

Soda Fountain Flavor Audit Kit

A Quick-Step Field Tool for Convenience Store Operators, QSR Managers, and Multi-Site Facility Teams to Verify Calibration, Diagnose Flavor Problems, and Track Performance Across Locations

How to Use This Kit

This tool has three parts. Part 1 is a quick-step audit checklist your team can run at any location to verify that the fountain system is calibrated and performing correctly - no specialized tools required beyond what most operators already have on hand. Part 2 is a flavor diagnostic reference that maps what customers are tasting to the most likely calibration cause and the first corrective action to take. Part 3 is a multi-location tracking log that makes calibration patterns visible across a portfolio so problem locations and problem dispensers are identifiable before customer complaints surface them.

Run the Part 1 audit at the start of each week during peak season and any time a flavor complaint is received. Use Part 2 immediately when a taste problem is identified to diagnose the likely cause before calling for service. Update Part 3 after every audit and every service visit so the tracking record stays current.

PART 1: QUICK-STEP FLAVOR AUDIT CHECKLIST

Run this audit at each fountain dispenser. No specialized calibration equipment required - this audit uses taste, visual observation, and basic operational checks to identify conditions that affect product quality. Flag any item that does not pass for immediate follow-up.

EQUIPMENT AND LOCATION INFORMATION

Field	Details
Location / Store Name	
Dispenser ID or Position	
Dispenser Make and Model	
Date of Audit	
Time of Audit	
Auditor Name	
Last Calibration Service Date	

STEP 1: VISUAL INSPECTION - Before Dispensing Any Product

Takes approximately 2 minutes. Identifies visible conditions that affect product quality before tasting.

- ☐ Nozzles inspected - no visible syrup residue, mineral buildup, or discoloration on nozzle exterior or interior diffuser
- ☐ Nozzle diffusers confirmed present and correctly seated on all active flavor positions
- ☐ Drip tray clean and free of standing syrup or liquid accumulation
- ☐ Ice bin confirmed adequately filled - low ice level affects water chilling and carbonation retention
- ☐ CO2 tank gauge checked - pressure within normal operating range, tank not approaching empty
- ☐ Syrup supply confirmed - all active flavor lines have adequate bag-in-box supply, no empty or near-empty boxes
- ☐ Bag-in-box connections inspected - no visible syrup leakage at connection points or along syrup lines
- ☐ No error codes or indicator lights active on dispenser display or control panel
- ☐ Water filter status confirmed - replacement interval not exceeded for current volume

Visual inspection result: ☐ Pass - proceed to Step 2 ☐ Issues found - describe and address before proceeding:

STEP 2: DISPENSE AND TASTE CHECK - Primary Quality Verification

Takes approximately 5 minutes. Taste each active flavor against the reference standard for that product. Use a fresh cup with ice for each flavor tested.

How to Conduct the Taste Check

Dispense a standard-size cup of each active flavor with ice. Allow the drink to settle for 15-20 seconds after dispensing before tasting - this allows carbonation to stabilize. Taste the product against your known reference for that flavor. The product should match the taste profile you associate with a correctly prepared version of that beverage - the right sweetness level, the right carbonation level, the right flavor intensity, and no off-flavors or aftertastes.

Taste Check Results by Flavor

Flavor	Sweetness	Carbonation	Flavor Intensity	Off-Flavor Present	Overall Result
	☐ Correct ☐ Too sweet ☐ Too weak	☐ Correct ☐ Flat ☐ Over-carbonated	☐ Correct ☐ Too strong ☐ Too weak	☐ No ☐ Yes - describe: _____	☐ Pass ☐ Fail
	☐ Correct ☐ Too sweet ☐ Too weak	☐ Correct ☐ Flat ☐ Over-carbonated	☐ Correct ☐ Too strong ☐ Too weak	☐ No ☐ Yes - describe: _____	☐ Pass ☐ Fail
	☐ Correct ☐ Too sweet ☐ Too weak	☐ Correct ☐ Flat ☐ Over-carbonated	☐ Correct ☐ Too strong ☐ Too weak	☐ No ☐ Yes - describe: _____	☐ Pass ☐ Fail
	☐ Correct ☐ Too sweet ☐ Too weak	☐ Correct ☐ Flat ☐ Over-carbonated	☐ Correct ☐ Too strong ☐ Too weak	☐ No ☐ Yes - describe: _____	☐ Pass ☐ Fail
	☐ Correct ☐ Too sweet ☐ Too weak	☐ Correct ☐ Flat ☐ Over-carbonated	☐ Correct ☐ Too strong ☐ Too weak	☐ No ☐ Yes - describe: _____	☐ Pass ☐ Fail
	☐ Correct ☐ Too sweet ☐ Too weak	☐ Correct ☐ Flat ☐ Over-carbonated	☐ Correct ☐ Too strong ☐ Too weak	☐ No ☐ Yes - describe: _____	☐ Pass ☐ Fail

If any flavor fails the taste check, proceed to Part 2 to identify the most likely cause before contacting your service vendor.

STEP 3: OPERATIONAL CONDITION CHECKS

Takes approximately 3 minutes. Verifies the operational conditions that most directly affect calibration stability.

Water System

- ☐ Dispensed water confirmed cold to the touch - warm dispensed water indicates a refrigeration or ice bridge issue affecting carbonation retention
- ☐ Water flow rate confirmed normal - water dispensing at expected speed with no unusual restriction or surging
- ☐ Water filter confirmed within replacement interval for current volume - a filter past capacity affects both flavor and equipment protection

Note for Southeast operators during summer months: If ambient store temperature has risen significantly, water temperature inside the dispenser may have risen with it even if refrigeration is functioning. Check dispensed water temperature against prior audits - warmer dispensed water reduces carbonation retention and may require a service call even without a visible refrigeration fault.

CO2 System

- ☐ CO2 tank gauge confirmed within normal operating range - not in red zone or approaching empty
- ☐ CO2 line connections confirmed secure - no audible hissing or signs of pressure loss at fittings
- ☐ Carbonation level confirmed consistent across multiple dispense cycles - carbonation should not vary significantly between the first and fifth cup dispensed in quick succession
- ☐ For high-volume summer periods: CO2 supply chain confirmed - adequate tank supply on hand or delivery scheduled before current tank reaches low threshold

Syrup System

- ☐ Syrup lines confirmed free of visible kinks, compression, or damage between bag-in-box and pump
- ☐ Syrup storage confirmed in a cool, consistent-temperature location - syrup stored in a warm environment affects viscosity and pump delivery consistency
- ☐ Bag-in-box connections confirmed fully seated - partial connection is a common cause of inconsistent syrup delivery
- ☐ Any syrup line that has been recently changed - confirmed purged before serving to customers to prevent off-flavor from line mixing or air in the line

Nozzle and Valve Condition

- ☐ Each nozzle confirmed dispensing product without dripping between uses - dripping between dispenses indicates valve seat wear or damage
- ☐ Dispense flow confirmed smooth with no sputtering, surging, or irregular flow pattern on any flavor
- ☐ No visible cracking or damage to valve housings on any position - cracked housings can cause leakage between dispenses

Operational condition check result: ☐ All pass ☐ Issues found - describe: _____

STEP 4: POST-AUDIT DECISION

Audit Result	Action Required
All steps pass	Document results in Part 3 tracking log. Schedule next audit per standard interval.
Visual issues found and corrected	Re-run Step 1 after correction. If pass, document and continue.
Taste check fails on one flavor	Use Part 2 diagnostic to identify likely cause. Attempt first corrective action. Re-taste. If still failing, contact service vendor same day.
Taste check fails on multiple flavors	Contact service vendor same day. Document all failing flavors and symptoms in Part 3.
Operational condition issues found	Address immediately where possible. Contact service vendor for issues requiring technical intervention. Document in Part 3.
Customer complaint received between audits	Run full audit immediately. Use Part 2 diagnostic. Contact service vendor if first corrective action does not resolve.

PART 2: FLAVOR DIAGNOSTIC REFERENCE

When a taste check fails, match what the product tastes like to the most likely cause and first corrective action. Use this before calling your service vendor - resolving the cause yourself when possible saves a service call. If the first corrective action does not resolve the problem, contact your service vendor and share the diagnostic findings.

What the Product Tastes Like	Most Likely Cause	First Corrective Action	Escalate to Vendor If:
Too sweet - syrupy, cloying, thick, intense flavor	Syrup ratio too high - pump delivering more concentrate than specified	Verify bag-in-box connection is fully seated and not double-pumping. Contact service vendor for ratio adjustment	Problem persists after connection check
Too weak - watery, thin, lacking flavor intensity	Syrup ratio too low - pump delivering less concentrate than specified	Check bag-in-box is not empty or near-empty. Verify syrup line is not kinked or compressed. Contact service vendor for ratio adjustment	Problem persists after supply and line check

POUR BRIEFS KNOWLEDGE BRIEF

Flat - no carbonation, no crispness, no effervescence	CO2 pressure too low, CO2 tank near empty, or warm water reducing carbonation retention	Check CO2 tank gauge. If pressure is low, replace tank. If pressure is normal, check dispensed water temperature	CO2 tank replaced and problem persists, or dispensed water is warmer than expected
Over-carbonated - excessive foam, harsh fizz, difficult to fill	CO2 pressure too high	Contact service vendor for CO2 pressure adjustment - do not attempt pressure adjustment without proper equipment	Immediately - do not serve product with excessive carbonation
Chemical, medicinal, or unusual off-flavor	Water filter at capacity, cleaning residue in lines or nozzles, or water quality issue	Replace water filter if past interval. Clean nozzles and diffusers with approved food-safe sanitizer. Run several cups to flush lines	Off-flavor persists after filter replacement and nozzle cleaning
Correct flavor but noticeably less cold than usual	Water temperature elevated - refrigeration issue or high ambient temperature affecting system	Check ice level in bin. Check ambient store temperature. If both are normal, contact service vendor to inspect refrigeration components	Dispensed water is warm to the touch and ice level is adequate
Flavor varies - sometimes correct, sometimes off	Inconsistent syrup delivery - bag-in-box connection issue, pump wear, or air in line	Check bag-in-box connection. Replace bag-in-box if near empty - partial bags can cause inconsistent pump delivery. Purge line after replacement	Inconsistency continues after bag-in-box replacement
Syrup taste without carbonation on one specific flavor	CO2 not mixing correctly on that flavor position - nozzle or diffuser issue	Remove and clean nozzle and diffuser on that position. Reinstall and retest	Problem persists after nozzle cleaning and reinstallation
All flavors taste correct but dispense foamy	CO2 pressure too high across all positions, or dispensed water too warm	Check CO2 pressure. Check dispensed water temperature	Immediately if CO2 pressure is in normal range - indicates another cause requiring diagnosis
One flavor correct, adjacent flavors off	Cross-contamination between flavor positions - nozzle or diffuser not properly cleaned	Remove and deep-clean nozzles and diffusers on affected positions. Soak in approved sanitizer, scrub, rinse, and reinstall	Cross-contamination persists after thorough cleaning

Important note for Southeast operators during summer months: If multiple flavors are simultaneously showing flat or less carbonated than expected and CO2 pressure is within normal range, the most likely cause is elevated water temperature from summer ambient heat load or high-volume draw-down. This is a refrigeration service issue, not a CO2 issue. Contact your service vendor and describe the water temperature observation - this narrows the diagnosis and reduces service call time.

PART 3: MULTI-LOCATION CALIBRATION TRACKING LOG

Complete one row per audit event per location. Review across all locations monthly during peak season to identify patterns - which locations or dispensers drift most frequently, what symptoms recur, and which service interventions produce the most durable results. Add more rows as needed.

Audit Event Log

Date	Location	Dispenser ID	Audit Type	Flavors Failing	Symptom Description	Cause Identified	Action Taken	Service Call Required	Resolution	Next Audit Due
			☐ Routine ☐ Complaint ☐ Post-service					☐ Yes ☐ No	☐ Resolved ☐ Ongoing	
			☐ Routine ☐ Complaint ☐ Post-service					☐ Yes ☐ No	☐ Resolved ☐ Ongoing	
			☐ Routine ☐ Complaint ☐ Post-service					☐ Yes ☐ No	☐ Resolved ☐ Ongoing	

Portfolio Pattern Summary

Review this summary monthly. Update after every five audit events or at the end of each month, whichever comes first. Add more rows as needed.

Location	Audits Completed This Month	Audits with Failing Flavors	Most Common Symptom	Most Common Cause	Service Calls Generated	Pattern Notes

Pattern Flags - Investigate Further When You See:

- ☐ Same location failing more than two consecutive audits on the same symptom - indicates an underlying calibration or equipment condition that service visits are not resolving
- ☐ Same dispenser position failing across multiple locations - may indicate a supply or product issue rather than individual equipment calibration
- ☐ Failure rate increasing across portfolio as summer progresses - likely seasonal calibration drift from rising ambient temperatures; consider increasing audit frequency and scheduling pre-peak season calibration service

POUR BRIEFS KNOWLEDGE BRIEF

- ☐ Failures concentrated at highest-volume locations - high draw-down rate may be exceeding system capacity for water chilling or CO2 delivery; raise with service vendor
- ☐ Flavor complaints from customers preceding audit failures - indicates drift is reaching customer-detectable levels before audits are catching it; increase audit frequency at flagged locations

Recommended Audit Frequency

Period	Recommended Audit Frequency
Peak summer season - May through September in Southeast	Weekly minimum at all locations; twice weekly at highest-volume locations
Shoulder seasons - March-April and October-November	Every two weeks
Off-peak season - December through February	Monthly
Any time a customer complaint is received	Immediately - run full audit before next service period
Within 48 hours of any service visit	Confirm service restored correct calibration before next peak traffic period
After any bag-in-box syrup change on a previously failing flavor	Same day - confirm new supply resolved the issue