SYSTEM SCALE
INDUSTRIAL • AGRICULTURE • LABORATORY

QUICK REFERENCE GUIDE

ANALYTICAL BALANCE TROUBLESHOOTING

Common symptoms, likely causes, and what to do about each. Check these before you call for service.

01 READINGS DRIFT OR WON'T SETTLE

Air movement	Close draft shield doors fully during weighing. Redirect airflow with an air diverter, or move the balance away from vents, hoods, and doors.
Vibration	Use a dedicated weighing table or anti-vibration table and keep other work off it. Try the balance's vibration or environment filter setting.
Temperature changes	Keep the balance out of direct sunlight and away from heat sources. Run the internal adjustment after a significant temperature change.
Static	Use an ionizer or antistatic device, switch to glass or metal containers, and keep room humidity from getting too low.
Warm or cold samples	Let samples reach room temperature first. Cool heated samples in a desiccator, and handle containers with tongs or tweezers.

02 THE BALANCE FAILS ITS CHECK WEIGHT

Out of level	Check the level indicator, relevel, and run the internal adjustment or adjust with an external weight.
Not warmed up	Allow the warm-up time listed in the manual before testing. Keep balances plugged in and on standby.
Wrong check weight	Match the weight's accuracy class (ASTM or OIML) to the balance's readability and your test tolerance. A loose class can fail a good balance.
Dirty or damaged weight	Handle with tweezers or gloves, store it in its case, and confirm it's in calibration. Recalibrate or replace a damaged weight.

03 RESULTS DON'T REPEAT

Off-center loading	Place samples in the center of the pan every time.
Open draft shield	Keep the doors closed until the reading settles, and open them only as wide as needed.
Handling	Use tweezers or gloves for anything that goes on the pan. Oils and moisture from fingers add mass.
Dirty pan or chamber	Clean up spills right away, and clean the pan and chamber regularly using the manufacturer's method.

DAILY CHECK, EVERY MORNING

1 Confirm it's level
2 Clean pan and chamber
3 Run internal adjustment
4 Test a check weight
5 Record the results

Still failing? Call for service if the balance fails its check weight after these steps, drifts after warm-up, or was dropped, moved, or exposed to a spill.

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