



Malfunction ERROR 1-4: Cuvette detection:

Error description

Cuvette does not stop at correct position and error 1-4 is shown.

Reasons

1. Microswitch (REF 21 157 00) does not close and/or release
2. Optic-1 channel defective
3. Gear motor defective (REF 21 921 01)

Check:

Goto service menu "ADJUST MOTOR"

Colour water with a green pen-marker and pipet 150µL into every cuvette position and place it into position prewarm. Run menu "ADJUST MOTOR". The system moves now cuvette into optics. Change the offset value, move cuvette back and repeat the procedure until cuvette is centered to light beams.



https://www.teco-medical.com/downloads.html?group=Coatron_A&category=Videos&search=vid_01

Check:

Goto service menu "CHECK OPTIC" and read value "CV-STATUS":

- a. Move a cuvette into the reading position. -> CV.-Status must switch to "1"
- b. Remove a cuvette from reading position. -> CV.-Status must switch to "0"
- c. Check Optic-1 value. High should be ~10000 digits and AMP < 300

CHECK OPTIK		
	OFF	ON AMP
1=	78	9851 185
2=	105	9624 192
3=	56	9799 171
4=	78	9851 185
5=	98	9245 155
6=	110	9967 145
T1=	34302	(34310)
T2=	34081	(34081)
T3=	31707	(31800)
CV-Status:	1	
Shield:	0	

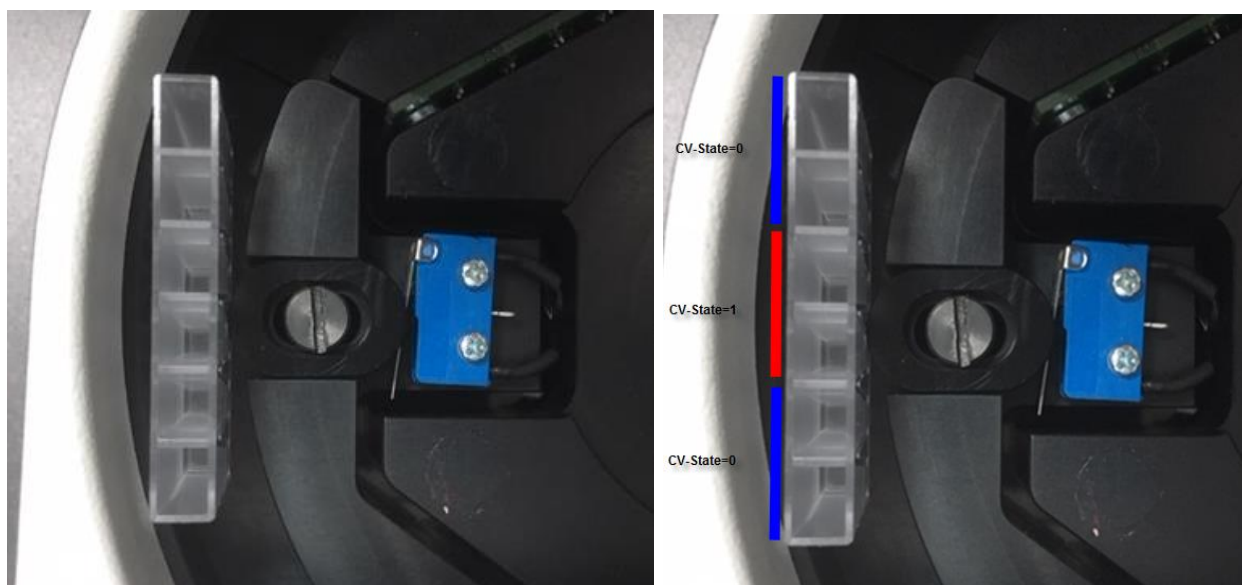
Corrective Actions:

1. Remove shifter and press flag several times complete in and out
2. Mount shifter, but bend flag a little but to ensure better release of flag
3. shifter must move easily -> remove and clean
4. shifter must be adjusted with screw, so that the microswitch closed circuit only during cuvette.
5. microswitch does not close circuit at all -> exchange switcher + adjust shifter
6. Optic does not work -> Clean or exchange optic
7. Cuvette rotor does not or move slowly-> increase gear torque by turning gear-plate clockwise

Service Instructions:

Adjust Microswitch

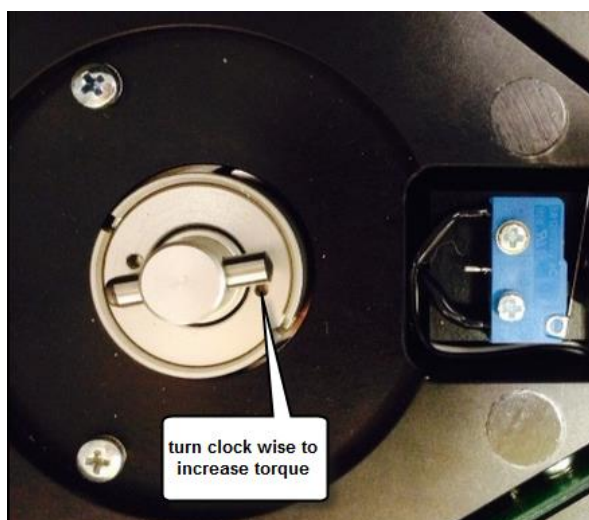
Remove all cuvettes and also the plate. Now you can see the cuvette microswitch and the shifter. Remove the shifter and clean the complete area and then rebuild it. Afterwards the shifter must move easily. The flag of the microswitch should be straight. Use a Voltmeter and check if microswitch do close electrically . Then goto service menu "CHECK OPTIC" optics, insert one cuvette and read CV-STATUS. Back of the shifter you see a small screw, which can adjust the homeposition. The CV-Status should "1" at cuvette center +-5mm and "0" if cuvette is out of center !



Check-In and Check-Out position can be adjusted by bending the flag of microswitch. In default (like on all new instruments), the flag is straight.

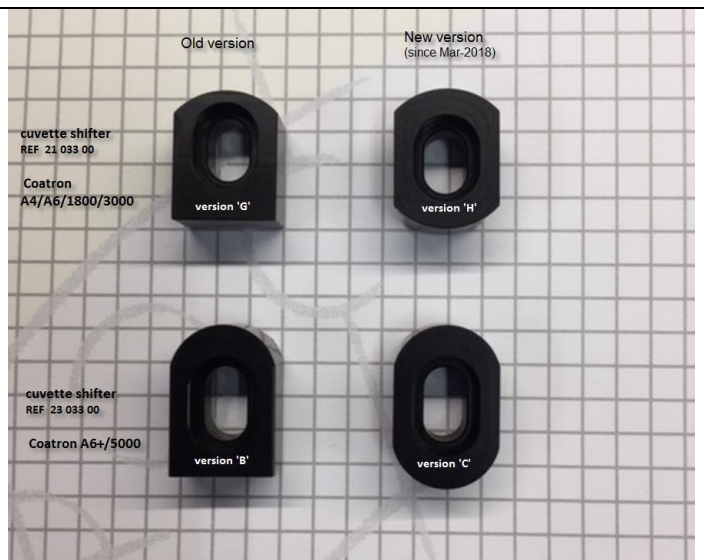
Adjust Gear Torque

Remove all cuvettes and also the plate. Now you can see the gear. Turn manually the axis. The torque must be so strong, that you nearly can not turn the axis. You can increase the torque by turning the gear clockwise. For this use two small screwdrivers and place them into the small holes and then turn the gear.



Replace shifter

Since 3-2018
TECO is using
a new version
of shifter.



Replace cuvette motor

Spare part = Gearbox Motor (axis = 6mm) CAT= 21 921 01 (168USD)



- d. Remove back casing
- e. Remove cuvette wheel and open screws of motor
- f. Now the motor can be replaced