READY TO INSPECT — FIELD CHECKLIST

EV charging station annual maintenance checklist

The annual EV charging station 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 licensed electrician on the annual service of the charging equipment. When: Once a year, when the unit can be locked out and opened, since the connection heat and torque checks need the enclosure de-energized and then loaded.

Before the shutdown

- [ ] Owner told and ports set unavailable before shutdown
  Owner and any fleet or site manager told which ports go down and for how long, ports marked unavailable in the portal so no driver is cut off mid-session.
  No photo required

- [ ] All feeds locked out and verified dead before opening
  Every feed locked and tagged, or a plug-in unit unplugged and held under the tech's control, stored energy discharged per the manual and dead verified before the enclosure opens.
  1 photo required

Connections and heat

- [ ] Line and load terminations retorqued and inspected
  Lugs and terminals torque-verified to the marked value with the unit locked out, re-torqued only where found loose, no discoloration, melting or corrosion.
  2 photos required

- [ ] Ground and bonding path verified continuous
  Equipment ground and bonding connections tight and unbroken from the pedestal back to the panel, ground pin in the connector intact.
  1 photo required

- [ ] Enclosure interior cleaned and seals inspected
  Interior vacuumed, no water tracks, insects or corrosion, door gasket and cable entry seals sound, drain or vent paths open.
  1 photo required

- [ ] Power contactor and relays checked for pitting and heat
  Contactor and relay contacts viewed where the design allows, no pitting, welding or heat discoloration at the coil or terminals.
  No photo required

- [ ] DC fast charger fans, filters and coolant serviced
  Beyond the quarterly look: filters changed, fans spun free, heatsinks cleaned, and on liquid-cooled cables the coolant level and hoses checked per the manual.
  No photo required

- [ ] Open-enclosure load survey run under the energized-work procedure
  People clear, locks off by whoever hung them or the unit plugged back in, enclosure open only as the energized-work procedure allows, PPE from its arc-flash risk assessment; re-locked for any fix.
  No photo required

- [ ] Connections checked for heat under charging load
  Terminations and connector surveyed while charging, no hot spot at a lug, breaker or the handle compared to the rest of the run.
  2 photos required

Full function

- [ ] Complete charge session run through to a normal stop
  Session started, held at rated current and stopped cleanly, delivered rate and any faults noted against the unit's rating.
  2 photos required

- [ ] Protective devices and disconnect functionally tested
  GFCI/CCID trip and reset exercised, feeder disconnect operated, unit returns to a ready state after each. 1 photo required
- [ ] Current limits, sharing cap and firmware confirmed with the operator
  Each port's maximum current and any power-sharing cap matched to the design and breaker rating, firmware at the operator's supported release, updates only with the owner's agreement. No photo required

Space and access

- [ ] Charging space clear and the unit accessible
  Space not blocked or coned off, striping and signage legible, working clearance at the pedestal kept for service. 1 photo required
- [ ] Enclosure closed, locks removed and each port ready
  Enclosure closed and latched, any lock still on removed by whoever hung it, ports set available in the portal and each showing ready. 1 photo required
- [ ] Per-port torque, heat and charge-rate results sent to the owner
  Torque, thermal findings, delivered rates and settings changes recorded per port and given to the owner, with ports needing parts listed. No photo required