



## Pre-Installation Requirements

### Overview

The following sections provide installation requirements for site preparation. Unless specified otherwise, requirements listed are for GD supplied equipment only. It is responsibility of the customer and/or it's designees to insure that all installation requirements are met and all work is completed prior to GD installation and in accordance with the agreed upon project schedule.

It is suggested that this document be copied and distributed to the departments involved for review, and a subsequent telephone meeting be scheduled with GD.

- Refer to the CAREpoint Network & IS/IT FAQs document (1838023\*) for network requirement details.

### Instructions to Customer:

- A completed and signed copy of the companion Pre-Installation Checklist (doc 1838008\*) is required.
- Check off items to indicate they are FULLY completed. Make notes as necessary. All check boxes must be completed for GD to accept this form.
- Once all items are completed, the Pre-Install Checklist must be signed by the customer representative and emailed to the local CAREpoint sales representative.
- After completion of the checklist, arrange a Pre-Install Review conference with any subcontractors, radio service, etc. and with GD (contact your Sales Representative).
- The Pre-Install Review and acceptance of the emailed checklist by GD are required before an installation date will be set.
- The customer is responsible for the accuracy of all information provide in this checklist.

### IMPORTANT!

The installation of this equipment in a timely fashion and with minimal disruption to your ED's & EMS's ongoing activities is dependent upon the completeness of your site preparation and the availability of customer provided materials or technical personnel.

Installation time spent by GD personnel in excess of the standard/contracted period caused by incomplete/inadequate site preparation or unavailability of customer provided materials or technical personnel will be billed for at the rate of \$2,200/day.

## 1. Preliminary

Review the supplied CAREpoint Site Configuration Drawing/Sheet and verify:

- Accuracy
- AC power outlet needs
- Telephone and Radio wiring connections
- Network (LAN) requirements & connections

## 2. Space Requirements

□ Each CAREpoint Workstation requires space for:

Equipment	Location	Dimension	Notes
19" Touch Monitor with Telephone Type Handset	Desktop	22" W x 10" D x 20"H (17"H without Keyboard Garage)	1
Keyboard Garage	Desktop	16.5" W x 9"D x 3"H	2
Speakers (2)	Desktop	5" W x 5" D x 9"H each	
OPE / Expansion Module	Desktop/Under Counter	9" W x 18" D x 28.5"H 22"H w/o UPS 18"H w/o Wheeled Cart or UPS	3,4
UPS	Top of OPE/ Desk/Wall/Floor	12" W x 7" D x 6.5"H	5
Punch Block	Wall	4" W x 3" D x 10"H	

## Notes:

- 1) CAREpoint is similar to a desktop PC with a 19" monitor, keyboard, mouse, speakers, UPS and CPU/Communication Operator Position Electronics (OPE). See sample installation pictures in Appendix A – Sample Installation Pictures at the end of this document.
- 2) The keyboard and mouse are used infrequently and the GD Keyboard Garage (included) or an under counter slide-out tray (customer provided) is HIGHLY RECOMMENDED. Both the keyboard and mouse will fit under the GD Keyboard Garage and the monitor will sit on top of it.
- 3) The Operator Position Electronics (OPE) contains the CPU & Communication interfaces. Under counter installations are preferred, provided through counter holes are available. The GD Wheeled Cart (included) is recommended to keep the OPE off the floor. The GD UPS Bracket (included) is recommended to locate/secure the UPS on top of the OPE. The 28.5" Height is with the OPE on the Wheeled Cart and the UPS in the UPS Bracket on top of the OPE with the AC Power Cords plugged in.
- 4) If Site Configuration Drawing/Sheet shows any Communications Expansion Modules, these units are the same size as the OPE and the required extra space must be available. For example, if the Site Configuration Drawing/Sheet shows one Communications Expansion Module, there will be a total of two towers, the OPE and the Communications Expansion Module.
- 5) The 6.5" Height is with the UPS in the GD UPS Bracket and with the AC Power Cords plugged into the UPS.

## ❑ Additional considerations

- Adequate cable & wire hole or passageway to above/below counters & cabinets. A dedicated hole of at least 2.5" diameter is required for CAREpoint.
- Service access - make sure equipment is accessible for maintenance and service.
- Adequate air flow/ventilation - Enclosures or cabinets must provide space on all sides of the equipment to allow for adequate "fresh" airflow. Forced air fans or vent holes may be required.

**IMPORTANT!** Make sure there is adequate space for air to freely flow around the equipment to prevent damage due to excessive heat buildup.

- The GD Hardware Kit is standard and includes:
  - Keyboard Garage / Monitor Stand (provides for keyboard/mouse storage)
  - OPE Wheeled Cart (wheeled stand to keep OPE/Expansion Modules off the floor)
  - UPS Bracket (for securing UPS to top of OPE)
- Wall Space for GD supplied punch block - A region of wall space located within 6 feet of the OPE location shall be allocated for mounting of one (1) M66 type punch block for telecom. & radio connections. Additional telephone jacks may be required also. The customer shall provide this wall surface and any required fire coatings or painting shall be applied prior to GD's installation.

### 3. Electrical Power and Grounding Requirements

#### ❑ AC Power Requirements

- Review the supplied Site Configuration Drawing/Sheet for AC outlet needs.
- At least one generator back-up (RED) 115VAC power outlet within 5' of proposed equipment (UPS) location.
- All CAREpoint equipment operates on 115VAC (nominal), 60Hz, utilizing standard line cord plugs or wall adapter modules and a UPS.
- Power outlet should be generator backed-up
- Outlet and Current Draw is as follows:

	No. of Receptacles	Current Draw	
		(maximum)	(typical)
CAREpoint Workstations	1 (for UPS)	5A	<2A

- Grounding and Lightning Protection

There are no special grounding or lightning protection requirements for GD equipment.

### 4. Telecom / Network Wiring

#### ❑ Preparation Verification

- Verify the wiring matches the supplied Site Configuration Drawing.
- All radio and telephone lines must terminate in RJ11 jacks with the center pair (red/green) used for TX/RX for phones and 2-wire radios, or TX for 4-wire radios. The outer pair (black/yellow) is used for RX for 4-wire radios.
- If the supplied CAREpoint Site Configuration Drawing/Sheet shows a Remote Alarm AV Kit (Speaker and LED), this wiring needs to be completed. This wiring is a 2-pair (4-wire) connection between where the CAREpoint OPE will be located and where the Remote Speaker will be located. This wiring should terminate in RJ11 jacks on both ends with red/green on the center pair and black/yellow on the outer pair. There also needs to be a 115VAC power outlet within 5' of where the Remote Speaker will be located.
- If the supplied CAREpoint Site Configuration Drawing/Sheet shows a connection to an Overhead Intercom System, this wiring needs to be completed. This wiring is a 2-pair (4-wire) connection between where the CAREpoint OPE will be located and where the input to the Overhead Intercom System is located. This wiring should terminate in an RJ11 jack with the center pair (red/green) used for Line Level Audio from the CAREpoint and the outer pair (black/yellow) used for a Relay Closure from the CAREpoint. If a Relay Closure is not required for the Overhead Intercom System, then a 1-pair connection will suffice for the Line Level Audio.
- All telephone lines must be analog type, but can be either a direct outside or inside (switch, DID) type.
- All existing telephone<sup>1,2</sup> or radio lines must be tested and known to be working properly. List the telephone numbers for these lines on the Pre-Installation Checklist.
- All new telephone<sup>1,2</sup> or radio lines must be installed (up to the CAREpoint location) AND TESTED prior to installation. List the telephone numbers for these lines on the Pre-Installation Checklist.
- All radio/phone line terminations<sup>2</sup> should be identified and marked (jack number, phone number, jack/cable location, etc.).
- One analog telephone<sup>1,2</sup> line for the fax/modem is located/activated at the CAREpoint location. This line must be DID and long distance dial-out capable. Note: This line is *IN ADDITION* to any incoming voice lines and is labeled as "Fax/Modem" on the supplied Site Configuration Drawing. List the telephone number for this line on the Pre-Installation Checklist in the section for the Fax/Modem, NOT the section for the Voice Lines.
- If the supplied CAREpoint Site Configuration Drawing/Sheet shows any Tone Remote Adapters, these must be installed by your 2-way radio service PRIOR to the CAREpoint installation. All Tone Remote Adapters must be hooked to a fixed level output that is independent of the volume knob on the front of the radio. Tone Remote Adapters should be configured for 4-wire operation and terminate in RJ11 jacks with the center pair (red/green) used for TX audio and the outer pair (black/yellow) used for RX audio.
- An active network 100/1000 Base-T (Ethernet) RJ-45 jack must be located at the CAREpoint location, within 6 feet of equipment location. (300' max. cable run, CAT-5 or better). List the Network Jack/Port or ID No. on the Pre-Installation Checklist.

Note 1: All telephone lines must be analog type, but can be either a direct outside or inside (switch, DID) type.

Note 2: All radio and telephone lines should terminate in RJ11 jacks with the center pair (red/green) used for TX/RX for phones and 2-wire radios or TX for 4-wire radios. The outer pair (black/yellow) is used for RX for 4-wire radios.

## 5. IS / IT / Desktop Services

Note: Refer to the CAREpoint Network & IS/IT FAQs document (1838023\*) for requirement details

- A STATIC Network IP address is required for each CAREpoint workstation. Note: If multiple CAREpoint are being installed, they must all be on the same subnet to communicate with each other
- Network settings for accessing the Internet - required for Automatic Updates, CP e-mail, EMS/Disaster Management web sites.
  - a) "Static" IP Address (one for each CAREpoint)
  - b) Subnet Mask
  - c) Default Gateway
  - d) DNS Address
  - e) WINS Address
  - f) DNS Suffixes
  - g) Proxy settings and/or any other network related settings:

- E-mail account created (A hospital hosted email account, the CAREpoint will access through the OWA). SSL email accounts such as Gmail are also supported, as long as POP3 or IMAP is enabled for incoming and SMTP is enabled for outgoing AND these ports are NOT blocked by any firewalls. A rule of thumb is if it can be configured in Outlook, it can be configured in the CAREpoint Email application. For connections to MS Exchange servers, CAREpoint connects via the Outlook Web App (OWA) address. Note: The OWA login page MUST be a standard OWA Login page. There are known issues trying to connect to a custom or non-standard OWA Login page. Office 365 accounts are also supported. Note 2: Exchange ActiveSync is not supported.

- Remote Access must be provided for GD (vendor) access to each CAREpoint Workstation. This is used for remote diagnostics and support, up/downloading of configurations and as well as remote updates.

**IMPORTANT!** Failure to provide Remote Access may result in withholding of support or voiding of warranty!

The following methods of Remote Access are acceptable:

- Allow access to GoToAssist via a web connection using GD's account. GoToAssist is preconfigured for unattended support on CAREpoint. Uses TCP Port 80, 443 or 8200 (whichever is not blocked). This connection must be tested with GD by performing a test GoToAssist session with any PC at the hospital to verify that GoToAssist is not blocked by any firewalls. Contact GD for more information on setting up a time to do a test session.

- A Network Time Server is required for the CAREpoint to sync to.
- A Network Backup Location is optional for CAREpoint to backup its database and call recordings to. By default, the CAREpoint backs up this data to a local hard drive, but it can be configured to backup to a shared folder on the network if desired. Refer to the CAREpoint Network & IS/IT FAQs document (1838023\*) for additional details such as how much space is required. If a Network Backup Location is to be used, the following info is needed:
  - Path to shared folder
  - Username and password to shared folder
  - Domain name if CAREpoint is not on same domain as shared folder
- The CAREpoint desktop applications may be installed on the supervisor's computer(s). Administrator privileges are needed to install these programs.
  - Requires Windows 7 or 10 and a network connection to communicate with the CAREpoint..
  - Requires Admin user privileges to install

### 6. Other Equipment

- Make sure all other non-GD equipment (new radios, etc.) is installed and tested prior to the CAREpoint installation.

### 7. Environmental Requirements & Heat Load

- Recommended operating temperature range for GD equipment to be installed is 0 to +40 degrees C.
- Heat generated by each operator's position is equivalent to that of a typical PC setup (approximately 350 Watts).



### 8. Performance Specifications:

Power Requirements.....115 VAC, 50/60 Hz, Less than 5 Amps, surge protected, generator/UPS backed up.

Audio bandwidth.....300 Hz to 3 kHz, +/- 3 dB

Speaker output .....3 Watts @ 8 ohm

#### Radio Control

Line Interface .....External module with RX & TX level adj.

TX level .....-10 to +10 dBm into 600 ohms, adjustable

RX sensitivity .....-20 dBm (adjustable)

Line impedance.....600 Ohm or >5K Ohm balanced

Control tone format.....EIA standard radio control tones (650-2050 & 2175),

Notch filter.....2175 Hz notch

Telephone Functions.....DTMF keypad, Call hold, Conference, Redial, Auto-dial

#### Telemetry Features

ECG Demodulator .....Phase Locked Loop (PLL), 1.4 kHz FC, 50 Hz/mV deviation

Heart Rate Meter .....30 to 200 bpm, 10% of heart rate, +/- 5 bpm

LCD Display .....19" diagonal, touch screen

Storage Temperature.....-30 TO +60 °C

Operating Temperature .....0 TO +40 °C

Storage Humidity .....20-80% wet bulb

Operating Humidity .....30-70% wet bulb

Specifications are subject to change without notice.

End

## Appendix A - Sample Installation Pictures





