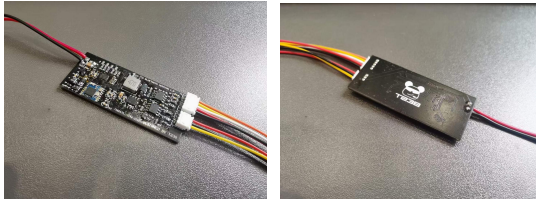## T238 FCU BLUETOOTH VERSION

Introduction:

- **Special designed or single valve and double valves HPA engine**
- **With Auto-load function for gel ball blaster magazines**
- **Free APP**
- **Support 5~12.6V input voltage**

Pins:

1 = Common positive +5V

2 = Trigger switch: closing this contact to +5v positive will fire the BB

3 = Full Auto Switch: closing this contact to +5v positive will activate the Auto Mode

4 = Poppet Power Supply: this contact and +5V common positive will power on the Poppet Solenoid

5 = Nozzle Power Supply: this contact and +5V common positive will power on the Nozzle Solenoid

6 = It's a trigger driven negative Voltage

7 = It's a direct battery positive Voltage

8 = It's a trigger driven negative Voltage with auto-load function for gel ball blaster magazine

Connector allowed are JST ZH 5Pin and JST ZH 3Pin.

Functions:

Engine Type: This value is very important as it tells the control unit how many solenoids are used in the HPA system:

CB Mode: Allows you to select the firing sequence, where:

In double solenoid setup with Open Bolt, the order of operation of the system is this:

Nozzle Dwell => Nozzle Delay => Poppet Dwell => Poppet Delay

In double solenoid setup with Closed bolt the order is this:

Poppet Dwell => Poppet Delay => Nozzle Dwell => Nozzle Delay

RAMP Mode: RAMP feature comes from paintball and let you to fire slow on SEMI mode. When firing speed increase and reach a preset threshold, the rifle will start firing on FULL AUTO mode while cadence remain the same: if it decrease, rifle will return on SEMI mode. (When enable RAMP Mode, full-auto switch will be disabled)

Sniper Delay: When enable Sniper Delay, full-auto switch will be disabled, and the engine will only work in semi-auto mode, after each

shot, the FCU will let you wait a period of time, and the length is determined by the set value

Magazine capacity limit: This function, if enabled, will cause the control unit to stop working once it reaches the set number of strokes and to resume, wait 2 seconds.

This allows you to simulate mid / low cap magazines even if magazines with higher capacities are mounted underneath, moreover if set the real capacity of the assembled magazines you will avoid shooting empty.

Auto-load: When detect a connection of a gel ball magazine, the FCU will power the magazine for a period of time, and the length is determined by the set value

Friction Timer and Friction Value: Although often unnecessary with a well set replica, it may sometimes be necessary to set a higher poppet dwell value to overcome static friction. Static friction is a physical phenomenon that causes the first bullet to be fired after a period of inactivity and comes out with lower powers.

 If you notice that after a few minutes of inactivity the first bullet finds it difficult to be fired, or comes out weaker, it could be the fault of the static friction.

Chose after how much seconds from last shoot (Friction Timer) your Friction Value will be summed to your Poppet Dwell (just the first shot) Put both these value to 0 to deactivate this function.

SEMI and AUTO: On some parameters you can read the words SEMI or AUTO before, this has be done to have different parameters value depending on your Fire Selector Position. When your gun is on Semi,

FCU will use the Semi parameters otherwise, if in Auto position, will use the other.

Poppet Dwell: These are among the most important, and indicates how many tenths of a millisecond the solenoid will remain activated. We suggest to never set a value less than 30 to avoid missed shots or other problems.

Nozzle Dwell: Another fundamental value is Nozzle Dwell. Expressed in milliseconds, it indicates the time required to load the bullet into the hop-up chamber. It is used only on 2-solenoid systems.

Its value depends very much on the BB Magazines used. We suggest never to go below 8 to avoid the risk of jamming or other BB loading problems.

Poppet Delay: It is a wait value expressed in milliseconds, a low value is useful for having higher ROF or reactivity, but often at the expense of precision. It should never be set to 0 nor too low. If the replica fails, increase this value.

We suggest to never set a value less than 4.

Nozzle Delay: It is a wait value expressed in milliseconds, a low value is useful for having higher ROF or reactivity, but often at the expense of precision. It should never be set to 0 nor too low. If the replica fails, increase this value.

It is advisable not to drop below 4.

APP for Android:

Download and install the. APK file from the website: http://t238.net. After installation, enter the settings -> APP&notification, find the "T238FCU",

go to APP permissions -> location permission, and select "Allow all the time". This will allow the smart phone APP to fine the Bluetooth devices.
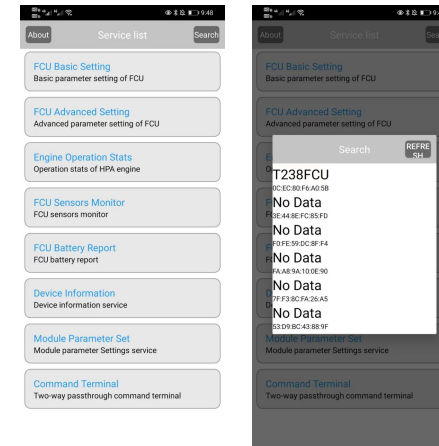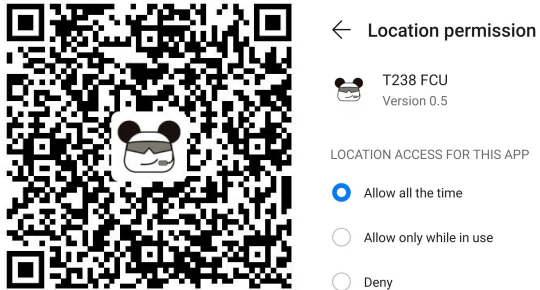
Bluetooth:

Bluetooth programming function will be turned off in 30 seconds after power on. Connecting FCU with smart phone needs to be completed within 30 seconds after power on, otherwise, the FCU needs to be powered off and powered on again.

Open the app, click "Search" button to find the Bluetooth device "T238FCU" and connect it.