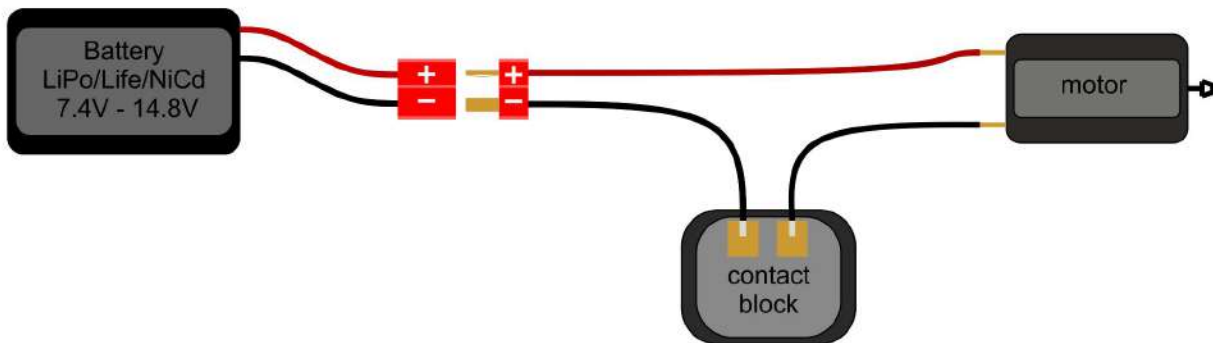

Arm-V pro3

User Manual

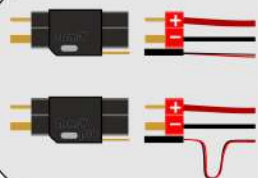
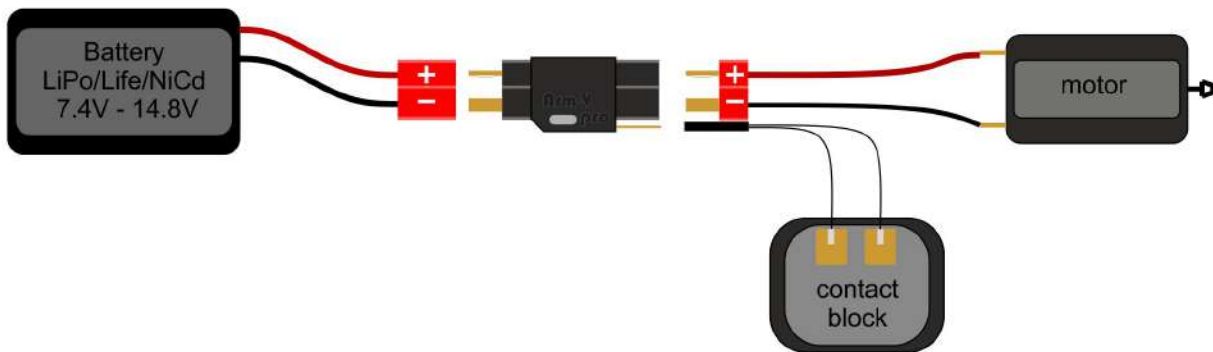
Arm-V

Arm-V pro3 installation

The contact block of basic AEG drives winding switches a power chain from the battery to the motor.



When installing **Arm-V pro3**, the contact block switches the control voltage only and has no particular load.



Recommendation: the control wires should be 1 cm longer than the power wires. This prevents them from a spontaneous shutdown.

To install **Arm-V pro3**, you need to:

- to check the correctness of the T-socket sealing on the battery (wrong battery polarity can lead to damage of the electronic key);
- to connect wires from the motor directly to the T-socket in the correct polarity;
- to connect the control wires to contact group in any polarity;
- to connect the motor socket, the socket of control wires and the battery socket to the electronic key

Attention! **Arm-V pro3** has its own power consumption. Disconnect the battery from **Arm-V pro3** after game session. The long usage of the battery with **Arm-V pro3** connected will lead to its complete discharge and shutdown

Arm-V

LED Screen



Arm-V pro3 is equipped with LED screen intended for programming and indication of the system's correct operation. There are 4 diodes on the LED screen (2 green and 2 red ones) that can have the following states:



- LED is off



- LED is on



- LED is blinking



- two LED is blinking in turn

Launching

When connected to the battery, **Arm-V pro3** will perform self-diagnostics, and you will see the greeting line on the LED screen.

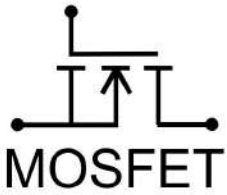
Default settings:

Battery type:	LiPo
Active brake:	off
ROF control:	off
Pre-Cocking:	off
Number of shots in the AUTO mode:	off
Number of shots in the SEMI mode:	off
The battery discharge signal:	off
Night mode:	off
Cycle control:	off

To reset the settings to the default:

- connect the control wires;
- connect the motor wires;
- disconnect the battery;
- pull the trigger and put the jumper on;
- connect the battery keeping the trigger pulled;
- wait 10 secs till the third diode on the LED-screen flickers 3 times;
- let the trigger off, and you can start using the device.

Arm-V pro3 function



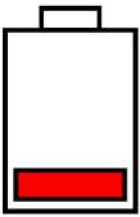
✓ **CONTACT BLOCK PROTECTION**

The battery power goes on the motor directly, leaving out the contact block. As the result, the fire cyclic rate goes up and the trigger's response is quicker. **Arm-V pro3** was designed for much higher loads than the contact block, which allows user to set any tune value.



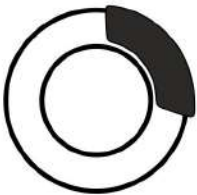
✓ **SHORT CIRCUIT PROTECTION**

Reaction is so quick that the short circuit does not lead to damage of the electronic key and the battery irrespective of the time of emergence.



✓ **BATTERY OVERDISCHARGE PROTECTION**

Arm-V pro3 constantly controls the battery charge. When it's falling lower than 10%, you will hear the sound signal after the shot. Reaching the critical charge level, the controller will be turned off. The controller is compatible with LiPo, Li-Ion and NiCd batteries. It does not require any additional settings when you install the battery of the same type for different voltage



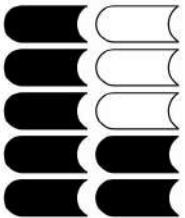
✓ **ACTIVE BRAKE**

The motor stops right after the contact group circuit. When firing in the single mode and auto mode if cycle control on, the piston won't go up by inertia, the spring will stay low, prolonging your gearbox service life.



✓ **RATE OF FIRE CONTROL**

Arm-V pro3 allows to adjust the cyclic rate for any value, giving the higher level of realism.



✓ **MAXIMUM ROUND LENGTH CONTROL**

Arm-V pro3 allows to limit the round with any number of shots and even turn it off completely, saving the ammo.



✓ **MULTIPLE SHOTS IN THE SINGLE FIRE MODE**

Arm-V pro3 allows to set any number of shots in the single fire mode.



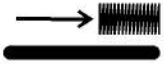
✓ **NIGHT MODE**

Arm-V pro3 allows to turn the light indication off, so that nothing gave you up in the nighttime.



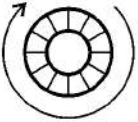
✓ **CONNECTION TO EXTERNAL DEVICES**

Connection to external devices allows to perform more precise adjustment. It also activates some extra functions and allows to carry out diagnostics of your drive



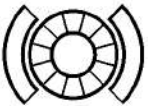
✓ **SPRING PRE-DRAW**

Arm-V pro3 allows to adjust the spring pre-draw. This way you get an instant trigger reaction.



✓ **CYCLE CONTROL**

Arm-V pro3 analyzes the condition of the piston and stops the engine only after a shot is fired. With cycle control enabled, the spring in the auto mode will remain deflated.







✓ **MOTOR JAMMING PROTECTION**

In case of the motor jamming during the fire, **Arm-V pro3** prevention system will work, not allowing to damage the motor, battery and wiring.

Enter in setting mode

To enter the basic shooting mode, settings, reset to factory settings or enter the advanced settings mode:

- disable Arm-V pro3 from the battery, motor and contact group;
- connect the control wires and tighten the trigger (or connect the jumper);
- connect the battery with the trigger pressed (or with the jumper connected);
- release the trigger (remove the jumper) in a specified period of time


Enter in setting mode			
	0-5 sec		basic shooting mode
	5-10 sec		settings mode
	10-15 sec		reset to factory settings
	15+ sec		advanced settings mode

Basic shooting mode

In basic shooting mode, **Arm-V pro3** will turn off all intellectual functions, leaving only the protection enabled. After the reboot, the settings will be restored.

Example: entering this mode after the game when using the pre-spring, you can reset the spring without resetting the settings.

Setting mode

 - the last green diode should lit up It means that you are now at the first main menu item. Use short taps to move within the menu and long ones to enter a submenu or save/go back to the main menu. When you finish the adjustment, reset **Arm-V pro3**, turning the battery off.

MAIN MENU



Battery type



Active brake



Rate of Fire control



Spring Pre-Cocking



Number of shots in AUTO mode



Number of shots in SEMI mode



Battery discharge signal:



Night mode



Cycle control

SUBMENU

Battery type



the battery charge control is off



LiPo



LiFe



NiCd



Li-Ion

SUBMENU

Active brake



off



on

SUBMENU

Rate of Fire control

Rate of Fire control is off

1600

1400

1200

1000

800

600

400

200

SUBMENU

Pre-Cocking, %

Pre-Cocking is off

90

80

70

60

50

40

30

20

SUBMENU

Number of shots in SEMI mode



The SEMI length control is off



1



2



3



4



5

SUBMENU

Battery discharge signal



Sound



Vibration



Signal is off

SUBMENU

Night mode



On



Off

SUBMENU

Motor smooth start



Off



Slow



Normal



Fast

SUBMENU	
Night mode	
	On
	Off

SUBMENU	
Cycle control	
	On
	Off

Additional adjustment mode

Arm-V pro3 uses the self-asapting fire analyzing algorithm compatible with most drives without any additional adjustment required. But when necessary, you can perform the sensitivity correction.

To enter the additional adjustment mode:

- disconnect the battery from **Arm-V pro3**;
- check that the drive is discharged and there's no ball in the gun;
- connect the motor wires;
- connect the control wires and pull the trigger (or connect the jumper);
- keeping the trigger pulled (or jumper connected), connect the battery;
- wait 15 secs till the fourth diode flickers 3 times;
- let go the trigger (or disconnect the jumper and connect the control wires).

- the last green diode should lit up on the screen It means that you are now at the first additional settings menu item. Use short taps to move within the menu and long ones to enter a submenu or save/go back to the main menu. When you finish the adjustment, reset **Arm-V pro3**, turning the battery off.

ADDITIONAL SETTING MENU	
	Sensitivity setting
	5-shot calibration
	Motor jamming protection

SUBMENU

Sensitivity adjustment



Make a singl shot



Make three shot



Decrease sensitivity



Increase sensitivity



Go back to additional settings menu

The algorithm sensibility adjustment is necessary in the following cases:

- the smart brake is on, but the piston stops not in the beginning;
- round or single mode fire length is on; but the number of shots counting is not accurate;
- when round shooting the fire stops, on the screen two LED lit up



Entering the Sensitivity adjustment submenu, you'll get to the item Make a single shot. Use this item for several times, making a long (more than 1 sec) pull on the trigger. If the spring is drawn periodically, but the shot does not happen (or there are 2 3 shots instead of 3) , you need to decrease sensitivity. If the piston stops not in the beginning or three are more than 1 shot (more than 3 shots when you try to make 3 ones), you need to increase sensitivity. After the adjustment go to Make a single shot item and use it several times to check if the adjustment is correct.

SUBMENU

5-shot calibration

When you enter 5-shot calibration item in the submenu, **Arm-V pro3** scrolling line will run back. After that switch your drive to the single fire mode and make 5 single shots til the scrolling line runs again and the key goes back to the menu. Then go back to the Sensitivity adjustment menu and check if calibration is right by making several single shots. If necessary, perform the sensitivity adjustment.

SUBMENU

MOTOR JAMMING PROTECTION



Protection is off



Normal sensitivity



Low sensitivity

ERRORS INDICATION



After pulling the trigger, the second red LED lits up for 1 sec - it means the short circuit protection mechanism worked. Check the wires from the key to the motor and the motor itself. There is possibility of the processor reset during the short circuit if you use small capacity batteries. In this case when you let off the trigger, the scrolling line will run, and if you pull it longer, the key will go to the adjustment mode.



After pulling the trigger there was no shot, and the first green and red LED lit up - it means that the motor jamming protection mechanism worked.



The motor is not connected



The battery is discharged to a critical level