



GE HealthCare

Two Phase UPS Installation

OPERATING DOCUMENTATION

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The information in this manual applies to the following GE CT Scanners (Including but not limited):

- Optima CT540
- Optima CT660
- Optima CT680 / CT670 / CT620
- Optima CT520 with DoD
- Discovery CT590 RT / Optima CT580 / Discovery RT
- Revolution EVO
- Revolution Ascend
- Revolution Maxima / Revolution Ace / Optima CT680 Expert
- Discovery NMCT 670 / 870
- Discovery NMCT 670CZT / 870CZT
- NMCT 850 / 860 Series

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。

警告

(ZH-HK)

- 本服務手冊僅提供英文版本。
- 倘若客戶的服務供應商需要英文以外之服務手冊，客戶有責任提供翻譯服務。
- 除非已參閱本服務手冊及明白其內容，否則切勿嘗試維修設備。
- 不遵從本警告或會令服務供應商、網絡供應商或病人受到觸電、機械性或其他的危險。

警告

(ZH-TW)

- 本维修手册仅有英文版。
- 若客户的维修厂商需要英文版以外的语言，应由客户自行提供翻译服务。
- 请勿试图维修本设备，除非您已查阅并瞭解本维修手册。
- 若未留意本警告，可能导致维修厂商、操作员或病患因触电、机械或其他危险而受伤。

UPOZORENJE

(HR)

- OVAJ SERVISNI PRIRUČNIK DOSTUPAN JE NA ENGLESKOM JEZIKU.
- AKO DAVATELJ USLUGE KLIJENTA TREBA NEKI DRUGI JEZIK, KLIJENT JE DUŽAN OSIGURATI PRIJEVOD.
- NE POKUŠAVAJTE SERVISIRATI OPREMU AKO NISTE U POTPUNOSTI PROČITALI I RAZUMJELI OVAJ SERVISNI PRIRUČNIK.
- ZANEMARITE LI OVO UPOZORENJE, MOŽE DOĆI DO OZLJEDE DAVATELJA USLUGE, OPERATERA ILI PACIJENTA USLIJED STRUJNOG UDARA, MEHANIČKIH ILI DRUGIH RIZIKA.

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 PŘECETLI TENTO PROVOZNÍ NÁVOD A POCHOPILI JEHO OBSAH.
- V PŘÍPADĚ NEDODRŽOVÁNÍ TÉTO VÝSTRAHY MŮŽE DOJÍT K PORANĚNÍ PRACOVNÍKA PRODEJNÍHO SERVISU, OBSLUŽNÉHO PERSONÁLU NEBO PACIENTŮ VLIVEM ELEKTRICKÉHOP PROUDU, RESPEKTIVE VLIVEM MECHANICKÝCH ČI JINÝCH RIZIK.

ADVARSEL

(DA)

- DENNE SERVICEMANUAL FINDES KUN PÅ ENGELSK.
- HVIS EN KUNDENS 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.
- MANGLENDÉ 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

(NL)

- 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, OPERATORI 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 ΕΠΙΧΕΙΡΗΣΕΤΕ ΤΗΝ ΕΚΤΕΛΕΣΗ ΕΡΓΑΣΙΩΝ ΣΕΡΒΙΣ ΣΤΟΝ ΕΞΟΠΛΙΣΜΟ ΕΚΤΟΣ ΕΑΝ ΕΧΕΤΕ ΣΥΜΒΟΥΛΕΥΤΕΙ ΚΑΙ ΕΧΕΤΕ ΚΑΤΑΝΟΗΣΕΙ ΤΟ ΠΑΡΟΝ ΕΓΧΕΙΡΙΔΙΟ ΣΕΡΒΙΣ.
- ΕΑΝ ΔΕ ΛΑΒΕΤΕ ΥΠΟΨΗ ΤΗΝ ΠΡΟΕΙΔΟΠΟΙΗΣΗ ΑΥΤΗ, ΕΝΔΕΧΕΤΑΙ ΝΑ ΠΡΟΚΛΗΘΕΙ ΤΡΑΥΜΑΤΙΣΜΟΣ ΣΤΟ ΑΤΟΜΟ ΠΑΡΟΧΗΣ ΣΕΡΒΙΣ, ΣΤΟ ΧΕΙΡΙΣΤΗ ή ΣΤΟΝ ΑΣΘΕΝΗ ΑΠΟ ΗΛΕΚΤΡΟΠΛΗΞΙΑ, ΜΗΧΑΝΙΚΟΥΣ ή ΆΛΛΟΥΣ ΚΙΝΔΥΝΟΥΣ.

FIGYELMEZTETÉS

(HU)

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

AÐVÖRUN

(IS)

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

AVVERTENZA

(IT)

- IL PRESENTE MANUALE DI MANUTENZIONE È DISPONIBILE SOLTANTO IN INGLESE.
- SE UN ADDETTO ALLA MANUTENZIONE ESTERNO ALLA GEMS RICHIENDE IL MANUALE IN UNA LINGUA DIVERSA, IL CLIENTE È TENUTO A PROVVEDERE DIRETTAMENTE ALLA TRADUZIONE.
- SI PROCEDA ALLA MANUTENZIONE DELL'APPARECCHIATURA SOLO DOPO AVER CONSULTATO IL PRESENTE MANUALE ED AVERNE COMPRESCO 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.

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 IZLASIŠANAS UN SAPRAŠANAS.
- ŠĪ BRĪDINĀJUMA NEIEVĒROŠANA VAR RADĪT ELEKTRISKĀS STRĀVAS TRIECIENA, MEHĀNISNU VAI CITU RISKU IZRAISĪTU TRAUMU APKALPES SNIEDZĒJAM, OPERATORAM VAI PACIENTAM.

ĮSPĖJIMAS

(LT)

- ŠIS EKSPLOATAVIMO VADOVAS YRA PRIEINAMAS TIK ANGLŪ KALBA.
- JEI KLIENTO PASLAUGŲ TIEKĖJAS REIKALAUJA VADODO KITA KALBA – NE ANGLŪ, NUMATYTI VERTIMO PASLAUGAS YRA KLIENTO ATSAKOMYBĖ.
- NEMĒGINKITE ATLIKTI ĮRANGOS TECHNINĖS PRIEŽIŪROS, NEBENT ATSIŽVELGĘTE Į ŠI EKSPLOATAVIMO VADOVĄ IR JĮ SUPRATOTE.
- JEI NEATKREIPSITE DĒMESIO Į ŠĮ PERSPĒJIMĄ, GALIMI SUŽALOJIMAI DĒL ELEKTROS ŠOKO,
- MECHANINIŲ AR KITŲ PAVOJŲ PASLAUGŲ TIEKĖJUI, OPERATORIUI AR PACIENTUI.

ADVARSEL

(NO)

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

OSTRZEŻENIE

(PL)

- NINIEJSZY PODRĘCZNIK SERWISOWY DOSTĘPNY JEST JEDYNIE W JĘZYKU ANGIELSKIM.
- JEŚLI DOSTAWCA USŁUG KLIENTA WYMAGA JĘZYKA INNEGO NIŻ ANGIELSKI, ZAPEWNIEŃE 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-BR)

- 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 TENTE REPARAR O EQUIPAMENTO SEM TER CONSULTADO E COMPREENDIDO ESTE MANUAL DE ASSISTÊNCIA TÉCNICA
- O NÃO CUMPRIMENTO DESTE AVISO PODE POR EM PERIGO A SEGURANÇA DO TÉCNICO, OPERADOR OU PACIENTE DEVIDO A CHOQUES ELÉTRICOS, MECÂNICOS OU OUTROS.

ATENÇÃO

(PT-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 TENTE REPARAR O EQUIPAMENTO SEM TER CONSULTADO E COMPREENDIDO ESTE MANUAL DE ASSISTÊNCIA TÉCNICA
- O NÃO CUMPRIMENTO DESTE AVISO PODE COLOCAR EM PERIGO A SEGURANÇA DO TÉCNICO, DO OPERADOR OU DO PACIENTE DEVIDO A CHOQUES ELÉCTRICOS, 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 ÎNTELEGERII 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.

УПОЗОРЕЊЕ

(SR)

- OVO SERVISNO UPUTSTVO JE DOSTUPNO SAMO NA ENGLESKOM JEZIKU.
- AKO KLIJENTOV SERVISER ZAHTEVA NEKI DRUGI JEZIK, KLIJENT JE DUŽAN DA OBEZBEDI PREVODILAČKE USLUGE.
- NE POKUŠAVAJTE DA OPRAVITE UREĐAJ AKO NISTE PROČITALI I RAZUMELI OVO SERVISNO UPUTSTVO.
- ZANEMARIVANJE OVOG UPOZORENJA MOŽE DOVESTI DO POVREĐIVANJA SERVISERA, RUKOVACA ILI PACIJENTA USLED STRUJNOG UDARA ILI MEHANIČKIH I DRUGIH OPASNOSTI.

UPOZORNENIE

(SK)

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

ATENCION

(ES)

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

WARNING

(SV)

- DEN HÄR SERVICEHANDBOKEN FINNS BARA TILLGÄNLIG PÅ ENGELSKA.
- OM EN KUNDS SERVICETEKNIKER HAR BEHOV AV ETT ANNAT SPRÅK ÄN ENGELSKA ANSVARAR KUNDEN FÖR ATT TILLHANDAHÄLLA 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.

OPOZORILO
(SL)

- TA SERVISNI PRIROČNIK JE NA VOLJO SAMO V ANGLEŠKEM JEZIKU.
- ČE PONUDNIK STORITVE STRANKE POTREBUJE PRIROČNIK V DRUGEM JEZIKU, MORA STRANKA ZAGOTOVITI PREVOD.
- NE POSKUŠAJTE SERVISIRATI OPREME, ČE TEGA PRIROČnika niste v celoti prebrali in razumeli.
- Če tega opozorila ne upoštevate, se lahko zaradi električnega udara, mehanskih ali drugih nevarnosti poškoduje ponudnik storitev, operater ali bolnik.

DİKKAT
(TR)

- Bu servis kilavuzunun sadece İngilizcesi mevcuttur.
- Eğer müşteri teknisyenİ bu kilavuzu İngilizce dışında bir başka lisandan talep ederse, bunu tercüme ettirmek müşteriye düşer.
- Servis kilavuzunu okuyup anlamadan ekipmanlara müdahale etmeyiniz.
- Bu uyaruya uyulmaması, elektrik, mekanik veya diğer tehlikelerden dolayı teknisyen, operatör veya hastanın yaralanmasına yol açabilir.

IMPORTANT PRECAUTIONS

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 6.
- Fill out the GIQ workflow for any items missing, damaged, OBF/FOI for in process installs:
http://supportcentral.ge.com/ProcessMaps/form_new_request.asp?prod_id=268679&form_id=573167&node_id=1916016&map_id=&reference_id=&reference_type
- 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.

IMPORTANT...RADIOACTIVE MATERIAL HANDLING

Only employees formally trained in radioactive materials handling and this equipment are authorized by the GE Healthcare Radiation Safety Officer to use radioactive materials to service this equipment.

GE Healthcare Services is required to notify the applicable U.S. state agency PRIOR to any source service event involving pin source handling. See NUC/PET Radioactive material guides for specific instruction or contact your EHS Specialist.

A radiation survey must be performed when a pin source has been removed and replaced. See Radiation Survey Form Instructions or contact your EHS Specialist.

Rev 2 (July 21, 2005)

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	May 2019	Initial release
2	Oct 2019	Impacted Product Name <ul style="list-style-type: none">• Add "Revolution Maxima / Revolution Ace / Optima CT680 Expert". Section 3 <ul style="list-style-type: none">• Update the "Installation for Seismic environment" section. Section 4 <ul style="list-style-type: none">• Delete the "Testing the Emergency STOP function of the UPS" section.
3	Aug 2022	Impacted Product Names <ul style="list-style-type: none">• Add "Discovery NMCT 670/680", "Discovery NMCT 670CZT/870CZT" and "NMCT 850/860 Series". Section 1 <ul style="list-style-type: none">• Add new UPS unit E4502KZ/B77552DA. Section 3 <ul style="list-style-type: none">• Add figure for bypass breaker bracket.• Update UPS input power cable connection. Section 5 <ul style="list-style-type: none">• Add figure for EPO pushbutton.• Add verbiage for specific UPS and EPO connections.• Delete old E4502KY label information.• Add E4502AG Main Disconnection Panel information.
4	Mar 2024	Front/Rear pages <ul style="list-style-type: none">• Update GE HealthCare trademark. Section 1 <ul style="list-style-type: none">• Add Installation and Servicing process of CT 2-phase partial UPS, based on feedback12827/DOC2188557. Section 4 <ul style="list-style-type: none">• Add bypass locking screw figure in 4.1.3, step 4, based on feedback10423. Section 5 <ul style="list-style-type: none">• Update pictures of BEVCO A1 MDP in UPS Control Cable Connections. APPENDIX D <ul style="list-style-type: none">• Update the schematic. APPENDIX E <ul style="list-style-type: none">• Update the schematic.

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1-COMMON INSTRUCTIONS AND REQUIREMENTS

1-1 Scope

This installation specification is a control document for the installation of an Uninterruptible Power System (UPS) unit to be used with General Electric Healthcare (GEHC) Computerized Tomography diagnostic imaging systems. This document supports CT Systems, which use the following Power Distribution Units (PDU).

UPS models:
B7999ZB
E4502KZ
B77552DA
PDU models:
2326492-3x
2326492-6x
2326492-7x
2326492-8x

It also includes the instructions for interconnection with the system A1 Main Disconnect Panel (called A1 MDP below) & UPS Control Panel.

ISERV DOC2188557 specifies the installation and servicing processes of CT 2-Phase Partial UPS.

1-2 Overview

This document was designed to guide installation of a 10kVA UPS.

The UPS powers critical system computer and control functions. It is intended to bridge short power outages and provide time for crossover from normal mains power to emergency power. It is sized to provide at least 10 minutes backup with fully charged batteries.

It is recommended that if a power outage exceeds 5 minutes with no mains or emergency power, the patient should be removed from the table and an orderly shutdown of the system should be initiated. For safe and orderly system start-up & shutdown this UPS kit must be installed with a properly configured A1 MDP. Use of one of the following GE A1 MDPs, or equivalent, specifically designed for use with this kit, is recommended:

A1 MDP except EU					Supplier
90A	110A	125A	150A	175A	
E4502BB/E4502AG	E4502BC	E4502BE	E4502BF	E4502BG	BEVCO
E4502AB	E4502AC	E4502AE	E4502AF	-	GE (Old End of Life)

A1 MDP for EU				Supplier
80A	125A	160A	200A	
E45021BA	E45021BB	E45021BC	E45021BG	BEVCO

Refer to your system Pre-Installation manual for proper selection.

1-2-1 Tools Required

1. FE Tool Kit
2. LOTO
3. Fluke 87 Multi-meter or equivalent
4. Wire Stripper
5. Labels

1-2-2 Estimated Manpower & Time Requirements

1. 1 FE & 1 Electrician
2. 3 hours

1-2-3 Safety Requirements

General Warning Considerations:

The only user operations permitted with the UPS are:

1. Starting up and shutting down of the UPS.
2. Operating the user interface in the UPS.
3. Connecting data interface cables.
4. Monitoring the UPS.

NOTICE

It is strongly recommended to have the User's Guide for the UPS available. These operations must be performed according to the instructions in this document and the User's Guide for the UPS being installed. This document covers installation of the GXT4-10000RT208-GE UPS only.

DANGER

THE UPS CONTAINS LETHAL VOLTAGES. THERE ARE NO USER SERVICEABLE PARTS INSIDE THE UPS. SERVICE AND REPAIRS MUST BE PERFORMED BY AUTHORIZED PERSONNEL ONLY.

1-3 Preliminary Instructions

Electrician

An electrician will be required to install a 3/4" conduit between the A1 MDP and the computer floor or to the general area of the UPS. The conduit should be terminated in a small wall box. This will be used for the UPS Control cable connecting the UPS and A1 MDP.

Electrical Requirements

The UPS receives power from the PDU and returns power to the PDU. No other power connections are required. However, low voltage and 120Vac System Emergency Off (SEO) / Emergency Power Off (EPO) Control and interlock signals are passed between the UPS and A1 MDP.

2-UPS PRODUCT DESCRIPTION

2-1 UPS Front Panel and Controls



Illustration 1: UPS Front View

No.	Description
1.	Upper bezel
2.	Operation and display panel
3.	Lower bezel and battery-access door
4.	Metal bar (Metal bar on Plastic cover is necessary to prevent the cover opening without tool)

2-2 UPS Rear Panel and Features

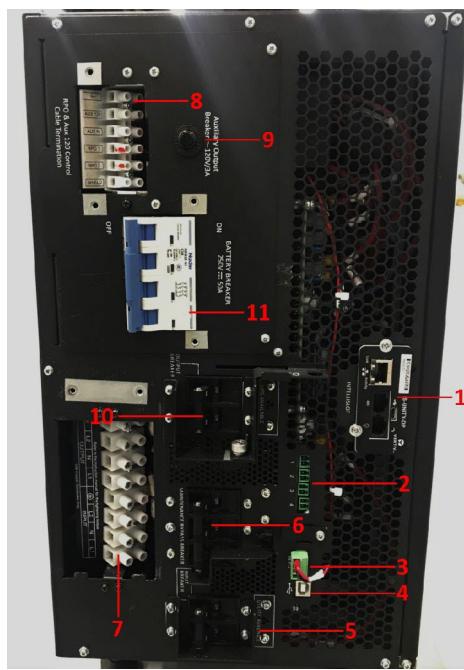


Illustration 2: UPS Rear View (Without Cable Clamp Box and Battery Breaker Cover)

No.	Description	No.	Description
1.	IntelliSlot Unity-DP card	2.	Terminal block communication
3.	REPO connection block	4.	USB port
5.	Input breaker switch	6.	Maintenance bypass switch
7.	Knockouts for hard-wired power input	8.	AUX 120&RPO terminal connector
9.	AUX output protector	10.	Output breaker switch
11.	Battery breaker		

The rear panel of the UPS have these features:

- IntelliSlot® Port
- USB port
- Input Circuit Breaker
- Maintenance Bypass Circuit Breaker
- REPO connection
- Input Receptacle
- General Output Receptacles
- External Battery Connector
- Cooling Fan
- Terminal Block Communication
- Output Circuit Breakers



Illustration 3: UPS Rear View (With Cable Clamp Box and Battery Breaker Cover)

2-3 UPS Operation and Display Panel

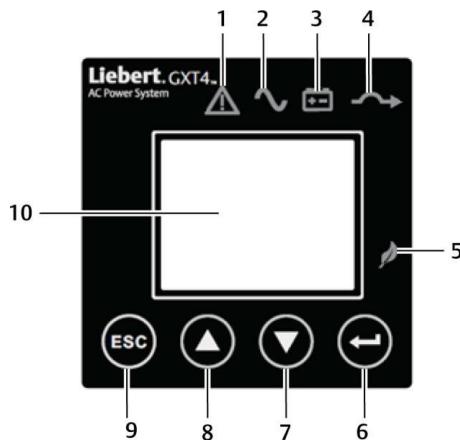


Illustration 4: UPS Operation and Display Panel

No.	Description	No.	Description
1.	Fault indicator	2.	Inverter indicator
3.	Battery indicator	4.	Bypass indicator
5.	ECO mode indicator	6.	Enter button
7.	Down button	8.	Up button
9.	Escape button	10.	LCD panel

The LED indicator on the front of the operation and display panel function are:

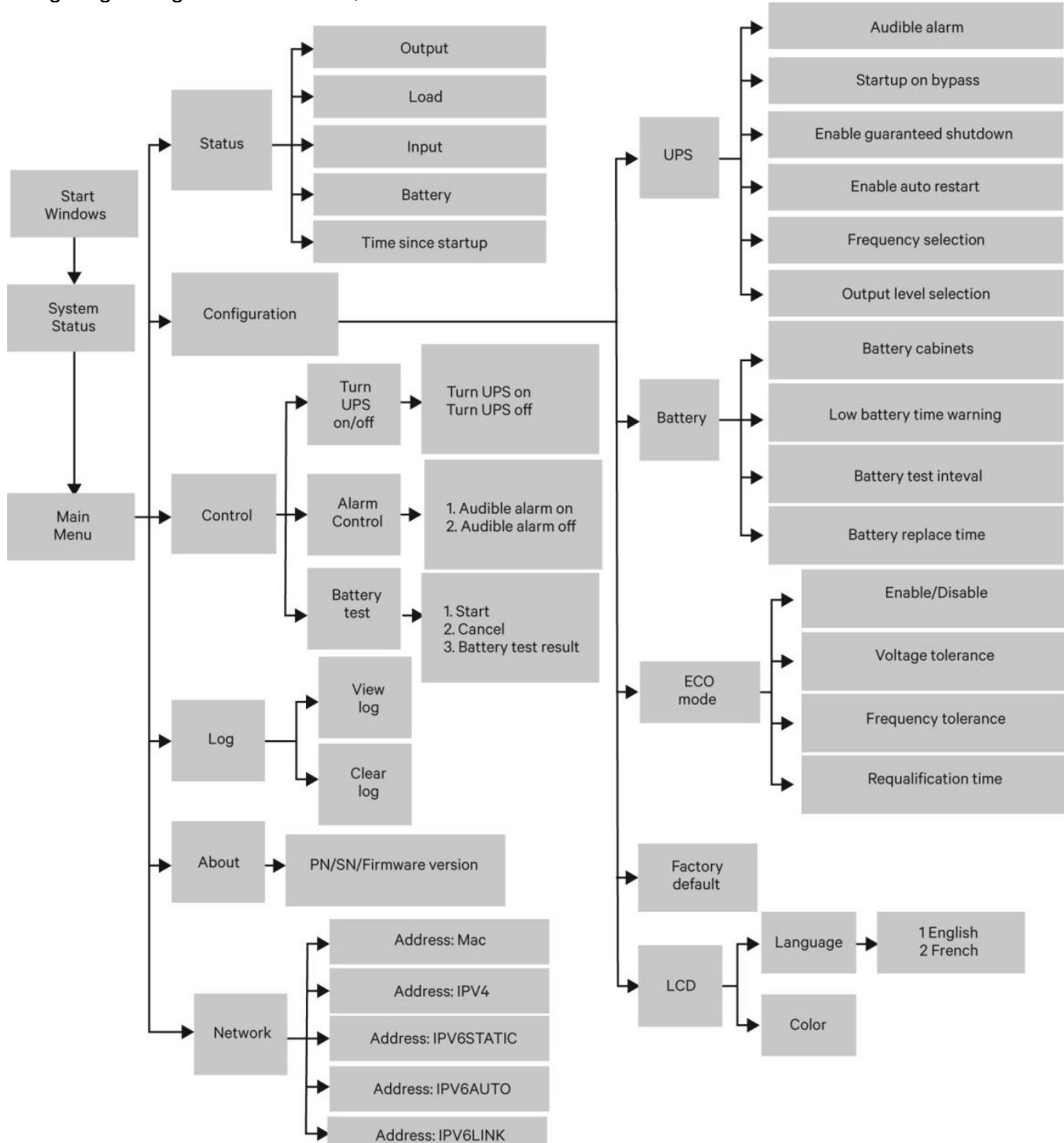
Indicator	Color	Description
Inverter	Green	On when the inverter is supplying power
Bypass	Amber	On when the load is supplied by the mains through automatic/manual bypass
Battery	Amber	On when the load is supplier by the battery
Fault	Red	On when an error has occurred within the UPS
ECO Mode	Green	On when the UPS is in ECO Mode

The Control Button on the front of the operation and display panel function are:

Button	Description
ESC	Pressing this button returns to the previous menu or aborts any change in the input data field before confirming.
Up	Pressing this button can move the cursor up or increase the value displayed in the input data field. When a menu is displayed on several screens, pressing the button can scroll up.
Down	Pressing this button can move the cursor down or decrease the value displayed in the input data field. When a menu is displayed on several screens, pressing the button can scroll down.
Enter	Pressing this button can enter the next level menu or confirm the parameter setting value.

2-4 UPS LCD

The LCD panel shows the UPS status and enables changes to the UPS settings by assisting in navigating through the UPS menu, UPS Menu Structure shows as below:



Refer to User's Guide Chapter 4 as necessary for additional operation and display information.

2-5 UPS Major Components

The UPS is composed of mains input TVSS and EMI/RFI filters, rectifier/PFC, inverter, battery charger, DC to DC converter, battery, dynamic bypass and UPS output.

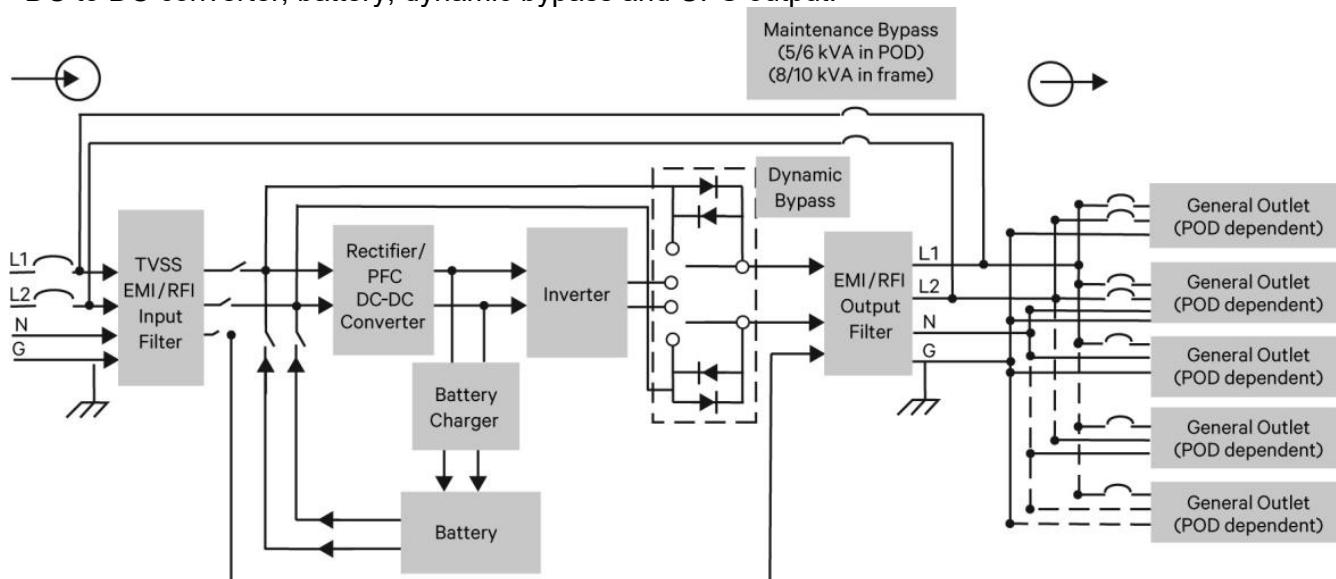


Illustration 5: UPS Operating Principle Diagram

3-UPS INSTALLATION

Installation Flowchart

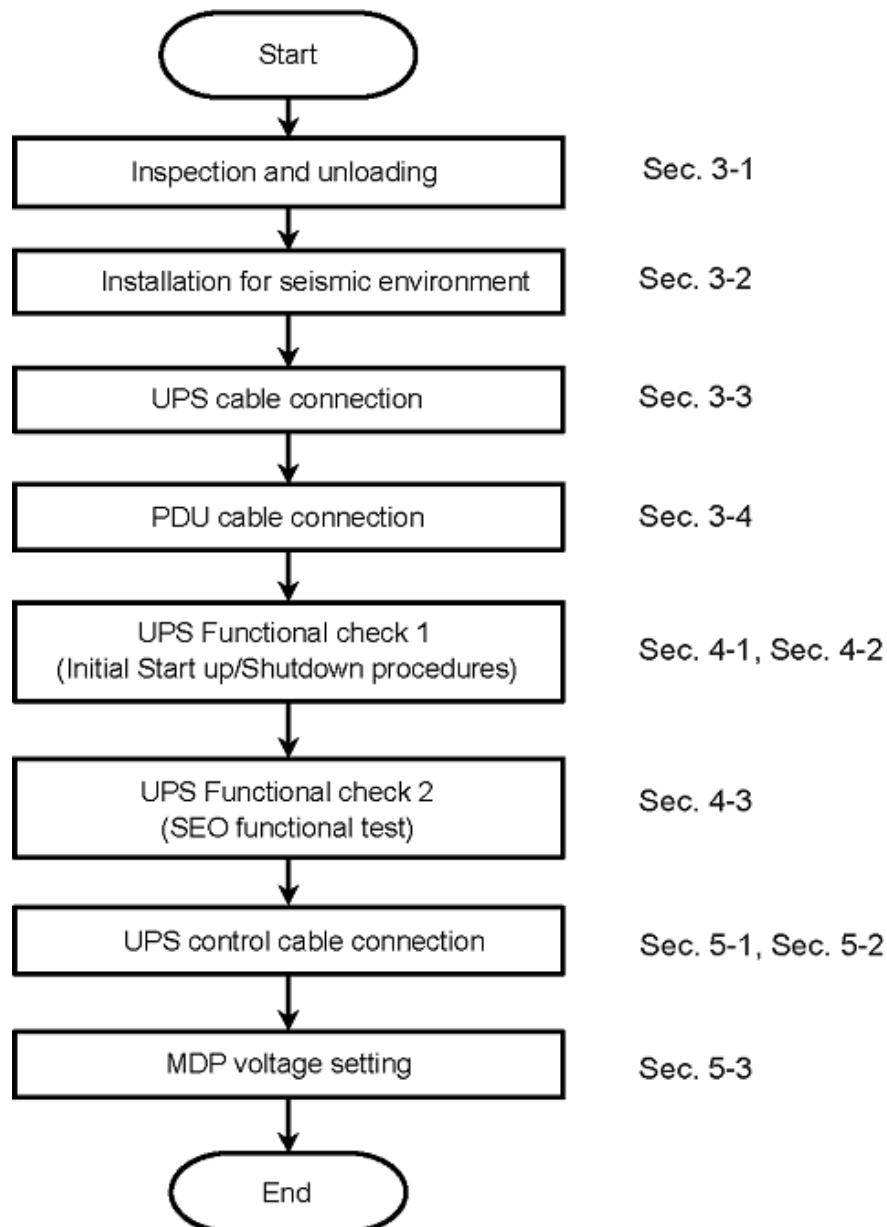


Illustration 6: UPS Installation Flowchart

3-1 Inspection and unloading the UPS

The UPS is shipped bolted to a wooden pallet as shown below and protected with an outer protective wrap. Visually verify there is no evidence of shipping damage to the packaging or UPS. Remove the outer protective wrap and perform the steps in the following section to unload the UPS from the pallet.



Illustration 7: UPS on Shipping Pallet

NOTICE

The following information has been extracted from the User's Guide provided with the UPS. Refer to that document for additional information if necessary.

CAUTION

- The UPS cabinet is heavy. Shipping weight is approximately 189kg (417lb). If unpacking instructions are not closely followed, the cabinet may tip and cause serious injury.
 - Do not install a damaged cabinet. Report any damage to the carrier and contact your service representative immediately.
 - Do not tilt the UPS cabinet more than 10° from vertical or the cabinet may tip over.
 - DO NOT use the Power Cable Clamp Box or Signal Wire Clamp Box or Anti-seismic kit as a handle while removing the cabinet from the pallet.
1. Remove the M12(X10) bolts securing the L shape bracket to the pallet.
 2. Remove the M6(X20) screws securing the L shape bracket to the UPS side panel and remove the L shape bracket. Retain the hardware for later use.

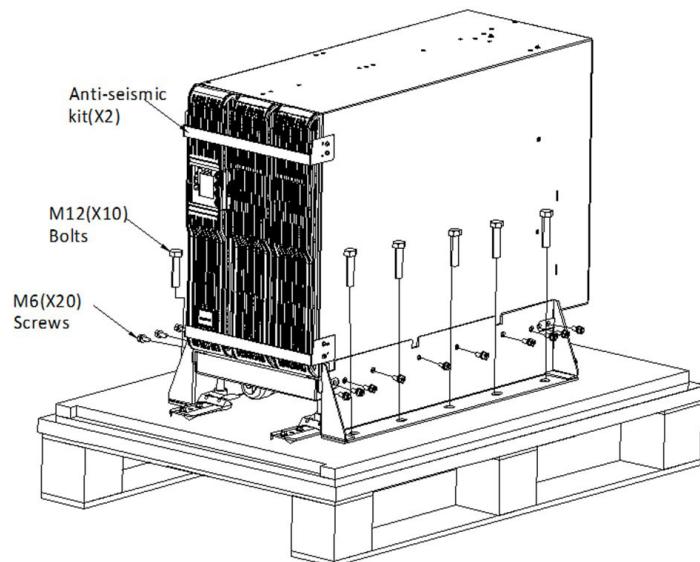


Illustration 8: L Shape Bracket Bolts and Screws Removal

NOTICE

Be sure to retain the L shape bracket and screws for later reassembly onto the UPS.

3. Remove the M10(X8) screws securing the foot fix kit to the pallet. Then remove foot fix kit(X4) and UPS cabinet feet(X2). Retain all the hardware for later use.

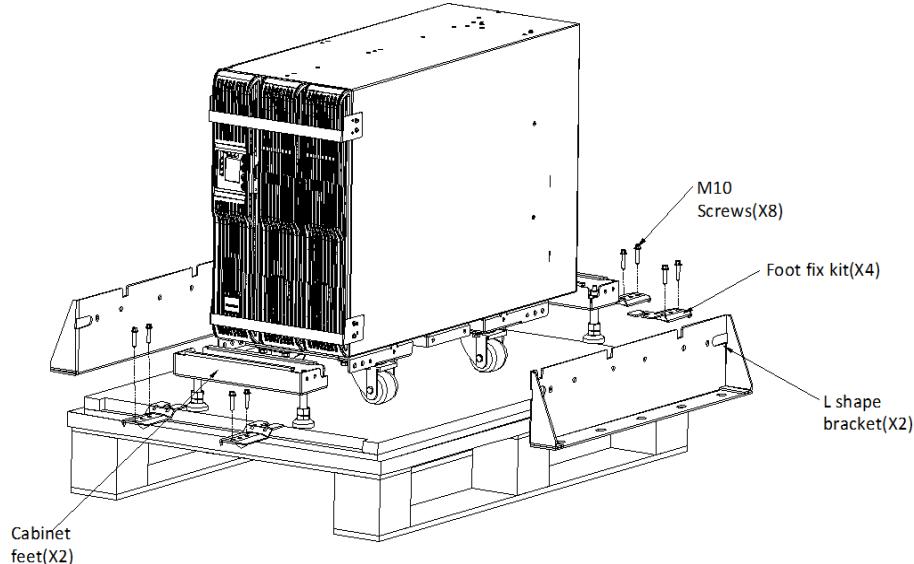


Illustration 9: Shipping Bracket Removal

NOTICE

In the following steps use pallet ramp kits to remove UPS from pallet once the UPS is rolled beyond the center of the pallet. Be sure to restrain the UPS as it continues to roll down the pallet ramp kits. Need push back UPS cabinet acts as a brake to assist restraining the UPS.

WARNING

Be careful when stand directly front the pallet while unloading the cabinet. If unloading instructions are not closely followed, the UPS may roll unexpectedly and cause serious injury.

4. Slowly roll the UPS toward the front of the pallet. DO NOT use the Anti-seismic kit as a handle while removing the UPS from the pallet. Once the UPS tilts, continue removing the UPS down the pallet until the UPS touches the floor. If needed, adjust the height of cabinet feet so that the UPS will roll.

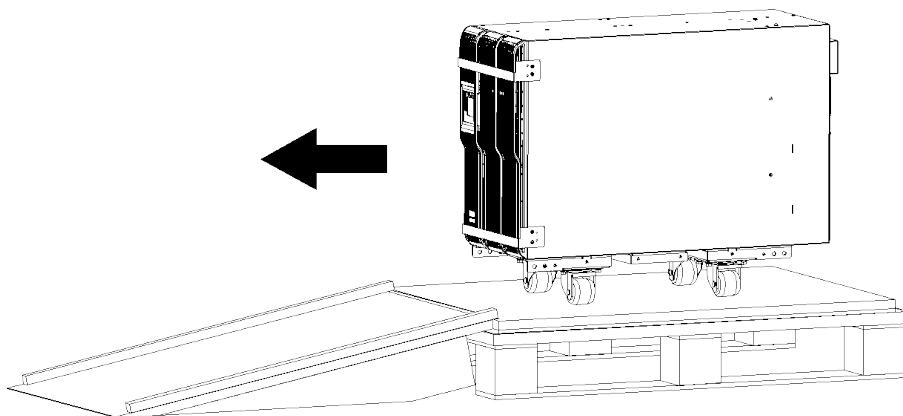


Illustration 10: Removing the Pallet

5. If installing the UPS permanently, retain the hardware for later use; otherwise, discard or recycle the pallet and hardware in a responsible manner.
6. Roll the UPS to its final installation location.
7. Secure it in position and reassemble the cabinet feet(X2). Lowering the cabinet feet until the UPS is not resting on the casters and it is level.
8. If a more secure installation is desired, the L shape brackets may be used to secure the UPS cabinet to the floor.

3-2 Installation for Seismic environment

1. If site specifications require seismic mounting, install the UPS cabinet feet by securing its eight M6 screws, apply torque of 7.9N-m.

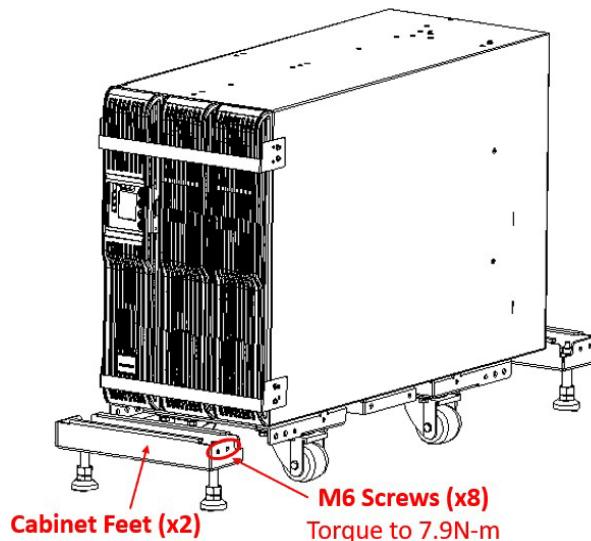


Illustration 11: Install the UPS Cabinet Feet

2. Install the L shape bracket by securing its twelve M6 screws, apply torque of 7.9N-m.

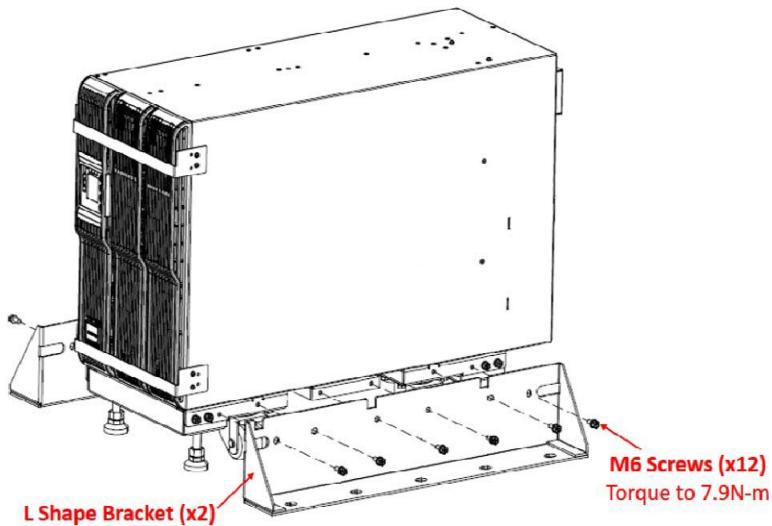


Illustration 12: Install the L Shape Bracket

3. Use $\frac{1}{2}$ in. anchors to mount the brackets to the floor. It is the customer's responsibility to provide an appropriate anchor/fastener from the bracket to the floor. Refer Illustration 13 for anchors placement. The UPS seismic brackets are shipped with the UPS.

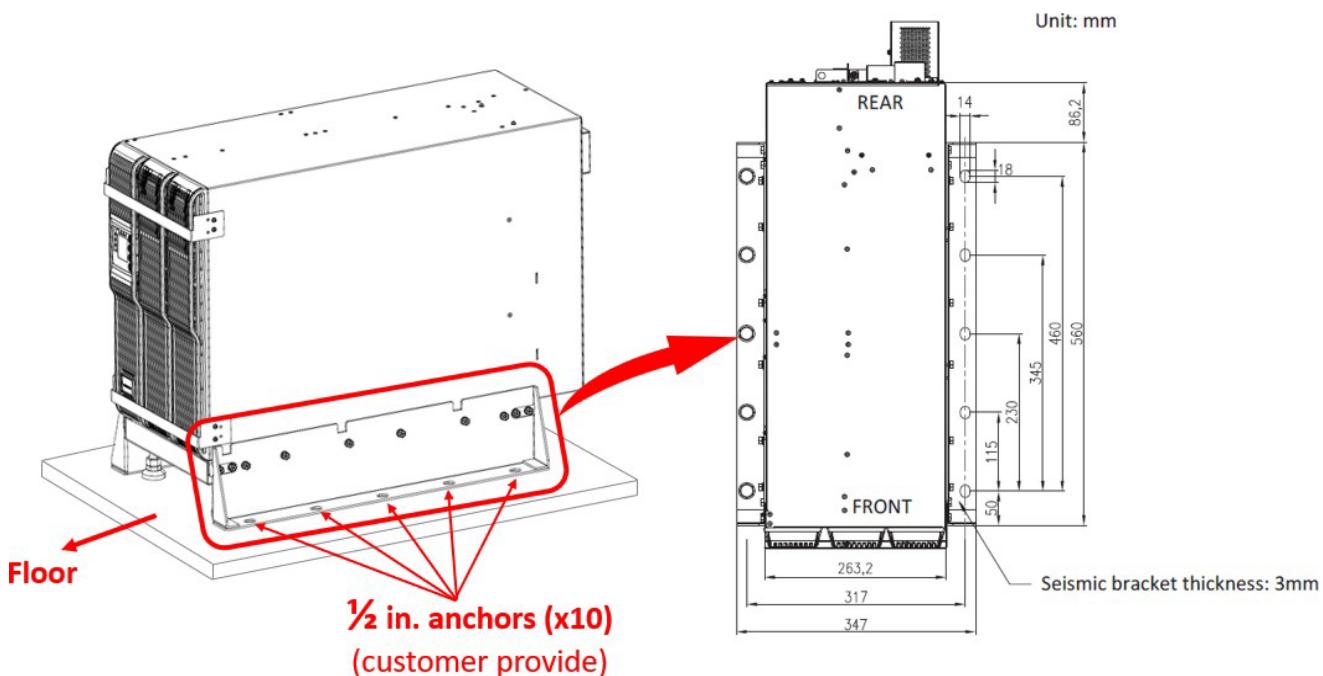


Illustration 13: Seismic Bracket Mounting Anchor Locations

3-3 UPS Connection

3-3-1 UPS I/O Terminal Compartment

1. Verify all the Battery Breaker, Input Breaker and Output Breakers on the rear panel of UPS are in the "OFF" position.
2. Set the Maintenance bypass switch to the "OFF" position.
3. Remove the rear Signal Wire and Power Cable Clamp Box from the UPS, if they are present.

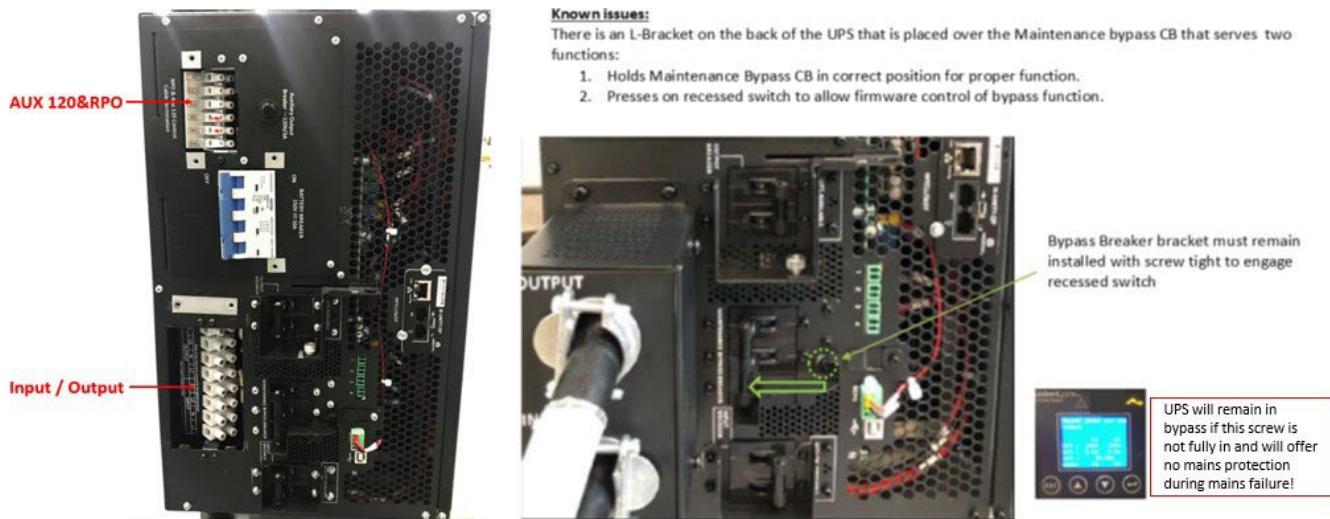


Illustration 14: UPS I/O Terminal Block

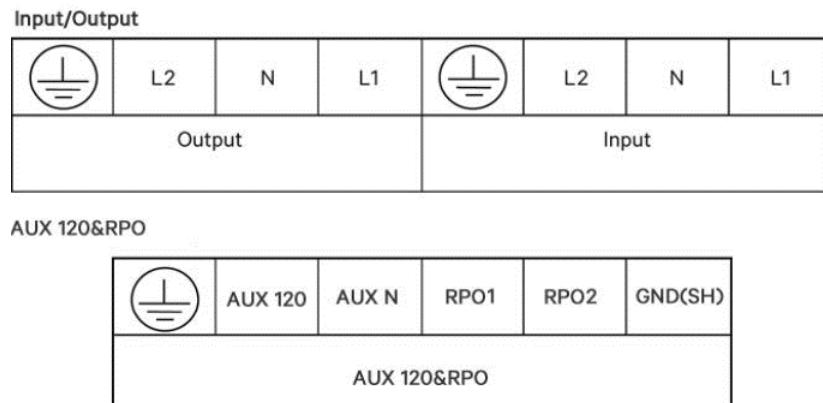


Illustration 15: UPS I/O Terminal Block Definition

4. Confirm by multimeter measurement that all terminals on the terminal strip are at 0V with respect to chassis.

3-3-2 UPS Input Power Cable from PDU

Connect UPS Input Power Cable (P/N 5817583) as follows:

1. Pull cable end labeled "To UPS TB1 INPUT" through the Power Cable Clamp Box in the rear of the UPS, to TB1.
2. Connect the GREEN/YELLOW (TB1-1) wire to "GND", Mark as .
3. Connect the BLACK wire to "L1".
4. Connect the BLUE wire to "N".
5. Connect the BROWN wire to "L2".
6. Securely tighten the cord grip onto the input cable.

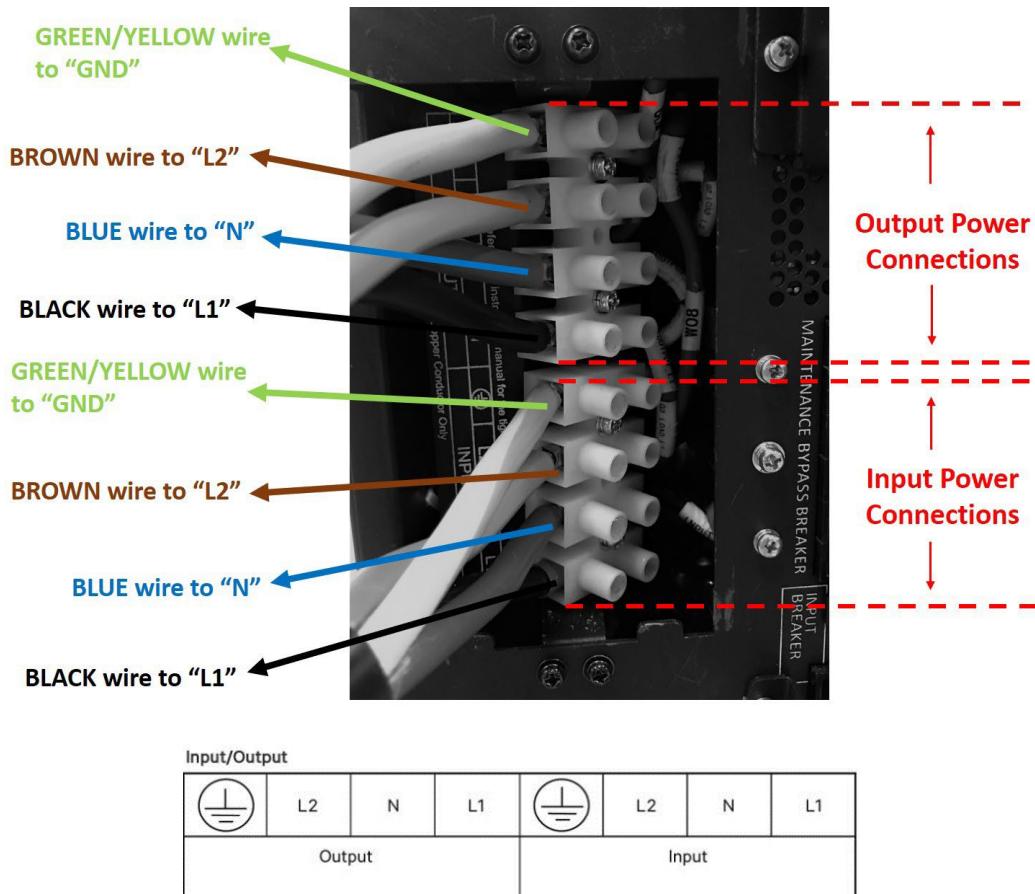


Illustration 16: UPS TB1 Connections

3-3-3 UPS Output Power Cable to PDU

Connect UPS Output Power Cable (P/N 5817584) as follows:

1. Pull cable end labeled "To UPS TB1 OUTPUT" through the Power Cable Clamp Box in the rear of the UPS, to TB1.
2. Connect the BLACK wire to "L1".
3. Connect the BLUE wire to "N".
4. Connect the BROWN wire to "L2".
5. Connect the GREEN/YELLOW wire to "GND", Mark as .
6. Securely tighten the cord grip onto the output cable.

3-3-4 UPS Control Cable to Main Disconnect / UPS Control Panel

Referring to Illustration 16 above, connect the UPS Control Cable (P/N 5817581) as follows:

1. Route the cable end labeled "To UPS" through the Signal Wire Cable Clamp Box in the rear of UPS.
2. Connect the GREEN/YELLOW (GND) wire to the grounding terminal "GND", Mark as .
3. Connect the GREEN/YELLOW (GND(SH)) SHIELD wires to "GND(SH)".
4. Remove the existing jumper connected between RPO1 & RPO2, if present.
5. Connect the BLK 1 (RPO1) wire to "RPO1".
6. Connect the BLK 2 (RPO2) wire to "RPO2".

7. Connect the BRN (AUX 120) wire to "AUX 120".
8. Connect the BLU (AUX N) wire to "AUX N".
9. Securely tighten the cord grip onto the control cable.

When all connections are secure, re-install Cable and Wire Clamp Box at the rear of the UPS.

3-4 PDU Cable connection

3-4-1 NGPDUs Connections

NOTICE

Use all required applicable safety Lockout/Tagout procedures and processes.

3-4-2 UPS Input Power Cable

1. If not done previously, shutdown system software and turn off the mains input power to the system.
2. Remove the top and front covers of the PDU.
3. Remove two jumper wires at terminal strip TS4, terminals 1 to 6, 3 to 8. Do NOT remove TS4, terminals 2 to 7. Place the jumpers in the base of the PDU for future use.

NOTE: The UPS is only a 2-phase UPS, thus the jumper for the "B" phase (TS4 terminals 2 to 7) needs to remain installed.

4. Route the UPS Input Power Cable (P/N 5817583) into the PDU and up through the indicated cable clamp in the bottom pan. Refer Illustration 17 below.
5. Connect the BLACK wire to TS4-1.
6. Connect the BROWN wire to TS4-3.
7. Connect the BLUE wire to TS4-4.
8. Connect the GREEN/YELLOW wire to TS4-5.

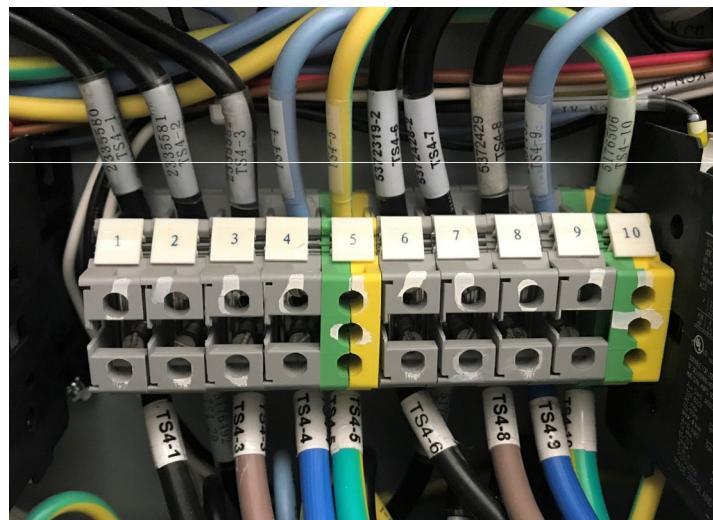


Illustration 17: NGPDUs Connection

3-4-3 UPS Output Power Cable

1. Route the UPS Output Power Cable (P/N 5817584) into the PDU and up through the indicated cable clamp in the bottom pan.
2. Connect the BLACK wire to TS4-6
3. Connect the BROWN wire to TS4-8.
4. Connect the BLUE wire to TS4-9.

5. Connect the GREEN/YELLOW wire to TS4-10

NOTICE

Do not re-install the PDU covers at this time. Wait until after the system start-up procedures have been completed.

4-START-UP / SHUTDOWN PROCEDURES

NOTICE

GEHC installation team and service employees are authorized to perform initial power-up of the UPS.

4-1 Start-Up Procedure

NOTICE

If the UPS Shut down by EPO switch, it automatically starts up without control panel operation. It is because of Auto -restart function.

4-1-1 Automatic Configuration Modes

Automatic configuration is performed during UPS startup. The UPS will automatically sense the input voltage and frequency and match its output to the mains input power. **No additional frequency or voltage configuration set-up is required.**

The UPS operation modes also include the following: Mains (AC) Mode, Bypass Mode, Battery Mode, Battery Recharge Mode, Active ECO Mode and Frequency Converter Mode.

- NOTE:**
- 1. The default for all models of the UPS is “Auto Sensing - 50Hz or 60Hz – Bypass Enabled.”**
 - 2. The UPS can operate in Active ECO Mode. In ECO mode, the connected equipment is powered through the bypass path to increase efficiency, reducing the electrical costs, however, EMC performance becomes worse.**

The UPS has been configured at the factory to automatically start-up whenever it senses input power. If the UPS does not automatically start, service should be contacted to correct the problem and verify proper operation.

4-1-2 Auto Re-start Function

If the UPS has shut down either due to depletion of its batteries, due to mains power loss and due to REPO/SEO, then upon application of input power the UPS shall automatically start up.

4-1-3 Initial Start-up Sequence

The following procedure should be used to power up the system up for the first time after installing the UPS kit. Verify that all connections are properly made, and all safety covers are properly in place. TURN OFF the Console power switch. This keeps the system computers from needlessly booting up until proper UPS system operation is verified.

NOTICE

It is strongly recommended to have the User's Guide for the UPS available.

Following up steps before power up the system:

1. Confirm that Mains input power was turned OFF.
2. Restore the power at the feeder panel supplying the A1 MDP after finishing the A1 MDP connections procedure.
3. Verify that the system is ready to receive power and all persons are clear of the machine.
4. Make sure the Maintenance bypass switch to the “OFF” position.

NOTICE

The installer should verify that the lock mechanism for that switch is engage and the locking screw is fully bolted.

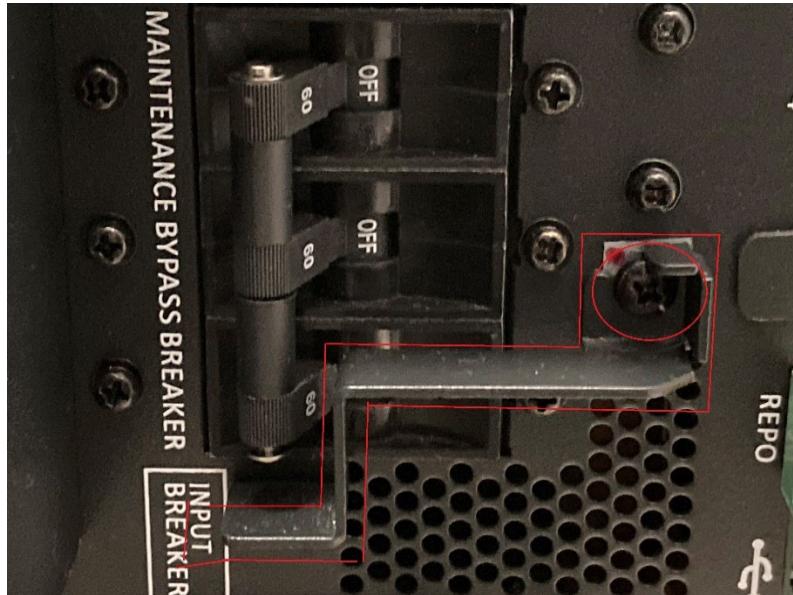


Illustration 18: Bypass Locking Screw

5. Set the Battery breaker at ON position (only at initial installation).
6. Set the input breaker at ON position.
7. Verify the control panel become turned ON.
 - Press **1** on the control panel and move to control menu
 - Press **▲ ▼** and move to “CONTROL” and press **1**
 - Press **▲ ▼** and move to “Turn ON & OFF” and press **1**
 - Press **▲ ▼** and move to “Turn ON UPS” and press **1**
 - Press **▲ ▼** and move to “YES” and press **1**
 - Press **ESC** two times and move to monitor screen
8. After approximately 30 seconds the green “Inverter ON” indicator should switch to a steady “ON” and the Bypass orange indicator should turn off.
9. Set the Output breaker at ON position.
10. Turn ON the Console power switch and allow software to boot.
11. Verify both the UPS and CT scanner begin to power up and check the UPS load percentage on the default screen to ensure that the connected equipment is not exceeding the UPS's rated capacity.
 - UPS control panel become off after approx. 90s without operation. Press **ESC** to turn on the control display.

NOTICE

If the UPS fails to power up as indicated refer to the User's Guide.

NOTICE

The UPS is now providing 120VAC power to the Table, Gantry and Console. In the event of a momentary mains power loss, scanning will be inhibited or aborted. However, the UPS will continue to provide power to the Table, Gantry & Console for at least 10 minutes. The UPS will "beep" occasionally, letting you know that it is on BATTERY BACKUP. If mains power is restored prior to shutting down the CT system, the UPS and system will automatically return to normal operation.

4-1-4 UPS Alarm Conditions

An audible alarm will sound in conjunction with the visual indicators to indicate a change in UPS operating status. The audible alarm will sound as described in the following table.

CONDITION	ALARM
Battery discharge	Half-second beep every 10 seconds
Low battery	Two half-second beeps every 5 seconds
UPS fault, load on bypass	1-second beep every 4 seconds
UPS fault, no power to load	Continuous
Overload	Half-second beep every halfsecond
Battery replacement	2-second beep every 2 minutes
Battery loss	Continuous
Wiring problem (loss of proper grounding for UPS)	Continuous
Bypass reminder	1-second beep every 60seconds

Other Alarms

Refer to the User's Guide for a detailed listing of operational and diagnostic information for the UPS.

4-2 Shut-Down Procedure

4-2-1 Normal System Shutdown

To shut down the entire system, do the following:

1. Perform a software shutdown and need to wait a few minutes to shut down.
2. Turn off the Console power switch.
3. Press any room Emergency Power Off (EPO) / System Emergency Off (SEO) button or Turn off mains CB on the A1 MDP.
4. UPS automatically turned off immediately.
5. To Restore power, Connect back the EPO/SEO button or A1 MDP mains CB lever to ON position. UPS re-start automatically.

4-2-2 Shut down procedure by UPS control panel

To shut down the entire system, do the following:

1. Perform a software shutdown and need to wait a few minutes to shut down.
2. Turn off the Console power switch.

3. Execute following step for UPS turn off
 - Press on the control panel and move to control menu
 - Press and move to "CONTROL" and press
 - Press and move to "Turn ON & OFF" and press
 - Press and move to "Turn OFF UPS" and press
 - Press and move to "YES" and press
 - Press two times and move to monitor screen
4. Confirm the UPS output become off.
5. Turn OFF the Input and Output CB. UPS automatically turned off approximately in 30s.
6. To restore the power using section 4-1-3.

DANGER

Although the UPS stops supplying power and is disconnected internally from its batteries, system power still passes through the UPS cables while in bypass mode. Use caution when servicing.

4-3 Testing the Emergency Power OFF (EPO) function of the UPS

This function removes power to the entire system including the UPS.

Test the function of the UPS mode of operation as follows:

1. Perform a software shutdown. (Step only necessary if the system is booted up and fully operational).
2. Make sure the green "Inverter indicator" is "ON".
3. Make sure that the Maintenance bypass switch is "OFF".
4. Press any room emergency power OFF button or at the A1 MDP.
5. Verify that the UPS shuts off as well as the system.
 - Make sure that UPS applies no backup power to the CT system and CT Table, Console and Gantry should turn off and stay off.
6. Connect back the EPO switch and restored the UPS output power.
7. Repeat **EACH** EPO switch that is hooked up in the room.

DANGER

EACH EPO SWITCH REQUIRES 4 WIRES IF A BEVCO A1 MDP (SEE SECTION 5-1) IS USED. FAILURE TO HAVE THE 4 WIRES WILL RESULT IN THE UPS STAYING ON AND POWERING THE SYSTEM.

8. Restore UPS output power automatically by connecting back the EPO switches.

4-4 Final Steps

1. Re-install all safety shields and covers on the UPS and PDU.
2. UPS Warranty Registration
Fill out and mail the VERTIV Warranty Registration card or register the UPS on-line at <https://www.vertiv.com/en-us/support/register-your-product/product-registration/>

5-A1 MAIN DISCONNECTION PANEL (A1 MDP) CONNECTION

There is various type of A1 MDP, make sure the A1 MDP type and execute the appropriate procedure.



Illustration 19a: Typical BEVCO A1 MDP Front View & Interior View



Illustration 19b: Typical BEVCO (EU) A1 MDP Front View & Interior View

Front View



Back View



Note:

- (For E4502BX) Each EPO pushbutton utilizes two normally closed contacts.
- (For E4502AG) Use only one of these closed contacts.

Illustration 19c: EPO-NCNC-F



Illustration 19d: Typical OLD GE A1 MDP Front View & Interior View

DANGER

THE FOLLOWING PROCEDURES ARE ACCOMPLISHED INSIDE THE A1 MDP. MAINS VOLTAGE MAY STILL BE PRESENT EVEN WITH THE MANUAL SWITCH PULLED. LOCATE THE FEEDER DISCONNECT TO THE A1 MDP AND SHUT OFF MAIN POWER THERE. **USE PROPER LOCK-OUT / TAG-OUT PROCEDURES.** TEST THE A1 MDP TO VERIFY THAT ALL POWER IS OFF BEFORE PROCEEDING.

An electrician will be required to install a 3/4" conduit or raceway between the A1 MDP and the floor in the general area of the UPS. Conduit should be terminated in a small wall box. This route will be used for the UPS Control cable connecting the UPS and A1 MDP.

5-1 UPS Control Cable Connections (BEVCO A1 MDP)

NOTICE

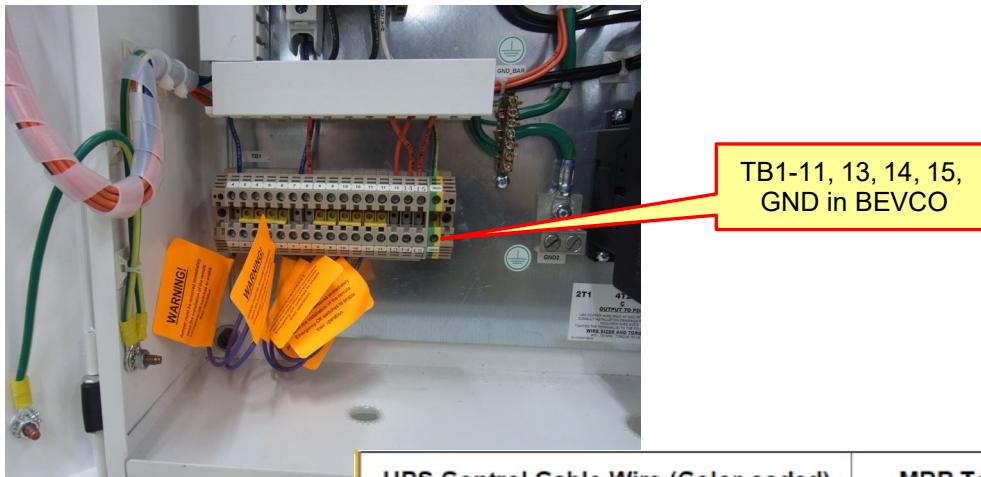
More detail BEVCO A1 MDP information please refer to related A1 MDP documents.
Refer to schematic label on inside of each MDP door for specific UPS and EPO connections.

NOTICE

Verify the feeder to the A1 MDP has been shut off and properly locked out.

1. Install a 1/2" cord grip (supplied with the kit) in the wall box or the base of the A1 MDP.
2. Route the UPS Control Cable (P/N 5817581) from the UPS through the conduit or raceway to the A1 MDP.
3. Connect the BLK 1 wire to terminal TB1-11 in the A1 MDP.
4. Connect the BLK 2 wire to terminal TB1-13 in the A1 MDP.
5. Connect the BRN wire to terminal TB1-14 in the A1 MDP.
6. Connect the BLU wire to terminal TB1-15 in the A1 MDP.

7. Connect the GREEN/YELLOW (GND) and SHIELD wires to Ground Terminal (GND) in the A1 MDP. There is ONETB1-GND for USCAN and TWO TB1-GND for EU in the BEVCO Panels.



UPS Control Cable Wire (Color-coded)	MDP Terminal Block
UPS Control Cable (Black 1)	TB1:11
UPS Control Cable (Black 2)	TB1:13
UPS Control Cable (Brown)	TB1:14
UPS Control Cable (Blue)	TB1:15
UPS Control Cable (Green/Yellow)	TB1:GND

Illustration 20: A1 MDP TB1 Terminals

Remote Emergency Power OFF (EPO) Switch:

Instead of 2 wires being run to each Remote Emergency Power Off (EPO) switch, as is shown in the site drawings, 4 wires need to be run to each Remote EPO.

EPO-NCNC-F: Qty(2) remote EPO pushbuttons are included with E4502BX MDP.

Each EPO pushbutton utilizes two normally closed contacts and a push-to-latch/twist-to-release button.

Note: Any Remote EPO switch used with the BEVCO panel is required to be a latching twist-to-release style switch with two normally closed contacts.

Typical installations will connect the Remote EPO switch as follows:

1. The numbered, normally closed contact terminals on EPO pushbutton(s) are coordinated with TB1 control circuit terminal blocks. In each instance the violet bypass jumper shall be removed and replaced with the field EPO wiring as shown in the table below (also on electrical schematic).
2. Refer to schematic label on inside of each MDP door for specific UPS and EPO connections.

Device	Remove Violet Bypass Jumper	Terminal Block/EPO Terminal Connections
REPO (E02)	TB1:4 to TB1:5 TB1:8 to TB1:9	TB1:4 to E02:11 and E02:12 to TB1:5 TB1:8 to E02:21 and E02:22 to TB1:9
REPO (E03)	TB1:5 to TB1:6 TB1:9 to TB1:10	TB1:5 to E03:11 and E03:12 to TB1:6 TB1:9 to E03:21 and E03:22 to TB1:10

EMERGENCY OFF CONNECTIONS TERMINAL BLOCK TB1				GEHC ORIGINAL TERMINAL DESIGNATION
TERMINAL	LOCATION	REMOVE	Connect NC EPO BEVCO terminals	OLD A1 TERMINAL (DO NOT USE)
TB1, 4-5	Scan Room EPO 1	Remove Violet Jumper_1	EPO TB1, 4-5	TB1, 1-2
TB1, 8-9		Remove Violet Jumper_4	EPO TB1, 8-9	-
TB1, 5-6	Scan Room EPO 2	Remove Violet Jumper_2	EPO TB1, 5-6	TB1, 2-3
TB1, 9-10		Remove Violet Jumper_5	EPO TB1, 9-10	-
TB1, 6-7	Remote operator control station emergency off or optional 3rd remote EPO. Review remote EPO on schematic.	Remove Violet Jumper_3	EPO TB1, 6-7	TB1, 3-4
TB1, 10-11		Remove Violet Jumper_6	EPO TB1, 10-11	-
REMOTE OPERATOR STATION CONTACTOR OFF/ON SWITCH CONNECTIONS TERMINAL BLOCK TB1				GEHC ORIGINAL TERMINAL DESIGNATION
TERMINAL	LOCATION	REMOVE	Connect Remote Contactor Off/On Switch	OLD A1 TERMINAL (DO NOT USE)
TB1, 26-27	Remote Operator Control Station	Remove Violet Jumper_7	TB1, 26-27	-
UPS CONTROL CABLE CONNECTIONS				GEHC ORIGINAL TERMINAL DESIGNATION
TERMINAL	WIRE COLOR	MARK	CABLE LABEL	OLD A1 TERMINAL (DO NOT USE)
TB1-11	BLACK	BLK 1	RPO1	TB1-7
TB1-13	BLACK	BLK 2	RPO2	TB1-8
TB1-14	BROWN	BROWN	AUX 120	TB1-9
TB1-15	BLUE	BLUE	AUX N	TB1-10
TB1-GND	GREEN / YELLOW	GND	GND	TB1-11(GND)
TB1-GND	GREEN / YELLOW	GND(SH)	SHIELD GROUND	TB1-11(GND)

Illustration 21: BEVCO A1 MDP Enclosure Label

5-2 UPS Control Cable Connections (OLD GE A1 MDP)

NOTICE

Verify the feeder to the A1 MDP has been shut off and properly locked out.

CAUTION

Remove the factory-installed jumper between terminals TB1-7 and TB1-9 in the A1 MDP if present. This is necessary to prevent damage to the UPS SEO Circuitry.

1. Install a ½" cord grip (supplied with the kit) in the wall box or the base of the A1 MDP.
2. Route the UPS Control Cable (P/N 5817581) from the UPS through the conduit or raceway to the A1 MDP.
3. 5818581 cable labels are designed for BEVCO A1 MDP, it needs to be converted like following table:

Wire function/color	Label on cable A1 MDP side	Conversion for OLD GE A1 MDP
BLK1 (SEO_1/RPO1)	RPO1(11)	TB1-7
BLK2 (SEO_2/RPO2)	RPO2(13)	TB1-8
BRN (AUX 120)	AUX120(14)	TB1-9
BLU (NEUTRAL)	AUX N(15)	TB1-10
GREEN/YELLOW (GND)	GND	GND
Shield	GND(SH)	GND

4. Connect the BLK 1 wire to terminal TB1-7 in the A1 MDP.
5. Connect the BLK 2 wire to terminal TB1-8 in the A1 MDP.
6. Connect the BRN wire to terminal TB1-9 in the A1 MDP.
7. Connect the BLU wire to terminal TB1-10 in the A1 MDP.
8. Connect the GREEN/YELLOW (GND) and SHIELD wires to Ground Terminal (GND) in the A1 MDP.

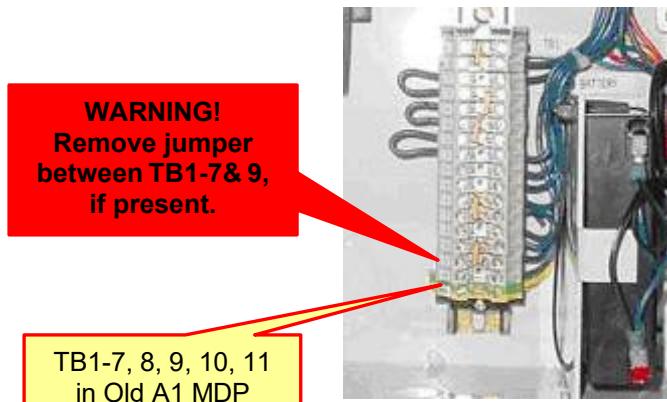


Illustration 22: A1 MDP TB1 Terminals

5-3 A1 Main Disconnect Panel Voltage Selection(OLD GE A1 MDP)

(NOT REQUIRED FOR BEVCO PANEL). Verify the A1 MDP Control Transformer is configured for the correct nominal mains voltage. The A1 MDP ships from the factory configured for 480V input. Reconnect for 400V if required.

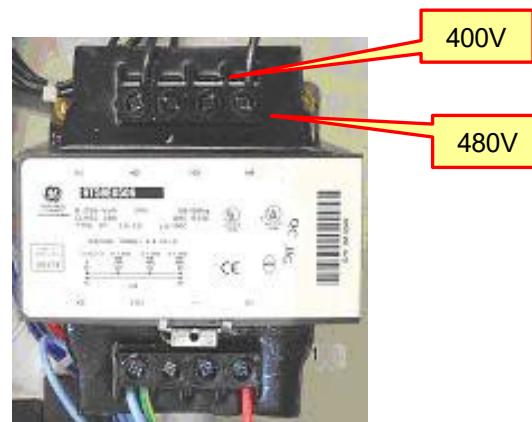


Illustration 23: A1 MDP Control Transformer

5-4 A1 Main Disconnect Panel (E4502AG)



Illustration 24: E4502AG A1 MDP Front View & Interior View

Device	Remove Violet Bypass Jumper	Terminal Block/EPO Terminal Connections
Remote EPO (E01)	TB1:1 to TB1:2	(TB1:1 to E01:11) and (E01:12 to TB1:2)
Remote EPO (E02) (Optional)	TB1:2 to TB1:3	(TB1:2 to E02:11) and (E02:12 to TB1:3)
Remote EPO (E03) (Optional)	TB1:3 to TB1:4	(TB1:3 to E03:11) and (E03:12 to TB1:4)

Terminal Block in MDP	UPS Control Cable Wire
TB1:7	UPS Control Cable – Marked TB1-7
TB1:8	UPS Control Cable – Marked TB1-8
TB1:9	UPS Control Cable – Marked TB1-9
TB1:10	UPS Control Cable – Marked TB1-10
TB1:GND	UPS Control Cable – Marked TB1-11
TB1:GND	UPS Control Cable – Marked TB1-11 SHIELD

Illustration 25: Terminal Block and UPS Control Cable

Comment: Note single line EPO. Use just one set of contacts in EPO button.

6-APPENDIX A

A-1 Applicable Documents

The following documents provide reference information for the UPS Interconnect Kit.

- GEHC Reference Documents 5169128SCH UPS Interconnect Schematic
- 5169350PSP 2Ph, 10kVa UPS Purchase Specification
- 2326492SCH NGPDU Schematic
- 2391993PSP Purchase Specification for Main Disconnect & UPS Control Panel
- 5169123ADW Assembly Specification for the UPS Hardware Kit
- 46-015900 Global Documentation Standard
- 46-131001 Applied Practices (Assemblies)
- 46-170700 Applied Practices (Portions)

A-2 Supplier Documents

User's Guide

A-3 Industry Standards

NFPA-70 (2005) National Electrical Code (USA)

A-4 Field Replaceable Units (FRU) Listing

The following listing identifies the Field Replaceable Units (FRUs) associated with this assembly. Vendor part numbers are included as examples only. For the complete list of approved vendors for each item, see the associated Manufacturer's Equivalent on GEHC MWS system.

GEMS Part #	Name / Description	Vendor
7010000-LL1T-2P	GXT4-10000RT208-GE	VERTIV
5820692	Hardware Kit	VERTIV

7-APPENDIX B – PARTS DISPOSITION AND RETURN

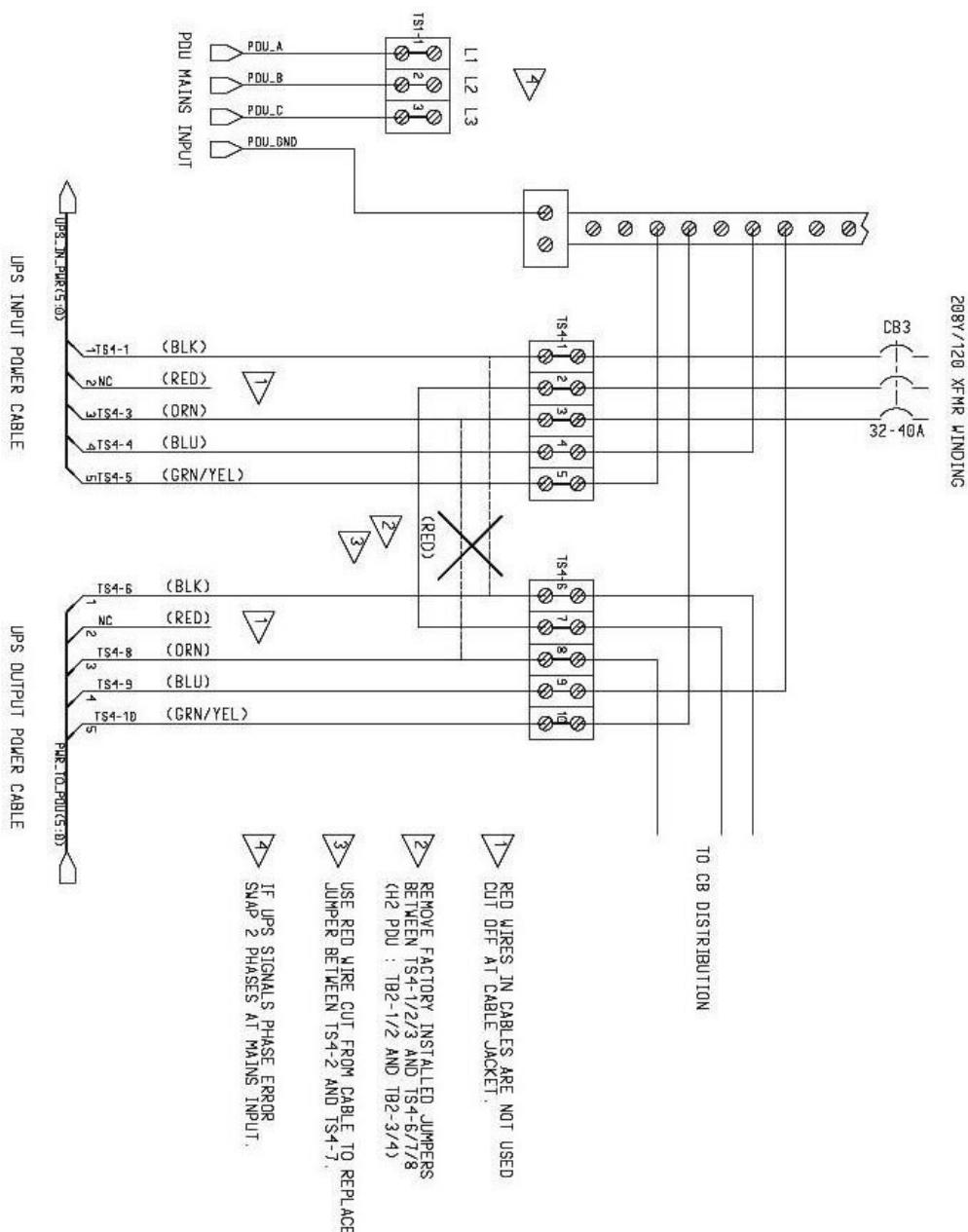
The customer has purchased this upgrade. Legally all new parts added and the old parts removed are the property of the customer. However, please ask the customer if they would like to keep the old parts, or have you disposed of the old parts.

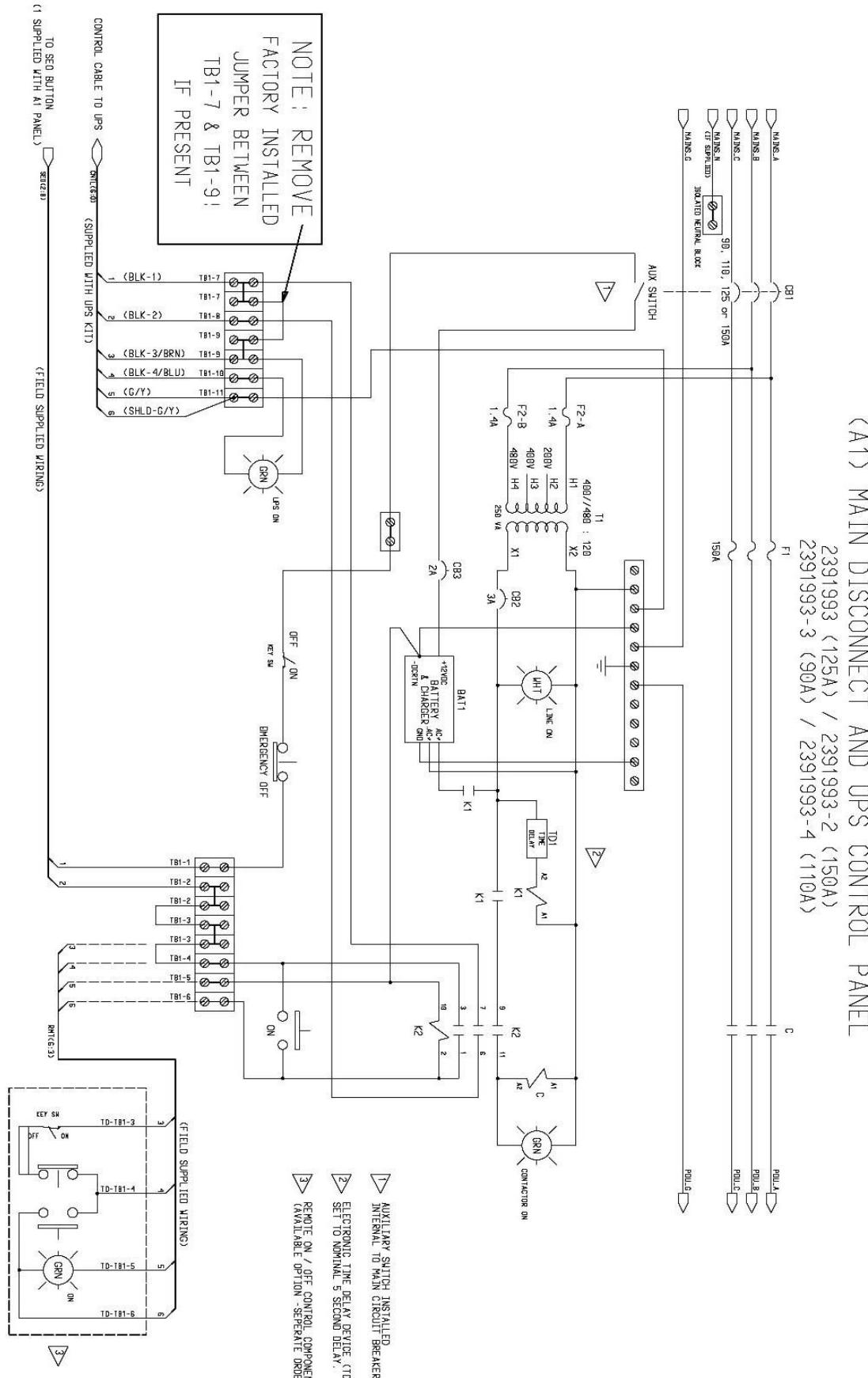
8-APPENDIX C- 5169128SCH UPS INTERCONNECT SCHEMATICS

Refer to the following pages for schematics and interconnect drawings.

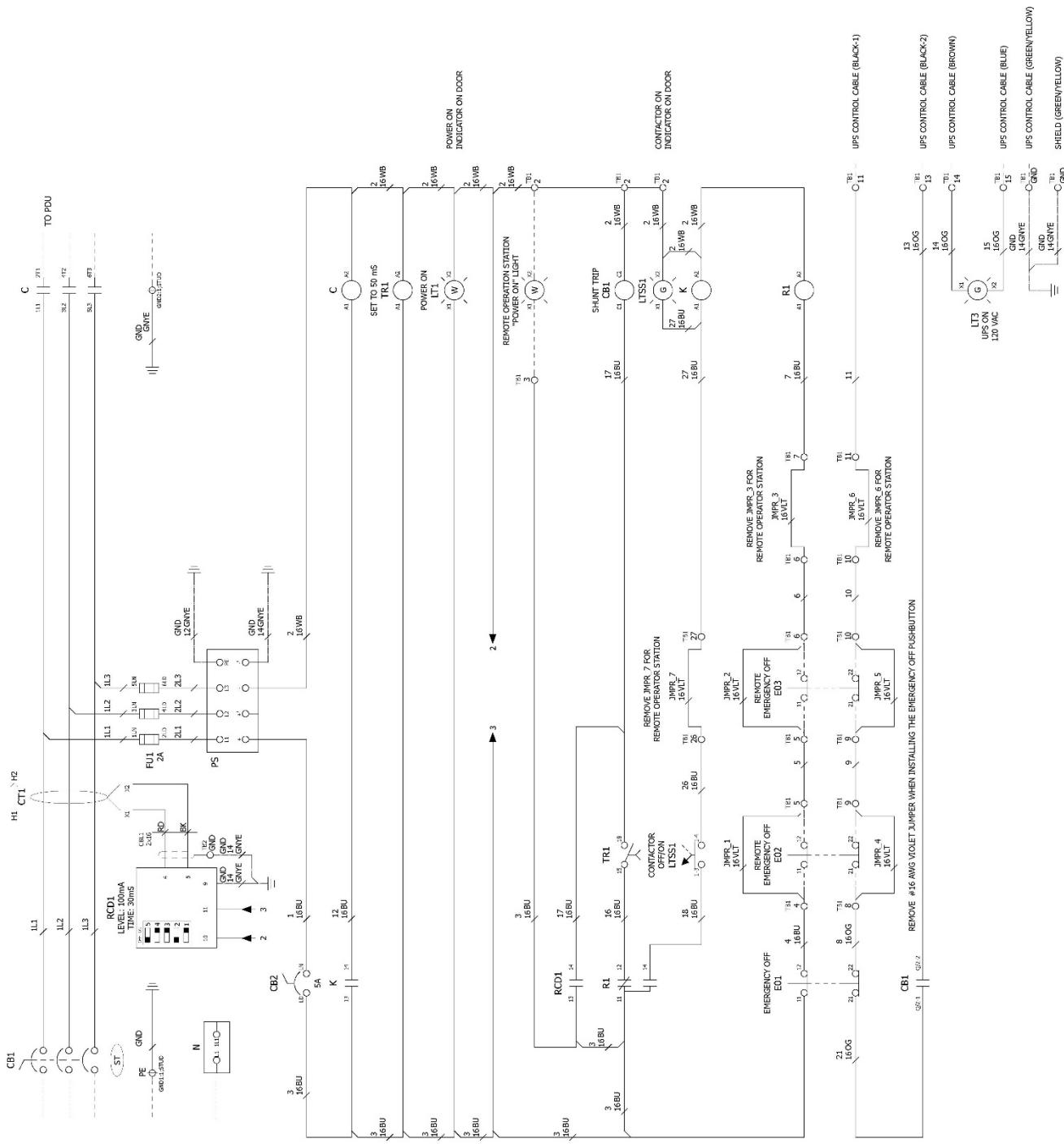
POWER DISTRIBUTION UNIT

(NGPDU MODEL 2326492, -X)

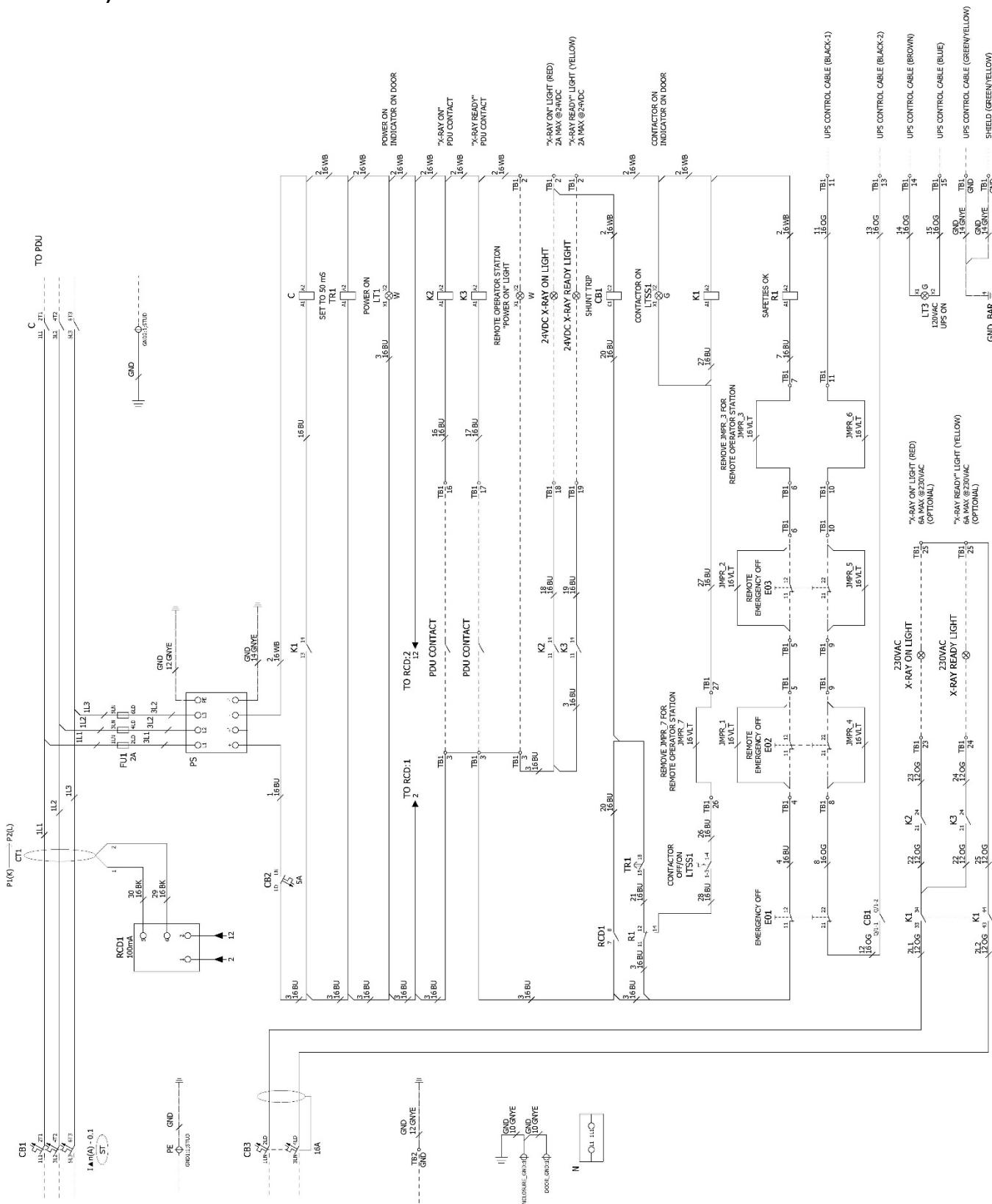




9- APPENDIX D- BEVCO SCHEMATICS USCAN PANELS (E4502BB, E4502BC, E4502BE,
E4502BF, E4502BG)



10- APPENDIX E- BEVCO EU PANEL SCHEMATICS (E45021BA, E45021BB, E45021BC,
E45021BG)



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