Barcode and label areas technical guide

Small letters and Large letters
– barcodes and yellow labels applied by Australia Post's letter processing equipment

We understand that the visual appeal of your mail is very important to you and your customers and that any barcode or label applied by our letter processing machines may impact the creative impression intended. So, to assist you when designing your mail piece, we have developed this guide to indicate when and where we apply these barcodes and labels.

By using the information contained in this guide, you can create your mail pieces so that our barcodes and labels do not interfere with your creative envelope design.

- Table 1 (on page 2) lists the acceptable Pantone Matching System® colours (uncoated) for light coloured envelopes that will avoid the application of a yellow label.

- Table 2 (on page 2) summarises by envelope size for each type of our letter processing machines, and other factors including whether the articles have Customer 4-state barcodes or plastic wrap.

If you are unsure whether the layout of your envelope design will be impacted by our machine applied barcode or label, please provide your intended design to either your Australia Post account manager or our Mail Presentation area using the email address given on page 5.

Background

In order to improve operational efficiencies, Australia Post has replaced outdated letter processing equipment across its network. There are now two types of new letter processing machines installed:

- **Culler Facer Canceller Preparation (CFCP)** – for sorting small letters; and

- **Flat Sorting Machines (FSM)** – for sorting large letters and all plastic wrapped articles.

Barcodes

Small and Large letter processing equipment apply machine readable barcodes to mail articles. These barcodes are used by letter processing machines to enable letters to be sorted more efficiently and accurately throughout their journey.

- The CFCP applies a barcode using black ink

- The FSM applies a barcode using fluorescent (orange) ink.

Yellow labels

Under certain conditions, letter processing machines may apply a yellow label to the mail piece and then print the barcode onto the label. The application of the label ensures that the barcode applied can be detected and read during letter processing which avoids costly manual sorting.

There is different logic applied by the CFCP and FSM to assess which letters require the application of a barcode and label. This means that the same envelope design may not have a label applied by the CFCP on a small size envelope, but have a label applied by the FSM on a large size envelope. Refer to Table 2 on page 2.

The yellow label uses low-tack adhesive, making it easy to remove without damaging the envelope.

Colours

Yellow labels will not be applied to the front of the envelope if the colour in the detection zone is white, or is on or around the following range of 78 acceptable colour tones selected from the Pantone Matching System®.

Table 1 - Acceptable Pantone Matching System® colours (uncoated) for light coloured envelopes

100	101	106	107	113	114	120	121	127	128	134	135	136	141	142	148	149	155	162	169
176	196	203	217	250	263	277	290	304	317	331	332	337	344	351	358	365	366	372	373
379	386	393	400	406	413	427	434	441	453	454	460	461	467	468	474	475	482	488	489
496	502	503	510	517	524	530	531	538	545	552	559	566	573	579	580	586	587		

Note: The colours shown above are approximations only. Refer to official ink colour charts.

Because of the existence of subjective factors such as the varying degrees of colour perception and the varying conditions under which colours are viewed, cases may arise where doubt exists on acceptability of a particular colour. Australia Post can arrange a test, based on the above zone of acceptable colours.

Yellow labels

Table 2 - Summary Information: Application of yellow label

Article characteristics	CFCP – Small letters		FSM – Small Plus and Large letters	
	With Customer 4-state barcode[1]	Without Customer 4-state barcode	With Customer 4-state barcode	Without Customer 4-state barcode
White/light coloured envelopes – see Table 1	No	No	No	No
Dark/metallic coloured envelopes	No	**Yes**	**Yes**	**Yes**
Plastic wrap	N/A[2]	N/A[2]	**Yes**	**Yes**
Glossy envelopes	No	**Yes**	**Yes**	**Yes**
Noisy[3] envelopes	No	**Yes**	**Yes**	**Yes**
Recycled brown envelopes	No	**Yes**	**Yes**	**Yes**

1. Small letters with a readable Customer 4-state barcode will not have a barcode (or yellow label) applied by Australia Post.

2. Small letters in plastic wrap are processed on the FSM.

3. Noisy envelopes = Any text or images within the noisy/glossy detection zone.

Small letters and Small Print Post articles

The following mail is processed through the small letter processing machine (using the CFCP):

- Envelopes up to a maximum size of 130mm × 240mm, with a maximum thickness of 5mm
- Envelopes that are oblong in shape – length is at least 1.4 times the width.

Note: Plastic wrapped mail will be processed on the large letter processing machines using the FSM.

Barcode and yellow label application

All small envelopes that have a printed customer applied 4-state barcode as part of the address block will not have a barcode or yellow label applied to the front of the envelope.

All small envelopes that do not have a printed customer applied 4-state barcode as part of the address block will have a black barcode applied to the front of the envelope.
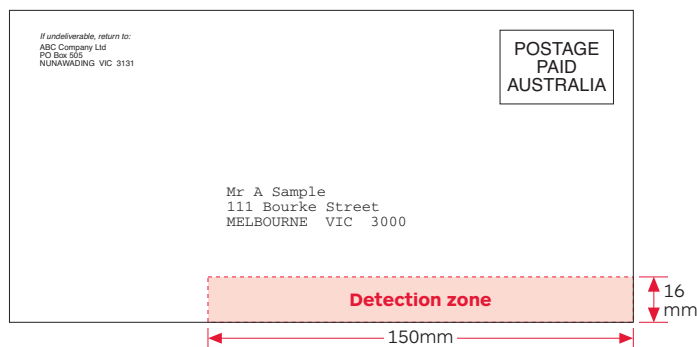
Where the CFCP detects that the envelope is of a dark colour*****, is glossy or contains text or graphics in the "detection zone", the machine will apply a yellow label to the envelope onto which the barcode is applied.

* Dark colours include envelopes that are red, green, blue and black. To avoid the application of the yellow label to coloured envelopes, refer to the table of acceptable colours in Table 1.

Barcode and yellow label location
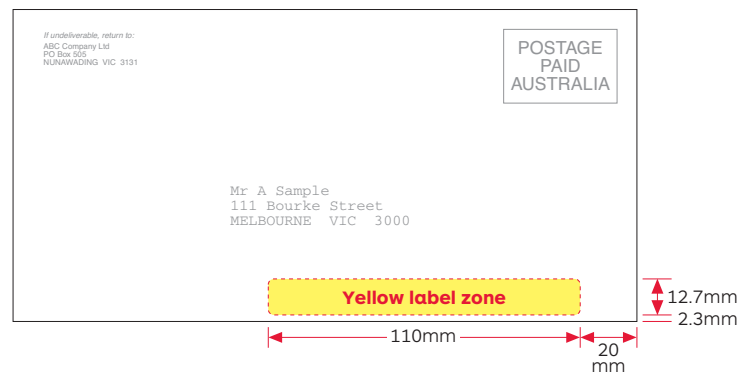
CFCP detection zone

A total area of 150mm long by 16mm high is scanned for dark, 'noisy' or glossy backgrounds. This begins from the right edge of the envelope (as presented to the machine) and from the bottom edge of the envelope as illustrated below.

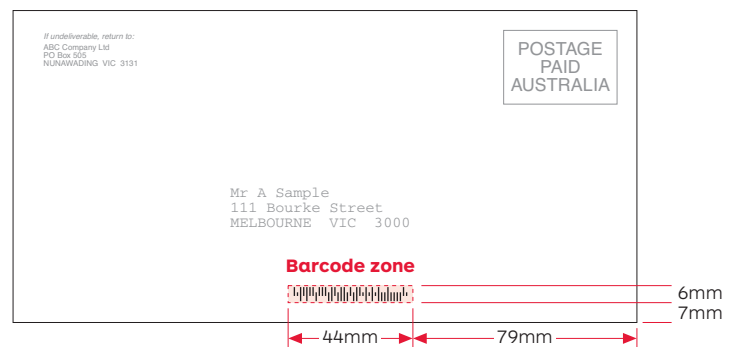If these characteristics are detected, the machine will apply a yellow label.

CFCP yellow label zone

When applied, the label is positioned in an area 110mm long and 12.7mm high. The area begins 20mm from the right edge of the envelope and 2.3mm up from the bottom edge as illustrated below.

CFCP barcode zone

The barcode is applied to an area 44mm long by 6mm high.

The area begins 79mm from the right edge and 7mm up from the bottom edge as illustrated below.

Recommendations

For mail that is small letter sized (including Small Print Post articles) and does not have a printed customer applied 4-state barcode as part of the address block, it is recommended that you:

- ✅ leave the detection zone free of text, graphics or patterning

- ✅ if coloured envelopes are to be used, select a colour from the recommended table of acceptable Pantone Matching System® colours in Table 1 on page 2.

Small Plus letters, Large Letters and Print Post articles

The following mail is processed through the large letter processing machine (using the FSM):

- Envelopes larger than 130mm × 240mm, with a maximum size of 260mm × 360mm and thickness of 20mm

- All plastic wrapped articles, with a maximum size of 260mm × 360mm, not including the excess plastic.

Barcode and yellow label application

All articles processed through the FSM will have a fluorescent (orange) barcode applied either directly onto the article or onto a yellow label which is applied by the machine. The barcode applied by the FSM contains both a sort decision and a unique article identifier.

Where the FSM detects that the envelope is of a dark colour*****, is glossy or contains text or graphics in the "detection zone", the machine will apply a yellow label to the envelope onto which the barcode is applied.
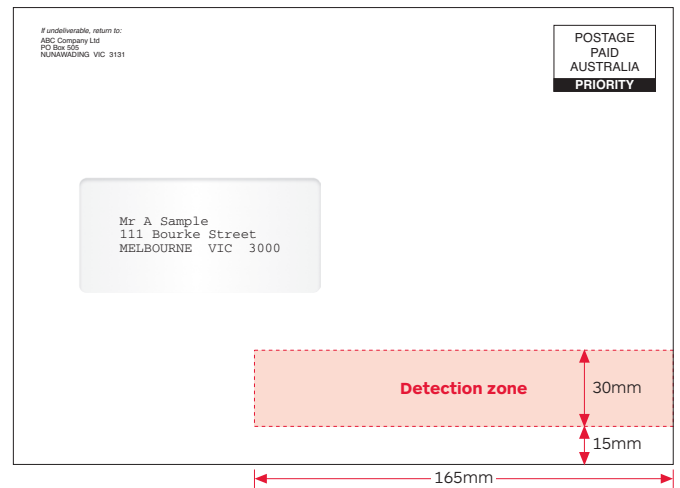
Note: A yellow label will be applied to all plastic wrap articles.

* Dark colours include envelopes that are red, green and black. To avoid the application of the yellow label to coloured envelopes, refer to the list of acceptable colours in Table 1.

Barcode and yellow label location

FSM detection zone

A total area of 165mm long by 30mm high is scanned for dark, 'noisy' or glossy backgrounds. This begins from the right edge of the envelope (leading edge as presented to the machine) and 15mm up from the bottom edge of the envelope as illustrated below.

If these characteristics are detected on either an envelope or a flysheet, the machine will apply a yellow label.
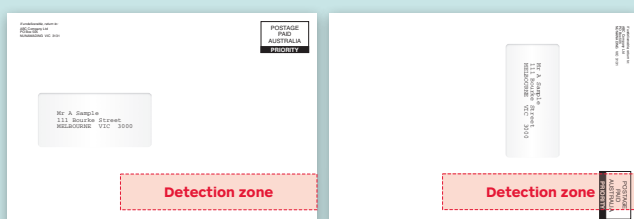
Note: For plastic wrapped articles, the FSM may detect the right (leading) edge anywhere along the length of the plastic overhang.

Landscape and portrait

When considering the location and orientation of the zones it is important to remember that landscape and portrait articles can be presented to the FSM on either of their longest edges.

Typical presentation to the FSM is:

- **landscape articles** faced upright with the Postage Paid Imprint in the top right-hand corner

- **portrait articles** with the Postage Paid Imprint at the bottom right-hand corner.

The less typical presentation to the FSM is:

- **landscape articles** inverted with the Postage Paid Imprint in the bottom left-hand corner

- **portrait articles** with the Postage Paid Imprint at the top left-hand corner.
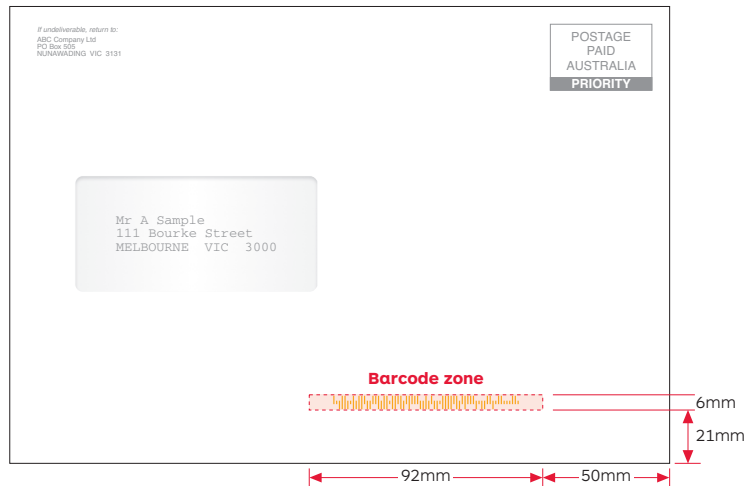
FSM yellow label zone

When applied, the label is positioned in an area 111mm long and 23mm high. The area begins 40mm from the right edge of the envelope and 18mm up from the bottom edge as illustrated below.

FSM barcode zone

The fluorescent barcode is applied to an area 92mm long by 6mm high.

The area begins 50mm from the right edge and 21mm up from the bottom edge as illustrated below.

Recommendations

For Small Plus and Large letter size mail, or to avoid obscuring any message on Print Post articles, it is recommended that you:

- ✅ Leave the detection zone free of text, graphics or patterning

- ✅ If coloured envelopes are to be used, select a colour from the recommended list of acceptable Pantone Matching System® colours in Table 1 on page 2.

Want to know more?

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Although every effort has been made to ensure the accuracy of the contents of this guide at the time of publication, information is updated from time to time and may be subject to change.