ScripTalk® Printer User's Manual

Model ST400™

En-Vision AMERICA®

FORWARD

This manual provides installation and operation information for the ST400 series printers manufactured by En-Vision America, Inc.

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TRADEMARKS

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TROUBLESHOOTING & REPAIR

Before returning any equipment to En-Vision America for warranty or out-of-warranty repair, contact ScripTalk Printer Technical Support for troubleshooting assistance.

LIMITED WARRANTY

(a) Supplier warrants that each ScripTalk Printer Model ST400 purchased by Veterans Administration for use at its pharmacy location(s) will be free from defects or errors in materials, design, and workmanship and will conform in all material respects to Supplier's technical specifications. Except where this limited warranty becomes void pursuant to (b) below, this limited warranty will continue for one year from the date of Veterans Administration's receipt of the Printer purchased. During the warranty period, Supplier will either repair or replace the Printer at Supplier's sole election as to which one applies and at Supplier's cost. Such repair or replacement will be Supplier's sole obligation and Veterans Administration's sole remedy and will be conditioned upon Supplier receiving written notice of such claimed defect and, at Supplier's option, Veterans Administration will return the Printer to Supplier, with shipping costs to be paid by Supplier.

(b) This limited warranty will be void to the extent: (i) Veterans Administration's subcontractor, agents, employees or designees removes Printer casing or makes or attempts to make any modifications, repairs or additions to the Printer; or (ii) the Printer is not maintained or operated in accordance with Supplier's documentation, or has been subjected to misuse, abnormal conditions or grossly negligent handling or operation; or (iii) Veterans Administration resold, leased or rented the Printer to or for the use by any person other than Veterans Administration.

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PRECAUTIONS FOR LOCATION AND ENVIRONMENT

Be sure the surface the ST400 printer is sitting on and the environment around it satisfy the following characteristics for reliable and safe operation.

- Place the printer on a surface that is flat, level and free from vibration

- Avoid environments with high temperature and humidity, and ones where rapid changes to temperature and humidity are possible

- Avoid locations where the printer may be exposed to water, oil, dust or direct sunlight

Failure to adhere to the recommendations listed above may result in a shortened life span for the printer.

POWER SUPPLY

To avoid the risk of malfunction, follow these guidelines for supplying power to the printer:

- Use only the power supply included with the ST400 printer (Output: 24V, 2.7A)

- Plug the power supply into a grounded power outlet

- Avoid plugging the power supply into an outlet shared by or near a heater, refrigerator or other large appliance that draws a large amount of power

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INTRODUCTION

Thank you for your investment in the ScripTalk Printer Model ST400. The ST400 can print and program the same 2in. x 4in. ScripTalk "talking labels" previously created with model 220-SN. ScripTalk labels can be placed on any size or shape prescription container, and have an embedded RFID chip that holds all of the prescription data printed on the visual portion of the label. This programmed data can be read out by a ScripTalk Station reader, or the ScripTalk Mobile smartphone app (Android and iPhone).

The ST400 ScripTalk Printer is fully compatible with the existing VA Class 1 software system, and the latest version of the VA Computerized Patient Record System (CPRS).

This operator's manual contains the basic information about the installation and specifications of the printer.

A total of 5 topics are covered herein, and they are organized as follows:

Section 1: Introduction

Section 2: Installation

Section 3: Using the Touch Screen

Section 4: Troubleshooting

Section 5: Specifications

It is recommended that you read carefully and become familiar with each section before installing and maintaining the printer. Refer to the ***Table of Contents*** at the front of this manual to search for the relevant information needed.

This section assists you in unpacking the printer from the shipping container. You will also be guided through a familiarization tour of the main parts and controls.

The following information is provided herein:

- **Features of the Printer**

- **Unpacking**

- **Parts Identification**

Features of the Printer

The **ST400** is a 4-inch direct thermal RFID printer, with 4 ips print speed and 4GB of flash memory. The key features of the **ST400** are:

- High Print Resolution with crisp printing quality (203dpi)

- Direct Thermal Printing – *no wax ribbon needed*

- Ethernet LAN connectivity

- HF RFID

- Easy Media Loading – *no round media plates required*

- Anti-Microbial casing is ideally suited for clinical environments

- Safety Top Cover Latch

Unpacking

When unpacking the printer, take note of the following:

- The box should stay right-side up. Lift the printer out of the box carefully.

- Remove all packaging from the printer.

- Remove the accessory items from their protective containers.

- Set the printer on a solid, flat surface. Inspect the shipping container and printer for any sign of damage that may have occurred during shipping. Please note that En-Vision America shall hold no liability for any damage of any kind sustained during shipping of the product.

Notes

- If the printer has been stored in the cold, allow it to reach room temperature before turning it on.

- Please do not discard the original packaging box and cushioning material after installing the printer. They may be needed in the future, if the printer needs to be shipped for repairs.

Included Accessories

After unpacking the printer, verify that you have the following materials:

User Manual   Power Cable*   Power Supply
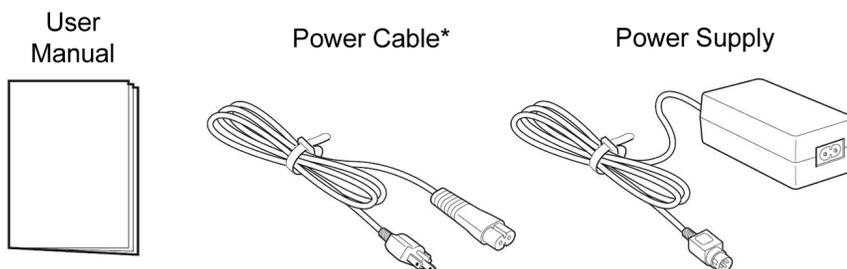
* The shape of the power plug may vary, depending on where it was purchased

Parts Identification
Front View

1   **LED Status Indicator –** 3 states: Online (blue), Offline (off), Error (red).

2   **4.3" Full Color Touch Screen –** Control and configure the printer with taps and swipes.

3   **Home/Power Button –** Press and hold to power ON or OFF. Press and release while ON to return to the main screen.

4   **Top Cover –** Open this cover to load the label media.

5   **Media Ejection Slot –** Opening for media output.

6   **Cover Open/Close Latch –** Push down on the cover release latch on the right side to open the Top Cover.

Back View
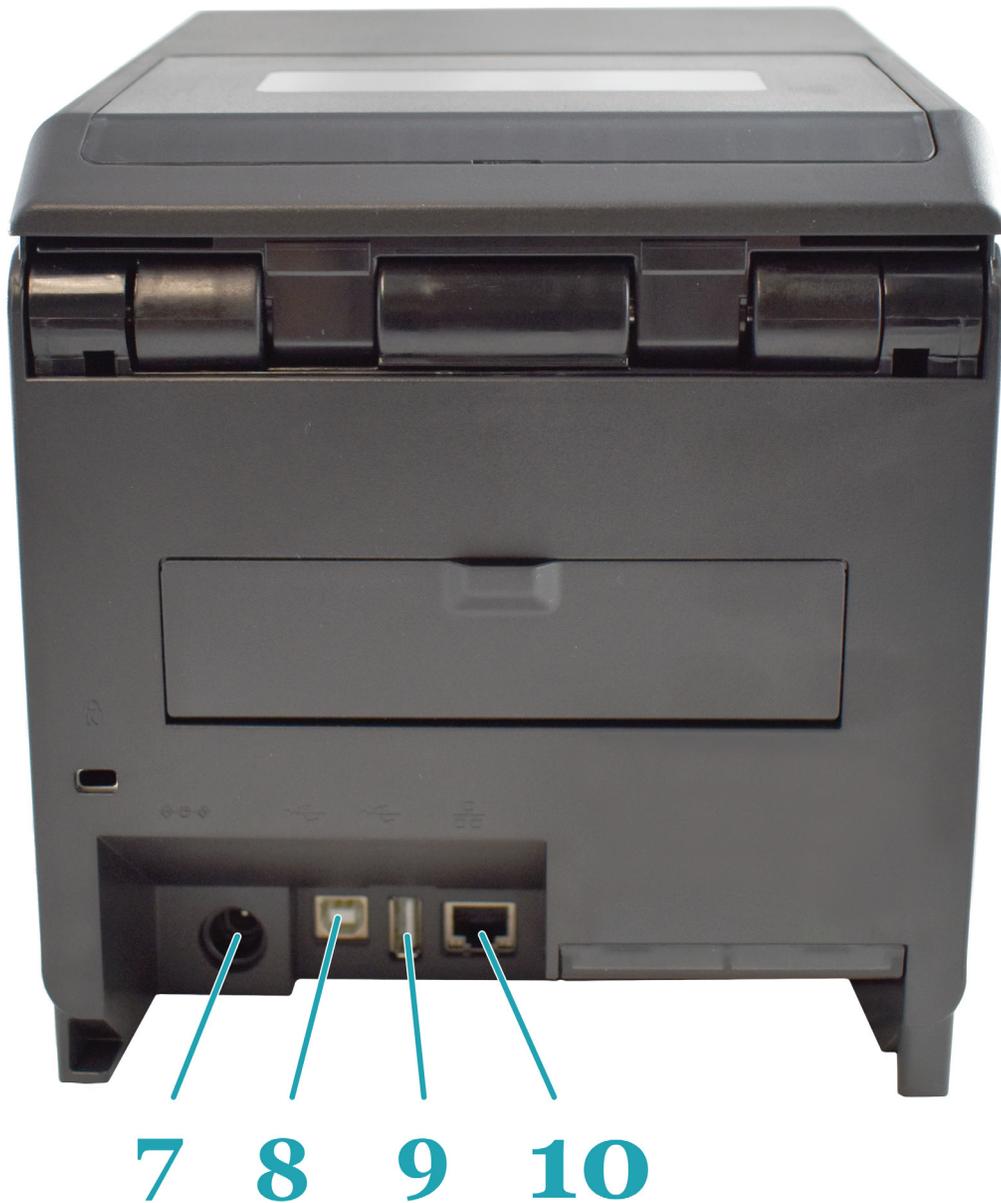
7   **DC Input Power Terminal –** Supplies power to the printer by inserting the power plug via the power supply adapter.

8   **USB Printing Terminal –** Provides printing connectivity via USB.

9   **USB Printer Update Terminal –** Used to update the printer's firmware.
WARNING: DO NOT USE UNLESS INSTRUCTED TO DO SO BY SCRIPTALK TECHNICAL SUPPORT.

10   **LAN Interface Terminal –** Provides network connectivity via an RJ-45 Ethernet port.

Parts Identification (cont.)
Internal View with Top Cover Open
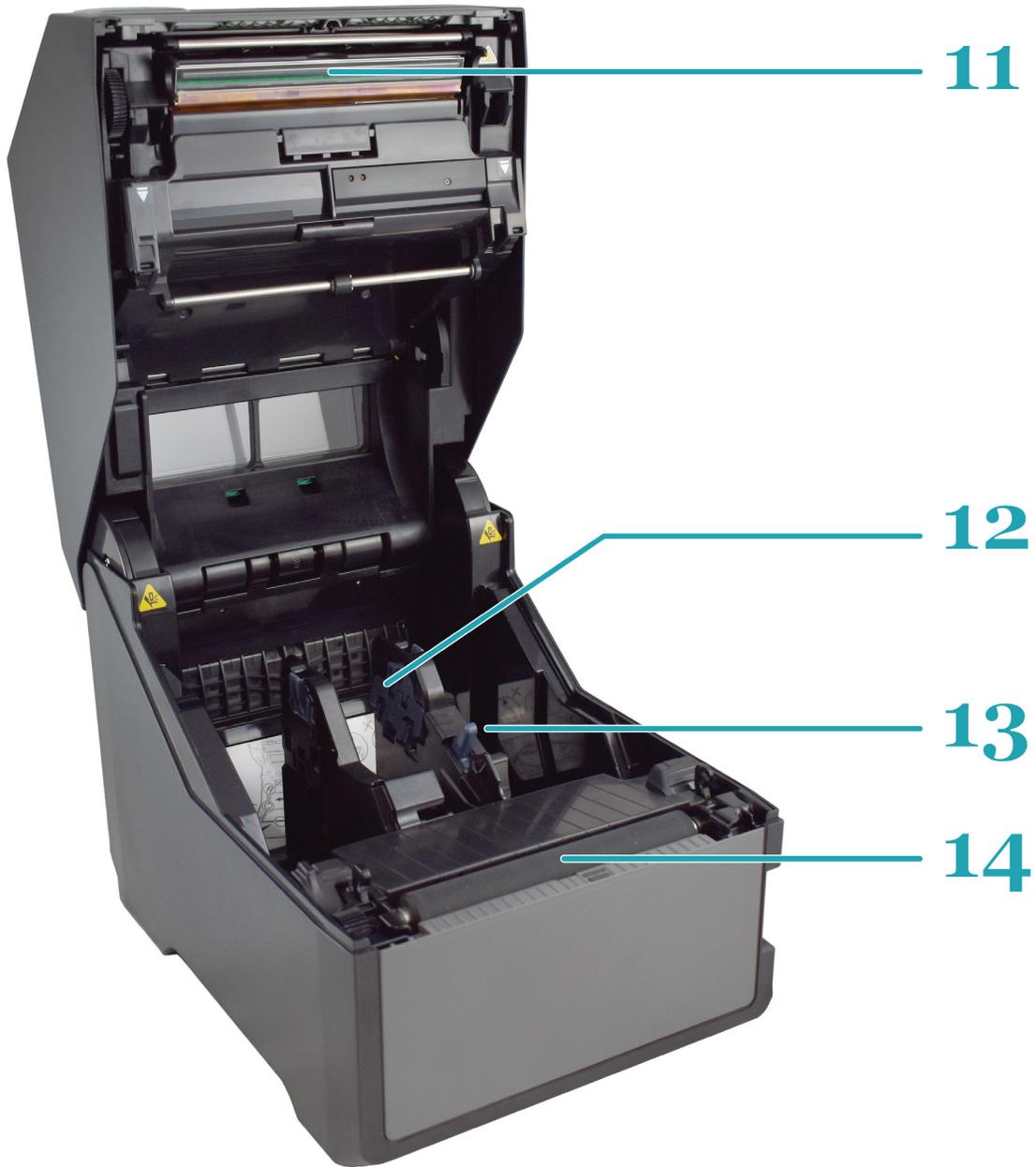
11   **Print Head –** This component is used to print on the paper.

12   **Roll Media Holder –** Suspends the roll of labels for smooth feeding.

13   **Media Guide Slide Lever –** Push backwards to unlock the Roll Media Holder slides for width adjustment.

14   **Platen Roller –** Feeds the labels.

INSTALLATION

This section helps you with installing ScripTalk Talking Label media (10KB) in the ST400, as well as adjustment instructions.

The following information is provided:

- **Site Location**

- **Media Identification**

- **Loading Labels**

- **Connections**

Site Location

Consider the following when setting up the printer:

- Place the printer on a solid flat surface with adequate space. Make sure there is enough space above the printer to provide clearance for the top cover to swing open.

- Place it away from hazardous materials or dusty environments.

- Place it within operational distance of the host computer, within interface cable specifications.

Media Identification

The ScripTalk Printer ST400 requires specific label stock that can only be purchased from En-Vision America. If you need more labels, have your purchasing agent fax a PO to 309-452-3643 for the following:

00210-10K-0250   ScripTalk Labels, 10K, 250/roll

The back of a ScripTalk Label will look similar to the one below. Over time, some details have varied, but the metallic "race track" antenna has always been a feature:
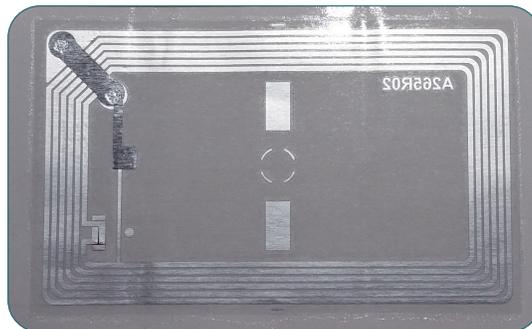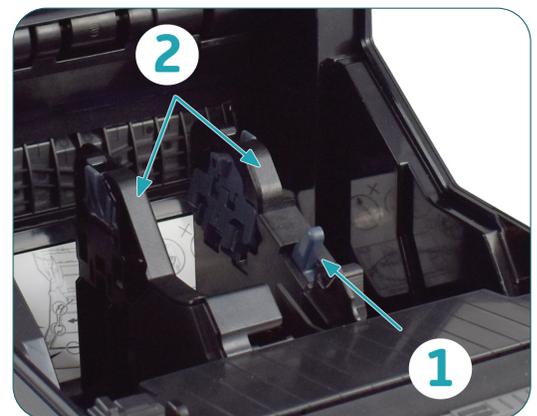
Loading Labels

⚠️ CAUTION: The print head and surrounding area will be hot if the printer has been on. Keep bare skin away from these areas to avoid injury.

1   With the power supply off, push the **cover open/close latch (1)** on the right side to unlock the top cover, and then open the **top cover (2)**. Make sure the cover rests firmly in the upright position so that it will not fall forward and injure you.


2   *Optional Step*: The media holder should already be set when you receive the ST400. If the width seems off:

a.   While holding the **media guide slide lever (1)**, adjust the width of the **media holder (2)** to match the media size. To do this, move the media holder to its widest width, place a roll of ScripTalk Labels in between, then move the holder towards the center.

b.   Release the **media guide slide lever (1)** when the proper width is set.

3 Load the media onto the **media holder** so that the labels feed from the top of the roll. Pass the leading edge of the labels through the **media guides** and place it on top of the **platen roller.**

Note: The black line on the label backing will be down.

Media Guides
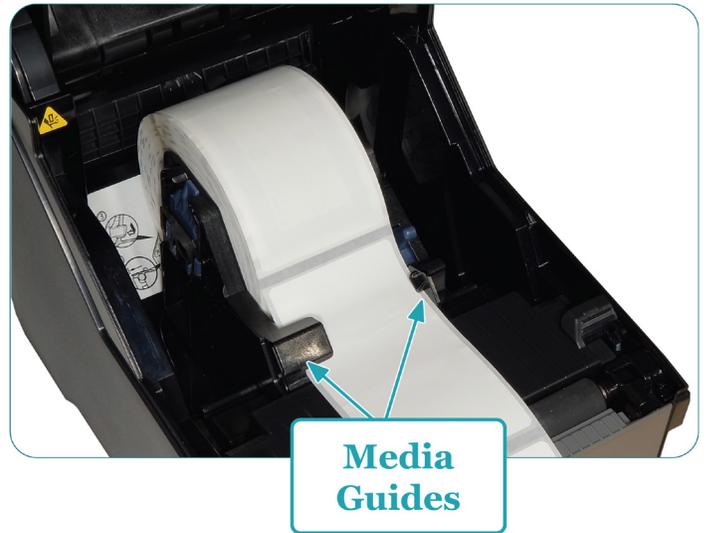
4 Gently close the top cover until it clicks into position.

5 Connect the included power cable to the power supply.

6   Plug the 3-prong plug of the power cable into a grounded wall outlet or a **grounded surge suppressor strip (recommended).**
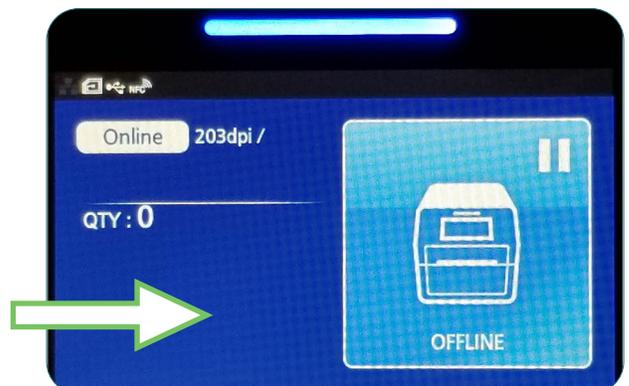

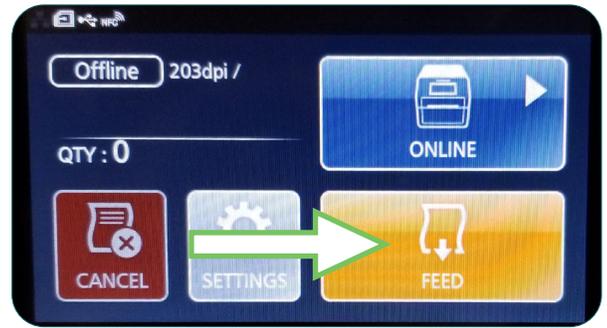**7**   Plug the other end of the cable into the printer's DC Input Power Terminal.

8   Turn on the power with the **Home/Power** button.

9   When the printer is done booting up, tap the blue "OFFLINE" button:

9   Tap the orange "FEED" button to output one blank label, allowing it to align the next for printing.

10   Tap the blue "ONLINE" button to make the printer ready to print. The current status of the printer (Offline vs. Online) is indicated in the upper left.
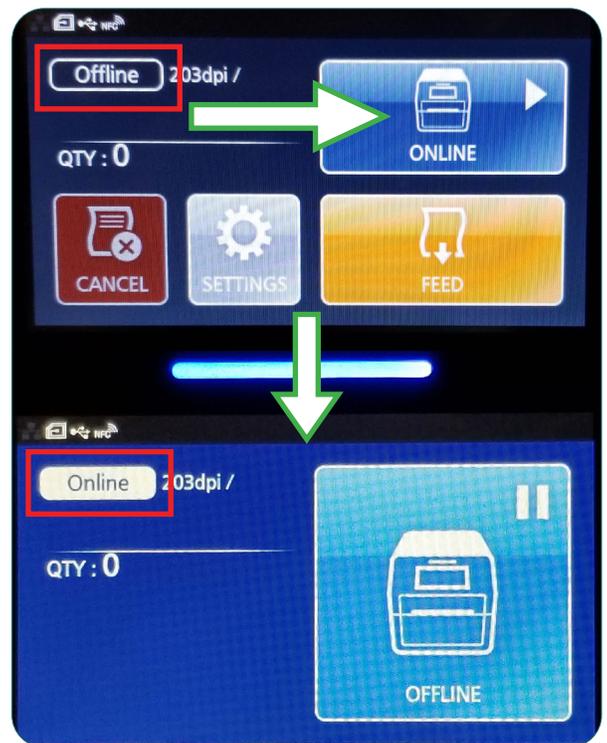
Network Connection

Connect a Cat5 or faster Ethernet cable between the RJ45 port on the ST400 and your host PC or network.

USING THE TOUCH SCREEN

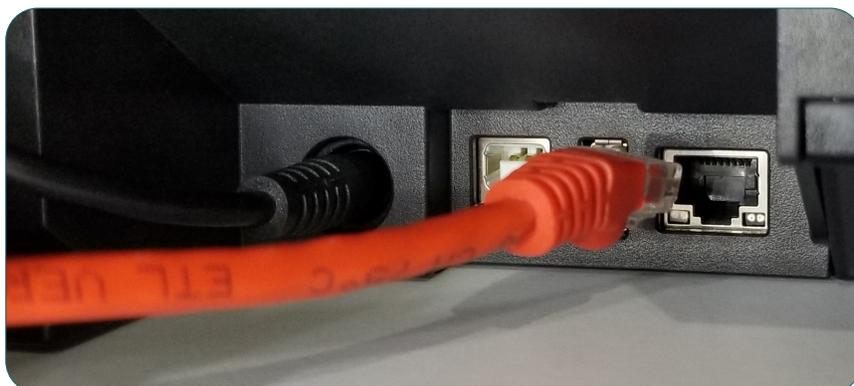The ST400's color LED touch screen provides easy access to nearly all of the information, settings, and features of the printer. This section will cover only those aspects relevant to using the printer for creating ScripTalk labels.

   WARNING: It is recommended not to change any settings that are not covered in this section.

The following information is provided:

- **Gestures**

- **Low Power Mode**

- **Powering Off**

- **Passwords**

- **Network Configuration**

Gestures

The printer's touch screen can be navigated with taps and swipes, much like a smartphone. Tapping is used to do things such as select buttons and place the cursor in text input fields. Swiping is used to scroll lists of options, either up and down, or right and left. When swiping to scroll, press firmly, and be sure to swipe passed the edge of the touch screen. This will help avoid unintended tapping.

Low Power Mode

After three minutes of no printing and no interaction with the touch screen, the printer will enter a low power mode. It will be necessary to tap either the Home button or touch screen once to bring it out of this low power mode and perform other actions. You will notice the screen brighten slightly when this occurs.

Powering Off

To turn the printer off, press and hold the Home/Power button until you see the screen below. Tap the checkmark button to confirm, or the 'X' to cancel.
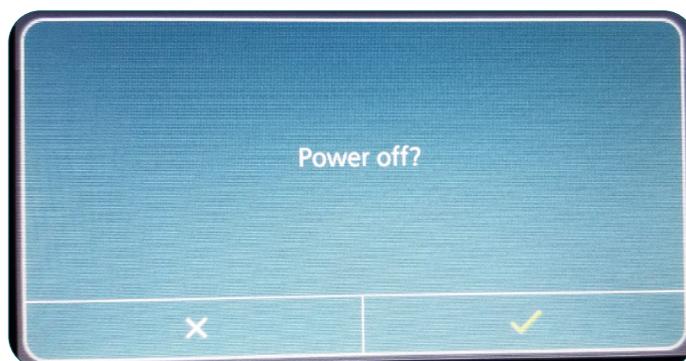
Passwords

By default, and according to Veterans Administration policy, the password requirement feature for the printer is enabled. ***Note: This feature should not be disabled.***

The touch screen interface and the printer's web admin – accessible via the printer's IP address in a web browser – have different usernames that share common passwords.

Touch Screen	Web Admin	Default PW
level1	settings	0310
manager	service	6677
admin	factory	*

* The admin/factory password is reserved strictly for the manufacturer's personnel, and is not shared with the end user.

To change passwords, follow these steps:

1. Turn the printer on.

2. Tap the blue "OFFLINE" button.

3. Tap the "SETTINGS" button.

4. Use the 'level1' password to enter the System menu.

5. Swipe left or right, or use the left or right arrow button, to see the "System" button. Tap it.
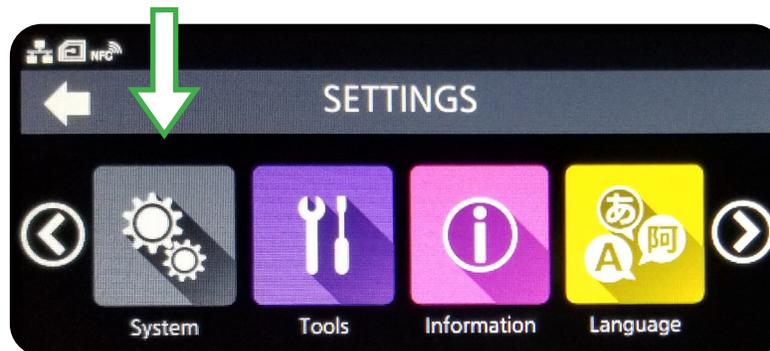
6. Scroll down and tap **Password**.

7. Scroll down and tap **Change Password**.

Network Configuration

To set the printer's network configuration settings, follow the steps below.

1. Turn the printer on.

2. Tap the blue "OFFLINE" button.

3. Tap the "SETTINGS" button.

4. Use the 'level1' password to enter the System menu.

5. Tap the orange "Interface" button.

6. Tap through the following series of options: **Network > Settings > LAN.**

7. Tap "IPv4" or "IPv6".

8. Configure the printer's **Mode** for "Static".*

9. Configure the printer's **IP Address, Netmask, Gateway, and DNS.***

*   *Use the checkmark button to save, and the "X" to cancel.*

NOTE: The settings will take effect after several seconds, but will not be stored permanently

until the printer is restarted.

TROUBLESHOOTING

Label Output Problems

Most ScripTalk Printer troubleshooting scenarios fall into one of two categories: *No Output* or *Faulty Output*.

No Output

If the printer is not outputting any labels:

- Try pinging the printer to establish whether basic network communication with it is present.

- Verify the printer's internal network configuration against the IP address that your VistA or Cerner system is trying to send to. See **Network Configuration**.

- Test the physical connections, like the Ethernet cable and any network ports from the switch to the printer.

- Try sending a sample label from VistA or Cerner.

- Check, and possibly reset, the VistA or Cerner print queue.

Faulty Output

If the label output is incorrect in some way:

- Be sure the correct ScripTalk label media is loaded. Check the inner core of the roll of labels for Part Number **00210-10K-0250**.

- Perform a **Printing** reset. See **Resetting** for guidance.

- If a Printing reset does not resolve the issue, perform a **Factory (-Interface)** reset, followed by a reload of the profile. See **Resetting** and **Reloading the Profile** for guidance.

- If a **Factory (-Interface)** reset does not resolve the issue, contact ScripTalk technical support for instructions on reflashing the printer's firmware. Email support-sa@envisionamerica.com.

Resetting

Note: If you are faced with a situation that may only be resolved with a reset action, please contact ScripTalk technical support for guidance.

There are several different kinds of resets that can be performed within the printer, each of which effect different sets of configuration values. Resets are available in the following touch screen menu:

Settings > Tools > Reset

Reset Types

- **Data** – Fonts and graphics.
  - *Do not include Data in your reset unless instructed to do so by ScripTalk technical support.*

- **Settings**:

  - o **User** – Resets the Settings values.

    - * **User (-Interface)** – Performs a User Reset without resetting Interface settings.

  - o **Factory** – Resets to factory default settings.

    - * **Factory (-Interface)** – Performs a Factory Reset without resetting Interface Settings.

  - o **Interface** – Resets only those options found in the **Settings > Interface** area of the printer.
    In particular, this will set **Network > Settings > LAN > IPv4|IPv6 > Mode** to "DHCP".

  - o **Printing** – Resets only options found in the **Settings > Printing** area of the printer.

After performing *any* reset, restart the printer to complete it (but do NOT pull the power cable from the printer).

Reloading the Profile

After **User** and **Factory** resets, reload the VA profile by following these steps:

1. Go to **Settings > Tools > Profiles**.

2. Tap "Load".

3. Tap "Envision_Government".

4. Tap the checkmark.

5. Tap the back arrow.

6. Tap "Start with".

7. Tap "Envision_Government".

8. Tap the checkmark.

To place the printer Online for printing, push the **Home/Power** button twice.

You can fully reflash the firmware using a set of restore files, available upon request by emailing
support-sa@envisionamerica.com.

Error Codes

Error	Cause(s)	Solution(s)
1001: Machine Error	A defect has occurred in the product.	Restart the printer.
1002: Program Error	A program error occurred in the memory.	Restart the printer.
1007: Cover Open	1. The top cover is open. 2. The sensor for detecting the open/close status of the top cover is dirty or defective.	1. Close the top cover so that it clicks when locked. 2. Clean the sensor using an air duster.
1008: Out of Paper	1. The media is not loaded. 2. The media is not loaded correctly. 3. The media is jammed. 4. The media sensor is dirty, blocked, or has poor sensitivity. 5. The media sensor is not set correctly.	1. Be sure the media is loaded. 2. Be sure the media is loaded correctly. 3. Check for and remove any misplaced media. 4. Clean the media sensor. 5. Contact ScripTalk technical support.
1010: Media Error	1. There is a mismatch between the media size and the media itself. 2. The media is fed a longer distance due to the incorrect sensor level.	1. Check the media size of the print data and the actual media size. Try restarting the printer. 2. Try restarting the printer. If not resolved, contact ScripTalk technical support to adjust the media sensor level.
1012: Head Error	The print head is worn or damaged.	Replace the print head.
1017: SBPL Command Error	Incorrect command or parameter in the print data.	Check the print data. If the error is not resolved, restart the printer.
1019: RFID System Error	1. RFID module is not operating correctly. 2. The setting of the RF Analyze board is incorrect.	1. Repair or replacement of the RFID module is required. Contact ScripTalk technical support. 2. The setting of the RA board needs to be changed. Contact ScripTalk technical support.

Error	Cause(s)	Solution(s)
1022: Print Head Overheated	The temperature of the printhead has exceeded its tolerance value.	Stop the operation of the printer to let the temperature decrease.
1024: Head Density Changed	1. The print head is not installed. 2. A new print head with a different resolution has been installed.	1. Install the print head. 2. Install a print head with the same resolution as the old print head.
1035: I-mark Not Found	1. Meandering media. 2. A label is attached to the media sensor. 3. The media sensor type is incorrect. 4. The media sensor level is incorrect.	1. Load the media correctly. 2. Clean the media sensor. 3. Set the media sensor type which is compatible with the media you use. 4. Contact ScripTalk technical support to adjust the sensor level.
1066: Paper Jam	1. The media has jammed. 2. The media is not loaded correctly.	1. Remove the jammed media. 2. Load the media correctly. Load the media so its leading edge is in contact with the rubber feed roller.
1099: Config Warning	The power was cut off in an inappropriate way, such as the power cord was pulled out while the power was on.	* Power off the product correctly. * Reset the printer in the Settings menu.
1114: Tag not Found	Did not find, or failed to read, the ScripTalk RFID tag.	
1115: Write Tag Error	Failed to write to the ScripTalk RFID tag.	Be sure the correct ScripTalk label media is loaded (P/N 00210-10K-0250).
1116: Failed to Read the Tag Data	Failed to read the tag by using the tag data print <TU> command.	
1117: Write Tag Error	1. Tried to write a write-locked inlay. 2. Tried to write to an address to which writing is impossible.	

Error Codes (cont.)

Error	Cause(s)	Solution(s)
1121: Multiple Tags Are Detected	Multiple ScripTalk RFID tags detected at same time.	Check for errant labels within the printer, particularly in the space below the rubber feed roller.
1123: Write Tag Error	1. Tried to write to an RFID tag that was write-locked or to an tag that had more than 64 digits of EPC written to it. 2. Tried to write to an inlay when the writing power is low.	
1124: Wrong Tag Type	Incorrect tag type is specified.	Be sure the correct ScripTalk label media is loaded (P/N 00210-10K-0250).
1129: Unsupported Tag Error	Using an unsupported tag or a tag already encoded that cannot be written.	
1131: Exceed Address Error	1. Tried to write the data to the memory which exceeds the address range. 2. The memory does not exist in the memory block address where the data should be written.	

SPECIFICATIONS

PHYSICAL CHARACTERISTICS	
Width	177.8 mm (7.0")
Depth	238 mm (9.37")
Height	214.1 mm (8.43")
Weight	7.5 lbs. (3.4 kg)

POWER SUPPLY	
Input Voltage	100-240 V AC, +/-10%, 50/60 Hz (Full range)
Output Voltage	24 V DC, +/-5%, 2.7A

ENVIRONMENTAL (EXCLUDING MEDIA)	
Operating Temperature	32° to 104°F (0° to 40°C)
Storage Temperature	14° to 140°F (-10° to 60°C)
Operating Humidity	30 to 80% RH, Without condensation
Storage Humidity	15 to 90% RH, Without condensation

PRINT	
Method	Direct Thermal
Default Speed	100 mm/second or 4 inches/second
Resolution	8 dots/mm (203 Dots Per Inch)

MEMORY	
Flash ROM	4GB
RAM	1GB

INTERFACE	
Configuration	USB 2.0 (Type B) Ethernet (DHCPv4/DHCPv6) NFC

HARDWARE AND RELATED	
Operation Keys	HOME and POWER sensor buttons
Display	4" full-color touchscreen
Indicators	ON LINE (POWER): One (lights or flashes in two colors: green or red)