

MSI's approval of the samples must not be construed to mean that there is an implied warranty on the quality and reliability of subsequent symbols produced by that printer. It is simply a method whereby the printer may determine at the outset whether the methods and materials he intends to employ are suitable for the purpose.

For quality assurance of his production runs, the printer should acquire or have easy access to an MSI Data Corporation data entry terminal equipped with a scanner unit.

### CHECK DIGIT CALCULATION

#### A. Modulus 10

The "MODULUS 10" check digit is calculated manually in the following steps:

1. Starting from units position, form a new number with all the odd position digits in original sequence.
2. Multiply the new number by 2.
3. Add all digits of the product obtained in step 2.
4. Add the digits in the original number not used in step 1 to the result of step 3.
5. The result of step 4 is subtracted from the next higher multiple of '10.' The remainder is the modulus 10 check digit.

#### EXAMPLE:

Original Number

987654

New number formed with  
odd position digits (step 1)

864  
x 2

Product of new number (step 2)

1728

Sum of product (step 3)

$$1 + 7 + 2 + 8 = 18$$

Sum of all (step 4)

$$9 + 7 + 5 + 18 = 39$$

Modulus 10 check digit

$$40 - 39 = 1$$

This check digit is placed at the end of the user number for barcode only. The completed barcode number will be "9876541."

Right to Left

Double add Double  
"BCD-MOD10"