

Collision Repair Supplement Prediction SaaS

Independent collision repair shops | \$249/month/shop

VERDICT	RESEARCH_FAIL
	Confidence: 0.87

Problem validated. Differentiated mechanism not yet validated.

The blocker is not weak pain. It is that the only potentially premium, differentiated mechanism - predicting future supplement omissions before teardown better than existing estimate scrubbers - is still technically unproven and operationally constrained.

This is not KILL and does not justify a hypothesis pivot yet. First falsify that mechanism.

Contract ID: KG-2026-08-27-CRS-001 | Research snapshot: August 27, 2026 | PDF prepared: August 28, 2026

Locked hypothesis

KG-2026-08-27-CRS-001

ICP: U.S. independent collision repair shops, initially single-location/small multi-location operations handling insurer-paid repairs.

Buyer: Owner/GM or lead estimator with authority over estimating/workflow software.

Problem: Insurer initial estimates omit legitimate operations, parts, procedures, calibrations, or damage, creating supplement work, delayed approvals/parts, cycle-time drag, and potentially missed billable work.

Offer: SaaS analyzes the insurer estimate, VIN/vehicle data, pre-teardown photos, labor/parts lines, historical repairs, and insurer patterns to flag likely supplement omissions before teardown.

Price: \$249/month/shop, unchanged.

Current alternatives: Estimator judgment + CCC/Mitchell/Audatex + OEM/P-page research + teardown/blueprinting; estimate-scrubber software; outsourced estimating/supplement services.

Gate scoreboard

Gate	Result	Evidence
Contract locked before scoring	PASS	KG-2026-08-27-CRS-001
>=3 directly relevant public sources	PASS	Well above threshold across industry data, insurer workflow docs, practitioners, and competitors
>=2 independent source groups	PASS	CCC data, repairer survey/trade sources, insurer documentation, practitioner voices
Real customer problem	PASS	CCC reports supplement activity around the ~70% level for repairable appraisals in 2025
Current workaround/alternative	PASS	Teardown/advanced inspection, repair planning, manual auditing, existing scrubbers
Spend/pricing proxy	PASS	Multiple paid products currently sell directly into this job
Disconfirming evidence searched	PASS	Competition, teardown dependency, carrier documentation requirements, price pressure
>=2 material constraints surfaced	PASS	Commodity competition + pre-teardown observability/documentation problem
Differentiated technical mechanism established	FAIL - FEASIBILITY_REQUIRED	Public evidence does not establish useful prediction of not-yet-visible supplement items from pre-teardown information
8 qualified buyers	NOT TESTED	Required later
>=30% strong pain	NOT TESTED	Required later
>=4 price-positive at \$249	NOT TESTED	Required later
>=2 verified paid pilots	NOT TESTED	Required later

Mechanism scoreboard

Mechanism	Role	Status	Assessment
Detect omitted labor/OEM/procedure lines from an estimate	CORE_VALUE	COMMODITY	Existing scrubbers have done this for years
Infer visible damage/operations from photos	CORE_VALUE	COMMODITY / PLAUSIBLE	Mitchell and current shop tools already perform photo-based estimate analysis
Predict hidden/not-yet-confirmed damage before teardown	CORE_VALUE	TEST	Important unresolved differentiator
Learn carrier-specific omission/approval patterns	CORE_VALUE	COMMODITY / PLAUSIBLE	Current tools already advertise carrier rules, approval probabilities, or carrier performance
Learn from the shop's historical claims	CORE_INPUT	BUNDLED / PLAUSIBLE	Competitors already advertise shop learning/history import
CCC/Mitchell/Audatex ingestion	DOWNSTREAM_INFRASTRUCTURE	BUNDLED	Multiple competitors already support these systems/PDFs
Estimator confirms every recommendation	CONSTRAINT	SUPPORTED / REQUIRED	Necessary because predictions are not repair evidence

Mechanism decomposition: detecting an omitted calibration or R&I operation is fundamentally different from predicting a crushed reinforcement hidden behind a bumper. Evidence validating the first does not validate the second.

Strongest evidence FOR

1. Supplements are pervasive enough to create a real workflow problem.

CCC's 2026 Crash Course says supplement activity stayed high throughout 2025, with its chart putting the share of repairable claims receiving a supplement around 70%. This is platform-scale evidence, not a handful of complaints.

Source: [CCC Crash Course 2026](#)

2. Some omissions are predictable and economically consequential before late-stage repair.

In Q2 2025, CCC reported that while 91.2% of scans were captured on the initial estimate, only 45.5% of calibrations were; 54.5% appeared later on supplements. CCC explicitly links late calibration identification to approval delays, longer cycle times, tied-up bays, and lower throughput.

Source: [CCC - Current State of Calibrations](#)

3. Independent-shop evidence shows initial/photo estimates can be badly incomplete.

A Washington Independent Collision Repair Association survey covering nearly 1,100 photo-based claims across 30 responding independent shops found just 6.9% were paid in full without supplements; only 26 were reported accurate. The survey has limitations, but it directly matches the ICP/workflow.

Source: [Repairer Driven News - WICRA survey](#)

4. Practitioner language confirms the operational job.

Estimators publicly ask how to produce more thorough insurance estimates, track what particular insurers allow, and avoid omitted operations; other shop workers describe repeatedly losing labor because operations are left off.

Source: [Reddit - r/Autobody practitioner discussion](#)

Strongest evidence AGAINST

1. The obvious version of this product is already commoditized.

This category is not greenfield. EstimateScrubber was already reviewing CCC/Mitchell/Audatex estimates and flagging missed operations in 2017, with a free tier and \$35/month paid offering.

Source: [Repairer Driven News - EstimateScrubber](#)

Current offer	Vendor-stated price
Collision Repair AI Shop Pro	\$50/mo
Collision Lens	\$99.99/mo
Claimory Professional incl. AI Claim Audit	\$129.99/mo
SupplementAI Pro	\$199/mo

Claimory additionally advertises reading estimates/photos, missed operations, insurer-specific analysis and approval probability. RocketPros advertises carrier rules, shop learning and historical claim import. PartsKick combines estimate data, OEM procedures, insurer guidance and photos.

Those pages establish feature/pricing competition, not actual customer adoption. But they substantially weaken any claim that those features alone justify \$249.

2. Hidden-damage prediction has a serious observability problem.

Progressive's repair guidelines explicitly contemplate minor teardown to identify obscured damage and require hidden damage discovered during repair to be communicated and potentially reinspected. State Farm similarly describes paying additional amounts when the repair shop finds additional damage.

Source: [Progressive estimate guidelines](#)

Industry workflow guidance reaches the same conclusion. FenderBender recommends using AI for a preliminary estimate, then performing an advanced inspection - potentially using a borescope or minor disassembly - to compare the AI assumptions against the actual vehicle. It calls a 100% complete first estimate nearly impossible.

Source: [FenderBender - limiting supplements](#)

That does not prove predictive modeling of hidden damage is impossible. It does mean a predicted hidden-damage flag is not automatically evidence an insurer will pay.

3. \$249 requires measurable incremental value.

The price is not obviously absurd - Claimory's broader Elite tier reaches \$349.99/month - but at \$249, the proposed product sells at a substantial premium to several direct estimate-analysis products.

Therefore the economic thesis depends on something stronger than "AI catches missed lines." The historical/insurer-pattern prediction must measurably outperform existing scrubbers.

Evidence audit

Known: Supplements are frequent; late-found items can harm cycle time; shops already have manual and software approaches to estimate auditing; several current products sell very similar functionality.

Inference: The generic estimate-scrubbing layer is unlikely to support a defensible \$249 price by itself. A premium probably has to come from materially better pre-teardown prediction/actionability, not merely a nicer AI interface.

Unknown: Whether historical repair + carrier data can predict unseen supplement outcomes with useful precision; whether shops will change parts ordering/inspection workflow based on probabilistic flags; actual paid adoption of today's competing SaaS; CAC for reaching independent shop owners; willingness to pay exactly \$249.

Contradiction: The workflow requires real evidence for hidden damage, while the product wants to generate value before that evidence exists. That restricts the product to a risk/inspection signal until teardown confirms the condition.

Excluded: Competitor claims such as "recover \$120K/year," modeled ROI calculators, and vendor testimonials were not counted as independent demand evidence.

Why the verdict follows

Nearly every public-research gate clears.

But the differentiator does not.

If the unproven predictive mechanism is removed, what remains is effectively an estimate scrubber/OEM-rule checker, and multiple live products already do that at materially lower prices. Therefore the uncertain mechanism materially carries the reason to pay \$249.

Under the locked rules, that triggers FEASIBILITY_REQUIRED and blocks RESEARCH_PASS.

No goalpost change is justified yet.

Build-risk memo

Do not build the SaaS now.

The cheapest useful artifact is a blind offline predictor. UI, integrations, billing, dashboards, multi-tenancy, and insurer workflow automation provide almost zero information about the riskiest assumption.

Minimum next action

Run a 120-claim retrospective falsification test using closed repairs from at least 3 independent shops.

Only provide the model information that genuinely existed before teardown: insurer E01, VIN/build information, original photos, operations/parts and prior historical data. Ground truth is the eventual supplements and approved/final repair plan. Hold out one shop entirely.

For each repair, permit no more than five predicted omissions.

Lock these thresholds before running the test:

- precision@5 $\geq$ 55%
- dollar-weighted recall $\geq$ 40%

- ≤ 2 false-positive flags per repair
- $\geq 20\%$ relative improvement over a current rules/scrubber baseline at a comparable false-positive rate

These are falsification thresholds for this contract, not published industry standards.

If the test clears them, the hypothesis earns another research evaluation and then direct validation at the unchanged \$249/month price. If it cannot materially beat an existing scrubber using only pre-teardown information, the differentiated thesis has failed.

What would change the verdict

RESEARCH_PASS	The blind test shows meaningful incremental predictive power over existing scrubbers without requiring teardown information.
RESEARCH_PIVOT	Prediction works only after teardown, or the system cannot outperform ordinary estimate/OEM-rule auditing. That would require changing the offer and issuing a new contract ID.
GO	Impossible from public research. After a Research Pass, the unchanged hypothesis still needs 8+ qualified buyers, $\geq 30\%$ strong pain with recent examples, ≥ 4 price-positive buyers at exactly \$249 unless payments supersede that gate, and ≥ 2 verifiable paid \$249 pilots/deposits.

Source index

[CCC Crash Course 2026](#)

[CCC - The Current State of Calibrations](#)

[Repairer Driven News - WICRA survey](#)

[Reddit - r/Autobody practitioner discussion](#)

[Repairer Driven News - EstimateScrubber](#)

[Collision Repair AI pricing](#)

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[FenderBender - limiting collision repair supplements](#)