

TEST PROGRAM: SELF DISCHARGE TEST

Objective:

This test is to identify the self-discharge, or the amount of charge lost, if a battery is left alone - like in storage - for a period of time. The standard measure is 24 hours on Cadex.

Procedure:

The battery is fully charged and discharged to obtain its capacity. The battery is then charged and left for a idle period of 24 hours or longer. During this time, self-discharge occurs in the form of energy loss. After this idle period, the battery is discharged to determine the second capacity. The difference between the two measured capacities is used to calculate the self-discharge rate.

Equipment:

Cadex C7x00



Cadex C8000



Result:

Detailed display shows the cell voltage, current, temperature and duration of service time.

A Nickel based battery with low self-discharge has less than 15% self-discharge. Otherwise, the battery is considered to be soft cells and may not provide expected service time.

The duration of this test is:

- ~30 hours for Nickel based batteries
- ~60 hours for SLA
- ~50 hours for Lithium based batteries