

Uninterruptible power supply (UPS) annual maintenance checklist

The annual UPS service is the deep pass: the measurements, cleanings and tests a quarterly round doesn't reach. This checklist keeps the full service on record with the photos that make it defensible later. Work is commonly verified against NEC (NFPA 70), manufacturer's published instructions. Confirm the edition your authority having jurisdiction has adopted.

Who runs it: The UPS service tech on the annual, coordinated with a maintenance window for the protected load. When: Once a year, scheduled when critical loads can be moved to bypass and when a real discharge test won't leave equipment unprotected.

Battery service

- ☐ Individual cell or block voltage and impedance measured
Each block read and compared across the string, outliers on voltage or impedance flagged, readings logged for trending against prior years. 2 photos required
- ☐ Battery terminals torqued and connections cleaned
Inter-cell links and terminals torqued to the manufacturer's value, corrosion cleaned, anti-oxidant reapplied where specified. 1 photo required

Transfer and bypass

- ☐ Manual bypass operated and verified
Load transferred to bypass and back per the sequence, no interruption to the protected equipment, indicators tracking the actual path. 2 photos required

Capacity proof

- ☐ Runtime confirmed by a discharge or load-bank test
Unit run on battery under a known load to a defined endpoint, actual runtime compared against the rating and last year's result. 1 photo required
- ☐ Calibration and firmware checked
Runtime and load calibration verified, controller firmware level noted against the manufacturer's current release. 1 photo required