ZION ARMS

NOVA

ELECTRONIC TRIGGER UNIT

TECHNICAL DATA

Recommended Power Sources

The ETU works with any power source that provides voltage between 7 - 17 volts and can deliver enough current to ensure smooth cycling. Li-Po and Li-Ion batteries with nominal voltage of 7.4, 11.1, or 14.8 volts are recommended. It is also advised to use batteries with possibly high C-parameter and capacity; do not exceed 25C. This is safer for the battery, as it should not be working on the edge of its capability.

Capacity and C-parameter also influences the rate of fire.

High-ROF and High-Power Builds

The ETU works with even the most demanding setups, both regarding rate of fire and muzzle velocity.

Electronic Fuse

The integrated electronic fuse automatically cuts power off in case of a short circuit or when a gearbox jam is detected. The fuse does not wear out or needs to be replaced.

Battery Connector Type

Includes an already soldered T-Plug connector.

Power Consumption When Idle

Do not leave the battery connected when not in use. When idle (battery connected), the unit consumes 0.75mA. As such, this would drain a half-laden 1200mAh battery in around a month.

FEATURES

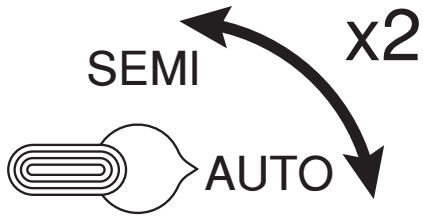
Function	Description
Firing Mode	Choose one of the firing modes for any selector position: safe, semi, 2-5 shot burst, binary trigger, and auto.
Active Break	Active brake (**AB**) stops the motor after the shot, preventing the spring from remaining in a compressed state and eliminates double shots on semi in replicas with high rate of fire (“overspin”). Five levels of braking strength are available. Braking can also be completely disabled. It is advised not to use braking all the time because strong braking negatively impacts the service life of motor brushes and causes increased heating. ▌Switch to semi, fire a single shot and hold the trigger after the shot. This will cause a second single shot with the strongest AB setting to be fired after 2 seconds, making sure the main spring remains uncompressed. It is advised to do that when you finish shooting for the day. ⚠ When precocking is on, AB becomes irrelevant. However, any programmed AB setting will be stored in memory and will become effective as soon as precocking is disabled.
Precocking	When shooting on semi, precocking keeps the piston in rear position, ready for the next shot. This decreases the time between pulling the trigger and the actual shot, increasing realism, and giving advantage in Close Quarter Battle (CQB) situations. Precocking level must be set individually to each replica and according to user preferences. Precocking power is automatically adjusted to battery voltage and semi/automatic shots. ▌To release the spring after using precocking, switch to semi, fire a single shot and hold the trigger after the shot. This will cause a second single shot with strongest AB setting to be fired after 2 seconds, making sure your spring remains uncompressed. It is advised to do that when you finish shooting for the day. ⚠ AB does not affect the functioning of precocking; it is ignored if precocking is enabled.
Binary Trigger	Allows the semi shots to be triggered not only after the pull, but after the release of the trigger as well. ▌Hold the trigger for 2 seconds to cancel the second shot.

* All settings are set independently for “SEMI” and “AUTO” selector positions, except for Battery Alarm and Master Reset, which work for both selector positions.

Function	Description
Rate of Fire Reduction	Rate of Fire (**ROF**) Reduction lowers the rate of automatic fire. Five levels are available: 1 – 6% reduction 2 – 12% reduction 3 – 18% reduction 4 – 24% reduction 5 – 30% reduction ⚠ Semi-automatic shots and the first shot in burst are always fired without any power reduction to retain good trigger response.
Designated Marksmans Rifle Mode	Designated Marksmans Rifle (DMR) Mode allows only semi-automatic shots and limits their frequency. Its main use is for high power, DMR-styled replicas on fields, which demand such limitations. Modes include 0.25 second, 0.5 second, 1 second, 2 second and 3 second intervals are available.
Lithium Battery Alarm	Lithium Battery Alarm informs the user that Li-Po/Li-Ion battery voltage has fallen below 3.7V per cell, at which the battery should not be further used and must be recharged. Unit automatically detects number of cells in the battery and determines safe voltage range. The need for battery replacement is signaled by short sound signals every one minute. ⚠ Disable this function if you are using batteries other than Li-Po or Li-Ion.
Master Reset	Master Reset returns the unit to factory settings. To reset, pull and hold the trigger for 2 seconds. A long sound signal confirms return to factory settings. Firing Mode – semi on “SEMI” and auto on “AUTO” Active Break – level 3 Precocking – disabled Binary Trigger - disabled ROF Reduction – disabled DMR Mode – disabled Lithium Battery Alarm – enabled

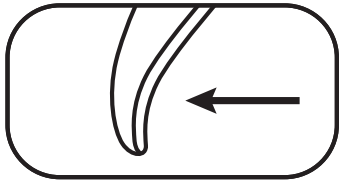
PROGRAMMING

Start Program Mode



Turn the selector twice from AUTO to SEMI. The ETU will beep twice to indicate it is in the program mode now.

Program Configuration

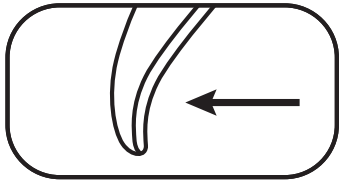


Pull trigger (less than 2 seconds)

1x - Full-Auto will be SEMI only (beep 1x)
2x - Full-Auto will be 2rd burst mode (beep 2x)
3x - Full-Auto will be 3rd burst mode (beep 3x)
4x - Full-Auto will be 4rd burst mode (beep 4x)
5x - Full-Auto will be 5rd burst mode (beep 5x)
6x - Full-Auto will be binary trigger mode (high-low beep)
In this mode, both pull and release will the trigger will shoot one BB each.
7x - Full-Auto will be AUTO (low-high beep)

* 8x and up recycles the option selections

Confirm Changes



Hold trigger for 2 seconds

Hold the trigger for over 2 seconds, the ETU will long beep once. Configeration will be saved and exit program mode.