

# Behind the Code

## News and Trends in Bar Code & RFID

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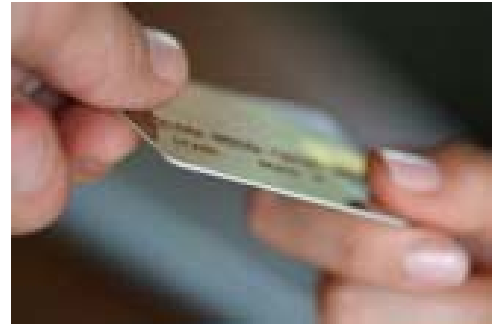
We are pleased to present you with this brief newsletter with coverage of some recent trends in the world of bar code and RFID. If something here catches your attention and you'd like more information, please call Avery Dennison Printer Systems Division at 1-800-543-6650 or visit [www.monarch.com](http://www.monarch.com)

### PCI Data Security

#### What is PCI-DSS?

PCI, which stands for Payment Card Industry - DSS (Data Security Standards) is a set of standards developed by the banking and credit card industry to help companies that deal with credit card transactions to better secure their data. The intent of the standards is to improve data security throughout the transaction process including point of sale.

The PCI-DSS contains general requirements/recommendations backed by specific technical recommendations designed to help guide vendors in the selection and implementation of various data security technologies:



1. **Build and maintain a secure network.** The key recommendation here is that factory defaults should never be used for system passwords. Passwords should also be changed automatically.
2. **Implement strong access control measures via authentication,** based on a "need to know." Each person with computer access must be assigned a unique ID. Each user should also be assigned a unique authentication method such as a token device, smart card, or biometric.
3. **Data encryption must be WPA or stronger.**
4. **Regularly monitor and test networks.** All access to network resources and cardholder data must be monitored and tracked. In addition, regular tests of network security systems and processes need to be performed.
5. **Maintain an information security policy.** Companies must establish, document, and distribute security policies. In addition they must monitor and control all access to data.

These are some of the key requirements of the PCI-DSS. The encryption of data transmitted over wireless networks by Monarch brand printers is one part of a solution to meet the required standards.

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### New Bar Code Type

GS1 DataBar symbology (formerly known as RSS) is a family of bar code symbols that can identify small items and carry more information than the current EAN/UPC bar code and still be scanned by a POS terminal. GS1 DataBar can enable GTIN identification for hard-to-mark products like jewelry and cosmetics. It can also include GS1 Application Identifiers such as serial numbers, lot numbers, and expiration dates for product authentication and freshness.



### The Importance of Font Flexibility

Unicode UTF-8 font compliance makes it possible to print characters outside the normal English range of characters such as international fonts (example: Arabic, Chinese), as well as unusual English fonts. Many US companies have a need for various non-standard characters. In some instances, companies utilize an unusual English font for their logos or labels and require Unicode UTF-8. Global companies that wish to supply their overseas locations with the same printers they utilize domestically, require the capability to convert to international characters.

The recent release of Version 6.0 firmware gives Avery Dennison's Monarch models 9855 and 9860 the ability to print both the GS1 DataBar family of symbols and the Unicode UTF-8 characters. Coming Soon: Avery Dennison's Monarch model 9825 will soon share the above capabilities with the 9855 and 9860.



### Why Verify?

We are in an automated world in which customers demand that product be available faster and cheaper than in any time in history. And the labels generated by bar code printers are an integral part of making the supply chain run smoothly. Although you may be seeking a means to route your product seamlessly through your own internal processes, you are likely equally concerned with avoiding costly charge backs from your customers. This is why many consumer goods manufacturers have decided that verification of barcodes is critical to their operation.

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### **But what does barcode verification mean?**

When a barcode is printed, there is a full range of print qualities at which a barcode can be scanned by various scanners. Sometimes barcodes that look terrible to the human eye can be readily scanned, while barcodes that have a beautiful appearance to the human eye are not read well by scanners. There are varying levels of barcode quality that we might say are “good enough.” But how do we determine this?

There is a standards organization called ANSI (American National Standards Institute), which has developed a set of test criteria such that a “passing” barcode will scan on virtually any commercially available scanner. During true ANSI verification of a barcode, the barcode is scanned multiple times and nine to twelve different criteria including bar width and defects are measured against the standard. An overall grade from A to F is then applied to the barcode. It is generally accepted that a barcode with a grade of “C” or better will be readable by most scanners.

### **Why should you care if a barcode is verified versus scanned?**

In this fast-paced world, any product that requires special handling slows down processes and adds cost. Therefore, many large retailers have invoked very high charge backs to their suppliers who do not meet specific ANSI criteria. Using ANSI verification gives the shipping company and the receiving company a measurable standard against which to judge the barcode quality. Most large retailers will specify a specific ANSI barcode quality level as part of the supplier contract. If a retailer charges a fine for poor barcode quality, the supplier cannot simply claim that it scanned prior to shipment. However, if the supplier can provide proof that the barcode met specific ANSI barcode scan quality standards, the supplier then has an argument to make with the retailer.

### **How does Monarch’s Model 938 Verifier work with the Model 9855 and 9860 printers?**

Monarch’s Verifier solution is one of the most integrated solutions in the industry. When a format is sent to our printer, the printer determines which barcodes are printed, where they are located on the label, and how many scans the verifier can achieve (there are criteria for the minimum scans required for ANSI verification). The printer calculates exactly when to turn the scan beam on and off and which barcodes to look for so that the verifier runs at optimal efficiency and with minimal configuration required by the user. The printer can store the data in a database for later upload to a host so that the user has a history of the barcode grades in case of future charge backs.

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### New & Updated Products

#### Monarch 9854 / 9864

#### Avery Dennison's New Printers Provide More Options:

- Larger Label Size (Monarch 9864 up to 10" wide)
- Ribbon Saver (Monarch 9864)
- High Speed Processing and Printing (up to 14 IPS)
- Native Support, 5 Standard Graphic File Types
- Internal Liner Takeup
- Data Stream Compatible with Other Leading Printers
- Real Time Clock allows time/date stamps



Monarch 9864



Monarch 9854

### Would you like a NEW Bar Code Catalog?

Ask us for a hard copy of the latest edition of the Avery Dennison Bar Code Catalog. You may view the on-line PDF version of the catalog by visiting [Monarch.Com](http://Monarch.Com) or clicking on the link below.

[Monarch Bar Code Catalog](#)

Call us at 1-800-543-6650 to request a printed catalog or for assistance with all of your item identification and tracking needs.

