

*AVA Tech Center Article*  
**Removing Paint/Additional Light**  
Article and Photos by Bruce Kaufman

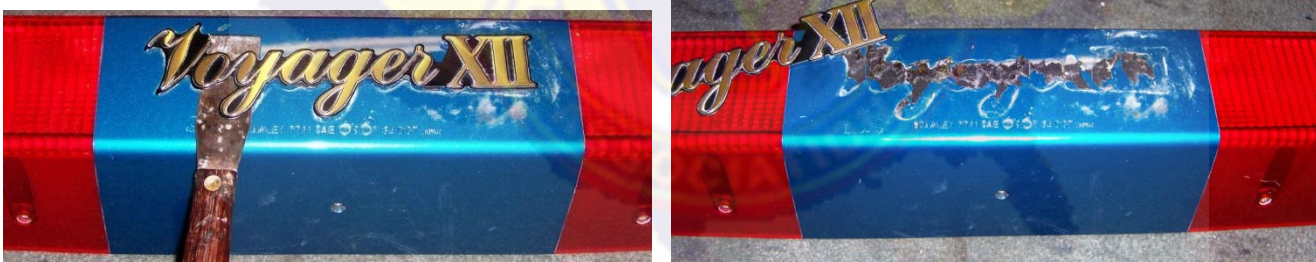
Removing the paint from the center of the trunk tail light lens seems to be a common Voyager XII thread, yet when I did mine the center remained unlit. Removing the paint made the lens look all red, yet the emitted light pattern remained exactly the same. This all show & no go improvement is described below as Stage 1.

What I found out was the inside of my 94 tail light lens was also painted in the exact same area. To make the entire lens light up, I had to complete Stage 2 which requires removing the housing from the lens. This process takes a little more skill than simply removing the outside paint, yet with a bit of patience you should have no trouble in completing the process. This improvement is described below as Stage 2.

While I had the assembly apart, I made a couple of modifications to further enhance the brightness of the entire tail light area and this process is described as Stage 3.

**Stage 1: Removing the Outside Paint**

The first step is to take the tail light assembly off the bike; just four bolts inside the trunk, then carefully work the Voyager XII emblem off the lens with a putty knife if you want to save it for later use.



Your first real challenge is product selection. Most paint strippers warn against using on plastic, others suggest caution on plastic, and many simply just fail to mention plastic at all. I never found a product which stated safe for plastic and ended up with the stripper shown below which did not harm my lens.



Whatever your selection is, first test the product by dabbing a small amount on the underside red area to make sure the lens will not melt! I started stripping on the bottom and then moved on to the real deal.

Simply apply with a brush and wait for the clear coat to dissolve, work in the shade to keep the lens cool and prevent the stripper from drying too quickly. Once the color coat starts to bubble, simply use the brush to lift the paint off of the lens until the entire area is cleared.



It really is that easy....

### **Stage 2: Removing the Inside Paint**

This part takes a bit more work, yet I think the added light output is really worth the extra effort.

The good news is the tail light assembly is held together with hot melt glue, so it can be taken apart without breakage if you are careful. I used a flameless torch (heat gun), yet a standard hair dryer will work, it just takes a bit longer to get the tail light assembly warm enough.

**NOTICE:** Do not start this process unless you can stay with it until apart, if you stop and start it will take much longer and your patience might wear thin causing you to rush and break your lens!

Remove the three screws from the bottom of the lens and set them safely aside.

Start applying heat at one end of the top edge and gently pry between the lens and housing with a screwdriver taking notice of the four red lock tabs! These tabs need to be pushed inward while lifting the white housing or they will break from the lens. If broken, fear not, the project is not ruined.

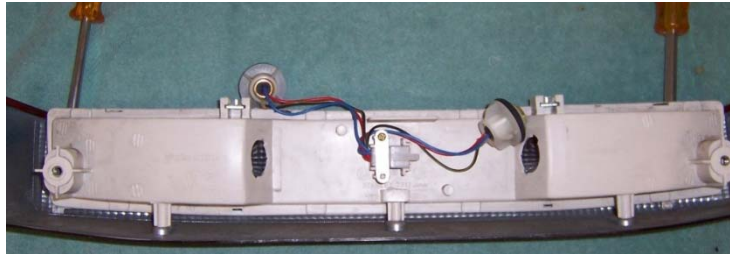
Do not try and remove the housing in just one pass! Keep heating along the top edge and work the lens up just a little bit. When I got to the center, I started the process over at the other end.



Once the entire edge is worked loose, then make a second pass, this time separating the housing from the lens as shown below. Just like the first pass, keep applying the heat and working a small section at a time.



The goal is to get the entire top edge free, then work the short sides until these are free all the way to the bottom, I used two screwdrivers all the way through to keep the lens from re-sealing into the hot housing.



Now all that is left is the bottom edge, apply heat to the entire length until you can lift off the housing which reveals the internal lens and the hidden paint on the inside of the red lens.



While the housing is still hot, remove all the glue from inside the housing groove. If you broke any red tabs, carefully remove them and glue back onto the lens with acrylic glue. Make sure to clean the pockets for the internal lens if they have glue in them. Check the lens body for glue, mine did not have much on it and the ball of glue you see in the photo came out of the housing groove.



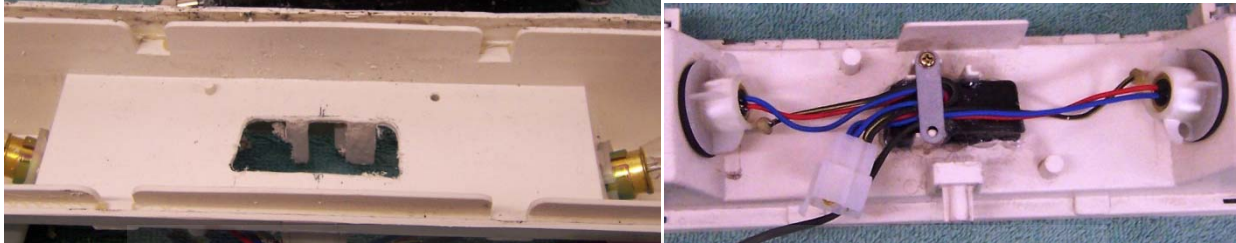
Now you are ready to strip the inside paint from the lens just like you did with the outside. The only difference is the inside paint did not bubble for me, it just liquefied into a silvery mess which took several wipe downs and more stripper to get all the slime out of every nook and cranny. When finished, the completed lens looks like this.



### Stage 3: Increasing the Light Output

The center section is not directly lit so this area is not as bright when compared to where the stock bulbs are located. Being the center area is very shallow, regular bulbs will not fit, so I chose to install a group of LED's which would be connected to the brake light circuit.

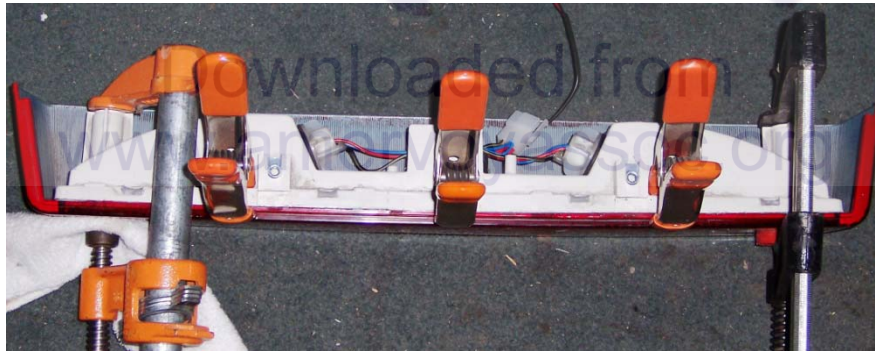
Using a rotary cutting tool, a hole was made in the housing to hold the LED assembly. The LED's fit between the stock clamps on the housing back for added support plus I could reuse the metal strap. The entire LED assembly was then sealed into the housing with hot glue on both front and back to keep water out.



As white plastic does not reflect as much light as a shiny surface does, I lined the entire inside area of the housing with adhesive backed aluminum tape. This metal tape is easy to mold into the housing and can be found in most hardware stores, often used for rain gutter repair.



Last step is to glue it all back together! I chose an exterior grade caulk as hot glue would start to cool off before assembly and compromise the seal. Lay in a bead about 1/8 inch thick leaving the bottom two drain ports open in the housing. Install the internal lens, press the red lens into place and clamp the assembly up overnight to ensure good bond.



I think you can figure out the rest from here....

*Happy Trails....*

The AVA would like to thank again Bruce Kaufman (Voyager Ninja) for this excellent article. Bruce has worked on mostly Kawasakis for many years and you can look forward to more articles from him in the AVA Tech Center.

