



# *spektra* **EdgeX**

Cartridge Machine

**USER MANUAL**



## MACHINE OVERVIEW

### PACKAGE CONTENTS

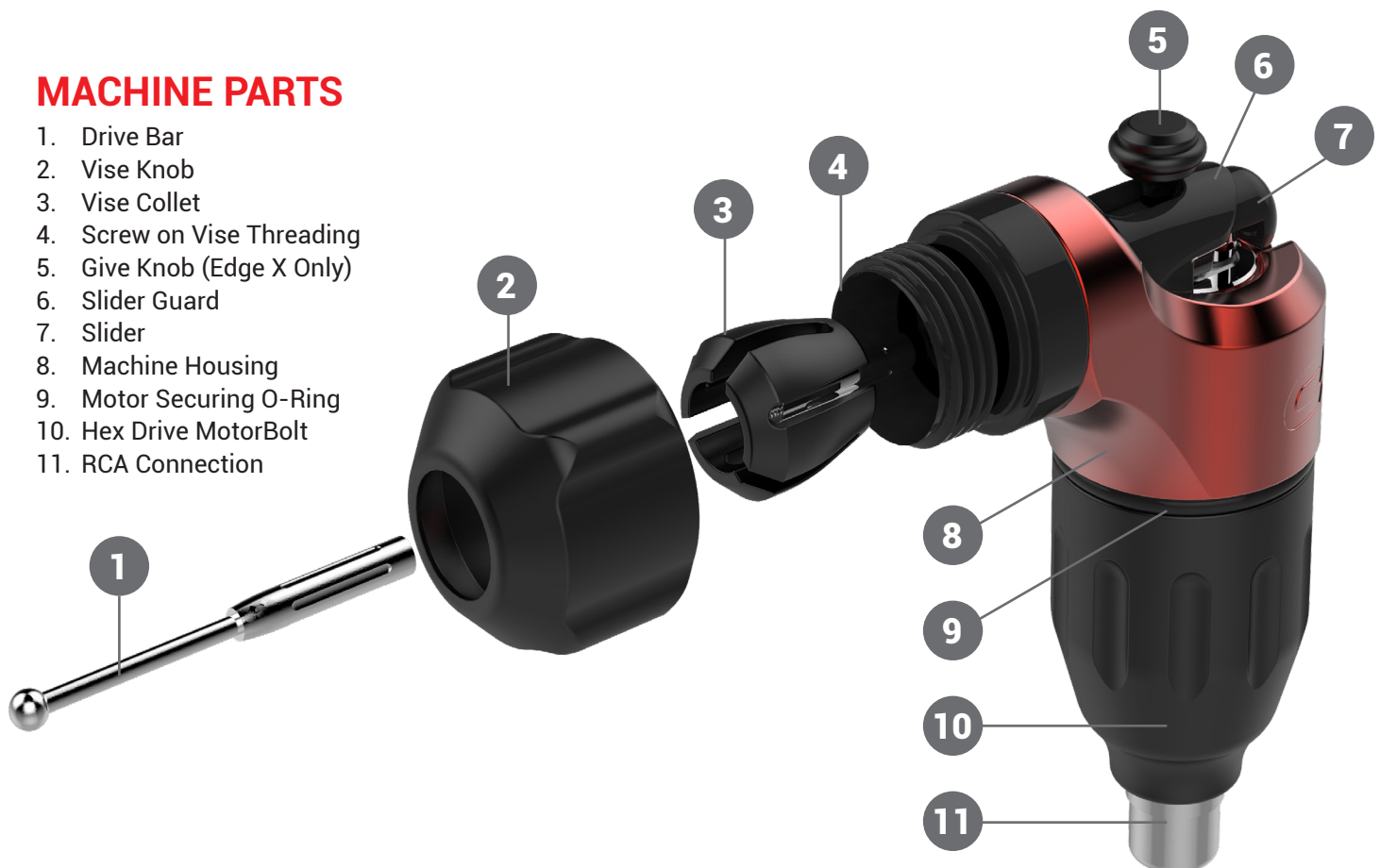
- User Manual, Spektra Edge Body
- Hex Drive MotorBolt
- Oil Lubricant
- 0.05" Hex Screwdriver
- Spare 4-40 3/16" Stroke Set Screw
- Spare Vise O-ring
- Attached Precision DrivePin
- Plunger DrivePin

### MACHINE FEATURES

- Compatible with standard style needles and tubes or cartridges without the need for removing or changing parts
- Patent pending needle clip and needle stabilizer eliminate the need for grommets or rubber bands
- Interchangeable stroke wheels in 2.8mm, 3.4mm and 4.0mm sizes
- Dually compatible patent pending collet vise system supports standard back stem (5/16" - 8mm dia.) and screw on adjustable grips
- Newly designed cam system allows for increased torque and even less vibration
- Adjustable give system can be modified on-the-fly to suit all styles of tattooing
- Designed to push all needle groupings from single needle up to 55mags
- Lightweight at only 3 ounces
- 4.5 watt Swiss Maxon Motor
- Made in the USA

### MACHINE PARTS

1. Drive Bar
2. Vise Knob
3. Vise Collet
4. Screw on Vise Threading
5. Give Knob (Edge X Only)
6. Slider Guard
7. Slider
8. Machine Housing
9. Motor Securing O-Ring
10. Hex Drive MotorBolt
11. RCA Connection



## CHANGING THE STROKE

The stroke of the Spektra Edge is adjustable to 2.8mm, 3.5mm, and 4.25mm lengths with the ability to fine tune in between.

With the motor housing removed from the machine body, gently use your finger to turn the inner bearing of the machine from the bottom of the machine body so that the set screw (2) of the stroke bearing aligns with the cutout on the back of the machine (1).

Use the included 0.05" hex screwdriver to gently loosen the set screw in order to lock the screw in the machine cutout (1) to prevent the turning of the bearing. Be careful to not fully remove the set screw.

Loosen screw half way out then adjust the stroke of the machine by carefully sliding the stroke bearing (4) to the left and right inside the slot of the stroke plate (3) under the machine slider using the hex screwdriver. Positioning the "Edge" engraving of the machine facing you, with the bearing aligned all the way to the left of the machine (indicated by 1 engraved dot), the machine will have a 2.8mm stroke, centered evenly it will have a 3.5mm stroke, and aligned all the way to the right the machine (indicated by 2 engraved dots) will have a 4.25mm stroke.

You are also able to select a number of options between the main settings as well to select the stroke that best suits the style you are looking to achieve. After the desired stroke is selected, use the screwdriver to re-secure the set screw completely. It is recommended to push inward with the tool while tightening to prevent stripping the locking screw and use a paper towel around the screwdriver handle to ensure enough torque is applied to fully lock the screw.



## MACHINE OVERVIEW

### OPTIMAL VOLTAGE

The Spektra Edge will run on any high quality rotary compatible power supply from 6v-12v depending on the brand of needle cartridge and grouping that are used. Optimal voltage for the machine is generally achieved between 7.5-10v. Be aware that it is not suggested to run the machine above 12v to avoid over-working the skin due to the high RPMs reached.

### ADJUSTING THE GIVE

Your new machine comes with a fully adjustable needle resistance system (give.) To fully eliminate the “give” of the machine turn the Give Adjustment Knob clockwise until it stops, being careful not to over torque the give knob to prevent locking the slider.

If you prefer to work with give, simply turn the Give Adjustment knob counter-clockwise until the desired resistance is achieved.

The Edge X has an effective 1.5-1.8mm of give travel that has been specifically designed to work with cartridge style machines by taking into account the internal tension of the various needle cartridges. Starting with the knob turned completely clockwise to the stopped position, turn the knob counter clockwise in 1/8 turn increments to begin opening the give. 1.5 full counter clockwise turn of the knob will provide the full range of give achieved by the machine. Do not turn the give knob beyond 1.5 full turns as this will result in no additional give and it will remove the give knob completely.

Be aware that the give knob of the machine does not act as an armature, therefore, it will not serve as a tactile indication of the give of the machine. You may also notice that different cartridges may require more or less adjusting of the give knob to achieve the same results due to the varying internal tensions between cartridge needle brands.

### LUBRICATION

The slider of the Spektra Edge is made of an Acetal Resin that contains PTFE and Teflon in its composition. This results in reduced friction and will ensure the overall smoothness and low vibration of the machine. To prolong the life of the machine, it is recommended to apply lubricant to the slider at least once per month/ 120 hours, or when the machine begins to provide audible indication that the slider has become dry and thus causing additional friction.

To lubricate the machine you will apply 1 drop of the included lubricant at the base of the slider where it meets the slider guard, or at the base of the give knob on the Edge X version of the machine. You will then run the machine with a grip installed at 15v for 5-6 seconds in order to disperse the lubricant, and the process is complete.

Be careful not to over-lubricate the machine as excess lubricant introduced into the tight tolerances may cause decreased slider performance.

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## DETACHABLE DRIVEPIN SYSTEM

The Spektra Edge features a drive bar system with a detachable DrivePin that allows easy sterilization of the cartridge- contacting portion of the bar, as well as the ability to interchange the DrivePin to suit a variety of grip styles.

Out of the Box the machine is assembled with the straight PrecisionPin installed for use with the DarkLab RPG line of grips as well as other cartridge grips that contain an internal guide. Also included is a PlungerPin that is compatible with cartridge trips that require a 3mm plunger guide.

The 3mm plunger of the PlungerPin is detachable for conversion into a secondary PrecisionPin if desired. In order to detach the DrivePin from the machine, hold the base of the drive bar steady and simply twist the base of the connected DrivePin counter clockwise at the connecting joint until it is fully detached from the base of the drive bar.

The DrivePin may be autoclaved or cleaned with liquid sterilant products, however it is important to fully dry the DrivePin immediately after sterilization.

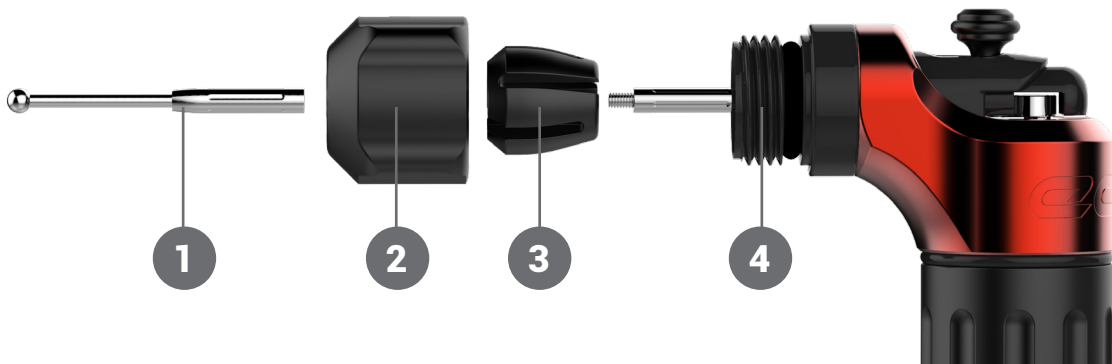
To re-attach a drive bar, hold the end of the drive bar steady and screw the base of the DrivePin onto the male threading of the connecting joint until it fits securely into place.

## USING THE DUALY COMPATIBLE VISE

The Spektra Edge's patent pending collet vise system is compatible with both standard backstem (5/16" - 8mm dia.) and screw-on style adjustable cartridge grips (with a M16x1mm female threading). As assembled in the box the machine is set up to accept a standard backstem style tube. To insert the tube you will unscrew the outer vise chuck(2) (enough to loosen the knob but not fully remove it) and gently guide the backstem of the tube over the drive bar (1) and insert it into the opening, tightening the chuck to secure the tube in place.

In order to use a screw-on style grip you will fully unscrew the vise chuck (2) and remove the chuck and the floating collet (3) from the machine. You are now able to carefully insert the grip over the exposed drive bar and attach it to the exposed threads (4).

Store the removed chuck and floating collet in a safe place. To transition the machine back to accept standard backstems simply reinsert the collet with the narrow end inserted into the vise opening and secure the chuck onto the male threading. Do not insert the floating collet in the reversed position.



## ADDITIONAL INFORMATION

### LIFETIME WARRANTY

FK Irons warrants that the product will perform efficiently when used by a Professional Tattoo Artist. All MachineBody components not subjected to normal wear and tear will be covered under warranty for the life of the machine. The enclosed Maxon Motor will be covered under warranty for 2 years from the date of purchase. Should this product be defective, FK Irons will repair or replace the product for a current available model of equal value.

This warranty will become voided if the Maxon Motor is removed from the MotorBolt casing, if the machine has undergone unnecessary rough handling, repeated dropping, over exposure to moisture and/ or lubricant or neglect. For warranty claims, replacement parts, or general service inquiries please read the Frequently Asked Questions of [www.fkirons.com](http://www.fkirons.com) or contact a representative via email at [Service@fkirons.com](mailto:Service@fkirons.com).

For service inquiries, warranty claims or replacement parts please contact [service@fkirons.com](mailto:service@fkirons.com) or phone at 1-855-FKIRONs. For additional tips and tutorials, please visit [Youtube.com/fkirons](https://www.youtube.com/fkirons)