



AN-327 Testing Equipment (and Software)

In Brief

The Elite System comprises a number of programs and pieces of equipment. This application note describes simple tests that can be performed.

System

The best test of the system is to....

1. Touch a "test" iButton™ with your data wand.
2. Unload the wand into your XL Unloader
3. Extract data with the XL Unloader PC program
4. Import the data into Elite Reporter. Inspect the report. You should see the hit for "now" – when you hit the button.

This is a really good test – it tests all parts of the system.

Watch for the wand reading the iButton™ easily and quickly. If it takes a bit of effort to get the wand to read the button – it is wrong! Clean the wand probe carefully. Scrape the pin with a razor blade if necessary.

If the wand does not extract into the unloader equally easily then there is a problem. Transferring a single hit into the Unloader should be almost instant. If the red led on the Unloader flashes rapidly then it indicates the wand has lost its serial number....contact Elite-ID immediately.

XL Data Wand

1. Inspect. Make sure that the probe is clean. If it is dirty – clean it!
2. Use a metallic item such as a key, coin or paper clip to short out the centre pin to the outer rim. It will take about 1 second and the red light should light and the beeper sound. This indicates that the computer chip is operating and has enough battery power to function.
3. If you have a multimeter – measure the voltage. Readings of 3.7 volts are normal, above is high charge. Readings of below 3.65 volts indicate near flat.

XL Unloader

1. If the Unloader appears to have “locked up” then switch it off (switch in the down position), disconnect everything from it – both power and data cables. Wait 10 seconds. Switch on again. The Red led should blink.
2. Run your XL Unloader program in the PC.
3. Read what the difference between the time and the PC is. It should be less than 30 seconds.
4. If there is data in the XL Unloader, extract it then use the “View Data” option to inspect the data.

XL Charger

1. Use a bare metal paper clip folded out to short the outside rim of the charging can to the centre of the can. All leds for that part of the charger will light,
2. If you have a multimeter, measure the voltage from the centre to the outer rim of the can. It should be approx in the range of 5.2 to 5.6 volts,
3. Connect an XL Data Wand. Green led indicates normal trickle charge. Yellow led indicates near flat. Red led indicates very flat or fault.

Radio Wand

1. Use a metal object to short out the centre pin to the rim. The fault light will flicker very fast. This indicates the wand computer chip is running.
2. Repeat step 1 for about 15 seconds and the wand will reset itself.
3. Use a multimeter and the voltage at the probe will be very close to 3.5 volts. If it is more than about 0.1 volts below this then the battery is low in charge.
4. The fault led indicates four possible things
 5. Battery nearly flat
 6. Real time clock not been set
 7. Memory full
 8. Bad radio or iButton™ data received and ignored (light flickers)
9. For all these cases, charge the wand and touch it onto an XL Unloader to empty the wand and reset its clock.

Pulsar

1. The red led indicates on a flicker that a self test is in progress. The program and internal operation of the computer chip are checked.
2. If the red led stays on it indicates a major software fault and the unit should be returned for service.
3. Place a radio wand near to the Pulsar and the data led on the wand should flicker. If the fault led on the wand flickers it may mean that the wand has a faulty clock or the memory is full or the battery is near flat.