

## Standard Operating Procedure Field Service Patching

**Summary:** This procedure is intended to teach the proper way to patch a board without the use of purge in the field.



### Tools You Will Need

- Flat Headed Screw Driver
- Heat Gun (Temp controlled if possible)
- Drill (preferably with a low gear)
- 3/8 Drill Bit (4-6" length with long flutes works best)
- A piece of scrap material
- Grinder
- Gloves



### Step 1

With the 3/8 drill bit and drill you will need to drill several holes into a piece of scrap. Do this in as slow of a manner as possible creating a good piece of swirled plastic. Setting your drill to low gear or setting the drag of the drill to a low setting will help this process. You will get the best material for patching in the first inch of the board as you drill it.



### Step 2

Start heating your heat gun, gather your material to plug your holes and get your flat screw driver close by. Clean out your hole that you are going to plug with a smaller drill bit or your screw driver. This will ensure a good surface for the material to adhere to.



### **Step 3**

Start by heating the surface of the hole the best you can. It will discolor or burn if you hold the heat in one spot for too long. It should be heated gradually and evenly. (Note: If possible keep the heat gun set below 500°F while patching or burning will occur)

Stuff a piece of the curled plastic you previously drilled out into the hole. This will melt fast so you should be ready with your screw driver. Place the heat directly on it for a short time and it should shrink and become a gum like texture. Stuff this in the hole with the screw driver and pack it into place. You may need to repeat this step several times pending on the size and depth of the hole, once it is sufficiently packed you can let it cool.



### **Step 4**

Any grinder will do to clean off the excess material. You will need to lightly grind your patch until it is even and smooth with the surrounding material. Do not be afraid to grind the entire surface especially on the end of a board to get a nice evenly blended surface.



### **Things to Note**

When working with larger holes in material you may want to gather larger shavings from a larger drill bit. But no matter the hole size or depth the process will remain the same. It will merely take more time and more layers to get the results you want.

