



microbeau

bellar air

Wireless Cartridge Machine

USER MANUAL



2022

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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:	4 - 10 V DC
Current:	0.5 A
Stitch Frequency:	66 -166 Hz
Stroke:	3.0 mm
Connection:	USB-C
Drive:	2.12 watt motor
Operating Mode:	Continuous operation
Ambient Temperature:	+10 to +35 °C
Relative Humidity:	30 to 75%
Dimensions (Ø X L):	27 x 124 mm
Weight:	Approx. 170 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 our YouTube channel Microbeau.

“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

The Bellar Air

Unleash your Power

Wireless pen-style machine featuring a detachable battery, and a whole new level of freedom.



- *USB-C connectivity*
- *Powered by a USB-C Li-ion battery, with a charge and voltage LED indicator.*
- *Detachable battery: instantly switch to auxiliary battery (included)*
- *Proprietary motor design with a Direct Drive 3.0 mm stroke*
- *Ratcheted, adjustable needle depth system*
- *Ergonomic autoclavable grip design for PMU*

THE GRIP



Bellar Air Grip



Autoclavable Ergonomic Grip Design

Compatible with most membrane needle cartridges on the market

THE GRIP

The Bellar Air grip allows artists ratcheting control over needle depth. The standard Grip has a diameter of 28mm. Other grip

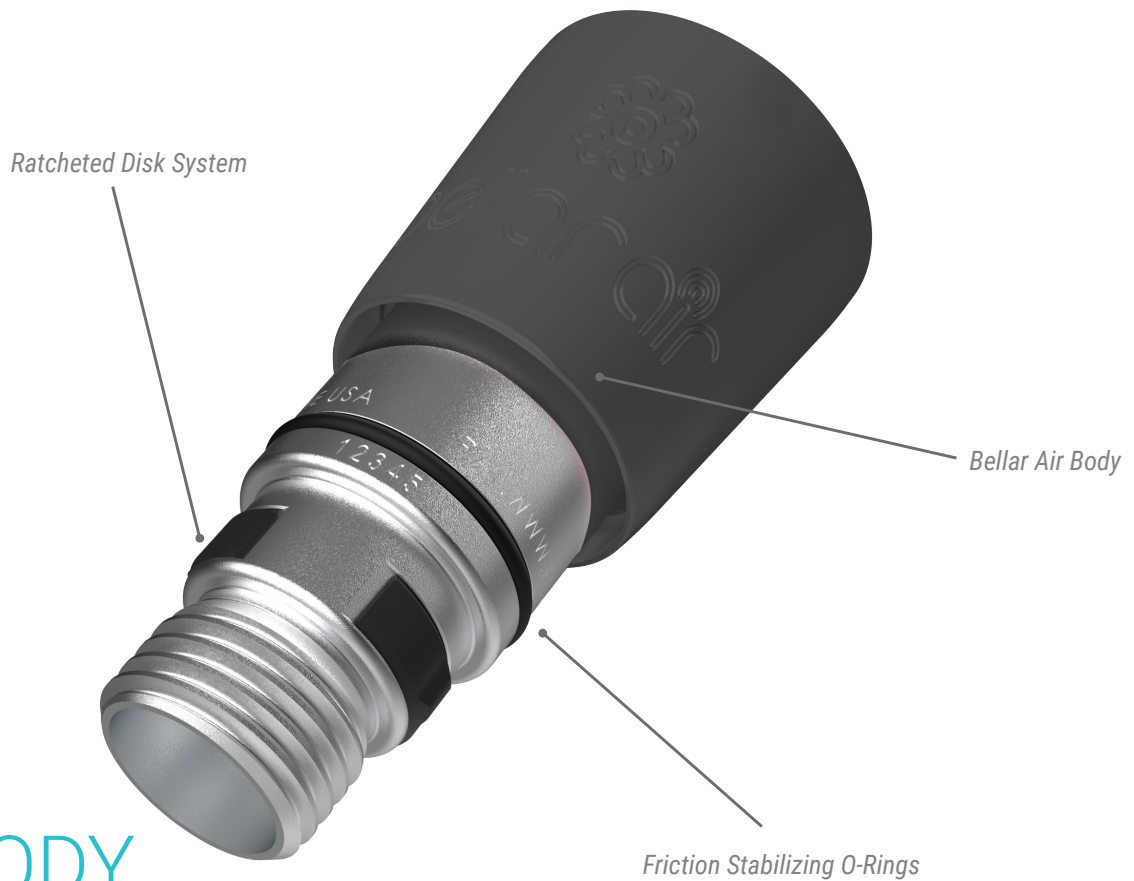
options will be available soon. The Grip is crafted from a solid rod of 6061 T6 aircraft-grade aluminum. This polished and

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

THE BODY



Bellar Air 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

DETACHING THE BATTERY



Bellar Air Battery



Twist the battery housing as shown and remove.

Get a firm grip and turn the body as shown with the Grip.

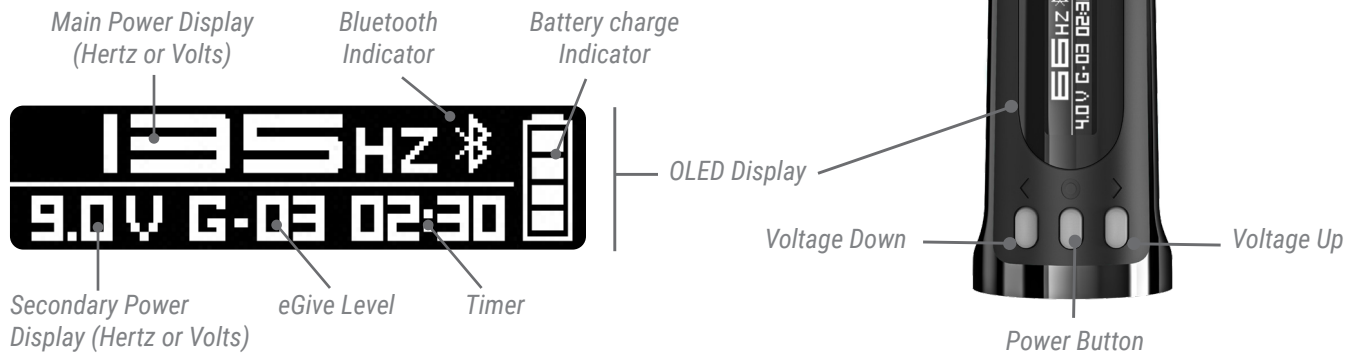
DETACHING THE BATTERY

To detach your battery, ensure you have a firm grip on the Body and Grip. Turn the battery counter clockwise and pull out.

To attach the battery, push in while twisting clockwise. Ensure that locking mechanism moves freely. The battery must sit correctly to ensure that

the power leads align. Avoid contact with the battery leads while recharging or servicing.

CONTROL MENUS



Battery Charge: 4 bars = 100%, 3 bars = 75%, 2 bars = 50% and 1 bar = 25%.

Single bar will blink to indicate when there is approximately 15% left of power.

Note: Screen will switch to sleep mode after **15 seconds** when machine not in use.

Press the power button to wake.

Charging: When USB-C is plugged in, screen mode will show battery charging.

For best results, use provided charging cable.



Modes Menu: Hold the center button to navigate built-in menu. Keep holding to cycle through menu. Release to stay on a chosen screen and select with Left/Right buttons. After releasing the center button, you can also tap it again for the next menu screen.



eGive: Use the Left and Right buttons to select level. **Level 0** = Disabled, **Level 1** = Low Give, **Level 2** = Medium Give, **Level 3** = High Give. When changing eGive level, please allow machine to finish sensing needle before using.



Killswitch: On/Off select with Left/Right buttons. Once turned on, you must tap Killswitch to establish connection. If Killswitch is not activated the menu will remain on screen for 90 sec before reverting to off mode. Once activated the Killswitch will remain connected until user disconnects it in the Killswitch mode menu.



Timer: Start/Stop select with Right/Left buttons. The timer runs from 0-24 Hrs in one minute intervals. Once timer is stopped, it resets back to zero.



Display Mode: Use Left/Right buttons to select Voltage or Hertz as main power display.



Needle Detector: Use Left/Right buttons to select on or off. eGive must be set to at least 1 to function. When active, needle detection compliments the eGive function for improved response.



Screen Orientation: Use Left/Right buttons to select left or right hand operation.



Travel Mode: Use Left/Right buttons to select Cancel/Off. Cancel: Clears the menu. Off: Deactivates the battery. To reactivate Bellar Air battery, plug in the USB-C cable.

Device Reset: Hold the Up and Down buttons at the same time.

USB-C CONNECTION



Bellar Air Battery



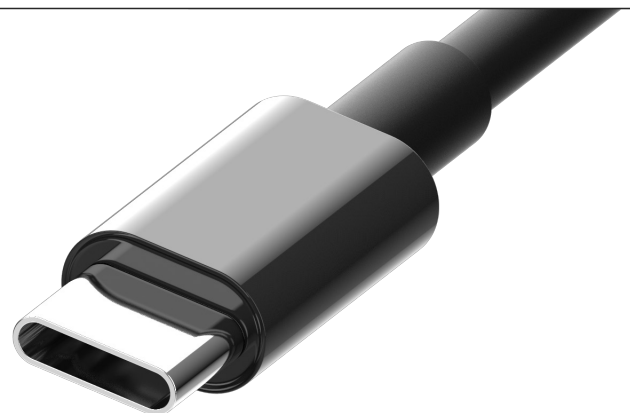
USB-C Connector



Fast charging speed: Up to 0.5 A

USB-C CONNECTION

This connecting terminal is compatible with most USB-C cables on the market. We recommend you use the included cable for recharging the battery.



USB-C Darklab supplied cord

CHARGING YOUR MACHINE



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



Best connection



Improper connection

HOW TO CHARGE YOUR MACHINE

Insert the provided USB-C cable into the back of the battery and connect to a Hover or power socket. Make sure the cable is properly seated and is fully inserted into battery. The battery is

not meant to operate while plugged in. The USB-C connection is meant only for recharging your battery. The battery can be recharged whether or not it is connected to the Bellar Air.

ADJUSTING NEEDLE DEPTH

ADJUSTING NEEDLE DEPTH

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

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

Increases needle depth



Turning the grip as shown increases needle depth.

Decreases needle depth



Turning the grip as shown decreases needle depth.

ADDITIONAL INFORMATION

VOLTAGE PARAMETERS

While voltage is a parameter that will vary from artist to artist, this machine has been tested to operate at a minimum voltage of 4 Volts and a maximum voltage of 10 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

- Bellar Air is sold pre-lubricated from the factory and does not need internal lubrication.
- Prevent any type of external elements from entering inside the machine as they will disrupt the motion of the component and contaminate 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 Battery can be sanitized from the outside with cold sterilization products.
- Never spray the surface directly to prevent fluids from entering the machine. Always use pads or disposable paper towels to apply sterilization products.
- **DO NOT DISASSEMBLE MACHINE.**

WARRANTY

- All the housing components (Grip, Machine Body and Battery) are covered by a lifetime warranty.
- Internal parts are subject to wear and the motor itself will be 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 in any way.

ADDITIONAL INFORMATION

HANDY TIPS

The following tips will help you get the most out of your Bellar Air 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 the surface of the embodiments.
- 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.

TROUBLESHOOTING

1.- Machine manufacturer

Microbeau Int.: 1771 NW 79th Avenue, Doral, Florida 33126

2.- Servicing your machine

Just like any mechanical device subject to use, Microbeau strongly suggests that you service your product at least once a year to ensure that a proper diagnosis of all working parts is conducted. This ensures the optimal condition of all working parts including internal machine clean up and fresh lubrication. Routine servicing will ensure that your machine remains functioning like the very first day. Service is subject to fees.

3.- Warning

Disconnect machine from any power before making any adjustments.

For service inquiries, please contact service@microbeau.com.

For additional tips and tutorials, please visit [Microbeau's YouTube channel](#).