



Multi-purpose Bar Code Workstation

(Catalog No. 2755-DH1)

Product Data

Overview

The Catalog Number 2755-DH1 Multi-purpose Bar Code Workstation is a dedicated bar code decoder that supports one of many Allen-Bradley attended scanning devices. These devices include hand-held laser scanners (guns), wands and slot scanners. In addition, you can use a stop-n-scan scanner Catalog No. 2755-LD1 & LD2) for unattended scanning.

The decoder is ready to use *right out of the box*. The default configuration will support many applications. You can customize its operation by sending it escape sequences from the host, or by scanning the configuration bar code symbols supplied in the User Manual.

The decoder's *Host Computer port* is used by the:

- decoder to send decoded bar code data to the host for processing
- host computer to display the configuration screen
- host computer to send messages to Display Terminal
- host computer to download commands (escape sequences) to the decoder

A *Display Terminal port* is also supplied to:

- view decoded information
- view the decoder's configuration
- enter supplemental information
- enter bar code data to the host in case a symbol cannot be read by your system

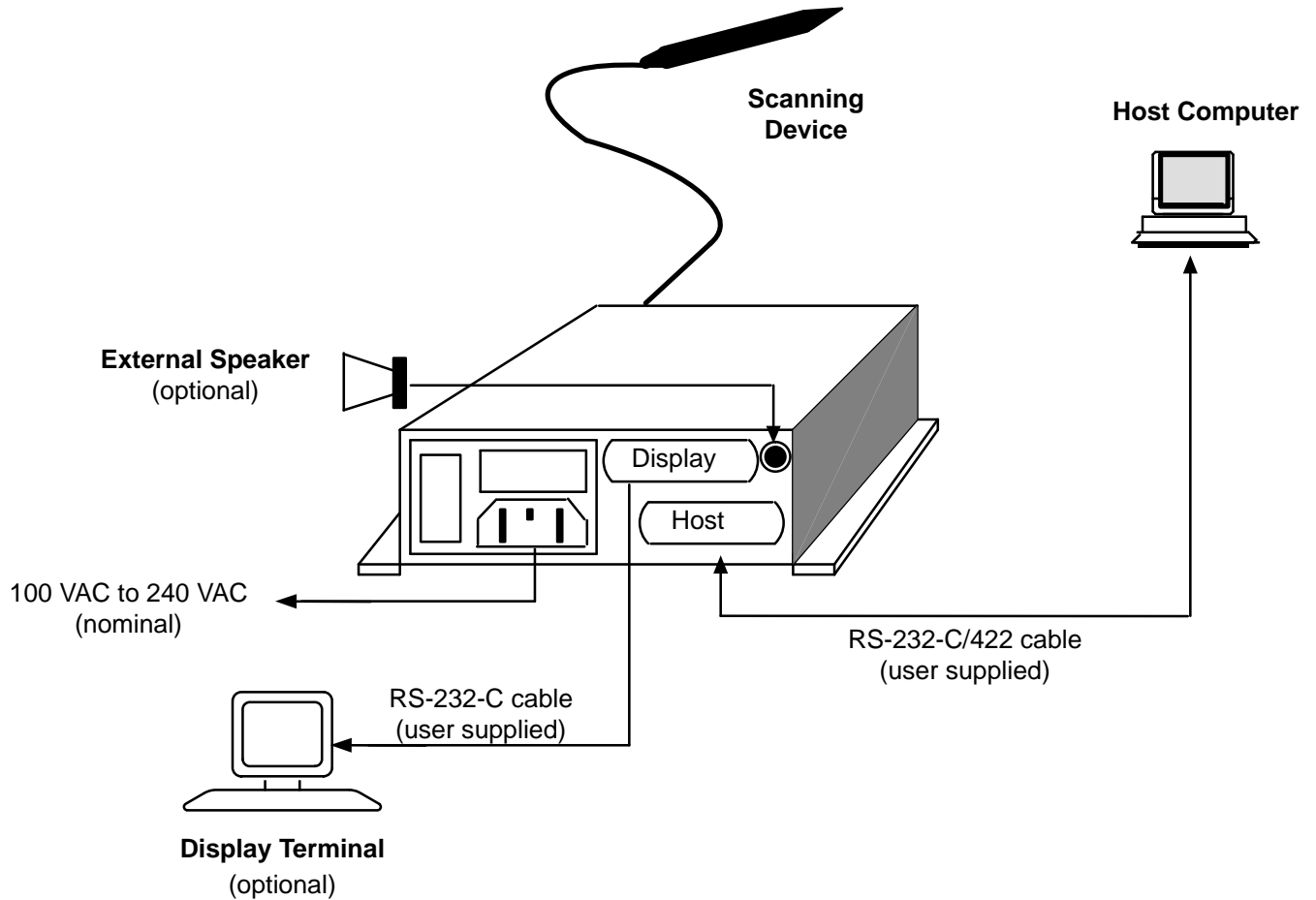
Features

The features of the decoder are as follows:

- integral power supply used to power the decoder and scanning device. It accepts input voltages from 100 to 240 Volts AC
- autodiscrimination of the following symbologies:
 - ▶ Code 39
 - ▶ Interleaved 2 of 5
 - ▶ UPC and UPC with supplemental digits
 - ▶ EAN and EAN with supplemental digits
 - ▶ Codabar
 - ▶ Code 128
 - ▶ Code 11
- programmable by bar code symbols or escape sequences
- nonvolatile memory (EEPROM) used for storing configuration parameters
- full duplex RS-232-C or RS-422 port for communication with a host computer
- separate RS-232-C port for communication to a display terminal
- LED indicators to monitor system status and assist in programming
- built-in speaker with variable volume
- external speaker jack
- automatic laser scan shutoff
- detachable IEC 320 power cable
- compatibility with a variety of scanning devices including hand-held laser scanners, wands and unattended scanners
- NEMA 1 steel enclosure
- designed to meet UL and CSA standards
- label on bottom provides a quick reference guide to connector pinouts

Typical Setup

Illustrated below is an example of the decoder's connectivity.



Applications

The decoder can be used for the manual (attended) scanning of data into RS-232-C or RS-422 host devices. Host devices include display terminals and IBM compatible computers.

Typical attended applications include:

- distribution
- receiving
- production control
- kitting
- tracking
- records management

Typical unattended applications include:

- sorting
- product verification
- automated storage and retrieval

Changing the Default Configuration

The decoder's configuration may be changed by either sending an escape sequence from the host computer to the decoder or by scanning a series of configuration bar code symbols.

Escape Sequences

Commands are sent to the decoder as groups of characters beginning with the ASCII escape character **Esc**. These characters are referred to as escape sequences. Each escape sequence has the following format:

Esc – y <n> <alpha> <optional>

where:

Esc is the ASCII escape character (hexadecimal 18 or decimal 27).

– is an ASCII '-' character (hexadecimal 2D or decimal 45).

y is a lower case ASCII 'y' character (hexadecimal 79 or decimal 121).

< n > is a decimal number, one or two ASCII digits.

< alpha > is an ASCII letter of the alphabet, usually upper case. The exception is when using it in a string, known as a concatenated sequence.

< optional > is supplemental character data, or optional data used for concatenating, or stringing, several escape sequences together.

Some escape sequences control more than one function, depending on the value you substitute for < n >.

For example, the escape sequence Esc – y <n> Z will either reset the decoder, or store the current configuration in EEPROM.

Esc – y 1Z resets the decoder

Esc – y 5Z stores the current configuration in EEPROM

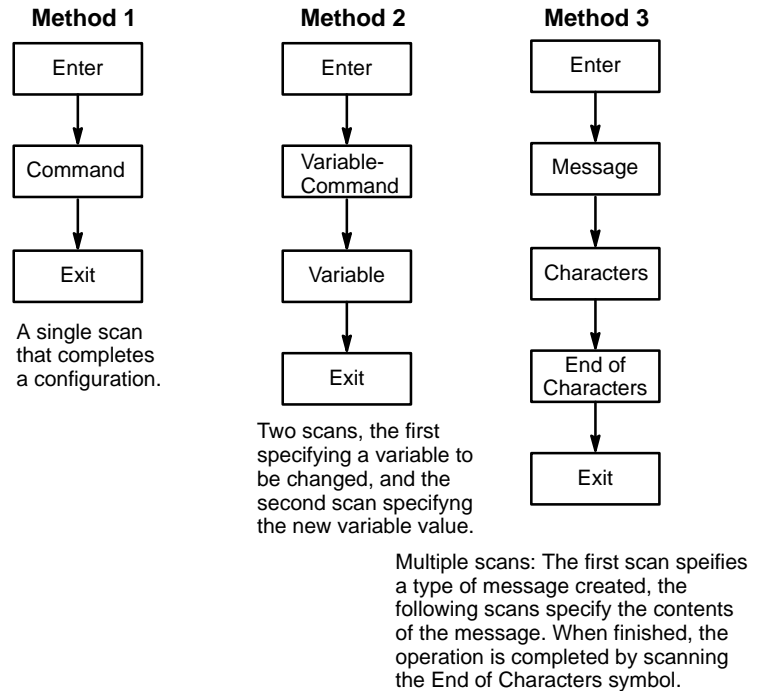
Escape sequences may be sent independently, or concatenated and sent as one long string of commands from the host. These commands may also be kept in batch commands for later execution.

The concatenated escape sequence Esc – y 5f 9g 1X changes the configuration to the following:

- selected codes UPC and Code 39 (5f)
- Code 39 check characters are verified and transmitted (9g)
- XON/XOFF pacing is enabled (1X)

Configuration Bar Code Symbols

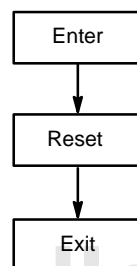
When using the configuration bar code symbols, there are three methods of configuration:



In the following example, we will reset the decoder by scanning the following three configuration bar code symbols:

- Enter Configuration Mode
- Reset
- Exit Configuration Mode

Although we are not showing the actual bar code symbols, the flow chart shown below represents the order in which to scan the symbols. In some cases, there is more than one flow chart illustrating the different ways to implement a command.



Flow charts like this one appear in the User Manual next to each configuration bar code symbol. These flow charts show the order in which you should scan the symbols.

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Specifications

Electrical

Input Line Voltage:	90-264 VAC, 50/60 Hz
Operating Current	0.5 Amp maximum
Power Consumption	40VA maximum
External Speaker Impedance	4-32 Ohms

Mechanical

Enclosure	NEMA 1 steel enclosure
LED Indicators	<ul style="list-style-type: none">• Power• Laser On• Valid Read• Transmitted data• Received data• Laser scanner mode
Weight	4 lbs. 4 oz. (2.0 kg).
Physical Dimensions	8"L x 8"W x 2-1/4"H (20.3 x 20.3 x 5.7 cm).

Environmental

Operating Temperature	0° to 40°C (32° to 104°F)
Storage Temp.	-40° to 85°C (-40° to 185°F)
Relative Humidity	95%, noncondensing.
Vibration	2.5 Gs, 0 – 2000 Hx, 3 axis, operating or 5Gs nonoperating
Shock	30 Gs, maximum, operating 50 Gs nonoperating
Regulation Compliance	Designed to meet UL and CSA requirements

Decoding Capabilities

Autodiscriminating Code Types	Yes <ul style="list-style-type: none">• Code 39• Extended Code 39 (full ASCII)• Interleaved (2 of 5)• Codabar• UPC-A, UPC-E, EAN-13, EAN-8 (with 2- and 5- character supplements)• Code 128• Code 11
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Communications

Stop bits
Data bits
Parity

1 or 2

7

- 0's (space)
- 1's (mark)
- even
- odd
- 600
- 1200
- 2400
- 4800
- 9600
- 19.2K

Baud Rate

Electrical Standard

Host Computer Port
Display Terminal Port

- RS-232-C or RS-422
- RS-232-C

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