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

2002 Toyota RAV4 at 140,000 mi

JTEHH20VX20245678

MODEL / CHASSIS	ENGINE	MILEAGE	DRIVETRAIN
RAV4 · XA20 RAV4 4WD 2.0 (1AZ-FE)	Toyota RAV4 2.0L four (1AZ-FE; 3S-FE in 2000)	140,000 mi	4WD
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 '2' = 2002, 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.

1	0	2
inspection recommended now	to plan in the next 30,000 miles	to watch or check at each service

Step 0 · Free: run the VIN at nhtsa.gov/recalls and ask a Toyota dealer for a campaign printout. 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

Engine computer (ECM) fault causing harsh shifts and transmission damage: Past the range (80,000–118,000 mi, the middle half of 208 owner reports) · if it fails: $2,000–$5,000

inspection EXAMPLE

Known weak point for this engine, not a finding on your car. The inspection shows whether yours has early signs.

Next 12 months up to about 152,000 mi

Nothing scheduled here.

Within the next 30,000 miles up to 170,000 mi

Nothing else enters its reported range in this window.

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

Check-engine light with catalyst codes (P0420 / P0430) **Ask us for a quote**
Any mileage (2001–2002 RAV4) · Inspect at each service; fix at the first sign

VVT-i check-engine light (P1349) **Ask us for a quote**
Any mileage (2001–2002 RAV4) · Inspect at each service; fix at the first sign

Recommended now
$140
Springfield Auto Care prices (example)

Planned through 170,000 mi
$140
Nothing else on the list before 170,000 mi. Now + next 12 months + next 30,000 miles. 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

The maker's maintenance schedule isn't on this report

This report doesn't include the maker's scheduled maintenance for this car yet, so brake fluid, spark plugs, coolant and transmission fluid aren't listed even when they're due. Check the service records and the maker's schedule for this car.

WHERE 140K SITS FOR EACH WEAK POINT

#	WEAK POINT	REPORTED RANGE	THIS CAR
1	Engine computer (ECM) fault causing harsh shifts and transmission damage	80,000–118,000 mi (middle half of 208 owner complaints that state a mileage) COMPUTED FROM NHTSA DATA	Past the range
2	Check-engine light with catalyst codes (P0420 / P0430)	2001–2002 RAV4 OFFICIAL	Any mileage
3	VVT-i check-engine light (P1349)	2001–2002 RAV4 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 2002 Toyota RAV4

Safety recall repairs are free at Toyota 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 JTEHH20VX20245678.
2. Note every recall shown as “Recall incomplete” and keep a screenshot.
3. Ask a Toyota dealer for a campaign printout; it also lists completed campaigns.

2.0L 1AZ-FE / 3S-FE RECALLS WE TRACK

NHTSA lists no engine-specific recall campaign for the 2.0L 1AZ-FE / 3S-FE as of 2026-10-28. Recalls on the rest of the car are in the model-year list below.

EVERY RECALL NHTSA LISTS FOR THE 2002 TOYOTA RAV4 (0)

RECALL	COMPONENT	WHAT CAN HAPPEN (NHTSA, SHORTENED)

Source: NHTSA recalls API, fetched 2026-10-28 and combined across NHTSA model names: RAV4. 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 (XA20).

1 Engine computer (ECM) fault causing harsh shifts and transmission damage

Past the range

Severity: Critical: rare, but can badly damage the engine · 777 mentions in counted NHTSA complaints COMPUTED FROM NHTSA DATA

At 140,000 mi this car is past the reported range (80,000–118,000 mi (middle half of 208 owner complaints that state a mileage)). If the original parts are still fitted, have them checked and plan for them. Range: 80,000–118,000 mi (middle half of 208 owner complaints that state a mileage) COMPUTED FROM NHTSA DATA [1]



Applies to: 2001–2003 RAV4 with an automatic transaxle

WHAT FAILS OFFICIAL [2][3][1]

On many 2001–2003 RAV4s the engine computer (ECM), which also runs the automatic transmission, fails and causes harsh or missed shifts with codes P0750, P0753, P0755, P0758 or P1760. Toyota's program ZTL replaced the ECM, and the transaxle if it was damaged, for 10 years or 150,000 miles from first sale; that has run out on every car. This is the largest group of complaints for these years, and many owners paid for a transmission as well as the ECM.

SYMPTOMS

- Harsh, late or missing shifts
- Check-engine light with P0750–P0758 or P1760
- Car stuck in one gear or bucking when pulling away

IF IT'S LEFT TOO LONG

Driving on with a faulty ECM can wear out the transmission, which turns a computer replacement into a transmission replacement.

IS IT WORTH DOING EARLY? OUR ESTIMATE

Scan at the first harsh shift. If the codes match, replace the ECM before the transmission is damaged.

ESTIMATED REPAIR COST

No published price for an ECM alone	**Our price is in the plan above** ask us for a written quote
Owner-reported repair bills in NHTSA complaints (n=257), often ECM plus transmission	**$2,000–$5,000** COMPUTED FROM NHTSA DATA [1] reported range for the bill after a failure

Where the numbers come from: Computed from 257 NHTSA owner complaints that quote a bill for this problem (middle half of the bills; median $4,000). Examples: ODI 10229239, 10252075, 10294046, 10303397. Owner-reported, often dealer prices that include a transmission; not shop quotes.

PARTS FOR XA20

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

QUESTIONS TO ASK US

- Any harsh shifting or check-engine light?
- ECM or transmission ever replaced?

2 Check-engine light with catalyst codes (P0420 / P0430)

Any mileage

Severity: Medium: leaks and wear · 35 mentions in counted NHTSA complaints

COMPUTED FROM NHTSA DATA

Reports cover a wide mileage span (2001–2002 RAV4), so mileage doesn't say much here. Range: 2001–2002 RAV4

OFFICIAL [5]

WHAT FAILS OFFICIAL [5][1]

Toyota released an ECM calibration update for 2001–2002 RAV4s with the check-engine light on and catalyst-efficiency codes P0420 or P0430. Owners also report replaced oxygen sensors and catalytic converters for the same codes.

SYMPTOMS

- Check-engine light
- Codes P0420 or P0430
- Failed emissions test

IF IT'S LEFT TOO LONG

Mostly an emissions failure; an unfixed misfire or rich running can ruin the converter.

IS IT WORTH DOING EARLY? OUR ESTIMATE

Ask a dealer whether the calibration update was done before replacing the converter.

ESTIMATED REPAIR COST

ECM calibration update (no published price)	**Our price is in the plan above** ask us for a written quote
No published bill	**No published price** reported range for the bill after a failure

PARTS FOR XA20

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

QUESTIONS TO ASK US

- Any catalyst codes or converter replacements?

3 VVT-i check-engine light (P1349)

Any mileage

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

COMPUTED FROM NHTSA DATA

Reports cover a wide mileage span (2001–2002 RAV4), so mileage doesn't say much here. Range: 2001–2002 RAV4

OFFICIAL [4]

WHAT FAILS OFFICIAL [4]

Toyota issued a bulletin for 2001–2002 RAV4s with the check-engine light on and code P1349, a variable valve timing (VVT-i) fault.

SYMPTOMS

- Check-engine light with P1349
- Rough idle or low power

IF IT'S LEFT TOO LONG

Unfixed VVT faults hurt idle quality and fuel use.

ESTIMATED REPAIR COST

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

PARTS FOR XA20

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

IS IT WORTH DOING EARLY? OUR ESTIMATE

Diagnose with the bulletin when P1349 appears; check the oil level and condition first.

QUESTIONS TO ASK US

- Any P1349 code?

5 · ALSO REPORTED, NOT RANKED

Other themes in 2.0L 1AZ-FE / 3S-FE 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
Stalling / loss of power	182	Most of these describe the car bucking or losing drive from the ECM and transmission fault listed above.
Air bags	49	Air-bag complaints; not an engine fault.
Sudden acceleration	35	Complaints of surging or sudden acceleration; mixed causes, many tied to the shifting fault; not a separate engine wear item.
Oil sludge	13	A few owners report sludge; we found no Toyota bulletin or policy that covers this engine for it.

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/Toyota 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 2000–2003 RAV4 complaints filed for the RAV4 itself (the RAV4 EV is filed separately and not counted): 1,183 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
Transmission / harsh shifting	777	Item 1
Engine computer (ECM)	613	Item 1
Stalling / loss of power	182	Also reported
Air bags	49	Also reported
Catalyst / oxygen sensor codes	35	Item 2
Sudden acceleration	35	Also reported
Oil sludge	13	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 oil seeps, so leaks look rarer than they are.

SOURCES

1. NHTSA owner complaints for 2000–2003 RAV4 (all four-cylinder; RAV4 EV filed separately), pulled Oct 28, 2026 (ODI numbers in the cost notes) `OFFICIAL`
https://www.nhtsa.gov/report-a-safety-problem#complaints

2. Toyota Customer Support Program ZTL owner letter: Specific check-engine codes (P0750, P0753, P0755, P0758, P1760) and/or harsh shift of the automatic transaxle, certain 2001–2003 RAV4; ECM (and transaxle if needed) covered 10 years / 150,000 miles from in-service (2010), filed with NHTSA `OFFICIAL`
https://static.nhtsa.gov/odi/tsbs/2010/CSC-10034070-9912.pdf

3. Toyota TSB-0156-10: Harsh shift and/or MIL on with DTC P0750, P0753, P0755, P0758 and/or P1760, 2001–2003 RAV4 (2010-06-22), filed with NHTSA `OFFICIAL`
https://www.nhtsa.gov/?nhtsaId=10034126

4. Toyota 00703: MIL on with DTC P1349 (VVT-i malfunction), 2001–2002 RAV4 (2003-05-05), filed with NHTSA `OFFICIAL`
https://www.nhtsa.gov/?nhtsaId=10001997

5. Toyota EG01002: ECM calibration update for MIL on with DTC P0420 or P0430 and engine performance, 2001–2002 RAV4 (2002-04-12), filed with NHTSA `OFFICIAL`
https://www.nhtsa.gov/?nhtsaId=634045

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 a Toyota dealer or qualified shop. Safety recall repairs are free at Toyota 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

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