Healthcare Communications

ZKR
Nurse Call Systems

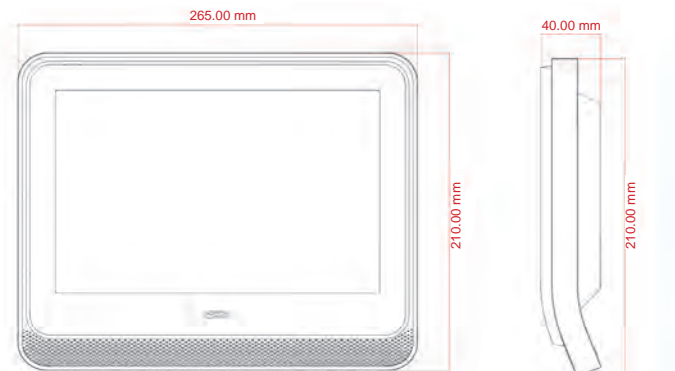Comfort VOIP System Technical Data

ZKR Comfort
Room Control Unit

Comfort Room Control Unit

The comfort room control unit is the equipment that enables the nurse call panel and the call buttons in the room to communicate with each other. It is suitable for built-in or plaster mounting with room control panel.

• POE 15 w
• Wall Mount
• Voice full dublex (SIP protokol Voice over IP)
• Point to Point Call
• Conference Call
• Central announcement
• Voice recorder
• Overdoor lamp connection
• Touch Screen 10"
• HIS entegration (Hospital Information Systems)
• Entegrated RF card Reader
• Code Blue
• Cutomize Secren menus
• Multi language (Turkish, Engilish, Spanish ,Russian, Customize)

265.00 mm
40.00 mm
210.00 mm
210.00 mm

Technical specification
ZKRUNCIPCMFRMC01

Screen size (inches)	10 Inc
Operating system	Android
Weight (g)	500 gr.
Width (mm)	265 mm
Depth (mm)	40 mm.
Height (mm)	210 mm.
Display features	IPS Color Touch Screen
Screen resolution (px)	1024x768
Processor speed	Intel cpu
Memory	2GB Ram - 8GB Rom
Language	English, Spanish, Russian, Turkish Custom
Power supply	110-220 VAC 47-63 Hz
Operating temperature / Humidity	-10°C +60°C / % 30 %80 RH
Material	PC-ABS-FR (Flame Retardant)
Card reader	NFC Card Reader
Speaker	3Watt x 2
Input connection	1-Ethernet,1-RS 485, 2.Light Control
Color	White
Communication	TCP / IP - UDP - HTTP - RS485 - SIP
Power	POE
SD Card	Yes
USB	Mini USB

Versatile Plus Room Control Unit

This unit ensures communication between Nurse Console and Call buttons in the patient rooms. Room control unit is appropriate for both flush and shallow montage. They have 5'' touchscreen, and standard feature allows it to assist total 8 call unit. Due to appropriate hardware, unit can define up to 8 call unit. Modern and durable structure and software ensures the best operating time. When a bed button is touched on the screen, patient information with in the HBYS software can be seen on the unit screen.

Ergonomic Design

5 " Touch Screen

Card Reader

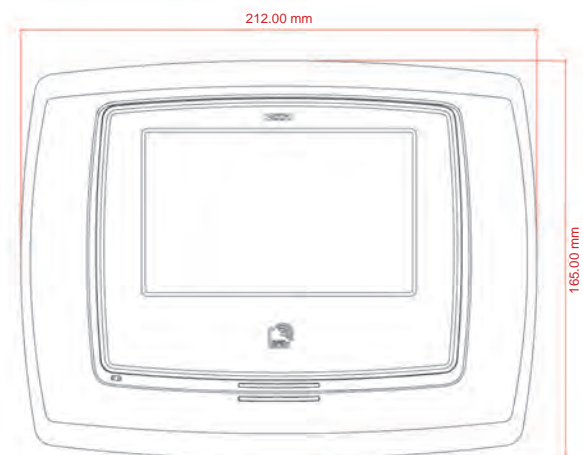**Simple, Easy to Use Interface**

High quality flame retardant raw material

Technical specification
ZKRUNCIPRMCN100

Screen size (inches)	120 mm 73 mm 5 ınc Touch Screen
Operating system	Linux 4
Weight (g)	500 gr.
Width (mm)	212mm.
Depth (mm)	39 mm.
Height (mm)	165 mm.
Display features	Color Touch Screen, TFT
Screen resolution (px)	800x480
Processor speed	16-24 Bit Flash Microcontrollers 100-Pin
Memory	64MB Ram 128MB Rom
Language	English, Spanish, Russian, Turkish Custom
Power supply	110-220 AC - POE
Operating temperature / Humidity	-10°C +60°C / % 30 %80 RH
Material	PC-ABS-FR (Flame Retardant)
Card reader	MIFARE Classic
Buzzer speaker	2400Hz 65 dB
Input connection	1-Ethernet,1-RS 485, 2.Light Control
Color	White
Communication	TCP / IP - UDP - HTTP - RS485
Current W	18W

Routine control is a standard feature and allows the staff to report what time they have made a room check without a call.

Room control unit's hardware has a card reader. All cards that is read by the unit are asked for authorization check.

212.00 mm

165.00 mm

ZKR Comfort
VOIP Handset

Talk to your patients
With speech feature, patient can speak directly with assigned nurse. This helps the hospiatl staff to save servicing time, prioritize the cases and make patients more relaxed by assuring of nurses' presence.
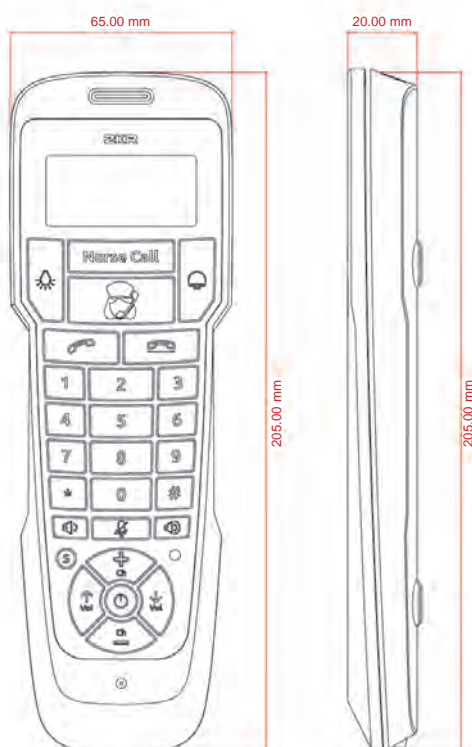
Service quality control
With ZKR comfort nurse call system all call conversations between hospital staff and patients are recorded for quality control and evaluation of care services.

Smartest interfaces and functions
Comfort IP Voice set is simple and easy to use. Patient just needs to press one big and easily noticeable button to make a voice call with assigned nurse. This set is water resistant sterile with user-friendly ergonomic functions.

Intelligent integration
Using the smarter handset patients can make outside/inside phone calls with automatic billing system. ZKR comfort system is integrated with any PBX analogue, digital or VOIP and with many brands as cisco, Alcatel, Avaya, Panasonic....etc

Technical specification
ZKRUNCIPCMFHND01

Weight (g)	182 gr.
Width (mm)	65 mm
Depth (mm)	20 mm
Height (mm)	205 mm
Keypad	Anti-bacterial Membrane
Phone Book	Yes
Do Not Disturb Mode	Yes
Configuration	Embedded Micro Web Server
Custom Functional Button	3 Keys
Speaker	HD Voice
Material	PC-ABS-FR (Flame Retardant)
Remote TV Controller	Yes
Communication	SIP
Back Light	Yes
Color	White
Voip	SIP Full Duplex

ZKR Comfort
Patient Handset

Patient Handset

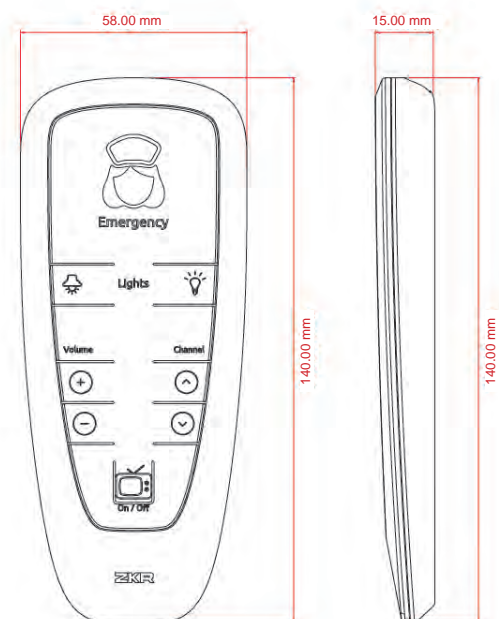Patient hand unit allows the patient inform the staff immediately.

• Easy to use.
• Unit works though connection to head set unit.
• TV control option (Channel and Volume)
• Leds also show the last made call so the patient's condition can be seen on the hand unit like the other warning unit. Light buttons help to control room lighting and reading lamp.

Nurse Call Button
Backlit with LED

Lamb Control Buttons
LED Backlit / Service Button

TV Control Button
LED Backlit / Service Button

Technical specification
ZKRUNCIPHS10200

Weight (g)	115 gr.
Width (mm)	58 mm.
Depth (mm)	15 mm.
Height (mm)	140 mm.
Operating temperature / Humidity	-10°C +60°C / % 30 %80 RH
Cable Lengh	3 Meter Spiral Cable
Material	PC-ABS-FR (Flame Retardant)
Back Light	Yes
Check number of connections	1-RS 485
Color	White

58.00 mm   15.00 mm

140.00 mm   140.00 mm

Emergency
Lights
Volume   Channel
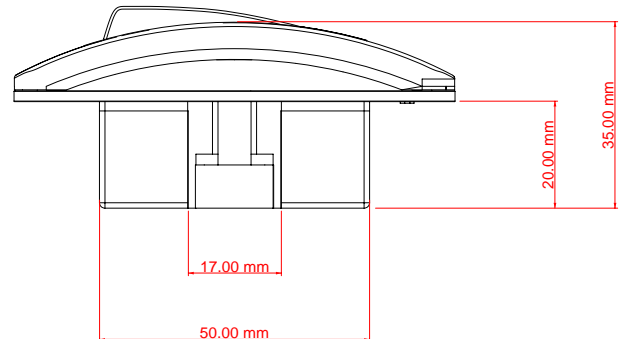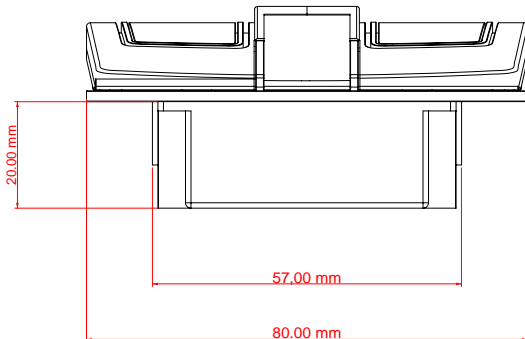On / Off

ZKR Comfort
Bed Set Unit

Bed Set Unit

Bed Set Unit is used in the patient rooms. In an emergency, a patient uses the call button to make an emergency call which appears as a signal on the nurse console.
There are call and cancel buttons on the unit which are backlit and modern. Console is mounted on the patient headboard. Bed Set unit is connected to the headboard unit via RJ45 socket.

• This product is also a tool unit for the hand set unit to be connected.
• Can be flush mounted. Ergonomic.
• RJ45 socket provides easy installation.
• High quality PC-ABS-FR (Flame Retardandt) raw materials.
• Call and Reset buttons are lighted with leds so they
are easy to notice.

Technical specification
ZKRUNCIPWL10100

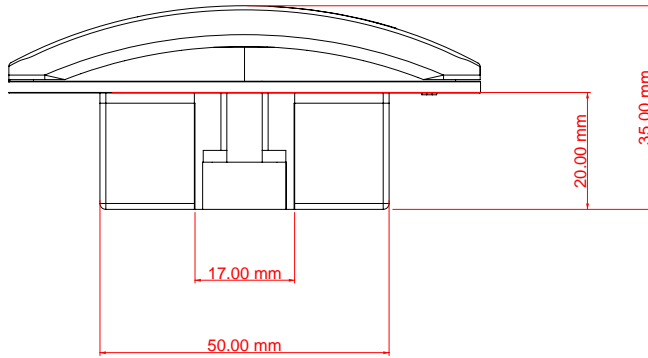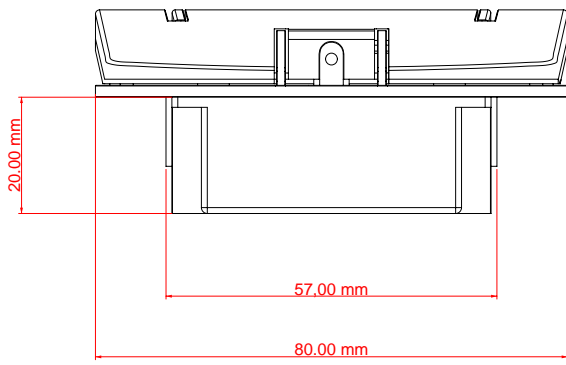|	
Weight (g)	56 gr.
Width (mm)	80 mm.
Depth (mm)	35 mm.
Height (mm)	80 mm.
Mounting dimensions	W-55mm D-20mm H-55mm
Processor	Microchip
Power supply	+ 5v dc
Operating temperature / Humidity	-10°C +60°C / % 30 %80 RH
Material	PC-ABS-FR (Flame Retardant)
Buzzer speaker	2400Hz 65 dB
Output connection	1-RJ45
Input connection	1-RJ45
Color	White
Communication	RS 485
Back Light	Yes

ZKR Comfort
WC Call Unit

WC Emergency Call Unit

Wc Call Unit is used in the bathrooms of patient rooms. In an emergency, patient pulls the rope making an emergency call. Appears as a WC Emergency call on nurse console.

System gives priority to WC Emergency calls and appears before other calls. There is a call reset button and emergency call rope on the unit. It's backlit and modern.

Technical specification
ZKRUNCIPWC10100

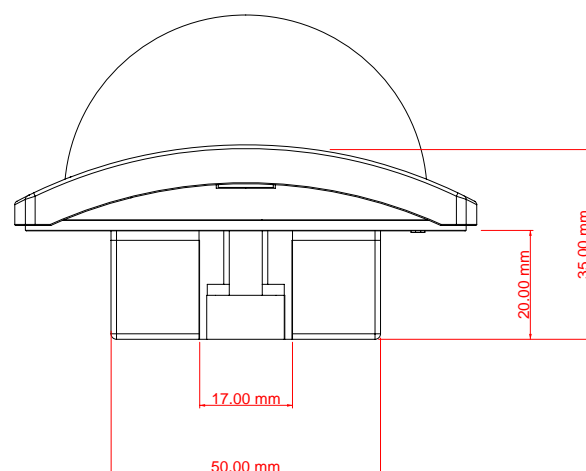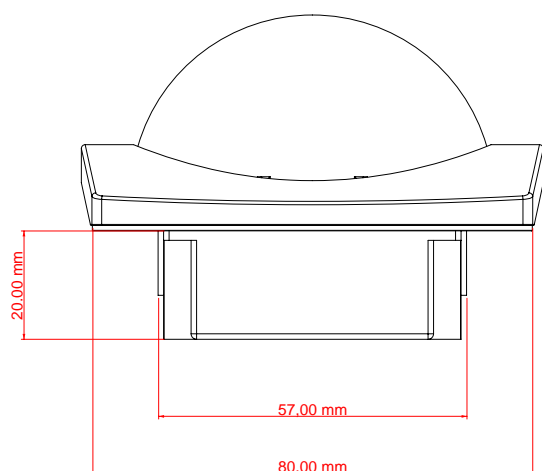|	
Weight (g)	56 gr.
Width (mm)	80 mm.
Depth (mm)	35 mm.
Height (mm)	80 mm.
Rope Durability	Max 30kg
Operating temperature / Humidity	-10°C +60°C / % 30 %80 RH
Material	PC-ABS-FR (Flame Retardant)
Buzzer speaker	2400Hz 65 dB
Color	White
Communication	RS 485
Input Connection	1 RJ 45

ZKR Comfort
Overdoor Corridor Lamp

Overdoor Corridor Lamp

Overdoor Corridor Lamp is located above room door in the corridor. Half-sphere shape makes it easy to notice. So if there is an emergency in the room it can be noticed easily. It warns with three different colors. Red, green and blue.

The color depends on the call. Flush mounted above doors. If unsuitable can be mounted with surface mounted box.

ZKR Versatile Overhead Door Warning Lamp
• Maintenance-technical support free plug and play architecture.
• High level performance with its built-in antenna.
• 3 different main colors (blue, green, red)
• Ability to achieve different warning colors by mixing primary colors,
• Very low energy consumption and environment friendly thanks to its LED design.
• High quality PC-ABS-FR (Flame Retardandt) raw materials.

Technical specification
ZKRUNCORTKLMP10

Weight (g)	56 gr.
Width (mm)	80 mm.
Depth (mm)	35 mm.
Height (mm)	80 mm.
Lighting Type	Led
Operating temperature / Humidity	-10°C +60°C / % 30 %80 RH
Current W	0.8
Material	PC-ABS-FR (Flame Retardant)
Power Supply	+5V
LED Colors	Blue, Red, Yellow
Communication	RJ 45
Color	White

ZKR Comfort
Application Server

Application Server

This system is integrated with hospital PBX, nurse call panels, room control units and pager alarm system. It allows controlled access to patients' information from nurse call room control by providing hospital management system or by integration with the used system and database.
All nurse call panel send the notifications to this system for storing all events and provide a customized report as needed. By integration with hospital PBX, this system receives code blue call from any phone in hospital and announces it to pager system and nurse call system.

ZKVOX convert phone calls between legacy circuit-switched technologies and modern packet-switched technologies (VoIP). You can use gateways to connect legacy phone lines with ZKVOX system, or to connect legacy phone systems with VoIP services and features. ZKVOX can make calls using whatever method makes the most sense for your business. VOIP, traditional analog lines, video calling, the IP phones of your choice it's all up to you.

• This system is Linux OS.
• Recording server for Voice order.
• WI-FI, DECT, IP phone integration.
• Connected with hospital PBX using analogue, IP, BRI or PRI.
• Warnings can be sent to DECT phones, pagers, mobile phones or phone lines.
• Emergency Code server (code blue, code pink, code white, service code) can be started or via room control units or from any place using the hospital's phones.
• All transactions are recorded and can be reported as needed.
• Connection types: SIP, H323, ISDN BRI, ISDN PRI and Analog.
• Protocol: TCP/IP and ZKRUS Protocol
• Paging protocol: POCSAG, Sipinfo and ESPA.

Examples for Situation Codes
• Code Blue
• Code Pink
• Code White
• Consultation
• Staff or Service Code (Can be edited)

ZKR Comfort

Reporting and Management Server

Technical specification

SR1010

Form factor	1U rack server
Dimensions and weight	H: 42.8 mm (1.67 in), W: 434.0 mm (17.09 in), D: 495 mm (19.5 in) w/o ear, w/o bezel Max weight: 10.6 kg (20.96 lb)
Processor	1 processor from the following product families: • Intel® Xeon® processor E3-1200 v6 product family • Intel Pentium® • Intel CoreTM i3 • Intel Celeron®
Chipset	Intel C236
Operating system	Microsoft® Windows Server® 2016, Microsoft® Windows Server® 2012 Microsoft Windows Server 2012 R2, x64 Red Hat® Enterprise Linux® VMware® Vsphere® ESXi® SUSE® Linux Enterprise Server®
Memory	Architecture: Up to 2400MT/s DDR4 DIMMs Memory type: UDIMMs Memory module sockets: 4 Maximum RAM: Up to 64GB
Storage	• 2.5" SATA 7.2k • 2.5" nearline SAS 7.2k • 2.5" 10k SAS HDDs • 2.5" 15K SAS HDDs • 2.5" SATA SSDs • 3.5" Enterprise SATA 7.2k HDDs • 3.5" nearline SAS 7.2k HDDs • 3.5" 7.2k SATA entry drives
Hypervisor support	Microsoft Windows Server with Hyper-V® VMware® vSphere® ESXi®
Drive bays	2 x 3.5" cabled HDD 4 x 3.5" cabled HDD 4 x 3.5" hot-swap or 2.5" hot-swap in hybrid drive carrier
Slots	2 x PCIe 3.0 slots: x16 slot, full-height (1x8 3.0)+ x8 slot, low-profile (1x4 3.0).
RAID controllers	PERC S130, PERC H330, PERC H730, PERC H830
Network controller	Broadcom® 5720
Communications	2 x 1GbE LOM Click here for R230 supported network interface cards (NICs) and host bus adapters (HBAs) and scroll to "Additional Network Cards" section.
Power	250W cabled PSU
Management	• IPMI 2.0 compliant • Dell OpenManage Essentials • Dell OpenManage Mobile • Dell OpenManage Power Center • Plug-in for Oracle® Enterprise Manager • Dell OpenManage Integration Suite for Microsoft System Center, Dell OpenManage Integration for VMware vCenter® • HP Operations Manager • Dell OpenManage Integration Suite for Microsoft System Center, Dell OpenManage Integration for VMware vCenter®
Input connection	1 x USB 3.01 1x Headphone Out 1 x PS/2 Keyboard1 x PS/2 Mouse1 x RJ-45 Ethernet1 x VGA (Display Out)1 x Serial Port (RS232)1 x Mic In 4 x USB 2.0
Device access	5 total USB: Rear: 2 x USB 3.0 ports Front: 2 x USB 2.0 ports Internal: 1 x USB 3.0 port
Rack support	ReadyRails™ static rails for tool-less mounting in 4-post racks with square or unthreaded round holes or tooled mounting in 4-post threaded and 2-post racks.

ZKR Comfort
Nurse Information Panel

Nurse Information Panel

The status of all working room control units connected to the panel can be monitored actively. All errors and notifications shall be displayed on the information panel. Emergency codes, WC-bathroom, and normal calls may be monitored. All processes passing through the system are logged. All logs can be reported in detail. There are a configurable number of room monitoring icons on the interface. The status of calls are tracked in real time via these icons.

10 inc Nurse Information Panel

7 inc Nurse Information Panel

Features
- 10.1" HD Touch display
- Panel to room communication
- Panel to a group of rooms communication
- General call from rooms or nurse stations
- Full duplex
- SIP protocol
- PoE (Power Over Ethernet)
- Built-in HD Camera (720p)
- Conference call
- Real-time nurse monitoring
- Creation of personnel authorization levels
- Access to patient info
- Possibility of showing photo of patient calling in room panel and nurse station
- Call priority depending on level of urgency
- No wiring needed, uses the structural cabling
- Automatic network checks
- As many call jumps as needed to other nurse stations or rooms
- Exceptional HD voice and sound
- Microphone on front side
- 3 Loudspeakers – bass plus 2 tweeters
- External conference speaker connection
- Integrated WiFi Client, Bluetooth
- Ethernet with 2-port switch
- Integrated Power over Ethernet

Features
- 7" HD Touch display
- Panel to room communication
- Panel to a group of rooms communication
- General call from rooms or nurse stations
- Full duplex
- SIP protocol
- PoE (Power Over Ethernet)
- Conference call
- Real-time nurse monitoring
- Creation of personnel authorization levels
- Programming colors of lamps depending on customer needs
- Access to patient info
- Possibility of showing photo of patient calling in room panel and nurse station
- Call priority depending on level of urgency
- No wiring needed, uses the structural cabling
- Automatic network checks
- Easy programming
- As many access levels as needed
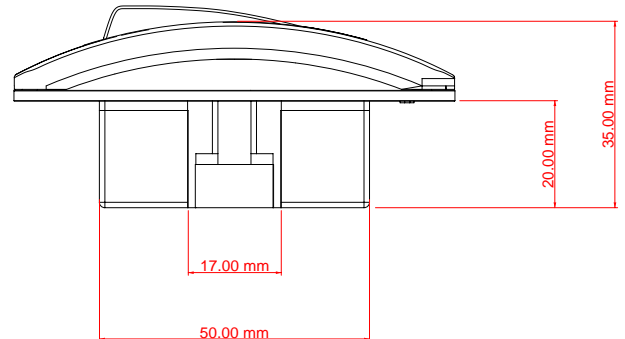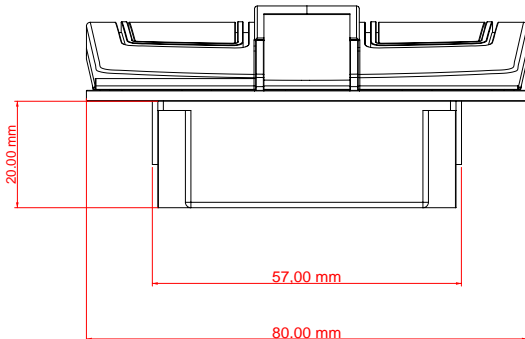- As many call jumps as needed to other nurse stations or rooms

Code Blue Unit

Blue code start and end buttons are available. The blue code unit is connected to the RJ45 socket on the unit. It has an illuminated, aesthetic and durable structure.

• The built-in buckle has an ergonomic structure for fitting.
• RJ45 socket allows easy installation.
• ABS / FR raw material is used.
• Continuous LEDs for easy viewing of emergency call and reset buttons

Technical specification
ZKRUNCIPCDBL101

Weight (g)	56 gr.
Witdh (mm)	80 mm.
Depth (mm)	35 mm.
Height (mm)	80 mm.
Mounting Dimensions	W-55mm D-20mm H-55mm
Processor	Microchip
Power	5v dc
Operating temperature / Humidity	-10°C +60°C / % 30 %80 RH
Material	ABS/FR
Buzzer Speaker	2400Hz 65 dB
Output	1-RJ45
Input	1-RJ45
Color	Beyaz
Communication	RS 485
Backlit	Yes

ZKR Comfort
Impact Resistant Bed Set Unit

Impact Resistant Bed Set Unit

The bed set unit is mounted in the patient bedset console. There are nurse call and call termination buttons on it. It has an illuminated, aesthetic and durable structure.

- The built-in buckle has an ergonomic structure for fitting.
- RJ45 socket allows easy installation.
- Stainless steel raw material is used.
- It has IK 10 Impact Resistance Certificate.
- Emergency call and reset buttons are illuminated by LEDs continuously for easy viewing.

Technical specification
ZKRUNCIPWL10200

Weight (g)	76 gr.
Witdh (mm)	165 mm.
Depth (mm)	3 mm.
Height (mm)	90 mm.
Processor	Microchip
Power	+ 5v dc
Operating temperature / Humidity	-10°C +60°C / % 30 %80 RH
Material	ABS/FR
Buzzer Speaker	2400Hz 65 dB
Output	1-RJ45
Input	1-RJ45
Color	Metalic Gray
Communication	RS 485
Backlit	Yes

ZKR Comfort
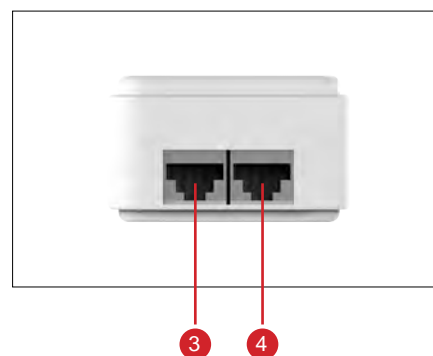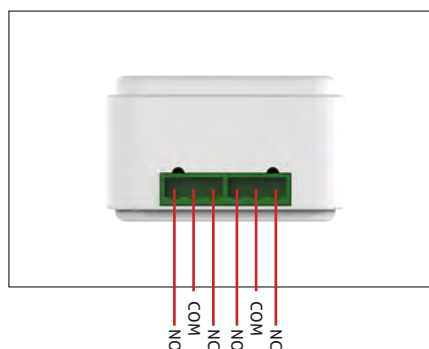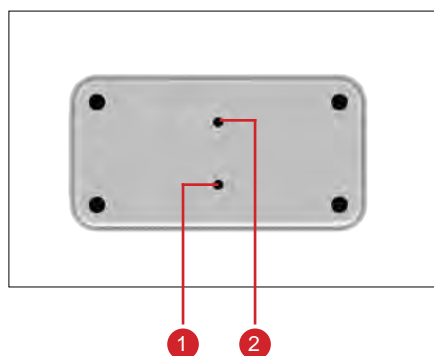## Lamp Control Module

Lamp Control Module

This unit used for handset and room light system integration.
One unit must be used for each hand set.

1. Config Button
2. Status Led
3. Out
4. In

NO COM NC NO COM NC

Technical specification

ZKRUNCANRMLK100

Weight (g)	75 gr.
Width (mm)	80 mm.
Depth (mm)	50 mm.
Height (mm)	40 mm.
Operating temperature / Humidity	-20°C +60°C / % 30 %80 RH
Connection Type	Vavien
Output	No-com-NC
Input	1-RJ45
Color	Gray
Communication	RS 485