

PTW FCU

Product Overview

This product is a high-performance fire control unit (FCU) specifically designed for PTW electric guns, offering powerful current output capabilities and advanced programming functions.

Features

- **Wide Input Voltage Range:** 7.4V - 14.8V
 - **Maximum Motor Current:** ~100A (supports High-power motors)
 - **Programming Functions:** Configure multiple parameters using the selector switch and trigger, including:
 - **Low Voltage Protection Threshold:** Emits an alert sound when the battery voltage drops below the set value.
 - **Semi-Auto Firing Modes:** Select between single shot, dual-stage single shot, or burst fire modes.
 - **Full-Auto Firing Modes:** Options include full-auto, three-round burst, and more.
 - **Sector Gear Positioning:** Configure the sector gear's resting position after each shot.
 - **Enhanced Braking:** Optimized design reduces braking circuit resistance, improving braking torque.
 - **Superior Trigger Response:** Rapid response with no delay or jamming.
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Installation Testing

1. After installation, pull the trigger to test if the unit operates correctly.
 2. If any issues occur, check the wiring connections for errors.
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Entering Programming Mode

1. Set the fire control unit to **semi-auto mode** and ensure the magazine cut-off switch is pressed.
 2. Hold the trigger down (the gun will fire once), and keep holding for 8 seconds.
 3. A "beep" sound indicates entry into programming mode.
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Operating in Programming Mode

- **Current Menu Item:** The motor emits short beeps representing the selected menu item (e.g., "beep-beep" for item 2).
- **Select Item:** Tap the trigger to move to the next item.
- **Enter Item:** Hold the trigger to access the selected menu item.

- **Change Parameters:** Within an item, tap the trigger to cycle through parameter options, with the number of beeps indicating the parameter value.
- **Save Settings:** After adjustments, hold the trigger until a "beep" confirms the settings have been saved.

Example: Changing Semi-Auto Firing Behavior

1. **Enter Programming Mode:** Follow the steps outlined above.
2. **Select Semi-Auto Behavior:** Tap the trigger until "beep-beep" indicates item 2.
3. **Enter the Item:** Hold the trigger until you hear a beep.
4. **Change Parameter:** Tap the trigger to cycle through options:
 - 1 beep = single shot
 - 2 beeps = dual-stage single shot
 - 3 beeps = 3-round burst, and so on.
5. **Save Changes:** Hold the trigger until a "beep" confirms the settings are saved.

Programming Menu

- **Item 1: Low Voltage Protection Threshold**
[1] 7.4V | [2] 11.1V | [3] 14.8V | [4] 9.6V | [5] Off
- **Item 2: Semi-Auto Firing Behavior**
[1] Single Shot | [2] Dual-Stage Single Shot | [3] 3-Round Burst | [4] 4-Round Burst | [5] 5-Round Burst | [6] 6-Round Burst
- **Item 3: Full-Auto Firing Behavior**
[1] Full Auto | [2] Single Shot | [3] 3-Round Burst | [4] 4-Round Burst | [5] 5-Round Burst | [6] 6-Round Burst
- **Item 4: Sector Gear Positioning (Brake Delay)**
[1] Front | [2] Position 1 | [3] Position 2 | [4-12] Positions 3-12

Safety Notes

- This product is intended for PTW electric guns only.
- Avoid touching components during use as they may become hot.
- Do not fire continuously for extended periods to prevent gearbox overheating or damage.
- Always comply with local laws and regulations. Unauthorized modifications or misuse are prohibited.

Troubleshooting

1. **Three Short Beeps**
 - Battery voltage is below the preset threshold. Replace the battery.
 - FCU temperature is too high. Allow it to cool before use.
2. **Five Short Beeps**
 - Check if the motor or gears are jammed.

3. **Failure to Fire or Stops Unexpectedly**
 - Check battery capacity, discharge rate, and wire connections.
4. **Unstable or Low Rate of Fire**
 - Inspect motor, magazine, and gears for issues.
5. **Mode Switching Malfunction**
 - Check selector switch or programming settings.
6. **Motor Spins on Power-Up**
 - MOSFET may be damaged. Contact support.
7. **Unusual Sounds or Odors**
 - Immediately disconnect power and inspect for burnt components or motor failure.