Battery Maintenance

Testing for Battery Resistance

Method 1: Smart Charger (Recommended)

Most modern balance chargers (e.g., ISDT, SkyRC, XTAR) have a built-in IR testing function.

1. **Preparation**: Let the battery cool to **room temperature** (approx. 22°C/72°F).
2. **Connection**: Plug both the **main power lead** and the **balance lead** into the charger.
3. **Run Test**: Navigate to the "Battery Resistance" or "IR" menu and start the test.
4. **Analyze**: The charger will display resistance for each individual cell in milliohms (mΩ).

Interpreting Results (Per Cell)

- **0–5 mΩ**: Excellent/New. High-performance racing packs often fall here.
- **5–15 mΩ**: Good/Healthy. Typical for most standard hobby-grade batteries.
- **15–25 mΩ**: Aging. You may notice less "punch" or shorter flight times.
- **Over 30 mΩ**: Poor/End-of-Life. High risk of swelling; should be retired from high-load use.

Crucial Safety Tip: A significant **mismatch** between cells (e.g., one cell at 25 mΩ while others are at 5 mΩ) is a major red flag for imminent failure. If a pack is damaged or smells sweet/pungent, do not test it—dispose of it at a certified recycling center immediately.

Example of Test Results

Test Date:	2/11/2026							
	Cell Voltage				Cell Resistance			
Battery #	**2200 - 3 Cell**							
8	3.850	3.850	3.840		6	7	6	
9	3.880	3.880	3.880		11	11	11	
10	3.980	3.980	3.970		15	17	15	
11	3.970	3.960	3.950		6	6	6	
12	3.830	3.840	3.830		7	7	7	
13	3.990	4.000	3.990		6	5	5	
15	3.830	3.831	3.822		19	28	21	
	3300 - 4 Cell							
1								
2	4.110	4.125	4.124	4.16	20	11	12	19
3	3.840	3.840	3.840	3.890	5	5	4	5
4	4.095	4.098	4.088	4.099	11	7	9	8
6	4.085	4.078	4.075	4.08	3	3	3	3
7	4.09	4.089	4.084	4.088	3	3	3	3
8	4.195	4.195	4.186	4.201	3	3	3	3
12	4.046	4.05	4.042	4.045	3	3	3	3
	5000 - 4 Cell							
9	3.981	3.979	3.976	3.981	1	1	2	1
10	4.079	4.074	4.07	4.079	1	1	1	1
11	[illegible]	[illegible]	[illegible]	[illegible]	1	1	1	1

Example of Test **Record**

Battery #	mAh	# of cells	Cell Voltage						Cell Resistance					