

Troubleshooting - Guide for Grade and Slope controls

Grade Control

SYMPTOM	PROBABLE CAUSE	CORRECTIVE ACTION
1. Indicator lights do not operate	Defective fuse	Replace fuse
Control unit will not drive valve	Defective control cable	Replace control cable
	Defective control module	Replace control module
2. Indicator lights operate, control unit will not drive valve	Control cable may be damaged or disable	Replace cable
	Moisture in cable connectors	Dry out with heat or air
	Defective control module	Replace module
	Defective valve or solenoid	Manually actuate valve
3. Indicator lights do not operate	Indicator lamps burned out	Replace lamps
Control unit will drive hydraulics	Defective control module	Replace control module
4. Both indicator lights operate, valves operates one way only	Defective hydraulic valve	Check hydraulics by operating valve manually, if o.k. Then check out resistance of valve coil or solenoid
	Defective control module	Replace control module
5. Valve operates one way only	Defective control module	Replace control module
One indicator light working and is the appropriate light for direction of travel	Defective sensor	Replace sensor
6. Valve operates, but only one indicator light functions	Defective indicator lamp	Replace lamp
7. Valve operates properly but both indicator lights remain on	Defective control module	Replace control module
8. Only one indicator light on when valves are at null (ram not moving)	Hydraulic valve drifting	Readjust valve null.
	Control module defective	Replace control module

Slope control

SYMPTOM	PROBABLE CAUSE	CORRECTIVE
1. Indicator lights do not operate, control unit will not drive valve	Defective fuse.	Replace machine fuse
	Defective control cable	Replace control cable
	Defective control module	Replace control module
2. Indicator lights operate, control unit will not drive valve	Control cable may be daaged or disable	Replace cable
	Moisture in cable connectors	Dry out with heat or air
	Defective control module	Replace control module
	Defective valve or solenoid	Manually actuate valve
3. Indicator lights do not operate Control unit will drive hydraulics.	Indicator lamps burned out	Replace lamps
	Defective control module	Replace control module
4. Both indicator lights operate, valves operate one way only	Defective hydraulic valve	Check hydraulics by operating valve manually, if o.k then check out resistance of valve coil or solenoid, (about 8 Ohm at 12 volts - approximately, 18 Ohm at 24 volts, and about 30 Ohm for servo valves.) Also check the machine wiring. Repair and replace as required
	Defective control module	Replace control module
5. Valve opreates one way only. One indicator light working and is the appropriate light for direction of travel	Defective control module.	Replace control module.
	Defective sensor	Replace sensor
6. Valve operates, but only one indicator lights functions	Defective indicator lamp	Replace lamp
7. Valve operates properly, but both indicator lights remain on	Defective control module	Replace control module
8. Zero or null of control has shifted with respect to screed position	Slope control module. Defective control module. Defective sensor. Moisture build - up inside cotrol housing on electrical connections	Tighten bolts. Replace control module. Replace sensor. Remove control module (panel) and dry out with heat or air
9. Only one indicator light on when valves are at null	Hydraulic valve drifting. Control module defective	Readjust valve null. Replace control module