

GE Healthcare

MR450, MR750,
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Pre-Magnet Delivery System Installation
Technical Publication



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DAMAGE IN TRANSPORTATION

All packages should be closely examined at time of delivery. If damage is apparent, have notation “**damage in shipment**” written on **all** copies of the freight or express bill **before** delivery is accepted or “signed for” by a General Electric representative or a hospital receiving agent. Whether noted or concealed, damage **MUST** be reported to the carrier **immediately** upon discovery, or in any event, within **14** days after receipt, and the contents and containers held for inspection by the carrier. A transportation company will not pay a claim for damage if an inspection is not requested within this **14** day period.

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- Call 1–800–548–3366 and use option 8.
- Contact your local service coordinator for more information on this process.

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ПРЕДУПРЕЖДЕНИЕ

(BG)

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

警告

(ZH-CN)

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

VÝSTRAHA

(CS)

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

ADVARSEL

(DA)

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

WAARSCHUWING

(NL)

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

WARNING

(EN)

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

FIGYELMEZTETÉS

(HU)

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

AÐVÖRUN

(IS)

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

AVVERTENZA

(IT)

- IL PRESENTE MANUALE DI MANUTENZIONE 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

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。
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경고

(KO)

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BRĪDINĀJUMS

(LV)

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

ĮSPĖJIMAS

(LT)

- ŠIS EKSPLOATAVIMO VADOVAS YRA PRIEINAMAS TIK ANGLŪ KALBA.
- JEI KLIENTO PASLAUGŲ TIEKĒJAS REIKALAUJA VADOVO KITA KALBA – NE ANGLŪ, NUMATYTI VERTIMO PASLAUGAS YRA KLIENTO ATSAKOMYBĒ.
- 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 TIEKĖJUI, OPERATORIUI AR PACIENTUI.

ADVARSEL

(NO)

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

OSTRZEŻENIE

(PL)

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

ATENÇÃO

(PT)

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

ATENȚIE

(RO)

- ACEST MANUAL DE SERVICE ESTE DISPONIBIL NUMAI ÎN LIMBA ENGLEZĂ.
- DACĂ UN FURNIZOR DE SERVICII PENTRU CLIEȚI NECESITĂ O ALTĂ LIMBĂ DECĂT CEA ENGLEZĂ, ESTE DE DATORIA CLIENTULUI SĂ FURNIZEZE O TRADUCERE.
- NU ÎNCERCAȚI SĂ REPARAȚI ECHIPAMENTUL DECĂT ULTERIOR CONSULTĂRII ȘI ÎNȚELEGERII ACESTUI MANUAL DE SERVICE.
- IGNORAREA ACESTUI AVERTISMENT AR PUTEA DUCE LA RĂNIREA 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 COMPRENDIDO ESTE MANUAL DE SERVICIO
- LA NO OBSERVANCIA DEL PRESENTE AVISO PUEDE DAR LUGAR A QUE EL PROVEEDOR DE SERVICIOS, EL OPERADOR O EL PACIENTE SUFRAN LESIONES PROVOCADAS POR CAUSAS ELÉCTRICAS, MECÁNICAS O DE OTRA NATURALEZA.

VARNING

(SV)

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

DİKKAT

(TR)

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

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REVISION HISTORY

REV	DATE	PRIMARY REASON FOR CHANGE
1	May 12, 2008	Preliminary release for verification.
2	May 15, 2008	Section 1: Minor changes to wording. Section 2: Corrected spelling errors. Added power cord service loop in HEC cabinet. Release for validation.
3	Apr 17, 2009	Updated document title to Discovery MR450 & MR750 Pre-Magnet Delivery System Installation. Section 2-6: Added illustrations showing service loop on top of power box and the power wire connections to the terminal strip inside the power box (PQR's 13233956, 13236584). Section 2-7-1: Revised section to clarify the orientation of the SPW and Penetration Panel frames. Section 2-9: Added instructions to refer to Direction 5500102 for instructions on installing the curtain covers in the magnet room (PQR 13224769).
4	Nov 2, 2009	Updated document title to Discovery MR450, MR750 & MR450w Pre-Magnet Delivery System Installation. Section 2-7-1: Updated instructions for installing PEN and SPW mounting frames (PQR 13280034).
5	Jun 21, 2010	Section 2-3: Removed MDP part number (MRIhc47301). Section 2-4-2: Added note for retaining cabinet shipping brackets for seismic anchoring (MRIhc49004). Section 2-5: Created sub-sections for customer facility power and facility waer. Sec 2-5-1: Updated connection of power wires in HEC power box (SCR DOC0622354). Sec 2-5-2: Added Caution to make sure connections are secure before performing leak test (MRIhc50333). Updated views with new HEC where applicable (ECO 2100354). Section 2-6: Added instructions for installing HEC-CRY power cord (MRIhc48837 & MRIhc49393) and using the power box strain relief for securing the cord (MRIhc49317). Section 2-7: Added instructions for installing HEC-CRY cooling hose kit (SPR's MRIhc48837 and MRIhc49003). Added instruction for installing insulation sleeves and duct tape between sections before routing hoses in overhead cable trays (MRIhc50838). Revised flare fitting connectoin instructions at IN and OUT ports (MRIhc49318). Section 2-8: Added this new section for installing hose insulation kit and applying duct tape between sections (SPR MRIhc48856). Section 2-9-2: Added equipment room side and magnet room side designation (MRIhc51461). Section 2-10: Added section 2-10-2, Cable Curtain installation for MR450w magnet enclosure (ECO 2099113 & SPR MRIhc48838).
6	Jul 22, 2011	Updated document title to MR450, MR750, MR450w, MR450w GEM, MR750w & MR750w GEM Pre-Magnet Delivery System Installation due to introduction of new products. Updated information throughout manual accordingly. Section 2-10: Added section 2-10-3 and 2-10-4.

LIST OF EFFECTIVE PAGES

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Title Page	6	TAB 2							
Damage in Trans.	-	COMPONENT							
Language Policy	6	INSTALLATION							
A	6	2-1 to 2-34	6						
i	6								
TAB 1		TAB 3							
GETTING STARTED		COMPLETION							
1-1 to 1-10	6	CHECKLIST							
		3-1 to 3-2	6						

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SECTION 1 – GETTING STARTED

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1-1 INTRODUCTION

This manual provides instructions to install the following components of the MR750 3.0T, MR450 1.5T or the MR450w System prior to delivery and installation of magnet.

- Main Disconnect Panel LOTO Placard
- HEC Cabinet containing the Cooling Loops, and Gradient Blower.
- HEC to Cryogen Chiller hoses and insulation
- SPW and PEN Panel mounting frames
- Magnet room Curtain Rail/Cable Concealment Kit

This Direction covers the following catalog:

M7000WM – Preinstallation Collector for Discovery MR750 3.0T, MR450 1.5T and Optima MR450w 1.5T.

1-2 SITE READY CHECK FOR MECHANICAL INSTALLATION

Before equipment is delivered, one of the following applicable manuals must be complete to avoid delays and confusion.

- Pre-installation work must be complete. Refer to Direction 5500101, *Discovery MR750 3.0T Preinstallation manual*
- Pre-installation work must be complete. Refer to Direction 5500109, *Discovery MR450 1.5T Preinstallation manual*
- Pre-installation work must be complete. Refer to Direction 5670001, *Optima MR450w 1.5T Preinstallation manual*
- Pre-installation work must be complete. Refer to Direction 5670003, *Discovery MR750w 3.0T Preinstallation manual*

1-3 NON-ENGLISH LABEL INSTALLATION

Components and accessories delivered to this site may have English labels attached to them. For non-English sites, optional multi-language labels have also been supplied.

If required, non-English labels should be attached over the English labels.

- For Surface Coils and Coil Cables – Apply the appropriate label over the English label. The label is included with the coil component.
- For all other labels, follow the label update procedures in the manual or on the applicable multi-language label sheet.

Verify at the end of the installation that the original English labels are covered by new labels representing the native language of the customer.

1-4 REQUIRED TOOLS



FERROUS MATERIAL HAZARD! IF MAGNET IS ENERGIZED, TOOLS AND PARTS REQUIRED FOR THIS INSTALLATION THAT CONTAIN FERROUS MATERIAL AND WILL BE STRONGLY ATTRACTED TO MAGNET AND MAY BECOME DANGEROUS PROJECTILES. KEEP ALL FERROUS TOOLS AS FAR FROM THE MAGNET AS POSSIBLE.

Tools to install the system are listed below in Table 1-1.

TABLE 1-1
INSTALLATION EQUIPMENT

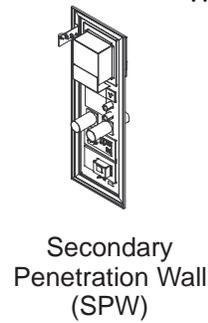
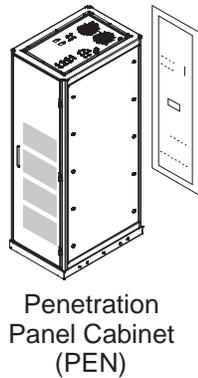
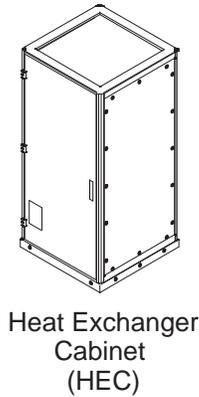
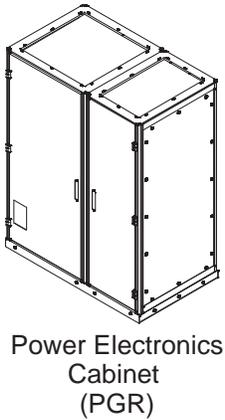
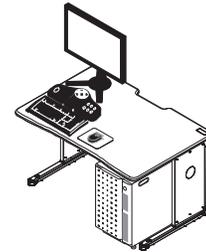
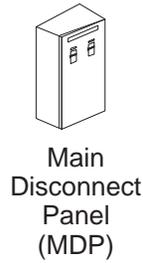
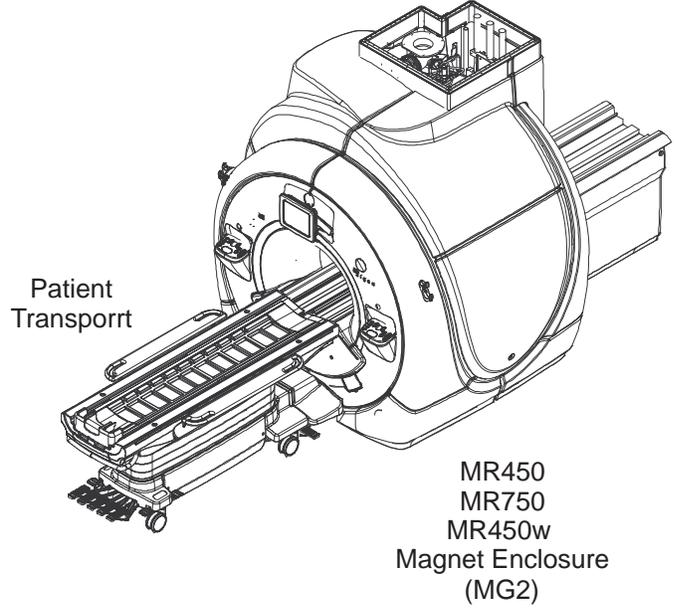
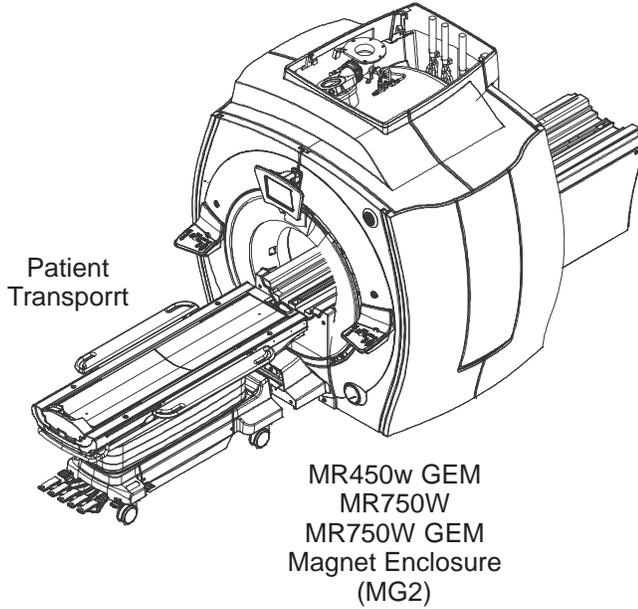
ITEM	GE PART NUMBER	DESCRIPTION
1	46-271138G1	Restricted Access Control Kit. Contains two plastic warning signs for posting at site during installation and service activity.
2	2319156	Aluminum platform ladder, 47.5 inches (1206.5mm) (See Note 1)
3	46-320273G3 or G4	Non-Magnetic Tool Kit – Universal (See Note 2) Both metric and inch Non-Magnetic Tool Kits needed. May substitute both of the following kits: <ul style="list-style-type: none"> • 46-320273G1 Non-Magnetic Tool Kit – Metric • 46-320273G2 Non-Magnetic Tool Kit – Inch
4	—	Volt Meter
5	—	Extension cords, with ground conductor
6	—	Power strip, grounded type, with minimum of five outlets
7	—	Plastic or aluminum flashlight
8	—	Non-magnetic level
9	—	Non-magnetic tape rule, 12 ft
10	—	Assorted drill bits
11	—	Inspection mirror
12	—	Hobby and utility knives
Note	1	Supplied as part of System.
	2	Supplied by GE until turnover of system to customer, then available as part of a GE Cryogen and/or Service Contract.

1-5 BASIC SYSTEM

The complete basic system, Illustration 1-1, consists of the following major equipment:

- Magnet Enclosure and Magnet Accessories
 - 1.5T (15 kilogauss) LCC Magnet
 - 1.5T (15 kilogauss) MR450w Magnet
 - 3.0T (30 kilogauss) LCC300 Magnet
or
 - 3.0T (30 Kilogauss) MR750w Magnet
- Shield/Cryo Cooler Compressor Cabinet
- Gradient and RF body coils and Head Coil
- Main Disconnect Panel
- System electronics cabinets:
- PGR Cabinet containing XGD Gradient Drivers and Power Distribution Unit module with unregulated transformer 200/380/400/415/480 Volt, 50/60 Hz with power filter, CAM Chassis with boards for either 16 or 32 channels, components for the Volume Reconstruction Engine (VRE), Narrow Band RF Amplifier
 - HEC Cabinet containing the Cryo Coolers, Cooling Loops, and Gradient Blower.
 - PEN Cabinet containing the PHPS, Scan Room power supply, CAN Fiber I/F, T/R DD Driver module, and HO Shim Filter (optional)
 - SPW (Second Penetration Wall) containing Gradient Filter, Scan Room Filters & I/F, and Ramp/Shim access
- Operator Workspace equipment: GOC Computer Cabinet (containing Linux PC and GOCAA), LCD Widescreen monitor, keyboard, SCIM, mouse and mouse pad, and chair
- Pneumatic Patient Alert System
- Patient Transport Table and cradle
- Patient accessories such as: a phantom kit, patient log book, head cushion and sponges, chin and forehead straps, body wedges, knee cushions, and security/restraint straps
- Gating accessories which include: patient cardiac leads, peripheral gating probe, and respiratory bellows

1-5 BASIC SYSTEM (Continued)



DVMR SYSTEMS
ILLUSTRATION 1-1

1-6 PRODUCT DELIVERY INSTRUCTIONS

Note

Two or more people are required to accept delivery of equipment due to weight and size of cabinets and other components.

The “Shipping Document” lists catalog numbers delivered. Review and confirm that order is delivered complete. Check impact on installation schedule if Catalogs and/or packing boxes are missing and/or noted as shipped short.

Labels that are attached to the outside of packing boxes summarize box contents. The labels are color coded for different installation areas as follows:

- Green – Equipment Room
- Purple – Operator’s Room
- Orange – Magnet Room
- Yellow – Post-installation (Phantoms, Coils).

“Product Delivery Instructions” (PDI) specify box contents, part numbers, and shipping procedure. The PDI is numbered according to the catalog number (for example, PDI – M3333TA is for the Fixed Site Installation Kit). Lists of items included with each box are detailed by separate checklists, or a separate sheet that provides a summary of that box contents. Refer to PDI and packing lists for information specific to your shipment.

A set of service and operator manuals is delivered with the Fixed Site Kit. Refer to checklists packed with “Technical Publication” boxes for a list of delivered documents.

1-7 DAMAGE IN TRANSPORTATION

All packages should be closely examined at time of delivery. If damage is apparent, have notation “**damage in shipment**” written on **all** copies of the freight or express bill **before** delivery is accepted or “signed for” by a General Electric representative or a hospital receiving agent. Whether noted or concealed, damage **MUST** be reported to the carrier **immediately** upon discovery, or in any event, within **14** days after receipt, and the contents and containers held for inspection by the carrier. A transportation company will not pay a claim for damage if an inspection is not requested within this **14** day period.

File a report with

- Call 1-800-548-3366 and use option 8.
- Contact your local service coordinator for more information on this process.

1-8 PRODUCT LOCATOR

The Global Install Base Database (also known as Product Locator System) tracks shipment, trans-shipment, and field location of the serialized models. There are now two methods for submitting Product Locator information.

1. At this time, for **U.S. ONLY**, the preferred method of submitting information is the *FE Site Verification Web Site* at:
<http://gein2.med.ge.com/gib>

The FE Site Verification consists of three components that are available on the web from the main menu. They are:

- Install/deinstall product locator model and serial numbers
- Add/modify ship to address information
- Update CARES FE data for primary/secondary FEs

To obtain a copy of the FE training tutorial for using this website, a downloadable copy is available at the following:
Product Locator Support Central Page – <http://supportcentral.ge.com/15563>

2. One “Shipping Card” is filled out and submitted when shipped (extra cards are supplied for trans-shipments between storage and distribution points), and the “Installation Card” and extra shipment cards are attached.

Verify that serial and model number on each rating plate matches installation card numbers before removing installation card. Note that there may be one or more shipment cards and bar code labels with the installation card. These shipment cards are used to trace the transfer of serialized units between various inventory storage and distribution points until the product reaches its final installation destination. Process just the installation card and discard any extra shipment cards and labels.

1-9 INSTALLATION PROCEDURE

1-9-1 Installation Flow

Note

All on-site construction must be completed before equipment is delivered and installation starts. Attempting to install the system while construction is being completed will impact installation efficiency and further delay site completion. Making sure that all preinstallation and construction work is completed before equipment is delivered will usually result in an earlier turnover date.

The flow chart on the next page should be followed for an orderly and efficient installation of the Pre-magnet delivery components of the system being installed. Note that many procedures may be performed in parallel and may be performed in any order according to the specific situation of each site.

Note

The flow chart references the Tab number and/or Section number for the respective installation procedures. These procedures are similar to cable maps in that they are to be removed from this binder and used at the location where hardware installation is being performed. The Procedures must be returned to the binder for future reference upon completion of the installation.

This installation flowchart has been developed assuming that all components for this part of the installation have been delivered together. Make sure that every part required is available before starting.

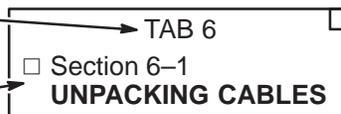
1-9-2 Installation Flowchart Explanation

Shown below are three examples of the flow chart Installation Procedures and an explanation of the areas within the procedures.

Use the correct Magnet Manual that applies to the System being installed to locate the installation procedure listed below

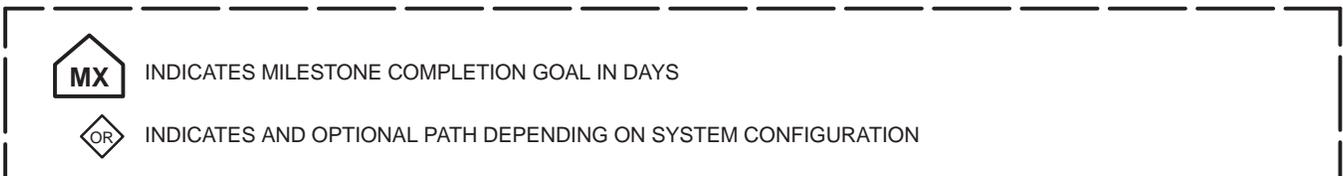


Tab within this manual where the Section listed below is located



Section within the Tab where the Installation Procedure is located

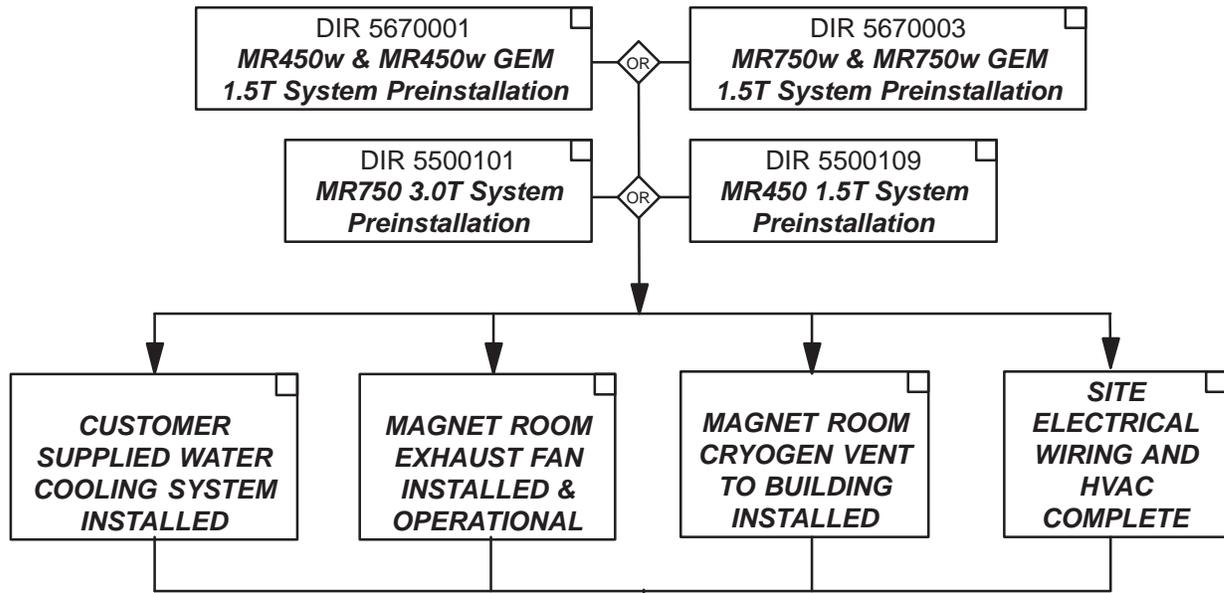
LEGEND FOR FOLLOWING INSTALLATION FLOWCHART



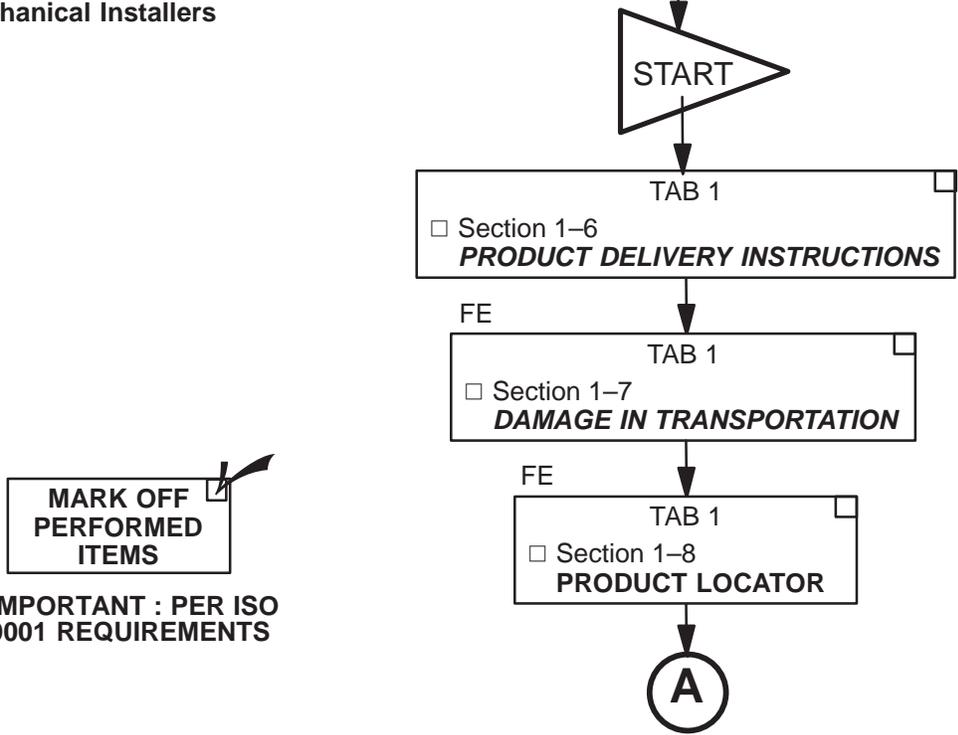
1-10 INSTALLATION FLOWCHART

1-10-1 PREREQUISITES FOR SYSTEM INSTALLATION

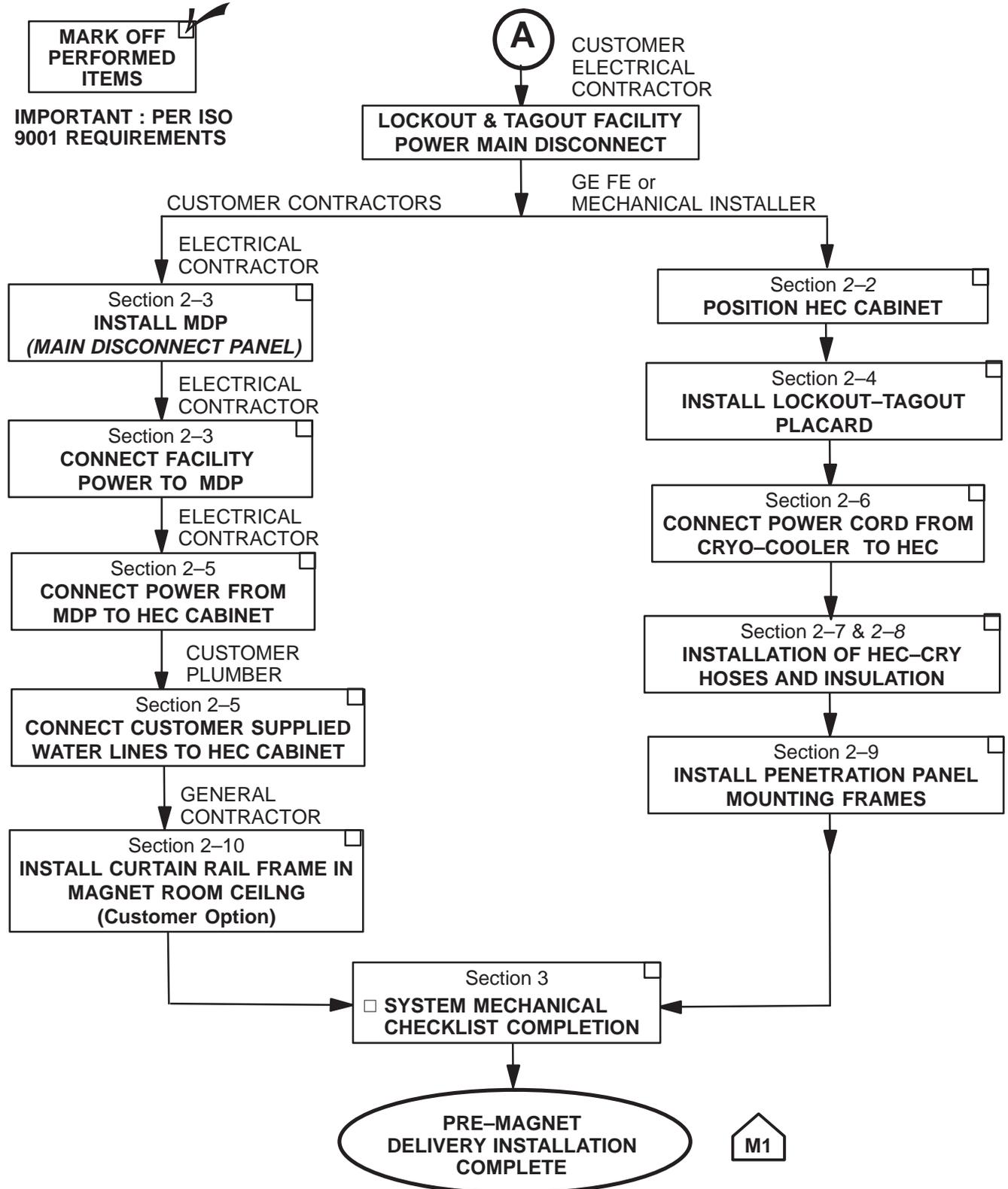
Site Installations Required Prior to System Mechanical Installation



Procedures to be Completed by FE or Mechanical Installers



1-10-2 PRE-MAGNET DELIVERY MECHANICAL INSTALLATION



SECTION 2 – COMPONENT INSTALLATION

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2-4	INSTALL LOCK-OUT TAG-OUT PLACARD	2-8
2-5	CUSTOMER CONNECTIONS TO HEC CABINET	2-9
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2-1 COMPONENT INSTALLATION REQUIREMENTS

Positioning of cabinets and components is critical for installing cables and post-installation system operation. Refer to architectural site layouts for:

- Location of all cabinets and related equipment.
- For seismic anchoring (where required)



Equipment room cabinets must not be installed in an area with magnetic fields higher than 50 gauss. Refer to site layout plans for positioning of cabinets.



DUE TO WEIGHT OF CABINETS, AT LEAST TWO PEOPLE ARE REQUIRED TO MOVE ANY CABINET

2-2 HEC CABINET INSTALLATION

2-2-1 HEC CABINET POSITIONING PREPARATION

The illustration below shows a typical layout for the equipment room.

Refer to architectural site layout drawings to determine location of HEC cabinet.

- If available, use the cabinet floor layout templates for positioning cabinets
- If templates are not available, using the minimum spacing distances as noted below, apply tape on floor to mark final location of front corners of cabinets.

The PEN and PGR cabinets will be delivered and installed after installation of the magnet.

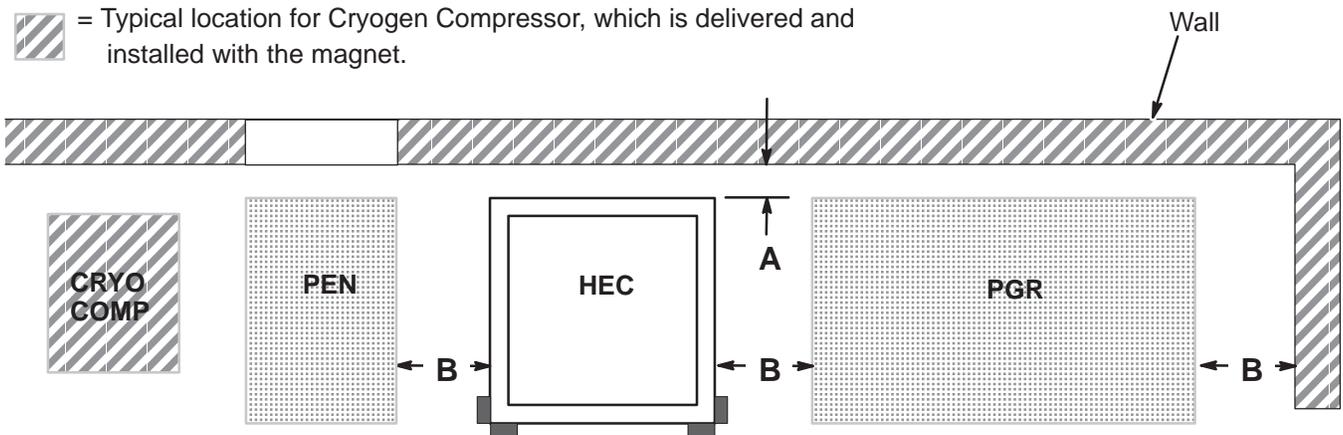
Legend:

A = 4 inch (102mm) minimum space distance from wall

B = 15 inch (380mm) minimum space distance at side of cabinet

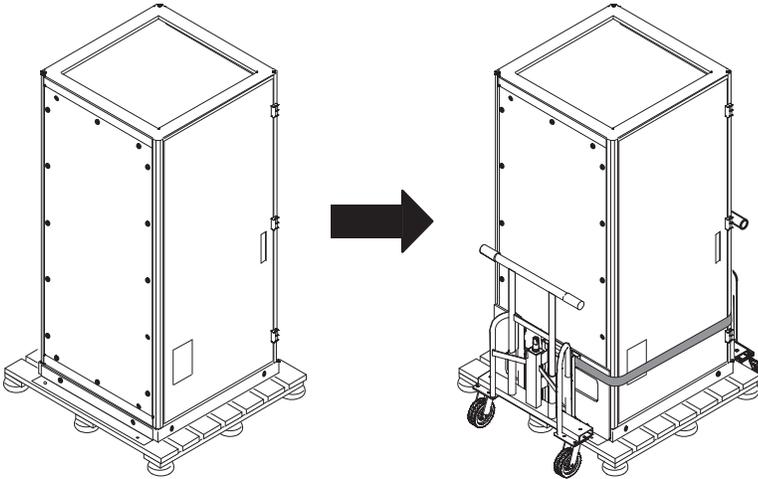
 = Final location of PEN and PGR Cabinets. Moved into position after routing of cables in overhead cable trays.

 = Typical location for Cryogen Compressor, which is delivered and installed with the magnet.



2-2-2 CABINET WITH SHIPPING PALLET

The HEC cabinet is delivered to site secured to a pallet. The cabinet must be removed from the pallet and positioned in Equipment Room according to site layout plans. The cabinet moving dollies that were delivered to site on a pallet are required to move the HEC cabinet off the pallet.



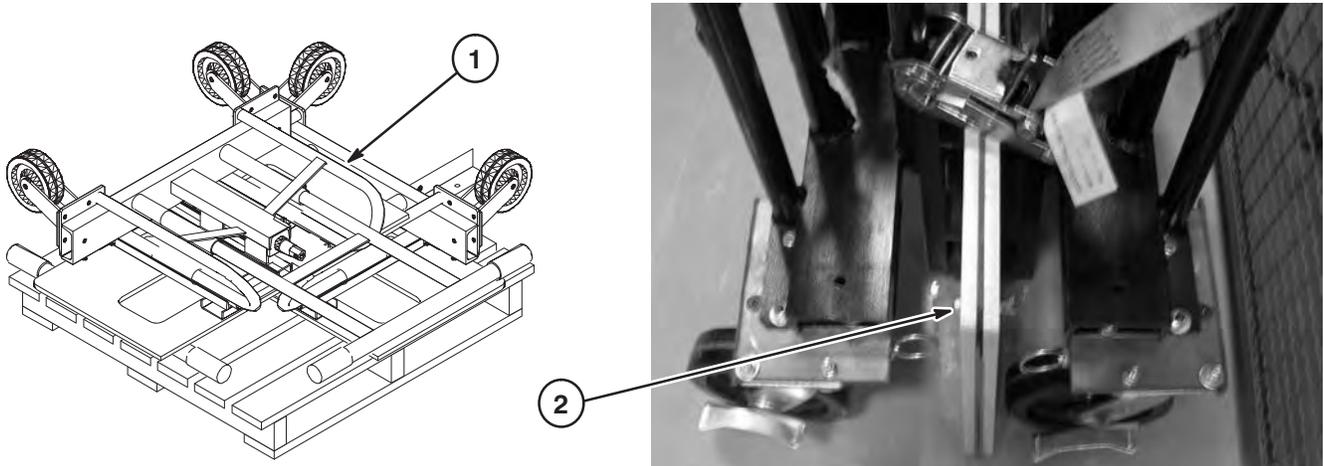
2-2-3 CABINET MOVING DOLLIES

The cabinet moving dollies have been shipped to site on a separate pallet. If dollies are not on site, they can be ordered online at www.umi-dollyshop.com. For technical questions, contact: UMI, 1-800-638-7457.

Note: The dollies have the following features to aid in their use:

- Wheel Locking Pin – Keeps the wheels locked into a certain direction
- Parking Brakes – For holding the cabinet in position
- Slide and Lock – The dollies can be removed in limited space (15 inches or 380mm)
- Twinning Hardware – hardware to connect each dolly to the other dolly during transport without a cabinet

1. Unfasten and remove dollies from shipping pallet.
2. If dollies need to be moved to different area where the HEC cabinet is located, attach the two dollies together using the twinning hardware. Refer to note above.



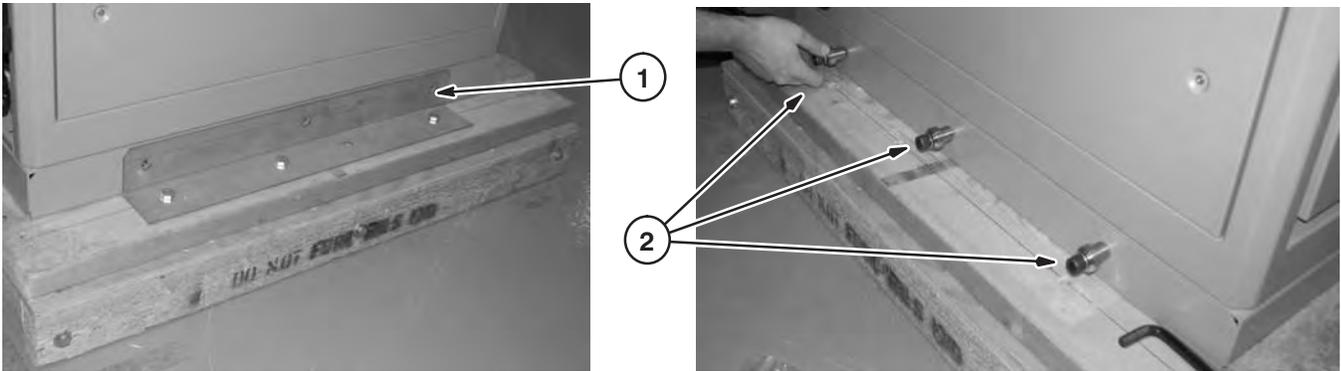
2-2-4 MOVE HEC CABINET INTO EQUIPMENT ROOM

1. Unfasten screws for each angle shipping bracket and remove bracket from each side of cabinet.

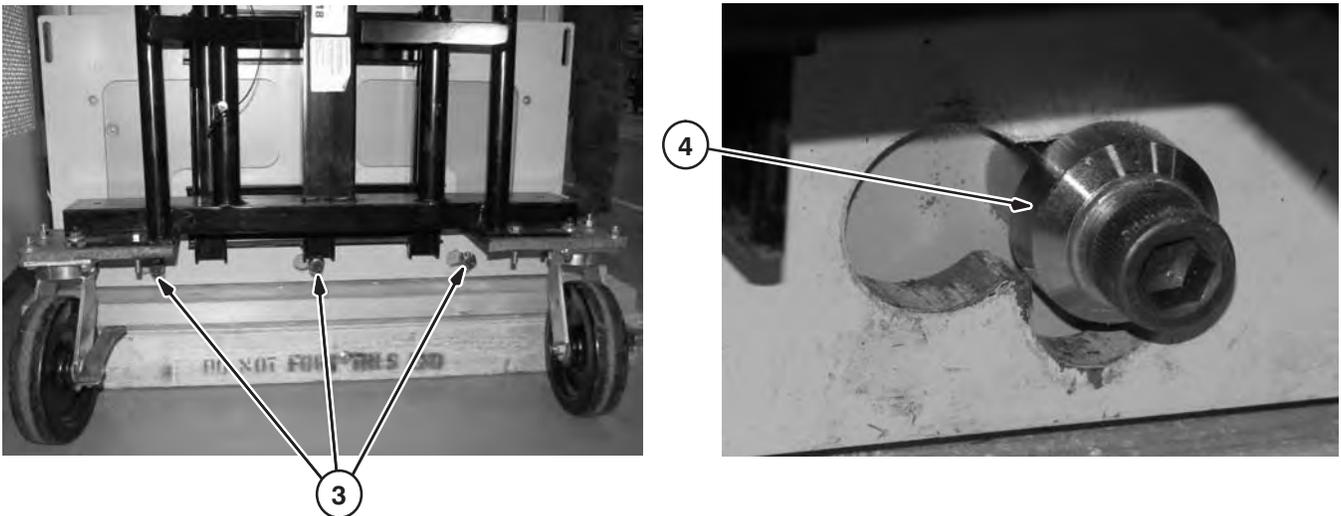
IMPORTANT!

The screws and brackets used to secure the cabinets to the pallets during shipment of cabinets are also used to secure the cabinet to the floor at sites requiring seismic support. **DO NOT DISCARD BRACKETS AND FASTENING SCREWS.** Retain and save for customer.

2. Install the six bushings, three on each side, to the bottom of the cabinet.

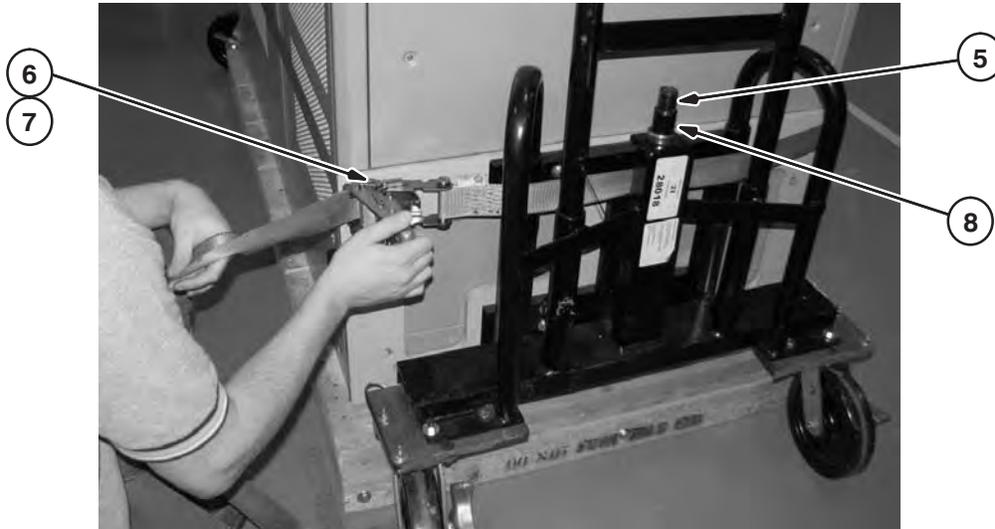


3. Maneuver the dolly so that all three bushings slip into the slide lock on the attachment plate.
4. Slide the dolly sideways to position the bushings in the lifting part of the attachment plate.

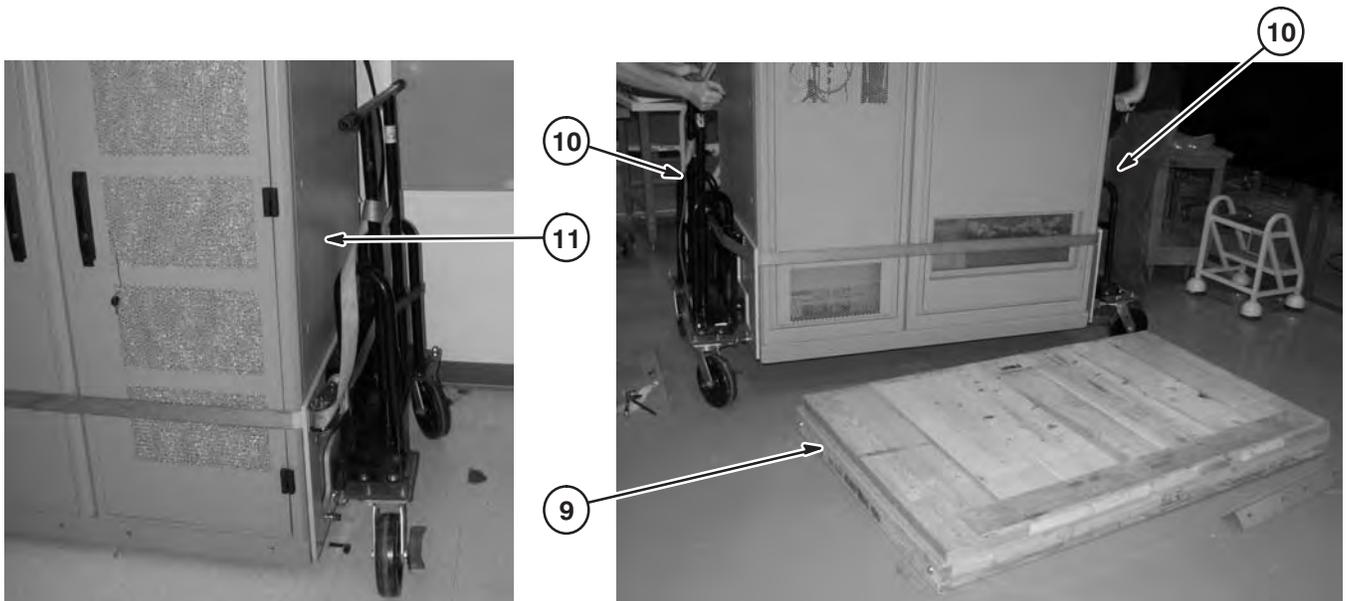


2-2-4 MOVE HEC CABINET INTO EQUIPMENT ROOM (continued)

5. Raise the dolly by turning the jack screw clockwise. This will lock the dolly into position.
6. Secure to dollies with strap. Make sure the strap goes through the slot of the attachment plate and the clamp is on flat surface of cabinet.
7. Tighten strap and close clamp.
8. Lift cabinet off of pallet by turning the jack screw clockwise until the cabinet surface is free from the pallet surface.
Note: Alternate raising each dolly in 1/4 inch (6mm) increments until the cabinet is above the pallet.

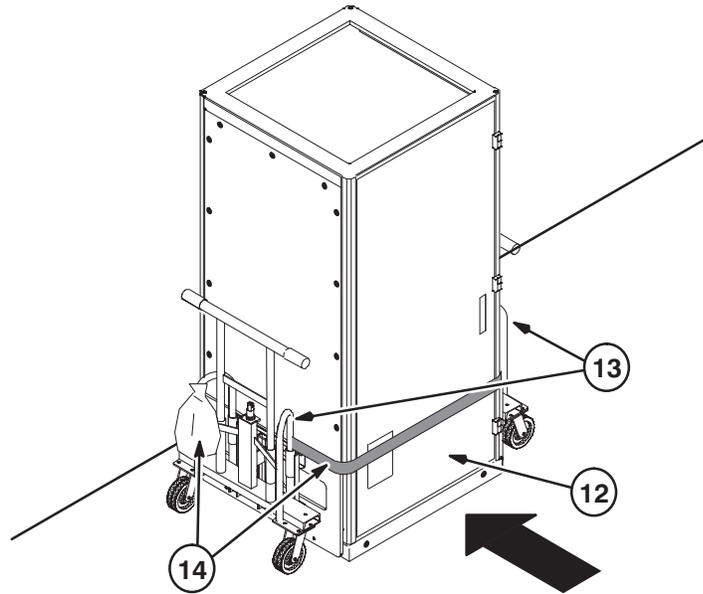


9. Slide the pallet out from under the cabinet.
10. Lower the cabinet by turning the jack screw counter-clockwise until the cabinet is about 1 inch (25mm) above the floor. **Note:** Alternate lowering each side of cabinet.
11. Move the cabinet into the equipment room.



2-2-4 MOVE HEC CABINET INTO EQUIPMENT ROOM (continued)

- 12. Refer to Section 2-2-1 for placement of cabinet and lower cabinet into position.
- 13. Leave dollies attached to cabinet. They will be used for moving and positioning the PGR and PEN cabinets when they are delivered to site.
- 14. Remove strap and store in bag delivered with dollies that contained the bushings.



2-3 INSTALLATION OF MAIN DISCONNECT PANEL

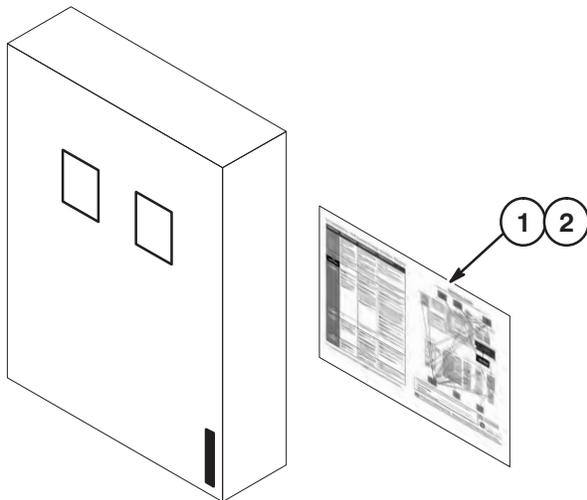
The MDP (Main Disconnect Panel) is to be mounted and connected to facility power by customer electrician. Refer to architectural site layout drawings for specifications and mounting locations.



2-4 INSTALL LOCK-OUT TAG-OUT PLACARD

The Lock-out Tag-out placard (5197122) must be secured to the wall next to the MDP.

1. Remove covering of double-sided tape on back side of placard.
2. Press and secure to surface next to MDP.



2-5 CUSTOMER CONNECTIONS TO HEC CABINET

Customer is to provide and install liquid coolant, pipe/hoses, filters and connectors to the HEC cabinet.

Customer shall also provide a flow meter to display coolant flow.

Customer is also providing and installing facility power to the HEC cabinet from the MDP.

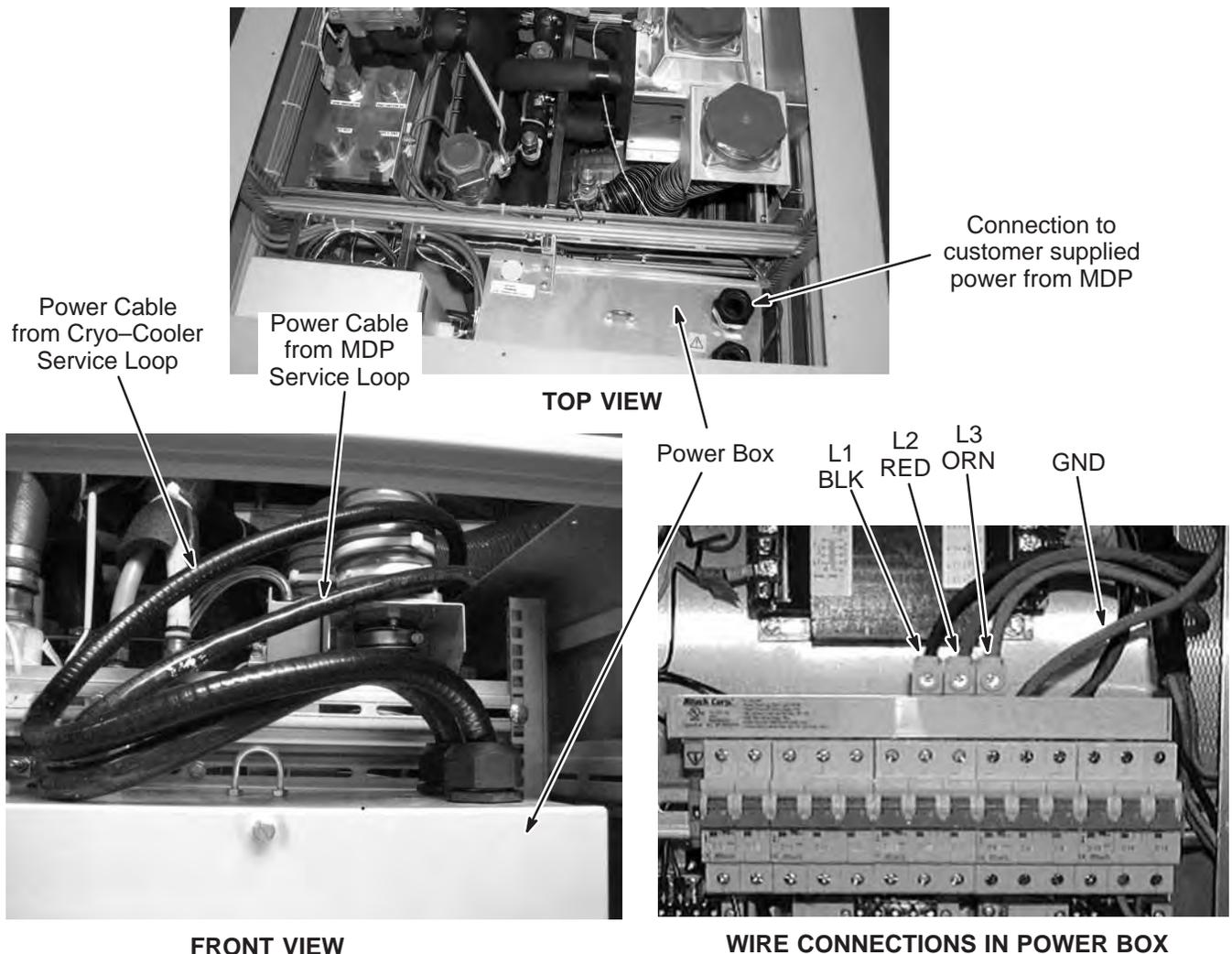
- The Power Box in the HEC is hinged so it can be swung out for access to components behind it. Therefore, hard conduit cannot be used for connecting facility power to the HEC at the connection point.
- Make sure to include a service loop for both the incoming power and the power cable routed to the Cryo-Cooler or step-up transformer. Refer to following note.

Note

For sites requiring a step-up transformer, customer is to provide transformer and power cable between HEC cabinet and transformer. Instructions for installing transformer and connection of power cables are provided with step-up transformer. Run E0009 will be routed and connected between the step-up transformer and the Cryo-Cooler compressor.

2-5-1 Facility Power Installed by Customer

The space above the power box has been provided for this service loop. Refer to site drawings for specifications.



2-5-2 Facility Water Installed by Customer

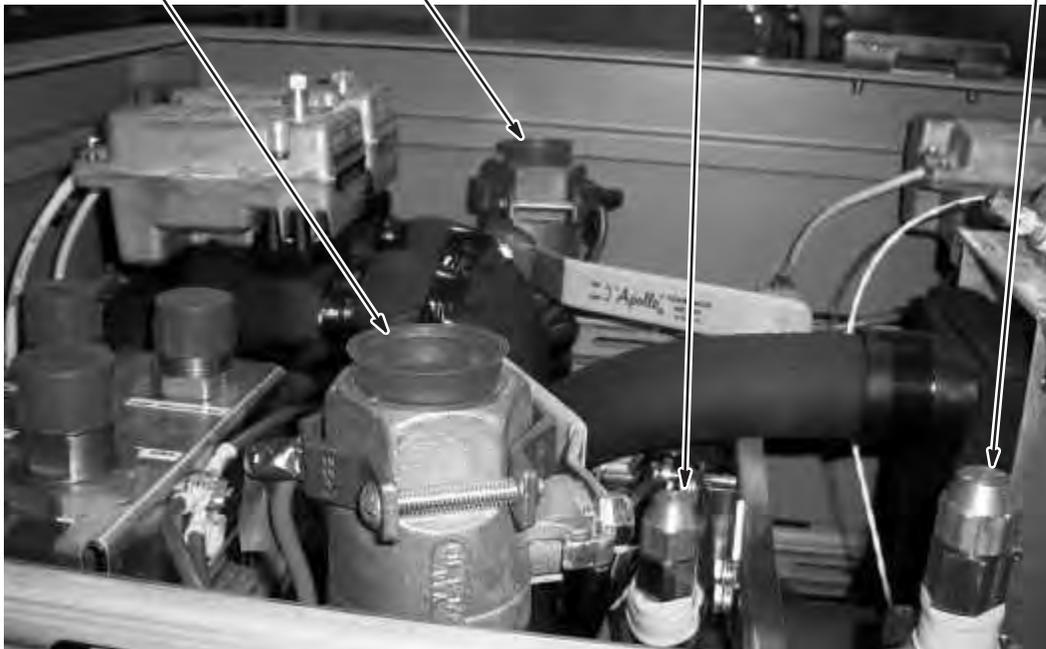
The RETURN and SUPPLY connection points are indicated below. Refer to site drawings for specifications on routing and connections of customer supplied components.

The cooling water to the Cryo-cooler is a direct feed from the facility water through the HEC. The Cryo-cooler Compressor connection points have pre-installed shipping caps which will be removed when the hoses to the Cryo-cooler are installed.



Before performing any leak tests at the HEC, the facility water should not be turned on unless the pre-installed shipping caps are securely in place at the top of the HEC or the Cryo-cooler hoses from the HEC are completely installed.

Connection to customer liquid coolant RETURN Connection to customer liquid coolant SUPPLY Connection to GE supplied Gray hose to Cryo-cooler Compressor (shipping cap installed) Connection to GE supplied Yellow hose to Cryo-cooler Compressor (shipping cap installed)



2-6 CRYO-COOLER COMPRESSOR POWER CORD CONNECTION AT HEC

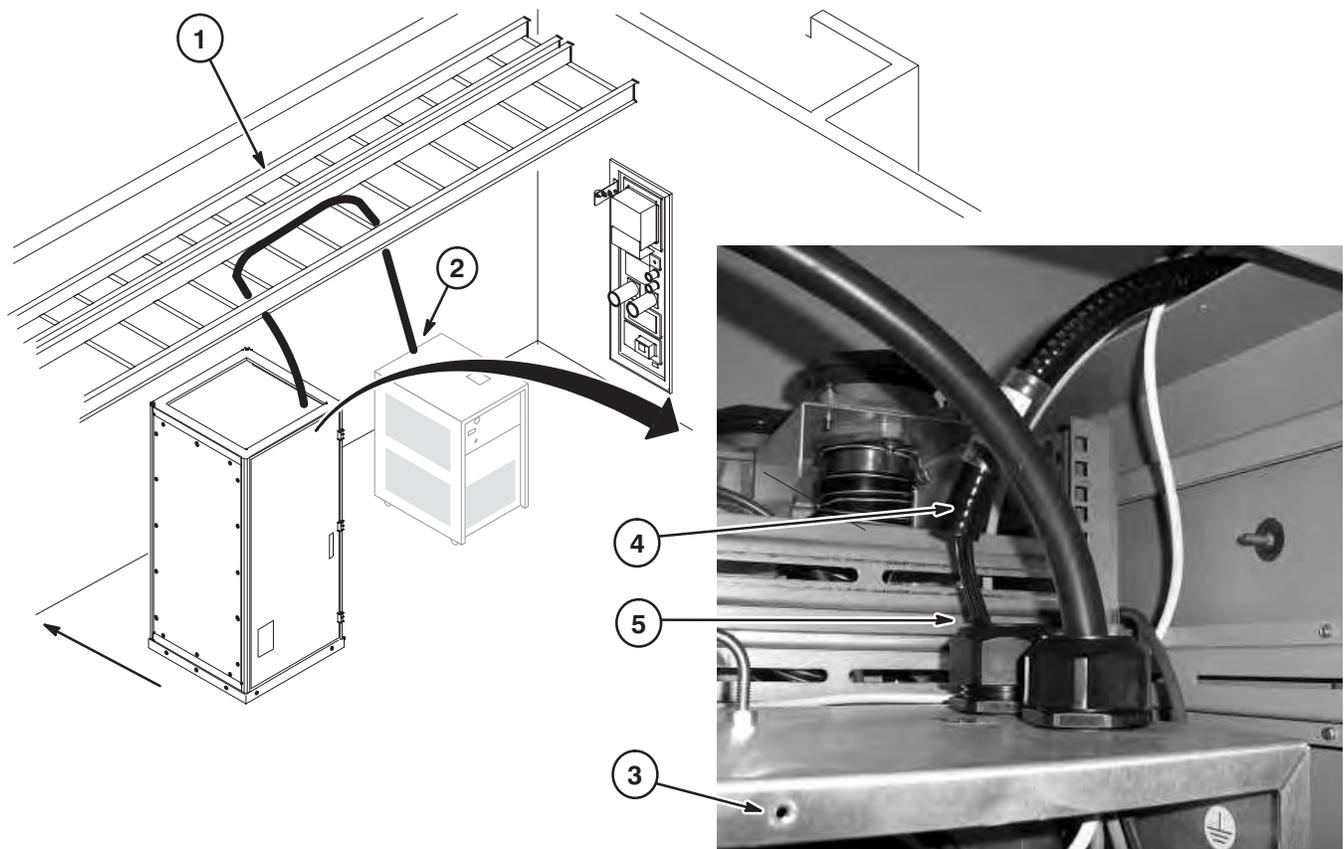
Power to the cryogen compressor for MR750/450/450w is fed through the Heat Exchanger Cabinet (HEC). The power cord (2200835) supplied with the cryogen compressor in the magnet installation collector is to be wired into the power box inside the HEC.

1. Route power cord (2200835) through overhead cable tray to each cabinet.
2. The power cable installation instructions for connection to the terminal strip at the compressor is located in the applicable *Technical Instruction* manual shipped with the compressor.

Note: The power cord is delivered to site with ring terminals at one end and stripped wires at the other end.

- If a Sumitomo CSW-71D compressor is being installed, then the ring terminal end will be connected to the compressor.
- If a Sumitomo F-50 compressor is being installed, then the ring terminals have to be cut off and the wire stripped 1/2 inch (13mm) for connection to compressor pressure connectors.

3. Loosen the four captured screws at the front of the HEC power box and remove cover.
4. Remove the strain relief provided on the end of the power cord and discard strain relief. Route power cable to top of power box.
5. Feed the power cord into the supplied strain relief at the top of the HEC.

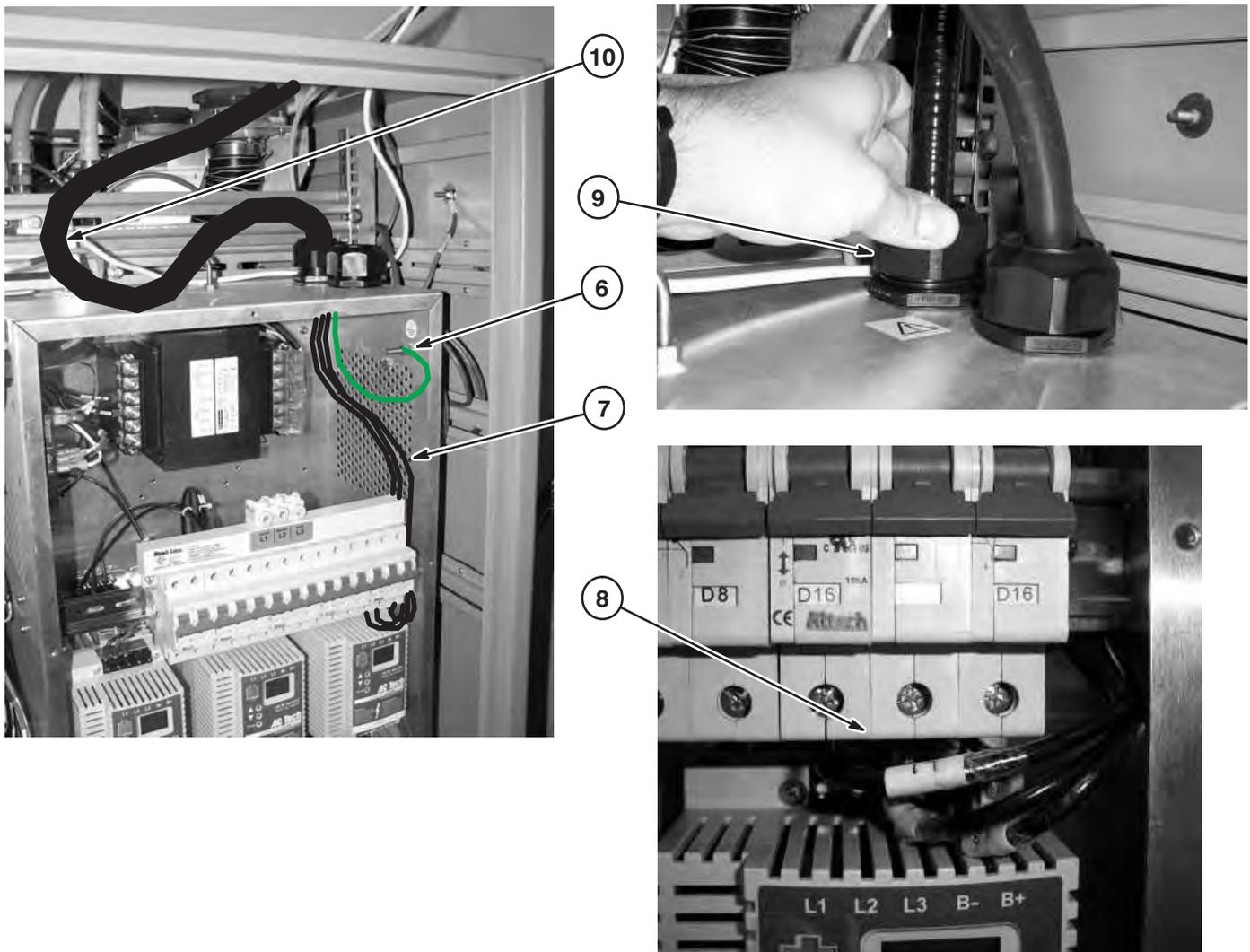


2-6 CRYO-COOLER COMPRESSOR POWER CORD CONNECTION AT HEC (Continued)

- 6. Attach ground wire to the ground stud in the power box. The incoming main electrical ground shares the same stud. The cryogen compressor ground terminal should be placed on the stud with a nut between it and the main electrical ground. This ensures the main electrical ground will never be lifted if the cryogen compressor ground ever needs to be removed.

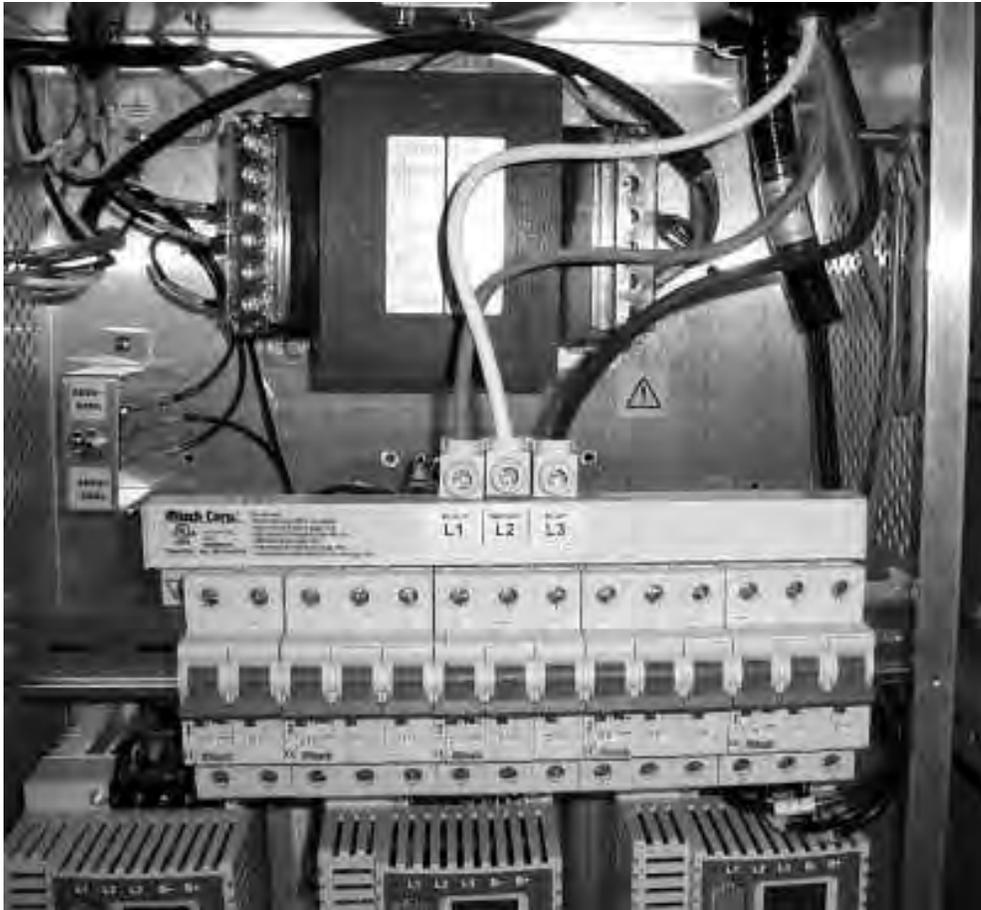
IMPORTANT! The cryogen compressor is phase sensitive. Make sure L1, L2, and L3 are connected appropriately at the cryogen compressor and that the incoming main electrical wires to the HEC are wired to the correct L1, L2, and L3 locations inside the HEC power box.

- 7. Route the L1, L2, and L3 cryogen compressor power cord wires to circuit breaker.
- 8. Insert the stripped ends of the wires into the bottom of the indicated breaker labeled CRY CB in the HEC power box. The wire sequence, from left to right, is L1, L2, L3. Tighten screws and inspect that each wire is clamped securely to the circuit breaker.
- 9. Tighten the strain relief at the top of the power box to securely clamp onto the power cord's conduit.
- 10. The conduit MUST be arranged with a service loop as shown.



2-6 CRYO-COOLER COMPRESSOR POWER CORD CONNECTION AT HEC (Continued)

The completed installation should look like the following:

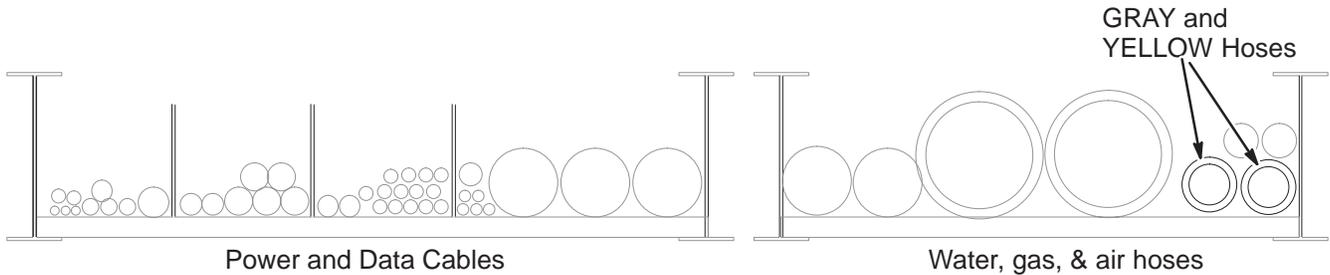


11. Reinstall front panel on HEC power box.

2-7 HEC TO CRYO-COOLER HOSE KIT

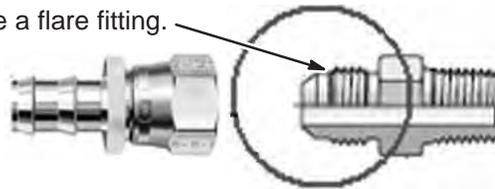
The HEC-CRYO Hose Kit (5268715) is delivered to site and will be connected to Cryo-Cooler Compressor which is delivered with magnet.

Refer to illustration below for location of hoses routed in Equipment Room in the overhead cable trays. Make sure cables are in their designated areas of the trays. All future cable and hose locations are shown as reference.

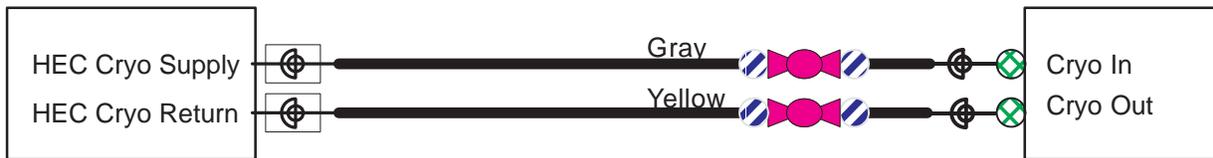


Hose and Fitting Installation Notes:

- To prevent cracking of fittings, hold fittings in the HEC stationary with wrench while flare connections are being made.
- A small amount of water may be applied to push-lok barbs to facilitate insertion into hoses.
- DO NOT use teflon tape on threads that have a flare fitting.



Air and Water Hose Installation Schematic:



- | | |
|---|---|
|  0.5" ID Push-Lok Gray Hose with Insulation sleeves
GE Part # 5264039 & 5197470 |  0.5" Ball valve with 0.5" Push-Lok fittings
GE Part Number 5338546 |
|  0.5" ID Push-Lok Yellow Hose with Insulation sleeves
GE Part # 5264063 & 5197470 |  0.5" 37 degree JIC Male to 0.375" Male BPST
GE Part Number 5268775 or equivalent |
| |  0.5" 37 degree Female Flare to 0.5" push-Lok. 316 SS
GE Part Number 5272163-2 |
| |  0.5" 37 degree Female Flare to 0.5" push-Lok.
GE Part Number 5272163 |

1. Route GRAY and YELLOW hoses from HEC thru the designated overhead cable tray to the designated area where the Cryogen Compressor will be installed when it is delivered with the magnet in the next system installation phase. If preferable, insulation sleeves in Section 2-8 can be installed at this time.
2. Cut coolant hoses to length. Make sure there is enough extra hose for a service loop at the Compressor end.

2-7 HEC TO CRYO-COOLER HOSE KIT (Continued)

NOTE: Install the hose barbs and connectors called out in the following steps and not the hose barbs delivered with the F-50H compressor. This is for ease of disconnecting during service and to ensure proper hose barb connection to the hose. **DO NOT** use hose clamps with Push-Lok hose barbs.

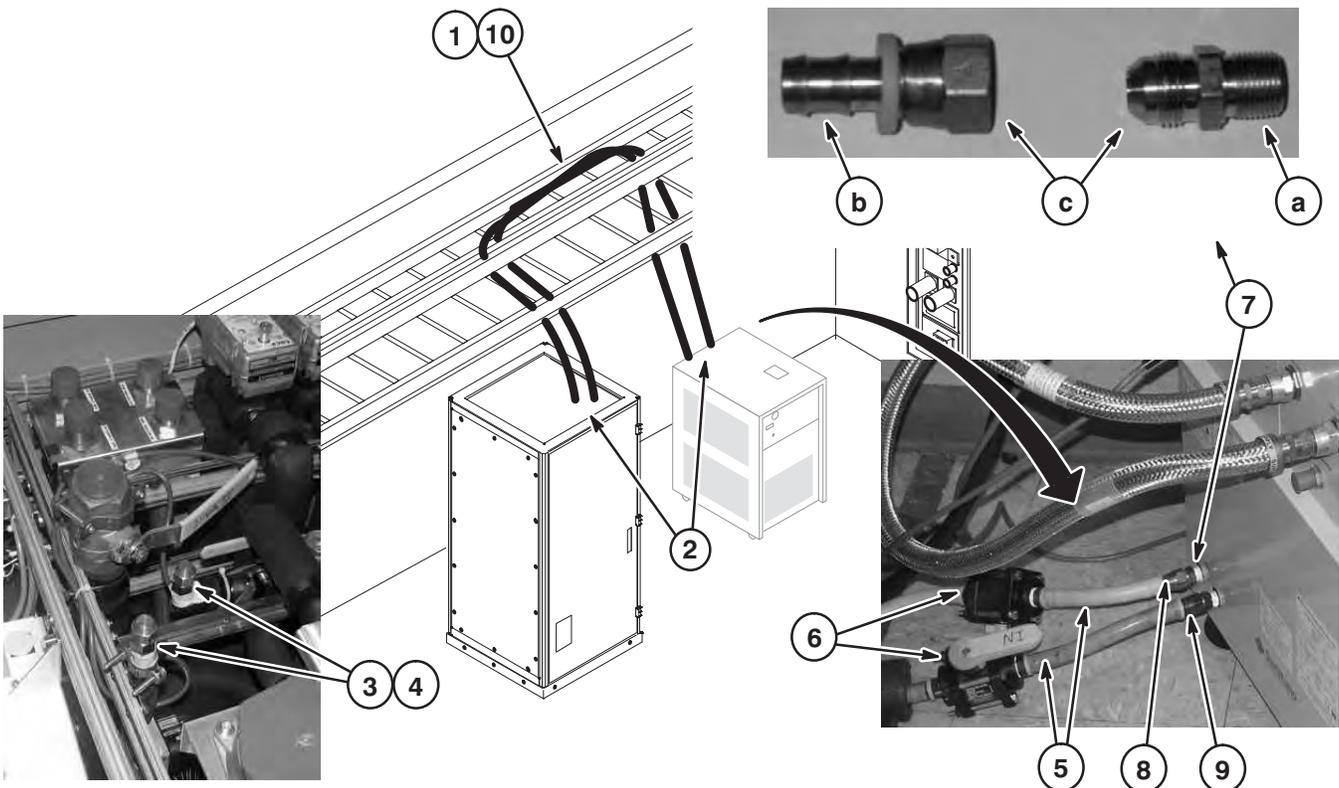
3. At the HEC Cabinet end of each hose, install the **stainless steel** 0.5 inch 37 degree Female Push-Lok Swivel fittings (5272163-2). **DO NOT** use teflon tape on threads.

NOTE: To prevent cracking of fittings when attaching flare connectors to cabinet connection points, hold fittings in the HEC stationary with wrench while flare connections are being made.

4. Connect each hose to designated RETURN inlet (YELLOW) and SUPPLY outlet (GRAY) at top of HEC Cabinet.
5. At the future Compressor location, for both the GRAY and YELLOW hoses, measure 18 inches (457mm) from end and cut hose.
6. Install Ball Valve assembly (5338546) for each hose between cut ends.

The following steps will be completed after the Cryo-Cooler has been delivered to site. If necessary, store the flared fittings in a safe place for installation at that time.

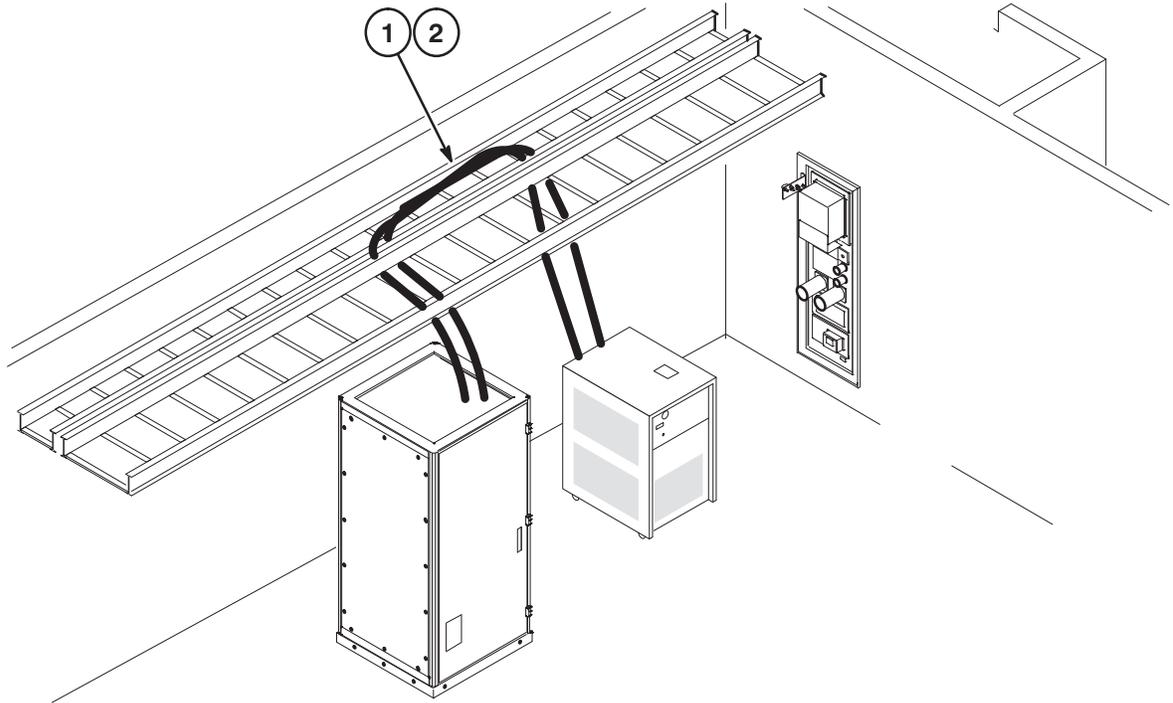
7. At the Compressor, in both IN and OUT ports, install a 0.5 inch 37 degree JIC Male to 0.375 inch Male BPST fitting (5268775) and a **brass** 0.5 inch Female Flare to 0.5 inch Push-Lok fitting (5272163).
 - a. Attach teflon tape to the male tapered threads shown below and insert into the cryo compressor IN and OUT ports.
 - b. Attach the push-lok hose barb to the cryogen hose.
 - c. Connect the male and female threads together.
8. Attach YELLOW hose to OUT on Compressor.
9. Attach GRAY hose to IN on Compressor.
10. Check for leaks at all connections.



2-8 HEC TO CRYO-COOLER HOSE INSULATION KIT

Install the Flexible Foam Insulation Kit (5266250).

1. Attach insulation sleeves (5197470) to supply and return hoses.
2. Apply black duct tape to the seams between sections of insulation to prevent gaps.



2-9 INSTALL RF SCREEN ROOM WALL MOUNTING FRAMES AND SPW

Refer to architectural site layout drawings to determine location of SPW (Secondary Pen Wall) and Penetration Panel frames.

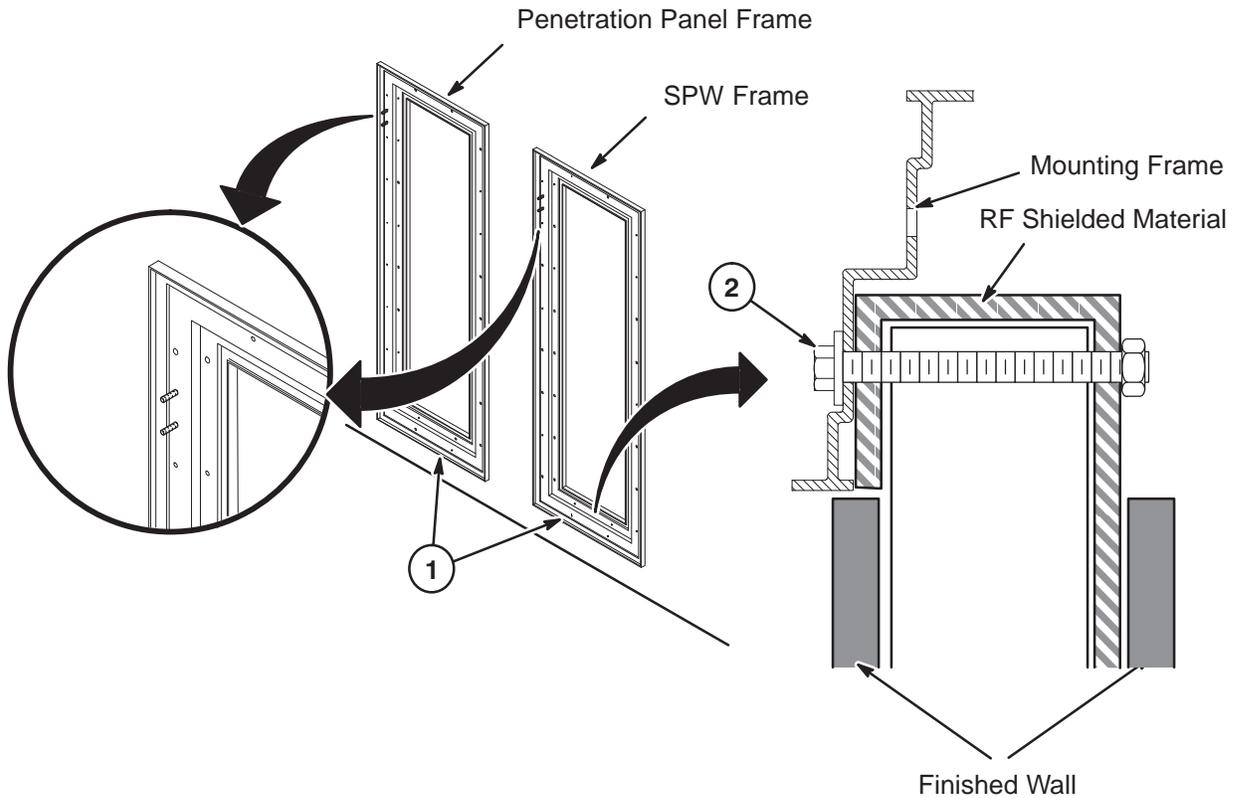


DUE TO WEIGHT OF SPW, AT LEAST TWO PEOPLE ARE REQUIRED TO LIFT AND MOUNT SPW INTO FRAME.

2-9-1 INSTALL MOUNTING FRAMES IN RF SCREEN ROOM OPENING

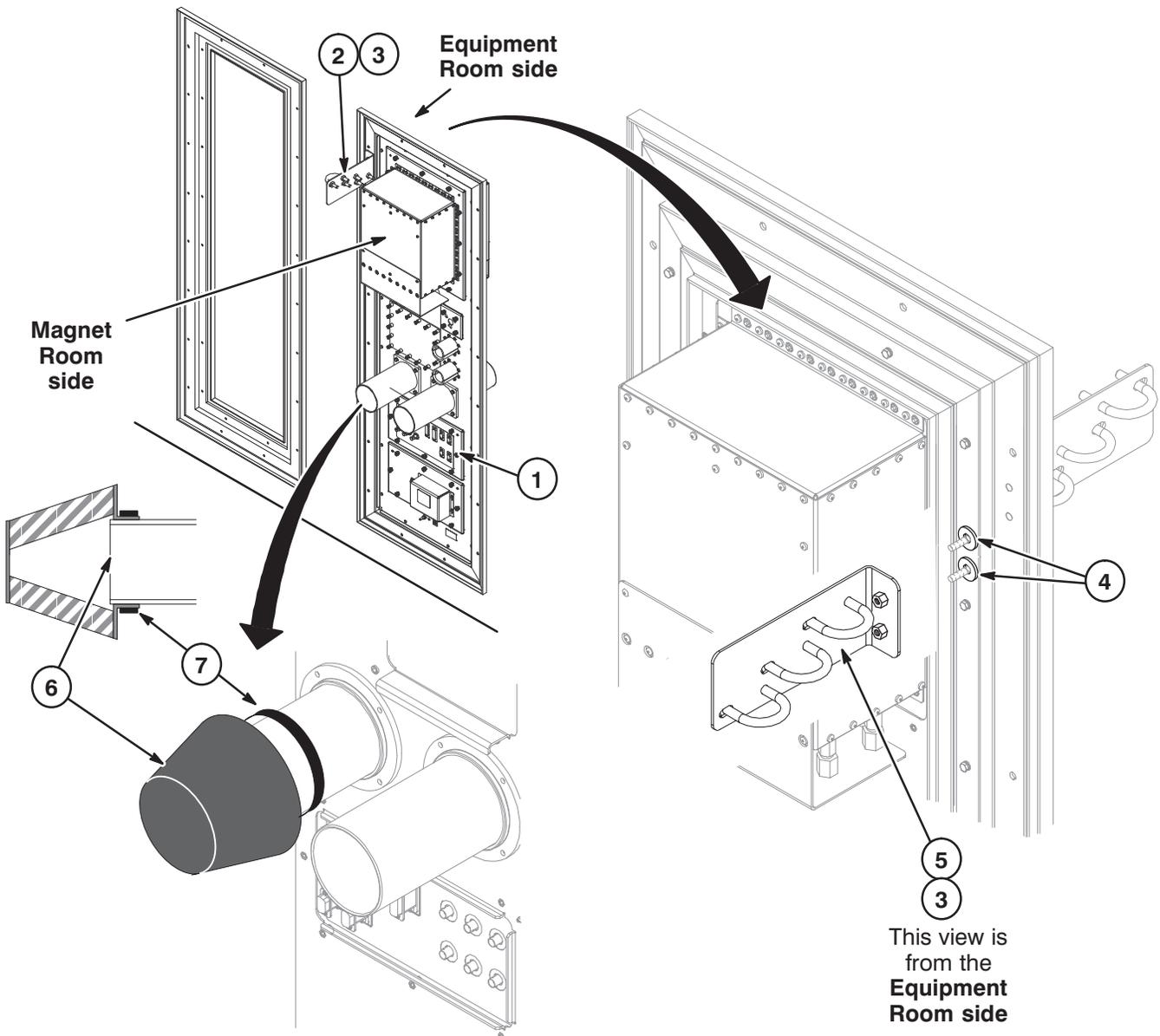
NOTE: The orientation of the Penetration Panel frame is different than the SPW frame.

1. From Equipment Room side of RF Screen Room wall, install the SPW and Penetration panel Frames. The Penetration Panel and SPW frames can be used as templates for hole locations.
IMPORTANT: Make sure frame is positioned so that gradient cable strain relief bracket mounting studs are at the top, left side.
2. Secure both frames to Scan Room wall. Customer to provide fasteners and instructions for installation to achieve RF integrity.



2-9-2 INSTALL SPW (if supplied at this time)

1. Move SPW into designated opening and mount to frame using 20 M5 x12mm SS Screws (2381274-2) and M5 Washers (2381270-6).
2. On Equipment Room side, install Gradient Cable Strain Relief Bracket (5182786) and secure on two studs using a M8 SS Hex Nut (2381089-6) on each stud.
3. Install three U-bolts (2113244) in bracket and loosely fasten with 3/8-16 Brass hex Nut (46-208935P10).
4. On Magnet Room side, place one 1 inch washer (46-251379P4) on each stud.
5. On Magnet Room side, install Gradient Cable Strain Relief Bracket (5182786) and secure on two studs using a M8 SS Hex Nut (2381089-6) on each stud.
6. Slide Air inlet Filter (5290917) on to end of J105 waveguide.
7. Secure Air Filter firmly in place with 4-inch Plastic Hose Clamp (5263772-3).



2-10 MAGNET ENCLOSURE CABLE CURTAIN INSTALLATION (Customer Option)

The optional Cable Curtain Kit is available for the MR750 or the MR450w sites only.

The optional Cable Concealment Kit is available for MR450w GEM, MR750w, and MR750w GEM sites only.

- For MR750, refer to Section 2-10-1.
- For MR450w, refer to section 2-10-2.
- For MR450w GEM, refer to section 2-10-3
- For MR750w & MR750w GEM, refer to section 2-10-4

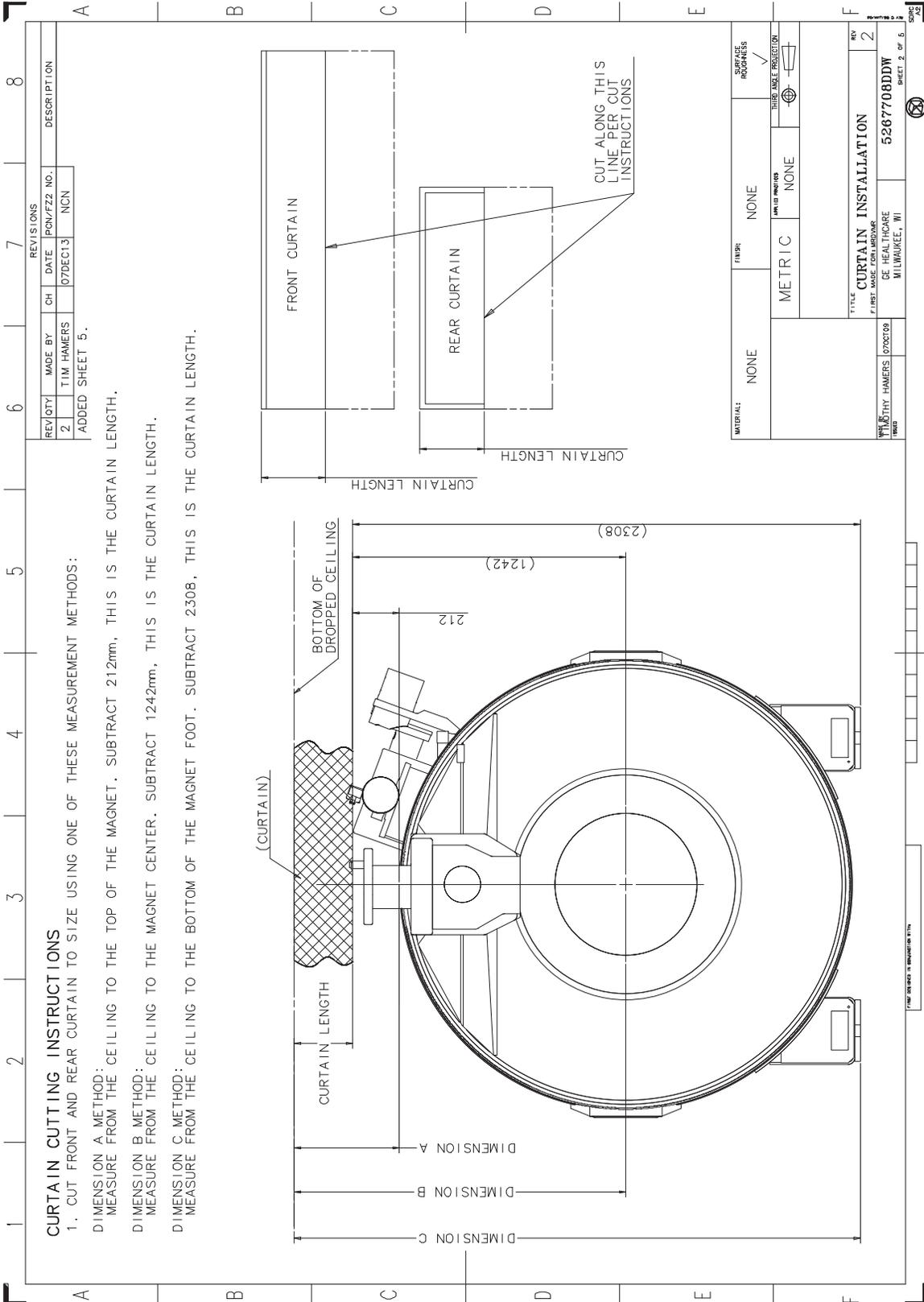
2-10-1 MR750 CABLE CURTAIN INSTALLATION

The Curtain Kit Collector (5241434) is delivered with this installation. It is provided if the customer site plans to install the curtain. This option is only installed for MR750.

If curtain is to be installed, the installation instructions are found in the following pages as part of 5267708DDW. The curtain kit is installed in two stages:

- First Stage – The Curtain Rail Front and Rear Assemblies (5237762 and 5237763) are to be installed prior to the delivery of the remaining system cabinets and cables, which will be delivered to site after magnet installation. Refer to sheet one of 5267708DDW on the next page for location dimensions of Curtain Rail from magnet iso-center or rear flange.
- Second Stage – The front and rear Curtain Covers (5241217 and 5241217-2) are installed after magnet enclosure has been installed and the Curtain Rail is in place in the ceiling. Refer to Direction 5500102, Section 5, for Curtain Cover installation procedures.

2-10-1 MR750 CABLE CURTAIN INSTALLATION (continued)

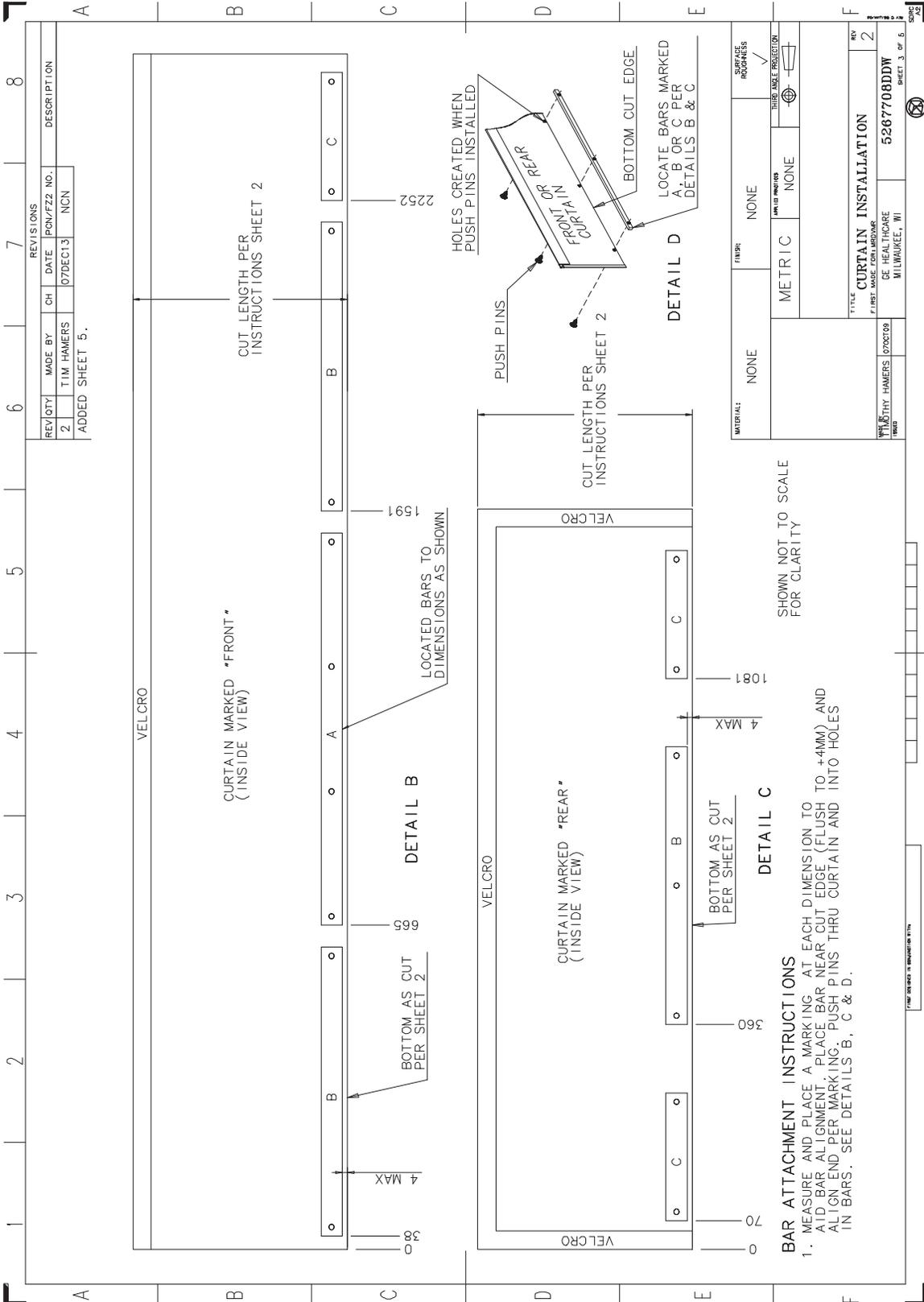


REVISONS		CH	DATE	PKY/PZ2 NO.	DESCRIPTION
2	TIM HAMERS	07DEC13	NCN		

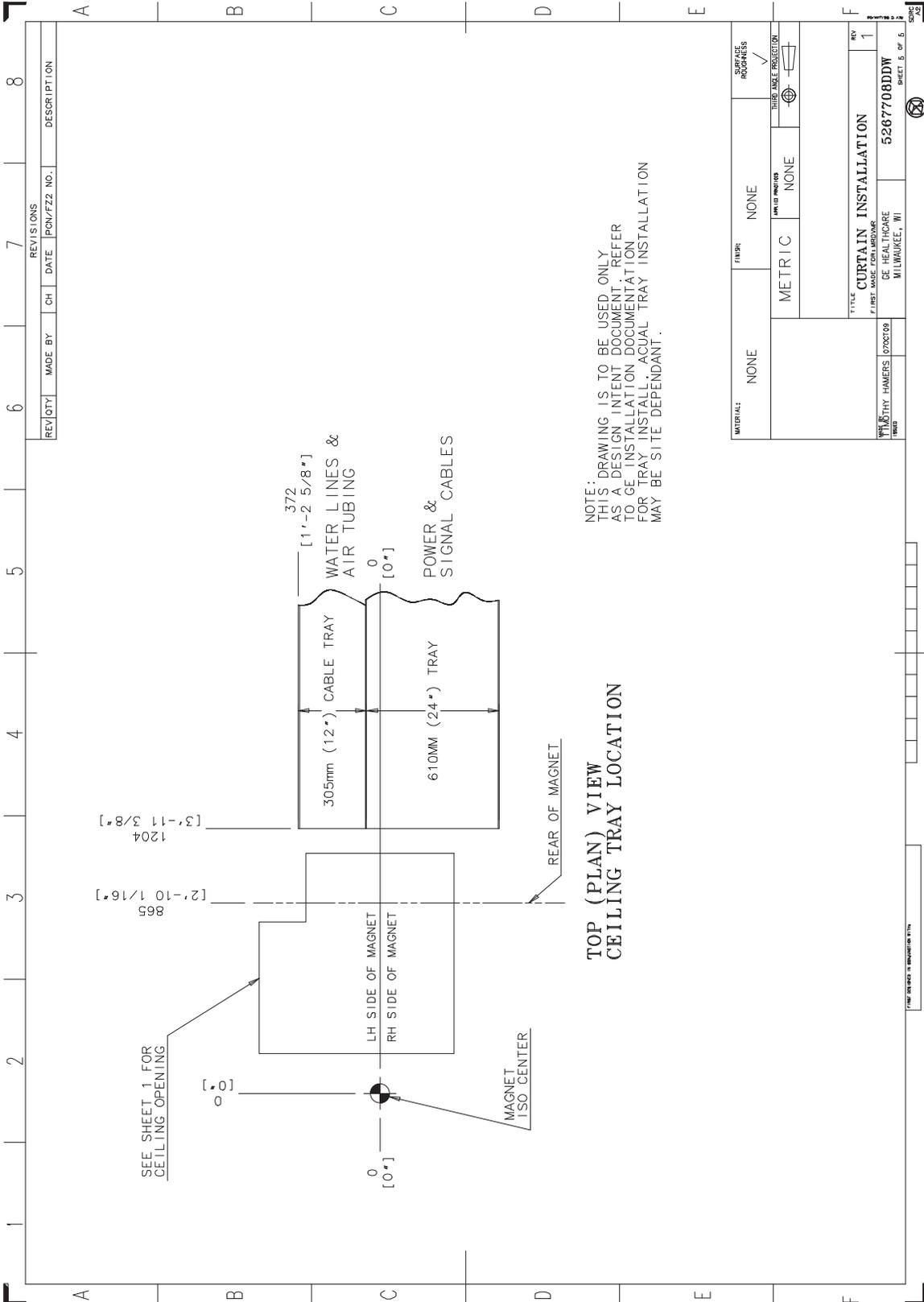
ADDED SHEET 5.

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TITLE: CURTAIN INSTALLATION		REV: 2			
DRAWN BY: TIM HAMERS		DATE: 07/02/09			
CHECKED BY: GE HEALTHCARE		PART NO: 5267708DDW			
MILWAUKEE, WI		SHEET 2 OF 5			

2-10-1 MR750 CABLE CURTAIN INSTALLATION (continued)



2-10-1 MR750 CABLE CURTAIN INSTALLATION (continued)



NOTE:
THIS DRAWING IS TO BE USED ONLY
AS A DESIGN INTENT DOCUMENT. REFER
TO GE INSTALLATION DOCUMENTATION
FOR TRAY INSTALL. ACTUAL TRAY INSTALLATION
MAY BE SITE DEPENDANT.

TOP (PLAN) VIEW
CEILING TRAY LOCATION

REV	QTY	MADE BY	CH	DATE	PCN/F22 NO.	DESCRIPTION

REVISIONS		DESCRIPTION	
REV	DATE	PCN/F22 NO.	DESCRIPTION

MATERIAL:	NONE	FINISH:	NONE	SERVICE ADDRESS:	✓
		UNIT NUMBER:	NONE	THIS IS A PROVISION:	⊕
TITLE: CURTAIN INSTALLATION		REV: 1		REV: 1	
DRAWN BY: J. HAMERS 070209		GE HEALTHCARE		5267708DDW	
MILWAUKEE, WI		MILWAUKEE, WI		SHEET 5 OF 5	

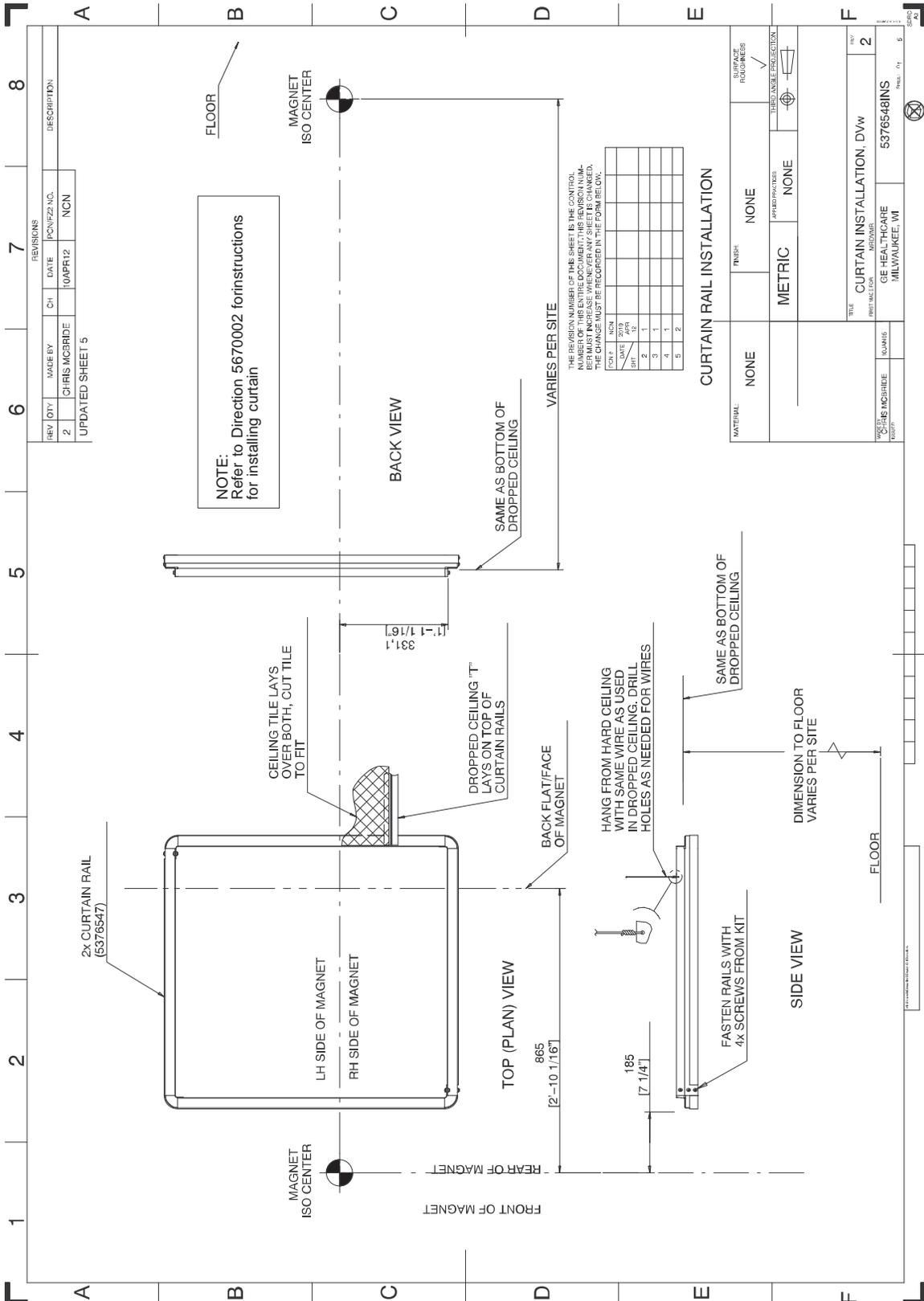
2-10-2 MR450w CABLE CURTAIN INSTALLATION

The Curtain Kit Collector (5376552) is delivered with this installation. It is provided if the customer site plans to install the curtain. This option is only installed for MR450w.

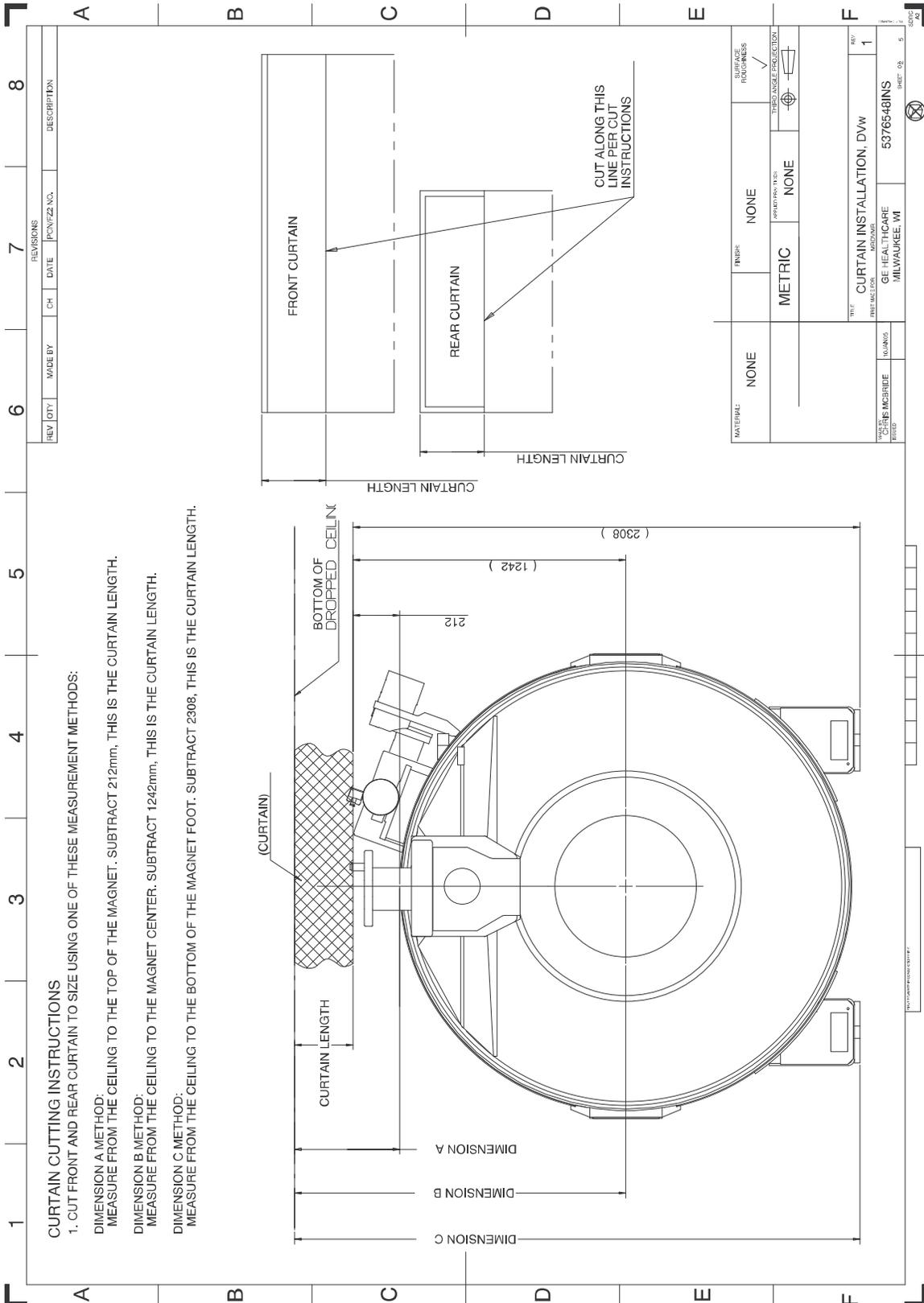
If curtain is to be installed, the installation instructions are found in the following pages as part of 5376548INS. The curtain kit is installed in two stages:

- First Stage – The two piece Curtain Rail Assembly (5376547), for the front and rear, are to be installed prior to the delivery of the remaining system cabinets and cables which will be delivered to site after magnet installation. Refer to sheet one of 5376548INS on the next page for location dimensions of Curtain Rail from magnet iso-center or rear flange.
- Second Stage – The front and rear Curtain Covers (5376553 and 5376553-2) are installed after magnet enclosure has been installed and the Curtain Rail is in place in the ceiling. Refer to Direction 5670002, Chapter 5, for Curtain Cover installation procedures.

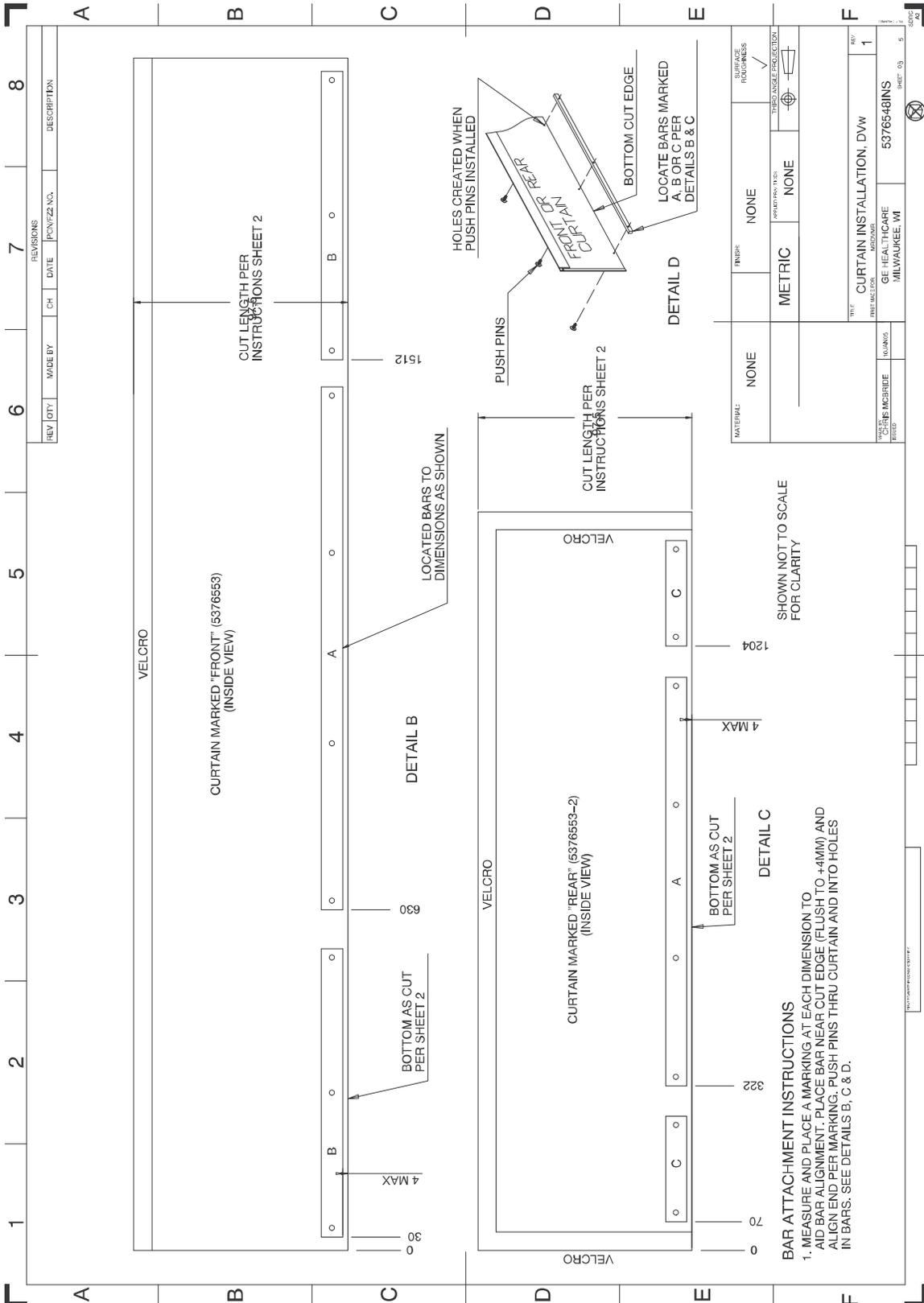
2-10-2 MR450w CABLE CURTAIN INSTALLATION (continued)



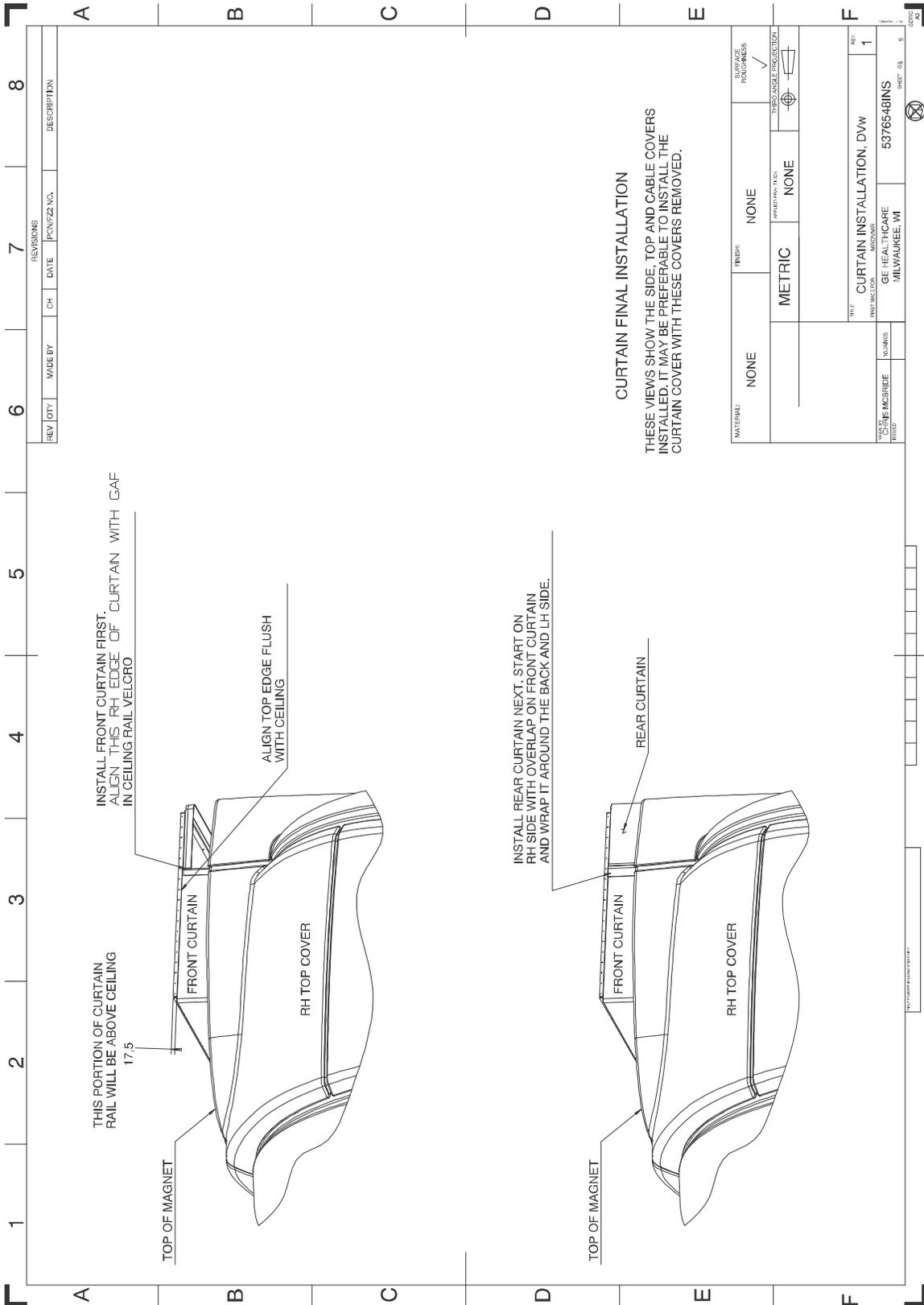
2-10-2 MR450w CABLE CURTAIN INSTALLATION (continued)



2-10-2 MR450w CABLE CURTAIN INSTALLATION (continued)



2-10-2 MR450w CABLE CURTAIN INSTALLATION (continued)



2-10-3 MR450w GEM CABLE CONCEALMENT KIT INSTALLATION

The MR450w GEM Cable Concealment Kit is an option delivered with this installation. It is provided if the customer site plans to install the kit. This option is only installed for MR450w GEM.

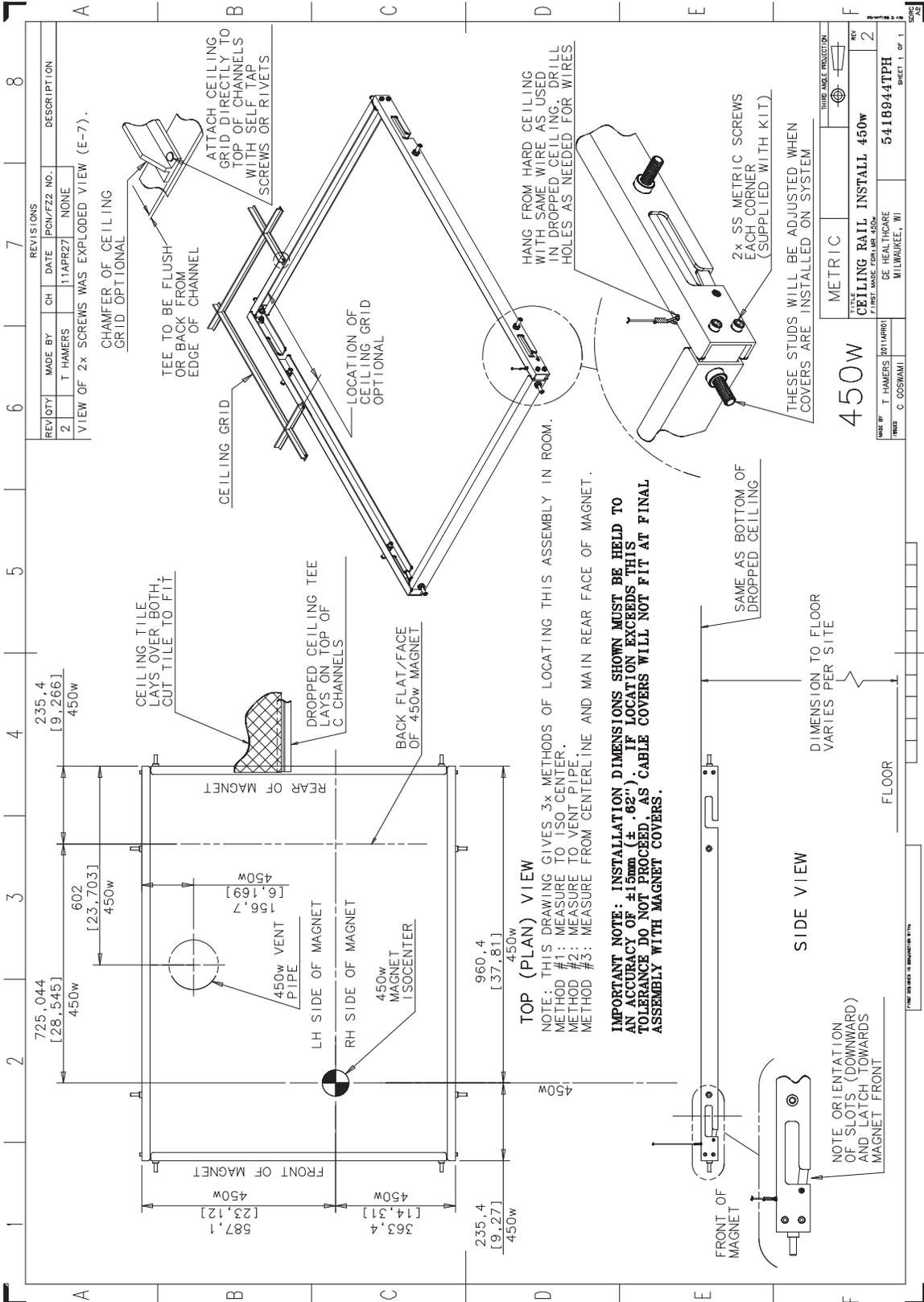
If the concealment kit is to be installed, the installation instructions for the Ceiling Frame are found on the following page as part of 5418944TPH. The cable concealment kit is installed in two stages:

- First Stage – The Ceiling Frame Kit (5418561) is to be installed prior to the delivery of the remaining system cabinets and cables which will be delivered to site after magnet installation. Refer to the instructions on the next page for location dimensions of curtain rail. There are three methods for locating the curtain rail in the ceiling. They are:
 - Measure to magnet isocenter
 - Measure to center of vent pipe
 - Measure from centerline and main rear face of magnet
- Second Stage – The four side covers are installed after the magnet enclosure has been installed and the Curtain Frame is in place in the ceiling. Refer to Direction 5670002 for the MR450w GEM side cover installation procedures.

IMPORTANT

Installation dimensions shown on the following illustration must be held to an accuracy of $\pm 15\text{mm}$ ($\pm 0.62\text{ in.}$). If location exceeds this tolerance do not proceed, as cable covers will not fit at final assembly with magnet covers.

2-10-3 MR450w GEM CABLE CONCEALMENT KIT INSTALLATION (continued)



REV	QTY	MADE BY	CH	DATE	PCN/F22 NO.	DESCRIPTION
2		T. HAMERS		11 APR 27	NONE	VIEW OF 2x SCREWS WAS EXPLODED VIEW (E-7).

REVISIONS	
MADE BY	CH
DATE	PCN/F22 NO.
DESCRIPTION	

450w

METRIC

THIRD ANGLE PROJECTION

CEILING RAIL, INSTALL 450w

REV 2

5418944TPH

GE HEALTHCARE
MILWAUKEE, WI

SHEET 1 OF 1

2-10-4 MR750w & MR750w GEM CABLE CONCEALMENT KIT INSTALLATION

The MR750w and MR750w GEM Cable Concealment Kit is an option delivered with this installation. It is provided if the customer site plans to install the kit. This option is only installed for MR750w or MR750w GEM.

If the concealment kit is to be installed, the installation instructions for the Ceiling Frame are found on the following page as part of 5418898TPH. The cable concealment kit is installed in two stages:

- First Stage – The Ceiling Frame Kit (5418561) is to be installed prior to the delivery of the remaining system cabinets and cables which will be delivered to site after magnet installation. Refer to the instructions on the next page for location dimensions of curtain rail. There are three methods for locating the curtain rail in the ceiling. They are:
 - Measure to magnet isocenter
 - Measure to center of vent pipe
 - Measure from centerline and main rear face of magnet
- Second Stage – The four side covers are installed after the magnet enclosure has been installed and the Curtain Rail is in place in the ceiling. Refer to Direction 5670010 for the MR450w GEM side cover installation procedures.

IMPORTANT

Installation dimensions shown on the following illustration must be held to an accuracy of $\pm 15\text{mm}$ ($\pm 0.62\text{ in.}$). If location exceeds this tolerance do not proceed, as cable covers will not fit at final assembly with magnet covers.

SECTION 3 – COMPLETION CHECKLIST

TABLE OF CONTENTS

<u>SECTION</u>		<u>PAGE</u>
3-1	MECHANICAL INSTALLATION COMPLETION	3-2
3-2	GE FIELD ENGINEER RESPONSIBILITIES	3-2

3-1 MECHANICAL INSTALLATION COMPLETION

The following steps need to be reviewed and completed by GE Field Engineer, especially if the system was installed by non-GE personnel. Check off boxes at the front of each item below when complete.

- Check mechanical flowchart to make sure all steps are complete
- Resolve shipment shortages
- Resolve omissions by mechanical contractors
- Make sure all rating plates are installed
- Recheck all wiring connections using cable map
- Correct for wiring errors if necessary

3-2 GE FIELD ENGINEER RESPONSIBILITIES

1. Record and enter applicable data into applicable site configuration files and records.
2. Complete Product Locator information for all installed serialized components, new or updated, via either:
 - **(U.S. Only)** *FE Site Verification Web Site*
or
 - Process and return product locator installation cards for all serialized components to:
Product Locator File, P.O. Box 414, W-523, Milwaukee, WI 53201-0414

Refer to Section 1-8 for details on submitting Product Locator information.

Note

Failure to fill out and return Product Locator Cards may result in failure of your site to receive future FMI's.

3. Store the delivered site's set of service tools and spares kit in service cabinet at site.
4. Leave all Service Manuals on site. Organize and set up reference cabinet for the Manuals.
5. Locate any Material Safety Data Sheets (MSDS). They must be retained on site. Customer is to be informed that material with MSDS was brought into site and customer should know/decide where MSDS should be retained at site.