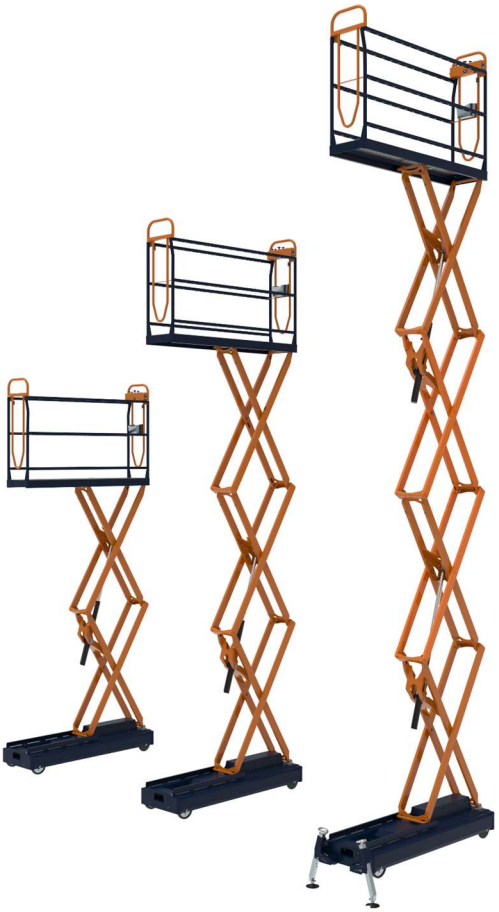
Benomic

CHECKLIST BENOMIC I FAILURES
FEBRUARI 2021 VERSION: BHM202007A



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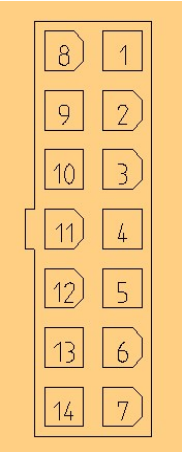
Checklist Benomic before Aug. 2011
PLC versions from B01P to B14P
PG-Drive versions from B01PG to B11PG

Measure PG inputs always to battery - connection.
When input is **not active:** voltage on input is **2,5V.**
When input is **active:** voltage on input is **< 0,15V.** (normally < 0,02V!)

PG connector:



Pin:	Wire color	Function	Note
1:	Green	Drive/Speed	
2:	Brown	Potentiometer	+ 4,6V
3:	Violet	Beeper output	
4:	Orange	Fast / Slow	
5:	Red	ON	+ 24V
6:	Blue	Lifting wheels input	
8:	White	Potentiometer	- gnd
10:	Yellow	Battery discharge indicator	
12:	Black	Backward	

Failure	check	In/output	status	note
Drive not forward	PLC	X6	Led ON	Pedal and direction Forward active
	PLC	Y5	Led ON	Pedal and direction Forward active
	PLC	X1	Led ON	Stabilizers in
	PLC	X2	Led OFF	Lifting wheels in
	PG	01	measure	Potm. Voltage 0 - 4,6V
	PG	06	< 0,15V	Lifting wheels in
Drive not in reverse	PLC	X7	Led ON	Pedal and direction Reverse active
	PLC	Y4,Y5	Led ON	Pedal and direction Reverse active
	PLC	X1	Led ON	Stabilizers in
	PLC	X2	Led OFF	Lifting wheels in
	PG	01	measure	Potm. Voltage 0 - 4,6V
	PG	06	< 0,15V	Lifting wheels in
	PG	12	< 0,15V	When Y4 led ON is
Scissors not up	PLC	X4	Led ON	Blue of service button active
	PLC	X2	Led OFF	Lifting wheels in
	PLC	Y0 Y1 Y3	Led ON	Relay, Bypass, Scissors valve

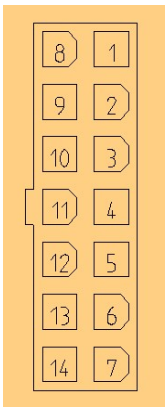
Scissors not down	PLC	X5	Led ON	Black of Service button active
	PLC	X2	Led OFF	Lifting wheels in
	PLC	Y1 Y3	Led ON	Bypass, Scissors valve
Wheels not out	PLC	X0	Led ON	Push button
	PLC	X2	Led OFF	Lifting wheels in
	PLC	X3	Led ON	Scissors < 1mtr
	PLC	Y0 Y2	Led ON	Relay, Lifting wheels valve
Wheels not in	PLC	X0	Led ON	Push button
	PLC	X2	Led ON	Lifting wheels out
	PLC	X3	Led ON	Scissors < 1mtr
	PLC	Y2 Y1	Led ON	Lifting wheels valve, Bypass valve

Checklist Benomic from Aug. 2011
PLC versions from B15P
PG-Drive versions from B11PG

Measure PG inputs always to battery - connection.
When input is **not active:** voltage on input is **2,5V.**
When input is **active:** voltage on input is **< 0,15V.** (normally < 0,02V!)

Relay delay OFF

PG connector:



Pin:	Wire color	Function	Note
1:	Green	Speed	
2:	Brown	Potentiometer	+ 4,6V
3:	Violet	Beeper output	
4:	Orange	Fast / Slow	
5:	Red	ON	+ 24V
6:	Blue	Forward	
8:	White	Potentiometer	- gnd
10:	Yellow	Battery discharge indicator	
11:	Yellow/Green	Drive active	
12:	Black	Backward	
14:	Gray	Lifting wheels input	

Failure	check	In/output	status	note
Drive not forward	PG	6	< 0,15V	Pedal and direction Forward active
	PG	1	measure	Potm. Voltage 0 - 4,6V
	PG	14	< 0,15V	Lifting wheels & Stabilizers in
	PLC	Y4	Led ON	Benomic switched ON
	PLC	X7	Led ON	Pedal and direction Forward active
	Relay	Led green	Led ON	Relay delay OFF
Drive not in reverse	PG	12	< 0,15V	Pedal and direction Reverse active
	PG	1	measure	Potm. Voltage 0 - 4,6V
	PG	14	< 0,15V	Lifting wheels & Stabilizers in
	PLC	Y4	Led ON	Benomic switched ON
	PLC	X7	Led ON	Pedal and direction Reverse active
	Relay	Led green	Led ON	Relay delay OFF
Scissors not up	PLC	X4	Led ON	Blue of service button active
	PLC	X2	Led OFF	Lifting wheels in
	PLC	Y0 Y1 Y3	Led ON	Relay, Bypass, Scissors valve
Scissors not down	PLC	X5	Led ON	Black of Service button active
	PLC	X2	Led OFF	Lifting wheels in
	PLC	Y1 Y3	Led ON	Bypass, Scissors valve
Wheels not out	PLC	X0	Led ON	Push button
	PLC	X2	Led OFF	Lifting wheels in
	PLC	X3	Led OFF	Scissors < 1mtr
	PLC	Y0 Y2	Led ON	Relay, Lifting wheels valve
Wheels not in	PLC	X0	Led ON	Push button
	PLC	X2	Led ON	Lifting wheels out
	PLC	X3	Led OFF	Scissors < 1mtr
	PLC	Y2 Y1	Led ON	Lifting wheels valve, Bypass valve

BDI failure codes PG I-Drive (Self-help guide)

Below is a list of self-help actions. Try to use the following table before you contact your service agent. Go to the number in the list that matches the number of flashing bars and follow the instructions.

1 Bar	The battery needs charging or there is a bad connection to the battery. Check the connections to the battery. If the connections are good, try charging the battery.
2 Bar	There is a bad connection to the motor. Check all connections between the motor and the controller.
3 Bar	The motor has a short circuit to a battery connection. Contact your service agent.
4 Bar	Not used.
5 Bar	Not used.
6 Bar	The controller is being inhibited from driving.
7 Bar	A potentiometer fault is indicated, check the wiring and the resistance (default value is 5K ohm), it must be between the following values <3K ohm /> 6K ohm.
8 Bar	A controller fault is indicated. Make sure that all connections are secure. The controller is switched OFF and ON to fast, switch it OFF for 10sec. and switch it ON again.
9 Bar	The parking brakes have a bad connection. Check the parking brake and motor connections. Make sure the controller connections are secure.
10 Bar	An excessive voltage has been applied to the controller. This is usually caused by a poor battery connection. Check the battery connections.
10 Bar	A start-up fault in indicated when the LED bar sequence is running from side to side while switching ON. Always put the direction selector switch in neutral and the speed regulation button to 0/RESET before switching ON.