

**Reference Document:** N/A  
**Date of Issue:** 06/18/2020  
**Applicable Equipment:** Labrador L21, L24, L28, XP  
**Applicable Part/Kit#:** N/A

## Troubleshooting

Problem	Cause	Remedy
BRUSH PROTECTOR	The brush motor/s has overheated, faulty thermal protector contact on the motor or a faulty connection.	Wait for the brush motor to cool down. Check the connection. Replace the thermal protector or the brush motor.
DRIVE PROTECTOR	The traction motor has overheated, faulty thermal protector contact on the motor or a faulty connection.	Wait for the motor to cool down. Check the connection. Replace the thermal protector or replace the traction motor.
WATER RESERVE	Solution tank almost empty, stuck sensor, faulty sensor or loosen connection.	Fill the solution tank, clean the level sensor. Replace the level sensor and check the connection. To resume the operation , turn the operation selector to the OFF position (reset errors).
NO WATER	Solution tank empty, stuck sensor, faulty sensor or loosen connection.	Fill the solution tank, clean the level sensor. Replace the level sensor and check the connection. To resume the operation, turn the operation selector to the OFF position (reset errors).
DIRTY WATER TANK	Dirty water tank full, stuck sensor, faulty sensor or loosen connection.	
CHEMICAL FINISHED	Alarm set up but not currently active , no sensor is installed in the chem dose tank.	
FUNCTION BOARD NOT DETECTED	Communication between display and power board interrupted.	Check the connection between the boards.
	Faulty display board.	Check the auxiliary boards.
BATTERY RESERVE	Battery almost flat, voltage less than: 21,9V GEL/ AGM – 21V ACID.	Recharge the batteries.
BATTERY FLAT	Battery flat, voltage is less than: 21,4V GEL/AGM – 20,5V ACID.	Recharge the batteries. Replace the batteries if problem can't be solved.
CALL SERVICE	The set number of hours for scheduled service have been reached/exceeded.	Enter the technical menu to reset the message, follow the procedure shown in the programming instruction file.
BATTERY CHARGING	The on-board charger is connected to mains, all machine's functions are disabled.	

# Labrador Series – Error Codes



**Reference Document:** N/A  
**Date of Issue:** 06/18/2020  
**Applicable Equipment:** Labrador L21, L24, L28, XP  
**Applicable Part/Kit#:** N/A

CHARGING COMPLETE	The on-board charger is operating, the recharge is complete, all machine's functions are disabled.	Disconnect the charger.
O.C. BRUSH (OVER CURRENT BRUSH)	Excessive brush motor current consumption.	Check motor load.
	Faulty functions board.	Replace functions board.
	Brush motor faulty.	Remove and clean the brush/es. Replace the brush motor.
DRIVE BOARD TEMPERATURE	Traction motor overload. Faulty drive board control. (Electric brake blockage).	Let the drive board cool down for 30 min. Do not drive the machine on long ramp. Replace the drive control board if problem persists. Check the electric brake.
ACCELERATOR FAULT	Faulty potentiometer connections.	Check the connection.
	Faulty potentiometer.	Replace the potentiometer in the dashboard.
DRIVE BOARD U.V. (UNDER VOLTAGE)	Extremely low battery voltage, less than: 18,3V GEL/ AGM – 18V ACID.	Recharge the batteries immediately. Replace the batteries.
RELAY FAULT	Faulty main contactor.	Replace the contactor.
ELECTRIC BRAKE FAULT (OPTIONAL)	Faulty connections on the contactor.	Check relay connection.
	Faulty wires connection.	
	Faulty electric brake.	
HPD	The electric brake has been enabled in the Technical Menu but is not installed on the machine.	
	Drive handle lever pressed when starting the machine.	Release the drive lever when starting the machine.
TAG FAULT	Drive speed potentiometer not adjusted.	Check potentiometer adjustment.
	Faulty key.	Replace the key.
	Faulty control panel reading board.	Replace the control panel reading board-reed. Check the wiring between display and reading board.
RFID FAULT	Faulty key with RFID sensor.	Replace the key.
	Faulty instrument panel antenna board.	Replace the instrument panel antenna board-reed. Check the wiring.
SUCTION MOTOR TEMPERATURE	Excessive power consumption from the vacuum motor, board overheated.	Check the suction motor.
	Faulty vacuum motor or faulty power board.	Replace functions board. Replace the suction motor.

# Labrador Series – Error Codes



**Reference Document:** N/A  
**Date of Issue:** 06/18/2020  
**Applicable Equipment:** Labrador L21, L24, L28, XP  
**Applicable Part/Kit#:** N/A

BRUSH TEMPERATURE	Excessive power consumption from the brush motor.	Check the brush motor.
	Faulty brush motor/s or faulty power board.	Replace functions board. Replace the brush motor.
O.C. SUCTION MOTOR (OVER CURRENT)	Excessive vacuum motor current consumption.	Check the motor condition.
	Faulty vacuum motor or faulty power board.	Replace the suction motor. Replace function board.
O.C. DRIVE (OVER CURRENT)	Excessive vehicle effort.	Check the carbons inside traction motor.
	Faulty traction motor cause excessive current consumption to the drive board.	Check the gearbox and transmission. Replace the traction motor.
UPDATE FW MAIN BOARD	Software update message on display.	Do not remove the key during the update and wait until update complete.
UPDATE FW SERVICE BOARD	Software update.	Do not remove the key during the update and wait until update complete.
FLASHING LIGHT FAULT (OPT)	Faulty flashing light.	Check the wiring.
	The flashing light has been enabled in the Technical Menu but it is not installed on the machine.	Check the flashing light. Replace the flashing light.
		Correct the setting in the Technical Menu by following instruction.
SOLENOID VALVE FAULT	Faulty wiring.	Check the wiring.
	Faulty solenoid valve.	Check the solenoid valve.
	Solenoid valve broken.	Replace the solenoid valve if needed.
PUMP FAULT (CHEM DOSE ONLY)	Faulty wiring.	Check the wiring.
	Faulty peristaltic pump.	Check the pump.
		Replace the pump.
	The pump has been enabled in the Technical Menu but it is not fitted on the machine.	Correct the setting in the Technical Menu.
BRUSH FUSE (B VERSION ONLY)	Excessive brush motor effort.	Check the motor.
	Faulty brush motor contactor.	Replace the contactor.
	Motor protection fuse blown.	Replace the fuse.
SUCTION MOTOR FUSE (B VERSION ONLY)	Excessive suction motor effort.	Check the motor.
	Faulty suction motor relay.	Replace the relay.
	Motor fuse blown.	Replace the fuse.
RL3 FAULT (ONLY ON BT AND XP VERSIONS)	Faulty main contactor.	Replace main contactor.
		Replace service board.

# Labrador Series – Error Codes



**Reference Document:** N/A  
**Date of Issue:** 06/18/2020  
**Applicable Equipment:** Labrador L21, L24, L28, XP  
**Applicable Part/Kit#:** N/A

BRUSH FAULT (ONLY ON BT AND XP VERSIONS)	The service board does not detect the current drawn by the brush motor.	Check connections, check brush motor, replace brush motor, replace service board.
SUCTION FAULT (ONLY ON BT AND XP VERSIONS)	The service board does not detect the current absorbed.	Check connections, check suction motor, replace brush motor, replace service board.
U.V. BOARD: (ONLY ON BT AND XP VERSIONS)	The services board receives a voltage from the batteries lower than 18Volt.	Check connections and wiring, check battery status, recharge batteries, replace batteries.
SELECTOR FAULT	The dialer selector detects values that are not compatible with those set. Selector resistance problem.	Replace the dialer switch or the dashboard board.
RECHARGE ERROR	Generic error during battery charging.	Disconnect the charger and repeat the charging process. Check if the batteries are still in good condition. Replace battery charger if problem does not disappear.