

Maintenance - Checklist

CapnoTrue AMP / ASP / MG

bluepoint MEDICAL

NOTE: CapnoTrue®AMP/ASP/MG monitors do not require a routine Safety Check - STK (§6) or routine Measurement Accuracy Check - MTK (§11) according to German regulation (Attachment 1 and 2 of MPBetreibV)

The Handheld capnograph and pulse oximeter CapnoTrue®AMP/ASP/MG with accessories is permanently factory calibrated. The maintenance and calibration-free technology (gas analyzer and SpO₂ Module) integrated in the CapnoTrue®AMP/ASP/MG ensures a robust measurement function throughout the lifetime of the monitor. No routine calibration is required however a basic maintenance plan is highly recommended.

To document the maintenance, use the following checklist. All recommended test steps are described in detail in the document *CapnoTrue Maintenance instructions and Service Manual*.

Description of device components		
Device	Device Model (REF on back of label) <input type="checkbox"/> CapnoTrue®AMP (3090112001) <input type="checkbox"/> CapnoTrue®MG (3090112009) <input type="checkbox"/> CapnoTrue®ASP (3090112002)	
External power supply	<input type="checkbox"/> black connector at cable and at device (Rev. 1) <input type="checkbox"/> orange connector at cable, metal connector at device (Rev. 2)	
SpO₂-Sensor	<input type="radio"/> SC 6500 <input type="radio"/> SCP 6500 <input type="radio"/> W 6500 <input type="radio"/> SCA 6500 <input type="radio"/> SCPA 6500 <input type="radio"/> Disposable	
Serial number (SN) Of the modules in the device menu: Service Menu> System information > Device information	Device (SN on rear device label): SpO₂-Sensor (SN on cable): SpO₂ Module (SN in Service Menu): CO₂ Module (SN in Service Menu or on housing):	
Firmware Version update at manufacturer is possible starting from v7.5	Version (Startup-Screen at switch on):	

Comments		
Result	<input type="checkbox"/> Pass AMP/MG: Step 1 – 5 ASP: Step 1 - 6	<input type="checkbox"/> Fail Don't use device to monitor patients! Perform repair.
Date	Tester	

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Test step	Target state	Result	comment			
1. Visual inspection						
Housing, Display, Keypad	No damages or defects	<input type="checkbox"/> pass <input type="checkbox"/> fail				
Sensors and cable	No exposed optical components or cables or other damages to the sensor	<input type="checkbox"/> pass <input type="checkbox"/> fail				
external power supply (cable+ connector)	No damages or defects	<input type="checkbox"/> pass <input type="checkbox"/> fail				
Label + transparent protective foil	Label and the transparent protective foil are fixed clean to the back of the device.	<input type="checkbox"/> pass <input type="checkbox"/> fail				
Screw lock	Fixed to upper right-hand screw	<input type="checkbox"/> pass <input type="checkbox"/> fail				
2. Power Supply Options (AA batteries, Li-Poly rechargeable battery, external power supply) (switch on with each supply option >Measurements: SpO ₂ at finger; etCO ₂ by breathing through airway adapter > switch off)						
only 4 AA Batteries	switch on > measurement > switch off	<input type="checkbox"/> pass <input type="checkbox"/> fail				
only Li-Poly	switch on > measurement > switch off	<input type="checkbox"/> pass <input type="checkbox"/> fail				
only ext. power supply	switch on > measurement > switch off	<input type="checkbox"/> pass <input type="checkbox"/> fail				
ext. power supply + Li-Poly	switch on > measurement + charging > switch off	<input type="checkbox"/> pass <input type="checkbox"/> fail				
Comments: (Pixel defects, etc.)						
3. SpO ₂ -Function at simulator						
SpO ₂ at simulator setpoint 82% (BPM or Nellcor curve)	82% SpO ₂ (+2 digits)	<input type="checkbox"/> pass <input type="checkbox"/> fail	value:			
Pulse rate at simulator setpoint 75bpm	75 beats/min (+1 digits)	<input type="checkbox"/> pass <input type="checkbox"/> fail	value:			
SpO ₂ low alarm	Audible and visual	<input type="checkbox"/> pass <input type="checkbox"/> fail				
Comments:						
4. CO ₂ -Measurement (use reference device as alternative means if no breath simulator is available)						
Select Mode at CapnoTrue: <i>Main Menu > Service > Maintenance > Check gas accuracy</i>						
Calibration gas (5% ±0.1 vol% CO ₂ , 20.9% O ₂ balance N ₂)						
5vol% CO ₂ calibration gas + airway adaptor	EtCO ₂ : 4.7 – 5.3 vol% FiCO ₂ : 0.0 – 0.3 vol%	<input type="checkbox"/> pass <input type="checkbox"/> fail	value: EtCO ₂ / FiCO ₂			
Breath per minute	setpoint (+1 digit)	<input type="checkbox"/> pass <input type="checkbox"/> fail	value:			
Comments::						

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Test step	Target state	Result		comment
5. Alarms und Data Download (switch on device, SpO₂ Sensor at finger, breath through airway adapter)				
Remove SpO ₂ Sensor from finger	Alarm sound and message „SpO ₂ Probe off !“	<input type="checkbox"/> pass	<input type="checkbox"/> fail	
Breath 3 X through airway adapter and wait 20s	Alarm sound and message „Apnoea !!“	<input type="checkbox"/> pass	<input type="checkbox"/> fail	
Download data to PC with CapnoTrue PC-Software	Successful data download to PC	<input type="checkbox"/> pass	<input type="checkbox"/> fail	
Delete all data	All stored data in the device are deleted	<input type="checkbox"/> pass	<input type="checkbox"/> fail	
Comments:				
6. Check pressure – ISA module (Only for sidestream capnograph CapnoTrue ASP)				
Select at device: <i>Main Menu > Service > Maintenance > Check pressure</i>				
Compare displayed ambient pressure value with the actual barometric pressure value at the local site	actual barometric pressure ±5 kPa	<input type="checkbox"/> pass	<input type="checkbox"/> fail	
Compare displayed cuvette pressure with ambient pressure	cuvette pressure is 1 to 5 kPa smaller than displayed ambient pressure	<input type="checkbox"/> pass	<input type="checkbox"/> fail	Ambient pr. kPa Cuvette pr. kPa
Comments:				