RL3/4

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Important Safety Instructions

This printer has been carefully designed to provide many years of safe, reliable performance. As with all types of electrical equipment, however, there are a few basic precautions you should take to avoid hurting yourself or damaging the equipment:

- Carefully read the provided installation and operating instructions.
- Read and follow all warning instruction labels on the printer.
- Place the printer on a flat, firm, solid surface.
- Make sure all openings on the printer remain unblocked; never insert anything into the openings or ventilation slots.
- Do not place the printer near a heat source.
- Do not use your printer near water, or spill liquid into it.
- Be certain that your power source matches a listed voltage rating for the printer (if unsure, check with your dealer or local utility company).
- Do not place the power cord where it can be stepped on; and, if the power cord becomes damaged, immediately replace it.
- If service is required, use only qualified trained technicians to repair your printer.

Agency Compliance and Approvals

UL60950-1; 2nd Edition
CSA C22.2 No. 60950-1-07 2nd Edition

The manufacturer declares under sole responsibility that this product conforms to the following standards or other normative documents:

Applicable Directive
- 2004/108/EC, 73/23/EEC

Applicable Standards
- RL3 Printers: EN55022 (2006) Class A; RL4 Printers: EN55022 (2006) Class B
- EN55024 (1998), A1 (2001), A2 (2003)
- IEC60950-1 (2005) 2nd Edition

The RL3 and RL4 printers with the 802.11 a/b/g and Bluetooth options has been found compliant to the SAR requirements. The maximum SAR measured value was 0.572 W/kg averaged over 1 gram.

FCC Notice: (RL3 Printers)
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Notice: (RL4 Printers)
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, it 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 to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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1 Getting Started

1.1 Introduction

Congratulations on your RL3/4 printer purchase. The RL3/4 printer family, hereafter referred to as 'the printer', blends the rugged durability with state-of-the-art electronics and user-friendly features to redefine the standard in portable thermal printers. The printer's RS-232 serial, USB, or optional wireless LAN or Bluetooth® connectivity allows easy interfacing to any host system.

This manual provides all the information necessary to operate the printer.

To print labels or receipts, simply refer to the instructions included with the software you have chosen to create the labels. A Windows® printer driver can be found on our website (www.datamax-oneil.com). If you wish to write a custom program, a copy of the Programmer's Manual can also be found on our website.

1.2 Unpacking

After removing the printer from the packaging material, check the contents. The following items should be included:

- Printer
- Belt Clip
- Documentation
- Any special or additionally purchased items

Additional Requirements:
The following items are necessary for generating labels from your printer. Contact your customer support or sales representative for advice on which media and software may best be suited for your application.

- NETira CT Configuration Software, version 1.0.0.35 or greater. Available for download at www.datamax-oneil.com
- Serial Cable (210164-100 or 210191-101)
- Applicable label media or receipt paper; Datamax-O'Neil offers a full line of printing supplies at www.datamax-oneil.com

ⓘ   It is a good idea to save all packaging materials in the event that shipping the printer is ever required.

The table below identifies the P/N and printer features of the RL3 and RL4 printers. The model number can be found on the label located on the back of the printer.

RL3:

MODEL NUMBER	STANDARD FEATURE(S)	OPTIONAL FEATURE(S)
RL3-DP-00000000	SERIAL/USB	RL3 - RS-232 and USB only (Serial)
RL3-DP-00000100	SERIAL/USB	RL3 - Serial and Bluetooth v2.1
RL3-DP-00000200	SERIAL/USB	RL3 - Serial and 802.11 b/g/a
RL3-DP-00100000	SERIAL/USB	RL3 - RS-232 and USB only (Serial), Liner-less Media Capability
RL3-DP-00100100	SERIAL/USB	RL3 - Serial and Bluetooth v2.1, Liner-less Media Capability
RL3-DP-00100200	SERIAL/USB	RL3 - Serial and 802.11 b/g/a, Liner-less Media Capability

RL4:

MODEL NUMBER	STANDARD FEATURE(S)	OPTIONAL FEATURE(S)
H40000-100	SERIAL/USB	RL4 - RS-232 and USB only (Serial)
H41000-100	SERIAL/USB	RL4 - Serial and Bluetooth v2.1
H42000-100	SERIAL/USB	RL4 - Serial and 802.11 b/g/a
H40001-100	SERIAL/USB	RL4 - RS-232 and USB only (Serial), Liner-less Media Capability
H41001-100	SERIAL/USB	RL4 - Serial and Bluetooth v2.1, Liner-less Media Capability
H42001-100	SERIAL/USB	RL4 - Serial and 802.11 b/g/a, Liner-less Media Capability

1.3 Carry Accessories

Several accessories are available for the printer to allow for ease of use and portability.

Belt Clip

Included with printer, the Belt Clip allows easy attachment to a belt or similar object.

❶   Belt Clip

Shoulder Strap/Hand Strap

Choose either a hand or longer shoulder strap for maximum comfort and flexibility. Each strap incorporates heavy duty clasps for an easy and secure attachment, however these are not OSHA approved safety straps.

Both the hand strap and shoulder strap have a limited break away strength. If the strap is caught or wrapped and pulled beyond normal use the strap will come off the Attachment Points. Do not use the straps for mounting, hanging or otherwise a permanent installation of the printer. If the latch appears damaged (white stress marks in plastic) discontinue use and replace.

Orient and connect the clip(s) to the Attachment Points shown.

❶   Attachment Points

Belt Loop

Optional, the Velcro® loop fastens comfortably and securely around the belt; keeps the printer secure yet swivels for comfort while bending over or getting in and out of vehicles.
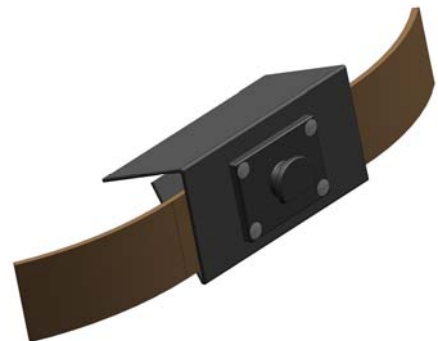
IP54 Soft Case

Optional, proper use of this case will allow the printer to be used in harsh, dusty, or rainy environments. This case is certified to an IP54 rating, so when properly used, it will protect your product against particles as small as dust, and water from any direction. This case can be used in conjunction with the hand/shoulder straps as well the belt loop and belt clip accessories.

The IP54 case has been tested at an accredited lab for use in dust and heavy water environments. However, it is not designed for extensive prolonged use in the rain. During normal operation water could enter into the case during media changing. This ingress of moisture should be avoided at all cost. The printer warranty can not be honored for excessive water inside the printer even if an IP54 case is used.

1. Open the case at the 2 side zippers.
2. Slide the printer into the case.
3. Close the case using the 2 side zippers and Velcro® closure.
4. Fold back the paper exit flap for each print job. The paper exit flap can also be rolled up out the way and secured using the Velcro® strip, doing so decreases the effectiveness of the case for water protection.

Never attempt to charge when the printer case or printer is wet, short circuit could occur. Remove the printer from the case, allow to completely dry and then charge. In the event water is believed to have entered the printer, remove the battery and allow the unit to dry several days before installing the battery or charging.

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2 **Printer Setup**

2.1 Charging

The battery is charged by an external auto-ranging power supply, which connects between the printer and an electrical outlet. If the battery is completely dead, the battery will need to be charged before the printer can be turned on. The printer will only operate with the battery installed, the printer will not function on AC power alone. Ensure that the operating ranges of the power supply are compatible with your electrical service, (see Appendix A for details) then connect power as follows:

> ⚠️ **Warning**
>
> The maximum operating temperature of the printer is 50° C. However, the maximum operating temperature when used with a Datamax-O'Neil power supply for charging is limited to 40° C. Please charge the printer in a suitable location that meets this temperature requirement.
>
> There is a risk of explosion if the battery is replaced by an incorrect type. Dispose of used batteries properly.

1) Remove the Battery from the printer. Then remove the red Battery Isolator.
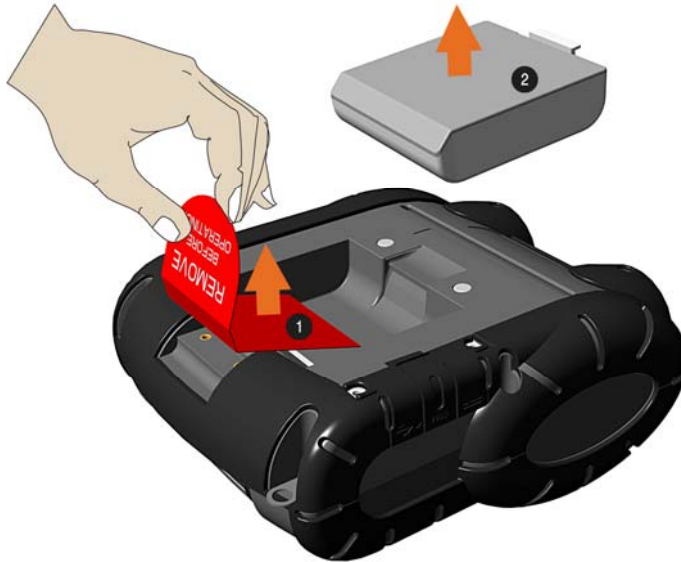
❶	Battery Isolator
❷	Battery

2) Re-install the Battery into the printer.

3) Connect the Power Supply to Power Jack of the printer.

4) Connect the AC Power Cord to the Power Supply.

5) Connect the AC Power Cord to an Electrical Outlet. *For RL3 printers the printer will not turn on automatically and must be turned on by pressing the* ⏻ *button..*

⚠️ **Warning** Do not operate the printer while it is connected to the AC Power Supply.

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❶	Power Supply
❷	AC Power Cord
❸	Electrical Outlet
❹	Power Jack
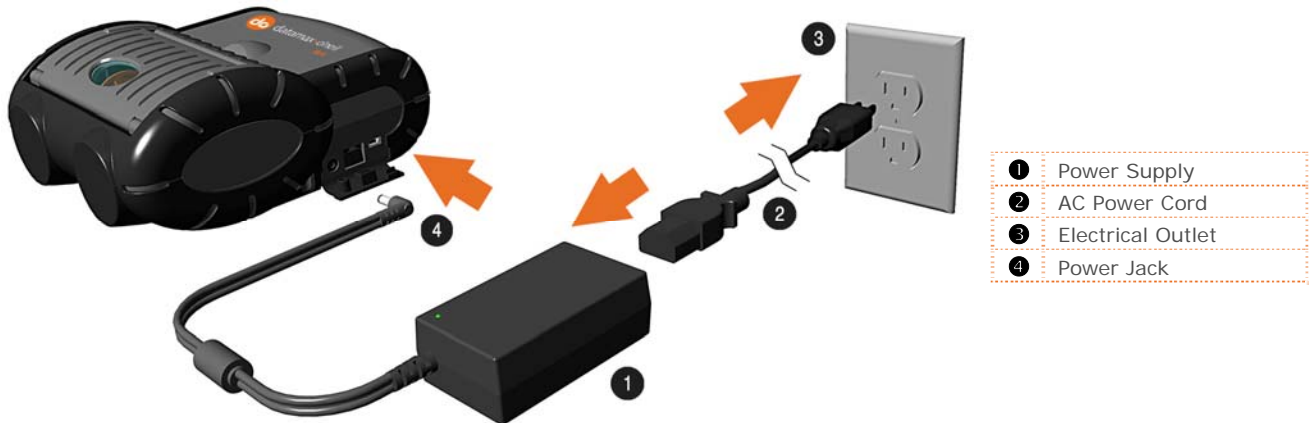
Battery Guidelines:

- DO NOT store batteries in cold or hot conditions.
- DO NOT drop the battery pack. In the event of a drop carefully inspect the battery plastic and contacts for damage. If you suspect damage do not use the battery.
- DO NOT use sharp tools to remove the pack. If a pack is punctured, cracked, immediately remove from the printer.
- If the pack becomes extremely hot, or begins to smell DO NOT touch. Place immediately in a empty metal trash can.
- DO NOT use the battery for any product other than the RL3/RL4 or designated printer.
- DO NOT tamper with or attempt to disassemble the battery pack.
- DO NOT subject the battery pack to water or liquids of any kind.
- Be careful when setting the battery pack down on a flat surface, always store the battery pack with the contacts facing up.
- DO NOT stack batteries with the contacts facing each other.
- Replacement batteries come in individual boxes, store this way.
- Batteries do have a shelf life of 1 year.

The printer is also designed with external charging capabilities (RL4 models only) using Datamax-O'Neil approved charging accessories. For more information, see the instructions included with the accessory.

❶	External Charging Contacts

2.2 Interface Connections

The printer can be connected to the host via the USB, serial, optional wireless LAN 802.11 A/B/G, or Bluetooth. The printer will automatically connect to the first port that delivers valid data. Once established, the printer's power must be cycled 'Off' and 'On' to change an interface connection. Once the cable connection has been made see section 3.3 for information on using the configuration software (NETira CT).

❶	Serial (RJ11)
❷	USB

✅ Before connecting Power or interface cables to the printer, be sure the printer is powered off.

Serial Connection

The serial interface supports RS-232C communications via a RJ 11 connector. The following list of serial port settings is menu selectable (via host software/driver) and must match the host computer's serial port settings:

> Baud Rate (Default 9600 bps)
> Parity = (Default N)
> Word Length (Default 8 bits)
> Stop Bits = (Default 1)

USB Connection (USB)

The USB Interface is supported in Windows 95 and greater. Depending upon the operating system of your host computer, installation may differ slightly. For setup information, see Appendix C.

Optional Wireless LAN and Bluetooth

For setup information on optional Wireless LAN and Bluetooth connections, see Appendix B.

2.3 Loading Media (Labels or Paper)

Load media into the printer as follows:

1) Slide the Thumb latch rearward and then lift up on the printer's Cover.

❶	Thumb-Latch
❷	Cover

2) Slide and hold open the Supply hubs.

❶	Supply Hubs

3) Orient the Roll of Media (paper or labels) as shown and insert it into the printer.

❶	Roll of Media

4) Allow the Supply Hubs to retract onto the Roll of Media. Then close the printer's Cover and press downward until latched.

❶	Supply Hubs
❷	Roll of Media
❸	Cover

5) Press the ⟳ button a couple of times to normalize tracking. The printer should advance the media to the start of the next label for each press.

2.3.1 Loading for Presenter Mode

1) Load media as described in Section 2.3, (steps 1-3).

2) Remove about 8 inches (200mm) of labels from the Media Backing.

3) Open the Peeler Door. Route the media as shown below.

❶	Media Backing
❷	Peeler Door

4) Pull the media backing taught then Close the Peeler Door.

5) Press the 🔆 button a couple of times to normalize tracking. The printer should advance the media to the start of the next label for each press.

⚠ **Warning** When using the printer in presenter mode a large amount of backing can accumulate. Be sure to contain the backing as it can become a tripping hazard. When removing backing material from the printer do not pull the backing disturb the printer. Cut using scissors or tear using 2 hands a few feet from the printer.

2.3.2 External Media Loading

Load media into the printer as follows:

1) Slide the Thumb latch rearward and then lift up on the printer's Cover.

❶	Thumb-Latch
❷	Cover

2) Open the External Media Door located in the bottom of the printer.

❶	External Media Door

3) Slide and hold open the Supply hubs and install the Media Spacer

| ❶ | Supply Hubs |
| ❷ | Media Spacer |

4) Insert the Media through the External Media Door and through the printer as shown:

| ❶ | Media |

5) Then close the printer's Cover and press downward until latched.

6) Press the ◐ button a couple of times to normalize tracking. The printer should advance the media to the start of the next label for each press.

3 Printer Operation

3.1 Front Panel

The Front Panel is an event-driven interface composed of a graphic display and four buttons. In addition to providing current printer information, the mode-dependent panel allows the items in the main display area and the button functions to change as operational events require.

RL3 & RL4 printer displays will turn off and enter during sleep mode after 1 minute of inactivity; press any button to wake.

☑ RL3 printers (only) will turn off after 120 minutes of inactivity. This "shutdown" period can be adjusted or disabled using the NETira CT configuration program (Ver. 35 or greater) by modifying System Settings/System Powerdown setting. See section 3.3 for more information on NETira CT. When charging the RL3 printer it will not auto shutoff

3.1.1 LCD Icons

Icon	Function
▐▐▐▐▐ 90%	Battery Charge Level. The number of bars and the % will change according to remaining battery charge. During charging the battery level is continuously progressing to show charging, unless at 100%
▼₁ııll	Wireless LAN Signal Strength.
⇥ᴵᵥ	The DC power supply is connected and the battery is charging.
IP: 192.168.0.1	IP address currently assigned to the printer (if equipped). If an IP is not assigned, it will display as 0.0.0.0. Bluetooth models will display the MAC address.

3.1.2 Audible Alerts

Alert	Event
1 beep	AC power supply disconnected
2 beeps	AC power supply connected
5 beeps	Opened printer cover or Paper out condition
Constant (10 sec)	Failed download (via RS232)
Short interval beep (for length of download)	Downloading data (via Wireless LAN)

3.1.3 Buttons

Ready Mode

Button	Function
⏻	Short Press: Wakes the printer from sleep or off mode. Short Press: Puts the printer into sleep mode. Press and hold (~4s) then release: Turns off the printer *(RL3 models only)*. Press and hold (~10s): Resets the printer.
𝟨	Short Press: Feeds one label or a preset paper length Press and hold for 4 and 7 seconds and then release: Prints the Configuration Label Press and hold until printing starts (approximately 8 seconds): Prints the Configuration Label with additional information.
☰	Enters the printer's menu system
⸜ᵖ⸝	Long Press (~4s): Toggles the Wireless LAN/Bluetooth radio on and off

Menu Mode

Button	Menu Icon	Function
⏻	◄	Returns to the previous menu level, at the top level it will exit the menu system.
𝟨	▼	Scrolls downward to the next available menu item or menu branch.
☰	🏠	Exits the menu system and returns to 'Ready Mode'.
⸜ᵖ⸝	OK	Selects the current highlighted item or menu branch.

3.1.4 Menu

Pressing the ☰ button enters the printer's menu system. The menu system is informational only, configuration changes to the printer can not be made via the menu. The menu consists of three branches, default values are show next to each item.

Serial

Baud Rate	9600 BPS
Data Bits	8
Parity	None
Stop Bits	1
Protocol	Hardware

MAC Address   xx:xx:xx:xx:xx:xx (varies for each printer; standard 6-octets of hexadecimal digits)

Calibrate Media   The printer is factory calibrated and should not need further calibration. However certain types of aftermarket paper/media will need to be calibrated. Depending on the media type being used, this function senses the gaps between labels or the black mark on the back of the media. Once the printer sense these locations, it can accurately position the media for printing at the start of each label.

Once selected the printer will feed media, pause ~20 seconds and then complete the calibration.

3.2 Configuration Label

Initiation of this mode causes the printer to print its Configuration Label. The Configuration Label provides valuable printer information including the firmware version, memory allocations, enabled options, communications settings, and label-counter data.

To print the Configuration Label:

1) Be sure the printer is properly loaded with media (at least 4 inches wide), and that the power to the printer is off.

2) Turn on the printer, allow the printer to reach a ready state.

3) Press and hold the ⬤ for 4 to 7 seconds, and then release. The printer will now print the current configuration of the printer.

3.3 NETira CT Printer Configuration Utility

The NETira CT printer configuration utility (available for download at www.datamax-oneil.com) is a Windows based configuration utility that allows the user to make changes to the existing printer setup via a serial or Wireless LAN connection.

Utility Features:

- Allows Real-Time Control/Query of Printer Configuration
- Define and Save Optimal Configurations for Applications
- Saved Configurations can be Shared with other Printers and Sent via Email
- Download Files, Formats and Fonts
- Query Memory Modules

(i) The NETira CT configuration utility can only communicate to the printer using the DPL printer language input mode. If the printer has been set to use an input mode other than DPL, the printer's input mode must be changed back to Auto or DPL. This can be performed using the Tools>Set Input Mode function within NETira CT.

1) Once installed launch the NETira CT configuration utility.

2) Be sure the battery is installed and the printer is 'ON'. Connect the host to the printer (*see Section 2.2 Interface Connection*).

For Serial and Bluetooth Connections:

a) Query the printer by using the 'Auto Detect' button. This will connect to the printer and retrieve the setting currently stored in the printer.
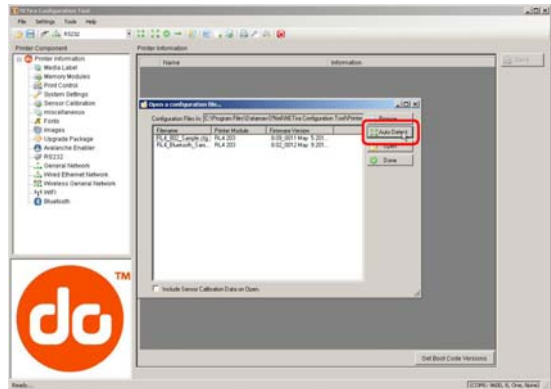
b) If the Auto-Detect is unsuccessful, close the 'Open a configuration file…' dialogue box and go to the Settings drop down menu and choose the RS232 menu option. On this screen you can manual select the port and it parameters.
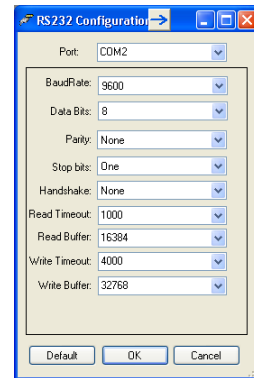
c) Once Complete click 'OK" and then click the "Query Printer" button on toolbar. This will connect to the printer and retrieve the setting currently stored in the printer.

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For Wireless LAN Connections:

Close the 'Open a configuration file...' dialogue box.

a) In the toolbar, Click on the ' TCP/IP Configuration' Icon ⬚⬚⬚.

b) In the 'TCP/IP Configuration' dialogue box enter the IP address of the printer and click 'OK'. (The IP address should be displayed on the printers LCD).
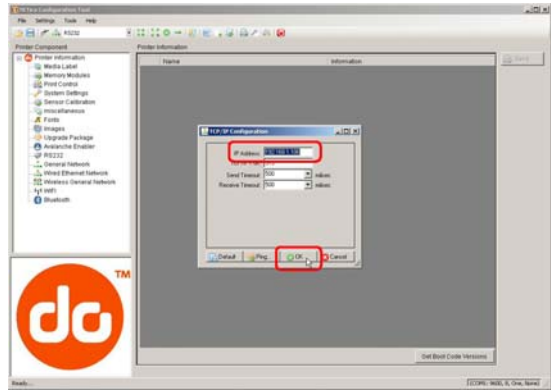
c) In the toolbar, from the drop down menu box, select "TCP_IP". Then click on the Query Printer Icon ⬚⬚.
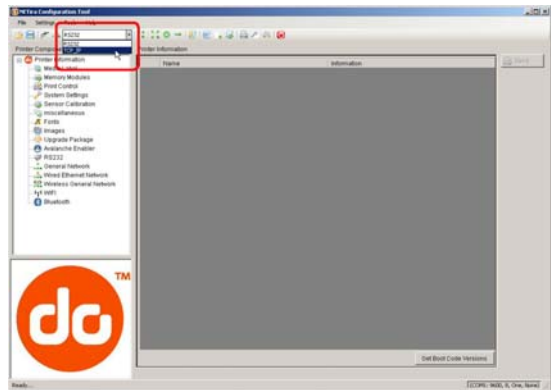
3) At this point you may browse the Printer Component categories and make any changes necessary to the printer configuration.
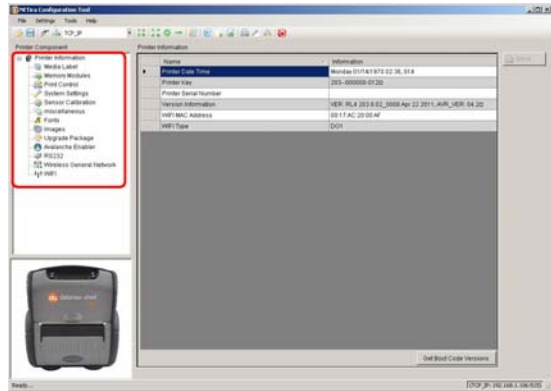
4) Once your changes are complete, send the new settings to the printer using the 'Send' button.

Note: When using the "Send" button, only the changes displayed on the current page will be sent.
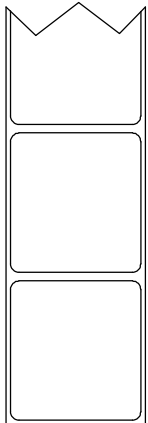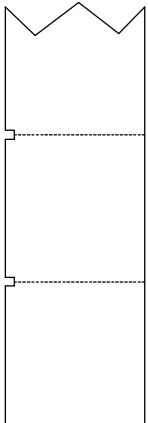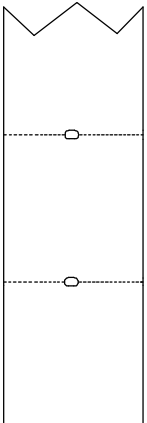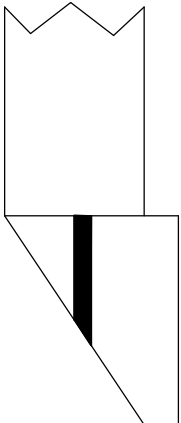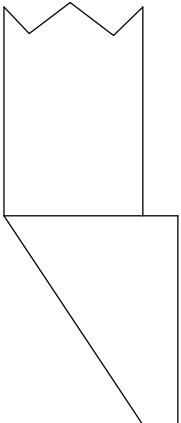
The "Set current setting to printer" button ⬚⬚ will send all changes made to all pages.
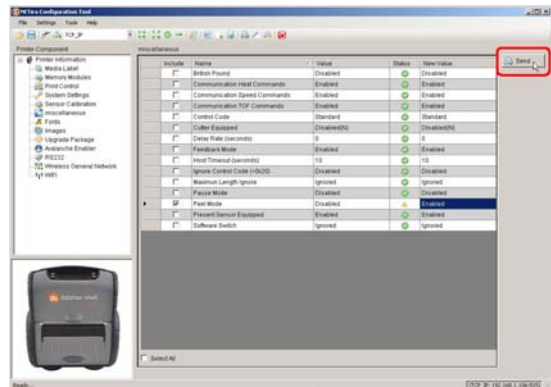
3.4 Media and Calibration

3.4.1 Selecting Media Type

To accommodate a variety of media types the printer is equipped with two sensors. A transmissive sensor (for gap and notch type label media) and a reflective sensor (for "black mark" type label media). Several media types and their proper sensor settings are shown below:

Media Type	Gap Label Media	Notch Media (Edge)	Notch Media (Center)	Reflective Media (Black Mark)	Continuous Media
Sensor Setting	Gap	**Not Supported**	Gap	Reflective	Continuous* *Requires the "Continuous Label Length" value to be set.

Most applications that use label media will use the default setting of "Gap". However if "black mark" or continuous media is being used this setting must be changed.

The Sensor Type setting can be changed using the NETira CT configuration utility…

Launch the NETira CT configuration utility, and query (connect) to the printer.

1) Click on the 'Media Label Settings' printer component.

2) To change the different parameters, select from the pull down values or key in a value.
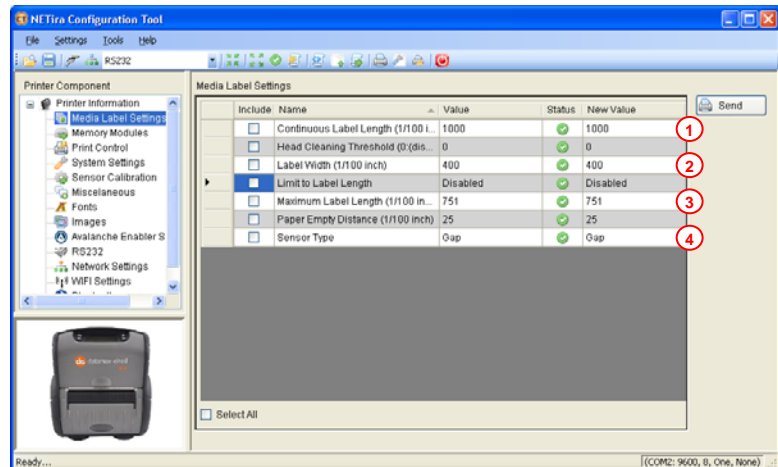
Common Settings:

	Name	Value	New value
1	Continuous Label Length (1/100 inch)	425	Distance the printer will advance after pressing the FEED button. Distance is measured in 1/100 inch. i.e. 1000=10 inches.
2	Label Width (1/100 inch)	425	200 = 2 inch media 300 = 3 inch media 400 = 4 inch media
3	Maximum Label Length (1/100 inch)	800	Distance must be greater than the length of your media. i.e. 1000=10 inches
4	Sensor Type	Continuous	**Gap** = Labels with gap **Continuous** = Media with no gaps **Reflective** = Labels with Q-Mark or black mark

3) After updating the "New Value" columns, click the Send button to send these changes to the printer.

Note: NETira CT will change its column status from a green ⊘ to orange triangle ⚠ when values are modified and does not match current printer values.

3.4.2   Quick Media Calibration

The printer is factory calibrated for operation with most media types (both gap and black mark). Try your media without performing any calibration adjustments first, this will determine if the factory settings are compatible. Only perform the calibration adjustments if you are experiencing media registration issues.

The Quick Media Calibration should be performed first, if it fails to detect your label media proceed to the Manual Media Calibration procedure, see section 3.4.3.

The Quick Media Calibration can be performed using the NETira CT configuration utility, (see section 3.3 for more information on NETira CT) or the front panel menu, (see section 3.14).

(i)   It is recommended that the battery is charged to 50% or greater before starting media calibration.

Launch the NETira CT configuration utility, and query (connect) to the printer.

1) Click on the 'Sensor Calibration' printer component.

2) Install your media in the printer and click the 'Quick Media' button.

3) The printer will feed media while the sensor is being calibrated. At the end of the process the following message will be shown, indicating a successful calibration. Values displayed in the "New Value" column may change after a calibration.
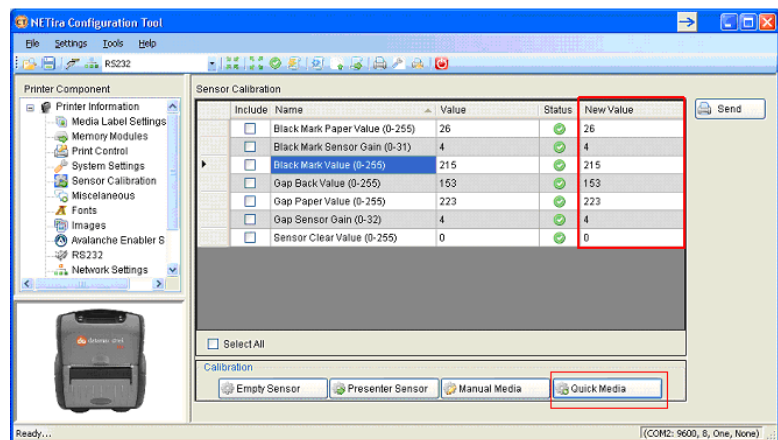
   If the calibration is not successful, repeat the procedure. If the Quick Media calibration continues to fail, proceed to section 3.4.3 Manual calibration

3.4.3 Manual Media Calibration

The Manual Media Calibration is intended for use when Quick Media Calibration printer has failed to detect the start of each label. This procedure performs a complete recalibration of the sensors and will optimize the printer to your media. In some instances you may need to perform a Quick Media Calibration after the Manual Media Calibration to further optimize the printer's sensor.

☑ When updating the printer's firmware the sensor settings can be saved to a configuration file, (see section 3.7) which will eliminate the need to re-calibrate the printer.

Sensor calibration is needed to set either the black mark or the gap value of the media sensor on the printer. The Manual Media Calibration can be performed using the NETira CT configuration utility, (see section 3.3 for more information on NETira CT).

ⓘ It is recommended that the battery is charged to 50% or greater before starting media calibration.

Launch the NETira CT configuration utility, and query (connect) to the printer.

Procedure for Gap Type Media: *(be sure the printer is set to sense Gap media, see Section 3.4.1).*

1) Click on the 'Sensor Calibration' printer component.

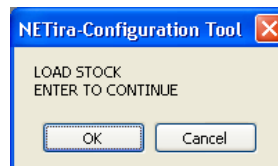2) Click the 'Manual Media' button to start the manual calibration process.
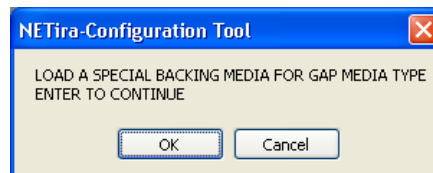
   Follow the instructions on the following screen.
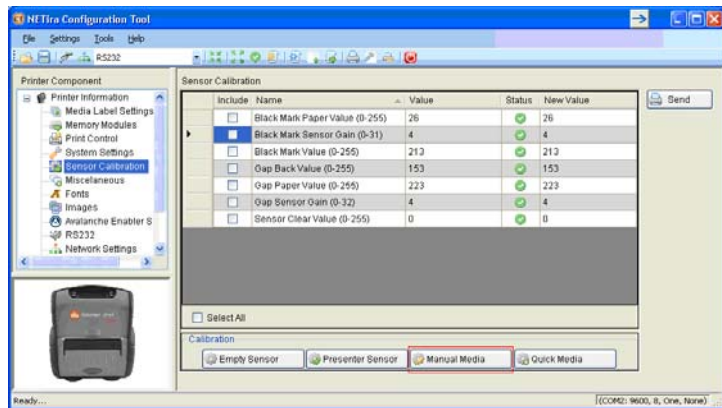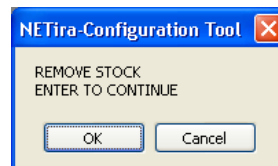
3) Select the Interlabel/Gap radio button then click 'OK'.
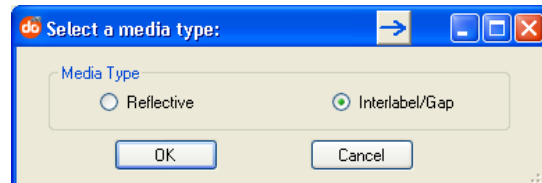
4) Load Stock: Place the face of media over the sensor, close the door then click 'OK'.

5) Load Special Backing Media for Gap: Peel the label(s) off backing and place backing over the sensor and close the door then click 'OK'.

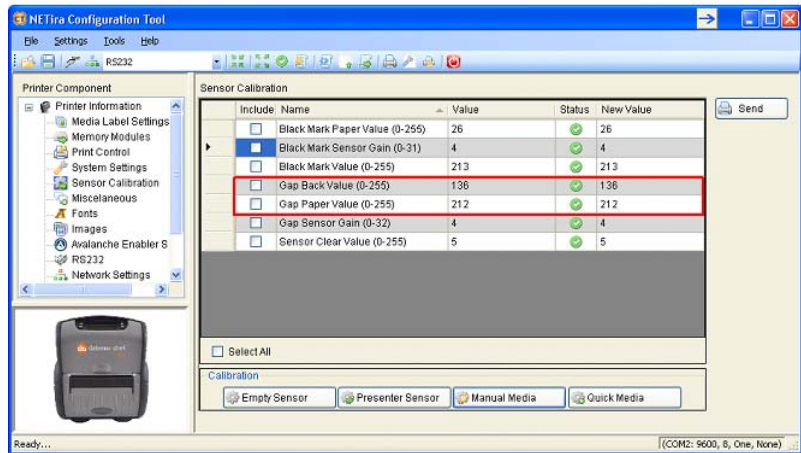6) Remove Stock: Remove all media from printer, close the door then click 'OK'.

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7) NETira CT will display a message indicating the process has finished.

   In case of any error, a FAILED CALIBRATION message will be displayed. Repeat the process.

8) To confirm changes, observe that Gap Back Value and Gap Paper Value have changed.

Procedure for Black Mark Media: *(be sure the printer is set to sense Black Mark media, see Section 3.4.1).*

1) Click on the 'Sensor Calibration' printer component.

2) Click the 'Manual Media' button to start the manual calibration process.
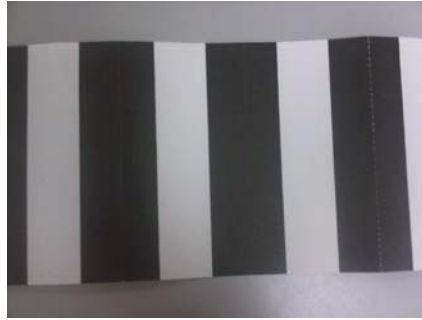
   Follow the instructions on the following screen.
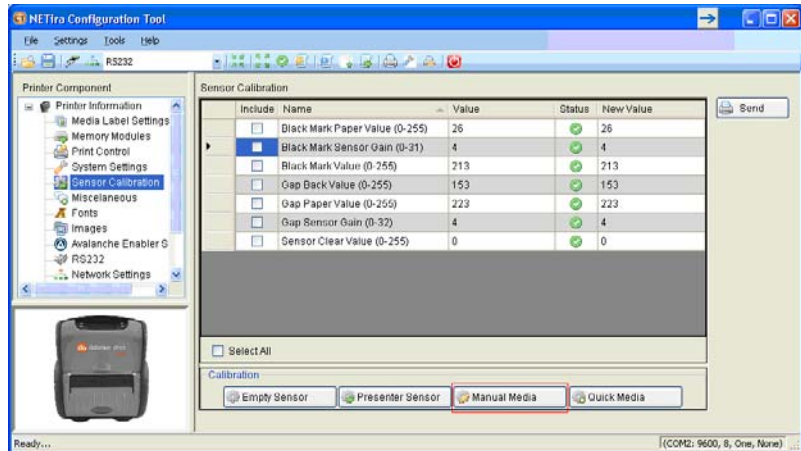
3) Select the Reflective radio button then click 'OK'.
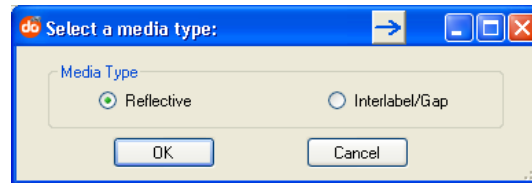
Note: A special media with black marks is needed to perform this calibration. See the image to the right. A sample image is included at the end of this document, it can be printed and used for this calibration procedure.
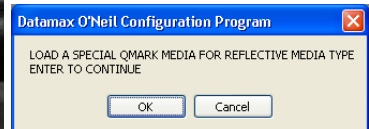

4) Load Stock: Place a white section of media under the sensor, close the door then click 'OK'.

❶	Printing Area
❷	Sensor
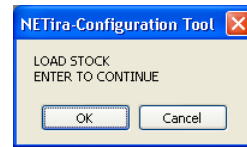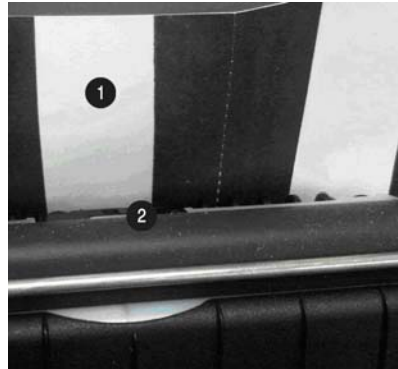
5) Load Special Q-Mark Media for Reflective Media: **Place a black section of the media under the sensor** and close the door then click 'OK'.

❶	Q-Mark Area
❷	Sensor
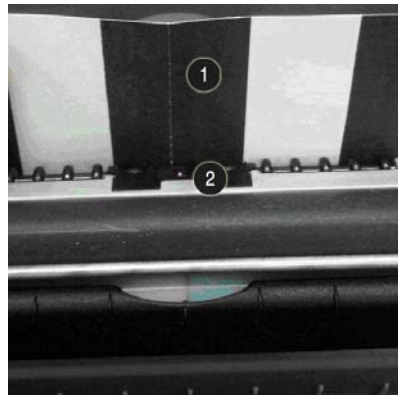
6) Remove Stock: Remove all media from printer, close the door then click 'OK'.
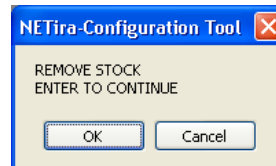
7) NETira CT will display a message indicating the process has finished.

In case of any error, a FAILED CALIBRATION message will be displayed. Repeat the process.

8) To confirm changes, observe that the Black Mark values have changed.

3.5 Presenter Mode

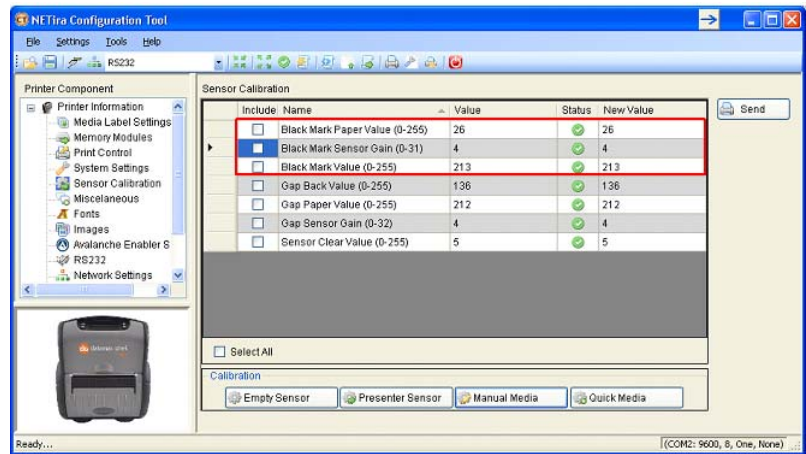To set the printer to work in Presenter Mode, follow the following steps:

- Set the "Presenter Sensor Equipped" parameter to enable the presenter sensor.
- Calibrate the Presenter Sensor to store the media settings (liner and media).

These setting changes can be performed using the NETira CT configuration utility, (see section 3.3 for more information on NETira CT).

Launch the NETira CT configuration utility, and query (connect) to the printer.

Enable the Presenter Sensor:

1) Click on the 'Miscellaneous' printer component.

2) Set the 'Present Sensor Equipped' to Enabled.

3) After updating the "New Value" column, click the Send button to send this change to the printer.
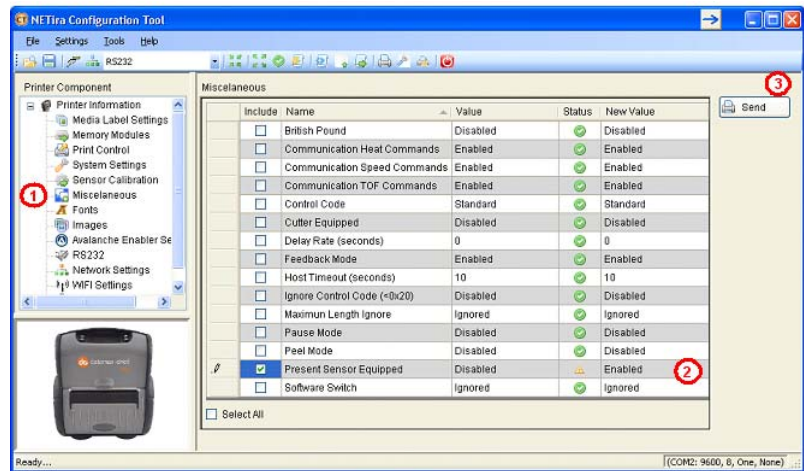
Calibrate the Presenter Sensor:

(i) After calibration is complete the presenter sensor will be disabled. You must re-enable the presenter before use.

1) Install the media in the printer and route the liner through the peeler door, see section 2.3.1.

   When the FEED key is pressed, the label will be peeled and presented for the operator.

   | ❶ | Media Backing |
   | ❷ | Peeler Door |

2) Click on the 'Sensor Calibration' printer component.

3) Click the 'Presenter Sensor' button to start the calibration process.

   Follow the instructions on the following screen.
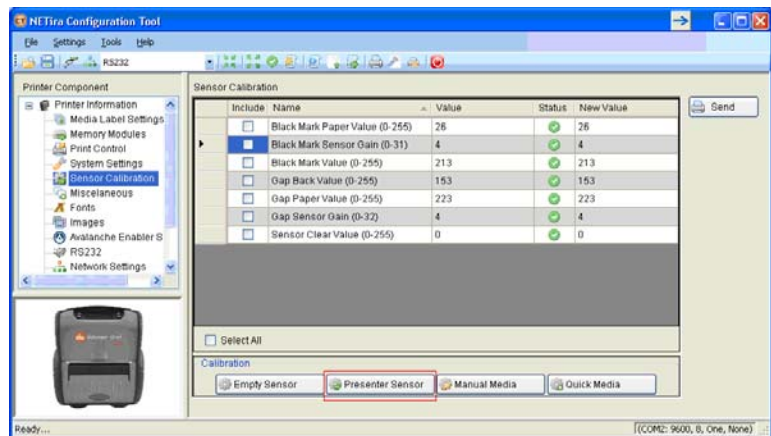
4) Type the number 6 as the Advance Distance after QMark/Gap. Click the 'OK' button.

   This value may vary if Datamax-O'Neil media is not used and may require adjustments to the Advance Distance after QMark/Gap parameter for the sensor to work properly.
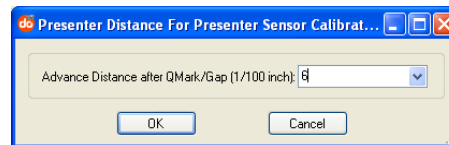
5) The following screen will be shown. Click the 'OK' button to start the process.
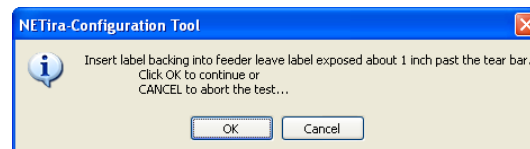
   After the calibration is performed successfully, the following confirmation screen will be shown. If the sensor calibration fails, repeat the process.

Note: To test the proper operation of the printer, press the Feed button. The label is separated from the liner and a message "REMOVE LABEL" is shown in the LCD. After the label is removed, the printer will print the next label.

3.6 Printer Input Mode (Emulation)

The printer supports several printer languages such as CPCL, ZPL, DPL, etc. However, the printer has an AUTO input mode that will detect the type of script and switch to the desired printing language. By default the printer is configured as an AUTO mode. To manually change the printer language used, perform the following steps.
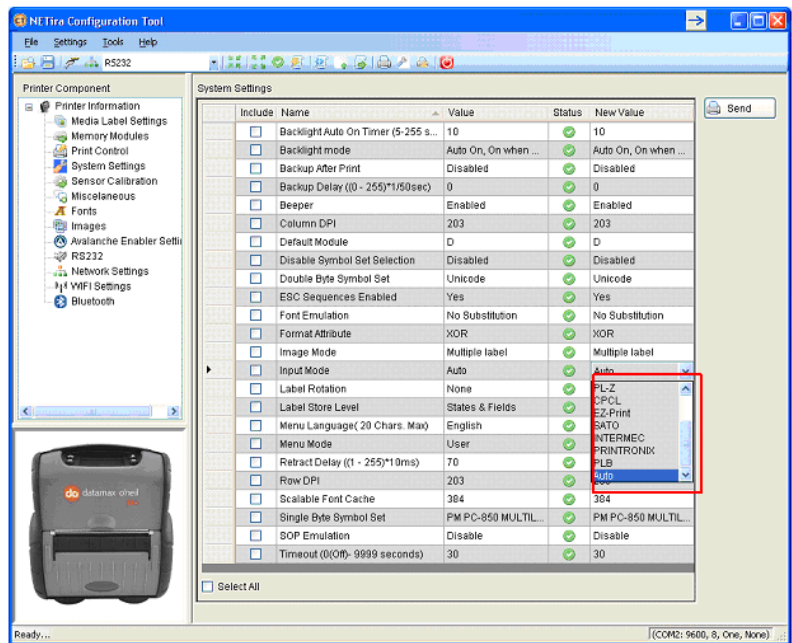
These setting changes can be performed using the NETira CT configuration utility, (see section 3.3 for more information on NETira CT).

> ⓘ The NETira CT configuration utility can only communicate to the printer using the DPL printer language input mode. If the printer has been set to use an input mode other than DPL, the printer's input mode must be changed back to Auto or DPL. This can be performed using the Tools>Set Input Mode function within NETira CT.

Launch the NETira CT configuration utility, and query (connect) to the printer.

1) Click on the 'Systems Settings' printer component.

2) Set the 'Input Mode' to the desired emulation under the "New Value" column.

3) After updating the "New Value" column, click the Send button to send this change to the printer.

3.7 Saving & Loading Configuration Files

The NETira CT configuration program allows printer configuration files to be saved to a file. These files can be useful for saving a printer configuration for a particular application or media. Saved configuration files can be shared with other printers/users.

Saving and Loading a Configuration file can be performed using the NETira CT configuration utility, (see section 3.3 for more information on NETira CT).

Launch the NETira CT configuration utility, and query (connect) to the printer.

To Save a Configuration File:

1) Once the printer has been queried the current settings can now be saved to a file. You may also make changes to any of the settings and have these values saved as well.

2) To save current configuration in a file, go to File/Save As menu and specify the filename.

   The current settings will be saved in a file with extension ".cfg".
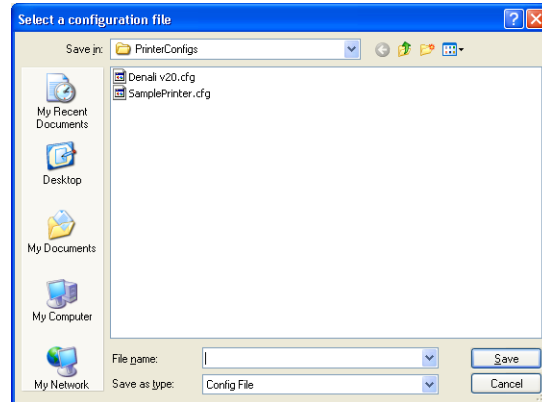
To Load a Configuration File:

1) To open a saved configuration, go to File/Open menu and choose the configuration filename.

   Optional: Check "include Sensor Calibration Data on Open" box to import sensor data with the configuration. Sensor data is printer specific and should only be imported to the printer that it came from.
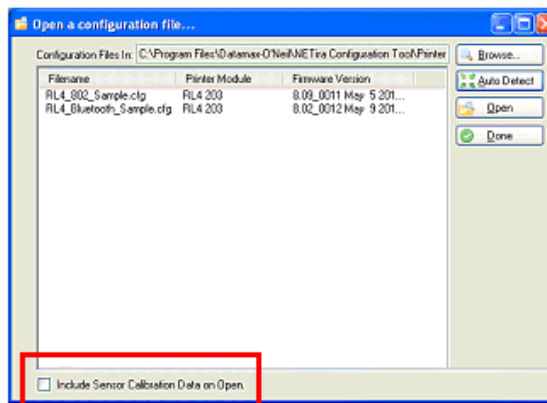
2) The configuration will now be loaded in to NETira CT.

3.8 Printer Demo

There are two ways to send demo label formats to the printer, NETira CT and the standalone Printer Demo program available for download at www.datamax-oneil.com.

NETira CT Printer Demo:

1) Launch the NETira CT configuration utility, select Tools, then Printer Demo.

2) Browse to folder containing print files, highlight files to be printed and click Add>.

3) Click on Print to send the file(s) to the printer.
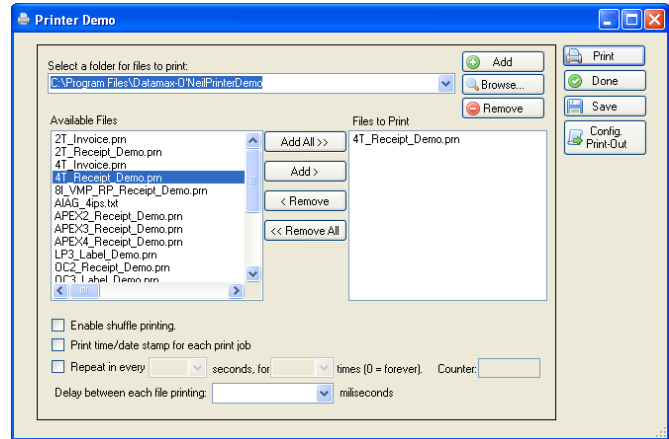
Standalone Printer Demo:

1) Launch the Printer Demo utility.

2) Select file to print from the drop down menu.

3) Select 'Settings' to set the communication parameters for the communication type selected.

4) Click on Print Demo to send the file to the printer.
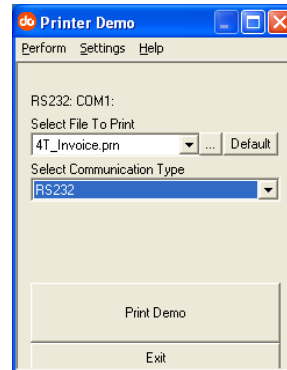
3.9 Firmware Update

When program updates and/or new features are added, they can be downloaded to the printer as follows:

1) Identify the new version for your model of printer from the Datamax-O'Neil Web site at www.datamax-oneil.com and download it onto your computer's hard drive. *Note RL3 and Rl4 firmware files are not interchangeable.*
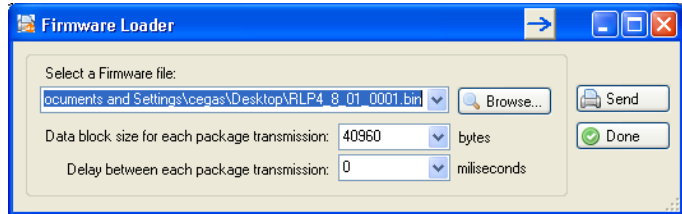
2) Launch the NETira CT configuration utility, and query (connect) to the printer, (see section 3.3 for more information on NETira CT).

(i) It is recommended that the configuration be saved before downloading firmware, and restored when finished. Be sure to check the box labeled "Include Sensor Calibration Data on Open" when restoring the configuration. See Section 3.7 for instructions.

3) Go to the Tools>Upgrade>Firmware. Select the binary file (BIN file).

4) Click the 'Send' button to start the firmware update.

Loading Boot 1 and Boot 2 and Firmware

(i) Loading Boot Firmware requires a serial connection to the printer.

1) Connect the printer to your PC using a serial cable

2) Launch the NETira CT configuration utility, and query (connect) to the printer, (see section 3.3 for more information on NETira CT).

(i) It is recommended that the configuration be saved before downloading firmware, and restored when finished. Be sure to check the box labeled "Include Sensor Calibration Data on Open" when restoring the configuration. See Section 3.7 for instructions.

3) Go to the Tools>Upgrade>Firmware. Select the binary files (BIN files) for each of the Boot files.

4) Check the "Select and Download Boot 1 file:", "Select and Download Boot 2 file:" and "Erase System and/or User Area" boxes and click send to initiate the download.

☑ Always Check "Erase System and/or User Area" box unless otherwise instructed..
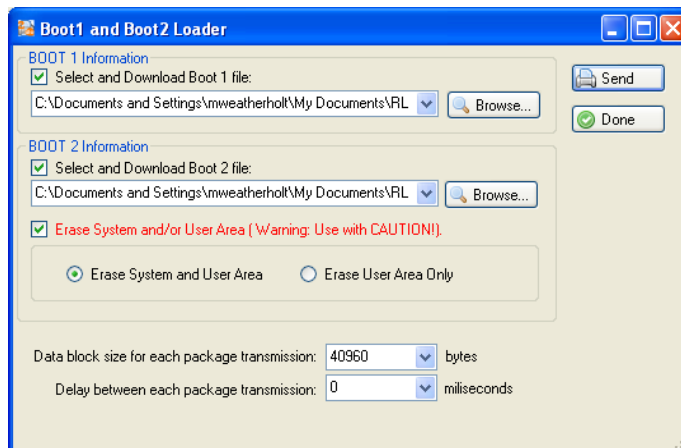
5) Once the Boot Loader files have been loaded, the firmware version can now be updated using the procedure outlined in section 3.9.

4 Maintenance and Adjustments

4.1 Cleaning Intervals

This section details the cleaning, adjusting, and troubleshooting tips for the printer. Proper cleaning is critical. To maintain peak performance of the printer, Datamax-O'Neil offers a complete line of cleaning products including pens, cards, films and swabs. Visit our website at www.datamax-oneil.com to learn more. The following table outlines the recommended maintenance schedule for the various printer parts.

Area	Method (Std. Models)	Method (Linerless Models)	Interval
❶ Printhead	Cleaning Card or Cotton Swab w/ Isopropyl Alcohol	Cleaning Pens	After 3-5 rolls of media
❷ Platen Roller	Cotton Swab w/ Isopropyl Alcohol	Cleaning Pens	After 3-5 rolls of media
❸ Peel-Off Roller	Cleaning Pens	Cleaning Pens	After 3-5 rolls of media
❹ Lid Roller	Cotton Swab w/ Isopropyl Alcohol	Cleaning Pens	After 3-5 rolls of media
❺ Media Sensor	Compressed Air	Compressed Air	Monthly
❻ Interior	Compressed Air	Compressed Air	As Needed

⚠ Isopropyl alcohol is a flammable solvent; always take the proper precautions when using this substance.

To achieve optimum print quality and maximum printhead life, Datamax-O'Neil specifies the use of Datamax-O'Neil brand media and ribbons. These supplies are specially formulated for use in our printers; use of non-Datamax-O'Neil supplies may affect the print quality, performance, and life of the printer or its components. For a current list of approved media and ribbons for use in direct thermal and thermal transfer applications, please contact a Media Representative at (407) 523-5650.

4.2 Cleaning the Printhead

If print quality declines (symptoms include non-compliant bar codes, print dropouts, and streaks) the typical cause is debris build-up on the printhead. Furthermore, when the build-up is not removed it may lead to reduced service life or printhead failure. Streaks in printed labels usually indicate a dirty or faulty printhead.

To clean the printhead (*using Datamax-O'Neil cleaning card*):

☑ The following procedure is for "standard configuration" printers. Linerless printers should only be cleaned with the Datamax-O'Neil Cleaning Pens.

1) Open the printer Cover. Remove any media installed in the printer. Open the External Media Door located in the bottom of the printer.

❶ External Media Door

2) Remove the cleaning card from its package. Insert the cleaning card through the External Media Door and into the printer as shown:

❶ Cleaning Card

3) Close the Cover and then Press the ⬤ button several times until the cleaning card has been completely fed through the printer. Repeat if necessary.

❶		Cleaning Card
❷		Cover
❸	⬤	Feed Button

4) Reload the media. Close the Cover, push down until it latches closed. Press the ⬤ button to normalize tracking.

To clean the printhead (using Datamax-O'Neil Cleaning Pens #770189-000):

The Cleaning Pens are typically intended for use on linerless model printers or any printer with adhesive build up. They are used to clean components that are exposed directly to adhesive. Two pens are included in the kit, the first pen "Step 1" breaks up the adhesive and the second pen "Step2" removes it.

<div align="center">

STEP 1   STEP2

</div>

The pen's end cap has a plastic scraper to remove large build-ups of adhesive from the printhead and other parts.

DO NOT USE ON THE PLATEN ROLLER OR SENSORS.

5 Troubleshooting

5.1 Introduction

Occasionally, situations arise that require troubleshooting. Possible problem situations and potential solutions are listed below. Contact a qualified technician for problems that persist or problems not covered in this section.

5.2 Troubleshooting Tips

The following section lists the symptoms and the associated page numbers of the topics covered. While not every situation is addressed, you may find some tips helpful. After a correction action is taken press the 𝟨 button to clear the alarm.

Unacceptable print quality:

- Dirty printhead: Clean the printhead (see Section 4.2).

- The temperature setting may be incorrect for the media being used: Use the configuration utility or software commands adjust the Heat Setting and Print Speed.

- Faulty printhead, call for service.

The printer does not print or prints several labels at once:

- The labels are incorrectly loaded: See the loading instructions in Section 2.3.

- The media is not calibrated: Calibrate it (see Section 3.4).

- The media sensor or sensor circuitry may be defective: Call for service.

Skips every other label or occasionally skips labels

- The label is formatted too close to the top edge of the label: Leave white space equal to 8-dot rows (about .02 inch [.5mm]) at the top of the label.

- The media is not calibrated: Calibrate it (see Section 3.4).

- The media sensor or media sensor circuitry may be defective: Call for service.

Unable to print rotations:

- The characters are formatted outside the dimensions of the label: Check that the row/column values provide enough room for the height of the image being printed.

Light print on the right side of the label:

- The printer's cover is not latched down: Latch it.
- The printhead is not properly aligned: Call for service.

Printer fails to power ON:

- The battery may need to be charged: Charge the battery (see Section 2.1).
- For RL3 models make sure the printer is turned on. (see Section 3.1.3).

Label advances 8 inches before a fault indication:

- The media may not be properly loaded: Reload it (see Section 2.3). When loading media ensure that the supply hubs are against the media and that gaps or marks in the labels are in line with the media sensor.
- The media sensor or media sensor circuitry may be defective: Call for service.

Labels move excessively from side to side during printing:

- The media may not be properly loaded: Reload it (see Section 2.3). When loading media ensure that the supply hubs are against the media and that gaps or marks in the labels are in line with the media sensor.

When using Peeler Mode, slack in backing (liner) material occurs:

- With some types of media it may be necessary to periodically remove slack in the liner material that accumulates before the Peeler Door. To remove: Hold the Peeler Door closed and pull on the liner material until the slack is removed and the liner is tight.

A Specifications

Physical Characteristics

Dimensions	RL3: 5.6″ w x 7.6″ h x 3.2″ d (142 x 193 x 81 mm) RL4: 6.5″ w x 7.9″ h x 3.2″ d (166 x 200 x 81 mm)
Weight (printer only):	RL3: 1.95 lbs. (0.88 kg) RL4: 2.16 lbs. (0.98 kg)
Drop Specifications	6ft (1.8m)
User Interface	128x64 LCD display with white LED backlighting. Four (4) button user interface

User Environment

Operating Temperature	-4° F to 122° F (-20° C to 50° C)
Storage Temperature	40° F to 140° F (-40° C to 60° C)
Charging Temperature	41° F to 104° F (5° C to 40° C)
Relative Humidity	10% 90% non-condensing
ESD Protection:	RL4: 8kV Air/ 6kV Contact; RL3: 6kV Air/6kV Contact

Print Technology

Printhead	Direct thermal; 203 dots per inch (8 dots per mm)
Print Width	RL3: 2.8″ (72 mm) RL4: 4.125″ (105 mm)
Print Speed	4″ per second (102 mm per second)

Memory

Installed Memory	32 MB RAM / 64 MB Flash

Media

Media Types	RL3: 1.00″– 3.125″ (26 – 79 mm) RL4: 2.00″– 4.12″ (51 – 105 mm) Linered and linerless (if equipped) labels with black mark or gap sensing. External fanfold or roll supply
Media Thickness Range	2mil – 6.5mil
Media Roll Capacity	2.65″ (67 mm) O.D. on 0.75″ (19 mm) I.D. core

Communications

Serial Interface	RS232, up to 460.8 kbps
USB Interface	2.0 (full speed)
Bluetooth Interface	Supported versions: Version 2.1, Class 2; Serial port profile
Wireless LAN	Network standard: IEEE 802.11 a/b/g Wireless access modes: Infrastructure and ad-hoc Security Protocols: WEP (64/128), WPA (TKIP/RC4), WPA2 (CCMP/AES) Authentication: LEAP, EAP-PEAP, EAP-FAST, EAP-TTLS, EAP-LEAP:
Network Support	DHCP, TCP, UDP, DNS, BOOTP

Power Source

Battery	14.8V Lithium-ion, 2200 mAh (33 W-h)
DC Inputs	External DC jack, 11-15V, built-in spike and surge protection
	External charge contacts, 11-15V, built-in spike and surge protection, (standard on RL4 models only)
Recharging	4 - 6 hours
RL3 Endurance:	Prints over 5500 3″x1″ (76.2 x 25.4 mm) labels when operating 8 continuous hours.
RL4 Endurance:	Prints over 320 4″x6″ (100 x 150 mm) labels when operating 16 continuous hours.

Barcodes/Fonts/Graphics

The printer is equipped with the most popular industry fonts and bar codes; see the *Programmer's Manual* for full listings and detailed information.

• Scalable Fonts:
- CG Triumvirate™ Bold Condensed, CG Triumvirate & CG Times with Cyrillic, Greek, Arabic and Hebrew character support from Monotype Imaging

• Standard fonts:
- 5.5CPI, 7.2CPI, 10.2 CPI, 10.7CPI, 18.5CPI 20.4CPI, 22.6CPI, 34.0CPI, OCR-A, OCR-B (additional fonts available)

• Downloadable font types:
- True Type, Bitmap

• Character Sets:
- Unicode/UTF8 support; 50 international symbol sets, Big 5, JIS and Shift JIS and more

• Optional characters:
- Arabic, Greek, Hebrew, Unicode subset including Latin
- Asian (including Big 5, Simplified Chinese, Kanji, Hangul and Shift JIS); additional international characters available

• Barcodes:
- Linear: Codabar, Code 3 of 9, Code 93, Code 128, EAN-8, EAN13, Interleaved 2 of 5, HIBC, PLESSEY, MSI/Plessey, UCC/ EAN-128, UPC-A, UPC-E, UPC 2 and 5 digit addendums, Postnet, Telepen, UPS MaxiCode, FIM, USD-8
- 2D Symbologies: PDF417, Aztec, QR Code, GS1, Datamatrix, TLC39, MicroPDF417

• Graphics:
- Supports storage of graphics/logos in Flash memory and transient "print once" graphic

Software/Firmware

- NETira CT Configuration Tool - complete printer set-up utility

- Control Language Compatibility:
- DPL, ZPL II®, CPCL, IPL , XML

- Device management compatibility:
- Wavelink® Avalanche MC, Motorola MSP 3.0 and later

- Network Compatibility
- TCP-IP based networks
- AS/400 (LPD) based networks

- Drivers:
- Windows® CE, Windows® Desktop, USB

- Label design software compatibility:
- BarTender®, Niceware/NiceLabel and others

- ERP Systems:
- SAP, Oracle

- Software development kit:
- C++, Visual Basic

Approved Media

To achieve optimum print quality and maximum printhead life, Datamax-O'Neil specifies the use of Datamax-O'Neil brand media. These supplies are specially formulated for use in our printers; use of non-Datamax-O'Neil supplies may affect the print quality, performance, and life of the printer or its components.

For a current list of approved media and ribbons for use in direct thermal and thermal transfer applications, please contact a Media Representative at (407) 523-5650.

B Wireless LAN and Bluetooth Setup

B.1 Introduction

The printer makes IP requests at power-up, so before making a network connection to the printer consider how your IP addressing needs to be assigned. The IP addressing of the printer can be configured in one of two ways: Using a static IP Address or Using IP Discovery (DHCP, BootP, or RARP).

Default Network Settings:

The following table lists some of the printer's default network setting. Any of these parameters can be modified using the NETira CT configuration program. See section 3.3 for more information on NETira CT.

Network Parameter	RL3 *(All Firmware Versions)*	RL4 *(Firmware version 8_02_0050 or earlier)*	RL4 *(Firmware version 8_02_0051 or later)*
ESSID	D-O	(None)	D-O
TCP Port:	9100	515	9100
UDP Port:	9200	515	9200
Bluetooth Name:	Printer – RL3	Printer – RL4	Printer – RL4

1) Turn the printer ON and connect it to the computer using the serial cable.

2) Install and Open the NETira CT configuration utility application on your PC, (see section 3.3 for more information). This configuration utility can be downloaded from our website.

3) Query the printer by using the 'Auto Detect' button. This will connect to the printer and retrieve the setting currently stored in the printer.

   Note: The message "Done query printer" confirms that communication process was successfully executed.
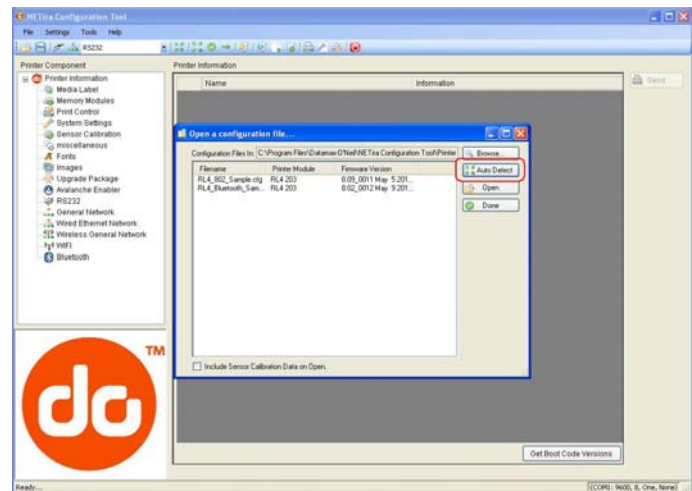
B.2 Static IP/DHCP Setting

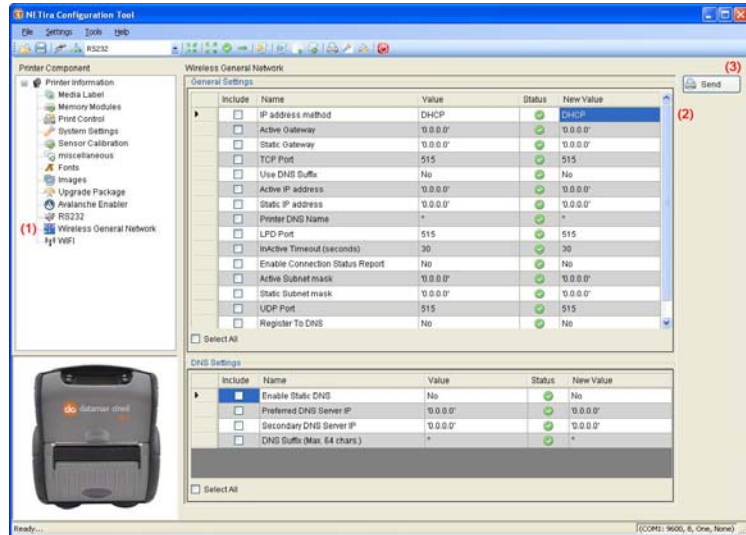The printer can be configured to use a static IP or an dynamic IP obtained from a DHCP server.

Using a Dynamic IP Address (DHCP):

1) Click on the 'Wireless General Network' printer component.

2) Change (or confirm) the following parameter setting:

IP address method: DHCP

3) After updating the "New Value" column, click the Send button to send these changes to the printer.

(i) Values obtained from the DHCP server will be shown under the fields: Active IP address, Active Subnet Mask and Active Gateway.

Using Static IP Address:

1) Click on the 'Wireless General Network' printer component.

2) Change (or confirm) the following parameter settings:

IP address method: Static

Static IP address: According to your network IP range.

Static Subnet mask: According to your network subnet mask.

3) After updating the "New Value" column, click the Send button to send these changes to the printer.
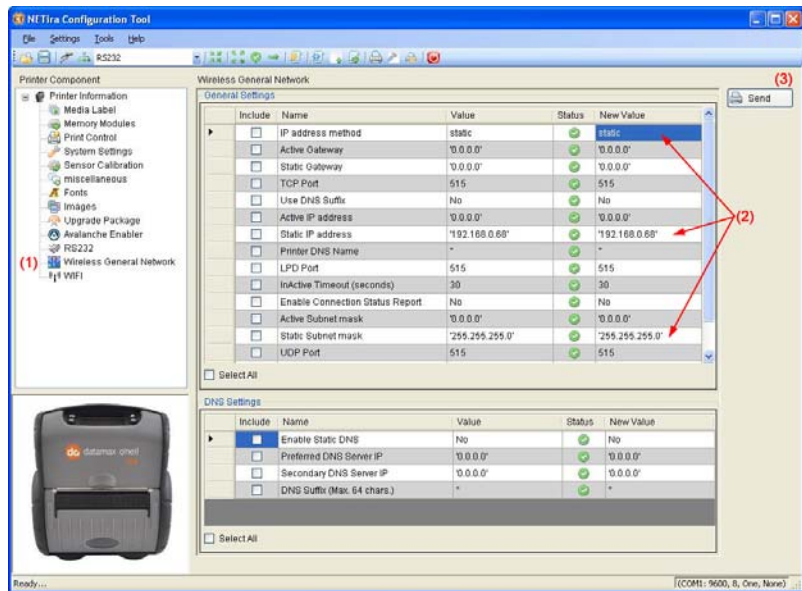
B.3 Infrastructure/Ad-hoc Setting

1) Click on the 'WIFI' printer component.

2) Change (or confirm) the following parameter settings:

ESSID: (*Default:* **D-O**) Type name that match the name of your access point

Network Type: Infrastructure or Adhoc

3) After updating the "New Value" column, click the Send button to send these changes to the printer.
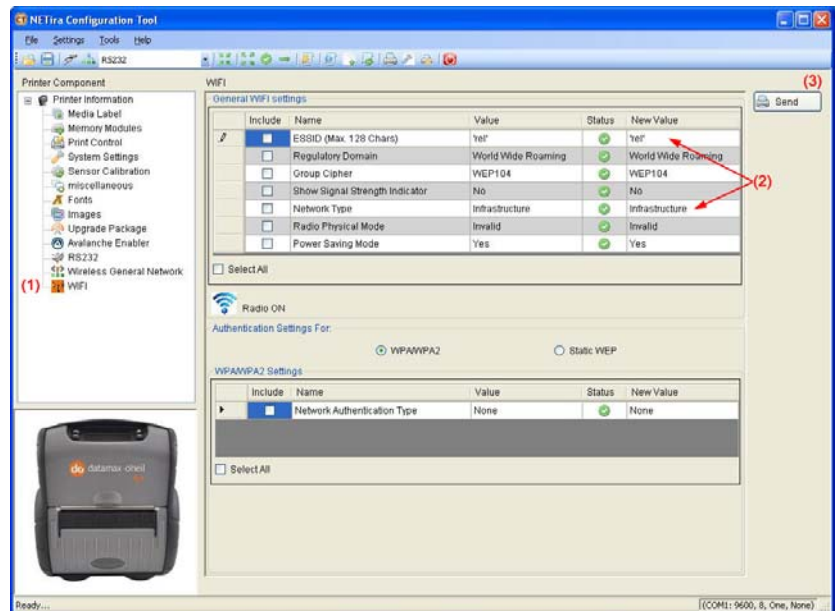
Note: To validate a successful Wireless LAN connection, the IP address obtained from the access point will be shown on the LCD display of the printer.

B.4 Wireless LAN Security Settings

The printer can be configured to utilize several Wireless LAN security protocols. The following sections outline the most popular configurations.

B.4.1 WEP 64 & 128 Bit

1) Click on the 'WIFI' printer component.

2) Click the 'Static WEP' radio button.

3) Change (or confirm) the following parameter settings:

WEP Selected Key: Select the key number to use

WEP AP authentication:
Users share 40-bit = 64-bit encryption
Users share 128-bit = 128-bit encryption

WEP Data Encryption:
Enable WEP Data Encryption

WEP Key #1-4:
Enter the WEP keys that match values used in the access point

4) After updating the "New Value" column, click the Send button to send these changes to the printer.
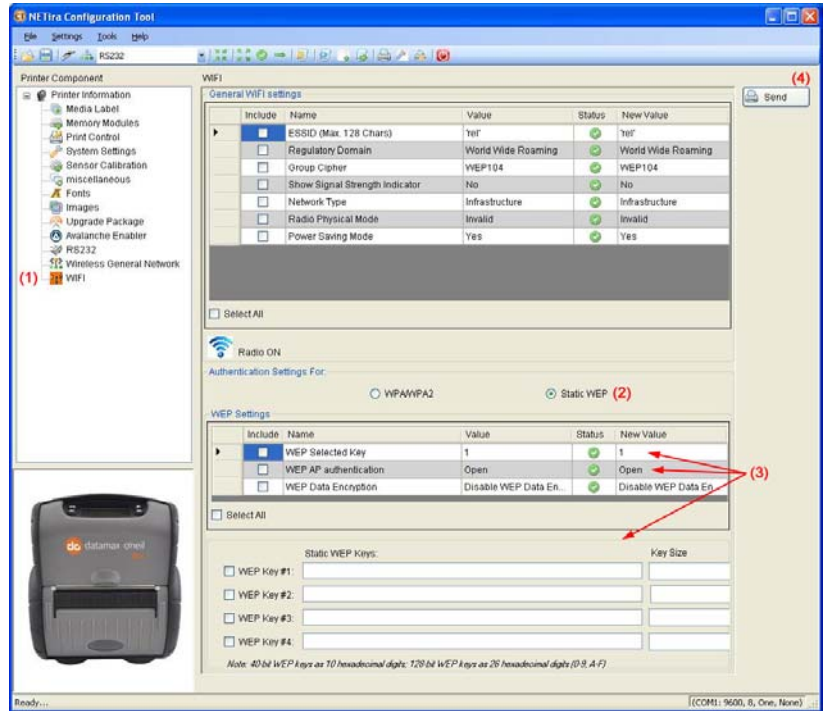
B.4.2 WPA2-PSK w/CCMP

1) Click on the 'WIFI' printer component.

2) Click the 'Click the WPA/WPA2' radio button.

3) Change (or confirm) the following parameter settings:
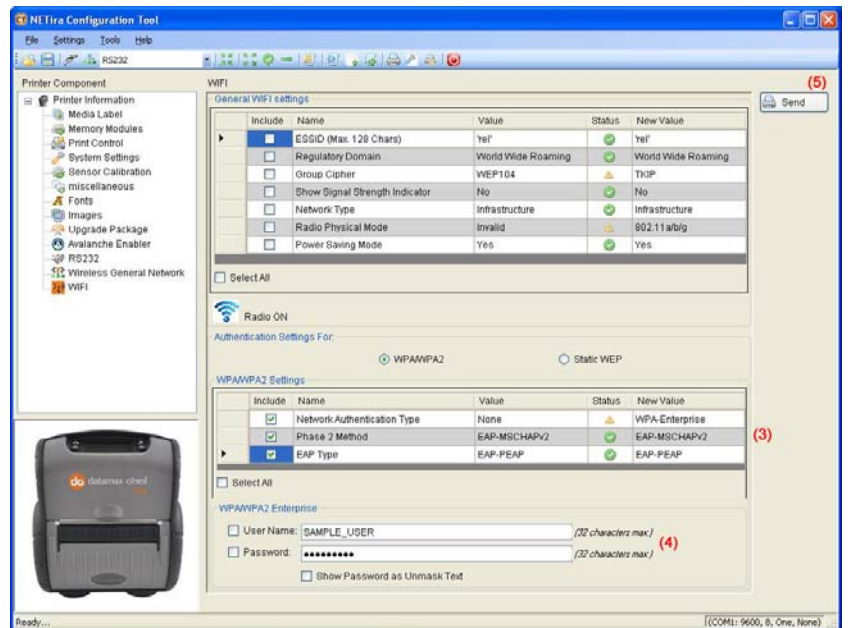
Group Cipher: CCMP

Network Authentication Type: WPA2-PSK

4) Type the Pass Phrase under the "WPA_PSK_TKIP/ WPA2_PSK settings" section. Note that Pass Phrase is case sensitive.

5) After updating the "New Value" column, click the Send button to send these changes to the printer.
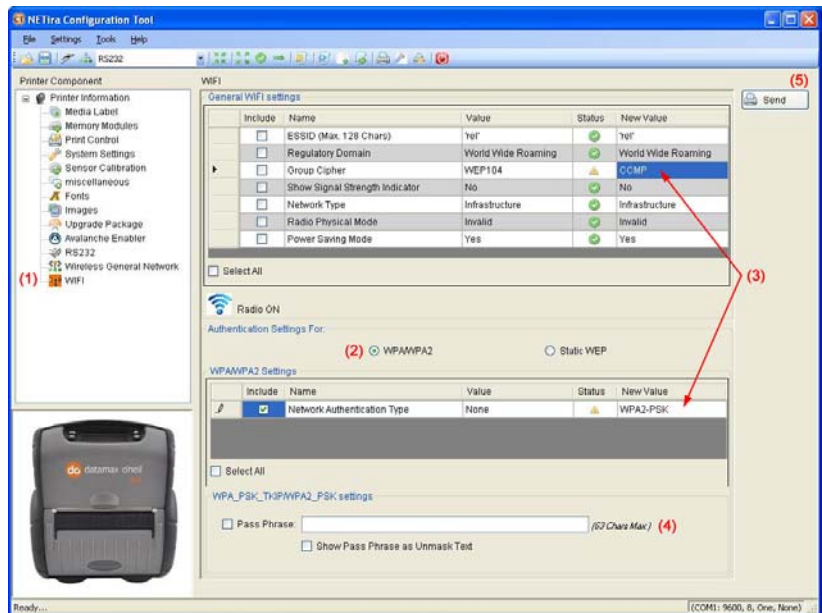
## B.4.3 WPA2-PSK w/TKIP

1) Click on the 'WIFI' printer component.

2) Click the 'Click the WPA/WPA2' radio button.

3) Change (or confirm) the following parameter settings:

Group Cipher: TKIP

Network Authentication Type: WPA2-PSK

4) Type the Pass Phrase under the "WPA_PSK_TKIP/WPA2_PSK settings" section. Note that Pass Phrase is case sensitive.

5) After updating the "New Value" column, click the Send button to send these changes to the printer.
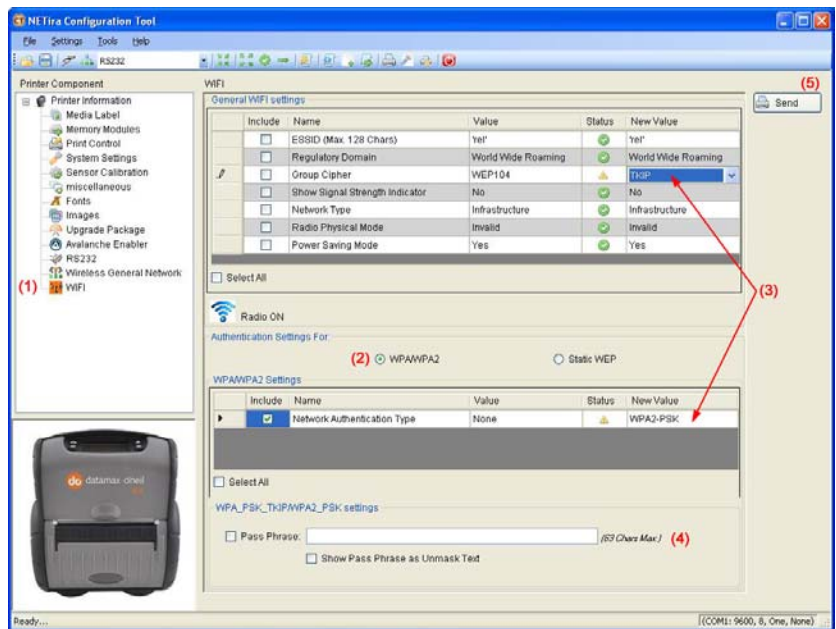
B.4.4 WPA2-Enterprise

1) Click on the 'WIFI' printer component.

2) Click the 'Click the WPA/WPA2' radio button.
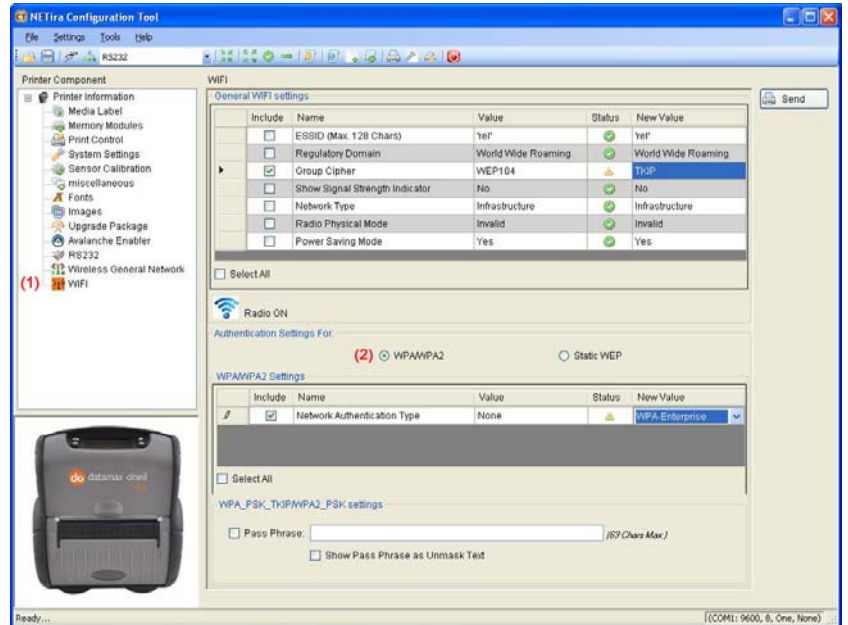
3) Change (or confirm) the following parameter settings:

Network Authentication Type: WPA-Enterprise

Phase 2 Method: EAP-MSCHAPv2

EAP Type: Select EAP-PEAP
Note: EAP Type can be variable. Other values supported: EAP-LEAP, EAP-TTLS, EAP-PEAP, EAP-FAST

4) Type the user name and password under the "WPA/WPA2 Enterprise" section.

5) After updating the "New Value" column, click the Send button to send these changes to the printer.

B.4.5   WPA-PSK TKIP w/TKIP

1) Click on the 'WIFI' printer component.

2) Click the 'Click the WPA/WPA2' radio button.

3) Change (or confirm) the following parameter settings:

Group Cipher: TKIP

Network Authentication Type: WPA2-PSK_TKIP

4) Type the Pass Phrase under the "WPA_PSK_TKIP/WPA2_PSK settings" section. Note that Pass Phrase is case sensitive.

5) After updating the "New Value" column, click the Send button to send these changes to the printer.
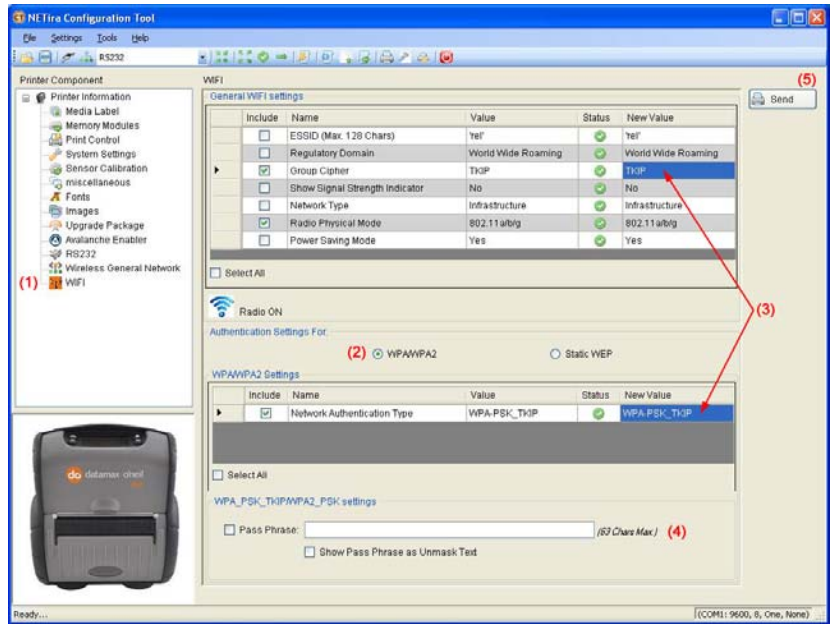
B.5 Resetting the Printer

In the event of a Wireless LAN communication problem (drop offs, hangs, can't communicate, ect..), the printer can be reset.

To reset the printer:

1) Press and hold the 📶 button until the "Radio Off" message is displayed and then release.

2) Next, press and hold the 📶 button until the "Turning Radio On" message is displayed and then release.

   The printer will re-boot and attempt to connect to the network device using the parameters previously set in the printer.

As an alternate method, remove the battery from the printer, wait 20 seconds, and then re-install the battery, see section 2.1.

B.6 Bluetooth Setup

The printer is configured with default factory settings. To determine your printer's configuration, print a Configuration Label, (see Section 3.2).

1) Click the Bluetooth menu item in the Printer Component section of the configuration utility.

2) To set up the printer for Bluetooth, change (or confirm) the following parameter settings:

   Bondable: Yes

   Connectable: Yes

   Discoverable: Yes

   PassKey: Default '0000' (must match entry used on host computer)

3) After updating the "New Value" column, click the Send button to send these changes to the printer.

4) Allow 30 seconds for the printer reset. For connection to the printer please refer to the instructions included with your Bluetooth adapter or host computer/handheld.
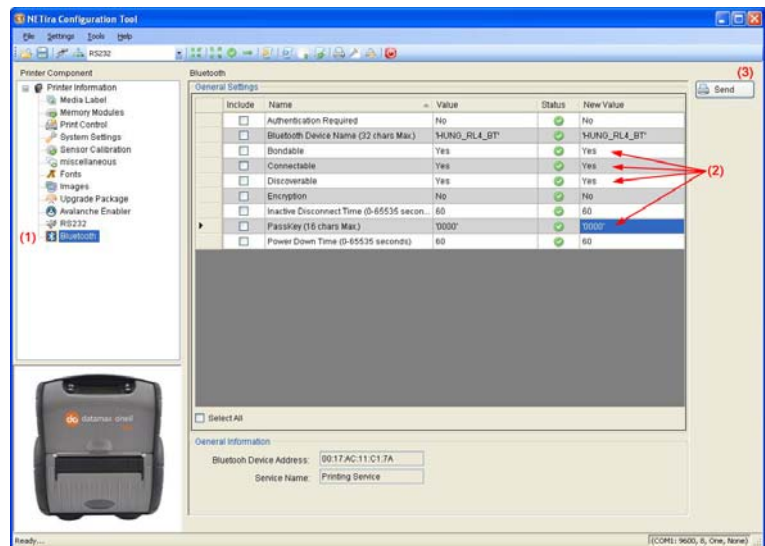
C USB Setup

C.1 Introduction

The printer can be connected to a PC or a handheld device using a USB cable. Before connecting the printer to your host device, the type (or class) of USB connection must be determined. There are three classes of USB connections that are supported:

- CDC (Communication Device Class, virtual COM port via emulated RS-232)
- Printer Class (Typical Windows Printer)
- Composite Class (CDC + Printer Class)

Whenever possible, it is recommended to use the Composite Class, as it gives the most flexibility. However, on some systems (e.g., handheld devices) CDC or Printer Class alone should be selected, as handheld devices have limited support.

Software/Files Needed:
The following files can be downloaded from: www.datamax-oneil.com

- NETira CT Configuration Utility
- Seagull Windows Drivers (for Printer and Composite Class installations only)
- "Datamax-O'Neil Composite Class.inf" file (for Composite Class installations only)
- "Datamax-O'Neil CDC Class.inf" file (for CDC installations only)

Create a new folder on your local computer named "Drivers". Download the necessary files and place them in this folder.

C.2 Printer Configuration

Before attempting an USB connection the printer must first be configured to use the desired USB class. Set the printer to appropriate USB class for your particular application by using NETira CT configuration utility.

1) Turn the printer ON and connect it to the computer using the serial cable.

2) Install and Open the NETira CT configuration utility application on your PC, (see section 3.3 for more information). This configuration utility can be downloaded from our website.

3) Query the printer by using the 'Auto Detect' button. This will connect to the printer and retrieve the setting currently stored in the printer.

   Note: The message "Done query printer" confirms that communication process was successfully executed.
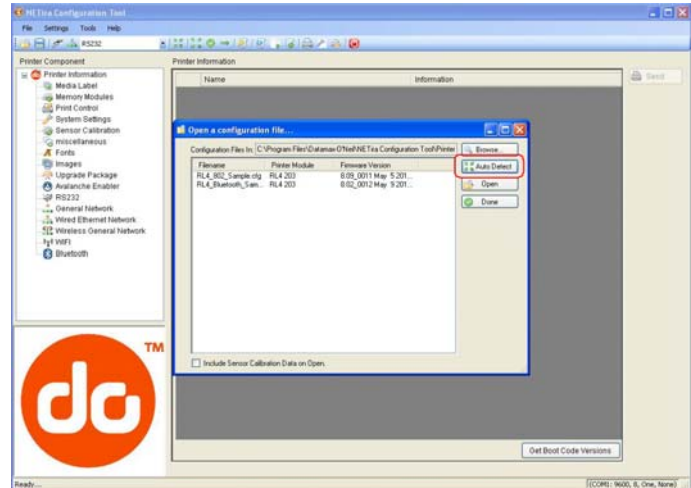
4) Click on the 'Miscellaneous' printer component.

5) Change (or confirm) the **USB Mode** parameter setting.

6) After updating the "New Value" column, click the Send button to send this change to the printer.

7) Proceed to the appropriate section to complete the USB connection.

   Section C.3, Composite Class Installation
   Section C.4, CDC Only Installation
   Section C.5, Printer Class Installation

C.3 Composite Class Installation

Do not plug the USB cable into the computers USB port. If you have done so, unplug it now.

Software/Files Needed:

The following files are required and can be downloaded from:
www.datamax-oneil.com.

- Datamax-O'Neil Windows Drivers
- "Datamax-O'Neil Composite Class.inf" file

Create a new folder on your local computer named "Drivers". Download the necessary files and place them in this folder.

Step A: Driver Extraction:

1) To extract the Windows drivers to your local computer, double click the "Datamax-O'Neil_x.x.x" file that was previously downloaded from the website. The following screen will appear.

   Click the "Accept" radio button and then click Next to continue.

2) At the next screen you can choose the location of installation directory, it is recommended to keep the default directory and then click Next to continue.
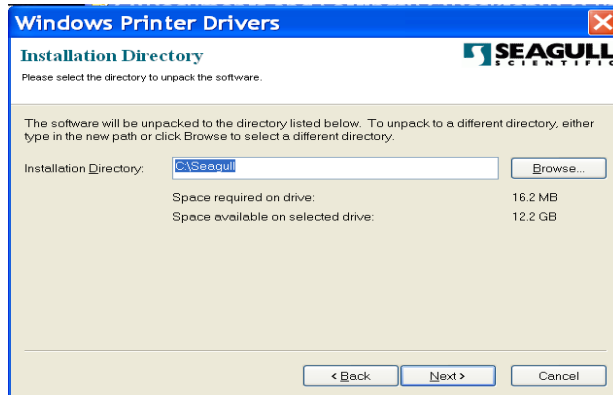
3) At the next screen UNCHECK the two option boxes and then click Finish.
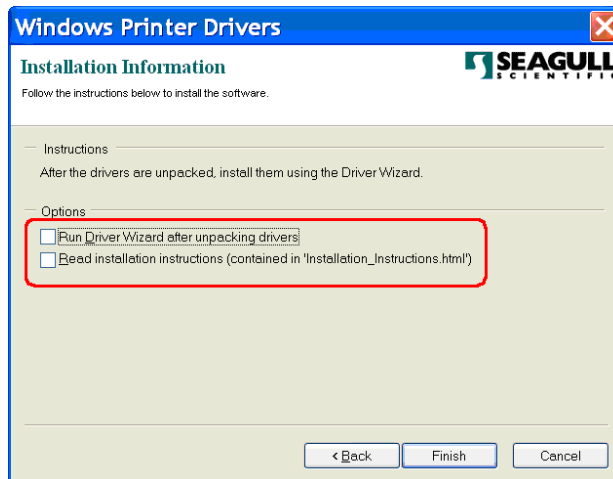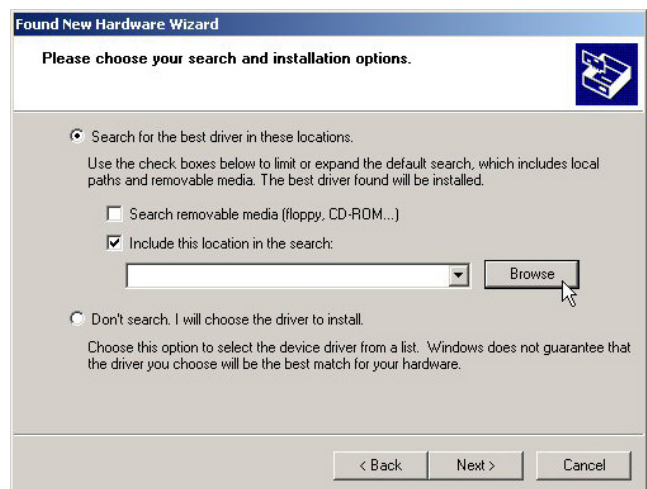
Step B: Windows Port Driver Installation:

1) Turn on the printer and wait until the "Ready" screen appears. The PC will then detect the printer and launch the "Found New Hardware Wizard".

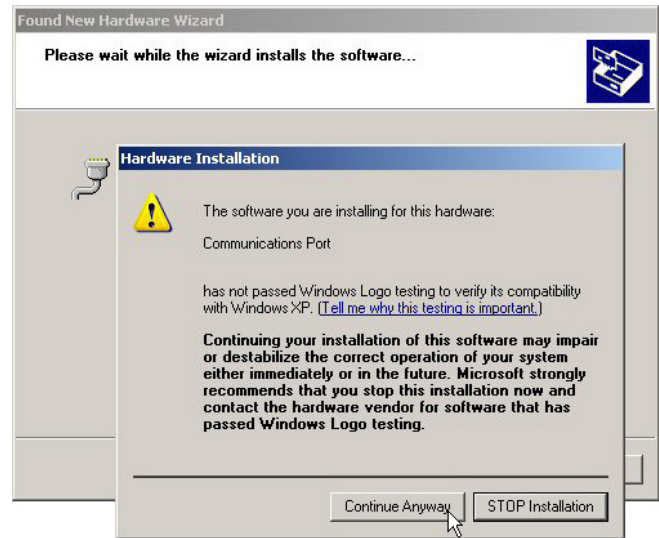2) Select the "No, not this time" radio button and then click Next.

3) Select the "Install from a list or specific (Advanced)" radio button and then click Next.

4) Select the "Search for the best driver in these locations" radio button.

5) Check the "Include this location in the search" checkbox and then click Browse.

6) Navigate to the "Driver" folder you created earlier that contains the "Datamax-O'Neil Composite Class.inf" file.

7) Select the folder and then Click 'OK'. Then Click Next.

8) When prompted click "Continue Anyway"

9) Windows will now load the drivers to assign the necessary ports to the printer.

10) Click Finish to close the wizard. Proceed to Step C to begin the installation of the Windows Printer Driver.
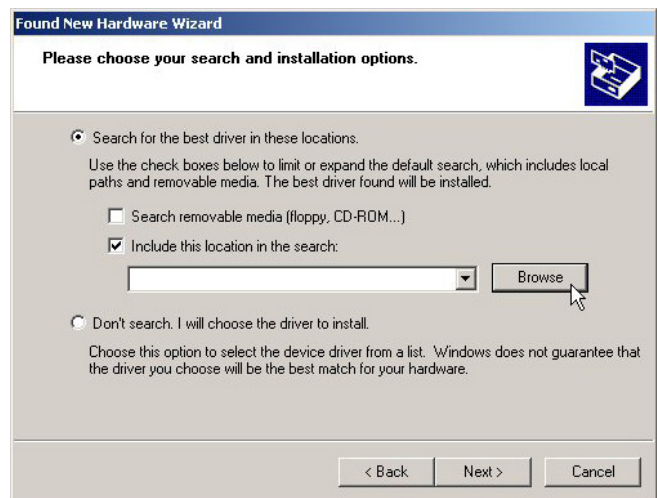
Step C: Windows Printer Driver Installation:

1) The PC will launch the "Found New Hardware Wizard" again.

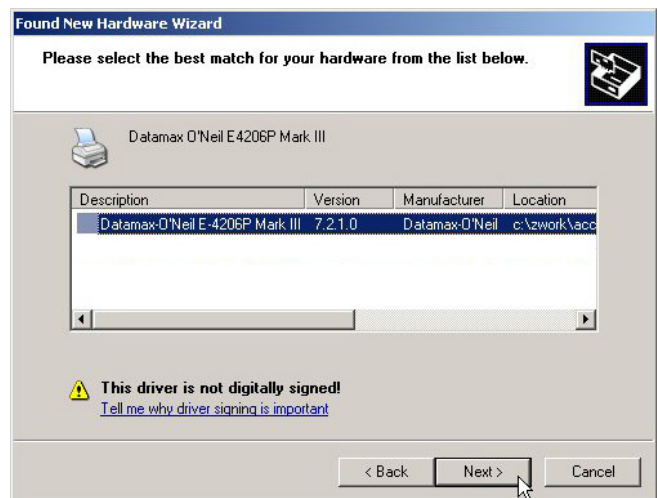2) Select the "No, not this time" radio button and then click Next.

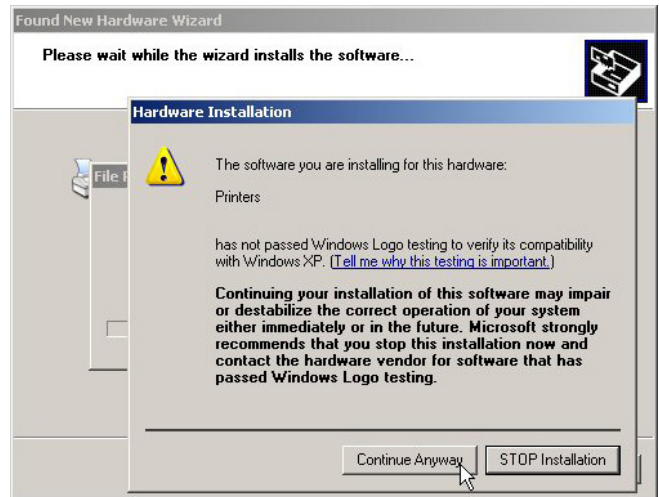3) Select the "Install from a list or specific (Advanced)" radio button and then click Next.

4) Select the "Search for the best driver in these locations" radio button.

5) Check the "Include this location in the search" checkbox and then click Browse.

6) Navigate to "C:\Seagull" folder on your computer's hard drive.

7) Select the folder and then Click 'OK'. Then Click Next.

8) Select the driver that matches your model printer. (there may be multiple models listed) and then click Next.

9) When prompted click "Continue Anyway"

10) Windows will now install the necessary files for the Windows printer driver.

11) Click Finish to close the wizard.

The printer can now be selected for use in the printer dialogue box of any windows application.

C.4 CDC Only Installation

Do not plug the USB cable into the computers USB port. If you have done so, unplug it now.

Files Needed: The following file is required and can be downloaded from: www.datamax-oneil.com.

- "Datamax-O'Neil CDC Class.inf" file

Create a new folder on your local computer named "Drivers". Download the necessary file and place it in this folder.

1) Turn on the printer and wait until the "Ready" screen appears. The PC will then detect the printer and launch the "Found New Hardware Wizard".

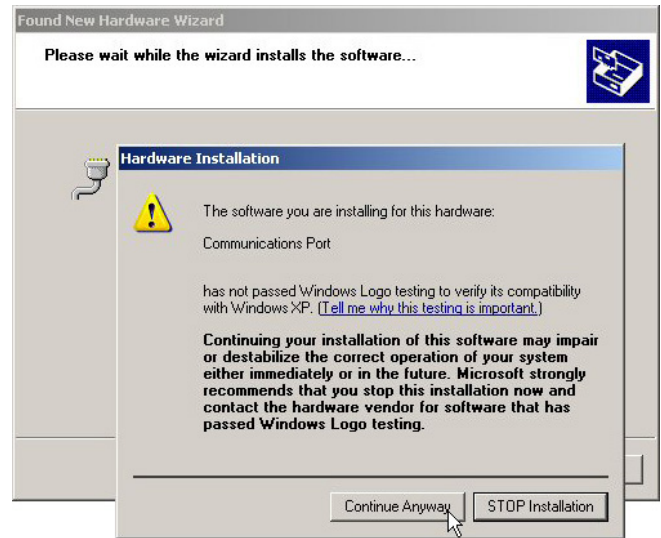2) Select the "No, not this time" radio button and then click Next.

3) Select the "Install from a list or specific (Advanced)" radio button and then click Next.

4) Select the "Search for the best driver in these locations" radio button.

5) Check the "Include this location in the search" checkbox and then click Browse.

6) Navigate to the "Driver" folder you created earlier that contains the "Datamax-O'Neil CDC Class.inf" file.

7) Select the folder and then Click 'OK'. Then Click Next.
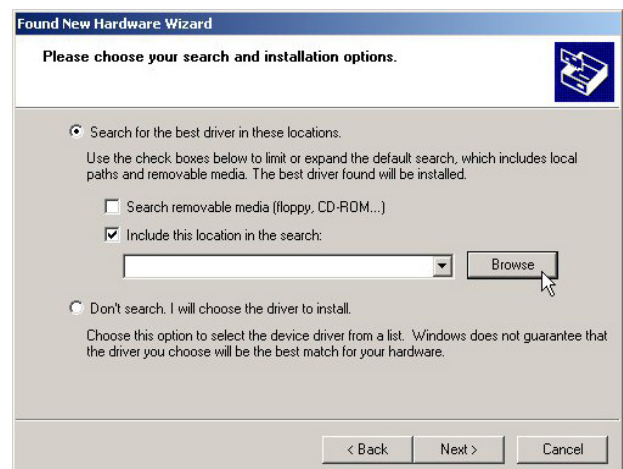
8) When prompted click "Continue Anyway"

9) Windows will now load the drivers to assign the necessary ports to the printer.

10) Click Finish to close the wizard. The printer can now be selected for using the virtual com port assigned to the printer.

C.5 Printer Class Only Installation

Do not plug the USB cable into the computers USB port. If you have done so, unplug it now.

Software/Files Needed:

The following file is required and can be downloaded from:
www.datamax-oneil.com.

- Datamax-O'Neil Windows Drivers

Create a new folder on your local computer named "Drivers". Download the necessary file and place it in this folder.

Step A: Driver Extraction:

1) To extract the Windows drivers to your local computer, double click the "Datamax-O'Neil_x.x.x" file that was previously downloaded from the website. The following screen will appear.
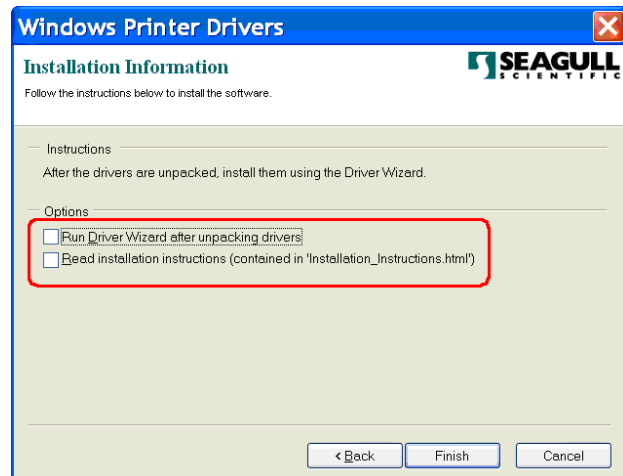
   Click the "Accept" radio button and then click Next to continue.

2) At the next screen you can choose the location of installation directory, it is recommended to keep the default directory and then click Next to continue.
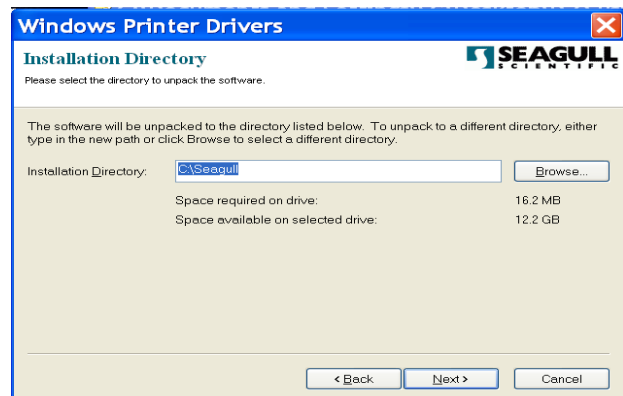
3) At the next screen UNCHECK the two option boxes and then click Finish.

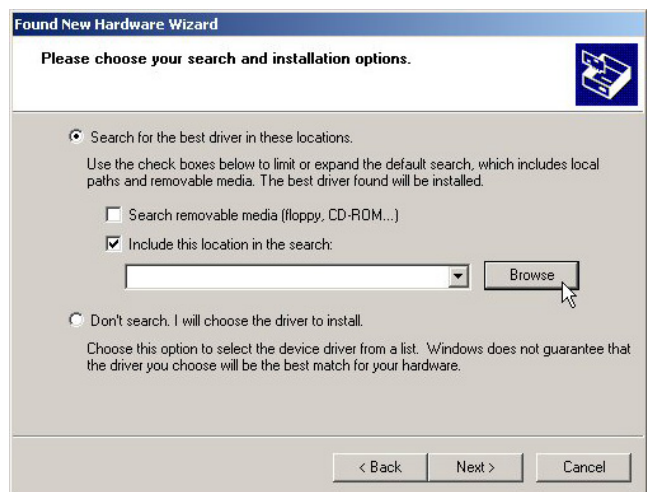## Step B: Windows Printer Driver Installation:

1) The PC will launch the "Found New Hardware Wizard" again.

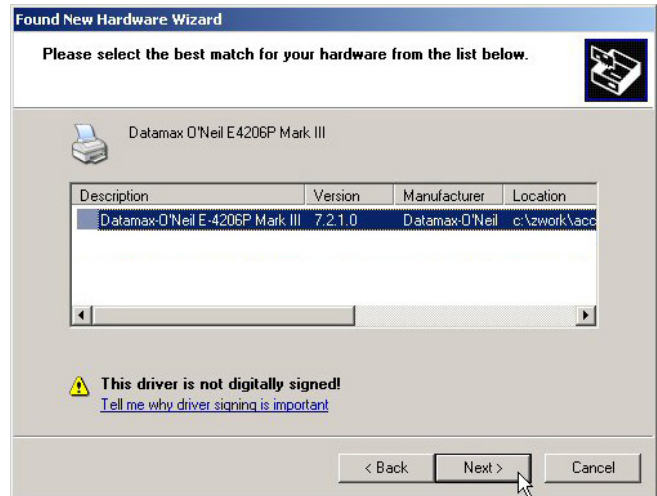2) Select the "No, not this time" radio button and then click Next.

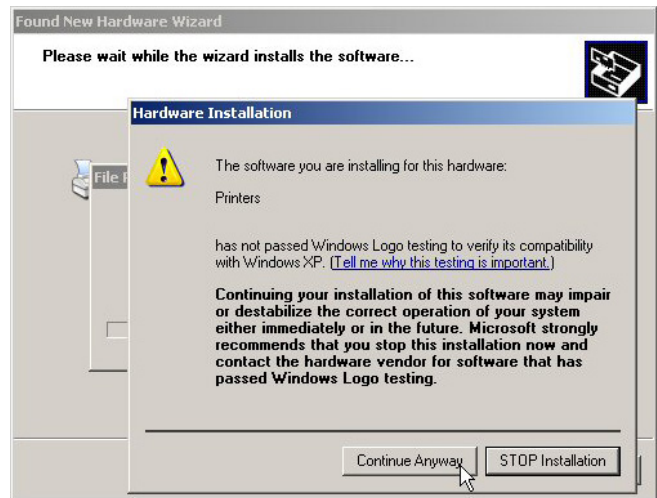3) Select the "Install from a list or specific (Advanced)" radio button and then click Next.

4) Select the "Search for the best driver in these locations" radio button.

5) Check the "Include this location in the search" checkbox and then click Browse.

6) Navigate to "C:\Seagull" folder on your computer's hard drive.

7) Select the folder and then Click 'OK'. Then Click Next.

8) Select the driver that matches your model printer. (there may be multiple models listed) and then click Next.

9) When prompted click "Continue Anyway"

10) Windows will now install the necessary files for the Windows printer driver.

11) Click Finish to close the wizard.

The printer can now be selected for use in the printer dialogue box of any windows application.

Reflective Media Calibration Label