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PDI Electronic Shelf Labels Design Guidelines

A companion guide for marketing and implementation teams

Effective electronic shelf label (ESL) design goes far beyond simple price display—it's a powerful tool for driving sales and influencing customer purchasing decisions.

These guidelines offer fundamental design principles to help you create clear, engaging ESL displays that not only inform but influence purchasing behavior. By maintaining consistent, well-designed tags across your store, you can create a professional shopping environment that builds trust and encourages increased spending through improved price perception and product comparison capabilities.

The details in this guide are based on 2.21-inch labels, but the principles apply to ESLs of all sizes.

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Standard Price Displays

Standard price labels require a precise balance of visual elements, with highly visible pricing, consistent spacing, and a clear information hierarchy that creates an instantly scannable shelf-edge experience. This baseline display framework presents essential information like prices, product details, and barcodes in a systematic way that supports faster decision-making while maintaining flexibility for different tag requirements across your store.

Layout Tips

- Maintain a clean, uncluttered display and avoid overcrowding information—providing adequate spacing between all information groups, especially around pricing.
- Create a consistent visual framework using stable alignment points and logical groupings that can accommodate varying content lengths without appearing cramped. Center-aligning price displays is a good baseline.
- Balance visual weight across the display to highlight key information while maintaining a flexible grid structure that supports different tag requirements.
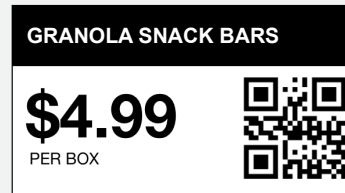
Standard Label Samples

GRANOLA SNACK BARS

$4.99
PER BOX
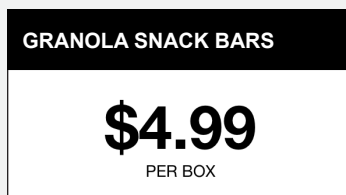
Baseline Display
Focus on a center-aligned price display.

GRANOLA SNACK BARS

$4.99
PER BOX

Barcode Display
Stack the barcode below the price. If some labels have barcodes and others do not, this keeps the tag layout consistent across the store.

GRANOLA SNACK BARS

$4.99
PER BOX

QR Code Display
Balance primary price information with a minimum QR code display of 0.8 × 0.8 inches to be readable by most smartphones.

Best-practice Tips

Prioritize price and product name as your essential details:
- Regular price uses the largest type size.
- Unit pricing is clearly visible but subordinate to the main price.
- Product name/identifier is easily scannable.

Ensure that optional information does not compete with essential details:
- Promotional dates (if applicable)
- Comparable unit pricing
- Product details (size, quantity)
- Barcode placement

Color Usage

While ESLs support a versatile palette of black, white, yellow, and red, establish a foundation of high-contrast black text on white backgrounds with a minimum 4.5:1 contrast ratio for standard pricing displays. Using these color values as a baseline ensures the highest contrast possible.

#FFFFFF

#000000

Typography

- Select sans-serif fonts for optimal digital display, limiting designs to a maximum of two font families that maintain clarity across all sizes and provide adequate contrast between weights.

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Promotional Price Displays

ESLs can maximize promotional impact by thoughtfully breaking from standard black-and-white displays, using yellow and red strategically to highlight sales while maintaining essential design principles.

While promotional tags should attract attention, they must adhere to core readability principles: use sans-serif fonts, maintain a minimum 4.5:1 contrast ratio, preserve the 20% margin rule for clear space, and ensure a consistent layout structure that helps shoppers quickly distinguish between the original and sale pricing.
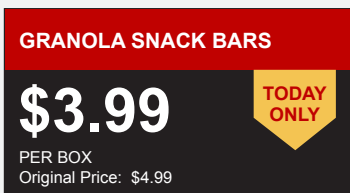
Promotional Displays

When communicating additional information about a price, use a left-to-right content flow (similar to banner ads on websites). The general placement of the product name and price should not differ too dramatically from standard price labels.

GRANOLA SNACK BARS

$3.99   SALE

PER BOX
Original Price: $4.99

3-Color Example

GRANOLA SNACK BARS

$3.99   20% Off

PER BOX
Original Price: $4.99

4-Color Example

GRANOLA SNACK BARS

**$3.99**   TODAY ONLY

PER BOX
Original Price: $4.99

4-Color Reversed-Out Example

Color Usage

Use color strategically. Employ yellow and red selectively for promotional tags to ensure sale prices and special offers naturally draw customer attention while maintaining a consistent color-coding system across your store network.

#FFFFFF

#000000

#F5C452

#BF0002
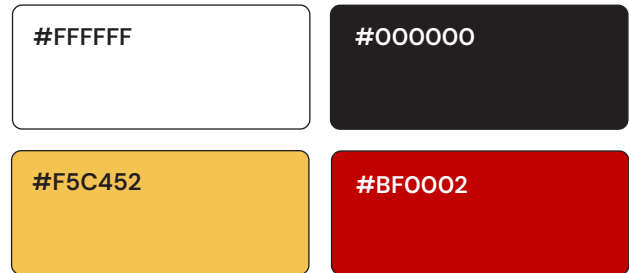
As mentioned earlier, always keep a clean, uncluttered display and avoid overcrowding information.
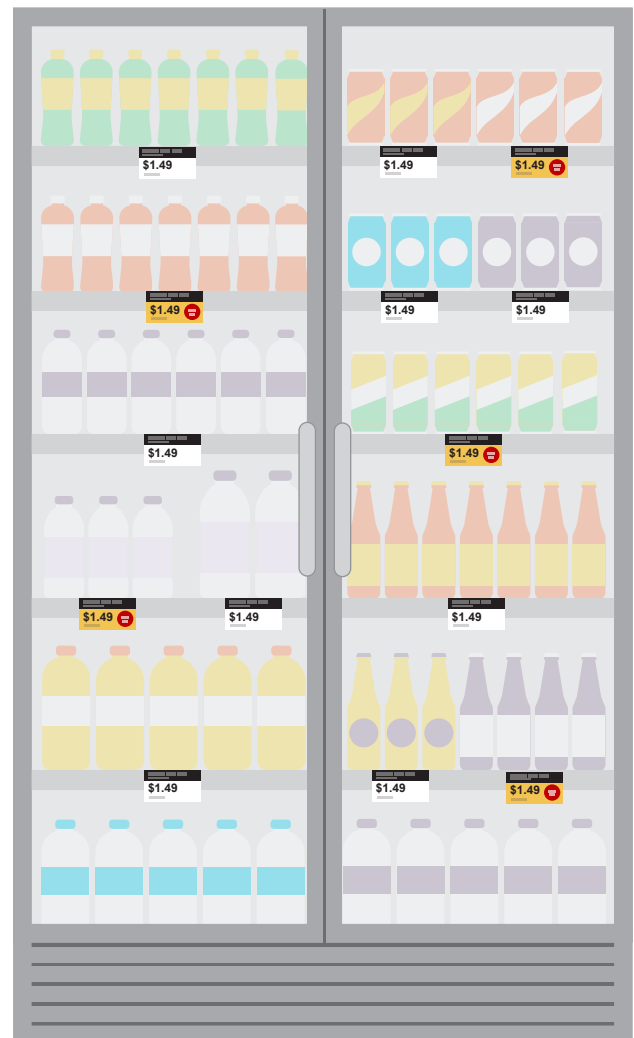
Information Density

DO

• Keep displays focused on essential pricing information, with the regular or sale price as the dominant element
• Group related information logically (e.g., unit pricing near the base price)
• Reserve space for required elements like 2D barcodes and regulatory information
• Create clear visual breaks between different types of information

DON'T

• Overcrowd displays with unnecessary product details that could be shared elsewhere
• Duplicate information unnecessarily (e.g., display the same price in multiple formats)
• Shrink essential information to accommodate optional content
• Sacrifice white space and readability to fit more details

Strawberry Jam
48 oz Jar
$3.99
Original Price $5.49
YOU SAVE! $1.50

❌ This information display is too dense for shoppers to quickly find the price. Additionally, the font choice and focus on the product name over the price makes it harder to read.

❯ **DON'T FORGET**

Readability and Accessibility

Accessibility in retail displays helps ensure that all shoppers, regardless of visual ability or shopping conditions, can easily read and understand pricing information—a critical aspect of creating an inclusive and effective shopping experience.

ESL accessibility relies on three fundamental design choices: high contrast ratios (minimum 4.5:1) with black text on white backgrounds, sans-serif fonts at sufficient sizes, and clear character spacing to eliminate confusion between similar numbers.

Avoid the temptation to compromise legibility through compressed spacing, decorative fonts, or aesthetic flourishes that prioritize style over clear communication.

Beyond basic readability, consider environmental factors: test displays under various lighting conditions, account for viewing angles from different heights, and ensure text remains legible at typical shopping distances.