

Ishida OMNi-4000 Barcodes Explained

All retail barcodes contain 13 digits. Some manufacturers do not print the leading digit if it is a zero. The numbers printed under the barcode are referred to as "human readable". The printing of these numbers does not affect the scanning of the barcode. The pattern of narrow and wide bars and spaces is important feature when comparing two barcodes.

There are two broad categories of barcodes: with price (NON-PLU13 or UPC) and without (PLU13 or 10-Digit). Both contain 13 digits but the data represented are different. Each is discussed below. Refer to Figure 1 below.

NOTE: The barcode settings are in the Setup Menu, page 2. To access page 2 enter 999 then press the PAGE key.

BARCODE SETUP MENU

NON-PLU13 02 SET

PLU13 49 SET

NON-PLU8 2 SET

PLU8 49 SET

Pos Code Type

NON-PLU13 NON-PLU8 PLU13 PLU8

Pos Code Kind

BARCODE FORMAT 1:FFCCCC(C/P)PPPP(C/D)

INPUT

Figure 1. OMNi-4000 Barcode Setup

NON-PLU13 or UPC

UPC 5-Digit 1:FFCCCC(C/P)PPPP(C/D)

Where:

F - Flag code. Two digits used to identify the product type. Default print value is "02".

C - Code. Code value used to uniquely identify a product.

C/P - Check Price digit. This value is used to check the validity of the barcoded price.

P - Price. The total selling price of the item.

C/D - Check digit. This value is used to check the integrity of the complete barcode.

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The UPC 5-Digit barcode shown above is the most common format printed by retail scales and wrappers. It is called "5-Digit" because five digits are used for product identification. There are more than 30 types of UPC formats but only a few are commonly used. The others are:

- UPC 6-Digit 2 : FFCCCCCPPPPP (C/D)
- UPC 5-Price 4 : FFCCCCCPPPPP (C/D)
- UPC Fixed Zero 15 : FFCCCCC0PPPP (C/D)

All three of these barcode formats involve changes to the center Check Price digit. Their reasons for use depend on the store involved. The 6-Digit format is used by stores that maintain six-digit product codes. Stores that often have items selling for \$100 or more may use the 5-Price barcode format. The Fixed Zero format may be used based on the configuration of a store's scanning equipment. Their setup may require a fixed value (0) in place of the calculated price check value. Refer to Figure 2 below.

B A R C O D E S E T U P

FFCCCCC(C/P)PPPP(C/D)	FFCCCCCWWWWW(C/D)	FFCCCCCQQQQQ(C/D)
FFCCCCCPPPP(C/D)	FFCCCCCPPPP(C/D)	
FCCCCC(C/P)PPPP(C/D)	FFCCCC(C/P)PPPP(C/D)	
FFCCCCCPPPP(C/D)	FFCCCC(C/P)WWWWW(C/D)	
FCCCCCPPPP(C/D)	FCCCCCPPPP(C/D)	
FFCCCC(C/P)PPPP(C/D)	FFCCCCPPPP(C/D)	
FFCCCCCWWWWW(C/D)	FCCCWWWWPPPP(C/D)	
FCCCCCWWWWW(C/D)	FFCCCCCQQPPPP(C/D)	
FCCCCCIIIIII(C/D)	FIIIIIIIPPPPP(C/D)	
FFCCCCCPPPP(C/D)	FFIIIIIIIPPP(C/D)	
FFCCCCCWWWWW(C/D)	FCCCCPPPPPP(C/D)	
FFCCCC(C/P)WWWWW(C/D)	FIIIIIIIPPPPP(C/D)	
FFMMCCPPPP(C/D)	FFIIIIIIIPPP(C/D)	
FFMMCCPPPP(C/D)	FCCCCCPPPP(C/D)	
FFCCCC(0)PPPP(C/D)	FFCCCCCPPPP(C/D)	

INPUT

Figure 2. OMNi-4000 UPC Barcode Format Selection List

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PLU13 or 10-Digit FFCCCCCCCC (C/D)

This format may be used for products sold at a fixed price such as a loaf of bread. Normally it is used for prepackaged goods such as cereal, soup, or beer. Typically the first five digits identify the manufacturer and the last five identify the product. For example, Corn Flakes [32547] made by Kellogg's [38000] would print the barcode 0038000325478. Note that the Flag Code for these types of items is usually "00" instead of "02".

Troubleshooting

There are several reasons why a barcode may not scan:

1. The item is not programmed in the store's scanning system.
2. The item code is incorrectly programmed in the scale.
3. The barcode is incomplete due to a dirty or damaged print head or print roller.
4. The store's scanners are not set correctly [new installation].
5. The scale barcode format does not match the scanner's format [new installation].