DS6878
PRODUCT REFERENCE GUIDE

Replacing the Digital Scanner Battery

The battery is installed in the cordless digital scanner by the factory and resides in a chamber in the digital scanner handle. To replace the battery:

1. Insert a Phillips screwdriver in the screw at the base of the digital scanner, then turn the screw counterclockwise to release the latch.
2. Remove the latch.
3. If a battery is already installed, turn the digital scanner upright to slide the battery out. Disconnect the battery connector clip.

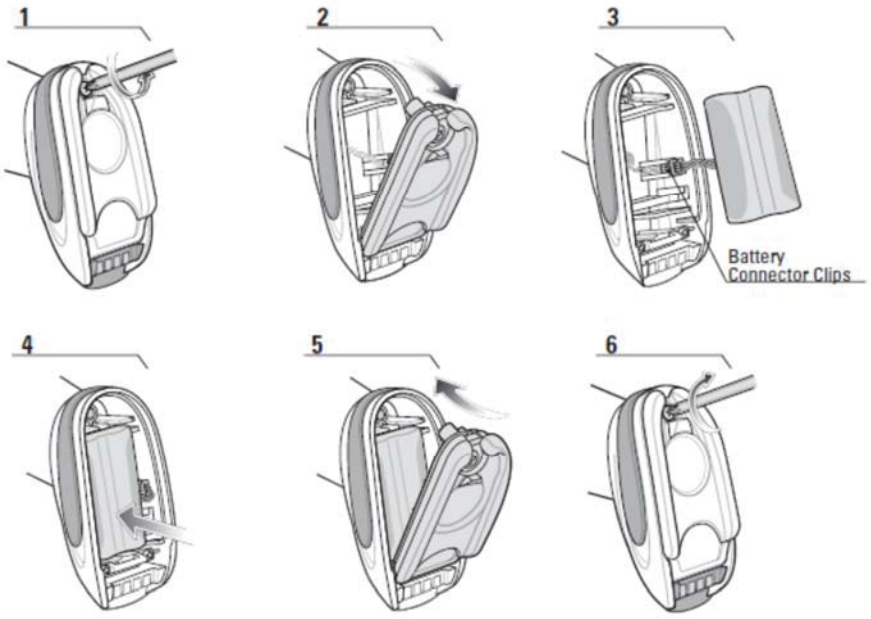

Figure 1-9 *Inserting the Battery*

4. With the contacts on the connector clips facing in the same direction, attach the new battery's connector clip to the connector clip in the base of the digital scanner.
5. Slide the new battery into the battery well and ensure the battery leads are visible. The battery should sit securely in the well.
6. Attach and close the latch.
7. Insert a Phillips screwdriver in the screw at the base of the digital scanner, press down gently, and turn the screw clockwise to lock the latch in place.

Charging the Digital Scanner Battery

Fully charge the digital scanner battery before using the digital scanner for the first time. To charge the digital scanner battery, place the digital scanner in the cradle, ensuring that the metal contacts on the bottom of the digital scanner touch the contacts on the cradle. The battery begins charging when the digital scanner LED indicator starts flashing green for the CR0078-S cradle and turns solid green for the CR0078-P cradle. A complete charge of a fully discharged battery can take up to three hours using external power and up to five hours using non-external cable power.

CAUTION To avoid a battery temperature fault, always charge the battery in the digital scanner within the recommended temperature of 32° to 104° F (0° to 40° C) nominal, 41° to 95° F (5° to 35° C) ideal.

Charging LED

When powered up, the cradle LED is always green. The digital scanner LED flashes green during charging. See *Table 2-2 on page 2-3* for all charging LED indications.

Shutting Off the Digital Scanner Battery

To shut off the NiMH battery for long term storage or shipping:

1. Scan **Battery Off** below.

Battery Off

2. To turn the battery back on, place the digital scanner in the cradle.

NOTE Always scan the **Battery Off** bar code in handheld mode.

Reconditioning the Digital Scanner Battery

To maintain optimal performance of the digital scanner NiMH battery, perform a battery recondition approximately once a year.

To begin the battery recondition cycle:

1. Scan **Battery Recondition** below.

Battery Recondition

2. Place the digital scanner into the cradle.

NOTE If the scanner is removed from the cradle during the battery reconditioning cycle, the scanner exits the battery reconditioning mode of operation and returns to the normal mode of battery charging (see *Charging the Digital Scanner Battery on page 1-15*). To restart the battery reconditioning cycle, re-scan the **Battery Recondition** parameter and place the scanner in the cradle.

3. The digital scanner must perform two charge cycles to complete the battery reconditioning process (discharge/charge/discharge/charge). See *Table 1-2*.

Battery Reconditioning LED Definitions

Table 1-2 *Battery Reconditioning LED Definitions*

Battery Reconditioning Mode	LED	Comments
Discharging	Red Flash	Time to discharge is approximately 2.5 hours.
Charging	Green Flash	Time to charge is approximately 2.5 hours with an external power supply.
Reconditioning Complete	Green - Solid (always on)	The digital scanner enters a trickle charge until the digital scanner is removed from the cradle.

Battery Information

Rechargeable battery packs are designed and constructed to the highest standards within the industry. However, there are limitations to how long a battery can operate or be stored before needing replacement. Many factors affect the life of a battery pack such as heat, cold, customer usage profiles, age and severe drops.

When batteries are stored over a year, battery cell manufacturers advise that some irreversible deterioration in overall battery quality may occur. To minimize this loss, they recommend storing batteries half charged in a dry, cool place between 41° F and 77° F (5° C and 25° C), the cooler the better, and removed from the equipment to prevent the loss of capacity. Batteries should be charged to half capacity at least once a year. If an electrolyte leakage is observed, avoid any contact with the affected area and properly dispose of the battery.

Replace the battery when a significant loss of run time is detected. Batteries must be charged within the 32° F to 104° F (0° C to 40°C) temperature range.

The standard warranty period for all Zebra batteries is 30 days, regardless if the battery was purchased separately or included as part of the digital scanner.

Troubleshooting

Table 3-1 *Troubleshooting*

Problem	Possible Causes	Possible Solutions
Battery		
Digital Scanner battery requires frequent charging.	Battery may need reconditioning.	Restore the battery by performing a battery reconditioning cycle. See *Reconditioning the Digital Scanner Battery on page 1-16* for more information.
Digital Scanner displays solid red LED longer than 3 seconds when placed in cradle.	Battery may require pre-charge due to excessive discharge.	Wait for the red LED to turn green indicating that the scanner has begun normal charging. Recommend allowing battery to fully recharge.
Beeper Indications		
Digital Scanner emits low/high/low beeps.	ADF transmit error.	See *Chapter 16, Advanced Data Formatting* for information about ADF programming.
	Invalid ADF rule is detected.	See *Chapter 16, Advanced Data Formatting* for information about ADF programming.
	The Code 39 buffer was erased or there was an attempt to clear or transmit an empty buffer.	Normal when scanning the Code 39 Buffering **Clear Buffer** bar code or upon attempt to transmit an empty Code 39 buffer.