

VALTRA FAULT CODES



Fault code Pins Fault identification Fault function level Tests Repairs, settings

P101 A1A2/12 Proportional valve P1 of DPS takes current which exceeds or goes below the given limits. Short circuit or wire damage (C1). 3

P103 A1A2/10 Proportional valve P2 of DPS takes current which exceeds or goes below the given limits. Short circuit or wire damage (C2). 3 See table See instr.

P105 A1A2/8 Proportional valve P3 of DPS takes current which exceeds or goes below the given limits. Short circuit or wire damage (C3). 3 See table d) on page 370/13 See instr. C on page 370/21.

P107 A1A2/6 Forward drive proportional valve P4 takes current which exceeds or goes below the given limits. Short circuit or wire damage (F). 3 g

P109 A1A2/4 Reverse drive proportional valve P5 takes current which exceeds or goes below the given limits. Short circuit or wire damage (R). 3

A311 A1A3/2 Gearbox oil temperature value (sensor B14) impossible (over +150°C). Faulty sensor or its wiring 3 See table b) on page 370/11 See instr. E on page 370/23

A312 A1A3/2 Gearbox oil temperature value (sensor B14) impossible (below -50°C). Faulty sensor or its wiring 3 See table b) on page 370/11 See instr. E on page 370/23.

A313 A1A3/4 Signal from gas pedal position sensor B15 below 1 V (DC) or over 7 V (DC). Sensor wrongly fitted or sensor/wires damaged. If fault code A313 is visible together with fault code A314, there can be a

short circuit or earth leak in sensors B15 or B16 (same supply voltage). 3 See table b) on page 370/11 See

instr. G on page 370/24.

A314 A1A3/7 Signal from clutch pedal position sensor B16 below 1 V (DC) or over 7 V (DC). Sensor wrongly fitted or sensor/wires damaged. 3 See table b) on page 370/11 See instr. F on page 370/23.

A315 A1A3/7 A1A4/4 When the clutch pedal is down (digital input d06 is active), the signal from the clutch

pedal position sensor B16 is 0,5 V (DC) greater or smaller than it was in the calibrating point (voltage value

must be beyond allowable limit over one second). Check the adjustment of the pedal limit switch S9 with the

aid of the test mode, adjust if necessary. Measure and calibrate the position sensor B16. If the fault code appears in connection with the engine start, ensure the correct starting: depress first the clutch pedal and after

that start the engine. Check the battery condition and charge (Voltage can be fall too low). 3 See table b) on

page 370/11 See instr. F on page 370/23.

d116 A1A3/9, 10 DPS up ---down push buttons (S23) are active simultaneously. Push buttons in the lever knobs may be in short circuit. 1 S t bl S i t

d117 A1A4/7, 8 Forward (S40) and reverse drive direction (S41) are active simultaneously. Shuttle lever

switches may be in short circuit. 4 See table a) on page 370/10 See instr. B on page 370/20. d118 A1A4/10,

11 Both PTO speeds are engaged simultaneously. PTO lever switches (S28/S29) may be in short circuit. 2 ge 370/10 370/20.

d123 A1A4/14, 7, 8 Hand brake and one or both shuttle directions engaged simultaneously. Shuttle lever switches may be in short circuit. 4 See table a) on page 370/10. See instr. B on page 370/20.

d225 A1A3/7 A1A4/4 Clutch pedal position is below 2 % (0...1 %) and d06 is not active (d06=clutch pedal limit switch). Check the adjustment of the clutch pedal limit switch S9. Check the function of the parking brake pilot light H11 (program versions 42--). 3 See table b) on page 370/11 See instr. F on page 370/23.

F320 A1A1/5, 7 Shuttle speed sensors (B12/B13) give different frequency. Difference over 30 %. One of the sensor possible faulty. 3 See table) See instr D

F321 A1A1/13 Engine rpm lower than what the shuttle sensors (B12/B13) indicate, when one solenoid is fully active. Engine rpm sensor B11 may be faulty. 3 c) on page 370/12. on page 370/22.

F324 A1A1/5, 7 Driving speed over 10 km/h and direction information in the control unit is changing. Shuttle sensors B12 or B13 may be faulti or wire problems. 3 See table c) on page 370/12. See instr D on page 370/22

L419 A1A1/3 Full pressure has been connected to the PTO clutch over 3 seconds, but the PTO shaft rotation speed is lower than it should be. PTO--clutch may slip. It is possible that the PTO rpm sensor B7 is faulty. Check in the test mode PTO lever switches S28 and S29 (check in the test mode that not connected the wrong way round). Check that there is a correct parameter file in the control unit. Ensure that the PTO speed parameters P and L are correctly set (in program version 42--). 2 See table c) on page 370/12 See instr D on page 370/22 and pages 370/19 and 370/24B.

L422 A1A1/13, 8, 6 One shuttle direction is engaged and full control has been active over 3 seconds. Shuttle rotation speed is lower than engine speed in relation to the DPS ratio. One multi--disc clutch in the DPS or in the Shuttle can slip or one proportional valve (Y4,Y6,Y17,Y11,Y12) can be trapped. This fault code also appears, if both shuttle sensors (B12,B13) do not give a signal, when engine revs are over 1600 rpm (1700 rpm in versions 50, 52. 60, 62). Check fuse F22

If the display unit shows a fault code:
Measures:

1. Decode the fault code according to instr. 370/5 ---6 (self ---diagnosis)
2. Check the function of the component in the test modet (instr. 370/8).
3. Repair the fault.
4. If the control unit A1A or programs have been changed, make necessary settings according to instr. 370/24A.
5. Carry out all points in the test mode (instr. 370/8). This ensures, that the tractor is OK before delivery. From ser. no. K41107 --- incl: Check in the fault code memory F1.
6. Test --- run the tractor according to instr. 370/24E.

--- If the display does not show the fault code:
In the table below, there are faults which have not the fault codes:
Component: Possible reason: Measures:

1. AC 5 display unit does not function (on the LH side pillar)
 - control unit A1 supply voltage or earth has malfunctions or the display supply.
 - display unit P6 faulty
 - control unit connector A1A1 loose
 - check fuse F24
 - voltage measures from control unit A1 connectors A1A1/1 - A1A1/2 (=battery voltage)
 - new display unit, if the system does not function
 - check connections
2. In the dashboard there is lit "P", although the driving direction has been selected
 - shuttle lever switch S15 (P) faulty or wrongly fitted.
 - testing in the test mode, point d16 / d22

- 1)
- check the fitting of switch S15 (page 370 ---20)
- 3. Black arrow is blinking, although the driving direction has been selected
- driver has left the seat over 4 (6) seconds. AC 5.2: over 30 sec., when the clutch pedal is depressed.
- detector switch S60 (in the seat) does not function or wire damage
- on the seat, shuttle lever to position P, shuttle lever to the driving position
- testing in the test mode, point d05, 2)
- 4. Black arrow does not change, when using the shuttle lever
- shuttle lever switch S40 (F) or S41 (R) faulty or loosed in the frame.
- testing in the test mode, points d09, d10 / d18, d19
- 5. Shuttle, DPS or PTO have malfunctions (e.g. function is slow) --- fault, that the control unit A1 has not identified
- pressure in the low pressure circuit too low
- clutch pre ---filling or initial pressure indexes are wrongly set
- carry out all procedures in the test mode (instr. 370/8)
- low hydraulics pressure measuring, see instr no. 911 ---1
- check indexes / in the setting mode, (instr. 370/24D, AC5.2: instr. 371/11.)
- 6. Engine does not start (starter motor does not rotate) Tractors J38343 ---.
- no supply to control unit A1.
- Parking brake switch S15 or input signal A1A4/14 (AC 5) or A1A8/8 (AC 5.2) faulty
- Control unit output signal A1A2/3 (AC 5) (to relay K28) or A1A3/5 (AC 5.2) faulty.
- check fuse F24
- testing in test mode, point d16/d22 (if necessary, change switch or control unit)
- Check whether the voltage from control unit A1 is in relay K28 (when necessary, change the control unit).

F7 Direction information (rpm) *)
 F6 PTO speed (rpm) *)
 F5 Shuttle output speed (rpm) *)
 F4 Shuttle output speed (rpm) *)
 F3 Reserve
 F2 Driving speed *)
 F1 Engine speed *)
 A4 Clutch pedal position %
 A3 Gas pedal position *) %
 A2 Gearbox temperature
 A1 Outdoor temperature
 d16 Parking brake
 d15 PTO standby button
 d14 Seat direction (only TwinTrac)
 d13 PTO ---speed 2 (lever in rear position)
 d12 PTO ---speed 1 (lever in front position)
 d11 DPS pre ---programming button (under shuttle lever)
 d10 Direction R (rearwards)
 d09 Direction F (forwards)
 d08 DPS auto/man
 d07 DPS auto1/auto 2
 d06 Clutch pedal limit switch
 d05 Driver detection (in seat) 1)
 d04 PTO start
 d03 HiShift buttons
 d02 DPS push button, down
 d01 DPS push button, up e.g. 5142 START LEVEL
 Program version nummer
 P1 DPS solenoid 1 (clutch C1) *)
 P2 DPS solenoid 2 (clutch C2) *)
 P3 DPS solenoid 3 (clutch C3) *)
 P4 F clutch solenoid (forwards) *)
 P5 R clutch solenoid (rearwards) *)

b Counter functions