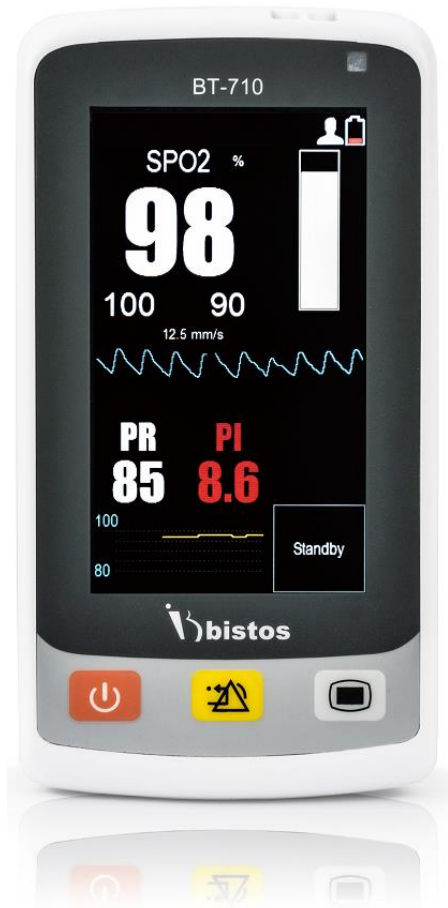


Bio Signal Total Solution

Total Health care for everyone





BT-710 Handheld Pulse Oximeter

Int. Sales Team
Bistos Co., Ltd.



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Introduction - Use of Pulse Oximeter

BT-710

❖ Main Purpose :

- To measure and show patient's SpO₂, Pulse Rate and Perfusion Index with graphs & numbers

❖ Object:

- BT-710 is useful to check patients' condition in everywhere as it is a handheld type with an internal rechargeable battery

❖ Main Feature:

- The monitored data can be recorded continuously or intermittently on a strip chart recorder at the operator's discretion;
 - ✓ SpO₂
 - ✓ Pulse rate
 - ✓ Perfusion Index



Introduction - Features

BT-710

- ❖ 4.3" color TFT touch screen
- ❖ Handheld style
- ❖ SpO2, Pulse
- ❖ Accurate SpO2 performance during motion and low perfusion
- ❖ Specialized PC software for data review and analysis
- ❖ Over 8 hours continuous working on rechargeable lithium-ion battery
- ❖ 5V DC input with convenient Micro-USB charge
- ❖ Battery can be charged by external USB battery
- ❖ Suitable for adult, pediatric and neonate





Specification

BT-710

❖ General

Display	4.3" Color TFT-LCD Touch screen
Power Supply	Input : AC 100 ~ 240V (50/60Hz) Output : DC 5V/2A
Battery	3.7V Li-ion 3,800mAh Operating Time : 8hrs / Charging Time : 4hrs
Alarm	Visual, Audible
Trends	168hrs / resolution : 1min Graphic/tabular
Interface	SD card (software upgrade)
Dimension	84(W) x 34.5(D) x 158.5(H)mm
Weight	300g
Certificate	CE
Warranty	2 years



Specification

BT-710

❖ SpO2

Measurement Range	0-100%
Resolution	1%
Accuracy	Adult/Pediatric : 70 ~ 100% $\pm 2\%$ Neonate : 70 ~ 100% $\pm 3\%$ 0~69%: unspecified
Alerting signal generates a delay	No delay
Value refresh period	1s/time
Average period	Low sensitivity: 6-8s Intermediate sensitivity: 4-6s Advanced sensitivity: 2-4s
Alarm condition delay period	Low sensitivity: < 8s Intermediate sensitivity: < 6s Advanced sensitivity: < 2s
Alarm sign generates delay period	0s



Specification

BT-710

❖ Pulse Rate

PR range	25-250bpm
Resolution	±1 bpm
Accuracy	±2% or ±2bpm, whichever is greater

❖ Others (option)

Protective case	Soft material
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Configuration - Outlook

BT-710



➤ Front View



➤ Rear View



➤ Top View







➤ Bottom View



Configuration - Options & Accessories

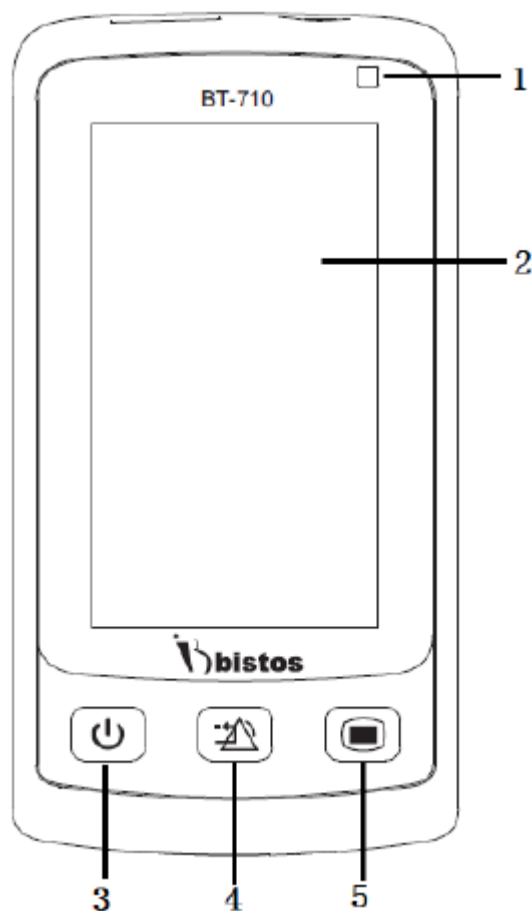
BT-710

	Name	Description
	Adult SpO2 sensor	SpO2 sensor for adult
	SpO2 extension tube	Cord to connect the SpO2 sensor and main body
	Power adaptor	For power supply
	Protective case (option)	Case to protect the unit

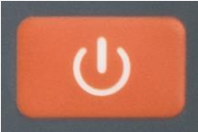




Basic Info – Description of pulse oximeter

BT-710

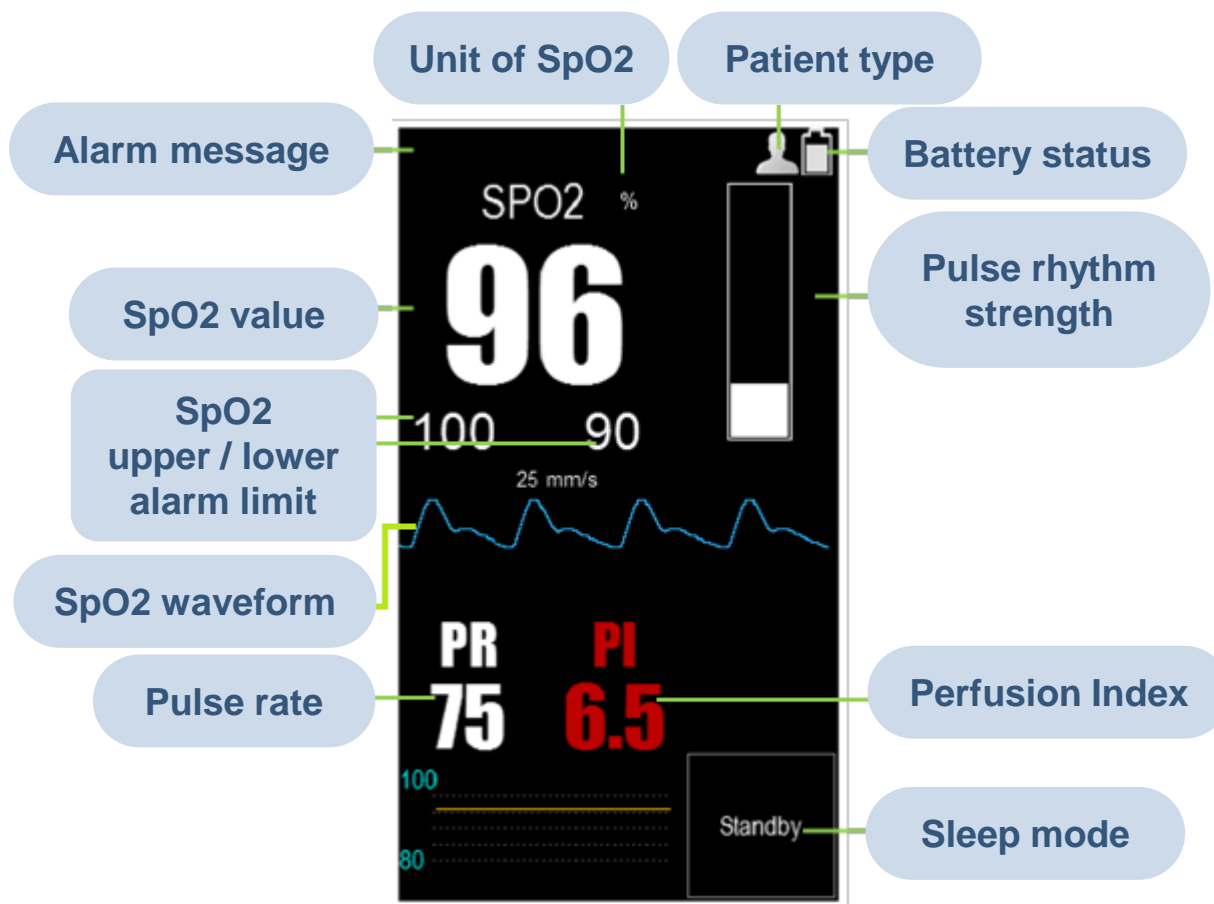


➤ Front View

	Name	Description
1	DC power indicator	Turned on when the pulse oximeter is being powered by the adapter.
2	Display area	Display the waveform and measured value
3	 Power	<ul style="list-style-type: none">- Power On: Press down the key more than 2 seconds.- Power off: Press down the keys more than 2 seconds and the system will display the alarm message “The system will shut down 3 seconds”.
4	 Alarm reset	To reset the alarm condition.
5	 Setting	Enter to the setting mode. Press again to close the setting mode.



❖ Standard Display





Basic Info - Configuration Settings

BT-710

❖ In the main screen, Press  [Setting] key enter the setup menu.

Patient Type: Adult ▼

Alarm Delay: 4s ▼

Backlight: 3

Alarm Volume: 4

Alarm Reminder Signal: On ▼

Alarm Reminder Interval: 3s ▼

Navigation: ◀ ▶ X

- ✓ Patient type
- ✓ Alarm delay
- ✓ Backlight
- ✓ Volume
- ✓ Signal
- ✓ Interval

Year: 2016

Month: 01

Day: 01

Hour: 00

Minute: 03

Second: 33

Date Format: MM-DD-YYYY ▼

Navigation: ◀ ▶ X

- ✓ Date & time
- ✓ Date format

Displays: SpO2 ▼

Language: English ▼

Requires restart

Default

04/17/2018 15:45:45

V1.25 SVN:399

IAP : 52

Navigation: ◀ ▶ X




- ✓ Screen start up
- ✓ Language
- ✓ Default

❖ SpO2




- Blood oxygen saturation (SpO2) is the percentage of oxyhemoglobin (HbO2) capacity bound by oxygen in the blood in the total hemoglobin (Hb) capacity that can be combined, that is, the concentration of oxygen in the blood.

➤ Settings

Wave Speed	25 mm/s	▼
Wave Mode	Scan	▼
Average Time	4-8 s	▼
Sensitivity	1	▼
Pulse Volume	3	



SpO2 Low Limit	90	
SpO2 High Limit	100	
PR Low Limit	50	
PR High Limit	120	
PI Low Limit	0.00	
PI High Limit	20.00	
Alarm Level	Mid	▼
Alarm	Default	





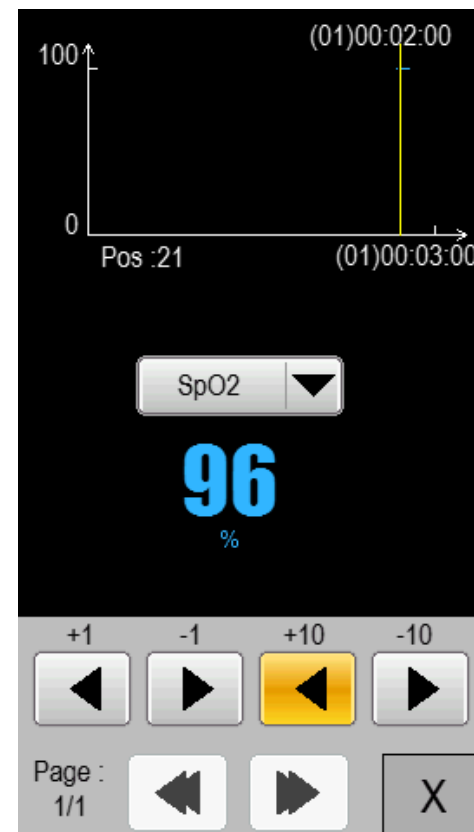
Function - Review

BT-710

❖ Review

- Use the trend screen to recall all the historical patient data in a list, including monitoring time (in 1-minute intervals), and SpO2 and PR values. The most recent measurements display at the top of the list.

Time	SpO2	PR
01-01-2016 00:01	96	75
01-01-2016 00:00	96	75
01-01-2016 00:08	96	75
01-01-2016 00:07	96	75
01-01-2016 00:06	96	75
01-01-2016 00:05	96	75
01-01-2016 00:03	96	75
01-01-2016 00:02	96	75
01-01-2016 00:01	96	75
01-01-2016 00:00	96	75
01-01-2016 00:11	96	75
01-01-2016 00:10	96	75
01-01-2016 00:09	96	75
01-01-2016 00:08	96	75
01-01-2016 00:07	96	75
01-01-2016 00:06	96	74
01-01-2016 00:05	96	75
01-01-2016 00:04	96	75
01-01-2016 00:03	96	75
01-01-2016 00:02	96	75
01-01-2016 00:00	96	75
01-01-2016 00:04	96	75





❖ Alarms

Type	Source	Alarm Message
Physiological alarms	SpO2	SpO2 Too High, SpO2 Too Low, PR Too High, PR Too Low, PI Too High, PI Too Low, No pulse
Technical alarms	SpO2	SpO2 no sensor connected, SpO2 Sensor Off, SpO2 Search Timeout, SpO2 Search Pulse, SpO2 Signal Unstable, SpO2 Board Failure, SpO2 Sensor Error, Low perfusion, Too Much Light
	Battery	Battery Low
	System	System will shutdown

Comparison Chart

BT-710





❖ General

Model	BT-720	PM-60	PM10N	Pronto-7
				
Manufacturer	BISTOS	Mindray	Nellcor	Masimo
General	Display	4.3" Color TFT-LCD Touch screen *Large screen size	2.4" color TFT-LCD 320x240 pixels	3.5" TFT LCD 320x480 pixels
	Power Supply	Input : AC 100 ~ 240V (50/60Hz) Output : DC 5V/2A	DC 5V/1.2A	
	Battery	3.7V Li-ion 3,800mAh Operating Time : 8hrs Charging Time : 4hrs	Li-ion Battery Run time: 24hrs Charging time: 2hrs AA batteries x 3pcs Run time: 36hrs	Lithium 3,000 mAh (Lithium AA 1.5 V x 4) Run time: 20hrs
	Alarm	Visual, Audible	Visual, Audible	Visual, Audible Three level - high, medium, low
	Trends	168hrs resolution : 1min Graphic/tabular *Large capacity	Spot check: 1~99 ID's with total 4 000 sets Continuous monitoring: Maximum 96h trend	80hrs Graphic/tabular
	Interface	SD card (software upgrade)	socket to connect to PC	WLAN
	Dimension	84(W) x 34.5(D) x 158.5(H)mm	55(W) x 120(H) x 30mm(D)	70(W) x 156(H) x 32(D)mm
	Weight	620g	300g	274g
	Certificate	CE	CE	

Comparison Chart

BT-710

❖ SpO2

Model	BT-720	PM-60	PM10N	Pronto-7
				
Manufacturer	BISTOS	Mindray	Nellcor	Masimo
Measurement Range	0-100%	0-100%	1-100%	0-100%
Accuracy	Adult/Pediatric : 70 ~ 100% $\pm 2\%$ Neonate : 70 ~ 100% $\pm 3\%$ 0~69%: unspecified	Adult/Pediatric : 70 ~ 100% $\pm 2\%$ Neonate : 70 ~ 100% $\pm 3\%$ 0~69%: unspecified	Adult: 70 ~ 100% $\pm 2\%$ Adult & neonate low sat: 60-80% $\pm 3\%$ Neonate: 70 ~ 100% $\pm 2\%$ Low perfusion: 70 ~ 100% $\pm 2\%$ Adult & neonate with motion: 70 ~ 100% $\pm 3\%$	70% to 100% $\pm 2\%$
PR range	25-250bpm	18-300bpm	20-250bpm	30-250bpm
PR Accuracy	$\pm 2\%$ or $\pm 2\text{bpm}$, whichever is greater *High accuracy	$\pm 3\text{bpm}$ (non-motion) $\pm 5\text{bpm}$ (motion)	Adult, neonate, low perfusion: $\pm 3\text{bpm}$ Adult & neonate with motion: $\pm 5\text{bpm}$	$\pm 3\text{bpm}$
SpHb	X	X	X	Measurement range: 0-25g/dL Resolution: 0.1g/dL Accuracy: 6-18 g/dL + 1.0 g/ dL @ 1Std.

Thank You !