



GE Healthcare

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Technical Publication

**Direction 5643854-1EN
Revision 10**

**GE Healthcare
Optima* XR646
Pre-Installation**

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CONTACT INFORMATION

Optima XR646

Optima* XR646 Systems can be sold by the below names and be manufactured by the below manufactures.

Model	Manufacturer (*) Manufacturer Site	Manufacturer address
Optima XR646	GE HUALUN MEDICAL SYSTEMS CO. Ltd	No.1 Yong Chang North Road Beijing Economic Technological Development Zone BEIJING 100176 CHINA
	GE MEDICAL SYSTEMS, LLC	3000 North Grandview Blvd WAUKESHA, WI 53188 UNITED STATES

IMPORTANT PRECAUTIONS

LANGUAGE

ПРЕДУПРЕЖДЕНИЕ

(BG)

- ТОВА УПЪТВАНЕ ЗА РАБОТА Е НАЛИЧНО САМО НА АНГЛИЙСКИ ЕЗИК.
- АКО ДОСТАВЧИКЪТ НА УСЛУГАТА НА КЛИЕНТА ИЗИСКА ЕЗИК, РАЗЛИЧЕН ОТ АНГЛИЙСКИ, ЗАДЪЛЖЕНИЕ НА КЛИЕНТА Е ДА ОСИГУРИ ПРЕВОД.
- НЕ ИЗПОЛЗВАЙТЕ ОБОРУДВАНЕТО ПРЕДИ ДА СТЕ СЕ КОНСУЛТИРАЛИ И РАЗБРАЛИ УПЪТВАНЕТО ЗА РАБОТА.
- НЕСПАЗВАНЕТО НА ТОВА ПРЕДУПРЕЖДЕНИЕ МОЖЕ ДА ДОВЕДЕ ДО НАРАНЯВАНЕ НА ДОСТАВЧИКА НА УСЛУГАТА, ОПЕРАТОРА ИЛИ ПАЦИЕНТ В РЕЗУЛТАТ НА ТОКОВ УДАР ИЛИ МЕХАНИЧНА ИЛИ ДРУГА ОПАСНОСТ.

警告

(ZH-CN)

- 本维修手册仅提供英文版本。
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- 忽略本警告可能对维修人员，操作员或患者造成触电、机械伤害或其他形式的伤害。

VÝSTRAHA

(CS)

- TENTO PROVOZNÍ NÁVOD EXISTUJE POUZE V ANGLICKÉM JAZYCE.
- V PŘÍPADĚ, ŽE EXTERNÍ SLUŽBA ZÁKAZNÍKŮM POTŘEBUJE NÁVOD V JINÉM JAZYCE, JE ZAJIŠTĚNÍ PŘEKLADU DO ODPOVÍDAJÍCÍHO JAZYKA ÚKOLEM ZÁKAZNÍKA.
- NESNAŽTE SE O ÚDRŽBU TOHOTO ZAŘÍZENÍ, ANIŽ BYSTE SI PŘEČETLI TENTO PROVOZNÍ NÁVOD A POCHOPILI JEHO OBSAH.
- V PŘÍPADĚ NEDODRŽOVÁNÍ TÉTO VÝSTRAHY MŮŽE DOJÍT K PORANĚNÍ PRACOVNÍKA PRODEJNÍHO SERVISU, OBSLUŽNÉHO PERSONÁLU NEBO PACIENTŮ Vlivem ELEKTRICKÉHO PROUDU, RESPEKTIVE Vlivem MECHANICKÝCH ČI JINÝCH RIZIK.

ADVARSEL

(DA)

- DENNE SERVICEMANUAL FINDES KUN PÅ ENGELSK.
- HVIS EN KUNDES TEKNIKER HAR BRUG FOR ET ANDET SPROG END ENGELSK, ER DET KUNDENS ANSVAR AT SØRGE FOR OVERSÆTTELSE.
- FØRSØG IKKE AT SERVICERE UDSTYRET MEDMINDRE DENNE SERVICEMANUAL HAR VÆRET KONSULTERET OG ER FORSTÅET.
- MANGLENDE OVERHOLDELSE AF DENNE ADVARSEL KAN MEDFØRE SKADE PÅ GRUND AF ELEKTRISK, MEKANISK ELLER ANDEN FARE FOR TEKNIKEREN, OPERATØREN ELLER PATIENTEN.

WAARSCHUWING

(NL)

- DEZE ONDERHOUDSHANDLEIDING IS ENKEL IN HET ENGELS VERKRIJGBAAR.
- ALS HET ONDERHOUDSPERSONEEL EEN ANDERE TAAL VEREIST, DAN IS DE KLANT VERANTWOORDELIJK VOOR DE VERTALING ERVAN.
- PROBEER DE APPARATUUR NIET TE ONDERHOUDEN VOORDAT DEZE ONDERHOUDSHANDLEIDING WERD GERAADPLEEGD EN BEGREPEN IS.
- INDIEN DEZE WAARSCHUWING NIET WORDT OPGEVOLGD, ZOU HET ONDERHOUDSPERSONEEL, DE OPERATOR OF EEN PATIËNT GEWOND KUNNEN RAKEN ALS GEVOLG VAN EEN ELEKTRISCHE SCHOK, MECHANISCHE OF ANDERE GEVAREN.

WARNING

(EN)

- THIS SERVICE MANUAL IS AVAILABLE IN ENGLISH ONLY.
- IF A CUSTOMER'S SERVICE PROVIDER REQUIRES A LANGUAGE OTHER THAN ENGLISH, IT IS THE CUSTOMER'S RESPONSIBILITY TO PROVIDE TRANSLATION SERVICES.
- DO NOT ATTEMPT TO SERVICE THE EQUIPMENT UNLESS THIS SERVICE MANUAL HAS BEEN CONSULTED AND IS UNDERSTOOD.
- FAILURE TO HEED THIS WARNING MAY RESULT IN INJURY TO THE SERVICE PROVIDER, OPERATOR OR PATIENT FROM ELECTRIC SHOCK, MECHANICAL OR OTHER HAZARDS.

HOIATUS

(ET)

- KÄESOLEV TEENINDUSJUHEK ON SAADAVAL AINULT INGLISE KEELES.
- KUI KLIENDITEENINDUSE OSUTAJA NÕUAB JUHEKID INGLISE KEELEST ERINEVAS KEELES, VASTUTAB KLIENT TÕLKETEENUSE OSUTAMISE EEST.
- ÄRGE ÜRITAGE SEADMEID TEENINDADA ENNE EELNEVALT KÄESOLEVA TEENINDUSJUHEKIGA TUTVUMIST JA SELLEST ARU SAAMIST.
- KÄESOLEVA HOIATUSE EIRAMINE VÕIB PÕHJUSTADA TEENUSEOSUTAJA, OPERAATORI VÕI PATSIENDI VIGASTAMIST ELEKTRILÕÕGI, MEHAANILISE VÕI MUU OHU TAGAJÄRJEL.

VAROITUS

(FI)

- TÄMÄ HUOLTO-OHJE ON SAATAVILLA VAIN ENGLANNIKSI.
- JOS ASIAKKAAN HUOLTOHENKILÖSTÖ VAATII MUUTA KUIN ENGLANNINKIELISTÄ MATERIAALIA, TARVITTAVAN KÄÄNNÖKSEN HANKKIMINEN ON ASIAKKAAN VASTUULLA.
- ÄLÄ YRITÄ KORJATA LAITTEISTOA ENNEN KUIN OLET VARMASTI LUKENUT JA YMMÄRTÄNYT TÄMÄN HUOLTO-OHJEEN.
- MIKÄLI TÄTÄ VAROITUSTA EI NOUDATETA, SEURAUKSENA VOI OLLA HUOLTOHENKILÖSTÖN, LAITTEISTON KÄYTTÄJÄN TAI POTILAAN VAHINGOITTUMINEN SÄHKÖISKUN, MEKAANISEN VIAN TAI MUUN VAARATILANTEEN VUOKSI.

ATTENTION
(FR)

- CE MANUEL DE MAINTENANCE N'EST DISPONIBLE QU'EN ANGLAIS.
- SI LE TECHNICIEN DU CLIENT A BESOIN DE CE MANUEL DANS UNE AUTRE LANGUE QUE L'ANGLAIS, C'EST AU CLIENT QU'IL INCOMBE DE LE FAIRE TRADUIRE.
- NE PAS TENTER D'INTERVENTION SUR LES ÉQUIPEMENTS TANT QUE LE MANUEL SERVICE N'A PAS ÉTÉ CONSULTÉ ET COMPRIS.
- LE NON-RESPECT DE CET AVERTISSEMENT PEUT ENTRAÎNER CHEZ LE TECHNICIEN, L'OPÉRATEUR OU LE PATIENT DES BLESSURES DUES À DES DANGERS ÉLECTRIQUES, MÉCANIQUES OU AUTRES.

WARNUNG
(DE)

- DIESE SERVICEANLEITUNG EXISTIERT NUR IN ENGLISCHER SPRACHE.
- FALLS EIN FREMDER KUNDENDIENST EINE ANDERE SPRACHE BENÖTIGT, IST ES AUFGABE DES KUNDEN FÜR EINE ENTSPRECHENDE ÜBERSETZUNG ZU SORGEN.
- VERSUCHEN SIE NICHT DIESE ANLAGE ZU WARTEN, OHNE DIESE SERVICEANLEITUNG GELESEN UND VERSTANDEN ZU HABEN.
- WIRD DIESE WARNUNG NICHT BEACHTET, SO KANN ES ZU VERLETZUNGEN DES KUNDENDIENSTTECHNIKERS, DES BEDIENERS ODER DES PATIENTEN DURCH STROMSCHLÄGE, MECHANISCHE ODER SONSTIGE GEFAHREN KOMMEN.

ΠΡΟΕΙΔΟΠΟΙΗΣΗ
(EL)

- ΤΟ ΠΑΡΟΝ ΕΓΧΕΙΡΙΔΙΟ ΣΕΡΒΙΣ ΔΙΑΤΙΘΕΤΑΙ ΣΤΑ ΑΓΓΛΙΚΑ ΜΟΝΟ.
- ΕΑΝ ΤΟ ΑΤΟΜΟ ΠΑΡΟΧΗΣ ΣΕΡΒΙΣ ΕΝΟΣ ΠΕΛΑΤΗ ΑΠΑΙΤΕΙ ΤΟ ΠΑΡΟΝ ΕΓΧΕΙΡΙΔΙΟ ΣΕ ΓΛΩΣΣΑ ΕΚΤΟΣ ΤΩΝ ΑΓΓΛΙΚΩΝ, ΑΠΟΤΕΛΕΙ ΕΥΘΥΝΗ ΤΟΥ ΠΕΛΑΤΗ ΝΑ ΠΑΡΕΧΕΙ ΥΠΗΡΕΣΙΕΣ ΜΕΤΑΦΡΑΣΗΣ.
- ΜΗΝ ΕΠΙΧΕΙΡΗΣΕΤΕ ΤΗΝ ΕΚΤΕΛΕΣΗ ΕΡΓΑΣΙΩΝ ΣΕΡΒΙΣ ΣΤΟΝ ΕΞΟΠΛΙΣΜΟ ΕΚΤΟΣ ΕΑΝ ΕΧΕΤΕ ΣΥΜΒΟΥΛΕΥΤΕΙ ΚΑΙ ΕΧΕΤΕ ΚΑΤΑΝΟΗΣΕΙ ΤΟ ΠΑΡΟΝ ΕΓΧΕΙΡΙΔΙΟ ΣΕΡΒΙΣ.
- ΕΑΝ ΔΕ ΛΑΒΕΤΕ ΥΠΟΨΗ ΤΗΝ ΠΡΟΕΙΔΟΠΟΙΗΣΗ ΑΥΤΗ, ΕΝΔΕΧΕΤΑΙ ΝΑ ΠΡΟΚΛΗΘΕΙ ΤΡΑΥΜΑΤΙΣΜΟΣ ΣΤΟ ΑΤΟΜΟ ΠΑΡΟΧΗΣ ΣΕΡΒΙΣ, ΣΤΟ ΧΕΙΡΙΣΤΗ Ή ΣΤΟΝ ΑΣΘΕΝΗ ΑΠΟ ΗΛΕΚΤΡΟΠΛΗΞΙΑ, ΜΗΧΑΝΙΚΟΥΣ Ή ΑΛΛΟΥΣ ΚΙΝΔΥΝΟΥΣ.

FIGYELMEZTETÉS
(HU)

- EZEN KARBANTARTÁSI KÉZIKÖNYV KIZÁRÓLAG ANGOL NYELVEN ÉRHETŐ EL.
- HA A VEVŐ SZOLGÁLTATÓJA ANGOLTÓL ELTÉRŐ NYELVRE TART IGÉNYT, AKKOR A VEVŐ FELELŐSSÉGE A FORDÍTÁS ELKÉSZÍTTETÉSE.
- NE PRÓBÁLJA ELKEZDENI HASZNÁLNI A BERENDEZÉST, AMÍG A KARBANTARTÁSI KÉZIKÖNYVBEN LEÍRTAKAT NEM ÉRTELMEZTÉK.
- EZEN FIGYELMEZTETÉS FIGYELMEN KÍVÜL HAGYÁSA A SZOLGÁLTATÓ, MŰKÖDTETŐ VAGY A BETEG ÁRAMÚTÉS, MECHANIKAI VAGY EGYÉB VESZÉLYHELYZET MIATTI SÉRÜLÉSÉT EREDMÉNYEZHETI.

ADVÖRUN (IS)

- ÞESSI ÞJÓNUSTUHANDBÓK ER EINGÖNGU FÁANLEG Á ENSKU.
- EF AÐ ÞJÓNUSTUVEITANDI VIÐSKIPTAMANNS ÞARFNAST ANNAS TUNGUMÁLS EN ENSKU, ER ÞAÐ SKYLDA VIÐSKIPTAMANNS AÐ SKAFFA TUNGUMÁLAPJÓNUSTU.
- REYNIÐ EKKI AÐ AFGREIÐA TÆKIÐ NEMA AÐ ÞESSI ÞJÓNUSTUHANDBÓK HEFUR VERIÐ SKOÐUÐ OG SKILIN.
- BROT Á SINNA ÞESSARI ADVÖRUN GETUR LEITT TIL MEIÐSLA Á ÞJÓNUSTUVEITANDA, STJÓRNANDA EÐA SJÚKLINGS FRÁ RAFLOSTI, VÉLRÆNU EÐA ÖÐRUM ÁHÆTTUM.

AVVERTENZA (IT)

- IL PRESENTE MANUALE DI MANUTENZIONE È DISPONIBILE SOLTANTO IN INGLESE.
- SE UN ADDETTO ALLA MANUTENZIONE ESTERNO ALLA GEMS RICHIEDE IL MANUALE IN UNA LINGUA DIVERSA, IL CLIENTE È TENUTO A PROVVEDERE DIRETTAMENTE ALLA TRADUZIONE.
- SI PROCEDA ALLA MANUTENZIONE DELL'APPARECCHIATURA SOLO DOPO AVER CONSULTATO IL PRESENTE MANUALE ED AVERNE COMPRESO IL CONTENUTO.
- IL NON RISPETTO DELLA PRESENTE AVVERTENZA POTREBBE FAR COMPIERE OPERAZIONI DA CUI DERIVINO LESIONI ALL'ADDETTO ALLA MANUTENZIONE, ALL'UTILIZZATORE ED AL PAZIENTE PER FOLGORAZIONE ELETTRICA, PER URTI MECCANICI OD ALTRI RISCHI.

警告 (JA)

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경고

(KO)

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BRĪDINĀJUMS

(LV)

- ŠĪ APKALPES ROKASGRĀMATA IR PIEEJAMA TIKAI ANGLŪ VALODĀ.
- JA KLIENTA APKALPES SNIEDZĒJAM NEPIECIEŠAMA INFORMĀCIJA CITĀ VALODĀ, NEVIS ANGLŪ, KLIENTA PIENĀKUMS IR NODROŠINĀT TULKOŠANU.
- NEVEICIET APRĪKOJUMA APKALPI BEZ APKALPES ROKASGRĀMATAS IZLASĪŠANAS UN SAPRAŠANAS.
- ŠĪ BRĪDINĀJUMA NEIEVĒROŠANA VAR RADĪT ELEKTRISKĀS STRĀVAS TRIECIENA, MEHĀNISKU VAI CITU RISKU IZRAISĪTU TRAUMU APKALPES SNIEDZĒJAM, OPERATORAM VAI PACIENTAM.

ĮSPĖJIMAS

(LT)

- ŠIS EKSPLOATAVIMO VADOVAS YRA PRIEINAMAS TIK ANGLŲ KALBA.
- JEI KLIENTO PASLAUGŲ TIEKĖJAS REIKALAUJA VADOVO KITA KALBA – NE ANGLŲ, NUMATYTI VERTIMO PASLAUGAS YRA KLIENTO ATSAKOMYBĖ.
- NEMĖGINKITE ATLIKTI ĮRANGOS TECHNINĖS PRIEŽIŪROS, NEBENT ATSIŽVELGĖTE Į ŠĮ EKSPLOATAVIMO VADOVĄ IR JĮ SUPRATOTE.
- JEI NEATKREIPSITE DĖMESIO Į ŠĮ PERSPĖJIMĄ, GALIMI SUŽALOJIMAI DĖL ELEKTROS ŠOKO.
- MECHANINIŲ AR KITŲ PAVOJŲ PASLAUGŲ TIEKĖJUI, OPERATORIUI AR PACIENTUI.

ADVARSEL

(NO)

- DENNE SERVICEHÅNDBOKEN FINNES BARE PÅ ENGELSK.
- HVIS KUNDENS SERVICELEVERANDØR TRENGER ET ANNET SPRÅK, ER DET KUNDENS ANSVAR Å SØRGE FOR OVERSETTELSE.
- IKKE FORSØK Å REPARERE UTSTYRET UTEN AT DENNE SERVICEHÅNDBOKEN ER LEST OG FORSTÅTT.
- MANGLENDE HENSYN TIL DENNE ADVARSELEN KAN FØRE TIL AT SERVICELEVERANDØREN, OPERATØREN ELLER PASIENTEN SKADES PÅ GRUNN AV ELEKTRISK STØT, MEKANISKE ELLER ANDRE FARER.

OSTRZEŻENIE

(PL)

- NINIEJSZY PODRĘCZNIK SERWISOWY DOSTĘPNY JEST JEDYNIEM W JĘZYKU ANGIELSKIM.
- JEŚLI DOSTAWCA USŁUG KLIENTA WYMAGA JĘZYKA INNEGO NIŻ ANGIELSKI, ZAPEWNIENIE USŁUGI TŁUMACZENIA JEST OBOWIĄZKIEM KLIENTA.
- NIE PRÓBOWAĆ SERWISOWAĆ WYPOSAŻENIA BEZ ZAPOZNANIA SIĘ I ZROZUMIENIA NINIEJSZEGO PODRĘCZNIKA SERWISOWEGO.
- NIEZASTOSOWANIE SIĘ DO TEGO OSTRZEŻENIA MOŻE SPOWODOWAĆ URAZY DOSTAWCY USŁUG, OPERATORA LUB PACJENTA W WYNIKU PORAŻENIA ELEKTRYCZNEGO, ZAGROŻENIA MECHANICZNEGO BĄDŹ INNEGO.

ATENÇÃO

(PT)

- ESTE MANUAL DE ASSISTÊNCIA TÉCNICA SÓ SE ENCONTRA DISPONÍVEL EM INGLÊS.
- SE QUALQUER OUTRO SERVIÇO DE ASSISTÊNCIA TÉCNICA, QUE NÃO A GEMS, SOLICITAR ESTES MANUAIS NOUTRO IDIOMA, É DA RESPONSABILIDADE DO CLIENTE FORNECER OS SERVIÇOS DE TRADUÇÃO.
- NÃO TENHA TENTADO REPARAR O EQUIPAMENTO SEM TER CONSULTADO E COMPREENDIDO ESTE MANUAL DE ASSISTÊNCIA TÉCNICA
- O NÃO CUMPRIMENTO DESTA AVISO PODE POR EM PERIGO A SEGURANÇA DO TÉCNICO, OPERADOR OU PACIENTE DEVIDO A CHOQUES ELÉTRICOS, MECÂNICOS OU OUTROS.

ATENȚIE

(RO)

- ACEST MANUAL DE SERVICE ESTE DISPONIBIL NUMAI ÎN LIMBA ENGLEZĂ.
- DACĂ UN FURNIZOR DE SERVICII PENTRU CLIEȚI NECESITĂ O ALTĂ LIMBĂ DECÂT CEA ENGLEZĂ, ESTE DE DATORIA CLIEȚULUI SĂ FURNIZEZE O TRADUCERE.
- NU ÎNCERCAȚI SĂ REPARAȚI ECHIPAMENTUL DECÂT ULTERIOR CONSULTĂRII ȘI ÎNȚELEGERII ACESTUI MANUAL DE SERVICE.
- IGNORAREA ACESTUI AVERTISMENT AR PUTEA DUCE LA RĂNIREA DEPARATORULUI, OPERATORULUI SAU PACIENTULUI ÎN URMA PERICOLELOR DE ELECTROCUTARE, MECANICE SAU DE ALTĂ NATURĂ.

ОСТОРОЖНО!

(RU)

- ДАННОЕ РУКОВОДСТВО ПО ОБСЛУЖИВАНИЮ ПРЕДЛАГАЕТСЯ ТОЛЬКО НА АНГЛИЙСКОМ ЯЗЫКЕ.
- ЕСЛИ СЕРВИСНОМУ ПЕРСОНАЛУ КЛИЕНТА НЕОБХОДИМО РУКОВОДСТВО НЕ НА АНГЛИЙСКОМ, А НА КАКОМ-ТО ДРУГОМ ЯЗЫКЕ, КЛИЕНТУ СЛЕДУЕТ САМОСТОЯТЕЛЬНО ОБЕСПЕЧИТЬ ПЕРЕВОД.
- ПЕРЕД ОБСЛУЖИВАНИЕМ ОБОРУДОВАНИЯ ОБЯЗАТЕЛЬНО ОБРАТИТЕСЬ К ДАННОМУ РУКОВОДСТВУ И ПОЙМИТЕ ИЗЛОЖЕННЫЕ В НЕМ СВЕДЕНИЯ.
- НЕСОБЛЮДЕНИЕ ТРЕБОВАНИЙ ДАННОГО ПРЕДУПРЕЖДЕНИЯ МОЖЕТ ПРИВЕСТИ К ТОМУ, ЧТО СПЕЦИАЛИСТ ПО ОБСЛУЖИВАНИЮ, ОПЕРАТОР ИЛИ ПАЦИЕНТ ПОЛУЧАТ УДАР ЭЛЕКТРИЧЕСКИМ ТОКОМ, МЕХАНИЧЕСКУЮ ТРАВМУ ИЛИ ДРУГОЕ ПОВРЕЖДЕНИЕ.

UPOZORNENIE

(SK)

- TENTO NÁVOD NA OBSLUHU JE K DISPOZÍCII LEN V ANGLIČTINE.
- AK ZÁKAZNÍKOV POSKYTOVATEĽ SLUŽIEB VYŽADUJE INÝ JAZYK AKO ANGLIČTINU, POSKYTNUTIE PREKLADATEĽSKÝCH SLUŽIEB JE ZODPOVEDNOSŤOU ZÁKAZNÍKA.
- NEPOKÚŠAJTE SA O OBSLUHU ZARIADENIA SKÔR, AKO SI NEPREČÍTATE NÁVOD NA OBLUHU A NEPOROZUMIETE MU.
- ZANEDBANIE TOHTO UPOZORNENIA MÔŽE VYÚSTIŤ DO ZRANENIA POSKYTOVATEĽA SLUŽIEB, OBSLUHUJÚCEJ OSOBY ALEBO PACIENTA ELEKTRICKÝM PRÚDOM, DO MECHANICKÉHO ALEBO INÉHO NEBEZPEČENSTVA.

ATENCION

(ES)

- ESTE MANUAL DE SERVICIO SOLO EXISTE EN INGLES.
- SI ALGUN PROVEEDOR DE SERVICIOS AJENO A GEMS SOLICITA UN IDIOMA QUE NO SEA EL INGLES, ES RESPONSABILIDAD DEL CLIENTE OFRECER UN SERVICIO DE TRADUCCION.
- NO SE DEBERA DAR SERVICIO TECNICO AL EQUIPO, SIN HABER CONSULTADO Y COMPRENDIDO ESTE MANUAL DE SERVICIO.
- LA NO OBSERVANCIA DEL PRESENTE AVISO PUEDE DAR LUGAR A QUE EL PROVEEDOR DE SERVICIOS, EL OPERADOR O EL PACIENTE SUFRAN LESIONES PROVOCADAS POR CAUSAS ELÉCTRICAS, MECÁNICAS O DE OTRA NATURALEZA.

VARNING

(SV)

- DEN HÄR SERVICEHANDBOKEN FINNS BARA TILLGÄNGLIG PÅ ENGELSKA.
- OM EN KUNDS SERVICETEKNIKER HAR BEHOV AV ETT ANNAT SPRÅK ÄN ENGELSKA ANSVARAR KUNDEN FÖR ATT TILLHANDAHÅLLA ÖVERSÄTTNINGSTJÄNSTER.
- FÖRSÖK INTE UTFÖRA SERVICE PÅ UTRUSTNINGEN OM DU INTE HAR LÄST OCH FÖRSTÅR DEN HÄR SERVICEHANDBOKEN.
- OM DU INTE TAR HÄNSYN TILL DEN HÄR VARNINGEN KAN DET RESULTERA I SKADOR PÅ SERVICETEKNIKERN, OPERATÖREN ELLER PATIENTEN TILL FÖLJD AV ELEKTRISKA STÖTAR, MEKANISKA FAROR ELLER ANDRA FAROR.

DİKKAT

(TR)

- BU SERVİS KILAVUZUNUN SADECE İNGİLİZCESİ MEVCUTTUR.
- EĞER MÜŞTERİ TEKNİSYENİ BU KILAVUZU İNGİLİZCE DIŞINDA BİR BAŞKA LİSANDAN TALEP EDERSE, BUNU TERCÜME ETTİRMEK MÜŞTERİYE DÜŞER.
- SERVİS KILAVUZUNU OKUYUP ANLAMADAN EKİPMANLARA MÜDAHALE ETMEYİNİZ.
- BU UYARIYA UYULMAMASI, ELEKTRİK, MEKANİK VEYA DİĞER TEHLİKELERDEN DOLAYI TEKNİSYEN, OPERATÖR VEYA HASTANIN YARALANMASINA YOL AÇABİLİR.

DAMAGE IN TRANSPORTATION

All packages should be closely examined at time of delivery. If damage is apparent write "Damage In Shipment" on ALL copies of the freight or express bill BEFORE delivery is accepted or "signed for" by a GE representative or hospital receiving agent. Whether noted or concealed, damage MUST be reported to the carrier immediately upon discovery, or in any event, within 14 days after receipt, and the contents and containers held for inspection by the carrier. A transportation company will not pay a claim for damage if an inspection is not requested within this 14 day period.

Call GEHC Global Parts 1-800-548-3366 and select option 8, immediately after damage is found. At this time be ready to supply name of carrier, delivery date, consignee name, freight or express bill number, item damaged and extent of damage.

Complete instructions regarding claim procedure are found in Section S of the Policy And Procedures Bulletins.

14 July 1993

CERTIFIED ELECTRICAL CONTRACTOR STATEMENT

All electrical Installations that are preliminary to positioning of the equipment at the site prepared for the equipment shall be performed by licensed electrical contractors. In addition, electrical feeds into the Power Distribution Unit shall be performed by licensed electrical contractors. Other connections between pieces of electrical equipment, calibrations and testing shall be performed by qualified GE Healthcare personnel. The products involved (and the accompanying electrical installations) are highly sophisticated, and special engineering competence is required. In performing all electrical work on these products, GE will use its own specially trained field engineers. All of GE's electrical work on these products will comply with the requirements of the applicable electrical codes.

The purchaser of GE equipment shall only utilize qualified personnel (i.e., GE's field engineers, personnel of third-party service companies with equivalent training, or licensed electricians) to perform electrical servicing on the equipment.

IMPORTANT...X-RAY PROTECTION

X-ray equipment, if not properly used, may cause injury. Accordingly, the instructions herein contained should be thoroughly read and understood by everyone who will use the equipment before you attempt to place this equipment in operation. The General Electric Company, Healthcare Group, will be glad to assist and cooperate in placing this equipment in use.

Although this apparatus incorporates a high degree of protection against x-radiation other than the useful beam, no practical design of equipment can provide complete protection. Nor can any practical design compel the operator to take adequate precautions to prevent the possibility of any persons carelessly exposing themselves or others to radiation.

It is important that anyone having anything to do with x-radiation be properly trained and fully acquainted with the recommendations of the National Council on Radiation Protection and Measurements as published in NCRP Reports available from NCRP Publications, 7910 Woodmont Avenue, Room 1016, Bethesda, Maryland 20814, and of the International Commission on Radiation Protection, and of any other local authorities, and take adequate steps to protect against injury.

The equipment is sold with the understanding that the General Electric Company, Healthcare Group, its agents, and representatives have no responsibility for injury or damage which may result from improper use of the equipment.

Various protective materials and devices are available. It is urged that such materials or devices be used.

OMISSIONS & ERRORS

Customers, please contact your GE Sales or Service representatives.

GE personnel, please use the GEHC iTrak Process to report all omissions, errors, and defects in this publication.

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Revision History

Revision	Date	Reason for change
1	Apr 29, 2014	First release
2	Jul 15, 2014	<ol style="list-style-type: none"> 1. Add US Standard dimension 2. Update the MIS chart at page 121 and 122 3. Add hazard information at page 21 4. Add heat output of UPS in Table 4-3 at page 86 5. Add Table cable entrance at page 99 6. Add Cable connector size in Chapter 7
3	May 20, 2015	<ol style="list-style-type: none"> 1. Add note the PC cannot be put on the ground directly at Section 1.1 Chapter 2 2. Update Pasting footstool height at Section 2.7 Chapter 2 3. Update the data of some components at Table 1-1, 2-3, 2-4 4. Update MIS Cable Chart in Section 3.0 Chapter 7
4	Jul 10, 2015	<ol style="list-style-type: none"> 1. Add notice Recommended concrete strength is B40 or equivalent at Section 1.2 Chapter 2
5	Mar 20, 2016	<ol style="list-style-type: none"> 1. Update Illustration 2-21, 2-22 and 2-34 to 2-38 at Section 2.0 and Section 3.0 Chapter 2 2. Update Cable Information at Section 2.0 Chapter 7 3. Update MIS Cable Chart at Section 3.0 Chapter 7
6	Aug 08, 2016	For APP V14 Update Chapter 2 Equipment, Section 1.2.3 Ceiling Requirements
7	Jan 05, 2017	Add Standard Table and Manual Wall Stand drawings and related data
8	Apr 04, 2017	<ol style="list-style-type: none"> 1. Chapter 1 - Section 3.0 Add picture of Standard Table off transport pallet, with transit dollies attached. 2. Update picture of Desktop Battery Charger. 3. Chapter 2, Section 1.1.1, Optional Components (Purchased or Flextrial) 4. Chapter 2, Section 2.9, update table 2.5 5. Chapter 7, Section 2.5, add 5368672-4: PC Ethernet cable to Wall Stand 6. Chapter 7, Section 3.0, Update System Master Interconnect Schematic (MIS Chart) 7. Chapter 2, Section 3.0, Update table 2-7
9	Jan. 8, 2018	Revised Illustrations from 2-41 to 2-45 and Added Illustrations 2-46 under section 3.5 of Chapter 2.
10	Dec 27, 2022	<p>Chapter 2, section2.9, Update PN2400546 from "M8 X 190mm" to "M8 X 135mm"</p> <p>Chapter 2, section2.10, Update table 2-6 and illustration 2-34</p>

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Preface Publication Convention

Standardized conventions for representing information is a uniform way of communicating information to a reader in a consistent manner. Conventions are used so that the reader can easily recognize the actions or decisions that must be made. There are a number of character and paragraph styles used in this publication to accomplish this task. Please become familiar with them before proceeding forward.

It is important that you read and understand hazard statements, and not just ignore them.

Section 1.0 Safety & Hazard Information

Proper product safety labeling allows a person to safely use or service a product. The format and style for safety communications reflected in this publication represents the harmonization of IEC/ISO 3864 and ANSI Z535 standards.

Within this publication, different paragraph and character styles are used to indicate potential hazards. Paragraph prefixes, such as hazard, caution, danger and warning, are used to identify important safety information. Text (Hazard) styles are applied to the paragraph contents that are applicable to each specific safety statement.

Repair parts weighting more than 35 lbs or require more than 35lbs of mechanical effort shall have written procedures defining lifting assistance tools/features or document that it is a two or more person operation.

1.1 Hazard Messages

Any action that will, or could potentially cause personal injury will be preceded by the safety alert symbol and an appropriate signal word. The safety alert symbol is the triangle with an exclamation mark within it. It is always used next to the signal word to indicate the severity of the hazard. Together, they are used to indicate a hazard exists.

Signal words describe the severity of possible human injuries that may be encountered. The alert symbol and signal word are placed immediately before any paragraph they affect. Safety information includes:

- 1.) Signal Word - The seriousness level of the hazard.
- 2.) Symbol or Pictorial - The consequence of interaction with the hazard.
- 3.) Word Message:
 - a.) The nature of the hazard (i.e. the type of hazard).
 - b.) How to avoid the hazard.

The safety alert symbol is not used when an action can only cause equipment damage.

1.2 Text Format of Signal Words

DANGER - INDICATES AN IMMINENTLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, WILL RESULT IN DEATH OR SERIOUS INJURY. THIS SIGNAL WORD IS TO BE LIMITED TO THE MOST EXTREME SITUATIONS.

WARNING - INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, COULD RESULT IN DEATH OR SERIOUS INJURY.




































Caution - Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTICE - Indicates information or a company policy that relates directly or indirectly to the safety of personnel or protection of property. This signal word is associated directly with a hazard or hazardous situation and is used in place of 'DANGER,' 'WARNING,' or 'CAUTION.' It can include:

- Destruction of a disk drive
- Potential for internal mechanical damage, such as to a X-ray tube

1.3 Symbols and Pictorials Used

The following Symbols and Pictorials may be used in this publication. These graphical icons (symbols) may be used to make you aware of specific types of hazards that could possibly cause harm.

NOTICE	CAUTION	WARNING	DANGER	
 keep_up	 magnetic	 biohazard	 compressgas	 ppe-hearing
 fragile	 impact	 corrosive	 heavyobject	 ppe-2people
 static_elec	 heat	 general	 laser	 ppe-respiratory
 keep_dry	 pinch	 radiation	 poisongas	 ppe-loto
 general	 explosive	 electrical	 flammable	 ppe-eye
 torque	 crush/mechanical	 tipping	 Read Manual	 ppe-gloves
 ce	 instuction	 poisonmatl	 entanglement	 instuction

1.4 Equipment Classifications

The following equipment classifications are applicable to the product:

- **Equipment classification with respect to protection from electric shock: Class I**
- **Degree of protection from electric shock: Type B**
- **Degree of protection against ingress of liquids: Not classified**
- **Equipment not suitable for use in the presence of a flammable anesthetic mixture with air or with nitrous oxide**
- **Mode of operation: Continuous operation with intermittent loading**

Section 2.0 Publication Conventions

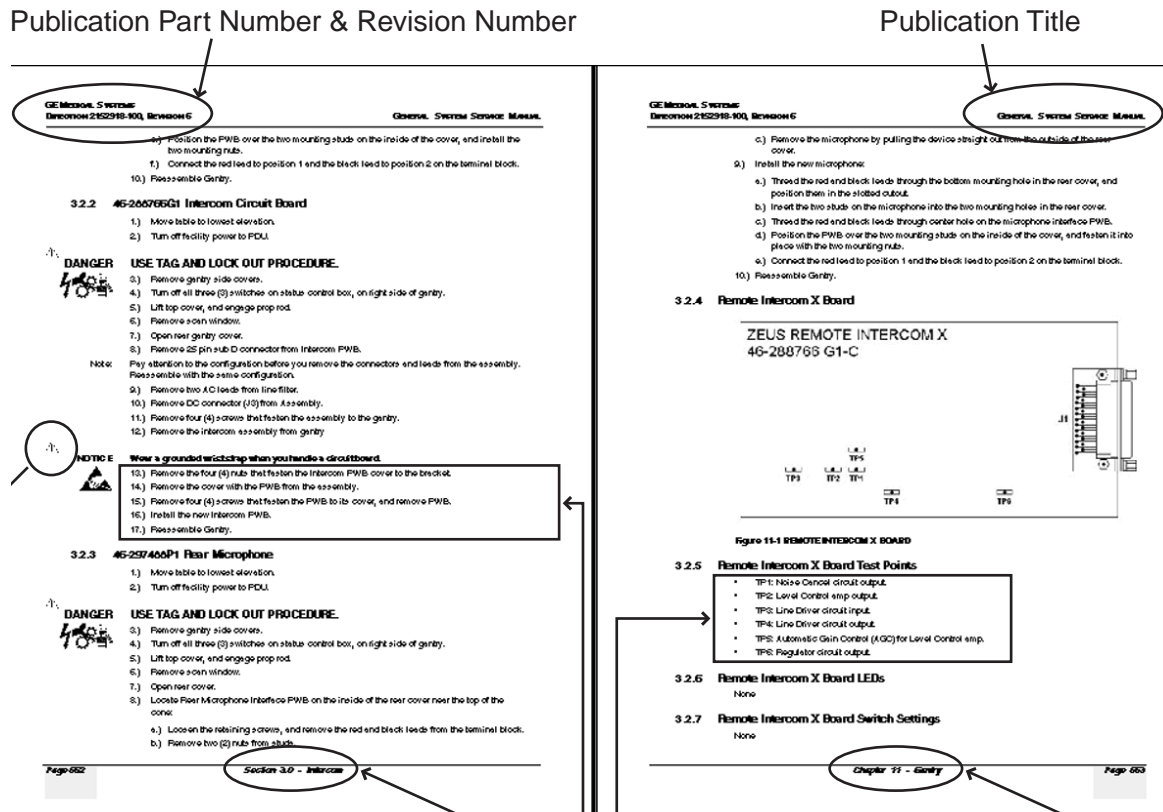
2.1 General Paragraph and Character Styles

Prefixes are used to highlight important non-safety related information. Paragraph prefixes (such as Purpose, Example, Comment or Note) are used to identify important but non-safety related information. Text styles are also applied to text within each paragraph modified by the specific prefix.

EXAMPLES OF PREFIXES USED FOR GENERAL INFORMATION:

- Purpose:** Introduces and provides meaning as to the information contained within the chapter, section or subsection (such as used at the beginning this chapter, for example).
- Note:** Conveys information that should be considered important to the reader.
- Example:** Used to make the reader aware that the paragraph(s) that follow are examples of information possibly stated previously.
- Comment:** *Represents “additional” information that may or may not be relevant to your situation.*

2.2 Page Layout



The current section and its title are always shown in the footer of the left (even) page.

An exclamation point in a triangle is used to indicate important information to the user.

Paragraphs preceded by **Alphanumeric** characters (e.g. numbers) contain information that must be followed in a **specific order**.

The current chapter and its title are always shown in the footer of the right (odd) page.

Paragraphs preceded by a **symbol** (e.g. bullets) contain information that has **no specific order**.

Figure 0-1 Optima XR646 Component Identification

Headers and footers in this publication are designed to allow you to quickly identify your location. The document part number and revision number appear in every header on every page. Odd numbered page footers indicate the current chapter, its title and current page number. Even numbered page footers show the current section and its title, as well as the current page number.

2.3 Computer Screen Output/Input Text Character Styles

Within this publication, mono-spaced character styles (fonts) are used to indicate computer text that is either screen input or output. Mono-spaced fonts, such as courier, are used to indicate text direction. When you type at your keyboard, you are generating computer input. Occasionally you will see the math operator "greater-than" and "less-than" symbols used to indicate the start and finish of variable output. When reading text generated by the computer, you are reading it as computer generated output. In addition to direction, characters are italicized (e.g. *italics*) to indicate information specific to your system or site.

Example: Fixed Output	This paragraph's font represents computer generated screen "fixed" output. Its output is fixed from the sense that it does not vary from application to application. It is the most commonly used style used to indicate filenames, paths and text that do not change from system to system. The character style used is a fixed width such as courier.
Example: Variable Output	<i>This paragraph's font represents computer screen output that is "variable". It is used to represent output that varies from application to application or system to system. Variable output is sometimes found placed between greater-than and less-than operators for clarification. For example: <variable_output> or <3.45.120.3>. In both cases, the < and > operators are not part of the actual input.</i>
Example: Fixed Input	This paragraph's font represents fixed input. It is computer input that is typed-in via the keyboard. Typed input that does not vary from application to application or system to system. Fixed text the user is required to supply as input. For example: cd /usr/3p
Example: Variable Input	<i>This paragraph's font represents computer input that can vary from application to application or system to system. With variable text, the user is required to supply system dependent input or information. Variable input sometimes is placed between greater-than and less-than operators. For example: <variable_input>. In these cases, the (<>) operators would be dropped prior to input. For example: ypcat hosts grep <3.45.120.3> would be typed into the computer as ypcat hosts grep 3.45.120.3 without the greater-than and less-than operators.</i>

2.4 Buttons, Switches and Keyboard Inputs (Hard & Soft Keys)

Different character styles are used to indicate actions requiring the reader to press either a hard or soft button, switch or key. Physical hardware, such as buttons and switches, are called hard keys because they are hard wired or mechanical in nature. A keyboard or on/off switch would be a hard key. Software or computer generated buttons are called soft keys because they are software generated. Software driven menu buttons are an example of such keys. Soft and hard keys are represented differently in this publication.

Example: Hard Keys	A power switch <u>ON/OFF</u> or a keyboard key like <u>ENTER</u> is indicated by applying a character style that uses both over and under-lined bold text. This is a hard key.
Example: Soft Keys	Whereas the computer <u>MENU</u> button that you would click with your mouse or touch with your hand uses over and under-lined regular text. This is a soft key.

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Chapter 1 General Requirements

Section 1.0 Objectives and Overview Summary

1.1 Objective and Scope of This Manual

This document is intended as a guide and informational resource for planning and properly preparing a location for the installation of this system.

1.2 Summary

The purchaser is responsible for completion of “Pre-Installation.” This includes the procurement and installation of all required materials and services to get the room ready for installation of the product. This responsibility includes providing:

- A clean and safe work environment for installation of the product (finished floor, ceiling, walls, and proper room lighting).
- A location suitable for the installation of the product.
- Suitable support structures in the floor, walls, or ceiling necessary for the mounting of the product and/or its components.
- Installation of conduit, ducts and/or raceways necessary to route cables safely.
- Electrical power and grounds of specified quality and reliability.
- Electrical power of the required voltage, including an Emergency-Off safety switch in the room. Power and ground cables to the PDU.
- Properly installed and sized junction boxes, including covers and fittings at locations required and called out in architectural drawings.
- Use GE-recommended wires and cables as defined in this document.

Section 2.0 Common Product Requirements

2.1 Dimensions and Layout

Carefully check room layouts for adequate radiographic coverage, necessary clearances and provision for related equipment. Good judgment is required to avoid compromising important features. There must be ample maneuvering space allowed for the hospital cart and for personnel around the table.

Section 3.0 Delivery Requirements

3.1 Door Size Requirements

Minimum door sizes also apply to hallway and elevator.

Door Height: The minimum door height accommodated is 190 cm (75in) when the Wall Stand is tilted on the dolly.

Door Width:

- The minimum door width to accommodate the Table is: 95cm (37.5in).
- The minimum door width is calculated based on a straight-in approach requiring a 2.5 m (8.20 ft) wide corridor. Minimum widths will change based on narrower corridors.
- The minimum door width to accommodate the Image Paste Barrier is 1.1m (44in) wide x 2.1m (82in) high.

3.2 Minimum Elevator Depth Requirements

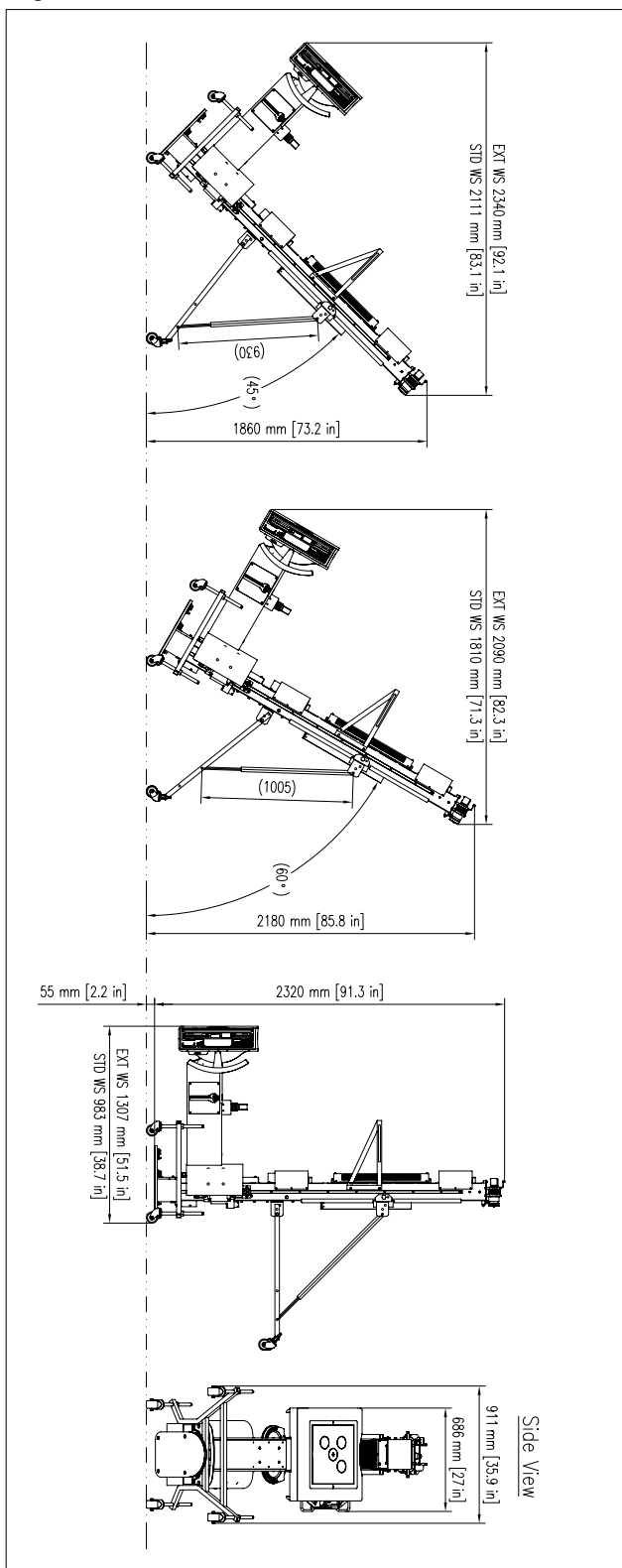
The minimum elevator depth to accommodate is 2.45 m (96.46 in) when the Wall Stand is tilted on the dolly.

3.3 Shipping Fixtures and Carts

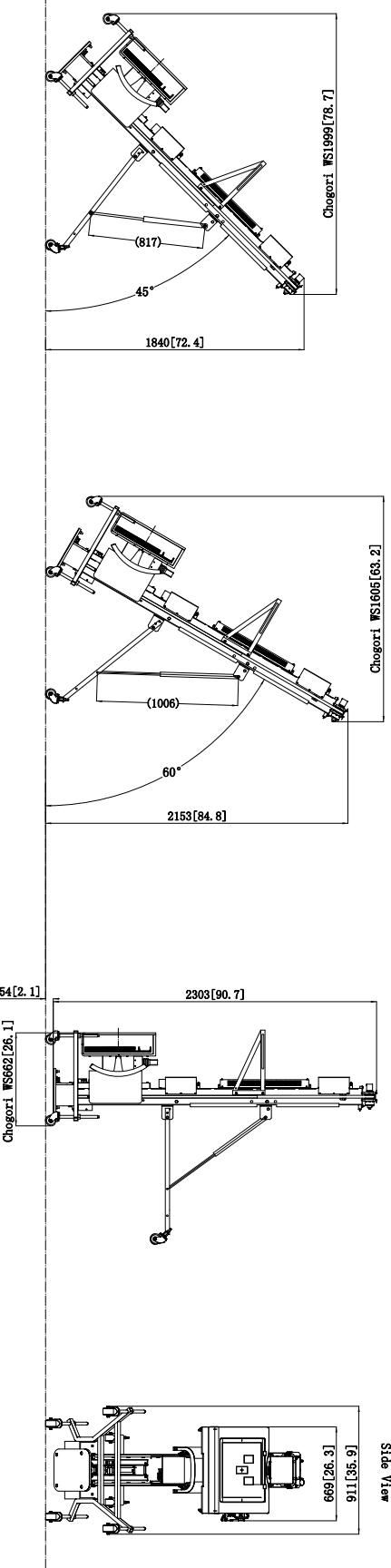
The wall stand is delivered on a fixture.

Illustration 1-1: Wall Stand: Site In-Transit Dimensions

- For Standard global URP Wall Stand and Extended Global URP Wall Stand



- For Manual Wall Stand.



NOTICE

The cabinet can pass up a maximum slope of 10 degrees and pass over a maximum barrier on the floor of 25mm (0.98 in).

Illustration 1-2 : Cabinet with its wheels in transit

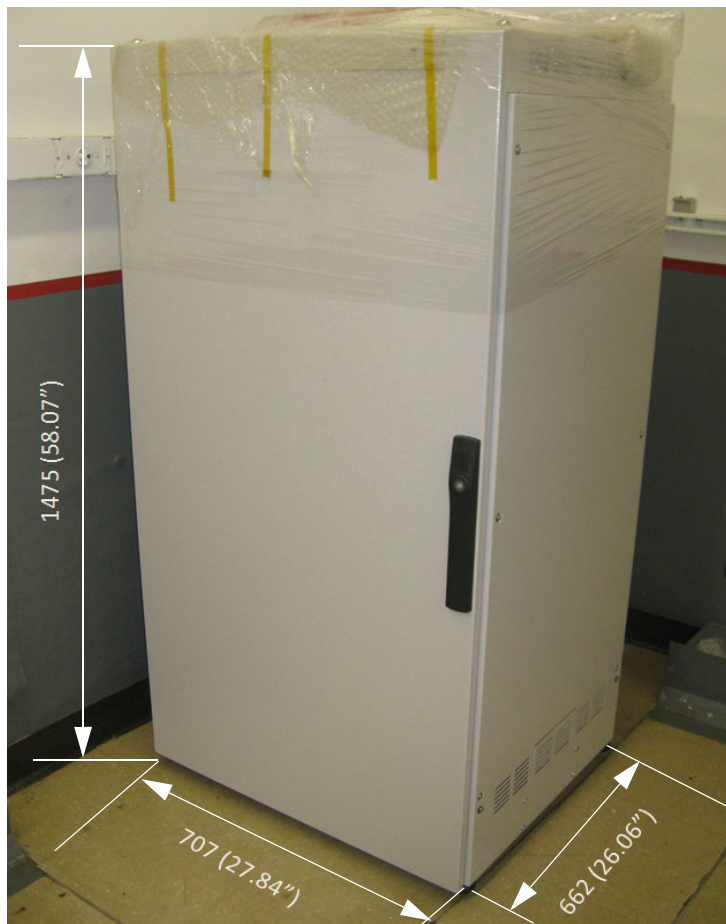
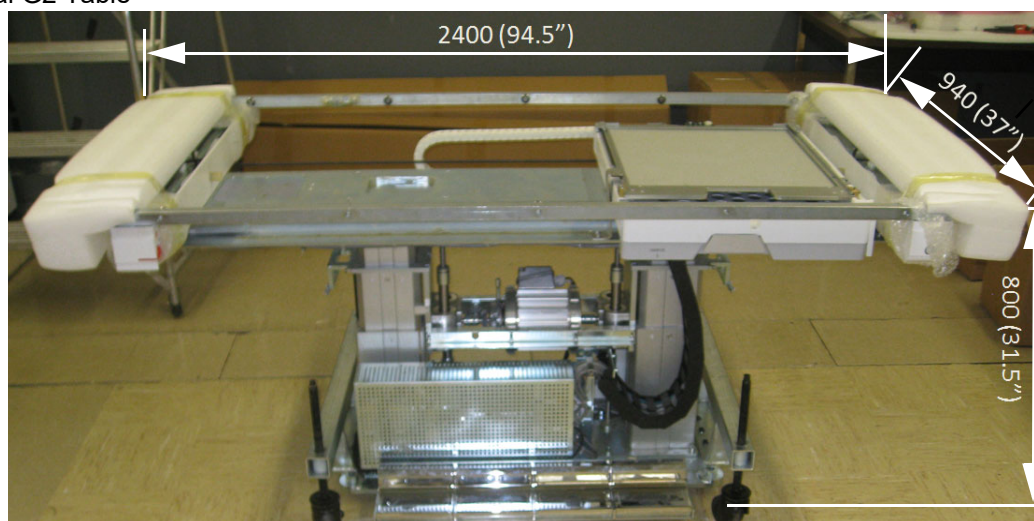
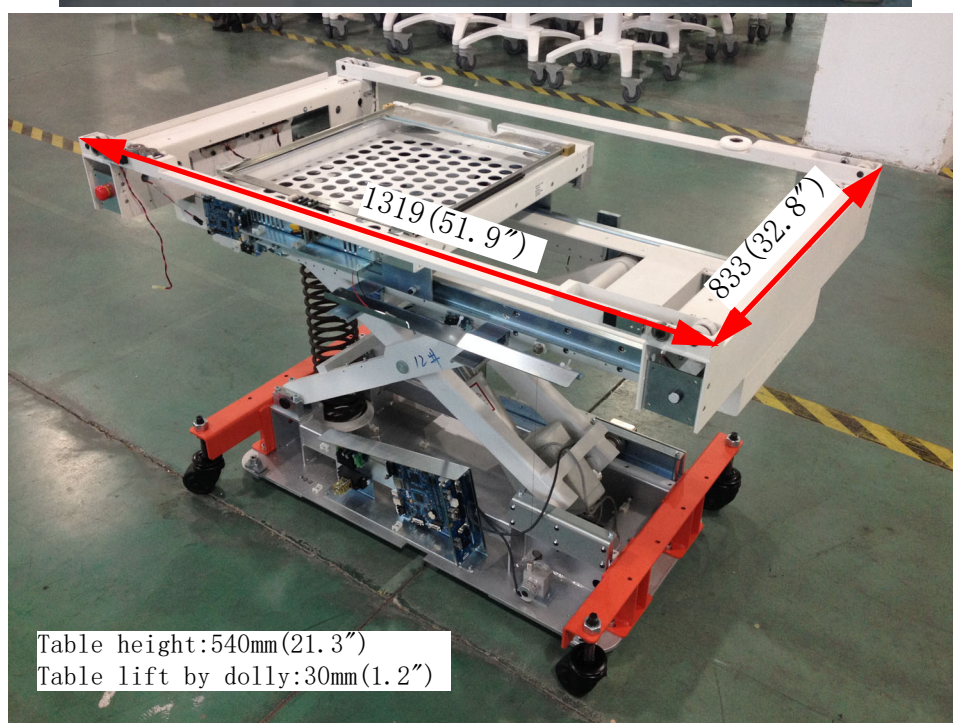


Illustration 1-3: Table Package

- For Global G2 Table



- For Standard Table



Some system components are packed into two “Lean Carts”.

Illustration 1-3 Exam Room Lean Cart



Illustration 1-4 Control and Options Lean Cart



3.4 Shipping and Transit Dimensions and Weights

Table 1-1 SHIPPING DATA

Component	Shipping Data				SHIPPING METHOD
	Shipping Dimensions (Approx)			SHIPPING WEIGHT (approx)	
	Length	Width	Height		
Stationary Rail (4m)(set of 2 rails)	4400mm (14.4ft)	62.5mm (2.46in)	84.3mm (3.32in)	48kg (106lbs)	box
Stationary Rail (12m) 3X4m rail	4400mm (14.4ft)	62.5mm (2.46in)	253mm (9.96in)	144kg (318lbs)	box
2 Meter Bridge	3170mm (10.4ft)	800mm (31.5in)	475mm (18.7in)	204kg (449.8lbs)	box/crate/skid
3 Meter Bridge and cable	3350mm (11ft)	650mm (25.6in)	550mm (21.7in)	245kg (540lbs)	box/crate/skid
Cable Drape Rail and Support	813mm (32in)	584mm (23in)	229mm (9.02in)	82.5kg (182lbs)	box/skid
Cabinet Assembly in Package	910mm (36in)	780mm (31in)	1650mm (65in)	337kg (743lbs)	box
Cabinet in Transit	707mm(27.84in)	662mm (26.06in)	1475mm (58.07in)	305kg (672.4lbs)	skid
Wall Stand (Standard global URP WS and Extended Global URP WS)	2440mm(96.06in)	940mm (37in)	1270mm (50in)	464kg (1023lbs)	crate / skid
Wall Stand (Manual Wall Stand)	2440mm(96.06in)	940mm (37in)	1270mm (50in)	389kg (858lbs)	crate / skid
Wall Stand in Transit (Standard global URP WS and Extended Global URP WS)	2111mm (83.1in)	911mm (35.9in)	1860mm (73.2in)	NA	
Wall Stand in Transit (Manual Wall Stand)	1999mm (78.7in)	911mm(35.9in)	1840mm (72.4in)	240kg (529lbs)	METHOD-dolly
Extended Wall Stand	2560mm(8.4ft)	1110mm (43.7in)	1600mm (63in)	459kg (1012lbs)	crate / skid
Extended Wall Stand in Transit	2340mm (92.1in)	911mm (35.9in)	1860mm (73.2in)	280kg (617.3lbs)	dolly
Detector Assembly	1042mm(41.03in)	1194mm (47in)	737mm (29.02in)	88kg (194lbs)	crate / skid
Table Assembly in Package (Global G2 Table)	2600mm (8.53ft)	1240mm(48.82in)	870mm (34.25in)	496kg (1093.5lbs)	box / skid
Table Assembly in Package (Standard Table)	1535mm (5.04ft)	950mm (37.40in)	940mm (37.00in)	410kg (903.9lbs)	box / skid
Tabletop assembly in package (Standard Table)	2460mm (8.07ft)	1200mm(47.24in)	320mm (12.60in)	137kg (302.0lbs)	box
Table in Transit (Global G2 Table)	2400mm (94.5 in)	940mm(37in)	800mm (31.5in)	440kg (970lbs)	dolly
Table in Transit (Standard Table)	1430mm (4.69ft)	866mm (34.09in)	705mm (27.76in)	267.5kg (589.7lbs)	dolly/skid
Tabletop in transit (Standard Table)	2330mm (7.64ft)	838mm (32.99in)	43mm (1.69in)	41kg (90.4lbs)	
Stretcher: Non-elevating (Option)	2312mm(91.03in)	1042mm(41.02in)	940mm (37in)	164kg (360lbs)	box / skid
Stretcher: Carbon Fiber Non-elevating (Option)	2300mm(90.55in)	770mm (30.32in)	230mm (9.06in)	70kg (154lbs)	crate
Stretcher: Elevating (Option)	2250mm(88.59in)	920mm (36.22in)	810mm (31.89in)	350kg (772lbs)	crate/skid
Exam Room Lean Cart	2134mm(84.02in)	762mm (30in)	1524mm (60in)	varies	wheeled cart
Control & Options Lean Cart	1308mm (51.5 in)	762mm (30in)	1397mm (55in)	varies	wheeled cart

Table 1-1 SHIPPING DATA

Component	Shipping Data			SHIPPING WEIGHT (approx)	SHIPPING METHOD
	Length	Width	Height		
Detector Bin	540mm (21.26in)	360mm (14.18in)	120mm (4.73in)	15kg (33lbs)	box
Overhead Suspension Tube (OTS) in Package	1190mm (39.4 in)	1040mm(41.4in)	1640mm (67in)	380kg (600lbs)	crate
Overhead Suspension Tube (OTS) in transit	900mm (35.4in)	940mm (37in)	1020mm (40in)	217kg (555lbs)	crate
Patient Barrier	1000mm (39.4in)	600mm (23.6in)	1800mm (70.9in)	80kg (176.4lbs)	box
410mm Footstool for Patient Barrier	1040mm (41in)	850mm (33.5in)	550mm (21.7in)	17kg (37.5lbs)	box

3.5 Preparing the Delivery Route

1. Sketch out the Route

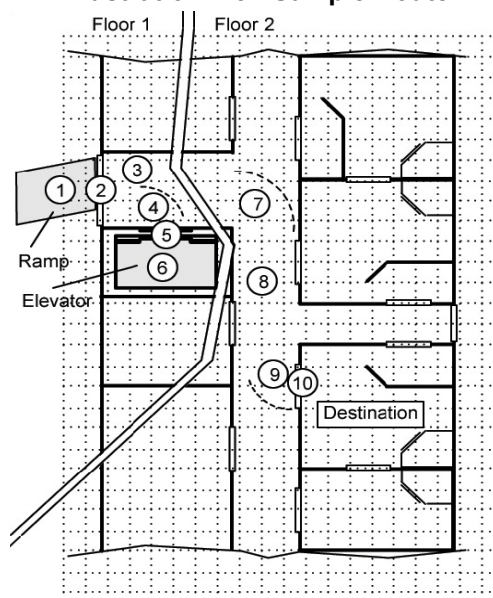
Begin preparing Route Survey by sketching the area of the hospital or clinic which will receive the equipment. Include all areas on the delivery route from outside of building to destination.

See sample sketch below in.

NOTICE

The reference numbers in circles refer to the Route Survey data shown in Illustration 1-6. The Route Survey is a form on which site data is listed.

Illustration 1-5 : Sample Route



2. Survey the Route

Record all loading capacities, corridor widths, door openings, turning radii, flooring materials, elevator sizes, obstructions and so on for reference.

3. Check the Route

Verify equipment can actually be transported via the route determined.

Section 4.0 Product Storage and Handling Requirements

4.1 Relative Humidity and Temperature

This section provides information for the environmental requirements for the storage of the system.

Table 1-2 Environmental Requirements (Relative Humidity & Temperature)

Product or Component	Relative Humidity (Non-Condensing)				Temperature			
	IN-USE		STORAGE		IN-USE		STORAGE	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
URP Detector	30%	60%	10%	85%	15°C (59° F)	35°C (95° F)	-5° C (23° F)	50° C (122° F)
Wall Stand/Extended Wall Stand	30%	60%	10%	85%	15°C (59° F)	35°C (95° F)	-20°C (-4° F)	60° C (140° F)
Table (TBL)	30%	60%	10%	85%	15°C (59° F)	35°C (95° F)	-20°C (-4° F)	60° C (140° F)
OTS	30%	60%	10%	85%	15°C (59° F)	35°C (95° F)	-20°C (-4° F)	60° C (140° F)
System Cabinet(SKL1)	30%	60%	10%	85%	15°C (59° F)	35°C (95° F)	-20°C (-4° F)	60° C (140° F)
Maxiray 100-09 X-ray Tube(RAD)	30%	60%	10%	85%	15°C (59° F)	35°C (95° F)	-20°C (-4° F)	60° C (140° F)
Operator Console	30%	60%	10%	85%	15°C (59° F)	35°C (95° F)	-20°C (-4° F)	60° C (140° F)
PC Tower	30%	60%	10%	85%	15°C (59° F)	35°C (95° F)	-20°C (-4° F)	60° C (140° F)
LCD Monitor	30%	60%	10%	85%	15°C (59° F)	35°C (95° F)	-20°C (-4° F)	60° C (140° F)
Radiographic Stretcher Table (optional)	30%	60%	10%	85%	15°C (59° F)	35°C (95° F)	-20°C (-4° F)	60° C (140° F)

Limits for rates of change:

In-Use	Storage
<10 degree C / hour	<20 degree C / hour
<30% / hour	<30% / hour

NOTICE

STORAGE values only refer to equipment that is still in shipping containers. If the equipment is partially or completely installed, refer to **IN-USE** values.

4.2 Atmospheric Pressure

Table 1-3 Environmental Requirements - (Altitude & Atmospheric Pressure)

PRODUCT OR COMPONENT	ALTITUDE		ATMOSPHERIC PRESSURE	
	Stationary Operating Environment and Non-operating Environment			
	MIN	MAX	MIN	MAX
Total System Limits	-30 m (-98.43 ft)	3000 m(9,842.52 ft)	70 kPa	106 kPa

Limits for rates of change:

In-Use:

<1.8 kPa / hour

Storage:

<76 kPa / hour

NOTICE

STORAGE values only refer to equipment that is still in shipping containers. If the equipment is partially or completely installed, refer to **IN-USE** values.

Chapter 2 Equipment

Section 1.0 System Components

1.1 System Components

This system may consist of the following main components:

- Elevating Table with a URP Digital Detector and Power Supply
- JEDI X-ray Control Sub-system and Power Unit (1 System Cabinet)
- Overhead Tube Support (OTS)
- URP Digital Detector Wallstand with Tilting Receptor, Ion Chamber and Removable Grid
- Workstation with Monitor, Keyboard, Mouse and RCIM2

Note: The PC cannot be put on the ground directly.

Illustration 2-1 : System Component Identification



The system is divided into basic components:

1. Operator Console
2. Global G2 Table
3. System Cabinet
4. Bridge
5. Overhead Tube Suspension (OTS)
6. X-ray Tube
7. Collimator
8. Standard global URP Wall Stand and Extended Global URP Wall Stand
9. URP Detector
10. Dongle Assembly (Without Dongle in Non wireless system)
11. Grid Holder

12. TIB

13. Detector Battery

14. Detector Battery Charger

15. Manual Wall Stand

16. Standard Table

1.1.1 Optional Components (Purchased or Flextrial)

The system can include the following free-standing components, which can be purchased as options:

- Bar Code Reader/ Bar Code Reader w.Stool
- Flexi-DT Mobil Table
- Base for Flexi-DT Mobile Table (Right) / Base for Flexi-DT Mobile Table (Left)
 - NOTE: Does not inc. Table
- Uninterrupted Power Supply (UPS)
- e-IFU Tech Pub Collector
- Repeat / Reject Analysis Flextrial
- Dual Energy Chest/ Abdomen Flextrial
- Auto Protocol Assist Flextrial
- Auto FOV Link with Protocol Flextrial
- Flashpad Detector Warranty Identifier
- External Battery Charger (Additional)
- Detector Battery (Additional)
- 8:1 / 6:1 Clip on Grid
- Short Tether for Wireless Detector (4m) --PN: S39262JH
- Long Tether for Wireless Detector (10m) --PN: S39626JJ
- Medium Tether for Wireless Detector (7m additional) --PN: S39262JG
- Keyboard (available for French/ German/ Spanish/ Italian/ Portuguese/ Swedish/ Danish/ Dutch / Norwegian/ Russia)
- Table Top Digital Detector Holder
- Mobile Detector Holder
- Mobile Stretcher (Fixed Height)
- Mobile Floating, Top Table (Fixed Height) (Americas Only)
- Portable Carbon Fiber Table with Fixed Top (Americas Only)
- Grid Holder Assembly (Additional)
- FlashPad Detector Charging BIN Option
- 410mm Footstool for Patient Barrier
- Standard Table
- Manual Wall Stand

1.2 Room Requirements

1.2.1 Acoustic Output

Table 2-1 System Acoustic Output

COMPONENT	SOUND OUTPUT (dBA)	
	IN-USE (measured 1m from any point in system)	STAND-BY (measured 1m from any point in system)
System	<55	<55

1.2.2 Floor Requirements

The preferred method of installing the wall stand is to use the provided typical floor anchors (Non-Seismic ONLY).

1.2.2.1 Floor Requirements When Using Provided Typical Floor Anchors

CAUTION



Concrete area for wall stand installation should be 1 m² (39.37 in²).

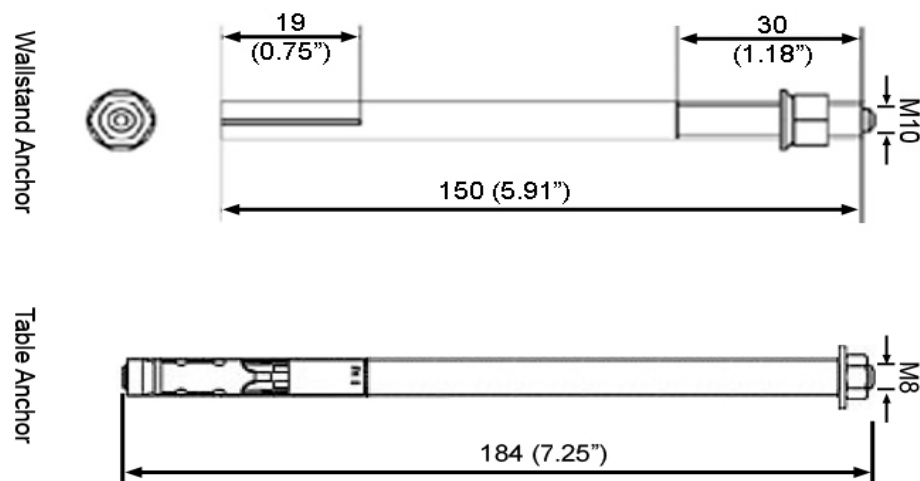
Anchors must be a minimum of 90 mm (3.54 in) from any concrete edge including ducts and cracks. In addition, the general condition of the concrete in the immediate mounting area should be inspected to ensure that anchors will be set in good quality concrete.

NOTICE

Recommended concrete strength is B40 or equivalent.

The floor bearing the system is recommended to be concrete and the thickness to be determined by a Structural Engineer to properly support the equipment loads. The supplied anchors require a minimum embedment of 90 mm (3.54 in) into the concrete. If the floor thickness is less than 95 mm (3.74 in), it is recommended that the unit be secured using a through-bolt method with a

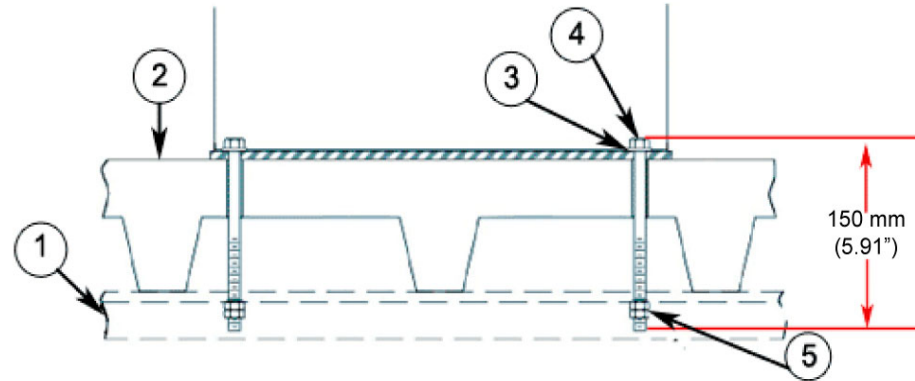
Illustration 2-2 : Typical Floor Anchors



1.2.2.2 Pan-Type Floor Construction Requirement

For pan-type floor construction, steel channels must be designed by a local structural engineer to span floor joists. See Illustration 2-3.

Illustration 2-3 : Thru-Bolt Floor Mounting (Pan-Type Floor Construction)



Item	Description
1	For Pan-Type Floor Construction Joists Must Be Spanned With Steel Channels (Customer Furnished)
2	Floor
3	Flat Washer
4	Thru Bolt for 16 mm (Hole Of Appropriate Length.)
5	2-Hex Nuts

1.2.3 Ceiling Requirements

NOTICE

- To allow installation of the stationary rail cross-members, clearance is required between the ends of the stationary rails and the walls.
- It is recommended that sprinkler heads not be placed between the stationary rails. All sprinkler heads should be mounted so they do not extend downward more than

1/4" (6.35 mm) from the ceiling while in the 'resting' position.

- In addition, there should not be anything mounted in the ceiling (i.e. lights, A/C returns, etc) between the stationary rails. This is because the OTS longitudinal drive belt assembly is located on the movable bridge, approximately centered between the two stationary rails, and may come into contact with those ceiling-mounted items during normal use.

Complete details of room dimensions must be known when planning an installation. Work with the architect or building engineer and obtain approval from the customer before proceeding with the layout plan.

Methods of support that will permit attachment to structural steel or through bolts in concrete construction should be favored. Do not use anchors in direct tension.

Each rail has mounting holes on 660.4 mm (26 in) centers with the first hole located 55 mm (2 in) from the rail mount end. The last hole is located either 55 mm (2 in) from the other end with a variable space of less than 660.4 mm between it and the second last hole.

Table 2-2 Recommended, Minimum and Maximum Room Heights (Floor to Top of Longitudinal Rail)

Bridge Type	Specifications	Ceiling
2M or 3M Bridge	Recommended	2986 mm (117.6")
2M or 3M Bridge	Minimum	2686 mm (105.75")
2M or 3M Bridge with Extended Wallstand at Foot Position	Minimum	2750 mm (108.27")

Illustration 2-4 : Extended Wallstand at Foot position Ceiling Minimum 2750mm (108.27")

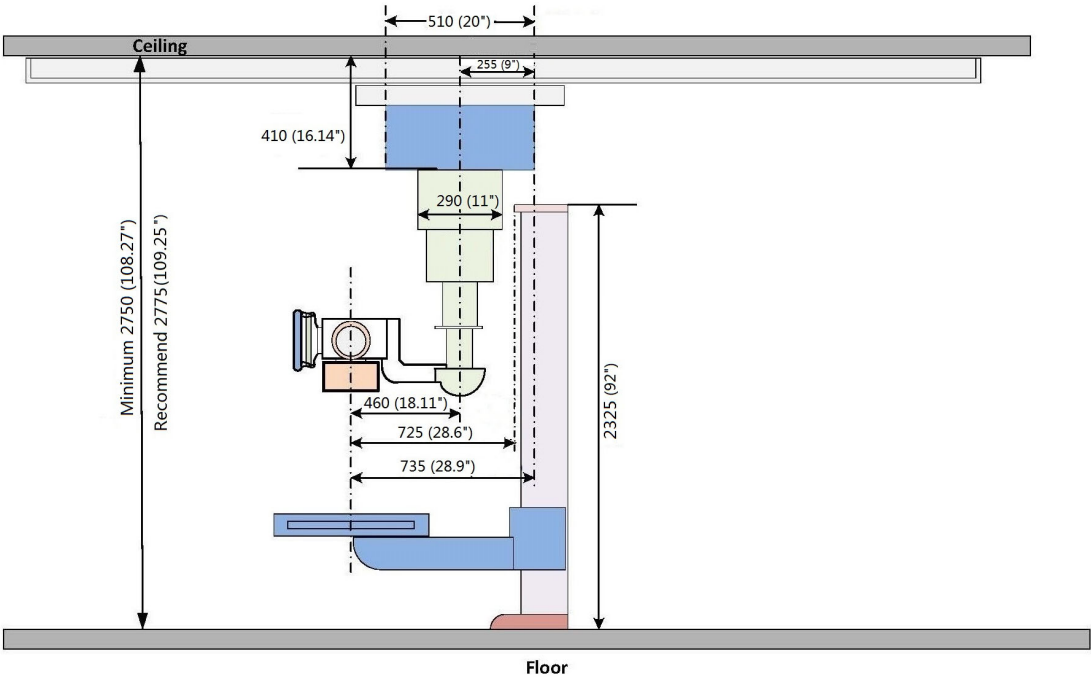
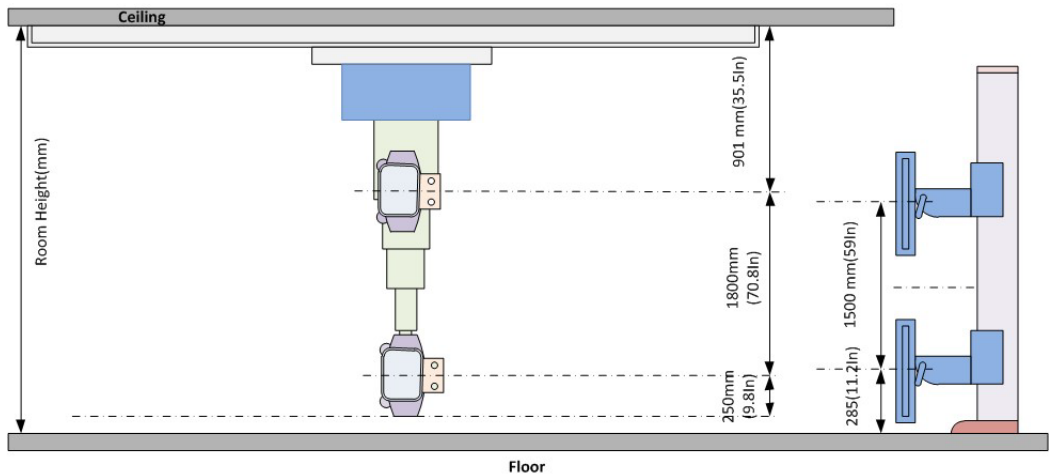


Illustration 2-5 : Recommended Ceiling Height 2986mm (117.6")

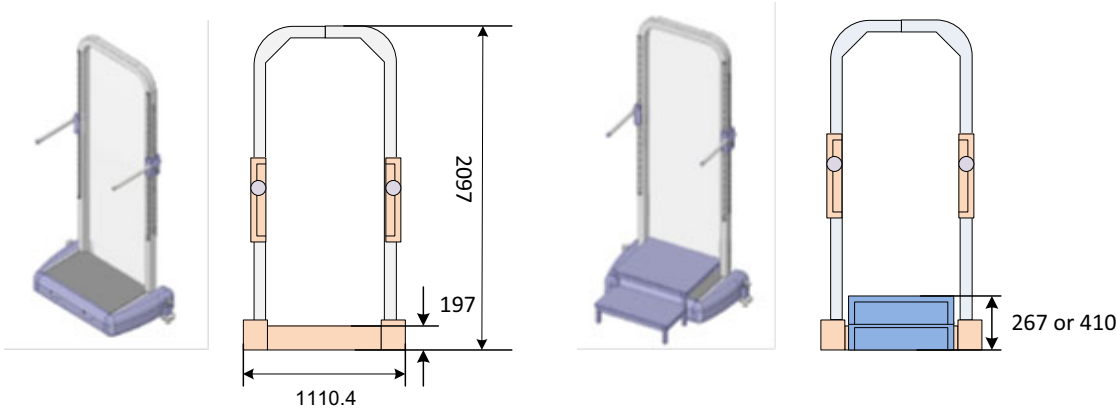


- When Lowest point of OTS could touch floor, keep OTS SID=1800mm, Height=901+1800+250=2951mm
 - When OTS center is parallel to WS center at lowest position of OTS, OTS SID=1800mm, Height=901+1800+285=2986mm
 - When OTS center is parallel to WS center at highest position of WS, keep WS travel range=1500mm, Height=901+1500+285=2686mm
- Note:
- After calculated image pasting scenario based on APPV14 software package and new patient barrier (19.7cm height platform), the relationship between ceiling height and footstool was shown in below table.

Table 2-3 Ceiling Height With Footstool

Ceiling Height (mm)	Comments
2686 ~ 2966 (105.7" ~ 116.8")	Patient barrier platform (197mm) only, No need for footstool
2966 ~ 3036 (116.8" ~ 119.5")	Need 267mm footstool
3036 ~ 3179 (119.5" ~ 125.2")	Need 410mm footstool

Illustration 2-6: Patient Barrier Platform With Footstool



Referring to the layout drawings, the ± 3 mm (1/8 inch) requirement for parallelism of the stationary

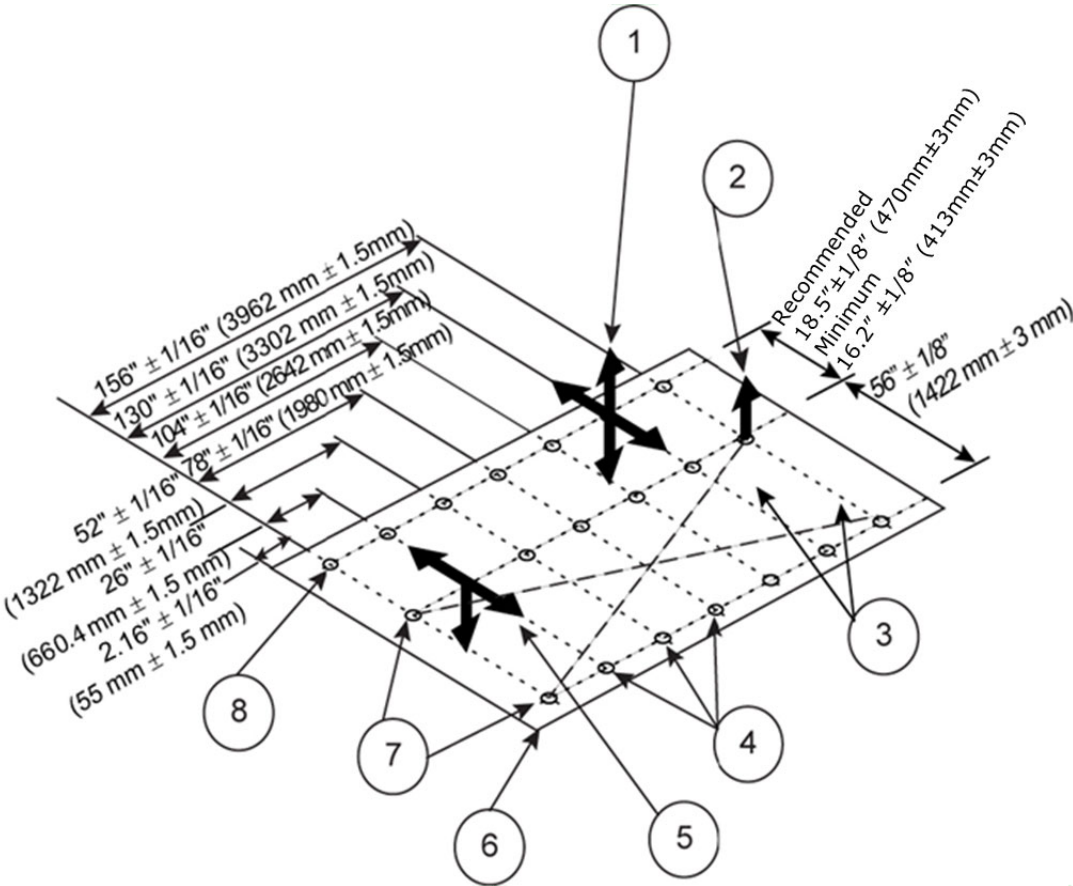
rail is critical. Therefore, great care must be exercised in locating the mounting points. Illustration 2-7 through Illustration 2-9 outline requirements that the stationary rail mounting interface must meet.

For site planning, please refer to the Illustrations in the OTS section of Chapter 2 - Equipment / System Component Dimensions and Weights.

For low ceiling height, the stationary rails may be mounted directly to the ceiling slab or to flush mounted Unistrut or similar structure. For higher rooms in which a false ceiling is to be used, the stationary rails may be attached to rigid vertical members hung from the ceiling slab. A supplementary channel may be secured to the bottom of the vertical members to facilitate provision

for mounting holes. A Unistrut system or equivalent is a convenient type of support to employ. See Illustration 2-10.

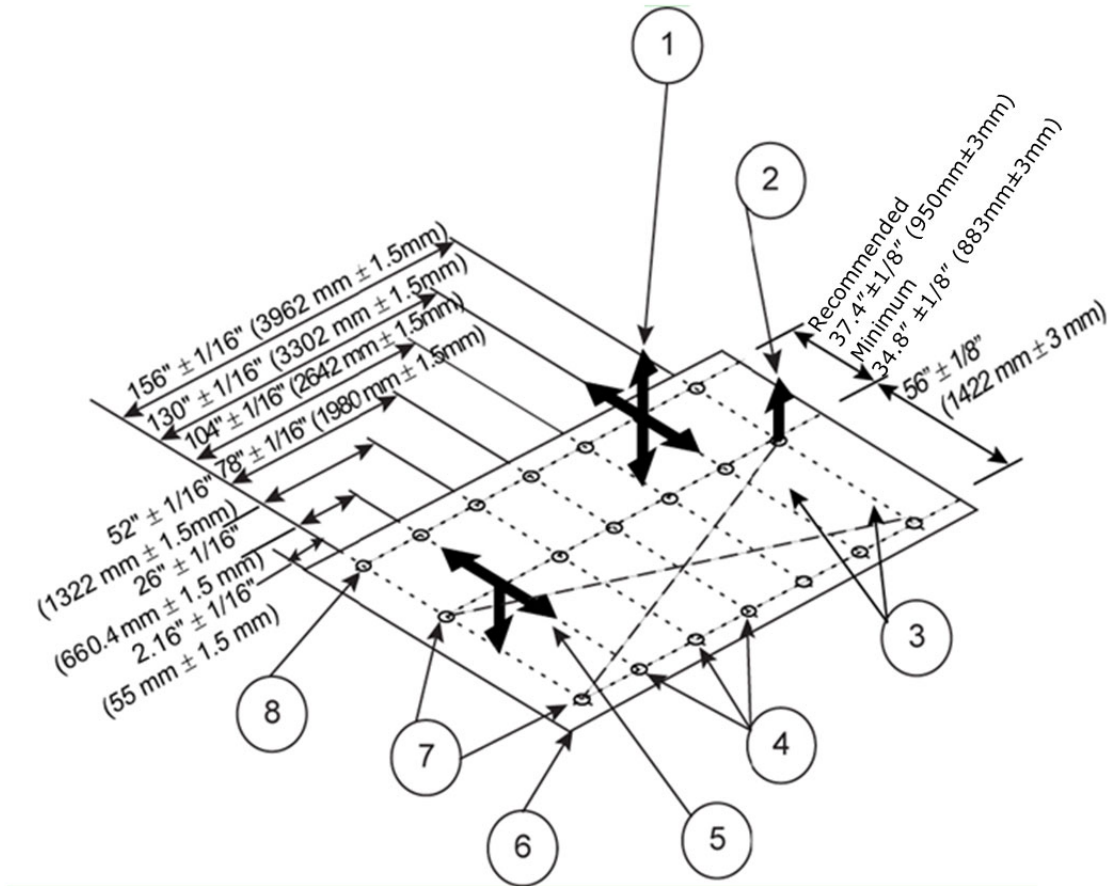
Illustration 2-6 : Specifications for a Typical 4064mm (13'- 4") Stationary Rail Mounting Interface (Both Rails Ceiling Mounted) with 2M Bridge



Item	Description
1	When a 50 lb. (22.7 kg) force is applied vertically upward, vertically downward, or horizontally at any support rail mounting point, the attachment interface must not deflect more than 1/16" (1.5 mm).
2	When a 100 lb. (45.4 kg) force is applied vertically upward at any stationary rail mounting point, the attachment interface MUST not deflect more than 1/16" (1.5 mm).

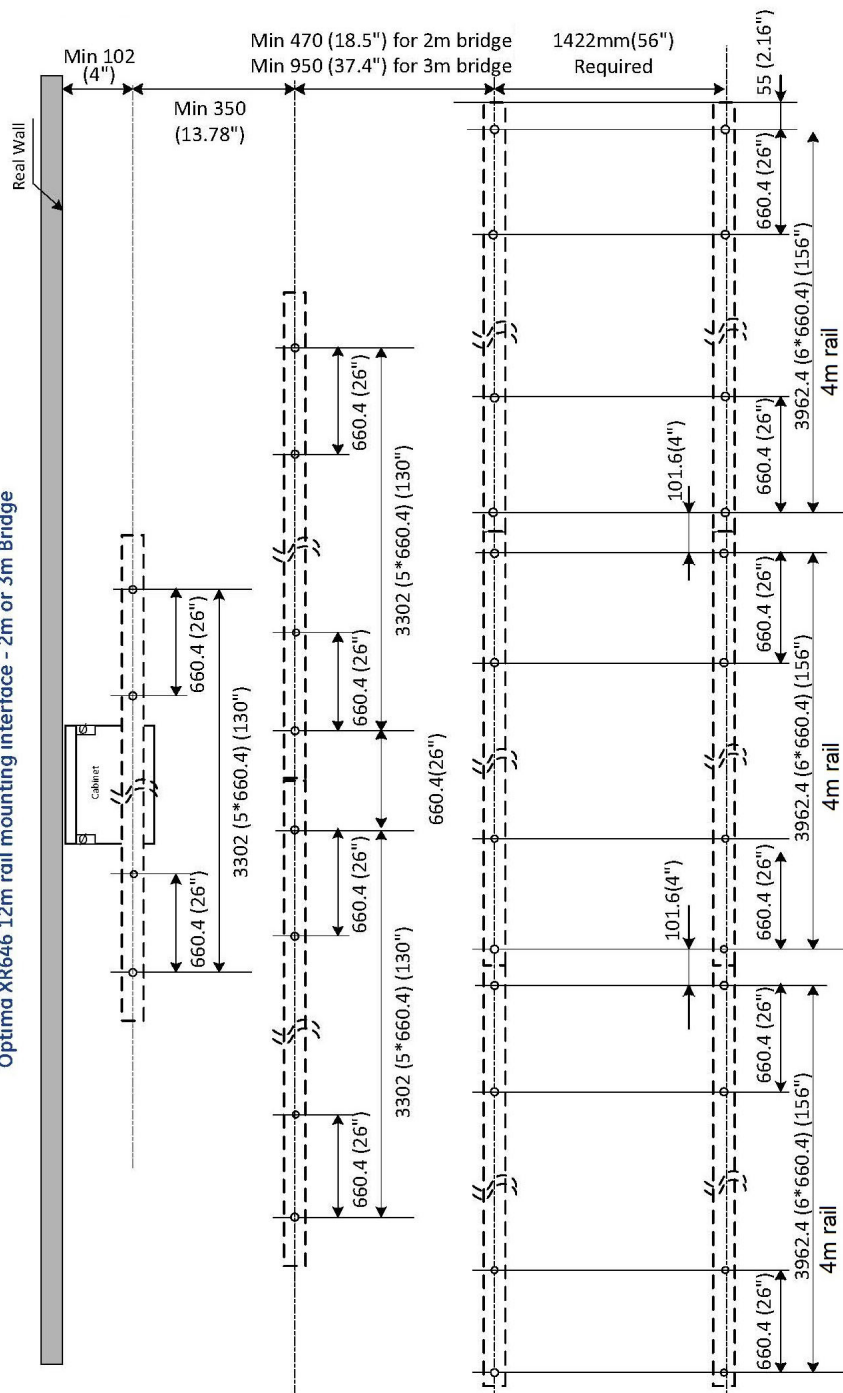
Item	Description
3	Diagonals must be equal within $\pm 1/4"$ (6.5 mm).
4	All mounting points must be located on a common centerline within $\pm 1/16"$ (1.5 mm).
5	When a 300 lb. (136 kg) load is applied vertically downward or horizontally at any stationary rail mounting point, the attachment interface MUST not deflect more than $1/16"$ (1.5 mm).
6	All mounting points must be in the same horizontal plane within $\pm 3/32"$ (2.4 mm)
7	Stationary rail mounting points must be parallel within $\pm 1/8"$ (3 mm)
8	Cable takeup support rail mounting points

Illustration 2-7 : Specifications for a Typical 4064mm (13'- 4") Stationary Rail Mounting Interface (Both Rails Ceiling Mounted) with 3M Bridge



Item	Description
1	When a 50 lb. (22.7 kg) force is applied vertically upward, vertically downward, or horizontally at any support rail mounting point, the attachment interface must not deflect more than 1/16" (1.5 mm).
2	When a 100 lb. (45.4 kg) force is applied vertically upward at any stationary rail mounting point, the attachment interface MUST not deflect more than 1/16" (1.5 mm).
3	Diagonals must be equal within ±1/4" (6.5 mm).
4	All mounting points must be located on a common centerline within ±1/16" (1.5 mm).
5	When a 300 lb. (136 kg) load is applied vertically downward or horizontally at any stationary rail mounting point, the attachment interface MUST not deflect more than 1/16" (1.5 mm).
6	All mounting points must be in the same horizontal plane within ±3/32" (2.4 mm)
7	Stationary rail mounting points must be parallel within ±1/8" (3 mm)
8	Cable takeup support rail mounting points

Optima XR646 12m rail mounting interface - 2m or 3m Bridge



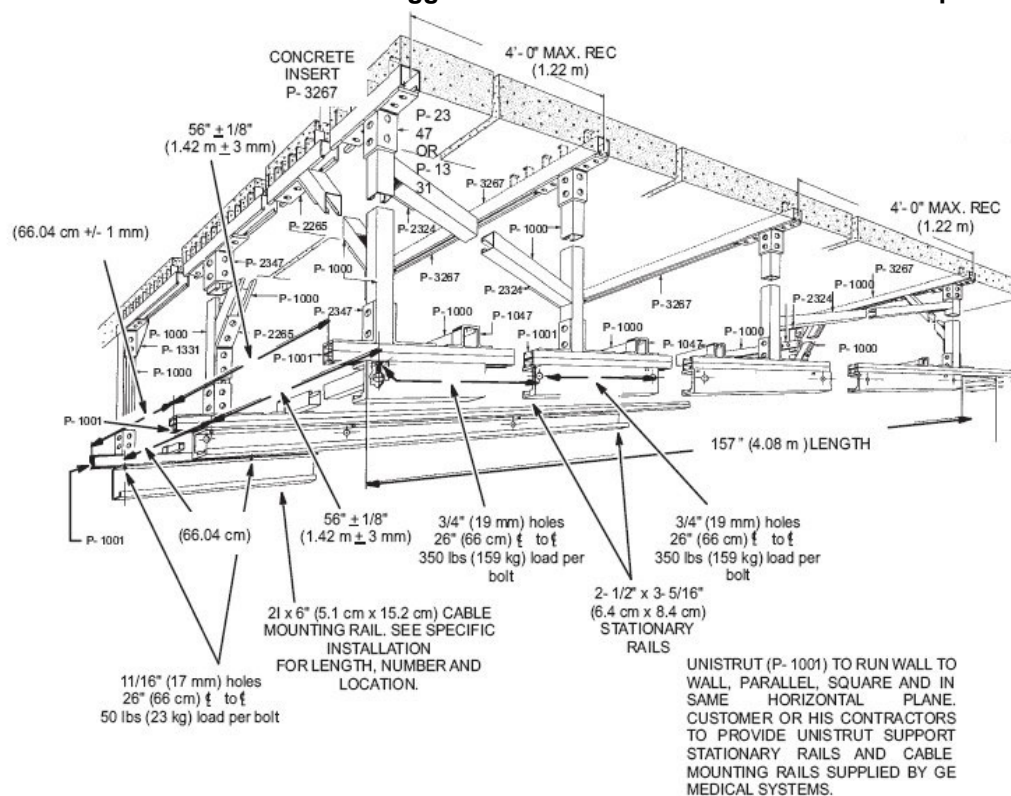
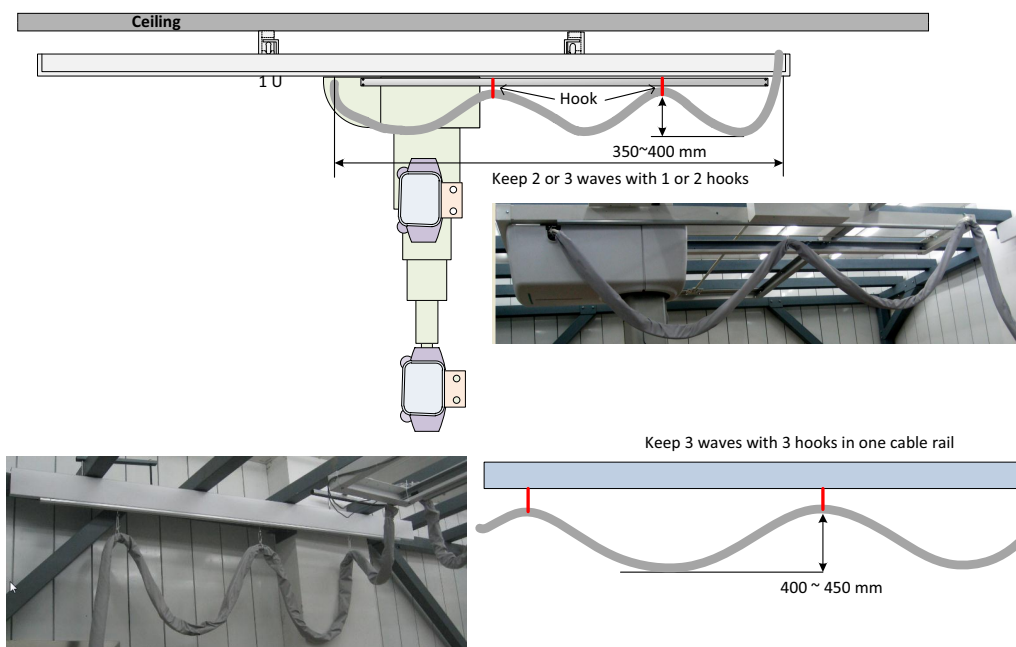
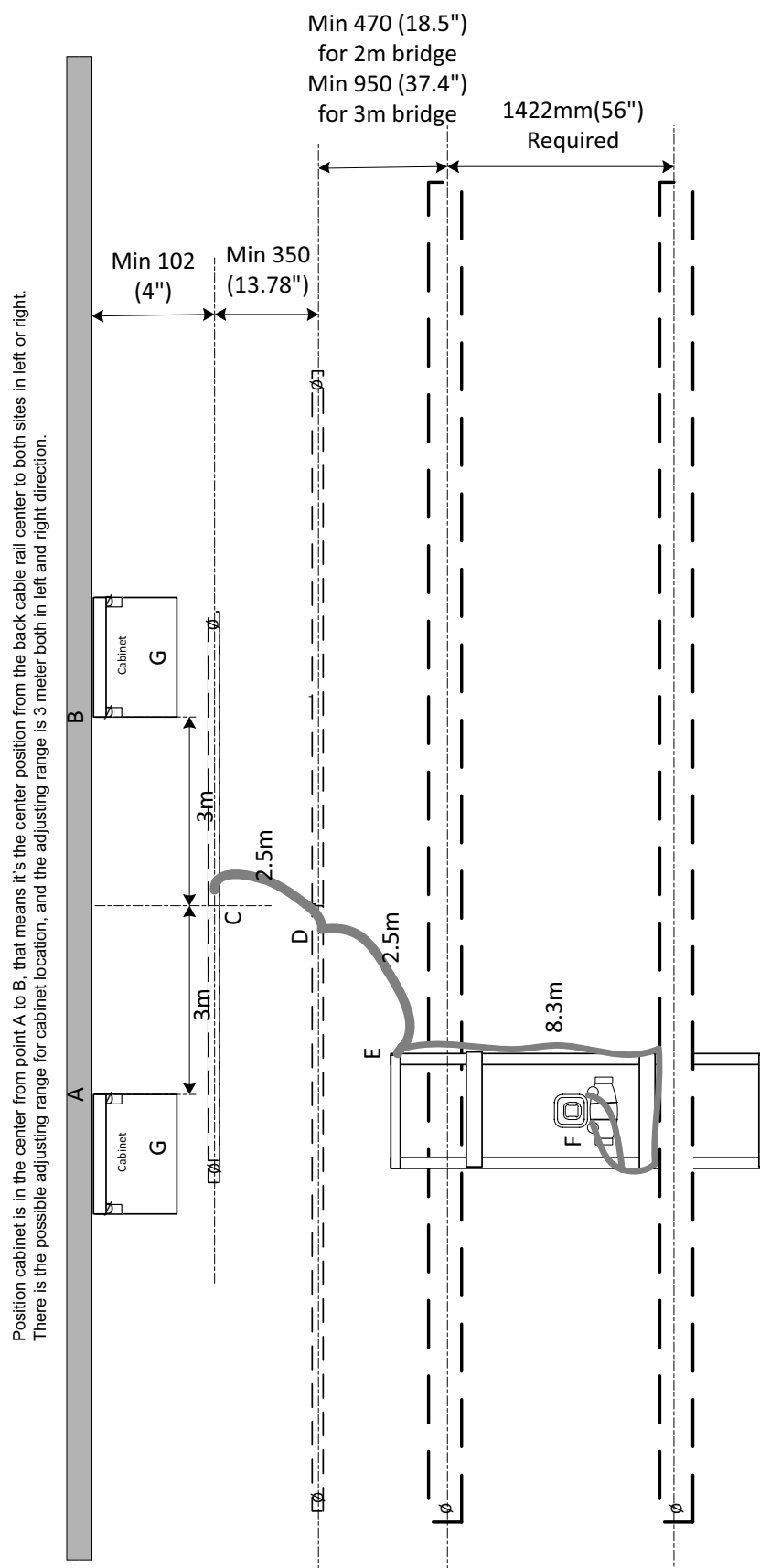


Illustration 2-10 : OTS Cable Routing





1.2.4 Wall Requirements

TIB, Detector BIN and Dongle ASSY should be installed on a suitable wall can afford the ASSY. The parameters of these terms showing in Table-2-3 and Table 2-4

1.2.4.1 Tether Interface Box (TIB)

Provide a wall space to hang the TIB in the exam room, see Illustration 2-13. Expanding plastic sleeves are provided for the wall screws which are designed to expand into the drywall.

NOTICE

TIB bottom should be installed 1m (39.37in) height from the floor.

Illustration 2-12 :TIB structure overview

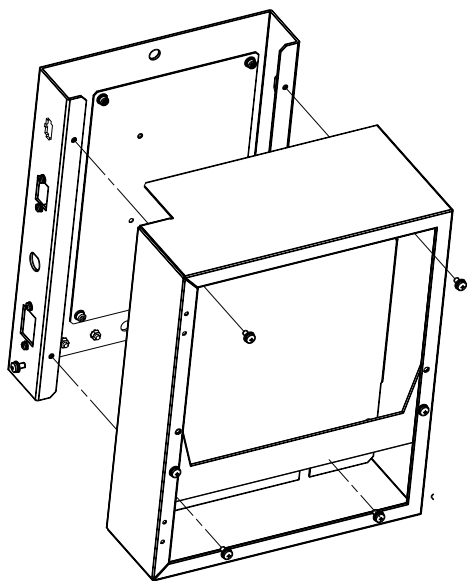
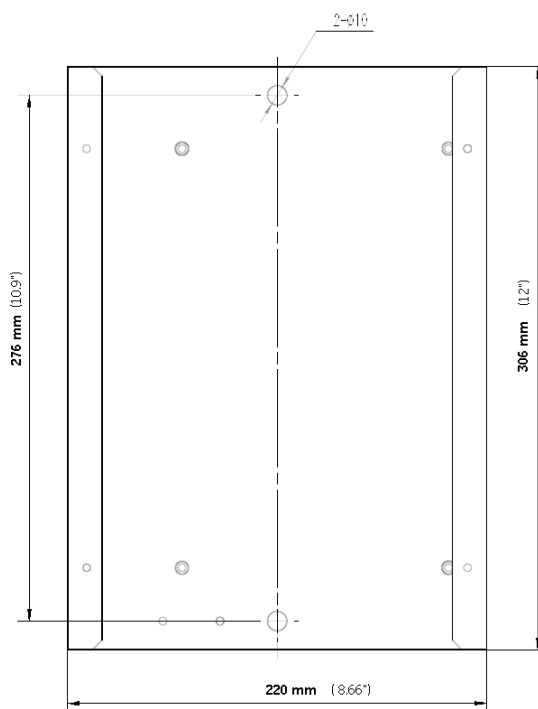


Illustration 2-13 :TIB rear cover (wall mount)



1.2.4.2 Detector BIN

NOTICE

BIN bottom should be installed 10cm-20cm (4in-8in) height from the floor.

Illustration 2-14 :Detector BIN structure overview

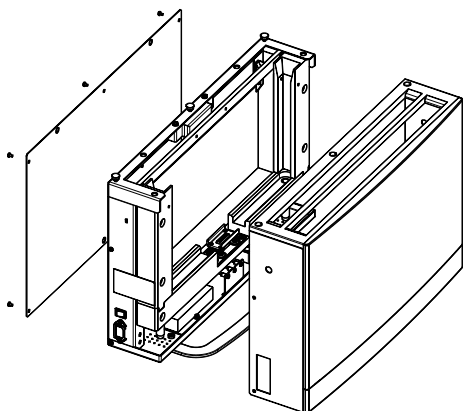
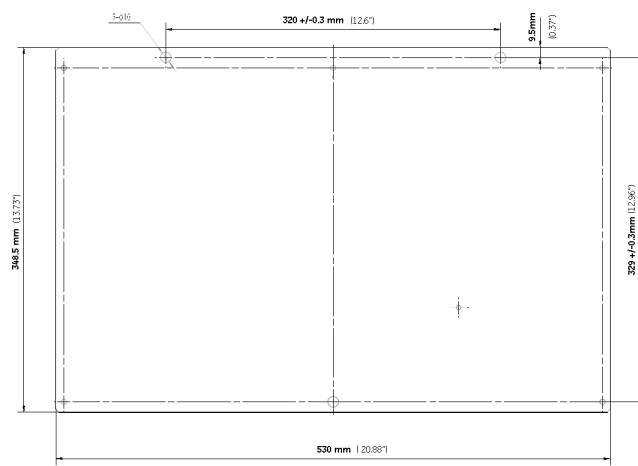
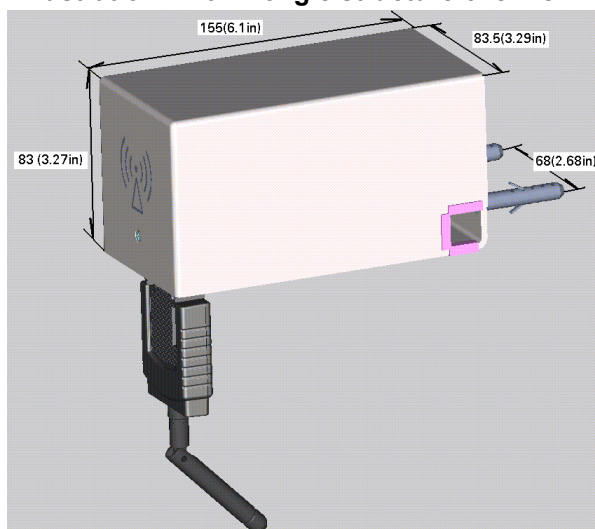


Illustration 2-15 : Detector TIB rear cover (wall mount)



1.2.4.3 Dongle Assembly

Illustration 2-16 : Dongle structure overview

**NOTICE**

Dongle is only be provided for wireless system. That is not including the Non-Wireless Configuration (Tethered option) system.

1.2.4.4 Grid Holder

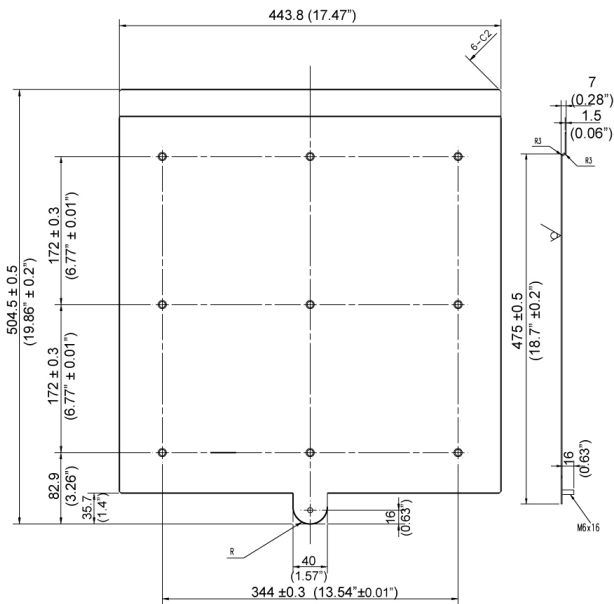
NOTICE

Grid Holder should be installed 10cm to 20cm (4in to 8in) height from the Grid Holder Bottom to the floor.

Illustration 2-17 :Grid Holder overview



Illustration 2-18 : Grid Holder Wall Panel



1.2.4.5 Flash Pad Detector overview

Illustration 2-19 : Flash Pad Detector overview



Dimensions: L 580 mm, H 452 mm, T 24 mm

Weights: 4.5kg (9.92 lbs) with battery; 0.18kg (0.40 lbs)

Can support up to 160 kg (352 lbs) of distributed load

- Battery or tether operated. Includes two rechargeable and exchangeable batteries and 7 m cable (4 m or 10 m optional) for optimal connectivity and power
- Battery allows for 150 images to be taken in 3 hours
- Detector storage bin with built in power charger
- Desktop battery pack charger (up to two battery packs)
- QAP (Quality Assurance Procedure)

1.2.5 Room Light Requirements

For the electronic ballast of fluorescent lamp in exam room, the operating frequency should be above 42KHz, For reference:

Priority	Manufacture	Type	Manufactory Product number	Operating frequency	Remarks
1	OSRAM	T5	QTi2X35/49/80	4008321174291	Except QTIS e 3x36/220-240CW
		T8	QTIS e series, For example: QTIS e 1x18/220-240	4050300775388	
2	Philips	T5	HF-P III TL5 series: HF-P 149 TL5 HO III HF-P 149 TL5 HO III HF-P 114-35 TL5 HE III HF-P 114-35 TL5 HE III	913713028066 913713028166 913713031066 913713031166	46KH
		T8	HF-P III TLD series: HF-P118TL-D III HF-P218TL-D III HF-P136TL-D III HF-P236TL-D III HF-P158TL-D III HF-P258TL-D III	913713031266 913713031366 913713031566 913713031666 913713031866 913713031966	45KH
3	GE	T8	Resi-Proline T8: GE232-120-RES/432-120-RES	97782 97783	Above 42KHz
			Multi-Volt proline T8 GE-132-MV-N/GE-159-MV-N	30189/95	

Suggest adding the Anti-IR coating to fluorescent lamp. The anti-IR coating should be able to filter IR signal with 940nm wavelength. Otherwise, it's possible to lead to the IR controller cannot work normally sometimes.

Section 2.0 System Component Dimensions and Weights

2.1 Dimensions

Table 2-4 Product Physical Characteristics (Width / Depth / Height)

PRODUCT OR COMPONENT	DIMENSIONS			References
	Width	Depth	Height	
Operator Console: PC Tower HP z420 LCD Monitor RCIM2	167.9mm (6.6in) 387mm (15.2in) 451mm (17.8in)	455.3mm (17.9in) 180mm (7.1in) 135mm (5.3in)	450.2mm (17.7in) 504mm (19.9in) 70mm (2.8in)	
Table Assembly (Global G2 Table)	2400mm (7.87ft)	933mm (36.7in)	500 - 850mm (19.7 - 33.5in)	See Illustration 2-18
Table Assembly (Standard Table)	2330mm(7.64ft)	838mm(33.0in)	525 - 825mm (20.7 - 32.5in)	
Table Top Movement Dimension (Global G2 Table)	680mm ± 10mm (26.77in ± 0.39in)	280mm ± 10mm (11.02in ± 0.39in)	NA	See Illustration 2-18-1
Table Top Movement Dimension (Standard Table)	990mm±10mm(38.98in±0.39in)	220mm±10mm(8.66in±0.39in)	NA	
Stretchers (optional): Non-elevating Non-elevating (carbon fiber) Elevating	2159mm (85in) 2200mm (7.22ft) 2437mm (8ft)	870mm (34.25in) 650mm (25.5in) 895mm (35.24in)	705mm (27.75in) 700mm (27.5in) 1010mm (39.76in) Max.	See Illustration 2-25 See Illustration 2-26 See Illustration 2-27
Stationary Rail (each)	4064mm (13' - 4")	62.5mm (2.46in)	84.3mm (3.32in)	
2 Meter Bridge	2099mm (82.64in)	659mm (26in)	169mm (6.66in)	See Illustration 2-21
3 Meter Bridge	3077mm (10.1ft)	659 mm (26in)	169mm (6.66in)	See Illustration 2-22
Overhead Tube Support Includes: carriage, collimator, tube and UIF	607mm (23.89in)	1016mm (40in)	889mm (35in)	See Illustration 2-20
System Cabinet	847mm (33.3in)	662.2mm (26in)	1475mm (58in)	See Illustration 2-19 and Illustration 2-19-1
Tether Interface Box	255mm (10in)	110mm (4.3in)	310mm (12.2in)	See Illustration 2-13-1 and Illustration 2-13-2
Wall Stand (Standard global URP Wall Stand)	686 -1266 mm (27 - 49.85 in)	1344mm (52.91in)	2628mm (103.46in)	See Illustration 2-23 and Illustration 2-24 and Illustration 2-24-1
Wall Stand (Manual Wall Stand)	686 -1266 mm (27 - 49.85 in)	1026mm (40.4in)	2630mm (103.5in)	See Illustration 2-23 and Illustration 2-24 and Illustration 2-24-1
Extended Wall Stand	686 -1266 mm (27 - 49.85 in)	1668mm (65.67in)	2628mm (103.46in)	See Illustration 2-23 and Illustration 2-24 and Illustration 2-24-1

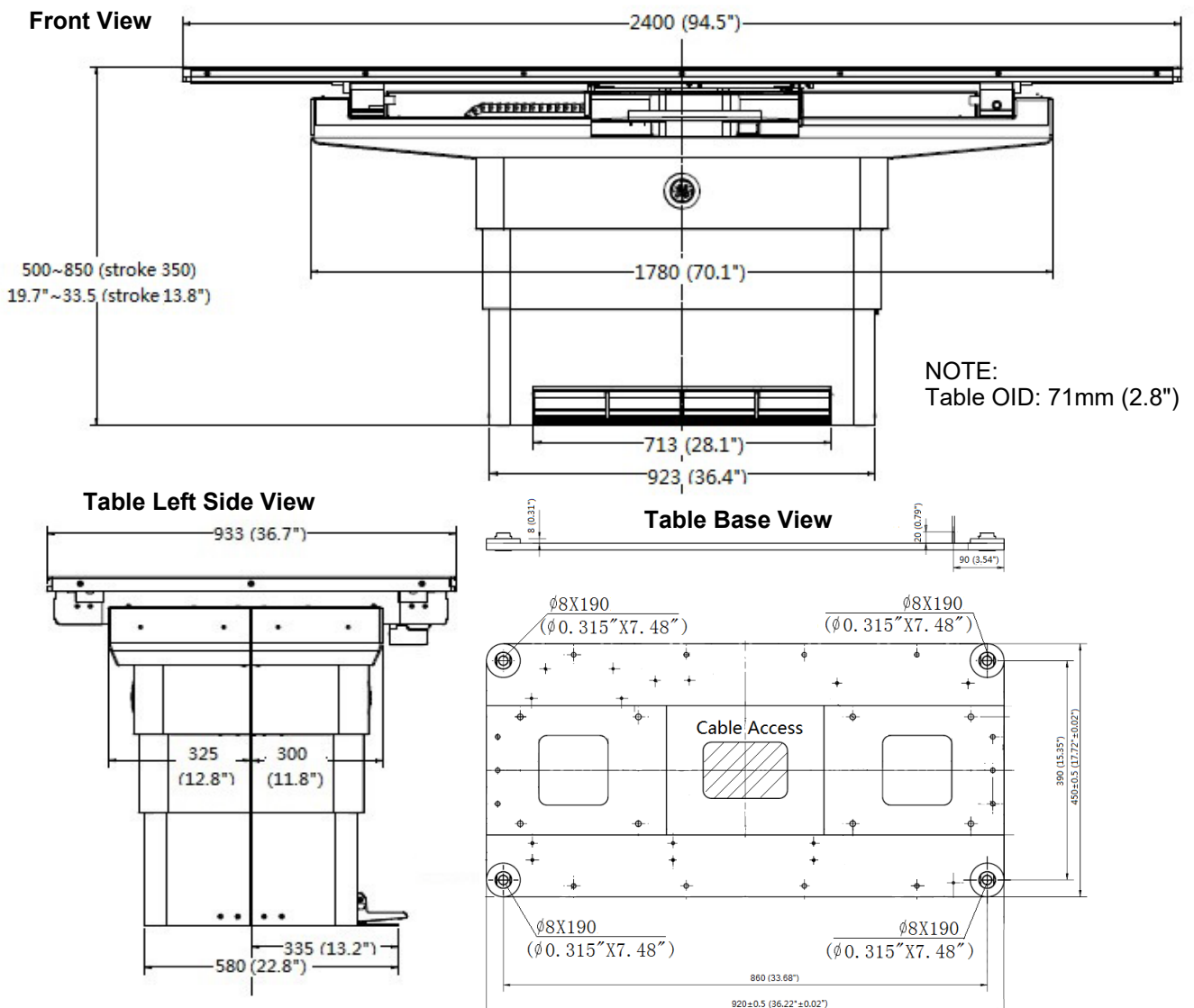
Table 2-4 Product Physical Characteristics (Width / Depth / Height)

PRODUCT OR COMPONENT	DIMENSIONS			References
	Width	Depth	Height	
Image Pasting Barrier with Footstool (option)	1110.4mm (43.71in)	656.76mm (25.86in)	2070mm (81.5in)	See Illustration 2-28
Detector BIN	530mm (20.88in)	119 mm (4.7in)	348.5mm (13.75in)	See Illustration 2-14-1 and Illustration 2-14-2
Dongle Assembly	83.5mm (3.29in)	155 mm (6.1in)	83 mm (3.27in)	See Illustration 2-15
Flash Pad (URP detector)	L 580 mm(23in)	H 452 mm(17.8in)	T 24 mm(1.0in)	See Illustration 2-17
Grid Holder	511.8mm (20.15in)	202.4 mm (7.97 in)	504.5 mm (19.86 in)	See Illustration 2-16-1 and Illustration 2-16-2
UPS	214mm (8.43in)	410mm (16.14in)	325mm (12.80in)	See Illustration 2-29

2.2 Table

Illustration 2-20 : Table View

- For Global G2 Table



- For Standard Table

Front View

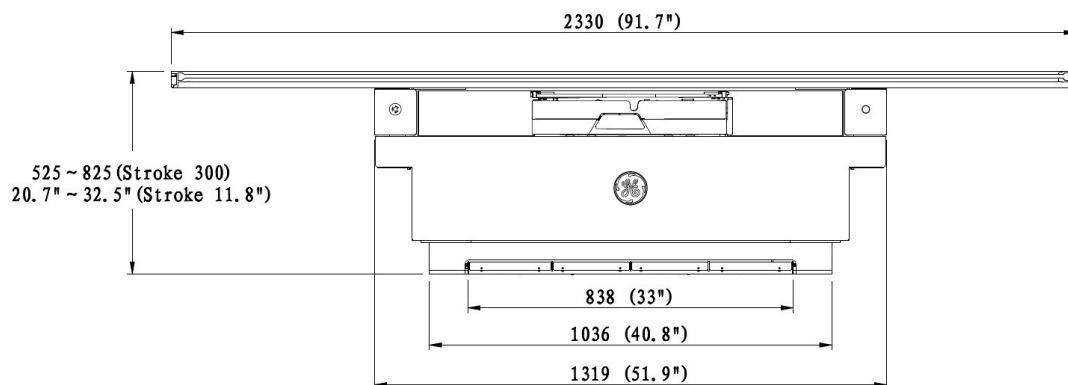


Table Left Side View

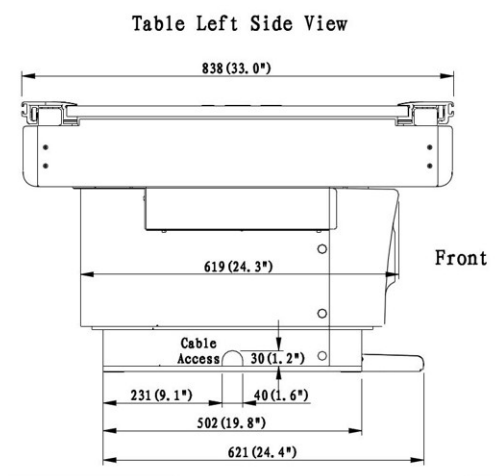


Table Base View

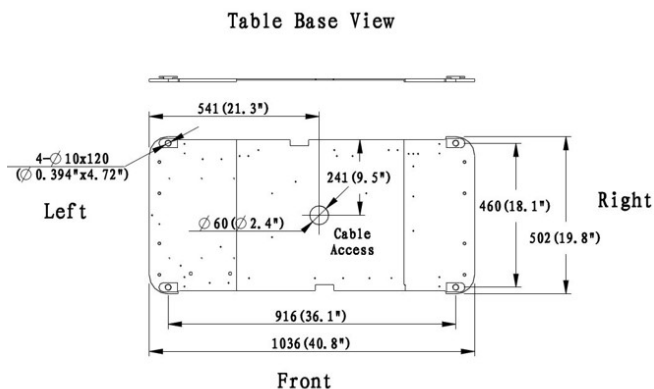
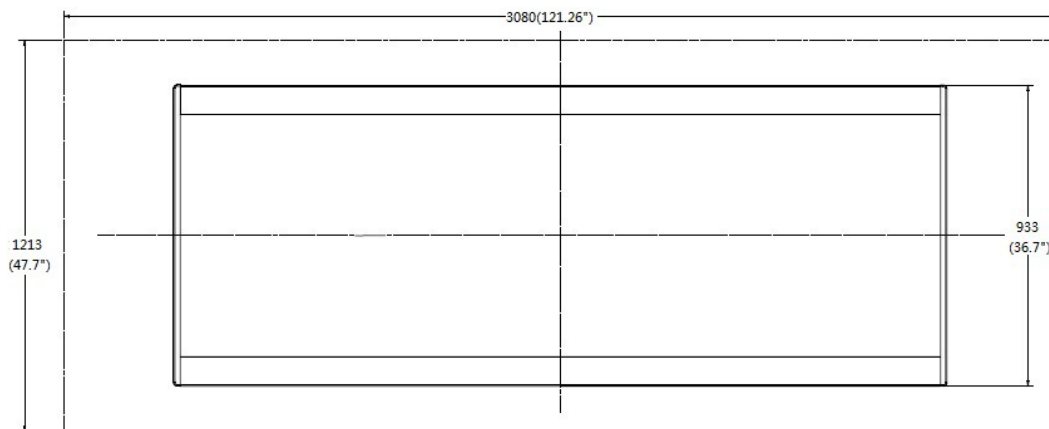
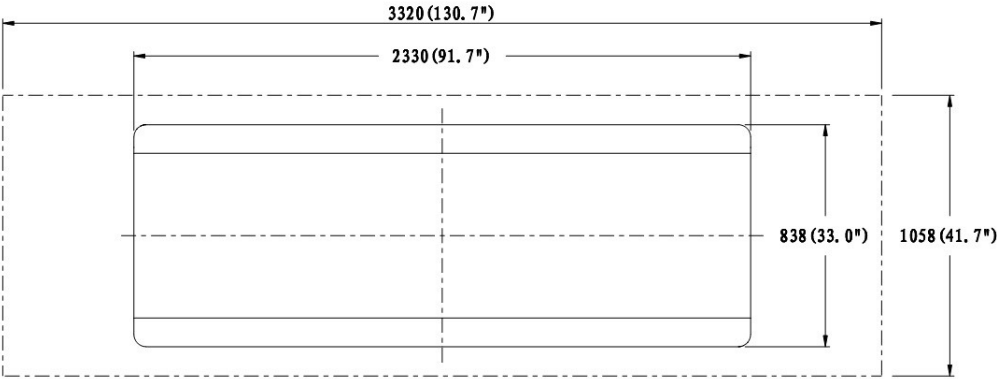


Illustration 2-21 : Table Top Movement Dimension

- For Global G2 Table



- For Standard Table



2.3 System Cabinet

Illustration 2-22 : System Cabinet Dimensions (Front, Top, Left)

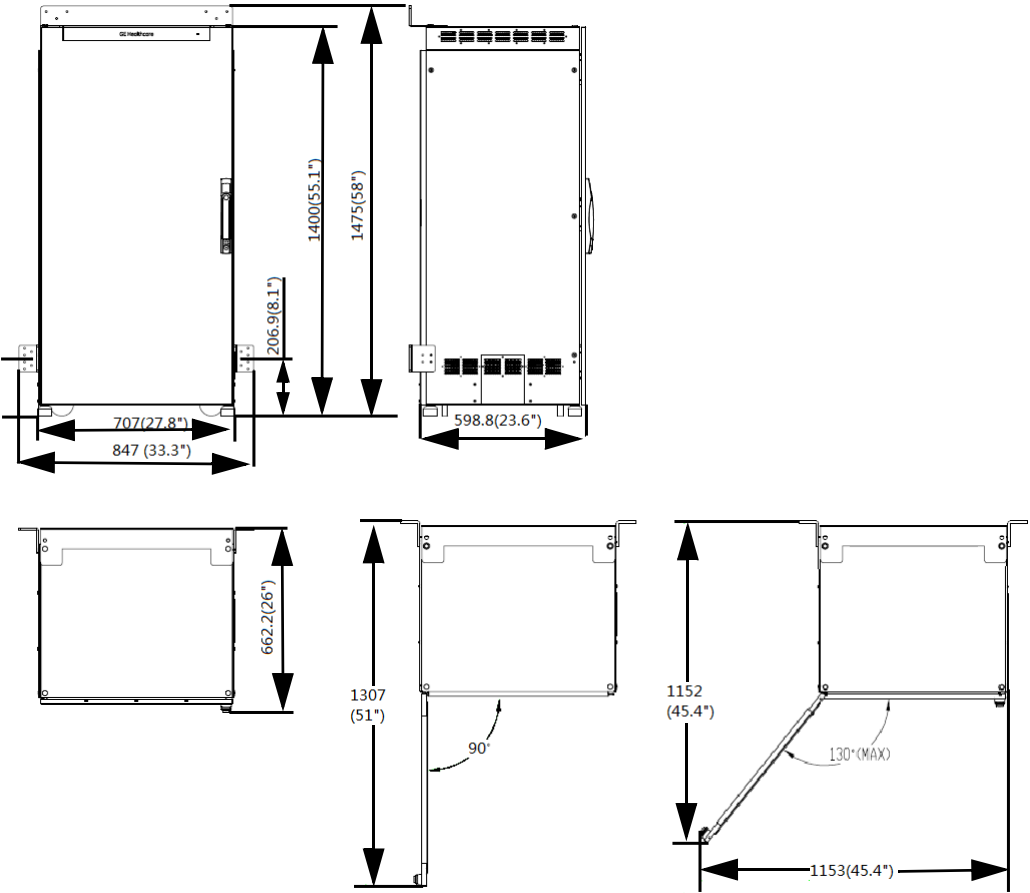
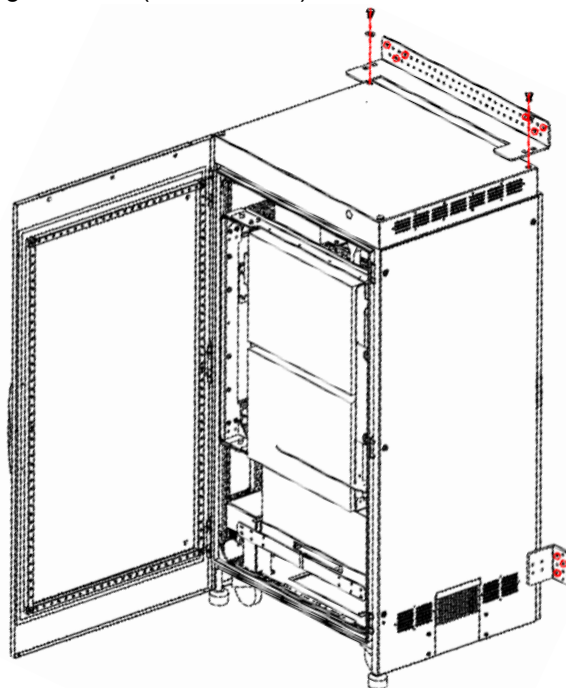


Illustration 2-19-1: System Cabinet Wall-Mount Bracket

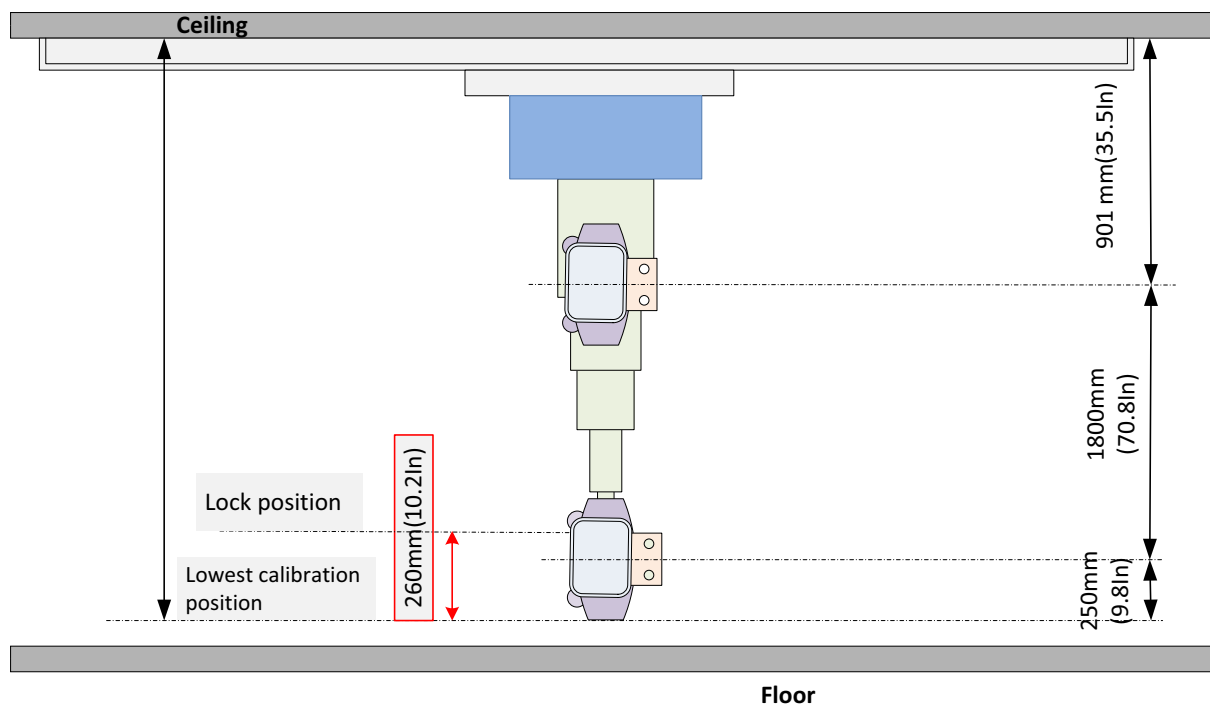
Recommended seismic mounting locations (in red circles)



2.4 Over-Head Tube Support (OTS)

The OTS comprises a system for suspending and supporting an X-ray tube unit and collimator. It employs a spring counterpoise mechanism to balance these loads. The OTS's main components are the stationary rails, the bridge and the support column.

Illustration 2-23 : OTS Side view



When Lowest point of OTS could touch floor, keep OTS SID=1800mm, Height=901+1800+250=2951mm

When OTS center is parallel to WS center at lowest position of OTS, OTS SID=1800mm, Height=901+1800+285=2986mm

When OTS center is parallel to WS center at highest position of WS, keep WS travel range=1500mm, Height=901+1500+285=2686mm

NOTICE

The dimension from bottom of ceiling to bottom of rail is 84.3 mm (3.3 in).

Illustration 2-24 :OTS Suspension Focal Spot Travel Range - 2M Bridge

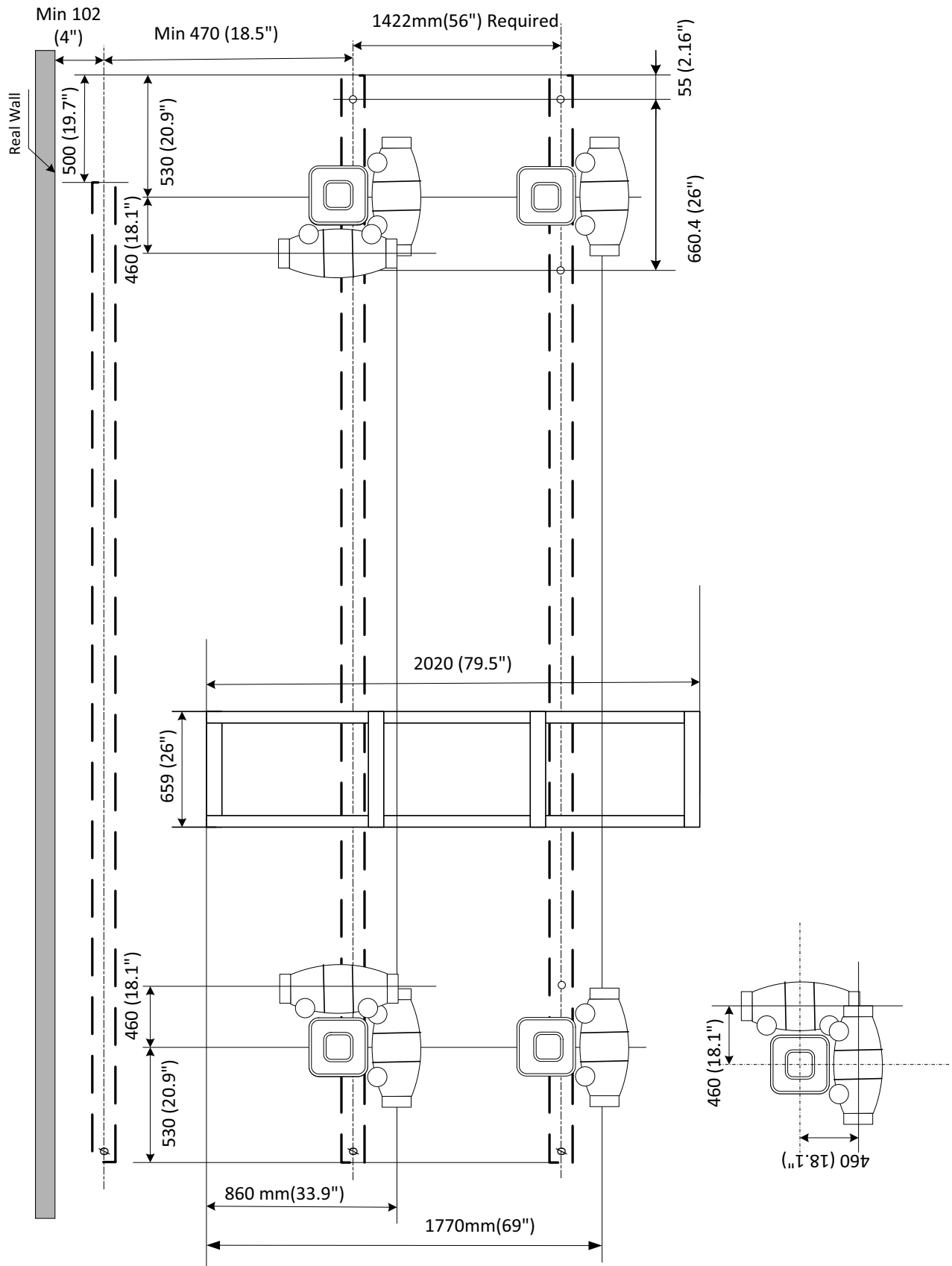
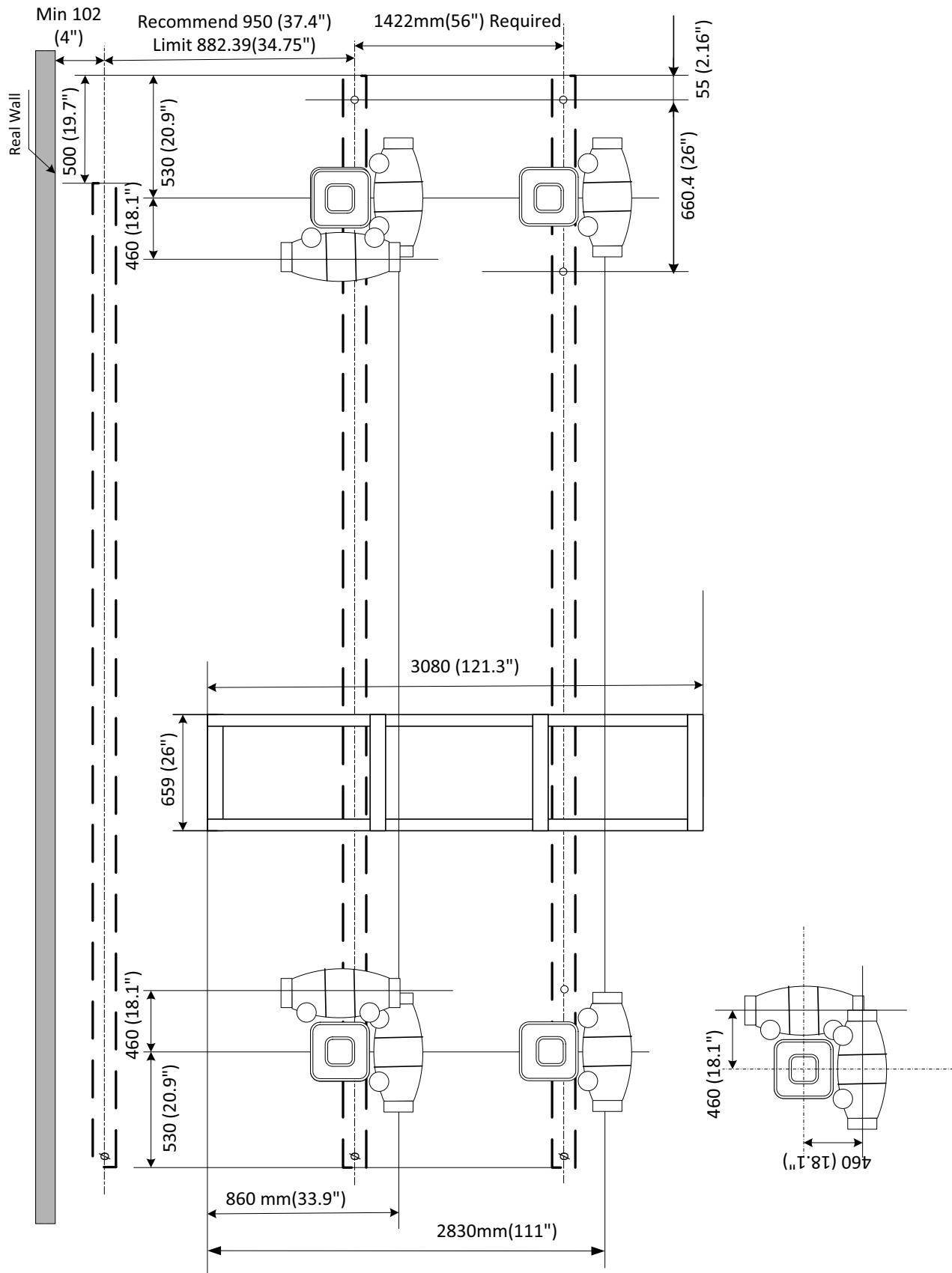


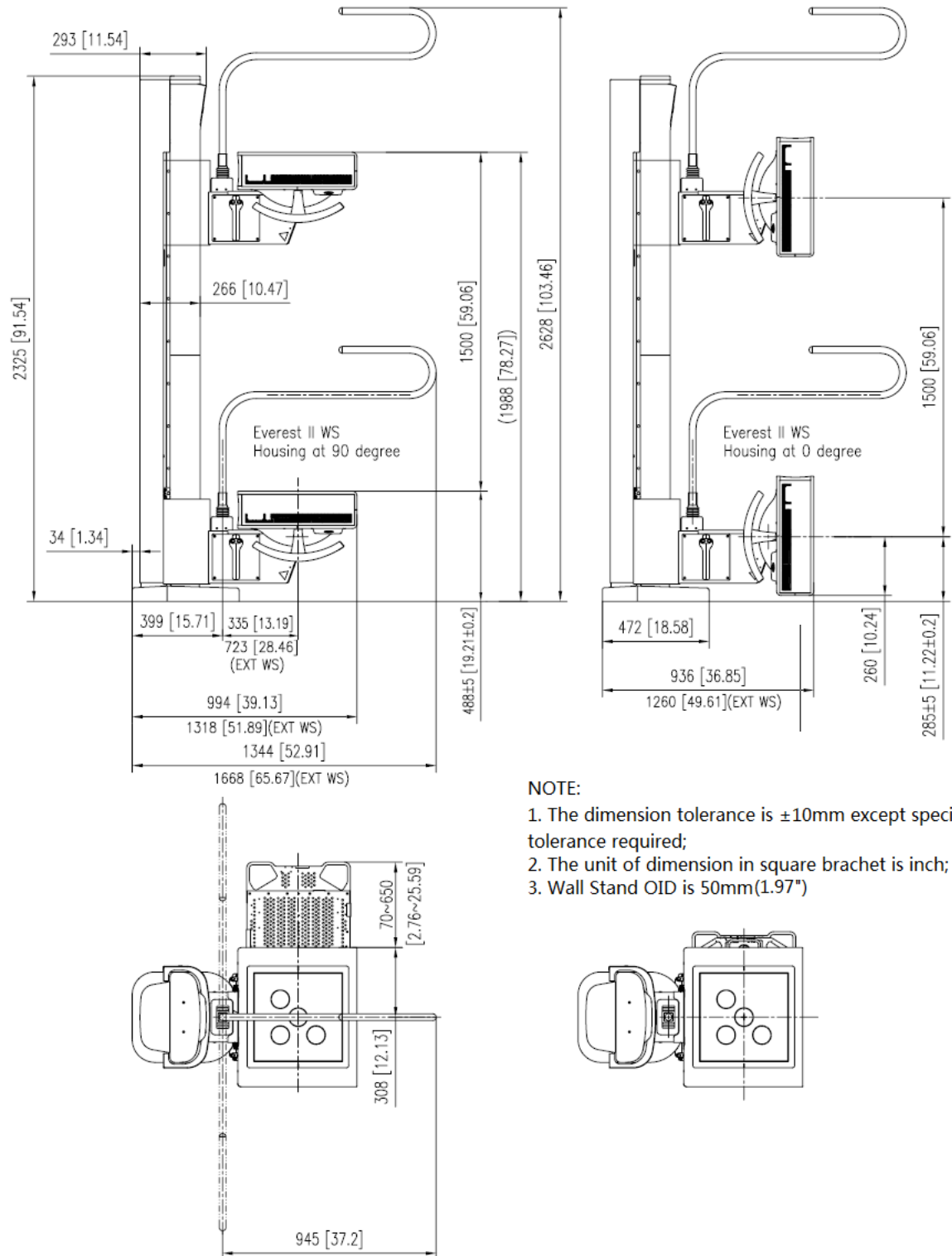
Illustration 2-25 : OTS Suspension Focal Spot Travel Range - 3M Bridge



2.5 Wall Stands

Illustration 2-26 : Wall Stand Dimensions (0 and 90 degrees)

- Standard global URP Wall Stand and Extended Global URP Wall Stand



NOTE:

1. The dimension tolerance is $\pm 10\text{mm}$ except special tolerance required;
2. The unit of dimension in square bracket is inch;
3. Wall Stand OID is 50mm(1.97")

- Manual Wall Stand

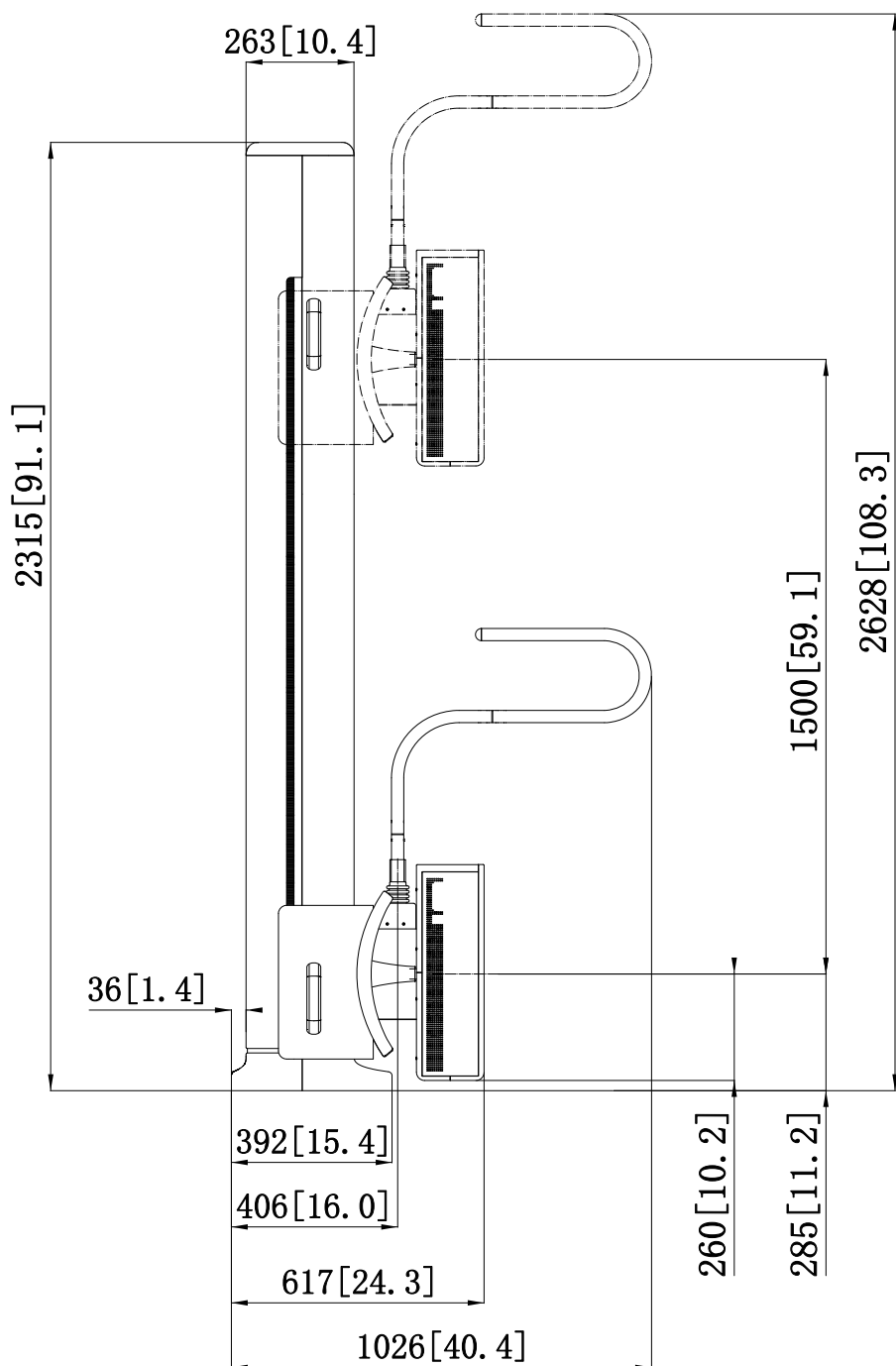
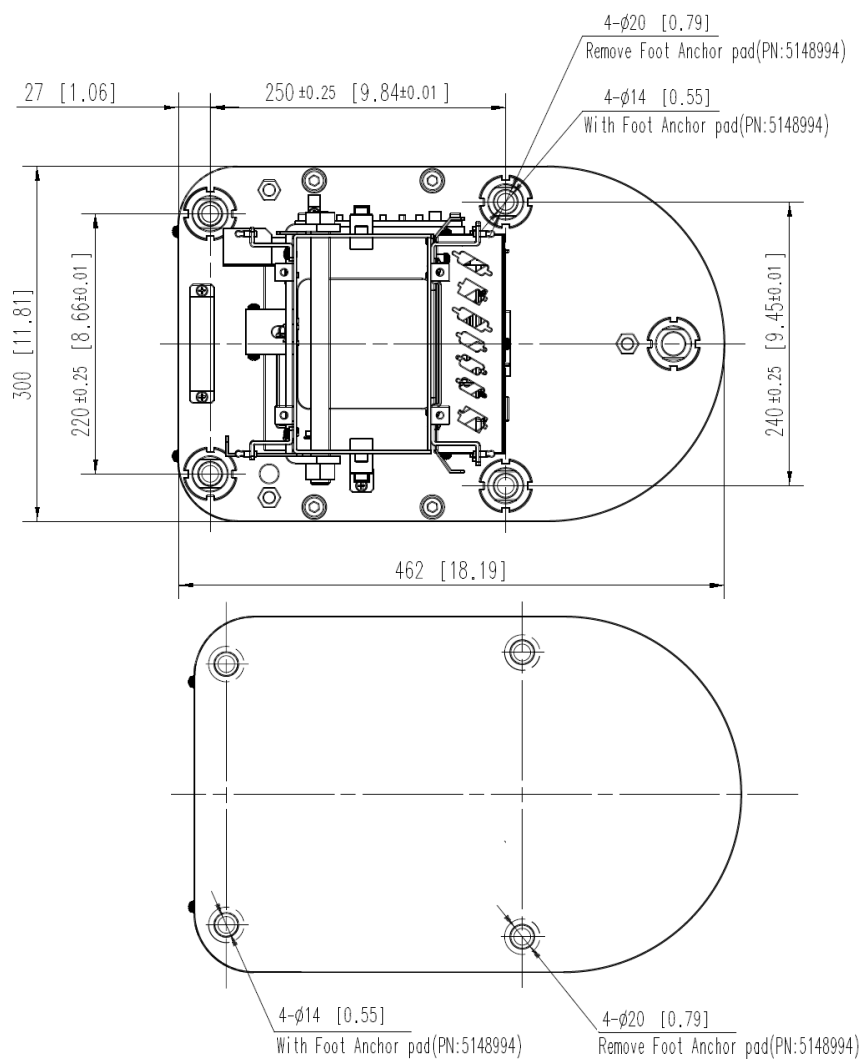


Illustration 2-27 : Wall Stand Base Plate Dimensions

- For Standard global URP Wall Stand and Extended Global URP Wall Stand



- For Manual Wall Stand

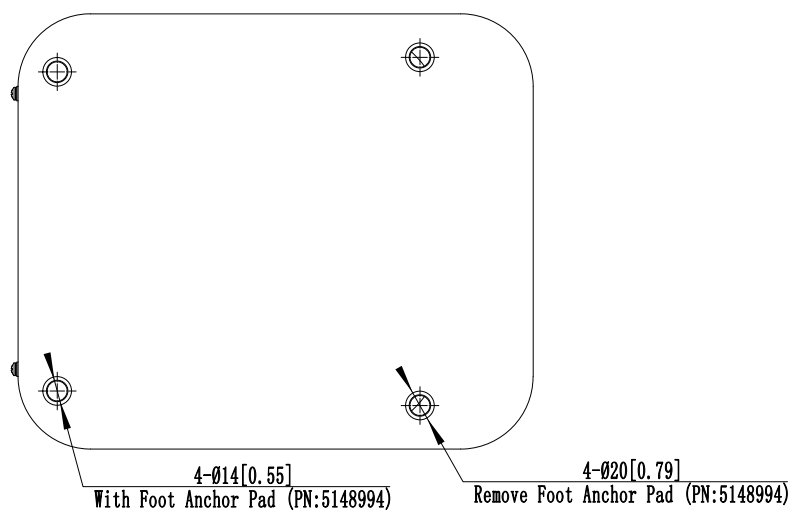
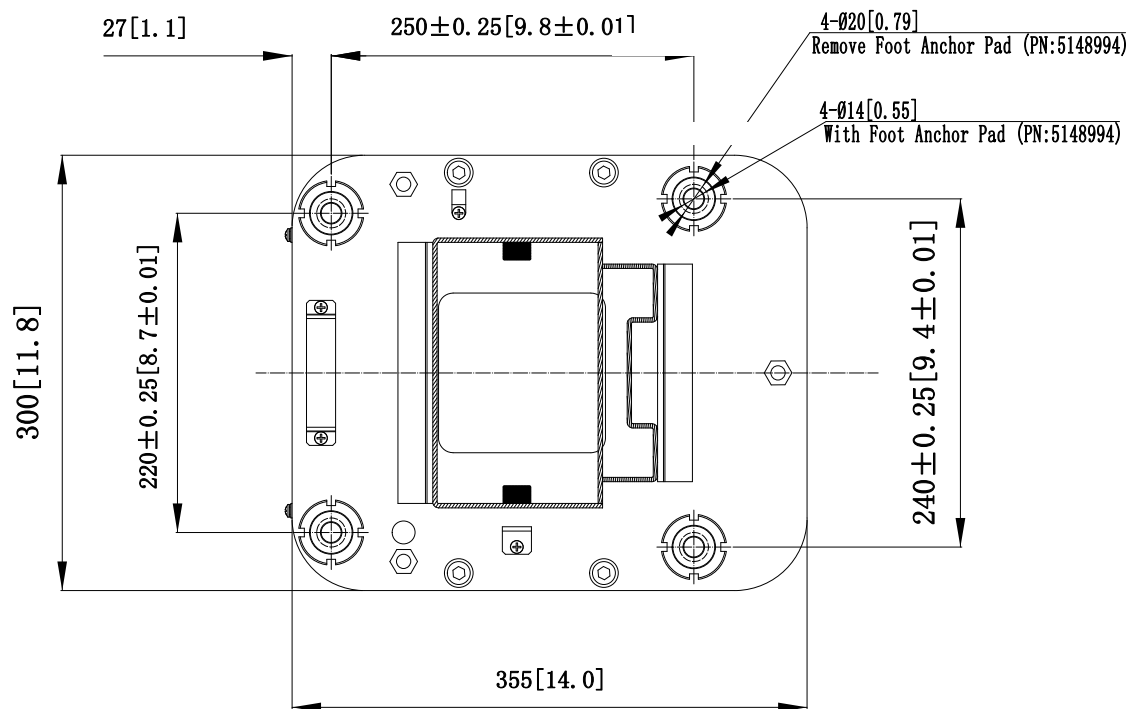
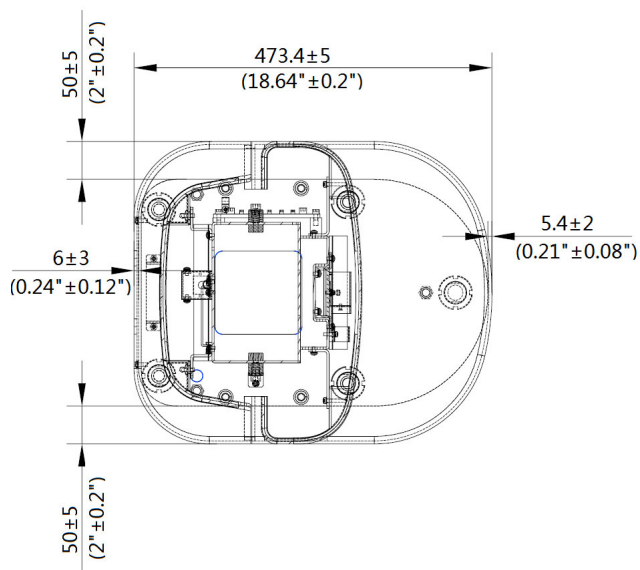
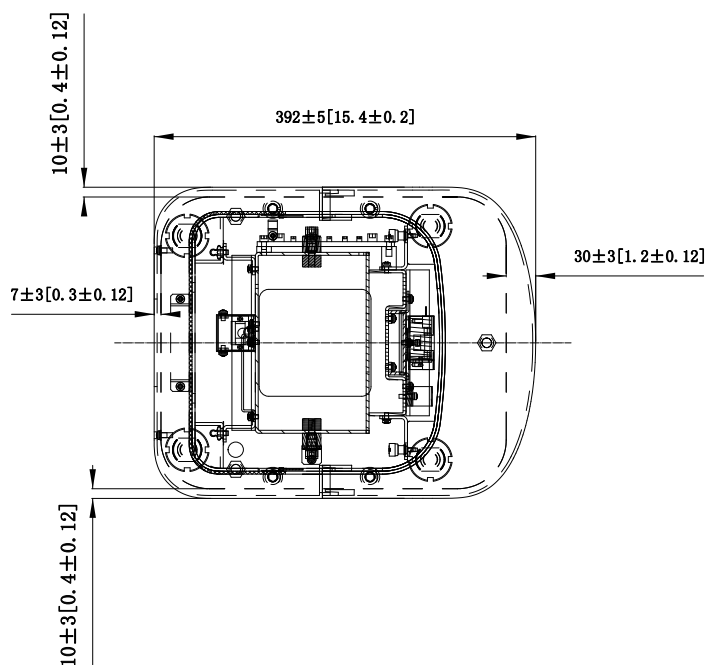


Illustration 2-28 : Wall Stand Base Plate and its Cover Dimensions

- For Standard global URP WS and Extended Global URP WS



- For Manual Wall Stand



2.6 Stretcher Tables

Illustration 2-29 : E6401J Stretcher Dimensions (optional)

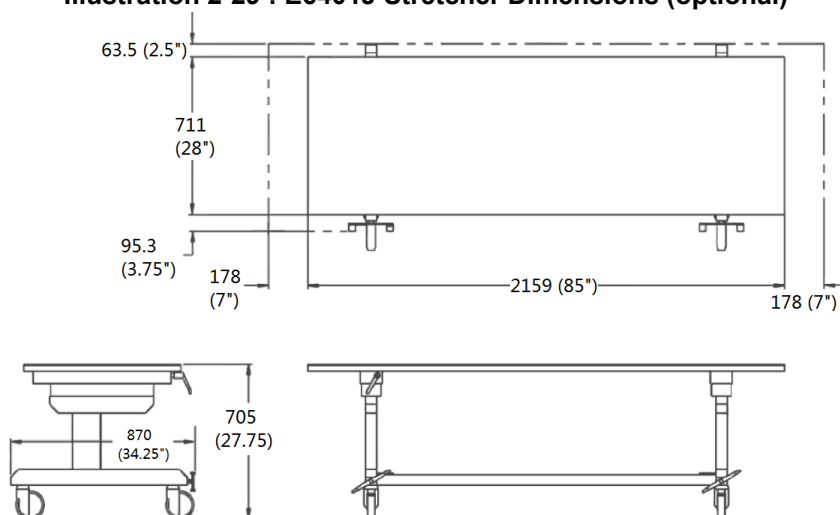


Illustration 2-30 : S1700JM Carbon Fiber Stretcher Dimensions (optional)

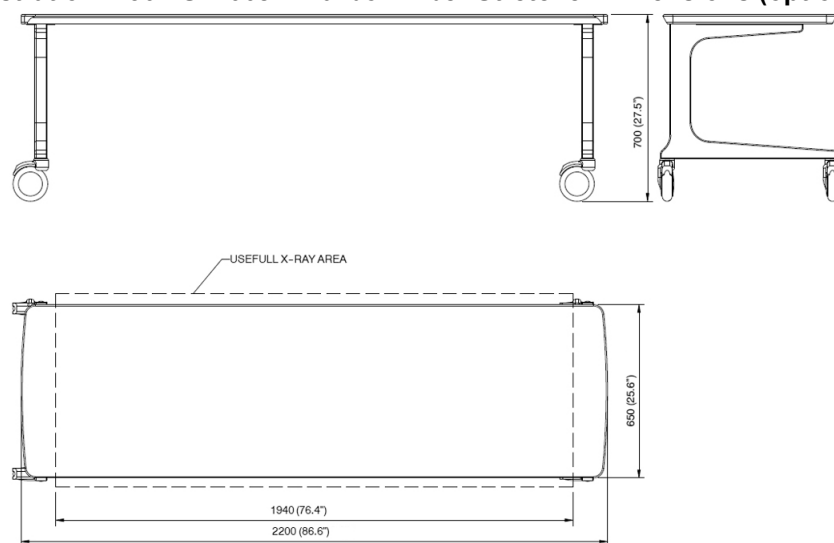
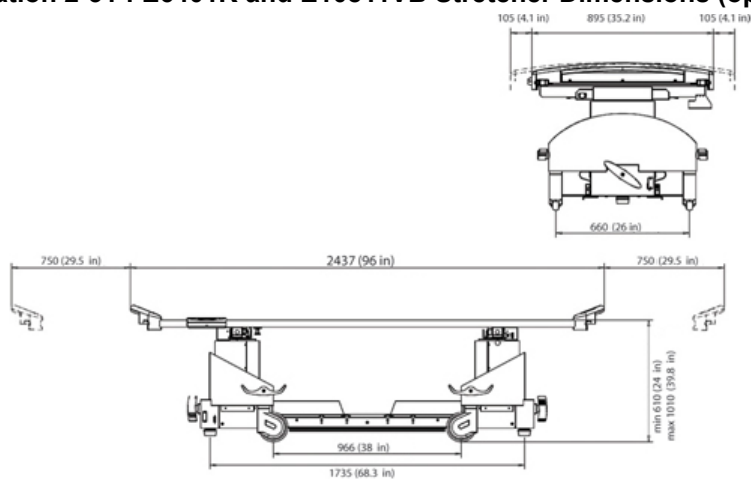
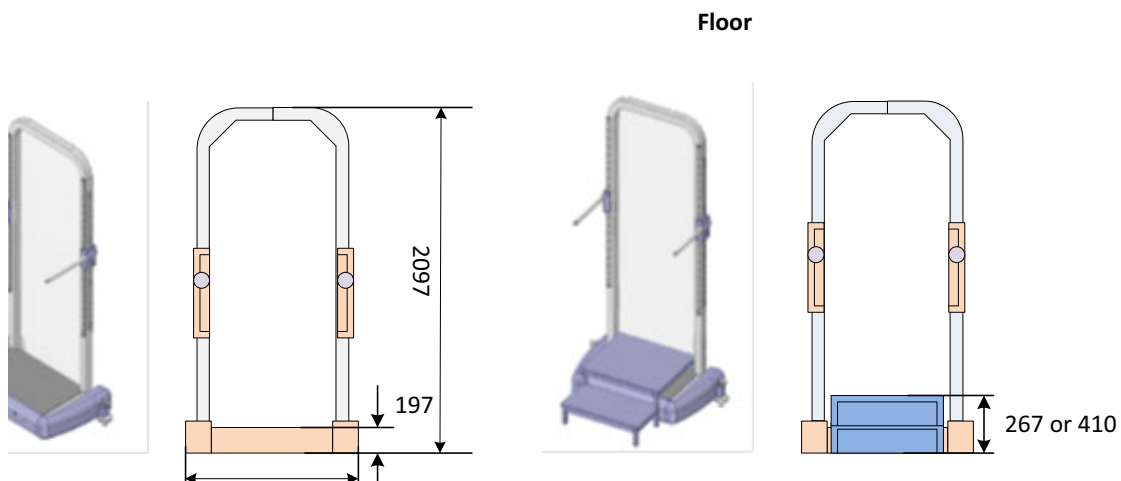


Illustration 2-31 : E6401K and E10811VB Stretcher Dimensions (optional)



2.7 Image Pasting Barrier

Illustration 2-32 : Image Pasting Barrier (Optional)



2.8 UPS

Illustration 2-33 : UPS (Optional)



NOTICE

If the UPS grounding impedance exceeds 0.2ohm, UPS might alarm with site wiring fault. This could be disabled through UPS “User Settings”, but not recommended.

2.9 Weights, Floor/Ceiling Loading and Recommended Mounting Methods

Table 2-5 Product Physical Characteristics (weight)

PRODUCT OR COMPONENT	WEIGHT	LOAD BEARING AREA ft2 (m2)	RECOMMENDED MOUNTING INFORMATION
Operator Console: PC Tower HP z420 LCD Monitor	19.6 Kg (43.2pounds) 8.2 kg (18.1 lbs)		Shelf or table mounted but not anchored.
Table Assembly (Global G2 Table)	440 kg (970 lbs)	0.838 m2 (9.02 ft2)	Floor mounting Recommendations: (4) M8 X 135 mm anchors (2400546, supplied)
Table Assembly (Standard Table)	308.5 kg (680lbs)	0.52 m2 (5.60 ft2)	Floor mounting Recommendations: (4) M10 X 120 mm anchors (5727758, supplied)
Table Assembly with a maximum patient weight of 320kg (705lbs) (Global G2 Table)	760 kg (1675 lbs)	0.838 m2 (9.02 ft2)	NA
Table Assembly with a maximum patient weight of 250kg (551lbs) (Standard Table)	558.5kg (1231lbs)	0.52 m2 (5.60 ft2)	NA
Stretchers (optional): Non-elevating Non-elevating (carbon fiber) Elevating	102 kg (225 lbs) 32 kg (70.5 lb) 310 kg (683 lbs)		Not anchored Not anchored Not anchored
Wall Stand (Standard global URP Wall Stand)	270 kg (596 lbs)	0.129 m2	Bossard M10x150L anchors to floor (supplied)
Wall Stand (Manual Wall Stand)	240 kg(530 lbs)	0.103 m2	Bossard M10x150L anchors to floor (supplied)
Extended Wall Stand (Extended Global URP Wall Stand)	280kg (618 lbs)	0.129 m2	Bossard M10x150L anchors to floor (supplied)
Stationary Rail (4 m)	48kg (106lbs) pair		
OTS	240kg (572.6lbs)		
2 Meter Bridge	54.8kg (120.8lbs)		
3 Meter Bridge	63.7kg (140.43lbs)		
Cable and Miscellaneous Parts	53kg (117lbs)		
Cable Drape Support	29.5kg (65lbs)		
Upper OTS Covers	9.5kg (21lbs)		

Table 2-5 Product Physical Characteristics (weight)

PRODUCT OR COMPONENT	WEIGHT	LOAD BEARING AREA ft2 (m2)	RECOMMENDED MOUNTING INFORMATION
Stiffener Plate	10.4kg (23lbs)		
UIF	3.2kg (7lbs)		
System Cabinet	305kg (705lbs)	0.46 m2 (5 ft.2)	5/16 in. or 8 mm (6) anchors to floor 5/16 in. or 8 mm (6) anchors to wall (Mounting hardware not provided by GEHC)
Grid Holder Assembly	13.8 kg (30.42 lbs)		Mount on wall
Image Pasting Barrier with Footstool (option)	54.44 kg (120 lbs)		Floor mounted but not anchored. Located near Wall Stand base.
Detector BIN	15 Kg (33 lbs)	NA	Floor mounting (not anchored) or wall mount
Tether Interface Box	7 Kg (15.4 lbs)	NA	wall mount
Dongle Assembly	0.8 Kg (1.76 lbs)	NA	wall mount
Flash Pad Detector	4.5kg (9.92 lbs) with battery	NA	
Detector Battery	0.18kg (0.40 lbs)	NA	
UPS	34.5 Kg(76.06 lbs)	0.08774 m2 (0.944 ft2)	

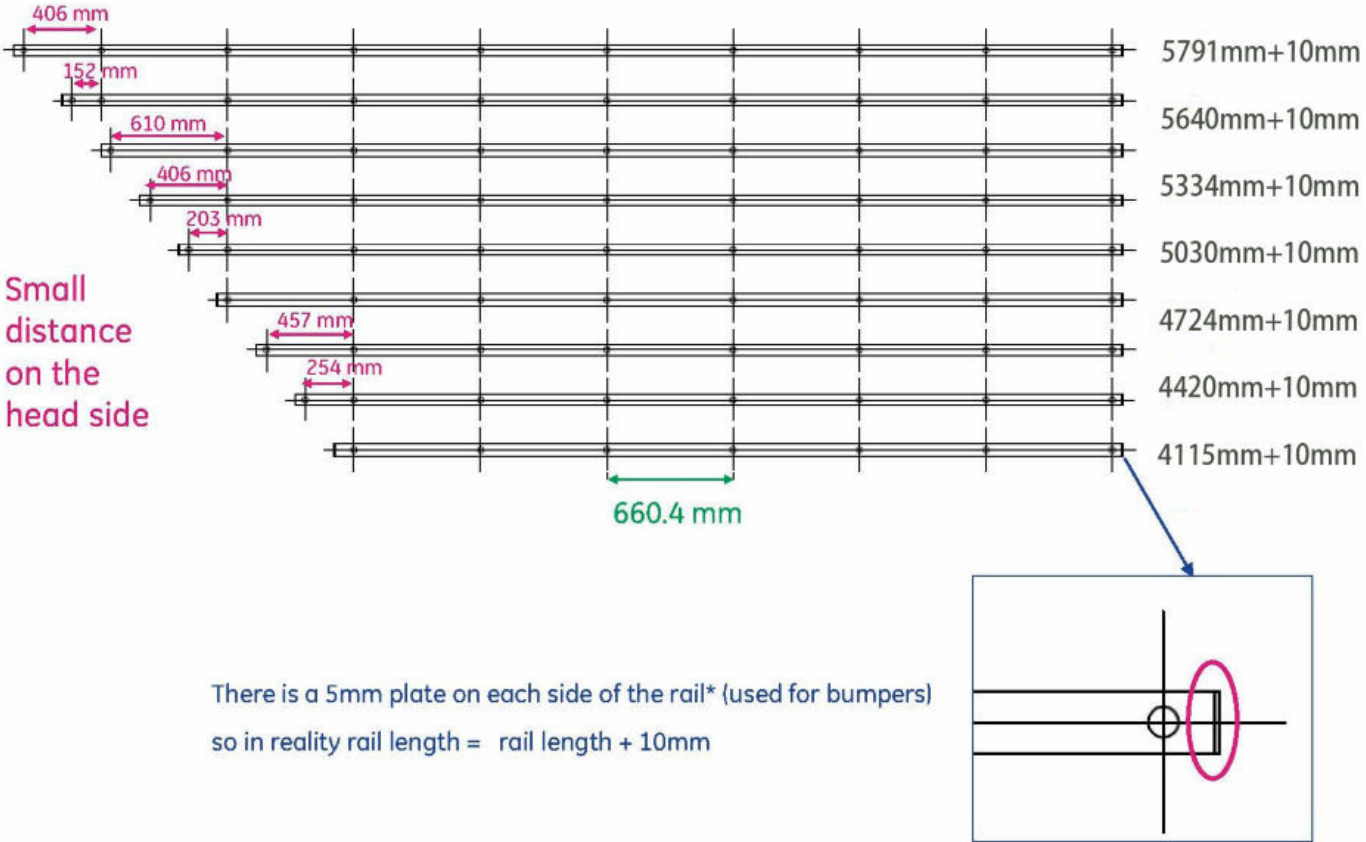
2.10 Longitudinal Rails

Kit B2054LB contains the bumpers and the longitudinal belt.

Table 2-6 Longitudinal Rails S2105JC

Item	Rail Length	Cat Number	Longitudinal focal spot travel
1	4115 mm	B0162JA + B2054LB	3055 mm
2	4420 mm	B0174JA + B2054LB	3270 mm
3	4724 mm	B0186JA + B2054LB	3664 mm
4	5030 mm	B0198JA + B2054LB	3880 mm
5	5334 mm	B0210JA + B2054LB	4274 mm
6	5640 mm	B0222JA + B2054LB	4490 mm
7	5791 mm	B0228JA + B2054LB	4731 mm

Illustration 2-34 : Small distance on the head side



Section 3.0 Room Layout

3.1 Required Service Access Clearance

Allow appropriate space for service access of equipment. Illustrations are shown below indicating the required access space for servicing the equipment.

Illustration 2-35 : System Cabinet

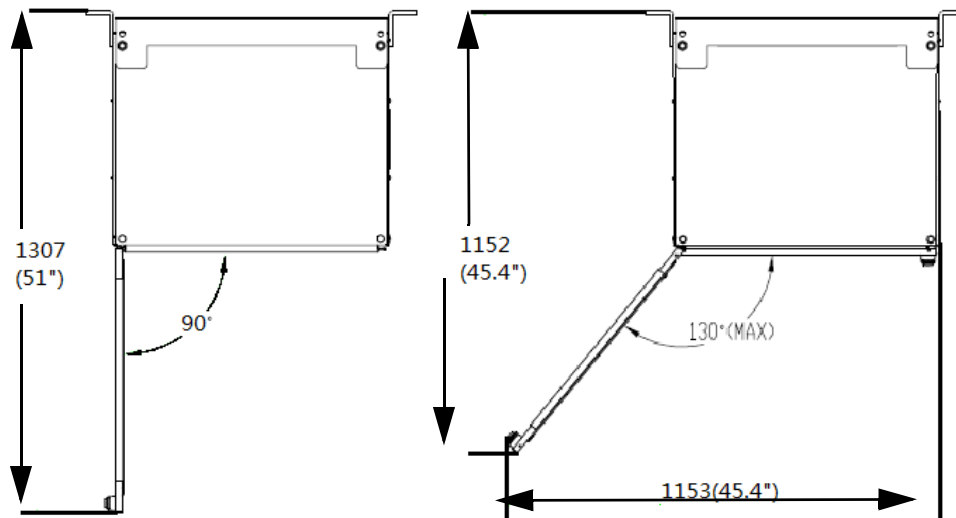


Illustration 2-36 : Table

Recommended Required Service Access Clearance is 915 mm (36 in).

Minimum Required Service Access Clearance is 610 mm (24 in).

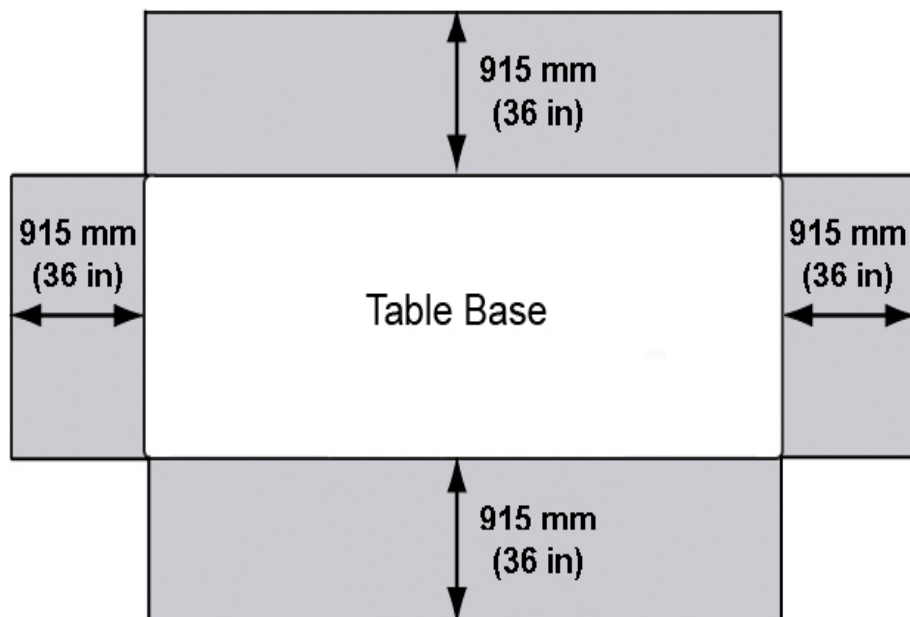
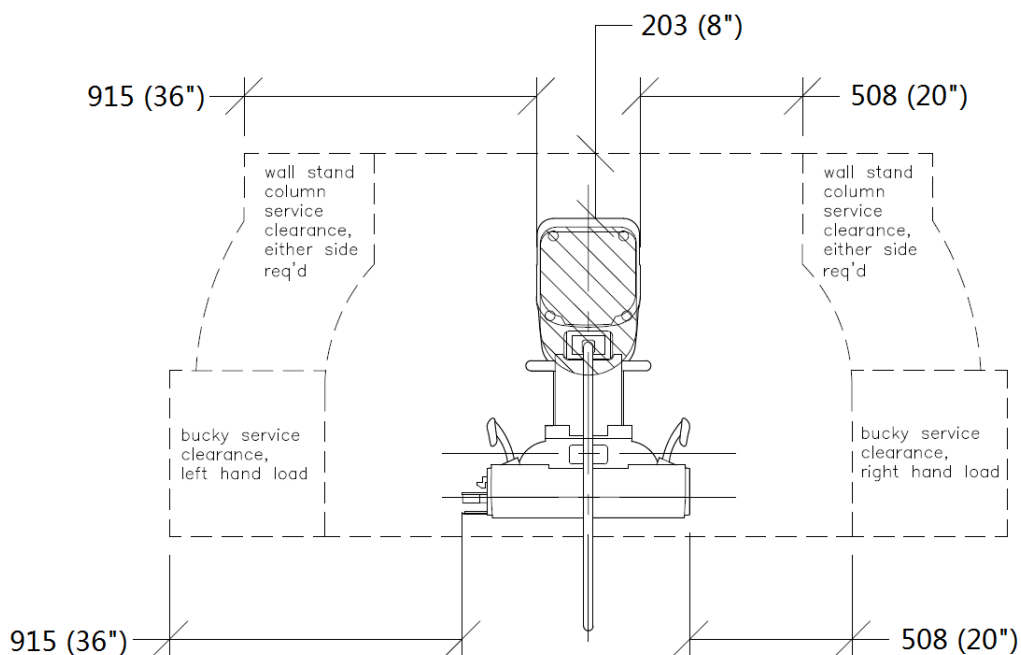


Illustration 2-37 : Wall Stand



3.2 Clinical Access

Make sure that you plan the room with the following clinical access requirements:

- Provide easy access to the patient table. Stretchers and other mobile hospital equipment must reach the table quickly.
- Table cannot be installed at 90 degrees to the ceiling stationary rails.
- When installing an extended-arm Wall Stand, the Wall Stand should be positioned directly in the center of the 3-meter/4-meter bridge if full tube angling capabilities are to be achieved.
- The Wall Stand can be configured to allow grid insertion direction from either the left or the right. Workflow and room dimensions should be considered.

3.3 Peripheral Equipment

Consult hospital personnel regarding additional space requirements for the following types of hospital equipment:

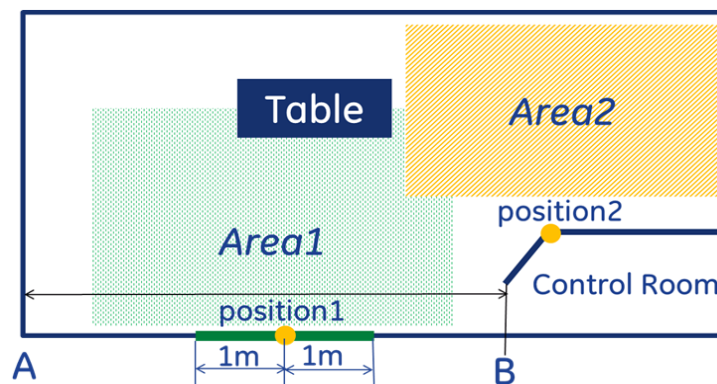
- Storage Cabinets
- Sinks
- Oxygen Stations
- Monitoring Equipment
- Crash Cart

3.4 Dongle default location and adjusting range

NOTICE

Dongle ASM location which is critical for wireless signal quality, other components can be located anywhere cable length allows and customer prefer for application. So this section just describe room layout requirements for Dongle ASM installation.

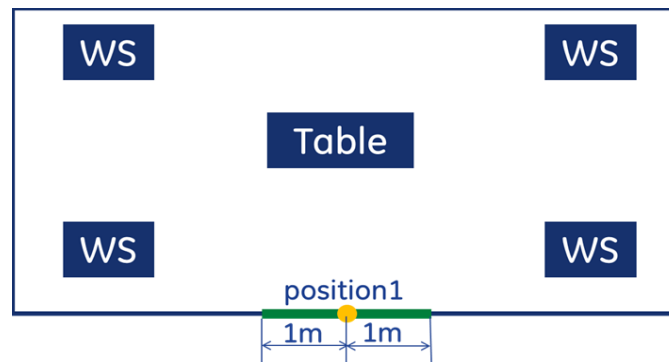
3.4.1 Inside control room layout:



- 1.) If the most common used digital cassette application is area-1, select position1 as the default dongle installation position; If it's area2 use position2 as dongle default installation position
- 2.) Position1 is in the center from point A to B, that means it's the center position from edge of control room wall to exam room wall. The height requirement of dongle is 30cm lower than the ceiling. There is the possible adjusting

- range for dongle location if selecting position1, and the adjusting range is 1 meter both in left and right direction.
- 3.) Position2 is in the corner of control room. Height requirement is same as position2, 30cm lower to the ceiling. No adjusting range for this location.
 - 4.) Dongle angle shall be 45 degrees toward the wall.
 - 5.) Site preparation shall reserve the conduit for position1/2 and adjusting range to make sure the dongle cables could be routed inside the conduit.
 - 6.) There shall be no metal obstacle within the 20 cm range of dongle installation position
 - 7.) There shall be no obstacle between dongle and digital cassette area

3.4.2 Outside control room layout



- 1.) There is only one default dongle installation – position1, it's the center position of the examination room
- 2.) Dongle installation position's height shall be 30cm lower than the ceiling
- 3.) Dongle angle shall be 45 degrees toward the wall.
- 4.) Site preparation shall reserve the conduit for position1/2 and adjusting range to make sure the dongle cables could be routed inside the conduit.
- 5.) There shall be no metal obstacle within the 20 cm range of dongle installation position
- 6.) There shall be no obstacle between dongle and digital cassette area

3.5 Configurations and option

In Table Below, Room configurations supported for the System are selected.

Table 2-7 Optima XR646 System Configuration

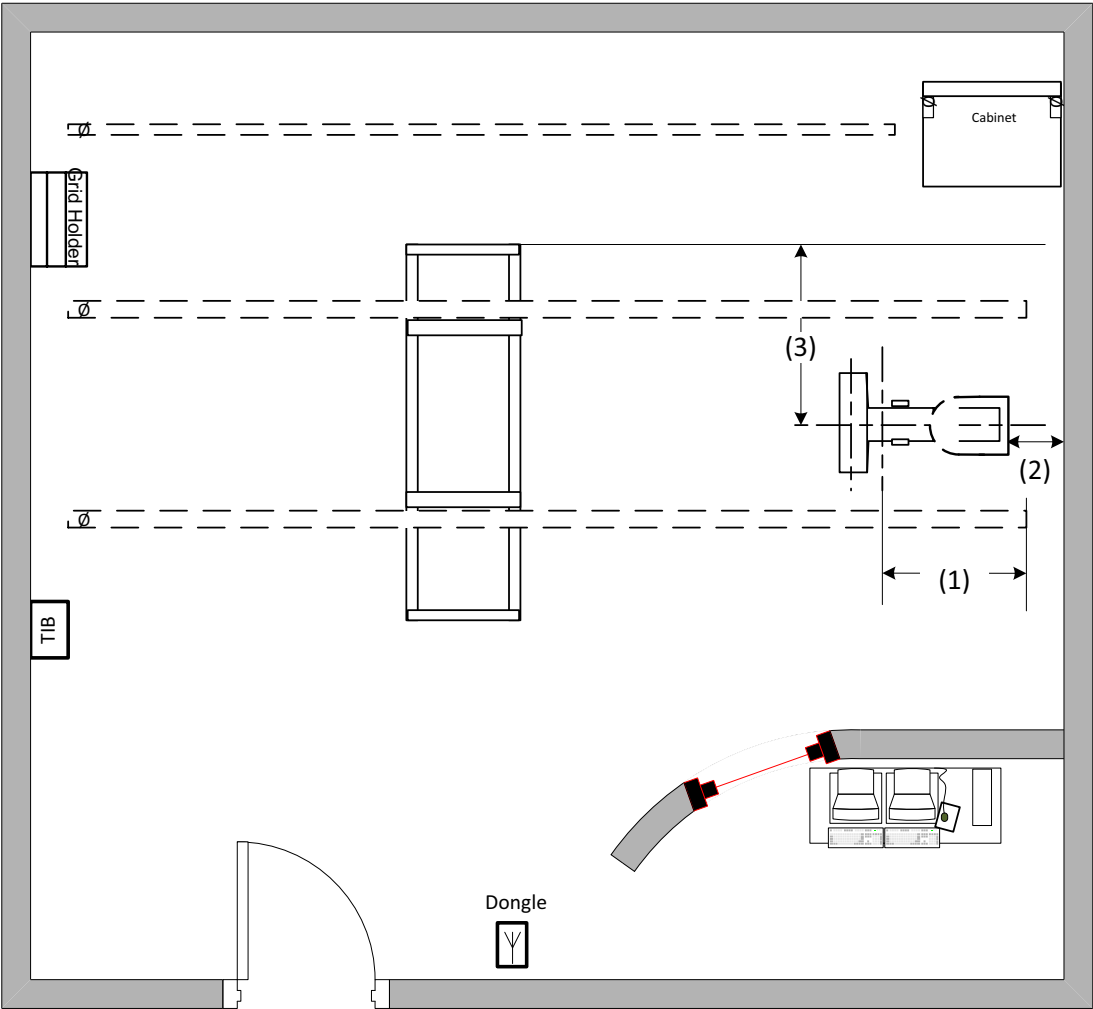
System	Wall Stand Type	Bridge Length, Wall Stand Position							
		2M Bridge				3M Bridge			
		Front	Back	Head	Foot	Front	Back	Head	Foot
Global URP WS Only	Standard			√	√			√	√
Global URP WS Only	Extended			√	√			√	√
Manual WS Only	Manual			√	√			√	√
Table Only Both for Global G2 table and Standard Table	NA	√				√			

Table 2-7 Optima XR646 System Configuration

System	Wall Stand Type	Bridge Length, Wall Stand Position							
		2M Bridge				3M Bridge			
		Front	Back	Head	Foot	Front	Back	Head	Foot
Global URP WS & Global G2 Table	Standard							√	√
Global URP WS & Global G2 Table	Extended							√	√
Manual WS & Standard Table	Manual							√	√
Global URP WS & Standard Table	Standard							√	√
OTS Only(12m rail)									

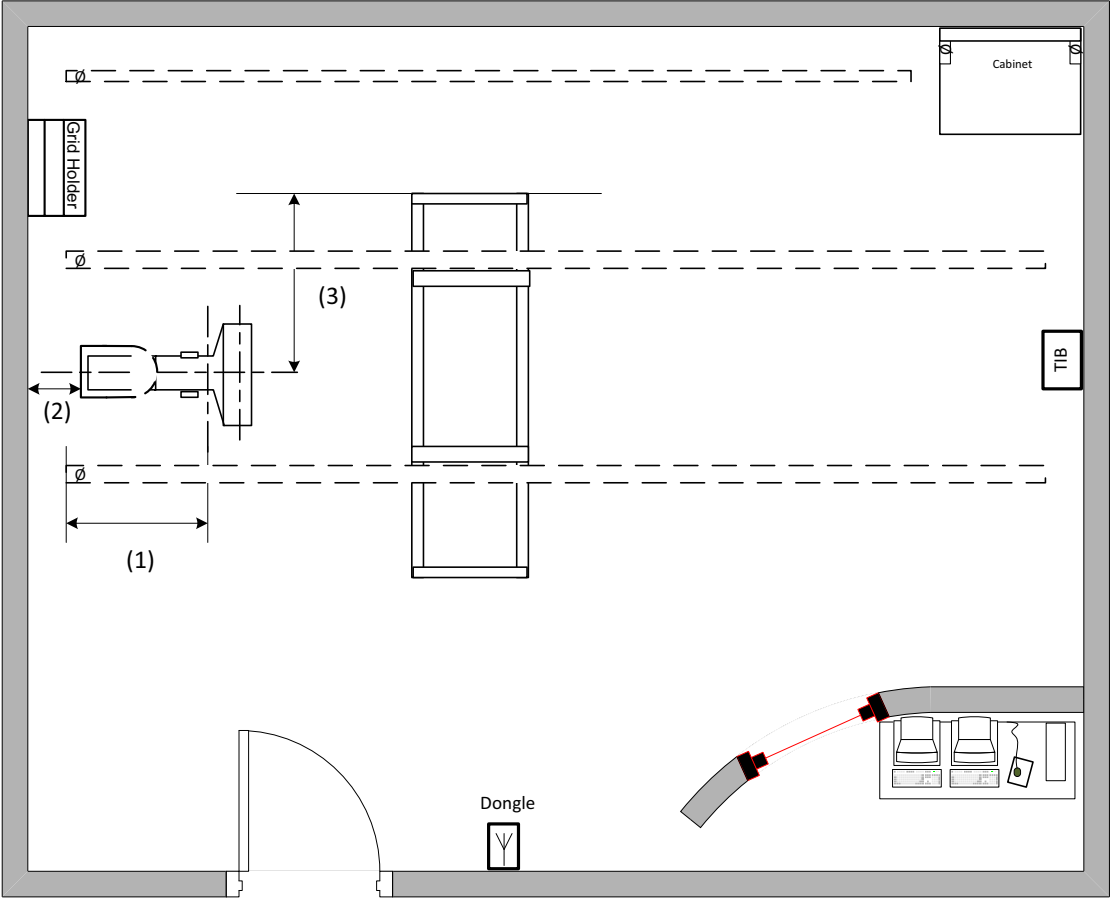
Drawings for these room configurations are shown in the following pages. They include dimensional requirements between components and show Image Pasting applications (purchasable options) can be used in a room that meets those dimensional requirements.

Illustration 2-38 : Standard/Extended Arm Wall Stand only, at Foot with 2M/3M Bridge



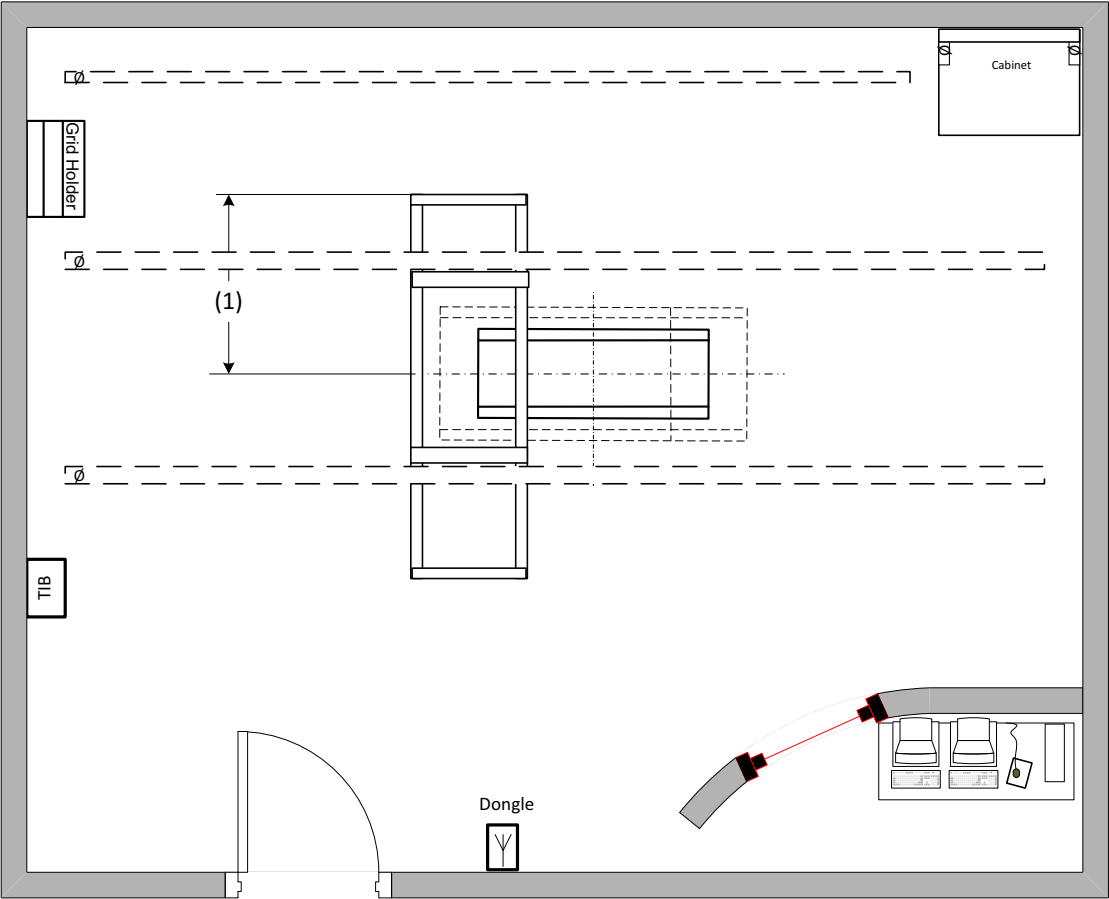
ITEM	Bridge Length	Wall Stand	Dimension			Description
				MM	In	
(1)	ALL	Standard WS	Min	630	24.8	Foot End of rail to center line of tilted Detector
		Ext WS	Min	1090	42.9	
(2)	ALL	ALL	Min	203	8.0	minimum service clearances.
(3)	2M	Standard WS	Min	960	37.8	Back of bridge to center line of Wallstand
			Max	1670	65.7	
		Ext WS	Min	960	37.8	
			Max	1210	47.6	
	3M	Standard WS	Min	960	37.8	
			Max	2735	107.7	
		Ext WS	Min	960	37.8	
			Max	2275	89.6	

Illustration 2-39 : Standard Arm Wall Stand, WS only at Head with 2M/3M Bridge



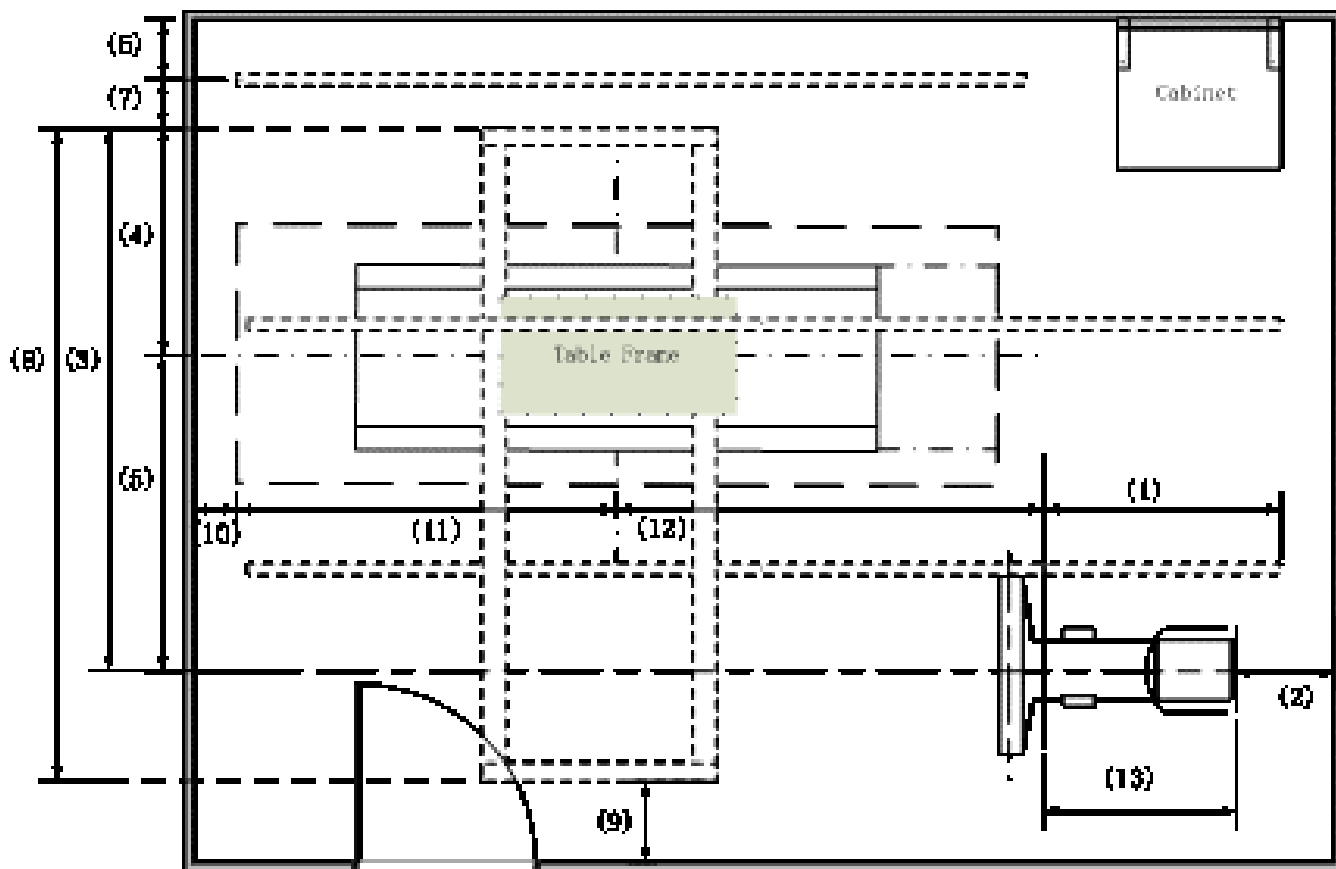
ITEM	Bridge Length	Wall Stand	Dimension			Description
				MM	In	
(1)	ALL	Standard WS	Min	630	24.8	Foot End of rail to center line of tilted Detector
(2)	ALL	Standard WS	Min	203	8.0	minimum service clearances.
(3)	2M	Standard WS	Min	960	37.8	Back of bridge to center line of Wallstand
			Max	1670	65.7	
	3M	Standard WS	Min	960	37.8	
			Max	2735	107.7	

Illustration 2-40 : Global G2 Table only with 2M/3M Bridge



ITEM	Bridge Length	Wall Stand	Dimension			Description
				MM	In	
(1)	2M	NA	Min	960	37.8	Back of bridge to center line of table
			Max	1670	65.7	
	3M	NA	Min	960	37.8	
			Max	2735	107.7	

Illustration 2-41 : G2 XR646 Room Layout: G2 Table & WS with 3m bridge at Foot



Item	Config	Limit	Dimension		Description
			mm	inch	
(1)	Std WS	Min	630	24.8	Foot end of rail to center line of tilted WS detector. 630 mm (530+100 Cal space)
	Ext. WS	Min	1090	42.9	Foot end of rail to center line of tilted WS detector. 1060 mm (530 limit position+460 column CL to focal spot +100 Cal space)
(2)	All	Min	203	8.0	Service clearance for WS installation. The Min value should be larger than 203 mm, the WS back cover could be installed or can be removed.
(3)	All	Min	2060	81.1	Back of bridge to center line of WS. Min value 2060 (860 +100 Cal space + 700 distance between focal spot to back of OTS column +400 half table Width) Max value 2735 (bridge biggest travel range 2835 - 100 Cal space)
		Max	2735	107.7	
(4)	All	Min	960	37.8	Back of bridge to center line of table. 960mm (860 +100 Cal space)
(5)	All	Min	1100	43.3	Table center line to WS center line. Min value 1100 mm (700 distance between focal spot to back of OTS column + 400 half table width)
(6)	All	Min	102	4.0	Room wall to drape rail Make sure cable not touch the wall

(7)	All	Min	62	2.4	Drape rail to back of bridge. Make sure cable could bend freely.
(8)	All	Fix	3077	121.1	3M Bridge length
(9)	All	Min	100	3.9	Service clearance (front of bridge to wall)
(10)	Std WS	Min	60	2.4	Service clearance for Tabletop at head limit position. The min value for tabletop not touch the wall.
	Ext. WS	Min	160	6.3	Service clearance for Tabletop at head limit position. Should be bigger than Std WS requirement to make WS SID enough long as 1900mm.
(11)	All	Fix	1540	60.6	Half length of G2 table tabletop longitudinal travel range
(12)	All	Min	X	XX	Center line of tilted Detector to center line of table in longitudinal, it decides room length per stretcher table used or not. If stretcher table is needed between table and WS, $X=200\text{mm}$ WS tilted detector to surface + $W\text{mm}$ Stretcher table width + 900mm half length to table center + 100mm margin, Stretcher table width W could be adjusted per real table width. If no stretcher table, For Std WS, it need min 1440mm to allow cabinet installed at foot side or min 800mm with bigger (10) when cabinet installed at head side; For Ext WS, it need min 1150mm to allow cabinet installed at foot side or min 485mm with bigger (10) when cabinet installed at head side.
(13)	Std WS	Fix	734	28.9	Back cover of WS to center line of tilted WS detector
	Ext. WS	Fix	1156	45.5	Back cover of WS to center line of tilted WS detector.

Analysis

- 1.) Cabinet installed in foot side could meet smaller room size than in head side.
- 2.) Item(12) length X decides room length per stretcher table used or not. If stretcher table is needed between table and WS, $X=200\text{mm}$ WS tilted detector to surface + $W\text{mm}$ Stretcher table width + 900mm half length to table center + 100mm margin, Stretcher table width W could be adjusted per real table width.

Advanced application needs

	Without Stretcher table	With Stretcher table
Std WS	(12) min 1440mm	(12) min 1200mm+Wmm
Ext. WS	(12) min 1150mm	(12) min 1200mm+Wmm

- 1.) (12) min 1440mm: min data which could make cabinet to not touch table max travel range for Std WS with cabinet in foot side.
- 2.) (12) min 1150mm: min data which could make cabinet to not touch table max travel range for Ext WS with cabinet in foot side.
- 3.) W: Stretcher table width. L: Stretcher table Length.

Summary Result:

w/o Control Room	Items	WS	Without Stretcher table	With Stretcher table
Length	(2)+(10)+(11)+(12)+(13)	Std WS	3977	3737+W
		Ext. WS	4209	4159+W
Width	(6)+(7)+(8)+(9)	All	3341	1450+L or 3341

Stretcher Table Model	H	L	W
E6401J	705	2159	711
S1700JM	700	2200	650
E6401K and E10811VB	610~1010	2437	1000

Note:

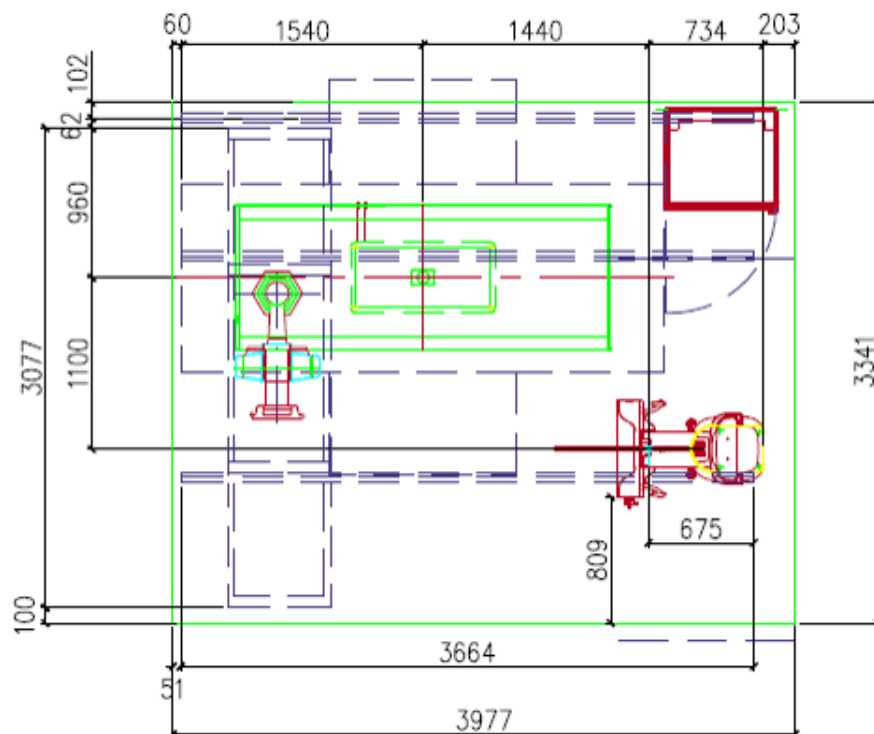
- 1.) Room Width $1450 + L$ (Wall to table front edge $1350 + 100$ margin + stretcher table length L) is required if stretcher table could go through front side door. But only width 3341mm is required if stretcher table could go through head/foot side door.
- 2.) Above data are MIN size with precise positioning, recommended room size is 5500*5000.
- 3.) Ext WS room min length 4209mm is rarely used, normally need $4159 + W$ because customer buy Ext WS to apply stretcher table.

Min size G2 XR646 room template with G2 Table & WS at Foot (3m bridge)

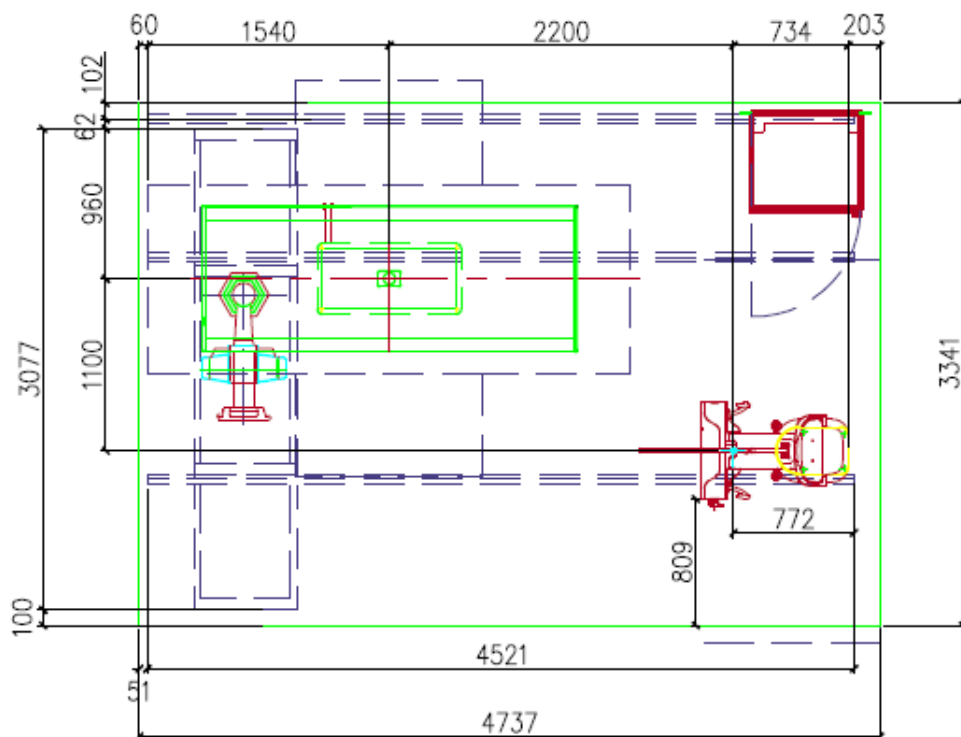
Assumption:

- 1.) Below 3 drawings are min size rooms according to previous room layout analysis, only for reference and understanding help. Need design room layout per real site room size and system configuration.
- 2.) No considering room door position and control room, only considering main system layout.
- 3.) Choose the rail type most fit for the min room, make the rail nearer to head side to guarantee OTS travel range to cover head side of table, so the distance between end of rail and tilted detector is not min size..

STD WS without stretcher table



STD WS with stretcher table



EXT WS with stretcher table

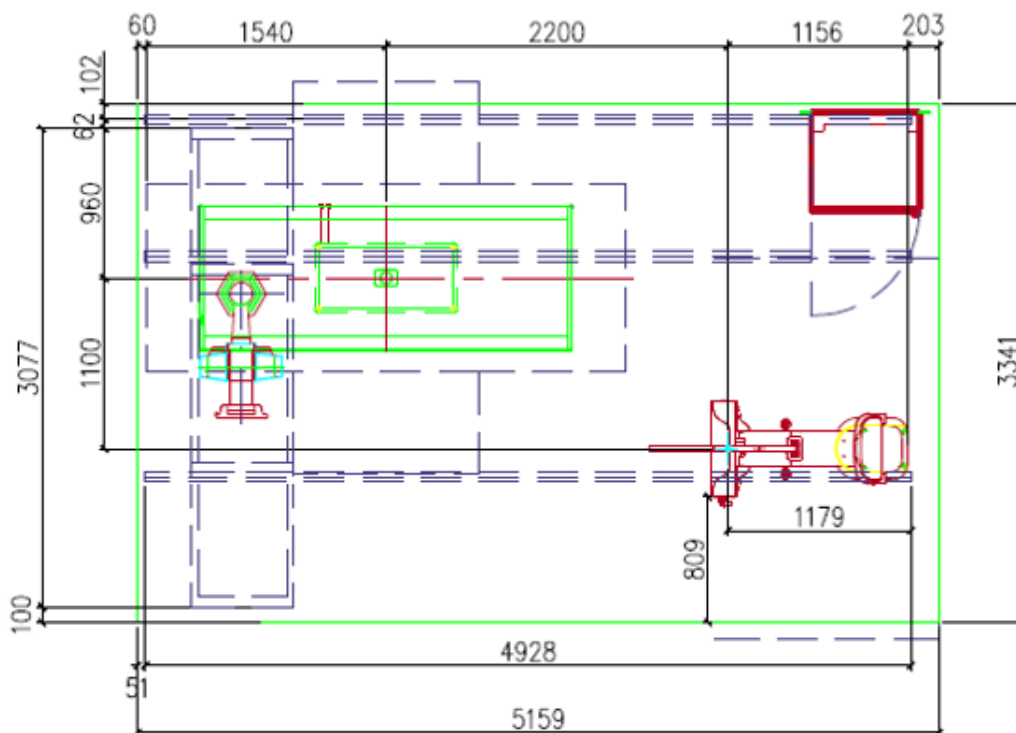
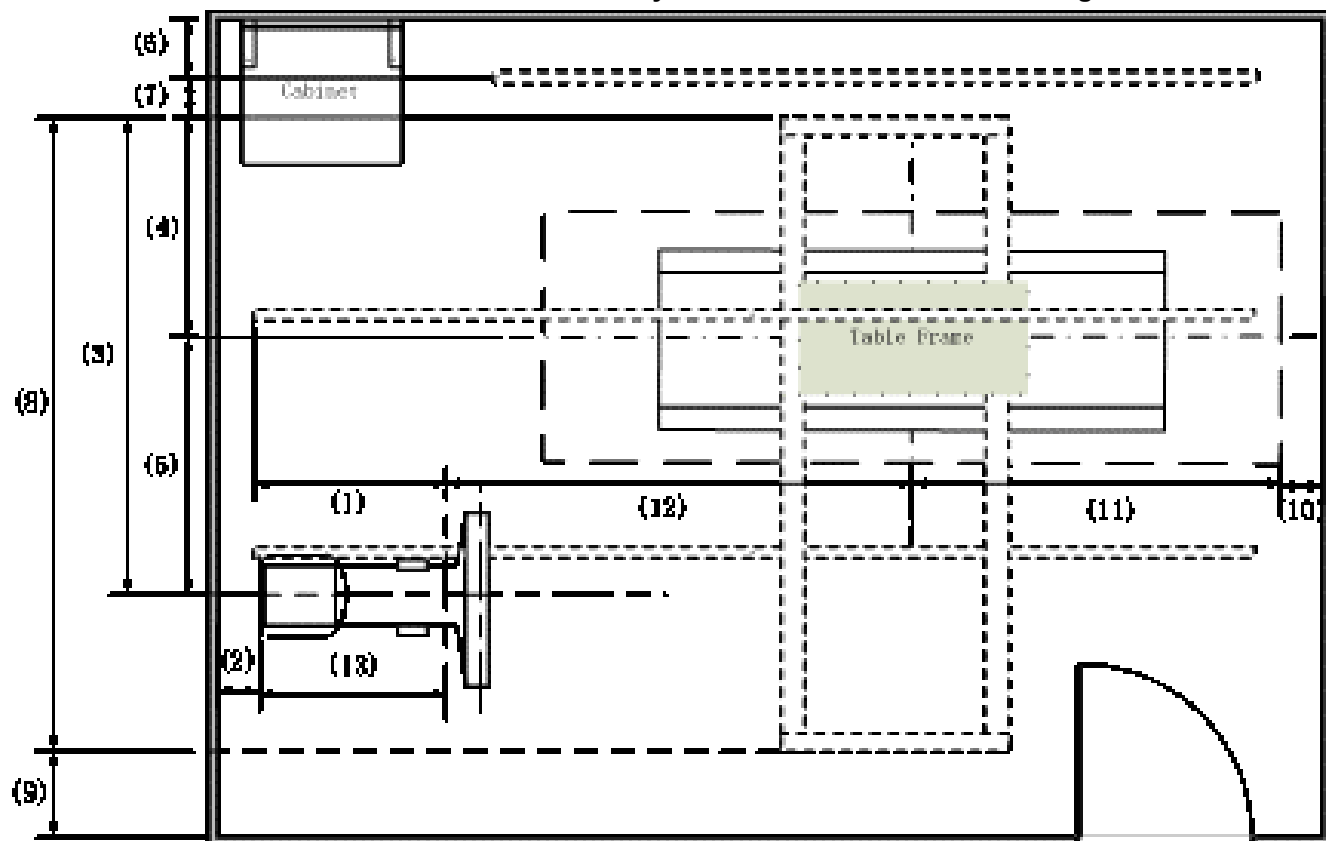


Illustration 2-42 : G2 XR646 Room Layout: G2 Table & WS with 3m bridge at Head



Item	Config	Limit Dimension	mm		Description
			mm	inch	
(1)	Std WS	Min	630	24.8	Head end of rail to center line of tilted WS detector. 630 mm (530+100 Cal space)
	Ext. WS	Min	1090	42.9	Head end of rail to center line of tilted WS detector. 1060 mm (530 limit position+460 column CL to focal spot +100 Cal space)
(2)	All	Min	203	8.0	Service clearance for WS installation. The Min value should be larger than 203 mm, the WS back cover could be installed or can be removed.
(3)	All	Min	2060	81.1	Back of bridge to center line of WS. Min value 2060 (860 +100 Cal space + 700 distance between focal spot to back of OTS column +400 half table Width) Max value 2735 (bridge biggest travel range 2835 - 100 Cal space)
		Max	2735	107.7	
(4)	All	Min	960	37.8	Back of bridge to center line of table. 960mm (860 +100 Cal space)
(5)	All	Min	1100	43.3	Table center line to WS center line. Min value 1100 mm (700 distance between focal spot to back of OTS column + 400 half table width)
(6)	All	Min	102	4.0	Room wall to drupe rail Make sure cable not touch the wall

(7)	All	Min	62	2.4	Drape rail to back of bridge. Make sure cable could bend freely.
(8)	All	Fix	3077	121.1	3M Bridge length
(9)	All	Min	100	3.9	Service clearance (front of bridge to wall)
(10)	Std WS	Min	60	2.4	Service clearance for Tabletop at foot limit position. The min value for tabletop not touch the wall.
	Ext. WS	Min	160	6.3	Service clearance for Tabletop at foot limit position. Should be bigger than Std WS requirement to make WS SID enough long as 1900mm.
(11)	All	Fix	1540	60.6	Half length of G2 table tabletop longitudinal travel range
(12)	All	Min	X	XX	Center line of tilted Detector to center line of table in longitudinal, it decides room length per stretcher table used or not. If stretcher table is needed between table and WS, $X=200\text{mm}$ WS tilted detector to surface + $W\text{mm}$ Stretcher table width + 900mm half length to table center + 100mm margin, Stretcher table width W could be adjusted per real table width. If no stretcher table, For Std WS, it need min 1440mm to allow cabinet installed at head side or min 800mm with bigger (10) when cabinet installed at foot side; For Ext WS, it need min 1150mm to allow cabinet installed at head side or min 485mm with bigger (10) when cabinet installed at foot side.
(13)	Std WS	Fix	734	28.9	Back cover of WS to center line of tilted WS detector.
	Ext. WS	Fix	1156	45.5	Back cover of WS to center line of tilted WS detector.

Analysis

- 1.) Cabinet installed in head side could meet smaller room size than in foot side.
- 2.) Item(12) length X decides room length per stretcher table used or not. If stretcher table is needed between table and WS, $X=200\text{mm}$ WS tilted detector to surface + $W\text{mm}$ Stretcher table width + 900mm half length to table center + 100mm margin, Stretcher table width W could be adjusted per real table width.

Advanced application needs

	Without Stretcher table	With Stretcher table
Std WS	(12) min 1440mm	(12) min 1200mm+ $W\text{mm}$
Ext. WS	(12) min 1150mm	(12) min 1200mm+ $W\text{mm}$

- 1.) (12) min 1440mm: min data which could make cabinet to not touch table max travel range for Std WS with cabinet in head side.
- 2.) (12) min 1150mm: min data which could make cabinet to not touch table max travel range for Ext WS with cabinet in head side.
- 3.) W : Stretcher table width. L : Stretcher table Length.

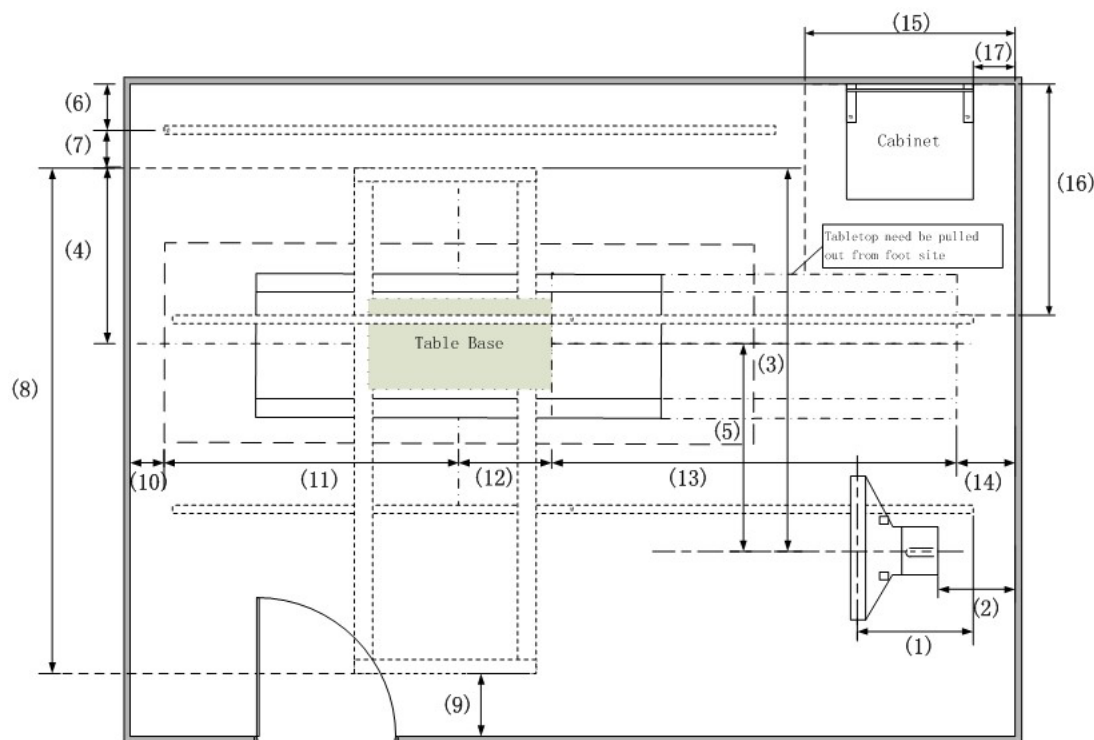
Summary Result:

w/o Control Room	Items	WS	Without Stretcher table	With Stretcher table
Length	(2)+(10)+(11)+(12)+(13)	Std WS	3977	3737+ W
		Ext. WS	4209	4159+ W
Width	(6)+(7)+(8)+(9)	All	3341	1450+ L or 3341

Stretcher Table Model	H	L	W
E6401J	705	2159	711
S1700JM	700	2200	650
E6401K and E10811VB	610~1010	2437	1000

- 1.) Room Width $1450 + L$ (Wall to table front edge $1350 + 100$ margin + stretcher table length L) is required if stretcher table could go through front side door. But only width 3341mm is required if stretcher table could go through head/foot side door.
- 2.) Above data are MIN size with precise positioning, recommended room size is 5500*5000.
- 3.) Ext WS room min length 4209mm is rarely used, normally need $4159 + W$ because customer buy Ext WS to apply stretcher table.

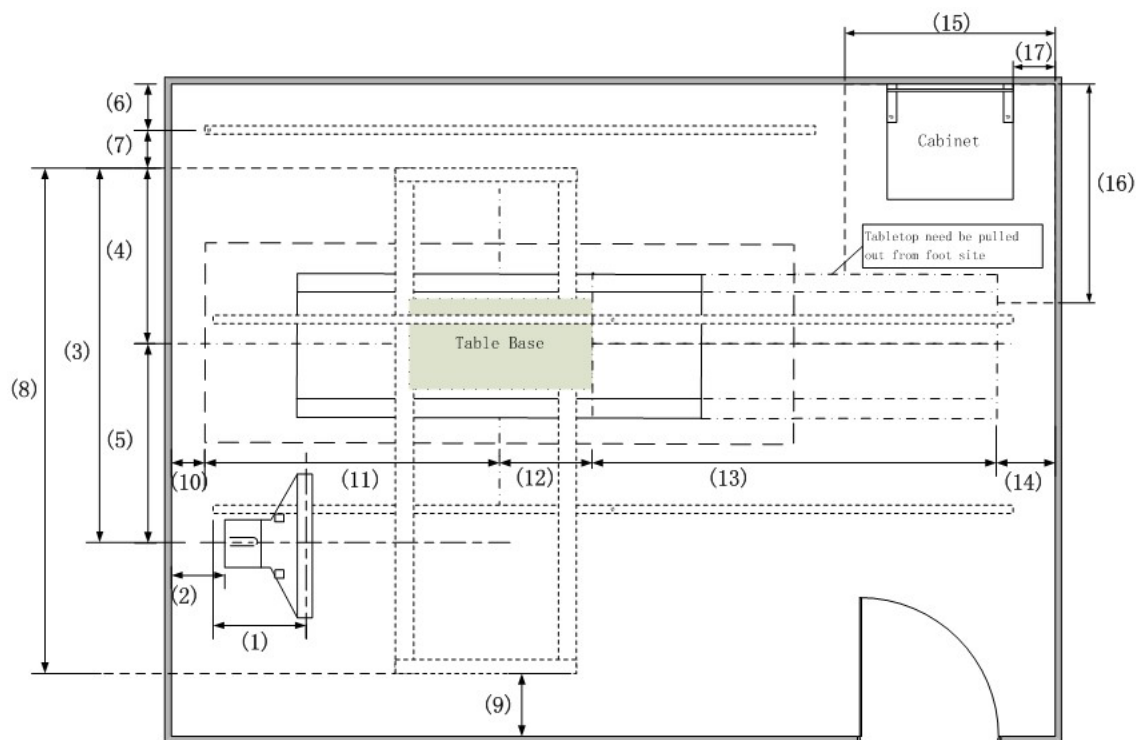
Illustration 2-43 : Standard Table & Manual WS at Foot with 3M bridge



Item	Limit Dimension			Recommend Dimension		Description
		mm	inch	mm	inch	
(1)	Min	630	24.8	700	27.6	Foot end of rail to center line of WS detector. With manual WS, the Min value should be larger than 630 mm (530+100 Cal space)
(2)	Min	203	8.0	400	15.7	Service clearance for WS installation. The Min value should be larger than 203 mm, the WS back cover could be installed or can be removed.
(3)	Min	2060	81.1	2300	90.6	Back of bridge to center line of WS. 1. With manual WS, the Min value should be larger than 2060 (860 + 100 Cal space + 700 distance between focal spot to back of OTS column + 400 half table Width) 2. with manual WS, the Max value should be less than 2735 (OTS biggest travel range 2835 - 100 Cal space)
	Max	2735	107.7			

(4)	Min	960	37.8	1000	39.4	Back of bridge to center line of table. With manual WS, the Min value should be larger than 960 (860 + 100 Cal space)
(5)	Min	1100	43.3	1300	51.2	Table center line to WS center line. The Min value should be larger than 1100 mm (700 distance between focal spot to back of OTS column + 400 half table width)
(6)	Min	102	4.01	200	7.9	Room wall to drape rail Make sure cable not touch the wall
(7)	Min	62	2.44	200	7.9	Drape rail to back of bridge. Make sure cable could bend freely
(8)	Fix	3077	121.1	3077	121.1	3M Bridge length
(9)	Min	100	3.94	500	19.7	Service clearance for OTS installation.
(10)	Min	50	2.0	100	3.9	Service clearance for Tabletop at head limit postion. The min value for tabletop not touch the wall.
(11)	Fix	1660	65.4	1660	65.4	Half length of tabletop longitudinal travel coverage
(12)	Fix	660	26.0	660	26.0	Half length of table base(no tabletop)
(13)	Fix	2330	91.7	2330	91.7	Length of tabletop
(14)	Min	50	2.0	500	19.7	Service clearance for Tabletop pulled out. The min value for tabletop not touch the wall when it is pulled out. FE could stand byside of the tabletop if room length is short.
(15)	Min	1353	53.3	1400	55.1	Service clearance for cabinet.
(16)	Min	1307	51.5	1400	55.1	Service clearance for cabinet.
(17)	Min	200	7.9	200	7.9	Service clearance for cabinet.

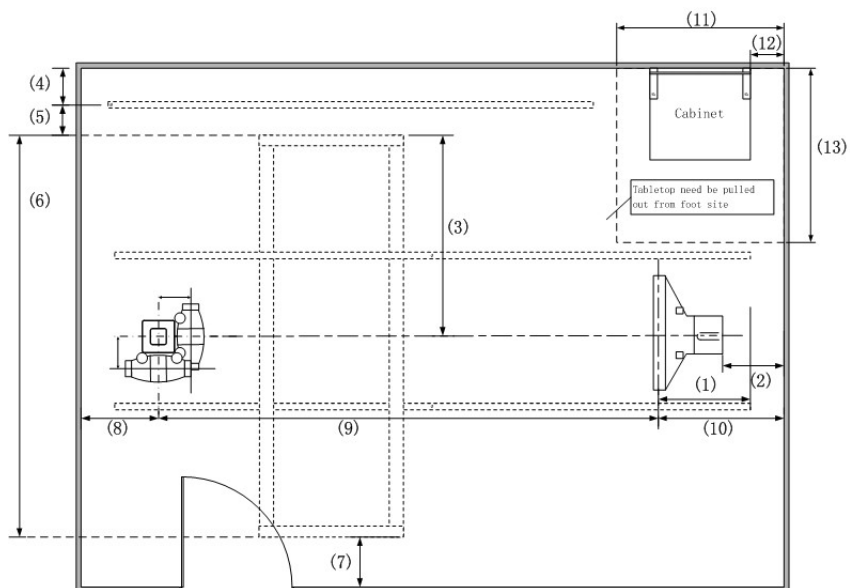
Illustration 2-44 : Standard Table & Manual WS at Head with 3M bridge



Item	Limit Dimension			Recommend Dimension		Description
		mm	inch	mm	inch	
(1)	Min	630	24.8	700	27.6	Head end of rail to center line of WS detector. With manual WS, the Min value should be larger than 630 mm (530+100 Cal space)
(2)	Min	203	8.0	400	15.7	Service clearance for WS installation. The Min value should be larger than 203 mm, the WS back cover could be installed or can be removed.
(3)	Min	2060	81.1	2300	90.6	Back of bridge to center line of WS. 1.With manual WS, the Min value should be larger than 2060 (860 +100 Cal space + 700 distance between focal spot to back of OTS column +400 half table Width) 2.with manual WS, the Max value should be less than 2735 (OTS biggest travel range2835 - 100 Cal space)
	Max	2735	107.7			

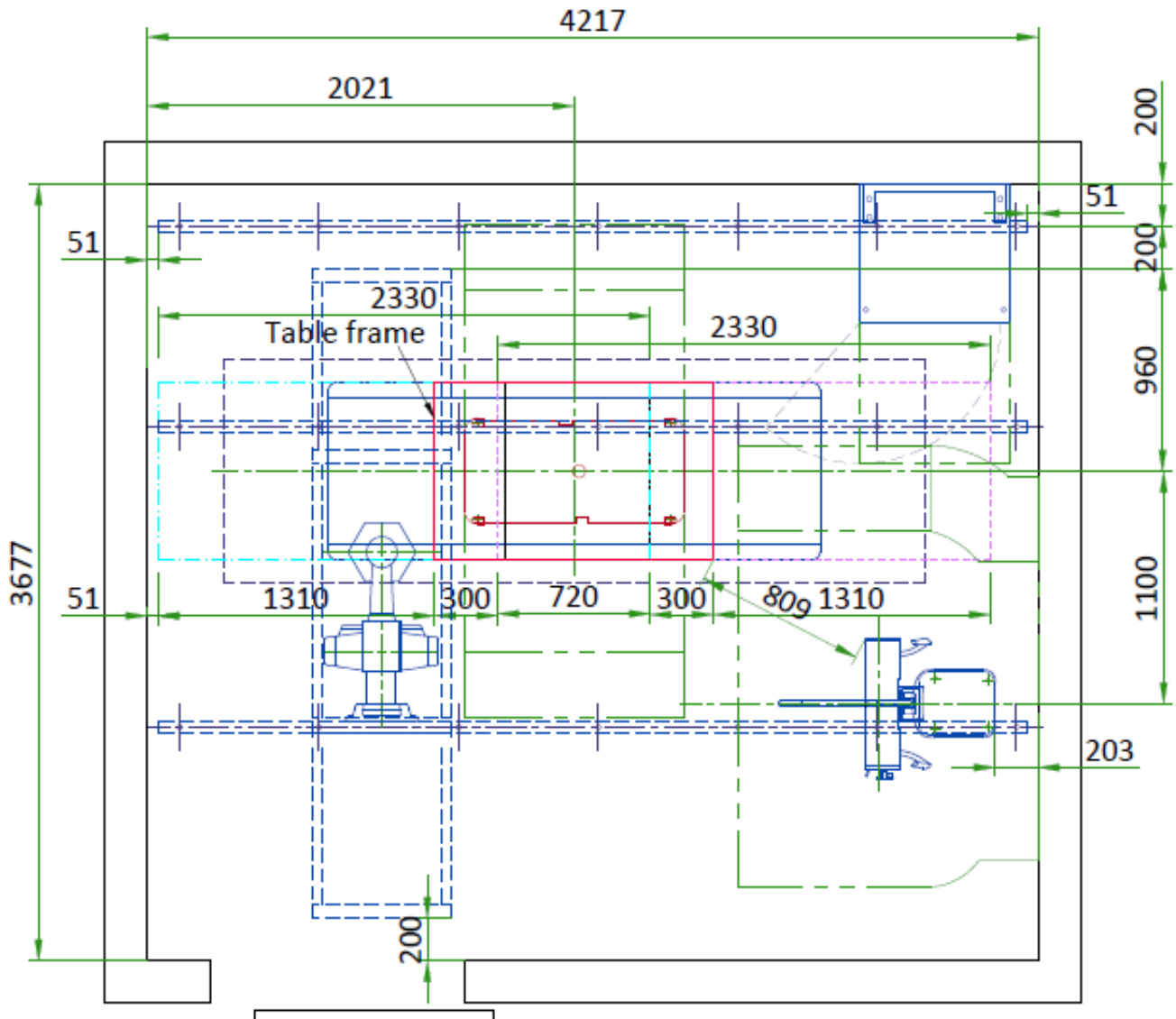
(4)	Min	960	37.8	1000	39.4	Back of bridge to center line of table. With manual WS, the Min value should be larger than 1960 (860 +100 Cal space + 600 distance between focal spot to back of OTS column +400 half table Width)
(5)	Min	1100	43.3	1300	51.2	Table center line to WS center line. The Min value should be larger than 1000 mm (700 distance between focal spot to back of OTS column + 400 half table width)
(6)	Min	102	4.01	200	7.9	Room wall to drape rail Make sure cable not touch the wall
(7)	Min	62	2.44	200	7.9	Drape rail to back of bridge. Make sure cable could bend freely
(8)	Fix	3077	121.1	3077	121.1	3M Bridge length
(9)	Min	100	3.94	500	19.7	Service clearance for OTS installation.
(10)	Min	50	2.0	100	3.9	Service clearance for Tabletop at head limit position. The min value for tabletop not touch the wall.
(11)	Fix	1660	65.4	1660	65.4	Half length of tabletop longitudinal travel coverage
(12)	Fix	660	26.0	660	26.0	Half length of table base (no tabletop)
(13)	Fix	2330	91.7	2330	91.7	Length of tabletop
(14)	Min	50	2.0	500	19.7	Service clearance for Tabletop pulled out. The min value for tabletop not touch the wall when it is pulled out. FE could stand by side of the tabletop if room length is short.
(15)	Min	1353	53.3	1400	55.1	Service clearance for cabinet.
(16)	Min	1307	51.5	1400	55.1	Service clearance for cabinet.
(17)	Min	200	7.9	200	7.9	Service clearance for cabinet.

Illustration 2-45 : Manual WS only with 2M bridge



Item	Limit Dimension			Recommend Dimension		Description
		mm	inch	mm	inch	
(1)	Min	630	24.8	700	27.6	Foot end of rail to center line of WS detector. With manual WS, the Min value should be larger than 630 mm (530+100 Cal space)
(2)	Min	203	8.0	400	15.7	Service clearance for WS installation. The Min value should be larger than 203 mm, the WS back cover could be installed or can be removed.
(3)	Fix	1045	41.1	1045	41.1	Half of 2099mm Bridge.
(4)	Min	102	4.01	200	7.9	Room wall to drape rail Make sure cable not touch the wall
(5)	Min	62	2.44	200	7.9	Drape rail to back of bridge. Make sure cable could bend freely
(6)	Fix	2099	82.6	2099	82.6	2099mm Bridge.
(7)	Min	500	19.7	1000	39.4	Service clearance for bridge installation.
(8)	Min	900	35.4	1000	39.4	Distance between head end of bridge and OTS when OTS at head limit position.
(9)	Min	1900	74.8	2000	78.7	Travel range of OTS. The Min value should be larger than 1900 mm(1800 SID+100 cal).

(10)	Min	1000	39.4	1000	39.4	Distance between foot side wall and WS detector centor. The Min value should be larger than 1000 mm for service clearance.
(11)	Min	1353	53.3	1400	55.1	Service clearance for cabinet.
(12)	Min	1307	51.5	1400	55.1	Service clearance for cabinet.
(13)	Min	200	7.9	200	7.9	Service clearance for cabinet.



CAUTION

Min Room Layout for Limited Service Clearance (Standard table+ WS) w/o Control room is only for Special case and must meet below limitations.

If Service FE and customer accept below 2 limitations:

- 1.) Table top can't be pulled out in exam room, so table actuator and table top can't be replaced in exam room.
(Need take table out of the room if have to pull overall tabletop out for troubleshooting)
- 2.) FE need install tabletop out of exam room, then push table into exam room.

Then system could be installed into the site with below 2 merits:

- 1.) Min room size: 4217*3677mm.
- 2.) Tabletop could be pushed to head/foot side until 300mm table frame is exposed, then the bolt of top rear cover

could be exposed. Remove all table cover. most components could be repaired except replacing table actuator and tabletop.

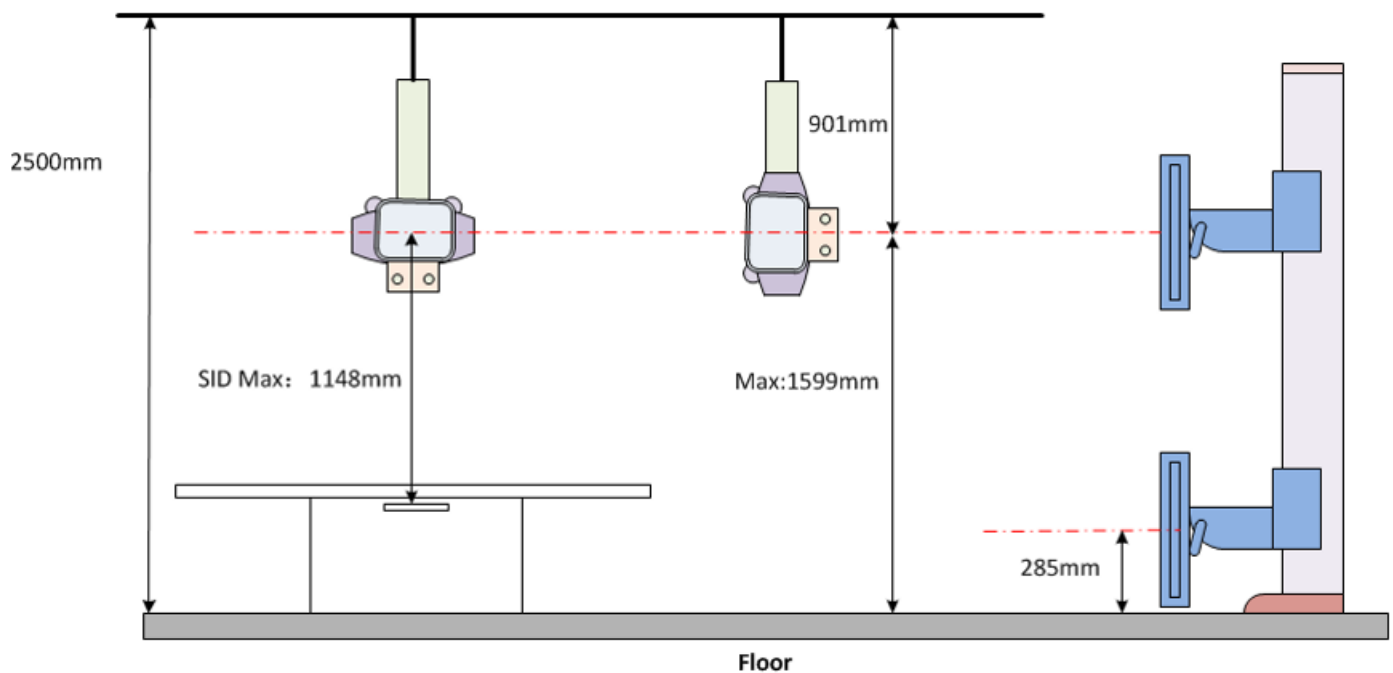
Room Size Summary

- 1.) If with control room, width need add min 1100mm. so min room size is 4217mm*4800mm
- 2.) If 2200mm stretcher table is used, width need min 4000mm (200+200+960+table width/2+2200) to push it into exposure room, so min room size is 4217mm*4000mm.
- 3.) Applicable to below 2 configurations:

Standard table+ manual WS

Standard table +G2 Std. WS

Clinical Impact when Chogori Std. Table+WS in Proteus Room with Min Ceiling Height 2500mm



If Chogori Std. Table+WS are installed in 2.5m ceiling height room, the clinical impact is:

- 1.) For table mode, the tabletop max height is 67.3cm while maintaining 100cm SID. This impact the operator to bend for operation, it is manageable from the operator's perspective. We have proven use of a similar height in the Brivo 385 DRF which is a fixed height table. It is fixed at 70.1 cm. We think the difference of 2.8cm or about 1 in. is small enough to equate the usability of this height.
- 2.) The max SID is 114.8cm when tabletop at lowest position, we are within a customer's expectation concerning the maximum available SID.
- 3.) For WS coverage, tube max height is 159.9cm, for 185cm (95% coverage) height patient, it can provide coverage for great majority of chest exams, it's usable. While many neck or head exams at the Wallstand may require the patient to be seated.

Room size summary for full service function summary

Configuration	Standard Table + Manual WS or G2 Standard WS(L*W*H)		Standard Table + Extended WS(L*W*H)		Manual WS only(L*W*H)	
Room type	Min (mm)	Recommend (mm)	Min (mm)	Recommend (mm)	Min (mm)	Recommend (mm)
w/o control room w/o stretcher table	4750*3341*2686	5250*4000*2986	4750*3341*2750	5250*4000*2986	3800*3000*2686	4000*3500*2986
w/o control room w stretcher table	4750*4000*2686	5250*5000*2986	4750*4000*2750	5250*5000*2986	3800*3000*2686	4000*3500*2986
w control room	4750*4800*2686	5250*5000*2986	4750*4800*2750	5250*5000*2986	3800*3500*2686	4000*4000*2986

Note: G2 Extended WS: Min_Ceiling Height=2750mm

Min Room size for limited service function (special case)

Configuration	Standard Table + Manual WS or G2 Standard WS(L*W*H)
Room type	Min (mm)
w/o control room w/o stretcher table	4217*3341*2686
w/o control room w stretcher table	4217*4000*2686
w control room	4217*4800*2686

Need Service FE and customer accept below 2 limitations:

- 1.) Tabletop can't be pulled out in exam room, so table actuator and tabletop can't be replaced in exam room. (Need take table out of the room if have to pull overall tabletop out for troubleshooting)
- 2.) FE need install tabletop out of exam room, then push table into exam room.

Then system could be installed into the site with below 2 merits and above 2 limitations:

- 1.) Min room size: 4217*3677mm.
- 2.) Tabletop could be pushed to head/foot side until 300mm table frame is exposed, then the bolt of top rear cover could be exposed. Remove all table cover. most components could be repaired except replacing table actuator and tabletop.

Section 4.0 Seismic

4.1 Overview

Seismic requirements are determined and specified by the hospital/Design Professional of record and may require approval by the specific state or country agency.

Seismic attachment hardware shown on seismic calculations may differ from hardware supplied with system. Any additional hardware that is required will be the responsibility of the institution and/or their contractor. Contact your local GE representative to obtain seismic calculations.

Seismic calculations are per California Building Code (CBC) and International Building Code (IBC).

4.2 Calculations

Seismic calculations can be obtained for the following:

- Overhead Tube Suspension (OTS)
- System Cabinet (SKL)
- Table (TBL)
- Wall Stand (WLS)
- Extended Wall Stand (WLS)
- Detector BIN

Chapter 3 Special Construction

Section 1.0 Radiation Protection

Because X-ray equipment produces radiation, special precautions may need to be taken or special site modifications may be required. The General Electric Company does not make recommendations regarding radiation protection. It is the purchasers responsibility to consult a radiation physicist for advice on radiation protection in X-ray rooms.

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Chapter 4 HVAC

Section 1.0 Environmental Requirements

1.1 Relative Humidity and Temperature

Table 4-1 Environmental Requirements (Relative Humidity & Temperature)

Product or Component	RELATIVE HUMIDITY (Non-Condensing)		Temperature	
	IN-USE		IN-USE	
	MIN	MAX	MIN.	MAX.
URP Detector	30%	60%	15° C (59° F)	35° C (95° F)
Wall Stand Std. & Ext.	30%	60%	15° C (59° F)	35° C (95° F)
Table (TBL)	30%	60%	15° C (59° F)	35° C (95° F)
OTS	30%	60%	15° C (59° F)	35° C (95° F)
System Cabinet(SKL1)	30%	60%	15° C (59° F)	35° C (95° F)
Maxiray 100-09 X-ray Tube	-	-	15° C (59° F)	35° C (95° F)
Radiographic Stretcher Table (optional)	30%	60%	15° C (59° F)	35° C (95° F)
Operator Console:				
PC Tower	30%	60%	15° C (59° F)	35° C (95° F)
LCD Monitor	30%	60%	15° C (59° F)	35° C (95° F)

Limits for rates of change:

In-Use

< 10 degree C / hour

< 30% / hour

Storage

< 20 degree C / hour

< 30% / hour

NOTICE

STORAGE values only refer to equipment that is still in shipping containers. If the equipment is partially or completely installed, refer to IN-USE values.

The operating environment is the environmental requirements for the normal use of the device during the expected service life. It does not apply to the short term manufacturing testing and the like.

1.2 Altitude and Atmospheric Pressure

Table 4-2 Environmental Requirements - (Altitude & Atmospheric Pressure)

Product or Component	ALTITUDE				ATMOSPHERIC PRESSURE			
	IN-USE		STORAGE		IN-USE		STORAGE	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
Total System Limits	-30 m (-98.43 ft)	3000 m (9843 ft)	-30 m (-100 ft)	3000 m (9843 ft)	70 kPa	106 kPa	70 kPa	106 kPa

Limits for rates of change:

In-Use

< 1.8 kPa / hour

Storage

< 76 kPa / hour

NOTICE

STORAGE values only refer to equipment that is still in shipping containers. If the equipment is partially or completely installed, refer to IN-USE values.

The operating environment is the environmental requirements for the normal use of the device during the expected service life. It does not apply to the short term manufacturing testing and the like.

1.3 Heat Output

The standby and in-use heat output of each system component are provided below.

Table 4-3 Heat Outputs by Component

PRODUCT OR COMPONENT	HEAT OUTPUT			
	STANDBY		IN-USE	
WS Detector power	56 BTU/h	0.017 Kilowatt	56 BTU/h	0.017 Kilowatt
Wall Stand / Extended Wall Stand	79 BTU/h	0.023 Kilowatt	321 BTU/h	0.094 Kilowatt
TABLE Detector power	56 BTU/h	0.017 Kilowatt	56 BTU/h	0.017 Kilowatt
Table	315 BTU/h	0.092 Kilowatt	2272 BTU/h	0.666 Kilowatt
OTS & Collimator	105 BTU/h	0.031 Kilowatt	105 BTU/h	0.031 Kilowatt
Tube Rotor	0	0	544 BTU/h	0.160 Kilowatt
System Cabinet	2437 BTU/h	0.714 Kilowatt	4869 BTU/h	1.427 Kilowatt
Z420 PC+ Monitor	601 BTU/h	0.176 Kilowatt	863 BTU/h	0.253 Kilowatt
TIB	6.75 BTU/h	0.002 Kilowatt	68 BTU/h	0.020 Kilowatt
UPS	31.61 BTU/h	0.009 Kilowatt	45.45 BTU/h	0.013 Kilowatt

1.4 EMC Requirement

Refer to the Direction 5643857-1EN Optima XR646 Specification Chapter 4 - EMC Compliance Statement

Chapter 5 Electrical

Section 1.0 System Facility Power and Grounds

1.1 Introduction

The purpose of this section is to ensure that the product is properly powered and grounded, thus ensuring the proper operation of the product installed. The information in this section should be adhered to, unless there are written deviations approved by GE Healthcare.

This section gives the sizes and procedures on how to power and ground your system. If these power and grounding instructions are not adhered to, proper operation cannot be guaranteed. Any cost associated and found to be a result of non-conformity, as stated in this section, may result in additional cost charged back to the institution and/or their contractor.

NOTICE



All system and sub-system power connections shall be made *ONLY* to power outlets that are connected to the system.

1.2 Power Quality

The electrical power, from its origination to the system, must adhere to the wire size and transformer sizes as prescribed in the installation drawings. The feeder voltage-drops, as well as the supplying power, must be within the given parameters. Sizing for feeder is usually calculated for a maximum of 2% voltage drop at the minimum voltage range. The actual feeder sizing may vary from the installation drawing for a facilities voltage.

Calculate feeder losses before you begin. Total feeder losses must be calculated to ensure that the losses are less than those specified in the installation drawings. Calculating the recommended minimum transformer sizing for feeding a system ensures the transformer losses are less than half of the maximum regulation for the system.

Regulation is the calculated voltage losses for the entire power distribution system (No-Load Voltage minus Full-Load Voltage) divided by the no-load voltage minus the system losses (Full-Load Voltage):

$$\text{Regulation} = \frac{\text{NoLoadVoltage} - \text{FullLoadVoltage}}{\text{FullLoadVoltage}} \times 100$$

In the X-ray room, there must be a lockable facility power disconnect. It must be installed electrically before the equipment, for the purpose of locking out the power. This must be done before service to the high voltage system is performed.

1.3 Electrical Grounds

1.3.1 System and Facility Grounds

The ground for this system must originate at the system's power source and be continuous (i.e., transformer or first access point of power into a facility, and be continuous to the system power disconnect in the room). Ground connection at the power source must be at the grounding point of the "Neutral/Ground" if a "Wye" transformer is used, or typical grounding points of a separately derived system. In the case of an external facility, it must be bonded to the facility ground point at the electrical service entrance.

The "system" ground can be spliced using "High Compression Fittings" but must be properly terminated at each distribution panel it passes through. When it is terminated, it must be connected into an approved grounding block. Incoming and outgoing grounds must terminate at this same grounding block. Grounds must only be terminated to approved grounding blocks. Grounds must never connect directly to the panels, frames or other materials in a cabinet or distribution panel.

1.3.2 Recommended Ground Wire Sizes

The ground wire impedance from the system disconnect (including the ground rod) measured to earth, must not exceed 2 ohms (as measured by one of the applicable techniques described in Section 4 of ANSI/IEEE Standard 142 - 1982).

NOTICE

For general system grounding requirements and information on establishing an equipotential grounding system, refer to:

- Direction 46-014505, Electrical Safety - Equipment Grounding
- Direction 46-014546, Electrical Safety - Leakage Currents

Section 2.0 Electrical Requirements

2.1 Generator Electrical Requirements

All system components obtain their power from the Power Distribution Unit (PDU) in the System Cabinet. **Providing power and ground wires to the PDU are the responsibility of the customer.** As an aid, wire sizes for various lengths of the power supply cable are shown in the following tables.

NOTICE

The length of stripped wires should be longer than 25mm (1in), and tinned.

NOTICE

Shunt trip circuit breaker required. The main circuit breaker supplied by the customer must be sized in accordance to local regulations.

Generator Power Specifications

Table 5-1 JEDI Generator Power Specifications

Input Voltage	380/400/415/440/460/480 VAC Wye 3-Phase and ground without neutral			
Daily Voltage variations	+/- 10% (VAC) In this range, the generator will operate without any de-rating in accuracy			
Nominal line frequency (Hz)	50 Hz / 60 Hz			
Daily frequency variation (Hz)	+/- 3 Hz			
Line Impedance	The apparent line impedance guaranteed by the customer should be equal or less than the values indicated below, according to the voltage value and the commercial power of the system.			
	Voltage range (V) Line Impedance (ohms)			
	3 phase	50kW	65kW	80kW
	380	0.15	0.118	0.096
	400	0.16	0.131	0.100
	415	0.18	0.138	0.113
	440	0.20	0.154	0.125
	480	0.24	0.185	0.150
	NOTE: 400-480 VAC impedance values are based on IEC 601-2-7 standard. Values are interpolated from values in standard.			
Inrush current	1000 Amps. Generator needs a 165Amps and the fuse is a part of PDU. 1000Amps is rating at 3 phase at system I/P, for generator 1000Amps current may not be required. The max current required for generator is during start-up (capacitor charging) and during peak power exposure for long durations.			

Table 5-1 JEDI Generator Power Specifications

HV cable type	USA: 22mm DSI (≤ 165 pF/m) HV cable connector = Federal standard
Ground Wire	Same as power cable

2.2 System Wire Sizes & kVA Load Characteristics

- Calculations based upon nominal voltage, wire size in AWG. To convert to mm², refer to Table 5-2.
- Recommended feeder sizes from distribution transformer to the power cabinet.
- Neutral must be terminated inside the main disconnect panel and not at any GE cabinet.
- The grounding conductor will be of same size as the feeder wires. This ground will run from equipment back to the facility power source / main grounding point and always travel in the same conduit with the feeders and neutral.

2.2.1 JEDI Generator 3-Phase 50 kW System - Minimum Wire Size

Table 5-2 AWG Wire Size Conversion to mm²

American Wire Gauge (AWG)	Diameter (Inches)	Diameter (mm)	Cross Sectional Area (mm ²)
6	0.1620	4.11	13.30
5	0.1819	4.62	16.77
4	0.2043	5.19	21.15
3	0.2294	5.83	26.65
2	0.2576	6.54	33.61
1	0.2893	7.35	42.39
1/0	0.3249	8.25	53.46
2/0	0.3648	9.27	67.40
3/0	0.4096	10.40	84.97
4/0	0.46	11.68	107.16
250M	0.575	14.6	126.68
300M	0.630	16.0	152.0
350M	0.681	17.3	177.35
400M	0.728	18.49	202.68

Table 5-3 JEDI Generator 3-Phase 50 kW System - Minimum Wire Size

WIRE RUN LENGTH	INPUT VOLTAGE (VAC)					
	380	400	420	440	460	480
	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%
15m (50 ft.)	*6	*6	*6	*6	*6	*6
30m (100 ft.)	5	5	*6	*6	*6	*6
46m (150 ft.)	4	4	4	4	4	4
61m (200 ft.)	3	4	4	4	4	4
77 m (250 ft)	2	2	2	3	3	4
92 m (300 ft)	1/0	1	1	2	2	2
107m (350ft)	2/0	2/0	1/0	1	1	1
122m (400 ft)	3/0	2/0	2/0	1/0	1/0	1/0

Table 5-3 JEDI Generator 3-Phase 50 kW System - Minimum Wire Size

138m (450 ft)	4/0	3/0	3/0	2/0	2/0	1/0
* minimum wire size for circuit breaker, based on recommended overcurrent protection.						

2.2.2 kVA Load Characteristics 50KW

Table 5-4 kVA Load Characteristics 50 kW

Phase	THREE PHASE					
Nominal Line Voltage (Vac)	380	400	420	440	460	480
Voltage Range (Vac)	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%
Momentary Line Current (Amp)	110	105	100	95	92	88
Continuous Line Current (Amp)	7	6.7	6.2	6	5.7	5.5
Power Demand (kVA)	70	70	70	70	70	70
Frequency	47/53Hz and 57/63Hz					

2.2.3 JEDI Generator 3-Phase 65 kW and System - Minimum Wire Size

Table 5-5 JEDI Generator 3-Phase 65 kW System - Minimum Wire Size

WIRE RUN LENGTH	INPUT VOLTAGE (VAC)					
	380	400	420	440	460	480
	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%
15m (50 ft.)	*4	*4	*4	*4	*4	*4
30m (100 ft.)	3	*4	*4	*4	*4	*4
46m (150 ft.)	2	2	2	3	3	*4
61m (200 ft.)	1/0	1	1	2	2	2
77 m (250 ft)	2/0	2/0	1/0	1	1	1
92 m (300 ft)	3/0	2/0	2/0	1/0	1/0	1/0
107m (350ft)	4/0	3/0	3/0	2/0	2/0	1/0
122m (400 ft)	250M	4/0	4/0	3/0	3/0	2/0
138m (450 ft)	300M	250M	4/0	4/0	3/0	3/0
* minimum wire size for circuit breaker, based on recommended over current protection.						

2.2.4 kVA Load Characteristics 65KW

Table 5-6 kVA Load Characteristics 65 kW

Phase	THREE PHASE					
Nominal Line Voltage (Vac)	380	400	420	440	460	480
Voltage Range (Vac)	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%
Momentary Line Current (Amp)	147	140	133	127	122	117
Continuous Line Current (Amp)	7	6.7	6.2	6	5.7	5.5
Power Demand (kVA)	97	97	97	97	97	97
Frequency	47/53Hz and 57/63Hz					

2.2.5 JEDI Generator 3-Phase 80 kW and System - Minimum Wire Size

Table 5-7 JEDI Generator 3-Phase 80 kW System - Minimum Wire Size

WIRE RUN LENGTH	INPUT VOLTAGE (VAC)					
	380	400	420	440	460	480
	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%
15m (50 ft.)	*2	*2	*2	*2	*2	*2
30m (100 ft.)	*2	*2	*2	*2	*2	*2
46m (150 ft.)	1/0	1	1	*2	*2	*2
61m (200 ft.)	2/0	2/0	1/0	1/0	1	1
77 m (250 ft)	3/0	3/0	2/0	2/0	1/0	1/0
92 m (300 ft)	4/0	4/0	3/0	3/0	2/0	2/0
107m (350ft)	300M	250M	4/0	4/0	3/0	3/0
122m (400 ft)	350M	300M	250M	4/0	4/0	3/0
138m (450 ft)	400M	350M	300M	250M	250M	4.0

* minimum wire size for circuit breaker, based on recommended over current protection.

2.2.6 kVA Load Characteristics 80KW

Table 5-8 kVA Load Characteristics 80 kW

Phase	THREE PHASE					
Nominal Line Voltage (Vac)	380	400	420	440	460	480
Voltage Range (Vac)	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%
Momentary Line Current (Amp)	190	180	170	163	156	150
Continuous Line Current (Amp)	7	6.7	6.2	6	5.7	5.5
Power Demand (kVA)	125	125	125	125	125	125
Frequency	47/53Hz and 57/63Hz					

2.3 Recommended Wall “Circuit-Breaker” Ratings

Table 5-9 Wall Breaker Parameter (Theoretical Current Values)

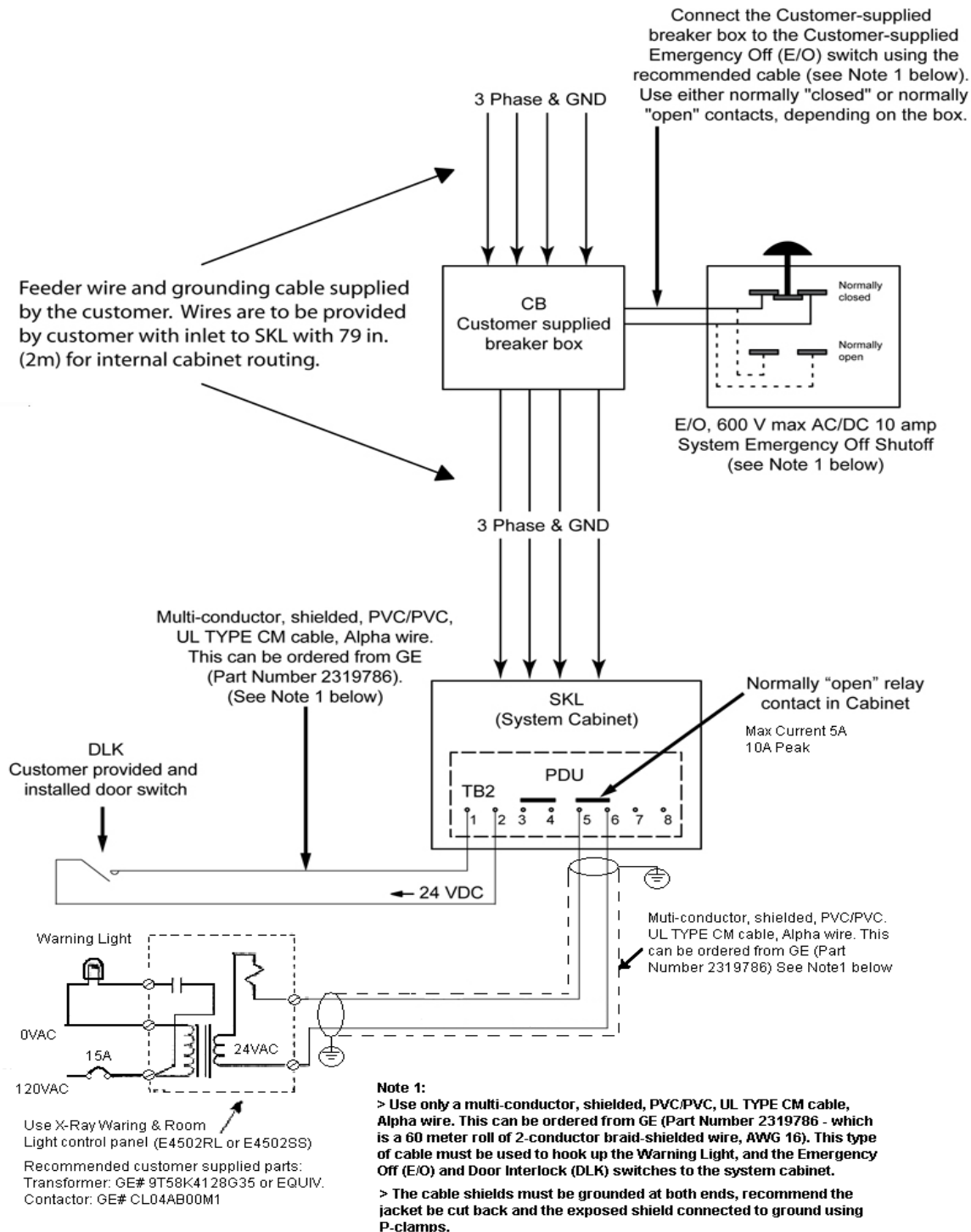
Power / Voltage	50 kW	65 kW	80 kW
380 V	55 A / 600 V	74 A / 600 V	95 A / 600 V
400 V	52 A / 600 V	70 A / 600 V	90 A / 600 V
415 V	50 A / 600 V	67 A / 600 V	85 A / 600 V
440 V	47 A / 600 V	64 A / 600 V	82 A / 600 V
460 V	45 A / 600 V	61 A / 600 V	78 A / 600 V
480 V	43 A / 600 V	59A / 600 V	75 A / 600 V

2.4 Wiring Electrical Power and Disconnects

This section provides additional data regarding power circuits the customer must provide, and internal electrical circuits necessary to supply the correct power to the system. Illustration 5-1 shows the room power supply installed.

2.4.1 Room Power Supply

Illustration 5-1 : Room Power Supply (refer to Table 5-8)



Legend for Illustration 5-1

United States Key	Description
Feeder Wires and Grounding Cable	Feeder wire and grounding cable supplied by the customer. Wires are to be provided by customer with inlet to SKL with 2 meters for internal cabinet routing).
E/O (see Note below)	Emergency Off switch located near room access door. The switch is supplied by the Hospital. The recommended distance above the floor is 1.5 meters. Use only a multi-conductor, shielded cable to connect to System Cabinet.
XRL	Yellow X-ray emission indicator lamp above the room access door. 220 V in Europe/ 120 V in USA with 25 W max. bulb (per local regulations). Wires and light fixtures supplied by customer.
DLK (see Note below)	Open-door detector (per local regulations). SKL provides 24 VDC.
CB	Circuit breaker with remote trip (shunt) capabilities supplied by customer.

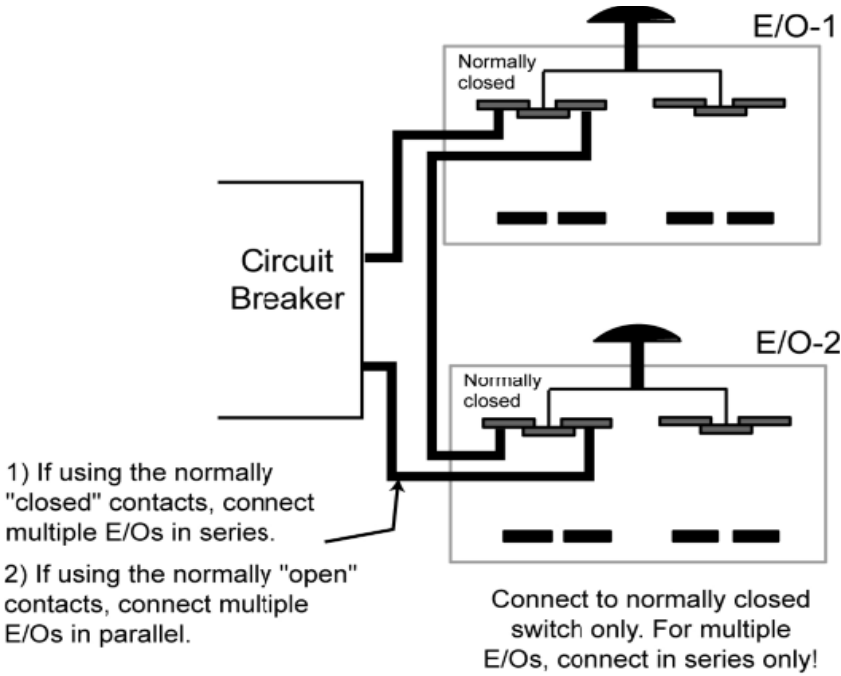
NOTE: Use only a multi-conductor, shielded, PVC/PVC, UL TYPE CM cable, Alpha wire. The cable shield must be grounded at both ends with the system cabinet grounding, avoid make wireless transmission unintelligible by causing interference.

2.4.2 Multiple Emergency “OFF” Switches

The facility designer determines the quantity and locations of the Emergency OFF (E/O) switches. GE recommends placing at least one Emergency OFF switch near the doorway of every room in the system scan suite.

Illustration 5-2 shows how multiple Emergency “OFF” switches could be wired.

Illustration 5-2 : Wiring Multiple “Emergency OFF” (E/O) Switches



Section 3.0 Routing Cables

3.1 General

These wires must be kept separated from each other:

- High voltage and power cables must be separated from other cables
- Separate conduits must be used for power and signal wires

Use a separate trough in the duct system, or use a separate conduit.

Minimize cable length between the line disconnect and the System Cabinet power unit to reduce voltage regulation problems and wiring costs.

3.1.1 Electrical Ducts (Recommended)

It is important that electrical ducts have separate compartments for power and signal wires. These wires must be kept separated from each other for proper system operation.

Electrical ducts have advantages, when used with a single room or two adjacent rooms. Electrical ducts combine cabling in a neat and functional appearance, with accessibility and room for expansion.

3.1.2 Conduit

If conduit is used make sure the conduit is large enough to pull the cable and connector through with all the other cables all ready in the conduit.

The use of conduit is recommended for cables running overhead between rooms, especially when a diagonal run provides the shortest cable path.

3.2 Power Distribution

The system power distribution consists of two major components that must either be customer supplied or GE Healthcare supplied. These are:

- Feeder power from Hospital distribution center to the System Cabinet load power unit (SKL).
- Feeder power must be provided via a WYE transformer only with dedicated ground. Neutral is not used.
- Power distribution from the System Cabinet load power unit (SKL) to all the components in the system room.

Usually the feeder power from the Hospital distribution center is customer supplied and the power distribution within the system is supplied by GE Healthcare.

Section 4.0 Light Specification

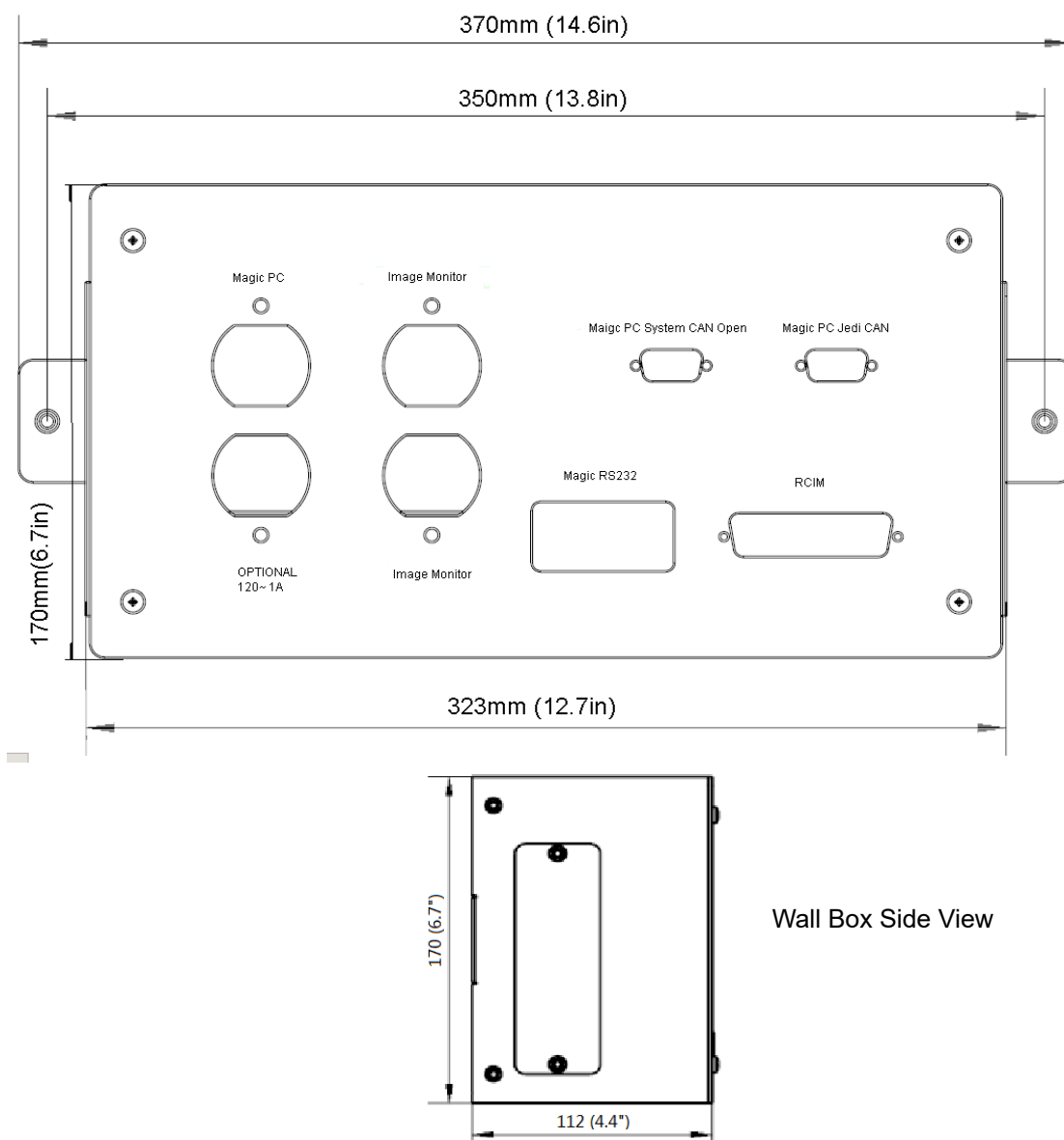
The monitor screen is adjusted for an optimum ambient light level of 50 lux.

Section 5.0 Dimensioned Figures and Drawings

5.1 Wall Box

NOTE: The use of a wall box is required with this system. Wall box is used to interface the cables in exam room and patient room. The cables used with this system are terminated with connectors that can only be used with this specific wall box.

Illustration 5-3 : Wall box Dimensions 370 mm X 170 mm(14.6in x 6.7in)



5.2 System Equipment Cable Entrance

Illustration 5-4 : System Cabinet Cable Entrances

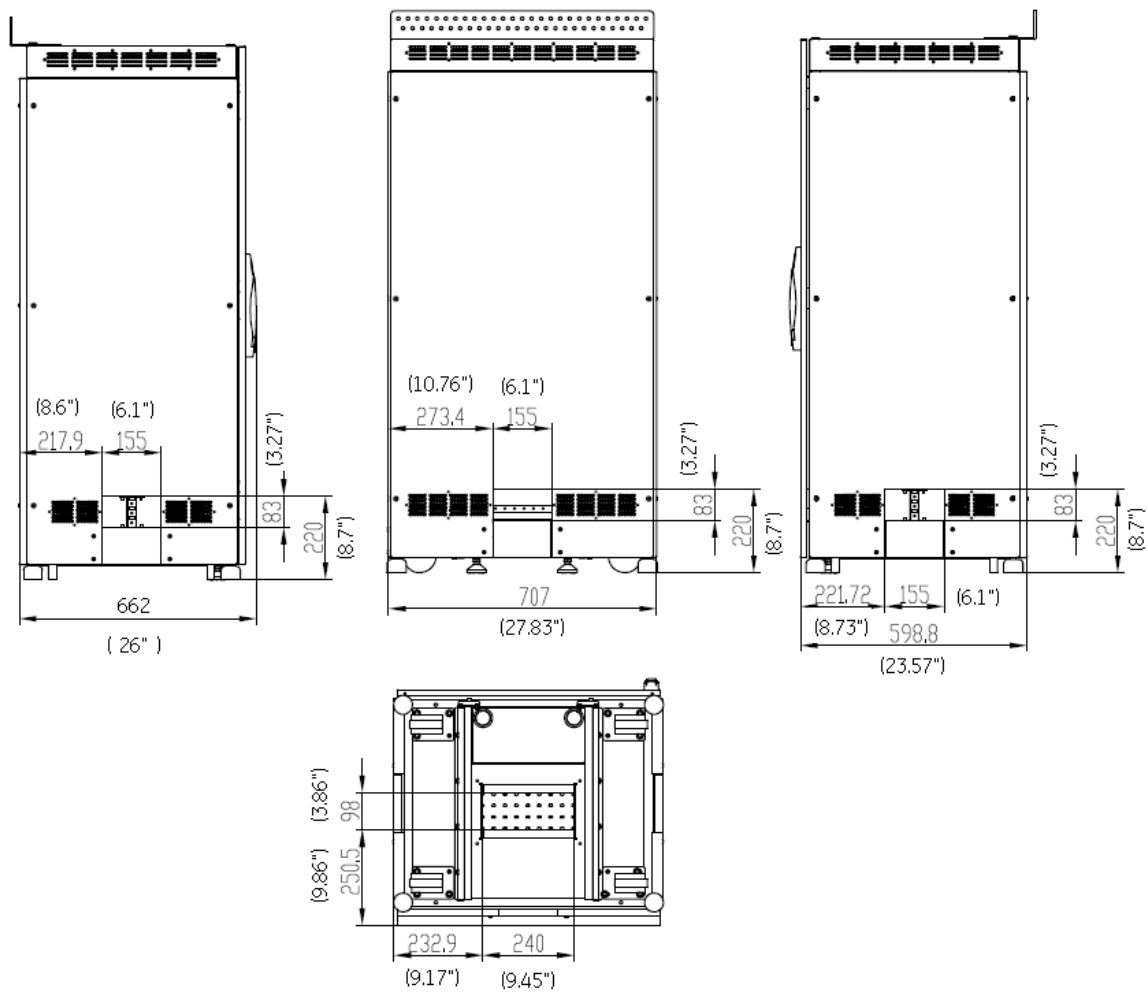
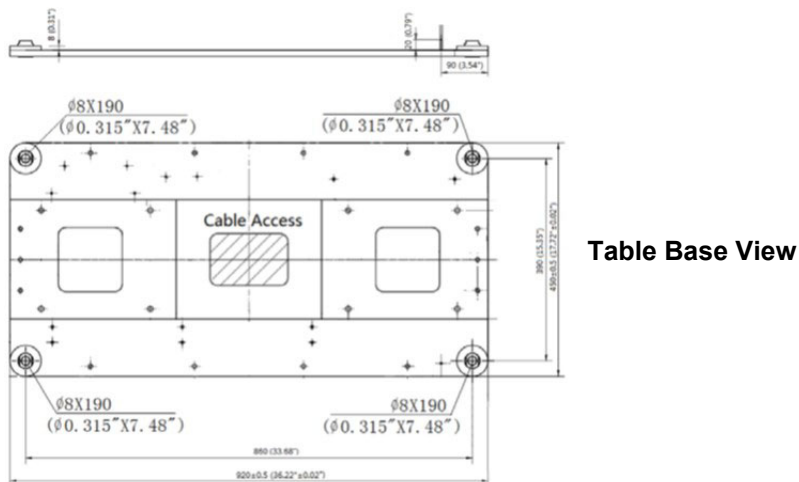
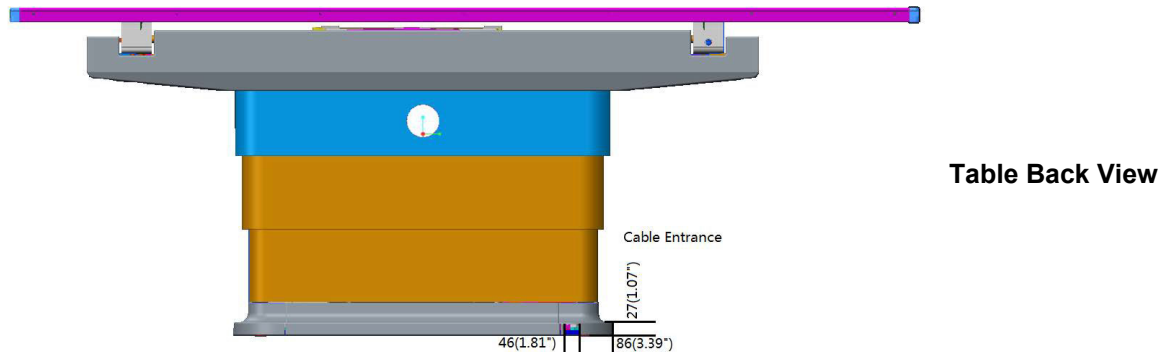
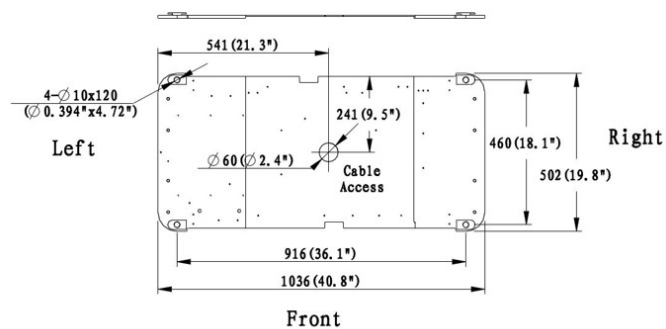
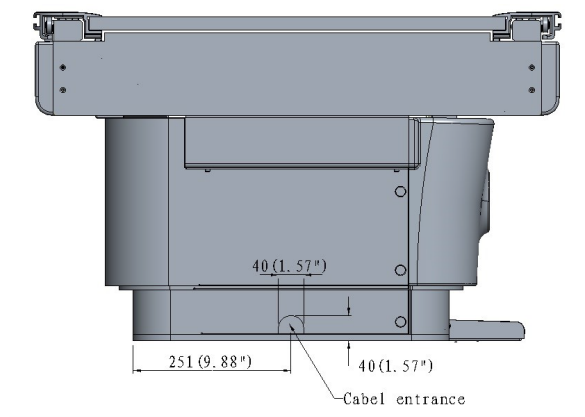


Illustration 5-5 : Table Cable Entrance

- For Global G2 Table



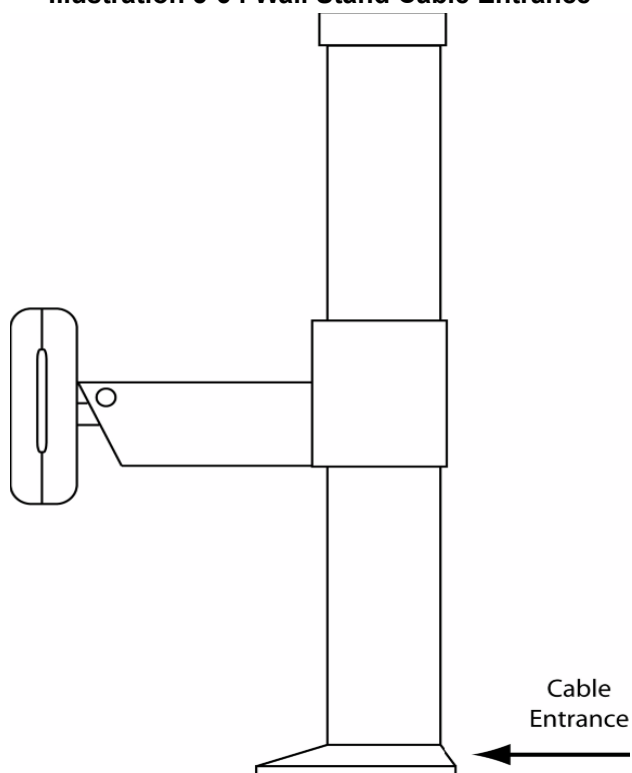
- For Standard Table



NOTICE

This is the back side of the table

Illustration 5-6 : Wall Stand Cable Entrance

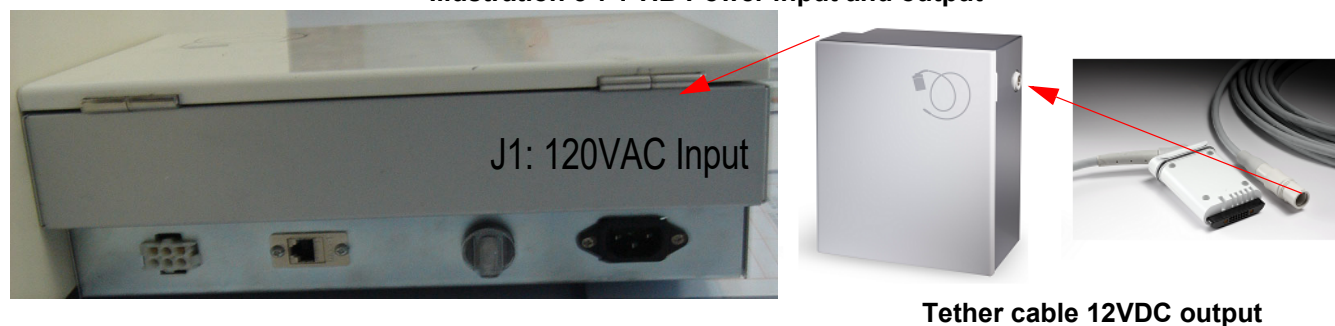


5.3 Power requirements for TIB

5.3.1 TIB

The System cabinet distribute the power 120VAC to TIB J1 through MIS 020075 and TIB Ground cable PN# 5400785, See System Master Interconnect Schematic. TIB output 12VDC by tether cable to URP Detector. See Architecture

Illustration 5-7 : TIB Power input and output



Chapter 6 Communications/Networking

Section 1.0 Hospital Network

1.1 Broadband Network Connection

The system is equipped with Broadband fast Ethernet hardware for Service diagnostics. Systems equipped with Digital Imaging are capable of placing electronic images on the Hospital image Ethernet Network. It is the purchasers responsibility to provide the Ethernet connection (rated at 100Mb/sec transfer rate for optimal performance) within 3 feet (0.91 meters) of the Operator Console.

The network connection is made at the Operator Console.

- 100BaseT network connection is preferred
- 10BaseT network connection is acceptable

NOTICE

If using GE PACS LITE BOX software, the GE PACS LITE BOX software revision must be 6.1d02 or greater. Older versions will not work with the system.

NOTICE

1. Connection of the product to a network that includes other equipment could result in previously unidentified risks to patients, operators or third parties;
 2. The responsible organization should identify, analyze, evaluate and control these risks;
 3. Subsequent changes to the network could introduce new risk and require additional analysis; and
- * Changes to the network include:
 - * Changes in network configuration;
 - * Connection of additional items to the network;
 - * Disconnecting items from the network;
 - * Update of equipment connected to the network;
 - * Upgrade of equipment connected to the network.

NOTICE

The means required to present the images for diagnostic purpose shall comply with the requirements of DICOM standards.

1.2 Phone Line(s) - Voice

It is recommended that phone line(s) be installed within 3 feet (0.91 meters) of the Operator Console and be operational prior to installation.

1.3 Remote Services Broadband Pre-Installation Requirements for Europe

- To enable an easier installation and to benefit from remote support (service and engineering teams), equipment should be Insite connected at installation.
- Thus the connectivity solution to implement should be decided during pre installation and all related data should be available before installation starts.
- For all installations make sure that you have at least one RJ45 dedicated to connect the new equipment on the LAN. In case of Broadband, this connection will also be used for the remote service of the equipment.
- GE Healthcare offers a wide range of connectivity solutions: From full GE package (GE supplies Router and customer buys the line) to customized solutions (GE adapts to customer infrastructure).
- Network devices (like CISCO Routers for instance) can be shipped with the equipment only if the Sales Representative has added the connectivity item in the order.
- For complete descriptions of these connectivity solutions, please refer to the Broadband Solutions catalogue available through your local GEHC sales and service representative.
- Connectivity Process and pre-installations checklists are available in the Broadband Connectivity Pre-Installation Manual (PIM) available through your local GE Healthcare sales and service representative.
- For each solution selected by the customer the pre-installation checklist must be fulfilled by site IT manager in order to get connectivity information (site IT manager contacts, IP address...) available at installation.

NOTICE

Connection of the product to a network that includes other equipment could result in previously unidentified risks to patients, operators or third parties;

- The responsible organization should identify, analyze, evaluate and control these risks;
- Subsequent changes to the network could introduce new risk and require additional analysis; and
 - Changes to the network include;
 - Changes in network configuration;
 - Connection of additional items to the network;
 - Disconnecting items from the network;
 - Update of equipment connected to the network;
 - Upgrade of equipment connected to the network.

Section 2.0 Networkflow Audit

Understanding how your facility leverages its network investment through our Networkflow process will help us better integrate the system into your operations. The following is intended to identify the various ways the system can fit into your workflow and the ramifications of selecting one path or another. We would like to start at the beginning, with the patient arriving at your facility, going through registration/admittance/patient scheduling and proceed all the way to the read images being archived.

2.1 What is the Networkflow Audit

This audit was designed to collect information on your network, your DICOM equipment, your workflow and your dataflow. Once this information is collected, it will be used to determine the best way the system can fit into your facility. The information will also be used to ease and speed the integration of the system into your facility. This audit is intended to be performed before the system is quoted to you. With all facts uncovered, GE can prepare a more accurate quote and minimize “surprises” at the time of install.

You should fill this out with the GE Healthcare representative. They will be able to answer any questions you may have.

2.2 Facility Information

- | | |
|--|----------------------------------|
| <input type="checkbox"/> Name of facility: | <input type="checkbox"/> Room #: |
| <input type="checkbox"/> Workflow contact: | <input type="checkbox"/> Phone: |
| <input type="checkbox"/> Network Infrastructure contact: | <input type="checkbox"/> Phone: |
| <input type="checkbox"/> DICOM Device contact: | <input type="checkbox"/> Phone: |
| <input type="checkbox"/> Other contact: | <input type="checkbox"/> Phone: |
| <input type="checkbox"/> GEHC Sales Representative: | |
| <input type="checkbox"/> GE Healthcare Auditor: | |

2.3 Workflow Analysis

When the patient arrives in the system room for the exam, how is the patient data entered into the system?

<input type="checkbox"/>	Manually typed	<input type="checkbox"/>	Entered via barcode reader Barcode format: _____	<input type="checkbox"/>	Downloaded from HIS/RIS
--------------------------	----------------	--------------------------	---	--------------------------	-------------------------

If the patient information was downloaded from a HIS/RIS system, how would the query be

structured? (Pick all that apply)

<input type="checkbox"/>	By date	<input type="checkbox"/>	By modality	<input type="checkbox"/>	By patient information
<input type="checkbox"/>	Other method - Please explain: _____				

In retrieving patient schedule information, do you query

<input type="checkbox"/>	Once at the start of the shift	<input type="checkbox"/>	Several times during a shift	<input type="checkbox"/>	Before each patient
--------------------------	--------------------------------	--------------------------	------------------------------	--------------------------	---------------------

What percent of images acquired are reviewed via softcopy? _____ %

What percent of images acquired are printed? _____ %

Once the digital diagnostic images are acquired, what is your facility's default workflow? (Pick one)

<input type="checkbox"/>	Manually send	<input type="checkbox"/>	Automatically push
--------------------------	---------------	--------------------------	--------------------

(Pick all that apply)

<input type="checkbox"/>	Review station(s)	<input type="checkbox"/>	Archive system(s)	<input type="checkbox"/>	Printer(s)
--------------------------	-------------------	--------------------------	-------------------	--------------------------	------------

When images are configured for automatic push, what would you like to be sent to PACS/archive/review stations?

<input type="checkbox"/>	Raw	<input type="checkbox"/>	Processed	<input type="checkbox"/>	Raw and Processed
--------------------------	-----	--------------------------	-----------	--------------------------	-------------------

When images are printed, on what device is the print command originated? (Pick all that apply)

<input type="checkbox"/>	The system	<input type="checkbox"/>	A review workstation	<input type="checkbox"/>	A PACS system
--------------------------	------------	--------------------------	----------------------	--------------------------	---------------

How soon after the images are acquired is the first image quality check done?

<input type="checkbox"/>	Before the next image is shot	<input type="checkbox"/>	Before the patient leaves	<input type="checkbox"/>	After patient leaves
--------------------------	-------------------------------	--------------------------	---------------------------	--------------------------	----------------------

When it comes to image quality, would you prefer to;

- ☐ Consider all images good unless marked bad
- ☐ Consider all images bad unless marked good

2.4 The Physical Network

Physical infrastructures vary widely from institution to institution. GE Healthcare tried to pick the

most popular networking connection to ease integration into your facility's network.

In the system room, this facility;

<input type="checkbox"/>	Has 100baseT installed	<input type="checkbox"/>	Has 10baseT installed	<input type="checkbox"/>	Has a different network installed
<input type="checkbox"/>	Will have 100baseT installed	<input type="checkbox"/>	Will have 10baseT installed	<input type="checkbox"/>	We don't have a network installed

Do you segment your network using subnets?

<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
--------------------------	-----	--------------------------	----

Our equipment's IP addresses are:

<input type="checkbox"/>	Static	<input type="checkbox"/>	Acquired via DHCP	<input type="checkbox"/>	A combination of both methods
--------------------------	--------	--------------------------	-------------------	--------------------------	-------------------------------

2.5 System Parameters

The system default uses the following IP Addresses internally:

- 192.168.1.1 eth0
- 192.168.2.1 eth1
- 192.168.3.1 br0 (eth2/3)
- 192.168.1.30 detector IP before detector boot
- 192.168.1.50 detector IP after boot in table
- 192.168.2.45 detector IP after boot in WS
- 192.168.3.50 detector IP after boot in Tether/wireless

NOTICE

If the hospital network uses 192.168.x.x, there will be a conflict. If this conflict occurs, you must contact your GE Service Representative to change the internal IP Addresses used by the system.

System

Host Name: _____
 Network (IP) Address: ____ . ____ . ____ . ____
 Subnet Mask: ____ . ____ . ____ . ____
 Router IP: ____ . ____ . ____ . ____
 Scheduled Station AE Title: _____

The Host Name is the network's name for the system.

IP addresses uniquely identify a device on a network. IP addresses are constructed of 32 bits, usually displayed as four numbers separated by a period. Please indicate the Network (IP) Address that will be assigned to the system.

Subnets are a method of logically dividing a network into smaller blocks. This is usually done based upon locality, functionality or security requirements. If your facility will place the system on a subnet, please list the Subnet Mask and Router IP.

The Scheduled Station AE (Application Entity) Title is the name your HIS/RIS system will use to send worklist information to the system.

Table 6-1 Remote Host Data

Remote Hosts	Include a DICOM Compliance Statement for each device				
This remote Host is a:	<input type="checkbox"/> Review Work Station <input type="checkbox"/> Archival Device <input type="checkbox"/> PACS System <input type="checkbox"/> MPPS Server	<input type="checkbox"/> Review Work Station <input type="checkbox"/> Archival Device <input type="checkbox"/> PACS System <input type="checkbox"/> MPPS Server	<input type="checkbox"/> Review Work Station <input type="checkbox"/> Archival Device <input type="checkbox"/> PACS System <input type="checkbox"/> MPPS Server		Information on the System The system allows you to configure only 1 HIS/RIS server. The system allows you to configure only 1 MPPS server. The system allows configuration of multiple printers and multiple PACS/archive/review stations. The Host Name of all the nodes configured on the system should be unique within the system.
Manufacturer/Model:					
Software/Firmware version:					

Table 6-1 Remote Host Data

Network (IP) Address:	----- . ----- . ----- . ----- -- --	----- . ----- . ----- . ----- -- --	----- . ----- . ----- . ----- -- --		
DICOM Compliance Level:	<input type="checkbox"/> 1.0 <input type="checkbox"/> 2.0 <input type="checkbox"/> 3.0 <input type="checkbox"/> Not DICOM Compliant <input type="checkbox"/> DX <input type="checkbox"/> CR <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> 1.0 <input type="checkbox"/> 2.0 <input type="checkbox"/> 3.0 <input type="checkbox"/> Not DICOM Compliant <input type="checkbox"/> DX <input type="checkbox"/> CR <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> 1.0 <input type="checkbox"/> 2.0 <input type="checkbox"/> 3.0 <input type="checkbox"/> Not DICOM Compliant <input type="checkbox"/> DX <input type="checkbox"/> CR <input type="checkbox"/> Yes <input type="checkbox"/> No		
Image Types Supported:					
Supports Multi-framing:					
Host Name:					
Do you plan to use this device as a Remote Host Server?	<input type="checkbox"/> Yes <input type="checkbox"/> No If "yes" provide:	<input type="checkbox"/> Yes <input type="checkbox"/> No If "yes" provide:	<input type="checkbox"/> Yes <input type="checkbox"/> No If "yes" provide:		
AE Title:					
Port Number:					

Table 6-2

Remote Hosts	Include a DICOM Compliance Statement for each device				
Query/Retrieve?	<input type="checkbox"/> Yes <input type="checkbox"/> No If "yes" provide:	<input type="checkbox"/> Yes <input type="checkbox"/> No If "yes" provide:	<input type="checkbox"/> Yes <input type="checkbox"/> No If "yes" provide:		
Query/Retrieve AE Title:					
Port Number:					
Query/Retrieve by:	<input type="checkbox"/> Study <input type="checkbox"/> Patient	<input type="checkbox"/> Study <input type="checkbox"/> Patient	<input type="checkbox"/> Study <input type="checkbox"/> Patient		
Storage Commitment?	<input type="checkbox"/> Yes <input type="checkbox"/> No If "yes" provide:	<input type="checkbox"/> Yes <input type="checkbox"/> No If "yes" provide:	<input type="checkbox"/> Yes <input type="checkbox"/> No If "yes" provide:		
Storage Commitment AE Title:					
Port Number:					
Network (IP) Address:	----- . ----- . ----- . ----- -- . -- . --	----- . ----- . ----- . ----- -- . -- . --	----- . ----- . ----- . ----- -- . -- . --		
MPPS Server?	<input type="checkbox"/> Yes <input type="checkbox"/> No If "yes" provide:	<input type="checkbox"/> Yes <input type="checkbox"/> No If "yes" provide:	<input type="checkbox"/> Yes <input type="checkbox"/> No If "yes" provide:		
AE Title:					
Port Number:					
Network (IP) Address:	----- . ----- . ----- . ----- -- . -- . --	----- . ----- . ----- . ----- -- . -- . --	----- . ----- . ----- . ----- -- . -- . --		

2.6 Devices & Services Audit

Use the following narrative to complete the form on the previous page.

REMOTE HOSTS: Remote hosts are DICOM devices to which the system can push an image. Remote hosts can be review workstations, archival devices, or PACS systems. Please indicate the type of remote host. Now indicate the manufacturer and model name or number.

Compatibility can vary with software versions, please indicate the version of device firmware/software the device will be running.

List the device's **IP address**.

The answers to the next several items can be found in the device's DCS (DICOM Conformance Statement).

Please indicate the highest level of **DICOM conformance** for this device. If the device is not DICOM compliant, please indicate so and move on to the next device.

If the device does have some level of DICOM conformance please return a copy of the DICOM Conformance Statement with this completed form.

DICOM supports a number of **image types**. Please indicate if this device supports the DX and/or the CR image types.

The **host name** is the name that will appear on the screen and users will use to indicate this device. Please list the host name.

The next four sections address the four services that remote host devices may offer. Each of the services will have its own AE (application entity) title and port number. The AE title is the name given to a service or application provided by a DICOM device. The port number is a logical designation within the device. These pieces of information are available in the device's DCS.

Being a **remote host server** allows the system to push images to other devices. If you want the device to accept this service, check yes and provide the AE title and port number.

Being a **query/retrieve** service class provider allows the system to query this device and retrieve images stored there. If you want this device to provide these services to the system check yes and fill in the requested items.

The **query/retrieve** by study or patient controls how much the user is able to retrieve at one time. For study, the user may retrieve studies, series, images. For patient, the user may retrieve all of the study attributes plus a patient's entire image collection.

A **storage commitment** provider confirms that images sent by the system to an archival system were received and stored. Note - This option is only available when the system is sending DX type images. If your device supports both DX image types and storage commitment check yes and provide the AE title, the port number and the network (IP) address.

The **MPPS server** receives the messages sent by the system. These messages consist of information such as when the exam started and closed, how many images were acquired, dose information, etc. This information is then updated on the Hospital Scheduling system. If the site has an MPPS server, provide the AE Title, IP address and port number.

Table 6-3

Printers	Include a DICOM Compliance Statement for each printer	
Manufacturer/Model:		
Software/Firmware Version:		
Prints via Spooler:	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Network (IP) Address:	<input type="checkbox"/> 1.0	<input type="checkbox"/> 1.0
DICOM Compliance Level:	<input type="checkbox"/> 2.0	<input type="checkbox"/> 2.0
	<input type="checkbox"/> 3.0	<input type="checkbox"/> 3.0
	<input type="checkbox"/> Not DICOM Compliant	<input type="checkbox"/> Not DICOM Compliant
Host Name:		
Printer AE Title:		
Port Number:		

Printers: As with the remote hosts, please list the manufacturer and the model name/number. The software/firmware version should also be entered. Next, supply the IP address of the printer.

Indicate the DICOM compliance level of the printer. If it is not DICOM compatible, please indicate so.

DICOM compatibility does not guarantee all functions will work properly. **Include every unique printer's DICOM Compliance Statement.**

Supply the Host name for the printer.

Look in the DCS for the printer's AE title and port number.

Table 6-4

RIS Systems	Include a DICOM Compliance Statement for each device	
Manufacturer/Model:		
Software/Firmware Version:		
Network (IP) Address:	<input type="checkbox"/> 1.0 <input type="checkbox"/> 2.0 <input type="checkbox"/> 3.0	<input type="checkbox"/> 1.0 <input type="checkbox"/> 2.0 <input type="checkbox"/> 3.0
DICOM Compliance Level:	<input type="checkbox"/> Not DICOM Compliant	<input type="checkbox"/> Not DICOM Compliant
Host Name:		
HIS/RIS AE Title:		
	<input type="checkbox"/> DX <input type="checkbox"/> CR	<input type="checkbox"/> DX <input type="checkbox"/> CR
Port Number:		
Modality used for Scheduling:		

RIS Systems: As with the remote hosts please list the manufacturer and the model name/number. The software/firmware version should also be entered.

Fill in the Host name.

Indicate the IP address the device is using as well as the DICOM compliance level. Please include the DCS for the RIS with this completed form.

Look in the DCS for the AE title and port number.

Please indicate if this device supports the DX and/or the CR image types. This information should also be in the device's DCS.

2.7 Data Flow Analysis

Now that we have outlined the way your facility works and the devices you work with, we would like to define how the images flow through your network.

The system is an acquisition-only device. Because of that fact you will need to move acquired images off the system and into your work/data flow. Please use the chart below to describe your data flow. As an example, if your facility reviewed images as the first step after acquisition, the review box would be checked in the first column of the Task row (shaded) and the review workstation would be checked in the first column of the Device row. You should use each of the functions once.

1st step after acquisition	2nd step after acquisition	3rd step after acquisition
<input type="checkbox"/> Archive	<input type="checkbox"/> Archive	<input type="checkbox"/> Archive
<input type="checkbox"/> Print	<input type="checkbox"/> Print	<input type="checkbox"/> Print
<input type="checkbox"/> Review	<input type="checkbox"/> Review	<input type="checkbox"/> Review
<input type="checkbox"/> Archive device	<input type="checkbox"/> Archive device	<input type="checkbox"/> Archive device
<input type="checkbox"/> PACS	<input type="checkbox"/> PACS	<input type="checkbox"/> PACS
<input type="checkbox"/> Printer	<input type="checkbox"/> Printer	<input type="checkbox"/> Printer
<input type="checkbox"/> Review Workstation	<input type="checkbox"/> Review Workstation	<input type="checkbox"/> Review Workstation
<input type="checkbox"/> Spooler ? Printer(s)	<input type="checkbox"/> Spooler ? Printer(s)	<input type="checkbox"/> Spooler ? Printer(s)
<input type="checkbox"/> Spooler ? Review Workstation(s)	<input type="checkbox"/> Spooler ? Review Workstation(s)	<input type="checkbox"/> Spooler ? Review Workstation(s)

Printing: It is important to us to understand the path your images follow before they are printed.

We are now looking to answer the question of what road an image most typically travels on its way to be printed regardless if that is the first step in your process or not. Please try to find in the list below the path that best describes the path the image takes from acquisition to printing.

☐ XR System ? Printer

☐ XR System ? Spooler ? Printer(s)

☐ XR System ? Archive Device ? Printer

- ☐ XR System ? Archive Device ? Spooler ? Printer (s)
- ☐ XR System ? Archive Device ? Review Workstation ? Printer
- ☐ XR System ? Archive Device ? Review Workstation ? Spooler ? Printer
- ☐ XR System ? PACS ? Printer
- ☐ XR System ? PACS ? Spooler ? Printer
- ☐ XR System ? Review Workstation ? Printer
- ☐ XR System ? Review Workstation ? Spooler ? Printer
- ☐ XR System ? Other: _____ ? Printer(s)

Image Review: Now let's trace the path from acquisition to image review. Again, pick the item below that best describes how the image flows from the system to the radiologist.

- ☐ XR System ? Printer ? Printed Film ? Radiologist
- ☐ XR System ? Review Workstation ? Radiologist
- ☐ XR System ? Archive Device ? Review Workstation ? Radiologist
- ☐ XR System ? PACS ? Radiologist
- ☐ XR System ? PACS ? Review Workstation ? Radiologist
- ☐ XR System ? Other: _____ ? Radiologist

Archive: The final part of this triad is archiving images. Pick the item below that best describes the flow of images to be archived.

- ☐ XR System ? Archive Device
- ☐ XR System ? PACS
- ☐ XR System ? Printer ? Printed Film ? Filing System
- ☐ XR System ? Review Workstation ? Archive Device
- ☐ XR System ? Review Workstation ? PACS
- ☐ XR System ? Other: _____ ? Archive Device

2.8 What Will Happen Next?

Next, your completed audit sheet will be analyzed by your GE Healthcare representative and any issues identified.

Chapter 7 System Cable Information

Section 1.0 Introduction

The following information is provided as an aid to make the physical installation of system cables easy and efficient. In the tables that follow, the physical characteristics of each cable and its associated connectors is provided. Thus making it easier to plan cable paths and clearances in advance. Physical characteristics are given for each available cable length. Review cable lengths carefully and choose lengths appropriate for your installation prior to the equipment arriving, to avoid unnecessary installation delays.

Remember, it is up to you to make sure that all cables are routed and connected in accordance with all regulatory laws that may apply.

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Section 2.0 Cable Information

2.1 OTS

ITEM	PART NO.	DESCRIPTION	MIS NO	LENGTH	USABLE LENGTH	RATING VOLTAGE	CONNECTOR SIZE (MM) L*W*D
1	5146500-7-ROHS	FeiTian OTS CAN and CANopen Cable - ROHS compliant	11629A	20M (65.62FT)	19.5M (63.98FT)	350ACV 500VDC	35 X 20 X 45
2	5146500-9-ROHS	FeiTian Tube Stator,Fan and Pressure Switch Cable - ROHS compliant.	11710A	25M (82.02FT)	24.5M (80.38FT)	350ACV 500VDC	40 X 30 X 30
3	5146500-12-ROHS	FeiTian OTS Power Cable-ROHS Compliant	11708A	20M (65.62FT)	19.5M (63.98FT)	350ACV 500VDC	28 X 20 X 45
4	5160469-1	Fei Tian HV cable-Anode	11691A	25M (82.02FT)	24.5M (80.38FT)	75KV	190 X 80 X 80
5	5160469-2	Fei Tian HV Cable-cathode	11690A	25M (82.02FT)	24.5M (80.38FT)	75KV	190 X 80 X 80
6	5146500-8	FeiTian OTS Ground Cable	11711A	20M (65.62FT)	19.5M (63.98FT)	350ACV 500VDC	φ10 X 35
7	5146500-14-ROHS	FeiTian OTS Console VGA Cable	20102A	30M (98.43FT)	29.5M (96.78FT)	350ACV 500VDC	35 X 20 X 45
8	5146500-13-ROHS	FeiTian OTS Console Touchscreen Cable	20101A	26M (85.30FT)	25.5M (83.66FT)	350ACV 500VDC	35 X 20 X 60

2.2 System MIS Cable-OTS for 12M Rail

ITEM	PART NO.	DESCRIPTION	MIS NO	LENGTH	USABLE LENGTH	RATING VOLTAGE	CONNECTOR SIZE (MM) L*W*D
1	5491864	Optima 3M bridge OTS cable hose Assembly	NA	30M (98.43FT)	29.5M (96.78FT)	NA	NA
2	5491865	Optima 2M bridge OTS cable hose Assembly	NA	30M (98.43FT)	29.5M (96.78FT)	NA	NA

2.3 G2 Table Standard Length MIS Cable 5496118

ITEM	PART NO.	DESCRIPTION	MIS NO	LENGTH	USABLE LENGTH	RATING VOLTAGE	CONNECTOR SIZE (MM) L*W*D
1	5307318-4	Table Ion chamber MIS cable	020045	16M (52.49FT)	15.5M (50.85FT)	350ACV 500VDC	45 x 20 x 45
2	5368672-4	Table Detector Ethernet MIS cable	020003	50M (164.04FT)	49.5M (162.40)	350ACV 500VDC	20 x 12 x 40
3	5336729-4	Table Power MIS cable	020005	16M (52.49FT)	15.5M (50.85FT)	350ACV 500VDC	30 x 25 x 30
4	5336730-4	Table DPS MIS cable	11753A	16M (52.49FT)	15.5M (50.85FT)	350ACV 500VDC	30 x 21 x 87
5	5336731-4	Table Can MIS cable	11632A	16M (52.49FT)	15.5M (50.85FT)	350ACV 500VDC	35 x 20 x 45
6	5336736-4	Table Ground MIS cable	11752A	16M (52.49FT)	15.5M (50.85FT)	300V	φ10 X 35
7	5336737-4	Table Emergency Stop MIS cable	11754A	16M (52.49FT)	15.5M (50.85FT)	350ACV 500VDC	35 x 20 x 45

2.4 G2 Table Long Length MIS Cables 5496119

ITEM	PART NO.	DESCRIPTION	MIS NO	LENGTH	USABLE LENGTH	RATING VOLTAGE	CONNECTOR SIZE (MM) L*W*D
1	5307318-5	Table Ion chamber MIS cable	020045	21M (68.90FT)	20.5M (67.26FT)	350ACV 500VDC	45 x 20 x 45
2	5368672-4	Table Detector Ethernet MIS cable	020003	50M (164.04FT)	49.5 (162.40FT)	350ACV 500VDC	20 x 12 x 40
3	5336729-5	Table Power MIS cable	020005	21M (68.90FT)	20.5M (67.26FT)	350ACV 500VDC	30 x 25 x 30
4	5336730-5	Table DPS MIS cable	11753A	21M (68.90FT)	20.5M (67.26FT)	350ACV 500VDC	30 x 21 x 87
5	5336731-5	Table Can MIS cable	11632A	21M (68.90FT)	20.5M (67.26FT)	350ACV 500VDC	35 x 20 x 45
6	5336736-5	Table Ground MIS cable	11752A	21M (68.90FT)	20.5M (67.26FT)	300V	φ10 X 35
7	5336737-5	Table Emergency Stop MIS cable	11754A	21M (68.90FT)	20.5M (67.26FT)	350ACV 500VDC	35 x 20 x 45

2.5 Standard WS and Manual WS Length Version 5401578

Note: 5401578 could be used for both Standard WS and Manual WS.

ITEM	PART NO.	DESCRIPTION	MIS NO	LENGTH	USABLE LENGTH	RATING VOLTAGE	CONNECTOR SIZE (MM) L*W*D
1	5336717-2	Substitute 5146500-1 for Rohs compliance, FeiTian II WS CAN and CANopen Cable	11644A	15M (49.21FT)	14.5M (47.57FT)	350ACV 500VDC	35 x 20 x 45
2	5336733-2	Substitute 5146500-30 for Rohs compliance, FeiTian II WS ION Chamber Cable	020021	15M (49.21FT)	14.5M (47.57FT)	350ACV 500VDC	45 x 20 x 45
3	5336732-2	Substitute 5146500-3 for Rohs compliance, FeiTian II WS DPS Power Cable	11755A	15M (49.21FT)	14.5M (47.57FT)	350ACV 500VDC	30 x 21 x 87

ITEM	PART NO.	DESCRIPTION	MIS NO	LENGTH	USABLE LENGTH	RATING VOLTAGE	CONNECTOR SIZE (MM) L*W*D
4	5336722-2	Substitute 5146500-2 for Rohs compliance, FeiTian WS Power Cable	11756A	15M (49.21FT)	14.5M (47.57FT)	350ACV 500VDC	30 x 21 x 87
5	5336738-2	Substitute 5146500-5 for Rohs compliance, FeiTian II WS Ground Cable	11757A	15M (49.21FT)	14.5M (47.57FT)	300V	φ10 X 35
6	5368672-4	PC Ethernet cable to Wall Stand	20100A	50M (164.04FT)	49.5M (162.40FT)	350ACV 500VDC	20 x 12 x 40

2.6 Ext WS Length Version 5262569-3

ITEM	PART NO.	DESCRIPTION	MIS NO	LENGTH	USABLE LENGTH	RATING VOLTAGE	CONNECTOR SIZE (MM) L*W*D
1	5336717	Substitute 5146500-1 for Rohs compliance, FeiTian II WS CAN and CANopen Cable	11644A	20M (65.62FT)	19.5M (63.98FT)	350ACV 500VDC	35 x 20 x 45
2	5336733	Substitute 5146500-30 for Rohs compliance, FeiTian II WS ION Chamber Cable	020021	20M (65.62FT)	19.5M (63.98FT)	350ACV 500VDC	45 x 20 x 45
3	5368672-4	PC Ethernet cable to Wall Stand	20100A	50M (164.04FT)	49.5M (162.40FT)	350ACV 500VDC	20 x 12 x 40
4	5336732	Substitute 5146500-3 for Rohs compliance, FeiTian II WS DPS Power Cable	11755A	20M (65.62FT)	19.5M (63.98FT)	350ACV 500VDC	30 x 21 x 87
5	5336722	Substitute 5146500-2 for Rohs compliance, FeiTian WS Power Cable	11756A	20M (65.62FT)	19.5M (63.98FT)	350ACV 500VDC	30 x 21 x 87
6	5336738	Substitute 5146500-5 for Rohs compliance, FeiTian II WS Ground Cable	11757A	20M (65.62FT)	19.5M (63.98FT)	300V	φ10 X 35

2.7 WallBox

ITEM	PART NO.	DESCRIPTION	MIS NO	LENGTH	USABLE LENGTH	RATING VOLTAGE	CONNECTOR SIZE (MM) L*W*D
1	5336719	Substitute 5146500-15 for Rohs compliance, FeiTian II WBI Jedi CAN Cable	11760A	20M (65.62FT)	19.5M (63.98FT)	350ACV 500VDC	35x20x45
2	5336720	Substitute 5146500-16 for Rohs compliance, FeiTian II WBI CAN Cable	11761A	20M (65.62FT)	19.5M (63.98FT)	350ACV 500VDC	35x20x45
3	5146500-18	FeiTian WBI Ground Cable	11764A	20M (65.62FT)	19.5M (63.98FT)	300V	φ10 X 35
4	5146500-17	FeiTian WBI CRE Power Cable	11763A	20M (65.62FT)	19.5M (63.98FT)	350ACV 500VDC	28 X 20 X 45
5	5341237-2	26 PIN HD D-SUB CABLE(From System Cabinet to Wallbox)	020064	20M (65.62FT)	19.5M (63.98FT)	350ACV 500VDC	45 x 20 x 45

2.8 FlashPad Tether

ITEM	PART NO.	DESCRIPTION	MIS NO	LENGTH	USABLE LENGTH	RATING VOLTAGE	CONNECTOR SIZE (MM) L*W*D
1	5402662	TIB Power Cable	020075	20M (65.62FT)	19.5M (63.98FT)	350ACV 500VDC	35 x 40 x 87
2	5393576-2	TIB Ethernet Cable	020077	25M (82.02FT)	24.5M (80.38FT)	350ACV 500VDC	20 x 12 x 40
3	5389155-2	FlashPad Tether with Plug Asm, 10m	NA	10M (32.81FT)	9.5M (31.17FT)	350ACV 500VDC	100 x 28 x 110
4	5389155	FlashPad Tether with Plug Asm, 4m	NA	4M (13.12FT)	3.5M (11.48FT)	350ACV 500VDC	100 x 28 x 110
5	5389155-4	FlashPad Tether with Plug Asm, 7m	NA	7M (22.97FT)	6.5M (21.33FT)	350ACV 500VDC	100 x 28 x 110

2.9 Dongle

ITEM	PART NO.	DESCRIPTION	MIS NO	LENGTH	USABLE LENGTH	RATING VOLTAGE	CONNECTOR SIZE (MM) L*W*D
1	5412201	Gryphon Dongle Ground cable	NA	24M (78.74FT)	23.5M (77.10FT)	300V	φ35 X 50

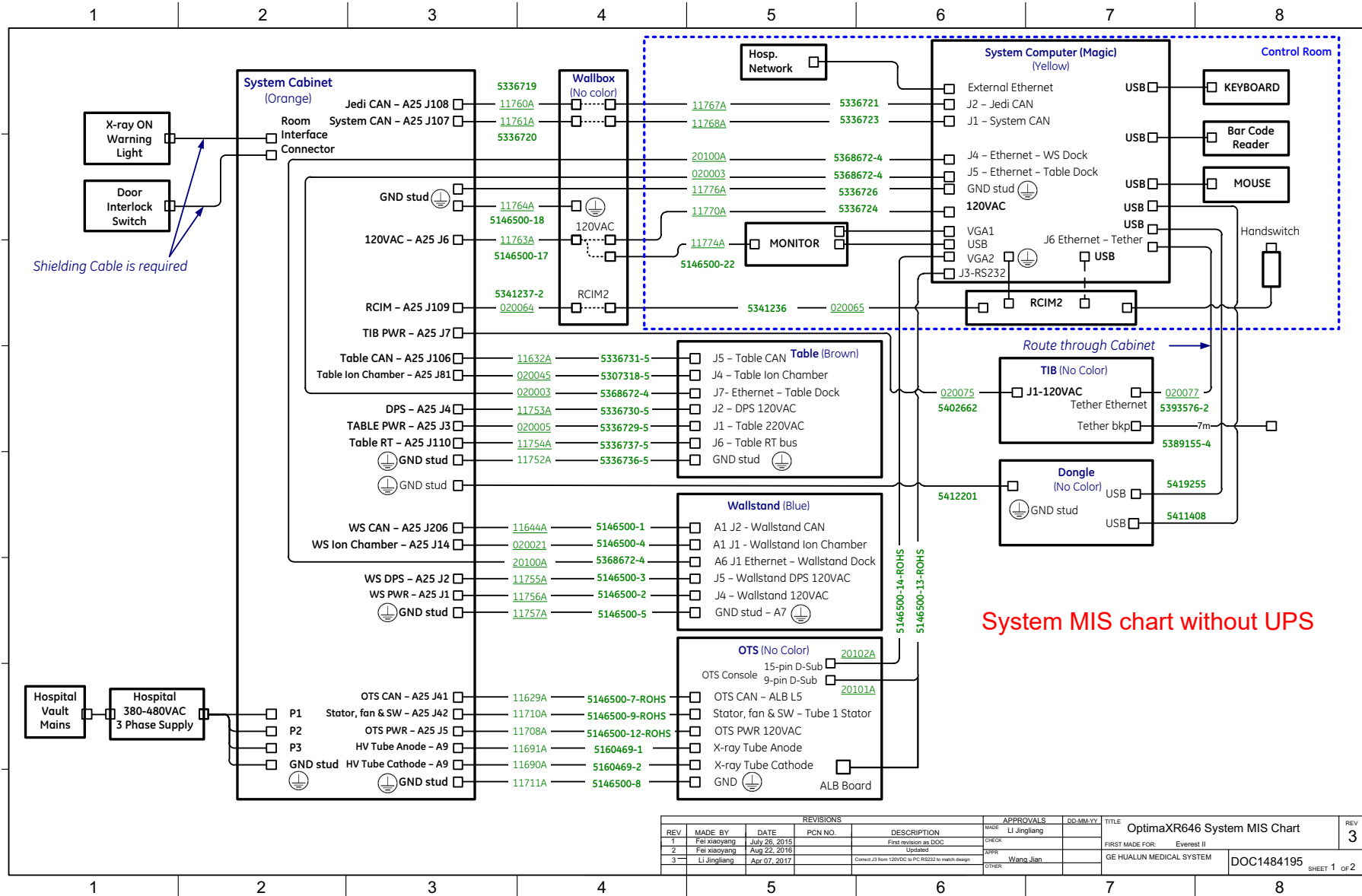
2.10 Computer

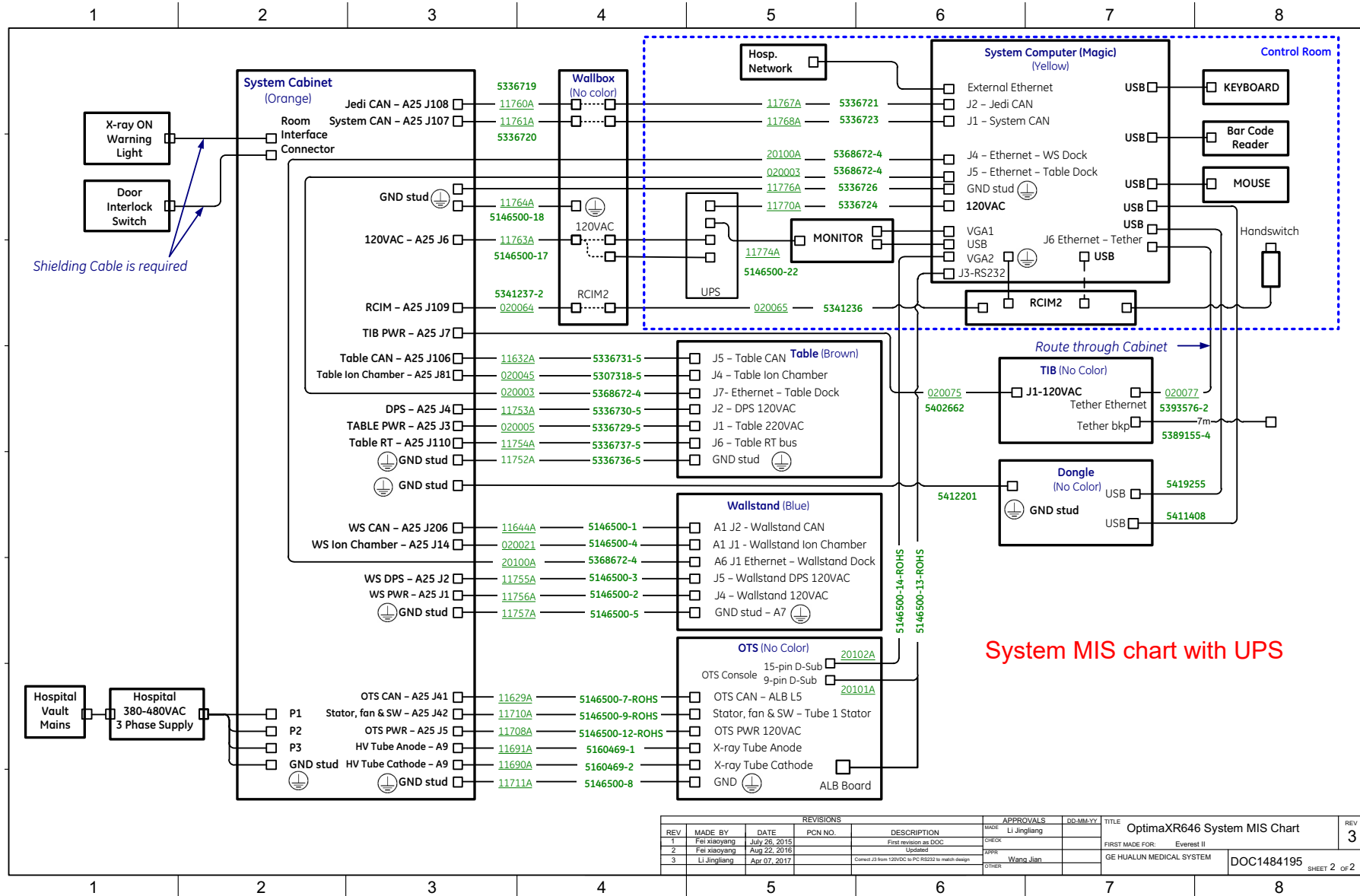
ITEM	PART NO.	DESCRIPTION	MIS NO	LENGTH	USABLE LENGTH	RATING VOLTAGE	CONNECTOR SIZE (MM)
1	5146500-22	FeiTian Image Monitor Cable (Viewer Monitor)	11774A	3M (9.84FT)	2.8M (9.19FT)	350ACV 500VDC	35 x 42 x 60
2	5404418	2th monitor power cable (ACQ.Monitor)	11775A	3M (9.84FT)	2.8M (9.19FT)	350ACV 500VDC	35 x 40 x 60
3	5336721	Substitute 5146500-19 for Rohs compliance, FeiTian Magic PC Jedi CAN Cable	11767A	3M (9.84FT)	2.8M (9.19FT)	350ACV 500VDC	35 x 20 x 45
4	5336723	Substitute 5146500-20 for Rohs compliance, FeiTian II Magic PC System CANopen Cable	11768A	3M (9.84FT)	2.8M (9.19FT)	350ACV 500VDC	35 x 20 x 45
5	5336726	Substitute 5146500-24 for Rohs compliance, FeiTian Magic PC Ground Cable	11776A	18M (59.06FT)	17.5M (57.41FT)	300V	φ10 X 35
6	5336724	Substitute 5146500-21 for Rohs compliance, FeiTian II Magic PC Power Cable	11770A	3M (9.84FT)	2.8M (9.19FT)	350ACV 500VDC	35 x 40 x 60

2.11 RCIM II

ITEM	PART NO.	DESCRIPTION	MIS NO	LENGTH	USABLE LENGTH	RATING VOLTAGE	CONNECTOR SIZE (MM) L*W*D
1	5341236	26 PIN HD D-SUB CABLE	020065	3M (9.84FT)	2.8M (9.19FT)	350ACV 500VDC	45 x 20 x 45

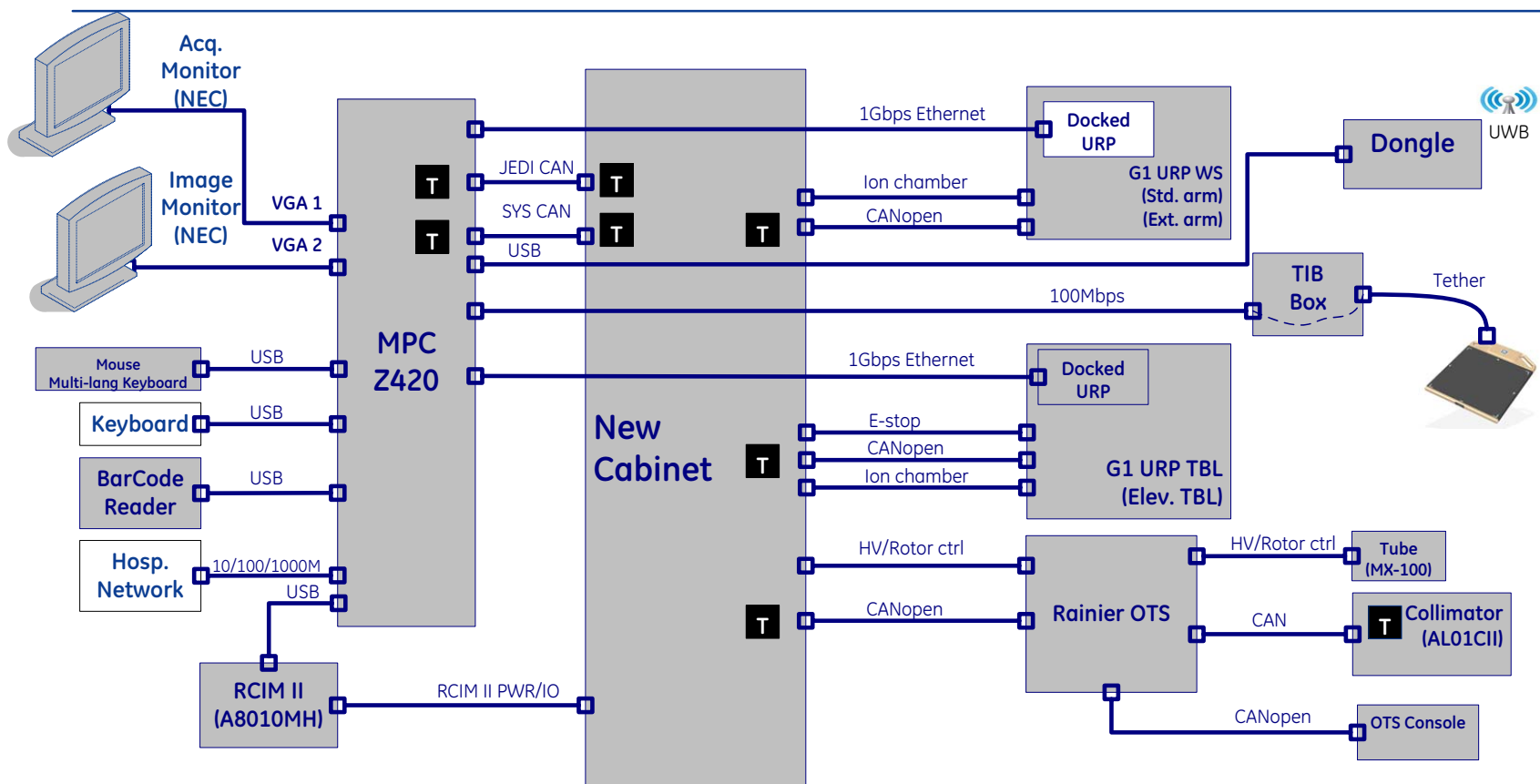
Section 3.0 System Master Interconnect Schematic (MIS Chart)



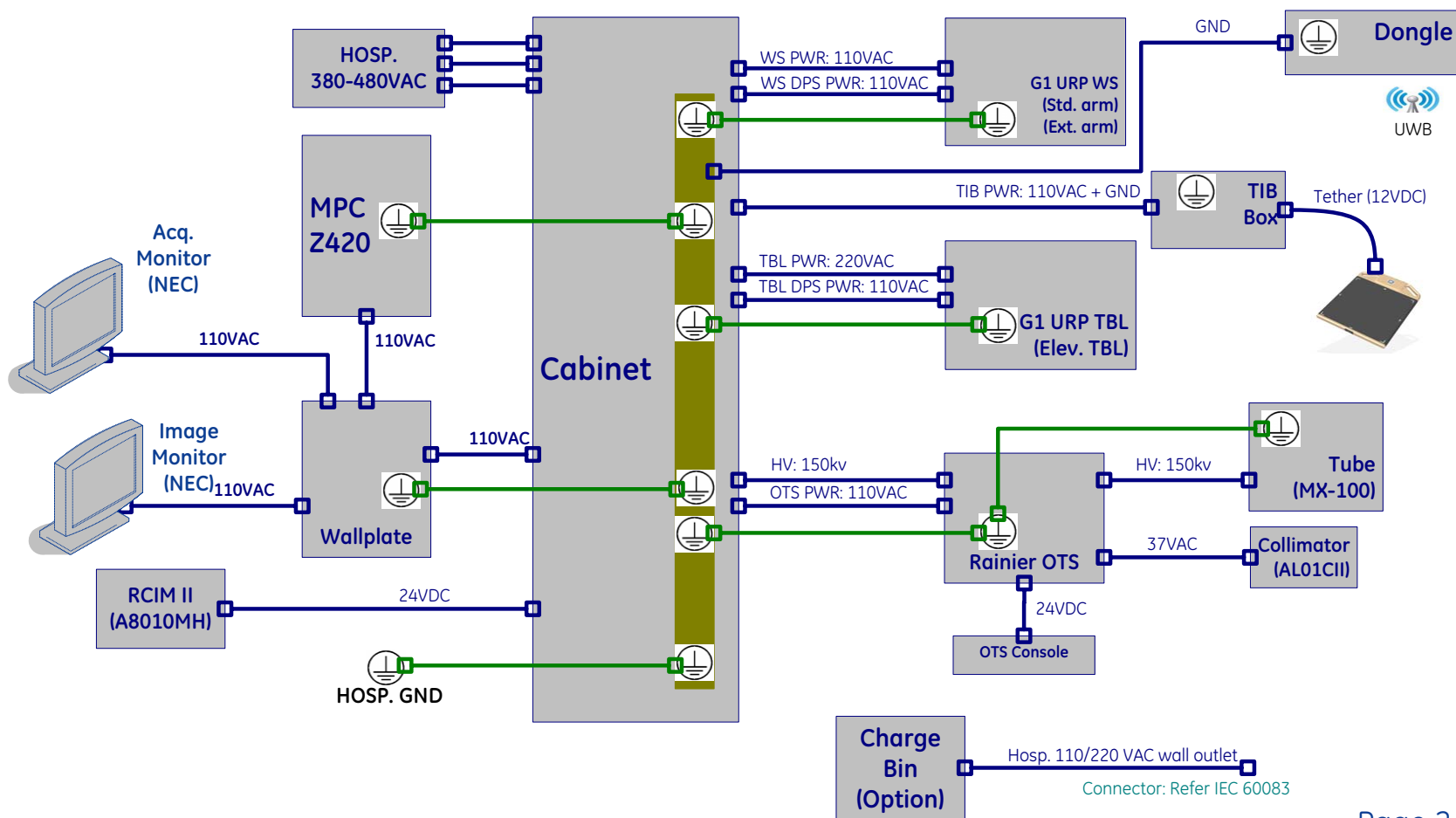


Section 4.0 System Architecture

Architecture - SIGNAL



Architecture – POWER & GROUNDING





GE HEALTHCARE

***NO.1, YONGCHANG NORTH ROAD
ECONOMIC & TECHNOLOGICAL DEVELOPMENT ZONE
FAX: 86-10-67881850
TELE: 86-10-58068888
BEIJING, P. R. CHINA 100176***