

# Understanding Bar Coding

There are 11 active characters in the PostNet! font. They are the numbers 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, and the exclamation point ( ! ). Each of these characters correspond to a specific bar code.

The bar codes are:

ZIP+4 code consists of the original five-digit ZIP code plus an additional 4 digits. When you use a ZIP+4 code in a mailing address, it must always have a dash between the first five digits and the last four digits:

Examples of ZIP+4 codes:

48009-7892

92106-2902

To properly bar code your mail, all your ZIP codes must be in ZIP+4 format.

The bar code itself consists of 52 bars total. Two of these bars are Framing Bars. Forty-five of the bars correspond to the nine digits that make up the ZIP+4 code. The remaining 5 bars in the POSTNET bar code correspond to a special 10th digit, known as the Correction Digit. The dash that is between the 5th and 6th digit is not used in the bar code.

The proper sequence for a POSTNET bar code is:

Framing Bar (1 bar)	ZIP+4 Code (9*5=45 bars)	Correction Digit (5 bars)	Framing Bar (1 bar)
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For example, with the ZIP+4 code, 94121-2715, the sequence would look something like this:

! 941212715 Correction Digit !

(where the ! corresponds to a Framing Bar)

If you type the above example on your keyboard and assign it the font Postnet

and choose 12 as the point size, you will get the following result:

(In the above example, do not assign the font Postnet to the phrase, Correction Digit)

The bar code is almost complete! The only part of the bar code that is still missing is the Correction Digit. The Correction Digit is a single digit, from 0-9, that is based on the sum of the ZIP+4 numbers. To calculate the Correction Digit, you need to add the 9 digits that make up the ZIP+4 code.

Example:

94121-2715

$$9+4+1+2+1+2+7+1+5 = 32$$

Now, take the number 100 and subtract this sum from it.

$$100 - 32 = 68$$

The Correction Digit is the right-most digit of this subtraction. In the above example, the Correction Digit is the number 8.

Here are more examples:

23456-7890

$$2+3+4+5+6+7+8+9+0 = 44$$

$$100-44 = 36$$

6 is the Correction Digit

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2223-7733

$$2+2+2+3+7+7+3+3+ = 29$$

$$100-29= 71$$

1 is the Correction Digit

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92345-1114

$$9+2+3+4+5+1+1+1+4 = 30$$

$$100-30=70$$

0 is the Correction Digit

Now that you know how to calculate the Correction Digit, the corresponding bar code of any ZIP+4 code can be completed.

Example:

For the ZIP+4 code 94121-2715, we have already determined that the Correction Digit is the number 8. The bar code sequence is:

! 9 4 1 2 1 2 7 1 5 8 !

And when you assign this sequence to the font Postnet, at 12 points size, you get the appropriate bar code: