

## How Do Barcode Scanners Work?

Barcode scanners read an encoded imprint (the barcode), decode it, and output the information (usually in text format) through a USB or keyboard wedge connection to the computer. Two separate categories of barcode formats exist: 1D barcodes and 2D barcodes.



- ▶ 1D barcodes appear as a series of black lines with varying widths. The UPC format, found on most consumer goods, is the most common. Use a scanner with 1D capability to read all common 1D formats.



- ▶ 2D barcodes frequently appear square in shape and contain data which is read both horizontally and vertically by the scanner. 2D barcodes require a scanner with 2D capability. All 2D scanners also read 1D barcodes.

## What Kind of Barcode Scanner Do I Buy?

Are you reading 1D or 2D barcodes?

Are you scanning high, medium, or low volumes of items?

In what kind of environment will the scanner be used? Retail, industrial, mobile?

## 1D Barcode Scanner Types



### ▶ Handheld Barcode Scanner

The handheld barcode scanner is the most common type of scanner. Operating with a trigger-style pistol grip and a standard six-foot cord, these scanners are available in various models and price ranges. Due to the wide variety of models, we have separated them into three different sub-categories to assist you with your decision making: entry level scanners, mid-level scanners, and professional level scanners.

Entry Level	Mid Level	Professional Level
Least expensive, close range scanning, limited capabilities	Mid-range pricing, can read poorly printed barcodes, more programming options	Most expensive, many are shock and contamination resistant, usually highly programmable
Low volume scanning across multiple industries	Medium to high volume scanning across multiple industries	High volume scanning for industrial environments
ID Tech Econoscan	Symbol LS2208	Datalogic Gryphon L GD4300



### ▶ Wireless Barcode Scanner

These barcode readers contain all the features of mid level and professional handheld scanners, but utilize Blue Tooth or RF (radio frequency) to communicate data back to the base station. They offer complete mobility due to the absence of the cord. The battery life and wireless range of the readers vary depending on technology and environmental conditions.

**Try: POS-X XI3200BT or Honeywell Voyager Blue Tooth**

## 1D Barcode Scanner Types (Continued)



### ▶ **Omni-Directional Barcode Scanner**

This is a hands-free and stationary barcode scanner, meaning the barcoded product must pass in front of the reader in order for it to scan. These scanners are found mainly in retail settings such as convenience stores.

**Try: Honeywell Fusion or Symbol LS9208I**



### ▶ **Industrial Barcode Scanner**

Industrial Barcode Scanners are built with heavier duty plastics and sealed components, designed to hold up against the extreme conditions of industrial environments. These barcode scanners can usually read either incredibly damaged barcodes or long distance shipping barcodes, ideal to accommodate the rougher surroundings of warehouses & shipping centers. Most are brightly colored so as to make them easily spotted.

**Try: Datalogic Powerscan D8300 or Symbol LS3008 or Honeywell 3800i**



### ▶ **Wand Barcode Scanner**

A wand barcode scanner looks like a writing utensil and is used in generally the same way. It must make direct contact with the barcode and sweep across it from left to right. These scanners are generally slower than other barcode scanners and cannot read barcodes from a distance.

**Try: Unitech MS120 or Opticon MSH-220**



### ▶ **Scale Barcode Scanner**

Scale barcode scanners are the type of scanner you usually see in grocery store checkout lanes. They are in-counter scales with integrated barcode scanners, providing yet another hands-free scanning option. In-counter scale barcode scanners are price prohibitive unless using both scan and scale features.

**Try: Magellan 8500XT or Honeywell Stratos**

## 2D Barcode Scanner Types



### ▶ **Handheld Barcode Scanner**

These scanners give you both 1D and 2D barcode scanning in the familiar form factor of 1D scanners. With the addition of 2D barcodes to some states' drivers licenses, these scanners become a quick and error-proof method for capturing customer information for loyalty programs or credit card applications.

**Try: Honeywell Xenon 1900 or Symbol DS6708**

### 2D Barcode Scanner Types (Continued)



#### ▶ **Wireless Barcode Scanner**

Wireless 2D barcode scanners give you the added freedom of mobility, making these barcode scanners a great choice for shipping/receiving, or any situation where hauling the products to your station isn't a good idea. These barcode scanners have the same data parsing capabilities as handheld 2D imagers, allowing for mobile customer data acquisition.

**Try: Honeywell Focus BT or Honeywell Xenon 1902**



#### ▶ **Omni-Directional Barcode Scanner**

Also known as presentation scanners, these barcode scanners use aggressive 2D imaging to make them as fast, if not faster, than their 1D counterparts. Barcodes just need to be placed within the viewing area to be read, and advanced imaging technology allows for easy reading of even fast-moving barcodes.

**Try: Honeywell Genesis or Symbol DS9808 or Datalogic Magellan 1100i**



#### ▶ **Industrial Barcode Scanner**

Industrial 2D imagers offer increased durability with advanced imaging, excellent for rough shipping environments. These barcode scanners hold up to wild temperature variance or even damage from drops or collisions, protecting your investment and maximizing business uptime.

**Try: Honeywell 4800i or Symbol DS3408**

**To order, or for more information visit [www.posguys.com](http://www.posguys.com) or call 800-903-6571 today!**