Table Of Contents

With this conveyor you have an ouput device intended for use with a 200 Series folder/inserter. It provides a means of receiving filled envelopes and turning certain sizes through 90º in order to correctly orientate them for subsequent franking operation: this is mainly applicable to C4 envelopes, and C5 with vertical windows. Its operation is programmed within IMOS and is job-specific.

In order to ensure the long usage of this machine and its components, and above all the safe use of the machine, you must read and adhere to the operating instructions and safety notes. Always be aware of all warnings and notes that are mounted or noted on the machine itself.

All persons entrusted with the handling of this machine must also be familiar with the operating manual.
Save this handbook carefully, so that the information it contains may be available at all times.

1.1 Pictograms

⚠	**General Warnings**
⚡	**Warning of danger from electricity or electrical shock**
☞	Information / Note indicating important information regarding the handling of the machine.

1.2 Notes on the use of this handbook

This document contains all general information and explanatory text necessary in order to be able to carry out the operation of the machine.
When some action is expected from the operator, this will always be explicitly stated, and where relevant, accompanied by an illustration or graphic.
Always read through each step, so that you will obtain all of the necessary information. Do not anticipate what you believe will follow in the handbook: It will prevent you from making mistakes!

Chronology and Reference

This handbook is structured chronologically, and therefore ordered sequentially for the operationally ready machine. It assumes that the machine has been installed in the correct environment by an Authorised Service Engineer and that the operator or his or her supervisor has had a degree of operator training.

When you are unfamiliar with the machine, it is best to read through the handbook from beginning to end. You will be guided step by step, and in this way you can easily and quickly have the machine in operation.

If you are already familiar with the machine, it will make things easy if you use this handbook as a reference work.

2 Safety notes

For your own safety and the operating safety of the machine, read the following notes carefully before starting your machine. Always be aware of all warnings and notes that are mounted or noted on the machine itself. Save this handbook carefully, so that the information it contains may be available at all times.

The machine is of advanced construction and reliable in operation. Nevertheless, the device does present hazards when operated by untrained personnel. The same applies to use that is inappropriate and not in keeping with its intended purpose.

In not adhering to this handbook, there is the danger of

- an electrical shock,
- injuries from the intake at the rotating rollers,
- damage to the machine.

2.1 General safety notes

> **Caution!**
> Please, read these notes with care.
> Save these instructions for later use.
> All notes and warnings found on the machine are to be followed.

Installing the machine

Important! The machine must be installed only by an Authorised Service Engineer. A safe, level position is necessary, when installing the machine, with sufficient space all round to operate it. The machine is to be protected from moisture. If moving the machine, ensure that the castor brakes are **off**, and push on the stand, not the machine.

Ensure there is at least 1 metre of free space between the side of the machine and a wall or barrier. Do not place surrounding furniture or other objects where your path may be obstructed.

Electrical danger

The machine operates on low voltage so no general elctrical hazard is present. However, the inserter to which it connects operates at mains voltage, hence a hazard exists if any electrical parts remain uncovered. Protect the device from moisture. When moisture enters the machine, there is the danger of electrical shock. Never remove any screws from the machine or attempt to open it. For reasons of electrical safety, the machine may only be opened by authorized Service Agents.

Operating safety

Never reach into the machine when it is running! As the machine is connected to the inserter, this could only occur if a safety interlock were to fail.
The danger of injuries exists, due to a moving conveyor belt. Keep long hair and parts of loose clothing far from the machine in operation. **If a safety interlock fails, your Service Agent must be contacted immediately!**
In order to prevent damage to the machine, only factory authorized accessory parts should be used.

Cleaning the machine

Prior to cleaning the exterior of the machine, it should be disconnected from the power supply. When cleaning the machine, do not use liquid or spray cleaners, but only a cloth dampened with water.

Cleaning sensors

When cleaning sensors use **only** non-flammable airdusters, eg. part number 9103707C. Other types may use flammable propellants, which could result in fire or explosion.

Allow machine to be checked by the Service Agent	In the following cases, the mains plug must be unplugged and the device left for the authorized Service Agents: • When the mains cable or plug is worn or damaged. • When water or other liquid has entered the device. • When the device does not function properly, in spite of following the instructions provided. • When the device has fallen down or the housing is damaged. • When there are noticeable differences in the normal operation of the machine.
Spare Parts	When repair work is carried out, only original spare parts or spare parts corresponding to the original parts may be used.
Repairs	Do not disassemble the machine any further than is described in this handbook. Other than the top cover, the opening of the machine by unauthorized personnel is not permitted. Repairs may only be carried out by an authorized Service Agent. Modification is not permitted: For safety reasons, your own reworking and modifications are not permitted.

☞　　Please contact your Service Agent, for all questions relating to service and repair. In this way, you ensure the operational safety of your machine.


2.2 End of life

The objectives of the European Community's environment policy are, in particular, to preserve, protect and improve the quality of the environment, protect human health and utilise natural resources prudently and rationally. That policy is based on the precautionary principle and principles that preventive action should be taken, that environmental damage should as a priority be rectified at source.

Separate collection of waste is the precondition to ensure reuse and recycling of waste that is generated at the disposal of electrical or electronic equipment and is necessary to achieve the chosen level of protection of human health and the environment in the European Community.

More particularly, certain materials and components of waste electrical and electronic equipment needs selective treatment as their injudicious handling or disposing of on or into land, water or air would represent a major threat to the environment and human health.

In order to facilitate collection and treatment separated from normal domestic waste, electrical and electronic equipment is marked with the following logo:
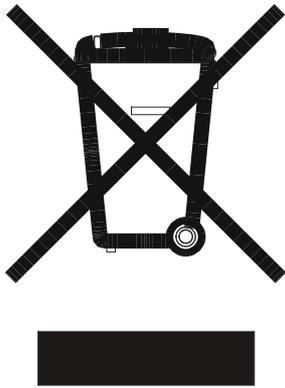
Do not mix with normal domestic waste. Please use the subjoined return or collection system dedicated to electrical and electronic waste.

Equipment produced after August 13 2005

Not only are you by law not allowed to dispose of the waste equipment via other waste-streams, but we encourage you to actively contribute to the success of such collection and to the common good and better quality of life of present and future generations.

For more information on the correct disposal of this product please contact your local dealer.

3.1 Machine options

The function of the INF Output Sorter is to receive mailpieces from a 200 Series inserter and direct them to two or more output paths, eg. Output Conveyors.

An INF Conveyor can also be fitted, either in conjunction with the Output Sorter or individually, to direct mailpieces to a franker. This has the facility to turn C4 or C5 envelopes through 90º for correct franking orientation.
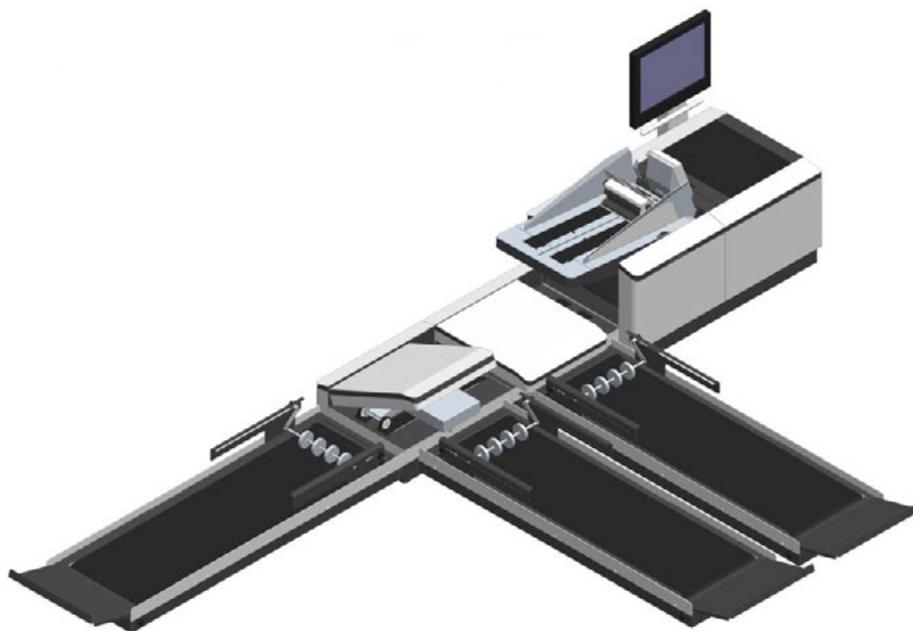
Sorter – Up to 2 Sorters can be fitted. with 3 outputs.
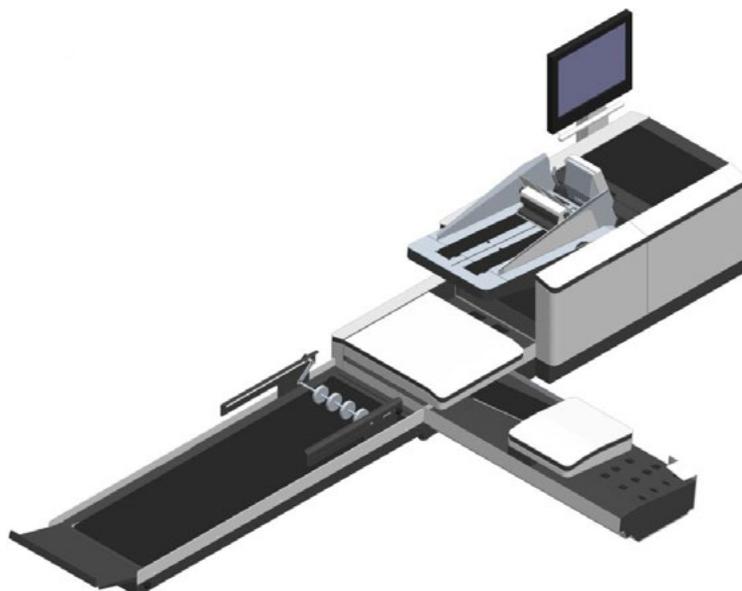
INF Turner – Delivers mailpieces to a franker and turns C4 envelopes through 90º. Can be fitted to a Sorter output, or on its own.

3.2 Description of INF Turner

The function of the INF Turner Conveyor is to receive mailpieces from a 200 Series inserter and feed them into a franker. Certain sizes of envelope (most notably C4 and C5 with vertical windows) can also be turned through 90º.

The INF Turner can be fitted to the inserter exit, or to an exit from an Output Sorter.
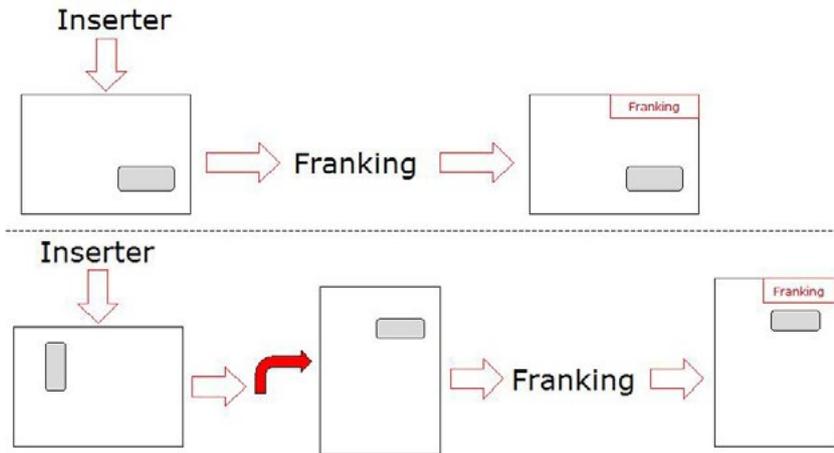
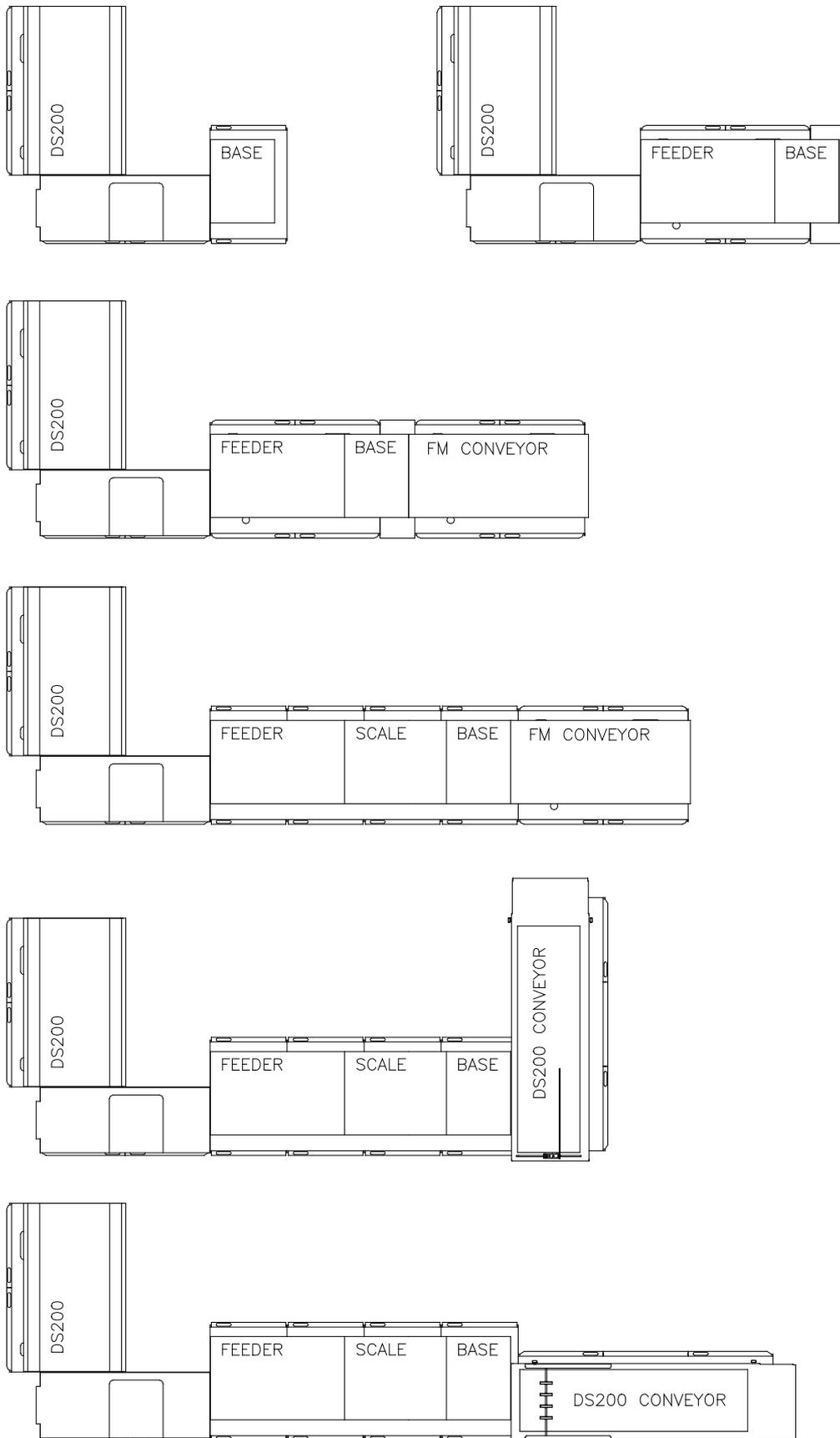The operation of the machine is job-specific and is programmed from within IMOS.

The machine can be used in a number of configurations:

- With a franking machine alone.
- With a franking machine and feeder.
- With a franking machine, feeder, scale and franker conveyor.
- Any of the above with an output conveyor, either inline or angled.

See the following page for configuration layouts.

3.3 Layout Configurations

Shown below are example INF Turner configurations. Please note that other configurations are possible.

4.1 INF Turner adjustments

Side Guide Panel

If the job is programmed to turn the envelope, a panel in the side guide must be lowered. For all other jobs, the panel must be raised. Ensure both locking knobs are tightened after adjustment.

Turned Envelopes

Panel lowered

Non-turned Envelopes

Panel raised

Backstop

If the INF Turner is fitted directly to the Inserter exit, an adjustable Perspex back-stop will be attached. This must be correctly set to that as the envelopes 'bounce back' after contact, the opposite edge aligns with the datum side-guide on the other side.

Slacken knob to adjust backstop. Re-tighten when adjusted.

The angle of the conveyor will further assist in alignment with the datum side-guide.

The backstop is not fitted when the INF Turner is fitted to a Sorter.

4.2 Sorter adjustments

Catch Tray

The Sorter can be optionally fitted with a catch tray at either exit. This receives the envelopes in a stack to allow subsequent hand removal. It is adjustable to suit a variety of envelope sizes.

Adjust backrest to allow envelopes to stack neatly.

Tilt the backrest forward to adjust.

Slacken thumb-screws below and move side guides to provide 6-8mm clearance each side.

Tighten screws when adjustment is complete.

☞ **Important: The DS-200 with INF Turner/ Sorter must be switched on in the following order.**

1. INF Turner and/or Sorter (plug the power supply in).

2. DS-200 Inserter (wait for **Ready** message on screen).

3. Franker system (wait for its startup routine to finish).

When the machine is running, the following must be observed.

• If communication is lost between the DS-200 and Franker, an error message on the DS-200 screen will instruct you to turn the Franker off and on. Before switching back on, check the Franker screen to ensure it is off - it may take some seconds.

• When the DS-200 stops, the Franker will run on for a longer period. To stop it sooner, press the Pause button on the DS-200 screen.

• Periodically, the Franker base unit will need to update information: this will cause a delay in the startup routine.

5.1 Output settings

The Output Settings in the job control how the INF Output Sorter is used. The settings are defined when the job is created, or can be added or changed later by editing the job.

Output settings are described below, and assume that the envelope, document and enclosures have already been set up. **See also DS200 Operator Manual for full details of creating/editing a job.**
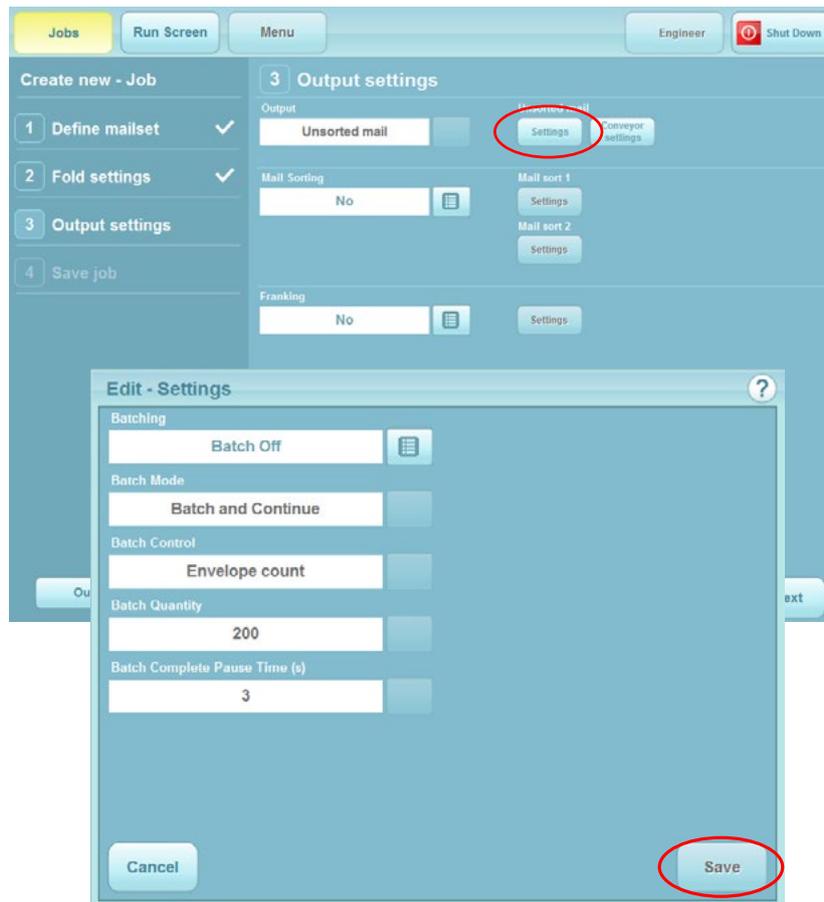
1   Select **Settings** for Unsorted Mail in the Output Settings screen.

2   Set **Batching** to **Batch On** if required and set required quantity in **Batch Quantity.**

Set **Batch Mode** as follows:

Batch and Continue: Machine will pause for the specified pause time, and then resume. **Note:** conveyor will continue to run during the pause time.

Batch and Stop: Machine will stop and resume only when the Run button is pressed.

Select **Envelope Count** under **Batch Control,** currently the only available option.

Set the **Batch Complete Pause Time** as described in **Batch and Continue** above.

When settings are complete, press the **Save** button.
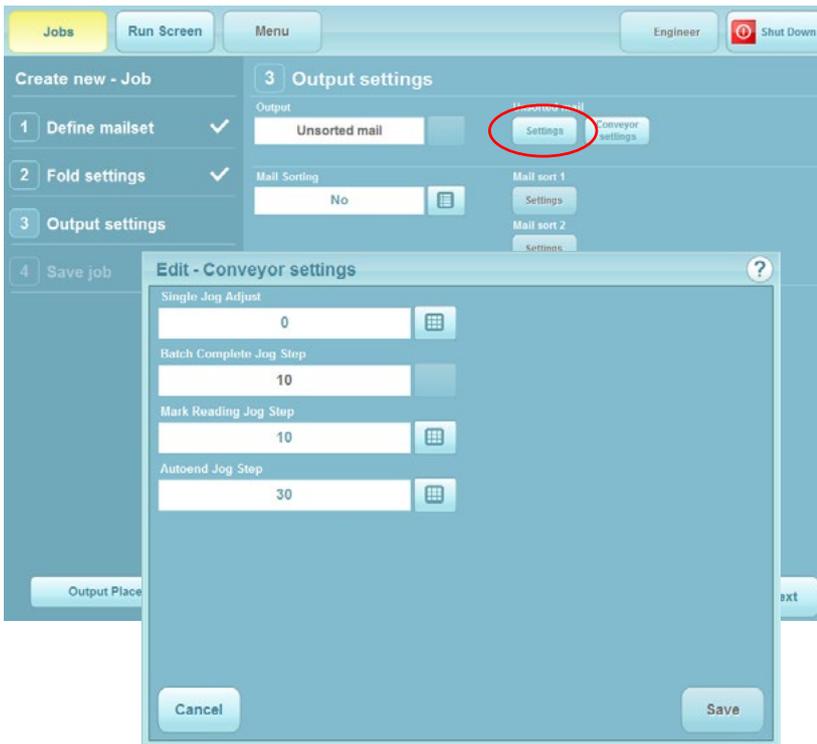
3 If a conveyor is fitted, select **Conveyor Settings** to adjust the Jog functions as follows:

Single Jog Adjust: Adjusts default jog step (gap) between mailpieces. Note that steps are unitless.

Batch Complete Jog Step: Adjusts gap before machine performs action described in 'Batch Mode'.

Mark Reading Jog Step: Adjusts gap created after Jog mark is read.

Autoend Jog Step: Adjusts gap created before machine autoends.

When settings are complete, press the **Save** button.

Output Settings for unsorted mail is now complete. If you are using Mail Sorting, see section 5.2 on the following page.

5.2 Mail Sorting

Mail sorting allows weight groups to be defined and added to a numbered **Mail Sort**, which can then be directed to a particular exit. It applies only when one or more sorters are fitted, which may optionally also be fitted with 1 or 2 conveyors.

In addition to weight groups, an **Exit Selection** mark or character can be used to differentiate Mail Sorts.

The example below shows the maximum configuration of 2 sorters and 3 output conveyors.
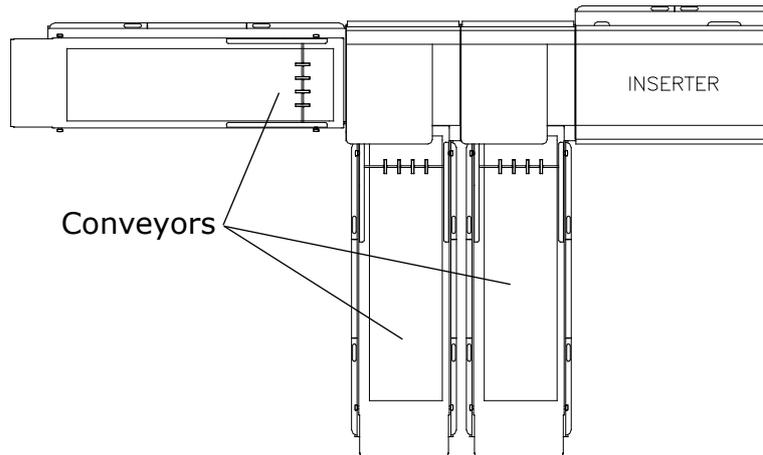
If weight groups are being used, these must first be defined and named in a **Postal Product**. This is carried out in the Menu screen, described on the following page.
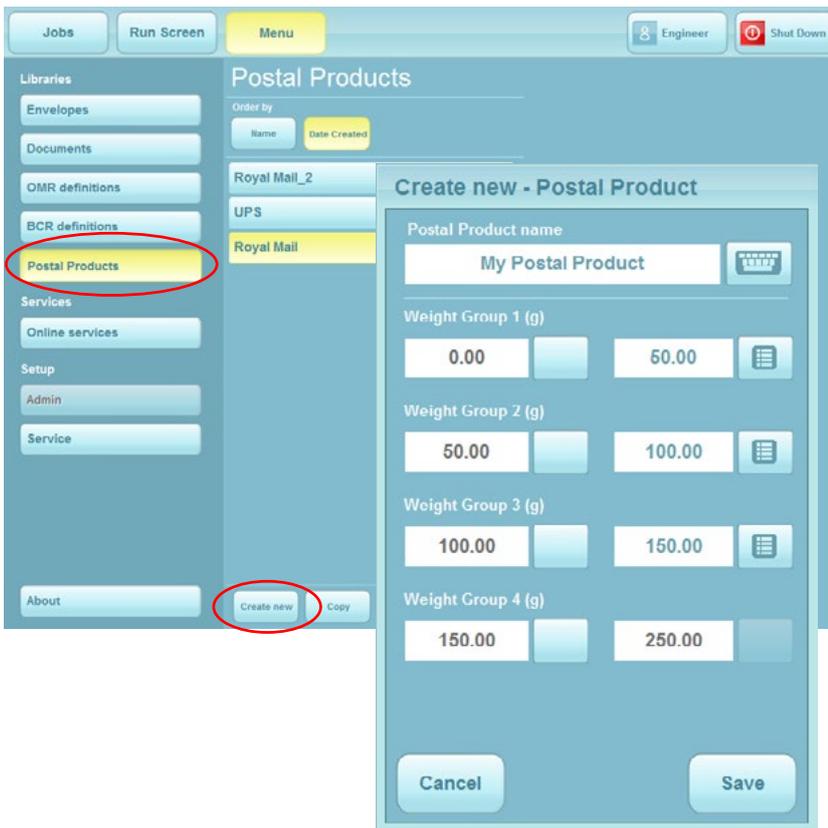
1   Select **Postal Products** in the Menu screen.

2   Select **Create New** (or **Edit** for an existing Postal Product).

3   Set the weight groups as required - note that the minimum weight of each group is the same as the maximum weight of the previous group.

☞   *The Postal Product list can be ordered by Name or Date Created.*

Mail Sorts

A Mail Sort is part of the Postal Product and is a set of criteria than determines how the mailpieces within it are treated when they reach the sorter.

The criteria are the Weight Group and Exit Selection OMR mark (or BCR character): these two criteria use a priority basis to determine the exit at the sorter.
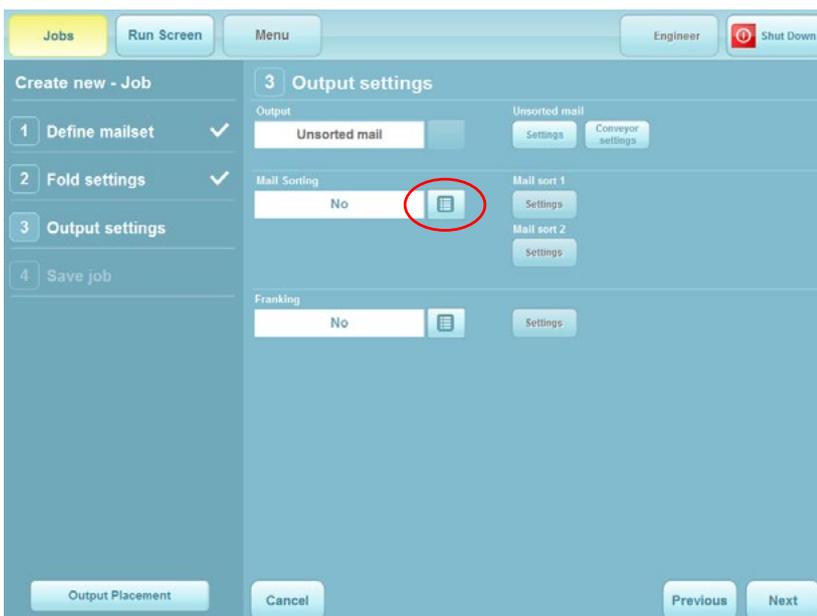
4   In the **Mail Sorting** part of the Output Settings screen, select the Mail Sorting button.

5   Select options as described on the following page.

6   Select the Postal Product defined in step 1.

7   Select the Sort Criteria, and then the required Mail Sort associated with it (by default, the last Mail Sort selected will be used).

8   Set the priority required for each line. As each Mail Sort can have a number of combinations of criteria, some of which may overlap, you can determine which has priority.

The example above shows Weight Group 1 and Exit Selection marks 1 & 2 are all contained in Mail Sort 2; you could change the priority so that mailpieces with Exit Selection Mark 1 have priority over those in Weight Group 2 instead of the priority they currently have.

Select any priority number to switch on the scroll arrows. After making changes, select a number again to switch them off.

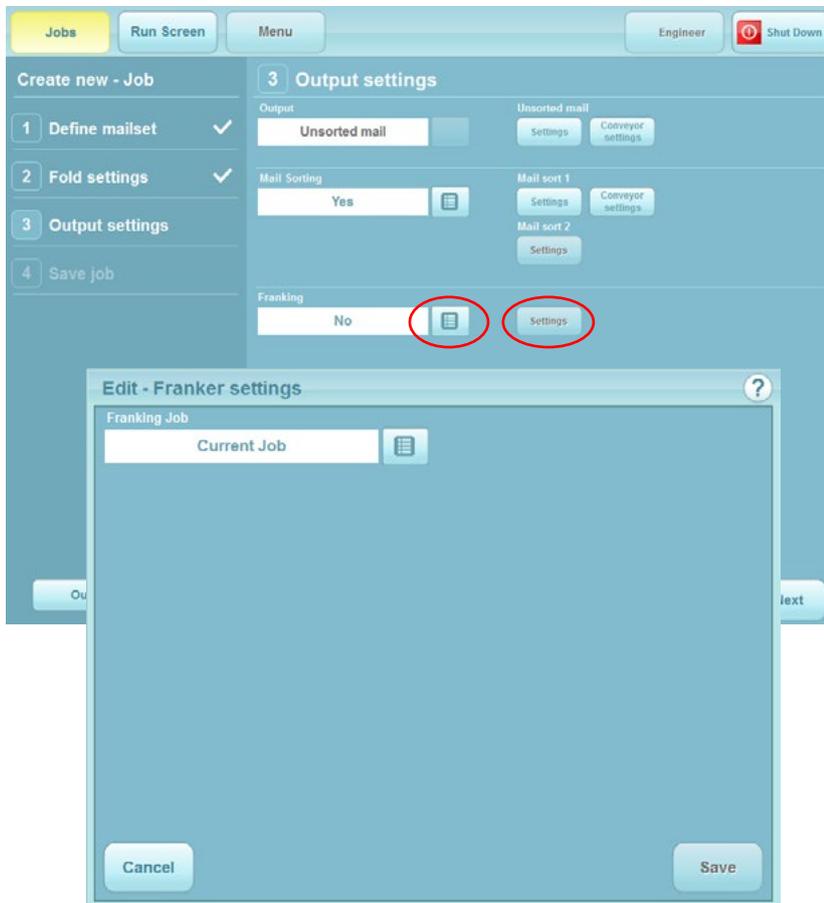Select **Save** when you have finished: your Sort Settings are now saved to the Postal Product.
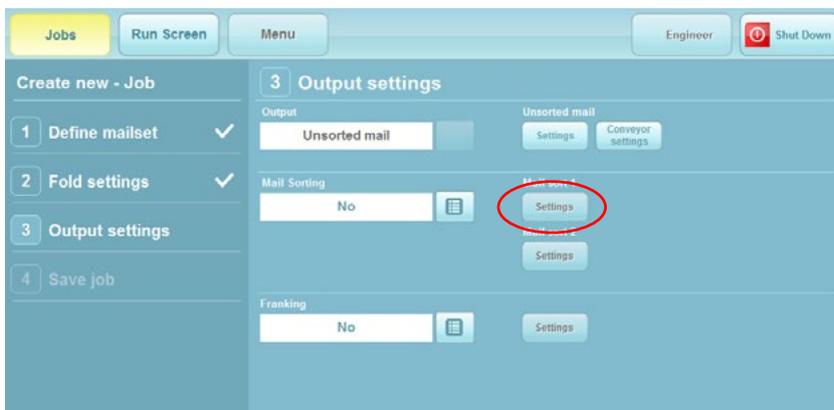
9   If Batching is being used, select the **Settings** button.

Batching for Sorted Mail is the same as for Unsorted Mail, described in section 5.1.

5.3 Franking

If a franker is fitted, you must define which Mail Sort it is being used for, and select its settings.

1   Select the Franking button in the Output Settings screen.

2   Choose which Mail Sort (or Unsorted Mail) that the franker is to be used for.

Note: Mail Sorting must be set to **Yes.**

3   Select the **Settings** button and adjust settings as decribed below:

Franking Job: Select preset job (if available) or the Current Job that the franker is programmed with.

☞ If an IS-5000/6000 Franker (with integral conveyor) is fitted to the INF Turner, its print heads will park after a period of inactivity, such as the DS-200 not running, or envelopes being sorted but not fed to the franker.

When this occurs, the next envelope that is fed to the franker will be held at the exit of the INF Turner for about 10 seconds while the print heads unpark. The system will then continue operating as normal.

5.4 Output Placement

Output Placement allows you to determine which exit each Mail Sort is directed to.

**Note:** your settings may be different from those shown here, depending upon the hardware fitted.
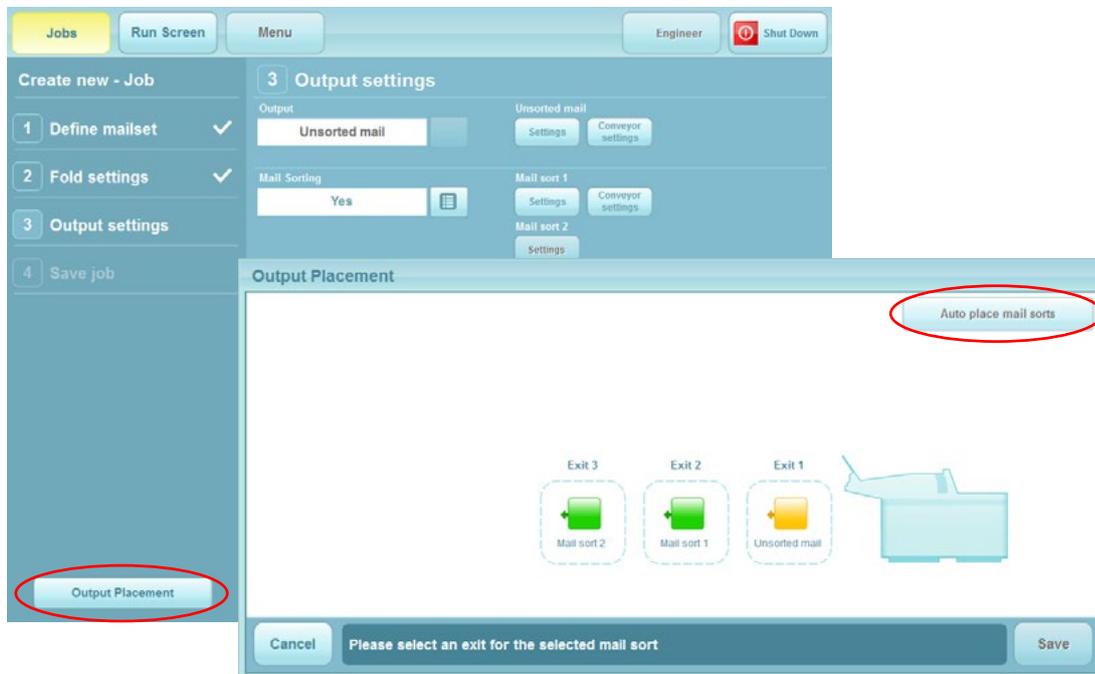
1   Select the Ouput Placement button in the Output Settings screen.

2   To change a Mail Sort (or Unsorted Mail) from one exit to a different one, select it, then select the new position. If you want to reset your changes to the default position, select **Auto place mail sorts.**

Exit Locations

Exits 1, 2 & 3 are physically located as shown below. If only one sorter is fitted, Exit 1 remains the same and Exit 2 will be inline.

Note: conveyors are optional.
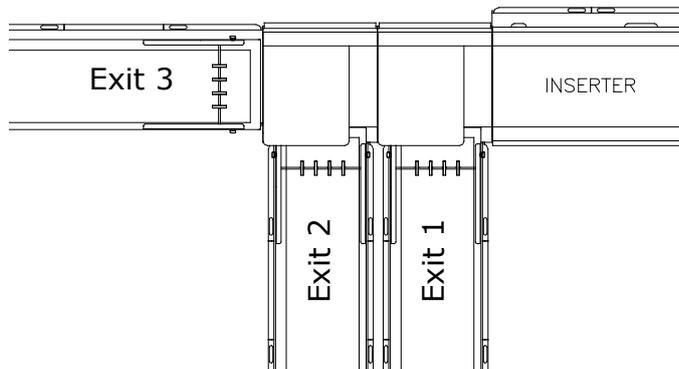

Output Settings are now complete.

6.1 Cleaning Sensors

The machine uses optical sensors to track the movement of mailpieces along the paper path. These sensors must be regularly cleaned to prevent false readings.

The sensors are in 2 halves, upper and lower: both halves must be cleaned. They are fitted only to the Sorter; locations are indicated below. Use a non-flammable airduster (part number 9103707C), spraying liberally onto each lens – direct the nozzle upwards for the upper half.

6.1.1   Sorter Sensors

Three sensors are fitted and each can be accessed by raising the top cover.

Output sensor ← → Input sensor

Divert sensor

Input sensor

Output sensor

Divert sensor
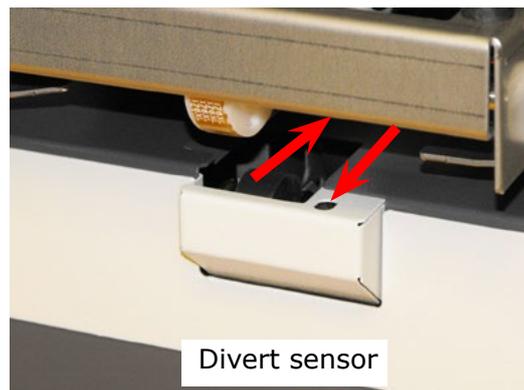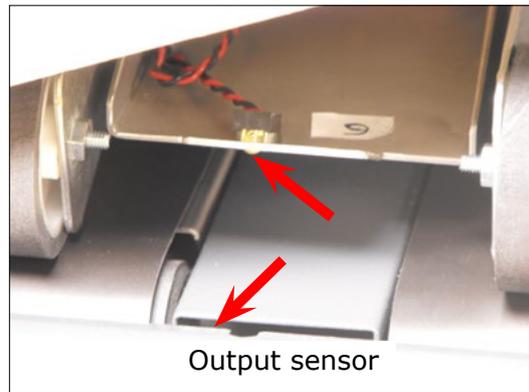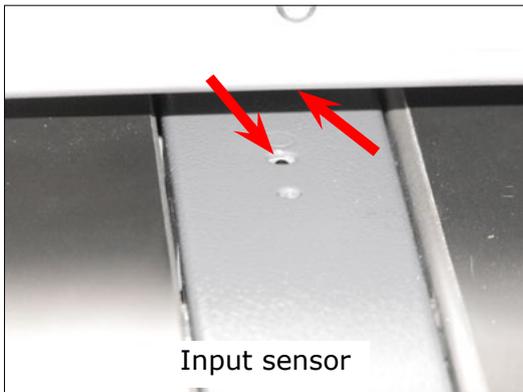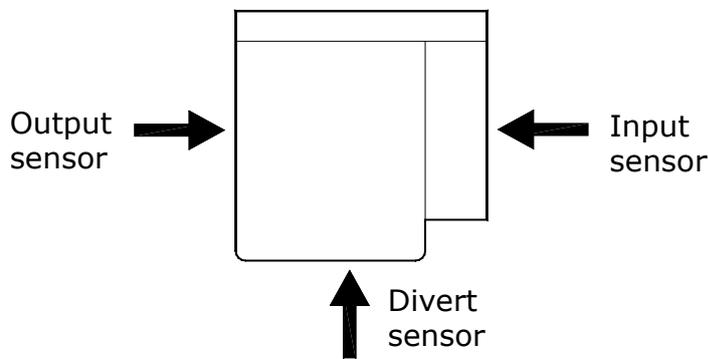
6.1.2   INF Turner Sensors

Two sensors are fitted, one on the output side of the turn column, the other on the output edge just before the franker.

Note: The Output sensor is a one-piece reflective type.


Rotate sensor

Output sensor
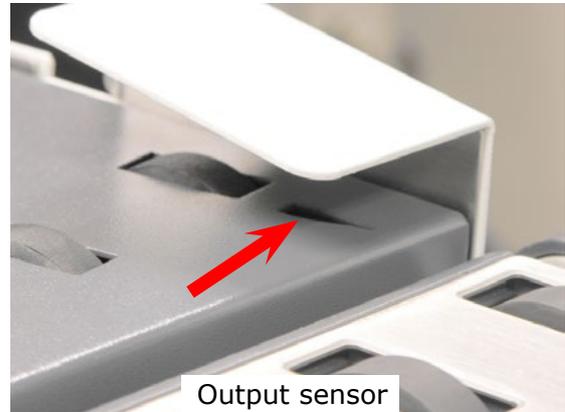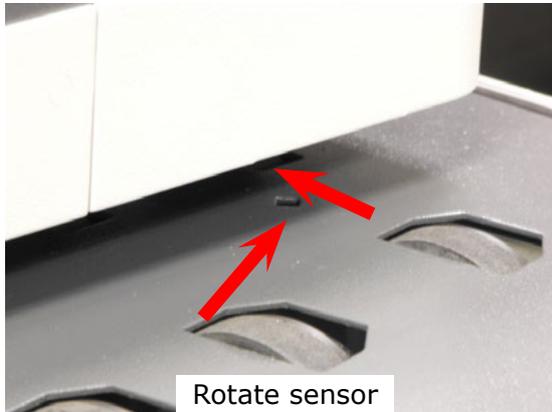
6.2 Cleaning the conveyor belt

Staining or soiling of the conveyor belts on the INF Turner and Sorter may occur after a long period of use. To clean the belts, a lint-free cloth dampened with water will normally be sufficient. For more stubborn soiling, a foam-type surface cleaner can also be used.

To avoid damaging the belts, do not use strong, spirit-based cleaners.

7 Technical Specification

7.1 Physical specifications
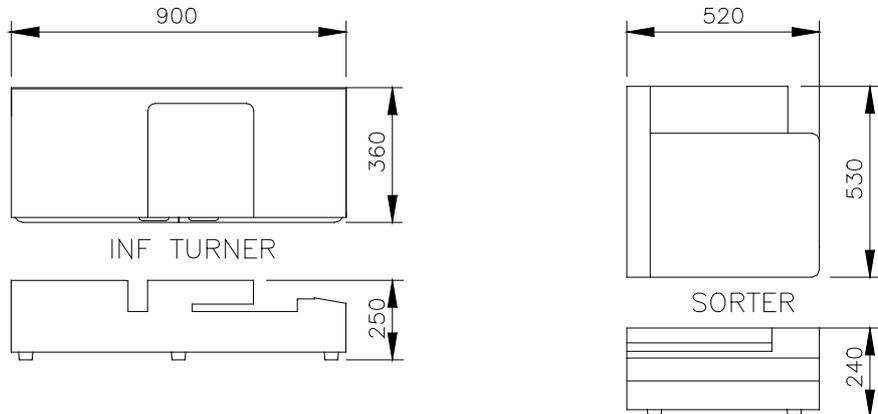
Turning Criteria	C4 & C5 with vertical windows will be turned. All other sizes will pass unturned. Max. total pack weight: 400g.
Sorting Criteria	All envelope sizes within 200 Series Envelope Specifications are acceptable for sorting.
Speed	When INF Turner is fitted, maximum speed is limited to 4700 filled envelopes/hour (based on DL).
Weights	**INF Turner:** 28Kg, Furniture 22Kg **Sorter:** 26Kg, Furniture 20Kg

7.2 Electrical

|		
Electrical rating	Voltage:	24VDC (supplied via external power supply)
	Power:	Sorter: 60W Max. Turner: 84W Max.
	Fuse:	N/A

7.3 Compatible Frankers

- · IJ-80, IJ-90 and IJ-110 FM Base + Conveyor (or DS200 Conveyor)
- · IJ-80, IJ-90 and IJ-110 FM Base + Mix Mail Feeder Conveyor (or DS200 Conveyor)
- · IJ-80, IJ-90 and IJ-110 FM Base + Mix Mail Feeder + Dynamic Scale + Conveyor (or DS200 Conveyor)
- · IS-5000 and IS-6000 FM Base + Conveyor (or DS200 Conveyor)
- · IS-5000 and IS-6000 FM Base + Dynamic Scale + Conveyor (or DS200 Conveyor)

Other frankers may be compatible – contact IPSS Department.

7.4 Compatible Envelope Windows

The following C4 envelope windows are suitable for use on an INF Turner. Note that envelope turning is determined by the address position selected when programming the job.
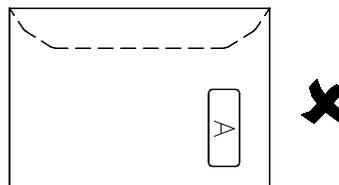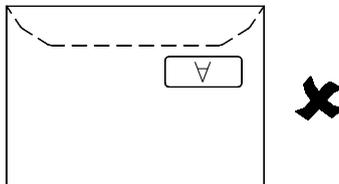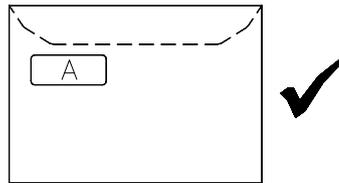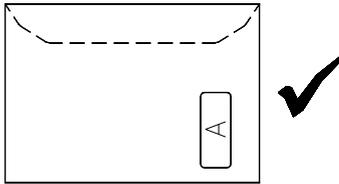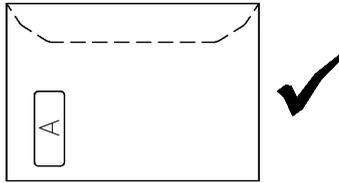
If operating problems cannot be resolved using the following guide, the Technical Department must be contacted for further assistance.

PROBLEM	SUGGESTED CAUSE AND REMEDY
1. Envelopes not franking.	1. Ensure 'Franker Control' is set to 'Franking Machine' and a franking job is selected. (section 5.3).
2. INF Turner Conveyor is not moving.	2. Check DIN lead is properly connected to inserter.
3. Envelopes failing to contact datum edge side-guide and failing to turn when they should.	3. Perspex backstop is set too far away to allow sufficient 'bounce-back' (section 4.1).
4. Envelopes failing to turn properly.	4. a) Ensure adjustable panel is lowered when turning envelopes (section 4.1). b) Clean conveyor belt surface (section 6.2).
5. Envelopes ejecting from wrong exit.	5. Ensure exit is allocated correctly in **Output Placement** (section 5.4).
6. Envelopes with unexpected Sort Criteria are exiting.	6. Ensure 'Priority' is correctly set in **Edit - Sort Settings** dialog (section 5.2 **Mail Sorts**).
7. Envelopes failing to leave Sorter properly.	7. Clean conveyor belt surface (section 6.2).