READY TO INSPECT — FIELD CHECKLIST

Surge protective device (SPD) annual maintenance checklist

The annual surge protective device 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 electrician on the annual electrical service, with the panel de-energized where the scope requires. When: Once a year, folded into the annual panel and breaker service so the SPD connections are checked while the enclosure is already open.

Protection status

- [ ] Each phase indicator verified against live panel state
  Per-phase indication confirmed against the phases actually present at the panel, so a lost phase of protection can't hide behind a summary light.
  2 photos required
- [ ] Surge counter or event log read where fitted
  Event count or log noted against the prior year; a jump in events flagged as a site with a real surge problem to look into.
  No photo required
- [ ] Module dates and replacement history reviewed
  Module install dates and part numbers checked against the replacement log and the manufacturer's service-life guidance, with modules nearing end of life noted for the owner.
  No photo required

Isolation and lockout

- [ ] Isolation agreed with the owner before the SPD is opened
  Panel outage agreed with the owner for an integrated SPD, or the owner told protection is off while an external unit's feed is open.
  No photo required
- [ ] SPD feed locked, tagged and proven dead at its terminals
  Feed breaker, or the panel feed for an integrated unit, locked and tagged, the utility coordinated for a line-side unit, and absence of voltage proven at the SPD terminals.
  1 photo required

Connection integrity

- [ ] All accessible connections inspected and re-torqued
  Line, neutral and ground terminals inspected, torque verified or resistance measured, re-torqued only where found loose, no signs of heat, corrosion or arcing at any lug.
  2 photos required
- [ ] Enclosure, breaker and ground path confirmed intact
  Dedicated overcurrent device confirmed correct, ground/bonding conductor intact and unbroken, enclosure sealed against the environment it sits in.
  1 photo required
- [ ] Conductor size and routing observed with the cover off
  Conductor size compared with the manufacturer's instructions and routing noted as installed, with long or looped leads reported to the engineer, not reworked on site.
  1 photo required
- [ ] Modules seated and sockets checked for heat damage
  Each plug-in module fully seated and latched, no cracked housing, melted base or scorching on the module or its socket, and fixed units checked for the same.
  1 photo required

Return to service

- [ ] Cover fastened and locks removed before the feed is closed
  Tools and debris out, SPD cover or panel dead-front fastened, and each lock and tag removed by the person who hung it before the breaker is closed.
  1 photo required

- [ ] Feed closed and every phase indicator showing protected
  Feed closed under the energized-work procedure, each phase indicator and any remote alarm point back to normal, and the owner told protection is restored.
  1 photo required

Records and spares

- [ ] Annual findings and module history sent to the owner
  Indicator status, counter reading, connections found loose, modules replaced and open defects written up and sent to the owner for acceptance.
  No photo required

- [ ] Spare modules checked against the installed SPD where kept
  Where the owner keeps spare modules, part number and rating match the installed SPD and the spares are stored dry and unopened.
  No photo required