

# WICKED AIR SPORTZ

***Equalizer<sup>TM</sup>***  
**Warpfeed Trigger Kit**  
***Installation and Usage Manual***

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## **Introduction**

Thank you for purchase of the Warpfeed Trigger kit for your Equalizer™ board. This kit is a simple plug-n-play setup that will allow anyone with an Equalizer board and Warpfeed to insure that the Warpfeed is running the entire time that shots are being fired.

Please read through this **entire** manual **before** you attempt the installation of this kit!

## **Installation Requirements**

To install your kit, you will need the appropriate sized allen wrenches and a flat, clean, work surface.

The installation of this kit is not difficult. If after reading through this manual, you believe you can not perform the installation, please seek someone who can assist you.

This manual should provide ample information and clarity to install this product.

## **Liability**

By using this product, you agree to hold Wicked Air Sportz free from any type of liability either directly or indirectly due to the use of this product.

## **SECTION 1 – INSTALLATION**

### **Step 1 – Remove the Grip Panel**

Before disassembling the marker, make sure the marker power switch is in the off position.

Please refer to the Equalizer™ “Installation and Usage Manual” for information about how to remove the grip panel for your marker.

### **Step 2 – Remove the Equalizer™ Board**

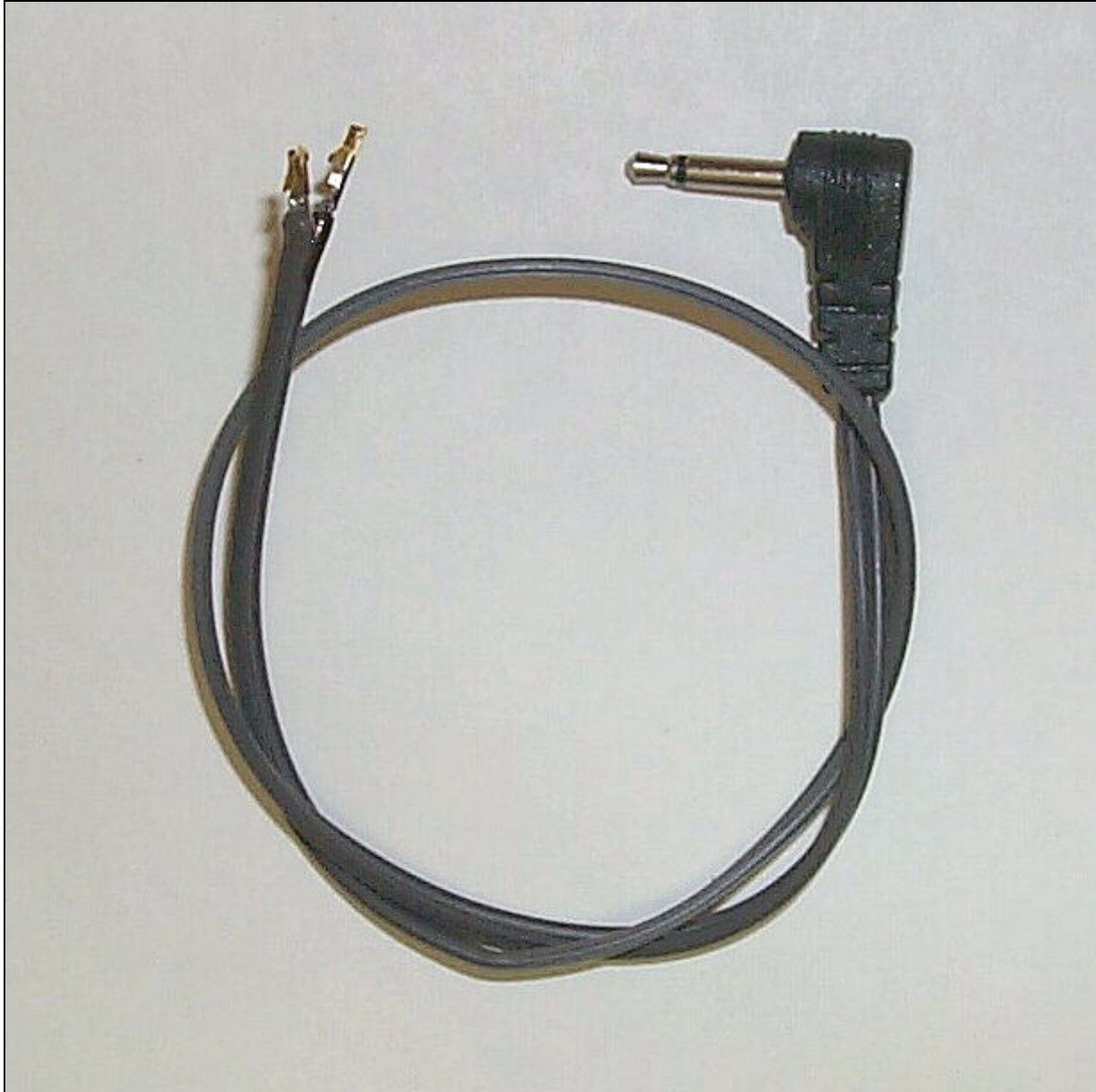
Please refer to the Equalizer™ “Installation and Usage Manual” for information about how to remove the Equalizer™ board.

### **Step 3 – Polarity of the cable**

Look at the cable assembly. You will see one end has a 3/32nd mini-phone jack, which plugs directly into the Warpfeed unit, and the other end is two 2mm-header receptacles. These receptacles will be inserted into the header connector (in an empty socket). One of the two wires will be marked with a black stripe at the header receptacle. This will be considered “negative”, and connects to ground (-) in the Equalizer electronics. The other receptacle is considered the trigger (programmable as + or -) in the Equalizer electronics. The cable assembly is shown in Figure 1.

### **Step 4 – Locate the Proper Header Connector**

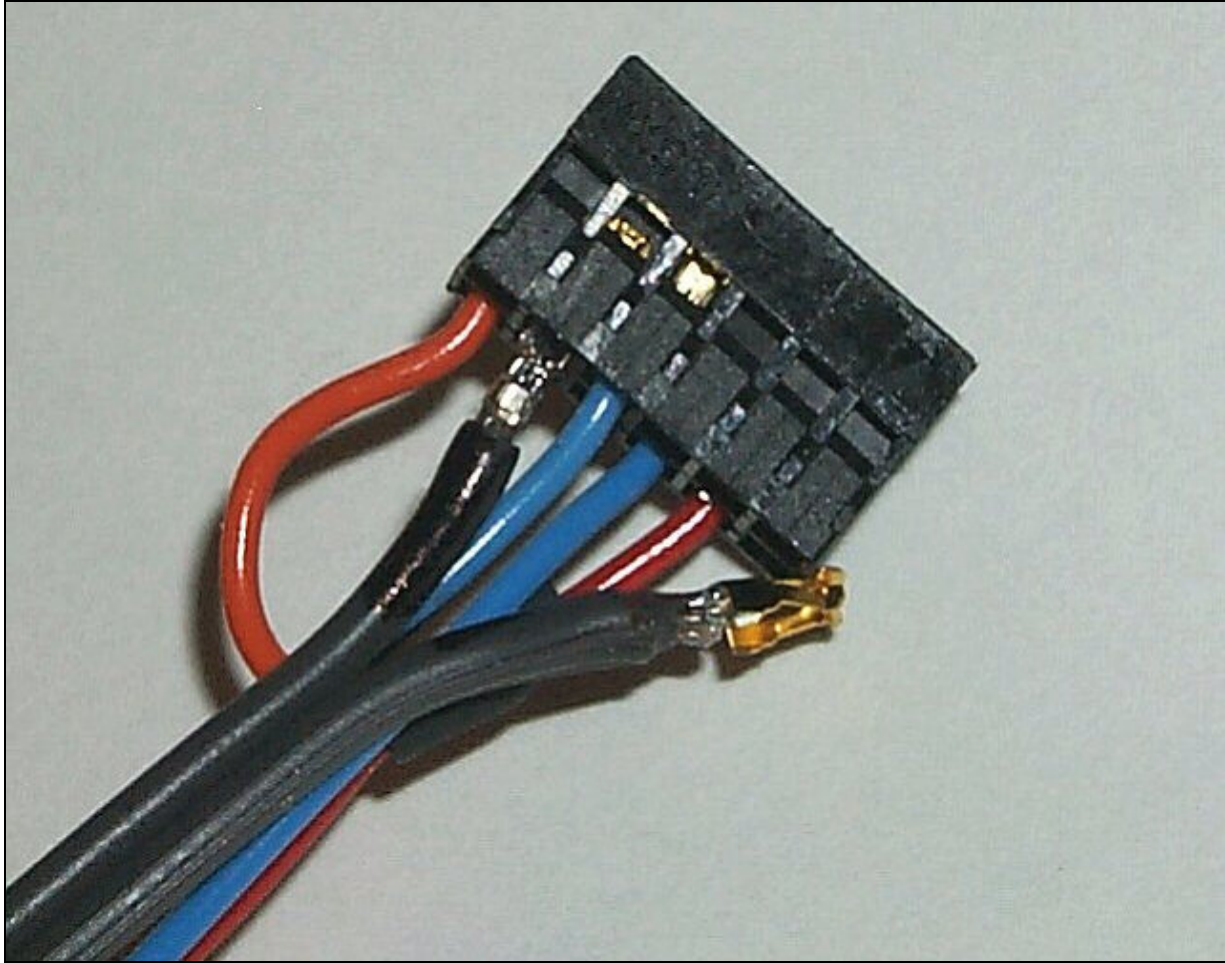
There are two header connectors that plug into the Equalizer™ board. The connector nearest the top of the gun (furthest from the bottom of the grip) is the connector that the Warpfeed Trigger Kit installs into. This connector will have an orange wire that is looped back into a red wire.



**Figure 1 – Warpfeed Trigger Cable**

**Step 5 – Installing the Receptacles**

Pull the top most header plug away from the grip so you have complete access to it. Orient the plug in the same position as shown in figure 2. There are two rows of sockets. We will be dealing with the top row (of each side) when installing the receptacles.

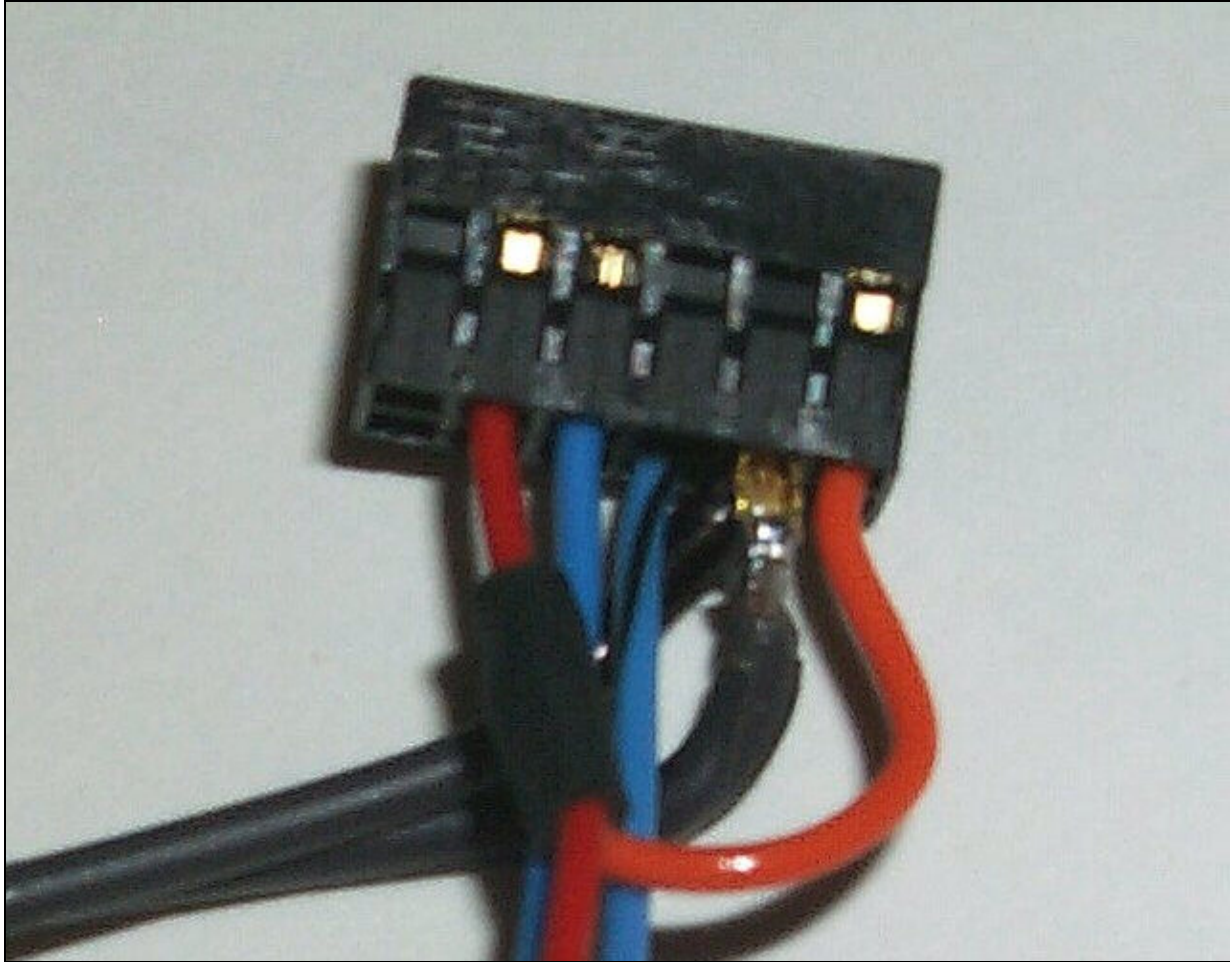


**Figure 2 – Inserting the Negative Receptacle**

Now, insert the negative receptacle (the one with the black stripe) into the empty socket that is 2<sup>nd</sup> down from the outside. The receptacle needs to face outwards, matching the other receptacles (the receptacles are a “U” shape, and the base of the “U” must be towards the center of the connector).

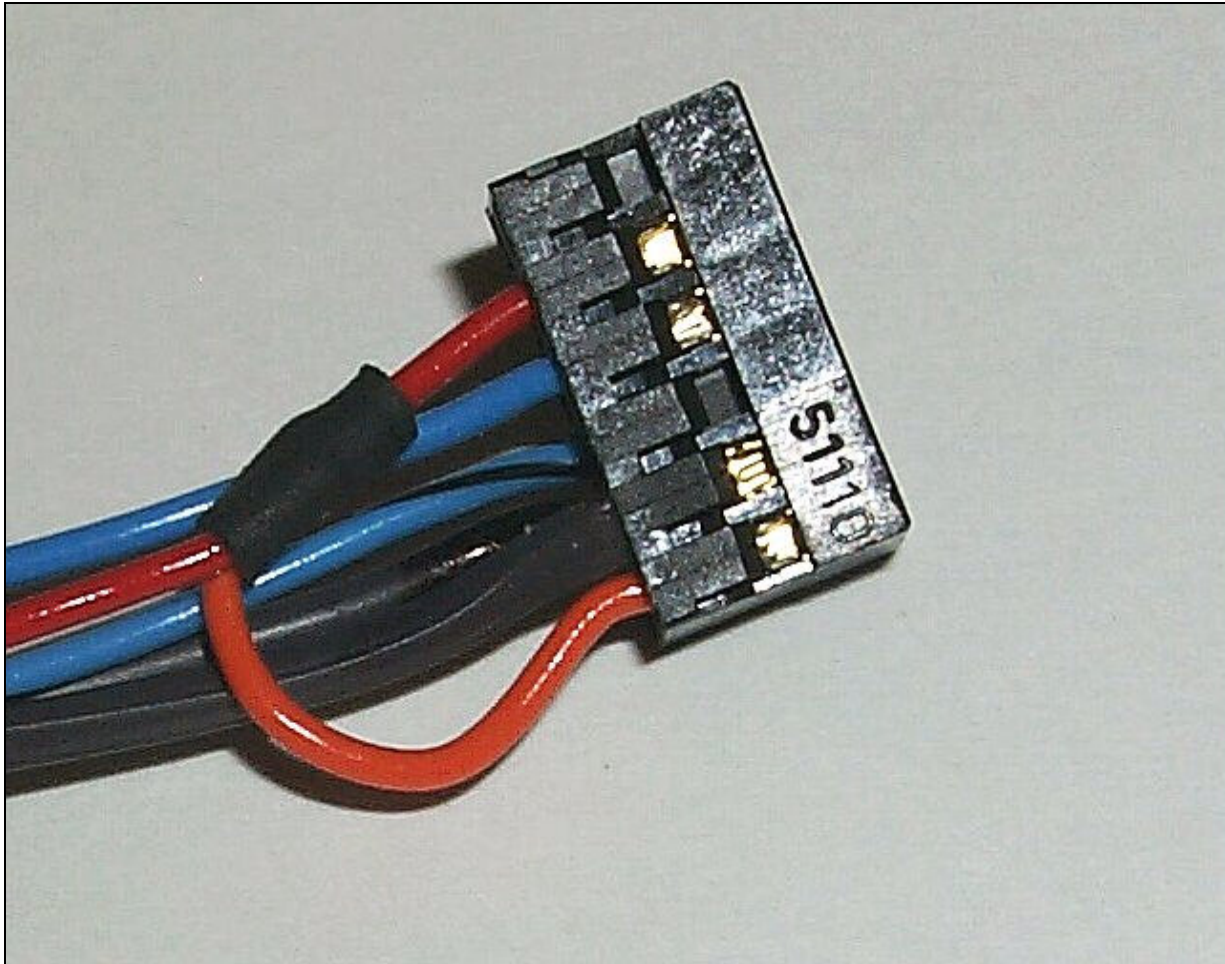
Press the receptacle completely into the socket. Gently pull on the wire to make sure that the receptacle did lock in place. If it did not lock, you will need to use a small screwdriver, or o-ring pick to push it into place.

Now, turn the header connector over. We will now install the trigger connector. Using the same technique as above, insert the other receptacle into the empty socket that is 2<sup>nd</sup> from the outside (directly opposite to the other receptacle that you just installed). See figure 3 for details.



**Figure 3 – Inserting the Trigger Receptacle**

If everything has gone well, the top header connector will look the one pictured in Figure 4. **NOTE: The header connector pictured in Figures 2, 3, and 4 is from a Ground Zero (GZ) model that does not have the membrane switch connections.**



**Figure 4 – Installation of the Receptacles Complete**

**Step 6 – Re-assembly**

Please refer to the Equalizer™ “Installation and Usage Manual” for information about how to reassemble your marker for use.

You will need to route the cable out of the grip so that it can be plugged into the Warpfeed. You may want to make a small “notch” in the base of the plastic grip panel for the “classic” models. With the GZ and clamshell grips, a small amount of milling will be required. We recommend grinding a small notch where the halves come together, at the bottom of the grip frame. It is possible for the outer grip to cover the position where the cable exits the grip frame, making it a clean looking installation. Take your time when it comes to routing the cable!

## SECTION 2 – Programming the Warpfeed

The Warpfeed must be “programmed” to work with the Equalizer. There is a cover plate that allows the user access to change the jumper blocks. These jumper blocks program the Warpfeed’s polarity and spin duration. For detailed information about the Warpfeed’s programming options, please download and review the documentation for the Warpfeed from Air Gun Design’s website:

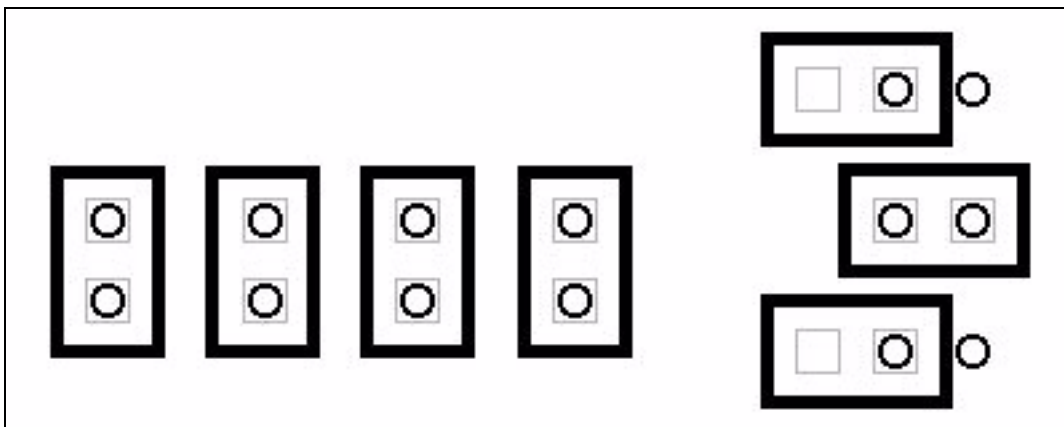
<http://www.airgun.com/downloads/WarpInstructions.pdf>

The 4 horizontal jumper blocks need to be configured as shown in Figure 5. The “dwell time” jumpers must all be set to the ON position, which will make the wheel spin the shortest amount of time.

The 3 vertical jumper blocks need to be configured as shown in Figure 5. The polarity must be set to “Positive (+)”. This is accomplished by setting just the middle jumper to the ON position, and not having the top and bottom jumpers connected (you can leave them hanging off with just one pin connected so you don’t lose them).

After you have configured the jumpers, screw the cover plate back in place.

Now plug the Warpfeed Trigger Cable’s 3/32<sup>nd</sup> mini-phone plug into the Warpfeed’s mini-phone jack receptacle.



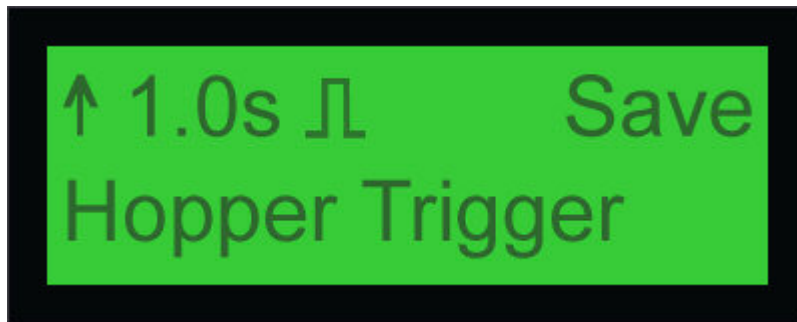
**Figure 5 – Warpfeed Jumper Configuration**

### SECTION 3 – Programming the Equalizer

The Equalizer’s default setting for the “Hopper Trigger” was designed for the Warpfeed. For the Warpfeed interface, the hopper trigger polarity must be POSITIVE (low to high transition). This will be indicated by a symbol that looks like a little ‘hat’ as shown in Figure 6.

The spin duration time can be set from .1 seconds to 2.0 seconds. This is the amount of time that the motor will run when you pull the trigger. This time is not accumulative, and it is reset on every trigger pull. So, if you have the time set to 1.0 second and you pulled the trigger really fast for 5 seconds, the Warpfeed will run constantly while you are pulling the trigger and for 1.0 second after your last trigger release. Likewise, if you have the time set to .1 seconds and you pull the trigger every .5 seconds, you are going to hear and see the motor “pulse”, which won’t do you much good! The default setting of 1.0 second is probably the best overall setting as it makes sure the hopper is running long enough to apply pressure on the balls, but not too long to be loud and give away your position.

If you set the Equalizer’s EYE MODE to be FORCED, the hopper trigger will still output a pulse to the Warpfeed, even though the marker will not fire (until there is a ball in the breech). This lets you “prime” the Warpfeed without having to use the prime button on the Warpfeed itself.



**Figure 6 – Default Hopper Trigger Configuration**