

## Ambition Soldier 270 S

# Ambition Soldier 270 S Wireless Tattoo Pen Machine Instruction Manual

Model: Soldier 270 S

## 1. INTRODUCTION

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Thank you for choosing the Ambition Soldier 270 S Wireless Tattoo Pen Machine. This manual provides essential information for the safe and effective operation, maintenance, and troubleshooting of your device. Please read it thoroughly before use and retain it for future reference.

## 2. PRODUCT OVERVIEW AND FEATURES

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The Ambition Soldier 270 S is a high-performance wireless tattoo pen machine designed for professional artists. It features a robust aluminum alloy construction, a powerful brushless motor, and a versatile battery system.

- **Material:** Constructed from durable aluminum alloy, ensuring longevity and a comfortable grip for extended sessions.
- **High Torque Brushless Motor:** Equipped with a 270 g.cm high torque brushless motor for improved stability and reliability. This motor minimizes issues like needle skipping and wire breakage, even at lower voltages.
- **Direct Drive System:** Features a direct drive system with a built-in 5.0mm cam, ideal for fast coloring and fogging. An additional 4.5mm stroke cam accessory is included for fine line work.
- **Multifunctional Battery:** The 2400mAh battery provides approximately 7-8 hours of operation and supports both frequency and regular working modes.
- **Balanced Weight:** Weighs 200g, designed for comfortable handling and reduced fatigue during long tattoo sessions.
- **Dual Operation Modes:** Can be used wirelessly with the battery or wired via the included RCA adapter when the battery is depleted.
- **Low Voltage Operation:** Capable of operating at voltages as low as 1V, which can help reduce skin damage, pain, and promote faster healing.

# AMBITION SOLDIER 270 S WIRELESS TATTOO MACHINE



Size	149*32mm	Weight	200g
Stroke Length	5.0mm/4.5mm	Voltage	1-12v
Battery Capacity	2400mAh	Battery Life	7-8Hours
Charger Time	2-3Hours	Motor Size	20*15mm
Motor Speed	10V/12000Rpm	Torque	270g.cm
Vibration Value	2.0m/s <sup>2</sup>	Decibels	52-55dB

Image: Ambition Soldier 270 S Wireless Tattoo Machine with key specifications displayed.



## **270 G.CM HIGH TORQUE BRUSHLESS MOTOR**

① *Improve the efficiency and performance of the machine*

② *More energy-efficient, longer battery life*

③ *Improve the stability and reliability of the machine*

Image: Detailed view of the 270 g.cm high torque brushless motor, highlighting its internal components and benefits for efficiency, battery life, and stability.



# DIRECT DRIVE SYSTEM

*The cam is perfectly compatible with the motor which makes the machine more powerful and always keeping low noise and vibration*

## 5.0MM ORIGINAL STROKE & 4.5MM EXTRA STROKE

*5.0mm is right for those who want to work quickly and be more efficient, allowing super fast solid color packing and big lines. Great aggressive whip shading.*  
*4.5mm is designed for confident artists, allowing super fast solid color packing and big lines. Great aggressive whip shading.*

Image: Illustration of the direct drive system, showing the 5.0mm original cam and the included 4.5mm extra stroke cam accessory, compatible with the motor for powerful and low-vibration operation.

### 3. PACKAGE CONTENTS

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The Ambition Soldier 270 S package includes the following items:

- 1 x Wireless Tattoo Pen Machine
- 1 x Extra Battery
- 1 x Extra 4.5 mm Stroke Cam
- 1 x RCA Adapter
- 1 x Fast Charging Cable
- 1 x Zipper Box

### 4. SAFETY INFORMATION

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**WARNING:**

- For external use only.

- Avoid contact with eyes.
- Keep away from naked flame.
- This device is intended for professional use by trained individuals.
- Always follow proper sterilization and hygiene protocols for tattoo equipment.

## 5. SETUP

### 5.1 Charging the Battery

Before initial use, fully charge the battery. Use the provided fast charging cable and a 5V/2A charging adapter (not included, recommended to use original charging cable). Do not completely drain the battery before charging, as this can damage the battery's lifespan.



# 2400mAh

Battery life 7-8 hours

## LARGE BATTERY CAPACITY

# BILLING BATTERY

- Long press the power button to turn on/off the machine.
- Short press the power button to pause/resume operation. In pause mode, the ± buttons can adjust the billing value
- Double press the power button to switch the startup mode.
- Voltage range: 1-12V
- Adjustable interval: ±0.1V
- 8V JUMP START

Battery Life

7-8Hours

Charger time

2-3Hours



- USB-C CHARGING PORT
- TIMER
- BILLING
- HERTZ
- BATTERY
- MODEL
- VOLTAGE

**!** Charging input : Recommend use the original charging cable, Use 5V/2A charging adapter  
Please do not completely drain the battery before charging, as this can damage the battery

Image: Close-up of the battery unit, showing the USB-C charging port, timer, billing, hertz, battery indicator, model, and voltage display. Charging input recommendation is also visible.

### 5.2 Attaching the Battery/RCA Adapter

Align the battery unit with the machine body and twist to secure. Alternatively, for wired operation, attach the RCA adapter to the machine body and connect an RCA cable to a separate power supply.

# SWITCH THE MODE YOU LIKE

wireless or wired



*When the battery runs out,  
the RCA adapter can be replaced to continue working.*

Image: The Ambition Soldier 270 S machine demonstrating both wireless operation with the battery and wired operation using the RCA adapter.

## 5.3 Installing/Changing Stroke Cam

The machine comes with a 5.0mm stroke cam installed. To change to the 4.5mm stroke cam (included accessory), carefully disassemble the relevant section of the machine as per the diagram in Section 2, replace the cam, and reassemble securely.

## 5.4 Needle Cartridge Installation

Insert your preferred needle cartridge into the machine's grip, twisting gently until it locks into place. Ensure the needle is securely seated before operation.

## 6. OPERATING INSTRUCTIONS

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### 6.1 Power ON/OFF

To power ON or OFF the machine, **long press the 'O' key for 3 seconds.**

### 6.2 Output Pause/Resume

During operation, **short press the 'O' key** to pause the output. Short press it again to resume the output.

### 6.3 Adjusting Voltage

While the machine is paused, use the **'+' and '-' buttons** to adjust the voltage. The voltage range is 1-12V, adjustable in 0.1V increments.

### 6.4 Switching Startup Mode

To switch between frequency mode and regular mode, **double press the 'O' key**.

### 6.5 8V Jump Start

The machine features an 8V jump start function for easier initiation with certain cartridges or techniques.



Image: The Ambition Soldier 270 S machine in operation, illustrating its capability for low voltage tattooing (1V) to minimize skin damage, pain, and promote faster healing.

## 7. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your tattoo machine.

- **Cleaning:** After each use, thoroughly clean the exterior of the machine with a suitable disinfectant wipe. Do not immerse the machine in liquids.
- **Sterilization:** Ensure all components that come into contact with skin or ink are properly sterilized according to industry standards. The machine body itself is not autoclavable.
- **Storage:** Store the machine in its zipper box or a clean, dry environment away from direct sunlight and extreme temperatures.
- **Battery Care:** Charge the battery regularly, even if not in frequent use, to maintain its health. Avoid overcharging or completely discharging the battery.
- **Lubrication:** The direct drive system is designed for minimal maintenance. Do not attempt to lubricate internal motor components unless specifically instructed by the manufacturer.

## 8. TROUBLESHOOTING

If you encounter issues with your Ambition Soldier 270 S, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Machine does not turn on	Battery depleted or not properly attached.	Charge the battery fully. Ensure the battery unit is securely twisted onto the machine body.
Battery not charging	Faulty charging cable or adapter. USB-C port obstruction.	Use the original charging cable and a compatible 5V/2A adapter. Check the USB-C port for debris.
Needle skipping or inconsistent performance	Low voltage setting. Improperly seated needle cartridge.	Increase the voltage. Ensure the needle cartridge is fully and correctly inserted.
Machine stops during operation	Battery depleted. Overload protection activated.	Recharge or replace the battery. If using wired, check power supply. Reduce pressure if overload is suspected.

If the problem persists after attempting these solutions, please contact Ambition customer support.

## 9. SPECIFICATIONS

Feature	Specification
Product Dimensions	Length: 149 mm, Width: 32 mm (1.3 in)
Net Weight	200 g (14.08 ounces)
Motor	270 g.cm High Torque Brushless Motor
Motor Speed	10V/12000Rpm
Stroke Length	5.0mm (built-in), 4.5mm (accessory)

Feature	Specification
Battery Capacity	2400 mAh
Battery Life	7-8 hours (approximate)
Charging Time	2-3 hours (approximate)
Operating Voltage	1-12V
Vibration Value	2.0m/s <sup>2</sup>
Decibels	52-55dB
UPC	810174731644
ASIN	B0DQ4GGLXM

## 10. WARRANTY AND SUPPORT

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Ambition products are manufactured to high-quality standards. For warranty information, product support, or service inquiries, please contact Ambition customer service through the retailer where the product was purchased or visit the official Ambition website. Please have your product model and purchase date available when contacting support.