

Chapter 3

Maintenance and Specifications

Maintenance

Cleaning the exit window is the only maintenance required. A dirty window may affect scanning accuracy.

- Do not allow any abrasive material to touch the window.
- Remove any dirt particles with a damp cloth.
- Wipe the window using a tissue moistened with ammonia/water.
- Do not spray water or other cleaning liquids directly into the window.
- Do not remove the nose of the scanner.

What If...

Nothing happens when you follow the operating instructions.

You Should

- Check the system power.
- Make sure the controller is programmed to decode bar codes of the symbology you are scanning.
- Check for loose cable connections.
- Make sure the symbol is not defaced.
- Try scanning test symbols of the same code type.

Note: If after performing these checks the symbol still does not scan, contact your distributor or call the Symbol Support Center. See *Symbol Support Center* on page ii for the telephone number.

Accessories

Standard Accessories

| Part Number | Description |
|--------------|---|
| 70-08042-0X | LT 1810 Product Reference Guide |
| 70-16223-0X | LT 1810/1820 Quick Reference Guide |
| 50-01400-184 | Shipping Box |
| 25-10446-01 | Standard 9-Pin D Straight Cable |
| 25-05611-03 | Standard 9-Pin D Coil Cable |
| 25-05622-01 | Coil Cable for PDT 3300 |
| 25-06380-02 | Coil Cable for Norand RT 1000/3210/3310/3410/3510 |
| 25-05712-01 | Coil Cable for Telxon PTC 710 |
| 20-10615-01 | Battery Box (5V Regulated) |

Cable Requirements

(to be used in conjunction with cable #25-05611-03)

| Part Number | Battery Box Required? | Host |
|--------------|--------------------------|--|
| 50-06000-193 | Yes | PDT I/II/III, PDT 1500/1510, FST 1600/1610 |
| 20-03353-01 | No | Permits connection to Symbol 300/500 Family controllers |
| 20-02643-01 | Yes | Welch Allyn/Opticon Digital Wand |
| 20-02658-01 | Yes | HP Digital Wand |
| 20-02642-01 | Yes | Barcode Industries Digital Wand |
| 20-02656-01 | Yes | Data Logic Digital Wand for Caere Terminal |
| 20-02831-01 | Yes | HP 16800A Digital Wand |
| 20-03492-01 | Yes | Panasonic Hand-Held Terminal |
| 20-03873-01 | Yes | Furuno Terminal |
| 20-03393-01 | No | VERIFONE Model TRAN Z 330 |
| 25-04289-01 | Yes | Fujitsu |
| 20-05745-01 | Yes | Telxon PTC 610-01 |
| 20-05821-01 | Yes | Telxon PTC 701 |
| 20-05817-01 | Yes | Telxon PTC 750 |

Optional Accessories

Optional accessories, listed below, are supplied at extra cost and include additional units of any item listed in *Standard Accessories* on page 3-2.

| Part Number | Description |
|-------------|--|
| 20-12769-01 | Hands-Free Stand - Desk Mount (non-adjustable) |
| 20-08414-01 | Hands-Free Stand - Free Standing (adjustable) |
| 20-08415-01 | Hands-Free Stand - ECR Mount (adjustable) |
| 21-08288-02 | Desk-Mount Stand |
| 23-08253-01 | Wall-Mount Stand |
| 20-08416-01 | Holster/Belt Clip |

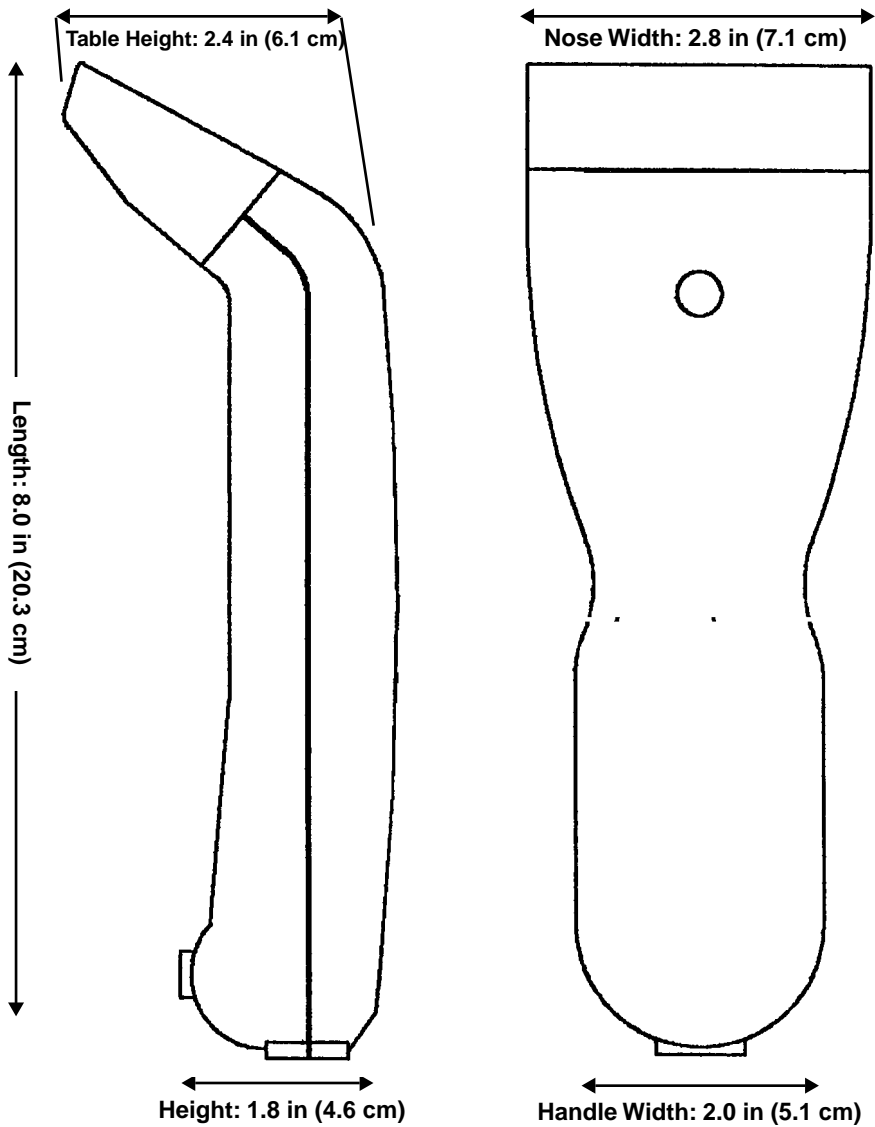
In addition, there is an optional power supply, selected from the following to match local power conditions:

| Part Number | Power Supply |
|--------------|--|
| 50-14000-005 | 117V Input, 5V Output Power Supply |
| 50-04000-083 | 220/240V Input, 5V Output Power Supply |

Technical Specifications

| ITEM | DESCRIPTION |
|-------------------------------------|--|
| Power Requirements | 5 VDC $\pm 10\%$; 120 mA average current (160 mA peak) |
| Off Current Stand-By Mode | 10 μ A |
| Decode Capability | The LT 1810 can be programmed to decode the following code types: UPC/EAN, Code 39, Codabar, Interleaved 2 of 5, Code 128, Discrete 2 of 5, and Code 93. Set code length(s) for any 2 of 5 code type. Full autodiscrimination as required. |
| Beeper Operation | User-selectable: Enable, Disable |
| Beeper Volume | User-selectable: Full Volume, Low Volume |
| Decode Depth of Field | Maximum typical working distance is 5.0 in. (12.70 cm) (100% UPC/EAN); minimum element width resolution is 5.5 mils |
| Code 39 Conversion | Selectable (via bar code menus) to convert data output to Code 39 format regardless of decoded symbol's actual code type. Any coded character not in the Code 39 character set is replaced by a Code 39 blank. |
| Scan Repetition Rate | Approximately 40 (± 3) scans/sec (bidirectional) |
| Skew Tolerance | $\pm 35^\circ$ min. (from normal) |
| Pitch Tolerance | -20° to $+60^\circ$ (from normal) |
| Print Contrast Minimum | 25% minimum reflectance differential, measured at 675 nm. |
| Ambient Light Immunity | Immune to direct exposure to normal office and factory lighting conditions, as well as direct exposure to sunlight. |
| Durability | 5 ft (152 cm) drops to concrete |
| Operating Temperature | 32° to 104°F (0° to 40°C) |
| Storage Temperature | -40° to 140°F (-40° to 60°C) |
| Straight Cable Length | 6 ft (183 cm) |
| Coil Cable Length (extended) | 5 ft (152 cm) |
| Weight (without cable) | 6.0 oz. (170 gm) |

LT 1810 Dimensions



LT 1810 Signal Descriptions

The following signal descriptions apply to the connection between the scanner and the cable, and are for reference only.

| PIN | SIGNAL NAME | FUNCTION |
|-----|---------------------|---|
| 2 | V+ | This pin is connected to the power supply. |
| 3 | Ground | Current return for power supply of 5V \pm 10% and circuit ground reference. |
| 4 | RTS | Request-to-send handshaking output line. It may be optionally used by the scanner to signal another device that data is available to send. It can only be used in conjunction with the CTS line. |
| 8 | Digital Bar Pattern | This is an open collector signal capable of sinking 25 mA. An external pullup resistor connected to any voltage up to 20 V may be used. This output from the scanner provides a series of pulses with widths proportional to widths of scanned bar code elements. See signal description below. |
| 9 | CTS | Clear-to-send handshaking input line. It may be optionally used by another device to signal the scanner that it may begin transmitting data. It can only be used in conjunction with the RTS line. |

Typical Signal Characteristics for Code 39 Output

| | | |
|----------------------|---|----------------------|
| Leading Margin | = | 80 ms (programmable) |
| Trailing Margin | = | 52 ms |
| Narrow Element | = | 0.95 ms |
| Wide Element | = | 1.9 ms |
| Wide-to-Narrow Ratio | = | 2.0 to 1.0 |

Note: All measurements are approximate.