

9.2.2 My drill press reads pitches opposite — what setting do I change?

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9.2.2 [FAQ](#)

If every pitch value coming off a Spectre Cloud spec sheet feels like it is drilling in the opposite direction from what was specified — forward pitch drilling as reverse, reverse drilling as forward, or lateral pitch going the wrong way — the cause is almost always a single, correctable setting rather than a measurement or calculation error. This page identifies the setting, explains why the mismatch happens, and walks through the fix.

☐☐ Understanding Why This Happens

Pitch direction in Spectre Cloud is expressed relative to a reference convention — forward pitch means the bottom of the hole tilts toward the bowler's palm, reverse means it tilts away. However, drill presses are not all configured the same way. Depending on how your press is oriented, how

the ball sits in the jig, and how the pitch scale on your machine is marked, the direction a given pitch value physically produces at the press may be the mirror image of what Spectre Cloud's convention assumes.

This is not an error in the spec sheet values — it is a mismatch between Spectre Cloud's pitch direction convention and your press's physical axis orientation. The fix is a settings adjustment, not a re-measurement.

The Setting to Check: Pitch Direction

Spectre Cloud includes a **Pitch Direction** (or equivalent) setting in the Oval Calculator or general Settings section that controls the sign convention used for pitch values throughout the app. When this setting does not match your press, every pitch value on every spec sheet will produce the opposite physical result from what was intended.

1. Click or tap your **pro shop name** in the top-right corner.
2. Select **Settings** from the dropdown.
3. Navigate to the **Oval Calculator** or **Drill Press** section.
4. Locate the **Pitch Direction** setting — it controls whether Spectre Cloud's forward pitch convention aligns with your press's forward direction or is inverted relative to it.
5. Toggle or reverse the setting.
6. Save and re-run the Oval Calculator on the affected spec sheet to confirm the output now reflects the correct direction.

△ **Verify with Spectre team:** Confirm the exact name of the pitch direction setting in the current UI — the label may differ from "Pitch Direction" as used in this page. Also confirm whether this setting is in the Oval Calculator section, a general Settings section, or a dedicated Drill Press configuration area, and update the navigation steps above accordingly.

Confirming the Fix Before Drilling

After changing the pitch direction setting, confirm the correction is working before applying it to a customer's ball. A two-step verification — first on screen, then physically — eliminates any residual uncertainty:

On-screen check

1. Open a spec sheet with known pitch values — ideally one where you know exactly what the finished holes should produce at the press.
2. Re-run the Oval Calculator.
3. Review the output and confirm the pitch direction labels now match your press convention — forward is forward, reverse is reverse.

Physical check at the press

1. Drill a single test hole — finger or thumb — on a scrap ball or plug using the updated spec sheet values.
2. Check the physical pitch direction of the finished hole with a pitch gauge or by feel.
3. Confirm it matches the spec sheet value and the intended fit direction.
4. If the test hole confirms the correction, proceed to customer equipment. If the test hole is still reversed, re-check the setting — do not proceed to a customer ball until the physical check passes.

Note: Never skip the physical check after a pitch direction setting change. The on-screen confirmation tells you the labels have changed; the physical check confirms the labels now correspond to reality at your specific press.

Related Mismatch: Only Lateral Pitch Is Reversed

If only the **lateral pitch** is reversed — forward and back pitch is correct, but left pitch is drilling as right and vice versa — the issue is specific to the lateral axis rather than a global pitch direction inversion. Check whether there is a separate lateral pitch direction setting, or whether the press jig orientation affects lateral pitch independently of the forward/back axis.

- Some drill presses allow the ball to be loaded in the jig facing two different orientations for right-handed and left-handed bowlers — an orientation that is correct for a right-handed bowler will have a reversed lateral axis for a left-handed bowler if the jig is not adjusted.
- Confirm that the lateral pitch direction in Spectre Cloud matches how the bowler is oriented in the jig — not just how the press is set up in isolation.
- If lateral pitch inversion only affects one handedness and not the other, the issue is almost always the jig orientation rather than a Spectre Cloud setting.

⚠ Related Mismatch: Only One Hole Type Is Reversed

If pitch is correct for the finger holes but reversed for the thumb — or correct for the thumb and reversed for the fingers — the issue is unlikely to be a global pitch direction setting. More likely causes:

- **Thumb pitch entered with wrong sign** on this specific spec sheet — check the thumb pitch fields directly and compare against the bowler's previous spec sheets.
- **Inconsistent pitch convention between hole types** — some older fitting systems used different sign conventions for thumb and finger pitch. If the spec sheet was populated from a legacy record, verify the values were converted correctly.
- **Physical press setup for thumb vs. finger holes** — some presses require a different setup for the thumb hole than for finger holes, and the orientation change can effectively invert the lateral axis. Confirm the physical setup is consistent with the spec sheet convention for each hole type.

Updating Existing Spec Sheets After the Fix

After correcting the pitch direction setting, spec sheets created before the fix were calculated under the old — incorrect — convention. These sheets need to be reviewed and the Oval Calculator re-run to generate correct output under the new setting.

- **Spec sheets not yet drilled** — re-run the Oval Calculator on each sheet before proceeding to the press. The pitch values themselves do not need to change; only the oval output needs to be refreshed under the corrected setting.
- **Spec sheets already drilled under the wrong setting** — these are historical records of what was drilled, not a plan for future drilling. Do not alter them. If those balls need to be re-drilled, create new spec sheets under the corrected setting.
- **Cloned spec sheets** — a clone created from a spec sheet drilled under the wrong setting carries the oval values from the old calculation. Re-run the Oval Calculator on any clone used for a new drilling after the setting correction.

☐ Multi-Staff Shops — Ensuring Consistency

In a shop where multiple staff members use Spectre Cloud on different devices, a pitch direction setting change made on one device needs to be replicated on all devices used at the drill press. Settings in Spectre Cloud are account-level and sync across devices — but confirm this is the case for the pitch direction setting specifically, and verify on each device that the change has taken effect before the next drilling session.

- ☐ After changing the pitch direction setting, log into Spectre Cloud on each press device and confirm the setting shows the updated value.
- ☐ If the setting is user-level rather than account-level, each driller needs to update their own preference — confirm with the Spectre team which applies.
- ☐ Brief all staff on the change before the next session — a driller who is unaware the setting changed may assume a newly reversed output is a system error and switch it back.

☐ Pitch Direction Troubleshooting — Quick Reference

Symptom	Most likely cause	Fix
All pitch values drill opposite direction	Pitch Direction setting inverted	Toggle Pitch Direction in Settings; re-run Oval Calculator; verify with test hole
Only lateral pitch is reversed	Jig orientation for handedness; or separate lateral axis setting	Check jig orientation for right vs. left-handed bowler; check for separate lateral pitch setting
Only thumb pitch is reversed	Thumb pitch entered with wrong sign; or legacy convention mismatch	Check thumb pitch sign on spec sheet; compare against bowler's previous records
Pitch correct after setting fix but oval orientation wrong	Flip V/H also needs adjustment	Check Flip V/H setting alongside Pitch Direction — both may need correction simultaneously
Setting corrected on one device but not others	Setting is user-level not account-level; or sync not yet complete	Update setting on each device individually; confirm with Spectre team whether setting is account or user level

☐ **Note:** Pitch Direction and Flip V/H are related but independent settings — one controls pitch convention, the other controls oval axis labelling. A press with both a reversed pitch axis and a transposed V/H axis needs both settings corrected independently. Fixing one without the other will resolve part of the problem but leave the other half in place. If you are experiencing both pitch and V/H issues simultaneously, work through both fixes and run a single test hole that verifies both are correct before returning to customer equipment.

Related Sections

- 5.7.1 — Using Flip V/H on oval cuts to match your machine's axis
- 5.7.2 — Worked example: how flipping V/H changes the output numbers
- 9.1.1 — Recommended Settings configuration for a new pro shop
- 9.2.1 — Why is my oval cut showing unexpected values
- 6.1.8 — Common mistakes on the first ball and how to avoid them

☐ **Tip:** When setting up Spectre Cloud on any new device or after any press equipment change, the fastest way to confirm pitch direction is correct is a deliberate test before the first live session — drill a single finger hole on a scrap ball with a known forward pitch, measure the result with a pitch gauge, and confirm the direction. Thirty seconds at setup eliminates an entire category of drilling errors before they affect a single customer's ball.

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