2. Refer to Figure 5. Load the media
   - Determine that the core diameter of the media roll matches the setting of the Media Disks. If it does not, adjust the media disks per Figure 6 below.
   - If the media support setting is correct, pull the media supports apart, insert the roll of media between them, and let the media supports close. Insure that the media pulls off the core in the direction shown in Figure 5. The supports will adjust themselves to the width of the media, and the media should be able to spin freely on the supports.
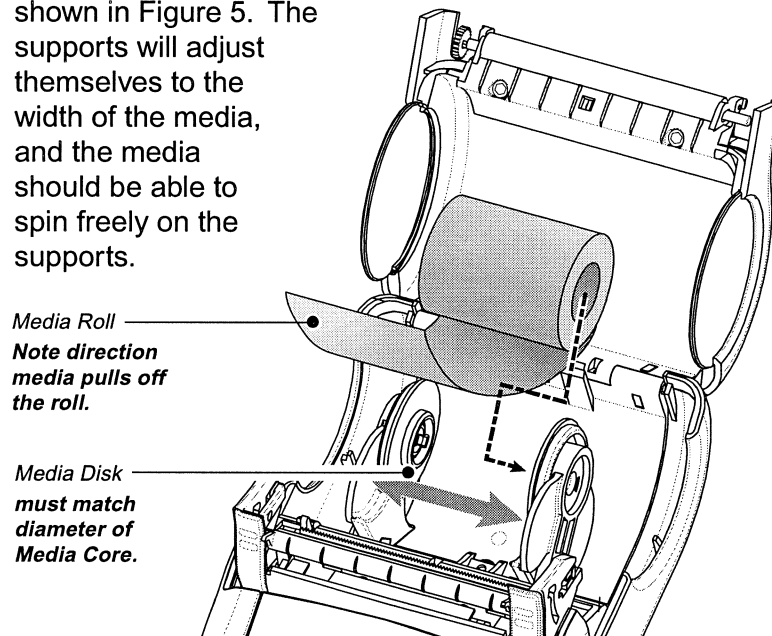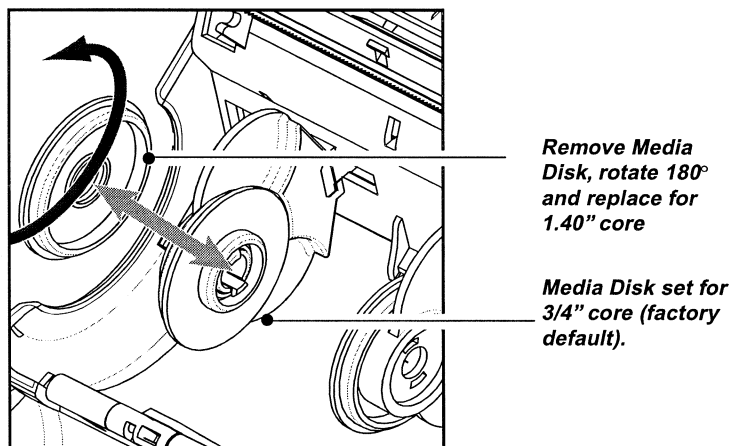

Media Roll
Note direction media pulls off the roll.

Media Disk
must match diameter of Media Core.

FIGURE 5

Remove Media Disk, rotate 180° and replace for 1.40" core

Media Disk set for 3/4" core (factory default).

FIGURE 6

3. Refer to Figure 7. Close the Media Cover
   - If you plan to use the printer in the tear-off mode, close the media cover as shown at "2", then rotate the latch assembly as shown until it locks into place, as shown at "4".
   - If you plan to use the printer in the peel-off mode, peel a few labels off of the media roll and pull it out of the printer as shown at "1". Close the media cover as shown at "2". Rotate the "EZ-Peel" peeler bar until it locks into place on the latch, as shown at "3", then rotate the Latch as shown until it locks into place, as shown at "4".
   - Turn on the printer or press the Feed button if the printer is already on.

     The printer will advance the media to the next label, if printing labels. If you are printing on journal media, the printer will advance a short strip of media and will then be ready for printing.
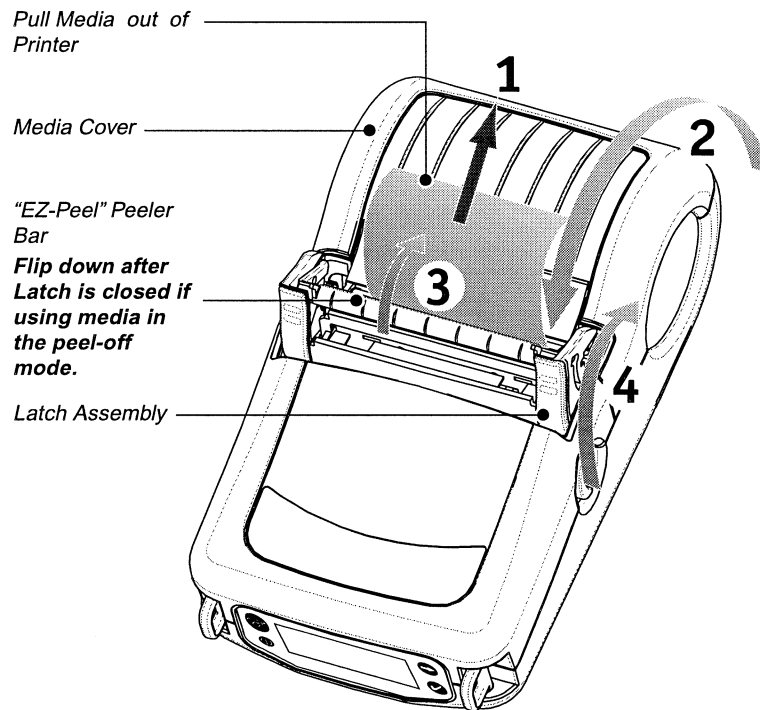

FIGURE 7

Operator Controls

The QL 320 will come with one of two possible control panels. The standard control panel is detailed below and in Figure 8. The optional control panel (Figure 9) features an LCD which allows easy display and selection of many printer functions and is detailed on following pages.

Standard Keypad

The standard keypad has three control buttons and two multi-purpose indicators.

- The Power button turns the QL 320 on and off.
- The Feed button advances a length of media which is determined by the type of media being used. Label media will be advanced to the next gap or bar sense marker. Journal (plain) media will be advanced a length determined by the printer's software.
- The Function button is controlled by a printer's specific application to support such functions as:

  Print a battery Level reporting

  Print the Local Area Network (LAN) status

  Print a Short Range Radio Frequency (SRRF) status

  Print a Media supply report

The green LED on the left side of the control panel indicates the status of several printer features:

- A slowly blinking sequence indicates the printer's battery needs charging.
- Printers with a wireless QuickLink module installed: a quickly blinking sequence indicates the printer has not established a link to either a Local Area Network or a compatible wireless equipped terminal.
- Printers with a wireless QuickLink module installed: A steadily lit indicator shows that the printer has established a wireless link, either to the LAN or to a compatible terminal.

  A steadily lit green indicator on a non-wireless printer is a power-on indicator.

The yellow LED on the right side of the control panel has two indication conditions.

- A rapidly blinking yellow LED and a chime indicate that no application has been loaded into the printer.
- Printers with a wireless QuickLink module installed: a rapidly blinking LED indicates normal data transmission.

- A steadily lit yellow LED indicates an error condition. This can be caused by one of the following:

    1. The media cover is not completely closed and latched.
    2. The printer is out of media.

Green LED

Steady Light indicates power on and/or established RF link.

Fast Blink indicates no RF link (on RF equipped units only)

Slow Blink means low battery

Power Button

Press to turn unit on. Press again to turn unit off

Yellow LED

Steady Light indicates error condition: out of media or media cover not closed.

Fast Blink indicates RF activity (on RF equipped units only)

Fast blink with beeper indicates no application loaded

Feed Button

Press to advance the media one blank label or a software determined length of journal media.

Function Button

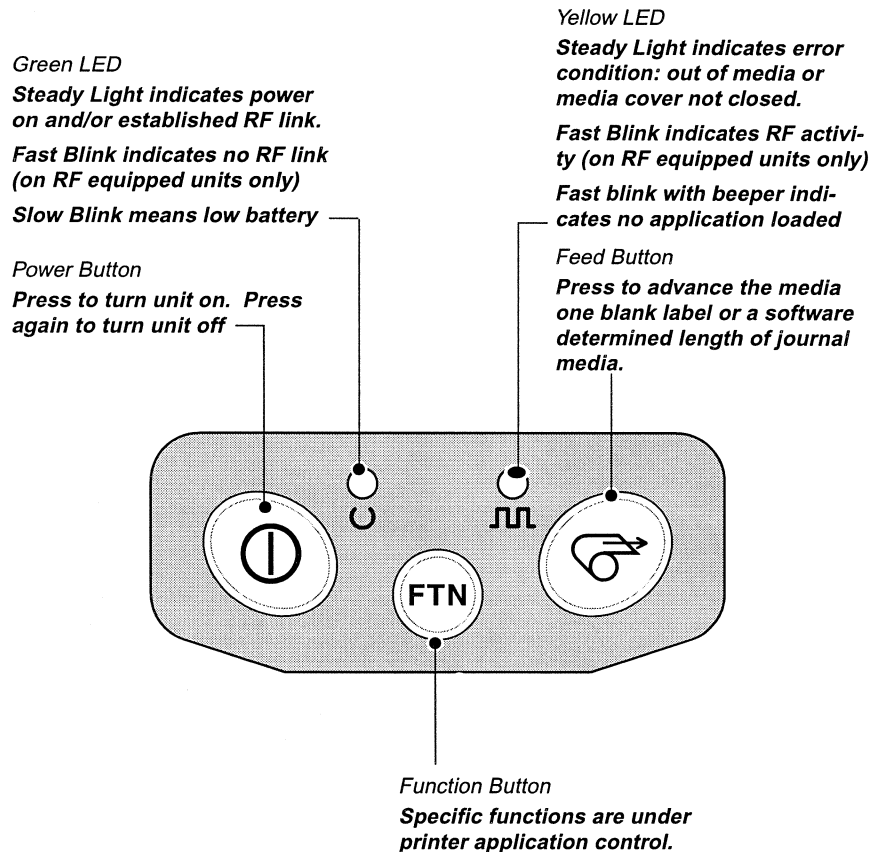**Specific functions are under printer application control.**

FIGURE 8: STANDARD CONTROL PANEL

LCD Control Panel

The optional LCD control panel has buttons for the power on/off and media feed functions just as in the standard control panel. In addition, it has two keys which allow easy navigation and selection of menu options affecting many printer functions.

The "Scroll" button allows scrolling through the various options and settings. The "Select" button allows selection of the option or function displayed on the screen.
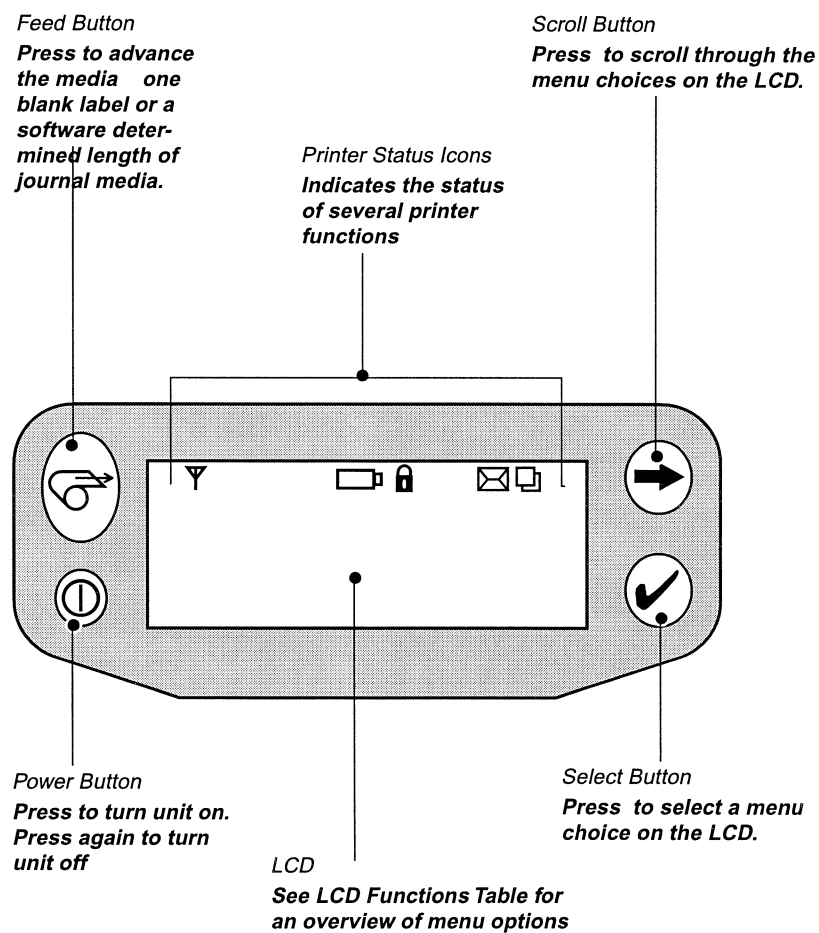
Feed Button
Press to advance the media   one blank label or a software determined length of journal media.

Printer Status Icons
Indicates the status of several printer functions

Scroll Button
Press to scroll through the menu choices on the LCD.

Power Button
Press to turn unit on. Press again to turn unit off

LCD
See LCD Functions Table for an overview of menu options

Select Button
**Press to select a menu choice on the LCD.**

FIGURE 9: OPTIONAL LCD CONTROL PANEL

The top of the screen has a row of status icons which indicate the state of various printer functions:

Y Indicates that the printer is associated with a wireless Local Area Network (LAN). This icon is functional only with QL 320N network printers.

⊏▪ A flashing icon indicates low battery status. You should suspend any printing operations and recharge or replace the battery Pack as soon as is convenient.

🔒 A flashing icon indicates that the media cover is open or not properly latched.

✉ A flashing icon indicates that a file is being downloaded to the printer.

🗐 A flashing icon indicates that the printer does not detect any media. This could indicate an out of media condition, or improperly loaded media.

In addition to the status icons, the LCD control panel can display many of the printer's settings and functions as text. Applications can be written to allow the user to view and /or modify these settings using the scroll and select keys on the display. Refer to the "LCD Functions Table" on the following page for the full set of printer features that can be made available with the LCD panel.

The LCD has a backlighting option which allows viewing of the screen in a dark environment, or provides better contrast in a very bright environment. Use of the display backlight will decrease the time the printer will run between charges.

LCD Functions

Function	Default setting	Scroll & Select Options
Sensor Type	Gap	• Bar • Gap
Print Width	Factory Set Value	• Increase (+120 dots max.) • Decrease (-120 dots max.)
Baud Rate	19200	• 9600 • 19200 • 32400
Data Bits	8	• 7 • 8
WLAN ID*	Factory Set Value	N/A
Label Top	000	• Increase (+120 dots max.) • Decrease (-120 dots max.)
Left Position	000	• Increase (+120 dots max.) • Decrease (-120 dots max.)
LCD Contrast	0	• Increase • Decrease
No-activity Timeout	60 sec.	• 60 sec. • 5 min. • 10 min. • 30 min • Custom*
Print Darkness (Head Temperature)	00	• Increase (+10 max.) • Decrease (-10 max.)
Tear-off Position	00	• Increase (+120 dots max.) • Decrease (-120 dots max.)
Media Type	Label	• Label • Journal
LCD Backlight	Off	• On • Off • Momentary On w/ time delay
Factory Reset (Resets all to factory set values)	No	• No • Yes

* Some parameters, such as the WLAN ID number and non-standard no-activity time out values can be set using a PC running Zebra's Label Vista label creation program and a data cable link to the printer.

Verify the Printer Is Working

Before you connect the printer to your computer or portable data terminal, make sure that the printer is in proper working order. You can do this by printing a configuration label using the "two key reset" method. If you can't get this label to print, refer to "Trouble-shooting".

Printing a Configuration Label

1. Turn the printer off. Load the media compartment with journal media (media with no black bars printed on the back)
2. Press and hold the Feed Button.
3. Press and release the Power button and keep the Feed button pressed. When printing starts, release the Feed button.

The unit will print a line of interlocking "x" characters to insure all elements of the print head are working, print out the version of software loaded in the printer and then print two reports.

The first report indicates model, ROM version, serial number, baud rate, etc. The second report prints out more detailed information on the printer's configuration and parameter settings. If no second report appears, there is no application loaded. (See the Troubleshooting Section for a sample print-out and a further discussion on how to use the configuration label as a diagnostic tool.)

Connecting the Printer

The printer must establish communications with a host terminal which sends the data to be printed. Communications occur in four basic ways:

- By a cable between the printer and its host terminal
- Linking to a host terminal via Infrared (usually by means of the industry standard IrDA protocol)
- By means of a Short Range Radio Frequency (SRRF) link.
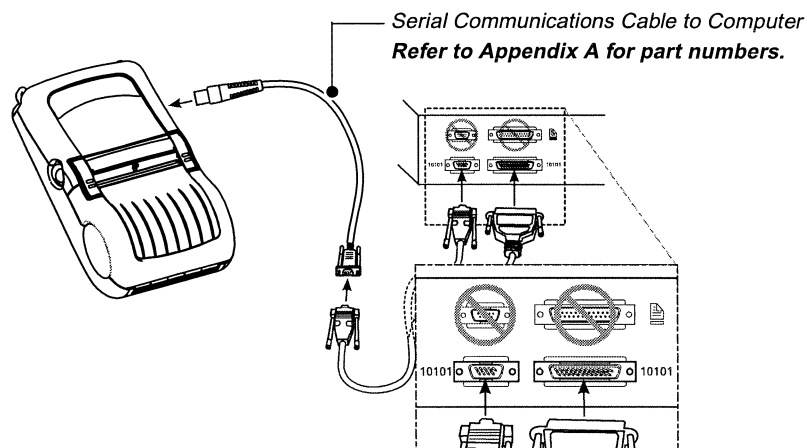- By means of a wireless LAN (Local Area Network). This applies to QL 320N Network Printers only.
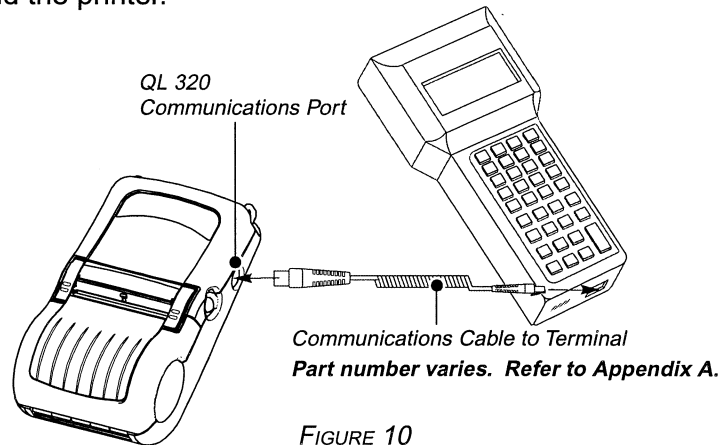
Cable Communications

⚠ **CAUTION. The power should be turned off before connecting or disconnecting the communications cable.**

All QL 320 printers can communicate by cable; the specific cable supplied with your printer will vary with the host terminal. The 8- pin circular connector on your communications cable plugs into the serial communications port on the side of the QL 320 printer. It is keyed to assure correct alignment; do not try to force it if it does not plug in. The other end of the cable must be plugged into the host terminal as shown in Figure 10, or to a serial port on a computer (Figure 11.) Communications between the terminal and the printer are controlled by the applications running on the terminal and the printer.

QL 320
Communications Port

Communications Cable to Terminal
Part number varies. Refer to Appendix A.

FIGURE 10

Serial Communications Cable to Computer
Refer to Appendix A for part numbers.

FIGURE 11

IR Communications

Printers equipped for infrared (IR) communications are identified by a small "IR" logo on the unit's label. IR allows wireless communications between the printer and the host terminal. IR units can also communicate with a cable as detailed above, however, IR functions are disabled when the cable is plugged in. QL 320 units with the IR option can be configured to conform to the standard IrDA communications protocol

Linking a Printer to an IrDA Host

IrDA compliant terminals will automatically initiate communications to the printer. First insure that there is a direct line of sight between the printer and the terminal that will be sending data. The IR window on the front of the QL 320 must face the corresponding window on the terminal to properly send and receive signals. An IrDA compliant terminal will seek out any linkable devices and establish communications between them, even turning the printer on if necessary.
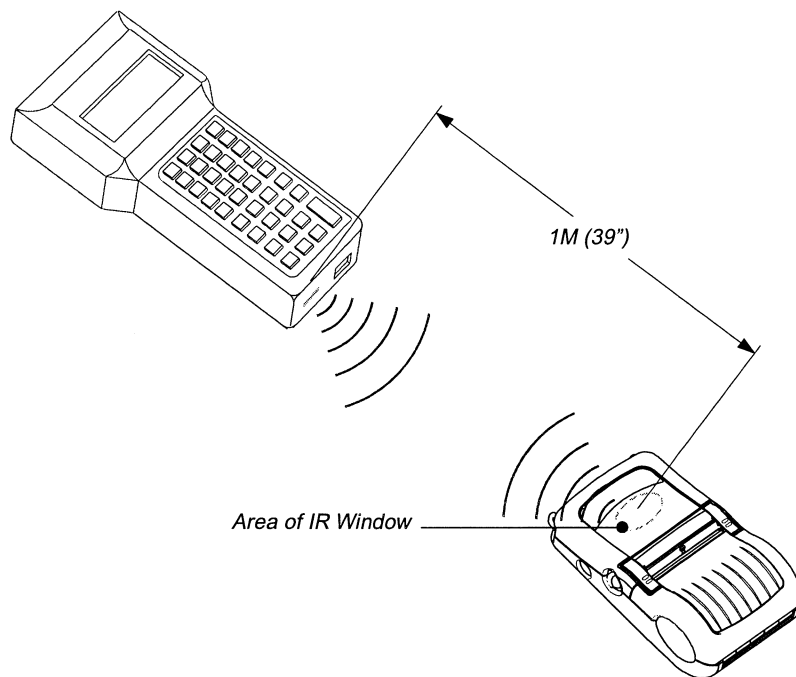
1M (39")

Area of IR Window

FIGURE 12