How to Apply Water Slide Decals to models

Excerpt from an article by John Shortreid, GVGRC Member #827 published in the June 2013 issue of the Burnt Journal.

Background

For years I had the desire to create my own unique railway name for my home garden layout. I came up with the name (F V & P R) some time ago, but was challenged as to it's logo for branding my engines and rolling stock. This is where belonging to a Club like the GVGRC comes in handy, as you can generally always find another member who is willing to help you with your problem. In this case it was Big Jon Csincsik (Member 1518) of Adlion Printing Co., Ltd. (http://www.modeldecaldepot.ca). With just my quick sketch on a paper napkin, Big Jon produced a draft of the image shown here in a matter of days! Now that the logo problem was resolved, it was time to take the jpeg image and produce masters of 8 x 11 in. sheets to produce my water slide decals. The only stipulation is that you must stay 1/2 in. away from the sheet edge. Otherwise, you can place as many decals on the sheet as you wish. (Example layout below)

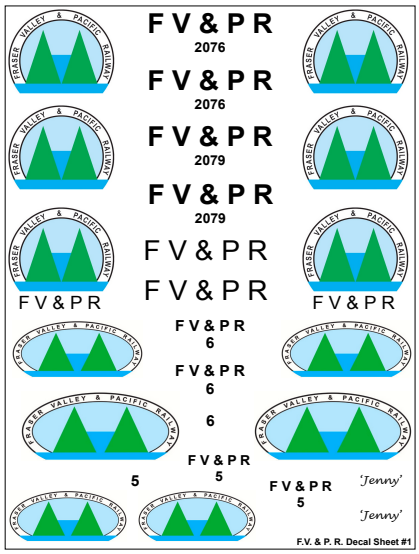
How to get started

The first step is to cut the desired decal from the sheet, making the cut close, but not so close as to risk damaging the decal. Note that the clear film outside of the decal edge will not show up once the decal process is completed. Clean the surface that you want to apply the decal to, ensuring it is free of any grease or grime.

Immerse the decal in a warm water bath and note that the decal will start to release from its backing within about 30 seconds or so. While the decal is in the warm water bath, coat the surface you wish to apply the decal to with Microscale Industries' Micro Set. This product is available at hobby supply shops and shown here on the right.

Remove the decal from its backing sheet on to your surface area and note that a small set of tweezers is useful here. Use a small paint brush dipped in water to maneuver the decal into it's final position.

Once this step is complete, carefully and lightly blot away excess water with a paper towel, then apply a coat of the Micro Set over the entire decal surface. Wait a few minutes for the decal to soften then press down with a piece of moist paper towel to get rid of any bubbles. Repeat this if necessary. Note any bubbles remaining can be pin-pricked once the Micro Set is dry, and will disappear with the next step of the process.



Once dry, using a soft paint brush, gently apply Microscale Industries' Micro Sol (shown here) to the surface of the decal. This process will soften the decal and allow it to conform and set to the surface shrinking around rivet and other detail on the model. Do not touch the decal after applying Micro Sol and wait for it to dry completely. I also found it useful in the Micro Set process stage to gently press down on the decal with a damp piece of paper towel to get the decal to conform better to raised detail such as rivets.

Seal and Protect

The next part of the process it to seal and protect the decal from handling by over spraying a clear film of flat or semi gloss spray, depending on the surface look of the model being decaled. I found that a clear semi gloss spray worked for most of my engines and rolling stock. The product I used was Tamiya America's TS-79 Semi Gloss Clear or TS-80 Flat Clear.

Spray 3 to 4 coats of the spray over the decal area, masking to the areas of the model that will not show slight variations in the finish. Use a hairdryer to dry the area in between each coat. **Note, spray only in a well ventilated area and when the temperature is above 10 degrees Celsius and the humidity is low.** I know that is sometimes hard in the Spring, but I found that the warm days we had at the end of April and into May worked well for this purpose. *Hint: In deciding the placement and size of decals for the decal sheets, I cut out proposed paper samples of the decal and lettering and tacked these to the engines and rolling stock to test out how they would look when the final decals were applied.*

While most of my trains were purchased as undecorated for the purpose of future customizing, some were already decaled.

I found that using spray paint thinner on a Q-tip and gently working the surface, I managed to remove the decal on my plastic models with some patience. On my Accucraft engines, I had to gently scrape or sand off the existing decals. I did attempt to decal over one engine, and while okay, it did not satisfy my perfectionist self entirely. *Hint: Try to keep as much as possible any existing decals that will suit your purpose, such as road numbers.*

I hope you enjoyed this article and a special thanks to Big Jon and Garry Warner (fellow member 1204) for all their assistance. The remaining pictures are before and after images, plus samples of the process or products used.

GVGRC Members may find the complete article featured in the June 2013 issue of the Burnt Journal, located in the Archives section of the GVGRC website, in the Member area.