Technical Information

Stoll Frontlader

ProControl testing voltage on 7-pole cable

Scope: Stoll front loader ProControl

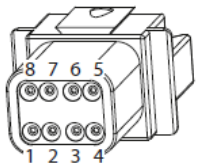
Symptom: 4.5 volts on the cable to the socket

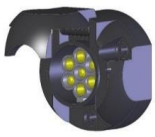
Possible cause: Testing voltage of the system monitoring

The ProControl system complies with the currently valid Machinery Directive. This requires an automatic supervision function of the system to prevent malfunctions when operating the control unit and if the electrical system is defective. The ProControl is a digitally controlled system.

It is not permitted to test the system with a test lamp. These measurements can destroy the system! Only suitable multimeters, oscilloscopes or CAN bus adapters are permitted.

To ensure this requirement is met, some lines have permanent test voltages on the joystick that are in the range of 4.5–5 volts.
This test voltage is applied to pin 1 (4th control circuit), pin 2 (3rd control circuit), pin 3 (rapid emptying) and pin 4 (return-to-level).
12V can be measured on the pins mentioned above, if an FZ or CL lifting arm (or suitable consumer) with intact circuit is mounted and the function is carried out with the appropriate deflection on the joystick.





Pin 5 (Comfort Drive) and pin 6 (Hydro-Lock) are switched via relays in the wiring harness (optional).
If the corresponding relays X5-F, X6-F and X7-F are plugged in, 0 or 12V can be measured here.

If the Comfort Drive is programmed to “opened power-off”, 0V can be measured when the joystick is activated and the Comfort Drive is switched on, and 12V when the Comfort Drive is switched off.
If the programming is set to “closed power-off”, 12V can be measured when the Comfort Drive is switched on and 0V when the Comfort Drive is switched off.

Pin 6 is at 12V when the Hydro-Lock is activated and the joystick is deflected in the direction “scoop”.
When the Hydro-Lock is deactivated, it is at 0V.

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