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

2004 Infiniti M45 at 131,000 mi

JNKAY41EX4M402345

MODEL / CHASSIS	ENGINE	MILEAGE	DRIVETRAIN
M45 · Y34 M45 4.5 V8 sedan	Nissan VK45DE 4.5L V8 (Infiniti Q45, M45 and FX45, 2002–2010)	131,000 mi	RWD
BUILD MONTH	**REPORT DATE**	**MODE**	**PREPARED FOR**
Not entered (door jamb)	October 28, 2026	Shop	Sample Owner

VIN check: check digit valid; model-year code '4' = 2004, 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 2 factory maintenance items

1
to watch or check at each service

Safety recalls NHTSA lists for this model year (2)

- **12V-088** · Fuel system, gasoline: A failed circuit board can make the fuel gauge read more fuel than is in the tank. The car can run out of fuel and stall without warning, which raises the risk of a crash.
- **04V-497** · Exterior lighting · brake lights · switch: The brake lamp switch can fail, so the brake lights do not come on when the brakes are applied. That raises the risk of a rear-end crash.

A model-year list, not a VIN check. Repairs are free at an Infiniti dealer if open. On a car over 15 years old, ask the dealer whether a newer recall is still repaired free. Check this VIN at nhtsa.gov/recalls.

Step 0 · Free: run the VIN at nhtsa.gov/recalls and ask an Infiniti dealer for a campaign printout, including 12V-088. Read the build month (MM/YY) on the driver's door-jamb label.

Recommended now at the next service — $140

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

inspection EXAMPLE

Stalling while driving: crank and cam position sensors: Inside the range (106,000–150,000 mi, the middle half of 25 owner reports)
Known weak point for this engine, not a finding on your car. The inspection shows whether yours has early signs.

Fuel gauge reads high, car runs out of fuel and stalls (recall 12V-088)

Free if open

Recall 12V-088 is listed for this model year. Check the VIN; the repair is free at an Infiniti dealer if it is open.

Next 12 months up to about 137,000 mi

Nothing scheduled here.

Within the next 30,000 miles up to 161,000 mi

Nothing else enters its reported range in this window.

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

Accessory-belt idler pulley noise and bracket (2002 Q45 campaign) — $190

our price EXAMPLE

Any mileage (2002 Q45 campaign; noise reports on 2003–2004 cars) · Ask for this check at every service

Recommended now

$140

Springfield Auto Care prices (example)

Planned through 161,000 mi

From $568

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 (oil, brakes, tires) isn't included; factory fluid and spark plug intervals are listed below.

FACTORY MAINTENANCE

Scheduled maintenance from 131,000 mi to 161,000 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
Spark plugs Iridium/platinum plugs; replace early if gap exceeds spec.	every 105,000 mi	**Was due at 105,000 mi (check records)** [M1][M2][M3]	**$249**
Engine coolant First change at 60,000 mi or 48 months, then every 30,000 mi or 24 months.	first at 60,000 mi, then every 30,000 mi or 2 years	**Was due at 120,000 mi and by age (check records)** [M1][M2]	**From $179**
Automatic transmission fluid Nissan normal schedule says inspect only; replace every 30,000 mi / 24 months only under severe use (towing, rough or muddy roads).	no fixed interval	— [M1][M2][M3]	—

M1. Infiniti USA official maintenance schedule lookup: 2005 Q45 (component pages, Standard Driving Conditions) OFFICIAL
https://maintenance-schedules.infinitiusa.com/maintenance-schedules/2005/q45/components/engine-coolant/

M2. Infiniti USA official maintenance schedule lookup: 2004 FX45 (component pages, Standard Driving Conditions) OFFICIAL
https://maintenance-schedules.infinitiusa.com/maintenance-schedules/2004/fx45/components/engine-coolant/

M3. Infiniti USA official maintenance schedule lookup: 2010 M45 (component pages, Standard Driving Conditions) OFFICIAL
https://maintenance-schedules.infinitiusa.com/maintenance-schedules/2010/m45/components/engine-coolant/

WHERE 131K SITS FOR EACH WEAK POINT

#	WEAK POINT	REPORTED RANGE	THIS CAR
1	Fuel gauge reads high, car runs out of fuel and stalls (recall 12V-088)	2003–2004 M45 (built Mar 2002 – Jun 2004) OFFICIAL	Any mileage
2	Stalling while driving: crank and cam position sensors	106,000–150,000 mi (middle half of 25 owner complaints that state a mileage) COMPUTED FROM NHTSA DATA	Inside the range
3	Accessory-belt idler pulley noise and bracket (2002 Q45 campaign)	2002 Q45 campaign; noise reports on 2003–2004 cars 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 2004 Infiniti M45

Safety recall repairs are free at Infiniti dealers. On a car over 15 years old, ask the dealer whether a newer recall is still repaired free. 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 JNKAY41EX4M402345.
2. Note every recall shown as “Recall incomplete” and keep a screenshot.
3. Ask an Infiniti dealer for a campaign printout; it also lists completed campaigns.

4.5L VK45DE V8 RECALLS WE TRACK

12V-088 · Fuel gauge can read high; car can run out of fuel and stall (2003–2004 M45)

NHTSA lists this model and year: check by VIN

A circuit board failure makes the gauge read more fuel than is in the tank. Dealers modify the circuit board free.

OFFICIAL [2]

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

03V-455 · Crank and cam position sensors can fail; stall or no start (2002 Q45, 2003 M45)

Not listed for MY2004

Solder joints in the sensor circuit boards can crack from heat. Dealers replace the sensors free on covered VINs.

OFFICIAL [4]

EVERY RECALL NHTSA LISTS FOR THE 2004 INFINITI M45 (2)

RECALL	COMPONENT	WHAT CAN HAPPEN (NHTSA, SHORTENED)
12V-088 4.5L VK45DE V8 tracked	Fuel system, gasoline	A failed circuit board can make the fuel gauge read more fuel than is in the tank. The car can run out of fuel and stall without warning, which raises the risk of a crash. Details
04V-497	Exterior lighting · brake lights · switch	The brake lamp switch can fail, so the brake lights do not come on when the brakes are applied. That raises the risk of a rear-end crash. Details

Source: NHTSA recalls API, fetched 2026-10-28 and combined across NHTSA model names: M45. 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 engine are cited on each weak point in section 4, where they apply.

4 · THE 3 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 (Y34). Left out because they apply to other models, years, engine sizes or body codes: Accelerator pedal sensor: limp mode and stalling at idle (recall 13V-430); Fuel filler hose cracks and leaks while refueling (FX45 recall 05V-555); EVAP leak codes and hard-to-fill tank (vent valve O-ring, vent line).

---

1 Fuel gauge reads high, car runs out of fuel and stalls (recall 12V-088)

Any mileage

Severity: Critical: rare, but can badly damage the engine · 104 mentions in counted NHTSA complaints

COMPUTED FROM NHTSA DATA

Reports cover a wide mileage span (2003–2004 M45 (built Mar 2002 – Jun 2004)), so mileage doesn't say much here.

Range: 2003–2004 M45 (built Mar 2002 – Jun 2004) OFFICIAL [2]

WHAT FAILS OFFICIAL [2][1]

A circuit board in the 2003–2004 M45 instrument cluster can fail so the fuel gauge reads more fuel than is in the tank. Owners describe the needle sticking at half or full, then the car running out of fuel and stalling in traffic. It is the most-reported problem for this engine in NHTSA complaints. Nissan recalled the car in 2012; dealers modify the circuit board free.

SYMPTOMS

- Fuel gauge stuck at one level or reading full after a long drive
- Range much shorter than the gauge suggests
- Engine sputters and stalls with fuel showing on the gauge

IF IT'S LEFT TOO LONG

The car can run dry and stall at speed, which raises the risk of a crash.

IS IT WORTH DOING EARLY? OUR ESTIMATE

Check the VIN for recall 12V-088. Until it is done, fill up by the trip meter, not the gauge.

ESTIMATED REPAIR COST

Free under the recall	**Free if covered** OFFICIAL [2] published independent-shop range
Free under the recall	**Free if covered** OFFICIAL [2] reported range for the bill after a failure

Where the numbers come from: The recall repair is free. Before the 2012 recall, owners reported dealer quotes for a replacement instrument cluster; in 15 NHTSA complaints that quote one the middle half was $750–1,350 (COMPUTED, median $1,000; e.g. ODI 10441480, 10412053, 10447694, 10441390). Owner-reported, not shop quotes.

PARTS FOR Y34

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

QUESTIONS TO ASK US

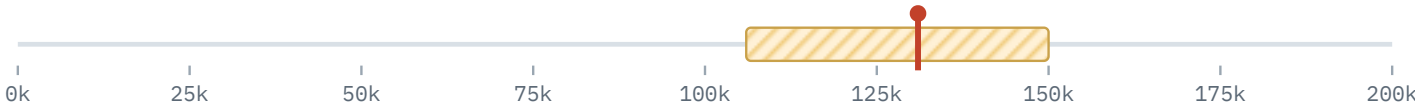
- Recall 12V-088 done? Ask for the dealer record.
- Has the car ever run out of fuel with fuel showing?

2 Stalling while driving: crank and cam position sensors

Inside the range

Severity: Critical: rare, but can badly damage the engine · 103 mentions in counted NHTSA complaints COMPUTED FROM NHTSA DATA

At 131,000 mi this car is inside the reported range (106,000–150,000 mi (middle half of 25 owner complaints that state a mileage)), 25,000 miles past where reports start. Range: 106,000–150,000 mi (middle half of 25 owner complaints that state a mileage) COMPUTED FROM NHTSA DATA [1]



WHAT FAILS OFFICIAL [4][1]

The 2002 Q45 and 2003 M45 are in recall 03V-455: solder joints on the crank and cam position sensor circuit boards can crack from heat, and the engine can stop without warning or not start. Dealers replace the sensors free on covered VINs. NHTSA has dozens of owner complaints from 2003–2004 M45 and Q45 owners whose cars stalled at speed, often restarted after a wait, and were told the VIN was not in the recall; shops most often named the crank or cam sensors. Some owners report the stalls continued after new sensors.

SYMPTOMS

- Engine shuts off while driving, then restarts after a wait
- Check-engine light with crank or cam sensor codes
- Long crank or no start when hot

IF IT'S LEFT TOO LONG

A stall at speed takes away power assist for steering and brakes and can cause a crash.

IS IT WORTH DOING EARLY? OUR ESTIMATE

Check the VIN for 03V-455 first. Outside the recall, use OE crank and cam sensors and check the harness grounds before replacing modules.

ESTIMATED REPAIR COST

Free under recall 03V-455 on covered VINs; otherwise no published price	**Our price is in the plan above** ask us for a written quote
Free under recall 03V-455 on covered VINs; otherwise no published price	**No published price** reported range for the bill after a failure

Where the numbers come from: Mileage computed from 25 NHTSA owner complaints of stalling on 2003–2004 M45 and Q45 that state a failure mileage (middle half). Too few complaints quote a bill to compute a cost.

PARTS FOR Y34

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

QUESTIONS TO ASK US

- Any stalling while driving?
- Crank and cam sensors replaced? OE or aftermarket?
- Recall 03V-455 done (2002 Q45, 2003 M45)?

3 Accessory-belt idler pulley noise and bracket (2002 Q45 campaign)

Any mileage

Severity: Medium: leaks and wear · 0 mentions in counted NHTSA complaints
COMPUTED FROM NHTSA DATA

Reports cover a wide mileage span (2002 Q45 campaign; noise reports on 2003–2004 cars), so mileage doesn't say much here. Range: 2002 Q45 campaign; noise reports on 2003–2004 cars OFFICIAL [6]

WHAT FAILS OFFICIAL [6][1]

Infiniti ran a voluntary service campaign (03-066) on the 2002 Q45 for the accessory-belt idler pulley bracket, after a bulletin on noise from the idler pulley area. A few owners of 2003–2004 cars also report a noisy or failed idler pulley.

SYMPTOMS

- Chirp, squeal or rattle from the front of the engine
- Belt wear or a wobbling pulley

IF IT'S LEFT TOO LONG

A failed pulley throws the belt and stops the alternator, power steering and water pump.

IS IT WORTH DOING EARLY? OUR ESTIMATE

Listen at the belt with the engine running; replace a noisy pulley before it seizes.

ESTIMATED REPAIR COST

No published price	**Our price is in the plan above** ask us for a written quote
No published price	**No published price** reported range for the bill after a failure

PARTS FOR Y34

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

QUESTIONS TO ASK US

- Campaign 03-066 done (2002 Q45)?
- Belt and idler pulleys replaced when?

5 · ALSO REPORTED, NOT RANKED

Other themes in 4.5L VK45DE V8 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
Steering / brakes	44	Steering and brake complaints (FX45 caliper bolt and propeller shaft bolt recalls 03V-476, 03V-164); not engine faults.
Air bags	37	Air bag complaints, including Takata inflator recalls on later cars; not engine faults.
Seats	25	Seat complaints (2006 M45 driver seat leaning); not engine faults.
Unintended acceleration / cruise	10	Scattered unintended-acceleration and cruise-control complaints with no bulletin or recall pattern beyond the pedal sensor recall.

How this report is built

Inputs. VIN, model year, model, mileage and build month (if entered). Model and engine 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 28, 2026 from NHTSA's complaints API for All Q45, 2003–2004 M45 and 2003 FX45 complaints, plus 2006–2010 M35/M45 and 2004–2008 FX35/FX45 complaints that name the M45, FX45, 4.5 or V8. NHTSA files the M35 and M45 (and the FX35 and FX45) together, so the later M45 and FX45 counts under-count: 311 complaints. Some of these nameplates were sold with other engines too; for those we kept only complaints whose text names this engine, which under-counts. Themes are keyword matches on the complaint text.
`COMPUTED FROM NHTSA DATA`

THEME	COMPLAINTS	IN THIS REPORT
Fuel gauge / ran out of fuel	104	Item 1
Stalling	103	Item 2
Steering / brakes	44	Also reported
Crank / cam sensor stalls	38	Item 2
Air bags	37	Also reported
Seats	25	Also reported
Unintended acceleration / cruise	10	Also reported
Accelerator pedal / limp mode	9	Other years or engine sizes
Oil consumption	5	—
EVAP / hard to fill	1	Other years or engine sizes
Fuel filler / fuel leak	0	Other years or engine sizes
Idler pulley / belt	0	Item 3

Limits: complaints are self-reported and not adjusted for cars sold; keyword matching over- and under-counts; owners rarely file safety complaints about oil seeps, so leaks look rarer than they are.

1. NHTSA owner complaints for 2002–2006 Infiniti Q45, 2003–2004 and 2006–2010 M45 and 2003–2008 FX45, pulled Oct 28, 2026 (ODI numbers in the cost notes) OFFICIAL
https://www.nhtsa.gov/report-a-safety-problem#complaints

2. NHTSA recall records: 12V-088 (2003–2004 Infiniti M45: fuel gauge circuit board can read high; car can run out of fuel and stall), checked Oct 28, 2026 OFFICIAL
https://www.nhtsa.gov/recalls?nhtsaId=12V088000

3. NHTSA recall records: 13V-430 (2006–2010 Infiniti M35 and M45: accelerator pedal sensor signal deteriorates; fail-safe mode and stalling at idle), checked Oct 28, 2026 OFFICIAL
https://www.nhtsa.gov/recalls?nhtsaId=13V430000

4. NHTSA recall records: 03V-455 (2002 Q45 and 2003 M45 (with other Nissan and Infiniti models): crank and cam position sensor solder joints can crack; stall or no start), checked Oct 28, 2026 OFFICIAL
https://www.nhtsa.gov/recalls?nhtsaId=03V455000

5. NHTSA recall records: 05V-555 (2003–2006 Infiniti FX45 and FX35: fuel filler hose can crack and leak fuel while refueling), checked Oct 28, 2026 OFFICIAL
https://www.nhtsa.gov/recalls?nhtsaId=05V555000

6. Infiniti voluntary service campaign 03-066: 2002 Q45 idler pulley bracket (2003-12-03); ITB02-037: noise from the idler pulley area (2002-06-04); NHTSA summaries only, filed with NHTSA OFFICIAL
https://www.nhtsa.gov/?nhtsaId=10006287

7. Infiniti ITB17-042c: DTC P0456 caused by an EVAP leak at the vent control valve O-ring; applies to 2006–2010 M45/M35 (Y50); FRT 0.3 h (2020-09-14), filed with NHTSA OFFICIAL
https://static.nhtsa.gov/odi/tsbs/2020/MC-10180978-0001.pdf

8. Infiniti ITB17-026b: fuel tank extremely difficult to fill; applies to 2003–2008 FX45/FX35 and 2006–2010 M45/M35; EVAP inspection FRT 0.4 h; vent line covered 15 years / 150,000 miles if found fully blocked (2018-08-20), filed with NHTSA OFFICIAL
https://static.nhtsa.gov/odi/tsbs/2018/MC-10144497-9999.pdf

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

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

No warranty

Provided “as is”, without warranties of any kind, under the Terms of Use at repairahead.com/terms.

Trademarks and independence

Not affiliated with Nissan Motor Co., Ltd. or Nissan North America, Inc. Infiniti and model names are trademarks of Nissan Motor Co., Ltd., used only to identify vehicles.
