

RM2000 Planning Guide



RM2000 Planning Guide

Version v1.4

8th October 2012

Delivery Design

RM2000 Planning Guide

► Introduction

Welcome to the Planning Guide for the RM2000.

Experience has shown that there can be problems if changes to the RM2000 are not carefully managed. This is particularly true for offices where major revisions are taking place.

This guide will help you to:

- Plan the correct sized frames
- Lay frames out clearly and correctly
- Involve postmen/women for the introduction of the revised frames

► About RM2000



The RM2000 is based on the slot sorting principle.

Slot Sorting Rules:

- All mail is sequenced in one pass
- One slot is used for a maximum of two delivery points
- The slots are laid out in delivery order
- The minimum slot width is 20mm
- Slot widths are set to take account of the different mail volumes or item types for individual delivery points.
- The top shelf of the fitting is not to be used for slot sorting - it is designed for the storage of loose items

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► Steps in Setting up RM2000 for Revised Delivery

1. Determine Frame Size
2. Detailed Planning
3. Review and Agree Details
4. Set Up the Frame

► 1. Determine Frame Size

Establishing the correct frame size required for the delivery is important ensure that the preparation operation is undertaken in the most efficient manner. Spreading the work over a frame that is too large for the delivery is inefficient both for the operator and for floor space utilisation. Making the frame too small makes the sorting operation inefficient where the sorter has to force mail into already full slots which can also result in damaged mail.

It is accepted that in some cases, due to floor space constraints, having frames that are too small is unavoidable but every effort should be made to mitigate this.

The correct frame size will be determined by a combination of the number of delivery points to be serviced and the volume of mail on the delivery.

Delivery Points

The prime driver of frame size is the number of delivery points.

Every delivery point on the frame should be allocated a minimum of one slot (10mm). From the number of delivery points on a delivery the minimum frame size can be determined from the following table:

Base	Wings	10mm Slots
1	0	480
1	1	640
1	2	800
1	3	960
1	4	1120
1	5	1280
1	6	1440

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Mail Volume

The next driver of frame size is the volume of mail.

The preparation frame calculator uses the data for each delivery that has been collected for the Indoor Workload Tool. Inputting this data to the Frame Calculator provides an indication of the size of frame appropriate to that delivery based on the number of delivery points and the volume and mix of mail on the peak day

The Prep frame calculator shows whether the current frame is the right size, too big or too small for the volume of mail anticipated. The frame calculator provides a comparison across the office of the number of wings currently in use and those required following the revision. From this decisions can be made as to where wings can be moved between deliveries or if additional wings are required to be purchased.

Note: Individual deliveries may require more wings than the number indicated by the Frame Calculator but this won't be known until the detailed planning stage is complete.

An example of the Prep Frame Calculator output is given at Annex 2

Oversize Frames

The maximum recommended size for the RM2000 is a base and six wings.

Where a greater number of Delivery points or mail volume dictates a larger frame, two standard configurations may be combined. When using such a combination, an OPG would only sort to one standard configuration at a time to avoid excessive movement around the frame. To achieve this: non-sequenced / manual mail must be split into parts A and B before arriving at preparation. This should be achieved by providing two selections for the delivery at IPS (A and B).

e.g.

A combination of 2 x (1 x base + 2 x wings)

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Part A	Part B
A combination of (1 x base + 2 x wings) + (1 x base + 1 x wing)	
Part A	Part B

Sequenced mail: comes in trays specific to a small part of the frame anyway, so has no impact on sorter movement around the frame.

Dual Use of Frames

Where the work-plan allows the use of preparation frames for more than one delivery should be considered. The process would be for the first delivery to be fully prepared and cleared down, the labels turned and then the second delivery prepared.

Where two deliveries are being planned on one preparation frame the frame should be sized to accommodate the larger delivery.

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▶ 2. Detailed Planning

Once the approximate size of frame has been determined more detailed planning is required to establish the correct size of each slot and the layout of the frame.

Mail Volumes

The correct slot size for each delivery point is based on the volume of letters and flats received for that delivery point. The unit size for planning the frame layout is 10mm. This width can accommodate 2 items (letters/flats). Where, on average, more items for the delivery point are received more units are required based on the following table:

No. of Letters & Flats	10mm Unit	No. of Letters & Flats	10mm Unit
1	1	11	4
2	1	12	4
3	2	13	4
4	2	14	4
5	2	15	4
6	3	16	5
7	3	17	5
8	3	18	5
9	3	19	5
10	3	20	5

When constructing the frame the minimum slot size is 20mm (ie. 2 units). Where a delivery point only justifies a single unit (10mm) this delivery point has to be combined with the previous or subsequent point to form a shared selection.

The table above does not assume items are crammed in the slots. The calculation of items per slot includes a space allowance for compressing the items to assist removing them from the slot.

Determine Slot Sizes

To determine slot sizes information on the mail volumes (letters/flats) for each delivery point for the delivery route you are planning is required. For existing delivery points

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this information may be available in Aplus OnLine but the accuracy of this information will need to be checked.

If the data on mail volumes has not been reviewed in the past 12 months a Delivery Form should be completed for the delivery. A pro forma is given at the end of this document which can be used for this task.

Each delivery should be sampled for a minimum of 2 peak days in more than one week. (eg. Thursday week 1 and Friday week 2.). If the results of these two samples are inconsistent further sampling will be required.

The results from sample days should be averaged and the number of units for each delivery point determined from this average.

An example is given below.

Delivery Form

Sheet No.1

Del ref: 101	Del Name: <u>Swineshead</u>	Date: 23/06 & 30/6/2010
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Street/Road	Building/Block	Delivery Point	No. of Letters & Flats			Slots required
			Sample 1	Sample 2	Average	
<u>Station Rd</u>		1	1	~	1	1
		2	1	2	2	1
		2a	1	1	1	1
		3	3	3	3	2
		4	~	2	1	1
		Unit 1	2	3	3	2
		7	~	1	1	1
		7a	5	3	4	2
		8	1	~	1	1
<u>Acacia Rd</u>	<u>Hogarth Ho</u>	1	1	~	1	1
		2	~	~	~	1
		3	1	1	1	1
		4	~	1	1	1
		5	~	2	1	1
		6	8	7	8	3
		7	2	1	2	1
		8	1	2	2	1
		9	4	5	5	2
		10	~	1	1	1
		11	1	~	1	1
		12	3	~	2	1

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Inputting Slot Size Data to Aplus OnLine

Refer to the Pegasus Guide - 'Prepare and Print Labels'.

This guide can be found on the Pegasus User Guides intranet page by following this link:

<http://iplatform.intranet.point/rmg/rm/operations/Across+the+Pipeline/Procedural+Support/AP+Procedural+Support+Pegasus.htm>

In the slot size option set the default slot size in the 'New Slot Size' box to 2.

Refer to the Delivery Form for each delivery point on the delivery. Where the delivery point requires more or less than the default two slots edit the slot size in Aplus OnLine.

For additional delivery points refer to the section - Add a New Delivery Point

For existing delivery points refer to the section - Maintain Delivery Point

Aplus OnLine monitors the frame size as you edit slot sizes giving an indication of how much capacity is left. It is recommended that you edit the slot sizes for delivery points that require less than 2 slots first. This will then let you see how much capacity there is on the frame for increasing slot sizes for the heavier delivery points. Where spare capacity is limited, delivery points near the top end of the range should be increased first. Eg. A delivery point with 9 items should be increased to a slot size 3 before delivery points with 6, 7 or 8 items.

Packets

Packets are not sorted to slots. They are accommodated in any spare shelves on the end wings of the frame, on the top shelf units or, where space permits, on the lower shelf. On average 7 packets can be accommodated per shelf unit.

The basic frame size required for a delivery is arrived at using the data for letters and flats.. The Frame Calculator tool calculates the number of shelf units required for packets for each delivery..

The following table shows the capacity for packets using only the top shelf for the different frame configurations:

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Base	Wings	Top Shelves	Packets
1	0	3	21
1	1	4	28
1	2	5	35
1	3	6	42
1	4	7	49
1	5	8	56
1	6	9	63

Using the frame size determined for letters and flats determine from the table above whether there is sufficient space available for the average number of packets delivered by the delivery.

If additional shelves are required it will be necessary to refer to the Frame Indicator in Aplus OnLine. Here, for the frame size currently allocated to the delivery, it will show the number of blocks used out of the total. A shelf unit is 40 blocks. For every additional shelf required for packets over and above the top shelves there needs to be 40 blocks spare on the Frame Indicator. If there is not this spare capacity then consideration to additional wings should be given.

Although not a consideration in planning, when sorting to the frame heavy packets must not, in any circumstances, be put on the top shelf as retrieving these may cause injury.

Note: it is recommended that 20 blocks (half a shelf) are left unallocated and used for the storage of: redirection cards walk logs and other stationary items.

Door to Door

Door to Door traffic is not to be included in the calculations to determine frame size. This is because only a portion of Door to Door items are prepared each day. If every delivery point was given capacity for Door to Door delivery frames would become too large.

Door to Door will be allowed for through a combination of the following factors:

- Existing Capacity in Slots. Eg. Where a 20mm slot has been allocated to a delivery point that typically receives only 3 items there will be capacity in this slot to accommodate Door to Door.

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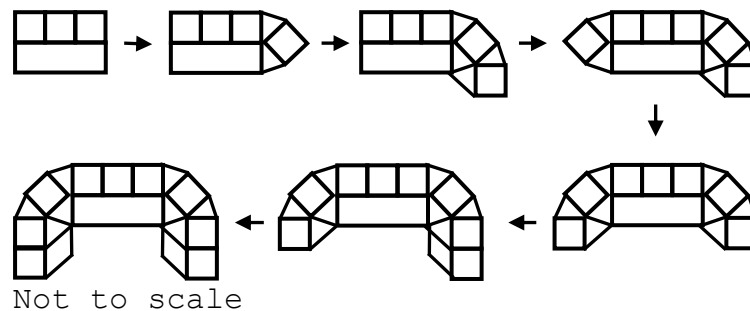
- Existing Capacity on Frame. Where the Frame Indicator in Aplus OnLine shows there are available blocks once the planning is complete slot sizes for delivery points where it is anticipated there will be capacity issues can be increased to use up the spare capacity.
- Low Traffic Days. On light days and low traffic periods there will be space on the frame to accommodate Door to Door
- Removing Dividers from Single Slots. Removing the dividers between two 20mm slots to create a 40mm shared slot will create additional space for Door to Door items.

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Choosing Wing Layouts

If the delivery requires more than the base unit, you will need to add one or more wings. The recommended order for adding wings to the main frame is to attach wings first to the right and then to the left (see diagram).

The sequence in which additional wings should normally be added to achieve best floor space efficiency:



Note: Alternative layouts with wings building on the left can also be used. For Right Handed sorters it is recommended that wings are attached to the Right hand side of the frame first (up to 2 max.) and vice versa for Left handed sorters.

Aisle Widths

If changes to the size of RM2000s are required consideration must be given to the layout. Adequate space must be provided in the aisles between frames. The aisle has 2 main functions:

- to allow staff to work at their frames
- to allow staff to circulate through the work area
- To provide staff with enough space to stand or sit at their frames and allow circulation space behind them for the movement of mail, layouts must comply with the minimum aisle widths as defined by the indoor flow space standards.

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Other office layout considerations

If changes are being made to the size or layout of preparation fittings, as well as space in the immediate vicinity of the frame:

- Allow sufficient circulation space for main corridors or thoroughfares at the end of rows of frames.
- Minimise mail transportation distances around the office.
- Incorporate York storage areas in amongst the frames to reduce the amount of walking to collect work.
- For HCT deliveries, space should be allocated adjacent to the preparation frame for the storage of the trolley.
- Allow sufficient access to:
 - fire/emergency routes and exits
 - fire extinguishers
 - fire alarm activation buttons
 - frequently used areas such as the main access routes, office entrances and exits, access to toilets and so on
- Take account of physical obstacles such as pillars.
- Take account of floor condition and make good any defects in the floor surface.

Lighting

All sorting tasks require adequate light levels so lighting in offices is planned around floor layouts and can be influenced by the furniture and fittings used. If the installation of RM2000 frames significantly alters floor layouts or you are concerned about lighting levels, you may wish to have a lighting survey carried out.

If you have any queries or concerns about lighting levels, contact your local Planning & Systems Manager for advice on lighting surveys. Alternatively the Safety Manager should be able to help.

Under Frame Storage

The area under the frame is to be used for the storage of:

- Door to Door items in boxes or trays
- Pouches neatly stacked
- Occasional oversize packets which would otherwise impede sorting or cause a safety hazard.

All items stored under the frames must be kept neat and tidy in a way that does not impact on the sorting operation at the frame or cause avoidable tripping hazards.

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All personal items are to be kept in personal lockers.

Other Sources

Equipment

The attached link takes you to the MOVE database which contains information on ordering and assembling Frames and components together with Risk Assessment documents

<http://iplatform.intranet.point/rmg/rm/operations/Across+the+Pipeline/MOVE/MV+RM2000+VSPF.htm>

Performance

The attached link takes you to a web page that contains information on expected performance and ways to improve productivity.

<http://iplatform.intranet.point/rmg/rm/operations/delivery/Managing+Day+to+Day+Productivity+in+Delivery+Offices.htm>

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▶ 3. Review and Agree Details

It is important to check the delivery order and mail volumes for all addresses with the delivery staff that regularly perform the delivery.

Checking of the delivery order will take place as part of the Pegasus Delivery Revision process. The delivery order agreed at this stage becomes the delivery point order that frame labels will be printed out.

The frame labels also determine how the frame will be set up for each delivery point. Before final printing the labels should be reviewed in detail with the delivery staff performing the delivery to give a check that the labels are correct.

A print out of the initial frame label is taken for the purpose of reviewing with the staff. (Excel download) This initial printout can then be annotated with any required changes for input to the system prior to final printing.

An example printout is given below:

The screenshot shows an Excel spreadsheet with a yellow background for the title area. The title is 'Retentions' in large bold black font. Below the title, there are three rows of bold black text: 'Packets for Delivery Pouch 2', 'Packets for Delivery Pouch 1', and 'Door to door items'. The data area consists of a grid of cells with numbers. The first row of numbers is: 1, 3, 5, 1, 3, 5, 7, 9, 11, 15, 17, 19, 21, 23, 25, 27, 29, 31, 37. The second row is: INHAM CLOSE, DOLVER CLOSE. The third row is: 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 66, 64, 62, 60. The fourth row is: DOLVER CLOSE. The fifth row is: 58, 56, 54, 52, 50, 48, 46, 44, 42, 40, 38, 36, 34, 32, 30, 28, 26, 24, 22, 20. The sixth row is: DOLVER CLOSE. The seventh row is: 18, 16, 14, 12, 10, 8, 6, 4, 2, 7, 9, 11, 15, 17, 19, 21, 23, 25, 27, 46. The eighth row is: DOLVER CLOSE, INHAM CLOSE. The spreadsheet has a status bar at the bottom that says 'Ready'.

The following factors should be checked with the staff at the label review session::

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:

- Slot sizes. Check with the delivery staff that any known problems with current slot widths have been dealt with on the new labels. eg. Delivery points that regularly receive thick large letters or flimsy letters may need more or less width than that calculated.
- Addresses to be edited, Delivery points may regularly use additional or different names to those held on Aplus OnLine and these will want showing on the frame label.
- Abbreviations. Check these are clear to staff.
- Bundle points. Determine natural break points for bundles.
- Pouch points. Agree points where a new pouch will be started.
- Shared Van route batch end points. Agree these points for highlighting on label
- Names for Packet shelves. Agree the labelling for the packet and any other miscellaneous shelves.
- Door to Door. Identify the delivery points that represent the end of each day's Door to Door delivery.

Any changes agreed with the staff as part of the review will be carried forward to edits performed in the Aplus OnLine label printing function.

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► 4. Set Up the Frame

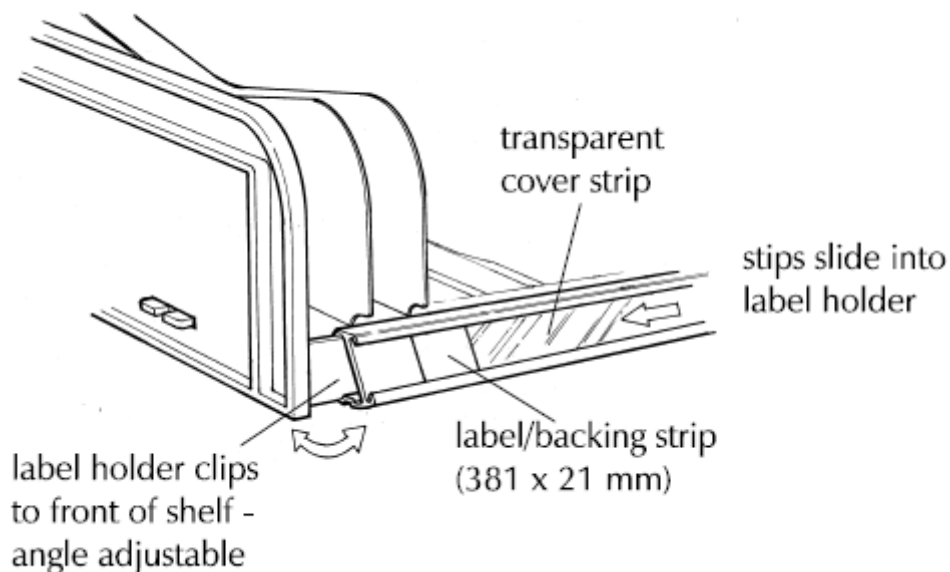
Label Printing

The instructions for printing frame labels are included in the Aplus OnLine 'Prepare and Print Labels' user guide found on the Pegasus User Guides intranet page..

<http://iplatform.intranet.point/rmg/rm/operations/Across+the+Pipeline/Procedural+Support/AP+Procedural+Support+Pegasus.htm>

Attaching the Labels

- Address labels slide into the label holders and can be protected with the transparent cover strip. Each label holder then attaches to the front of individual shelves as shown in the following illustration.

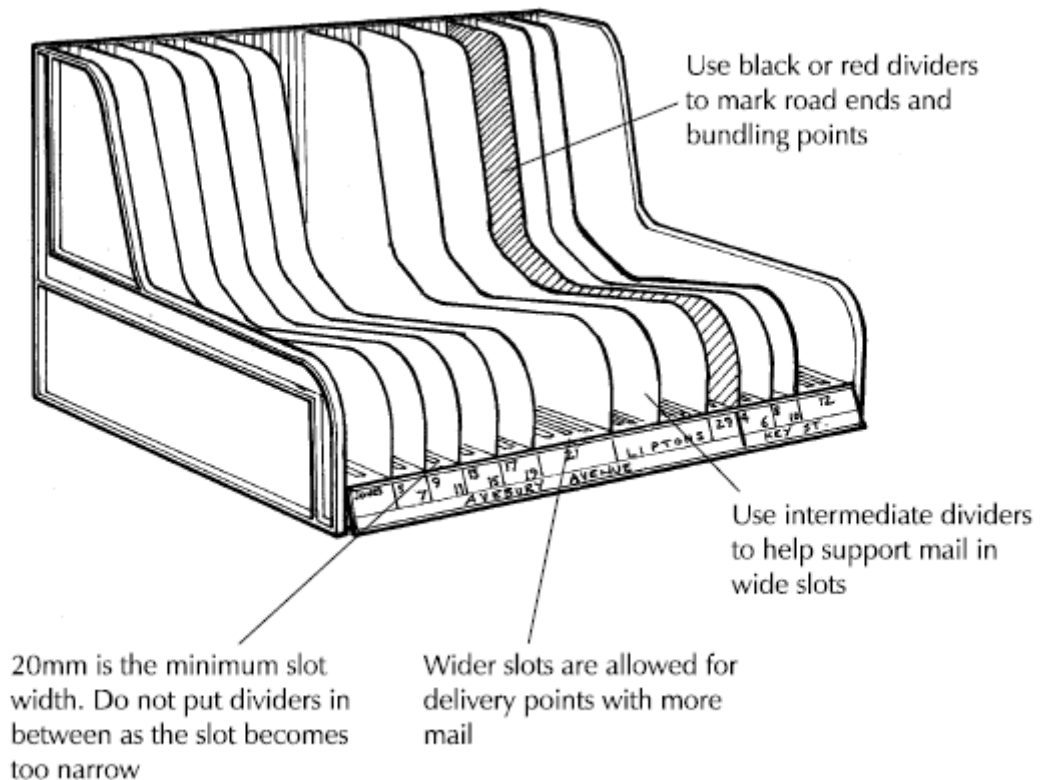


- The holders with rubber strips are used for sealing against the worktop on the bottom row of shelves.
- Fit labels in the correct delivery order from top left to bottom right of the frame.
- The label holders can be set at different viewing angles according to their position on the frame or to avoid reflections.

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Fitting Dividers

- Fit dividers to the shelves in the positions indicated by the labels.
- Use green dividers for general use.
- Use black dividers to mark bundling points.
- Use red dividers for delivery points which require additional care when sorting eg. Commonly confused points or Redirections etc. Red dividers should also be used to indicate the end of each day's Door to Door delivery.
- For slots greater than 60mm wide it is helpful if an intermediate divider is put in the centre to stop the mail falling over in the slot.



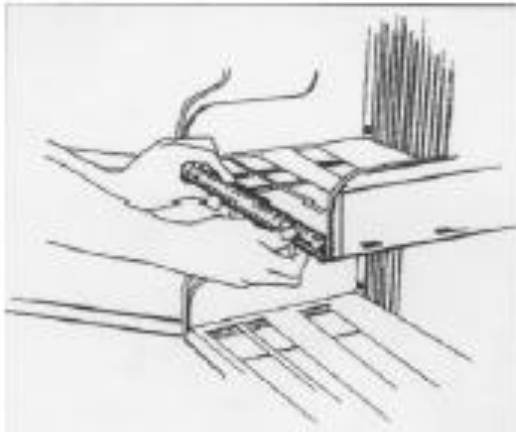
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Fitting Out Frames With Labels and Dividers

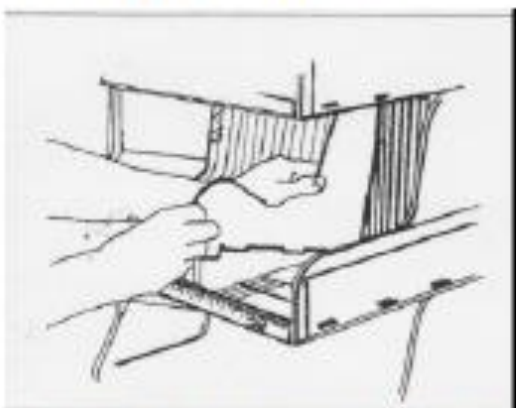
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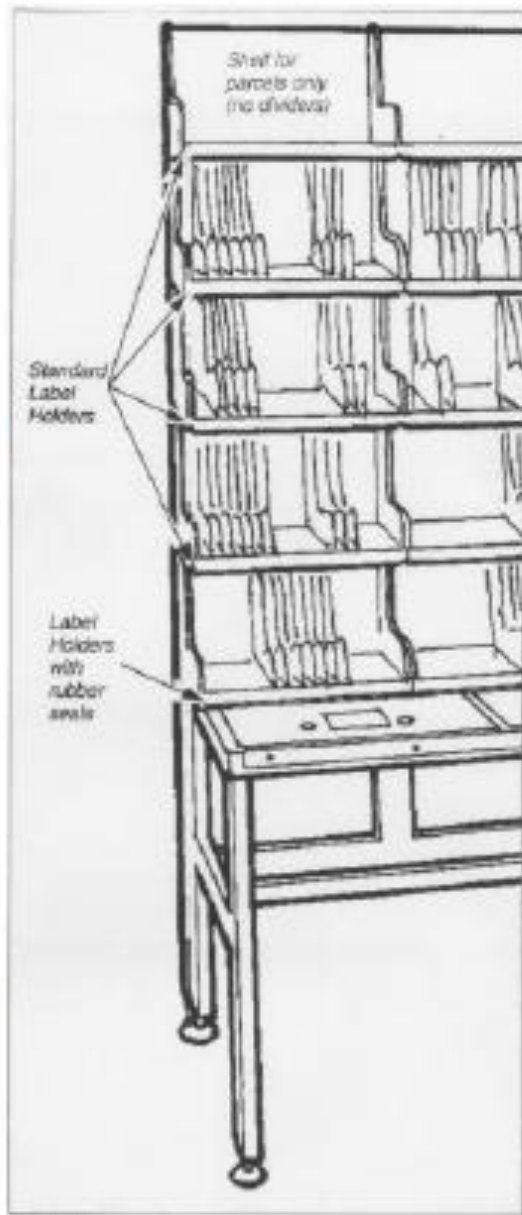
1. Slot each completed label strip into a label holder ensuring that the labels for the bottom shelf are inserted into the holders with rubber seals attached.



2. Clip label holders on to shelves remembering that the top shelf is for packets. Adjust the angle of the label holder to avoid glare and to suit your preference.



3. Fit dividers in to shelves being careful to ensure that the dividers remain correctly aligned. Use red or black dividers to mark the end of a road, bundle etc.



Note

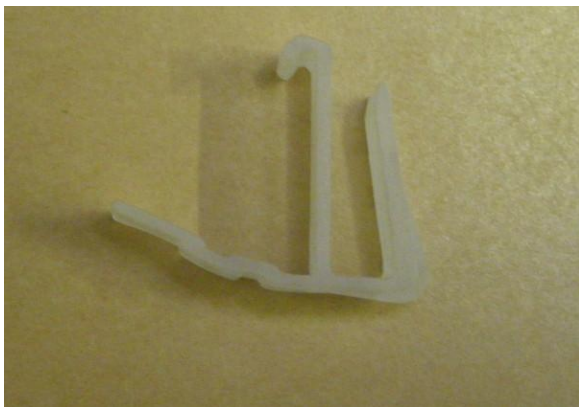
If at any time you need to change the label strip you will first need to remove the holder. Remove by fully angling away from shelf and

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Labelling Dual Use Frames

In these situations the labelling system consists of a label holder similar to the current option supplied with this fitting but has the facility to hold a label on each side and is held on to the RM2000 shelf edge using transparent plastic clips..

See images below:



Images of the clip and labelling system

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Delivery Form

Sheet No.

Del ref:	Del Name:	Date:
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Street/Road	Building/Block	Delivery Point	No. of Letters & Flats			Units required
			Sample 1	Sample 2	Average	

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Prep Frame Calculator Example

Annex

2

No.	Delivery	Delivery Points	Peak Day Traffic	Slot Traffic		Shelves	Packets Traffic	Packet Shelves	Total Shelves	Wings Required	Wings Used
				Letters	Flats					39	42
1	SANDBACH TOWN 01	514	886	699	142	16	45	7	23	2	1
2	SANDBACH TOWN 02	428	820	647	132	15	41	7	22	2	1
3	SANDBACH TOWN 03	508	906	715	145	16	46	7	23	2	3
4	SANDBACH TOWN 04	481	828	653	133	16	42	7	23	2	2
5	SANDBACH TOWN 05	519	789	622	127	15	40	6	21	2	2
6	SANDBACH TOWN 06	482	791	624	127	14	40	6	20	1	1
7	SANDBACH TOWN 07	496	820	647	132	15	41	7	22	2	1
8	SANDBACH TOWN 08	416	960	758	154	14	48	8	22	2	2
9	SANDBACH TOWN 09	468	807	637	130	14	41	7	21	2	3
10	SANDBACH TOWN 10	550	867	684	139	16	44	7	23	2	2
11	SANDBACH TOWN 11	507	764	603	123	15	39	6	21	2	2
12	SANDBACH TOWN 12	383	855	674	137	13	43	7	20	1	1
13	SANDBACH TOWN 13	560	900	710	144	16	45	7	23	2	1
14	SANDBACH TOWN 14	485	1101	868	177	16	56	9	25	2	2
15	BERETON	351	731	577	117	12	37	6	18	1	2
16	WARMINGHAM	361	1051	829	169	14	53	8	22	2	3
17	HASSALL	339	752	593	121	12	38	6	18	1	1
18	SANDBACH TOWN 18	427	849	670	136	14	43	7	21	2	2
19	SMALLWOOD	343	832	657	134	12	42	7	19	1	2
20	SANDBACH WALK 20	116	1129	891	181	10	57	9	19	1	1
21	SANDBACH TOWN 21	424	723	570	116	13	36	6	19	1	1
22	SANDBACH TOWN 22	627	1080	852	173	19	55	9	28	3	3
23	SANDBACH TOWN 23	422	770	608	124	13	39	6	19	1	2
24	SANDBACH TOWN 24	246	524	414	84	9	26	4	13	0	1

The 'Wings Required' column shows the number of wings of an RM2000 requires based on the volume of mail received.

The 'Wings Used' column shows the number of wings for the delivery as input to the Indoor Workload Tool.

Red entries indicate deliveries that have frames which are too small

Yellow entries indicate deliveries that have frames that are too large

Green entries indicate deliveries that have the correct size frames

The totals (39 and 42 in the example) indicate whether the office possesses sufficient wings