

OPERATING GUIDE

EV charger maintenance is an uptime issue

What every business should know to keep charging reliable, safe, and ready for the next driver.

[Read the full maintenance guide.](#)



Commercial charging bay · ready for
the

Made with GAMMA

The failure usually starts before the complaint



Physical and electrical wear

Oxidised connector pins, damaged cable jackets, loose terminations, water ingress, and degraded earthing.



Hidden condition

Outdated firmware can turn a healthy vehicle into a failed session.



Track the asset

Keep the serial number, firmware, inspections, faults, and parts used with each charger.



SERVICE PLAN

AC and DC chargers need different service plans

AC wall-boxes

Focus on cables, connectors, seals, readers, residual-current protection, and incoming electrical connections.

DC fast chargers

Add power modules, higher-current cables, filters, coolant, pumps, fans, and thermal interfaces.

Inspect the wear points before they become downtime

- Connector pins and cable jackets wear first, especially with moisture, dirt, heavy use, and repeated handling.
- Monsoon conditions expose enclosure gaskets; thermal cycling exposes loose terminations; surge protection and earthing can degrade quietly.
- Remote OCPP monitoring can catch many faults before a driver sees them, but it cannot replace physical inspection.



Use a maintenance cadence people can own

Daily	Status, cable hang, connector cap, pooling water, impact damage, dashboard alerts.
Weekly	Clean housing; inspect the full cable, latch, pins, and DC air inlets.
Monthly	Approved contact cleaner, error logs, firmware updates, payment devices, coolant, fan or pump noise.
Quarterly to annually	Protective devices, terminations, meter checks, filters, earthing, insulation, load testing, and written reports.

Budget for prevention, not emergency recovery

Preventive service makes the cost visible before the failure makes it urgent.

[The full guide explains the cost logic behind preventive service.](#)

Plan for	Why it matters
Preventive base	Preventive labour, consumables, call-outs, communication fees, remote monitoring, and downtime.
Structured coverage	Multi-charger campuses and DC sites benefit from a structured annual service arrangement with priority break-fix.
Warranty limits	Warranty usually does not cover wear parts, poor earthing, water ingress from damaged seals, or unauthorised firmware.

REPAIR DECISION

Replace components before replacing the estate

Start with the part that failed. Escalate only when the unit can no longer meet the need.

Decision point	Action
First wear items	Cables and connectors. Displays, readers, and contactors tend to arrive later.
Mid-life review	Plan earlier attention for cooling and power modules on DC units.
Replace the full charger	When parts are obsolete, repair cost approaches new hardware, or the unit cannot meet current protocol and safety expectations.

Leaving a charger plugged in is not the same as leaving it unsafe

Normal operation

Modern EVs stop charging at full battery; a sensible charge limit matters more than habitually unplugging.

Fixed commercial stations are designed to stay energised with monitoring.

Isolate

Any unit with a damaged cable, cracked enclosure, overheating, burning smell, or visible damage.

SITE CONDITIONS

Indian sites need monsoon-ready operating discipline



Baseline conditions

Dust, heat, humidity, voltage variation, and monsoon water are baseline conditions, not edge cases.

Before and after monsoon

Keep holsters out of water, protect DC air intakes from dust, and retest earthing after monsoon.

Reference points

Use the [Ministry of Power](#) guidance, [Central Electricity Authority](#) safety regulations, [Bureau of Indian Standards](#) product standards, and [IEEE](#) maintenance practice as reference points.

OPERATING MODEL

Make maintenance visible in the operating model

- Name an owner for every inspection row, measure uptime and session success, and keep charger faults in the same report as vehicle issues.
- For multiple chargers, DC fast units, or overnight fleet dependence, an AMC with remote diagnostics and response times buys uptime.
- **NITI Aayog** treats charging reliability as infrastructure. Businesses should do the same.

For installation and ongoing support, see **Spider Energy** and **EPC services**. **Return to the complete maintenance guide**.