Quick Reference Guide of JAM S3 monitor

⚠ **For more information about the device, please refer to the User Manual.**

⚠ **This guide is provided for medical professionals who are knowledgeable about the device function (and its accessories). The professionals are expected to study User Manual beforehand.**

Power Source

Charger: A USB charger (charging head and USB cable) is included with the device for charging the battery.

Battery: 2 AA rechargeable batteries (2 NI-MH batteries are recommended)

Inserting the Battery

1. Open the Battery container by pulling its handle back.
2. Insert the batteries into the container according to "+" and "-" signs.
3. Put the container into monitor and make sure that it has been locked.

Battery Container
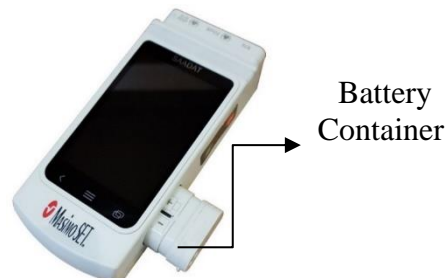
Handle

The battery level is displayed using the battery indicator. When the battery is less than %25, the "Low Battery" alarm is issued.

Connecting the Power Supply

1. Connect the USB cable to the charging head.
2. Plug the charging head into a standard outlet.
3. Insert the USB cable into the charger port of the device.

The red LED near the charger port and the charging indicator ⚡ indicate that the device is being charged.

USB charger port for charging the device

Switching On and Off

Press and hold the POWER key ❈ on the side panel for 5 seconds to turn the monitor on.

To switch off the monitor, hold this button for 5 seconds and select YES when the message "Device will be Shutdown, Are You Sure?" is displayed.

Lock Mode

The touch screen will be locked and inactive by selecting the "Display Lock" in SETTING. By doing so, the Lock indicator **Lock** is displayed. To cancel the lock mode, press the power key once.

Patient connectors

In the upper part of the monitor, the ECG/Respiration, SPO2 and N/A connectors are placed from left to right respectively.

N/A   SPO2   ECG/RESP
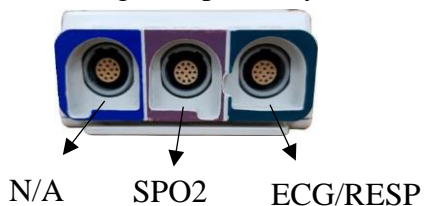
Wi-Fi-Connection

1. Monitor: independent function of monitor
2. Central: connection to the central system
3. Smartphone: connection to Smartphone or tablet
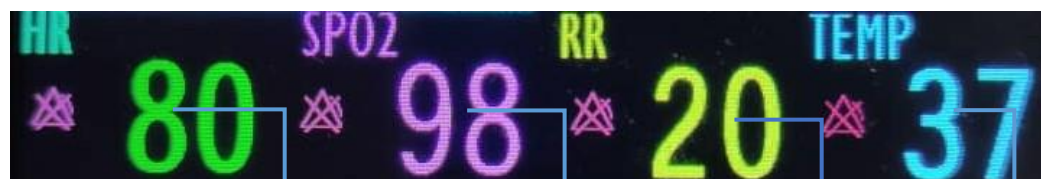Refer to "Mode" section in SETTING for adjustments.

White indicator: Wi-Fi not connected

Green indicator: Wi-Fi connected

Touchscreen Operation

Touch the parameter area to open the corresponding menu.

| HR | SPO2 | RR | TEMP |
| 80 | 98 | 20 | 37 |

Parameter area

Front Panel Touch buttons

‹ ≡ ▢

Back Key: ‹ It is used for returning to the previous menu.

Setting Key: ≡ It is used for access the Setting Menu. To access SETTING, enter the password and press Ok.

Page Key: ▢ It is used for switching among the portrait page (first page), the landscape page and SPO2 page.

Portrait and landscape mode

Admitting a Patient

1. Select "Patient" in SETTING.
2. Patient gender, age cat (neonate, pediatric, adult) and blood type can be set.
3. Refer to ECG, Resp and SPO2 menus for adjusting relevant settings.
4. Prior to patient monitoring, adjust alarm settings in SETTING.
5. For patients with pacemaker, "Pace Detect" in ECG setting must be On.

Discharging a Patient

1. To discharge a patient, select "patient discharge" in "Patient".
2. To erase the patient data, select YES when the message "system will be completely erased, Are You Sure?" is displayed. The settings will return to their default values.
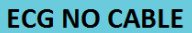
Manifestation of Alarms

1. Alarm LED is activated.

2. Flashing text in **technical and physiological alarm bar** explains the cause.

3. Alarm buzzer (an audible tone) is generated. (The tone is proportional to the alarm level.)

Alarm LED

Technical and physiological alarm bar

- To enable or disable alarm LED and alarm buzzer, refer to "Alarm" section in SETTING.
- Alarm on and off option, alarm levels and alarm limits for each parameter (HR, RR, SPO2 and PR) can be set in their relevant menus.

Pressing ALARM SILENCE key will silence all alarms (except the alarm label on display) for 120 seconds and alarm silence indicator will be displayed.

Alarm Levels

1. Level I alarm indicates danger to patient or serious problem of monitor and is displayed in red background. `ECG Asystole`

2. Level II alarm indicates serious warning and is displayed in yellow background. `ECG CHECK LL`

3. Level III alarm is a general warning and is displayed in cyan background. `ECG NO CABLE`
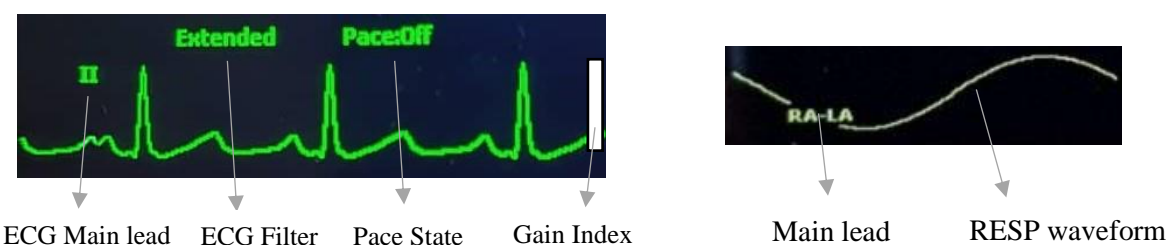
Patient History

Alarm Review: Observe all the alarms related to HR, SPO2 and RR parameters and the date and the time of alarm occurrence in alarm review in "Alarm" section of SETTING.

	HR	SPO2	RR	TEMP
	200	100	20	15
Alarm	**Date**	**Time**		
1. ECG ASYSTOLE	19/14/11	13:46:54		
2. APNEA	19/14/11	13:45:30		
3. ECG ASYSTOLE	19/14/11	13:45:19		
4. APNEA	19/14/11	13:41:18		
	< PRV	NEXT >		

Param Trend: Observe the history of the recorded parameters for the patient (HR, SPO2, RR) in Param Trend page in SETTING.

	HR	SPO2	RR	TEMP
	200	100	20	15
1. 14:54 - 27/11	200	100	20	15
2. 14:53 - 27/11	200	100	20	15
3. 14:52 - 27/11	200	100	20	15
4. 14:51 - 27/11	200	100	20	15
5. 14:50 - 27/11	200	100	20	15
<< 1 hour	< 5min	5min >	1 hour >>	

ECG and RESP information

ECG Main lead   ECG Filter   Pace State   Gain Index

Main lead   RESP waveform

ECG Menu options:

- **ECG filter: Normal** (for normal use), **Extended** (in diagnostic application, although noise might occur), **Monitor** (may reduce interference from Electrosurgery equipment or is used when the system has high noises).
- **Sweep:** the recording speed of signal

SPO2 information

PLETH waveform

SPO2 Menu options :

- **Average Time:** Average of SPO2% parameter value in the specified time interval.
- **Sensitivity:** Normal (for the majority of patients), Max (for patients with the weakest signal), APOD (children or uneasy patients).
- PR and %SPO2 values are displayed on the SPO2 page.

The SPO2 sensor wire should be on the backside of the hand.
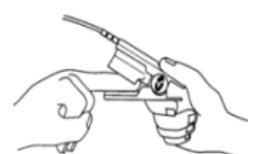
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ECG Analyzer Application Quick Guide

Pooyandegan Rah Saadat co.

⚠️
- **For more information about the device, please refer to the User Manual.**
- **This guide is provided for medical professionals who are knowledgeable about the device function (and its accessories). The professionals are expected to study User Manual beforehand.**
- **Scan the QR code and Download the ECG Analyzer application.**

(Application screenshot with numbered callouts 1–11, showing ECG Analyzer interface: Bed, Status, 06-Sep-2021, 03:13:17 PM, ID: 008112033 Age: 35 Sex: Male, ECG waveforms, HR (AUTO) 80 BPM, T1 (°C) 37, %SPO2 98, RR (BrPM) 20, RECORD AND SEND button)

1- Menu Key:
- User tab: Enter the Email address of Recipient of report and patient Info.
- Records tab: Records' archive with their interpretations
  - Resend: Sending the selected record to server
  - Signal View: Displays the recorded ECG signals
  - Interpretation: Displays the resulted report
  - PDF VIEW: Displays the Pdf file contains Signals and Interpretations

2- Status Messages location

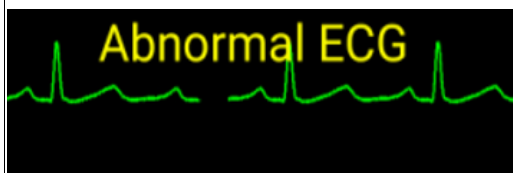| Message	Definition
Start Record	Start data recording for 10 seconds
Stop Record	End of Data Recording
Recording x%	The percentage of recording progress proportional to the registration progress bar
Send File OK	Data has been sent to the server successfully
File Remain: --	The number of files, waiting to be sent to the server
Waiting for result	Waiting for the report to be received
IP: xx.xx.xx.xx	Phone's IP that is used with monitor to make connection
Download Pdf End	The Pdf report is received and can be checked

3- Patient Demographic Information (ID, Age, Sex)

⚠️ This information is used in the interpretation process, so ensure that the information is entered correctly.

4- Record Progress Bar:
Indicates the progress, during 10 seconds of data recording.

5- Signal panel:
Displays Signals and the report summary, 1 minute after data transfer to server.

Abnormal ECG

(hand icon) Displays Other ECG leads   *(hand icon)* Displays Multi Lead ECG

6- Record & Send Key:
Touch it to start recording 10 seconds of data and sending them to the server (if connected to internet).

⚠️ Ask the patient not to move from 15 seconds before start of recording and during the process.

7- Parameter Panel:
Displays Received parameters from monitor

8- Server Connection Indicator

(icon)	*(icon)*	*(icon)*
Communicating with the server and sending data	Absence of data submission requests	Lack of Internet/Server access and requests to send data

9- Monitor Connection Indicator

(icon)	*(icon)*
Disconnected from Monitor	Connected to Monitor

10- Heart Rate Detection Symbol:
Appears when receiving the HR parameter, which is calculated via ECG signals or the SPO2 sensor.

11- Data & Time:
received from OS automatically

Quick Connection and Recording Guide

1- Turn on the Smart phone's hotspot (Use saadatap01 and 12345678 for the hotspot network name and password respectively, if not set before).

2- Put the Monitor on "Smart Phone" mode. Settings->Mode

3-Open the App and wait until the signals and parameters appear.

⚠️
- Make sure that your VPN is off, before turning the hotspot on.
- Before opening the App, make sure that the hotspot is activated.

4- Make sure that all of the electrodes & probes are placed correctly.

5- Ask the patient to not move for at least 15 seconds, then touch the RECORD AND SEND button.

⚠️
- Sim card's internet (Mobile Data) should be turned on, in order to send the data to server
- In case of recording data and no internet connection, the record will be saved in Smart phone, and sent whenever the internet connection is available

6- If the data is sent correctly to the server, you can see the interpretation summary in the signal panel.

7-Also in Records tab, if the green check mark is seen next to the record, you can see the signals and their interpretations.

8- Meanwhile, the resulted report will be sent to the predefined email (Physician Email) in User tab in PDF format.

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