



PHARMACODE PRINTING INSTRUCTIONS

The following instructions are intended as a guide to formatting and printing pharmacode barcodes. Following these guidelines will ensure your W H Leary quality assurance system operates at optimum levels.

Pharmacode Overview

Pharmacode has many different alias' (or derivatives) including 0-1-2 code, 1-2-3 code, Leatus code, Bobst code and expanded code or expanded pharmacode. All of these barcodes share the same underlying format. They are made up of thin and thick bar widths and a standard width gap. Pharmacode is somewhat different to the vast majority of barcodes in that it does not have a set length or set number of bars. In addition to that pharmacode does not include any checksum system, checksum systems are often used in other code formats to inform the reading head where the code starts and ends and that the whole code has been read.

Pharmacode Formatting

Pharmacode and its alias' (or derivatives) must be formatted as follows, (where 'y' is the width of the thin bar):

	Thin Bar Width	Gap Width	Thick Bar Width
Size (width)	y	y x2	y x3

The minimum width of 'y' is 0.5mm. There is no maximum width however thought should be given to the number of bars you intend to have in the code and the maximum space available where the code is intended to be printed. Maximum barcode scanning speed is dependent on the thin bar width.

The barcode should be printed on a plain white background (*in some instances plain coloured backgrounds can be used*) and should have at least 10mm of blank background before the first bar and after the last bar. This blank space is referred to as a 'quiet zone'.

The height of the barcode should be a minimum of 6mm, but generally it is recommended that the barcode be printed as tall as possible.

The barcode should be printed in black or dark process colour where possible. If you require all process colours to be contained in the barcode it is recommended that coloured bars are printed as thick bars only. Where colour barcode reading is required we recommend a minimum thin bar width of 1mm.

Print-to-cut register quality control is possible using the W H Leary barcode scanning head. This function is separate from the barcode scanning function although completed by the same reading head. If print-to-cut register quality assurance is required the barcode must be printed between 10mm-15mm of the leading edge of the product (*with no other print present before the first bar*) and a right-angled triangle must be printed after the last bar of the pharmacode. The gap between the last bar and the triangle must be no less than the

pharmacode standard gap, although the gap can be larger if required. If a larger gap is opted for there must be no other print between the last bar and the triangle.

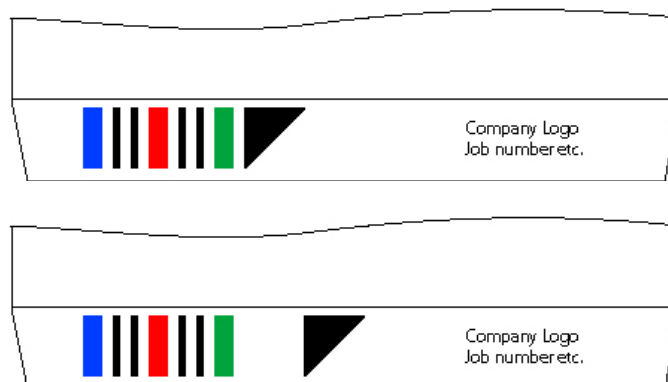
Pharmacode Dimensions

	Thin Bar Width	Gap Width	Thick Bar Width
Pharmacode	0.5mm	1.0mm	1.5mm
0-1-2 code	0.5mm	1.0mm	1.5mm
Leatus code	0.5mm	1.0mm	1.5mm
Bobst code	0.8mm	1.6mm	2.4mm
1-2-3 code	1.0mm	2.0mm	3.0mm
Expanded	1.0mm	2.0mm	3.0mm

Note that all derivatives adhere to the underlying format:

	Thin Bar Width	Gap Width	Thick Bar Width
Size (width)	y	y x2	y x3

Print-to-cut examples



Notes:

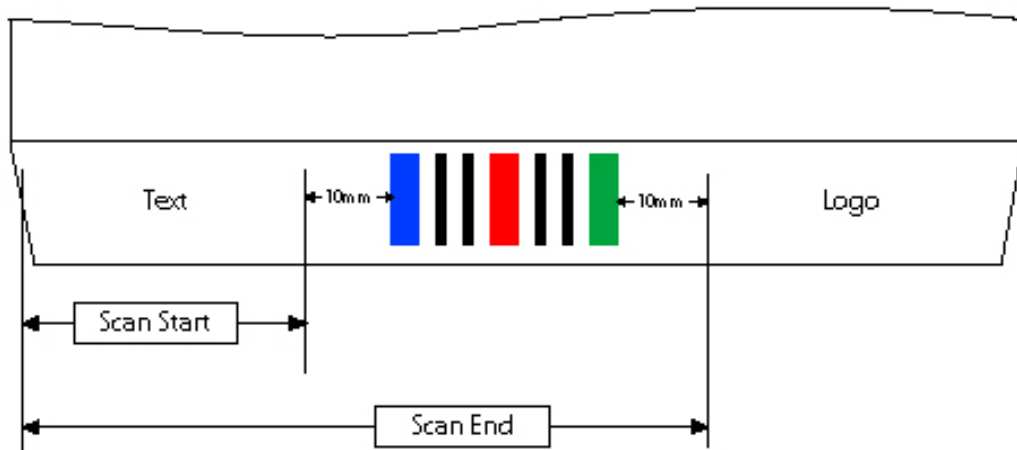
Nothing is printed before the barcode.

The first bar of the barcode is 10-15mm from leading edge of product.

Right-angled triangle is printed after the barcode with at least [the barcode's standard gap] gap from last bar and can be later on the product as long as no print is between the last bar and the triangle.

Avoiding other print on the product

Leary barcode reading equipment has the ability to read barcode that is positioned on the product between other printed elements. This is achieved by using a 'scan window' that is programmed by the user. Two dimensions are required to set the scan window – 'scan start' and 'scan end' are used to provide the system with a window of view. Anything outside of the window is ignored. See the diagram below for example:



Notes:

Print can exist before and after the barcode.

The scan window is set to open 10mm before the first bar and close 10mm after the last bar.