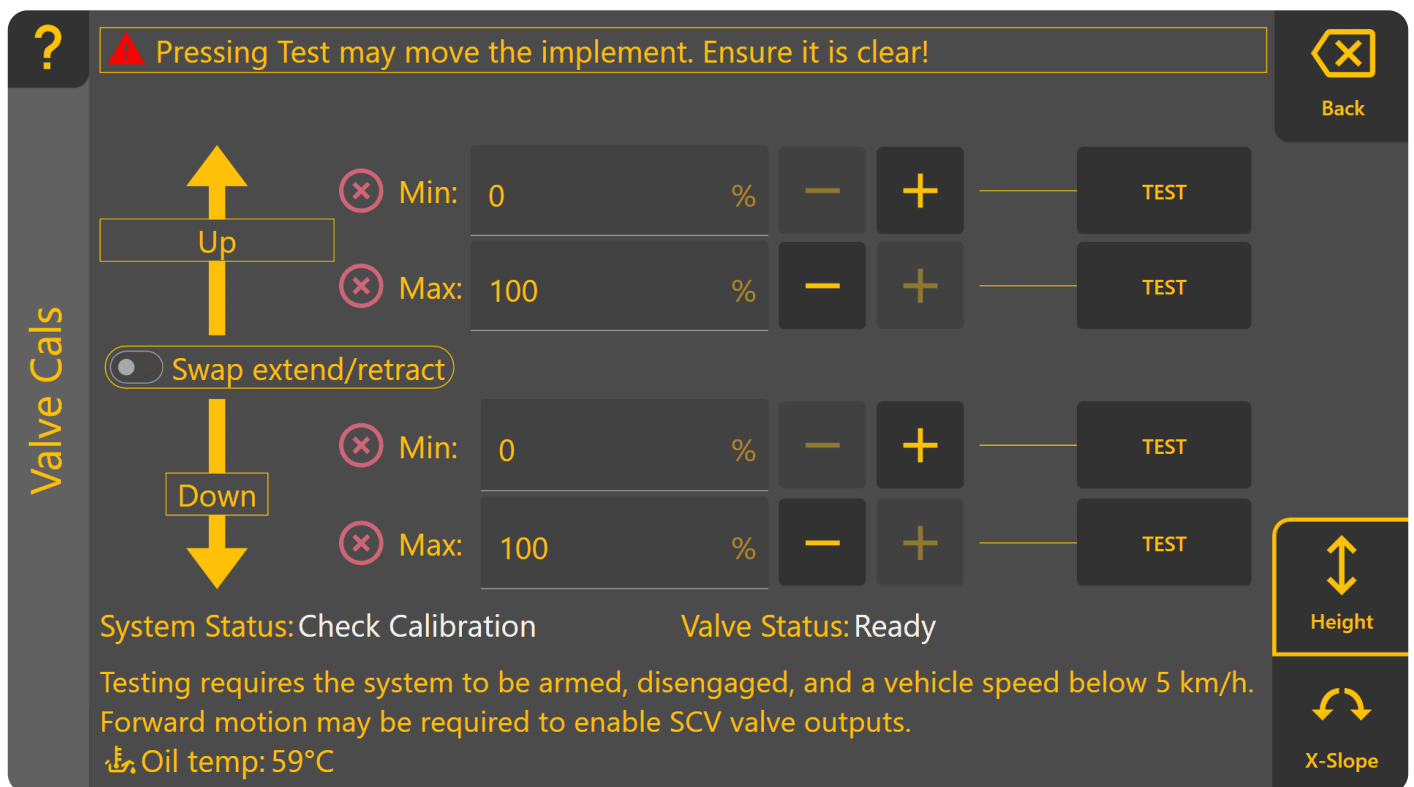


# 3.6 | Valve Threshold Calibration

Valve Threshold Calibration establishes the minimum and maximum hydraulic outputs used by Automatic Control. Correct calibration ensures the implement can move smoothly for small corrections while still achieving full operating speed when required.

Access the **COMMAND** valve calibration page by going to: **More > COMMAND Settings > Valve Cals.**

- **Minimum Threshold (Min %)** determines the lowest output that reliably opens the hydraulic valve.
- **Maximum Threshold (Max %)** limits the highest output available to Automatic Control.



**Valve Cals**

**Warning:** Pressing Test may move the implement. Ensure it is clear!

| Direction | Parameter | Value | Unit | Adjust  | Action |
|-----------|-----------|-------|------|---------|--------|
| Up        | Min       | 0     | %    | [-] [+] | TEST   |
|           | Max       | 100   | %    | [-] [+] | TEST   |
| Down      | Min       | 0     | %    | [-] [+] | TEST   |
|           | Max       | 100   | %    | [-] [+] | TEST   |

Swap extend/retract

System Status: Check Calibration      Valve Status: Ready

Testing requires the system to be armed, disengaged, and a vehicle speed below 5 km/h. Forward motion may be required to enable SCV valve outputs.

Oil temp: 59°C

Navigation: Back, Height, X-Slope

## Calibration Procedure

The **COMMAND** ECU will not request movement of the implement unless the user has pressed one of the test buttons and is holding the engage button.

1. Select the function and direction to calibrate.
2. Press **TEST** and hold the machine **ENGAGE** button when instructed.
3. Increase **Min. %** until the implement begins moving consistently at a very slow speed, e.g. about 1 centimetre per second.
4. Adjust **Max. %** as required:
  - For proportional solenoids, limit output to approximately **1800 mA**.
  - Reduce further if lower maximum implement speed is desired.
5. Repeat for all active directions and functions.

## Calibration Test Buttons

The "+", "-" and "TEST" buttons are used during the calibration process to incrementally increase or reduce a given threshold, which can then be tested using the process described in the next section.

## Calibration Progress Icons



This icon indicates that a value has not been calibrated yet. All minimum and maximum values for all active functions must be calibrated before performing automatic control.



This icon indicates that a value has been calibrated. Once all min and max values display this icon, the function has been successfully calibrated.

Ticks next to Min or Max values mean that the test button was pressed, but **do not indicate a correctly calibrated function**.


## Example for Completed Height Function

?

⚠ Pressing Test may move the implement. Ensure it is clear!

⌫ Back

Valve Cals



Up

Min: 11 %

Max: 80 %


-

+

|

TEST

Swap extend/retract



Down

Min: 7 %

Max: 80 %

-

+


|


TEST

System Status: Ready to engage      Valve Status: Ready

Testing requires the system to be armed, disengaged, and a vehicle speed below 5 km/h. Forward motion may be required to enable SCV valve outputs.

🛢 Oil temp: 59°C

  
 Height

  
 X-Slope


### Example for Completed X-Slope Function

?

⚠ Pressing Test may move the implement. Ensure it is clear!

⌫ Back

Valve Cals



Left

Min: 14 %

Max: 100 %


-

+

|

TEST

Swap extend/retract



Right

Min: 12 %

Max: 100 %

-

+


|


TEST

System Status: Ready to engage      Valve Status: Ready

Testing requires the system to be armed, disengaged, and a vehicle speed below 5 km/h. Forward motion may be required to enable SCV valve outputs.

🛢 Oil temp: 59°C

  
 Height

  
 X-Slope

# Verification

Verify that:

- Implement movement begins smoothly when Min % is tested.
- No excessive delay or valve chatter occurs.
- Full-speed movement is available when Max % is tested without hydraulic instability.
- All calibration indicators show as complete before commissioning proceeds.

Continue on to **3.7 | Cylinder Ratio Calibration**.

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