

Spirit™ 2100 Portable Printing System

Rev. E



HellermannTyton

SPIRIT 2100 PORTABLE PRINTER INSTRUCTION MANUAL
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While the information contained in this document is correct at the time of printing, HellermannTyton reserves the right to change the specifications of the equipment described herein at any time without prior notice. HellermannTyton warrants that its thermal transfer printer and supplies will be free from defects in material and workmanship for one (1) year from the date of purchase. HellermannTyton will replace any accessories and supplies, and repair or, at its option, replace equipment found to be defective under this warranty. This warranty is expressly in lieu of all other warranties, including but not limited to, any implied warranty of merchantability or warranty of fitness for a particular purpose. In the event of breach of this express warranty, or any other warranty, whether expressed or implied, HellermannTyton's liability shall be limited to the remedy provided above. HellermannTyton shall not be liable for any indirect, incidental, or consequential damages, regardless of whether liability is based upon breach of warranty, negligence, strict liability in tort, or any other theory. HellermannTyton will never be liable for an amount greater than the purchase price of the products described by this express warranty. No agent, distributor, salesperson, wholesale or retail dealer has the authority to bind HellermannTyton to any other affirmation, representation, or warranty concerning these goods. **YOUR GUARANTEE** - The HellermannTyton name and our commitment to quality back every HellermannTyton product.

FCC NOTICE - This equipment generates and uses radio frequency energy and, if not installed and used in strict accordance with these instructions, may cause interference to radio and television reception. It has been tested and found to comply with the limits for a Class B computing device pursuant to Subpart J of Part 15 of the FCC rules, which are designed to provide reasonable protection against such interference to radio or television reception, which can be determined by turning the equipment on and off. The user is encouraged to try to correct the interference by using one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between equipment and receiver.
- Connect the equipment to an outlet on a branch circuit different than the branch the receiver is connected to.
- Consult the dealer or an experienced radio/television technician for help.

IMPORTANT SAFETY PRECAUTIONS

- Read all instructions carefully.
- Do not immerse the printer or battery charger in water or other liquids; you could receive an electrical shock.
- Do not overcharge the battery. Charge no more than 16 hours at a time.
- Do not put objects onto or into the printer or battery charger.
- Do not expose to high temperatures or high humidity. Never leave on the dashboard or in the trunk of a car.
- Do not use in very dusty places and avoid direct exposure to sunlight and rain.
- Do not remove hand strap, it cannot be reinstalled without reassembly of unit.
- Do not attempt to repair the printer or battery charger. There are no serviceable parts. If service or repair is needed, contact a qualified HellermannTyton service representative.
- Do not touch the printhead, rollers or sensors with your fingers.
- Do not substitute other batteries or chargers for use in the printer.

ROHS & WEEE COMPLIANCE

In accordance with the WEEE directive, upon end-of-life of the Spirit 2100, dispose of the battery and contact the HellermannTyton ID Support Center. An RGA will be issued for return to HellermannTyton, where it will be recycled per the WEEE directive.

SPIRIT™2100 PORTABLE PRINTING SYSTEM

Your new HellermannTyton Spirit™2100 Portable Printing System makes label design and printing easier than ever. The Spirit™2100 offers many features that, up until now, were available only in large label printers, yet it fits in the palm of your hand. With a state-of-the-art graphics display, "What You See Is What You Get" label editing, downloading capabilities, and a user-friendly design, your Spirit™2100 Portable Printing System provides features that even large label printers do not offer. The Spirit printer has become the label printer of choice for users seeking efficiency and convenience.

The Spirit can upload and download data to and from personal computers, which allows you to download label data and print labels in the field without ever having to do any data entry. This reduces data entry errors and greatly speeds label production. The Spirit also keeps a database of every different label that is printed, and this database can be uploaded to any personal computer for recordkeeping and asset tracking.



Incorporating the concept of the SoftKey Menu System, it is now easier than ever to navigate, create labels, and print labels, as a menu is always available to you on the LCD screen. You can enter text easily using the keypad and the SoftKeys, and in seconds, you'll be producing labels that include graphic images, bar codes, serial numbers, and text. You can even add your own graphic images, custom label sizes, or change the display language of the unit.

Your Spirit™2100 Portable Printing System comes with everything you see pictured below to get you up and running as quickly as possible.

Thank you for purchasing the Spirit™2100 Portable Printing System. We are confident that you will find it an indispensable tool for all of your labeling needs.



DEVICE SPECIFICATIONS

Input Device:	<ul style="list-style-type: none">• Alphanumeric elastomer keypad
Output Device:	<ul style="list-style-type: none">• 203 d.p.i. thermal transfer printhead
Power:	<ul style="list-style-type: none">• 8.4 VDC 310mA re-chargeable NiCad battery• 120VAC/230VAC/100VAC wall mounting pack for re-charging
Display:	<ul style="list-style-type: none">• 2.0" X 1.5" viewable graphics LCD (128 X 64 pixel)
Processor:	<ul style="list-style-type: none">• 8 bit RISK processor running at 6Mhz (6 million instructions per second)
Operating Temp:	<ul style="list-style-type: none">• +40F to +122F (+5C to +50C) non-condensating• Condensation can form on any electronic device if transferred from a cold to hot or hot to cold environment quickly. The device will not run until the condensation dissipates.
Storage Temp:	<ul style="list-style-type: none">• -30C to +70C (-30F to +160F)
Communications:	<ul style="list-style-type: none">• RS-232 up to 19.2K baud
Weight:	<ul style="list-style-type: none">• 1.14kg (2.5lbs.)
Memory:	<ul style="list-style-type: none">• 256K bytes of flash non-volatile memory• 128K of high speed RAM• 128K of program space

QUICK-START INSTRUCTIONS

1. Load your labels and ribbon. (page 3 and 4)
2. Press the **POWER** button.
3. Press the **FEED** button to align the labels for print.
4. Press the **MENU** button to go to the main menu.
5. Press the **LABEL** SoftKey to enter edit mode.
(page 5)
6. Press the **INSERT** SoftKey. (page 5)
7. Press the **TEXT** SoftKey. (page 5)
8. Type in your text. (page 5)
9. Press the **ENTER** button or the **DONE** SoftKey to finish. (page 5)
10. Press **PRINT** to print one label. (page 8)



USING THE BATTERY PACK

1. Pull up and out on the end of the rubber elastomer flap on the bottom of the printer to open the battery compartment.
2. **To insert:** Slide the battery into the printer (label up) until it "clicks" or snaps into place.
3. **To remove:** Pull gently on the plastic tab at the end of the battery itself until it gives and freely slides out of the printer.
4. When the battery is in the printer, replace the flap and close the battery compartment before use.



Large characters and/or large labels require more power to print than smaller ones and will drain the battery faster. The printer monitors the battery usage internally and will maximize battery life so it is able to print labels up until the battery is completely dead. **WARNING:** Risk of fire or explosion if battery is replaced by an incorrect type. Use HellermannTyton approved battery packs at all times. **CAUTION:** Always power down unit before removing battery to prevent damage to LCD.

CHARGING THE BATTERY PACK

The battery for the Spirit™2100 Portable Printing System must be fully charged before it's first use. Plug one end of the charger into the battery pack and the other end into an appropriate electrical outlet. Allow charging for about 8 hours. **CAUTION:** Charge limit is 16 hours and overcharging may cause damage and/or reduce the overall life of the battery.



Whenever possible, through the SoftKey menu, discharge the battery completely before attempting to recharge. This will insure a longer battery life and maintain a more accurate battery memory. **NOTE:** Always dispose of batteries properly. For information, visit www.rbrc.org.

WARNING: The AC adapter is not designed to power the battery pack while inside the Spirit™2100. Do not print labels when charging the battery pack.

USING THE OPTIONAL AC POWER ADAPTER

The optional AC power adapter (part no. 2100AC) is available through any HellermannTyton authorized distributor and is intended to keep the Spirit™2100 Portable Printing System up and running when your battery needs to be recharged.

Replace the battery pack with the AC power adapter and close the compartment flap. Plug the AC end of the transformer box into an appropriate electrical outlet and the adapter cord into the AC power adapter inside the Spirit™2100.

WARNING: Never plug the AC power adapter cord into the rechargeable battery pack.



LITHIUM BATTERY

The lithium or "coin" battery is used to power the non-volatile memory. This memory is responsible for retaining the last label in addition to scanning and storing image and design files within the printer while it is turned off or the battery pack is removed. This battery can normally last for several years requiring replacement only after it will no longer retains these settings and files. **CAUTION:** This is a **very** sensitive area of the printer. To avoid the risk of damage or injury, the battery should not be replaced by the end-user. Please contact the HellermannTyton service center at 800-537-1512 for replacement options.

INSTALLING THE RIBBON CARTRIDGE



1. Open the top cover of the printer by pulling down on the yellow release lever.
2. Orient the ribbon cartridge so that the section of exposed ribbon is facing up towards the underside of the LCD screen.
3. Slide the whole cartridge into the side of the unit gently (so as not to snag or wrinkle the ribbon) until it snaps tight and is flush with the side of the unit, locking the ribbon cartridge in place.



LOADING THE LABEL SPINDLE

1. Remove the yellow plastic label spindle from inside the printer and pull apart.
2. Install the roll of labels over the spindle shaft (part no. TS3003039) making sure the labels are unwinding in the proper direction as indicated by the arrows on each side of the label spindle.
3. Replace the spindle cap (part no. TS3003040) on the end of the spindle shaft until it just touches the label roll. Do not push together too tightly or you may limit the ability of the labels to feed freely. **NOTE:** The yellow label spindle is not a "throw-away" item as you finish a roll of labels and they do not come with the purchase of rolls of labels. If the label spindle is damaged or lost, additional spindles can be purchased from any authorized HellermannTyton distributor.



LOADING THE LABEL SPINDLE IN PRINTER

1. Place loaded label spindle back into the spindle compartment of the printer.
2. Each end of the spindle shaft is a different size to prevent improper loading.
3. There are also two "hooks" on each side of the label spindle that must be placed on the round metal bar near the printhead. **NOTE:** Do not touch the thermal transfer printhead as this could damage the printhead, reducing print quality.
4. Pull up on the end of the labels and insert into the bottom of the label shield pushing through until they come up out of the top.
5. Once the labels are moving smoothly through the label shield, carefully close the printer cover (not pinching the labels inside) and press the FEED key. **NOTE:** When a label is loaded, the printer will "auto-detect" the new material by reading the bar code on the back of the liner which tells it the size and spacing of the label. To reduce waste, the label material will then automatically retract back into the printer when you begin to print.



THE DISPLAY SCREEN

After loading labels into the printer, the display should automatically show you an outline of your label, scaled to the size of the screen for maximum viewing and ease of editing. This template will allow you to actually see the placement and relative size of text, graphic images or bar codes that are being designed onto the label.



The graphics display is capable of showing 3 different font sizes; small, medium and large. This gives you options to create clean, crisp, readable labels for most applications. The default

text size will be the smallest displayable text font for the screen. If the label is too large for the display, the user might see the top and side outline of the label and will need to scroll down to the bottom of the label using the arrow or the ENTER keys. There are 5 "SoftKeys" that are located at the bottom of the LCD graphics display. The function of these keys will change depending on where you are in the MENU selection. The key function for each button will appear on the graphics LCD, directly above each SoftKey. This makes it easy to navigate various menus without having to leave your label template.

Pressing the MENU key will return you to the default SoftKey menu: MENU, STATUS, SYSTEM, and PCLINK from wherever you are on the screen.

CONTRAST ADJUSTMENT OF THE LCD

The Spirit™2100 automatically adjusts the contrast of the LCD based on the ambient temperature. However, should you need to manually adjust the contrast for any reason, simply press the MENU button, the SYSTEM SoftKey, and then the CONT SoftKey. This will show a status bar with the current contrast settings. Increase or decrease the contrast by moving the bar left or right using the SoftKeys marked and .



APPLYING TEXT TO A LABEL

1. From the main menu, press the LABEL SoftKey.
2. Press the ENTER key.
3. Type in your TEXT and then press ENTER when complete
4. To add another text field, press the ENTER key again and type your text. **NOTE:** This can be done as many times as there is space available on your particular label.
5. A second line will appear below the previous line on the label.



NOTE: From the MAIN MENU, press the LABEL SoftKey, the NEXT MENU SoftKey twice, and the SETTINGS SoftKey to set the Default Size of your text. This setting will dictate what size text you will begin with when entering text in a field. Choosing Small, Medium, or Large will lock the text at that size while being entered. If set to Auto, the text will automatically change size to conform to the size of your text box.

UPPER AND LOWERCASE TEXT

When entering text on your label design, pressing the CAPS button will toggle your text entry between upper and lowercase letters. A small letter "C" will appear in the SoftKey Legend (see picture left) indicating that "Caps Lock" is on.



TEXT ATTRIBUTES

The Spirit™2100 has seven (7) total font sizes available in its memory but the LCD is only capable of displaying three sizes at once (small, normal, and large). Based on the size of the specific label you're working with, the printer will automatically choose three out of the seven font sizes

Size 6 point abc ABC
 Size 8 point abc ABC
 Size 10 point abc ABC
 Size 12 point abc ABC
 Size 16 point abc ABC
 Size 20 point abc ABC
 Size 26 point abc ABC

to act as "small", "normal", and "large" fonts for that label. For a smaller label, these might

be the 6 point, 8 point, and 10 point sizes respectively. For a larger label, the sizes may be 12, 16, and 20 points.

CHANGING TEXT SIZE MANUALLY

1. From the label menu, move the cursor to the line of text you wish to edit using the direction pad.
2. Press the STYLE SoftKey.
3. Press the SIZE SoftKey and choose either SMALL, MEDIUM, or LARGE font.
4. If the text you selected is too large for the label, the printer will notify you of the error and return you to your label layout. Press the UNDO button to go back one step if necessary.
5. The FONT POINTS cannot be changed manually.



CHANGING TEXT TO BOLD

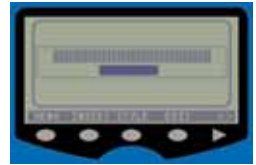
1. From the label menu, move the cursor to the line of text you wish to edit using the direction pad.
2. Press the STYLE SoftKey.
3. Press the BOLD SoftKey and a small letter "B" will appear in the SoftKey Legend (see picture) and will remain there whenever that particular line of text is selected.
4. Press the BOLD SoftKey again to remove the bold style applied to that line.



CREATING A BARCODE

Any barcode that is entered on your layout will appear as a field of vertical lines with a solid box underneath representing the human readable portion. **NOTE:** Combinations or multiple occurrences of text, barcodes, and images cannot be placed together on one line.

1. From the main menu, press the LABEL SoftKey and then the INSERT SoftKey to add a new line to your label.
2. Select BAR from the SoftKey listing and enter the barcode **Type:** with the SoftKeys.
3. Type in the **Data:** for the barcode to display and indicate whether a human **Readable:** line of text is placed under the barcode on printout.
4. Press the DONE SoftKey to save your settings display the barcode representation on your label.

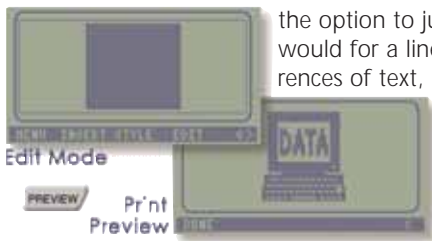


NOTE: Bar codes have a fixed modulus (narrow bar to space width) of 2 print pixels (0.127mm x 2 = 0.254mm). The narrowest bar width is 0.254mm. A single printer pixel is 0.127mm. The modulus of EAN automatically is increased to 3 print pixels if the label selected is wide enough. The modulus is not selectable by the user. The bar code is already preset with a ratio of 1.5:1 and a module of .010. To change the height of the barcode, use the same procedure to change the size of the text as listed earlier. If you want a medium-sized barcode, move the cursor to the barcode line, press the SIZE SoftKey, and choose MEDIUM.

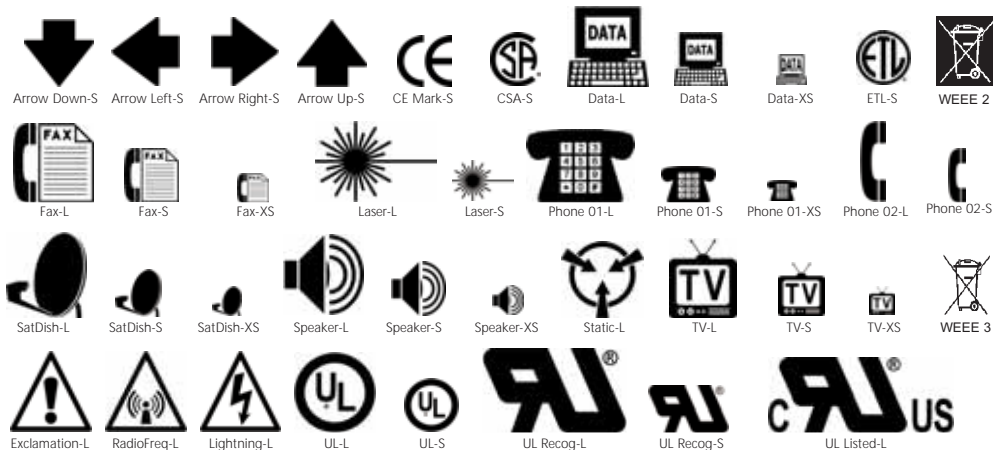
WORKING WITH GRAPHIC IMAGES

These and additional images come stored in your Spirit™2100. The images below are constantly being updated to meet the ongoing needs of professionals in the field, and as a result, this listing may not be current as of the time of the printing of this manual. You can create and upload your own images to the Spirit™2100 using the optional communications cable and SpiritLINK software. Refer to the SPIRITLINK section on pages 16-21.

1. From the main menu, choose the LABEL, then INSERT, then IMAGE SoftKeys.
2. Choose an image file from the list shown using the direction button and press ENTER. You can jump to the bottom or top of the listing at any time using the SoftKeys. You also have



the option to justify the image left, center, or right, just as you would for a line of text. **NOTE:** Combinations or multiple occurrences of text, barcodes, and images cannot be placed together on one line. **NOTE:** Any graphic image on your template will show up as a square box while in Edit mode. To get a better visual idea of how it will print, press the PREVIEW button. Press it again to return to Edit mode.



CREATING A CUSTOM IMAGE

You can use any graphic image editing program, such as *PaintShop Pro* or *Photoshop*, to create an image to download. Image manipulation cannot be done once stored inside the printer and retrieval of the image from the printer is not possible. Within your image editing program, view the properties of your image to find its size, *in pixels*. For an image to download to the Spirit™2100, the following general criteria must be maintained:

- The width of any image cannot exceed 384 pixels (1.92").
- The width *times* the height (pixels²) cannot exceed 5280.
- All images must be saved as a Bitmap (*.bmp).
- All images must be reduced in color depth to 2 (black and white - no greys).

After you've determined that an image can be downloaded to the printer, you will also need to

know if it will physically fit on your label when printed. Use the following example as a guide.

EXAMPLE: If you have an image that's 150 x 300 pixels in size, you can determine the physical print size in inches by *multiplying* each dimension by 0.005" (150 x 0.005" = 0.75" and 300 x 0.005" = 1.5"). If you have the measurements of your image in inches instead of pixels, *divide* each measurement by 0.005" to get the dimensions in pixels. Refer to the SPIRITLINK section on pages 16-21 for upload directions.

USING THE FILL FEATURE

You can create a label that contains multiple lines of identical text, barcodes, or images for 360° viewing when wrapped around a cable.

1. From the Main Menu, press the LABEL SoftKey.
2. Press the NEXT SCREEN SoftKey to scroll to the next menu screen.
3. Press the FILL SoftKey to copy the top-most line on your design as many times as needed to fill the remainder of the label.

NOTE: You can edit any of the copied lines at any time but editing the source line (the top line), will update all the "fill" lines on the entire label automatically.

JUSTIFICATION OF LINES

1. From the label menu, move the cursor to the line of text you wish to edit using the direction pad.
2. Press the STYLE SoftKey.
3. Choose either LEFT, CENTER, or RIGHT justification of the text.



REARRANGING LINES ON YOUR LABEL

1. Highlight a text, barcode, or image line on your label design.
- 2a. Press FUNC + X to CUT (which will remove the original) from your label.
- 2b. Press FUNC + C to COPY (which will leave the original on your design).
- 3a. Press FUNC + V to PASTE a copied line above any currently selected line on your screen.
- 3b. Press FUNC + A to PASTE a line at the bottom of the label design.

CREATING SERIALIZED LABELS

With a text or barcode field selected, press the SERIAL button. This will automatically flag that particular line as a serialized field by displaying an "S" in the SoftKey Legend.



Conversely, pressing the SERIAL button on a line that has already been flagged as serialized will return it to a fixed line of data.

When printed, the labels will start incrementing in a logical sequence, starting with the last digit in the line. For example, if the line read **1000**, then the sequence would print: 1000, 1001, 1002, 1003, 1004, etc.. If the line read **10Y6** the serialized feature looks at this as a 4-digit alphanumeric character and would print the following: 10Y6, 10Y7, 10Y8, 10Y9, 10Z0, 10Z1, 10Z2, etc.

To print multiple copies of each serialized label, refer to the PREVIEWING AND PRINTING YOUR LABELS section on page 10.

VERTICAL OR CONTINUOUS LABEL DESIGN

The Spirit™2100 can print on continuous label material (not separated by a gap) for terminal blocks, patch panels, or any other application where longer, evenly distributed printing is needed.

The Continuous Mode screen - where all adjustments for vertical printing are made, will start automatically as soon as the printer detects continuous label material loaded. Otherwise, it can be reached from the Main Menu screen by pressing the SYSTEM SoftKey then the NEXT SCREEN SoftKey twice, and finally the VER PRNT SoftKey.

DETERMINING THE LABEL WIDTH AND LENGTH

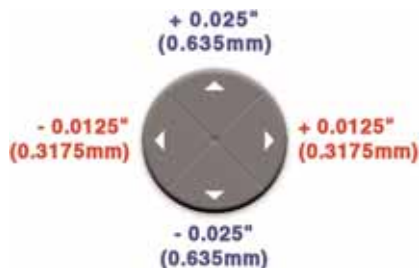
In the Continuous Mode screen, press the STYLE SoftKey to cycle through the following printing options: SQUARE, WIDE, and VERY WIDE. Selecting VERY WIDE will give you a printable length that is 185% of the continuous label width. WIDE is 150% of the width of the label, and SQUARE is 100%.

EXAMPLE 1: If your label width is 0.333" (8.45mm) wide, selecting VERY WIDE will give you a label that is 0.616" long (0.333 x 1.85 = 0.616). **EXAMPLE 2:** If the label width was 1.0" wide, then selecting VERY WIDE would create a label of 1.85" X 1.0" in dimension (1.0 X 1.85 = 1.85").



DETERMINING THE REPEAT OR SPACING BETWEEN PRINTED LABELS

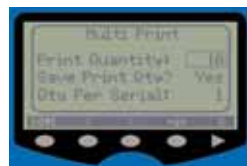
Next, you are asked to select the "SPACE" between printed labels. Using the SoftKeys as well as the Direction Pad, you can change this spacing by increments of 0.0125" (0.3175mm), 0.025" (0.635mm), and 0.25" (6.35mm), creating a space as small as 0.35" on up to 2.85" between legends.



The label will display in a horizontal format for easy editing, but will print vertically on your continuous label stock. **TIP:** For **HellermannTyton**, **Siemon**, and **Panduit** patch panels, set the label width to WIDE and the label spacing to 0.625" (0.158mm). For **Leviton**, **EFS**, and **Ortronics** patch panels, set the width to WIDE and the spacing to 0.600" (0.152mm). For **AMP** patch panels, set to WIDE and 0.550" (0.139mm).

PREVIEWING AND PRINTING YOUR LABELS

From any screen within the printer software, pressing the PREVIEW button will show you a representation of what your label will look like when printed. Also, from any screen within the printer software, pressing the PRINT button will print your label design, whether it's finished or not, or feed a blank label if you haven't started your design yet.



Pressing FUNC+PRINT will take you to the Multi Print screen where you are given control of how many labels to print at once. You do not have to press the PRINT button for every label needed using the Multi Print feature. Use the SoftKeys to adjust the quantity or simply enter it in using the number pad.

You can choose to save that Print Quantity so that every time you press the PRINT button, it will always print that same number of labels without having to go through the Multi Print screen. Choose Yes or No from the SoftKeys.

Finally, if your label design has serialized fields on it, you can choose how many "copies" of each sequenced label will print. **EXAMPLE:** If you need to label both ends of a cable or wire, you can set the QTY PER SERIAL: field to 2 and it will print two of each serial number before advancing to the next serial number. **NOTE:** From the MAIN MENU, press the LABEL SoftKey, the Next Menu SoftKey twice, and the SETTINGS SoftKey to set the Auto Feed to advance one label for easy removal after each print job.

CALIBRATING THE LABEL SENSOR

1. From the Main Menu, press the SYSTEM SoftKey and scroll right to the last available screen.
2. Choose the CAL LBL SoftKey to begin calibration. You will see the label move back and forth and in and out of the printer, allowing the sensor to optimally adjust itself to the current label stock. **NOTE:** This process should be performed for maintenance and diagnostic purposes only.

ADJUSTING PRINT QUALITY

1. From the Main Menu, press the SYSTEM SoftKey.
2. Press the NEXT SCREEN SoftKey to scroll to the next menu screen.
3. Press the PARAM SoftKey. Here you can adjust the HEAT, which is the amount of heat used to transfer ink to the label material, and the MOTOR, which will adjust the speed at which

the label travels past the printhead and the FEED.

NOTE: Print density is not always solved by increasing burn temperature or slowing the motor down. If the printing process is running too hot, the print will start to look washed out and the outer edges of each character will look darker than the inside of each character. In this case, using less temperature on the printhead can increase the print quality.

SAVING LABEL LAYOUT DESIGNS

1. From the Main Menu, press the LABEL SoftKey.
2. Press the NEXT SCREEN SoftKey to scroll to the next menu screen.
3. Press the SAVE SoftKey and enter the name for your layout in the " Save Current Design" screen.
4. Press the DONE SoftKey to accept the filename.

NOTE: A total of 38 layout designs can be stored in the printer at one time. If more jobs need to be created and saved, they can be stored on a PC using the optional Spirit™2100 communications cable and software package. Refer to the SPIRITLINK section on pages 16-21.

OPENING A LABEL LAYOUT DESIGN

1. From the Main Menu, press the LABEL SoftKey.
2. Press the NEXT SCREEN SoftKey to scroll to the third menu screen.
3. Press the RECALL SoftKey and select a label from the list of previously saved or downloaded jobs. You can jump to the top or to the bottom of the list with the use of the SoftKeys

DELETING LABEL LAYOUT DESIGNS

1. From the Main Menu, press the SYSTEM SoftKey.
2. Press the NEXT SCREEN SoftKey twice to scroll to the third menu screen over.
3. Press the FILES SoftKey.
4. Press the DELETE SoftKey and the screen will prompt you to delete a specific file from the list.
5. Move the indicator to the file you wish to delete and press the DONE SoftKey.

NOTE: If you have more than one file to delete, repeat steps 4-6 as needed or use the optional communications cable and software package. Refer to the SPIRITLINK section on pages 16-21.

MAINTAINING YOUR PRINTER

The printer requires no lubrication and only minimal maintenance. General cleaning of the exterior surfaces with regu lar cleaning of the printhead and rollers are all that is required. Exterior surfaces can be cleaned with a damp cloth moistened in a mild detergent and water solution. Commercial cleaners designed for electronic equipment may also be used.

CLEANING THE PRINTHEAD

1. Open the printhead cover by releasing the latch on the side of the printer.
2. Remove the label spindle and the ribbon cartridge exposing the printhead.
3. Be careful not to touch the printhead with fingers or any objects other than the tip of the cleaning pen or cleaning card (part no. 2100CARD).
- 4a. Using a cleaning pen, lightly place the tip of the pen onto the printhead and rub back and forth several times to pull up any ribbon and ink particles.
- 4b. Using the cleaning card, thread the edge over the label shield and over the platen roller. Close the printer hood and pull the card out by hand ONLY. Do not press the FEED key for this function. Do this after every 4 or 5 rolls of labels.
5. Allow to dry for a few moments and replace the ribbon and labels.

UNDERWRITERS LABORATORIES TESTING











This equipment has been tested and found to comply with the limits for a *Class B* digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from the receiver.
- Consult the dealer or an experienced radio/TV technician.

ELECTROMAGNETIC COMPATIBILITY

Underwriters Laboratories, Inc. reports apply only to the specific samples tested under stated test conditions. All samples tested were in good operating condition throughout the entire test program. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components.

Underwriters Laboratories Inc. shall have no liability for any deductions, inferences, or generalizations drawn by the client or others from Underwriters Laboratories Inc. issued reports. This report shall not be used to claim, constitute, or imply product certification, approval, or endorsement by NVLAP, A2LA, or any agency of the US government. This report may contain test results that are not covered by the NVLAP or A2LA accreditation. The scope of accreditation is limited to the specific tests that are listed on the NVLAP and/or A2LA certificates provided at the end of this report.

Test Name <i>Test Requirement / Specification</i>	complies	does not comply
1 Radiated Disturbance Emissions - 30 to 1000 MHz Electric Field <i>EN 55022:1998 Class B / EN 55022:1998 Class B</i>		
2 Conducted Disturbance Emissions - Voltage <i>EN 55022:1998 Class B / EN 55022:1998 Class B</i>		
3 Radiated Disturbance Immunity <i>EN 55024:1998 / IEC 61000-4-3:2002</i>		
4 Harmonic Current Emissions <i>EN 61000-3-2:2001 / EN 61000-3-2:2001</i>		
5 Voltage Fluctuations/Flicker <i>EN 61000-3-3 A1:2001 / EN 61000-3-3 A1:2001</i>		
6 Voltage Dips and Sags Immunity <i>EN 55024:1998 / IEC 61000-4-11:2001</i>		
7 Electrical Fast Transient/Bursts Immunity <i>EN 55024:1998 / IEC 61000-4-2:2001</i>		
8 Conducted Disturbance Immunity <i>EN 55024:1998 / EN 61000-4-6 A1:2001</i>		
9 Electrostatic Discharge Immunity <i>EN 55024:1998 / IEC 61000-4-2:2001</i>		
10 Surge Immunity <i>EN 55024:1998 / IEC 61000-4-5:2001</i>		

ERROR MESSAGES

NOT ENOUGH ROOM ON LABEL

Too many characters have been selected to fit on a line of barcode text.

NO MORE ROOM

No more room to add more characters or lines to a label.

YOU MUST ENTER
MORE CHARACTERS

When saving a job, at least 1 character must be used to save the format.

THAT NAME ALREADY IN USE

A label with that particular file name already exists.

STORAGE IS FULL

The printer has reached the limit of possible saved jobs. Delete unused jobs or upload jobs to your computer using SpiritLINK.

THERE ARE NO
ITEM STORED

When retrieving a saved job, if no jobs have been saved on the Spirit™2100.

NOT COMPATIBLE WITH
CURRENT STOCK

The unit knows which label is currently loaded in the printer. If you try to retrieve a saved label job that was saved using a different label size, this error will alert you so that you cannot retrieve that job until the proper size label is loaded in the printer.

CANNOT EDIT GRAPHIC
IMAGES

Unlike text or barcode fields, images cannot be edited on the Spirit™2100. Use a third-party graphics program to make any changes and then upload to the printer.

IMAGE NOT VALID
- PLEASE DELETE

This error indicates that an image is either saved in an incompatible format or has become corrupted. Delete the image and begin again.

CANNOT CHANGE THE
SIZE OF IMAGES

Unlike text or barcode fields, images cannot be edited on the Spirit™2100. Use a third-party graphics program to make any changes and then upload to the printer.

OUT OF LABELS

Either you just loaded a new label and have not pressed the FEED SoftKey to register it or you are out of labels and a new roll must be loaded.

LABEL DESIGN WAS
NOT STORED

Label design was not stored due to memory full or cancel of save.

PLEASE CLOSE THE COVER

You must close the top cover to print.

NOT VALID FOR
CURRENT STOCK

You do not have continuous label material loaded in the printer for the vertical print feature to continue.

LOAD LABELS,
THEN PRESS FEED

When the top cover has been opened or new labels have been loaded, you need to press the FEED button so that the unit can find the barcode and register the label.

SELECT BATCH FILE
THEN PRESS START

Select a saved batch job, then press the START soft-key.

ERROR MESSAGES (con.)



If there are too many lines of text for a particular label, this error will appear. If you wish to continue printing, the printer will print with that particular label being skipped. The label will read "Label X Skipped".

TROUBLESHOOTING TIPS

DISPLAY STAYS BLANK / BLACK WHEN UNIT IS TURNED ON

1. Make sure the unit is operating within temperature specifications listed in this manual.
2. If the unit has been recently transferred from one temperature environment to another, there may be slight condensation on the circuit board. This will dissipate in about 10 minutes. Allow the unit to equalize with current room temperature before operating.
3. Make sure the battery is fully charged, properly installed, and that the battery contacts are clean.

PRINTER ATTEMPTS TO PRINT, BUT LABELS DO NOT FORM FEED OUT OF THE PRINTER

Ensure that the labels have been loaded properly and are not jammed inside the printer.

THE PRINTER HOOD WILL NOT CLOSE

Make sure the label spindle slide is pushed all the way in on the labels and is straight. If it is not straight, it may interfere with the cover latching pin, preventing the top from closing.

THE PRINTER DOES NOT PRINT OR NO PRINTING APPEARS ON THE LABEL

1. Ensure lock/release lever is in the locked position.
2. Make sure labels loaded are going under the sensor shield.
3. Make sure a ribbon is loaded into the printer and that the ribbon is not empty.
4. Make sure the label spindle isn't too tight. (The labels should turn easily in the spindle.)
5. Make sure battery is fully charged. A depleted battery may still run the LCD, but may not have enough power to print.
6. Clean printhead and rollers.
7. Adjust the print density level.

PRINTING APPEARS UNEVEN IN DENSITY AND IS SPOTTY OR BLURRED

1. Clean the printhead as described in the manual.
2. Adjust heat settings.

PRINTED CHARACTERS ARE NOT FORMED PROPERLY

1. Batteries are possibly weak.
2. Clean the printhead or adjust the print density or motor speed.
3. Verify dust and foreign objects are not on roller.

PRINTER DOES NOT RECOGNIZE THE LABELS

1. Make sure that only HellermannTyton labels are loaded in the printer.
2. Make sure that the labels have a barcode on the back of the liner.
3. Make sure that the barcode reader slot is free of dirt and is clean.
4. Run calibrate label.

PRINTING APPEARS ON ONLY ONE SIDE OF THE LABEL

Make sure top cover is securely shut.

DIAGONAL WHITE LINES APPEAR IN TEXT DUE TO RIBBON WRINKLE

1. Remove and replace the ribbon cartridge.
2. Tap the top of the cartridge while black portion rests on a table.
3. Try a new cartridge.

TROUBLESHOOTING TIPS (con.)

ERROR SAYS THAT LITHIUM BATTERY IS LOW

Contact HellermannTyton for replacement options.

THERE IS A THIN VOID IN THE PRINTOUT AND IN THE SAME PLACE ON EVERY LABEL

Print head pixels have been damaged in this area. The printhead will have to be replaced.

PRINTER MAKES A GRINDING NOISE WHEN ATTEMPTING TO PRINT

Clutch may need to be re-adjusted at the factory or replaced.

FAINT LINES APPEAR ON THE DISPLAY

This is primarily a result of stress to the LCD and is caused by removing the battery while the power is still on. Always remove the battery while the power is off. Lines should disappear within days.

RIBBON/LABEL COMBINATIONS

The following chart shows recommended ribbon and label combinations which will produce optimal results. Substitute ribbon and label combinations may be used if necessary, but heat settings may need to be adjusted and text should be bolded to produce a better result.

Ribbon	Label Material							
	100	336	250	409	799	840	843	DTH
HHIGR	•	•	•	•	•	•	•	
HHHST	•		•					
HHDTH								•

- = Recommended ribbon/label combination
- = Substitute ribbon/label combination, text must be bolded and heat settings may need to be adjusted when using this combination

LABEL CODES

From the Main Menu, press the SYSTEM SoftKey and then the SET LBL SoftKey where you can enter the five-digit "label code" from the listing below:

TAGH70-822	00197	TAGH15-799	33861	TAGH94-799	42693	TAGH2-100	09224
TAGH87-822	04357	TAGH15-409	33861	TAGH94-822	42693	TAGH25-100	21544
TAGH71-822	09157	TAGH92-822	34117	TAGH89-822	45893	TAGH51-100	33424
TAGH21-250	09541	TAGH92-799	34117	TAGH89-250	45893	TAGH22-100	33816
TAGHPP-822	12845	TAGH93-250	34373	TAGH86-822	53445	TAGH9-100	34080
TAGH11-822	16437	TAGH12-822	37701	TAGH86-250	53445	TAGH3-100	34352
TAGH13-822	20677	TAGH12-250	37701	TAGH75-822	54469	TAGH8-100	34744
TAGH13-409	20677	TAGH85-822	37061	TAGH75-799	54469	TAGH23-100	34752
TAGH91-250	21829	TAGH17-822	41157	TAGH73-822	54853	TAGH95-100	42544
TAGH84-822	24649	TAGH88-822	41797	TAGH73-799	54853	TAGH1-100	50504
TAGH48-822	25669	TAGH88-250	41797	TAGH35-822	54085	TAGH24-100	54296
TAGH28-250	26437	TAGH90-822	42053	TAGH35-250	54085	TAGH10-100	54560
TAGH16-822	28869	TAGH90-799	42053	TAGH96-336	53437	TAGH6-100	54832
TAGH14-822	33605	TAGH27-822	42309	TAGH97-336	54085	TAGH4-100	55224
TAGH15-822	33861	TAGH27-799	42309	TAGH26-100	08848	TAGH7-100	55232
TAGH28-DTH	26 437	TAGH73-DTH	54853	TAGH75-DTH	54469	TAGH90-DTH	42053

GUIDE TO SPIRITLINK 2.0

SpiritLink 2.0 is a tool that allows for the transfer of databases, label layouts, and graphic images between your computer and your Spirit™2100 portable printing system. This tool has many uses. For example, label data that is already in a database (such as Excel, Access, and other Windows compatible databases) can be uploaded to the Spirit printer as a batch file and printed on demand in the field, eliminating redundant data entry, reducing data entry errors, and speeding label production. Also, the Spirit printer automatically keeps track of every different label that is printed in a database file, and this file can be uploaded to a PC to keep an accurate record of labels printed. Finally, SpiritLink 2.0 makes it simple to create label designs in one printer and store them on your PC for later use or distribute them to other Spirit™2100 systems throughout your workforce. Graphic images can be kept on one PC and then transferred to other printers depending on specific job needs.



ESTABLISHING COMMUNICATIONS

Connect the Spirit Communications Cable (part no. 2100CABLE) to the COM1 or COM2 port on the back of your computer and the RJ12 (phone plug) connector to the port located at the lower, left-hand edge of the unit. Turn on the power to the Spirit™2100, and press the MENU button followed by the SoftKey button PCLINK. The unit will now show a text display in which it says that the printer is "Waiting To Link" to the SpiritLink software on your computer. Click on the SpiritLINK icon on your computer to open the software.



TROUBLESHOOTING

If you experience an error while trying to communicate with the Spirit™2100, check to be sure that the printer is on and in PCLINK mode, the cables are connected properly and that the correct COM port is checked on-screen.



MANAGING YOUR LABEL DESIGNS

From the SpiritLINK main menu, click on the Manage Designs button to begin working with your label designs. Be sure the Spirit™2100 is "Waiting To Link" before proceeding with any communication between computer and printer (see "Troubleshooting" above).



Click on the Get Layout Design File button to view a list of saved layout designs on your computer's hard drive. The default directory (unless you chose another during installation) on your hard drive will be **C:\Program Files\HellermannTyton\Spirit_2100\data**. The file you select will then be listed in the "Manage Layout Designs" window.

After choosing a layout design from your computer click the Store Layout Design To Printer button. The data transfer can be monitored on the status bar below and on the display screen of the Spirit™2100. Once completed, a *copy* of the layout design is stored in the the Spirit™2100 and is available for any printing project.

To view all layout designs stored in the memory of the Spirit™2100, press the Read Layout Designs From Printer button. They will be listed in the "Layout Designs In Printer" field.

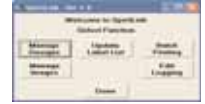
To upload a layout design from the Spirit™2100 to your hard drive, select the file from the directory window and press the Save Label Design To File button.

To remove a layout design from the Spirit™2100 only, select the design from the “Layout Designs In Printer” field and press the Delete Selected Design button. **CAUTION:** If you have not saved this file to your computer first, once removed from the printer, it will be permanently gone.

To delete all the layout design files in the Spirit™2100 at once, press the Delete All Layouts button. **CAUTION:** Save these files to your hard drive first or else they will be permanently deleted.

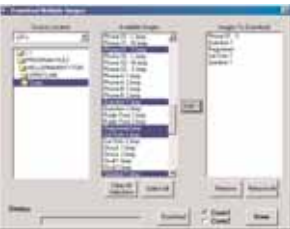
MANAGING GRAPHIC IMAGES

From the main menu, click on the Manage Images button to begin working with graphic images. Be sure the Spirit™2100 is “Waiting to Link” before proceeding with any file management between computer and printer.



Click on the Get New Image button to view a list of images on your hard drive or floppy disk. The default directory on your hard drive (unless you chose another during installation) will be **C:\Program Files\HellermannTyton\Spirit_2100\data**. The image you select will be listed in the Image Name field and the preview window to the right.

After selecting an image file from you computer, click the Store New Image In Printer button. The data transfer can be monitored on the status bar below and on the display screen of the Spirit™2100. Once completed, a copy of the image file will be stored in the memory of the Spirit™2100 and is available for any printing project.



To select multiple images from you computer to upload at once, click the Store Multiple Images In Printer button. Select the location of the images on your hard drive and the specific images in that location in the Available Images field. Click the Add-> button to copy them over to the Images To Download file and click the Download button. The data transfer can be monitored on the status bar below and on the display screen of the Spirit™2100. Once completed, a copy of the image files will be stored in the memory of the Spirit™2100 and are available for any printing project.

To view all images stored in the memory of the Spirit™2100, press Read Images In Printer.

To remove an image that's stored in the Spirit™2100, read the images in the printer, select the design from the directory window and press the Delete Selected Image button. **CAUTION:** If you do not have a copy of this file on your hard drive first, once removed from the printer, it will be permanently deleted.

To clear all the images in the Spirit™2100 at once, press the Delete All Images button. **CAUTION:** If you do not have copies of these files on your hard drive first, they will be permanently deleted.

UPDATING THE LABEL LIST

The Label List is a database file (**spirit.lls**) that contains all the measurements and other important information about every label that the Spirit™2100 needs to know before it can print. With this file installed inside the Spirit™2100, you will be able to quickly change between various label sizes and materials. Because there are always new labels being added to our product line as well as the creation of custom labels, you have the ability to upload a modified Label List from us into the memory of the Spirit™2100. This will keep your Spirit™2100 as current as possible for all your printing needs.

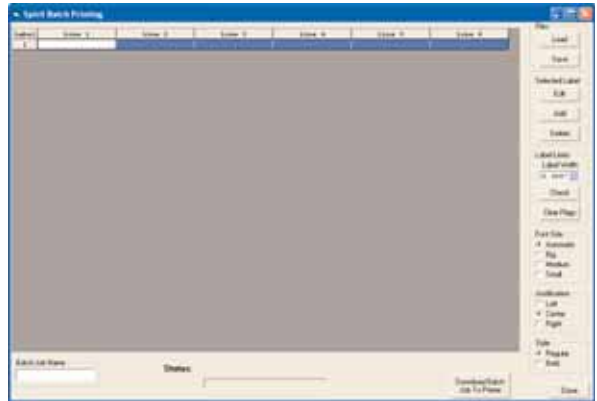


The Label List file **MUST** be stored in a specific location created with the SpiritLINK software installation before any upload can be done. The default directory on your hard drive (unless you chose another during installation) is **C:\Program Files\HellermannTyton\Spirit_2100**. While you do not edit the Label List yourself, you can upload a new or modified list to your Spirit™2100 printer by pressing the Store Label List In Printer button.



BATCH PRINTING

When in SpiritLink, click on Batch Printing. Be sure the Spirit 2100 is 'Waiting to Link' before proceeding with any file management between your computer and the Spirit 2100 printer. (See Establishing Communications on page 16.)



Files: The Spirit 2100 can open comma-delimited (.csv) files.

Load: To load an existing file, click on load and select the location of where the file is currently stored.

SpiritLink can open .csv files creat-

ed in programs such as Notepad or Excel. Click Open and the file will import into SpiritLink.

Save: To Save files, click the Save button and select the location where you want the file to save. The Spirit folder is the Data folder in the SpiritLink root directory.

Batch Job Name: Name your batch job in this field - this name will be used when saving the file. The name in this field is what the program will default to when opening a file.



There are three options in the Selected Label menu: Edit, Add, and Delete.

Edit: Pressing this button will bring up a sub-menu. There are six boxes, and each one represents a piece of text that will go on the label. **NOTE:** It is possible to enter more lines of text than will fit on the label loaded. Example: TAGH73-336 can fit 3 lines of text. If 4 or more

lines are entered, an error will appear on the printer. Each label with an error will have text printed stating that an error occurred and the label was skipped.

Move: Adjusts the position of the text on the label. Press up to move selected line of text up one row, press down to move it down one row.

Add: Press this button to add another label, which will appear ABOVE the selected label.

Selected Label

Edit

Add

Delete

Label Limits

Label Width

0.300"

Check

Clear Flags

Font Size

Automatic

Big

Medium

Small

Justification

Left

Center

Right

Style

Regular

Bold

Cancel Done

Delete: Press this button to delete the selected label.

Label Width: Change the width of the label. Predetermined settings of 0.300", 0.500", 0.625", 0.750", 0.800", 0.900", 1.00", 1.250", 1.500", 1.750", 1.875", 1.90", and 2.00". Select the width of your label and it will appear in blue.

Check: Select the label width and press this button. Labels with too many characters for the selected width will appear in red. A message will appear stating that one or more label lines is too long for the specified label width. The labels in red will need a wider label stock, or less characters and the red error will clear. If no width is selected, the following message will pop up: 'Please scroll to the desired label width and then click on it to select it.'

Clear Flags: This will clear the labels that are in red.

Font Size: Select which font size you want on the label. The "automatic" option will select the largest size based on the label size and the amount of characters in the table.

Justification: Select how the text will align on the label.

Style: Select if you want the text Regular or Bold.

DOWNLOAD BATCH JOB TO PRINTER

When ready to import data to your printer, click the [Download Batch Job to Printer](#) button. Be sure the Spirit 2100 is "Waiting to Link" before proceeding with any file management between your computer and the Spirit printer (see Establishing Communications on page 16).

To view all batch jobs stored in the memory of your Spirit 2100, press the [Read Batch Jobs From Printer](#) button. The stored batch jobs will be

listed in the Batch Jobs in Printer field.

To remove a batch job from the Spirit 2100 only, select the batch job from the Batch Print Jobs In Printer field and press the [Delete Selected Batch Print Job](#) button. **CAUTION: If you have not saved these files to your computer first, once removed from the printer it cannot be restored.**

Batch Label Edit

Label

Move

Cancel Done

To delete all the batch jobs from the Spirit 2100 at once, press the Delete All Batch Print Jobs button. **CAUTION:** If you have not saved these files to your computer first, once removed from the printer they cannot be restored.

The default directory on your hard drive (unless you chose a customized directory installation) will be **C:\ProgramFiles\HellermannTyton\Spirit_2100\data**.

To upload a saved batch job to your Spirit 2100, click the Download Current Batch Job To Printer button. The data transfer can be monitored on the status bar below and on the display screen of the Spirit 2100. Once completed, a copy of the batch job is stored in the Spirit 2100 and is now available for printing.



To retrieve a batch job that has been transferred to the printer, follow these steps:

1. From the Main Menu, press the Label softkey.
2. Press the Arrow softkey, and then press it a second time.
3. Press the BATCH softkey.
4. Press the SELECT softkey.
5. Select the batch job you want to print and press DONE. Then, press the START softkey to print the job.

If the Spirit 2100 runs out of labels while running a batch job, it will hold and ask if you wish to quit the job or resume printing. If you choose to resume, the Spirit will figuratively back up a number of labels and resume. Since it is not possible for the Spirit to know exactly which label was the last to print, it calculates a number of labels to reprint based on a fixed length, in inches. The Spirit calculates how many labels equates to this distance and re-prints that many labels. The re-print length is set at 8 inches.

The maximum number of printed characters for the total batch job is approximately 5100 characters. So, if you average 3 lines in each label and 12 characters in each line, then about 140 labels could be printed in that batch job.

It is possible to print a very large batch job by splitting it into multiple jobs. With no images stored, the Spirit can store from 12 to 38 batch jobs, depending on the size.

LABEL WIDTH	MAXIMUM CHARACTERS
.3"	3
.5"	7
.625"	9
.75"	11
.8"	11
.9"	12
1.0"	13
1.25"	13
1.5"	16
1.75"	16
1.875"	16
1.90"	16
2.0"	17

EDIT LOGGING

When ready to import data to your printer, click the [Edit Logging](#) button. Be sure the Spirit 2100 is "Waiting to Link" before proceeding with any file management between your computer and the Spirit printer (see Establishing Communications on page 16.)

To view the status of your edit logging, click the [Get Edit Log Status](#) button. The Edit Log Status field will display Edit Logging Enabled:



Logging Enabled:
Yes/No, the number of
Edit Logs Recorded and amount of Log Memory Used.

To enable printer edit logging, press the [Enable Printer Edit Logging](#) button. This will allow the printer to track what information is being printed on the labels. An "E" will appear in the softkey menu when in Edit Log mode.



To disable printer edit logging, press the [Disable Printer Edit Logging](#) button. The printer will no longer track what information is printed on the labels.

To clear the Spirit's edit log, press the [Clear Printer Edit Log](#) button. **CAUTION:** If you have not saved these files to your computer first, once removed from the printer it cannot be restored.

To read the edit log from the printer, press the [Read Edit Log From Printer](#) button. The information will appear in the Edit Log field. Commas are represented by an underscore.

Example: This edit log would be a record of the three following labels. Label 1: "SPIRIT 2100" on the first line, "PRINTER" on line two, and "HELLERMANNTYTON" on line three. Label 2: "DATA" on the first line, "LINE" on the second line, and "ONE" on line three. Label 3: "DATA" on line one, "LINE" on the second line, and a data image on line three.

To save the edit log, press the [Save Read Log to File](#) button. The default directory on your hard drive (unless you chose a customized directory installation) will be **C:\ProgramFiles\HellermannTyton\Spirit_2100\data**.



It is possible to store 200 log entries. After the log becomes full, the oldest entries will be overwritten, as needed, to make room for new entries.

The data transfer can be monitored on the status bar and on the display screen of the Spirit 2100.

TECHNICAL SUPPORT

Call the Identification Support Center at 800-537-1512 ext. 380 or e-mail tagprint@htamericas.com.

User Interface Legend



LCD Display	1
Template Outline	2
SoftKey Menu	3
SoftKeys	4
Escape	5
Backspace	6
Menu	7
Direction Pad	8
Serialization	9
Label Feed	10
Print/ Multiple Print	11
Power On/Off	12
Enter	13
Print Preview	14
Alphabet Pad	15
Number Pad	16
Space Bar	17
Function Shift	18
Caps Lock	19
Delete/Delete All	20
Undo	21
Legend	22

2.0" x 1.5" viewable WYSIWYG display (128 x 64 pixels)

Your label outline is represented on the screen, giving you a very powerful advantage in creating a label design by showing you exactly what is on your label saving time and guess-work.

This variable menu is adaptive to where you are in the design/print process, giving you access to dozens of "virtual" buttons to create, store, print, and even upload your projects to a PC.

These buttons drive the SoftKey menu replacing the need for dozens of physical buttons on the unit itself.

While editing a line of text, ESC will undo any unsaved changes and return you to a state just before you began editing that particular line of text.

Acting just as a backspace key on a computer's keyboard, this will delete one character at a time backwards from the position of the cursor.

No matter where you are in the SoftKey menu, pressing MENU will always take you back to the *Spirit™* 2100's main menu.

The direction pad acts like the arrow keys on a computer's keyboard. It will move the cursor through text without changing it and through options without selecting. The left and right arrow keys move the cursor left and right one option/character at a time, while the up and down keys move the cursor through lines of options or text.

Highlight any line of text or barcode and press SERIAL to create a serialized field on your label. When printed, you'll see each label will reflect this serialization. Works on both letters and numbers.

After loading a new roll of labels in your printer, press the FEED button to align the labels for printing. Press the FEED button to also advance just one label at a time. This is useful for viewing smaller labels that have printed but have not moved far enough to be visible outside of the printer housing.

This will simply print one label at a time and can be pressed from anywhere in the menu. Pressing FUNC + PRINT will ask you to enter how many labels you want printed, if that number should be remembered for the next print job and, if you're running a serialized label, how many of each of the labels should print.

Turns the printer on and off. NOTE: Always turn the printer off before removing the battery or optional AC adapte to avoid possible damage to the LCD.

Moves to the next line on a label when you are entering text in *edit mode*, and selects menu options, file names and attribute changes while in *function mode*. Will also create a new line of text in *edit mode*.

View the *general* layout and placement of text, graphic images and barcodes prior to printing. Based on the resolution of the display, this preview may not be completely to size but it is a very good approximation. Press again to exit from the preview window.

English alphabet with punctuation and symbols in red.

Number pad with punctuation and symbols in red.

Insert a blank space in any line of text.

Pressing FUNC with any key that has a superscripted symbol/command in red will enter that symbol or activate that command. A symbol in the SoftKey legend indicates when the FUNC key has been pressed.

Toggles between upper and lower case letters. A symbol in the SoftKey legend indicates "CapsLock".

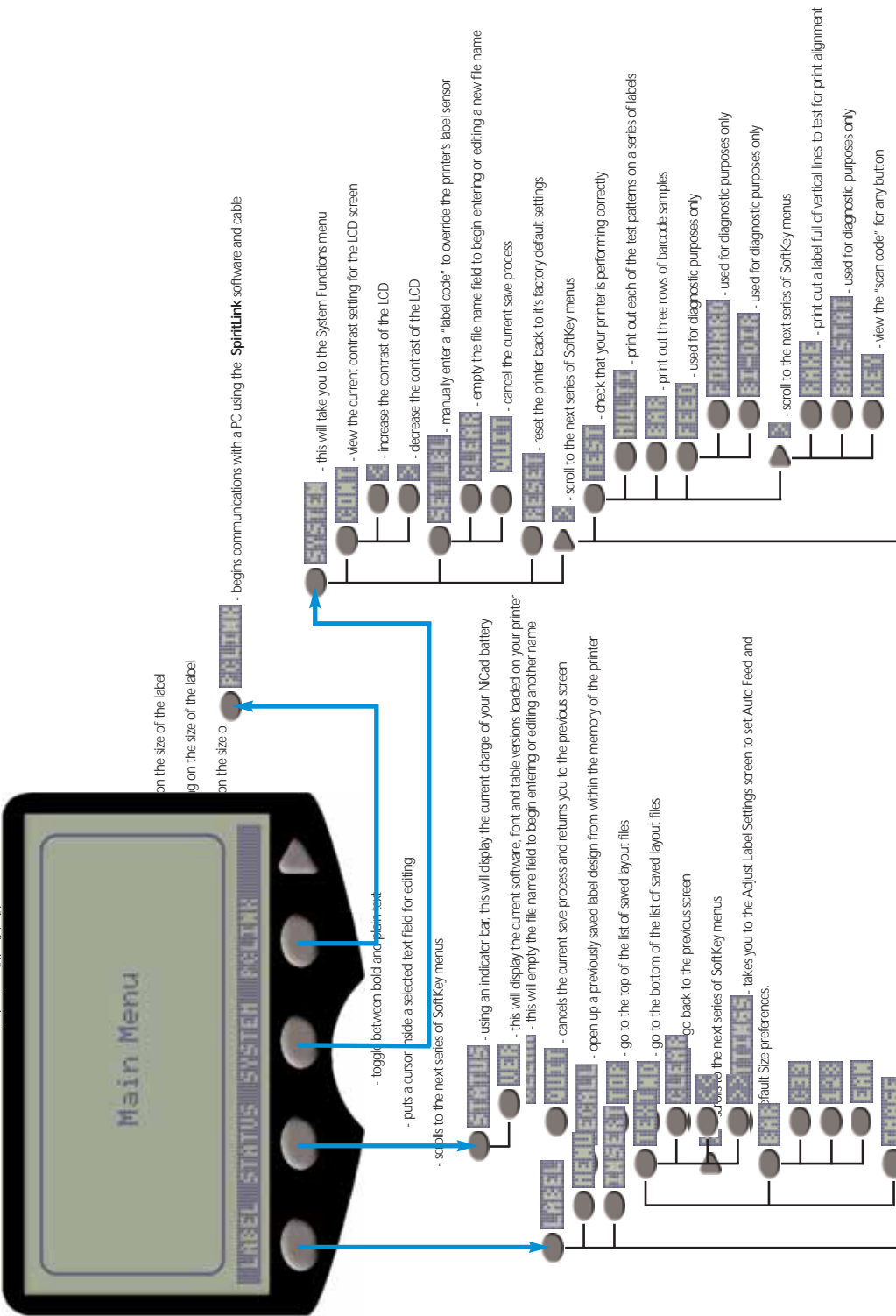
Deletes any individual character much like the BACKSPACE key does in *edit mode* but will additionally delete complete lines of text or even an entire label design when not in *edit mode*.

This will go back one action or key-press to undo a mistake or change. This also allows the user to retrieve lost lines of text or characters due to font size changes.

Several symbols, like a map legend, will display here indicating any of the following: A selected barcode or line of text is designated to print bold and/or serialized, the CAPS or FUNC keys have been pressed, and whether or not there is another SoftKey menu available.

SoftKey Menu System

- place an image that's stored in your Z100 onto your label



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