Universal Keyboard Wedge Programming Guide

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Introduction

Manual Overview

This manual contains programmable features and information for the **Universal Keyboard Wedge interface ONLY**.

NOTE

The Universal Keyboard Wedge interface offers a larger, more enhanced feature set than the standard Keyboard Wedge interface covered by the other programming manuals for your scanner. Make sure that you select the correct interface type (standard Keyboard Wedge or Universal Keyboard Wedge) that offers the options you require for your installation, and that you have the correct manual(s) that will allow you to program all the desired features.

Manual Overview - continued

You will need to reference the programming guide that is specific to your scanner model in order to access and modify features other than those specific to the Universal Wedge interface. See the topic, *Programming Manual References*, later in this section for important information on other manuals you may need to use.

As previously stated, this manual contains programming and feature information for scanners equipped with PSC® Universal Keyboard Wedge interface capabilities. At the time of this writing, scanner models that offer this interface are:

QuickScan®VS800	HS1250
VS1000	VS1200
SP400	PowerScan®
QuickScan® QS1000	QuickScan® Duet®
QuickScan® QS6000/QS6000 Plus	

Manual Overview - continued

Other scanners could also have the ability to use these features. Call your PSC dealer to verify if your scanner can take advantage of Universal Wedge features.

Manual Contents

These sections are included in this manual:

- **Introduction** - If you've never programmed a scanner before, you'll want to familiarize yourself with the basics included in this section.
- **Communication Modes** - This section includes information about physical connections and cabling, using Cloning Mode to duplicate programming configuration between scanners, and also how to use a PC to down/upload software to a scanner.

Manual Contents - continued

- **Editing Mode** - The Universal Keyboard Wedge interface also supports the scanner's ability to edit bar code label data before sending it to the host terminal. This feature allows the flexibility of character matching, defining fields, the addition of preambles/postambles, and more.
- **Wedge Programming** - This section contains programming specific to keyboard wedge features, such as return to factory defaults, selecting the specific keyboard type, "end of message" characters, numeric characters, time out between characters, and WYSE time out.
- **RS-232 Interface Configuration** - The RS-232 interface features provided in this section are an enhanced set that are only available for scanners equipped with the Universal Keyboard Wedge interface. These features include options for baud rate, parity, stop bits, "end of message" characters,

Manual Contents - continued

intercharacter delay, ACK/NAK protocol, Xon/Xoff protocol, double RS-232 mode, and RS-232 in/out mode.

- **Wand Emulation I/F Configuration** - Like the RS-232 interface, the Wand Emulation interface features contained in this manual are a special programming set offering different options than the standard PSC Wand Emulation feature set.
- **Symbologies** - This section allows you to select and customize settings from among several bar code symbologies that are in common use today.
- **Appendices** - The appendices to this manual contain general feature settings that are common to all interfaces, such as beeper, preamble/postamble, locking access to programming, displaying the firmware level, etc. The appendices also provide handy numeric keypads, character tables, as well as the full ASCII table.

How to Use this Manual

Each programmable feature listed in this manual is presented with a brief description of how the feature works, its selectable options, and the programming bar codes needed to select and set it.

IMPORTANT

Universal Keyboard Wedge interface programming requires the scanner to read Code 39 (C39) symbology bar codes. If your scanner was previously configured with C39 disabled, you will need to re-enable it before proceeding. See *Appendix F, Enabling Code 39*.

NOTE

In order to produce this manual at a reasonable size, many pages contain two bar codes. You will need to completely cover any bar codes you do not intend to scan (with your hand or a piece of paper) to prevent accidental mis-programming.

Features Supported

Additionally, since not all features are available for all scanners, you'll need to reference each description to determine if your scanner model supports that particular feature. The following icons are used to indicate when your scanner supports a feature. A diagonal line through the icon signifies that the feature is not available for that model.

VS800™

VS1000™

VS1200™

HS1250™

QuickScan™ 1000

QuickScan™ 6000

PowerScan™

Duet™

SP400™ Worldwide Wedge

ALL

SP400™ RF

EXAMPLE: PowerScan™ NOT supported

How to Program Your Scanner

To program your scanner using this manual, follow these guidelines:

1. Entering Programming Mode is done by scanning the START bar code located on the inside back cover of this manual.

NOTE

The scanner indicates when it is in Programming Mode by continuously flashing its green LED indicator lamp.

The scanner must be in Programming Mode in order to modify any programmable features.

How to Program Your Scanner - continued

2. Select the desired interface. This manual offers only two selections for this:
   a) The Universal Keyboard Wedge interface (see the *Universal Keyboard Wedge Interface Configuration* section).
   b) The RS-232 interface (see the *RS-232 Interface Configuration* section).
3. Scan the bar codes from the appropriate section (*Universal Keyboard Wedge Interface Configuration* or *RS-232 Interface Configuration*) to select options and modify features for the selected interface type.

   NOTE

   If the scanner's beeper is enabled, it will emit a "good read" beep as each bar code is read successfully.

4. After all desired programming parameters have been set, you must end the session by scanning the END bar code located on the inside back cover of this manual.

How to Program Your Scanner - continued

NOTE

Upon scanning the END bar code, the scanner's green LED will then cease its continuous flashing, indicating it is no longer in Programming Mode. The scanner is now ready for normal operation.

5. If you will require the scanner to perform label editing, turn to the *Editing Mode* section and carefully follow the instructions to program this function.

If You Make a Mistake...

If, during a programming session, you find that you are unsure of the scanner's Universal Keyboard Wedge settings or wish to re-set this configuration, use the Return to Factory Settings bar code on the next page to return all Universal Wedge parameters to their factory settings. Scanning this bar code will also reset any Universal Wedge changes made during previous programming sessions.

NOTE

When your scanner is first connected to a keyboard wedge host, the factory default setting (unless your scanner was custom configured) is communication with a U.S. PC/AT keyboard.

CAUTION

Use the FACTORY DEFAULTS bar code with caution, since it will disable/reset ALL Universal Wedge features that may have been programmed since the scanner's installation.

Return to Factory Settings

Use the bar code below to return the scanner to the default settings configured at the factory for your scanner's original Universal Keyboard Wedge specifications. Other scanner programming (such as symbology selection and beeper settings) will not be affected.

This bar code is typically used to return the scanner to a "known good" operating state when the present programming status is not known, faulty, or suspect.

To reset Universal Wedge factory defaults, scan the bar code below.

ALL

FACTORY DEFAULTS, UNIVERSAL WEDGE

Programming Manual References

In order to properly configure all scanner programming features for your particular application, you may need to use other additional programming manuals available from PSC®. Here are manuals that are currently available:

R44-1020	SP400™ Programming Guide
R44-2039	Keyboard Wedge Connectivity Guide
R44-1140	SP*ACE™ and VS1000™ Prog. Guide
R44-1340	VS1200™/HS1250™ Programming Guide
R44-1540	QuickScan™ 6000/6000 Plus Programming Guide
R44-1740	Duet™ Programming Guide
R44-1840	PowerScan™ Programming Guide
R44-2018	QuickScan™ 1000 Programming Guide

Call your PSC dealer to inquire about other programming manuals that are available, or you can find copies of programming manuals and more information on the internet at **www.pscnet.com**.

Communication Modes

The Universal Keyboard Wedge interface offers several alternate modes to allow flexibility in communication between the scanner, its host, and even with other scanners.

These modes are:

- Keyboard Wedge Mode -- is the standard operational/communication mode.
- Cloning Mode -- allows duplication of configuration between a source scanner and a target scanner.
- PC Down/Upload Mode -- permits downloading of parameter values from a PC to a scanner. Additionally, it enables a scanner's configuration information to be displayed and saved on a PC. Finally, it allows testing of the scanner's RS-232 transmissions to the PC.
- Editing Mode -- provides a sophisticated capability to edit input data before its transmission to the host terminal. See the following section for more information.

Keyboard Wedge Mode

In this mode, the scanner is connected between the keyboard and the computer/host terminal (thus the term "wedge"). Scanned bar code data is processed by the scanner and emulated by the system as if it had been typed on the keyboard.

Communication 'Y' Cable

A special 'Y' cable is used to connect the scanner between the keyboard and the computer/host terminal. If you need a cable, contact your dealer for information about cables and their availability.

'Y' Cable Installation

1. Turn off power to your computer or host terminal.
2. Unplug the keyboard cable from the computer/host terminal, and plug it into the female connector of the 'Y' cable. (See Figure 1.)

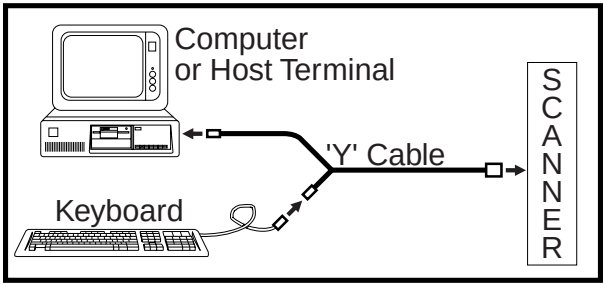


Figure 1. Connecting the 'Y' Cable

3. Plug the male keyboard connection end of the 'Y' cable into the keyboard input port of the computer/host terminal.
4. Plug the remaining end of the cable into the scanner.
5. Power on the computer/host terminal.
6. Power on the scanner. A power-up beep or a sequence of beeps (depending upon the scanner type) will be emitted.

Cloning Mode

When a quantity of scanners must all be programmed with identical parameter settings, Cloning Mode permits quick and easy duplication of those settings from a pre-programmed *source* scanner to a *target* scanner.

To use Cloning Mode, follow these instructions:

1. Program a *source* scanner with all the settings necessary to allow full functionality with your system. Test this *source* scanner carefully to ensure that all parameters are correctly set.
2. Connect the *source* scanner to a *target* scanner using an approved cloning cable for your scanner type. If you need more information or need to obtain cables, contact your dealer.
3. Connect the *source* scanner and the *target* scanner to power.
4. Power-on both scanners.

Cloning Mode - continued

5. Scan this bar code with the *source* scanner:

ALL

TRANSMIT CONFIGURATION

6. Scan this bar code with the *target* scanner:

ALL

RECEIVE CONFIGURATION

Cloning Mode - continued

7. Power-off the *target* scanner, and connect the next *target* scanner. Repeat steps 2 through 6.

NOTE

When cloning multiple scanners, it is not necessary to read the TRANSMIT CONFIGURATION bar code (step 5) each time a different *target* scanner is connected. Simply scan the RECEIVE CONFIGURATION bar code in step 6 as each target scanner is connected for cloning.

To exit Cloning Mode, power the *source* scanner off, then on.

PC Down/UpLoad Mode

NOTE

This feature applies to VS/HS and SP400WW scanners ONLY.

This software is available from your dealer on a 3.5" disk (DOS compatible). It permits the functions listed below once the software is properly installed on the hard disk of a PC containing a COM 1 or COM 2 RS-232 port.

PC Down/UpLoad Mode functions are:

- **Download** – Download and set all parameter values.
- **Upload** – Display all parameter values contained in a scanner.
- **Test** – Test the RS-232 transmissions from a scanner to a PC. (This feature will not function unless the Universal Wedge RS-232 interface is enabled.)
- **Save** – Save (on a PC) a complete configuration of a scanner's parameter values.

PC Down/UpLoad Mode - continued

PC Down/UpLoad Mode can also be a very useful tool to quickly program a quantity of scanners with the same configuration. This process takes only a few seconds per scanner.

To install and use Down/UpLoad Mode:

1. Connect an approved AC adapter to the scanner.
2. Connect the scanner to COM 1 or COM 2 of your PC using PSC cable, P/N: 6015-0486.
3. Power-on on your PC and the scanner.
4. Copy the Down/UpLoad software from the floppy disk to your PC hard disk.
5. Use the mouse or keyboard to select the function desired and follow the instructions appearing on the screen.

PC Down/UpLoad Mode - continued

6. Read the following bar code to start the transfer between the PC and the scanner.

ALL

DOWN/UPLOAD DIALOG RELEASE

NOTE

When the transfer is completed, the scanner will return to its normal operational mode.

Universal Keyboard Wedge Interface Configuration

This section provides instructions and bar codes for programming Universal Keyboard Wedge parameters.

Programmable options included in this section are:

- Terminal/Keyboard Interface Selection
- End of Message Characters
- Upper/Lower Case Options
- Types of Numeric Characters
- Intercharacter Delay
- WYSE Timeout

Programming
Universal Keyboard Wedge Options

For assistance with scanner programming, follow the instuctions given in Section 1 under the topic, *How to Program Your Scanner*.

If you make a mistake while programming the scanner, reference the topics, "*If You Make a Mistake...*", and "*Return to Factory Settings*" in the introductory section of this manual.

CAUTION

Use the FACTORY DEFAULTS bar code with caution, since it will disable/reset ALL Universal Wedge features that may have been programmed since the scanner's installation.

Activating the Universal Keyboard Wedge Interface

To activate the Universal Keyboard Wedge Interface, follow these instructions:

1. Scan the START bar code located on the inside back cover of this manual.

2. Determine the I.D. of the terminal/keyboard. This information is available in the Universal Keyboard Wedge Connectivity Guide (R44-2039), or refer to the second page following this one for a listing of the most common keyboard I.D.s.

3. Scan the ACTIVATE UNIVERSAL KEYBOARD WEDGE INTERFACE bar code on the following page.

Activating the Universal KBW I/F - cont.

4. Using the "number pad" on the following pages, scan in the digits for the keyboard I.D. number you determined in step 2.

5. Scan the END bar code on the inside back cover of this manual.

ALL

ACTIVATE
UNIVERSAL KEYBOARD WEDGE INTERFACE

Terminal/Keyboard Settings

The list below contains the most common terminal/keyboard types. If your specific system is not listed below, consult the Keyboard Wedge Connectivity Guide (P/N R44-2039) for a detailed listing of terminal/keyboard types. A copy of the guide can be obtained from the internet at **www.pscnet.com**, or call your dealer for customer support information.

NOTE

The factory default communication mode setting is I.D. type 11, (PC AT, PS2).

Terminal	Keyboard I.D.
PC XT	10
PC AT, PS2	11
MAC	25

Terminal/Keyboard Number Pad

Enter the keyboard I.D. number corresponding to your computer or terminal by scanning the bar codes from this number pad.

ALL

1

ALL

2

Terminal/Keyboard Number Pad - cont.

ALL

3

ALL

4

Terminal/Keyboard Number Pad - cont.

ALL

5

ALL

6

Terminal/Keyboard Number Pad - cont.

ALL

7

ALL

8

Terminal/Keyboard Number Pad - cont.

ALL

9

ALL

0

End of Message Characters

You may select one of the END OF MESSAGE CHARACTERS bar codes from the following pages to cause the scanner to emulate the selected characters at the end of each transmitted message.

ALL

END OF MESSAGE CHARACTERS = RETURN

NOTE

The factory default setting for this option is RETURN.

End of Message Characters - continued

ALL

END OF MESSAGE CHARACTERS = ENTER

ALL

END OF MESSAGE CHARACTERS = CR/LF

End of Message Characters - continued

ALL

END OF MESSAGE CHARACTERS
= FIELD ADVANCE

ALL

END OF MESSAGE CHARACTERS
= FIELD EXIT

End of Message Characters - continued

ALL

END OF MESSAGE CHARACTERS = TAB+

ALL

END OF MESSAGE CHARACTERS = LF

End of Message Characters - continued

ALL

END OF MESSAGE CHARACTERS
= NO CHARACTER

Upper/Lower Case Options

Scan one of the two selections below to select whether characters are sent as upper or lower case.

ALL

UPPER CASE/CAPS – ENABLE

NOTE

The factory default setting for this option is UPPER CASE/CAPS.

ALL

LOWER CASE/SMALL – ENABLE

Types of Numeric Characters

This function allows the scanner to emulate either the numeric characters located on top of the keyboard or those located on the numeric pad.

Use this function if trouble occurs with upper/ lower case keyboard modes.

ALL

NUMERICS LOCATED OVER THE ALPHANUMERIC PAD

NOTE

This setting is enabled by default.

Types of Numeric Characters - continued

This function allows the scanner to emulate the numeric characters located on the numeric pad.

ALL

NUMERIC PAD

NOTE

If the option “NUMERIC PAD” is chosen, the numeric pad of the keyboard must be also turned on (locked) for correct operation (engage "Num Lock").

Intercharacter Delay

Scan the bar code from this and the following pages to select the desired pause (if any) between each character before it is sent to the host. This time delay is used to control the flow of data from the scanner, but it should not be required for most applications.

ALL

INTERCHARACTER DELAY = 0 ms

ALL

INTERCHARACTER DELAY = 5 ms

Intercharacter Delay - continued

ALL

INTERCHARACTER DELAY = 10 ms

ALL

INTERCHARACTER DELAY = 20 ms

Intercharacter Delay - continued

ALL

INTERCHARACTER DELAY = 50 ms

ALL

INTERCHARACTER DELAY = 100 ms

WYSE Timeout

To enable the WYSE timeout, follow these instructions:

1. Scan this ACCESS WYSE TIMEOUT bar code.

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

ACCESS WYSE TIMEOUT

2. Scan the digit bar codes from the Numeric Pad in Appendix B to enter the desired timeout value.

IMPORTANT

To use the Numeric Pad, your scanner must be programmed to read single-digit Code 39 bar codes. Follow the instructions at the beginning of Appendix B to program this function.

WYSE Timeout - continued

3. Scan this VALIDATION bar code.

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

VALIDATION

Editing Mode

Editing Mode has been designed to offer you complete flexibility to change the format of the data input message before transmission to the host system. Data will be edited when the input data meets certain criteria defined by the user (MATCH CONDITION).

Description of Features:

- UP TO FOUR DATA OUTPUT FORMATS can be programmed by the user and activated by different match conditions.
- MATCH CONDITIONS: up to four criteria can be accumulated:
  — fixed number of characters found.
  — pre-defined characters found (up to 3).

- EIGHT EDITING FUNCTIONS can be used to fix the output data format:
  - Divide the message into separate fields (up to five).
  - Add one or two postamble characters to each field.
  - Create additional fixed fields (up to two fields with six characters maximum).
  - Set the number of fields to be transmitted.
  - Cancel fields.
  - Set the position of the fields in the message transmitted.
  - Activate or deactivate selected formats.
  - Transmit data (or not) upon no-match.

Use of the Numeric Pad

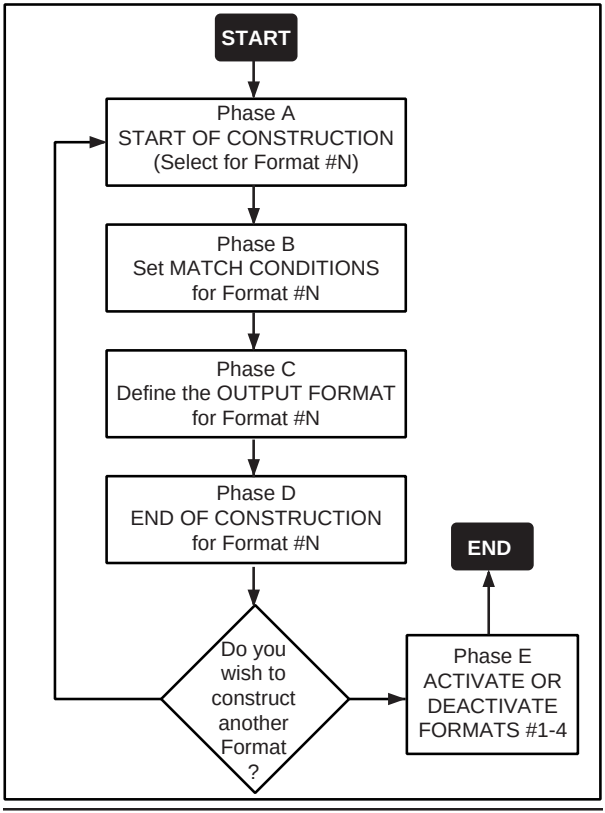
Scanning of number digits is often required while in Programming Mode (to enter variable data). You'll find a handy Numeric Pad in Appendix B.

IMPORTANT

To use the Numeric Pad, your scanner must be programmed to read single-digit Code 39 bar codes. Follow the instructions at the beginning of Appendix B to program this function.

Programming Sequence

1. Read the START bar code located on the inside back cover of this manual to enter Programming Mode.
2. Phase A -- START OF CONSTRUCTION. Select a format number #N (FORMAT #1-4) to construct by scanning its associated bar code.
3. Phase B -- Set up the MATCH CONDITION. Before editing data, scan the appropriate bar codes to define each of these four criteria for the input data:
   - Match with symbology (not available for all scanner models)
   - Match with number of characters
   - Match with input port
   - Match with pre-defined characters


START
Phase A
START OF CONSTRUCTION
(Select for Format #N)
Phase B
Set MATCH CONDITIONS
for Format #N
Phase C
Define the OUTPUT FORMAT
for Format #N
Phase D
END OF CONSTRUCTION
for Format #N
Do you wish to construct another Format ?
Phase E
ACTIVATE OR DEACTIVATE
FORMATS #1-4
END

Programming Sequence - continued

4. Phase C -- Define the OUTPUT FORMAT. Scan the bar codes to select options for each of the following parameters:
   - Divide the input message into fields (1-5)
   - Define the fields
   - Add (or not) 1 or 2 fixed fields
   - Set the number of fields to be transmitted
   - Cancel (or not) fields
   - Adjust the position of each field in the output message.
5. Phase D -- Scan the END OF CONSTRUCTION bar code corresponding to the format number #N (Format #1-4 selected in Phase A). If you would like to define a second format, start again at Phase A and select a second format number to program. Up to four formats can be defined.

Programming Sequence - continued

6. Phase E -- ACTIVATE EDITING MODE. **Important:** Editing mode is not activated by default. You must activate or deactivate Editing Mode for each of the format numbers desired. This allows you to retain format definitions while not actively using them.
7. Read the END bar code located on the inside back cover to exit Programming Mode and save the new parameters.

Programming Example

input data received: 123ABC456 (Code 39 label)
output data desired: CODE: C456 <TAB> REF: 123 <CR>

READ THE BAR CODE "START"

PHASE A: Read the bar code "START OF CONSTRUCTION FORMAT # 1"

PHASE B: Define the MATCH CONDITION using these three criteria

— 9 data characters
— received on all ports
— pre-defined char.: ABC in position 4

PHASE C: Next, prepare this phase on paper as follows:

123	AB	C456
field # 1	field # 2	field # 3

Then program Phase C

— Divide the message into 3 fields

define field # 1 with 3 char. and CR as postamble	define field # 2 with 2 char. and no postamble	define field # 3 with 4 char. and TAB as postamble

Programaming Example (continued)

PHASE C: continued

— Construct the two additional fixed fields:

fix field # 1: CODE:

fix field # 2: REF:

— Set the number of fields to be transmitted: 4

— Adjust the positions of the fields and cancel field # 2 by acting as follows:

1 ACCESS	2 ADD. FIELD # 1	3 FIELD # 3
4 ADD. FIELD # 2	5 FIELD # 1	6 VALIDATION

Note: The positions of the fields in the output message are fixed by the reading sequence. Fields are cancelled when not read in the sequence.

PHASE D: Read the code "END OF CONSTRUCTION - FORMAT # 1"

PHASE E: Activate Editing mode on format # 1

READ THE BAR CODE "END"

PHASE A

START OF CONSTRUCTION OF NUMBER SELECTED

Up to 4 different output data formats can be constructed:

- Select a number and use the labels in Phases A - D to adjust its parameters, then come back to this phase to adjust another format if required.

ALL

FORMAT # 1: START OF CONSTRUCTION

ALL

FORMAT # 2: START OF CONSTRUCTION

PHASE A - continued

ALL

FORMAT # 3: START OF CONSTRUCTION

ALL

FORMAT # 4: START OF CONSTRUCTION

PHASE B1

ENABLING SYMBOLOGIES

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

NEW SELECTION

(Enables the scanner to accept all symbologies.)

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

CODE 39

PHASE B1 - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

INTERLEAVED 2 OF 5

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

UPC/EAN

PHASE B1 - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

MAG. STRIPE DATA

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

MONARCH/CODABAR

PHASE B1 - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

CODE 128

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

EAN 128

PHASE B1 - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

STANDARD 2 OF 5

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

MSI CODE

PHASE B1 - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

PLESSEY

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

TELEPEN

PHASE B1 - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

CODE 93

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

MATRIX 2 OF 5

PHASE B1 - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

IATA

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

BC412

IMPORTANT

Use of this symbology requires specific firmware. Consult your dealer if you need to implement BC412.

PHASE B1 - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

PHARMACODE

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

3W7

PHASE B1 - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

RESERVED #1

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

RESERVED #2

PHASE B2

MATCH WITH THE NUMBER OF CHARACTERS

Use this feature if the match condition is based on the number of characters received in the input message. If it contains the same number as the one entered below, this match condition will be completed.

Action 1: ALL

ACCESS (match with the number of characters)

Action 2: Enter the number desired by using the NUMERIC PAD in Appendix B.

IMPORTANT

To use the Numeric Pad, your scanner must be programmed to read single-digit Code 39 bar codes. Follow the instructions at the beginning of Appendix B to program this function.

PHASE B2 - continued

MATCH WITH THE NUMBER

OF CHARACTERS

Action 3:

VALIDATION

If no match is desired with the number of characters, scan the bar code below.

VARIABLE NUMBER ACCEPTED

PHASE B3

MATCH WITH INPUT PORT

ALL

ALL PORTS

ALL

PORT J1

PHASE B3 - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

RS-232 DATA RECEIVED ON J1 or C2

PHASE B4

MATCH WITH PRE-DEFINED CHARACTERS

If no match is required for pre-defined characters, scan the bar code below.

ALL

NO MATCH REQUIRED FOR PRE-DEFINED CHARACTERS

Up to three characters can be defined. They can be located anywhere in the input message, but must be side by side.

Action 1: Read only one of the following three codes.

ALL

MATCH WITH 1 CHARACTER

PHASE B4 - continued

MATCH WITH PRE-DEFINED CHARACTERS

Action 1: (Continued)

ALL

MATCH WITH 2 CHARACTERS

ALL

MATCH WITH 3 CHARACTERS

PHASE B4 - continued

MATCH WITH PRE-DEFINED CHARACTERS

Action 2: Pre-define the characters (s) desired by scanning the corresponding characters from the **Code 39 FULL ASCII TABLE** in Appendix C.

Action 3:

ALL

VALIDATION

PHASE B4 - continued

POSITION OF THE FIRST PRE-DEFINED CHARACTER IN THE INPUT MESSAGE

Action 1:

ALL

ACCESS

Action 2: Enter the position desired using the NUMBER PAD located in Appendix B.

Action 3:

ALL

VALIDATION

PHASE C0

DIVIDE THE INPUT MESSAGE INTO FIELDS

Before starting this phase, it is advisable to prepare it on paper.

- Write down the input message and separate it into fields.
- Mark each field with a number from 1 to 5 maximum starting at the left hand side of the message.
- Enter the number of fields resulting from the division of the input message including the fields which do not require transmission.
- Define each necessary field using the Phase C1 selections.

PHASE C0- continued

DIVIDE THE INPUT

MESSAGE INTO FIELDS

ALL

ONLY ONE FIELD

ALL

2 FIELDS

PHASE C0- continued

DIVIDE THE INPUT

MESSAGE INTO FIELDS

ALL

3 FIELDS

ALL

4 FIELDS

PHASE C0- continued

DIVIDE THE INPUT
MESSAGE INTO FIELDS

ALL

5 FIELDS

PHASE C1

DEFINE FIELD #1

WITH A FIXED NUMBER OF CHARACTERS

Action 1:

ALL

ACCESS

Action 2:

Enter the number of characters using the NUMBER PAD located in Appendix B.

Action 3:

ALL

VALIDATION

PHASE C1 - continued

DEFINE FIELD #1

WITH A LEADING SEPARATOR CHARACTER

IF AVAILABLE IN THE MESSAGE

Action 1:

ALL

ACCESS

Action 2:

Enter the value of the separator characters using the CODE 39 FULL ASCII TABLE in Appendix C.

Action 3:

ALL

VALIDATION

PHASE C1 - continued

DEFINE FIELD #1

SEPARATOR TRANSMITTED OR NOT IN THE OUTPUT MESSAGE

ALL

TRANSMITTED

ALL

NOT TRANSMITTED

PHASE C1 - continued

DEFINE FIELD #1

THIS FIELD IS THE LAST VARIABLE FIELD

ALL

YES

PHASE C1 - continued

DEFINE FIELD #1

ADD (OR NOT) ONE OR TWO POSTAMBLE CHARACTERS TO THIS FIELD

Action 1:

ALL

ACCESS TO A 1ST POSTAMBLE CHARACTER

Action 2:

Enter the value of this postamble character using the CODE 39 FULL ASCII TABLE in Appendix C. (Scan DEL to cancel.)

Action 3:

ALL

VALIDATION

PHASE C1 - continued

DEFINE FIELD #1

ADD (OR NOT) ONE OR TWO POSTAMBLE CHARACTERS TO THIS FIELD

Action 1:

ALL

ACCESS TO A 2ND POSTAMBLE CHARACTER

Action 2:
Enter the value of this postamble character using the CODE 39 FULL ASCII TABLE in Appendix C. (Scan DEL to cancel.)

Action 3:

ALL

VALIDATION

PHASE C1 - continued

DEFINE FIELD #2

WITH A FIXED NUMBER OF CHARACTERS

Action 1:

ALL

ACCESS

Action 2:

Enter the number of characters using the NUMBER PAD located in Appendix B.

Action 3:

ALL

VALIDATION

PHASE C1 - continued

DEFINE FIELD #2

WITH LEADING SEPARATOR CHARACTERS

IF AVAILABLE IN THE MESSAGE

Action 1:

ALL

ACCESS

Action 2:

Enter the value of the separator characters using the CODE 39 FULL ASCII TABLE in Appendix C.

Action 3:

ALL

VALIDATION

PHASE C1 - continued

DEFINE FIELD #2

SEPARATOR TRANSMITTED OR NOT IN THE OUTPUT MESSAGE

ALL

TRANSMITTED

ALL

NOT TRANSMITTED

PHASE C1 - continued

DEFINE FIELD #2

THIS FIELD IS THE LAST VARIABLE FIELD

ALL

YES

PHASE C1 - continued

DEFINE FIELD #2

ADD (OR NOT) ONE OR TWO POSTAMBLE CHARACTERS TO THIS FIELD

Action 1:

ALL

ACCESS TO A FIRST POSTAMBLE CHARACTER

Action 2:

Enter the value of these postamble characters using the CODE 39 FULL ASCII TABLE in Appendix C. (Scan DEL to cancel.)

Action 3:

ALL

VALIDATION

PHASE C1 - continued

DEFINE FIELD #2

ADD (OR NOT) ONE OR TWO POSTAMBLE CHARACTERS TO THIS FIELD

Action 1:

ALL

ACCESS TO A SECOND POSTAMBLE CHARACTER

Action 2:

Enter the value of this postamble character using the CODE 39 FULL ASCII TABLE in Appendix C. (Scan DEL to cancel.)

Action 3:

ALL

VALIDATION

PHASE C1 - continued

DEFINE FIELD #3

WITH A FIXED NUMBER OF CHARACTERS

Action 1:

ALL

ACCESS

Action 2:

Enter the number of characters using the NUMBER PAD located in Appendix B.

Action 3:

ALL

VALIDATION

PHASE C1 - continued

DEFINE FIELD #3

WITH LEADING SEPARATOR CHARACTERS

IF AVAILABLE IN THE MESSAGE

Action 1:

ALL

ACCESS

Action 2:

Enter the value of the separator character(s) using the CODE 39 FULL ASCII TABLE in Appendix C.

Action 3:

ALL

VALIDATION

PHASE C1 - continued

DEFINE FIELD #3

SEPARATOR TRANSMITTED OR NOT IN THE OUTPUT MESSAGE

ALL

TRANSMITTED

ALL

NOT TRANSMITTED

PHASE C1 - continued

DEFINE FIELD #3

THIS IS THE LAST VARIABLE FIELD

ALL

YES

PHASE C1 - continued

DEFINE FIELD #3

ADD (OR NOT) ONE OR TWO POSTAMBLE CHARACTERS TO THIS FIELD

Action 1:

ALL

ACCESS TO A FIRST POSTAMBLE CHARACTER

Action 2:

Enter the value of this postamble character using the CODE 39 FULL ASCII TABLE in Appendix C. (Scan DEL to cancel.)

Action 3:

ALL

VALIDATION

PHASE C1 - continued

DEFINE FIELD #3

ADD (OR NOT) ONE OR TWO POSTAMBLE CHARACTERS TO THIS FIELD

Action 1:

ALL

ACCESS TO A 2ND POSTAMBLE CHARACTER

Action 2:

Enter the value of this postamble character using the CODE 39 FULL ASCII TABLE in Appendix C. (Scan DEL to cancel.)

Action 3:

ALL

VALIDATION

PHASE C1 - continued

DEFINE FIELD #4

WITH A FIXED NUMBER OF CHARACTERS

Action 1:

ALL

ACCESS

Action 2:

Enter the number of characters using the NUMBER PAD located in Appendix B.

Action 3:

ALL

VALIDATION

PHASE C1 - continued

DEFINE FIELD #4

WITH A LEADING SEPARATOR CHARACTER IF AVAILABLE IN THE MESSAGE

Action 1:

ALL

ACCESS

Action 2:

Enter the value of the separator character using the CODE 39 FULL ASCII TABLE in Appendix C.

Action 3:

ALL

VALIDATION

PHASE C1 - continued

DEFINE FIELD #4

SEPARATOR TRAMSMITTED OR NOT IN THE OUTPUT MESSAGE

ALL

TRANSMITTED

ALL

NOT TRANSMITTED

PHASE C1 - continued

DEFINE FIELD #4

THIS FIELD IS THE LAST VARIABLE FIELD

ALL

YES

PHASE C1 - continued

DEFINE FIELD #4

ADD (OR NOT) ONE OR TWO POSTAMBLE CHARACTERS TO THIS FIELD

Action 1:

ALL

ACCESS TO A FIRST POSTAMBLE CHARACTER

Action 2:

Enter the value of this postamble character using the CODE 39 FULL ASCII TABLE in Appendix C. (Scan DEL to cancel.)

Action 3:

ALL

VALIDATION

PHASE C1 - continued

DEFINE FIELD #4

ADD (OR NOT) ONE OR TWO POSTAMBLE CHARACTERS TO THIS FIELD

Action 1:

ALL

ACCESS TO A SECOND POSTAMBLE CHARACTER

Action 2:

Enter the value of this postamble character using the CODE 39 FULL ASCII TABLE in Appendix C. (Scan DEL to cancel.)

Action 3:

ALL

VALIDATION

PHASE C1 - continued

DEFINE FIELD #5

WITH A FIXED NUMBER OF CHARACTERS

Action 1:

ALL

ACCESS

Action 2:

Enter the number of characters using the NUMBER PAD located in Appendix B.

Action 3:

ALL

VALIDATION

PHASE C1 - continued

DEFINE FIELD #5

WITH A LEADING SEPARATOR CHARACTER

IF AVAILABLE IN THE MESSAGE

Action 1:

ALL

ACCESS

Action 2:

Enter the value of the separator character using the CODE 39 FULL ASCII TABLE in Appendix C.

Action 3:

ALL

VALIDATION

PHASE C1 - continued

DEFINE FIELD #5

SEPARATOR TRANSMITTED OR NOT

IN THE OUTPUT MESSAGE

ALL

TRANSMITTED

ALL

NOT TRANSMITTED

PHASE C1 - continued

DEFINE FIELD #5

THIS FIELD IS THE LAST VARIABLE FIELD

ALL

YES

PHASE C1 - continued

DEFINE FIELD #5

ADD (OR NOT) ONE OR TWO POSTAMBLE CHARACTERS TO THIS FIELD

Action 1:

ALL

ACCESS TO A FIRST POSTAMBLE CHARACTER

Action 2:

Enter the value of this postamble character using the CODE 39 FULL ASCII TABLE in Appendix C. (Scan DEL to cancel.)

Action 3:

ALL

VALIDATION

PHASE C1 - continued

DEFINE FIELD #5

ADD (OR NOT) ONE OR TWO POSTAMBLE CHARACTERS TO THIS FIELD

Action 1:

ALL

ACCESS TO A SECOND POSTAMBLE CHARACTER

Action 2:

Enter the value of this postamble character using the CODE 39 FULL ASCII TABLE in Appendix C. (Scan DEL to cancel.)

Action 3:

ALL

VALIDATION

PHASE C2
ADD (OR NOT) UP TO TWO FIXED FIELDS

CONSTRUCTION OF ADDITIONAL FIXED FIELD #1

ALL

FIXED FIELD # 1 CLEARED

PHASE C2 - continued
add (or not) up to two fixed fields
construction of additional field #1

Action 1:

ALL

ACCESS TO BUFFER OF FIXED FIELD # 1

Action 2:

Enter up to six characters using the CODE 39 FULL ASCII TABLE in Appendix C.

Action 3:

ALL

VALIDATION

PHASE C2 - continued
add (or not) up to two fixed fields
construction of additional field #2

ALL

FIXED FIELD # 2 CLEARED

PHASE C2 - continued
Add (or not) up to two fixed fields
construction of additional field #2

Action 1:

ALL

ACCESS TO BUFFER OF FIXED FIELD # 2

Action 2:

Enter up to six characters using the CODE 39 FULL ASCII TABLE in Appendix C.

Action 3:

ALL

VALIDATION

PHASE C3
Adjust the format of the output message

NUMBER OF FIELDS TO BE TRANSMITTED

Action 1:

ALL

ACCESS

Action 2:

Enter the number of fields to be transmitted in the output message using the NUMBER PAD located in Appendix B.

Action 3:

ALL

VALIDATION

PHASE C3 - continued

Adjust the format of the output message

FIELD POSITION AND CANCELLATION

ALL

ACCESS

NOTE

The order that you read these programming bar codes will fix the position of the fields in the output message. If you do not scan the bar code for a particular field, that field will be cancelled.

PHASE C3 - continued

Adjust the format of the output message

FIELD POSITIONS AND CANCELLATION

ALL

FIELD # 1

ALL

FIELD # 2

NOTE

The order that you read these programming bar codes will fix the position of the fields in the output message. If you do not scan the bar code for a particular field, that field will be cancelled.

PHASE C3 - continued

Adjust the format of the output message

FIELD POSITIONS AND CANCELLATION

ALL

FIELD # 3

ALL

FIELD # 4

NOTE

The order that you read these programming bar codes will fix the position of the fields in the output message. If you do not scan the bar code for a particular field, that field will be cancelled.

PHASE C3 - continued

Adjust the format of the output message

FIELD POSITIONS AND CANCELLATION

ALL

FIELD # 5

ALL

ADDITIONAL FIXED FIELD # 1

NOTE

The order that you read these programming bar codes will fix the position of the fields in the output message. If you do not scan the bar code for a particular field, that field will be cancelled.

PHASE C3 - continued

Adjust the format of the output message

FIELD POSITIONS AND CANCELLATION

ALL

ADDITIONAL FIXED FIELD # 2

NOTE

The order that you read these programming bar codes will fix the position of the fields in the output message. If you do not scan the bar code for a particular field, that field will be cancelled.

PHASE C3 - continued

Adjust the format of the output message

FIELD POSITIONS AND CANCELLATION

ALL

VALIDATION

NOTE

Once this sequence is completed, go to Phase D on the following page and scan in the End of Construction of Format # 1-4.

PHASE D

End of construction

ALL

END OF CONSTRUCTION, FORMATS # 1 – 4

IMPORTANT NOTE

Once this phase is completed for a format number:

- Go back to Phase A to define another format if required.
- Or go to the next section to activate Editing Mode for the format number(s) desired.

PHASE E

Activate editing mode

IMPORTANT NOTE

Editing mode is not activated by default. You must activate or deactivate Editing Mode for each of the format numbers desired using these bar codes. This allows you to retain format definitions while not actively using them.

Once programmed, the different formats can be activated or deactivated at any time during operation. When a format is deactivated, its parameters are saved in the non-volatile EEprom memory of the decoder and are recalled when the format number is re-activated.

ALL

EDITING MODE DEACTIVATED for *ALL* formats

PHASE E - continued

Activate editing mode

ALL

ACTIVATED FOR FORMAT # 1

ALL

ACTIVATED FOR FORMAT # 2

PHASE E - continued

Activate editing mode

ALL

ACTIVATED FOR FORMAT # 3

ALL

ACTIVATED FOR FORMAT # 4

PHASE E - continued

Activate editing mode

ALL

DEACTIVATED FOR FORMAT # 1

ALL

DEACTIVATED FOR FORMAT # 2

PHASE E - continued

Activate editing mode

ALL

DEACTIVATED FOR FORMAT # 3

ALL

DEACTIVATED FOR FORMAT # 4

Match Not Performed

Two possibilities are offered when a match is not performed on the input data:

- Data is transmitted to the host system in its original format.

ALL

STRAIGHT-THRU TRANSMISSION OF THE INPUT DATA

- Data is cleared and not transmitted.

ALL

NO TRANSMISSION OF THE INPUT DATA

RS-232 Interface Configuration

The following pages provide instructions to configure RS-232 interface communications options for scanners equipped with the Universal Keyboard Wedge Interface.

NOTE

The RS-232 interface features provided in this section are an enhanced set that are only available for scanners equipped with the Universal Keyboard Wedge interface.

RS-232 Interface Configuration

The programming bar codes in this section pertain only to POS terminals with an RS-232 communication interface. In order for the POS terminal and scanner to communicate, the scanner's configuration must match the communication settings of the POS terminal.

RS-232 Interface Configuration - cont.

RS-232 Interface communication options are:

- Baud Rate
- Parity
- Data Bits
- Stop Bits
- End of Message Characters
- Timeout Between Characters
- ACK/NAK Protocol
- Xon/Xoff Protocol
- RTS/CTS Protocol
- Double RS-232 Mode
- In/Out Mode
- Intercharacter Delay
- Full ASCII Emulation

RS-232 Restrictions

NOTE

The RS-232 interface must first be selected (reference the following page) before you can set the RS-232 options in this section.

Xon/Xoff – Software flow control.
Xon (11 hex); Host ready to receive data.
Xoff (13 hex); Host busy, wedge stops transmission and waits for Xon from host.

ACK/NAK – Software flow control.
Decoder waits for an acknowledgement from the host.

- ACK (06 hex); message correctly received by host.
- NAK (15 hex); message incorrectly received by host.

RS-232 Activation

Scan this bar code to activate (enable) the RS-232 interface.

ALL (except QuickScan 6000 = TTL ONLY)

ENABLE [Universal Wedge] RS-232

RS-232: Baud Rate

Scan the bar codes on this and the following pages to program the RS-232 baud rate to the required setting.

ALL

BAUD RATE = 300

ALL

BAUD RATE = 600

RS-232: Baud Rate - continued

ALL

BAUD RATE = 1200

ALL

BAUD RATE = 2400

RS-232: Baud Rate - continued

ALL

BAUD RATE = 4800

ALL

BAUD RATE = 9600
(RS-232 DEFAULT)

RS-232: Baud Rate - continued

ALL

Baud Rate: 19200

ALL

Baud Rate: 38400

RS-232: Parity

Scan the bar code on this or the following page to select the correct RS-232 parity.

ALL

PARITY = ODD

ALL

PARITY = MARK

RS-232: Parity - continued

ALL

PARITY = SPACE

ALL

PARITY = EVEN
(RS-232 DEFAULT)

RS-232: Data Bits

Scan the bar code from this page to select the correct RS-232 Data Bits setting.

ALL

DATA BITS = 7
(RS-232 DEFAULT)

ALL

DATA BITS = 8

RS-232: Stop Bits

Scan the bar code from this page to select the correct RS-232 Stop Bits setting.

ALL

STOP BITS = 1
(RS-232 DEFAULT)

ALL

STOP BITS = 2

RS-232: End of Message Characters

Scan the bar code from this and the following pages to select the desired End of Message Character.

ALL

END OF MESSAGE CHARACTERS = NONE

ALL

END OF MESSAGE CHARACTERS
= SUITE (MINITEL)

RS-232: End of Message Characters - continued

ALL

END OF MESSAGE CHARACTERS = CR

ALL

END OF MESSAGE CHARACTERS = LF

RS-232: End of Message Characters - continued

ALL

END OF MESSAGE CHARACTERS = HT

ALL

END OF MESSAGE CHARACTERS = EOT

RS-232: End of Message Characters - continued

ALL

END OF MESSAGE CHARACTERS = STX...ETX

ALL

END OF MESSAGE CHARACTERS = CR/LF
(RS-232 DEFAULT)

RS-232: Intercharacter Delay

In a case that errors are detected using high speed transmissions, a delay can be inserted between each character for better synchronization. Scan the bar code from this and the following pages to select the desired pause (if any) between each character before it is sent to the host. This time delay is used to control the flow of data from the scanner, but it should not be required for most applications.

ALL

INTERCHARACTER DELAY = 0 ms
(RS-232 DEFAULT)

RS-232: Intercharacter Delay - continued

ALL

INTERCHARACTER DELAY = 10 ms

ALL

INTERCHARACTER DELAY = 20 ms

RS-232: Intercharacter Delay - continued

ALL

INTERCHARACTER DELAY = 50 ms

ALL

INTERCHARACTER DELAY = 100 ms

RS-232: ACK/NAK Protocol

Scan the appropriate bar code from this page to enable or disable the ACK/NAK feature.

ALL

ACK/NAK – ENABLE

ALL

ACK/NAK – DISABLE

RS-232: Xon/Xoff Protocol

Scan the appropriate bar code from this page to enable or disable the Xon/Xoff feature.

ALL

Xon/Xoff – ENABLE

ALL

Xon/Xoff – DISABLE

RS-232: RTS/CTS Protocol

Scan the appropriate bar code from this page to enable or disable the RTS/CTS feature.

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

RTS/CTS – ENABLE

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

RTS/CTS – DISABLE

Features on this page are supported with cable 6015-0490.

Double RS-232 PC Term Mode – Activate

Some applications use several RS-232 terminals connected to a PC host system configured in PC Term mode. When a character is typed on a keyboard of a terminal, its scan code value is transmitted to the PC instead of its ASCII value. Then, upon reception, the PC sends back the corresponding ASCII character to display on the screen.

Therefore, once this mode is activated, the decoder sends the scan code value of each character read.

BB+ and BBX supports this mode using the cable 6015-0490. The BI+ also supports it while connected in Double RS-232 mode.

Double RS-232 PC-Term Mode – Activate continued

To activate the PC-Term mode, read this bar code. It is advisable to insert a timeout of 50 ms between each character when baud rate is over 9600 baud.

ALL

PC-TERM RS-232 MODE – ACTIVATE

Upper/lower case characters and the type of numeric characters can be adjusted using the *Upper/Lower Case Options* bar codes contained in the *Universal KBW Interface Configuration* section of this manual.

Keyboard layout style can be selected without scanning "keyboard wedge mode activated" by using the *Termimal/Keyboard Settings Number Pad* bar codes also contained in the *Universal KBW Interface Configuration* section of this manual.

RS-232 In/Out Mode – Activate

Scan the bar code below to
activate the RS-232 In/Out Mode.

ALL

RS-232 IN/OUT MODE – ACTIVATE

RS-232: Full ASCII Emulation

Once enabled, this function will convert each couple of characters from the Code 39 Full ASCII table.

ALL

RS-232 FULL ASCII MODE – ENABLE

ALL

RS-232 FULL ASCII MODE – DISABLE

Wand Emulation Interface Configuration

This following pages provide instructions to configure Wand Emulation interface communications options for scanners equipped with the Universal Keyboard Wedge Interface.

NOTE

The Wand Emulation interface features provided in this section are an enhanced set that are only available for scanners equipped with the Universal Keyboard Wedge interface.

Wand Emulation I/F Configuration

The programming bar codes in this section pertain only to POS terminals with a Wand Emulation communication interface. In order for the POS terminal and scanner to communicate, the scanner's configuration must match the communication settings of the POS terminal.

Wand Emulation I/F communication options are:

- Transmission speed
- Bar/Space polarity
- Idle State

Wand Emulation Activation

To enable the Wand Emulation interface, first scan this bar code...

ALL

ENABLE [Universal Wedge] WAND EMULATION

...then select the symbology to be emulated using the bar codes in the Terminal/Keyboard Pad on pages 28-32.

- Code 39 emulation is ID #69 (scan 6, then 9)
- I 2 of 5 emulation is ID #68
- UPC/EAN emulation is ID #70 (only 8 or 13 character messages are accepted for this emulation.)

Wand Emulation: Transmission Speed

ALL

TRANSMISSION SPEED = HIGH
(WAND DEFAULT)

ALL

TRANSMISSION SPEED = MEDIUM

Wand Emulation:
Transmission Speed - continued

ALL

TRANSMISSION SPEED = LOW

Wand Emulation: Bar/Space Polarity

ALL

BAR = 1, SPACE = 0
(WAND DEFAULT)

ALL

BAR = 0, SPACE = 1

Wand Emulation: Idle State

ALL

HIGH (+5V)
(WAND DEFAULT)

ALL

LOW (0V)

Symbologies

Symbology selection (bar code type) determines which symbologies the scanner will decode. Once you have determined the symbologies you wish to enable, turn to the following pages, enable those symbologies and set the data format options (e.g. check digit, start/stop characters, etc.) required by your host system for each symbology type. You must enable the symbology format options settings that are compatible with your host system.

NOTE

If your scanner does not support symbology selection, only the factory default symbologies pre-set with standard industry requirements will be available. Contact your dealer if you are unsure about your scanner's default settings.

Be sure to test the scanner using factory settings before making any changes.

Symbology Selection

The following bar codes allow you to enable the individual symbologies indicated.

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

CODE 39 ENABLE
(DEFAULT)

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

INTERLEAVED 2 OF 5 ENABLE
(DEFAULT)

Symbology Selection - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

UPC/EAN ENABLE
(DEFAULT)

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

MONARCH/CODABAR ENABLE
(DEFAULT)

Symbology Selection - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

CODE 128 ENABLE
(DEFAULT)

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

EAN 128 ENABLE
(DEFAULT)

Symbology Selection - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

STANDARD 2 OF 5 ENABLE

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

MSI ENABLE

Symbology Selection - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

PLESSEY ENABLE

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

TELEPEN ENABLE

Symbology Selection - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

CODE 93 ENABLE

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

2 OF 5 MATRIX ENABLE

Symbology Selection - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

IATA ENABLE
(ONLY 15, 17, 19 and 21 character bar codes)

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

BC412 ENABLE
(Requires a special PROM)

Symbology Selection - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

3W7 ENABLE

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

LABEL CODE 4/5 ENABLE

Code 39 Options

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

STANDARD CODE 39 ENABLE
(DEFAULT)

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

FULL ASCII CODE 39 ENABLE

Code 39 Options -- continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

FULL ASCII EXTENDED - DISABLE
(DEFAULT)

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

FULL ASCII EXTENDED -
Active on 2 Characters preceded by a dash.

Code 39 Options -- continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

FULL ASCII EXTENDED -
Active on 2 Characters.

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

FULL ASCII EXTENDED -
Active ONLY on 2 Characters separate from the symbol.

Code 39 Options -- continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

EMULATE FUNCTION KEYS - ENABLE

Once enabled, this function will convert each couple of characters from the Code 39 FULL ASCII EXTENDED table.

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

EMULATE FUNCTION KEYS - DISABLE

Code 39 Options -- continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

FULL ASCII EMULATION - DISABLE

Once enabled, this function will convert each couple of characters from the Code 39 FULL ASCII table for support of F1 - F10 and more.

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

FULL ASCII EMULATION - ENABLE

Code 39 Options -- continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

START/STOP TRANSMITTED

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

START/STOP NOT TRANSMITTED

Code 39 Options -- continued

The multi-read function permits the temporary storage of one or more codes in the decoder's memory which will then be transmitted in a single string message.

To operate the multi-read function, the desired group of codes to be first stored must have a mulit-read character as the leading character. This character can be chosen in the multi-read table inAppendix E after scanning the MULTI-READ ENABLED bar code (default is SPACE character). The transmission will start once a code having no multiread character is read.

Code 39 Options -- continued

VS 800 | VS 1000 | VS 1200 | HS 1250 | QS 1000 | QS 6000 | Power Scan | Duet | SP400 WW | SP400 RF

MULTI-READ ENABLED

VS 800 | VS 1000 | VS 1200 | HS 1250 | QS 1000 | QS 6000 | Power Scan | Duet | SP400 WW | SP400 RF

MULTI-READ DISABLED
(DEFAULT)

Code 39 Options -- continued

In the case of high-level security applications, a check character can be integrated as the last character in the code and verified before transmission.

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

MODULO 43 CHECK CHARACTER
NOT VERIFIED

Code 39 Options -- continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

MODULO 43 CHECK CHARACTER
VERIFIED AND TRANSMITTED

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

MODULO 43 CHECK CHARACTER
VERIFIED AND NOT TRANSMITTED

Code 39 Options -- continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

PHARMACODE OR PHARMA 32/39
NEW SELECTION

NOTE

The NEW SELECTION bar code must be scanned prior to scanning the PHARMACODE ENABLE bar code.

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

PHARMACODE ENABLE

Code 39 Options -- continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

PHARMACODE OR PHARMA 32/39
START/STOP TRANSMITTED

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

PHARMACODE OR PHARMA 32/39
START/STOP NOT TRANSMITTED
(DEFAULT)

Code 39 Options -- continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

PHARMACODE OR PHARMA 32/39
CHECK DIGIT TRANSMITTED
(DEFAULT)

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

PHARMACODE OR PHARMA 32/39
CHECK DIGIT NOT TRANSMITTED

Code 39 Options -- continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

CIP CODE 39 ENABLED
w/CHECK DIGIT TRANSMITTED

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

CIP CODE 39 ENABLED
w/CHECK DIGIT NOT TRANSMITTED

Code 39 Options -- continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

CIP CODE 39
(ALL CODES 39)
(DEFAULT)

Label Code 4/5 Options

VS 800 | VS 1000 | VS 1200 | HS 1250 | QS 1000 | QS 6000 | Power Scan | Duet | SP400 WW | SP400 RF

CONVERT ON

VS 800 | VS 1000 | VS 1200 | HS 1250 | QS 1000 | QS 6000 | Power Scan | Duet | SP400 WW | SP400 RF

CONVERT OFF

Interleaved 2 of 5 Options

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

EVEN NUMBER OF CHARACTERS
(DEFAULT)

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

ODD NUMBER OF CHARACTERS

Interleaved 2 of 5 Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

CODE LENGTH = ONE LENGTH FIXED AFTER THE FIRST READ
(DEFAULT)

Fixed length(s) authorized and set upon first reading(s) after power-on.

NOTE

In this mode, the code lengths are not saved after power-off.

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

CODE LENGTH = TWO LENGTHS FIXED AFTER THE FIRST TWO READS

Interleaved 2 of 5 Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

CODE LENGTH = THREE LENGTHS FIXED
AFTER THE FIRST THREE READS

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

CODE LENGTH = FOUR LENGTHS FIXED
AFTER THE FIRST FOUR READS

Interleaved 2 of 5 Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

NUMBER OF FIXED LENGTHS = 1

Fixed length(s) authorized and set up using the numeric pad in Appendix B.

NOTE

In this mode, the code lengths are saved after power-off.

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

NUMBER OF FIXED LENGTHS = 2

Interleaved 2 of 5 Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

NUMBER OF FIXED LENGTHS = 3

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

NUMBER OF FIXED LENGTHS = 4

Interleaved 2 of 5 Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

LENGTH OF 1st FIXED LENGTH BAR CODE

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

LENGTH OF 2nd FIXED LENGTH BAR CODE

Interleaved 2 of 5 Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

LENGTH OF 3rd FIXED LENGTH BAR CODE

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

LENGTH OF 4th FIXED LENGTH BAR CODE

Interleaved 2 of 5 Options - continued

Enter the desired fixed length(s) using the numeric pad in Appendix B, then scan the VALIDATION bar code below.

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

VALIDATION

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

VARIABLE LENGTHS ENABLED

Interleaved 2 of 5 Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

CHECK DIGIT
VERIFIED AND TRANSMITTED

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

CHECK DIGIT
VERIFIED BUT NOT TRANSMITTED

Interleaved 2 of 5 Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

CIP CHECK DIGIT
VERIFIED AND TRANSMITTED

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

CIP CHECK DIGIT
VERIFIED BUT NOT TRANSMITTED

Interleaved 2 of 5 Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

CHECK DIGIT NOT VERIFIED
(DEFAULT)

WARNING

This mode is not advised. Missing characters can occur in the case of incomplete scanning of a bar code.

UPC/EAN Options

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

ALL UPC/EAN CODES AUTHORIZED
(DEFAULT)

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

EAN 13 AUTHORIZED

UPC/EAN Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

UPC-A AUTHORIZED

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

EAN 8 AUTHORIZED

UPC/EAN Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

UPC-E AUTHORIZED

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

TRANSMIT UPC AS EAN
(DEFAULT)

UPC/EAN Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

TRANSMIT UPC AS UPC

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

TRANSMIT UPC-E AS UPC-E
(DEFAULT)

UPC/EAN Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

TRANSMIT UPC-E AS UPC-A

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

TRANSMIT ADDON

UPC/EAN Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

DON'T TRANSMIT ADDON
(DEFAULT)

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

ADDON OPTIONAL
(DEFAULT)

UPC/EAN Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

ADDON REQUIRED

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

2 OR 5 CHARACTER ADDON
(DEFAULT)

UPC/EAN Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

2 CHARACTER ADDON ONLY

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

5 CHARACTER ADDON ONLY

UPC/EAN Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

EAN 13 ADDON (378 OR 379 PREFIX)
ENABLED

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

EAN 13 ADDON (378 OR 379 PREFIX)
DISABLED
(DEFAULT)

UPC/EAN Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

TRANSMIT PREFIXES

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

DON'T TRANSMIT PREFIXES
(DEFAULT)

UPC/EAN Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

TRANSMIT EAN 13 FLAG
(DEFAULT)

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

DON'T TRANSMIT EAN 13 FLAG

UPC/EAN Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

TRANSMIT EAN 8 FLAG
(DEFAULT)

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

DON'T TRANSMIT EAN 8 FLAG

UPC/EAN Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

TRANSMIT UPC-A FLAG
(DEFAULT)

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

DON'T TRANSMIT UPC-A FLAG

UPC/EAN Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

TRANSMIT UPC-E FLAG
(DEFAULT)

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

DON'T TRANSMIT UPC-E FLAG

UPC/EAN Options - continued

VS 800 | VS 1000 | VS 1200 | HS 1250 | QS 1000 | QS 6000 | Power Scan | Duet | SP400 WW | SP400 RF

TRANSMIT EAN 13 CHECK DIGIT
(DEFAULT)

VS 800 | VS 1000 | VS 1200 | HS 1250 | QS 1000 | QS 6000 | Power Scan | Duet | SP400 WW | SP400 RF

DON'T TRANSMIT EAN 13 CHECK DIGIT

UPC/EAN Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

TRANSMIT UPC-A CHECK DIGIT
(DEFAULT)

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

DON'T TRANSMIT UPC-A CHECK DIGIT

UPC/EAN Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

TRANSMIT EAN 8 CHECK DIGIT
(DEFAULT)

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

DON'T TRANSMIT EAN 8 CHECK DIGIT

UPC/EAN Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

TRANSMIT UPC-E CHECK DIGIT
(DEFAULT)

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

DON'T TRANSMIT UPC-E CHECK DIGIT

UPC/EAN Options - continued

VS 800 | VS 1000 | VS 1200 | HS 1250 | QS 1000 | QS 6000 | Power Scan | Duet | SP400 WW | SP400 RF

TRANSMIT ALL CHARACTERS
(DEFAULT)

VS 800 | VS 1000 | VS 1200 | HS 1250 | QS 1000 | QS 6000 | Power Scan | Duet | SP400 WW | SP400 RF

TRANSMIT PRODUCT CODE ONLY

UPC/EAN Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

CONVERT UPC/EAN to ISBN

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

TRANSMIT UPC/EAN as UPC/EAN (DEFAULT)

Codabar Options

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

TRANSMIT START/STOP CHARACTERS

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

DON'T TRANSMIT START/STOP CHARACTERS (DEFAULT)

Codabar Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

abcd (small) START/STOP CHARACTERS ENABLE
(DEFAULT)

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

ABCD (CAPs) START/STOP CHARACTERS ENABLE

Codabar Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

CONCATENATION OF TWO BAR CODES
ENABLE
(bar code 1 must end with the character 'd' and bar code 2 must start with the character 'd')
(DEFAULT)

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

STANDARD

Code 128 Options

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

CHECK CHARACTER VERIFIED
AND TRANSMITTED

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

CHECK CHARACTER VERIFIED
BUT NOT TRANSMITTED
(DEFAULT)

Code 128 Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

CHECK CHARACTER NOT VERIFIED
BUT TRANSMITTED

Code 128 Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

FUNCTION CODE 2 (FNC2)
ENABLED

This function permits the temporary storage of a code in the decoder if this code starts with the FNC 2 character. The message buffered will be concatenated and transmitted with the next code having no FNC 2 character.

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

FUNCTION CODE 2 (FNC2)
DISABLED
(DEFAULT)

UCC/EAN 128 Options

TRANSMIT FUNCTION CODE 1 (FNC1) ENABLED

TRANSMIT FUNCTION CODE 1 (FNC1) DISABLED (DEFAULT)

Standard 2 of 5 Options

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

NUMBER OF LENGTHS AUTHORIZED = 1
(DEFAULT)

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

NUMBER OF LENGTHS AUTHORIZED = 2

Standard 2 of 5 Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

START/STOP CHARACTER TYPE = 2 BARS

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

START/STOP CHARACTER TYPE = 3 BARS
(DEFAULT)

MSI Options

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

VARIABLE LENGTH BAR CODES
ENABLE
(DEFAULT)

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

ENABLE ONE FIXED LENGTH SET BY READING A BAR CODE AFTER POWER-ON

NOTE

Length is not saved after power-off.

MSI Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

DOUBLE CHECK DIGIT (Modulo 10)
VERIFIED AND BOTH TRANSMITTED

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

DOUBLE CHECK DIGIT (Modulo 10)
VERIFIED BUT NOT TRANSMITTED
(DEFAULT)

MSI Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

DOUBLE CHECK DIGIT (Modulo 10)
BOTH VERIFIED
BUT ONLY THE FIRST ONE TRANSMITTED

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

DOUBLE CHECK DIGIT NOT VERIFIED

MSI Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

SINGLE CHECK DIGIT (Modulo 10)
VERIFIED AND TRANSMITTED

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

SINGLE CHECK DIGIT (Modulo 10)
VERIFIED BUT NOT TRANSMITTED

Plessey Code Options

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

TRANSMIT CHECK DIGITS
(DEFAULT)

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

DON'T TRANSMIT CHECK DIGITS

Telepen Code Options

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

ALPHANUMERIC CHARACTERS
ENABLE
(DEFAULT)

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

NUMERIC CHARACTERS ONLY
ENABLE

Code 93 Options

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

MULTIREAD ENABLED
(DEFAULT)

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

MULTIREAD DISABLED
(Multiread permits the decoder to concatenate bar codes that start with a space character. These will be transmitted upon reading a bar code having no leading space character.)

Matrix 2 of 5 Options

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

START/STOP CHARACTER TYPE = 2 BARS

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

START/STOP CHARACTER TYPE = 3 BARS
(DEFAULT)

Matrix 2 of 5 Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

CHECK DIGIT VERIFIED AND TRANSMITTED
(DEFAULT)

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

CHECK DIGIT VERIFIED
BUT NOT TRANSMITTED

Matrix 2 of 5 Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

CHECK DIGIT NOT VERIFIED

Matrix 2 of 5 Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

VARIABLE LENGTH BAR CODES
ENABLE
(DEFAULT)

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

FIXED LENGTH BAR CODES
ENABLE

Matrix 2 of 5 Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

FIRST BAR CODE LENGTH SELECTED

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

FIRST BAR CODE LENGTH ACCESS CODE

NOTE

Use the numeric pad in Appendix B to set the code length, then scan the VALIDATION bar code on the next page.

Matrix 2 of 5 Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

VALIDATION

Matrix 2 of 5 Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

SECOND BAR CODE LENGTH SELECTED

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

SECOND BAR CODE LENGTH ACCESS CODE

NOTE

Use the numeric pad in Appendix B to set the code length, then scan the VALIDATION bar code on the next page.

Matrix 2 of 5 Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

VALIDATION

BC412 Options

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

TRANSMIT CHECK DIGIT

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

DON'T TRANSMIT CHECK DIGIT
(DEFAULT)

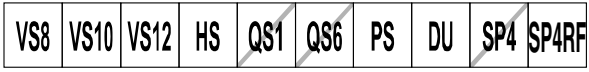
Decoding Selectivity

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

MINIMUM SELECTIVITY
(One bar code, one decode)

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

MAXIMUM SELECTIVITY
(Three bar code captures, three decodes)



Symbology Leading Identifiers

Symbology-specific label identifiers comprise one or two ASCII characters that can precede or follow bar code label data as it is transmitted to the host. The host uses these characters to distinguish between symbologies.

Industry standards have been established for symbology-specific label identifiers, and are listed in the table below. Most scanners will have factory default identifiers preset to these standards.

Programming of label identifiers for some products will require use of additional manuals. Refer to page 13.

Symbology Leading Identifiers - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

DON'T TRANSMIT LEADING ID'S W/ONE CHARACTER

List of Identifiers

Code 39	A	Code 93	G
Interleaved 2 of 5	I	Matrix 2 of 5	Q
UPC/EAN	E	IATA	T
Codabar	F	3W7	X
Code 128	C	Pharmacode	S
EAN 128	J	Reserved # 1	V
Standard 2 of 5	R	Reserved # 2	W
MSI Code	M	Reserved # 3	Y
Plessey Code	P	RS232 data received	Z
Telepen Code	B	Mag. stripe data	D

Table 1. Industry Standard Label Identifiers (all are prefixes)

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

TRANSMIT LEADING ID'S W/ONE CHARACTER

Three Character AIM Identifier

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

TRANSMIT
IDENTIFIER WITH THREE CHARACTERS

The first character is] (5Dhex), the second identifies the type of symbology read, and the third indicates an option in the symbology. Refer to the AIM standard.

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

DON'T TRANSMIT
IDENTIFIER WITH THREE CHARACTERS
(DEFAULT)

Decoding Selectivity

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

MINIMUM SELECTIVITY
(One bar code capture, one decode)
(DEFAULT)

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

MAXIMUM SELECTIVITY
(Three bar code captures, three decode)

Appendix A
Misc. Features

Contents

BEEPER OPTIONS A-2
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Beeper Options

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

HIGH SOUND VOLUME
(DEFAULT)

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

MEDIUM SOUND VOLUME

Beeper Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

LOW SOUND VOLUME

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

SOUND VOLUME OFF

Beeper Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

LONG (120ms) BEEP DURATION
(DEFAULT)

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

MEDIUM (60ms) BEEP DURATION

Beeper Options - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

SHORT (20 ms) BEEP DURATION

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

VERY SHORT (5 ms) BEEP DURATION

Preamble/Postamble

ALL

ACCESS TO PORT J1 PREAMBLE BUFFER
(TTL input data ONLY)

ALL

ACCESS TO PORT J1 POSTAMBLE BUFFER
(TTL input data ONLY)

Preamble/Postamble - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

ACCESS TO

PREAMBLE BUFFERS OF ALL PORTS
(Characters will be stored in ALL preamble buffers)

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

ACCESS TO

POSTAMBLE BUFFERS OF ALL PORTS
(Characters will be stored in ALL postamble buffers)

Preamble/Postamble - continued

ALL

CLEAR BUFFER PRE-SELECTED

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

TRANSMIT PRE/POSTAMBLE CHARACTERS

Conversion of Characters

ALL

FIRST CHARACTER TO BE CONVERTED

Scan the character from the *Code 39 Full ASCII TABLE* located in Appendix C, then scan the VALIDATION bar code.

ALL

VALIDATION

Conversion of Characters - continued

ALL

NEW FIRST CHARACTER DESIRED ACCESS

Scan the character from the *Code 39 Full ASCII TABLE* located in Appendix C, then scan the VALIDATION bar code.

ALL

VALIDATION

Conversion of Characters - continued

ALL

CLEAR CONVERSION OF FIRST CHARACTER

Conversion of Characters - continued

ALL

SECOND CHARACTER TO BE CONVERTED
ACCESS

Scan the character from the *Code 39 Full ASCII TABLE* located in Appendix C, then scan the VALIDATION bar code.

ALL

VALIDATION

Conversion of Characters - continued

ALL

NEW SECOND CHARACTER DESIRED ACCESS

Scan the character from the *Code 39 Full ASCII TABLE* located in Appendix C, then scan the VALIDATION bar code.

ALL

VALIDATION

Conversion of Characters - continued

ALL

CLEAR CONVERSION OF
SECOND CHARACTER

Rolling Buffer Mode

In this mode, input data is stored in a buffer (up to 3K characters) and transmitted at a fixed timeout selected with this section.

ALL

NO TIMEOUT

ALL

TIMEOUT = 100 ms

Rolling Buffer Mode - continued

ALL

TIMEOUT = 200 ms

ALL

TIMEOUT = 500 ms

Rolling Buffer Mode - continued

ALL

TIMEOUT = 700 ms

ALL

TIMEOUT = 1 SECOND

Rolling Buffer Mode - continued

ALL

TIMEOUT = 1.5 SECONDS

ALL

TIMEOUT = 2 SECONDS

Rolling Buffer Mode - continued

ALL

TIMEOUT = 3 SECONDS

ALL

TIMEOUT = 5 SECONDS

Rolling Buffer Mode - continued

ALL

TIMEOUT = 7 SECONDS

ALL

TIMEOUT = 10 SECONDS

Beep Emitted Upon "BEL" (O7h) Received

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

NOT ACTIVATED

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

ACTIVATED

Scanner Released by Host

This function allows an RS-232 host to enable/ disable input messages by sending programmable ASCII characters.

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

NOT ACTIVATED

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

ACTIVATED

Scanner Released by Host - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

SELECT THE "ON" CHARACTER

Scan the character from the *Code 39 Full ASCII TABLE* located in Appendix C, then scan the VALIDATION bar code.

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

VALIDATION

Scanner Released by Host - continued

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

SELECT THE "OFF" CHARACTER

Scan the character from the *Code 39 Full ASCII TABLE* located in Appendix C.

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

VALIDATION

Transmission of the Full ASCII Character Set

Read the START label on the inside back cover.

ALL

ACTIVATED

The scanner will return to normal Operational Mode when all 96 characters are transmitted.

Lock Access to Programming

The LOCK ACCESS feature allows an administrator to control access to scanner programming.

To lock access to programming, follow this procedure:

1. Scan the START bar code on the inside back cover.

2. Scan this PROGRAMMING LOCKED bar code.

PROGRAMMING LOCKED

3. Scan the END bar code on the inside back cover.

Lock Access to Programming - continued

To unlock access to programming, follow this procedure:

1. Scan this UNLOCK ACCESS bar code.

ALL

UNLOCK ACCESS

2. Scan the START bar code on the inside back cover.
3. Scan this PROGRAMMING RE-AUTHORIZED bar code.

ALL

PROGRAMMING RE-AUTHORIZED

4. Scan the END bar code on the inside back cover.

Displaying the Firmware Level

Once the scanner is connected to a host system with communication parameters correctly adjusted, the level of the firmware implemented in the scanner can be displayed as follows:

1. Read the START bar code on the inside back cover.

2. Scan this DISPLAY FIRMWARE LEVEL bar code.

ALL

DISPLAY FIRMWARE LEVEL

Once the DISPLAY FIRMWARE LEVEL bar code is read, the firmware level is transmitted and the decoder returns to its previous operational mode.

Displaying the Firmware Level - continued

The message will appear as follows:

FIRMWARE LEVEL: XXX.XX

If the SMARTY adapter is attached to the decoder, the message will include both the decoder and the smarty firmware levels as follows:

FIRMWARE LEVEL: XXX.XX + SXX.XX

NOTES

Appendix B
Numeric Pad

The bar codes in this section provide a handy way to program numeric information into the scanner.

NOTE

Certain scanner models have been programmed by factory default to decode Code 39 bar codes with a minimum length of two digits, and will require reprogramming to allow the scanner to read single-digit bar codes. See the following page for instructions to change Code 39 minimum length.

Set Code 39 Minimum Length

To allow the indicated scanner models to read single-digit bar codes...

- Scan the SET C39 MINIMUM LENGTH bar code on the next page.
- Scan the C39 MINIMUM LENGTH = ONE bar code.
- Scan the END C39 MINIMUM LENGTH bar code on the second page following this page.

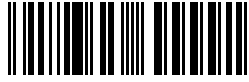
Reset Code 39 Minimum Length

After you've completed programming all scanner features that required you to read single-digit bar codes, you may want to reset the scanner with a two-digit minimum length for Code 39 bar codes.

- Scan the SET C39 MINIMUM LENGTH bar code on the next page.
- Scan the C39 MINIMUM LENGTH = TWO bar code on the second page following this page.
- Scan the END C39 MINIMUM LENGTH bar code on the second page following this page.

Set Code 39 Minimum Length

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF



SET C39 MINIMUM LENGTH

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

C39 MINIMUM LENGTH = ONE

Set Code 39 Minimum Length

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

C39 MINIMUM LENGTH = TWO

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

END C39 MINIMUM LENGTH

Numeric Pad

ALL

1

ALL

2

Numeric Pad - continued

ALL

3

ALL

4

Numeric Pad - continued

ALL

5

ALL

6

Numeric Pad - continued

ALL

7

ALL

8

Numeric Pad - continued

ALL

9

ALL

0

NOTES

Appendix C
Code 39 Full ASCII Table

ALL

NUL

ALL

SOH

Code 39 Full ASCII Table - continued

ALL

STX

ALL

ETX

Code 39 Full ASCII Table - continued

ALL

EOT

ALL

ENQ

Code 39 Full ASCII Table - continued

ALL

ACK

ALL

BEL

Code 39 Full ASCII Table - continued

ALL

BS

ALL

HT

Code 39 Full ASCII Table - continued

ALL

LF

ALL

VT

Code 39 Full ASCII Table - continued

ALL

FF

ALL

CR

Code 39 Full ASCII Table - continued

ALL

SO

ALL

SI

Code 39 Full ASCII Table - continued

ALL

DLE

ALL

DC1

Code 39 Full ASCII Table - continued

ALL

DC2

ALL

DC3

Code 39 Full ASCII Table - continued

ALL

DC4

ALL

NAK

Code 39 Full ASCII Table - continued

ALL

SYN

ALL

ETB

Code 39 Full ASCII Table - continued

ALL

CAN

ALL

EM

Code 39 Full ASCII Table - continued

ALL

SUB

ALL

ESC

Code 39 Full ASCII Table - continued

ALL

FS

ALL

GS

Code 39 Full ASCII Table - continued

ALL

RS

ALL

US

Code 39 Full ASCII Table - continued

ALL

SP

ALL

!

Code 39 Full ASCII Table - continued

ALL

"

ALL

#

Code 39 Full ASCII Table - continued

ALL

$

ALL

%

Code 39 Full ASCII Table - continued

ALL

&

ALL

'

(closing single quote)

Code 39 Full ASCII Table - continued

ALL

(

ALL

)

Code 39 Full ASCII Table - continued

ALL

*

ALL

+

Code 39 Full ASCII Table - continued

ALL

,
(Comma)

ALL

-
(Dash)

Code 39 Full ASCII Table - continued

ALL

.
(Period)

ALL

/

Code 39 Full ASCII Table - continued

ALL

0

ALL

1

Code 39 Full ASCII Table - continued

ALL

2

ALL

3

Code 39 Full ASCII Table - continued

ALL

4

ALL

5

Code 39 Full ASCII Table - continued

ALL

6

ALL

7

Code 39 Full ASCII Table - continued

ALL

8

ALL

9

Code 39 Full ASCII Table - continued

ALL

:
(Colon)

ALL

;
(Semi-colon)

Code 39 Full ASCII Table - continued

ALL

<

ALL

=

Code 39 Full ASCII Table - continued

ALL

>

ALL

?

Code 39 Full ASCII Table - continued

ALL

@

ALL

A

Code 39 Full ASCII Table - continued

ALL

B

ALL

C

Code 39 Full ASCII Table - continued

ALL

D

ALL

E

Code 39 Full ASCII Table - continued

ALL

F

ALL

G

Code 39 Full ASCII Table - continued

ALL

H

ALL

I

Code 39 Full ASCII Table - continued

ALL

J

ALL

K

Code 39 Full ASCII Table - continued

ALL

L

ALL

M

Code 39 Full ASCII Table - continued

ALL

N

ALL

O

Code 39 Full ASCII Table - continued

ALL

P

ALL

Q

Code 39 Full ASCII Table - continued

ALL

R

ALL

S

Code 39 Full ASCII Table - continued

ALL

T

ALL

U

Code 39 Full ASCII Table - continued

ALL

V

ALL

W

Code 39 Full ASCII Table - continued

ALL

X

ALL

Y

Code 39 Full ASCII Table - continued

ALL

Z

ALL

[

Code 39 Full ASCII Table - continued

ALL

\

ALL

]

Code 39 Full ASCII Table - continued

ALL

^

ALL

-
(Dash)

Code 39 Full ASCII Table - continued

ALL

‘

(opening single quote)

ALL

a

Code 39 Full ASCII Table - continued

ALL

b

ALL

c

Code 39 Full ASCII Table - continued

ALL

d

ALL

e

Code 39 Full ASCII Table - continued

ALL

f

ALL

g

Code 39 Full ASCII Table - continued

ALL

h

ALL

i

Code 39 Full ASCII Table - continued

ALL

j

ALL

k

Code 39 Full ASCII Table - continued

ALL

l

ALL

m

Code 39 Full ASCII Table - continued

ALL

n

ALL

o

Code 39 Full ASCII Table - continued

ALL

p

ALL

q

Code 39 Full ASCII Table - continued

ALL

r

ALL

s

Code 39 Full ASCII Table - continued

ALL

t

ALL

u

Code 39 Full ASCII Table - continued

ALL

v

ALL

w

Code 39 Full ASCII Table - continued

ALL

x

ALL

y

Code 39 Full ASCII Table - continued

ALL

z

ALL

{

Code 39 Full ASCII Table - continued

ALL

|
(Pipe Character)

ALL

}

Code 39 Full ASCII Table - continued

ALL

~

ALL

DEL

Appendix D
Code 39 ASCII
Extended Table

ALL

FIELD EXIT

ALL

FIELD ADVANCE

Code 39 ASCII Extended Table - continued

ALL

ENTER

ALL

SEND

Code 39 ASCII Extended Table - continued

ALL

TAB

ALL

RETURN

Code 39 ASCII Extended Table - continued

ALL

RESET, RESTORE

ALL

HOME

Code 39 ASCII Extended Table - continued

ALL

RIGHT ARROW

ALL

LEFT ARROW

Code 39 ASCII Extended Table - continued

ALL

UP ARROW

ALL

DOWN ARROW

Code 39 ASCII Extended Table - continued

ALL

CLEAR

ALL

F1

Code 39 ASCII Extended Table - continued

ALL

F2

ALL

F3

Code 39 ASCII Extended Table - continued

ALL

F4

ALL

F5

Code 39 ASCII Extended Table - continued

ALL

F6

ALL

F7

Code 39 ASCII Extended Table - continued

ALL

F8

ALL

F9

Code 39 ASCII Extended Table - continued

ALL

F10

ALL

F11

Code 39 ASCII Extended Table - continued

ALL

F12

NOTES

Appendix E
Multiread Character Table

Space

0

Multiread Character Table - continued

ALL

1

ALL

2

Multiread Character Table - continued

ALL

3

ALL

4

Multiread Character Table - continued

ALL

5

ALL

6

Multiread Character Table - continued

ALL

7

ALL

8

Multiread Character Table - continued

ALL

9

ALL

A

Multiread Character Table - continued

ALL

B

ALL

C

Multiread Character Table - continued

ALL

D

ALL

E

Multiread Character Table - continued

ALL

F

ALL

G

Multiread Character Table - continued

ALL

H

ALL

I

Multiread Character Table - continued

ALL

J

ALL

K

Multiread Character Table - continued

ALL

L

ALL

M

Multiread Character Table - continued

ALL

N

ALL

O

Multiread Character Table - continued

ALL

P

ALL

Q

Multiread Character Table - continued

ALL

R

ALL

S

Multiread Character Table - continued

ALL

T

ALL

U

Multiread Character Table - continued

ALL

V

ALL

W

Multiread Character Table - continued

ALL

X

ALL

Y

Multiread Character Table - continued

ALL

Z

ALL

-

Multiread Character Table - continued

ALL

.

ALL

*

Multiread Character Table - continued

ALL

$

ALL

/

Multiread Character Table - continued

ALL

+

ALL

%

Appendix F
Enabling Code 39

Your scanner must be enabled to read the Code 39 (C39) symbology in order to read the programming bar codes in this manual.

To enable C39, follow these steps:

1. On the following pages, find the *Enable Code 39* feature for your scanner model.
2. Scan the SET/END (CODE 39 ONLY) bar code for your scanner model from that page.
3. Scan the ENABLE CODE 39 bar code for your scanner model.
4. Scan the SET/END (CODE 39 ONLY) bar code for your scanner model.
5. Your scanner should now be able to read Code 39 bar codes.

Enable Code 39

Models: VS800, VS1200, HS1250 and Duet

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

SET/END (CODE 39 ONLY)

VS800, VS1200, HS1250 and DUET models

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

ENABLE CODE 39

VS800, VS1200, HS1250 and DUET models

Enable Code 39
Model: VS1000

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

SET/END (CODE 39 ONLY)
VS1000 models

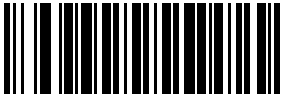
VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

ENABLE CODE 39
VS1000 models

Enable Code 39

Models: QuickScan 1000, 6000, and 6000 Plus

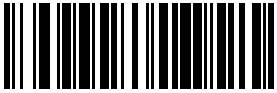
VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF



SET/END (CODE 39 ONLY)

QuickScan 1000, 6000, and 6000 Plus models

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF



ENABLE CODE 39

QuickScan 1000, 6000, and 6000 Plus models

Enable Code 39
Model: PowerScan

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

SET/END (CODE 39 ONLY)
PowerScan models

VS 800	VS 1000	VS 1200	HS 1250	QS 1000	QS 6000	Power Scan	Duet	SP400 WW	SP400 RF

ENABLE CODE 39
PowerScan models

NOTES

START and END Bar Codes

The bar codes on this page are used to enter and exit Universal Keyboard Wedge Programming Mode. For more information, see the topic titled "*How to Program Your Scanner*" in the *Introduction* section of this manual.

START

END

Asia Pacific
PSC Hong Kong
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Fax: [852]-2-521-0291

Australia
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North Ryde, Australia
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PSC S.A.R.L.
LES ULIS Cedex, France
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