

Cartridge Machine

USER MANUAL

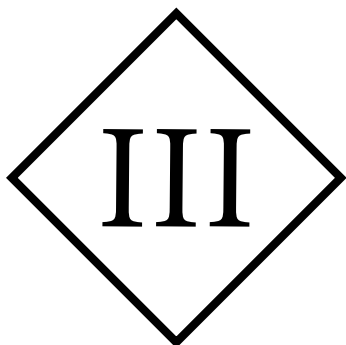


2025

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SAFETY NOTICE

**CLASS III SYMBOL**

A Class III appliance is designed to be supplied from a separated/safety extra-low voltage (SELV) power source. The voltage from a SELV supply is low enough that under normal conditions a person can safely come into contact with it without risk of electrical shock. The extra safety features built into Class I and Class II appliances are, therefore not required. For medical devices, compliance with Class III is not considered sufficient protection, and further more stringent regulations apply to such equipment.

TECHNICAL DATA

Operating Voltage:	5 - 12 V DC
Current:	.3 A
Stitch Frequency:	25 - 160 Hz
Stroke:	2.5, 3.2 or 4 mm
Connection:	USB-C
Drive:	Brushless 9-watt motor
Operating Mode:	Continuous operation
Ambient Temperature:	+10 to +35°C
Relative Humidity:	30 to 75%
Dimensions (Ø X L):	35 x 125 mm
Weight:	Approx. 189 g

**BARRIER PROTECTING YOUR MACHINE**

Although the grip is autoclavable, we strongly suggest the use of barrier products to protect your machine. For a visual demonstration of many barrier protection methods, please visit FK Irons' YouTube channel..

This machine is not to be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge



MACHINE OVERVIEW



Traditional RCA power module

Dynamic power path management USB-C Li-ion battery with capacity and voltage LED indicator

USB-C connectivity

Bluetooth-enabled: Pair with Darklab app



Interchangeable battery or RCA module: instantly switch from cable to wireless



9-Watt brushless motor

Ratcheted, adjustable needle depth system

Direct Drive: 3 stroke options available



THE EXO Unstoppable

FK Irons' first modular tattoo machine, offering the freedom to choose your power source: use a traditional RCA cable or the wireless, Bluetooth-enabled PowerBolt. Ready for anything.



Ergonomic autoclavable 40 mm grip weight-forward design for tattooing

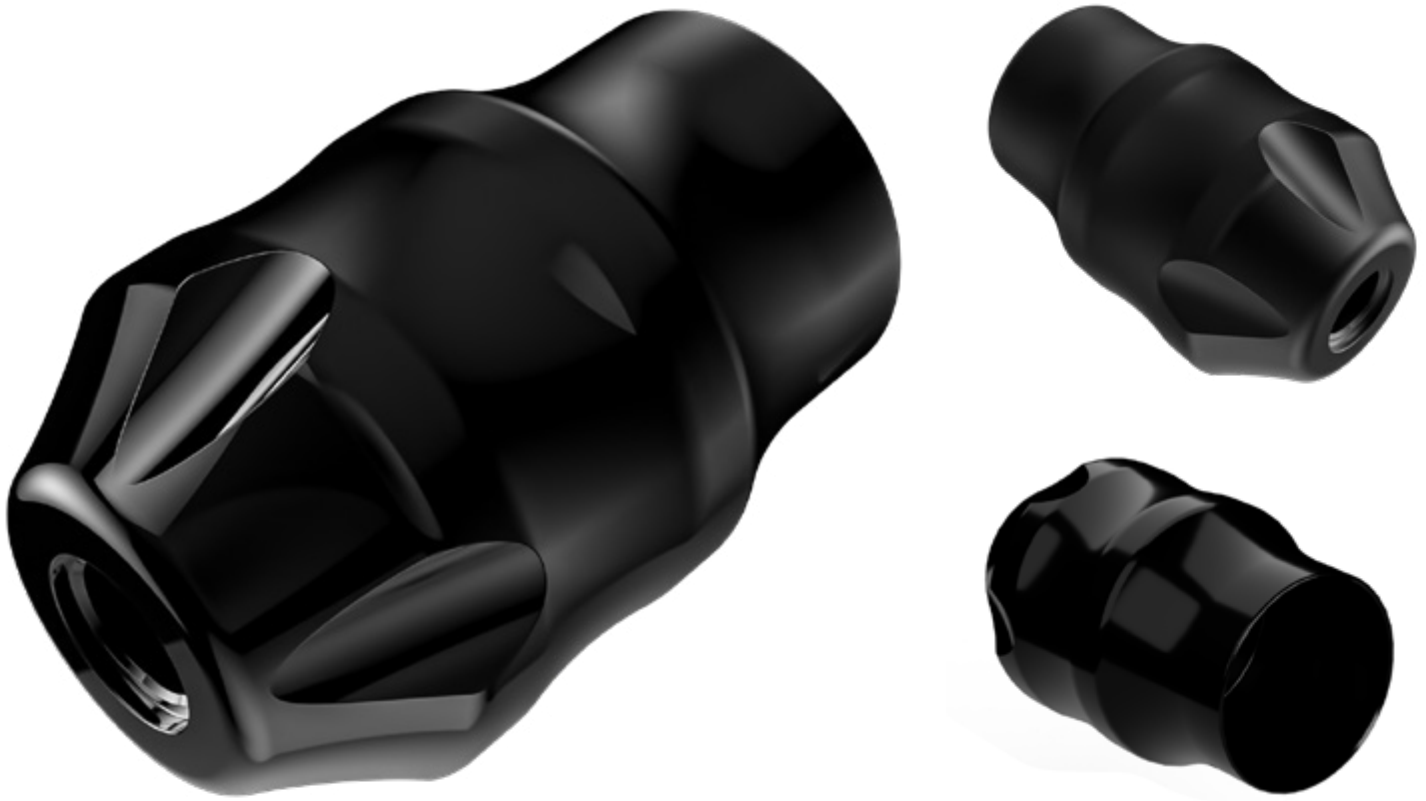
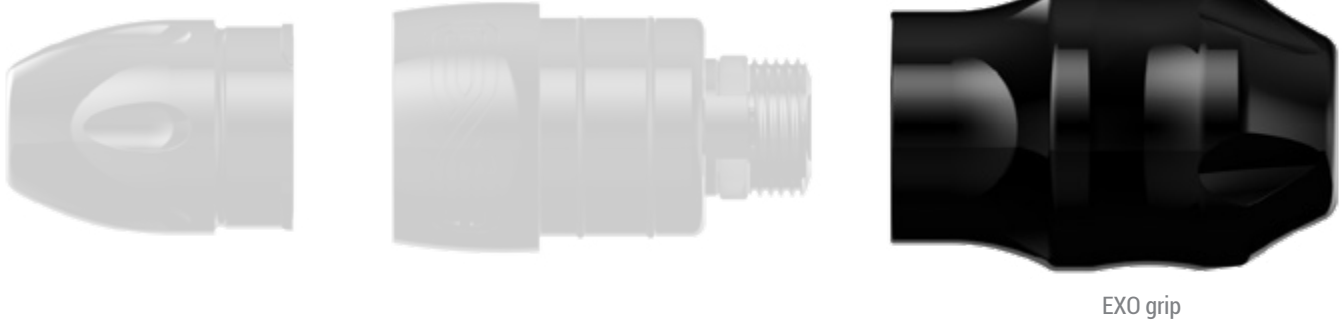


Black Ops



Stealth

THE GRIP



Autoclavable ergonomic grip design

Compatible with most membrane needle cartridges on the market

THE GRIP

The EXO grip allows artists ratcheting control over needle depth. The standard Grip has a diameter of 40 mm. Other grip

options will be available soon. The Grip is crafted from a solid rod of 6061 T6 aircraft-grade aluminum. This polished and

anodized grip is safe to be sterilized under steam, in an autoclave or wiped down with cold sanitation solutions.

THE BODY



EXO Body



THE BODY

The Body is the core of the machine. Constructed from a solid rod of 6061 T6 aircraft-grade aluminum, this module should be sanitized by wiping it with cold sterilization solutions only. **Caution:** Avoid getting fluids into the housing



Body isometric view



Body posterior view

THE POWERBOLT



PowerBolt

THE POWERBOLT

LED indicator:

Solid Color = Whole Value

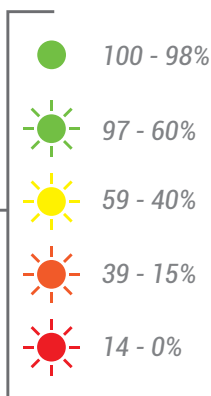
Blinking Color = Half Increment

Ex. Solid green indicates 10V

Flashing green indicates 10.5V

Battery level check: Press and hold power button until white. A blinking colored light indicates remaining charge.

Note: LED flashes while battery charges. Once < 15% is reached, red light will blink alternately with voltage.



Working with modes: Modes work by pressing and releasing the power button.

Bluetooth – Hold the power button until a blue light appears and immediately release the power button. A blue blinking light indicates pairing mode is available for 60 seconds. To deactivate Bluetooth, hold the power button and release when the yellow light flashes.

Travel Mode (hard shutoff) – Press and hold the power button until the red light flashes. Use this mode to avoid unnecessary discharge and/or comply with travel laws. To reactivate, connect / disconnect to a USB-C port.

Reset (factory settings) – Should you experience abnormal behavior, hold the power button and the voltage up button at the same time, then quickly release.

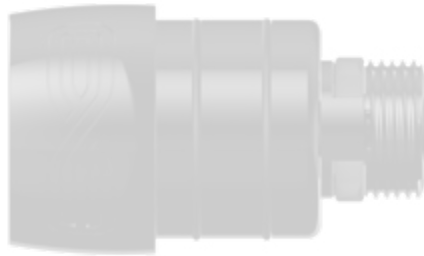


PowerBolt top/ bottom Views

THE RCA MODULE



RCA Module



RCA cable plug



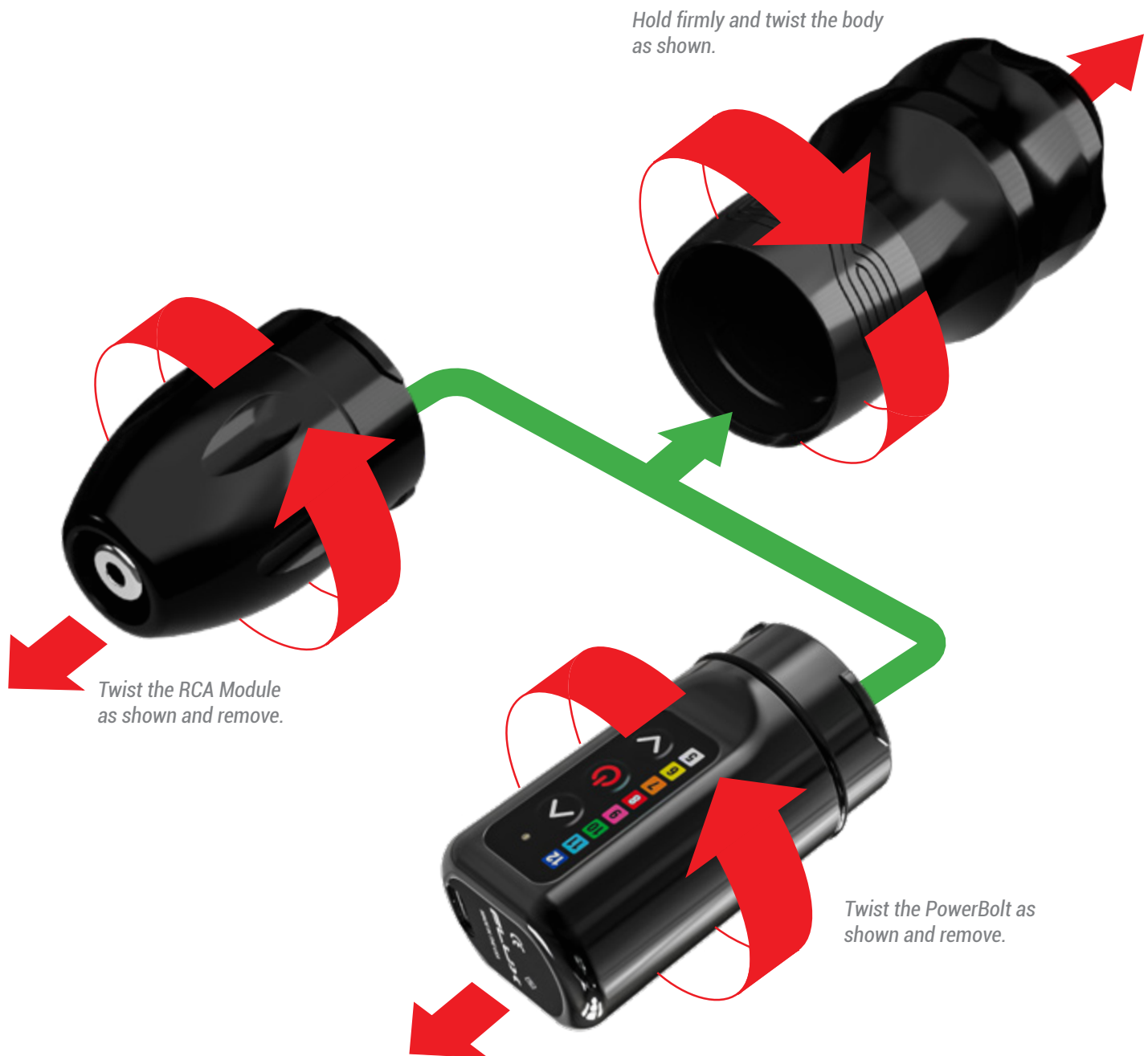
RCA motor
contact board

TRADITIONAL RCA POWER

To detach your RCA module, ensure you have a firm grip on the Body and Grip. Turn the RCA module counterclockwise and pull apart.

To attach the RCA module, push in while twisting clockwise. Ensure lock mechanism moves freely. RCA module must be flush to ensure power leads

align correctly. Avoid contact with the RCA module leads while recharging or servicing.

POWER OPTIONS

SWITCHING POWER OPTIONS

To detach your PowerBolt or RCA adapter, ensure you have a firm grip on the Body and Grip. Turn the PowerBolt/RCA counter clockwise

and pull apart. To attach the PowerBolt/RCA Adapter, push in while twisting clockwise. Ensure lock mechanism moves freely. PowerBolt/RCA

adapter must be flush to ensure power leads align correctly. Avoid contact with the leads on either module while recharging or servicing.

CONNECTING YOUR MACHINE




USB-C Connector
Fast charging speed: up to 1.5 A



1 Plug the USB-C cord into the PowerBolt connector.



 Correct connection

HOW TO CHARGE YOUR MACHINE

Insert the provided USB-C cable into the back of the PowerBolt and connect to a Hover or power socket. Make sure the cable is properly seated and is fully inserted into PowerBolt. The PowerBolt is not intended to operate

while plugged in. The USB-C connection is intended only for charging your PowerBolt. PowerBolt can be recharged while not attached to the EXO. If connecting to a Hover, the charge speed will be up to 1.5 A.

ADJUSTING NEEDLE DEPTH

ADJUSTING
NEEDLE
DEPTH

To adjust needle depth, hold the machine body and PowerBolt while turning the Grip. *A counterclockwise turn decreases depth, while a clockwise turn increases depth (also known as needle hang).*

Each time you turn the grip you can feel the tactile feedback of the ratcheting mechanism. Each “click” displaces your needle 0.2 mm and allows you to set your needle precisely without involuntarily turning while tattooing.

Increases needle depth

Turning the grip as shown increases needle depth.

Decreases needle depth

Turning the grip as shown decreases needle depth.

eGIVE

eGIVE ADJUSTMENT

With this feature you'll be able to control the amount of "give" or resistance of the needle upon impact with the skin, even on direct drive tattoo machines. This enables the artist to take advantage of the softness or hardness of hit to achieve specific results. 0 has no effect, 5 offers the maximum amount of eGive



SETTING eGIVE

There are 6 settings for eGive, 0 through 5. Change the setting by swipping the bars up or down. The higher the setting the higher the amount of give. 0 = no give, 5 = maximum give.

eGIVE INDICATOR

The number displayed is the current eGive setting.



ADDITIONAL INFORMATION

VOLTAGE PARAMETERS

While best voltage is a preference that will vary from artist to artist, this machine has been tested to operate at a minimum of 5 Volts and a maximum voltage of 12 Volts.

Depending on the type of needle configuration or brand you use, feel free to adjust the voltage to obtain the desired performance.

ACCEPTED NEEDLES

Use only cartridge needles with an internal membrane. This will avoid accidental contamination inside your machine. Fluids such as ink, water or oil will void warranty of the device and may require replacement of internal parts.

MAINTENANCE

- EXO is sold pre-lubricated from the factory and does not require internal lubrication.
- Prevent any type of external elements from entering inside the machine as they will disrupt the motion of the component and contaminate the lubrication.
- The grip of the machine is autoclavable. Use only steam autoclaves at temperatures no higher than 270° Fahrenheit or 132.222° Celsius. Add a hint of ointment or PTFE grease around internal opening of grip or on stabilizing friction O-rings for optimal functionality after autoclaving. Refer to page 5 for additional information.
- Machine Body and PowerBolt can be sanitized on the outside with cold sterilization products.
- Never spray the surface directly. Prevent fluids from entering the machine. Use no-lint rags or paper towels to apply sterilization products.
- ***DO NOT DISASSEMBLE MACHINE.***

WARRANTY

- All the housing components (Grip, Machine Body and PowerBolt) are covered by a lifetime warranty.
- Internal parts are subject to wear and the motor itself is covered by a 1 year warranty from the date of purchase.
- Motor warranty is void if motor shows signs of being dropped, of internal fluids entering the motor and/or IF motor shows signs of being tampered with in any way.



ADDITIONAL INFORMATION

HANDY TIPS

The following tips will help you get the most out of your EXO and avoid potential issues:

- Always secure your machine. Dropping the machine can cause damage to the magnets, bearings and brushes of the motor.
- Use only cartridges with membranes to avoid contamination.
- Rinse your needle frequently to avoid pigment drying up and slowing down your cartridges. When rinsing your needle, ensure to dip only the tip of the cartridge to avoid back flow of fluids.
- Inspect your needles prior to use.
- Avoid scratching any part of the surface.
- Use only FDA-approved cold sterilization solutions for disinfection.
- Do not lubricate machine unless instructed otherwise.
- Store your machine in a secure place.
- Before first use, charge battery for a minimum of 3 hours.

NEED HELP?

Contact customer support +1 (855) 354-7667 or service@fkirons.com

For more tips and tricks, visit [Youtube.com/FKiron](https://www.youtube.com/FKiron)s