



The Most Reliable Portable Printers®

MICROFLASH 4T*e*

User's Guide



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microFlash 4te Printer: Closed View

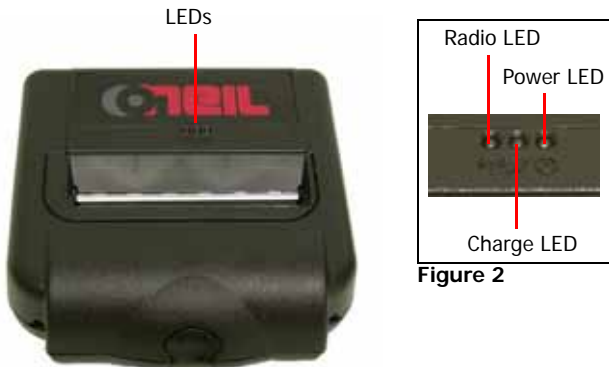


Figure 1

microFlash 4te Printer: Open View

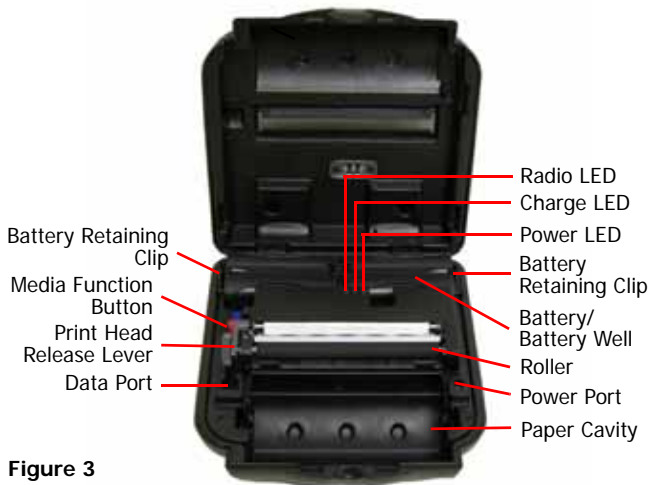


Figure 3

microFlash 4*t*e Printer: Side View



Figure 4

Using Batteries: General Guidelines

- If your printer came with batteries already installed, remove the red, battery isolator labels. If your printer did not come with batteries installed, see *Installing and/or Replacing Batteries on this page*.
- If you are storing your printer for a long period of time, reinstall the battery isolator labels.
- Both batteries must be installed for your printer to operate properly.

Installing and/or Replacing Batteries

1. Open the printer's cover (Figure 5).
2. Lift the battery cover up by pushing the retainer clip inward with your finger (Figure 6).



Figure 5



Figure 6

3. Lift up the outside end of the battery to remove it.
4. Insert or replace the new batteries. Verify the battery contacts are facing down and are on the outside edge of the printer (Figure 7).



Battery contacts

Figure 7

5. Close the battery cover by snapping it into place.

Charging the Battery

To charge the battery, you must first remove the red battery isolator labels.

If the battery is low when the printer “wakes up,” the printer sounds three short beeps. Plug the AC Adapter into an appropriate power source. The Charge LED turns red when charging and turns green when fully charged. (For more information on the Charge LED, see *Using Audio Indicators and LEDs on page 11*.) A complete charge takes approximately 2 to 4 hours.

Caution: To obtain full battery capacity, a new battery must cycle through two to three charges. To restart a charge, unplug the power cord. Wait 30 seconds, then replug the power cord.

If your printer is installed with external charge capabilities, you can also charge your printer using O'Neil approved accessories. For more information, see *Using External Charging on page 16*.

Determining Battery Condition

To determine the battery's condition, print a self-test. For more information, see *Printing a Self-Test on page 9*. The battery voltage varies between 6.2 and 8.4 volts.

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.

Installing Paper

1. Insert a roll of paper with the end of the roll exiting from the bottom of the paper cavity (Figure 8).
2. Open the print head by raising the gray, print head release lever until it is fully open. Do not stop at the partial open position (Figure 9).



Figure 8



Figure 9

3. Wake up the printer by briefly pressing the red, self-test button (Figure 10).
4. Feed the end of the paper under the roller. The paper automatically feeds under the roller and exits the top of the print head. Verify the paper exits the print head straight (Figure 11).



Figure 10



Figure 11

5. Place the roll of paper in the paper cavity so it is sitting tightly. Remove any excess paper by

grasping the top corner of the paper and pulling it away.

6. Lower the gray, print head release lever (Figure 12).
7. Close and latch the printer's cover (Figure 13).



Figure 12



Figure 13

Printing a Self-Test

1. After installing the paper, open the printer's cover.

Caution: If the red, battery isolator labels are installed, remove them.

2. Press and hold the red, self-test button for approximately five seconds until printing begins.
3. After printing begins, release the red, self-test button.

Configuring the Printer

The printer has many configurable settings. To configure or upgrade firmware, download the Windows configuration program at www.oneilprinters.com.

Using Printer Data Cables

1. Select the appropriate cable for use with the host and/or device you are using.
2. Insert the plug into the printer's data port (Figure 14).



Figure 14

3. Lead the cable through the notch on the outside of the printer's cover.
4. With the cable exiting the front of the printer, close and latch the printer's cover.

Using 802.11b/Bluetooth

Note: The following information applies to printers with 802.11b/Bluetooth capabilities.

Radio printers are 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 9*.) 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
- Sub Net 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 9*. Contact your network administrator to verify the proper radio settings for your environment.

Using Audio Indicators and LEDs

Audio Indicators

Beep(s)	Description	Action
1	Printer wakes up.	None.
2	Out of paper.	Install paper.
3	Low battery.	Charge battery.
1 short	RF power is on (when blue, RF power button is pressed and power was turned off).	None.
2 short	RF power is off (when blue, RF power button is pressed and power was turned on).	None.
1 long	Boot code is starting or restarting (when downloading new firmware).	Redownload firmware.
8 short	CRC error in firmware.	Redownload firmware.

Radio LED

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.

Charge LED

Charge 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 LED

Power LED	Description
Green	Printer is awake.
Off	Printer is asleep.

CardReader Audio Indicators

Magnetic

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

CardReader LED

Magnetic

LED	Description
Green flash	Good read.
Red flash	Bad read.

Smart CardReader

LED	Description
Red flash	Smart CardReader power on.
No LED	Smart CardReader power off.

Using a CardReader

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

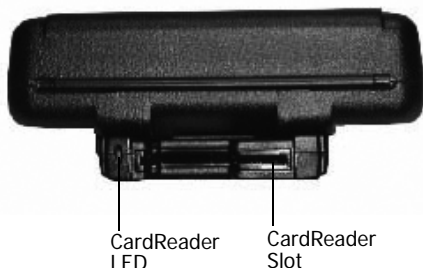


Figure 15

General Guidelines

- To wake up the CardReader, insert a card into the CardReader slot. One short beep indicates the CardReader/printer is awake.
- If you are using a Smart CardReader, insert a card with the gold contacts facing away from the printer and leave the card in CardReader slot.
- If you are using a Magnetic CardReader, insert a card with the stripe facing toward the printer, then slowly remove the card from the CardReader slot.
- For information on CardReader LED indicators and audio indicators, see *Using Audio Indicators and LEDs on page 11*.

Using External Charging

Note: The following information applies to printers installed with external charge capabilities.



(2) Charging contact points

Figure 16

Overview

External charge-capable printers have two charging contact points located on the back of the printer's case (Figure 16). External charge-capable printers can be used with various O'Neil accessories such as the swivel lock bracket and the external swivel lock depot charger. When an external charge-capable printer is mounted to one of these accessories, the printer's batteries are automatically charged. For more information, see the instruction sheet(s) included with the accessories.

Warning: Use of any product not approved by O'Neil Product Development, Inc. for use with their printers could cause damage to the batteries and/or printer and will void the warranty.

Failure to observe the instructions and/or warnings specified in the documentation may result in damage to your printer. O'Neil Product Development, Inc. does not accept liability for resulting damages or injuries.

Agency Approvals

FC 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: MF4t-L
Beginning Serial Number: All
Options: All
Date Issued: 7-28-2006

Conform: 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 conform: to the above Directives(s) and Standards(s).

Company Official: Ken Carlson

Position: Director of Electrical Engineering

Signature: Signed Copy on File

Date: August 31, 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

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Supplies

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

Media Supplies

O'Neil Product Development, Inc. offers seven certified grades of paper for use in the printers. 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 (or cleaning kit when using linerless labels). 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.

For more information

For information about using the printer, contact O'Neil at (949) 458-0500, or visit www.oneilprinters.com.



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