



SWASHDRIVE™

DEVELOPMENTS

Brush Series Tattoo Machine

SERIAL # _____

The **Brush** Tattoo Machine is another Original Swashdrive Innovation built specifically for the Tattoo artist. We at Swashdrive have been pioneering and refining different & unusual technologies in Tattoo machinery since 1993. The Brush is a fresh new system for Stylus type machinery, made exclusively with our in-house developed K-mount style grip & Tie bar track cassette technology (Patent Pending). We thank you for supporting original Swashdrive Tattoo machinery.

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- 8 (Optional) 3 push-bars Autoclave safe



Brushless motor characteristics

The new brushless motor that powers the machine is a new electronic technology in small DC powered motors. **Start-up voltage** is at **9.0volts**, this is minimum voltage to power the electronic circuit board that controls the motor. Please do not worry the machine will not overheat at these voltages. If you note the current draw is very low at 9.0 volts, ie 9.0V @ 0.10 Amp is only 0.9Watt, and at 16Volt with 0.62 Amp will deliver a massive 10 watts of power ! The new brushless motor also has an internal **governing function**, this will hold a very accurate speed setting (RPM) as load varies during operation. No computer contamination creating motor surging. There is also an **overload cut out** to prevent possible motor destruction, in the event of a lockup or overload situation the motor will trip out and reset after 3 seconds then try to restart.

Terminal connection of the brushless motor is **polarity sensitive +- and so the motor will only operate in one direction!**

If your machine does not run out of the box, first check

- 1 the power supply is set above 9 volts
- 2 the power cord is connected in the correct polarity + -
- 3 Your power supply is not PWM

Operating Voltages

9.0 Volt Start up will deliver 2000 rpm or 33 CPS

11 Volt 3000 rpm / 50 CPS

13 Volt 6000 rpm / 100 CPS

16 Volt 9000rpm / 150 CPS

Max RPM @ 16VOLT

Apply pressure to your thumb whilst inserting the grip into drive head & turn clockwise until latched



rigid,
cam bush

Give Adjustment

We have in house developed the Give push bar and may be set from very soft give to almost Adjustment can be made by removing the grip from machine head, below the give spring is a with five different settings. To make an adjustment hold the bottom push-bar then with other hand push up and rotate the cam bush to next give setting or back & down to soften give setting.

K-mount Grip Chucking System

To mount the grip simply align the K-mount lugs with the frame socket, insert the grip and turn clockwise until the lock has latched

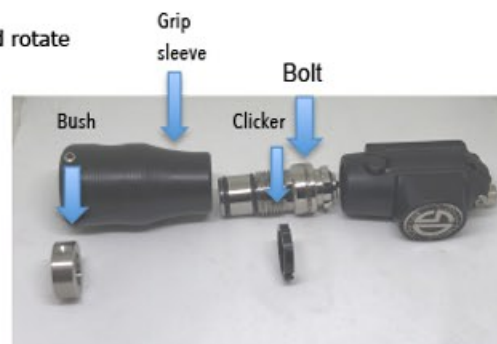
Note there are 3 different positions the grip can be latched, optimal position so cartridge aligns forward is with the grip bolt flat facing forward when latched. If the grip clicks before the K-mount latches, place thumb on the bottom of grip and fingers around the grip the turn to latch into machine head. Also by applying some Vaseline to the o-ring on the k-mount will make it easier to latch.

To release the grip push release lock located on front side of machine to upward position and rotate grip in an anticlockwise direction and the grip will release from the drive head.

Grip Disassembly

The K-mount grip may be broken down for cleaning & autoclave at any time, simply turn the grip in an anticlockwise direction until the centre Stainless bolt comes off the thread, then pull the grip off the bolt. Both grip & Bolt are autoclave safe. The bush & Ratchet may also be remove by squeezing the rear fingers of the bush then push the bush forward out of the grip sleeve.

Optimal latch position on grip insertion



OPTIONS

Grip Setups

The Brush composite comes standard with its own K-mount Grip.

The Titanium Brush comes with both K-mount grip & optional grip adaptor.

OPTION FOR COMPOSITE BRUSH

The Grip adaptor accommodates Standard 8mm (3/8) and Hawk style grips.

There are 3 push bars supplied, numbered 1 to 3 by means of the number of balls at machine end of push-bar.

They all snap fit into machine head by means of ball / socket joint.

#1 For use with K-mount Grip

#2 For use with Standard 8mm Grips

#3 For use with Hawk style grips and some 8mm, ie FK billet grip

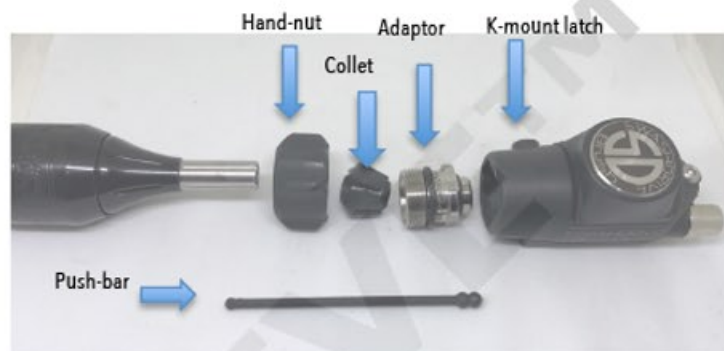
Examples of Grip setups

8mm Grips

This setup works by inserting the # 2

Push-bar into machine head, then adaptor, this is easily done by first attaching the adaptor to a 8mm grip, hand tighten the collet nut then insert whole assembly into machine head and turn clockwise until latch.

When time comes to remove adaptor, the simplest way is done while the grip is still tight in the adaptor. First Release the K-mount latch then turn both grip and adaptor anticlockwise, once adaptor has unlatched, but still in the machine head, loosen collet hand nut holding the grip then remove adaptor downward from machine head. Note Always Hand tighten collet nut only, do not use tools to tighten.



Hawk style grips

For this setup remove the collet & hand nut, replace push-bar to a #3 bar.

Attach grip to the adaptor then insert into machine head and turn clockwise until latched.

To remove adaptor release latch and turn grip & adaptor anticlockwise until adaptor has unlatched then loosen the hand-nut on the grip before removing adaptor from machine head.



Other Grip Combinations

It is possible for many other grip combinations to work with the Brush machine!

But because there are so many different possibilities we have left this to an after market solution, if you have a particular setup in mind please contact us so we can customise your solution!

Warranty

The Swashdrive™ BRUSH Tattoo machine has a **Six-month warranty** from date of purchase. To which Swashdrive™ Developments will repair any manufacturing fault of the machine free of charge. However we do not cover return postage costs. Disassembly of the machine may invalidate your warranty. Original Purchase invoice with **date of purchase** must be provided to us with a description of fault, along with with machine for repair for any warranty claim.

Disclaimer

Swashdrive™ Developments **warrantees** the manufacturing quality of the Swashdrive™ BRUSH. But under no circumstances will Swashdrive™ in any way be liable for any injury, infection or quality of any tattoo of any persons the Swashdrive™ machine is used on. That is the sole responsibility & liability of the Artist / Owner of the Swashdrive™ Tattoo machine.

Please visit www.swashdrivetattoomachines.com for further information & Tech support