



ALL INDIA INSTITUTE OF MEDICAL SCIENCES, JODHPUR

Corrigendum & Date Extension

For

Invitation of quotation for 12 Lead ECG Machine at

All India Institute of Medical Sciences, Jodhpur

Inquiry No. : Admin/Gen/89-03/2021-AIIMS.JDH.
Inquiry Issue Date : 17th March, 2022
Previous Last Date of Submission : 23rd March, 2022 at 03:00 PM.
Revised Last Date of Submission : 28th March, 2022 at 03:00 PM.

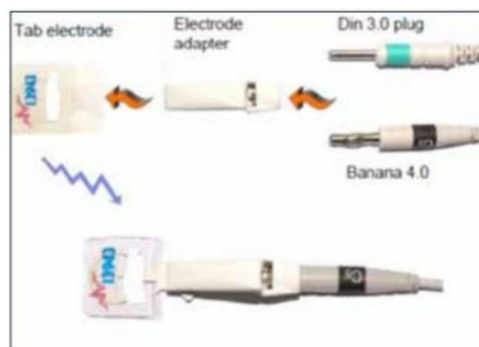
The following he following revisions / modifications is made:-

S. No.	Item name	Qty.
1.	12 Lead ECG Machine	01 Nos.

Revised Technical Specifications

1. Should acquire simultaneous 12 lead ECG for both newborn and young pediatric patients.
2. Should have Real time Color display of ECG waveforms with signal quality indication for each lead. TFT Display size 6.5-Inches or more.
3. Full disclosure of each leads for 5 min with complete ECG report of any 10 seconds with continuous patient heart rate display
4. Should have Artifact, AC, and low and high pass frequency filters.
5. Should have a storage memory of at least 150 numbers 12 lead ECGs with easy transfer by modem and data card.
6. Should have full screen preview of ECG report for quality assessment checks prior to print.
7. Should have interpretation facility of the amplitudes, durations and morphologies of ECG waveforms and associated rhythm for newborn patients.
8. Should have alphanumeric Keyboard for patient data Entry. (Virtual or hard keys).
9. Should have High resolution (200 dpix500dpi on 2550mm/sec speed) maintenance free digital array A4 size printer.
10. Should have report formats of 3 x4; 3x4 1R, 6x2, 12x1 Rhythm for up to 12 selected leads; 12 Lead Extended measurements, 1 minute of continuous waveform data for 1 selected lead.
11. Standard measurements with Integrated pediatric analysis also preferable with newborn analysis software having capability of interpreting normal / abnormal ECG in newborns based on newborn data
12. Should measure standard wave interval, duration, and axis measurements, Configurable QT correction method, Rhythm strips Up to 12 configurable leads.
13. Should have facility for Event markings , at least 4 independent events can be marked for later review and analysis and the Event markers must appear on ECG reports
14. Battery Recharge: By maximum of 4 hours for Full Capacity. Should have battery capacity of at least 25 ECGs or 30 minutes of continuous rhythm recording on single charge.

15. Li-Ion battery for printing at least 25 ECG on full charge battery
16. Should be able to be connected to HIS /LAN/Wireless LAN and machine should be able to transfer ECG over wifi/LAN network to any other PC/Laptop in PDF format
17. ECG Machine must have advanced bi-directional network communication supported by standard HL7 and DICOM interfaces via ECG gateway system for departmental & hospital systems
18. Should display ECG on LCD/TFT Display of 640x480 pixel resolution.
19. USB Support for Storage on external portable memories.
20. Multimode of ECG Storage capability, 150 ECG on Internal Flash Memory.
21. Should have preferred 3 operating mode: Automatic, Manual & Rhythm.
22. Should have Defibrillation Protection.
23. Should be capable of simultaneously acquisition of 12 channel, analysis, storage, printing, and accessing previous ECGs with ease of a simple touch operation with ease and speed.
24. User's interface both : Manual/automatic
25. Power Requirements: Power input to be 220 - 240VAC, 50-60Hz fitted with Indian three pin plug or European three pin with both plug and matching female socket.
26. Should have online voltage stabilizer.
27. Accessories, Spare parts (main ones); and Consumables (mandatory)
 1. ECG Machine 12 Leads with Interpretation based on Integrated pediatric analysis and preference would be given having newborn algorithm Software or a commitment to help in developing this software .
 2. Patient Cable : Patient cable should have capability of acquiring data at 6,000 samples/second on each patient connection with facilities for increasing distance : long patient Cables i.e. Extended-length lead wires enabling greater distances between the patient Cable and the patient connections. Patient cable reusable for newborns and Paediatric at least 4 set.
 3. Chest Electrodes reusable Pediatric (set of 2) -02 sets reusable : each set should have at least 6 for V1 to V6 ; Bulb should be small, soft for Paediatric patient ; Preferred dimension of each bulb : volume is 2cc. (dia.23mm) Ball's Dia: 28mm and cup diameter: 23 mm also compatible with either Plug pin : din 3.0 or Banana :4.0 mm
 4. Limb clamp reusable Electrodes (set of 2) 02 sets of Pediatrics each set has 4 limb clamps.
 5. Disposable Tab electrodes for neonates (34/13mm) or smaller for 500 newborns . Each newborn would require at least 8 or more.
 6. ECG reusable electrode adapter (set of 10) 02 sets of neonatal compatible with Tab electrodes set and 2 sets pediatrics (Socket fit for 3.0 mm Din plug or 4.0 mm banana plug) compatible with reusable Paediatric set .
 7. Clips and Adaptor for tab electrodes should be such that it should be easy and should avoid twisting or stretching.
 8. Should have High resolution (200 dpix500dpi on 2550mm/sec speed) maintenance free digital array A4 size printer
 9. Thermal Paper A4 Size packs (pack of 100) – 20 nos.
 10. Supplied with suitable Trolley with robust wheels ; Trolley should be made powder coated frame with SS304 grade to f/SS.



28. Atmosphere / Ambiance (air conditioning, humidity, dust)
 1. The unit shall be capable of operating continuously in ambient temperature of 10- 50 deg C and relative humidity of 15 - 90%
 2. Shall meet IEC - 60601-1- 2:2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility or should comply with 89/366/EEC; EMC-directive.
29. User's care, Cleaning, Disinfection & Sterility issues

Disinfection: Parts of the Device that are designed to come into contact with the patient or the operator should either be capable of easy disinfection or be protected by a single use/disposable cover.

30. STANDARDS AND SAFETY

1. US FDA/ European CE approved equipment. Certificate to be enclosed with bid.
2. Certificates from any medical college using this equipment for newborns regarding Performance
3. Safety standards (specific to the device type); Local and/or international (not compulsory):
4. Electrical safety conforms to standards for electrical safety IEC – 60601 -1
5. General Requirements and IEC-60601-2-25 Safety of Electrocardiograms.
(OR EQUIVALENT BIS Standard)

31. TRAINING AND INSTALLATION

Pre-installation requirements:

1. Availability of 5 amp socket
2. Safety and operation check before handover;
3. Training of staff (medical, paramedical, technicians)
 - a. Training of users on operation and basic maintenance;
 - b. Advanced maintenance tasks required shall be documented and given in print

32. WARRANTY AND MAINTENANCE

1. Warranty 2 years followed by CMC for at least 5 years
2. Maintenance tasks : . Maintenance manual detailing;
3. Complete maintenance schedule;
4. Service contract clauses, including prices
 - a. All spare parts and consumables should be available with supplier or principals for a period of at least 10 years.
 - b. In case of any change of dealership in future the Manufacturer should undertake the responsibility of maintaining the equipment through the next dealer.
5. List of essential spares, accessories, expendables and consumables expected to be used in should be quoted separately. Prices so quoted to be frozen for entire duration of warranty and CMC

33. Operating manuals, service manuals, other manuals

1. User Manual in English
2. Service manual in English
3. List of important spare parts and accessories with their part number and costing for next 5 years
4. Certificate of calibration and inspection.
5. Log book with instruction for daily, weekly, monthly and quarterly maintenance checklist.
6. The job description of the hospital technician and company service engineer should be clearly spelt out
7. List of Equipment available for providing calibration and routine preventive maintenance support, as per manufacturer documentation in service/technical manual.
8. Other accompanying documents
 - a. List of important spares and accessories, with their part numbers and cost
 - b. Service Support Contact details (Hierarchy Wise; including a toll free/landline number).
 - c. Contact details of manufacturer, supplier and local service agent to be provided
 - d. Any Contract (AMC/CMC/ad-hoc) to be declared by the manufacturer
 - e. Recommendations or warnings: Any warning signs would be adequately displayed

Note: -

- ❖ Catalog/ Brochure must be attached for Technical Evaluation.
- ❖ The supplier may be asked to arranging demonstration of their equipment for which rates have been quoted, to the AIIMS Jodhpur, if required. The expenditure incurred for demonstrating the items will be borne by the supplier.

SD/-
AIIMS, Jodhpur