

GE Healthcare

CT Service Pack Software Installation Manual

Contents:

Service Pack 2.0 Installation Instructions

Service Pack 3.0 Installation Instructions

APPLIES TO:

HiSpeed QX/i, BrightSpeed, BrightSpeed Select, LightSpeed 1X, 2X, 3X,
4X, 5X, RT4, 7X

NOT APPLICABLE TO: LightSpeed RT¹⁶ and Xtra, GOC6 consoles, or All in
One (AIO) Consoles

SERVICE DOCUMENTATION



5234957-30-1EN

Rev 6

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IMPORTANT PRECAUTIONS

LANGUAGE

ПРЕДУПРЕЖДЕНИЕ

(BG)

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

警告

(ZH-CN)

- 本维修手册仅提供英文版本。
- 如果维修服务提供商需要非英文版本，客户需自行提供翻译服务。
- 未详细阅读和完全理解本维修手册之前，不得进行维修。
- 忽略本警告可能对维修人员，操作员或患者造成触电、机械伤害或其他形式的伤害。

VÝSTRAHA

(CS)

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

ADVARSEL

(DA)

- DENNE SERVICEMANUAL FINDES KUN PÅ ENGELSK.
- HVIS EN KUNDES TEKNIKER HAR BRUG FOR ET ANDET SPROG END ENGELSK, ER DET KUNDENS ANSVAR AT SØRGE FOR OVERSÆTTELSE.
- FORSØG IKKE AT SERVICERE Udstyret medmindre denne servicemanual har været konsulteret og er forstået.
- MANGLENDE OVERHOLDELSE AF DENNE ADVARSEL KAN MEDFØRE SKADE PÅ GRUND AF ELEKTRISK, MEKANISK ELLER ANDEN FARE FOR TEKNIKEREN, OPERATØREN ELLER PATIENTEN.

WAARSCHUWING

(NL)

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

WARNING

(EN)

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

HOIATUS

(ET)

- KÄESOLEV TEENINDUSJUHEND ON SAADAVAL AINULT INGLISE KEELES.
- KUI KLIENDITEENINDUSE OSUTAJA NÕUAB JUHENDIT INGLISE KEELEST ERINEVAS KEELES, VASTUTAB KLIENT TÖLKETEENUSE 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 HUOLTOHENKILÖSTÖ VAATII MUUTA KUIN ENGLANNINKIELISTÄ MATERIAALIA, TARVITTAVAN KÄÄNNÖKSEN HANKKIMINEN ON ASIAKKAAN VASTUULLA.
- ÄLÄ YRITÄ KORJATA LAITTEISTOA ENNEN KUIN OLET VARMASTI LUKENUT JA YMMÄRTÄNYT TÄMÄN HUOLTO-OHJEEN.
- MIKÄLI TÄTÄ VAROITUSTA EI NOUDATETA, SEURAUKSENA VOI OLLA HUOLTOHENKILÖSTÖN, LAITTEISTON KÄYTTÄJÄN TAI POTILAAN VAHINGOITTUMINEN SÄHKÖISKUN, MEKAANISEN VIAN TAI MUUN VAARATILANTEEN VUOKSI.

ATTENTION

(FR)

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

WARNUNG

(DE)

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

ΠΡΟΕΙΔΟΠΟΙΗΣΗ

(EL)

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

FIGYELMEZTETÉS

(HU)

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

ADVÖRUN

(IS)

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

AVVERTENZA

(IT)

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

警告

(JA)

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

경고

(KO)

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

BRĪDINĀJUMS

(LV)

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

ĮSPĖJIMAS

(LT)

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

ADVARSEL

(NO)

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

OSTRZEŻENIE

(PL)

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

ATENÇÃO

(PT)

- ESTE MANUAL DE ASSISTÊNCIA TÉCNICA SÓ SE ENCONTRA DISPONÍVEL EM INGLÊS.
- SE QUALQUER OUTRO SERVIÇO DE ASSISTÊNCIA TÉCNICA, QUE NÃO A GEMS, SOLICITAR ESTES MANUAIS NOUTRO IDIOMA, É DA RESPONSABILIDADE DO CLIENTE FORNECER OS SERVIÇOS DE TRADUÇÃO.
- NÃO TENDE 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.

ATENȚIE

(RO)

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

ОСТОРОЖНО!

(RU)

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

UPOZORNENIE

(SK)

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

ATENCIÓN

(ES)

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

VARNING

(SV)

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

DİKKAT

(TR)

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

DAMAGE IN TRANSPORTATION

All packages should be closely examined at time of delivery. If damage is apparent write "Damage In Shipment" on ALL copies of the freight or express bill BEFORE delivery is accepted or "signed for" by a General Electric 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.

To file a report:

- Call 1-800-548-3366 and use option 8.
- Fill out a report on <http://us44hdd21/sctq/InstallFulfill/InstallFulfillment.htm>
- Contact your local service coordinator for more information on this process.

CERTIFIED ELECTRICAL CONTRACTOR STATEMENT

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

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

IMPORTANT...X-RAY PROTECTION

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

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

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

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

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

OMISSIONS & ERRORS

Customers, please contact your GE Sales or Service representatives.

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

REVISION HISTORY

Rev	Date	Reason For Change
1	02/13/2009	- Initial Creation of Document
2	2/26/2009	- Updated to reflect SP3.11 software build
3	3/26/2009	- Updated due to SPR FCTge46415
4	5/8/2009	- Updated due to rev discrepancy between title page and header
5	10/20/2009	- Added Update AutoSC IP Address section - Added DARC S/W check for SP2 files - Added NOTE that VCT does not require SP3 Class M Update - Added script to convert ExamSplit to HES
6	02/01/2010	- Revision discrepancy update

This cover sheet controls the revision status of this entire document. The revision of all sheets of this document will be the same. The latest revision of this DOCUMENT is kept in MyWorkshop <http://gemselib.med.ge.com/ematrix/common/emxNavigator.jsp>

TABLE OF CONTENTS

IMPORTANT PRECAUTIONS.....	2
1. BEFORE YOU BEGIN	13
1.1 CHECK THE SW VERSION ON THE SYSTEM.....	13
2. SERVICE PACK 3.0 INSTRUCTIONS.....	13
2.1 BEFORE YOU BEGIN	13
2.2 SERVICE PACK 3.0 QUICK INSTALLATION GUIDE.....	14
2.3 INSTALLING SERVICE PACK 3.0.....	15
2.3.1 VERIFY SOFTWARE CONFIGURATION	15
2.3.1.1 VERIFY HOST SW CONFIGURATION	15
2.3.1.2 VERIFY DARC SW CONFIGURATION	16
2.3.2 CHECK EXAM SPLIT TYPE.....	17
2.3.3 TCP SEGMENTATION OFFLOAD (TSO) CHECK	17
2.3.4 INSTALL SERVICE PACK 3.0.....	18
2.3.5 PERFORM SYSTEM RECONFIG.....	19
2.3.6 UPDATE AUTO SC IP ADDRESSES.....	20
2.3.7 VERIFY EXAM SPLIT OPTION INSTALLED	21
2.3.8 FLASH DOWNLOAD (LS 5.X AND 7.X SYSTEMS ONLY)	21
2.3.9 SANITY SCANS.....	22
2.3.10 SAVE SYSTEM STATE	22
3. SERVICE PACK 2.0 & 3.0 COMBINED LOAD INSTRUCTIONS	23
3.1 BEFORE YOU BEGIN	23
3.2 VCT, RT4, HISPEED QXI, AND LS 1X – 5X (EXCLUDING HP60, RT ¹⁶ , AND XTRA).....	24
3.2.1 SERVICE PACK 2.0 & 3.0 QUICK INSTALLATION GUIDE	24
3.2.2 CHECK EXAM SPLIT TYPE.....	26
3.2.3 TCP SEGMENTATION OFFLOAD CHECK.....	26
3.2.4 UNINSTALLING PREVIOUS SERVICE PACKS 1.0/1.5 AND PATCHES.....	27
3.2.5 INSTALLING SERVICE PACK 2.0 & 3.0	27
3.2.6 PERFORM SYSTEM RECONFIG.....	29
3.2.7 RESTORE HIPPA CONFIGURATION.....	31
3.2.8 UPDATE AUTO SC IP ADDRESSES.....	31
3.2.9 VERIFY EXAM SPLIT OPTION INSTALLED	32
3.2.10 VERIFY DENTASCAN OPTION INSTALLED.....	32
3.2.11 GANTRY RESET (H-POWER SYSTEMS WITH TGP BOARD PART # 2290138-0500).....	33
3.2.12 FLASH DOWNLOAD (LS 5.X AND LS 7.X ONLY).....	33
3.2.13 SANITY SCANS.....	33
3.2.14 SAVE SYSTEM STATE.....	34
3.3 BRIGHTSPEED POWER AND LS 5X HP60	35
3.3.1 SERVICE PACK 2.0 & 3.0 QUICK INSTALLATION GUIDE	35
3.3.2 FILAMENT CALIBRATION (SAVE RUNTIME PARAMETERS).....	37
3.3.3 SAVE SYSTEM STATE.....	37
3.3.4 CHECK EXAM SPLIT TYPE.....	38
3.3.5 TCP SEGMENTATION OFFLOAD CHECK.....	38
3.3.6 UNINSTALLING PREVIOUS SERVICE PACKS AND PATCHES.....	39
3.3.7 INSTALLING SERVICE PACK 2.0 & 3.0	39
3.3.8 PERFORM SYSTEM RECONFIG.....	41
3.3.9 RESTORE HIPPA CONFIGURATION.....	42
3.3.10 UPDATE AUTO SC IP ADDRESSES.....	43
3.3.11 VERIFY EXAM SPLIT OPTION INSTALLED.....	43
3.3.12 VERIFY DENTASCAN OPTION INSTALLED	44
3.3.13 GANTRY RESET (H-POWER SYSTEMS WITH TGP BOARD PART # 2290138-0500).....	44

3.3.14	FLASH DOWNLOAD	45
3.3.15	FILAMENT CALIBRATION.....	45
3.3.16	SANITY SCANS.....	46
3.3.17	SAVE SYSTEM STATE.....	46
3.4	BRIGHTSPEED SELECT	47
3.4.1	SERVICE PACK 2.0 & 3.0 QUICK INSTALLATION GUIDE	47
3.4.2	FILAMENT CALIBRATION (SAVE RUNTIME PARAMETERS).....	49
3.4.3	SAVE SYSTEM STATE.....	50
3.4.4	CHECK EXAM SPLIT TYPE.....	50
3.4.5	TCP SEGMENTATION OFFLOAD CHECK.....	50
3.4.6	UNINSTALLING PREVIOUS SERVICE PACKS AND PATCHES.....	51
3.4.7	INSTALLING SERVICE PACK 2.0 & 3.0	52
3.4.8	PERFORM SYSTEM RECONFIG.....	53
3.4.9	RESTORE HIPPA CONFIGURATION.....	55
3.4.10	UPDATE AUTOSC IP ADDRESSES.....	55
3.4.11	VERIFY EXAM SPLIT OPTION INSTALLED	55
3.4.12	VERIFY DENTASCAN OPTION INSTALLED.....	56
3.4.13	GANTRY RESET (H-POWER SYSTEMS WITH TGP BOARD PART # 2290138-0500).....	57
3.4.14	FLASH DOWNLOAD.....	57
3.4.15	FILAMENT CALIBRATION.....	58
3.4.16	DETAIL CALIBRATION (BRIGHTSPEED SELECT 4 AND 8 SLICE SYSTEMS ONLY WITH 07BW08.4 SOFTWARE)....	58
3.4.17	SANITY SCANS.....	60
3.4.18	SAVE SYSTEM STATE.....	60
4.	APPENDIX.....	60
4.1	APPENDIX A - UNINSTALLING SERVICE PACK 3.0	60
4.1.1	CHECK EXAM SPLIT TYPE.....	61
4.1.2	UNINSTALL SERVICE PACK 3.....	61
4.1.3	FLASH DOWNLOAD.....	62
4.1.4	UPDATE AUTOSC IP ADDRESSES.....	62
4.1.5	VERIFY EXAM SPLIT OPTION INSTALLED	62
4.1.6	RESTORE SYSTEM STATE.....	63
4.1.7	SANITY SCANS.....	63
4.2	APPENDIX B – SERVICE PACK INSTALLATION FROM SOFTWARE DOWNLOAD DIRECTORY.....	64
4.3	APPENDIX C - UNINSTALLING SERVICE PACK 2.0.....	65
4.3.1	LANGUAGE RECONFIG AND UNINSTALL	65
4.3.2	FLASH DOWNLOAD.....	67
4.3.3	RESTORE SYSTEM STATE.....	67
4.3.4	FILAMENT CALIBRATION (LS HP60, BSD-POWER, AND BSD-SELECT SYSTEMS ONLY)	67
4.3.5	SANITY SCANS.....	67
4.3.6	INSTALLING PREVIOUSLY APPLICABLE SERVICE PACKS AND PATCHES.....	68
4.4	APPENDIX D - LANGUAGE RECONFIG AND STATION NAME.....	68

1. BEFORE YOU BEGIN

This document outlines the steps necessary to bring a system up to the Service Packs 3.0 configuration. There are two methods to load Service Pack 3.0 depending on the current software configuration level. Please refer below to determine which path is required for your site and proceed to the corresponding section.

1.1 Check the SW Version on the system

1. Open a Unix Shell.
2. Type: **swhwinfo <ENTER>**
3. Use the table below to see which section you will need to follow to proceed:

S/W	Section	Page#
07MW11.10_SP2-0-26.Hardware info*	SERVICE PACK 3.0 INSTRUCTIONS	13
07MW18.4_SP2-0-26.Hardware info*		
07BW08.4_SP2-0-26.Hardware info*		
07MW11.10	Service Pack 2.0 & 3.0 Combined Load Instructions	23
07MW18.4		
07BW08.4		

*SP2-0-26.Hardware info denotes that Service Pack 2.0 was completed and Service Pack 3.0 only needs to be installed.

**If the software string displayed does not match any of the configs above, the system in question is either not up to date with the base software, or not in effectivity for this release.

2. SERVICE PACK 3.0 INSTRUCTIONS

2.1 Before You Begin

This document outlines the steps necessary to install Service Pack 3.0. There are two additional sections found in this document:

- **Appendix A - Uninstalling Service Pack 3.0** outlines the steps to uninstall SP 3.0, if needed.

Please note that Service Pack 3.0 supports the following:

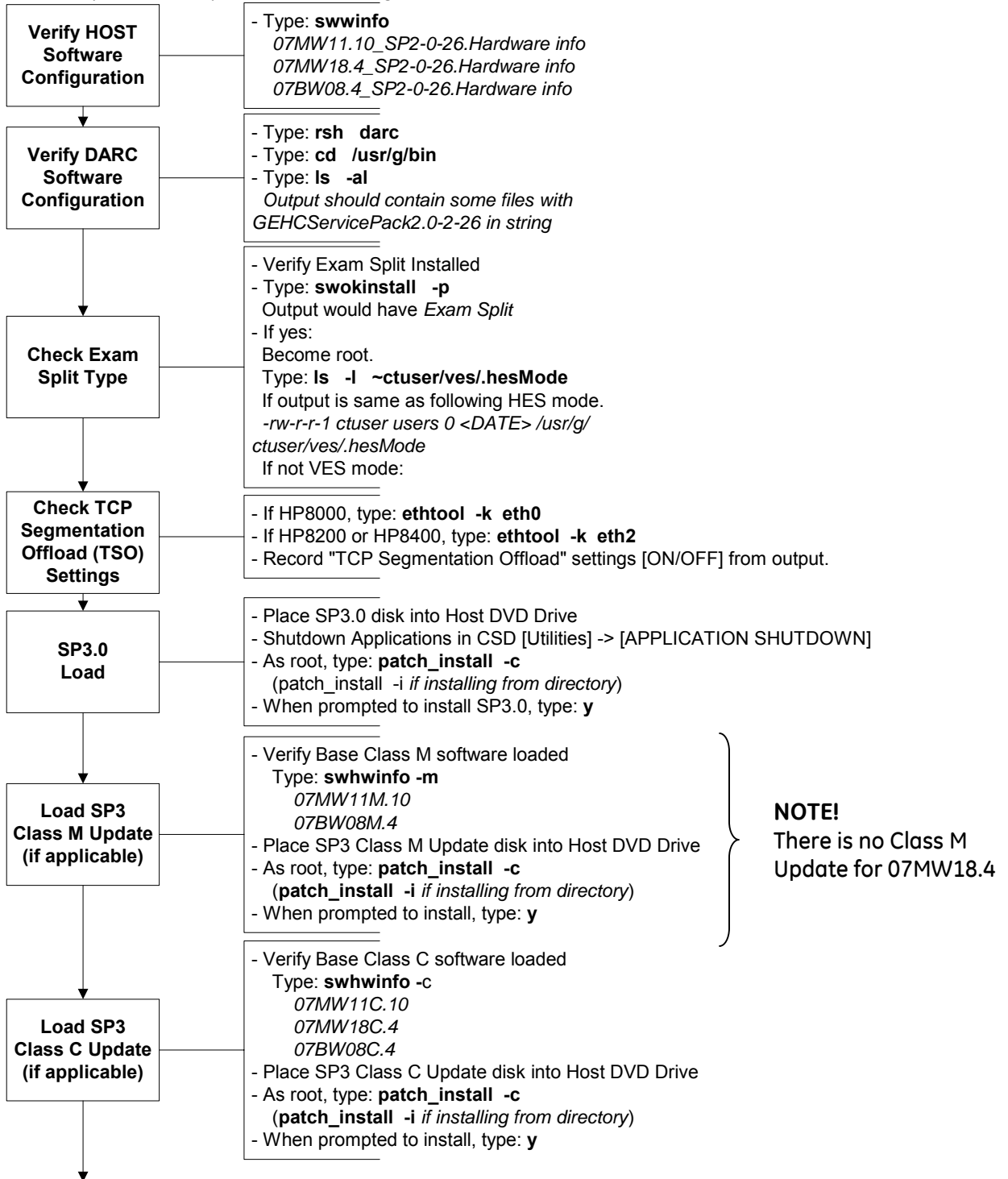
- 1) New Languages for Application Software Options: (Dutch, Danish, Swedish, Norwegian, Finnish, and European Portuguese)
 - a. Advanced Vessel Analysis (AVA)
 - b. Colonography
 - c. DentaScan
 - d. CardIQ
 - e. CardEP
 - f. Autobone
- 2) Quality & Safety fixes (Check Tips & Workaround document for additional information)

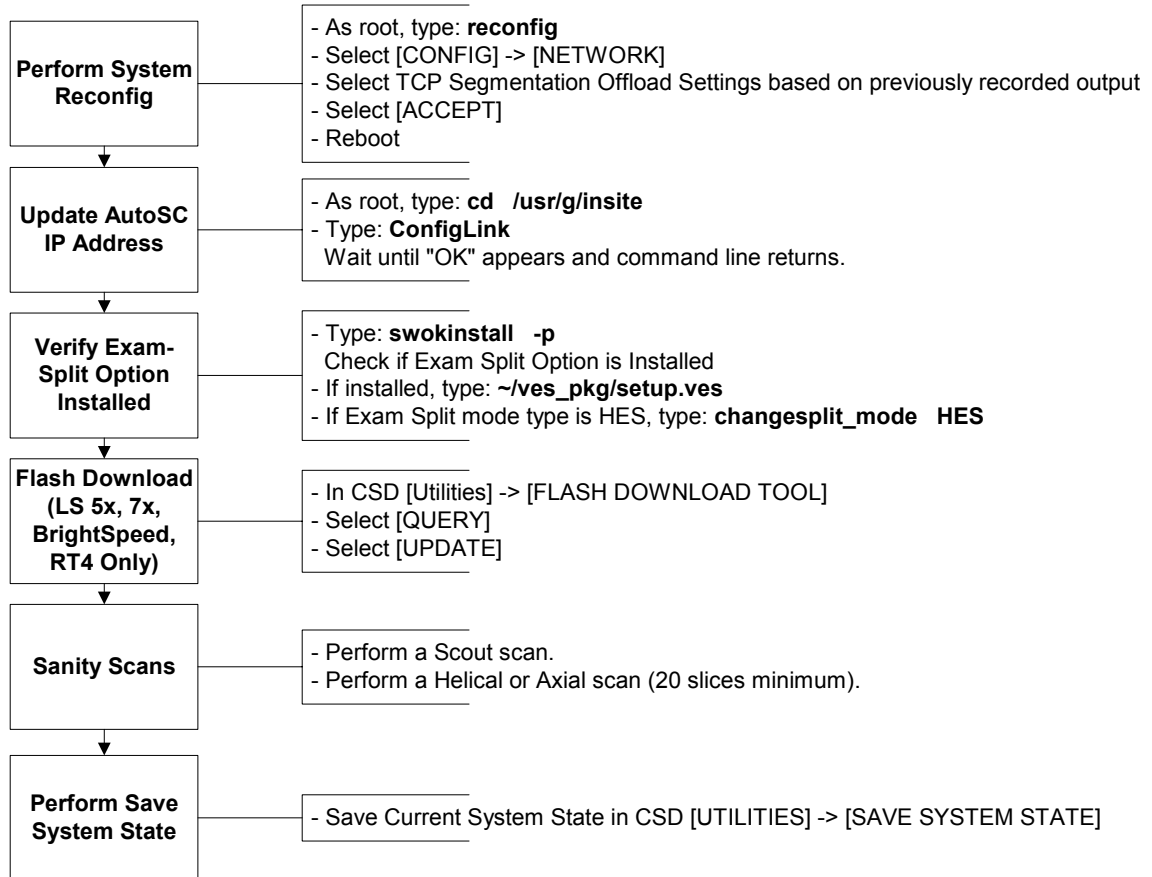
WARNING: Service Pack 3.0 contains numerous safety fixes. Removal of Service Pack 3.0 will require the customer to sign an FMI refusal form acknowledging potential consequences.

- **Appendix B – Service Pack Installation from Software Download Directory:** Service Pack 3 will be downloaded to all sites on the FMI 25411 effectivity with broadband connectivity and insite™ connectivity.

2.2 Service Pack 3.0 Quick Installation Guide

This section provides a quick installation guide for Service Pack 3.0.





2.3 Installing Service Pack 3.0

2.3.1 Verify Software Configuration

2.3.1.1 Verify HOST SW Configuration

NOTE: This is same check as in Section 1 to make sure that Service Pack 2 is already installed. If you already checked from **Section 1: Before You Begin**, you can skip this step and move to **Section 2.3.1.2 Verify DARC SW Configuration**.

1. Open a Unix Shell.
 2. As ctuser, type: **swhwinfo <ENTER>**
- Verify one of the following base software versions is installed:
- 07MW11.10_SP2-0-26.Hardware info*
 - 07MW18.4_SP2-0-26.Hardware info*
 - 07BW08.4_SP2-0-26.Hardware info*

NOTE: This release does **NOT** apply to BrightSpeed Delight, RT16/Xtra, or VCT with GOC6 console systems running the following software revisions:

- 08MW33.x
 - 08BW20.1
 - 08BW17.7
 - 08BW44.X
 - 08MW44.X
- } If this is the software loaded on the system **STOP**.

SP2-0-26 denotes that Service Pack 2.0 is installed. If Service Pack 2.0 software is not loaded, **STOP**. Service Pack 2.0 must be installed prior to continuing. The Service Pack 2.0 software is included on the Service Pack 3.0 CD. Refer to the Section **3 Service Pack 2.0 & 3.0 Combined Load Instructions** on page 23 in this document.

2.3.1.2 Verify DARC SW Configuration

NOTE: If SP2 was not reloaded after any previous DARC replacement, files may be missing. This section will check to verify those files are in place. If SP2 files are missing from the DARC, SP2 must be uninstalled, and then reinstalled prior to continuing to load SP3.

1. Open a Unix Shell.
2. As ctuser, type: **rsh darc <ENTER>**
3. As **ctuser@darc**, type: **cd /usr/g/bin <ENTER>**
4. Type: **ls -al <ENTER>**

Output will display the contents of the bin directory on the DARC. Within the list, you should see files similar to the following:

(example files from ls command, most lines not shown here)

NOTE: Output may not be exactly the same. Output will vary based on configuration type. The important check is to verify that there are files that contain ServicePack2

```
drwxrwxr-x 2 ctuser users 4096 Jul 16 15:33 .
drwxr-xr-x 10 root root 113 Jul 16 20:25 ..
```

```
-r-sr-xr-x 1 root root 3583936 May 16 2007
    _dataacq.pre_07MW18.4_GEHCSERVICEPACK2.0-2-26
-r-xr-xr-x 1 ctuser users 155 May 16 2007
    _doRhard.ex.pre_07MW18.4_GEHCSERVICEPACK2.0-2-26
-r-xr-xr-x 1 ctuser users 23323212 May 16 2007
    _image_generation.pre_07MW18.4_GEHCSERVICEPACK2.0-2-26
-r-xr-xr-x 1 ctuser users 11944060 May 16 2007
    _recon_control.pre_07MW18.4_GEHCSERVICEPACK2.0-2-26
```

5. To logoff the DARC, type: **exit <ENTER>**

2.3.2 Check Exam Split Type

Service Pack 3.0 includes updates to the Exam Split Option. In this section, a check for the type of Exam Split running needs to be determined and will be needed later when Exam Split is updated.

1. Open a Unix Shell.
2. Verify the Exam Split Option is installed.
 - a. As ctuser, type: **swokinstall -p <ENTER>**
 - b. Verify output contains *Exam Split*
3. If output contains *Exam Split*, perform the following steps to determine the type installed.
4. Become root.
 - a. Type: **su - <ENTER>**
 - b. Type: **#bigguy <ENTER>**
5. As root, type: **ls -l ~ctuser/ves/.hesMode <ENTER>**
If results are similar to the following, HES (Hard Exam Split) mode is configured:
`-rw-r--r-- 1 ctuser users 0 <DATE> /usr/g/ctuser/ves/.hesMode`
6. If output produces message stating */usr/g/ctuser/ves/.hesMode not found*, record the mode as VES.

2.3.3 TCP Segmentation Offload (TSO) Check

After the release of 07MW11.10 and 07MW18.4 (FMI 25389 and 25394), some sites were experiencing a slow transfer of images to the PACS system. A workaround was developed to change the TCP Segmentation Offload setting. With the release of SP3, TCP settings can be set in Config menu. In this section, the current setting will need to be noted so the correct settings are kept for the site after the SP 3.0 software load.

1. Open a Unix shell.
2. Become root:
 - a. Type: **su - <ENTER>**
 - b. Password: **#bigguy <ENTER>**

NOTE: This section differs based on whether there is a HP8000 or HP8200/HP8400 on site. If this is being done remotely and you can't look and verify the version of the HP computer, follow step 3 to determine your HP type.

3. To determine the HP version on the system, type: **lhinu <ENTER>**

The first line of the output will be similar to the following:

`CPU: GenuineIntel Inte® Xeon® CPU 5130 @ 2.00GHz`

HP Version	Processor Speed
HP8000	2.66 GHz
HP8200	3.2 GHz
HP8400	2.00 GHz

NOTE: `eth0` is for **HP8000**. If the site has a **HP8200** or **HP8400**, the command will be `eth2`.

4. As root, type: `ethtool -k eth0 <ENTER>`

Output will display similar to as follows:

Offload parameters for eth2:

rx-checksumming: on

tx-checksumming: on

scatter-gather: on

tcp segmentation offload: off (**This field defines the TCP Segmentation Offload settings**)

5. Take note of the TCP Segmentation Offload settings, as this will be used later in the procedure.

2.3.4 Install Service Pack 3.0

1. Insert the Service Pack 3 DVD into the Host DVD drive.

2. Verify Application software is down. If Application software is not down, select **[Application Shutdown]** under the Common Service Desktop **[Utilities]** tab.

3. Wait approximately 1-2 minutes for Application software to go down.

4. Open a Unix Shell.

5. Become root:

a. As ctuser, type: `su - <ENTER>`

b. Password: `#bigguy <ENTER>`

6. Install Service Pack 3

a. As root, type: `patch_install -c <ENTER>`

(use `patch_install -i` if installing SP3 from software download directory. See Appendix B for more info on downloads)

NOTE: If Service Pack 2 is not installed, you will be prompted to load Service Pack 2. Refer to Section 3 **Service Pack 2.0 & 3.0 Combined Load Instructions** on page 23 of this document.

Wait for the following prompt to display before moving on: **"I will install 07MXX.XX_GEHCSERVICEPACK3.0 from CDROM, is this ok? [y/n]"**

7. Type: `y <ENTER>`

NOTE: If the Service Pack installation command fails to install from DVD, type the `start_udev` command (wait 15 seconds after the OK), and retry the Service Pack installation command.

8. The load will take approximately **3-10 minutes**. The following output is displayed:

NOTE: Output displayed will vary based on software version.

Update 07MW11.10_Gantry Info_GEHCSERVICEPACK3.0 has been installed successfully.

NOTE: Service Pack 3.0 Class M software only applies to software versions 07MW11.10 and 07BW08.4.

If your site is running 07MW18.4, only the SP3.0 Class C Update may apply.

9. If the site is loaded with Class M software, install the Service Pack 3.0 Class M software patch. Refer to CD P/N 5334119 and Document P/N 5334119-1EN. This CD and document were shipped via Tab Distribution and can be ordered via Coakley Tech.
10. If the site is loaded with Class C software, install the Service Pack 3.0 Class M software patch. Refer to CD P/N 5334118 and Document P/N 5334118-1EN. This CD and document were shipped via Tab Distribution and can be ordered via Coakley Tech.
11. Verify that the Service Pack loaded correctly:
 - a. Type: **showprods | grep ServicePack <ENTER>**

NOTE: Output displayed will vary based on software version.

07MW11.10_Gantry Info_GEHCSERVICEPACK2.0 DATE 07MW11.10_Gantry Info Service Pack 2 ver 2 rel 2.26

07MW11.10_Gantry Info_GEHCSERVICEPACK3 DATE 07MW11.10_Gantry Info Service Pack 3.0 ver 3 rel 3.11

If the Class C and/or Class M Software patch are installed, you will also see the following output.

07MW11.10_07BW08.4_CLASSC_GEHCSERVICEPACK3.0 DATE
07MW11.10_07BW08.4_CLASSC_GEHCSERVICEPACK3.0 ver 3 rel 3.11

07MW11.10_07BW08.4_CLASSM_GEHCSERVICEPACK3.0 DATE
07MW11.10_07BW08.4_CLASSM_GEHCSERVICEPACK3.0 ver 3 rel 3.11

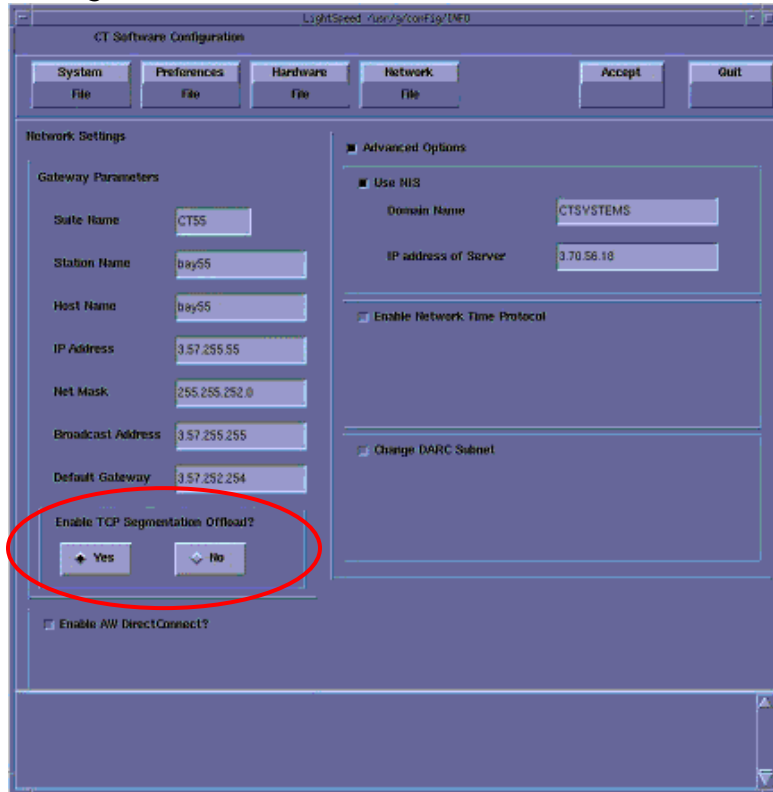
2.3.5 Perform System Reconfig

Reconfig needs to be performed to update the system software with the changes for Service Pack 3.0.

1. Verify Application software is down. If Application software is not down, select **[Application Shutdown]** under the Common Service Desktop **[Utilities]** tab.
2. Open a Unix Shell.
3. Become root:
 - a. As ctuser, type: **su - <ENTER>**
 - b. Password: **#bigguy <ENTER>**
4. Run the reconfig script.
 - a. Type: **reconfig <ENTER>**
5. Select **[CONFIG]**
6. Select the **[Network]** tab.

NOTE: A new field is available labeled *Enable TCP Segmentation Offload*. This setting was added for sites that were seeing an extremely slow transfer of images to PACS systems. Earlier in the procedure, the TCP Segmentation Offload settings were noted. The default setting is "Yes" meaning that TCP Segmentation Offload is on.

7. Verify the TCP Segmentation Offload settings are the same as they were in the **TCP Segmentation Offload Check** section.



8. Select **[ACCEPT]**
9. When prompted to reboot, select **[Yes]**.

NOTE: Please wait until Reboot is completely finished before moving on to the next step.
NOTE: The Gantry must be connected to the Operator Console during the reboot process.

2.3.6 Update AutoSC IP Addresses

NOTE: If system has not completed InSite Checkout, the **ConfigLink** command will not work correctly. If this is the case, this section can be skipped at this time, but the system should complete InSite Checkout as soon as possible.

1. Verify Application software is down. If Application software is not down, select **[Application Shutdown]** under the Common Service Desktop **[Utilities]** tab.
2. Open a Unix Shell.
3. Become root:
4. As ctuser, type: **su - <ENTER>**
 - a. Password: **#bigguy <ENTER>**
5. Type: **cd /usr/g/insite <ENTER>**
6. Type: **ConfigLink <ENTER>**
Wait until "OK" appears and command line returns.

2.3.7 Verify Exam Split Option Installed

NOTE: This section should only be performed on systems with Exam Split Option installed. Please refer to the mode of Exam Split that was recorded during the "Check Exam Split" section earlier to reset Exam Split.

1. Verify Application software is down. If Application software is not down, select **[Application Shutdown]** under the Common Service Desktop **[Utilities]** tab.
2. Open a Unix Shell.
3. As ctuser, type: `~/ves_pkg/setup.ves <ENTER>`

NOTE: If the script does not work, type: `cd /usr/g/scripts <ENTER>` and then retype the above script.

A message similar to the following will be displayed:

```
Copying ves files ...
Setting permissions ...
Adding browser button ...
```

```
SDCHOME = /usr/g/ctuser
```

```
Found installed Exam Split button
```

```
setenv PATH ${PATH}:$SDCHOME/ves
already exists in /usr/g/ctuser/.SdCrc
```

```
Done ...
```

4. If the Exam Split mode installed recorded previously is HES, perform the following:
 - a. Type: `changesplit_mode HES <ENTER>`
5. Check the Exam-Split version:
 - a. Type: `runves --version <ENTER>`
Output should be as follows:
ExamSplit Version is ExamSplit_20080722
6. If this does not match the version of Exam Split, de-install the option and reinstall it via eLicense or the Options DVD onsite.
7. Start Applications
 - a. Type: `st <ENTER>`

2.3.8 Flash Download (LS 5.x and 7.x Systems Only)

This section is required **ONLY** if your system is a **LightSpeed 5.x or 7.x** (VCT, BrightSpeed, HPower, or RT4 system). If your system is not part of this configuration, proceed to the next section.

1. Select the Common Service Desktop icon.
2. Select [Utilities].
3. Select [Flash Download Tool].
4. Select **[Query]**.
5. Select **[Update]**.

6. If necessary, enter the Collimator Serial Number and select **[Accept]** if a pop-up appears.
7. If Flash Download is unsuccessful, perform hardware reset, then try Flash Download tool again.
8. Once the Gantry Hardware Flash Downloads successfully, select **[Dismiss]**.

2.3.9 Sanity Scans

1. Perform a Scout scan.
2. Perform a Helical or Axial scan (20 slices minimum).
3. Verify that scans perform successfully.
4. Please note the exam number of the sanity scans. This will be recorded during debrief.

2.3.10 Save system State

1. Insert a new System State DVD-RAM (label it "**SP3 System State**") into the SCSI Tower DVD drive.
2. Wait until the DVD drive is ready (i.e., front panel DVD drive LED is no longer lit).
3. Select **[System State]** under the Common Service Desktop **[Utilities]** tab.
4. Select **[All]**.
5. Select **[Save]**.
6. Select **[Yes]**.
7. Verify that the 'Save' of the System State was successful. If not, save the System state again. A message at the end of the Save is displayed:
Save/ Restore System State; Completed Successfully.
8. When completed, select **[Cancel]**.
9. When completed select **[Dismiss]**.
10. Close the Common Service Desktop window.
11. If this procedure is being executed during the installation of a FMI, please return to the Finishing Up section of the FMI Instructions at this time.

3. SERVICE PACK 2.0 & 3.0 COMBINED LOAD INSTRUCTIONS

3.1 Before You Begin

This document outlines the steps necessary to install Service Pack 2.0 and 3.0 together on different system types. Please refer to the table below, find your system type, and proceed to the corresponding section.

SYSTEM TYPE	SECTION	PAGE
VCT, RT4, HiSpeed QXi, and LS 1x – 5x (excluding HP60, RT ¹⁶ , and Xtra)	3.2	24
BrightSpeed Power and LS 5X HP60	3.3	35
BrightSpeed Select	3.4	47

There are two additional sections found in this document:

- **Appendix C - Uninstalling Service Pack 2.0** outlines the steps to uninstall SP 2.0 if needed.

Please note that Service Pack 2.0 supports the following:

- 1) New ICOM (part# 2404320-2)
- 2) HP XW8400 Host Computer
- 3) New Languages: Dutch, Danish, Swedish, Norwegian, Finnish, and European Portuguese
- 4) Quality & Safety fixes (Check Tips & Workarounds for additional information)

WARNING: Service Pack 2.0 contains numerous safety fixes. Removal of Service Pack 2.0 will require the customer to sign an FMI refusal form acknowledging potential consequences.

- **Appendix D - Language Reconfig and Station Name** outlines the steps necessary to reconfigure the system into a different UI language, keyboard selection, and setting the station name. Please note that this section is only executed if the customer requests to have the system reconfigured to a new language and/or set the *Station Name*. **DO NOT perform this section if the customer makes no such request. DO NOT ask/notify the customer regarding these new languages. DO NOT ask the customer if they would like to reconfigure their system into a new language.**
- **Appendix B – Service Pack Installation From Software Download Directory** outlines the steps necessary to install Service Pack 2 from the **Software Download** directory. Service Pack 2 was downloaded to all sites on the FMI 25407 effectivity with broadband connectivity and insite™ connectivity.

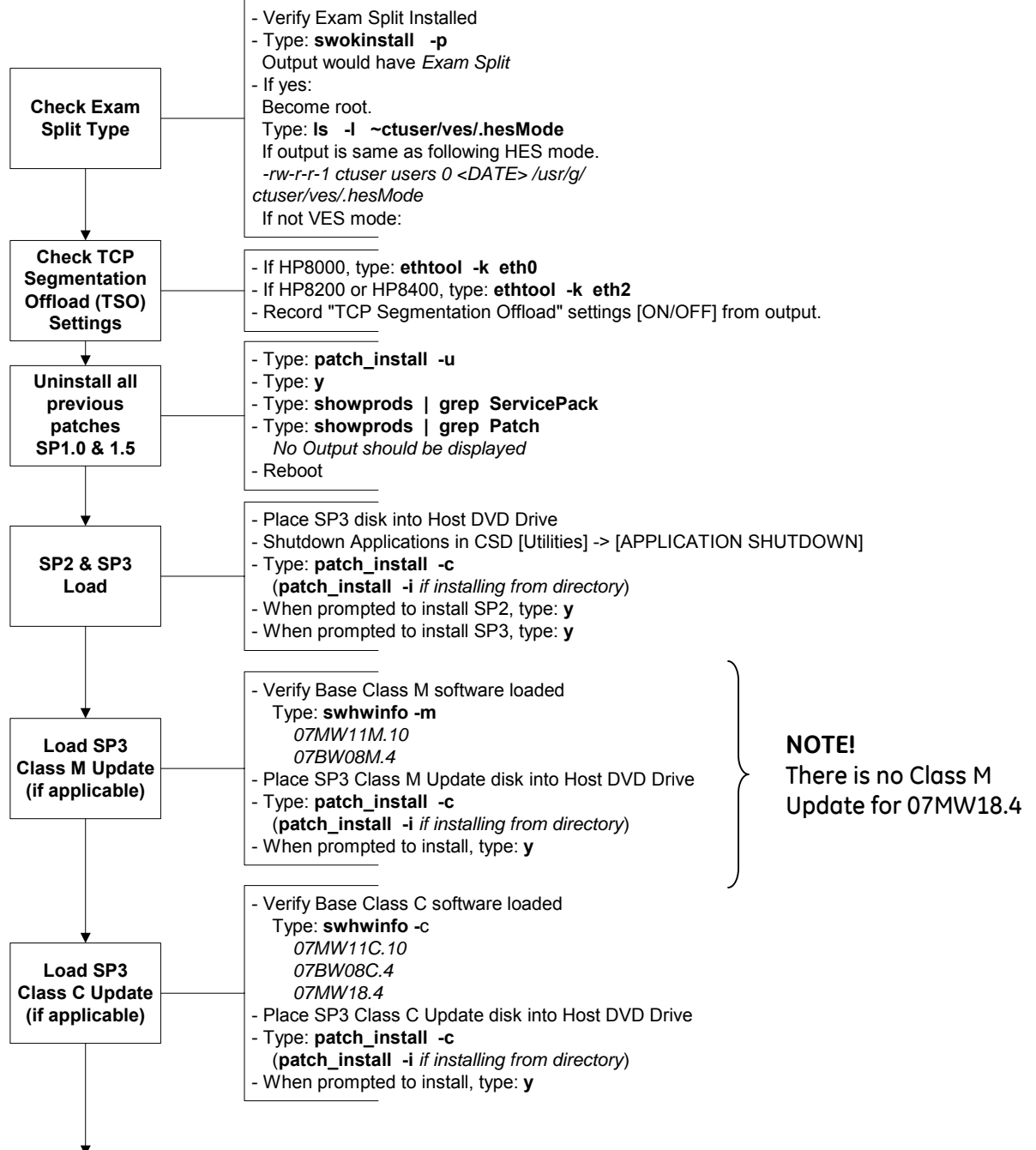
NOTE: Please note that certain applications (AutoBone, Advanced Vessel Analysis, CardIQ Pro, CardIQ Plus, CardEP, CTC Pro, CTC Plus, and Dentascan) are not supported by European Portuguese, Danish, Dutch, Finnish, Norwegian, and Swedish. SP3 now provides support for these Options.

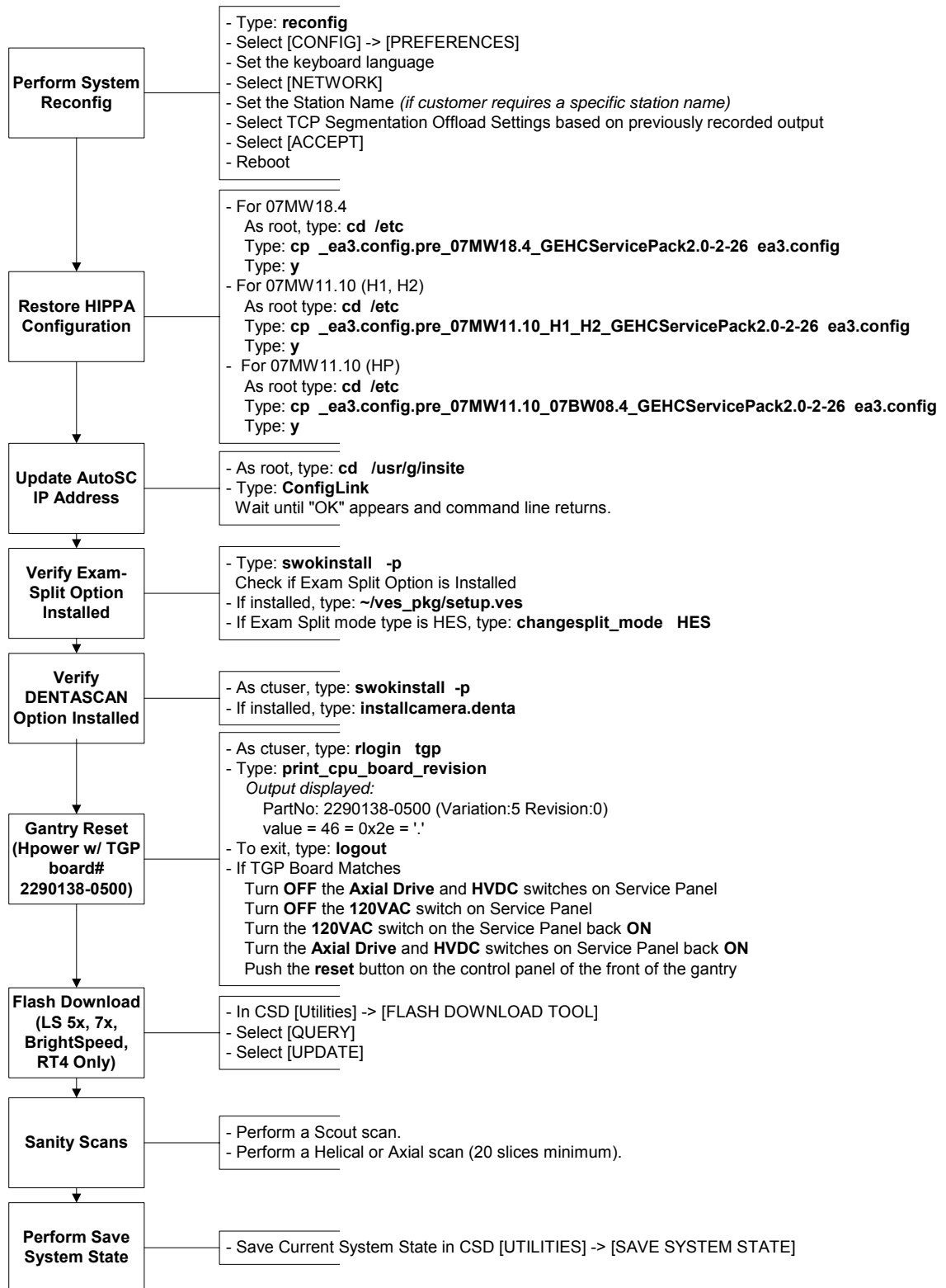
3.2 VCT, RT4, HiSpeed QXi, and LS 1x – 5x (excluding HP60, RT¹⁶, and Xtra)

This section outlines the steps necessary to install Service Pack 2.0 & 3.0 on a LightSpeed 1X – 5X (excluding HP60, RT¹⁶, and Xtra), RT4, HiSpeed QX/i or VCT system. If your system is different, please refer to the table of contents for the appropriate section.

3.2.1 Service Pack 2.0 & 3.0 Quick Installation Guide

This section provides a quick installation guide for Service Pack 2.0 & 3.0 combined load.





3.2.2 Check Exam Split Type

Service Pack 3.0 includes updates to the Exam Split Option. In this section, a check for the type of Exam Split running needs to be determined and will be needed later when Exam Split is updated.

1. Open a Unix Shell.
2. Verify the Exam Split Option is installed.
 - a. As ctuser, type: **swokinstall -p <ENTER>**
 - b. Verify output contains *Exam Split*
3. If output contains Exam Split, perform the following steps to determine the type installed.
4. Become root.
 - a. Type: **su - <ENTER>**
 - b. Type: **#bigguy <ENTER>**
5. As root, type: **ls -l ~ctuser/ves/.hesMode <ENTER>**
If results are similar to the following, HES (Hard Exam Split) mode is configured:
`-rw-r--r-- 1 ctuser users 0 <DATE> /usr/g/ctuser/ves/.hesMode`
6. If output is the same as above, record the mode as HES; else, record the mode as VES.

3.2.3 TCP Segmentation Offload Check

After the release of 07MW11.10 and 07MW18.4 (FMI 25389 and 25394), some sites were experiencing a slow transfer of images to the PACS system. A workaround was developed to change the TCP Segmentation Offload setting. With the release of SP3, TCP settings can be set in Config menu. In this section, the current setting will need to be noted so the correct settings are kept for the site after the SP 3.0 software load.

1. Open a Unix shell.
2. Become root:
 - a. Type: **su - <ENTER>**
 - b. Password: **#bigguy <ENTER>**

NOTE: This section differs based on whether there is a HP8000 or HP8200/HP8400 on site. If this is being done remotely and you can't look and verify the version of the HP computer, follow step 3 to determine your HP type.

3. To determine the HP version on the system, type: **lhinu <ENTER>**

The first line of the output will be similar to the following:

`CPU: GenuineIntel Inte® Xeon® CPU 5130 @ 2.00GHz`

HP Version	Processor Speed
HP8000	2.66 GHz
HP8200	3.2 GHz
HP8400	2.00 GHz

NOTE: **eth0** is for HP8000. If the site has a HP8200 or HP8400, the command will be **eth2**.

4. As root, type: **ethtool -k eth0 <ENTER>**

Output will display similar to as follows:

Offload parameters for eth2:

rx-checksumming: on

tx-checksumming: on

scatter-gather: on

tcp segmentation offload: off (This field defines the TCP Segmentation Offload settings)

5. Take note of the TCP Segmentation Offload settings, as this will be used later in the procedure.

3.2.4 Uninstalling previous Service Packs 1.0/1.5 and Patches

Service Pack 2 will not be able to install successfully if **Service Pack 1.0/Service Pack 1.5** is installed on the system. Additionally, Application software must be down to install or uninstall the Service Pack.

NOTE: If this is being done as part of a Load From Cold (LFC), there will be no previous patches on this system. You can skip this section and move ahead; else, proceed with this section and verify all previous patches and service packs are removed.

1. Verify whether any previous Service Packs/Patches are already installed on the system:
 - a. Type: **showprods | grep ServicePack <ENTER>**
 - b. Type: **showprods | grep Patch <ENTER>**
2. If no output is displayed by the two commands above, proceed to section **Installing Service Pack 2.0 & 3.0**, otherwise proceed to step 3.
3. Verify Application software is down. If Application software is not down, select **[Application Shutdown]** under the Common Service Desktop **[Utilities]** tab. Wait approximately 1-2 minutes for Application software to go down.
4. Open a Unix Shell.
5. Become root:
 - a. Type: **su - <ENTER>**
 - b. Password: **#bigguy <ENTER>**
6. As root on the Host, type: **patch_install -u <ENTER>**
7. To uninstall all existing patches type: **y <ENTER>**
8. Verify that all the previous Service Packs and Patches uninstalled correctly:
 - a. Type: **showprods | grep ServicePack <ENTER>**
 - b. Type: **showprods | grep Patch <ENTER>**No output should be displayed by these commands.
9. Perform reboot command to restart the console:
 - a. Type: **reboot <ENTER>**
10. After reboot, select **[CANCEL]** to stop Applications from starting.

3.2.5 Installing Service Pack 2.0 & 3.0

1. Insert the Service Pack 3 DVD into the Host DVD drive.
2. Open a Unix Shell.
3. Verify one of the following base software versions is installed:
 - a. Type: **swhwinfo -v <ENTER>**
07MW11.10
07MW18.4

4. Verify the current keyboard language.
 - a. As ctuser type: **more /etc/sysconfig/keyboard <ENTER>**
Output Displayed: KEYBOARDTYPE="pc"
KEYTABLE="us"

NOTE: (Sample output only. Output will vary based on keyboard language). **PLEASE NOTE THE KEYBOARD LANGUAGE DENOTED BY THE "KEYTABLE" ENTRY IN THE OUTPUT DISPLAYED. THE KEYBOARD LANGUAGE SELECTION WILL BE NEEDED LATER.**

5. Verify Application software is down. If Application software is not down, select **[Application Shutdown]** under the Common Service Desktop **[Utilities]** tab.
6. Wait approximately 1-2 minutes for Application software to go down
7. Become root:
 - a. Type: **su - <ENTER>**
 - b. Password: **#bigguy <ENTER>**
8. Install Service Pack 2
 - a. Type: **patch_install -c <ENTER>**
(use **patch_install -i** if installing SP2 from software download directory. See Appendix E for more info on downloads)

Wait for the following prompt to display before moving on: **"I will install update 07MXX.XX_GEHCSERVICEPACK2.0 from CDROM, is this ok? [y/n]"**

9. Type: **y <ENTER>**

NOTE: If the Service Pack installation command fails to install from DVD, type the **start_udev** command (wait 15 seconds after the OK), and retry the Service Pack installation command.

10. The load will take approximately **5-10 minutes**. The following output is displayed:

NOTE: Output displayed will vary based on software version.
07MW11.10_Gantry Info_GEHCSERVICEPACK2 update has been successfully installed.

11. You will next receive the following prompt:
"I will install update 07MXX.XX_GEHCSERVICEPACK3.0 from CDROM, is this ok? [y/n]"
12. Type: **y <ENTER>**
13. The load will take approximately **3-10 minutes**. The following output is displayed:

NOTE: Output displayed will vary based on software version.
Update 07MW11.10_Gantry Info_GEHCSERVICEPACK3.0 has been successfully installed.

14. If the site is loaded with Class M software, install the Service Pack 3.0 Class M software patch. Refer to DVD P/N 5334119 and Document P/N 5334119-1EN.
15. If the site is loaded with Class C software, install the Service Pack 3.0 Class C software patch. Refer to DVD P/N 5334118 and Document P/N 5334118-1EN.

16. Verify that the Service Pack loaded correctly:
 - a. Type: `showprods | grep ServicePack <ENTER>`

NOTE: Output displayed will vary based on software version.

```
07MW11.10_GEHCSERVICEPACK2 DATE 07MW11.10_GEHCSERVICEPACK2 ver 2 rel
2.26
07MW11.10_GEHCSERVICEPACK3.0 DATE 07MW11.10_GEHCSERVICEPACK3.0 ver 3
rel 3.11
```

If the Class C and/or Class M Software patches are installed, you will also see the following output based on software version.

```
07MW11.10_07BW08.4_CLASSC_GEHCSERVICEPACK3.0 DATE
07MW11.10_07BW08.4_CLASSC_GEHCSERVICEPACK3.0 ver 3 rel 3.11
07MW11.10_07BW08.4_CLASSM_GEHCSERVICEPACK3.0 DATE
07MW11.10_07BW08.4_CLASSM_GEHCSERVICEPACK3.0 ver 3 rel 3.11
```

3.2.6 Perform System Reconfig

1. Open a Unix Shell
2. Verify Application software is down. If Application software is not down, select **[Application Shutdown]** under the Common Service Desktop **[Utilities]** tab.
3. Become root:
 - a. As ctuser, type: `su - <ENTER>`
 - b. Password: `#bigguy <ENTER>`
4. As root on the Host, type: `reconfig <ENTER>`
5. Select **[config]**.
6. It is now necessary to set the appropriate keyboard language based on the setting before Service Pack 2. The **[Preferences]** tab will be displayed. Set the **Keyboard Selection** field based on the keyboard language recorded in section **Installing Service Pack 2.0 & 3.0**, step 4. Select the appropriate keyboard language from the **[Preferences]** tab GUI by referring to the table below:

English	"us"
French	"fr"
German	"de"
Italian	"it"
Spanish	"es"
Swedish	"sv"
Portuguese (Brazilian)	"br"

WARNING: DO NOT SELECT ONE OF THE FOLLOWING KEYBOARD SELECTIONS UNLESS YOU HAVE THE CORRESPONDING KEYBOARD: DANISH, EUROPEAN PORTUGUESE, DUTCH, AND NORWEGIAN.

7. Select the **[Network]** tab.

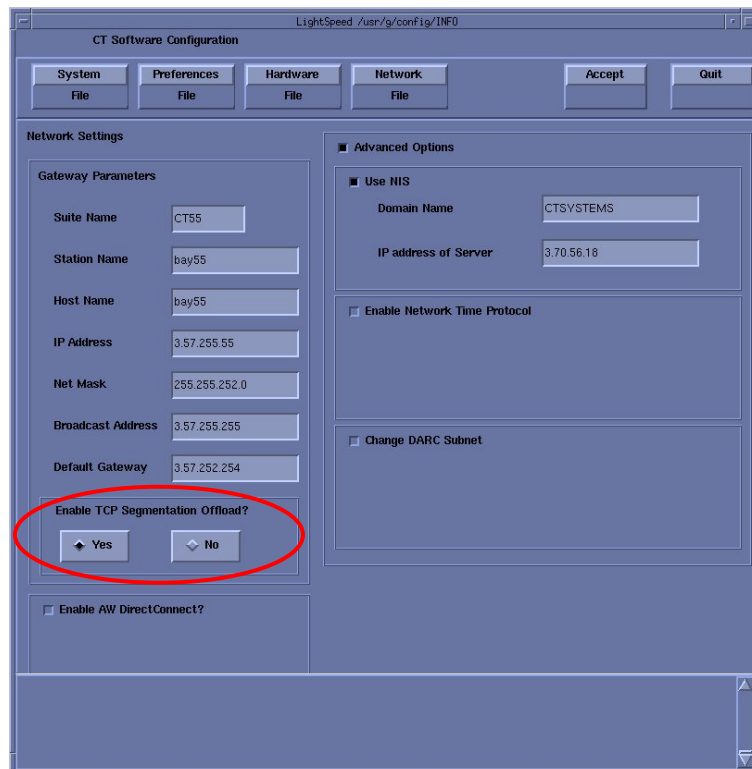
- At this time, you can set the **Station Name**. *Station Name* is now an editable field. If your customer requires a specific *Station Name* for network purposes, it should be set now. Consult with your customer and set accordingly using the guidelines below. Please refer to **Appendix D - Language Reconfig and Station Name** for an illustration of the Station Name setup. For most cases the *Station Name* default value (Host Name) is used. If no special *Station Name* setting is required, proceed to step 9.

Station Name Guidelines:

- The *Station Name* identifies the text that will be stored in the DICOM attribute "Station Name" (DICOM TAG 0008,1010) in all CT images created. Some pacs systems may use the Station Name attribute or system tracking for identification of the scanner where the CT images were generated. Typically, the Host Name and Station Name will be the same.
- Station Name* MUST NOT exceed 16 Characters
- Station Name* MUST only contain the following characters: a through z, A through Z, 0 through 9, - and _
- Station Name* MUST contain at least one Alpha Character (a through z OR A through Z) or Special Character (- OR _)
- Station Name* will default to the Host Name if left blank.

NOTE: A new field is available labeled **Enable TCP Segmentation Offload**. This setting was added for sites that were seeing an extremely slow transfer of images to PACS systems. Earlier in the procedure, the TCP Segmentation Offload settings were noted. The default setting is "Yes" meaning that TCP Segmentation Offload is on.

- Verify the TCP Segmentation Offload settings are the same as they were in the **TCP Segmentation Offload Check** section.



- Select the **Accept** tab in the top right corner.

11. When prompted to reboot, select **[Yes]**.

NOTE: Please wait until Reboot is completely finished before moving on to the next step.

NOTE: The Gantry must be connected to the Operator Console during the reboot process.

3.2.7 Restore HIPPA Configuration

The following command will restore the configuration file that holds the users HIPPA account information.

1. Before starting applications, become root

- a. As ctuser, type: **su - <ENTER>**
- b. Password: **#bigguy <ENTER>**

NOTE: This file is different for different systems. If not sure of system, type **swhwinfo** to get software and gantry info.

2. Restore HIPPA User Configurations based on the system type below:

- a. For **07MW18.4 VCT:**

- i. As root, type: **cd /etc <ENTER>**
- ii. Type: **cp _ea3.config.pre_07MW18.4_GEHCSERVICEPACK2.0-2-26 ea3.config <ENTER>**

Output Displayed: **cp: overwrite 'ea3.config'?**

- iii. Type: **y <ENTER>**

- b. For **07MW11.10 (H1, H2):**

- i. As root, type: **cd /etc <ENTER>**
- ii. Type: **cp _ea3.config.pre_07MW11.10_H1_H2_GEHCSERVICEPACK2.0-2-26 ea3.config <ENTER>**

Output Displayed: **cp: overwrite 'ea3.config'?**

- iii. Type: **y <ENTER>**

- c. For **07MW11.10 (HP) & 07BW08.4:**

- i. As root, type: **cd /etc <ENTER>**
- ii. Type: **cp _ea3.config.pre_07MW11.10_07BW08.4_GEHCSERVICEPACK2.0-2-26 ea3.config <ENTER>**

Output Displayed: **cp: overwrite 'ea3.config'?**

- iii. Type: **y <ENTER>**

3.2.8 Update AutoSC IP Addresses

NOTE: If system has not completed InSite Checkout, the **ConfigLink** command will not work correctly. If this is the case, this section can be skipped at this time, but the system should complete InSite Checkout as soon as possible.

1. Applications should still be down.
2. Open a Unix Shell.
3. If not root, become root:
 - a. As ctuser, type: **su - <ENTER>**
 - b. Password: **#bigguy <ENTER>**

4. Type: **cd /usr/g/insite <ENTER>**

5. Type: **ConfigLink <ENTER>**

Wait until "OK" appears and command line returns.

3.2.9 Verify Exam Split Option Installed

NOTE: This section should only be performed on systems with Exam Split Option installed. Please refer to the mode of Exam Split that was recorded during the "Check Exam Split" section earlier to reset Exam Split.

1. Verify Application software is down. If Application software is not down, select **[Application Shutdown]** under the Common Service Desktop **[Utilities]** tab.
2. Open a Unix Shell.
3. As ctuser, type: `~/ves_pkg/setup.ves <ENTER>`

NOTE: If the script does not work, type: `cd /usr/g/scripts <ENTER>` and then retype the above script.

4. A message similar to the following will be displayed:
Copying ves files ...
Setting permissions ...
Adding browser button ...

```
SDCHOME = /usr/g/ctuser
Found installed Exam Split button
```

```
setenv PATH ${PATH}:$SDCHOME/ves
already exists in /usr/g/ctuser/.SdCrc
```

Done ...

5. If the *Exam Split* mode recorded previously is HES, perform the following:
 - a. Type: `changesplit_mode HES <ENTER>`
6. Check the Exam-Split version:
 - a. Type: `runves --version <ENTER>`
Output should be as follows:
ExamSplit Version is ExamSplit_20080722
7. If this does not match the version of Exam Split, de-install the option and reinstall it via eLiscence or the Options DVD onsite.

3.2.10 Verify DENTASCAN Option Installed

1. Check if **DENTASCAN** option is installed on the system:
 - a. As ctuser, type: `swokinstall -p <ENTER>`
The list of all options installed on the system will be displayed. Please look for **DENTASCAN**. If **DENTASCAN** is NOT installed on the system, skip step 2 and move on to step 3; if **DENTASCAN** is installed, perform the following command:
2. Type: `installcamera.denta <ENTER>`
3. Start Applications, type: `startup <ENTER>`
4. Remove the Service Pack 3 DVD from the Host Computer DVD drive tray.

NOTE: If the system you are working on is an H-Power system with TGP board part# 2290138-0500, proceed to section **3.2.11 Gantry Reset (H-Power systems with TGP board part # 2290138-0500)**; otherwise, proceed to section **3.2.12 Flash Download (LS 5.x and 7.x ONLY)**.

3.2.11 Gantry Reset (H-Power systems with TGP board part # 2290138-0500)

This section is required for **H-Power systems with TGP board part number 2290138-0500**. Follow the steps below to manually reset the gantry:

1. Check to verify that the system is equipped with TGP board part number 2290138-0500:
 - a. As ctuser, type: **rlogin tgp <ENTER>**
 - b. Type: **print_cpu_board_revision <ENTER>**
Output displayed:
PartNo: 2290138-0500 (Variation:5 Revision:0)
value = 46 = 0x2e = .'
 - c. To exit, type: **logout <ENTER>**

NOTE: If your TGP board part number matches the board above, continue with the steps in this section; otherwise, skip the remainder of this section and proceed to **3.2.12 Flash Download (LS 5.x and 7.x ONLY)**.

2. Remove gantry covers as required
3. Turn **OFF** the **Axial Drive** and **HVDC** switches on the Service Switch Panel.
4. Turn **OFF** the **120VAC** switch on the Service Switch Panel.
5. Turn the **120VAC** switch on the Service Switch Panel back **ON**.
6. Turn the **Axial Drive** and **HVDC** switches on the Service Switch Panel back **ON**.
7. Push the **reset** button on the control panel on the front of the gantry..

3.2.12 Flash Download (LS 5.X and LS 7.X ONLY)

1. Select the Common Service Desktop icon.
2. Select **[Utilities]**.

NOTE: For some systems **[Install]** needs to be selected after selecting **[Utilities]**.

3. Select **[Flash Download Tool]**.
4. Select **[Query]**.
5. Select **[Update]**.
6. If necessary, enter the Collimator Serial Number and select **[Accept]** if a pop-up appears.
7. If Flash Download is unsuccessful, perform hardware reset, then try Flash Download tool again.
8. Once the Gantry Hardware Flash Downloads successfully, select **[Dismiss]**.

3.2.13 Sanity Scans

1. Perform a Scout scan.
2. Perform a Helical or Axial scan (20 slices minimum).
3. Verify that scans perform successfully.
4. Please note the exam number of the sanity scans. This will be recorded during debrief.

3.2.14 Save System State

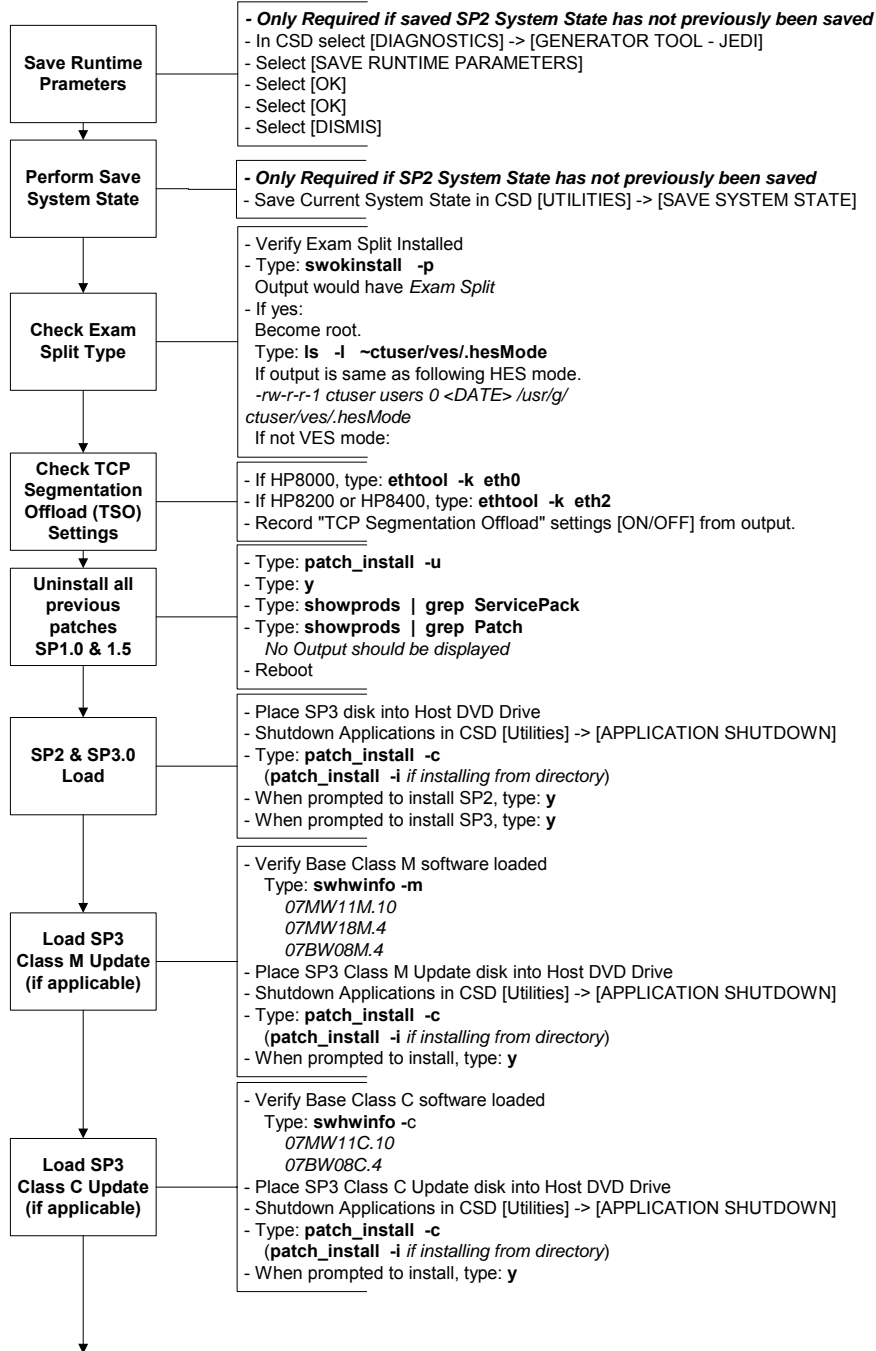
1. Insert System State DVD-RAM (label it "**SP3 System State**") into the SCSI Tower DVD drive.
2. Wait until the DVD drive is ready (i.e., front panel DVD drive LED is no longer lit).
3. Select **[System State]** under the Common Service Desktop **[Utilities]** tab.
4. Select **[All]**.
5. Select **[Save]**.
6. Select **[Yes]**.
7. Verify that the 'Save' of the System State was successful. If not, save the System state again. A message at the end of the Save is displayed:
Save/ Restore System State; Completed Successfully.
8. When completed, select **[Cancel]**.
9. When completed select **[Dismiss]**.
10. Close the Common Service Desktop window.
11. If this procedure is being executed during the installation of a FMI, please return to the Finishing Up section of the FMI Instructions at this time.

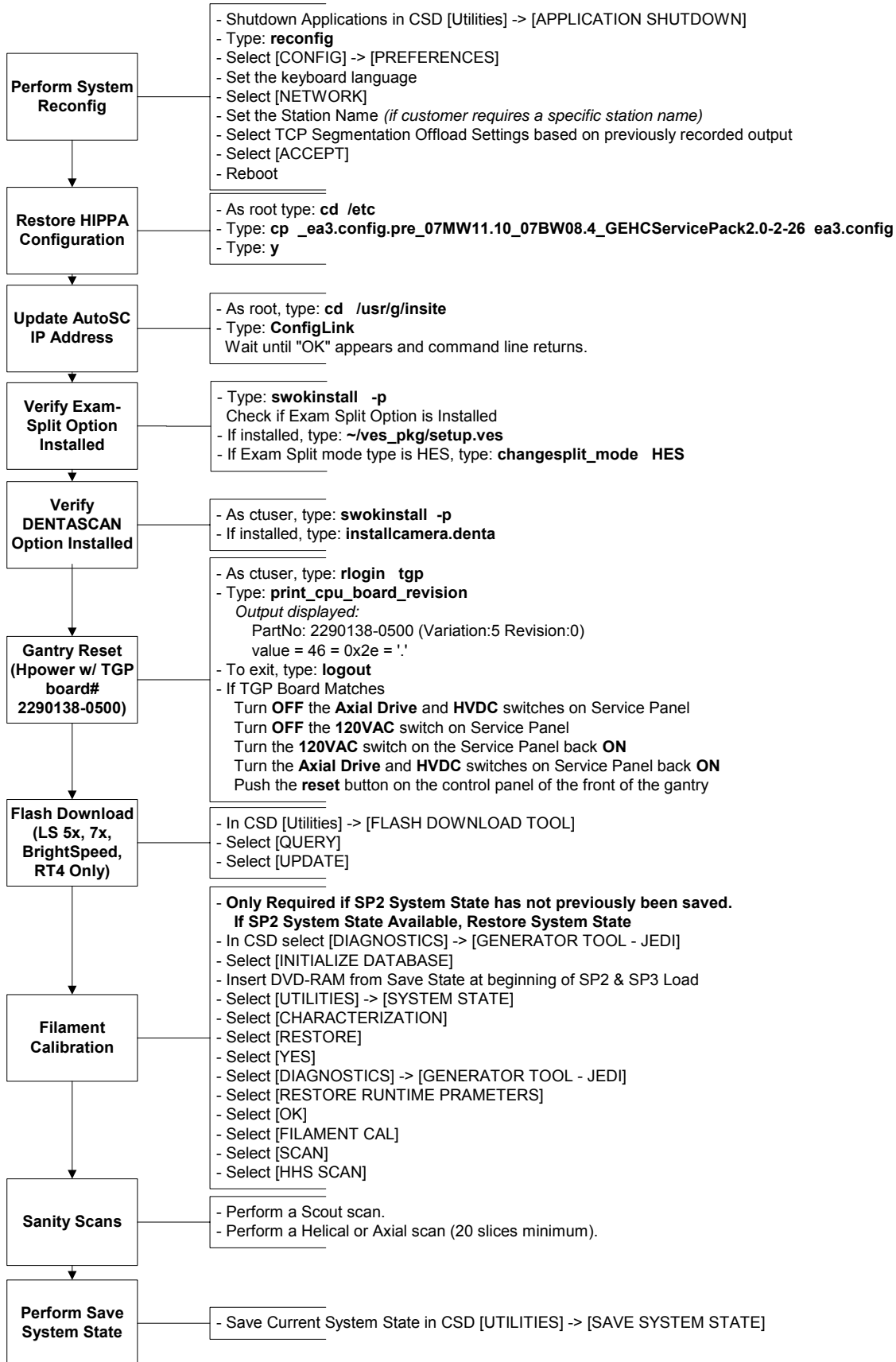
3.3 BrightSpeed Power and LS 5X HP60

This section outlines the steps necessary to install Service Pack 2.0 & 3.0 on a **LightSpeed 5X HP60** or **BrightSpeed Power** system. If your system is different, please refer to the table of contents for the appropriate section.

3.3.1 Service Pack 2.0 & 3.0 Quick Installation Guide

This section provides a quick installation guide for Service Pack 2.0 & 3.0 combined load.





3.3.2 Filament Calibration (Save Runtime Parameters)

The Service Pack2 update will update JEDI application firmware for HP60 and BSD-Power systems. This means that JEDI database will be initialized. To avoid losing JEDI database parameters, Save Runtime Parameters of JEDI Tool needs to be performed using the following steps:

IMPORTANT INFORMATION:

If this is being done as part of a Load From Cold (LFC) and SP2 was performed prior to system needing a LFC, Saving Runtime Parameters may not be needed. If there is a current Save State DVD on site labeled, "**SP2 System State**", you will not need to perform the steps in this section, as you will restore the "**SP2 System State**" with calibration data after completion of the SP load. Proceed to section **3.3.4 Check Exam Split Type**.

1. Select [**Generator Tool – JEDI**] under the Common Service Desktop [**Diagnostics**] tab.
2. Select [**Save Runtime Parameters**]
3. Select [**OK**]
4. Verify that Save Runtime Parameters was successful. A message at the end of the Save should be displayed.
Runtime Parameters successfully saved to console hard drive.
5. When completed, select [**OK**]
6. Select [**Dismiss**]

Save System State is needed to restore JEDI database parameters after Service Pack 2 installation.

3.3.3 Save System State

1. Insert the first System State DVD-RAM (label it "**Before SP2**" or "**Before SP3**") into the SCSI Tower DVD drive.
2. Wait until the DVD drive is ready (i.e., front panel DVD drive LED is no longer lit).
3. Select [**System State**] under the Common Service Desktop [**Utilities**] tab.
4. Select [**All**].
5. Select [**Save**].
6. Select [**Yes**].
7. Verify that the 'Save' of the System State was successful. If not, save the System state again. A message at the end of the Save is displayed:
Save/ Restore System State; Completed Successfully.
8. When completed, select [**Cancel**].
9. When completed select [**Dismiss**].

3.3.4 Check Exam Split Type

Service Pack 3.0 includes updates to the *Exam Split* Option. In this section, a check for the type of Exam Split running needs to be determined and will be needed later when *Exam Split* is updated.

1. Open a Unix Shell.
2. Verify the *Exam Split* Option is installed.
 - a. As ctuser, type: **swokinstall -p <ENTER>**
 - b. Verify output contains *Exam Split*
3. If output contains *Exam Split*, perform the following steps to determine the type installed.
4. Become root.
 - a. Type: **su - <ENTER>**
 - b. Type: **#bigguy <ENTER>**
5. As root, type: **ls -l ~ctuser/ves/.hesMode <ENTER>**
If results are similar to the following, HES (Hard Exam Split) mode is configured:
`-rw-r--r-- 1 ctuser users 0 <DATE> /usr/g/ctuser/ves/.hesMode`
6. If output is the same as above, record the mode as HES; else, record the mode as VES.

3.3.5 TCP Segmentation Offload Check

After the release of 07MW11.10 and 07MW18.4 (FMI 25389 and 25394), some sites were experiencing a slow transfer of images to the PACS system. A workaround was developed to change the TCP Segmentation Offload setting. With the release of SP3, TCP settings can be set in Config menu. In this section, the current setting will need to be noted so the correct settings are kept for the site after the SP 3.0 software load.

1. Open a Unix shell.
2. Become root:
 - a. Type: **su - <ENTER>**
 - b. Password: **#bigguy <ENTER>**

NOTE: This section differs based on whether there is a HP8000 or HP8200/HP8400 on site. If this is being done remotely and you can't look and verify the version of the HP computer, follow step 3 to determine your HP type.

3. To determine the HP version on the system, type: **lhinv <ENTER>**

The first line of the output will be similar to the following:

`CPU: GenuineIntel Inte® Xeon® CPU 5130 @ 2.00GHz`

HP Version	Processor Speed
HP8000	2.66 GHz
HP8200	3.2 GHz
HP8400	2.00 GHz

NOTE: **eth0** is for HP8000. If the site has a HP8200 or HP8400, the command will be **eth2**.

4. As root, type: **ethtool -k eth0 <ENTER>**

Output will display similar to as follows:

Offload parameters for eth2:

rx-checksumming: on

tx-checksumming: on

scatter-gather: on

tcp segmentation offload: off (This field defines the TCP Segmentation Offload settings)

5. Take note of the TCP Segmentation Offload settings, as this will be used later in the procedure.

3.3.6 Uninstalling previous Service Packs and Patches

Service Pack 2 will not be able to install successfully if **Service Pack 1.0/Service Pack 1.5/Hino JEDI Cradle Patch** is installed on the system. Additionally, Application software must be down to install or uninstall the Service Pack.

NOTE: If this is being done as part of a Load From Cold (LFC), there will be no previous patches on this system. You can skip this section and move ahead to **Installing Service Pack 2.0 & 3.0**; else, proceed with this section and verify all previous patches and service packs are removed.

1. Verify whether any previous Service Packs/Patches are already installed on the system:
 - a. Type: **showprods | grep ServicePack <ENTER>**
 - b. Type: **showprods | grep Patch <ENTER>**
2. If no output is displayed by the two commands above, proceed to section **Installing Service Pack 2.0 & 3.0**, otherwise proceed to step 3.
3. Verify Application software is down. If Application software is not down, select **[Application Shutdown]** under the Common Service Desktop **[Utilities]** tab. Wait approximately 1-2 minutes for Application software to go down.
4. Open a Unix Shell.
5. Become root:
 - a. Type: **su - <ENTER>**
 - b. Password: **#bigguy <ENTER>**
6. As root on the Host, type: **patch_install -u <ENTER>**
7. To uninstall all existing patches type: **y <ENTER>**
8. Verify that all the previous Service Packs and Patches uninstalled correctly:
 - a. Type: **showprods | grep ServicePack <ENTER>**
 - b. Type: **showprods | grep Patch <ENTER>**No output should be displayed by these commands.
9. Perform reboot command to restart the console:
 - a. Type: **reboot <ENTER>**
10. After reboot, select **[CANCEL]** to stop Applications from starting.

3.3.7 Installing Service Pack 2.0 & 3.0

1. Insert the Service Pack 3 DVD into the Host DVD drive.
2. Open a Unix Shell.
3. Verify that the following base software version is installed:
 - a. As ctuser, type: **swhwinfo -v <ENTER>**
07MW11.10
4. Verify the current keyboard language.
 - a. As ctuser, type: **more /etc/sysconfig/keyboard <ENTER>**
Output Displayed: **KEYBOARDTYPE="pc"**
KEYTABLE="us"
(Sample output only. Output will vary based on keyboard language). **PLEASE NOTE THE KEYBOARD LANGUAGE DENOTED BY THE "KEYTABLE" ENTRY IN THE OUTPUT DISPLAYED. THE KEYBOARD LANGUAGE SELECTION WILL BE NEEDED LATER.**

5. Verify Application software is down. If Application software is not down, select **[Application Shutdown]** under the Common Service Desktop **[Utilities]** tab.
6. Wait approximately 1-2 minutes for Application software to go down
7. Become root:
 - a. As ctuser, type: **su - <ENTER>**
 - b. Password: **#bigguy <ENTER>**
8. Install Service Pack 2 & 3
 - a. As root, type: **patch_install -c <ENTER>**
 (use **patch_install -i** if installing SP2 from software download directory. See Appendix E for more info on downloads)
 Wait for the following prompt to display before moving on: **"I will install 07MXX.XX_GEHCSERVICEPACK2.0 from CDROM, is this ok? [y/n]"**
9. Type: **y <ENTER>**

NOTE: If the Service Pack installation command fails to install from DVD, type the **start_udev** command (wait 15 seconds after the OK), and retry the Service Pack installation command.

10. The load will take approximately **5-10 minutes**. The following output is displayed:

NOTE: Output displayed will vary based on software version.
07MW11.10_Gantry Info_GEHCSERVICEPACK2 update has been successfully installed.

11. You will next see the following prompt:
"I will install 07MXX.XX_GEHCSERVICEPACK3.0 from CDROM, is this ok? [y/n]"
12. Type: **y <ENTER>**

13. The load will take approximately **3-10 minutes**. The following output is displayed:

NOTE: Output displayed will vary based on software version.
07MW11.10_Gantry Info_GEHCSERVICEPACK3 update has been successfully installed.

14. If the site is loaded with Class M software, install the Service Pack 3.0 Class M software Update. Refer to CD P/N 5334119 and Document P/N 5334119-1EN.
15. If the site is loaded with Class C software, install the Service Pack 3.0 Class M software Update. Refer to CD P/N 5334118 and Document P/N 5334118-1EN.

16. Verify that the Service Pack loaded correctly:
 - a. Type: **showprods | grep ServicePack <ENTER>**

NOTE: Output displayed will vary based on software version.
07MW11.10_Gantry Info_GEHCSERVICEPACK2.0 DATE 07MW11.10_Gantry Info Service Pack 2 ver 2 rel 2.26
07MW11.10_Gantry Info_GEHCSERVICEPACK3 DATE 07MW11.10_Gantry Info Service Pack 3.0 ver 3 rel 3.11

If the Class C and/or Class M Software patch are installed, you will also see the following output.

07MW11.10_07BW08.4_CLASSC_GEHCSERVICEPACK3.0 DATE
07MW11.10_07BW08.4_CLASSC GEHCSERVICEPACK3.0 ver 3 rel 3.11
07MW11.10_07BW08.4_CLASSM_GEHCSERVICEPACK3.0 DATE
07MW11.10_07BW08.4_CLASSM GEHCSERVICEPACK3.0 ver 3 rel 3.11

3.3.8 Perform System Reconfig

1. Open a Unix Shell
2. Verify Application software is down. If Application software is not down, select **[Application Shutdown]** under the Common Service Desktop **[Utilities]** tab.
3. Become root:
 - a. As ctuser, type: **su - <ENTER>**
 - b. Password: **#bigguy <ENTER>**
4. As root on the Host, type: **reconfig <ENTER>**
5. Select **[config]**.
6. It is now necessary to set the appropriate keyboard language based on the setting before Service Pack 2. The **[Preferences]** tab will be displayed. Set the **Keyboard Selection** field based on the keyboard language recorded in section **Installing Service Pack 2.0 and 3.0**, step 4. Select the appropriate keyboard language from the **[Preferences]** tab GUI by referring to the table below:

English	"us"
French	"fr"
German	"de"
Italian	"it"
Spanish	"es"
Swedish	"sv"
Portuguese (Brazilian)	"br"

WARNING: DO NOT SELECT ONE OF THE FOLLOWING KEYBOARD SELECTIONS UNLESS YOU HAVE THE CORRESPONDING KEYBOARD: DANISH, EUROPEAN PORTUGUESE, DUTCH, AND NORWEGIAN.

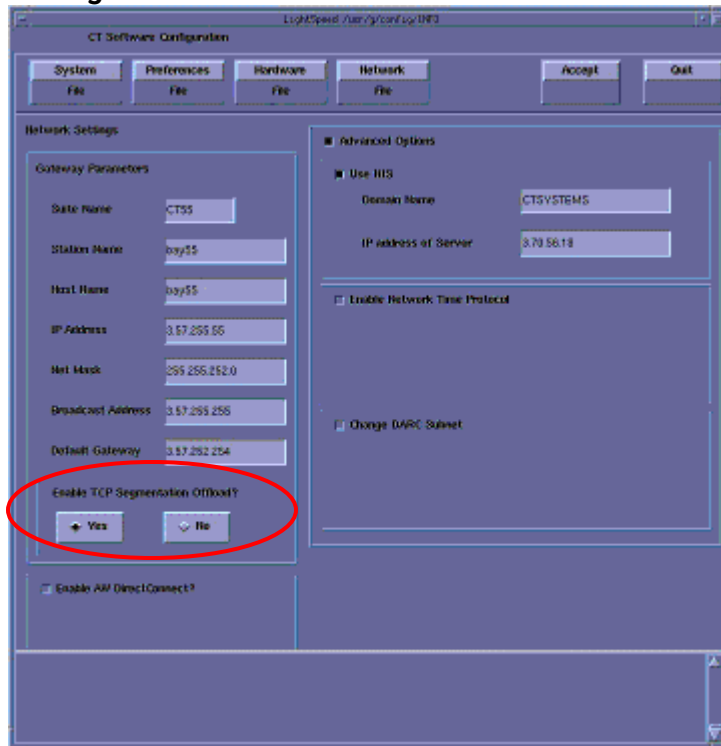
7. Select the **[Network]** tab.
8. At this time, you can set the **Station Name**. *Station Name* is now an editable field. If your customer requires a specific *Station Name* for network purposes, it should be set now. Consult with your customer and set accordingly using the guidelines below. For most cases the *Station Name* default value (Host Name) is used. Please refer to **Appendix D - Language Reconfig and Station Name** for an illustration of the *Station Name* setup. If no special *Station Name* setting is required, proceed to step 9.

Station Name Guidelines:

- The *Station Name* identifies the text that will be stored in the DICOM attribute "Station Name" (DICOM TAG 0008,1010) in all CT images created. Some pacs systems may use the *Station Name* attribute or system tracking for identification of the scanner where the CT images were generated. Typically, the Host Name and *Station Name* will be the same.
- *Station Name* MUST NOT exceed 16 Characters
- *Station Name* MUST only contain the following characters: a through z, A through Z, 0 through 9, - and _
- *Station Name* MUST contain at least one Alpha Character (a through z OR A through Z) or Special Character (- OR _)
- *Station Name* will default to the Host Name if left blank.

NOTE: A new field is available labeled *Enable TCP Segmentation Offload*. This setting was added for sites that were seeing an extremely slow transfer of images to PACS systems. Earlier in the procedure, the TCP Segmentation Offload settings were noted. The default setting is "Yes" meaning that TCP Segmentation Offload is on.

9. Verify the TCP Segmentation Offload settings are the same as they were in the **TCP Segmentation Offload Check** section.



10. Select the **Accept** tab in the top right corner.
11. When prompted to reboot, select **Yes**.

NOTE: Please wait until Reboot is completely finished before moving on to the next step.
NOTE: The Gantry must be connected to the Operator Console during the reboot process.

3.3.9 Restore HIPPA Configuration

The following command will restore the configuration file that holds the users HIPPA account information.

1. Before starting applications, become root
 - a. As ctuser, type: **su - <ENTER>**
 - b. Password: **#bigguy <ENTER>**

NOTE: This file is different for different systems. If not sure of system, type **swhwinfo** to get software and gantry info.

2. Restore HIPPA User Configurations based on the system type below:
 - a. For 07MW11.10 (HP) & 07BW08.4:
 - i. As root, type: `cd /etc <ENTER>`
 - ii. Type: `cp _ea3.config.pre_07MW11.10_07BW08.4_GEHCSERVICEPACK2.0-2-26 ea3.config <ENTER>`
Output Displayed: `cp: overwrite 'ea3.config'?`
 - iii. Type: `y <ENTER>`

3.3.10 Update AutoSC IP Addresses

NOTE: If system has not completed InSite Checkout, the **ConfigLink** command will not work correctly. If this is the case, this section can be skipped at this time, but the system should complete InSite Checkout as soon as possible.

1. Applications should still be down.
2. Open a Unix Shell.
3. If not root, become root:
 - a. As ctuser, type: `su - <ENTER>`
 - b. Password: `#bigguy <ENTER>`
4. Type: `cd /usr/g/insite <ENTER>`
5. Type: `ConfigLink <ENTER>`
Wait until "OK" appears and command line returns.

3.3.11 Verify Exam Split Option Installed

NOTE: This section should only be performed on systems with Exam Split Option installed. Please refer to the mode of Exam Split that was recorded during the "Check Exam Split" section earlier to reset Exam Split.

1. Verify Application software is down. If Application software is not down, select **[Application Shutdown]** under the Common Service Desktop **[Utilities]** tab.
2. Open a Unix Shell.
3. As ctuser, type: `~/ves_pkg/setup.ves <ENTER>`

NOTE: If the script does not work, type: `cd /usr/g/scripts <ENTER>` and then retype the above script.

4. A message similar to the following will be displayed:
Copying ves files ...
Setting permissions ...
Adding browser button ...

```
SDCHOME = /usr/g/ctuser
Found installed Exam Split button
```

```
setenv PATH ${PATH}:${SDCHOME}/ves
already exists in /usr/g/ctuser/.SdCrc
```

Done ...

5. If the Exam Split mode installed recorded previously is HES, perform the following:
 - a. Type: `changesplit_mode HES <ENTER>`

6. Check the Exam-Split version:
 - a. Type: **runves --version <ENTER>**
 Output should be as follows:
ExamSplit Version is ExamSplit_20080722
7. If this does not match the version of Exam Split, de-install the option and reinstall it via eLiscence or the Options DVD onsite.

3.3.12 Verify DENTASCAN Option Installed

1. Check if **DENTASCAN** option is installed on the system:
 - a. As ctuser, type: **swokinstall -p <ENTER>**

The list of all options installed on the system will be displayed. Please look for **DENTASCAN**. If **DENTASCAN** is NOT installed on the system, skip step 2 and move on to step 3; if **DENTASCAN** is installed, perform the following command:

2. Type: **installcamera.denta <ENTER>**
3. Start Applications, type: **startup <ENTER>**
4. Remove the Service Pack 3 DVD from the Host Computer DVD drive tray.

NOTE: If the system you are working on is an H-Power system with TGP board part# 2290138-0500, proceed to section **3.3.13 Gantry Reset (H-Power systems with TGP board part # 2290138-0500)**; otherwise, proceed to section **3.3.14 Flash Download**.

3.3.13 Gantry Reset (H-Power systems with TGP board part # 2290138-0500)

This section is required for **H-Power systems with TGP board part number 2290138-0500**. Follow the steps below to manually reset the gantry:

1. Check to verify that the system is equipped with TGP board part number 2290138-0500:
 - a. As ctuser, type: **rlogin tgp <ENTER>**
 - b. Type: **print_cpu_board_revision <ENTER>**
 Output displayed:
PartNo: 2290138-0500 (Variation:5 Revision:0)
value = 46 = 0x2e = '.'
 - c. To exit, type: **logout <ENTER>**

NOTE: If your TGP board part number matches the board above, continue with the steps in this section; otherwise, skip the remainder of this section and proceed to **3.3.14 Flash Download**.

2. Remove gantry covers as required
3. Turn **OFF** the **Axial Drive** and **HVDC** switches on the Service Switch Panel.
4. Turn **OFF** the **120VAC** switch on the Service Switch Panel.
5. Turn the **120VAC** switch on the Service Switch Panel back **ON**.
6. Turn the **Axial Drive** and **HVDC** switches on the Service Switch Panel back **ON**.
7. Push the **reset button on the control panel on the front of the gantry**.
8. Proceed to the next section to perform Flash Download.

3.3.14 Flash Download

1. Select the Common Service Desktop icon.
2. Select **[Utilities]**.

NOTE: For some systems **[Install]** needs to be selected after selecting **[Utilities]**.

3. Select **[Flash Download Tool]**.
4. Select **[Query]**.
5. Select **[Update]**.
6. If necessary, enter the Collimator Serial Number and select **[Accept]** if a pop-up appears.
7. If Flash Download is unsuccessful, perform hardware reset, then try Flash Download tool again.
8. Once the Gantry Hardware Flash Downloads successfully, select **[Dismiss]**.

3.3.15 Filament Calibration

IMPORTANT INFORMATION:

If this is a LFC or reload of software, and this was done with the original Service Pack 2.0 load, there may be DVD with a saved “**SP2 System State**” or “**SP3 System State**” on site. If you have a “**SP System State**”, this section does **NOT** need to be completed.

Restore the saved SP System State to restore the calibration settings and continue with section **3.3.16 Sanity Scans**.

1. Select **[Generator Tool - JEDI]** under the Common Service Desktop **[Diagnostics]** tab.
2. Select **[Initialize Database]**.
3. Verify that “Initialize Database” was successful.
4. Insert the “**Before SP2**” System State DVD-RAM into the SCSI Tower DVD drive.
5. Wait until the DVD drive is ready (i.e., front panel DVD drive LED is no longer lit).
6. Select **[System State]** under the Common Service Desktop **[Utilities]** tab.
7. Select **[Characterization]** to restore JEDI database parameters.
8. Select **[Restore]**.
9. Select **[Yes]**.
10. Verify that the “Restore” of the System State was successful. A message at the end of the Restore should be displayed.
Save/ Restore System State; Completed Successfully.
11. Select **[Generator Tool – JEDI]** under the Common Service Desktop **[Diagnostics]** Tab.
12. Select **[Restore Runtime Parameters]**.
13. Select **[OK]**.
14. Verify that Restore Runtime Parameters was successful. A message at the end of the Save should be displayed.
Runtime Parameters successfully restored to Generator.
15. When completed, select **[OK]**.
16. Select **[Filament Cal]**.
17. Select **[Scan]**.
18. Verify that “Filament Cal” was successful.
19. Select **[HHS Scan]**. You will need a service key to perform HHS scan.
20. Verify that “HHS Scan” was successful.

3.3.16 Sanity Scans

1. Perform a Scout scan.
2. Perform a Helical or Axial scan (20 minimum slices).
3. Verify that the scans perform successfully.
4. Please note the exam number of the sanity scans. This will be recorded during debrief.

3.3.17 Save System State

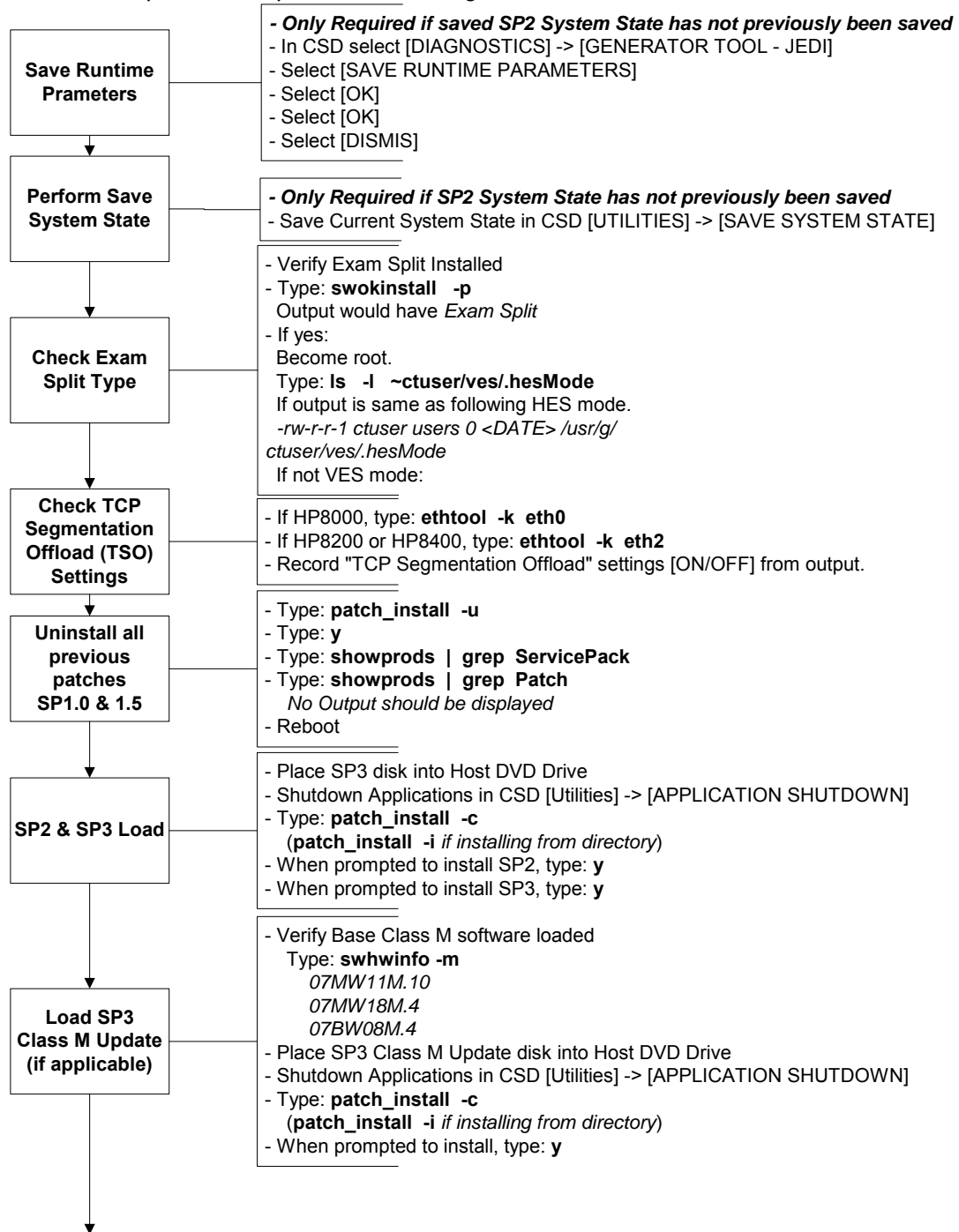
1. Insert the second System State DVD-RAM (label it "**SP3 System State**") into the SCSI Tower DVD drive.
2. Wait until the DVD drive is ready (i.e., front panel DVD drive LED is no longer lit).
3. Select **[System State]** under the Common Service Desktop **[Utilities]** tab.
4. Select **[All]**.
5. Select **[Save]**.
6. Select **[Yes]**.
7. Verify that the 'Save' of the System State was successful. If not, save the System state again. A message at the end of the Save is displayed:
Save/ Restore System State; Completed Successfully.
8. When completed, select **[Cancel]**.
9. When completed select **[Dismiss]**.
10. Close the Common Service Desktop window.
11. If this procedure is being executed during the installation of a FMI, please return to the Finishing Up section of the FMI Instructions at this time.

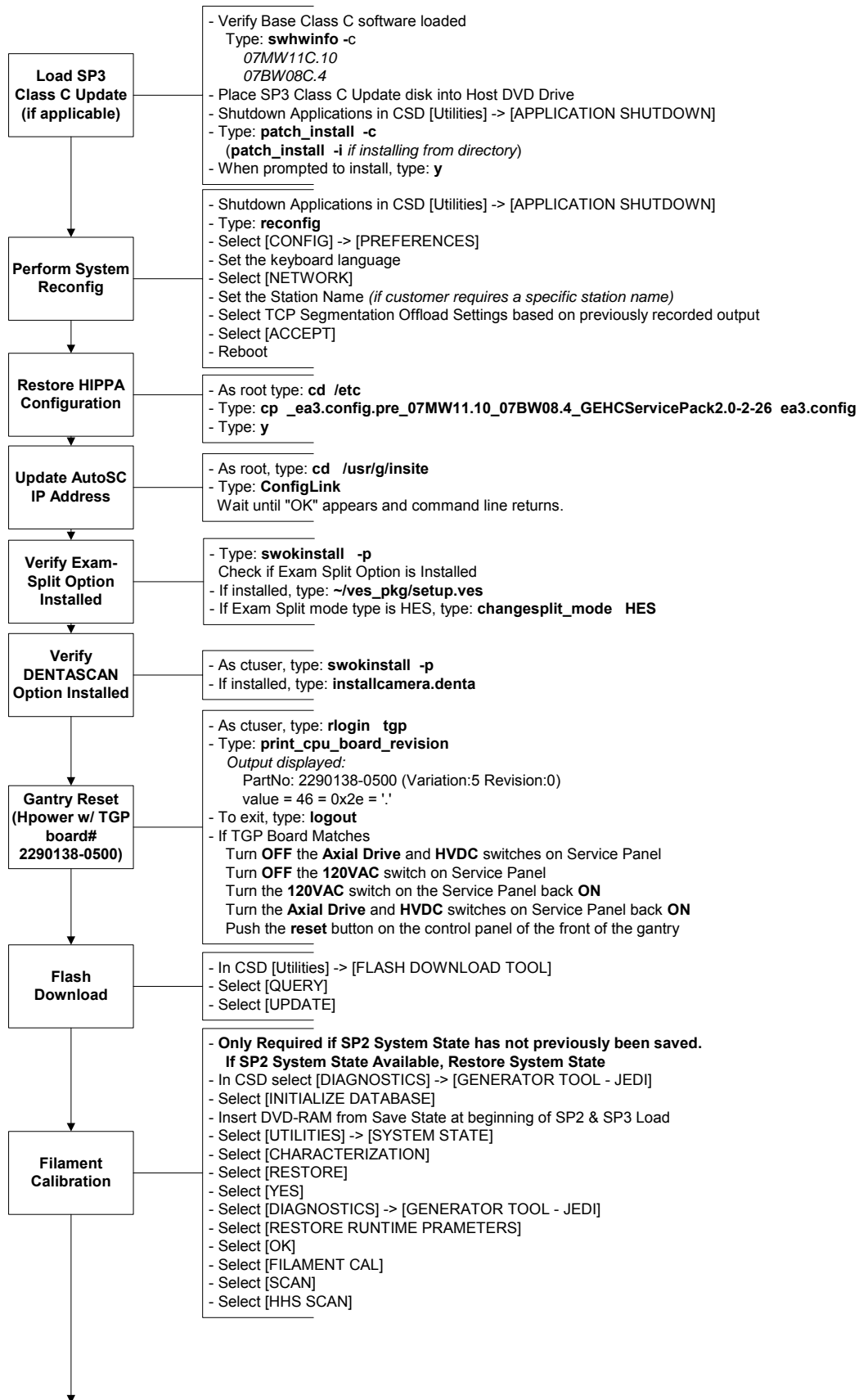
3.4 BrightSpeed Select

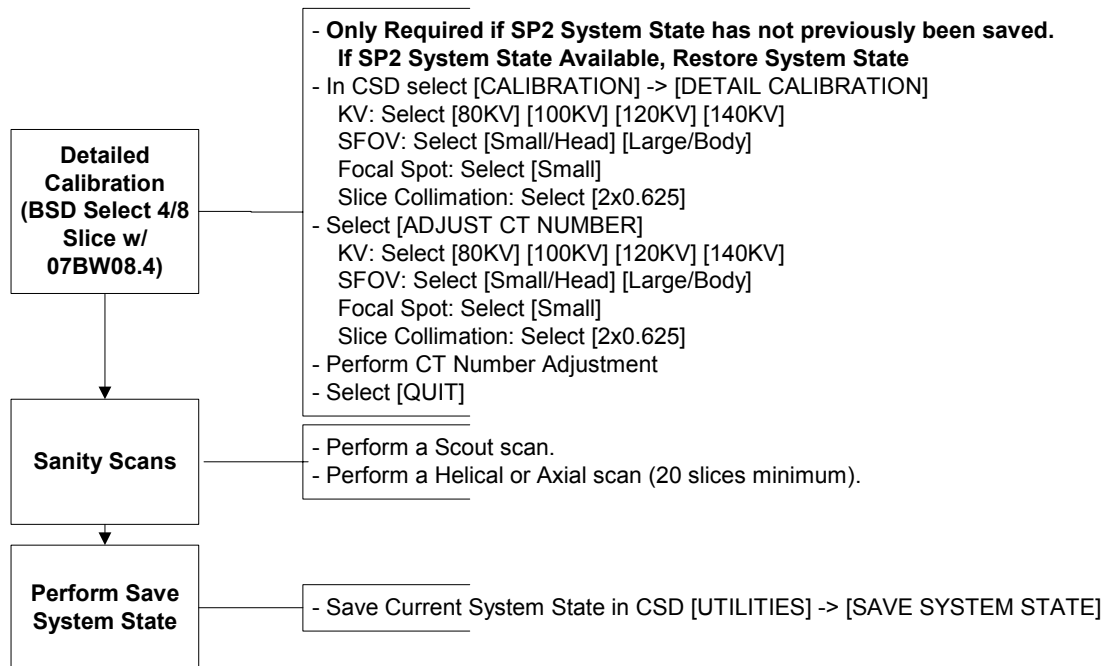
This section outlines the steps necessary to install Service Pack 2.0 & 3.0 on a **BrightSpeed Select** system. If your system is different, please refer to the table of contents for the appropriate section.

3.4.1 Service Pack 2.0 & 3.0 Quick Installation Guide

This section provides a quick installation guide for Service Pack 2.0 & 3.0 combined load.







3.4.2 Filament Calibration (Save Runtime Parameters)

The Service Pack2 update will update JEDI application firmware for BSD-Select systems. This means that JEDI database will be initialized. To avoid losing JEDI database parameters, Save Runtime Parameters of JEDI Tool needs to be performed using the following steps:

IMPORTANT INFORMATION:

If this is being done as part of a Load From Cold (LFC) and SP2 was performed prior to system needing a LFC, Saving Runtime Parameters may not be needed. If there is a Save State DVD on site labeled, "**SP2 System State**" or "**SP3 System State**", you will not need to perform the steps in this section, as you will restore the "**SP System State**" with calibration data after completion of the SP load. Proceed to section **3.4.4 Check Exam Split Type**. If no SP2 System State is available, continue here with step 1.

1. Select [**Generator Tool – JEDI**] under the Common Service Desktop [**Diagnostics**] tab.
2. Select [**Save Runtime Parameters**]
3. Select [**OK**]
4. Verify that Save Runtime Parameters was successful. A message at the end of the Save should be displayed.
Runtime Parameters successfully saved to console hard drive.
5. When completed, select [**OK**]
6. Select [**Dismiss**]

Save System State is needed to restore JEDI database parameters after Service Pack 2 installation.

3.4.3 Save System State

1. Insert the first System State DVD-RAM (label it "**Before SP2**") into the SCSI Tower DVD drive.
2. Wait until the DVD drive is ready (i.e., front panel DVD drive LED is no longer lit).
3. Select **[System State]** under the Common Service Desktop **[Utilities]** tab.
4. Select **[All]**.
5. Select **[Save]**.
6. Select **[Yes]**.
7. Verify that the 'Save' of the System State was successful. If not, save the System state again. A message at the end of the Save is displayed:
Save/Restore System State; Completed Successfully.
8. When completed, select **[Cancel]**.
9. When completed select **[Dismiss]**.

3.4.4 Check Exam Split Type

Service Pack 3.0 includes updates to the Exam Split Option. In this section, a check for the type of *Exam Split* running needs to be determined and will be needed later when Exam Split is updated.

1. Open a Unix Shell.
2. Verify the Exam Split Option is installed.
 - a. As ctuser, type: **swoinstall -p <ENTER>**
 - b. Verify output contains *Exam Split*
3. If output contains *Exam Split*, perform the following steps to determine the type installed.
4. Become root.
 - a. Type: **su - <ENTER>**
 - b. Type: **#bigguy <ENTER>**
5. As root, type: **ls -l ~ctuser/ves/.hesMode <ENTER>**
If results are similar to the following, HES (Hard Exam Split) mode is configured:
-rw-r--r-- 1 ctuser users 0 <DATE> /usr/g/ctuser/ves/.hesMode
6. If output is the same as above, record the mode as HES; else, record the mode as VES.

3.4.5 TCP Segmentation Offload Check

After the release of 07MW11.10 and 07MW18.4 (FMI 25389 and 25394), some sites were experiencing a slow transfer of images to the PACS system. A workaround was developed to change the TCP Segmentation Offload setting. With the release of SP3, TCP settings can be set in Config menu. In this section, the current setting will need to be noted so the correct settings are kept for the site after the SP 3.0 software load.

1. Open a Unix shell.
2. Become root:
 - a. Type: **su - <ENTER>**
 - b. Password: **#bigguy <ENTER>**

NOTE: This section differs based on whether there is a HP8000 or HP8200/HP8400 on site. If this is being done remotely and you can't look and verify the version of the HP computer, follow step 3 to determine your HP type.

3. To determine the HP version on the system, type: `lhin v <ENTER>`

The first line of the output will be similar to the following:

`CPU: GenuineIntel Inte® Xeon® CPU 5130 @ 2.00GHz`

HP Version	Processor Speed
HP8000	2.66 GHz
HP8200	3.2 GHz
HP8400	2.00 GHz

NOTE: `eth0` is for HP8000. If the site has a HP8200 or HP8400, the command will be `eth2`.

4. As root, type: `ethtool -k eth0 <ENTER>`

Output will display similar to as follows:

Offload parameters for eth2:

rx-checksumming: on

tx-checksumming: on

scatter-gather: on

tcp segmentation offload: off (**This field defines the TCP Segmentation Offload settings**)

5. Take note of the TCP Segmentation Offload settings, as this will be used later in the procedure.

3.4.6 Uninstalling previous Service Packs and Patches

The Service Pack will not be able to install successfully if **BSD Lite M4 Patch/Service Pack 1.0/Service Pack 1.5** is installed on the system. Additionally, Application software must be down to install or uninstall the Service Pack.

NOTE: If this is being done as part of a Load From Cold (LFC), there will be no previous patches on this system. You can skip this section and move ahead **Installing Service Pack 2.0 & 3.0**; else, proceed with this section and verify all previous patches and service packs are removed.

1. Verify whether any previous Service Packs/Patches are already installed on the system:
 - a. Type: `showprods | grep ServicePack <ENTER>`
 - b. Type: `showprods | grep Patch <ENTER>`
2. If no output is displayed by the two commands above, proceed to section **Installing Service Pack 2.0 & 3.0**, otherwise proceed to step 3.
3. Verify Application software is down. If Application software is not down, select **[Application Shutdown]** under the Common Service Desktop **[Utilities]** tab. Wait approximately 1-2 minutes for Application software to go down.
4. Open a Unix Shell.
5. Become root:
 - a. Type: `su - <ENTER>`
 - b. Password: `#bigguy <ENTER>`
6. As root on the Host, type: `patch_install -u <ENTER>`
7. To uninstall all existing patches type: `y <ENTER>`
8. Verify that all the previous Service Packs and Patches uninstalled correctly:
 - a. Type: `showprods | grep ServicePack <ENTER>`
 - b. Type: `showprods | grep Patch <ENTER>`No output should be displayed by these commands.

9. Perform reboot command to restart the console:
 - a. Type: **reboot** <ENTER>
10. After reboot, select [CANCEL] to stop Applications from starting.

3.4.7 Installing Service Pack 2.0 & 3.0

1. Insert the Service Pack 3 DVD into the Host DVD drive.
2. Open a Unix Shell.
3. Verify that the following base software version is installed:
 - a. As ctuser, type: **swhwinfo -v** <ENTER>
07BW.08.4
4. Verify the current keyboard language.
 - a. As ctuser, type: **more /etc/sysconfig/keyboard** <ENTER>
Output Displayed: KEYBOARDTYPE="pc"
KEYTABLE="us"
(Sample output only. Output will vary based on keyboard language). **PLEASE NOTE THE KEYBOARD LANGUAGE DENOTED BY THE "KEYTABLE" ENTRY IN THE OUTPUT DISPLAYED. THE KEYBOARD LANGUAGE SELECTION WILL BE NEEDED LATER.**
5. Verify Application software is down. If Application software is not down, select [Application Shutdown] under the Common Service Desktop [Utilities] tab.
6. Wait approximately 1-2 minutes for Application software to go down
7. Become root:
 - a. As ctuser, type: **su -** <ENTER>
 - b. Password: **#bigguy** <ENTER>
8. Install Service Pack 2 & 3
 - a. As root, type: **patch_install -c** <ENTER>
(use **patch_install -i** if installing SP2 from software download directory. See Appendix E for more info on downloads)
Wait for the following prompt to display before moving on: "**I will install 07BX.XX_GEHCSERVICEPACK2.0 from CDROM, is this ok? [y/n]**"
9. Type: **y** <ENTER>

NOTE: If the Service Pack installation command fails to install from DVD, type the **start_udev** command (wait 15 seconds after the OK), and retry the Service Pack installation command.

10. The load will take approximately **5-10 minutes**. The following output is displayed:

NOTE: Output displayed will vary based on software version.
07BW08.4_Gantry Info_GEHCSERVICEPACK2 update has been successfully installed.

11. You will next see the following prompt:
"**I will install 07BXX.XX_GEHCSERVICEPACK3.0 from CDROM, is this ok? [y/n]**"

12. Type: **y** <ENTER>

13. The load will take approximately **3-10 minutes**. The following output is displayed:

NOTE: Output displayed will vary based on software version.
07BW08.4_Gantry Info_GEHCSERVICEPACK3 update has been successfully installed.

14. If the site is loaded with Class M software, install the Service Pack 3.0 Class M software Update. Refer to CD P/N 5334119 and Document P/N 5334119-1EN.

15. If the site is loaded with Class C software, install the Service Pack 3.0 Class M software Update. Refer to CD P/N 5334118 and Document P/N 5334118-1EN.

16. Verify that the Service Pack loaded correctly:

a. Type: **showprods | grep ServicePack <ENTER>**

NOTE: Output displayed will vary based on software version.

07BW08.4_Gantry Info_GEHCSERVICEPACK2.0 DATE 07MW11.10_Gantry Info Service Pack 2 ver 2 rel 2.26

07BW08.4_Gantry Info_GEHCSERVICEPACK3 DATE 07MW11.10_Gantry Info Service Pack 3.0 ver 3 rel 3.11

If the Class C and/or Class M Software patch are installed, you will also see the following output.

07MW11.10_07BW08.4_CLASSC_GEHCSERVICEPACK3.0 DATE
07MW11.10_07BW08.4_CLASSC GEHCSERVICEPACK3.0 ver 3 rel 3.11

07MW11.10_07BW08.4_CLASSM_GEHCSERVICEPACK3.0 DATE
07MW11.10_07BW08.4_CLASSM GEHCSERVICEPACK3.0 ver 3 rel 3.11

3.4.8 Perform System Reconfig

1. Open a Unix Shell.
2. Verify Application software is down. If Application software is not down, select **[Application Shutdown]** under the Common Service Desktop **[Utilities]** tab.
3. Become root:
 - a. As ctuser, type: **su - <ENTER>**
 - b. Password: **#bigguy <ENTER>**
4. As root on the Host, type: **reconfig <ENTER>**
5. Select **[config]**.
6. It is now necessary to set the appropriate keyboard language based on the setting before Service Pack 2. The **[Preferences]** tab will be displayed. Set the **Keyboard Selection** field based on the keyboard language recorded in section **Installing Service Pack 2.0 and 3.0**, step 4. Select the appropriate keyboard language from the **[Preferences]** tab GUI by referring to the table below:

English	"us"
French	"fr"
German	"de"
Italian	"it"
Spanish	"es"
Swedish	"sv"
Portuguese (Brazilian)	"br"

WARNING: DO NOT SELECT ONE OF THE FOLLOWING KEYBOARD SELECTIONS UNLESS YOU HAVE THE CORRESPONDING KEYBOARD: DANISH, EUROPEAN PORTUGUESE, DUTCH, AND NORWEGIAN.

7. Select the **[Network]** tab.

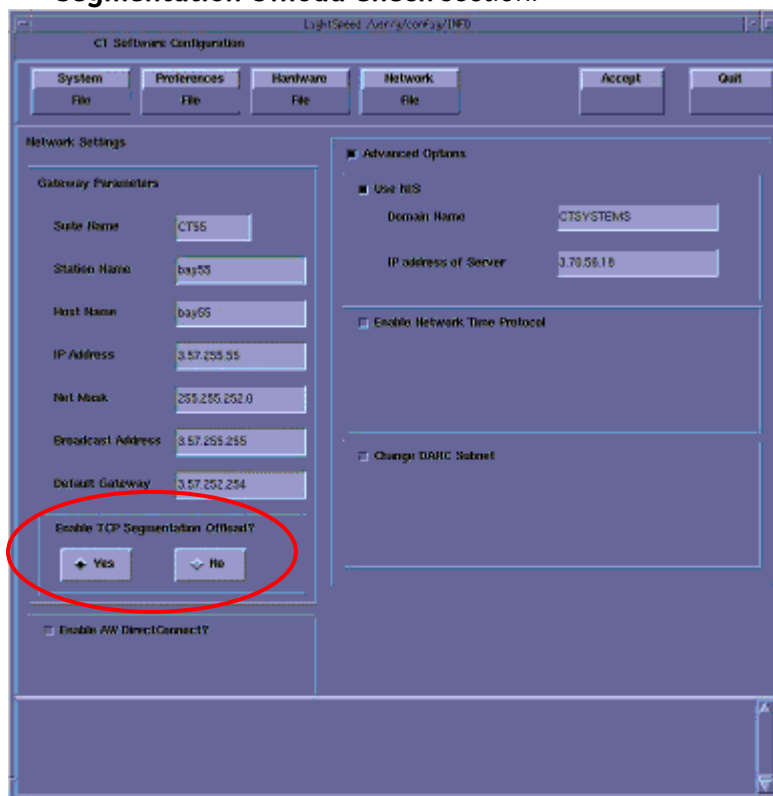
- At this time, you can set the **Station Name**. *Station Name* is now an editable field. If your customer requires a specific *Station Name* for network purposes, it should be set now. Consult with your customer and set accordingly using the guidelines below. For most cases the *Station Name* default value (Host Name) is used. Please refer to **Appendix D - Language Reconfig and Station Name** for an illustration of the Station Name setup. If no special *Station Name* setting is required, proceed to step 9.

Station Name guidelines:

- The *Station Name* identifies the text that will be stored in the DICOM attribute "Station Name" (DICOM TAG 0008,1010) in all CT images created. Some pacs systems may use the Station Name attribute or system tracking for identification of the scanner where the CT images were generated. Typically, the Host Name and Station Name will be the same.
- Station Name* MUST NOT exceed 16 Characters
- Station Name* MUST only contain the following characters: a through z, A through Z, 0 through 9, - and _
- Station Name* will default to the Host Name if left blank.

NOTE: A new field is available labeled **Enable TCP Segmentation Offload**. This setting was added for sites that were seeing an extremely slow transfer of images to PACS systems. Earlier in the procedure, the TCP Segmentation Offload settings were noted. The default setting is "Yes" meaning that TCP Segmentation Offload is on.

- Verify the TCP Segmentation Offload settings are the same as they were in the **TCP Segmentation Offload Check** section.



- Select the **Accept** tab in the top right corner.
- When prompted to reboot, select **Yes**.

NOTE: Please wait until Reboot is completely finished before moving on to the next step.

NOTE: The Gantry must be connected to the Operator Console during the reboot process.

3.4.9 Restore HIPPA Configuration

The following commands will restore the configuration file that holds the users HIPPA account information.

1. Before starting applications, become root
 - a. As ctuser, type: **su - <ENTER>**
 - b. Password: **#bigguy <ENTER>**

NOTE: This file is different for different systems. If not sure of system, type **swhwinfo** to get software and gantry info.

2. Restore HIPPA User Configurations based on the system type below:
 - a. For **07MW11.10 (HP) & 07BW08.4:**
 - i. As root, type: **cd /etc <ENTER>**
 - ii. Type: **cp _ea3.config.pre_07MW11.10_07BW08.4_GEHCSERVICEPACK2.0-2-26 ea3.config <ENTER>**
Output Displayed: **cp: overwrite 'ea3.config'?**
 - iii. Type: **y <ENTER>**

3.4.10 Update AutoSC IP Addresses

NOTE: If system has not completed InSite Checkout, the **ConfigLink** command will not work correctly. If this is the case, this section can be skipped at this time, but the system should complete InSite Checkout as soon as possible.

1. Applications should still be down.
2. Open a Unix Shell.
3. If not root, become root:
 - a. As ctuser, type: **su - <ENTER>**
 - b. Password: **#bigguy <ENTER>**
4. Type: **cd /usr/g/insite <ENTER>**
5. Type: **ConfigLink <ENTER>**
Wait until "OK" appears and command line returns.

3.4.11 Verify Exam Split Option Installed

NOTE: This section should only be performed on systems with Exam Split Option installed. Please refer to the mode of Exam Split that was recorded during the "Check Exam Split" section earlier to reset Exam Split.

1. Verify Application software is down. If Application software is not down, select **[Application Shutdown]** under the Common Service Desktop **[Utilities]** tab.
2. Open a Unix Shell.
3. As ctuser, type: **~/ves_pkg/setup.ves <ENTER>**

NOTE: If the script does not work, type: **cd /usr/g/scripts <ENTER>** and then retype the above script.

4. A message similar to the following will be displayed:

*Copying ves files ...
Setting permissions ...
Adding browser button ...*

*SDCHOME = /usr/g/ctuser
Found installed Exam Split button*

*setenv PATH \${PATH}:\${SDCHOME}/ves
already exists in /usr/g/ctuser/.SdCrc*

Done ...

5. If the Exam Split mode installed recorded previously is HES, perform the following:
 - a. Type: **changesplit_mode HES <ENTER>**
6. Check the Exam-Split version:
 - a. Type: **runves --version <ENTER>**
Output should be as follows:
ExamSplit Version is ExamSplit_20080722
7. If this does not match the version of Exam Split, de-install the option and reinstall it via eLiscence or the Options DVD onsite.

3.4.12 Verify DENTASCAN Option Installed

1. Check if **DENTASCAN** option is installed on the system:
 - a. As ctuser, type: **swokinstall -p <ENTER>**

The list of all options installed on the system will be displayed. Please look for **DENTASCAN**. If **DENTASCAN** is NOT installed on the system, skip step 2 and move on to step 3; if **DENTASCAN** is installed, perform the following command:

2. Type: **installcamera.denta <ENTER>**
3. Start Applications, type: **startup <ENTER>**
4. Remove the Service Pack 3 DVD from the Host Computer DVD drive tray.

NOTE: If the system you are working on is an H-Power system with TGP board, part# 290138-0500, proceed to section **3.4.10 Gantry Reset (H-Power systems with TGP board part# 2290138-0500)**, otherwise proceed to section **3.4.14 Flash Download**.

3.4.13 Gantry Reset (H-Power systems with TGP board part # 2290138-0500)

This section is required for H-Power systems with TGP board part number 2290138-0500.

Follow the steps below to manually reset the gantry:

1. Check to verify that the system is equipped with TGP board part number 2290138-0500:
 - a. As ctuser, type: **rlogin tgp <ENTER>**
 - b. Type: **print_cpu_board_revision <ENTER>**

Output displayed:

PartNo: 2290138-0500 (Variation:5 Revision:0)

value = 46 = 0x2e = '.'

- c. To exit, type: **logout <ENTER>**

NOTE: If your TGP board part number matches the board above, continue with the steps in this section; otherwise, skip the remainder of this section and proceed to **3.4.14 Flash Download**.

2. Remove gantry covers as required
3. Turn **OFF** the **Axial Drive** and **HVDC** switches on the Service Switch Panel.
4. Turn **OFF** the **120VAC** switch on the Service Switch Panel.
5. Turn the **120VAC** switch on the Service Switch Panel back **ON**.
6. Turn the **Axial Drive** and **HVDC** switches on the Service Switch Panel back **ON**.
7. Push the **reset** button on the control panel on the front of the gantry.
8. Proceed to next section to perform Flash Download.

3.4.14 Flash Download

1. Select the Common Service Desktop icon.
2. Select **[Utilities]**.

NOTE: For some systems **[Install]** needs to be selected after selecting **[Utilities]**.

3. Select **[Flash Download Tool]**.
4. Select **[Query]**.
5. Select **[Update]**.
6. If necessary, enter the Collimator Serial Number and select **[Accept]** if a pop-up appears.
7. If Flash Download is unsuccessful, perform hardware reset, then try Flash Download tool again.
8. Once the Gantry Hardware Flash Downloads successfully, select **[Dismiss]**.

3.4.15 Filament Calibration

IMPORTANT INFORMATION:

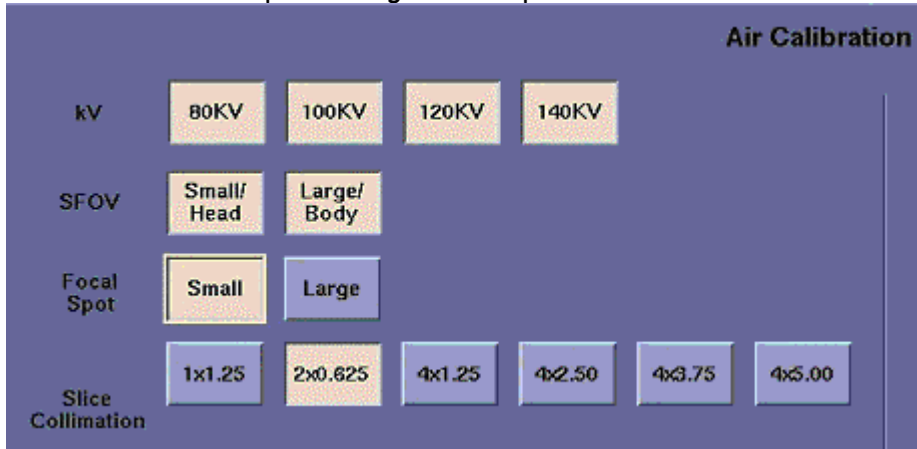
If this is a LFC or reload of software, and this was done with the original Service Pack 2.0 load, there may be DVD with a saved “**SP2 System State**” or “**SP3 System State**” on site. If this is the case, this section does **NOT** need to be completed. You can do a restore of the saved SP System State to restore the calibration settings. Then continue with **3.4.17 Sanity Scans**. If no SP System State exists, continue here with step 1.

1. Select **[Generator Tool - JEDI]** under the Common Service Desktop **[Diagnostics]** tab.
2. Select **[Initialize Database]**.
3. Verify that “Initialize Database” was successful.
4. Insert the “**Before SP2**” System State DVD-RAM into the SCSI Tower DVD drive.
5. Wait until the DVD drive is ready (i.e., front panel DVD drive LED is no longer lit).
6. Select **[System State]** under the Common Service Desktop **[Utilities]** tab.
7. Select **[Characterization]** to restore JEDI database parameters.
8. Select **[Restore]**.
9. Select **[Yes]**.
10. Verify that the “Restore” of the System State was successful. A message at the end of the Restore should be displayed.
Save/ Restore System State; Completed Successfully.
11. Select **[Generator Tool - JEDI]** under the Common Service Desktop **[Diagnostics]** Tab.
12. Select **[Restore Runtime Parameters]**.
13. Select **[OK]**.
14. Verify that Restore Runtime Parameters was successful. A message at the end of the Save should be displayed.
Runtime Parameters successfully restored to Generator.
15. When completed, select **[OK]**.
16. Select **[Filament Cal]**.
17. Select **[Scan]**.
18. Verify that “Filament Cal” was successful.
19. Select **[HHS Scan]**. You will need a service key to perform HHS scan.
20. Verify that “HHS Scan” was successful.

3.4.16 Detail Calibration (BrightSpeed Select 4 and 8 slice systems only with 07BW08.4 software)

1. Select **[Calibration]** from the Common Service Desktop menu.
2. Select **[Detail Calibration]**.

- After gantry balance check completes, select desired techniques needed to perform detailed calibration processing. Refer to picture below:



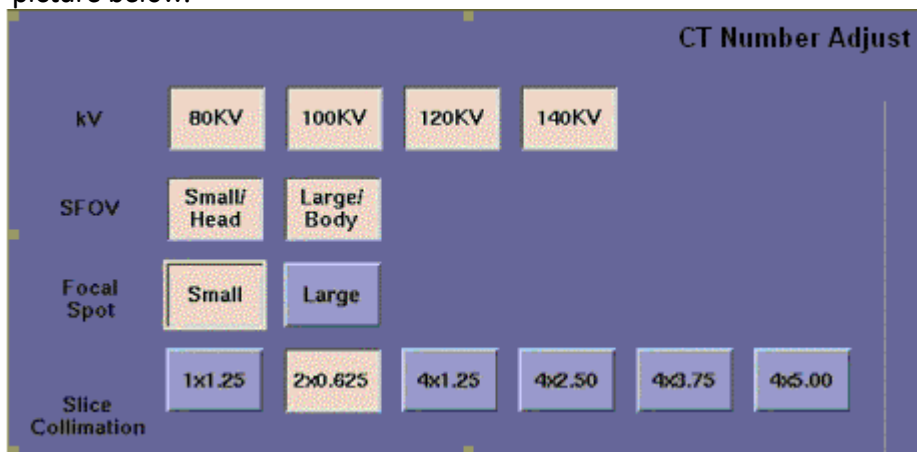
kV: select 80KV/100KV/120KV/140KV

SFOV: Select Small/Head and Large/Body

Focal Spot: Select Small

Slice Collimation: Select 2x0.625

- Perform the calibration process following the instructions on screen. It'll take approximate 20 minutes to complete the calibration.
- Select **[Adjust CT Number]**.
- Selected desired techniques needed to perform detailed calibration processing. Refer to picture below:



kV: select 80KV/100KV/120KV/140KV

SFOV: Select Small/Head and Large/Body

Focal Spot: Select Small

Slice Collimation: Select 2x0.625

- Perform the CT number adjustment following the instructions on screen.
- After CT number adjustment completes, select **[Quit]**.

3.4.17 Sanity Scans

1. Perform a Scout scan.
2. Perform a Helical or an Axial scan (minimum 20 slices).
3. Verify that the scans perform successfully.
4. Please note the exam number of the sanity scans. This will be recorded during debrief.

3.4.18 Save System State

1. Insert the second System State DVD-RAM (label it "SP2 System State") into the SCSI Tower DVD drive.
2. Wait until the DVD drive is ready (i.e., front panel DVD drive LED is no longer lit).
3. Select **[System State]** under the Common Service Desktop **[Utilities]** tab.
4. Select **[All]**.
5. Select **[Save]**.
6. Select **[Yes]**.
7. Verify that the 'Save' of the System State was successful. If not, save the System state again. A message at the end of the Save is displayed:
Save/ Restore System State; Completed Successfully.
8. When completed, select **[Cancel]**.
9. When completed select **[Dismiss]**.
10. Close the Common Service Desktop window.
11. If this procedure is being executed during the installation of a FMI, please return to the Finishing Up section of the FMI Instructions at this time.

4. APPENDIX

4.1 Appendix A - Uninstalling Service Pack 3.0

This section outlines the steps necessary to uninstall Service Pack 3.0 if needed.

ATTENTION: Service Pack 3.0 supports the following:

1. New Languages for Application Software: (Dutch, Danish, Swedish, Norwegian, Finnish, and European Portuguese)
 - a. Advanced Vessel Analysis (AVA)
 - b. Colonography
 - c. DentaScan
 - d. CardIQ
 - e. CardEP
 - f. Autobone
2. Quality & Safety fixes (Check Tips and Workaround for additional information)

WARNING: Service Pack 3.0 contains numerous safety fixes. Removal of Service Pack 3.0 will require the customer to sign an FMI refusal form acknowledging potential consequences.

4.1.1 Check Exam Split Type

Service Pack 3.0 includes updates to the Exam Split Option. In this section, a check for the type of Exam Split running needs to be determined and will be needed later when Exam Split is updated.

1. Open a Unix Shell.
2. Verify the Exam Split Option is installed.
 - a. As ctuser, type: **swokinstall -p <ENTER>**
 - b. Verify output contains Exam Split
3. If output contains Exam Split, perform the following steps to determine the type installed.
4. As root, type: **ls -l ~ctuser/ves/.hesMode <ENTER>**
If results are similar to the following, HES (Hard Exam Split) mode is configured:
-rw-r--r-- 1 ctuser users 0 <DATE> /usr/g/ctuser/ves/.hesMode
5. If output is the same as above, record the mode as HES; else, record the mode as VES.

4.1.2 Uninstall Service Pack 3

NOTE: Service Pack 3 will not be able to uninstall successfully if Application software is up. Shut down applications by selecting **[Application Shutdown]** under the Common Service Desktop **[Utilities]** tab.

1. Open a Unix Shell
2. Become root:
 - a. As ctuser, type: **su - <ENTER>**
 - b. Password: **#bigguy <ENTER>**
3. As root on the Host type:
 - a. As root, type: **patch_install -u <ENTER>**
4. You will see the following prompt depending on software configuration:
I will uninstall update 07MW11.10_07BW08.4_GEHCSERVICEPACK3.0, is this ok? [y/n]
5. Type: **y <ENTER>**
6. You will see the following prompt depending on software configuration:
I will uninstall update 07MW11.10_07BW08.4_GEHCSERVICEPACK2.0, is this ok? [y/n]
7. Type: **n <ENTER>**

NOTE: If the site has the Service Pack 3 Class C Update or the Service Pack 3 Class M Update, you will be prompted to remove those as well. Follow steps 8 – 11 to remove CLASS M and Class C software. Else, move on to step 12.

8. You will see the following prompt depending on software configuration:
I will uninstall update 07MW11.10_07BW08.4_CLASSM_GEHCSERVICEPACK3.0, is this ok? [y/n]
9. Type: **y <ENTER>**
10. You will see the following prompt depending on software configuration:
I will uninstall update 07MW11.10_07BW08.4_CLASSC_GEHCSERVICEPACK3.0, is this ok? [y/n]
11. Type: **y <ENTER>**
12. Verify the Service Pack has uninstalled correctly by typing the following command and verifying no output is displayed:
 - a. Type: **showprods | grep ServicePack <ENTER>**

NOTE: Output displayed will vary based on software version.
07MW11.10_Gantry Info_GEHCSERVICEPACK2 DATE 07MW11.10_Gantry Info Service
Pack 2 ver x rel x.xx

13. To reboot the host, type: **reboot** <ENTER>

4.1.3 Flash Download

1. Select the Common Service Desktop icon.
2. Select **[Utilities]**.

NOTE: For some systems **[Install]** needs to be selected after selecting **[Utilities]**.

3. Select **[Flash Download Tool]**.
4. Select **[Query]**.
5. Select **[Update]**.
6. If necessary, enter the Collimator Serial Number and select **[Accept]** if a pop-up appears.
7. If Flash Download is unsuccessful, perform hardware reset, then try Flash Download tool again.
8. Once the Gantry Hardware Flash Downloads successfully, select **[Dismiss]**.

4.1.4 Update AutoSC IP Addresses

NOTE: If system has not completed InSite Checkout, the **ConfigLink** command will not work correctly. If this is the case, this section can be skipped at this time, but the system should complete InSite Checkout as soon as possible.

1. Applications should still be down.
2. Open a Unix Shell.
3. If not root, become root:
 - a. As ctuser, type: **su -** <ENTER>
 - b. Password: **#bigguy** <ENTER>
4. Type: **cd /usr/g/insite** <ENTER>
5. Type: **ConfigLink** <ENTER>
Wait until "OK" appears and command line returns.

4.1.5 Verify Exam Split Option Installed

NOTE: This section should only be performed on systems with Exam Split Option installed. Please refer to the mode of Exam Split that was recorded during the "Check Exam Split" section earlier to reset Exam Split.

1. Verify Application software is down. If Application software is not down, select **[Application Shutdown]** under the Common Service Desktop **[Utilities]** tab.
2. Open a Unix Shell.
3. As ctuser, type: **~/ves_pkg/setup.ves** <ENTER>

NOTE: If the script does not work, type: **cd /usr/g/scripts** <ENTER> and then retype the above script.

4. A message similar to the following will be displayed:

Copying ves files ...

Setting permissions ...

Adding browser button ...

SDCHOME = /usr/g/ctuser

Found installed Exam Split button

setenv PATH \${PATH}:\${SDCHOME}/ves

already exists in /usr/g/ctuser/.SdCrc

Done ...

5. If the Exam Split mode installed recorded previously is HES, perform the following:
 - a. Type: **changesplit_mode HES <ENTER>**
6. Check the Exam-Split version:
7. Type: **runves --version <ENTER>**
Output should be as follows:
ExamSplit Version is ExamSplit_20070425
8. If this does not match the version of Exam Split, de-install the option and reinstall it via eLiscence or the Options DVD onsite.
9. Start Applications
 - a. Type: **st <ENTER>**

4.1.6 Restore System State

1. Insert the “**SP2 System State**” System State DVD-RAM into the SCSI Tower DVD drive.
2. Wait until the DVD drive is ready (i.e., front panel DVD drive LED is no longer lit).
3. Select [**System State**] under the Common Service Desktop [**Utilities**] tab.
4. Select [**All**].
5. Select [**Restore**].
6. Select [**Yes**].
7. Verify that the “**Restore**” of the System State was successful. If not, Restore the System state again. A message at the end of the Restore should display:
Save/ Restore System State; Completed Successfully.
8. When completed, select [**Cancel**].
9. When completed select [**Dismiss**].

4.1.7 Sanity Scans

1. Perform a Scout scan.
2. Perform a Helical scan.
3. Perform an Axial scan.
4. Verify that the scans perform successfully.

4.2 Appendix B – Service Pack Installation From Software Download Directory

ATTENTION:

If you're installing Service Pack 3 from the download directory, make sure to verify the size of the file in the directory before proceeding. The file downloaded should be **128M** in size. If the file size is not correct, it is possible that the Service Pack did not download correctly. Please try to download again. To check the size of the file downloaded, use the following commands:

1. Type: `ls -al /usr/g/ctuser/sw_download/patches <ENTER>`
2. Output displayed will be similar to one of the following:

SW Version	Service Pack	File Size
07MW11.10	GEHCSERVICEPACK2.0-2-26.i386.rpm*	148672212
	GEHCSERVICEPACK3.0-3-11.i386.rpm*	128696349 (HP)
		128696244 (H1, H2)
	CLASSM_GEHCSERVICEPACKSP3.0-3-11.i386.rpm*	38312
	CLASSC_GEHCSERVICEPACKSP3.0-3-11.i386.rpm*	15738
07BW08.4	GEHCSERVICEPACK2.0-2-26.i386.rpm*	148672212
	GEHCSERVICEPACK3.0-3-11.i386.rpm*	128696349
	CLASSM_GEHCSERVICEPACKSP3.0-3-11.i386.rpm*	38312
	CLASSC_GEHCSERVICEPACKSP3.0-3-11.i386.rpm*	15738
07MW18.4	GEHCSERVICEPACK2.0-2-26.i386.rpm*	148672212
	GEHCSERVICEPACK3.0-3-11.i386.rpm*	130739820
	CLASSC_GEHCSERVICEPACKSP3.0-3-11.i386.rpm*	15292

This section is for those sites that should have Service Pack 3.0 auto-downloaded on the system, but **DO NOT**. The steps below describe the process of enabling the ProDiags and Auto-Download features:

3. Confirm that site is on the FMI 25411 Effectivity List
4. Verify that site is Broadband connected with Insite™ connectivity
5. Become root:
 - a. As ctuser, type: `su - <ENTER>`
 - b. Password: `#bigguy <ENTER>`
6. Check if ProDiags is already enabled:
 - a. As root, type: `crontab -l | grep -i prodiags <ENTER>`

If an output similar to the following is displayed, then ProDiags is already enabled. Skip steps 7 and 8, and proceed with step 9. If you **DO NOT** see a similar output, then ProDiags is **NOT** enabled; proceed to step 7:

```
1,16,31,46 * * * * /usr/g/insite/bin/cronWrapper /usr/g/insite/ProDiags/bin/proDiagsCheck >/dev/null 2>&1
```

7. Enable ProDiags to use the default schedule and task settings:
 - a. As root, type: `cd ~insite/ProDiags/bin <ENTER>`
 - b. Type: `pd_Install -auto <ENTER>`
8. Perform step 4 again to ensure that ProDiags was enabled successfully.
9. Open the Common Service Desktop
10. Select the **[Utilities]** tab
11. Select **[Update Management]**

NOTE: Service Key is required for onsite users to access Update Management Menu. Remote users coming in as onsite do not need a Service Key.

12. Toggle the **[Enable/Disable Auto Download]** button until Auto-Download is enabled. The following output will be displayed when Auto-Download is enabled:

"Auto Download of updates is enabled in this scanner"

13. Select **[Query Updates]**

14. If the system displays the Service Pack 3.0 update, select **[Download Updates]** to download Service Pack 3. After the download is completed, close the Common Service Desktop and return to the section you were previously working on.

15. You may get a message stating, "***there are no relevant updates available***". This may mean that:

- The software revision of the scanner is not compatible with the Service Pack, is not the current revision, or is not applicable.
- The Service Pack has already been loaded onto the scanner... check **/usr/g/ctuser/sw_download/patches** directory to see if it is already there.
- The System ID was not loaded into the download server. This may be because the System ID was not on the effectivity list. It may also be that the site is not truly Broadband connected. Finally, the System ID may have been accidentally missed during download.
- If you think the System ID should have been downloaded to the server but it isn't, contact FMI Admin to escalate to Service Engineering.

16. When you are finished with this appendix, please return to the section you were previously working on.

4.3 Appendix C - Uninstalling Service Pack 2.0

This section outlines the steps necessary to uninstall Service Pack 2.0 if needed.

ATTENTION: Service Pack 2.0 supports the following:

- 1) New ICOM (part# 2404320-2)
- 2) HP XW8400 Host Computer
- 3) New Languages: Dutch, Danish, Swedish, Norwegian, Finnish, and European Portuguese
- 4) Quality & Safety fixes (Check Release Notes for additional information)

WARNING: **Service Pack 2.0 contains numerous safety fixes. Removal of Service Pack 2.0 will require the customer to sign an FMI refusal form acknowledging potential consequences.**

4.3.1 Language Reconfig and Uninstall

This section outlines the steps necessary to uninstall Service Pack 2.

NOTE: Service Pack 2 will not be able to uninstall successfully if Application software is up. Shut down applications by selecting **[Application Shutdown]** under the Common Service Desktop **[Utilities]** tab.

ATTENTION:

If the system is configured in one of the 6 new languages supported by Service Pack 2 (i.e. Finnish, Dutch, Danish, Swedish, European Portuguese, Norwegian) a “**reconfig**” to English must be performed before uninstalling Service Pack 2. A reboot and a Save System State are always required after a Service Pack uninstall.

1. Open a Unix Shell
2. Become root:
 - a. As ctuser, type: **su - <ENTER>**
 - b. Password: **#bigguy <ENTER>**
3. As root, type: **reconfig <ENTER>**
4. Select **[config]**.
5. In the **[Preferences]** Tab, select **English** as the language.
6. Select **[Accept]** tab. When prompted to reboot, select **[Yes]**.
7. Open a Unix Shell
8. As root on the Host type: **patch_install -u <ENTER>**
9. When prompted to uninstall Service Pack 2, type: **y <ENTER>**
10. Verify the Service Pack has uninstalled correctly by typing the following command and verifying no output is displayed:
 - a. Type: **showprods | grep ServicePack**
No output is displayed
11. Reboot the console by typing: **reboot <ENTER>**

4.3.2 Flash Download

1. Select the Common Service Desktop icon.
2. Select **[Utilities]**.
3. Select **[Flash Download Tool]**.
4. Select **[Query]**.
5. Select **[Update]**.
6. If necessary, enter the Collimator Serial Number and select **[Accept]** if a pop-up appears.
7. If Flash Download is unsuccessful, perform hardware reset, then try Flash Download tool again.
8. Once the Gantry Hardware Flash Downloads successfully, select **[Dismiss]**.

4.3.3 Restore System State

1. Insert the "Before SP2" System State DVD-RAM into the SCSI Tower DVD drive.
2. Wait until the DVD drive is ready (i.e., front panel DVD drive LED is no longer lit).
3. Select **[System State]** under the Common Service Desktop **[Utilities]** tab.
4. Select **[All]**.
5. Select **[Restore]**.
6. Select **[Yes]**.
7. Verify that the "Restore" of the System State was successful. If not, Restore the System state again. A message at the end of the Restore should display:
Save/ Restore System State; Completed Successfully.
8. When completed, select **[Cancel]**.
9. When completed select **[Dismiss]**.

4.3.4 Filament Calibration (LS HP60, BSD-Power, and BSD-Select systems only)

1. Select **[Generator Tool – JEDI]** under the Common Service Desktop **[Diagnostics]** tab.
2. Select **[Restore Runtime Parameters]**.
3. Select **[OK]**.
4. Verify that Restore Runtime Parameters was successful. A message at the end of the Save should display.
Runtime Parameters successfully restored to Generator.
5. When completed, select **[OK]**.
6. Select **[Filament Cal]**.
7. Select **[Scan]**.
8. Verify that "Filament Cal" was successful.
9. Close the Common Service Desktop window at the upper left corner of the screen.

4.3.5 Sanity Scans

1. Perform a Scout scan.
2. Perform a Helical scan.
3. Perform an Axial scan.
4. Verify that the scans perform successfully.

4.3.6 Installing previously applicable Service Packs and Patches

Removal of Service Pack 2.0 will return the system to its original base software (i.e. 07MW11.10, 07MW18.4, or 07BW08.4). At this point, please **INSTALL ALL PREVIOUSLY APPLICABLE SERVICE PACKS AND/OR PATCHES TO YOUR SYSTEM** (i.e. **Service Pack 1.0/Service Pack 1.5/Hino JEDI Cradle Patch/BSD Lite M4 Patch**). Please refer to the specific instructions for each one of these Service Packs/Patches for further detail on how to install them.

4.4 Appendix D - Language Reconfig and Station Name

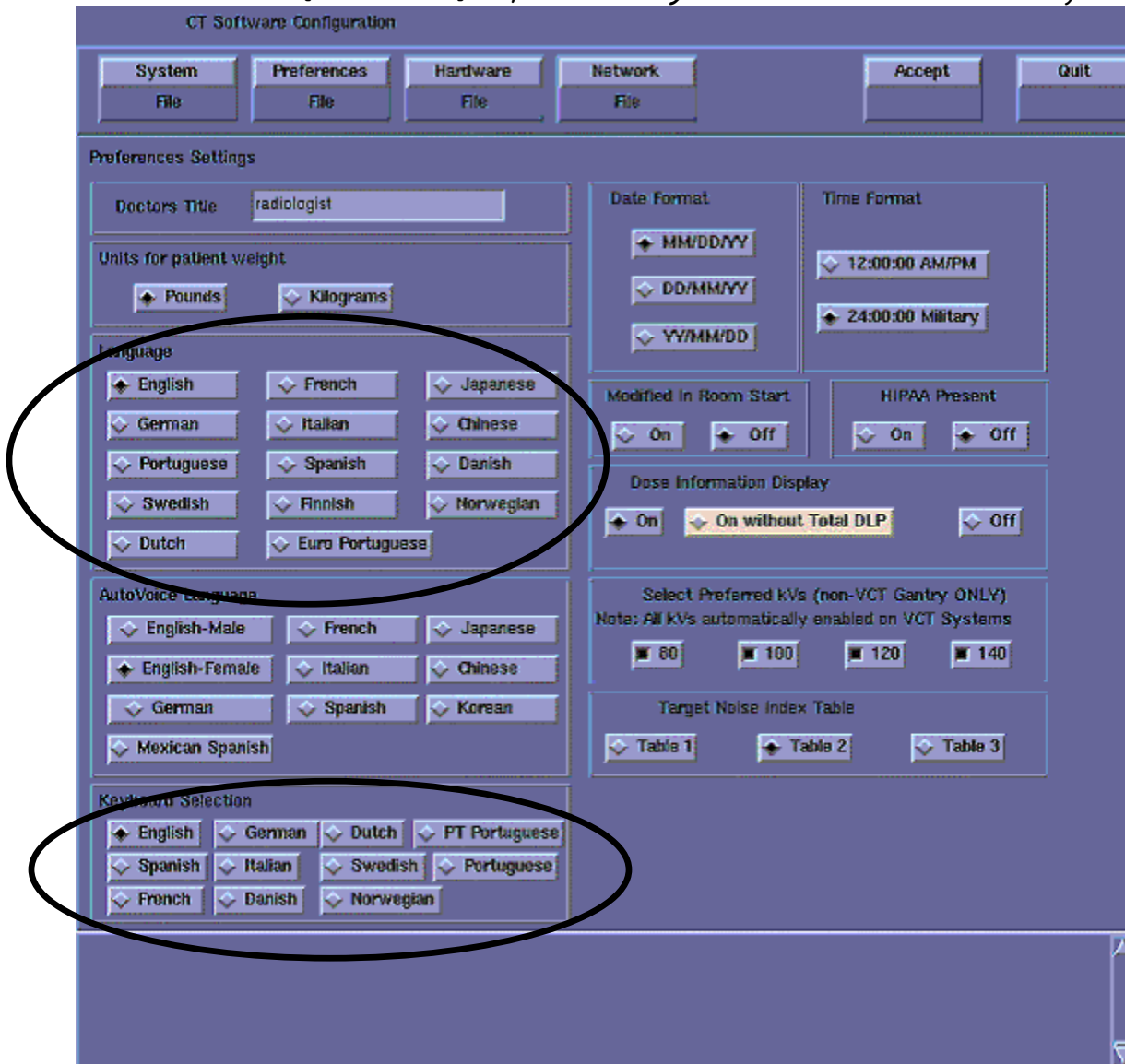
This section outlines the steps necessary to reconfigure the system into a different UI language, keyboard selection, and setting the station name. Please note that this section is only executed if the customer requests to have the system reconfigured to a new language and/or set the *Station Name*. **DO NOT perform this section if the customer makes no such request. DO NOT ask/notify the customer regarding these new languages. DO NOT ask the customer if they would like to reconfigure their system into a new language.**

NOTE: Please note that certain applications (AutoBone, Advanced Vessel Analysis, CardIQ Pro, CardIQ Plus, CardEP, CTC Pro, CTC Plus, and Dentascan) are not supported by European Portuguese, Danish, Dutch, Finnish, Norwegian, and Swedish.

NOTE: If this section is performed anytime after Service Pack 2 is installed, a Save System State in the "SP2 System State" is required.

1. Open a Unix Shell.
2. Verify Application software is down. If Application software is not down, select **[Application Shutdown]** under the Common Service Desktop **[Utilities]** tab.
3. Wait approximately 1-2 minutes for Application software to go down.
4. Become root:
 - a. As ctuser, type: **su - <ENTER>**
 - b. Password: **#bigguy <ENTER>**
5. As root on the Host type: **reconfig <ENTER>**
6. Select **[config]**.
7. In the **[Preferences]** tab, new languages are available. Select the customer's desired language.

8. In the [Preferences] tab, select the *keyboard selection* based on the keyboard language.



9. Select the **[Network]** Tab.

The screenshot shows the 'CT Software Configuration' window with the 'Network' tab selected. The 'Network Settings' section contains the following fields:

Field	Value
Suite Name	CT51
Station Name	bay51
Host Name	bay51
IP Address	3.57.255.51
Net Mask	255.255.252.0
Broadcast Address	3.57.255.255
Default Gateway	3.57.252.254

Below the Gateway Parameters is a checkbox for 'Enable AW DirectConnect?' which is unchecked. To the right, the 'Advanced Options' section includes:

- Use NIS
 - Domain Name: CTSYSTEMS
 - IP address of Server: 3.70.56.18
- Enable Network Time Protocol
- Change DARC Subnet

10. Enter the *Station Name* using the following guidelines:

- The *Station Name* identifies the text that will be stored in the DICOM attribute "Station Name" (DICOM TAG 0008,1010) in all CT images created. Some pacs systems may use the Station Name attribute or system tracking for identification of the scanner where the CT images were generated. Typically, the Host Name and Station Name will be the same.
- *Station Name* MUST NOT exceed 16 Characters
- *Station Name* MUST only contain the following characters: a through z, A through Z, 0 through 9, - and _
- *Station Name* will default to the Host Name if left blank.

11. Select the **[Accept]** tab. When prompted to reboot, select **[Yes]**.

NOTE: Please wait until Reboot is completely finished before moving on to the next step.

NOTE: The Gantry must be connected to the Operator Console during the reboot process.

12. Please return to the section you were previously working on.

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