

2.5"-4.75" IRD- NiMH

IRD FAST CHARGING & BATTERY MAINTENANCE TIPS

1. The IRD contains rechargeable NiMH battery cells. Power is supplied to the system with the included external 12V power supply. Do not substitute another power supply as damage may result. Assemble the components as in Figure 1.
2. A fully charged IRD will operate for up to 20 hours per complete charge. A completely discharged IRD will require up to 3 one hour charges for a complete recharge. NEVER artificially discharge or short circuit IRD power. A rapid discharge will permanently damage components inside the IRD.
3. The 3 colored LEDs on the **BLACK** communications interface box indicate power status of the IRD system. The red LED indicates that the interface is receiving power from the external power supply or from the IRD batteries. The green LED indicates active communications with the IRD. And the red/green LED is illuminated during charging. The red LED turns to green when charging is completed and batteries reach maximum voltage.
4. The IRD unit has 3 power modes: ACTIVE, STANDBY, and OFF. When in ACTIVE mode, the IRD communications are active and the IRD is consuming power at a maximum rate. In STANDBY mode, the IRD is not actively communicating, but is using power at a low rate to retain the last data file in RAM. The IRD must be charged in STANDBY mode. When IRD battery power is reduced to 4.0V through use or time, power is automatically disconnected internally and the IRD is in OFF mode. Once in OFF mode, the last data file is lost and the IRD must be fully recharged before subsequent data collection. When the IRD is again connected to the external 12V power supply for charging, power is reconnected internally and battery charging is initiated.

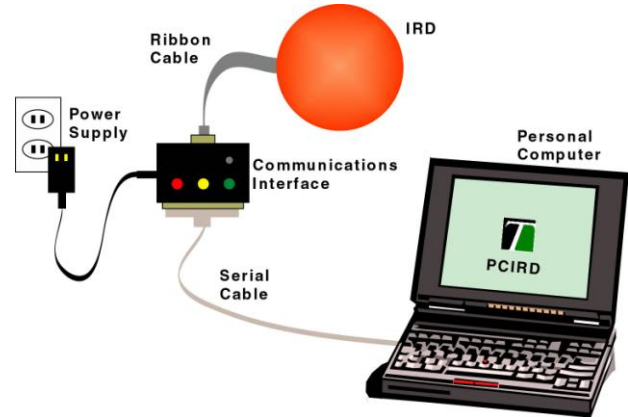


Figure 1. Connection diagram

Mode	LED Indicator			Power Consumption	Last Data File Retained in RAM?
	Red	Green	Red/Green		
ACTIVE	On	On	Red	High	Yes
STANDBY -					
CHARGING	On	Off	Red	Low	Yes
FULLY CHARGED	On	Off	Green	Low	Yes
OFF	Off	Off	Off	None	No

5. To charge the IRD unit, connect the charger box to the external supply (red and green LED on). Connect the IRD to the charger box (center red LED will turn on). For effective charging, check to make sure that the green LED is off. An ACTIVE IRD (green LED on) will not charge effectively. When charged, the center red LED will turn green.
6. Any time the reset button on the communications interface box is pressed, while the IRD unit is connected, the IRD will be returned to ACTIVE mode (green LED on) and must be put back in STANDBY using the PCIRD software before charging will resume.
7. The IRD uses rechargeable NiMH batteries for power. For best performance, the IRD should be used at least twice per year. Charge the IRD fully before placing the equipment in storage for more than one week. For best performance and safety, NiMH battery cells must be replaced every 4 years by Techmark service technicians. Contact our service department for the latest information or to schedule service. Phone +1 517 322 0250 or email techmark@techmark-inc.com.
8. After a period of "non-use", the batteries will need 2-3 charge/discharge cycles to build up to maximum capacity. Operating IRD in active mode for several hours to discharge.