

## Propeller Repair

It is common for a propeller to encounter foreign material that can cause anywhere from minor surface abrasion or small nicks to major blade damage. A pre-flight and post-flight inspection will help to ensure the best performance and longevity of hours of use from your Warp Drive propeller. The depth and severity of the damage will determine if the repairs can be performed by the customer or the prop must be returned to the Warp Drive factory for inspection and repair or replacement.

1. Small nicks and gouges up to .125in(1/8") in the carbon fiber material can be filled and repaired using a high strength 5 or 10 minute repair epoxy kit(West System, Devcon, etc.) that is made for composite material repair. Do not sand the damaged area. Leave the broken or frayed fibers in place to give the repair epoxy a better surface to bond with. Clean the immediate damaged area with acetone or paint thinner. Fill the area with the repair epoxy and cover with masking tape to shape the repair to the original blade shape. Once the epoxy has cured, remove the masking tape, sand the area to a smooth surface matching the original shape. Re-paint the area with a flat black lacquer spray paint. After the paint has dried lightly sand the painted area with a medium grade Scotchbrite pad. This will take the area back to a factory finish. When re-painting the area be sure to keep the touch up paint to a minimum. Adding more paint than necessary can cause an out of balance situation. Re-balance the propeller.

2. If your propeller has the inlaid nickel leading edge protection installed, minor nicks and dents can be repaired by the customer. However, to properly repair the nickel leading edge area, the entire propeller should be returned to Warp Drive for inspection, repair and re-balancing. As a factory repair the damaged nickel edges will be removed, the damaged carbon fiber underneath will be repaired and a new nickel edge will be installed. The entire set will then be repainted and rebalanced to factory specs. If the damage is a minor nick then the area can be lightly sanded smooth. If the damage is a dent that bulges the leading edge out slightly then the area can be tapped smooth using a hammer and dolly. The nickel edges can get built up with foreign material such as grass or bugs or it can get eroded from dust or sand. If the leading edges have build-up of foreign material simply use a medium grade Scotchbrite pad to remove the material. If the leading edges are heavily worn from sand then the blades must be returned to Warp Drive for inspection and repair.

If you are unsure as to whether your blades are repairable or must be replaced, you may email photos of the damage and we may be able to determine whether it is worth the time and cost of sending them in for factory repairs or if they damaged too severely to be repaired.