

## **Cordless Rotary Tattoo Machine Evolution 2**

Congratulations on your purchase of MT Mustang Tattoo equipment!  
The experience of our engineers and continuous testing by masters during the development phase allows to achieve the perfect balance of accuracy, ergonomics and high quality.

### **Read this manual carefully before using!**

Here is the second generation of Evolution, the Russian battery-powered tattoo machine.

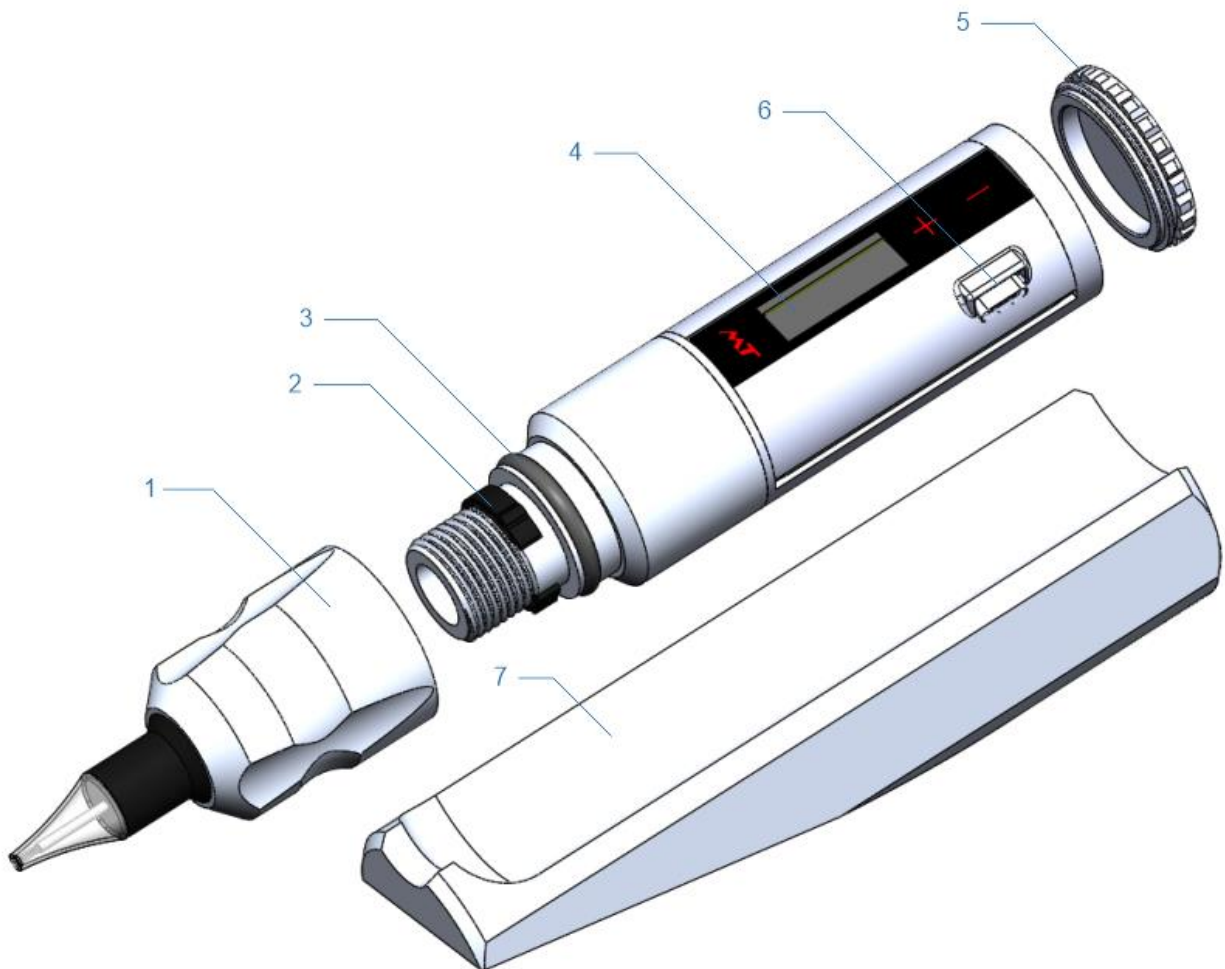
#### **Features:**

- This machine has only one pair of friction. It is made of graphite and antifriction polymer. There are no springs. Thanks to this design, the machine has the lowest possible friction and heating losses, spending maximum battery energy to perform useful work.
- Comes with a magnetic stand with a soft pause function that does not require power.
- Uses the most common universal battery type 18650.
- Has modes of indication of charge, voltage and current duty.
- Possesses non-volatile memory of indication mode and settings in memory cells.
- Fine tuning of voltage in 0.1 volt steps.
- Function of smooth change of engine speed when switching on / off and changing the memory cell and pause.
- Connector for charging, which is active both in the off mode and during operation.
- All body parts are made from high strength aircraft alloy B-95.
- Works with disposable Cheyenne D-GRIPS holders.
- Holder position lock.
- Extended range of an optimum operating voltage.
- Universal purpose (Contour, shading, shadows).

#### **Contents of delivery:**

Evolution 2 machine. Magnetic stand with soft pause function. Two batteries of 18650 type. Original wire USB Type-A to USB Type-C for charging the machine directly. Spare position locker. Spare O-ring. Warranty card.

## User interface elements



- 1 Holder
- 2 Position locker
- 3 O-ring
- 4 Display
- 5 Back cover
- 6 Charge plug
- 7 Magnetic stand (support)

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## Performance characteristics

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- Working voltage: 4-11 V
- Motor power: 6 W
- Maximum needle stroke: 3.8 mm

• Weight with battery:	162 g
• Weight without battery:	127 g
• Type of charging connector:	USB Type-C
• Dimensions:	128x31x31mm
• Operating time at 7 volts:	7-9 hours
• Charging time from the connector	1:40 h

## Safety

- The machine is intended for professional use by tattoo artists only. The manufacturer is not responsible for the improper use of equipment and its parts! And also for non-compliance with the standards of sterilization and disinfection.
- Disposable cartridges must be used. Wipe down the machine with a disinfectant before and after use.
- Be sure to use a barrier protective
- Always use disposable gloves during the session.

## Work

### Before use:

- Unscrew the cover counterclockwise, insert the battery with the negative \* contact towards you, tighten the cover as far as it will go.  
\*The negative contact is a completely flat edge of the battery without a protective film.
- Press the "MT" button to turn it on and for a few seconds listen to how it works.
- The sound should be smooth, without extraneous clicks and drops.
- Turn off the machine by short pressing the "MT" button.
- Insert the cartridge and adjust the stroke of the needle by rotating the holder. The machine is ready to

go.

### Magnetic stand with soft pause function:

When you put the machine on the stand, it detects this automatically and goes into standby mode, softly turning off the engine. When you pick up the machine again, it will start the motor and smoothly return to the operating mode set before the standby mode was activated. It is most convenient to put and take the machine with the stand facing you, not away from you. Works automatically and does not require power.

PLEASE NOTE: The stand is designed to be installed on a steel surface. Otherwise, due to the magnetic force between the stand and the machine, they will "stick" to each other and it will be inconvenient to use it.

Also it may happen, that the engine simply does not have enough power to start after waiting, with a large needle stickout and a rigid cartridge membrane in combination with a low operating voltage. In this situation, the electronics of the machine will recognize this fact itself and supply the current necessary for starting, after will smoothly return to the value set by the user. This procedure takes about 2 seconds.

### Machine operation:

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|---|--|
| ○ Switching on                              | – Pressing the "MT" button of any duration.        |
| ○ Switching off                             | – Short press of the "MT" button..                 |
| ○ Changing the display mode                 | – Holding the "MT" button                          |
| ○ Exact voltage change in 0.1 V increments  | – Short press of the "+" or "-" button.            |
| ○ Rapid change of voltage in steps of 0.5 V | – Hold down the "+" or "-" button.                 |
| ○ Switching the voltage memory cell         | – Simultaneous holding of the "+" and "-" buttons. |

You can change the voltage from any display mode of the machine. It will automatically switch to the voltage indication mode, and after a few seconds after adjustment, it will return to the previously set indication mode.

When turned off, the machine automatically writes into the memory the display indication mode, the number of the memory cell and the voltage set in this cell. When resuming operation, it smoothly switches to the last set settings. The memory of the machine is non-volatile and is retained when changing the battery.

## Machine display modes:

- U- In this mode, the machine shows the current operating voltage.
- P- Display mode of the current battery charge in 5% increments.
- A- Display of the consumed current in amperes with a step of 0.05 A. This mode is extremely useful for diagnosing the condition of the engine and machine mechanism.

## Charging and accumulator:

### Accumulator type:

This machine is designed to work with any 18650 lithium battery. The operating time will directly depend on its capacity.

### Display (indication):

When you have installed a fully charged battery and turned on the machine, the display will show "FUL" in the charge indication mode, indicating that the machine has identified the battery as fully charged. Further, during the discharge process, the display will show the current remaining charge in percent.

When the battery charge drops to 20%, the machine, regardless of the display mode you have set, on the display will start to show a blinking percentage of the remaining charge, which warns you about the need to replace the battery or connect the charging cord to the connector. The remaining operating time is approximately 1-2 hours, depending on the voltage set and the load on the machine.

When the battery is fully discharged during operation, the machine will smoothly stop, and when you try to turn it on, the blinking inscription "LO" will light up on the display, indicating that the battery energy is not enough to start.

PLEASE NOTE: The last 20% of the charge is consumed significantly longer than the intermediate 20%. This is done in order to minimize the likelihood of a complete discharge.

### Charging

The battery can be charged both from the charging station (not included in the delivery set), and from the machine directly, both in the off and on state.

Charging directly from the machine in the off state: Connect the USB Type-A to USB Type-C wire to the machine with the USB Type-C connector. Connect the USB Type-A connector to a power outlet. There are no restrictions on the power of the supply network, the battery will be charged directly by the machine with a current of 1A. When the supply network is connected, a blinking -P- will appear on the screen. When charging is complete, the display will show "FUL". If you need to turn on the machine while charging, hold down the "MT" button.

Charging directly from the machine when it is turned on: You can plug in the charging cord while you work without turning off the machine. The display mode will automatically switch to the flashing -P- symbol. It can be switched to any other mode as desired. This mode is "endless" and the inscription "FUL" indicating a full charge does not turn on in it, since the machine in this mode constantly consumes energy and cannot be charged at 100%.

Please note that after the battery is completely discharged and the power cord is connected, the battery needs some time to gain the required power to start. During this time, when you try to turn on the machine, the display will show a blinking inscription "LO".

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## Care

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- • Disinfect the holder with disposable gloves. Before changing a cartridge, turn off the machine.
- • The cartridge holder is autoclavable.
- • We recommend that you carry out troubleshooting and replacement work at a service center. More information about service and maintenance can be found on the website <http://mustang-tattoo.ru/>.
- • Under the warranty, repairs are provided free of charge.
- • The machines must not be sterilized in an autoclave or oven!

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## Warranty

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The warranty for the corpus is 5 years, for the working parts of the machine (engine, internal mechanism, electronic components, pusher, position lock) - 1 year.

Attention! The official guarantee activates after registration on the site <http://mustang-tattoo.ru/guarantee>. You must register within 30 days from the date of purchase.

This warranty covers factory faults, but does not cover wear and tear on the equipment and its parts as a result of proper or improper use.

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## Warranty exclusions:

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- ✓ problems after aggressive non-alcohol antiseptic agents;
- ✓ machines with signs of falling, hitting the case and its components;
- ✓ machines with rust or processing;
- ✓ machine with signs of self-adjustment, modernization;
- ✓ if wrong things, liquids or dirt get inside the mechanism

And also the warranty is terminated in case of:

- ✓ misuse of equipment;
  - ✓ exceeding the maximum operating voltage;
  - ✓ sterilization in an autoclave or dry oven.
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## Exchange or return of goods

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Within 3 months after purchase, the machine can be exchanged for a similar / different model. Return of goods is possible within 2 weeks.

**Service Center Contacts:** Russia, Moscow, Narodnaya str., 14/1, tel. +7 (499) 754-85-25

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<https://mustang-tattoo.com>