

TRUMP in the field of Medical industry

----- Medical Analyzing and Monitoring system

Electrocardiograph

Electroencephalograph

✧ Electrocardiograph

Single Channel Electrocardiograph

TRUMP-S-01A (5.1" screen)

TRUMP-S-01B (3.5" screen)

Technological Specifications

Display	5.1" screen or 3.5" screen
Lead system	Standard 12 leads
Input mode protects	Floating and Eliminates trembling
Input impedance	>50M Ω
Output impedance	< 100 Ω
Patient leak current	< 10 μ A
Input loop current	< 0.1 μ A
Calibration voltage	1mV \pm 5%
A/D conversion	13 bit
Frequency response	0.05Hz-150Hz
Time constant	>3.2s
Common-mode restrain ratio	>80dB >100dB(with AC filter)
EMG filter	35Hz (-3dB) / 25Hz(-3dB)
Standard sensitivity	10mm/mV \pm 0.2mm/mv
Sensitivity selection	5, 10, 20mm/mV, Transformation error \pm 5%
Polarization-endured voltage	\pm 300mV
Noise level	\leq 15 μ V _{p-p}
Baseline control	Auto-adjusting
Power supply	Ac: 200V, 50Hz, 15VA Dc: 12V rechargeable battery
Safety standard	IEC I category, CF style
Operation method	Auto or Manual
Printing speed	25、50mm/s \pm 5%
Recording system	Thermal-array printing system
Recording paper standard	high-speed rool 50mm \times 30m
Dimensions (L \times W \times H)	310 \times 230 \times 70mm
Packing size (L \times W \times H)	400 \times 360 \times 130mm
Net weight	2.7kg
Gross weight	4.5kg



TRUMP-S-02

Technological Specifications

Lead Standard	12 leads. I, II, III, aVR, aVL, aVF, V1 to V6
Input current	less than $1 \times 10^{-1} \text{A}$
Skin voltage tolerance	+300mV
Patient leakage current	less than $10 \mu\text{V}$
Calibration voltage	1mV
Frequency response	1-75Hz + 0.4dB - 3.0dB
Time constant	3.2 sec.
Noise level	$15 \mu\text{V}_{\text{p-p}}$
Filter	"HUM" 50Hz - 3dB
CMRR	"EMG" 35Hz - 3dB more than 60dB
Gain control	"2" (20mm/mV), "1" (10mm/mV), "1/2" (5mm/mV)
CRT output	resistance, single end less than 100Ω voltage: 1v/1mV Frequency response: 250Hz
Input sensitivity	10mm/1V
Pen deflection and linearity	$\pm 20\text{mm}$ 10%
Chart Paper	50mm/20m or 50mm/30m
Paper speed	25mm/sec. or 50mm/sec.
Zero position return	0.2mm
Safety requirement	in conformity with safety standard BC9706.1, Class 1, Type B
AC power	220V \pm 22V 50Hz \pm 1Hz
DC power	0.5 hour continuous operation
Charging time	10 hours
Ambient temperature and humidity	5 - 40 C 10 - 95% RH at work 0 - 50 C 10 - 95% RH in storage
Dimensions	330 \times 285 \times 85 mm
Weight	less than 5kg
Power consumption	30W

TRUMP-S-03

[Features]

- ◆ ·Isolated input circuit with protection against defibrillation and pacemaking
- ◆ ·Safety level: Class I, Type CF
- ◆ ·Auto/Man operation, Automatic lead change, Automatic power off.
- ◆ ·Thermal stylus recorder
- ◆ ·AC/built in rechargeable NI-MH battery supporting 1 hour operation
- ◆ ·AC, EMG filter

Technological Specifications

Lead	Single channel; 12 lead
Safety level	Isolated input circuit ; class I , type CF
Power supply	AC/Rechargeable battery; Manual changeover;
Automatic power off;	Capacity alarm & protection
Display	LED
Lead change	Automatic lead change
Alarm	Lead disconnection
Recorder	Position feedback stylus

Standard Configuration:

Patient Cable:	1pc
Limb Electrode:	4pcs/set
Chest Electrodes:	6pcs/set
Power Cable:	1pc
Grounding Cable:	1pc
Paper Shaft:	1pc
Recording Paper:	1roll
Fuse:	2pcs
Built in Battery:	1pc
Operation Manual:	1copy



TRUMP-S-04

- ◆ ·High resolution thermal array printer
- ◆ ·Special 2 channel format to print out rhythm lead and standard 12 lead ECG
- ◆ ·192*64 LCD to display operating status, setting menu, and 12 lead ECG trace
- ◆ ·Auto/Man operation, Automatic lead change, Automatic power off.



- ◆ ·Lead disconnection alarm
- ◆ ·Isolated input circuit with protection against defibrillation
- ◆ ·AC, EMG, DFT filter
- ◆ ·Can display waveform

Technological Specifications

Lead	standard 12 lead	
Input impedance	≥ 50 MΩ	
Input Circuit Current	≤ 50nA	
Calibrating Voltage	1mV±3%	
Skin Voltage Tolerance	±300mV	
Sensitivity	5, 10, 20 mm/mV	
Filter	AC: 50Hz(-20dB)	EMG: 35~45Hz(-3dB)
Paper speed	25, 50mm/s ±3%	
Time constant	≥3.2s (0, +20%)	
Noise Level	≤15mV	
Frequency Response	0.05~150Hz (-3 dB)	
CMRR	≥ 100 Db	
Sampling Rate	1ms	
A/D Converter	12 bit	
Recording Paper	Roll paper 50mm×20m (30m)	
Operation Mode	AUTO/ MAN	
Printer	Thermal array printer	
Baseline Control	Automatic position	
Rhythm Lead	Standard 12 lead	
Lead Change	Automatic/ Manual	
External Signal	10mm/mV ±5%: single ended ≥ 100 MΩ	
ECG Output	0.5V/mV ±5%: single ended ≤ 100 Ω	
Safety Level	Class 1, Type CF	
Power Requirements	AC: 220V, 50Hz/110V, 60Hz	
	DC: Built in rechargeable battery; supporting 50 exams after complete charging	
Package	760×550×450mm (4 sets); 240×450×370mm(1 set)	
Weight	3.5Kgs	

Standard Configuration:

- Patient Cable: 1pc
- Limb Electrode: 4pcs/set
- Chest Electrodes 6pcs/set
- Power Cable: 1pc
- Grounding Cable: 1pc
- Paper Shaft: 1pc
- Recording Paper: 1roll
- Fuse: 2pcs
- Built in Battery: 1pc
- Operation Manual: 1copy

TRUMP-S-05

[Features]

- ◆ · Simultaneously acquisition of 12-lead ECG data, IEC Class I, type CF safety standard
- ◆ · High resolution thermal printing array system
- ◆ · Operation menu and parameter setting via LCD
- ◆ · Selectable three modes of leads: Manual (standard single channel), Auto I (standard single channel) & Auto II (standard single channel plus rhythm lead)
- ◆ · Memory for storing ECG data for later printing
- ◆ · Measurement function under Auto Mode operation
- ◆ · Filter for AC, EMG and DFT
- ◆ · Hidden holder for easy carriage.
- ◆ · Function of heart rate detection and protection against possible pulse shock while pacemaker applied
- ◆ · Real time clock, heart rate examination
- ◆ · Option: USB&RS232 interface & software(12-lead ECG waveform can be transferred to PC, measured, analyzed, stored or printed out on A4 paper)



Specifications

Input Circuit Floating	Protection against defibrillator effect
Lead Standard	12 leads
Patient Current Leakage	<10 μ A
Input Impedance	\geq 100M Ω
Calibrating Voltage	1mV \pm 3%
Digital Sampling	12 bits (simultaneously acquisition of 12 leads ECG data)
Frequency Response	0.05Hz~165Hz (-3dB)
Time Constant	>3.2seconds
CMRR	>100dB (with filter)
EMG Filter	40Hz (-3dB)
DFT Filter	Automatic adjustment
Sensitivity	2.5, 5, 10, 20mm/mV \pm 3%
Paper Speed	6.25, 12.5, 25, 50mm/s, \pm 3%
Recording Paper	50mm, 20m/30m, high-speed(roll/pile)
Input Circuit Current	\leq 50nA
Power Supply	AC 85v-265v / 50/60Hz DC 12V, 1500mA (Built in rechargeable battery)
Depolarization Voltage	\pm 450mV

Noise Level	<15 μ Vp-p
Dimension	288 x 209 x 62mm
Dimension (carton)	380 x280x200mm
Net Weight	2.75 Kgs
Weight	4.5Kgs

Option

USB&RS232 interface ensures connection with computer and data transfer (net-working capacity)

✧ Three Channel Electrocardiograph

TRUMP-T-01

- ◆ ·High resolution thermal array printer; 2/3/3+2 channel printout format
- ◆ ·3.5 inch 320x240 LCD to display setting menu and 12 channel ECG waveform
- ◆ ·Simultaneous acquisition of 12 lead ECG data
- ◆ ·Automatic measurement and interpretation of ECG waveform
- ◆ ·RS232 interface and optional software supporting data transmission to PC
- ◆ ·Isolated input circuit with protection against defibrillation and pacemaking
- ◆ ·AC power built in rechargeable LI ion battery supporting 2 hour operation
- ◆ ·Paper size: 63mmx20m (roll type)



Technological Specifications

Lead	standard 12 lead	
Input impedance	$\geq 50 \text{ M}\Omega$	
Input Circuit Current	$\leq 50\text{nA}$	
Calibrating Voltage	1mV \pm 3%	
Skin Voltage Tolerance	$\pm 300\text{mV}$	
Sensitivity	5, 10, 20 mm/mV	
Filter	AC: 50Hz(-20dB)	EMG: 35~45Hz(-3dB)
Paper speed	25, 50mm/s \pm 3%	
Time constant	$\geq 3.2\text{s}$ (0, +20%)	
Noise Level	$\leq 15\text{mV}$	
Frequency Response	0.05~150Hz (-3 dB)	
CMRR	$\geq 100 \text{ dB}$	
Sampling Rate	1.25ms	
A/D Converter	12 bit	
Recording Paper	Roll paper 63mm \times 20m (30m)	
Operation Mode	AUTO/ MAN	

Printer	Thermal array printer
Baseline Control	Automatic position
Rhythm Lead	Standard 12 lead
Lead Change	Automatic/ Manual
External Signal	10mm/mV $\pm 5\%$: single ended $\geq 100 \text{ M}\Omega$
ECG Output	0.5V/mV $\pm 5\%$: single ended $\leq 100 \Omega$
Safety Level	Class 1, Type CF
Power Requirements	AC: 220V, 50Hz/110V, 60Hz DC: Built in rechargeable battery; supporting 50 exams after complete charging
Package	760×550×450mm (4 sets); 240×450×370mm(1 set)
Weight	3.5Kgs

Standard Configuration:

Patient Cable:	1pc
Limb Electrode:	4pcs/set
Chest Electrodes	6pcs/set
Power Cable:	1pc
Grounding Cable:	1pc
Paper Shaft:	1pc
Recording Paper:	1roll
Fuse:	3pcs
Built in Battery:	1pc
Operation Manual:	1copy



TRUMP-T-02A (5.1")

TRUMP-T-02B (3.5")

Lead system	12 leads, 3 channels sampling
synchronized	
Input mode	Floating and Eliminates trembling
protects	
Input impedance	$>50 \text{ M}\Omega$
Output impedance	$< 100 \Omega$
Patient leak current	$< 10 \mu\text{A}$
Input loop current	$\leq 0.1 \mu\text{A}$
Calibration voltage	1mV $\pm 5\%$
Output voltage	0.5mm/mV $\pm 3\%$
A/D conversion	13 bit
Frequency response	0.05Hz-150Hz
Time constant	$>3.2\text{s}$



Common-mode restrain ratio	>80dB >100dB(with AC filter)
EMG filter	35Hz(-3dB)/25Hz(-3dB)
Standard sensitivity	10mm/mV±0.2mm/mv
Sensitivity selection	5, 10, 20mm/mV, Transformation error±5%
Polarization-endured voltage	±300mV
Noise level	≤ 15 μV _{p-p}
Baseline control	Auto-adjusting
ECG output	0.5V/mV±5%, single port= 100 Ω
Power supply	Ac: 200V, 50Hz, 15VA Dc: 12V rechargeable battery
Safety standard	IEC I category, CF style
Operation method	Auto or Manual
Analysis function	ECG parameters auto-measure, auto-analysis
Printing speed	25 or 50mm/s±5%
Recording system	Thermal-array printing system
Recording paper standard	high-speed roll 50mm×30m
Dimensions (L x W x H)	310×230×70mm
Packing size (L x W x H)	400×360×130mm
Net weight	2.7kg
Gross weight	4.5kg

TRUMP-T-03

[Features]

- ◆ ·Simultaneously acquisition of 12-lead ECG data, IEC Class I, type CF safety standard
- ◆ ·Selectable four modes of leads: Manual (single channel or three), Auto I (standard three channel), Auto II (standard single channel plus any rhythm lead) and Auto III (arrhythmia analysis)
- ◆ ·Function of ECG parameters measurement and distinguish point printing under Auto mode
- ◆ ·LCD display of operation menu, AMP menu and parameter setting
- ◆ ·Powerful filter for AC, EMG and DFT interference
- ◆ ·High resolution thermal printer
- ◆ ·AC and DC power supply, rechargeable built-in lithium battery, about 2 hours' working time
- ◆ ·High resolution and multiple print formats ensure best print quality of ECG waveforms
- ◆ ·Capability of input & output for analog signal
- ◆ ·RS232 interface ensure easy convey of ECG
- ◆ ·Option: USB interface, net-working capacity



Interpretive function(ECG-1103B+)

Specifications

Input circuit	Floating; protection against defibrillator effect
Lead	standard 12 leads, European leads
Patient current leakage	< 10 μ A
Input impedance	\geq 50M Ω
Calibrating voltage	1mV \pm 3%
Digital sampling	12bits (simultaneously acquisition of 12 leads ECG data)
Frequency response	0.05Hz~150Hz (-3dB)
Time constant	>3.2seconds
CMMR	> 100dB(with filter)
EMG filter	40Hz (-3dB)
DFT filter	Automatic Adjustment
Sensitivity	2.5, 5, 10, 20mm/mV \pm 3%
Recording system	thermal-array
Paper speed	25, 50mm/s \pm 3%
Recording paper	50/63mm, high-speed roll
Input circuit current	\leq 50nA
Safety standard	IEC Class I, Type CF
Power supply	AC: 85V~265V, 50/60Hz DC 14.4V, 1200mA, li-ion battery
Depolarization voltage	\pm 500mV
Noise level	< 15 μ V _{p-p}
Dimension	300*230*65mm
Net weight	2.75kgs
Gross weight	4.5kgs



✧ Six Channel Electrocardiograph

TRUMP-M-01

[Features]

- ◆ ·High resolution thermal array printer; 3/4/6 channel printout format
- ◆ ·5 inch 320x240 LCD to display setting menu and 12 channel ECG waveform
- ◆ ·Simultaneous acquisition of 12 lead ECG data
- ◆ ·Automatic measurement and interpretation of ECG waveform
- ◆ ·Memory of 16 exams for recall and duplication
- ◆ ·Isolated input circuit with protection against defibrillation and pace making
- ◆ ·AC power/ (built in rechargeable LI ion battery supporting 2 hour operation)
- ◆ ·Paper size: 112mmx20m (roll type)

Technological specifications

Lead	standard 12 lead	
Rhythm Lead	standard 12 lead	
Input impedance	≥ 50 MΩ	
Input Circuit Current	≤ 50nA	
Calibrating Voltage	1mV±3%	
Skin Voltage Tolerance	±300mV	
Sensitivity	5, 10, 20 mm/mV	
Filter	AC: 50Hz(-20dB)	EMG: 35~45Hz(-3dB)
Paper speed	25, 50mm/s ±3%	
Time constant	≥3.2s (0, +20%)	
Noise Level	≤15mV	
Frequency Response	0.05~150Hz (-3 dB)	
CMRR	≥ 100 dB	
Sampling Rate	1.25ms	
A/D Converter	12 bit	
LCD	320×240 graph LCD	
Recording Paper	Roll paper / Z fold 112mm×30m /112mm×75m	
Operation Mode	AUTO/ MAN	
Printer	Thermal array printer	
Baseline Control	Automatic position	
Rhythm Lead	Standard 12 lead	
Lead Change	Automatic/ Manual	
External Signal	10mm/mV ±5%: single ended ≥ 100 MΩ	
ECG Output	0.5V/mV ±5%: single ended ≤ 100 Ω	
Safety Level	Class 1, Type CF	
Power Requirements	AC: 220V, 50Hz/110V, 60Hz	

	DC: Built in rechargeable battery; supporting 50 exams after complete charging
Package	760×550×450mm (4 sets); 240×450×370mm(1 set)
Weight	4Kgs

Standard Configuration:

- Patient Cable: 1pc
- Limb Electrode: 4pcs/set
- Chest Electrodes: 6pcs/set
- Power Cable: 1pc
- Grounding Cable: 1pc
- Paper Shaft: 1pc
- Recording Paper: 1roll
- Fuse: 3pcs
- Built in Battery: 1pc
- Operation Manual: 1copy

✧ **Twelve Channel Electrocardiograph**

TRUMP-N-01

[**Features**]

- ◆ ·High resolution thermal array printer; 6/7/12 channel printout format
- ◆ ·5 inch 320x240 LCD to display setting menu and 12 channel ECG waveform
- ◆ ·Simultaneous acquisition of 12 lead ECG data
- ◆ ·Automatic measurement and interpretation of ECG waveform
- ◆ ·Memory of 16 exams for recall and duplication
- ◆ ·RS232 interface and optional software supporting data transmission to PC
- ◆ ·Isolated input circuit with protection against defibrillation and pacemaking
- ◆ ·AC power/(built in rechargeable LI ion battery supporting 2 hour operation)
- ◆ ·Paper size: 210mmx20m (roll type)/210mmx140mmx20m (Z-fold type)



Technological specifications

Lead	standard 12 lead
Rhythm Lead	standard 12 lead
Input impedance	≥ 50 MΩ
Input Circuit Current	≤ 50nA
Calibrating Voltage	1mV±3%

Skin Voltage Tolerance	±300mV
Sensitivity	5, 10, 20 mm/mV
Filter	AC: 50Hz(-20dB) EMG: 35~45Hz(-3dB)
Paper speed	25, 50mm/s ±3%
Time constant	≥3.2s (0, +20%)
Noise Level	≤15mV
Frequency Response	0.05~150Hz (-3 dB)
Sampling Rate	1.25ms
A/D Converter	12 bit
Recording Paper	Roll paper / Z fold 112mm×30m /112mm×75m
Operation Mode	AUTO/ MAN
Baseline Control	Automatic position
Rhythm Lead	Standard 12 lead
External Signal	10mm/mV ±5%: single ended ≥ 100 MΩ
ECG Output	0.5V/mV ±5%: single ended ≤ 100 Ω
Safety Level	Class 1, Type CF
Power Requirements	AC: 220V, 50Hz/110V, 60Hz DC: Built in rechargeable battery; supporting 50 exams after complete charging
Package	760×550×450mm (4 sets); 240×450×370mm(1 set)
Printer	Thermal array printer
Weight	5.5Kgs

Standard Configuration:

Patient Cable:	1pc
Limb Electrode:	4pcs/set
Chest Electrodes	6pcs/set
Power Cable:	1pc
Grounding Cable:	1pc
Paper Shaft:	1pc
Recording Paper:	1roll
Fuse:	3pcs
Built in Battery:	1pc
Operation Manual:	1copy

TRUMP-N-02

[Features]

- ◆ ·High resolution thermal array printer; 6/7/12 channel printout format
- ◆ ·6 inch 320 x 240 LCD to display setting menu and 12 channel ECG waveform
- ◆ ·Simultaneous acquisition of 12 lead ECG data
- ◆ ·Automatic measurement and interpretation of ECG waveform
- ◆ ·Memory of 16 exams for recall and duplication
- ◆ ·USB interface and optional software supporting data transmission to PC
- ◆ ·Isolated input circuit with protection against defibrillation and pace making
- ◆ ·AC power/(built in rechargeable LI ion battery supporting 2 hour operation)
- ◆ ·Paper size: 210mm x 20m (roll type)/ 210mm x 140mm x 20m (Z-fold type)



Technological specifications

Lead	standard 12 lead
Rhythm Lead	standard 12 lead
Input impedance	$\geq 50 \text{ M}\Omega$
Input Circuit Current	$\leq 50\text{nA}$
Calibrating Voltage	$1\text{mV}\pm 3\%$
Skin Voltage Tolerance	$\pm 300\text{mV}$
Sensitivity	5, 10, 20, 40 mm/mV
Filter	AC: 50Hz(-20dB) EMG: 35~45Hz(-3dB)
Paper speed	6.25, 12.5, 25, 50mm/s $\pm 3\%$
Time constant	$\geq 3.2\text{s}$ (0, +20%)
Noise Level	$\leq 15\mu\text{V}$
Frequency Response	0.05~150Hz (-3 dB)
Sampling Rate	1.25ms
A/D Converter	12 bit
Baseline Control	Automatic position
PC Connection	USB interface
Memory	16 exams in memory for recall and duplication
Recording Paper	Roll paper / Z fold 210mm×30m / 210mm×20m
Operation Mode	AUTO/ MAN
Rhythm Lead	Standard 12 lead
External Signal	10mm/mV $\pm 5\%$: single ended $\geq 100 \text{ M}\Omega$
ECG Output	0.5V/mV $\pm 5\%$: single ended $\leq 100 \Omega$
Safety Level	Class 1, Type CF

Power Requirements	AC: 220V, 50Hz/110V, 60Hz DC: Built in rechargeable battery; supporting 50 exams after complete charging
Package	510×410×230mm for 1 set
Printer	Thermal array printer
Weight	5.5Kgs

Standard Configuration:

Patient Cable:	1pc
Limb Electrode:	4pcs/set
Chest Electrodes:	6pcs/set
Power Cable:	1pc
Grounding Cable:	1pc
Paper Shaft:	1pc
Recording Paper:	1roll
Fuse:	3pcs
Built in Battery:	1pc
Operation Manual:	1copy

TRUMP-N-03

[Features]

- ◆ · Simultaneous acquisition of 12-lead ECG data, IEC Class I, type CF safety standard
- ◆ · Display of twelve ECG waveforms, operation menu and parameter setting via large LCD(5.7',320x240 dots for ECG-1112B or 10.4' Color TFT 640x480 dots for ECG-1112G)
- ◆ ·Multi-recording modes selectable
 - Function of ECG parameters measurement and interpretation, distinguishing point printing under automatic mode
- ◆ ·Menu language can be preset per requested(default language is English)
- ◆ ·High resolution 210mm/216mm thermal printer
- ◆ ·AC and DC power supply, rechargeable built-in battery, at least 2 hours' working time
- ◆ ·Function of heart rate detection and protection against possible pulse shock while pacemaker applied
- ◆ ·Storage of 128 patients' data in memory for recalling , copying , printing ,etc.
- ◆ ·Built-in interpretive software for four age categories accordingly
- ◆ ·Real time clock, heart rate examination and display of ECG waveforms
- ◆ ·Option: USB&LAN Port , built-in SD/CF Card



Specifications

Input Circuit Floating:	protection against defibrillator effect
Safety Level	IEC Class I, Type CF, GB9706.11-1995; GB10793-2000
Lead	Standard 12 leads, European leads
Patient Current Leakage	<10 μ A
Input Impedance	\geq 50M Ω
Calibrating Voltage	1mV \pm 3%
Digital Sampling	A/D: 18 bits, 1000Hz(1ms)
Frequency Response	0.05Hz~150Hz (-3dB)
Time Constant	>3.2s
CMRR	>100dB (with filter)
EMG Filter	40Hz (-3dB)
DFT Filter	Automatic adjustment
Sensitivity	2.5, 5, 10, 20mm/mV \pm 2%
Recording System	Thermal array
Recording Length	1.5s, 3s, 5s, 10s
Paper Speed	6.25, 12.5, 25, 50mm/s, \pm 2%
Recording Paper	216mm, 20m/30m, high-speed (roll/pile paper)
Input Circuit Current	\leq 50nA
Power Supply	AC 85V-265V, 50/60Hz \pm 1Hz, 45VA DC 14.4V, 2000mA, rechargeable lithium battery
Depolarization Voltage	\pm 500mV
Noise Level	<15 μ V _{p-p}
Dimension	376 × 300 × 96mm (Carton: 455×390×265mm)
Net Weight	4.5 kg (including battery)
Gross Weight	7.80 kg (including carton)

✧ Hand-Held Single Channel ECG

TRUMP-H-01

Technological specifications

Input circuit:	Floating		
Calibrating Voltage:	1mV		
Input current :	<100nA		
CMRR:	>103dB		
A/D:	12bit		
Frequency Response:	0.05Hz--150Hz		
Filter:	AC 50/60Hz	EMG:	35-4Hz
Sensitivity Setting	5, 10, 20mm/mV		
Safety standard:	IEC class I, type CF		
Lead selection:	Automatic and Manual		



Operation mode:	Automatic and Manual	
Display:	LCD 160×96 visual	size: 34× 60
Recording system:	Thermal-array printing	
Power supply:	AC220V	DC 7.4 lithium battery
Size:	190×90×40	
Weight:	About 800g	

✧ ECG Recorder and ECG Telemonitoring System

TRUMP-R-01

Designed for homecare, TRUMP-R-01 ECG Recorder is the ideal appliance for the user to monitor personal ECG and clinical symptoms in 24 hours. In addition, it's Remote ECG Monitoring System allows the user to transmit ECG data as well as descriptions of symptoms to the hospital through phone line or Internet. This facilitates the communication between doctors and patients. Without going to the hospital, people who feel something wrong with their hearts can get doctors' advice from the hospital immediately. Analyzing ECG data automatically is available for PC users with the help of the software associated with the TRUMP-R-01 ECG Recorder.

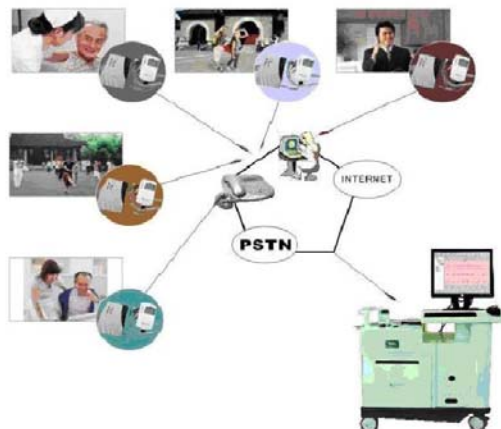
·Meeting the Need

The following shows how ECG Recorder and ECG Telemonitoring System meet the home user and the doctor's needs.

·Deployment Guidelines

The diagram illustrates that the user use TRUMP-R-01 ECG Recorder to monitor personal ECG and record the ECG data in the TRUMP-R-01. User at home can transmit the data to family computer through USB cable and use the software to get preliminary informations about the heart. Moreover, the ECG data can be transmitted remotely to the doctor through the Internet or phone line. Immediately, after analysising the transmitted ECG trace, the doctor at the hospital may give important advice to the patient.

[Features]



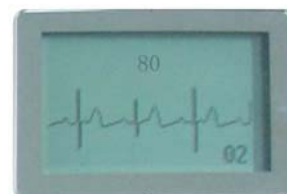
The TRUMP-R-01 ECG recorder is smart, portable and easy to use.
 Simultaneous 4 leads acquisition, supporting record for 120 min.
 Supports auto record, manual record and timed record

LCD for preview of ECG trace and display operation menu and parameter settings
 Rechargeable built-in Li-ion battery with low battery alarm
 Optional software for ECG data management and review, supporting data transmission to PC
 Automatic measurement and interpretation of ECG trace
 Convenient management of e-medical records
 Supports transfer mode including USB, phone line and Internet, suitable for building network platform of remote ECG monitoring system

Applications

Monitor arrhythmia, coronary heart diseases, myocardial ischemia, myocardial infarction, myocardial infarction and other problems with heart
 Monitor the patients using artificial cardiac pacemaker or having received medication
 Heart health care for the aged and the subhealthy

ECG Data Recording Procedures



1) Position the electrodes on ECG the user's skin and connect the electrodes to the leads of the ECG Recorder.

2) Power on the ECG Recorder. The LCD displays the time and the number of ECG data.

3) Press the "acquire" key. The trace will be displayed on the LCD. The value of HR could be seen above the ECG trace.



4) Press the "acquire" key again. The ECG Recorder enters the record mode. After 12 seconds, it will return to monitor mode automatically.

5) Connect the ECG Recorder to the computer. Run the program and press Recorder's "communicate" key. The ECG data stored in the ECG Recorder will be transferred to the computer.

Functions of the ECG Telemonitoring Software

·Auto-diagnosis

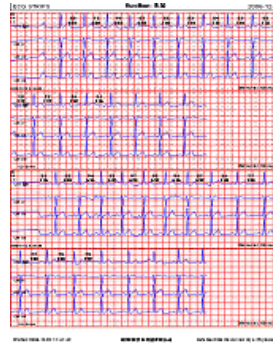
With the help of the software, you can get the heart rate analysis results by moving the mouse. The records and analysis of the abnormal will show you the condition of your heart.

·ECG data playback

You can playback and analyze the historical ECG data of you, print out the ECG trace and analysis report.

E-medical record management

The software can help you to build an electronic medical document. All the ECG data, analysis results and doctors' advice could be archived automatically for every family member.



Specifications

Model	THD	Frequency response	1Hz~50Hz
Dimension	11.9 cm L×7.3 cm W×3.0 cm H	Polarization Voltage Tolerance	300mV±5%
Weight	136 g	Noise level	≅ 1.5μV
Leads	Standard 6 leads	Safety level	CF
Power Supply	Rechargeable built-in Li-ion battery	Patient Current Leakage	≅ 0.01mA
Input Resistance	>2.5 MΩ	Sampling Rate	500Hz

Standard Configuration:

- Software (1 CD)
- USB cable
- Charger
- Patient cable
- Disposable electrodes



✧ Electroencephalograph

*Wireless Bluetooth EEG Series Products, the third generation EEG,
First technology, patent in China*

✧ Wireless Bluetooth EEG Series Products

Anti-interference Capability

Wireless connection between the portable EEG and computer eliminates interference from other devices such as AC which often occurs with wired connections.

Freedom of Movement for Patients

Wireless connection between patients and equipment allows patients greater freedom of movement, also makes doctor's monitoring more convenient.

Safety

The 6V DC power supply of the portable EEG eliminates risk of electric shock to patients.

Configurable

Provides signal magnification, A/D transform, data storage, LCD display and wireless transmission.

Combines with computers and other devices to form:

- Wireless Bluetooth EEG;
- Wireless Bluetooth AEEG;
- Wireless Bluetooth VEEG;
- Wireless Bluetooth portable EEG;

Works simultaneously with multiple EEG units and one computer.

No ground wire required

There is no need to shield, no need to install ground wire, the equipment can be used in different locations.



✧ Wireless Bluetooth EEG

Channel Number: 16/32/64/128

Compositions: Wireless Bluetooth portable EEG, desktop, printer, electrode system, data transmission system.

[Features]

- ◆ ·Has all the functions of conventional EEG;
- ◆ ·Digital technology and high-frequency sampling;
- ◆ ·Channel models can be designed, edited and saved:
- ◆ Channel and parameters of high-frequency filter and time can be edited during both collecting and reviewing processes;
- ◆ ·Quick FFT analysis, providing power spectrum chart, magnitude spectrum chart, power spectrum topographic chart, magnitude spectrum topographic chart, α , β , γ , δ , θ spectrum topographic chart
- ◆
- ◆
- ◆
- ◆

and spike wave topographic analysis;

·Core component uses the most advanced EEG signal processing component from AD-Tech Medical Instrument Corporation (USA);

·High sampling resolution using DSP technology and low amplification factor assures the high reliability of electroencephalogram.

Configurations

- Desktop system
- Bluetooth receiver

✧ Wireless Bluetooth AEEG

Channel Number: 8/16/32

Composition: Wireless Bluetooth portable EEG, desktop, printer, electrode system, data transmission line



[Features]

- ◆ ·Real-time waveform display:
- ◆ Synchronous storage in a flash memory card when electroencephalogram is sending to the host for real time display. Captures the real-time abnormal waveforms of the patients in 24 hour monitoring.
- ◆ ·High storage capacity:
- ◆ ·Integrated design with extendable memory card allows storage of complete non-compressed data for up to seven days continuous monitoring.
- ◆ ·Fast data uploading capability:
- ◆ ·After collection, the data stored in flash memory card can be quickly transmitted to desktop through USB 2.0 interface.
- ◆ ·The transmission speed can reach as high as 480Mbps.

Configurations

- Desktop system
- Bluetooth receiver
- Dynamic storage



✧ Wireless Bluetooth VEEG

[Features]

- ◆ ·All the functions of conventional EEG.
- ◆ ·Digital video signal and electroencephalogram (VEEG) can be synchronously collected, edited and quickly displayed.
- ◆ ·Events can be searched quickly, the abnormal waveforms and abnormal behavior can be quickly located.
- ◆ ·Adjustable shooting angle, direction, and focus of the infrared video lens which is imported from USA, during video monitoring.
- ◆ ·Multi-video monitoring and multi-patient monitoring are available.
- ◆ ·Several display screens can be connected to one computer, so VEEG of several patients can be displayed simultaneously.

Configurations

- Desktop system
- Bluetooth receiver
- Video system

✧ Wireless Bluetooth Portable EEG

Channel Number: 16\24\32\64\128

Composition: Wireless Bluetooth portable EEG, laptop, printer, electrode system, data transmission line.



[Features]

- ◆ ·Normal EEG examination, electroencephalographic relief examination.
- ◆ ·Long time EEG monitoring, bedside monitoring.
- ◆ ·Portable video & EEG monitoring.
- ◆ ·Positioning of epileptogenic focus in, marking on electrocorticogram.
- ◆ ·EEG monitoring, brain death diagnosis for ICU, CCU.
- ◆ ·Out of hospital diagnosis, emergency diagnosis.
- ◆ ·EEG recording for sleeping patients.

Configurations

- Portable computer
- Bluetooth receiver



❖ SOFTWARE FEATURES

Collections

- Screen display size calibration based on actual size is provided reducing visual error
- Channel models can be designed, edited and saved
- Channel modes can be switched over during both collecting and reviewing processes
- Brain function tendency chart, and many frequency indexes can be displayed in real time
- Values of high frequency filtering can be arbitrarily selected allowing arbitrary setting of filtering range
- Synchronized collection of EEG and video



Main interface



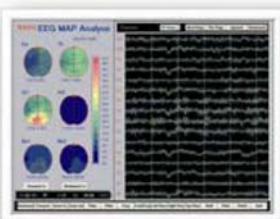
System Setting

Display and Analysis:

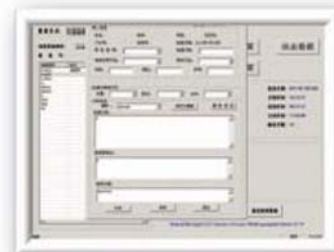


Spike wave auto-identification

- 1-100 times quick display are available
- Spike wave auto-identification is provided
- Waveforms and video frames can be arbitrarily edited, synchronization between waveform and video frames is maintained after editing
- Event marking function, reviewing and analysis of dynamic EEG waveform and artifact are provided



EEG MAP



Report

Printing:

- Tool for creating templates is provided
- Pre-viewing function before printing is provided
- Continuous multi-page printing is supported