USERS GUIDE

COVERING XR/XR-D/XRR SERIES POWER SUPPLIES

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THANK YOU

Thank you for purchasing your tools from Critical Tattoo. Your support is greatly appreciated. We are continuously striving to improve the quality, usability, and reliability of our products. This manual was developed to cover our full range of XR/XR-D/XRR power supplies. Please take a moment to scan through the manual and learn the functionality of your new tool. In the event that you have trouble with one of our products, please study the troubleshooting guide or contact Critical directly at (877) 271-1446 and we will gladly help solve your issue.

POWER

18-24vdc 36w

Critical's full line of power supplies use the same switching power adapter; 90-240AC 50/60hz worldwide input, 18v 36watt output with the center pin being positive. In the case of a lost power cord, the Mickey mouse plug shown below is a C5 type.

All XR power supplies will power down automatically after sitting for 10 minutes with no activity. You can also shut them down by holding the left arrow button until the unit shuts down. Pressing the foot pedal or any button will wake up the power supply.

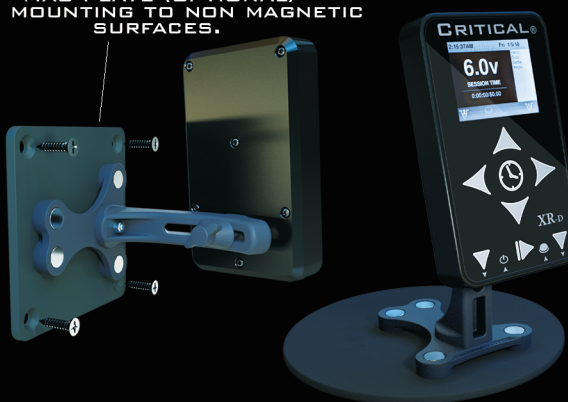
MOUNTING

After unpacking your power supply you will find that it requires the use of a supplied mount. We developed it this way so the unit can be easily bagged and provide the best possible defense against cross contamination. Our preferred configuration is on the side of a tool box or cabinet as this gets it off of your sterile work surface and allows for free motion of the cords.

MOUNTING

The magnetic mounting system supplied with your power supply can be rotated to any of 4 different positions for top, right, left, and bottom mounting. Also shown is the ability to attach mount base directly to power supply for metal wall mount applications.

MAG PLATE (OPTIONAL)
FOR MOUNTING TO NON MAGNETIC SURFACES.



BASE PLATE (OPTIONAL)
FOR FREE STANDING TABLE TOP APPLICATIONS

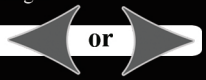
WAKEUP UP/ SLEEP

When you plug the power into your XR, it will power up and be ready to go. If the output is off and there is no activity for 10 minutes, the unit will go to sleep on its own. You can also place your unit in sleep mode by pressing and holding the left arrow button.

ADJUSTING VOLTAGE

Pressing the up or down arrows will adjust the output voltage. The currently active preset will retain the new setting as its preset voltage.

CHANGING VOLTAGE PRESETS



Pressing the right or left arrows will toggle between the voltage presets, the default is one preset for each button. this can be changed to 2 or 3 presets per button; refer to configuration on page 5

PEDAL OVERRIDE

Pressing the Start/Stop button will turn the output to your machine on and off in a maintained fashion regardless of whether the power supply is in maintained or momentary pedal mode.

MAINTAINED PEDAL MODE

XR: Press and hold the Start/Stop button for a few seconds until “Toggle” appears or disappears under the pedal icon.
XR-D/XRR: Press and hold the pedal down while pressing the output button until “Toggle” appears or disappears under the pedal icon.

JUMPSTART

For the XR model Refer to “Configuration” on page 6.
For the XR-D/XRR model: Press and hold the output select button for the output you want to assign jump start to. A lightning bolt indicates jump start is active.

SESSION TIMER

When in “Session Time” mode, pressing the clock button will Start, Stop, and Resume the clock count. Holding the clock button for a few seconds will reset the count.
When in “Run Time” mode, the time is counting only when machine is running; Pressing and holding the clock button will reset the count.

DISPLAY ATTRIBUTES

10:23:00am — Time of Day: Set in configuration menu

Wed 2/25/2015 — Date: Set in configuration menu

5.0v — Active voltage setpoint: Adjust using up/down arrows or select a different preset using right/left arrows.

Physical output: When illuminated red, there is power at the clip cord. When grey, output is off. The number indicates which preset is active and the green arrow indicates which button was used to acquire the current preset.

Input Status: This indicates if and which method of input was used to activate the output; this is very handy for troubleshooting a bad foot switch. "Toggle" indicates that pedal toggle mode is active for the currently active preset.

SESSION/RUN TIME
01:45:00/$250.00

Session / Run Time: Indicates the "Session Time" based on stop watch inputs or "Run Time" based on actual power to the tattoo machine. User must enter config menu to select which method to use for billing as well as set the hourly rate to be calculated.

Hertz: 120 — Coil machine speed in cycles per second

Duty: 50% — Coil machine percent on time within one cycle

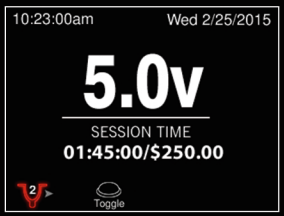
Settle: — Front contact switching quality as a percentage of on time

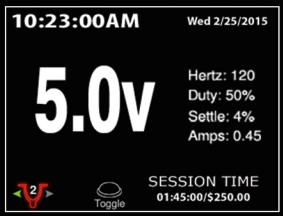
Amps: 0.45 — Machine current draw in Amps

SCREEN VIEWS HOLD

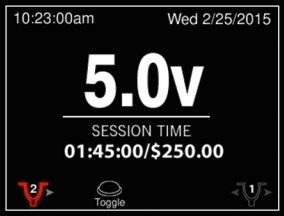
Press and hold the right arrow button to index through the different layouts. The XR has only two screens while the XR-d has 4 different options. Within the configuration menu you can also select between different color themes.

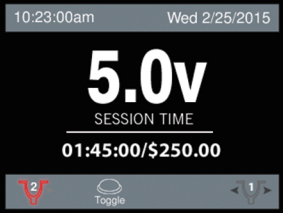
XR SCREEN LAYOUTS

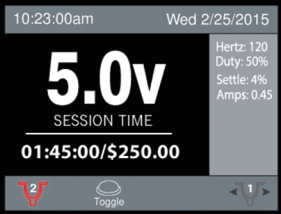




XRD/XRR SCREEN LAYOUTS







XR/XR-D/XRR Configuration

SETTINGS MENU

Press and hold the **Right/Left** arrow buttons until settings screen appears. Use the **Up/Down** arrows to scroll through the settings. Once on the desired setting, use the **Right** arrow to enable edit mode for that setting; At this point, the **Up-/Down** arrows are now used to select a new variable, once the desired variable is visible, use the **Left** arrow to back out of the setting and proceed with other settings or press the **Clock** button to exit and save.

Time: Sets the time of day

Date: Sets the calendar date

Preset Count: Sets the quantity of available voltage presets associated with each of the Left and Right arrow buttons

Output: Allows the user to enable the right, left, or both physical outputs. This governs how the preset buttons are associated with the physical outputs.
XR-D/XRR Only

JumpStart: This setting assigns the jump start function to the individual preset buttons with the options Right, Left, and Both. (JumpStart sends and initial 12 Volt pulse to help start those hard starting machines.)
XR Only

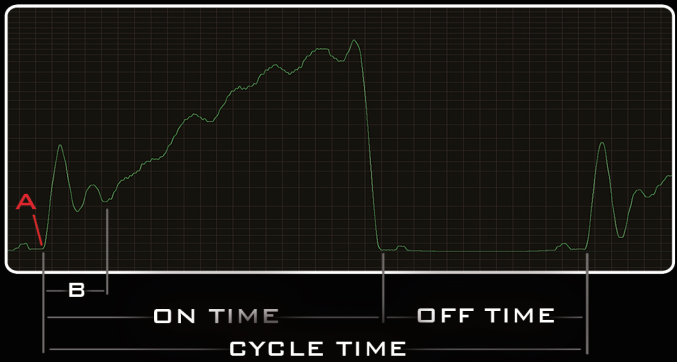
Refer to "Basic Operation" page for XR-D Jump start configuration.

Key Clicks: Allows user to Enable/Disable the audible beep sound during button presses.

Meter: Allows user to set hourly rate between 1 and 999 units per hour for use in session/ run time calculations

Locale: Allows user to change the currency symbol. (currently only US and EU.)

Built in Oscilloscope function



HZ

The "CYCLE TIME" is one full down/up cycle of the A-Bar; The quantity of full cycles that take place in one second makeup the machines speed in Hz (cycles per second).

STL

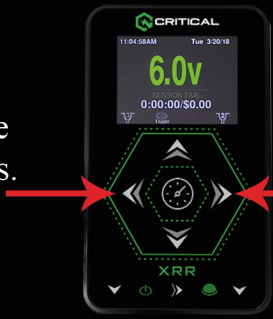
We start at point "A" where the front spring first touches the contact screw and begins to flow current (Amps). As you can see, for the duration of "B", the front spring bounces on the contact screw causing the current to oscillate. This is what we call "Settle" or "STL" as it shows on the CX2 and XR display. Settle is represented as a percentage of "ON TIME", so if you are seeing an "STL" of 20%, it's saying that the front spring is bouncing for 20% of the machines "ON TIME" before it settles in. Generally, the longer the front spring's free length, the higher the settle will be. Although a high settle reading suggests a less efficient contact interface, a better indicator of a poorly tuned machine would be an erratic reading.

DUTY

In the CX-G2 and XR power supplies, duty cycle is simply "ON TIME" as a percentage of "CYCLE TIME". Rotary machines do NOT turn on and off so they are always running at 100% duty cycle. The power supplies have a very fast processor and very precise current sensing hardware, so our measurements and math are extremely accurate. You may notice that the duty readings are higher than you have observed with other power supplies.

Syncing XRR to wireless pedal

Enter system menu by pressing and holding the left and right arrow keys.



Once in the menu, scroll down to “Wireless Sync” option and press the RIGHT arrow key to begin syncing.

Press the XRR Compatible footpedal to sync the two devices. The wireless footpedal information will display on the XRR screen once synced. Press the clock button to exit the menu.

*If pedal does not sync, check the batteries are good and inserted the correct orientation

Warranty

Critical Tattoo warrants your product to be free from defects in material and workmanship for a period of 2 years from the original date of purchase. If you discover a defect in a product covered by this warranty, we will repair the item or if repair is not possible, replace the item. Proof of purchase in the form of a sales receipt must be provided for warranty repair. If your power supply or foot pedal is beyond the 2 year warranty period, repair options are still available. Repair work does not reset the warranty period. Warranty is valid only when sold through authorized sales channels. Third party resellers such as Amazon and Ebay are not authorized sales channels. Please call for details.

Exclusions: This warranty covers defects in manufacturing discovered while using the product as recommended by the manufacturer. The warranty does not cover loss or theft, nor does coverage extend to damage caused by misuse, abuse, unauthorized modification, improper storage conditions, lightning, or natural disasters. The warranty does not cover parts that are subject to normal wear and tear, such as power adapters and power cords, and clip cords (Power adapters are covered for 6 months after purchase date).

Limits of Liability: Should the product fail, your sole recourse shall be repair or replacement, as described in the preceding paragraphs. We will not be held liable to you or any other party for any damages that result from the failure of this product. Damages excluded include, but are not limited to, the following: lost profits, lost savings, lost data, damage to other equipment, and incidental or consequential damages arising from the use, or misuse of this product. In no event will Critical Tattoo be liable for more than the amount of your purchase price, not to exceed the current list price of the product, excluding tax and shipping charges. Critical Tattoo disclaims any other warranties, express or implied. By installing or using the product, the user accepts all terms described herein.

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