



SYNERGY 2016
EXPERIENCE 2020

NCR RealScan Update

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Why NCR RealScan?

Powerful Performance

- Best first pass read rates in their class
- Patented Pacesetter technology for reading poor bar codes
- True six-sided bi-optic scanning

Future Upgrades

- Only laser bi-optics with path to imaging and Digimarc bar codes
- Easy upgrades to scale and EAS solutions
- USB thumb drive programming and cloning

Simple Interaction

- Patented spoken voice feedback, multi-language support
- No physical buttons to wear

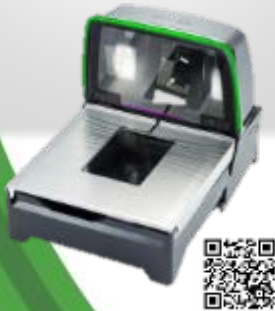


Delivers Benefits for all Stakeholders

NCR RealScan Product Family

RealScan 79

- **All-Imaging technology**
- Upgrade to scale, and EAS
- Largest all-imaging scan zone, edge to edge glass
- Strong six side scanning
- Top down scanning
- Pure White illumination
- Ethernet Connectivity
- Advanced Scan advisor
- Clean Window Indicator
- Scan doctor spoken voice
- Security, Vision, Validation



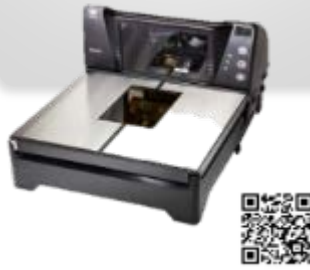
RealScan 78

- Highest performance
- **Upgrade to Imaging**
- Upgrade to scale & EAS
- Six side scanning
- Top down scanning
- Rugged Buttons
- USB and Serial ports
- Front facing USB
- Scan advisor light bar
- Clean Window Indicator
- Scan doctor spoken voice



RealScan 74

- High performance
- Compact form factor
- 10.2cm/4" depth
- **Upgrade to Imaging**
- Upgrade to scale/ EAS
- Six side Scanning
- Top down scanning
- Rugged buttons
- USB port
- Scan advisor light bar
- Scan doctor spoken voice



RealScan 84/12

- Configurable for Horizontal or Vertical
- Compact 6" x 6" x 3.4"
- Hybrid imaging for 1D, 2D and mobile
- USB port for programming and diagnostics
- Scan advisor light bar
- Scan doctor voice
- **Advanced Scale Option from NCR (7812)**



RealScan 93

- Handheld/ counter top
- Dense 20 line pattern
- USB port
- Checkpoint antenna
- Scan advisor LED
- Scan doctor spoken diagnostics for error codes and troubleshooting



NCR Has Options for Every User

Laser Scanners: Lowest acquisition cost and highest scanning performance.

Imaging Hybrid: Upgrade for 2D and mobile scanning.

All-Imaging: For customers wanting to go “beyond the bar code” for shrink and future-proofing.



RealScan 78 Bi-Optic

High Performance Size

- 5" depth below counter
- 7" tower height

Larger Standard Footprint

- 20" Scanner/Scale (1001/2001)
- 16.1" Scanner/Scale (4011/5011)

Connectivity for handheld or futures

- Auxiliary ports: 1 x RS-232, 4 x USB
- Hybrid Imaging Capable for 2D/Mobile/Digimarc

Full-Size



Compact



Highest Performance Scanning

RealScan 74 Bi-Optic

Low-profile

- 4" (10 cm) depth ideal for seated cashiers
- 5.1" (13 cm) tower height

Compact footprint

- 13.9" (35 cm) Scanner
- 15.7" (40 cm) Scanner/Scale
- 20" Adapter Option



Connectivity for handheld or futures

- Auxiliary ports: 1 x RS-232, 1 x USB
- Hybrid Imaging Capable for 2D/Mobile/Digimarc

Ideal for Seated Cashiers or Smaller Checkstand

RealScan 84 Single Window

Vertical or horizontal scanning

- Vertical mount option

Industry standard footprint

- 84 vertical = 6.0 x 6.0 x 3.4
- 84 w/top plate = 7.5 x 7.5 x 3.5

Motion detector reduces power consumption

Connectivity for handheld or futures

- Auxiliary ports: 1 x RS-232, 1 x USB
- Hybrid Imaging Capable for 2D/Mobile/Digimarc

Concealed cable management

- Integrated strain relief and cable routing on chassis



Fits NCR and Competitor Checkstand Cut-outs

RealScan 12 Scale

An Enhanced Single Window Scale



Higher value scale solution

- More connectivity options
- Greater user input and feedback
- 11.5" x 11.5" for versatile installs

Based on our current bi-optics

- Leverages current NCR components like scale and top plate assemblies
- Easy to service and support

Connectivity for handheld or futures

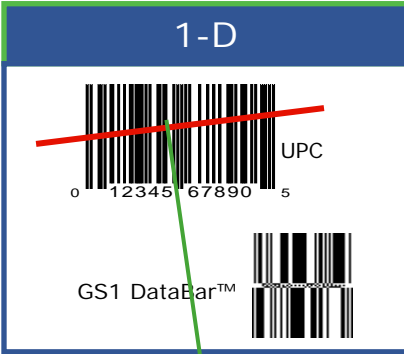
- Auxiliary ports: 1 x RS-232, 4 x USB
- Hybrid Imaging Capable for 2D/Mobile/Digimarc

Ideal for Customer Service Areas or Grab and Go Food Service/Deli

1D and 2D Bar Codes in Retail

Traditional Symbolologies

1-D



UPC
0 12345 67890 5

GS1 DataBar™

- Laser line captures data
- Similar to Morse code
- Product ID

Laser can read the information from left to right

Emerging Symbolologies In Retail

PDF and Variants



PDF-417

Composite Codes

Industry Codes



NEW

Postnet

DIGIMARC

2-D



Datamatrix

Maxicode

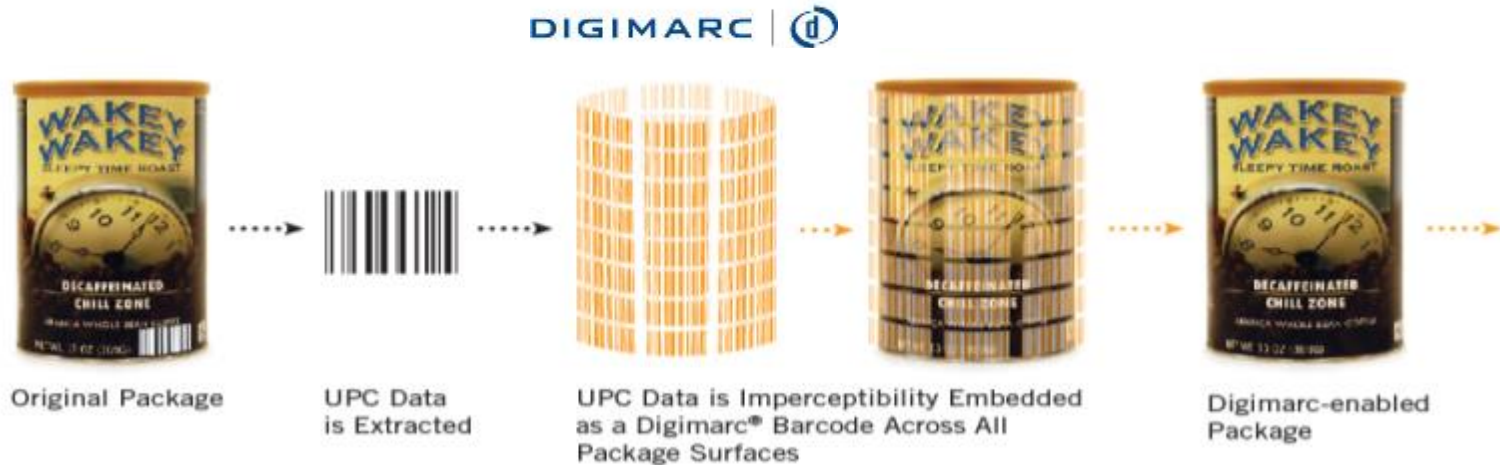
QR Code

- Barcode captured as picture
- Software decodes the entire image for data
- ID cards, mobile applications, advertising

An imager is needed to capture the data as an entire picture

What is a Digimarc Barcode?

- A unique signal (or pattern) that is embedded into a package's graphic design.
- The pattern contains the product's Global Trade Item Number (GTIN) data, commonly carried in a product's UPC/EAN symbol
- Digimarc Barcodes are invisible to the eye, but enabled image scanners and mobile devices can interpret the data



Key Benefits of the Digimarc Barcode

RETAILERS

- Faster throughput at POS and SCO – improved detection accuracy and clerks no longer have to search for barcodes
- Richer consumer engagement

BRANDS

- Can provide mobile-enabled consumers with offers and engaging experiences
- Item level traceability
- Additional real estate on packaging
- Authentication and brand protection

CONSUMERS

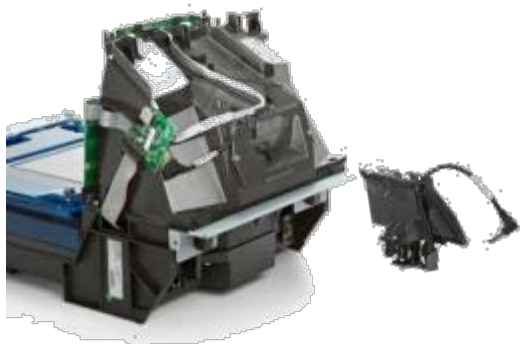
- Faster checkout
- Package-to-web engagement
- Authentication
- Brand interaction

Hybrid Imaging Solutions

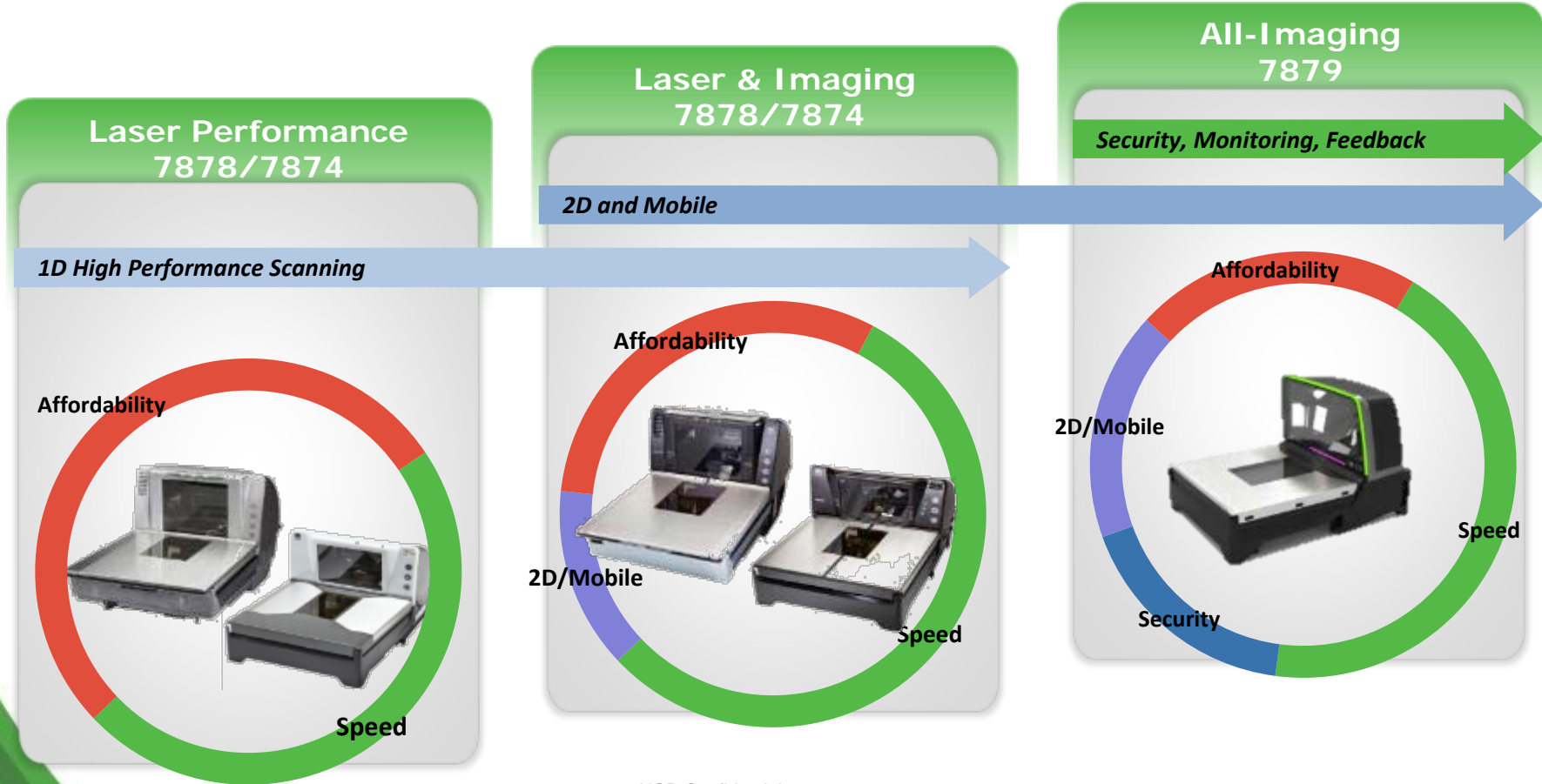
Read any bar code, regardless of symbology

NCR Imaging Hybrid Technology

- Keep lanes moving with laser for traditional 1D
- Quickly grab new 2D bar codes
- Address mobile and ID scanning
- Intuitive scanning for poor bar codes
- Investment Protection and Digimarc Support!



The Right Technology For The Application



Go Beyond the Bar Code

A Smart Scanner that provides true investment protection



NCR ScanWatch

- Use imaging to go after shrink and increase cashier productivity
- Integrated solution for FastLane
- Ethernet allows for images and video full stream while scanning
- IP camera addressability for easy connect to loss prevention systems



NCR Pure White

- The right Illumination
- A user friendly, white-glow illumination
- No directly visible light to the user
- White spectrum opens the door to vision and improved color processing



NCR Multilink Technology

- Extreme processing and data management
- Power for scanning and more
- Leading edge chipset with support for 1D/2D and Mobile scanning
- Streaming video and image capture while scanning in the lane

New RealScan 79e

An Economical Solution: Same High Performance All-Imaging at a Lower Acquisition Price

- New models, New lower price
- Streamlined ScanAdvisor light bar
- No PowerBar or Ethernet Connectivity
- Only 2 additional USB ports for Accessories
- Still ScanWatch capable
- Digimarc Bar Code Ready



DIGIMARC | 

Available in September 2016

NCR RealScan 79e

Same High Performance All-Imaging at a Lower Acquisition Price

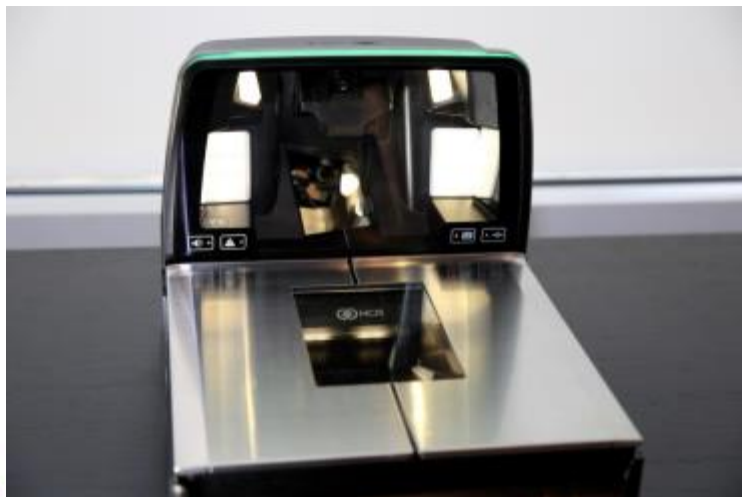
	RealScan 79	RealScan 79e
High Performance Full-Imaging 1D/2D	Yes	Yes
Mobile Bar Code Scanning	Yes	Yes
Digimarc Bar Code Support	No	Yes
Scan Advisor	Full Perimeter	Top Portion Only (similar to 7878)
PowerBar	Yes	No
Ethernet	Yes	No
Additional USB Connectivity	4	2
Integrated Customer Scanner Option	Yes	No
** Remote Customer Scanner Option	Yes	Yes
ScanWatch Image Analytics	Yes	Yes



DIGIMARC | 

RealScan 79e Models

Product ID	Description
7879-1501-9090	Full Size Scanner Only 20" / 50.8 cm
7879-2501-9090	Full Size Scanner/Scale 20" / 50.8 cm
7879-3501-9090	Compact Scanner Only 13.9" / 35.3cm
7879-4501-9090	Mid-Size Scanner Only 15.7" / 39.9cm
7879-5501-9090	Mid-Size Scanner/Scale 15.7" / 39.9cm



Example:

7879-2000

Moves to...

7879-2501

- x5xx = 79e
- xxx1 = Digimarc Ready

Controlled Deployment in September 2016

Remote Customer Scanner

A Solution Powered by the RealScan 79

- Remote Customer Scanner Option
- Impulse items, price check, ID scanning, mobile apps
- Can be integrated in the checkstand or mounted on stand
- Supports 1D and 2D bar codes, as well as mobile phones
- 6ft USB cable for flexible installation
- Same PureWhite illumination

NOTE: Only works with the RealScan 79



Customer Interaction for Mobile Phone, Coupons, or Loyalty

Consumer Interaction Options

USB Simplicity for NCR Bi-Optics

- Designed with NCR Imaging Hybrid Technology
 - Fully integrated solution controlled by the NCR Bi-Optic Scanner/Scale
 - More than just a handheld or third party scanner
- Customer facing scanner for easy consumer scanning
- Can be integrated in the checkstand or mounted on stand
- Supports 1D and 2D bar codes, as well as mobile phones
- 6ft USB cable for flexible installation



Product ID	Description
7878-K350 (Red)	Imaging scanner for customer scanning of mobile phone or 2D bar codes/ coupons. Includes 6 ft cable (1.8 m) (White or Red Illumination)

Customer Interaction for Mobile Phone, Coupons, or Loyalty

Integrated Customer Scanner



Options for the RealScan 79

- Left or Right Configuration
- Best Positioning for Existing Checkstands
Built-to-Order or Field Upgradable
- Integrated Scan Advisor Light
- Control Options from POS or Scanner

NOTE: Does not work on new 79e

79 Customer Scanning Options



Product ID	Description	Configuration Notes
7879-F151	<u>LEFT</u> Configuration at factory.	Scanner programming is required for proper operation. Bar codes can be enabled or disabled depending on requirement.
7879-F152	<u>RIGHT</u> Configuration at factory.	Scanner programming is required for proper operation. Bar code symbologies can be enabled or disabled depending on requirement.
7879-K151	<u>LEFT or RIGHT</u> – Kit with all pieces to configure in the field and upgrade existing 7879. Can be configured left or right as needed.	Scanner programming is required for proper operation. Bar code symbologies can be enabled or disabled depending on requirement.



Product ID	Description	Configuration Notes
7879-K351	Imaging scanner for customer scanning of mobile phone or 2D bar codes/ coupons. Includes 6 ft cable (1.8 m) (White Illumination)	Scanner programming is required for proper operation. Bar code symbologies can be enabled or disabled depending on requirement.

RealScan 79 Produce Guard Option

- Designed for cashiers trained on All-Weighs Platters
- Allows for weighing against the tower for large bulky produce items
- Good option for high-volume produce grocers
- Button access through window
- Only to be recommended when demanded
- Available in 15.7" and 20"
- **NOTE:** Moving to this plate from the standard plate requires re-calibration



RealScan 79 Produce Guard Option

Product ID	Description
7879-F603	Full Size ClearShield 20" / 50.8 cm scanner Produce Guard
7879-F608	Mid-Size ClearShield 15.7" / 39.9 cm scanner Produce Guard



An Update on Ethernet Functionality

Programming

- Send programming and configuration files over the network

Firmware

- Easily update scanner firmware over the network

Smart Clone

- Scanners scan self-configure at install or replacement

IP Security Camera

- Full streaming video and integration for loss prevention security solutions, ONVIF compliant device



ScanWatch Update

Produce Assurance

- Imaging based security for item switching at Self-Checkout
- Targeting high dollar items such as wine and liquor items
- Looking for non-produce items being weighed on scanner
- Silent alert sent to attendant along with image
- **Ready for EFT Sites now!**

Pick List Assist

- Shorten the produce pick list based on imaging
- Looks for similar items, no need for exact match
- Speed the transaction and increase customer satisfaction
- Options for security intervention for fraudulent choices



Competitive Score Card



	9800i or 9400 (new)	MP-6000	7879
Top Down Scanning	Yes/ No	Limited	Yes
Optional Rear Customer Scanner	Yes, Pole	Yes, Side Tower	Yes, Rear Tower and Remote
Scan Volume	3" Tower, Plus Pole – Dead Spots 9400 – 5" Tower – Small Volume	5" Tower – Small Scan Volume	7" Tower – Largest Scan Zone 25% - 40% more scan volume
Power Usage	11w Idle/ 12w Active	6 Watts (Pulsing)	4.5w Idle/8.3w Active
1D Bar Codes	Yes	Yes	Yes
2D / Mobile Bar Codes	Yes	Yes	Yes
Digimarc Support	Yes/Yes (Certain Models)	No, Working on it	79e Model Only
Imaging and Cashier Performance Features			
Power Bar for Cashier Performance	No	No	Yes
User Friendly Illumination	No / Red Illumination	No/ Red Illumination- Pulsing	Yes/ White
Image Capture	Limited from Pole View	No, Split Cameras, No Complete View	Yes, 3 Full View Cameras for Images
Streaming Video	No	No	Yes, Ethernet Live Streaming Video
Ethernet Connectivity/ IP Addressable	No	No	Yes, First Ethernet Smart Scanner Images and Support
Loss Prevention Integration	No	No	Integration for In-Store Loss Prevention
Remote Camera Option	No	No	Yes, controlled by Scanner

9800i – Competitive Tips

- Low tower 3” tower height, extreme design challenge.
- No top down without TDR. Must turn meat and other packages to scan. Risk of cashier wrist injuries and liquids on scanner deck.
- Small Scan Indicator Light. Poor positive scan, more difficult for management or cameras to monitor cashier activity.
- Requires Special Scanning Habits

No Top-Down Without TDR



Red Illumination



Minimal Scan Zone



9400i – Competitive Tips

- Low tower 4.5" with 30% less scan coverage than the 7878
- No top down with the 9400i. Must turn meat and other packages to scan. Risk of cashier wrist injuries and liquids on scanner deck.
- Small Scan Indicator Light. Poor positive scan, more difficult for management or cameras to monitor cashier activity.

Datalogic 9400 with customer scanner



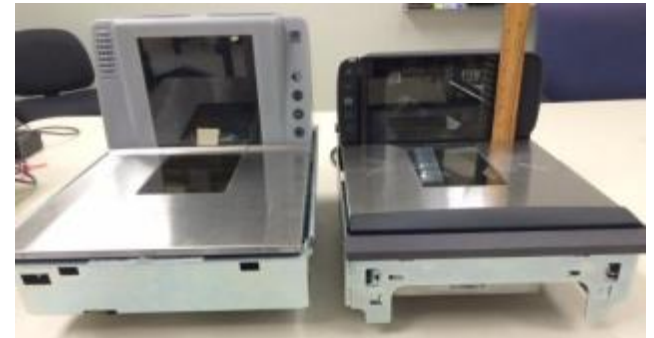
■ Small Scan Indicator



Small Window Height (4.5")



NCR 7878 6.5" vs 4.5" Datalogic 9400



What Are Retailers Saying?

“We’re looking to take as much time out of the front-end as possible”

“Every second we can remove from the checkout saves us millions”

“We need to increase productivity”

“We want more consumer interaction”

Key Takeaways:

- Taking time out of the transaction – wherever possible
- Positively affecting the bottom line is a justification to spend on a solution
- Consumer experience is key, and they want options

How to Answer These Questions for Your Customers

Take your customers back to the basics

The Scanner : Performance at the front-end

- Scanner acts as a gate
- This gate can become a bottle-neck if not optimized for performance
- Optimization can take place in three places
 1. The Scanning Device
 2. Cashier Behavior
 3. Bar Codes

Work with your customers to optimize these areas

1) The Scanning Device

The scanner as a gate

- The faster you can move items through the gate, the higher the performance
- The scanner must be able to:
 - Accurately process the data quickly
 - Ensure high first pass read rates
 - Read all 6 sides of a product
 - Read any bar code, regardless of symbology or quality

2) Cashier Behavior

The “Power Slide” and why it matters



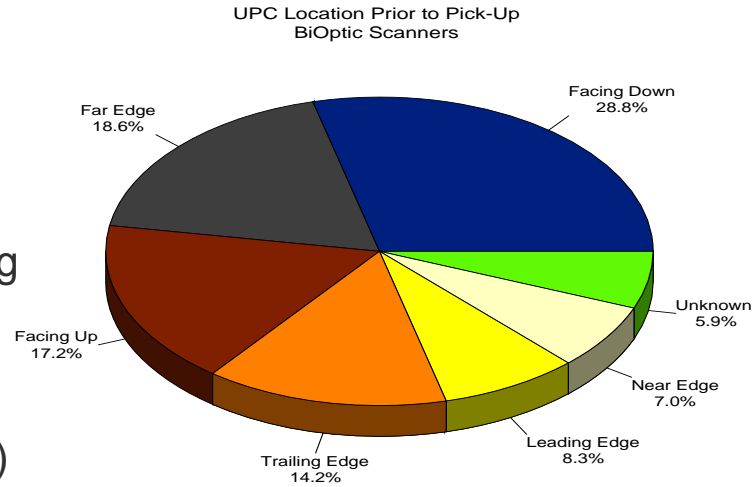
- Cashier training is on the decline
- Bad scanning habits are reducing front-end performance and costing retailers
- Product orientation is a major pain point

Power Slide is the fastest and most ergonomically correct way for a cashier to scan merchandise.

3) Bar Codes

Did you know?

- On average...
 - 17% of bar codes come across the scanner facing up
 - 18% of bar codes are facing the vertical window
 - Only about 29% are facing down (vs. 35% above)



Source: “An Examination of UPC Location and Scanning Behavior”, Uniform Code Council

Cashier behavior, power slide techniques, and scan technology make bar codes scanning efficient

What Does It All Mean?

By talking to your customers about:

1. The Scanning Device
2. Cashier Behavior
3. Bar Codes



“Every second counts!”

The scanner can become less of a commodity item that simply beeps, and more of a powerful tool that can directly impact the retailer’s bottom line in a positive way

These areas help build the business case, and differentiate you from the competition

NCR Scanners Offer

- Know that you have the highest performing scanners
 - Show real productivity gains
- Create investment protection for your customers
 - Sensormatic or Checkpoint EAS
 - Easily upgrade to Scale
 - Future-proofing with Hybrid technology and ethernet
- Make servicing more profitable, faster, and easier
 - USB Programming and Diagnostics
 - Easily clone scanners without a laptop or pull diagnostic files
 - Get in and out faster



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Thank you

Please remember to take the brief session survey in the mobile app. Your feedback is very valuable to us!

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