

Feeder/Loader **F65A/B**





Introduction

This manual contains instructions on the operation and maintenance of this machine. To get the maximum versatility from this machine all operators should carefully read and follow the instructions in this manual. Keep this manual in a handy place near the machine.

Please read the Safety Information before using this machine. It contains information related to USER SAFETY and PREVENTING EQUIPMENT PROBLEMS.

How to read this manual

Notation conventions

Whenever necessary, the following points for attention are indicated in this manual.

WARNING:

Indicates a potentially hazardous situation which, if instructions are not followed, could result in death or serious injury.

▲ CAUTION:

Indicates a potentiality hazardous situation which, if instructions are not followed, may result in minor or moderate injury or damage to machine or property.

🔗 Note

This sign refers to:

- Remarks for making the operation much easier. You get practical hints or knowledge to assist you in the machine operation such as:
 - · Preparations required before operating
 - How to prevent papers from being misfed or damaged
 - Precautions required or actions to take after misoperation
- Limitations like numerical limits, functions that cannot be used together or conditions, under which a particular function cannot be used or obtained.
- Information.

[]

Keys that appear on the machine's display panel.

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

For a formal Declaration of Conformity please contact Compliance Engineering. Contact information is given in the front of this guide or on a separate document supplied with your system.

- Electromagnetic compliance:
 - This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.
 - The product (System) which is connected to this machine will be class A.

🔗 Note

The domestic environment is an environment where the use of broadcast radio and television receivers may be expected within a distance of 10 m of the apparatus concerned.

Safety

Follow the normal safety precautions for all office equipment:

- Use only Pitney Bowes approved supplies, in particular aerosol dusters. Improper storage and use of aerosol dusters or flammable aerosol dusters can cause an explosivelike 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 label.
- To obtain supplies, please contact our Supply Line[™] to place orders. Material Safety Data Sheets can be obtained on the web or from our Supply Line[™]. Refer to the Contact Information List for more information.
- Use the power cord supplied with the machine and plug it into a properly grounded wall outlet located near the machine and easily accessible. Failure to properly ground the machine can result in severe personal injury and/or fire.
- Avoid touching moving parts or materials while the machine is in use. Keep hands, loose clothing, jewellery and long hair away from all moving parts.
- Do not remove covers or defeat safety interlock switches. Covers enclose hazardous parts that should only be accessed by properly trained service personnel. Immediately report to service any damaged or non-functioning components that renders the unit unsafe.
- Place the unit in an accessible location to allow for proper venting of the equipment and to facilitate servicing.
- The power cord wall plug is the primary means of disconnecting the machine from the AC supply.
- Do not use an adapter plug on the line cord or wall outlet.
- Do not remove the ground pin from the line cord.
- Avoid using wall outlets that are controlled by wall switches, or shared with other equipment.
- Do not route the power cord over sharp edges or trap between furniture.
- Ensure there is no strain on the power cord and that it does not become jammed between the equipment, walls or furniture.
- Be certain the area in front of the wall receptacle into which the machine is plugged is free from obstruction.

- Before clearing a stoppage, be sure machine mechanisms come to a stop.
- When removing stalled material, avoid using too much force to protect against minor personal injury and damaging equipment.
- To prevent overheating, do not cover any vent openings.
- Operation of this equipment without periodic maintenance will inhibit optimum operating performance and could cause the equipment to malfunction. Contact your machine supplier for required service schedule.
- Read all instructions before attempting to operate the equipment.
- Use this equipment only for its intended purpose.
- Always follow the specific occupational safety and health standards for your workplace.

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What You Can Do With This Machine



The System Overview shows the Loader, Feeder and User Interface as it is designed for the DI880 System.

The F65A/B is capable of loading about 200 sheets of 80g paper. The High Capacity Loader expands the capacity with up to 4000 sheets. They are easy to handle and allow the User to load paper at any time without interruption of the production flow. The handling of the system is interactive and guided by the HMI Console. Program selection and status signaling as well as start, stop and other actions are accessible. The necessary adjustments are the side guides close to the separation and the ones in the accumulator.

OMR - Optical Mark Recognition or Optical Mark Reading (optional) is available as is BCR and 2D. The interpreting facility in the DI880 system is completely flexible and programmable to match any code and ensures individual handling of each set and guarantees the integrity of each sheet fed.

The F65A/B Sheet Feeder/Loader, F651 Inserter, F657 Folder and F653 Mailfeeder, form a direct mail inserting system. The F651 is the inserting and sealing unit of the system. F657 is a multi function folder that can do half-, C-, Z-, and double fold of 1 - 10 sheets. F653 is the feeding unit of the system and can feed from up to eight individual sources.

The (single or rightmost) F653 Mailfeeder is equipped with at least one of the following separately delivered modules: The F654 Tower Feeder, the F655 Booklet Feeder and the F652 Accumulator. The F652 Accumulator module receives material from an external feed source and merges it with the material from the Tower and Booklet Feeder. The F652 makes it possible to run the system with a upstream device such as a secondary F653 Mail Feeder or a printer/copier. Contact your sales representative for currently available configurations.

The mail inserting system has a capacity to handle booklets with a thickness up to 8 mm ($\frac{1}{3}$ ") and envelopes filled to a thickness up to 12 mm ($\frac{1}{2}$ ").

Intuitive touch screen user interface (optional) that graphically visualizes and facilitates set up and adjustments is available.

Guide To Components

F65A/B Feeder/Loader



The separation adjustment is very important for smooth workflow. If it is too wide, double feed errors will occur and if it is too narrow the system will slow down and the material edge could be affected.

In case of a jam, the feeder head lock can be released and material removed.

High Capacity Loader



There are only two adjustments necessary: the side guides for size and the distance between ramp and the feeder.

User Interface



To interact with the system a User Interface is present. Usually just a Job is selected and then started or a CONFIRMATION of an error is required (e.g. no material). Jobs are also programmed with this device and all the required settings have to be defined for an initial setup of the system.

Operation

To run the F65A/B correctly, some adjustments are necessary. There is the mechanical setup, the scanner setup and the job (i.e. program) selection.

F65A/B setup

The most efficient method is to go through the pre-run adjustments. If you are starting a different job than was running before, you will be guided through these adjustments. In this chapter we show the basic settings to run an already programmed job. First of all the power switch has to be in the "ON" position.

Power Up



Make sure all covers are closed. Turn the main Power Switch ON. The User Interface will momentarily display the current software version number and then proceed to a listing of available programs. The Exit (blue) indicator will be lit.

The User Interface momentarily displays the Firmware Version.

***	PITNEY BOWES F65AB	

***	Version 825.001.10	***

Then the default Menu shows the last job run.

030> EXAMPLEJOB	Paper/ DF	BCR	<pr0g< th=""></pr0g<>
-----------------	-----------	-----	-----------------------

1. Operation

Program selection

To select a program, scroll until it appears on the first line of the display as indicated by the arrow <PROG prompt. Press GREEN to select the program.

029> OMREX Paper/ DF OMR <PROG 030> EXAMPLEJOB Paper/ DF BCR

You are asked about running pre-run adjustments. If this is a new job, press Green and carry out the adjustments as described. If pre-run adjustments have already been carried out or if this is a current job, press Red. If you skip the pre run adjustment you go straight to Start the Job below.

Loading orientation

The four possible loading orientations are shown upon program selection:

1. Check loading Orientation GREEN=CONFIRM

BLUE=EXIT

The first check asks you to make sure the material orientation is correct.

The four possible loading orientations are:

- 1. Face up, bottom first
- 2. Face up, top first
- 3. Face down, bottom first
- 4. Face down, top first

When feeding individual pieces of material during setup or when loading material prior to a job run, it is important to observe the correct loading orientation for the program selected. Press GREEN to go to the next step.

Feeder side guides adjustment

The display shows the second instruction:

2. Feeder side guide adjustment GREEN=CONFIRM BLUE=EXIT



Rotate the feeder Side Guide adjustment wheel anticlockwise until the side guides give approximately 3mm of clearance between the material and the side guides.

Press GREEN to go to the next step. If you have a non scanning job, the next step will be Feeder Head adjustment, otherwise for the scanning jobs you just continue.

Loading the Feeder

Load sheets to the approximate level as illustrated. Loading too many sheets might cause excess friction between the sheets at the bottom of the stack and sheets might get damaged.



Set the scanning head

The OMR scanner has to be in the middle of the OMR Code flow. Make sure that the scanner is as close as possible to the paper (reading quality is much better).

3. Adjust the OMR Scanner GREEN=CONFIRM

BLUE=EXIT

OMR Light indicates effective reading position 🛸



Place a test sheet of paper on the feeder and adjust the position.

Use the Material Guide Fingers (see below) to facilitate reading of OMR code on curled paper.

Side to side adjustment of OMR scanners

The OMR scanners can be mounted on either side of the separation head and also from the bottom of the feeder for bottom up scanning.



Side to side adjustment of BCR scanners

The BCR scanner is positioned in front of the separation head and can be positioned without any tools. Be aware that the scanner needs a minimum distance to the code.



Setting material guide fingers

If the paper is curled, you can use the material guide fingers. Always use two guide fingers and place them above the curled material.



Feeder head adjustment

Ensure that the feeder separation head is at its base position. The black and red lever (A) has to be in a horizontal position and stepped in with a click.

The following message is shown on the display:

3. Feeder head adjustment GREEN=CONFIRM

BLUE=EXIT



Lower the separator by adjusting knob (B) clockwise until only one piece of material fits beneath it without leaving space for a second.

The single piece should fit without any force under the separation. Close the gap until you cannot move the paper easily, then turn 3 to 5 clicks backwards. The second piece should still not be able to get under the separation, whereas the first piece can be moved.

Transport material to accumulator

Turn the Accumulator Side Guide adjustment wheel anticlockwise to open the accumulator side guides as wide as needed. Load one piece of material and press Run /confirm (green) until it is fed into the accumulator.

The display shows the message:

4. Transport material to Accumulator GREEN=Transport BLUE=EXIT



Setting the accumulator side guides

With the paper in the accumulator you can adjust the side guides and leave gap of 2-3 mm on each side. The display shows:

5. Accumulator side guide adjustment GREEN=CONFIRM BLUE=EXIT



Rotate the Accumulator Side Guide adjustment wheel clockwise to set the Accumulator Side Guides. The correct setting allows approximately 3mm overall clearance so that the material is controlled but not restricted by the guides

If you need to use the outermost position of the Accumulator Side Guides, you have to lift the o-rings to clear the side guides while adjusting.



Accumulator ramp adjustment

The ramp adjustment is achieved in the same step.

The yellow mark should be visible if a piece of material is in the accumulator.



Start the Job

If you finished the pre run adjustments (or skipped them) you will have a short overview of your job on the display:

OMREX	Paper /DF OMR	Overcount:*25
Count:	00 Total:00000	Speed:100%

By using the select button you can change the speed of the system down to 25% in 5% steps. To start the system, press GREEN for more than 2 seconds (if you press it for less time, just one piece will be fed)

If an error occurs, a confirmation is expected by pressing the GREEN button.

High capacity loader setup

Transport material to feeder

Adjust the loader transport belt assembly lengthwise to the feeder by sliding it into the correct position.



Recommended adjustment is when the sheet, held in the feed direction, fits between the slope on the transport belt assembly and the separation housing as illustrated.



Setting the loader side guides

Adjust the loader side guides by turning the adjustment wheel until the side guides give approximately 3mm of clearance between the material and the side guides.



2. Main menu

Job Handling

To reach the main menu, press GREEN, BLUE and RED simultaneously, this procedure avoids an unintended change of settings of the machine and as well of the stored jobs. The main menu contains five submenus four concerning jobs and one (Service Menu) for parameter setting, fault detection and maintenance.

- NEW NON-SCANNING JOB
- NEW SCANNING JOB
- MODIFY JOB
- DELETE JOB
- SERVICE MENU

New non scanning job

Non scanning jobs have just three different settings to be defined:

- Program name
- Choice of Material
- Number of sheets in one batch

Program name

This section covers programming a job where scanning is not required. When you program the Feeder for a particular non-scanning job, assign the job a name (the number is auto-matically given by the next free job number)

001> Name of new program : EXAMPLEJOB <>=SELECT Green=CONF. Blue=EXIT Red=GO ON

To change the text use the select buttons to add another character use the GREEN button. With RED the name of your Program is defined.

Choice of material

The choice of Material is important to the appliance of the Double Feed detection, there are three different settings available:

- Paper NO Double Feed detection
- Paper /DF Standard Double Feed detection
- Paper /DF+ Advanced Double Feed detection DF+ setting is used if there is larger, dark printed areas in the line of the Double Feed detector, which can cause false detection. By increasing the value these false double detection can be eliminated.

Selection of material on the menu:

001> Material : Paper / DF+ <>=SELECT Green=CONF. Blue=EXIT Red=EDIT

If "Paper /DF+" is chosen, there is another input required

001> Material : Paper / DF+ Value= 18 <>=SELECT Green=CONF. Blue=EXIT Red=EDIT

Change the Value to a higher one by using the select button (the maximum is 29)

Number of sheets in one batch

001> Counter: 01 Sheets <>=SELECT Green=CONF. Blue=EXIT Red=EDIT

Enter a batch count minimum is 1 maximum is 25

New scanning job

- There are three type of scanning available.
- OMR
- BCR
- 2D Matrix

The BCR and 2D Matrix code are very similar in their basic structure. They vary only in the available size of data. BCR code contains technically less information than 2D Matrix Code.

OMR job example

The OMR data structure is very flexible and the programming of such a job needs a careful preparation.

2. Main menu

Program name

This section covers programming a job where scanning is required. When you program the Feeder for a particular scanning job, assign the job a name (the number is automatically given by the next free job number)

001> Name of new program : OMREXJOB <>=SELECT Green=CONF. Blue=EXIT Red=GO ON

To change the text use the select buttons to add another character use the GREEN button. With RED the name of your Program is defined.

Choice of material

The choice of Material is important to the appliance of the Double Feed detection, there are three different settings available:

001> Material : Paper /DF <>=SELECT Green=CONF. Blue=EXIT Red=G0 ON

For our example we choose Paper /DF. The choices of material are different in scanning. The Booklet and Booklet/RM functions are not available in scanning mode.

Version (scan method example OMR Plockmatic)

In this section you can select the appropriate scanner method according to your type of scanner. For OMR code the selection has to be:

OMR Plockmatic

018> Vers.: OMR PLOCKMATIC <-->=SELECT Green= CONFIRM Blue=EXIT

Scroll through the given options and select OMR PLOCKMATIC

OMR location (scanner postion)

Here you select the scanner position, all available positions are defined in the Service menu, here you can only select already defined positions.

001> OMR Location: TOP-REAR <>=SELECT Green=CONF. Blue=EXIT Red=G0 ON

Scan line increment

To do this measure the minimum distance between the scan lines which are right next to each other:

- 1/6 Inch
- 1/8 Inch
- 1/10 Inch
- User Def.

User Def. needs to enter a value for example 3.5mm is set as 350.

Scan line increment

The scan line position number is shown on the far right of the display (see below), BM (bench mark) being set as 1 (first scan line position). In total there are 31 scan line positions available.

The following examples show the first two scan line definitions. BM is permanently 1 and cannot be modified. The second scan line position (far right "2") is defined as DVF (divert finished) in this example. The scan function (i.e. DVF) can be changed by scrolling through the available scan functions.

BMC1 : [1] <-->=SELECT Green=CONFIRM DVF : [2] <-->=SELECT Green=CONF. Blue=END Red=IGNORE

If the current scan line position is to be ignored, choose a not used function and press RED (Ignore) a small "i" is placed after the number

and confirming with GREEN and the function is ignored. All available scan functions are listed below.

•	BM	•	DVF	•	WAS (2-5)	٠	SF 1-7	•	ST	•	BOC
•	ALW1	•	DVD	•	SI (2-5)	•	HFL	•	Parity Even		
•	ALW0	•	EOC	•	SSQ	•	HFF	•	Parity Odd		

See chapter 3. Settings for explantion of the different functions. When all required OMR scan lines have been defined, press BLUE to exit.

Bypass advanced settings

The system asks if Advanced Settings should be bypassed. Pressing RED will display the advanced settings. Proceed through the following four parameters by pressing GREEN to continue and the Arrow Buttons to edit the selection. Set Integrity/WAS/SSQ:

-LSB (least significant bit) -MSB (most significant bit) Set Integrity random: -NO -YES OMR scanning: -NORMAL -REVERSE Dist. Lead.edge to benchmark: XXXmm

Step by step example

In this following example an OMR code will be programmed in full. The code below will be used as a template.

-	×	13
	— x	12
	x	11
	X	10
	ST ST	9
	S12	8
	SI1	7
	DVF	6
	WAS3	5
	WAS2	4
	WAS1	3
	EOC	2
	BM	1

In this example there are nine scan line positions defined while the last four remain unassigned. The bench mark control (BM) is set permanently to scan line position 1. Press GREEN to confirm.

DVF : [2] <-->=SELECT Green=CONF. Blue=END Red=IGNORE

The display shows the above. Scroll through the scan functions and select EOC

EOC : [2] <-->=SELECT Green=CONF. Blue=END Red=IGNORE

In the above OMR code there are three wrap around sequences (WAS). This means that WAS3 must be selected. If you choose excluding 0, the system counts to 6, else it counts to 7. This results out of the system's binary counting method. Confirm by pressing GREEN.

```
WAS3 : [ 3]
<-->=SELECT Green=CONF. Blue=END Red=IGNORE
```

The system has jumped to scan line position 6. Scroll to the scan function DVF and press GREEN to confirm.

DVF : [6] <-->=SELECT Green=CONF. Blue=END Red=IGNORE

Set the 7th scan line position in the same manner as position 3(,4,5). Set SI2 for two scan line positions occupied by the system integrity scan function (SI).

SI2 : [7] <-->=SELECT Green=CONF. Blue=END Red=IGNORE

Set the last position (9) to the stop scan function (ST).

ST : [9] <-->=SELECT Green=CONF. Blue=END Red=IGNORE

Press End to finish the OMR Code definition

001> Bypass advanced settings Green=YES Blue=EXIT Red=NO

Press GREEN to Bypass the advanced settings The distance from the leading edge to the benchmark has to be defined

Dist. Lead.edge to bench mark: 045 mm Green=YES Blue=EXIT Red=NO

Upon scanning, the display shows the below.

	→ ■. ■. ■. ■. ■.
Green= CONFIRM	

If the leading edge distance is set lower than the measured value the three "_" to the right are not shown on the display. If the leading edge distance is higher than the measured value the first mark will be after a "." And cause a scan error.

BCR job example

The BCR data structure is not flexible but the functionality is selectable.

Program name

This section covers programming a job where scanning is required. When you program the Feeder for a particular scanning job, assign the job a name (the number is automatically given by the next free job number)

001> Name of new program : BCREXJOB <>=SELECT Green=CONF. Blue=EXIT Red=G0 ON

To change the text use the select buttons to add another character use the GREEN button. With RED the name of your Program is defined.

Choice of material

The choice of Material is important to the appliance of the Double Feed detection, there are three different settings available:

- Paper NO Double Feed detection (not recommended)
- Paper /DF Standard Double Feed detection
- Paper /DF+ Advanced Double Feed detection

001> Material : Paper /DF <>=SELECT Green=CONF. Blue=EXIT Red=G0 ON

For our example we choose Paper /DF

Version (scan method example BCR-1D Plockmatic)

In this section you can select the appropriate scanner method according to your type of scanner. For BCR code the selection has to be:

BCR-1D Plockmatic

001> Vers.: BCR-1D Plockmatic <>=SELECT Green=CONF. Blue=EXIT Red=G0 ON

BCR location (scanner position)

Here you select the scanner position, all available positions are defined in the Service menu here you can only select already defined positions.

OO1> BCR Location: TOP-REAR <>=SELECT Green=CONF. Blue=EXIT Red=GO ON

We select "TOP-REAR" in our example.

Set integrity

The maximum is defined as four characters. You can set a number between 0 and 4 for this definition.

```
001> SI (0-4): 2
<>=SELECT Green=CONF. Blue=EXIT Red=G0 ON
```

We select "2" in our example.

Select feed

Depending on your job there is a possibility to add selective material from the MF 4000.

001> Select feed (1-5): NO <>=SELECT Green=CONF. Blue=EXIT Red=G0 ON

We select "NO" in our example

001> Select feed (6-10): NO <>=SELECT Green=CONF. Blue=EXIT Red=G0 ON

For the next group 6-10 we select as well "No"

Optional functions

This is not in use in the current SW but is available as custom made SW.

Bypass advanced settings

There are two settings available.

- Set Integrity Random (YES means SI (Set Integrity) does not follow a pattern)
- Page counter direction: (count up or count down)

001> Bypass advanced settings Green=YES Blue=EXIT Red=NO

We select "YES" in our example.

Version (scan method example BCR-2D Plockmatic)

In this section you can select the appropriate scanner method according to your type of scanner. For BCR code the selection has to be:

BCR-2D Plockmatic

001> Vers.: BCR-2D Plockmatic <>=SELECT Green=CONF. Blue=EXIT Red=G0 ON

BCR location (scanner position)

Here you select the scanner position, all available positions are defined in the Service menu here you can only select already defined positions.

001> BCR Location: TOP-REAR <>=SELECT Green=CONF. Blue=EXIT Red=G0 ON

We select "TOP-REAR" in our example.

Job id

The maximum is defined as 31 characters. You can set a number between 0 and 31 for this definition.

```
001> Job ID (0-31): 2
<>=SELECT Green=CONF. Blue=EXIT Red=G0 ON
```

Set integrity

The maximum is defined as nine characters. You can set a number between 0 and 9 for this definition.

0001> SI (0-9): 2 <>=SELECT Green=CONF. Blue=EXIT Red=G0 ON

We select "2" in our example.

Select feed

Depending on your job there is the possibility to add after the feeder material from the select feed tower. This Information will be sent to the MF 4000.

001> Select feed (1-5): NO <>=SELECT Green=CONF. Blue=EXIT Red=G0 ON

We select "NO" in our example.

001> Select feed (6-10): NO <>=SELECT Green=CONF. Blue=EXIT Red=GO ON

For the next group 6-10 we select as well "No"

Optional functions

This is not in use in the current SW but is available as custom SW.

Bypass advanced settings

There are two settings available.

- Set Integrity Random (YES means SI (Set Integrity does not follow a pattern)
- Page counter direction: (count up or count down)

```
001> Bypass advanced settings
Green=YES Blue=EXIT Red=NO
```

We select "YES" in our example.

Modify job

The actual selected job will automatically be selected in the modify job menu. You can scroll through the programmed jobs until the job to be modified has been found by using the two arrow buttons for selection. Jobs may be identified by their number or name (far left/far right on top line, see diagram below).

2. Main menu

001> Name of program : EXAMPLEJOB <>=SELECT Green=CONF. Blue=EXIT Red=EDIT

After a job to be modified has been selected, all steps of programming are run through. Push through all parameters you wish to remain unchanged by confirming (pressing GREEN). The changes take place immediately and there is no second confirmation required. To modify a job parameter either scroll through the given choices using the arrow buttons (<>) some settings can be altered by pressing RED to edit an entry. Press BLUE to exit at any time.

Delete job

Scroll through the programmed jobs until the job to be deleted has been found. The job selected on the home screen will automatically be selected in the delete job menu. Jobs may be identified by their number or name (far left/far right on top line, see diagram below).

001> Name of program : EXAMPLEJOB <>=SELECT Green=DELETE Blue=EXIT

After pressing GREEN for deletion a confirmation is needed to delete the job in question.

Are you sure? Green=YES Blue=EXIT Red=NO

EXIT and NO have the same effect leaving the whole menu without a change

OMR

OMR - Optical Mark Recognition or Optical Mark Reading - is the scanning of paper to detect the presence or absence of marks in a predetermined position. The OMR interpreting facility in the F65A/B system is completely flexible and programmable to match most common OMR code.

The interpreting of OMR in the F65A/B system can be divided into two main objectives. Safety (integrity) and machine control.

Safety functions

The safety functions are there to make sure that the F65A/B has read the code completely, correctly and to guarantee the integrity of each sheet fed.

IGNore (IGN)

This function is to tell F65A/B to ignore certain marks. This if the OMR code used has got marks not supported by the system or that certain marks should be ignored.

PARity Even (PARe)

If parity even is set, the total number of marks at every reading must be even. If the actual number of marks is an odd number, use PARe to add a mark to make the total number of marks even.

PARity Odd (PARo)

If parity odd is set, the total number of marks at every reading must be odd. If the actual number of marks is an even number, use PARo to add a mark to make the total number of marks odd.

Wrap Around Sequence (WAS)

This is a counter that checks that certain defined marks on each sheet follows in the right order *within a sequence*.

The counter starts and stops at a value of your choice but increases by 1 (one) for every sheet fed. After reaching the end value, the counter starts all over again.

This continues throughout the whole feeding sequence no matter how many sets are processed.

Counting is binary and the reading direction must be specified since the result differs.

Binary code 100 read from left to right equals 1 (one).

Same binary code read from right to left equals 4 (four).

<u>3. Settings</u>

ALWays 0 (ALW0)

This is an integrity check. If always 0 (zero) is defined in the OMR profile, the reader expects a 0 (zero) in this position on every sheet. Anything else will be regarded as an integrity error.

ALWays 1 (ALW1)

This is an integrity check. If always 1 (ONE) is defined in the OMR profile, the reader expects a 1 (ONE) in this position on every sheet. Anything else will be regarded as an integrity error.

Set Integrity (SI)

3. Settings

This is a set integrity check to verify that all sheets in a set carry the same SI value. Fo	or
the next set, the value must be different. How is not important, see example below.	

Set	Sheet	SI value
1	1	111
1	2	111
1	3	111
2	4	000
3	5	100
3	6	100

Set SeQuence (SSQ)

This is a counter that checks that certain defined marks on each sheet follows in the right order *within the set*. The difference, compared to WAS, is that the SSQ starts over for each set.

The counter starts and stops at a value of your choice but increases by 1 (one) for every sheet fed. After reaching the EOC mark (see below), the counter starts all over again at the next set.

This continues throughout the whole feeding sequence no matter how many insertions that are done.

Counting is binary and the reading direction must be specified since the result differs.

Binary code 100 read from left to right equals 1 (one).

Same binary code read from right to left equals 4 (four).

Machine control functions

The machine control function tells the system how to handle each individual set of documents.

Beginning Of Collation (BOC)

This mark represents the start of a new set. The feeder will fed sheets until a end of set mark (EOS) is detected.

End Of Collation (EOC)

This mark represents the end of a set. The set will now be handled as programmed. For example folded and then inserted into an envelope.

Note The EOC **must be present**. Without the EOC mark, the F65A/B will not work.

Selective Feed 1 to 7 (SF1 to 7)

When this mark is detected, one or more selected enclosures will be added to the actual set. The next set will not have any enclosures added unless a new SFX mark is detected.

Note 🖉

The SFx mark **must be present** on the first sheet of the new set.

Hand Feed Last (HFI)

Hand feed last means that the actual set shall have some material manually added on top of the set before it is inserted. When this mark is detected, the actual set will be paused on the infeed deck on the inserter. Infeed deck interlock will be disabled. Open the infeed deck cover, add material manually and press the pedal to complete the cycle.

Note

The HFI mark **must be** present on the first sheet of the new set.

Hand Feed First (HFf)

Hand feed first means that the actual set shall have some material manually added at the bottom of the set before it is inserted. When this mark is detected, the system will be paused and the infeed deck interlock disabled. The operator can now open the infeed deck cover feed the material to the infeed deck. When the pedal is pressed, the system will complete it's cycle.

🖉 Note

The HFf mark **must be** present on the first sheet of the new set.

DiVert Finished (DVF)

When this mark is detected, the actual set will be processed **without** having the envelope sealed. The next set will have the envelope sealed unless a new DVF mark is detected.

🖉 Note

The DVF mark **must be** present on the first sheet of the new set.

DiVert to Deck (DVD)

When this mark is detected, the actual set will be transported to the outsort bin on the folder. The next set will be processed as programmed unless a new DVD mark is detected.

🖉 Note

The DVD mark **must be** present on the first sheet of the new set.

STop (ST)

When this mark is detected, the system will stop after the actual set has been processed.

🔗 Note

The ST mark **must be** present on the first sheet of the new set.



4. Trouble shooting

Clearing paper jam

The Feeder may stop indicating a misfeed. The indicator STOP/CLEAR DECK will be flashing. Follow the procedure given next:

- Feeder Head section
 - Open the Top Cover [A]
 - Remove the sheets from Feeder Deck [B]
 - Unlock the Lever of Feeder Head [C]
 - Carefully remove the prefed sheet under separator assembly [D]
 - Lock the Feeder Head Lever [C]
 - Close Top Cover [A]
 - Reload sheets at the Feeder Deck [B]
 - Press run to confirm GREEN to restart operation
- Accumulator Area
 - Open the Top Cover [A]
 - Remove paper in the Accumulator Area [E]. Take care not to dislocate any of the O-Rings from their correct position.
 - Close the Top Cover [A]
 - Press run to confirm GREEN to restart operation



The causes for jam are mostly related to:

- Dusted separation header area
- Electrostatic affected paper (paper separation difficult)
- Too much humidity (paper separation difficult)
- Too much paper on the feeder belt
- Separation header too close
- Paper cracked or bad quality
- · Feeder or Accumulator side guides to narrow

Paper feeding

There were different types off error concerning the paper feeding process

- Stream Feed
- Double Feed

The feeder stops in both cases. By pushing the GREEN button you can continue the job.

Stream feed

Stream Feed error is mostly caused by a too wide setting of the separation. An error is detected by the length of paper (paper is measured by an optical sensor once and an over length is automatically detected during the feeding process)

The cause for Stream Feed could also be found in electrostatic affected paper and or high humidity

Double feed

Double Feed is very similar to the Stream Feed, the cause for occurring are the same but the detection is different. The Double Feed measures the light of one paper and compares this value during the whole process of feeding.

Because some areas (Pictures) could be darker than plain paper, a Double Feed could be reported but it is not. In this case a different setting of the material might be the solution (Paper /DF+) there you can increase the value of how many times the value has to be out off range until an error is evoked.

If a job is started the double feed sensor measures the paper thickness, therefore make sure that only one paper is fed. If there is no paper available the HMI shows the following message: "No material for double feed adjustment"

Press GREEN to start again.

Low performance

If your system seems to work in lower speed than usual, there might be one of the following reasons:

- Side guides to narrow
- Separation head adjustment too tight
- Motor speed set to a lower level
- Material feed belt needs cleaning
- Take away roller needs cleaning

5. General Remarks

Do's And Don'ts

- Always follow all warnings marked on, or supplied with, the equipment.
- **Always** exercise care when moving the equipment. Always contact service if relocating the equipment.

▲ CAUTION:

Unplug the power cord from the wall outlet and machine before you move or relocate the equipment. Always contact service if relocating the equipment.

- Do not remove covers or guards that are fastened with screws.
- Do not override or bypass electrical or mechanical interlock devices.
- Do not operate the equipment if you notice unusual noises or odours. Disconnect the power cord from the power source and call your authorized technician to correct the problem.

⚠ WARNING:

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Note

The domestic environment is an environment where the use of broadcast radio and television receivers may be expected within a distance of 10 m of the apparatus concerned.

- Do not switch off the power while the machine is running. Make sure the machine cycle has ended.
- Do not open covers while the machine is running.
- Do not move machine while the machine is running.
- Do not make arbitrary changes to the machine.

5. General Remarks

Machine Specifications

F65A/B Feeder incl. High capacity loader

Speed:	Up to 15000 sheets/hour		
Paper size (H x W)*	Min:	147 x 210 mm (5.8" x 8.2")	
	Max:	297 x 297 mm (11.7" x 11.7")	
Paper weight	Min:	60 gsm	
	Max:	200 gsm	
Loading capacity	4000 sheets		
Jam detection	Yes	Double sheet	
Max input paper skew	± 5 mm (0.19")		
Max input paper curl	8 mm (0.31") (radius > 70 mm (2.75), measured on a flat surface)		
Operational temp range	10-32 °C (50-90 °F		
Operational humidity	20-85% RH		
Dimensions	Height:	1000 mm (39.4")	
	Length:	1900 mm (74.8")	
	Depth:	630 mm (24.8")	
Weight	121 kg (266 lb)		
Voltage	100-240 V AC +6%/ / -10%, 50-60 Hz		
Input current	2.2-4.4 A		
Power consumption	506 W		

Application functionality

- Benchmark (Start mark)
- Ignore
- Parity even
- Parity Odd
- Wrap a round counter (Static 1-N or N-1)
- Sequence counter (Dynamic for each set)
- Start of collation
- End of collation
- Always 0
- Always 1
- Selective feed 1 7 (incl. Accumulator)
- Set Integrity
- Hand Feed First
- Hand Feed Last
- No sealing
- Divert to deck
- Stop

It is up to end user to specify from the user interface on SF4000 how many optical marks current code have and also what functionality each optical mark has.

It is possible to run with up to 32 OMR marks.

Physical specification

Mark thickness:

- Min: 0.25 mm

- Max: Less than distance between marks

Distance between marks:

- Min: 2 mm
- Max: 6 mm
- Mark width
- Min: 1/2 distance between marks
- Max: NA mm
- Code length:
- Min: Depending on Distance between and thickness of marks
- Max: Depending on Distance between and thickness of marks
- Number of marks:
- Min: NA
- Max: 31

OMR reading area

Top reading



6. Specifications

OMR reading area, continues

Bottom reading



6. Specifications

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OMR reading area, continues

Custom top and bottom with a camera like scanner



Barcode

Application functionality

Machine can run Barcode standards:125, Code 128, Code 39,

- Set page counter and Set Total Number
- Selective feed 1 10
- Customer specific functionality can be implemented at request.

2D application functionality

Machine can run 2D code standards: DataMatrix ECC 200.

- Job ID
- Customer ID
- Set page counter and Set Total Number
- Selective feed 1 12
- Customer specific functionality can be implemented at request.

Barcode reading area

Top and bottom loading



6. Specifications



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