are all engraved using similar speed and power parameters (high speed, low power), so whether it's plastic or aluminum won't impact how you set up your laser for engraving. The difference in all of these materials is how much contrast will be produced when they are engraved. Bare aluminum and some plastics will produce a "tone-on-tone" contrast (see photo below). This contrast is subtle and is not nearly as eye-catching as anodized aluminum; but again, we luck out with high-tech gadgets because the "tone-on-tone" look is very popular.

If you are looking for a darker, more apparent contrast mark than the "tone-on-tone" look you can achieve it by working with bare aluminum. You must first pre-treat the bare aluminum with a metal marking material.

Items made of anodized aluminum need no pre-marking preparation (see the photo of the iPod Shuffle above). Because it comes a variety of colors, a beautiful high-contrast mark is achieved on anodized aluminum.

The image below shows an Apple iPhone with the "tone-on-tone" look.



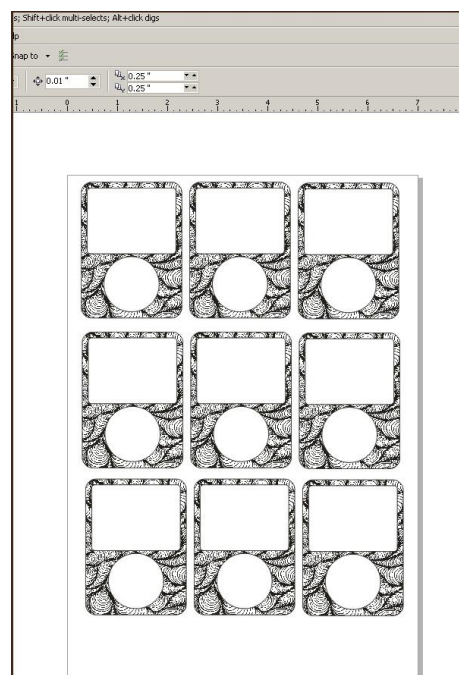
The image below highlights ThermoMark which allows the laser to bond to the material to create a permanent mark. After engraving, the excess metal marking material can be wiped away with a damp cloth.



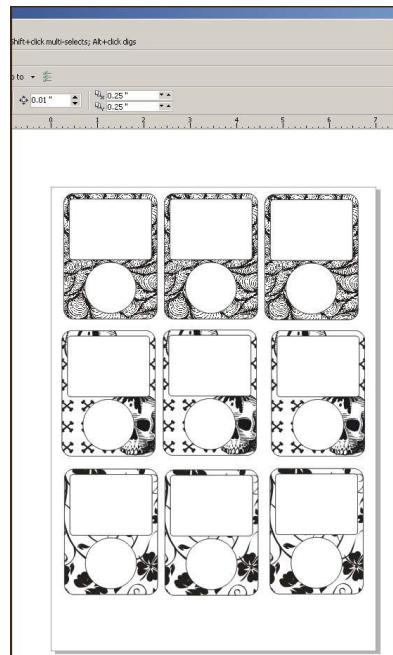
Using Templates

You may think engraving/customizing all these little gadgets may be too time consuming. However, since many of the gadgets we've discussed are all uniform in size, operators can save time and energy by engraving the same design on multiple pieces and then customizing with names or initials as needed.

The graphic below shows a screenshot of several iPod Nanos, all being set up for the same design. These could be engraved all at once and then customized further (on the back of the device) on an as-needed basis.



Utilizing templates is a great way to save time and energy while engraving multiple items. The screenshot below illustrates various Nano templates incorporated into the same engraving job. Once the template is created, it's much easier to incorporate and manipulate artwork to fit the engraving area.



Pricing

Pricing in this market varies greatly. Some factors that influence how much engravers charge include the size of the object, artwork creation or manipulation and size of the order. Additionally, price is not a huge factor when customers want to personalize their expensive gadgets. The gadgets are already expensive and personalizing them is generally a small fraction of the overall cost. Since the personalization adds value and exclusivity to an already valuable object, pricing can be quite flexible.

Greater Variety Means Greater Profit

You may wonder how you can turn a profit by offering a service already provided by many consumer electronic manufacturers for free. The answer lies in variety. Manufacturers of consumer tech goods often provide a free engraving service; however, it's usually limited to a certain number of characters, certain fonts, and usually does not include the engraving of logos or artwork. You can offer consumers a greater degree of variety in terms of what and how much you can engrave – designs, lettering, photos, etc. Since you're able to engrave in greater detail with a laser, you can charge a greater price.

It's apparent that customization is a service very much in demand by consumers. And it's not just awards and trophies anymore. Whether it's to deter theft or just leave a unique mark, consumers are interested in making their gadgets truly one-of-a-kind. Whether you are thinking of adding this service to your existing business or developing an enterprise that works only with tech-gadgets, it is definitely possible to turn a profit customizing consumer electronics.