

# **FORMAX<sup>®</sup>**

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6900 Series  
Folder/Inserter

OPERATOR MANUAL

FIRST EDITION

# INSERTER IN-3 6900 Series

## OPERATOR MANUAL

### 1. GENERAL

The 6900 Series is a modular mailing system. For each stage within the mailing process, such as feeding, folding, collating of documents and inserting and sorting of filled envelopes a module is available. In this way the 6900 Series adapts to the customers' needs.

The whole system is operated and programmed via the central operator panel of the base module, the inserter (IN-3).

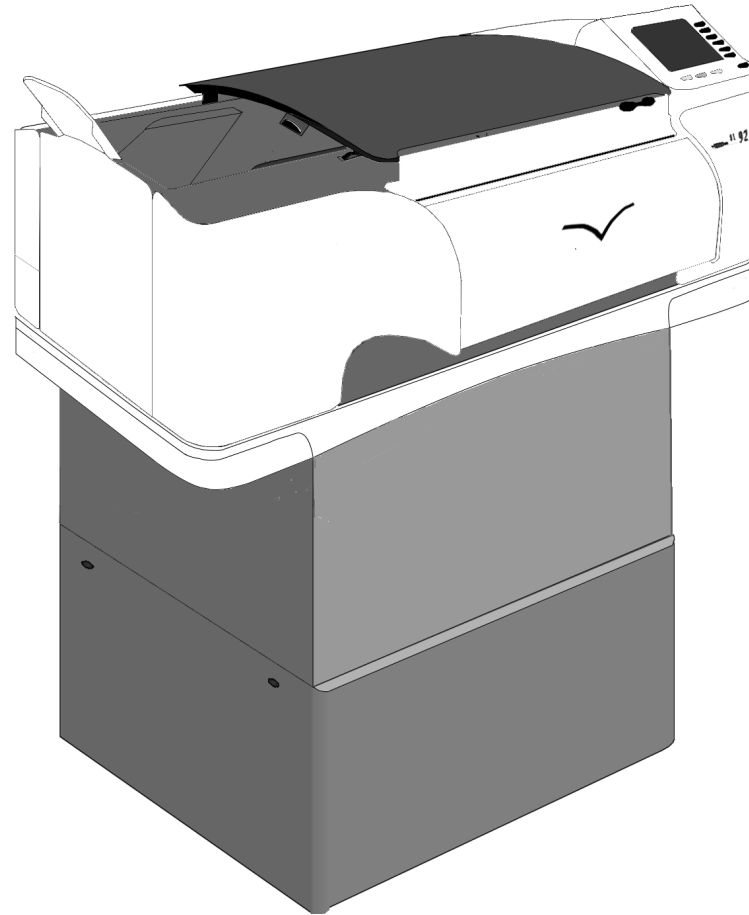


Fig. 1

Before using this system thoroughly read the operating instructions. In the European Union an operator manual printed in the national language(s) is supplied with the system. If it is not, contact your authorized distributor.

### Warnings

- Before connecting check whether the system is suitable for the local mains voltage; refer to the type plate. The mains plug shall be connected only to a socket outlet provided with a protective earth contact.
- The socket outlet shall be installed near the equipment and shall be easily accessible.
- The following part is considered the equipment disconnect device: power supply cord plug.

### Safety precautions

- This system is only to be operated by fully trained personnel. The manufacturer accepts no responsibility for injuries caused by unauthorized operation.
- The opening of covers (except the top and side cover) must be carried out only by a skilled and authorized person who is aware of the hazard involved. The system will not operate with the covers opened.
- Keep long hair, fingers, jewelry, etc. away from turning parts of the system.

### Used symbols

In this manual the following symbols are used.



Warning, this symbol indicates a wrong action which can cause a hazard to health or damage the system.



Warning, this symbol indicates a hazard to life because of high voltage.

**NOTE** Additional information (Italic)

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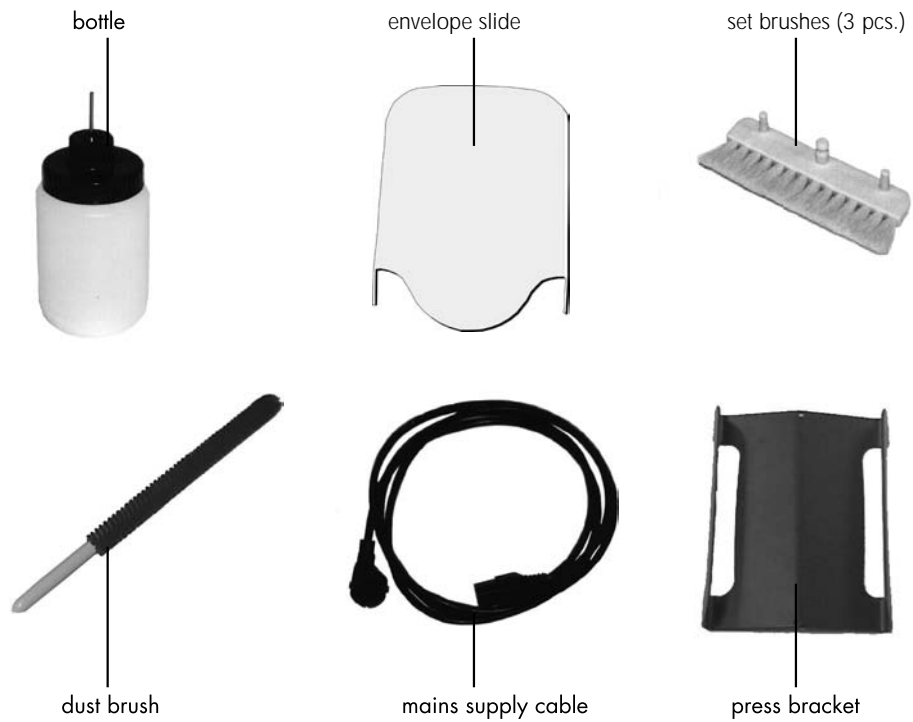


Fig. 2

## 2. HOW TO USE THE OPERATOR MANUALS

This manual, existing of two parts, describes the inserter (IN-3) module and operating (part 1: operator manual) and programming of the system (part 2: guide for job menu).

Use the 6900 Series manual as the main guide. In the text of this manual we will refer to the other operator manuals if required.

## 3. ACCESSORIES

The IN-3 is delivered with the accessories shown in Fig. 2.

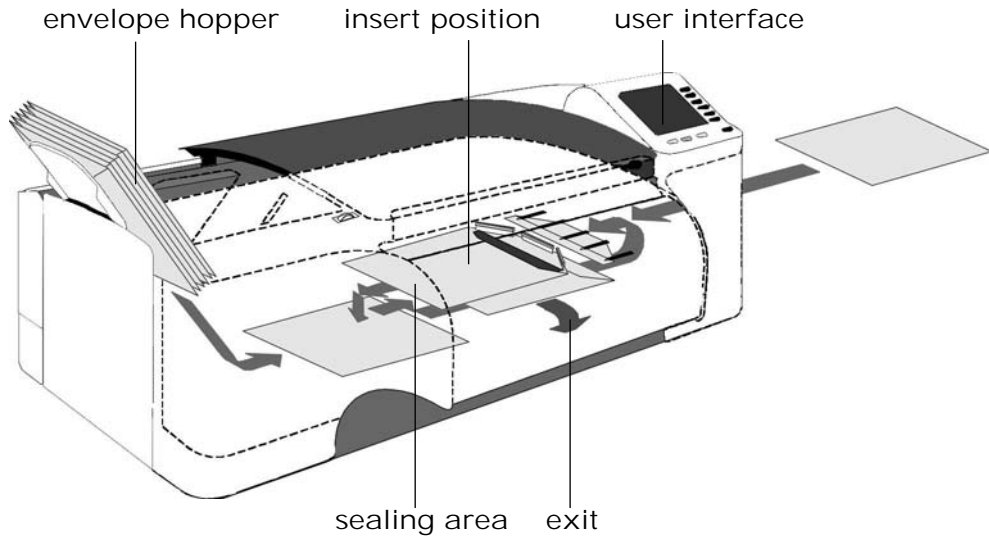


Fig. 3

## 4. UNDERSTANDING THE MACHINE

### 4.1 Function

The inserter inserts documents into envelopes and then seals the envelopes (or not). Via the central operator panel the 6900 Series system can be operated and programmed. Settings of all modules are stored centrally at the inserter.

### 4.2 Overview

See Fig. 3 .

Envelopes are fed from a stack to the insert position. During this transport the flap is opened. After the envelope has arrived at the insert position a document is fed to the inserter and then inserted into the envelope. After insertion, the envelope flap is moistened (or not) and closed. Then the envelope is exited.

### 4.3 User interface

The user interface of the inserter exists of two menus; the "main menu" and the "job" menu. These menus are accessible via a personal pin code.

- The "main" menu is accessible for all operating personnel and the supervisor. In the main menu jobs can be selected and performed. After selecting a particular job, all modules will be set automatically according the job data.
- The "job" menu is only accessible by an authorized user, the "supervisor", via the supervisor pin code. In the job menu jobs can be programmed, deleted etc. In a job the settings of the modules within the system (type of envelopes, type of documents, type of fold and way to sort) are recorded. There are more functions in the job menu. For a description of the job menu see the "Guide for job menu".

*The service engineer has access to all menus.*

The system can be started, stopped or cleared by pressing the concerned key located below the display of the inserter, see section 4.6 page 6.

When a stoppage occurs, the IN-3 operator panel automatically signals the operator and gives a suggestion about solving the problem. See chapter 7 and 8.

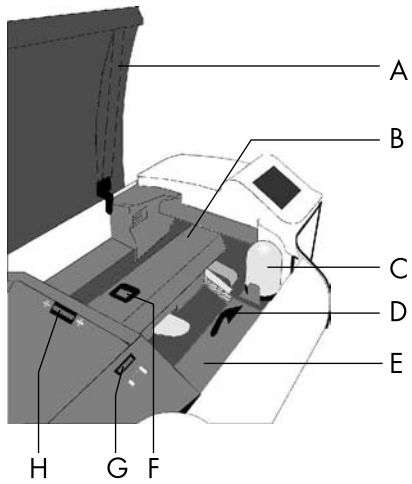


Fig. 4

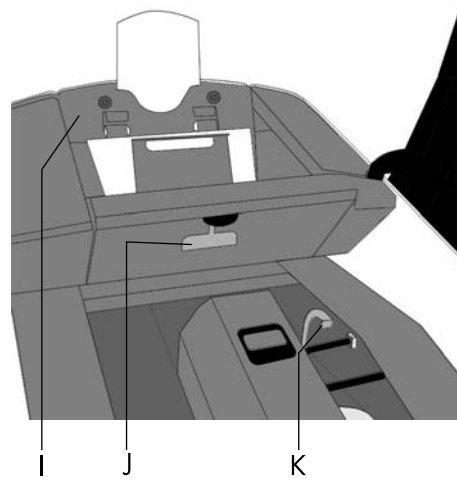


Fig. 4

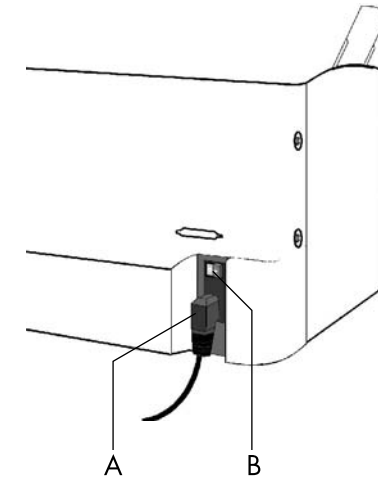


Fig. 5

Fig. 6

#### 4.4 Operating controls

- A : Top cover
- B : Loc
- C : Bottle
- D : Release handle sealing table
- E : Sealing table
- F : Release handle loc
- G : Hopper side guide adjustment wheel
- H : Separation adjustment wheel

- I : Envelope hopper
- J : Release handle hopper
- K : Release handle sealing table rollers

#### 4.5 Power inlet

See Fig. 6 . The power inlet B is located at the rear side of the machine. It contains the power on/off switch and the main fuse.

See "Warnings", page 2. Connect the main supply cable A to the power inlet then connect the mains plug to the wall socket.

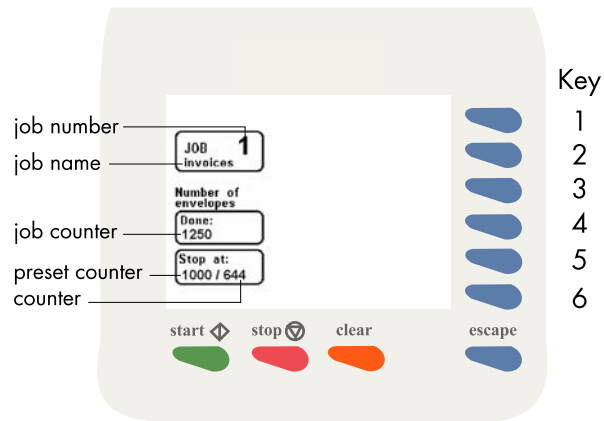


Fig. 7

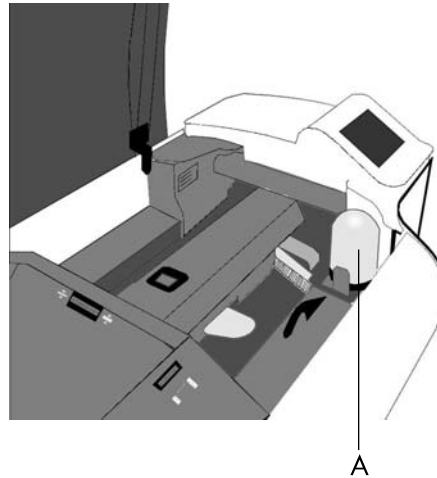


Fig. 8

## 4.6 Display keys

### Key 1 through 6

See Fig. 7. These keys correspond with the function in the display.

#### Start key

The system will start to operate.

For more details see 6.2 on page 22.

#### Stop key

The system will stop operating.

#### Clear key

The system will first finish all documents sets that have already been fed (e.g. to the transport track) by the feed units, then it stops.

#### Esc. key

Use this key to exit a (sub) menu without saving any (altered) settings.

## 5. OPERATING THE SYSTEM

### 5.1 Preparations inserter module

The bottle A (Fig. 8) must always be filled with water and the brushes must be moistened. An extra set of brushes is provided so that one set can be soaked in water whilst the other set is used. This means there is always a clean set of brushes ready for usage.



Before moving the system, the bottle and watertray must be removed.

Refer to the other operator manuals of the used modules for the required preparations.

If the system is switched off after, for example, a paper stoppage, the brushes will not rest on the watertray. This causes the brushes to dry if usage is interrupted for a longer period.

Always take care that the brushes rest on the watertray. Therefore the system must be switched on again so that the brushes will rest on the watertray. The system can then be switched off.

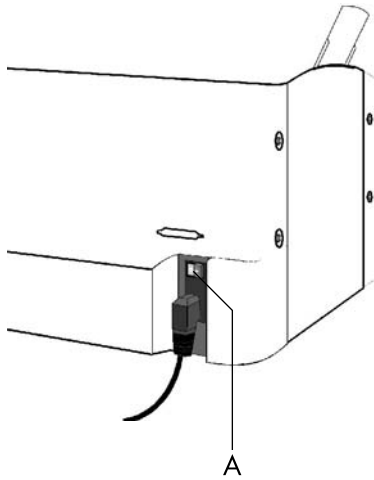


Fig. 9

## 5.2 Switching on

Switch on the inserter using the power switch A, see Fig. 9.  
*If the AS-1A, PS-3 or franking machine etc. are part of the system switch these on. Refer to the operator manuals of the used modules if necessary.*

After switching on the pin code screen or the main menu will appear. In case the pin code screen appears, see section 5.3 for further instructions. In case the main menu screen appears, see section 5.4 for further instructions.

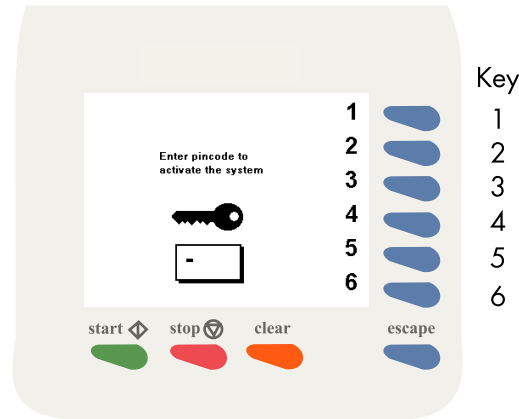


Fig. 10

## 5.3 Entering the personal pin code

In Fig. 10 the pin code screen is shown.

Enter your pincode using the keys 1 to 6. If the code is not correct, a warning "wrong code, try again" will be displayed. This warning disappears immediately when a key is pressed.

The pincode screen is not displayed if only the supervisor code is defined. In this case the main menu as shown in Fig. 11 will be displayed after switching on the system.

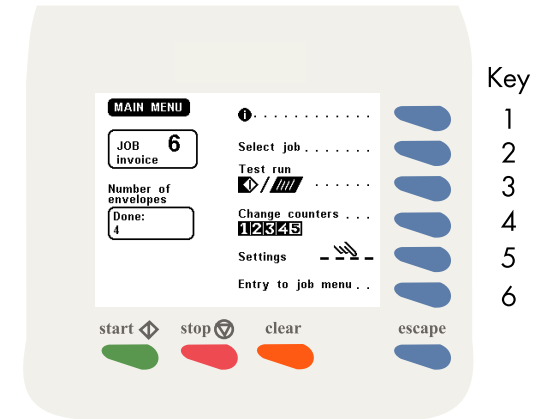


Fig. 11

## 5.4 The main menu

The main menu is shown in Fig. 11.  
 The "main menu" shows 6 different functions:

- go to job info screen (key 1).
- go to the "select job" menu (key 2).
- go to the "test run" menu (key 3).
- go to the "change counters" menu (key 4).
- go to the "settings" menu (key 5).
- go to the "entry to the job menu" (key 6).



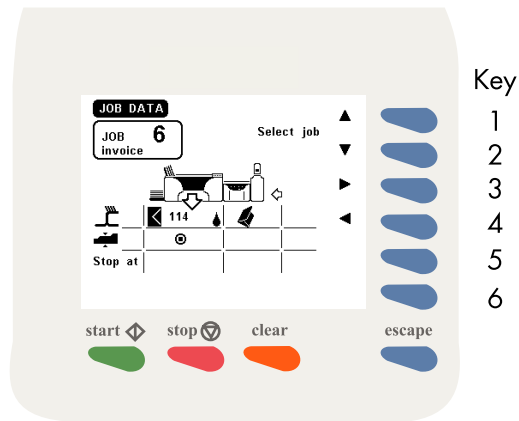


Fig. 12

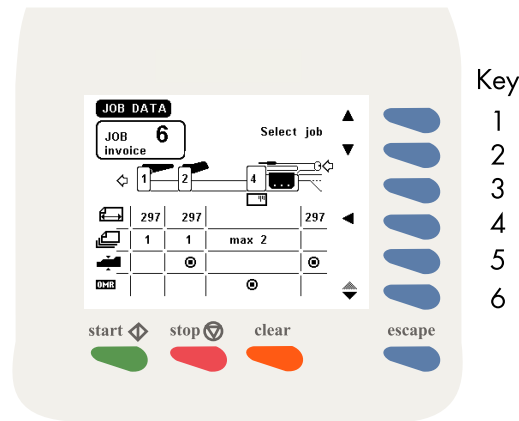


Fig. 13

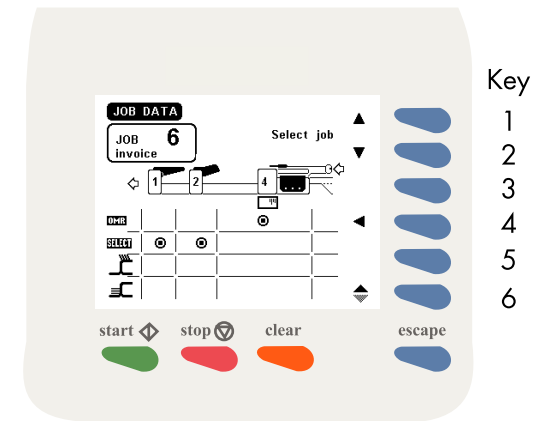


Fig. 14

### 5.4.1 Job info screen overview

When key 1 is pressed in the "main menu", the job info screen will be displayed (see Fig. 12). The job info screen shows the following functions:

- select a higher job number (key 1).
- select a lower job number (key 2).
- go to the job data of the upstream (transport) module (key 3).
- go to the job data of the downstream (sorting) module (key 4) (the job data of the downstream (sorting) module is shown in Fig. 15).

Press the escape key to go back to the main menu.

Because of the modularity of the system, different configurations are possible. So take in account that the job data can differ from which is shown in this job info screen overview.

When key 3 is pressed in the "job data" menu the upstream (transport) module screen is displayed (see Fig. 13). The screen shows the following functions:

- select a higher job number (key 1).
- select a lower job number (key 2).
- go back to the inserting module (key 4).
- go to next job data screen of the upstream (transport) module (key 6).

Press the escape key to go back to the main menu.

When key 6 is pressed in the upstream (transport) module screen, the screen in Fig. 14 is displayed. The screen shows the following functions:

- select a higher job number (key 1).
- select a lower job number (key 2).
- go back to the inserting module (key 4).
- go to previous job data screen of the upstream (transport) module (key 6).

Press the escape key to go back to the main menu.

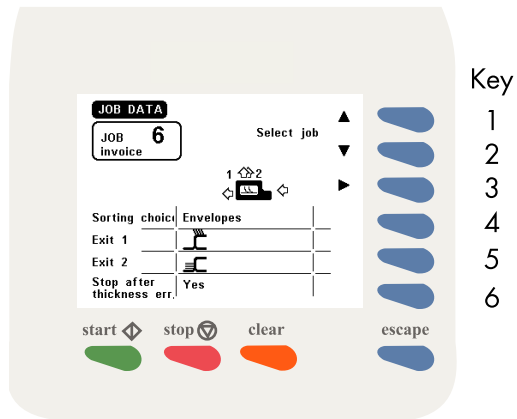


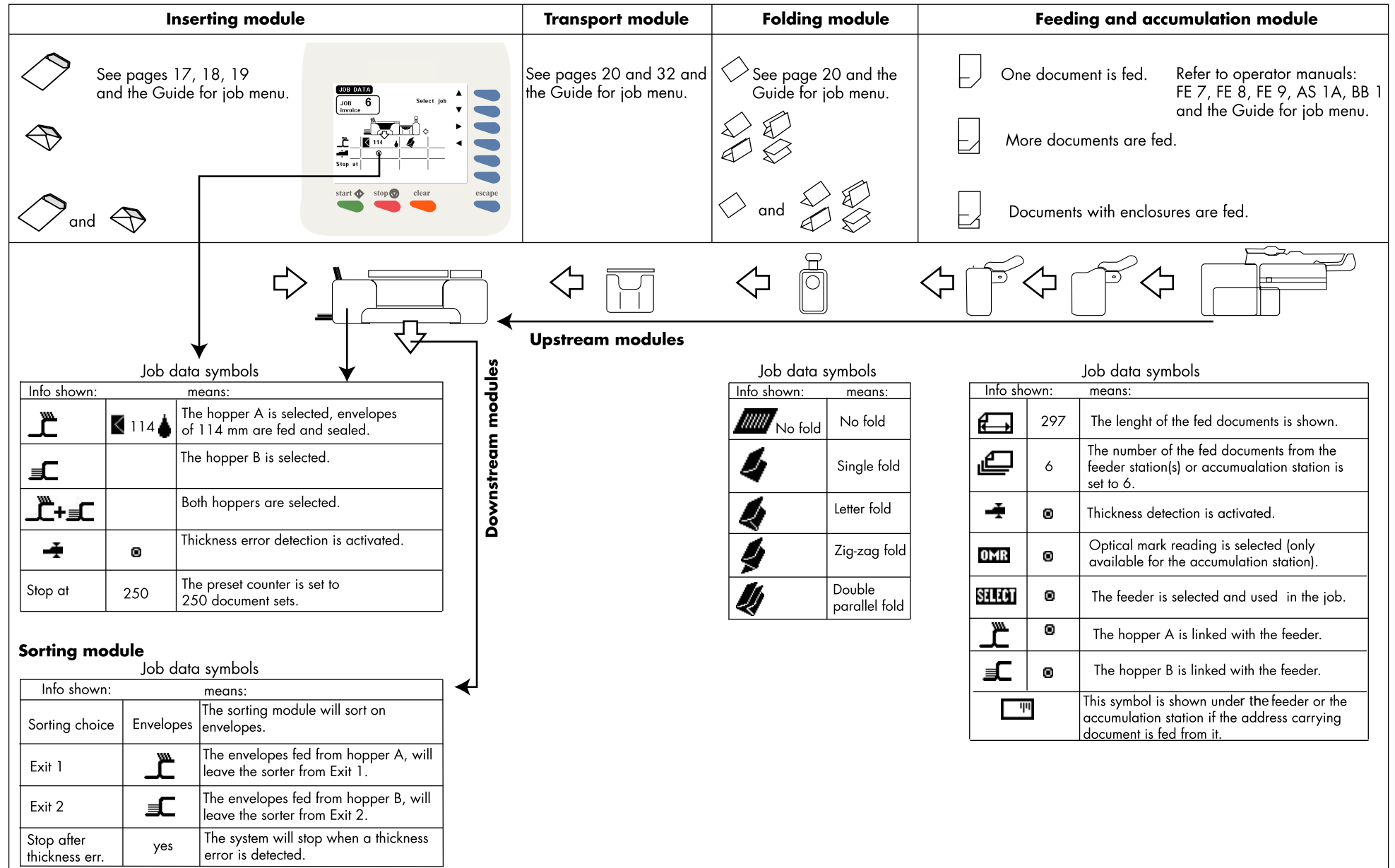
Fig. 15

When key 4 is pressed in the "job data" menu the downstream (sorting) module screen is displayed (see Fig. 15). The screen shows the following functions:

- select a higher job number (key 1).
- select a lower job number (key 2).
- go back to the inserter module (key 3).

*Press the escape key to go back to the main menu.*

## 5.4.2 Schematic view



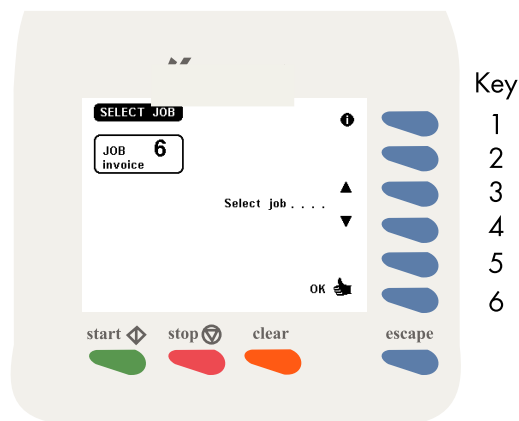


Fig. 16

### 5.4.3 Selecting a job

After pressing key 2 in the "main menu", the display shows the "select job" menu (see Fig. 16). The "select job" menu shows the following functions:

- job data (key 1).
- select a higher job number (key 3).
- select a lower job number (key 4).
- confirm with "OK" (key 6) which will get you back to the "main menu".

Only programmed jobs can be selected (maximum of 9 jobs).

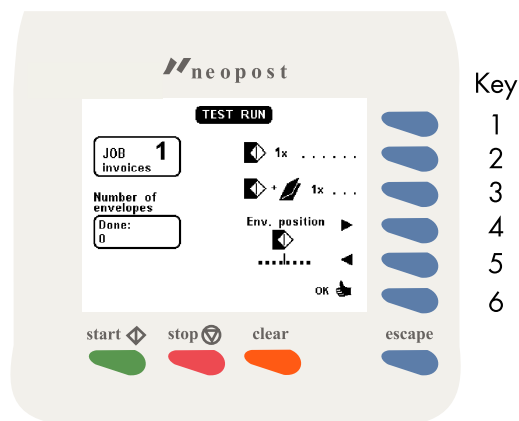


Fig. 17

### 5.4.4 Test run menu

After pressing key 3 in the "main menu" a test run screen will be displayed. In case an FO-2A is used the screen as shown in fig. 17 will appear. The purpose of the test run menu is to check proper envelope feed and to make adjustments to the envelope stop settings.

The "test run" menu shows the following functions:

- feed one envelope (key 2).
- insert one document (key 3).
- envelope stop position to the right (key 4).
- envelope stop position to the left (key 5).
- confirm settings and return to the main menu (key 6).

In case an FO-3 is used, a screen as shown in fig. 18 will be displayed. The envelope position keys 4 and 5 of figure 17 have moved to a new submenu (see fig. 18, key 4): after pressing key 4 this submenu will be entered and the possibility of adjusting the envelope stop position to the left or right is available again.

After pressing key 5 a submenu will be entered for fine tuning the folder settings. For more information see "Fine tuning the folder settings".

*In case the inserter is equipped with a second envelope hopper (EF-3) the test run menu has been extended and the following functions for key 1 and 2 have become available (see fig. 18 for an example):*

- feed one envelope from the standard hopper (key 1).
- feed one envelope from the second hopper EF-3 (key 2).

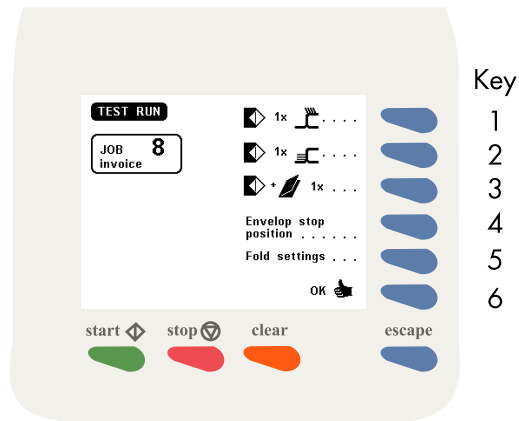


Fig. 18

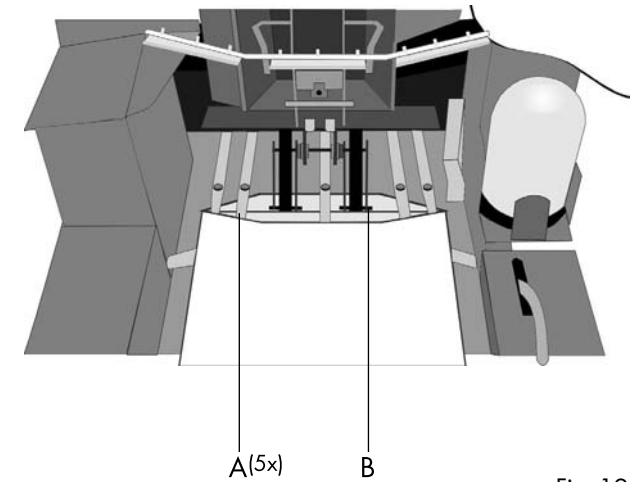


Fig. 19

### Feed one envelope

With this function the proper feed of envelopes can be tested. First carry out the envelope hopper adjustments, see section 5.7 on page 17. Then put a stack of envelopes in the hopper. Use key 1 or key 2 to feed one envelope onto the insert table. Each time the key is pressed a new envelope will be fed. No insertion will take place.

The "feed one envelope" function can be used when adjusting the envelope stop position, see "Envelope stop position adjustment" on the next page.

### Insert one document

With this function the proper functioning of the whole document and envelope transport will be tested. First carry out all adjustments, see section 5.7 on page 17. Then load the system with documents and envelopes.

Use key 3 to make one insert cycle. Each time the key is pressed another insert cycle will be made. When there is no envelope waiting on the insert table, the machine feeds one envelope waiting on the insert table. The document will be inserted and filled envelope is ejected.

If there are documents on the collating area, these documents will be inserted and the filled envelope is ejected (and counted). If there is an empty envelope in the inserter, this envelope will be ejected.

See notes mentioned in section 6.2 on page 22.

### Envelope stop position adjustment

The flap folding line must be positioned under the green indicator B (Fig. 19). This indicator can be seen after opening the transparent cover and releasing and lifting the loc by pulling the release handle of the loc (see page 5).

If necessary, adjust the folding line position by pressing "to the right" (key 4) or the "to the left" (key 5). Each press stops the next envelope 1 mm (0,04 inch) to the right (later) or left (earlier).

*Adjustments to the envelope stop position can be made with the system operating.*

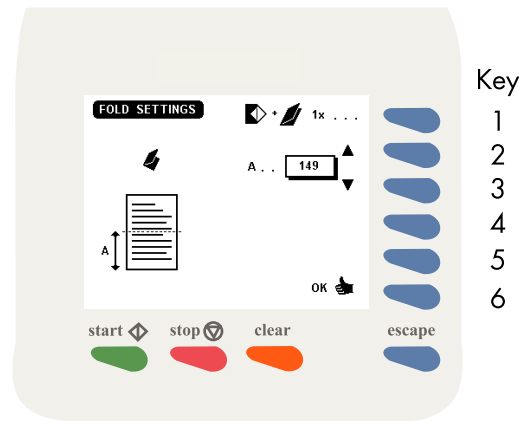


Fig. 20

### Envelope fingers adjustment

When the envelope stop position is correct the insert fingers A (Fig. 19) can be adjusted. Adjust the fingers by loosening the thumb screw on top of each finger (5 in total). Slide the finger until the tip has entered about 5 mm (0,2 inch) into the envelope. Re- tighten the screw. The fingers on either side of the loc can be moved sideways to the desired position. Place the outer fingers about 10 mm (0,4 inch) from the edges of the envelope. Check the finger positions when changing to a different type of envelope.

### Fine tuning the folder settings

In the 6900 Series, if and when the electronic folder FO-3 is used, the operator has the possibility to adjust the (mechanical) folder settings during the execution of a specific job. This might be necessary for instance when adapting the fold settings to the current mechanical paper parameters (thickness, sturdiness et cetera). After pressing key 5 in figure 18 the menu of figure 20 appears.

The following functions are available:

- test for a folded document 1x (key 1). It makes sense to do this in the same menu screen.
- Increase/ decrease value of fold setting A (keys 2 and 3). Basically there is no limitation in the values. The possibilities are same as in the equivalent settings of the job menu (FO settings).
- as keys 2 and 3, for fold setting B, if relevant (keys 4 and 5). This depends on the fold type. Setting B is relevant for all fold types except single fold. Note that you cannot change the fold type in this menu.
- enter and effectuate the settings (key 6). Back to the menu "test run" menu of figure 18.
- discard the settings (Esc). Back to the "test run" menu of figure 18.

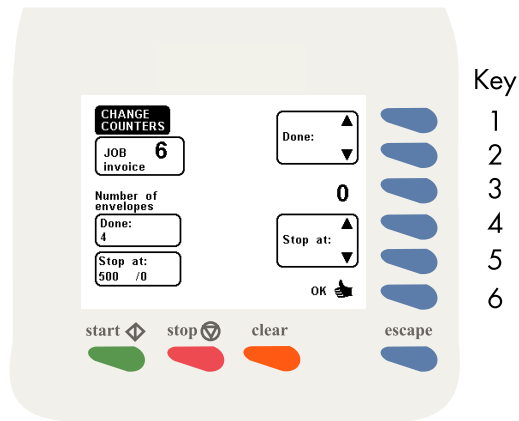


Fig. 21

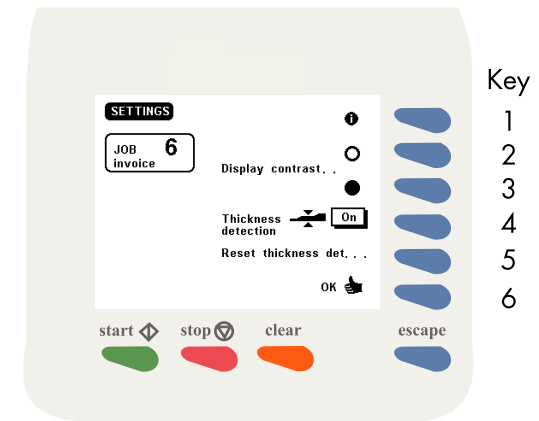


Fig. 22

### 5.4.5 Counters menu

After pressing key 4 in the "main menu", the display shows the "change counters" menu (Fig. 21). The "change counters" menu shows the following functions:

- increase the counters (key 1).
- decrease the counters (key 2).
- reset counters to zero (key 3).
- increase the preset counters (key 4).
- decrease the preset counters (key 5).
- save the counter settings with "OK" (key 6) which will get you back to the "main menu".

#### Increase/decrease counters

The following counters will be increased or decreased:

- job counter.
- counter.

#### Reset counters to zero

The following counters will be set to zero:

- job counter.
- counter.

### Increase and decrease preset counter

By pressing key 4 or key 5 the preset counter will be increased or decreased.

The counter will only be displayed when the preset counter is set higher than zero.

*When pressing key 4 or key 5, the stop counter will initially be increased or decreased with one unit at a time. When the key is pressed longer the counter will be raised with ten units at a time.*

### 5.4.6 Settings menu

After pressing key 5 in the "main menu", the screen as shown in Fig. 22 will be displayed. The "settings" menu shows the following functions:

- job data (key 1).
- decrease contrast of the display (key 2).
- increase contrast of the display (key 3).
- thickness detection on or off (key 4).
- reset thickness detection (key 5).
- save the counter settings with "OK" (key 6) which will get you back to the "main menu".

#### Display contrast

By pressing key 2 the display contrast will be decreased. By pressing key 3 the display contrast will be increased.

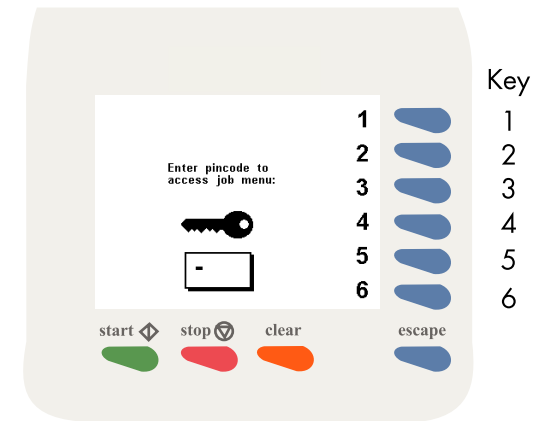


Fig. 23

### Thickness detection

The IN-3 is equipped with a document thickness detector. The thickness detector controls the thickness of the document. In this way the machine checks if the envelope will be filled with the correct amount of documents. The detector will stop the machine if a document is too thick or too thin and an error message will be displayed.

The thickness detector is self-setting. After switching on (or after resetting the thickness detection) the thickness of the first document passing under the detector is memorized and compared with the following inserts.

If the thickness of the documents can vary, for example when a small card is used that can shift in place, it is recommended to switch off the thickness detection or shift it to a stable section of the document. The thickness detection measurement area can only be adjusted by the supervisor. See section 2.4.3 in the "Guide for job menu".

### Reset thickness detection

By pressing key 5 the thickness detection will be reset. If the thickness detection is switched off, the text "reset thickness det....." will not be displayed in the screen.

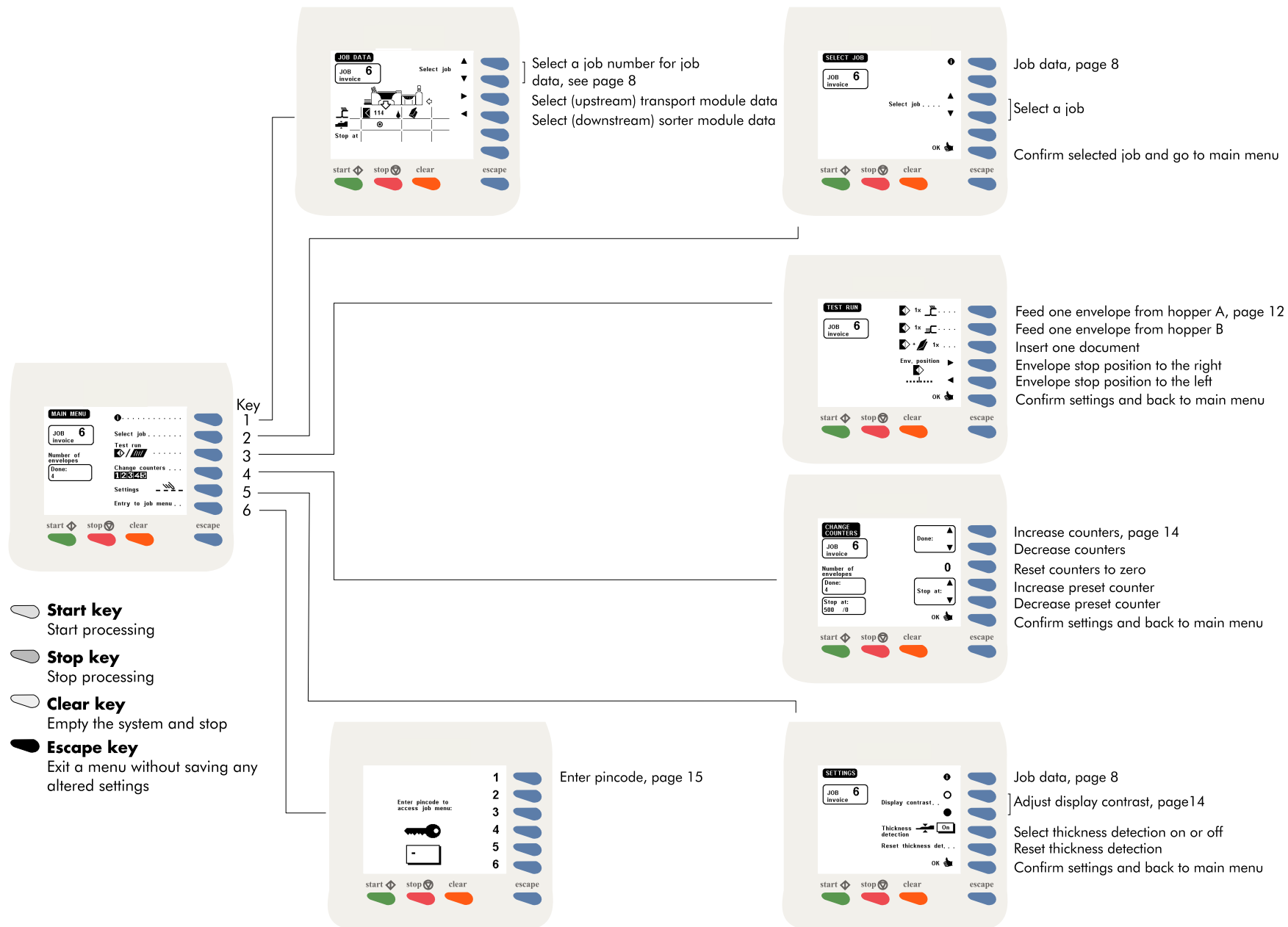
### 5.5 Entry to job menu

When key 6 in the "main menu" is pressed the display shows the screen in Fig. 23. Only the supervisor can get access to the job settings after entering the correct code.

Enter your pincode using the keys 1 to 6. If the code is not correct, a warning "wrong code, try again" will be displayed. This warning disappears immediately when a key is pressed.



## 5.6 Operator menu structure



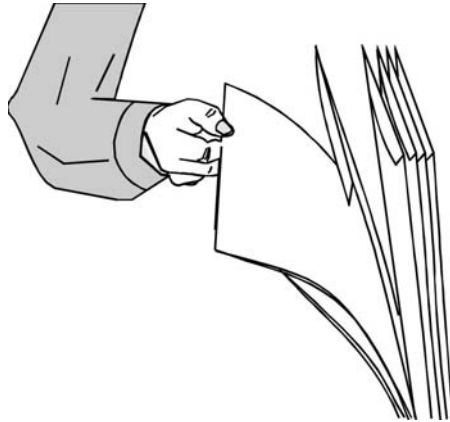


Fig. 24

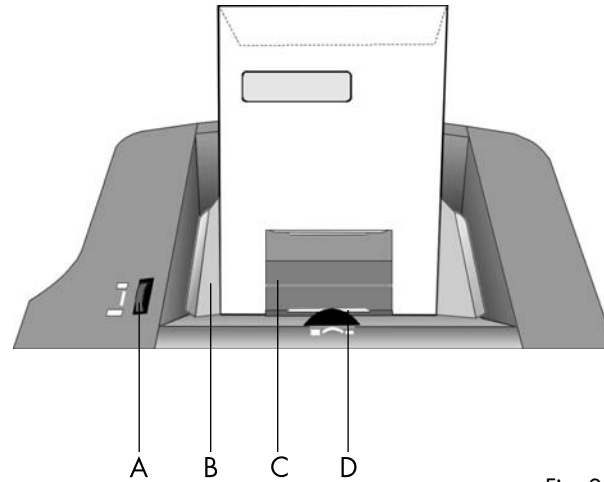


Fig. 25

## 5.7 Envelope hopper adjustment

The IN-3 can be equipped with a second hopper, the EF-3 (see section 10.2 page 32). This hopper is then called "hopper B". The IN-3 standard hopper is called "hopper A". Although an operator manual is delivered with the EF-3, on this page you will also find a description of the hopper adjustments.

### 5.7.1 Side guides adjustment hopper A

Take a stack of about 20 envelopes. Fan the envelopes a bit (see Fig. 24) and place the envelopes upright in the system with the flap to the back. Place the press bracket C on the envelopes.

Adjust the envelope hopper side guides B by turning the thumbwheel A, to provide just enough space for the envelopes to move freely. Too much play causes skewing.

*When using C4 envelopes check if the blade spring on the sealing table is up. The spring is visible after lifting the loc. The purpose of the spring blade is to obtain better support when using thin A4 sized documents.*

### 5.7.2 Envelope separation hopper A

Adjust the envelope separation by turning thumbwheel D (see Fig. 25) until one envelope is just about to be pulled in.

After starting the system it may occur that more than one envelope at a time is pulled in. If this happens, rotate the thumbwheel slightly until only one envelope at a time is pulled in. Adjustments can be made with the system operating.

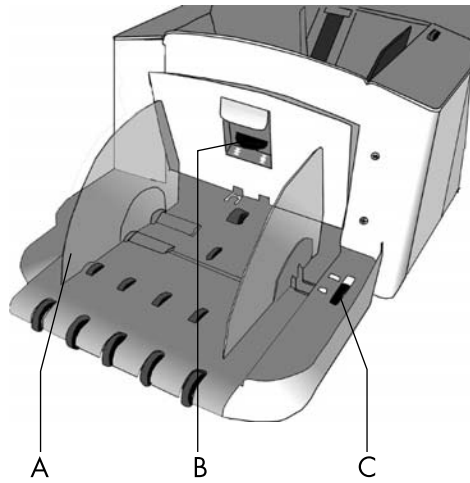


Fig. 26

### 5.7.3 Side guides hopper B

Take a stack of about 20 envelopes. Fan the envelopes a bit and place the envelopes in the system with the flap to the bottom side and trailing.

Adjust the envelope hopper side guides A (Fig. 26) by turning the thumbwheel C, to provide just enough space for the envelopes to move freely. Too much play causes skewing.

### 5.7.4 Envelope separation hopper B

Adjust the envelope separation by turning knob B (Fig. 26) counter clockwise until two envelopes, one on top of the other, can be moved backwards and forwards between the rollers without resistance. Then turn knob B clockwise until one envelope will pass between the rollers.

After starting the system it may occur that more than one envelope at a time is pulled in. If this happens, rotate knob B clockwise a quarter turn. Repeat if necessary to obtain correct operation.

Once the envelope separation has been set, a wide variety of envelopes can be handled.

## 6. PERFORMING A JOB

### 6.1 Setting up the system

Switch on the inserter IN-3 and, if part of the system, the AS-1A and PS-3 etc.  
Refer to the operator manuals of the used modules.

#### Inserter IN-3

Action	Refer to..
<ul style="list-style-type: none"><li>• Check the waterlevel, refill if necessary</li></ul>	Refer to section 5.1 Preparations inserter module on page 6
<ul style="list-style-type: none"><li>• If required, enter pincode to gain access to the main menu</li></ul>	Refer to section 5.3 Entering the personal pin code on page 7
<ul style="list-style-type: none"><li>• Select the required job</li></ul> <p><i>To recognize the correct job number, all jobs should have been given names. If so, the name is visible in the framework under JOB X.</i></p>	Refer to section 5.4.3 Selecting a job on page 11
<ul style="list-style-type: none"><li>• Press the Job info key. Use the job info facility as a guide to put the envelopes at the correct envelope hoppers and the documents at the correct feed stations.</li></ul>	Refer to section 5.4.1 Job info screen overview on page 8
<ul style="list-style-type: none"><li>• After the correct job has been selected press the OK key to confirm. Now the job information will be sent to all modules.</li></ul>	Refer to section 5.4.3 Selecting a job on page 11
<ul style="list-style-type: none"><li>• Set the envelope hopper side guides and separation</li></ul>	Refer to section 5.7 Envelope hopper adjustment on page 17
<ul style="list-style-type: none"><li>• Enter the test menu, press the 1x envelope key to bring an envelope onto the insert table.</li><li>• Check the envelope stop position, adjust if necessary.</li><li>• Set the envelope fingers</li></ul>	Refer to section 5.4.4 Test run menu on page 11
<ul style="list-style-type: none"><li>• If necessary, enter the counters menu to change or reset the counters.</li></ul>	Refer to section 5.4.5 Counters menu on page 14
<ul style="list-style-type: none"><li>• If necessary, enter the settings menu to check the thickness detector settings.</li></ul>	Refer to section 5.4.6 Settings menu on page 14

## Transport unit TR-7A, TR-1B

Action	Refer to..
Refer to the operator manuals of these modules if required.	
<ul style="list-style-type: none"> <li>If necessary adjust the module TR-7A.</li> </ul> <p><i>Note 1: With the 6900 Series selection of a mode at the TR-7A is not applicable.</i></p> <p><i>Note 2: Information about where to put the address carrying documents and the enclosures can be found in the job info menu of the inserter.</i></p> <p><i>Note 3: It is possible that there is no TR-7A fold/no fold selector available. In that case the TR-7A is equipped with so called Twin cycle facility that automizes this setting (see options).</i></p>	Refer to the chapter "Adjustments" and follow the instructions.
<ul style="list-style-type: none"> <li>If necessary adjust the module TR-1B.</li> </ul>	Refer to the chapter "Adjustments" and follow the instructions.

## Fold unit FO-3, FO-2A

Action	Refer to..
Refer to the operator manuals of these modules if required.	
<ul style="list-style-type: none"> <li>For the FO-3 no adjustments have to be made.</li> </ul>	-
<ul style="list-style-type: none"> <li>The fold unit has to be set such that the folded documents fit in to the envelope.</li> </ul>	Refer to the chapter "Adjustments" and follow the instructions.

## Feed stations FE-1M, FE-8, FE-7, FE-9, ST-1, PF-45A, PF-65A, SF-4/6

Action	Refer to..
Refer to the operator manuals of these modules if required.	
<ul style="list-style-type: none"> <li>If necessary adjust the modules FE-7, FE-8, ST-1, PF-45A, PF-65A.</li> </ul>	Refer to the chapter "Adjustments" and follow the instructions.
<ul style="list-style-type: none"> <li>If necessary adjust the module FE-9.</li> </ul>	Refer to the chapter "Settings" and follow the instructions.
<ul style="list-style-type: none"> <li>If necessary adjust the module FE-1M. Set the document hopper guides and the separation.</li> </ul>	Refer to the sections "Side guide adjustment" and "Separation adjustment".
<ul style="list-style-type: none"> <li>Fill the hoppers of the feed units with documents.</li> </ul>	Refer to the operator manuals of the feed units.

## AS-1A

<b>Action</b>	<b>Refer to..</b>
Refer to the operator manuals of these module if required.	
• If necessary adjust the module AS-1A.	Refer to the chapter "Adjustments" and follow the instructions.

## 3d Party device

<b>Action</b>	<b>Refer to..</b>
Refer to the operator manuals of these modules if required.	

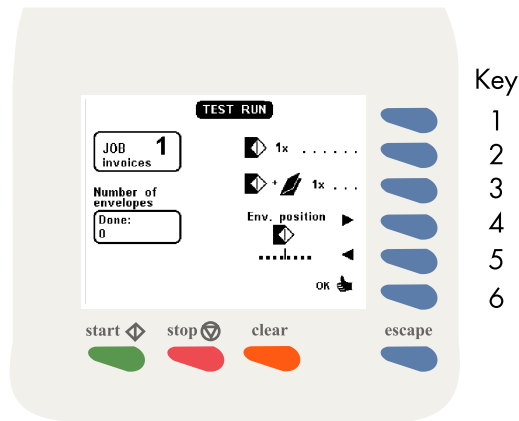


Fig. 27

## 6.2 Running a job

### Start

#### Test cycle

After all settings have been carried out a few test cycles can be made by using the "insert one document" function, see section 5.4.4 page 12 or see fig 27.

#### Automatic operation

When correct insertion is obtained, start automatic operation by pressing the "Start" key.

When the "start" key is pressed (after switching on and no other job is selected), the job information is sent to all machines in the system. During this time an egg timer will appear for about 10 seconds. When ready, the system starts operating.

*If documents from a previous job are detected on the transport track (TR-7A), these are transported to the collating area of the TR-7A. The system then stops and indicates that these documents have to be removed. Remove and press the start key again.*

### Stop

Press the stop key to stop the system.

### Job finishing

The system can be cleared during the running of a job or after running out of address carrying documents. To clear the system, press the clear key. The system will finish all documents sets that have already been fed (e.g. to the transport track) by the feed units. Then the system stops.

In case a transport unit is part of the system, see TR-7A operator manual chapter 6.

*With the 6900 Series, use the inserter clear key instead of using the TR-7A reset key.*

*With the 6900 Series, remarks about the inserter "pause"key are not applicable.*

### Stoppages

In case of a stoppage, refer to chapter 7 and 8.

### 6.3 Changing settings of a module

The settings of feed modules including the AS-1A are stored in jobs. To provide extra flexibility, it is possible to change the settings on a module locally (after selecting the job). In this way it is possible to run different applications using just one job.

*These changes will not be memorized and are lost after selecting another job or switching off the system.*

Below the possible changes in settings are listed:

- all feed modules including AS-1A can be switched on or off.
- at the FE-7, FE-9 and ST-1 the double document detector can be switched on or off. Also the value of the multifeed counter can be changed.
- at FE-8 changes in the "set" menu can be made.
- at the AS-1A all settings mentioned in chapter 4 can be changed.

### 6.4 Additional functions

The 6900 Series provides additional operating functions. They are listed below:

#### AS-1A

- The AS-1A can be locally switched on or off (toggle function). To switch on or off, press and hold the "Pause" key for one second. The AS-1A display shows an "u" when switched off. This "u" is also visible when the AS-1A is switched off by the IN-3.
- Extra functionality "Automix™", see chapter 10.

#### SF/FS interface box

- The SF/FS interface box (used with crossfold applications or foot switch) can be locally switched on or off. To switch the interface box on or off, press and hold the blue reset key (toggle function) for one second. When switched on, a yellow (on the interface box) lamp will light.



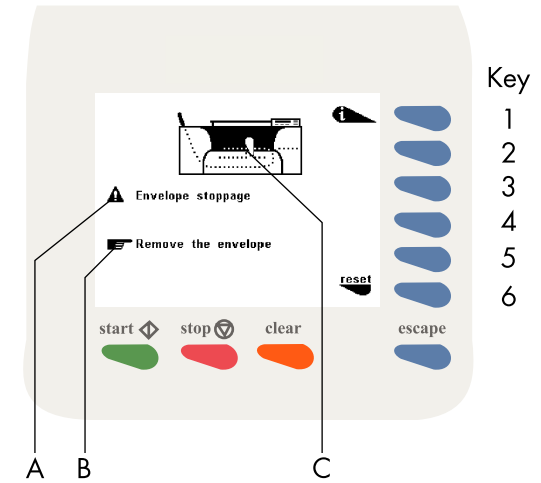


Fig. 28

## Options

See chapter 10.

## 7. FAULT FINDING

### 7.1 General

The IN-3 detects the following error types:

- errors in the paperflow.
- technical errors.
- changes in configuration.

When an error (for example running out of envelopes) is about to occur a warning screen is displayed.

### 7.1.1 The error screen

The error screen (an example is shown in Fig. 28) provides the following information:

- the error location, indicated by an arrow in the machine symbol (C).
- the error description (A).
- the suggested solution (B).

#### Resetting the machine

After solving the problem the machine can be reset by pressing key 6. The error screen will disappear.

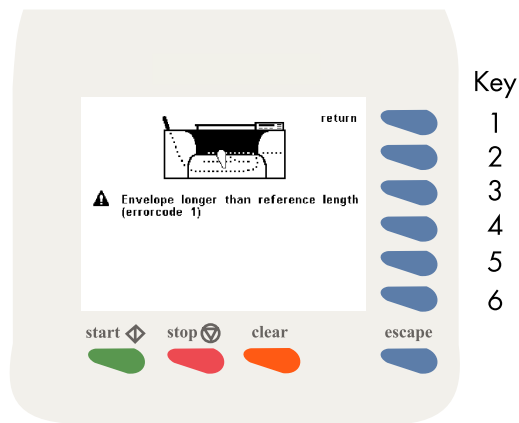


Fig. 29

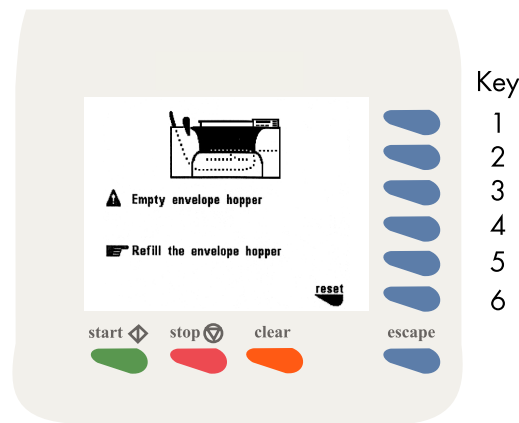


Fig. 30

### 7.1.2 The information screen

By pressing key 1 in the error screen, an additional information screen as shown in Fig. 29 is displayed.

This screen shows more information about the cause of the error. In this screen also the error code of the error is displayed. For a complete description of the error codes chapter 8.

### 7.1.3 The warning screen

A warning screen is displayed when a refill is necessary. An example of a message screen is shown in Fig. 30.

#### Resetting the machine

After refilling, the machine can be reset by pressing key 6. The message screen will disappear.

### Configuration message

The following message can occur if a job is selected in the "job edit" menu:

*"System differs from job data. Not corresponding modules need to be set".*

When selecting a job, the system checks the current device configuration with the device configuration as stored in the job.

The operator can either ignore the message and continue (soft key 6) or cancel the job editing.

This message is not displayed if the replaced or removed device is switched off for this job, or if the replaced or removed device has no job settings (i.e. FO-2A or TR-1B plus foot switch).

If an FO-2A is replaced by an FO-3, the following default settings for the FO-3 will be used:

- Envelope length > document length A4 + 6 mm margin. No fold.
- Envelope length > document length 1/2 A4 + 6 mm margin. Single fold with A = 149 mm.
- Envelope length > document length 1/3 A4 + 6 mm margin. Letter fold with A = 97 mm and B = 197 mm.
- Envelope length < document length 1/3 A4 + 6 mm margin. Double parallel fold with A = 200 mm and B = 100 mm.

If the envelope length isn't yet known, the default envelope length is used.

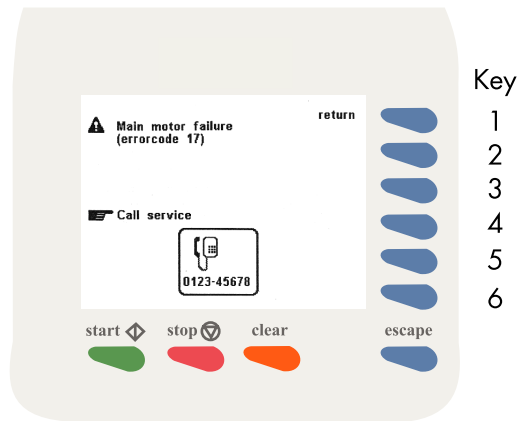


Fig. 31

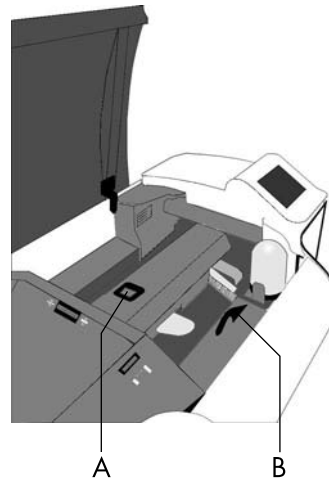


Fig. 32

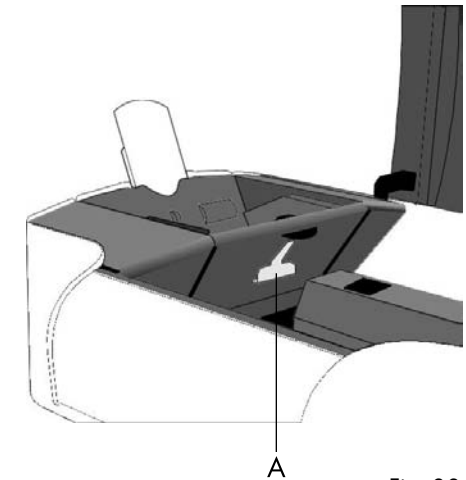


Fig. 33

#### 7.1.4 The call screen

When a technical error occurs the error screen will not display the machine symbol. Instead a message "Technical error, call service" will be displayed (see Fig. 31). This screen indicates that the occurred error can not be solved by operating personnel. Assistance of service support is needed.

*First write down the error code, than switch the inserter off and on again, to verify system operation. When the error still occurs contact your service organization.*

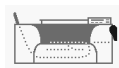
#### 7.2 Clearing stoppages

When an error in the paperflow occurs, the machine can give the following suggested solutions:

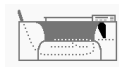
- remove the document(s).
- remove the envelope.

#### 7.2.1 Removing documents

When an error occurs in the document feed the error screen can show the following symbols:



stoppage in the document end feed.



stoppage in the document feed.

#### 7.2.2 Stoppage in the document end feed

Remove documents in the following way:

- remove documents from the document feed end.
- press the reset key.

#### 7.2.3 Stoppage at the document feed

Remove documents in the following way:

- lift the loc by pulling the release handle A of the loc (see Fig. 32).
- remove the document.
- close the loc.
- press the reset key.

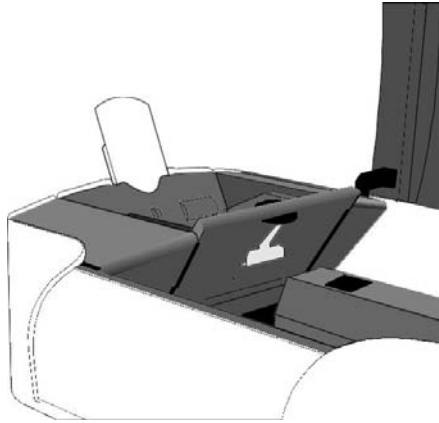
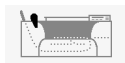


Fig. 34

#### 7.2.4 Removing documents from the hopper

When an error occurs in the hopper the error screen shows the following symbol:



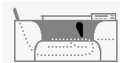
stoppage in the hopper.

The envelopes can be removed in the following way:

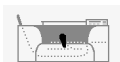
- remove all envelopes from the hopper.
- open the hopper by pulling release handle A of the hopper upwards (see Fig. 33 and Fig. 34).
- remove the envelopes from the lower part of the hopper.
- close the hopper with a firm click.
- press the reset key.

#### 7.2.5 Removing envelopes from the insert or sealing table

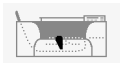
When an error occurs in the inner part of the machine, the error screen can show the following symbols:



stoppage on the insert table.



stoppage on the sealing table.



stoppage in the envelope track.

#### 7.2.6 Stoppage on the insert table or sealing table

Remove envelopes in the following way:

- lift the loc by pulling the release handle A of the loc (see Fig. 32).
- remove the envelope.
- close the loc.
- press the reset key.

### **7.2.7 Stoppage in the envelope track**




Remove envelopes in the following way:




- lift the loc by pulling the release handle A of the loc (see Fig. 32).
- lift the sealing table by pulling the locking handle B of the sealing table.
- remove the envelope.
- close the sealing table and the loc.
- press the reset key.

## 8. ERROR CODES




### 8.1 General

The central display of the inserter will display all system-wide errors that occur. When an error occurs, read the information on the screen, press the info key for more information. Follow the instructions. Generally an error number will be given. This number can be used for reference.

 error description	 suggested solution	see also....	 information	Error code
Envelope stoppage.	Remove envelope, readjust the envelope separation.	Page 7. Page 17.	Envelope longer than reference length.	1
Envelope stoppage.	Remove envelope, readjust the envelope separation.	Page 6. Page 17.	Envelope doesn't reach the "track" sensor.	3
Envelope stoppage.	Remove envelope.	Page 26.	Envelope doesn't reach the "track" sensor.	4
Envelope stoppage.	Remove envelope.	Page 26.	Envelope doesn't reach the "flap" sensor.	5
Envelope stoppage.	Remove envelope.	Page 26.	Envelope not opened or already opened in the envelope hopper.	6
Wrong envelope size or too many envelopes fed	Remove envelope, place the correct envelopes in the hopper.	Page 17. Page 26.	Wrong envelope size or separation not correctly adjusted.	7
Closed envelope ?	Put an open envelope in the hopper.		probably closed envelope in hopper.	8
Document stoppage.	Remove document.	Page 26.	Document doesn't reach the "input" sensor.	9
Document stoppage.	Remove document.	Page 26.	Document doesn't clear the "input" sensor.	10
Document stoppage.	Remove document.	Page 26.	Insert failure: Document is not clearing the "loc" sensor.	11
Not enough documents inserted	Remove envelope and check contents, reset thickness detection.	Page 15 Page 26.	Document too thin.	12
To many documents inserted	Remove envelope and check contents, reset thickness detection.	Page 15 Page 26.	Document too thick.	13
Envelope stoppage.	Remove envelope.	Page 26.	Document doesn't clear the "eject" sensor.	14
Envelope stoppage.	Remove envelope.	Page 26.	Document doesn't reach the "exit" sensor.	15
Envelope stoppage.	Remove envelope.	Page 26.	Document doesn't clear the "exit" sensor.	16

 error description	 suggested solution	see also....	 information	Error code
Unknown set.	Remove set.	Page 26.	During the system startup a set has been detected. Remove this set.	62
Configuration does not match.	Switch the inserter off and restore the configuration.		A module of the system has been removed. The configuration is not corresponding with the selected job.	67
System can not be set.	Select job again.		The job settings can not be transmitted correctly. Check if of all covers are closed.	68

## 8.2 Additions to the error lists of other modules

 error description	 suggested solution	see also....	 information	Error code
Document stoppage.	Remove documents.		The document (that has been delivered by the Side Feed unit) does not move during a TR-7A finger cycle. Clear the paper jam.	80
Document stoppage.	Remove documents.		The document to be delivered by the Side Feed unit does not reach the TR-7A track. Remove paper jam and adjust arm height of the Side Feed unit.	81
Feeding failure.	Remove documents.		The Side Feed Unit (PF) is empty. Refill the document hopper.	120
System blocked.	Remove envelope and check contents, reset thickness detection.		The fold unit (FO-2A, FO-3) is either not present or not correctly placed (this is indicated by a microswitch that blocks FO operation). Place or correctly place the fold unit.	1
Document stoppage.	Remove envelope and check contents, reset thickness detection.		The document does not reach the output of the folder. This is likely caused by a paper jam in the FO.	2

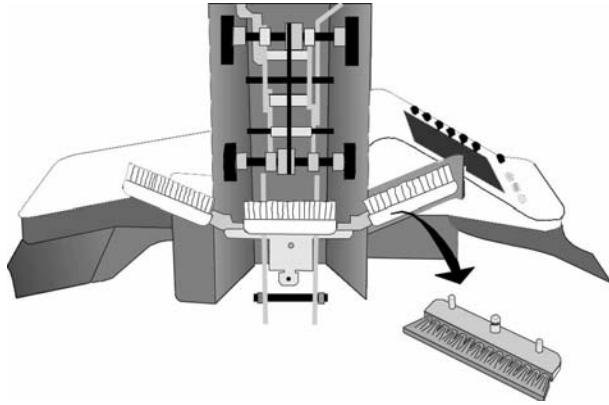


Fig. 35

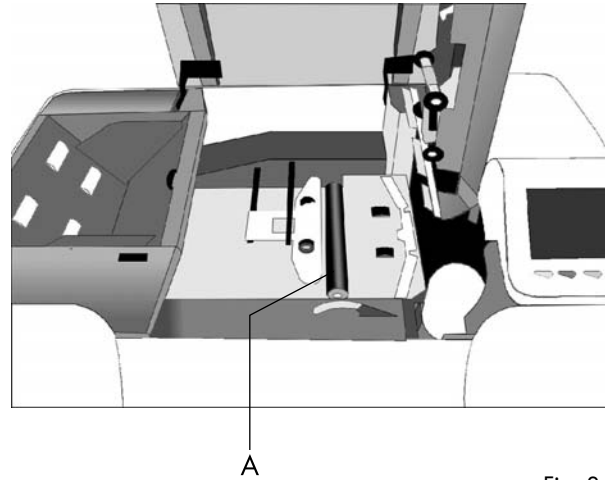


Fig. 36

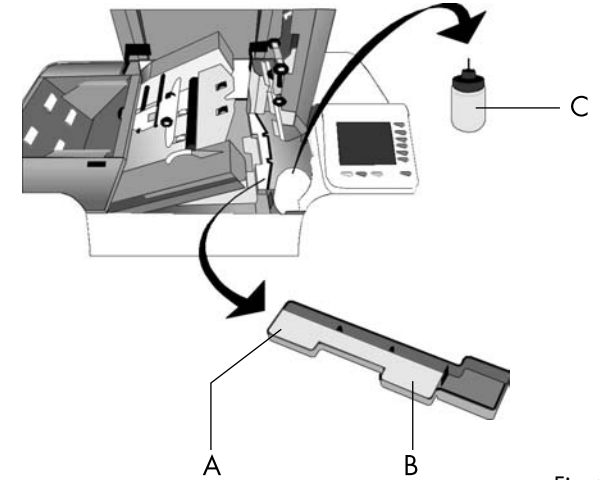


Fig. 37

## 9. MAINTENANCE

### 9.1 General

The IN-3 requires just a few maintenance activities for the operating personnel. These are:

- general cleaning.
- cleaning the brushes.
- cleaning the moistening cloth.
- cleaning the sealing roller.



Disconnect the mains supply before performing any maintenance.



The user must not attempt to service the appliance beyond that described in this operator manual. All other servicing must be carried out by qualified service personnel only. Please contact your authorized distributor.

### 9.2 General cleaning

The machine must be kept in proper condition by regularly removing dust, paper remains, etc. Clean the sealing table and rubber rollers when dirty. This can be done by using a slightly wetted cloth.

### 9.3 Cleaning the brushes

Clean the brushes when dirty or saturated with glue. An extra set of brushes is provided. The best procedure is to always soak one set of brushes and use the other set. In that way there is always a clean set of brushes ready for usage.

To replace the brushes the transparent cover and loc must be lifted. The loc can be released by pulling the release handle of the loc (see Fig. 32). The brushes can be removed one by one by pulling them straight off the brush holder (see Fig. 35). When replacing the brushes, align the studs on each brush with the respective holes in the holder.

### 9.4 Cleaning the sealing roller

The sealing roller A (Fig. 36) must be cleaned regularly with a slightly wetted cloth.

### 9.5 Cleaning the moistening cloth

Clean the moistening cloth A (Fig. 37) and water tray when dirty or saturated with glue. To remove the watertray the transparent cover, loc (by pulling the release handle) and sealing table (by pulling the locking handle) must be lifted.

Remove the bottle C and then remove the watertray B by pulling it towards the hopper. Clean the water tray under running water.



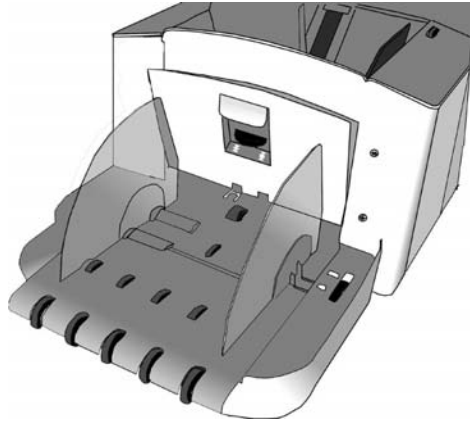
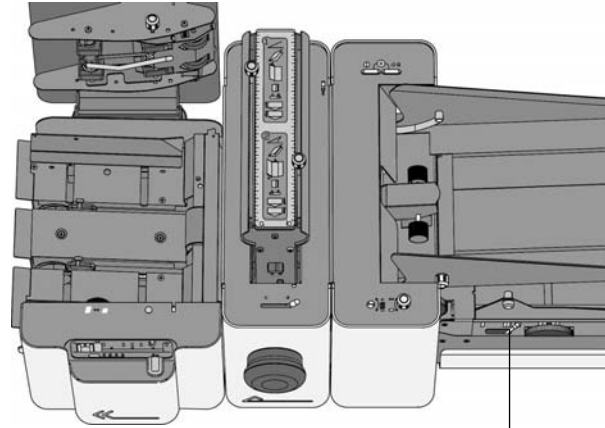


Fig. 38



A  
Fig. 39

## 10. OPTIONS

### 10.1 General

If applicable, the individual operator manuals will mention options or special functions (e.g. TR-7A, AS-1A). In general these options can be installed by the service organisation. Some options can be activated by the operator or supervisor after installation.

### 10.2 More options

#### Insertor IN-3

The insertor IN-3 can be equipped with a second envelope feed hopper, the EF-3 (see Fig. 38). Depending on the way it is used, it will double the hopper capacity, reduce settings and/or allow to feed two different envelope sizes (Automix™). See page 35.

#### Transport unit TR-7A

See TR-7A operator manual section 4.6. The TR-7A can be equipped with the so called "Twin cycle" option. With this option installed the fold/no fold deflector for station 2(3 and 4) is automatically operated. Knob A (Fig. 39) is not applicable anymore.

On standard transport units the documents fed by station 2, 3 and 4 must have the same type of format in case folding of (one of) these documents is required. With the "Twin cycle" option installed it is possible to feed different document sizes from station 2, 3 and 4. Small documents that do not require folding and large documents that require folding can be processed in one run, provided that the documents that require folding must have the same format because these are all folded the same way.

These are the possibilities with twin cycle:

- all documents from stations 2, 3 and/or 4 have the same format and are all folded (no twin cycle).
- all documents from stations 2, 3 and/or 4 bypass the folder (no twin cycle).
- documents from station 2 bypass the folder, documents from station 3 (and 4) are folded.
- documents from station 2 are folded, documents from station 3 (and 4) bypass the folder.
- documents from station 2 and 3 bypass the folder, documents from station 4 are folded.
- documents from station 2 and 3 are folded, documents from station 4 bypass the folder.

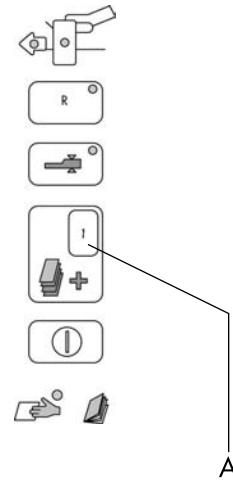


Fig. 40

When twin cycle is active the automatic deflector inside fold unit option is not available (See TR-7A operator manual chapter 8). In that case the equal number of folds rule applies to all TR-7A stations that process documents that must be folded.

Twin cycle option is required for Automix™.

#### Feed unit FE-7, FE-9, ST-1

Refer to FE-7/FE-9 (see Fig. 40) and operator manual section 5.3. The display A can be set to P. Service personnel can program P for any figure between 10 and 25.

#### Feed unit FE-8

##### OMR reading code

The OMR reading code of the FE-8 can contain additional marks to:

- select other feed units on the transport unit to feed.
- control the moistening system of the inserter.
- select the exit of the sorter.
- select the hopper of the inserter (Automix™) see page 35.
- check the sequence of the pages fed (additional security).
- check the OMR reading code (additional security).

### 50 sheets

See FE-8 operator manual, section 5.3. The maximum amount of pages in a set can now be set to 50.

### Flexible reading

The FE-8 is capable of reading OMR codes other than the standard built-in Formax code. Besides that, more than one reading code can be programmed. If this is the case, the Settings menu, see FE-8 operator manual section 5.3, will contain an additional sub menu "6. Flex reading", "Code x", where x is a number. Using the + and - key a number corresponding to the appropriate code can be selected.

### Matching of two personalised documents

To solve applications where the enclosure must match the address, the transport unit TR-7A can accommodate two OMR systems. The most upstream OMR system (FE-8 or AS-1A) will feed and read the address carrier with OMR code while the second - downstream- OMR system (FE-8) will feed and read the enclosure with OMR code.

This matching of two document streams means that both OMR systems control the integrity of the stack, by means of a sequence check, independently from each other. This means that at the start of a job the operator must check that the first documents fed from both feeders match.

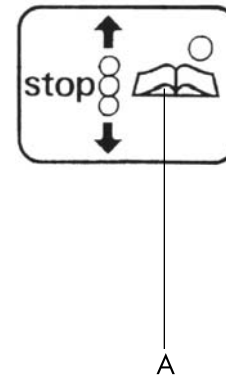


Fig. 41

### AS-1A

#### OMR reading code

The OMR reading code of the AS-1A can contain additional marks to:

- select other feed units on the transport unit to feed.
- control the moistening system of the inserter.
- select the exit of the sorter.
- select the hopper of the inserter (Automix™).
- check the sequence of the pages fed (additional security).
- check the OMR reading code (additional security).

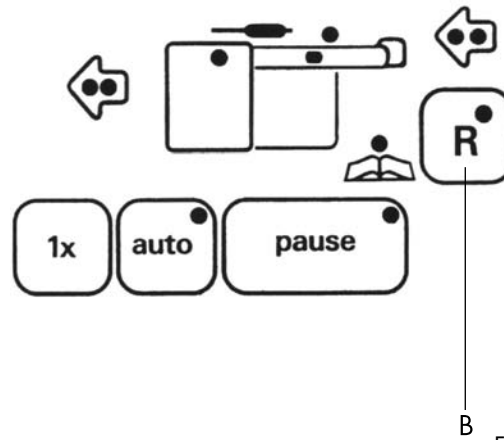


Fig. 42

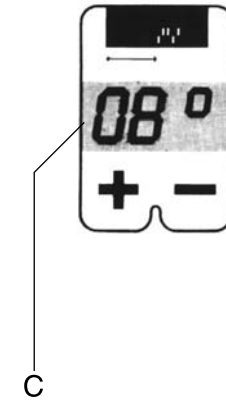


Fig. 43

#### Automatic selective feeding

With this option active, the other feed units (stations 1 and 2) on the transport unit will feed an enclosure depending on the number of pages collated by the AS-1A. If the number of pages in a set, collated by the AS-1A is less than the number shown by the overflow display, station 1 and possibly station 2 are allowed to feed a document. The total number of pages, including enclosures, will not exceed the number shown by the overflow display.

#### Flexible reading

The AS-1A is capable of reading OMR codes other than the standard built in Formax code. Besides that, more than one reading code can be programmed. If this is the case, a submenu can be entered to select the appropriate code. To do so, press both key A and the key B at the same time, see Fig. 41 and Fig. 42. The display C (Fig. 43) will indicate a number. Using the + and - key below display C the number corresponding to the appropriate code can be selected. Then again press both key A and the key B at the same time, to leave the submenu.

#### Matching of two personalized documents

See section 10.2, Feed unit FE-8.

### 10.3 6900 Series Options

#### ® Automix

The Automix™ feature enables automatic processing, in 1 run, of a batch of documents which requires inserting into different sizes of envelopes. For a specific document set an envelope from either hopper A or hopper B from the IN-3 is selected. Together with envelope hopper selection, if required, via the TR-7A "twin cycle" option, documents from station 2 (3 and 4) are automatically folded/not folded depending on the type of envelope.

Automix™ can be based on:

- OMR mark (hopper selection mark).
- Type of enclosure to be added (selective feed mark).
- Number of pages in a set (AS-1A only, IN-3 dongle level 3 only).
- Combination of selection criteria.

*The throats of both envelopes should have an equal shape.*

*Minimum requirements for Automix™*

- IN-3 equipped with EF-3.
- IN-3 equipped with dongle level 2 or 3.
- TR-7A equipped with "twin cycle" option.
- FE-8 or AS-1A.

#### **OMR mark (hopper selection mark)**

The reading code of both the AS-1A and the FE-8 can contain a mark to control from which hopper the inserter should feed the envelope that belongs to the document.

#### **Type of enclosure (selective feed mark)**

The reading code of both the AS-1A and the FE-8 can contain marks to control the other feed units on the transport track. This allows to select for each set the enclosures to be added. A job can be programmed such that one of the envelope feed hoppers is linked to one of the feed stations. If the feed station is selected to feed by the OMR code, then automatically an envelope will be picked up from the hopper that has been linked to that feed station.

#### **Number of pages in a set (AS-1A only)**

Document sets that contain a number of sheets up to the actual overflow counter setting, will be folded and inserted in the "small" envelope. If a set exceeds the actual overflow counter setting, it will not be folded and it will be inserted in the "big" (C4 size) envelope. Via service an internal set limit counter can be set to a maximum of documents that are allowed to be inserted, as desired by the customer. If a set exceeds this number, the AS-1A will consider the set as an overflow and will indicate error 60.

Optionally this function can be combined with split set. Then document sets that contain a number of sheets up to twice the actual overflow counter setting, will be folded and inserted in the "small" envelope, whereby, depending on the number of sheets, the set is temporary split in two groups during the folding process. If a set exceeds twice the actual overflow counter setting, it will not be folded and it will be inserted in a "big" (C4 size) envelope. Via service, in the set up menu an internal set limit counter can be set to a maximum of documents that are allowed to be inserted, as desired by the customer. If a set exceeds this number, the AS-1A will consider the set as an overflow and will indicate error 60.

To allow processing of thicker sets that are to be inserted in "big" envelopes, the system can decide to temporary split up these sets in two parts during the transport to the collating area of the TR-7A. This depends on the number of pages within the set and the value of the internal set limit counter.

If the system encounters a combination of selection criteria, it will react as follows: the 'big' envelope will be selected if at least one these criteria indicates the use of a 'big' envelope. The criteria are evaluated in the following order: number of pages in a set, OMR hopper selection mark, selective feed mark.

#### **AS-1A functions extended for Automix™**

"insert arrow key"

Per job, service can set the AS-1A options for either "split set, Automix™ or the combination of these functions. The operator can then activate or de-activate this functionality using the key K, see fig. 11 page 5/12 of the AS-1A operator manual. The function is active in case yellow led L is on. In the job data menu the programmed settings will be displayed below the AS-1A symbol.

#### *Error 60*

Error 60 means "Split set too big" and is an overflow message in case documents are split up in parts. This error can also appear in case Automix™ is active and the set exceeds the "set limit counter". The part of the set that is located in the exit track can be removed by pressing key K (see fig. 11 page 5/12 of the AS-1A operator manual). Now the AS-1A can behave in two ways:

- if the material is partly ejected but held by the exit rollers, only these pages should be removed. Pages that are located on the TR-7A transport track belong to the previous set and should not be removed.
- if the material is fully ejected onto the TR-7A transport track, so on top of the pages that are already on the track, these pages belong to the same set. All material should be removed.

## 11. SPECIFICATIONS

This operator manual refers to machines as from serial number 02 BL-5191, IN-3. Refer to the operator manuals of the modules part of the configuration for specifications.

### Machine specifications

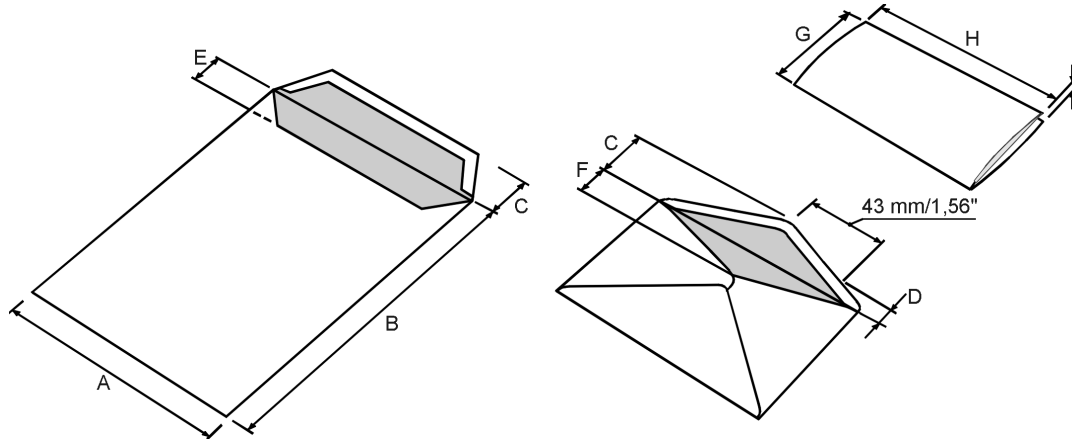
<b>Model</b>	: IN-3 (inserter head of 6900 Series)
<b>Type</b>	: inserting machine for medium office use
<b>Power consumption</b>	: 115 V, 4,6 A, 60 Hz 220 -240 V, 2,3 - 2,5 A, 50 Hz
<b>Dimensions</b>	: IN-3 only 941 x 611 x 400 mm (36.8 x 23.9 x 15.6 inch) (l x w x h) Length 690 Series 2223 mm (87.5 inch) (2 stations) 3239 mm (127.5 inch) (4 stations)
<b>Weight</b>	: 75 kg
<b>Speed</b>	: C5/C6 envelopes up to 4300/hr. C5 envelopes up to 3200/hr. C4 envelopes up to 2500/hr.
<b>Noise level</b>	: ≤ 70 dBA
<b>Furniture</b>	: special furniture (console-look) is delivered with the 6900 Series.

### Paper insert specifications

<b>Paper qualities</b>	: according to existing feeding equipment (FE-7 and FE-1M) ≤ C5 envelopemin. 45 gsm > C5 envelopemin. 65 gsm (> 1 sheet) or min. 80 gsm (1 sheet)
<b>Envelope quality</b>	: 45 to 120 gsm
<b>Paper sizes</b>	: minimal (w x h) maximal (w x h) 130 - 80 mm 243 - 340 mm (5.1 - 3.1 inch) (9.55 - 13.4 inch)
<b>Insert thickness</b>	: max. 5 mm (0.2 inch) (50 sheets A4, 80 gsm.)
<b>Folds</b>	: according to (cross)folding equipment (FO-2A, FO-3, PF-45A (via SF-4), PF-65A (via SF-6) up to 8 sheets of 80 gsm at once (FO-2A/FO-3)
<b>Jobs</b>	: 9 jobs programmable via LCD-screen.
<b>Hopper capacity</b>	: 450 C5/C6 envelopes (800 w/EF-3) 250 C4 envelopes (475 w/EF-3) documents: according to existing feeding equipment
<b>Options</b>	: extended OMR-reading, cross folding
<b>Life expectancy</b>	: 5 years at 120.000 inserts per month (7.2 million cycles)

### Envelope and insert specifications

Maximum insert specifications are based on single sheets. When multiples are handled, more room inside the envelope is needed depending on application.



		<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>	<b>J</b>
minimum size	mm	140	90	32	32	10	20	80	130	45 g/m <sup>2</sup>
	inches	5.5	3.55	1.25	1.25	0.4	0.8	3.15	5.11	
maximum size	mm	255	345	90	90	50	70	B-5	A-12	5
	inches	10	13.6	3.5	3.5	1.95	2.75	B-0.2	A-0.47	0.2

#### Remarks

- If J exceeds 2 mm (0.08") then the maximum size of G and H should be B-15 (0.6") respectively A-25 (1").
- The specification of the paper handling equipment is often wider than that of the envelopes and documents handled. The condition of material handled will limit the specified environmental conditions.
- We recommend that materials to be handled are stored at a temperature of 20°C (68°F) with a relative humidity factor of 50%. If difference in temperature occurs between store room and mailing area, the material has to be stored near the machine at least 24 hours before use.

*Note: this equipment has been tested and found to comply with the limits for class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful 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 this instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.*



