

4.5 | Engaging Automatic Control

Before Engaging Automatic Control

Before engaging Automatic Control, verify that:

- ✓ A project is loaded.
- ✓ GNSS receivers have achieved RTK fix.
- ✓ A valid zero has been established.
- ✓ **COMMAND Status** displays **Ready to Engage**.

Ready to Engage indicates that all **Level COMMAND** and **COMMAND** ECU requirements have been satisfied and Automatic Control is available for engagement.

If **COMMAND Status** displays any other message, refer to **4.2 | Understanding COMMAND Status** or the **Troubleshooting** chapter before continuing.

Arming the System



COMMAND installations use a three-position Arm/Engage switch:

Off → **Armed** → **Engage** (momentary)

The switch must be placed in the **Armed** position before Automatic Control can be engaged.

If **COMMAND** Status displays **System Not Armed**, verify that:

- The Arm/Engage switch is in the Armed position.
- The machine has not been restarted since arming the system.
- The switch has not been accidentally moved to Off.

If necessary, cycle the switch to **Off** and then back to **Armed**.

Engaging Automatic Control

ENGAGED
(AUTO & MANUAL CONTROL)



Once **COMMAND** Status displays **Ready to Engage**, momentarily press the **Engage** position of the Arm/Engage switch.

COMMAND Status will change to one of the following states:

Engaged - Active

Automatic Control is engaged and **COMMAND** may actively move the implement to follow the design surface.

Engaged - Low Speed

Automatic Control is engaged, but implement movement is currently disabled because machine speed is below **0.2 km/h**.

Once machine speed increases above **0.2 km/h**, **COMMAND** will automatically begin controlling the implement if cut/fill error is present.

Hydraulic Valve Activation

The Engage switch enables Automatic Control within the **COMMAND** ECU. Depending on the hydraulic system being used, additional tractor or machine controls may also need to be placed into automatic mode.

Common examples include:

- Placing a tractor SCV / Auxiliary valve into detent mode.
- Pushing an electronic SCV / Auxiliary valve lever past its normal travel to activate automatic operation.
- Enabling machine-specific hydraulic automation functions.

If Automatic Control appears to engage correctly but no hydraulic movement occurs, verify that the hydraulic valve system has also been placed into automatic mode.

Disengaging Automatic Control

To disengage Automatic Control, momentarily press the **Engage** switch again.

COMMAND Status will return to **Ready to Engage**.

Automatic Control can then be re-engaged at any time by pressing the **Engage** switch again.

Automatic Disengagement

Automatic Control may automatically disengage if critical operating conditions are no longer satisfied.

Common causes include:

- Loss of RTK positioning.
- GNSS or sensor communication issues.
- Hydraulic valve faults.
- Loss of communication between **Level COMMAND** and the **COMMAND** ECU.
- Machine-specific safety conditions.

If Automatic Control disengages unexpectedly, check **COMMAND** Status for additional information.

The last disengagement reason can also be viewed from the Apply View by pressing **More** → **COMMAND Settings** → **Diagnostics**.

Calibration Mode

When performing valve calibration, **COMMAND Status** may display **Engaged - Calibrating**.

In this mode, hydraulic movement will only occur while the operator is actively holding the **Engage** switch during a calibration test.

Releasing the **Engage** switch immediately stops movement. This behaviour provides an additional level of safety while calibrating hydraulic functions.

What to Expect During First Engagement

When Automatic Control is engaged for the first time:

- The implement may not move immediately if it is already close to the design surface.
- Small corrections may occur as **COMMAND** begins reducing cut/fill error.
- Implement movement should become smoother as machine speed increases and consistent GNSS data is maintained.
- Larger cut/fill errors will generally result in larger hydraulic commands.

Observe machine behaviour during the first pass and verify that implement movement matches the expected design direction.

If the implement consistently moves in the wrong direction, disengage Automatic Control immediately. The hydraulic valve extend/retract direction may need to be corrected using **Swap Extend/Retract** from **More** → **COMMAND Settings** → **Valve Cals**. Refer to the commissioning or troubleshooting sections if unsure.

Ready to Continue

Once Automatic Control can be engaged successfully and the implement responds correctly, continue to **4.6 | Performing Your First Pass**.

