Symbol Omnidirectional Scanner Advanced Programmer's Guide

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70-15600-01 Revision C June 1997





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FCC Information

This device complies with Part 15 of the FCC rules, and Canadian RSS:210. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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Chapter 1 Advanced Data Formatting

Advanced Data formatting (ADF) is a means of customizing data before it is transmitted to your host device. Scanned data* can be edited to suit your particular requirements. Programming your scanner involves scanning a series of bar codes that represent the desired parameters.

LS 5000, LS 5100 and LS 5200 series scanners have a secondary scanner port that can be used for programming using an attached hand-held scanner or wand. In order to program these scanners, you need to first scan the ENABLE PROGRAMMING bar code on page 2-3. When you have finished, you must then scan the DISABLE PROGRAMMING bar code on page 2-604.

All other Symbol omnidirectional scanners can be programmed at any time and do not require these symbols. For these scanners, simply scan the bar codes for the parameters you wish to set.

An *Input Source* must be selected **first**. A beeper table beginning on 1-12 will help guide you through the programming steps. **Note:** When using an LS 9100, the Primary Scanner Port (page 2-20) must be selected as the Input Source.

*The LS 5000, LS 5100 and LS 5200 can also edit magstripe data.

Rules

To build a rule, you must select Criteria and Actions. The rules you enter must be logically correct. Criteria include Input Source, Code Type, Code Length, and Message Containing a Specific Data String. Actions are any alterations related to, or affecting these Criteria. Criteria, Actions, and entire Rules may be erased by scanning the appropriate bar code.

Criteria

Input Source

Select a single input or multiple source to be affected by this customized programming format. An input source must be selected prior to creating any ADF rules.

Code Types

Select any number of code types to be affected. All selected codes must be scanned in succession, prior to selecting other criteria. If you don't select a code type, all code types will be affected.

Code Length

Define the number of characters the selected code type must contain. If you don't select a code length, selected code types of any length will be affected.

Message Containing A Specific Data String

Select whether the formatting will affect data that begins with a specific character or data string, or contains a specific character or data string.

Specific String at Start - Scan this bar code, then scan the desired character or characters (up to a total of 8) in the *alphanumeric keyboard* bar codes.

Specific String, Any Location - Scan this bar code, then, using the *numeric keypad*, scan a two digit number representing the <u>position</u> (use a leading "zero" if necessary) Then scan the desired character or characters (up to a total of 8) on the *alphanumeric keyboard*, followed by the End of Message bar code.

Any Message OK - By not scanning any bar code, all selected code types will be formatted, regardless of information contained.

Actions

Select how to format the data for transmission.

Send Data - Send all data that follows, send all data up to a specific character selected from the *alphanumeric keyboard* bar code, or send the next N characters. N = any number from 1 to 254, selected from the *alphanumeric keyboard*.

Setup Field(s) - Select predefined magstripe fields (Track 1 or Track 2, Acct Nr., Exp Data MMYY/YYMM, or Customer Name), or define fields as follows:

Move Cursor To a Character - Scan this bar code, then any printable ASCII character from the *alphanumeric keyboard*.

Move Cursor to Start - Scan this bar code to move cursor to the beginning of the data.

Move Cursor to Position "N" - Scan this bar code, then select the position to which you wish to move (1 to 254) from the *numeric keypad*.

Move Cursor Ahead "N" Positions - Scan this bar code, then select the number of positions ahead you wish to move (0 to 254) from the *numeric keypad*.

Move Cursor Back "N" Positions - Scan this bar code, then select the number of positions back you wish to move (0 to 254) from the *numeric keypad*.

Move Cursor Past a Character - This parameter will move the cursor past all occurrences of a selected character. Scan this bar code, then select a character from the *alphanumeric keyboard*.

Send Keystroke - Scan the "Send __" bar code for the keystroke you wish to send.

Setup Pause - Set the Pause Duration parameter in the Parameter Menus section of the *Product Reference Guide* prior to entering ADF. To insert a pause, scan the Send Pause bar code.

Modify Data - Modify data in the following ways:

Remove All Spaces - To remove all spaces, scan this bar code.

Crunch All Spaces - To leave one space between words, scan this bar code. This also removes all leading and trailing spaces.

Turn off Space Removal - Scan this bar code to disable space removal.

Pad Data on Left With Spaces - To pad data to the left, scan the bar code containing the desired number of spaces. This parameter is activated by Send commands.

Remove Leading Zeros - Scan this bar code to remove all leading zeros.

Turn off Zero Removal - Scan this bar code to disable the removal of zeros.

Pad Data on Left With Zeros - To pad data to the left, scan the bar code containing the desired number of zeros. This parameter is activated by Send commands.

Send Preset Value - Send Values 1 through 6 by scanning the appropriate bar code. These values must be set in the Prefix/Suffix parameter found in the Par;ameter Menus section of the **Product Reference Guide**.

Value 1 = Scan Suffix

Value 2 = Scan Prefix

Value 3 = Magstripe Suffix

Value 4 = Magstripe Prefix

Value 5 = Serial Suffix

Value 6 = Serial Prefix

Alternate Rule Sets

ADF rules may be grouped into one of four alternate sets which can be turned on and off when needed. This is useful when you want to format the same message in different ways. For example, a Code 128 bar code contains the following information:

Class (2 digits), Stock Number (8) digits, Price (5 digits)

This bar code might look like this:

245671243701500

where:

Class = 24 Stock Number = 56712437 Price = 01500

Ordinarily you would send this data as follows:

24 (class key) 56712437 (stock key) 01500 (enter key)

But, when there is a sale, you may want to send only the following:

```
24 (class key)
56712437 (stock key)
```

and the cashier will key the price manually.

To implement this, you would first enter an ADF rule that applies to the normal situation. This rule may look like this:

When scanning a bar code of length 15, send the next 2 characters, send the class key, send the next 8 characters, send the stock key, send the data that remains, send the enter key.

The "sale" rule may look like this:

When scanning a bar code of length 15, send the next 2 characters, send the class key, send the next 8 characters, send the stock key.

To switch between the two sets of rules, a "switching rule" must be programmed. This rule specifies what type of bar code must be scanned to switch between the rule sets. For example, in the case of the "sale" rule above, the programmer wants the cashier to scan the barcode "M" before a sale. To do this, a rule can be entered as follows:

When scanning a bar code of length 1 that begins with "M", select rule set number 1.

Another rule could be programmed to switch back.

When scanning a bar code of length 1 that begins with "N", turn off rule set number 1.

The switching back to normal rules can also be done in the "sale" rule. For example, the rule may look like this:

When scanning a bar code of length 15, send the next 2 characters, send the class key, send the next 8 characters, send the stock key, turn off rule set 1.

It is recommended that you scan the **DISABLE ALL RULE SETS** bar code after programming a rule belonging to an alternate rule set.

In addition to enabling and disabling rule sets within the rules, you can enable or disable them by scanning the appropriate bar codes on 2-14 to 2-18.

Rules Hierarchy (in Bar Codes)

When rules are created, they are stored at the "top" of a rules list. If three rules have been created, the list would be configured as follows:

Third Rule Second Rule First Rule

All inputs will check the rules list from top to bottom to determine if the criteria matches (and therefore, if the actions should occur). This illustrates the importance of the order in which the rules were created. Input will be modified into the form of the first matching set of criteria it finds.

For example, if the THIRD rule states:

When scanning a bar code of any length, send all data, then send the ENTER key.

And the SECOND rule states:

When scanning a Code 128 bar code of length 12, send the first four characters, then send the ENTER key, then send all remaining data.

If a Code 128 bar code of length 12 were scanned, the THIRD rule would be in effect. The SECOND rule would appear to not function.

Note also that ADF Rules are actually created when you use the standard data editing functions. Scan serial, and magstripe options are entered as ADF rules, and the hierarchy mentioned above also applies to them. These rules reside in the same "rule list" as ADF Rules, so the order of their creation is also important.

Default Rules

Every unit has a default rule to send all data, regardless of the source. Units with custom software may have one or more default rules burned in. The rules hierarchy will check user programmable rules first, then the default rules. Default rules can be disabled by entering the following general rule in the user programmable buffer:

When receiving data from any source, send all data.

Since this rule always applies, ADF will never go into the default rules.

Beeper Definitions

Beeper Sequence	Indication
Short High-Low	Entry of a number is expected. Enter another digit. Add leading zeros to the front if necessary.
Short Low-Low	Entry of an alphabetic character is expected. Enter another character or scan the End of Message bar code.
Short High-High	Entry of Criterion/Action is expected. Enter another criterion or action, or scan the Save Rule bar code.
Short High-Low-High- Low	Rule saved. Rule entry mode exited.
Short High-Low-Low	All criteria or actions were cleared for rule currently being entered; continue entry of rule.
Short Low	Last saved rule was successfully deleted. The rule presently being entered is left intact.
Short Low-High-High	All rules are now deleted. The rule presently being entered is left intact. (This beep sequence has a different meaning outside of ADF.)

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Beeper Sequence	Indication
Long Low-High-Low- High	Out of rule memory. Erase some existing rules, then try to save rule again. (The current rule need not be re-entered.)
Long Low-High-Low	Cancel rule entry. Rule entry mode exited because of an error or the user asked to exit rule entry.
Long Low-High	Entry error, wrong bar code scanned. Re-enter criterion or action. All previously entered criteria and actions are retained. Criteria or action list is too long for a rule.

ADF Bar Code Menu Example

This section will show you specifically how ADF rules are entered and used. Examples are given for each of the three data sources.

Formatting Scan Data

A local men's clothing store wants to encode a vendor number, size, and color code into their own Code 128 bar codes. The store also has products that carry UPC bar codes, placed there by the manufacturer. The Code 128 bar codes have the following format:

VVVVV SSSSCC

Where V = Vendor Code

S = Size Code

C = Color Code

The store uses an NCR 7052 cash register with buttons for vendor [F1], size [F2], and color code [F3]. At this store the UPC data is treated as one vendor code.

The following rules need to be entered:

When scanning data from any port, and the code type is Code 128, send the next 5 characters, send the vendor key [F1], send the next 4 characters, send the size key [F2], send the next 2 characters, send the color code key [F3].

When scanning data from any port, and the code type is UPC/EAN, send all data, send the vendor key [F1].

To enter these rules, follow the steps below and on the next page:

Rule 1: The Code 128 Scanning Rule

Step	Bar Code	On Page	Beep Indication
1	Either Scanner Port	2-22	High High
2	Code 128	2-42	High High
3	Send Next 5 Characters	2-111	High High
4	Send F1	2-437	High High
5	Send Next 4 Characters	2-110	High High
6	Send F2	2-438	High High
7	Send Next 2 Characters	2-108	High High
8	Send F3	2-439	High High
9	Save Rule	2-7	High Low High Low

Rule 2: The UPC Scanning Rule

Step	Bar Code	On Page	Beep Indication
1	Either Scanner Port	2-22	High High
2	UPC/EAN	2-51	High High
3	Send All Data That Remains	2-106	High High
4	Send F1	2-437	High High
5	Save Rule	2-7	High Low High Low

If you made any mistakes while entering this rule, scan "Quit Entering Rules" on page 2-6.

Formatting Magstripe Data (LS 5000/5100/5200)

A small department store chain called "the STORE" accepts all major credit cards, and their own credit card. They use a dual track magstripe reader with their Symbol product.

The major credit cards follow the standard encoding methods, but the store card is different. The word "STORE" appears in track 1 to identify the store's card. The two tracks of data contain the following information:

Track 1: >STORE - Last Name - First Name - Title< Track 2: >Account Number - Social Security Number -Exp. Date<

A sample store credit card would look like this:

Track 1: >STORE - SMITH - JOHN - DR< Track 2: >123456789012 - 111223333-1293<

The STORE's point of sale terminal has a "store credit card" key (F5), and a "bank credit card" key (F6). These keys are pressed before the credit card data is sent. If a STORE credit card is read, the following data is sent:

[F5] Account Number [ENTER] Last Name, First Name [ENTER]

Bank credit cards are sent as follows:

[F6] Account Number [ENTER] Customer Name [ENTER]

The following rules need to be entered:

When dual magstripe data is read, and the data contains "STORE" starting at position 2, send the [F5] key, select track 2, skip ahead 1 character, send all data up to "-", send the [ENTER] key, Select track 1, skip all data up to "-", send all data up to "-", send a comma, send all data up to dash, send [ENTER] key.

When dual magstripe data is read, send the [F6] key, send the account number, send the [ENTER] key, send the expiration date, send the [ENTER] key, send the customer's name, send the [ENTER] key.

The bank credit card rule was easier to enter because the card uses standard magstripe encoding. The order in which the rules are entered is important. The bank card rule must be entered first, followed by the store credit card rule. This way the store credit rule is checked first. If the store rule fails, the more general bank card rule would apply. If the rules were entered in reverse, the bank rule would always be executed, and the store rule would be ignored.

Rule 3: The Bank Credit Card Rule

Step	Bar Code	On Page	Beep Indication
1	Dual Magstripe Reader	2-27	High High
2	Send F6	2-442	High High
3	Send account number	2-127	High High
4	Send Enter Key	2-430	High High
5	Send Exp Date MMYY	2-128	High High
6	Send Enter key	2-430	High High
7	Send Customer's Name	2-130	High High
8	Send Enter key	2-430	High High
9	Save Rule	2-7	High Low High Low

Rule 4: The Store Credit Card Rule

Step	Bar Code	On Page	Beep Indication
1	Dual Magstripe Reader	2-27	High High
2	Specific String Any Location	2-84	High Low
3	0	2-536	High Low
4	2	2-538	Low Low

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5	S	2-564	Low Low
6	T	2-565	Low Low
7	0	2-560	Low Low
8	R	2-563	Low Low
9	Е	2-550	Low Low
10	End of Message	2-573	High High
11	Send F5	2-441	High High
12	Skip ahead 1 character	2-133	High High
13	Send up to character	2-85	Low Low
14	Dash "-"	2-514	High High
15	Send Enter Key	2-430	High High
16	Select Track 1 Data	2-131	High High
17	Move to character	2-86	Low Low
18	Dash "-"	2-514	High High
19	Send up to character	2-85	Low Low
20	Dash "-"	2-514	High High
21	Send Coma ","	2-265	High High
22	Send up to character	2-85	Low Low
23	Dash "-"	2-514	High High
24	Send Enter Key	2-430	High High

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This very long rule illustrates the ability of ADF to handle non-standard credit card formats. Most ADF users will be writing rules for standard credit cards, as illustrated in Rule 3.

Formatting Serial Data

A convenience store has a smart weight scale that transmits the price of an item, followed by the weight and description. The weight is a 6 digit number from 0 to 999.999. The price is a 6 digit number from 0 to 9999.99. The description is 30 characters long. For both weight and price, the decimal point is implied and not sent. Messages from the weight scale may look like the following:

"000125001633 "000785002010 Potato Salad" Roast Beef"

The store uses an IBM AT wedge as a host. Data should be sent with the implied decimal points added. The leading zeros should be removed for price, but not weight. Leading spaces should be removed from the description. Tabs should be placed between each field. When data is read from the weight scale, the following data should be sent:

1.25 [tab] 001.633 [tab] Potato Salad [ENTER] 7.85 [tab] 002.010 [tab] Roast Beef [ENTER]

The following rules need to be entered:

When serial data is received, remove leading zeros, send next 4 characters, send period, stop zero removal, send next 2 characters, send tab key, send next 3 characters, send period, send next 3 characters, send tab, crunch all spaces, send all data that remains, send enter key.

Rule 5: The Deli Weight Scale Rule

Step	Bar Code	On Page	Beep Indication
1	Auxiliary Port	2-23	High High
2	Remove leading zeros	2-157	High High
3	Send next 4 characters	2-110	High High
4	Send period	2-267	High High
5	Stop zero removal	2-158	High High
6	Send next 2 characters	2-108	High High
7	Send tab key	2-426	High High
8	Send next 3 characters	2-109	High High
9	Send period	2-267	High High
10	Send next 3 characters	2-109	High High
11	Send tab key	2-426	High High
12	Crunch all spaces	2-156	High High
13	Send all data that remains	2-106	High High
14	Send Enter key	2-430	High High
15	Save Rule	2-7	High Low High Low

Rules are limited to approximately 15 action entries, and 15 criteria entries. Most units have enough storage space for up to 20 average sized rules.

The previous examples cover the three major sources of input into your Symbol product. It is not necessary to enter a rule for each input. A default rule will send inputted data exactly as it is received. You may have multiple rules for a particular input source. But be aware of the rule entry order. The last rule entered is the first rule checked when scan, magstripe or serial data is read.



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Enable Programming

This bar code is needed for LS 5000, LS 5100 and LS 5200 series scanners only. All other Symbol omnidirectional scanners are programmed without using this bar code.



ENABLE PROGRAMMING (LS 5000/5100/5200)

Save/Erase

Be sure to scan one of the criteria beginning on 2-19 before scanning a rule.



ERASE CRITERIA AND START AGAIN

Save/Erase

Be sure to scan one of the criteria beginning on 2-19 before scanning a rule.



ERASE ACTIONS AND START AGAIN

Save/Erase

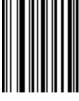
Be sure to scan one of the criteria beginning on 2-19 before scanning a rule.



QUIT ENTERING RULES

Save/Erase

Be sure to scan one of the criteria beginning on 2-19 before scanning a rule.



SAVE RULE

Save/Erase

Be sure to scan one of the criteria beginning on 2-19 before scanning a rule.



ERASE PREVIOUSLY SAVED RULE

Special Commands

Save/Erase

Be sure to scan one of the criteria beginning on 2-19 before scanning a rule.



ERASE ALL RULES



RULE BELONGS TO SET 1



RULE BELONGS TO SET 2



RULE BELONGS TO SET 3



RULE BELONGS TO SET 4



DISABLE RULE SET 1



DISABLE RULE SET 2





DISABLE RULE SET 4



Symbol Omnidirectional Scanners: ADF Bar Codes

Criteria

Input Source

An input source <u>must</u> be selected.



ANY SOURCE

Input Source

An input source <u>must</u> be selected.

Note: If you're using an LS 9100, this bar code must be scanned as the input source.



PRIMARY SCANNER PORT

Input Source

An input source must be selected.



SECONDARY SCANNER PORT

This option applies only to those scanners that support a handheld scanner.

Input Source

An input source must be selected.



EITHER SCANNER PORT

This option applies only to those scanners that support a handheld scanner.

Symbol Omnidirectional Scanners: ADF Bar Codes

Criteria

Input Source

An input source <u>must</u> be selected.



AUXILIARY PORT

Input Source

An input source <u>must</u> be selected.



ANY MAGSTRIPE READER

Input Source

An input source must be selected.



TRACK 1 MAGSTRIPE READER

Input Source

An input source must be selected.



TRACK 2 MAGSTRIPE READER

Input Source

An input source <u>must</u> be selected.



DUAL MAGSTRIPE READER

Code Types

Must be scanned together before selecting other criteria.

Note: If you are using an LS 5000/5100/5200, use the bar code on page 2-40.



CODE 39

Code Types

Must be scanned together before selecting other criteria.

Note: If you are using an LS 5000/5100/5200, use the bar code on page 2-41.



CODABAR

Code Types

Must be scanned together before selecting other criteria.

Note: If you are using an LS 5000/5100/5200, use the bar code on page 2-42.



CODE 128

Code Types

Must be scanned together before selecting other criteria.

Note: If you are using an LS 5000/5100/5200, use the bar code on page 2-43.



IATA

Code Types

Must be scanned together before selecting other criteria.

Note: If you are using an LS 5000/5100/5200, use the bar code on page 2-44.



D 2 OF 5

Code Types

Must be scanned together before selecting other criteria.

Note: If you are using an LS 5000/5100/5200, use the bar code on page 2-45.



I 2 OF 5

Code Types

Must be scanned together before selecting other criteria.

Note: If you are using an LS 5000/5100/5200, use the bar code on page 2-46.



CODE 93

Code Types

Must be scanned together before selecting other criteria.

Note: If you are using an LS 5000/5100/5200, use the bar code on page 2-47.



UPC-A

Code Types

Must be scanned together before selecting other criteria.

Note: If you are using an LS 5000/5100/5200, use the bar code on page 2-48.



UPC-E

Code Types

Must be scanned together before selecting other criteria.

Note: If you are using an LS 5000/5100/5200, use the bar code on page 2-49.



EAN-8

Code Types

Must be scanned together before selecting other criteria.

Note: If you are using an LS 5000/5100/5200, use the bar code on page 2-50.



EAN-13

Code Types

Must be scanned together before selecting other criteria.

Note: If you are using an LS 5000/5100/5200, use the bar code on page 2-52.



CODE 11

Code Types (LS 5000/5100/5200 Only)



CODE 39

Code Types (LS 5000/5100/5200 Only)



CODABAR

Code Types (LS 5000/5100/5200 Only)



CODE 128

Code Types (LS 5000/5100/5200 Only)



IATA

Code Types (LS 5000/5100/5200 Only)



D 2 OF 5

Code Types (LS 5000/5100/5200 Only)



12 OF 5

Code Types (LS 5000/5100/5200 Only)



CODE 93

Code Types (LS 5000/5100/5200 Only)



UPC-A

Code Types (LS 5000/5100/5200 Only)



Code Types (LS 5000/5100/5200 Only)



EAN-8

Code Types (LS 5000/5100/5200 Only)



FAN-13

Code Types (LS 5000/5100/5200 Only)



UPC/EAN

Code Types (LS 5000/5100/5200 Only)



CODF 11

Code Lengths

This is not a keypad. Select one length per rule only.



Code Lengths

This is *not* a keypad. Select one length per rule only.



Code Lengths

This is not a keypad. Select one length per rule only.



Code Lengths

This is not a keypad. Select one length per rule only.



Code Lengths

This is not a keypad. Select one length per rule only.



Code Lengths

This is not a keypad. Select one length per rule only.



O

Code Lengths

This is not a keypad. Select one length per rule only.



Code Lengths

This is not a keypad. Select one length per rule only.



Code Lengths

This is not a keypad. Select one length per rule only.



Code Lengths

This is *not* a keypad. Select one length per rule only.



Code Lengths

This is not a keypad. Select one length per rule only.



Code Lengths

This is *not* a keypad. Select one length per rule only.



Code Lengths

This is not a keypad. Select one length per rule only.



Code Lengths

This is not a keypad. Select one length per rule only.



Code Lengths

This is not a keypad. Select one length per rule only.



Code Lengths

This is not a keypad. Select one length per rule only.



Code Lengths

This is not a keypad. Select one length per rule only.



Code Lengths

This is *not* a keypad. Select one length per rule only.



Code Lengths

This is not a keypad. Select one length per rule only.



Code Lengths

This is *not* a keypad. Select one length per rule only.



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Code Lengths

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Code Lengths

This is not a keypad. Select one length per rule only.



Criteria

Code Lengths

This is not a keypad. Select one length per rule only.



29

Criteria

Code Lengths

This is *not* a keypad. Select one length per rule only.



30

Criteria Specific Data String



SPECIFIC STRING AT START

 Go to Alphanumeric Keyboard to enter string (Followed by END OF MESSAGE on 2-573)

Criteria Specific Data String



SPECIFIC STRING ANY LOCATION

- Go to Numeric Keypad to enter location (2 digits), then
- Go to Alphanumeric Keyboard to enter string (Followed by END OF MESSAGE on 2-573)

Actions Character



SEND UP TO CHARACTER*

^{*}Enter character from alphanumeric keyboard.

Character



MOVE TO CHARACTER*

^{*}Enter character from alphanumeric keyboard.

Actions Character



MOVE PAST CHARACTER*

^{*}Enter character from alphanumeric keyboard.

Actions Send Pause



SEND PAUSE



SEND VALUE 1



SEND VALUE 2



SEND VALUE 3



SEND VALUE 4



SEND VALUE 5



SEND VALUE 6

Beeps

Choose only one beep sequence per ADF rule



BEEP ONCE

Beeps

Choose only one beep sequence per ADF rule.



BEEP TWICE

Beeps

Choose only one beep sequence per ADF rule



BEEP THREE TIMES



TURN ON RULE SET 1



TURN ON RULE SET 2



TURN ON RULE SET 3



TURN ON RULE SET 4



TURN OFF RULE SET 1



TURN OFF RULE SET 2



TURN OFF RULE SET 3



TURN OFF RULE SET 4

Send Characters/ Data



SEND ALL DATA THAT REMAINS

Actions Send Characters/ Data



SEND NEXT CHARACTER

Send Characters/ Data



SEND NEXT 2 CHARACTERS

Actions Send Characters/ Data



SEND NEXT 3 CHARACTERS

Send Characters/ Data



SEND NEXT 4 CHARACTERS

Actions Send Characters/ Data



SEND NEXT 5 CHARACTERS

Send Characters/ Data



SEND NEXT 6 CHARACTERS

Actions Send Characters/ Data



SEND NEXT 7 CHARACTERS

Send Characters/ Data



SEND NEXT 8 CHARACTERS

Actions Send Characters/ Data



SEND NEXT 9 CHARACTERS

Send Characters/ Data



SEND NEXT 10 CHARACTERS



SEND NEXT 11 CHARACTERS

Send Characters/ Data



SEND NEXT 12 CHARACTERS



SEND NEXT 13 CHARACTERS

Send Characters/ Data



SEND NEXT 14 CHARACTERS



SEND NEXT 15 CHARACTERS

Send Characters/ Data



SEND NEXT 16 CHARACTERS



SEND NEXT 17 CHARACTERS

Send Characters/ Data



SEND NEXT 18 CHARACTERS



SEND NEXT 19 CHARACTERS

Send Characters/ Data



SEND NEXT 20 CHARACTERS



SEND ACCOUNT NUMBER*

Send Characters/ Data



SEND EXP DATE (MMYY)*



SEND EXP DATE (YYMM)*

Send Characters/ Data



SEND CUSTOMER'S NAME*



SELECT TRACK 1 DATA*

Send Characters/ Data



SELECT TRACK 2 DATA*



SKIP AHEAD 1 CHARACTER



SKIP AHEAD 2 CHARACTERS



SKIP AHEAD 3 CHARACTERS



SKIP AHEAD 4 CHARACTERS



SKIP AHEAD 5 CHARACTERS



SKIP AHEAD 6 CHARACTERS



SKIP AHEAD 7 CHARACTERS



SKIP AHEAD 8 CHARACTERS



SKIP AHEAD 9 CHARACTERS



SKIP AHEAD 10 CHARACTERS



SKIP BACK 1 CHARACTER



SKIP BACK 2 CHARACTERS



SKIP BACK 3 CHARACTERS



SKIP BACK 4 CHARACTERS



SKIP BACK 5 CHARACTERS



SKIP BACK 6 CHARACTERS



SKIP BACK 7 CHARACTERS



SKIP BACK 8 CHARACTERS



SKIP BACK 9 CHARACTERS



SKIP BACK 10 CHARACTERS

Actions Skip Ahead/Back



SKIP TO START OF DATA



REMOVE ALL SPACES



STOP SPACE REMOVAL



CRUNCH ALL SPACES



REMOVE LEADING ZEROS



STOP ZERO REMOVAL



PAD SPACES TO LENGTH 1



PAD SPACES TO LENGTH 2



PAD SPACES TO LENGTH 3



PAD SPACES TO LENGTH 4



PAD SPACES TO LENGTH 5



PAD SPACES TO LENGTH 6



PAD SPACES TO LENGTH 7



PAD SPACES TO LENGTH 8



PAD SPACES TO LENGTH 9



PAD SPACES TO LENGTH 10



PAD SPACES TO LENGTH 11



PAD SPACES TO LENGTH 12



PAD SPACES TO LENGTH 13



PAD SPACES TO LENGTH 14



PAD SPACES TO LENGTH 15



PAD SPACES TO LENGTH 16



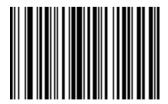
PAD SPACES TO LENGTH 17



PAD SPACES TO LENGTH 18



PAD SPACES TO LENGTH 19



PAD SPACES TO LENGTH 20



PAD SPACES TO LENGTH 21



PAD SPACES TO LENGTH 22



PAD SPACES TO LENGTH 23



PAD SPACES TO LENGTH 24



PAD SPACES TO LENGTH 25



PAD SPACES TO LENGTH 26



PAD SPACES TO LENGTH 27



PAD SPACES TO LENGTH 28



PAD SPACES TO LENGTH 29



PAD SPACES TO LENGTH 30



STOP PAD SPACES



PAD ZEROS TO LENGTH 1



PAD ZEROS TO LENGTH 2



PAD ZEROS TO LENGTH 3



PAD ZEROS TO LENGTH 4



PAD ZEROS TO LENGTH 5



PAD ZEROS TO LENGTH 6



PAD ZEROS TO LENGTH 7



PAD ZEROS TO LENGTH 8



PAD ZEROS TO LENGTH 9



PAD ZEROS TO LENGTH 10



PAD ZEROS TO LENGTH 11



PAD ZEROS TO LENGTH 12



PAD ZEROS TO LENGTH 13



PAD ZEROS TO LENGTH 14



PAD ZEROS TO LENGTH 15



PAD ZEROS TO LENGTH 16



PAD ZEROS TO LENGTH 17



PAD ZEROS TO LENGTH 18



PAD ZEROS TO LENGTH 19



PAD ZEROS TO LENGTH 20



PAD ZEROS TO LENGTH 21



PAD ZEROS TO LENGTH 22



PAD ZEROS TO LENGTH 23



PAD ZEROS TO LENGTH 24



PAD ZEROS TO LENGTH 25



PAD ZEROS TO LENGTH 26



PAD ZEROS TO LENGTH 27



PAD ZEROS TO LENGTH 28



PAD ZEROS TO LENGTH 29



PAD ZEROS TO LENGTH 30



STOP PAD ZEROS

Actions Send Control Characters



SEND CONTROL 2

Send Control Characters



SEND CONTROL A

Actions Send Control Characters



SEND CONTROL B

Send Control Characters



SEND CONTROL C



SEND CONTROL D



SEND CONTROL E



SEND CONTROL F



SEND CONTROL G



SEND CONTROL H



SEND CONTROL I



SEND CONTROL J



SEND CONTROL K



SEND CONTROL L



SEND CONTROL M



SEND CONTROL N



SEND CONTROL O



SEND CONTROL P



SEND CONTROL Q



SEND CONTROL R



SEND CONTROL S



SEND CONTROL T



SEND CONTROL U



SEND CONTROL V



SEND CONTROL W



SEND CONTROL X



SEND CONTROL Y



SEND CONTROL Z



SEND CONTROL [



SEND CONTROL]



SEND CONTROL \



SEND CONTROL 6



SEND CONTROL -

Actions Send Keyboard Characters



SEND SPACE

Send Keyboard Characters



SEND!

Actions Send Keyboard Characters



SEND "

Send Keyboard Characters



SEND#

Actions Send Keyboard Characters



SEND \$

Send Keyboard Characters



SEND %

Actions Send Keyboard Characters



SEND &

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2-262



SEND *



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SEND <



SEND =



SEND >



SEND?



SEND@



SEND A



SEND B



SEND C



SEND D



SEND E



SEND F



SEND G



SEND H



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SEND K



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SEND 0



SEND P



SEND Q



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SEND p

Send Keyboard Characters



SEND q



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Send Keyboard Characters



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SEND t

Send Keyboard Characters



SEND u



SEND v

Send Keyboard Characters



SEND w

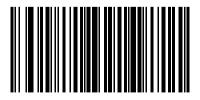


SEND x

Send Keyboard Characters



SEND y



SEND z

Send Keyboard Characters



SEND {

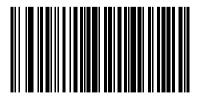


SEND }

Send Keyboard Characters



2-346



SEND ~



SEND ALT 2



SEND ALT A

Send Alt Characters



SEND ALT B



SEND ALT C

Send Alt Characters



SEND ALT D



SEND ALT E

Send Alt Characters



SEND ALT F



SEND ALT G

Send Alt Characters



SEND ALT H



SEND ALT I



SEND ALT J



SEND ALT K



SEND ALT L



SEND ALT M



SEND ALT N



SEND ALT O

Send Alt Characters



SEND ALT P



SEND ALT Q



SEND ALT R



SEND ALT S



SEND ALT T



SEND ALT U



SEND ALT V



SEND ALT W

Send Alt Characters



SEND ALT X



SEND ALT Y



SEND ALT Z



SEND ALT [



SEND ALT]



SEND ALT \



SEND ALT 6



SEND ALT -



SEND PA 1



SEND PA 2



SEND CMD 1



SEND CMD 2



SEND CMD 3



SEND CMD 4



SEND CMD 5



SEND CMD 6



SEND CMD 7



SEND CMD 8



SEND CMD 9



SEND CMD 10



SEND ¥



SEND £



SEND ¤



SEND ¬



SEND •



SEND 1/2



SEND ¶



SEND §



SEND |

Actions Send Keypad Characters



SEND KEYPAD *

Send Keypad Characters



SEND KEYPAD +

Actions Send Keypad Characters



SEND KEYPAD -

Send Keypad Characters



SEND KEYPAD.



SEND KEYPAD /

Send Keypad Characters



SEND KEYPAD 0



SEND KEYPAD 1

Send Keypad Characters



SEND KEYPAD 2



SEND KEYPAD 3

Send Keypad Characters



SEND KEYPAD 4



SEND KEYPAD 5

Send Keypad Characters



SEND KEYPAD 6



SEND KEYPAD 7

Send Keypad Characters



SEND KEYPAD 8



SEND KEYPAD 9



SEND KEYPAD ENTER



SEND KEYPAD NUMLOCK



SEND BREAK KEY



SEND DELETE KEY



SEND PAGE UP KEY



SEND PAGE DOWN KEY



SEND END KEY



SEND PAUSE KEY



SEND SCROLL LOCK KEY



SEND BACKSPACE KEY



SEND TAB KEY



SEND PRINT SCREEN KEY



SEND INSERT KEY



SEND HOME KEY



SEND ENTER KEY



SEND ESCAPE KEY



SEND UP ARROW KEY



SEND DOWN ARROW KEY



SEND LEFT ARROW KEY



SEND RIGHT ARROW KEY



SEND BACK TAB CHARACTER



SEND F1 KEY



SEND F2 KEY



SEND F3 KEY



SEND F4 KEY



SEND F5 KEY



SEND F6 KEY



SEND F7 KEY



SEND F8 KEY



SEND F9 KEY



SEND F10 KEY



SEND F11 KEY



SEND F12 KEY



SEND F13 KEY



SEND F14 KEY



SEND F15 KEY



SEND F16 KEY



SEND F17 KEY



SEND F18 KEY



SEND F19 KEY



SEND F20 KEY



SEND F21 KEY



SEND F22 KEY



SEND F23 KEY



SEND F24 KEY



SEND F25 KEY



SEND F26 KEY



SEND F27 KEY



SEND F28 KEY



SEND F29 KEY



SEND F30 KEY



SEND PF1 KEY



SEND PF 2 KEY



SEND PF 3 KEY



SEND PF 4 KEY



SEND PF 5 KEY



SEND PF 6 KEY



SEND PF 7 KEY



SEND PF 8 KEY



SEND PF 9 KEY



SEND PF 10 KEY



SEND PF 11 KEY



SEND PF 12 KEY



SEND PF 13 KEY



SEND PF 14 KEY



SEND PF 15 KEY



SEND PF 16 KEY



SEND PF 17 KEY



SEND PF 18 KEY



SEND PF 19 KEY



SEND PF 20 KEY



SEND PF 21 KEY



SEND PF 22 KEY



SEND PF 23 KEY



SEND PF 24 KEY



SEND PF 25 KEY



SEND PF 26 KEY



SEND PF 27 KEY



SEND PF 28 KEY



SEND PF 29 KEY



SEND PF 30 KEY

Bar codes on this page should not be confused with those on the alphanumeric keyboard



0

Bar codes on this page should not be confused with those on the alphanumeric keyboard $\,$



1









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6









CANCEL



SPACE





\$



%

























•



2-524





-



=















2-534



Bar codes on this page should not be confused with those on the numeric keypad $\,$



C

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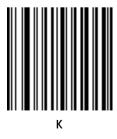








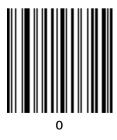




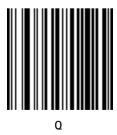






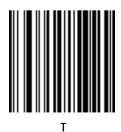
















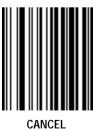


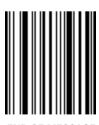
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END OF MESSAGE



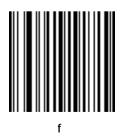
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2-586



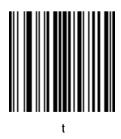
















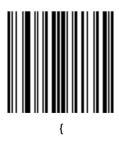


2-596















Disable Programming

This bar code is needed for LS 5000, LS 5100 and LS 5200 series scanners only. All other Symbol omnidirectional scanners are programmed without using this bar code.



DISABLE PROGRAMMING (LS 5000/5100/5200)