

## NETWORK ACCESS PRODUCTS HARDWARE ADVISORY NOTICE 650D Hardware Advisory Notice

---

### 650D Hardware Advisory Notice

---

#### What's in This Notice

This notice contains important information about the ESD, the battery characteristics, and the DC power supply connector in the Raptor 650D.

---

#### Tolerance

In testing, the 650D withstands Electrostatic Discharge of up to 12KV.

---

#### Acceptable Power Sources

The 650D is typically powered by the wall mount transformer, provided with the unit. This wall mount unit supplies AC power to the 650D.

The 650D can also be powered by external DC power sources.

- The DC input range is 10.8 to 25 VDC.
- 650D units which have an internal power supply can use an external DC power source.

#### ■ Note

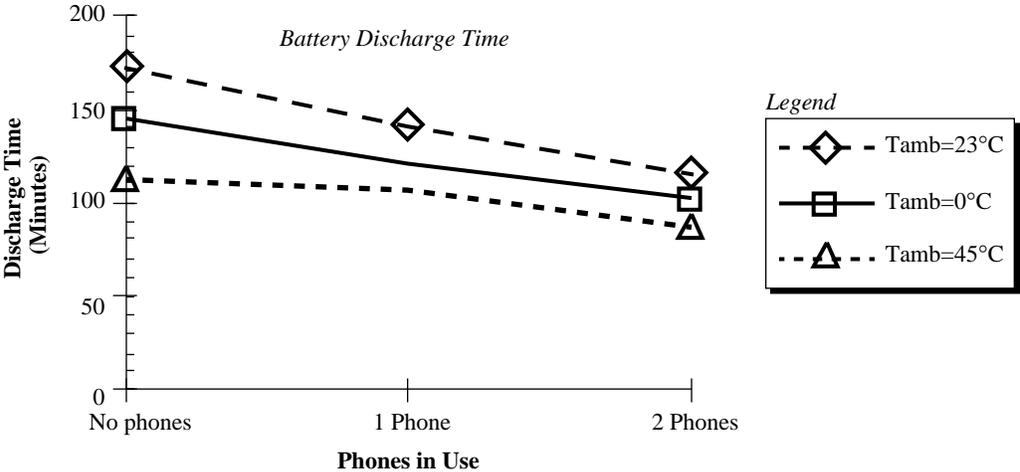
650D units with a built in battery will only charge from an AC power source. The battery will not re-charge while attached to another DC power source.



T0021-05 A

**Influence of Load and Temperature on Battery Discharge Time**

Figure 1 illustrates the relationship between battery load, room temperature, and discharge time.



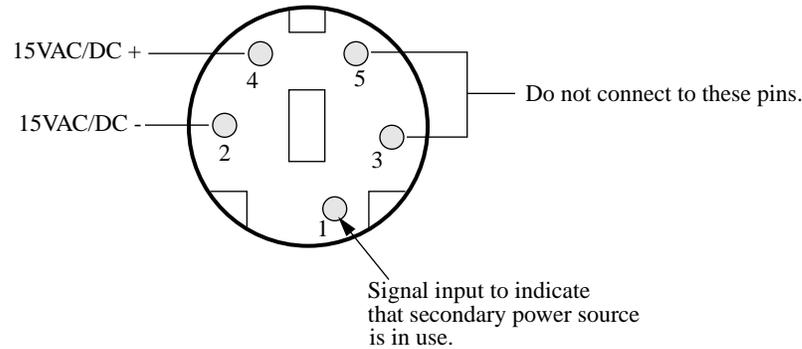
**Figure 1. Battery Discharge Time vs Loading**

During a power outage, when the 650D is using the battery as its power source, the available operating time varies according to two factors: the number of phones that are in use and the room temperature.

- Each phone in use puts a load on the battery, The more phones that are in use, the faster the battery is depleted.
- The room temperature should remain between 20°C and 25°C. If the room temperature is above or below this range, the battery capacity is reduced significantly.

## DC Power Connector

Figure 2 shows the power connector at the rear of the 650D unit:



**Figure 2. Power Connector Pin Out**

The 650D power connector has the following specifications:

- J.S.T. Corporation makes the DC power connector for the 650D. Its (J.S.T.) part number is MD-S5100-14S-43.
- Digi-Key distributes a plug that mates with the unit's power connector. The part number of this plug is CP-2050-ND.
- The positive terminal must connect to pin 4 and the negative (return) terminal must be connected to pin 2 to connect a DC source.
- Pin 1 supports signalling, The 650D software reads a register connected to this TTL level signal input (0 to 5V). Messages to the control port are generated and report the status of the external power source.

### ■ Note

When the signal is high (above 2V), this indicates that the primary power source is providing power. When the signal is low (below 0.8V), it indicates that the secondary power source is in use.