

## 2.4 | Hydraulic & Vehicle Interfaces

The **COMMAND** hardware platform supports multiple hydraulic and vehicle interface methods depending on machine configuration, installed **COMMAND** hardware, and enabled automatic control functions.

These interfaces allow **COMMAND** to control implement movement and monitor machine information during automatic control.

### Hydraulic Control Interfaces

Depending on machine configuration, **COMMAND** may support:

- single-channel height control,
- dual-channel height and Cross-Slope control,
- and implement-specific hydraulic functions.

Supported hydraulic interface methods may include:

- Selectable Control Valves (SCVs) / auxiliary control valves,
- proportional solenoid valves,
- and ratiometric load sensing proportional valves.

Hydraulic outputs are used by **COMMAND** to change implement position during automatic control based on elevation and Cross-Slope targets provided by **Level COMMAND**.

### Vehicle Data Interfaces

**COMMAND** may receive vehicle and machine information using compatible communication interfaces.

Supported interface methods may include:

- J1939 vehicle communication,
- CANBUS communication,
- and supported OEM machine data interfaces.

Available machine data may include:

- vehicle speed,
- hydraulic state information,
- and supported machine sensor information.

Available interface methods may vary depending on installed **COMMAND** hardware and machine compatibility.

## Manual Hydraulic Operation

Manual hydraulic operation remains available whether automatic control is Engaged or Disengaged.

Depending on machine configuration, manual implement control may be performed using:

- tractor SCVs,
- joysticks,
- external hydraulic controls,
- or OEM machine hydraulic controls.

The Armed state enables the **COMMAND** ECU while preventing automatic hydraulic actuation until automatic control is Engaged.

Disarming the **COMMAND** ECU will disengage automatic control and disable joystick inputs connected directly through **COMMAND**. Tractor-level SCV lever and joystick operation remain unaffected.

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