

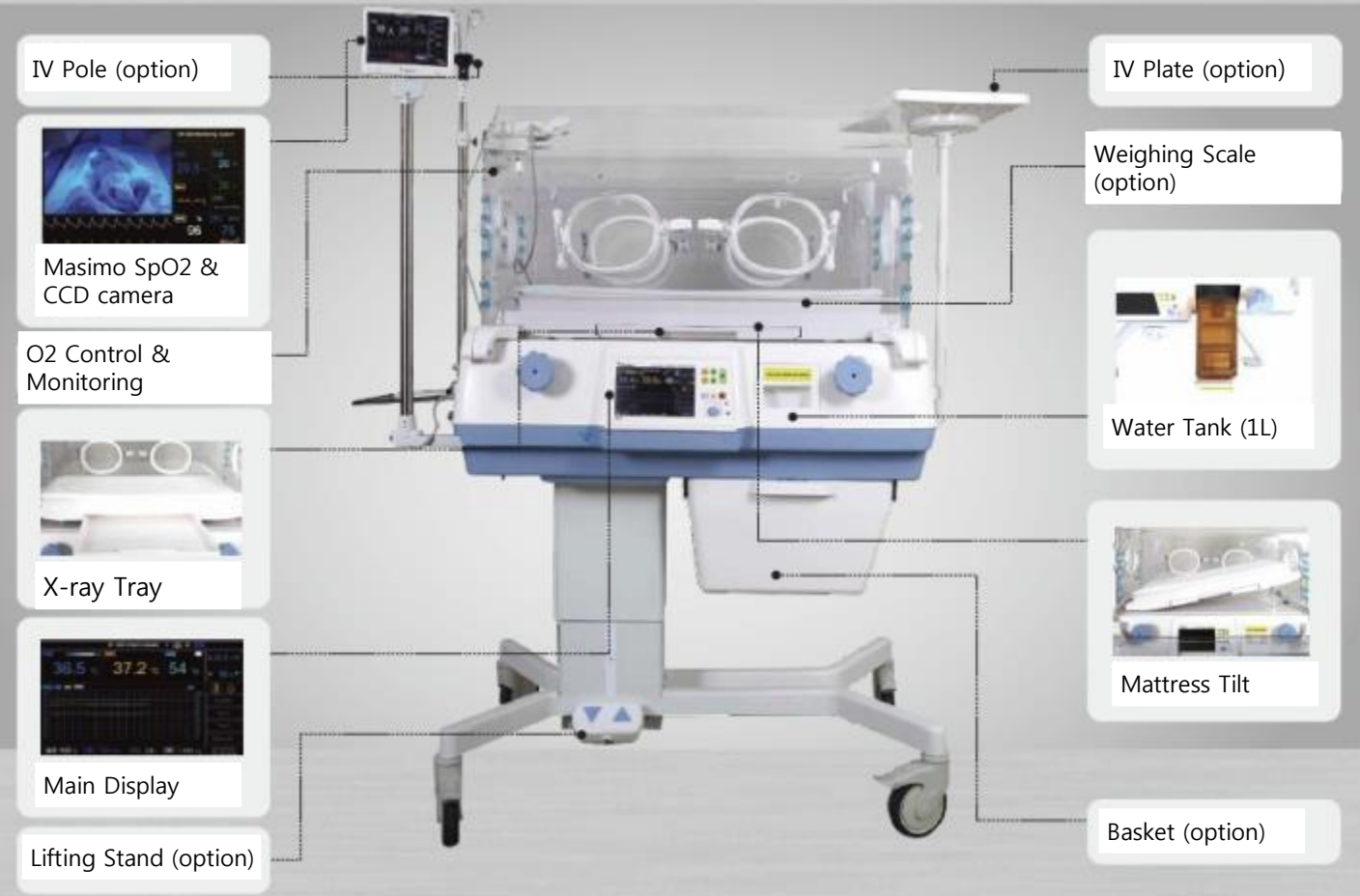
Infant Incubator

BT-500



- Accurate humidity control
- Comfortable and soft tilting structure
- 7" TFT color LCD display
- Various alarm function (27 events)
- Low noise hood
- MASIMO SpO2 and CCD camera
- Accurate weighing scale ($\pm 10g$)

Overview



• Configuration

Standard Temperature & Humidity servo control, Fixed stand, X-ray tray, Tilting, 2 pcs skin temp. sensor, 4pcs Air Filter

Options IV pole, IV plate, Lifting stand, O2 monitoring, O2 servo control, Weighing scale, Basket, Shelf, External monitor with Masimo SpO2 & CCD camera

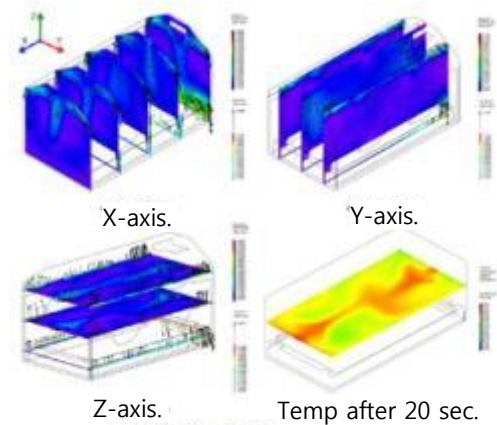
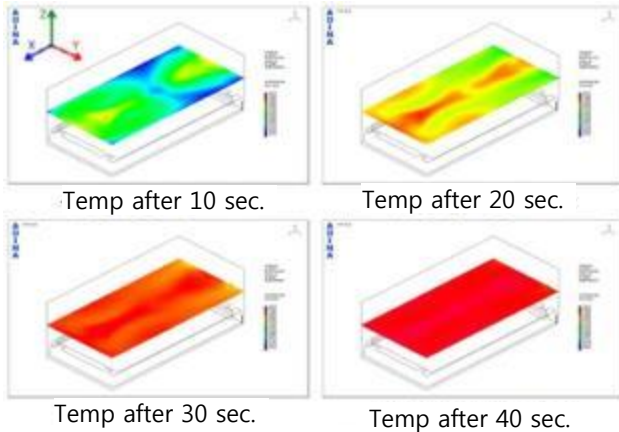
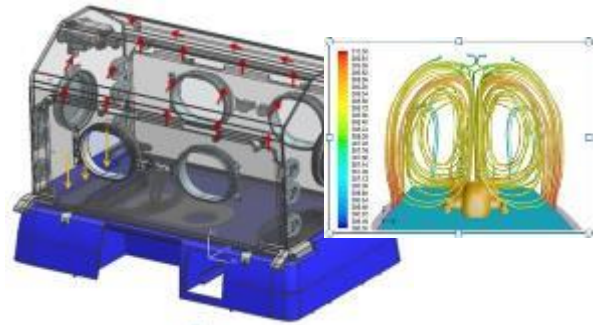
• Power-on Self-test

The incubator performs a self-test each time it is turned on. This process allows the incubator to check various systems for proper operation. When the test is successfully completed, the BT-500 displays the main screen.



• Double Wall

The hood is used to protect an infant from the external environment and maintain the internal environment of hood to best condition. BT-500 has double wall structure to minimize heat loss. The analysis result of Air flow and temperature distribution are shown as below figure.



< Analysis inside incubator Air flow and Temp distribution by Fluid Analysis (Yonsei Univ. Korea) >

• Air Curtain

BT-500 has Air Curtain function to reduce temperature fluctuation in hood when the hood door is opened for treatment of infant.

• Alarm Function

Alarm of BT-500 indicates the condition of failure. According to each alarm condition, alarm messages are displayed and alarm sound is caused and sensor module's LED blinks. There are 27 kinds of alarms by failure situation.

System Alarms

Motor failed, Heater system failed, Humidity heater failed, Stuck key, Humidity sensor failure, Air sensor failure, Fan power failure, Air circulation failure, Skin probe fail, Remove skin 2 probe, Sensor module disconnected, Sensor module not in position

Temperature Alarms

Low air temperature, High air temperature, Low skin temperature, High skin temperature, High skin 1 temperature, High skin 2 temperature, High temperature cutout, Over skin temperature

Humidity Alarms

Low humidity, Water empty

Oxygen Alarms

O2 module power failure, O2 module detached, O2 sensor fault, Low oxygen, High oxygen

Weighing Scale Alarms

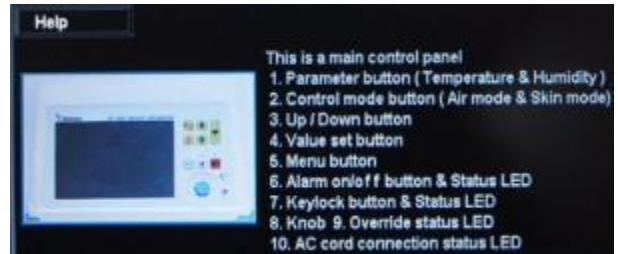
Too much weight



• Quick Guide

BT-500 has Help function which provides the simple information about the equipment. The information is as below :

- Part of full set BT-500
- Main control panel and main display
- How to use and change mode and parameters



• External Monitor

BT-500 uses external 7" color TFT LCD monitor that displays measured values from the control and video of infant inside the hood. Cam mode, Graph mode and Masimo mode are shown as below.

Cam Mode (a)

Air temperature, skin temperature, humidity, oxygen concentration and weighing scale are displayed on external monitor with real-time video of infant.

Graph Mode (b)

Air temperature, skin temperature, humidity, oxygen concentration and weighing scale, SpO2 and PR are displayed on external monitor with real-time video of infant. Also, graphs of each parameters are displayed.

Masimo Mode (c)

Air temperature, skin temperature, humidity, oxygen concentration and weighing scale are basically displayed. SpO2 and PR are mainly displayed.



(a) Cam Mode



(b) Graph Mode



(c) Masimo Mode

Specifications : BT-500 Infant Incubator

Functional Characteristics			
Temperature Control		Humidity Control	
Air Control Range	Normal : 23.0 ~ 37.0°C Override : 37.1 ~ 39.0°C	Control Range	30 ~ 95%
Air Measurement range	20.0 ~ 45.0°C ±0.5°C	Measurement Range	15~99% ±5% RH(non-condensing)
Skin Control Range	Normal : 35.0 ~ 37.5°C Override : 37.6 ~ 39.0°C	Control System	Steam(Boiling at 100°C)
Skin Measurement range	25.0 ~ 45.0°C ±0.3°C	Water Tank	1,000ml (Autoclavable)
Function		Display	7" TFT Color LCD
Microprocessor Controlled & Double Safety Feature		Hood	
Trend	9~72hours (Weighing Scale 9days)	Mattress tilt	up to 12°
Alarm(Visual & Sound)	27 Events Alarms	Noise Level	< 45dB
Warm-up Time	Silent Mode : 60min, <45dB Normal Mode : 45min, <55dB Fast Mode : 30min, <66dB	Air Filter Particle Size	0.3micron
Alarm Sounds for 30min when Power Outage		Air Filter Efficiency	99.8%
Multi-language		Double Wall	
Quick Guide		Air Curtain	
Power On Self Test		X-ray Tray	
O ₂ Measurement (Option)		Masimo SpO ₂ with CCD & External Monitor (Option)	
Measurement Range	18 ~ 100% ±5%	Display	7" TFT Color LCD
O ₂ Servo Control (Option)		SpO ₂ Range	1~ 100%
Control Range	21 ~ 65% ±5%	SpO ₂ Accuracy	70 ~ 100% ±3digits 0 ~ 69% : Unspecified
Weighing Scale (Option)		Pulse Rate Range	25 ~ 240bpm ±3digits
Measurement Range	0 ~ 10.0Kg ±10g	CCD Camera	510 x 492 pixels Video Recording
Shelf (Option)		Basket (Option)	
Weight Limit	Approx. 3Kg	Weight Limit	Approx. 10Kg
IV Plate (Option)		PC Interface	
Weight Limit	Approx. 11Kg	RS232C	
Power			
Input	AC 110/220, 50/60Hz	Consumption	950VA
Output	AC 110/220, 50/60Hz, Max.400VA		
Standard Configuration			
Skin Temperature Sensor	2ea	Air Filter	4ea
Power Cord	1ea	Operation manual	1ea
Options			
Lifting Stand		Ringer Pole	
IV Plate		Weighing Scale	
Basket		Shelf	
O ₂ Monitoring		O ₂ Servo Control (O ₂ Monitoring Included)	
Masimo SpO ₂ with CCD & External Monitor			
Warranty			
Main Unit	2years		
Physical Characteristics			
Dimension		Weight	
Standard	1,024(W) x 690(D) x 1,354(H)mm	Standard / Full Option	99.3Kg / 117.5Kg
Stand Fixed / Lifting	645(H) mm / 651 ~ 851(H)mm		
Mattress	730(W) x 380(D) x 27(H)mm		
Packing	1,150(W) x 800(D) x 1,530(H)mm	Packing	126Kg(Full Option)
Environmental Conditions			
Operating Temperature	20 ~ 30°C (68 ~ 86°F)	Storage Temperature	-20 ~ 60°C (-4 ~ 140°F)
Operating Humidity	0 ~ 95% non-condensing	Storage Humidity	0 ~ 95% non-condensing
Certificates			
Certificates	KFDA, CE, FDA	Standard	IEC60601-1, IEC60601-1-2 IEC60601-2-19

* All specifications can be different by country and are subject to change without notice.