

## **HyperBlade Saber Blade System Blade Repair + Upgrade Document**

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<http://www.hyperdynelabs.com>

Congratulations on your purchase of a HyperBlade saber blade kit! This kit is the ultimate saber upgrade for saber collectors, enthusiasts, role players, and costumers.

Your saber kit was manufactured using the highest grade components available, please handle it with care as not to damage any of the components from static electricity.

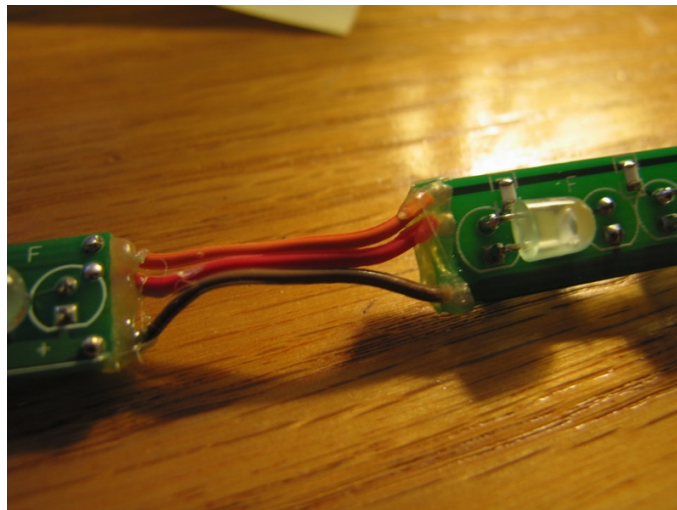
**NOTICE:** There is no warranty on kits. It is your responsibility to install the board. Opened kits cannot be returned. Be careful if you use a battery source that is capable of delivering a lot of current. Contact a professional if you need assistance. Hyperdyne Labs assumes no responsibility for the misuse of this kit.

### **Saber Blade Repair**

The HyperBlade system was engineered to allow the HyperFlex blade board to be easily serviced should any section of LEDs stop working due to excessive force impacts.

The failsafe built into your Hyperflex assembly consists of flexible jumper wires connecting each 12” stretch of LEDs. These wires make the board very flexible and resistant to shock damage. Thus the LEDs and components on the PC boards can survive larger than normal impact shocks that would typically destroy a single PC board assembly. The wires are also designed to be the “weakest point” in the system, and if they break then they are easy to fix/replace – instead of breaking an entire LED board which is costly to replace.

Here is a pic of the jumper wires on the HyperFlex board between the top two boards:



If a section of your blade becomes unlit, then most likely one of the jumper wires has broken, severed, or come loose. You can remove your HyperFlex assembly from the blade and see which section is out. Once you determine which section look to see if any of the wires have broken off.

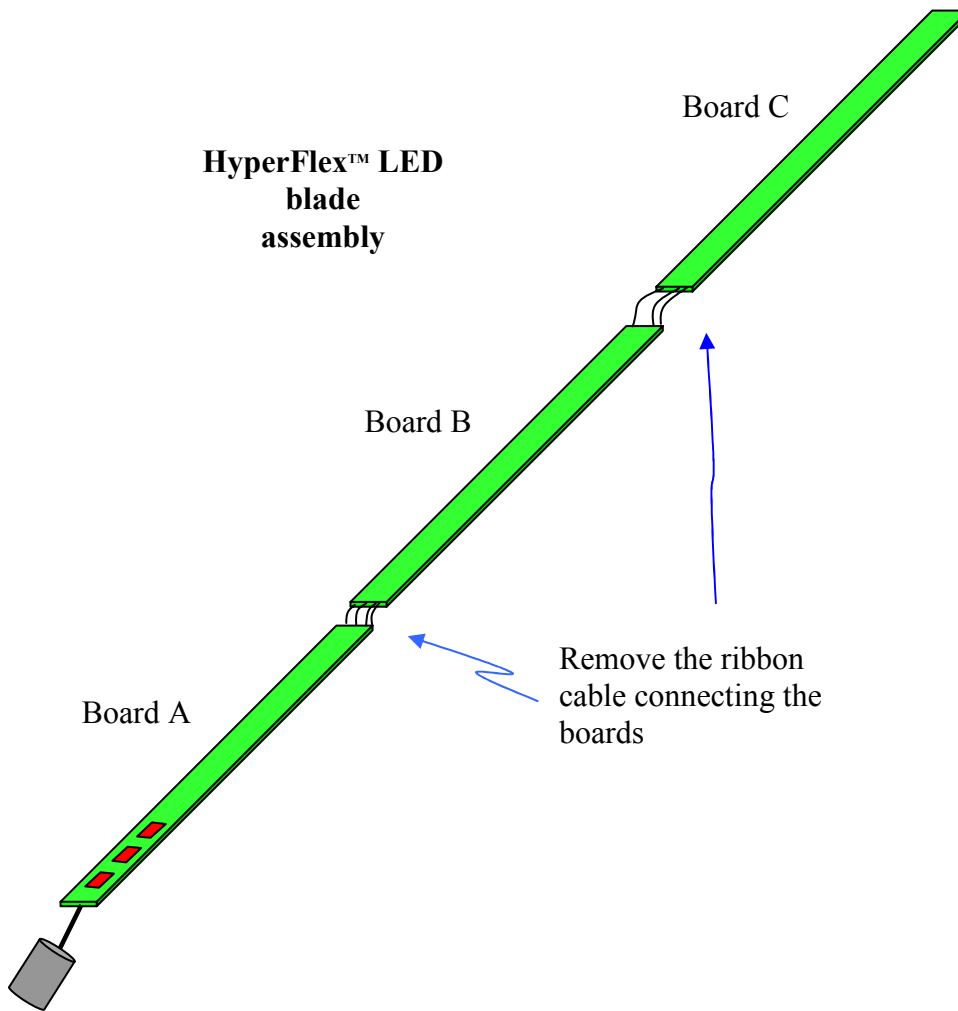
**NOTE:** You can remove the hot glue from the jumper wire connections by applying rubbing alcohol liberally to the glue. After 15 sec the glue should peel right off!

Once you determine the faulty wire, remove the hot glue and then restrip and resolder it to the correct pad. Then use hot glue again to secure the connections and you are done!

### **Upgrading the jumper wires**

If you plan on using your blade in an impact-rich environment, you might want to replace the ribbon cable wires with our Teflon-coated jumper strips. These strips are VERY strong and will not break easily, thus dramatically increasing the durability of your blade assembly while still maintaining a flexible unit.

Here is a diagram again of the HyperFlex blade assembly boards.



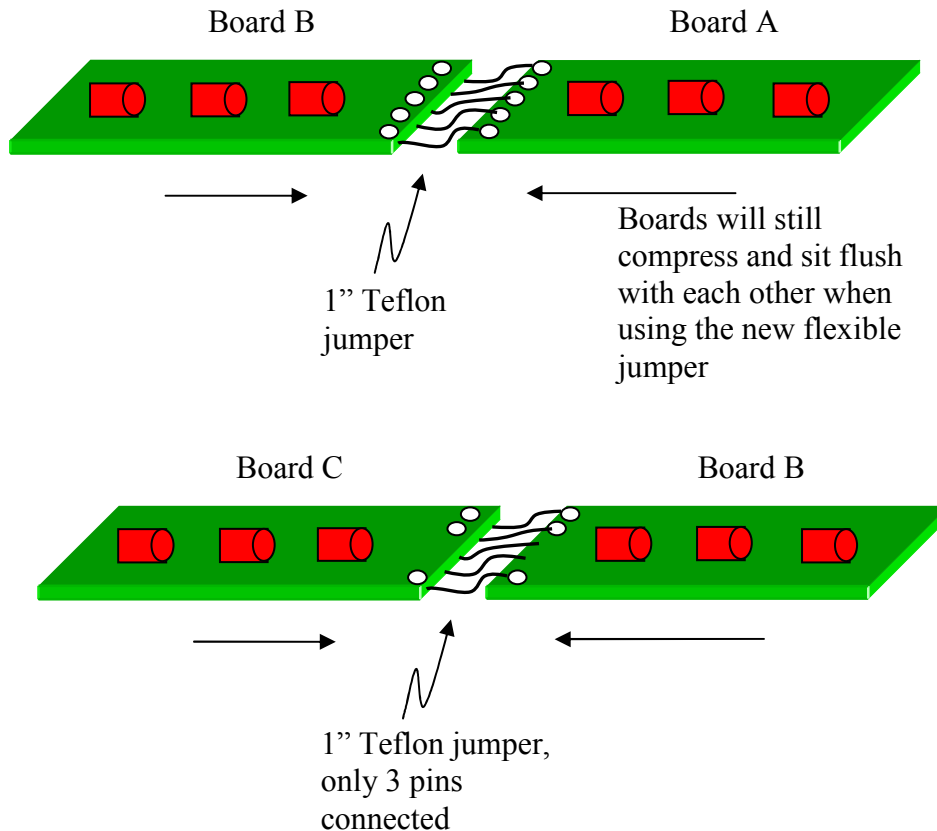
The upgrade is easy to do, first remove the ribbon cable connecting the 3 boards together (2 sets of ribbon cable). Do this by applying rubbing alcohol to the hot glue, pulling the glue off, then desoldering (or even cutting) the ribbon cable from the individual boards. *You will see the top of board A and the bottom of board B has 5 connection points. The top of board B and the bottom of board C has 3 connection points.*

Once you have removed the ribbon wire from the boards:

- Make sure the LEDs are all facing the same direction on each side of the entire blade assembly. You will see the connection points match up on the boards.
- Take the 1" Teflon 5-pin jumper and solder one end to the top side of board A and then to the bottom side of board B. Solder all 5 connection points on both boards.
- Take the other Teflon 5-pin jumper and solder one end to the top side of board B and then to the bottom side of board C. You will only use 3 pins on the 5 pin jumper and that is ok. You can leave the other wires in tact or snip them.

- For EXTRA strength you can apply hot glue over the connection points to further strengthen the entire blade assembly.

Here is a pictorial showing the connection points



Once you are done with the jumper wire upgrade, you can rewrap the boards in foam again and tape them up. Make sure you push the boards together again and secure them so you don't get black bands from the extensive gap between the boards.

For your reference, the HyperBlade blade kit document goes over the proper assembly.

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