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OP3D Pro Pre-Installation Guide

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Contents:

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1. Office Network:

Software

Network		☐ Domain ☐ Workgroup
Server Operating System		
Practice Management Software/Version		
Bridging Software from PMS to CliniView (included, or do you need to use Datagrabber?)		
Current 2D Imaging Software/Version		
List SQL Database Engines (and the programs that use them)		
Office Server/Database Backup Plan		
Software Components Included in Delivery	☐ OK	Invivo Dental 5.4
	☐ OK	Cliniview 11.3 comes with all OP3D Pro standard FOV and OP3D Pro Maxio units only.

Hardware

Category		Description
Ethernet Network	☐ OK	**Option A:** Is the host computer located close enough to the OP3D Pro to make a direct connection via the default 19.5' (6.0 m) Category 6 (1 GB/s) Ethernet cable? **Note: Direct Ethernet connection must be done to the OP3D Pro. The PC supplied has two Network cards.** **Option B:** Does the office have Category 6 cabling/network switches for future OP3D Pro into the office netowrk? (The Ethernet cable connects at the backside of the OP3D Pro column, 55 mm or 2¼" above the floor.)
	☐ OK	Does the office have Category 6 (1 GB/s) Ethernet cabling and network switches to handle communications between the OP3D Pro capture computer and the network?
	☐ OK	Does the office have a minimum of Category 5e (100 MB/s) Ethernet network for communications with image reviewing workstation computers?
Internet Connection	☐ OK	Can the OP3D Pro host computer be connected to high-speed internet for future upgrades/service?

***Note: Kavo provides a Dell model T5810 PC that has a NVIDIA Quadro K2200 video card that has 4 GB of RAM**

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Notices:

- To allow for adequate time for training please schedule training for a day following the scheduled hardware installation/upgrade of your digital pan/ceph/CBCT system.
- All users of the digital pan/ceph/CBCT system and clinicians involved in extraoral radiography must be present for the training.
- A minimum of three hours must be set aside without patients for digital X-ray training.
- If further software training is required, contact your local dealer or sales person to schedule a time.
- Neither Kavo Inc., nor its authorized dealer/installer, will install software onto a network. IT Administrator will be needed for the software installation.
- Kavo Inc. and/or its authorized dealer/installer are responsible for installation of only Instrumentarium Dental Inc. provided hardware and the workstation supplied with your system.
- Making Cliniview 11.3 operational over your network is the responsibility of an IT admin (network administrator) who is knowledgeable and certified in configuring Microsoft operating systems and networks, and who is familiar with *your* network. Your IT admin is required to be on site the day of install with access to the domain admin account and local admin account if on a domain, and the local admin if on a workgroup.
- Mac OS® is not supported in Cliniview 11.3. Please see section six for information on Invivo Mac support.
- Apple Boot Camp is supported for viewing stations (not the capture computer) only if it is supported by an IT admin versed in both Windows and Mac OS.
- VPN, WANs, Citrix, Terminal Services, etc. are not supported at this time. If multiple locations and multiple databases are needed, then a PACS (Picture Archiving and Communication) server would need to be employed.
- The software database must be backed up regularly with an appropriate backup system. It is highly recommended that you use a suitable system where the backup media can easily be removed for off-site storage.

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2. Viewing And Server System Requirements (Use this section for IT Administrators)

Viewing Station Operating System (OS):

Windows 7 Professional/Ultimate/Enterprise (32 or 64-bit with SP 1)

Windows 8.1 Professional/Enterprise (32 or 64-bit)

Windows 10 Professional or Enterprise (32 or 64-bit)

Viewing Station Hardware Requirements:

Processor: 2.0 Ghz dual core or better

Memory (RAM): 4 GB or more

Virtual Memory: 1.5 x Physical

Hard Disk (HDD): 3 GB free space or more

DVD-ROM drive for software installation

Keyboard & Mouse: Yes

Network Card: Gigabit Ethernet 1000 Mb/s or Fast Ethernet 100 Base-TX

Monitor: 1280x1024 resolution, 19-inch LCD Display or better

Graphics Card: NVIDIA® Supported Display Adaptor (1 GB of RAM or higher)

ATI® Radeon™ HD Supported Display Adaptor (1 GB of RAM or higher)

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Server Requirements for DTX core database:

Windows 7 Professional/Ultimate/Enterprise (32 or 64-bit)

Windows 8.1 Professional/Enterprise (32 or 64-bit)

Windows 10 Professional/Enterprise (64-bit only)

Windows Server 2008 R2

Windows Server 2012

Windows Server 2012 R2

*Requires installation of Windows Desktop Experience for client installation on server

(Desktop Experience is not required if only installing the database)

Note: Windows Server 2008 R2 and SP2 are not the same. Windows Server 2008 R2 is a full release of Windows Server. SP2 is a service pack for Windows 2008 Server

Server Hardware Requirements for DTX core database:

Processor: Intel i3 core, or better

Memory (RAM): 16 GB or higher

Hard Disk: 8 GB is needed for the installation

DVD-ROM drive for Software Installation

Keyboard & Mouse: Yes

Network Card: 100/1000 Mb/s Ethernet

Monitor: 1280x1024 resolution

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3. Capture Workstation System Requirements:

(*Use this section for 3D units only*)

Windows 7 Professional/Ultimate/Enterprise (64-bit with SP 1)

Windows 8.1 Professional or Enterprise (64-bit)

Windows 10 Professional or Enterprise (64-bit only)

Processor: Intel Core i5, i7 Xeon, 4-cores or more

Network Card: Gigabit Ethernet 1000 Base-T

(*Two NIC's in the PC are required. One would connect to the OP3D Pro and the other would be for the network)

Memory (RAM): 8 GB or more **(Note: If the capture PC is going to be the server for CV11.3 then 16 GB of RAM is needed)**

Virtual Memory: 1.5 x Physical

DVD-ROM drive for Software Installation

Monitor: 24" LCD Widescreen display at 1920x1280 resolution or better with 100:1 contrast ratio

NVIDIA® Supported Display Adaptors,

NVIDIA Quadro 4000 (or better)

(*Note: ATI® cards cannot be used)

(*Use this section for 2D only units*)

Windows 7 (32 or 64-bit)

Windows 8 (32 or 64-bit)

Windows 10 (64-bit only)

Processor: 2.5 GHz dual core or better

Network Card: Gigabit Ethernet 1000 Base-T

(*Two NIC's in the PC would be preferred. One would connect to the OP3D Pro and the other would be for the network)

Memory (RAM): 4 GB (32-bit OS); 8 GB (64-bit OS)

Virtual Memory: 1.5 x Physical

CD-ROM drive for Software Installation: Yes

Monitor: 24" LCD Widescreen display at 1680x1050 resolution or better

NVIDIA® Supported Display Adaptors,

NVIDIA GeForce 6600 or better (1 GB of RAM or higher)

(*Note: ATI® and integrated graphics cards are not supported)

4. Storage Specifications

Typical file sizes:

Panoramic:	2-4 MB (PNG format 16 bits)
Cephalometric:	3-5 MB (PNG format 16 bits)
CBCT - 3D:	12-400 MB (DICOM Format)

Note: We include a 500 GB drive in the capture computer. Eventually, additional storage may be needed. NAS (Network Attached Storage) and SAN (Storage Attached Network) are not currently supported. We do support direct attached storage if a local drive letter can be assigned, such as direct SCSI and external SATA (eSATA).

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5. Invivo Viewing Stations Requirements (Used on 3D units only):

Hardware:

Microsoft Windows®:

Processor: 2 GHz Pentium® 4 or better (Intel® Core i7 4000 or comparable recommended)

Memory (RAM): At least 4 GB (32-bit OS); 8 GB (64-bit OS) recommended

Macintosh®:

Mac OS®: Apple Boot Camp® (requires a full license of Windows® operating system)

iMac®, MacBook Pro® (15″), Mac Pro®,

Note: Please check if a dedicated graphics card (NVIDIA® or ATI®) is included

Graphics Cards / GPU:

Low Profile Option:

GeForce™ GT 635

GeForce™ GTX 645

ATI™ Radeon HD 6450

Note: The low profile option are typically not available at normal retail stores (Best Buy, Frys, etc.). The low profile options are still available, but must be ordered on-line.

Minimum Recommendation:

GeForce™ GTX 650 (1GB or greater)

ATI™ Radeon HD 6800

High-End Options:

GeForce™ GTX 760 (1GB or greater)

GeForce™ GTX 660 Ti (1GB or greater)

ATI™ Radeon HD 7970

ATI™ Radeon R9 290

7. Laptop Recommendations:

Dell:

Model: Alienware M
Size: 11”, 14”, 17”, 18”
Graphics Processor: NVIDIA® GeForce™ 765M
(Note: Known issue with new GT700M Series drivers. Will only work with NVIDIA® driver isntaller 311.48.1.3.24.2 as of 1/29/14.

Model: Inspiron R
Size: 15”, 17”
Graphics Processor: ATI® Radeon™ HD 8850M or NVIDIA® GeForce™ GT 750M

Model: Studio XPS
Size: 15”, 17”
Graphics Processor: NVIDIA® GeForce™ GT 730M or GT 740M or better

Hewlett Packard:

Model: Envy
Size: 15”, 17”
Graphics Processor: ATI® Radeon™ HD 8750M or NVIDIA® GeForce™ GT 750M

Model: Pavilion
Size: 15”, 17”
Graphics Processor: ATI® Radeon™ HD 8670M

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8. Pre-Install Specifications and Dimensions

Category	☐ OK	Description
Storage / Shipping	☐ OK	Temperature 32 - 122°F (0 - 50°C); Humidity 0 - 85 RH% Pressure 14.8 - 31.9" Hg (500 - 1080 hPa)
Operation	☐ OK	Temperature 50 - 86°F (10 - 30°C); Humidity 0 - 85 RH% Pressure 20.7 - 31.3" Hg (500 - 1080 hPa)
Radiation Shielding	☐ OK	Local regulatory requirements must be met. For more info, contact your local regulatory office. (Maximum tube head potential: 85 kV)
Electrical	☐ OK	100VAC, 50/60Hz,15A (90-110VAC); 120 VAC, 50/60Hz,15A (105-132VAC); 230VAC, 50/60Hz, 10A (207-264VAC) Dedicated power supply; maximum 0.2Ω line impedance. Separate outlets for OP3D Pro and workstation PC. The supplied power cord is 118" (3 m) in length, and connects at the rear lower left of the column about 1" (25 mm) above the floor. A cord with a NEMA 6-15P (208/240VAC) plug, and a second cord with a NEMA 5-20P (125VAC max.) plug are supplied. The remote exposure button cable is 32.8' (10 m) in length, and connects at the rear lower right of the column about 1" (25 mm) above the floor.
Installation Space Panoramic/3D	☐ OK	Minimum installation space (W x L): 38" x 55.3" (965 x 1405 mm) Recommended working space (W x L): 78.75" x 59" (2000 x 1500 mm)
Installation Space Pan/Ceph/3D	☐ OK	Minimum installation space (W x L): 78.9" x 55.3" (2005 x 1405 mm) Recommended working space (W x L): 118" x 59" (3000 x 1500 mm)
Ceiling Height	☐ OK	Unit default (maximum) height: 94.9" (2410 mm) Unit minimum height: 83.1" (2110 mm)
Move-in Doorways	☐ OK	Minimum doorway width: 34" (864 mm)
Unit Weight	☐ OK	OP3D Pro Pan - 463 lb. (210 kg); OP3D Pro Pan/Ceph - 540 lb. (245 kg) OP3D Pro Pan/3D - 467 lb.(212 kg); OP3D Pro Pan/Ceph/3D - 544 lb. (247 kg)
Mounting Requirements	☐ OK	Make sure that the floor where the unit is to be installed can support the stated weight. Fix the unit with floor bolts appropriate to the surface the unit is mounted on. (Hardware is NOT supplied with the unit.) The bolts and the floor material must withstand pull-out strengths of at least force of 1125 lb. (5000 N). The unit must be permanently attached to the wall and the floor. If floor attachment is not possible, use the additional lower wall support (ordered separately). The wall material should be suitable for fixing the unit. If the wall is made of insufficient materials, you may have to use a reinforcing plate on the rear side of the wall to hold the fixing hardware. The fixing hardware used to permanently attach the unit to the wall must be the correct type for the wall and wall material. The fixing hardware and wall must withstand pull-out strengths of at least force of 1,125 lb. (5000 N). **The authorized dealer/installer is responsible for the fixing hardware.**

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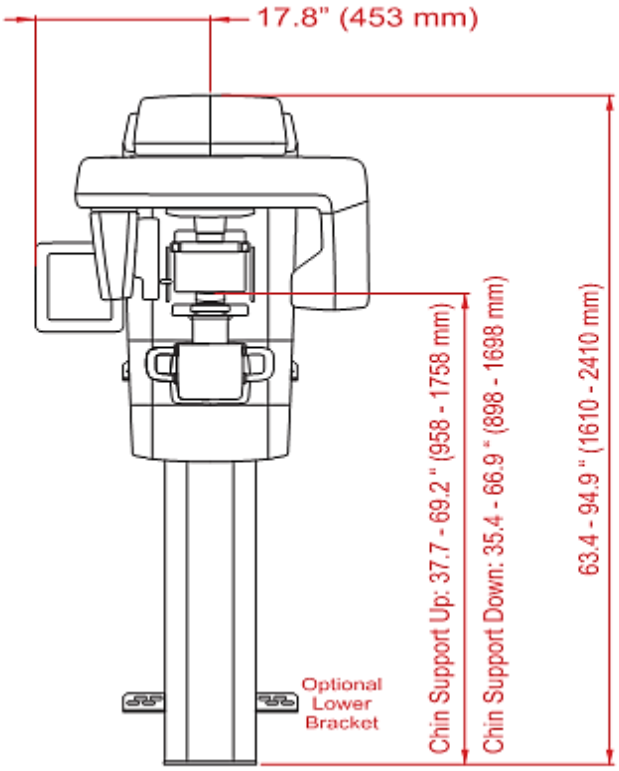

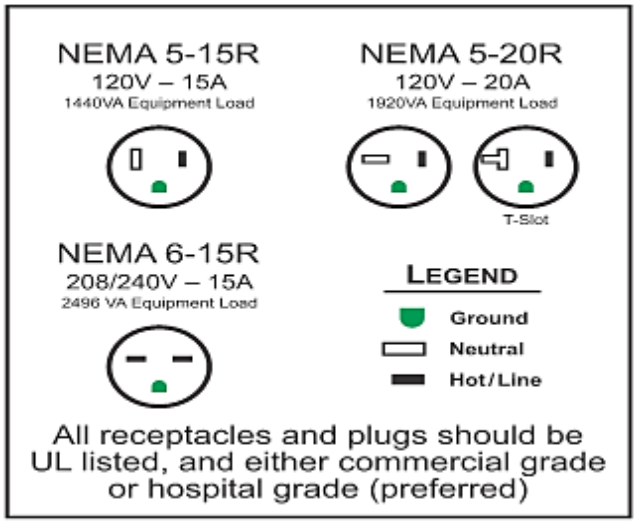

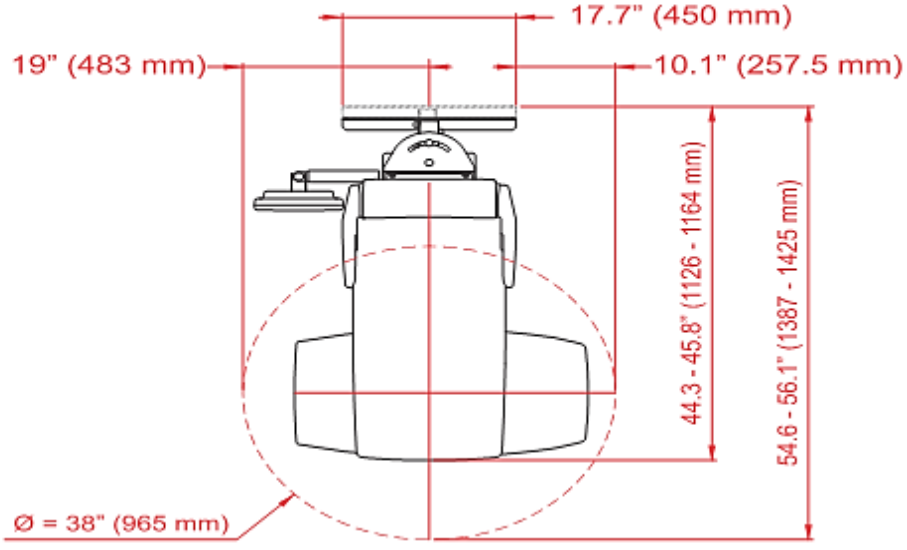

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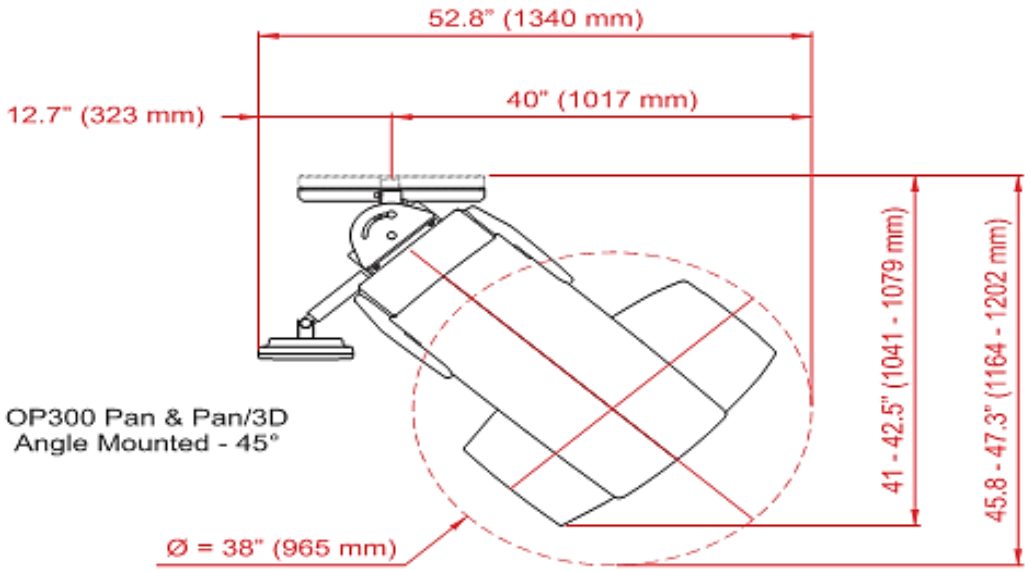

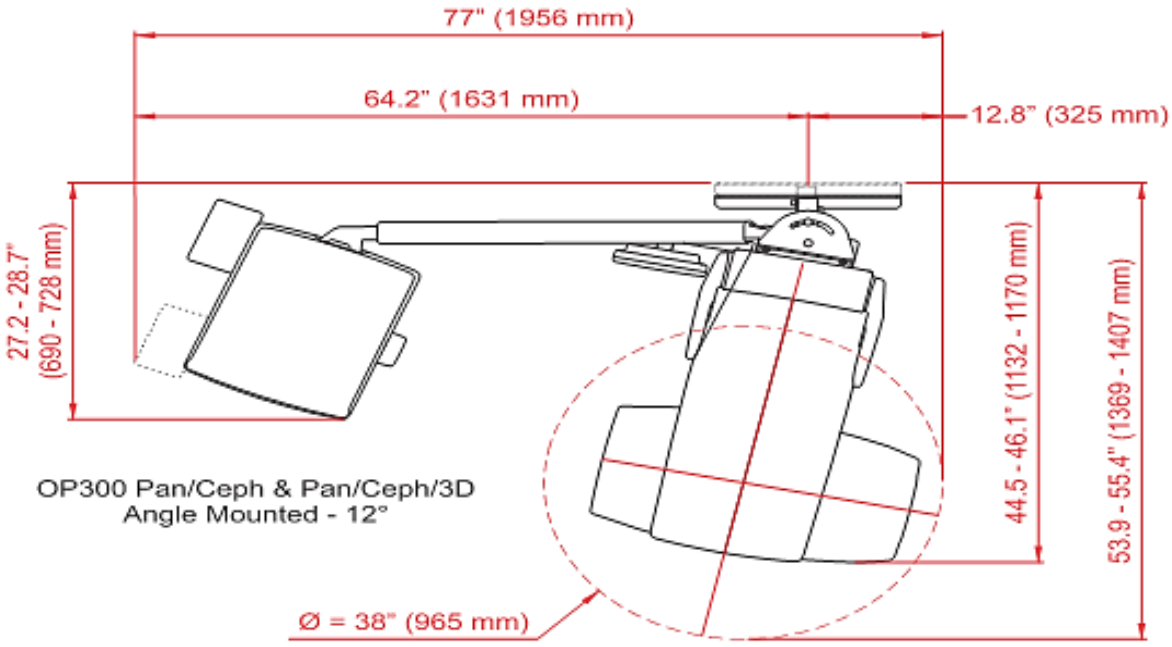

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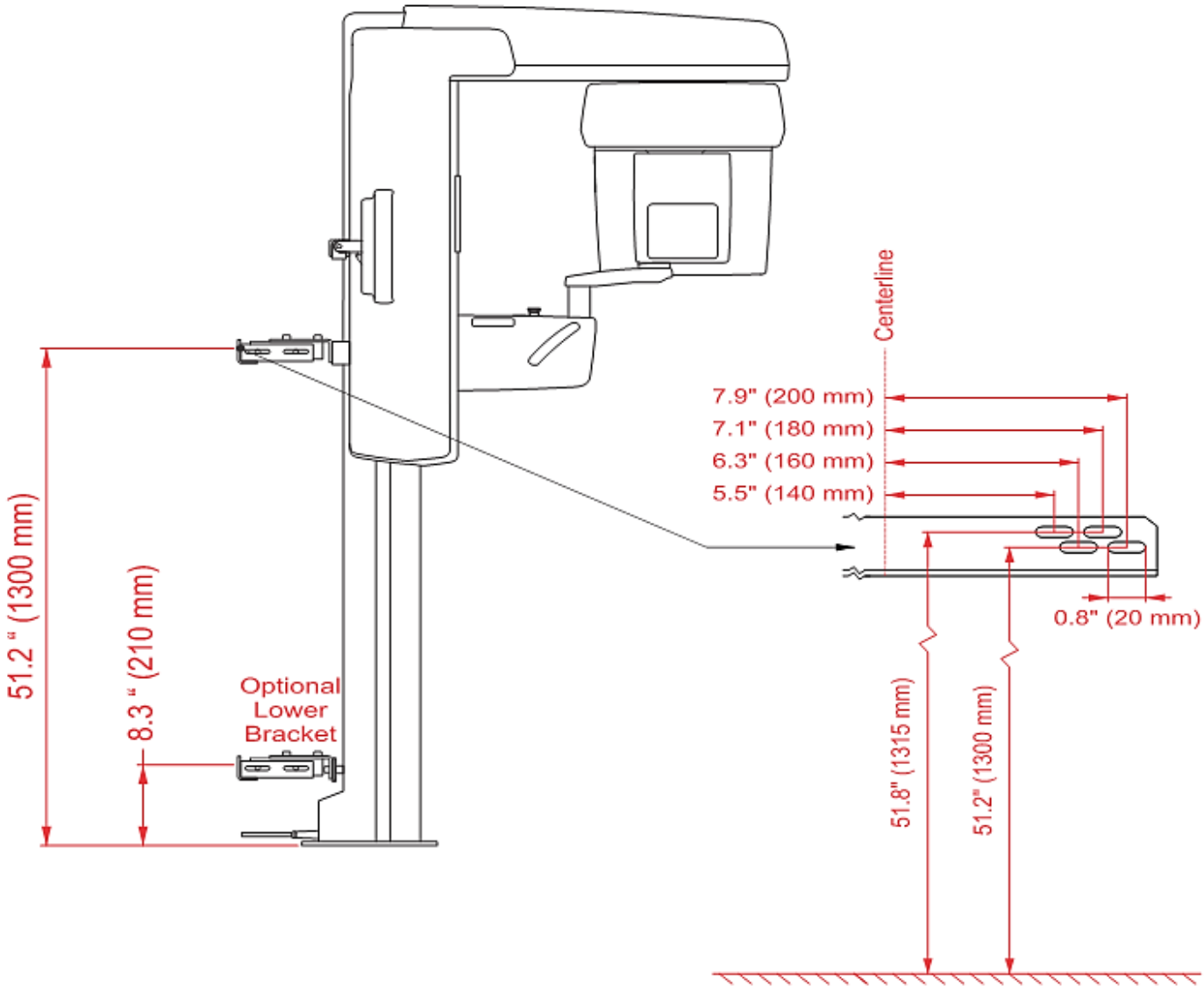

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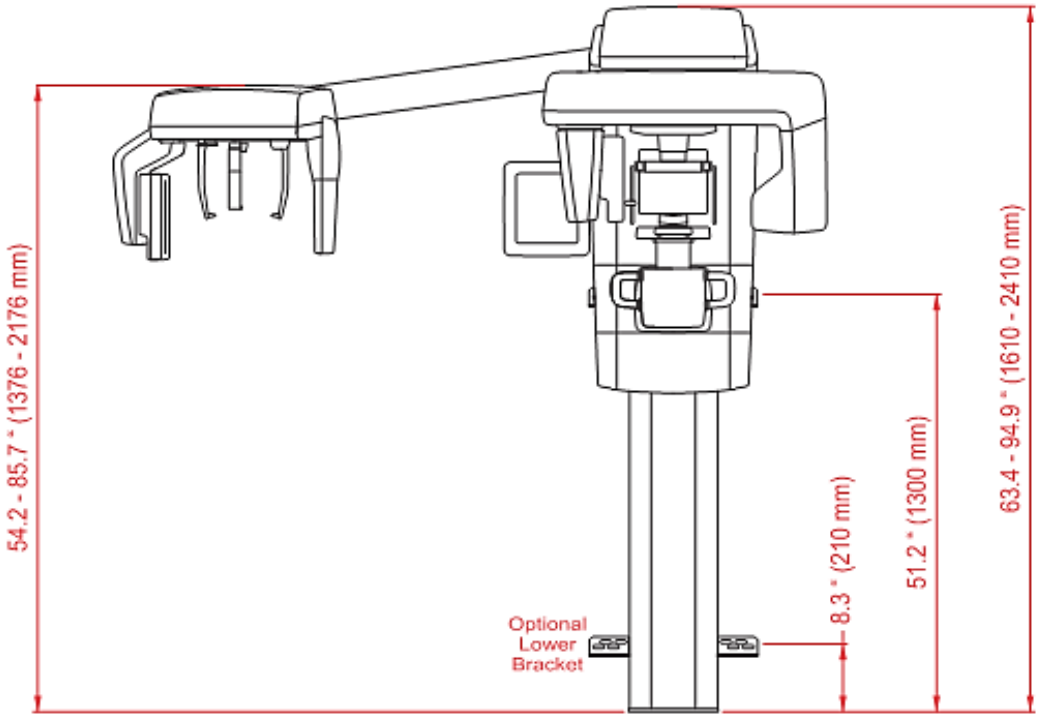

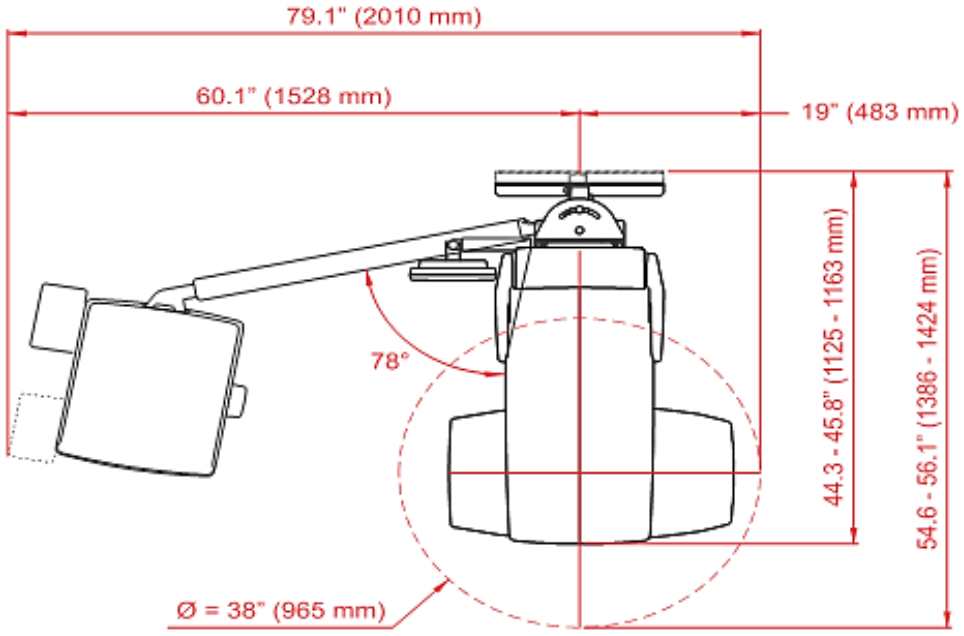

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Location of the network and power junction boxes. The data drop loops back to the capture PC.