

VOL

Diagnostics & Self-Tests

User's Manual

Diagnostics, alarms & option wiring — Sage Volta central battery

The Volta continuously self-tests and reports through its side-panel status LED — no network connection or software required. This manual covers the automatic tests, the LED status codes, corrective actions for every alarm, battery care, and the option wiring summaries.

AUTOMATIC SYSTEM TESTS

MONTHLY TEST

30-second full-load operation

Battery condition · transfer-switch operation · battery charge rate · connected-load continuity

ANNUAL TEST

90-minute full-load operation

Required 12 months from installation by NFPA Life Safety Code — full emergency-load operation for 90 minutes

STATUS-LED CODES

Test function	Normal / PASS	FAULT code
Battery	GREEN or ORANGE	RED-RED-pause
Transfer switch	no indication	ORANGE flash
Charger status	no indication	RED flash
Connected load	no indication	GREEN flash
30-day test	no indication	code above for the failed function
Annual test	RED-GREEN alternating (pass)	code above for the failed function
Charge rate	float = steady GREEN · bulk = steady ORANGE	—

The status LED and PUSH-TO-TEST button are on the left side panel — readable without opening the door.

TESTING ALL EMERGENCY LOADS

Press PUSH-TO-TEST to operate all fixtures in emergency mode while the button is held, plus 30 seconds after release — lamps can be checked visually during this period. Alternatively, qualified personnel may interrupt AC power to the panel for a one-person walk-through of all connected loads, or initiate the 90-minute ANNUAL TEST (red AUX button, three presses within 2 seconds; see the Installation Instructions for the full procedure and the load-datum setting).

“Engineered for the spaces it protects.”

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Troubleshooting, Alarms & Option Wiring

User's Manual

Model VOL

TROUBLESHOOTING — STATUS CODES & CORRECTIVE ACTIONS

Status LED	Meaning	Corrective action
OFF	No AC input	Confirm 120 or 277 VAC at the proper input terminals (verify with a voltmeter). Power present but not at the charger board's 2-pin AC connector: check the Olympus monitor connection — confirm 12 V at the monitor input relay.
OFF	Test mode	Remove the 2-pin AC plug for 5 seconds, then reconnect to reset. If the system stays in emergency, check AC connections and the monitor input.
OFF	Battery switch off	Turn ON the battery slide switch on the charger board.
RED-RED-pause (flashing)	Battery disconnected	Confirm all four harness terminals are connected to both batteries exactly as shown for your model (Installation Instructions, Page 2).
RED-RED-pause (flashing)	Low-battery alarm	Terminal voltage below 10.5 V within 90 minutes of AC loss — or at any time in normal operation. Replace BOTH batteries (never one: a low battery degrades its partner). Confirm a full charge cycle completed first to avoid unnecessary replacement.
GREEN flash	No load datum set	Set the commissioned-load datum (Installation Instructions, system-test steps).
GREEN flash	Connected-load fail	Total connected load changed more than 10% from the datum. Activate emergency mode (AC off, or run the annual test) and visually check for inoperative fixtures; with the LCD option the display identifies the branch circuit. Repair or replace, then reset the datum.
RED flash	No charger current	Reset by holding PUSH-TO-TEST for ~5 seconds. If the code returns, the control board must be replaced — note the serial and model number inside the panel and contact Sage.
ORANGE flash	Transfer failed	Reset the load datum, then hold PUSH-TO-TEST ~5 seconds to reset. If the code returns, the control board must be replaced — note the serial and model number and contact Sage.
RED-GREEN alternating	Annual test PASS	Normal — a reminder that the written test report is due. Reset by holding PUSH-TO-TEST ~5 seconds.
Steady ORANGE	Bulk charge	Batteries charging; the 90-minute annual test is held off until full charge (LED turns steady GREEN).
Steady GREEN	Normal charge	No action — system ready for any test.

BATTERY CARE & HANDLING

- Do not leave batteries longer than 90 days without charging.
- If batteries are fully discharged under load and AC power remains off with the charger not operating, disconnect one battery terminal and reconnect when AC power returns.
- Batteries in storage: recharge every 90–120 days.
- Batteries perform best at 25 °C (77 °F); at about 35 °C (95 °F), battery life is half the 25 °C life. When replacing, always install both batteries per the model diagram in the Installation Instructions.

SECURITY / NIGHT-LIGHTING OPTION (S) — CONTROL MODES

With the optional security-lighting power supply (option S), the panel powers switched night / security lighting on a 4-wire system (terminals: EMERGENCY +24 V · EXITS +12 V normal / +24 V EM · SECURITY +24 V · COMMON –24 V). Three control arrangements:

- Timer control** A timer control switch on the security-lighting supply feed.
- Internal control** The panel's own security control center schedules the lighting — the LCD option is REQUIRED for internal security control.
- External switch control** Control from a building-management system or other external switching.

OLYMPUS MONITOR & FIRE-ALARM INTERFACE WIRING

- Olympus monitor inputs: route the 12 V signal wiring to the pigtails on the monitor input relay and mark each input with its panel number. Leave all DISABLE JUMPERS in place until the monitor panels are active with all monitored AC circuits ON and the 12 V signal ON — then remove the jumpers. If the 12 V signal is OFF with jumpers removed, the system locks in emergency mode at full load.
- Fire-alarm interface (option FAI): the FAI relay replaces the monitor relay in position 4. Connect the 24 V supply leads, confirm the 24 V FAI signal is ON, then remove the FAI relay's disable jumper.

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