

## Chapter 4

# Programming the LT 1810

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Before programming the scanner, follow the instructions in *Chapter 1: Setting Up the LT 1810*.

If the default values suit your requirements, all you need to do is scan the **SET DEFAULT** bar code. An LT 1810 is programmed for parameters other than default values by scanning sequences of bar codes. *Chapter 5: Parameter Menus* contain all the bar codes necessary to program the scanner for each parameter selection.

## Scanning Sequences

A scanning sequence establishes a value for one parameter type. During a scanning sequence, you scan bar codes for a parameter type, a parameter value, and **ENTER**.

Suppose that after consulting the *Parameter Selections on page 4-7*, you decide you want to retain all default settings, except for two parameters, **CONVERT ALL TO CODE 39** and **INTERLEAVED 2 OF 5 - LENGTH 2**.

First, scan the **SET DEFAULT** bar code. This establishes all default values. Now turn to the **CONVERT ALL TO CODE 39** menu. The default for this parameter is **DISABLE** - you need to **ENABLE** it. Scan the three bar codes listed below:

### SCAN

1. **CONVERT ALL TO CODE 39**
2. **ENABLE**
3. **ENTER**

### YOU WILL HEAR...

Short high tone  
Short high tone  
Hi/Lo/Hi/Lo warble

The **INTERLEAVED 2 OF 5 - LENGTH 2** default is 0, but you want it set to 8. To set the **INTERLEAVED 2 OF 5 - LENGTH 2** parameter, scan the four bar codes below. There are four bar codes because this sequence includes a two-digit entry equal to the number of readable digits printed under the bar code. Single-digit entries must have leading zeros:

**SCAN**

**YOU WILL HEAR...**

- |   |                    |
|---|--------------------|
| 1. <b>INTERLEAVED 2 OF 5 - LENGTH 2</b> | Short high tone    |
| 2. <b>0</b>                             | Short high tone    |
| 3. <b>8</b>                             | Short high tone    |
| 4. <b>ENTER</b>                         | Hi/Lo/Hi/Lo warble |

The above parameter values are now stored in memory.

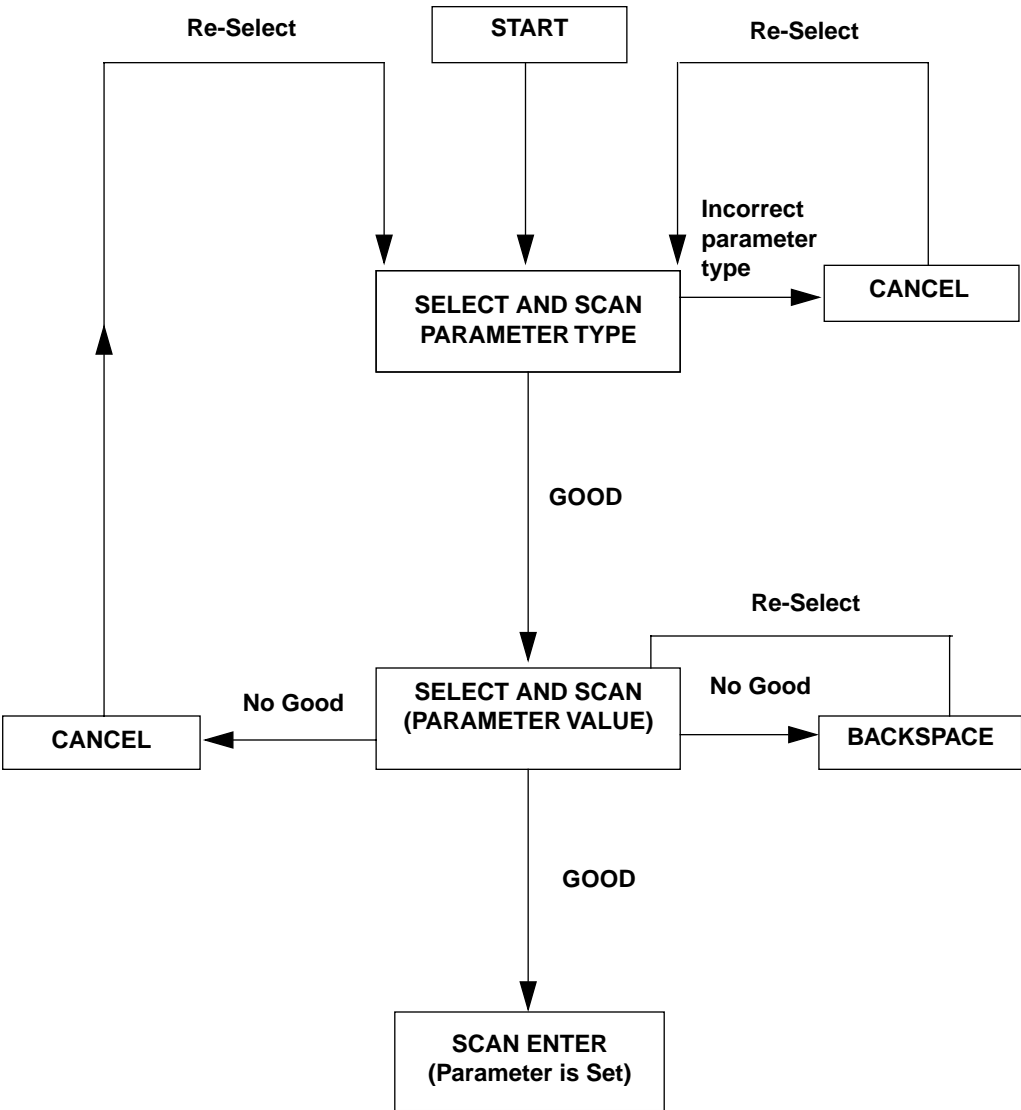
## Errors While Scanning

Don't worry if you make an error during a scanning sequence. There are two special-purpose bar codes, **BACKSPACE** and **CANCEL**, to help you.

Scanning the **BACKSPACE** parameter menu erases the value of the previous bar code scanned but keeps you within the scanning sequence. For example, suppose you had scanned "0" and "7" instead of "0" and "8" when establishing the length of **INTERLEAVED 2 OF 5**. Scan **BACKSPACE** to erase the "7"; now scan the correct option value "8".

Scanning **CANCEL** removes you from the current sequence so that you can start again.

# Scanning Sequence Flowchart



## Parameter Descriptions

See *Parameter Selections* on page 4-7 for the range of values and default settings for each parameter type.

### Set Parameter Defaults

Scanning this bar code returns all parameters to their default values listed on *Parameter Selections* on page 4-7.

### Code Type Selection

Choose a code type (or all codes) to add or delete per scanning sequence. If you want to add **ALL CODES** the LT 1810 will decode the following symbologies.

- UPC Versions A and E (EAN 8 and 13)
- Code 39
- Interleaved 2 of 5
- Code 93
- Codabar
- Discrete 2 of 5
- Code 128

To set lengths for Discrete 2 of 5 or Interleaved 2 of 5, see *Fixed Lengths For Code 2 of 5* on page 5-5.

### Fixed Lengths for Code 2 of 5

Select one or two lengths for the Interleaved or Discrete 2 of 5 codes. Determine the number of characters represented in the Discrete 2 of 5 or Interleaved 2 of 5 bar codes by counting the number of printed (i.e., human readable) digits beneath the bar code. Set one or both lengths, one per scanning sequence. **LENGTH 1** may range from 01-31 and **LENGTH 2** from 00-31.

### Decode UPC Only

This option limits LT 1810 UPC/EAN decode capability to UPC versions only. It disables EAN decode capability.

## Decode UPC/EAN Supplementals

Select whether UPC/EAN is decoded with or without supplemental characters, or whether the unit will autodiscriminate between the two. Supplementals are additionally appended characters, according to specific code format conventions (e.g., UPC A+2, UPC E+2, EAN 8+5).

If UPC/EAN with supplemental characters is selected, UPC/EAN symbols without supplemental characters won't be decoded. If UPC/EAN without supplemental characters is selected and the scanner is presented with a UPC/EAN plus supplemental symbol, the UPC/EAN will be decoded and the supplemental characters ignored. If autodiscrimination is chosen, the LT 1810 will, after additional processing to ensure a good decode, transmit either.

## Beep After Good Decode

Select whether or not the unit's beeper sounds during normal scanning. It is best to operate the unit with the beeper enabled. Note that the beeper operates during parameter menu scanning and indicates error conditions (see *Beeper Definitions* on page 4-8).

## Beeper Volume

Use this parameter to program the beeper for Full or Low volume.

## Trigger Mode (for triggered models only)

Select whether you would like to use the scanner with the trigger (Triggered Mode) for low power consumption, or if you'd like the laser to be in a constant blinking state (Triggerless Mode) using continuous power. The Triggered Mode has been designed for battery operation and is recommended for use with portable terminals.

**Note:** Norand Portable Terminals will not support Triggerless Mode.

## **Decode Redundancy**

Use this parameter to indicate whether the scanner must read a bar code one time (**LEVEL 0**), two times (**LEVEL 1**), or three times (**LEVEL 2**) before decoding it. A higher level of redundancy ensures the accuracy of a decode in, for example, poor quality symbols.

## **Variable Leading Margin**

This parameter allows the selection of a variable leading margin, ranging from 80 msec to 200 msec, in 10 msec increments.

## **Controller Type**

Select the type of controller or data collection terminal you are using with the LT 1810.

## **Wand Emulator**

To set this parameter correctly, you must know the type of signal (bar = logic high, or bar = logic low) expected by the receiving system. Choose a margin where the symbol's leading margin is low voltage and the first bar is high, or the leading margin is high and the first bar is low.

## **Convert All to Code 39**

This parameter converts the output of all scans to Code 39 format. Any coded character not in the Code 39 character set is replaced by a Code 39 blank.

## Parameter Selections

PARAMETER	SELECTIONS AVAILABLE	DEFAULT
<b>Reset All Parameters to Default Stage</b>		
<b>Add Codes to be Decoded</b>	Code 39, Discrete 2 of 5, Codabar, Interleaved 2 of 5, UPC/EAN, Code 93, Code 128, All Code Types	All Code Types
<b>First Length - Discrete 2 of 5</b>	2 digit entry, ranging from 01-31.	12
<b>Second Length - Discrete 2 of 5</b>	2 digit entry, ranging from 00-31.	0
<b>First Length - Interleaved 2 of 5</b>	2 digit entry, ranging from 01-31.	14
<b>Second Length - Interleaved 2 of 5</b>	2 digit entry, ranging from 00-31.	0
<b>Decode UPC Only</b>	Enable, Disable	Disable
<b>Decode UPC/EAN Supplementals</b>	No Supplemental, Supplemental Only, Autodiscriminate	No Supplemental
<b>Beep After Good Decode</b>	Enable, Disable	Enable
<b>Beeper Volume</b>	Low, Full	Full
<b>Trigger Mode (triggered models only)</b>	Triggered, Triggerless	Triggered
<b>Decode Redundancy</b>	Level 0, Level 1, Level 2	Level 0
<b>Variable Leading Margin</b>	80 msec to 200 msec	80 msec
<b>Controller Type</b>	Symbollink Controller (OmniLink, LL 701 Network), MSI Portable Terminals, Norand Portable Terminals	Symbollink Controller
<b>Wand Emulator Bar Output</b>	Margin Low/Bar High	Margin Low/Bar High (Digital)
	Margin High/Bar Low	Margin High/Bar Low (Analog)
<b>Convert All To Code 39</b>	Enable, Disable	Disable

## Beeper Definitions

### Standard Use

#### *BEEPER SEQUENCEINDICATION*

<b>1 Beep - short high tone</b>	A symbol has been successfully decoded.
<b>4 Beeps - long low tone</b>	Data transmission not successful.
<b>4 Beeps - short high tone</b>	Low power indication; no further scanning is possible. Change or recharge battery.

### Parameter Menu Scanning

#### *BEEPER SEQUENCEINDICATION*

<b>1 Beep - short high tone</b>	Appropriate menu within the scanning sequence has been read.
<b>1 Beep - warble sound</b>	Parameter value entered successfully.
<b>2 Beeps - long low tone</b>	Parameter not entered or incorrect sequence performed.