



The Most Reliable Portable Printers®

## OC-2 SERIES OF PRINTERS

# User's Guide





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## OC-2 printer views

### Front and back view

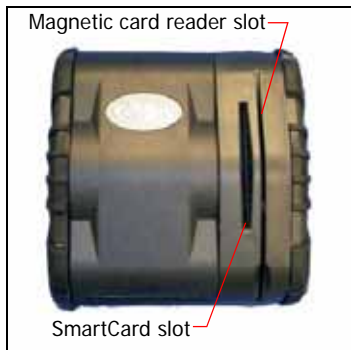


Figure 1: Front view

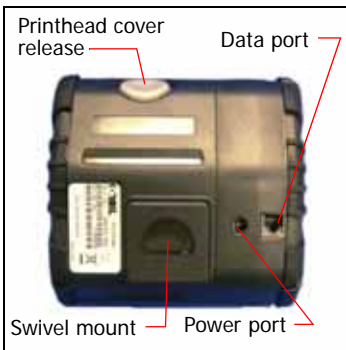


Figure 2: Back view

### Side views

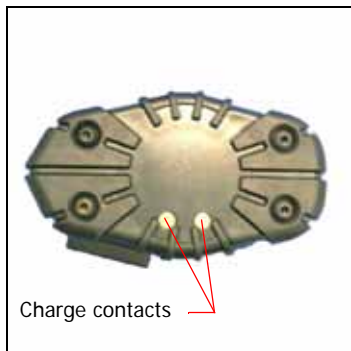


Figure 3: Side view

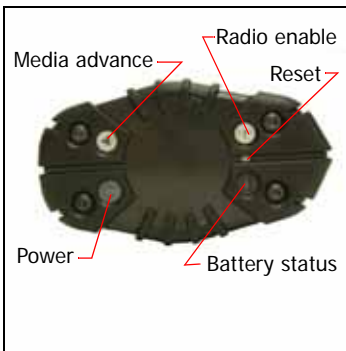


Figure 4: Side view

## Setting up your printer

Use the following information to set up your printer:

- "Unpacking your printer" on page 2
- "Installing/removing the battery" on page 3, or "Removing the battery isolator" on page 2 (new printers only)
- "Loading media" on page 7
- "Printing a self-test" on page 8
- "Connecting the printer via a cable or radio" on page 9
- "Configuring the printer" on page 10

In addition to the steps outlined in each section, additional information may be included if it applies to, or expands upon, the step being discussed.

## Unpacking your printer

Before using your new printer, remove all packaging material and inspect the printer for possible shipping damage.

If the printer has been damaged:

- Contact the shipping company and file a damage report.
- Contact O'Neil Product Development, Inc.
- Keep all shipping materials.

## *Removing the battery isolator*

The battery is already installed in new printers. An insulating strip (battery isolator) prevents accidental discharge during shipping. You must remove the battery isolator before using the printer or attempting to charge its battery.

1. Press the printhead cover release and open the printer. Locate the battery isolator (see Figure 5).
2. Lift out the battery and battery isolator (Figure 6). Remove and discard the battery isolator.
3. Insert the battery in the printer in its original orientation, as shown in Figure 7.
4. Close the printer.



Figure 5



Figure 6



Figure 7

## Installing/removing the battery

*Note:* The battery is already installed in new printers. See "Removing the battery isolator" on page 2 for information on enabling the battery in a new printer.

### *Installing the battery*

1. Press the printhead cover release and open the printer, as shown in Figure 8.
2. Remove any packaging material (if applicable).
3. Position the battery with its contacts facing toward the battery cavity, as shown in Figure 9.



Figure 8



Figure 9



Figure 10

4. Lower the battery into the battery cavity, fitting the contact end of the battery into the cavity first, as shown in Figure 10.
5. Slide the battery all the way to the right in the battery cavity so that the edge of the battery hits the battery stop, as shown in Figure 11. The printer beeps one time when you install the battery. Figure 12 shows the fully seated battery.

Note: Do not force the battery into the battery cavity. When inserted properly, the battery easily slides and locks into place. If the battery does not easily slide into place, re-insert the battery.

6. Close the printer cover (Figure 13).



Figure 11



Figure 12



Figure 13

7. Charge the battery (batteries are shipped uncharged). For more information, see "Charging the battery" on page 4.

### ***Removing the battery***

1. Lift the battery up and out of the battery cavity while sliding it to the left (Figure 14).
2. Remove the battery from the battery cavity (Figure 15).



Figure 14



Figure 15

### **Charging the battery**

The battery status LED will glow red if the battery charge is low and the printer is powered on. (For more information, see "Using the control panel" on page 12.)

Charge the battery as follows:

1. Verify the battery is installed correctly.

2. Plug the AC adapter power cord into an appropriate power source.
3. Plug the AC adapter into the printer power port (Figure 16).



Figure 16



Figure 17

4. Charge the battery. The battery status LED flashes red while the battery is charging and turns solid green when the battery is fully charged. One complete charge takes 4 to 5 hours.

### ***Determining the battery condition***

The battery voltage varies between 6.2 and 8.4 volts. While the battery is powering the printer (AC adapter not connected), the battery status LED displays the battery condition as follows:

- **Solid Green:** The battery is fully charged.
- **Solid Orange:** The battery is partially discharged, but will power the printer. Plan on recharging the battery soon.
- **Solid Red:** The battery does not have sufficient charge to operate the printer. Recharge it immediately.

For information on battery error conditions, see "Using the control panel" on page 12.

**Caution:** There is a risk of explosion if the battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.

**Caution:** The operating temperature of this portable printer is 50° C. However, the operating temperature when used with O'Neil power supply for charging the portable printer is limited to 40° C. Please charge the printer in a suitable location that meets this temperature requirement.

**Caution:** (For US/Canada) Please only use the O'Neil part number 220240-100 power supply with this product.

## Loading media

The OC-2 series of printers are designed to print receipt paper and label media, as follows:

### Media Guidelines

Media width	Receipt Paper: 2.25" Label Media: 2.25"
Roll capacity diameter	Receipt Paper: 2.25" Label Media: 2.25"
Media types	Receipt paper media, thermal paper. * Depending on the type of media used, you may need to configure your printer. For more information, see "Configuring the printer" on page 10.

Load media as follows:

1. Position the printer so that the O'Neil logo is facing you (Figure 18).
2. Press the printhead release and open the printer (Figure 19).



Figure 18



Figure 19

3. Place the paper roll between the paper roll holders, as shown in Figure 20. Make sure the paper exits over the roll and is firmly in place.
4. Unroll enough paper so that paper exits the printer (Figure 21).
5. Verify the media exits straight and is against the right-hand edge.



Figure 20



Figure 21



Figure 22

6. Close the printer (Figure 22). The printhead cover snaps into place when completely closed.
7. Push the Media Function button 1-2 times to align the media.
8. At either edge of the printer cover are serrated corners. Tear the media by pulling up and away from the printer (Figure 24).

**Warning:** The tear bar and printhead cover surface may be hot and/or sharp. Use caution when handling the printhead and tear bar.



Figure 23



Figure 24

## Printing a self-test

1. Press and hold the power button for approximately three (3) seconds until printing begins. For information on button functions, see "Using the control panel" on page 12.
2. After printing begins, release the power button. A self-test label will print showing parameters, as described on page 10.

## Connecting the printer via a cable or radio

The OC-2 printer is designed to transmit and receive data from a host terminal. The host terminal may be your computer, handheld, or laptop. Communication can occur using one of the following methods:

- Using a data cable to connect the printer and the host terminal (this page), or
- Enabling wireless communication (see "Bluetooth and/or 802.11b parameters" on page 10).

### *Installing a data cable*

1. Verify the printer settings before connecting the printer to a host terminal. For more information, see "Printing a self-test" on page 8.
2. Insert the data cable plug into the printer's data port (Figure 26).



Figure 25



Figure 26

3. Connect the data cable to the host or device you are using.

### *Removing a data cable*

1. Rotate the printer so that the printer's data port is visible.
2. Lift the cable connector's lever and remove the cable.

### ***Bluetooth and/or 802.11b parameters***

Your printer is configured with default factory settings. To determine your printer's radio configuration, print a self-test (For more information, see "Printing a self-test" on page 8). If you have multiple printers, configure them specifically for use in your environment.

For proper system operation, set the following parameters on your printer and host computer:

#### ***802.11b Parameters***

- ESS ID
- IP Address (if not DHCP)
- DHCP
- Subnet Mask
- WEP Encryption
- Port
- Network Type

#### ***Bluetooth Parameters***

- Device Name
- Authentication
- Bondable
- Discoverable
- Connectable
- Encryption

For information on setting parameters, see "Configuring the printer" on page 10. Contact your network administrator to verify the proper radio settings for your environment.

### **Configuring the printer**

The printer has many configurable settings. To configure or upgrade firmware, download the latest Windows configuration program from our Internet Web site at [www.oneilprinters.com](http://www.oneilprinters.com).

## Using the belt clip

Install the belt clip as follows:

1. Turn the printer so that its back faces you and the belt clip socket is up, as shown in Figure 27.
2. Place the belt clip over the belt clip socket such that the flat side of the belt clip swivel matches the flat side of the belt clip socket (Figure 28).
3. Press the belt clip onto the printer until the swivel is fully seated into the socket.



Figure 27



Figure 28



Figure 29

4. Rotate the belt clip 180 degrees to lock it into place (Figure 29 and Figure 30).



Figure 30

Reverse the above steps to remove the belt clip.

## Using the control panel

The tables on the following pages document the following:

- Audio Indicators on page 12
- Battery Status LED on page 13
- Power Button/LED on page 14
- Media Function Button/LED on page 14
- Radio Button/LED on page 15
- Reset Button/LED on page 15
- CardReader/SmartCard Audio Indicators on page 15



Battery Status  
LED



Power Button/  
LED



Media Function  
Button/LED



Radio  
Button/LED



Reset  
Button

### Audio Indicators

Beep(s)	Description	Action
1 short	Printer wakes up.	None.
2 short	Out of paper.	Install paper.
3 short	Low battery.	Charge battery.
1 very short	RF power is on. <i>Note:</i> This beep occurs when you press the RF power button and the RF power was off.	None.
2 very short	RF power is off. <i>Note:</i> This beep occurs when you press the RF power button and the RF power was on.	None.
1 long	Boot code is starting or restarting.	Redownload firmware.
8 short	CRC error in firmware.	Redownload firmware.



## Battery Status LED

Battery Status LED	Description	Action
Red (solid): The battery has less than 5% power.	• If A/C power is not plugged in, the printer will soon turn off.	• Charge the battery.
	• If A/C power is plugged in, the LED flashes and charging is in progress.	• None. Wait for the charge LED to turn green.
Orange (solid): The battery has less than 25% power.	• If A/C power is not plugged in, indicates the battery charge is low.	• Charge the battery.
	• If A/C power is plugged in, the LED flashes and charging is in progress.	• None. Wait for the charge LED to turn green
Green (solid): The battery is near, or at, full capacity.	• If A/C power is not plugged in, the battery is well charged.	None.
	• If A/C power is plugged in, the LED is solid and charging is complete.	None.
Red to orange flash - fast	Battery voltage is too high.	Replace battery.
Orange flash - slow	Charge has timed out.	Restart battery charge (battery may be bad).
Orange flash - fast	Internal code error.	Remove the battery, then re-connect A/C power.

Orange, red, or green flash - fast	When the AC adapter is plugged into the printer's power port, the battery status LED flashes orange, red, or green (depending on the battery status LED color that is initially displayed) to indicate the AC adapter is plugged in.	None.
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## Power Button/LED



### Power Button

Short press	If printer is asleep, wakes up printer; if printer is awake, enters sleep mode.
Long press (press and hold for three to five seconds)	Prints a self-test.

### Power LED

Green	Printer is awake.
Off	Printer is asleep.

## Media Function Button/LED



### Media Function Button

Short press	If printer is asleep, wakes up printer. If printer is awake, advances media.
-------------	---

### Media Function LED

Red flash	Media is out; reload media.
Off	Media is present.



## Radio Button/LED

### Radio Button

Short press	Toggles radio power off and on.
-------------	---------------------------------

### Radio LED\*

Blue flash - slow*	RF power is on and printer is asleep.
Blue flash - fast*	RF power is on and printer is awake.
Blue flash to solid red	The printer is out of range of the access point and/or infrastructure and it is not correctly configured for the radio it recognizes.
Off	RF power is off.

\* If the signal quality option is on (default is off) and the printer is awake, the amount of time the blue radio LED is on indicates the signal strength. For example, if the blue LED is on 90% of the time, the printer has a very strong signal; however, if the blue LED is on only 10% of the time, the printer has a very weak signal. When the signal quality option is turned on, the blue radio LED indicates signal strength only. When the printer is asleep, the radio strength is not indicated.



## Reset Button

### Reset Button

Short press	Re-boots printer and cycles power.
-------------	------------------------------------

## CardReader/SmartCard Audio Indicators

Beep(s)	Description	Action
1 long	Bad read.	None.
2 short	Good read.	None.

## Using a CardReader

**Note:** The following information applies to printers installed with the CardReader option.



Figure 31



Figure 32

### General guidelines

- If you are using a magnetic CardReader, insert a card with the stripe facing toward the printer, then slowly slide the card through the CardReader slot.
- To wake up the CardReader, insert a card into the CardReader slot. One short beep indicates the CardReader/printer is awake.
- For information on CardReader LED indicators and audio indicators, see "Using the control panel" on page 12.

## Using a SmartCard



Figure 33



Figure 34

### General guidelines

- If you are using a SmartCard reader, insert a card with the gold contacts facing away from the printer and leave the card in SmartCard reader slot.
- For information on SmartCard LED indicators and audio indicators, see "Using the control panel" on page 12.

## Maintenance and troubleshooting

### Maintenance guidelines

- Keep the printer in a cool, dry place, away from direct sunlight, high temperature, and moisture.
- Do not insert foreign objects into the printer.
- Do not operate the printer if it appears damaged.
- Do not operate the printer when your hands or body are wet.
- Do not operate the printer near water.
- To reduce risk of electric shock, unplug the printer and remove the battery before cleaning.

### Preventative maintenance

Area	Method	Interval
Printhead/roller	Use only an O'Neil-approved cleaning card.	After every ten (10) rolls of media.
Tear bar	Clean thoroughly with 70% isopropyl alcohol on a cotton swab.	After every five (5) rolls of media.
Exterior	Use a soft cloth and mild cleanser if necessary. Do not use abrasive cleanser, chemicals or scrubbing pads, which can damage the printer's finish.	As needed.

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## Troubleshooting

Symptom(s)	Action
Printer does not print	<ul style="list-style-type: none"> <li>• Verify the printer is turned on.</li> <li>• Recharge or replace the battery.</li> <li>• Verify the battery is properly installed.</li> <li>• Check cable connections (if applicable).</li> <li>• Check radio card connections. If the radio card is not properly connected, data will not be transmitted from the host terminal to the printer.</li> </ul>
Media/paper jam	<ul style="list-style-type: none"> <li>• Open the printhead cover and reinstall media.</li> <li>• Verify the media is properly installed. For more information, see "Loading media" on page 7.</li> <li>• Clean the printhead and the media cavity.</li> </ul>
Reduced battery capacity	<ul style="list-style-type: none"> <li>• Recharge or replace battery.</li> </ul>
Media does not feed	<ul style="list-style-type: none"> <li>• Verify the printhead cover is closed and latched.</li> <li>• Verify the label sensors are not blocked.</li> </ul>
Printer does not stop at Q Mark and/or printer prints continuously	<ul style="list-style-type: none"> <li>• Check the printer configuration. Verify the configuration matches the type of media it is printing on.</li> </ul>

## Help desk

If you need additional assistance, please contact O'Neil Printer Support at (949) 458-0588, ext. 302, or e-mail [printersupport@oneilinc.com](mailto:printersupport@oneilinc.com). Please have the following information ready:

- Model number
- Serial number

## Supplies

### Media supplies

O'Neil Product Development, Inc. offers seven certified grades of paper for use in the printer. Our certified supplies are guaranteed compatible — this important qualification means that rigorous performance and image life testing have been performed. Quality supplies are key to obtaining optimal image quality and print performance. Quality supplies are also the key to extending the life of the printer. O'Neil Product Development strongly recommends using O'Neil Certified Supplies only.

For more information, contact O'Neil Printer Supplies Group at (949) 458-6400.

### Maintenance supplies

We recommend that you follow a regular maintenance schedule using our cleaning card. O'Neil's cleaning cards are designed to effectively remove dirt and other contaminants from the thermal printhead, rollers, and paper path...resulting in a clean, crisp image output — every time. Our cleaning kits remove any adhesive residue (when using linerless labels) in addition to dirt and other contaminants.

For more information, contact O'Neil Printer Supplies Group at (949) 458-6400.

### General supplies

- Use only supplies certified by the Original Equipment Manufacturer (OEM). For OEM supplies, please contact O'Neil at (949) 458-0500.

## **For more information**

- For more information about using the printer, contact O'Neil at (949) 458-0500, or visit our Web site at [www.oneilprinters.com](http://www.oneilprinters.com).

## Agency Approvals

### FCC Notice

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.



Applicable Directive

- 89/336/EEC, 73/23/EEC

Applicable Standards

- EN55022 (1998)
- EN55024 (1998)
- EN60950 (1992)



## DECLARATION OF CONFORMITY

(According to ISO/IEC Guide 22 and EN 45014)

THE PRODUCT HEREWITH COMPLIES WITH THE REQUIREMENTS OF:

THE LOW-VOLTAGE DIRECTIVE 73/23/EEC.

THE EMC DIRECTIVE 89/336/EEC.

Manufacturer's Name:  
O'Neil Product Development Inc.  
8 Mason, Irvine, CA, 92618, USA

European Representative:  
O'Neil Product Development Ltd  
Witan Court 285-287, Upper Fourth Street,  
Central Milton Keynes, UK MK9 1EH

Declares that the product listed below:

Product Type: ITE/Residential, Commercial, and Light Industrial  
Product Name: Portable Thermal Printers  
Model Number: OC2/3  
Beginning Serial Number: All  
Options: All  
Date Issued: December 18 2006

Conforms to the following product specifications:

Safety: EN60950-1:2001

EMC: EN 55022 : 1998 / CISPR Publication 22 : 1997, Class B Limits and Methods  
EN 55024 : 1998 +A1:2001 +A2:2003 (CISPR 24) ITE - Immunity Characteristics -  
Limits and Methods of Measurement  
EN 61000-4-2 : 1995+A1:1998 - Electrostatic Discharge  
EN 61000-4-3 : 1995 - Radiated RF Field  
EN 61000-4-4 : 1995 - Electrical Fast Transients  
EN 61000-4-5 : 1995 - Voltage Surge  
EN 61000-4-6 : 1996 - Conducted RF Field  
EN 61000-4-8 : 1993 - Magnetic Field  
EN 61000-4-11 : 1994 - Voltage Dips, Short Interruptions, And Variations  
EN 61000-3-2 : 2000 - Harmonic Current Emissions  
EN 61000-3-3 : 1995 +A1:2001 - Voltage Fluctuation and Flicker

I, the undersigned, hereby declare that the equipment specified above conforms to the above Directives(s) and Standards(s).

Company Official: Ken Carlson

Position: Director of Electrical Engineering

Signature: Signed Copy on File

Date: December 18 2006

European Contact: O'Neil Product Development Ltd, Witan Court 285-287, Upper Fourth Street, Central Milton Keynes, UK MK9 1EH; Phone INT +44-1908-393300; Fax INT +44-1908-393400 [www.oneilprinters.com](http://www.oneilprinters.com)

## Copyright

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**The Most Reliable Portable Printers®**

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