

4.6. ALARMS CODES

ALARM CODE	FLASH CODE	DESCRIPTION	POSSIBLE CAUSES	DIAGNOSTIC
0 to the MDI + Red LED	8	BATTERY LOW	Batteries below 5% of charge	Put in charge the batteries
			Bad adjustment of adjust battery parameter	Adjust the voltage with the value of batteries by the parameter adjust battery
			Change ZAPI variator	check specific gravity + voltage batteries if Ok replace ZAPI variator
AL 01	3	EVP NOT OK	See option: Parameter "AUX FUNCTION 2"	ABSENT (pin 3 is for ON/OFF valve) default PRESENT (pin 3 is for proportional valve)
			Voltage on YV7 + YV9	Check continuity wires between YV7, YV9 and ZAPI variator
			Wire n°3 (Input B+, verify if wires 100 & 3 are not mixed)	Visually verify if the wire 3 coming from SB1 is on the terminal B+
			SB1 (battery cut off) in short circuit	Check continuity of SB1 coil
			If AL 01 + all LED on the MDI are switch ON change ZAPI Variator	Replace ZAPI variator
			Wire n°3 on P instead to B+	Change wire
AL 06	6	SERIAL ERROR #1	MDI	Change MDI or check continuity on wires 45,46,49 between MDI and ZAPI variator
			Loom between MDI and ZAPI Variator	1a) Connect console instead MDI, if "NO COMMUNICATION" see step 2.
			ZAPI variator	change DC motor controller (variator)
			Loom between upper control box and variator	1b) if no alarm in the console, check serial line wire 43 between upper control box and variator
			ZAPI variator or serial card	if same problem, check serial card or variator
AL 10	2	WEIGHING CARD KO	Too quickly selection between high and low box with key selector	Switch OFF the machine, wait for a few seconds then switch ON the machine
			If machine without overload system :on spécial adjust parameter the value of parameters "version" and "ok for version" are in mode #1	Change the 2 parameters and insert #2
			Change weighing card	Replace BPE weighing card
AL 13	6	EEPROM KO	Problem on EEPROM (variator KO)	<ol style="list-style-type: none"> 1. Do a clear eeprom and recycle the key 2. If the fault disappears, the previously stored parameters will be replaced by the default parameters 3. If the fault continues when the Key switch is turned OFF and ON again, replace ZAPI variator

AL 32	3	VMN NOT OK	Short circuit on unit motor pump	Vérify continuity on electric motor
			Incorrect motor connection	Check motor connection Wires 3 and 4
			Frame fault of motor to chassis.	Check isolation between motor and chassis.
			Defect in the power unit	Check wire 4 (VMNP) with multimeter (between VMNP an B- Batteries), At STARTUP it must have around 24V. If no replace the variator.
AL 37	4	CONTACTOR CLOSED	Battery cut off switch stuck	Check power contact on SB1 Check SB1 coil Check SB1 wirings (wire 16 or wire 42)
			ZAPI variator	Replace ZAPI variator
AL 38	4	CONTACTOR OPEN	Battery cut off switch open	Check power contact SB1a (wire16 or wire42)
			The safety microprocessor can open the Main Contactor if it is broken or if there is dangerous situation detected by the safety microprocessor	1. Replace the main contactor and check the contactor wiring 2. Replace variator
AL 49	5	I = 0 EVER	Electric motor	Vérify continuity on M1 electric motor
			M1 motor power cables	Check continuity and states of M1 motor power cables
			Defective current sensor,	Replace variator
			Feed back circuit failure or logic failure or power unit failure	Replace variator
AL 53	5	STBY I HIGH	Electric motor	Vérify continuity on M1 electric motor
			M1 motor power cables	Check continuity and states of M1 motor power cables
			Defective current sensor,	Replace variator
			Feed back circuit failure or logic failure or power unit failure	Replace variator
AL 60	3	CAPACITOR CHARGE	Fuse 300A	Check the fuse
			Unit motor pump connexion	Vérify condition and cleaned connections between electric motor and ZAPI variator
			Horn relay in short circuit	Disconnect the coil of horn relay
			Change ZAPI variator	Measure the internal impedance of ZAPI variator between P et B- (around 47.4 KOhms)
AL 62	9	TH PROTECTION	This alarm is displayed when the chopper's temperature is the same as ambient temp	Temperature is not calibrated. Calibrate the "SET TEMPERATURE" in SPECIAL ADJUSTMENT menu

				<p>Switch off the machine in order to cool down the variator (running time too long)</p> <p>The temperature sensor may be defective (test can not be done) replace variator</p> <p>The logic may be defective. (test could not be done) replace variator</p>
AL 73	1	POWER FAILURE #1	Horn in short circuit or Horn relay coil in short circuit	Disconnect the horn
			Battery cut off coil in short circuit	Check continuity of SB1 coil (check if it is shorted) + check wires 16 and 42
			ON / OFF or PWM valves coil in short circuit	Vérify if the valves coils are shorted + check wires 16,18,19,20,21,22,23,24,25,26
			ZAPI variator	If any of previous causes, than replace the variator
AL 74	4	DRIVER SHORTED	Driver of battery cut off in short circuit	Measure voltage on wire 42 & 16 of SB1 0V replace ZAPI variator 24V vérify the continuity on SB1 coil
			Problems in the feed back circuit of the battery cut off driver SB1	Replace the variator
			RCH battery charger relay failing (machines produced before april 2008). It cuts the positive of SB1	install a shunt on RCH and make test
AL 75	4	CONTACTOR DRIVER	Defect in the battery cut off SB1 coil driver feed back circuit.	If SB1 and wiring are OK , replace the variator
AL 78	2	VACC NOT OK	Release accelerator (joystick) to neutral position	<ol style="list-style-type: none"> 1. the track of the potentiometer has become open 2. the potentiometer is not wired correctly 3. The potentiometer itself is defective. 4. wire 38 (null position) is open when move the cursor <p>For test (1,2,3,4) You need to check with a multimeter between the track of the potentiometer and the GND, and see if the analog value follows the joystick movement.</p>
AL 79	2	INCORRECT START	Incorrect start sequence	Check the deadman switch (wire 37)
				Check the joystick. SM1
AL 80	2	FORW+BACK	Failure on joystick	Replace joystick
				Failure on serial card
AL90	4	DRIVER 1 KO	Bad connexion on YV6 coil or coil broken	Check continuity of coil on YV6
				Vérifier continuity of wire 25 between coil and ZAPI variator
AL 91	2	VERSION NOT OK	With ZAPI IN SPECIAL ADJUSTMENT MENU the values of parameters "version" et "ok for version" are différent	Check if the 2 parameters have the same values (#1 =>Overload sensor et #2=> overload electronic system).If different, then set both at the correct value

AL 93	0	WRONG INPUT CONF.	Lift from chassis (wire14) and enable (wire 34) active at same time.	Check wire 14 and 34. There is a not allowed input configuration
			Lower from chassis (wire15) and enable (wire 34) active at same time.	Check wire 15 and 34. There is a not allowed input configuration
AL 94	6	MICRO CONTROL KO	If low horn change battery cut off coil in short circuit	Try to change SB1 cut battery
			Mismatch between master/slave micro controllers.	If alarm persists change the variator.
AL 95	7	PRESSURE NOT OK	Overloaded platform	Check if the platform is not in overload
			Problem with loom connexion	check the continuity weighing loom (wires 9, 28)
				check the continuity on the loom between angle sensor and pressure sensor
				If machine without overload system check weighing jump
Fault on calibration	Make new calibration + adjustments			
AL 96	7	HEIGHT 8 METERS	Cut traction after 8 high meter (only C12)	If C12, normal fonction before on (not all models) Vérify continuity on line of terminal switch SQ4 if other machines to C12
			Machine with option load on extension platform	If machine with overload system , check continuity on line terminal switch SQ7
				If machine with overload check continuity traction cut line (wires 9 and 386)
				If machine with overload make new calibration for overload extension platform
AL 97	5	CURR. PROTECT.	Variator detect a peak of current.	Check if motor is mechanically locked + Check with other motor
			Problem in motor connection	Check the motor wiring
			Problem in feedback current sensor.	Replace variator
AL 98	0	NONE	It appens at startup, when you change the variator or the MDI.	Switch ON the machine and wait for at least, than AL98 should disappear Hourmeter MDI shows the hourcounter of the variator.
			The hourcounters (variator and MDI) differes more than 10hours.	
AL 99	6	CHECK UP NEEDED	Maintenance request	This alarm can be erased by setting "Check Up Done" = OFF in SET OPTION MENU (always OFF with HG machines)