SAC
Springfield Auto Care EXAMPLE SHOP
service@springfield-auto-care.example

2019 Nissan Leaf at 55,000 mi

1N4AZ1CP9KC123456

MODEL / CHASSIS	DRIVETRAIN	MILEAGE	DRIVETRAIN
Leaf · 2019 Leaf SV 40 kWh hatchback	Nissan Leaf electric drive (24–62 kWh battery, front motor)	55,000 mi	FWD
BUILD MONTH	**REPORT DATE**	**MODE**	**PREPARED FOR**
Not entered (door jamb)	October 27, 2026	Shop	Sample Owner

VIN check: check digit valid; model-year code 'K' = 2019, matches the year entered. The VIN doesn't record the build month. Sample report: synthetic VIN.

1 · SUMMARY

What this car needs, in order

Each item compares this car's mileage with when owners and shops report the part failing. It is not an inspection: our technician decides what the car actually needs.

2
jobs recommended now

0
to plan in the next 30,000 miles · plus 1 factory maintenance item

1
to watch or check at each service

Safety recalls NHTSA lists for this model year (1 of 5)

- **24V-700** · High-voltage battery · Level 3 quick charging: The battery can overheat during Level 3 quick charging, raising the risk of a fire. Do not quick charge until the free software update is done.

A model-year list, not a VIN check. The full report lists the others. Repairs are free at a Nissan dealer if open. Check this VIN at nhtsa.gov/recalls.

Step 0 · Free: run the VIN at nhtsa.gov/recalls and ask a Nissan dealer for a campaign printout, including 24V-700. Read the build month (MM/YY) on the driver's door-jamb label.

Factory warranty: this 2019 Nissan at 55,000 mi may still be under Nissan's battery and drive warranty (usually 8 years or 100,000 mi from the day it was first sold). A covered high-voltage battery or drive motor repair is free at a Nissan dealer, so we check the coverage before quoting one.

Recommended now at the next service — $140

Inspection: check now, while it's cheaper to fix — $140

inspection EXAMPLE

Electric brake booster (e-ACT) warning and hard pedal: Past the range (20,000–50,000 mi, the middle half of 23 owner reports) · if it fails: $2,790–$5,000

High-voltage battery capacity loss (lost bars, short range): Inside the range (13,000–80,000 mi, the middle half of 16 owner reports) · if it fails: $4,500–$13,000

Known weak points for this model, not findings on your car. The inspection shows whether yours has early signs.

Battery overheating during quick charging (recall), 2019–2022 — Free if open

Recall 24V-700 is listed for this model year. Check the VIN; the repair is free at a Nissan dealer if it is open.

Next 12 months up to about 67,000 mi

Nothing scheduled here.

Within the next 30,000 miles up to 85,000 mi

Nothing else enters its reported range in this window.

Watch inspect at each service, fix on condition, or optional

12V battery drain and DC/DC (power delivery module) faults — $70

our price EXAMPLE

Any mileage (2011–2015 (telematics drain), 2013–2014 and 2018–2019 (PDM software)) · Inspect at each service; fix at the first sign

Recommended now

$140

Springfield Auto Care prices (example)

Planned through 85,000 mi

$269

Now + next 12 months + next 30,000 miles, with the factory maintenance on this report if the records don’t show it done. Excludes “watch” and optional items.

Prices are Springfield Auto Care's estimates for typical parts and labor. They don't include tax, shop supplies or disposal fees, and may change after inspection or if part prices change. Not a written repair estimate: Springfield Auto Care confirms the price and gets your OK before any work.

Bundled jobs are priced together because the labor overlaps. Routine service (tires, brakes, cabin filter) isn't included; factory fluid intervals are listed below.

FACTORY MAINTENANCE

Scheduled maintenance from 55,000 mi to 85,000 mi

The maker's normal schedule for this car. Service history isn't known here, so an item is shown at its next interval mark; skip it if the records show it was done.

ITEM	INTERVAL	THIS CAR	OUR PRICE
Brake fluid Nissan sets brake fluid at 24 months; the mileage figure follows that model year's oil-service interval.	every 30,000 mi or 2 years	**Was due at 30,000 mi and by age (check records)** [M1]	**$129**

M1. Nissan USA official maintenance schedule lookup: 2020 Leaf (component pages, Standard Driving Conditions) OFFICIAL
https://maintenance-schedules.nissanusa.com/maintenance-schedules/2020/leaf/components/engine-coolant/

WHERE 55K SITS FOR EACH WEAK POINT

#	WEAK POINT	REPORTED RANGE	THIS CAR
1	High-voltage battery capacity loss (lost bars, short range)	13,000–80,000 mi (middle half of 16 owner complaints that state a mileage) COMPUTED FROM NHTSA DATA	Inside the range
2	Battery overheating during quick charging (recall), 2019–2022	26,000–78,000 mi (middle half of 12 owner complaints that state a mileage) COMPUTED FROM NHTSA DATA	Inside the range
3	Electric brake booster (e-ACT) warning and hard pedal	20,000–50,000 mi (middle half of 23 owner complaints that state a mileage) COMPUTED FROM NHTSA DATA	Past the range
4	12V battery drain and DC/DC (power delivery module) faults	2011–2015 (telematics drain), 2013–2014 and 2018–2019 (PDM software) OFFICIAL	Any mileage

Colors compare mileage with reported failures, not the car's condition. Red: past the range. Amber: inside or approaching. Green: below, or not listed for a recall.

2 · RECALLS AND BULLETINS

Recalls to check for this 2019 Nissan Leaf

Safety recall repairs are free at Nissan dealers. Nothing here can tell whether a recall is open or already done on this VIN; only the official VIN lookup or a dealer can.

Official VIN check (2 minutes)

1. Go to nhtsa.gov/recalls and enter 1N4AZ1CP9KC123456.
2. Note every recall shown as “Recall incomplete” and keep a screenshot.
3. Ask a Nissan dealer for a campaign printout; it also lists completed campaigns.

LEAF EV RECALLS WE TRACK

24V-700 · Li-ion battery may overheat during Level 3 quick charging (2019–2020 Leaf)

NHTSA lists this model and year: check by VIN

Free battery software update; do not quick charge until done. OFFICIAL [6]

☐ VIN checked ☐ Open: booked with dealer ☐ Completed (printout kept)

25V-655 · Li-ion battery may overheat during Level 3 quick charging (2021–2022 Leaf)

Not listed for MY2019

Free battery software update; do not quick charge until done. OFFICIAL [6]

EVERY RECALL NHTSA LISTS FOR THE 2019 NISSAN LEAF (5)

RECALL	COMPONENT	WHAT CAN HAPPEN (NHTSA, SHORTENED)
24V-700 Leaf EV tracked	High-voltage battery · Level 3 quick charging	The battery can overheat during Level 3 quick charging, raising the risk of a fire. Do not quick charge until the free software update is done. Details
24V-071	Rear camera · harness	A rearview camera that does not properly display an image can reduce the driver's rear view, increasing the risk of a crash. Details
23V-494	Cruise control · drive-mode change	The car can speed up on its own if the drive mode is changed (D to B, e-Pedal on, or ECO) right after cruise control is cancelled. Details
23V-048	Owner's manual · defroster instructions	Reduced defroster performance can limit visibility out of the windshield, increasing the risk of a crash. Details
19V-654	Rear camera · display	The lack of an image in the back-up camera display increases the risk of a crash. Details

Source: NHTSA recalls API, fetched 2026-10-27 and combined across NHTSA model names: LEAF. Safety categories (air bags, fire, brakes, stalling, roll-away and loss of control) are listed first; listings whose NHTSA text names another engine, or an aftermarket part, go last. OFFICIAL

SERVICE ACTIONS, BULLETINS AND WARRANTY PROGRAMS

Manufacturer bulletins and warranty programs for this drivetrain are cited on each weak point in section 4, where they apply.

4 · THE 4 WEAK POINTS

Each weak point, one card each

Every figure carries its source. Retailer part numbers are shown only when the retailer lists them for this chassis (ZE1).

1 High-voltage battery capacity loss (lost bars, short range)

Inside the range

Severity: High: overheating, stalls, limp mode or a big bill · 48 mentions in counted NHTSA complaints COMPUTED FROM NHTSA DATA

At 55,000 mi this car is inside the reported range (13,000–80,000 mi (middle half of 16 owner complaints that state a mileage)), 42,000 miles past where reports start. Range: 13,000–80,000 mi (middle half of 16 owner complaints that state a mileage) COMPUTED FROM NHTSA DATA [1]



Applies to: All Leafs; capacity coverage depends on battery size and age

WHAT FAILS SHOP/RETAILER [2][3][4][5]

The Leaf battery loses capacity with age and use. The dash gauge drops capacity bars and range shrinks. Nissan reprogrammed the battery controller on 2011–2012 and 2016–2017 cars so the gauges read correctly, and covers capacity loss below 9 of 12 bars for 5 years/60,000 miles (24 kWh) or 8 years/100,000 miles (30 kWh and later).

SYMPTOMS

- Fewer capacity bars on the dash gauge
- Range much shorter than when new
- Range gauge drops quickly in cold weather

IF IT'S LEFT TOO LONG

Range falls until the car no longer suits the owner; a pack replacement is the only full fix.

IS IT WORTH DOING EARLY? OUR ESTIMATE

Have a dealer check capacity (state of health) before buying or at the first lost bar while the capacity coverage lasts.

ESTIMATED REPAIR COST

Labor only, 0.3 h Nissan warranty time	**Our price is in the plan above** ask us for a written quote
Replacement pack, 24–40 kWh, installed (owner-guide range)	**$4,500–$13,000** FORUM/BLOG [13] reported range for the bill after a failure

Where the numbers come from: Estimate: Nissan warranty labor time of 0.3 h (bulletin [3]) × $100–$160/h independent-shop labor rate [12]. Parts are extra unless stated; check the VIN for open warranty coverage first. Pack price: owner-guide range for 24–40 kWh packs; 62 kWh packs run higher ($12,000–$16,000 in the same guide).

PARTS FOR ZE1

- Ask your parts supplier for the OE part number for this VIN.

QUESTIONS TO ASK US

- How many capacity bars?
- Battery ever replaced under warranty?
- Climate where the car lived?

2 Battery overheating during quick charging (recall), 2019–2022

Inside the range

Severity: Critical: rare, but can badly damage the battery or drive unit · 205 mentions in counted NHTSA complaints COMPUTED FROM NHTSA DATA

At 55,000 mi this car is inside the reported range (26,000–78,000 mi (middle half of 12 owner complaints that state a mileage)), 29,000 miles past where reports start. Range: 26,000–78,000 mi (middle half of 12 owner complaints that state a mileage) COMPUTED FROM NHTSA DATA [1]



Applies to: 2019–2022 Leaf with the Level 3 (CHAdeMO) quick-charge port

WHAT FAILS OFFICIAL [6][7][14]

Nissan found the battery can overheat during Level 3 quick charging, which raises the risk of a fire. The remedy is a battery software update. Until it is done, Nissan tells owners not to quick charge. If a related fault code shows up within 12 months after the update, Nissan replaces the battery free.

SYMPTOMS

- Recall letter says not to use Level 3 quick charging
- EV system warning after the recall update

IF IT'S LEFT TOO LONG

Quick charging an unrepaired car risks a battery fire.

IS IT WORTH DOING EARLY? OUR ESTIMATE

Check the VIN for 24V-700 / 25V-655 and avoid quick charging until the update is done.

ESTIMATED REPAIR COST

Free under recall 24V-700 / 25V-655	**Free if covered** OFFICIAL [6] published independent-shop range
Free battery replacement under the post-remedy program (12 months)	**Free if covered** OFFICIAL [7] reported range for the bill after a failure

PARTS FOR ZE1

- Ask your parts supplier for the OE part number for this VIN.

QUESTIONS TO ASK US

- Quick-charge recall done, and when?
- Any EV warning since?

3 Electric brake booster (e-ACT) warning and hard pedal

Past the range

Severity: High: overheating, stalls, limp mode or a big bill · 287 mentions in counted NHTSA complaints COMPUTED FROM NHTSA DATA

At 55,000 mi this car is past the reported range (20,000–50,000 mi (middle half of 23 owner complaints that state a mileage)). If the original parts are still fitted, have them checked and plan for them. Range: 20,000–50,000 mi (middle half of 23 owner complaints that state a mileage) COMPUTED FROM NHTSA DATA [1]



Applies to: 2013–2015 Leaf campaign; owners report the same symptom on other years, often with a weak 12V battery

WHAT FAILS OFFICIAL [8]

ESTIMATED REPAIR COST

The Leaf uses an electric brake booster (e-ACT). On 2013–2015 cars a relay in its control box can freeze in cold, humid weather, so the booster gets no power at start-up. The brake warning light comes on and the pedal needs much more effort. Nissan reprogrammed the control unit.

SYMPTOMS

- Brake warning light at start-up
- Hard or long brake pedal, worse in cold weather
- Pulsing at low speed while braking

IF IT'S LEFT TOO LONG

More pedal effort and longer stops are a safety risk.

IS IT WORTH DOING EARLY? OUR ESTIMATE

Check the VIN for campaign P5327 and test the 12V battery; repair at the first brake warning.

Campaign P5327 reprogram was free on 2013–2015 cars; no published price otherwise	**Our price is in the plan above** ask us for a written quote
Owner-reported repair bills in NHTSA complaints (n=5)	**$2,790–$5,000** COMPUTED FROM NHTSA DATA [1] reported range for the bill after a failure

Where the numbers come from: Computed from 5 NHTSA owner complaints that quote a repair bill for this problem (middle half of the bills; median $4,600). Examples: ODI 11653633, 11579101, 11279973, 11164327. Owner-reported, often dealer prices; not shop quotes.

PARTS FOR ZE1

- Ask your parts supplier for the OE part number for this VIN.

QUESTIONS TO ASK US

- Any brake warning lights?
- Brake campaign done?

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4 12V battery drain and DC/DC (power delivery module) faults

Any mileage

Severity: Medium: leaks and wear · 38 mentions in counted NHTSA complaints
COMPUTED FROM NHTSA DATA

Reports cover a wide mileage span (2011–2015 (telematics drain), 2013–2014 and 2018–2019 (PDM software)), so mileage doesn't say much here. Range: 2011–2015 (telematics drain), 2013–2014 and 2018–2019 (PDM software) OFFICIAL [9][10][11]

WHAT FAILS OFFICIAL [9][10][11]

On 2011–2015 cars the 3G telematics unit can keep draining it. The power delivery module (PDM) holds the onboard charger and the DC/DC converter that charges the 12V battery; on 2013–2014 and 2018–2019 cars its software can stop 12V charging or set an EV warning. Nissan reprograms the module.

SYMPTOMS

- Car will not go Ready
- EV system warning light
- Repeated dead 12V battery
- DTC P0A94, B2902 or P3131

IF IT'S LEFT TOO LONG

ESTIMATED REPAIR COST

Labor only, 0.3–0.5 h Nissan warranty time	**Our price is in the plan above** ask us for a written quote
PDM replacement: no published price	**No published price** reported range for the bill after a failure

Where the numbers come from: Estimate: Nissan warranty labor time of 0.3–0.5 h (bulletin [9]) × $100–$160/h independent-shop labor rate [12]. Parts are extra unless stated; check the VIN for open warranty coverage first.

PARTS FOR ZE1

A dead 12V battery strands the car and weakens other systems, including the brakes.

- Ask your parts supplier for the OE part number for this VIN.

IS IT WORTH DOING EARLY? OUR ESTIMATE

Test the 12V battery yearly and ask a dealer to check PDM and telematics software.

QUESTIONS TO ASK US

- How old is the 12V battery?
- Any EV warning lights?

5 · ALSO REPORTED, NOT RANKED

Other themes in Leaf EV owner complaints

Every NHTSA complaint theme with 10 or more counted reports is either a weak point above or explained here.

THEME	COMPLAINTS	WHY IT ISN'T A WEAK POINT
Air bags	105	Air-bag complaints (occupant classification sensor on 2013–2016 cars); not part of the electric drive.
Loss of power while driving	22	Mixed causes; 14V-263 replaced inverters on a small 2014 build range, and other cases trace to the 12V battery or a battery fault.

How this report is built

Inputs. VIN, model year, model, mileage and build month (if entered). Model and drivetrain are checked with NHTSA's vPIC decoder.

Mileage positions. Below: more than 10,000 miles before the reported range. Approaching: within 10,000. Inside: in the range, or past the start of an open-ended range. Past: beyond the top of the range. These bands are our rules, not an industry standard.

The plan. Critical items inside or past their range go first; high-severity items follow, and jobs that share labor are bundled. At most three jobs land in “Recommended now”. Leaks that are cheap to watch are fixed on condition; inspections are asked for at each service.

Costs. Published independent-shop ranges from shop quotes, retailer prices and owner reports. Shop prices come from the issuing shop. The worst-case cost of every item failing is not shown: it isn't an expected cost.

Labels. `OFFICIAL` NHTSA/Nissan documents · `SHOP/RETAILER` parts prices and shop articles · `FORUM/BLOG` owner forums and blogs · `COMPUTED FROM NHTSA DATA` our analysis of NHTSA data · `OUR ESTIMATE` ours.

NHTSA complaint data. Pulled Oct 27, 2026 from NHTSA's complaints API for All complaints for the Leaf and Leaf Plus in the years shown: 1,101 complaints. We pooled every complaint NHTSA files under these model names and years; where a nameplate also came with another engine or powertrain, a few complaints may be about it. Themes are keyword matches on the complaint text. `COMPUTED FROM NHTSA DATA`

THEME	COMPLAINTS	IN THIS REPORT
Brakes	287	Item 3
Quick charging / battery overheating recall	205	Item 2
Air bags	105	Also reported
Battery capacity / range loss	48	Item 1
12V battery / DC-DC	38	Item 4
Loss of power while driving	22	Also reported

Limits: complaints are self-reported and not adjusted for cars sold; keyword matching over- and under-counts; owners rarely file safety complaints about slow-building faults such as coolant seeps or noises, so those look rarer than they are.

SOURCES

1. NHTSA owner complaints for 2011–2024 Nissan Leaf and Leaf Plus, pulled Oct 27, 2026 (ODI numbers in the cost notes) `OFFICIAL`
https://www.nhtsa.gov/report-a-safety-problem#complaints

2. NBC4 Los Angeles: Electric vehicle batteries could cost owners (quotes Nissan: capacity coverage 5 years/60,000 miles on the 24 kWh battery, 8 years/100,000 miles on the 30 kWh battery) `SHOP/RETAILER`
https://www.nbclosangeles.com/news/electric-vehicle-batteries-could-cost-owners/57652/

3. Nissan NTB14-059d: 2011–2016 Leaf 24 kWh high voltage replacement battery pack; claim op JQ98AA "check Li-ion battery capacity" when the failure is capacity loss (2020-01-07), filed with NHTSA `OFFICIAL`
https://static.nhtsa.gov/odi/tsbs/2020/MC-10171223-0001.pdf

4. Nissan NTB13-061 (campaign P3227): 2011–2012 Leaf software update: Li-ion battery controller reprogram to improve the accuracy of the battery capacity level gauge (2013-06-06), filed with NHTSA `OFFICIAL`
https://static.nhtsa.gov/odi/tsbs/2013/MC-10192190-9999.pdf

5. Nissan NTB18-039 (campaign PC630): 2016–2017 Leaf 30 kWh Li-ion battery controller (LBC) reprogram: driving range and capacity gauges (2018-06-05), filed with NHTSA `OFFICIAL`
https://static.nhtsa.gov/odi/tsbs/2018/MC-10143483-9999.pdf

6. NHTSA recall records: 24V-700 (2019–2020 Leaf) and 25V-655 (2021–2022 Leaf): Li-ion battery may overheat during Level 3 quick charging, checked Oct 27, 2026 `OFFICIAL`
https://www.nhtsa.gov/recalls?nhtsaId=24V700000

7. Nissan Li-ion Battery Post-Remedy Program: 2019–2022 Leaf remedied under R24B2 / R25C8: free battery replacement if a state-of-charge fluctuation code is confirmed within 12 months of the remedy (2026-06-02), filed with NHTSA OFFICIAL
https://static.nhtsa.gov/odi/tsbs/2026/MC-11034255-0001.pdf

8. Nissan Voluntary Service Campaign P5327: 2013–2015 Leaf e-ACT electrically driven intelligent brake control unit reprogram: relay can freeze, brake warning light and higher pedal effort at start-up (2015-10-16), filed with NHTSA OFFICIAL
https://static.nhtsa.gov/odi/tsbs/2015/MC-10192655-9999.pdf

9. Nissan NTB18-045b: 2011–2015 Leaf with 3G telematics: 12 volt battery keeps losing charge (DTC P3131 / P31C2); reprogram the telematics control unit (2018-09-28), filed with NHTSA OFFICIAL
https://static.nhtsa.gov/odi/tsbs/2018/MC-10145516-9999.pdf

10. Nissan NTB14-083: 2013–2014 Leaf: 12V DC charging system stops, EV warning light with DTC P0A94 (DC/DC converter) and/or B2902; reprogram the charger / power delivery module (2014-08-29), filed with NHTSA OFFICIAL
https://static.nhtsa.gov/odi/tsbs/2014/MC-10192432-9999.pdf

11. Nissan NTB20-017: 2018–2019 Leaf 40 kWh: EV battery warning light with DTC B2902-42; reprogram the power delivery module (PDM) (2020-03-16), filed with NHTSA OFFICIAL
https://static.nhtsa.gov/odi/tsbs/2020/MC-10173556-0001.pdf

12. Tekmetric: average auto repair labor rates by state, 2026 SHOP/RETAILER
https://tours.tekmetric.com/answers/average-auto-repair-labor-rates-by-state-2026

13. Recharged: Nissan Leaf battery replacement cost 2026 (via search extract Oct 27, 2026) FORUM/BLOG
https://web.archive.org/web/20260517020832/https://recharged.com/articles/nissan-leaf-battery-replacement-cost-2026/

14. Nissan NTB23-024: 2019–2022 Leaf 62 kWh: vehicle will not start with DTCs P31E7 and P0AA6 (HV battery isolation); replace the Li-ion battery module that set the codes (2023-03-14), filed with NHTSA OFFICIAL
https://static.nhtsa.gov/odi/tsbs/2023/MC-10234086-0001.pdf

This report contains no affiliate links; retailer prices are quoted as price sources only. Found an error? Email hello@repairahead.com.

PLEASE READ

Important

Based on public records and published repair costs. Not a diagnosis or a guarantee. Your technician's inspection decides what your car needs. Confirm recalls with a dealer using your VIN.

Informational only. This report is not a mechanical inspection, a diagnosis, or professional, legal or financial advice. It was issued by Springfield Auto Care using RepairAhead data; the inspection findings and prices are the shop's.

Reported ranges and estimates, not predictions

Failure mileages are reported ranges compiled from public owner complaints, manufacturer bulletins, recalls and repair-shop reports. Costs are estimates. Parts can fail earlier, later or not at all, and other problems can occur. Statistics from owner complaints describe past reports to NHTSA; NHTSA has not reviewed or endorsed this analysis.

Safety issues go to a dealer

If you notice overheating, a burning smell, smoke, a brake-assist problem, stalling or loss of power, pull over when it's safe and contact a Nissan dealer or qualified shop. Safety recall repairs are free at Nissan dealers. Confirm recalls for this VIN at nhtsa.gov/recalls.

No warranty

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