pitney bowes

Shipping & Mailing
Inserter

Relay™ 5000/6000/ 7000/8000

Document Inserting System

Admin Guide

International English Edition
SV63173 Rev. B
June 1, 2016

FCC Compliance

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause interference to radio communications. Operation of this equipment in a residential area is likely to cause interference, in which case the user will be required to correct the interference at his own expense.

CAUTION: Changes or modifications to this equipment not expressly approved by the party responsible for compliance (Pitney Bowes) could void the user's authority to operate the equipment

Canada EMC Compliance

This class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme á la norme NMB-003 du Canada.

It is certified that this system complies with all applicable Directives of the European Union.

SV63173 Rev. B

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Safety Information

Follow these precautions whenever you use your inserting system:

- Read all instructions before you attempt to operate the system.
- Use this equipment only for its intended purpose.
- Place the system close to an easily accessible wall outlet.
- Place the system in an accessible location to allow for proper venting of the equipment and to facilitate servicing.
- Use the AC power adapter included with this device. Third party adapters may damage the device.
- Plug the AC adapter directly into a properly grounded wall outlet located near the equipment and easily accessible. Failure to properly ground the machine can result in severe personal injury and/or fire.
- The AC adapter/power cord is the primary means to disconnect this device from the AC supply.
- DO NOT use a wall outlet controlled by a wall switch or one that is shared with other equipment.
- DO NOT use an adapter plug on the line cord or wall outlet.
- DO NOT remove the ground pin from the line cord.
- DO NOT route the AC adapter power cord over sharp edges or trap it between furniture. Make sure there is no strain on the power cord.
- If the unit becomes damaged, unplug it from the wall.
- Keep fingers, long hair, jewelry and loose clothing away from moving parts at all times.
- Avoid touching moving parts or materials while the machine is in use. Before clearing a jam, be sure machine mechanisms come to a complete stop.
- Remove jammed material gently and carefully.
- DO NOT remove covers. Covers enclose hazardous parts that should only be accessed by properly trained service personnel.
- DO NOT place lighted candles, cigarettes, cigars, etc., on the system.
- To prevent overheating, do not cover vent openings.
- Use only approved supplies.
- Improper storage and use of aerosol dusters or flammable aerosol dusters can cause an explosive-like condition that could result in personal injury and/or property damage.
- Never use aerosol dusters labeled flammable and always read instructions and safety precautions on the duster container label.
- Operation of this equipment without periodic maintenance will inhibit optimum operating performance and could cause the equipment to malfunction.
- Always follow specific occupational safety and health standards for your workplace.
- To reduce the risk of fire or electrical shock, DO NOT attempt to remove covers or disassemble the control panel or its base. There are hazardous parts in the cabinet.
- Before operating the main inserting machine with this device, make sure the machine has been properly prepared and that any other personnel in the area are standing clear of the inserter.
- Immediately report to service any damaged or non-functioning components that renders the unit unsafe.

- Contact your system supplier for the following:
  - Supplies
  - Material Safety Data Sheets
  - If you should damage the unit
  - Required maintenance service schedule

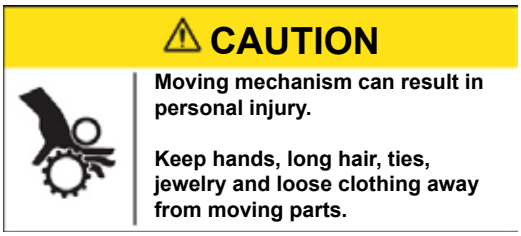
If Your Stacker has an AC Adapter:

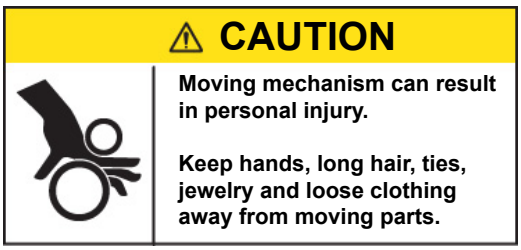
- Use the AC power adapter included with this device. Third party adapters may damage the device
- To protect against electrical shock, plug the AC adapter power cord into a properly grounded wall outlet.
- DO NOT route the power cord for the AC adapter over sharp edges or trap it between it between pieces of furniture. Make sure there is no strain on the power cord.

IMPORTANT: Some of the inserter features and options covered in this content may not be available on your inserter.

Warning Labels

The following warning labels are on the system to alert you to potential injury that could occur with careless operating procedures.





1 • System Overview

Contents

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Relay 5000 - 8000 Inserter Overview

Relay 5000 - 8000 are high throughput, mail creation systems designed to handle a broad range of applications with minimum operator setup adjustments. These systems have the ability to feed, fold, and insert mail piece components into an outer envelope. The systems generate letters or flats as the final mail piece. The systems also accept a variety of options that provide a wide range of capacities and operating speeds.

Product Features

- Folds up to a maximum of 10 sheets of 20 lb. (80 gsm) with a single fold
- Supports multiple inserts into flat envelopes
- Configurable with four flexible feeder trays, that come in two types:
  - Sheet trays - capable of feeding sheets
  - Insert trays - capable of feeding slip/insert materials, pre-folded inserts, thin booklets, and envelopes.
- The Relay 7000/8000 system is equipped with a High Capacity Envelope Feeder (HCEF) that allows for greater speed and throughput. The systems also accept material from optional upstream input devices.

System Components

Main Modules

These systems are configured with three major components:

- Feeder Tower
- Transport Deck
- Envelope Sealer

The feeder tower sends material from the feeder trays to the transport deck. Job parameters determine whether or not the material passes through the folder to the transport deck. If it does, numerous fold types are available, as is the ability to insert folded material into the mail piece collation.

The system can seal envelopes (letter only) before sending the final mail piece to a stacker unit.

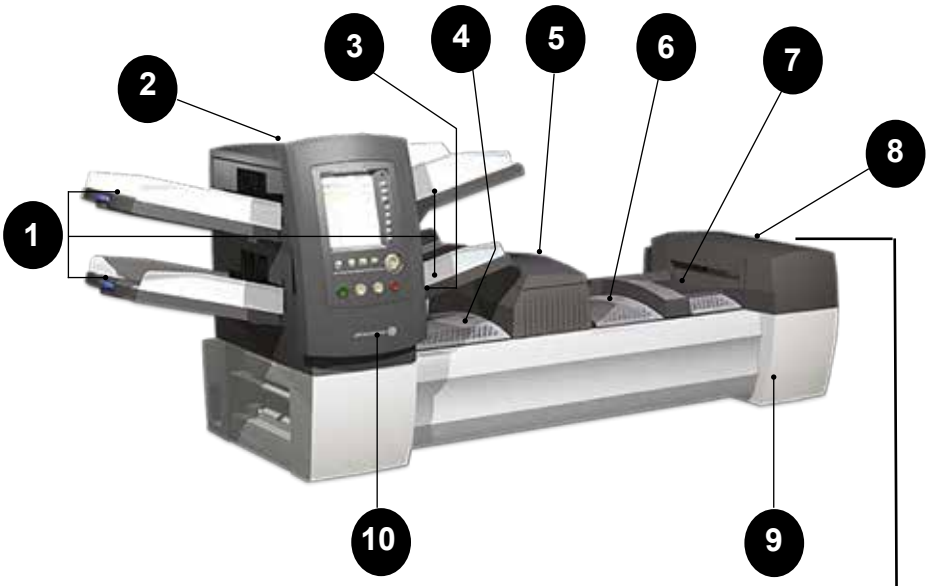
Additional Modules Available

The base system configuration includes a feeder tower, transport deck, and envelope sealer. The Relay 7000/8000 features an additional integrated High Capacity Envelope Feeder.

Additional modules can be added to utilize the full potential of the system. The availability of these modules and options for your inserting system varies by region.

- High Capacity Sheet Feeder
- Flats Sealer
- Pre-folded Insert Feeder
- Vertical Power Stacker
- Horizontal Belt Stacker
- Exit Scanner

Component Identification



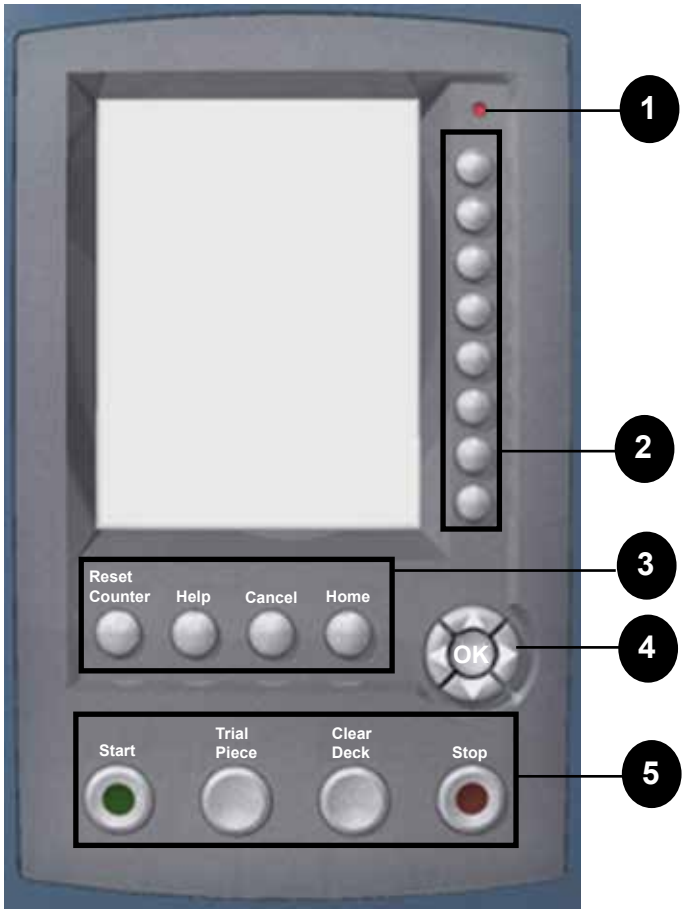
Relay 5000/6000 System

Relay 7000/8000 only

1	**Feeder Tower Trays** - feed sheets or inserts to the feeder tower.
2	**Feeder Tower** - is a two-sided tray holder/material feeder. **NOTE:** If enabled, the lower left tray is assigned with the letter "A" on the Mail Piece Icon Tree. When a High Capacity Envelope Feeder is not part of the system configuration, this Tray is the primary tray for feeding envelopes designated for a given job.
3	**Manual Feeder** - allows you to manually feed stapled or unstapled sets of up to 5 sheets of 20 lb (80gsm) paper. The machine waits for each set to be manually fed before folding and inserting the set automatically into the envelope. The Manual Feed option is available during job creation. Inserts and/or sheets from other trays can also be added to the job.

4	**Pre-fold Accumulator** - is a staging area for the material that needs to be collated together and then sent to the folder.
5	**Folder** - applies one of the available fold types to sheets.
6	**Post-fold Accumulator** - is a staging area for the folded sheets to meet any inserts that are to be included.
7	**Insertion Area** - is the part of the transport where the collation intended for a single addressee is inserted into an outer envelope.
8	**Moistener, Closer, Sealer** - Brushes sweep across the envelope flap to wet the glued area of the flap. The letter-size envelope then moves through the closer and sealer areas of the unit to complete the mail piece.
9	**Sealing Solution Bottle** - is located inside an opening cover at the front right side of the machine. It provides sealing solution to the envelope sealing system.
10	**Control Panel -** allows you to run the machine and configure job settings. It also displays the machine status and shows loading instructions and details of the job. *(Detailed information included in this section.)*
11	**High Capacity Envelope Feeder (Relay 7000/8000 only)** - holds at least 500 letter-sized envelopes. It feeds directly to the insertion area.

Control Panel Identification



1	**LED Status Indicator**
2	**Screen Option Keys** - allow you to define settings for up to 24 jobs that you can store in the system's memory. These keys also provide the means to edit any of the stored jobs.
3	**Fixed Function Keys** - allow you to access the system's built-in tools that appear on the screen (such as the system's help file).
4	**Screen Navigation Keys** - allow you to move UP/DOWN and right/left in the Display and to apply selections that you've made.
5	**Machine Action Keys** - control hardware components and mechanical movements.

Screen Option Keys

The eight screen option keys correspond to options on the screen, and therefore have no dedicated labels. Use these keys to highlight an item in a displayed pick list and/or to select the associated menu, item, action, or option.

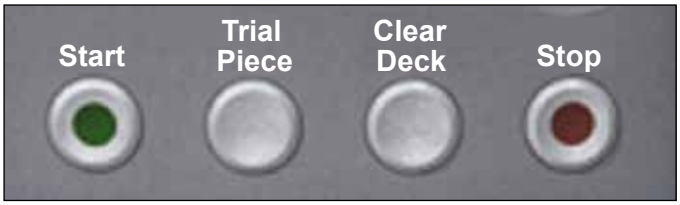
Fixed Function Keys

Each of the four fixed function keys has an assigned function that is enabled or disabled based on the screen that displays.

Reset Counter	• *Piece Counter* is a cumulative counter; it increments for each completed mail piece. • *Batch Counter* counts up to a set number. It increments one count for each completed mail piece that the system detects. The system stops when it reaches the batch count. • If your system has a flats sealer, the *Mark Piece Count* option is available. It allows you to reset the counter for the envelope edge mark to zero. • *Reset Both* allows you to reset both the piece counter *and* the batch counter to zero.
Help	Select **Help** for information about the screen that currently displays and for access to the entire Help file.
Cancel	Select **Cancel** to return to the previous screen.
Home	Returns you to the Home screen for the current job. The current job automatically includes any changes made while editing the job. Changes are not saved until you choose **Save Job**. Jobs that were changed but not saved have an asterisk (*) next to the job name (top of the Home screen)

Machine Action Keys

The four machine action keys run the system.



Start	Press this green-colored **Start** key to begin running the selected job
Trial Piece	Press **Trial Piece** to do a test run on your job. One complete mail piece will be prepared.
Clear Deck	Press **Clear Deck** to rid the system of materials currently in process in the paper paths. **NOTE:** Only press **Clear Deck** when prompted by the system to minimize lost material and manual mail piece generation.
Stop	Press **Stop** to finish in-process mail.

Screen Navigation Keys

The **screen navigation keys** move the cursor on the screen to highlight items in the Mail Piece Icon Tree. The screen navigation keys consist of a two-tiered circular button.	
UP/DOWN and **LEFT/RIGHT** arrow keys, on the outer tier of the button, move the cursor UP/DOWN and LEFT/RIGHT on the screen.	
OK button, on the inner tier of the button, applies the selection that you made with the arrow keys.	

Change the Language Display

1. From the Home screen, select **Menu**.
2. From the Menu screen, select **Change Language** and a list of available languages displays.
3. If necessary, use the **Next** and **Previous** options to view additional languages on the list, and select the appropriate language.
4. Select **Finished**.
5. Press **HOME** to return to the Home screen.

How the System Works

Transport Deck

The transport deck accepts material from the feeder tower and moves it through the various modules to produce a finished mail piece.

Mail Piece Path

Material from the feeder trays comes down the feeder tower in a pre-defined order. Material moves rapidly from one station to the next in the transport deck to produce a finished mail piece that is dropped into a stacking bin or onto an optional high capacity output stacker. A brief description of the function of each module in the paper path is presented here.

Pre-fold Accumulator

The pre-fold accumulator is the first stop in the paper path. The pre-fold accumulator is a stacking place for the material that needs to be collated and folded. When the appropriate components for one mail piece finish collating on the pre-fold accumulator, they move into the folder.

Folder

The stack of collated sheets exits the pre-fold accumulator and moves into the folder. A fold is applied to the stack and the collation moves to the post-fold accumulator.

Fold types offered:

- C Fold
- Z Fold
- Single Fold
- Double Fold
- No Fold

(An optional inverter may be used for some address location/fold type combinations.)

Post-fold Accumulator

The accumulation of folded sheets exits the folder onto the post-fold accumulator area. Other components of the mail piece, such as a Business reply envelope or a pre-folded insert, are added to the accumulation in the post-fold accumulator area. When all components are present, the stack moves to the insertion area.

Insertion Area

The contents of the mail piece meet the outer envelope at the insertion area. The envelope arrives at the insertion area with its front face down and flap open. Envelope openers open the envelope wide enough to allow the contents to be slid inside.

Folder Bypass Path

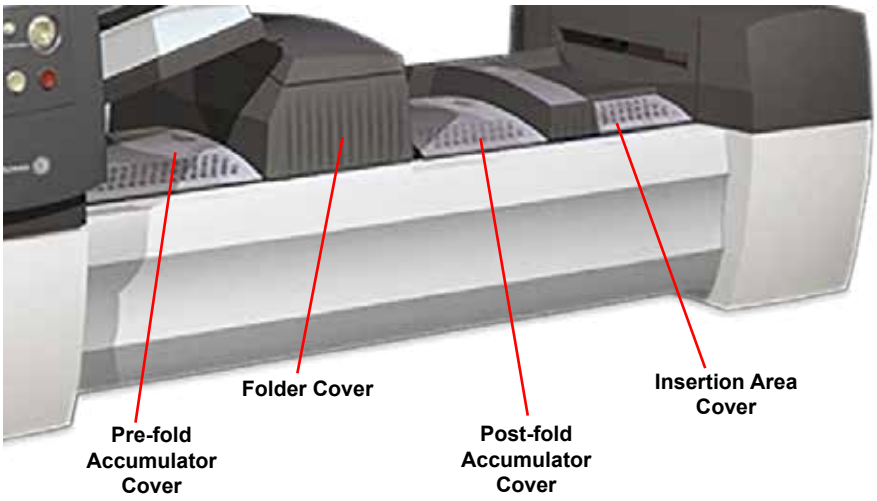
The outer envelope, fed from the feeder, that will contain the collated media runs through the bottom part of the transport deck. The route this envelope travels is known as the folder bypass path.

Moistener, Closer, Sealer

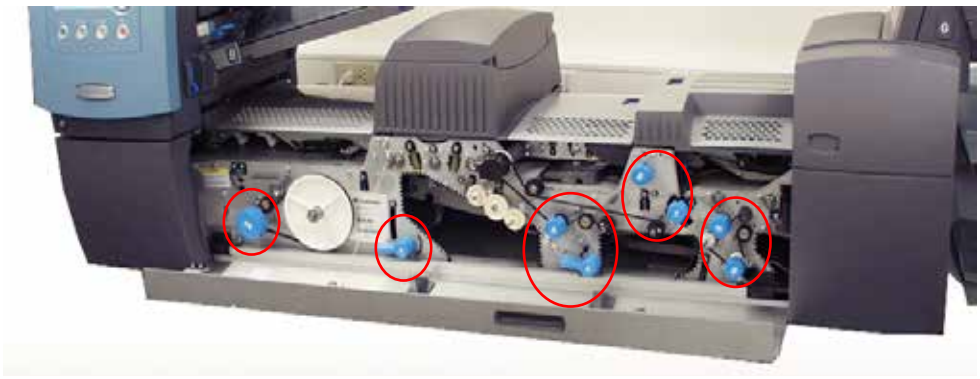
As the envelope passes over the moistener, brushes sweep across the top of the flap to wet the glued area of the flap. The envelope is then inverted and slid through the closer and sealer portion of the system to complete the mailpiece. From there, the mailpiece is dropped onto a stacker.

System Covers

Transport deck covers open to provide access to the rollers in the main paper path.



The three covers on the front side of the system open to provide access to the paper release knobs.



NOTE: The tower base cover is interlocked with the main transport deck cover. You must open the main transport deck cover *before* opening the tower base cover.

⚠ CAUTION

Moving mechanism can result in personal injury.

Keep hands, long hair, ties, jewelry and loose clothing away from moving parts.

Open the Covers

Main Transport Deck Cover

To open the main transport deck cover:

1. Place your fingers into the slot on the top of the cover.
2. Pull down gently. A security tie keeps the cover within the recommended range of movement.

   IMPORTANT! *Do not* lean on the open cover.

Main Tower Base Cover

To open the tower base cover:

1. Open the main transport deck cover.
2. Pull down on the tower base cover handle.

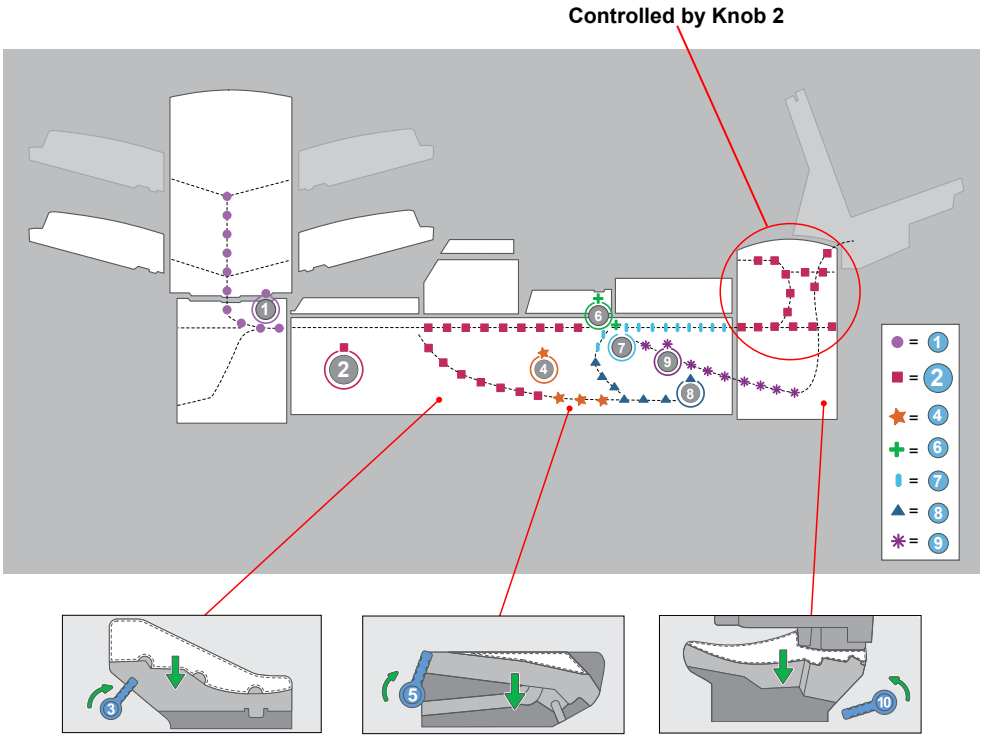
Close the Covers

To close the lower tower and/or the main transport deck cover, push the cover up until it is seated in place on the system deck.

Paper Release Knobs/Levers

There are ten paper release knobs and levers on the front side of the system. Each knob provides the means to turn rollers and move material out of the area in which it stalled. Each paper release lever opens an area of the system and allows you to clear any material that may have stalled.

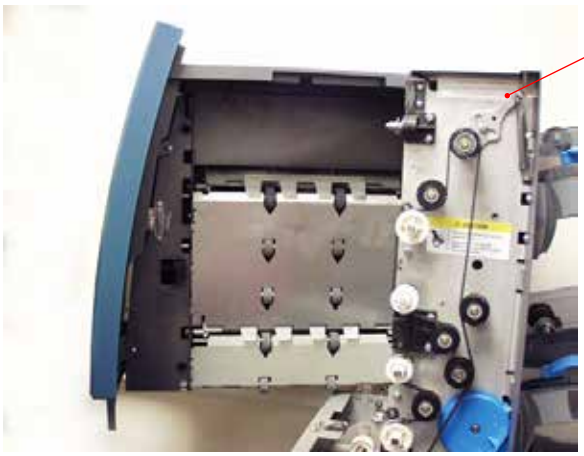
The following image indicates the various knob/lever locations, as well as the areas each knob moves material through and each lever opens.



Feeder Tower

The feeder tower is a two-sided tray holder/material feeder that stands at one end of the unit. Unlocking a latch on the left side of the tower opens it to expose feeder exit and tower transport rollers. This makes it easy to access material that may stop as it exits the tower.

Depending on the system configuration, the tower accepts two or four feeder trays. There are two types of feeder trays - sheet and insert trays. The required tray type is based on the type of material selected for a given job.



⚠ CAUTION

Moving mechanism can result in personal injury.
Keep hands, long hair, ties, jewelry and loose clothing away from moving parts.

Add-On Modules

High Capacity Sheet Feeder (HCSF)

The HCSF add-on module attaches to the feed tower end of the system to provide greater upstream volume. The HCSF has two feeder trays and a horizontal transport. Each Feeder Tray holds up to 1000 sheets of 20 lb. (80 gsm) paper.

The system can handle up to two High Capacity Sheet Feeders. Each HCSF attaches to the next to form an upstream flow from one to the other and finally into the main system.

Flats Sealer

The flats sealer closes the flap, seals the envelope, and sends it on to the next module downstream. The Flats Sealer also contains an envelope edge marker.

Vertical Power Stacker

The vertical power stacker is a compact, powered, bottom-feed stacker that connects to the output of several inserting systems, including the Relay inserters.

Horizontal Belt Stacker

Belt Stacker - Letter or Flats

The Horizontal Belt Stacker can be used in Right Angled or In Line configuration with the Relay inserters.

Tandem Belt Stacker - Letter and Flats Mail

A particular configuration of the stacker is available for the Relay inserters that allows automatic stacking of ‘Letters’ and ‘Flats’ simultaneously.

Exit Transport

The Exit Transport connects to the inserter and can be mounted to other output devices while maintaining flats envelope functionality.

Optional Features

There are several optional features you may have on your inserter system.

File Based Processing

This solution uses barcoded documents that enable a dedicated computer to keep track of the mailpiece during the process. The barcode tells the inserter how to build each mailpiece to the specified completion.

Exit Options

The exit portion of the system accepts a variety of options. The letter drop stacker and the flats drop stacker are standard options for all systems.

Connect+ Mail Machine Interface (MMI)

The Mail Machine Interface (MMI) enables communication between the inserter and the Connect+ mailing systems via a USB connection.

Access Rights

There are two security modes available on the system:

- **Login Not Required Mode** - requires four-digit access code to perform supervisor and manager functions.
- **Login Required Mode** - sets up access levels and requires a user ID and password for all system operator, supervisor, and manager functions.

User Access Levels

The system has three levels of user access:

- Operator
- Supervisor
- Manager

User	Access Rights
Operator	Access to selecting and running a job, limited scanning activities, and running a Swift Start job. System operators may be required to log in and out of the system if a security mode has been enabled.
Supervisor	Access to all operator functions as well as programming a job, saving a job, and deleting a job (with the correct access code *or* user ID and password).
Manager	Access to all of the above functions *plus* exclusive rights to manage other users (i.e. assign/restrict functions and selecting the account mode).

NOTE: Depending on the security mode, the supervisor and manager access levels require entry of an access code *or* user ID and password. These are assigned by the system manager.

Log In

- When the **Login Required Mode** is enabled, entry of a user ID and password is needed to access the system.
- When **Login Not Required Mode** is enabled, entry of an access code is needed to access restricted functions.

NOTE: Managers assign the user IDs and passwords or access codes. User IDs can contain alphanumeric characters; access codes and passwords *must* be numeric only.

Login Required Mode

If Login Required Mode is enabled:

1. At the Select User screen, select the appropriate user ID. (If necessary, select **Next** to view additional user IDs.)
2. Enter your password.

   NOTE: Passwords are four-digit numeric codes. Numbers 1, 2, 3, 4 and 5 display on the first screen. Press "Next" to access numbers 6, 7, 8, 9, and 0.

3. Select **Accept** and the Home screen displays.

Login Not Required Mode

If Login Not Required Mode is enabled on your system and user IDs and passwords have been set up by the manager, the log in option displays on the Home screen.

Log Out

To log out, on the Home screen, select **Log Out**.

NOTE: You must log out of the system in order for the next operator to log in.

2 • Display Screen

Contents

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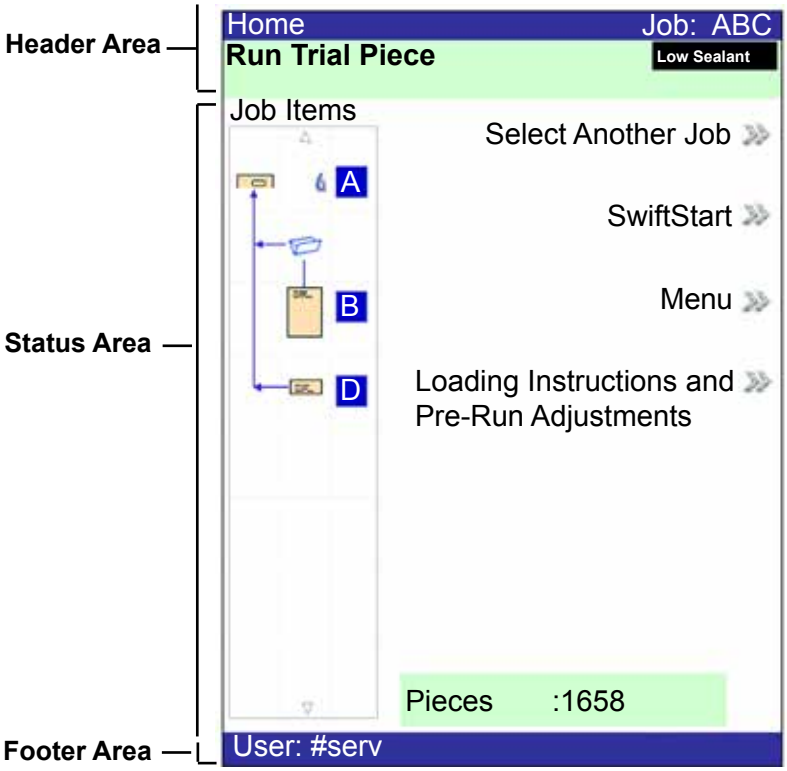
Display Screen Overview

The display screen is divided into three major areas:

- **Header**
- **Status**
- **Footer**

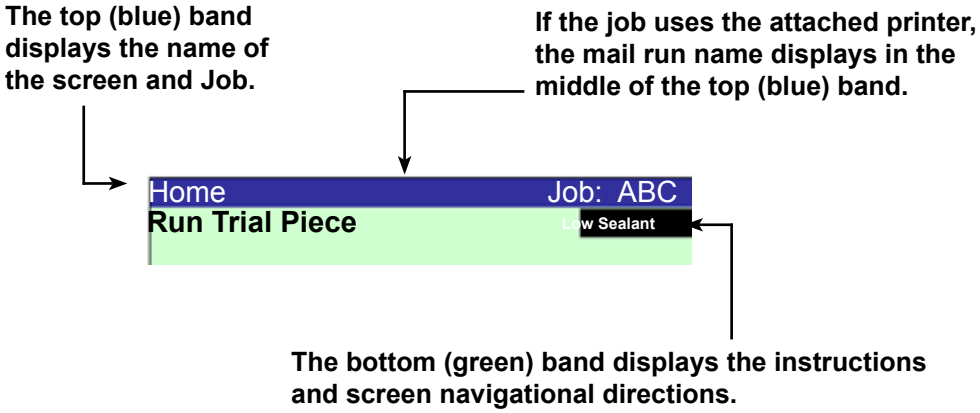


Header Area

The header has two colored bands that run across the top of the screen: the top blue band, the bottom green band.

The left side of the top blue band displays the name of the current screen. Depending on the screen, the **Job Name** may show on the right side.

The green band displays instructions and screen navigation directions.



Footer Area

The footer area contains data across the bottom of the Home screen to identify the user and account.

Status Area

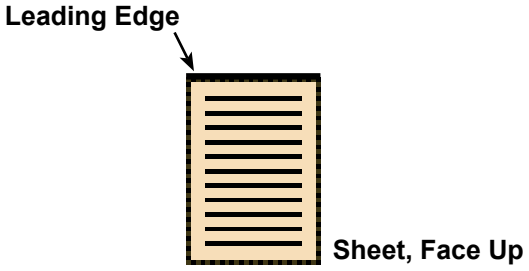
The status area displays information about the task(s) you are performing. This area contains any or all of the following:

- Mail Piece Icon Tree
- Item Orientation
- Options
- Data across the bottom of the screen (Home screen only) - batch count, piece count, and User ID

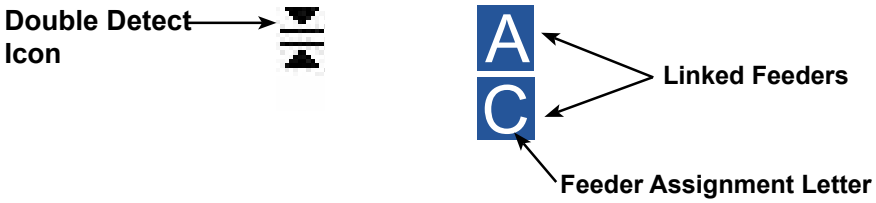
Mail Piece Icon Tree

The Mail Piece Icon Tree gives a road map of icons to visually help guide you through how a mailpiece will be put together and processed.

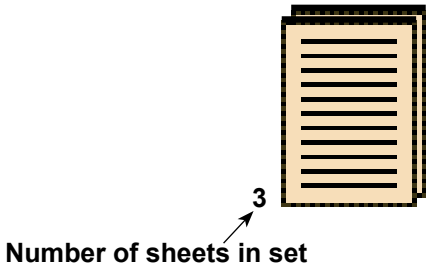
- It displays an icon for each component in the mail piece and a fold icon, if the material is to be folded.
- The icons are arranged in the order in which the mailpiece components will be collated. The outer envelope icon shows at the top of the tree.
- A letter appearing alongside the icon designates the Feeder Tray assignment; a small blue droplet icon indicates that the seal feature is enabled.
- The Mail Piece Icon Tree is located on the left side of the screen in the status area.
- Each icon has one darker edge, either at the top or bottom, that indicates the leading edge of the material. The leading edge is the edge that feeds into the machine first. (For example, a sheet that must be loaded face up with the top of the sheet leading would be represented by a "face-up" sheet icon containing a "leading edge" line on top.)



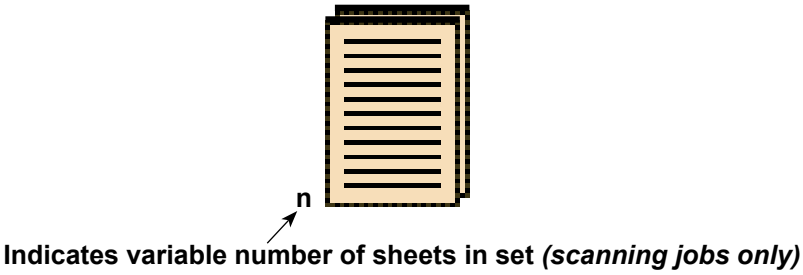
- A **feeder assignment letter** is placed alongside the icon to indicate the feeder tray the material is loaded into. Two or more feeder assignment letters alongside a single icon indicate that feeder trays have been **linked**. The material should be loaded in all the feeder trays indicated. During a job, when one feeder tray is empty, the feed will automatically switch to the next linked feeder tray, in a continuous cycle.
- If **double detect** is in use, the double detect icon appears to the left of the relevant icon.



- If any sheet feeder(s) are programmed to **feed multiple sheets**, a modified icon indicating multiple sheets appears with a number showing the number of sheets in the set.

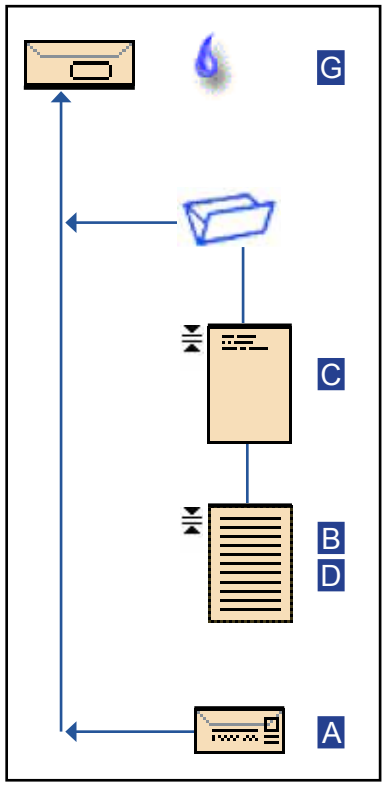


- On **scanning (OMR or Barcode)** jobs, a variable number of sheets might be fed under control of the OMR / barcode marks. In this case, a small letter "n" will appear in place of the number.



Mail Piece Icon Tree Example

In the Mail Piece Icon Tree, each icon displays important information about the mail piece component it represents. The following diagram identifies information conveyed by the icon and how it assists you in loading and running a job.



Window envelope loaded flap down, flap last. Envelope sealing turned on, loaded into Feeder G.

C Fold selected.

Top address loaded face up, fed top first, loaded into Feeder C. Double Detect is on.

Additional Sheet - (no address) loaded face up, fed Top first loaded into Feeders B and D; Feeders B and D are linked. (Linked trays will always be on the same side of the tower.) Double Detect is on.

Reply envelope loaded flap side down, fed flap first, loaded into Feeder A.

* In the example above, the top address, additional sheet and C fold icons represent a set. That is, the Top Address and Additional Sheets are accumulated together, into a collation and the C Fold is applied to the collation.

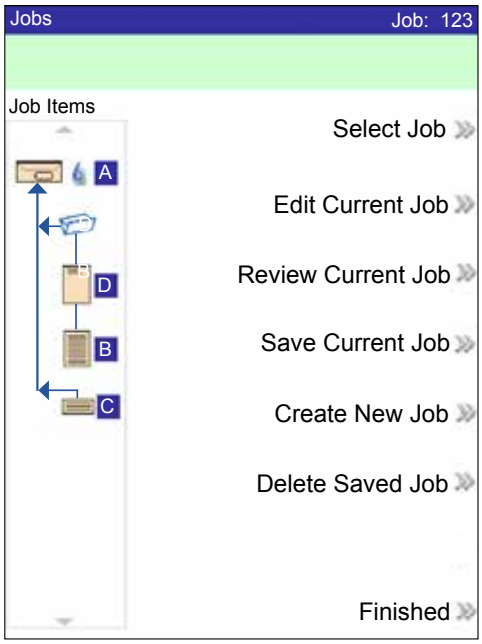
* An insert *(see the Reply Envelope icon)* always appears as a single set within the Mail Piece Icon Tree.

NOTES:

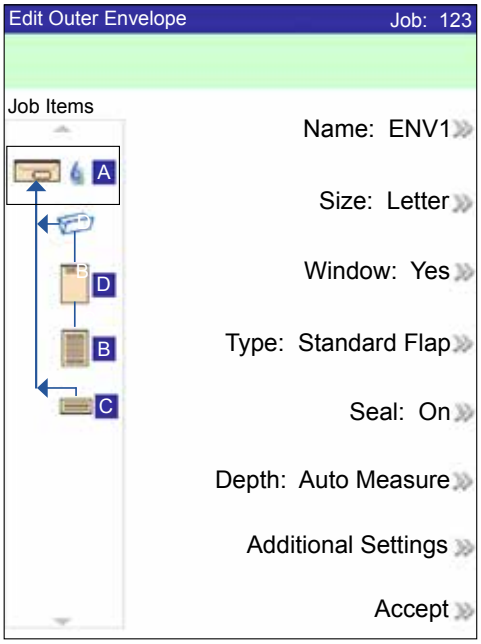
- Lines connecting the icons indicate the way the mail piece is assembled. The outer envelope is at the top of the icon tree.
- Making any change to the job settings can cause the feeder tray assignments to change in the Mail Piece Icon Tree.
- Any time the job set up changes, be sure to check the Mail Piece Icon Tree for changes in the feeder tray assignments.

Navigating Options

The right side of the display screen lists the options and functions available for the current screen. Once you make a selection, more options for that selection display. Refer to the example screens below.



Example: Functions



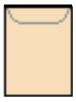
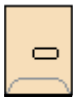
Example: Options for the Selection

NOTE: Two chevrons **(>>)** indicate that there is a submenu of options. One chevron **(>)** indicates there is a toggle between two choices, like **Yes/No** or **On/Off**.

Icons and Letters

These tables provide descriptions of the icons on the display screen.

Envelope Icons

	Tower Feeder **Orientation:** *flap side down, flap first.*	**HCEF*** **Orientation:** *flap side down, flap last.*
Non-Window Letter Envelope		
Window Standard Flap Envelope		
Window Forward Flap Letter Envelope		
Window Bottom Flap Letter Envelope		
Non-Window Flat Envelope		N/A
Window Standard Flap Flat Envelope		N/A
Window Forward Flap Flat Envelope		N/A
Window Bottom Flap Flat Envelope		N/A

**High Capacity Envelope Feeder*

Fold Icons

				
No Fold	C Fold	Z Fold	Single Fold	Double Fold

Sheet Icons

	Orientation: *face up, top first.*	**Orientation:** *face up, bottom first.*	**Orientation:** *face down, top first.*	**Orientation:** *face down, bottom first.*
Sheet, Not Personalized				
Sheet, Top Address				
Sheet, Middle Address				
Sheet, Bottom Address				
Multiple Sheets, Not Personalized				
Multiple Sheets, Top Address				
Multiple Sheets, Middle Address				
Multiple Sheets, Bottom Address				

Insert Icons

	Orientation: *face up, top first.*	**Orientation:** *face up, bottom first.*	**Orientation:** *face down, top first.*	**Orientation:** *face down, bottom first.*
Slip *or* Generic Insert				
Reply Envelope		N/A	N/A	N/A
Reply Card				
Multiple Slips *or* Generic Inserts				
Multiple Reply Envelopes		N/A	N/A	N/A
Multiple Reply Cards				

Feeder Assignment Icons

Feeder assignment is indicated by a letter in a grey square to the right of the job item icon in the Mail Piece Icon Tree. The letter that will display in the blue square depends on the assigned feeder.

- **Single Feeder Assignment** is indicated by one grey square. A
- **Linked Feeder Assignment** is indicated by two grey squares. A C

NOTE: The table below provides a list of all possible feeder assignments. Available feeders depend on your system configuration.

Feeder Letter	Location	Position
A	Feeder Tower	Bottom left feeder
B	Feeder Tower	Bottom right feeder
C	Feeder Tower	Top left feeder
D	Feeder Tower	Top right feeder
G	High Capacity Envelope Feeder (HCEF)	N/A
J	High Capacity Sheet Feeder 1 (HCSF)	Bottom feeder
K	High Capacity Sheet Feeder 1 (HCSF)	Top feeder
L	High Capacity Sheet Feeder 2 (HCSF)	Bottom feeder
M	High Capacity Sheet Feeder 2 (HCSF)	Top feeder
X	Custom Feeder	N/A
Z	Attached Printer	N/A

Other Icons

Error Icon - appears in pop-up messages on display screen. Indicates message is an **error message**.	
Warning Icon - appears in pop-up messages on display screen. Indicates message is a **warning message**.	
Seal On Icon - appears in Mail Piece Icon Tree if **sealing is on**. **Safe Seal Icon** - appears in Mail Piece Icon Tree if **safe seal is on**.	
Double Detect Icon - appears in Mail Piece Icon Tree if **double detect is on**.	

3 • Program a Job

Contents

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Program a Job

Programming a job and associated activities requires Supervisor or Manager level access. This includes the following functions:

- Create a Job
- Select Job Options
- Edit a Job
- Move a Job
- Save a Job
- Delete a Job
- Assign User IDs and Passwords (Manager Level Only)
- Enable / Disable the High Capacity Sheet Feeders (HCSF)

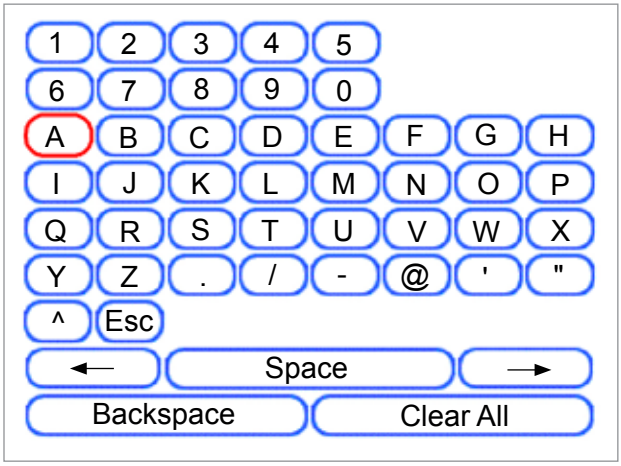
NOTE: Entry of a access code or password from a supervisor and/or manager is required for use of these functions.

Create a Job

Creating a new job involves defining the contents of a new mail piece, and optionally, saving the job for future use. This process consists of identifying each item in the mail piece and selecting settings for the job. A Mail Piece Icon Tree automatically builds on the screen as you add items.

To create a new job:

1. From the Home screen, select **Menu>Jobs>Create New Job** using the user interface. The Create Job screen displays.
2. Enter the **Job Name** using the alphanumeric keyboard.



   a. Use the UP/DOWN and LEFT/RIGHT arrow keys to select a letter.
   b. Press **OK** to add the letter to the job name.
   c. Highlight the arrow character and press **OK** to move the cursor within the job name.
   d. Press **Accept Name** when done.

3. If scanning is present on the system, the Create - Job Type screen displays.
   - If the new job *does not require scanning*, select **Normal Type**.
   - If the new job r*equires scanning*, select **Scanning Job**.

4. When the Create Outer Envelope screen displays:
   - If the job *does not require an outer envelope*, select **No**.
   - If the job r*equires an outer envelope*, select **Yes** and:
     - Select the appropriate outer envelope options for the job. *(Refer to the Envelope Options table in this chapter for details about each of the menu options.)*
     - Press **Accept**.
     - For *scanning jobs*, the Create - Only One Envelope screen displays.

       If the job requires one envelope, select **Yes** and move to the next step.

       If the job requires an additional envelope, select **No, Two Outer Envelopes.** Validate available options, press **Accept**.
5. At the Create - Select Next Item screen, navigate the user interface to select the appropriate option from the menus as prompted. *(Refer to the following tables for detailed information about each menu option.)*

Add New Item

If this is a *scanning job*, follow these steps:

1. Select the appropriate insert option.

   - Sheet
   - Replay Card
   - Reply Envelope
   - Pre-folded Insert
   - Small Booklet
   - Slip
   - Generic Insert
   - Large
   - Stiff* *(Relay 8000 only)*

2. In the Scan Type screen, select the appropriate **scan type** (OMR, Code 3 of 9, or Interleaved 2 of 5).
3. In the Scan Configuration screen, select the appropriate **scan configuration**.
   a. *If there is content in line with the scan mark*s, select **Yes in** the Content - In Line with Marks screen.
   b. *If there is no content in line with the scan marks*, select **No.**

Non-Scanning Job

If this is a *non-scanning job*, follow these steps:

1. Select the appropriate for the insert option.

   - Sheet
   - Replay Card
   - Reply Envelope
   - Pre-folded Insert
   - Small Booklet
   - Slip
   - Generic Insert
   - Large
   - Stiff* *(Relay 8000 only)*

2. Press **Accept** when done. (Refer to the Insert Options table in this chapter for information about each of the related menu options.)

Select Job Options

This section contains descriptions of the various job options you can add or modify when creating or editing a job. Answer the questions as prompted by the system.

Verify Sheet / Insert Options

Follow the associated steps to select sheet options for your job.

1. Select the appropriate option:
   - *If this is the first sheet you are adding to the job and the Attached Printer is not present* select the appropriate option. The Create - Verify Sheet screen appears.
   - *If this is the second sheet you are adding to the job,* select either **Same Set (Fold with previous sheet)** or **New Set (Fold separately**). If the sheet is part of a new set, select the option.
   - *If this is the first sheet you are adding to the job and the Attached Printer is present* select the appropriate printer option. The Sheet - Personalized Create screen appears.
   - Select the appropriate option. The Create - Verify Sheet screen appears.
2. For **scanning jobs**:
   - In the Scan Type screen, select the **scan type** (OMR, Code 3 of 9, or Interleaved 2 of 5).
   - In the Scan Configuration screen, select the **scan configuration**.
   - The Content in Line with Marks screen displays. If there is *content* in line with the scan marks, select **Yes**. If there is *no content* in line with the scan marks, select **No**.
   - If you selected **Yes**, the Mark Locations Settings screen appears. Follow these steps to enter the various mark-related measurements:
     - Select an option, using the UP/DOWN arrow keys to enter the appropriate measurement (in millimeters) and press **Accept**.
     - Once *all* measurements have been entered, press **Accept**
3. For **non-scanning jobs**:
   - Select the Sheet options for the job, and press **Accept**. *(Refer to Sheet Options table for information about the menu options.)*

     NOTE: If this is a scan job, be sure to set the Select Feed setting.
   - Select the appropriate Fold options for the sheet, the press **Accept** *(Refer to Fold Options table for information about the menu options.)*
4. When the Add New Item screen appears:
   - Select **Yes** to add additional items to the job. *(Repeat steps as needed.)*
   - Select **No** if you have finished adding items to the job.

Create or Edit Job Settings

5. Select the appropriate options using the table below for reference.

Menu Options	Associated Options/Actions
Job Comments	Use the alphanumeric matrix to enter any additional information related to the job. If the job is saved by a supervisor or manager, enter a job description in the job comments area to make it easy for operators to identify/ select the correct job in the future . **NOTE:** Job comments can contain up to 120 characters.
Batch Mode	Toggle between the **Off** and **On**: • •**Off** means this feature will not function for this job • **On** means this feature is active **NOTE:** Batch mode cannot be used with scanning jobs
Batch Count	Use the numeric matrix to enter the batch count value. **NOTE:** The batch count can contain up to four digits. The **minimum** is "5" and the **maximum** is "9999".
Set Over Max Count	Indicates what happens to sets that exceed the set over count quantity. Choices include **Divert** and **Stop**.
Use Postage Meter	Select this option if you will use the Mail Machine Interface (MMI). This interface enables communication between the inserter and a Connect+ system via a USB connection. The systems can sends start and stop signals back and forth Toggle between the **Off** and **On**: • **Off** means this feature will not function for this job. • **On** means this feature is active. **NOTE:** The MMI is a purchasable exit option. Only letter-sized envelopes can be used with this interface.
Advanced	Allows access to advanced job settings. **IMPORTANT!** Only change advanced job settings when instructed. Changing settings may affect inserter performance.
Mark Piece Count	Select this option if you have a Flats Sealer and will use the envelope edge marker to mark every nth envelope. Use the numeric matrix to enter the appropriate value. **NOTE:** The flats sealer is an optional module.

6. Select **Accept** when done.
7. When the Create - Saved Created Job screen displays:
   - Select **Yes, Save** to save the job (optional). You must have supervisor or manager access rights to save jobs.
   - Select **No, Save Later** if you do not have supervisor or manager access rights.

Envelope Options

Menu Item	Associated Options and Actions
Name	Use the alphanumeric matrix to enter the envelope name.
Size refers specifically to the outer envelope that contains the final mail piece.	Toggle between **Letter** and **Flat**: • **Letter** - has smaller depth and contains folded sheets. • **Flat** - is larger than letter size and typically contains unfolded sheets. If the job contains a large booklet, you must select this envelope size
Window allows use of windowed or non-windowed envelope.	Toggle between **Yes** and **No**: • **Yes** means you are using a windowed envelope. • **No** means you are using a non-windowed envelope.
Type allows choice of windowed envelope.	• **Standard Flap** - a regular envelope • **Forward Flap** - the window and flap are on the same side of the envelope • **Bottom Flap** - the flap is at the bottom (instead of the top) of the envelope.
Seal refers to using the moistener unit to close the envelope.	• **Off** - the envelope will not be sealed closed • **On** - the envelope will be sealed closed • **Safe Seal** - the envelope will be sealed closed. *The envelope moves through the system at a slower rate to provide more time for better sealing. This option is available only for flat envelopes, when there is a flats sealer present on the system.* **NOTE:** If you are using a mailing machine in-line with the inserter, you *must instruct the system* to seal the envelope.
Depth is the dimension of an envelope from its flap fold to its opposite edge.	• **Auto Measure** - system measures depth when envelope is fed • **Custom Depth** - enables you to enter the depth of the envelope • **Letter Options**: *#10 - 105mm* *#6 ¾ - 165mm* *C5 - 162mm* *C6 - 114mm*. • **Flat Options**: *#12 ½ - 317mm* *C4 - 229mm*.

Menu Item	Associated Options and Actions
Additional Settings: ***Double Detect***	**Double Detect** enables the system to sense when multiple envelopes are fed unintentionally. **NOTE:** This menu option is not available when the job requires a custom feeder. • **Double Detect Feature** enables you to toggle: - **Off** means this feature will not function for this item - **On** means this feature is active • **Location** allows you to toggle: - **Default** - **Custom** • **Custom Location for Top Edge** enables you to enter a specific measurement (distance from the edge feeding first into the feeder) where the system should attempt to detect a double. Set this option when location is set to **Custom**. - Use the UP/DOWN arrow keys to adjust the measurement (in millimeters) - Press **Accept** when finished **NOTE:** The double detect region cannot be within 1-inch (25 mm) of the lead or trail edges of the envelope. *If the envelope is feeding from the HCEF*, measure from the bottom of the envelope. *If the envelope is feeding from the feeder tower*, measure from the top of the envelope. The custom location must be at least .2 inches (5mm) away from the edge of the window (if present), at least .2 inches (5mm) away from the edge of flap, and cannot lie on top of a seam. *For best results, be sure to avoid areas that overlap with the window, flap, or seams.* • **Action On Double** allows you to select where the items should be fed to if a double is detected.
Feeder Type	**Feeder Type** enables you to change the feeder setting when material is problematic. • **Normal** is used for most items • **Special Feeder** helps problematic material run better **NOTE:** The special feeder is an optional module. If available, it is located at the top left or right of the feeder tower. It is an option for one or more tower feeders to improve feeding of thin pre-folded items or booklets with thin covers. It reduces the tendency of these items to separate while they are being fed. You must push the **Special Feeder** lever up to run a job when the **Feeder Type** is set to **Special Feeder**.

Menu Item	Associated Options and Actions
Feeder Linking	**Feeder Linking** enables multiple feeders to feed the same envelope. • **None** - no linking of feeder trays. • **Two Feeders** - two feeder trays are linked and feeding the same material **NOTE:** Feeders must be on the same module and on the same side of the tower to be linked. For scanned items, always load linked feeders at a collation break.
Envelope Select Feed	**Envelope Select Feed** enables you to indicate when the envelope should be used. Toggle between: • **Main** • **Alternate** **NOTE:** This option is enabled only when the scan feature is activated, two outer envelopes have been defined in a job *and* either one of the following: • **Item Over Count Action** is set to **Use Alternate Envelope** on the control document in the job *OR* • An **Envelope Select** mark is contained in the scan configuration file associated with the control document in the job.

Fold Options

Menu Item	Associated Options and Actions
Fold Type refers to the way sheets are folded to be able to show certain portions through a window, and/or when a sheet is opened.	• *C Fold*  • *Z Fold*  • *Single Fold*  • *Double Fold*  • *No Fold* 
Auto Fold Lengths lets the system choose the type of fold.	Toggle between **Yes** and **No**: • **Yes** - the system calculates the fold length. • **No** - you enter the fold lengths you want.
Fold 1 Length **Fold 2 Length**	**Fold Length** - shown on the display screen for each fold type/address combination. • Use the UP/DOWN arrow keys to select desired length. • Press **Accept**.

Sheet Options

Menu Item	Associated Options and Actions
Name	Use the alphanumeric matrix to enter the job name.
Control Document is the top sheet in the Mail Piece Icon Tree. This field is read-only.	Toggle between: • **Yes** • **No**
Type identifies the printing source of the job.	• **Printed Separately** - indicates the sheet is not printed by the Attached Printer. • **Printed by Attached Printer** - indicates the sheet is printed by the Attached Printer. **NOTE:** This menu option is available only with configurations that contain an **attached printer**. If an attached printer is not present, this option appears as a read-only field with **Printed Separately** as the default setting.
Personalized refers to the top sheet that contains the address that will show in the windowed envelope and/or a sheet that contains information customized to a specific recipient.	• **Top Address** • **Middle Address** • **Bottom Address** • **Not Personalized** • **Personalized - No Address**
Quantity is the number of this type of sheet to include in each mail piece.	• **1, 2, 3, 4, 5, 6** • **Custom Quantity** - Use UP/DOWN arrow keys to select number. - Select "Accept" when done. **NOTE: Quantity** is always set to **Variable** (n) for scanning jobs.
Page Order identifies the feeding pattern of multiple sheets that are not identical.	**Forward** - indicates page 1 is on top and pages 2, 3, 4, etc. follow in that order. **Reverse** - indicates that the last page (i.e. page 4) is first followed by pages 3, then 2, then 1. **NOTE:** This menu option appears as a read-only field when the job requires a custom feeder. The feeding pattern is set by the custom feeder.

Menu Item	Associated Options and Actions
Length is the dimension of the sheet in the direction of the feed.	• **Auto measure** - measures recommended length automatically **Note:** This menu option appears as a read-only field when the job requires a custom feeder. • **Custom Length** - increase or decrease of sheet length. - Use the UP/DOWN arrow keys to select a number - Press **Accept** **NOTE:** If the job requires a custom feeder, you must enter the sheet length using the **Custom Length** option. The job will not be valid if the sheet length is not entered. • **Letter** - *279mm* • **Legal** - *356mm*, and *A4 - 297mm* are additional options. **NOTE:** The **legal** option is not available when the sheet is printed by the attached printer. Legal-sized documents cannot be fed from the High Capacity Sheet Feeder. The system assigns these documents to a tower feeder, even when the HCSF is available.
Additional Settings: ***Double Detect***	**Double Detect** enables the system to sense when multiple envelopes are fed unintentionally. **NOTE:** This menu option is not available when the job requires a custom feeder. • **Double Detect Feature** - enables you to toggle: - **Off** means this feature will not function for this item - **On** means this feature is active • **Location** enables you to toggle: - **Default** - **Custom** • **Custom Location for Top Edge -** enables you to enter a specific measurement (distance from edge feeding first into feeder) where the system should attempt to detect a double. Set this option when location is set to **Custom**. - Use the UP/DOWN arrow keys to adjust the measurement (in millimeters) - Press **Accept** when finished • **Action On Double** - enables you to select where the items should be fed to if a double is detected.
Feeder Type	**Feeder Type** enables you to change the feeder setting when material is problematic or to indicate a job needs a custom feeder. **NOTE:** This menu option is not available when the job requires an attached printer. • **Normal** - used for most items • **Manual Feed** - used when material is fed by hand • **Custom Feeder** - used when material is fed by the custom feeder

Menu Item	Associated Options and Actions
Feeder Linking	**Feeder Linking** enables multiple feeders to feed the same material. **NOTE:** This menu option is not available when the job requires a custom feeder or attached printer. • **None** - no linking of feeder trays • **Two Feeders** - two feeder trays are linked and feeding the same material **NOTE:** Scanned sheets can be linked vertically in both the High Capacity Sheet Feeder and the feeder tower.
Scanned Items	**Scan Items** allows you to indicate whether or not an item should be scanned. Toggle between Yes and No: • *Yes* means this feature is active. • *No* means this feature will not function for the item.

Menu Item	Associated Options and Actions
Scan Settings	**Note:** The **Content in Line with Marks**, **Marks On, Marks on First Page Only**, and **Mark Location Settings** options *are not available* when the job requires a custom feeder. • **Scan Configuration** enables a choice of saved scan configurations to interpret scan marks. • **Content in Line with Marks** indicates that content is in line with the scan marks in the feed direction. • **Marks On** indicates if marks are on the front or back of the page. • **Marks on First Page Only** - indicates marks are on only the first of multiple sheets. • **Mark Location Settings** allows setup of various mark-related measurements. - **Top of Page to First Mark** - distance from the top of the page to the first mark. - **Total Length of Marks** - length from the top of the first possible mark to the bottom of the last mark. - **Top of Page to Clear Zone** - distance from the top of the page to the beginning of the clear zone. - **Length of Clear Zone** - total length of the scan marks plus the Clear Zones before and after the scan marks. • **Item Over Count Quantity** - the number of sheets to be accumulated before the system takes an alternate action. • **Item Over Count Action** - indicates what will happen to items that exceed the item over count quantity. Choices include: - **Divert** – select this option if the Scan Configuration does not have the Divert Sheet (DVS) scan mark, and you want the system to divert items once the item over count quantity has been exceeded. - **Stop** - select this option if you want the system to stop processing items once the item over count quantity has been exceeded. - **Use Alternate Envelope** – select this option if the scan configuration does not have the envelope select (ES) scan mark, and you want the system to use alternate envelopes for items that exceed the item over count quantity.
Select Feed Settings	**Select Feed (SF) Settings** enable assignment of a feeder to one of the 9 Select Feed scan marks. **Note:** This menu option is not available when the item requires an attached printer or custom feeder (when a High Capacity Sheet Feeder is part of the configuration).

Insert Options

Menu Item	Associated Options and Actions
Name	Use the alphanumeric matrix to enter the job name.
Insert Type includes all items that do not need folding or have been pre-folded.	• **Reply Envelope** - also called Business Reply Envelope • **Reply Card** - a thick slip • **Pre-folded Insert** - a sheet or set of sheets already folded together • **Small Booklet** - insert typically with a bound or stapled edge • **Slip** - single thickness document that fits into the outer envelope without folding. • **Generic** - an undeclared type of insert used by SwiftStart™ jobs. • **Large Booklet** - insert typically with a bound or stapled edge. *(A custom feeder is required to feed this item.)* • **Stiff Media** - a type of insert that is inflexible. **NOTE:** Only the Relay 8000 feed stiff media. When one (or more) stiff media inserts are selected, an outer envelope - length of 6 in. (152mm) to 7 in.(178mm) is required, The manual lever for stiff media must be placed in the flats position.
Personalized means the insert contains information customized to a specific recipient. **NOTE:** This menu option is not available when **Large Booklet** is the selected insert.	• **Yes** - there *is* unique information on this insert. • **No** - the insert *does not* contain unique information.
Quantity is the number of this particular insert to include in each mail piece. **NOTE:** This menu option is not available when **Large Booklet** is the selected insert.	• **1, 2, 3, 4, 5, 6** • **Custom Quantity** - Use the UP/DOWN arrow keys to select a number - Press **Accept** • **Variable** - used with scanning-controlled jobs. **NOTE:** Only a single insert can be added to each mailpiece. When using a flat envelope, the insert must be a Reply Envelope (BRE).
Page Order identifies the feeding pattern of multiple inserts that are not identical. **NOTE:** This menu option is not available when **Large Booklet** is the selected insert.	• **Forward** - indicates page 1 is on top and pages 2, 3, 4, etc. follow in that order. • **Reverse** - indicates that the last page, for example, page 4, is first followed by pages 3, then 2, then 1.

Menu Item	Associated Options and Actions
Length is the dimension of the insert in the direction of the feed.	• **Auto measure** - measures the recommended length automatically. **NOTE:** Auto measure is not available when **Large Booklet** is the selected insert or when the job requires a custom feeder. • **Custom Length** - increase or decrease of insert length - Use the UP/DOWN Arrow Keys to select number. - Select **Accept** when done. **NOTE:** If the job requires a **Large Booklet**, you *must* enter the sheet length using this **Custom Length** option. The job *will not* be valid if the booklet length is not entered. • **Custom Length (Large Booklet Only)** - allows selection of large booklet size: 8.5 inch x 11 inch (216mm x 279mm) or 5.5 inches x 8.5 inches (140mm x 216mm). **NOTE:** If the job requires a **Large Booklet**, you *must* enter the sheet length using this **Custom Length** option. The job *will not* be valid if the booklet length is not entered.
Additional Settings: ***Double Detect***	**Double Detect** enables the system to sense when multiple envelopes are fed unintentionally. **NOTE:** This menu option is not available when the job requires a custom feeder. • **Double Detect Feature** - enables you to toggle: - **Off** means this feature will not function for this item - **On** means this feature is active • **Location** enables you to toggle: - **Default** - **Custom** • **Custom Location for Top Edge -** enables you to enter a specific measurement (distance from edge feeding first into feeder) where the system should attempt to detect a double. Set this option when location is set to **Custom**. The double detect region cannot be within 1-inch (25mm) of the lead or trail edges of the insert. - Use the UP/DOWN arrow keys to adjust the measurement (in millimeters) - Press **Accept** when finished • **Action On Double** - enables you to select where the items should be fed to if a double is detected.

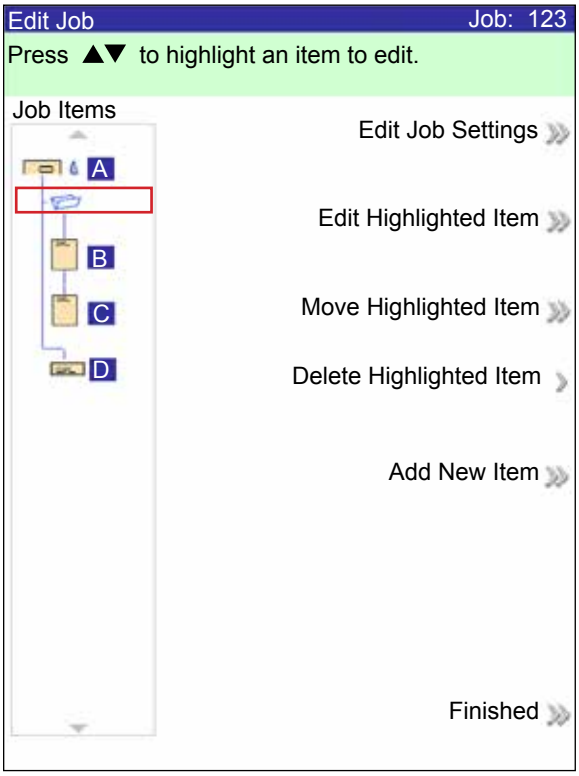
Menu Item	Associated Options and Actions
Feeder Type	**Feeder Type** enables you to change the feeder setting when material is problematic or to indicate a job needs a custom feeder. **NOTE:** This menu option is not available when the job requires an attached printer. The custom feeder is selected automatically when "Large Booklet" is the selected insert. • **Normal** - used for most items. • **Manual Feed** - used when material is fed by hand • **Custom Feeder** - used when material is fed by the custom feeder
Feeder Linking	**Feeder Linking** allows multiple feeders to feed the same material. **NOTE:** This menu option is not available when the job requires a custom feeder. • **None** - no linking of feeder trays • **Two Feeders** - two feeder trays are linked and feeding the same material **NOTE:** Feeders must be on the same module and on the same side of the tower to be linked. For scanned items, always load linked feeders at a collation break.
Scan Items	**Scan Items** enables you to indicate whether or not an item should be scanned. Toggle between **Yes** and **No**: • **Yes** - this feature is active, or • **No** - this feature will not function for the item

Menu Item	Associated Options and Actions
Scan Settings	**Note:** The **Content in Line with Marks**, **Marks On, Marks on First Page Only**, and **Mark Location Settings** options *are not available* when the job requires a custom feeder. • **Scan Configuration** enables a choice of saved scan configurations to interpret scan marks. • **Content in Line with Marks** indicates that content is in line with the scan marks in the feed direction. • **Marks On** indicates if marks are on the front or back of the page. • **Marks on First Page Only** - indicates marks are on only the first of multiple sheets. • **Mark Location Settings** allows setup of various mark-related measurements. - **Top of Page to First Mark** - distance from the top of the page to the first mark. - **Total Length of Marks** - length from the top of the first possible mark to the bottom of the last mark. - **Top of Page to Clear Zone** - distance from the top of the page to the beginning of the clear zone. - **Length of Clear Zone** - total length of the scan marks plus the Clear Zones before and after the scan marks. • **Item Over Count Quantity** - the number of sheets to be accumulated before the system takes an alternate action. • **Item Over Count Action** - indicates what will happen to items that exceed the item over count quantity. Choices include: - **Divert** – select this option if the Scan Configuration does not have the Divert Sheet (DVS) scan mark, and you want the system to divert items once the item over count quantity has been exceeded. - **Stop** - select this option if you want the system to stop processing items once the item over count quantity has been exceeded.
Select Feed Settings	**Select Feed (SF) Settings** enable assignment of a feeder to one of the 9 Select Feed scan marks. **Note:** This menu option is not available when the item requires an attached printer or custom feeder (when a High Capacity Sheet Feeder is part of the configuration).

Edit a Job

Editing a job involves any or all of the following from the Edit Job screen:

- Changing characteristics for a selected item
- Adding an item to the mail piece
- Deleting an item from the mail piece
- Moving an item to a different position in the mail piece collation
- Edit job settings



NOTE: The options available in the Edit Job screen vary and depend on the item selected and the number of available trays on the feeder tower.

Edit Job Settings

To make changes to the job settings:

1. From the Home screen select **Menu>Jobs>Edit Current Job**.
2. Select **Edit Job Settings**.
3. The Job Comments screen displays. You can add Job Comments, toggle the Batch Mode on or off, make adjustments to the Batch Count and Set Over Max Count settings, or turn on the Use Postage Meter feature.

   NOTE: Refer to the Job Settings table in this chapter for more information about these options.

4. Select **Accept** when done editing these options.
5. To retain your changes for this job, select **Finished** in the Edit Job screen. To store the job changes permanently, select **Save Current Job** in the Job screen. You must have supervisor or manager access rights to save a job.

Edit an Item

You can edit items to your mail piece one at a time using the procedure described below.

To edit an item in a mail piece:

1. From the Home screen select **Menu>Jobs>Edit Current Job**. The Edit Job screen will display.
2. Use the UP/DOWN arrow keys to select the item. A highlight will appear around the selected item.
3. Select E**dit Highlighted Item**.
4. The next screen that displays depends on the item you highlighted (outer envelope, sheet, insert, fold, or booklet) in the Mail Piece Icon Tree. Press the desired screen option in each menu to select from the available parameters.

   NOTE: Available menu items and associated options/actions for each item in the Mail Piece Icon Tree are listed in the Job Options section of this chapter.

5. Select **Accept** when done editing these options.
6. To retain your changes for this job, select **Finished** in the Edit Job screen. To store the job changes permanently, select **Save Current Job** in the Job screen. You must have supervisor or manager access rights to save a job.

Add Items

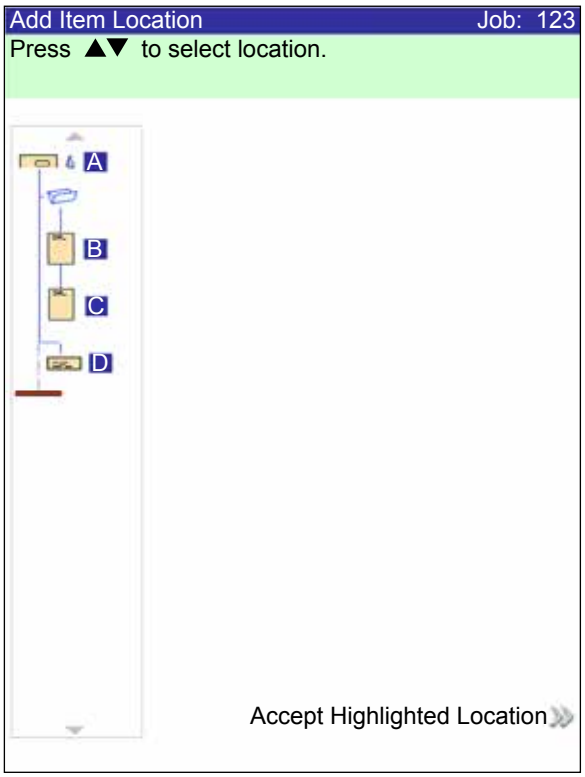
You can add items to your mail piece one at a time using the procedure described below.

To add an item to a mail piece:

1. From the Home screen select **Menu>Jobs>Edit Current Job**. The Edit Job screen displays.
2. Select **Add Item**.
3. Select the appropriate option: **Add Outer Envelope**, **Add Sheet**, **Add Insert** or **Add Large Booklet**.

   NOTE: Only jobs using the HCEF can have two outer envelopes.

4. *If you selected **Add Outer Envelope, Add Sheet, Add Insert*** or **Add *Large Booklet*** the Add Item Location screen displays.



   a. Use the UP/DOWN arrow keys to indicate where in the Mail Piece Icon Tree (the mail piece collation) to place the new item. An insert marker highlights the selected area.
   b. Press **Accept Highlighted Location** when you are done.
   c. Depending upon the item you selected, the Add Sheet, Add Insert, or Add Booklet screen appears. Use the screen option keys to define the parameters for the new item.
   d. Select the desired item characteristics.
   e. Press **Accept** when you are done.

6. *If you selected **Add Outer Envelope*** the Add Envelope screen displays.
   a. Use the screen option keys to define the new envelope parameters
   b. Select the desired item characteristics
   c. Press **Accept** when you are done.
7. If you want to add more items, repeat steps #1 - 5, as necessary, for each new item.

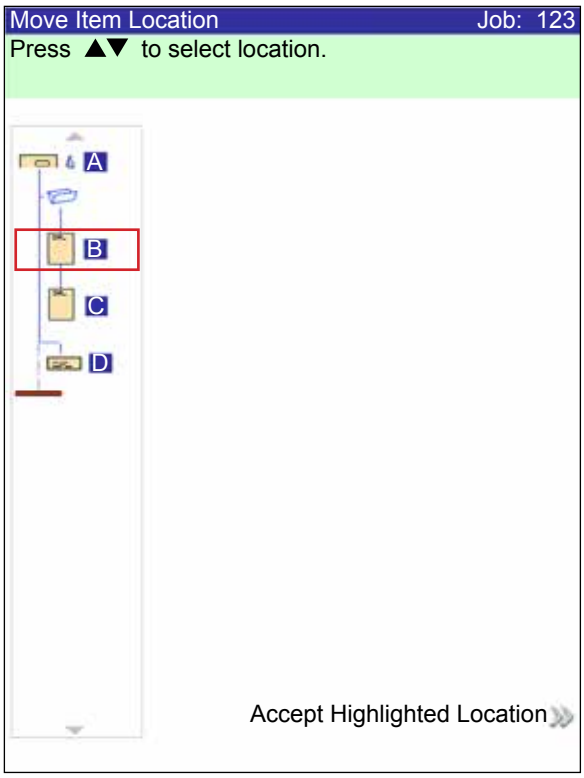
   NOTE: If you don't want the changes, select **CANCEL**. The Confirm Cancel prompt displays. Select **Don't Keep Changes** to discard the new entries. You are returned to the Edit Job screen.
8. To retain your changes for this job, select **Accept** in the Edit Job screen.
9. To store the job changes permanently, select **Save Job** in the Menu screen. *(This requires supervisor or manager access to save a job.)*

   NOTE: Recheck the Mail Piece Icon Tree. Moving an item can cause the feeder assignment to change. If it does, be sure to load the designated item into the correct feeder.

Move an Item

To move an item within a mail piece collation order:

1. From the Home screen select **Menu>Jobs>Edit Current Job**. The Edit Job screen displays.
2. Use the UP/DOWN arrow keys to select the item. A highlight appears around the selected item.
3. Select **Move Highlighted Item**. The Move Item Location screen displays.



4. Use the UP/DOWN arrow keys to move the red insert marker to the area in the collation where you want to relocate the item.
5. Select **Accept Highlighted Location**. You will be returned to the Edit Job screen.

   NOTE: Recheck the Mail Piece Icon Tree. Moving an item can cause the feeder assignment to change. If it does, be sure to load the designated item into the correct feeder.

Delete an Item

To delete an item from the mail piece collation:

1. From the Home screen select **Menu>Jobs>Edit Current Job**. The Edit Job screen displays.
2. Use the UP/DOWN arrows to select the item to be deleted. A highlight will appear around the selected item.
3. Select **Delete Highlighted Item**.
4. Select Y**es, Delete Item**. You will be returned to the Edit Job screen.

   NOTE: Re-check the Mail Piece Icon Tree. Deleting an item can cause the feeder assignment to change. If it does, be sure to load the designated item into the correct feeder.

Save a Job

There are several scenarios in which you would save a job,

Save a New Job

To save a new job:

1. Select **Yes, Save** from the Create – Save Created Job screen.

   NOTE: If you are not logged in with supervisor or manager access rights, you will be prompted to enter an access code.

2. The Save Job screen displays. Use the alphanumeric matrix to enter the name of the job. Job names can contain up to 15 characters.
3. Select **Finished** when done.

Save Edits and Updates made to an Existing Job

To save edits and updates made to an existing job:

1. Select **Save Current Job** from the Job Screen.

   NOTE: If you are not logged in with supervisor or manager access rights, you will be prompted to enter an access code.

2. The Save Job screen displays. Select **Finished** to save updates, and edits made to the current job.

Save Current Job as a Different Job (new or replace existing job)

To save a job as a different job (new or replacement):

1. Select **Save Current Job** from the Job Screen.

   NOTE: If you are not logged in with supervisor or manager access rights, you will be prompted to enter an access code.

2. The Save Job screen displays. Use the alphanumeric matrix to edit the name of the job. Job names can contain up to 15 characters.
3. Select **Finished** when done.

Delete a Job

Jobs that display in the Saved Jobs list are the *only* jobs that can be deleted.

NOTE: Library jobs are permanent residents of the system's memory. The **Delete** function is disabled for the any of the Library jobs.

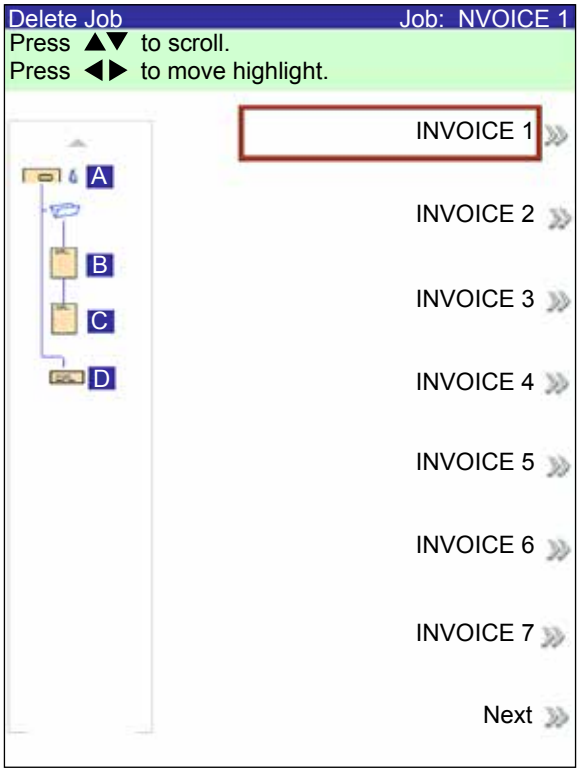
To delete a job from th saved jobs list:

1. From the Home Screen for any job, select **Menu**.
2. Select **Jobs**.
3. Select **Delete Saved Job**. The list of saved jobs displays.

   NOTE: If you are not logged in with supervisor or manager access rights, you will be prompted to enter an access code.

4. Select the name of the job you want to delete.
5. Select **Delete Job** to confirm the delete command.

NOTE: Selecting **Delete** causes permanent deletion of this job from the system's memory. However, if this is the *current job* the job name will appear on the Home screen, as it is still in the system's "working" memory. Additionally, a copy of the deleted job can be run if it appears in the Recently Run Jobs list.



Assign User IDs and Passwords

You must have Manager level access rights to assign a user ID and password.

1. From the Home screen, select **Menu>Tools**.
2. Select **Configure System>Security Level**.

   NOTE: If you are not logged in with supervisor or manager access rights, you will be prompted to enter an access code.

3. The Security screen displays. Select **User ID Setup**.
4. Select **Add New User**.
5. The Enter User Name screen displays:
   a. Use the alphanumeric matrix to enter the user ID.
   b. Select **Finished** when done.
6. The Select User Level screen displays:
   a. Use the UP/DOWN arrow keys to select the appropriate access level (operator, supervisor, or manager.)

      NOTE: Refer to Access Rights for more information.

   b. Select **Accept User Level** when done.
7. The Enter Password screen displays:
   a. Enter the password.

   NOTE: Passwords are four-digit numeric codes. Numbers 1, 2, 3, 4 and 5 display on the first screen. Press "Next" to access numbers 6, 7, 8, 9, and 0.

   b. Select **Finished** when done.

Enabling and Disabling Feeders

To enable or disable feeders:

1. On the control panel, enable the upper and/or lower feeder trays.
2. From the Home screen, select **Menu>Tools">Configure System>Feeder Setup>Feeder Enable/Disable**.
3. Select the feeder you wish to enable or disable.
4. Select **Enable** or **Disable**.
5. Select **Finished**, and press **HOME**.

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4 • Scanning

Contents

continued

Scanning Overview

The system offers two types of scanning; both types are optional features:

- **Optical Mark Recognition (OMR)** - generated in "ladder" orientation
- **Barcode Recognition (BCR)** - generated in "ladder" or "picket" orientation

OMR

The purpose of OMR scanning is to ensure that a set of sheets that belongs together in a Mail Piece stays together as they make their way through the paper path and into the outer envelope.

An OMR mark is normally a dark solid line on a sheet of light colored paper that is perpendicular to the direction of paper travel. This line must be thick and dense to trigger the OMR scanner.

The OMR scanner works with the OMR system software to check for one or more different OMR marks on a document as it is fed through the system. Tracking of these marks enhances mail piece integrity by assuring the documents that belong together (a set) stay together throughout the inserting process.

Barcode

A barcode is a series of vertical bars and spaces that represent a numerical or alphanumerical series. Barcodes that may be used with this system are 1D (code 3 of 9 and interleaved 2 of 5) and 2D data matrix.

Direction of Feed: ↑ *or* ↓

Example: "Ladder" Orientation (OMR *and* BCR Marks)

NOTE: A HCSF is required to scan barcodes in **picket** orientation. Picket orientation uses a moving beam scanner. A moving beam scanner or a 2D camera can be present on either side of the HCSF.

Direction of Feed: ↑ *or* ↓

Example: "Picket" Orientation (BCR Marks *ONLY*)

Code 3 of 9 Barcode (1D Barcode)

Code 3 of 9 is an *alphanumeric barcode*. Each character is represented by five bars and four spaces, making a total of nine elements. Of these nine elements, three are wide and six are narrow. The space between characters is called the intercharacter gap. An asterisk is used as a start code and a stop code indicating where the data starts and ends. The start and stop codes allow the symbology to be read backwards and forwards.

Interleaved 2 of 5 Barcode (1D Barcode)

Interleaved 2 of 5 (also called the I2of5 or ITF) is a *numeric barcode*. Start and stop characters are not required. Interleaving allows the characters to overlap, creating a higher density barcode than the Code 3 of 9. The symbology uses bars to represent the first character and the interleaved (white) spaces to represent the second character. Each character has two wide elements and three narrow elements.

The Interleaved 2 of 5 uses combinations of 2 of the 5 bars or spaces to create characters. The odd and even numbered characters encoded in the bars and spaces fit together like a puzzle. Interleaving or interlacing of the bars and spaces allows for a high-density, compact code. The UPC is a special type of Interleaved 2 of 5 barcode.

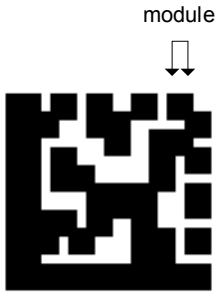
2D Data Matrix Barcodes

2D data matrix barcodes provide a compact barcode option to customers who would like to keep physical size of the barcode to a minimum making it easier to fit a barcode into a document.

A key advantage to the 2D data matrix barcode over the standard linear barcodes (such as Code 3 or 9) is that 2D data matrix barcodes can store a larger amount of data in a smaller sized barcode.

The capacity of a 2D data matrix barcode is determined by two factors:

- The **dimension** of the barcode measured by the number of modules. A module is either a black or white square.



- The **data encoding method** used when the barcode is generated. The three most common data encoding types are:
  - Numeric (just numbers, highest data density)
  - Alphanumeric (numbers and letters)
  - Binary (just numbers 0 and 1)

Physical Specifications - 2D Data Matrix Barcodes

These are the 2D data matrix barcode physical dimensions supported by the Relay 5000 - 8000 inserters.

- Square 2D barcodes are supported in both the HCSF and tower.
- Rectangle 2D barcodes are only supported in the High Capacity Sheet Feeder (HCSF).

Barcode Specifications - HCSF

Item	Minimum	Maximum
# of characters	1	32*
Symbol width	3.3 mm (0.125")	15.875 mm (0.625")
Symbol length	3.3 mm (0.125")	19.05 mm (0.75")
Module size	0.33 mm (0.013")	0.635 mm (0.025")
# of modules (square)	10 x 10	32 x 32
# of modules (rectangle)	8 x 18	16 x 48

**Software ignores any data beyond the 32nd character*

Barcode Specifications - Tower

Item	Minimum	Maximum
# of characters	1	32*
Symbol width	3.3 mm (0.125")	12.5 mm (0.492")
Module size	0.33 mm (0.013")	0.635 mm (0.025")
# of modules (square)	10 x 10	32 x 32

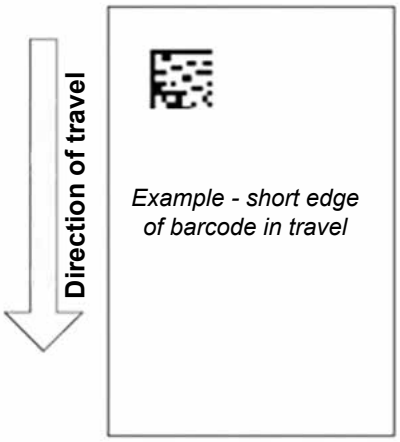
**Software ignores any data beyond the 32nd character*

Printing Specifications - 2D Data Matrix Barcodes

- Codes must be printed with black ink on a white background (contrast must be greater than 75%)
- Code cannot be printed over any text or graphics
- Code should not intersect any perforation
- Printer should be set for printing at 600 DPI or higher
- Codes must be barcode quality grade of A (using ISO15415 standard barcode grader)

Supported Square Format

Square format is supported by the HCSF and the tower. Relay 5000 - 8000 inserters support square 2D data matrix formats and these corresponding data capacities.



2D Square Format Data Capacities

Size	Maximum Numeric Capacity	Maximum Alpha-numeric Capacity	Maximum Binary Capacity	Minimum Supported Module Size (mm)	Maximum Supported Module Size (mm)
10 x 10	6	3	1	0.33	0.635
12 x 12	10	6	3	0.33	0.635
14 x 14	16	10	6	0.33	0.635
16 x 16	24	16	10	0.33	0.635
18 x 18	36*	25	16	0.33	0.635
20 x 20	44*	31	20	0.33	0.635
22 x 22	60*	43*	28	0.33	0.635
24 x 24	72*	52*	34*	0.33	0.635
26 x 26	88*	64*	42*	0.33	0.635
32 x 32	124*	91*	60*	0.33	0.635

**Can be read, but software ignores any data beyond the 32nd character*

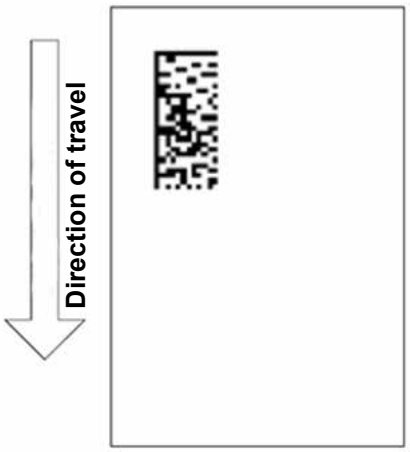
Supported Rectangular Formats

Rectangular 2D data matrix barcodes are only supported by the HCSF. They can be placed on the page in several orientations.

- Short Edge - short edge of barcode in the direction of travel
- Long Edge - long edge of barcode in the direction of travel

Short Edge

Short edge of the barcode goes first.



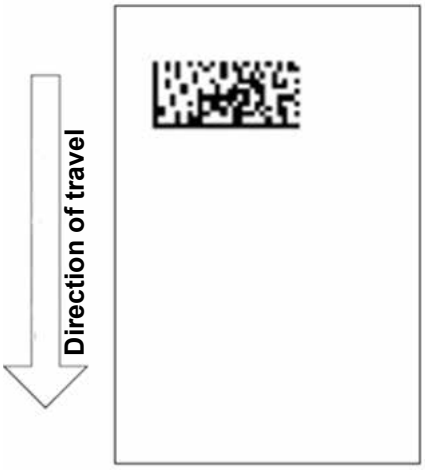
2D Rectangular Format Data Capacities - Short Edge

Size	Maximum Numeric Capacity	Maximum Alpha-numeric Capacity	Maximum Binary Capacity	Minimum Supported Module Size (mm)	Maximum Supported Module Size (mm)
8 x 18	10	6	3	0.33	0.635
8 x 32	20	13	8	0.33	0.5842
12 x 26	32	22	14	0.33	0.635
12 x 36	44*	231	20	0.33	0.4826
16 x 36	64*	46*	30	0.33	0.4826
16 x 48	98*	72*	47*	0.33	0.381

**Can be read, but software ignores any data beyond the 32nd character*

Long Edge

Long edge of the barcode goes first.



2D Rectangular Format Data Capacities - Long Edge

Size	Maximum Numeric Capacity	Maximum Alpha-numeric Capacity	Maximum Binary Capacity	Minimum Supported Module Size (mm)	Maximum Supported Module Size (mm)
8 x 18	10	6	3	0.33	0.635
8 x 32	20	13	8	0.33	0.453
12 x 26	32	22	14	0.33	0.559
12 x 36	44*	231	20	0.33	0.432
16 x 36	64*	46*	30	0.33	0.432
16 x 48	98*	72*	47*	0.33	0.330

**Can be read, but software ignores any data beyond the 32nd character*

NOTE: There are some combinations that are not supported and result in a barcode length or width that exceeds 15.875 mm maximum length or width specification.

Scanning Features

Dynamic Envelope Selection

Dynamic envelope selection allows you to create scanning jobs on Relay 5000 - 8000 inserters (with or without a High Capacity Sheet Feeder) that will insert mail pieces into either letter-sized or flat envelopes.

Letter-sized envelopes are loaded at the HCSF. Flat envelopes are loaded at the feeder tower, and can be linked so they feed from feeder A and C.

NOTE: You cannot use a windowed flat envelope with top address, Z folded jobs. Dynamic envelope selection cannot be used when the stiff media insert is selected.

This feature is implemented in one of two ways:

- Using the Envelope Select (ES) scan mark. The Envelope Select scan mark is available on systems that have BCR scanning or the Selective Operations level of OMR scanning enabled. (Refer to *BCR and OMR Mark Levels* for more information about the various levels of scanning.)
- Setting the **Item Overcount Action** to **Use Alternate Envelope**. Refer to *Creating a Job* or *Assigning a Scan Configuration to an Existing Job*.

Jobs using dynamic envelope selection must be set up with two outer envelopes. The first set in the job must contain the information necessary to make the envelope selection (either the Envelope Select scan mark or **Item Overcount Action** setting). Secondary sets of scanned material, generic (non-scanned) material, or sets containing select fed sheets can be included in a dynamic envelope selection job.

Additionally, a single reply envelope (BRE) can be included in the job. If you wish to add an insert type other than a BRE to the flat envelope, the insert must be called a BRE in the Mail Piece Icon Tree.

NOTE: Thick inserts (such as booklets) may have trouble accumulating in the pre-fold accumulator and are not recommended for use.

The BRE/insert will accumulate with the flat set in the pre-fold accumulator prior to insertion into the envelope.

NOTE: Dynamic envelope selection cannot function with the batch mode, or with any of the divert functionality.

Divert Sheet Functionality

Divert sheet functionality allows you to create scanning jobs that will send sheets to the lower divert area if sets exceed a given sheet count or contain a specific scan mark.

This feature is implemented in one of two ways

- Using the Divert Sheets (DVS) scan mark. The Divert Sheet scan mark is available on systems that have BCR scanning or the Selective Operations level of OMR scanning enabled. Refer to *BCR and OMR Mark Levels* for more information about the various levels of scanning
- Setting the “Item Overcount Action” to “Divert”. Refer to *Creating a Job* or *Assigning a Scan Configuration to an Existing Job.*
- Jobs using the divert sheet functionality will send diverted sets to the lower divert area. The remaining parts of the mail piece will be processed, inserted into an outer envelope, and sent to the upper divert area.

NOTE: If the mail piece contains only a single set, which has been diverted, an empty envelope will be sent to the upper divert area.

Currently, the system can divert up to 25 sheets. If a set contains more than 25 sheets, the system will stop and you will need to manually remove sheets from the Pre-fold Accumulator and the remainder of the set from the appropriate sheet tray.

Divert sheet functionality cannot function with dynamic envelope selection at this time.

Most barcode readers do not require barcode internal data encoding to be specified in order to read the barcode. However, data matrix barcodes do support internal error detection and correction. The level of error detection and correction is known as the ECC level.

ECC 080
ECC 050
ECC 000

Supported ECC (Error Correction Code) Levels

The use of ECC allows for codes to be partially damaged but remain readable. The amount of error correction built into a data matrix barcode does not limit the data capacity of the barcode.

The HCSF and tower support 2D data matrix barcodes for all ECC levels.

- *New Applications*
  ECC 200 (the current industry standard)
- *Legacy Applications*
  ECC 140
  ECC 130
  ECC 120
  ECC 100

Setting Up a New Scan Configuration

When the job you are running includes scanning, you will need to:

- Have the BCR or OMR Scan Configuration Worksheet or some listing of the required scan marks. The BCR or OMR Scan Configuration Worksheet is a document prepared by the system supplier or someone who manages your system. This document contains information about scan marks for the job that you are running. You will need to enter this information in the appropriate configuration screens.
- Enter the settings into the Configurations screen for each item included in the job's scan configuration.
- Add the scan configuration to the job.

NOTE: Entry of a access code or password from a Supervisor and/or Manager is required for use of these functions. Refer to Access Rights for more information about logging in using the two security modes.

Setting Up an OMR Scan Configuration

To setup an OMR Scan Configuration:

1. From the Home screen, select **Menu>Tools**.
2. Select **Configure System>Scan Configuration Setup**.

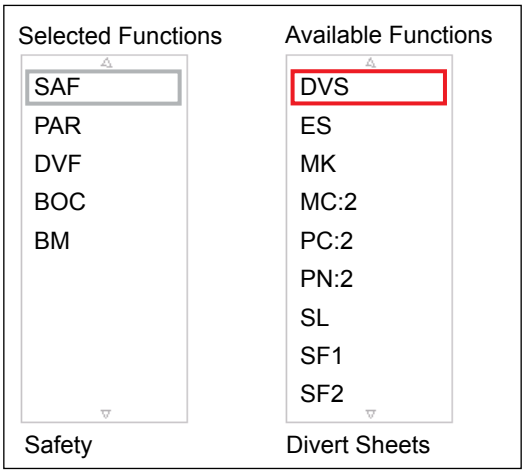
NOTE: If you are not logged in with supervisor or manager access rights, you are prompted to enter an access code.

3. Select **OMR**.
4. At the Scan Configuration Setup screen, select **Create New Item**.
5. Enter the **Scan Configuration name** using the alphanumeric matrix.
6. Press **Finished**.

NOTES:

- The Scan Configuration name cannot be longer than nine characters.
- All names must be unique across all scan types.
- An OMR Scan Configuration name cannot be the same as a BCR Scan Configuration name.

7. The Create OMR screen displays; select **Add Item**.
8. The Add OMR Functions screen displays. There are two lists available on the screen:
   - **Selected Functions** - items that have been selected
   - **Available Functions** - items that can be added



Selected and Available Lists

9. Use the LEFT/RIGHT arrow keys to move between lists.

10. Use the UP/DOWN arrow keys to highlight an item within a list.
    a. Highlight the appropriate item in the **Available** list
    b. Select **Add Highlighted Item**. The item you selected in the Available list will move to the end of the Selected list.
    c. Repeat step a until all necessary items have been added to the Selected list.
    d. Press **Finished** when you are done.
11. The Create OMR screen displays. Use the **UP/DOWN** arrows to highlight an item in the OMR Marks list.
12. Select **Set Options for Highlighted Item**.

NOTE: The options that appear depend on the selected function. The following tables show a complete list of options.

OMR Options Table

Menu Option	Associated Options/Actions
Increase Count for Highlighted Item *(MC, WAS only)*	Increase number of marks for the function. The count number is appended to the abbreviation (e.g. MC1, MC2, MC3).
Decrease Count for Highlighted Item *(MC, WAS, PC, PN only)*	Decrease number of marks for the function. The count number is appended to the abbreviation (e.g. MC3, MC2, MC1).
Use When	Toggle between: • **Present** - the function will be performed when mark is printed • **Absent** - the function will be performed when the mark location is blank.
Count Direction *(Multi-bit only)*	Specify the count direction. • **Up** (default) - the relevant code's binary value increases as the system scans each page • **Down** - the relevant code's binary value will decrease as the system scans each page • **Random** (MC only)

Menu Option	Associated Options/Actions
Is Controlling	Determines if the selected function controls where collations end, *or* indicates error checking. Toggle between: • **Yes** (default) • **No** **NOTES:** • Only one function can be controlling. Selecting **Yes** will set all other functions to **No**. • This option displays for BOC *only* when an HCSF is present. • When MC is controlling, the **PC Control** option is set to **No** and becomes inactive. • If the Scan Configuration will be used with a closed-loop file based processing job, then MC *must* be controlling. This tells the inserter that file based processing will provide the control instructions to the inserter based on the MC read on each document and defines this as a closed-loop scan code definition.
Wrap At *(Multi-bit only)*	Displays **Wrap At** numeric entry screen, where you enter the maximum code value in decimal format. • If the count direction is **Up**, the next code after this value will be 0 or 1, depending on the **Includes Zero** setting. • If the count direction is **Down**, the code should jump to this value after 0 or 1. This field can contain up to seven digits.
Includes Zero *(Multi-bit only)*	Specify whether the sequence should include zero. Toggle between: • **Yes** (default) - when selected for the **Include Zero** option, the relevant code's binary value would allow zero, which is represented by no marks being printed within that section of the code • **No**.- is selected for the **Include Zero** option, the relevant code will NOT include zero as a value. Therefore, a mark will ALWAYS be printed within that section of the code for OMR
LSB	Specify the least significant bit. Toggle between: • **Last** (default, farthest from top of page) - when selected, the least significant bit is farthest from the top of the page. • **First** - when selected for the **Least Significant Bit** option, the least significant bit is closest to the top of the page.

13. When all necessary options are set, select **Finished.**
14. Repeat steps #8 - 11 for each additional function on the *OMR Scan Configuration Worksheet*.
15. Select **Finished** on the Create Scan Code screen when you have entered and set up all of the functions.

Setting Up a BCR Scan Configuration

1. From the Home screen, select **Menu>Tools**.
2. Select **Configure System>Scan Configuration Setup**.

NOTE: If you are not logged in with supervisor or manager access rights, you will be prompted to enter an access code.

3. Select the appropriate **BCR Scan Type**:
   - 1D - code 3 of 9
   - 1D - interleaved 2 of 5
   - 2D data matrix
4. The Scan Configuration Setup screen for your selection displays. Select **Create New Item**.
5. Enter the **Scan Configuration name** using the alphanumeric matrix.
6. Press **Finished**.

NOTE: Scan configuration names cannot be longer than 9 characters. Additionally, all names must be unique across all scan types. That is, a BCR Scan Configuration name cannot be the same as an OMR Scan Configuration name.

7. When the Create Scan Code screen appears, enter the character, bit, and size information on the *BCR Scan Configuration Worksheet* for a function.
   a. Use the UP/DOWN and LEFT/RIGHT arrow keys to highlight an item within the grid.
   b. Press **Increase** or **Decrease** to edit the character (C), bit (B) and size (S) information for a specific function (F)

F	C	B	S
MC	3	4	2
WAS	5	4	2
EOC	7	0	1
SF1	8	0	1
DVF	9	0	1

Scan Grid

NOTES:

- On the *BCR Scan Configuration Worksheet*, look for the function abbreviation in the **Function** column. Enter the associated character information in the **C** column, the bit information in the **B** column and, if necessary, the size information in the **S** column.
- Bit 0 is the right-most bit (least significant) in each character:
  - 1D barcodes (code 3 of 9), bits are 5, 4, 3, 2, 1, and 0
  - 1D barcodes (interleaved 2 of 5 barcodes), bits are 2, 1, 0
  - 2D data matrix
- Items with character set to zero will no be included in the final code.
- For multi-bit fields, the entry in the "S" column depends on the code type. For Bin, **S** is the number of bits. For CCD, **S** is the number of characters.

9. Select **Set Options**.

NOTE: The options that appear depend on the selected function. The following tables show a complete list of options.

BCR Scan Options Table

Menu Option	Associated Options/Actions
Use When	Toggle between: • **Present** - the function will be performed when the bit is "1" • **Absent** - the function will be performed when the bit is "0"
Count Direction	Specify the count direction. • **Up** (default) - the relevant code's binary value will increase as the system scans each page • **Down** - the relevant code's binary value will decrease as the system scans each page • Random (MC only)
Is Controlling	Determines if the selected function controls where collations end, *or* indicates error checking. Toggle between: • **Yes** (default for EOC) • **No** **NOTES:** • Only one function can be controlling. Selecting **Yes** sets all other functions to **No** • If the scan configuration will be used with a closed-loop file based processing job, then MC *must* be controlling. This tells the inserter that file based processing will provide the control instructions to the inserter based on the MC read on each document and defines this as a closed-loop Scan Code definition.
Code Base	Specify the numeric value for the code base. The minimum value is *2*, and the maximum value is *43*. The default value is *32*. For codes that span more than one character, this sets the value where each character resets to zero and carries to the next character.

Menu Option	Associated Options/Actions
Code Type	Select the appropriate code type: • **BIN** (for most single-bit functions) • **CCD** (for most multi-bit functions) • **XCD** (for minimum code size, this selection allows multibit fields to span partial characters) These coding type options are intended to be consecutive numbers that either count up or count down. They allow the system to count up to a maximum, or down to either one or zero and wraps at/to a defined maximum value. **BIN** is a straight binary string. It is loaded into the barcode construct at the starting bit position until all bits have been assigned. **CCD** is a character-based field aligned with character boundaries for human readability. This number must be less than 43. Recommended options for Code 3 of 9 barcodes are: 10, 32, or 36. Base number must be 10 for Interleaved 2 of 5 barcodes. **XCD** provides minimum code size at the expense of human readability. It allows multi-bit fields to span partial characters.
Wrap At	Displays **Wrap At** numeric entry screen, where you enter the maximum code value in decimal format. • If the count direction is **Up**, the next code after this value will be 0 or 1, depending on the Includes Zero setting. • If the count direction is **Down**, the code should jump to this value after 0 or 1. This field can contain up to 10 digits.
Includes Zero	Specify whether the sequence should include zero. Toggle between: • **Yes** (default) - when selected for the Include Zero option, the relevant code's binary value would allow zero, which is represented by no marks being printed within that section of the code • **No** - when selected for the Include Zero option, the relevant code will NOT include zero as a value.
LSB	Specify the least significant bit. Toggle between: • **Last** (default, farthest from start of code) - when selected for the Least Significant Bit option, the code is in the normal order, with the least significant bit is closest to the right-hand end of the string. • **First**.- when selected, which is very uncommon, the bits are reversed.

10. Select **Finished** once you have set all of the necessary options for the function.
11. Repeat steps #8 to 10 for each additional function on the *BCR Scan Configuration Worksheet.*

12. Select **Scan Mark** to toggle the appropriate mark orientation (ladder or picket), as indicated on the *BCR Scan Configuration Worksheet*.

NOTE: Picket orientation is only available when a HCSF is equipped specifically to support this option.

13. Select **PC Control** to toggle the appropriate option (Yes or No).

NOTE: When PC Control is set to **Yes** the scan grid is grayed out. Additionally, the **Increase**, **Decrease**, and **Set Options** menu items are unavailable.

14. Select **Finished** on the Create Scan Code screen once you have entered and set up all of the functions.

Editing an OMR Scan Configuration

1. From the Home screen, select **Menu>Tools**.
2. Select **Configure System>Scan Configuration Setup**.

NOTE: If you are not logged in with supervisor or manager access rights, you will be prompted to enter an access code.

3. Select the appropriate scan type.
4. The Scan Configurations for the selected scan type display. Use the UP/DOWN arrow keys to select the Scan Configuration you want to edit.
5. Select **Edit Highlighted Item**.
6. Select from the following scan configuration functions. The screen displays the functions list for the selected Scan Configuration. You can:

Scan Configurations Table

Menu Option	Associated Options/Actions
Add Item	Add a mark to the selected scan Configuration: a. Highlight the appropriate item in the **Available** list, then select **Add Highlighted Item**. The item you selected in the **Available** list will move to the end of the **Selected** list. b. Repeat step a, above, until all necessary items have been added to the **Selected** list. c. Press **Accept** when you are done. Once the mark is added, be sure to set the appropriate options. Refer to the *Set Options* table in the *Setting Up a OMR Scan Configuration* section of this chapter for more information **NOTES:** • Items that can be added appear in the **Available** list. Items that have been added appear in the **Selected** list. • Use the LEFT/RIGHT arrow keys to move between lists. Use the UP/DOWN arrow keys to move within a list
Delete Highlighted Item	Delete a mark within the selected scan configuration: a. Use the UP/DOWN arrow keys to select the appropriate mark within the function list. b. Select **Delete Highlighted Item** c. Select **Yes, Delete Item**
Move Highlighted Item Up	Move the selected mark up within the function list.
Move Highlighted Item Down	Move the selected mark down within the function list
Set Options	Edit the options for the selected mark. Refer to the *Set Options* table in the *Setting Up a OMR Scan Configuration* section of this chapter for more information

7. Select **Finished** when you are done.

Editing a BCR Scan Configuration

1. From the Home screen, select **Menu>Tools**.
2. Select **Configure System>Scan Configuration Setup**.

   NOTE: If you are not logged in with supervisor or manager access rights, you will be prompted to enter an access code.

3. Select the appropriate scan type.
4. Scan configurations for the selected scan type display. Use the UP/DOWN arrow keys to select the scan configuration you want to edit.
5. Select **Edit Highlighted Item**.
6. The screen displays the scan grid with the available BCR functions for the selected scan configuration. You can:

BCR Scan Functions Table

Menu Option	Associated Options/Actions
Increase	Allows you to increase the selected character, bit or size for a function. a. Use the UP/DOWN and LEFT/RIGHT arrow keys to highlight the **character** (C), **bit** (B) or **size** (S) within the grid. b. Press **Increase** to edit the info for the highlighted item.
Decrease	Allows you to decrease the selected character, bit or size for a function. a. Use the UP/DOWN and LEFT/RIGHT arrow keys to highlight the **character** (C), **bit** (B) or **size** (S) within the grid. b. Press **Decrease** to edit the information for the highlighted item.
Set Options	Allows you to edit the options for the selected mark. Refer to the *Set Options* table in the *Setting Up a BCR Scan Configuration* section of this chapter for more information
Scan Mark	Toggle to the appropriate mark orientation: • **Ladder** • **Picket**
PC Control	Toggle whether or not the PC Control is used: • **Yes** • **No**

7. Select **Finished** when you are done.

Copying a Scan Configuration

You can save a copy of a selected scan configuration under a new name. This feature permanently saves the current scan configuration setup as a new scan configuration with a different name.

NOTE: The **Copy Highlighted Item** option is unavailable if the maximum number of stored scan configurations (24) is reached; the same scan type is used.

1. From the Home screen, select **Menu>Tools**.
2. Select **Configure System>Scan Configuration Setup**.

NOTE: If you are not logged in with supervisor or manager access rights, you will be prompted to enter an access code.

3. Select the appropriate scan type.
4. The scan configurations for the selected scan type display. Use the UP/DOWN arrow keys to select the scan configuration you want to copy.
5. Select **Copy Highlighted Item**.
6. The Save Scan Configuration As screen displays. Use the alphanumeric matrix to enter the new scan configuration name.
7. Select **Finished** when you are done.

Deleting a Scan Configuration

If necessary, you can delete a scan configuration from the system. *A scan configuration cannot be deleted if it is a library scan configuration, associated with a library job or if it is used by a saved job.*

NOTE: To see which jobs use a given scan configuration, view the job list. You can remove the association with a saved job via the Edit Job function for the job(s) listed in the dialog, and then delete the scan configuration.

1. From the Home screen, select **Menu>Tools**.
2. Select **Configure System>Scan Configuration Setup**.

NOTE: You must be logged in with supervisor or manager access rights, you will be prompted to enter an access code.

3. Select the appropriate scan type.
4. The scan configurations for the selected scan type display. Use the UP/DOWN arrow keys to select the scan configuration you want to delete.
5. Select **Delete Highlighted Item**.
6. One of the following occurs:
   - If the scan configuration meets the requirements for deletion, the **Confirm Delete** prompt displays. Select **Yes, delete item**.

NOTE: Deleted scan configurations cannot be restored by pressing **Cancel**.

   - If the scan configuration does not meet deletion requirements, the Cannot Delete Scan Configuration dialog displays, select **Close**.

Reviewing a Scan Configuration

If necessary, you can view a list of marks associated with the Scan Configuration without entering the Edit mode.

NOTE: This option is only available if the PC Control is set to No.

1. From the Home screen, select **Menu>Tools**.
2. Select **Configure System>Scan Configuration Setup**.

   NOTE: If you are not logged in with supervisor or manager access rights, you will be prompted to enter an access code.
3. Select the appropriate scan type.
4. The scan configurations for the selected scan type display. Use the UP/DOWN arrow keys to select the scan configuration you want to review.
5. Select **Review Highlighted Item**.
6. The Review Scan Code screen displays. The marks associated with the configuration appear in the **Functions** list. Use the UP/DOWN arrow keys to select the function you want to review.
7. Select **Finished** once you have reviewed the list.

Viewing the Job List

View the jobs associated with the selected scan configuration.

NOTE: This option is not available if there are no jobs associated with the selected Scan Configuration.

1. From the Home screen, select **Menu>Tools**.
2. Select **Configure System>Scan Configuration Setup**.

   NOTE: If you are not logged in with supervisor or manager access rights, you will be prompted to enter an access code.
3. Select the appropriate scan type.
4. The scan configurations for the selected scan type display. Use the UP/DOWN arrow keys to select the scan configuration with the job list you want to view.
5. Select **View Job List for Highlighted Item**.
6. The View Job List screen displays. Use the UP/DOWN arrow key to scroll through the job list.
7. Select **Cancel** to return to the Scan Configuration screen.

Assigning a Scan Configuration to an Existing Job

Follow the steps in this section to assign a scan configuration to an existing job (either the current job, or another job) that has been created previously.

1. From the Home screen, select **Menu>Jobs** then select:
   - **Edit Current Job**

     OR
   - **Select Job** then the appropriate job from the list that appears.
2. If the scan configuration uses dynamic envelope selection, the existing job must have a second outer envelope. To add an outer envelope:
   a. Select **Add Outer Envelope**.
   b. Select the appropriate options.
   c. Select **Accept** when done.
3. Use the UP/DOWN arrow keys to select the appropriate item (sheet or insert) in the Mail Piece Icon Tree.
4. Select **Edit Highlighted Item**.
5. Select **Additional Settings**.
6. Select **Scan Item** and toggle **Yes**.
7. Select **Scan Settings**.
8. When the Select Scan Type screen displays, select the appropriate scan type - OMR, 1D (code 3 of 9, interleaved 2 of 5) or 2D data matrix.
9. Select the appropriate scan configuration name from the list that appears. If necessary, select **Next** or **Previous** to move forward or backward through the list.

The Scan Settings screen displays.

Scan Settings Screen Table

Menu Option	Associated Options/Actions
Content in Line with Marks	Toggles whether or not the content is in line with the scan marks in the feed direction: • **Yes** • **No**
Marks on	Toggle which side of the page the marks appear: • **Front** (address side) • **Back**
Marks on First Page Only	Toggle whether or not the marks appear only on the first of multiple sheets: • **Yes** • **No**
Mark Location Settings **NOTE:** This option is disabled when Content in Line with Marks is set to "No" ***and*** the Scan Configuration contains multi-mark with fixed first and last mark.	Set up the various OMR mark-related measurements: • **Top of Page to First Mark** - distance from the top of the page to the first mark. • **Total Length of Marks** - length from the top of the first possible mark to the bottom of the last mark. • **Top of Page to Clear Zone** - distance from the top of the page to the beginning of the Clear Zone. • **Length of Clear Zone** - distance from the top of the Clear Zone to the first mark. Follow the steps below to enter the various mark-related measurements: a. Select an option, then use the UP/DOWN arrow keys to enter the appropriate measurement (in millimeters). b. Press **Accept** when you are done entering the measurement. c. Once *all* measurements have been entered, select **Accept** to return to the Scan Settings screen. **NOTE:** For more information about determining each of the above measurements, refer to *OMR Specifications* in this chapter.
Item Over Count Quantity	Select the number of items that cannot be run normally. a. Use the UP/DOWN arrow keys to enter the item over count quantity. b. Select **Accept** when you are done. **NOTE:** At this time, only a single scanned insert can be added to each mail piece. The scanned insert must be a Business Reply Envelope (BRE).

Menu Option	Associated Options/Actions
Item Over Count Action	Allows you to select what will happen to items that exceed the item over count quantity. Choices include: • **Divert** – Select this option if the scan configuration does not have the Divert Sheet (DVS) scan mark, and you want the system to divert items once the item over count quantity has been exceeded. • **Stop** - Select this option if you want the system to stop processing items once the item over count quantity has been exceeded. • **Use Alternate Envelope** – Select this option if the Scan Configuration does not have the Envelope Select (ES) scan mark, and you want the system to use an alternate envelope for items that exceed the item overcount quantity. Refer to *Scanning Features* in this chapter for more information on dynamic envelope selection and divert sheet functionality.

10. Once the scan settings have been entered, select **Accept** to return to settings screen for the sheet or insert.
11. Select **Select Feed Setting** and choose the appropriate feeder setting for the item (none, SF1, SF2, SF3, SF4, SF5, SF6, SF7, SF8 or SF9).
12. When you are done:
    - Press **Accept** to back through the configure system screens and return to the Home screen. Your settings will be saved.

      OR
    - Press **HOME** to save your adjustments and return directly to the Home screen.

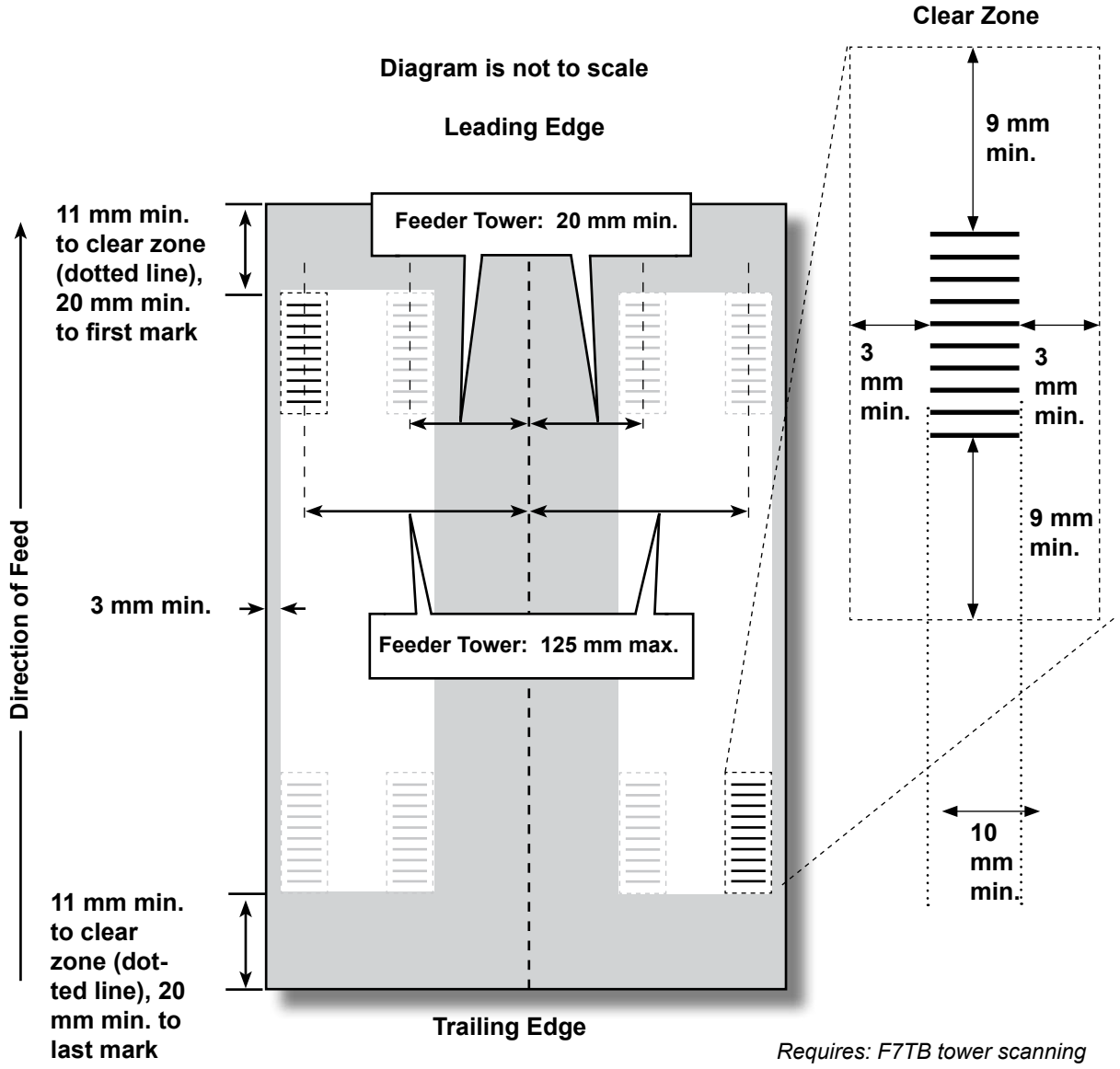
OMR Scanning Specifications

OMR Scanning Specifications

	Minimum	Maximum
Line thickness	0.254 mm (0.01")	1.25 mm (0.05")
Line spacing	3.175 mm (0.0125")	4.2 mm (0.167")
Line length	10 mm (0.393")	20 mm (0.787")
Number of lines	1	19
OMR length	0.254 mm (0.01")	89 mm (3.5")
Center line of marks must fall within these specifications (from the center line of sheet - Tower)	20 mm (0.787")	125 mm (4.92")
Center line of marks must fall within these specifications (from the center line of sheet - HCSF)	32 mm (1.26")	105 mm (4.134")

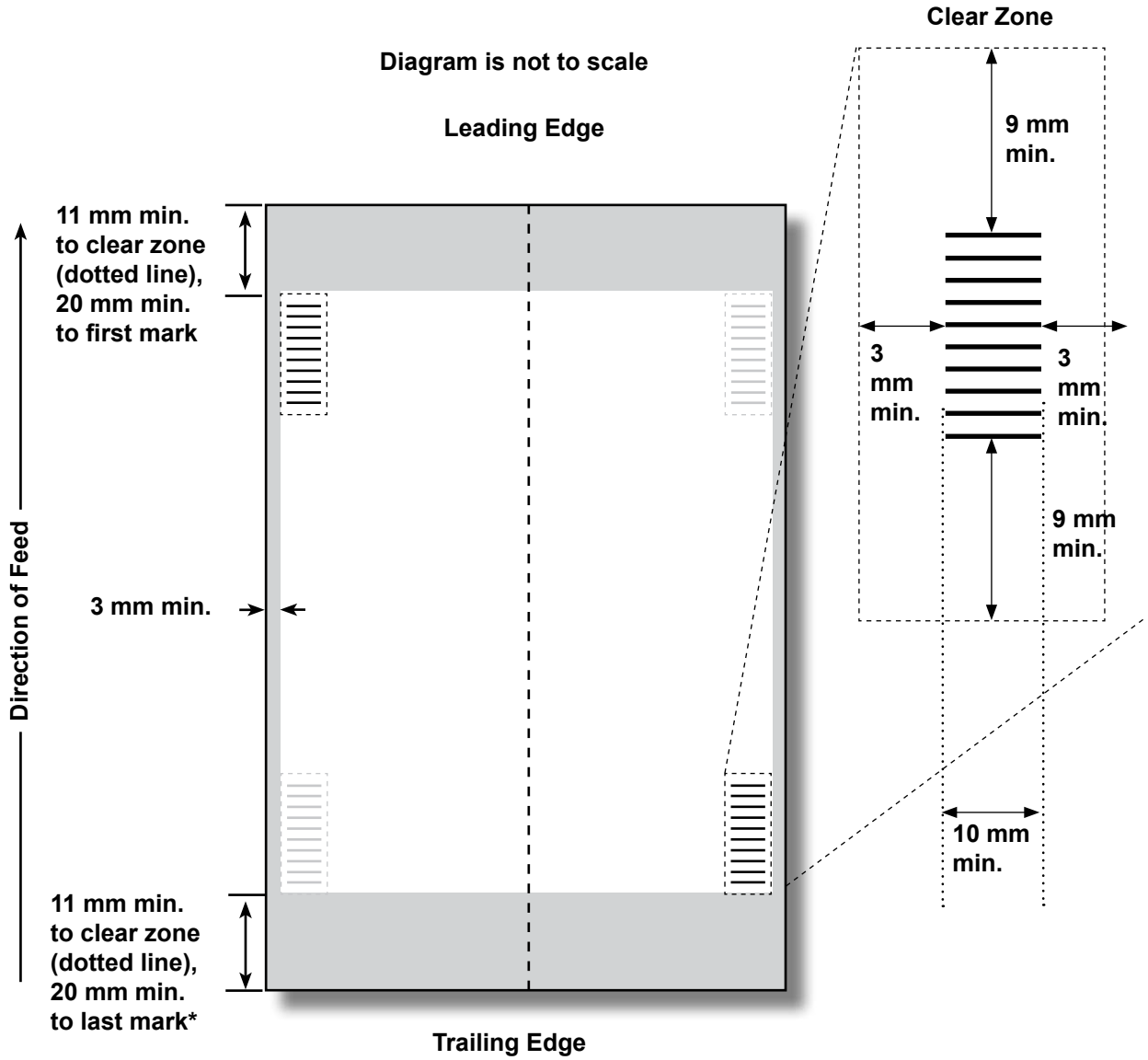
OMR Print and Placement Specifications

OMR Placement Specifications for Feeder Tower - Ladder Orientation



Requires: F7TB tower scanning

OMR Placement Specifications for HCSF - New Scan Kit F790250, Ladder



Requires:
- *F7HD Scanner*
- *F790250 Scanner Install Kit*

*At the time of this writing, we recommend that any scan codes within 45 mm of document trail edge be validated first to avoid scanning issues.

Scan codes containing BOC as a Controlling function should be located within the first 1/3rd of the lead edge of the document.

1D Barcode Specifications

Code 3 of 9 (C39) and Interleaved 2 of 5 Scanning Specifications

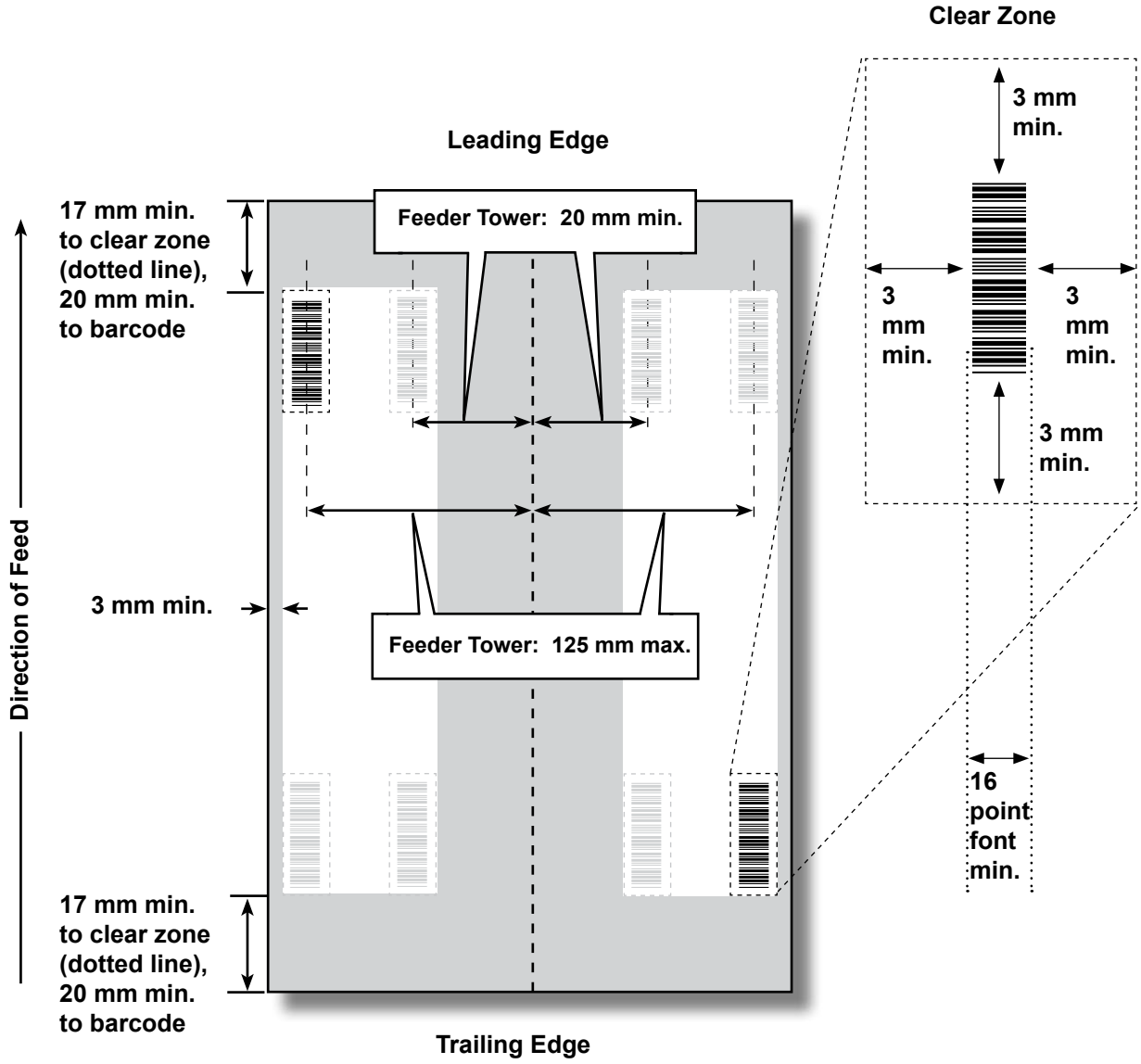
	Minimum	Maximum
Narrow bar width	0.275 mm (0.011")	0.635 mm (0.25")
Narrow space width	0.275 mm (0.011")	0.635 mm (0.25")
Line length	1	32
Number of characters	.1 mm (0.039")	89 mm (3.5")
Barcode length		
Center line of marks must fall within these specifications *(from the center line of sheet - Tower)*	20 mm (0.787")	125 mm (4.92")
Center line of marks must fall within these specifications *(from the center line of sheet - HCSF)*	32 mm (1.26")	105 mm (4.134")

Narrow to wide elements have a 3 to 1 ratio

These specifications were developed using the 1D Automation C39 and I25 font

Barcode Print and Placement Specifications

1D Barcode Placement Specifications for Feeder Tower

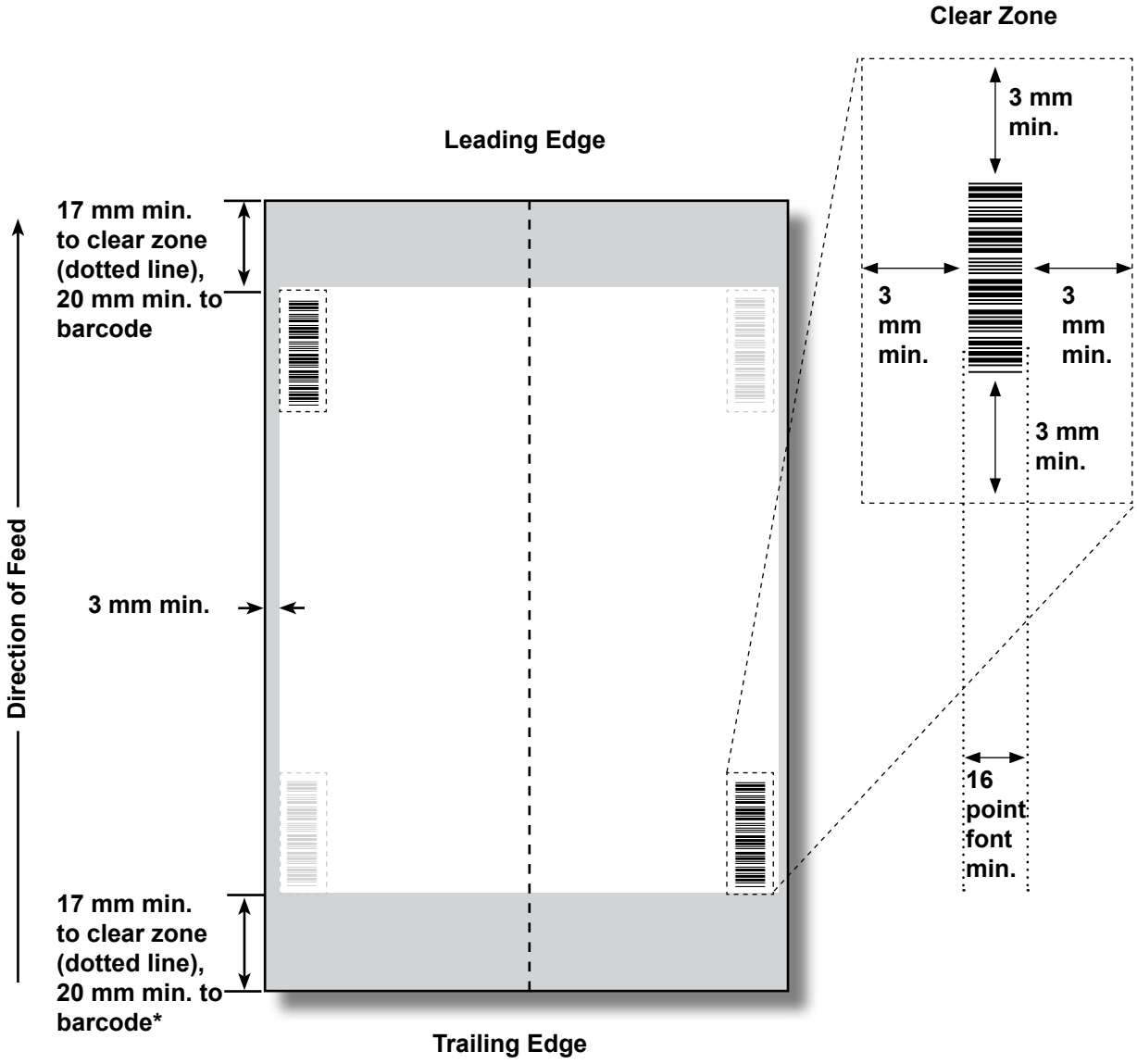


Requires F7TB Tower Scanning

Diagram is not to scale

1D Barcode Placement Specifications for HCSF

(New Scan Kit F790250 - Ladder Orientation)



*At the time of this writing, we recommend that any barcodes within 45 mm of document trail edge be validated first to avoid scanning issues. Applications containing narrow barcodes may not scan reliably with the barcode in this location.

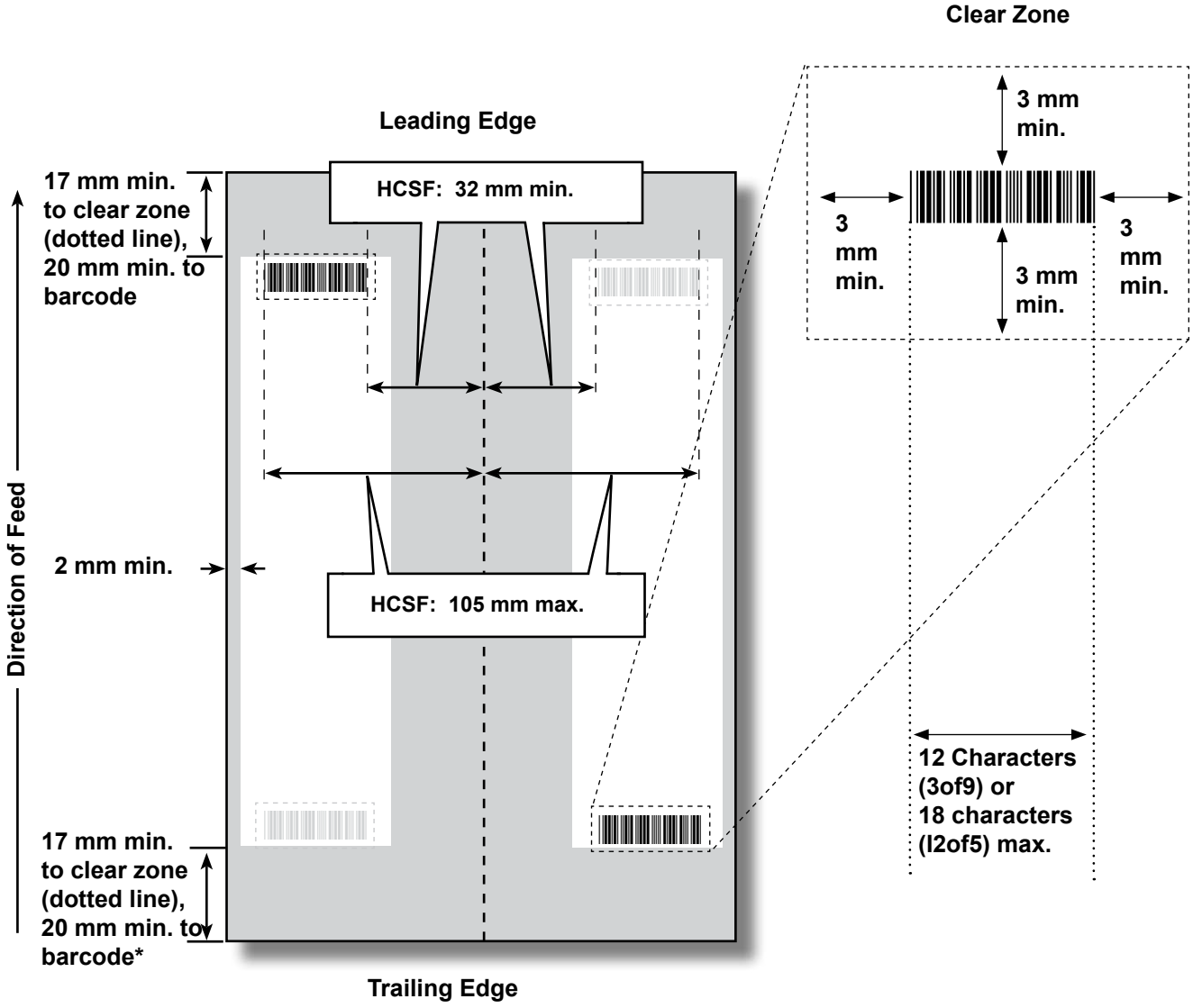
Scan codes containing BOC as a Controlling function should be located within the first 1/3rd of the lead edge of the document.

Requires:
- F7HD Scanner
- F790250 Scanner Install Kit

Diagram is not to scale

1D Barcode Print and Placement Specifications for HCSF

(Original Scan Kit F790050 - Picket Fence Orientation)



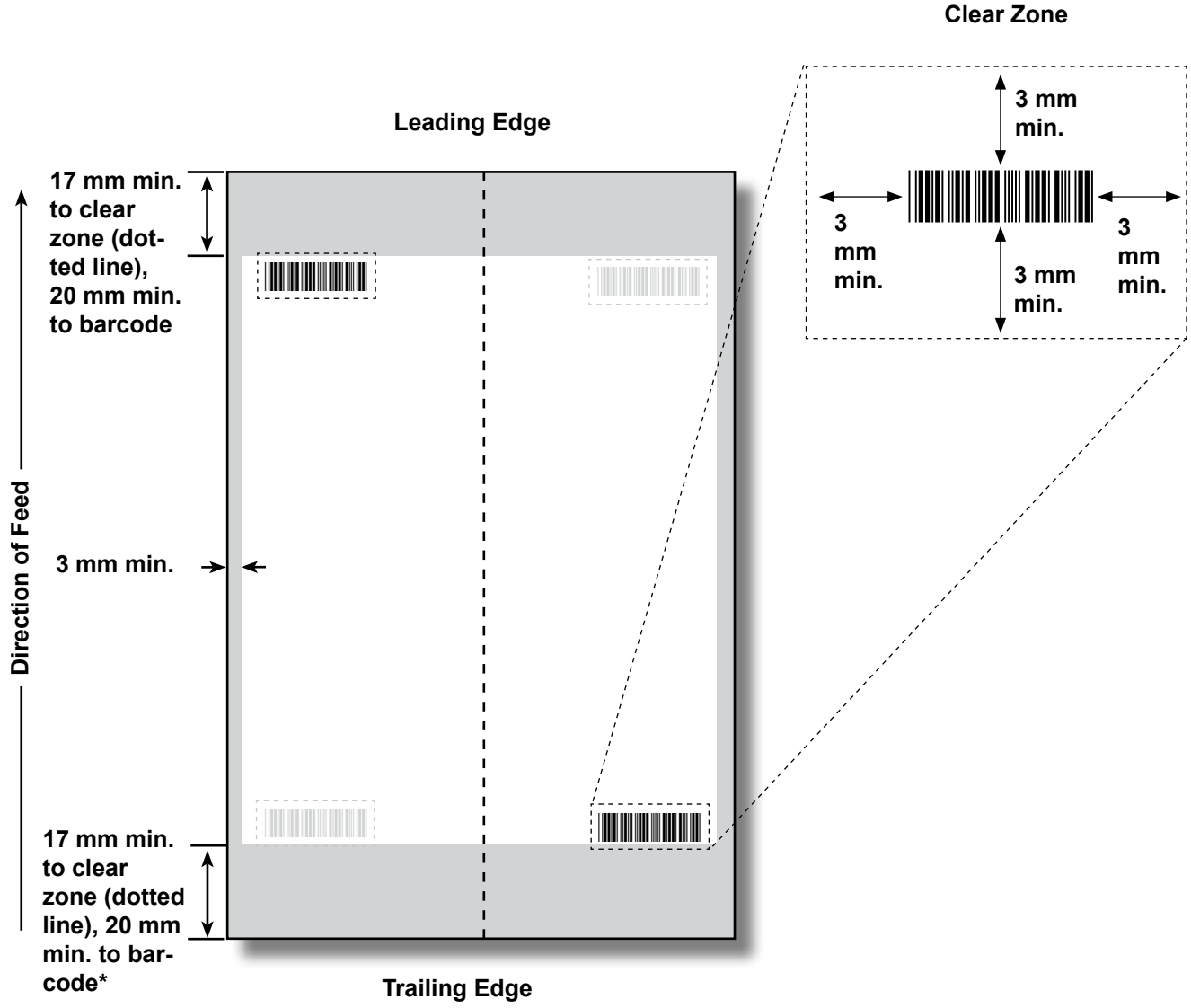
* At the time of this writing, we recommend a minimum of 45 mm between trail edge and barcode.

Requires:
F7FB Scanner
F790050 Scanner Install Kit

Diagram is not to scale

1D Barcode Placement Specifications for HCSF

(New Scan Kit F790250 - Picket Fence Orientation)



Requires:
- F7MB Scanner
- F790250 Scanner Install Kit

Diagram is not to scale

*At the time of this writing, we recommend that any barcodes within 45 mm of document trail edge be validated first to avoid scanning issues. Applications containing narrow barcodes may not scan reliably with the barcode in this location.

Scan codes containing BOC as a Controlling function should be located within the first 1/3rd of the lead edge of the document.

2D Barcode Placement Specifications for HCSF or Tower

(New Scan Kit F790250 - Horizontal/Vertical Orientation)

NOTE: Rectangular barcodes are not supported in the tower.

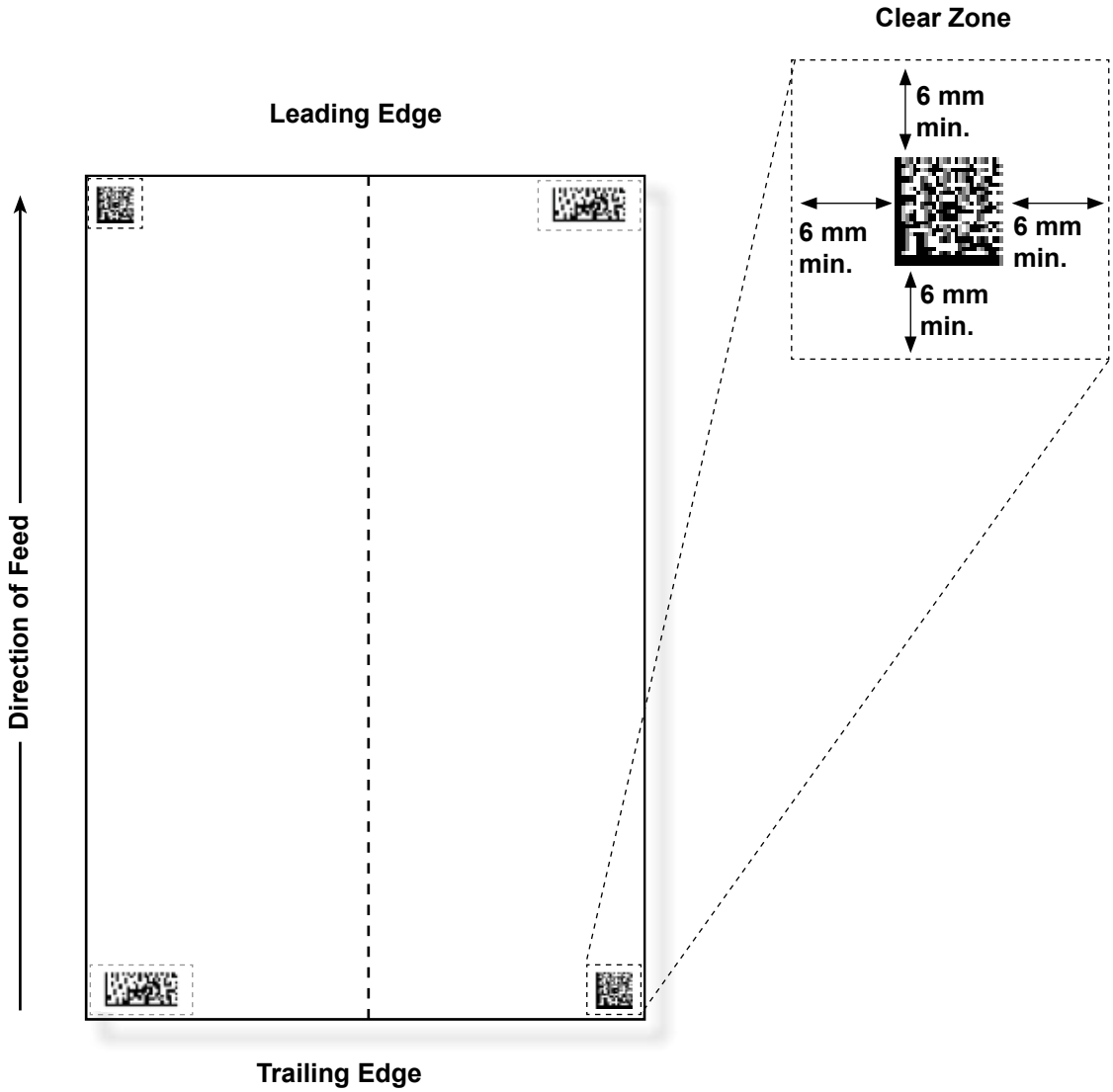


Diagram is not to scale

Requires:
- F72D Scanner
- F790250 Scanner Install Kit

Setting the OMR Scanning Area

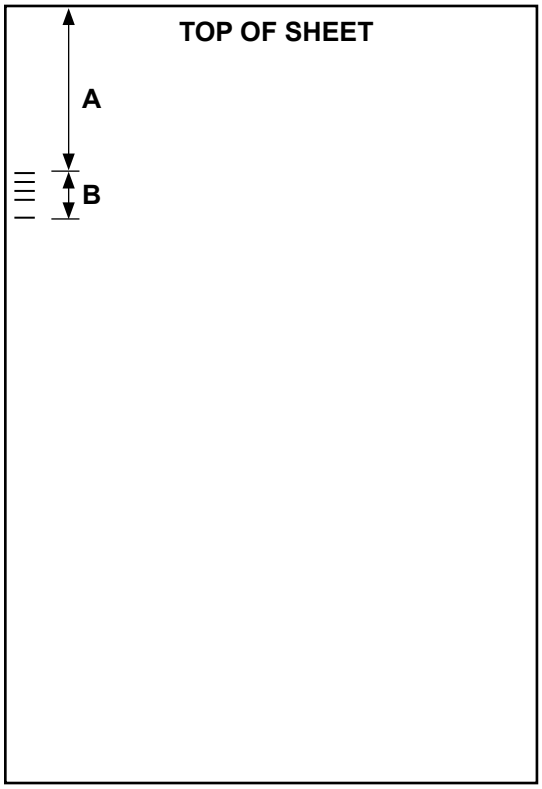
Material is scanned as it feeds through the machine. This means that the scanner reads a vertical strip or margin down the page, defined by the specifications.

The system must be told if the entire margin (the strip down the page that is scanned for marks) is clear of any other printing or punched holes, etc.

- I*f the area is clear,* the machine can normally detect the marks with no further setup.
- *If the entire margin is not clear, or the inserter cannot set itself automatically,* it will ask questions to determine where it needs to look for marks and where it should ignore other printed matter. Depending on the type of code being used, the machine will ask you to define either the first mark position and code length *OR* the clear zone. These are described on the following pages.

Defining the First Mark Position and Code Length

1. Take a sheet that has at least the FIRST and LAST mark printed on it.
2. When requested by the inserter, measure and enter the distance (A) from the top edge of the sheet to the FIRST mark, in millimeters.
3. When requested by the inserter, measure and enter the distance (B) from the FIRST mark to the LAST mark, in millimeters.

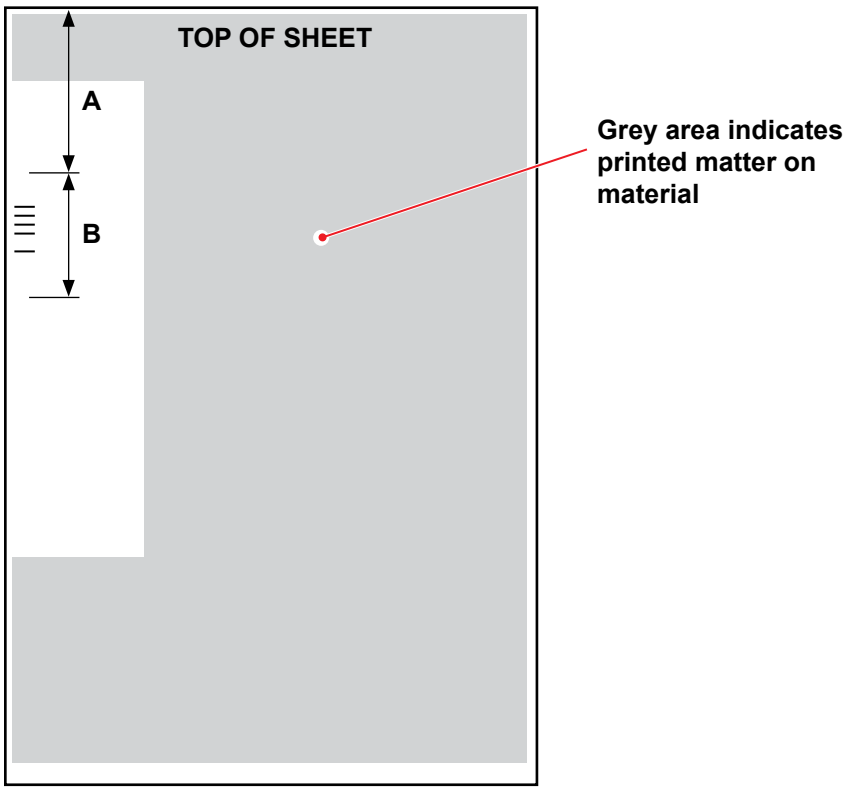


Defining the Clear Zone

1. When requested by the inserter, measure and enter the distance (A) from the top edge of the sheet to the point after the printed matter where you wish the machine to START scanning.
2. When requested by the machine, measure and enter the distance (B) from the start point just set, to the point you wish the inserter to STOP scanning. This is called the clear zone.

NOTES:

- Setting the Clear Zone closer to the beginning and end of the OMR marks decreases the possibility of any poor print or imperfections on the material being interpreted as marks.
- Conversely, setting the Clear Zone too close to the beginning and end of the marks could cause problems if the position (registration) of the printing on the material varies.
- A good guide is to limit the Clear Zone, but always allow at least 3/8" (9 mm) before and after the marks.



Additional Information

- Paper weight range for OMR is 18 lb. (70 gsm) to 32 lb. (120 gsm).
- Feeder linking will only work correctly if the operator has started with the correct sheet (i.e. linking can only be done reliably on a collation break). The feed order and print order determines if feeder linking is possible. Some sort of collation integrity (WAS or MC) ensures right pieces are in the right collations.
- Selective feed of additional sheets is always available up to the maximum limits of either folder (8 sheets of 80 gsm paper or equivalent) or 25 sheets into a flat envelope.

BCR and OMR Mark Levels

This section gives brief descriptions of the available BCR and/or OMR marks. There are three levels of scanning; each contains specific marks.

Basic Level	Enhanced Integrity Level	Selective Operations Level
Beginning of Collation (BOC) End of Collation (EOC) Benchmark (BM) Checksum (CS) Parity (PAR) Safety (SAF) Ignore (IGN) Timing (TM) Divert Finished (DVF) Stop (ST)	Wrap Around Sequence (WAS) Match Code (MC) Page Count (PC) Page Number (PN) Job ID (JID) Mark Piece (MK) Match String (MS) Select Quantity (SQ) User Data (USR)	Select Feed (SF) Env Select (ES) Select Next (SN) Seal (SL) Divert Sheets (DVS)

NOTE: You may or may not have all of these marks available to you, depending upon the level(s) of OMR scanning you have purchased. However, if barcode scanning is enabled, all of these options will be available.

The **About My Machine** screen shows the level of scanning that has been enabled on your system. Follow the steps below to navigate to the screen:

1. From the Home screen, select **Menu>Tools**.
2. Select **About My Machine**.

One of the following marks *must* be present and *must* be marked as **Is controlling** in the system: EOC, BOC, PC, or MC.

- EOC is most frequently marked as **Is controlling**
- Additional restrictions apply to BOC and MC when marked as **Is Controlling**

Basic Level

The basic level of scanning contains marks that control and check for errors within a collation.

These marks perform basic control functions indicating the beginning, end, and how to control a collation.

Mark	Purpose
BOC - Beginning of Collation	This mark indicates that it is the first sheet to be fed within a set. It may only be *selected once within the code*. *NOTES:* • When the BOC mark is used in conjunction with HCSF(s), it can be the controlling mark. In this case, the scan configuration should indicate **Content in Line with Marks** be set to **Yes** to enable the functionality. Additionally, the HCSF furthest upstream *must* be used. • Currently, if the BOC mark is controlling, the **Content in Line with Marks** option must be set to **Yes** and the mark locations settings must be entered into the system.
EOC - End of Collation	This normal controlling mark indicates that it is the last sheet within the set to be fed. It is placed on every sheet *except* for the last sheet in a set (absent), or *only* on the last sheet in a set (present). *NOTE:* The absent option is preferred because it reduces the chance that a scanning error will cause two Mail Pieces to be combined into one envelope.

These marks set up a readable code and provide basic collation integrity.

Mark	Purpose
BM - Benchmark (OMR Only)	This is a mandatory mark within multi-mark OMR codes to indicate the starting point of the code. It verifies that the scanner is working properly, and it helps detect printing problems. This mark must be either the first or last mark of the code and will appear in the same location on every page within the set.
CS - Checksum (BCR Only)	This mark is used within Code 3 of 9 and Interleaved 2 of 5 barcodes to ensure the scanner is reading the entire code properly.
PAR - Parity (OMR Only)	This mark is used to verify the internal read integrity for OMR codes. If there is an error reading the OMR code, and the scan head missed marks or saw extra marks, then Parity should catch the error. Additionally, adding a Parity mark can catch paper orientation errors. • If there is an even number of marks, Parity should be set to *even*. • If there is an odd number of marks, Parity should be set to *odd*. *No more than one Parity mark can be used within the code.*
SAF - Safety (OMR Only)	This mark improves the integrity of your mail piece. It should be at the end of the code that is opposite to the Benchmark. When the Safety mark is added, the machine will automatically work out the length of the code. This makes creating jobs using this code easier. Otherwise, the machine will ask for a code length when creating a job. *This mark cannot appear more than once within the code.* *NOTE:* If a legacy code has more than one safety mark, you can put an Ignore mark in its place.

These marks control functions for finished mail pieces.

Mark	Purpose
DVF - Divert Finished	This mark indicates a specific mail piece should be ejected unsealed into the outsort location. It is used to ensure sampling accuracy in a matched mailing, stop to ZIP breaks in presorted mailings, or eject mail pieces that require additional special handling. This mark must appear on every page of a set that is marked for ejection. Options available: • Use when: **Present** or **Absent**.
ST - Stop	This mark is a processing feature, which tells the inserter to finish the piece that is being processed and stop.

These marks allow the system to read legacy or competitive OMR codes.

Mark	Purpose
IGN(n) - Ignore (OMR Only)	This mark allows the system to ignore marks it does not support.
TM - Timing (OMR Only)	This mark is needed by some machines to read OMR marks correctly. This system does NOT need Timing marks, but the mark(s) may be left within an existing code and will add integrity to your mail piece. Timing mark(s) *may appear more than once within the code* and, if used, must always be *present* within the code.

Enhanced Integrity Level

The enhanced integrity level of scanning contains marks that increase collation integrity.

Mark	Purpose
MC - Match Codes	This mark is used to keep documents from one collation together and exclude documents from other collations. It increments/decrements per mail piece, not per item. When using file based processing, Match Codes is required to identify the Mail Piece. **OMR Marks:** Up to 17 Match Code marks can be within the code. **BCR Marks:** Maximum number of bits for barcodes is 32.
PC - Page Count	This mark is used in two different ways: to indicate the total number of pages in a collation, or to schedule a quantity to items be fed from a specific feeder. The page count will be the same on each sheet of the set. *NOTE:* The Page Count and Page Number marks can be used together to ensure internal collation integrity. For example, if the Page Count and Page Number do not match, the system will recognize that an error has occurred.
PN - Page Number	This mark indicates the page number within a collation. The system checks the order of pages, and for missing or extra pages within the collation. *NOTE:* The Page Count and Page Number marks can be used together to ensure internal collation integrity.
WAS - Wrap Around Sequence	This is a numbering system, which uses a sequential binary coding. If a page becomes missing or the set becomes out of sequential order, the system will stop processing and declare an error message. Use to keep the entire mailing in the correct order. Ensures integrity collation to collation. **OMR Marks:** Up to 17 Wrap Around Sequence marks can be within the code. **BCR Marks:** Maximum number of bits for barcodes is 32.

SQ (Select Quantity):	Allows the user, with dedicated scan marks on the control document, to have more than one insert fed from a specific tray from the Tower. This features works as a Page Count scan mark without the Insert being controlling. SQ items can be inserts only, not sheets (i.e. only the tower feeders can be used). SQ items are not themselves scanned. No feeder to feeder matching.
JID (Job ID)	The Job ID function has been added to the C39 , I25 and 2D Data Matrix barcodes but is not implemented as an OMR feature. The Job ID is a string-based function rather than a number-based function and is typically a 6 or 8 digit number that remains constant throughout the job. This allows it to be used to verify that all pieces that are processed belong to the same job. The Job ID acts as a match string even when not running file based. When **Trial Piece** is pressed, the Job ID will be read from the first piece and then compared to the job ID numbers of the rest of the run. If the Job ID number changes within the same job, the system will stop processing the material and display a error stating a Job ID mismatch.
USR (User Data)	Use the User Defined scan code function to ignore customer data at the end of a barcode. *Example*: a customer could place an account number on the end of their barcode. We cannot currently process this data, but by using the USR function we can account for the digits on the end of the barcode.
MK (Mark Piece)	The mark piece function activates the edge marker on the flats sealer. This feature is used to mark the side of the envelopes that exit the inserter by the top letter path. The inserter system does not have the ability to mark the larger catalogue style envelopes that exit the system by the lower path.
MS (Match String)	This mark is used to keep documents from one collation together similar to match code except that this function allows alphanumeric characters.

Selective Operations Level

The selective operations level of scanning contains marks that provide special feeding instructions.

Mark	Purpose
DVS - Divert Sheets	When present, this mark indicates that the accumulation in the pre-fold accumulator should be diverted into the divert bin without folding or completing assembly.
ES - Envelope Select	When present, this mark indicates that dynamic envelope selection should occur.
SL - Seal	This mark indicates the system should seal a Mail Piece. It does not effect where the Mail Piece exits the system. Seal marks can be either present or absent. • If Seal is set to *present*, and the Seal mark is on an item, then the Mail Piece will be sealed. An item that doesn't have the Seal mark will not be sealed. • If Seal is set to *absent*, and the Seal mark is on an item, the Mail Piece will not be sealed. An item that doesn't have the Seal mark will be sealed. *TIP*: This mark is useful when materials need to be hand-stuffed into an envelope.
SF(n) - Select Feed	These marks instruct the machine to select material from specific feeders. Up to nine Select Feed marks can be within the code. Only one item in a job can contain select feed information; this item must be the first item scanned in the job. All sheets or inserts for a single collation must be marked with the same select feed pattern. Select Feed marks can be either present or absent.
SN(n) - Select Next	This mark functions similar to Select Feed, but applies to the next Mail Piece in the job. This is provided for compatibility with older SECAP™ inserters. Select Next marks can be either present or absent.

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5 • Specifications

Contents

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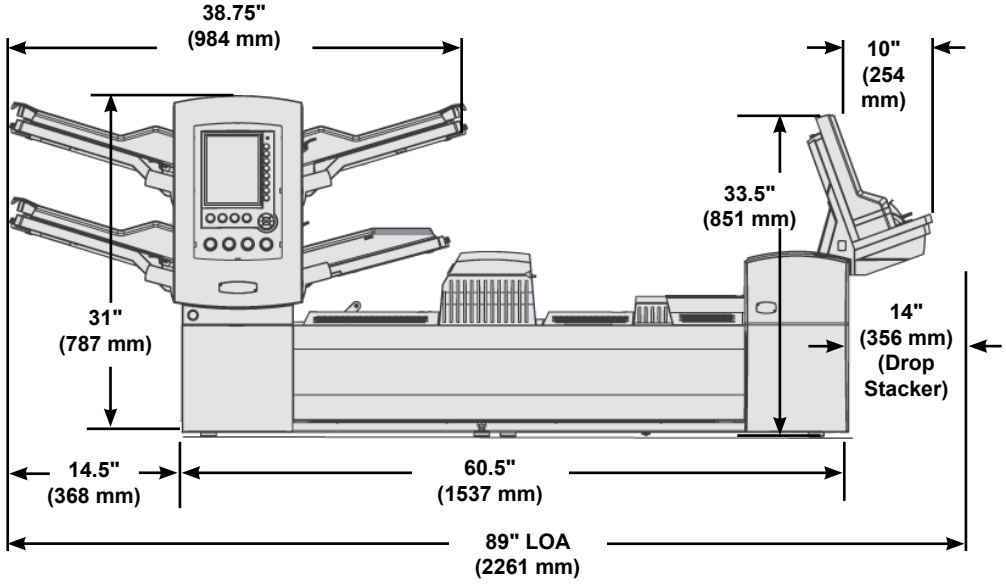
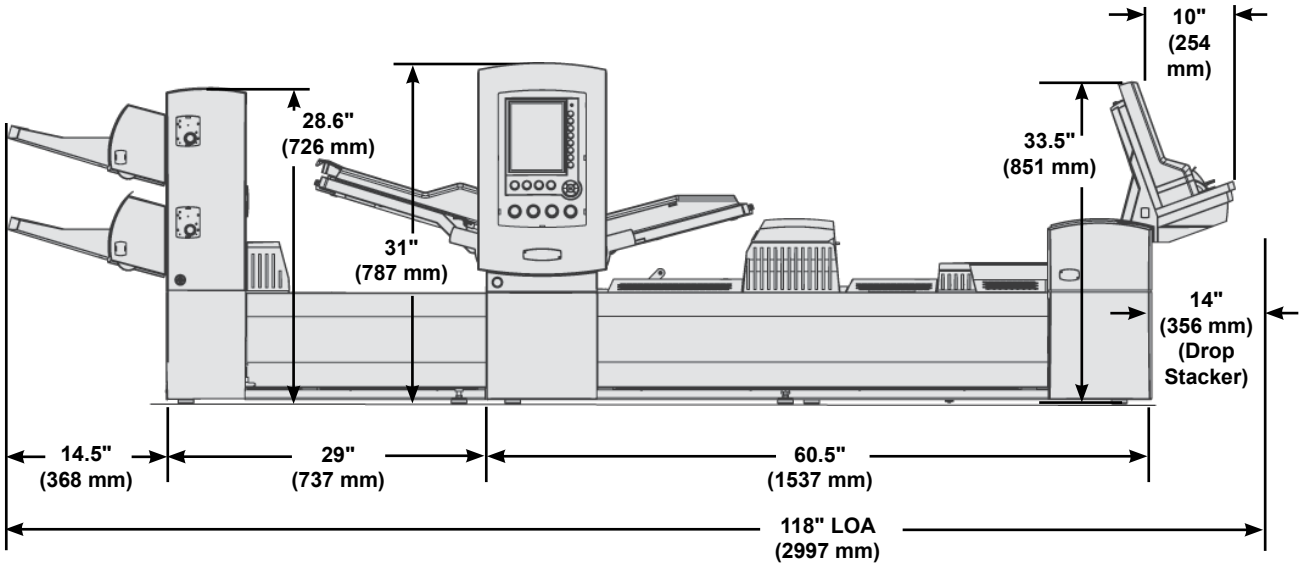
System Specifications

System Footprint - Dimensions





NOTES:

- System depth is 22.8" (579 mm)
- Drawings are not to scale
- All dimensions approximate
- The Relay 5000/6000 does not include the High Capacity Envelope Feeder

Component Specifications

Component Dimensions

	Length overall, height	Weight, unboxed
Relay 5000 Inserter	89" (2261 mm), 31" (787 mm)	327 lbs. (148 kg)
Relay 8000 Inserter	89" (2261 mm). 33.5" (851 mm)	350 lbs. (158 kg)
High Capacity Sheet Feeder (HCSF)	43.5" (1105 mm), 28.6" (726 mm)	150 lbs. (68 kg)
Vertical Power Stacker	17" (432 mm), 24" (610 mm)	21 lbs. (18.6 kg)
Exit Transport	20" (508 mm), 16" (406 mm)	52 lbs. (24 kg)
Flats Sealer	12.5" (317mm), 16" (406 mm)	82 lbs. (180.4 kg)

**All dimensions are approximate*

Component Capacities

Tower Sheet/Insert/ Envelope Feeders	• 350 20 lb. (80 gsm) sheets; 350 insert cards; 250 envelopes • Feeders are multi-purpose: they can handle sheets, cards, slips and envelopes • Feeders, including envelope feeders, can be linked to increase running time • Feeders are available in pairs of two (maximum four feeders)
Folder	Up to 8 sheets of 20 lb. (80 gsm) material
Accumulator	Maximum collation thickness is 1/4" (6 mm)
High Capacity Sheet Feeder (HCSF)	Available in pairs. Capacity is 2,000 sheets per pair.
Drop Stacker	130 pieces, letter mail; 25 pieces, flat mail
Vertical Power Stacker	250 pieces, letter mail (assumes single sheet insert)
Production Power Stacker	At least one USPS mail tray (two feet of finished mail)
Moistener/Closer/ Sealer	8,000 letters before refilling

Folder

Fold Types	Top address documents	C fold, Z fold, single and double fold	Maximum number of sheets per collation: 8 (20 lb. [80 gsm])
	Bottom address documents (see Notes below)	C fold, Z fold and single fold	
	Middle address documents (see Notes below)	C fold	
Machine Adjustments	None		
No-Fold (Bypass)	Yes		
Notes	• Documents with addresses on the bottom *may* require the Inverter kit. • Documents with an address present on the middle of the sheet *always* require the Inverter kit. • Refer to the *Available Fold Type/Address Location/ Envelope Type Combinations* table for more information.		

Available Fold Type/Address Location/Envelope Type Combinations

Fold Type	Address Location	Envelope Type
C Fold	Top	Standard Flap
	Middle	Forward Flap
	Bottom	Bottom Flap
	Middle*	Standard Flap*
Z Fold	Top	Standard Flap
	Bottom	Bottom Flap
	Bottom*	Standard Flap*
Single Fold	Top	Standard Flap
	Top	Bottom Flap
	Bottom	Bottom Flap
	Bottom	Standard Flap
Double Fold	Top	Standard Flap
	Third Panel*	Standard Flap*

**Requires an inverter*

High Capacity Envelope Feeder (HCEF)

The HCEF is standard on the Relay 7000/8000 professional series; it is not available for the Relay 5000/6000 series.

Material	Letter-size envelopes
Material Dimensions	Depth: 3.5" (89 mm) to 6.5" (165 mm) Width: 8.5" (216 mm) to 10.5" (266 mm)
Capacity	500 letter-sized pieces, 24 lb. (90 gsm) weight.

Scanning Capability (optional)

The system base module and the HCSF have an optional scanning capability for reading ladder format OMR and barcode marks. The HCSF has an optional scanning capability for reading picket format barcodes or 2D barcodes. The scanner kits are installed in the field.

OMR Codes Supported	5-Series, 3-Series, SECAP™ 2600, Pitney Bowes® Console.
OMR Functions Supported	Variable page documents; selective feeding; feeder-to-feeder matching; force divert; mark for special handling.
Barcode Formats Supported	Code 39™ (3 of 9); Interleaved 2 of 5, 2D Datamatrix barcode.
Notes:	• The horizontal position of the scanner is operator adjustable. • Documents from any feeder can be scanned. • Documents should be printed on a laser printer for scanning. • Photo copied documents and documents printed on an ink jet printers may need the barcode to be increased in size to allow proper scanning of the barcode. • All 2D barcodes need to be a grade A barcode.

Environmental Limits

	Temperature F (C)		**Humidity %**		**Wet Bulb Temp. F (C)**
	Minimum	**Maximum**	**Minimum**	**Maximum**	**Maximum**
Normal Operating Conditions	60 (16)	75 (24)	30	60	N/A
Extended Operating Conditions	50 (10)	95 (35)	08	85	85 (29)
Storage Conditions	15 (-09)	120 (49)	05	95	85 (29)
Shipping Conditions	-40 (-40)	140 (60)	05	100	85 (29)

Feeder Tower and Base Material Specifications

For reliable operation, all materials must conform to published specifications. Feed problems and high stall rates are often due to use of substandard materials.

General Information

- Material fed for letter-size mailpieces must be capable of being transported through a 1.5 inch (38 mm) radius, 1/4 turn without permanent deformation, breaking of perforations, or any other damage to the mailpiece.
- Color Restriction: none for pre-printed material.
- Minimum Paper Opacity: 5% less than 16 lb bond (60 gsm) copy paper
- Maximum Paper Opacity (when double detection is required): 5% greater than 24 lb. bond (90 gsm) copy paper with normal 10 point printing throughout the page.

NOTE: Any substance added to improve material handling (such as powder) shall not fall off in visible quantities when the sheet is tapped on the edge of a hard surface.

Outer Envelopes

Envelope Construction and Material

- Envelopes shall be standard side seam, diagonal side seam, center seam, or executive. They can be die or web cut, with or without patched windows.

  NOTE: Unpatched (open) window outer envelopes are not permitted.

- Window patches shall be flat, ripple free and made of glassine or polystyrene material. Patches shall be glued within 0.06 inch (1.6 mm) from the top edge of the patch material to the window cutout.
- Envelope materials shall include new or recycled white wove, manila, and lithographic material. Non-woven or synthetic envelopes (e.g., Tyvek®) or envelopes with external fasteners are not permitted.
- Envelopes with re-moistenable flap adhesives made of starch (dextrin), resin (tropical formulation) or combination of the two may be used.
- Outer envelope using self-seal, peel and stick, or pressure seal flaps are not permitted.
- The distance between the glue line and the bottom flap edge of the envelope shall not exceed 0.08 inch (2 mm).

Envelope Throat Definitions

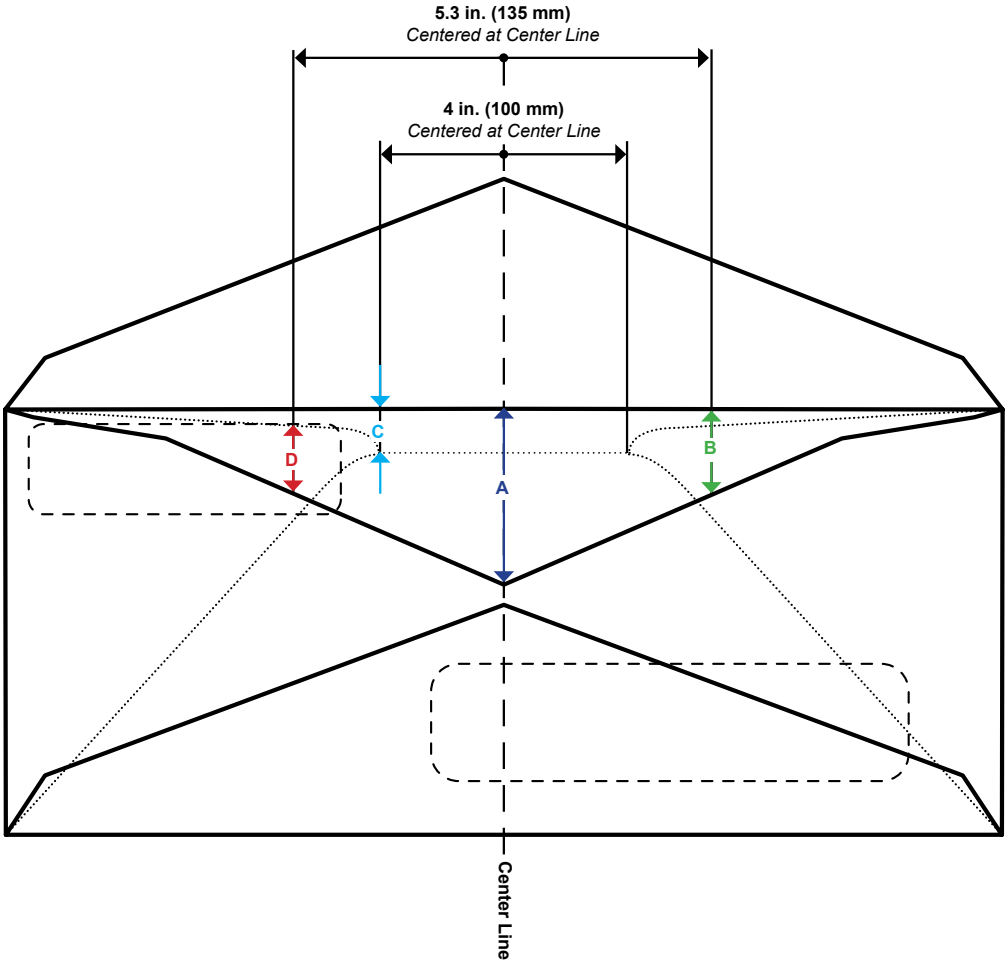


*Diagram is not to scale

Dimension	Value	Description
A	1.6 inch (41 mm)	Maximum throat depth measured at the center line of executive style envelopes.
B	1.4 inch (38 mm)	Maximum throat depth measured at a distance of 5.3 inches (135 mm) centered at the center line.
C	.25 inch (6 mm)	Minimum throat depth within a 4 inch (100 mm) area centered at the center line.
D	.08 inch (2 mm)	Minimum distance from top of window to the envelope throat measured at a distance of 5.3 inches (135 mm) centered at the center line.

Envelope Size for Insertion

- Envelopes shall be at least 0.5 inch (13 mm) wider than the sum of the maximum width of the insert pack plus the thickness of the pack.
- Envelopes shall be at least 1/4 inch (6 mm) deeper than material to be inserted.
- No more than three letter-sized sheets can be inserted into a #9 (C5) envelope when the aligner is in use.

Envelope Curl/Warp

- An envelope placed flap up on a flat surface under its own weight shall have no corner raised more than 0.5 inch (13 mm) from the surface.
- Curl/Warp of the envelope flap shall not exceed 1/8 inch (3 mm) measured while holding flap on flat surface at the crease line.

Letter-Sized Envelope Specifications

Parameter	Minimum Value	Maximum Value
Width	Feeder Tower: 6.37" (162 mm) HCEF: 8.9" (225 mm)	Feeder Tower: 10.5" (266 mm) HCEF: 10.4" (264 mm)
Depth	Feeder Tower: 3.5" (89 mm) HCEF: 3.9" (98 mm)	6.5" (165 mm)
Throat Depth*	0.25" (6.35 mm)	1.49" (38 mm), executive 1.61" (41 mm)
Paper Weight	18 lb. (70 gsm)	24 lb. (90 gsm)
Flap Depth	1.2" (30 mm)	2.5" (63 mm) within +/- 1/4" (35 mm) of Center 1.85" (47 mm) outside +/- 1.4" (35 mm) off center

**See Envelope Throat Definitions in this chapter for more information.*

Feeder Tower - Flat-Sized Envelope Specifications

Parameter	Minimum Value	Maximum Value
Width	6.37" (162 mm)	10.5" (266 mm)
Depth	6.5" (165 mm)	13" (330 mm)
Throat Depth	0.25" (6.35 mm)	1.49" (38 mm)
Paper Weight	20 lb. (80 gsm)	24 lb. (90 gsm)
Flap Depth	1.2" (30 mm)	2.5" (63 mm)

Inserts

Inserts are defined as material that does not require folding (may be pre-folded) before insertion into letter-sized envelopes. This definition includes individual sheets, collations of unfastened sheets, C folded or single folded inserts or pre-made, bound booklets (no fastener exposed that might damage rollers).

Additionally, "insert" also refers to a single reply envelope (BRE) when inserted into a flat-sized envelope.

Material Substrates

- Acceptable paper types include - new or recycled bond, text, laser and offset. Offset coatings include matte, dull or gloss.
- Grain - material may be short or long grain.
- Printing - printing may be simplex (one side) or duplex (both sides) with no restriction on color.
- Coating - varnish applied to sheets to modify finish is allowed.

NOTE: Use of glossy material may degrade system performance.

Feeder Tower Inserts

Parameter	Minimum Value	Maximum Value
Width	5 inches (127 mm)	9.84 inches (250 mm)
Length	2.83 inches (72 mm)	6 inches (153 mm)
Thickness	0.003 inches (.076 mm)	0.1 inches (2.54 mm)
Paper Weight	16 lb. (60 gsm)	44 lb. (175 gsm)

Sheets

Sheets refer to material that must be folded before being inserted into standard letter envelopes. In the special case of flats, sheets are not folded. A group of sheets is referred to as a collation.

Material Substrates

Acceptable paper types include new or recycled bond, text, laser and offset. Offset coatings including matte, dull or gloss.

- Acceptable paper types include - new or recycled bond, text, laser and offset. Offset coatings include matte, dull or gloss.
- Grain - material may be short or long grain.
- Printing - printing may be simplex (one side) or duplex (both sides) with no restriction on color.
- Coating - varnish applied to sheets to modify finish is allowed.
- Laser printed material - freshly laser printed material that meets curl requirements is acceptable

NOTE: Use of glossy material may degrade system performance.

Feeder Tower Sheets

Parameter	Minimum Value	Maximum Value
Width	5 inches (127 mm)	9.84 inches (250 mm)
Length	5.31 inches (135 mm)	14 inches (356 mm)
Thickness	0.003 inches (0.076 mm)	0.012 inches (0.305 mm)
Paper Weight	16 lb. (60 gsm)	44 lb. (175 gsm)

High Capacity Sheet Feeder (HCSF) Material Specifications

For reliable operation, all materials must conform to published specifications. Feed problems and high stall rates are often due to use of substandard materials.

General Information

- Material fed for letter-size mailpieces must be capable of being transported through a 1.5 inch (38 mm) radius, 1/4 turn without permanent deformation, breaking of perforations, or any other damage to the mailpiece.
- Color Restriction: none for pre-printed material.

Sheets

Sheets refer to material that must be folded before being inserted into standard letter envelopes. In the special case of flats, sheets may not be folded. A group of sheets is referred to as a collation.

Material Substrates

- Acceptable paper types include - new or recycled bond, text, laser and offset. Offset coatings include matte, dull or gloss.
- Grain - material may be short or long grain.
- Printing - printing may be simplex (one side) or duplex (both sides) with no restriction on color.
- Coating - varnish applied to sheets to modify finish is allowed.
- Laser printed material - freshly laser printed material that meets curl requirements is acceptable

NOTE: Use of glossy material may degrade system performance.

HCSF Sheets

Parameter	Minimum Value	Maximum Value
Width	7.99 inches (203 mm)	8.5 inches (216 mm)
Length	9.15 inches (232mm)	11.69 inches (297 mm)
Basic Weight	20 lb. (80 gsm)	24 lb. (90 gsm)

Notes:

- All sheets within a collation shall be within 0.37" (10 mm) of each other in length.
- Maximum material thickness for feeders: 0.007" (0.18 mm) when scanning, otherwise 0.25 mm (0.009").

Materials Not Certified for Use

Contaminants

Materials with visible material loss (loose powder, ink, surface glaze, etc.) when hung free over a clean surface and struck sharply with a standard wood ruler should not be used.

Special Materials

- *Do not* use materials that are sensitive to heat (such as thermal papers).
- *Do not* use materials that are sensitive to minor magnetic fields.
- *Do not* use pressure-sensitive materials.

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