User's Guide

ES1 Emboss Module

November 2020

528197-001, Rev A

Notice

Please do not attempt to operate or repair this equipment without adequate training. Any use, operation or repair you perform that is not in accordance with the information contained in this documentation is at your own risk.

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Safety

The following basic safety tips are given to ensure safe installation, operation and maintenance of Datacard® equipment.

- Connect equipment to a grounded power source. Do not defeat or bypass the ground lead.
- Place the equipment on a stable surface (table) and ensure floors in the work area are dry and non-slip.
- Know the location of equipment branch circuit interrupters or circuit breakers and how to turn them on and off in case of emergency.
- Know the location of fire extinguishers and how to use them. ABC type extinguishers may be used on electrical fires.
- Know local procedures for first aid and emergency assistance at the customer facility.
- Use adequate lighting at the equipment location.
- Maintain the recommended temperature and humidity range in the equipment area.

Safe Human Interface

- Use proper lifting techniques when moving or installing the equipment.
- Use standard electrostatic discharge (ESD) precautions when working on or near electrical circuits.
- Do not defeat or disconnect safety interlocks on covers.

Warning: To avoid a possible electric shock, always unplug the system before servicing.

Liability

The WARNING and CAUTION labels have been placed on the equipment for your safety. Please do not attempt to operate or repair this equipment without adequate training. Any use, operation, or repair in contravention of this document is at your own risk.

California Prop

Warning: This product contains chemicals, including lead, known to the State of California to cause cancer, and birth defects or other reproductive harm. *Wash hands after handling.*

For more information on this warning, refer to:

www.datacard.com/califpropwarning.

Revision Log

Revision	Date	Description of Changes
A	November 2020	First release of this document

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Chapter 1: Introduction

1

About this Manual

This manual provides user information for the Emboss Module (ES1). The manual includes:

- An overview of the module, and a description of the system label.
- How to load and replace supplies.
- How to perform routine maintenance and troubleshooting tasks.

Refer to the printer's user documentation for information about setting up and using the printer.

Intended Audience

The manual is intended for the printer operator who prints cards, loads and replaces supplies, maintains the printer, and performs troubleshooting.

Technical Support

Use the following to contact Entrust Technical Phone Support.

Americas	+1 800.328.3996 or +1 952.988.2316
EMEA (Europe, Middle East, Africa)	+44 1489555627
Asia Pacific	+852 2821 0126

Chapter 2: About the Emboss Module

2

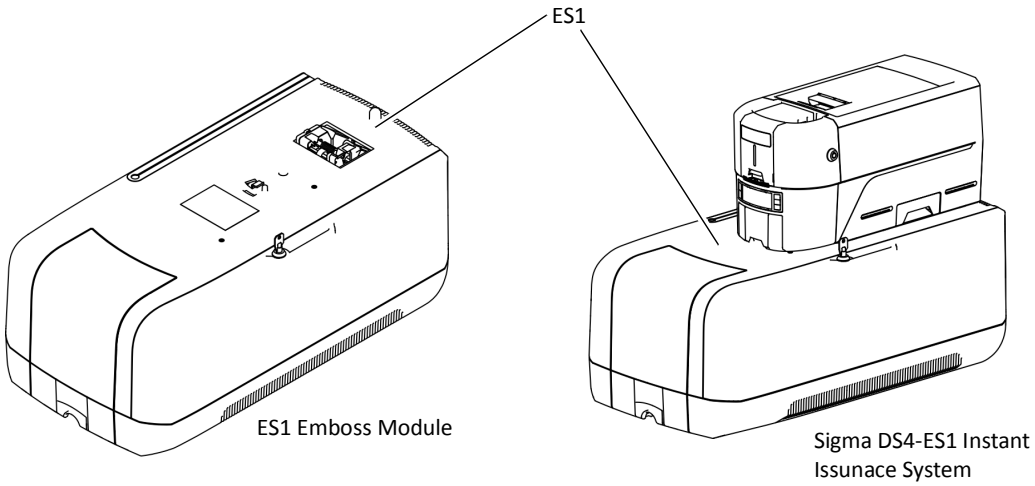
This guide provides information about the optional ES1 emboss module that you can add to your system at the time of purchase or later, as a field upgrade.

The ES1 Emboss Module

The ES1 emboss module (ES1, or embosser) can be installed below the Sigma DS4 Instant Issuance System. Installation of the embosser will upgrade the Sigma DS4 to a Sigma DS4-ES1 Instant Issuance System

The DS4-ES1 system can print cards and then emboss and indent characters on the card. The embosser creates the raised lettering and numbering that is on the front and back of some financial or debit cards.

The embosser contains an embossing wheel and topping and indent ribbon cartridges. The embossing wheel can have up to 75 punch and die (emboss) or punch and anvil (indent) pairs. A second wheel option allows for up to 75 additional emboss characters. Multiple font choices and a variety of special characters are available for the embossing wheel. Refer to “Embosser Configuration Label” on page A-5 for more information about identifying the embosser options.



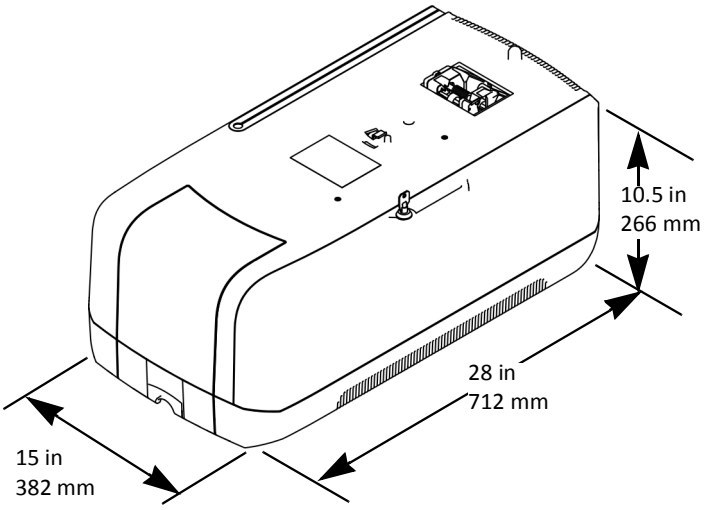
Site Requirements

Provide space for the system and for clearance around the system.

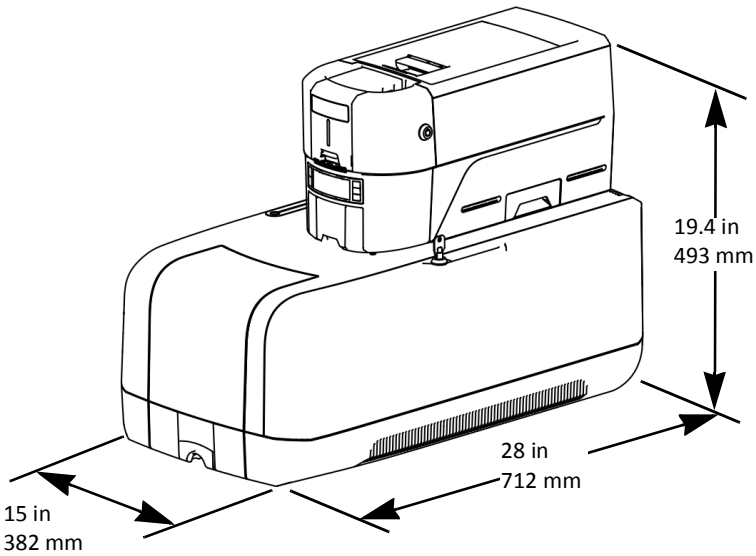
System Dimensions

The external system dimensions are shown in the following illustrations.

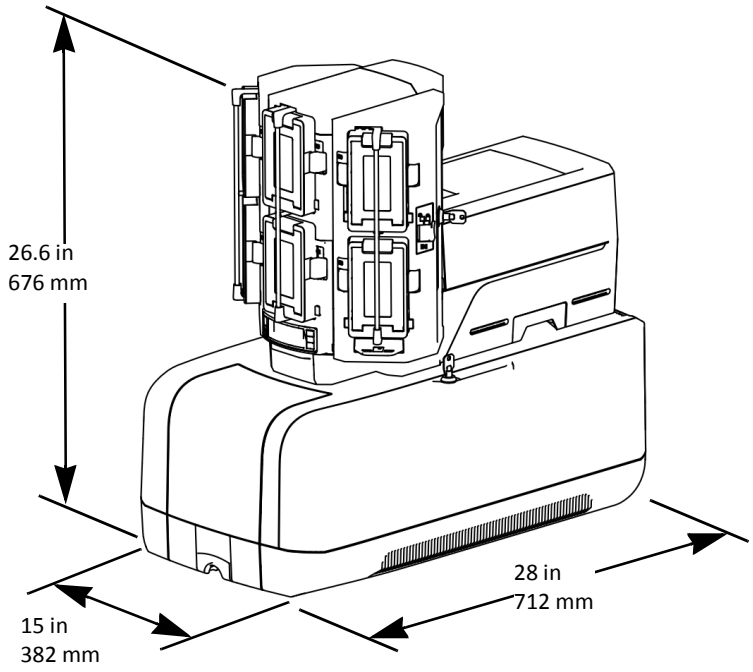
ES1 Emboss Module



Sigma DS4-ES1 Instant Issuance System



DS4-ES1 with Multi-Hopper Instant Issuance Sytem

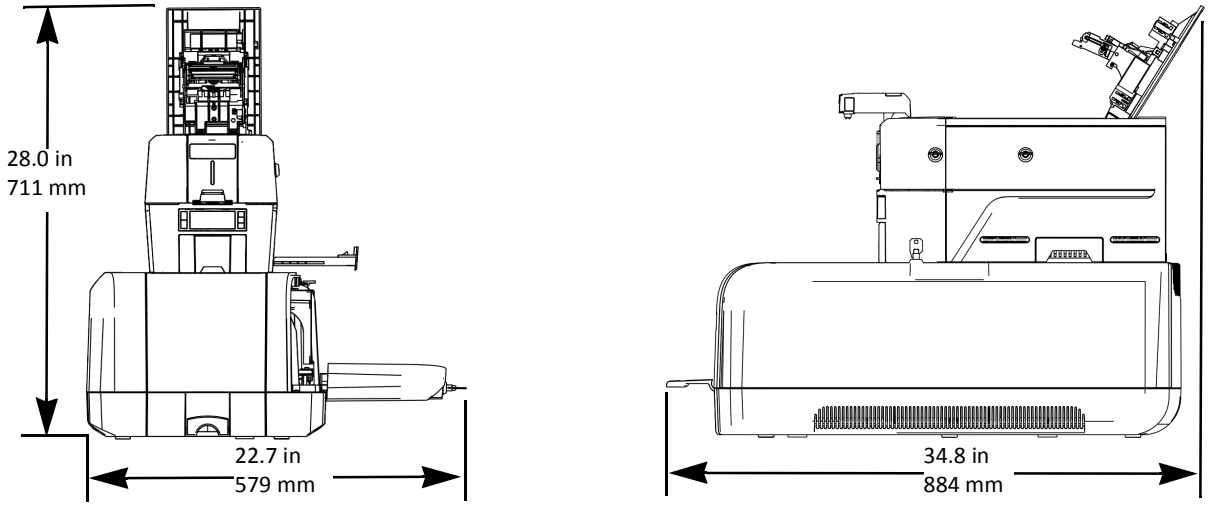


Clearance Requirements

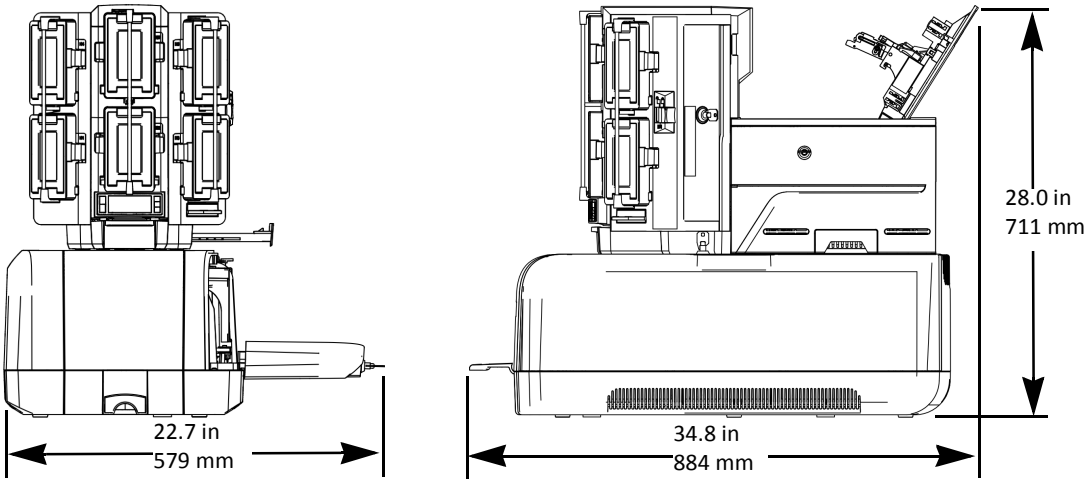
The following measurements show the system dimensions when the printer input hopper, printer cover, and ES1 access door are open.

Best practices recommend that you provide a minimum of 3 inches (76.2 mm) of additional clearance around the sides and rear of the system to maintain access to the power cords and data cables, to load and remove cards and supplies, to allow card movement in the ES1 as it embosses a card, and to provide ventilation.

Sigma DS4-ES1 Instant Issuance System



Sigma DS4-ES1 with Multi-Hopper Instant Issuance System



Electrical Requirements

The power supply detects the input voltage and works within the range stated.

Electrical Requirements

Input	Output
110-240V/50-60Hz/3.5 Amp	24V/10.42Amp/250W

- The ES1 power supply is separate from the printer power supply.
- Refer to your printer's *Installation and Administrator's Guide* for printer electrical requirements.

About the Embosser

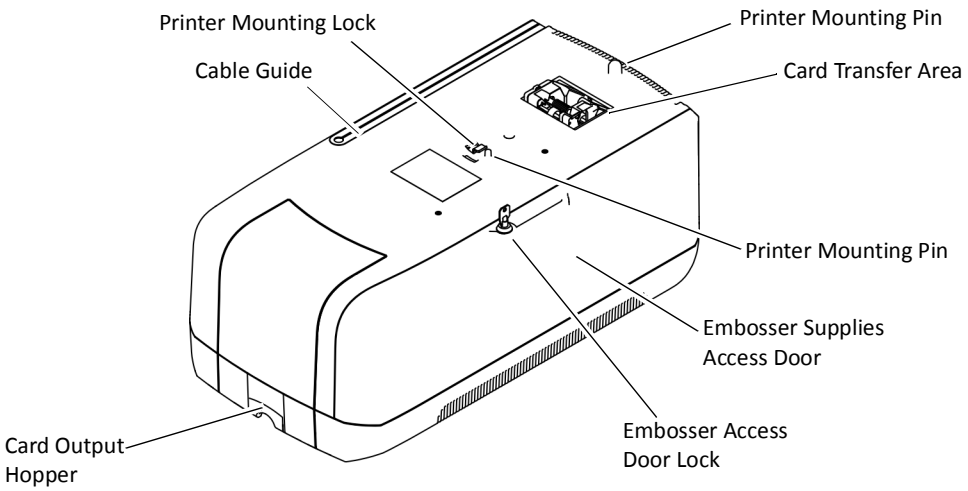
Use the following information to become familiar with the embosser.

ES1 Status Light

The status light shows the status of the ES1:

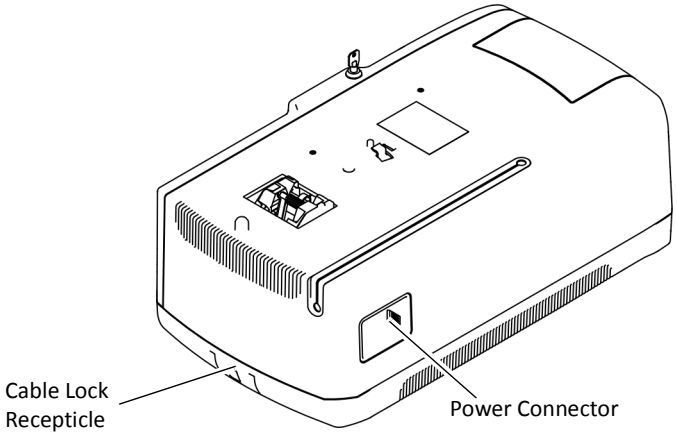
Ready	Solid green	
Busy	Blinking green	
Idle/Not ready	Solid blue	
Heating	Blinking blue	
Error	Blinking red	
Lost communication with printer	Solid red	

Top, Front and Right Side of the ES1



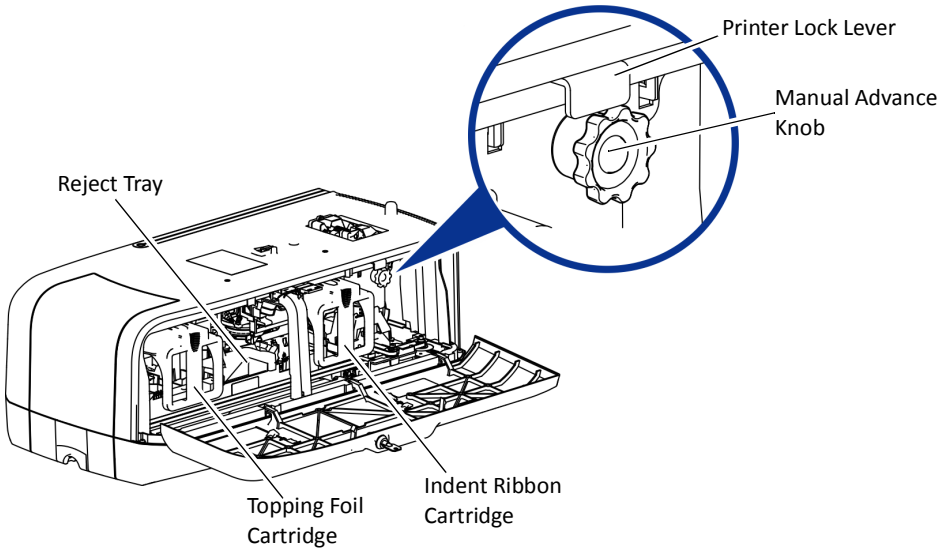
Card Guide	The cable guide keeps the interconnect data cable between the printer and embosser hidden.
Printer Mounting Pins	The mounting pins align the printer with the embosser.
Card Transfer Area	The card transfer area receives the card from the printer and places it in position for embossing and indenting.
Printer Mounting Lock	The mounting lock secures the printer to the embosser.
Embosser Supplies Access Door	The embosser supplies access door provides access to the indent ribbon and topping foil cartridges.
Embosser Access Door Lock	The embosser access door lock provides secure access to the embosser supplies.
Card Output Hopper	The card output hopper holds up to ten completed cards.

Back and Left Side of the ES1



Cable Lock Receptacle	The cable lock receptacle allows you to connect a cable-style lock.
Power Connection	The power connection provides a plug-in receptacle for the embosser power supply.

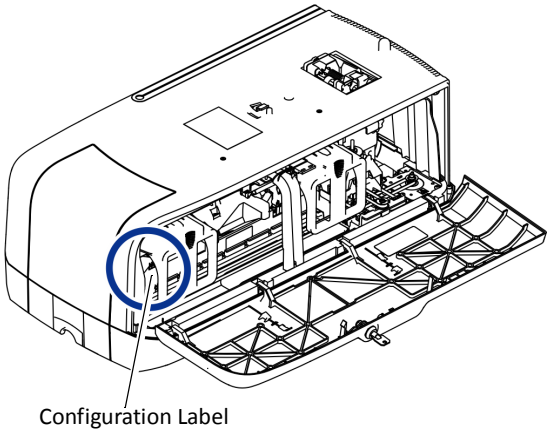
Inside of the ES1



Printer Lock Lever	The lever locks the printer to the embosser. Slide the lever to the left to unlock the components. Slide the lever to the right to lock the components together.
Manual Advance Knob	The manual advance knob allows you to move the card in the card track to clear a card jam.
Indent Ribbon Cartridge	The indent ribbon cartridge holds the indent ribbon supply.
Reject Tray	The reject tray holds up to five unfinished cards or cards that were not processed properly. Empty the reject tray regularly to prevent card jams. Refer to “Empty the Embosser Reject Tray” on page 16.
Topping Foil Cartridge	The topping foil cartridge holds the topping foil supply.

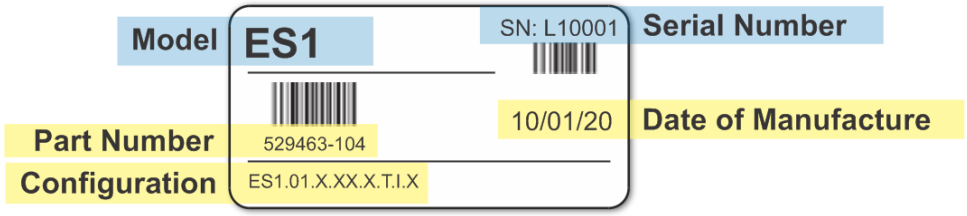
ES1 Configuration Label

The embosser configuration label is located inside the embosser on the lower enclosure. To view the label, unlock and open the embosser supplies access door and locate the label inside.



The configuration label shows the following information:

- Module name
- Serial number
- Configuration
- Part number
- Date of manufacture



Option	Configuration Code
Type Set	01=Single Embosser 02=Double Embosser
Additional Type	X=None N=Tilde C=Tilde and Cedilla H=Large Gothic S=Special
Topper	X=None T=Topper
Indent	X=None I=Indent

Load the Embosser Supplies

Embossing supplies include topping foil and indent ribbon. The topping foil is applied to the embossed characters and can be applied to up to five lines of characters. The indent ribbon is used to apply black or white color to a single line of indented characters.

If the embosser supplies are preloaded into their cartridges, install the cartridges into the embosser.

The topping foil and indent ribbon cartridges are not interchangeable. They fit only into the designated cartridge area.

Load the Indent Ribbon Cartridge

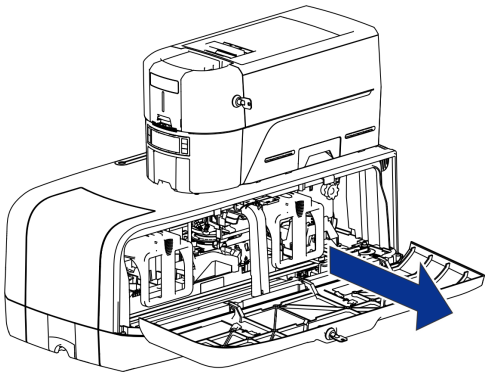
1. Prepare the indent ribbon cartridge and indent roll.

   a. Unlock and open the embosser supplies access door and remove the indent ribbon cartridge from the embosser. The indent ribbon cartridge is on the right as you face the embosser opening.

   b. Place the indent ribbon cartridge on a flat surface with the spindles facing up.

   c. Remove the used indent ribbon spools from the cartridge and discard them according to your site's security procedures.

   d. Remove the new indent roll from its package.



   IMPORTANT! Do not separate the silver takeup spool away from the blue supply spool.

2. Secure the blue supply spool into the spindle.

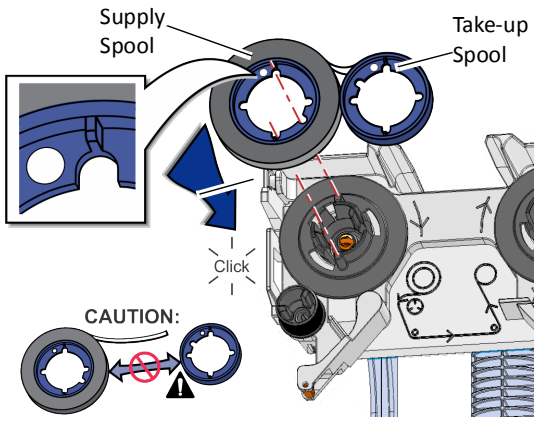
   a. Match the keyed pattern of the supply spool hub with the left side spindle.

   b. Push the supply spool into the spindle until it clicks securely into place.

3. Prepare the ribbon for routing.

   a. Roll up one full turn of indent ribbon on the silver take-up spool.

   b. Roll out a slack length of indent ribbon from the supply spool.



4. Route the ribbon around the rollers on the indent ribbon cartridge.

   IMPORTANT! Do not twist the ribbon while routing.

5. Secure the take-up spool into the spindle.

   a. Match the keyed pattern of the take-up spool hub with the right-side spindle.

   b. Push the take-up spool into the spindle until it clicks securely into place.

6. Turn the take-up spool one full turn clockwise to take up ribbon slack.

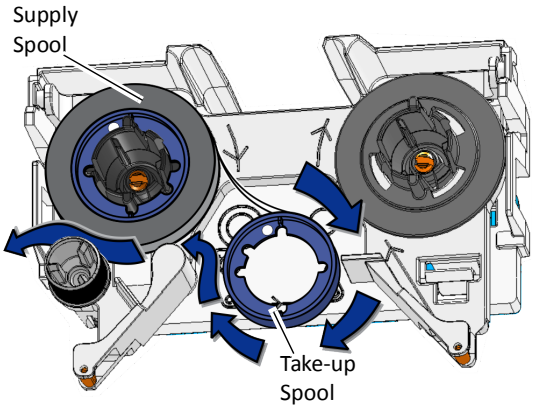
7. Replace the indent ribbon cartridge.

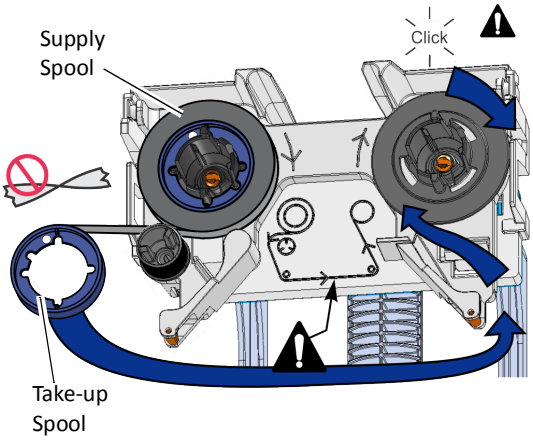
   a. Hold the cartridge by its handle.

   b. Align the cartridge with the guides inside the embosser.

   c. Slide the cartridge in until it clicks and stops.

8. Close and lock the embosser supplies access door.





Load the Topping Foil Cartridge

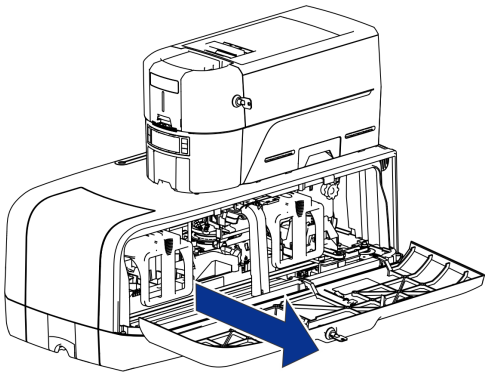
1. Prepare the topping foil cartridge and topping roll.

   a. Unlock and open the embosser supplies access door and remove the topping foil cartridge from the embosser. The topping foil cartridge is on the left as you face the embosser opening.

   b. Place the topping foil cartridge on a flat surface with the spindles facing up.

   c. Remove the used topping foil spools from the cartridge and discard them according to your site's security procedures.

   d. Remove the new topping foil from its package.



2. Secure the supply spool into the spindle.

    a. Match the keyed pattern of the blue supply spool hub with the right-side spindle.

    b. Push the supply spool into the spindle until it clicks securely into place.

3. Roll out and route the foil around the rollers on the topping foil cartridge.

4. Secure the silver take-up spool into the spindle.

    a. Match the keyed pattern of the take-up spool hub with the left-side spindle.

    b. Push the take-up spool into the spindle until it clicks securely into place.

5. Turn the take-up spool one full turn counterclockwise to take up foil slack.

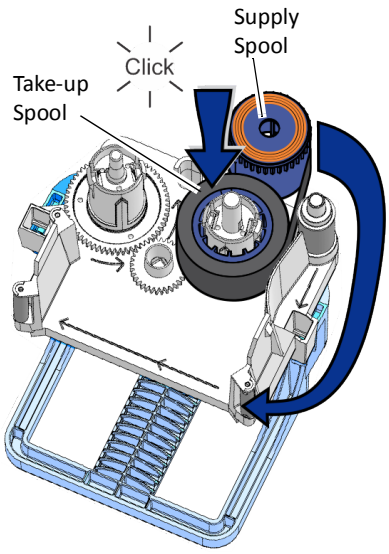
6. Replace the topping foil cartridge.

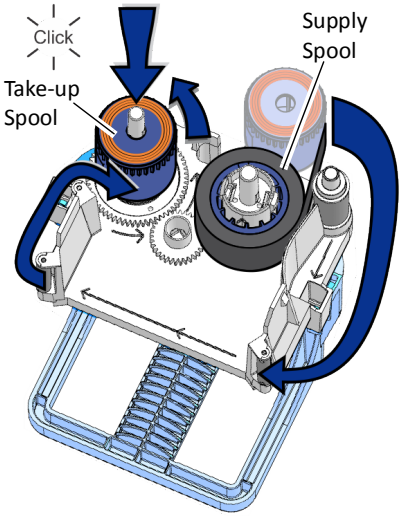
    a. Hold the cartridge by its handle.

    b. Align the top of the cartridge with the guides inside the embosser.

    c. Slide the cartridge in until it clicks and stops.

7. Close and lock the embosser supplies access door.





Chapter 3: Embosser Module Troubleshooting

3

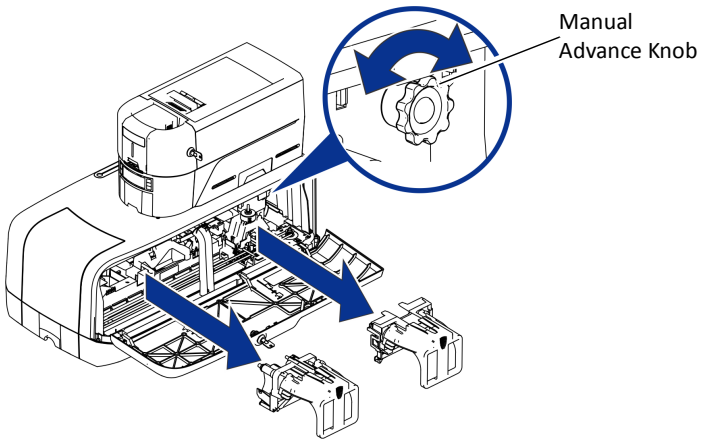
This chapter provides information to help you identify and fix basic issues that can occur when using the ES1 emboss module.

Clear a Embosser Card Jam

A card jam occurs when the card does not reach the proper position for the next action, such as embossing or ejecting the card.

You usually can resolve the error by pressing the USER button so that the printer displays **Ready**, or canceling the card from your application. If the error persists, do the following to remove the card from the embosser.

1. Power off and unplug the printer and embosser.
2. Unlock and open the embosser supplies access door.
3. Remove the indent ribbon and topping foil cartridges.
4. Rotate the manual advance knob inside of the embosser until the jammed card is accessible from the rollers.
5. Remove the card.
6. Replace the indent ribbon and topping foil cartridges.
7. Close and lock the embosser supplies access door

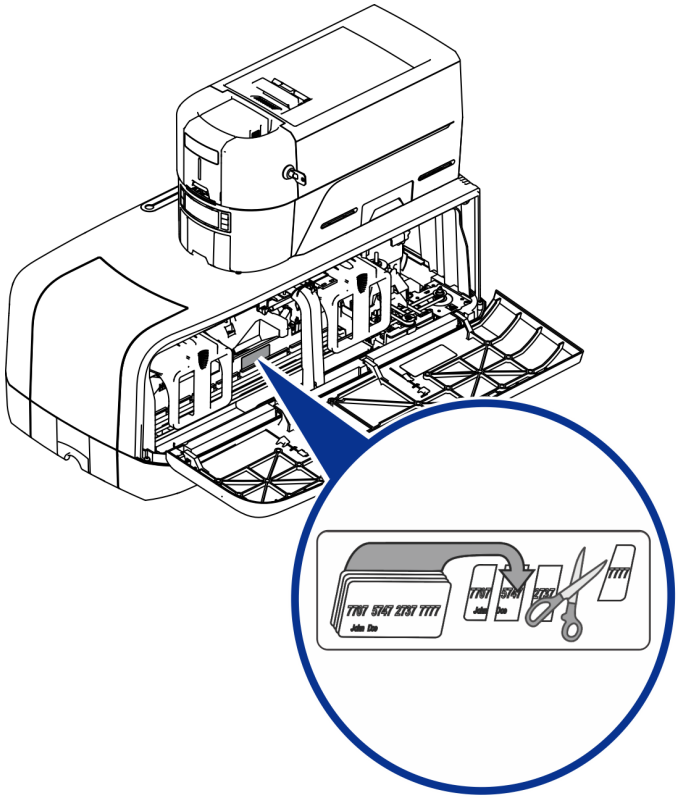


Empty the Embosser Reject Tray

Unfinished cards, or cards that were not processed properly, are placed in the reject tray inside the embosser. Empty the reject tray regularly to avoid card jams.

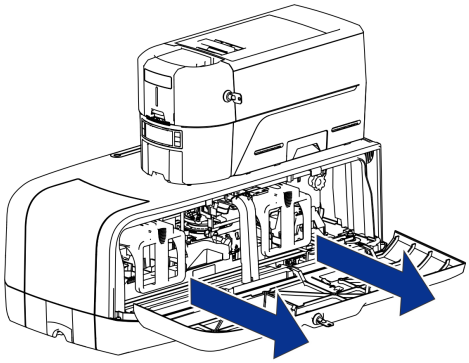
The printer reject tray is not used when the embosser is present. Rejected cards are always placed in the embosser reject tray.

1. Unlock and open the embosser supplies access door.
2. Remove the cards from the reject tray.
3. Follow your site's guidelines to properly dispose of the cards removed from the reject tray.
4. Close and lock the embosser supplies access door.



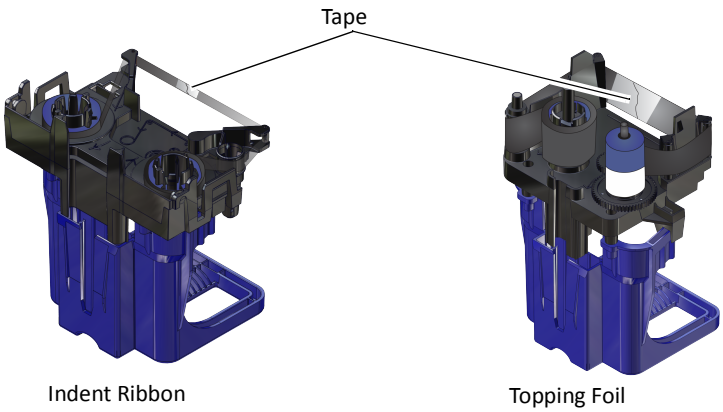
Repair Broken Indent Ribbon or Topping Foil

If the indent ribbon or topping foil breaks, you can repair it and continue using the supply.



1. Unlock and open the embosser supplies access door.
2. Remove the cartridge with the broken supply from the embosser.
3. Trim the ends of the broken supply evenly.
4. Align the ends of the broken supply evenly and apply adhesive tape to secure them.

Do not remove the used supply from the take-up spool.



Emboser Messages on the Printer LCD Panel

When an error occurs processing a card, an error message displays on the printer LCD panel. Refer to the printer's *User's Guide* for a list of printer messages.

The following messages display on the printer LCD panel when the system has an attached ES1 emboss module. They also display in the Printer Dashboard.

125: Emboss critical error

The embosser has encountered a critical error. The card will be canceled.

a. Press the printer Power button to power off the system.

b. Request service.

The system must remain powered off.

126: Emboss format error

The emboss data sent does not match the format set in the embosser. The card will be canceled.

HINTS & TIPS

- Make sure that the data sent contains the correct number of characters.
- Ask your system administrator to make sure that all data to be embossed is encrypted.

127: Emboss transport error

The card is not correctly positioned in the embosser.

1. Open the embosser and remove the supply cartridges.
2. Remove any cards found.
3. Replace the cartridges, close and lock the embosser.

128: Embosser card jam

The card path is blocked in the embosser.

1. Open the embosser and remove the supply cartridges.
2. Remove any cards found.
3. Replace the cartridges, and then close and lock the embosser.

129: Embosser topper jam

The embosser topping foil is not moving properly.

1. Open the embosser and remove the topping foil cartridge.
2. Reposition, repair, or replace the topping foil.
3. Replace the cartridge, and then close and lock the embosser.

130: Embosser card entry jam

The card path is blocked in the embosser.

1. Open the embosser and remove the supply cartridges.
2. Remove any cards found.
3. Replace the cartridges, and then close and lock the embosser.

131: Embosser card exit jam

The card path is blocked in the embosser.

1. Open the embosser and remove the supply cartridges.
2. Remove any cards found.
3. Replace the cartridges, and then close and lock the embosser.

132: Embosser card stack full

The embosser output hopper is full or blocked.

Remove cards from the printer output hopper.

133: Embosser card reject full

The embosser reject tray is full.

1. Open the embosser and empty the reject tray.
2. Close and lock the embosser.

HINTS & TIPS

The embosser card reject tray holds five cards. Empty it regularly to avoid receiving the message.

134: Indent ribbon low

The indent ribbon has almost reached the end of the roll.

Replace the indent ribbon soon.

135: Indent ribbon supplies out

The embosser does not have usable indent ribbon.

1. Open the embosser and remove the indent ribbon cartridge.
2. Install a new indent ribbon.
3. Replace the cartridge, and then close and lock the embosser.

136: Indent ribbon break

The embosser indent ribbon is not moving properly.

1. Open the embosser and remove the indent ribbon cartridge.
2. Reposition, repair, or replace the ribbon and advance the repaired area one full turn.
3. Replace the cartridge, and then close and lock the embosser.

137: Embosser wheel error

The card path is blocked in the embosser.

1. Open the embosser and remove the supply cartridges.
2. Remove any cards found.
3. Replace the cartridges, and then close and lock the embosser.

138: Embosser indent error

The embosser indent ribbon is not moving properly.

1. Open the embosser and remove the indent ribbon cartridge.
2. Reposition, repair, or replace the ribbon and advance the repaired area one full turn.
3. Replace the cartridge, and then close and lock the embosser.

139: Lost card, open emboss cover

The card is not correctly positioned in the embosser.

1. Open the embosser and remove the supply cartridges.
2. Remove any cards found.
3. Replace the cartridges, and then close and lock the embosser.

140: Embosser not available

The printer and embosser cannot communicate. The card will be canceled.

1. Make sure the data cable from the embosser to the printer is securely connected.
2. Press the printer Power button to power off the printer and embosser.
3. Press the Power button again to power on the printer and embosser.

141: Close emboss cover

The embosser, printer, or multi-hopper is open.

Make sure that all access doors are closed securely and locked.

142: Emboss cover error

The embosser, printer, or multi-hopper is open.

Make sure that all access doors are closed securely and locked.

143: Topping foil problem

The embosser topping foil is not moving properly. The card will be canceled.

1. Open the embosser and remove the topping foil cartridge.
2. Reposition, repair, or replace the topping foil and advance the repaired area one full turn.
3. Replace the cartridge, and then close and lock the embosser.

144: Topping foil out

The embosser does not have usable topping foil.

1. Open the embosser and remove the topping foil cartridge.
2. Install new topping foil.
3. Replace the cartridge, and then close and lock the embosser.

145: Topping foil type problem

The embosser cannot use the topping foil installed. The card will be canceled.

Use supplies designed for this printer.

146: Topping foil support err

The embosser cannot use the topping foil installed. The card will be canceled.

Use supplies designed for this printer.

147: Topping foil no tag found

The embosser cannot use the topping foil installed.

1. Open the embosser and remove the topping foil cartridge.
2. Install new topping foil.
3. Replace the cartridge, and then close and lock the embosser.

148: Topping foil low

The topping foil has almost reached the end of the roll.

Replace the topping foil soon.

Chapter 4: ES1 Embosser Module Supplies and Parts

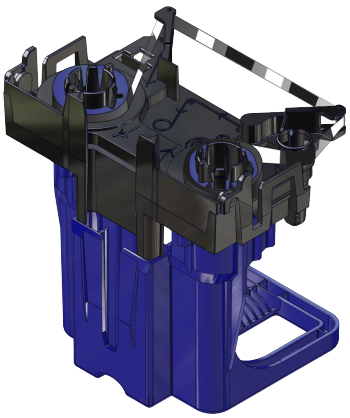
4

This chapter describes the supplies and replacement parts available for the ES1 emboss module.

Indent Ribbon Supply

The indent ribbon is used to apply black or white color to a single line of indented characters. The following indent ribbonsupplies are available. Each has a variable indent yield.

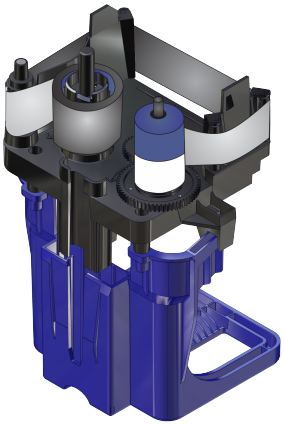
- Black
- White



Topping Foil Supply

The topping foil supply is applied by a heated press to the top embossed characters. Foil can be applied to up to five lines of characters. The following topping foil supplies are available. Each has a 500 topping yield.

- Silver Metallic
- Black
- Gold Metallic
- Blue
- White
- Copper Metallic
- Gray Metallic



Storage Guidelines

- Store the ribbon or foil in the original package until you load it in the embosser. Keep the original packaging closed until you are ready to use the ribbon or foil.
- The ribbon or foil maintains its quality for about one year. For optimum card quality, purchase and store quantities of material that can be used within one year.
- If your site requires secure storage and tracking, follow your organization's policy for storing and tracking the supplies used to make cards.
- Store the ribbon or foil in a location away from direct sunlight, with a temperature between 50° and 80°F (10° and 27°C). A range of 30% to 70% humidity is recommended.
- Install the ribbon or foil at room temperature. If supplies are stored in an environment that is cooler than the printer environment, allow supplies to reach room temperature before you use them.
- If the printer will not be used for an extended period, remove supplies from the system and store them with new supplies.

Power Supplies

The ES1 power supply is rated as follows:

- Input: 110-240V/50-60Hz/3.5 Amp
- Output: 24V/10.42Amp/250W

The power supply is self-adjusting within the rated input voltage

Power Cords

The power cord connects the ES1 power supply to the facility power. Be sure to use power cords that ground to the facility power source.

The following country-specific power cords are available:

- USA Power cord
- Australia power cord
- Brazil power cord
- China power cord
- Denmark power cord
- European power cord
- India power cord
- Israel power cord
- Italy power cord
- Japan power cord
- South Africa power cord
- Swiss power cord
- United Kingdom power cord