COUGAR™ LS9Q

HAND-HELD THERMAL TRANSFER PRINTER

Operator's Manual

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LS9Q-MAN-A
REV. 0 – 5/5/09

SECTION 1

GETTING STARTED

INTRODUCTION & SAFE OPERATION

Congratulations on your purchase of the *COUGAR*™ LS9Q Hand-Held Thermal Transfer Printer. The versatile *COUGAR*™ LS9Q is designed to meet the demanding printing requirements of electrical and network users. The LS9Q prints high quality industrial labels on a wide variety of materials for electrical and network applications, such as wire/cable, components, safety, and facility identification. It is the ideal labeling tool for electricians, installers, maintenance personnel, and contractors. As you will read throughout this operator's manual, the *COUGAR*™ LS9Q has been designed with many time saving features that will allow you to maximize your labeling productivity.

This manual will guide you step by step through the set-up, operation, and troubleshooting of the *COUGAR*™ LS9Q Hand-held Thermal Transfer Printer. If you have problems not covered herein, contact your local Panduit Sales Representative, call Panduit Technical Support at 866-871-4571, or call Panduit Customer Service at 800-777-3300. More information is also available on the web at www.panduit.com.

SAFE OPERATION PRACTICES

The following general safety practices supplement the specific warnings and cautions depicted elsewhere in this manual. They are recommended precautions that must be understood and applied during the operation and maintenance of this printer.

Do Not Operate In An Explosive Environment

Do not operate the printer in the presence of flammable gases or fumes. Operation of this printer in such an environment constitutes a definite safety hazard.

Do Not Operate In Wet Or Damp Areas

Do not operate this printer in wet or damp areas. Operation of the printer in such an environment constitutes a definite safety hazard.

Do Not Substitute Parts Or Modify Equipment

Because of the danger of introducing additional hazards, do not install substitute parts or perform an unauthorized modification to the printer or its accessories. The proper components for service and repair may be obtained from Panduit Corp.

WARNING:
When the printer has been in use for an extended period of time, the printer motor may become hot. DO NOT touch the printer motor with bare hands.

Information to USA Users

NOTE: This printer has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of FCC rules. These limits are designed to provide reasonable protection against harmful interference when the printer is operated in a commercial environment. This printer generates, uses, and can radiate radio frequency energy and, if not used in accordance with this instruction manual, may cause harmful interference to radio communications. Operation of this printer in a residential area is likely to cause interference in which case the user will be required to correct the interference at his own expense.

Information to Canadian Users

This digital apparatus does not exceed Class A limits for radio noise emissions for digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le present appareil numerique n'emet pas de bruits radioelectriques depassant les limites applicables aux appareils numeriques de la class A prescrites dans le Reglement sur le brouillage radioelectrique edicte par le ministere des Communications du Canada.

It is possible that infrequent electrical phenomena (static discharge, power line fluctuations) may cause printer function to be temporarily interrupted. In this case, the printer will usually reset itself. In extreme cases, the user should remove then re-apply power (batteries or AC adapter).

Printer Power Supply

The *COUGAR*™ LS9Q is supplied with 6 AA alkaline batteries. These batteries are not re-chargeable. After the batteries have surpassed their useful life, they must be disposed of properly and replaced.

An optional AC adapter is also available for use with the *COUGAR*™ LS9Q. The AC adapter is available in different versions that are suitable for use in many regions of the world, including North America, Australia, China, Continental Europe, and the United Kingdom.

Certifications

The *COUGAR*™ LS9Q Hand-Held Thermal Transfer Printer meets the requirements of the following standards:

- FCC Part 15 Class A
- CE
- European Directive 2002/95/EC on the Restriction of Hazardous Substances (RoHS)
- European Community Waste Electrical and Electronic Equipment (WEEE)

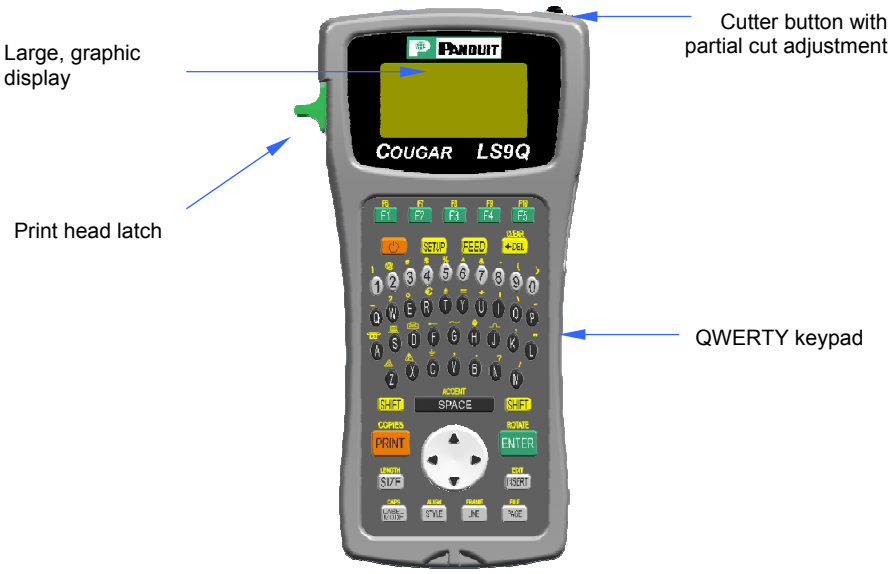
Additional Reference Materials

A Quick Reference Card, which summarizes the most important and frequently used features of the *COUGAR*™ LS9Q is included with your printer. The Quick Reference Card has several label exercises to help familiarize you with LS9Q functions. Should you misplace the quick reference card, you may download another copy from the web at www.panduit.com.

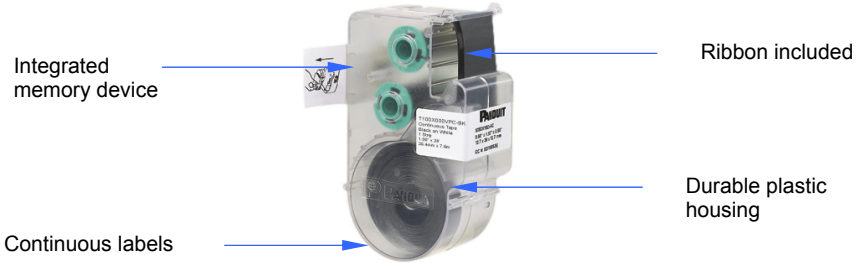
All of the detailed product ordering information is included in the comprehensive LS9 Product Bulletin. The bulletin is available from Panduit Customer Service (800-777-3300) or online at www.panduit.com.

GENERAL DESCRIPTION

COUGAR™ LS9Q Hand-Held Thermal Transfer Printer



P1™ Label Cassette System



GENERAL DESCRIPTION

Print Technology

The *COUGAR*™ LS9Q prints labels using thermal transfer printing technology. The print head melts ink contained on a thin web of ribbon material allowing the ink to transfer to the label material. The print head operates at a resolution of 203 dots per inch (dpi).

Smart Label Cassette

P1™ label cassettes are automatically detected by the *COUGAR*™ LS9Q printer upon insertion. The LS9Q printer automatically adjusts its settings according to the label cassette that is installed. This process saves you the time and effort normally required to begin printing. With the LS9Q, simply install the label cassette and lock the print head. Now you are ready to begin printing. *P1*™ label cassettes have an embedded memory device designed to improve your labeling productivity. The device maintains an accurate count of the remaining labels in the cassette. The device also recalls the last label design used. When you take a label cassette out of the printer, your last label design goes with the cassette. This is very useful for sharing files between more than one user or printer. This is also helpful when using a cassette from a previous job or project.

Label Cutter

The *COUGAR*™ LS9Q has a manually operated cutter blade. Press and release the cutter button in order to cut your label. The cutter button has two possible settings: **Full Cut and Partial Cut**.

Full Cut is used to cut entirely across a label and the liner. This is the familiar cutting style used on other hand-held printers. Partial Cut is used to leave a very small area of the label liner still attached even after cutting. This is an innovative adaptation to label cutting that allows you to avoid the frustration of searching for the correct label within a disorganized pile or from having to use scissors. After using the partial cut setting, you will take a strand of labels to a job and then separate them as needed. In this way, your labels remain in the order that they were printed.

The Cut Pause feature allows you to cut between individual labels during a print job, including during an automatic serialization. When Cut Pause is turned on, the printer will stop printing and allow you to cut the label. After cutting, the printer will prompt you to resume printing. The Cut Pause feature is turned on or off within the Setup menu.

Carrying Case

The *COUGAR*™ LS9Q has a custom protective carrying case constructed of durable plastic material. The case provides a convenient method of transporting the printer, label cassettes, and accessories to and from a job site. The carrying case is sold separately.

Loading the Batteries

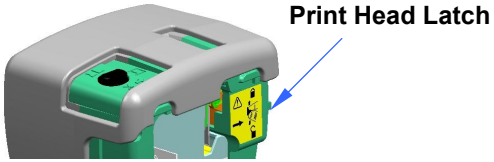
1. Remove the battery door from the back of the *COUGAR*™ LS9Q printer. If the impact bumper is installed on the printer, you will have to move it away from the battery door first.
2. Install the 6 AA batteries according to the molded indicators within the battery compartment.
3. Reattach the battery door. Move the impact bumper back over the battery door if necessary.

Observe Correct Polarity When Installing Batteries

Replace All Six Batteries At The Same Time

Loading a Label Cassette

1. Remove the cassette door from the back of the *COUGAR*™ LS9Q printer.
2. Install a label cassette. Press firmly to lock the cassette in place. Do not remove the raised white tab from the cassette. This tab is used to assist with removal of the cassette from the LS9Q printer.
3. Lock the print head latch.

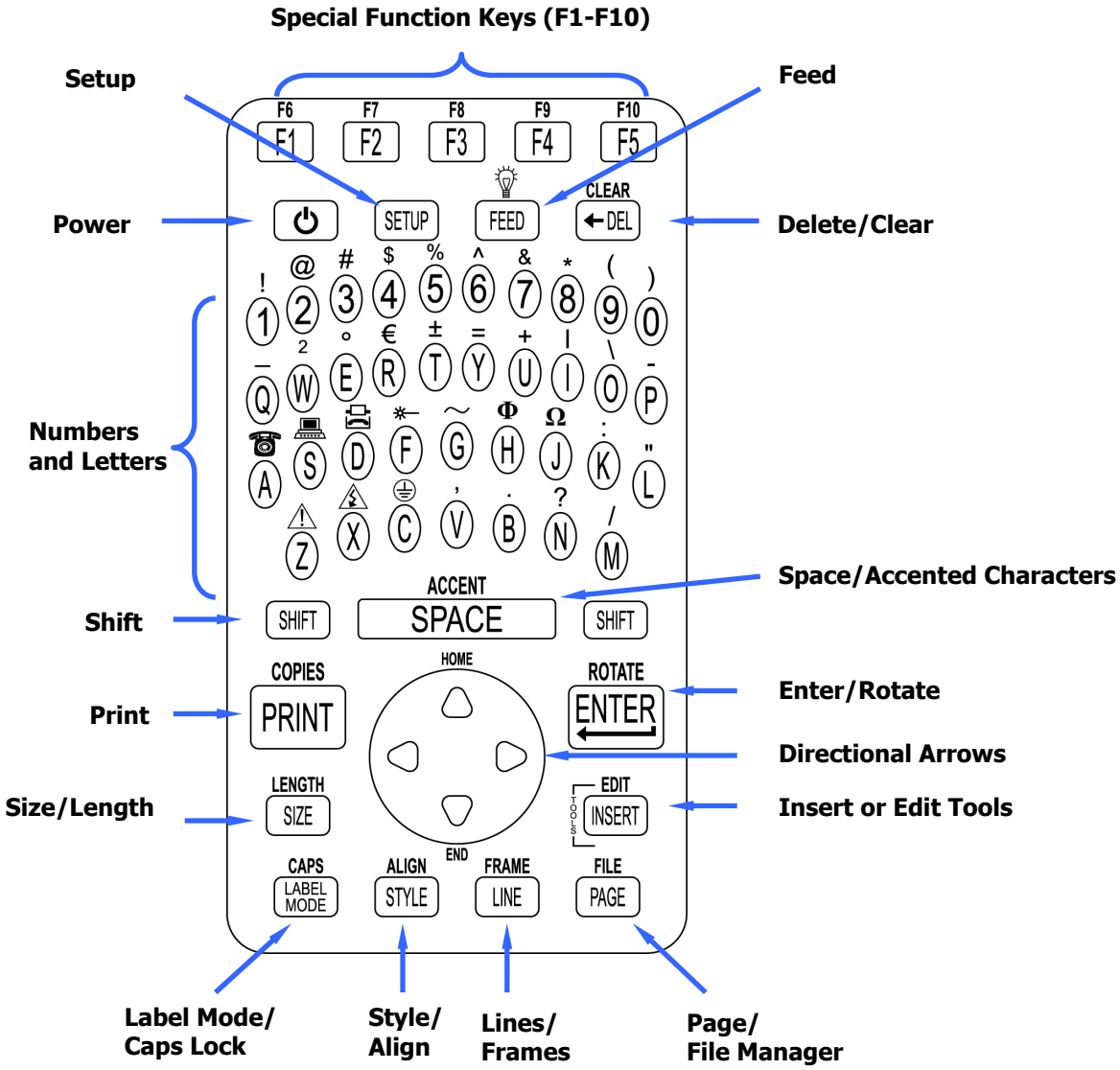


4. Reattach the cassette door.

NOTE: To uninstall a label cassette:

1. Unlock the print head latch.
2. Remove the cassette door.
3. Remove the cassette. Use the removal tab on the cassette for assistance.
4. Reattach the cassette door.

KEYBOARD FUNCTIONS



KEYBOARD FUNCTIONS

Basic Keyboard Functions

- POWER Turn printer on or off
- SETUP Access the Set Up menu
- FEED Feed labels
-  Turn display backlight on or off. Available on LS8E printer. **Not available on LS9Q printer**
- DELETE Erase characters and tools
- CLEAR Clear the entire screen
- SHIFT Access secondary functions on keypad
- SPACE Add a space to a label
- ACCENT Insert an international character
- PRINT Print labels
- COPIES Print multiple copies
- ENTER Move to the next line or accept menu changes
- ROTATE Rotate the label to 0, 90, 180, or 270 degrees
- HOME Move to home position on screen
- END Move to end position on screen
- SIZE Select the text font size
- LENGTH Set the length of continuous label media
- INSERT Insert a new tool
- EDIT Edit an existing tool
- LABEL MODE Change the label mode
- CAPS Turn caps lock on or off
- STYLE Select the text font style
- ALIGN Change the label justification
- LINE Add vertical and horizontal lines to a label
- FRAME Add a frame around a label
- PAGE Move to another page
- FILE Access the file manager

SECTION 2

WORKING WITH THE *COUGAR*™ LS9Q

The Home Screen

The home screen is where you enter and edit text or place label items known as tools. The home screen is also where you print labels. The home screen has several different indicators, including:

INDICATOR	ICON	DESCRIPTION
Caps Lock	ABC	Indicates if caps lock is on or off.
Shift Function	⇧ or ⇧⇧	Indicates if the shift key has been pressed.
Label Mode	MODE	Indicates current label mode.
Text Size	SIZE	Indicates the text size for the current line.
Text Style	**B** **B**	Indicates the text style for the current cursor position. Available styles include **Bold**, and **Bold + Underline**.
Text Line	1:	Indicates the current line.
Page	**1:9**	Indicates the current page. There are 9 total pages.
Vertical or Horizontal Line	⤢	Indicates that a label has one or more dividing lines selected.
Frame	□	Indicates that a label has a frame selected.
Low Battery	−+	Indicates that battery voltage is low and that batteries need replacing.

The Tools Menu

The tool menu includes serializations, symbols, and bar codes. These items are placed on the home screen. The tool menu is accessed by pressing the Insert Tools key.

Tool Icons

The following icons represent the available tools:

- 123 - Serialization
- ✚ - Symbol
- ||| - Barcode

CREATING TEXT

Creating Text

After turning on the *COUGAR*™ LS9Q, the home screen will appear. The home screen is also the text editor.

To create text on the home screen, simply begin pressing the alphabetic or numeric keys on the keypad. Text will be entered at the position of the cursor. The cursor is indicated by a vertical line. To insert blank spaces, press the SPACE key. Press ENTER to move down to the next line. Use the directional arrow keys to move the cursor up, down, right, or left. The home screen has a maximum of 8 lines on which to place text. The home screen also has 9 separate pages on which to place text. The current page number is indicated in the bottom right corner of the home screen.

Inserting Text

To insert characters on a line, move the cursor to any position and begin typing. The character will be inserted at the cursor position.

Deleting Text

To remove characters from the screen, press the DEL key. Each press of the DEL key will delete one character at a time immediately to the left of the cursor. Pressing and holding the DEL key will delete characters more rapidly. The Clear function can also be used to delete all text and reset all formats at once.

Text Size

The *COUGAR*™ LS9Q has 10 different font sizes available for creating text. The font sizes range from 4 point to 72 point. To change the font size, press the SIZE key. Then scroll up or down with the directional arrows. Press ENTER To select a size. The new size will be displayed at the top of the home screen. Each *P1*™ label cassette has a default font size. The default font size is automatically chosen when inserting a new cassette. The text size can be different on each of the 8 available lines of text on each page.

CREATING TEXT

Text Style

The *COUGAR*™ LS9Q has two different text styles: **Bold** and **Bold + Underline**. To change the text style, press the STYLE key. The new text style can be applied to all characters on a label or just to characters inserted after the change. Text style can be different for each individual text character on a line.

Text Rotation

Label legends may be rotated to 0, 90, 180, and 270 degrees in the clockwise direction. The page shaped icon in the lower right hand corner of the display indicates the current rotation. To change the rotation, press the ⇧ key and then press the ENTER key. Use the directional arrows to scroll to the desired rotation and press ENTER. The rotation of the legend can be different on each of the 9 pages of a label.

Text Justification

Label legends may be horizontally and vertically justified by pressing the ⇧ key and then pressing ALIGN. The horizontal justification options include left justified, center justified, and right justified. The vertical justification options include top justified, center justified, and bottom justified. The character "A" inside of the page shaped icon in the lower right hand corner of the display indicates the current justification setting. The character "A" will move within the page shaped icon to indicate the current justification settings.

NOTE: In wire marker mode, changing justification in the direction of the repeated text is not allowed.

Print Offsets

The printing location of label legends may be adjusted by using the Print Offsets function. This function is accessed by pressing the ⇧ key twice and then pressing ALIGN. The print offset function has three adjustments: TOP, BOTTOM, and LEFT. Use the up or down directional arrows to select the adjustment type. Then use the right or left directional arrows to make the adjustment.

Adjusting the TOP print offset moves the start of a label legend toward or away from the leading edge of the label. Adjusting the BOTTOM print offset moves the end of a label legend toward or away from the trailing edge of the label. Adjusting the LEFT print offset moves the label legend across the width of the label.

CREATING SERIALIZATIONS

The Serialization Tool

The serialization tool is used to automatically number labels in a sequence. The sequence can be either numeric (1 to 999) or alphabetic (A to ZZZ). A serialization is defined by a start value, an end value, and an increment value.

To correctly define a serialization, the end value must be larger than the start value **and** the start and end values must be both numeric or both alphabetic. (Numbers and letters cannot be used together when defining a particular serialization.)

The step value can be any number between 1 and 99.

Serializations can be combined with other label items, such as text, boxes, lines, symbols, etc. For example, to create a prefix or a suffix to a serialization, enter text immediately before or after the serialization on a line.

Serializations can be printed as text or as bar codes on a label.
Multiple serializations can be created on the same label.

Creating a Serialization

The serialization tool should be accessed from the home screen. To access the serialization tool:

1. Press the INSERT key to enter the tools menu.
2. Press the directional arrows to highlight the serialization tool.
3. Press the ENTER key to select the serialization tool.
4. Use the up or down directional arrow keys to select the serialization parameters: **Start, End,** or **Increment**.
5. Use the right or left directional arrow keys to set the values for **Start, End,** or **Increment.**

   NOTE: Pressing the right directional arrow key will move the cursor to the current value of the selected parameter. For a new serialization, the start and end values will display an asterisk *. After entering a value, pressing ENTER will automatically move the cursor to the next parameter.

6. Repeat step 5 for each parameter.
7. Press the ENTER key to accept the changes and to return to the home screen. Otherwise, press the DEL key to return to the Tools menu without accepting changes.
8. On the home screen, the serialization tool icon will appear at the position of the cursor.

More Serialization Parameters

The serialization tool includes more parameters on a second screen following the first screen. The second screen includes **Copies** and **Collate**. To access the second screen press the down directional arrow twice after **Increment**.

1. The **Copies** parameter determines the number of copies to print for the serialization. The **Copies** parameter can be set to any number from 1 to 99.

   To change the **Copies** parameter, press the up or down directional arrow keys to highlight **Copies**.

   Press the right directional arrow key to move the cursor to the current value of the Copies parameter. The Copies parameter will default to a value of 1. Enter the number of copies to print.

   Press the 

key to accept the changes.

2. The **Collate** parameter determines whether or not the copies of the serialization items will be collated. The **Collate** parameter only works when more than one copy of a serialization is defined. The **Collate** parameter defaults to **No**.

   If **No** is selected, then consecutive copies of the serialization items **will** be placed together. The result will resemble the following legend:

A01	**A01**	**A02**	**A02**	**A03**	**A03**

   If **Yes** is selected for **Collate**, then consecutive copies of the serialization items **will not** be placed together. The result will resemble the following legend:

A01	**A02**	**A03**	**A01**	**A02**	**A03**

   To change the **Collate** parameter, press the up or down directional arrow keys to highlight **Collate**.

   Press the right directional arrow key to select **Yes** or **No.**

Press the ENTER key to accept the changes and to return to the home screen.

Advanced Serialization Options

The serialization tool includes several advanced options for customizing labels. The advanced serialization options are **Print As** and **Place On**.

1. The **Print As** option determines whether the serialization will print as text or as a bar code on the labels. The default setting will print as text. The bar code settings can be changed in the setup menu. Printing a serialization as a bar code is useful for asset tracking, component manufacturing, and quality control.

2. The **Place On** option determines whether the serialization will print on consecutive labels or on consecutive pages of the same label. The default setting will print on labels.

Editing a Serialization

To edit a serialization on the home screen, move the cursor directly to the left of the serialization so that the icon is highlighted. Press the SHIFT key and then press the INSERT key. Follow the steps listed above for creating a serialization.

CREATING SYMBOLS

The Symbol Tool

The Symbol Tool is used for creating electrical, network, and safety or facility identification labels.

Creating a Symbol

The symbol tool should be accessed from the home screen. To access the symbol tool:

1. Press the INSERT key to enter the tools menu.
2. Press the directional arrows to highlight the symbol tool.
3. Press the ENTER key to select the symbol tool.
4. Use the right or left directional arrow keys or the PAGE key to search the symbol library. The PAGE key allows quicker navigation through the symbol categories. (see the next page for available symbols)
5. Use the up or down directional arrow keys to increase or decrease the size of the symbol. The default size of the symbol is chosen to match the text size on the current line.
6. Press the ENTER key to accept the changes and to return to the home screen. Otherwise, press the DEL key to return to the home screen without accepting changes.
7. On the home screen, the symbol tool icon will appear at the position of the cursor.

Editing a Symbol

To edit a symbol on the home screen, move the cursor directly to the left of the symbol so that the icon is highlighted. Press the SHIFT key and then press the INSERT key.

1. Use the right or left directional arrow keys or the PAGE key to search the symbol library.
2. Use the up or down directional arrow keys to increase or decrease the size of the symbol.
3. Press the ENTER key to accept the changes and to return to the home screen. Otherwise, press the DEL key to return to the home screen without accepting changes.

NOTE: There are 3 sizes available for each symbol. The sizes range from 1 (smallest) to 3 (largest).

CREATING SYMBOLS

Currently available symbols and their assigned library numbers are listed below. Additional symbols may be added to the *COUGAR*™ LS9Q firmware in the future.

1	2	3	4	5	6	7	8	9

10	11	12	13	14	15	16	17	18

19	20	21	22	23	24	25	26	27

28	29	30	31	32	33	34	35	36

37	38	39	40	41

CREATING BAR CODES

The Bar Code Tool

The bar code tool can be used for bin labeling, component identification, or asset management and can be used in combination with other tools. The bar code tool can be printed with or without a checksum digit or human readable text. The bar code symbologies available in the *COUGAR*™ LS9Q are **CODE 39** and **CODE 128.**
.

Creating a Bar Code

The bar code tool should be accessed from the home screen. To access the bar code tool:

1. Press the INSERT key to enter the tools menu.
2. Press the directional arrows to highlight the bar code tool.
3. Press the ENTER key to select the bar code tool.
4. Press the right directional arrow key to input text. Type the text in the text window. The bar code must include at least one digit of text.
5. Press the ENTER key to accept the text.
6. Use the up or down directional arrow keys to highlight the other bar code settings.
7. Use the right or left directional arrow keys to change the bar code settings.
8. Press the ENTER key to accept all of the changes and to return to the home screen. Otherwise, press the DEL key to return to the home screen without accepting changes.
9. On the home screen, the bar code tool icon will appear at the position of the cursor.

Editing a Bar Code

To edit a bar code on the home screen, move the cursor directly to the left of the bar code so that the icon is highlighted. Press the SHIFT key and then press the INSERT key.

1. Press the right directional arrow key to input text. Type the text in the text window. Quickly move to the far right by pressing the SHIFT key and then the right directional arrow key. The bar code must include at least one digit of text.
2. Press the ENTER key to accept the text.
3. Use the up or down directional arrow keys to highlight the other bar code settings.
4. Use the right or left directional arrow keys to change the bar code settings.

5. Press the ENTER key to accept all of the changes and to return to the home screen. Otherwise, press the DEL key to return to the home screen without accepting changes.

Bar Code Settings

The default bar code settings can be changed in the setup menu. To change the default settings, access the printer settings in the setup menu.

Bar Code: Indicates what bar code symbology is currently chosen. This setting allows CODE 39 and CODE 128.

Readable: Indicates whether the bar code text is human readable or not. If activated (bar code text is human readable) the setting will display Yes.

Checksum: Indicates whether the checksum digit is activated or not. If activated (checksum digit is turned on) the setting will display Yes. Checksum must be used for CODE 128 bar codes. For CODE 128, checksum will always be activated.

Bar Size: Indicates the width of the bar code. Available sizes are 0.010 inches, 0.015 inches, and 0.020 inches. The default width is 0.015 inches.

Serialized Bar Codes

The *COUGAR*™ LS9Q is able to serialize bar codes. In order to do so, a serialization must first be defined. Please see the section entitled “CREATING SERIALIZATIONS” for more information about serialized bar codes.

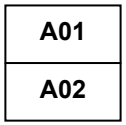
CREATING LINES

Lines

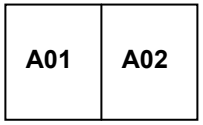
Using lines allows custom placement of vertical and horizontal lines on a label. Lines are especially useful for creating patch panel, faceplate, or terminal block labels. There are seven unique line settings available: **Center Horizontal, Center Vertical, Top, Bottom, Left, Right,** and **@ Pages.** Each of these settings may be turned on or off independently.

NOTE: The top, bottom, left, and right sides of the label will rotate with the legend when a label is rotated.

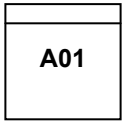
1. The **Center Horizontal** setting places a line through the center of the label in the horizontal direction.



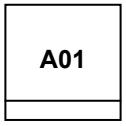
2. The **Center Vertical** setting places a line through the center of the label in the vertical direction.



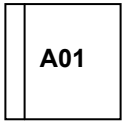
3. The **Top** setting places a line at the top of the label.



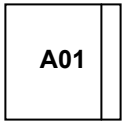
4. The **Bottom** setting places a line at the bottom of the label.



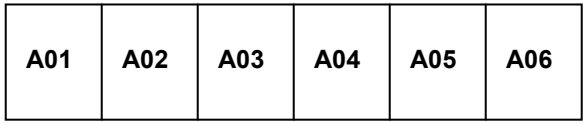
5. The **Left** setting places a line at the far left side of the label.



6. The **Right** setting places a line at the far right side of the label.



7. The **@ Pages** setting places lines between each page of a continuous label that has multiple pages defined. The @ Pages setting is used for patch panel, outlet, and terminal block labeling.



Creating Lines

Lines should be accessed from the home screen. To insert a line:

1. Press the LINE key.
2. Use the up or down directional arrow keys to select the desired line position.
3. Use the right or left directional arrow keys to turn on or turn off the line tool at the selected position.
4. Press the ENTER key to accept the changes and to return to the home screen. Otherwise, press the DEL key to return to the home screen without accepting changes.
5. On the home screen, the line icon will appear on the right side of the display when a line is activated.

NOTE: There are three different styles of lines: Normal, Bold, and Dashed.

Normal Line: ——————

Bold Line: ━━━━━━━━

Dashed Line - - - - - - - - - - - - - -

CREATING FRAMES

Frames

Frames are useful for customizing a label. There are three unique frame settings available: **Box, Reverse,** and **Box Off.**

The **Box** setting places a box outline around the perimeter of the entire label area.

WARNING

The **Reverse** setting places a dark background with light text characters on a label.

WARNING

The **Box Off** setting deactivates the frame.

Creating a Frame

The frame menu should be accessed from the home screen. To insert a frame:

1. Press the SHIFT key and then press the LINE key to enter FRAME menu.
2. Use the right directional arrow key to change the setting.
3. Press the ENTER key to select the frame type.
4. On the home screen, the frame icon will appear on the right side of the display when a frame is activated.

NOTE: If a frame is activated, it will appear on all printed pages of a label.

USING PAGES

The Page Function

The *COUGAR*™ LS9Q provides 9 separate pages for each label. Label items, including text and tools may be placed on each of the 9 pages. The pages function is particularly useful for creating non-standard serializations that do not follow a common increment. The pages function is also useful for creating text on patch panel labels, faceplate labels, outlet labels, or terminal block labels.

Using the Page Function

The page number icon in the lower right hand corner of the display indicates the current page. For example, 1:9 indicates that page 1 of 9 is currently displayed. To change the page, press the PAGE key. Then scroll forward using the right directional arrow key or backward using the left directional arrow key. Press ENTER to accept the page change and return to the home screen.

USING SPECIAL FUNCTIONS

Special Functions

The *COUGAR*™ LS9Q has several special functions that may be accessed by pressing the F keys at the top of the keypad.

The special functions are listed in a menu that appears when pressing F1. The entire list of special functions includes:

- F1 – Display or Exit the Special Function (F Key) Menu

- F2 – Store and recall user profiles
  - There are two user profiles available for storing your favorite settings for text font size, label rotation, and label mode. Recalling a user profile saves set up time and increases productivity.

- F3 – Display label cassette information
  - Pressing F3 will display the part number, serial number, and quantity of labels remaining on the cassette. This information is also displayed automatically when turning the printer on.

- F4 – Quick Key for Wire Marking
  - This function quickly adjusts the LS9Q printer settings, including mode, font size, and rotation, for wire and cable marking applications. This function is intended for wire and cable marking with continuous cloth tape, such as *P1*™ label cassette part number **T100X000C1C-BK**.

- F5 – DIN Mode for European Terminal Blocks
  - DIN terminal block labeling is based on European standards and is primarily used in European countries. Pressing F5 will automatically insert Lines @ Pages and set units to millimeters. For detailed instructions on using the DIN mode, refer to the Labeling Exercises section of this manual.

- F7 – Print Preview
  - The print preview function enhances your label design with a more realistic, What You See Is What You Get (WYSIWYG), view of symbols, bar codes, and more. From within print preview you can navigate around a single label or between multiple labels and even zoom in to enlarge your design before printing.

SETTING UP THE COUGAR LS9Q AND USING FILE MANAGER

The Setup Menu

The setup menu is used to modify the default printer settings. The setup menu should be accessed from the home screen. To access the setup menu press the SETUP key.

Use the setup menu to view or adjust the settings for language, units, bar code default, contrast, heat, firmware version number, cut/pause, and automatic shutoff.

The available language options in the setup menu are English, French, German, Italian, Portuguese, Castilian Spanish, and Latin American Spanish

Within the setup menu, scroll up or down using the directional arrows. Select the setting to adjust by pressing ENTER. Once inside the setting, use the arrow keys to select a parameter to change. Press ENTER to accept the changes and return to the main setup menu screen.

Press SETUP to exit from the setup menu with all changes.

SETUP MENU FUNCTION	DESCRIPTION
Languages	Select the language for on-screen prompts and messages.
Units	Set length units to inches or millimeters.
Bar Code	Set the bar code tool default values.
Contrast	Lighten or darken the LCD screen.
Heat	Increase or decrease the heat of the print head.
Version	Check the current firmware version number.
Factory Defaults	Reset all formats back to their original values.
Cut/Pause	Automatically pause a print job between labels for cutting.
Auto-Off	Turn on or off the 5 minute automatic shutoff power saving feature.

Label Modes

To edit the label mode, press the LABEL MODE key.

1. Use the up or down directional arrows to select the desired mode and then press ENTER.

Available Modes include:

MODE	DESCRIPTION	APPLICATIONS
Component	Vertically centers legend	Electrical and network components
Wiremarker	Repeats legend until label is filled	Wire and cable marking
Terminal	Places legends at terminal locations	Terminal blocks
Tape	Rotates legends 90° clockwise	Safety/facility ID, pipe marking and general purpose labeling
Strip	Repeats legend until label is filled and copies legend on two sides of middle perforation	Wire and cable marking
Flag	Prints legend once at top of label and then repeats the legend once at the bottom of label	Wire and cable marking
Vertical	Prints legend vertically	Safety/facility ID, pipe marking, and general purpose labeling

NOTE: Another mode for DIN terminal block labeling is accessible by pressing the F5 key. DIN terminal block labeling is based on European standards and is primarily used in European countries. For detailed instructions on using the DIN mode, refer to the Labeling Exercises section of this manual.

SETTING UP THE COUGAR LS9Q AND USING FILE MANAGER

The *COUGAR*™ LS9Q has the ability to store and recall label files. Label files are stored and recalled within **File Manager**. Label files are designated with a **.LS8** ending. The file type is shared with the *PANTHER*™ LS8E printer.

To access the **File Manager**, press the SHIFT key and then press the PAGE key:

1. Use the right or left directional arrow keys to select the desired file. **There are 10 file storage locations in the *COUGAR*™ LS9Q**.

   NOTE: When saving a new file, press the ENTER key to begin entering a file name. Use the alphabetic or numeric keys to enter a file name. After entering a file name, press the ENTER key again to **Save**.

   NOTE: When renaming a previously saved file, press the ENTER key to begin entering the new file name. Use the alphabetic or numeric keys to enter the new file name. After entering the name, press the ENTER key again to **Save**.

2. Use the up or down directional arrow keys to highlight **Action**.
3. Use the right or left directional arrow keys to select **Save**, **Load**, **Delete**, or **Delete All**.

   ⚠ WARNING: Selecting **Delete All** will erase all stored labels.

4. Press the ENTER key to complete the selected action.

LABELING EXERCISES

Exercise 1

Create a wire marker on continuous cloth tape

- Step 1: Insert a continuous cloth tape cassette, such as T100X000C1C-BK
- Step 2: When prompted, select New Blank File. Save previous label if necessary.
- Step 3: Step 4: Set length as 1.50 inches
- Step 4: Type 1234
- Step 5: Press PRINT

Results:

1234
1234
1234
1234
1234
1234
1234
1234
1234

Hint: You can adjust the font size by pressing the SIZE key.

You can adjust the label mode by pressing the LABEL MODE kev.

Exercise 2

Create basic text on heat shrink tubing

- Step 1: Insert a heat shrink tubing label cassette such as H000X044F1C
- Step 2: When prompted, select New Blank File. Save previous label if necessary.
- Step 3: Type ABCD
- Step 4: Press PRINT

Results:

ABCD
ABCD
ABCD

Hint: H000X044F1C defaults to 10 point font printed in Wire Marker Mode with an “Auto” length setting.

You can adjust the font size by pressing the SIZE key.

You can adjust the label mode by pressing the LABEL key. For example, try Tape Mode.

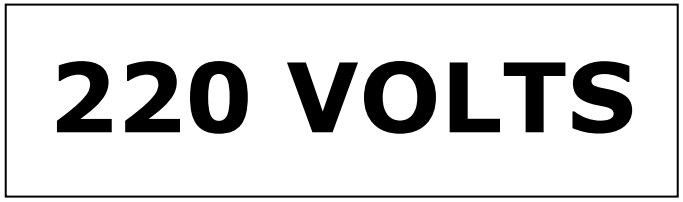
You can set a fixed tubing length by using the LENGTH function. For example, enter 200 for 2.00 inches

Exercise 3

Create basic text on continuous tape

- Step 1: Insert a continuous tape label cassette such as T100X000VUC-BK
- Step 2: When prompted, select New Blank File. Save previous label if necessary.
- Step 3: Type 220 VOLTS
- Step 4: Press PRINT

Results:



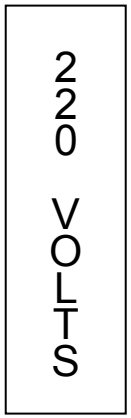
Hint: T100X000VUC-BK defaults to 36 point font printed in Tape Mode with an "Auto" length setting.

You can adjust the font size by pressing the SIZE key.

You can adjust the label mode by pressing the LABEL key. For example, try Vertical Mode.

You can set a fixed tape length by using the LENGTH function.

Vertical Text



Exercise 4

Create serialized wire markers with heat shrink tubing

- Step 1: Insert a heat shrink tubing label cassette such as H000X044F1C
- Step 2: When prompted, select New Blank File. Save previous label if necessary.
- Step 3: Type WIRE
- Step 4: Press INSERT key
- Step 5: Press down arrow key once to highlight Serial
- Step 6: Press ENTER
- Step 7: Press right arrow key
- Step 8: Type 1 for Start value
- Step 9: Press ENTER
- Step 10: Press right arrow key
- Step 11: Type 3 for End value
- Step 12: Press ENTER twice
- Step 13: Press PRINT

Results: Heat Shrink Serialization…

WIRE1	**WIRE2**	**WIRE3**
WIRE1	**WIRE2**	**WIRE3**

…Using Cut/Pause Function

WIRE1 **WIRE1**	**WIRE2** **WIRE2**	**WIRE3** **WIRE3**

Hint: The Serial tool allows numeric or alphabetic serializations.

You can choose any increment from 1 to 99, print multiple copies of a series, and even collate the copies of the series items.

Heat shrink tubing can be partially cut to create a strand of individual markers. The Cut/Pause function in the Setup Menu will pause a print job between each consecutive label for cutting.

LABELING EXERCISES

Exercise 5

Create a symbol label on continuous tape

- Step 1: Insert a continuous tape label cassette, such as T100X000VXC-BK
- Step 2: When prompted, select New Blank File. Save previous label if necessary.
- Step 3: Press SHIFT key and let go
- Step 4: Press A key
- Step 5: Press SPACE
- Step 6: Type CAUTION
- Step 7: Press PRINT

Results:

Exercise 6

Create terminal block labels

- Step 1: Insert a terminal block cassette (T024X000FJC-BK, T031X000FJC-BK, or T038X000FJC-BK)
- Step 2: When prompted, select New Blank File. Save previous label if necessary.
- Step 3: Enter the terminal spacing (ie. 0.25")
- Step 4:
    - Create text….
        - Each terminal has up to 8 lines available. You may need to increase the terminal space or decrease the font size to fit additional lines. Up to 9 terminals can be created in this way.
        - Use the Page key to move to the next or to the previous terminal
    - …or create a serialization…
        - Press the Insert key, select serial
        - Enter start, end, and increment values
        - Scroll down or up to Place On…

  - Select Place On… Labels (this allows more than 9 terminals in a serialization
- Step 5: Press Print
  - If you see the Tools too big error, then reduce the font size, increase terminal space, or check the label rotation.

Hint: You can separate the terminal legends with lines across the label. To do this, press the Line key, select @ Pages – Yes. Press Enter.

You can change the terminal spacing by:
- Pressing the Shift + DEL keys, to Clear All Pages & Format. Then enter a new terminal space and press the Enter key.
- …Or by using the LENGTH function.

Exercise 7

Create DIN terminal block labels

NOTE: DIN terminal block labeling is based on European standards and is primarily used in European countries. The unit of measure for length in DIN Mode is millimeters (mm).

- Step 1: Insert a continuous tape cassette, such as T050X000VPC-BK
- Step 2: When prompted, select New Blank File. Save previous label if necessary.
- Step 3: Press F5 to begin the DIN Mode function.
- Step 4: Enter the Module Size
- Step 5: Enter the Module Span
- Step 6: Create label text or tools
- Step 7: Press Print
- Step 8: Repeat steps 4 through 6 until print job is complete
- Step 9: Press DEL at steps 4 or 5 to exit DIN Mode

Exercise 8

LABELING EXERCISES

Create a face plate or patch panel label

- Step 1: Insert a continuous tape label cassette, such as T100X000VXC-BK
- Step 2: When prompted, select New Blank File. Save previous label if necessary.
- Step 3: Type “A”
- Step 4: Press the INSERT key and select 123 Serial
- Step 5: Enter a start value of 01, stop value of 04, and increment value of 1
- Step 6: Press ENTER
- Step 7: Press Shift + LENGTH
- Step 8: Set length as 0.65
- Step 9: Press LINE and select @ PAGES – Yes
- Step 10: Press ENTER
- Step 11: Press PRINT

Results:

A01	**A02**	**A03**	**A04**

Example using T038X000VPC-BK, black on white continuous vinyl tape:

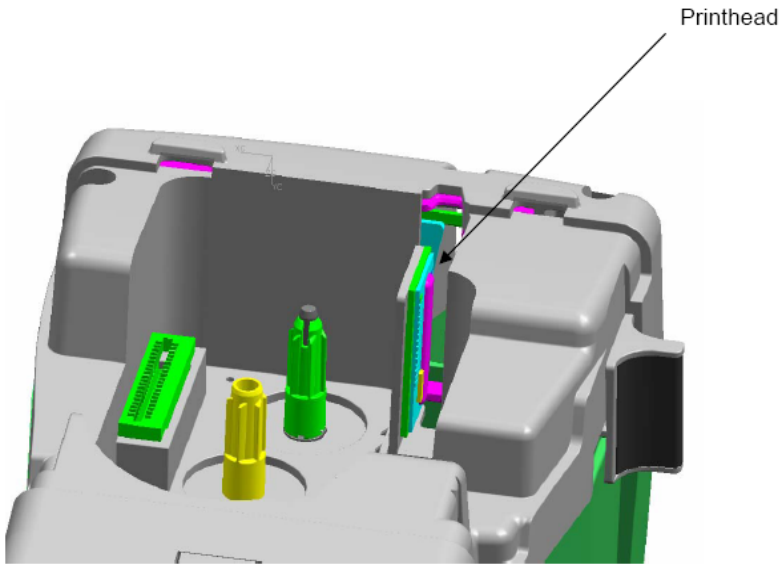
PRINTER CLEANING INSTRUCTIONS

Cleaning the Print head and Drive Roller

The LS9Q printer is cleaned using the LS9-CLN, cleaning kit.

The print head should be cleaned regularly, and more often in harsh environments. The print head should be cleaned whenever any irregular printing results occur. The drive roller should be cleaned whenever foreign matter, such as dust or adhesive, is present.

1. Turn **OFF** power to printer.
2. Remove the cassette door.
3. Unlock the print head latch.
4. Remove the label cassette from the printer.
5. Rub a cotton swab with cleaning solution along the print head.
6. Repeat until no more residue is picked up by the swab.

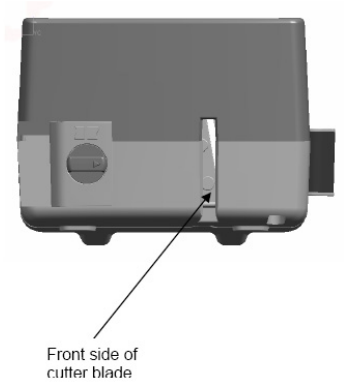


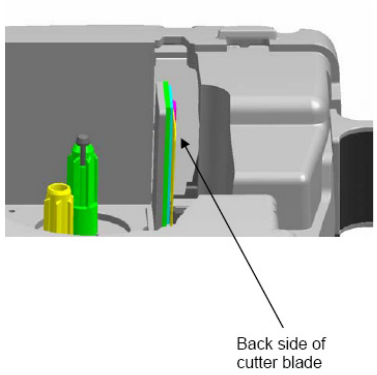
PRINTER CLEANING INSTRUCTIONS

Cleaning the Cutter Blade

The cutter blade should be cleaned when the quality of the cut indicates that the blade may be dirty.

1. Turn **OFF** power to printer.
2. Remove the cassette door.
3. Unlock the print head latch.
4. Remove the label cassette from the printer.
5. Push the cutter button in so that the cutter blade is exposed through the media opening (see images below).
6. Clean the front and back sides of the cutter blade with the cotton swab and cleaning solution.
7. Repeat until no more residue is picked up by the swab.





PRINTER TROUBLESHOOTING

This section helps identify printer conditions and problems that can often be solved by the user. If you are unable to correct the problem contact Panduit Technical Support at **866-871-4571** or Panduit Customer Service at **800-777-3300**.

SYMPTOM	ACTION
POWER	
Printer does not power up properly, and LCD does not come on.	• To turn printer ON, press the power button. • Make sure that 6 AA alkaline batteries are loaded in the printer. If problem persists, replace batteries. • Plug in AC Adapter.
PRINTING	
Not printing.	• Make sure printer: 1. Is turned ON 2. Has label cassette loaded properly. 3. Label media is fed beneath guide arm on cassette. 4. Print head latch is locked. 5. Has text or tools on the screen to print.
Tools Too Big!	• The items on the home screen are too large for the printable area. You can: • Reduce the text size on the home screen • Reduce the symbol size • Reduce the bar code size • Rotate the label • Use a larger label
Media is not advancing properly in the printer.	• Print head latch is not locked. • End of label roll reached. Replace label cassette. • Label jam in printer. Label is caught in print mechanism. To clear jam: 1. Turn printer power OFF. 2. Unlock the print head latch. 3. Open cassette door. 4. Detach any printed labels with cutter. 5. Remove label cassette from printer. 6. Carefully remove any labels caught in the printer. 7. Reinstall label cassette. 8. Replace cassette door. 9. Lock print head latch.

PRINTER TROUBLESHOOTING

SYMPTOM	ACTION
Printed image is full, but grayish or “translucent”.	• Print head heat setting is too high. Reduce heat setting. The heat setting is accessible in the Setup menu. Press the SETUP key, scroll down to heat and Press ENTER. Reduce the heat setting with the down arrow.
Voids in printed image: areas where there is no print.	• Print head elements or “dots” are dirty or obstructed. Clean print head with soft-stemmed swab and isopropyl alcohol. (part number LS9-CLN)
CUTTER	
Cutter does not work	• Make sure that cutter blade and print head are free of debris or adhesive build-up. See detailed cleaning instructions for more information.
DISPLAY	
Characters on display screen are too light or too dark	• Adjust the contrast of the display screen. Press the SETUP key, scroll down to contrast, and press ENTER. Adjust the contrast with the up or down arrows. Increase the number to darken the contrast or reduce the number to lighten the contrast.

FREQUENTLY ASKED QUESTIONS

1. Question: How do you cut the labels?
   Answer: Fully press and then release the cutter button. The cutter button is located on the top of the LS9Q printer adjacent to the label exit.

2. Question: What is the partial cut function and how is it adjusted?
   Answer: Partial cutting enhances productivity and organization by keeping a strand of labels together for pulling apart at a job site. The partial cut function leaves a small bit of liner uncut. The cutter can be adjusted to full or partial cut by turning the black knob on the cutter button. The molded icons in the cutter button indicate whether the printer is set to full or partial cut.

3. Question: Should I remove the white tab from my label cassette?
   Answer: No, this tab is meant to remain on the cassette. It is used to help remove the cassette from your printer.

4. Question: How many files can be stored on the LS9Q printer?
   Answer: You can store 10 label files on the LS9Q printer.

5. Question: Can I use the AC adapter to charge my batteries?
   Answer: No, the AC adapter does not charge the batteries in the printer. If the low battery icon appears on the screen, then replace the batteries with new ones.

6. Question: Can I use rechargeable batteries in the LS9Q printer?
   Answer: Yes, you can use rechargeable AA size batteries, either Nickel-Cadmium (NiCd) or Nickel-Metal Hydride (NiMH) type.

7. Question: What is the print resolution of the LS9Q?
   Answer: The print resolution of the LS9Q is 203 dpi (dots per inch).

8. Question: Where is the LS9Q serial number?
   Answer: The serial number for your LS9Q printer is printed on a label inside of the battery compartment.

FREQUENTLY ASKED QUESTIONS

9. Question: If my cassette runs out during a print job, after I reinstall another cassette, will the print job begin where it left off?
   Answer: No, the print job will start over. To avoid printing duplicate labels, you can change the printing parameters, such as the serialization start or end, before printing.

10. Question: How many label cassettes can you print before needing to replace the batteries?
    Answer: The number of label cassettes that can be printed before replacing the printer's batteries depends on the label size, label material, font size, and number of characters or tools that you are printing. While the number of cassettes will vary, you should typically be able to print at least 4 or 5 cassettes before replacing the batteries.

11. Question: Will the cutter blade ever get dull, and if so would the printer need to be repaired?
    Answer: The cutter blade is designed to maintain its sharpness throughout the life of a printer. The cutter blade should be cleaned periodically or whenever adhesive build-up appears. If the cutter blade breaks for any reason, it should be returned to Panduit for repair.

12. Question: What is the output voltage of the LS9Q AC adapter?
    Answer: The output voltage is 9 V.

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WARRANTY INFORMATION

PANDUIT Tool and Printer Warranty:

Panduit tools and printers are warranted to be free from defects in material and workmanship at the time of sale but Panduit's obligation under this warranty is limited to the replacement of any tool or printer proved to be defective within 1 year (for printers) and 90 days (for tools) from the date of purchase.

Before using, buyer shall determine the suitability of the tool or printer for his intended use and buyer assumes all risk and liability whatsoever in connection therewith.

This warranty is void if the Panduit tools or printers are modified, altered or misused in any way. Use of Panduit tools or printers with any product other than the specified Panduit products for which the printer or tool was designed constitutes misuse.

Panduit products, including tools and printers, are not designed, intended or authorized to be used in medical applications or as components in medical devices that are used to sustain or support human life. Should buyer purchase or use a Panduit product for any such unintended or unauthorized medical application, buyer shall indemnify and hold Panduit harmless from any liability or damage whatsoever arising out of the use of Panduit products in such medical applications.

THIS WARRANTY IS MADE IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR USE ARE SPECIFICALLY EXCLUDED. NEITHER SELLER NOR PANDUIT SHALL BE LIABLE FOR ANY OTHER INJURY, LOSS OR DAMAGE, WHETHER DIRECT OR CONSEQUENTIAL, ARISING OUT OF THE USE OF, OR THE INABILITY TO USE, THE PRODUCT.

This warranty may not be altered except by an agreement signed by officers of seller and Panduit.

GENERAL SPECIFICATIONS

Print Method:	Thermal transfer
Effective Print Width:	1.00” (25.4 mm)
Print Length:	12.00” (maximum label length)
Print Resolution:	203 dpi (horizontally and vertically)
Label Width:	0.24” to 1.0”
Media Length:	Up to 25’ continuous tapes
Media Types:	Continuous tapes and continuous heat shrink tubing
Materials:	Heat shrink tubing, vinyl tape, vinyl cloth tape, polyester tape, polyolefin tape
Media Cutting:	Manually operated cutter
Display:	4 line x 14 graphic LCD
LCD Contrast Control:	Adjustable via keypad
Operating System:	Panduit proprietary
Power Supply:	6 AA alkaline batteries
AC Adapter:	Universal Input (100 - 240 VAC, 50/60 Hz)
Oper. Temp/Hum:	41-104° F (5-40 °C), 0 - 90% relative humidity (non-condensing)
Stor. Temp/Hum:	-40-140° F (-40-60 °C), 0 - 90% relative humidity (non-condensing)
Compliance:	FCC Part 15 Class A European Community EMC and Low Voltage Directives regarding safety, emissions, and immunity European Community Restriction of Hazardous Substances (RoHS) European Community Waste Electrical and Electronic Equipment (WEEE)
Weight	1.76 lbs. (0.80 kg)

GLOBAL TECHNICAL SUPPORT INFORMATION

COUNTRY/REGION	TECHNICAL SUPPORT PHONE NUMBER
Asia Pacific	65-6379-6700
Australia	61-3-9794-9020
Brazil	551136112434
Canada	866-871-4571
Europe	44-208-601-7200
Japan	81-3-376-77011
Latin America	01-800-36086-00
USA	866-871-4571