



Downloading Match Codes from Attended Workstation to Enhanced Decoder

Application Note

Overview

This application note describes how to use an Attended Workstation (Catalog No. 2708-DH5) to modify the match code table in a Series B Enhanced Bar Code Decoder (Catalog No. 2755-DS/DD). It describes how to enter match code data without using decoder configuration screens on a computer or terminal with VT100 emulation.

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Intended Audience

You should understand the operation of the following devices, how they are configured and the application environment.

- Series B Enhanced Decoder (Catalog No. 2755-DS/DD)
- Attended Workstation (Catalog No. 2708-DH5)

The following publications are available for reference.

Publication Number	Publication Title
2755-833	Series B Enhanced Decoder User Manual
2708-ND001	Bulletin 2708 Attended Workstation User Manual
2708-NAG	Bulletin 2708 Application Generator Software User Manual
2708-NNM	Bulletin 2708 Network Manager Software User Manual

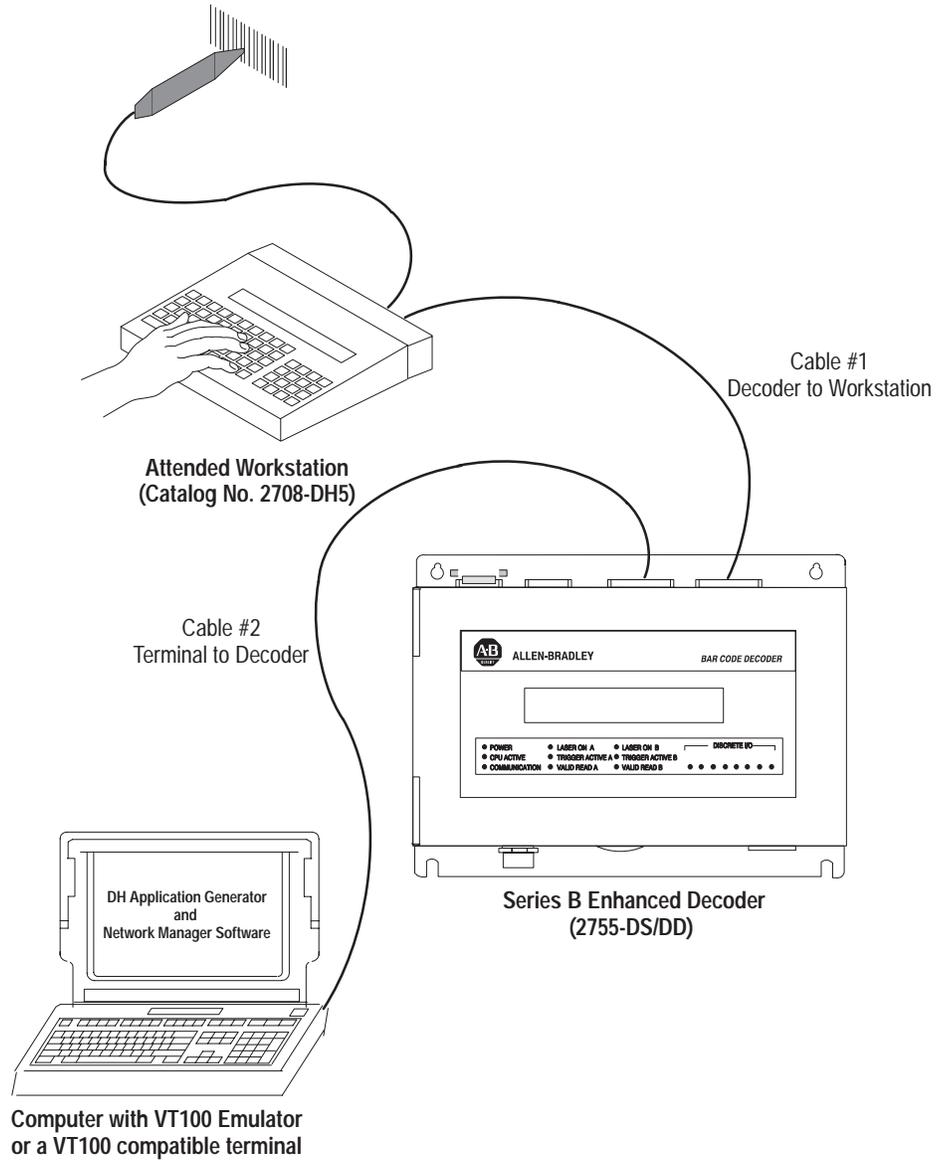
What You Need

The system configuration requires the following items:

- Attended Workstation (Catalog No. 2708-DH5)
- Series B Enhanced Decoder (Catalog No. 2755-DS/DD)
- DH5 Application Generator Software (Catalog No. 2708-NAG)
- DH5 Network Manager Software (Catalog No. 2708-NNM)
- Communication Cables
- Computer with VT100 emulator or a VT100 compatible terminal

Typical System Configuration

The diagram below shows the system configuration for a typical application. The pin connections for the cables are shown on the next page.

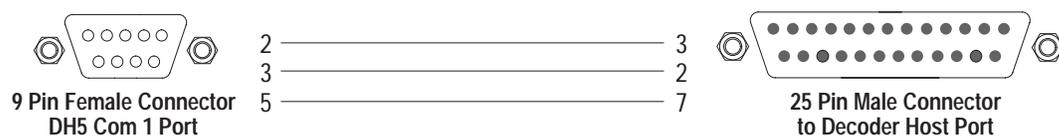


Communication Cables

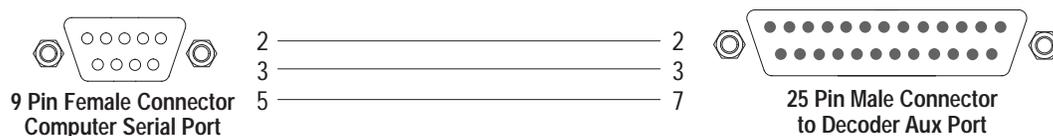
You must create two communications cables.

- Cable #1 connects the Com 1 port of the Attended Workstation to the Host port of the Decoder.
- Cable #2 connects the computer or terminal to the AUX port of the Decoder.

Cable #1 Connection Diagram
 Decoder to Attended Workstation



Cable #2 Connection Diagram
 Dumb Terminal to Decoder



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Configuring the Attended Workstation

This section describes the configuration that is required on the Attended Workstation to download the BASIC program to the Workstation. A sample BASIC program is provided at the end of this document.

Set the following parameters on the Attended Workstation.

Attended Workstation	
Parameter	Setting
Type Terminal	Master
Terminal Number	1
Comm. Port Mode	Polled
CRLF	Disabled
Echo	Disabled
Handshake	Disabled

After downloading the BASIC program, you must change the setting for the following parameter.

Comm. Port Mode	XON/XOFF
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Configuring the Enhanced Decoder

The host communication parameters of the Series B Enhanced Decoder (baud rate, parity, stop bits) must match the settings of the Attended Workstation.

The host communication parameters are available by selecting option 7 on the Decoder Configuration menu.

```
-----HOST COMMUNICATIONS-----
BAUD RATE*: 500
BITS/CHAR*: 7 Data 1 Stop
PARITY*: Even
HOST PROTOCOL*: RS232
DEVICE ADDRESS*: 1
ACK CHAR*: None 255
NAR CHAR*: None 255

*Save and Restart required for these parameters to take effect.

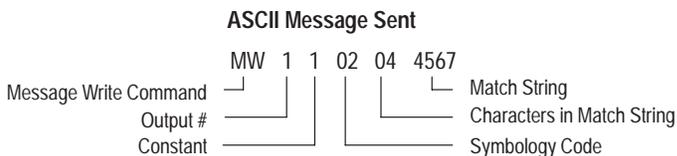
          SCANNER A   SCANNER B
START SCAN CHAR: None 255 None 255
STOP SCAN CHAR: None 255 None 255

LARGE BUFFER: No
SEND HOST MESSAGE: At End of Trigger
TRANSMISSION CHECK: None

-----
Commands:ESC   Change:SPACE   Cursor Control:ARROWS
-----
```

Sample Application Program

This section contains a BASIC program which allows you to download a set of match codes to the enhanced decoder. The match codes are entered at the keyboard. You can modify the program to meet the requirements of a specific application. Below is an example of a downloaded match code.



For more details, see the User Manual for the Enhanced Decoder.

The BASIC program is created with the DH5 Application Generator Software (Cat. No. 2708-NAG) and downloaded to the Attended Workstation using the DH5 Network Manager Software (Cat. No. 2708-NNM).

The following table documents the BASIC program.

Program Line	Description
Line 6	Transfers the ASCII characters MW to the variable OWN.
Line 7	Transfers the number 1 to the variable CONSTANT.
Line 8	Fills variable ZEROSMYCODE with 0.
Line 9	Fills variable ZEROCHAR with 0.
Line 10	Prompts operator to enter an output number.
Line 11	Reads keyboard input and moves the input to variable ZEROOUTNUM.
Line 13	Prompts operator to enter a symbology code.
Line 14	Reads keyboard input and moves the input to variable SYMCODE.
Line 15	Appends contents of SYMCODE to the contents of the variable ZEROSMYCODE (formatted with a leading zero).
Line 17	Prompts operator to enter the number of characters in the symbol.
Line 18	Reads keyboard input and moves the input to the variable CHAR.
Line 19	Appends contents of CHAR to the contents of the variable ZEROCHAR (formatted with a leading zero).
Line 21	Prompts operator to enter the match string.
Line 22	Reads keyboard input and moves the input to the variable MATCH.
Line 23	Appends contents of ZEROOUTNUM to the contents of the variable OWN.
Line 24	Appends contents of CONSTANT to the contents of OWN.
Line 25	Appends contents of ZEROSMYCODE to the contents of OWN.
Line 26	Appends contents of ZEROCHAR to the contents of OWN.
Line 27	Appends contents of MATCH to the contents of OWN.
Line 28	Sends contents of the variable OWN to the decoder.
Line 29	Pauses for 1/2 second.
Line 30	Reads host port for confirmation.
Line 31	Clears the screen.
Line 32	Displays status of transmission at variable IN.
Line 33	Pauses for 2 seconds.
Line 37	Returns to beginning of program.

Program Listing

```
<Start of Program>
1 CLEAR SCREEN
2     DISPLAY 6 29 from "ALLEN BRADLEY BAR CODE SYSTEMS           HIT A
3     DISPLAY 43 35 from "ENHANCED DECODER MATCHCODE DOWNLOAD"
4     READ KBD TO TEMP 0 0
5 CLEAR SCREEN
6     TRANSFER to OWN 1 2 from "MW"
7     TRANSFER to CONSTANT 1 1 from 1
8     TRANSFER to ZEROSMYCODE 1 1 from 0
9     TRANSFER TO ZEROCHAR 1 1 from 0
10    DISPLAY 6 31 from "ENTER OUTPUT NUMBER TO ACTIVATE"
11    READ KBD to ZEROOUTNUM 58 1 Numeric
12 CLEAR SCREEN
13    DISPLAY 11 20 from "ENTER SYMBOLOGY CODE"
14    READ KBD to SYMCODE 59 1 NUMERIC
15    APPEND SYMCODE to ZEROSMYCODE
16 CLEAR SCREEN
17    DISPLAY 3 36 from "ENTER NUMBER OF CHARACTERS IN SYMBOL"
18    READ KBD to CHAR 58 2 Numeric
19    APPEND CHAR to ZEROCHAR
20 CLEAR SCREEN
21    DISPLAY 8 24 from "ENTER STRING TO MATCH..."
22    READ KBD to MATCH 42 32
23    APPEND ZEROOUTNUM to OWN
24    APPEND CONSTANT to OWN
25    APPEND ZEROSMYCODE to OWN
26    APPEND ZEROCHAR to OWN
27    APPEND MATCH to OWN
28    SEND OWN to HOST computer
29    PAUSE .5
30    READ HOST to IN on TIMEOUT 500 GOTO 30
31 CLEAR SCREEN
32    DISPLAY 1 4 from IN
33    PAUSE 2
34 CLEAR SCREEN
35    MOVE 0 to ZEROSYCODE
36    MOVE 0 to ZEROCHAR
37    GOTTO 1
<End of Program>
```

Use ESC to EXIT, ENTER to EDIT, SPACE for MENU

Note: Line 32 displays a status number to verify correct transmission. A status of "=00" means the decoder recognized the command sent. For more details, see page 15-7 in the Enhanced Decoder's User Manual.



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