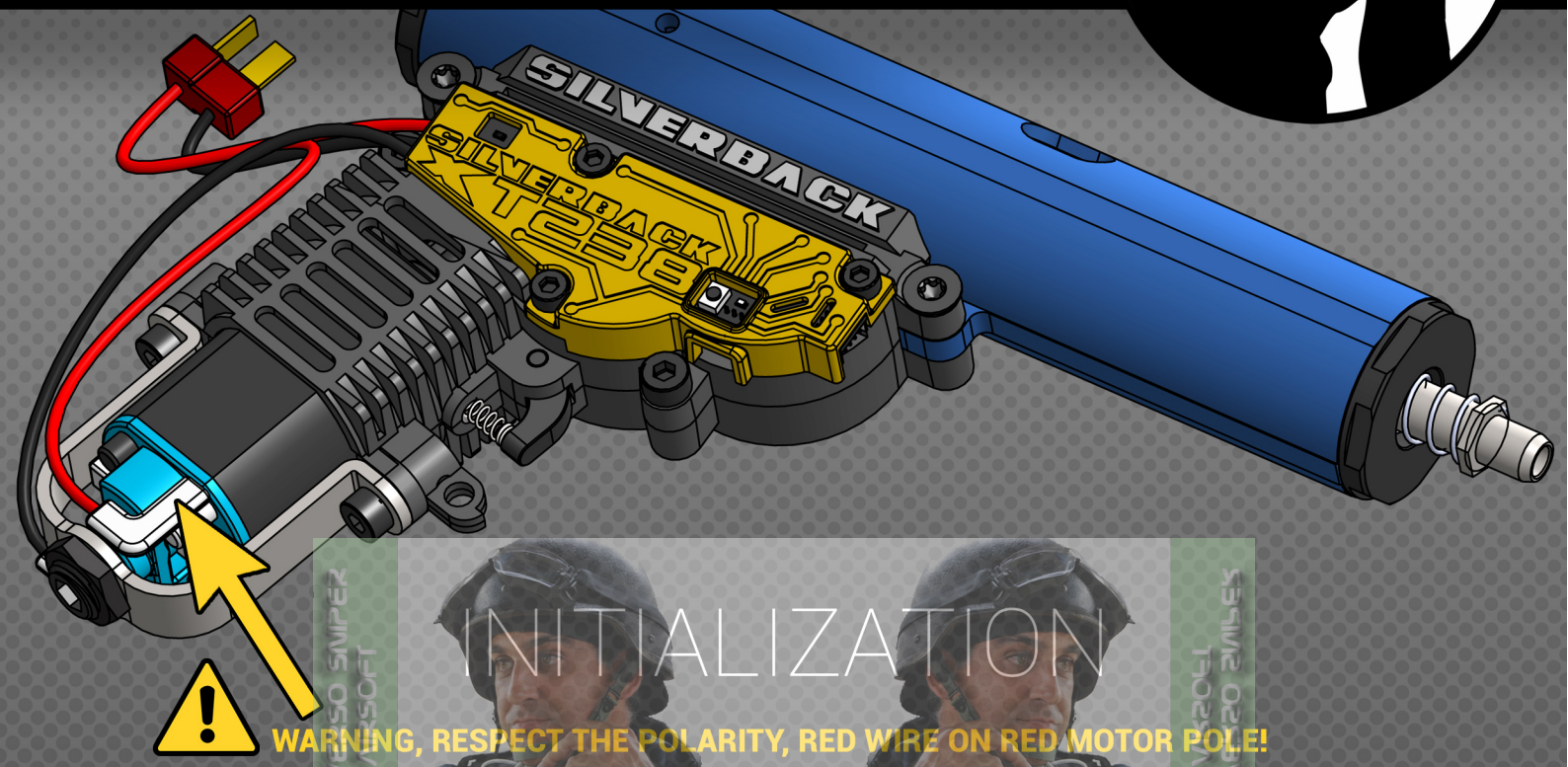
MDRX

MICRO DYNAMIC RIFLE EXTREME

SILVERBACK AIRSOFT

ECU user manual



INITIALIZATION

WARNING, RESPECT THE POLARITY, RED WIRE ON RED MOTOR POLE!

After connecting the battery, the ECU is in sleep mode. Click the trigger to start the ECU: the motor will emit short beeps, indicating normal initialization (2 short beeps = 2 cells battery, 3 shorts beeps = 3 cells battery). It's now in WAITING MODE for 5 seconds. During these 5 seconds of WAITING MODE, you pull the trigger 5 seconds, you switch to PROGRAMING MODE. If not, the motor will beeps again after 5 seconds and switch to GAME MODE.

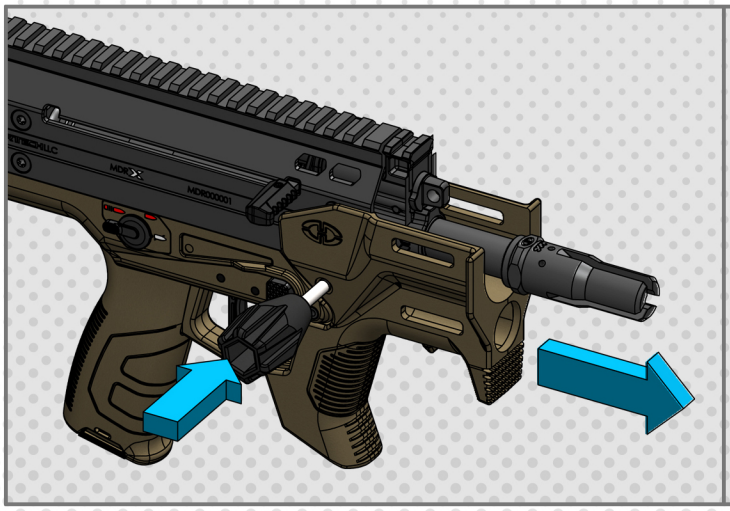
WARNINGS / FEEDBACKS

Block-up protection: when a gearbox block-up occurs, the system will cut off the power supply to the motor within 0.5 seconds and the motor emits a long beep sound (3 seconds). At this point, it is necessary to disconnect the battery and investigate the cause of the block-up. Continuously firing during a block-up can cause damage to the motor, ECU, or battery.

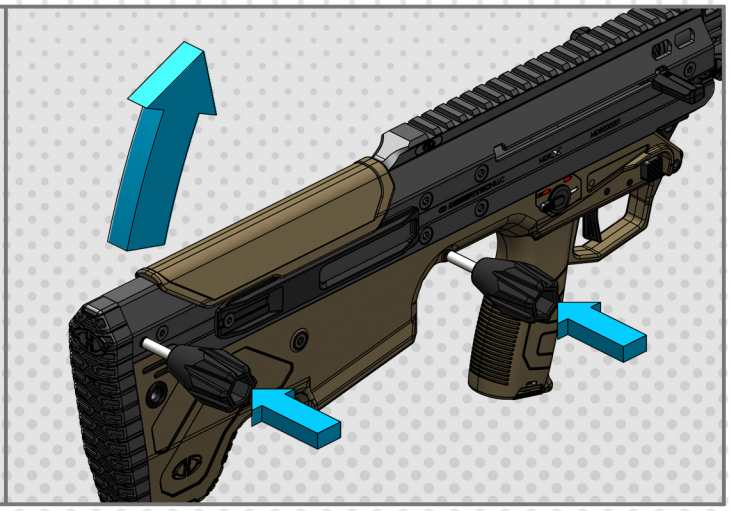
MOFSET overheat protection: when the MOSFET overheats and the trigger is triggered, the motor will only emit 3 series of 2 shorts "BEEP" (BEEP BEEP..... BEEP BEEP..... BEEP BEEP) and wait for 3 seconds to resume the trigger response, after the MOSFET cools down, the system returns to normal.

Battery protection: when a battery is connected, the system automatically detects the battery type (Lipo 7.4 or 11.1). By default, the battery protection level is 3.3V/cell (6.6 V for a 2-cells battery, and 9.9 V for a 3-cells battery). If the voltage of the battery go bellow this protection level, the system automatically stops, and the gun cannot fire any more. The cut-off value is adjustable in the PROGRAMMING MODE (it can also be turned off).

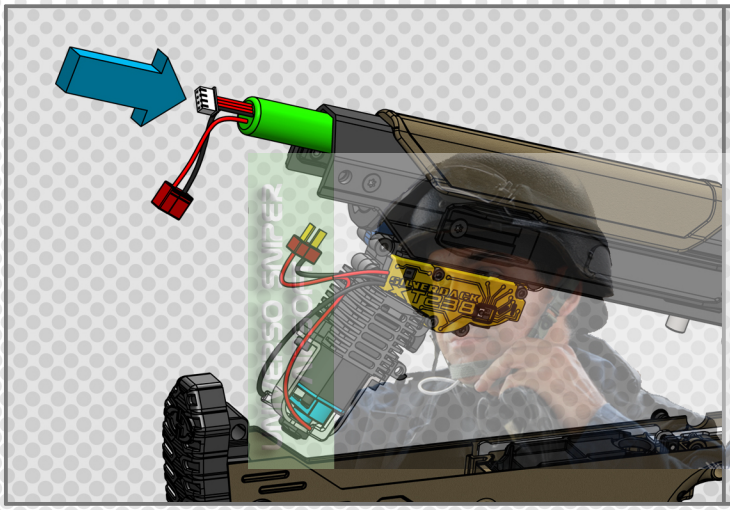
PROGRAMMING



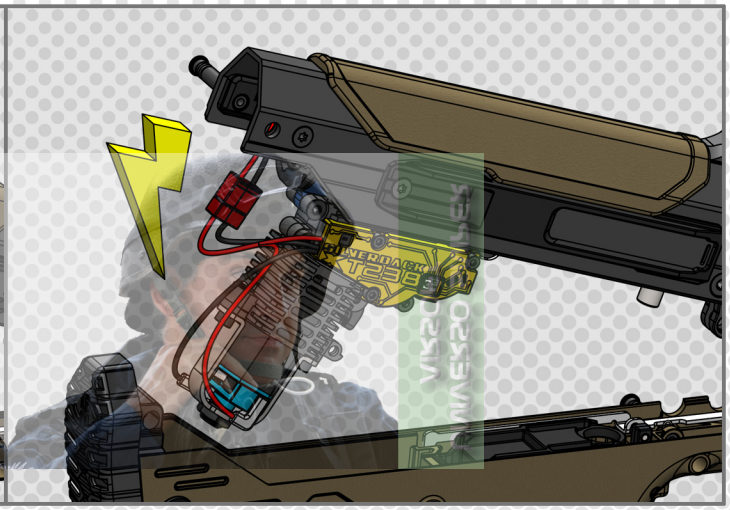
If your gun is a Micron, you need to remove the handguard. Push the pin out and remove the handguard.



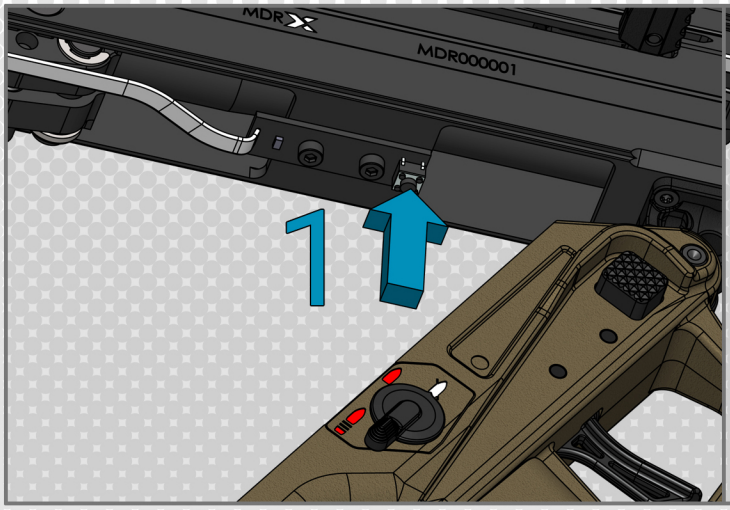
Push out these 2 assembly pin and open the gun. WARNING: Keep the lower flat to avoid to drop parts.



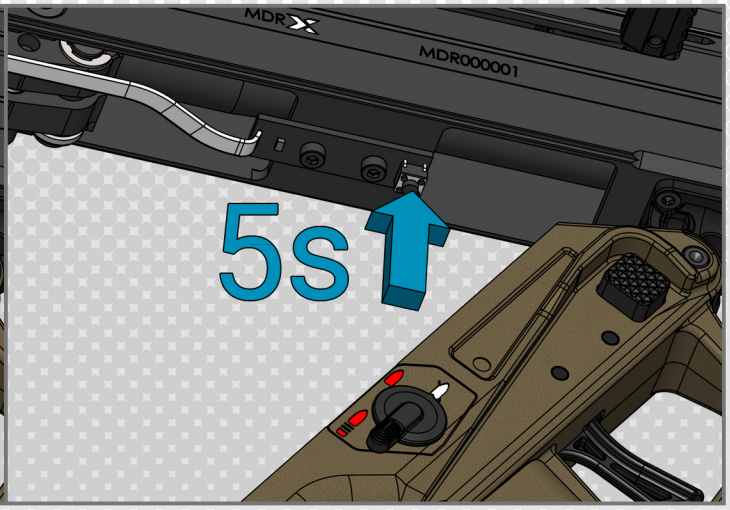
Slide the battery inside the upper-receiver.



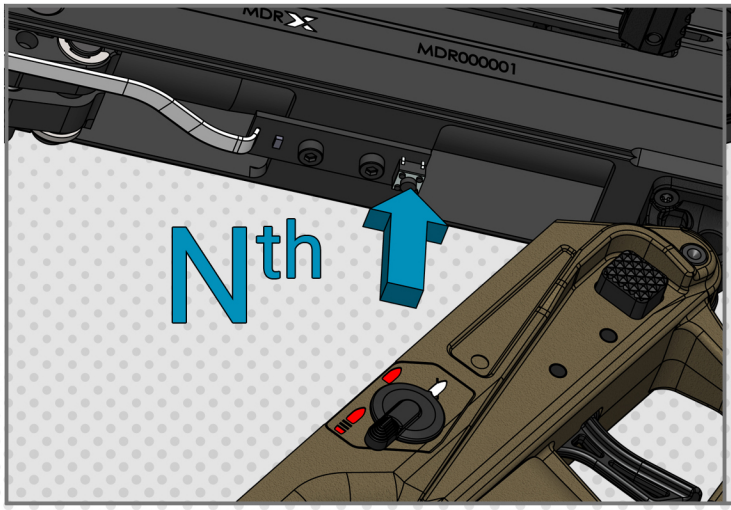
Be sure no bbs is engaged inside the hopup, and connect the battery.



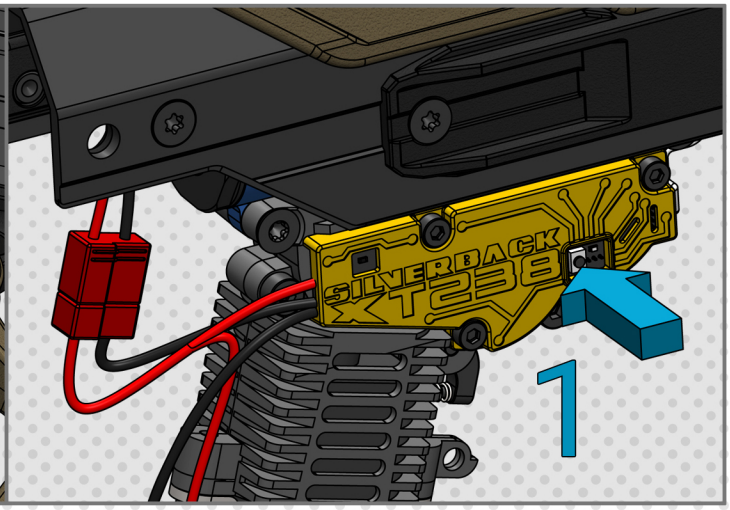
Press the trigger microswitch once to start the gun. The motor will BEEP twice if you connected a 2 cells battery, 3 times if it's a 3 cells battery.



You are in WAITING mode during 5 seconds. Press the trigger microswitch during 5 seconds, and the ECU will switch to PROGRAMMING mode (the ECU LED will light up 2 seconds).

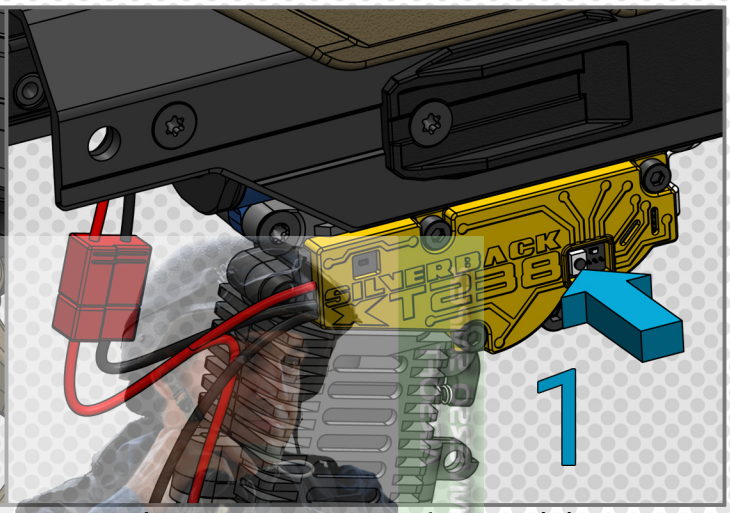


Press the trigger microswitch 1 to 8 times to choose the mode (Shooting mode = 1, DMR cool down = 2, Rate of Fire = 3, etc...). Please refer to the programming chart on Page 4.



Press the ECU microswitch to validate your choice. If the choice is valid, the ECU LED will light up 2 seconds. If the choice is not valid, the ECU LED will blinks (re-do the selection).

Press the trigger microswitch 1 to 10 times to choose the option of your mode. Please refer to the programming chart on Page 4.



Press the ECU microswitch to validate your choice. If the choice is valid, the motor will BEEP, and the ECU will switch to GAME MODE. If the choice is not valid, the ECU LED will blink (re-do the selection).

If you want to program a new option, press the trigger microswitch 5 seconds (WARNING, the gun will shoot once, be sure the hopup is empty), the ECU will switch to programming mode: you can repeat the process to program another option.

If you want to reset the ECU to default values, press 5 seconds the ECU microswitch while being in GAME mode. Close the gun after the programming.

SLEEP MODE

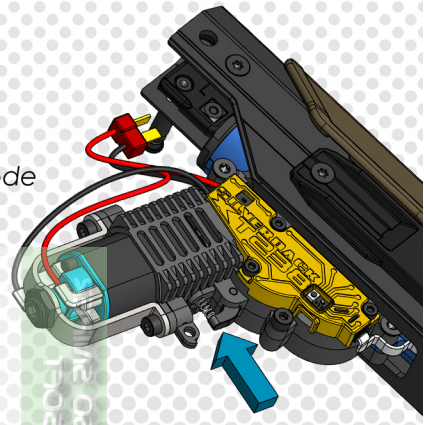
If the gun is in GAME MODE for 1 hour without having shot a single time, the motor will emit 2 short beeps in case of a 2 cells battery, 3 shorts beeps in case of a 3 cells battery and switch to SLEEP MODE. The SLEEP MODE reduces idle battery consumption. Pull the trigger once to wake up the ECU, the motor will beeps, and switch back to GAME MODE.

The waiting time to activate the SLEEP MODE is adjustable in the PROGRAMMING MODE, it can also be deactivated.

PROGRAMMING CHART

	MODE	X-1	X-2	X-3	X-4	X-5	X-6	X-7	X-8	X-9	X-10
1-X	Shooting mode	Ful auto	2 rds. burst	3 rds. burst	4 rds. burst	5 rds. burst	binary	semi	safe		
2-X	DMR cool down	OFF	0,5 s	1 s	1,5 s	2 s	3 s	4 s	5 s		
3-X	Rate of Fire	100%	90%	80%	70%	60%	50%	40%	30%		
4-X	Pre-cocking	OFF	40 ms	45 ms	50 ms	55 ms	60 ms	65 ms	70 ms	75 ms	80 ms
5-X	Sleep mode	1 h	2 h	4 h	6 h	8 h	10 h	12 h	OFF		
6-X	Active braking	100%	80%	60%	40%	20%	OFF				
7-X	Battery Protection	3,3 V / cell	3,2 V / cell	3,1 V / cell	3,0 V / cell	OFF					
8-X	Memory reading	shot count.	prog. values								

Pull the trigger 5s to leave the reading mode



WARNINGS

- Respect the polarity, red wire on red motor pole.
- If you are using pre-cocking, release the spring tension by pressing the anti reversal before to store the gun.
- If used with brushless motor, we do not recommend use of battery above 7.4V.
- For Brushless users, we suggest hi-torque setups over hi-speed setups.
- The use of a brushless motor may interfere with the proper functioning of certain options, such as pre-cocking.
- If you accidentally switch to PROGRAMMING MODE after pulling the trigger 5s in single mode, disconnect the battery to restart the ECU.

DIGITAL VERSION

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