Technical Publication

Venue Go Service Manual

Direction Number: 5813707-100 Revision: 2

Operating Documentation

Manufacturer:
GE Medical Systems
Ultrasound & Primary Care Diagnostic LLC
9900 Innovation Drive
Wauwatosa, WI 53226
USA

Table of Contents

This page was intentionally left blank.

Important Precautions

TRANSLATION POLICY

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.**

WARNING (EN)

- **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.**

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.**

AVERTISSEMENT (FR)

- **NE PAS TENTER D'INTERVEN TION 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.**

DIESES KUNDENDIENST-HANDBUCH EXISTIERT NUR IN ENGLISCHER SPRACHE.

- **FALLS EIN FREMDER KUNDENDIENST EINE ANDERE SPRACHE BENÖTIGT, IST ES AUFGABE DES KUNDEN FÜR EINE ENTSPRECHENDE ÜBERSETZUNG ZU SORGEN.**

WARNUNG (DE)

- **VERSUCHEN SIE NICHT, DAS GERÄT ZU REPARIEREN, BEVOR DIESES KUNDENDIENST-HANDBUCH NICHT ZU RATE GEZOGEN UND VERSTANDEN WURDE.**
- **WIRD DIESE WARNUNG NICHT BEACHTET, SO KANN ES ZU VERLETZUNGEN DES KUNDENDIENSTTECHNIKERS, DES BEDIENERS ODER DES PATIENTEN DURCH ELEKTRISCHE SCHLÄGE, MECHANISCHE ODER SONSTIGE GEFAHREN KOMMEN.**

AVISO (ES)

ESTE MANUAL DE SERVICIO SÓLO EXISTE EN INGLÉS.

- **SI ALGÚN PROVEEDOR DE SERVICIOS AJENO A GEHC 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.**

ATENÇÃO (PT-Br)

ESTE MANUAL DE ASSISTÊNCIA TÉCNICA SÓ SE ENCONTRA DISPONÍVEL EM INGLÊS.

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

AVISO (PT-pt)

ESTE MANUAL DE ASSISTÊNCIA ESTÁ DISPONÍVEL APENAS EM INGLÊS.

- **SE QUALQUER OUTRO SERVIÇO DE ASSISTÊNCIA TÉCNICA, QUE NÃO A GEHC, SOLICITAR ESTES MANUAIS NOUTRO IDIOMA, É DA RESPONSABILIDADE DO CLIENTE FORNECER OS SERVIÇOS DE TRADUÇÃO.**
- **NÃO TENTE EFECTUAR REPARAÇÕES NO EQUIPAMENTO SEM TER CONSULTADO E COMPREENDIDO PREVIAMENTE ESTE MANUAL.**
- **A INOBSERVÂNCIA DESTE AVISO PODE RESULTAR EM FERIMENTOS NO TÉCNICO DE ASSISTÊNCIA, OPERADOR OU PACIENTE EM CONSEQUÊNCIA DE CHOQUE ELÉCTRICO, PERIGOS DE ORIGEM MECÂNICA, BEM COMO DE OUTROS TIPOS.**

AVVERTENZA (IT)

IL PRESENTE MANUALE DI MANUTENZIONE È DISPONIBILE SOLTANTO IN INGLESE.

- **SE UN ADDETTO ALLA MANUTENZIONE ESTERNO ALLA GEHC 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.**
- **NON TENERE CONTO 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.**

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.**
- **KÄESOLEVA HOIATUSE EIRAMINE VÕIB PÕHJUSTADA TEENUSEOSUTAJA, OPERAATORI VÕI PATSIENDI VIGASTAMIST ELEKTRILÖÖGI, MEHAANILISE VÕI MUU OHU TAGAJÄRJEL.**

VAROITUS (FI)

TÄMÄ HUOLTO-OHJE ON SAATAVILLA VAIN ENGLANNIKSI.

- **JOS ASIAKKAAN PALVELUNTARJOAJA 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 PALVELUNTARJOAJAN, LAITTEISTON KÄYTTÄJÄN TAI POTILAAN VAHINGOITTUMINEN SÄHKÖISKUN, MEKAANISEN VIAN TAI MUUN VAARATILANTEEN VUOKSI.**

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 ÁRAMÜTÉS, MECHANIKAI VAGY EGYÉB VESZÉLYHELYZET MIATTI SÉRÜLÉSÉT EREDMÉNYEZHETI.**

VIÐVÖRUN (IS)

ÞESSI ÞJÓNUSTUHANDBÓK ER EINGÖNGU FÁANLEG Á ENSKU.

- **EF ÞJÓNUSTUAÐILI VIÐSKIPTAMANNS ÞARFNAST ANNARS TUNGUMÁLS EN ENSKU, ER ÞAÐ Á ÁBYRGÐ VIÐSKIPTAMANNS AÐ ÚTVEGA ÞÝÐINGU.**
- **REYNIÐ EKKI AÐ ÞJÓNUSTA TÆKIÐ NEMA EFTIR AÐ HAFA SKOÐAÐ OG SKILIÐ ÞESSA ÞJÓNUSTUHANDBÓK.**
- **EF EKKI ER FARIÐ AÐ ÞESSARI VIÐVÖRUN GETUR ÞAÐ VALDIÐ MEIÐSLUM ÞJÓNUSTUVEITANDA, STJÓRNANDA EÐA SJÚKLINGS VEGNA RAFLOSTS, VÉLRÆNNAR EÐA ANNARRAR HÆTTU.**

VÝSTRAHA (CS)

TENTO SERVISNÍ NÁVOD EXISTUJE POUZE V ANGLICKÉM JAZYCE.

- **V PŘÍPADĚ, ŽE POSKYTOVATEL SLUŽEB ZÁKAZNÍKŮM POTŘEBUJE NÁVOD V JINÉM JAZYCE, JE ZAJIŠTĚNÍ PŘEKLADU DO ODPOVÍDAJÍCÍHO JAZYKA ÚKOLEM ZÁKAZNÍKA.**
- **NEPROVÁDĚJTE ÚDRŽBU TOHOTO ZAŘÍZENÍ, ANIŽ BYSTE SI PŘEČETLI TENTO SERVISNÍ NÁVOD A POCHOPILI JEHO OBSAH.**
- **V PŘÍPADĚ NEDODRŽOVÁNÍ TÉTO VÝSTRAHY MŮŽE DOJÍT ÚRAZU ELEKTRICKÁM PROUDEM PRACOVNÍKA POSKYTOVATELE SLUŽEB, OBSLUŽNÉHO PERSONÁLU NEBO PACIENTŮ VLIVEM ELEKTRICKÉHOP PROUDU, RESPEKTIVE VLIVEM K RIZIKU MECHANICKÉHO POŠKOZENÍ NEBO JINÉMU RIZIKU.**

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 ER BLEVET LÆST OG 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.**

BRĪDINĀJUMS (LV)

ŠĪ APKALPES ROKASGRĀMATA IR PIEEJAMA TIKAI ANGĻU VALODĀ.

- **JA KLIENTA APKALPES SNIEDZĒJAM NEPIECIEŠAMA INFORMĀCIJA CITĀ VALODĀ, NEVIS ANGĻU, 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 IŠLEISTAS TIK ANGLŲ KALBA.

- **JEI KLIENTO PASLAUGŲ TEIKĖJUI REIKIA VADOVO KITA KALBA – NE ANGLŲ, VERTIMU PASIRŪPINTI TURI KLIENTAS.**
- **NEMĖGINKITE ATLIKTI ĮRANGOS TECHNINĖS PRIEŽIŪROS DARBŲ, NEBENT VADOVAUTUMĖTĖS ŠIUO EKSPLOATAVIMO VADOVU IR JĮ SUPRASTUMĖTE**
- **NEPAISANT ŠIO PERSPĖJIMO, PASLAUGŲ TEIKĖJAS, OPERATORIUS AR PACIENTAS GALI BŪTI SUŽEISTAS DĖL ELEKTROS SMŪGIO, MECHANINIŲ AR KITŲ PAVOJŲ.**

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 JEDYNIE W JĘZYKU ANGIELSKIM.

- **JEŚLI FIRMA ŚWIADCZĄCA KLIENTOWI USŁUGI SERWISOWE WYMAGA UDOSTĘPNIENIA PODRĘCZNIKA W JĘZYKU INNYM NIŻ ANGIELSKI, OBOWIĄZEK ZAPEWNIENIA STOSOWNEGO TŁUMACZENIA SPOCZYWA NA KLIENCIE.**
- **NIE PRÓBOWAĆ SERWISOWAĆ NINIEJSZEGO SPRZĘTU BEZ UPRZEDNIEGO ZAPOZNANIA SIĘ Z PODRĘCZNIKIEM SERWISOWYM.**
- **NIEZASTOSOWANIE SIĘ DO TEGO OSTRZEŻENIA MOŻE GROZIĆ OBRAŻENIAMI CIAŁA SERWISANTA, OPERATORA LUB PACJENTA W WYNIKU PORAŻENIA PRĄDEM, URAZU MECHANICZNEGO LUB INNEGO RODZAJU ZAGROŻEŃ.**

ATENŢIE (RO)

ACEST MANUAL DE SERVICE ESTE DISPONIBIL NUMAI ÎN LIMBA ENGLEZĂ.

- **DACĂ UN FURNIZOR DE SERVICII PENTRU CLIENŢI NECESITĂ O ALTĂ LIMBĂ DECÂT CEA ENGLEZĂ, ESTE DE DATORIA CLIENTULUI SĂ FURNIZEZE O TRADUCERE.**
- **NU ÎNCERCAŢI SĂ REPARAŢI ECHIPAMENTUL DECÂT ULTERIOR CONSULTĂRII ŞI ÎNŢELEGERII ACESTUI MANUAL DE SERVICE.**
- **IGNORAREA ACESTUI AVERTISMENT AR PUTEA DUCE LA RĂNIREA DEPANATORULUI, OPERATORULUI SAU PACIENTULUI ÎN URMA PERICOLELOR DE ELECTROCUTARE, MECANICE SAU DE ALTĂ NATURĂ.**

ОСТОРОЖНО! (RU)

ДАННОЕ РУКОВОДСТВО ПО ОБСЛУЖИВАНИЮ ПРЕДОСТАВЛЯЕТСЯ ТОЛЬКО НА АНГЛИЙСКОМ ЯЗЫКЕ.

- **ЕСЛИ СЕРВИСНОМУ ПЕРСОНАЛУ КЛИЕНТА НЕОБХОДИМО РУКОВОДСТВО НЕ НА АНГЛИЙСКОМ ЯЗЫКЕ, КЛИЕНТУ СЛЕДУЕТ САМОСТОЯТЕЛЬНО ОБЕСПЕЧИТЬ ПЕРЕВОД.**
- **ПЕРЕД ОБСЛУЖИВАНИЕМ ОБОРУДОВАНИЯ ОБЯЗАТЕЛЬНО ОБРАТИТЕСЬ К ДАННОМУ РУКОВОДСТВУ И ПОЙМИТЕ ИЗЛОЖЕННЫЕ В НЕМ СВЕДЕНИЯ.**
- **НЕСОБЛЮДЕНИЕ УКАЗАННЫХ ТРЕБОВАНИЙ МОЖЕТ ПРИВЕСТИ К ТОМУ, ЧТО СПЕЦИАЛИСТ ПО ТЕХОБСЛУЖИВАНИЮ, ОПЕРАТОР ИЛИ ПАЦИЕНТ ПОЛУЧАТ УДАР ЗЛЕКТРИЧЕСКИМ ТОКОМ, МЕХАНИЧЕСКУЮ ТРАВМУ ИЛИ ДРУГОЕ ПОВРЕЖДЕНИЕ.**

ПРЕДУПРЕЖДЕНИЕ (BG)

ТОВА СЕРВИЗНО РЪКОВОДСТВО Е НАЛИЧНО САМО НА АНГЛИЙСКИ ЕЗИК.

- **АКО ДОСТАВЧИКЪТ НА СЕРВИЗНИ УСЛУГИ НА КЛИЕНТ СЕ НУЖДАЕ ОТ ЕЗИК, РАЗЛИЧЕН ОТ АНГЛИЙСКИ, ЗАДЪЛЖЕНИЕ НА КЛИЕНТА Е ДА ПРЕДОСТАВИ ПРЕВОДАЧЕСКА УСЛУГА.**
- **НЕ СЕ ОПИТВАЙТЕ ДА ИЗВЪРШВАТЕ СЕРВИЗНО ОБСЛУЖВАНЕ НА ТОВА ОБОРУДВАНЕ, ОСВЕН ВСЛУЧАЙ, ЧЕ СЕРВИЗНОТО РЪКОВОДСТВО Е ПРОЧЕТЕНО И СЕ РАЗБИРА.**
- **НЕСПАЗВАНЕТО НА ТОВА ПРЕДУПРЕЖДЕНИЕ МОЖЕ ДА ДОВЕДЕ ДО НАРАНЯВАНЕ НА ДОСТАВЧИКА НА СЕРВИЗНИ УСЛУГИ, НА ОПЕРАТОРА ИЛИ ПАЦИЕНТА ВСЛЕДСТВИЕНА ТОКОВ УДАР, МЕХАНИЧНИ ИЛИ ДРУГИ РИСКОВЕ.**

UPOZORENJE (SR)

OVAJ PRIRUČNIK ZA SERVISIRANJE DOSTUPAN JE SAMO NA ENGLESKOM JEZIKU.

- **AKO KLIJENTOV SERVISER ZAHTEVA JEZIK KOJI NIJE ENGLESKI, ODGOVORNOST JE NA KLIJENTU DA PRUŽI USLUGE PREVOĐENJA.**
- **NEMOJTE POKUŠAVATI DA SERVISIRATE OPREMU AKO NISTE PROČITALI I RAZUMELI PRIRUČNIK ZA SERVISIRANJE.**
- **AKO NE POŠTUJETE OVO UPOZORENJE, MOŽE DOĆI DO POVREĐIVANJA SERVISERA, OPERATERA ILI PACIJENTA UZROKOVANOG ELEKTRIČNIM UDAROM, MEHANIČKIM I DRUGIM OPASNOSTIMA.**

OPOZORILO (SL)

TA SERVISNI PRIROČNIK JE NA VOLJO SAMO V ANGLEŠČINI.

- **ČE PONUDNIK SERVISNIH STORITEV ZA STRANKO POTREBUJE NAVODILA V DRUGEM JEZIKU, JE ZA PREVOD ODGOVORNA STRANKA SAMA.**
- **NE POSKUŠAJTE SERVISIRATI OPREME, NE DA BI PREJ PREBRALI IN RAZUMELI SERVISNI PRIROČNIK.**
- **ČE TEGA OPOZORILA NE UPOŠTEVATE, OBSTAJA NEVARNOST ELEKTRIČNEGA UDARA, MEHANSKIH ALI DRUGIH NEVARNOSTI IN POSLEDIČNIH POŠKODB PONUDNIKA SERVISNIH STORITEV, UPORABNIKA OPREME ALI PACIENTA.**

UPOZORENJE (HR)

OVAJ SERVISNI PRIRUČNIK DOSTUPAN JE SAMO NA ENGLESKOM JEZIKU.

- **AKO KLIJENTOV SERVISER ZAHTIJEVA JEZIK KOJI NIJE ENGLESKI, ODGOVORNOST KLIJENTA JE PRUŽITI USLUGE PREVOĐENJA.**
- **NEMOJTE POKUŠAVATI SERVISIRATI OPREMU AKO NISTE PROČITALI I RAZUMJELI SERVISNI PRIRUČNIK.**
- **AKO NE POŠTUJETE OVO UPOZORENJE, MOŽE DOĆI DO OZLJEDE SERVISERA, OPERATERA ILI PACIJENTA PROUZROČENE STRUJNIM UDAROM, MEHANIČKIM I DRUGIM OPASNOSTIMA.**

UPOZORNENIE (SK)

TÁTO SERVISNÁ PRÍRUČKA JE K DISPOZÍCII LEN V ANGLIČTINE.

- **AK ZÁKAZNÍKOV POSKYTOVATEĽ SLUŽIEB VYŽADUJE INÝ JAZYK AKO ANGLIČTINU, POSKYTNUTIE PREKLADATEĽSKÝCH SLUŽIEB JE ZODPOVEDNOSŤOU ZÁKAZNÍKA.**
- **NEPOKÚŠAJTE SA VYKONÁVAŤ SERVIS ZARIADENIA SKÔR, AKO SI NEPREČÍTATE SERVISNÚ PRÍRUČKU A NEPOROZUMIETE JEJ.**
- **ZANEDBANIE TOHTO UPOZORNENIA MÔŽE VYÚSTIŤ DO ZRANENIA POSKYTOVATEĽA SLUŽIEB, OBSLUHUJÚCEJ OSOBY ALEBO PACIENTA ELEKTRICKÝM PRÚDOM, PRÍPADNE DO MECHANICKÉHO ALEBO INÉHO NEBEZPEČENSTVA.**

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 KILAVUZU YALNIZCA İNGİLİZCE OLARAK SAĞLANMIŞTIR.

- **EĞER MÜŞTERİ TEKNİSYENİ KILAVUZUN İNGİLİZCE DIŞINDAKİ BİR DİLDE OLMASINI İSTERSE, KILAVUZU TERCÜME ETTİRMEK MÜŞTERİNİN SORUMLULUĞUNDADIR.**
- **SERVİS KILAVUZUNU OKUYUP ANLAMADAN EKİPMANLARA MÜDAHALE ETMEYİNİZ.**
- **BU UYARININ GÖZ ARDI EDİLMESİ, ELEKTRİK ÇARPMASI YA DA MEKANİK VEYA DİĞER TÜRDEN KAZALAR SONUCUNDA TEKNİSYENİN, OPERATÖRÜN YA DA HASTANIN YARALANMASINA YOL AÇABİLİR.**

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。
GEHC 以外で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下さい。
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。

警告 (繁體中文) Traditional Chinese

本服務手冊僅提供英文版。

- 如顧客之服務提供者需要英文版以外之語言， 顧客需自行負擔其翻譯服務之責任。
- 在查閱並了解本服務手冊之內容前，請勿試圖維修本設備。
- 未確實遵守本警告，可能導致服務提供者、操作者或病患遭受電擊、機械危險或其他傷害。

注意:
(ZH-CN)

本维修手册仅存有英文本。
非 GEHC 公司的维修员要求非英文本的维修手册时，客户需自行负责翻译。
未详细阅读和完全了解本手册之前，不得进行维修。
忽略本注意事项会对维修员，操作员或病人造成触电，机械伤害或其他伤害。

경고
(KO)

- 본 서비스 지침서는 영어로만 이용하실 수 있습니다.
- 고객의 서비스 제공자가 영어이외 언어를 요구할 경우, 번역 서비스 지침서를 제공하는 것은 고객의 책임입니다.
- 본 서비스 지침서를 지참했고 이해하지 않는 한은 해당 장비를 수리를 시도하지 마십시오.
- 이 경우에 유해하지 않은 전기쇼크, 기계상의 혹은 다른 위험으로부터 서비스 제공자, 운영자 혹은 환자에게 위험을 가할 수 있습니다.

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.

CERTIFIED ELECTRICAL CONTRACTOR STATEMENT - FOR USA ONLY

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. Other connections between pieces of electrical equipment, calibrations and testing shall be performed by qualified GE personnel. 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.

OMISSIONS & ERRORS

If there are any omissions, errors or suggestions for improving this documentation, please contact the GE Global Documentation Group with specific information listing the system type, manual title, part number or direction number, revision number, page number and suggestion details.

Mail the information to:

Service Documentation,

GE Medical Systems
Ultrasound & Primary Care Diagnostics LLC
9900 Innovation Drive
Wauwatosa, WI 53226
USA

GE employees should use TrackWise to report service documentation issues. These issues will then be in the internal problem reporting tool and communicated to the writer.

SERVICE SAFETY CONSIDERATIONS

DANGER **DANGEROUS VOLTAGES, CAPABLE OF CAUSING DEATH, ARE PRESENT IN THIS EQUIPMENT. USE EXTREME CAUTION WHEN HANDLING, TESTING AND ADJUSTING.**

WARNING ***Use all Personal Protection Equipment (PPE) such as gloves, safety shoes, safety glasses, and kneeling pad, to reduce the risk of injury.***

For a complete review of all safety requirements, see the Chapter 1 Safety Considerations section in the Service Manual.

LEGAL NOTES

TRADEMARKS

COPYRIGHTS

Revision History

Revision	Date	Reason for change	Doc ID	Revision of Doc ID
1	23 October 2018	Initial Release	DOC2073428	1
1	5 November 2018	Revised functional checks table in chp. 8 Revised section 4-3 - functional tests procedures	DOC2073428	2
2	5 December 2018	Revised Table 10-2, added safety test	DOC2073428	3
2	4 March 2019	added WiFi module Replacement Procedure	DOC2073428	4

List of Effected Pages (LOEP)

Pages	Revision	Pages	Revision	Pages	Revision
8-12 to 8-14	added WiFi module Replacement Procedure				
7-44 to 7-47	added Loaner system procedure				

Chapter 1
Introduction

Section 1-1
Overview

1-1-1 Purpose of Chapter 1

This chapter describes important issues related to safely servicing the Venue Go™ ultrasound scanner. The service provider must read and understand all the information presented here before installing or servicing a unit.

Section 1-2
Service Manual Overview

This manual provides setup and service information for the Venue Go™ ultrasound scanner. The ten chapters it contains are outlined in Table 1-1 below.

In the beginning of the manual, before Chapter 1, you will find the language policy for GE service documentation, legal information, a revision overview and the Table of Contents (TOC).

An Index has not been included.

1-2-1 Contents in this Service Manual

The service manual is divided into ten chapters.

In the beginning of the manual, before chapter 1, you will find the language policy for GE service documentation, legal information, a revision overview and the Table of Contents (TOC).

An Index has not been included.

Table 1-1 Contents in this Service Manual

CHP NUMBER	TITLE	DESCRIPTION
Chapter 1	Introduction	Contains a content summary and warnings.
Chapter 2	Site Preparations	Contains pre-setup requirements for the Venue Go™ ultrasound scanner.
Chapter 3	System Setup	Contains setup procedure with an setup checklist.
Chapter 4	General Procedures and Functional Checks	Contains functional checks that must be performed as part of the setup, or as required during servicing and periodic maintenance.
Chapter 5	Venue Go™Components and Function (Theory)	Contains block diagrams and functional explanations of the electronic circuits.
Chapter 6	Service Adjustments	Contains instructions on how to make any available service adjustments to the Venue Go™ ultrasound scanner.
Chapter 7	Diagnostics/Troubleshooting	Provides instructions for setting up and running diagnostic, troubleshooting and other related routines for the Venue Go™ ultrasound scanner.
Chapter 8	Replacement Procedures	Provides removal and installation procedures for replacement of all Field Replaceable Units (FRUs).
Chapter 9	Renewal Parts	Contains a complete list of field replaceable parts for the Venue Go™ ultrasound scanner.
Chapter 10	Care and Maintenance	Provides periodic maintenance procedures for the Venue Go™ ultrasound scanner.

NOTE: The illustrations provided in this service manual are for illustration purposes only and are subject to change without notice.

1-2-2 Typical Users of the Basic Service Manual

This manual is intended for the following categories of users:

- Service personnel (setup, maintenance, etc.).
- Hospital's service personnel
- Architectural planners/installation planners (some parts of *Chapter 2 -Site Preparations*).

1-2-3 Venue Go™ Models Covered in this Manual

The Venue Go™ models documented in this manual are shown in Table 1-2 below.

Table 1-2 Venue Go™ Models

PSI Group	Cat No.	Description	PSI Code	GP Code	Traced by Siebel
Venue Go™	H45601VG	Venue Go™ ultrasound imaging scanner	UVENGA	24500A	

1-2-4 Product Description

1-2-4-1 Overview of the Venue Go™ Ultrasound Scanner

The Venue Go™ is a compact, phased, linear array ultrasound imaging scanner.
Weighing only 6 Kgs (13.22 lbs), each system is extremely versatile and, depending upon the installed software, can be used for a variety of applications.

The system provides image generation in 2D, Color Doppler, M-Mode, Color M-Mode, PW and Tissue Velocity imaging.

The fully digital architecture of the Venue Go™ system allows optimal usage of all scanning modes and probe types throughout the full spectrum of operating frequencies.

Signal flows from the Probe Connector Panel to the Front End, and then over to the Back End Processor and finally to the Touch Panel and peripherals.

System configuration is stored on the Venue Go™.

All necessary software is loaded from the hard drive on power up.

1-2-4-2 How to Turn the Scanner ON and OFF

- To turn the scanner ON see: Power on/Boot up on page 3 - 20
- To turn the scanner OFF see: Power Shut Down on page 3 - 20

1-2-4-3 How to Check for Hardware/Software Version and Installed Options

- To verify the hardware versions on the boards:
  Refer to HW Version tab.
- To check the software versions on local software on the boards:
  Refer to Software Version.
- To check for installed options:
  Refer to Options Setup on page 3 - 67.

Section 1-3
Important Conventions

1-3-1 Conventions Used in this Manual

1-3-1-1 Model Designations

This manual covers the Venue Go™ ultrasound units listed in Table 1-2 on page 1-3

1-3-1-2 Icons

Pictures, or icons, are used wherever they will reinforce the printed message. The icons, labels and conventions used on the product and in the service information are described in this chapter.

1-3-1-3 Safety Precaution Messages

Various levels of safety precaution messages may be found on the equipment and in the service information. The different levels of concern are identified by a flag word that precedes the precautionary message. Known or potential hazards to personal are labeled in one of three ways:

- DANGER
- WARNING
- CAUTION

When a hazard is present that can cause property damage, but has absolutely no personal injury risk, a NOTICE is used.

DANGER **DANGER IS USED TO INDICATE THE PRESENCE OF A HAZARD THAT WILL CAUSE SEVERE PERSONAL INJURY OR DEATH OR SUBSTANTIAL PROPERTY DAMAGE IF THE INSTRUCTIONS ARE IGNORED.**

WARNING ***WARNING IS USED TO INDICATE THE PRESENCE OF A HAZARD THAT MAY CAUSE SEVERE PERSONAL INJURY OR SUBSTANTIAL PROPERTY DAMAGE IF INSTRUCTIONS ARE IGNORED.***

CAUTION **CAUTION IS USED TO INDICATE THE PRESENCE OF A HAZARD THAT WILL OR CAN CAUSE MINOR PERSONAL INJURY OR PROPERTY DAMAGE IF INSTRUCTIONS ARE IGNORED. EQUIPMENT DAMAGE POSSIBLE.**

NOTE: Notes are used to provide important information about an item or a procedure.

NOTE: Be sure to read the notes; the information contained in a note can often save you time or effort.

1-3-2 Standard Hazard Icons

Important information will always be preceded by the exclamation point ⚠ contained within a triangle, or the symbols for “Danger”, “Warning” or “Caution”, as seen throughout this chapter. In addition to text, several different graphical icons (symbols) may be used to make you aware of specific types of hazards that could cause harm. Even if a symbol isn’t used in this manual, it may be included for your reference.

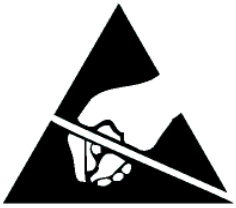
Table 1-3 Standard Hazard Icons

ICON	POTENTIAL HAZARD	USAGE	SOURCE
	**Biological Hazard** Describes precautions necessary to prevent the risk of disease transmission or infections. • Patient/user infection due to contaminated equipment.	• Cleaning and care instructions • Sheath and glove guidelines	ISO 7000 No. 0659
	**Electrical Hazard** Describes precautions necessary to prevent the risk of injury through electric hazards. • Electrical micro-shock to patient, e.g., ventricular	Probes • ECG, if applicable • Connections to back panel	
	**Moving Hazard** Describes precautions necessary to prevent the risk of injury through moving or tipping hazard! • Console, accessories or optional storage devices that can fall on patient, user, or others. • Collision with persons or objects may result in injury while maneuvering or during system transport. • Injury to user from moving the console.	Moving • Using brakes • Transporting	
	**Acoustic Output Hazard** Patient injury or tissue damage from ultrasound radiation.	ALARA, the use of Power Output following the ‘as low as reasonably achievable’ principle.	
	**Explosion Hazard** Describes precautions necessary to prevent the risk of injury through explosion hazard! • Risk of explosion if used in the presence of flammable anesthetics.	Flammable anesthetic	
	**Fire and Smoke Hazard** • Patient/user injury or adverse reaction from fire or smoke. • Patient/user injury from explosion and fire.	• Replacing fuses • Outlet guidelines	

Other hazard icons make you aware of specific procedures that should be followed.

NOTE: The Venue Go™ system has no unintended or motorized moving parts that could cause pinching; all moving parts are mechanically operated by the user.
Pay attention to move such parts carefully (e.g. articulated arm).

Table 1-4 Standard Icons Indicating a Special Procedure Be Used

AVOID STATIC ELECTRICITY	TAG AND LOCK OUT
	

Section 1-4
Safety Considerations

1-4-1 Introduction

The following safety precautions must be observed during all phases of operation, service and repair of this equipment. Failure to comply with these precautions or with specific warnings elsewhere in this manual violates safety standards of design, manufacture and intended use of the equipment.

1-4-2 Human Safety

- Operating personnel must not remove the Ultrasound system covers.
- Servicing should be performed by authorized personnel only.
- Only personnel who have participated in a Venue Go™ Training Seminar are authorized to service the equipment.

NOTE: United States law restricts this device for sale or use by or on the order of a physician.

DANGER **DANGEROUS VOLTAGES, CAPABLE OF CAUSING DEATH, ARE PRESENT IN THIS EQUIPMENT. USE EXTREME CAUTION WHEN HANDLING, TESTING AND ADJUSTING.**

WARNING ***IF THE COVERS ARE REMOVED FROM AN OPERATING VENUE GO™ SYSTEM, SOME METAL SURFACES MAY BE WARM ENOUGH TO POSE A POTENTIAL HEAT HAZARD IF TOUCHED, EVEN WHILE IN SHUT DOWN MODE.***

WARNING

FOR CONSOLE ULTRASOUND SYSTEMS AND FOR ULTRASOUND SYSTEMS MOUNTED ON A DOCKING/ISOLATION CART, HAVE TWO PEOPLE AVAILABLE TO DELIVER AND UNPACK THE ULTRASOUND SYSTEM.

ATTEMPTS TO MOVE THE ULTRASOUND SYSTEM CONSIDERABLE DISTANCES OR ON AN INCLINE BY ONE PERSON COULD RESULT IN INJURY OR DAMAGE OR BOTH.

WARNING ***BECAUSE OF THE LIMITED ACCESS TO CABINETS AND EQUIPMENT IN THE FIELD, PLACING PEOPLE IN AWKWARD POSITIONS, GE HAS LIMITED THE LIFTING WEIGHT FOR ONE PERSON IN THE FIELD TO 16 KG (35 LBS). ANYTHING OVER 16 KG (35 LBS) REQUIRES 2 PEOPLE.***

WARNING ***HAVE TWO PEOPLE AVAILABLE TO DELIVER AND UNPACK THE VENUE GO™ SYSTEM. ATTEMPTS TO MOVE THE UNIT CONSIDERABLE DISTANCES OR ON AN INCLINE BY ONE PERSON COULD RESULT IN INJURY OR DAMAGE OR BOTH.***

WARNING ***USE ALL PERSONAL PROTECTION EQUIPMENT (PPE) SUCH AS GLOVES, SAFETY SHOES, SAFETY GLASSES, AND KNEELING PAD, TO REDUCE THE RISK OF INJURY.***

WARNING ***EXPLOSION WARNING***

DO NOT OPERATE THE EQUIPMENT IN AN EXPLOSIVE ATMOSPHERE. OPERATION OF ANY ELECTRICAL EQUIPMENT IN SUCH AN ENVIRONMENT CONSTITUTES A DEFINITE SAFETY HAZARD.

WARNING ***DO NOT SUBSTITUTE PARTS OR MODIFY EQUIPMENT***

BECAUSE OF THE DANGER OF INTRODUCING ADDITIONAL HAZARDS, DO NOT INSTALL SUBSTITUTE PARTS OR PERFORM ANY UNAUTHORIZED MODIFICATION OF THE EQUIPMENT.

WARNING ***FOR CONSOLE ULTRASOUND SYSTEMS AND FOR ULTRASOUND SYSTEMS MOUNTED ON A CART,WHEN THE TOP CONSOLE IS IN ITS LOCKED POSITION, THE GAS SHOCK IS COMPRESSED AND STORES MECHANICAL ENERGY. DURING NORMAL OPERATION THE TOP CONSOLE, THE WEIGHT OF THE MONITOR AND THE MECHANICAL FORCE OF THE GAS SHOCK ARE IN BALANCE. TAKE CARE IF/ WHEN YOU ACTIVATE THIS GAS SHOCK.***

PERSONAL INJURY CAN OCCUR AFTER THE PANEL IS REMOVED AND THE SHOCK PRESSURE IS RELEASED. TAKE CARE WHEN YOU REPAIR THE ELEVATION ASSEMBLY.

WARNING ***RISK OF ELECTRICAL SHOCK, ULTRASOUND SYSTEM MUST BE TURNED OFF AND DISCONNECTED FROM POWER SOURCE. CORD MUST BE CONTROLLED AT ALL TIMES.***

WAIT FOR AT LEAST 30 SECONDS FOR CAPACITORS TO DISCHARGE AS THERE ARE NO TEST POINTS TO VERIFY ISOLATION. THE LIGHT ON THE OP PANEL ON/OFF BUTTON WILL TURN OFF.

ULTRASOUND SYSTEM COMPONENTS MAY BE ENERGIZED. ALWAYS REFER TO THE ULTRASOUND SYSTEM'S SERVICE MANUAL FOR LOTO WARNINGS AND CAUTIONS.

CAPACITORS ON ULTRASOUND SYSTEMS WITH THE SHEARWAVE OPTION CAN AKE UP TO 5 MINUTES TO DISCHARGE.

WARNING ***FOR CONSOLE ULTRASOUND SYSTEMS AND FOR ULTRASOUND SYSTEMS MOUNTED ON A CART, USE EXTREME CAUTION AS LONG AS THE ULTRASOUND SYSTEM IS UN-STABLE, NOT RESTING ON ALL FOUR CASTERS.***

WARNING ***FOR CONSOLE ULTRASOUND SYSTEMS AND FOR ULTRASOUND SYSTEMS MOUNTED ON A CART, TILTING THE CONSOLE REQUIRES TWO PEOPLE IN ORDER TO AVOID INJURY TO SERVICE PERSONNEL AND DAMAGE TO THE EQUIPMENT.***

WARNING ***USE ALL PERSONAL PROTECTION EQUIPMENT (PPE) SUCH AS GLOVES, SAFETY SHOES, SAFETY GLASSES, AND KNEELING PADS, TO REDUCE THE RISK OF INJURY.***

WARNING ***BEWARE OF POSSIBLE SHARP EDGES ON ALL MECHANICAL PARTS. IF SHARP EDGES ARE ENCOUNTERED, THE APPROPRIATE PPE SHOULD BE USED TO REDUCE THE RISK OF INJURY.***

WARNING ***WEAR ALL PPE INCLUDING GLOVES AS INDICATED IN THE CHEMICAL MSDS.***

CAUTION **USE PROTECTIVE GLASSES DURING DRILLING, FILING AND DURING ALL OTHER WORK WHERE EYES NEED PROTECTION.**

CAUTION **USE SAFETY SHOES WHEN DOING WORK WHERE THERE IS ANY CHANCE OF FOOT DAMAGE.**

CAUTION **USE PROTECTIVE GLOVES WHEN DRILLING AND CUTTING.**

1-4-3 Mechanical Safety

WARNING ***WHILE THE SOFTWARE INSTALL PROCEDURE IS DESIGNED TO PRESERVE DATA, YOU SHOULD SAVE ANY PATIENT DATA, IMAGES, SYSTEM SETUPS TO A DVD OR HARDCOPY BEFORE DOING A SOFTWARE UPGRADE.***

WARNING ***PRIOR TO ELEVATING SCANNER, VERIFY THAT THE MONITOR IS LOCKED IN ITS LOWEST POSITION. VERIFY THAT THE FRONT BRAKE IS LOCKED AND THE SCANNER IS UNABLE TO SWIVEL. VERIFY THAT THE REAR BRAKES ARE IN THE LOCKED POSITION.***

DANGER ***WHENEVER THE UNIT IS TO BE MOVED ALONG ANY INCLINE, USE EXTREME CAUTION. MAKE SURE THAT THE VENUE GO™ SCANNER AND ALL PERIPHERALS ARE SECURELY MOUNTED IN PLACE BEFORE ATTEMPTING TO MOVE IT.***

DANGER ***ULTRASOUND PROBES ARE HIGHLY SENSITIVE MEDICAL INSTRUMENTS THAT CAN EASILY BE DAMAGED BY IMPROPER HANDLING. USE CARE WHEN HANDLING AND PROTECT FROM DAMAGE WHEN NOT IN USE. DO NOT USE A DAMAGED OR DEFECTIVE PROBE. FAILURE TO FOLLOW THESE PRECAUTIONS CAN RESULT IN SERIOUS INJURY AND EQUIPMENT DAMAGE.***

DANGER ***NEVER USE A PROBE THAT HAS FALLEN TO THE FLOOR. EVEN IF IT LOOKS OK, IT MAY BE DAMAGED.***

CAUTION **ULTRASOUND SYSTEM WEIGHTS CAN BE SIGNIFICANT, PLUS THE WEIGHT OF INSTALLED PERIPHERALS, WHEN READY FOR USE. CARE MUST BE USED WHEN MOVING IT OR REPLACING ITS PARTS.**
FAILURE TO FOLLOW THE PRECAUTIONS LISTED BELOW COULD RESULT IN INJURY, UNCONTROLLED MOTION AND COSTLY DAMAGE.

- **USE THE HANDLE TO MOVE THE ULTRASOUND SYSTEM.**
- **BE SURE THE PATHWAY IS CLEAR. LIMIT MOVEMENT TO A SLOW CAREFUL WALK.**
- **DO NOT LET THE ULTRASOUND SYSTEM STRIKE WALLS OR DOOR FRAME.**
- **USE TWO PEOPLE WHEN MOVING ON INCLINES OR LIFTING MORE THAN 16 KG (35 LBS).**

WARNING ***THE SYSTEM SHOULD NOT BE MOVED WITH THE OPERATING PANEL EXTENDED. POSITION THE OPERATING PANEL IN ITS CENTERED AND LOCKED POSITION. LOWER THE OPERATING PANEL AS MUCH AS POSSIBLE BEFORE MOVING THE SYSTEM. See Figure 5-14 on page 5-32 illustrating system in Transportation Mode.***

WARNING ***REMEMBER: IF THE FRONT CASTER SWIVEL LOCK IS ENGAGED FOR TRANSPORTATION, PRESSING THE RELEASE PEDAL ONCE DISENGAGES THE SWIVEL LOCK. YOU MUST DEPRESS THE RELEASE PEDAL A SECOND TIME TO ENGAGE THE BRAKE.***

CAUTION **BEFORE YOU MOVE OR TRANSPORT THE SYSTEM, MAKE SURE TO LOCK THE LCD MONITOR ARM FIRMLY AND FLIP DOWN THE MONITOR TO PREVENT DAMAGE TO THE SYSTEM.**
See Figure 5-14* on page 5-32 *illustrating system in Transportation Mode.

CAUTION **ALWAYS LOCK THE TOP CONSOLE (OPERATOR PANEL) IN ITS PARKING (LOCKED) POSITION BEFORE MOVING THE SCANNER AROUND.**

CAUTION **TO AVOID INJURY WHEN YOU MOVE THE LCD MONITOR AND THE MONITOR ARM, DO NOT PUT YOUR FINGER, HAND, OR OBJECT ON THE JOINT OF THE MONITOR OR THE MONITOR ARM.**

CAUTION **ENSURE THAT NO-ONE TOUCHES THE CONSOLE ARM/FROGLEG WHEN MOVING THE OPERATOR PANEL.**

CAUTION **DO NOT MOVE THE UNIT IF THE OPERATOR PANEL IS IN UNLOCKED POSITION.**

CAUTION **KEEP THE HEAT VENTING HOLES ON THE MONITOR UNOBSTRUCTED TO AVOID OVERHEATING OF THE MONITOR.**

WARNING ***THE SYSTEM SHOULD NOT BE MOVED WITH THE OPERATING PANEL EXTENDED. POSITION THE OPERATING PANEL IN ITS CENTERED AND LOCKED POSITION. LOWER THE OPERATING PANEL AS MUCH AS POSSIBLE BEFORE MOVING THE SYSTEM. See Figure 5-14 on page 5-32 illustrating system in Transportation Mode.***

CAUTION **DO NOT TRANSPORT THE VENUE GO™ SYSTEM IN A VEHICLE WITHOUT LOCKING THE CASTERS (WHEELS)**
See Figure 5-14* ON PAGE 5-32 *illustrating system in Transportation Mode.

NOTICE **SPECIAL CARE SHOULD BE TAKEN WHEN TRANSPORTING THE ULTRASOUND SYSTEM IN A VEHICLE:**

- **BEFORE TRANSPORTING, PLACE THE ULTRASOUND SYSTEM IN ITS SPECIAL STORAGE CASE.**
- **ENSURE THAT THE ULTRASOUND SYSTEM IS FIRMLY SECURED WHILE INSIDE THE VEHICLE.**
- **SECURE ULTRASOUND SYSTEM WITH STRAPS OR AS DIRECTED OTHERWISE TO PREVENT MOTION DURING TRANSPORT.**
- **PREVENT VIBRATION DAMAGE BY DRIVING CAUTIOUSLY. AVOID UNPAVED ROADS, EXCESSIVE SPEEDS, AND ERRATIC STOPS OR STARTS.**

WARNING ***EQUIPMENT DAMAGE COULD RESULT IF SPECIAL CARE IS NOT TAKEN WHEN TRANSPORTING THE VENUE GO™ SYSTEM IN A VEHICLE.***
See Figure 5-14 on page 5-32 illustrating system in Transportation Mode.

ALWAYS:

- **Eject any media from the media storage devices USB Flash Drive, MOD (if installed).**
- **Ensure that monitor is in folded and locked position.**
- **Ensure that the Venue Go™ system is well prepared and packed in its original packaging before transporting. Special care must be taken to correctly position the packing material, using all screws and brackets.**
  For further information, refer to *Chapter 3 -System Setup*.
- **Place the probes in their carrying case.**
- **Secure the system in an full down position and lock the wheels (brake).**
- **Ensure that the Venue Go™ system is firmly secured while inside the vehicle.**
- **Secure the system with straps or as directed otherwise to prevent motion during transport.**
- **Prevent vibration damage by driving cautiously. Avoid unpaved roads, excessive speeds, and erratic stops or starts.**

CAUTION **KEEP THE HEAT VENTING HOLES ON THE MONITOR UNOBSTRUCTED TO AVOID OVERHEATING OF THE MONITOR.**

1-4-4 Electrical Safety

To minimize shock hazard, the equipment must be connected to a well grounded power source. The system is equipped with a three-conductor AC power cable. This must be plugged into an approved electrical outlet with safety grounding. To ensure proper grounding, connect this equipment to a receptacle marked "HOSPITAL ONLY" OR "HOSPITAL GRADE".

The power outlet used for this equipment should not be shared with other types of equipment. Both the system power cable and the power connector must meet international electrical standards.

WARNING ***CONNECTING A VENUE GO™ SCANNER TO INCORRECT VOLTAGE LEVEL WILL DESTROY THE SYSTEM!!***

CONNECT THE SYSTEM ONLY IN ACCORDANCE WITH THE VOLTAGE INDICATED ON THE PRODUCT LABEL.

WARNING ***SAFE PRACTICES:***

FOLLOW THESE GUIDELINES TO MINIMIZE SHOCK HAZARDS WHENEVER YOU ARE USING THE ULTRASOUND SYSTEM:

- **TO MINIMIZE SHOCK HAZARD, THE EQUIPMENT CHASSIS MUST BE CONNECTED TO AN ELECTRICAL GROUND.**
- **THE ULTRASOUND SYSTEM IS EQUIPPED WITH A THREE-CONDUCTOR AC POWER CABLE. THIS MUST BE PLUGGED INTO AN APPROVED ELECTRICAL OUTLET WITH SAFETY GROUND.**
- **THE POWER OUTLET USED FOR THIS EQUIPMENT SHOULD NOT BE SHARED WITH OTHER TYPES OF EQUIPMENT.**
- **BOTH THE ULTRASOUND SYSTEM POWER CABLE AND THE POWER CONNECTOR MUST MEET INTERNATIONAL ELECTRICAL STANDARDS.**

1-4-4-1 Probes

All the probes for the Venue Go™ ultrasound unit are designed and manufactured to provide trouble-free, reliable service. To ensure this, correct handling of probes is important and the following points should be noted:

- Do not drop a probe or strike it against a hard surface, as this may damage the transducer elements, acoustic lens, or housing.
- Do not use a cracked or damaged probe. In this event, call your field service representative immediately to obtain a replacement.
- Avoid pulling, pinching or kinking the probe cable, since a damaged cable may compromise the electrical safety of the probe.
- To avoid the risk of a probe accidentally falling, do not allow the probe cables to become entangled, or to be caught in the system's wheels.

Follow these guidelines before connecting a probe to the scanner:

- Inspect the probe prior to each use for damage or degradation to the:
  - housing
  - cable strain relief
  - lens
  - seal
  - connector pins
  - locking mechanism
- Do not use a damaged or defective probe.
- Never immerse the probe connector or adapter into any liquid.

NOTE: For detailed information on handling endocavity probes, refer to the appropriate supplementary instructions for each probe. In addition, refer to the Venue Go™ User Manual for detailed probe handling instructions.

1-4-4-2 Peripherals

1-4-4-2-1 Safety and Environmental Guidelines

WARNING ***Environmental Dangers***

ALL DEVICES MEETING IEC60950 MUST BE KEPT OUTSIDE THE PATIENT ENVIRONMENT AS DEFINED IN IEC60601-1-1, UNLESS THE DEVICES, ACCORDING TO IEC60601-1-1, ARE EQUIPPED WITH THE FOLLOWING:

A) ADDITIONAL FIXED EARTH PROTECTION

OR:

B) AN EXTRA ISOLATING TRANSFORMER

WARNING ***Commercial devices such as laser cameras, printers, VCRs and external monitors, usually exceed allowable leakage current limits and, when plugged into separate AC outlets, are in violation of patient safety standards. Suitable electrical isolation of such external AC outlets, or the provision of extra protective earth for the device, is required in order to meet UL60601-1 and IEC60601-1-1 standards for electrical leakage.***

- **Patient Vicinity UL 60601-1**

  Sub clause 2.12.20DV - D2 Addition

  An area in which patients are normally cared for, the patient vicinity is the space with surfaces likely to be in contact with the patient or attendant who can touch the patient. This encloses a space within the room of 1.83 m (6 ft.) beyond the perimeter of the bed (examination table, dental chair, treatment booth, and the like) in its intended location, and extending vertically 2.29 m (7.5 ft.) above the floor.

- **Patient Environment IEC 60601-1-1**

  Sub clause 2.204

  Such an area is an environment in which medical diagnosis, monitoring or treatment is carried out. It is very difficult to attach unique dimensions to the PATIENT ENVIRONMENT. In practice a distance of 2,5 m (8.2 ft.) above the floor on which the medical personnel stand and a horizontal distance of 1,5 m (4.9 ft.) have justified themselves as indicative of the dimensions of the Patient Environment. The patient environment/vicinity is depicted as a dashed line in this procedure - see the example in Figure 1-1

.

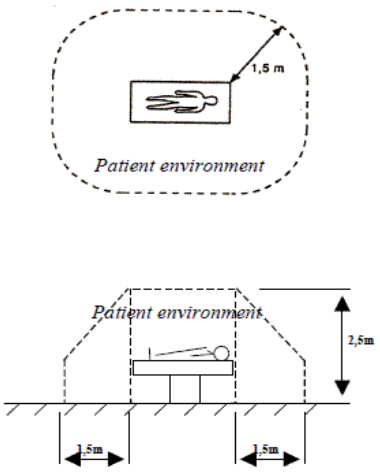
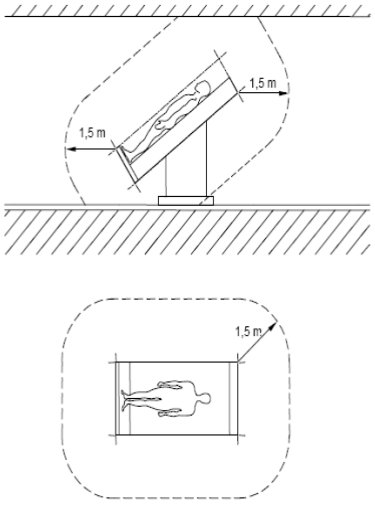


Figure 1-1 Patient Safety Environment

- **Patient Environment EN 60601-1**

  Sub clause 3.79 - Patient Environment

  It is difficult for this standard to define dimensions for the volume in which diagnosis, monitoring or treatment occurs. The dimensions for the PATIENT ENVIRONMENT given in Figure 1-2 have been justified in practice.



NOTE The dimensions in the figure show minimum extent of the PATIENT ENVIRONMENT in a free surrounding.

Figure 1-2 Example of Patient Environment

1-4-5 Venue Go™ Battery Safety

NOTE: The Venue Go™ ultrasound scanner is supplied with two packs of lithium ion batteries in the battery bay.

The lithium ion batteries provide power for scanning, safely shutting down the system or placing it in *Standby* mode, when an AC power source is interrupted or the AC power cable is disconnected from the wall outlet. Lithium ion batteries last longer than conventional batteries and do not require replacement as often. In *Standby* mode, you can expect 4 hours of battery life with a fully-charged battery.

Used batteries should not be placed with common household waste products. Contact local authorities for the location of a chemical waste collection program nearest you.

NOTE: Regulations vary for different countries. Dispose of a used battery in accordance with local regulations.

CAUTION **USE ONLY BATTERIES APPROVED BY GE AS SUITABLE FOR USE WITH THE VENUE GO™ ULTRASOUND SCANNER**

WARNING ***The Venue Go™ battery is an approved UL device.***
DO NOT ATTEMPT TO DIS-ASSEMBLE OR ALTER THE BATTERY!
Always observe the following precautions:

- Do not short-circuit the battery by directly connecting the negative terminals with metal objects.
- Do not heat the battery or discard it in a fire.
- Do not expose the battery to temperatures over 60^{o} C (140^{o} F). Keep the battery away from fire and other heat sources.
- Do not leave the battery in direct sunlight.
- Do not pierce the battery with a sharp object, hit it, or step on it.
- Do not use a damaged battery.
- Do not apply solder to a battery.
- Do not connect the battery to an electrical power outlet.

CAUTION **TO PREVENT THE BATTERY BURSTING, IGNITING, OR FUMES FROM THE BATTERY CAUSING EQUIPMENT DAMAGE, ALWAYS OBSERVE THE FOLLOWING PRECAUTIONS:**

- Do not immerse the battery in water or allow it to get wet.
- Do not place the battery into a microwave oven or pressurized container.
- If the battery leaks or emits an odor, remove it from all possible flammable sources.
- If the battery emits an odor or heat, is deformed or discolored, or in a way appears abnormal during use, or system storage, ***immediately remove it and stop using it***.
- If you have any questions about the battery, consult your local GE representative.

1-4-6 Patient Data Safety

WARNING ***WHILE THE SOFTWARE INSTALL PROCEDURE IS DESIGNED TO PRESERVE DATA, YOU SHOULD SAVE ANY PATIENT DATA, IMAGES, SYSTEM SETUPS TO A A USB FLASH DRIVE, EXTERNAL HDD, NETWORK STORAGE OR HARDCOPY BEFORE DOING A SOFTWARE UPGRADE.***

Section 1-5
Dangerous Procedure Warnings

Warnings, such as the examples below, precede potentially dangerous procedures throughout this manual. Instructions contained in the warnings must be followed.

DANGER 

DANGEROUS VOLTAGES, CAPABLE OF CAUSING DEATH, ARE PRESENT IN THIS EQUIPMENT. USE EXTREME CAUTION WHEN HANDLING, TESTING AND ADJUSTING.

WARNING ***IF THE COVERS ARE REMOVED FROM AN OPERATING VENUE GO™ SYSTEM, SOME METAL SURFACES MAY BE WARM ENOUGH TO POSE A POTENTIAL HEAT HAZARD IF TOUCHED, EVEN WHILE IN SHUT DOWN MODE.***

WARNING **EXPLOSION WARNING**

DO NOT OPERATE THE EQUIPMENT IN AN EXPLOSIVE ATMOSPHERE.

OPERATION OF ANY ELECTRICAL EQUIPMENT IN SUCH AN ENVIRONMENT CONSTITUTES A DEFINITE SAFETY HAZARD.

EQUIPMENT IS NOT SUITABLE FOR USE IN THE PRESENCE OF A FLAMMABLE ANAESTHETIC MIXTURE WITH AIR OR WITH OXYGEN OR NITROUS OXIDE.

DANGER **DO NOT SUBSTITUTE PARTS OR MODIFY EQUIPMENT**

BECAUSE OF THE DANGER OF INTRODUCING ADDITIONAL HAZARDS, DO NOT INSTALL SUBSTITUTE PARTS OR PERFORM ANY UNAUTHORIZED MODIFICATION OF THE EQUIPMENT.

Section 1-6
Lockout/Tagout (LOTO) Requirements

Follow OSHA Lockout/Tagout requirements (USA) or local Lockout/Tagout requirements by ensuring you are in total control of the AC power plug at all times. This will protect service personnel from injuries caused by unexpected energizing or start-up of equipment during service, repair, or maintenance.

To apply Lockout/Tagout (LOTO):

1.) Plan and prepare for shutdown.
2.) Shutdown the equipment.
3.) Isolate the equipment.
4.) Apply Lockout/Tagout Devices.
5.) Control all stored and residual energy.
6.) Verify isolation.

All potentially hazardous stored or residual energy is relieved.

WARNING

ENERGY CONTROL AND POWER LOCKOUT FOR VENUE GO™ .
WHEN SERVICING PARTS OF THE SYSTEM WHERE THERE IS EXPOSURE TO VOLTAGE GREATER THAN 30 VOLTS:

1.) FOLLOW LOCK OUT/TAG OUT PROCEDURES.
2.) TURN OFF THE BREAKER.
3.) UNPLUG THE SYSTEM.
4.) MAINTAIN CONTROL OF THE SYSTEM POWER PLUG.
5.) WAIT FOR AT LEAST 30 SECONDS FOR CAPACITORS TO DISCHARGE AS THERE ARE NO TEST POINTS TO VERIFY ISOLATION. THE AMBER LIGHT ON THE OP PANEL ON/OFF BUTTON WILL TURN OFF.
6.) BEWARE THAT THE MAIN POWER SUPPLY AND BACK END PROCESSOR MAY BE ENERGIZED EVEN IF THE POWER IS TURNED OFF WHEN THE CORD IS STILL PLUGGED INTO THE AC OUTLET.
7.) REMOVE/DISCONNECT BATTERY IF PRESENT.

Ultrasound System components may be energized.

Capacitors on Ultrasound Systems with the Shearwave Option can take up to 5 minutes to discharge.

Section 1-7
Product Labels and Icons

The Venue Go™ ultrasound scanner comes equipped with product labels and icons. These represent pertinent information regarding the operation of the unit.

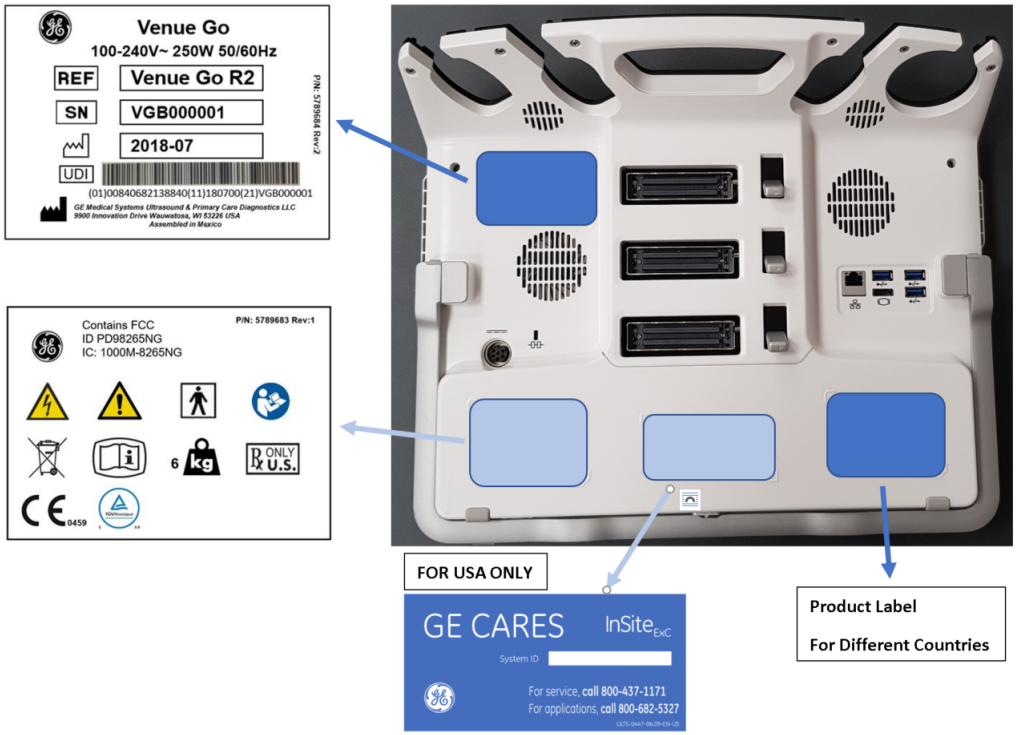


Figure 1-3 Venue Go™ - Labels Location

1-7-1 Universal Product Labels

NOTE: The following diagrams illustrate the labels found on the Venue Go™ ultrasound unit. For an explanation of label icons and symbols, refer to Table 1-5 on page 1-21.

A system Rating Label (examples shown in Figure 1-4 and Figure 1-5, below) is located at the rear of the system. This indicates the ultrasound unit's basic power compliance. In addition, a General Label (Figure 1-5) provides details regarding regulatory compliance - as well as warnings and cautions.

Figure 1-4 Rating Label - Venue Go™ (100-240V) International

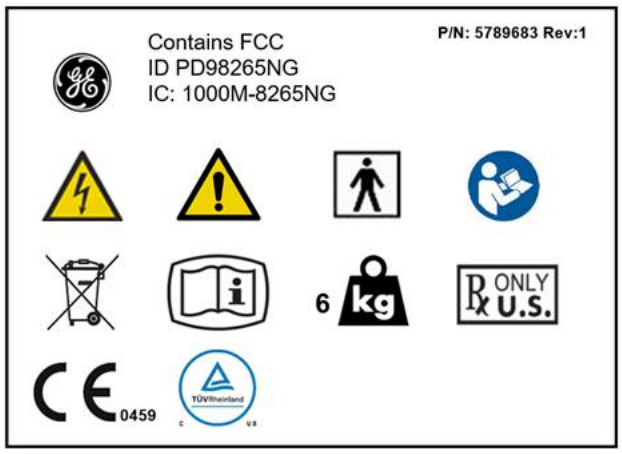


Figure 1-5 General Label - International

1-7-2 Label Descriptions

The following table shows the labels and symbols that may be found on the Venue Go™ ultrasound unit, and provides a description of each label's purpose and location.

Table 1-5 Label Icons and Symbols - Description and Location

Label Name	Description	Location	Source
	**Equipment Type BF** Type BF Applied Part, in which protection against electric shock does not rely on basic insulation only. Provides additional safety precautions such as double insulation or reinforced insulation, because there is no provision for protective earthing or reliance upon installation conditions.	Probe connectors and rating plate	EN/IEC 60601-1: "Medical electrical equipment - Part 1: General requirements for basic safety and essential performance"
	**ATTENTION- General warning sign** Attention - Consult accompanying documents: alerts the user to refer to the user documentation when complete information cannot be provided on the label.	Various	EN/IEC 60601-1: "Medical electrical equipment - Part 1: General requirements for basic safety and essential performance"
	**WARNING - Dangerous voltage** (the lightning flash with arrowhead in equilateral triangle) is used to indicate electric shock hazards.	Various.	EN/IEC 60601-1: "Medical electrical equipment - Part 1: General requirements for basic safety and essential performance"
	CE mark of conformity		93/42/EEC Annex XII
	Indicates the Venue Go™ is a UL-approved system (InMetro Brazil).	Pending approval	

Table 1-5 Label Icons and Symbols - Description and Location (Continued)

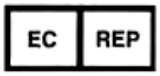
Label Name	Description	Location	Source
	**Read the Service Manual.** Intended to alert the user to refer to the operator manual or other instructions when complete information cannot be provided on the label.	Various	EN/IEC 60601-1: "Medical electrical equipment - Part 1: General requirements for basic safety and essential performance"
	**Waste Electrical and Electronic Equipment (WEEE) Disposal** This symbol indicates that waste electrical and electronic equipment must not be disposed of as unsorted municipal waste and must be collected separately.	Rating Plate	EN 50419: Marking of electrical and electronic equipment in accordance with Article 11(2) of Directive 2002/96/EC (WEEE)
	**Prescription Requirement label** United States only		21 CFR 801.109
	Safety Conformance Certification by Nationally Recognized Testing Laboratory (NRTL)	Rating Plate	TUV Rheinland Requirement
	Catalog number: Indicates the manufacturer's catalog number so that the medical device can be identified.	• Rating Plate • Probes	EN ISO 15223-1 Ref. 5.1.6: Symbols for use in the labeling of medical devices
	Serial number Indicates the manufacturer's serial number so that a specific medical device can be identified	• Rating Plate • Probes	EN ISO 15223-1 Ref. 5.1.7: Symbols for use in the labeling of medical devices
Type/Class Label	Used to indicate the degree of safety or protection.	Rear Panel	
	Date of manufacture	• Rating Plate • Probes	EN ISO 15223-1: Symbols for use in the labeling of medical devices
	Manufacturer's name and address	• Rating Plate • Probes • Rear panel	EN ISO 15223-1: Symbols for use in the labeling of medical devices
	Authorized European Representative address		
	**System weight** Indicates weight of the Venue Go™ ultrasound scanner.	Various	

Table 1-5 Label Icons and Symbols - Description and Location (Continued)

Label Name	Description	Location	Source
	**Pushing prohibited** Do not push the unit sideways when the caster wheel brakes are in the locked position. Instability may occur.	Rating Plate Docking cart rear	EN/IEC 60601-1: "Medical electrical equipment - Part 1: General requirements for basic safety and essential performance"
	**Loading prohibited** DO NOT place objects on the surface of the rear of the LCD Panel while folded.	Rating Plate Docking cart rear	IEC 60878: Graphical symbols for electrical equipment in medical practice
	"Equipotentiality" Indicates the terminal to be used for connecting equipotential conductors when interconnecting (grounding) with other equipment.	Peripherals.	
	Alternating current	Various	EN/IEC 60601-1: "Medical electrical equipment - Part 1: General requirements for basic safety and essential performance"
	**Direct current** for product to be powered from a DC supply	Rear panel	
	Indicates that power is supplied to the system (trough AC adapter or batteries)		ISO 7000 Ref. 1938
	**Type CF Defib-Proof Applied Part** (heart in the box with paddle) symbol is in accordance with IEC 60878-02-06.	on ECG module near ECG patient cable connector	IEC 60417 - 5336
	**Protective Earth** indicates the protective earth (grounding) terminal	Inside of AC adapter with system Console	IEC 60417 - 5019
	“Equipotentiality” indicates the terminal to be used for connecting equipotential conductors when interconnecting (grounding) with other equipment. Connection of additional protective earth conductors or potential equalization conductors is not necessary in most cases and is only recommended for situations involving multiple equipment in a high-risk patient environment to provide assurance that all equipment is at the same potential and operates within acceptable leakage current limits.	Console	EN/IEC 60601-1: "Medical electrical equipment - Part 1: General requirements for basic safety and essential performance"

Table 1-5 Label Icons and Symbols - Description and Location (Continued)

Label Name	Description	Location	Source
	**Warning, crushing hazard: hand**	Rating Plate Docking cart rear	IEC 60878: Graphical symbols for electrical equipment in medical practice
	This symbol indicates that this electrical and electronic product does not contain any hazardous substances above the maximum concentration value established by the Chinese standard GB/T 26572, and can be recycled after being discarded, and should not be casually discarded	Bottom	
	This device is delivered with Electronic Instructions for Use (eIFU). This electronic IFU can be downloaded from the Internet. A paper copy Instructions for Use can be ordered at no additional cost.	Rating plate or e-Label	(EU) No 207/2012 ISO 7000 Ref. 3500
	This symbol indicates the product contains hazadous materials in excess of the limits established by the Chinese standard GB/T 26572. Requirements of concentration limits for certain restricted substances in electrical and electronic products. The number in the symbol is the Environment-friendly Use Period (EFUP), which indicates the period during which the hazardous substances contained in electrical and electronic products will not leak or mutate under normal operating conditions so that the use of such electrical and electronic products will not result in any severe environment pollution, any bodily injury or damage to any assets. The unit of the period is "Year"	China Rating Plate	
	GOST - R Mark	(pending approval)	Russian Federation No. 184-FZ
	EAC mark	(pending approval)	TP TC 020/2011
	GE Logo		
Assembled in X	Purpose: identify the customs country of origin of the material (x is a country name) Note: When the Assembled in X statement is not shown on the label, this indicates that the Customs country of origin is the same as the country of the legal manufacturer.		
P/N	Part Number	Rear panel or e-Label	

Table 1-5 Label Icons and Symbols - Description and Location (Continued)

Label Name	Description	Location	Source
	**Batch code** Indicates the manufacturer's batch code so that the batch or lot can be identified.	Rear panel or e-Label	ISO 15223-1 Ref. 5.1.5
	**Unique Device Identification (UDI) Label** Every system has a unique marking for identification, the Unique Device Identification (UDI) Label. The UDI label consists of a series of alpha-numeric characters and barcode which uniquely identify the Venue Go system as a medical device manufactured by General Electric. Scan or enter the UDI information into the patient health record as required by country-specific laws.	Rear panel or e-Label	
	Do not put the battery in fire.	Battery pack	
	Do not disassemble or mistreat the battery.	Battery pack	
	Non-Ionizing Electromagnetic Radiation Wireless LAN	Rear panel	

1-7-3 Venue Go™ Cart Labels Location

In addition to the labels described in the previous section, an additional label may be found on the Venue Go™ cart, as described in the following section.

Figure 1-6 Venue Go™ System - Cart Labels Location

Section 1-8
Returning/Shipping Probes and Repair Parts

Equipment being returned must be clean and free of blood and other infectious substances.

GE policy states that body fluids must be properly removed from any part or equipment prior to shipment. GE employees, as well as customers, are responsible for ensuring that parts/equipment have been properly decontaminated prior to shipment. Under no circumstance should a part or equipment with visible body fluids be taken or shipped from a clinic or site (for example, body coils or an ultrasound probe).

The purpose of the regulation is to protect employees in the transportation industry, as well as the people who will receive or open this package.

NOTE: The US Department of Transportation (DOT) has ruled that "items that were saturated and/or dripping with human blood that are now caked with dried blood; or which were used or intended for use in patient care" are "regulated medical waste" for transportation purposes and must be transported as a hazardous material.

NOTE: The USER/SERVICE staff should dispose of all the waste properly, per federal, state, and local waste disposal regulations

The Venue Go™ ultrasound scanner is not meant to be used for long-term storage of patient data or images. The user is responsible for the data on the Venue Go™ and a regular backup is highly recommended.

If the Venue Go™ is sent for repair, ensure that any patient information is backed up and erased from the Venue Go™ before shipping. It is always possible during system failure and repair to lose patient data. GE is not responsible for the loss of this data.

If PHI (Patient Healthcare Information) data needs to be sent to GE employees for service purposes, GE will ascertain agreement from the customer. Patient information shall only be transferred by approved service processes, tools and devices restricting access, protecting or encrypting data where required, and providing traceability in the form of paper or electronic documents at each stage of the procedure while maintaining compliance with cross-border restrictions of patient information transfers.

Section 1-9
EMC, EMI, and ESD

1-9-1 Electromagnetic Compatibility (EMC)

Electromagnetic compatibility describes a level of performance of a device within its electromagnetic environment. This environment consists of the device itself and its surroundings, including other equipment, power sources and persons with which the device must interface. Inadequate compatibility results when a susceptible device fails to perform as intended due to interference from its environment, or when the device produces unacceptable levels of emission. This interference is often referred to as radio–frequency or electromagnetic interference (RFI/EMI) and can be radiated through space or conducted over interconnecting power or signal cables. In addition to electromagnetic energy, EMC also includes possible effects from electrical fields, magnetic fields, electrostatic discharge and disturbances in the electrical power supply.

NOTE: The Venue Go™ ultrasound scanner needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided in the accompanying documents (supplied with the system).

NOTE: Portable and mobile RF communications equipment can affect the Venue Go™ ultrasound scanner.

WARNING ***THE USE OF ACCESSORIES, TRANSDUCERS AND CABLES OTHER THAN THOSE SPECIFIED, WITH THE EXCEPTION OF TRANSDUCERS AND CABLES SOLD BY THE MANUFACTURER OF THE Venue Go™ AS REPLACEMENT PARTS FOR INTERNAL COMPONENTS, MAY RESULT IN INCREASED EMISSIONS OR DECREASED IMMUNITY OF THE Venue Go™ .***

WARNING ***THE Venue Go™ SHOULD NOT BE USED ADJACENT TO OR STACKED WITH OTHER EQUIPMENT AND THAT IF ADJACENT OR STACKED USE IS NECESSARY, THE Venue Go™ SHOULD BE OBSERVED TO VERIFY NORMAL OPERATION IN THE CONFIGURATION IN WHICH IT WILL BE USED.***

NOTE: This equipment generates, uses and can radiate radio frequency energy. The equipment may cause radio frequency interference to other medical and non-medical devices and radio communications. To provide reasonable protection against such interference, this product complies with emissions limits for a Group 1, Class A Medical Devices Directive as stated in EN 60601-1-2. However, there is no guarantee that interference will not occur in a particular installation.

1-9-2 Peripherals used in the patient environment

The Venue Go has been verified for overall safety, compatibility and compliance with the following image recording devices:

- Sony UP-D898DC
- USB 2.0/3.0 Flash Drive (Memory Stick)
- Hard Disk Drive

The Venue Go has also been verified for compatibility, and compliance for connection to a local area network (LAN) via the rear panel Ethernet connection, provided the LAN components are IEC/EN 60950 compliant.

A Wireless LAN device is built into the Venue Go, and is not user-accessible (‘Connectivity’ on page 8-29). Conforms to IEEE 802.11ac/a/b/g/n WiFi with Bluetooth 4.0 Standard. The Wireless LAN device is an option on the system and can only be activated by installation of a special unique option key license

supplied separately by GE.

The Venue Go may also be used safely while connected to devices other than those recommended above if the devices and their specifications, installation, and interconnection with the system conform to the requirements of IEC/EN 60601-1.

Accessory equipment connected to the analog and digital interfaces must be certified according to the respective IEC standards (i.e., IEC60950 for data processing equipment and IEC60601-1 for medical equipment). Furthermore, all complete configurations shall comply with the valid version of the system

standard IEC60601-1. Anyone connecting additional equipment to the signal input part or signal output part of the Venue Go system is in fact configuring a medical system, and is therefore responsible to ensure that the system complies with the requirement of the valid version of IEC60601-1. If in doubt, consult the technical service department or your local GE representative.

WARNING ***The connection of equipment or transmission networks other than as specified in the user instructions can result in an electric shock hazard or equipment malfunction. Substitute or alternate equipment and connections requires verification of compatibility and conformity to IEC/EN 60601-1 by the installer.***

Equipment modifications and possible resulting malfunctions and electromagnetic interference are the responsibility of the owner.

General precautions for installing an alternate off-board, remote device or a network would include:

1.) The added device(s) must have appropriate safety standard conformance and CE Marking.
2.) There must be adequate heat dissipation and ventilation to prevent overheating of the device.
3.) The added device(s) must be used for their intended purpose having a compatible interface.
4.) Risk and leakage current of the combination must comply with IEC/EN 60601-1.
5.) Electromagnetic emissions and immunity of the combination must conform to IEC/EN 60601-1-2.

1-9-3 Compliance

The Venue Go™ ultrasound scanner conforms to all applicable conducted and radiated emission limits and to immunity from electrostatic discharge, radiated and conducted RF fields, magnetic fields and power line transient requirements.

NOTE: For applicable standards refer to the Safety Chapter in the Venue Go™ User Manual.

NOTE: For EMC Guidance and Manufacturer’s Declarations, refer to the tables provided in Electrostatic Discharge (ESD) Prevention on page 1 - 30.

NOTE: For CE Compliance, it is critical that all covers, screws, shielding, gaskets, mesh and clamps are in good condition and installed tightly without skew or stress. Proper installation following all comments noted in this service manual is required in order to achieve full EMC performance.

1-9-4 Electrostatic Discharge (ESD) Prevention

WARNING ***DO NOT TOUCH ANY BOARDS WITH INTEGRATED CIRCUITS PRIOR TO TAKING THE NECESSARY ESD PRECAUTIONS:***

1.ALWAYS CONNECT YOURSELF, VIA AN ARM-WRIST STRAP CONNECTED TO THE CAGE ASSEMBLY OR ANY GROUND SCREW WHENEVER YOU OPEN THE SYSTEM FOR MAINTENANCE.

2.FOLLOW GENERAL GUIDELINES FOR HANDLING OF ELECTROSTATIC SENSITIVE EQUIPMENT.

WARNING ***RISK OF ELECTRICAL SHOCK, SYSTEM MUST BE TURNED OFF. AVOID ALL CONTACT WITH ELECTRICAL CONTACTS, CONDUCTORS AND COMPONENTS. ALWAYS USE NON-CONDUCTIVE HANDLES DESIGNED FOR THE REMOVAL AND REPLACEMENT OF ESD SENSITIVE PARTS. ALL PARTS THAT HAVE THE POTENTIAL FOR STORING ENERGY MUST BE DISCHARGED OR ISOLATED BEFORE MAKING CONTACT.***

1-9-5 General Caution

CAUTION **Any changes to accessories, peripheral units or any other part of the system must be approved by the manufacturer. Ignoring this advice may compromise the regulatory approvals obtained for the product.**

WARNING ***IF THE COVERS ARE REMOVED FROM AN OPERATING Venue Go™ , SOME METAL SURFACES MAY BE WARM ENOUGH TO POSE A POTENTIAL HEAT HAZARD IF TOUCHED, EVEN WHILE IN SHUTDOWN MODE.***

Section 1-10
Customer Assistance

1-10-1 Contact Information

If this equipment does not operate as indicated in this *Service Manual* or in the *Venue Go™ User Manual*, or if you require additional assistance, please contact the local distributor or appropriate support resource, as listed below.

Prepare the following information before you call:

- Ultrasound System ID and/or serial number.
- Software version.
- Date and time of occurrence.
- Sequence of events leading to issue.
- Is the issue reproduceable?
- Imaging mode, probe, preset/application.
- Media brand, speed, capacity, type.

NOTE: Save secondary image capture, cine loop, 4D multi-volume loop.*Restart the application before resuming clinical scanning.*

Table 1-6 Phone Numbers for Customer Assistance 1 of 2

LOCATION	PHONE NUMBER	
USA GE Ultrasound Service Engineering 9900 Innovation Drive Wauwatosa, WI 53226	USCAN Service: On-site Service Parts OLC Application Support	 1-800-437-1171 1-800-558-2040 1-800-321-7937 or 1-262-524-5300 1-800-682-5327 or 1-262-524-5698
Canada	OLC - USCAN	1-800-321-7937 1-800-668-0732
Latin America	LATAM Service Application Support	 +1-262-524-5300 +1-262-524-5698
EMEA Ultrasound Europe GE Ultraschall Deutschland GmbH Beethovenstraße 239 Postfach 11 05 60, D-42655 Solingen Germany	OLC - EMEA Support Phone Support Fax	 +49 (0)212 2802 - 652 +49 (0)212 2802 - 431
APAC	Online Services Ultrasound Asia ANZ Service Support Australia Japan Korea Singapore	 1800 647 855 +(61) 1-800-659-465 +(81) 42-648-2940 +(82) 2-1544-6119 +(65) 6277-3444
China	Phone	+(86) 800-810-8188 +(86) 400-812-8188 +(86) 10-6788-2652

Table 1-6 Phone Numbers for Customer Assistance (Continued) 2 of 2

LOCATION	PHONE NUMBER	
India Wipro GE Healthcare Pvt. Ltd. 4, Kadugodi Industrial Area Bangalore - 560 067 India	Phone	+(91) 1-800-425-8025 +(91) 1-800-425-7255 +(91) 1-800-102-7750

Table 1-7 Phone and Fax Numbers for Manufacturer

MANUFACTURER	PHONE NUMBER	FAX NUMBER
GE Ultrasound Service Engineering 9900 Innovation Drive Wauwatosa, WI 53226	(1) 800-437-1171	(1) 414-721-3865

Chapter 2
Site Preparations

Section 2-1
Overview

2-1-1 Purpose of Chapter 2

This chapter provides the information required to plan and prepare for the setup of a Venue Go™ ultrasound unit. Included are descriptions of the electrical and facility requirements that must be met by the purchaser. A worksheet is provided at the end of this chapter (see Figure 2-3 on page 2-13) to help ensure that all the required network information is available, prior to setup.

Section 2-2
Console Requirements

2-2-1 Unit Environmental Requirements

Table 2-2 Environmental Requirements

Requirement	Temperature	Relative Humidity (non-condensing)	Air Pressure
Operational	+10 — +40°C (50 — 104°F)	30 — 85%	700 — 1060 hPa
Storage	-20 — +60°C (-4 — 140°F)	10 — 70%	700 — 1060 hPa
Transport	-20 — +60°C (-4 — 140°F))	10 — 70%	700— 1060 hPa

NOTE: The Venue Go™ system may be operated at an altitude of up to 3000 meters (9842 ft).

CAUTION **IF THE SYSTEM HAS BEEN IN STORAGE OR HAS BEEN TRANSPORTED, PLEASE SEE THE ACCLIMATION REQUIREMENTS BEFORE POWERING ON AND/OR USING THE SYSTEM. Refer to the *Setup Warnings* section on page 3-2.**

NOTE: After a long period of storage, or after transportation of the system with the monitor in the folded-down position (transportation mode), it is highly recommended to place the monitor in the upright position - and to leave it in this position for a period of longer than 1 hour before use. This will enable it to properly adjust to the environmental conditions.

2-2-2 Cooling Requirements

The cooling requirement for the Venue Go™ ultrasound unit environment is 450 BTU/hr. This figure does not include the cooling required for lights, people, or other equipment in the room.

NOTE: Each person in the room places an additional 300 BTU/hr demand on the environmental cooling.

2-2-3 Lighting Requirements

For system setup, updates and repairs, bright lighting is required. However, operator and patient comfort may be optimized if the room lighting is subdued and indirect when a scan is being performed. Therefore, a combination lighting system (dim/bright) is recommended.

2-2-4 Time and Manpower Requirements.

CAUTION

Only one person is required to unpack the Venue Go™ ultrasound unit; at least two people must be available to roll the system down the wheeling ramp. Attempts to move the system considerable distances (or on an incline) by one person alone, could result in personal injury, and/or damage to the system.

2-2-5 Electrical Requirements

NOTE: GE requires a dedicated mains power line and Ground for the proper operation of its Ultrasound equipment. This dedicated power line shall originate at the last distribution panel before the system.

Sites with a mains power system with defined Neutral and Live:

The dedicated line shall consist of one phase, a neutral (not shared with any other circuit), and a full size Ground wire from the distribution panel to the Ultrasound outlet.

Sites with a mains power system without a defined Neutral:

The dedicated line shall consist of one phase (two lines), not shared with any other circuit, and a full size Ground wire from the distribution panel to the Ultrasound outlet.

NOTE: Please note that image artifacts can occur, if at any time within the facility, the Ground from the main facility's incoming power source to the Ultrasound unit is only a conduit.

2-2-5-1 Venue Go™ Power Requirements

Electrical specifications for the Venue Go™ system are as follows:

Table 2-3 Electrical Requirements

Input Voltage	Tolerances	Op. Current	Frequency
100V AC to 240V AC	±10%	500VA	50-60 Hz

2-2-5-2 Inrush Current

Inrush current is not a factor for consideration, due to the inrush current limiting properties of the power supplies.

Voltage	Inrush Current (Console Only)
100 V	50 A
240 V	100 A

2-2-5-3 Site Power Outlets

A dedicated AC power outlet must be within reach of the unit without requiring the use of extension cords. Other outlets adequate for the external peripherals, medical and test equipment required to support this unit must also be present and located within 1 m (3.2 ft) of the unit. Electrical installation must meet all current local, state, and national electrical codes.

2-2-5-4 Mains Power Plug

The Venue Go™ portable ultrasound scanner is supplied with an AC power cable, as standard. In the event that the unit arrives without a power cable, or a power cable fitted with an incorrect plug, contact your GE dealer. When necessary, the installation engineer will supply the appropriate power plug to meet the applicable local regulations.

2-2-5-5 Power Stability Requirements

- **Power Transients**

  The Venue Go™ is fully compliant with the following standard: IEC61000-3-3 and EN\IEC60601-1-2.

2-2-6 EMI Limitations

Ultrasound machines are susceptible to Electromagnetic Interference (EMI) from radio frequencies, magnetic fields, and transients in the air or wiring. They also generate EMI. The Venue Go™ ultrasound unit complies with limits as stated on the EMC label. However, there is no guarantee that interference will not occur in a particular setup.

NOTE: Possible EMI sources should be identified before the unit is installed, and should not be on the same line as the ultrasound system. A dedicated line should be used for the ultrasound system.

Electrical and electronic equipment may produce EMI unintentionally as the result of a defect. Some of these sources include:

- medical lasers
- scanners
- cauterizing guns
- computers
- monitors
- fans
- gel warmers
- microwave ovens
- light dimmers
- mobile phones
- in-house wireless phones (DECT phones)
- wireless computer keyboard and mouse
- air conditioning system
- High Frequency (HF) surgery equipment
- general AC/DC adapters

The presence of a broadcast station or broadcast van may also cause interference.

2-2-7 EMI Prevention/Abatement

The following table lists recommendations for preventing EMI:

Table 2-4 EMI Prevention/ Abatement

EMI Rule	Details
Ground the unit.	Poor grounding is the most likely reason an ultrasound unit will have noisy images. Check the grounding of the power cord and power outlet.
Be aware of RF sources.	Keep the unit at least 5m (16.4 ft) away from other EMI sources. Special shielding may be required to eliminate interference problems caused by high frequency, high powered radio or video broadcast signals.
Replace and/or reassemble all screws, RF gaskets, covers and cores.	After you finish repairing or updating the system, replace all covers and tighten all screws. Any cable with an external connection requires a magnet wrap at each end. Install the shield over the front of the card cage. Loose or missing covers or RF gaskets allow radio frequencies to interfere with the ultrasound signals.
Replace broken RF gaskets.	If more than 20% or a pair of the fingers on an RF gasket are broken, replace the gasket. Do not turn ON the unit until any loose metallic part is removed and replaced, if required.
Do not place labels where RF gaskets touch metal.	Never place a label where RF gaskets meet the unit. Otherwise, the gap created will permit RF leakage. In case a label has been found in such a location, move the label to a different, appropriate location.
Use GE-specified harnesses and peripherals.	The interconnect cables are grounded and require ferrite beads and other shielding. Cable length, material, and routing are all important; do not make any changes that do not meet all specifications.
Take care with cellular phones.	Cellular phones may transmit a 5 V/m signal that causes image artifacts.
Properly address peripheral cables.	Do not allow cables to lie across the top of the system. Loop any peripheral cable excess length into one bundle.

2-2-8 Probe Environmental Requirements

Table 2-5 Probe Operation and Storage Temperatures

	Electronics
Operation	10 — 40°C (50 — 104°F)
Storage	-20 — 50°C (-4 — 122°F)

*NOTE: System and electronic probes are designed for storage temperatures of -20° to +50° C. When exposed to large temperature variations, the probes should be kept at room temperature for a minimum of **10 hours** before use.*

2-2-9 Time and Manpower Requirements

Site preparation takes time. Begin site preparation checks as soon as possible, if possible, six weeks before delivery, to allow enough time to make any changes.

WARNING ***FOR CONSOLE ULTRASOUND SYSTEMS AND FOR ULTRASOUND SYSTEMS MOUNTED ON A DOCKING/ISOLATION CART, HAVE TWO PEOPLE AVAILABLE TO DELIVER AND UNPACK THE ULTRASOUND SYSTEM.***

CAUTION

Attempts to move the Ultrasound system considerable distances or on an inclive by one person, could result in injury or damage or both.

Section 2-3
Facility Needs

2-3-1 Purchaser Responsibilities

The work and materials required to prepare the site are the responsibility of the purchaser. To avoid delay, complete all pre-setup work before delivery. Use the Pre-setup Check List (provided in Table 2-7 on page 2-15) to verify that all the required steps have been completed.

Purchaser responsibilities include:

- Procuring the required materials.
- Completing the preparations prior to delivery of the ultrasound system.
- Paying the costs of any alterations and modifications not specifically provided for in the sales contract.

Note: *All electrical installations that are preliminary to the positioning of the equipment at the site prepared for the equipment must be performed by licensed electrical contractors. Other connections between pieces of electrical equipment, calibrations, and testing must also be performed by qualified personnel. The products involved (and the accompanying electrical installations) are highly sophisticated and special engineering competence is required. All electrical work on these products must comply with the requirements of applicable electrical codes. The purchaser of GE equipment must only utilize qualified personnel to perform electrical servicing on the equipment.*

The desire to use a non–listed or customer provided product or to place an approved product further from the Ultrasound system than the interface kit allows, presents challenges to the installation team. To avoid delays during installation, such variances should be made known to the individuals or group

performing the installation at the earliest possible date (preferably prior to the purchase).

The ultrasound suite must be clean prior to delivery of the Ultrasound system. Carpet is not recommended because it collects dust and creates static. Potential sources of EMI (electromagnetic interference) should also be investigated before delivery. Dirt, static, and EMI can negatively impact Ultrasound system reliability.

To avoid delays during setup, the individual or team who will perform the setup should be notified at the earliest possible date (preferably prior to setup), of the existence of any of the following variances:

- Use of any non-listed product(s).
- Use of any customer provided product(s).
- Placement of an approved product further from the system than the interface kit allows.

The prepared site must be clean prior to delivery of the system. Carpeting is not recommended because it collects dust and creates static. Potential sources of EMI should also be investigated before delivery. Dirt, static, and EMI can negatively impact system reliability.

2-3-2 Required Facility Needs

The following are mandatory site requirements. Additional (optional) recommendations, as well as a recommended ultrasound room layout, are provided in section *2-3-4 - Networking Pre-Installation Requirements* (see below).

- A dedicated "hospital-grade" single branch power outlet of adequate amperage (see Table 2-3 on page 2-3.) that meets all local and national codes and is located less than 2.5 m (8.2 ft) from the unit's proposed location. Refer to the *Electrical Requirements* section on page 2-3.
- A door opening of at least 0.54 m (1.77 ft) in width.
- Power outlets for test equipment within 1 m (3.3 ft) of the ultrasound unit.
- Material to safely clean probes (performed using a plastic container, never metal).
- In the case of a network option:
  - An active network outlet in the vicinity of the ultrasound unit.
  - A network cable of appropriate length (regular Pin-to-Pin network cable).
  - An IT administrator who will assist in configuring the unit to work with your local network. A fixed IP address may be required when using DICOM. Refer to the form provided in Figure 2-3 on page 2-13 for network details that are required.

NOTE: All relevant preliminary network outlets installations at the prepared site must be performed by authorized contractors. The purchaser of GE equipment must utilize only qualified personnel to perform servicing of the equipment.

2-3-2-1 Suggested Minimal Floor Plan

NOTE: GE requires a dedicated power and ground for the proper operation of its Ultrasound equipment. This dedicated power shall originate at the last distribution panel before the Ultrasound system.

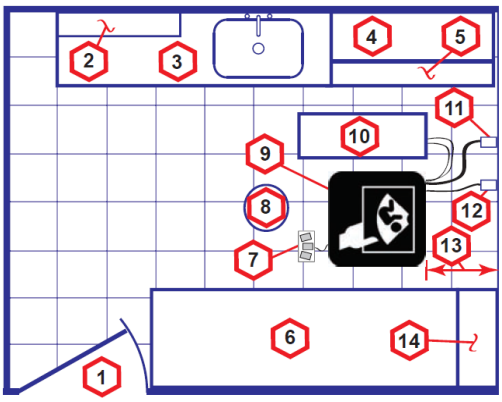
The Ultrasound system will function on voltages from 100-240 Volts and 50 or 60 Hz. However, if using 220 volt power in North America, then a center tapped power source is required.

Sites with a mains power system with defined Neutral and Live:

The dedicated line shall consist of one phase, a neutral (not shared with any other circuit), and a full size ground wire from the distribution panel to the Ultrasound outlet.

Sites with a mains power system without a defined Neutral:

The dedicated line shall consist of one phase (two lines), not shared with any other circuit, and a full size ground wire from the distribution panel to the Ultrasound outlet.

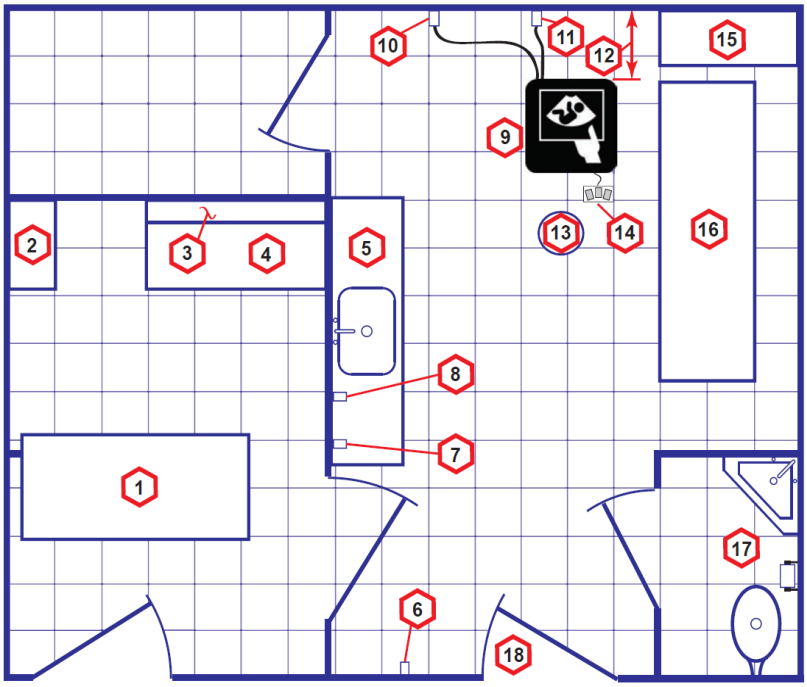


Scale:
Each square equals one square foot (app. 31 x 31 cm)

1.	Door – at least 762 mm (30 inches)	**8.**	Stool
2.	Film Viewer	**9.**	Ultrasound system
3.	Counter Top, Sink with hot and cold water and Supplies Storage	**10.**	External Peripherals
4.	Linen Supply	**11.**	Dedicated Power Outlet - Circuit Breaker protected and easily accessible
5.	Probes/Supplies	**12.**	Network Interface
6.	Examination Table – 1930 x 610 mm (76 x 24 inches)	**13.**	457 mm (18 inches) distance of Ultrasound system from wall or objects
7.	Footswitch	**14.**	GE Cabinet for Software and Manuals

Figure 2-1 Minimal floor plan, 2.5 m x 3 m (8 by 10 foot)

2-3-2-2 Recommended Floor Plan



Scale:
Each square equals one square foot (app. 31 x 31 cm)

1.	Secretaries or Doctors Desk	**10.**	Dedicated Power Outlet - Circuit Breaker protected and easily accessible
2.	File Cabinet	**11.**	Network Interface
3.	Film Viewer	**12.**	457 mm (18 inches) distance of Ultrasound system from wall or objects
4.	Counter Top	**13.**	Stool
5.	Counter Top and Sink with hot and cold water	**14.**	Footswitch
6.	Overhead Lights Dimmer - Dual Level Lighting (bright and dim)	**15.**	Storage for Linens and Equipment
7.	Emergency Oxygen	**16.**	Examination Table – 1930 x 610 mm (76 x 24 inches)
8.	Suction Line	**17.**	Lavatory and Dressing Room
9.	Ultrasound system	**18.**	Door – at least 762 mm (30 inches)

Figure 2-2 Recommended floor plan, 4.27 x 5.18 m (14 x 17 foot)

2-3-2-3 Desirable features

- Door is at least 92 cm (3 ft.) wide
- Circuit breaker for dedicated power outlet is easily accessible
- Sink with hot and cold water
- Receptacle for bio–hazardous waste, like used probe sheaths
- Emergency oxygen supply
- Storage for linens and equipment
- Nearby waiting room, lavatory, and dressing room
- Dual level lighting (bright and dim)
- Lockable cabinet ordered by GE for its software and proprietary manuals

2-3-3 Networking Pre-Installation Requirements

2-3-3-1 Stand-alone Unit (without Network Connection)

None.

2-3-3-2 Unit Connected to Hospital's Network

Supported networks:

- Wireless LAN (Wi-Fi)
- 10/100/1000 Mbps Ethernet

2-3-3-3 Purpose of the DICOM Network Function

DICOM services provide the operator with clinically useful features for moving images and patient information over a hospital network. Examples of DICOM services include the transfer of images to DICOM servers for storage and to workstations for viewing images. As an added benefit, transferring images in this manner enables viewing to be done on reviewing station, while scanning continues.

2-3-3-4 DICOM Option Pre-Installation Requirements

To configure the Venue Go™ ultrasound unit to work with other network connections, the network administrator must provide the required information, which should include the following:

- **Details**: DICOM network details for the Venue Go™ unit, including the host name, local port, IP address, AE title and network subnet mask.
- **Routing Information**: IP addresses for the default gateway and other routers in use at the site.
- **DICOM Application Information**: Details of the DICOM devices in use at the site, including the DICOM host name, AE title and IP addresses.

Section 2-4
Connectivity Installation Worksheet

Site System Information

Site:

Dept:

Floor:

Room:

Comments:

Venue Go™ SN:

Type:

REV:

CONTACT INFORMATION

Name	Title	Phone	E-Mail Address

TCP/IP Settings

Scanner IP Settings

Name - AE Title:

IP Address:

Subnet Mask:

Default Gateway:

Services (Destination Devices)

	Device Type	Manufacturer	Name	IP Address	Port	AE Title
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						

Figure 2-3 Connectivity Installation Worksheet

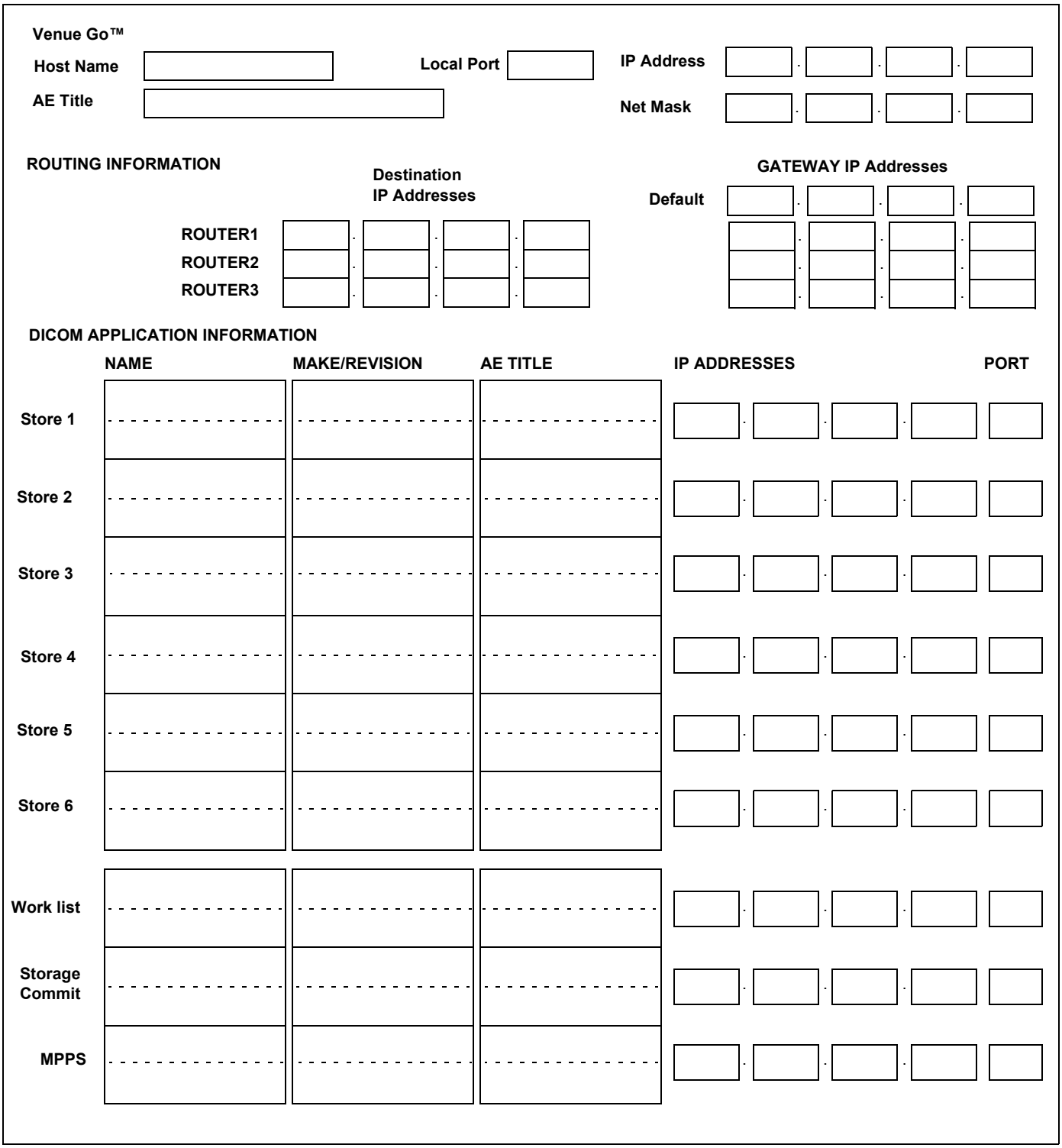


Figure 2-4 Worksheet for DICOM Network Information

Table 2-6 Venue Go™ Pre-Setup Check List

Action	Yes	No
Schedule at least 2 hours for setup of the system.		
Notify setup team of the existence of any variances from the basic setup.		
Make sure system and probes have been subject to acclimation period.		
Environmental cooling is sufficient.		
Lighting is adjustable to adapt to varying operational conditions of the scanner.		
Electrical facilities meet system requirements.		
EMI precautions have been taken and all possible sources of interference have been removed.		
Mandatory site requirements have been met.		
If a network is used, IP address has been set for the system and a dedicated network outlet is available.		

This page was intentionally left blank.

Chapter 3
System Setup

Section 3-1
Overview

3-1-1 Purpose of Chapter 3

This chapter provides instructions for setting up the Venue Go™ ultrasound unit. Before beginning the setup process, an appropriate site must be prepared, as described in *Chapter 2 - Site Preparations*. Once the site has been prepared, setup can proceed as described in this chapter.

Included in this chapter are guidelines for transporting the unit to a new site, as well as procedures that describe how to receive and unpack the equipment, and (if necessary) how to file a damage or loss claim. Instructions for checking and testing the unit, probes, and external peripherals for electrical safety are also provided.

NOTE: A Venue Go™ is ready for use only if the tests and checks described in Chapter 3 -System Setup (this chapter) and Chapter 4 -General Procedures and Functional Checks of this Service Manual meet the expected results.

Section 3-2
Setup Reminders

3-2-1 Average Setup Time

The Venue Go™ setup and functional checkout will take approximately one hour; Venue Go™ consoles with optional equipment may take slightly longer.

Once the site has been prepared, the average installation time required is shown in Table 3-9 below.

Table 3-8 Average Setup Time

Description	Average Setup Time	Comments
Unpacking the scanner	15 minutes	
Setting up the scanner	30 minutes	Time may vary, according to the required configuration
DICOM Option (connectivity)	30 minutes	Time may vary, according to the required configuration
Setting up InSite	30 minutes	

3-2-2 Setup Warnings

1.) The Venue Go™ ultrasound scanner weighs approximately 6 Kgs (13.22 lbs), without add-ons/ peripherals. System cart weighs approximately 27 kg (59.5 lbs).
Two people are always required to unpack the system cart.

2.) There are no operator-serviceable components. To prevent shock, do not remove any covers or panels. If problems or malfunctions occur, unplug the power cord. Only qualified service personnel should carry out servicing and troubleshooting.

NOTE: For information on shipping carton labels, refer to Figure 3-3 on page 3-5 and Figure 3-4 on page 3-6.

3-2-2-1 System Acclimation Time

Following transport, the Venue Go™ system may be very cold, or hot. Allow time for the system to acclimate before being switched ON. Acclimation requires 1 hour for each 2.5°C increment, when the temperature of the system is below 10°C or above 40°C.

CAUTION Turning the system ON after arrival at the site - without allowing time for acclimation - may cause system damage!

[6]
Table 3-9 Venue Go™ System Acclimation Time

°C	-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	35	40	45	50	55	60
°F	-40	-31	-22	-13	-4	5	14	23	32	41	50	95	104	113	122	131	140
Hrs	20	18	16	14	12	10	8		4	2	0	0	0	2	4	6	8

3-2-3 Safety Reminders

DANGER **WHEN USING ANY TEST INSTRUMENT THAT IS CAPABLE OF OPENING THE AC GROUND LINE (I.E., METER'S GROUND SWITCH IS OPEN), DO NOT TOUCH THE UNIT!**

WARNING ***TWO PEOPLE ARE REQUIRED TO UNPACK THE SYSTEM CART AS IT IS HEAVY. TWO PEOPLE ARE ALWAYS REQUIRED WHENEVER A PART WEIGHING 16KG (35 LB.) OR MORE MUST BE LIFTED.***

CAUTION **IF THE UNIT IS VERY COLD OR HOT, DO NOT TURN ON POWER TO THE UNIT UNTIL IT HAS HAD SUFFICIENT TIME TO ACCLIMATE TO ITS OPERATING ENVIRONMENT.**

CAUTION **TO PREVENT ELECTRICAL SHOCK, CONNECT THE UNIT TO A PROPERLY GROUNDED POWER OUTLET.**

DO NOT USE A THREE-PRONG TO TWO-PRONG ADAPTER, AS THIS DEFEATS SAFETY GROUNDING.

CAUTION **DO NOT WEAR THE ESD WRIST STRAP WHEN YOU WORK ON LIVE CIRCUITS WHERE MORE THAN 30 V PEAK IS PRESENT.**

CAUTION **DO NOT OPERATE THE UNIT UNLESS ALL BOARD COVERS AND FRAME PANELS ARE SECURELY IN PLACE, TO ENSURE OPTIMAL SYSTEM PERFORMANCE AND COOLING. (WHEN COVERS ARE REMOVED, EMI MAY BE PRESENT).**

WARNING

ACOUSTIC OUTPUT HAZARD
ALTHOUGH THE ULTRASOUND ENERGY TRANSMITTED FROM THE Venue Go™ PORTABLE ULTRASOUND SCANNER IS WITHIN AIUM/NEMA STANDARDS AND FDA LIMITATIONS, AVOID UNNECESSARY EXPOSURE. ULTRASOUND ENERGY CAN PRODUCE HEAT AND MECHANICAL DAMAGE.

NOTE: The Venue Go™ User Manual should be fully read and understood before operating the unit. Keep the manual near the unit for reference.

Section 3-3
Receiving and Unpacking the Equipment

3-3-1 Warnings for Receiving and Unpacking the Equipment

CAUTION **Two people are needed to unpack the Venue Go cart because of its weight.**

Two people are required whenever a part weighing 16 KG (35 LBS) or more must be lifted

CAUTION **Remember to use relevant personal protecting equipment (PPE) during packing and unpacking. Check with your local EHS representative.**

3-3-2 Overview

CAUTION **Please read this section fully before unpacking the Venue Go™ ultrasound unit.**

The Venue Go™ ultrasound unit, together with the peripherals, cables, and accessories, are shipped from the factory in a single shipping cardboard box.

Figure 3-1 Venue Go™ Package

Table 3-10 Venue Go™ System Shipping Carton - Dimensions and Weights

Description	Height	Width	Depth	Weight[a]
Venue Go™ scanner with peripherals and accessories	44 cm 17.3 ins	56 cm 22 ins	26 cm 10.2 ins	10.5 Kg 23.149 lbs

a.

Table 3-11 Venue Go™ Box Contents

#	Description
1	Venue Go™ system
2	AC-DC Adapter 24V
3	Multipurpose cup gel bottle insert
4	Small probe insert
5	Power cord
6	Venue Go™ SW media

3-3-3 Unpacking Venue Go™ System

1.) Open the system package and remove the top foam.

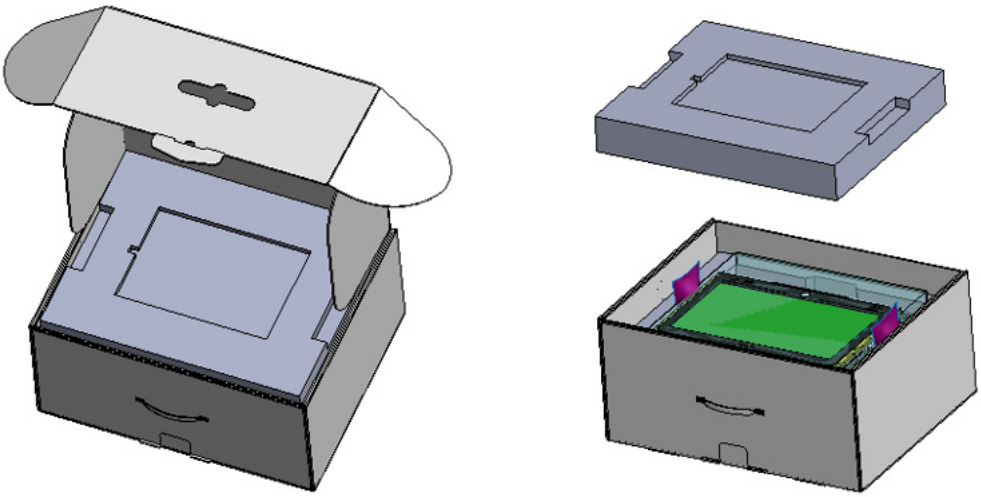


Figure 3-2 Open the system Box

2.) Take out the system from the zipper bag and remove the upper cover foam.

3.) Remove the back system foam.

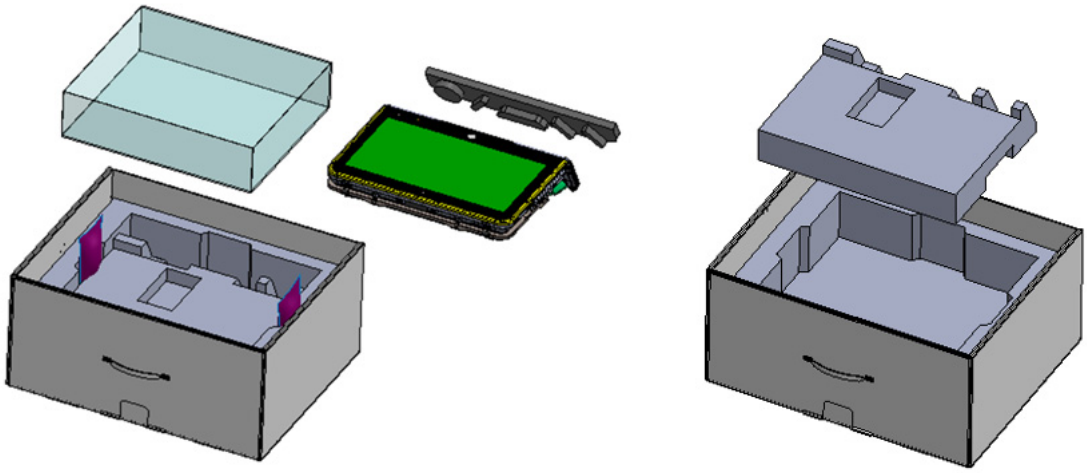


Figure 3-3 Remove system from zipper bag

4.) Remove the middle foam.

5.) Take out all accessories.

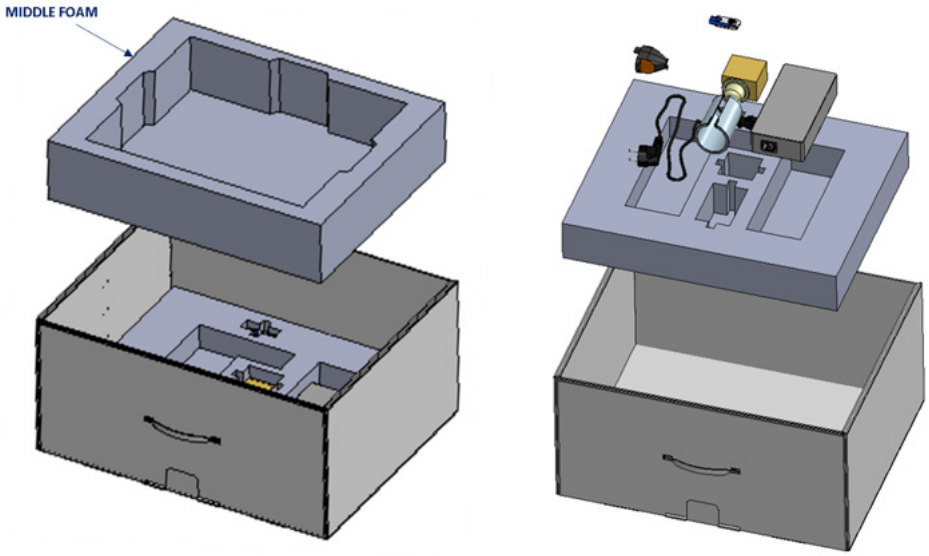


Figure 3-4 Remove accessories

3-3-4 Unpacking Venue Go™ Cart

CAUTION Two people are needed to unpack the Venue Go cart because of its weight.

Two people are required whenever a part weighing 16 KG (35 LBS) or more must be lifted

1.) Open the box and identify the base protective foam.

Figure 3-5 Open the Cart Box

2.) Remove the base protective foams, and expose the wheels.

Figure 3-6 Remove Base Protective Foam

3.) Position the cart on its wheels.

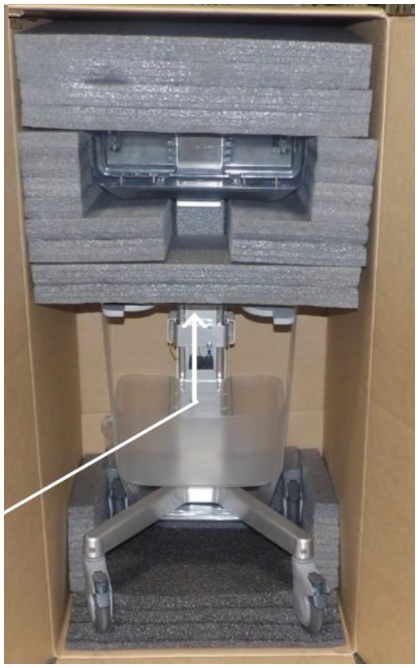


Figure 3-7 Position the Cart on its Wheels

4.) Unlock the cart wheels.

5.) Use the tray handle to roll out the cart from the box.

Figure 3-8 Roll out the Cart using the Tray Handle

6.) Remove the rest of the foam covers. .

Figure 3-9 Remove the rest of the foam covers

7.) Take the rest of the parts out of the box, remove the protective foam covers.

3-3-5 Physical Inspection

3-3-5-1 System Voltage Settings

WARNING ***CONNECTING A VENUE GO™ SCANNER TO INCORRECT VOLTAGE LEVEL WILL MOST LIKELY DESTROY IT.***
CONNECT THE SYSTEM ONLY IN ACCORDANCE WITH THE VOLTAGE INDICATED ON THE PRODUCT LABEL.

3-3-6 EMI Protection

The Venue Go™ Ultrasound Unit has been designed to minimize the effects of Electro Magnetic Interference (EMI). Many of the covers, shields, and screws are provided primarily to protect the system from image artifacts caused by this interference. For this reason, it is imperative that all covers and hardware are installed and secured before the unit is put into operation.

Section 3-4
Preparing for Setup

3-4-1 Verifying Customer Order

Compare items received by the customer to that which is listed on the delivery order. Report any items that are missing, back ordered, or damaged.

3-4-2 Physical Inspection

Verify that the Venue Go™ arrived intact (visual inspection).

If the Venue Go™ has been damaged, please refer to DAMAGE IN TRANSPORTATION on page x in the beginning of this manual.

3-4-3 Component Inspection

After verifying that all the required parts are included in the shipping crate, inspect the system components using the checklist supplied below. In addition, ensure that all the labels described in *Chapter 1 - Introduction* are present, accurate and in good condition, and enter the serial number printed on the main label into the system installation details card, as described in *Paperwork After Setup* on page 3-64.

3-4-3-1 Damage Inspection Checklist

Visually inspect the contents of the shipping carton for damage. If any parts are damaged or missing, contact an authorized GE Service Representative.

A *Damage Inspection Checklist* for the Venue Go™ portable ultrasound scanner is provided in Table 3-13 below.

Table 3-12 Damage Inspection Checklist - Venue Go™ Systems

✔	Step	Item	Recommended Procedure
	1	Venue Go™ System	Verify that the system is switched OFF and unplugged. Clean the system. Check that there are no dents or scratches and that no internal parts are exposed.
	2	Probes	Check all probes for wear and tear on the lens, cable, and connector. Look for bent or damaged pins on the connector and in the connector socket on the unit. Verify that the EMI fingers around the probe connector socket housing are intact. Check the probe locking mechanism and probe switch.
	3	Rear Panel	Check the rear panel connectors for bent pins, loose connections and loose or missing hardware. Screw all the cable connectors tightly to the connector sockets on the panel. Verify that the labeling is in good condition.
	4	Power Cord/s	Check the power cord for cuts, loose hardware, tire marks, exposed insulation, or any deterioration. Verify continuity.
	5	Venue Go™ Cart	Check that there are no dents or scratches and that no internal parts are exposed.
	6	Peripherals	Check and clean the peripherals in accordance with the manufacturer's directions. To prevent EMI or system overheating.

3-4-3-2 General View of the Venue Go™ Ultrasound Unit

.

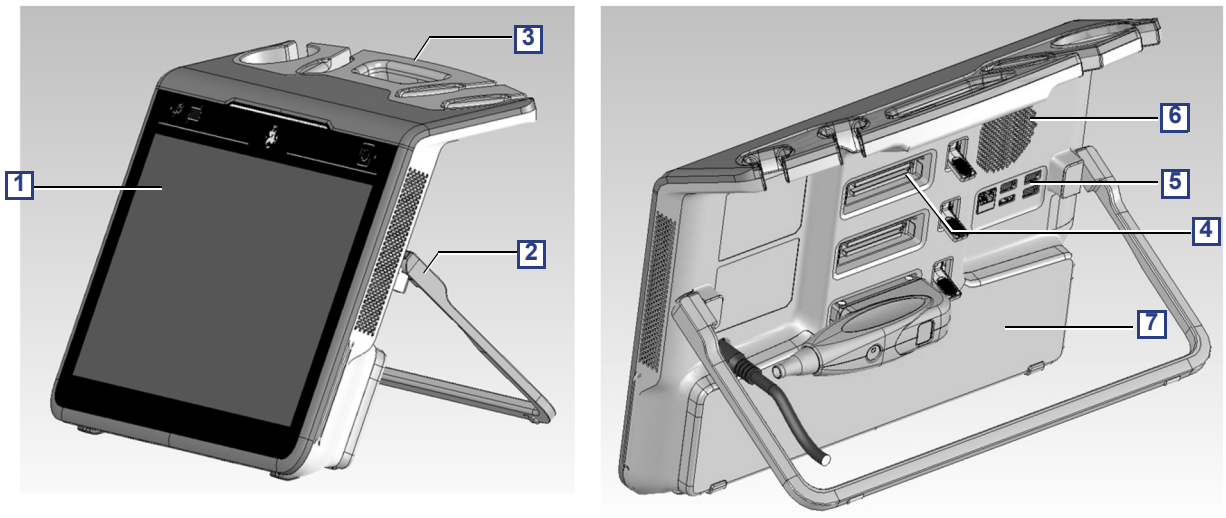
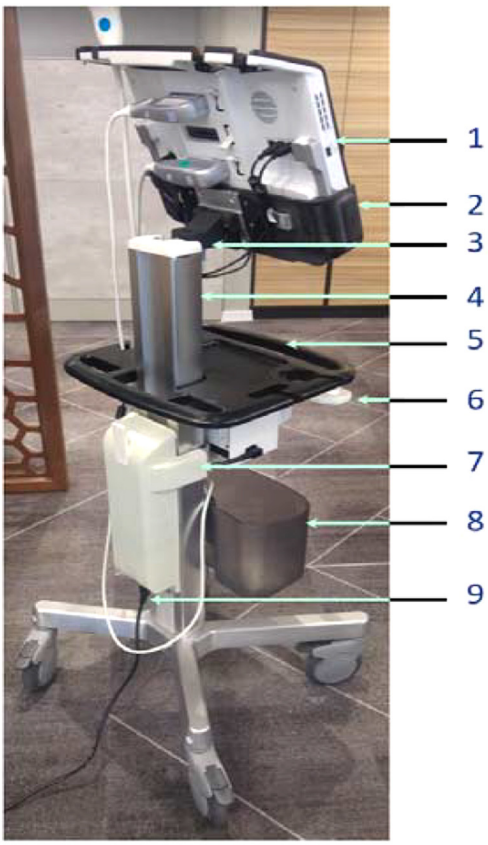


Figure 3-1 General View of the Venue Go™ Ultrasound Scanner

#	Item
1	Front Panel Display:
2	Kick stand
3	Probe holder
4	Probe connectors
5	I/O panel
6	Fan outlet
7	Battery cover

3-4-3-3 Venue Go™ Cart Overview



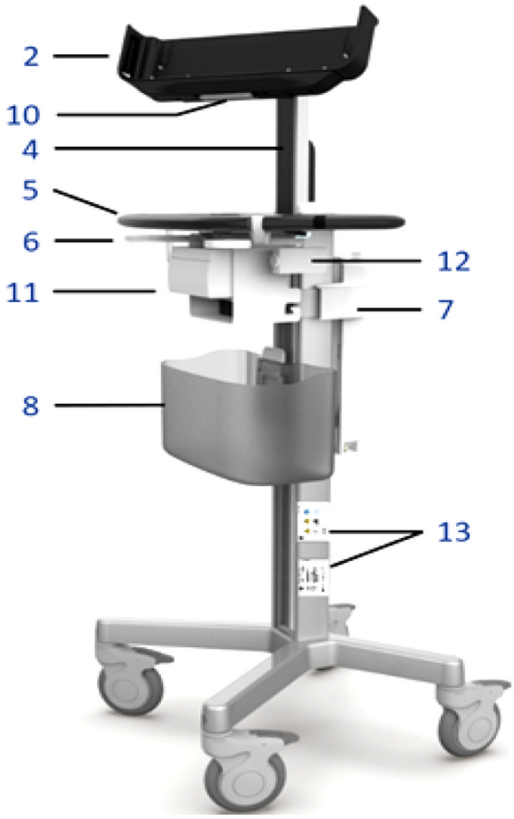


Figure 3-2 Venue Go™ Rear View

#	Item	#	Item
1	Venue Go™ System	8	Accessories basket
2	Cart Cradle	9	AC cable connector to cart
3	Vertical/horizontal tilt adjustment	10	Cradle system latch
4	Up/down adjustment column.	11	Printer bay with mounted printer
5	Multipurpose front and rear handles	12	ECG module
6	Height adjustment handle	13	Cart Labels
7	AC adapter box cover		

3-4-3-4 Peripheral/Accessory Interface Panel

Figure 3-18 shows a view of the Venue Go™ ultrasound unit rear panel showing external peripheral/accessory connectors.

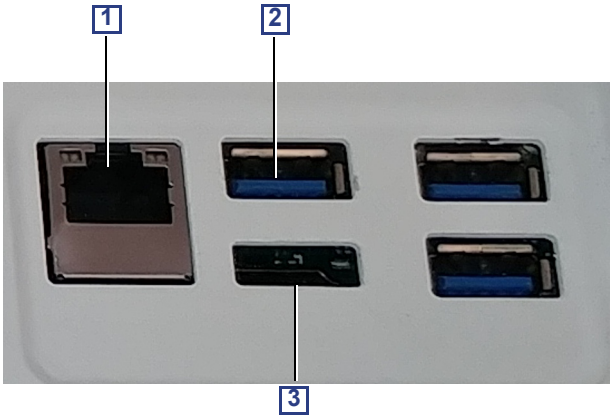


Figure 3-3 View of the Venue™ Peripheral/Accessory Interface Panel

1 Ethernet LAN connector — 1000 Base-TX Ethernet IEEE 802.3 (3kV insulation)

2 USB 3.0 connector x3 (not insulated)

3 HDMI connector (not insulated)

3-4-3-5 EMI Protection

The Venue Go™ has been designed to minimize the effects of Electro-Magnetic Interference (EMI). Many of the covers, shields, and screws are provided primarily to protect the Venue Go™ from image artifacts caused by this interference. For this reason, it is imperative that all covers and hardware are installed and secured before the Venue Go™ is put into operation.

See EMI Limitations on page 2 - 4 for more information about EMI protection.

Section 3-5
Completing the Setup

3-5-1 Purpose of this Section

This section describes how to complete the setup of the Venue™.

3-5-2 System Specifications

3-5-2-1 System Requirements Verification

- Verify that the site meets the requirements listed in Chapter 2.
  (See: Facility Needs on page 2 - 7.)
- Verify that the specifications below do not conflict with any on-site conditions.

3-5-2-2 Physical Dimensions

Table 3-13 Physical Dimensions of Venue Go™ System Only

Height	Width	Depth	Unit
33	41	12	cm
13	16.14	4.72	Inches

Table 3-14 Physical Dimensions of Venue Go™ Mounted on Cart

Max. Height	Max. Width	Max. Depth	Unit
125.5	51.5	49	cm
49.4	20.27	19.29	Inches

3-5-2-3 Mass with Monitor and Peripherals

Table 3-15 Mass of Venue Go™ without Cart and Peripherals

Model	Mass [KG]	Mass [LBS]
Venue Go™	6	13.22

3-5-2-4 Acoustic Noise Level

Less than 55 dB(A) at 20 degrees Celsius, measured in the operators head position, 20 cm in front of the keyboard's right corner, at 1.30 m above the floor, and in a distance of 1 meter at all four sides, 1 meter above the floor.

3-5-3 Electrical Specifications

WARNING Connecting a Venue Go™ to the wrong voltage level will most likely destroy it.

3-5-3-1 Verification of the Venue Go™ Voltage Setting

Verify that the mains voltage specified for the Venue Go™ is available on-site.

The voltage setting for the Venue Go™ is found on a label near the Mains Power Circuit Breaker on the rear of the Venue Go™ .

3-5-3-2 Electrical Specifications for the Venue Go™

In the table below, the electrical specifications for Venue Go™ includes monitor and on board peripherals.

Table 3-16 Electrical Specifications for all Venue Go™ Models

Voltage	100-240 VAC	±10%
Power Consumption (system only)	250 Watt	
Power Consumption (with cart and peripherals)	350 Watt	
Frequency	50-60 Hz	

The system only current drain will vary depending on the mains voltage.

- At 240 VAC the current may be up to 1.04 A.
- At 100 VAC the current may be up to 2.5 A.

3-5-4 Connections on the I/O Rear Panel

NOTE: Accessory equipment connected to the analog and digital interfaces must be certified according to the respective IEC standards (e.g. IEC60950 for data processing equipment and IEC60601-1 for medical equipment). Furthermore, all complete configurations shall comply with the valid version of the system standard IEC60601-1-1. Everybody who connects additional equipment to the signal input part or signal output part of Venue Go™ , configures a medical system, and is therefore responsible that the Ultrasound system complies with the requirements of the valid version of IEC60601-1-1. If in doubt, consult the technical service department or your local representative for GE.

3-5-4-1 Network Connection

Connect the network cable to the Ethernet connector on the External I/O.

The connector is located on the rear side of Venue Go™ .

3-5-5 Connecting Probes

3-5-5-1 Introduction to Connecting Probes

Probes can be connected or changed any time, as described below, regardless of whether the system is powered ON or OFF.

The Venue Go™ has three RS connectors.

Figure 3-4 Probe Connectors on Venue Go™

CAUTION **HANDLE THE PROBE GENTLY WHILE CONNECTING AND DISCONNECTING.**
DO NOT TOUCH THE PATIENT AND ANY OF THE CONNECTORS ON THE ULTRASOUND UNIT SIMULTANEOUSLY, INCLUDING ULTRASOUND PROBE CONNECTORS.

3-5-5-2 Connect a Probe

NOTE: It is not necessary to turn OFF power to connect or disconnect a probe.

CAUTION Do not allow the probe head to hang freely. Excessive impact to the probe will result in irreparable damage.

CAUTION To prevent probe connector pins damage, or PCB board damage, do not use excessive force when connecting the probes.

CAUTION Keep the probe cables away from the wheels.

Do not bend the probe cables.

Do not cross cables between probes.

There are 3 probe connectors on the rear side of the system. Each connector is comprised of a probe-socket and a locking latch.

Figure 3-5 Venue Go™ Probe Connectors

1) Before connecting the probe:
   a.) Do a visual check of the probe pins and system sockets.
   b.) Remove any dust or foam rests from the probe pins.
   c.) Verify the probe and the probe cable for any visual damage.

To connect a probe to one of the sockets 1, 2, or 3:

1) Hold the probe connector vertically with the cable pointing upward.
2.) Prior to inserting the probe, ensure that the connector locking handle is positioned to the left.
3) Align the connector with the probe port and carefully push into place.
4) Push the connector locking handle to the right to secure the probe connector.
5) Carefully position the probe cord so it is free to move and is not resting on the floor.

3-5-5-3 Disconnect Probes

Follow these steps to disconnect the RS probes, as applicable:

1) Move the connector locking lever to the *left* to unlock the connector.
2) Carefully remove the connector from the port.
3) Ensure that the probe head is clean before placing the probe in its storage case.

For cleaning instructions, see the *User Manual*.

3-5-6 Power on/Boot up

For procedure, see: Power ON/Boot-up on page 4 - 3.

3-5-7 Power Shut Down

For procedure, see: Power Shutdown on page 4 - 5.

3-5-8 Complete Power Down

For procedure, see: Complete Power Down on page 3 - 19.

Section 3-6
Configuration

3-6-1 Purpose of this Section

This section describes how to configure the Venue Go™ .

3-6-2 Venue Go™ Configuration

3-6-2-1 EZ Configuration Wizard

The Venue Go™ Configuration Wizard enables the user to easily configure the system, after SW installation.

1.) After the system reboots, the Venue Go™ setup wizard welcome screen appears:

2.) Select the interface language and tap **OK** to proceed.

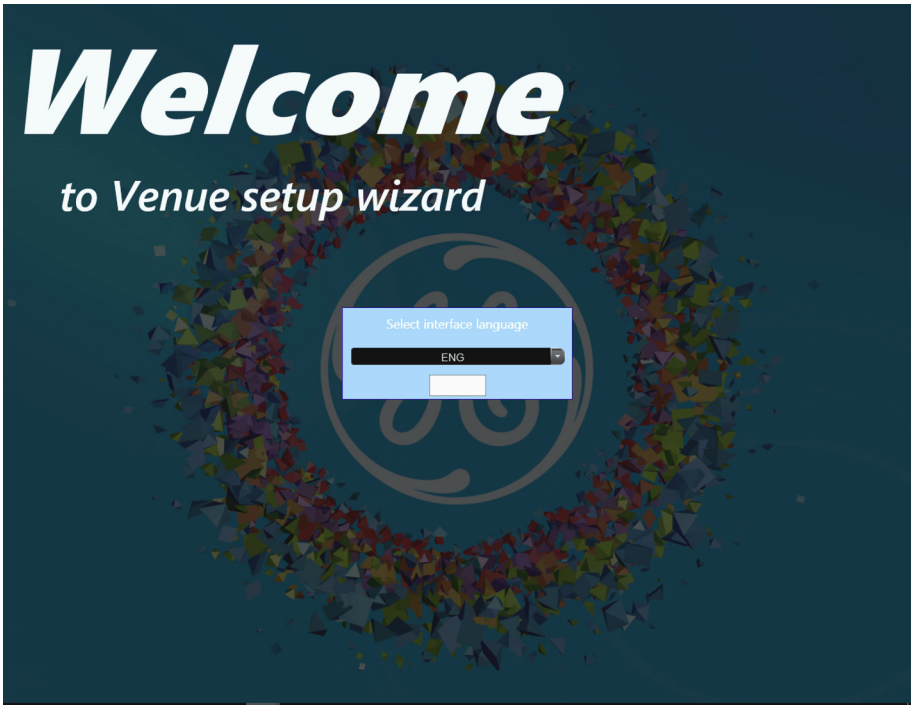


Figure 3-6 Venue Go™ Installation Wizard - Welcome Screen

3.) Tap **Run wizard** to continue the installation.

Figure 3-7 Venue Go™ Installation Wizard - Run Wizard

The settings screen appears. The **Local** tab opens by default.

4.) On the **Local** tab, enter the required details and tap **Save**. Then, proceed to the next tab.

Figure 3-8 Venue Go™ Installation Wizard - Local Tab

5.) On the **Network** tab, define the required settings and tap **Save**.Then, proceed to the next tab.

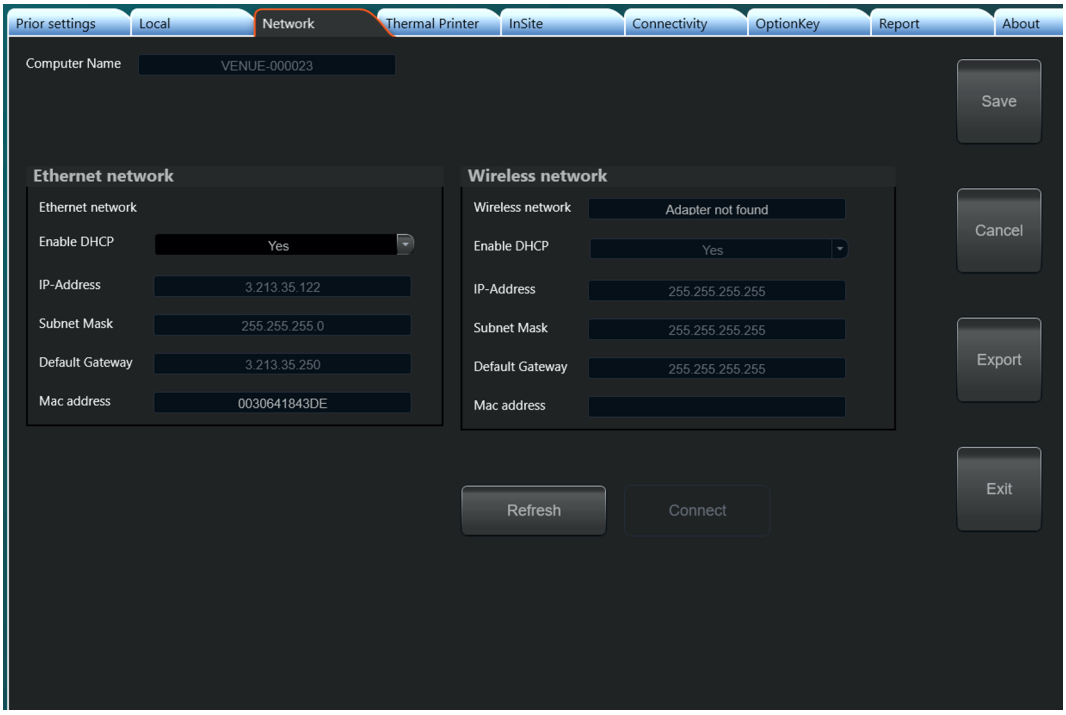


Figure 3-9 Venue Go™ Installation Wizard - Network Tab

6.) On the **Thermal Printer** tab, configure the printer and tap **Save**. Then, proceed to the next tab. If the printer is already configured, skip this step and proceed to the next one.

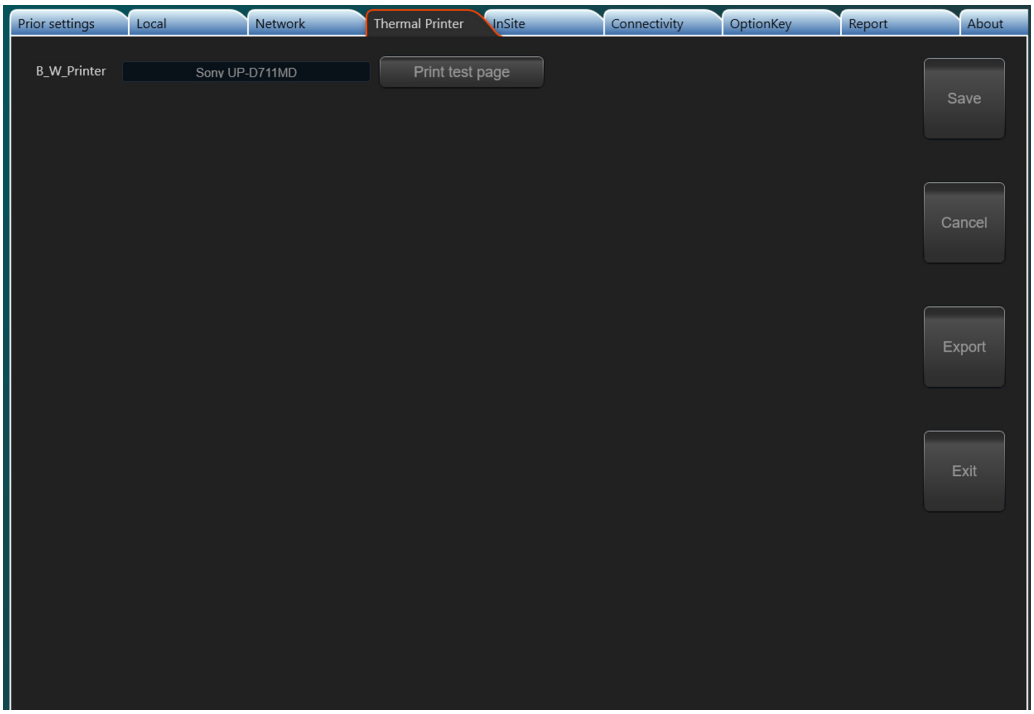


Figure 3-10 Venue Go™ Installation Wizard - Thermal Printer Tab

7.) On the **InSite** tab, define the required settings and tap Submit Changes. Make sure you fill all mandatory fields (highlighted in bold). Then, proceed to the next tab.

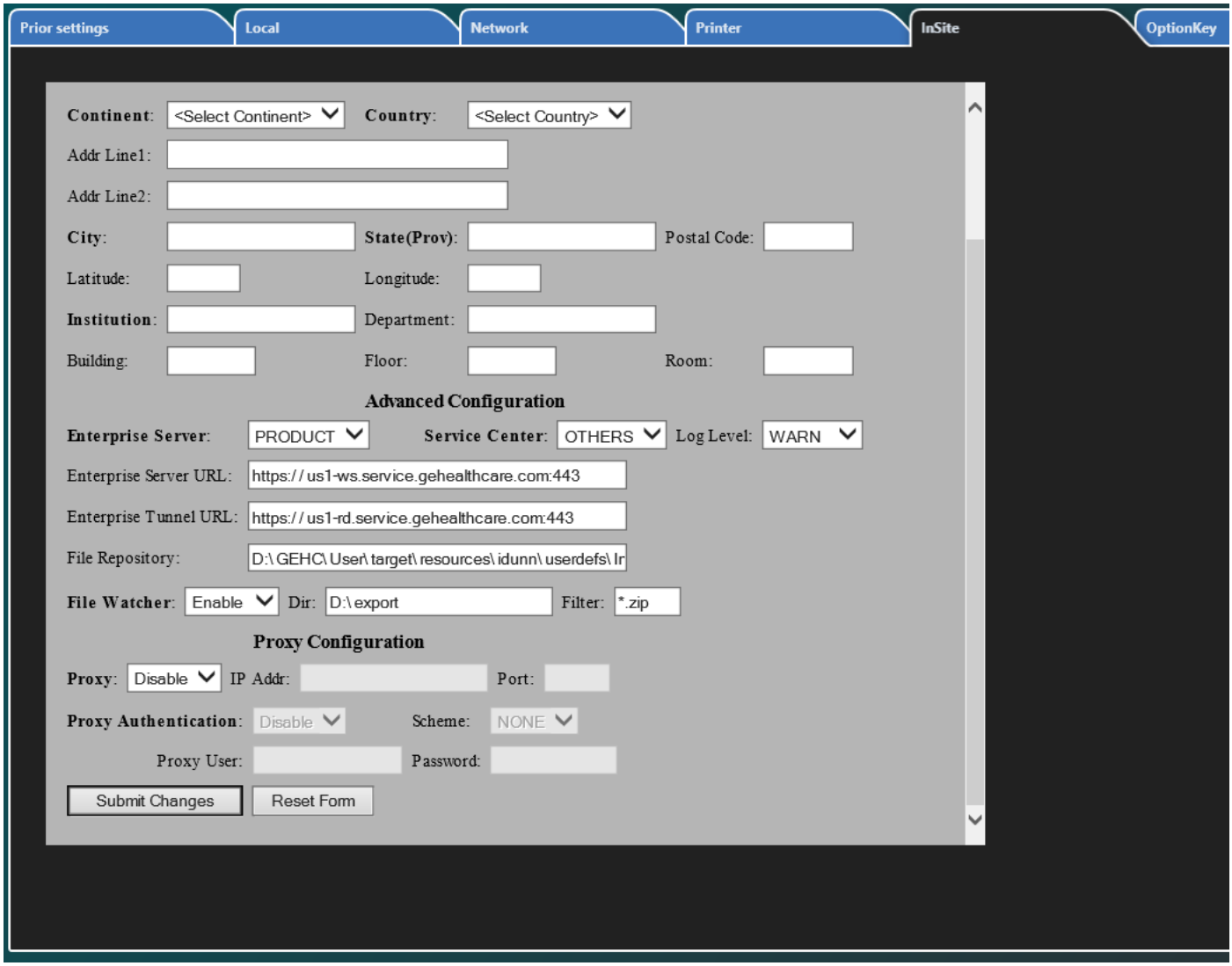


Figure 3-11 Venue Go™ Installation Wizard - InSite Tab

8.) On the **Connectivity** tab, enable the required settings in the Connectivity items list, by moving the **On/Off sliders** to On. Then, select each Connectivity item to define its properties. Tap **Apply** and then **Save**.Then, proceed to the next tab.

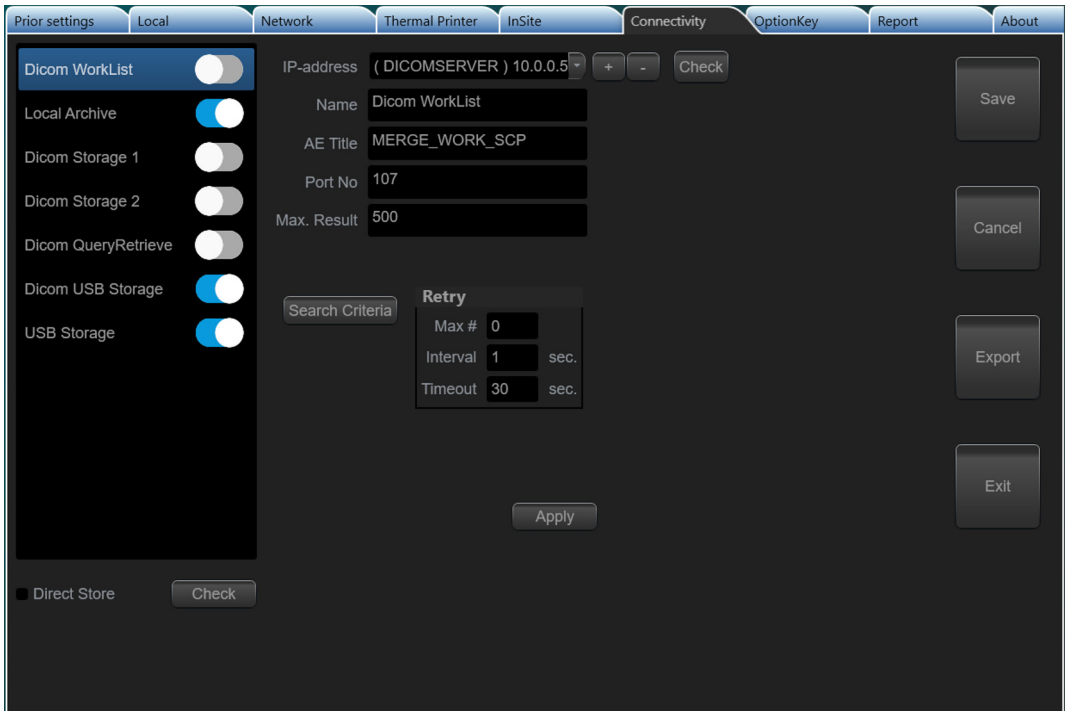


Figure 3-12 Venue Go™ Installation Wizard - Connectivity Tab

9.) On the **OptionKey** tab, enter the key string to enable the purchased options and tap **Save**. Then, proceed to the next tab.

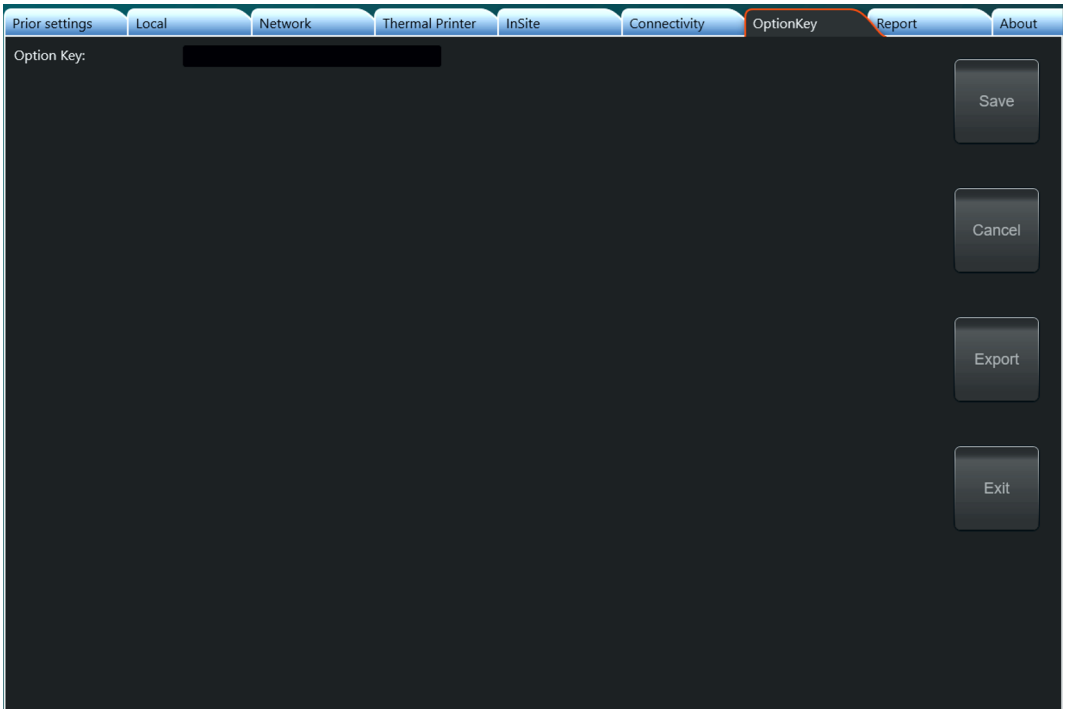


Figure 3-13 Venue Go™ Installation Wizard - OptionKey Tab

10.) On the **Reports tab**, view the defined settings and tap **Save As** to save the report. Save the report on USB flash memory.Then, proceed to the next tab.

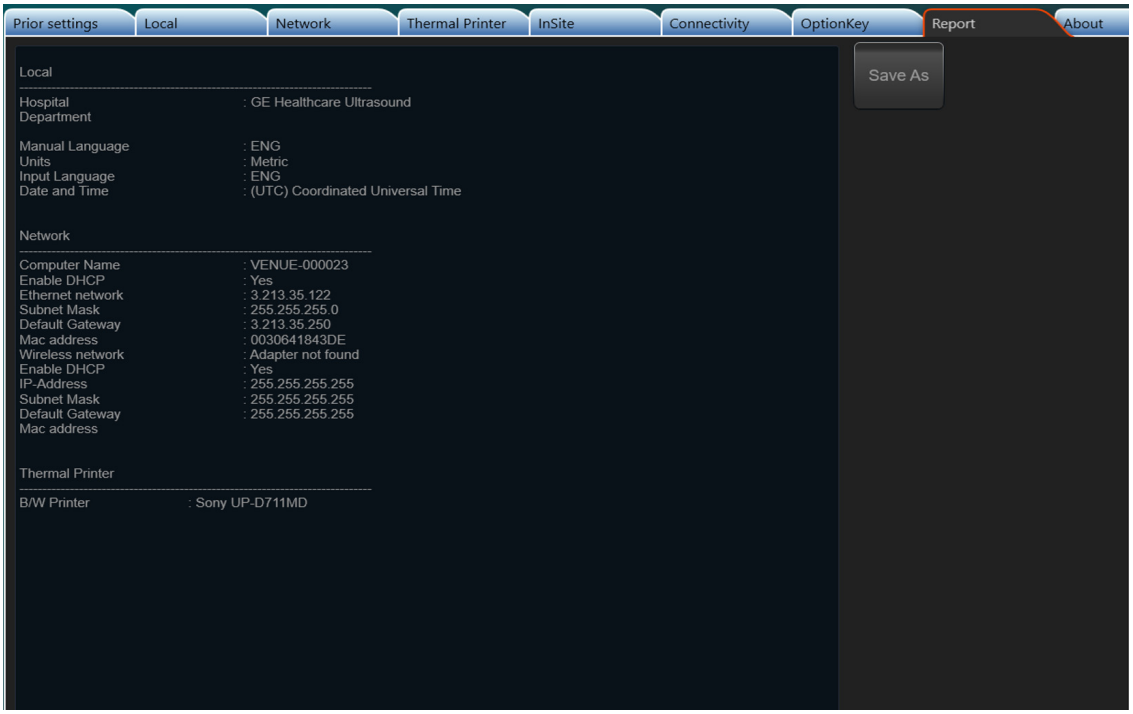


Figure 3-14 Venue Go™ Installation Wizard - Report Tab

11.) On the About tab, view all settings defined on each tab, and click Save to save the entire set of defined settings. Then click Exit, to exit the Setup Wizard.

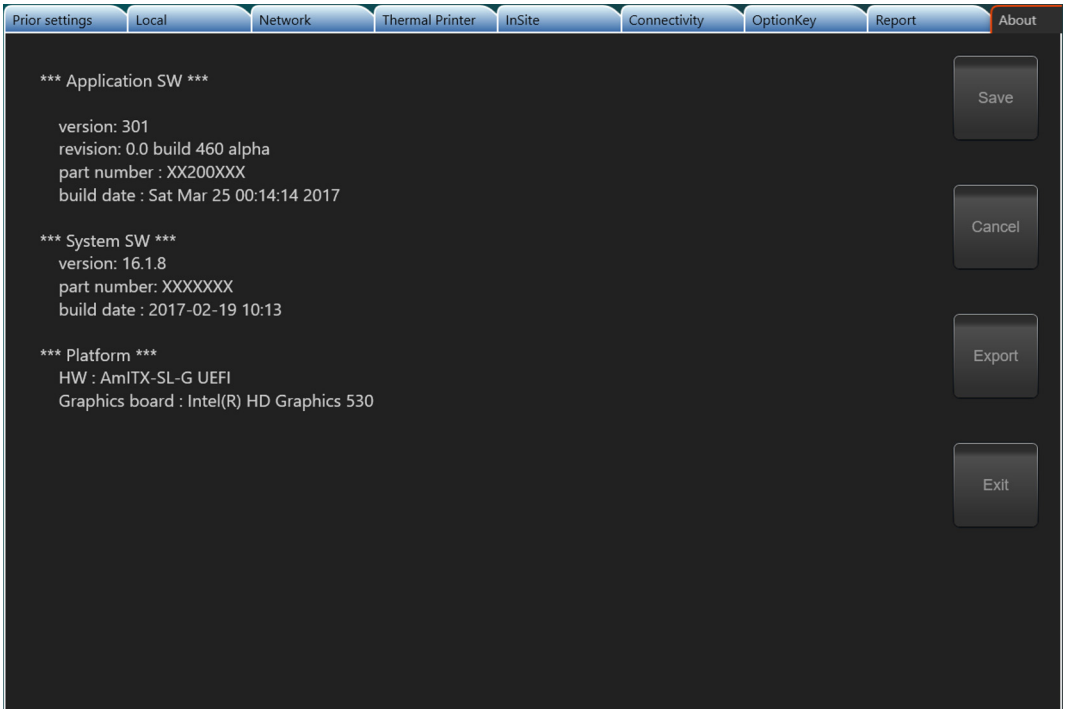


Figure 3-15 Venue Go™ Installation Wizard - About Tab

3-6-2-2 Select System Settings Screen

1) On the Home screen tap: **Settings >> Config.**

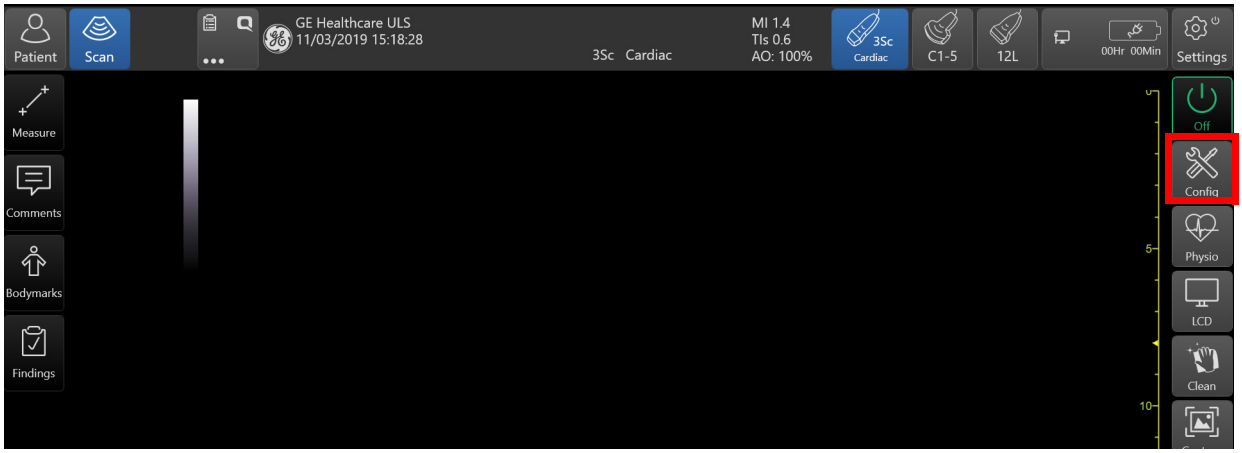


Figure 3-16 Home Screen - Settings Menu

2) Log on as **adm.**

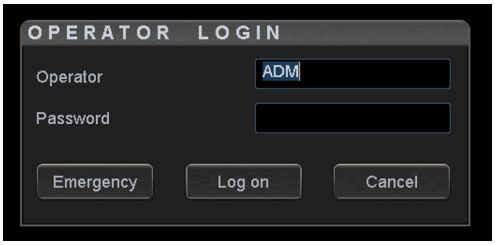


Figure 3-17 Operator Login

3) From the Config side menu, select **System >>Settings**

The **System Settings** screen is displayed.

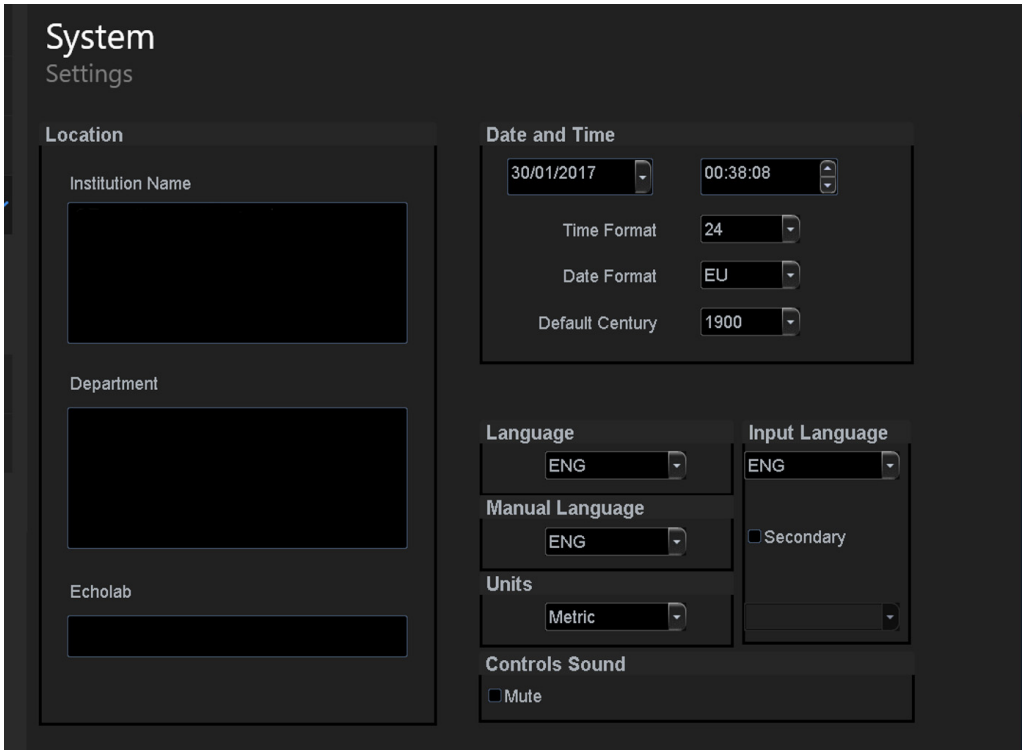


Figure 3-18 System Settings

3-6-2-3 Enter Location

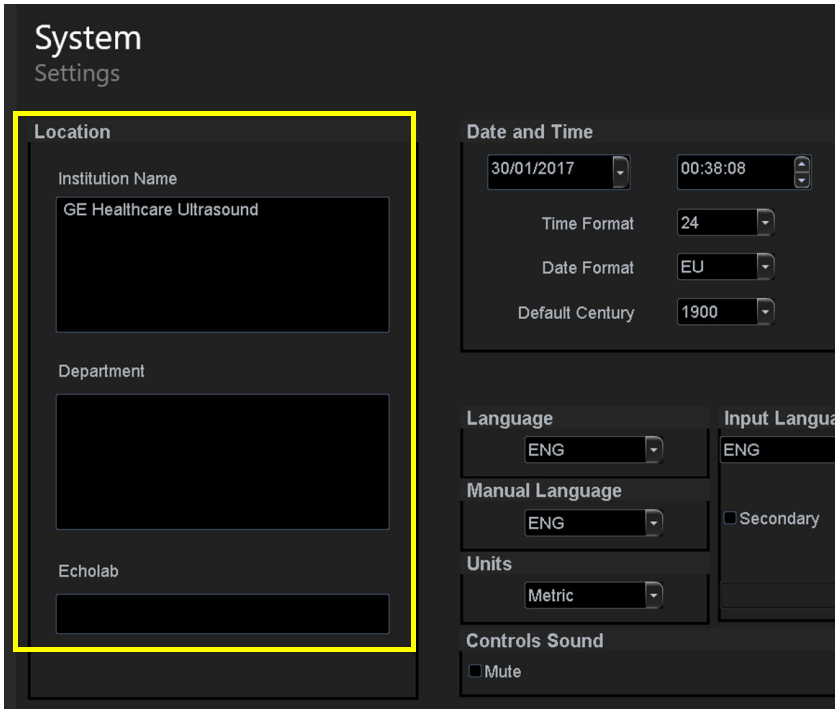
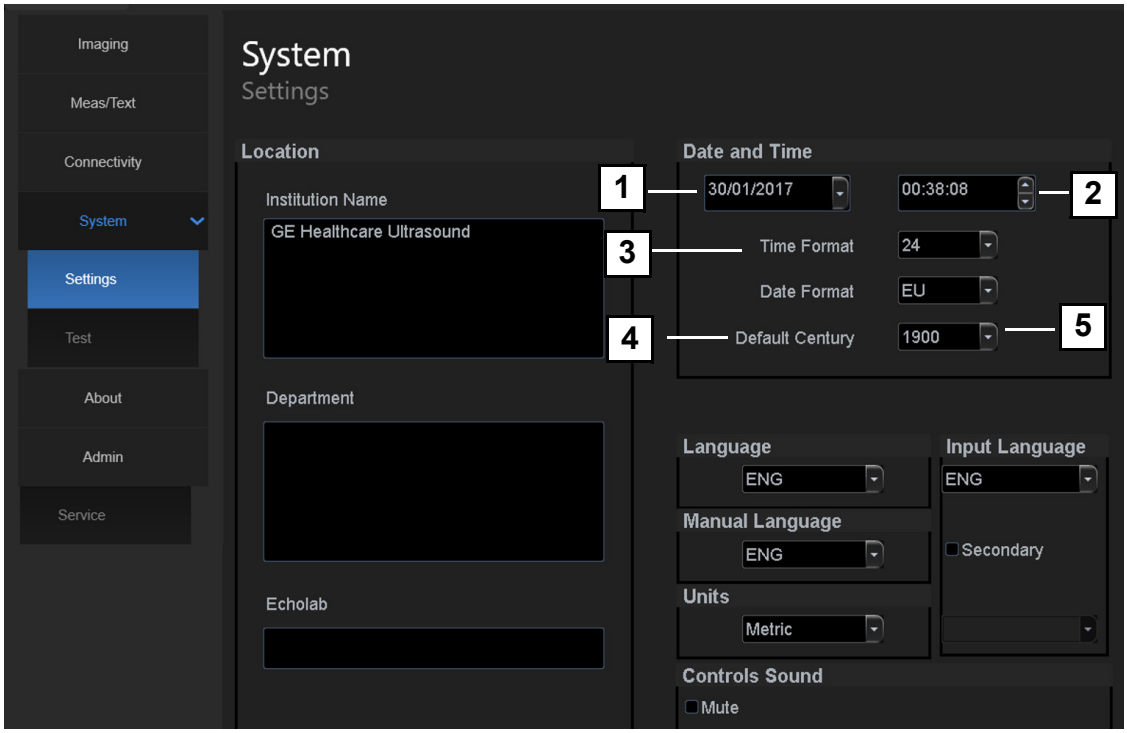


Figure 3-19 Enter Location

Table 3-17 Enter Location

STEP	TASK	EXPECTED RESULT(S)
1.	Select the **Hospital** field and type the name of the hospital (max 64 characters).	After restart: • The 24 first characters of this name are displayed on the scanning screen's title bar. • All 64 are displayed on the image properties on saved images.
2.	Select the **Department** field and type the name of the department (max 64 characters).	After restart: • This name will be displayed on the image properties on saved images
3.	Select the **Echolab** field and type the name.	After restart: • This name will be displayed on the image properties on saved images

3-6-2-4 Adjust Date and Time



1. Date
2. Time
3. Time Format
4. Date Format
5. Default Century

Figure 3-20 Date and Time Adjustments

Table 3-18 Date and Time Adjustments

STEP	TASK	EXPECTED RESULT(S)
1.	• Open the **System** (Configuration) Window, • Select **Settings**, if needed.	The **Settings** window is displayed.
2.	Select the preferred **Date Format**, see (d) in Figure 3-19. • DD = Date (two digits) • MM = Month (two digits) • YYYY = Year (four digits)	• **EU**: the European/International "DD.MM.YYYY" format is used • **US**: the American "MM.DD.YYYY" format is used
3.	Select the preferred **Time Format**, see (3) in the figure.	• **24**: the 24 hour format is used • **12**: the 12 AM/PM hour format is used
4.	Adjust the **date**, see (1) in the figure.	**New date** is displayed
5.	Adjust the **time**, see (2) in the figure.	**New time** is displayed
6.	Select **Default Century** (1900, 2000 or None), see (5) in the figure.	• **1900:** • the number 19 is automatically displayed when entering the year in the patient date of birth. • To edit century, press BACKSPACE twice. • **2000**: • the number 20 is automatically displayed when entering the year in the patient date of birth. • To edit century, press BACKSPACE twice. • **None**: • the four digits have to be typed when entering the year in the patient date of birth. • The selected setting will be used as soon as the unit has been restarted.

3-6-2-5 Select Language for User Interface and Online Manuals

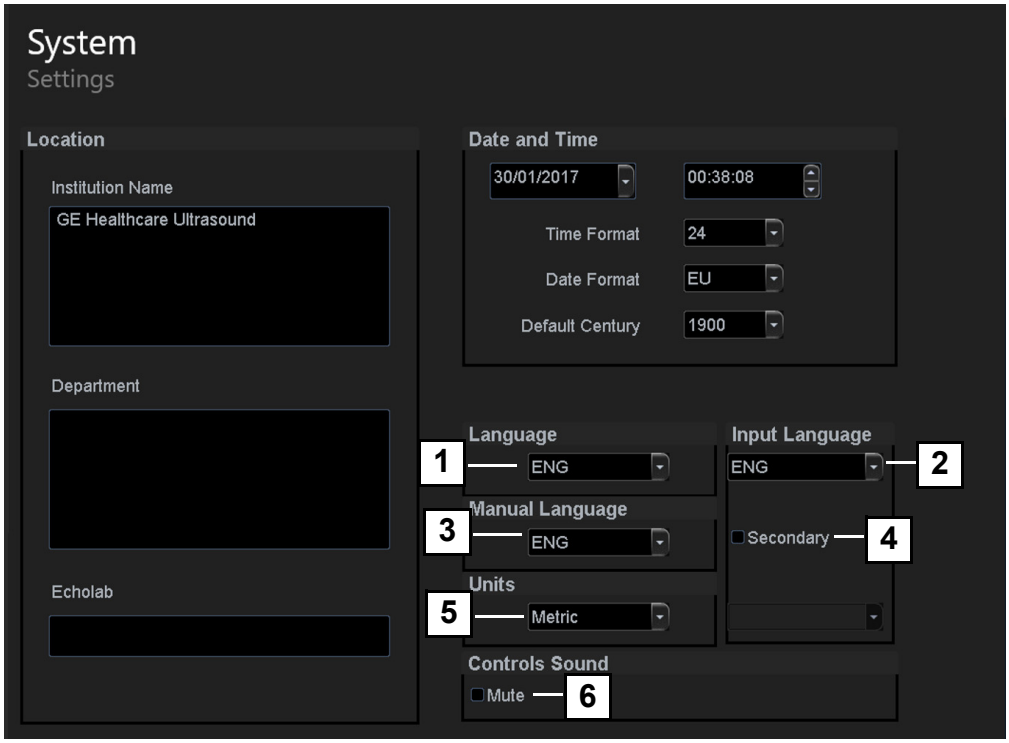
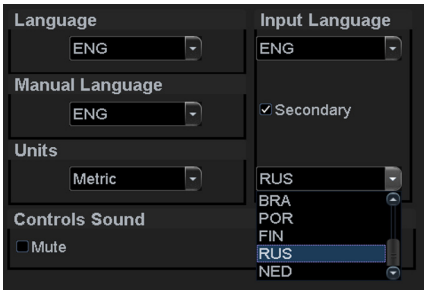


Figure 3-21 Select Language, Units and Controls Sound

Table 3-19 Select Language for User Interface and Online Manuals

STEP	TASK	EXPECTED RESULT(S)
1.	From the Settings screen, select the preferred User Interface language from the Language pulldown menu (1).	The selected language will be used as soon as the unit has been restarted.
2.	Use the Input Language pulldown menu (2) to select the preferred language for the character set.	The selected language for character set will be used as soon as the unit has been restarted.
3.	Use the Manual Language pulldown menu (3) to select the preferred language for the online manual.	The selected language will be used as soon as the unit has been restarted.
4.	Select the Secondary check box to enable the multi language keyboard characters support. Then, from the pulldown menu, select the required language. 	The selected language will be used as soon as the unit has been restarted.
5.	See Table 3-21 on page 3-31	See Table 3-21 on page 3-31
6.	See Table 3-21 on page 3-31	See Table 3-21 on page 3-31

3-6-2-6 Select Units of Measure and Controls Sound

Table 3-20 Select Units of Measure and Controls Sound

STEP	TASK	EXPECTED RESULT(S)
1.	In the Settings window, use the Units pull down menu (3 in Figure 3-21 on page 3-30) to select Metric or US Units.	The selected units (Metric or US) will be used for measurements as soon as the unit has been restarted.
2.	Select the Mute check box if you wish to mute the controls sound (4 in Figure 3-21 on page 3-30.)	The controls sound will be muted.

3-6-3 Service Screen Setup

3-6-3-1 Open Service Screen

1) Log on as adm.
2) From the Config side menu, select Service to view the Service Screen.

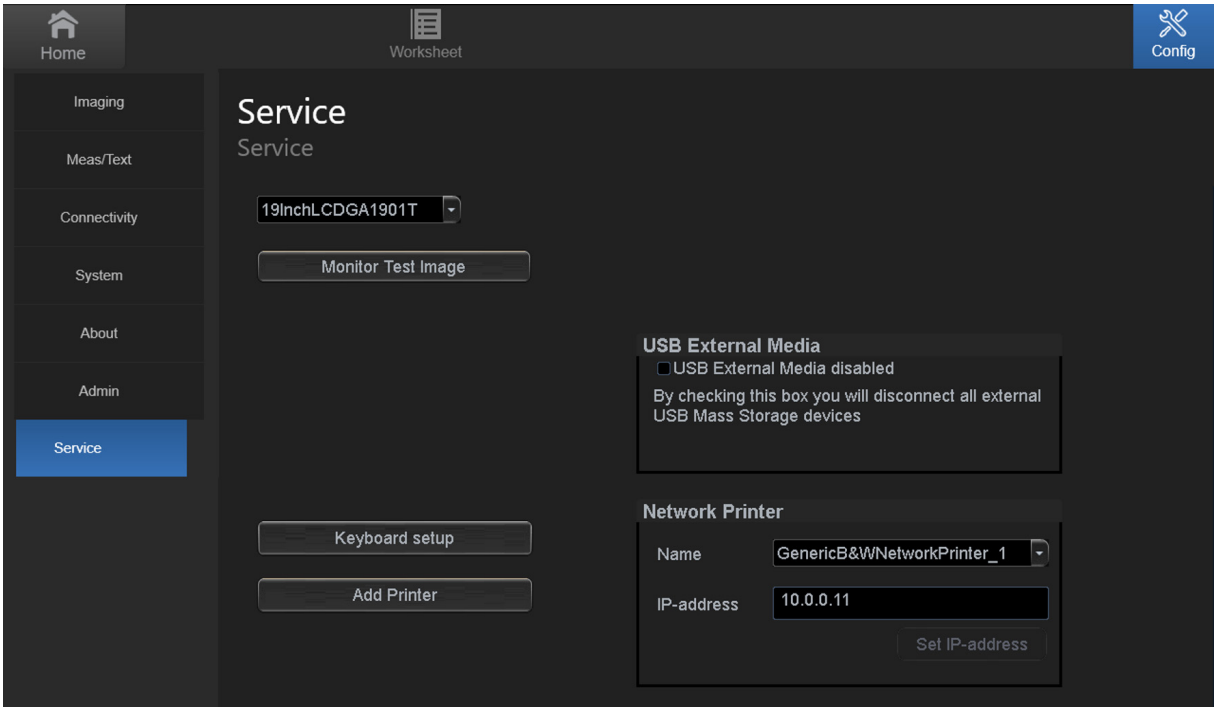


Figure 3-22 Service Screen

3-6-4 Optional Peripherals/Peripheral Connection

3-6-4-1 Approved Internal Peripherals

This list covers the internal peripherals available for Venue Go™ :

- SONY UP-D898DC printer

3-6-4-2 Approved External Peripherals

One of the external units listed below, may be connected to the USB port on the rear of the Venue Go™ :

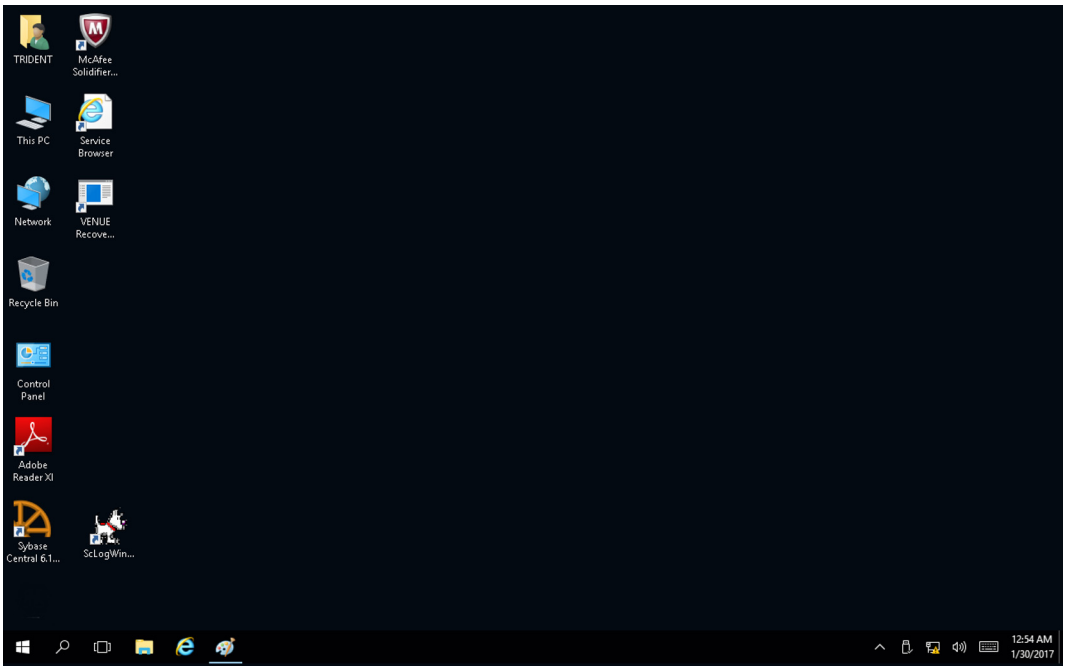
3-6-4-3 External Peripherals for Connection to USB

- External Data Storage: USB Flash Card
- Bar-code reader

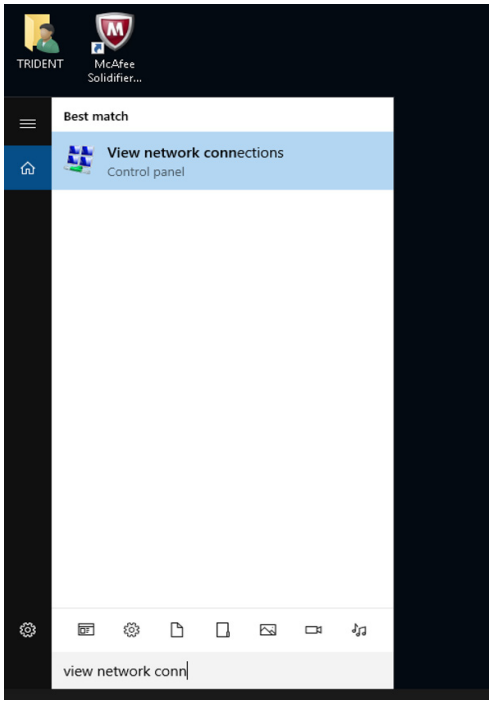
3-6-4-4 Peer-to-Peer Configuration

3-6-4-4-1 Defining the IP address of the Venue Go™ System

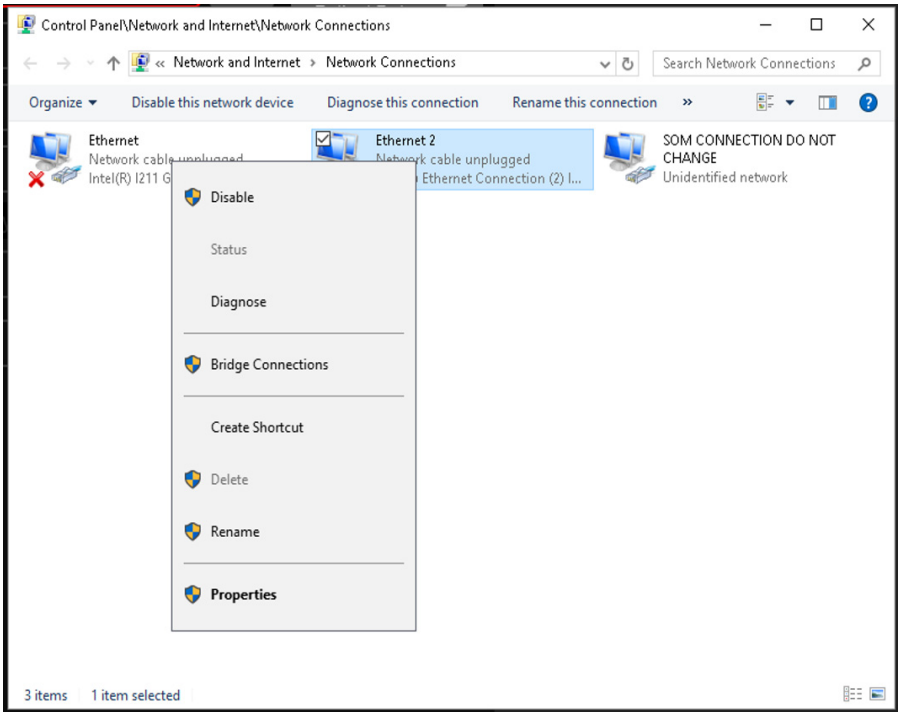
1.) Using a service dongle, boot up the system in Maintenance mode and exit to the Windows Desktop.



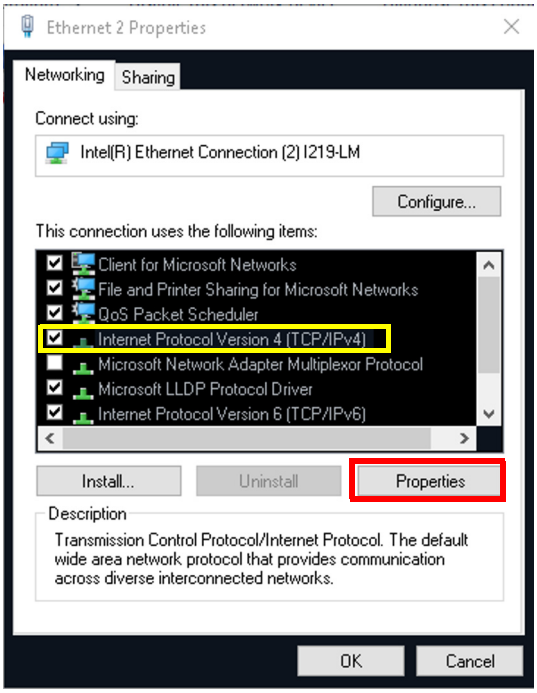
2.) Tap the **Windows Start** button, then tap the **Search** button and type **View Network Connections**.



3.) In the Network Connections screen, select **Ethernet adapter**.



4.) Select the **Internet Protocol Version4** check box and tap **Properties**.



The Internet Protocol Version 4(TCP/IPv4) Properties screen opens.

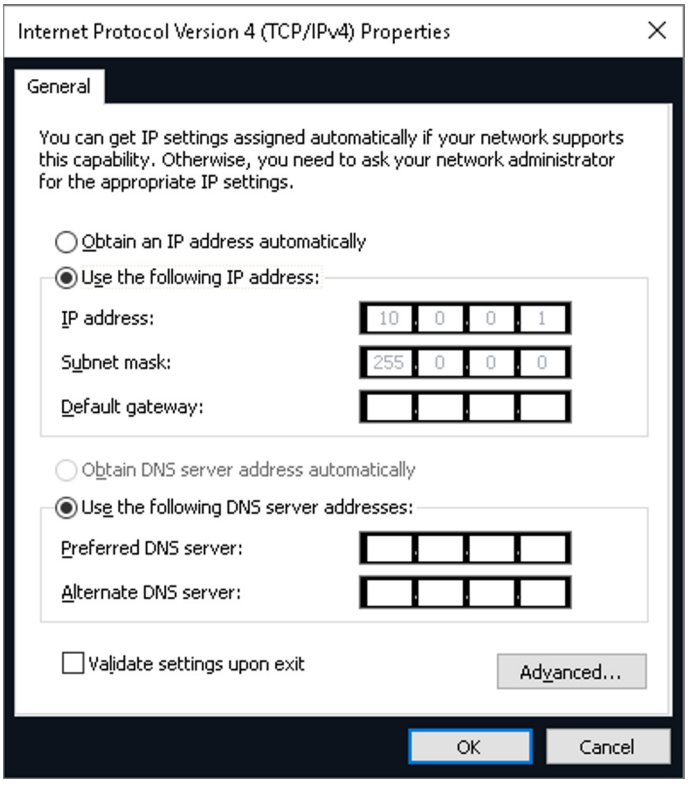


Figure 3-23 Internet Protocol Version 4 (TCP/IPv4) Properties Screens

5.) Select **Use the following IP address** and proceed as follows (refer to Figure 3-23):

- In the IP address field type: **10.0.0.1**
- In the Subnet mask field type: **255.0.0.0**

6.) Tap **OK** and click **Close**.

The Venue Go™ system's IP address is defined.

3-6-5 Software Options Configuration

3-6-5-1 Software Option Introduction

A Software Option Key, an alphanumeric text string, enables a software option or a combination of software options.

The Software Option Key is specific for each unit.

NOTE: There may be more than one Software Option Key in use, depending on the installed options.

3-6-5-2 To Install a Software Option

Follow these steps to install the Software Option Key:

1) Log on as **adm**.
2) Select **Admin** (lower part of window).
3) Select the **System Admin** tab.
4) Select **New** to open the **New Key** dialog where you type the SW Option Key.

CAUTION Incorrect Software Option Key entry will result in loss of Ultrasound system options. If Software Option Key is incorrect, please contact your local GE Service Representative or the Online Center.

5) Type the Software Option Key.
   You must include the dashes (-) as they are part of the Software Option Key.
6) Press **Save** to save the new setting.
7) Restart to save and activate the settings and adjustments you have done so far.

3-6-5-3 Remote Check and Configurations

Contact the Online Center for InSite checkout.

Section 3-7
Connectivity Overview

3-7-1 Physical Connection

There are several possible connection methods, as outlined below.

3-7-2 Stand-alone Venue Go™

No network connection needed.

3-7-3 Wired Ethernet from Venue Go™ to a Workstation

Either of these situations may apply:

- Direct Cable Connection from Venue Go™ to a workstation via a Crossover Cable.

  You will only need a Crossover Cable for network (TCP/IP) use to connect the two units this way.

  a.) Connect one end of the crossed network cable to the network connector on the Venue Go™ .
  b.) Connect the other end to the network connector to the Workstation.

- Connection via a Peer-to-Peer network.

  You will need a network hub or network router and one network cable for each unit connected to the hub.

- Connection via Hospital Network.

  You will need one network cable to connect the Venue Go™ to a wall jack on the hospital's network.

Section 3-8
Connectivity Setup

NOTE: If connected to a stand-alone network (Peer-to-Peer network with a Venue Go™ scanner, and an optional network printer), you should use default delivery settings.

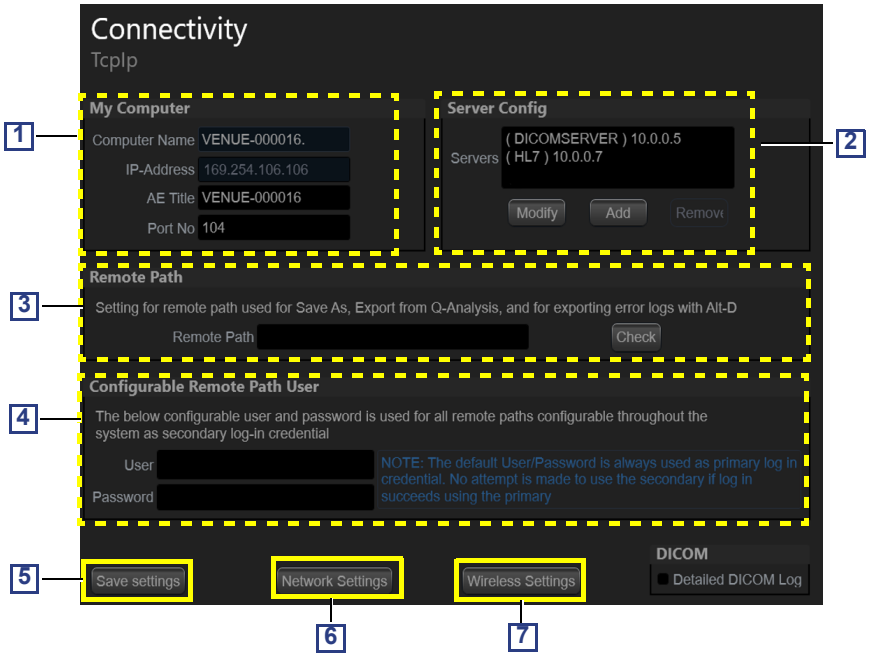
3-8-1 Introduction

To be able to use the network functions when connected to a hospital network, the Venue Go™ must have a proper network address.

- Before you can set up the Venue Go™ , you need to collect some information.
- The Worksheet (see sample Connectivity Installation Worksheet on page 2 - 13) can be used for gathering this information.
- Typical source for this information is the network administrator.

3-8-2 Select TCP/IP Screen

1. Log on as *adm*.
2. Tap: Settings >> Config >> Connectivity >> TCP/IP.
   The resulting screen gives you an overview of many of the network settings for Venue Go™ .



1. **My Computer**:
   - **Computer Name**:
     For Venue Go™ , this name is on the form: *VENUEX-00NNNN*, where "00NNNN" is a number (NNNN is the scanner's serial number).
   - **AE Title**:
     Venue Go™
   - **Port No**:
     Default port number: 104
2. **Server Config**:
   - **Servers**:
     List of servers
   - **Buttons**:
     Use the buttons to Add, Modify or Remove servers.
3. **Remote Path**
   Used for Save As, Export from Q-Analysis, and for exporting Error Logs with Alt-D.
4. **Configurable Remote Path User**:
   Add Secondary Log-in Credential.
5. **Save Settings**:
   Select **Save Settings** to archive any changes you have done to the TCP/IP settings.
6. **Network Settings**:
   Use **Network Settings** if you need to change Venue Go™ 's IP settings or turn DHCP on or off.
7. **Wireless Settings**: select to start the Wireless Network Setup Wizard.

Figure 3-24 TCP/IP Overview Screen for Venue Go™

3-8-3 Changing the AE Title and/or Port Number (Port No.)

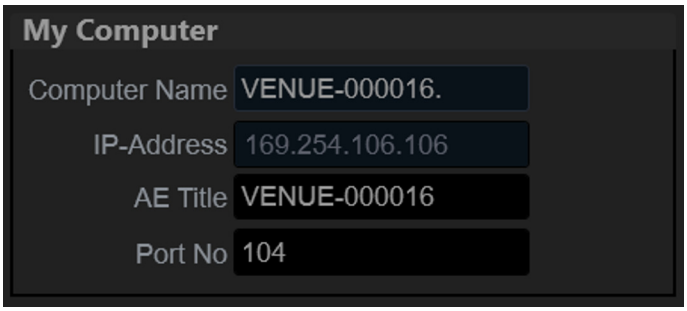


Figure 3-25 AE Title and Port No.

1) To change **AE Title** and/or **Port No.**, edit the respective fields.
2) Select **Save settings** to store your changes.
3) Reboot Venue Go™ to activate the settings, or continue with other Tcpip set-up tasks.

3-8-4 Setup Connection to a DICOM server

3-8-4-1 Overview

In this case the Venue Go™ is configured to work with DICOM servers in a network environment. Images are first saved on the local image buffer on the Venue Go™ . At the end of the examination the images are sent to the DICOM server via a DICOM spooler and to the local database, depending on dataflows.

This scenario requires that the Venue Go™ is configured to be connected to DICOM servers as described below.

To connect to the DICOM server, the following information has to be entered in the Venue Go™ :

- The DICOM server IP address.
- The DICOM server port number.
- The DICOM server AE title (the server application's name).

3-8-4-2 DICOM Server IP Address on the Venue Go™

Table 3-21 DICOM Server IP Address on the Venue Go™

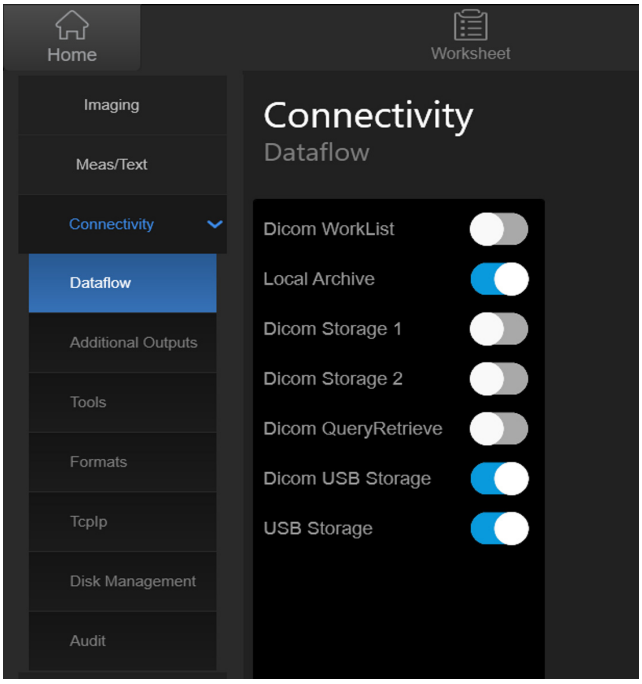
Step	Instruction	Illustration
1.	• Log on as **adm**. • Select **Connectivity** (in the side menu). • Select the **Dataflow** tab.	

Table 3-21 DICOM Server IP Address on the Venue Go™ (Continued)

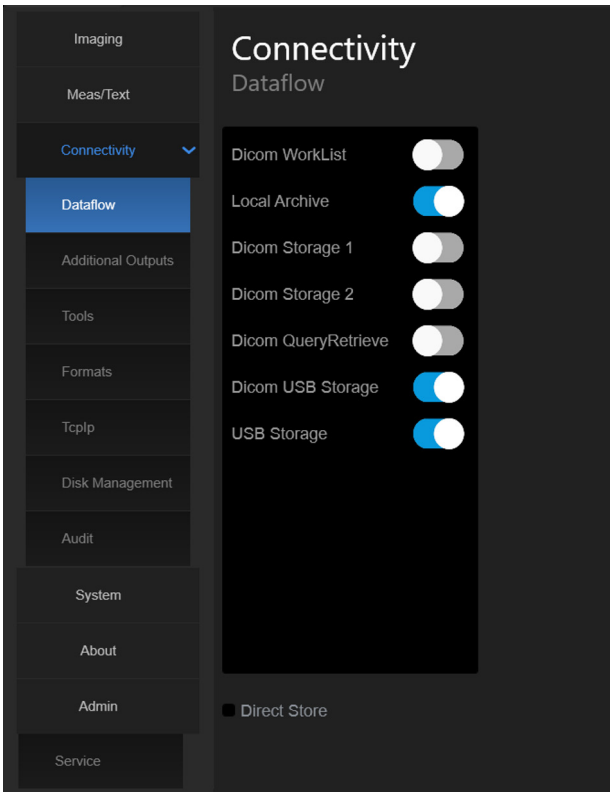
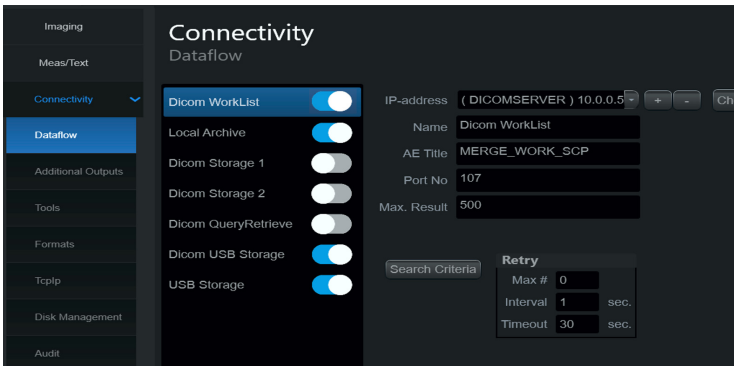
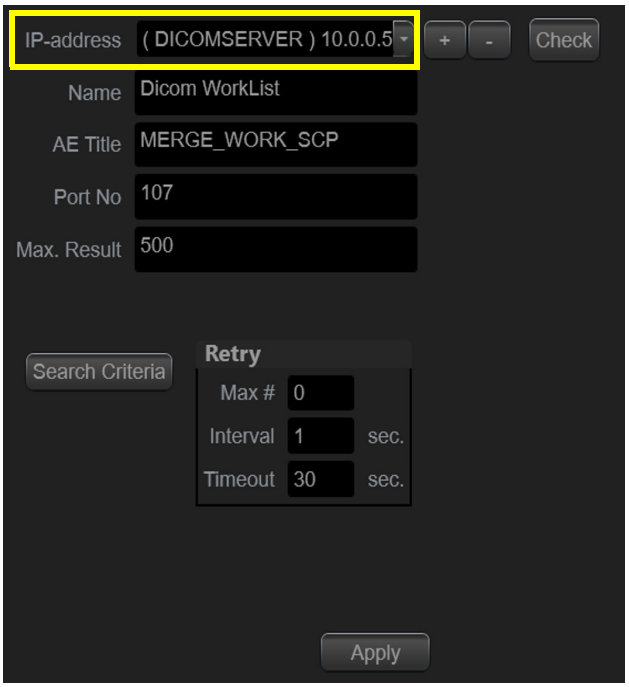
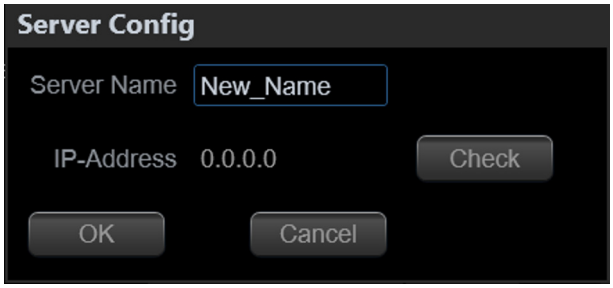
Step	Instruction	Illustration
2.	Configure the Dataflow menu according to required connectivity configuration by using the On/Off sliders. If the On/Off slider is set to Off, the configured settings will not be applicable to the current dataflow. **On/Off Slider is On**  **On/Off Slider is Off** 	
3.	In the Dataflow menu, tap to select the required dataflow item. The settings for the selected item are displayed. Setup of other dataflow items is similar to this example.	

Table 3-21 DICOM Server IP Address on the Venue Go™ (Continued)

Step	Instruction	Illustration
4.	• Select **DicomWorklist**. • From the **IP-address** pull-down menu select the required Worklist Server. It is not possible to change the setting in the IP-Address field by editing it. To change the IP-Address settings: • Enter the DICOM server's **AE Title**. This entry is case sensitive and must match exactly. • Enter the DICOM server's **Port.No** (Port Number). • For some DICOM Servers, the default Time-out setting (30) is too low. • Select **OK** to close the Worklist properties dialog and save changes	
5.	• To add the new **IP-address**, click the Plus button. • In the **Server Config** window, tap to select and edit the IP-address details. • Tap OK to save the configuration. • The new IP-address is added to the **IP-address** pull-down menu.	 
6.	• To delete the **IP-address** from the list, tap to open the pull-down menu and select the required IP-address. • Tap the Minus button. The selected IP-address is deleted.	

3-8-4-3 Verify the Network Connection to a Device

Follow the steps below to do a first check (TCP/IP Ping) of the network connection:

1) When on the Dataflow screen, highlight the device to be verified.
2) Select **Properties**.
3) Select the **Check** button to **Ping** the server.

NOTE: By selecting the Check button, a ping is sent to the remote server to see if it is accessible via the network. It is not a DICOM Echo (DICOM ping), so it does not check AE title or port number.

4) If the network connection to the server is OK, it will be illustrated by the "Pass" sign, a white check mark on a green background .

   The "Fail" sign indicates that the network connection is failing.

   Typical causes:

   - Network cable not connected.
   - Configuration error(s).

3-8-4-4 Verify the Connection to a Device

1) Select (highlight) the device you want to verify the connection to (1).

NOTE: You can only check one device at a time.

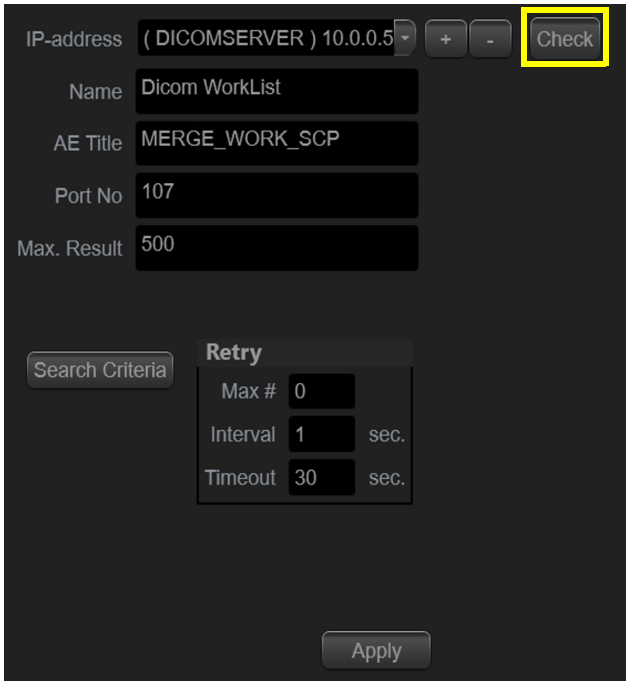


Figure 3-26 Verify Connection to a Device

2) Select **Check** (2) to start the verification process of the connection to the device.

The verification process takes some time to run.

A sign is displayed next to the **Check** button, indicating if the passed or failed .

NOTE: If the Check button fails immediately, the AE Title is probably wrong. If the Check button fails after a long time (corresponding to the timeout), the IP address or Port Number is probably wrong.

3-8-4-5 DICOM Storage Setup

The application supports connectivity of up to two DICOM servers.

1) In the Dataflow menu, slide the DICOM Storage 1 On/Off slider to On.
2) Tap to select **DICOM storage and** to display the **DICOM Storage properties** screen.

Figure 3-27 Select DICOM Storage

3) If **Direct Store** is enabled, the image will go to the DICOM server immediately after it is acquired. You will need to verify that the DICOM server is capable of keeping the connection open for the time it takes to complete an examination.

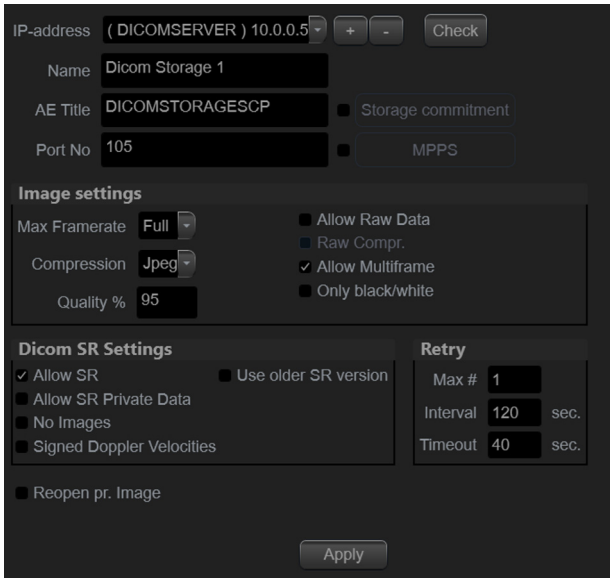


Figure 3-28 DICOM Storage Properties

3-8-4-6 DICOM SR

DICOM Structured Reporting (SR) is a standardized format for medical results. Venue Go™ supports the specialized form for Echo Ultrasound (“TID 5200 Echocardiography Procedure Report”) and Vascular Ultrasound (“TID 5100 Vascular Ultrasound Procedure Report”) for M&A results.

With the DICOM SR support, M&A for an exam can be sent at the end of the exam or when exported from local archive. The destination can be either a server on the network (Storage SCP) or a removable media (DICOM Media) depending on the DICOM dataflow selected.

“TID 5200 Echocardiography Procedure Report” is sent if the exam contains M&A from category Cardiac or Pediatric (Heart). “TID 5100 Vascular Ultrasound Procedure Report” is sent if the exam contains M&A from category Vascular or Abdominal. If the exam contains M&A from both Cardiac/ Pediatric (Heart) and Vascular/Abdominal categories, two SR documents are sent.

“TID 5200 Echocardiography Procedure Report” and “TID 5100 Vascular Ultrasound Procedure Report” do not support all M&A results from Venue Go™ . They are limited to the following:

- No unassigned measurement.

  Refer to the Venue Go™ Reference manual for a complete list of supported parameters.
- The following modes: 2D, M-mode, Color Flow, PW Doppler, CW Doppler, 3D and TDI.
- Not Modified Simpson method or Bullet methods.

  Refer to the Venue Go™ Reference manual for a complete list of supported methods.
- Basic derivations (Average, Last, Min and Max), no references between the derived measurements and the ones they were made from.
- Wall Motion Scoring: individual segment scores only according to 16-segment model, no graded Hypokinesis (only Hypokinesis is used).

DICOM SR must be activated for each DICOM device.

1) Tap **Utility**/**Config** on the Touch panel and log on as administrator.
2) Select the **Connectivity** category and **Dataflow** subgroup.

   The *Dataflow* menu is displayed.

3) Tap to select the DICOM storage item and to display the DICOM storage properties.

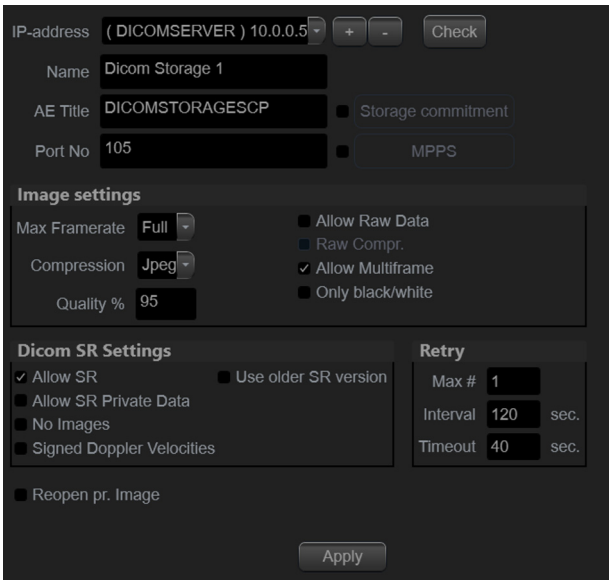
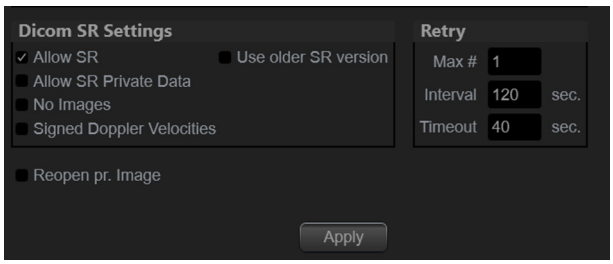


Figure 3-29 DICOM Storage Properties Window

4) Check the option **Allow SR** to enable DICOM SR.



The following additional options are available:

- **Allow SR private data**: send the current exam data in a private format. This option is by default unchecked and should only be used with DICOM storage devices that can handle private data format.
- **No images**: no images are sent, only M&A.
- **Signed Doppler velocities**: send signed Doppler velocities.
- **Use older SR version**: when checked a *Use older SR version* pull-down menu is displayed. The current exam data will be sent in the same format as the selected SR version. Details about format and content of the SR version can be found in the corresponding user manual of the selected version.

These settings apply to both “TID 5200 Echocardiography Procedure Report” and “TID 5100 Vascular Ultrasound Procedure Report”

5) Tap **Apply**.

3-8-5 Export Configuration

The destination for Export of patient records to XML and MPEG must be configured prior to use. This is done from the **Dataflow** screen.

3-8-5-1 Setup on the Remote Share

Required setup on the remote share:

1) Add user/password
2) Set Share permissions
3) Set Security permissions

NOTE: The User on the remote share must have all rights/permissions for the shared folder.

The default network user is predefined on Venue Go™

It is possible to set a secondary user if required by the remote share. For instructions, see: Configurable Remote Path User on page 3 - 48.

NOTE: The default User / Password is always used as primary log in credential. No attempt is made to use the secondary if log in succeeds using the primary.

3-8-5-2 Configurable Remote Path User

NOTE: The default User / Password is always used as primary log in credential. No attempt is made to use the secondary user if log in succeeds using the primary.

NOTE: The configurable (secondary) user and password is used for all remote paths configurable throughout the system as secondary log in credential.

NOTE: The User on the remote share must have all rights/permissions for the shared folder.

Follow these steps to set up a Secondary Remote Path User:

1) Log on as **ADM**.
2) Select **Connectivity** > **Tcpip.**

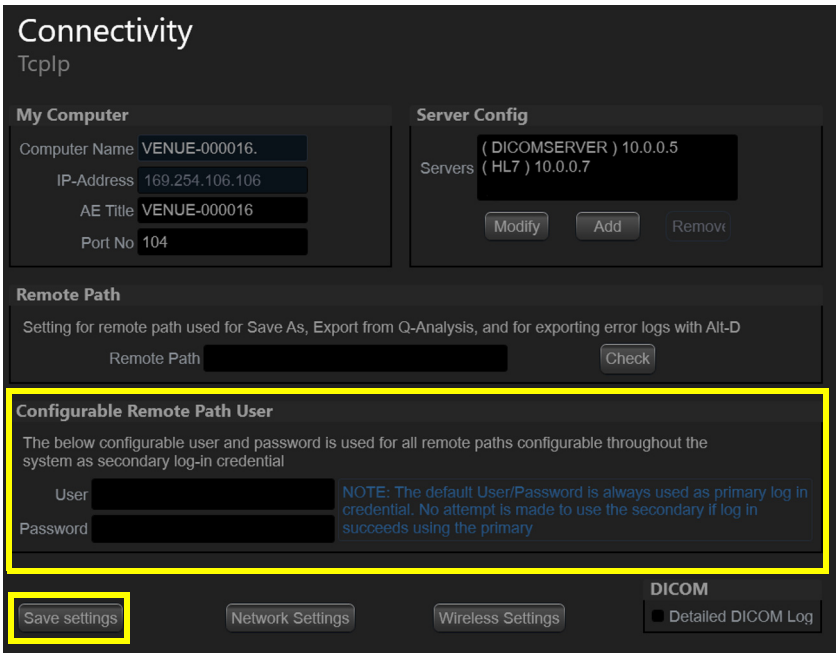


Figure 3-30 Configurable Remote Path User

3) Enter the User and Password in the respective fields.

NOTE: The field "User" can either be on the form "username", or "domain\username".

4) Select **Save settings** to save the new settings.

3-8-6 Query/Retrieve (Q/R) Setup

3-8-6-1 Overview

The Query/Retrieve function makes it possible to search for and retrieve DICOM data from a DICOM server for further analysis on the Venue Go™ .

NOTE: You may have to set up Venue Go™ as a destination on the server.

3-8-6-2 Query/Retrieve Setup on the Venue Go™

1) Log on as *adm*.
2) Select **Connectivity > Dataflow**
3) In the Dataflow menu, set the Dicom QueryRetrieve slider to On.
4.) From the Dataflow menu, tap to select **Dicom QueryRetrieve** and to display its properties.

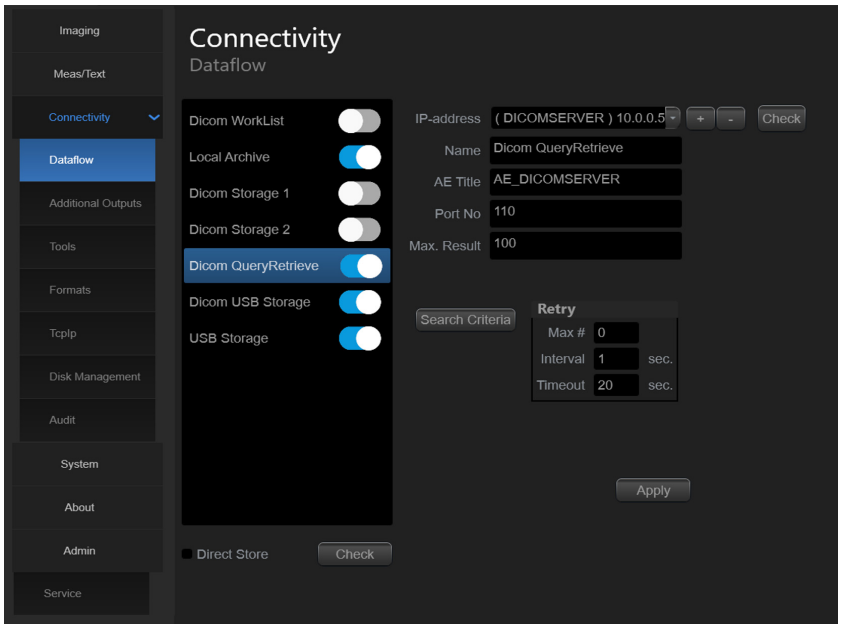


Figure 3-31 Select Dicom QueryRetrieve

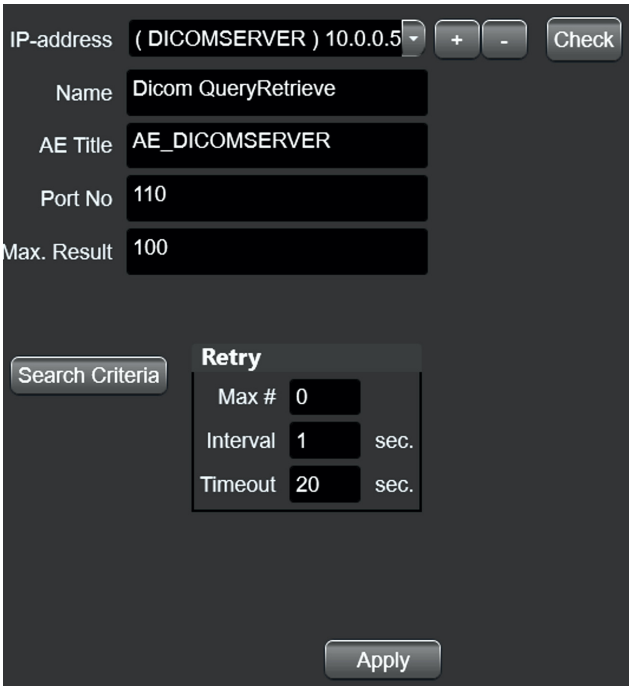


Figure 3-32 Dicom QR Properties

5) Select the IP-address down-arrow to choose the DICOM Query/Retrieve server from the pull down menu. In some cases, the server to use is the same as used for DICOM Storage.

6) Enter the correct AE Title and Port Number for the DICOM Query/Retrieve server in the respective fields in the DICOM QR Properties screen.

3-8-6-2-1 Change Search Criterias

It is possible to set up special Search Criterias for DICOM QR. In most cases you may leave the Search Criterias as is, and skip this adjustment.

Follow the steps below to change the Search Criterias parameters:

1) Select Search Criterias (ref: Figure 3-33.)

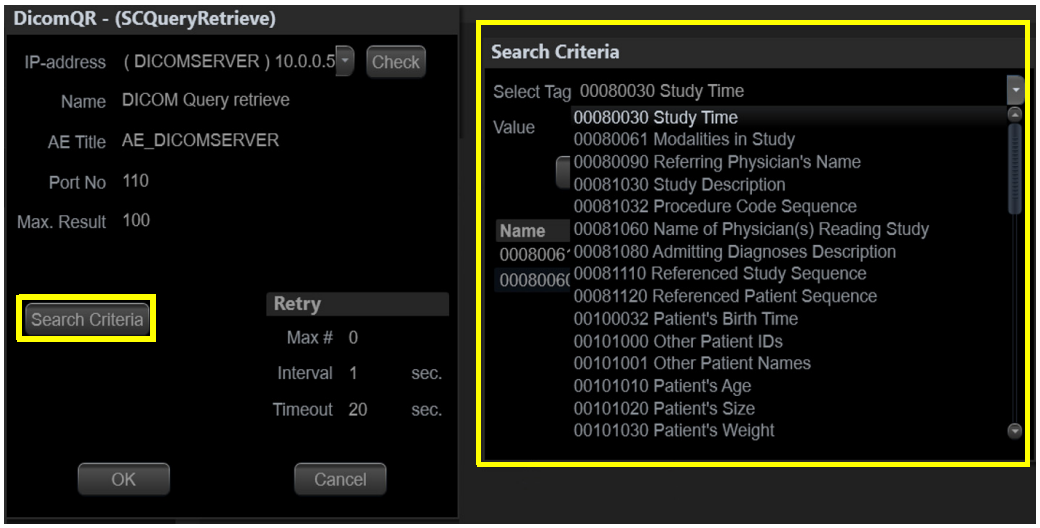


Figure 3-33 Select Search Criterias

2) Select the correct tag from the Select Tag pull-down menu.
3) If needed, type in the value.
4) Select Update List.
5) Select OK to close the Search Criterias window.

3-8-6-3 Query/Retrieve Verification

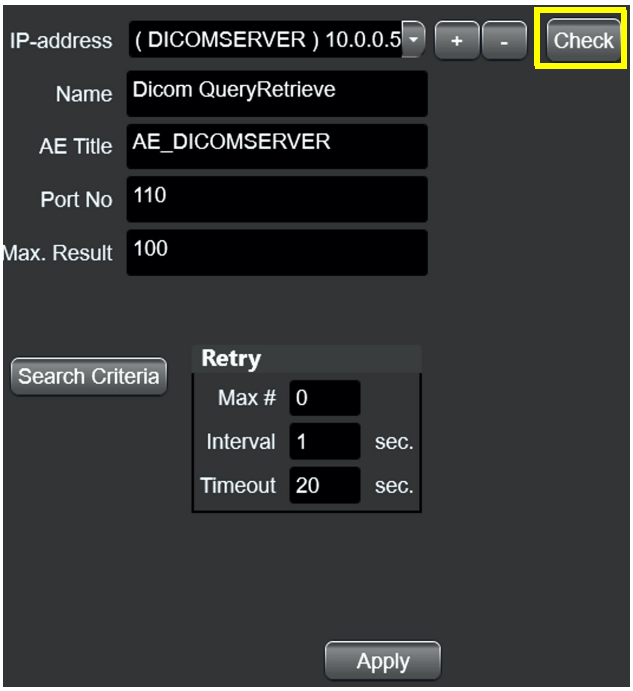


Figure 3-34 DICOM Query/Retrieve Properties

Follow the steps below to do a first check (TCP-IP Ping) of the connection:

1) If not already selected, select **DICOM QR** to display the Dicom QR properties.
2) Select the **Check** button to ping the server.

NOTE: The Check button checks if the remote server is accessible (ping). This isn't a DICOM Echo (DICOM ping), so it doesn't check AE title or port number.

3) If the network connection to the server is OK, it will be illustrated by a green symbol .

   A red symbol indicates that the network connection is failing.

   Typical causes:

   - Network cable not connected.
   - Configuration error(s).

4) When ready, select OK to close the DICOM Query/Retrieve properties and save changes.

   Follow the steps below to check the DICOM Query/Retrieve dataflow:

NOTE: This check uses both Ping and DICOM Ping. Ping is used to verify the TCP/IP connection to the server. DICOM Ping is used to verify that the DICOM application is answering.

1) Select **DicomQR** from the Selected devices list.
2) Select Check.

3-8-6-3-1 If Retrieve is failing …

If Retrieve is failing, but Query is functioning, verify if the scanner has been registered as a receiver on the server.

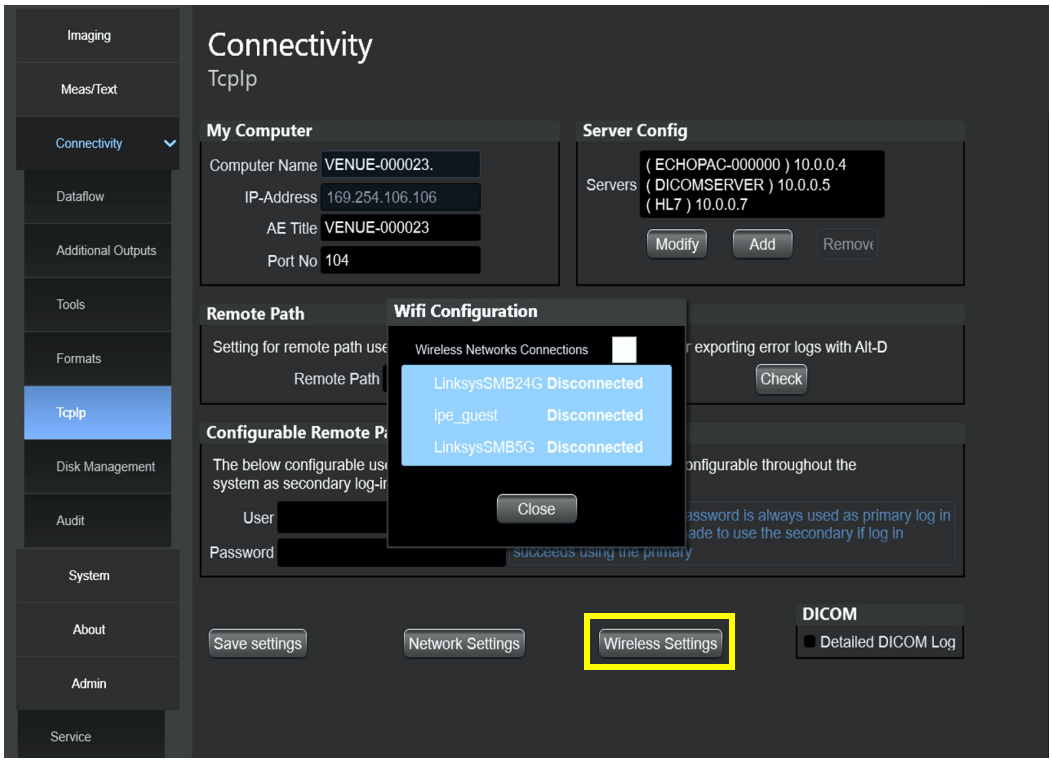
3-8-7 Wireless Network Configuration

The following procedure is used to configure the Venue Go™ for a wireless network environment. This procedure is required for **every** new wireless network.

1.) From the **Connectivity** menu, select **TcpIp**, and then tap **Wireless Settings**.

2.) In the **Wifi Configuration** window, view the list of available wireless networks.

.



Monitor Display

Section 3-9
Options Setup

3-9-1 Software Options

Most of the options for Venue Go™ are activated by installing a password (alphanumeric text string).

- For installation instructions, see: Software Options Configuration on page 3 - 36.

3-9-2 USB Flash Card Setup

There is no special setup procedure for use of a USB Flash Card.

WARNING ***WHEN CONNECTING PERIPHERALS TO THE Venue Go™ SYSTEM, UNLESS THE PERIPHERAL IS MEDICAL-GRADE EQUIPMENT IT SHOULD BE CONNECTED TO THE ISOLATED USB CONNECTOR.***

NOTICE **IMPORTANT During Stand-by mode, it is NOT recommended to introduce or remove USB devices; this may cause the system to lock-up during the boot-up procedure.**

WARNING ***DO NOT ATTEMPT TO USE A DIFFERENT TYPE OF WIRELESS NETWORK ADAPTOR. THE ULTRASOUND SYSTEM IS AN EXTREMELY SENSITIVE AND COMPLEX MEDICAL SYSTEM. ANY UNAUTHORIZED PERIPHERALS MAY CAUSE SYSTEM FAILURE OR DAMAGE!***

Section 3-10
Paperwork After Setup

NOTE: During and after setup, the documentation (i.e. storage media with documentation, User Manuals, Installation Manuals, etc.) for the Venue Go™ and the peripherals must be kept as part of the original Ultrasound system documentation. This ensures that all relevant safety and user information is available during the operation and service of the complete Ultrasound system.

3-10-1 Installation Acceptance Test Criteria

A Venue Go™ is ready for use after the system has been configured successfully in accordance with the information provided in *Chapter 3 -System Setup* (this chapter).

3-10-2 User's Manual(s)

Check that the correct User Manual(s) or storage media with User Manuals, per software (SW) revision and language, for the system is included.

3-10-3 Product Locator Installation Card

NOTE: The Product Locator Installation Card shown may not be the same as the provided Product Locator card.

From the factory, a sheet with five Product Locator cards for transportation and one for Installation are included.

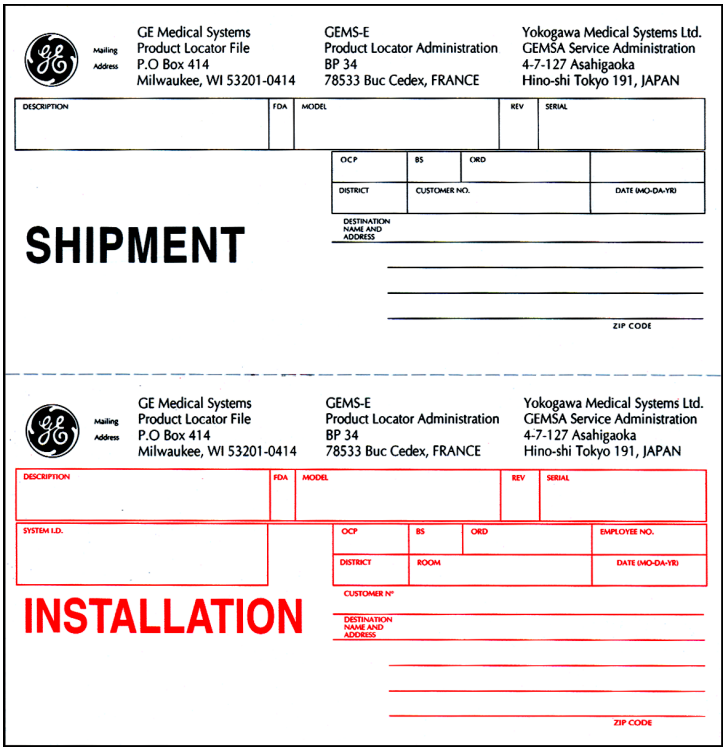


Figure 3-35 Product Locator Installation Card (Example)

Chapter 4
General Procedures and Functional Checks

Section 4-1
Overview

4-1-1 Purpose of Chapter 4

This chapter includes the General Procedures, and the Functional Checks.

General Procedures is a collection of commonly-used procedures that are available by cross references from other parts of this manual.

Functional Checks is a collection of procedures for quickly checking major functions of the Venue Go™ scanner and diagnostic instructions using the built-in service software. These checks can be a great asset in determining whether the Venue Go™ is working as it should.

Section 4-2
General Procedures

CAUTION

Ultrasound system requires all covers.

Operate this Ultrasound system only when all board covers and frame panels are securely in place. The covers are required for safe operation, good Ultrasound system performance and cooling purposes.

WARNING

Energy Control and Power Lockout for Venue Go™ .

When servicing parts of the Ultrasound system where there is exposure to voltage greater than 30 volts:

1. Follow LOCK OUT/TAG OUT procedures.
2. Turn off the breaker.
3. Unplug the Ultrasound system.
4. Maintain control of the Ultrasound system power plug.
5. Wait for at least 30 seconds for capacitors to discharge as there are no test points to verify isolation.
6. Remove/disconnect the battery, if present.

Ultrasound System components may be energized.

4-2-1 Overview

Some procedures are used more often than others. The intention of this section is to keep the most used procedures in one place.

4-2-2 Power ON/Boot-up

4-2-2-1 Warnings

DANGER **ALWAYS CONNECT THE ULTRASOUND SYSTEM TO A FIXED POWER SOCKET WHICH HAS THE PROTECTIVE GROUNDING CONNECTOR.**

DANGER **NEVER USE A THREE-TO-TWO PRONG ADAPTER; THIS DEFEATS THE SAFETY GROUND.**

DANGER **ENSURE THAT THE POWER CORD AND PLUG ARE INTACT AND THAT THE POWER PLUG IS THE PROPER HOSPITAL-GRADE TYPE (WHERE REQUIRED).**

CAUTION **THE ULTRASOUND SYSTEM REQUIRES ALL COVERS.**

OPERATE THIS UNIT ONLY WHEN ALL BOARD COVERS AND FRAME PANELS ARE SECURELY IN PLACE. THE COVERS ARE REQUIRED FOR SAFE OPERATION, GOOD SYSTEM PERFORMANCE AND COOLING PURPOSES.

CAUTION **USE ONLY POWER SUPPLY CORDS, CABLES AND PLUGS PROVIDED BY OR DESIGNATED BY GE.**

NOTE: When turning on a system from standby mode, it takes a few seconds before it responds. Do not push the On/off button again during this period. A second push will initiate a full shutdown.

NOTE: Before performing Power ON or system reboot, disconnect any USB mass storage device from the system (unless a Software Installation procedure is required and the appropriate software installation storage device is connected).

4-2-2-2 Before Turning the System ON for the First Time

1.) Open the battery switch silicon cover and switch ON the battery power.

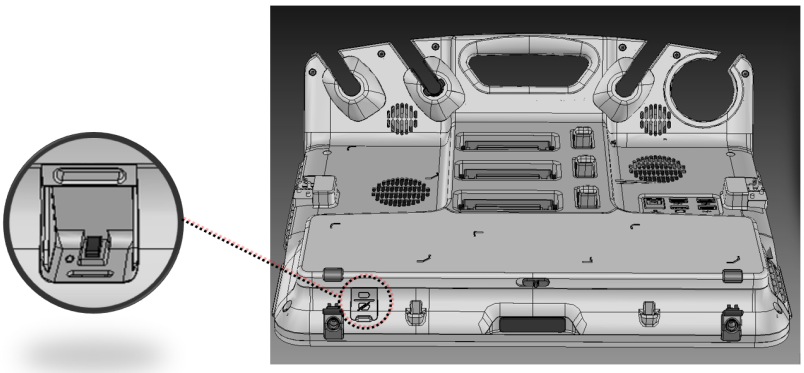


Figure 4-44 Battery Power Switch

2.) Remove the nylon sheet screen protector from the touch screen.

4-2-2-3 Connecting the Venue Go™ Ultrasound Unit to Power

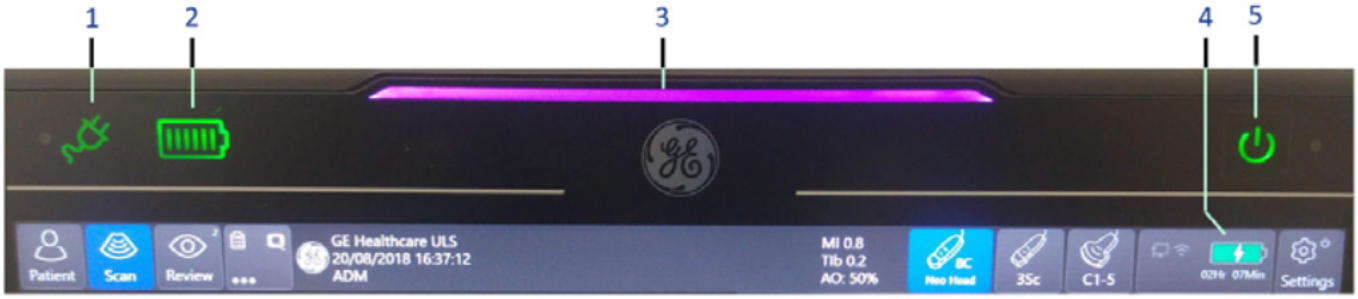
Connecting the Venue Go™ ultrasound unit involves preliminary checks of the power cord, voltage level and compliance with electrical safety requirements.

1) Ensure that the wall outlet is of appropriate type.
2) Verify that the AC/DC power supply and the power cable are without any visible damage.
3) Verify that the on-site mains voltage is within the limits indicated on the rating label on the rear of the Venue Go™ ultrasound scanner.
4.) Connect the AC/DC power supply cable to the Venue Go™ system.
5.) Connect the other end of the AC/DC power supply cable (male plug) to a hospital-grade mains power outlet with the proper rated voltage.

The unit is ready for Power/ON/Boot Up.

4-2-2-4 Switch ON the Venue Go™

1) Tap the On/Off button (Figure 4-45) on the touch display to boot up the unit.



1. AC mains power indicator
2. Battery status display
3. System identification and power status stripe indicator
4. Battery charge and scan time indicator
5. System's ON/OFF button

Figure 4-45 On/Off Button on touch display

During normal boot-up, you may observe that:

a.) The unit's ventilation fans start on full speed, but slow down after the application is loaded.
b.) The C-BEB and the rest of the scanner start with the sequence listed in the next steps:
   1.) C-BEB Processor is turned ON and starts to load the software.
   2.) The Start Screen is displayed on the monitor.
   3.) A start-up progress bar indicating the time used for software loading, is displayed.
   4.) The software initiates and sets up the Front-End electronics and the rest of the scanner.
   5.) As soon as the software has been loaded, either a 2D screen is displayed on the screen, indicating that a probe has been connected, or a No Mode screen is displayed, indicating that no probe has been connected.

NOTE: Total time for start-up is approximately 1 minute.

4-2-3 Power Shutdown

When you tap the on/off button to turnoff the system, the system displays the following options:

Figure 4-46 Exit Dialog Window

- **Standby**

  Use this button to enter the system into Standby mode.

- **Exit**

  (Only available when logged in as GE Service with Service Dongle)

  Select this button when you want to exit to the Windows Desktop.

NOTE: If you need to restart Venue Go™ when logged on to the Windows Desktop, ensure that you do a complete power down (Shut Down). This is required to power up the Front End Processor.

- **Shutdown**

  Use this button to shut down the system. The entire system will shut down.

  If the Shutdown button is greyed out, use the key-combination <Ctrl+Alt+R> to shut down the unit.

- **Cancel**

  Use this button to exit from the System-Exit menu and return to the previous operation.

4-2-4 Logging On to the Venue Go™ as "ADM"

4-2-4-1 Open the Config screen

1) Select **Settings**. 

2) Select **Config** 

*This brings up the **Operator Login** dialog where you can log on to Venue Go™ .*

4-2-4-2 The Login dialog

The first time someone logs into Venue Go™ , the Operator field will be blank.

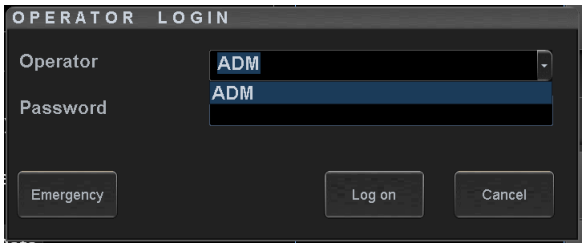


Figure 4-47 Operator Login

As default, two users are defined on Venue Go™ ; USR and ADM.

- If you log on as **USR,** you will have a restricted access to the setup menus.
  Example: To select a printer.
  As default, no password has been set for **USR**. Just type the name **USR** and select **Login**.
- If you log on as **ADM**, you will have access to all setup menus and service adjustments on the Venue Go™ system.
  Example: Adjust network and connectivity settings.

NOTE: It is possible for the administrator (ADM) to establish new users and set unique passwords for each user, including a new password for ADM. If the login as ADM fails, contact the responsible person in the hospital to get access.

The **Emergency** button stores data for the duration of the current examination only.

The **Cancel** button is used to cancel the login.

4-2-5 Data Management

For information, refer to the latest revision of the *Venue Go™ User Manual*.

4-2-6 Deleting Patient Information

WARNING Before you dispose of the hard drive, make sure you remove ALL PATIENT DATA from the hard drive, given that the hard drive is still functional. In some countries, you may be required to delete all software from the disk before returning the hard drive to the parts warehouse. Follow your local policies.

WARNING All patient information (images, reports and data base) must be backed up before deleting it from the internal hard drive.

Ensure that **All Patient Information** has been deleted before:

- shipping/returning the ultrasound system
- SSD disposal

Wipe the HDD partitions as described here:

1) Reload the system software from the software media.
2) Select: **Format SSD and Install**.

4-2-7 Transporting the Venue Go™ Ultrasound Scanner

4-2-7-1 To Prepare the Venue Go™ to be Moved

1) Power Shutdown
2) Disconnect the power cable from the wall outlet.
3) Disconnect all cables linking the unit to any off-board peripheral devices and network.
4) Place all probes in the probe holders. Ensure that the probe cables do not touch the floor during transportation.

4-2-7-2 To Prepare the Venue Go™ on Cart to be Moved

1) Power Shutdown
2) Disconnect the power cable from the wall outlet.
3) Disconnect all cables linking the unit to any off-board peripheral devices and network.
4) Secure the unit's power cable.
5) Place all probes in the probe holders. Ensure that the probe cables do not protrude from the unit or interfere with the wheels.
6) Ensure that no loose items are left on the unit.
7) Unlock the casters.

4-2-7-3 To Ensure Safety while Moving the Venue Go™ on Cart

1) It is advisable to lower the system to its lowest position before moving the system.
2) Proceed cautiously when crossing door or elevator thresholds. Grasp the back handle bar and push. Do not attempt to move the unit using cables or probe connectors. Take extra care while moving the unit on inclines.
3) Ensure that the unit does not strike the walls or door frames.
4) Ensure that the pathway is clear.
5) Move the unit slowly and carefully.

CAUTION **Avoid ramps that are steeper than 10 degrees.**

6) Use two or more persons to move the unit over long distances or on inclines.

4-2-7-4 Transporting the Venue Go™ by Vehicle

Take extra care when transporting the system by vehicles. In addition to the precautions listed earlier more information), follow the steps below:

1) Before transporting, place the system and probes in their special storage case.
2) Secure the cart with straps or as directed otherwise to prevent motion during transport.
3) Ensure that the cart and system are firmly secured while inside the vehicle.
4) Load and unload the system to a vehicle parked on a level surface.

Section 4-3
Functional and Safety Checks

4-3-1 Overview

The functional checks for Venue Go™ are described in this section.

Functional checks are used to verify that the Venue Go™ operates as intended.

The functional checks may also be used during troubleshooting.

4-3-2 Safety Checks

4-3-2-1 Ground Continuity Check

1) Use an Ohmmeter/multimeter to measure the ground resistance between the Split cable GND pin and the cart GND pin.

Figure 4-48 GND Continuity Test

2) Verify the measured value is less than 0.1 [Ohm].

4-3-3 Phantoms Performance Checks

The use of test phantoms is only recommended if required by your facility's (customer's) QA program.

4-3-4 Image Quality Tests

4-3-4-1 2D Mode (B Mode) Checks

4-3-4-1-1 Introduction

The 2D Mode is the system's default mode.

4-3-4-1-2 Preparations - 3SC-RS Probe

1) Turn ON the Venue Go™ .
2) Connect 3SC-RS probe

4-3-4-1-3 Flashlight Noise Test (3SC-RS Probe)

3) Select Cardiac preset and run scanning on air
4.) Scan in B mode, increase depth to max, increase gain till image is visible
5) Verify image is homogeneous and no flashlight noise appear

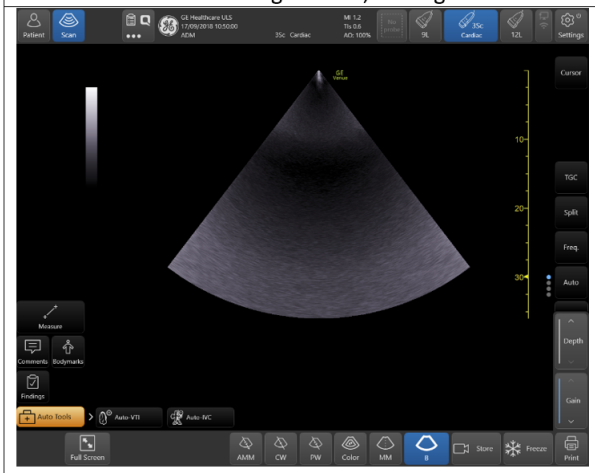
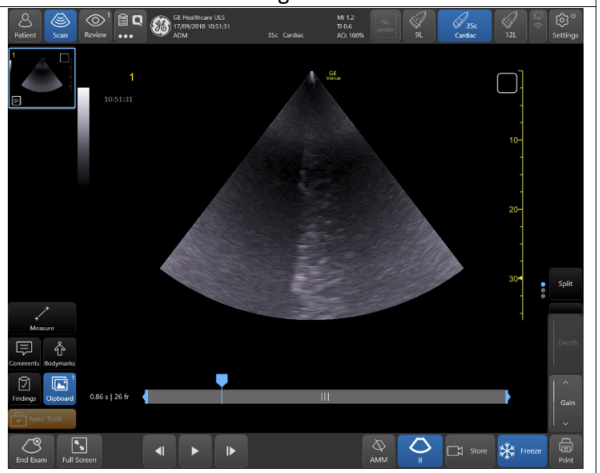
Good – No flashlight noise, homogenous	Bad – Flashlight noise visible
	

Figure 4-49 2D B-Mode Image Test

6.) Decrease depth step by step till minimum

7) Verify image is homogeneous and no flashlight noise appears in each step

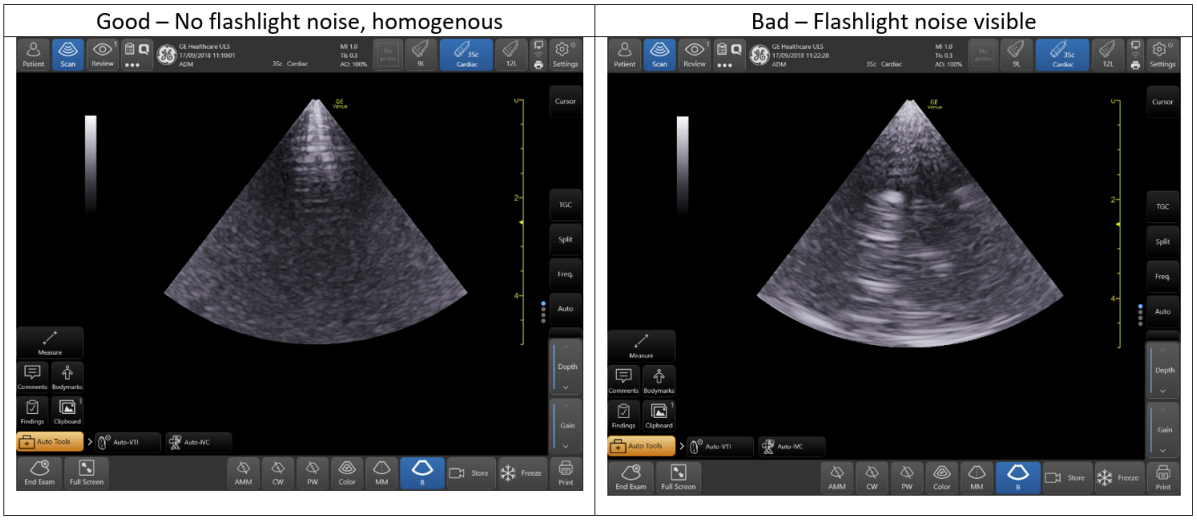


Figure 4-50 2D B-Mode Image Test

4-3-4-1-4 Color Test (3SC-RS Probe)

8) Select Cardiac preset

9) Increase gain till image is visible.

10) Scan in COLOR mode default frequency, increase depth to max.

11) Place ROI at the bottom of the screen (full width, 6-35cm).

12) Increase gain till color random noise is visible in the ROI.

13) Verify no Flashlight noise appears in center of ROI, color random is homogeneous.

14) If there is weak flashlight noise, measure it as follows: increase gain till color noise starts to appear in the center of ROI. Record the gain value. Continue to increase gain till color noise appears on the sides of ROI. Record the gain.

15.)Verify that the difference of the gain is not more than 1dB.

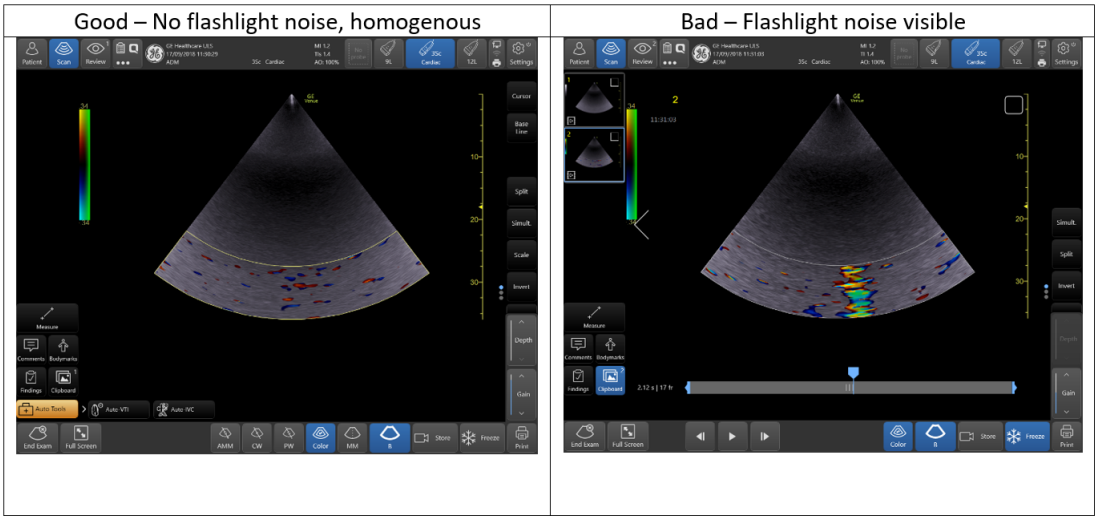


Figure 4-51 2D B-Mode Image Test - Color

4-3-4-1-5 12L-RS (Linear) Probe Test

16) Connect 12L-RS probe

17) Select Artery preset

18) Run scanning on air scan in B-mode

19.)Increase depth to max

20) Increase gain till image is visible

21.)Verify image is homogeneous, no artifacts or structured noise appears.

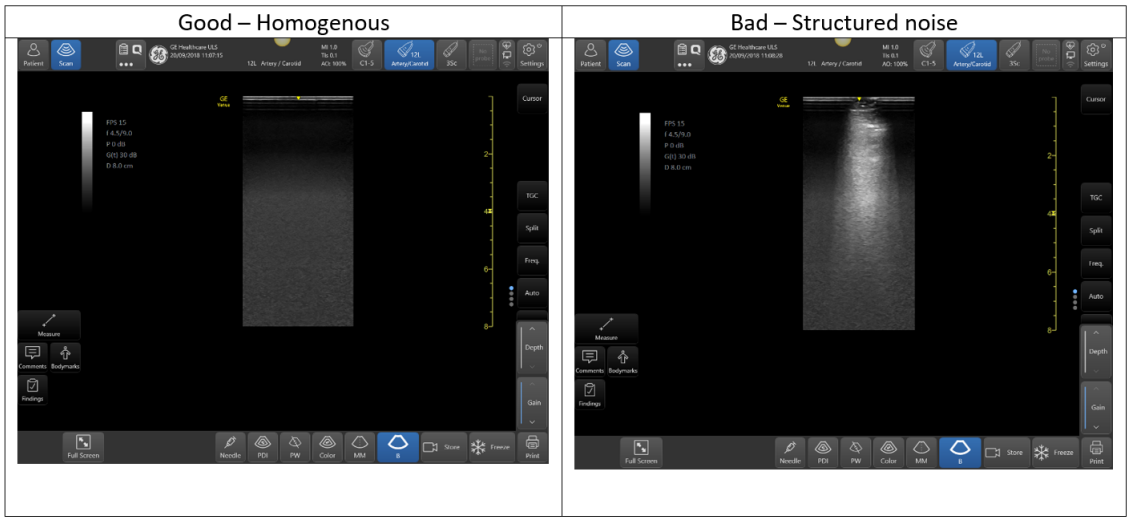


Figure 4-52 2D B-Mode Image Test - 12L-RS Probe

4-3-4-2 PW/CW Doppler Mode Checks

4-3-4-2-1 Introduction

PW and CW Doppler modes are used to measure velocity (most often in blood).

Doppler mode can be done with a special pencil probe or with an ordinary probe. By using an ordinary probe, you can first bring up a 2D picture for navigation purpose and then add PW/CW Doppler.

4-3-4-2-2 Preparations

1) Connect 3SC-RS probe.
2) Turn ON the Venue Go™ .
3) Press **PW** or **CW**.

4-3-4-2-3 CW-Mode Test

4) Scan in CW mode default frequency
5.) Increase gain till spectrum is visible
6.) Decrease wall filter to minimum.
7) Change the cursor position along the 2D ROI (center, sides, bottom part).
8) Verify no tonal noise appears.

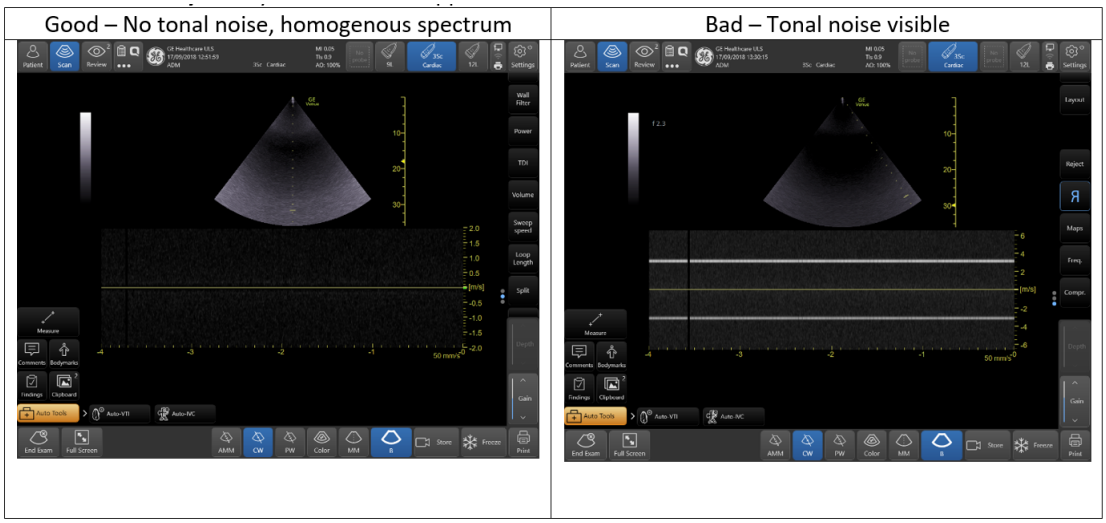


Figure 4-53 CW-Mode Image Test

9) Scan again in CW mode
10) , Increase frequency to maximum
11.)Change to scale maximum
12.),Change the cursor position along the 2D ROI (center, sides, bottom part).

13.)Verify no tonal noise appears.

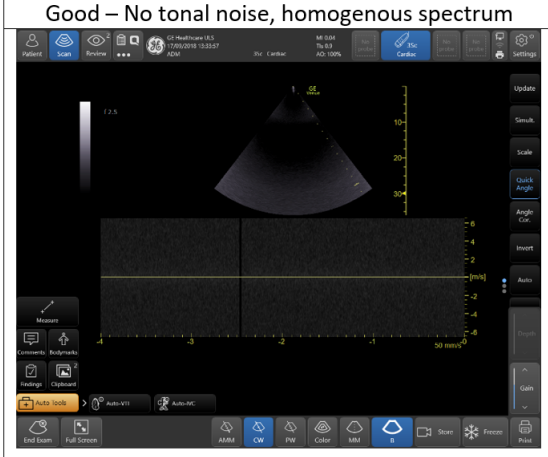
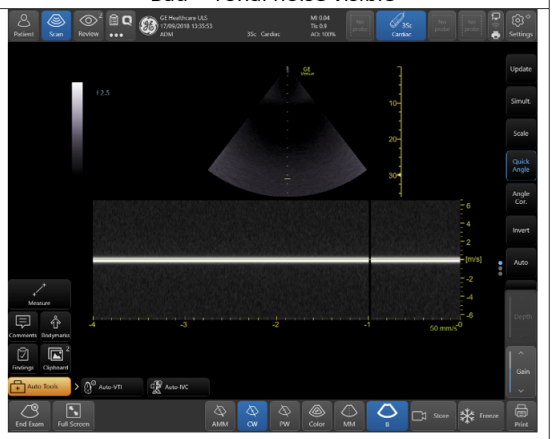
Good – No tonal noise, homogenous spectrum	Bad – Tonal noise visible
	

Figure 4-54 CW-Mode Image Test

4-3-4-2-4 PW-Mode Test

14) Scan in PW mode default frequency

15) Increase gain till spectrum is visible

16.),Decrease wall filter to minimum.

17) Change the cursor position along the 2D ROI (center, sides, bottom part).

18.)Verify no tonal noise appears.

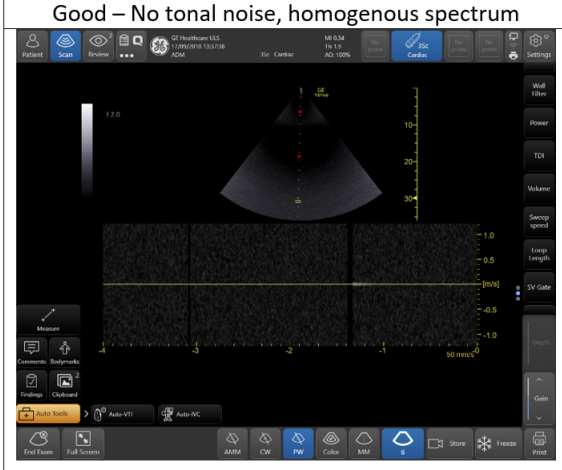
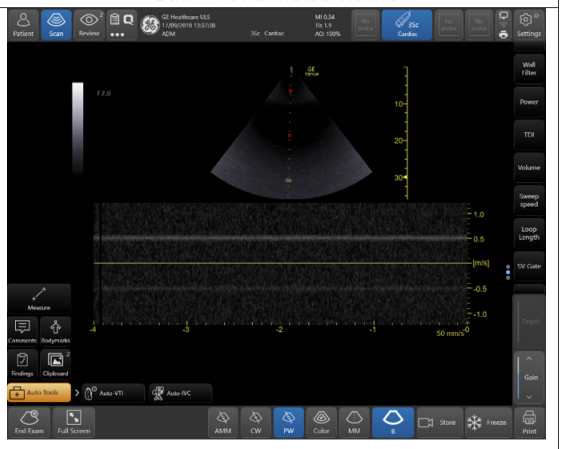
Good – No tonal noise, homogenous spectrum	Bad – Tonal noise visible
	

Figure 4-55 PW-Mode Image Test

19) Scan again in PW mode

20) Increase frequency to maximum

21.)Change to scale maximum

22.)Change the cursor position along the 2D ROI (center, sides, bottom part).

23.)Verify no tonal noise appears.

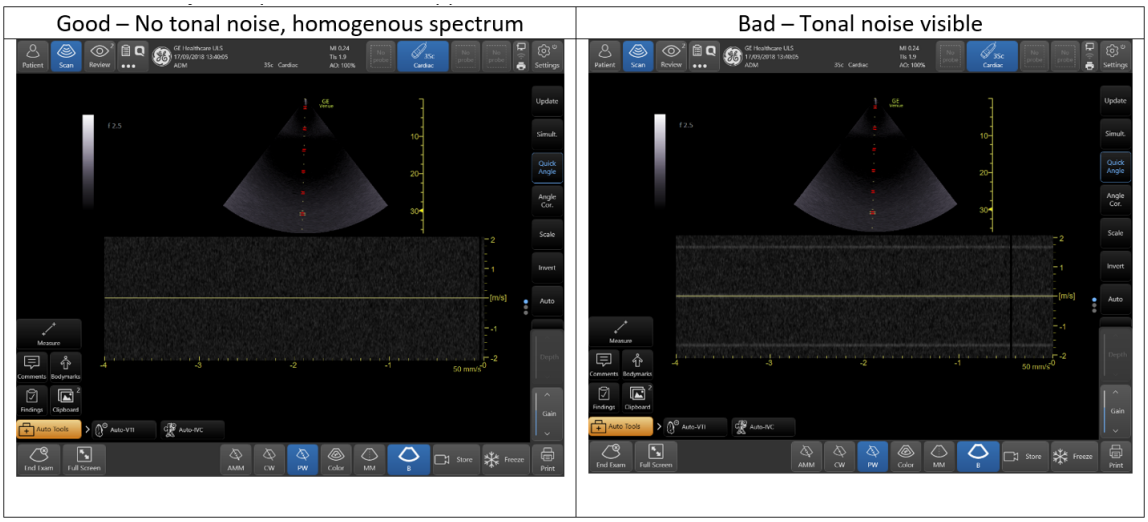


Figure 4-56 PW-Mode Image Test

4-3-5 Probe/Connectors Check

NOTE: Probes can be connected at any time, whether the unit is ON or OFF

CAUTION

Take the following precautions with the probe cables:

- Keep away from the wheels.
- Do not bend.
- Do not cross cables between probes.

Table 4-23 Probe and Connectors Checks

Step	Task	Expected Result(s)
1	Press **Probe** on the Operator Panel.	A list of the connected probes will pop up on the screen.
2	Select the desired probe.	An application menu for the desired probe is listed on the screen.
3	• Browse to the desired application. • Press **Select** to launch the application. • To change application without changing the current probe, press **Appl.** on the Operator Panel.	The selected application starts.
4	Verify no missing channels.	All channels are functioning.
5	Verify there's no EMI/RFI or artifacts specific to the probe.	No EMI/RFI or artifacts.
6	Check the probe in each active connector slot.	It will display pictorial data each time.
7	Do a leakage test on the probe.	It passes the test.
8	Repeat this procedure for all available probes.	

Related information:

Electrical Safety Tests

4-3-6 Peripheral Checks

4-3-6-1 Printer Checks

The internal printer is controlled from the **Print** button on the Venue Go™ 's application main screen.

Table 4-3 outlines the steps for performing Printer checks.

Table 4-24 Printer Checks

Step	Task	Expected Result(s)
1	When scanning in 2D Color Mode, press Freeze to stop image acquisition.	Image scanning stops with the last picture on the screen.
2	Press **Print** on the Operator Panel	The image displayed on the screen is printed on the assigned printer.
3	Check if the print quality on the pictures from both printers are of expected quality.	

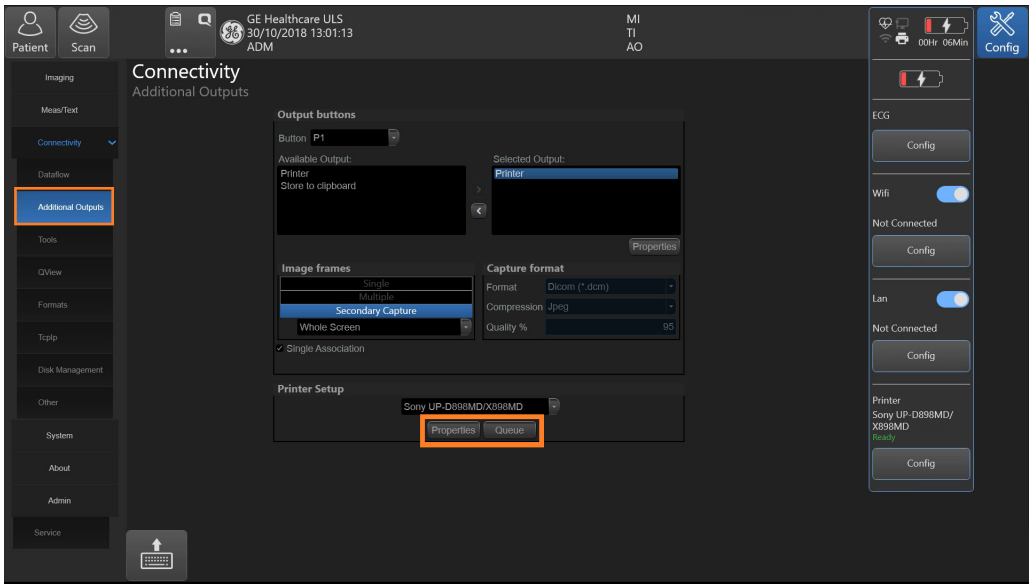
4-3-6-1-1 Windows Print Test Page

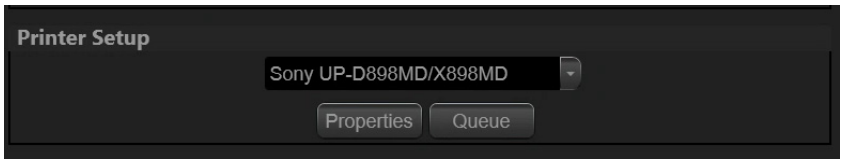
This checks that the printer is correctly installed and hooked up at the Windows level.

1) On the Venue Go™ application main screen, tap: **Settings > Config > Connectivity > Additional Outputs**.

2) In the **Printer Setup** section, verify that the selected printer is **Sony UP-D898DC**.

Figure 4-57 Verifying Selected Printer and Queue

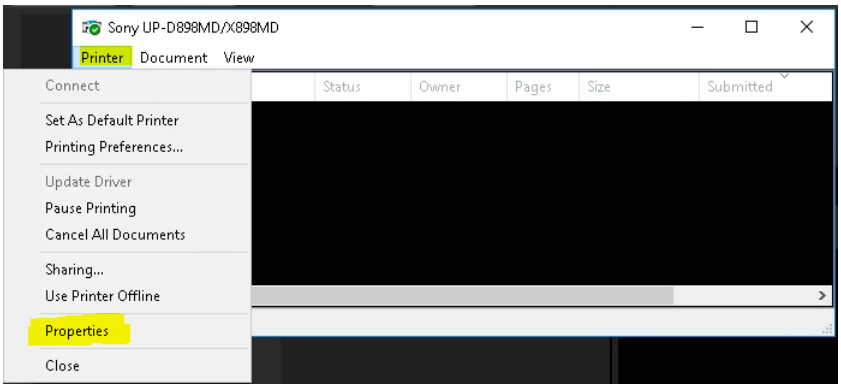




3.) Tap on **Queue**.

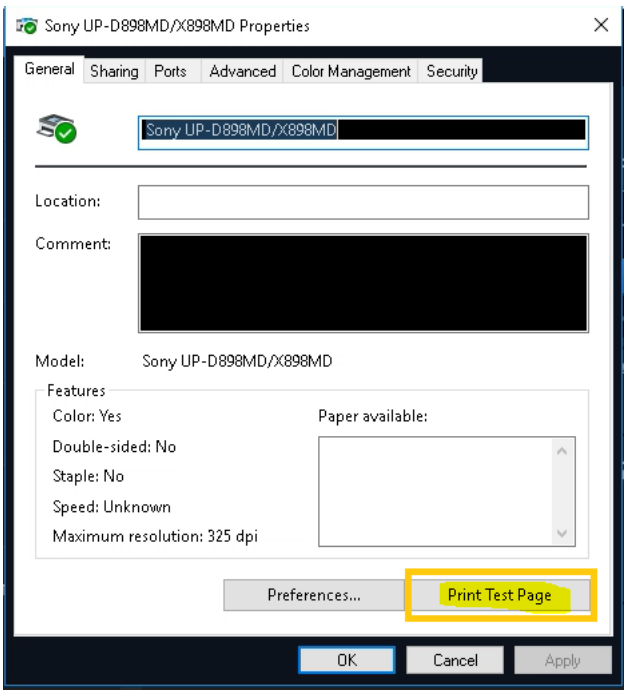
4) In the **Sony UP-D898DC** window, select **Printer > Properties**.

Figure 4-58 Printer Properties



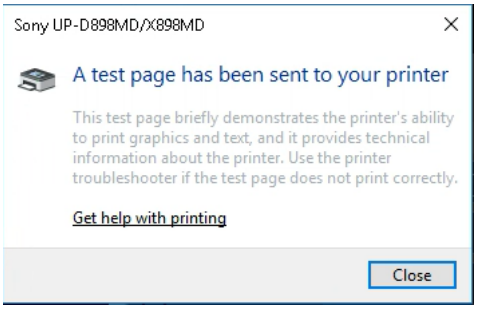
5) In the **Sony UP-D898DC Properties** window, tap **Print Test Page** (this sends a print to the printer bypassing all of the Scanner software).

Figure 4-59 Printing Test Page



6) The message **A test page has been sent to your printer** appears.

Figure 4-60 Sony Printer Notification



7) Observe the printed page.

If the page prints out, the problem you are looking for is probably a configuration issue in Windows, or configuration issue in Utilities > Connectivity.

If the page prints out from Windows, there is no problem within Windows. In this event, you will see an incomplete print out of the test page.

If the page does not print out, there probably is a cabling issue, or a printer configuration issue in Windows.

NOTE: For the Sony small-format printers, you will see an incomplete Test Page printed out. This is normal.

4-3-6-2 ECG Functionality Checks

The system automatically detects the ECG module once connected. The indication for the user is displayed in the Peripherals status area.

Figure 4-61 Peripheral Status Area

In order to check the functionality of the ECG device, the ECG leads need to be connected to person body or to an ECG simulator.

4-3-7 Mechanical Functions Checks

4-3-7-1 System Back-Cover Support Checks

1.) On the system's back-cover, pull and open the systems supporting frame, ensuring that the support frame doesn't move freely.

Figure 4-62 Open System's Back-Cover Support

2.) Carefully position the system, leaning on the supporting frame.

3.) Verify that the system and the support frame are stable and do not "slip".

4-3-7-2 Cart Mechanical Checks

4-3-7-2-1 Cradle Locking Test

1) Verify that when inserting the system into the cradle the locking lever locks the hinges to stabilize system inside the cradle.

2.) Verify that when the lever is pulled, the system can be easily removed from the cradle.

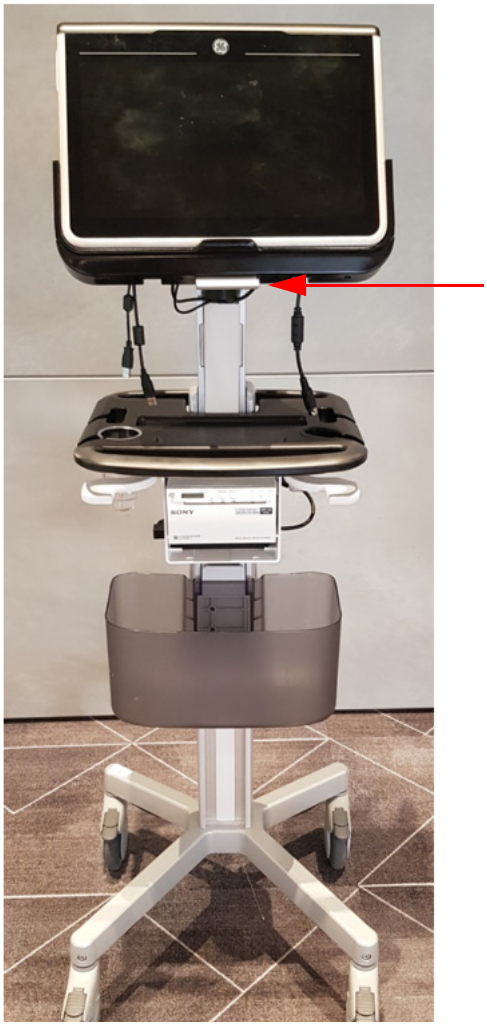


Figure 4-63 Cradle Locking Lever

4-3-7-2-2 Cart Movement Up/Down Movement Test (Tilt, Swivel, Rotate, Up/Down)

1.) Push the UP/DOWN lever upwards, and verify the system may be lowered and raised easily.

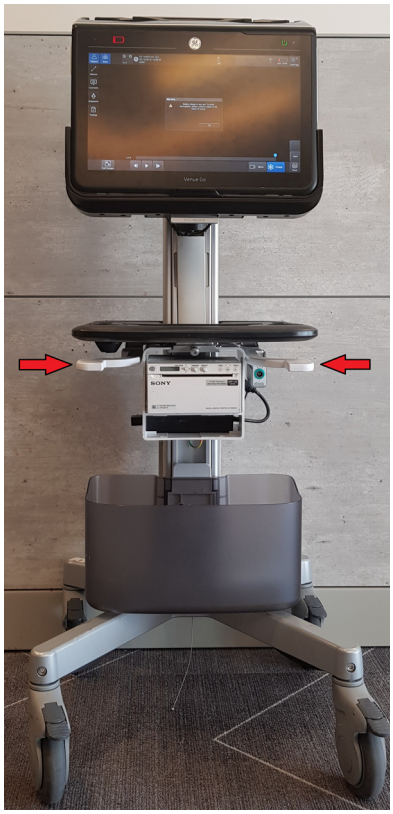


Figure 4-64 System UP/DOWN Lever

4-3-7-2-3 Cart Tilt/Swivel Movement Test

Verify cart's cradle tilt and swivel movement:

Cradle with
System docked

Figure 4-65 Cradle Tilt and Swivel Movement

1.) Tilt movement:

- Verify forward and backward tilt is possible while system is docked, making sure movement is smooth reaching end position on both sides.
- Verify the forward scanner tilt is 10°± 2°
- Verify the forward scanner tilt is 40°± 2°
- Verify the scanner tilt force from the scanner sides or upper handle is min: 2.5Kg and max: 4.5Kg (initiate small movement) while the scanner is mounted on a fully assembled cart.

2.) Swivel movement:

- Bring the cart to the most upper position. Verify left and right swivel is possible until end position while system is docked, making sure movement is smooth.
- Verify the max horizontal scanner left/right tilt (Swivel) range from forward direction is at least 140°± 5° to each side while the height is higher than 86 cm
- Verify the scanner left or right rotate force from the scanner sides is min: 2Kg and max: 3Kg (initiate small movement) while the scanner is mounted on a fully assembled cart.

4-3-7-2-4 Cradle Casters Locking Test

.

Figure 4-66 Caster Lock / Release Levers

Table 4-25 Caster Locking Function Check

Step	Task	Expected Result(s)
1	Push down on the locking lever on each caster wheel to lock the brake on the casters. Push and pull the unit *right*, *left*, *backwards* and *forwards*.	Ensure that the wheels are locked and there is no movement in any direction.
2	Press the release lever to unlock the wheels. Push and pull the unit *right*, *left*, *backwards* and *forwards*.	Ensure that the wheels move freely in all directions. Check the wheels for wear and tear, and replace if necessary

4-3-8 Functionality Tests

4-3-8-1 Battery Charging Test

1) Inspect the scan time indicator

2.) Verify that after 10 minutes, the scan time increases

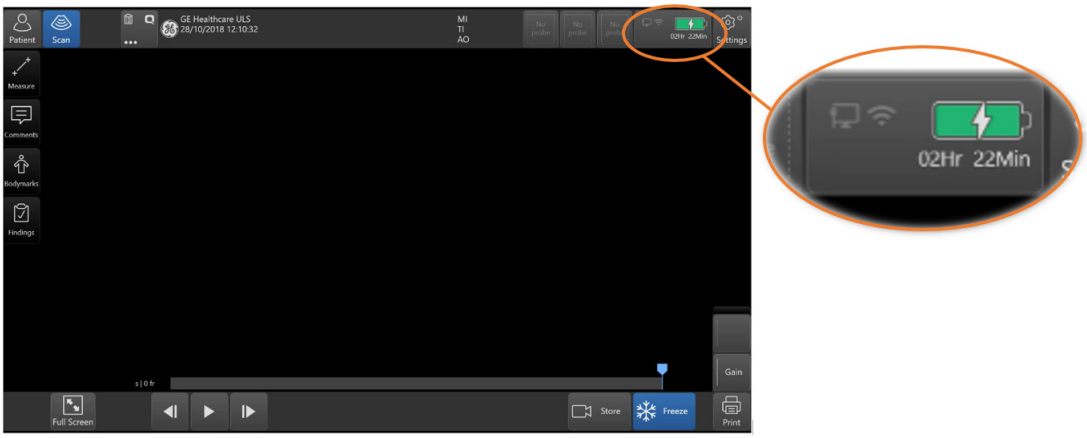


Figure 4-67 Battery Charging and Time Indicator

3.)

Chapter 5
Venue Go™ Components and Function (Theory)

Section 5-1
Overview

5-1-1 Purpose of Chapter 5

This chapter explains Venue Go™ system concepts, component arrangement, and sub-system functions. It also describes the power distribution system, the cabling system and probes.

Table 5-1 Contents in Chapter 5

Section 5-2
General Information

5-2-1 Introduction

The Venue Go™ system is a compact portable ultrasound scanner that can be used with both phased array and linear array ultrasound probes.

Weighing less than 6 kg (13.2 lb), the Venue Go™ ultrasound scanner is extremely versatile and - depending upon the installed software - can be used for various imaging modes. These include:

- 2D Gray Scale and 2D Color Flow imaging
- M-Mode Gray Scale imaging
- Color M-Mode
- Doppler
- Different combinations of the above modes

.

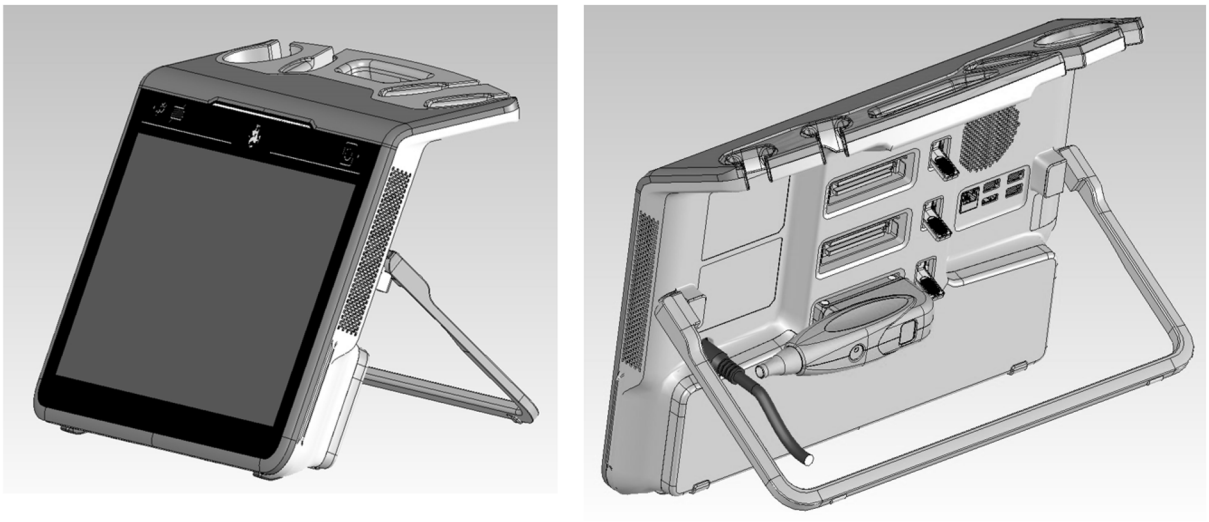


Figure 5-1 Venue Go™ System - General View

5-2-2 Venue Go™ Mechanical Design

Venue Go™ Portable scanner has an adjustable stand. The rear stand allows the system to be placed on a flat horizontal surface to allow tilting the system within a range of 20 to 70 deg.(+/- 5 deg.) from horizon.

The system's angle when placed on the cart is adjustable at an angle between 0-40 degrees, while maintaining maximal drift of +/- 5 deg.

It is connected to the Cart via mounting attachment with simple release mechanism.

The Cart enables the user to control the swivel and tilt of the scanner via the Cart front handle or by holding the screen.

The height of the Cart can be easily adjusted with a single hand and stopped when the handle is released.

The Venue Go™ system main hardware components are configured as illustrated in Figure 5-1.

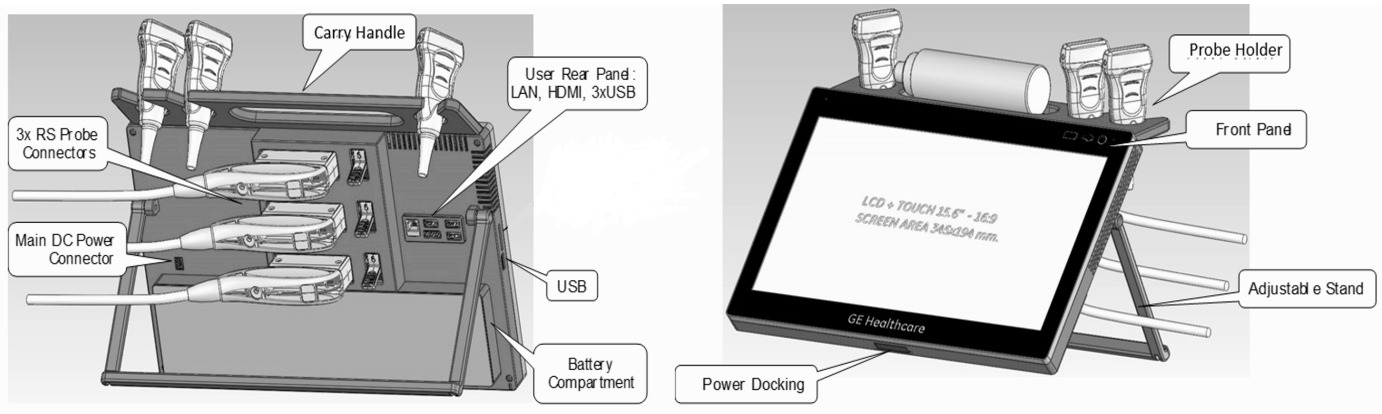


Figure 5-1 Venue Go™ System - Configuration of Main Hardware Components

The Venue Go™scanner supports the following RS probes:

- Regular RS Probes with up to 128 channels
- Regular RS Probes with Internal Mux
- TEE RS Probes with Temperature sensing (6Tc-RS)
- RS probes with Haystack Needle tracking
- RS probes with control buttons

NOTE: For a detailed description of Venue Go™ system operating modes, refer to the Venue™ User Manual.

The Venue Go™ ultrasound scanner has a software beam-forming system.

Signal flow from the C-PSB to the Front End Board (C-FEB) Electronics, and to the Back End Board (C-BEB), are finally displayed on the touch display.

5-2-2-1 System Configuration and Software

System configuration is stored on the internal SSD attached to the Back End Unit.

At power up, all necessary software is loaded from the C-BEB SSD.

5-2-2-2 Electronics

The Venue Go™ system internal electronics are divided into three:

- Front End - see page 5 - 11
- Back End - see page 5 - 35
- Venue Go™ Display - see page 5 - 19

The interconnections within the Front End (C-FEB) and the Back End (C-BEB) is via two stacked connectors (one for power supply and the other one for control and data signals). The display module is connected via eDP interface to the Back End and additional cable is connected to the Front End (interface for power management controller - signals for On/Off and indicators).

Section 5-3
Venue Go™ System Design

The design of the Venue Go™ ultrasound scanner comprises three main sections (illustrated in Figure 5-3):

- Main Scanner System (Portable)
- Dedicated Cart with Swivel, Tilt and Up/Down capabilities
- External Power Supply (stored in PS compartment)

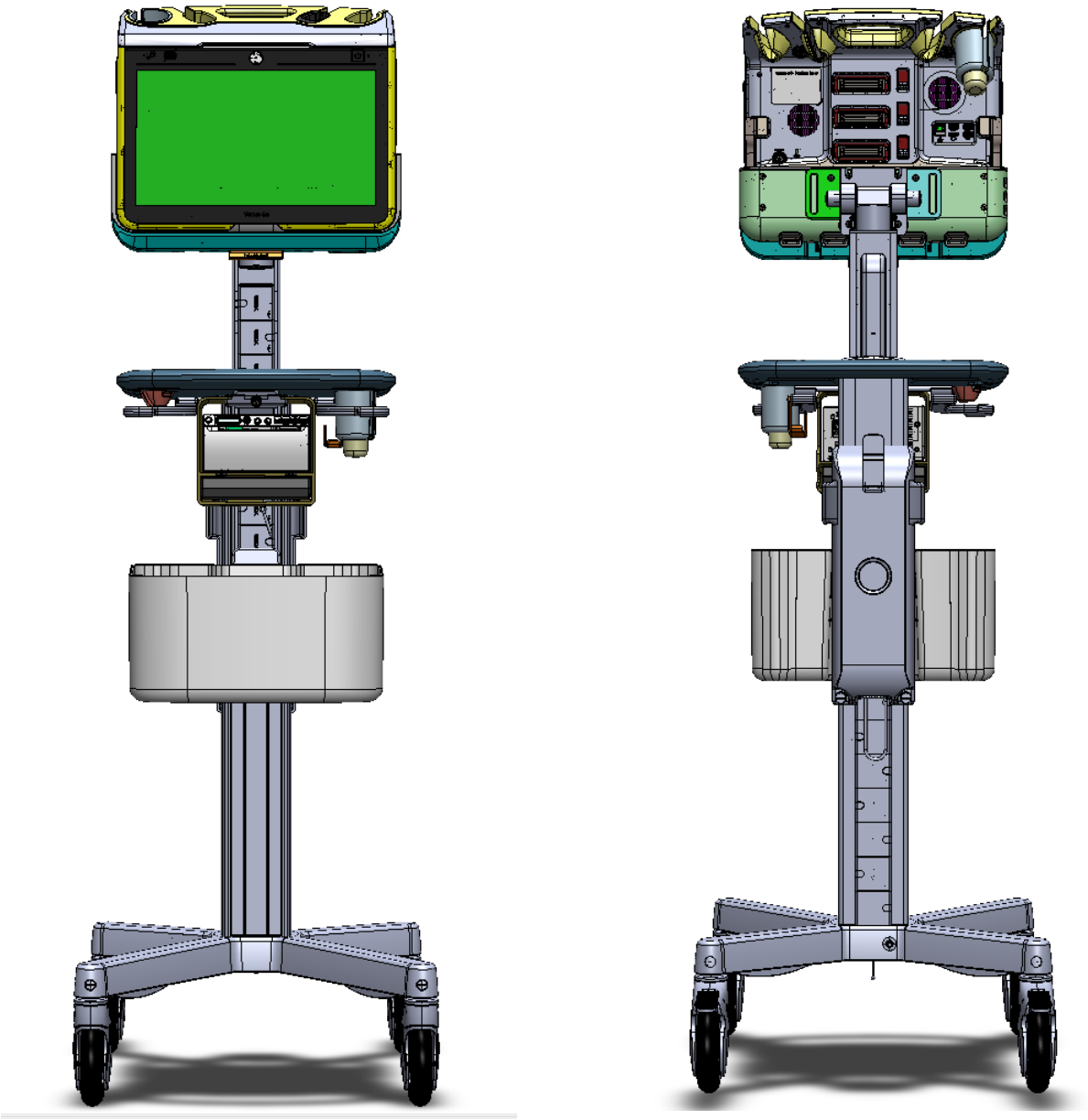


Figure 5-2 Venue™ Ultrasound Scanner - System Design

5-3-1 External Power Supply Section

The External Power Supply section provides power via the external AC/DC 24 V adapter.

5-3-2 Venue Go™ User Interface Components

Status and Control panel contain the following functions:

- On/Off Touch Button with Green and orange led indicator
- Internal Battery Status with Green and Orange Indicator
- System Failure Indicator
- Optional External Battery Status with Green and Orange Indicator (for future External large Battery on Cart)
- Light Sensors

5-3-2-1 LED Indicators Modes

5-3-2-1-1 AC Power Indicator

Table 5-2 AC Power Indicator

ON	OFF
	

5-3-2-1-2 Power On/Off Button States

The Power button frame provides additional indication of the current power supply state. When pressing the On/Off button, the frame is highlighted with the same color as power indicator.

5-3-2-2 Battery Status Indication

The battery status indication is either red, orange or green and includes 6 light bars inside the battery frame. The below figure shows all possible combinations.

Table 5-3 Battery Status Indication

Bars					
1	2	3	4	5	6
			Green	*Green*	*Green*
	Orange	*Orange*			
Red					

Section 5-4
Venue Go™ Back End (C-BEB)

5-4-1 Back End

The Back End consist of single board called C-BEB, and is responsible for the following scanner functions:

- Operation of scanner computer based on Skylake processor that operates the Venue Go™scanner application under Windows 10 Embedded operating system.
- Generation from the +12v and +5v Standby DC supplies, of all the required Back End and Display supply voltages.
- Support of the external and internal interfaces.
- Storage of Operating System and application on internal SSD.
- Network connectivity (Wi-Fi/LAN).
- Connection to peripherals.

5-4-1-1 Back End Interfaces

The External Interfaces from the Back End are:

- 1 x HDMI Connector located on the Back
- 1 x LAN Connector located on the Back
- 3 x USB3 Connectors located on the Back
- 1 x USB3 Connector located on the Side

5-4-1-2 Solid State Hard Drive

Venue Go™ system contains an internal SSD. The SSD, which is controlled by the CPU, is partitioned into four logical drives, each of which is designated for different operations, as follows: See *Section 5-12-2* on page 5-26.

Section 5-5
Compact Front End Board (C-FEB)

5-5-1 General Information

The main purpose of the Venue Go™ Front End Board (C-FEB) is to transmit/receive all the channels data signals to/from the 128 TRX channels on the board. In addition, it contains all the control and status lines required for HV mux setup, probe selection, reading probes status, probes information and the power supplies for transmission and operation of the scanner.

The Venue Go™ Front End Board is designed to support the cSound SW beam-forming architecture for 128 channels.

5-5-2 C-FEB Interfaces

The External Interfaces from the Front End are:

- The Main DC IN power connector that connects the AC/DC Adaptor 24 V supply to the scanner.
- Optional Power Docking connector for future Power Supply from a Cart that contains the following:
  - DC IN Supply line from 24 V AC/DC Adaptor or External Battery
  - Cart Present Signal
  - Scanner Present Signal sent to the Cart
  - Scanner Disconnect early warning Signal
  - Interface to External Batteries Module that contain:
    - SMBUS Interface
    - External Battery Present Signal
    - 3 x RS Probe Connectors located on the C-PSB

The C-FEB is connected to the C-BEB via 2 connectors:

- High Speed Data and Control Connector that consist of the following:
  - PCI-e channel (1 Lane Gen2) for Setup and communication between the BEP and the DSP located on the C-FEB via PCI Bridge
  - PCI-e channel (8 lanes Gen2) for Acquired Data Transfer between FE and BE
  - SMBUS Channel between the BMC and the PMC to transfer BE status information or communication messages from the scanner application.
  - Control and Status Signals between the BE BMC and the PMC
- Power Connector that consist of the following Supply voltages:
  - 12v Main Supply voltage to the C-BEB and to the Display connected to it.

The C-FEB is connected to the C-PSB via 2 connectors and consist of the following Interfaces:

- 28 Transmit and Receive System channels
- Dedicated I2C channel for PSB Setup and Status Reading
- Discrete Control Signals
- I2C channel for Probe ID Reading and PSB Debug Information.
- LVDS channels for Matrix Probe Setup and Status Reading (Reserved, but not used in C-PSB)
- PSB DC Supply

- Probe Low voltage and High Voltage Supply
- Internal and External HV Mux Control Interface

The C-FEB Interface to the C-IFB (Inlet FANs Board) consists of the following Interfaces:

- Inlet FANs DC voltage supply per the selected Speed Mode.
- 5 Tacho output signals from the FANs to monitor their Speed.
- 5v Standby voltage to the C-BEB

5-5-3 Probe Selection Board (C-PSB)

The Probe Selection Board (T-PSB) enables acquisition and processing of signals from and to probes connected to the C-FEB and implements the required probe selection.

The PSB provides a mechanical and electrical interface for 3 RS probes with up to 192 elements.

The T-PSB supports the following:

- Probes with up to 128 elements, directly.
- 192 element probes, using on-board HV multiplexers.

The PSB receives all the required control lines from the C-FEB board. The analog receive/ transmit lines are routed to the C-FEB board using two dedicated connectors.

Section 5-6
Venue Go™ Display

5-6-1 General

TheVenue Go™ includes the 15.6" Wide 16:9 multi touch LCD Display.

5-6-2 Display Panel and Multi-Touch (MT)

The system contains touch-sensitive display screen that includes 3 modules:

- Main display monitor [Bare Panel Module]
- Touch Panel
- Front Glass

The above modules serve to view the ultrasound images and other outputs of the scanner, as well as to support multi-touch technology allowing the support of various multi finger gestures for all the available controls provided by the scanner

The Display Panel supports the following functionalities:

- Activate on touch
- Activate on release
- Drag-and-drop
- Double-click
- Long touch that activates mouse right-click

User interaction with the Touch Display is by way of touching (tapping) the screen with one finger, or swiping (sliding multiple fingers across the surface of the screen). The touch panel display is sensitive to finger and latex gloved hand. In addition to facilitating quick selection of the applicable controls, these actions enable smooth scrolling, browsing and scaling of the display, as required.

To facilitate comfortable positioning for the operator, the height of the System when it is mounted on cart, can be adjusted as required. s

5-6-2-1 Display Panel Characteristics

Table 5-4 Display Panel Characteristics

Item	Value
Size	15.6 inch wide
Resolution	1920 x 1080 pixels (WSXGA)
Number of Bits	Min 8 bits per color
Aspect Ratio	16:9

5-6-2-2 Display Position Characteristics (with Venue Go™ Mounted on Cart)

Table 5-5 Display Position Characteristics

Item	Value (in Degrees)
Forward Tilt	Min. 9.0 Max. 41
Backward Tilt	Min. 39 Max. 41
Left/Right Tilt	100± 2

5-6-2-3 Display Panel Optical Characteristics

Table 5-6 Display Panel Optical Characteristics

Item	Value
Contrast Ratio	Min 800
Color Depth	Mi 6 bits
Horizontal Viewing Angle	Min 170 degrees @ CR ≥10
Vertical Viewing Angle	Min 75 degrees @ CR ≥10

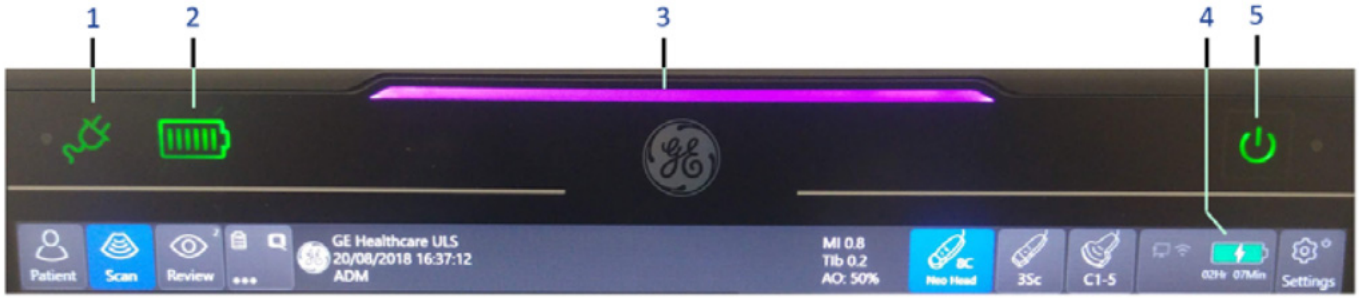
5-6-2-4 Multi Touch Layer

The MT activation is sensitive to:

- A bare finger
- A Latex gloved hand
- A Latex gloved hand with ultrasound gel
- Display covered with transparent foil

5-6-2-5 Light Bar Indicator (Stripe Indicator)Venue Go™

1) Use the config screen to select the requested color for your system's light bar..



1. AC mains power indicator
2. Battery status display
3. System identification and power status stripe indicator
4. Battery charge and scan time indicator
5. System's ON/OFF button

Figure 5-5 Light Bar Configuration

Note: The light bar also indicates when the battery power is low, by blinking in red.

5-6-3 Speaker

The Venue Go™ system includes two speakers for delivering Doppler Audio and system notification sounds to the user. The speakers are located on the rear side of the system (left and right) and are connected to C-BEB.

Section 5-7
External Input/Output

The Venue Go™ ultrasound scanner has a connection panel (located at the rear of the system) that can host the connections illustrated below.

Figure 5-5 shows a view of the Venue Go™ ultrasound unit interface panel showing external peripheral/ accessory connectors.

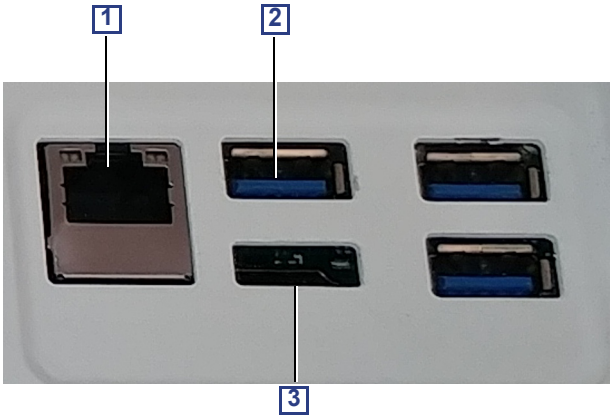


Figure 5-6 View of the Venue Go™ Peripheral/Accessory Interface Panel

1 Ethernet LAN connector — 1000 Base-TX Ethernet IEEE 802.3 (3kV insulation)

2 USB 3.0 connector x3 (not insulated)

3 HDMI connector (not insulated)

NOTE: Non insulated I/O can be populated either by certified medical devices or a self powered device (powered by the system, not by external AC). All other devices should be connected to the system by means of additional insulation.

Section 5-8
System Power Distribution

5-8-1 Introduction

The AC/DC adapter is the main Power Supply for the Venue Go™System. It provides the DC voltage required to power the system in all its operational modes, while providing power to charge its two internal Li-Ion batteries. The AC/DC adapter also acts as the isolation barrier between the AC mains and the System.

Section 5-9
System Monitoring

The monitoring data gathered locally, and transferred to the scanner application in the following channels:

- Front End Monitoring Data from the FPGAs gathered by the DSP
- Front End Critical Voltages monitored by the FE Monitor Device and gathered by the PMC
- Back End Monitoring Data gathered from the BMC by the PMC
- C-FPB Light Sensors Data gathered by the PMC

LVPS, Batteries and FANs Monitoring Data gathered by the PMC

5-9-1 Power Management Controller

The System Power Management is responsible for operating the system in different power states, in accordance with the power condition and User request.

The Power Management Controller (PMC) responsible to the following functions:

- System Power Modes Management Control.
- Dual Battery Status Monitoring via SMBUS Interface.
- Dual Battery chargers Control
- Back End Temperatures, Voltages and Status monitoring Reading from BMC (BE Controller) via SMBUS Interface
- Scanner Thermal management
- Outlet FANs Speed Control and Monitoring.
- Inlet FAN Speed Control and Monitoring.
- Front End Monitoring Device Control via discrete signals and I2C Interface
- Scanner Application Programming Interface
- Optional External Battery Interface via SMBUS
- Battery switching Control to allow switching between Internal and External Battery supply (optional)
- Front Panel Status Control via I2C Interface
- Front Panel Light Sensors Reading via I2C Interface
- Monitoring of all LVPS input and output voltages
- Monitoring of system power consumption
- Monitoring of local Temperature sensors

5-9-2 System Power Consumption

The power consumption of the system without any additional peripherals is:

- Without charging (only batteries or AC/DC connected with fully charged batteries) in any mode of operation MAX: 125 VA.
- With charging (AC/DC connected with not fully charged batteries) in any mode of operation MIN: | MAX: 230.0 VA.

5-9-3 Rechargeable Battery Pack

The Venue Go™ system contains two smart battery packs, each one containing Li-Ion cell, controller and fuel gauge electronics.

The battery pack has an automatic self-calibration feature.

The basic system configuration (two battery packs) supports up to two hours of continuous scan.

5-9-3-1 Battery - General Safety Guidelines

The lithium ion rechargeable battery packs provides power to the Venue Go™ system whenever an AC power source is not available.

Venue Go™ ultrasound scanner is supplied with two battery packs installed in the battery bay as standard. Each battery pack includes three lithium ion batteries bounded in plastic enclosure.

The Venue Go™ has built-in charger functionality and switches automatically from battery operation to AC operation and *vice versa*.

When shutting down the system, leave the main power cable connected to keep the battery fully charged.

NOTE: Before removing or inserting the Battery, perform system shut-down and disconnect the AC power cable from the Venue Go™ ultrasound scanner.

NOTE: The lithium ion technology used in the system's battery is significantly less hazardous to the environment than the lithium metal technology used in some other batteries.

NOTE: The battery is designed to be replaced every 2 years.

CAUTION **THE BATTERY IS DESIGNED TO WORK WITH VENUE™ SYSTEMS ONLY. ONLY USE THE BATTERIES AUTHORIZED BY GE.**

- Do **not** disassemble or alter it. Charge the batteries only when the ambient temperature is between 0 °C and 40 °C (32 °F and 104 °F) and discharge the batteries between -20 °C and 50 °C (-4 °F and 122 °F).
- Do **not** short-circuit the battery by directly connecting the battery terminals with metal objects.
- Do **not** heat the battery or incinerate.
- Do **not** expose the battery to temperature over 60 °C (140 °F). Keep it away from fire and other heat sources.
- Do **not** charge the battery near a heat source, e.g. fire or heaters.
- Do **not** leave the battery in direct sunlight.
- Do **not** pierce the battery with a sharp object, hit it, or step on it.
- Do **not** use a damaged battery. Do not solder a battery.
- Do **not** connect the battery to an electrical outlet.
- Do **not** immerse the battery in water or allow it to get wet.
- Do **not** put the battery into a microwave oven or pressurized container. If the battery leaks or emits an odor, remove it from all possible flammable sources.
- If the battery emits an odor or heat, is deformed or discolored, or in a way appears abnormal during use, recharging or storage, immediately remove it and stop using it.
- If you have any questions about the battery, consult GE or your local representative.

Recommended storage conditions of battery pack:

Short term (less than one month): 0 °C (32 °F) to 50 °C (122 °F)

Long term (more than three months): -20 °C (-4 °F) to 20 °C (68 °F).

5-9-3-2 Battery Chargers Requirements

The C-FEB contains 2 battery chargers for charging the two battery packs simultaneously.

Each Battery charger is activated once the External AC-DC Supply is connected.

The charger supports the following Charging Modes controlled by the PMC:

- Normal Battery Charging.
- Recovery Battery Charging used when Battery is fully drained.
- No Charging.

Each charger provides charger status lines as indication for normal operation, charging completion and failure (battery not charging/overvoltage) to the PMC.

The Battery Temperature sensor signal is connected to its charger.

The Charger has a sensor signal connected to it, and it automatically stops charging in case the battery temperature exceeds 46±2° C.

The Charger resumes normal charging when the battery temperature is at least below 43° C.

5-9-3-3 Battery Power Specifications

Scanning time in continuous 2D mode with new and fully charged pair of batteries, using12Ln-RS probe with "vascular" factory preset is MIN: 120 minutes.

Scan time in 2D after 24 hrs of standby mode from new, fully charged batteries is MIN: 90.0 min.

Scan time in 2D after 48 hrs of standby mode from new, fully charged batteries is MIN: 60 min.

The system can remain in standby mode for 3 days (72.0 hours), using a fully charged, new battery.

Section 5-10
Cooling System

5-10-1 General Information

The Venue Go™ system has 2 fans for system cooling:

To allow efficient cooling, the Scanner cooling consists of the following elements:

- Heat Pipe to transfer the heat (installed on the C-BEB).
- Outlet Blower at the edge of the Heat Pipe.
- Fan to push cold air into scanner (installed on the C-FEB Heat Sink).

All fans are controlled and have two variable speeds.

The cooling requirement for the Venue Go™ ultrasound scanner with on board peripherals, is up to 600 BTU/h. This figure does not include cooling needed for lights, people, or other equipment in the room.

NOTE: Each person in the room places an additional 300 BTU/h demand on the cooling system.

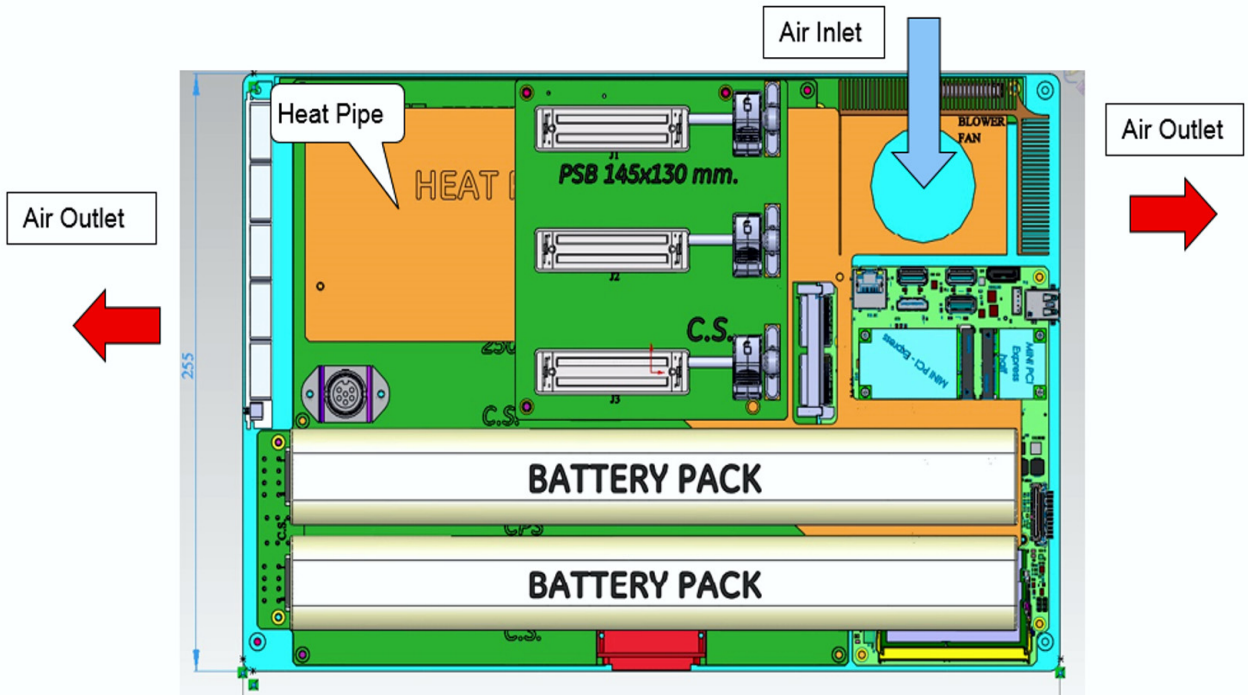


Figure 5-7 BEP Board Interfaces

Section 5-11 Peripherals

5-11-1 Internal Peripheral

5-11-1-1 Wi-Fi Adapter

The Wi-Fi adapter allows the user to connect the system to network wirelessly.

The Wi-Fi adapter is connected internally to the C-BEB.

5-11-2 External Peripherals

5-11-2-1 Barcode reader

The barcode reader is an option. It allows the user scanning patient ID from a printed barcode label and scanning needle type barcode.

The barcode reader is connected to the Venue Go™ system via a USB port located on the rear.

5-11-2-2 Black & White Digital Graphic Printer

The B/W Printer is available as an option and is powered by a dedicated AC/DC power supply. The printer is mounted on the cart of the Venue™ ultrasound scanner.

5-11-2-3 ECG

The ECG module is responsible for the acquisition of the ECG Analog signal inputs by the three leads connected to the patient body.

Section 5-12 Options

- For a list of the available options, see Peripherals on page 9 - 14.
- For descriptions of the options, see the *User Manual*.
- For Installation instructions, see: Options Setup on page 3 - 63.
- For configuration, see: Options Setup on page 3 - 63.

Section 5-13
Connectivity

5-13-1 Purpose of this Section

This section describes communication and connection options between the Venue Go™ ultrasound scanner and other devices in the Hospital Information System.

5-13-2 Venue Go™ and a DICOM Server in a Network

In this case, the Venue Go™ is configured to work with a DICOM server in a network environment. Usually, this will be the hospital network.

Images are first saved on the local image buffer on the Venue Go™.

At the end of the examination the images are sent to the DICOM server via a DICOM spooler.

This scenario requires that Venue Go™ is configured to be connected to the DICOM server.

Section 5-14
InSite ExC

5-14-1 Introduction

InSite ExC is your direct link with a GE Online Service Engineer or Applications Support Engineer, or a Request for Service via the InSite ExC link at the bottom of the display screen.

5-14-2 InSite ExC Icon

The InSite ExC icon in the status bar change symbol and color depending on ongoing activity.

Figure 5-8 InSite ExC Icon

Clicking on the Icon brings up the InSite ExC menu.

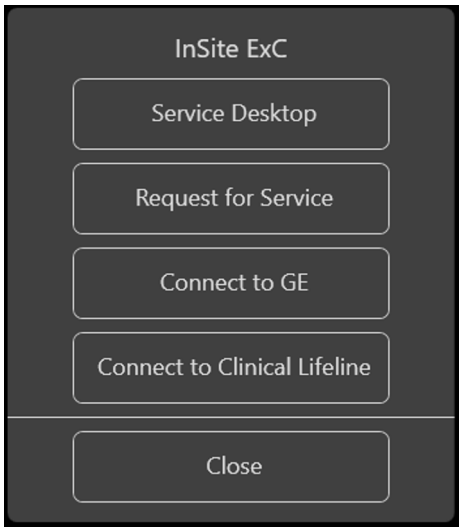


Figure 5-9 InSite ExC Menu

Menu Choices:

- **Service Desktop**

  Opens the Common Service Desktop on the Venue Go™.

- **Request For Service**

  Generates a request for service (RFS). Allows the customer to generate a Service or Apps request.

- **Connect to GE**

  Increase polling rate. Click this icon to increase the contact Poll Rate from 15 minutes to 15 seconds. The increased polling rate continues for 15 minutes.

- **Connect Clinical Lifeline**

  Changes the polling rate the same way as "Connect to GE" and in addition:

  - Switches to disruptive mode
  - Starts Virtual Console Observation (does not provide access to Windows Desktop.)
  - When clicked again, turns off the disruptive mode and turns of the VCO.

5-14-3 Initiating a Request for Service (RFS)

To initiate an RFS,

1) Position the Windows pointer on top of the GE InSite ExC icon at the bottom of the display.
2) Tap and hold Contact GE. This opens of the RFS screen which sends a service dispatch directly to GE Service after you fill in the following information:
   - Items with a red asterisk
   - Problem type
   - Problem area
   - Problem description
   - Send
3) After you have completed filling in all of this information, press ***Send*** to initiate the Request for Service.

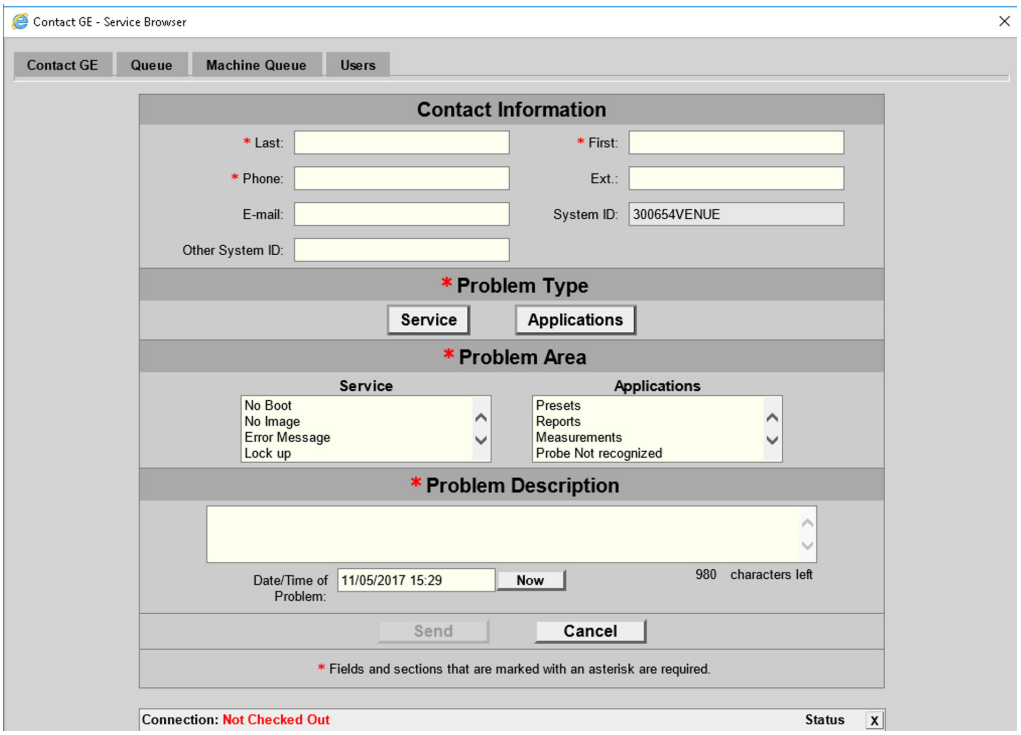


Figure 5-10 Request for Service Contact Information

After you press Send, the following pop-up appears:

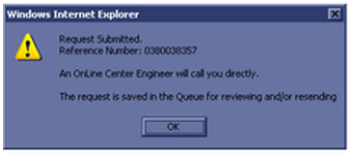


Figure 5-11 Request for Service Confirmation

All requests for service are listed on the Queue for your review.

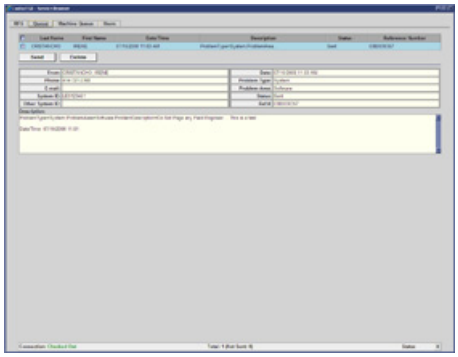


Figure 5-12 Request for Service Queue

You can monitor your RFS as well as RFS's automatically sent by the system. The Venue Go™ can automatically submit a Request for Service. These are displayed on the Machine Queue.

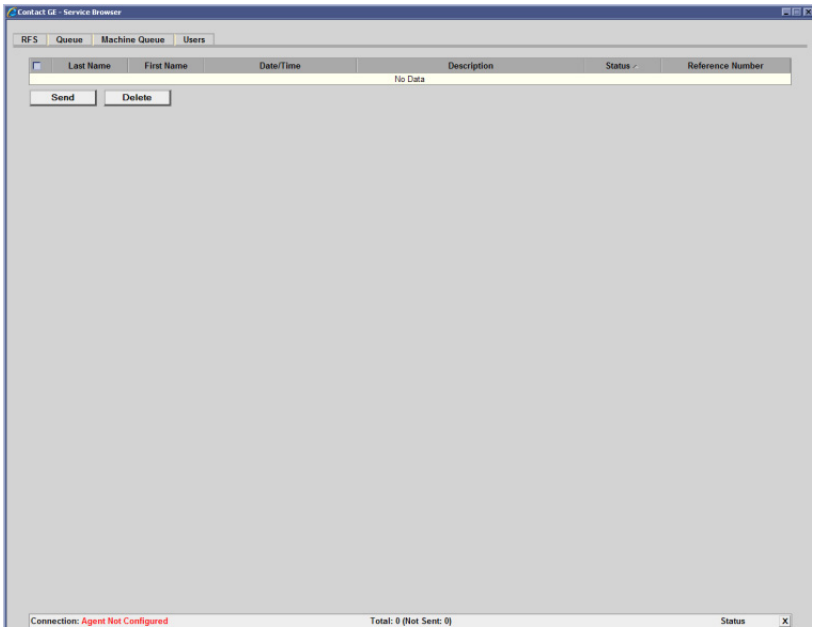


Figure 5-13 Machine Queue

In addition, you can use the Users screen to identify your institution's point of contact for service dispatches.

5-14-4 InSite ExC Definitions

Here are definitions for the different InSite ExC states:

Virtual Console Observation (VCO). Allows Technical Support to control Venue Go™ functionality remotely.

Disruptive. Allows GE's Technical Support person to connect to your system via VCO, to run diagnostics directly on your Venue Go™ system, and to collect system logs. When the system is in Disruptive Mode, the icons are red. There are two disruptive states. If you see a telephone with a clock, then the system is in Disruptive, Not Connected Mode. If you see a telephone with GE, then the system is in Disruptive, Connected Mode.

Non-Disruptive. Allows GE's Technical support person to look around on your system, but cannot perform any service-related functions, depending on whether InSite has connected or not connected. There are two Non-Disruptive states. If you see a black and white icon, InSite ExC is activated, but not open for Technical Support access. If you see a yellow icon, InSite ExC is activated and the Technical Support person can look around on your system, but cannot perform any service-related functions.

Connected. InSite ExC is connected.

Not Connected. InSite ExC is not connected.

NOTE: When Disruptive mode has been activated or a diagnostic has been run, the message, "Due to Service testing reboot required," appears in red at the bottom of the display. It is recommended that you reboot the system before use. Make sure you disable disruptive mode before rebooting or the message will not be cleared.

5-14-5 Exiting InSite ExC

To exit InSite ExC,

1) Select Connect To GE.
2) The GE Technical Support person then exits Disruptive Mode and VCO.
3) Reboot your Venue Go™ system.

Chapter 6
Service Adjustments

Section 6-1
Overview

6-1-1 Purpose of Chapter 6

This chapter explains that there are no service adjustments required on a Venue™ .

Section 6-2
Power Supply Adjustments

There are no adjustments on the AC/DC power supply.

The AC/DC Power is self-regulated.

If a voltage is outside the specified range, it means that something is wrong, either with the power supply itself or with one (or more) of the units connected to that specific power outlet.

When an error occurs, the power will be turned OFF immediately.

Chapter 7
Diagnostics/Troubleshooting

Section 7-1
Overview

7-1-1 Purpose of Chapter

This chapter describes how to setup and run the tools and software that help maintain image quality and system operation. Very basic host, system and board level diagnostics are run whenever power is applied. Some Service Tools may be run at the application level.

Section 7-2
Service Safety Considerations

d  

DANGEROUS VOLTAGES, CAPABLE OF CAUSING DEATH, ARE PRESENT IN THIS EQUIPMENT. USE EXTREME CAUTION WHEN HANDLING, TESTING AND ADJUSTING.

w 

If the covers are removed from an operating Venue Go™ , some metal surfaces may be warm enough to pose a potential heat hazard if touched, even while in shutdown mode.

w 

Use all Personal Protection Equipment (PPE) such as gloves, safety shoes, safety glasses, and kneeling pad, to reduce the risk of injury.

Section 7-3
Gathering Troubleshooting Data

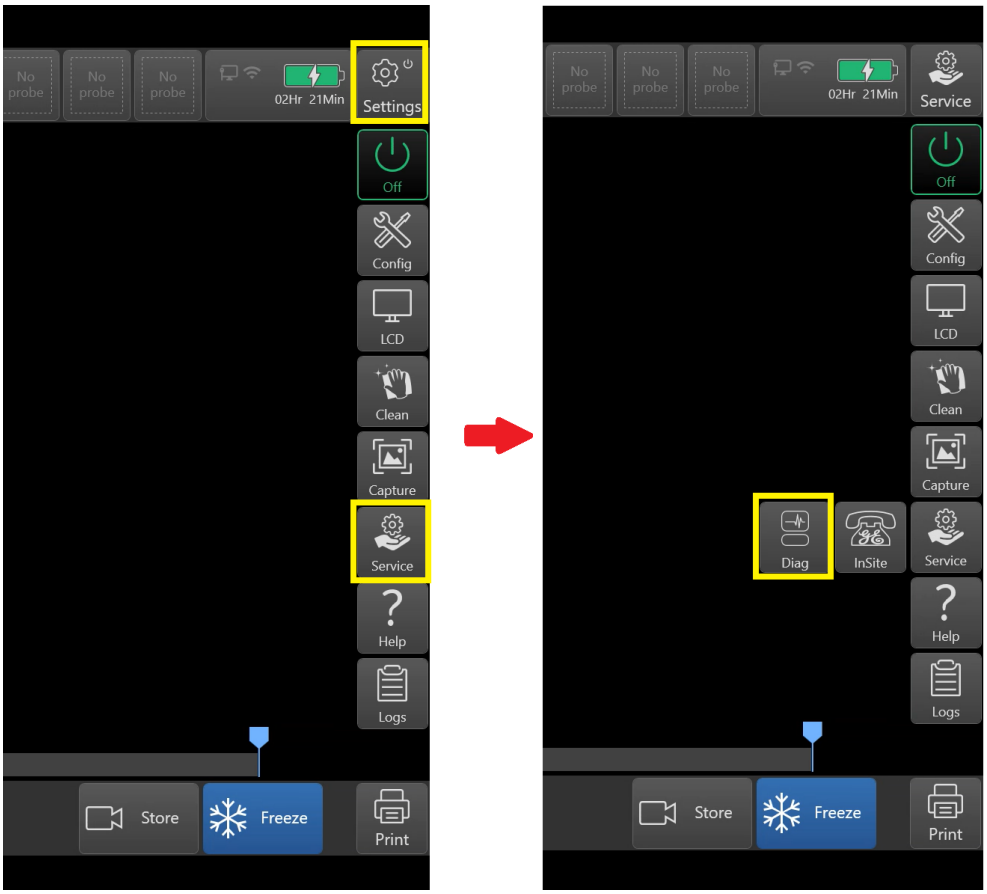
7-3-1 Purpose of this Section

Trouble images and system data (logs) can be acquired at the device or through remote diagnostics (InSite). These data can be used to perform service at the device, or can be sent back to the manufacturer for analysis.

7-3-2 Running System Diagnostics

1) Boot the system into the application screen.

2) On the Home screen tap: **Settings >> Service >>Diag**.



7-3-3 Collect Vital System Information

The following information is necessary in order to properly analyze data or images being reported as a malfunction or being returned to the manufacturer:

Product Name = Venue Go™

Tap Settings ->Config -> About screen.

- Applications Software
  - Application Software revision
  - Software medium's part number

- System Software
  - System Software revision
  - Software medium's part number

7-3-4 Collect a 'Trouble Image' with Logs

If the system should malfunction, follow the procedure below to capture the log files.

This will collect a screen capture of the monitor, system presets and several log files in a date and time stamped ".zip" file.

The log capture window, includes a menu box that contains:

- a place to enter a description of the issue
- a check box to indicate a System lockup
- a choice to Export to a pre-formatted removable media or save to the Export directory D: drive (for remote viewing through InSite).

On the Home screen tap: **Settings >> Log >> Logs**.

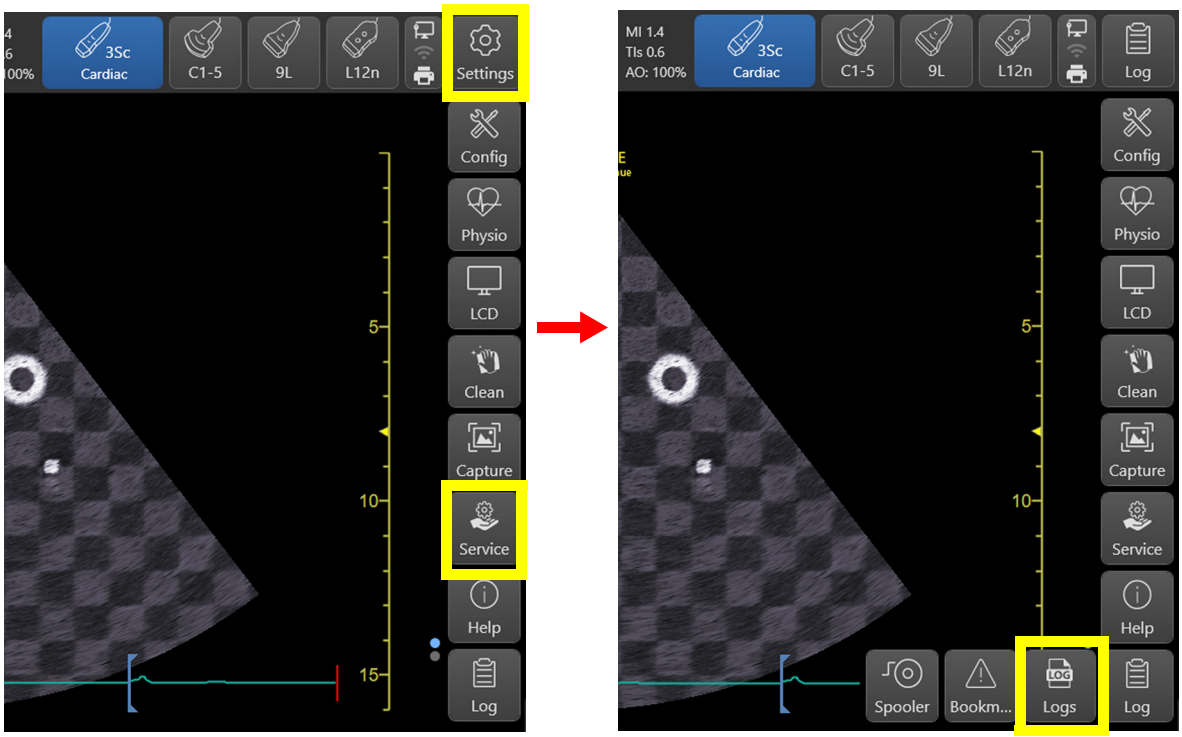
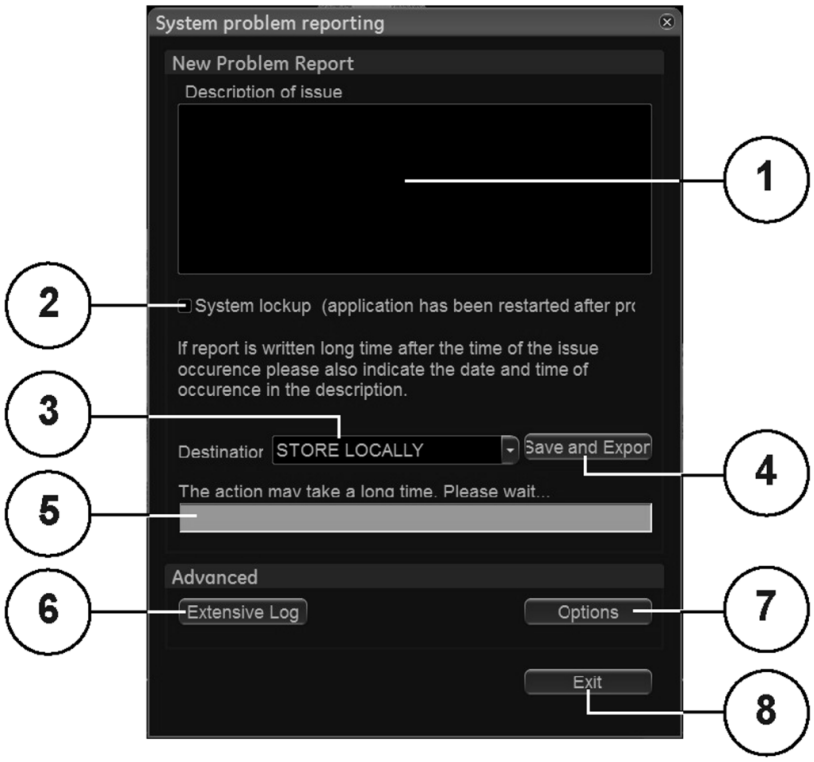


Figure 7-17 Accessing Diagnostics Screen

*NOTE: You **MUST** select one of the available devices as the destination device if it is to be different than the default Export directory on the hard drive.*

The screen capture is a bitmap which eliminates the possibility of artifacts from compression.



1. Type description of issue here
2. Select if you've had a system lockup (after restart)
3. Select where to store the report
4. Select this button when ready to Save and Export
5. Progress bar
6. See: Advanced Log Options on page 7 - 8.
7. See: Advanced Log Options on page 7 - 8.
8. Exit

Figure 7-18 System Problem Reporting

7-3-4-1 Advanced Log Options

- **Extensive Log** enables the creation of a log file containing additional information for the selected functionality.
- **Options** enables creation of a log file based on a selected bookmark or for a user configurable time frame. Different type of information can be selected to be part of the log file.

Section 7-4
Noise Troubleshooting

7-4-1 Purpose of this Section

In this section you will find Noise troubleshooting procedures and hints.

7-4-2 Introduction

Before you start troubleshooting the noise, you should read the following subsections:

- EMI Limitations on page 2 - 4
- EMI Prevention/Abatement on page 2 - 5
- Overview of Types of Noise - see below

When talking to the customer, try to gather as much information as possible about the conditions when the noise appear:

Is the noise present...

… all the time?

… after some time of use? (After how long time?)

… at special times of the day (or night)? When?

… at all locations in the hospital, or only in one room/area?

… from time to time, no special pattern of time is observed?

7-4-3 Overview of Types of Noise

There are different types of noise. Use the information next to classify the noise and possible cause.

7-4-3-1 Noise Picked Up from the Air

Electromagnetic Interference (EMI) from radio frequencies, magnetic fields, and transients in the air.

If picked up by a probe cable, the noise will be coherent -“penlight noise” pointing down in the picture - due to the fact that the noise is received on all channels.

- Is it a problem on one probe only?
  Try another probe.
- Is it a problem on one of the probe connectors only?
  Move the scanner to another location and verify any changes.

7-4-3-2 Noise Received via the External Cables

Electromagnetic Interference (EMI) from radio frequencies, magnetic fields, and transients in the wiring. The noise can enter the system via the mains power cable, probe cable(s) or any other external connected cable(s).

To troubleshoot this type of noise, disconnect cables that are not needed for the basic use of the scanner. Check for any change in the noise each time a cable has been disconnected from the Venue Go™ .

- Network cable
- Cables to any external peripherals
- Other cables connected to the Patient I/O

Verify if the noise change or disappear when the cables are removed.

Often, this type of noise is due to grounding problems in the mains power system or that the scanner is sharing a power line with other equipment.

7-4-3-3 Intermittent Noise

- Is there any equipment that is turned on and off near the scanner?
- Is the noise present all around the clock or only at special occasions?

7-4-3-4 Self-generated Noise Generated inside the Ultrasound system)

Example: Color Noise in the near field.

- Self generated noise will not change if you touch the scanner or the probe.
- Self generated noise may be due to either:
  - heat problems
  - hardware problems
  - software problems

7-4-3-5 Heat Problems

Heat problems are usually starting when the Venue Go™ has been ON for some time.

If the Venue Go™ has been used for scanning for some time before the noise appears, it may be due to either heat problems or some software related issues. By doing a restart you may learn some more about the cause.

Select **Ctrl+Alt+R** to restart the back end processor without power-cycling the unit.

- If the noise is present after the restart, the cause is most likely due to heat problems.
- If the noise is gone after the restart, it may be due to either the setup/adjustments of the or a software failure.

Possible causes for heat problems:

- Fan filters need to be cleaned or replaced.
- Room temperatures outside the allowed temperature limits.
- Fans are worn-out.
- Hardware problems.

7-4-3-6 Hardware Problems

A hardware issue will typically be an error/malfunction on a card.

7-4-3-7 Software Problems

Check if a newer software version is available. A software update may include noise fixes. If needed, update the software.

7-4-4 Different Power Outlet

Connect the unit to another power outlet and verify if the noise changes or disappear.

NOTE: GE requires a dedicated power and ground for the proper operation of its Ultrasound equipment. This dedicated power shall originate at the last distribution panel before the Ultrasound system.

The Venue Go™ will function on voltages from 100-240 Volts and 50 or 60 Hz. However, if using 220 volt power in North America, then a center tapped power source is required.

Sites with a mains power system with defined Neutral and Live:

The dedicated line shall consist of one phase, a neutral (not shared with any other circuit), and a full size ground wire from the distribution panel to the Ultrasound outlet.

Sites with a mains power system without a defined Neutral:

The dedicated line shall consist of one phase (two lines), not shared with any other circuit, and a full size ground wire from the distribution panel to the Ultrasound outlet.

7-4-5 Different System

Try another Venue Go™ scanner at the same location and look for the same noise. If the noise is present on the new system too, the noise is most likely from an external source/equipment.

7-4-6 Different Location

Move the scanner to another location and verify if the noise changes or disappear. This may help you to locate an external noise source.

Try to move the scanner to:

- another location inside the room
- another room
- another floor

7-4-7 Disconnect External Cables

Disconnect all external cables (network and all unused probes), and verify if the noise disappears.

Section 7-5
Using a Loaner System during Faulty System Repair

7-5-1 Purpose of this Section

If your system cannot be repaired via the troubleshooting procedures and a GE Repair Depot is available in your area, contact your local GE service team for requesting a loaner system. When the loaner system arrives, transfer the data between the systems according to the flow described below.

NOTE: In case of failure to run the below procedure, contact your local GE service representative for further support.

7-5-2 Transferring data to the Loaner System

1.) Open the package and verify the contents:

- Software disk-on-key
- Network cable
- Loaner system

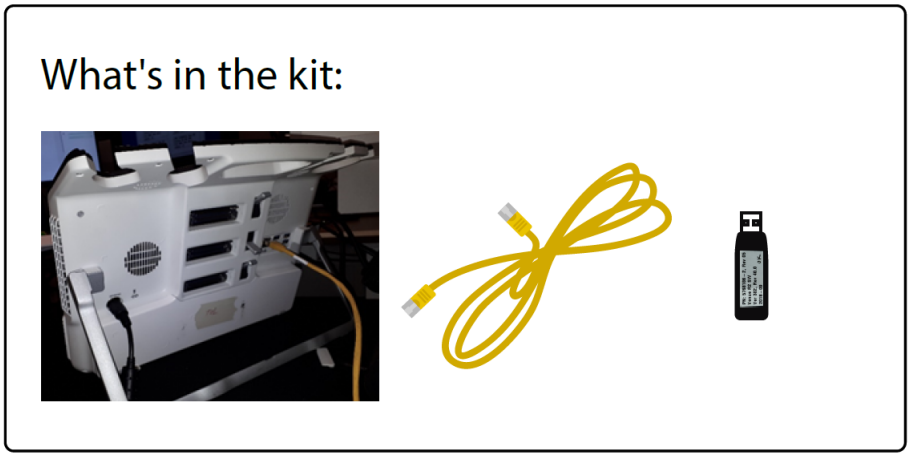


Figure 7-19 Loaner system kit

2.) *On the **faulty** system*, perform the following steps:

1.) Shut down the system
2.) Connect the software Disk-On-Key to any of the system's USB ports.
3.) Turn on the system.
4.) Select **Run Loaner Wizard**

Figure 7-20 Select Run Loaner Wizard

5.) Disconnect the Disk-On-Key.

3.) *On the **Loaner** system*:

1.) Shut down the system
2.) Connect the software Disk-On-Key to any of the system's USB ports.
3.) Turn on the system.
4.) Select: **Run Loaner Wizard**
5.) Disconnect the Disk-On-Key

4.) **Transfer the data between the systems**:

1.) Connect the two systems using the supplied network cable.

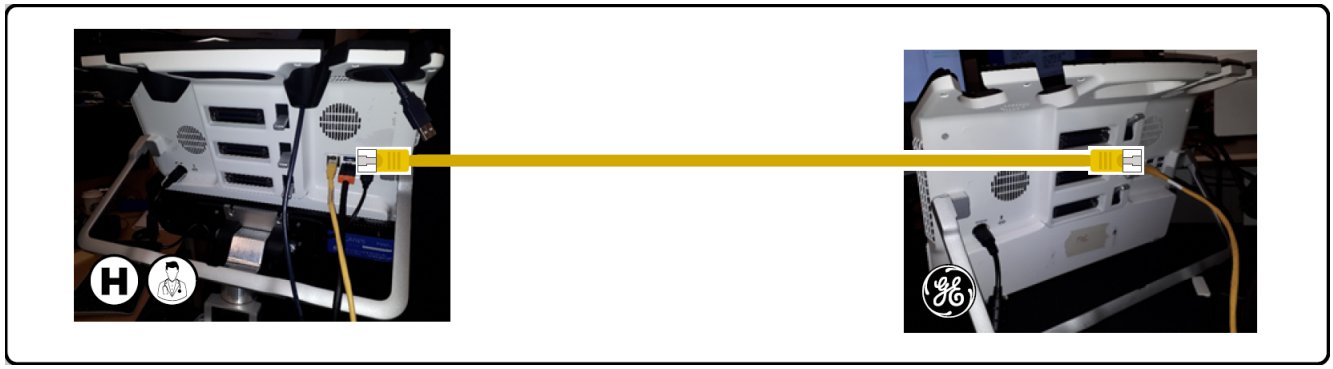


Figure 7-21 Connect Systems via the Network Cable

2.) On **Both** systems, on the Wizard opening screen Tap **Next.**

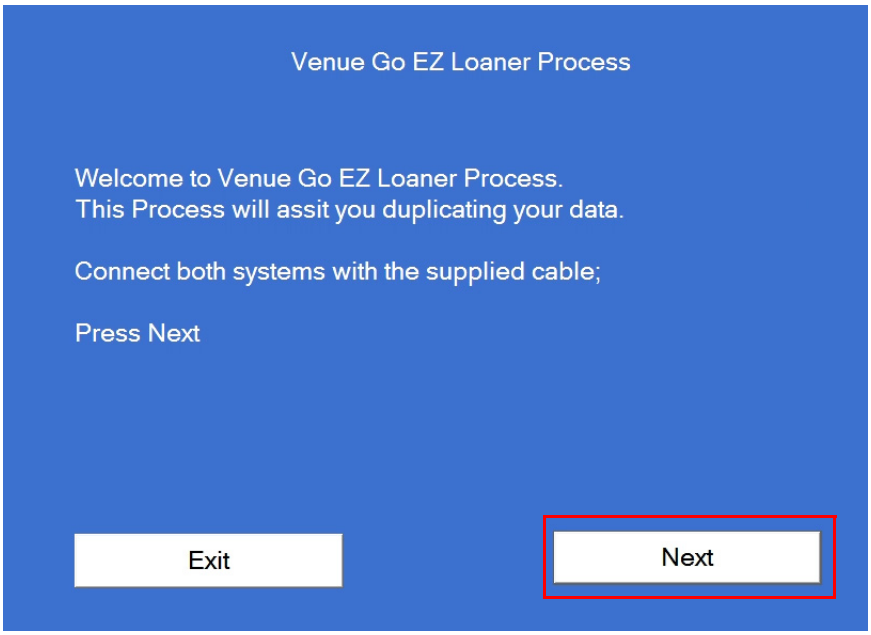


Figure 7-22 Wizard Opening Screen

3.) If the PHI partition on the **faulty** system was encrypted: Connect an external USB Keyboard to the system and type in the decryption password and tap **OK**.

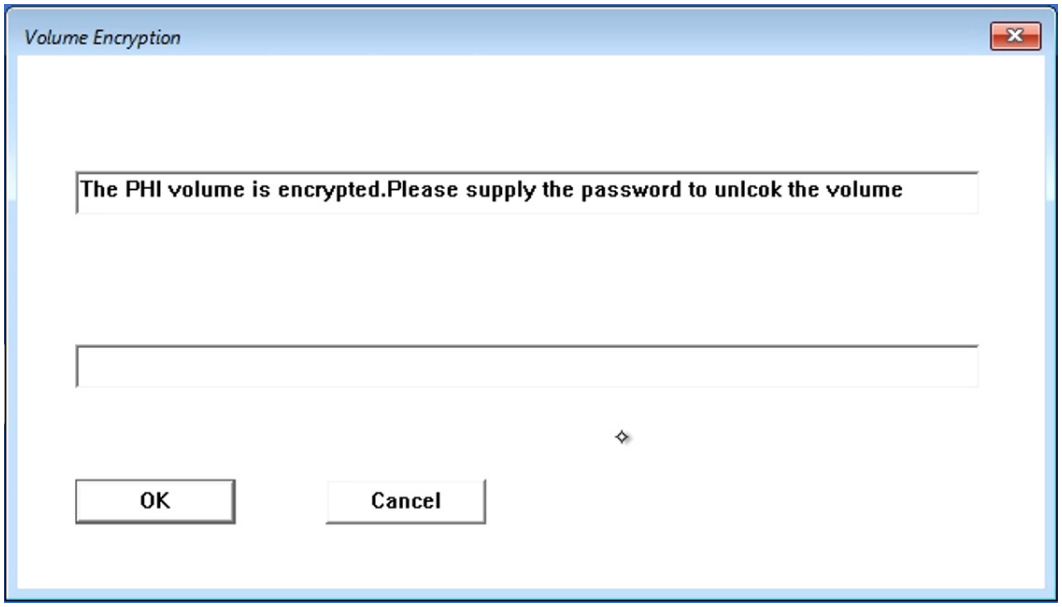


Figure 7-23 Volume decryption password window

4.) Verify that the **faulty** system is identified as **source** and that the **loaner** system is identified as **destination**

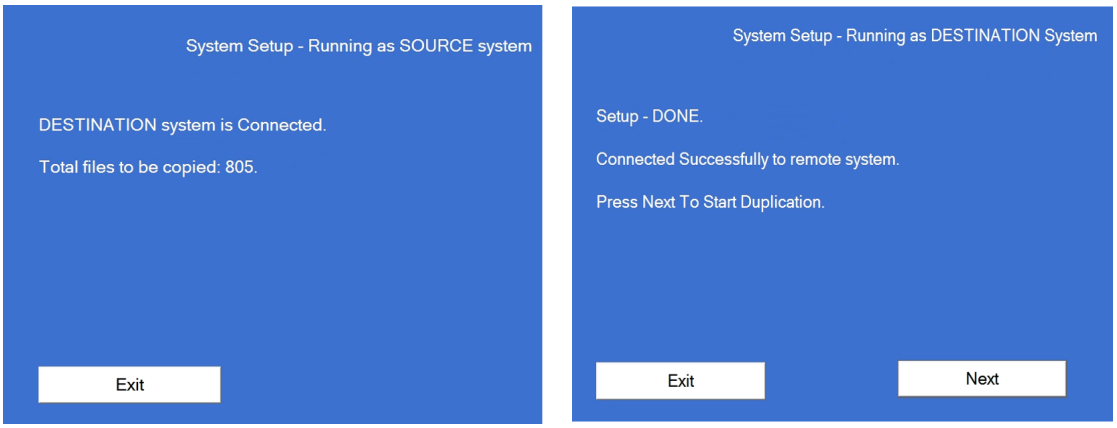


Figure 7-24 Verify the faulty system is running as SOURCE

5.) On the Loaner (destination) system: Press **next** to start the duplication process

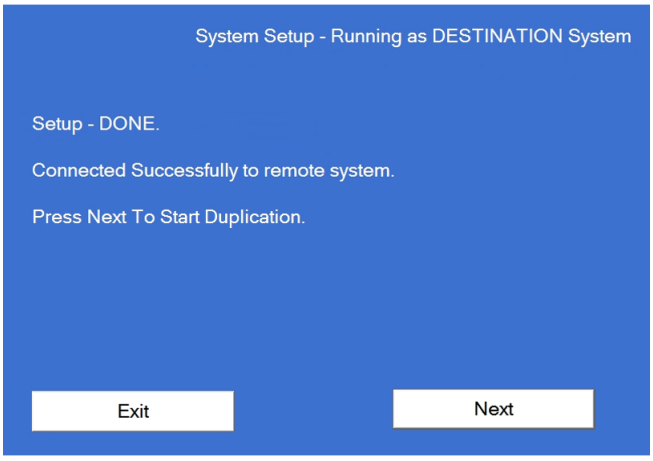


Figure 7-25 Press Next in the Loaner (Destination) system

5.) The copy process begins.

6.) Once the process is done shut down both systems

Note: Delete the PHI data before shipping the system to the repair Depot!
Refer to the user manual for detailed instructions.

Chapter 8
Replacement Procedures

Section 8-1
Overview

8-1-1 Purpose of Chapter 8

This chapter provides replacement procedures for Venue Go™ system parts, as outlined below.

NOTE: The pictures provided in this chapter are for illustration purposes only and are subject to change without notice.

Section 8-2
Internal Parts- Replacement Procedures

8-2-1 Preparations

1.) Shut down the Venue Go™ ultrasound unit, as described in Power Shutdown .

2.) Disconnect the power cord from the back side of the Venue Go™ ultrasound unit.

DANGER

ELECTRICAL HAZARDS EXIST AT SEVERAL POINTS IN THE SYSTEM. FAMILIARIZE YOURSELF WITH ALL HAZARDOUS VOLTAGES AND HIGH CURRENT LEVELS BEFORE REMOVING ANY OF THE COVERS.

DANGER

DO NOT WEAR THE ESD WRIST BAND STRAP WHEN REMOVING PARTS FROM THE POWER SUPPLY UNIT. BEFORE REMOVING ANY PART OF THE POWER UNIT, TURN THE POWER OFF AND DISCONNECT THE POWER CORD.

CAUTION **BEFORE REMOVING CIRCUIT BOARDS, TURN THE POWER OFF AND WEAR THE ESD WRIST BAND STRAP.**

8-2-2 Batteries Replacement Procedure

8-2-2-1 Tools

N/A

8-2-2-2 Time Required

5 min

8-2-2-3 Preparations

1.) Shut down the Venue Go™ ultrasound unit, as described in Power Shutdown.

2.) Prepare stable flat surface covered with a soft material (such as foam or thick cloth) to prevent scratches to the display.

3.) Dismount Venue Go™ system from cart as described in Mounting / Dismounting System on Cart and place it on a previously prepared surface with the display facing down.

4.) Open the battery switch silicon cover and switch off the battery power.

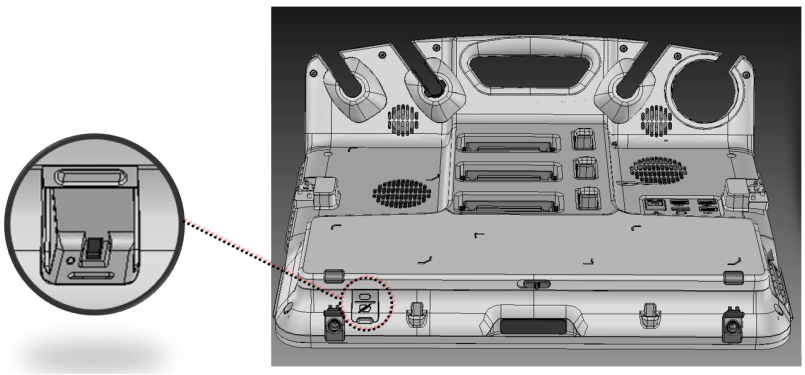


Figure 8-71 Battery Power Switch

8-2-2-4 Batteries Removal Procedure

1) Move the bottom probe locking lever to its locked position.
2) Raise the system support frame (Kick Stand) to vertical position.
3) Open the battery compartment cover by moving the latch to the right.
4.) Remove the battery.

Figure 8-72 Opening Battery Compartment Cover

8-2-2-5 Batteries Installation Procedure

1.) Slide in the battery towards the power connector.
2.) Position the battery properly in its compartment.
3.) Close the battery compartment cover.
4.) Switch **On** the battery power switch.
5.) Close the battery power switch silicon cover.

8-2-3 Back Cover Replacement Procedure

8-2-3-1 Tools

Phillips screwdriver of appropriate size.

FRU Part # *Refer to Table 9-16 on page 9-17.*

8-2-3-2 Time Required

5 min

8-2-3-3 Preparations

1.) Shut down the Venue Go™ ultrasound unit, as described in Power Shutdown.

2.) Prepare stable flat surface covered with a soft material (such as foam or thick cloth) to prevent scratches to the display.

3.) Dismount Venue Go™ system from cart as described in Mounting / Dismounting System on Cart and place it on a previously prepared surface with the display facing down.

8-2-3-4 Back Cover Removal Procedure

1) Remove batteries.

- Batteries Removal Procedure

2) Remove Probe Holder Rubber by gently pulling it upwards starting from the middle.

Figure 8-73 Probe Holder Rubber Removal

3) Release 10 captive screws.

Note: **IMPORTANT**! Ensure the screws are fully released before removing the cover, to avoid damaging the touch display screw heli-coils.

Figure 8-74 Releasing 10 captive Screws

4) Gently separate the back cover from the touch display panel starting at the top left corner proceeding clockwise.

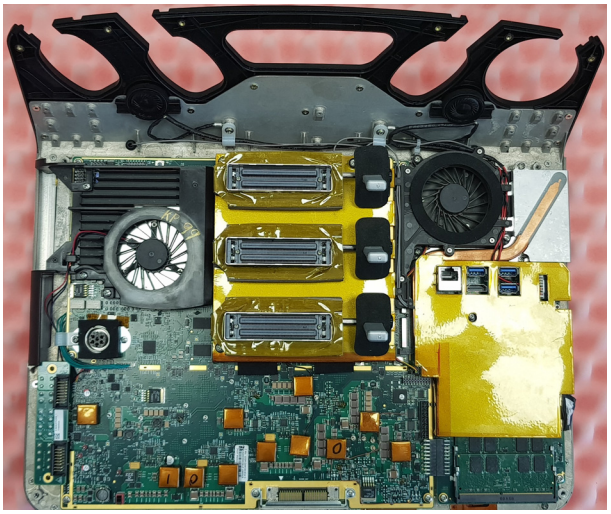


Figure 8-75 Removed Back Cover

8-2-3-5 Back Cover Installation Procedure

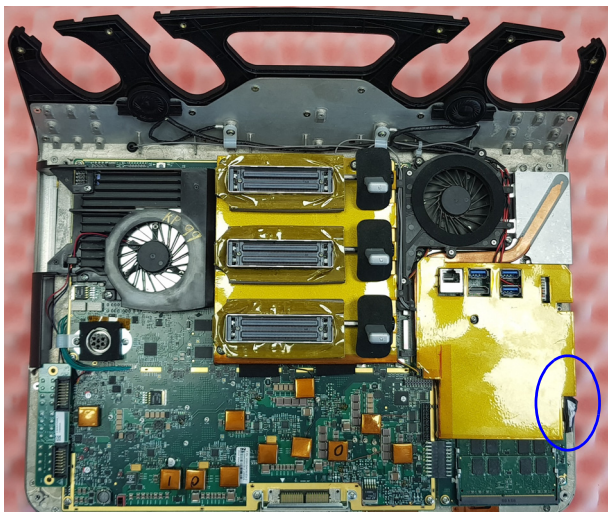
1.) Attach the back cover to the front panel and tighten the 10 captive screws in the following order:

- Tighten screws 1 thru 4 in the following order: first tighten screws 1 and 3; then tighten screws 2 and 4 (diagonal order)

- Tighten the 6 remaining upper screws

Figure 8-76 Fastening 10 captive Screws: Order

NOTE: Make sure the eDP cable connector is not pinched when closing the back cover.



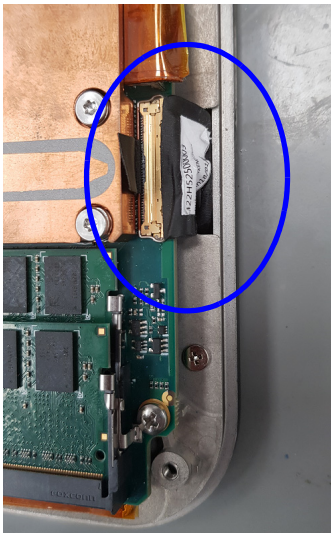


Figure 8-77 eDP connector

2.) Install Probe Holder Rubber on the top of the system.

3.) Install the batteries.

Note: **IMPORTANT:** Remove all labels from the old back cover and adhere them on the back side of the newly installed back cover.

8-2-4 C-PSB Replacement Procedure

8-2-4-1 Tools

Phillips screwdrivers of appropriate size

FRU Part # *Refer to Table 9-16 on page 9-17.*

8-2-4-2 Time Required

5 min

8-2-4-3 Preparations

1.) Shut down the Venue Go™ ultrasound unit, as described in Power Shutdown.

2.) Prepare stable flat surface covered with a soft material (such as foam or thick cloth) to prevent scratches to the display.

3.) Dismount Venue Go™ system from cart as described in Mounting / Dismounting System on Cart and place it on a previously prepared surface with the display facing down.

8-2-4-4 C-PSB Removal Procedure

1) Remove back cover.

- Back Cover Removal Procedure

2) Set the lower lever upwards to expose the screw, and remove four screws that hold the board.

Figure 8-78 Removing Four PSB Screws

3) Gently pull the board upwards to remove it.

4.) Make sure you pull the C-PSB up vertically to avoid damaging the two connectors located on the top side of the C-FEB.

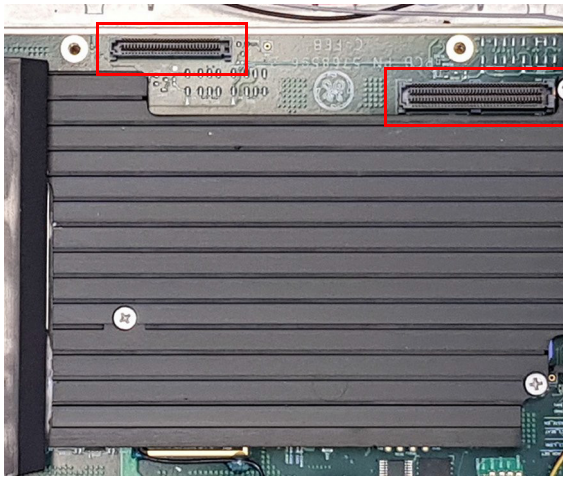


Figure 8-79 C-FEB Connectors

8-2-4-5 C-PSB Installation Procedure

1) Fold the C-PSB magnetic absorber (MAGRAM) cover to allow easy insertion behind the black rubber bumpers.

Figure 8-80 Magram support bumpers

2.) Align the C-PSB module and screws over the screw holes on the C-FEB and connect the C-PSB to the C-FEB connectors buy applying vertical pressure to the top side of the module.

3.) Tighten the four holding screws.

4.) Install back cover.

- Back Cover Installation Procedure

8-2-5 Probe Lever Replacement Procedure

8-2-5-1 Tools

Phillips screwdriver of appropriate size

FRU Part # *Refer to Table 9-16 on page 9-17.*

8-2-5-2 Time Required

5 min

8-2-5-3 Preparations

1.) Shut down the Venue Go™ ultrasound unit, as described in Power Shutdown.

2.) Prepare stable flat surface covered with a soft material (such as foam or thick cloth) to prevent scratches to the display.

3.) Dismount Venue Go™ system from cart as described in Mounting / Dismounting System on Cart and place it on a previously prepared surface with the display facing down.

8-2-5-4 Probe Lever Removal Procedure

1) Remove back cover.

- Back Cover Removal Procedure

2) Remove C-PSB.

- C-PSB Removal Procedure

3) Turnover the removed C-PSB unit, and identify the 2 screws holding the requested probe lever cap.

Note: Each lever is held by 2 screws

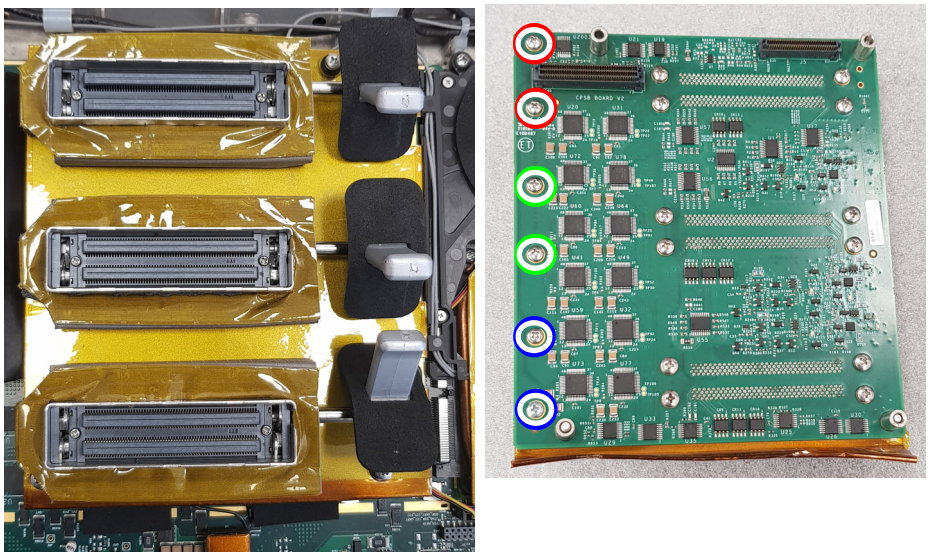


Figure 8-81 Turn-over the Removed C-PSB Unit; Identify the Probe-lever Screws

4) Remove the 2 screws holding the requested probe lever cap. Then turn-over the C-PSB, and gently slip the black plastic cap off the axle.

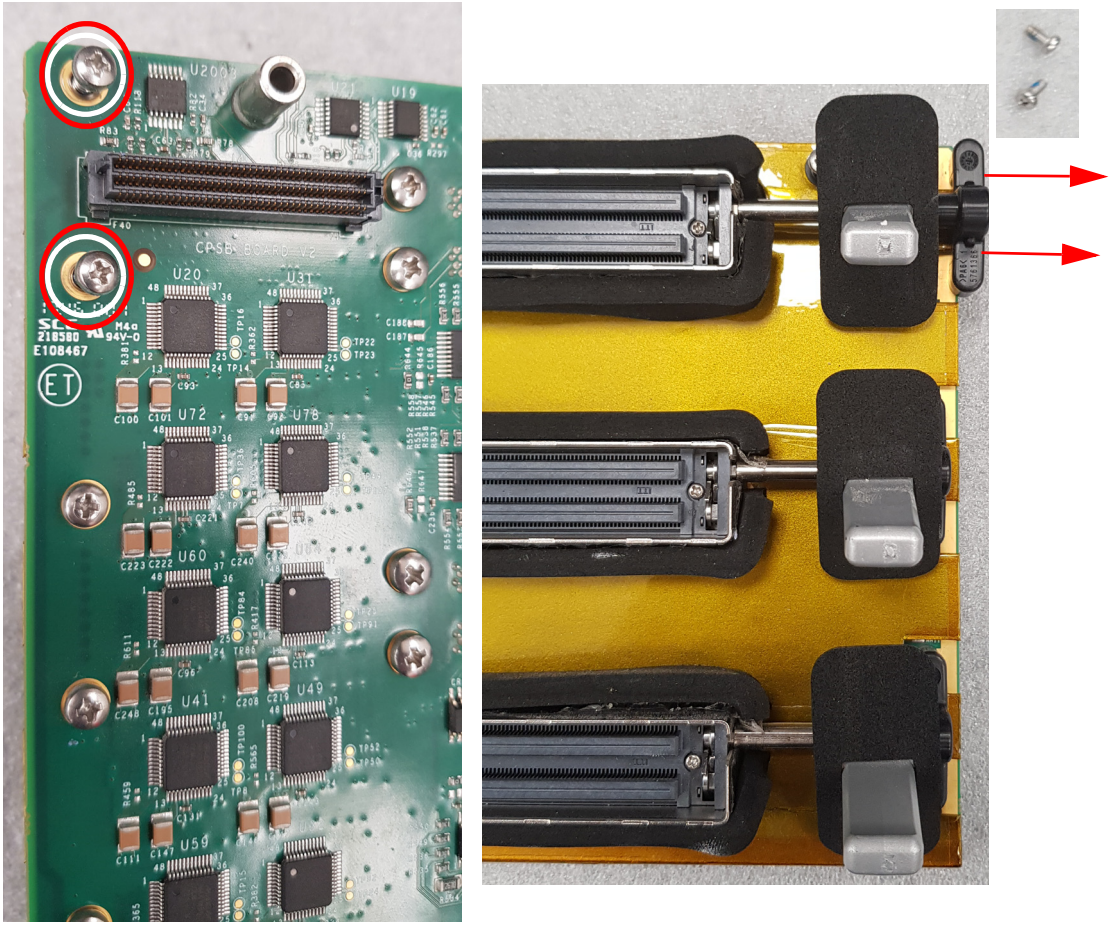


Figure 8-82 Removing Relevant Probe-Lever Screws

5) Slip the broken probe lever out;

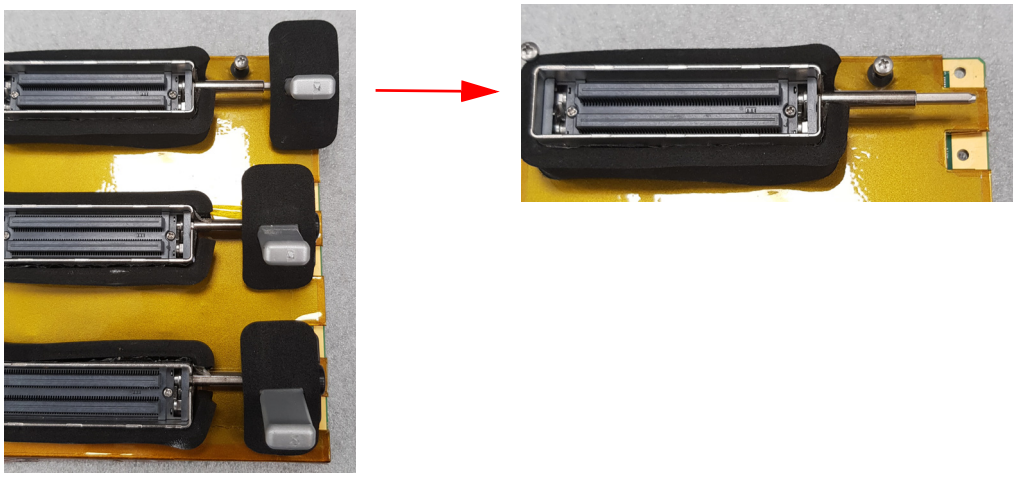


Figure 8-83 Slip Probe Lever Out and remove rubber seal

8-2-5-5 Probe Lever Installation Procedure

6) Attach the black rubber seal to the lever. Then slip the lever into the axle.

Note: The lever has a longer (marked in Blue) and shorter arc. Ensure the lever is inserted with its long arc as shown in the picture below:

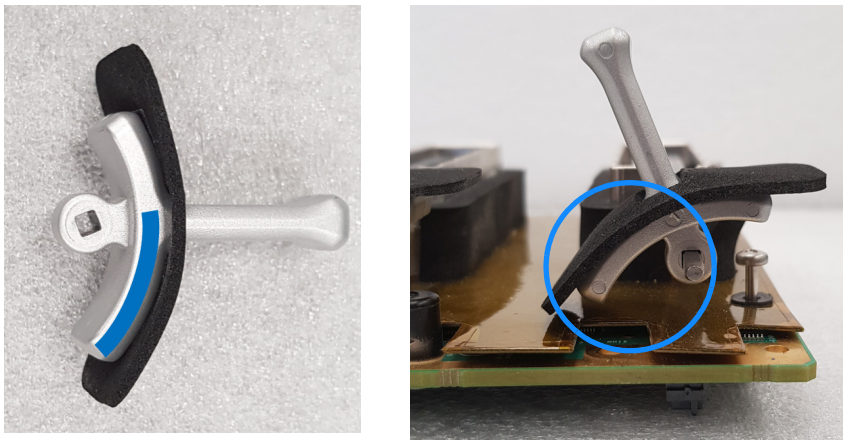


Figure 8-84 Insert Black Rubber Seal and Place Lever on the Axle

7.) Slip the black plastic cap to secure the lever on the axle.
8.) Attach 2 screws holding the probe lever cap.
9.) Test the functionality of the probe locking before proceeding.
10) Install C-PSB.

- C-PSB Installation Procedure

11.)Install back cover.

- Back Cover Installation Procedure

8-2-6 WiFi module Replacement Procedure

8-2-6-1 Tools

Phillips screwdriver of appropriate size

FRU Part # *Refer to Table 9-16 on page 9-17.*

8-2-6-2 Time Required

5 min

8-2-6-3 Preparations

1.) Shut down the Venue Go™ ultrasound unit, as described in Power Shutdown.

2.) Prepare stable flat surface covered with a soft material (such as foam or thick cloth) to prevent scratches to the display.

3.) Dismount Venue Go™ system from cart as described in Mounting / Dismounting System on Cart and place it on a previously prepared surface with the display facing down.

8-2-6-4 WiFi module Removal Procedure

1) Remove back cover.

- Back Cover Removal Procedure

2.) Remove the magnetic absorber (MAGRAM) cover from the top of the back-end, by gently lifting the right side upwards, and gently pressing the connector knobs inwards (2 knobs in each side) - especially the knobs on the left side (see below).

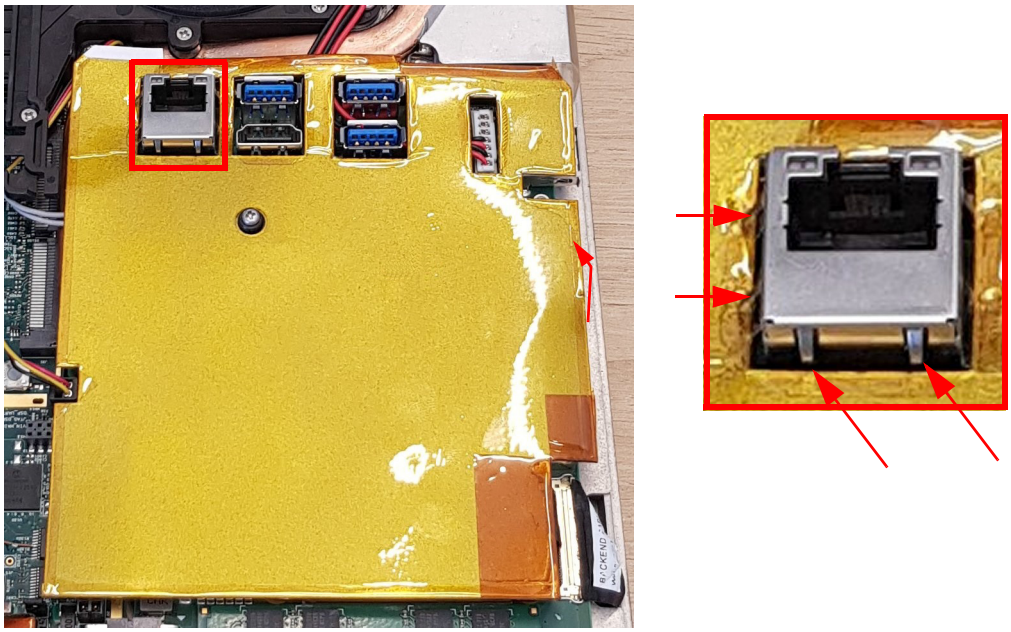


Figure 8-85 MAGRAM cover

3.) Release the screw connecting the Wi-Fi securing bracket and remove the Wi-Fi bracket.

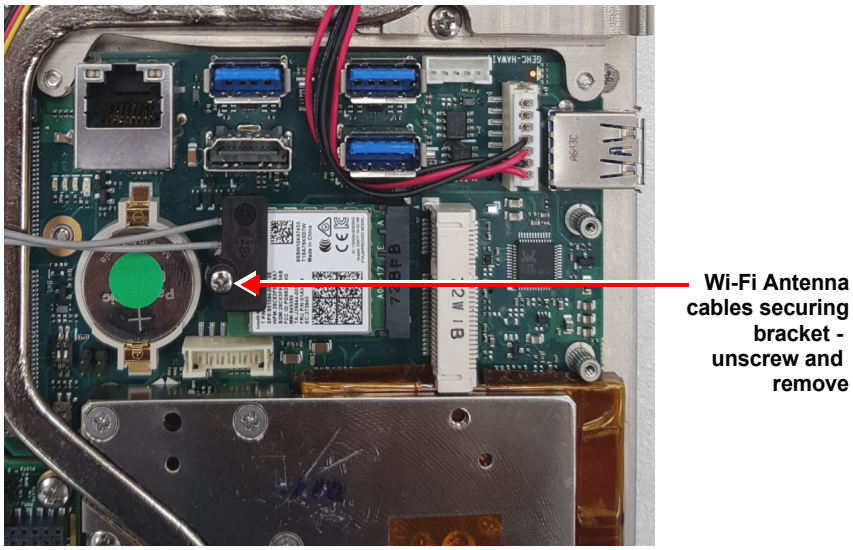


Figure 8-86 Wi-Fi Antenna Bracket

4.) Gently lift the WiFi module upwards and pull it out.

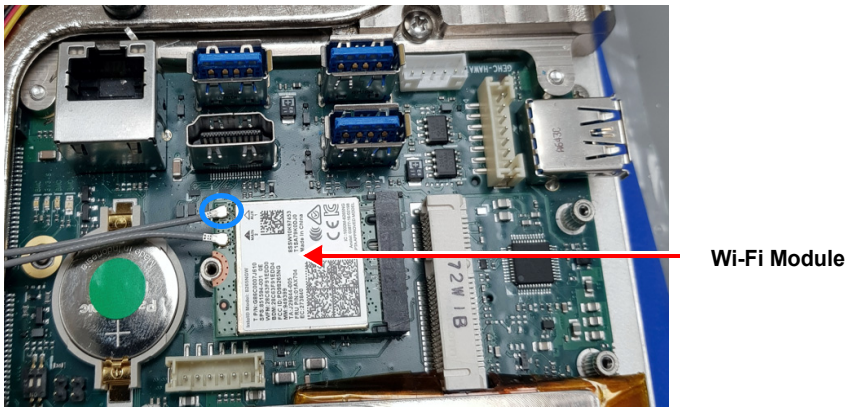


Figure 8-87 Wi-Fi Antenna Cables

5.) Gently disconnect the WiFi antennas.

8-2-6-5 WiFi module Installation Procedure

1.) Gently connect the 2 WiFi antennas to the WiFi module.

Note: The WiFi antenna cable that is connected to the right Antenna should be connected to the top connector of the WiFi module (marked in blue circle).

2.) Insert the new WiFi board into the slot.

3.) install the WiFi securing bracket and tighten the screw.

4.) Install the Magram cover. Make sure that the Magram folded end if fitted into the gap between

C-FEB and C-BEB boards.

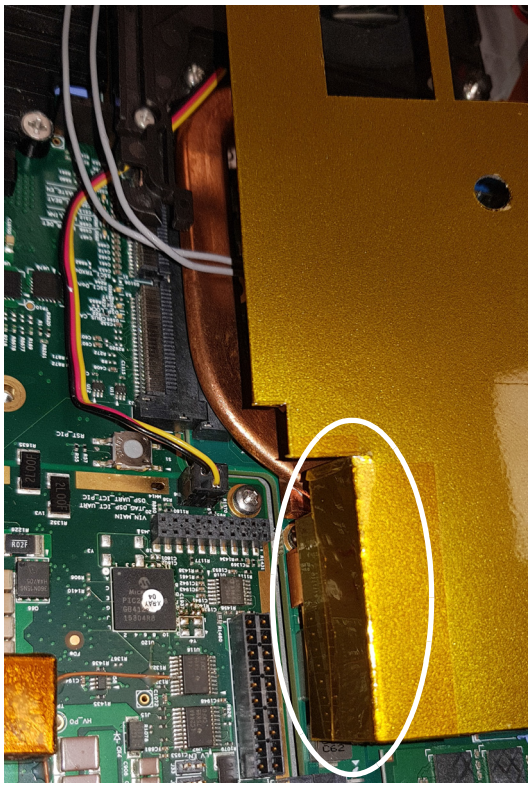


Figure 8-88 Magram folded end

5.) Install back cover.

- Back Cover Installation Procedure

8-2-7 Fan Replacement Procedure

8-2-7-1 Tools

Phillips screwdriver of appropriate size

FRU Part # *Refer to Table 9-16 on page 9-17.*

8-2-7-2 Time Required

5 min

8-2-7-3 Preparations

1.) Shut down the Venue Go™ ultrasound unit, as described in Power Shutdown.

2.) Prepare stable flat surface covered with a soft material (such as foam or thick cloth) to prevent scratches to the display.

3.) Dismount Venue Go™ system from cart as described in Mounting / Dismounting System on Cart and place it on a previously prepared surface with the display facing down.

8-2-7-4 Fan Removal Procedure

1) Remove back cover.

- Back Cover Removal Procedure

2) Remove C-PSB.

- C-PSB Removal Procedure

3.) Remove the magnetic absorber (MAGRAM) cover from the top of the back-end, by gently lifting the right side upwards, and gently pressing the connector knobs inwards (2 knobs in each side) - especially the knobs on the left side (see below).

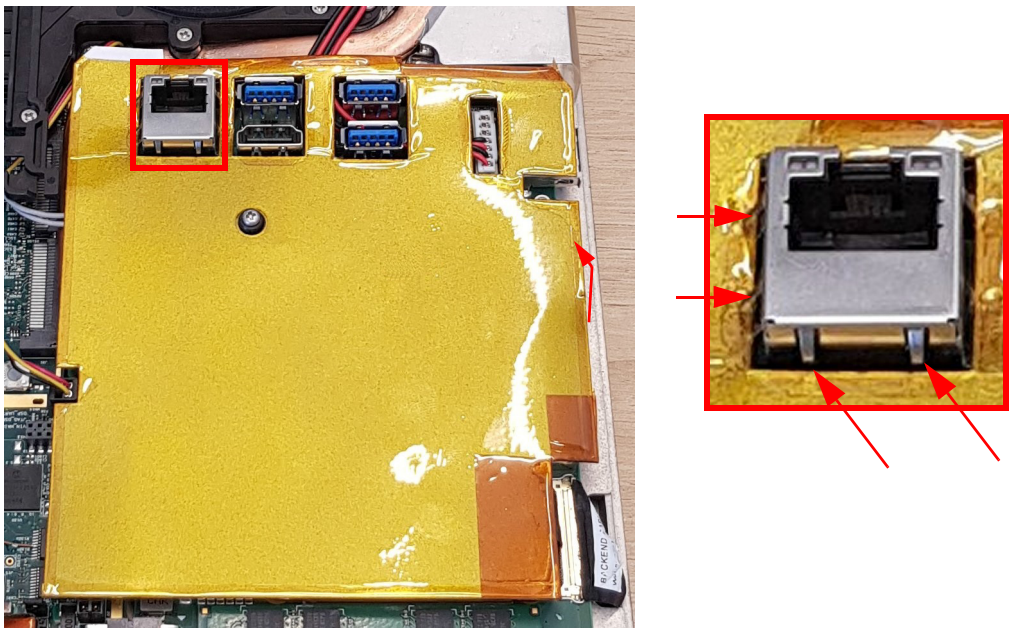


Figure 8-89 MAGRAM cover

4.) Release the speakers cable and the Wi-Fi antenna cables from the fan cable holders.

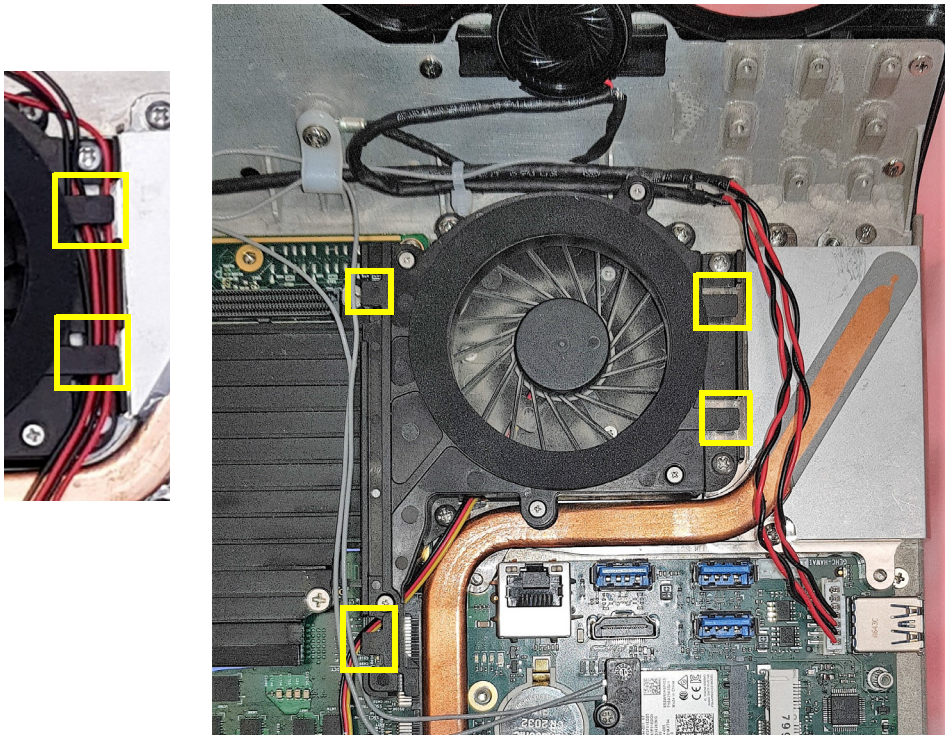


Figure 8-90 Cable Holders

5.) Remove five holding screws (the 2 screws marked by blue circles, are shorter).

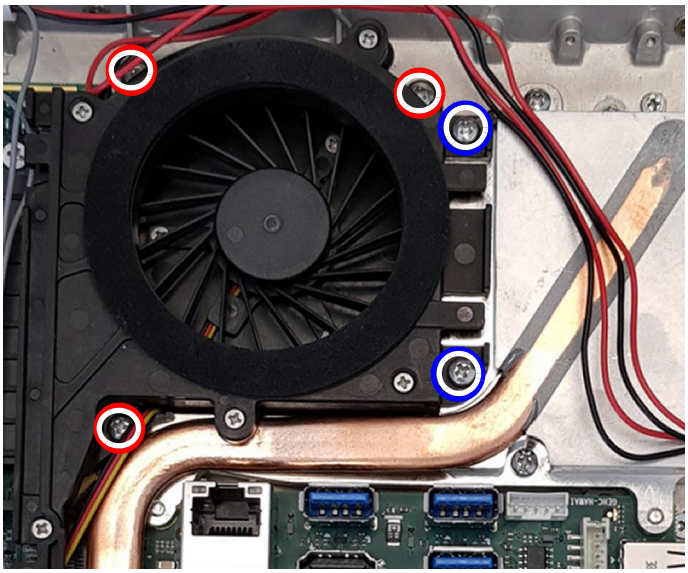


Figure 8-91 Fan Holding Screws

6.) Disconnect the fan connector from C-FEB and remove the fan.

Fan connector

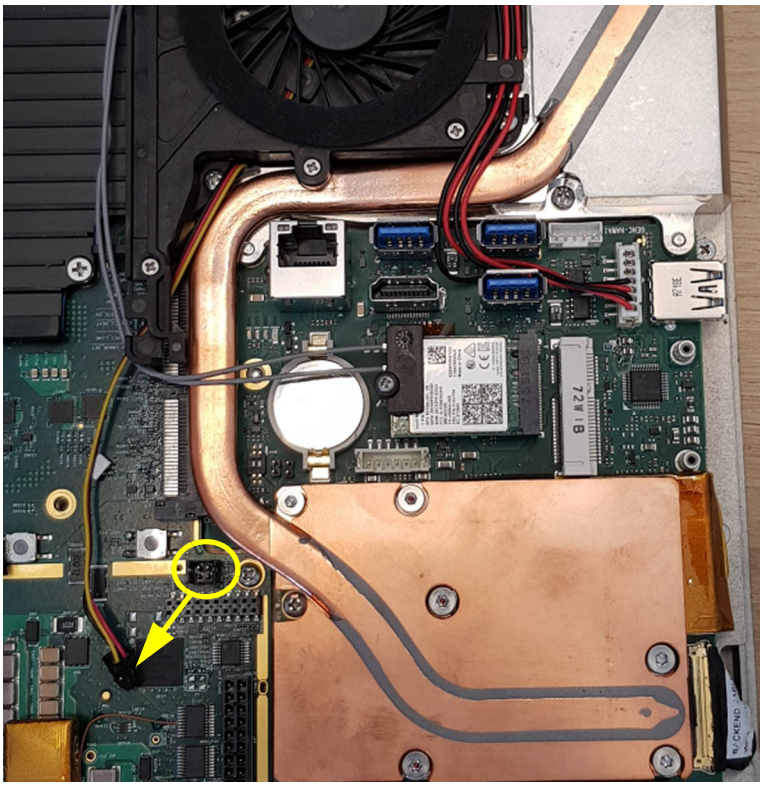


Figure 8-92 Fan Connector

8-2-7-5 Fan Installation Procedure

1.) Install the fan in its place.
2.) Tighten the five holding screws.
3.) Route the fan cable beneath the wifi antenna cables and connect the fan cable to the C-FEB.
4.) Route the two Wi-Fi antennas cables through the two cable holders on the left side of the fan.
5.) Route the speakers cables through the two cable holders on the right side of the fan.
6.) Install the Magram cover. Make sure that the Magram folded end if fitted into the gap between C-FEB and C-BEB boards.

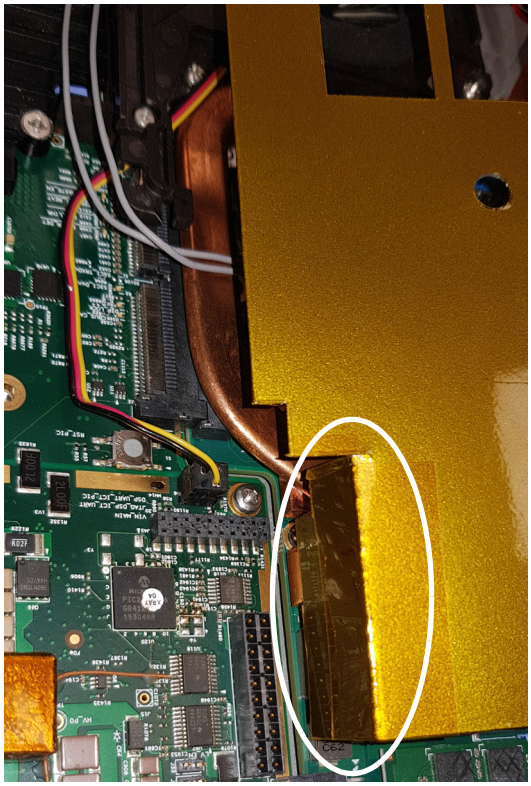


Figure 8-93 Magram folded end

7) Install C-PSB.

- C-PSB Installation Procedure

8.) Install back cover.

- Back Cover Installation Procedure

8-2-8 C-BEB and SSD Replacement Procedure

8-2-8-1 Tools

Phillips screwdriver of appropriate size

FRU Part # *Refer to Table 9-16 on page 9-17.*

8-2-8-2 Time Required

5 min

8-2-8-3 Preparations

1.) Shut down the Venue Go™ ultrasound unit, as described in Power Shutdown.

2.) Prepare stable flat surface covered with a soft material (such as foam or thick cloth) to prevent scratches to the display.

3.) Dismount Venue Go™ system from cart as described in Mounting / Dismounting System on Cart and place it on a previously prepared surface with the display facing down.

8-2-8-4 C-BEB Removal Procedure

1) Remove back cover.

- Back Cover Removal Procedure

2) Remove C-PSB.

- C-PSB Removal Procedure

3) Remove the fan.

- Fan Removal Procedure

4.) Release the screw connecting the Wi-Fi securing bracket and remove the Wi-Fi bracket.

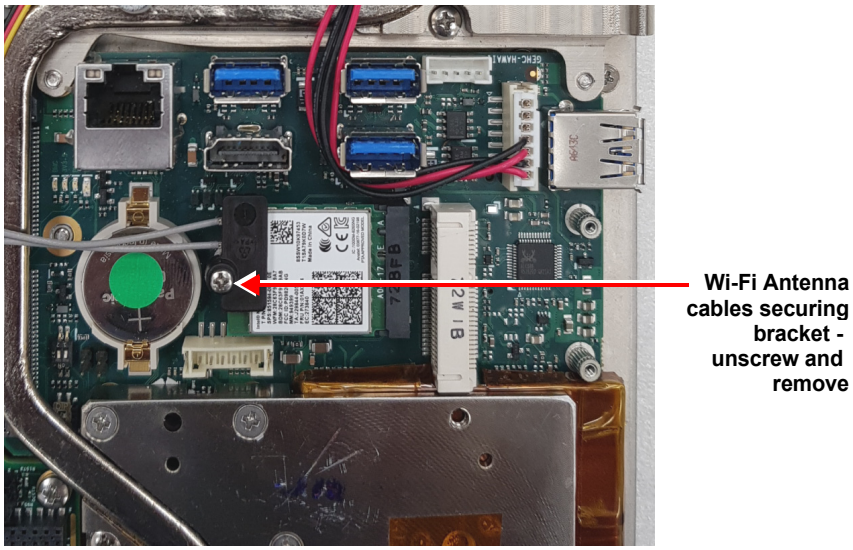


Figure 8-94 Wi-Fi Antenna Bracket

5.) Disconnect the speakers cable.

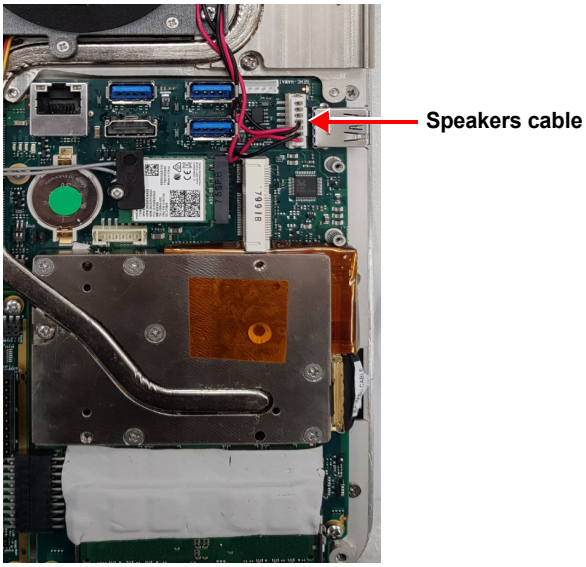


Figure 8-95 Speakers Cable

6.) Gently lift the WiFi module upwards and pull it out.

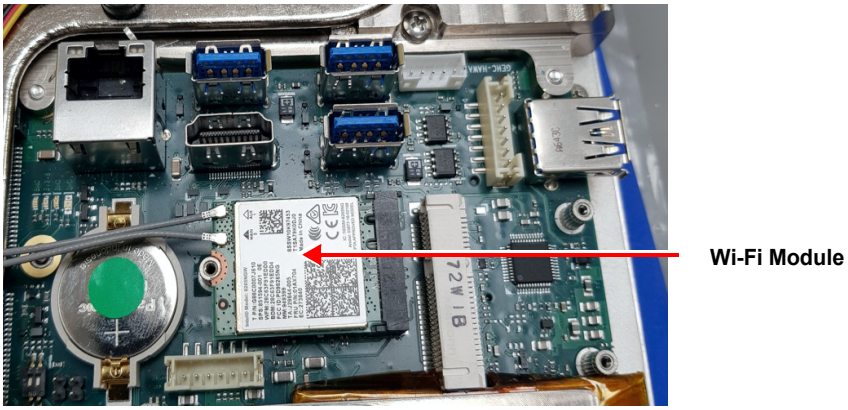


Figure 8-96 Wi-Fi Antenna Cables

7.) Pull upwards the languet to release the securing lever of the eDP connector.

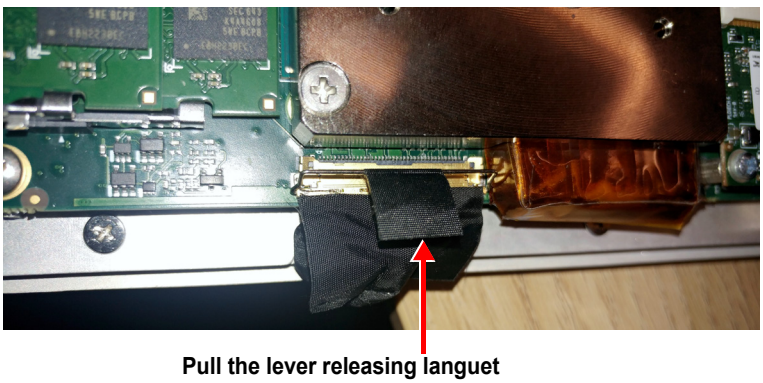


Figure 8-97 Pulling Languet to Release eDP Connector

8.) Disconnect eDP cable connector.

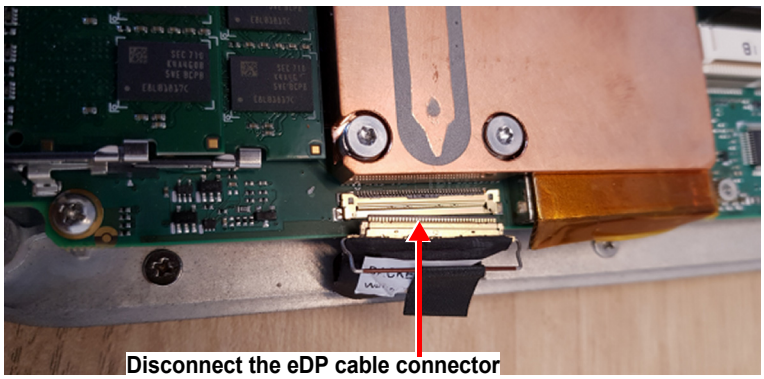


Figure 8-98 Disconnecting eDP Cable Connector

9.) **Remove** the 5 C-BEB holding screws.
The 2 longer screws are marked with blue circles.

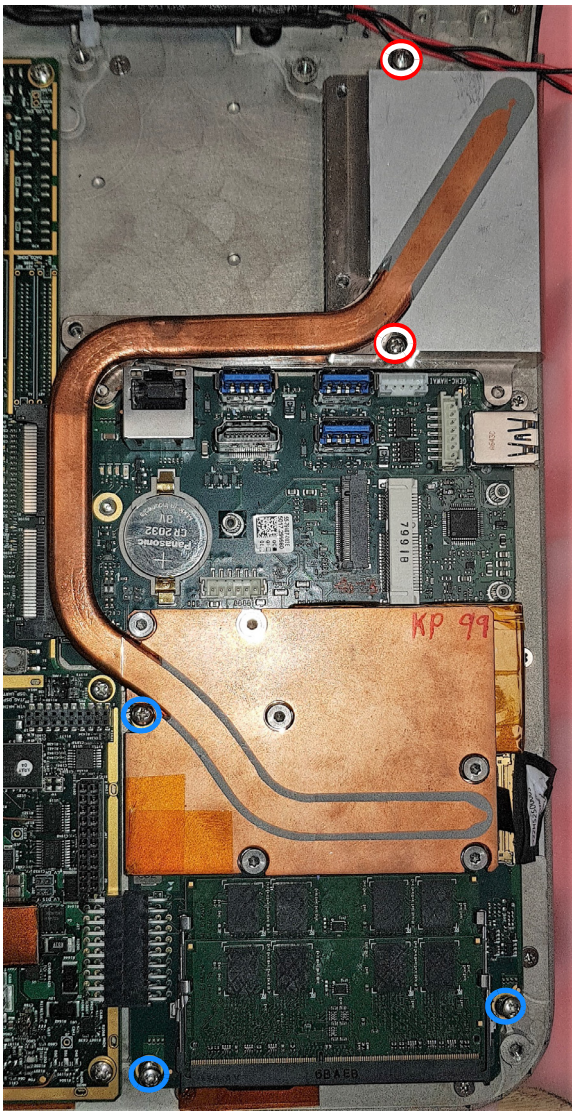


Figure 8-99 Removing 6 C-BEB Holding Screws

10.)Slightly lift the right side of the C-BEB and slide it to the right to remove from the connectors.

Figure 8-100 Removing C-BEB

11.)Release the small screw connecting the SSD to the removed BE.

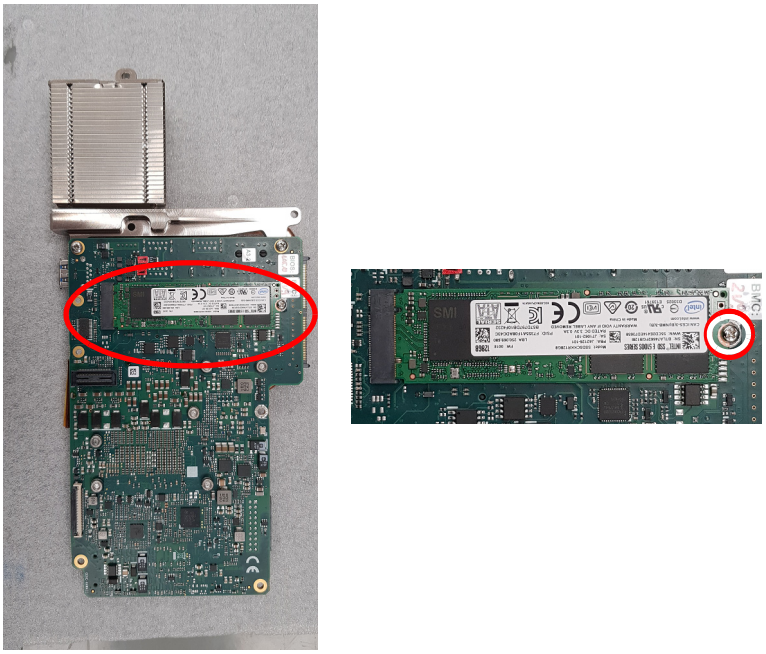


Figure 8-101 Removing SSD

8-2-8-5 C-BEB Installation Procedure

1.) Install SSD.
2.) Install the C-BEB.
3.) Reconnect the eDP cable.
4.) Insert the protruding eDP cable part into the designated groove to avoid cable pinching while closing the back cover.

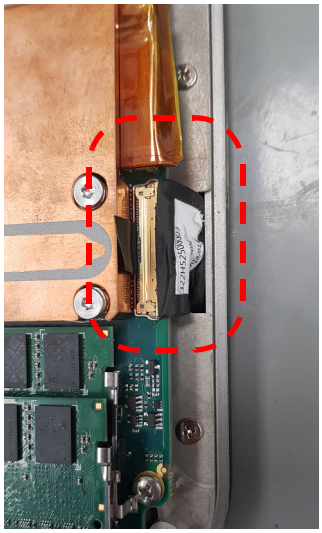


Figure 8-102 Insert the Protruding Part into the designated groove

5.) Reconnect the Wifi module.
6.) Install the Wi-Fi antenna securing bracket and tighten the bracket holding screw.
7.) Secure the 5 screws (long screws are used for the heat sync).
8.) Connect the speakers cable.
9.) Install the fan.

- Fan Installation Procedure

10) Install C-PSB.

- C-PSB Installation Procedure

11.)Install back cover.

- Back Cover Installation Procedure

8-2-9 C-FEB Heat Sync Assembly Replacement Procedure

8-2-9-1 Tools

Phillips screwdriver of appropriate size

FRU Part # *Refer to Table 9-16 on page 9-17.*

8-2-9-2 Time Required

5 min

8-2-9-3 Preparations

1.) Shut down the Venue Go™ ultrasound unit, as described in Power Shutdown.

2.) Prepare stable flat surface covered with a soft material (such as foam or thick cloth) to prevent scratches to the display.

3.) Dismount Venue Go™ system from cart as described in Mounting / Dismounting System on Cart and place it on a previously prepared surface with the display facing down.

8-2-9-4 C-FEB Heat Sync Assembly Removal Procedure

1) Remove back cover.

- Back Cover Removal Procedure

2) Remove C-PSB.

- C-PSB Removal Procedure

3) Remove the fan.

- Fan Removal Procedure

4.) Disconnect the fan cable connector.

5.) Remove the plastic clip holder screw and release the fan cable from the clip.

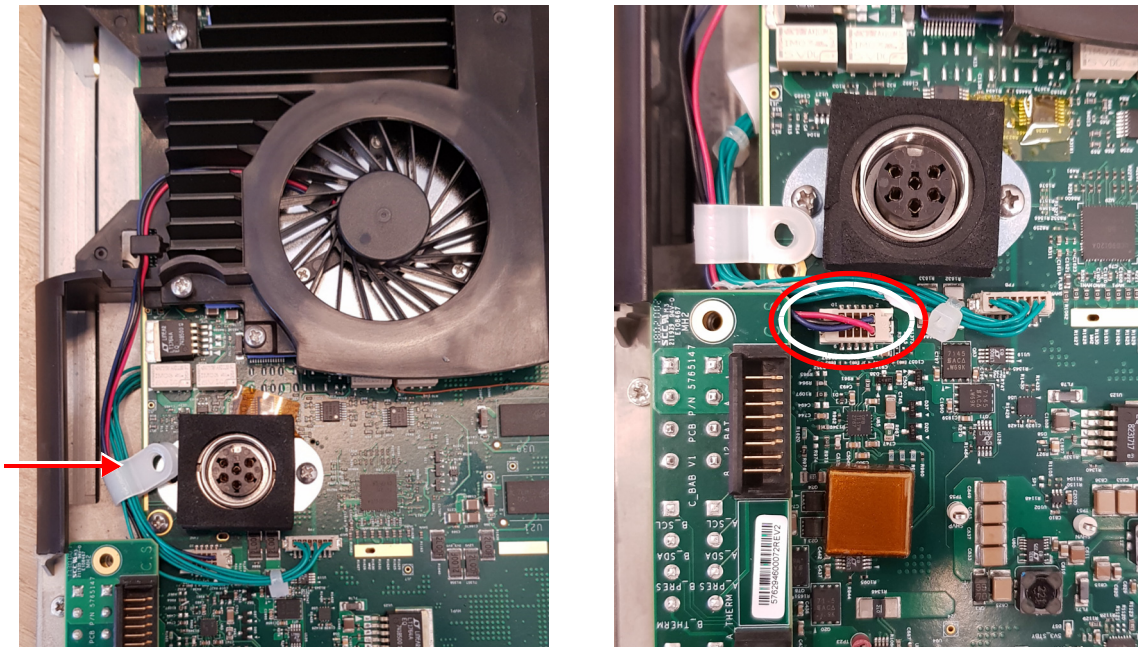


Figure 8-103 Disconnecting Front Display Indicator Cable

6.) Release 5 screws connecting the unit (3 flat-head screws, 2 round-head screws marked with blue circle) and disconnect the Fan.

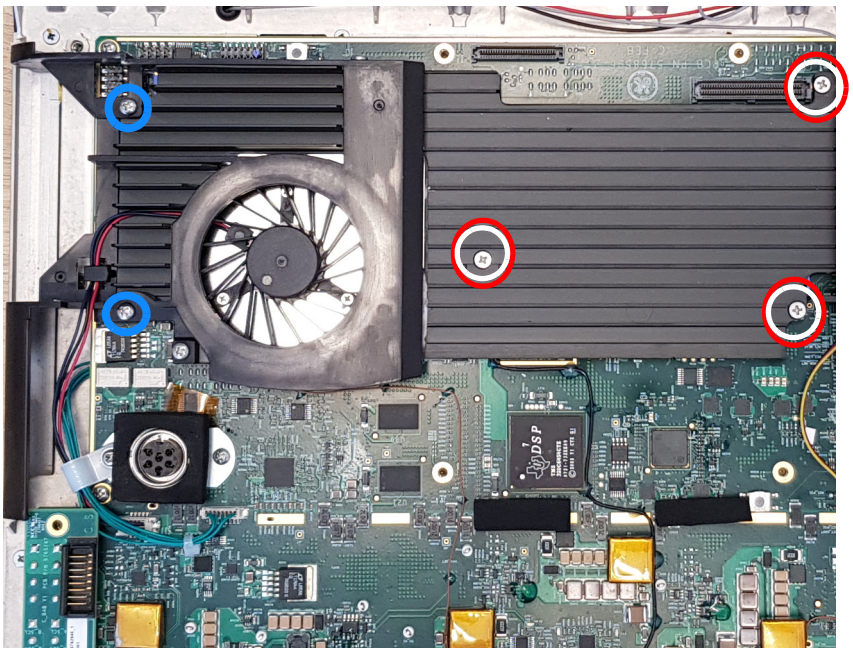


Figure 8-104 Disconnecting C-FEB

7.) Remove the unit.

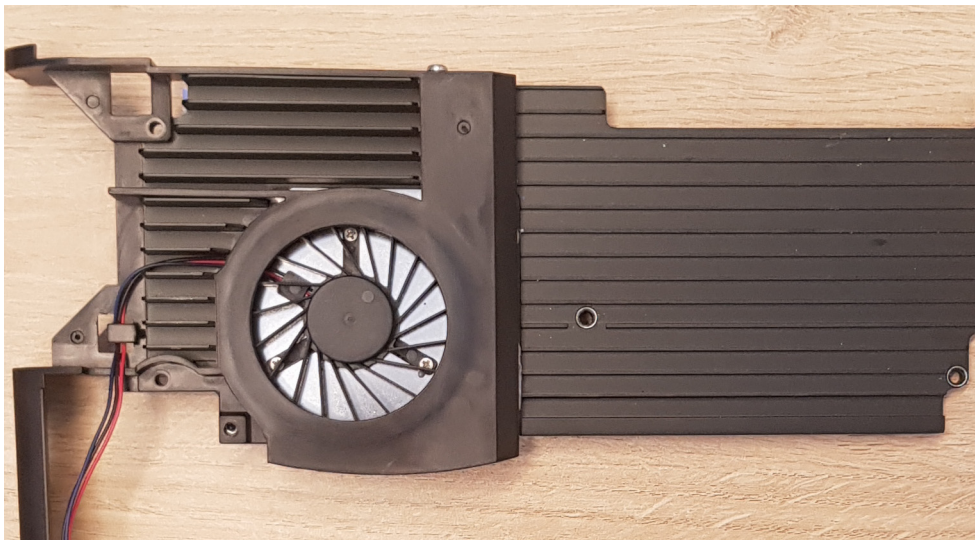


Figure 8-105 Remove the C-FEB

8-2-9-5 C-FEB Heat Sync Assembly Installation Procedure

1.) Remove the protective nylon sheet cover from the new unit.
2.) Insert the C_FEB. Note the rail on the left side.
3.) Secure the 5 screws.
4.) Connect the Fan cable and the Display Indicator (green) cable connectors.
5.) Rout the fan cable and the front display indicator cables through the left plastic clip holding and secure the clip.
6.) Install the Fan.

- Fan Installation Procedure

7) Install C-PSB.

- C-PSB Installation Procedure

8.) Install back cover.

- Back Cover Installation Procedure

8-2-10 C-FEB Replacement Procedure

8-2-10-1 Tools

Phillips screwdriver of appropriate size

FRU Part # *Refer to Table 9-16 on page 9-17.*

8-2-10-2 Time Required

5 min

8-2-10-3 Preparations

1.) Shut down the Venue Go™ ultrasound unit, as described in Power Shutdown.

2.) Prepare stable flat surface covered with a soft material (such as foam or thick cloth) to prevent scratches to the display.

3.) Dismount Venue Go™ system from cart as described in Mounting / Dismounting System on Cart and place it on a previously prepared surface with the display facing down.

8-2-10-4 C-FEB Removal Procedure

1) Remove back cover.

- Back Cover Removal Procedure

2.) Remove the C-PSB.

- C-PSB Removal Procedure

3) Remove the fan.

- Fan Removal Procedure

4.) Remove the C-BEB.

- C-BEB Removal Procedure

5.) Disconnect the front display indicator cable (marked with blue circle).

6.) Remove 10 holding screws (there are 3 types of screws, marked in different colors).

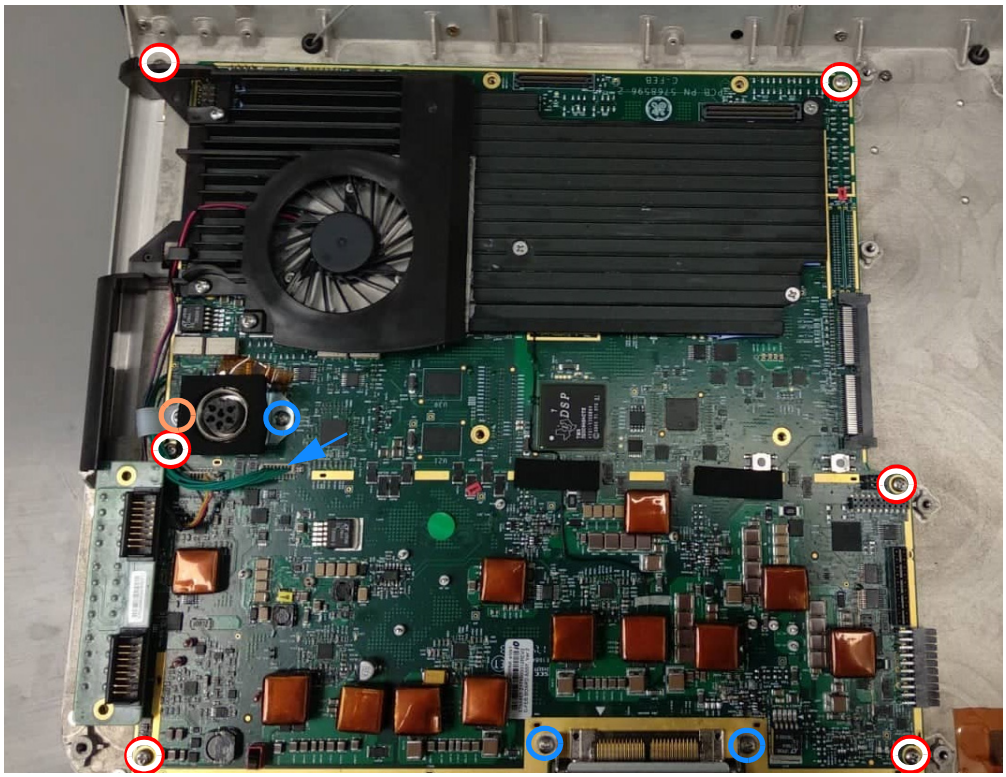


Figure 8-106 Removing 10 Holding Screws

8-2-10-5 C-FEB Installation Procedure

1.) Connect the metal bracket to the board

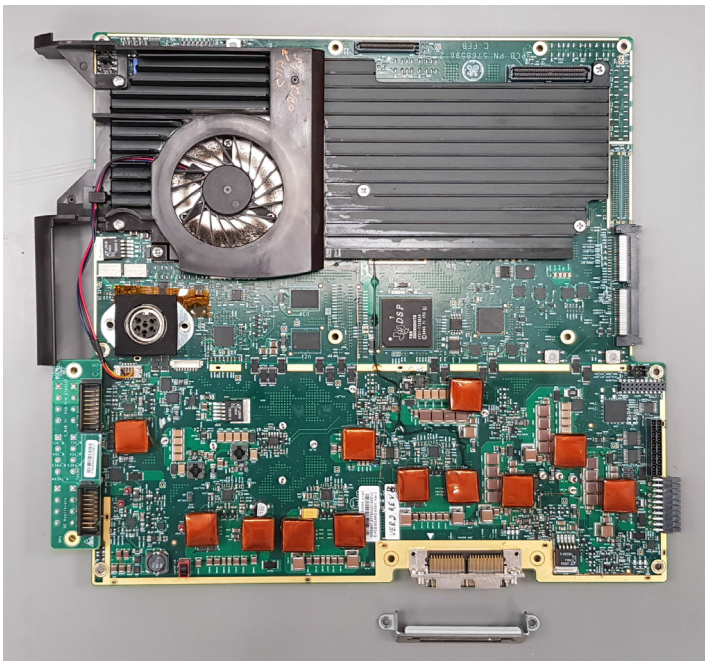


Figure 8-107 Removed C-FEB

2.) Install the C-FEB so that the docking connector goes inside the docking bracket on the Front Display assembly.

3.) Secure the 10 holding screws.

4.) Route the Front Display Indicator Cable.

5.) Install the C-BEB.

- C-BEB Installation Procedure

6) Install the fan.

- Fan Installation Procedure

7.) Install the C-PSB.

- C-PSB Installation Procedure

8.) Install back cover.

- Back Cover Installation Procedure

8-2-11 Front Display Assembly Replacement Procedure

8-2-11-1 Tools

Phillips screwdriver of appropriate size

FRU Part # *Refer to Table 9-16 on page 9-17.*

8-2-11-2 Time Required

5 min

8-2-11-3 Preparations

1.) Shut down the Venue Go™ ultrasound unit, as described in Power Shutdown.

2.) Prepare stable flat surface covered with a soft material (such as foam or thick cloth) to prevent scratches to the display.

3.) Dismount Venue Go™ system from cart as described in Mounting / Dismounting System on Cart and place it on a previously prepared surface with the display facing down.

8-2-11-4 Front Display Assembly Removal Procedure

1) Remove back cover.

- Back Cover Removal Procedure

2) Remove back speakers.

- Speakers Removal Procedure

3.) Remove the C-FEB

- C-FEB Removal Procedure

4.) Front display is now clear of all elements.

Note: The WiFi antennas are coming pre-assembled as part of the Front display module.

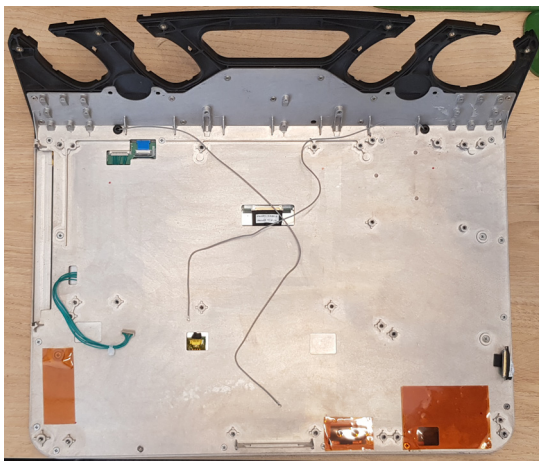


Figure 8-108 Front Display Assembly Removed

8-2-11-5 Front Display Assembly Installation Procedure

1.) Install the C-FEB

- C-FEB Installation Procedure

2.) Connect the Front Display Indicator Cable to the C-FEB.

3.) Install the fan.

- Fan Installation Procedure

4.) Install speakers.

- Speakers Installation Procedure

5.) Install back cover.

- Back Cover Installation Procedure

8-2-12 Speakers Replacement Procedure

8-2-12-1 Tools

Phillips screwdriver of appropriate size

FRU Part # *Refer to Table 9-16 on page 9-17.*

8-2-12-2 Time Required

5 min

8-2-12-3 Preparations

1.) Shut down the Venue Go™ ultrasound unit, as described in Power Shutdown.

2.) Prepare stable flat surface covered with a soft material (such as foam or thick cloth) to prevent scratches to the display.

3.) Dismount Venue Go™ system from cart as described in Mounting / Dismounting System on Cart and place it on a previously prepared surface with the display facing down.

8-2-12-4 Speakers Removal Procedure

1) Remove back cover.

- Back Cover Removal Procedure

2) Remove the fan.

- Fan Removal Procedure

3.) Release the speakers cables from the cable clips.

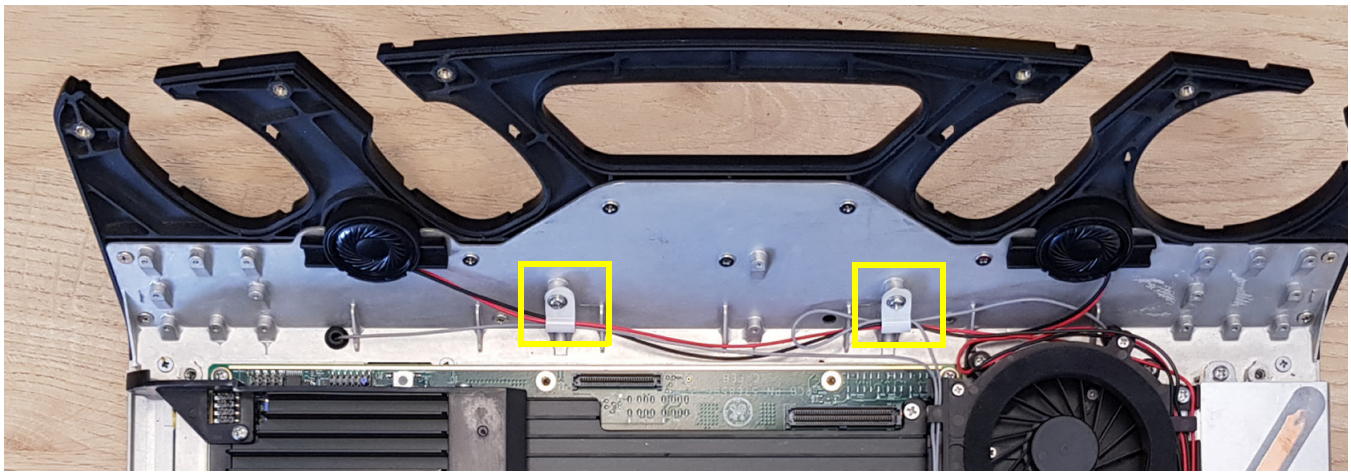


Figure 8-109 Speakers Cable

4.) Pull out the speakers by using a flat screwdriver to remove the 2 projections from the pins (see picture).

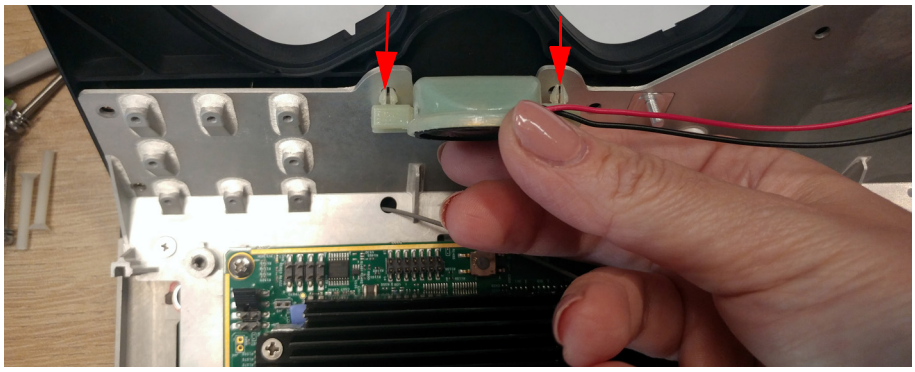


Figure 8-110 Removing Speakers

8-2-12-5 Speakers Installation Procedure

1.) Insert the speaker's pins into the dedicated holes on the Front Panel assembly and slightly push in to fix the speaker in place. Perform the same action for the second speaker.

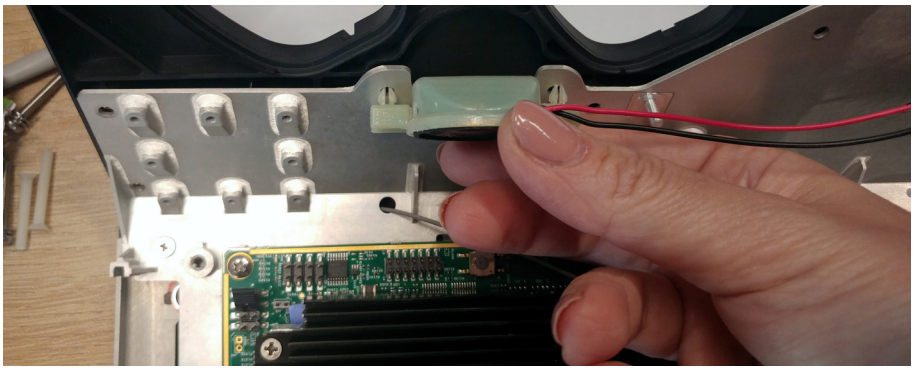


Figure 8-111 Installing Speakers

2.) Route the speakers cables through the cable holders on the right side of the fan.

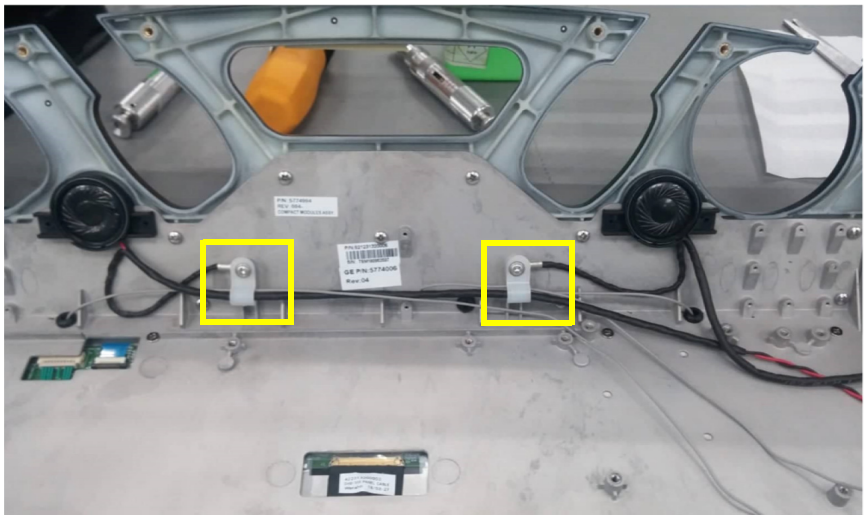


Figure 8-112 Speakers Cable

3.) Connect the ground cable: Attach the grounding-cable's rings and the cable clamp to the dedicated Assy, as shown in the picture. Make sure the ring lugs are physically touching the chassis.

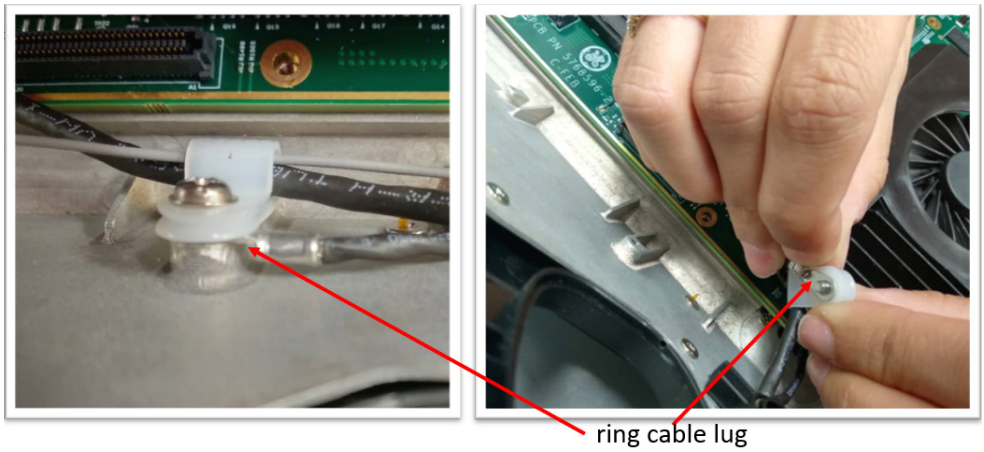


Figure 8-113 Speakers Earth Cable

4.) Secure the two cable clamps using two screws. Fasten the screws by 0.62 torque.

5.) Connect the speakers' cable to the C-BEB.

6.) Install the fan.

- Fan Installation Procedure

7.) Install back cover.

- Back Cover Installation Procedure

8-2-13 Cart Bin Replacement Procedure

8-2-13-1 Tools

None

FRU Part # *Refer to Table 9-16 on page 9-17.*

8-2-13-2 Time Required

5 min

8-2-13-3 Preparations

1.) Shut down the Venue Go™ ultrasound unit, as described in Power Shutdown .

2.) Prepare stable flat surface covered with a soft material (such as foam) to prevent scratches to the display.

3.) Dismount Venue Go™ system from cart and place it on a previously prepared surface with the display facing down.

8-2-13-4 Cart Bin Removal Procedure

1) Press the bin stopper and slide the bin upwards.

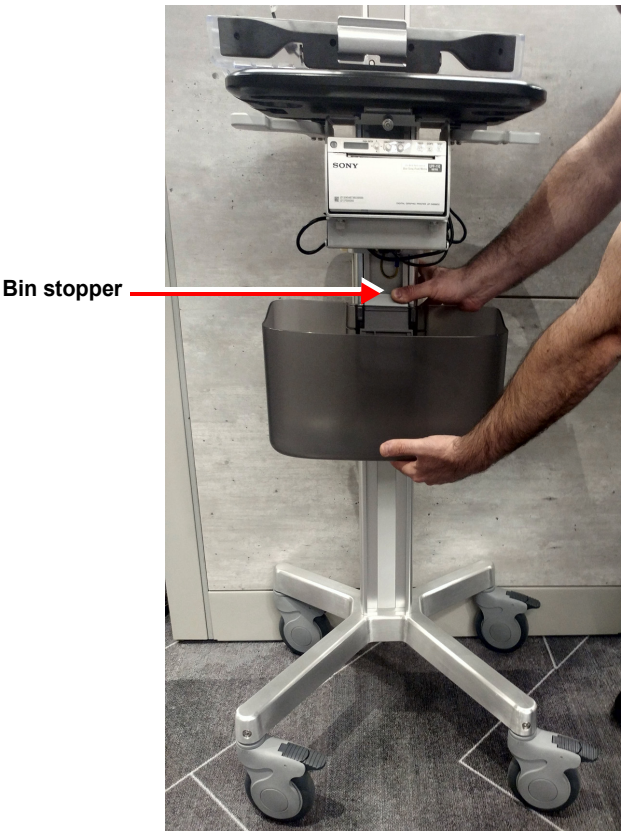


Figure 8-114 Removing Cart Bin

8-2-13-5 Cart Bin Installation Procedure

1.) Slide down the bin until it locks in its place.

8-2-14 Mounting / Dismounting System on Cart

8-2-14-1 Tools

Phillips screwdriver of appropriate size

FRU Part # *Refer to Table 9-16 on page 9-17.*

8-2-14-2 Time Required

5 min

8-2-14-3 Preparations

1.) Shut down the Venue Go™ ultrasound unit, as described in Power Shutdown.

2.) Prepare stable flat surface covered with a soft material (such as foam) to prevent scratches to the display.

8-2-14-4 Dismounting System on Cart

3.) Disconnect system cables: probe cable, USB, Power

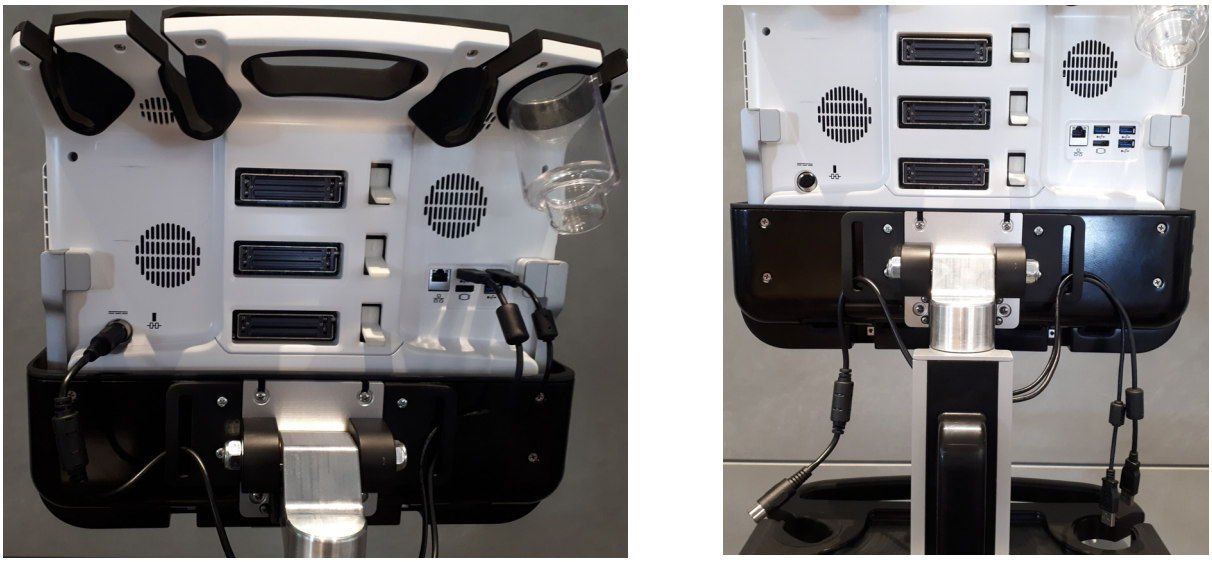


Figure 8-115 Disconnecting Cables from System

4.) Lower the cart to its lowest position
5.) Tilt the system to its vertical position.
6.) Pull the lever upwards to dismount the system

Figure 8-116 Pull Lever to Dismount System

7.) Carefully lift the Venue Go™ system from the cart cradle and place it on a previously prepared surface with the display facing down.

Figure 8-117 Lift and Remove System

8-2-14-5 Mounting System on Cart

1) Install system in the cradle.

2.) Reconnect all cables to the system (probe, USB, power).

8-2-15 Cradle Assembly Replacement Procedure

8-2-15-1 Tools

Phillips screwdriver of appropriate size

FRU Part # *Refer to Table 9-16 on page 9-17.*

8-2-15-2 Time Required

5 min

8-2-15-3 Preparations

1.) Shut down the Venue Go™ ultrasound unit, as described in Power Shutdown .

2.) Prepare stable flat surface covered with a soft material (such as foam) to prevent scratches to the display.

3.) Dismount Venue Go™ system from cart and place it on a previously prepared surface with the display facing down.

8-2-15-4 Cradle Assembly Removal Procedure

4) Raise the cart to its highest position.

5) Disconnect all cables connected to cable holder

Figure 8-118 Disconnecting Cables from Cable Holder

6) Remove 4 screws connecting the cradle

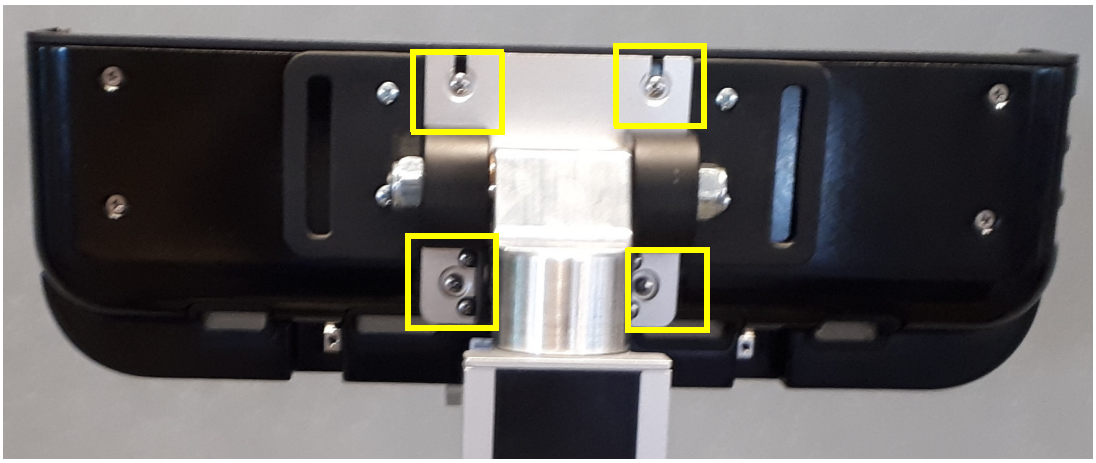


Figure 8-119 Removing Cradle Screws

7) Remove the cradle from the cart

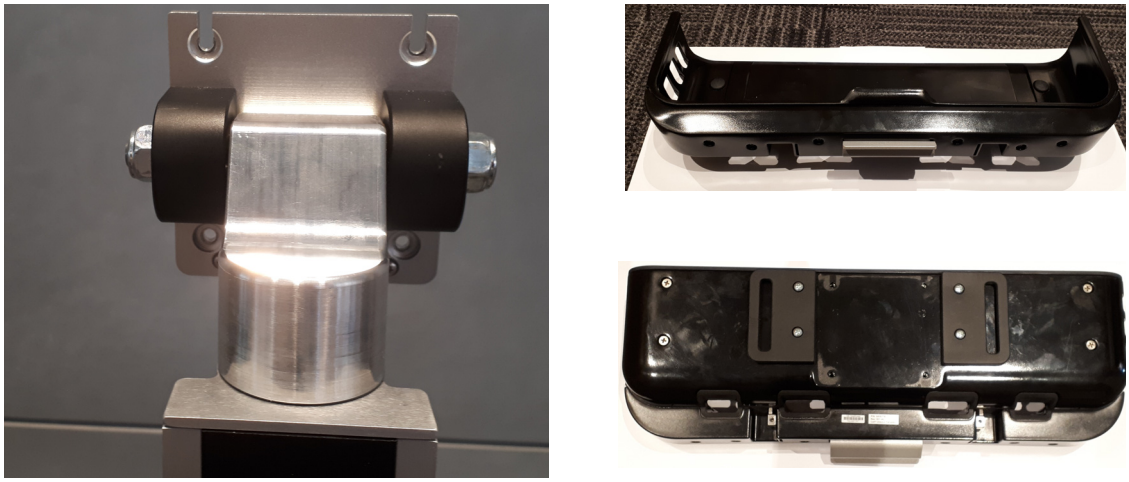


Figure 8-120 Removing Cradle

8-2-15-5 Cradle Assembly Installation Procedure

1) Attach the Cradle assembly to the cart and tighten the four cradle holding screws.

2.) Route all cables through the cable holder (USB cables should be routed on the right side while the power cable should be routed on the left.

3.) Mount the system on the cart.

- Mounting System on Cart

8-2-16 Cradle Tilt Replacement Procedure

8-2-16-1 Tools

4mm Allen key.

FRU Part # *Refer to Table 9-16 on page 9-17.*

8-2-16-2 Time Required

5 min

8-2-16-3 Preparations

1.) Shut down the Venue Go™ ultrasound unit, as described in Power Shutdown .

2.) Prepare stable flat surface covered with a soft material (such as foam) to prevent scratches to the display.

3.) Dismount Venue Go™ system from cart and place it on a previously prepared surface with the display facing down.

8-2-16-4 Cradle Tilt Removal Procedure

4.) Remove the cradle assembly.

- Cradle Assembly Removal Procedure

5) Raise the cart to its highest position.

6.) Slide plastic cap upwards and remove it

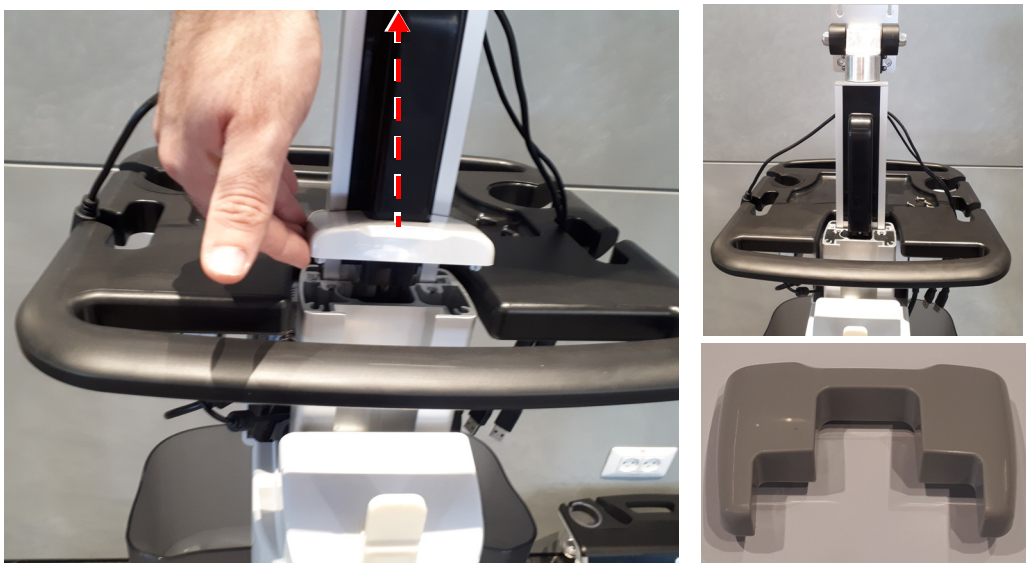


Figure 8-121 Removing Column Cover

7) Remove the spring cable cover.

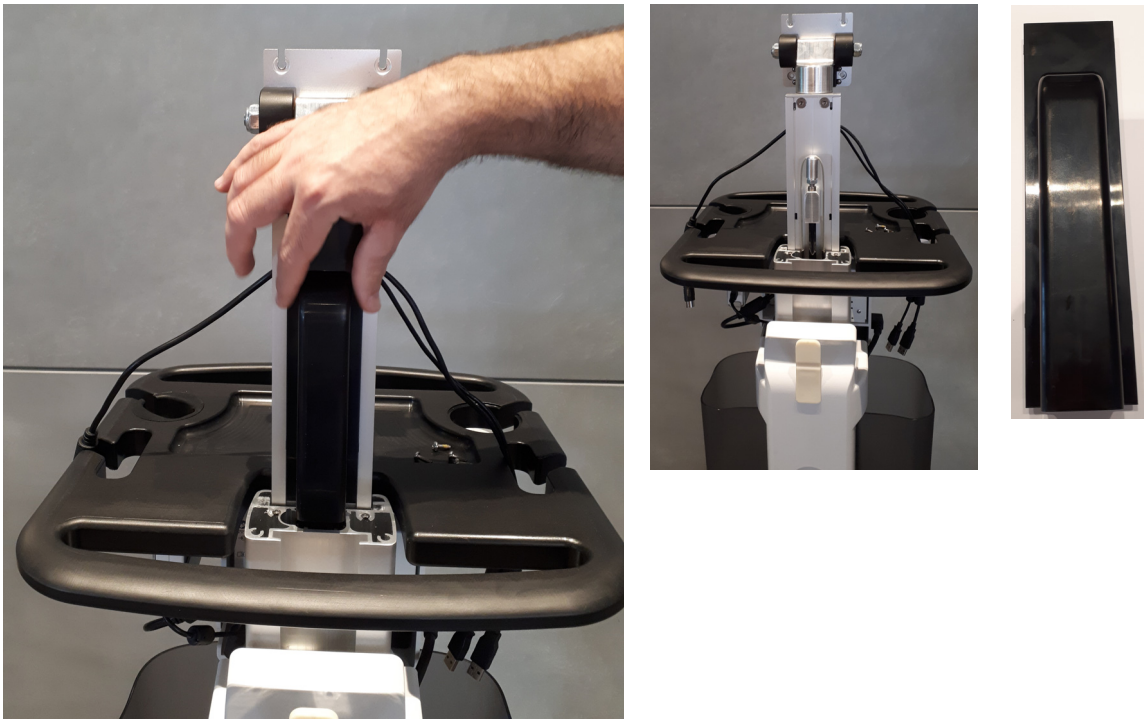


Figure 8-122 Removing Spring Cable Cover

8) Remove the two Allen screws holding the tilt assembly using 4mm Allen key.

NOTE: When removing the Allen screws, pay attention not to drop the screws into the cart's pole opening.

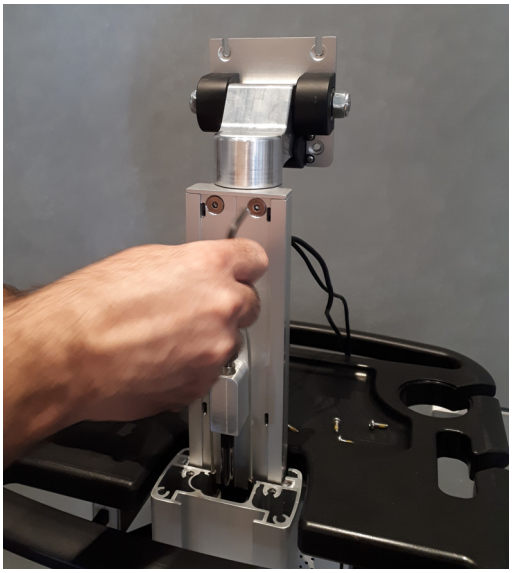


Figure 8-123 Removing Cradle Holding Screws

9) Remove the Cart Tilt.

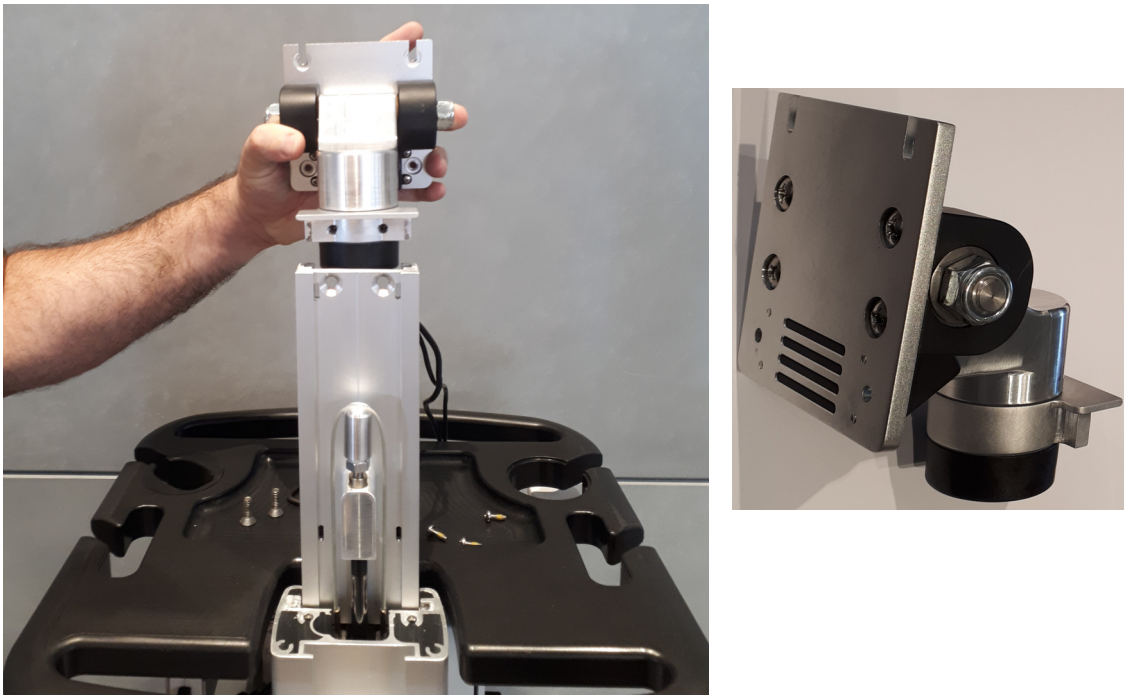


Figure 8-124 Removing Tilt

8-2-16-5 Cart Tilt Installation Procedure

1) Attach the Cart Tilt to the cart and tighten the two holding screws.
2) Install the spring cable cover.
3.) Install the column cover.
4.) Install the cradle.

- Cradle Assembly Installation Procedure

8-2-17 Casters Replacement Procedure.

8-2-17-1 Tools

Allen key 6 mm

Phillips screwdriver of appropriate size

FRU Part # *Refer to Table 9-16 on page 9-17.*

8-2-17-2 Time Required

5 min

8-2-17-3 Preparations

1.) Shut down the Venue Go™ ultrasound unit, as described in Power Shutdown .
2.) Prepare stable flat surface covered with a soft material (such as foam) to prevent scratches to the display.
3.) Dismount Venue Go™ system from cart and place it on a previously prepared surface with the display facing down.
4.) Lower the cart tray to its lowest position.

8-2-17-4 Casters Removal Procedure

5.) Using a flat screw driver, carefully remove the screw cap.
6.) Using Allen key 6mm, remove the holding screw and detach the caster.

Figure 8-125 Removing Cater Cap and Holding Screw

8-2-17-5 Casters Installation Procedure

1.) Install new caster and secure the holding screw.
2.) Place screw cap back into its place.
3.) Mount Venue Go™ system on cart.

8-2-18 Printer Assembly Replacement Procedure

8-2-18-1 Tools

Phillips screwdriver of appropriate size

FRU Part # *Refer to Table 9-16 on page 9-17.*

8-2-18-2 Time Required

5 min

8-2-18-3 Preparations

1.) Shut down the Venue Go™ ultrasound unit, as described in Power Shutdown .

2.) Prepare stable flat surface covered with a soft material (such as foam) to prevent scratches to the display.

3.) Dismount Venue Go™ system from cart and place it on a previously prepared surface with the display facing down.

8-2-18-4 Printer Assembly Removal Procedure

4.) Disconnect printer cables: USB, printer power supply.

Disconnect printer PWR supply cable

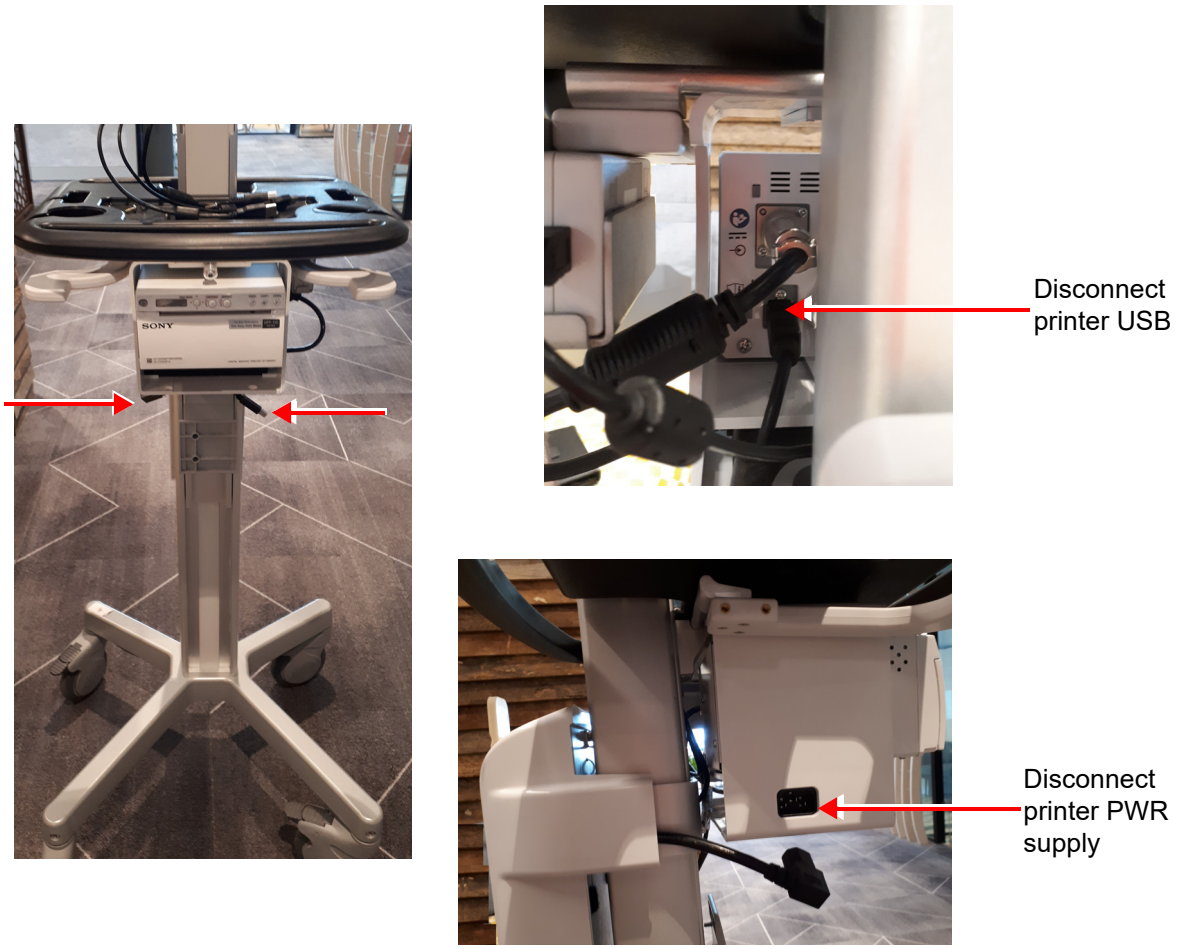


Figure 8-126 Disconnect printer USB and Power Cables

5.) Open the printer assembly screw and slide the printer assembly towards you.

Figure 8-127 Remove Printer Assembly from the cart

8-2-18-5 Printer Assembly Installation Procedure

1) Install the printer assembly on the cart, and tighten the screw.

2.) Reconnect the printer USB and POWER supply cables.

8-2-19 Printer and Printer Bracket Replacement Procedure

8-2-19-1 Tools

Phillips screwdriver of appropriate size

FRU Part # *Refer to Table 9-16 on page 9-17.*

8-2-19-2 Time Required

5 min

8-2-19-3 Preparations

1.) Shut down the Venue Go™ ultrasound unit, as described in Power Shutdown .

2.) Prepare stable flat surface covered with a soft material (such as foam) to prevent scratches to the display.

3.) Dismount Venue Go™ system from cart and place it on a previously prepared surface with the display facing down.

8-2-19-4 Printer and Printer Bracket Removal Procedure

4.) Remove printer assembly

- Printer Assembly Removal Procedure

5.) Remove 4 Phillips screws holding the printer inside the printer tray.

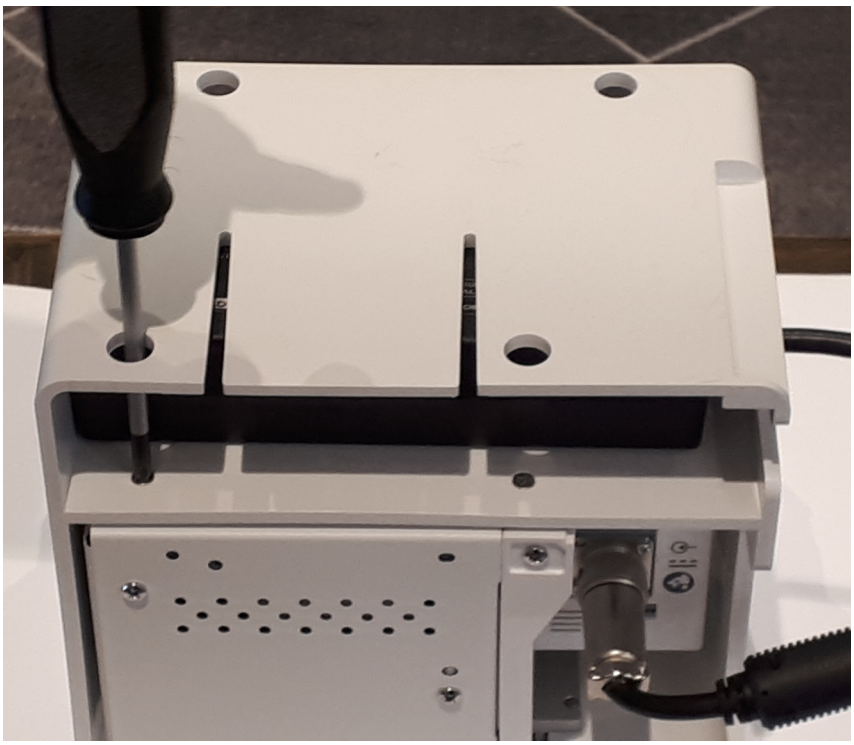


Figure 8-128 Disconnect Printer Screws

6.) Disconnect the printer power supply cable by gently turning the connector a bit.

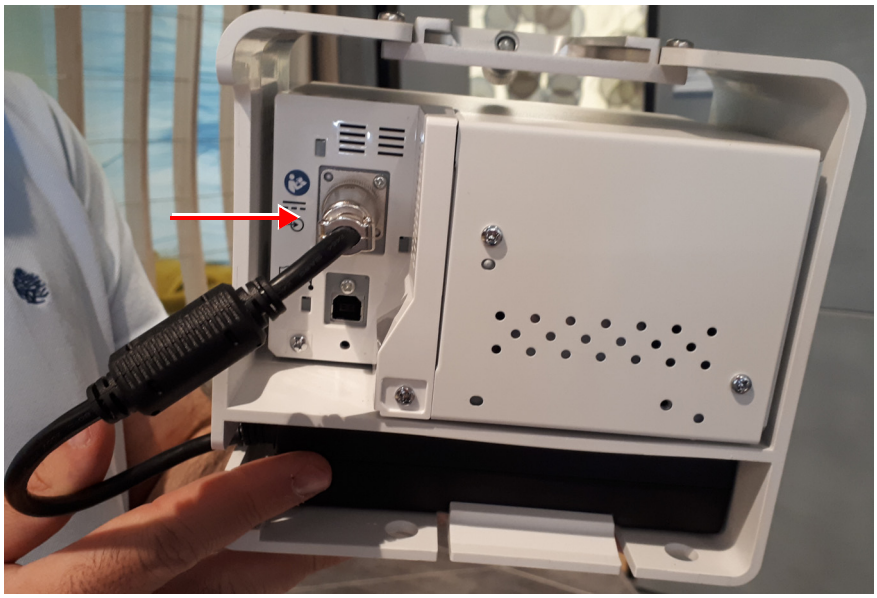
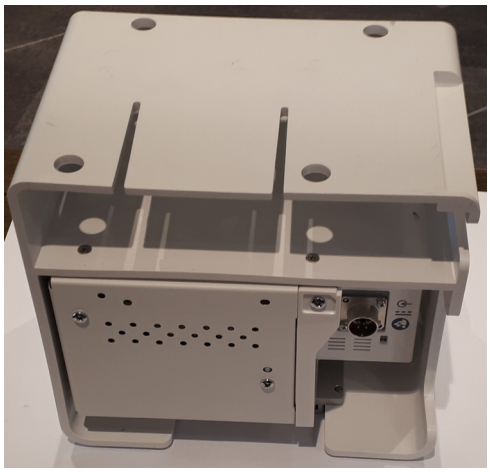


Figure 8-129 Disconnect Power Supply Connector

7.) Remove the power supply by pulling the ledge upwards.



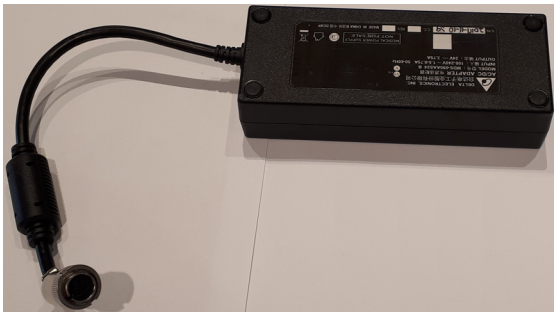


Figure 8-130 Power Supply Removed from Printer Assembly

8.) Slide the printer and remove it from the printer assembly

8-2-19-5 Printer and Printer Bracket Installation Procedure

1) Install the printer in the printer assembly.
2) Install the power supply in the printer assembly make sure that the power supply label is facing the bottom of the printer bracket assembly.
3) Connect the power supply cable connector to the printer.
4.) Reconnect four screws attaching the printer to the printer assembly.
5.) Install the printer assembly on the cart

- Printer Assembly Installation Procedure

8-2-20 Cart Tray Replacement Procedure

8-2-20-1 Tools

Phillips screwdriver of appropriate size

FRU Part # *Refer to Table 9-16 on page 9-17.*

8-2-20-2 Time Required

5 min

8-2-20-3 Preparations

1.) Shut down the Venue Go™ ultrasound unit, as described in Power Shutdown .
2.) Prepare stable flat surface covered with a soft material (such as foam) to prevent scratches to the display.
3.) Dismount Venue Go™ system from cart and place it on a previously prepared surface with the display facing down.

8-2-20-4 Cart Tray Removal Procedure

4.) Dismount the system from the cart.

- Dismounting System on Cart

5.) Remove the cradle assembly.

- Cradle Assembly Removal Procedure

6.) Remove the tilt assembly.

- Cradle Tilt Removal Procedure

7.) Remove the cart bin.

- Cart Bin Removal Procedure

8.) Remove the printer assembly.

- Printer Assembly Removal Procedure

9.) Remove 4 connecting Phillips screws from underneath the tray.

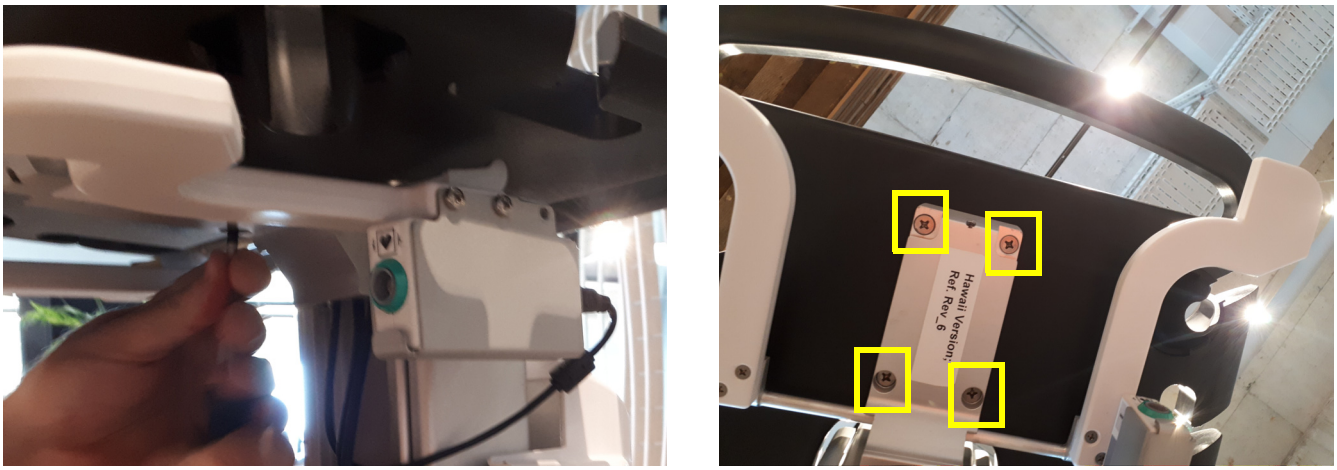


Figure 8-131 Disconnect Tray Screws

10.)Slide the tray upwards and remove the tray from the cart.

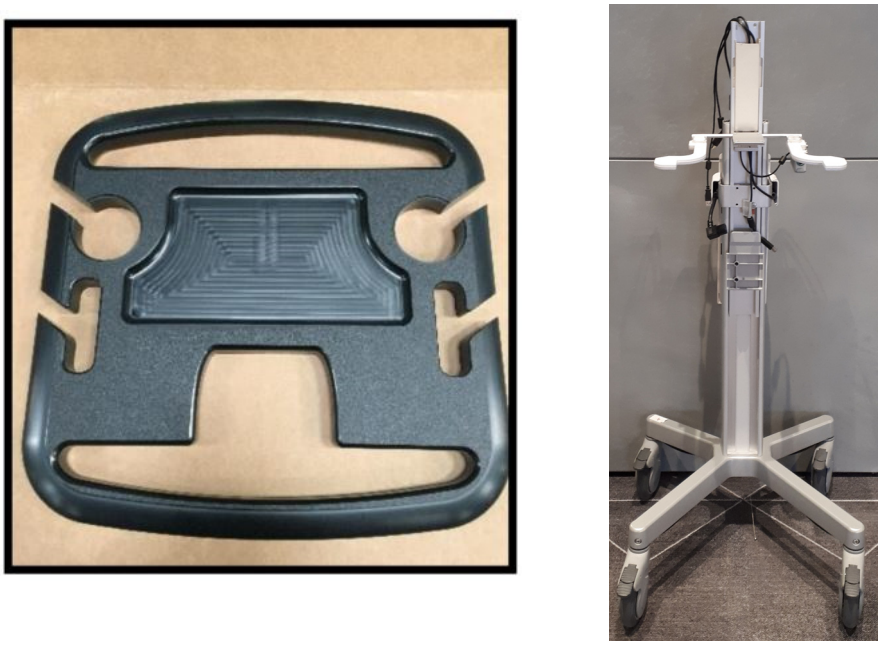


Figure 8-132 Remove Tray from Cart

8-2-20-5 Cart Tray Installation Procedure

1) Install the tray on the cart.
2.) Reconnect 4 Phillips screws.
3.) Install the printer assembly.

- Printer Assembly Installation Procedure

4.) Install the cart bin.

- Cart Bin Installation Procedure

5.) Install the tilt assembly.

- Cart Tilt Installation Procedure

6.) Install the cradle assembly.

- Cradle Assembly Installation Procedure

7.) Mount the system on the cart.

- Mounting System on Cart

8-2-21 Cart Up/Down Handle Replacement Procedure

8-2-21-1 Tools

Phillips screwdriver of appropriate size

FRU Part # *Refer to Table 9-16 on page 9-17.*

8-2-21-2 Time Required

5 min

8-2-21-3 Preparations

1.) Shut down the Venue Go™ ultrasound unit, as described in Power Shutdown .

2.) Prepare stable flat surface covered with a soft material (such as foam) to prevent scratches to the display.

3.) Dismount Venue Go™ system from cart and place it on a previously prepared surface with the display facing down.

8-2-21-4 Up/Down Handle Removal Procedure

4.) If ECG is installed in the up/down handle's screws side, remove the ECG

- ECG Removal Procedure

5.) Remove the 3 screws holding the Up/Down handle. .

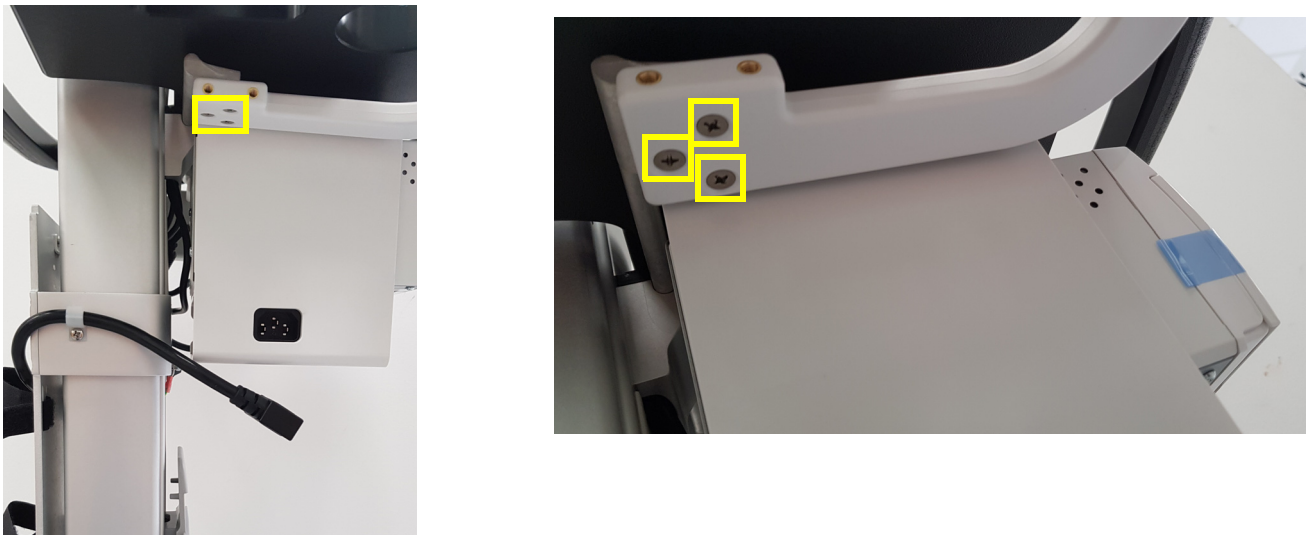


Figure 8-133 Disconnect Up/Down Handle Screws

8-2-21-5 Up/Down Handle Installation Procedure

1) Install the Up/Down Handle on the cart using 3 screws.

2.) If removed, re-install ECG assembly.

- ECG Installation Procedure

8-2-22 ECG Replacement Procedure

8-2-22-1 Tools

Phillips screwdriver of appropriate size

FRU Part # *Refer to Table 9-16 on page 9-17.*

8-2-22-2 Time Required

5 min

8-2-22-3 Preparations

1.) Shut down the Venue Go™ ultrasound unit, as described in Power Shutdown .

2.) Prepare stable flat surface covered with a soft material (such as foam) to prevent scratches to the display.

3.) Dismount Venue Go™ system from cart and place it on a previously prepared surface with the display facing down.

8-2-22-4 ECG Removal Procedure

4.) Disconnect USB cable from the ECG module.

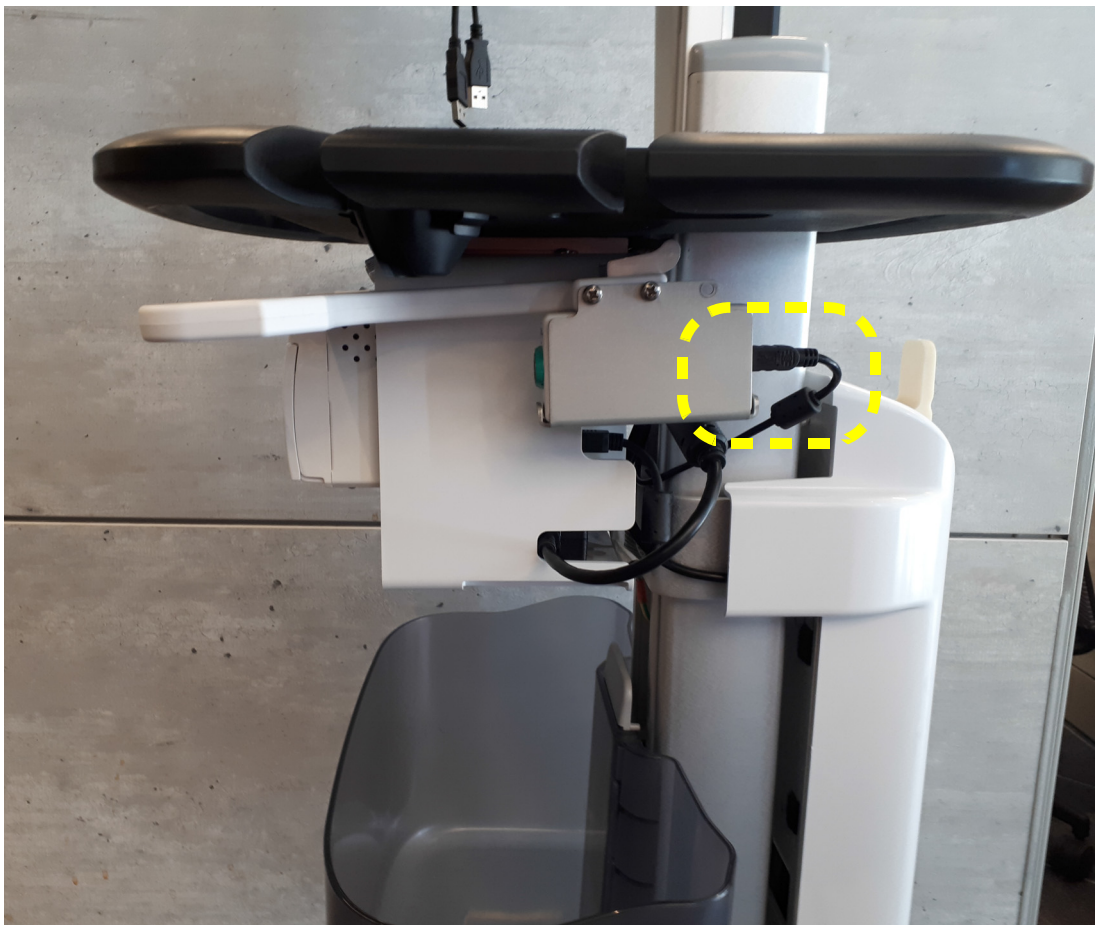


Figure 8-134 Disconnect ECG USB cable

5.) Disconnect 2 screws from the ECG bracket.

Figure 8-135 Remove ECG Bracket Screws

6.) Remove the ECG assembly from the cart; Then pull the ECG out of its bracket.

Figure 8-136 Remove ECG

8-2-22-5 ECG Installation Procedure

1) Install the ECG in its bracket.
2.) Install the ECG assembly on the cart, and re-connect two screws.(Note: the ECG may be installed on either side of the cart).
3.) Connect the USB cable to the ECG.

8-2-23 Printer USB Cable Replacement Procedure

8-2-23-1 Tools

Phillips screwdriver of appropriate size

FRU Part # *Refer to Table 9-16 on page 9-17.*

8-2-23-2 Time Required

5 min

8-2-23-3 Preparations

1.) Shut down the Venue Go™ ultrasound unit, as described in Power Shutdown .

2.) Prepare stable flat surface covered with a soft material (such as foam) to prevent scratches to the display.

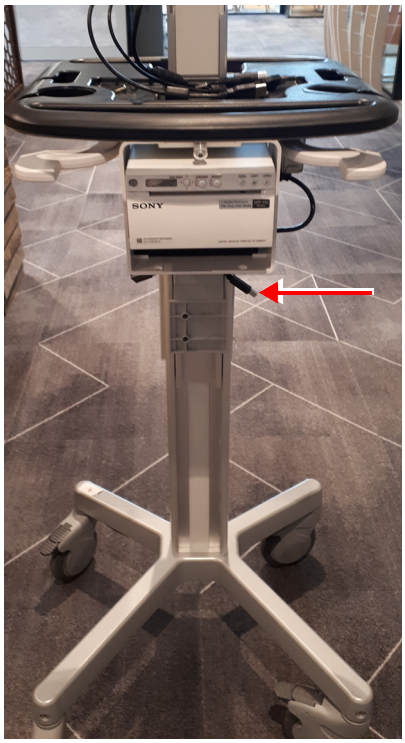
3.) Dismount Venue Go™ system from cart and place it on a previously prepared surface with the display facing down.

8-2-23-4 Printer USB Cable Removal Procedure

4.) Remove the system from the cart.

- Dismounting System on Cart

5.) Disconnect USB cable from the printer.



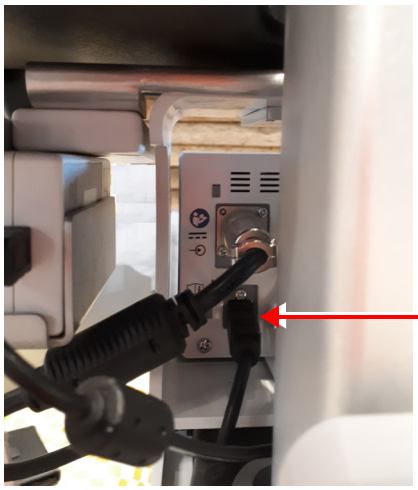


Figure 8-137 Disconnect printer USB Cable

6.) Remove cart's cables plastic cover.

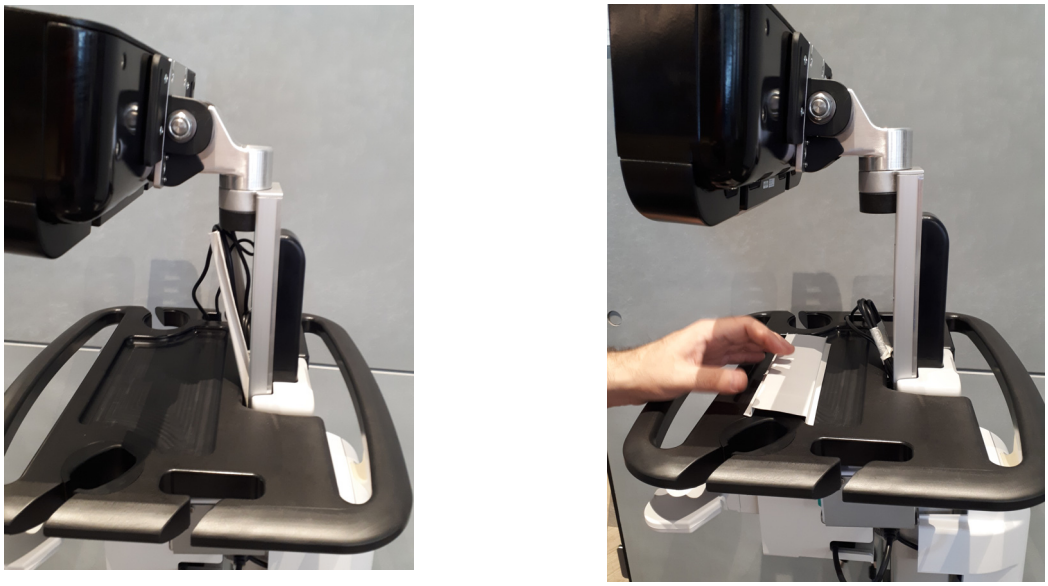


Figure 8-138 Remove Cable Plastic Cover

7.) Locate the printer USB cable, and gently pull the cable upwards through the pole routing.

Figure 8-139 Pull Printer USB cable upwards through the pole

8-2-23-5 Printer USB Cable Installation Procedure

1) Route the printer USB cable through the cart pole.
2.) Reconnect the USB to the printer.
3.) Close the pole cables plastic cover.
4.) Re-mount the system.

- Mounting System on Cart

8-2-24 ECG USB Cable Replacement Procedure

8-2-24-1 Tools

Phillips screwdriver of appropriate size

FRU Part # *Refer to Table 9-16 on page 9-17.*

8-2-24-2 Time Required

5 min

8-2-24-3 Preparations

1.) Shut down the Venue Go™ ultrasound unit, as described in Power Shutdown .

2.) Prepare stable flat surface covered with a soft material (such as foam) to prevent scratches to the display.

3.) Dismount Venue Go™ system from cart and place it on a previously prepared surface with the display facing down.

8-2-24-4 ECG USB Cable Removal Procedure

4.) Remove the system from the cart.

- Dismounting System on Cart

5.) Disconnect USB cable from the ECG assembly.

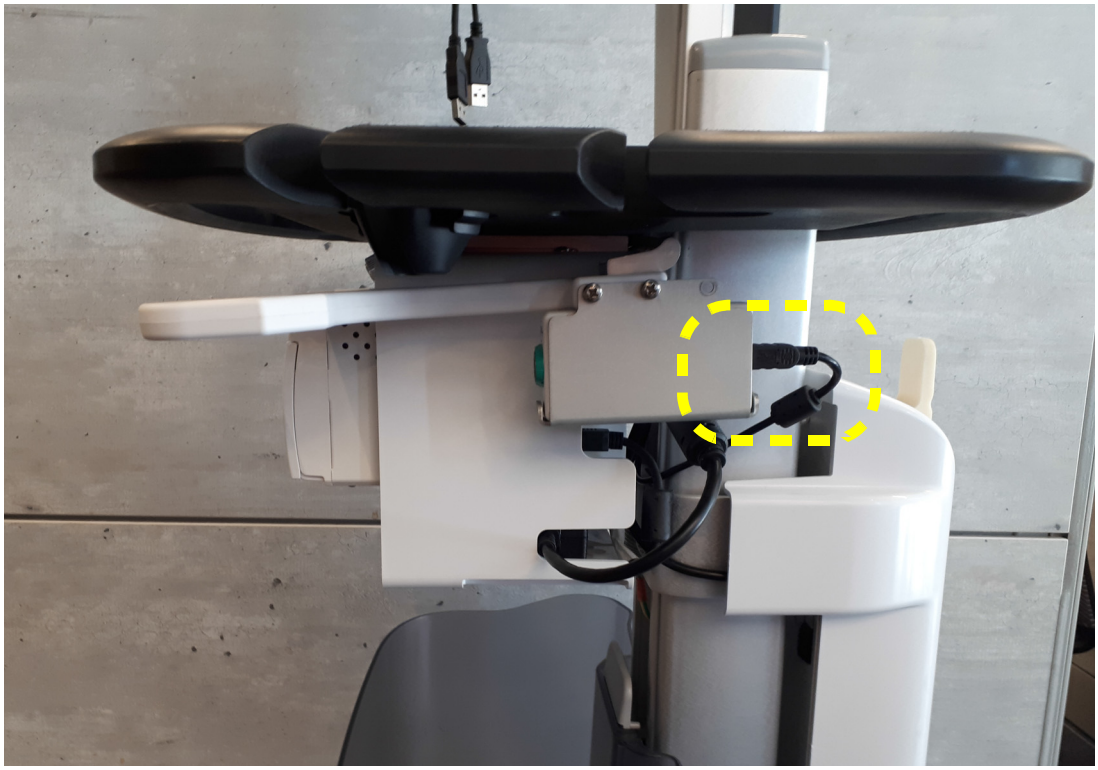


Figure 8-140 Disconnect ECG USB cable

6.) Remove cart's cables plastic cover.

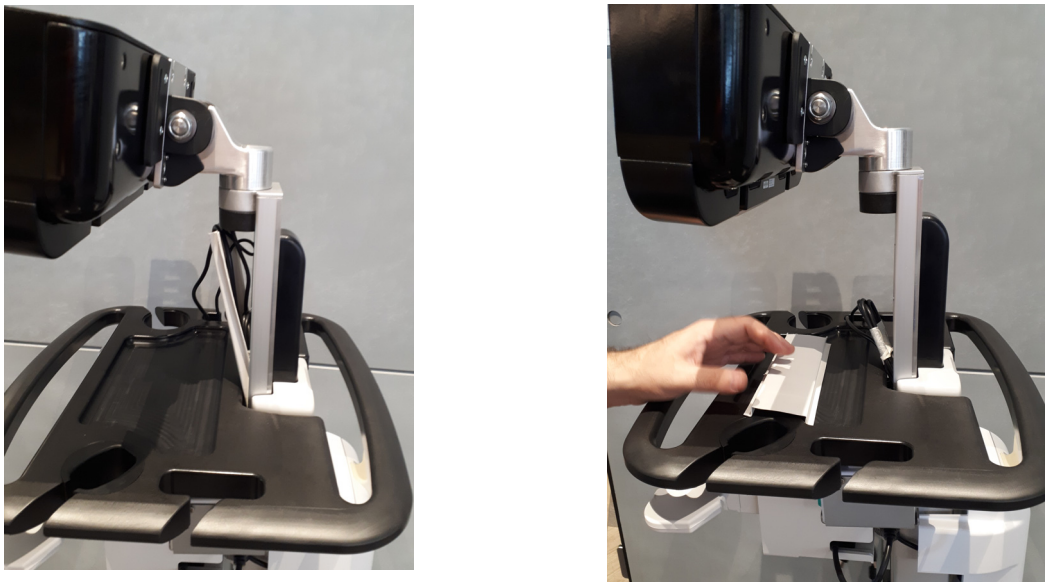


Figure 8-141 Remove Cable Plastic Cover

7.) Locate the ECG USB cable, and gently pull the cable upwards through the pole routing.

Figure 8-142 Pull ECG USB cable upwards through the pole

8-2-24-5 ECG USB Cable Installation Procedure

1) Route the ECG USB cable through the pole .
2.) Reconnect the USB to the ECG.
3.) Close the pole cables plastic cover.
4.) Re-mount the system.

- Mounting System on Cart

8-2-25 AC/DC PSU and Split Cable Replacement Procedure

8-2-25-1 Tools

Phillips screwdriver of appropriate size
Flat head screwdriver

FRU Part # *Refer to Table 9-16 on page 9-17.*

8-2-25-2 Time Required

5 min

8-2-25-3 Preparations

1.) Shut down the Venue Go™ ultrasound unit, as described in Power Shutdown .
2.) Prepare stable flat surface covered with a soft material (such as foam) to prevent scratches to the display.
3.) Dismount Venue Go™ system from cart and place it on a previously prepared surface with the display facing down.

8-2-25-4 PSU and Split Cable Removal Procedure

4.) Release 2 screws holding the PSU plastic cover, and remove the cover. Use a flat head screw driver if required.

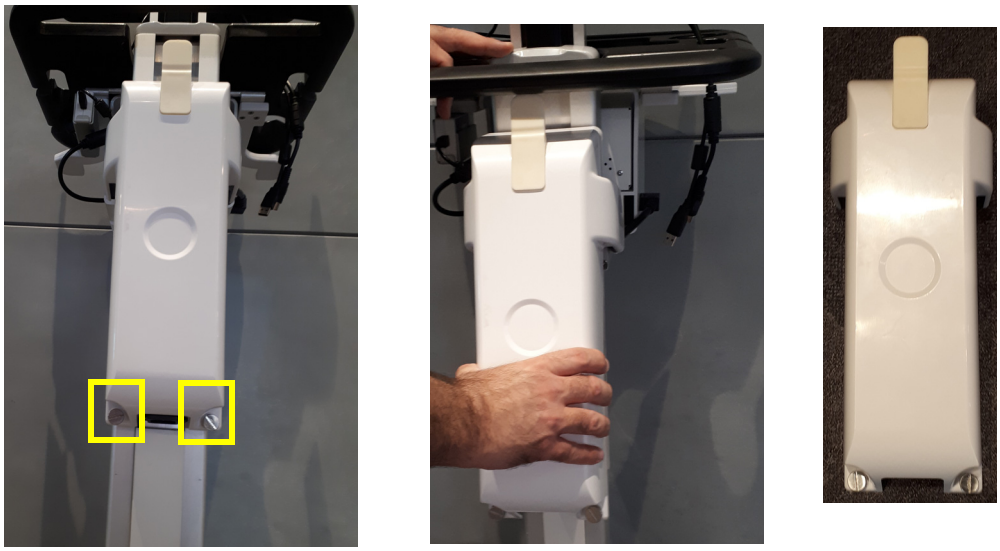


Figure 8-143 Remove Power Supply Plastic Cover

5.) Disconnect the cable underneath the power supply.

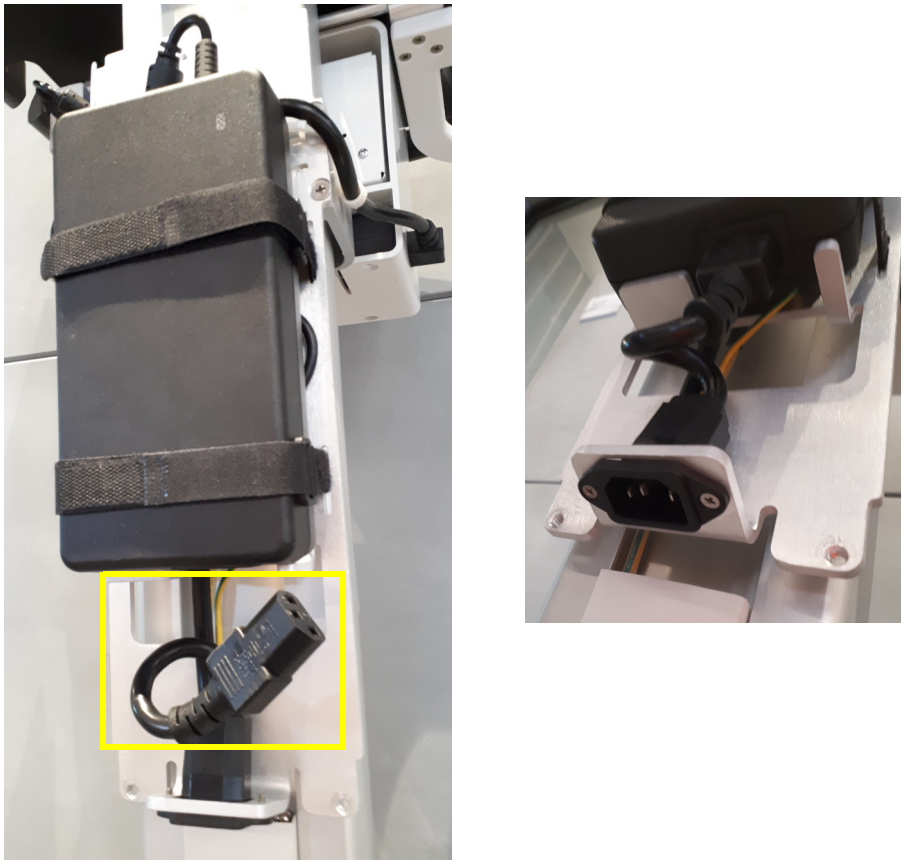


Figure 8-144 Disconnect Cable underneath Power Supply

6.) Release the power cable from the P-clip.

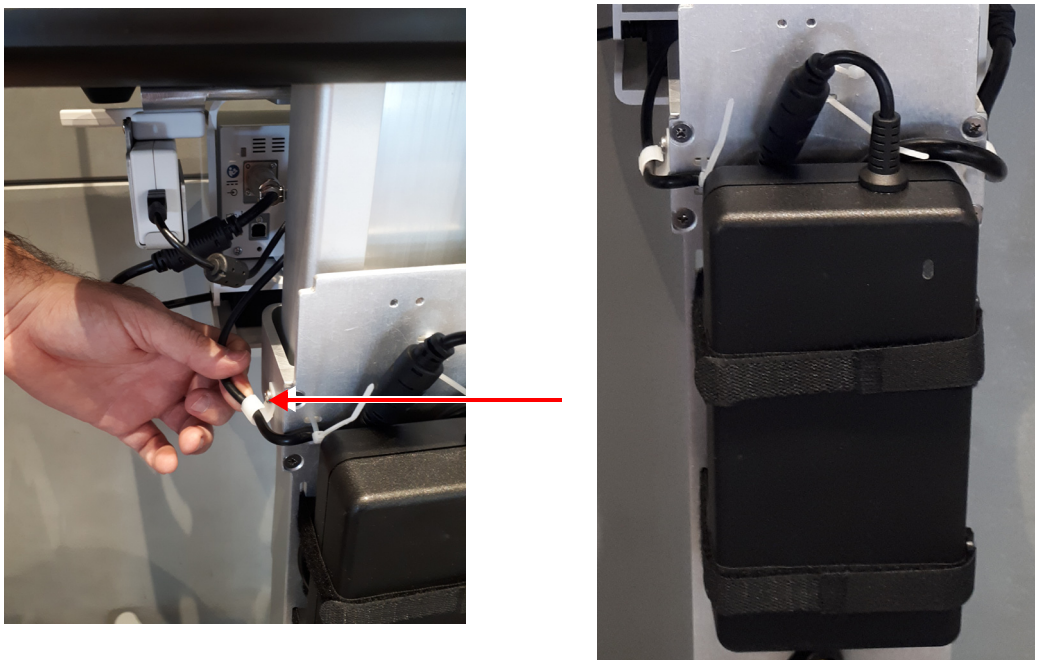


Figure 8-145 Release power cable from P clip

7.) Open scotch straps and remove power supply.

Figure 8-146 Remove Power Supply

8.) Open 2 screws holding the split cable and release the ground cable

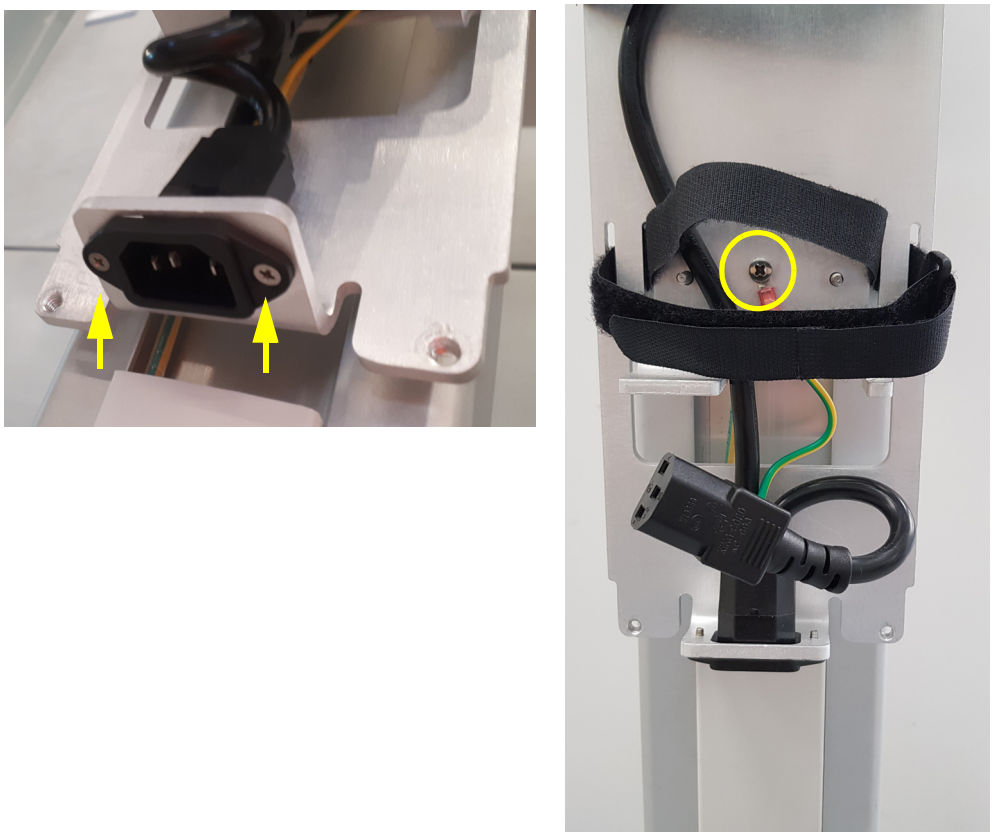


Figure 8-147 Disconnect Split cable

8-2-25-5 PSU and Split Cable Installation Procedure

1) Route the power cable through the pole.
2) Connect the split cable to its position using 2 screws, and connect the ground cable.
3) Position the PSU and secure by scotch straps.
4.) Reconnect the PSU cable underneath the PSU.
5.) Route the power cable, and secure it with the p-clip.
6.) Re-position the PSU plastic cover and secure the screws.

Section 8-3
Software Loading Procedures

8-3-1 Software Installation/Update Procedures - General Overview

The Venue Go™ ultrasound scanner software loading options provide the ability to install the Windows operating system, the Venue Go™ application software - or both - depending on current requirements.

The complete installation procedure can be performed using the Touch Screen only. An on-screen (virtual) keyboard is available whenever text input is required. I

WARNING ***DO NOT ATTEMPT TO INSTALL SOFTWARE THAT WAS NOT DESIGNATED FOR YOUR VENUE GO™ UNIT. ATTEMPTING TO INSTALL UN-APPROVED SOFTWARE WILL CAUSE IRREVERSIBLE DAMAGE TO HARDWARE AND SOFTWARE!***

NOTICE IMPORTANT Since neither the System Serial Number or the Computer Name can be changed after the software installation procedure is completed, it is important to make sure that when prompted, the correct information is inserted during the installation procedure.

8-3-1-1 Preparation and Notes for Software Installation Procedure

- When **installing** the Windows operating system software, in some situations (for example, after performing a Hard Disk Replacement Procedure), it is necessary to format the hard disk. Be aware that this will perform a full format of the Hard Disk and **all patient data will be lost**.
- *After performing a software **installation**, all logs are deleted. It is recommended that these should be recorded should they be needed in the future..*

WARNING ***WHILE THE SOFTWARE INSTALLATION PROCEDURE IS DESIGNED TO PRESERVE DATA, YOU SHOULD SAVE ANY PATIENT DATA, IMAGES, SYSTEM SETUPS TO BACKUP MEDIA BEFORE DOING A SOFTWARE INSTALLATION.***

CAUTION **THE INSTALLATION PROCESS FORMATS THE HARD DRIVE (WHEN SELECTION OF THIS OPTION IS APPLICABLE) - MAKE SURE TO SAVE ALL THE REQUIRED PRESETS, SETTINGS AND PATIENT DATA!**

NOTICE IMPORTANT Before performing any Venue Go™ software installation procedure, it is mandatory to backup the Archive.

- Normally, the Venue Go™ system is supplied with the software already installed. In some cases, it is necessary to re-install the software.
- Make sure that the required Software Option keys are available prior to commencing the installation process. Do not use the Software Option keys from a previous system version

WARNING ***REMOVE ALL EXTERNAL DEVICES SUCH AS PRINTERS AND USB CONNECTIONS BEFORE STARTING THE UPGRADE PROCEDURE.***

At the site, perform the following steps before you start the upgrade procedure:

1.) Perform Disk Management for all database records and select the "Copy" option (for instructions, refer to the Venue Go™ User Manual on your Document Media).

NOTE: It is recommended that Disk Management be executed using the "move" option to a network repository.

2.) Perform a full back-up for Patient Archive and System Configuration (for instructions, refer to the Venue Go™ User Manual on your Document Media).

3.) Write down the following settings as it will be necessary to restore them at the end of the process:

- TCP/IP address
- Network printer (if present)
- Wireless network settings (if present)
- InSite ExC settings

4.) When done, continue to Table 8-6 on page 8-304.

8-3-2 Preparation and Notes for Software Upgrade Procedure

WARNING ***REMOVE ALL EXTERNAL DEVICES SUCH AS PRINTERS AND USB CONNECTIONS BEFORE STARTING THE UPDATE PROCEDURE.***

- When **updating** the system software from a previous version, it is necessary to contact your local OTR department to receive an appropriate software password. Make sure you specify the system serial number located on the Venue Go™ unit.
- It is **recommended** to backup the data and configuration before starting the **update** procedure.

At the site, perform the following steps before you start the upgrade procedure:

1.) Perform Disk Management for all database records and select the "Copy" option (for instructions, refer to the Venue Go™ User Manual on your Document Media).

NOTE: It is recommended that Disk Management be executed using the "move" option to a network repository.

2.) Perform a full back-up for Patient Archive and System Configuration (for instructions, refer to the Venue Go™ User Manual on your Document Media).

3.) Write down the following settings as it will be necessary to restore them at the end of the process:

- TCP/IP address
- Network printer (if present)
- Wireless network settings (if present)
- InSite ExC settings

4.) When done, continue to Table 8-6 on page 8-304.

8-3-3 Software Installation Procedure

NOTE: Images in this procedure are for reference only. There may be differences or variations, in accordance with different software versions.

1.) Plug the Software Installation Media into the USB port located on the Interface Panel of the Venue Go™ .

2.) Turn on the system.

The opening screen is displayed.

3.) For new installation (after SSD replacement), tap **Format SSD and Install**.

If patient information is stored on the SSD, perform one of the following:

Select **Update SW** to install software without affecting user data.

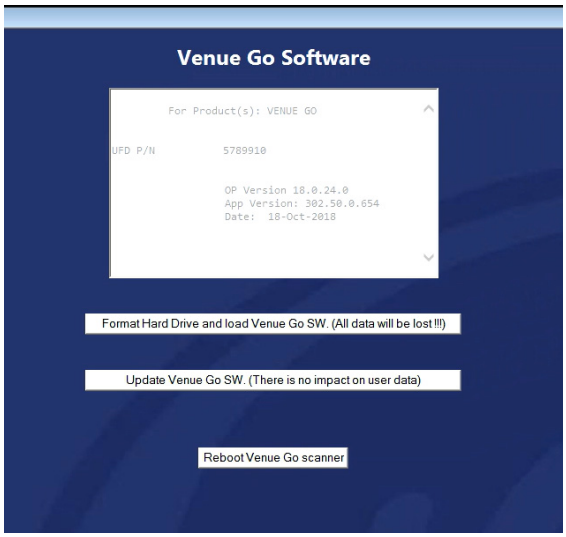


Figure 8-148 Venue Go™ Software - Installation Options

The **Warning** message appears:

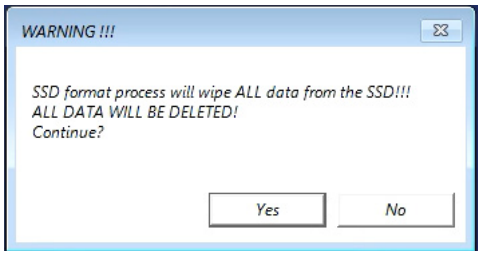


Figure 8-149 Venue Go™ SSD Format- Warning Message

4.) Click **Yes** in the Warning message box.

5.) Automatic installation process runs. At the end of the process, the following message appears:

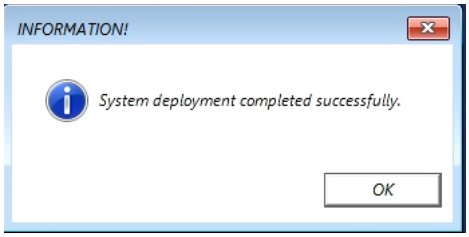


Figure 8-150 Software Deployment completed Message

6.) Tap OK.

7.) Select Exit and Reboot. Wait until the INFORMATION dialog box appears:

Figure 8-151 Venue Go™ Installation Process- Information Dialog Box

8.) Disconnect the SW installation media and tap **OK** in the message box.

9.) In the Confirmation dialog box that appears, tap **Yes** to continue the reboot.:

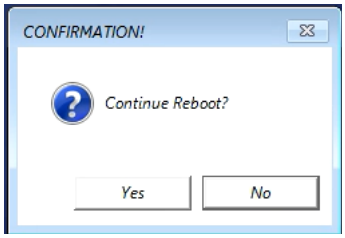


Figure 8-152 Venue Go™ Installation Process- Confirmation Dialog Box

10.) Tap **Yes** to continue the reboot.

8-3-3-1 Run Venue Go™ EZ Config Setup Wizard

11.)After the system reboots, the Venue Go™ setup wizard welcome screen appears.:

12.)Select the interface language and tap **OK** to proceed.

Figure 8-153 Venue Go™ Installation Wizard - Welcome Screen

13.)Tap **Run wizard** to continue the installation.

Figure 8-154 Venue Go™ Installation Wizard - Run Wizard

14.)Enter the system serial number (as appears on the rating plate label) and tap OK to confirm.

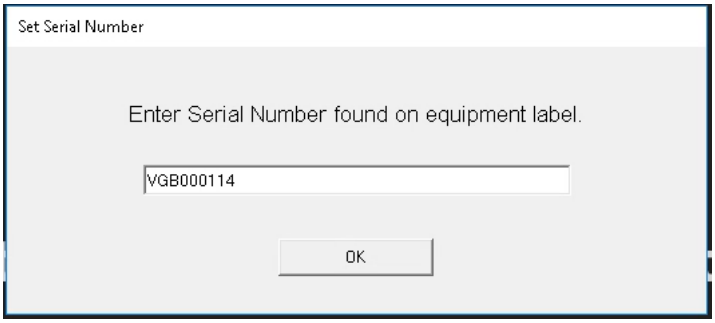


Figure 8-155 Venue Go™ Installation Process- Set Serial Number

15.)Tap **OK t**o confirm the serial number.

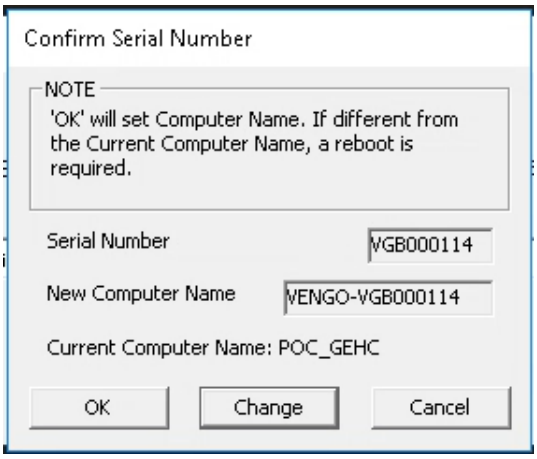


Figure 8-156 Venue Go™ Installation Process- Confirm Serial Number

16.)The settings screen appears. The **Local** tab opens by default.

17.)Continue with the EZ Config installation as specified in *Section 3-6-3-1* on page 3-20.

Functionality Checks

Perform the checks listed in *Operating System and Application Software Installation Procedure* on page 8-74

8-3-4 Software Reload/Update Procedure

NOTE: Images in this procedure are for reference only. There may be differences or variations, in accordance with different software versions.

8-3-4-1 Backup System Configuration

Perform backup of all system configuration parameters as follows:

1.) Log in to the system as ADM (administrator).

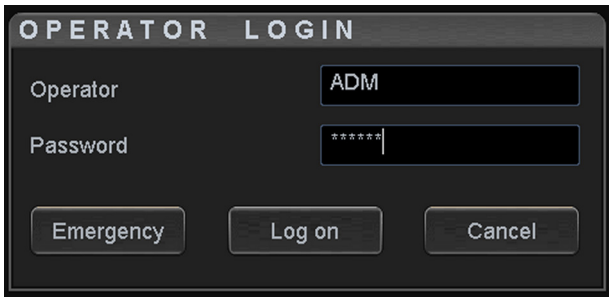


Figure 8-157 Logging In as ADM

2.) Tap **Settings** and select **Config**.

3.) On the **Connectivity** tab, select **Dataflow** and make sure the **USB Storage** option is enabled.

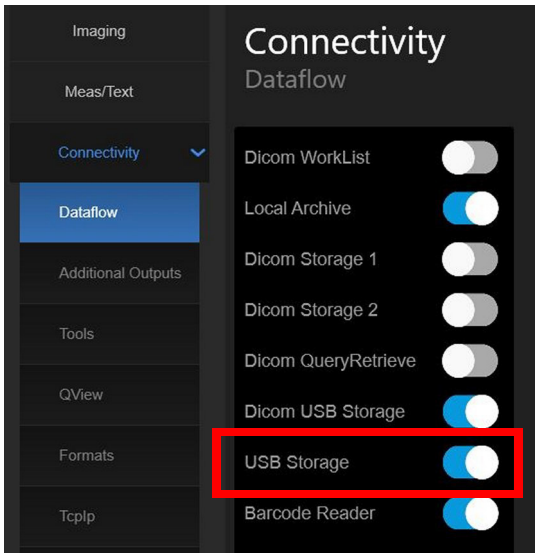


Figure 8-158 Backup Options Tab

4.) Connect USB memstick to any available USB port in the system.

5.) From the side menu, select **Admin** and then **Backup**.

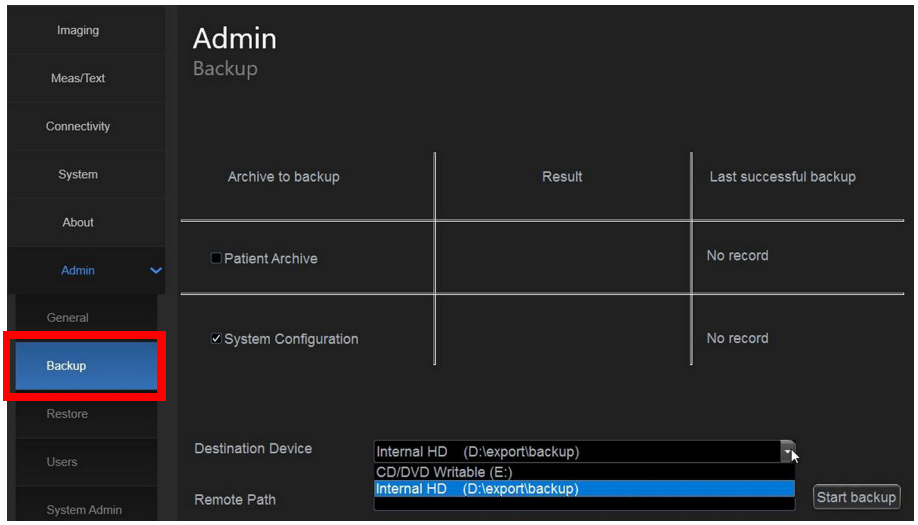


Figure 8-159 Backup Options Tab

6.) Select the **System Configuration** checkbox.

7.) Select **USB HD/Memstick** media as a Destination Device.

8.) Tap **Start Backup**.

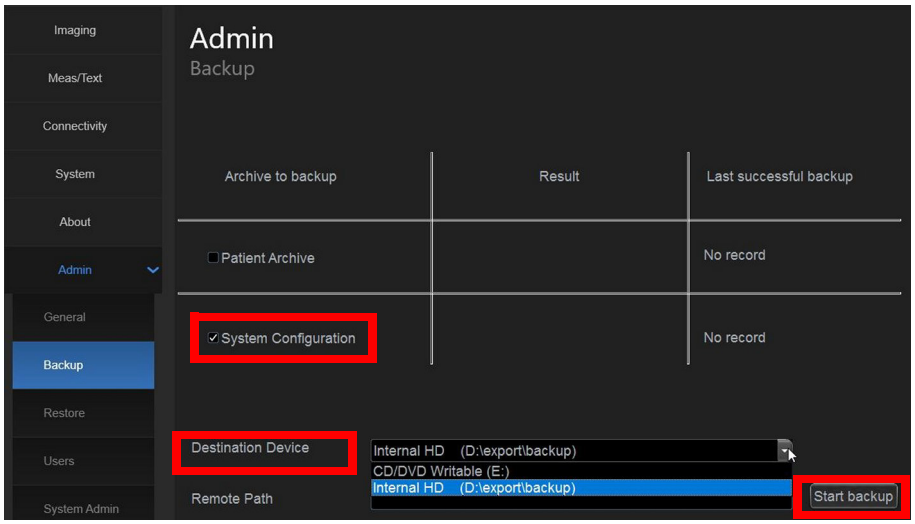


Figure 8-160 Backup Options to Select

After the backup is complete, the following message appears:

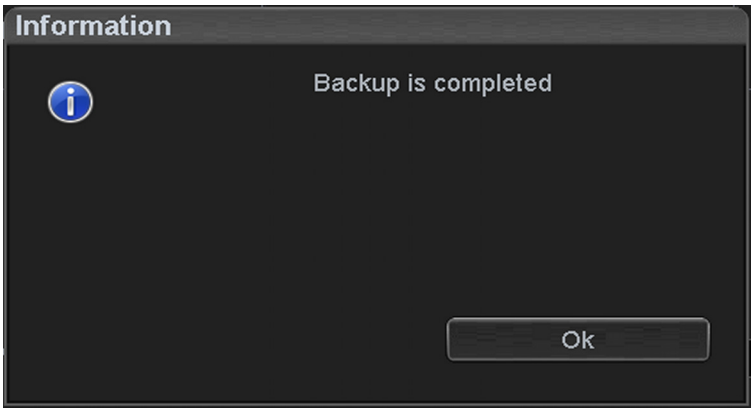


Figure 8-161 Backup Complete Message

Eject the USB memstick when prompted.

8-3-4-2 Backup Patient Exams

1.) Connect an external USB 3.0 hard drive with at least 100GB of free space.
2.) Tap the **Home button** and select **Archive Management.**

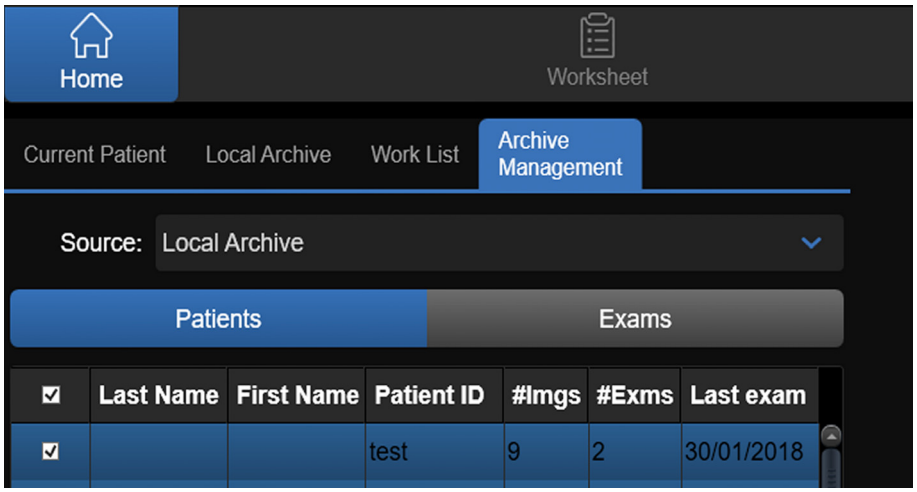


Figure 8-162 Archive Management Tab

3.) Select the **Select All** checkbox to select all patients for backup.

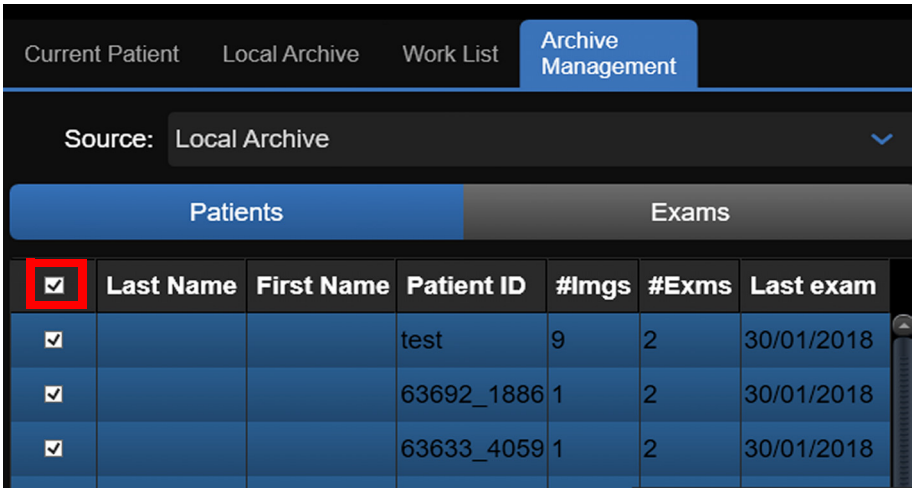


Figure 8-163 Select All Patients for Backup

4.) Tap **Send Selected**.

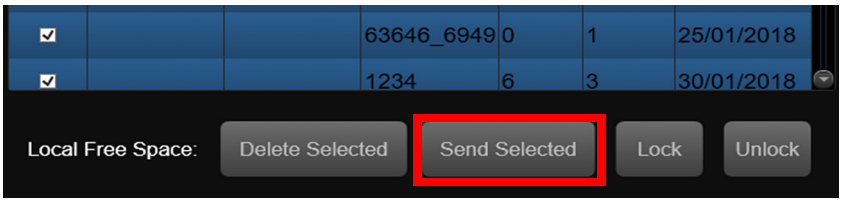


Figure 8-164 Send Selected Button

5.) In the **Copy** window, select **USB Storage** and click **OK**.

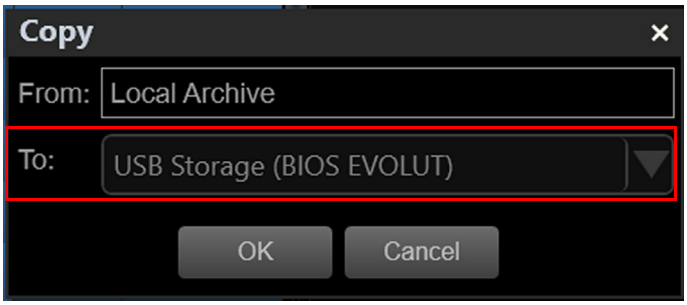


Figure 8-165 Copy Window

NOTICE IMPORTANT Make sure the selected option is USB Storage and not DICOM USB.

The selected data is copied. The backup process is indicated on the progress bar that appears.

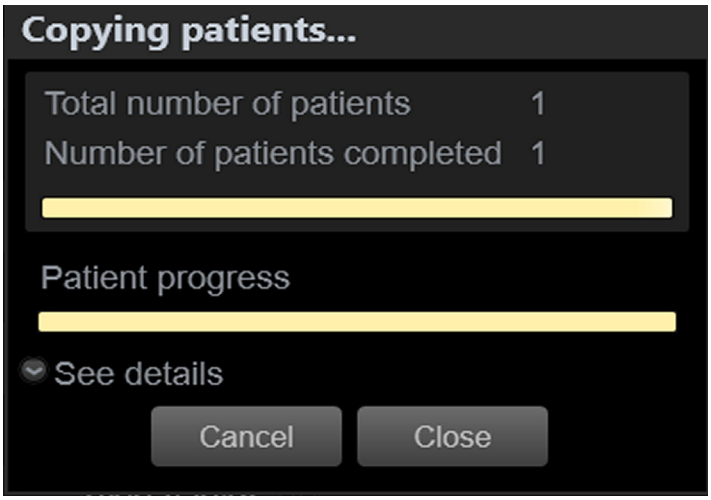


Figure 8-166 Copying Patients Dialog

6.) After the backup is complete, proceed to Software Update Procedure.

8-3-4-3 Software Update Procedure

1.) Turn OFF the system.

2.) Plug the Software Update Media into the USB port located on the Interface Panel of the Venue Go™ .

3.) Turn on the system.

The opening screen is displayed.

4.) For Software Update: Select **Update Venue Go™ SW** to upgrade software without affecting user data.

Figure 8-167 Venue Go™ Software - Update Options

The **Warning** message appears:

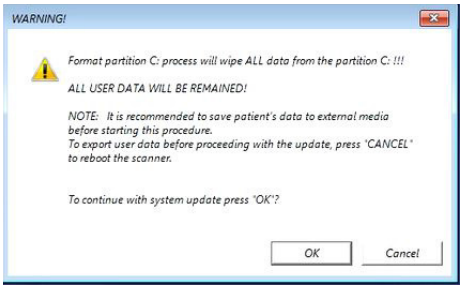


Figure 8-168 Venue Go™ SW Update - Data Warning Message

5.) Tap **OK** in the Warning message box.

6.) Automatic Update process runs. At the end of the process, the following message appears:

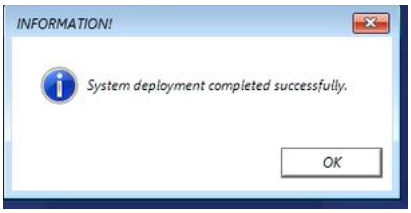


Figure 8-169 Venue Go™ Update Process- Information Dialog Box

7.) Click OK. The following message appears:

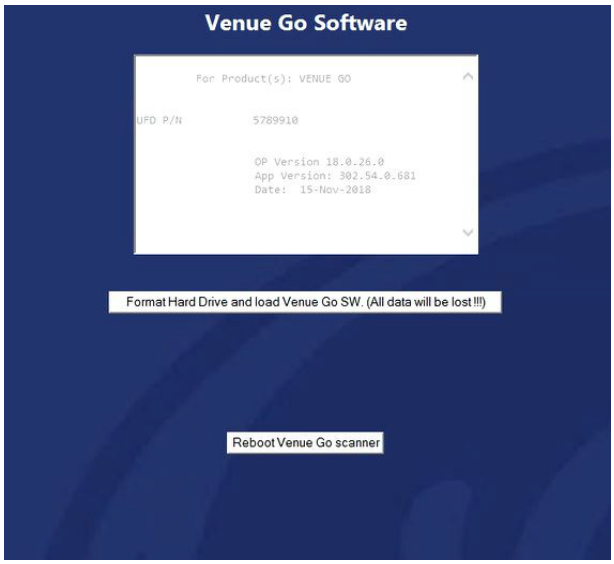


Figure 8-170 Venue Go™ Update Process- Reboot Options

8.) Select Reboot Venue Go Scanner. The following message appears:

Figure 8-171 Venue Go™ Update Process- Flash Eject Dialog Box

9.) Disconnect the SW installation media and tap **OK** in the message box.

10.) In the Confirmation dialog box that appears:

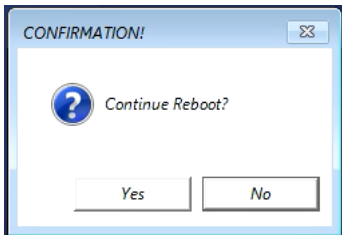


Figure 8-172 Venue Go™ Update Process- Confirmation Dialog Box

11.) Tap **Yes** to continue the reboot.

12.) Continue with Venue GO EZ Config Setup Wizard:

- Run Venue Go™ EZ Config Setup Wizard

Functionality Checks

Perform the checks listed in *Operating System and Application Software Installation Procedure* on page 8-74

8-3-5 Software Recovery Procedure

NOTE: Images in this procedure are for reference only. There may be differences or variations, in accordance with different software versions.

The software recovery procedure allows the user to reload the operating system and the application (Drive C:\ partition) without affecting any user information or PHI data.

This procedure can be initiated from the configuration screen under the **Service** tab.

1.) Boot the system into the application screen and open the Config menu.
2.) Open the **Service** tab.

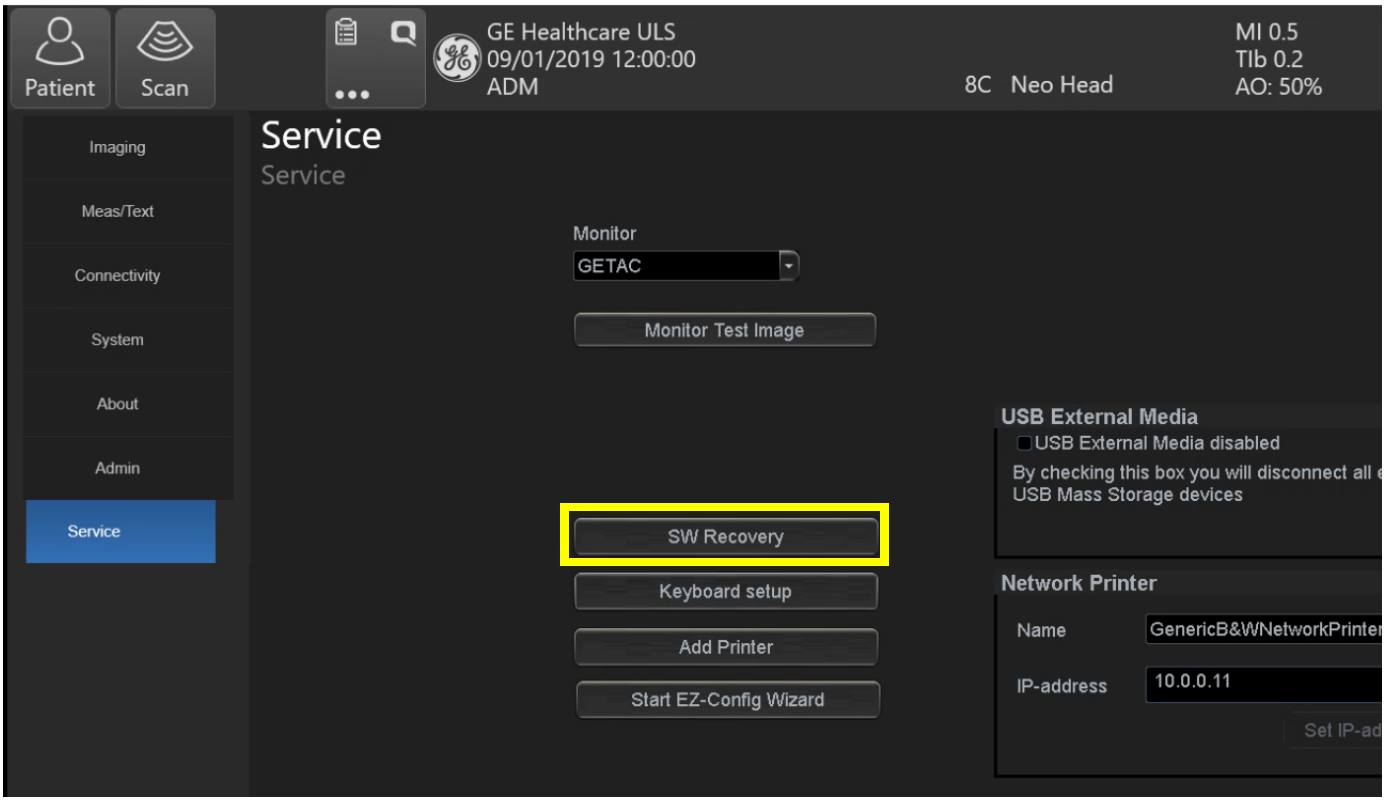


Figure 8-173 Service Tab

3.) Select **SW Recovery.**

4.) A pop up window will be displayed, notifying the user about the next steps..

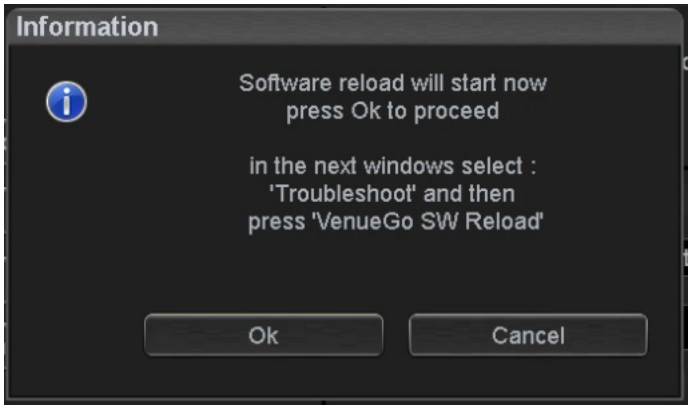


Figure 8-174 Information window

5.) Select **OK.** Windows recovery options will be displayed.

6.) Select **Troubleshoot**.

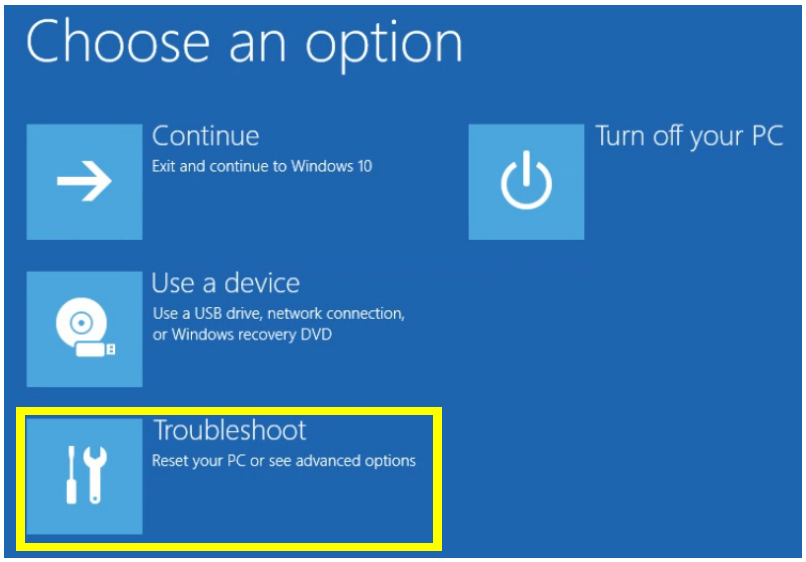


Figure 8-175 Recovery Options

7.) select **Venue Go SW reload**.

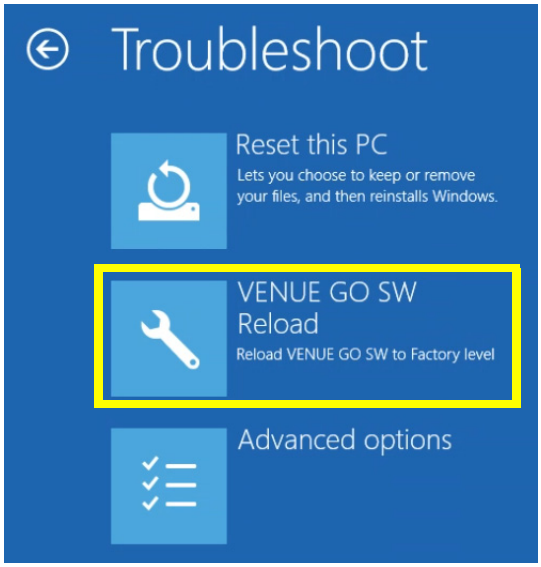


Figure 8-176 Troubleshoot Window

8.) The system will reboot automatically and the **Venue Go SW reload** window will be displayed.

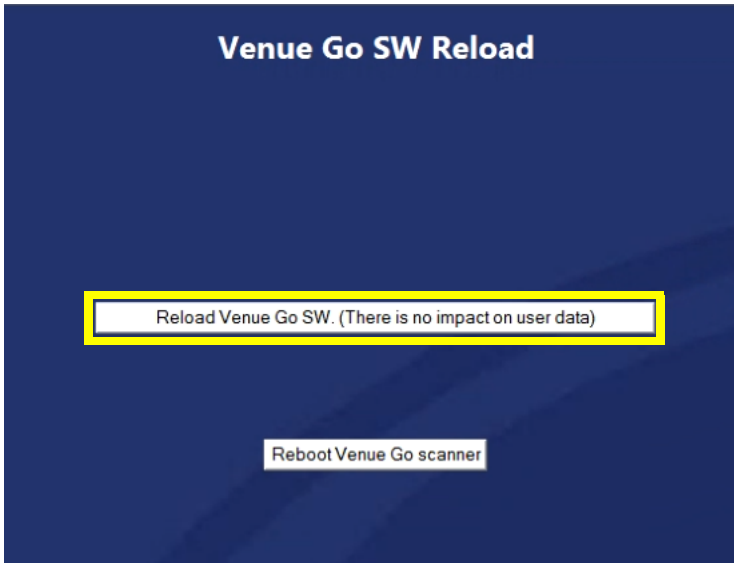


Figure 8-177 Venue Go SW Reload

9.) Select **Reload Venue Go SW.** The software reload process will start.

10.) Once the process is complete, The **Venue Go SW reload window** will be displayed again.

11.) Select **Reboot Venue Go Scanner.**

12.) The system will reboot.

13.)Continue with Venue GO EZ Config Setup Wizard:

- Run Venue Go™ EZ Config Setup Wizard

Perform the checks listed in *Operating System and Application Software Installation Procedure* on page 8-74

Section 8-4
Functional Checks to be Performed after Replacement Procedures

8-4-1 General Overview

Table 8-2 below lists the Functional Checks to be performed after each Replacement Procedure. For easy reference, these are grouped in accordance with the various categories of Venue Go™ replacement parts.

NOTICE **IMPORTANT - AFTER PERFORMING A REPLACEMENT PROCEDURE, ALWAYS REPORT TO THE GE SERVICE SYSTEM, AS DESCRIBED BELOW.**

8-4-2 Submitting a Replacement Procedure Report

After performing a Venue Go™ Replacement Procedure, if all required Functional Checks passed successfully, proceed as follows to submit a Debrief Script to the GE Service System:

- Using your pole's Dispatch Tool, enter the following script in the Service Comments when debriefing a Service Dispatch:

  Venue Go™ Service Manual, Direction Direction 5813707-100, Revision 2 - per Table 8-2 on page 8-82. Equipment passed all required tests and is ready for use.

8-4-3 Functional Checks Required per Replacement Part Category

Table 8-2 lists the Functional Checks to be performed after each type of Replacement Procedure.

Part Number	Replacement Element and Procedure	Functional Checks Required
System Parts		
S5806961	PROBE HOLDER RUBBER - Venue Go	• Visual inspection
S5764348	Batteries	• *4-3-9-1 -Battery Charging Test*
S5775296	Back cover FRU - Venue Go	• *7-5-3 -Running System Diagnostics* • *4-3-5 -Image Quality Tests* • *4-3-8 -Mechanical Functions Checks*
S5775292	Speakers	• *7-5-3 -Running System Diagnostics* • *4-3-5 -Image Quality Tests* •
S5762368	C-PSB FRU - Venue Go	• *7-5-3 -Running System Diagnostics* • *4-3-5 -Image Quality Tests*
S5809900	RS Probe Latches FRU - Venue Go	• Visual inspection
S5789349	Venue Go Fan FRU - Venue Go	• Visual inspection • *7-5-3 -Running System Diagnostics* • *4-3-5 -Image Quality Tests*
S5797835	WiFi PCB FRU - Venue Go	• Wifi test • *7-5-3 -Running System Diagnostics* • *4-3-5 -Image Quality Tests*

Table 8-2 Replacement Procedures - Functional Checks Required

Part Number	Replacement Element and Procedure	Functional Checks Required
S5810293	C-BEB FRU - Venue Go	• Full Back End Processor Test • Boot to application • *7-5-3 -Running System Diagnostics* • *4-3-5 -Image Quality Tests* •
S5791182	SSD FRU - Venue Go	• Visual inspection • *7-5-3 -Running System Diagnostics* • *4-3-5 -Image Quality Tests*
S5798986	CFEB HEAT SINK ASSY FRU - Venue Go	• Visual inspection • *7-5-3 -Running System Diagnostics* • *4-3-5 -Image Quality Tests*
S5810292	C-FEB FRU - Venue Go	• *7-5-3 -Running System Diagnostics* • *4-3-5 -Image Quality Tests*
S5797182	Touch Display FRU - Venue Go	• Visual inspection
Cart Parts		
S5809778	Cart Cradle Assy CRU - Venue Go	• Visual inspection • *4-3-8-2-1 -Cradle Locking Test* • Verify system is easily inserted/removed from cradle
S5810359	Tilt Assy.	• *4-3-8-2-3 -Cart Tilt/Swivel Movement Test*
S5811127	Shelf	• Visual inspection
S5791187	Up-down handle	• *4-3-8-2-2 -Cart Movement Up/Down Movement Test (Tilt, Swivel, Rotate, Up/Down)*
S5791191	Cart AC/DC cover	• Visual inspection
S5788477	Gel Cup CRU - Venue Go Cart	• Visual inspection
S5791599	Caster	• Verify system smooth movement • *4-3-8-2-4 -Cradle Casters Locking Test*
Cart Cables		
S5809718	Printer USB cable	• *4-3-7-1 -Printer Checks*
5146055	ECG USB cable	• *4-3-7-2 -ECG Functionality Checks*
S5811099	Split power cable	• *4-3-3 -Safety Checks*
Peripherals		
5778615	Printer	• *4-3-7-1 -Printer Checks*
S5790356	Printer AC DC PS	• *4-3-7-1 -Printer Checks*
5129487 or 5800116	ECG	• *4-3-7-2 -ECG Functionality Checks*
S5767381	Bar code	• Bar-code read test

Table 8-2 Replacement Procedures - Functional Checks Required (Continued)

Part Number	Replacement Element and Procedure	Functional Checks Required
Software installation		
		• *4-2-3 -Power ON/Boot-up* • *4-2-4 -Power Shutdown* • *4-3-6 -Probe/Connectors Check* • *4-3-5 -Image Quality Tests* • *4-3-7 -Peripheral Checks* • *7-5-3 -Running System Diagnostics*

Table 8-2 Replacement Procedures - Functional Checks Required (Continued)

Chapter 9
Renewal Parts

Section 9-1
Overview

Section 9-2Purpose of Chapter 9

This chapter gives you an overview of replacement parts for the Venue™ ultrasound scanner.

NOTE: In the detailed Parts lists, illustrations are accompanied by FRU names, corresponding Part Numbers and a compatibility matrix.

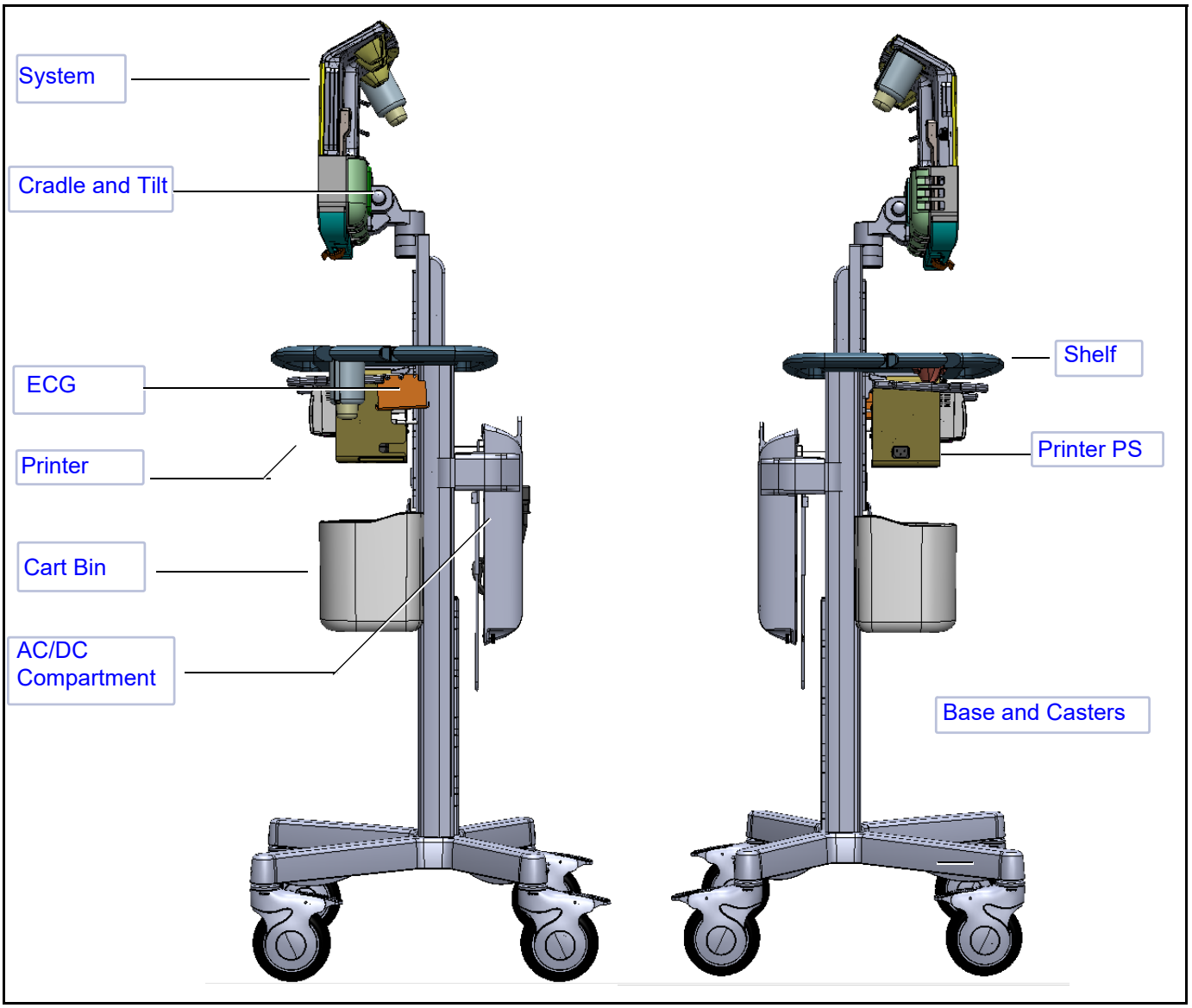
This Repl Proc icon  *indicates refer to the instructions in Chapter 8 - Replacement Procedures.*

NOTE: The illustrations provided in this chapter are for illustration purposes only and are subject to change without notice.

Section 9-3
List of Abbreviations

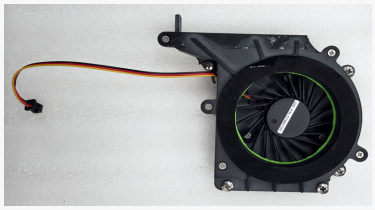
- **Assy** - Assembly
- **C-BEB** - Compact Back End Board
- **C-FEB** Compact Front End Board
- **CRU** Customer-replaceable Unit
- **Ctrl** - Control
- **C-PSB** Compact Probe Selection Board
- **Recv** - Receive
- **TS** - Touch Screen

Section 9-4
Venue-Go™ System on Cart Overview

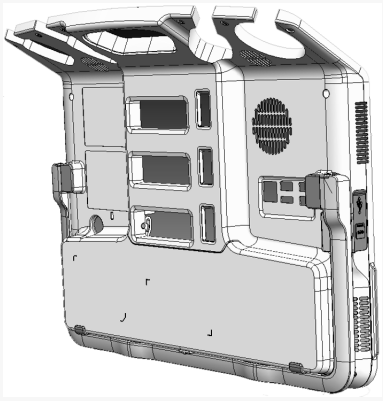


Section 9-5
Renewal Parts Lists and Diagrams
9-5-1 Mechanical Hardware Parts

Table 9-3 Mechanical Hardware Parts

Part Name	Part Number	Picture	Can Replace Part #	Can Be Replaced by Part #	Not Compatible With	Repl Proc
PROBE HOLDER RUBBER - Venue Go	S5806961					
Fan FRU - Venue Go	S5789349					
Screw Kit FRU - Venue Go	S5791188					

9-5-2 Covers

Part Name	Part Number	Picture	Can Replace Part #	Can Be Replaced by Part #	Not Compatible With	Repl Proc
Back cover FRU - Venue Go	S5775296					

9-5-3 System Parts

Table 9-4 System Parts

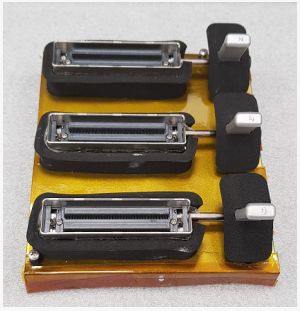
Part Name	Part Number	Picture	Can Replace Part #	Can Be Replaced by Part #	Not Compatible With	Repl Proc
Battery Pack CRU-Venue Go	S5764348					
AC DC PS CRU- Venue Go	S5790353					
C-PSB FRU - Venue Go	S5762368					

Table 9-4 System Parts

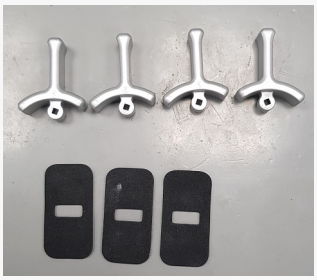
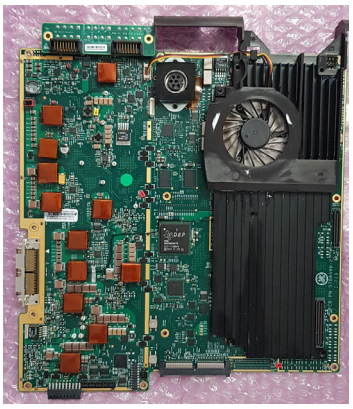
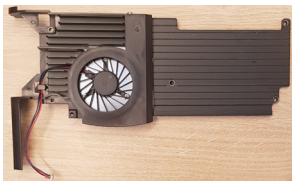
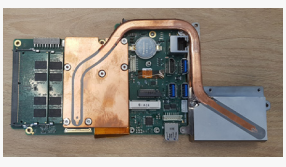
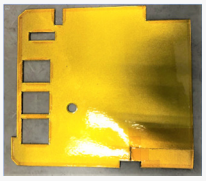
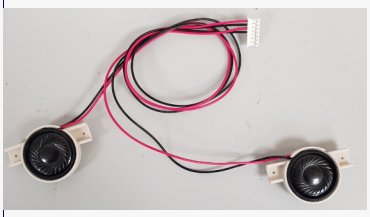
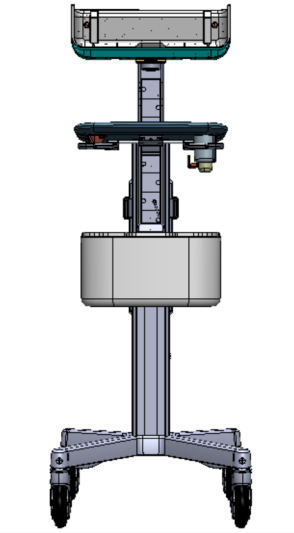
Part Name	Part Number	Picture	Can Replace Part #	Can Be Replaced by Part #	Not Compatible With	Repl Proc
Probe Locking Levers FRU - Venue_VenueGo	S5809900					
C-FEB FRU - Venue Go	S5810292					
CFEB HEAT SINK ASSY FRU - Venue Go (fan included)	S5798986					
Touch Display FRU - Venue Go	S5797182					
C-BEB FRU - Venue Go	S5810293					

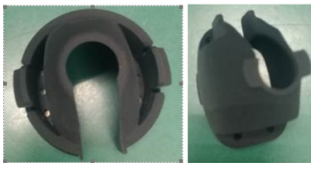
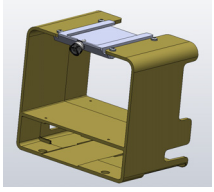
Table 9-4 System Parts

Part Name	Part Number	Picture	Can Replace Part #	Can Be Replaced by Part #	Not Compatible With	Repl Proc
C-BEB Magram FRU - Venue Go	S5795090					
SSD FRU - Venue Go	S5791182					
WiFi PCB FRU - Venue Go	S5797835					
Speakers FRU - Venue Go	S5775292					
Venue Go Package CRU	S5793263					

9-5-4 Cart Parts

Table 9-5 Cart Parts

Part Name	Part Number	Picture	Can Replace Part #	Can Be Replaced by Part #	Not Compatible With	Repl Proc	CRU
Cart Assembly Basic FRU - Venue Go	S5793897						
Gel Cup CRU - Venue Go Cart	S5788477						
Cart Cradle Assy CRU - Venue Go	S5809778						
Up Down handle CRU - Venue Go Cart	S5791187						
AC DC cover CRU - Venue Go Cart	S5791191						

Part Name	Part Number	Picture	Can Replace Part #	Can Be Replaced by Part #	Not Compatible With	Repl Proc	CRU
Caster CRU - Venue Go Cart	S5791599						
Tilt Assy CRU - Venue Go Cart	S5810359						
Shelf FRU - Venue Go Cart	S5811127						
Split Power Cable FRU - Venue Go Cart	S5811099						
PROBE INSERTS CRU - Venue Go Cart	S5797627						
Printer shelf CRU - Venue Go Cart	S5803982						

9-5-5 Probes

Table 9-6 Probes

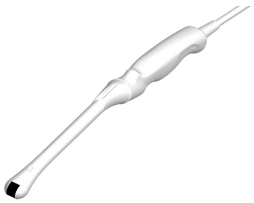
Part Name	Part Number	Picture	Can Replace Part #	Can Be Replaced by Part #	Not Compatible With
Probe: 6S- RS	47236956				
Probe: L8-18i-RS	5499609				
Probe: 3Sc- RS	47237516				
Probe: L4-12t-RS	5435010				
Probe: 8c - RS	2354971				
Probe: 12L - RS	5505759				
Probe: e8C-RS	2290777				
Probe: 9L-RS	5213143				

Table 9-6 Probes

Part Name	Part Number	Picture	Can Replace Part #	Can Be Replaced by Part #	Not Compatible With
Probe: 6Tc - RS	KN100104				
Probe: C1 - 5 - RS	5499608				

9-5-6 Software Media

Table 9-7 Software

Part Name	Part Number	Picture	Can Replace Part #	Can Be Replaced by Part #	Not Compatible With	Repl Proc
SW media CRU - Venue Go	S5789910					

9-5-7 System Power Cables

Table 9-8 System Power Cables

Part Name	Part Number	Picture	Can Replace Part #	Can Be Replaced by Part #	Not Compatible With
Power Cable Australia	S2414985-5				
Power Cable Britain	S2414985-6				
Power Cable China	S2415383-6				
Power Cable Denmark	S2414985-4				
Power Cable Europe	S2414985-2				
Power Cable Israel	S2414985-7				

Table 9-8 System Power Cables

Part Name	Part Number	Picture	Can Replace Part #	Can Be Replaced by Part #	Not Compatible With
Power Cable Japan	S2414985-8				
Power Cable Switzerland	S2414985-3				
Power Cable USA/Canada	S2414985				

9-5-8 Peripherals

Table 9-9 Optional Peripherals

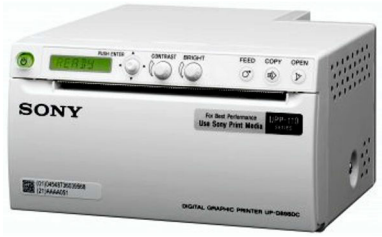
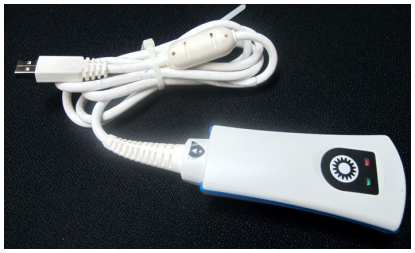
Part Name	Part Number	Picture	Can Replace Part #	Can Be Replaced by Part #	Not Compatible With	Repl Proc
SONY UP-D898DC printer	5778615					
Printer USB cable FRU - Venue Go	S5809718					
Printer AC DC PS CRU - Venue go cart	S5790356					
Bar code Reader	S5767381					
Cat5e Ethernet cable 7,5m	5147991					
Cat5e Ethernet cable 3,5m	5147992					
CAT5e Ethernet cable 1.8m	5329114					

Table 9-10 ECG Module

Part Name	Part Number	Picture	Can Replace Part #	Can Be Replaced by Part #	Not Compatible With	Repl Proc
ECG Module CRU	5129487					
Norav German Version ECG Module	5800116				5146056	
ECG Leads USA (AHA)	5146056					
ECG Leads ROW (IEC)	5146739					
USB Cable for ECG	5146055					

Chapter 10
Care and Maintenance

Section 10-1
Overview

10-1-1 Periodic Maintenance Inspections

Having been determined by engineering that your Venue Go™ system has no high-wearing components likely to fail due to use, therefore Periodic Maintenance Inspections are not mandatory.

However, some Customer Quality Assurance Programs may require additional tasks and/or inspections to be performed at periods of frequency different from those listed in this manual.

10-1-2 Purpose of Chapter 10

This chapter describes the Care and Maintenance (PM) procedures for the Venue Go™ ultrasound scanner and its peripherals. These procedures are intended to **maintain the quality** of the Ultrasound **system's performance**.

Read this chapter completely and familiarize yourself with the procedures before performing a task.

Table 10-1 Contents in Chapter 10

Section 10-2
Warnings

DANGER

THERE ARE SEVERAL PLACES INSIDE THE CAGE, THE BATTERY, THE AC DISTRIBUTION BOX, AND THE DISTRIBUTION INTERFACE BOARD (DIB) THAT COULD BE DANGEROUS. BE SURE TO DISCONNECT THE SYSTEM POWER PLUG AND TO TURN OFF THE POWER ON/OFF SWITCH BEFORE YOU REMOVE ANY PARTS. PROCEED WITH CAUTION WHENEVER POWER IS ON AND COVERS ARE REMOVED.

DANGER

DO NOT PULL OUT OR INSERT CIRCUIT BOARDS WHILE MAINS POWER TO THE SYSTEM IS ON.

CAUTION **PRACTICE GOOD ESD PREVENTION. WEAR AN ANTI-STATIC STRAP WHEN HANDLING ELECTRONIC PARTS AND WHEN DISCONNECTING/CONNECTING CABLES.**

CAUTION **DO NOT OPERATE THIS ULTRASOUND SYSTEM UNLESS ALL BOARD COVERS AND FRAME PANELS ARE SECURELY IN PLACE. SYSTEM PERFORMANCE AND COOLING REQUIRE THIS. WHEN COVERS ARE REMOVED, EMI MAY BE PRESENT.**

Section 10-3
Why Perform Maintenance Procedures?

10-3-1 Keeping Records

It is good business practice that ultrasound facilities maintain records of quality checks and corrective maintenance. The *Ultrasound Periodic Maintenance Inspection Certificate* provides the customer with documented confirmation that the Venue Go™ ultrasound scanner is maintained on a periodic basis.

A copy of the *Ultrasound Equipment Quality Check* form should be kept in the same room as the Venue Go™ ultrasound scanner, or nearby.

10-3-2 Quality Assurance

In order to gain accreditation from organizations such as the *American College of Radiology* (*USA*), it is the customer's responsibility to have a Quality Assurance program in place for each Ultrasound scanner. The program must be directed by a medical physicist, the supervising radiologist/physician or appropriate designee.

Routine Quality Control testing of the system must be conducted regularly. The same tests are performed regularly during each period, so that changes can be monitored over time and effective corrective action taken, if required.

Testing results, corrective action, and the effects of corrective action, must be documented and maintained on site.

Your GE Service Representative can help you with establishing, performing and maintaining records for a Quality Assurance program. Contact GE for coverage and/or price for service.

10-3-3 Maintenance Task Schedule

The Customer Care & Maintenance Task Schedule (provided in Table 10-2 on page 10-4) specifies how often the Venue Go™ ultrasound scanner should be serviced, and outlines items requiring special attention.

NOTE: It is the customer's responsibility to ensure the Care and Maintenance procedures are performed on the Venue Go™ ultrasound scanner as scheduled in order to retain the high levels of safety, dependability, and system performance.

Your GE Service Representative has an in-depth knowledge of your Venue Go™ ultrasound scanning system and can best provide competent, efficient service. Contact GE for coverage information and/or price for service.

The service procedures and recommended intervals shown in the Customer Care & Maintenance Task Schedule assumes that you use your Venue Go™ scanner for an average patient load (10-12 patients per day) and that you do not use it as a primary mobile Ultrasound system which is transported between diagnostic facilities.

NOTE: If conditions exist which exceed typical usage and patient load, it is strongly recommended to increase the maintenance frequencies.

Table 10-2 Customer Care & Maintenance Task Schedule

Service at Indicated Time	Daily	Weekly	Monthly	Per Facility's QA Program	Notes
Clean Probes	•*				* or before each use
Clean Probe Holders	•				
Inspect AC Mains Cable			•		Mobile Ultrasound system: Check Weekly
Inspect Cables and Connectors			•		
Clean Cart			•		
Clean Monitor and Touch Panel	•				
Inspect Wheels, Casters and Brakes			•		Mobile Unit: Check Daily
Functional Checks				•	Also after corrective maintenance.
Safety Test				•*	* twice a year

Section 10-4
Tools Required

10-4-1 Tools Required for Servicing the Venue Go™

The following tools (TORX bits or drivers) are needed to service the ultrasound scanner. Screw diameter and standard torque values are also included. If the torque is not indicated with the procedure, hand-tighten the screws/nuts.

Table 10-3 Tools Used for Servicing the Venue Go™

Item No.	Tool	Size	Torque	Comments
1.	Bit # TX-10	M2.5	• Use Torque specified in procedure. • If the torque is not indicated with the procedure, hand-tighten the screws/nuts. • 90 degree “L“ are suggested. • A full set of 90 degree “L“ TORX wrenches are recommended.	
2.	Bit # TX-15	M3		
3.	Bit # TX-20	M4		
4.	Bit # TX-25	M5		
5.	Bit # TX-30	M6		
6.	Bit # TX-45	M10		
7.	Socket Set (must include 7mm socket)			
8.	Side cutter (diagonal)	5 or 6 inch		
9.	Flat Blade Driver	3.2 mm		
10.	Flat Blade Driver	4 mm		
11.	Flat Blade Driver	6 mm		
12.	Phillips Driver	PH1		
13.	Phillips Driver	PH2		
14.	Phillips Driver	PH3		
15.	Hex Key	1.5 mm		(Unbrako Key / Allen Key)
16.	Hex Key	2 mm		(Unbrako Key / Allen Key)
17.	Hex Key	2.5 mm		(Unbrako Key / Allen Key)
18.	Hex Key	3 mm		(Unbrako Key / Allen Key)
19.	Hex Key	4 mm		(Unbrako Key / Allen Key)
20.	Hex Key	5 mm		(Unbrako Key / Allen Key)
21.	Hex Key	6 mm		(Unbrako Key / Allen Key)
22.	Hex Key	8 mm		(Unbrako Key / Allen Key)
23.	Hex Key	10 mm		(Unbrako Key / Allen Key)
24.	Hex Key	M12	Rear Casters: 130 Nm	(Unbrako Key / Allen Key)
25.	Nut Driver	5 mm		
26.	Nut Driver	3/16 inch		
27.	Torque Wrench	Up to 130 Nm	Heavy mechanical parts may need a specific torque. Each procedure will indicate the torque needed.	

Section 10-5
System Maintenance

10-5-1 Preliminary Checks

The preliminary checks take approximately 15 minutes to perform. Refer to the *Venue Go™ User Manual* whenever necessary.

Table 10-4 System Preliminary Checks

Step	Item	Description
1.	Ask & Listen	Ask the customer if they have any problems or questions about the equipment.
2.	Paperwork	Fill in the top of the EQC inspection form. Record all probes and Ultrasound system options.
3.	Power-up	• Turn the Ultrasound system power ON and verify that all fans and peripherals turn On. • Watch the displays during power up to verify that no warning or error messages are displayed. • Where applicable, confirm that the battery is charged. If no AC Input present, use the internal battery.
4.	Probes	Verify that the Ultrasound system properly recognizes all probes.
5.	Displays	Verify proper display on the Monitor and Touch Screen.
6.	Review Error Logs	Where applicable, Error Logs can be reviewed via system diagnostics.
7.	Presets	Back-up all Customer Presets onto appropriate media.
8.	Image Archive	Back up the Image Archive onto appropriate media.

10-5-2 Functional Checks

NOTE: Refer also to Chapter 4 - General Procedures and Functional Checks, for additional details about the functional checks described in this section.

The functional checks take approximately 60 minutes to perform. Refer to the *Venue Go™ User Manual* whenever necessary.

10-5-2-1 System Checks

Table 10-5 System Functional Checks

Step	Item (or Mode)	Description
1	B-Mode	Verify basic B-Mode (2D) operation. Check the basic Ultrasound system controls that affect this mode of operation.
2	CF-Mode	Verify basic CF-Mode (Color Flow Mode) operation. Check the basic Ultrasound system controls that affect this mode of operation.
3	Doppler Modes	Verify basic Doppler operation (PW and CW if available). Check the basic Ultrasound system controls that affect this mode of operation.
4	M-Mode	Verify basic M-Mode operation. Check the basic Ultrasound system controls that affect this mode of operation.
5	Probe Elements	Perform an Element Test on each probe to verify that all the probe elements and system channels are functional.
6	Applicable Software Options	Verify the basic operation of all optional modes such as Contrast. Check the basic Ultrasound system controls that affect each option's operation.
8	Monitor	Verify basic monitor display functions.
9	Peripherals	See: Peripheral/Option Checks on page 10 - 8.

10-5-2-2 Peripheral/Option Checks

If any peripherals or options are not part of the system configuration, the check can be omitted.

Refer to the *Venue Go™ User Manual* for a list of approved peripherals/options.

Table 10-6 GE Approved Peripheral/Hardware Option Functional Checks

Step	Item	Description
1	Media	Verify media drive(s) read/write properly.
2	B/W Printer	Verify hardcopy output of the B/W video page printer. Clean heads and covers if necessary.
3	DICOM	Verify that DICOM is functioning properly. Send an image to a DICOM device.

10-5-2-3 Mains Cable Inspection

Table 10-7 Mains Cable Inspection, As Appropriate

Step	Item	Description
1	Unplug Cord	Disconnect the mains cable from the wall outlet and from the Ultrasound system.
2	Mains Cable	Inspect the mains cable and its connectors for any damage.
3	Terminals	Verify that the LINE, NEUTRAL and GROUND wires are properly attached to the terminals, and that no strands may cause a short circuit.
4	Inlet Connector	Verify that the Inlet connector retainer is functional.

10-5-3 Physical Inspection

Table 10-8 Physical Checks

Step	Item	Description
1	Labeling	Verify that all Ultrasound system labeling is present and in readable condition.
2	Scratches & Dents	Inspect the exterior for dents, scratches or cracks.
3	Covers	Where applicable, verify all covers are secured in place and are properly aligned with other covers. Replace any covers that are damaged.
4	Input Power	Refer to: Mains Cable Inspection on page 10 - 8.
5	External I/O	Check all connectors for damage.
6	Wheels and Brakes	• Where applicable, check all wheels and casters for wear and verify operation of foot brake, to stop the Ultrasound system from moving, and release mechanism. • Where applicable, check all wheel locks and wheel swiveling for proper operation.
11	Cables and Connectors	Check all internal cable harnesses and connectors for wear and secure connector seating. Pay special attention to probe strain or bend reliefs.
12	Shielding and Covers	Check to ensure that all EMI shielding, internal covers, air flow panels and screws are in place. Missing covers and hardware could cause EMI/RFI problems while scanning.
13	Probe Holders	Where applicable, inspect the Probe Holders for cracks or damage.
14	Power and System Status Indicators	Check for proper operation of all Power and System Status Indicators.
15	Battery	Where applicable, check that the battery is not damaged, does not leak, does not emit an odor, and is not deformed or discolored. Observe all warnings and cautions for battery handling, recharging, storing, and/or disposal.

10-5-4 Cleaning

10-5-4-1 General Cleaning

Frequent and diligent cleaning of the Venue Go™ ultrasound unit reduces the risk of spreading infection from person to person, and also helps to maintain a clean working environment.

CAUTION **WHEN PERFORMING CLEANING PROCEDURES, TO PREVENT THE RISK OF SYSTEM DAMAGE, ALWAYS OBSERVE THE FOLLOWING PRECAUTIONS:**

- Use only cleaning materials and solutions as recommended in the procedures described in the Venue Go™ User Manual.
- Do not use any solutions or products not listed in the Venue Go™ User Manual.
- Never use thinner, benzene, ethanol or methanol alcohol, abrasive cleaners, or other strong solvents. Only use isopropyl alcohol, when instructed to do so.
- Do not spray any liquid directly onto the Venue Go™ covers.
- Do not allow any liquid to drip or seep into the system.
- DO NOT scratch or press on the panel with any sharp objects, such as pencils or pens, as this may result in damage to the panel.
- Make sure not to spill or spray any liquid on the controls, into the Venue Go™ cabinet, or in the probe connection receptacle.
- Prior to cleaning, turn OFF power to the Venue Go™ and disconnect the mains cable.

NOTE: Refer to the Venue Go™ User Manual for cleaning instructions

10-5-4-2 Cleaning the Touch Panel Display

1.) To allow cleaning of the touch panel display without affecting the system operation, tap **Settings**, and then tap **Clean**.

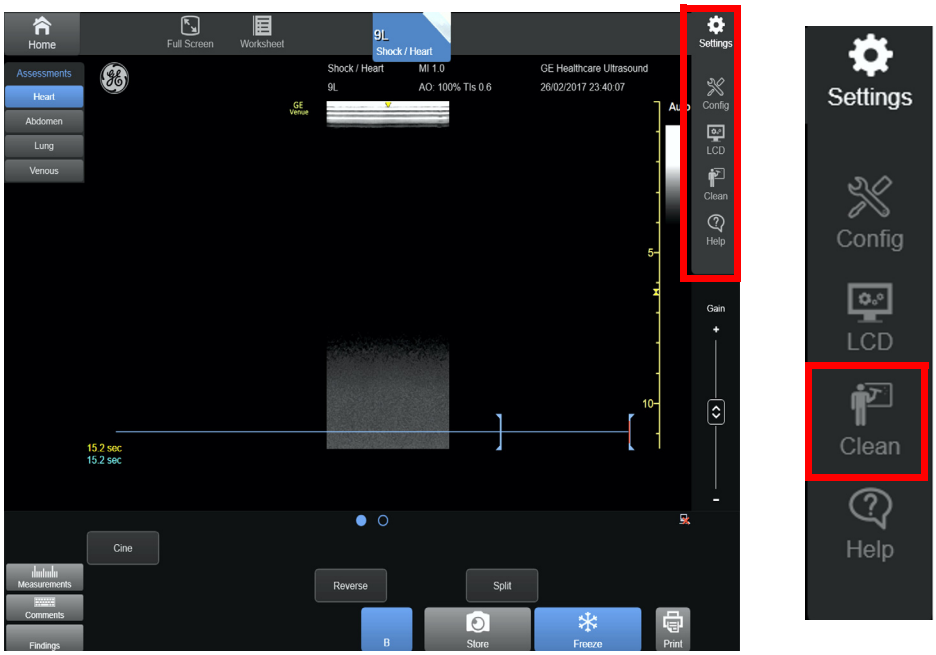


Figure 10-177 Settings Menu - Clean Button

The screen turns black, allowing you to use a soft cloth with glass cleaning solution to clean the panel.

2.) Tap together, with two hands the two buttons appearing above the pointing hand symbol to return to normal operation.

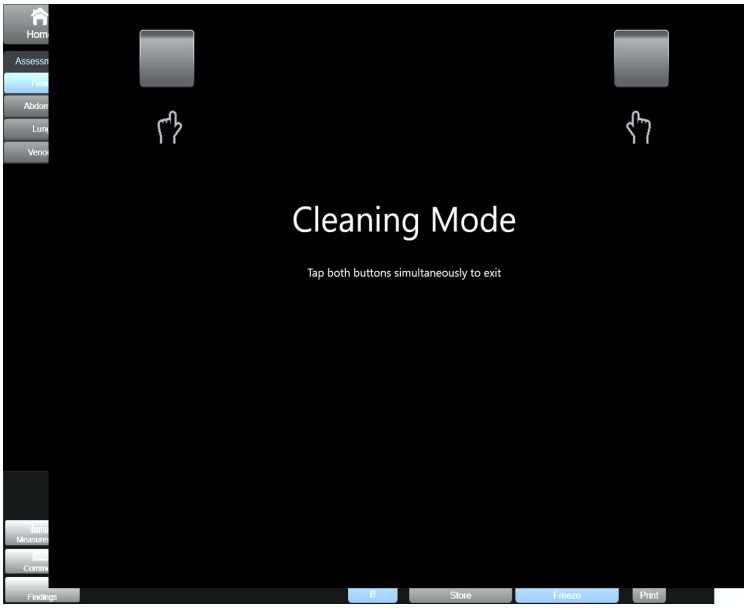


Figure 10-178 Cleaning Mode

Section 10-6
Probe Maintenance

10-6-1 Probe Related Checks

Table 10-9 Probe Related Checks

Step	Item	Description
1	Probe Holder	Clean probe holders (they may need to be soaked to remove excess gel).
2	Probes	Thoroughly check the Ultrasound system probe connectors and remove dust from inside the connector sockets if necessary. Visually check for bent, damaged or missing pins.
3	Probes	Verify that the Ultrasound system properly recognizes all probes.

10-6-2 Probe Handling

All Venue Go™ probes are designed and manufactured to provide trouble-free, reliable service. To ensure this, the correct handling of probes is important and the following points should be noted:

- Do not drop a probe or strike it against a hard surface, as this may damage the probe elements and the acoustic lens, or may crack the housing.
- Do not use a cracked or damaged probe. Any evidence of wear indicates the probe must *not* be used. Call your field service representative immediately for a replacement.
- Perform a visual check of the probe pins and system sockets before plugging in a probe
- Avoid pulling, pinching or kinking the probe cable, since a damaged cable may compromise the electrical safety of the probe.
- To avoid the risk of a probe accidentally falling, do not allow the probe cables to become entangled with, or to be caught in the wheels of the system.
- Protect the probe when moving the unit.
- Use a soft cloth and warm, soapy water to clean the probe.

Note: For detailed information on handling Endocavity probes, refer to the appropriate supplementary instructions for each probe.

10-6-3 Basic Probe Care

The *Venue Go™ User Manual* and the individual probe manufacturers' handling cards provide a complete description of probe care, maintenance, cleaning and disinfection. Ensure that you are completely familiar with the proper care of GE probes.

NOTE: The most recent, up-to-date information on probes and probe care is available at:
http://www.gehealthcare.com/usen/ultrasound/products/probe_care.html

WARNING ***ANY EVIDENCE OF WEAR ON A PROBE INDICATES THAT IT MUST NOT BE USED. IMPROPER HANDLING MAY EASILY DAMAGE ULTRASOUND PROBES.***

SEE THE Venue Go™ USER MANUAL AND ALSO REFER TO THE PROBE MANUFACTURER'S HANDLING INSTRUCTIONS, FOR MORE DETAILS.

FAILURE TO FOLLOW THESE PRECAUTIONS CAN RESULT IN SERIOUS INJURY AND EQUIPMENT DAMAGE. FAILURE TO PROPERLY HANDLE OR MAINTAIN A PROBE MAY ALSO VOID ITS WARRANTY.

Always perform a visual check of the probe pins and system sockets before plugging in a probe.

When handling probes, always observe the precautions listed in Probe Handling on page 10 - 12.

The Interoperative probes often have special usage considerations; always refer to the individual probe manufacturers' handling instructions/user manual.

10-6-4 Probe Cleaning

10-6-4-1 Basic Probe Cleaning

NOTE: For details on general probe cleaning, refer to the information provided in the Venue Go™ User Manual.

NOTE: For specific probe cleaning instructions, refer to the individual probe Users Manual (or care card supplied with the probe).

CAUTION **FAILURE TO FOLLOW THE PRESCRIBED CLEANING OR DISINFECTION PROCEDURES WILL VOID THE PROBE'S WARRANTY.**
DO NOT SOAK THE PROBE OR WIPE THE PROBE LENS WITH ANY PRODUCT NOT LISTED IN THE Venue Go™ USER MANUAL. DOING SO COULD RESULT IN IRREPARABLE DAMAGE TO THE PROBE AND/OR SYSTEM. FOLLOW THE CARE INSTRUCTIONS SUPPLIED WITH THE PROBE.

CAUTION **TO HELP PROTECT YOURSELF FROM BLOOD-BORNE DISEASES WHEN CLEANING AND HANDLING PROBES, WEAR APPROVED, NON-ALLERGIC DISPOSABLE GLOVES.**

WARNING ***ALWAYS DISINFECT A DEFECTIVE PROBE BEFORE RETURNING IT TO THE MANUFACTURER. BE SURE TO TAG THE PROBE AS BEING DISINFECTED.***

10-6-5 Returning and Shipping of Defective Probes

WARNING ***ALWAYS DISINFECT A DEFECTIVE PROBE BEFORE RETURNING IT TO THE MANUFACTURER. BE SURE TO TAG THE PROBE AS BEING DISINFECTED.***

CAUTION **TO HELP PROTECT YOURSELF FROM BLOOD-BORNE DISEASES WHEN CLEANING AND HANDLING PROBES, WEAR APPROVED, NON-ALLERGIC DISPOSABLE GLOVES.**

Equipment being returned must be properly clean and free of blood and other potentially infectious contaminants.

GE policy states that body fluids must be properly removed from any part or equipment prior to shipment. GE employees, as well as customers, are responsible for ensuring that parts/equipment have been properly decontaminated prior to shipment. Under no circumstances should a part or equipment be shipped before being visibly clean and properly disinfected.

The purpose of the regulation is to protect employees in the transportation industry, as well as the persons who will receive and/or open the package.

NOTE: The US Department of Transportation (DOT) has ruled that "items that were saturated and/or dripping with human blood that are now caked with dried blood; or which were used or intended for use in patient care" are "regulated medical waste" for transportation purposes and must be transported as a hazardous material.

Section 10-7
Electrical Safety Tests

10-7-1 Overview

The following topics and measurements are covered in this subsection:

- Safety Test Overview - see below
- Outlet Test - Wiring Arrangement - USA and Canada on page 10 - 17
- Grounding Continuity on page 10 - 17

10-7-2 Safety Test Overview

DANGER TO AVOID ELECTRICAL SHOCK, THE ULTRASOUND SYSTEM UNDER TEST **MUST NOT** BE CONNECTED TO OTHER ELECTRICAL EQUIPMENT. REMOVE ALL INTERCONNECTING CABLES AND WIRES. THE ULTRASOUND SYSTEM UNDER TEST MUST NOT BE CONTACTED BY USERS OR PATIENTS WHILE PERFORMING THESE TESTS.

WARNING To minimize risk of electric shock, only trained persons are allowed to perform the electrical safety inspections and tests.

WARNING Energy Control and Power Lockout for Venue Go™.

When servicing parts of the Ultrasound system where there is exposure to voltage greater than 30 volts:

1. Follow LOCK OUT/TAG OUT procedures.
2. Turn off the breaker.
3. Unplug the Ultrasound system.
4. Maintain control of the Ultrasound system power plug.
5. Wait for at least 30 seconds for capacitors to discharge as there are no test points to verify isolation.

Ultrasound System components may be energized.

CAUTION Possible risk of infection. Do not handle soiled or contaminated probes and other components that have been in patient contact. Follow appropriate cleaning and disinfecting procedures before handling the equipment.

NOTE: For all instructions in the "Electrical safety tests" section, in the event of using a UPS (uninterrupted power supply) the terms outlet, wall outlet, AC wall outlet and power outlet refer to the AC power outlet of the UPS. In case of further available AC (or DC) power outlets at the same used UPS, these must remain unused i.e. not connected to any other devices.

The electrical safety tests in this section are based on NFPA 99 Standard for Health Care Facilities and IEC 62353 Medical electrical equipment – Recurrent test and test after repair of medical electrical equipment. These standards provide guidance on evaluating electrical safety of medical devices which are placed into service and are intended for use in planned maintenance (PM) or testing following service or repair activities. They differ somewhat from the standards that are used for design verification and manufacturing tests (e.g., IEC 60601-1 and UL 60601-1) which require a controlled test environment and can place unnecessary stress on the Ultrasound system.

These tests may refer to specific safety analyzer equipment as an example. Always refer to the safety analyzer's user manual that will be used to perform the tests.

- Check for missing or loose enclosure covers that could allow access to internal live parts.
- Examine the mains cord, mains plug and appliance inlet for damaged insulation and adequacy of strain relief and cable clamps.
- Locate and examine all associated transducers. Inspect the cables and strain relief at each end. Inspect the transducer enclosure and lens for cracks, holes and similar defects.

Prior to initiating any electrical test, the Ultrasound system must be visually inspected. Perform the following visual checks:

Equipment users must ensure that safety inspections are performed whenever damage is suspected and on a regular basis in accordance with local authorities and facility procedures. Do not use the Ultrasound system or individual probes which fail any portion of the safety test.

10-7-3 Outlet Test - Wiring Arrangement - USA and Canada

Test all outlets in the area for proper grounding and wiring arrangement by plugging in the neon outlet tester and noting the combination of lights that are illuminated. Any problems found should be reported to the hospital immediately and the receptacle should not be used.

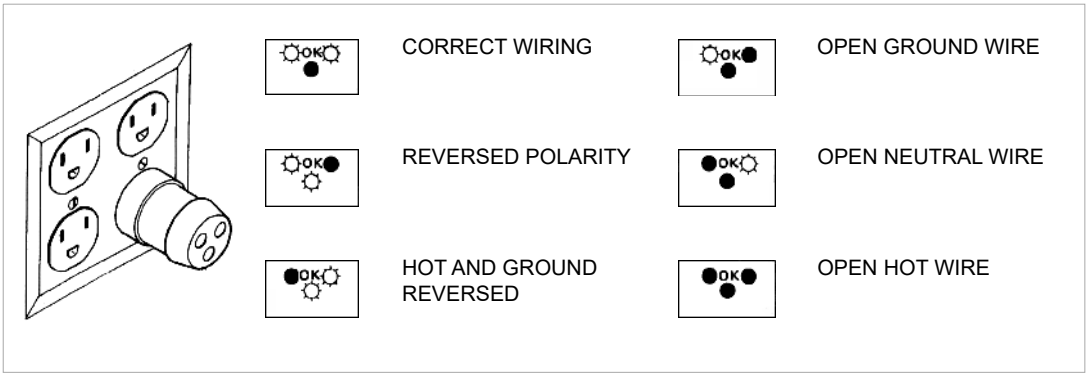


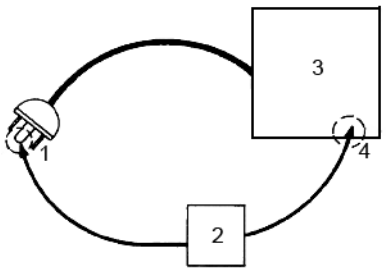
Figure 10-179 Typical Alternate Outlet Test

NOTE: No outlet tester can detect the condition where the Neutral (grounded supply) conductor and the Grounding (protective earth) conductor are reversed. If later tests indicate high leakage currents, this should be suspected as a possible cause and the outlet wiring should be visually inspected.

10-7-4 Grounding Continuity

DANGER ELECTRIC SHOCK HAZARD. THE PATIENT MUST NOT BE CONTACTED TO THE EQUIPMENT DURING THIS TEST.

Measure the resistance from the third pin of the attachment plug to the exposed metal parts of the case. The ground wire resistance should be less than **0.2** ohms. Reference the procedure in the IEC60601-1.



1. GROUND PIN
2. OHMMETER
3. Venue Go™
4. ACCESSIBLE METAL PART:
   - MONITOR HOUSING
   - REAR PANEL CONNECTOR
   - ANY CASTER/WHEEL SUPPORT

Figure 10-180 Ground Continuity Test

GE Medical Systems
Ultrasound & Primary Care Diagnostics LLC
9900 Innovation Drive
Wauwatosa, WI 53226
USA
Tel: (1) 800-437-1171 Fax: (1) 414-721-3865
www.gehealthcare.com