FB10000 Error Message Troubleshooting

Error ID: 50011: Motion - Z-Axis Unable to Complete Initialize

❌ 50011 <Month, Day, Time>

Z-Axis is unable to complete "Get Ready" - Check upper limit sensors, motor coupling and wiring. For more details open the [Troubleshooting guide](#)
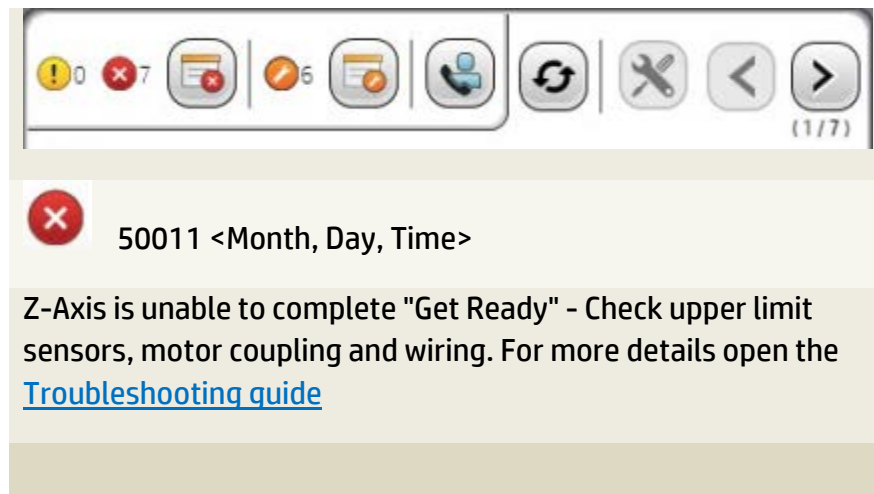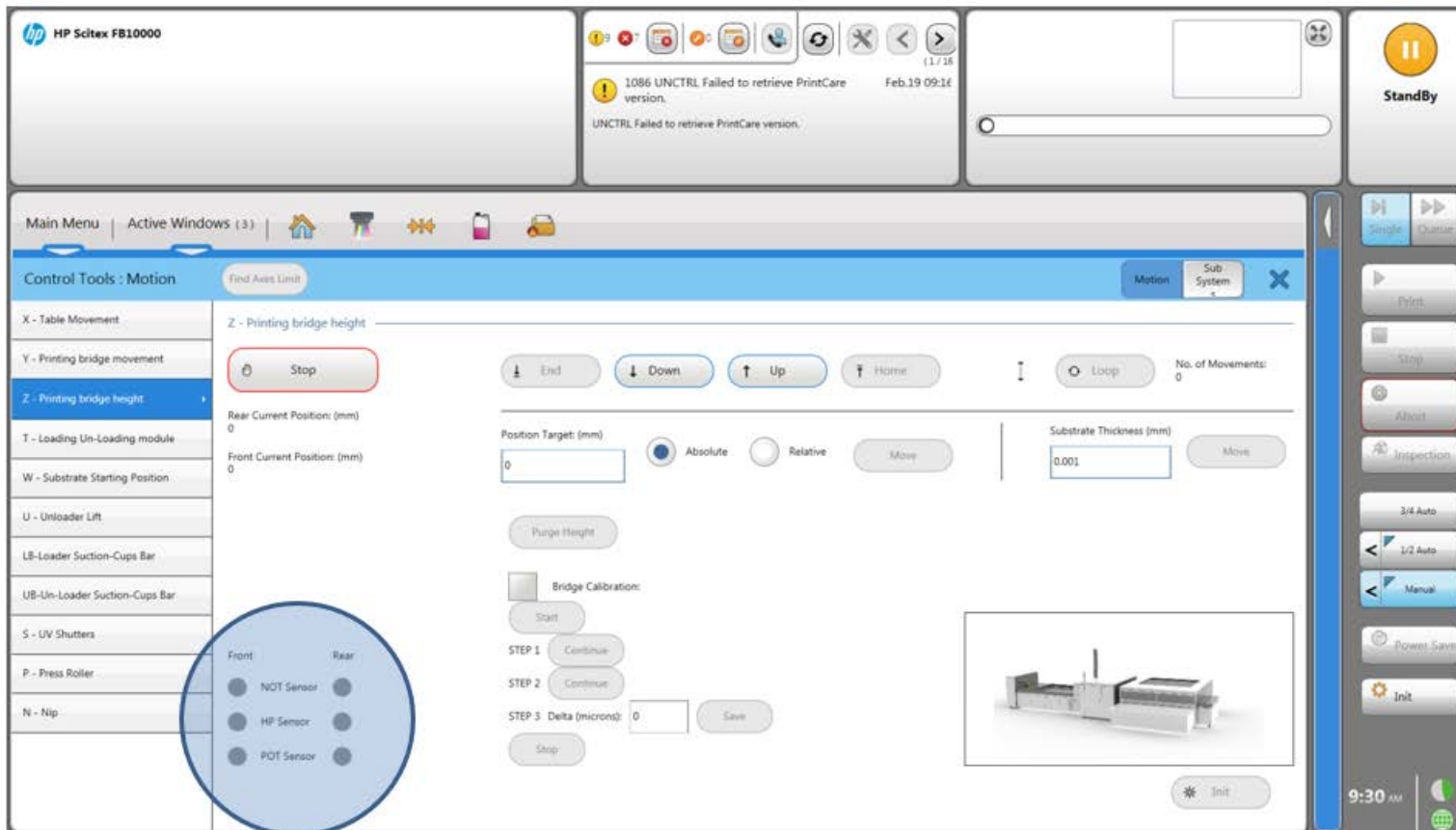
Possible Causes

- [Home position sensors is faulty/not calibrated](#)

- [Encoder fault](#)

- [Z –Motor driver fault](#)

- [Safety fuse is burned out](#)

- [Faulty Motor or Phase connection](#)

Recommended actions

## Home position sensor is faulty/not calibrated

1. Open Control Tools and check the Z sensors indications:

2. Check the Z Home Position Front & Rear sensor indicators - these should be **OFF** (Gray).

3. If any of them is **ON**, check the sensor and its wiring.

4. Start by checking the sensor by verifying if its LED reacts to the visual obstruction of its light beam (insert a flag in the sensor fork).

5. You can also check if the sensor reacts by initiating a mechanical movement of the Z motor (move the motor pulley).

6. If the sensor reacts to one of these two checks this indicates the sanity of the sensor and that of its 24 V power supply (24 & 0 provide 24V DC). However this does not ensure yet the full integrity of its wiring because the third wire coming OUT from the sensor has not yet been checked.

7. If the sensor is OK and the error persists, check the HP sensor wiring path to the B&R module (see diagrams below).
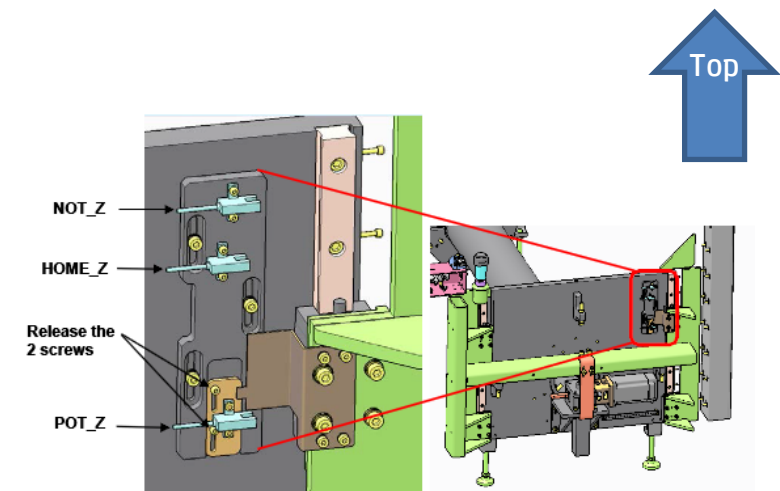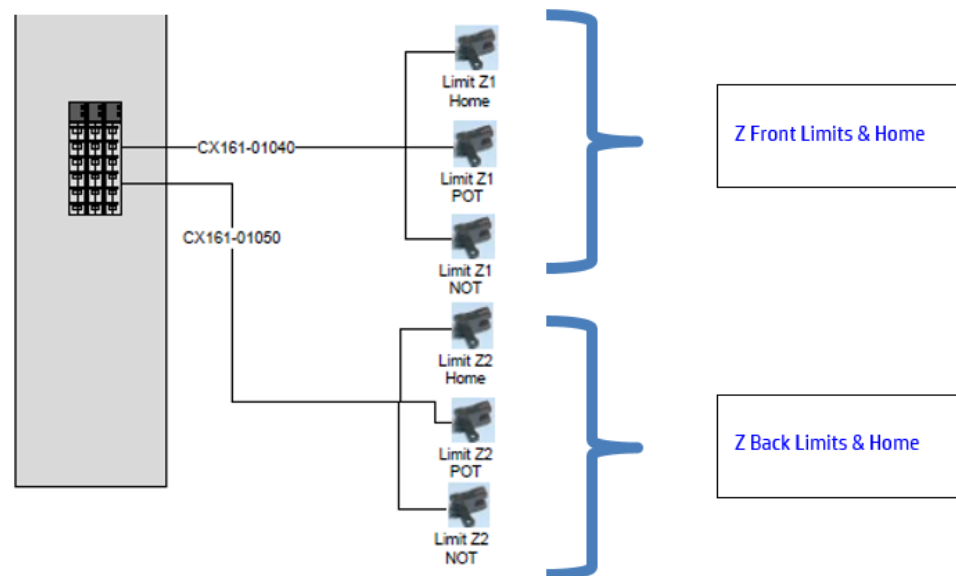
8. If the sensor does not react as required, check its wiring path.
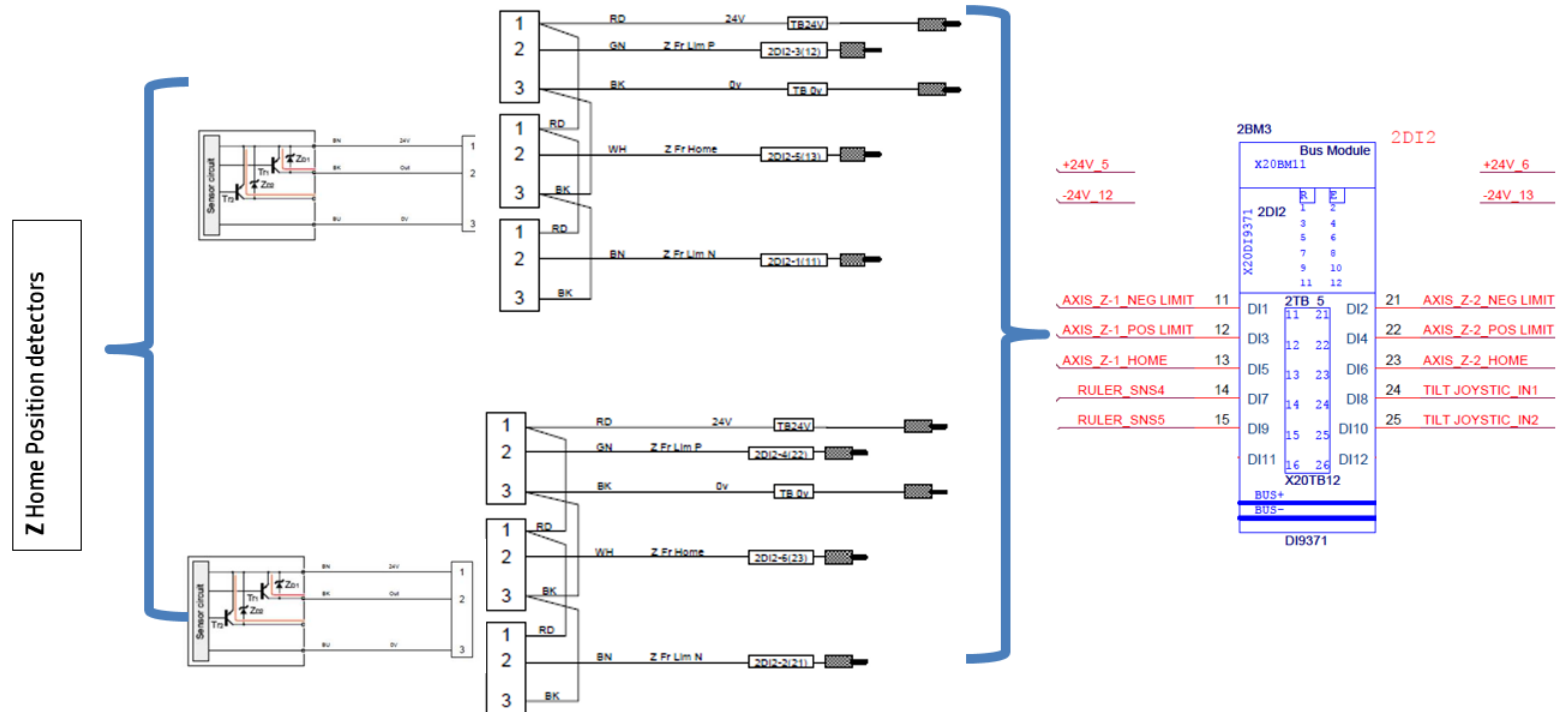
9. If the wiring path is ok and the error persists, replace the sensor.

10. If the error persists also with the new sensor, check the encoder.

Encoder Fault

1. To check the encoder, open Control Tools and check if the Rear Current position (mm) and the Front Current Position (mm) values change while rotating manually the pulley of the Z motors.

Note: If the Z motors pulley cannot move, check for mechanical stopper.
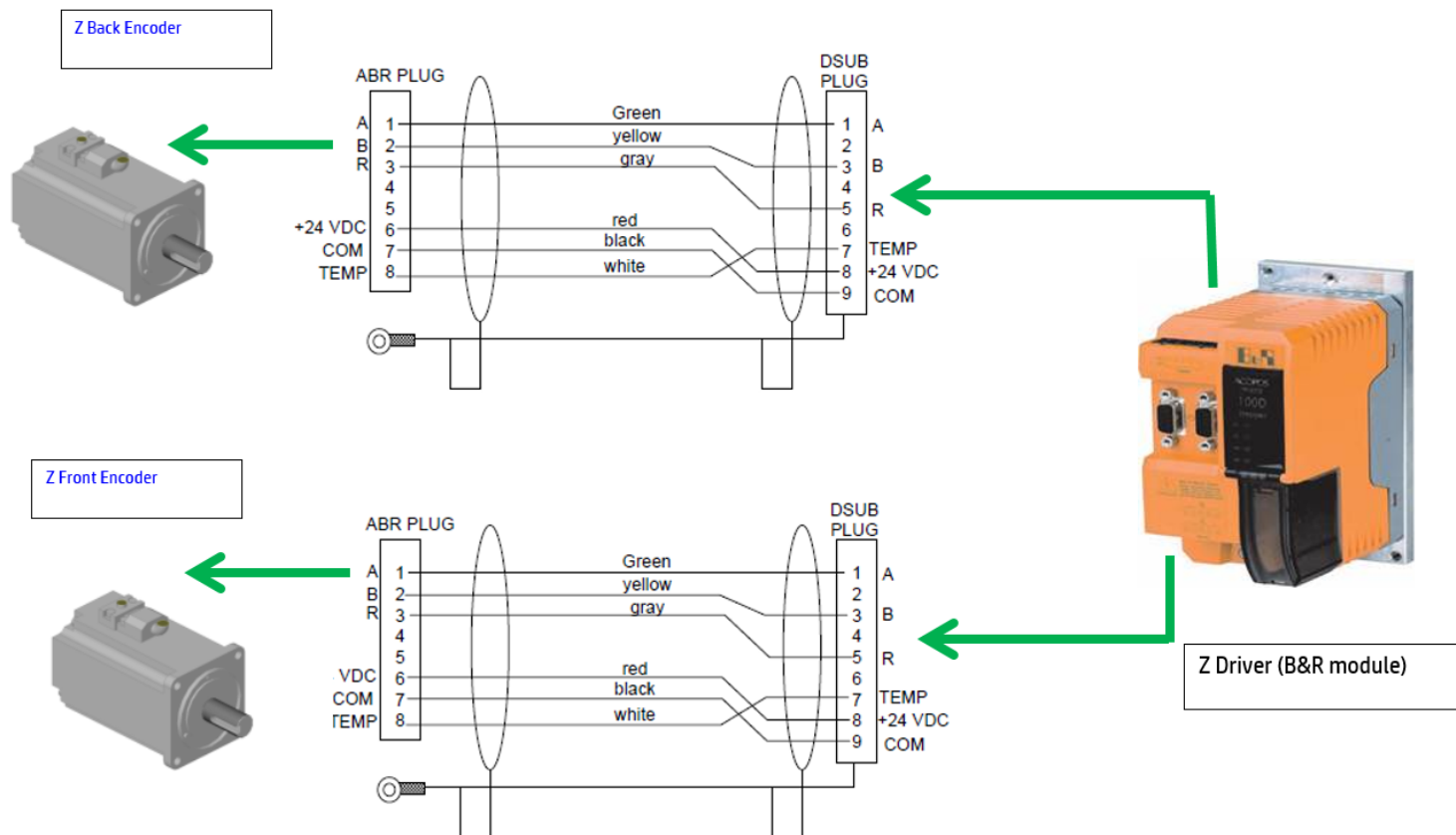
Z-Motor Driver fault

1. Check the Z-Driver LED status.

2. Check the ERR, RDY and U/D LEDs. The table below displays the expected statuses of the LEDs in normal operation.

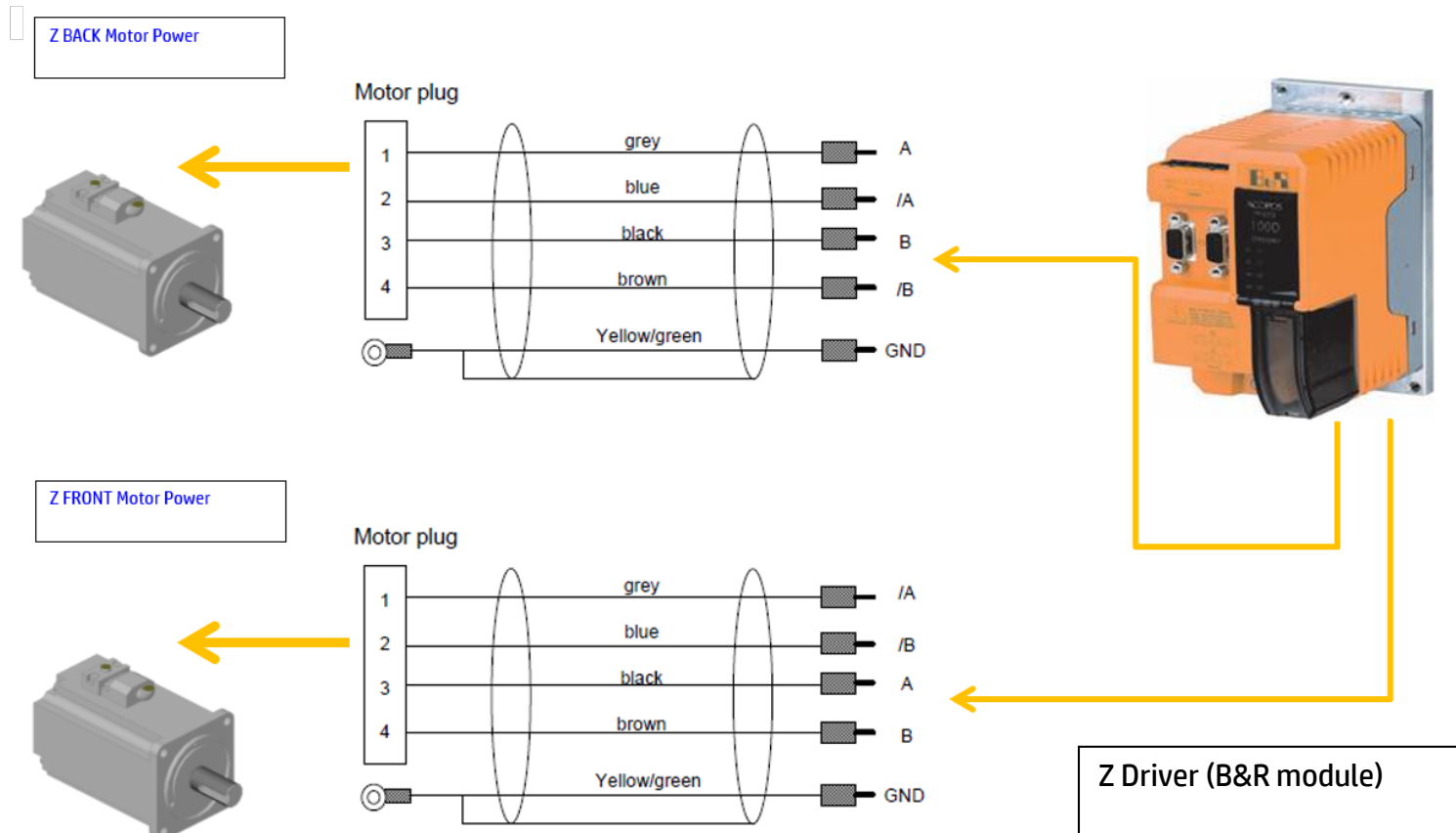| Figure	Description			
	LED	**Color**	**Status indicators for module functionality**	
	ERR	Red	Off	Module not supplied or ready for operation
			On	Error or reset state module
	RDY	Green	Off	Module supply not connected
			Single flash	Reset mode
			Double flash	Update mode (firmware)
			Blinking	Preoperational mode
			On	Run mode
	X2Xr Green	**X2Xe Red**	**Status indicators for X2X connection**	
	Off	Off	X2X not supplied	
	On	Off	Communication OK	
	Off	On	Communication not OK	
	On	On	Preoperational: Module not initialized	
	LED	**Color**	**Status indicators for motors**	
	RUN	Yellow	Motor supplied with power	
	U/D	Yellow / green	Motor's specified direction of rotation	
			Yellow	Direction of rotation ("UP")
			Green	Opposite direction of rotation ("DOWN")
	1-channel model: RUN and U/D			
	2-channel model: RUN1, RUN2, U/D1 and U/D2			

Top

3. If the LEDs do not respond according to the table above, then there might be an error in the driver itself.

    Z Driver (B&R module)

4. Restart the driver.

5. If the error persists consider contact callme@hp for assistance.

6. Check the power cable connections

Z BACK Motor Power

Motor plug

Pin	Color		Terminal
1	grey		A
2	blue		/A
3	black		B
4	brown		/B
	Yellow/green		GND

Z FRONT Motor Power

Motor plug

Pin	Color		Terminal
1	grey		/A
2	blue		/B
3	black		A
4	brown		B
	Yellow/green		GND

Z Driver (B&R module)

Top

Safety fuse is burned out

1. Check the 2FTB15 Fuse.

2. If the fuse is burned out, replace it.

3. If the fuse is OK, or if the error persists after replacing the fuse, check the motor and its phase connection.

Faulty motor & phase connection

1. Check the power cable to the motor (the motor must be disconnected from the cable).

2. Check the resistance between each of the three coils inside the motor: (U→V) (U→W) (V→W). The resistance should be low and quite similar in all three checks.

3. Check that all the wires are properly attached to the contactor poles.

4. If the error persists, contact callme@hp for assistance.