

Neo Tat Linear Series Tattoo Machine operation guide

The Neo Tat Machine

Is designed to operate for many trouble free hours with minimal maintenance. The Neo Tat should be kept clean and sanitary at all times.

Regular maintenance means disassembling of the machine at least every 200 hours of use and thoroughly cleaning and relubricating the glide mechanism with a synthetic USDA approved H1 grade or better PFTE grease such as Super Lube.

The Neo Tat is designed to be run on DC current ONLY, and at a voltage range of between 6 and 15 volts DC. Running the machine on AC current or on a power supply of poor regulation will damage the machine and void its warranty. The Neo Tat normally runs at no more than 250 Milliamps of current. If the machine is drawing more current than 250 Ma, or seems to slow down, get hot, or start making excessive noise, then it must be disassembled, cleaned, and relubricated.

The following instructions will show how easy it is to maintain your new machine. So you may enjoy it for years to come.

This product is to be used by qualified tattoo or permanent cosmetic professionals only. By purchasing this machine, it is assumed that the operator has had the necessary training in his or her field and has sufficient time and experience in their craft. This machine is of a *Rotary* nature that works differently than a coil type machine, and the user will have to work with the new tool to get the feel of how it operates. Most of the tricks and techniques that are used with a traditional coil machine will apply to the operation of the NeoTat, but some will not.



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One major difference from that of a coil machine is the noise. Professionals who are used to tuning and running their coil machines by sound will find the NeoTat is very quiet. The user must learn to position the machine in order to get its responsive feel and not depend on the sound for operation. Where this is natural for some, it may take time for others to get used to.

Since this is a rotary machine, the needles have a fixed depth of movement and the operator needs to use caution while pushing pigment into the skin. The NeoTat produces a more precise needle movement than other tattoo machines, because the needles are reciprocated perfectly up and down. This motion will allow the user more precision in their work, but may give different results than they are used to. Example:

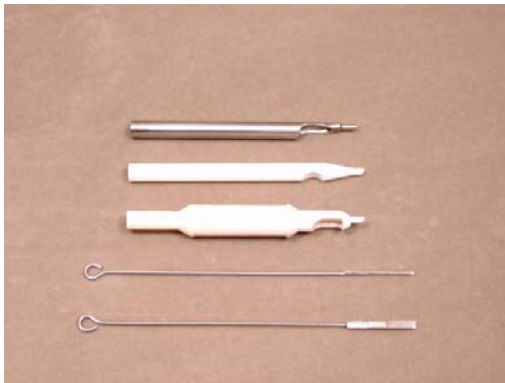
In shading applications using flat or magnum needle groupings, shading will produce more defined lines running within the shade than the same needles run with a coil machine. With practice, this “lined” effect can be used to an advantage.

The new user should approach the machine with an open mind and patiently spend the time practicing with the machine until they have mastered its operation. Once mastered, the operator may find that the NeoTat is their machine of choice.

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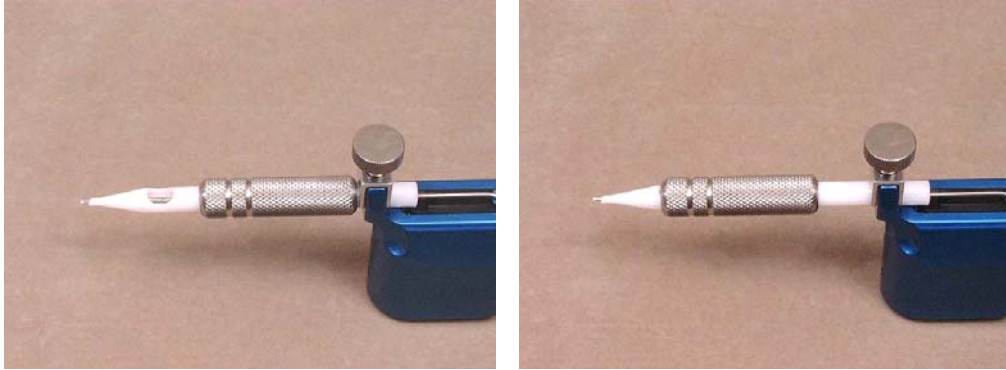
Here are some of the tips for using your new NeoTat Machine.

The machine does not require special supplies in order to operate. It will accept various types of standard tubes and needles. In the past the tubes were stainless steel and had to be cleaned and autoclaved between uses. Currently there are a number of disposable tubes on the market. Some have the grip or barrel molded into the tube, others use a separate metal grip attached to the tube. The tube with grip combos are uncomfortable to some, where as the tubes with separate grips allow the user more options for size and position of the grip.



On the left are shown some various types of tubes and needles. On the right are shown a stainless and a disposable tube and various sizes of stainless grips. The metal grips also help balance the machine with the added weight, plus this additional weight and size can actually make the machine more comfortable to use. It is much easier on the hand to grip a larger diameter grip than grasp onto a small diameter. The operator can give the machine more driving force with the addition of weight so that when shading with larger needle grouping the added weight will allow the operator to use less hand effort. This is less tiring and stressful on the hand. Also by using the separate tube and grip setup the user can move the grip up or down the tube to position the grip where it is the most comfortable to use.

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Shown above are two examples of grip placement on the tube. The grip can be positioned where the operator likes it best.

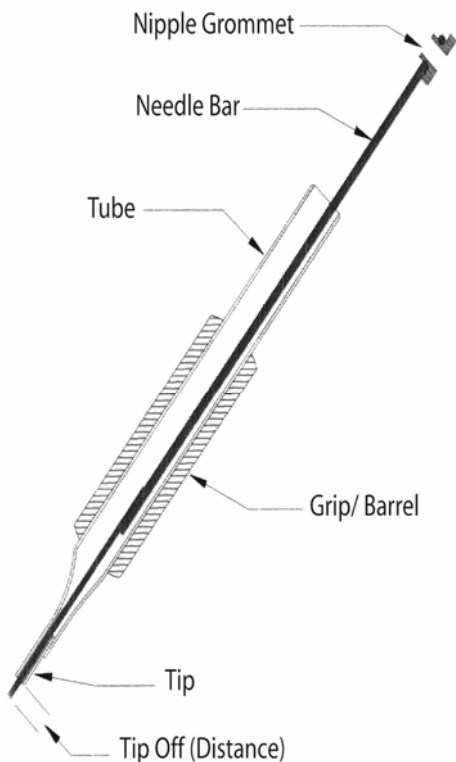
The NeoTat will operate with a variety of needles from single 00 size all the way to 14 *Rounds* and *Magnums*. With Round groupings we suggest moving to the next size up in a *Tight* configuration from what the operator is used to running on a coil. In other words, if a 3 Round is normally used then a 5 Round Tight should be used instead and if a 5 Round is normally used then the operator should go to an 8 Tight. The nature of the machine is to produce very tight lines that are smaller than those of a coil machine, so by bumping up to the next size in a Tight configuration the operator will produce a similarly sized line, and the *Tights* will deposit the pigment better.

The NeoTat works best with Tight pattern needles.

When it comes to needle setup, there are different methods that people use. Attention to this detail will make a big difference in the way any machine performs. After the needle is removed from the sealed package, inspect it for straightness. Sometimes the needle bar needs a small bend or tweak in order to make it run straight and true through the end of the tip. All needles are soldered offset on the needle bar and some tube tips are on center and some are offset from center. It is important to have the needles travel correctly in the tip.

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Tech Tip:



The needles are always on one side of the needle bar plus the tubes and tips are not always on center, so use this needle offset to correctly position the needles in the tip. Set up the needle in the tube so that the needle rides the side of the tube at the tip. Move the machine basically in the direction that is opposite to the side where the needle is guided by the tip. Setting it up this way will provide better needle control for the operator. A needle that is setup in the middle of the tip with space around it and no guidance will wobble around inside of the tip. Setting it up this way can cause poor line control and erratic performance.

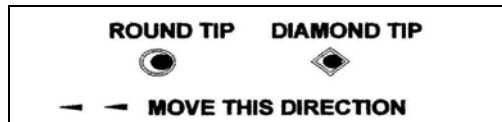
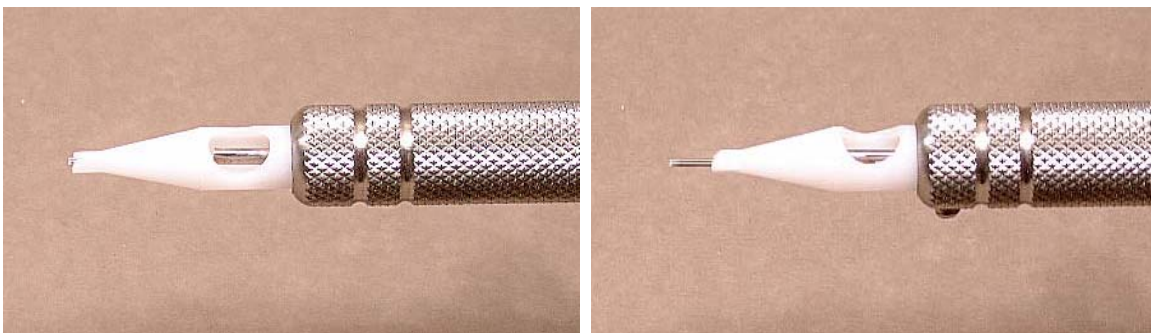


Figure above describes tip and needle configuration with the suggested direction of travel for the best control. Remember to take advantage of the offset of the needle bar when setting up the needle in the tube.



Picture on the left shows a short *Tip off* distance and the right shows a long *Tip off* distance. A long *Tip off* will allow the user to see more of the needle while running, but will not draw as much pigment from the tube as a short *Tip off*.

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Needle and tube setup cannot be stressed enough. We suggest that needles be set up so that they actually ride or rub on the inside of the tube on the opposite side of the direction the operator moves the machine. This will support the needles while pushing pigment. A Round or Diamond tip tube should be used with round grouping lining or shading needles. The Diamond tip tends to provide more guidance of the needles, especially while doing circular pattern motions with the machine.

There are generally two ways an operator will use the machine. One is phrased *Off the tip*, and the other is *Off the point* or *Off the needle*.

With *Off the tip*, the needle is set up so that the needle is inside the tube tip in the retracted position and sticks out while the machine is running. This method does not generally allow for fine work because the operator cannot see exactly where the needle is running. This method is generally good for shading with large groupings for two reasons. First is the needles are closer to the pigment that is in the tube allowing for heavier implantation, and second the tip helps strip the skin from the needles when they travel up and out so that less stretch of the skin is needed to keep from snagging or dragging the needles in the skin.

The other method, *Off the point*, allows the operator full view of the needles and is good for precise work. This method requires more trips back and forth to the ink cup because not as much pigment will be available at the tip. The farther the needles are stuck out the more difficult it is to implant the pigment. So there is a point where too far out does not work efficiently.

Installing the needles and tube onto the NeoTat is very easy and does not require the use of rubber bands like most tattoo machines. The needles can be installed before the tube is in place or after, this is strictly user preference. When installing make sure that the *Grommet* or *Nipple* is in place or a clattering will occur in use, and be sure to push the needle bar into the glide clip in order to stabilize the needle.

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After the needle and tube are installed, double check your needle setup and make sure the needle is running straight and true where you want it. Once you have it set up correctly then set your Tip off distance and you are ready to go.

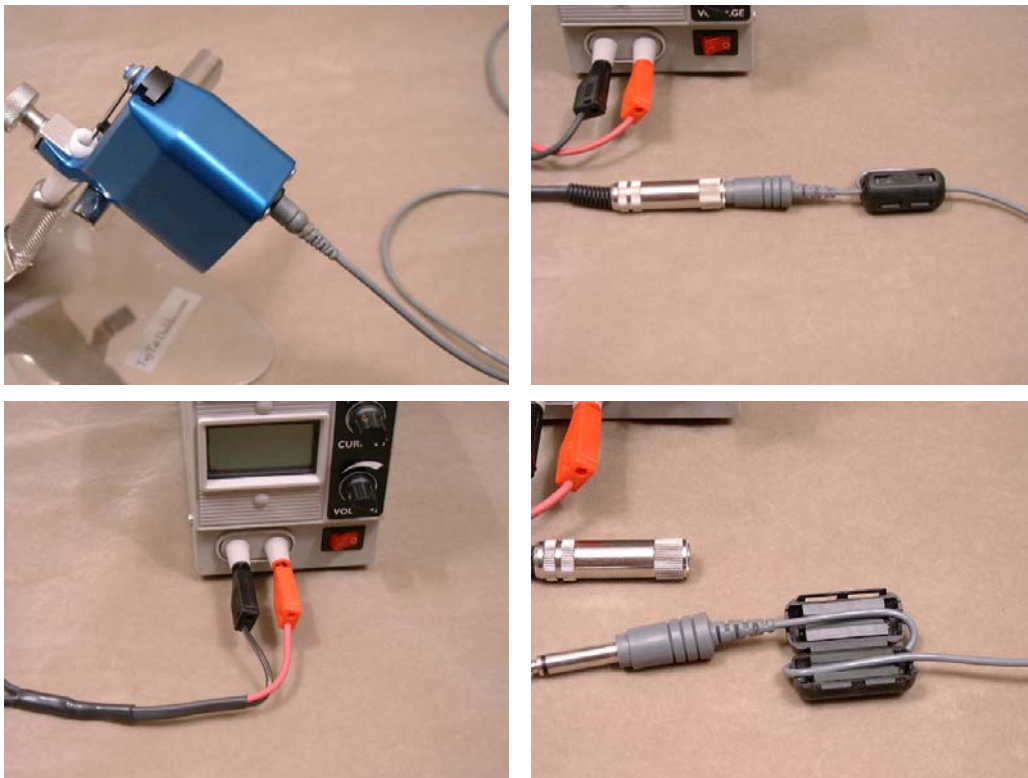


“A poorly set up needle can ruin your day”

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The NeoTat is easy to hook up for use. The power cord supplied with the machine is plugged into the 1/8 inch jack at the rear of the machine. The other end of the power cord has a 1/4 inch plug that mates with the footswitch assembly. The footswitch assembly has two banana plugs that plug into the front of the (NPS-15) power supply with the red plug to the red post and the black plug to the black post. The NeoTat can be used with power supplies of different manufacture of which some are equipped with a 1/4 inch jack that will accept the power cord and others have pin tip jacks or banana jacks that attach the machine. Check our catalog or website for available adapters.

TapTatDaddio.com



The picture on the lower right shows the installation of the ferrite filter. The ferrite removes any electrical noise generated by the machine, and the FCC requires that manufactures supply such filters to reduce the emissions that cause radio interference. We supply this filter with the purchase of each NPS-15 power supply.

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In operating the machine using the (NPS-15) power supply, set the current control to the middle position and leave it there. The voltage control will vary the operating speed of the machine and speed depends mostly on the operator and how he or she uses the machine. The machine is designed to efficiently run from 8 to 15 volts. Some operators like to run the machine slow for most procedures at 8 to 10 volts, where others like the machine to run fast at 13 to 15 volts. Through practice the operator will get the feel of the machine and determine what speed works best for them and with the procedures they do.

We also supply a small wall adapter type 15 volt power supply that comes with a footswitch and power cable as one assembly.



Important note:

All the pictures shown are only depictions of the usage and that in actual use the machine and cord should be barrier wrapped. Needles and disposables NEVER are to touch a non sterilized surface, nor should the operator handle the needles, tubes, or setup the machine without protective gloves. It is extremely important to keep your tools and working environment as clean and sanitized as possible.