



# **BLUETOOTH FCU OWNER'S MANUAL**



**WOLVERINE AIRSOFT**

[www.wolverineairsoft.com](http://www.wolverineairsoft.com)

## Setup

**Note: The Bluetooth FCU was discontinued on Jan 1, 2022 and the app is no longer updated. Please verify hardware compatibility before purchase.**

Please note that the chip utilized in the Wolverine Airsoft Bluetooth FCU will not be compatible with newer Android phones. As a result, we recommend using phones that run on Android 4.3 - 10, as they are more likely to be compatible.

Install the app, available at [www.wolverineairsoft.com/downloads](http://www.wolverineairsoft.com/downloads). Connect a 7.4V LIPO battery with JST style connector. [Use of other power sources is not approved and will void the warrant.]

Launch the app. Navigate to the "Scan for Devices" page of the app by swiping left or right. Your Bluetooth FCU should show up with the name "Wolverine". Tap on the device to connect. The connection status bar at the top of the screen should indicate that the FCU is now connected by changing to "Wolverine is now Available" and turning Green.

Note: Bluetooth FCU will time out and turn off Bluetooth if no commands are sent by the app for a period of time. If device does not show up try unplugging the battery and plugging it back in to re-activate the Bluetooth on the board. The Bluetooth can also be reactivated by setting the gun in semi or burst and holding down the trigger for 10 seconds. This will reset the Bluetooth connection.

### **Set Passkey**

In order to ensure your FCU is secure, the app will automatically generate a random passkey the first time you connect to the FCU. However if you wish to be able to connect from other phone, you will need to set a passkey of your choosing by navigating to the "Server Settings" Page. A passkey may be from 1 to 16 ASCII characters.

### **Change Device Name**

To differentiate your FCU from other users of the Bluetooth FCU, navigate to the Server Settings page and enter a desired name up to 10 ASCII characters. Tap "Set Device Name".

## **Core Performance**

Navigate to the Core Performance page by swiping left or right in the app. You will see three level bars labeled "Dwell", "Burst Count" and "ROF". The Core Performance page displays the settings for the select fire stat the gun is currently set to. By switching select fire states on the gun each state can be programmed independently.

### **Set Dwell**

Dwell is the length of time the valve is opened for when the trigger is pulled. The value is measured in microseconds and can be adjusted by dragging the indicator up or down. Value is adjustable from 3500 to 12000. Most set ups use a value between 3500 and 6500.

### **Set Burst**

Burst Count is the number of shots fired in a burst when the trigger is pulled. Value is adjustable from 1 to Full Auto.

### **Set ROF**

ROF is measured in RPS and is adjustable by dragging the slider from 1 to 55.

### **Lockdown**

When programming is complete, tap the "Lockdown" button on the main screen to turn off the Bluetooth on the FCU. This will prevent other users from connecting to your FCU at all, and it will also put the FCU into a low power mode.

## **Manual Selector State Display**

To display all selector state settings simultaneously navigate to the App Settings page and toggle on the "Use Manual Selector Performance Controls" button.

## **Tuning**

- 1.** Set dwell to 6500-7500
- 2.** Adjust pressure on regulator to achieve desired velocity
- 3.** Reduce dwell in small increments testing the velocity on the chronograph after each shot until a small drop in velocity is observed. This is your point of maximum efficiency.
- 4.** Drag slider to adjust burst to desired setting. Repeat for each select fire state by switching the selector switch on the gun.
- 5.** Drag slider to adjust ROF. Repeat for each select fire state by switching the selector switch on the gun.

## **Tournament Lock**

Two independent tournament lock systems are featured on the Bluetooth FCU. These locks can operate by themselves or at the same time. The Absolute Lock out is a simple time based lock which offers 100% lockdown of all FCU setting — once the lock is set, IT CANNOT BE UNLOCKED. Be sure your settings are correct before you tournament lock! Once set those settings will remain until the time on the clock has expired. Absolute lock is limited to a max of 3 hours. The Code Lock system is an advanced tournament lock which allows an event administrator to set a passcode which can be used to unlock the FCU before the time is up. The Code Lock system has a max time of 72 hours. Both locks are set relative to the current time, assuming the FCU remains powered continuously. The locks do not progress while the FCU is powered off.

### **Absolute Lock**

To set the absolute lock navigate to the tournament lock page. Use the number bars to select the amount of time up to four hours. Press the "Set Absolute Lock" button to set the lock. The status bar at the top of the screen will indicate the amount of time remaining in the lock. Additional time can be added to the lock by selecting the desired amount of added time and pressing the "Add Time" button again. The max total time for the Absolute Lock is always 3 hours.

## **Code Lock**

The CodeLock system is an advanced tournament lock system. It can be deactivated using an administrative numeric code. To prepare the code lock for use, follow steps 1-3 on a Bluetooth device possessing the owner's passkey for the FCU.

- 1.** Navigate to the Tournament Lock
- 2.** Set the desired time for the lock in the numbers bar and tap "Set Code Lock Time"
- 3.** Enter temporary numeric activation key and tap "Set Code Lock Temp Key"
- 4.** On any Bluetooth device [does not need to have password access] connect to the Bluetooth FCU and navigate to the Code Lock page.
- 5.** Enter the Numeric Temp Key
- 6.** Enter the desired numeric unlock code and tap "Start Code Lock". Please note that the numeric code will disappear as soon as you have pressed "Start Code Lock", and there is no way to retrieve it from the app.
- 7.** To deactivate the lock before time expires enter the numeric unlock code and tap "Unlock Code Lock".

## **Advanced Settings**

### **Adjusted Full Auto Dwell**

To save air on burst/auto, a parameter can be set to reduce the dwell time when firing in burst or auto. The system requires a lower dwell time for follow up shots in a burst especially at higher ROF. Adjust the parameter as high as possible without reducing the performance on full auto.

### **Analog Mode**

Adjustments to the dwell and ROF can be made with the analog dials on the FCU. These will work seamlessly with the Bluetooth. Turning the dial on the FCU changes the setting in the Bluetooth. During normal operation these serve as relative fine tuning adjustments. Wherever the dial is set when a value is set through Bluetooth becomes the current value. Turning one direction or another makes fine adjustments to the value but does not offer the full range of values. A pure analog mode can be accessed by setting the dials all the way clockwise and rebooting the FCU. The dials will then act as absolute references the same as the Bluetooth standard FCU until overridden by sending a command from Bluetooth at which point they will automatically revert back to being relative adjustments. Note that both pure and relative analog adjustments are completely disabled for the duration of any tournament lock.



## **Passkey Reset**

### **Auto Set Passkey**

Upon the Bluetooth app's first connection to a new Bluetooth FCU, the app will automatically set a randomly-generated passkey on the FCU. This is done in order to reduce the likelihood that users will accidentally connect to the wrong FCU and modify its settings when other FCUs are present. Therefore, when connecting with a new phone to a previously-used Bluetooth FCU, you will need to enter your stored passkey on the App Settings page. [If you do not know your passkey because it has been randomly-generated, please see the section above on setting your passkey.] Enter your passkey and tap "Correct Stored Passkey". This will permanently save the passkey for your FCU on that phone.

### **Reset Passkey**

If you have forgotten your passkey or need to reset the passkey on your FCU perform the following steps to reset the passkey.

- 1.** Unplug the battery
- 2.** Hold down Trigger
- 3.** With trigger held down plug battery in
- 4.** Continue holding down trigger for 10 seconds after battery is plugged in
- 5.** See "setting passkey" on Page 3.

## **Need professional help?**

To find a retailer close to you visit:  
[www.wolverineairsoft.com/dealers](http://www.wolverineairsoft.com/dealers)



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