

NARM/VSDA Operations Committee
Audio and Video Product
UCC-128 and Carton Barcoding Requirements
Updated as of August 12, 2003

The companies representing the NARM/VSDA (National Association of Recording Merchandisers/Video Software Dealers Association) Operations Committee strive for efficiency in processing music and video product through their distribution centers to their customers and retail stores in a timely and accurate manner.

All of the companies representing NARM and VSDA are utilizing ASN receiving and warehouse managements systems with scanning technology to receive and inventory product into their distribution centers.

Most RIAA and VSDA companies are creating ASN transaction sets (transaction set #820, x.12 - content detail of the shipment along with carrier and PO information) for every order shipped to a customer. Each order is barcoded at the carton or pallet level using a UCC-128 to identify the order and to tie it to the ASN transaction set. The ASN transaction set is EDI'd to the customer as soon as the order is invoiced and shipped and is received electronically by the customer prior to the physical delivery of the order. When the customer receives the order and scans the UCC-128, the barcode is matched with the ASN transaction set. Each carton is then scanned for identification, receiving and putaway. It is critical that UCC-128 and carton barcodes are readable and accurate since this is the foundation for accurate receiving, putaway, order filling and performing the 3-way match (PO/receipt/invoice). Additional benefits are more accurate on-order quantities and account payable processing.

Because NARM and VSDA member companies are highly dependent upon UCC-128 barcodes for each order and upon UPC-A/UCC-12 or EAN-13 barcodes on every carton, we have defined barcode requirements below:

UCC-128 Barcodes

- Every order must have a UCC-128 label (pallet or carton level) that is tied to an ASN transaction set. Detailed information about the UCC-128 symbol can be found in the *American National Standard/Application Standard for Shipping Container Codes* the *American National Standard/UCC4—UCC/EAN-128 Application Identifier Standard* and the *Guidelines for Supply Chain Identification* available from the Uniform Code Council, Inc.

Carton Barcodes

- Every carton must have a UPC-A/UCC-12 or EAN-13 barcode to identify the contents.
- The UPC-A/UCC-12 or EAN-13 barcode **MUST** match the barcode on the product and the PO sent by the customer.

Barcode Requirements

- UCC-128 barcodes to identify an order (pallet or carton level) must be UCC-128 symbology.
- Carton barcodes to identify the carton contents must be UPC-A/UCC-12 or EAN-13 symbology.
- All barcode must be a series of light and solid, black parallel bars. (No color barcodes nor barcodes generated by a dot matrix printer).
- Overall shape of the barcode is rectangular and reads in a ladder or picket fence orientation (no diagonal barcodes). Ladder orientation is preferred since this improves the read rate.
- Barcodes must be ASNI Grade C or better quality standards as described in ANSI X3.182. ANSI X3.182 has the following grade categories and EACH category must have a grade C or better for the barcode to successfully scan: edge, reflective minimum, symbol contrast, minimum edge contrast, modulation, defects, decode and decodability.
- The minimum x-dimension/minimum bar width of the barcode must be 10 mil or greater.
- The bar height of the barcode elements must not be shorter than 10 mm or .39”.

- The maximum deviation of the barcode orientation is +/- 15 degrees.
- The white space around the barcode is called the quiet zone. The quiet zone is necessary for the scanner know where to start and stop for reading an encoded value. A quiet zone around the entire barcode (top, bottom, left and right) needs to be a minimum 9 times the width of the narrowest line of the barcode. The quiet zone must be white.
- The barcode symbol must not be closer than 8 mm (0.3") or farther than 102 mm (4") from any edge of the package/container. Too close to the edge placement reduces the read rate.
- Barcodes must be free of any obstructions (i.e. permanent marker and highlighter marks over the barcode, other labels and stickers, etc.).

For more information on UCC/UPC/EAN symbology, please contact the Uniform Code Council at www.uc-council.org or (937) 435-3870.