

Low-cost luminous tube you can use almost anywhere

Wait a minute—"neon" on a van? On a banner?

By Jason Fairless

In the radio business, station managers realize the power of high-impact vehicle advertising. They use their vans for remote broadcasts and other promotions, and they want to make a strong impression. It's not unusual for a station to spend thousands on design and graphics for their vans. They were among the first customers for full-wrap digital prints, which were pretty unique a few years ago.



But, full-wrap graphics with plenty of Photoshop effects are becoming more common. When a local station said they wanted to do something really different

for their van, I realized that lighted graphics are about the only thing left for vehicles.

To me, neon has always made the most fascinating sign. I had learned about a cool product, luminous plastic tubing, from an engineer friend and decided it would work great for their van.

For about the same cost as a full wrap, we used digital prints and this tubing to create a van that really turns heads at night. Even at dusk, it creates a great effect.

I think the tubing has a lot of applications for sign work. It's easy to use—and low-cost. The tubing costs about \$5 a foot. You determine how much tubing you need and the colors you want. You need an inverter, which is a device that converts for use by the tubing. Here it was 12 volt, but you can power it with almost anything—12 volt, 110 volt or even a 9-volt battery. It uses very little power—you can power 10 feet of it for 25 hours with a 9-volt battery.

First the graphics I started with their logo, and juiced it up by adding some fades, bevels and outlines. I put it on an oval panel, and then put that on a background of radiating lightning bolts. This file was sent to Gregory, Inc. [800-835-9890, www.gregory1.com] for 3M Scotchprint® images for each side, plus the hood and back door.

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In everyday use, the luminous-tube lightning bolts flash, but all were turned on for this photo.





From that graphic, I extended the lightning bolts, which were printed on clear film on my Roland PC600 [Roland DGA, 949-727-2100, www.rolanddga.com] in 100-percent cyan. They were built with Eye Candy, a PhotoShop plug-in from Alien Skin Software [888-921-7546, 919-832-4124]. I imported them into FlexiSign-Pro to rasterize them to the PC600.

Glue on the tubing Once the graphics were all printed and applied, we began installing the tubing. We used Super Glue to hold it to



the Scotch print®. (Next time, though, I'll switch to a 3M two-part epoxy, DP-90, that's mixed in a special gun. It's more flexible.)

The tubing is very soft and flexible. You can trace any outline with it—even tie it in a knot. We put

a yellow outline around the panel, and then traced the lightning bolts off the digital print in light-blue neon.

Wire to the inverters Unlike real neon, you only have to terminate one end of this tubing to power. When you get to a door seam, you cut with a pair of diagonal cutters, put some heat-shrink tubing around it and add a little piece of clear vinyl to hold it down.

The wires within the tubing must be soldered to a wire that goes to the inverters. Standard 24 ohm speaker wire is used for this. In the tubing, there's an inner core wire that is wrapped by two very fine wires that are phosphorus coated. You strip the vinyl insulation back about a half inch, then strip the center

core and take the phosphorus coating off it. Solder the center core wire to one wire in the speaker wire's pair, and then solder the two fine wires to the other wire. Put a section of heat-shrink tubing over the solder to seal it, and you're done.

Inverters come in different levels of power and brightness depending on the application. We used three high-intensity inverters on this van. They're small—not quite 1 by 2 in.—and are connected to the van's battery. One powers the yellow oval, which is on all the time. The other two power the lightning. To make connections easier, the leads from each lightning bolt run to a couple of \$4 bus strips from Radio Shack, then the bus strips connect to the inverter.

To make the lightning flash, we set two of the inverters to flash for different intervals and split up the lightning bolts randomly between the two. There's about a one-second pulse on each flash.

It took about 8 hours to apply and wire the tubing. There's over 300 feet of wire in the van, connecting all the tubing to the inverters.

It creates quite a look This entire project cost less than a full wrap, and it's certainly more effective. At night, a \$5000 full wrap loses most of its impact, just like a standard lettering job. That's when luminous tubing is just coming to life, and it really turns heads.

I told the radio station's managers we could do this before I was sure exactly how I would do it, so it was a fun challenge. I was under the gun. Everyone's happy with the results—and I'm already getting calls from others who want it. *SC



Jason Fairless's shop, Graphic Solutions, is in Springfield, Missouri. He's so enthused about the tubing, he's now distributing it. He can be reached at 417-863-2205 or ridestyle@mac.com.