



*Welch Community
Hospital*

454 McDowell Street
Welch, WV 24801
304-436-8689

**New Nurse Call System
RFQ WEH70232**

SimplexGrinnell

BE SAFE.

A business unit of Tyco Fire & Security

2800 7th Avenue, Suite 102
Charleston, WV 25312
Phone: 304-746-4081
Fax: 304-746-4089

tyco

Fire &
Security

SimplexGrinnell

SimplexGrinnell LP
2800 7th Avenue
Suite 102
Charleston, WV 25312

Tele: 304-746-4081
Fax: 304-746-4089
www.simplexgrinnell.com

Welch Community Hospital
454 McDowell Street
Welch, WV 24801
304-436-8689

Attn: Roberta Wagner
REF: New Nurse Call System

RFQ# WEH70232
Bid Date: June 7, 2007
Bid Opening Time: 1:30 pm

Roberta,


SimplexGrinnell would like to thank you for the opportunity to provide this proposal. This letter is a summary of the cost to install the new nurse call system at Welch Community Hospital. Please review the package in its entirety for further information about the system proposed.

Nurse Call system proposed – EZ Care

Price for turnkey installation \$ 151,000.00

If after reviewing this package you have any questions please feel free to call me.

Thank you,



Bryan Wilson
ESSR - SimplexGrinnell



State of West Virginia
 Department of Administration
 Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

Request for Quotation

RFQ NUMBER
WEH70232

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ADDRESS CORRESPONDENCE TO ATTENTION OF
ROBERTA WAGNER
304-558-0067

VENDOR

***709001300 03**
SIMPLEX GRINNELL
100 SIMPLEX DRIVE

WESTMINSTER MA 01441-0001

SHIP TO

HEALTH AND HUMAN RESOURCES
WELCH COMMUNITY HOSPITAL

454 MCDOWELL STREET
WELCH, WV
24801 **304-436-8710**

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
05/07/2007				

BID OPENING DATE: **06/07/2007** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>DRAFT OF THE SHOP DRAWINGS.</p> <p>CANCELLATION: THE DIRECTOR OF PURCHASING RESERVES THE RIGHT TO CANCEL THIS CONTRACT IMMEDIATELY UPON WRITTEN NOTICE TO THE VENDOR IF THE MATERIALS OR WORKMANSHIP SUPPLIED ARE OF AN INFERIOR QUALITY OR DO NOT CONFORM WITH THE SPECIFICATIONS OF THE BID AND CONTRACT HERE IN.</p> <p>WAGE RATES: THE CONTRACTOR OR SUBCONTRACTOR SHALL PAY THE HIGHER OF THE U.S. DEPARTMENT OF LABOR MINIMUM WAGE RATES AS ESTABLISHED FOR MCDOWELL COUNTY, PURSUANT TO WEST VIRGINIA CODE 21-5A, ET, SEQ. (PREVAILING WAGE RATES APPLY TO THIS PROJECT)</p> <p>ARBITRATION: ANY REFERENCES MADE TO ARBITRATION OR INTEREST FOR PAYMENTS DUE (EXCEPT FOR ANY INTEREST REQUIRED BY STATE LAW) CONTAINED IN THIS CONTRACT OR IN ANY AMERICAN INSTITUTE OF ARCHITECTS DOCUMENTS PERTAINING TO THIS CONTRACT ARE HEREBY DELETED.</p> <p>WORKERS' COMPENSATION: VENDOR IS REQUIRED TO PROVIDE A CERTIFICATE FROM WORKERS' COMPENSATION IF SUCCESSFUL.</p> <p>ALL OF THE ITEMS CHECKED BELOW WILL BE A REQUIREMENT OF THIS CONTRACT:</p> <p>(XX) INSURANCE: SUCCESSFUL VENDOR SHALL FURNISH PROOF OF COMMERCIAL GENERAL LIABILITY INSURANCE PRIOR TO ISSUANCE OF CONTRACT. UNLESS OTHERWISE SPECIFIED IN THE BID DOCUMENTS, THE MINIMUM AMOUNT OF INSURANCE COVERAGE REQUIRED IS \$250,000.</p> <p>() BUILDERS RISK INSURANCE: SUCCESSFUL VENDOR SHALL FURNISH PROOF OF BUILDERS RISK - ALL RISK INSURANCE IN AN AMOUNT EQUAL TO 100% OF THE AMOUNT OF THE CONTRACT.</p>						

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				<p>(XX) BONDS: FIVE PERCENT (5%) OF THE TOTAL AMOUNT OF THE BID PAYABLE TO THE STATE OF WEST VIRGINIA, SHALL BE SUBMITTED WITH EACH BID AS A BID BOND. THE SUCCESSFUL BIDDER SHALL ALSO FURNISH A PERFORMANCE BOND AND LABOR/MATERIAL BOND FOR 100% OF THE AMOUNT OF THE CONTRACT. BONDS MAY BE PROVIDED IN THE FORM OF A CERTIFIED CHECK, IRREVOCABLE LETTER OF CREDIT, OR BOND FURNISHED BY A SOLVENT SURETY COMPANY AUTHORIZED TO DO BUSINESS IN THE STATE OF WEST VIRGINIA. A LETTER OF CREDIT SUBMITTED IN LIEU OF A PERFORMANCE AND LABOR & MATERIAL BOND WILL ONLY BE ALLOWED FOR PROJECTS UNDER \$100,000. PERSONAL OR BUSINESS CHECKS ARE NOT ACCEPTABLE IN LIEU OF THE 5% BID BOND, PERFORMANCE BOND, OR LABOR AND MATERIAL BOND.</p> <p>() MAINTENANCE BOND: A TWO (2) YEAR MAINTENANCE BOND COVERING THE ROOFING SYSTEM WILL BE A REQUIREMENT OF THE SUCCESSFUL VENDOR.</p> <p>REV. 11/00</p> <p>EXHIBIT 7</p> <p>DOMESTIC ALUMINUM, GLASS & STEEL IN PUBLIC WORKS PROJECTS</p> <p>IN ACCORDANCE WITH WEST VIRGINIA CODE 5-19-1 ET., SEQ., EVERY CONTRACT FOR CONSTRUCTION, RECONSTRUCTION, ALTERATION, REPAIR, IMPROVEMENT OR MAINTENANCE OF PUBLIC WORKS, WHERE THE COST IS MORE THAN \$50,000 AND, IN THE CASE OF STEEL ONLY, WHERE THE COST OF STEEL IS MORE THAN \$50,000 OR WHERE MORE THAN 10,000 POUNDS OF STEEL ARE REQUIRED, THE STATE WILL ACCEPT ONLY ALUMINUM GLASS, OR STEEL PRODUCTS PRODUCED IN THE UNITED STATES</p>		

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<p>IN ADDITION, ITEMS OF MACHINERY OR EQUIPMENT PURCHASED FOR USE AT THE SITE OF PUBLIC WORKS SHALL BE MADE OF DOMESTIC ALUMINUM, GLASS OR STEEL, UNLESS THE COST OF THE PRODUCT IS LESS THAN \$50,000 OR LESS THAN 10,000 POUNDS OF STEEL ARE USED IN PUBLIC WORKS PROJECTS.</p> <p>FOREIGN MADE ALUMINUM, GLASS OR STEEL PRODUCTS MAY BE ACCEPTED ONLY IF THE COST OF DOMESTIC PRODUCTS IS FOUND TO BE UNREASONABLE. SUCH COST IS UNREASONABLE IF IT IS 20% OR MORE HIGHER THAN THE BID PRICE FOR FOREIGN MADE PRODUCTS. IF THE DOMESTIC ALUMINUM, GLASS OR STEEL PRODUCTS TO BE SUPPLIED OR PRODUCED IN A "SUBSTANTIAL LABOR SURPLUS AREA", AS DEFINED BY THE UNITED STATES DEPARTMENT OF LABOR, FOREIGN PRODUCTS MAY BE SUPPLIED ONLY IF DOMESTIC PRODUCTS ARE 30% OR MORE HIGHER IN PRICE THAN THE FOREIGN MADE PRODUCTS.</p> <p>IF, PRIOR TO THE AWARD OF A CONTRACT UNDER THE ABOVE PROVISIONS, THE SPENDING OFFICER OF THE SPENDING UNIT DETERMINES THAT THERE EXISTS A BID FOR LIKE FOREIGN ALUMINUM, GLASS OR STEEL THAT IS REASONABLE AND LOWER THAN THE LOWEST BID DOMESTIC PRODUCTS, THE SPENDING OFFICE MAY REQUEST, IN WRITING, A REEVALUATION AND REDUCTION IN THE LOWEST BID FOR SUCH DOMESTIC PRODUCTS ALL VENDORS MUST INDICATE IN THEIR BID IF THEY ARE SUPPLYING FOREIGN ALUMINUM, GLASS OR STEEL.</p> <p>REV. 3/88</p> <p>EXHIBIT 9</p> <p>NOTICE FOR ISSUANCE & ACKNOWLEDGEMENT OF CONSTRUCTION PROJECT ADDENDA</p> <p>THE ARCHITECT/ENGINEER AND/OR AGENCY SHALL BE REQUIRED</p>						

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				<p>TO ABIDE BY THE FOLLOWING SCHEDULE IN ISSUING CONSTRUCTION PROJECT ADDENDA FOR STATE AGENCIES:</p> <p>(1) THE ARCHITECT/ENGINEER SHALL PREPARE THE ADDENDUM AND A LIST OF ALL PARTIES THAT HAVE PROCURED DRAWINGS AND SPECIFICATIONS FOR THE PROJECT. THE ADDENDUM AND LIST SHALL BE FORWARDED TO THE BUYER IN THE STATE PURCHASING DIVISION. THE ARCHITECT/ENGINEER SHALL ALSO SEND A COPY OF THE ADDENDUM TO THE STATE AGENCY FOR WHICH THE CONTRACT IS ISSUED.</p> <p>(2) THE BUYER SHALL SEND THE ADDENDUM TO ALL INTERESTED PARTIES AND, IF NECESSARY, EXTEND THE BID OPENING DATE. ANY ADDENDUM SHOULD BE RECEIVED BY THE BUYER WITHIN FOURTEEN (14) DAYS PRIOR TO THE BID OPENING DATE.</p> <p>(3) ALL ADDENDA SHOULD BE FORMALLY ACKNOWLEDGED BY ALL BIDDERS AND SUBMITTED TO THE STATE PURCHASING DIVISION. THE SAME RULES AND REGULATIONS THAT APPLY TO THE ORIGINAL BIDDING DOCUMENT SHALL ALSO APPLY TO AN ADDENDUM DOCUMENT. THE ONLY EXCEPTION MAY BE FOR AN ADDENDUM THAT IS ISSUED FOR THE SOLE PURPOSE OF CHANGING A BID OPENING TIME AND/OR DATE.</p> <p>REV. 11/96</p> <p>EXHIBIT 10</p> <p>ADDENDUM ACKNOWLEDGEMENT</p> <p>I HEREBY ACKNOWLEDGE RECEIPT OF THE FOLLOWING CHECKED ADDENDUM(S) AND HAVE MADE THE NECESSARY REVISIONS TO MY PROPOSAL, PLANS AND/OR SPECIFICATION, ETC.</p>		

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ADDENDUM NOS.:						
NO. 1						
NO. 2						
NO. 3						
NO. 4						
NO. 5						
I UNDERSTAND THAT FAILURE TO CONFIRM THE RECEIPT OF THE ADDENDUM(S) MAY BE CAUSE FOR REJECTION OF THE BIDS.						
					SIGNATURE	
SimplexGrinnell					COMPANY	
6/7/07					DATE	
REV. 11/96						
CONTRACTORS LICENSE						
WEST VIRGINIA STATE CODE 21-11-2 REQUIRES THAT ALL PERSONS DESIRING TO PERFORM CONTRACTING WORK IN THIS STATE MUST BE LICENSED. THE WEST VIRGINIA CONTRACTORS LICENSING BOARD IS EMPOWERED TO ISSUE THE CONTRACTORS LICENSE. APPLICATIONS FOR A CONTRACTORS LICENSE MAY BE MADE BY CONTACTING THE WEST VIRGINIA DIVISION OF LABOR CAPITOL COMPLEX, BUILDING 3, ROOM 319, CHARLESTON, WV 25305. TELEPHONE: (304) 558-7890.						

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<p>WEST VIRGINIA STATE CODE 21-11-11 REQUIRES ANY PROSPECTIVE BIDDER TO INCLUDE THE CONTRACTORS LICENSE NUMBER ON THEIR BID.</p> <p>BIDDER TO COMPLETE:</p> <p>CONTRACTORS NAME: SimplexGrinnell.LP.....</p> <p>CONTRACTORS LICENSE NO.: WV010306.....</p> <p>THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FURNISH A COPY OF THEIR CONTRACTORS LICENSE PRIOR TO ISSUANCE OF A PURCHASE ORDER/CONTRACT</p> <p>APPLICABLE LAW</p> <p>THE WEST VIRGINIA STATE CODE, PURCHASING DIVISION RULE AND REGULATIONS, AND THE INFORMATION PROVIDED IN THE "REQUEST FOR QUOTATION" ISSUED BY THE PURCHASING DIVISION IS THE SOLE AUTHORITY GOVERNING THIS PROCUREMENT.</p> <p>ANY INFORMATION PROVIDED IN SPECIFICATION MANUALS, OR ANY OTHER SOURCE, VERBAL OR WRITTEN, WHICH CONTRADICTS OR ALTERS THE INFORMATION PROVIDED FROM THE SOURCES AS DESCRIBED IN THE ABOVE PARAGRAPH IS VOID AND OF NO EFFECT.</p> <p>BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THIS CONTRACT IS AUTOMATICALLY NULL AND VOID, AND IS TERMINATED WITHOUT FURTHER ORDER.</p> <p>REV. 1/2005</p>						

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NOTICE						
A SIGNED BID MUST BE SUBMITTED TO:						
DEPARTMENT OF ADMINISTRATION PURCHASING DIVISION BUILDING 15 2019 WASHINGTON STREET, EAST CHARLESTON, WV 25305-0130						
THE BID SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE BID MAY NOT BE CONSIDERED:						
SEALED BID						
BUYER:-----ROBERTA WAGNER/FILE 22-----						
REQ. NO.:-----WEH70232-----						
BID OPENING DATE:-----JUNE 7, 2007-----						
BID OPENING TIME:-----1:30 PM-----						
PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR BID:						
Fax 304-746-4089 -----						
PLEASE PRINT OR TYPE NAME OF PERSON TO CONTACT CONCERNING THIS QUOTE:						
<u>Bryan Wilson</u> -----						

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-REQUEST FOR QUOTATION

I. GENERAL INFORMATION:

- 1.1 Contractor shall provide all labor, materials, equipment and anything incidental to provide and install a new Rauland-Borg Corporation or equal- Responder 4000 networked audio visual nurse call and code blue.
The new system will:
- a) Replace the existing nurse call system (60 double bed stations & 35 single bed station)
 - b) Furnish and install a code blue panel Push for help in X Ray.
 - c) Furnish and install a nurse console in station 1 outpatient clinic to monitor stations 1, 2 & OB outpatient clinic. Furnish and Install single bedside stations in Station 1, Station 2 and the OB Clinic (15 single bed units total).
 - d) Furnish and install identification panel in Respiratory Therapy to work in conjunction with code blue panel in Emergency Room
 - e) Furnish and install identification panel in ICU to work in conjunction with code blue in the Emergency Room.
 - f) Furnish and install a single bedside station in the triage room in the ER department.
- 1.1.1 Quantities listed are approximations only, based on estimates by the state-spending unit. It is understood and agreed that the contract shall cover the quantities actually needed whether more or less than the quantity shown.
- 1.2 Installation shall comply with all applicable code requirements at the Welch Community Hospital located at 454 McDowell Street, Welch, WV 24801
- 1.3 All work will be in compliance with the WV Fire Marshal's regulations and all other building codes and industry standards. Final payment will be withheld if installed components are not in compliance, or any portion of this overall project is not 100% complete. The award will be made to the overall low bid that complies with the specifications.
- 1.4 The words " will", "must", and "shall" listed herein are mandatory requirements.

2. BIDDER REQUIREMENTS:

- 2.1 All qualified bidders, being familiar with and understanding the bidding documents and also having examined the site and being familiar with all local conditions affecting the project hereby propose to furnish all labor, material, equipment, supplies and to perform all work in accordance with the bidding documents within the time set forth below.
-
- 2.2 It is the bidder's responsibility to verify all field conditions and limitations prior to bidding. It is also the bidder's responsibility to notify the West Virginia Department of

Health & Human Resources in writing, of conditions detrimental to proper and timely completion of the repair/upgrade. Do not proceed until nonconforming conditions have been corrected.

- 2.3 A mandatory vendor prebid conference is scheduled for May 21, 2007 at 11:00 AM in the Maintenance Shop at the Welch Hospital. The Maintenance Shop is located on Stewart Street which is on Rt. 16 across the street from Welch Community Hospital. Failure to attend the mandatory prebid conference will result in bid rejection.

3. SCOPE OF WORK:

- 3.1 Minor deviations from the stated specification not listed as mandatory (must, shall, or will) are acceptable to facilitate a competitive bidding atmosphere provided the intent of the Request for Quotation or the effectiveness of the system is not compromised.
- 3.2 Contractor shall install new equipment without interrupting the operation of the existing system. Vendor shall provide adapter plates as needed to install new equipment in the same enclosure as the existing. Contractor shall schedule the installation by work areas within the hospital and the Owner shall approve the schedule in advance. Contractor shall provide onsite technical service for both existing and new system during the renovation project.
- A. Field Tests Reports and Observations: Shall include record of final adjustments certified by Installer.
- B. Operation and Maintenance Manuals: Contractor shall furnish four (4) sets of information that include the following as a minimum:
- Operating instructions.
 - Maintenance instructions.
 - Troubleshooting guide.
 - Wiring diagrams and terminal identification.
 - Equipment parts list.
 - Product data for types and sizes of wires and cables used.

3.3 QUALITY ASSURANCE

- A. Installer Qualifications: Installer must be a manufacturer's authorized or approved installer and maintenance provider for the equipment.
- B. Manufacturer Qualifications: Manufacturer shall have a minimum of five (5) years experience in the manufacturing of the equipment and shall provide a five (5) year guarantee on the equipment installation. Manufacturer shall provide proof of the equipment's acceptance within a hospital environment.
- C. Source Limitations: Nurse call equipment components shall be available through one source from a single manufacturer.

- D. **Electrical Components, Devices, and Accessories:** Shall be listed and labeled according to UL 1069 as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

3.4 SYSTEM REQUIREMENTS

- A. **Expansion Capability:** Control equipment shall be modular in design and shall be capable of expanding to support facility needs.
- B. **Resistance to Electrostatic Discharge:** System, components, and cabling, and the selection, arrangement, and connection of materials and circuits, shall be protected against damage or diminished performance when subjected to electrostatic discharges of up to 25,000 V in an environment with a relative humidity of 20 percent or less.
- C. **Equipment:** Shall be solid state, modular.
- D. **Wall-Mounted Component Connection Method:** Components shall connect to system wiring in back boxes. All system components should connect to system 6 or 8-pin cable plenum rated CAT5 using modular connectors.

3.5 FUNCTIONAL PERFORMANCE shall include:

- A. **Station Selection:** Master station is capable of selectively communicating with other stations or groups of stations on anywhere in the nurse call network by dialing the room number.
- B. **Annunciation:** At the master station, a tone announces an incoming call and a liquid-crystal display identifies the calling station and indicates the priority of the call.
- C. **System Reset at Master Station:** A normal incoming call is canceled, associated lights and audible tones are extinguished, and the system is reset when the station switch is returned to the normal position after responding to a call.
- D. **Patient Station Cord Set:** When a patient station cord-set plug is removed from the jack in the station faceplate, a patient station call is initiated as described above. When the master station call button for the station is pressed, the tone stops but lights continue to flash until the call is canceled at the point of origin or the plug is reinserted or replaced with a dummy plug.
- E. **Patient Control Unit:** Controls entertainment volume and channel selection. Speaker is used for both nurse communication and entertainment sound. Entertainment sound is automatically muted when station is communicating with master station. Nurse call button on the unit initiates a patient station call.

- F. **Selective-Paging:** Master station is capable of initiating a message to selected groups of stations or speakers simultaneously by using station group switches.
- G. **Staff Reminder:** Master station can initiate a staff reminder that a patient requires direct staff response by operating a reminder control while in contact with the patient station. This will light a distinctive-color lamp in the corridor dome light at the patient's room and in the appropriate zone lights. Reminder calls are canceled by operating a staff reminder cancel switch in the patient's room.
- H. **Call Priority Indication:** Call priority switch near each patient station, or integral with the master station, controls the priority status of the call transmitted by individual stations. The switch selects one of the following status levels:
- 1) **Normal:** No change to the normal call initiation and canceling sequence.
 - 2) **Emergency:** Call initiation produces signals and indications identical to those of emergency-call stations. Indicator lamps are extinguished and the system is reset only at the originating station.
- I. **Priority:** System response is the same for emergency status, except voice communication between the master station and the calling station is locked in from the time of call initiation until the system is reset at the originating station.

3.6 EQUIPMENT DESCRIPTIONS:

A. SYSTEM FIRMWARE / SOFTWARE MAINTENANCE

Contractor shall furnish and install current version of product firmware / software at the time of system turnover that supports all existing product feature enhancements.

System firmware/software upgrades shall be downloaded to the system by data connection. Upgrades shall be accomplished system-wide from a single point of connection.

Systems requiring local programming of individual network components / sub-systems at multiple physical locations or which do not allow for remote download of component firmware or which require the exchange of components, will not be accepted.

B. HEAD-END CONTROL EQUIPMENT

~~Power Supplies:~~ Contractor shall provide ample power for control equipment, consoles, patient stations, sub-stations, and corridor lamps. All system power supplies must be UL1069 listed as an integral part of the core system. Power supplies which carry only component listings or are otherwise not part of the core system UL listing, are not acceptable.

Battery Back-up: Contractor shall provide a battery back-up power source with sufficient reserve power to operate the entire system for a minimum of 5 minutes without operational limitations or loss of system function.

The nurse/patient communications network hub controller system shall be capable of supporting a minimum of 25 hub controllers. Each hub controller shall provide the following:

- a. Each system controller module shall be capable of supporting a minimum of 10 console clusters consisting of standard LCD consoles or annunciate panels.
- b. Each system controller module shall be capable of operating with the nurse call network or to act as stand alone controller should loss of network communication occur.

System Audio: The system shall be designed to provide audio meeting the minimum standards detailed by the National Electrical Manufacturers Association standard for nurse call system audio.

- a. The system shall utilize 25 Volt balanced signal distribution between head end equipment and room stations.
- b. Audio transmission between hub controllers shall be digital.

For each system controller module, the Contractor shall furnish and install one (1) #NC2828 (or equal) UL listed nurse call equipment enclosure with locking door as needed and all associated power supplies and termination modules. Contractor shall furnish and install system battery back up that will maintain the operation of the system for a minimum of 5 minutes without power.

C. SERVICE REQUIREMENTS

The system shall support service requirement reminders. Staff members may, by pressing a button on the console, initiate a service requirement reminder.

Service Requirements shall be indicated on the corridor lamp by a flashing lamp.

Users may review the location of service requirements using an LCD Console and / or an Annunciate Panel.

If a service requirement remains unanswered for 5 minutes, an overtime call shall automatically be initiated.

D. STAFF FOLLOW

The system shall support manual or automatic Staff Follow functions. When Staff Follow is enabled, call-tones for a prescribed area will automatically be forwarded to the room station speaker where staff members are located. Staff location may be determined manually by entering the room number into the console or automatically using staffs register stations. Pressing the call button on that station shall silence the tones. When a new call is placed, the tones shall automatically be restored.

~~E. ROOM MONITORING~~

1. The system shall allow staff members to audibly monitor selected rooms.
2. Manual Monitor – Staff members may listen in to a selected room.
3. Sequential Monitor – Staff Members may enter a selected group of rooms for monitoring. The system will automatically switch from room to room, allowing the staff member to sequentially monitor the rooms. The system shall include:
 - a. During monitoring, the staff member may press a button on the console to stop on the current room to listen longer and then press Resume to restart the sequencing.
 - b. The staff member may adjust the time that the system spends on each room.
 - c. During Sequential Monitoring, the number of the room currently being monitored shall appear on the console.

F. ROOM PRIVACY shall include:

1. The system shall allow staff members to place a room in Privacy Mode to prevent unauthorized or accidental audible monitoring of the room.
2. Rooms may be entered into or removed from Privacy by staff members using the console.
3. When a room that is in Privacy is dialed from a console or telephone, the staff member may speak into the room but they may not listen to the room.
 - a. Privacy in the room may be temporarily suspended to allow two-way communications by pressing the call-in button in the room. When the conversation is terminated, Privacy shall automatically be restored.
 - b. If a call-in is placed from the room, the call may be answered from the console as normal using two-way communications.
4. The rooms in privacy may be reviewed from the LCD console.
 - a. During the review process, rooms may be removed from Privacy mode.

G. AUDIO PAGING shall include:

1. The system shall support audio paging from consoles.
 - a. All Page - Paging announcements may be made from a console to all room stations in the system.
 - b. Group Page - Announcements may be made to all room stations within a console's coverage area.
 - c. Staff Page - Announcements may be made to rooms in which staff members are registered.
-

- d. ~~Paging Announcements may be made to overhead speakers via a connection to the facility Public Address System.~~
2. To facilitate a low noise patient environment, the system will support the ability to block paging from selected consoles.
 - a. Consoles shall be equipped equipped with dial pads may be configured to allow password protection of the paging function to only allow authorized access to audio paging.
3. Contractor shall furnish and install all equipment needed to support specified paging functions.

H. CONSOLES / ANNUNCIATOR PANELS

1. All system consoles shall be UL1069 listed as an integral part of the core system. Telephones, personal computers or other devices, which carry only component listings or are otherwise not part of the core system UL listing, are not acceptable.
2. LCD consoles:
 - a. The LCD console shall be a small self-contained unit, which should occupy no more than 87 square inches of desk space. The console shall include an easy-to-read 4-line / 80-character backlit LCD display.
 - b. The console shall provide function selector buttons and a telephone-style 12-button dial pad. Selector buttons may be used to access user-configured 24-function menu.
 - c. The console shall display three or more incoming calls each with an individual elapsed timer indicating how long the call has been pending. Console shall have the ability to scroll to see additional pending calls.
 - d. While idle, the console shall display the time of day. Time may be displayed in 12 or 24-hour format. Time display shall be consistent system wide.
 - e. Console will have the capability for both open voice (speaker / microphone) and telephone style handset. Audio direction (talk / listen) for speaker / microphone and handset may be accomplished via automatic voice switching (VOX) or manually via a Push-to-Talk button. The highest priority (or longest pending) call may be answered automatically by lifting the handset or by pressing the Push-to-Talk button. Calls may be answered out of sequence using line selector buttons or by dialing the desired room number.
 - g. Console shall provide independent volume controls for day/night call-in tones. A Mute button shall be provided to temporarily suppress tones for pending calls.
 - h. The console shall be desk mounted.
 - i. The console shall employ a modular quick-disconnect connector. It shall be possible to remove and / or replace the console without

removing power from the system. Contractor shall furnish and install Rauland model # R4K4020 (or equal) with single gang wall mounted receptacle.

3. Annunciator Panels shall include:
 - a. Annunciator Panels shall be small self-contained units.
 - b. Each Panel will include 36 room indicator points. Each point will include two LED indicators and space for labeling the point.
 - c. The LED's will provide visual annunciation of room status. Indications will include calls pending, service requirements pending and staff presence.
 - d. Variable colors and flash rates will provide differentiation of annunciation. A Minimum of six distinct tone types shall be available for different types of calls.
 - e. Up to eleven expanders may be added to the panel each adding the ability to process 36 additional room points per expander.
 - f. Panel shall provide independent volume controls for day/night call-in tones. A Mute button shall be provided to temporarily suppress tones for pending calls.
 - g. The panel shall employ a modular quick-disconnect connector. It shall be possible to remove and / or replace the panel without removing power from the system. Contractor shall furnish and install Rauland model #R4KANN (or equal) with #R4KWM22 (or equal) wall mount kit.

I. CORRIDOR LAMPS / ROOM CONTROLLERS / ZONE LAMPS shall include:

A. LED Corridor Lamps (4-lamp style)

Corridor Lamps shall utilize LED's for high visibility, long life and low maintenance. Corridor Lamps utilizing incandescent lamps shall not be acceptable.

The corridor lamp shall make use of multiple colors and programmable flash rates and patterns to indicate pending calls, service requirements and staff presence.

Corridor Lamps shall serve as the hub for all room wiring. All field wire connections shall be accomplished using modular connectors.

Any Corridor Lamp shall be able to function as a Zone Lamp that shall visually annunciate calls from assigned rooms / stations without the use of a Zone Lamp controller such as a duty station.

The Corridor Lamp shall be equipped with a heartbeat LED (visible to service personnel) to indicate that the unit is functioning properly.

The Corridor Lamp shall accommodate a paper label to indicate the room number. The manufacturer shall provide laser-printing template software to create custom room labels. Contractor shall furnish and install Rauland (or equal) four bulb LED type corridor dome lights

J. ROOM STATIONS

- 1. Room Stations (single or dual) shall be equipped with:
 - a. DIN style receptacle(s) for call cord or pillow speaker.
 - b. Stations in areas requiring two-way communication shall be equipped with a speaker microphone with level matching transformer.
 - 1) Minimum speaker size shall be 3.0" / 7.6 cm.
 - 2) With the use of VA Compatible (style) Entertainment Speakers, all audio shall be routed to the Entertainment Speaker.
 - 3) Entertainment muting shall occur when nurse call audio is established.
 - c. Reset Button to cancel pending calls. Reset button shall be able to cancel calls from other stations in the room if desired.
 - d. Green LED to indicate that audio to the station is active.
 - e. Red LED(s) to indicate call placement from one or both of the call points.
- 2. Room Station functions shall include:
 - a. Calls from dual stations shall be annunciated independently.
 - b. Removing a call cord shall place a Cord Out call.
 - 1) Cord Out calls may be cancelled locally using the Cancel Button. No Dummy Plugs shall be required.
 - c. Room Stations shall support a module for interface to feature beds (Stryker, Hill-Rom or equal) side rail control including bed exit alarming and entertainment muting.
 - d. Contractor shall furnish and install either a Rauland model # R4K12A (or equal) single patient station or a Rauland model #R4K22A (or equal) dual station – as appropriate.

K. STAFF STATIONS

- 1. Staff Stations shall be equipped with:
 - 1) Pushbutton for call placement.
 - 2) Reset Button to cancel pending calls. Reset button shall be able to cancel calls from other stations in the room if desired
 - 3) Speaker microphone with level matching transformer.
 - 4) Minimum speaker size shall be 3.0" / 7.6 cm

- 5) Green LED to indicate that audio to the station is active.
 - 6) Red LED(s) to indicate call placement.
2. Staff Stations shall employ modular connectors. It shall be possible to service Staff Stations without removing power from the system.
 3. Contractor shall furnish and install Rauland model # R4KSS (or equal) staff station as required by specification.

L. DUTY STATIONS

1. Duty Stations shall provide remote annunciation of calls from assigned room stations.
2. Duty Stations shall be equipped with:
 - 1) Pushbutton for call placement.
 - 2) Reset Button to cancel pending calls. Reset button shall be able to cancel calls from other stations in the room if desired
 - 3) Speaker microphone with level matching transformer.
 - 4) Minimum speaker size shall be 3.0" / 7.6 cm.
 - 5) Green LED to indicate that audio to the station is active.
 - 6) LED's to mimic corridor lamps of assigned room stations.
1. Duty Station functions shall include:
 - 1) Remote annunciation of calls from assigned bedside stations and sub-stations via 4 LED's call tones. Call tones generated at duty station must be in synch with tones produced at closest nurse console.
 - 2) Duty Stations shall employ modular connectors. It shall be possible to service Duty Stations without removing power from the system. Contractor shall furnish and install Rauland model # R4KDY (or equal) with support module.

M. SUB-STATIONS

1. Contractor shall furnish and install nurse call Sub-stations. Sub-station types shall include:
 - a. Pull Cord Stations - Pull cord sub-stations shall be water resistant with a PVC (poly-vinyl chloride) pull-cord, membrane reset button and covered call assurance LED. Unit may utilize remote cancel button for ease of nurse cancel when pull cord station is mounted in an inaccessible location (e.g. ceiling).

- b. Contractor shall furnish and install Rauland model #R4KPC1 (or equal) in 117 bathroom/restrooms throughout the facility.
2. Code Blue/Staff Emergency - Dual Call Pushbutton Stations. Dual Call Pushbutton stations shall be equipped with two call buttons, reset button and call assurance LED's.
- a. Call Button shall be labeled to clearly define its function.
 - b. Call Buttons shall annunciate independently of one another.
 - c. Call Buttons shall be backlit for easy location / identification in reduced light settings and shall be labeled to clearly define its function.
 - d. Reset button shall be able to cancel calls from other stations in the room if desired.

At each patient station location and other areas as directed by Owner, Contractor shall furnish and install Rauland model #R4KPB22 (or equal) code blue and staff emergency station in each patient room.

1) PATIENT CALL CORDS

All Patient Call Cords shall be UL1069 listed as an integral part of the core system. Devices, which carry only component listings or are otherwise not part of the core system UL listing, are not acceptable.

Standard Call Cords – Standard Call Cords shall be pendant type with a single easy to activate call button, DIN style male plug and sheet clip. Cable shall be 10' / 300cm in length. For patient rooms without TV sets, Contractor shall furnish and install one (1) standard call cord for each bed. Contractor shall furnish and install Rauland model # CCDIN (or equal).

Patient Entertainment Speakers: Patient Entertainment Speakers shall be provided for patient call-in and entertainment system control / audio with the following minimum features and characteristics.

All control buttons including call button shall be raised and textured membrane style. Buttons shall be labeled graphically for easy identification of functions. Control buttons shall be Braille embossed.

Control buttons shall include:

- 1) Single easy to activate call button
- 2) Television / Radio controls as required.
- 3) The TV control mechanism shall be analog or digital as required by the facility televisions.

Cord shall be 10' / 300cm and shall be modular for replacement by maintenance personnel. A sheet clip shall be attached to the cord.

Speaker (minimum size 2.25" / 5.7cm) shall be liquid resistant. Thumb-wheel volume control shall be provided.

Call Assurance LED shall be integral to the unit.

For patient rooms with TV sets, Contractor shall furnish and install one (1) patient entertainment speaker for each bed. Contractor shall furnish and install Rauland model # NCESTV (or equal) as required by specification.

Specialty Call Cords – Specialty Call Cords of the type listed below shall be provided.

20 each Oxygen / Geriatric Pressure Ball Cord utilizing a pneumatically controlled switch for use in oxygen enriched environment. Cord is a minimum of 6' in length with DIN male plug and sheet clip.

N. Cable: Features include the following, unless otherwise indicated:

- 1) Nurse Call Cable shall be industry standard, plenum rated, 4 pair CAT5.
- 2) Added power cable, if needed for long runs, shall be plenum rated 2 conductor #14AWG.
- 3) Exposed cable shall be installed in ¾" minimum EMT where needed.

3.8 SUPERVISION

System shall be installed, maintained and serviced by of manufacture certified technicians

3.9 IN-SERVICE TRAINING

Contractor shall engage a factory-authorized service representative to furnish thorough training of all nursing staff assigned to those nursing units receiving new nurse/patient communications equipment. This training shall be developed and implemented to address two different types of staff. Floor nurses/staff shall receive training from their perspective, and likewise, unit secretaries (or any person whose specific responsibilities include answering patient calls and dispatching staff) shall receive operational training from their perspective. A separate training room will be set up that allows this type of individualized training utilizing in-service training unit.

3.10 ELECTRICAL POWER CONNECTIONS

Contractor shall install new equipment without interrupting the operation of the existing system. Vendor shall provide adapter plates as needed to install new equipment in the same enclosure as the existing.

Contractor shall furnish and install one dedicated 120 VAC, 60 HZ conduit feed into each nurse call equipment cabinet. This power feed shall not have any other devices connected directly to it. A 20 AMP circuit breaker located in the electrical sub-panel labeled "nurse call" will control this circuit. This electrical circuit will be connected to facility's emergency power system for automatic power switch over during loss of utility power.

3.11 PROTECTION OF NURSE CALL NETWORK DEVICES

Contractor shall protect network devices during unpacking and installation by wearing manufacturer approved ESD wrist straps tied to chassis ground. The wrist strap shall meet OSHA requirements for prevention of electrical shock, should technician come in contact with high voltage.

3.12 INSTALLATION shall include:

- A. System wiring and equipment installation shall be in accordance with good engineering practices as established by the EIA and the NEC. Wiring shall meet all state and local electrical codes. Contractor shall terminate all wiring with manufacturer-approved connectors. The use of wire nuts is prohibited.

System shall employ a structured cable system consisting of standard plenum rated 4-pair Category 5 cable to service all corridor lamps, and consoles.

All wiring shall test free from all grounds and shorts.

Wiring shall be UL listed, NEC and NFPA 70, Article 25 approved.

Nurse / Patient Communications System wiring shall not be run in the same conduit with other systems (i.e. Class 1 AC power distribution, fire alarm, entertainment systems, lighting controls, etc.).

- B. Wiring Method: Install wiring in raceway except within consoles, desks, and counters; and excepting accessible ceiling spaces and in gypsum board partitions, where cable wiring method may be used. Use UL-listed plenum cable in environmental air spaces including plenum ceilings. Conceal cable and raceway wiring except in unfinished spaces.
- C. Install cables without damaging conductors, shield, or jacket.
- D. Do not bend cables, in handling or in installing, to smaller radii than minimums recommended by manufacturer.
- E. Pull cables without exceeding cable manufacturer's recommended pulling tensions.
1. Pull cables simultaneously if more than one is being installed in same raceway.
 2. Use pulling compound or lubricant if necessary. Use compounds that will not damage conductor or insulation.
 3. Use pulling means, including fish tape, cable, rope, and basket weave wire or cable grips that will not damage media or raceway.
- F. Install exposed raceways and cables parallel and perpendicular to surfaces or exposed structural members, and follow surface contours. Secure and support cables by straps, staples, or similar fittings designed and installed so as not to damage cables. Secure cable at intervals not exceeding 30 inches (760 mm) and not more than 6 inches (150 mm) from cabinets, boxes, or fittings.

- G. **Wiring within Enclosures:** Provide adequate length of conductors. Bundle, lace, and train conductors to terminal points with no excess. Provide and use lacing bars in cabinets.
- H. **Separation of Wires:** Separate speaker-microphone, line-level, speaker-level, and power-wiring runs. Run in separate raceways or, if exposed or in same enclosure, provide 12-inch (300-mm) minimum separation between conductors to speaker microphones and adjacent parallel power and telephone wiring. Provide separation as recommended by equipment manufacturer for other conductors.
- I. **Splices, Taps, and Terminations:** Contractor shall install cable with splices or taps. All cable to terminate using modular 6 pin or 8 pin CAT5 style connectors.

3.13 GROUNDING shall include:

Ground cable shields and equipment to eliminate shock hazard and to minimize ground loops, common-mode returns, noise pickup, cross talk, and other signal impairments.

Signal Ground Terminal: Locate at main equipment cabinet. Isolate from power system and equipment grounding except at connection to main building ground bus.

3.14 FIELD QUALITY CONTROL shall include:

- A. **Manufacturer's Field Service:** Engage a factory-authorized service representative to inspect, test, and adjust field-assembled components and equipment installation, including connections, and to assist in field-testing. Report results in writing.
- B. **Test Procedure:** Comply with the following:
 - 1. Schedule tests a minimum of seven days in advance of performance of tests.
 - 2. Report: Submit a written record of test results.

Operational Test: Perform an operational system test, and demonstrate proper operations, adjustment, and sensitivity of each station in accordance with factory prepared testing schedule. Perform tests that include originating station-to-station and all-call messages and pages at each nurse call station. Verify proper routing, volume levels, and freedom from noise and distortion.

- C. **Retesting:** Rectify deficiencies indicated by tests and completely retest work affected by such deficiencies at Contractor's expense. Verify by the system test that the total system meets these Specifications and complies with applicable standards. Report results in writing.
- D. **Inspection:** Verify that units and controls are properly labeled and interconnecting wires and terminals are identified.

3.15 ADJUSTING

Occupancy Adjustments: When requested within 12 months of date of acceptance of the nurse call system, the Contractor shall provide on-site assistance (up to three visits)

in adjusting sound levels and controls to suit actual occupied conditions. Contractor shall coordinate the timing of the on-site assistance with the maintenance supervisor.

3.16 DEMONSTRATION

Contractor shall engage a factory-authorized service representative to train Owner's maintenance personnel and caregiver staff to adjust, operate, and maintain nurse call equipment.

3.17 FACTORY TRAINING

Contractor shall provide 16 hours of on-site training for minimum two (2) Hospital Maintenance Technicians in the areas of testing, repairing and trouble shooting the Nurse Call Equipment.

4. INSPECTION:

- 4.1 Contractor shall inspect existing conditions governing this work during pre-bid site inspection to determine conditions and extent of work required. No allowance will be made subsequently on behalf of the contractor for any error or negligence on his part in connection with this requirement.
- 4.2 The Contractor shall inspect all elements subject to movement or damage prior to commencing work.

5. SHOP DRAWINGS:

- 5.1 Contractor shall provide shop drawings to owner for approval specifying products and installation methods for the scope of work as defined in Section 3. Shop Drawings shall include the following:
 - 1. Cabling Diagrams: Single-line block diagrams showing cabling interconnection of all components for this specific equipment. Include cable type for each interconnection.
 - 2. Wiring Diagrams: Power, signal, and control wiring.
 - 3. Station Installation Details: For built-in equipment; dimensioned and to scale.
 - 4. Equipment Cabinet Drawings: Dimensioned and to scale.

A "Notice to Proceed" letter will be issued indicating approval of the Contractor's final draft of the Shop Drawings.

6. TEMPORARY FACILITIES:

- 6.1 The Owner will provide normal electrical supply from the currently installed electrical system in the building for the use of the contractor. However, the Owner provides no guarantee or warranty as to the systems condition or capabilities. The Contractor shall assure himself that the electrical system is adequate for his requirements or

supply additional temporary electrical power at his own expense.

- 6.2 Any damage to the electrical system resulting from misuse or abuse to the existing electrical system shall be repaired or replaced by the contractor at no expense to the owner.

7. COORDINATION OF WORK:

- 7.1 The Contractor shall coordinate with the maintenance supervisor for the proper relation of the work within the building structure and to the employees therein. In the event of conflict, the building maintenance supervisor shall prevail.
- 7.2 The Contractor shall take all necessary precautions to protect the interior of the building from debris, dust or any residue occurring from the scope of work.
- 7.3 The Contractor shall provide the Owner with a schedule of work (7) seven calendar days prior to the start of the work. The Owner shall be notified of any variances to the work schedule two (2) working days prior to the change.

8. WARRANTY: (GUARANTEE)

- 8.1 The Contractor shall warrant to the Owner all materials and equipment will be new, and that all work will be of good quality, free from faults and defects in conformance with the contract documents. All work not conforming to these requirements may be considered defective.
- 8.2 All materials and equipment shall be of current year production of manufacturer and manufactured for commercial usage. Used, reconditioned or remanufactured equipment is not acceptable. All equipment manufacturers' warranties shall be in the name of the Welch Community Hospital.
- 8.3 Insurance Requirements: The vendor, as an independent contractor, is solely liable for the acts and omissions of its employees and agents. The vendor shall provide proof of insurance at the time the contract is awarded. The vendor shall maintain and furnish proof of coverage of liability insurance for loss, damage, or injury (including death) of third parties arising from acts and omissions on the part of the vendor, its agents and employees in the following amounts:
 - a. For bodily injury (including death): \$500,000.00 per person, to a minimum of \$1,000,000.00 per occurrence.
 - b. For property damage and professional liability: a minimum of \$1,000,000.00 per occurrence.

9. PERMITS:

The Contractor shall secure and pay for the building permit and for all other permits, governmental fees and licenses, which are necessary for the proper execution and completion of the work as specified.

10. CLEAN UP:

The Contractor shall keep the work area as clean as possible during the entire progress of work, and shall be responsible to remove from the site, the packaging materials from his products and other debris as it accumulates. The old nurse call equipment, removed to allow installation of the new system, will become the property of the Contractor to dispose of at a landfill or location authorized to accept the items as waste or recycled parts

11. WAGE RATES:

The Contractor and any sub-contractors shall pay the higher of the U.S. Department of Labor Minimum wage rates or of the West Virginia Department of Labor wage rates as established for MCDOWELL COUNTY pursuant to West Virginia Code 21-5-1, et seq. West Virginia Department of Labor Wage Rates are available at website: <http://www.wvsos.com/adlaw/wagerates/building06.htm>

12. PAYMENT SCHEDULE:

- 12.1 Due to the size and complexity of the project, two progress payments will be permitted, at 50% completion as determined by the Owner. The Contractor may submit an invoice for payment in the amount of 50% of the Purchase Order amount. The remaining balance will be paid upon acceptance by the Owner.
- 12.2 The Owner reserves the right to refuse payment in the event the completed work is not in accordance with industry standards or sub-standard in any way, or, if the amount requested is not within the agreed upon terms of the contract.

13. TERM OF WORK:

All work shall be completed within 120 calendar days from the Owner's letter of "Notice to Proceed."

14. DELAYS AND EXTENSION OF TIME:

If the Contractor is delayed at any time in the progress of the work by any act or neglect of the Owner or by any employee of the Owner, or by any separate contractor employed by the Owner, or by changes in the work, or by labor disputes, fire, unusual delay in transportation, adverse weather conditions not reasonably anticipated, unavoidable casualties, or any other cause which the Owner determines may justify the delay, then the contract time may be extended by written approval of the Owner.

15. TOOLS AND EQUIPMENT STORAGE:

Contractor may set a trailer or temporary storage building on the site for all equipment and tools. The Contractor is responsible for his tools, equipment and materials.

16. SAFETY EQUIPMENT:

The Contractor shall provide safety barriers around work areas where heavy equipment may be in operation when placing materials in the building or as required by OSHA.

17. DAMAGES:

Any damages occurring to the building or property resulting from the contractor's performance of this work shall be the responsibility of the contractor to repair at his expense, either by using his own forces or that of an approved sub-contractor. The repair method and finished product will be subject to the approval of the owner.

18. SCHEDULE OF BID RESPONSES:

- 18.1 Bidders shall submit one lump sum bid for all the work under all the terms and conditions as described herein.
- 18.2 Bidders shall submit five (5) year manufacturer's equipment warranty from date of acceptance of the equipment installation.
- 18.3 Manufacturer Qualifications: Manufacturer shall have a minimum of five (5) years experience in the manufacturing of the equipment and shall provide a five (5) year guarantee on the equipment installation. Manufacturer shall provide proof of the equipment's acceptance within a hospital environment.
- 18.3 Vendor shall sign a WV-96 Agreement Addendum to remove any conflicts in terms and conditions of the equipment warranty.
- 18.4 Bid and Performance Bonds: Vendor is required to submit a Bid Bond in the amount of 5% of the vendor's bid. The Bid Bond must be submitted with the vendor's bid. The State will accept in lieu of a formal bid bond a certified check, cashiers check, or irrevocable letter of credit. All checks must be made payable to the State of West Virginia Purchasing Division. Failure to provide a bid bond will result in disqualification of the bid.

The successful vendor will be required to furnish a Performance and Labor & Material Bond in the amount of 100% of the vendor bid submitted. A performance bond may be in the form of a policy or certificate issued by a surety company recognized as doing business in the State of West Virginia. The bond must be submitted on a form available from the Purchasing Division. A certified check or cashiers check made payable to the State of West Virginia may be accepted in lieu of the policy or certificate issued by the surety company. A Performance Bond is not required until requested by the Purchasing Division.

The Performance Bond is forfeited to the State if the vendor defaults in the performance of a purchase order after the order had been issued and work begun.

AGREEMENT ADDENDUM

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In the event of conflict between this addendum and the agreement, this addendum shall control:

1. **ARBITRATION** - Any references to arbitration contained in the agreement are hereby deleted. Disputes arising out of the agreement shall be presented to the West Virginia Court of Claims.
2. **HOLD HARMLESS** - Any clause requiring the Agency to indemnify or hold harmless any party is hereby deleted in its entirety.
3. **GOVERNING LAW** - The agreement shall be governed by the laws of the State of West Virginia. This provision replaces any references to any other State's governing law.
4. **TAXES** - Provisions in the agreement requiring the Agency to pay taxes are deleted. As a State entity, the Agency is exempt from Federal, State, and local taxes and will not pay taxes for any Vendor including individuals, nor will the Agency file any tax returns or reports on behalf of Vendor or any other party.
5. **PAYMENT** - Any references to prepayment are deleted. Payment will be in arrears.
6. **INTEREST** - Should the agreement include a provision for interest on late payments, the Agency agrees to pay the maximum legal rate under West Virginia law. All other references to interest or late charges are deleted.
7. **RECOURPMENT** - Any language in the agreement waiving the Agency's right to set-off, counterclaim, recoupment, or other defense is hereby deleted.
8. **FISCAL YEAR FUNDING** - Service performed under the agreement may be continued in succeeding fiscal years for the term of the agreement, contingent upon funds being appropriated by the Legislature or otherwise being available for this service. In the event funds are not appropriated or otherwise available for this service, the agreement shall terminate without penalty on June 30. After that date, the agreement becomes of no effect and is null and void. However, the Agency agrees to use its best efforts to have the amounts contemplated under the agreement included in its budget. Non-appropriation or non-funding shall not be considered an event of default.
9. **STATUTE OF LIMITATION** - Any clauses limiting the time in which the Agency may bring suit against the Vendor, lessor, individual, or any other party are deleted.
10. **SIMILAR SERVICES** - Any provisions limiting the Agency's right to obtain similar services or equipment in the event of default or non-funding during the term of the agreement are hereby deleted.
11. **ATTORNEY FEES** - The Agency recognizes an obligation to pay attorney's fees or costs only when assessed by a court of competent jurisdiction. Any other provision is invalid and considered null and void.
12. **ASSIGNMENT** - Notwithstanding any clause to the contrary, the Agency reserves the right to assign the agreement to another State of West Virginia agency, board or commission upon thirty (30) days written notice to the Vendor and Vendor shall obtain the written consent of Agency prior to assigning the agreement.
13. **LIMITATION OF LIABILITY** - The Agency, as a State entity, cannot agree to assume the potential liability of a Vendor. Accordingly, any provision limiting the Vendor's liability for direct damages or limiting the Vendor's liability under a warranty to a certain dollar amount or to the amount of the agreement is hereby deleted. In addition, any limitation is null and void to the extent that it precludes any action for injury to persons or for damages to personal property.
14. **RIGHT TO TERMINATE** - Agency shall have the right to terminate the agreement upon thirty (30) days written notice to Vendor.
15. **TERMINATION CHARGES** - Any provision requiring the Agency to pay a fixed amount or liquidated damages upon termination of the agreement is hereby deleted. The Agency may only agree to reimburse a Vendor for actual costs incurred or losses sustained during the current fiscal year due to wrongful termination by the Agency prior to the end of any current agreement term.
16. **RENEWAL** - Any reference to automatic renewal is hereby deleted. The agreement may be renewed only upon mutual written agreement of the parties.
17. **INSURANCE** - Any provision requiring the Agency to insure equipment or property of any kind and name the Vendor as beneficiary or as an additional insured is hereby deleted.
18. **RIGHT TO NOTICE** - Any provision for repossession of equipment without notice is hereby deleted. However, the Agency does recognize a right of repossession with notice.
19. **ACCELERATION** - Any reference to acceleration of payments in the event of default or non-funding is hereby deleted.
20. **AMENDMENTS** - All amendments, modifications, alterations or changes to the agreement shall be in writing and signed by both parties. No amendment, modification, alteration or change may be made to this addendum without the express written approval of the Purchasing Division and the Attorney General.

ACCEPTED BY:
STATE OF WEST VIRGINIA

VENDOR

Spending Unit: _____

Company Name: SIMPLEXGAINNELL

Signed: _____

Signed: [Signature]

Title: _____

Title: DCM

Date: _____

Date: 6-6-07

STATE OF WEST VIRGINIA
Purchasing Division

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PURCHASING AFFIDAVIT

West Virginia Code §5A-3-10a states: No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owned is an amount greater than one thousand dollars in the aggregate

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

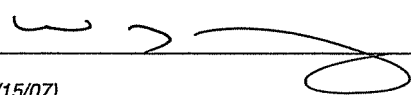
"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

EXCEPTION: The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

LICENSING: Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agencies or political subdivision. Furthermore, the vendor must provide all necessary releases to obtain information to enable the Director or spending unit to verify that the vendor is licensed and in good standing with the above entities.

CONFIDENTIALITY: The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures and rules. Vendors should visit www.state.wv.us/admin/purchase/privacy for the Notice of Agency Confidentiality Policies.

Under penalty of law for false swearing (West Virginia Code, §61-5-3), it is hereby certified that the vendor acknowledges the information in this said affidavit and are in compliance with the requirements as stated.

Vendor's Name: SIMPLEX GRINNELLAuthorized Signature: Date: 6-6-07

Agency _____
REQ.P.O.# _____

1129

BID BOND

KNOW ALL MEN BY THESE PRESENTS, That we, the undersigned, SimplexGrinnell LP
of 2800 7th Avenue, Ste 102, Charleston, WV 25312, as Principal, and Federal Insurance Company
of 15 Mountain View Rd., Warren, NJ 07061, a corporation organized and existing under the laws of the State of New Jersey with its principal office in the City of Warren, as Surety, are held and firmly bound unto the State of West Virginia, as Oblige, in the penal sum of Five Percent of the Amount Bid (5%) for the payment of which, well and truly to be made, we jointly and severally bind ourselves, our heirs, administrators, executors, successors and assigns.

The Condition of the above obligation is such that whereas the Principal has submitted to the Purchasing Section of the Department of Administration a certain bid or proposal, attached hereto and made a part hereof, to enter into a contract in writing for RFO WEH70232

NOW THEREFORE,

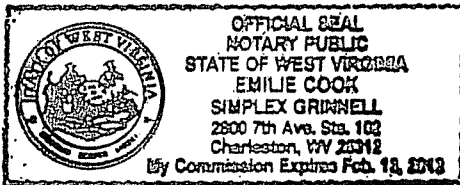
- (a) If said bid shall be rejected, or
- (b) If said bid shall be accepted and the Principal shall enter into a contract in accordance with the bid or proposal attached hereto and shall furnish any other bonds and insurance required by the bid or proposal, and shall in all other respects perform the agreement created by the acceptance of said bid, then this obligation shall be null and void, otherwise this obligation shall remain in full force and effect. It is expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for the value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the Oblige may accept such bid, and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, Principal and Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be affixed hereunto and these presents to be signed by their proper officers, this

6 day of JUNE, 2007

Principal Corporate Seal



Surety Corporate Seal

SimplexGrinnell LP

(Name of Principal)

By [Signature]
(Must be President or Vice President)

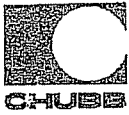
Dom
(Title)

Federal Insurance Company

(Name of Surety)

[Signature]
Attorney-in-fact
Jeannette Parrini

IMPORTANT -Corporate seals must be affixed and a power of attorney must be attached.



Chubb
Surety

POWER
OF
ATTORNEY

Federal Insurance Company
Vigilant Insurance Company
Pacific Indemnity Company

Attn: Surety Department
15 Mountain View Road
Warren, NJ 07059

Know All by These Presents, That FEDERAL INSURANCE COMPANY, an Indiana corporation, VIGILANT INSURANCE COMPANY, a New York corporation, and PACIFIC INDEMNITY COMPANY, a Wisconsin corporation, do each hereby constitute and appoint

Jeannette Porrini

as their true and lawful Attorney- in- Fact to execute under such designation in their names and to affix their corporate seals to and deliver for and on their behalf as surety thereon or otherwise, the following Surety Bond:

Surety Bond Number : Bid Bond
Obligee : Health & Human Resources, Welch Community Hospital

And the execution of such bond or obligation by such Attorney- in- Fact in the Company's name and on its behalf as surety thereon or otherwise, under its corporate seal, in pursuance of the authority hereby conferred shall, upon delivery thereof, be valid and binding upon the Company.

In Witness Whereof, said FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY have each executed and attested these presents and affixed their corporate seals on this 25th day of March 2005.

Kenneth C. Wendel

Kenneth C. Wendel, Assistant Secretary

T. W. Cavanaugh

T. W. Cavanaugh, Vice President

STATE OF NEW JERSEY
County of Somerset ss.

On this 25th day of March 2005, before me, a Notary Public of New Jersey, personally came Kenneth C. Wendel, to me known to be Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY, the companies which executed the foregoing Power of Attorney, and the said Kenneth C. Wendel, being by me duly sworn, did depose and say that he is Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY and knows the corporate seals thereof, that the seals affixed to the foregoing Power of Attorney are such corporate seals and were thereto affixed by authority of the By- Laws of said Companies; and that he signed said Power of Attorney as Assistant Secretary of said Companies by like authority; and that he is acquainted with T. W. Cavanaugh, and knows him to be Vice President of said Companies; and that the signature of T. W. Cavanaugh, subscribed to said Power of Attorney is in the genuine handwriting of T. W. Cavanaugh, and was thereto subscribed by authority of said By- Laws and in deponent's presence.

Notarial
Seal



WENDIE WALSH
Notary Public State of New Jersey
No. 0054504
Commission Expires April 18, 2008

Wendie Walsh

Notary

Public

CERTIFICATION

Extract from the By- Laws of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY:

"All powers of attorney for and on behalf of the Company may and shall be executed in the name and on behalf of the Company, either by the Chairman or the President or a Vice President or an Assistant Vice President, jointly with the Secretary or an Assistant Secretary, under their respective designations. The signature of such officers may be engraved, printed or lithographed. The signature of each of the following officers: Chairman, President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary and the seal of the Company may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing Assistant Secretaries or Attorneys- in- Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such power of attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is attached."

I, Kenneth C. Wendel, Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY (the "Companies") do hereby certify that

- (i) the foregoing extract of the By- Laws of the Companies is true and correct,
- (ii) the Companies are duly licensed and authorized to transact surety business in all 50 of the United States of America and the District of Columbia and are authorized by the U.S. Treasury Department; further, Federal and Vigilant are licensed in Puerto Rico and the U.S. Virgin Islands, and Federal is licensed in American Samoa, Guam, and each of the Provinces of Canada except Prince Edward Island; and
- (iii) the foregoing Power of Attorney is true, correct and in full force and effect.

Given under my hand and seals of said Companies at Warren, NJ this 6th day of June, 2007



Kenneth C. Wendel

Kenneth C. Wendel, Assistant Secretary

IN THE EVENT YOU WISH TO NOTIFY US OF A CLAIM, VERIFY THE AUTHENTICITY OF THIS BOND OR NOTIFY US OF ANY OTHER MATTER, PLEASE CONTACT US AT ADDRESS LISTED ABOVE, OR BY Telephone (908) 903- 3493 Fax (908) 903- 3656 e-mail: surety@chubb.com

FEDERAL INSURANCE COMPANY

STATEMENT OF ASSETS, LIABILITIES AND SURPLUS TO POLICYHOLDERS

Statutory Basis

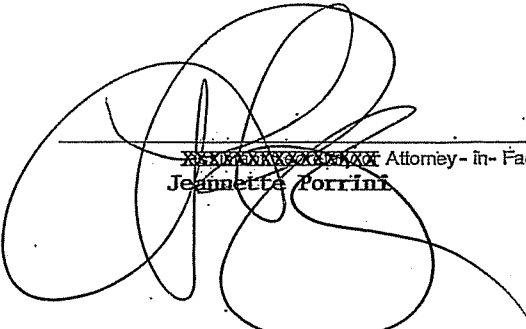
DECEMBER 31, 2005

(in thousands of dollars)

<u>ASSETS</u>		<u>LIABILITIES AND SURPLUS TO POLICYHOLDERS</u>
Cash and Short Term Investments.....	\$ 233,177	Outstanding Losses and Loss Expenses... \$ 11,102,486
United States Government, State and Municipal Bonds.....	12,026,711	Unearned Premiums..... 3,594,949
Other Bonds.....	2,877,937	Reinsurance Premiums Payable..... 505,263
Stocks.....	836,039	Provision for Reinsurance..... 248,024
Other Invested Assets.....	<u>1,019,957</u>	Other Liabilities..... <u>1,093,720</u>
TOTAL INVESTMENTS.....	<u>16,993,821</u>	TOTAL LIABILITIES..... <u>16,544,442</u>
Investments in Affiliates:		Capital Stock..... 20,980
Chubb Investment Holdings, Inc.	1,864,311	Paid - In Surplus..... 3,106,790
Pacific Indemnity Company.....	1,279,232	Unassigned Funds..... <u>5,705,305</u>
Chubb Insurance Company of Europe..	677,231	
Executive Risk Indemnity Inc.	656,360	
CC Canada Holdings Ltd.	347,840	
Great Northern Insurance Company..	283,968	SURPLUS TO POLICYHOLDERS..... <u>8,833,075</u>
Chubb Insurance Company of Australia..	130,693	
Vigilant Insurance Company.....	121,092	
Other Affiliates.....	188,061	
Premiums Receivable.....	1,590,888	
Other Assets.....	<u>1,244,020</u>	
TOTAL ADMITTED ASSETS.....	<u>\$ 25,377,517</u>	TOTAL LIABILITIES AND SURPLUS TO POLICYHOLDERS..... <u>\$ 25,377,517</u>

Investments are valued in accordance with requirements of the National Association of Insurance Commissioners.
Investments valued at \$341,275,964 are deposited with government authorities as required by law.

A CORRECT STATEMENT:


~~XXXXXXXXXXXX~~ Attorney-in-Fact
 Jeannette Porri

THE AMERICAN INSTITUTE OF ARCHITECTS

AIA Document A310 Bid Bond

KNOW ALL MEN BY THESE PRESENTS, THAT WE SimplexGrinnell LP
2800 7th Avenue, Ste 102, Charleston, WV 25312

as Principal, hereinafter called the Principal, and Federal Insurance Company
15 Mountain View Road., P.O. Box 1615, Warren, NJ 07061 - 1615

a corporation duly organized under the laws of the State of _____ IN _____

as Surety, hereinafter called the Surety, are held and firmly bound unto Health & Human Resources, Welch Community
Hospital 454 McDowell Street, Welch, WV 24801

as Obligee, hereinafter called the Obligee, in the sum of Five Percent of Amount Bid

_____ Dollars (\$ _____ 5% _____),
for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs,
executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

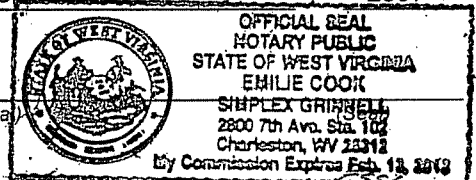
WHEREAS, the Principal has submitted a bid for RFQ WEH70232

NOW, THEREFORE, if the Obligee shall accept the bid of the Principal and the Principal shall enter into a Contract with
the Obligee in accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding or
Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt
payment of labor and materials furnished in the prosecution thereof, or in the event of the failure of the Principal to enter
such Contract and give such bond or bonds, if the Principal shall pay to the Obligee the difference not to exceed the
penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith
contract with another party to perform the Work covered by said bid, then this obligation shall be null and void, otherwise
to remain in full force and effect.

Signed and sealed this 6th day of June, 2007

Emilie Cook
(Witness)

SimplexGrinnell LP
(Principal)



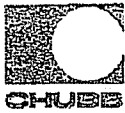
By: _____ (Title)

Janet Diaz
(Witness)



Federal Insurance Company
(Surety)

By: _____ (Title)
Jeannette Porrini



Chubb
Surety

POWER
OF
ATTORNEY

Federal Insurance Company
Vigilant Insurance Company
Pacific Indemnity Company

Attn: Surety Department
15 Mountain View Road
Warren, NJ 07059

Know All by These Presents, That FEDERAL INSURANCE COMPANY, an Indiana corporation, VIGILANT INSURANCE COMPANY, a New York corporation, and PACIFIC INDEMNITY COMPANY, a Wisconsin corporation, do each hereby constitute and appoint

Jeannette Porrini

as their true and lawful Attorney-in-Fact to execute under such designation in their names and to affix their corporate seals to and deliver for and on their behalf as surety thereon or otherwise, the following Surety Bond:

Surety Bond Number : Bid Bond
Obligee : Health & Human Resources, Welch Community Hospital

And the execution of such bond or obligation by such Attorney-in-Fact in the Company's name and on its behalf as surety thereon or otherwise, under its corporate seal, in pursuance of the authority hereby conferred shall, upon delivery thereof, be valid and binding upon the Company.

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Kenneth C. Wendel

Kenneth C. Wendel, Assistant Secretary

T. W. Cavanaugh

T. W. Cavanaugh, Vice President

STATE OF NEW JERSEY
County of Somerset ss.

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Notarial Seal



WENDIE WALSH
Notary Public State of New Jersey
No. 0054504
Commission Expires April 18, 2008

Wendie Walsh

Notary

Public

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Kenneth C. Wendel

Kenneth C. Wendel, Assistant Secretary

IN THE EVENT YOU WISH TO NOTIFY US OF A CLAIM, VERIFY THE AUTHENTICITY OF THIS BOND OR NOTIFY US OF ANY OTHER MATTER, PLEASE CONTACT US AT ADDRESS LISTED ABOVE, OR BY Telephone (908) 903-3493 Fax (908) 903-3656 e-mail: surety@chubb.com

FEDERAL INSURANCE COMPANY

STATEMENT OF ASSETS, LIABILITIES AND SURPLUS TO POLICYHOLDERS

Statutory Basis

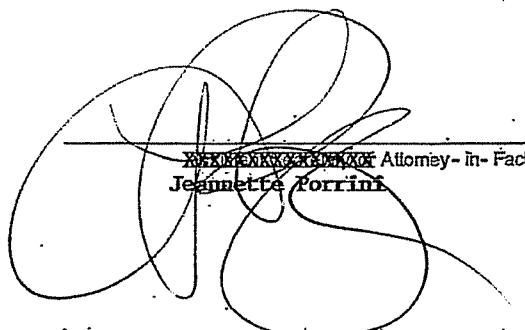
DECEMBER 31, 2005

(in thousands of dollars)

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Other Bonds.....	2,877,937	Reinsurance Premiums Payable.....	505,263
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Pacific Indemnity Company.....	1,279,232	Unassigned Funds.....	<u>5,705,305</u>
Chubb Insurance Company of Europe..	677,231	 SURPLUS TO POLICYHOLDERS.....	 <u>8,833,075</u>
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CC Canada Holdings Ltd.	347,840		
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Chubb Insurance Company of Australia..	130,693		
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Investments valued at \$341,275,964 are deposited with government authorities as required by law.

A CORRECT STATEMENT:


 Jeannette Torrin, Attorney-in-Fact



Fire &
Security

SimplexGrinnell

SimplexGrinnell LP
2800 7th Ave Ste 102
Charleston, WV 25312

(304) 746-4081
FAX: (304) 746-4089
www.simplexgrinnell.com

TeleFax Transmission

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24/7 Emergency Service

- Fire Sprinkler Systems
- Fire Detection & Alarm
- Fire Extinguishers
- Range Hood Systems
- Special Hazard Systems
- Integrated Security Applications
- Healthcare Systems
- Sound & Communications
- Time & Workforce Management
- Emergency Lighting
- System Design & Installation
- Project Management
- Inspection & Testing
- Preventive Maintenance

Over 150 offices in principal cities throughout North America.

For marketing brochures regarding SimplexGrinnell systems and services, call 1-800-746-7539.

<i>Date</i>	Wednesday, June 06, 2007
<i>Company</i>	Welch Community Hospital 454 Mcdowell St Welch WV, 24801-2097
<i>Attention</i>	Roberta Wagner (304) 558-0067 EXT(____)
<i>Fax No.</i>	(304) 558-4115
<i>From</i>	Bryan Wilson
<i>Subject</i>	Welch Community Hospital NC
<i>No. of pages (including this one)</i>	5

SimplexGrinnell Quotation

TO:

Welch Community Hospital
454 Mcdowell St
Welch, WV 24801-2097
Attn: Roberta Wagner
(304) 558-0067 EXT(____) Fax: (304) 558-4115

Project: Welch Community Hospital NC
Customer Reference: Nurse Call System
SimplexGrinnell Reference: L20703-000189
Date: 06/06/2007
Page 1 of 4

SimplexGrinnell is pleased to offer for your consideration this quotation for the above project.

New Nurse Call System New Nurse Call System

QUANTITY	MODEL NUMBER	DESCRIPTION
1	5009-9105	DESKTOP NCS
1	5009-9102	STAFF STATION, AUDIO
53	5009-9309	SGL PAT STN P1/P2/CALL/EMRG
60	5009-9307	DUAL PAT STN P1/P2/CALL/EMRG
95	5009-9506	PIL SPK, ALG/NURSE/TV/VOL
18	5009-9501	BASIC CALL CORD
98	5009-9311	BATH / SHOWER PULL STN
1	5009-9313	CODE BLUE PULL STN
18	130.1600	ROOM CONTROLLERW/O LAMP, AUDIO
95	130.1200	ROOM CONTROLLER W/LAMP, AUDIO
95	130.9600	WHITE LED
95	130.9610	RED LED
95	130.9620	GREEN LED
95	130.9630	YELLOW LED
95	130.9640	BLUE LED
8	130.5110	REPEATER
1	130.9740	USB-LON INTERFACE
14	5009-9710	UNIT AUDIO CONTROLLER
14	5009-9880	PWR SUPPLY BACK UP BATT
1	5009-9881	RJ-45 8-WIRE WALL MOUNT BLOCK
1	5009-9882	CABLE LON INTFACE& DESKTOP NCS
4	5009-9876	4-POSITION CONNECTOR (100 QTY)
4	5009-9878	6-POSITION CONNECTOR (100 QTY)
8	5009-9879	8-POSITION CONNECTORS (50 QTY)
1	130.910	WAGO WIRING CONNECTORS, 400 CT
200	378-323	3500 4.99K EOL RESISTR MIN=100
4	5009-9886	CBL, DATA & PWR BUS PLENUM 1K'
4	5009-9896BL	CBL,UNT,AUD,RM STN,TV,PLNM 1K'
2	5009-9895RD	CBL,RM STN, TV 1K'
2	5009-9895WH	CBL, UNIT AUDIO, 1K'
4	5009-9898	CBL,IU AUD,PRES,DOME PLENM 1K'
4	5009-9703	120V POWER SUPPLY
2	5009-9820	LED CORRIDOR DISPLAY 120 VOLT

SimplexGrinnell Quotation

QUANTITY	MODEL NUMBER	DESCRIPTION
2	130.697	CORRIDOR DISPLAY INTERFACE
5	5009-9830	EZ CARE INSTALLATION GUIDE
5	5009-9832	EZ CARE USER GUIDE
7	5008-9810	SENTINEL 500 CABINET & DOOR
1	OPIM	OP INSTALLATION MATERIALS

Total net selling price, FOB shipping point, \$151,000.00

Need Financing? SimplexGrinnell has a variety of options to fit your needs. Ask your Sales Representative for more details.

Comments

STATE OF WV PURCHASING, THANK YOU FOR YOUR TIME ON THIS PROJECT

THIS PRICING PER WEH70232 RFQ

SIMPLEXGRINNELL TO PROVIDE ALL NURSE CALL HARDWARE, SOFTWARE, TURN-KEY INSTALLATION, TECHNICAL INSTALLATION SUPPORT, FULL ENGINEERING PACKAGE AND STATE OF WV FIRE REVIEW

PRICING AND COUNTS SUBJECT TO CHANGE BASED ON REQUESTS FROM WV FIRE MARSHAL, BUILDING INSPECTORS, OR ANY OTHER AUTHORITY HAVING JURISDICTION

1 YEAR EQUIPMENT PARTS/LABOR WARRANTY, SYSTEM CHECKOUT, CONTROL PANEL TERMINATIONS, AND PROGRAMMING IS INCLUDED

ANY APPLICABLE TAXES NOT INCLUDED

WE LOOK FORWARD TO EARNING YOUR BUSINESS

THANK YOU FOR YOUR REVIEW OF THIS INFORMATION

THANKS IN ADVANCE AND IF ANY QUESTIONS PLEASE CONTACT MARK MORIARTY AT 800-999-0512 OR FAX AT 304-746-4089

TERMS AND CONDITIONS

1. Payment. Payments shall be invoiced and due in accordance with the terms and conditions set forth above. Work performed on a time and material basis shall be at the then-prevailing Company rate for material, labor, and related items, in effect at the time supplied under this Agreement. Company shall invoice Customer for progress payments to one hundred (100%) percent based upon equipment delivered or stored, and services performed. Customers without established satisfactory credit shall make payments of cash in advance, upon delivery or as otherwise specified by Company. Where Customer establishes and maintains satisfactory credit, payments shall be due and payable thirty (30) days from date of invoice. Company reserves the right to revoke or modify Customer's credit at its sole discretion. The Customer's failure to make payment when due is a material breach of this Agreement.

If Customer fails to make any payment when due, in addition to any other rights and remedies available, Company shall have the right, at Company's sole discretion, to stop performing any Services and/or withhold further deliveries of materials, until the account is current. In the event payment is not received when due, Company may, at its discretion, assess late fees at the rate of 1.5% per month or the maximum rate allowed by law. Customer agrees to pay all costs of collection, including without limitation costs, fees, and attorneys' fees. Customer's failure to make payment when due is a material breach of this Agreement until the account is current.

2. Pricing. The pricing set forth in this Agreement is based on the number of devices to be installed and services to be performed as set forth in the Scope of Work ("Equipment" and "Services"). If the actual number of devices installed or services to be performed is greater than that set forth in the Scope of Work, the price will be increased accordingly. If this Agreement extends beyond one year, SimplexGrinnell may increase prices upon notice to the Customer. Customer agrees to pay all taxes, permits, and other charges, including but not limited to state and local sales and excise taxes, however designated, levied or based on the service charges pursuant to this Agreement.

3. Alarm Monitoring Services. Any reference to alarm monitoring services in this Agreement is included for pricing purposes only. Alarm monitoring services are performed pursuant to the terms and conditions of Company's standard alarm monitoring services agreement.

4. Code Compliance. Company does not undertake an obligation to inspect for compliance with laws or regulations unless specifically stated in the Scope of Work. Customer acknowledges that the Authority Having Jurisdiction (e.g. Fire Marshal) may establish additional requirements for compliance with local codes. Any additional services or equipment required will be provided at an additional cost to Customer.

5. Limitation Of Liability; Limitations Of Remedy. It is understood and agreed by Customer that Company is not an insurer and that Insurance coverage, if any, shall be obtained by the Customer and that amounts payable to company hereunder are based upon the value of the services and the scope of liability set forth in this Agreement and are unrelated to the value of the Customer's property and the property of others located on the premises. Customer agrees to look exclusively to the Customer's insurer to recover for injuries or damage in the event of any loss or injury and that Customer releases and waives all right of recovery against Company arising by way of subrogation. Company makes no warranty or Warranty, including any implied warranty of merchantability or fitness for a particular purpose that equipment or services supplied by Company will detect or avert occurrences or the consequences therefrom that the equipment or service was designed to detect or avert.

It is impractical and extremely difficult to fix the actual damages, if any, which may proximately result from failure on the part of Company to perform any of its obligations under this Agreement. Accordingly, Customer agrees that, Company shall be exempt from liability for any loss, damage or injury arising directly or indirectly from occurrences, or the consequences therefrom, which the equipment or service was designed to detect or avert. Should Company be found liable for any loss, damage or injury arising from a failure of the equipment or service in any respect, Company's liability shall be limited to an amount equal to the Agreement price (as increased by the price for any additional work) or where the time and material payment term is selected, Customer's time and material payments to Company. Where this Agreement covers multiple sites, liability shall be limited to the amount of the payments allocable to the site where the incident occurred. Such sum shall be complete and exclusive. If Customer desires Company to assume greater liability, the parties shall amend this Agreement by attaching a rider setting forth the amount of additional liability and the additional amount payable by the Customer for the assumption by Company of such greater liability, provided however that such rider shall in no way be interpreted to hold Company as an insurer. **IN NO EVENT SHALL COMPANY BE LIABLE FOR ANY DAMAGE, LOSS, INJURY, OR ANY OTHER CLAIM ARISING FROM ANY SERVICING, ALTERATIONS, MODIFICATIONS, CHANGES, OR MOVEMENTS OF THE COVERED SYSTEM(S) OR ANY OF ITS COMPONENT PARTS BY THE CUSTOMER OR ANY THIRD PARTY. COMPANY SHALL NOT BE LIABLE FOR INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND, INCLUDING BUT NOT LIMITED TO DAMAGES ARISING FROM THE USE, LOSS OF THE USE, PERFORMANCE, OR FAILURE OF THE COVERED SYSTEM(S) TO PERFORM.** The limitations of liability set forth in this Agreement shall inure to the benefit of all parents, subsidiaries and affiliates of company, whether direct or indirect, company's employees, agents, officers and directors.

6. General Provisions. Customer has selected the service level desired after comparing and balancing various levels of protection afforded, and their related costs. Customer acknowledges and agrees that by this Agreement, Company, unless specifically stated, does not undertake any obligation to maintain or render Customer's system or equipment as Year 2000 compliant, which shall mean, capable of correctly handling the processing of calendar dates before or after

December 31, 1999. All work to be performed by Company will be performed during normal working hours of normal working days (8:00 a.m. - 5:00 p.m., Monday through Friday, excluding Company holidays), as defined by Company, unless additional times are specifically described in this Agreement.

Company will perform the services described in the Scope of Work section ("Services") for one or more system(s) or equipment as described in the Scope of Work section or the listed attachments ("Covered System(s)").

The Customer shall promptly notify Company of any malfunction in the Covered System(s) which comes to Customer's attention. This Agreement assumes the Covered System(s) are in operational and maintainable condition as of the Agreement date. If, upon initial inspection, Company determines that repairs are recommended, repair charges will be submitted for approval prior to any work. Should such repair work be declined Company shall be relieved from any and all liability arising therefrom. **UNLESS OTHERWISE SPECIFIED IN THIS AGREEMENT, ANY INSPECTION (AND, IF SPECIFIED, TESTING) PROVIDED UNDER THIS AGREEMENT DOES NOT INCLUDE ANY MAINTENANCE, REPAIRS, ALTERATIONS, REPLACEMENT OF PARTS, OR ANY FIELD ADJUSTMENTS WHATSOEVER, NOR DOES IT INCLUDE THE CORRECTION OF ANY DEFICIENCIES IDENTIFIED BY COMPANY TO CUSTOMER. COMPANY SHALL NOT BE RESPONSIBLE FOR EQUIPMENT FAILURE OCCURRING WHILE COMPANY IS IN THE PROCESS OF FOLLOWING ITS INSPECTION TECHNIQUES, WHERE THE FAILURE ALSO RESULTS FROM THE AGE OR OBSOLESCENCE OF THE ITEM OR DUE TO NORMAL WEAR AND TEAR. THIS AGREEMENT DOES NOT COVER SYSTEMS, EQUIPMENT, COMPONENTS OR PARTS THAT ARE BELOW GRADE, BEHIND WALLS OR OTHER OBSTRUCTIONS OR EXTERIOR TO THE BUILDING, ELECTRICAL WIRING, AND PIPING.**

7. Customer Responsibilities. Customer shall furnish all necessary facilities for performance of its work by Company, adequate space for storage and handling of materials, light, water, heat, heat tracing, electrical service, local telephone, watchman, and crane and elevator service and necessary permits. Where wet pipe system is installed, Customer shall supply and maintain sufficient heat to prevent freezing of the system. Customer shall promptly notify Company of any malfunction in the Covered System(s) which comes to Customer's attention. This Agreement assumes any existing system(s) are in operational and maintainable condition as of the Agreement date. If, upon initial inspection, Company determines that repairs are recommended, repair charges will be submitted for approval prior to any work. Should such repair work be declined Company shall be relieved from any and all liability arising therefrom.

Customer shall further:

- supply required schematics and drawings unless they are to be supplied by Company in accordance with this Agreement;
- Provide a safe work environment, in the event of an emergency or Covered System(s) failure, take reasonable safety precautions to protect against personal injury, death, and property damage, continue such measures until the Covered System(s) are operational, and notify Company as soon as possible under the circumstances.
- Provide Company access to any system(s) to be serviced,
- Comply with all laws, codes, and regulations pertaining to the equipment and/or services provided under this agreement.

8. Excavation. In the event the Work includes excavation, Customer shall pay, as an extra to the contract price, the cost of any additional work performed by Company due to water, quacksand, rock or other unforeseen condition or obstruction encountered or shoring required.

9. Structure and Site Conditions. While employees of Company will exercise reasonable care in this respect, Company shall be under no responsibility for loss or damage due to the character, condition or use of foundations, walls, or other structures not erected by it or resulting from the excavation in proximity thereto, or for damage resulting from concealed piping, wiring, fixtures, or other equipment or condition of water pressure. All shoring or protection of foundation, walls or other structures subject to being disturbed by any excavation required hereunder shall be the responsibility of Customer. Customer shall have all things in readiness for installation including, without limitation, structure to support the sprinkler system and related equipment (including tanks), other materials, floor or suitable working base, connections and facilities for erection at the time the materials are delivered. In the event Customer fails to have all things in readiness at the time scheduled for receipt of materials, Customer shall reimburse Company for all expenses caused by such failure. Failure to make areas available to Company during performance in accordance with schedules that are the basis for Company's proposal shall be considered a failure to have things in readiness in accordance with the terms of this Agreement.

10. Confined Space. If access to confined space by Company is required for the performance of Services, Services shall be scheduled and performed in accordance with Company's then-current hourly rate.

11. Hazardous Materials. Customer represents that, except to the extent that Company has been given written notice of the following hazards prior to the execution of this Agreement, to the best of Customer's knowledge there is no:

- "permit confined space," as defined by OSHA,
- risk of infectious disease,
- need for air monitoring, respiratory protection, or other medical risk,
- asbestos, asbestos-containing material, formaldehyde or other potentially toxic or otherwise hazardous material contained in or on the surface of the floors, walls, ceilings, insulation or other structural components of the area of any building where work is required to be performed under this Agreement.

All of the above are hereinafter referred to as "Hazardous Conditions".

Company shall have the right to rely on the representations listed above. If hazardous conditions are encountered by Company during the course of Company's work, the discovery of such materials shall constitute an event beyond Company's control and Company shall have no obligation to further perform in the area where

the hazardous conditions exist until the area has been made safe by Customer as certified in writing by an independent testing agency, and Customer shall pay disruption expenses and re-mobilization expenses as determined by Company.

This Agreement does not provide for the cost of capture, containment or disposal of any hazardous waste materials, or hazardous materials, encountered in any of the Covered System(s) and/or during performance of the Services. Said materials shall at all times remain the responsibility and property of Customer. Company shall not be responsible for the testing, removal or disposal of such hazardous materials.

12. OSHA Compliance. Customer shall indemnify and hold Company harmless from and against any and all claims, demands and/or damages arising in whole or in part from the enforcement of the Occupational Safety Health Act (and any amendments or changes thereto) unless said claims, demands or damages are a direct result of causes within the exclusive control of Company.

13. Interferences. Customer shall be responsible to coordinate the work of other trades (including but not limited to ducting, piping, and electrical) and for and additional costs incurred by Company arising out of interferences to Company's work caused by other trades.

14. Modifications and Substitutions. Company reserves the right to modify materials, including substituting materials of later design, providing that such modifications or substitutions will not materially affect the performance of the Covered System(s).

15. Changes, Alterations, Additions. Changes, alterations and additions to the Scope of Work, plans, specifications or construction schedule shall be invalid unless approved in writing by Company. Should changes be approved by Company, that increase or decrease the cost of the work to Company, the parties shall agree, in writing, to the change in price prior to performance of old work. However, if no agreement is reached prior to the time for performance of said work, and Company elects to perform said work so as to avoid delays, then Company's estimate as to the value of said work shall be deemed accepted by Customer. In addition, Customer shall pay for all extra work requested by Customer or made necessary because of incompleteness or inaccuracy of plans or other information submitted by Customer with respect to the location, type of occupancy, or other details of the work to be performed. In the event the layout of Customer's facilities has been altered, or is altered by Customer prior to the completion of the Work, Customer shall advise Company, and prices, delivery and completion dates shall be changed by Company as may be required.

16. Commodities Availability. Company shall not be responsible for failure to provide services, deliver products, or otherwise perform work required by this Agreement due to lack of available steel products or products made from plastics or other commodities. 1) In the event Company is unable, after reasonable commercial efforts, to acquire and provide steel products, or products made from plastics or other commodities, if required to perform work required by this Agreement, Customer hereby agrees that Company may terminate the Agreement, or the relevant portion of the Agreement, at no additional cost and without penalty. Customer agrees to pay Company in full for all work performed up to the time of any such termination. 2) If Company is able to obtain the steel products or products made from plastics or other commodities, but the price of any of the products has risen by more than 10% from the date of the bid, proposal or date Company executed this Agreement, whichever occurred first, then Company may pass through that increase through a reasonable price increase to reflect increased cost of materials.

17. Project Claims. Any claim of failure to perform against Company arising hereunder shall be deemed waived unless received by Company, in writing specifically setting forth the basis for such claim, within ten (10) days after such claims arises.

18. Backcharges. No charges shall be levied against the Seller unless seventy-two (72) hours prior written notice is given to Company to correct any alleged deficiencies which are alleged to necessitate such charges and unless such alleged deficiencies are solely and directly caused by Company.

19. System Equipment. The purchase of equipment or peripheral devices (including but not limited to smoke detectors, passive infrared detectors, card readers, sprinkler system components, extinguishers and hoses) from Company shall be subject to the terms and conditions of this Agreement. If, in Company's sole judgment, any peripheral device or other system equipment, which is attached to the Covered System(s), whether provided by Company or a third party, interferes with the proper operation of the Covered System(s), Customer shall remove or replace such device or equipment promptly upon notice from Company. Failure of Customer to remove or replace the device shall constitute a material breach of this Agreement. If Customer adds any third party device or equipment to the Covered System(s), Company shall not be responsible for any damage to or failure of the Covered System(s) caused in whole or in part by such device or equipment.

20. Reports. Where inspection and/or test services are selected, such inspection and/or test shall be completed on Company's then current Report form, which shall be given to Customer, and, where applicable, Company may submit a copy thereof to the local authority having jurisdiction. The Report and recommendations by Company are only advisory in nature and are intended to assist Customer in reducing the risk of loss to property by indicating obvious defects or impairments noted to the system and equipment inspected and/or tested. They are not intended to imply that no other defects or hazards exist or that all aspects of the Covered System(s), equipment, and components are under control at the time of inspection. Final responsibility for the condition and operation of the Covered System(s) and equipment and components lies with Customer.

21. Limited Warranty. Subject to the limitations below, Company warrants any equipment (as distinguished from the Software) installed pursuant to this Agreement to be free from defects in material and workmanship under normal use for a period of one (1) year from the date of first beneficial use or all or any part of the Covered System(s) or 18 months after Equipment shipments, whichever is earlier, provided however, that Company's sole liability, and Customer's sole remedy, under this limited warranty shall be limited to the repair or replacement of the Equipment or any

part thereof, which Company determines is defective, at Company's sole option and subject to the availability of service personnel and parts, as determined by Company. Company warrants expendable items, including, but not limited to, video and print heads, television camera tubes, video monitor displays tubes, batteries and certain other products in accordance with the applicable manufacturers warranty. Company does not warrant devices designed to fail in protecting the System, such as, but not limited to, fuses and circuit breakers.

Company warrants that any Company software described in this Agreement, as well as software contained in or sold as part of any Equipment described in this Agreement, will reasonably conform to its published specifications in effect at the time of delivery and for ninety (90) days after delivery. However, Customer agrees and acknowledges that the software may have inherent defects because of its complexity. Company's sole obligation with respect to software, and Customer's sole remedy, shall be to make available published modifications, designed to correct inherent defects, which become available during the warranty period.

If Repair Services are included in this Agreement, Company warrants that its workmanship and material for repairs made pursuant to this Agreement will be free from defects for a period of ninety (90) days from the date of furnishing. **EXCEPT AS EXPRESSLY SET FORTH HEREIN, COMPANY DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE SERVICES PERFORMED OR THE PRODUCTS, SYSTEMS OR EQUIPMENT, IF ANY, SUPPORTED HEREUNDER. COMPANY MAKES NO WARRANTY OR REPRESENTATION, AND UNDERTAKES NO OBLIGATION TO ENSURE BY THE SERVICES PERFORMED UNDER THIS AGREEMENT, THAT COMPANY'S PRODUCTS OR THE SYSTEMS OR EQUIPMENT OF THE CUSTOMER WILL CORRECTLY HANDLE THE PROCESSING OF CALENDAR DATES BEFORE OR AFTER DECEMBER 31, 1999.**

Warranty service will be performed during Company's normal working hours. If Customer requests warranty service at other than normal working hours, service will be performed at Company's then current rates for after hours services. All repairs or adjustments that are or may become necessary shall be performed by and authorized representative of Company. Any repairs, adjustments or interconnections performed by Customer or any third party shall void all warranties.

22. Indemnity. Customer agrees to indemnify, hold harmless and defend Company against any and all losses, damages, costs, including expert fees and costs, and expenses including reasonable defense costs, arising from any and all third party claims for personal injury, death, property damage or economic loss, including any damages resulting from the exposure of workers to Hazardous Conditions, whether or not Customer pre-notifies Company of the existence of said hazardous conditions, arising in any way from any act or omission of Customer or Company relating in any way to this Agreement, including but not limited to the Services under this Agreement, whether such claims are based upon contract, warranty, tort (including but not limited to active or passive negligence), strict liability or otherwise. Company reserves the right to select counsel to represent it in any such action.

23. Insurance. Customer shall name Company, its officers, employees, agents, subcontractors, suppliers, and representatives as additional insureds on Customer's general liability and auto liability policies.

24. Termination. Any termination under the terms of this Agreement shall be made in writing. In the event Customer terminates this Agreement prior to completion for

any reason not arising solely from Company's performance or failure to perform, Customer understands and agrees that Company will incur costs of administration and preparation that are difficult to estimate or determine. Accordingly, should Customer terminate this Agreement as described above, Customer agrees to pay all charges incurred for products and equipment installed and services performed, and in addition pay an amount equal to twenty (20%) percent of the price of products and equipment not yet delivered and Services not yet performed, return all products and equipment delivered and pay a restocking fee of twenty (20%) percent of the price of products or equipment returned.

Company may terminate this Agreement immediately at its sole discretion upon the occurrence of any Event of Default as hereinafter defined. Company may also terminate this Agreement at its sole discretion upon notice to Customer if Company's performance of its obligations under this Agreement becomes impracticable due to obsolescence of equipment at Customer's premises or unavailability of parts.

25. Default. An Event of Default shall be 1) failure of the Customer to pay any amount within ten (10) days after the amount is due and payable, 2) abuse of the System or the Equipment, 3) dissolution, termination, discontinuance, insolvency or business failure of Customer. Upon the occurrence of an Event of Default, Company may pursue one or more of the following remedies, 1) discontinue furnishing Services, 2) by written notice to Customer declare the balance of unpaid amounts due and to become due under the this Agreement to be immediately due and payable, provided that all past due amounts shall bear interest at the rate of 1 1/2% per month (18% per year) or the highest amount permitted by law, 3) receive immediate possession of any equipment for which Customer has not paid, 4) proceed at law or equity to enforce performance by Customer or recover damages for breach of this Agreement, and 5) recover all costs and expenses, including without limitation reasonable attorneys' fees, in connection with enforcing or attempting to enforce this Agreement.

26. Exclusions. Unless expressly included in the Scope of Work, this Agreement expressly excludes, without limitation, testing inspection and repair of duct detectors, beam detectors, and UV/IR equipment; provision of fire watches; clearing of ice blockage; draining of improperly pitched piping; replacement of batteries; recharging of chemical suppression systems; reloading of, upgrading, and maintaining computer software; system upgrades and the replacement of obsolete systems, equipment, components or parts; making repairs or replacements necessitated by reason of negligence or misuse of components or equipment or changes to Customer's premises, vandalism, corrosion (including but not limited to micro-bacterially induced corrosion ("MIC")), power failure, current fluctuation, failure due to non-Company installation, lightning, electrical storm, or other severe weather, water, accident, fire, acts of God or any other cause external to the Covered System(s). Repair Services provided pursuant to this Agreement do not cover and specifically excludes system upgrades and the replacement of obsolete systems, equipment, components or parts. All such services may be provided by Company at Company's sole discretion at an additional charge. If Emergency Services are expressly included in the scope of work section, the Agreement price does not include travel expenses.

27. Force Majeure; Delays. Company shall not be liable for any damage or penalty for delays or failure to perform work due to acts of God, acts or omissions of Customer, acts of civil or military authorities, Government regulations or priorities, fires, epidemics, quarantine, restrictions, war, riots, civil disobedience or unrest, strikes, delays in transportation, vehicle shortages, differences with workmen,

inability to obtain necessary labor, material or manufacturing facilities, defaults of Company's subcontractors, failure or delay in furnishing complete information by Customer with respect to location or other details of work to be performed, impossibility or impracticability of performance or any other cause or causes beyond Company's control, whether or not similar to the foregoing. In the event of any delay caused as aforesaid, completion shall be extended for a period equal to any such delay, and this contract shall not be void or voidable as a result of the delay. In the event work is temporarily discontinued by any of the foregoing, all unpaid installments of the contract price, less an amount equal to the value of material and labor not furnished, shall be due and payable upon receipt of invoice by Customer.

28. One-Year Limitation On Actions; Choice Of Law. It is agreed that no suit, or cause of action or other proceeding shall be brought against either party more than one (1) year after the accrual of the cause of action or one (1) year after the claim arises, whichever is shorter, whether known or unknown when the claim arises or whether based on tort, contract, or any other legal theory. The laws of Massachusetts shall govern the validity, enforceability, and interpretation of this Agreement.

29. Assignment. Customer may not assign this Agreement without Company's prior written consent. Company may assign this Agreement to an affiliate without obtaining Customer's consent.

30. Entire Agreement. The parties intend this Agreement, together with any attachments or Riders (collectively the "Agreement") to be the final, complete and exclusive expression of their Agreement and the terms and conditions thereof. This Agreement supersedes all prior representations, understandings or agreements between the parties, written or oral, and shall constitute the sole terms and conditions of sale for all equipment and services. No waiver, change, or modification of any terms or conditions of this Agreement shall be binding on Company unless made in writing and signed by an Authorized Representative of Company.

31. Severability. If any provision of this Agreement is held by any court or other competent authority to be void or unenforceable in whole or in part, this Agreement will continue to be valid as to the other provisions and the remainder of the affected provision.

32. Legal Fees. Company shall be entitled to recover from the customer all reasonable legal fees incurred in connection with Company enforcing the terms and conditions of this Agreement.

33. License Information (Security System Customers): AL Alabama Electronic Security Board of Licensure 7956 Vaughn Road, PMB 392, Montgomery, Alabama 36116 (334) 264-9388; AR Regulated by: Arkansas Board of Private Investigators and Private Security Agencies, #1 State Police Plaza Drive, Little Rock 72209 (501)618-8600; CA Alarm company operators are licensed and regulated by the Bureau of Security and Investigative Services, Department of Consumer Affairs, Sacramento, CA, 95814. Upon completion of the installation of the alarm system, the alarm company shall thoroughly instruct the purchaser in the proper use of the alarm system. Failure by the licensee, without legal excuse, to substantially commence work within 20 days from the approximate date specified in the agreement when the work will begin is a violation of the Alarm Company Act: NY Licensed by the N.Y.S. Department of the State: TX Texas Commission on Private Security, 5805 N. Lamar Blvd., Austin, TX 78752-4422, 512-424-7710.

IMPORTANT NOTICE TO CUSTOMER

In accepting this Proposal, Customer agrees to the terms and conditions contained herein including those on the following pages of this Agreement and any attachments or riders attached hereto that contain additional terms and conditions. It is understood that these terms and conditions shall prevail over any variation in terms and conditions on any purchase order or other document that the Customer may issue. Any changes in the system requested by the Customer after the execution of this Agreement shall be paid for by the Customer and such changes shall be authorized in writing. **ATTENTION IS DIRECTED TO THE LIMITATION OF LIABILITY, WARRANTY, INDEMNITY AND OTHER CONDITIONS ON THE FOLLOWING PAGES.** This Proposal shall be void if not accepted in writing within thirty (30) days from the date of the Proposal.

<p>Offered By: SimplexGrinnell LP License#:</p> <p>2800 7th Ave Ste 102 Charleston, WV 25312</p> <p>Telephone: (304) 746-4081 Fax: (304)-746-4089</p> <p>Representative: <u>Bryan Wilson</u></p> <p>Email: <u>brywilson@tycoint.com</u></p>	<p>Accepted By: (Customer)</p> <p>Company: _____</p> <p>Address: _____</p> <p>Signature: _____</p> <p>Title: _____</p> <p>P.O.#: _____ Date: _____</p>
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Features

- **Button-Activated Hands-Free Operation**
- **Backlit, LCD Graphic Display**
- **Programmable Keys for Initiating Frequently Performed Tasks**
- **Displays Multiple Incoming Calls**
- **Function Menu Activated by Soft Keys**
- **Calls Announced by Distinct Rate Signals**
- **RF Pager Control**
- **UL-1069 Listed**

Description

The 5009-9105 Desktop Nurse Control Station (Audio) is used as a central call answering station and monitor in an EZ Care network. The 5009-9105 manages all calls, presences and other events within the unit(s). With the Desktop Nurse Control Station, a nurse can make announcements to stations within different units of the network and can have voice contact to patient and staff rooms. Pre-programmed interconnections with specific units or zones can be activated or de-activated. With the 5009-9105, an operator can answer incoming calls shown on the display and initiate voice contact to single rooms or beds. Additionally announcements can be made to an entire system, unit, or zone grouping. The Desktop Nurse Control Station can handle up to 15 units with 5 zones per unit.

Patient calls are shown on the Incoming Call Display/Function Menu. Each call is clearly identified by room number, bed number (if applicable), location name and call level. The call levels (according to priority) are: Code Blue, Emergency, and Routine Patient Call. Call level nomenclature is programmable in system programming.

Microprocessor controlled desktop nurse control station (NCS) with enhanced graphical display. Features include call processing of multiple incoming calls displayed according to a three-level priority structure. Tone signaling continues until the call is answered or canceled. Additional tones include call reminder, call announce and busy tone. Use of push-to-talk handset allows for hands-free audio monitoring. The 5009-9105 Desktop Nurse Control Station provides supervision of an EZ Care unit and can be designated as a unit manager.



5009-9105

The display is a backlit, graphic LCD, which shows incoming calls with room number, bed number, location name and call level, as well as time and date information. The first call displays room and bed number in double-character height. Subsequent calls display in single-character height. System features are accessed using soft key function menu.

The speaker provides audio for both call signaling and hands free communication. The microphone, separate from the speaker for maximum clarity, is used for voice pickup during push-to-talk and handset communications.

Product Selection

Model	Description	
5009-9105	Desktop Nurse Control Station	Requires no special receptacles. This unit connects to a 5009-9881 RJ-45 LON Connector.

Specifications

Specification	
Unit dimensions	5.31" H (13.5 cm) x 13.38" W (34.0 cm) x 9.45" D (24.0 cm) with display extended horizontally.
Housing	High-impact thermoplastic housing
Display	240 x 64 pixel, backlit, graphic LCD
Keypad	12-key numeric keypad, eight programmable keys, six soft keys for operators to navigate the display, contrast and volume keys, and icon-based feature keys for: Presence 1, Presence 2, Answer/Audio, Shift, and Enter.
Idle Current	178 mA
Signal Mode Current	300 mA (with audio on)

Features

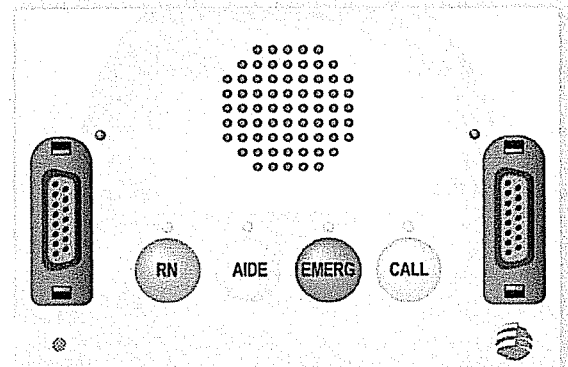
- Independent Speaker and Microphone
- Single & Dual Patient Stations with 4 Configurable Buttons and Confirmation LEDs
- Staff (Intercom) Station with 4 Configurable Buttons
- 15-Pin Sockets on Single and Dual Patient Stations for the Connection of Call Cords, Call Pendants or Pillow Speakers
- Supervised, Addressable Communication Scheme by the Room Controller
- Remote Volume Control for Nurse Following
- Call Device Supervision for Detection of Cord Removal and Breakage
- Standard and Custom Button Configuration

Description

The 5009 Series Audio Single and Dual Patient Stations are three gang, wall mounted devices equipped with a microphone, speaker and buttons used to allow patients to initiate calls for assistance, and to allow staff members to initiate calls and register presence. The 5009-9309 and 5009-9310 Audio Single Patient Stations include one integrated 15-pin socket for connection to call cords, pendants, or pillow speakers. The 5009-9307 and 5009-9308 Audio Dual Patient Stations feature two integrated 15-pin sockets. The Audio Patient Stations feature four configurable pushbuttons and LEDs, two supervised call inputs per bed, a reassurance LED for each call line, Hill-Rom bed interface, and entertainment and lighting control interface.

After a call has been placed, a nurse station operator can initiate two-way communication with an Audio Patient Station or Staff Station, Audio. One-way page announcements may also be communicated. Patient/Staff Station audio communication is single-channel analog. Audio sensitivity can be individually adjusted at each Audio Patient Station to compensate for room acoustics.

A variety of call cords, call pendants and pillow speakers may be plugged into Audio Patient Station 15-pin socket(s). Calls placed from the stations may be cancelled using either the on-board Cancel Button or by a staff member registering as present in the room using a separately mounted Staff Presence Station. There is a



5009-9307 / 5009-9308 Dual Patient Station
(5009-9309 / 5009-9310 Single Patient Station
(features one receptacle)

reassurance LED output above each button. Call devices connected to the station are fully supervised and the system generates a fault alarm when they are disconnected or if the wires to the call button are broken or shorted. Cords can be removed and changed by the staff without the use of dummy plugs. Patient Stations may also be configured to originate a Staff Emergency priority level call when a call is placed or the call cord is disconnected from the station while a staff member has registered as present in the room.

Audio Patient Stations serially interface with a Room Controller (Audio) for call inputs and connect with a Unit Audio Controller for audio communication. Each room controller supports four Audio Patient Station bed locations (four total sockets).

Listings & Approvals

- UL 1069 Listed



Product Selection

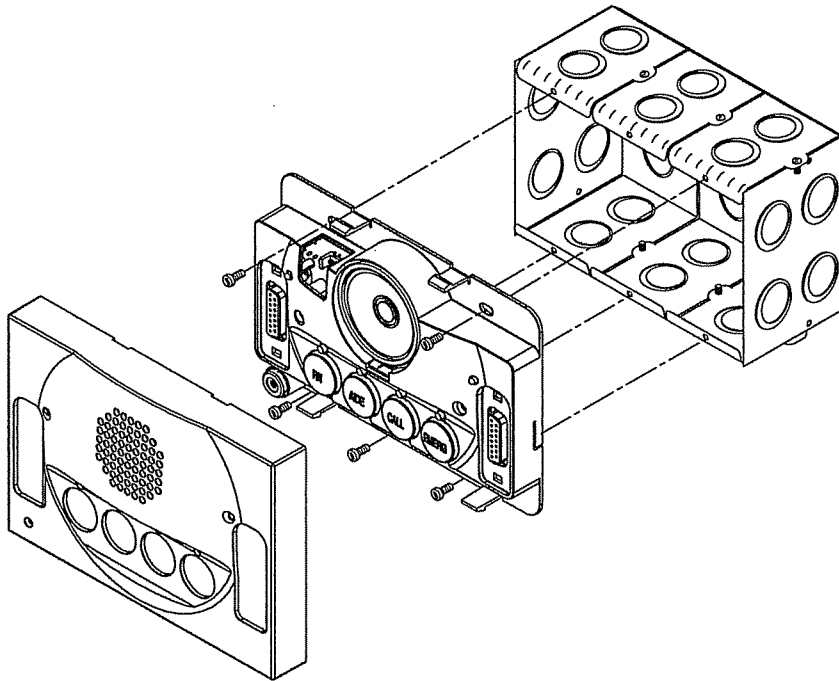
Model	Description	
5009-9309	Audio Single Patient Station	Presence 1, Presence 2, Call, Emergency
5009-9310	Audio Single Patient Station	Presence 1, Call, Emergency, Privacy
5009-9307	Audio Dual Patient Station	Presence 1, Presence 2, Call, Emergency
5009-9308	Audio Dual Patient Station	Presence 1, Call, Emergency, Privacy

Specifications

Refer to the *EZ Care Installation Manual, 579-469* for detailed wiring and mounting instructions.

Dimensions	4-1/2" H x 6-1/2" W x 1" D (114 mm x 165 mm x 25 mm)
Mounting	Mounts in three-gang backbox
Housing	ABS Plastic (white)
Display	2 line x 16 character full alphanumeric LCD
Operating Voltage	24 VDC +/- 15%

Mounting Information



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5009-0019-3 03/2007

All specifications and other information shown were current as of document revision date and are subject to change without notice.

Features**All Units**

- Supervision For Cord Out And Cord Break Detection
- ESD Protected
- Security Clip For Fastening To Bedding Included
- UL-1069 Listed
- Molded Plug for Durability

Call Cords

- Single Button, Press-Bulb, and Breath-Call Styles

Call Pendants

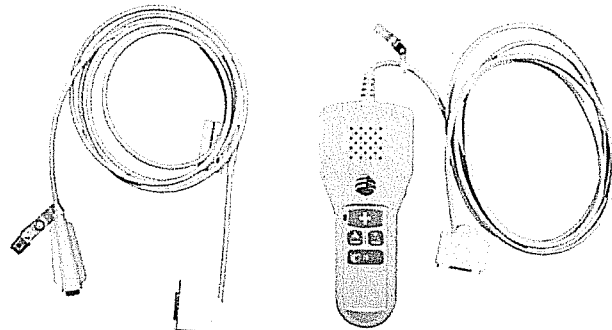
- Nurse Call and Room Lighting Control
- Call Reassurance LED
- Flame Retardant ABS Plastic Construction
- Easy To Clean Membrane Keypad

Pillow Speakers

- Supervision for Cord Out and Cord Break Detection
- ESD Protected
- Security Clip for Fastening to Bed Included
- UL-1069 Listed
- Nurse Call, Lighting, and Television Control Options
- Call Reassurance LED
- Analog and Digital Television Versions
- Digital Television Pillow Speakers Compatible with a Variety of Television Manufacturer Models
- Easy to Clean Membrane Keypad
- Flame Retardant ABS Plastic

Description**Call Cord Information**

5009 series call cords are connected to EZ Care system patient stations and are used by patients to place calls for assistance. The connection with the patient station is supervised and the system will detect and report a fault alarm if the call cord is unplugged from the patient station or if the cord is either broken or "shorted". Call cords are available in several styles including basic push-button, pneumatic air bulb, and breath activated.



Button Call Cord

Pillow Speaker

Call Pendant Information

Like call cords, call pendants are connected to the EZ Care system patient stations and are supervised for disconnection and damage. In addition to a nurse call button, Call Pendants also include a call assurance LED that illuminates when a call is placed. Optional room lighting controls allow either one or two lights inside the room to be turned on or off. All of the controls are on a single, easy to clean membrane style keypad.

Pillow Speaker General Information

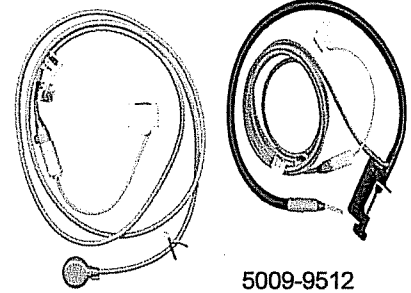
Pillow Speakers deliver nurse call, room light control, television control, and television sound to the patient's bed in a single, convenient package. The nurse call, television, and lighting controls are located on a single, easy to clean membrane style keypad that includes Braille markings. The nurse call button also includes a call assurance LED that illuminates when a call has been placed. A wheel on the side of the unit allows speaker volume to be easily adjusted and, like the call cords and pendants, Pillow Speakers are supervised for disconnection and cord damage.

Pillow Speakers are available in both analog and digital formats. Analog Pillow Speakers can be used with any television that uses contact inputs for control. Digital pillow speakers can be used to interface with televisions that support digital control inputs. Digital Pillow Speakers are available that provide capability with Philips, RCA, and Zenith televisions. Digital Pillow Speakers also include an extra "Function" button that can be used by the facility to support options specific to their television systems. Consult the following tables to identify the correct call input device for your application.

Product Selection and Specifications

EZ Care Call Cords

Part Number	Description	Cord Length
5009-9501	Basic, single push-button call cord	8ft (2.43m)
5009-9512	Breath-activated call cord. Includes 12 replacement straws	8ft (2.43m)
5009-9513	Air-activated call cord with squeeze bulb	8ft (2.43m)

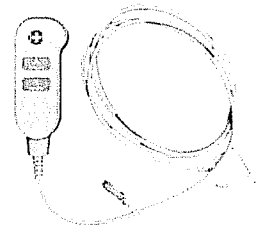


5009-9513 Pneumatic Call Cord (Air Bulb)

5009-9512 Pneumatic Call Cord (Breath Activated)

EZ Care Call Pendants

Part Number	Nurse Call	Call Assurance LED	Light 1 Control	Light 2 Control	Cord Length
5009-9503	x	x			8ft (2.43m)
5009-9504	x	x	x		8ft (2.43m)
5009-9505	x	x	x	x	8ft (2.43m)



Call Pendant

EZ Care Pillow Speakers

Part Number	Nurse Call	Call Assurance LED	TV Control	Analog	Digital	Light 1 Control	Light 2 Control	Function Button	TV Compatibility*	Cord Length
5009-9506	x	x	x	x						8ft (2.43m)
5009-9507	x	x	x	x		x				8ft (2.43m)
5009-9508	x	x	x	x		x				8ft (2.43m)
5009-9514	x	x	x		x			x	Philips	8ft (2.43m)
5009-9515	x	x	x		x	x		x	Philips	8ft (2.43m)
5009-9516	x	x	x		x	x	x	x	Philips	8ft (2.43m)
5009-9517	x	x	x		x			x	RCA	8ft (2.43m)
5009-9518	x	x	x		x	x		x	RCA	8ft (2.43m)
5009-9519	x	x	x		x	x	x	x	RCA	8ft (2.43m)
5009-9520	x	x	x		x			x	Zenith	8ft (2.43m)
5009-9521	x	x	x		x	x		x	Zenith	8ft (2.43m)
5009-9522	x	x	x		x	x	x	x	Zenith	8ft (2.43m)

* Refer to the television compatibility table below for all television models that are compatible with the EZ Care Pillow Speakers listed.

Television Brands

Television Model Numbers Compatible with EZ Care Pillow Speakers

RCA	J20525DW (CC, Radio, Sleep not available); J20530BL; J20531BL; J20532BL; J20541BL; J20542BL
Zenith	H2057DT; H2058DT; H2059DT; H2050DT; H2050DTH; H20C050DT; H20D050DT; H20E050DT
Philips	HC9520C; HC9119C; HC9719C; HC9713C; HC9919C; KJ9519C

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UL, ULC Listed

EZ Care Nurse Call Systems

5009-9311 Bath/Shower, 5009-9312 Emergency, and 5009-9313 Code Blue Stations

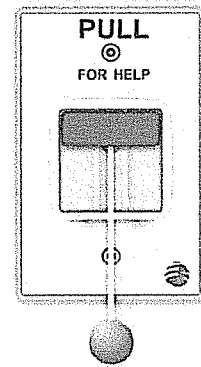
Features

- Available in 3 types: Code Blue, Emergency, and Water Resistant Bath/Shower
- Code Blue and Emergency Pull Stations can be Used in Patient Rooms and Staff Areas
- Waterproof Bath/Shower Station for use in High Moisture Areas
- Easy Call Placement and Call Cancellation
- Call Status is Indicated at an LED on each Station and by Visual Study of Lever Position

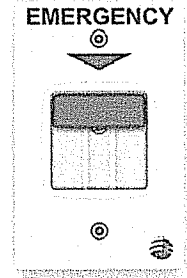
Description

The 5009 Code, Emergency, and Bath/Shower Pull Stations are single-gang, wall-mounted devices used to signal high-priority level calls on the EZ Care system. Stations must be connected to either a Model 5009-9801 or 5009-9707 Non-Audio Room Controller, a 130.1200 Room Controller with Lamp (Audio) or 130.1600 Room Controller without Lamp (Audio) or a 5009 93xx Series Audio Patient Station. Stations can be configured to be fully supervised.

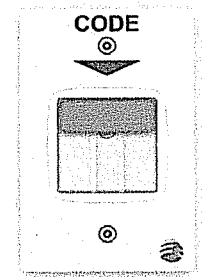
Stations provide a lever for call placement and reset as well as a call assurance LED. When the lever is pushed into the DOWN position, the call is latched mechanically at the station and the red LED call assurance indicator is activated to indicate the call has been placed. The call is cancelled at the station by pushing the lever into the UP position. If a supervision scheme is used, the room controller reports a fault condition if the wiring between the controller and the station is severed, shorted to ground, or shorted to power. Each station features an integral, jumper selectable, 150 Ohm end-of-line resistor. Bath/Shower features a water seal gasket.



5009-9311 Bath/Shower Station



5009-9312 Emergency Pull Station



5009-9313 Code Blue Station

Specifications

Refer to the *EZ Care Installation Manual*, 579-469 for detailed wiring and mounting instructions.

Dimensions	4-1/2" H x 2-3/4" W x 1-1/4" D (114 mm x 70 mm x 32 mm)
Mounting	Mounts in single-gang backbox or single-gang masonry box for retrofit installations.
Operating Voltage	24 VDC +/- 15%

Listings & Approvals

- UL 1069 Listed

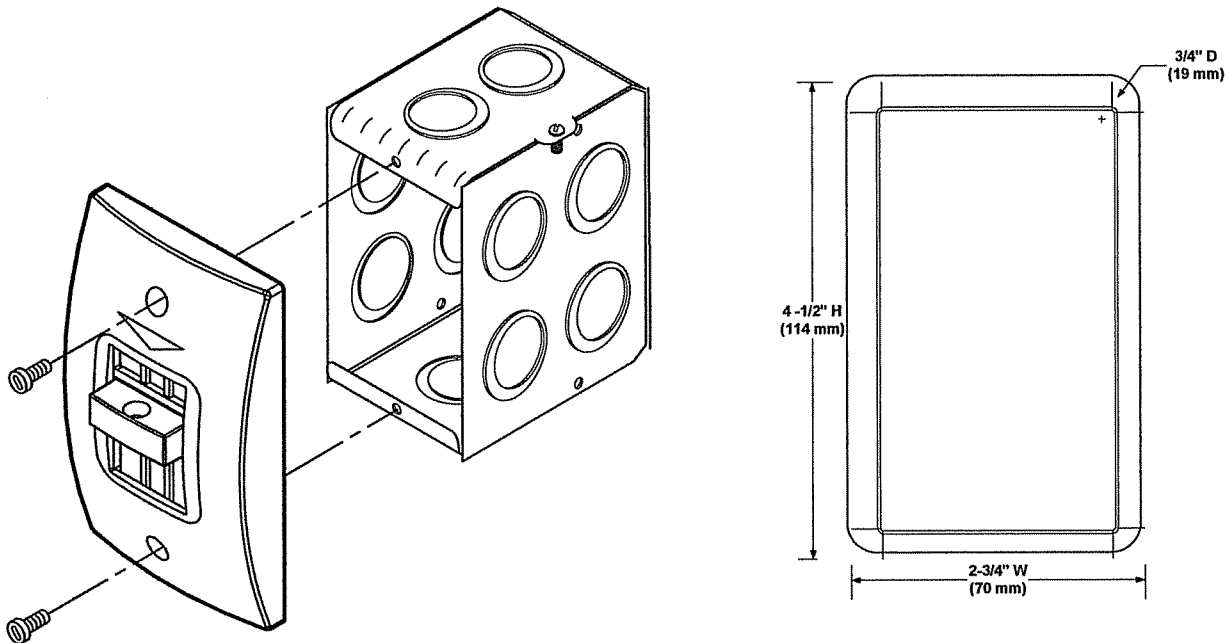


Product Selection

Refer to the *EZ Care Installation Manual*, 579-469 for detailed wiring and mounting instructions.

Model	Description	Must connect to...
5009-9313	Code Blue Station	5009-9801 Four-Bulb Dome Lamp with Controller 5009-9707 Stand-Alone Room Controller 130.1200 Room Controller with Lamp, Audio 130.1600 Room Controller without Lamp, Audio 5009 Audio Patient Station
5009-9312	Emergency Pull Station	5009-9801 Four-Bulb Dome Lamp with Controller 5009-9707 Stand-Alone Room Controller 130.1200 Room Controller with Lamp, Audio 130.1600 Room Controller without Lamp, Audio 5009 Audio Patient Station
5009-9311	Bath/Shower Station	5009-9801 Four-Bulb Dome Lamp with Controller 5009-9707 Stand-Alone Room Controller 130.1200 Room Controller with Lamp, Audio 130.1600 Room Controller without Lamp, Audio

Mounting Information



Mounting Emergency, Code Blue or Bath/Shower Station

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Features

- Available in two versions: Room Controller with Lamp, Audio (130.1200) or Room Controller without Lamp, Audio (130.1600)
- Supervised and Non-Supervised Inputs
- 130.1200 Accepts Single Color and Dual Color LEDs
- Configurable LED Colors and Call Flashing Patterns
- Single Gang Mounting

Description

There are two types of Room Controllers that supervise EZ Care audio and non-audio room devices:

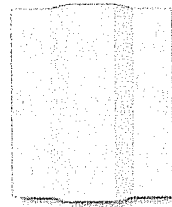
Room Controller with Lamp, Audio

The 130.1200 Room Controller with Lamp (Audio) is an intelligent, addressable Echelon device that connects to the EZ Care system network and combines a four-socket dome lamp and a room controller into a single package.

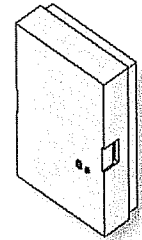
130.1200 permits the use of either LEDs or incandescent bulbs. These devices can be used to control call sharing and to visually annunciate calls from within the room. Each 130.1200 has five voltage coded call line inputs (with two reassurance LED outputs for call lines), two of which can be configured as presence inputs, one supervised serial interface for connecting up to four Audio Patient Stations, three non-supervised inputs for presence, one buzzer output, and four non-supervised dome lamp outputs for driving an external dome lamp.

Dome lamp outputs can power either four single-color LEDs, one dual-color LED and three single-color LEDs, two dual-color and two single-color LEDs, or four incandescent bulbs. Dome lamp bulb color configurations and flashing patterns are configurable. The two call input points and one serial input point are supervised by the controller and faults are reported to other annunciation devices on the EZ Care system, such as the Nurse Station, Staff Stations, RF Pager Interfaces, and Corridor Display Interfaces.

The 130.1200 is supervised by the Nurse Station and disconnection or failure is immediately detected. In the event of a nurse station or network failure, the Room Controller with Lamp (Audio) continues to annunciate calls and function as a stand-alone device.



130.1200
Room Controller
with Lamp, Audio



130.1600
Room Controller without
Lamp, Audio

Room Controller without Lamp (Audio)

The 130.1600 Room Controller without Lamp (Audio) is designed for remote dome lamp control and provides exactly the same features and function as the 130.1200 Room Controller with Lamp (Audio).

LED Lights for Dome Lamps

130.96xx Series LED Lights greatly enhance the capabilities of the EZ Care Nurse Call System. They feature 1/6 the current draw of incandescent bulbs (Incandescent Bulb = 120 mA; LED = 20 mA). As a result, EZ Care uses lower weight wiring and it is easier to install and maintain. Far less power is required throughout the network, which reduces power supply requirements and enables more devices to be configured. LEDs have much longer life than incandescent bulbs, greatly simplifying maintenance and reducing hospital dome light inventory. Dual color LEDs enable 5 or 6 colors to be displayed from one Room Controller (Audio).

Product Selection

Model	Description
130.1200	Room Controller with Lamp, Audio
130.1600	Room Controller without Lamp, Audio
Single Color LED	
130.9600	White
130.9610	Red
130.9620	Green
130.9630	Yellow
130.9640	Blue
Dual Color LED	
130.9660	Red/White
130.9670	Blue/White

Listings & Approvals

- UL 1069 Listed

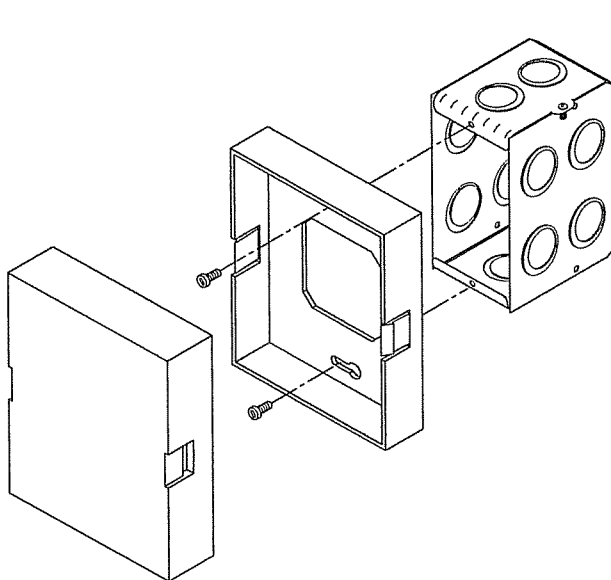


Specifications

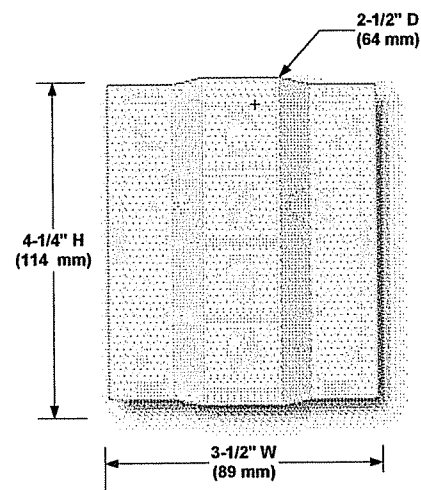
Refer to the *EZ Care Installation Manual*, 579-469 for detailed wiring and mounting instructions.

Station Dimensions Behind Faceplate	4-1/4" H x 3-1/2" W x 0" D (108 mm x 89 mm x 0 mm)		
Mounting	Fits in a single-gang backbox or single-gang masonry box for retrofit installations.		
Operating Voltage	24 VDC +/- 15%		
Room Controller with Lamp Power Consumption	Idle Condition – 0.02A 1 call or 1 presence – 0.165A 2 presences – 0.31A 2 presences + emergency call + bath call – 0.6A	Bulbs – .155A .290A .56A	LEDs – 0.02A .55A .90A .16A

Mounting Information



Room Controller Mounting



Controller Dimensions

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Features

- **Boost Network Signal Levels For Increased Cable Distances**
- **Increase The Number Of Devices Allowed On A Network Segment**
- **Create System “Branches” To Isolate Equipment And Increase Fault Tolerance**
- **Segregate Non-UL 1069 Listed, Ancillary Equipment From Primary, Listed Devices**
- **Repeaters Can Galvanically Separate The “In” And “Out” Branches, Making Them Electrically Independent**

Description

Model 130.5110 Repeaters are active, Echelon-enabled devices that are installed on the LON backbone of the EZ Care system.

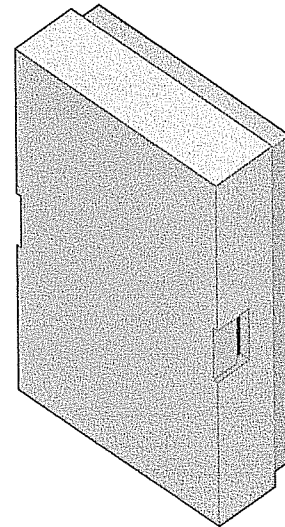
Repeaters are used for three primary purposes: increasing the number of allowed Echelon devices, creating bus branches, and isolating cable segments for increased fault tolerance.

The portion of the bus between repeaters is referred to as a segment, and each segment may contain up to 32 Echelon devices. Each time a repeater is added, a new segment is created, allowing an additional 32 devices to be connected to the bus and increasing the distance the bus cable may be run. Up to 5 repeaters may be cascaded in sequence.

Repeaters are also used when it is necessary to create branches off of the main system bus. Branching creates cable segments that are separated and isolated from the main bus, to increase system fault tolerance and simplify troubleshooting. Use a repeater when there are two branches of a system in which power must be isolated.

Listings & Approvals

- UL 1069 Listed; File Number E230521



Repeater

Model 130.5110 Repeaters additionally provide electrical isolation between the input and output stages. Use it to create a cable segment for ancillary system devices (such as the RF pager, Corridor Display, and USB-LON interface modules) that is galvanically isolated from the system bus. Refer to datasheet 5009-0005 for details on these ancillary system devices.

Product Selection

Model	Description
130.5110	Repeater

Specifications

Refer to the *EZ Care Installation Manual*, 579-469 for detailed wiring and mounting instructions.

Station Dimensions Behind Faceplate	4-5/16" H x 3-1/2" W x 0" D
Mounting	Mounts in single-gang backbox or single-gang masonry box for retrofit (See Figure 1).
Wiring	120 Ohm resistor required to terminate each line.
Operating Voltage	24 VDC +/- 15%
Power Consumption	Idle Condition – 0.02A

Mounting Information

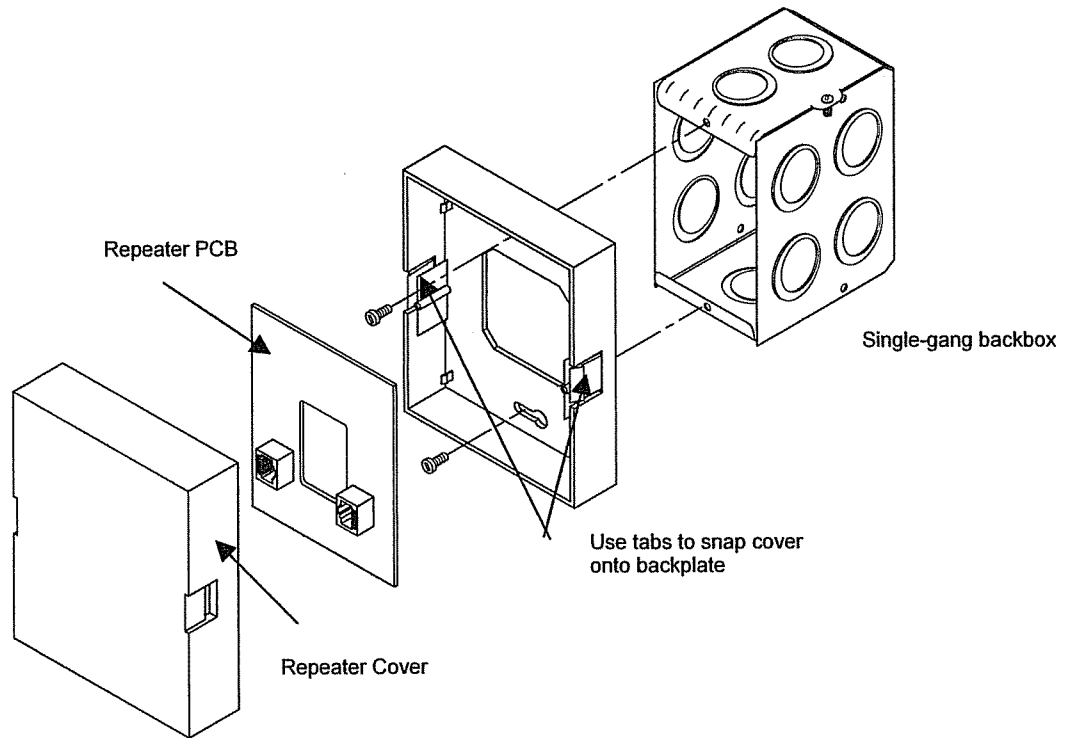


Figure 1. Repeater Mounting

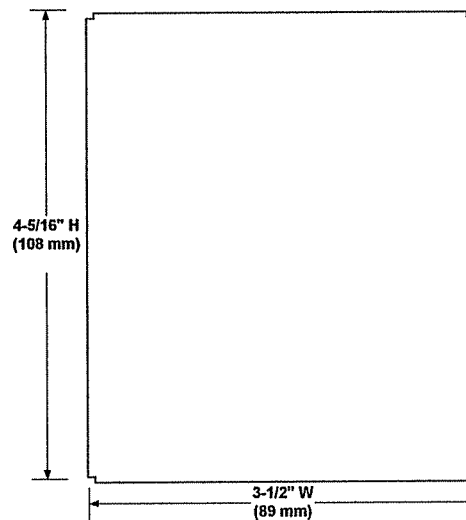


Figure 2. Repeater Cover

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Features**USB-LON Interface**

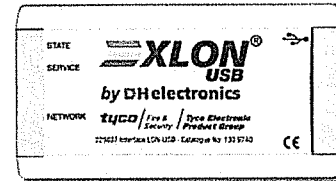
- Connects a PC to the System for Configuration and Programming

Corridor Display Interface

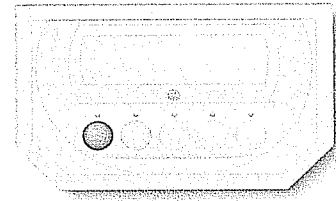
- Displays Call Information in Corridors and Staff Areas

RF Pager System Interface

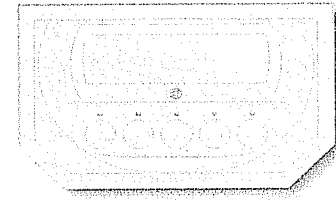
- Connects RF Pagers to the System
- Wireless Call and Event Notification
- Supports TAP Protocol



130.9740 USB-LON Interface



130.697 Corridor Display Interface



130.690 RF Pager Interface

USB-LON Interface

The 130.9740 USB-LON Interface is used to connect a PC to the EZ Care system bus. Once the connection is made, configuration data from the PC may be uploaded to Echelon nodes such as Nurse / Staff Stations and Room Controllers. Only one USB-LON Interface is required per system. Each USB-LON Interface also requires:

- 5009-9881 RJ-45 8-Wire Wall Mount Block (connects the LON Interface Cable to the EZ Care bus)
- 5009-9882 LON to USB Interface Cable (connects the USB-LON Interface to the RJ-45 LON Connector)
- 5009-9883 RJ-11 6-Wire Wall Mount Block (connects the RJ-11 cable to the system network)

Corridor Display Interface

The 130.697 Corridor Display Interface connects the EZ Care system to one or more model 5009-9820 (120 VAC) or 5009-9821 (240 VAC) Corridor Displays. The displays announce EZ Care system call and event information using bright, easy-to-read LEDs. Corridor Displays are located in staff-only areas or corridors where call information must be visible from a distance.

RF Pager Interface

The 130.690 RF Pager Interface connects 100% TAP protocol compatible paging transmitters to EZ Care systems and allows calls and system events to be broadcast to pocket pagers. When configured with a pager interface and pager transmitter, each EZ Care system provides support for up to 10 pagers per unit to a total of up to 50 pagers per system.

Specifications

	USB-LON Interface 130.9740	Corridor Display Interface 130.697	Pocket Pager Interface 130.690
Interface	USB conform, in accordance with Universal Serial Bus Specification 1.1, 12 Mbits/s	N/A	N/A
Dimensions	Depth: 4.84 in (123 mm) Width: 2.68 in (68 mm) Height: 1.18 in (30 mm)	Depth: 4.5 in (114 mm) Width: 7.25 in (184 mm) Height: 1.5 in (38 mm)	Depth: 4.5 in (114 mm) Width: 7.25 in (184 mm) Height: 1.5 in (38 mm)
Power Use	5 VDC, +/-5%, 100 mA typical (powered via USB port)	20 mA	20 mA
Mounting	Mounts to wall with bracket (included)	Fits on a 3-gang back box or 3-gang masonry box for retrofit	Fits on a 3-gang back box or 3-gang masonry box for retrofit

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Features

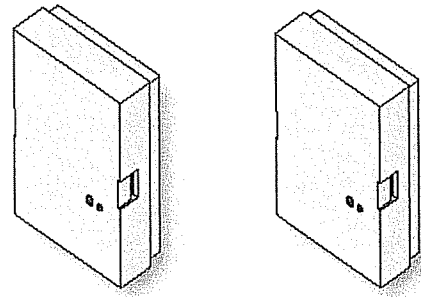
- Provides a **Single, Discrete Audio Channel for each Unit**
- **Voice Communication Provides a Faster, Better Informed Response**
- **Enables Four Audio Channels for Inter-Unit Audio**

Description

The 5009-9710 Unit Audio Controller supports voice communication in the EZ Care Nurse Call System. The Unit Audio Controller provides a single corridor audio voice channel that enables conversation between 5009-9105 Desktop Nurse Control Stations, 5009-9102 Staff Stations (Audio), 5009-93xx Audio Patient Stations and the 5009-9101 Wall-Mounted Nurse Control Station with 5009-9104 Audio Handset. This voice channel also allows Nurse Station users to speak with each other. Only one Unit Audio controller is used within each unit.

The Unit Audio Controller also provides four voice channels for inter-unit communication. When a staff member at one Nurse Station wants to speak to another audio device in another unit, the audio switches across one of the inter-unit channels to the appropriate unit and then onto the local unit audio bus to the desired station.

* The 5009-9710 Unit Audio Controller includes the 5009-9713 Universal I/O Module and the 5009-9714 Audio Control Module.



5009-9710

Product Selection

Model	Description	
5009-9710	Unit Audio Controller	Includes the 5009-9713 Universal I/O Module and the 5009-9714 Audio Control Module.

Specifications

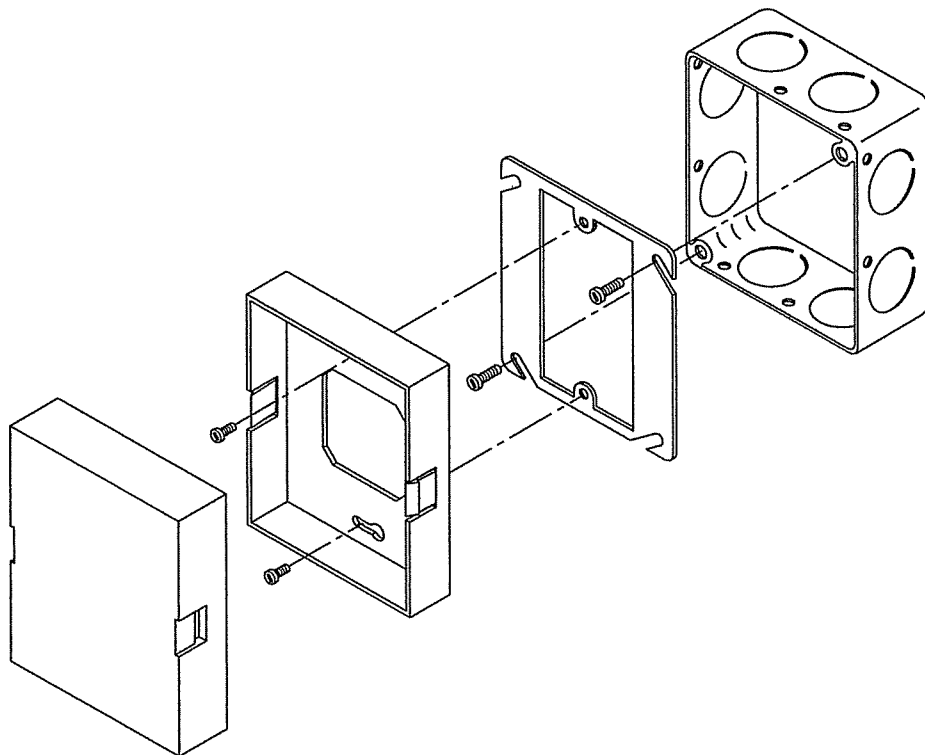
Specification	
Unit dimensions	4-1/2" L X 3-1/2" W X 2-1/2" D
Mounting	Each module fits on a one-gang back box or 4" square box for retrofit installations. Mounting is done twice, with two boxes right next to each other.
Universal I/O module idle current	24 mA
Universal I/O module signal mode current	32 mA
Relay control module idle current	8 mA
Relay control module signal mode current	14 mA

Listings & Approvals

- UL 1069 Listed; File Number E230521



Mounting



Mounting Unit Audio Controller (2 component modules)

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Features

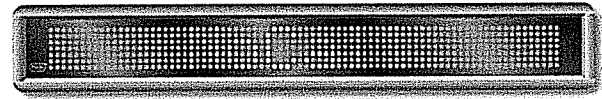
- Used to visually annunciate patient calls and other system events to direct, inform, and update staff
- Provides high-visibility LED text messaging
- Reaches caregivers when and where it counts
- Available in 120 V and 240 V versions

Description

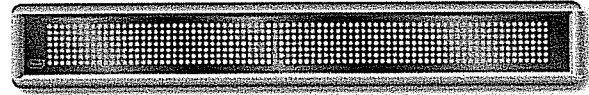
The EZ Care LED Corridor Display (PID 5009-9820 for the 120 V version; PID 5009-9821 for the 240 V version) is used to annunciate routine patient calls and other system events, such as Code Blue or Staff Emergency calls. The EZ Care LED Corridor Display features large, two-inch high letters and a wide 7 x 80 LED matrix for maximum viewing of critical information.

Pre-configured system parameter messages are outputted by the EZ Care LED Corridor Display based upon call or message type. Text and messaging can be seen from up to 200 feet from the display.

The EZ Care LED Corridor Display is used with the 130.6970 Corridor Display Interface.



5009-9820/9821 Corridor Display (Idle)



5009-9820/9821 Corridor Display (Code Blue)

Mounting

The EZ Care Corridor Display includes wall-mounting brackets for installing the display. The brackets allow the display to be tilted for better viewing.

Specifications

Unit Dimensions	Depth: 1.875 in (48 mm) Width: 28 in (711 mm) Height: 4.5 in (114 mm)
Character Height	2 in (51 mm)
Number of lines	1 line of text
Matrix	7 x 80 LED matrix
Related part	130.6970 Corridor Display Interface (see datasheet 5009-0005)

**SECTION 16750
NURSE CALL AUDIO/VISUAL (NCAV) SYSTEM**

*Revision 1.0
Publication Date: 02/02/2004*

AUDIO-VISUAL NURSE CALL SYSTEM

1 GENERAL

1.1 RELATED DOCUMENTS

- A Drawings and general provisions of Contract (including General and Supplementary Conditions and Division-1 Specification sections) apply to work in this section.

1.2 SUMMARY

- A This section includes nurse call systems and requirements for system components including, but not limited to the following:

1. Nurse master stations
2. Patient stations
3. Emergency stations
4. Water-resistant bath / shower stations
5. Code blue stations
6. Staff stations
7. Dome lights
8. Auxiliary modules
9. Power supplies
10. Room controllers
11. Audio controllers
12. Wiring

1.3 SCOPE OF WORK

- A Provide labor, materials, equipment, and services to perform operations required for the complete installation and related work as required in Contract documents.
- B A nurse call system is being provided *Welch Community Hospital*.

1.4 SUBMITTALS

A. Provide submittals for the entire system including:

1. Complete equipment list
2. Catalog descriptive literature for equipment
3. Riser wiring diagram showing devices, wire quantities, and sizes
4. Typical termination wiring diagram for each type of device including nurse stations, power supplies, and external system interface gateways
5. Complete description of system operation
6. Name, address, and telephone number of nearest fully equipped service organization

1.5 QUALIFICATIONS

- A The successful supplier shall have a 24-hour service department located within a 75-mile radius of the job site. The service department shall be capable of providing emergency service within 2 hours.
- B On-the-premises maintenance shall be provided at no cost to the purchaser for a period of twelve (12) months from date of completion of installation unless damage is caused by misuse, abuse or accident.
- C The service department shall carry all necessary spare parts required for the maintenance and repair of the nurse call system
- D The nurse call system equipment furnished under this specification shall be the standard product of one manufacturer and shall be equal in every way to that manufactured by Tyco Safety Products. Catalog and model numbers are intended to indicate type and quality of design and material, as well as, exact operating features required. All items of equipment including wire and cable shall be designed by the manufacturer to operate as a complete system and shall be accompanied by the manufacturer's technical specification sheets.
- E The nursing and maintenance staff of the facility shall have the option of being instructed in the use of the system by authorized distributor personnel. Such service shall be available in conjunction with the system equipment.
- F System listings and agency approvals:
 - i The nurse call system described in this specification must carry a complete and current Underwriters Laboratories listing, in conformance with U.L. standard 1069. It shall be listed as a total system, and proof of such listings shall be made by submitting copies of the U.L. listing cards describing the equipment by model number, with the bid documents.
 - ii Ancillary components interconnected with the nurse call system to enhance functions shall have the interconnection isolated in accordance with UL 1069 and shall not in any way defeat the UL 1069 compliance.
 - iii All wiring and equipment associated with the code blue capability shall be electrically supervised in accordance with UL 1069.
 - iv All components, and the system as a whole, shall meet or exceed the minimum standards issued by the EIA. All work in conjunction with this installation shall meet the provisions of the National Electric Code (NEC), NFPA, and other applicable codes
 - v The nurse call system shall carry FCC part B approval.

1.6 ALTERNATE SYSTEM PROPOSALS

- A Any proposed alternate equipment shall conform to all of the standards and operating characteristics specified herein. In order to qualify for consideration as an alternate manufacturer, the following data shall be provided to the architect or engineer at least ten (10) days prior to the bid due date, so that if found acceptable, an addendum can be issued that shall make information on the substitution equipment available to all bidders.
- i A written statement from the manufacturer of the substituted equipment stating the equipment does in fact equal the electrical, physical, and functional performance of the specified equipment.
 - ii Supply manufacturers name, model numbers, and three copies of factory specification sheets of each item submitted. All variations in construction and function from equipment specified shall be clearly indicated. A detailed comparison of the proposed system's operation with the specified system shall also be provided.
 - iii Written proof of full system U.L. 1069 listing shall be provided.
- B Only manufacturers providing all of the above requested data will be considered for listing as alternates on the bid specification. Failure to obtain the architect/engineer's approval on alternate equipment in writing ten (10) working days prior to the bid date shall automatically disqualify the proposed substitution. All bids shall be submitted with the specified system as the base bid, and with approved substitutions as alternates.

1.7 GENERAL REQUIREMENTS

- A The contractor shall furnish and install all equipment, accessories, and materials necessary for a complete system in accordance with specifications and applicable drawings.

2 SYSTEM DESCRIPTION

2.1 Architecture

- A The nurse call system shall be based upon a distributed network architecture that consists of intelligent devices ("Nodes") that share status and event information over a common communications channel. The nurse call system shall be capable of being configured with up to 1275 intelligent nodes within one system.
- B Other non-intelligent system devices may be connected to the network for the purpose of initiating and annunciating calls and other system events using voltage coded inputs on system Room Controllers. The system Room Controllers shall further provide at least one supervised serial interface for connecting up to four Patient Stations, each Patient Station having voltage coded inputs permitting
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connection of additional non-intelligent system devices.

- C System devices shall be “hot swappable” and may be connected to or disconnected from the system without removing power to other system devices.
- D Each Node shall contain non-volatile memory that contains its individual operational programming, configuration, and status information. .
- E The system shall provide an audio bus that is independent of the main system network bus. The audio bus shall permit both inter and intra-unit voice communication,
- F The system shall provide a gateway through which ancillary system interfaces such as pocket pagers may be connected to the communications network. This gateway shall electrically isolate the ancillary interfaces so that any damage or electrical problems with them shall not affect the operation of the main system network.
- G The nurse call system shall allow sub-division into smaller Units and it shall further allow the programming of Zones that mirror the facility geography to increase ease of use for staff members and Groups of rooms spanning both Units and Zones called “Room Sets”. The system shall also be capable of vectoring Calls and system events to specific nurse stations, staff stations, pocket pagers, and corridor displays based on the Unit, Zone, and Room Set membership of the originating device. Units, Zones, and Room Sets shall be logical definitions programmed into individual nodes using a system configuration software utility. Systems whose unit and zone structure are determined by wiring or software configuration in a central controller or database shall not be acceptable.
- H The system shall provide at least 12 programmable Shifts that shall allow staff members to change call coverage and annunciation patterns within the system to accommodate operation under reduced staffing conditions (overnight hours) and allow for rooms to be operationally shifted from one care area to another (“swing rooms”). Shifts may be a combination of one or more Units or Zones and shall be logical, software-configurable groupings not determined by the wiring or physical layout of the system. Systems that do not support shifts or provide hard-wired shift configurations shall not be accepted.
- I The system shall support three levels of manual staff presence registration. Staff Presence Registration stations shall have integrated sounders to allow (optional) audible signaling of calls when a staff member has registered as present.
- J System power supplies shall include the following capabilities:
 - i Normally open and normally closed contact outputs to signal low battery and loss of power
 - ii Integrated battery charging circuitry

- iii Optional batteries for backup power
- iv Short circuit and thermal overload protection

2.2 Fault tolerance, supervision, and system survivability

- A Fault tolerance shall be a key requirement of the nurse call system. Intelligence and system control functions shall be distributed throughout the networked devices and shall not reside in a central control cabinet, processing unit, or communications exchange whose failure shall disable all or part of the system.
- B In the event of a communications network disconnection or failure, nodes shall continue to operate in a localized stand-alone mode. Once communication with the rest of the system is restored the node shall again begin operating normally.
- C Intelligent node program software, status information, and system configuration parameters shall be stored in the node using non-volatile RAM so that it shall not be lost during power failure and disconnection. The device shall resume operation in exactly the same state that it was in prior to power removal and any calls or faults that were in progress shall be re-asserted when power is restored.
- D Room Controller nodes shall supervise the devices connected to them via voltage coded Call Lines and shall detect both open and short conditions.
- E Call origination devices (call cords and pillow speakers) connected to Patient Stations shall be supervised for both connection to the station and cord damage (breakage or electrical short). Disconnection of the call device from the station shall produce a "Cord Out" alarm at the nurse stations and other call annunciation devices covering the patient station. Cord out alarms may be silenced by re-attaching the call cord or by pressing the "Cancel" button integrated into the patient station. Systems that use dummy plugs to simulate a call cord connection in order to silence a cord out call shall not be acceptable.

2.3 Network interfacing and programmability

- A The nurse call system shall provide a method of interfacing non-intelligent devices to the system network via voltage coded input points ("Call Lines").
- B Each Call Line shall detect at least six (6) separate voltage levels. It shall support call placement through either momentary or latched switches providing either a normally open or normally closed dry contact.
- C The system shall allow more than one device to be connected to each Call Line. If the voltage levels from each device are distinct, then the Room Controller shall be able to distinguish between them and allow individual call properties to be programmed for each. If multiple devices using the same voltage level are used then the room controller shall treat them as calls from a single device and only one set of

programmable call properties shall be available.

- D The call properties of each individual Call Line voltage level shall be defined using the System Configuration Software. Programmable properties shall include:
- i Call priority level
 - ii Dome lamp flash rate
 - iii Call alert tone rate
 - iv Dome flash pattern (Which lamps are used to signal the call? May be one or more.)
 - v Dome lamp color
 - vi Call escalation with staff presence (see section XX below)
 - vii Call forwarding timeout (see section XX below)
 - viii Assigned staff response overtime timeout
 - ix Call cancellation methodology (see section XX below)

2.4 Call and system event origination

- A Calls for assistance shall be originated within the nurse call system using any of the following devices:
- i Patient Stations; Call Cords and Pillow Speakers (attached to Patient Stations); Code Blue Stations, Emergency Stations, Bath / Shower Stations (attached to either Room Controllers or Patient Stations).
- B “Cord-Out” calls shall be automatically initiated by the Patient Station whenever a call cord or pillow speaker is disconnected from its socket. If the call cord is shorted or severed, the Patient Station shall automatically initiate a Fault to alert users that the cord has been damaged.
- C Level One, Level Two, and Level Three staff presence (Nurse, Aide, and Staff respectively) shall be registered in the system using two-button Staff Presence Terminals
- i The system shall provide software-programmable call priority level escalation of calls based on staff presence registration status within the room.
- a. If no staff members are present, the standard call (e.g. “Cord Out” or “Routine Patient Call”) shall be initiated using its normal label and priority definition.
- b. If a staff member is registered as present, the same call initiation action (e.g. removing

the call cord from the patient station socket or pressing the call button) shall initiate a call with an alternate, fully programmable call definition. This shall allow the higher priority level calls, such as Staff Emergency, to be initiated and signal a staff member within the room needs assistance.

- c. The staff level required to initiate the alternate call shall also be programmable and accommodate the following conditions: Level One (Nurse) only, Level Two Only (Aide), Level Three Only (Staff), or Either. This feature may also be disabled if it is not required in an area.

D As described in the Architecture section of this section, the nurse call system shall have several layers of supervision to detect device failure or disconnection. The failure of any device, or its disconnection from either the communications network or its Room Controller voltage coded input shall be detected and automatically reported as a Fault.

2.5 Call Cancellation

- A The method used to cancel each system Call shall be programmable for each Call so that the system operation may be tailored to the facilities' needs. Available options shall include:
- i **Local cancellation only:** The call can only be cancelled at its point of origination (i.e. Code or Bath station).
 - ii **Staff Presence:** The call will be cancelled when staff members register as present within the area from which the call originated. The system shall support programming that clears the call only on Presence Level One registration, only on Presence Level Two Registration, or with either level.
 - iii **Remote Service Assignment:** Shall cancel the original call and initiate a Staff Service Request to the calling location from a Nurse or Staff Station.

2.6 Call and system event annunciation

- A Calls for assistance within a patient room shall be visually annunciated to staff members using a multi-color corridor dome lamp. The lamp colors and flashing pattern shall be software-configurable and may be tailored to meet the needs of the facility.
- B Calls for assistance within a Unit, Zone, or Room Set shall be visually annunciated using a multi color Zone Lamp. The facility areas annunciated by each Zone lamp shall be fully software-configurable. In addition, each zone lamp shall have a programmable filter that allows the installer to define which calls and events are and are not annunciated by the Zone lamp.
- C The nurse call system shall also support Direction Lamps. Direction Lamps shall be similar in appearance to Corridor and Zone Lamps. However, Direction Lamps shall only show that calls are present in a designated area - they shall not indicate the type or priority level of the call. Each of the lights in the Direction Lamp shall be software-configurable to cover any Unit, Zone, or Room Set in the nurse call system. The Direction Lamp shall also have a programmable filter that allows the installer to define which calls and events are and are not annunciated by the Direction Lamp.
- D The nurse call system shall also support the use of multiple Nurse and Staff stations throughout the facility. Each Station shall provide audible and visual annunciation of calls via an integrated, backlit LCD with software adjustable contrast level. The LCD shall display the highest priority call or event in the system. If multiple calls of the same priority level are in progress, the display shall show the oldest call. Staff members shall be able to scroll through the list of pending calls, sorted by priority level and age, using a Scroll button integrated into the station. The following additional functions shall also be provided:

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- i ***Service assignment:*** Staff members shall be able to respond to a patient call by initiating a Staff Service Request using a button integrated into the Station. Assignment shall cause the Level One presence lamp at the patient room to flash, indicating a staff member is required. The system shall provide software configurable parameters that allow the installer to define which calls may be responded to using a Staff assignment. The system shall also allow disabling the feature completely if desired. The system shall further provide an internal timer to track the length of time each call to which a service request has been assigned, has been waiting for a staff member to respond. The timer shall have a programmable threshold level that shall cause the original call to which service was assigned to be re-initiated and again be annunciated on the devices throughout the system. In addition, the re-initiated call shall be displayed on Nurse and Staff stations with a special symbol to alert staff members that the call has been re-initiated as a result of lack of response and is therefore of special significance.
 - ii ***Active service assignment queue:*** Staff members shall be able to access a listing of the active Staff Service Requests.
 - iii ***Staff presence locations:*** Staff members shall be able to access a listing of all the areas in which staff members are currently registered as present.
 - iv ***Active shift setting and shift control:*** Staff members shall be able to view the current shift setting and initiate a change to another shift. The installer shall be able to configure which Nurse and Staff Stations are allowed to initiate shift changes.
 - v ***Current volume level and volume level control:*** Staff members shall be able to view and change the current system Volume Level setting for audible annunciation of calls at Nurse / Staff and Staff Presence Registration stations. At least two Volume Levels shall be supported (Low & High). The Low and High volume levels at each Nurse, Staff, and Presence Registration shall be individually software-configurable to allow the installer to compensate for the acoustics of the area in which each station is installed.

2.7 Call forwarding

- A The nurse call system shall maintain two programmable countdown timers for each active call.
- B If the first timer expires before the call is answered, the call shall be forwarded to another area of the facility for attention (i.e. an unanswered call from Unit one is forwarded to unit 2). The forwarding logic (the definition of which areas the call will be forwarded to after the timer expires) and the timer duration shall be fully programmable.

- C If the second timer also expires before the call is answered, then the call shall be forwarded to other areas of the facility based upon a second, fully programmable set of forwarding logic. The second timer setting shall also be programmable and shall be of longer duration than the first.

2.8 Call following

- A The nurse call system shall provide Call Following (a.k.a. Nurse Follower or Staff Follower) functionality.
 - i Call Following shall allow mobile staff members to receive audible notification of patient calls while they are away from the Nurse or Staff station. This feature shall be enabled or disabled within the system configurations settings.
 - ii Annunciation shall be accomplished using a buzzer module integrated into the Presence Station. When the staff member is registered as present in the room and a call is initiated from another area, the presence station shall sound tones that are indicative of the new call priority level. The tones shall continue until the responsible call has been responded to or the staff members cancel their presence registration in the room. In the event that multiple calls are initiated, the presence station shall signal the highest priority level call.
 - iii The system shall provide a call following signal filter for each area in which call following is supported. The filter must be software programmable and shall allow the installer to define which calls are allowed to follow staff members into the room and which are not. For example, the filter shall allow Code calls to annunciate but not routine patient calls.
 - iv The staff level required to enable call following within an area shall also be programmable allowing the following conditions: Level One (Nurse) only, Level Two Only (Aide) or Either.
 - v The Call Following feature shall be supplemented by an In Room Call Following option that may be enabled or disabled for each area in which Call Following is supported. The In Room Call Following feature shall be utilized primarily in areas with multiple beds and shall provide a unique tone signal when the staff member registers presence to signal that more than one call for assistance has been initiated in the area. In addition, this feature shall also cause the Presence Station to emit the unique tone sequence in the event additional calls have been initiated inside the room after the staff member has registered presence in the area.

2.9 External system interfaces

- A The nurse call system shall have the capability of interfacing with the following external, ancillary systems and support the features listed with each interface:
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- i **Computers:** A USB interface that allows a Windows Compatible PC to connect to the nurse call system network for the purposes of installation and configuration.
 - ii **RF Pagers:** An RS-232 serial, standard TAP protocol communications interface between the nurse call system and the pocket pager system transmitter. This interface shall allow transmission of system events, calls and faults to and display on pocket pagers worn by mobile staff members in the facility. The system shall allow set up of filters for each pager to define which calls and events are displayed on it. Filter parameters shall include Unit, Zone, Room Set, and Call Type.
 - iii **LED Marquee Corridor Displays:** An RS-232 serial communications interface between the nurse call system and the Corridor Display. This interface shall allow system events, calls and faults to be shown on the Corridor Display. The system shall allow setting up filters to define which calls and events are shown on each Corridor Display. Filter parameters shall include Unit, Zone, Room Set, and Call Type.
 - iv **Television and room / bed lamps:** The nurse call system shall provide pass through connections to support television control using analog and digital pillow speakers. Two additional pass-through connections shall also be provided to allow the control of room lighting and over-bed reading lamps.
 - v **External devices that Initiate alarms (through voltage-coded inputs):** The system shall also accommodate the attachment of other, unspecified external systems via the voltage-coded call line inputs on the Room Controllers. The external systems shall signal alarms and state changes using either pulsed or latched voltages from normally open or normally closed dry contacts.

A. PRODUCTS

2.10 GENERAL

- A All devices listed below shall be "hot swappable" to allow connection to or disconnection from the system without having to remove power or data communications from any other portion of the system when either installing or servicing the system
- B System devices shall be fault tolerant and designed to withstand wiring and termination errors without damage
- C Field wiring connections to the devices listed in the following sections must be accomplished through the use of plug-in connectors

2.11 5 BUTTON DISPLAY STATION

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- A Shall be a wall mounted, three-gang, network-enabled device that provides audible and visual call and system event notification
 - B Shall be configured for use as either a nurse or staff station during installation using system configuration software package
 - C Shall include an integrated buzzer and LCD
 - i Buzzer volume level shall be software-adjustable
 - ii LCD shall display 2 lines of information each 16 characters in length
 - iii LCD shall be backlit for easy viewing in low-light conditions
 - iv LCD contrast level shall be adjustable using software controls included in the station
 - D Shall include the following five color-coded, integrated feature buttons and five associated reassurance LEDs
 - i "RN" – Nurse level staff presence registration / registration cancellation
 - ii "AIDE" – Aide level staff presence registration / registration cancellation
 - iii "MENU" – To provide access to interactive information menus
 - iv Check Mark – Enter or Acknowledge. Used to initiate a staff service request in response to a patient call or to select menu options
 - v Up / Down Arrows – Scroll. To allow users to step through the list of active patient calls and interactive menu options
 - vi Reassurance LEDs to visually signal the status condition of each button
 - E Shall be capable of being equipped with an audio handset to form a nurse master or audio staff station. When answering calls, scrolling to the desired call and lifting the handset shall initiate two-way communication to the calling audio patient station. When dialing staff presence, scrolling to the desired location and simply lifting the handset shall initiate audio to the selected location.
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2.12 3 BUTTON DISPLAY STATION

- A Shall be a wall mounted, two-gang, network-enabled device that provides audible and visual call and system event notification
- B Shall be configured for use as a duty station during installation using system configuration software package
- C Shall include an integrated buzzer and LCD
 - i Buzzer volume level shall be software-adjustable
 - ii LCD shall display 2 lines of information each 16 characters in length
 - iii LCD shall be backlit for easy viewing in low-light conditions
- D Shall include the following three color-coded, integrated feature buttons and three associated reassurance LEDs
 - i “MENU” – To provide access to interactive information menus
 - ii Check Mark – Enter or Acknowledge. Used to initiate a staff service request in response to a patient call or to select menu options
 - iii Up / Down Arrows – Scroll. To allow users to step through the list of active patient calls and interactive menu options
 - iv Reassurance LEDs – to visually signal the status condition of each button

2.13 NON-AUDIO PATIENT STATION

- A Shall be a wall mounted, single-gang device used to initiate and cancel calls for assistance
 - B Shall be fully supervised by the room controller
 - C Shall include one 9-pin socket with quick-disconnect design for the connection of one call cord, call pendant, or pillow speaker, and offer the following features:
 - i Call initiation devices connected to the socket shall be automatically supervised for cord removal from the socket and for cord wire short or breakage between the socket and the call button
 - ii “Breakaway” design of the socket shall allow cords to detach from the station when pulled without causing damage to either the cord or the station
 - D Shall include the following two color-coded, integrated buttons with field-exchangeable caps and two associated reassurance LEDs
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- i “CALL” – Shall allow staff members to initiate a call for assistance. Shall be configurable to initiate different types of calls based upon staff presence status and level
 - ii “CANCEL” – Shall cancel pending patient or staff calls for assistance. Shall also be used to silence or bypass cord out alarms initiated when the call cord, call pendant, or pillow speaker is disconnected from the socket. Dummy plugs shall not be required to silence cord removal calls
 - iii Reassurance LEDs shall visually signal the status condition of each button

2.14 AUDIO PATIENT STATION

- A Shall be a wall mounted, three-gang device used to initiate and cancel calls for assistance
- B Shall be fully supervised by the room controller
- C Shall include one or two 15-pin sockets with quick-disconnect design for the connection of call cords, call pendants, or pillow speakers, and offer the following features:
 - i Call initiation devices connected to the socket shall be automatically supervised for cord removal from the socket and for cord wire short or breakage between the socket and the call button
 - ii “Breakaway” design of the socket shall allow cords to detach from the station when pulled without causing damage to either the cord or the station
- D Shall include four color-coded, integrated buttons with field-exchangeable caps and four associated reassurance LEDs, labeled for functions such as:
 - i “RN” – Nurse level staff presence registration / registration cancellation
 - ii “AIDE” – Aide level staff presence registration / registration cancellation
 - iii “EMERG” – Shall allow staff members to initiate an emergency call for assistance. Shall be configurable to initiate different levels of emergency calls based upon staff presence status and level
 - iv “CALL” – Shall allow staff members to initiate a call for assistance. Shall be configurable to initiate different types of calls based upon staff presence status and level
 - v Reassurance LEDs shall visually signal the status condition of each button.
- E Shall feature an independent speaker and microphone. After a call has been placed, a nurse station operator shall be able to initiate two-way communication with the Audio Patient Station. A nurse station operator shall also be able to initiate one-way

page announcements to the Audio Patient Station.

- F Audio sensitivity shall be capable of being individually adjusted at each Audio Patient Station to compensate for room acoustics.

2.15 AUDIO STAFF STATION

- A Shall be a wall mounted, three-gang device used as an intercom/presence station.
- B Shall be fully supervised by the room controller
- C Shall include four color-coded, integrated buttons with field-exchangeable caps and four associated reassurance LEDs, labeled for functions such as:
- i "RN" – Nurse level staff presence registration / registration cancellation
 - ii "AIDE" – Aide level staff presence registration / registration cancellation
 - iii "EMERG" – Shall allow staff members to initiate an emergency call for assistance. Shall be configurable to initiate different levels of emergency calls based upon staff presence status and level
 - iv "CALL" – Shall allow staff members to initiate a call for assistance. Shall be configurable to initiate different types of calls based upon staff presence status and level
 - v Reassurance LEDs shall visually signal the status condition of each button.
- D Shall feature an independent speaker and microphone. A nurse station operator shall be able to initiate two-way communication with the Audio Staff Station. A nurse station operator shall also be able to initiate one-way page announcements to the Audio Staff Station.
- E Audio sensitivity shall be capable of being individually adjusted at each Audio Staff Station to compensate for room acoustics.

2.16 TWO-LEVEL PRESENCE STATION

- A Shall be a wall mounted, single-gang station used to signal staff presence in patient rooms and staff areas
- B Shall include the following two color coded, integrated buttons with field-exchangeable caps and two associated reassurance LEDs
- i "NURSE" – Shall allow staff members to register and cancel "level one" (Nurse) presence within a room. Registration using this button shall cancel level one staff service requests. The system shall also be configurable to allow presence registration as an alternate method to cancel routine patient calls

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- ii “AIDE” – Shall allow staff members to register and cancel “level two” (Aide) presence within a room. Registration using this button shall cancel level two staff service requests. The system shall also be configurable to allow presence registration as an alternate method to cancel routine patient calls
 - iii Reassurance LEDs shall signal the staff presence condition for each staff level. Conditions as follows: Off when no presence has been registered, steady on when presence is active, and flashing during an active staff service request
- C Shall include integrated buzzer module to:
- i Provide audible signaling of calls placed from areas outside the room when the system staff follower mode has been enabled
 - ii Provide a unique audible tone sequence to alert staff members when they enter a room from which multiple calls for assistance have been placed
 - iii Provide a unique audible tone sequence if additional calls for assistance are placed from inside a room within which the staff member has already registered as present
 - iv Support two levels of individually programmable volume levels (low and high) per station and shall be activated using either nurse or staff stations

2.17 BATH STATION

- A Shall be a wall mounted, single-gang splash-proof station used to signal emergency level calls from within a shower or other high-moisture environment
- B Shall include a large, easy to activate pull switch and integrated call reassurance LED
 - i Pull switch shall be color-coded to be easily identifiable. An optional pull cord shall be attachable to allow patients unable to reach the station to initiate calls
 - ii Calls shall be reset by returning the switch to its original condition
 - iii Integral LED shall illuminate when the station is activated to reassure the user that the call has been successfully placed
 - iv If a supervision scheme is used, the room controller shall report a fault condition if the wiring between the controller and the bath station is severed, shorted to ground, or shorted to power.
 - v Each bath station shall feature an integral, jumper selectable, end-of-line resistor.

2.18 EMERGENCY STATION

- A Shall be a wall mounted, single-gang station used to signal emergency level calls
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- B Shall include a large, easy to activate pull switch and integrated call reassurance LED
 - i Pull switch shall be color-coded to be easily identifiable. An optional pull cord shall be attachable to allow patients unable to reach the station to initiate calls
 - ii Calls shall be reset by returning the switch to its original condition
 - iii Integral LED shall illuminate when the station is activated to reassure the user that the call has been successfully placed
 - iv If a supervision scheme is used, the room controller shall report a fault condition if the wiring between the controller and the emergency station is severed, shorted to ground, or shorted to power.
 - v Each emergency station shall feature an integral, jumper selectable, end-of-line resistor.

2.19 CODE BLUE STATION

- A Shall be a wall mounted, single-gang station used to signal code level calls
- B Shall include a large, easy to activate pull switch and integrated call reassurance LED
 - i Pull switch shall be color-coded to be easily identifiable. An optional pull cord may be attached to allow staff members to initiate calls
 - ii Calls shall be reset by returning the switch to its original condition
 - iii Integral LED shall illuminate when the station is activated to reassure the user that the call has been successfully placed
 - iv If a supervision scheme is used, the room controller shall report a fault condition if the wiring between the controller and the code blue station is severed, shorted to ground, or shorted to power.
 - v Each code blue station shall feature an integral, jumper selectable, end-of-line resistor.

2.20 ROOM CONTROLLER WITH INTEGRATED DOME LAMP

- A Shall be a single gang, network-enabled 4 light dome lamp used to visually signal patient calls and other system events within a room
 - i The number of the lights used and their color configuration shall be flexible and individually configurable for each installation
 - ii Lights shall be protected by a single piece, frosted plastic lens that promotes light diffusion and increases visibility

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- iii Shall be capable of utilizing LED lights as well as incandescent bulbs
- B Shall include an integrated, network-enabled, intelligent room controller with the following properties:
- i Two fully supervised and configurable voltage coded input points for connection to call initiation devices and external systems
 - ii One supervised Serial interface
 - iii The Room Controller shall be programmable to control devices in one or more rooms
 - iv Call properties for each call point shall be individually configurable using system configuration software. Specific programmable properties shall include call priority level, call notification text, bed designator, bulb flashing rate, nurse / presence station buzzer sounding rate, and the bulb sockets used to signal the call
 - v Three presence inputs shall be provided for connection to two level presence terminals
 - vi Four high power outputs shall be provided to drive external call reassurance LEDs and individual sockets in external Dome Lamps Without Room Controller
 - vii Two low power output shall be provided to drive an external station call reassurance LEDs
 - viii One buzzer output shall be provided

2.21 STAND ALONE ROOM CONTROLLER

- A Shall be an integrated, network-enabled, intelligent room controller with the following properties:
- i Two fully supervised and configurable voltage coded input points for connection to call initiation devices and external systems
 - ii One supervised Serial interface
 - iii The Room Controller shall be programmable to control devices in one or more rooms
 - iv Call properties for each call point shall be individually configurable using system configuration software. Specific programmable properties shall include call priority level, call notification text, bed designator, and nurse / presence station buzzer sounding rate
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- v Three presence inputs shall be provided for connection to two level presence terminals
 - vi Four high power outputs shall be provided to drive external call reassurance LEDs and individual sockets in external Dome Lamps Without Room Controller
 - vii Two low power output shall be provided to drive an external station call reassurance LEDs
 - viii One buzzer output shall be provided

2.22 ZONE / UNIT / ROOMSET / DIRECTION LAMP

- A Shall be a single gang, network-enabled 4 light dome lamp used to visually signal patient calls and other system events within designated zones, units, or areas
 - i The number of lights used and their color configuration shall be flexible and individually configurable for each installation
 - ii Lights shall be protected by a single piece, frosted plastic lens that promotes light diffusion and increases visibility
 - iii The hardware for each of these light types (Zone, Unit, Roomset, Direction) shall be identical. The functioning of the unit shall be determined during installation using system configuration software. The area being monitored by the lamp shall also be designated using software and not be a function of the system wiring configuration
 - iv Each lamp shall contain a software-configurable “filter” that allows the installer or service person to select what system call and event types will be annunciated by the unit.
 - v Each lamp shall have a software configurable “filter” that allows the installer to choose what system call and event types will be annunciated by the unit.
- B When used in the Zone lamp configuration the device shall signal calls and system events occurring in a single designated zone. Call type and priority level shall be signaled by light colors and flashing patterns.
- C When used in the Unit lamp configuration the device shall signal calls and system events occurring in a single designated unit. Call type and priority level shall be signaled by light colors and flashing patterns.
- D When used in the Roomset lamp configuration the unit shall signal calls and system events occurring in a single designated Roomset. Call type and priority level shall be signaled by light colors and flashing patterns.

- E When used in the Direction Lamp configuration the unit shall signal calls and system events occurring in selected Units, Zones, or Roomsets. Each light in the lamp shall be configurable to either flash or steadily illuminate when calls are placed from its assigned Unit, Zone, or Roomset

2.23 DOME LAMP (WITHOUT ROOM CONTROLLER)

- A Shall be a single gang, 4 light dome lamp used to visually signal patient calls and other system events
 - i The number of lights used and their color configuration shall be flexible and individually configurable for each installation
 - ii Lights shall be protected by a single piece, frosted plastic lens that promotes light diffusion and increases visibility
- B Must be connected to a room controller

2.24 LED LIGHTS

- A Single color LED lights shall be available for all dome lamps in the following colors: white, red, green, yellow, and blue
- B Dual color LED lights shall also be available in the following colors: red/white, and blue/white
- C All LED lights shall be individual units which are easily field replaceable/swappable
- D LED lamps shall feature an individual plastic light diffuser mounted on the face

2.25 AUDIO CONTROLLER

- A. Shall be a single gang, network-enabled intelligent audio controller
 - B. Shall provide a single corridor audio voice channel between audio enabled stations. This voice channel shall also allow nurse station users to speak to one another.
 - C. One Audio Controller shall control all audio communication with each unit
 - D. The Audio Controller shall provide four voice channels for inter-unit communication. When a staff member at a nurse station in one unit wants to speak to another audio device in another unit, the audio shall be switchable across one of the inter-unit channels to the appropriate unit and then onto the local unit audio bus to the desired station.
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2.26 DESKTOP AUDIO NURSE STATION

- A. Shall be a desktop format, microprocessor-controlled nurse control station (NCS) with integral graphical display, telephone, speaker, microphone, and keyboard.
- B. Shall be capable of managing all calls, presences, and other events within the unit(s)
- C. Shall enable voice contact to be initiated to audio stations located across the entire system, unit, or zone groupings, as well as individual rooms or beds.
- D. Shall handle up to 15 units with 5 zones per unit.
- A. Shall enable button-activated, hands-free operation
- B. Shall include a backlit, LCD Graphic Display with minimum 240 x 64 pixel resolution. Shall be capable of displaying information in single and dual height characters
- C. Shall feature an on-screen function menu activated by soft keys. Patient calls shall be shown on the Incoming Call Display/Function Menu. Each call shall be clearly identified by room number, bed number (if applicable), location name and call level. The call levels (according to priority) shall be: Code Blue, Emergency, and Routine Patient Call. Call level nomenclature shall be programmable in system programming.
- D. Shall feature a keyboard with a twelve key numeric keypad, eight programmable keys for initiating frequently performed tasks, six soft keys for operators to navigate the display, contrast and volume keys, as well as icon-based feature keys for: Presence 1, Presence 2, Answer/Audio, Shift, and Enter.
- E. Shall include an integral speaker which provides audio for both call signaling and hands-free operation
- F. Shall include an integral microphone separate from the speaker for voice pick-up during push to talk communications
- G. Desktop audio nurse station tone signaling shall continue until a call is answered or cancelled. Tones shall include call reminder, call announce, and busy tone.

2.27 AUXILIARY INPUT MODULE

- A. Shall be a single gang, network-enabled module for monitoring status output from
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auxiliary medical devices, and shall feature the following properties:

- i Four ¼" phone plug inputs
 - ii Each input shall monitor the dry contacts from auxiliary equipment and will be capable of determining three states: (1) open contact, or (2) closed contact, and (3) plug removed.
 - iii A single jumper shall configure all four inputs to be either Normally Open (closed indicates an alarm), or Normally Closed (open indicates alarm).
 - iv Each input shall have an associated status LED that turns on while that input is in alarm condition.
 - v Each input shall be continuously scanned and monitored.
 - vi Shall allow a "plug-out" pulse to be sent only once during a cord-out event.
 - vii Shall feature an end-of-line resistor (EOL)
- B. Shall interface by means of a dedicated call line on an audio Patient Station.

2.28 PATIENT BED COMMUNICATIONS ADAPTER

- A. Shall be a back box mountable encapsulated modular assembly that permits calls from Hill-Rom® SideCom® units to be registered via a Patient Station
- B. Shall not inhibit the use of pillow speaker call buttons
- C. Shall enable patient call or bed exit conditions to be relayed from a Hill-Rom bed, as well as a "bed disconnect" condition to be registered

2.29 NON-ISOLATED REPEATER

- A Shall be a single gang, network enabled transceiver. Used to boost data signal strength to provide increased cabling distances and to allow the data network to support additional Echelon devices

2.30 ISOLATED REPEATER

- A Shall be a single gang, network enabled transceiver. Used to boost data signal strength to provide increased cabling distances and to allow the data network to

support additional Echelon devices

- B Shall provide galvanic isolation between the devices on either side of the repeater

2.31 USB / LON INTERFACE

- A Shall be a bracket mounted network enabled gateway that allows for computers with the ZetLon system configuration software package to be connected to the system network for the purposes of system installation, programming, and configuration via the PC USB port. Only one gateway shall be required for each system

2.32 CORRIDOR DISPLAY INTERFACE

- A Shall be a three-gang, network enabled gateway that allows system call and event information to be communicated to and displayed by large LED scrolling displays
- B One interface shall be required for each corridor display. The physical interface to the corridor display shall be RS-232
- C Each gateway shall contain a software-configurable "filter" that allows the installer or service person to select what system call and event types will be annunciated by the unit. The installer shall also be able to use software to select the area or areas of the facility whose events will be shown on the corridor display connected to the gateway. The correlation between the interface and the area(s) annunciated it shall be logical and shall not be determined by the system wiring

2.33 RF PAGER INTERFACE

- A Shall be a three-gang, network enabled gateway that allows system call and event information to be communicated to staff members via wireless pocket pagers
- B One interface shall be required for each supported pocket pager transmitter. The physical interface to the paging system transmitter shall be RS-232
- C Each pager gateway shall support definitions for up to 50 individual pagers. The system shall support Multiple Pager Interfaces to increase the overall system pager capacity
 - i The installer shall be able to use system configuration software to configure the individual pager properties including the area(s) covered. The correlation between the pagers and the area(s) whose events are annunciated on them shall be logical and shall not be determined by the system wiring
- D Configurable properties for each pager shall include:
 - i The unit (units), zone (zones), or room set whose events will be annunciated on the pager

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- ii The call and system event types that will be sent to the pager

2.34 CALL CORDS, CALL PENDANTS, AND PILLOW SPEAKERS

- A The following call initiation devices shall be available for use with the system
 - i Call cords including single button, pneumatic press bulb, and breath activated models
 - ii Call pendants including models with nurse call, room light, and bed lamp control functions
 - iii Pillow speakers. Analog and digital models with nurse call, television control, digital television function, room light, and bed lamp functions

2.35 POWER SUPPLIES

- A Shall be a wall mounted, locking cabinet enclosure and current limited, 3A power supply used to provide 24V DC power to the nurse call system
- B Shall offer two available models for connection to either 120V or 220V AC power
- C Additional features shall be:
 - i Support for two (optional) batteries for backup power in the event main AC power fails
 - ii Integrated battery charger circuitry
 - iii Short circuit and thermal overload protection
 - iv Normally open and normally closed contacts to signal low battery and AC power loss to external systems

2.36 TRACKING AND REPORTING SOFTWARE

- A. Shall be a complete solution for logging and reporting all events that occur on the nurse call system and include an event logger, a database, and a report generator
- B. Shall track and capture events in real-time
- C. Shall be capable of generating both standard and custom reports based upon logged network activity
- D. Events shall be captured by room, zone, shift, or entire system, and include metrics like “number of calls”, “call duration”, “emergency calls”, “staff presence”, and “services”

- E. Shall be capable of exporting data to a variety of common software applications, including Microsoft products such as Excel and Word, as well as Adobe products
- F. The database shall be a component of the logging and reporting application; a separately installed database shall not be required
- G. Tracking and reporting software shall allow up to one million events to be recorded before archiving

3 INSTALLATION

3.1 General

- A Installation shall conform to the general installation requirements specified in Section CS-12 GENERAL PROVISIONS.
- B Stations, devices and lights shall be configured to fit the existing backboxes and/or new backboxes provided by the Contractor. Provide any trim plates as may be required.
- C Remove and dispose of all replaced existing equipment and cables.
- D The initial installation and programming of all software shall be done by factory trained Contractor personnel.

3.2 AC Power Connections

- A AC power for all equipment shall be circuited to the emergency system critical branch in accordance with NFPA 99.
- B Connection to AC power circuits shall be coordinated with the Medical Center electrical staff.
- C *Equipment installed in communications rooms shall be hardwired to the electrical circuit.*

END OF SECTION