



***GE Medical Systems***

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*GE Medical Systems*

# **Technical Publications**

**Direction 2229353-100**

Revision 13

## **Silhouette VR System Pre-Installation Manual**

**CE 0459**

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Service Documentation



**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。
- 如果维修服务提供商需要非英文版本，客户需自行提供翻译服务。
- 未详细阅读和完全理解本维修手册之前，不得进行维修。
- 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 V LIVEM ELEKTRICKÉHO PROUDU, RESPEKTIVE V LIVEM 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.
- FORSØG 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, OR FROM MECHANICAL OR OTHER HAZARDS.

**HOIATUS**

(ET)

- KÄESOLEV TEENINDUSJUHEND ON SAADAVAL AINULT INGLISE KEELES.
- KUI KLIENDITEENINDUSE OSUTAJA NÕUAB JUHENDIT INGLISE KEELEST ERINEVAS KEELES, VASTUTAB KLIENT TÕLKETEENUSE OSUTAMISE EEST.
- ÄRGE ÜRITAGE SEADMEID TEENINDADA ENNE EELNEVALT KÄESOLEVA TEENINDUSJUHENDIGA TUTVUMIST JA SELLEST ARU SAAMIST.

**VAROITUS**

(FI)

- KÄESOLEVA HOIATUSE EIRAMINE VÕIB PÕHJUSTADA TEENUSEOSUTAJA, OPERAATORI VÕI PATSIENDI VIGASTAMIST ELEKTRILÖÖGI, MEHAANILISE VÕI MUU OHU TAGAJÄRJEL.
- 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 SERVICE 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'INTERVENIR SUR LES EQUIPEMENTS TANT QUE LE MANUEL SERVICE N'A PAS ETE CONSULTE 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 ÉRHEŐ 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.

**AÐVÖRUN**

(IS)

- ÞESSI ÞJÓNUSTUHANDBÓK ER EINGÖNGU FÁANLEG Á ENSKU.
- EF AÐ ÞJÓNUSTUVEITANDI VIÐSKIPTAMANNS ÞARFNAST ANNAS TUNGUMÁLS EN ENSKU, ER ÞAÐ SKYLDA VIÐSKIPTAMANNS AÐ SKAFFA TUNGUMÁLÞJÓNUSTU.
- REYNIÐ EKKI AÐ AFGREIÐA TÆKIÐ NEMA AÐ ÞESSI ÞJÓNUSTUHANDBÓK HEFUR VERIÐ SKOÐUÐ OG SKILIN.
- BROT Á SINNA ÞESSARI AÐVÖRUN 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)

- このサービスマニュアルには英語版しかありません。
- サービスを担当される業者が英語以外の言語を要求される場合、翻訳作業はその業者の責任で行うものとさせていただきます。
- このサービスマニュアルを熟読し理解せずに、装置のサービスを行わないでください。
- この警告に従わない場合、サービスを担当される方、操作員あるいは患者さんが、感電や機械的又はその他の危険により負傷する可能性があります。

**경고**

(KO)

- 본 서비스 지침서는 영어로만 이용하실 수 있습니다.
- 고객의 서비스 제공자가 영어 이외의 언어를 요구할 경우, 번역 서비스를 제공하는 것은 고객의 책임입니다.
- 본 서비스 지침서를 참고했고 이해하지 않는 한은 해당 장비를 수리하려고 시도하지 마십시오.
- 이 경고에 유의하지 않으면 전기 쇼크, 기계상의 혹은 다른 위험으로부터 서비스 제공자, 운영자 혹은 환자에게 위해를 가할 수 있습니다.

**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 ANGLŪ KALBA.
- JEI KLIENTO PASLAUGŲ TIEKĒJAS REIKALAUJA VADOVO KITA KALBA – NE ANGLŪ, 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 JEDYNIIE 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 BĄDŻ 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 TENDE 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 DECĂT CEA ENGLEZĂ, ESTE DE DATORIA CLIENTULUI SĂ FURNIZEZE O TRADUCERE.
- NU ÎNCERCAȚI SĂ REPARAȚI ECHIPAMENTUL DECĂT 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.
- НЕПОКЎШАЈТЕ СА О ОБСЛУХУ ЗАРІАДЕНІА СКЌР, АКО СИ НЕПРЕЧІТАТЕ НÁВОД НА ОБЛУХУ А НЕПОРОЗУМІЕТЕ МУ.
- ZANEDBANIE TOHTO UPOZORNENIA MŌŽE VYÚSTIŤ DO ZRANENIA POSKYTOVATEĽA SLUŽIEB, OBSLUHUJÚCEJ OSOBY ALEBO PACIENTA ELEKTRICKÝM PRÚDOM, DO MECHANICKÉHO ALEBO INÉHO NEBEZPEČENSTVA.

**ATENCIÓN**

(ES)

- ESTE MANUAL DE SERVICIO SÓLO EXISTE EN INGLÉS.
- SI ALGÚN PROVEEDOR DE SERVICIOS AJENO A GEMS SOLICITA UN IDIOMA QUE NO SEA EL INGLÉS, ES RESPONSABILIDAD DEL CLIENTE OFRECER UN SERVICIO DE TRADUCCIÓN
- NO SE DEBERÁ DAR SERVICIO TÉCNICO 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.

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**Direction 2229353-100****Revision 13**

# Silhouette VR System Pre-Installation Manual

## 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, Medical Systems 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 everyone 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 take

adequate steps to protect against injury.

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

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

**CAUTION:** United States Federal law restricts this device to use by or on the order of a physician.

If you have any comments, suggestions or corrections to the information in this document, please write them down, include the document title and document number, and send them to:  
**GENERAL ELECTRIC COMPANY MEDICAL SYSTEMS**  
 MANAGER - INFORMATION INTEGRATION,  
 AMERICAS W-622  
 P.O. BOX 414  
 MILWAUKEE, WI 53201-0414

## 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 Medical 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.

## DAMAGE IN TRANSPORTATION

All packages should be closely examined at time of delivery. If damage is apparent, have notation "**damage in shipment**" written on **all** copies of the freight or express bill **before** delivery is accepted or "signed for" by a General Electric representative or a 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 Traffic and Transportation, Milwaukee, WI (414) 827-3449/

8\*285-3449 **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 & Procedure Bulletins.

---

## REGULATORY REQUIREMENTS

---

This product conforms with the requirements of Council Directive 93/42/EEC concerning medical devices when it bears the following CE marking of conformity:



---

## Electromagnetic Compatibility (EMC)

---

This product conforms with IEC 60601-1-2:2001+A1:2004 EMC standard for medical devices.

**Note:** This equipment generates, uses, and can radiate radio frequency energy. The equipment may cause or subject to radio frequency interference with other medical and non-medical devices and radio communications. To provide reasonable protection against such interference, the Silhouette VR System complies with emissions limits for a Group 1, Class A Medical Devices and has applicable immunity level as stated in EN IEC 60601-1-2:2001+A1:2004.

However, there is no guarantee that interference will not occur in a particular installation. Special precautions and other information regarding EMC provided in the accompanying documents of this equipment shall be observed during installation and operation of this equipment.

**Note:** If this equipment is found to cause interference (which may be determined by switching the equipment on and off), the user (or qualified service personnel) should attempt to correct the problem by one or more of the following measure(s):

- Reorient or relocate the affected device(s).
- Increase the separating space between the equipment and the affected device.
- Power the equipment from a source different from that of the affected device.
- Consult the point of purchase or service representative for further suggestions.

**WARNING**

Use of accessories, transducers, cables and other parts other than those specified by the manufacturer of this equipment may result in increased emissions or decreased immunity of the equipment. The manufacturer is not responsible for any interference caused either by the use of interconnect cables other than those recommended, or by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate the equipment.

**Note:** To comply with the regulations applicable to an electromagnetic interface for a Group 1, Class A Medical Device, and to minimize interference risks, the following requirements shall apply:

- All interconnect cables to peripheral devices must be shielded and properly grounded. Use of cables not properly shielded and grounded may result in the equipment causing radio frequency interference in violation of the European Union Medical Device directive and FCC regulations.

- All of those recommended guidance regarding electromagnetic environment shall be followed.

Note: Do not use devices which intentionally transmit RF signals (Cellular Phones, Transceivers, or Radio Controlled Products) in the vicinity of this equipment as it may cause performance outside the published specifications. Keep the power to these type devices turned off when near the equipment.

The medical staff in charge of this equipment is required to instruct technicians, patients, and others.

Guidance and manufacturer’s declaration – Electromagnetic Emissions

The <b>Silhouette VR system</b> is suitable for use in the specified electromagnetic environment. The purchaser or user of the <b>Silhouette VR system</b> should assure that it is used in an electromagnetic environment as described below:		
Emissions Test	Compliance	Electromagnetic Environment
RF Emissions CISPR11	Group1	The Silhouette VR system uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF Emissions CISPR11	Class A	The Silhouette VR system is suitable for use in all establishments other than domestic and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Not applicable	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Not applicable	

Guidance and manufacturer’s declaration - Electromagnetic Immunity (1)

The <b>Silhouette VR system</b> is suitable for use in the specified electromagnetic environment. The purchaser or user of the <b>Silhouette VR system</b> should assure that it is used in an electromagnetic environment as described below:			
Immunity Test	IEC 60601-1-2 Test Level	Compliance Level	Electromagnetic Environment
Electrostatic discharge (ESD) IEC 61000-4-2	±6 kV contact ±8 kV air	±6 kV contact ±8 kV air	Floors are wood, concrete, or ceramic tile, or floors are covered with synthetic material and the relative humidity is at least 30 %.
Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines  ±1 kV for input/output lines	±2 kV for power supply lines  ±1 kV for input/output lines	Mains power quality is that of a typical commercial and/or hospital environment
Surge IEC 61000-4-5	±1 kV differential mode ±2 kV common mode	±1 kV differential mode ±2 kV common mode	Mains power quality is that of a typical commercial and/or hospital environment.


Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<p>&lt; 5 % <math>U_T</math> (&gt; 95 % dip in <math>U_T</math>) for 0.5 cycle</p> <p>40 % <math>U_T</math> (60 % dip in <math>U_T</math>) for 5 cycles</p> <p>70 % <math>U_T</math> (30 % dip in <math>U_T</math>)</p> <p>&lt; 5 % <math>U_T</math> (&gt; 95 % dip in <math>U_T</math>) for 5 s</p>	0 % $U_T$ for 5 sec	Mains power quality is that of a typical commercial and/or hospital environment. If the user of the Silhouette VR system requires continued operation during power mains interruptions, it is recommended that the Silhouette VR system be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields are at levels characteristic of a typical location in a typical commercial and/or hospital environment.

**Note:** These are guidelines. Actual conditions may vary.

Guidance and manufacturer's declaration - Electromagnetic Immunity (2)

The **Silhouette VR system** is suitable for use in the specified electromagnetic environment. The purchaser or user of the **Silhouette VR system** should assure that it is used in an electromagnetic environment as described below:

Immunity Test	IEC 60601-1-2 Test Level	Compliance Level	Electromagnetic Environment
Conducted RF IEC 61000-4-6	3 V 150 kHz to 80 MHz	$[V_{1\alpha}] 3 V$	<p>Portable and mobile RF communications equipment are used no closer to any part of the [EQUIPMENT and/or SYSTEM], including cables, than the recommended separation distance calculated from the equation appropriate for the frequency of the transmitter.</p> <p><b>Recommended separation distance</b></p> $d = 1.2\sqrt{P}$
Radiated RF IEC 61000-4-3	3 V/m 80 kHz to 800 MHz	$[E_{1\alpha}] 3 V/m$	$d = 1.2\sqrt{P} \quad 80 \text{ MHz to } 800 \text{ MHz}$ $d = 2.3\sqrt{P} \quad 800 \text{ MHz to } 2,5 \text{ GHz}$ <p>Note: P is the power rating of the transmitter in watts (W) according to the transmitter manufac-</p>

			<p>turer and d is the recommended separation distance in meters (m).</p> <p>Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey,* are less than the compliance level in each frequency range.**</p> <p>Interference may occur in the vicinity of equipment marked with the following symbol:</p> 
<p>NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies.</p> <p>NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.</p>			
<p>*Field strengths from fixed transmitters, such as base stations for cellular telephones and land mobile radios, amateur radio, AM and FM radio broadcast, and TV broadcast cannot be estimated accurately. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be performed. If the measured field strength exceeds the RF compliance level above, observe the <b>Silhouette VR system</b> to verify normal operation in each use location. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the [EQUIPMENT and/or SYSTEM].</p> <p>**Over the frequency range 150 kHz to 80 MHz, field strengths are less than 3 V/m.</p> <p><b>The Recommended Separation Distances are listed in the next table.</b></p> <p><b>Note:</b> These are guidelines. Actual conditions may vary.</p>			

Recommended Separation Distances for Portable and Mobile RF Communications Equipment and the **Silhouette VR system**

Frequency of Transmitter	150KHz to 80 MHz	80 MHz to 800 MHz	800 MHz to 2,5 GHz
Equation	$d = 1.2\sqrt{P}$	$d = 1.2\sqrt{P}$	$d = 2.3\sqrt{P}$
Rated Power of Transmitter (W)	<b>DISTANCE (meters)</b>	<b>DISTANCE (meters)</b>	<b>DISTANCE (meters)</b>
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23
<p>For transmitters rated at a power not listed above, the <b>DISTANCE</b> can be estimated using the equation in the corresponding column, where P is the power rating of the transmitter in watts (W) according to the transmitter manufacturer.</p> <p><b>Note:</b> These are guidelines. Actual conditions may vary.</p>			

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**REVISION HISTORY**

REV	DATE	REASON FOR CHANGE
A	Oct. 20, 1998	Preliminary release.
B	Dec. 8, 1998	Validation copy.
0	Dec.20, 1998	Initial release.
1	Mar. 4, 1999	Revised chapter 6.
2	Apr. 6, 1999	Revised table and generator rating plate location. Revised Illustrations 4-1, 4-2, 4-4, 4-5, 6-1. Added Section 2-6 in Chapter 3. Revised Tables 6-1, 6-2, 6-3, 6-4.
3	June 8, 1999	Revised chapters 3, 4, 6, 7.
4	Feb. 3, 2000	Added collimator model number 2226682-1.
5	Feb. 16, 2000	Revised tables 3-3, 6-4, 6-5, 6-8. Added table 6-3. Revised Illustration 6-1. Added note to chapter 6 section 2-2.
6	Sep 20, 2000	Revised page 4-2, 6-2.
7	JUL 16, 2001	Add dimensions and note in 4-2,4-5
8	Oct 29, 2004	Updated regulatory requirements and pictures of component plate in page 2-2
9	May 20, 2005	Update Jedi Generator Parameters
10	Sep 1, 2005	Add Notice about CCC Certification.
11	Jan 30, 2007	Add MMS Collimator descriptions
12	Jan 16, 2008	Add WYE Notice.
13	Aug 19, 2011	Revise EMC standard version

**LIST OF EFFECTIVE PAGES**

PAGE NUMBER	REVISION NUMBER	PAGE NUMBER	REVISION NUMBER	PAGE NUMBER	REVISION NUMBER
Title Page	6	Back Page	-	6-3	12
i thru x	6	4-2 and 4-5	7		
1-1 thru 1-4	6	v thru ix	8		
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# CHAPTER 1 - INTRODUCTION

## SECTION 1 PURPOSE AND SCOPE OF THIS MANUAL

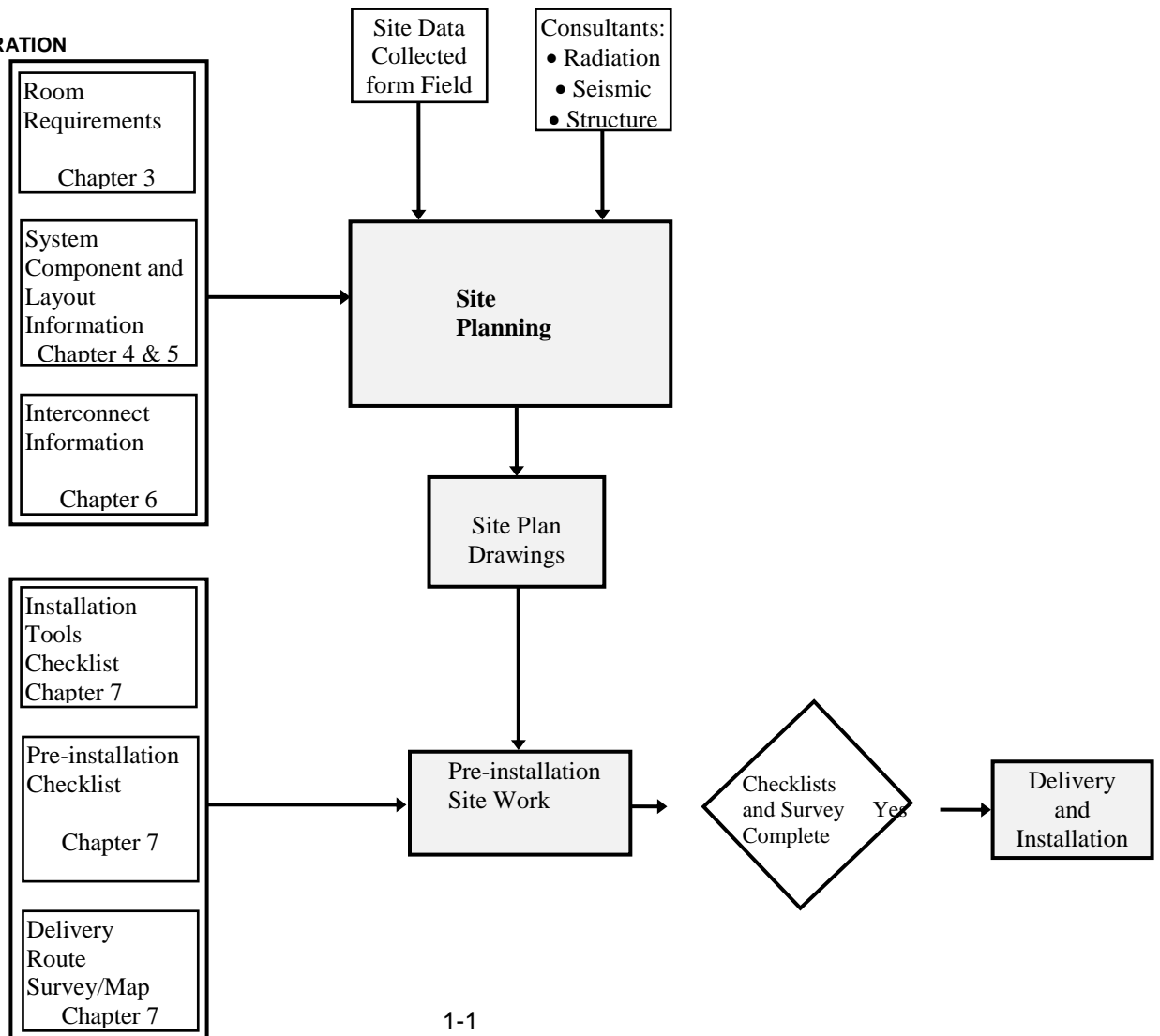
This document is intended as a guide and information resource for planning and properly preparing a site for the installation of SILHOUETTE VR systems.

### 1-1 Pre-installation Process

Complete the checklists in Chapters 5, 6, and 7 of this manual. They are an important part of the pre-installation process. The checklists summarize required preparations and verify the completion of the pre-installation procedures.

The following is a graphic outline of information flow in the pre-installation process.

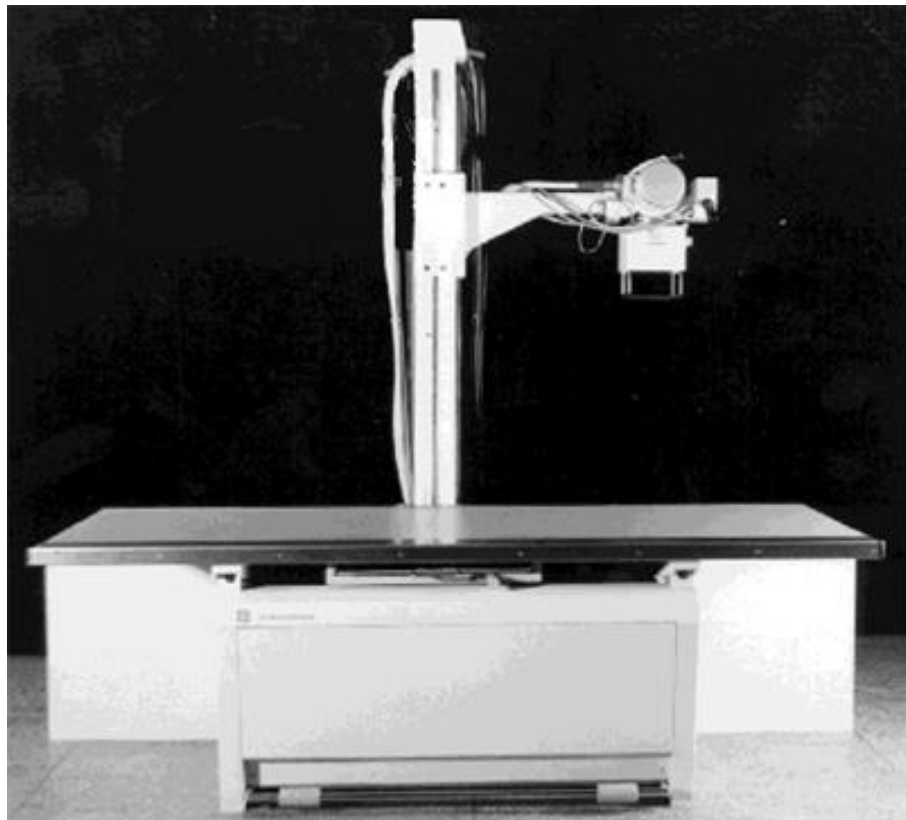
Illustration 1-1  
BASIC CONFIGURATION



## SECTION 2 DESCRIPTION OF SYSTEM

THE SILHOUETTE VR SYSTEM IS DIVIDED INTO BASIC COMPONENTS:

- 1) CONSOLE
- 2) RADIOGRAPHIC TABLE/INTEGRATED TUBE STAND
- 3) WALL STAND
- 4) COLLIMATOR
- 5) X-RAY TUBE
- 6) GENERATOR
- 7) PDU



### SECTION 3 RESPONSIBILITY OF PURCHASER/CUSTOMER

To ensure the installation of a Silhouette VR System meets the purchaser or Customer expectations, it is important to determine who will take responsibility for various items in the course of the system installation process. To aid you in determining these responsibilities, review the following checklists with the customer and assign responsibilities as appropriate:

- **Tools and Equipment** Table (Chapter 7, Section 3 of this document)
- **Pre-Installation Checklist** (Chapter 7, Section 5 of this document)

#### **Contract Changes**

Be sure to inform the customer that the cost of any alterations or modifications not specified in the sales contract are the responsibility of the customer.

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## CHAPTER 2 - SYSTEM COMPATIBILITIES



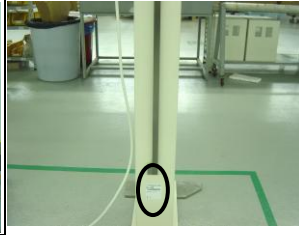

### SECTION 1 SILHOUETTE VR SYSTEM COMPATIBILITIES

Table 2-1  
SILHOUETTE VR SYSTEM IDENTIFICATION AND COMPLIANCE PLATES

ITEM	COMPONENT	MODEL NUMBER	PLATE TYPE
1	Console	2226519	Identification and Compliance
2	Radiographic table/integrated tube stand	2226517	Identification and Compliance
3	XJ-2 Wall Stand	2226683	Identification
4	MS-18SN Collimator Or MMS Collimator	2226682 or 5129405	Identification and Compliance
5	E7240X X-ray Tube (32KW) RAD-12 X-ray Tube (50KW)	2226679 2226680	Identification and Compliance Identification and Compliance
6	Generator	2212259	Identification and Compliance

The SILHOUETTE VR Component Plate locations.

Table 2-2  
BASIC PRODUCT

<b>DESIGNATION</b>	Console	Radiographic table /integrated tube stand	XJ-2 Wall Stand	MS-18 Collimator / MMS Collimator
<b>MODEL NUMBER</b>	2226519	2226517	2226683	220-0115/ 5129405
<b>LOCATION of Name Plate</b>				


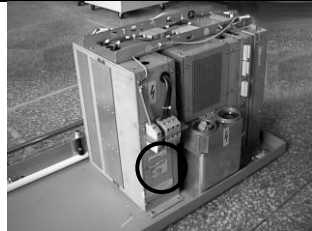

<b>DESIGNATION</b>	E7240 X-ray Tube	Generator	PDU
<b>MODEL NUMBER</b>	2226679 (32KW) 2226680 (50KW)	2212259	
<b>LOCATION of Name Plate</b>			

Table Number 2226517 Nameplate

System Number 6124001 Nameplate

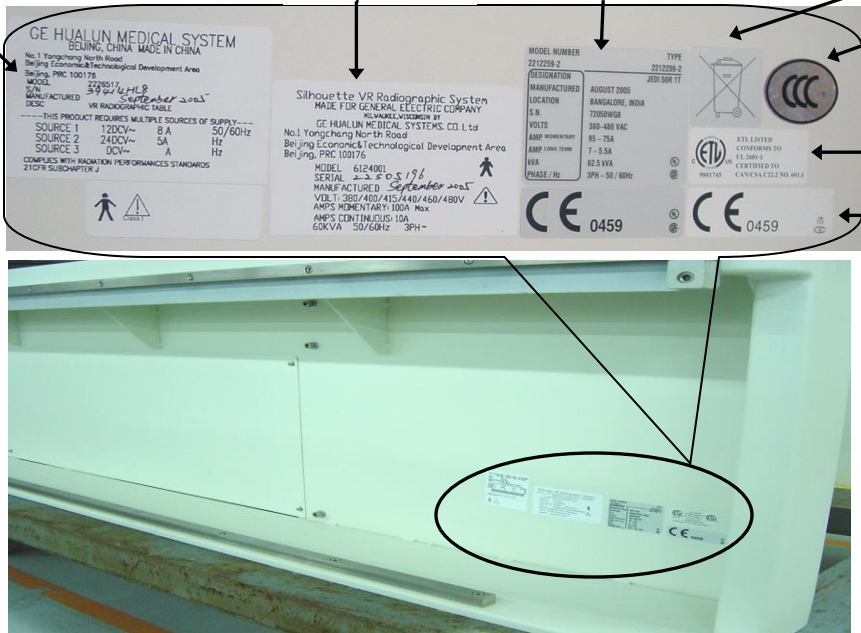
Generator Model Number 2212259-X Nameplate

WEEE label

CCC Mark

ETL Mark

CE Mark



The image shows a close-up of the nameplate area on the radiographic table. It contains several labels: a 'Table Number 2226517 Nameplate' on the left with technical specifications; a 'System Number 6124001 Nameplate' in the center with manufacturer information; a 'Generator Model Number 2212259-X Nameplate' on the right with electrical specifications; and various compliance marks including 'WEEE label', 'CCC Mark', 'ETL Mark', and 'CE Mark'.

## CHAPTER 3 - PHYSICAL REQUIREMENTS OF ROOM

### SECTION 1 ENVIRONMENTAL REQUIREMENTS/LIMITATIONS

#### 1-1 Room climate

##### Relative humidity and temperature.

See Table 3-1. To obtain relative humidity and temperature requirements for components

Table 3-1  
CLIMATE REQUIREMENT (BY COMPONENT) - RELATIVE HUMIDITY AND TEMPERATURE

PRODUCT OR COMPONENT	RELATIVE HUMIDITY (Non-condensing)				TEMPERATURE			
	IN-USE		STORAGE		IN-USE		STORAGE	
	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.
Table Assembly	20%	85%	20%	95%	+10°C (50°F)	40°C (104°F)	-18°C (-40°F)	+70°C (158°F)
Wall Stand	20%	85%	20%	95%	+10°C (50°F)	40°C (104°F)	-18°C (-40°F)	+70°C (158°F)
Generator	20%	85%	20%	95%	+10°C (50°F)	40°C (104°F)	-18°C (-40°F)	70°C (158°F)
PDU	20%	85%	20%	95%	+10°C (50°F)	40°C (104°F)	-18°C (-40°F)	70°C (158°F)
Console	20%	85%	20%	95%	+10°C (50°F)	40°C (104°F)	-18°C (-40°F)	70°C (158°F)
X-ray Tube	20%	85%	20%	95%	+10°C (50°F)	40°C (104°F)	-18°C (-40°F)	+70°C (158°F)

**Altitude and Atmospheric Pressure**

See Table 3-2.

Table 3-2  
**ALTITUDE AND ATMOSPHERIC PRESSURE**

PRODUCT OR COMPONENT	ALTITUDE				ATMOSPHERIC PRESSURE			
	IN-USE		STORAGE		IN-USE		STORAGE	
	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.
Table Assembly	-30.5 m (-100 ft.)	2440 m (8005 ft.)	-30.5 m (-100 ft.)	3048 m (10000 ft.)	10 psi (69 kPa)	15.4 psi (106 kPa)	7 psi (48 kPa)	15.4 psi (106 kPa)
Wall Stand	-30.5 m (-100 ft.)	2440 m (8005 ft.)	-30.5 m (-100 ft.)	3048 m (10000 ft.)	10 psi (69 kPa)	15.4 psi (106 kPa)	7 psi (48 kPa)	15.4 psi (106 kPa)
Generator	-30.5 m (-100 ft.)	2440 m (8005 ft.)	-30.5 m (-100 ft.)	3048 m (10000 ft.)	10 psi (69 kPa)	15.4 psi (106 kPa)	7 psi (48 kPa)	15.4 psi (106 kPa)
PDU	-30.5 m (-100 ft.)	2440 m (8005 ft.)	-30.5 m (-100 ft.)	3048 m (10000 ft.)	10 psi (69 kPa)	15.4 psi (106 kPa)	7 psi (48 kPa)	15.4 psi (106 kPa)
Console	-30.5 m (-100 ft.)	2440 m (8005 ft.)	-30.5 m (-100 ft.)	3048 m (10000 ft.)	10 psi (69 kPa)	15.4 psi (106 kPa)	7 psi (48 kPa)	15.4 psi (106 kPa)
X-ray Tube	-30.5 m (-100 ft.)	2440 m (8005 ft.)	-30.5 m (-100 ft.)	3048 m (10000 ft.)	10 psi (69 kPa)	15.4 psi (106 kPa)	7 psi (48 kPa)	15.4 psi (106 kPa)

**1-2 Equipment Heat output (Dissipation)**

See Table 3-3.

Table 3-3  
HEAT OUTPUTS (BY COMPONENT)

PRODUCT OR COMPONENT	HEAT OUTPUT (BTU/hr)	HEAT OUTPUT (WATTS)
	IN-USE	IN-USE
Table Assembly	216	72
Generator	2036	597
PDU	500	145
Console	180	60
X-ray Tube	2288	671

**1-3 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 purchaser's responsibility to consult a radiation physicist for advice on radiation protection in X-ray rooms.

## SECTION 2 STRUCTURAL REQUIREMENTS

### 2-1 Room Size

See Chapter 5, Room Layouts, for recommended and minimum Silhouette VR system room dimensions.

### 2-2 Door Size Requirements

Access through a door opening at least 1.2 m (47.24 in) wide and of a least normal height of 1.9 m (74.8 in) is required.

### 2-3 Floor Requirements

The preferred method of installing the Table is using provided floor anchors. The provided floor anchors can be used in all seismic zones.

#### **Floor Requirements when using provided Floor Anchors**

The floor bearing the Silhouette VR system must be concrete and the thickness of the floor is at least **100mm (3.9 in.)** .

The Table Assembly is placed on the floor, which must accept the weight and the weight/area defined in Table 3-1.

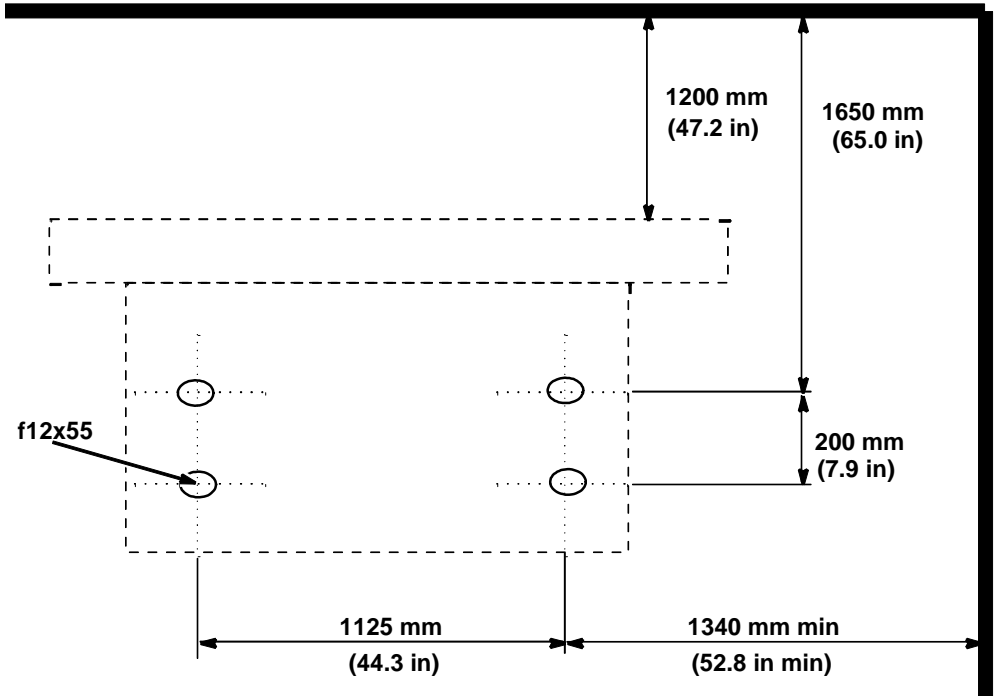
- The weight of the complete table is 450 kgs (1000 lbs).
- The ground surface must be on a level plane.
- The bearing surface of the base plate is 2.8 m<sup>2</sup> (30.1 ft<sup>2</sup>).

The silhouette VR Table system must be fixed on the floor.

See Illustration 3-1.

Maintain minimum clearance from walls and mark and drill the anchor holes.

Illustration 3-1  
FLOOR MOUNTING-TABLE ASSEMBLY

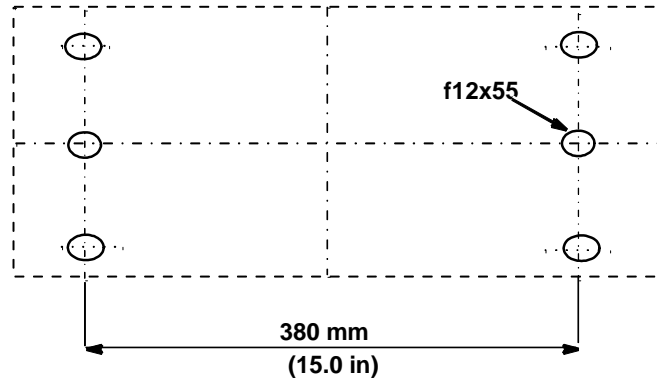


**2-4 Wall Stand Floor Mount Requirements**

Use the provided expanding bolts which is the preferred method of installing the Wall Stand. The provided expand bolts can be used in all seismic zones.

See Illustration 3-2  
Mark and drill the floor anchor bolts.

Illustration 3-2  
FLOOR MOUNTING-WALL STAND



**2-5 Wall Stand Wall Mount Requirements**

Wall Requirements when using provided expand bolts:

- The thickness of the wall where the Wall Stand is to be installed is at least 80 mm (3.2 in).
- The Silhouette VR Wall Stand must be installed on both floor and wall.

See Illustration 3-3.  
Mark and drill the wall anchor holes.

Illustration 3-3  
WALL MOUNTING-WALL STAND

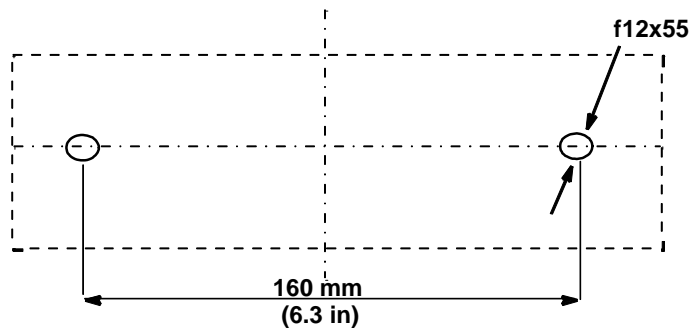
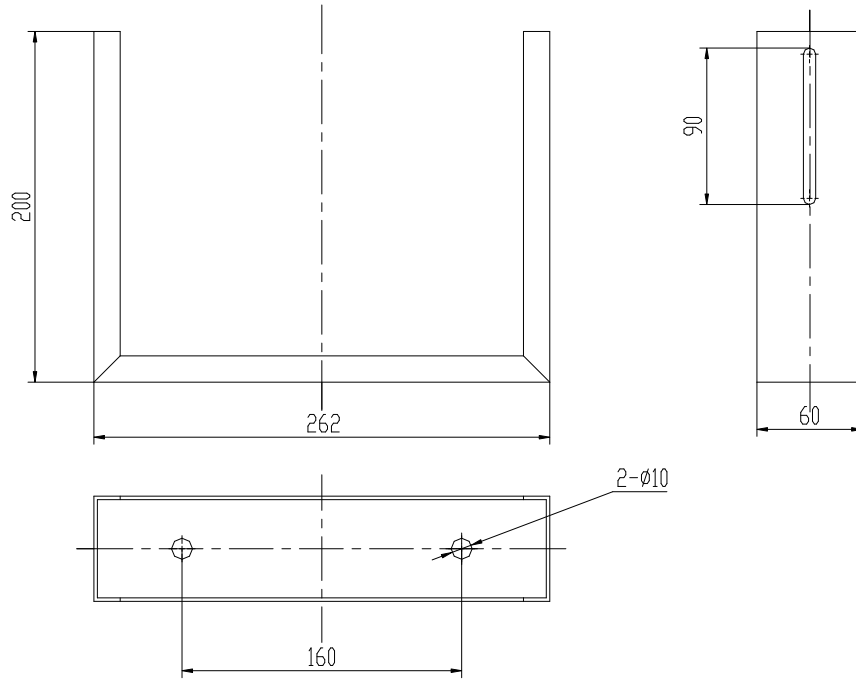


Illustration 3-4  
WALL STAND BRACKET PLAN VIEW - WALL MOUNT



**Note:** See chapter 4 for more information.

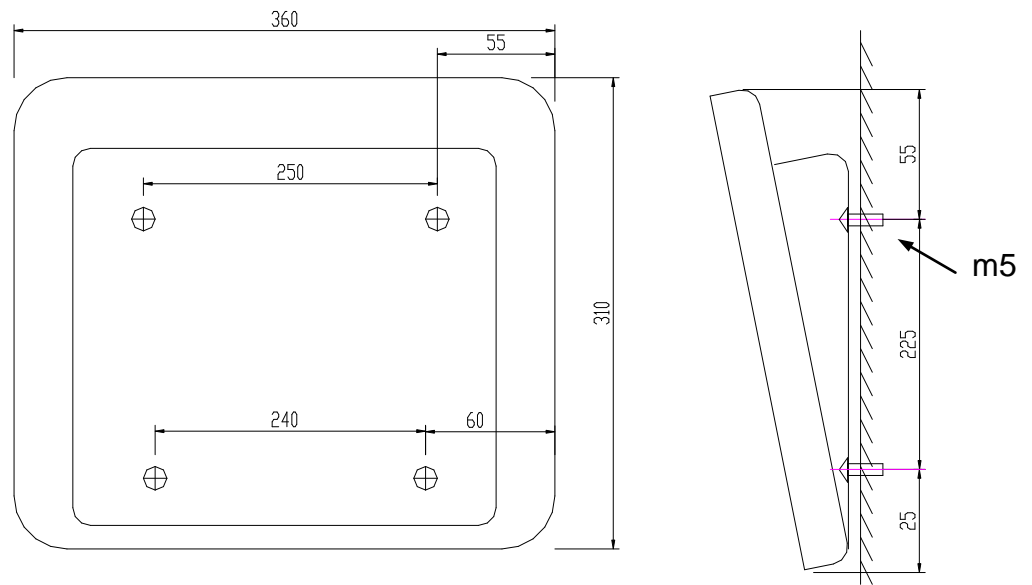
**2-6 Control Console Wall Mount Requirements**

Control Console can be hung on the wall. The height of the Console is determined by customer. The nails used for hanging the Control Console are supplied by customer.

See Illustration 3-5.

**Note:** Service engineer must drill the holes on the back of the console according to the anchor bolt size at the site.

Illustration 3-5  
WALL MOUNTING CONTROL CONSOLE



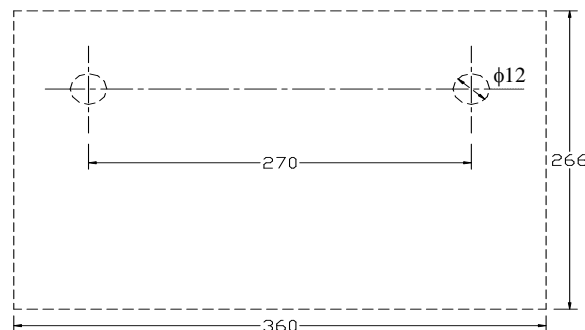
**2-7 Control Pedestal Floor Mount Requirements**

Control Console can also be mounted on the pedestal. The pedestal should be fixed on floor.

See Illustration 3-6.

Mark and drill the floor anchor bolts.

Illustration 3-6  
FLOOR MOUNTING CONTROL PEDESTAL



## CHAPTER 4 - PHYSICAL CHARACTERISTICS

### SECTION 1 DIMENSION DRAWINGS

Refer to this section for dimensional drawings for the components of the Silhouette VR system. These components include:

- Table Assembly
- Wall Stand

#### 1-1 General System Dimension

Refer to Illustration 4-1.

#### 1-2 Silhouette VR Table system - Side View

Refer to Illustration 4-2.

#### 1-3 Silhouette VR Table system - Front View

Refer to Illustration 4-3.

#### 1-4 Cable Routing out of Silhouette VR Table

Refer to Illustration 4-4.

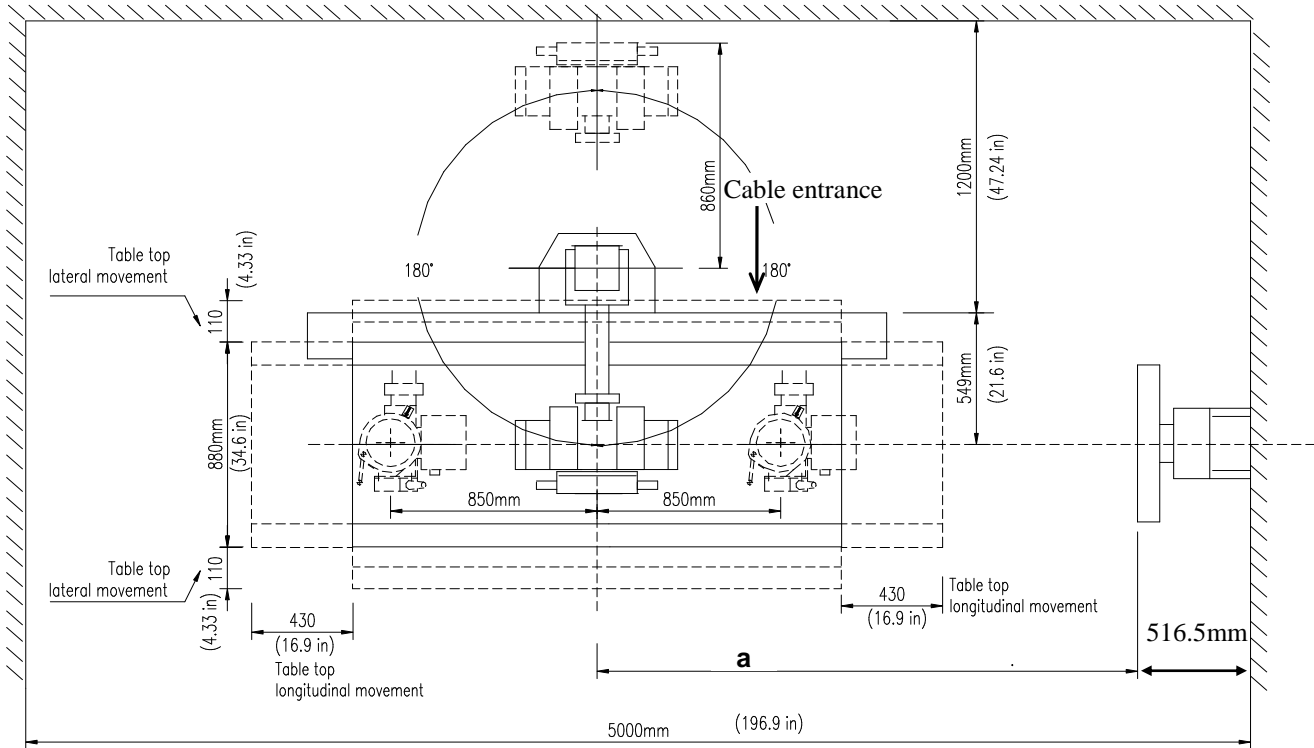
#### 1-5 Silhouette VR Wall Stand

Refer to Illustration 4-5.

#### 1-6 Silhouette VR Console and Pedestal

Refer to Illustration 4-6.

Illustration 4-1  
GENERAL SYSTEM SPECIFICATIONS



**Note:** If wall stand use only 180cm SID **a < 2640mm.**  
If wall stand use both 100cm and 180cm SID **a < 1840mm.**

**Note:** "a" refers to the distance between the tube center and the front panel of wall stand.

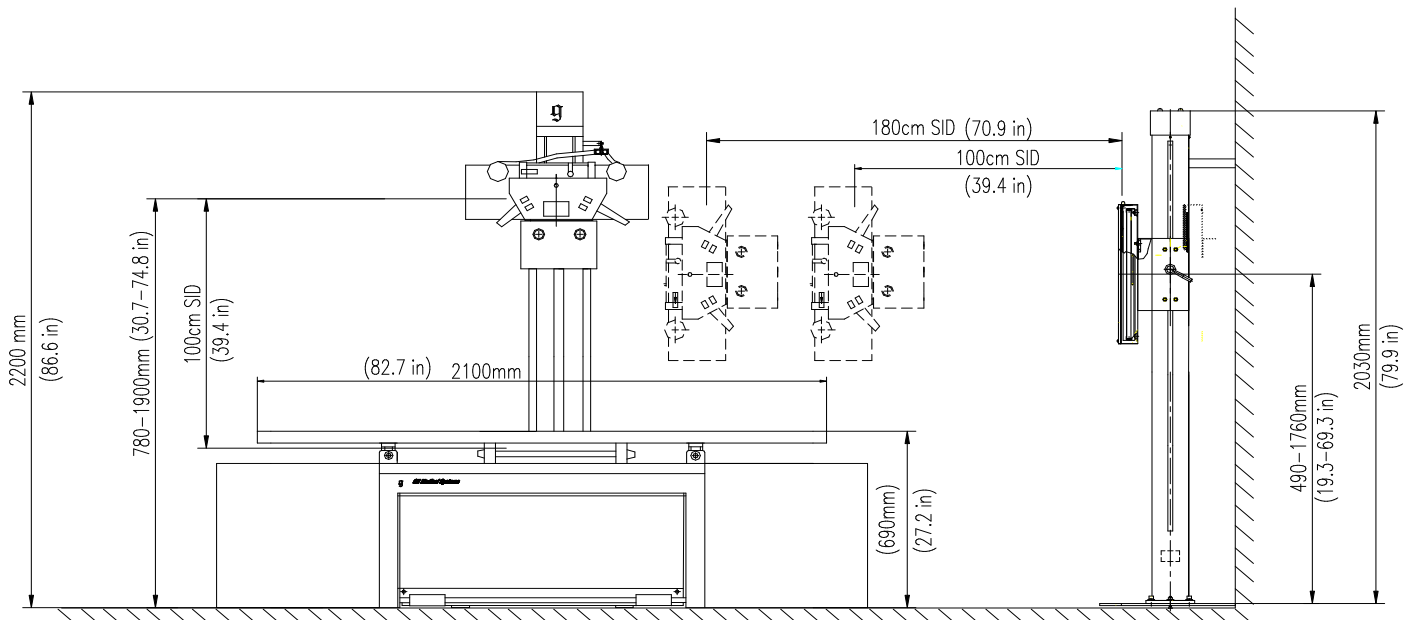


Illustration 4-2  
SILHOUETTE VR TABLE SYSTEM - SIDE VIEW

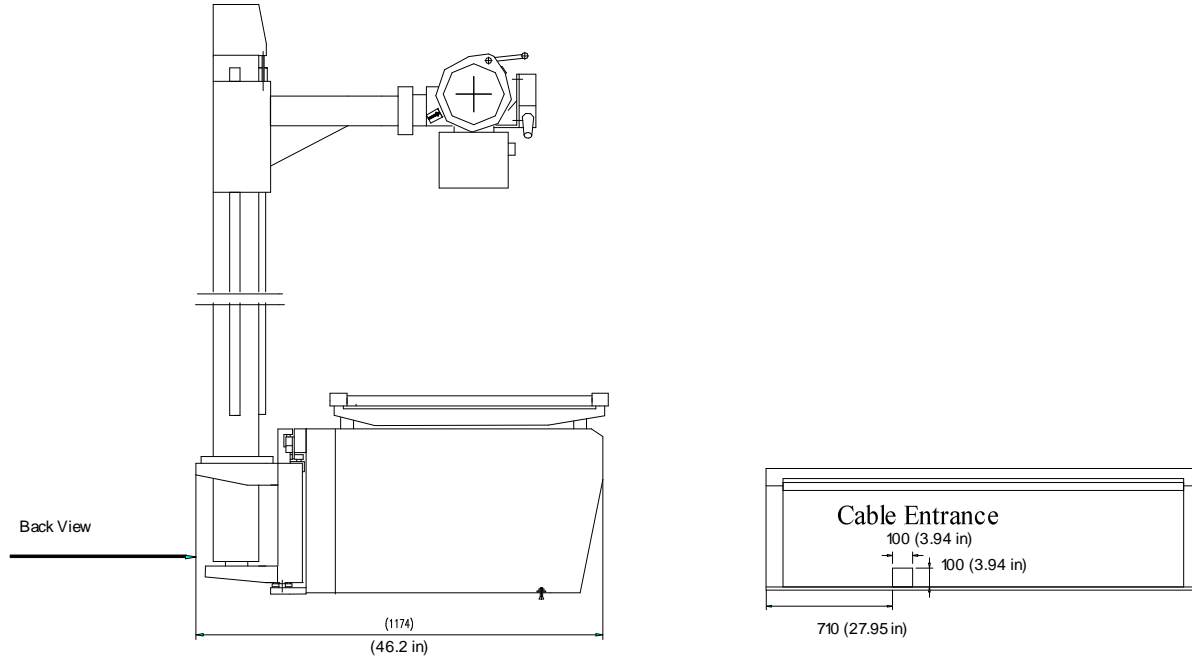


Illustration 4-3  
SILHOUETTE VR TABLE SYSTEM - FRONT VIEW

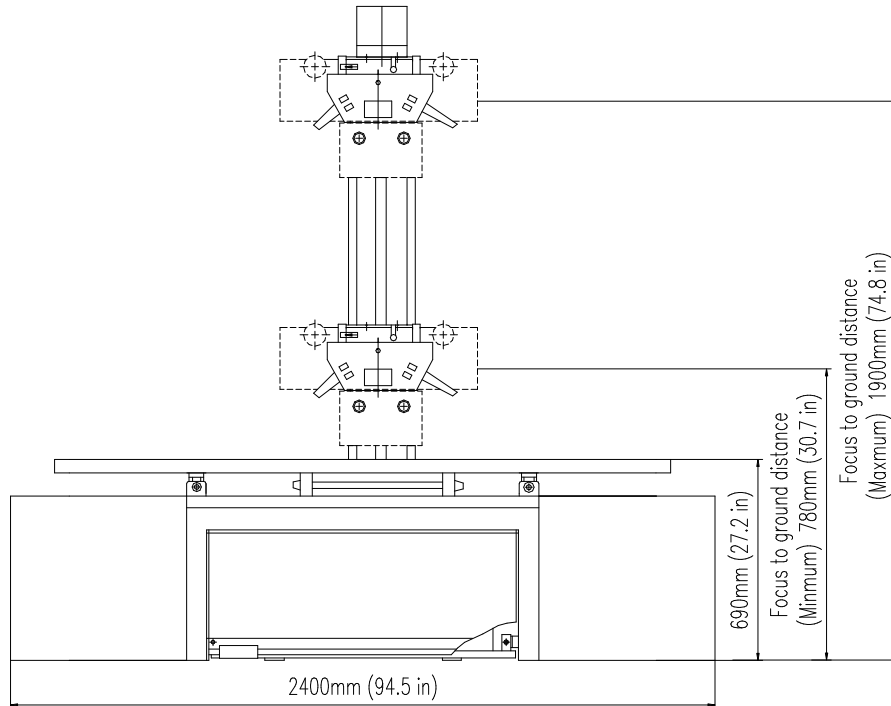


Illustration 4-4  
CABLE ROUTING OUT OF SILHOUETTE VR TABLE

**Note:** The excess cable should be put out of the table and put in proper place. If needed, coil the excess cable. For safety and maintenance, all cables should be wrapped and fixed securely.



Illustration 4-5  
WALL STAND

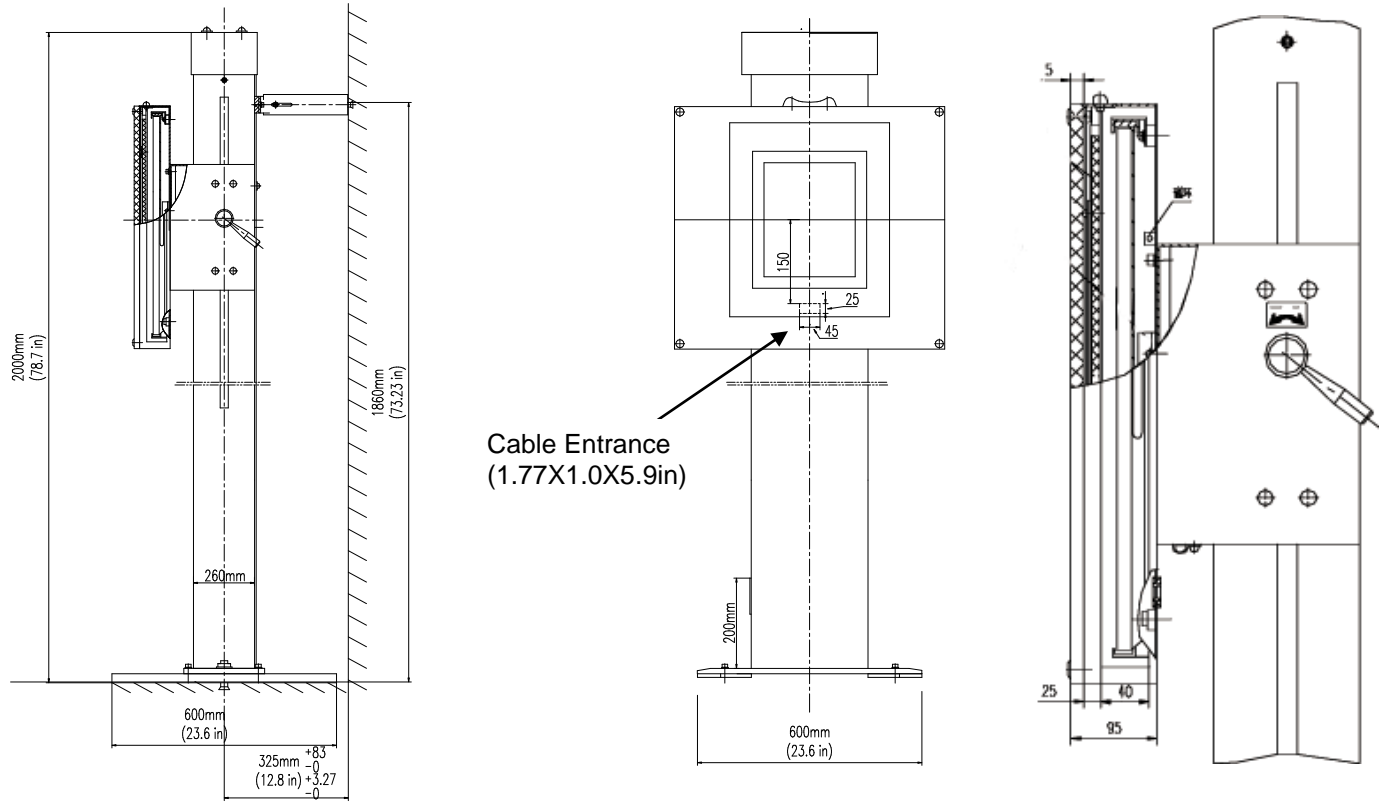
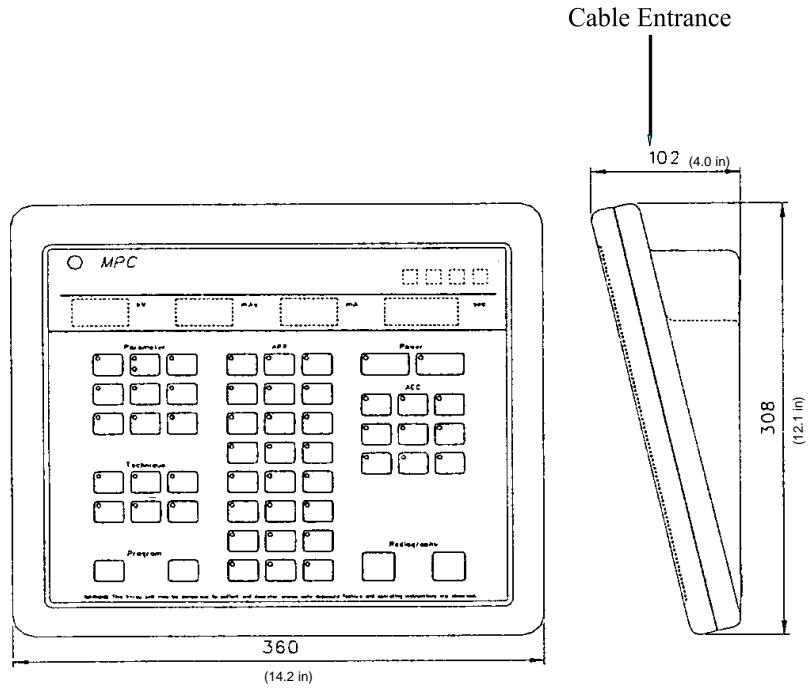
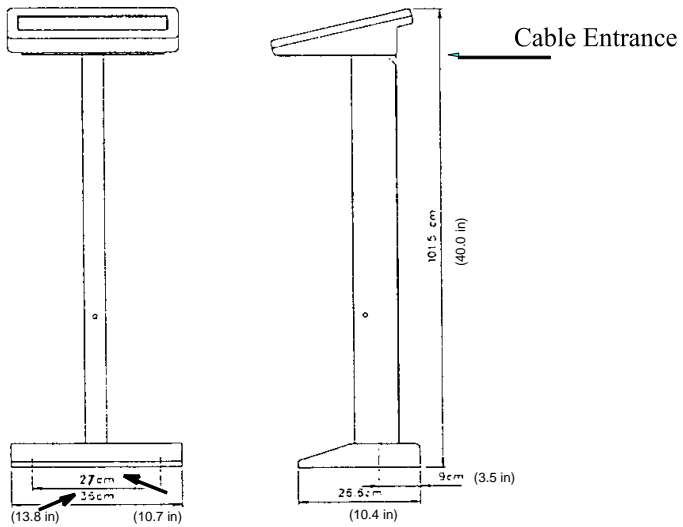


Illustration 4-6  
CONSOLE AND PEDESTAL

-----  
Control Console Installed on the Wall



Control Console and Pedestal



**SECTION 2**  
**MOUNTING REQUIREMENTS**

**2-1 Floor Loading and Recommended  
Mounting Methods**

See Table 4-1.

Table 4-1  
SILHOUETTE VR SYSTEM FLOOR LOADING, WEIGHTS, AND MOUNTING METHODS

PRODUCT OR COMPONENT	NET WEIGHT	DIMENSIONS millimeters ( inches )			LOAD BEARING AREA	WEIGHT/OCCUPIED AREA	MOUNTING METHOD
		Length	Width	Height			
	kg ( lbs )				m2 ( ft2)	kg/m2 ( lb/ft2 )	
Complete Table Assembly	441(972.2)	2400(94.5)	1174(46.2)	2002(78.8)	2.8(30.14)	157.5(32.26)	Mount on floor
Wall Stand	120(264.6)	600(23.6)	600(23.6)	2000(78.7)	0.36(3.88)	333.3(68.2)	Free Standing or Wall Mount
Console (with pedestal)	15(33.07)	360(14.2)	266(10.5)	110(4.33)	0.1(1.07)	150(31)	Pedestal Mount

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## CHAPTER 5 - ROOM LAYOUTS

### SECTION 1 ROOM LAYOUT CONSIDERATIONS

#### 1-1 Radiation Protection

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

#### 1-2 Service Access

Allow appropriate space for service access of equipment. Consult component pre-installation directions for clearance information.

#### 1-3 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.
- Clinicians at the patient table must be able to communicate with assistants in the control area.
- Operators in the control area must have easy access to the control console. However, position the controls (including handswitches) so the operator cannot take exposures while looking around or standing outside the control booth's lead glass window.
- Consult customer on the number and location of non-electrical lines (air, oxygen, vacuum, water, etc.) in the X-ray room.

**Note:**

The generally accepted practice is to load the patient laterally. In case of room layout designed for longitudinal patient loading, some modifications must be brought to the table.

#### 1-4 Peripheral Equipment

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

- storage cabinets,
- sinks,
- oxygen stations,
- injectors
- heart monitoring equipment,
- crash cart.

**SECTION 2**  
**ROOM LAYOUT DRAWING**

See Illustration 5-1, for recommended room layout for a Silhouette VR system.

Illustration 5-1  
**RECOMMENDED ROOM LAYOUT FOR SILHOUETTE VR**

- 1 - Table
- 2 - Wall Stand
- 3 - Console

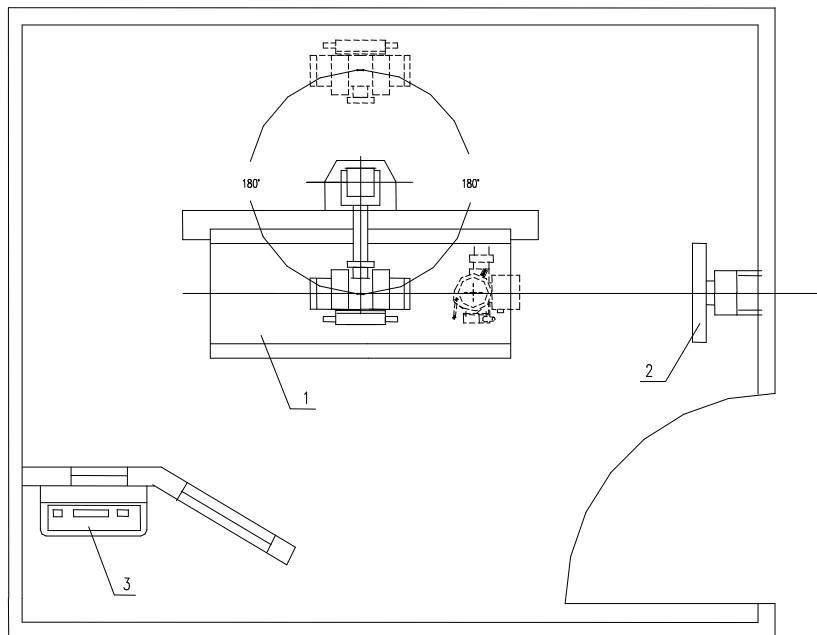


Table 5-1  
**SILHOUETTE VR SYSTEM RECOMMENDED AND MINIMUM ROOM SIZE DIMENSION**

LENGTH		WIDTH		CEILING	
Recommended	Minimum	Recommended	Minimum	Recommended	Minimum
6.0 m (19.7 ft)	5.3 m (17.4 ft)	6.0 m (19.7 ft)	4.0 m (13.1 ft)	3.0 m (9.8 ft)	2.5 m (8.2 ft)

## CHAPTER 6 - ELECTRICAL CONNECTION

### SECTION 1 CABLE CHANNELING

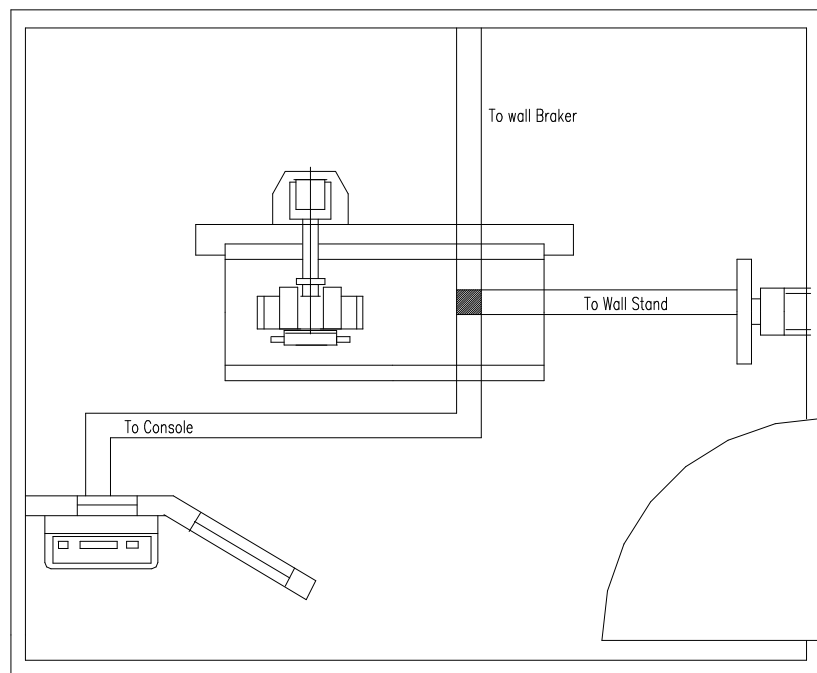
#### 1-1 Conduit

Conduit has some important restrictions when used with modularized X-ray systems. The primary consideration is that the majority of cables used are pre-terminated, which greatly simplifies interconnection, but makes cable-pulling difficult because of the added dimensions of the connectors. Conduit must be large enough to pass the cable and connector through with all other cables already in the conduit. Also consider the possibility of additional cables being added as the system is developed.

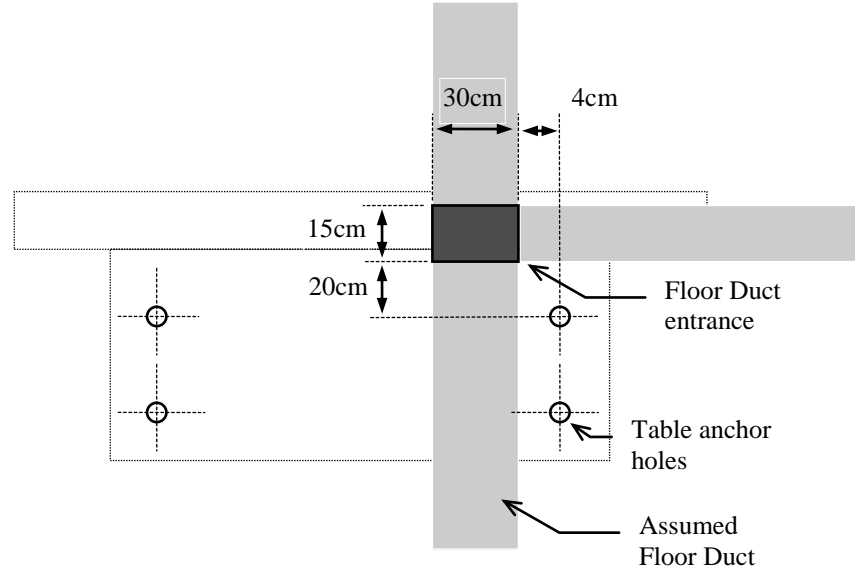
The use of conduit is recommended for cables running overhead between rooms, especially when a diagonal run provides the shortest cable path.

#### 1-2 Floor Duct

Floor duct has advantages when used with a single room or two adjacent rooms. Floor duct combines a neat, functional appearance with accessibility and room for expansion. The disadvantage is the amount of work required to install it, which is generally prohibitive in old installations. For the same reason, it is impractical to attempt to add on to existing floor duct systems. The following is an example of a floor duct installation.

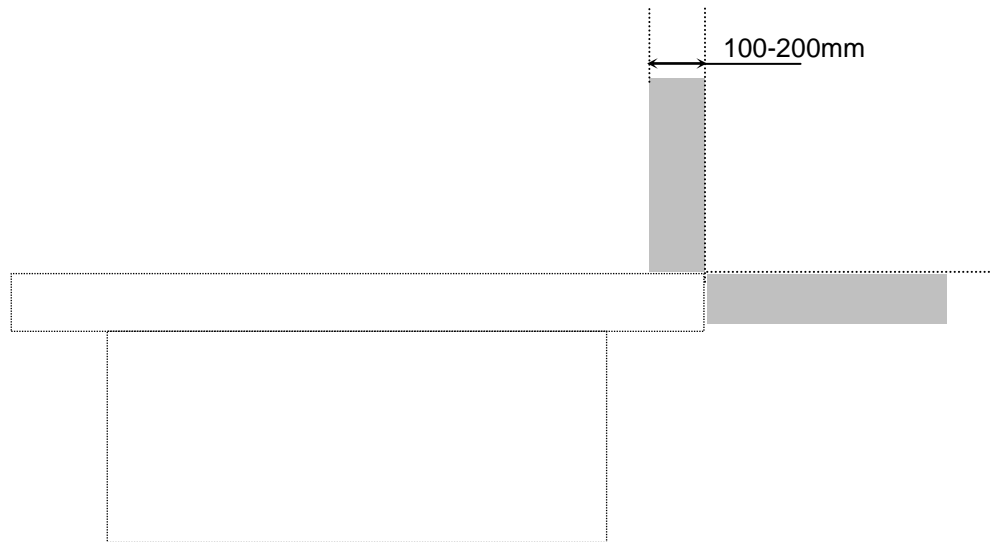


The layout of a floor duct system is designed according to the customer's needs. The position of floor duct entrances must conform to the following drawing.



**1-3 Raceway**

Raceway offered by General Electric Medical Systems offers some unique advantages. It is very practical to use in existing structures, since it is surface-mounted. There is no problem with pre-terminated cables, since the entire raceway system can be opened. Raceway systems are relatively easy to expand, as compared to other means of routing cables. Equipment cabinets have been designed for extensive interfacing with raceway.



**SECTION 2  
POWER REQUIREMENTS**

**NOTICE**

In China, all cables used to provide system power and ground must be CCC certified.

**NOTICE**

Potential for  
Equipment  
Damage.

Only WYE connected power source are currently permitted, due to current system (generator) design.

All components of the Silhouette VR System obtain power from the Power Distribution Unit ( PDU ) in the table.

All electrical wiring/connections must be installed by a qualified electrician and conform to national and local codes.

See Table 6-1 for Jedi Generator

**2-1 Jedi Generator Parameters**

Table 6-1  
SILHOUETTE VR POWER SPECIFICATIONS - JEDI GENERATOR

PARAMETER	JEDI GENERATOR -32kw/50kw																		
Input Voltage	380/400/415/440/460/480VAC three phase and Ground without neutral																		
Required Power Source	WYE Distribution																		
Daily Voltage Variations	+/-10% (in this range, the generator shall operate without any de-rating in accuracy)																		
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 generator  <table border="0" style="margin-left: 40px;"> <tr> <td style="text-align: center;">3 phase</td> <td style="text-align: center;">Line impedance(<math>\Omega</math>)</td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">32Kw</td> <td style="text-align: center;">50Kw</td> </tr> <tr> <td style="text-align: center;">380V</td> <td style="text-align: center;">0.25</td> <td style="text-align: center;">0.15</td> </tr> <tr> <td style="text-align: center;">415V</td> <td style="text-align: center;">0.30</td> <td style="text-align: center;">0.18</td> </tr> <tr> <td style="text-align: center;">440V</td> <td style="text-align: center;">0.34</td> <td style="text-align: center;">0.20</td> </tr> <tr> <td style="text-align: center;">480V</td> <td style="text-align: center;">0.40</td> <td style="text-align: center;">0.24</td> </tr> </table>	3 phase	Line impedance( $\Omega$ )			32Kw	50Kw	380V	0.25	0.15	415V	0.30	0.18	440V	0.34	0.20	480V	0.40	0.24
3 phase	Line impedance( $\Omega$ )																		
	32Kw	50Kw																	
380V	0.25	0.15																	
415V	0.30	0.18																	
440V	0.34	0.20																	
480V	0.40	0.24																	
HV cable length	3m to 12meters +/-0.5m (9.8 ft to 39.4 ft)																		
HV cable type	IB EEC: 22mm cable de Lyon (<=150pF/m) USA: 22mm DSI (<=165pF/m) EEC: 16mm Claymount (<=165pF/m) HV cable connector =Federal standard																		
Ground Wire	#8 AWG																		
Inrush Current	600A																		
Normal Frequency	50/60Hz																		
Daily Frequency Variation	47Hz-63Hz																		

**2-2 Power Supply Recommendations**

PDU Power Supply cable is offered by the customer. Wire size for various lengths of the Power Supply cable are shown in Table 6-2.

**Note:** Power cable should be flexible enough to allow generator to roll back into table.

Table 6-2  
MINIMUM WIRE SIZE

PARAMATER	THREE PHASE GENERATOR - 32KW											
Input Voltage	380VAC		400 VAC		415 VAC		440 VAC		460 VAC		480 VAC	
Wire Size Length												
15 m (50 ft.)	10 mm2	(#8 AWG)	10 mm2	(#8 AWG)	10 mm2	(#8 AWG)	10 mm2	(#8 AWG)	10 mm2	(#8 AWG)	10 mm2	(#8 AWG)
30 m (100 ft.)	10 mm2	(#8 AWG)	10 mm2	(#8 AWG)	10 mm2	(#8 AWG)	10 mm2	(#8 AWG)	10 mm2	(#8 AWG)	10 mm2	(#8 AWG)
46 m (150 ft.)	16 mm2	(#6 AWG)	16 mm2	(#6 AWG)	16 mm2	(#6 AWG)	16 mm2	(#6 AWG)	16 mm2	(#6 AWG)	16 mm2	(#6 AWG)
60 m (200 ft.)	22 mm2	(#5 AWG)	22 mm2	(#5 AWG)	22 mm2	(#5 AWG)	22 mm2	(#5 AWG)	22 mm2	(#5 AWG)	22 mm2	(#5 AWG)

Table 6-3  
KVA LOAD CHARACTERISTICS 32 KW

Phase	3	3	3	3	3	3
Nominal line Voltage(Vac)	380	400	420	440	460	480
Voltage range(Vac)	+/-10%	+/-10%	+/-10%	+/-10%	+/-10%	+/-10%
Momentary line current (Amp)	70	66	63	60	58	55
Continuous line current (Amp)	7	6.7	6.2	6	5.7	5.5
Power demand (kVA)	46	46	46	46	46	46
Frequency	47/53Hz and57/63 Hz					

Table 6-4  
MINIMUM WIRE SIZE

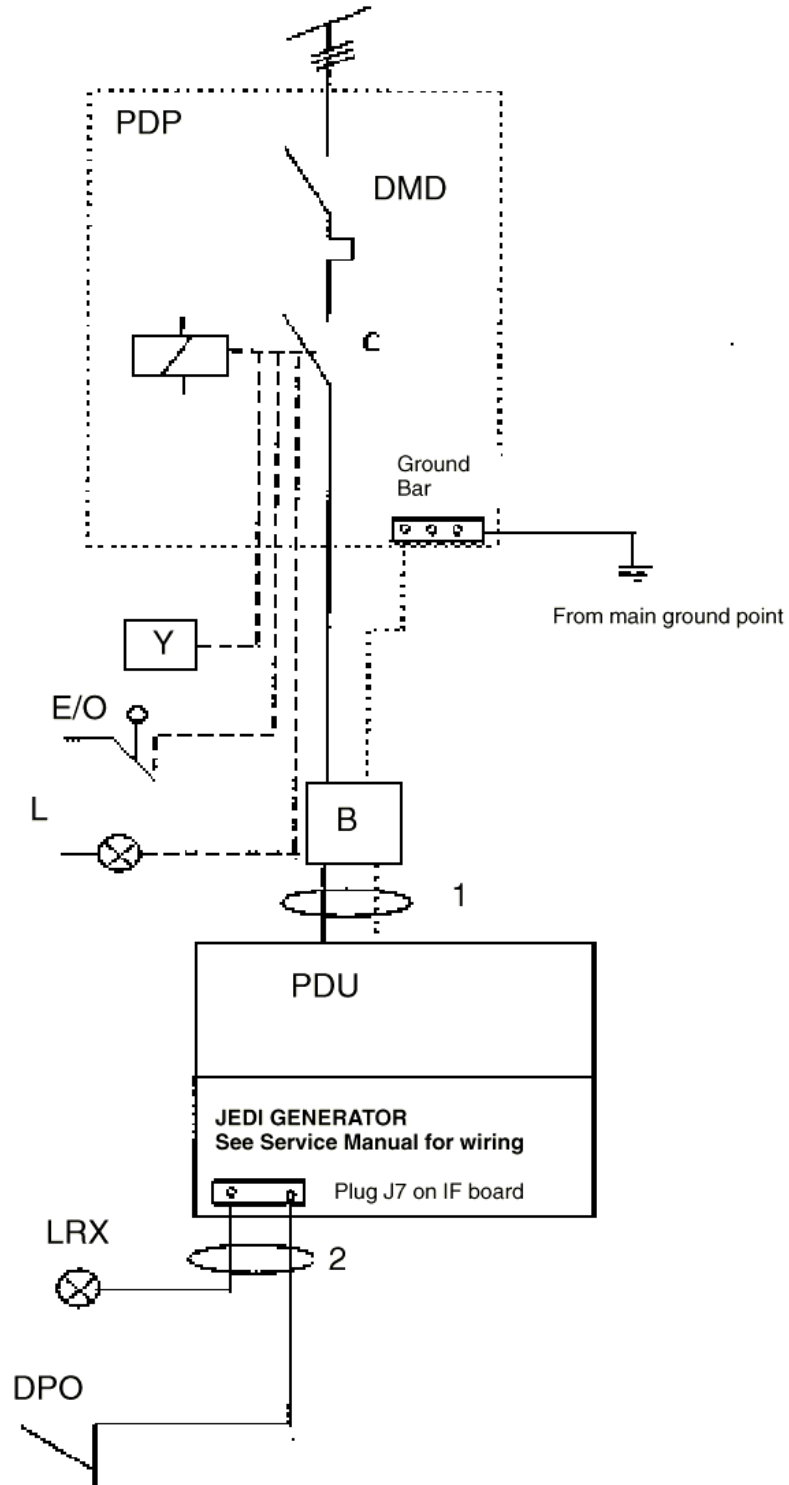
PARAMATER	THREE PHASE GENERATOR - 50KW											
Input Voltage	380VAC		400 VAC		415 VAC		440 VAC		460 VAC		480 VAC	
Wire Size Length												
15 m (50 ft.)	10 mm2	(#8 AWG)	10 mm2	(#8 AWG)	10 mm2	(#8 AWG)	10 mm2	(#8 AWG)	10 mm2	(#8 AWG)	10 mm2	(#8 AWG)
30 m (100 ft.)	16 mm2	(#6 AWG)	16 mm2	(#6 AWG)	16 mm2	(#6 AWG)	16 mm2	(#6 AWG)	16 mm2	(#6 AWG)	16 mm2	(#6 AWG)
46 m (150 ft.)	22 mm2	(#5 AWG)	22 mm2	(#5 AWG)	22 mm2	(#5 AWG)	22 mm2	(#5 AWG)	22 mm2	(#5 AWG)	22 mm2	(#5 AWG)
60 m (200 ft.)	30 mm2	(#3 AWG)	30 mm2	(#3 AWG)	30 mm2	(#3 AWG)	30 mm2	(#3 AWG)	30 mm2	(#3 AWG)	30 mm2	(#3 AWG)

Table 6-5  
KVA LOAD CHARACTERISTICS 50 KW

Phase	3	3	3	3	3	3
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 and57/63 Hz					

**SECTION 3  
INTERCONNECT AND GROUND**

Room Power supply installed at customer expense:



**Legend of illustration:**

**1** Feeder wire and grounding cable are to be provided by customer (See Tables 6-2 and 6-3)

**2** Cables are to be provided by customer

**PDP** Power Distribution Panel for powering X-ray equipment (Not supplied by GEMS)

**DMD** Thermomagnetic differential circuit breaker

**C** Main contactor

**Y** Contactor Remote control ON/OFF impulse buttons, lockable on OFF ,with indicator lamps (Red = ON, Green =OFF) located near access door,1.5m above the floor . (provided by the customer)..

**B** Inlet for power supply cable on plinth in connecting box (depending of length between PDP and Table)

**E/O** Emergency Off button located near access door , 1.5m above the floor. (provided by the customer)..

**L** Red continuous glow or flashing presence indicator lamp located above the access door , near LRX (provided by the customer)..

**LRX** yellow X-ray emission indicator lamp above the room access door (provided by the customer). The system provides a relay in normally open position and closed during prep and exposure .

Ratings :240Vac-3Amps.

The power supply and wiring for the lamp is provided by the customer. (For wiring see Service Manual, IF board RAD Electrical schematics sheet 4.

**DPO** Open -door detector (In accordance with local norms or making rules), the detector and wiring are provided by the customer. For wiring see Service Manual, IF board Rad Electrical schematics sheet 4.

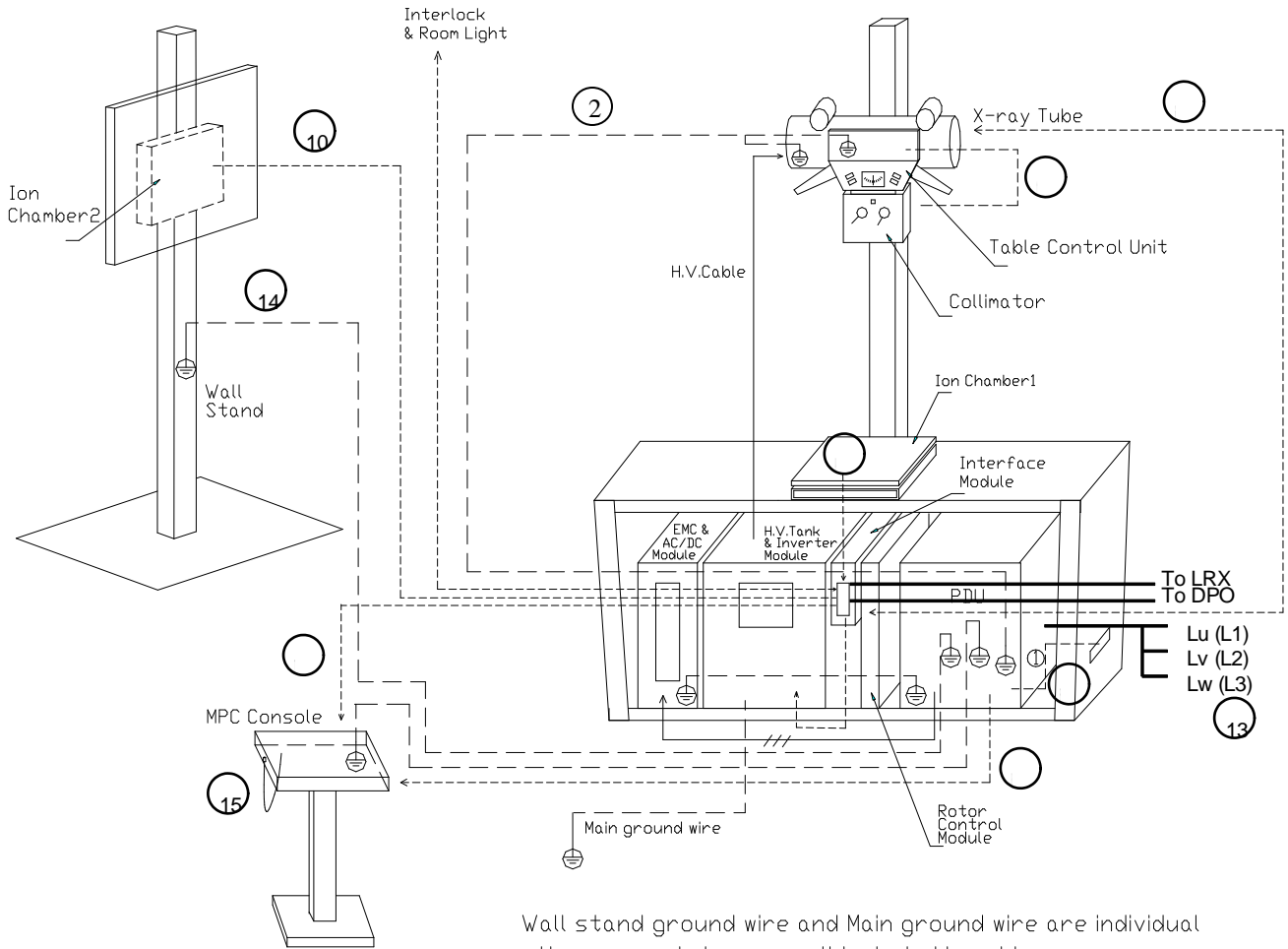


**The main circuit breaker is supplied by the customer and must be sized in accordance to the local regulation. If PDP is equipped with a differential calibrated to 30mA, the latter must be at least with class A (for pulse waveform current).**

**For instance with a 3 phase 380Vac electrical network the circuit breaker must be sized as follow:**

**Thermal circuit breaker=50Amp with a magnetic breaker at 1000A +/- 20% (Ten times the momentary line current).**

Illustration 6-1  
ROOM CONFIGURATION



Wall stand ground wire and Main ground wire are individual  
other ground wires are all included in cable

Table 6-6  
SILHOUETTE VR SYSTEM CABLES

Item	Cable Number or Name	Voltage (v)	Length millimetre (feet)	Diameter millimetre	Cable Specification	Connector	Plug size	Connector	Plug size
						One End	One End	Other End	Other End
1	MS-18SN Collimator Cable	300V	800 (2.7)	9 (dia)	UL1007/AWG16	Positioner TM10	-	Collimator	-
	MMS Collimator Cable	300V	1000 (3.28)	9 (dia)	UL2464/AWG14x2, AWG16x1, AWG18x1	Positioner TM10	-	Collimator	-
2	Tube Rotation Control								
3	Tube Arm vertical movement control								
4	Column movement control								
5	PDU-Table Cable	300V	2200 (7.3)	9 (dia)	UL2464/AWG18	PDU TM3	-	Positioner TM5	-
6	Anode Rotation Cable	300V	12000 (40)	14 (dia)	UL1007/AWG16	Generator J2, J3	80x15, 35x20	Tube	-
7	Communication Cable	300V	15000 (50)	8 (dia)	UL2464/25AWG28	Generator J9	57x16	Console J3	57x16
8	Console Power Cable	300V	15000 (50)	9 (dia)	UL2464/10AWG22	PDU TM4	-	Console J2	18 (dia)
9	AEC1 Cable (Optional)	300V	8000 (26.2)	9 (dia)	AWM Style 2464	AEC1	32x11	Ion Chamber	-
10	AEC2 Cable (Optional)	300V	20000 (65.6)	9 (dia)	AWM Style 2464	AEC2	32x11	Ion Chamber	-
11	High Voltage Cable+								
12	High Voltage Cable -								
13	Wall Power								
14	Chest Stand Grounding Wire	300V	5000 (16.7)	2.5 (dia)	UL1007/AWG16	PDU E	-	Chest stand E	-
15	Handswitch Assembly	-	-	-	-	Console J1	-	-	-

## CHAPTER 7 - ADDITIONAL PLANNING AIDS

### SECTION 1 PRODUCT SHIPPING INFORMATION

See Table 7-1.

Illustration 7-1  
SHIPPING CARTON

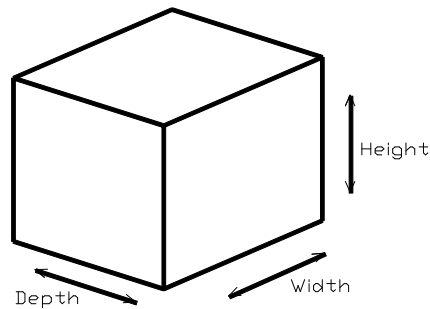


Table 7-1  
SILHOUETTE VR PACKING

BOX CONTENTS	DIMENSIONS Millimeters (Inches)			WEIGHT (Net)	WEIGHT (Gross)
	Height	Width	Depth	Kilogram (Pounds)	Kilogram (Pounds)
Table	1140 (44.9)	1100 (43.3)	2580 (101.6)	200 (441)	350(772)
Tube Stand	580 (22.8)	720 (28.4)	2370 (93.3)	140 (309)	220(484)
Wall Stand	500 (19.7)	750 (29.5)	2220 (87.4)	120 (265)	170(375)
Jedi Generator and PDU Assembly	800 (31.4)	810 (31.9)	1240 (48.8)	100 (220)	150(331)

Illustration 7-2  
TABLE DIMENSION

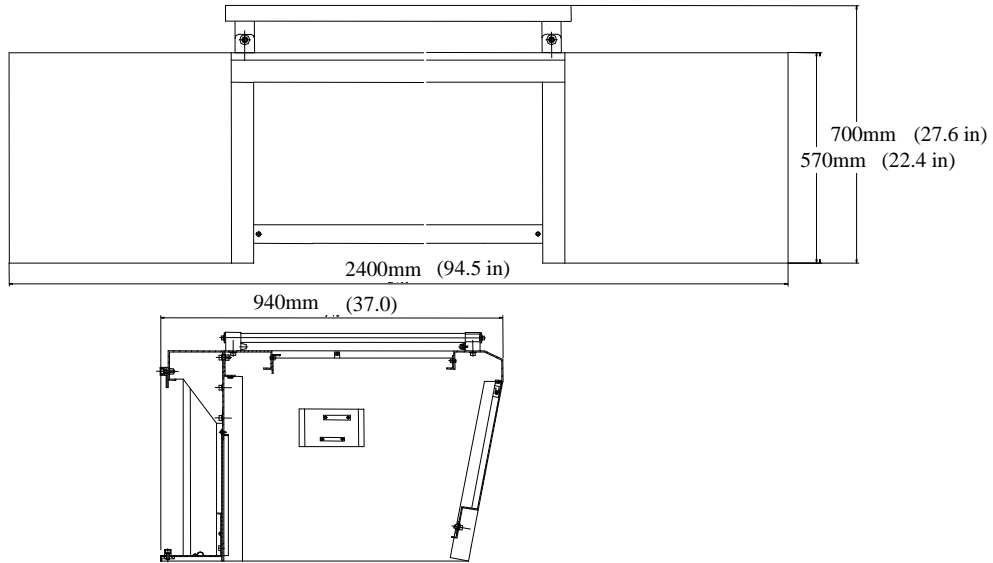


Illustration 7-3  
TABLE TOP DIMENSION

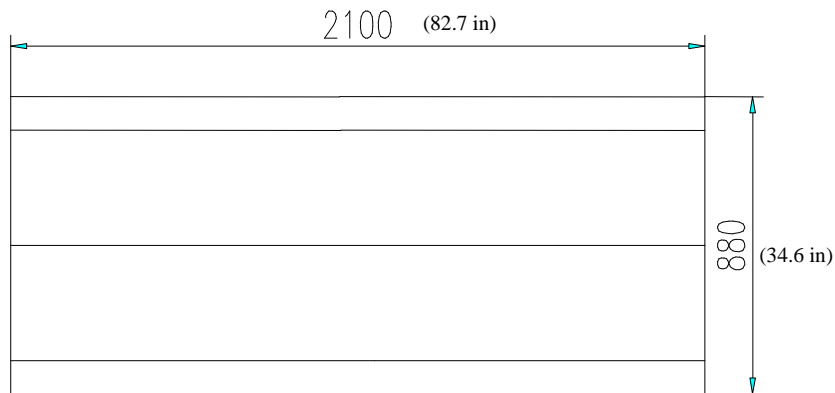


Illustration 7-4  
COLUMN DIMENSION

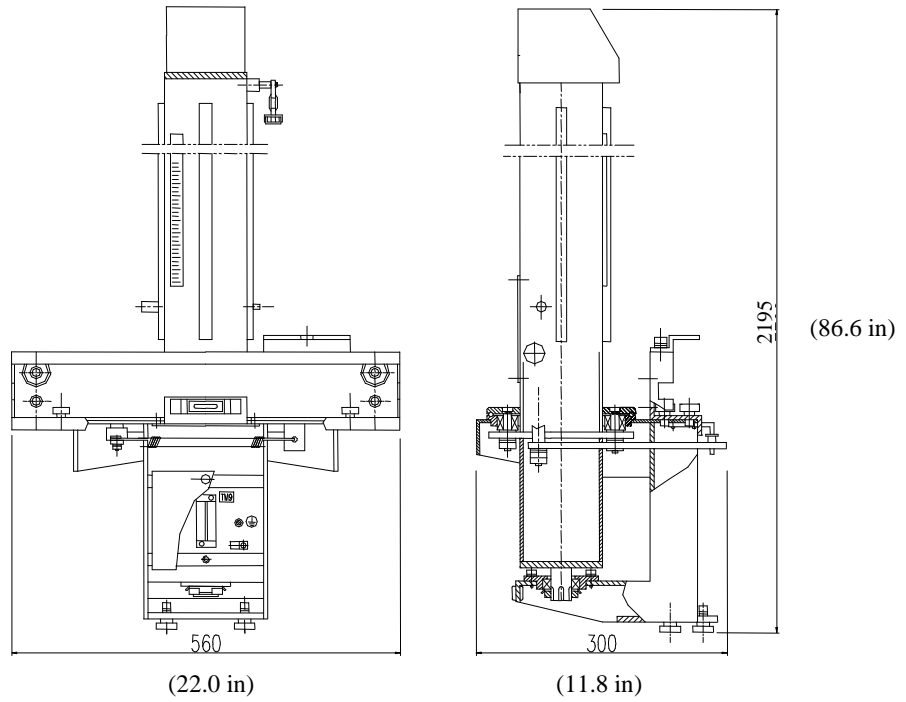
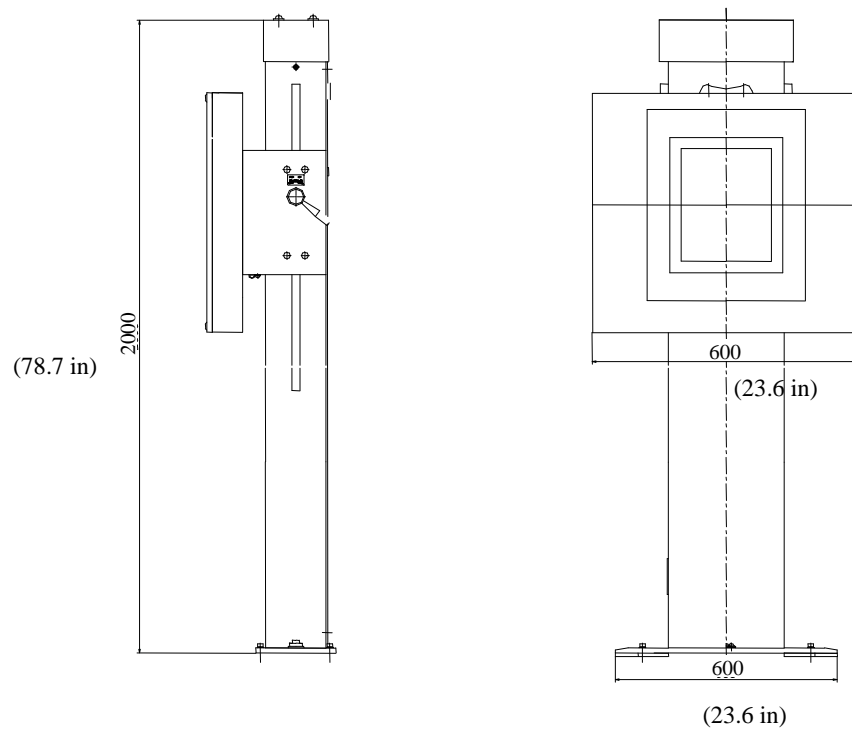


Illustration 7-5  
WALL STAND DIMENSION



**SECTION 2  
PREPARATIONS REQUIRED IN ADVANCE OF EQUIPMENT DELIVERY**

- Familiarization with site room dimensions.
- Room lighting, floor finish , and ceiling and wall painting.
- Installation of power supply.
- Installation of junction boxes of proper size including covers and fittings at locations required per current installation plan.
- Installation and labeling of a disconnect switch.
- Equipment delivery route checked to ensure delivery without door removal.

SILHOUETTE Table is shipped in four crates. For dimensions and weight refer to table 7-1.

**SECTION 3  
TOOLS AND TEST EQUIPMENT**

In addition to the standard service tools, this section provides a summary of the items, tools and test equipment needed to install and adjust the SILHOUETTE VR Table. If the exact tool listed below is not available, use the nearest equivalent.

Table 7-2  
TOOLS AND TEST EQUIPMENT

DESCRIPTION	USED FOR	SOURCE	RECEIVED (Date)
Electric hammer drill with bits	Pre-Installation	GE Service Engineer	__ / __ / __
Digital multimeter	Calibration and Functional Checks	GE Service Engineer	__ / __ / __
4 Ft. Level. (or two standard levels)	Installation	GE Service Engineer	__ / __ / __

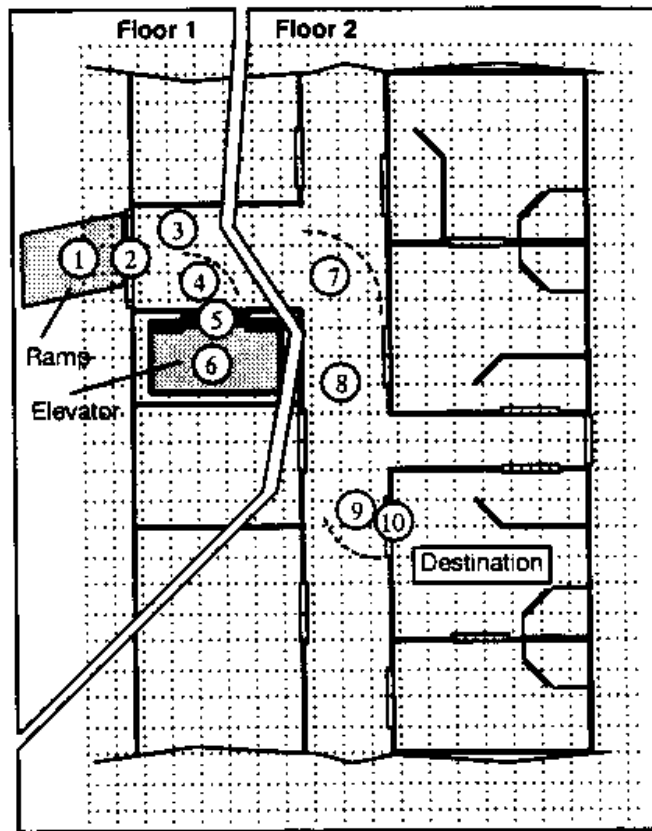
## SECTION 4 ROUTE SURVEY

### 4-1 Step One - Sketch

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.

*Reference Numbers*

Numbers in circles refer to Route Survey data. The Route Survey is a form on which site data is listed (step two).



### 4-2 Step Two - Survey

Data concerning the intended delivery route is recorded on the Route Survey on the following pages. Record all loading capacities, corridor widths, door openings, turning radii, flooring materials, elevator sizes, obstructions and so on.

### 4-3 Step Three - Check

Verify equipment can be transported via the route specified in step 1. Compare Route Survey compiled in step 2 to equipment specifications in this and other applicable pre-installation directions.



**SECTION 5  
PRE-INSTALLATION CHECKLIST**

Equipment Delivery Date	Salesman	
Customer	FDO #	Room #
Equipment		

**RESPONSIBILITY**

GE   PURCH.   OTHER   COMPLETE

**PHYSICAL REQUIREMENTS OF SITE**

- |  |       |       |       |       |
|--|-------|-------|-------|-------|
| 1. Is room size adequate for intended equipment configuration?   | _____ | _____ | _____ | _____ |
| 2. Is floor strong enough for intended equipment and mounting methods- have seismic codes been considered? | _____ | _____ | _____ | _____ |
| 3. Does delivery route accommodate all intended equipment?   | _____ | _____ | _____ | _____ |
| 4. Has radiation physicist been consulted?   | _____ | _____ | _____ | _____ |
| 5. Have necessary alterations been made to circumvent obstructions?  | _____ | _____ | _____ | _____ |
| 6. Are modifications to room construction finished?  | _____ | _____ | _____ | _____ |
| 7. Have supports, platforms, suspensions, ceiling materials been provided?                                 | _____ | _____ | _____ | _____ |
| 8. Are support structures installed for floor, ceiling, and wall mounted equipment?                        | _____ | _____ | _____ | _____ |
| 9. Has floor been modified for cable ducts?  | _____ | _____ | _____ | _____ |
| 10. If drop-in ceiling is not used, is access panel provided (3x2 ft. minimum)?                            | _____ | _____ | _____ | _____ |
| 11. Is electrical service in place- at the ratings specified in pre-installation documentation?            | _____ | _____ | _____ | _____ |
| 12. Is power available to operate power tools?   | _____ | _____ | _____ | _____ |
| 13. Are non-electrical lines (air, water, oxygen, vacuum) installed?                                       | _____ | _____ | _____ | _____ |

**RESPONSIBILITY**

**GE   PURCH.   OTHER   COMPLETE**

**INTERCONNECTION**

- |  |       |       |       |       |
|--|-------|-------|-------|-------|
| 1. Have signal cable, power and grounding plans been produced?   | _____ | _____ | _____ | _____ |
| 2. Has the necessary interconnection hardware such as junction boxes, conduit or raceways, and fittings been provided? | _____ | _____ | _____ | _____ |
| 3. Has the interconnection hardware been installed?  | _____ | _____ | _____ | _____ |
| 4. Is flexible, stranded wire provided for Silhouette power connection?  | _____ | _____ | _____ | _____ |
| 5. Are Silhouette feeder power cables pulled, with appropriate, lengths available at disconnect box?                   | _____ | _____ | _____ | _____ |
| 6. Are interconnecting cables continuity checked, and labelled?  | _____ | _____ | _____ | _____ |
| 7. Are HV cable lengths verified (25' standard)?   | _____ | _____ | _____ | _____ |
| 8. Is interface information available for equipment?   | _____ | _____ | _____ | _____ |

**GENERAL**

- |   |       |       |       |       |
|---|-------|-------|-------|-------|
| 1. Are ceiling, walls, and floor clear of all obstructions? | _____ | _____ | _____ | _____ |
| 2. Are walls finished?                                      | _____ | _____ | _____ | _____ |
| 3. Is finish floor installed?                               | _____ | _____ | _____ | _____ |
| 4. Are room lights installed?                               | _____ | _____ | _____ | _____ |
| 5. Has dust-creating work been complete?                    | _____ | _____ | _____ | _____ |
| 6. Is old equipment in room removed?                        | _____ | _____ | _____ | _____ |
| 7. Are component positions clearly marked on floor?         | _____ | _____ | _____ | _____ |
| 8. Is space available to store equipment?                   | _____ | _____ | _____ | _____ |
| 9. Is lock in door, of locked room available?               | _____ | _____ | _____ | _____ |

Comments:

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\_\_\_\_\_

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Inspection Dates:

Approvals:

Sales: \_\_\_\_\_ Date:

Service: \_\_\_\_\_ Date:

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**GE Medical Systems**

GE Medical Systems: Telex 3797371  
P.O. Box 414, Milwaukee, Wisconsin 53201 U.S.A.  
(Asia, Pacific, Latin America, North America)