

GE Healthcare

Renewal Parts and Tooling for 1.5T and 3.0T MRI Magnets

1.5T R and HM Series Magnets

3.0T W, WB and UA Series Magnets



Operating Documentation

DOC1472639

Revision 02

Important Information, Language

ПРЕДУПРЕЖДЕНИЕ

(BG)

Това упътване за работа е налично само на английски език.

- Ако доставчикът на услугата на клиента изиска друг език, 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 пациента в резултат на токов удар, механична или друга опасност.

警告

(ZH-CN)

本维修手册仅提供英文版本。

- 如果客户的维修服务人员需要非英文版本，则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服务人员、操作人员或患者造成电击、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、機械性或其他危險。

警告

(ZH-TW)

本維修手冊僅有英文版。

- 若客戶的維修廠商需要英文版以外的語言，應由客戶自行提供翻譯服務。
- 請勿試圖維修本設備，除非您已查閱並瞭解本維修手冊。
- 若未留意本警告，可能導致維修廠商、操作員或病患因觸電、機械或其他危險而受傷。

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.
- Zanimarite 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 přečetli tento provozní návod a pochopili jeho obsah.
- V případě nedodržování této výstrahy může dojít k poranění pracovníka prodejního servisu, obslužného personálu nebo pacientů vlivem elektrického proudu, respektive vlivem mechanických či jiných rizik.

ADVARSEL

(DA)

Denne servicemanual findes kun på engelsk.

- Hvis en kundes tekniker har brug for et andet sprog end engelsk, er det kundens ansvar at sørge for oversættelse.
- Forsøg ikke at servicere udstyret uden at læse og forstå denne servicemanual.
- Manglende overholdelse af denne advarsel kan medføre skade på grund af elektrisk stød, 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 alvorens deze onderhoudshandleiding werd geraadpleegd en begrepen is.
- Indien deze waarschuwing niet wordt opgevolgd, zou het onderhoudspersoneel, de operator of een patiënt gewond kunnen raken als gevolg van een elektrische schok, mechanische of andere gevaren.

WARNING

(EN)

This service manual is available in English only.

- If a customer's service provider requires a language other than English, it is the customer's responsibility to provide translation services.
- Do not attempt to service the equipment unless this service manual has been consulted and is understood.
- Failure to heed this warning may result in injury to the service provider, operator or patient from electric shock, mechanical or other hazards.

HOIATUS

(ET)

See teenindusjuhend on saadaval ainult inglise keeles.

- Kui klienditeeninduse osutaja nõuab juhendit inglise keelest erinevas keeles, vastutab klient tõlketeenuse osutamise eest.
- Ärge üritage seadmeid teenindada enne eelnevalt käesoleva teenindusjuhendiga tutvumist ja sellest aru saamist.
- Käesoleva hoiatuse eiramine võib põhjustada teenuseosutaja, operaatori või patsiendi vigastamist elektrilöögi, mehaanilise või muu ohu tagajärjel.

VAROITUS

(FI)

Tämä huolto-ohje on saatavilla vain englanniksi.

- Jos asiakkaan 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 d'installation et de maintenance est disponible uniquement en anglais.

- Si le technicien d'un client a besoin de ce manuel dans une langue autre que l'anglais, il incombe au client de le faire traduire.
- Ne pas tenter d'intervenir sur les équipements tant que ce manuel d'installation et de maintenance n'a pas été consulté et compris.
- Le non-respect de cet avertissement peut entraîner chez le technicien, l'opérateur ou le patient des blessures dues à des dangers électriques, mécaniques ou autres.

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 παρόν εγχειρίδιο σέρβις διατίθεται μόνο στα αγγλικά.

- Εάν ο τεχνικός σέρβις ενός πελάτη απαιτεί το παρόν εγχειρίδιο σε γλώσσα εκτός των αγγλικών, αποτελεί ευθύνη του πελάτη να παρέχει τις υπηρεσίες μετάφρασης.
- Μην επιχειρήσετε την εκτέλεση εργασιών σέρβις στον εξοπλισμό αν δεν έχετε συμβουλευτεί και κατανοήσει το παρόν εγχειρίδιο σέρβις.
- Αν δεν προσέξετε την προειδοποίηση αυτή, ενδέχεται να προκληθεί τραυματισμός στον τεχνικό σέρβις, στο χειριστή ή στον ασθενή από ηλεκτροπληξία, μηχανικούς ή άλλους κινδύνους.

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 elkészítése.
- Ne próbálja elkezdni használni a berendezést, amíg a karbantartási kézikönyvben leírtakat nem értelmezték.
- Ezen figyelmeztetés figyelmen kívül hagyása a szolgáltató, működtető vagy a beteg áramütés, mechanikai vagy egyéb veszélyhelyzet miatti sérülését eredményezheti.

AÐVÖRUN

(IS)

Þessi þjónustuhandbók er aðeins fánleg 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 lingua inglese.

- Se un addetto alla manutenzione richiede il manuale in una lingua diversa, il cliente è tenuto a provvedere direttamente alla traduzione.
- Procedere alla manutenzione dell'apparecchiatura solo dopo aver consultato il presente manuale ed averne compreso il contenuto.
- Il mancato rispetto della presente avvertenza potrebbe causare lesioni all'addetto alla manutenzione, all'operatore o ai pazienti provocate da scosse elettriche, urti meccanici 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 매뉴얼은 영어로만 이용하실 수 있습니다.

- 고객님의 서비스 제공자가 영어 이외의 언어를 요구할 경우, 번역 서비스를 제공하는 것은 고객님의 책임입니다.
- 본 서비스 매뉴얼을 참조하여 숙지하지 않은 이상 해당 장비를 수리하려고 시도하지 마십시오.
- 본 경고 사항에 유의하지 않으면 전기 쇼크, 기계적 위험, 또는 기타 위험으로 인해 서비스 제공자, 사용자 또는 환자에게 부상을 입힐 수 있습니다.

BRĪDINĀJUMS

(LV)

Šī apkopes rokasgrāmata ir pieejama tikai angļu valodā.

- Ja klienta apkopes sniedzējam nepieciešama informācija citā valodā, klienta pienākums ir nodrošināt tulkojumu.
- Neveiciet aprikojuma apkopi bez apkopes rokasgrāmatas izlasīšanas un saprašanas.
- Šī brīdinājuma neievērošanas rezultātā var rasties elektriskās strāvas trieciena, mehānisku vai citu faktoru izraisītu traumu risks apkopes sniedzējam, operatoram vai pacientam.

ĮSPĖJIMAS

(LT)

Šis eksploatavimo vadovas yra tik anglų kalba.

- Jei kliento paslaugų tiekėjas reikalauja vadovo kita kalba – ne anglų, suteikti vertimo paslaugas privalo klientas.
- Nemėginkite atlikti įrangos techninės priežiūros, jei neperskaitėte ar nesupratote šio eksploatavimo vadovo.
- Jei nepaisysite šio įspėjimo, galimi paslaugų tiekėjo, operatoriaus ar paciento sužalojimai dėl elektros šoko, mechaninių ar kitų pavojų.

ADVARSEL

(NO)

Denne servicehåndboken finnes bare på engelsk.

- Hvis kundens serviceleverandør har bruk for et annet språk, er det kundens ansvar å sørge for oversettelse.
- Ikke forsøk å reparere utstyret uten at denne servicehåndboken er lest og forstått.
- Manglende hensyn til denne advarselen kan føre til at serviceleverandøren, operatøren eller pasienten skades på grunn av elektrisk støt, mekaniske eller andre farer.

OSTRZEŻENIE

(PL)

Niniejszy podręcznik serwisowy dostępny jest jedynie w języku angielskim.

- Jeśli serwisant klienta wymaga języka innego niż angielski, zapewnienie usługi tłumaczenia jest obowiązkiem klienta.
- Nie próbować serwisować urządzenia bez zapoznania się z niniejszym podręcznikiem serwisowym i zrozumienia go.
- Niezastosowanie się do tego ostrzeżenia może doprowadzić do obrażeń serwisanta, operatora lub pacjenta w wyniku porażenia prądem elektrycznym, zagrożenia mechanicznego bądź innego.

ATENÇÃO

(PT-BR)

Este manual de assistência técnica encontra-se disponível unicamente em inglês.

- Se outro serviço de assistência técnica solicitar a tradução deste manual, caberá ao cliente fornecer os serviços de tradução.
- Não tente reparar o equipamento sem ter consultado e compreendido este manual de assistência técnica.
- A não observância deste aviso pode ocasionar ferimentos no técnico, operador ou paciente decorrentes de 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 solicitar este manual noutra língua, 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 elétricos, mecânicos ou outros.

ATENȚIE

(RO)

Acest manual de service este disponibil doar în limba engleză.

- Dacă un furnizor de servicii pentru clienți necesită o altă limbă decât cea engleză, este de datoria clientului să furnizeze o traducere.
- Nu încercați să reparați echipamentul decât ulterior consultării și înțelegerii acestui manual de service.
- Ignorarea acestui avertisment ar putea duce la rănirea depanatorului, operatorului sau pacientului în urma pericolelor de electrocutare, mecanice sau de altă natură.

ОСТОРОЖНО!

(RU)

Данное руководство по техническому обслуживанию представлено 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 техническим обслуживанием оборудования обязательно обратитесь к данному руководству и поймите изложенные в нем сведения.
- Несоблюдение требований данного предупреждения может привести к тому, что специалист по техобслуживанию, оператор или пациент получит удар электрическим током, механическую травму или другое повреждение.

UPOZORENJE

(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, rukovaoca ili pacijenta usled strujnog udara ili mehaničkih i drugih opasnosti.

UPOZORNENIE

(SK)

Tento návod na obsluhu je k dispozícii len v angličtine.

- Ak zákazníkovi poskytovateľ služieb vyžaduje iný jazyk ako angličtinu, poskytnutie prekladateľských služieb je zodpovednosťou zákazníka.
- Nepokúšajte sa o obsluhu zariadenia, kým si neprečítate návod na obsluhu a neporozumiete mu.
- Zanedbanie tohto upozornenia môže spôsobiť zranenie poskytovateľa služieb, obsluhujúcej osoby alebo pacienta elektrickým prúdom, mechanické alebo iné ohrozenie.

ATENCION

(ES)

Este manual de servicio sólo existe en inglés.

- Si el encargado de mantenimiento de un cliente necesita un idioma que no sea el inglés, el cliente deberá encargarse de la traducción del manual.
- No se deberá dar servicio técnico al equipo, sin haber consultado y comprendido este manual de servicio.
- La no observancia del presente aviso puede dar lugar a que el proveedor de servicios, el operador o el paciente sufran lesiones provocadas por causas eléctricas, mecánicas 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.

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 kılavuzunun sadece ingilizcesi mevcuttur.

- Eğer müşteri teknisyeni bu kılavuzu ingilizce dışında bir başka lisandan talep ederse, bunu tercüme ettirmek müşteriye düşer.
- Servis kılavuzunu okuyup anlamadan ekipmanlara müdahale etmeyiniz.
- Bu uyarıya uyulmaması, elektrik, mekanik veya diğer tehlikelerden dolayı teknisyen, operatör veya hastanın yaralanmasına yol açabilir.

Revision History

REV	Affected Page(s)			Description of Content Changed	Reason for Change or Change Control Number	Author	Effective date of Document	Periodic review date
02	As noted within Summary Table			As noted within Change Summary Table	As noted within Summary Table	Michelle G. Sansbury	My Workshop Release	Does not Apply to Service Manuals
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enter Validation Information or Rationale if "NO" or "NA" for Validation or Training					
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Typo or Format Change					
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Regulatory Filing					
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Validation			As noted within Summary Table		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Training			No change to existing techniques.		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Communication			Upon release.		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Labeling, (list)			Document is a Service Technical Publication (classified as Labeling)		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Other Documents, (list)					
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Other (describe)					

Change Summary Table

Description of Content Changed	Reason for Change or Change Control Number	Affected Page(s) or Sections
2183710 should be 2189710	Typo	2.2.7
Replace 2350809-5 with 2350809-105	ECR 2170203, Structure 2350809-105 in place of 2350809-5 in 2222520-8 and 2222520-4	3.2.4
Add 2394952-100 as a spare part to 2394952	ECR 2170736, Add 2394952-100 as a spare part to assemblies 2222520-8 and 2222520-4	3.2.2, 3.2.3, 3.2.4
Replace 5413779 with 5508401	ECR 2172284, Setup parts and safety cover FRU collectors for 750, 750w, 450 and 450w.	6.1.8
Replace 5413773 with 5508399		6.1.7
Replace 5307840 with 5508396		6.1.12
Replace 5342954 with 5508397		6.1.4
Replace 5342954-2 with 5508398		6.1.5
Add 5534973		6.1.20
Add 5534978 to kit 5534975		6.1.21
Add 5534976	ECO 2172748, MR 750 Safety cover Release	6.1.22
Add 5538535	ECO 2172177, Release the following parts and drawings 5538449,5538535 and 5538449DDW	6.1.23
Add 46-294047G1	Omission from prior revision	4.3.17

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Chapter 1 – SAFETY and INTRODUCTION

1. Safety and Introduction

1.1. MR Service Safety Manual, Direction 5452735

- 1.1.1. Prior to and while performing any actions contained within this document, one must read, review and follow all guidelines as defined in the MR Service Safety Manual, Direction 5452735. The most current version of the MR Service Safety Manual should be available at all times while performing any actions contained within this document.
- 1.1.2. The latest release of the MR Service Safety Manual can be obtained through the Common Document Library at gehealthcare.com or through your GE Healthcare Field Service Representative.

1.2. Direction Application

- 1.2.1. This document contains information pertaining to Magnet and Gradient related Service Tools and Field Replaceable Units associated with Zero Boil Off Magnets (R, W, WB, HM and UA Series).
- 1.2.2. GPRS Status “Yes” indicates the item is available to order via the FE ordering system. GPRS Status “No” indicates the item is not available to order via the FE ordering system. If item is needed and GPRS Status is “No,” a Priority Purchase Order would be required.

1.3. Documentation Organization

- 1.3.1. Documents referenced within this manual are available through the Common Documentation Library at gehealthcare.com or through your GE Healthcare Field Service Representative.

1.4. Damage in Transportation

- 1.4.1. All packages should be closely examined at time of delivery.
- 1.4.2. If damage is apparent, have notation “damage in shipment” written on all copies of the freight or express bill before delivery is accepted or “signed for” by a General Electric representative or a hospital receiving agent. Whether noted or concealed, damage MUST be reported to the carrier immediately upon discovery, or in any event, within 14 days after receipt, and the contents and containers held for inspection by the carrier. A transportation company will not pay a claim for damage if an inspection is not requested within this 14 day period.
 - ◆ Call 1-800-548-3366 and use option 8.
 - ◆ Contact your local service coordinator for more information on this process.

Chapter 2 – HANDHELD METERS

2. Handheld Meters

2.1. FRU Assemblies – Handheld Meters

2.1.1. 46-294052G1, Revision 0: Water Flow Meter Kit

Item Nº	Part Number	Qty	Description	GPRS
	46-294052G1		WATER FLOWMETER KIT	Yes
2	46-294052P1	1	FLOWMETER, IN-LINE, FLOW RANGE .5-4.0 GPM, MEDIA: WATER/1.0 HEDLAND PART NO. 613-004	No
3	46-294052P2	1	HEX NIPPLE, BRASS, .5 MNPT X .5 MNPT CAJON NO. B-8-HN	No
4	46-294052P3	1	HOSE CONNECTOR, BRASS, .5 MNPT X .5 ID HOSE CAJON NO. B-8-HC-1-8	No
5	46-252065P19	0	TEFLON TAPE .50 WIDE	Yes

2.2. Tool Kits – Handheld Meters

2.2.1. 46-301477G2, Revision 1: Lakeshore Thermometer Kit

Item Nº	Part Number	Qty	Description
	46-301477G2		KIT, LAKESHORE THERMOMETER
2	46-301453P6	1	BLOW MOLDED, 14 X 10-3/4 X 5-3/4
3	46-301618P1	1	TOP - CONVOLUTING PATTERN
4	46-301618P2	1	BOTTOM - 2 LAYERS
5	46-301478P1	1	TOOL OLD THERMOMETER, DIGITAL, 3W, 90-125VAC FOUR DIGIT LED DISPLAY, (8) CHANNELS 1.4-475K W/O PROBE, 23-473K W/PROBE. SUPPLIED WITH POWER CORD AND 36-PIN ~D~ CONNECTOR. (DWG REV 3/92, JFK - OK).
6	46-301619P1	1	INTERCONNECTING TO BALZER DIODES
7	46-301620P1	1	INTERFACE TO GE MAGNET
8	2139962	1	LABEL, LAKESHORE THERM. INTERFAC KIT
9	46-193027P782	1	X-RAY RATING PLATE
10	2129919	1	CABLE

2.2.2. 5119507, Revision 1: Cryogenic Temperature Meter [MTM101]

Item Nº	Part Number	Qty	Description
	5119507		CRYOGENIC TEMPERATURE METER (MTM 101)

2.2.3. 46-317543G2, Revision 1: Low Cost Temperature Diode Kit

Item Nº	Part Number	Qty	Description
	46-317543G2		KIT, LOW COST DIODE
2	46-317537P1	1	CURRENT SOURCE METER
3	46-317537P2	1	METER CABLE
4	46-317537P3	1	CARRYING POUCH
5	2136506	1	CABLE
6	2131412	1	SI-410 DIODE VOLTAGE / TEMPERATURE CHARACTERISTICS TAG

2.2.4. 2362622, Revision 0: Portable Helium Meter [LHM 100]

Item Nº	Part Number	Qty	Description
	2362622		PORTABLE HELIUM METER

2.2.5. 2270571, Revision 0: Portable Liquid Helium Level Meter with Battery Charger, Cable and Case

Item Nº	Part Number	Qty	Description
	2270571		PORTABLE LIQUID HELIUM LEVEL METER WITH BATTERY CHARGER, CABLE AND CASE. AMI #150A-120-N-18.5-IN-PCT-C WITH CASE

2.2.6. 46-251865G5, Revision 0: Metrolab Teslameter Kit

Item Nº	Part Number	Qty	Description
	46-251865G5		METROLAB TESLAMETER KIT
2	46-255839P2	1	TESLAMETER MODEL 2025
3	46-255839P104	1	#5 PROBE WITHOUT AMPLIFIER
5	46-255839P121	1	CABLE FOR METER TO PRE-AMP
6	46-255839P200	1	ORDER 46-251865G50 FOR CASE ASSEMBLY FOR TESLAMETER KIT
7	46-255839P103	1	#4 PROBE WITHOUT AMPLIFIER
8	46-306832P1	1	FOAM FOR CASE BOTTOM, TESLAMETER KIT
9	46-306813P4	1	METROLAB TESLAMETER KIT CASE LABEL
10	46-306836G1	1	HOLDER TO SECURE PROBE MAPPING FIXTURE CARRIAGE (TESLAMETER)
11	46-255839P102	1	#3 PROBE WITHOUT AMPLIFIER
12	2295525-5	1	PROBE, MINIATURE, METROLAB, NMR PART # 1062/6/10M
15	2378859	1	TOOL DATA SHEET

2.2.7. 2189710, Revision 0: Magnet Specialty Tool Kit [RuO Temperature Meter]

Item Nº	Part Number	Qty	Description
	2189710		MAGNET SPECIALTY TOOLS
1	2171219	1	MONITOR, RUO TEMPERATURE SI NO. 9650-I-7-7 (RO600GE-10)
2	2167169	1	KIT, BATTERY CHARGER
3	2174214	1	PLATE, PURGE COVER
4	2183760	1	COVER PLATE AND O-RING
5	2183709	1	CASE, FOAM AND LABEL ASSEMBLY

Chapter 3 –MAGNET RUNDOWN UNIT & MAGNET MONITOR ITEMS

3. Magnet Rundown Unit Items (MRUs) & Magnet Monitor (MagMon) Kits

3.1. Magnet Rundown Unit Items (MRUs)

3.1.1. 5180313, Revision 3: Kit, Magnet Rundown Unit

Item Nº	Part Number	Qty	Description	GPRS
	5180313		KIT, MOD MRU2006 PRIMARY MRU	No
1	5196918	1	MAGNET RUNDOWN UNIT, PRIMARY, MRU2006	Yes
2	2128699	1	606 MAGNET END TO ERU MRU	Yes
3	5199742	1	PARTS PACK, MRU2006, POWER RESISTOR-FUSE-HOLE PLUG,	No

3.1.2. 5180187, Revision 1: Kit, Remote Magnet Rundown Unit

Item Nº	Part Number	Qty	Description	GPRS
	5180187		KIT, MOD MRU2006 REMOTE MRU	No
1	5196919	1	REMOTE MAGNET RUNDOWN UNIT, MRU2006	Yes
2	5196920	1	CABLE, MRU2006 PRIMARY TO PEN PANEL	Yes
3	5196921	1	CABLE, MRU2006 REMOTE TO PEN PANEL	Yes
4	5128562	1	LABEL, MRU DANGER	No

3.2. Magnet Monitor (MagMon) Kits

3.2.1. 5267626, Revision 1: Collector Kit, HDv, Magnet Monitor 3

Item Nº	Part Number	Qty	Description	GPRS
	5267626		COLLECTOR KIT, HDV MAGNET MON 3	No
1	2394952 or 2394952-100	1	MAGNET MONITOR (2394952) or MAGNET MONITOR 3 – ROHS (2394952-100)	Yes
2	5193795	1	DVMR MAGNET MONITOR CABLE KIT	No
3	2219341	1	RUTHENIUM OXIDE SENSOR AMPLIFIER	Yes

3.2.2. 5180301, Revision 2: Remote Alarm Kit, Magnet Monitor 3

Item Nº	Part Number	Qty	Description	GPRS
	5180301		REMOTE ALARM KIT, MAGMON3	No
1	2266628	1	MAGNET MONITOR REMOTE ALARM BOX	Yes
2	2263160	1	(915) MSM1A2-J1 TO FJ6	No
3	2263159	1	(916) MSM1-J7 TO FJ1, FJ5 AND FJ6	No

3.2.3. 2222520-3, Revision 3: Collector Kit, Magnet Monitor 3

Item Nº	Part Number	Qty	Description	GPRS
	2222520-3		MAGMON3 COLLECTOR KIT, FIXED, TRANSPORTABLE, AND RELOCATABLE	No
1	2394952 or 2394952-100	1	MAGNET MONITOR (2394952) or MAGNET MONITOR 3 – ROHS (2394952-100)	Yes
2	2350809-2	1	CORE CABLE KIT, MAGMON3	No
3	2219341	1	RUTHENIUM OXIDE SENSOR AMPLIFIER	Yes

3.2.4. 2222520-4, Revision 4: Collector Kit, Mobile, Magnet Monitor 3

Item Nº	Part Number	Qty	Description	GPRS
	2222520-4		MAGMON3 MOBILE COLLECTOR KIT	No
1	2394952 or 2394952-100	1	MAGNET MONITOR (2394952) or MAGNET MONITOR 3 – ROHS (2394952-100)	Yes
2	2350809-105	1	KIT, HD MAGNET CORE CABLE, MAG MON 3 - ROHS	No
3	2219341	1	RUTHENIUM OXIDE SENSOR AMPLIFIER	Yes
4	2385399	1	MOBILE SATELLITE MODEM KIT	Yes
5	2276094	1	UNINTERRUPTIBLE POWER SUPPLY	Yes
6	2276569	1	(939) MDP-UPS OUT TO MSM4	No
7	5180301	1	REMOTE ALARM KIT, MAGMON3	No
8	5224349	1	ENCLOSURE CABLE KIT	No

3.2.5. 5193795, Revision 6: Kit, Magnet Monitor Cables, DVMR

Item Nº	Part Number	Qty	Description	GPRS
	5193795		DVMR MAGNET MONITOR CABLE KIT	No
1	5357236	1	RUN M3023 SPW-J117 TO MAG-FJ2,14000MM	No
3	5351557	1	RUN E3023 SPW-J117 TO MON-J8,17000MM	No
4	5351627	1	RUN E3022,MON-J7 TO SPW-J116, INSTRUMENTATION BOX	No
5	5352885	1	RUN E3024, MON-J9 TO MON-FJ4 AND MON-FJ3, FLOW MONITORING	No
6	5352519	1	RUN E3026, HEC-FL-TEMP TO MON-FJ3, COMPRESSOR INTERFACE	No
7	5351365	1	RUN E3020 PEN-J13 TO MON-J10,17000MM	No
9	5351806	1	RUN E3025, CRY TO MON-FJ4, FLOW MONITOR-SUMITOMO	No
12	5351746	1	RUN M3022, SPW-J116 TO MAG-P403, 14000 MM	No
14	5351608	1	RUN E3034 MON-J5 TO NETWORK, 30000MM	No
17	5115594-3	1	POWER CORD IEC 60320 C13 TO NEMA 5-15P 72 INCHES LONG	No
18	5352964	1	CABLE, MAGNET ROOM INTERFACE	No

3.2.6. 2350809-2, Revision 2: Kit, Magnet Monitor 3, Core Cables

Item Nº	Part Number	Qty	Description	GPRS
	2350809-2		CORE CABLE KIT, MAGMON3	No
1	46-317359G975	1	RUN 824TR PP1-J10 TO FJ1	Yes
2	46-328000G976	1	RUN 829 MS1-FJ2 TO PP1-J48	No
3	46-317359G977	1	RUN 825TR PP1-J48 TO MSM1-A1-J8	No
4	46-328000G980	1	RUN 831 FJ1 TO MSM1-A1-J7	Yes
5	46-328000G978	1	RUN 826 FJ3 TO MSM1-A1-J9	No
6	46-328578P1	1	RUN 827 FJ3 TO FJ4 AND MS5A5	Yes
7	46-328000G979	1	RUN 823 MSM1-J10 TO MR2-A11-J24	No
9	46-328000G981	1	RUN 833 FJ4 TO MS5-A1-A6-JR	Yes
10	2333825	1	WATER FLOW (TURBINE)/TEMP SENSOR ASM	Yes
11	46-265067P1	10	I/F PANEL CABLE SCREWLOCK CONNECTOR	Yes
12	46-328000G974	1	RUN 828 MS1-A3-A1-J403 TO PP1-J10	Yes
13	2222797	1	830 CABLE, MAGNET ROOM INTERFACE	Yes
14	2271497	1	(942) ETHERNET CABLE	No

3.2.7. 2385399, Revision 2: Kit, Mobile Satellite Modem

Item Nº	Part Number	Qty	Description	GPRS
	2385399		MOBILE SATELLITE MODEM KIT	Yes
1	2376563	1	ANTENNA ASSEMBLY	No
2	2376870	1	POWER SUPPLY ASSEMBLY	No
3	2392246	1	SOFTWARE,SATELLITE MODEM COMMUNICAT	No

3.2.8. FRU Parts – MagMon Kits

Item Nº	Part Number	Qty	Description	GPRS
	5432579	1	COLLECTOR KIT, MAGNET MONITOR, MR750W	No

Chapter 4 – CRYOGENICS

4. Cryogenics

Coldhead and Compressor

4.1. FRU Assemblies – Coldhead and Compressor

4.1.1. 2188440-2, Revision 3: Compressor, Water Cooled, Sumitomo CSW-71D

Item Nº	Part Number	Qty	Description	GPRS
	2188440-2		COMPRESSOR, SHIELD COOLER, SUMITOMO CSW-71D, HV WATER COOLED, 460V,60HZ 380V,50HZ, THREE PHASE	Yes

4.1.2. 5314887, Revision 2: Compressor, Water Cooled, Sumitomo F-50H

Item Nº	Part Number	Qty	Description	GPRS
	5314887		SERVICE SPARE, SUMITOMO F-50H COMPRESSOR	Yes
1	5197842	1	COMPRESSOR, WATER COOLED, AC 380-415V AT 50HZ OR AC 460-480V AT 60HZ, 3 PHASE, SUMITOMO F-50H	No
2	5314775	1	CRATE FOR SUMITOMO	No

4.1.3. 2166592, Revision 3: Compressor, Air Cooled, Sumitomo CSA-71

Item Nº	Part Number	Qty	Description	GPRS
	2166592		COMPRESSOR, SUMITOMO, CSA-71	Yes

4.1.4. 2218465-3, Revision 6: Coldhead Assembly, High Efficiency, Sumitomo

Item Nº	Part Number	Qty	Description	GPRS
	2218465-3		COLDHEAD ASM,HIGH EFFNCY, SUMITOMO	No
1	2218291-3	1	COLDHEAD, HIGH EFFICIENCY, SUMITOMO	No
2	2153638	1	TRANSITION ASM, OBO REFRIGERATION	Yes
4	2283322	4	METRIC SHOULDER SCREW	No
6	46-252065P88	0	N-GREASE, APIEZON, MFG. BY AVO BIDDLE INSTRUMENTS.	No
7	2173694	1	SENSOR, RUTHINIUM OXIDE	No
8	46-260802P6	0	TAPE, ALUMINUM FOIL TAPE, .125 WIDE	Yes
9	46-260802P1	0	.50 WIDE ALLOY #1145-0 SOFT ALUMINUM FOIL TAPE	Yes
10	46-294709P3	0.25	KAPTON TAPE 1 MIL X 0.50 WIDE	No
12	46-281247P1	1	4.987 ID, X .103 THK, PARKER#2-159	Yes
13	46-281247P2	1	5.237 ID X .103THK, PARKER #2-160	Yes
14	5327239	1	WARNING LABEL FERROUS MATERIAL HDV	Yes

4.1.5. 2194003-2, Revision 1: Kit, Sumitomo Coldhead and Gasket

Item Nº	Part Number	Qty	Description	GPRS
	2194003-2		KIT, SUMITOMO COLDHEAD AND GASKET	Yes
1	2218465-3	1	COLDHEAD ASM,HIGH EFFNCY, SUMITOMO	No
2	2171620	1	KIT, CRYOCOOLER REPLACEMENT GASKETS	Yes

4.1.6. 5438959, Revision 1: Kit, A3 FRU, Sumitomo Coldhead and Gasket

Item Nº	Part Number	Qty	Description	GPRS
	5438959		A3 FRU KIT, SUMITOMO COLDHEAD AND GASKET	Yes
1	5412719	1	COLDHEAD ASM, SUMITOMO	No
2	2171620	1	KIT, CRYOCOOLER REPLACEMENT GASKETS	Yes

4.1.7. 2171620, Revision 7: Kit, Cryocooler Replacement Gaskets

Item Nº	Part Number	Qty	Description	GPRS
	2171620		KIT, CRYOCOOLER REPLACEMENT GASKETS	Yes
1	46-281247P1	1	4.987 ID, X .103 THK, PARKER#2-159	Yes
2	46-281241P1	1	INDIUM GASKET, 3.37 OD	Yes
3	2171621	1	KIT, INDIUM GASKET	Yes
4	2188185	1	FEELER GAUGE, .003 THK.	Yes
5	2188185-2	1	FEELER GAUGE, .005 THK.	Yes
6	46-252065P64	1	ATLAS GLOVE COMPANY #615 MENS~COTTON GLOVES	Yes
7	2191112-6	1	O-RING, SUMITOMO P/N RD422T0697	Yes
8	2290272	1	KIT,CHARCOAL PACKET	Yes
9	2391747	1	FILTER,DISPOSABLE IN-LINE DESSICCANT	Yes
10	2173358	48	SPRING, DISC, 12.5 OD 6.2 ID .70 THK TYPE 302 SST.	Yes
11	46-252065P141	2	AEROQUIP O-RING, FLAT, RUBBER	Yes
12	46-252065P157	1	AEROQUIP GASKET, CATALOG PART NUMBER 22008-4, .25 IN SIZE, FLAT, RUBBER	No
13	2224726	8	METRIC SCREW, HEX HD,SST,PART THRD	Yes

4.1.8. 46-318969G1, Revision 0: Water Tee Assembly

Item Nº	Part Number	Qty	Description	GPRS
	46-318969G1		Water Tee Assembly	Yes
2	46-294167P9	1	TUBING CLEAR PVC, 1/2 ID X 27/32 OD 1 FT. LONG WORKING PRESSURE 150 PSI @70 DEGREES. MCMaster-CARR CATALOG PART NUMBER 5238K758 OR EQUAL.	No
3	46-294167P10	1	VALVE PVC BALL, 1/2 PIPE SIZE, MAX PRESSURE W.O.G., 150 PSI. MCMaster- CARR CATALOG PART NUMBER 4953K12 OR EQUAL.	No
4	46-294167P11	1	FITTING TEE MALE BRANCH, 1/2 ID X 1/2 ID X 1/2 NPT NYLON HOSE FITTING. MCMaster-CARR CATALOG PART NUMBER 5375K39 OR EQUAL.	No
5	46-294167P12	1	FITTING, NIPPLE MALE, 1/2 ID X 1/2 NPT NYLON HOSE FITTING. MCMaster- CARR CATALOG PART NUMBER 5372K25 OR EQUAL.	No
6	46-294167P13	3	CLAMP HOSE, 1/2 X 1 1/4 X 9/16 WIDE SWIVEL LOCK WORM DRIVE. MCMaster- CARR CATALOG PART NUMBER 5322K14 OR EQUAL.	No
7	46-294167P16	1	QUICKSNAP EXPANDABLE PLUG FOR 1/2~ I.D. TUBE.	No

4.1.9. 5265652, Revision 4: Kit, Field Spares, HDv

Item Nº	Part Number	Qty	Description	GPRS
	5265652		Kit, Field Spares, HDv	No
3	46-281101P9	2	1.487 ID X .103 THK., O-RING #2-128	Yes
4	46-281101P5	2	5.737 ID X .103 THK, O-RING #2-162	Yes
5	46-281101P6	2	9.487 ID X .103 THK, O-RING #2-177	Yes
6	46-281101P10	2	6.237 ID X .103 THK., #2-164	Yes
7	46-294104P1	2	NUT, VACUUM QUICK COUPLING	Yes
8	46-294105P1	2	RING, QUICK COUPLING RETAINING	Yes
9	46-260389P1	4	SILICONE, PARKER#2-116	Yes
10	46-260389P2	2	SILICONE, PARKER #2-014	Yes
11	46-260902P5	1	PLUG, .25 OD TUBE FITTING, BRASS SWAGelok CAT #B-400-P	Yes
12	2203803	2	SPLIT O-RING	Yes
16	46-318068P1	6	BRONZE WOOL USED FOR RF SHIELDING CDA 649 BRONZE 4 TO 5 IN. WIDE X 12 IN. LONG MINIMUM.	Yes
17	46-252283P58	4	CABLE TIE WRAP, PANDUIT PLT7LH-L	Yes
18	46-260342P10	5	QUICK SEAL CONNECTOR O-RING SILICONE PARKER TYPE 2-112	Yes
19	46-252065P24	1	VACUUM GREASE,DOW CORNING	Yes
20	46-260389P4	1	O-RING, SILICONE, PARKER 2-205	Yes
21	46-252065P141	1	AEROQUIP O-RING, FLAT, RUBBER	Yes
24	46-252065P157	1	Aeroquip Gasket, Catalog Part Number 22008-4, .25 in size, Flat, Rubber	No

4.1.10. 46-294744G5, Revision 10: Fieldspare Kit LCC

Item Nº	Part Number	Qty	Description	GPRS
	46-294744G5		FIELDSPARE KIT - LCC	No
3	46-281101P9	2	1.487 ID X .103 THK., O-RING #2-128	Yes
4	46-281101P5	2	5.737 ID X .103 THK, O-RING #2-162	Yes
5	46-281101P6	2	9.487 ID X .103 THK, O-RING #2-177	Yes
6	46-281101P10	2	6.237 ID X .103 THK., #2-164	Yes
7	46-294104P1	2	NUT, VACUUM QUICK COUPLING	Yes
8	46-294105P1	2	RING, QUICK COUPLING RETAINING	Yes
9	46-260389P1	4	SILICONE, PARKER#2-116	Yes
10	46-260389P2	2	SILICONE, PARKER #2-014	Yes
11	46-260902P5	1	PLUG, .25 OD TUBE FITTING, BRASS SWAGelok CAT #B-400-P	Yes
12	2203803	2	SPLIT O-RING	Yes
14	2218148	14	COLD SHRINK CONNECTOR INSULATOR	Yes
15	2218149	2	COPPER COMPRESSION TWO-WAY SPLICER	Yes
16	46-318068P1	6	BRONZE WOOL USED FOR RF SHIELDING CDA 649 BRONZE 4 TO 5 IN. WIDE X 12 IN. LONG MINIMUM.	Yes
17	46-252283P58	4	CABLE TIE WRAP, PANDUIT PLT7LH-L	Yes
18	46-260342P10	5	QUICK SEAL CONNECTOR O-RING SILICONE PARKER TYPE 2-112	Yes
19	46-252065P24	1	VACUUM GREASE,DOW CORNING	Yes
20	46-260389P4	1	O-RING, SILICONE, PARKER 2-205	Yes
21	46-252065P141	1	AEROQUIP O-RING, FLAT, RUBBER	Yes
22	46-252065P157	1	AEROQUIP GASKET, CATALOG PART NUMBER 22008-4, .25 IN SIZE, FLAT, RUBBER	No

4.2. FRU Parts – Coldhead and Compressor

Item Nº	Part Number	Qty	Description	GPRS
	2154502-2	1	621 GAS LINE, FLEXIBLE SUPPLY 65.6 FT. OR 20 M LONG	Yes
	2154505-2	1	622 GAS LINE, FLEXIBLE RETURN 65.6 FT. OR 20 M LONG	Yes
	2259837	1	CABLE ASM,COLDHEAD CONTROL,LCC	Yes
	2200835	1	CABLE, INPUT POWER, SUMITOMO CSW-71D HIGH VOLTAGE, WATER COOLED COMPRESS.	Yes
	2274831	1	CABLE,INPUT POWER, 5M LG, SUMITOMO CSW-71D HV WATER COOLED COMPRESSOR	Yes
	5145460-38	1	FUSE, COLDSLEEVE HEATER TOOL	Yes
	5440278	1	150 W CARTRIDGE HEATER	Yes
	2251611	1	RACEWAY,FLEXIBLE CORRUGATED,ORANGE	Yes
	5480609	1	COMPRESSOR QUIET LINE KIT	Yes

4.3. Tool Kits – Coldhead and Compressor

4.3.1. 46-281088G4, Revision 1: Coldhead/Compressor Maintenance Kit

Item Nº	Part Number	Qty	Description
	46-281088G4		COLDHEAD/COMPRESSOR MAINTENANCE KIT.
2	46-294150P16	2	1 5/8 IN. OPEN END WRENCH LEYBOLD P/N 722-81-021
3	46-294150P15	1	1 3/8 IN. OPEN END WRENCH LEYBOLD P/N 722-81-020
4	46-294150P14	2	1 3/16 IN. OPEN END WRENCH LEYBOLD P/N 722-81-019
5	46-294150P13	1	1 IN. OPEN END WRENCH LEYBOLD P/N 722-81-018
8	46-294003P1	1	OIL CHARGING HOSE
9	46-294009P1	1	HIGH PRESSURE, HELIUM
11	46-294002P1	1	CHARGING - AEROQUIP PART NO. 2807-4 OR EQUIVALENT
12	46-294006G1	1	#12 AEROQUIP DISCHARGE TOOL ASSY. PART #5401-S14-12.
13	46-294007G1	1	ADAPTER ASSEMBLY BACKFILL/PUMPDOWN
14	46-294010G1	1	PURGE COVER
15	46-260267P3	1	SEAL OFF VALVE OPERATOR WITH KF16 FLANGE
18	46-294000G1	1	#12 AEROQUIP MALE HALF, AEROQUIP PART NO. 5401-S17-12. INC TUBE ADAPT
19	46-281999G1	1	#8 AEROQUIP MALE HALF, AEROQUIP PART NO. 5401-S17-8. INC. TUBE ADAPT
20	46-252065P63	1	WELDERS~ BRUSH, MCMaster-CAR CAT. NO. 7092T14.
21	46-294005G1	1	#4 AEROQUIP
24	46-294026P1	1	QF16 ALUMINUM HINGED, SARGENT WELCH PART NO. AC51100NW016 OR EQUIVALENT LEYBOLD #18341 AND MDC #701000
25	46-294030G1	1	QF16 CENTERING, SARGENT WELCH PART NO. AC51200NW016 OR EQUIVALENT LEYBOLD PART #88346 AND MDC #710000
26	46-294939G50	1	CASE, FOAM AND LABEL FOR SHIELD COOLER TOOL KIT.
27	46-294937P1	1	#4 MALE COUPLING WITH TUBE ADAPTER AEROQUIP PART #5401-S17-4.
28	46-294936P1	1	#8 FEMALE COUPLING WITH TUBE ADAPTER AEROQUIP PART #5401-S14-8.
29	46-317904P1	2	GAS DISCHARGE (PURGE) TOOL #8 (1/2~) AEROQUIP MALE COUPLING TO 1/8~ MALE ADAPTER WITH VALVE AND 0-400 PSI GAUGE.
30	46-317904P2	2	GAS DISCHARGE (PURGE) TOOL #12 (3/4~) AEROQUIP MALE COUPLING TO 1/8~ MALE ADAPTER WITH VALVE AND 0-400 PSE GAUGE
31	46-281989G1	1	COLD HEAD PORT COVER
32	46-318911P1	1	BALZERS COMPRESSOR TO COLDHEAD POWER CABLE.
33	46-318910P1	1	LEYBOLD COMPRESSOR TO COLDHEAD POWER CABLE.
34	2100316	1	LARGE ADAPTER FITTING THAT ALLOWS CONNECTION OF AEROQUIP FITTING TO HELIUM LINE.
35	2100317	1	SMALL ADAPTER FITTING THAT ALLOWS CONNECTION OF AEROQUIP FITTING TO HELIUM LINE.
37	2102181	1	SHIELD COOLER TOOL KIT LABEL UPGRADE
38	2132124	1	COLDHEAD CHANGEOUT TOOL
39	2157411	1	#8 AEROQUIP ADAPTER FITTING

4.3.2. 2300306-2, Revision 3: Universal Coldhead Replacement Tool Kit

Item Nº	Part Number	Qty	Description
	2300306-2		TOOL KIT, UNIVERSAL COLDHEAD REPLACE WITH INDIUM REMOVAL TOOL
1	2306020-2	1	CASE AND LABEL, C.H. REPLACEMENT KIT WITH INDIUM REMOVAL TOOL
2	2287707	1	ADAPTER, COLDHEAD SERVICE,
3	2267197	1	COLDHEAD SLEEVE PUMPOUT LINE
4	2287716	1	INSTRUMENT, DIGITAL VACUUM
5	46-294030G1	7	QF16 CENTERING, SARGENT WELCH PART NO. AC51200NW016 OR EQUIVALENT LEYBOLD PART #88346 AND MDC #710000
6	46-294026P1	7	QF16 ALUMINUM HINGED, SARGENT WELCH PART NO. AC51100NW016 OR EQUIVALENT LEYBOLD #18341 AND MDC #701000
7	46-294028P1	2	BLANK-OFF, SARGENT WELCH PART NO. AC51050NW016 OR EQUIVALENT LEYBOLD #88346 AND MDC #712000
8	46-260267P3	1	SEAL OFF VALVE OPERATOR WITH KF16 FLANGE
9	5180672	1	FIELD SERVICE KIT, COLDSLEEVE HEATER
10	2303728	1	LEXAN COVER PLATE, FSDE
11	2303724	1	NITROGEN GAS LINE, FSDE
12	2303731	1	REGULATOR / FLOWMETER WITH QUICK-CON
13	46-320472P5	1	OPEN END 8MM X 10MM
14	2236606	1	PLUG,DOUBLE O-RING,BRASS
15	46-252065P24	1	VACUUM GREASE,DOW CORNING
16	46-294041P5	1	OIL, QUART SIZE, DUOSEAL SWSII, SARGENT-WELCH PART NO. 1407K-11 (WHEN ORDERING SPECIFY QUART SIZE AND QUANTITY)
18	46-260342P2	1	.612 I.D. X .818 O.D. ~O~RING
19	2321289	1	FLEX LINE COUPLING, COLDHEAD KIT
20	2365037	1	TOOL, INDIUM REMOVAL AND CASE
21	5111335	1	GAS HOSE LINE, .25 MNPT TO MALE QUICK CONNECT STEM, 25 FT
22	5111361	1	HELIUM VENT LINE, .25 FEMALE TO MALE QUICK CONNECT STEM, 5 FT

4.3.3. 5180672, Revision 3: Coldsleeve Heater Kit

Item Nº	Part Number	Qty	Description
	5180672		FIELD SERVICE KIT, COLDSLEEVE HEATER
2	5180672-2	1	TOOL BOX, FIELD SERVICE KIT, COLDSLEEVE HEATER
3	5180672-3	2	SPRING CLAMP, FIELD SERVICE KIT, COLDSLEEVE HEATER
4	5145460	1	TOOL, COLDSLEEVE HEATER
5	5179642	1	HOSE, COLDSLEEVE HEATER SHIM LEAD CONNECTOR
6	5145460-15	Not Available	BULB, 150W HALOGEN, COLDSLEEVE HEATER TOOL
6a	5440278	Available to Order	150 W CARTRIDGE HEATER
7	5145460-38	1	FUSE, COLDSLEEVE HEATER TOOL

4.3.4. 5179792, Revision 1: Cable, CE Approved Coldsleeve Heater Extension

Item Nº	Part Number	Qty	Description
	5179792		CABLE, CE APPROVED COLDSLEEVE HEATER EXTENSION

4.3.5. 2232674, Revision 0: Fixed Site Coldhead Change Out Kit

Item Nº	Part Number	Qty	Description
	2232674		COLDHEAD INSERTION AND PURGE COVER TOOL KIT ASSEMBLY
1	2232677	1	CASE FOR COLDHEAD INSERTION AND PURGE COVER TOOL KIT - PELICAN MODEL NUMBER 1600
2	2232673	1	COLDHEAD INSERTION AND PURGE COVER TOOLS KIT STICK-ON LABEL
3	2228876	1	FIXED SITE SHI COLDHEAD INSERTION TOOL
4	2232560	1	LEXAN PURGE COVER PLATE ASSEMBLY

4.3.6. 2380982, Revision 0: Kit, Coldhead Insertion/Removal Tool

Item Nº	Part Number	Qty	Description
	2380982		KIT, COLDHEAD INSERTION/REMOVAL TOOL
1	2262749	1	CASE FOR COLDHEAD INSERTION / REMOVAL TOOL KIT
2	2262685	1	COLDHEAD INSERTION/REMOVAL TOOL KIT STICK-ON LABEL
3	2379887	1	INSERTION FIX., COLDHEAD, HFO
4	2254615	1	COLDHEAD HOIST
5	2275776	1	PURGER COVER PLATE ASSEMBLY
6	2279643	0	TOOL, REI ASCENDER, NMR - INCLUDED ON BOM 2275779 AND 2262686 AS A RENEWAL PART REFERENCE ONLY.
7	2279647	0	TOOL, HARKEN PULLEY, NMR - INCLUDED ON BOM 2275779 AND 2262686 AS A RENEWAL PART REFERENCE ONLY.
8	2270738	0	NYLON ROPE, .50~ DIA. X 25~ LONG INCLUDED ON BOM 2275779 AND 2262686 AS A RENEWAL PART REFERENCE ONLY.
9	2279644	0	TOOL, LOCKING PIN, NMR - INCLUDED ON BOM 2262686 AS A RENEWAL PART REFERENCE ONLY.
10	2275600	0	CAM-MATIC, HARKEN - INCLUDED ON BOM 2262686 AS A RENEWAL PART REFERENCE ONLY.

4.3.7. 2380985, Revision 0: LCC Mobile Coldhead Tool Kit

Item Nº	Part Number	Qty	Description
	2380985		KIT, LCC MOBILE COLDHEAD TOOL KIT
1	2275777	1	CASE FOR LCC MOBILE COLDHEAD TOOL
2	2275778	1	LABEL FOR LCC MOBILE COLDHEAD TOOL KIT CASE
3	2379888	1	INSERTION FIX.,COLDHEAD,MOBILE MAG
4	2258802	1	MOBILE COLDHEAD TOOL
5	2275776	1	PURGER COVER PLATE ASSEMBLY
6	2279647	0	TOOL, HARKEN PULLEY, NMR - INCLUDED ON BOM 2275779 AND 2262686 AS A RENEWAL PART REFERENCE ONLY.
7	2279646	0	TOOL, REI CARABINER, NMR - INCLUDED ON BOM 2275779 AS A RENEWAL PART REFERENCE ONLY.
8	2279643	0	TOOL, REI ASCENDER, NMR - INCLUDED ON BOM 2275779 AND 2262686 AS A RENEWAL PART REFERENCE ONLY.
9	2270738	0	NYLON ROPE, .50~ DIA. X 25~ LONG INCLUDED ON BOM 2275779 AND 2262686 AS A RENEWAL PART REFERENCE ONLY.

4.3.8. 5395677, Revision 1: Kit, Coldhead Alignment Tool Clamp

Item Nº	Part Number	Qty	Description
	5395677		KIT, COLDHEAD ALIGNMENT TOOL CLAMP
1	2381228-15	2	SCREW, SS HEX SOCKET CAP, M6 X 70
2	5116429	1	BLOCK, STRAP BANDING
3	5391106	1	T-BOLT BAND CLAMP
4	2390368-4	2	SCREW, SS BUTT HD CAP, .25-20 X .75
5	46-252635P7	2	.25 NOM., PLAIN WASHER
6	2109878-3	6	WASHER PLAIN - NORMAL 6.4 MM 12 MM

4.3.9. 2385069, Revision 2: 3.0T Coldhead Transport Kit

Item Nº	Part Number	Qty	Description
	2385069		KIT, 3.0T COLDHEAD TRANSPORT
1	2385070	1	CASE, 3.0T COLDHEAD TRANSPORT KIT
2	2385071	1	INSTRUCTIONS, PACKING, 3.0T COLDHEAD TRANSPORT KIT
3	2348452	1	TOOL, COLDHEAD INSERTION/REMOVAL
4	2375543	1	TOOL, COLDHEAD TRANSPORT, G3
5	2384270	1	WRENCH, T-HANDLE,10MM, TITANIUM
6	2384264	1	WRENCH, COMBINATION,10MM,TITANIUM

4.3.10. 46-294804G1, Revision AA: Nonmagnetic Coldhead Wrenches Kit

Item Nº	Part Number	Qty	Description
	46-294804G1		NON-MAGNETIC AEROQUIP WRENCHES FOR COLDHEAD.
2	46-294800G1	1	CASE ASSEMBLY FOR BRONZE WRENCH KIT
3	46-294805P1	2	BRONZE, OPEN END, 1 5/8~
4	46-294805P2	2	BRONZE, OPEN END, 1 3/8~
5	46-294805P3	2	BRONZE, OPEN END, 1 3/16~
6	46-294805P4	1	BRONZE, OPEN END, 1 1/8~
7	46-294805P5	1	BRONZE, OPEN END, 1~

4.3.11. 46-318688P1, Revision AA: Cryocooler HE Line Oil Contamination Checker

Item Nº	Part Number	Qty	Description
	46-318688P1		CRYOCOOLER HE LINE OIL CONTAMINATION CHECKER.

4.3.12. 5102120, Revision 1: Charging Tool, Field Service, Precision Cryogenics

Item Nº	Part Number	Qty	Description
	5102120		CHARGING TOOL, FIELD SERVICE, PRECISION CRYOGENICS PART # 090203-GE

4.3.13. 5262081, Revision 1: Pressure Relief Tool, Male, -8 Coupling

Item Nº	Part Number	Qty	Description
	5262081		PRESSURE RELIEF TOOL, MALE, -8 COUPLING

4.3.14. 5272260, Revision 1: Pressure Relief Tool, Female, -8 Coupling

Item Nº	Part Number	Qty	Description
	5272260		PRESSURE RELIEF TOOL, FEMALE, -8 COUPLING

4.3.15. 2214919, Revision 0: Stand, Coldhead, LCC

Item Nº	Part Number	Qty	Description
	2214919		STAND,COLDHEAD,LCC

4.3.16. 46-318784G2, Revision 1: Shield Cooler Test Kit

Item Nº	Part Number	Qty	Description
	46-318784G2		SHIELD COOLER TEST KIT ASSEMBLY.
2	2100644	1	CASE ASSEMBLY FOR SHIELD COOLER TEST KIT
3	46-318649P1	1	DISSOLVED SOLIDS TESTER
4	46-318648P1	1	pH METER
5	2100976	1	UV LIGHT LABEL ASSEMBLY
7	46-318829P1	1	GOGGLES FOR UV LIGHT PROTECTION.
8	2100660	3	SPECIMEN CONTAINER
9	2100661	1	SOLUTION FOR SOLIDS
10	2100662	1	SOLUTION FOR PH
13	2101986	1	~SAMPLE~ LABEL
14	2101987	1	~SOLIDS~ LABEL
15	2101988	1	~pH~ LABEL
16	2101994	1	SHIELD COOLER TEST KIT (46-318784G1) OPERATING INSTRUCTIONS.

4.3.17. 46-294047G1, Revision 5: Shield Cooler Vacuum Pump Assembly

Item Nº	Part Number	Qty	Description
	46-294047G1		SHIELD COOLER VACUUM PUMP ASSEMBLY
1	5273155	1	VACUUM PUMP, LEYBOLD
2	46-294833G1	1	SHIELD PUMP KIT ASSEMBLY
3	46-294834G1	1	HOSE AND FILTER ASSEMBLY
4	46-294041P5	1	OIL, QUART SIZE, DUOSEAL SWSII, SARGENT-WELCH PART NO. 1407K-11 (WHEN ORDERING SPECIFY QUART SIZE AND QUANTITY)
5	46-294041P2	2	EXHAUST FILTER, SARGENT-WELCH MODEL NO. 8817
6	46-294837G50	1	VACUUM PUMP CASE ASSEMBLY, WITH TOP AND BOTTOM FOAM INSERTS AND LABEL PLATES WITH RIVETS AND WASHERS.

Thermal Stability

4.4. FRU Assemblies – Thermal Stability

4.4.1. 5177897-3, Revision 2: Kit, Pressure Transducer Replacement

Item Nº	Part Number	Qty	Description	GPRS
	5177897-3		KIT, PRESSURE TRANSDUCER REPLACEMENT, WIKA	Yes
1	5177897-4	1	INSTRUCTIONS, PRESSURE TRANSDUCER REPLACEMENT KIT, WIKA	No
2	5192503	1	PRESSURE TRANSMITTER	Yes
3	46-252557P2	1	.25 NPT, BRASS	Yes
4	5212372	1	FRACTIONAL TUBE ADAPTER	No
5	5180922	1	0.25 INCH OD UNION ELBOW	No
6	2109440	1	SWAGLOK PORT CONNECTOR	No
7	46-281174P2	2	NUT TUBE .25 OD, SWAGELOK #B-402-1	Yes
8	46-281173P4	2	TUBE .25 OD, SWAGELOK #B-404-1	Yes
9	46-281060P4	2	TUBE .25 OD, SWAGELOK #B-403-1	Yes
10	46-252065P19	1	TEFLON TAPE .50 WIDE	Yes

4.5. Tool Kits – Thermal Stability

4.5.1. 5342456, Revision 5: DVw Temperature Controller Kit

Item Nº	Part Number	Qty	Description
	5342456		KIT, TEMPERATURE CONTROLLER, DVW
1	5371288	1	CASE, TEMPERATURE CONTROL KIT, DVW
4	5341054	1	TEMPERATURE CONTROLLER, LAKESHORE MODEL 325
5	5340948	1	CABLE, COLDHEAD SLEEVE DE-ICE, DVW
6	5346885	1	LABEL, DE-ICING KIT, DVW
7	5308861	1	LABEL, MAGNETIC MATERIALS DANGER

4.5.2. 5263845, Revision 1: De-Icing Tool Kit

Item Nº	Part Number	Qty	Description
	5263845		KIT, DEICING TOOL
1	5264712	1	CASE, DEICING TOOL, PELICAN 1620
2	5266224	1	HOSE ASSEMBLY, 20 FT
3	5270565	1	HOSE ASSEMBLY, 3 FT
4	5248857	1	INSULATED FILL PORT CORING TOOL
5	5248855	1	INSULATING RAMPING PORT TOOL
6	2280035	1	TOOL, ICE COREING
7	5266208	1	GAS WAND VALVE
8	5248860	1	GAS WAND TUBE
9	5248856	1	INSULATING ICE CHIPPING TOOL
10	5248765	1	TOOL, FILL PORT CORING
11	5248852	1	ICE CHIPPING TOOL, LOW CEILING HEIGHT
12	5248766	1	RAMPING PORT CORING TOOL, LOW CEILING HEIGHT
13	5248851	1	TOOL, FILL PORT CORING, LOW CEILING HEIGHT
14	5270768	1	RECONDENSOR DEICING VALVE
15	5268231	1	VACUUM VALVE FOR RECONDENSOR
16	5266816	1	REGULATOR, 75 PSI W QUICK CONNECT
17	5268307	1	FLOWMETER W QUICK CONNECT
18	5271429	1	REGULATOR, 15 PSI W QUICK CONNECT.

4.5.3. 2296796, Revision 0: Kit, Leak Detector, U.S. Version

Item Nº	Part Number	Qty	Description
	2296796		KIT, LEAK DETECTOR, U.S. VERSION
1	46-294150P48	1	LEAK DETECTOR, UL-200, 115V LEYBOLD PART# 141 00
2	46-294150P42	1	TRANSPORT CASE, LEYBOLD #140 96

Cool Down and Top Off

4.6. FRU Assemblies – Cool Down and Top Off

4.6.1. 46-260555G2, Revision 0: Transfer Line Extension Tip for 500L Dewar

Item Nº	Part Number	Qty	Description	GPRS
	46-260555G2		TRANSFER LINE EXTENSION TIP FOR 500L DEWAR	Yes
2	46-260555P2	1	.500 DIA. X .500 LONG STAINLESS STEEL ROUND	No
3	46-260555P3	1	.250 DIA X .035 WALL X 10.00 LONG STAINLESS STEEL TUBING	No

4.6.2. 46-294513G1, Revision 4: Liquid Helium Transfer Line Kit Collector

Item Nº	Part Number	Qty	Description	GPRS
	46-294513G1		LIQUID HELIUM TRANSFER LINE KIT COLLECTOR	No
1	46-294511P1	1	HELIUM DEWAR STINGER ASSEMBLY WITH 59.25~ LONG STINGER FOR A 250 LITER DEWAR.	No
2	46-294511P2	1	HELIUM DEWAR STINGER ASSEMBLY WITH 64.25~ LONG STINGER FOR A 500 LITER DEWAR.	No
3	46-294512P1	1	FLEXIBLE LIQUID HELIUM TRANSFER LINE X 12 FT. LONG WITH .50~ X 6.00~ MALE BAYONET ON BOTH ENDS.	Yes
4	46-294512P2	1	FLEXIBLE LIQUID HELIUM TRANSFER LINE X 8 FT. LONG WITH .50~ X 6.00~ MALE BAYONET ON BOTH ENDS.	Yes
5	46-294512P3	1	LIQUID HELIUM CRYOSTAT STINGER ASSY. WITH 7.00~ LONG STINGER WITH THREADED END AND TEFLON TIP.	Yes
6	46-294512P4	1	LIQ He CRYOSTAT STINGER ASSY. WITH 14.75~ LONG STINGER.	No
7	46-294512P5	1	LIQ He MALE BAYONET REDUCER WITH .50~ X 3.00~ LONG BAYONET.	Yes
8	46-294512P6	1	LIQUID HELIUM MALE BAYONET COUPLING NUT.	Yes
9	46-294512P7	1	LIQUID HELIUM MALE BAYONET NUT RETAINER RING.	Yes
10	46-294512P8	1	LIQUID HELIUM MALE BAYONET O-RING.	Yes
11	46-294512P9	2	LIQ He .50~ VAC PUMP-OUT PORT, RELIEF VALVE O-RING (LARGE)	Yes
12	46-294512P10	1	LIQ He .50~ VAC PUMP-OUT PORT, RELIEF VALVE O-RING (MED).	Yes
13	46-294512P11	2	LIQ He .50~ VAC PUMP-OUT PORT; RELIEF VALVE O-RING (SMALL).	Yes
14	46-294512P12	1	16.00~ LONG CRYOSTAT STINGER EXTENSION WITH THREADED END AND TEFLON TIP.	Yes
15	46-294512P13	1	PURGE/PRECOOL ADAPTER FOR COOLDOWN OF MAGNET HELIUM RESERVOIR.	No
16	46-294512P14	1	FOAM FILLED BLACK PLASTIC CASE 26.00~ X 14.50~ X 6.63~.	Yes
17	46-294512P15	1	KNURLED BRASS BLANKING CAP WITH RUBBER SEAL - 1.50~ I.D.	Yes
18	46-294512P16	1	NITROGEN FILL LINE ADAPTER - .960-14 NGO RIGHT HANDLE MALE THREAD TO .50~ ODT X 45 DEG. FLARE MALE FITTING.	Yes
19	46-294512P17	1	HELIUM GAS LINE ADAPTER - .50~ NPT MALE TO .50~ ODT X 45 DEG. FLARE FEMALE FITTING.	Yes
20	46-294512P18	1	VACUUM PUMP-OUT PORT CAP.	No
21	46-294512P19	1	VACUUM PUMP-OUT PORT VALVE.	No
22	46-294512P20	1	PVC BAYONET PROTECTORS - SET OF TWO FOR FS-8-2B6 AND FS-12-2B6 LIQUID HELIUM TRANSFER LINES.	No
23	46-294512P21	1	TEFLON TIP FOR CRYOSTAT STINGER AND EXTENSION - SET OF TWO.	Yes
24	46-294512P22	1	VALVE STEM CAP KIT.	Yes
25	46-252805P2	1	10 FT. LONG NITROGEN TRANSFER LINE WITH .50~ X 45 DEG. FLARE FITTINGS ON BOTH ENDS.	No
26	46-252805P3	1	15 FT. LONG NITROGEN TRANSFER LINE WITH .50~ X 45 DEG. FLARE FITTINGS ON BOTH ENDS.	No
27	46-294512P25	1	LIQ He CRYOSTAT STINGER ASSY. WITH 17.00~ LONG STINGER.	No
28	5264435	2	STINGER	No

4.7. Tool Kits – Cool Down and Top Off

4.7.1. 46-306734G1, Revision AB: Helium Tank Regulator and Hose Kit

Item Nº	Part Number	Qty	Description
	46-306734G1		NON-MAGNETIC GAS CYLINDER REGULATOR/ HOSE ASSEMBLY CONSISTING OF REGULA- TOR, HOSE, CASE, FOAM AND LABEL
2A	46-258151P1	1	NON-MAGNETIC GAS CYLINDER REGULATOR
3	46-271135P16	1	20 FT DEWAR TO GAS CYLINDER HOSE ASM
4	46-301453P8	1	BLOW MOLDED, 17 X 13 X 7-3/8
5	46-301453P8	1	FOAM FOR CASE TOP, GAS REG/HOSE KIT
6	46-306735P2	1	FOAM FOR CASE BOTTOM, GAS REG/HOSE KIT
7	46-306736P1	1	LABEL FOR GAS CYLINDER REG/HOSE KIT

4.7.2. 46-294705G1, Revision 5: Liquid Helium Transfer Line Kit

Item Nº	Part Number	Qty	Description
	46-294705G1		LIQUID HELIUM TRANSFER LINE STINGER/EXTENSION/ADAPTOR KIT.
1	46-294512P3	1	LIQUID HELIUM CRYOSTAT STINGER ASSY. WITH 7.00~ LONG STINGER WITH THREADED END AND TEFLON TIP.
2	46-294512P4	1	LIQ He CRYOSTAT STINGER ASSY. WITH 14.75~ LONG STINGER.
3	46-294512P5	1	LIQ He MALE BAYONET REDUCER WITH .50~ X 3.00~ LONG BAYONET.
4	46-294512P12	1	16.00~ LONG CRYOSTAT STINGER EXTENSION WITH THREADED END AND TEFLON TIP.
5	46-294512P13	1	PURGE/PRECOOL ADAPTER FOR COOLDOWN OF MAGNET HELIUM RESERVOIR.
6	46-294512P14	1	FOAM FILLED BLACK PLASTIC CASE 26.00~ X 14.50~ X 6.63~.
7	46-294512P15	1	KNURLED BRASS BLANKING CAP WITH RUBBER SEAL - 1.50~ I.D.
8	46-294512P16	1	NITROGEN FILL LINE ADAPTER - .960-14 NGO RIGHT HANDLE MALE THREAD TO .50~ ODT X 45 DEG. FLARE MALE FITTING.
9	46-294512P17	1	HELIUM GAS LINE ADAPTER - .50~ NPT MALE TO .50~ ODT X 45 DEG. FLARE FEMALE FITTING.
11	46-294512P25	1	LIQ He CRYOSTAT STINGER ASSY. WITH 17.00~ LONG STINGER.
12	5264435	2	STINGER

4.7.3. 2166440, Revision 0: Transfer Line, Helium

Item Nº	Part Number	Qty	Description
	2166440		TRANSFER LINE, HELIUM

Chapter 5 – RAMPING AND SHIMMING

5. Ramping and Shimming

Ramping

5.1. FRU Parts – Ramping

Item Nº	Part Number	Qty	Description	GPRS
	46-281256P1	1	HUGIN IND., PIN 01292 [CONTACT BANDS]	Yes

5.2. Tool Kits - Ramping

5.2.1. 46-260703G7, Revision 1: Magnet Ramping Equipment Kit

Item Nº	Part Number	Qty	Description
	46-260703G7		MAGNET RAMPING EQUIPMENT
1	46-260817G3	2	LEAD, EXTENSION POWER MAIN
2	46-252366P4	3	SCREW BOLT
3	46-252320P19	6	NUT, HEX, .375-16, BRASS
4	46-252322P8	12	WASHER
5	46-281046P35	3	.375-16 X 1.25 LG, HEX HD, BRASS
6	46-252351P2	4	# 10 Brass RD HD Screw
7	46-252351P51	4	SCREW,RD HD #10-32 X .438 BR
8	46-281256P1	20	HUGIN IND., PIN 01292 [CONTACT BANDS]
9	46-294104P1	4	NUT, VACUUM QUICK COUPLING
10	46-294105P1	4	RING, QUICK COUPLING RETAINING
11	46-260389P1	8	SILICONE, PARKER#2-116
12	2142687	1	RAMP LEAD HOLD DOWN - SIGNA V
13	46-294236G1	1	CASE FOR SERVICE RAMPING KIT
14	46-294204G1	2	LEAD EXTENSION POWER ASSEMBLY
15	2152359	1	FIXTURE ASM, RAMP LEAD PLATE
16	2185743	1	TOOL,RAMP LEAD HOLD DOWN,CONQUEST
17	2193922	1	FIXTURE,RAMP LEAD,LCC
18	5323611	1	RAMP LEAD HOLD TOOL, HDW

5.2.2. 2279142, Revision A: LCC Hold-Down Tool Assembly

Item Nº	Part Number	Qty	Description
	2279142		LCC RAMP LEAD HOLD DOWN TOOL ASSY.
1	2276755	1	FIXTURE,RAMP LEAD, SHORT
2	46-281003P5	2	STUD, .25-20UNC X 7.12 LG, BRASS
3	46-252320P15	6	NUT, HEX, BRASS .250-20
4	46-252322P7	2	WASHER PLAIN, TYPE A NAR, BRASS .31

5.2.3. Ramp and Shim Power Supplies

Item Nº	Part Number	Qty	Description
	46-260776G4		1,000 AMP MAIN COIL POWER SUPPLY
	46-260777G3		SHIMMING POWER SUPPLY
	5395802		AUTO RAMP, AUTO SHIM POWER SUPPLY
	5395802-100		POWER SUPPLY, AUTO RAMP AND SHIM, CE APPROVED

5.2.4. 2141701, Revision 1: B0 Power Supply Kit

Item Nº	Part Number	Qty	Description
	2141701		B0 POWER SUPPLY KIT.
1	2141700	1	DESKTOP UNREGULATED POWER SUPPLY. 12 VDC WITH 6.00~ POWER CORD. JEROME INDUSTRIES PART NUMBER ILDK-108A.
2	2141700-2	1	STORAGE CONTAINER. UNDERWATER KINETICS MODEL ~409 DRY BOX~ PER DRAWING NUMBER 100391.
3	2140361	1	LABEL, B0 QUENCH POWER SUPPLY KIT
4	46-294151P39	1	ARMSTRONG A-12, 5 GRAM TWIN PAK
5	5327239	1	WARNING LABEL FERROUS MATERIAL HDV

5.2.5. 2353394-3, Revision 3: 1,000 Amp Ramp Cable Kit with Ground

Item Nº	Part Number	Qty	Description
	2353394-3		KIT, 1000AMP RAMP CART AND CABLE, WGND
1	2135434	1	RAMP CABLE CART WITH FOAM INSERTS IN SIDES, TOP AND BOTTOM.
2	46-260723G1	3	(601) POWER ASSEMBLY POSITIVE 4/0
3	46-260723G2	3	(602) POWER ASSEMBLY NEGATIVE 4/0
4	46-260724G1	1	(604) SWITCH HEATERS
5	46-281667G1	1	SWITCH HEATERS RESONA C and D
6	46-281235P1	1	VOLTAGE SENSE LEAD, 40 FEET
7	5402320	1	LABEL, RAMP KIT UPGRADE
8	46-294167P20	1	BLACK/YELLOW CHECKERED TAPE
9	2351842	1	CABLE, POWER SUPPLY GROUNDING, HFO
10	2351843	1	CABLE, POWER SUPPLY JUMPER, HFO
11	46-320460G1	1	PDU OUTLET TO MAG/SHIM POWER SUPPLY 5-#8 COND. W/30A PLUG; RECEPT. 50FT
12	5395581	1	CABLE, RAMP AXIAL HEATER, DVW

5.2.6. 5271012, Revision 2: Magnet Ramp Down Unit, 3T

Item N ^o	Part Number	Qty	Description
	5271012		MAGNET RAMP DOWN UNIT, 3T
1	5305168-2	1	CASE, HARDIGG W CASTERS, POUCH, 5 IN REAR LID, 2 IN FRONT LID
2	5304843	2	TOP AND BOTTOM COVER, MRDU
3	5265534	2	SIDE COVER, MRDU
4	5270548	1	FRONT PANEL, MRDU
5	5270210	1	REAR PANEL, MRDU
6	5262545	2	BOTTOM RAIL, MRDU
7	5268314	2	TOP RAIL, MRDU
8	5264743	5	SUPPORT RAIL
9	5269307	1	BOTTOM MOUNTING PLATE, MRDU
10	5264638	1	TOP MOUNTING PLATE, MRDU
11	5180952	4	DIODE ASSEMBLY
12	5271749	4	SOLENOID BRACKET, MRDU
13	5267306	4	SLOTTED SOLENOID BRACKET, MRDU
14	5269832	2	POWER TERMINAL INSULATOR, MALE, MRDU
15	5269832-2	2	POWER TERMINAL INSULATOR, FEMALE, MRDU
16	5273179	2	MAIN POWER LEADS, MRDU
17	5267700	2	SOLENOID BUS BAR, LONG
18	5271508	4	SOLENOID BUS BAR, SHORT
19	5268228	1	ISOLATED SUPPORT RAIL, MRDU
20	5268041	2	DIODE BUS BAR
21	5264525	1	CONNECTOR MOUNTING PLATE, MRDU
22	46-252267P63	25	#16 AWG,STRAND COPPER HOOK UP,TINNED, TFE INSULATED,RED
23	5305168-4	4	TOGGLE SWITCH, SPST
24	5305168-5	4	SWITCH GUARD
25	5305168-7	4	DC CONTACTOR, HEAVY DUTY, SINGLE POLE SINGLE THROW
26	5305168-3	2	FAN, COMAIR ROTRON, DC TUBEAXAIL, 12V, WHISPER XL DC
27	5305168-8	2	FAN GUARD,COMAIR ROTRON 12VDC
28	5305168-6	2	POWER SUPPLY, 100-240 VAC INPUT, SINGLE OUTPUT 120W
29	5305168-10	12	TERMINAL, BRASS, 24-18AWG, MALE
30	5305168-9	2	CONNECTOR PLUG HOUSING, NYLON, 6 CONTACTS, CRIMP TERM
31	5305168-12	1	TAG, PLASTIC, DIODE PACK
32	5305168-13	1	TAG, PLASTIC, NUMBERS 1-4
33	5305168-14	1	TAG, PLASTIC, BY PASS
34	5305168-15	1	TAG, PLASTIC, IN LINE
35	5305168-16	1	TAG, PLASTIC, POWER LEAD 1
36	5305168-17	1	TAG, PLASTIC, POWER LEAD 2
37	5305168-18	1	TAG, PLASTIC, PS1
38	5305168-19	1	TAG, PLASTIC, PS2
39	5305168-20	2	CABLE ASSY, WELDING CABLE, W SHRINK WRAP, LUGS, 24 IN LONG
40	5305168-21	2	CABLE ASSY, WELDING CABLE, W SHRINK WRAP, LUGS, 18 IN LONG
41	5305168-22	5	CABLE ASSY, WELDING CABLE, W SHRINK WRAP, LUGS, 12 IN LONG
42	46-252635P7	12	.25 NOM., PLAIN WASHER
43	46-281162P9	12	.25 NOM SPRING STAINLESS STL
44	46-294691P5	12	LOCKNUT, .250-20UNC HEX, 18-8 SS, WITH NYLON INSERT
45	46-252629P4	8	#10-24 UNC, HEX CAP SCREW X .625, SST
46	46-252629P8	8	#10-24 UNC, HEX CAP SCREW X .875, SST
47	46-252365P7	18	3/8-16UNC X 1.50LG, HEX HD, STN STL
48	2390368-7	32	SCREW, SS BUTT HD CAP, .25-20 X 1.25
49	46-260789P66	8	SCREW HEXAGON SOCKET STAINLESS STEEL .250 -20 x 1.0 in
50	5305168-23	16	NUT, HEAVY DUTY FLEXLOCK,.25-20UNC, SST
51	5305168-24	16	JAM NUT,.25-20 UNC, SST
52	5305168-11	16	FEM SOLDERLESS COUP, FEM DISC, CRIMP TERM, SIZE:16-14

5.2.7. 2217315, Revision 0: Cable, Backup Ramp Down [Aux Heater Cable]

Item Nº	Part Number	Qty	Description
	2217315		CABLE, BACKUP RAMPDOWN
2	46-294365P2	1	ALPHA CAT #5210/2 OR EQUAL #22AWG 2 CONDUCTOR, UNSHIELDED, BLK / BRN
3	46-252866P9	1	LEMO,FGG3B322CLAD62,STRAIGHT PLUG, 22 PIN
4	46-260727P3	1	CABLE CONNECTING (14 PINS) BENDIX CAT #MS3106A20-27P
5	46-281773P5	1	FOR #20; 22 SHELL SIZE, 3/4 OD MAX CABLE, BENDIX CAT #MS3057-12AC
6	46-281774P3	1	BENDIX CAT# MS3420-6
7	46-260449P2	2	LABEL,WIRE MARKER

5.2.8. 46-318314G2, Revision AA: Ramp Cable Holder

Item Nº	Part Number	Qty	Description
	46-318314G2		RAMP CABLE HOLDER
2	46-260723G1	2	(601) POWER ASSEMBLY POSITIVE 4/0
3	46-260723G2	2	(602) POWER ASSEMBLY NEGATIVE 4/0
4	46-318373G1	2	CABLE, POWER
5	46-318314G1	1	RAMP CABLE HOLDER

5.2.9. 2171719, Revision 0: Ramp and Shim Cable Kit for Conquest

Item Nº	Part Number	Qty	Description
	2171719		RAMP AND SHIM CABLE KIT FOR CONQUEST
1	46-260723G1	3	(601) POWER ASSEMBLY POSITIVE 4/0
2	46-260723G2	3	(602) POWER ASSEMBLY NEGATIVE 4/0
3	46-260724G1	1	(604) SWITCH HEATERS
4	46-260726G1	1	RAMP AND SHIM CABLE ASSEMBLY
5	2135362	1	SHIM LEAD ADAPTER - SIGNA V
6	46-281235P1	1	VOLTAGE SENSE LEAD, 40 FEET

Shimming

5.3. FRU Assemblies – Shimming

5.3.1. 5263916, Revision 3: Kit, Field Passive Shim, 3.0T HDV

Item Nº	Part Number	Qty	Description	GPRS
	5263916		KIT, 3.0T HDV FIELD PASSIVE SHIM	Yes
1	5159201-3	60	PASSIVE SHIM, HALF WIDTH, .020 INCH THICK, XRMB GRADIENT	No
2	5159201-2	40	PASSIVE SHIM, .020 INCH THICK, XRMB GRADIENT	No
3	5159201	30	PASSIVE SHIM, .031 INCH THICK, XRMB GRADIENT	No
4	2379197-4	30	SHIM, 2.0MM, HALF WIDTH, M4 THRU	No
5	2379197	30	SHIM, 2.0MM, M4 THRU	No
6	2379197-5	30	SHIM, CARBON STEEL, 3MM THK, M4 THRU	No
7	5212343	100	SQUARE NUT, PASSIVE SHIM, XRMB GRADIENT	No
8	5214479	120	SCREW, PASSIVE SHIM, XRMB GRADIENT	No

5.3.2. 5411648, Revision 1: LCC 1.5T Passive Shim Kit

Item Nº	Part Number	Qty	Description	GPRS
	5411648		LCC SHIM KIT	No
1	2190204	300	PASSIVE SHIM, .001 THK. - CONQUEST	No
2	2190204-2	300	PASSIVE SHIM, .003 THK. - CONQUEST	No
3	2190204-3	300	PASSIVE SHIM, .010 THK. - CONQUEST	No
4	5133586	200	DUCT TAPE STRIP, WHITE	No
5	46-294151P24	12	EPOXY 3M-DP420 - IN DUO PACK DISPENSER. DATE CODE REQUIREMENT: MATERIAL MUST BE USED ONE YEAR FROMDATE OF RECEIPT.	No
6	5265376	1	DISPENSER, EPX PLUS II, APPLICATOR	No
7	46-252065P154	12	MIXING NOZZLE 9742, 3M SCOTCH-WELD EPX APPLICATOR, 50 ML, PN 62974299356	No
8	2158613	12	TAPE SCALE FOR PASS. SHIMS, CONQUEST	No

5.3.3. 5263916, Revision 3: 3.0T HDV Field Passive Shim Kit

Item Nº	Part Number	Qty	Description	GPRS
	5263916		KIT, 3.0T HDV FIELD PASSIVE SHIM	Yes
1	5159201-3	60	PASSIVE SHIM, HALF WIDTH, .020 INCH THICK, XRMB GRADIENT	No
2	5159201-2	40	PASSIVE SHIM, .020 INCH THICK, XRMB GRADIENT	No
3	5159201	30	PASSIVE SHIM, .031 INCH THICK, XRMB GRADIENT	No
4	2379197-4	30	SHIM, 2.0MM, HALF WIDTH, M4 THRU	No
5	2379197	30	SHIM, 2.0MM, M4 THRU	No
6	2379197-5	30	SHIM, CARBON STEEL, 3MM THK, M4 THRU	No
7	5212343	100	SQUARE NUT, PASSIVE SHIM, XRMB GRADIENT	No
8	5214479	120	SCREW, PASSIVE SHIM, XRMB GRADIENT	No

5.3.4. 5428096, Revision 3: MR750w Field Passive Shimming Kit

Item Nº	Part Number	Qty	Description	GPRS
	5428096		KIT, FIELD PASSIVE SHIM, MR750W	Yes
1	5430878-3	500	SHIM, SILICONE STEEL, 0.35MM, DIA 4.5 THRU	No
4	5430878-4	240	SHIM, SILICONE STEEL, HALF 0.35MM, DIA 4.5 THRU	No
5	5430878	80	SHIM, PASSIVE, SILICONE STEEL, 2.1MM, M4 THRU	No
6	5430878-5	80	SHIM, SILICONE STEEL, 3.5MM, M4 THRU	No
7	5212343	300	SQUARE NUT, PASSIVE SHIM, XRMB GRADIENT	No
8	5214479	200	SCREW, PASSIVE SHIM, XRMB GRADIENT	No
9	5430878-6	100	SHIM, SILICONE STEEL, 3.5MM, DIA 4.5 THRU CS DIA 8.0	No
10	5430878-7	200	SHIM, SILICONE STEEL, 4.9MM, M4 THRU	No
12	5430878-2	160	SHIM, SILICONE STEEL, 4.9MM, DIA 4.5 THRU CS DIA 8.0	No
14	2385706-5	150	SCREW, FLAT HEAD, BRASS, M4 X 10	No
15	46-252283P81	40	PANDUIT CABLE TIE PLT3I-C	No

5.3.5. 5342951, Revision 6: 1.5T DVw Field Passive Shimming Kit

Item Nº	Part Number	Qty	Description	GPRS
	5342951		KIT, FIELD PASSIVE SHIM, 1.5T DVW	Yes
1	5430878-3	250	SHIM, SILICONE STEEL, 0.35MM, DIA 4.5 THRU	No
4	5430878-4	120	SHIM, SILICONE STEEL, HALF 0.35MM, DIA 4.5 THRU	No
5	5430878	40	SHIM, PASSIVE, SILICONE STEEL, 2.1MM, M4 THRU	No
6	5430878-5	40	SHIM, SILICONE STEEL, 3.5MM, M4 THRU	No
7	5212343	150	SQUARE NUT, PASSIVE SHIM, XRMB GRADIENT	No
8	5214479	100	SCREW, PASSIVE SHIM, XRMB GRADIENT	No
9	5430878-6	50	SHIM, SILICONE STEEL, 3.5MM, DIA 4.5 THRU CS DIA 8.0	No
10	5430878-7	50	SHIM, SILICONE STEEL, 4.9MM, M4 THRU	No
12	5430878-2	40	SHIM, SILICONE STEEL, 4.9MM, DIA 4.5 THRU CS DIA 8.0	No
14	2385706-5	75	SCREW, FLAT HEAD, BRASS, M4 X 10	No

5.4. Tool Kits - Shimming

5.4.1. 2135558, Revision 1: Shim Cable Kit

Item Nº	Part Number	Qty	Description
	2135558		SHIM CABLE CASE WITH CABLES
1	5178030	1	SHIM CABLE CASE FROM AMERIPACK.
2	46-260726G1	1	RAMP AND SHIM CABLE ASSEMBLY
3	46-260724G1	1	(604) SWITCH HEATERS
4	2135362	1	SHIM LEAD ADAPTER - SIGMA V
5	46-320460G1	1	PDU OUTLET TO MAG/SHIM POWER SUPPLY 5-#8 COND. W/30A PLUG; RECEPT. 50FT

5.4.2. 2386028, Revision 1: 3.0T Field Service Shim Camera Kit

Item Nº	Part Number	Qty	Description
	2386028		KIT, FIELD SERVICE SHIM CAMERA, 3.0T
1	2276277	1	MAGNETIC FIELD CAMERA, NMR MAGNET
2	2276277-13	1	PROBE ARRAY, SHIM CAMERA, HM 32-500, 3.0T
3	2276277-3	1	POWER SUPPLY, SHIM CAMERA, NMR
4	2276277-4	1	REMOTE BOX, SHIM CAMERA, NMR
5	2276277-5	1	CABLE, RS232, SHIM CAMERA, NMR
6	2276277-6	1	CABLE, MAIN UNIT TO PS, SHIM CAMERA
7	2276277-7	1	MANUAL, METROLAB SHIM CAMERA, NMR
8	2276277-8	1	CABLE, PS FOR U.S., METROLAB, NMR
9	2276277-9	1	CABLE, PS FOR EUROPE, METROLAB, NMR
10	2281993	1	TRANSIT CASE, MAGNETIC FIELD CAMERA SHIM KIT
11	46-317773P1	1	MAGNETIC MATERIALS (RED)
12	5102665	1	LABEL, 3.0T SHIM CAMERA CASE
13	46-328349P1	8	PLASTIC ARROW CLIP (.248 BODY X .54 LG)
14	5102783	1	SOFTWARE, SHIM TOOL
15	2378859	1	TOOL DATA SHEET

5.4.3. 2386028-2, Revision 1: Kit, Field Service Shim Camera, Dual 1.5T and 3.0T

Item Nº	Part Number	Qty	Description
	2386028-2		KIT, FIELD SERVICE SHIM CAMERA, DUAL 1.5T AND 3.0T
1	2276277	1	MAGNETIC FIELD CAMERA, NMR MAGNET
2	2276277-13	1	Probe Array, Shim Camera, HM 32-500, 3.0T
3	2276277-3	1	POWER SUPPLY, SHIM CAMERA, NMR
4	2276277-4	1	REMOTE BOX, SHIM CAMERA, NMR
5	2276277-5	1	CABLE, RS232, SHIM CAMERA, NMR
6	2276277-6	1	CABLE, MAIN UNIT TO PS, SHIM CAMERA
7	2276277-7	1	MANUAL, METROLAB SHIM CAMERA, NMR
8	2276277-8	1	CABLE, PS FOR U.S., METROLAB, NMR
9	2276277-9	1	CABLE, PS FOR EUROPE, METROLAB, NMR
10	2281993	1	TRANSIT CASE, MAGNETIC FIELD CAMERA SHIM KIT, GMW PART NO MFC-TC
11	46-317773P1	1	MAGNETIC MATERIALS (RED)
12	5102665-2	1	LABEL, DUAL 1.5T AND 3.0T SHIM CAMERA KIT
13	46-328349P1	8	PLASTIC ARROW CLIP (.248 BODY X .54 LG)
14	5102783	1	SOFTWARE, SHIM TOOL
15	2378859	1	TOOL DATA SHEET
16	2276277-12	1	PROBE-ARRAY, SHIM CAMERA, HM 32/450 FOR 1.5T MAGNETS

5.4.4. 2386028-3, Revision 1: Kit, Field Service Shim Camera, Dual 3.0T and 1.5T DVw

Item Nº	Part Number	Qty	Description
	2386028-3		KIT, FIELD SERVICE SHIM CAMERA, DUAL 3.0T AND 1.5T DVW
1	2276277	1	MAGNETIC FIELD CAMERA, NMR MAGNET
2	2276277-13	1	Probe Array, Shim Camera, HM 32-500, 3.0T
3	2276277-3	1	POWER SUPPLY, SHIM CAMERA, NMR
4	2276277-4	1	REMOTE BOX, SHIM CAMERA, NMR
5	2276277-5	1	CABLE, RS232, SHIM CAMERA, NMR
6	2276277-6	1	CABLE, MAIN UNIT TO PS, SHIM CAMERA
7	2276277-7	1	MANUAL, METROLAB SHIM CAMERA, NMR
8	2276277-8	1	CABLE, PS FOR U.S., METROLAB, NMR
9	2276277-9	1	CABLE, PS FOR EUROPE, METROLAB, NMR
10	2281993	1	TRANSIT CASE, MAGNETIC FIELD CAMERA SHIM KIT, GMW PART NO MFC-TC
11	46-317773P1	1	MAGNETIC MATERIALS (RED)
12	5343428	1	LABEL, 3.0T AND 1.5T DVW SHIM CAMERA KIT
13	46-328349P1	8	PLASTIC ARROW CLIP (.248 BODY X .54 LG)
14	5102783	1	SOFTWARE, SHIM TOOL
15	2378859	1	TOOL DATA SHEET
16	2276277-14	1	PROBE ARRAY, SHIM CAMERA, HM 32-500, 1.5T

5.4.5. 5266042-4, Revision 1: Universal Field Mapping Kit

Item Nº	Part Number	Qty	Description
	5266042-4		KIT, UNIVERSAL FIELD MAPPING FIXTURE, NON-MAGNETIC, EXTENDED
1	5122854	1	ASSEMBLY, UNIVERSAL FIELD CAMERA MAPPING FIXTURE
2	2383579	4	TOOL, G3 GRADIENT JACK, FIELD SHIM
3	5101699	4	SCREW, M10 X 75 HEX HEAD CAP, SPHERICAL POINT, STAINLESS STEEL UNS S31600
4	46-294167P81	1	SCREWDRIVER, MCMaster CARR PN 5699A14, TORQUE INDICATOR, 0-25 IN-LBS
5	5102367	1	CASE, G3 PASSIVE SHIM FIELD SERVICE KIT
6	2379661	1	TOOL, SHIM TRAY REMOVAL HANDLE
7	2378859	1	TOOL DATA SHEET
8	5405325	1	LABEL, UNIVERSAL FIELD SERVICE MAPPING KIT
9	46-317773P1	1	MAGNETIC MATERIALS (RED)
10	5103265	1	CASE, PLASTIC, PLANO MOLDING MODEL 3620 OR EQUIVALENT
11	5103265-4	3	CASE, PLASTIC, PLANO MOLDING PART NUMBER 3450-18 OR EQUIVALENT
12	5116737	1	TOOL, RAMP LEAD CLAMP
13	2137787	1	MRT HANDHELD SHIM DRAWER PULLER
14	5195587	1	LEFT ARM, PATIENT END, HDV MAPPING FIXTURE
15	5195589	1	MAPPING FIXTURE SPIDER ASSEMBLY
16	5195586	1	RIGHT ARM, PATIENT END, HDV MAPPING FIXTURE
17	5172460	1	TOOL, PASSIVE SHIM TRAY EXTRACTION, XRMB GRADIENT
18	5325761	1	TOOL, SHIM EXTRACTION, XRMW
19	5338453	2	HEX SPACER MAPPING FIXTURE
20	5337880	1	TOOL, MAPPING FIXTURE SHAFT, DVW
21	5146169	4	M10X24MM WASHER

5.4.6. 46-281927P1, Revision 0: Shim Drawer Extraction Tool

Item Nº	Part Number	Qty	Description
	46-281927P1		SHIM DRAWER EXTRACTION TOOL

5.4.7. 5431812, Revision 2: Kit, STET Transport

Item Nº	Part Number	Qty	Description
	5431812		KIT, STET TRANSPORT
1	5431810	1	MANUAL, SHIM TRAY EXTRACTION TOOL
2	5431813	1	CASE, LONG, STET TRANSPORT KIT
3	5431814	1	CASE, SHORT, STET TRANSPORT KIT
4	5419765	1	TOOL, SHIM TRAY EXTRACTION
5	5423147	1	TOOL, MANUAL SHIM TRAY REMOVAL, MR750W
6	5432260	1	KIT, STET ACCESSORY, MR750w
9	5434295	1	KIT, STET SUPPORT TOOL
10	5439170	2	TRANSIT CASE PACKING INSTRUCTION, STET TRANSPORT KIT
11	5442391	1	PREVENTIVE MAINTENANCE CHECKLIST INSTRUCTION, STET TRANSPORT KIT

Chapter 6 – GRADIENT RELATED ITEMS

6. Gradient Related Items

6.1. FRU Assemblies – Gradient

6.1.1. 2350813, Revision 0: Kit, TWIN

Item Nº	Part Number	Qty	Description	GPRS
	2350813		KIT, TWIN	Yes
1	2263200-39	1	(941) MSM1-J11 TO SCC-J1	No
2	2271497	1	(942) ETHERNET CABLE	No

6.1.2. 2350818, Revision 0: Kit, TWIN Mobile

Item Nº	Part Number	Qty	Description	GPRS
	2350818		KIT, TWIN MOBILE	Yes
1	2263160	1	(915) MSM1A2-J1 TO FJ6	No
2	2263159	1	(916) MSM1-J7 TO FJ1, FJ5 AND FJ6	No
3	2276569	1	(939) MDP-UPS OUT TO MSM4	No
4	2279530	1	UPS INPUT CABLE STRAIN RELIEF	No
5	2279530-2	1	UPS OUTPUT CABLE STRAIN RELIEF	No
6	2279530-3	1	MUX INPUT CABLE STRAIN RELIEF	No
7	2279530-4	2	MODEM/MAG MON INPUT CBL STRAINRELIEF	No

6.1.3. 5426726, Revision 2: IBC Temperature Sensor Replacement Kit

Item Nº	Part Number	Qty	Description	GPRS
	5426726		IBC TEMPERATURE SENSOR REPLACEMENT KIT	Yes
1	5161627-2	6	TEMPERATURE SENSOR, 0-70 DEGREES C, AGED TO 105 DEGREES C, GE INDUSTRIAL SENSING PN A197-A-UBC85F103W	No
2	5128728-4	1.5	TUBE, BLACK POLYOLEFIN HEAT SHRINKABLE, .125 EXPANDED ID	No
3	5128728-3	1.5	TUBE, BLACK POLYOLEFIN HEAT SHRINKABLE, .093 EXPANDED ID	No
4	46-294167P91	.09	TAPE, ELECTRICAL, RUBBER SPLICING, .75 INCH X 30 FT. ROLL, SCOTCH 130C	No
5	5262823-5	.1	SOLDER, LEAD FREE, SN3.8AGCU0.7 INDALLY 241,.062 DIA WIRE	No

6.1.4. 5508397, Revision 1: Collector, DVw Busbar XZ Assembly Replacement

Item Nº	Part Number	Qty	Description	GPRS
	5508397		COLLECTOR, DVW BUSBAR XZ ASSEMBLY REPLACEMENT	Yes
1	5508422	1	CABLE BUSBAR, X AND Z BUSBAR ASSEMBLY, MACHINED BOARD, DVW	No
2	2341885	10	NUT M10 FULL BRASS	No
3	5268439	12	SHIM, POWER CONNECTION LEADBOARD AXIAL ADJUSTMENT, XRMB GRADIENT	No
4	46-294167P96	6	BUSHING, LEADBOARD VIBRATION DAMPING, XRMB GRADIENT	No
5	5146169	6	M10X24MM WASHER	No
6	5214524-6	4	WASHER, M10 LARGE OD NORDLOCK, A4 STAINLESS	No
7	5368483	1	SHIPPING CRATE, XZ BUSBAR, DVW	No
8	2274863-2	4	FLANGE NUT, M10 X 1.5, A2, PER DIN6923	No
9	5415261-2	1	LOCTITE 243 10 ML	No
10	5214523-15	4	SCREW, M10 X 60 CUP POINT HEX SOCKET SET WITH LOCKING COMPOUND, A2 OR A4 STAINLESS, DIN 916	No

6.1.5. 5508398, Revision 1: Collector, DVw Busbar Y Assembly Replacement

Item Nº	Part Number	Qty	Description	GPRS
	5508398		COLLECTOR, DVW BUSBAR Y ASSEMBLY REPLACEMENT	Yes
1	5508424	1	CABLE BUSBAR, Y ASSEMBLY, MACHINED BOARD, DVW	No
2	2341885	12	NUT M10 FULL BRASS	No
3	5268439	20	SHIM, POWER CONNECTION LEADBOARD AXIAL ADJUSTMENT, XRMB GRADIENT	No
4	46-294167P96	10	BUSHING, LEADBOARD VIBRATION DAMPING, XRMB GRADIENT	No
5	5146169	10	M10X24MM WASHER	No
6	5214524-6	2	WASHER, M10 LARGE OD NORDLOCK, A4 STAINLESS	No
7	5368484	1	SHIPPING CRATE, Y BUSBAR, DVW	No
8	2274863-2	2	FLANGE NUT, M10 X 1.5, A2, PER DIN6923	No
9	5415261-2	1	LOCTITE 243 10 ML	No
10	5214523-15	2	SCREW, M10 X 60 CUP POINT HEX SOCKET SET WITH LOCKING COMPOUND, A2 OR A4 STAINLESS, DIN 916	No

6.1.6. 5342776, Revision 5: XRMW Gradient Coil Mounting Kit FRU

Item Nº	Part Number	Qty	Description	GPRS
	5342776		XRMW GRADIENT COIL MOUNTING KIT FRU	Yes
1	5408937	8	MOUNTING WEDGE, XRMW GRADIENT	No
2	5352691	2	XRMW GRADIENT MOUNTING STOP BLOCK	No
3	5352696	2	XRMW GRADIENT MOUNTING PAD	No
4	5352697	16	XRMW GRADIENT MOUNTING BLOCK SHIM	No
5	5363536-20	4	SCREW, M10X30 HEX HD CAP, SILICON BRONZE UNS C65100, PER ASTM F468M	No
6	5326293-5	8	SCREW, M10X35 HEX HEAD CAP, BRASS UNS C27000, PER ASTM F468M	No
7	46-294151P11	1	LOCTITE 271, LOCKTITE NO. 27121, 10 ML. BOTTLE. DATE CODE REQUIREMENTS: MATERIAL MUST BE USED WITHIN ONE YEAR FROM DATE OF MANUFACTURE.	No
8	5146169	14	M10X24MM WASHER	No
9	46-294151P8	.01	BOSTIK NEVER-SEEZE LUBRICATING AND ANTI-SEEZE COMPOUND. HELICOIL SYSTEMS GROUP - DANBURY, CT OR EQUIVALENT. PART 49501 1 OZ TUBE DATE CODE REQUIREMENTS: MATERIAL MUST BE USED WITHIN TEN YEARS FROM DATE OF RECEIPT.	Yes
10	5389085	2	XRMW GRADIENT STOP BLOCK LH	No
11	5389090-4	4	SCREW M10x30 FLAT HEX SOCKET HEAD STAIN ST	No
12	5390947	2	SHIM, G10, DVW	No

6.1.7. 5508399, Revision 2: Collector, MR750W Busbar XZ Assembly Replacement

Item Nº	Part Number	Qty	Description	GPRS
	5508399		COLLECTOR, MR750W BUSBAR XZ ASSEMBLY REPLACEMENT	Yes
1	5508425	1	ASSEMBLY, X AND Z CABLE BUSBAR, MR750W	No
2	3000-M10C-40	6	HEXAGON NUT, ISO4032, M10-1.5, BRASS, ROHS FASTENER	No
4	46-294167P96	6	BUSHING, LEADBOARD VIBRATION DAMPING, XRMB GRADIENT	No
5	5146169	6	M10X24MM WASHER	No
6	5214524-6	4	WASHER, M10 LARGE OD NORDLOCK, A4 STAINLESS	No
7	5368483	1	SHIPPING CRATE, XZ BUSBAR, DVW	No
8	2274863-2	4	FLANGE NUT, M10 X 1.5, A2, PER DIN6923	No
9	5415261-2	1	LOCTITE 243 10 ML	No
10	5214523-15	4	SCREW, M10 X 60 CUP POINT HEX SOCKET SET WITH LOCKING COMPOUND, A2 OR A4 STAINLESS, DIN 916	No
11	5538449	4	NYLON-INSERT HEX LOCKNUT, .250-20, BRASS	No

6.1.8. 5508401, Revision 2: Collector, MR750w Busbar Y Assembly Replacement

Item Nº	Part Number	Qty	Description	GPRS
	5508401		COLLECTOR, MR750W BUSBAR Y ASSEMBLY REPLACEMENT	Yes
1	5508426	1	ASSEMBLY, Y CABLE BUSBAR, MR750W	No
2	3000-M10C-40	10	HEXAGON NUT, ISO4032, M10-1.5, BRASS, ROHS FASTENER	No
4	46-294167P96	10	BUSHING, LEADBOARD VIBRATION DAMPING, XRMB GRADIENT	No
5	5146169	10	M10X24MM WASHER	No
6	5214524-6	2	WASHER, M10 LARGE OD NORDLOCK, A4 STAINLESS	No
7	5368484	1	SHIPPING CRATE, Y BUSBAR, DVW	No
8	2274863-2	2	FLANGE NUT, M10 X 1.5, A2, PER DIN6923	No
9	5415261-2	1	LOCTITE 243 10 ML	No
10	5214523-15	2	SCREW, M10 X 60 CUP POINT HEX SOCKET SET WITH LOCKING COMPOUND, A2 OR A4 STAINLESS, DIN 916	No
11	5538449	2	NYLON-INSERT HEX LOCKNUT, .250-20, BRASS	No

6.1.9. 5407963, Revision 4: XRMw Gradient Coil Mounting Kit, FRU, MR750w

Item Nº	Part Number	Qty	Description	GPRS
	5407963		XRMW GRADIENT COIL MOUNTING KIT, FRU, MR750W	Yes
1	46-170684P1	.1	LOCTITE 271, 0.5CC VIAL12 MONTH SHELF LIFE FROM DATE OF SHIPMENT FROM THE MANUFACTURER	Yes
3	5110638-65	16	HHCS, M10 X 35 LONG, BRASS, BN 502	No
4	5434040	12	GLASS LAMIMATE WASHER	No
5	5473593	12	INWARD WEDGE, TOP	No
6	5473683	2	ISOLATION MAT, GRADIENT	No
8	5419679	4	AXIAL END STOP, MR750W	No
9	5473595	8	INWARD WEDGE, BOTTOM	No

6.1.10. 2144093-5, Revision 4: BRM-D Coil, Gray Cart, Cradle

Item Nº	Part Number	Qty	Description	GPRS
	2144093-5		BRM-D COIL, GRAY CART, CRADLE	Yes
1	2134810	1	BRM CART FOR A STANDARD ROOM	Yes
2	2124499-7	1	GEMSPRO FRU BRM- GRAD CL W SHIELD	No
3	2134810-3	1	ALUMINUM CRADLE FOR BRM CART	Yes
4	46-208758P5	100	SELF LOCKING CABLE TIE	Yes

6.1.11. 5335389, Revision 1: Collector, 1.5T Magnet, XRMB Gradient Mounting

Item Nº	Part Number	Qty	Description	GPRS
	5335389		COLLECTOR, 1.5T MAGNET, XRMB GRADIENT MOUNTING	Yes
1	5170098	4	POSITIONING BLOCK, LCC AXI-RADIAL, XRMB GRADIENT	No
2	5170015	2	POSITIONING BLOCK, LCC RADIAL, XRMB GRADIENT	No
3	5170035	4	MOUNTING WEDGE, LCC OUTWARD, XRMB GRADIENT	No
4	5170312	5	MOUNTING WEDGE, LCC INWARD, XRMB GRADIENT	No
5	5326293-4	15	SCREW, M10X30 HEX HEAD CAP, BRASS UNS C27000, PER ASTM F468M	No
6	5146169	15	M10X24MM WASHER	No
7	46-294151P11	1	LOCKTITE 271, LOCKTITE NO. 27121, 10 ML. BOTTLE. DATE CODE REQUIREMENTS: MATERIAL MUST BE USED WITHIN ONE YEAR FROM DATE OF MANUFACTURE.	No

6.1.12. 5508396, Revision 1: Collector, XRMB Busbar Assembly Replacement

Item Nº	Part Number	Qty	Description	GPRS
	5508396		COLLECTOR, XRMB BUSBAR ASSEMBLY REPLACEMENT	Yes
1	5508430	1	MOLDED CABLE BUSBAR ASSEMBLY, XRMB GRADIENT, MR750	No
2	46-294167P96	8	BUSHING, LEADBOARD VIBRATION DAMPING, XRMB GRADIENT	No
3	5268439	12	SHIM, POWER CONNECTION LEADBOARD AXIAL ADJUSTMENT, XRMB GRADIENT	No
4	5214524-6	20	WASHER, M10 LARGE OD NORDLOCK, A4 STAINLESS	No
5	2341885	22	NUT M10 FULL BRASS	No
6	5321557	1	CRATE, CABLE LEADBOARD ASSEMBLY, XRMB GRADIENT	No
7	5308479	1	TOOL, LEADBOARD INSTALLATION GAGE	No
8	2274863-2	6	FLANGE NUT, M10 X 1.5, A2, PER DIN6923	No
9	5415261-2	1	LOCTITE 243 10 ML	No
10	5214523-15	6	SCREW, M10 X 60 CUP POINT HEX SOCKET SET WITH LOCKING COMPOUND, A2 OR A4 STAINLESS, DIN 916	No

6.1.13. 2144093-14, Revision 1: Collector, XRMB FRU Gradient Coil with HOS, Gray Cart with Cradle

Item Nº	Part Number	Qty	Description	GPRS
	2144093-14		COLLECTOR, XRMB FRU GRADIENT COIL WITH HOS, GRAY CART WITH CRADLE	Yes
1	2134810	1	BRM CART FOR A STANDARD ROOM	Yes
2	2134810-3	1	ALUMINUM CRADLE FOR BRM CART	Yes
3	5342577-2	1	COLLECTOR, BAY TESTED XRMB GRADIENT W HOS FRU, XU9537 EPOXY	No
4	5308479	1	TOOL, LEADBOARD INSTALLATION GAGE	No
5	5321374	4	LABEL, MAGNET SHIPPING TEMPERATURE	No
6	5313540	1	FOAM SEAL REAR GRADIENT COIL	No
7	5214524-6	20	WASHER, M10 LARGE OD NORDLOCK, A4 STAINLESS	No
8	46-294151P11	1	LOCTITE 271, LOCTITE NO. 27121, 10 ML. BOTTLE. DATE CODE REQUIREMENTS: MATERIAL MUST BE USED WITHIN ONE YEAR FROM DATE OF MANUFACTURE.	No
9	5197020	1	TERMINATION CAP, HIGH ORDER SHIM CONNECTOR	Yes
10	5127507	2	0.8125 INCH TO 1.5 INCH 316 SST WORM DRIVE HOSE CLAMP	No
11	5189441-2	2	WIRE, RF SHIELD GROUND, 762MM LG., XRMB GRADIENT, 1.5T	No

6.1.14. 5407761, Revision 4: XRMW FRU Gradient Coil Asm

Item Nº	Part Number	Qty	Description	GPRS
	5407761		XRMW FRU GRADIENT COIL ASM	Yes
1	2134810	1	BRM CART FOR A STANDARD ROOM	Yes
2	2134810-3	1	ALUMINUM CRADLE FOR BRM CART	Yes
3	5351301	1	BAY TESTED XRMW GRADIENT	No
4	5262712	1	PARKER NIPPLE WITH VALVE 0.5 MNPT . SEALING STYLE OF COUPLING. FIRST USED ON DVMR XGA,XPS, 3T RF AMP. USED WITH GE PN 5271369	Yes
5	5368487	1	PUSH ON BARB NPTF TO 0.5 INCH	No
6	5355126	3	PUSH-LOK HOSE 0.5 INCH	No
7	46-252065P155	2	HOSE CLAMP, 9MM WIDE X 12-20MM CLAMPING RANGE, STAINLESS STEEL, NORMA PRODUCTS INC PN 0126 6704 016	No
8	5368493	2	PLUG, 0.5 INCH BARBED END, PVC	No
9	5214524-6	20	WASHER, M10 LARGE OD NORDLOCK, A4 STAINLESS	No
10	46-294151P11	1	LOCTITE 271, LOCTITE NO. 27121, 10 ML. BOTTLE. DATE CODE REQUIREMENTS: MATERIAL MUST BE USED WITHIN ONE YEAR FROM DATE OF MANUFACTURE.	No
11	5357473	2	XRMW GRADIENT COIL SHIPPING BRACKET	No
12	46-260950P49	2	.500-13UNC X 2.00 LG., HEX HD, STAINLESS STEEL	No
13	5406803	2	450W SECONDARY ANTI WHISTLE SEAL	No
14	5350784	2	ACOUSTIC BARRIER END SERVICE	No
15	46-252065P151	.12	GORILLA TAPE, 2 INCH WIDE X 35 YARD ROLL, GORILLA GLUE COMPANY PN 60035-6	No
16	46-252283P81	50	PANDUIT CABLE TIE PLT31-C	No
17	46-294167P91	1	TAPE, ELECTRICAL, RUBBER SPLICING, .75 INCH X 30 FT. ROLL, SCOTCH 130C	No
18	5419381	4	SHIM TRAY ASSEMBLY, MOLDED, XRMW, EXTRACTOR KNOB	No

6.1.15. 5408218, Revision 4: Shim Tray Asm, XRMw

Item Nº	Part Number	Qty	Description	GPRS
	5408218		SHIM TRAY ASM, XRMW	Yes
1	5453280	1	KNOB, SHIM TRAY RETAINER, XRMW	No
2	5329392	1	XRMW SHIM TRAY	No
3	5306007-3	1	SETSCREW, M8 X 12 FLAT SLOTTED FLAT POINT, SHORT GLASS FILLED NYLON	No

6.1.16. 5431091, Revision 3: Shim Tray Locking Ring, XRMw, FRU

Item Nº	Part Number	Qty	Description	GPRS
	5431091		SHIM TRAY LOCKING RING, XRMW, FRU	Yes
1	5454121	1	SHIM RETAINING RING, XRMW	No
2	2162974-13	13	SCREW, THREAD CUTTING, STAINLESS	No
4	U1-SVC-520047	1	SAND PAPER, 60 GRIT, PK OF 10	No

6.1.17. 5342778, Revision 3: XRMW Coolant Manifold FRU

Item Nº	Part Number	Qty	Description	GPRS
	5342778		XRMW COOLANT MANIFOLD FRU	Yes
1	5339471	1	XRMW MANIFOLD COOLANT SUPPLY	No
2	5339472	1	XRMW MANIFOLD COOLANT RETURN	No
3	46-252065P155	20	HOSE CLAMP, 9MM WIDE X 12-20MM CLAMPING RANGE, STAINLESS STEEL, NORMA PRODUCTS INC PN 0126 6704 016	No
4	46-294167P91	1	TAPE, ELECTRICAL, RUBBER SPLICING, .75 INCH X 30 FT. ROLL, SCOTCH 130C	No
5	5351851	8	HOSE CLAMP, 12MM WIDE X 20-32	No
6	5352839	2	STRAIGHT HOSE CONNECTOR 12MM	No
7	5350791-10	2	XRMW MANIFOLD TUBE K	No
8	5340312	2	REDUCTION BARB ADAPTOR	No
9	5352243	1	TOOLING - TEMP SENSOR PROTECTOR	No

6.1.18. 5316997, Revision 4: Collector, XRMb Coolant Manifold Replacement

Item Nº	Part Number	Qty	Description	GPRS
	5316997		COLLECTOR, XRMb COOLANT MANIFOLD REPLACEMENT	Yes
1	5340572	1	MANIFOLD, GRADIENT COOLANT INLET, XRMb GRADIENT	No
2	5340572-2	1	MANIFOLD, GRADIENT COOLANT INLET, XRMb GRADIENT	No
3	46-252065P155	25	HOSE CLAMP, 9MM WIDE X 12-20MM CLAMPING RANGE, STAINLESS STEEL, NORMA PRODUCTS INC PN 0126 6704 016	No
4	46-294167P91	1	TAPE, ELECTRICAL, RUBBER SPLICING, .75 INCH X 30 FT. ROLL, SCOTCH 130C	No
5	5340573	1	MANIFOLD, GRADIENT COOLANT OUTLET, XRMb GRADIENT	No
6	5340573-2	1	MANIFOLD, GRADIENT COOLANT OUTLET, XRMb GRADIENT	No
7	5394470	1	HOSE, PUSH-LOK	No
8	46-294167P103	1	HOSE FITTING, KYNAR BARBED COUPLING, 1 INCH HOSE ID	No
9	5338553	2	S.S. HOSE CLAMP - 1.125-1.75 INCHES - 0.5 INCH BAND. IDEAL PART NUMBER: 6720M MATERIAL: 316 STAINLESS STEEL	No

6.1.19. 5147904, Revision 7: Assembly, Passive Shim Tray, XRMb Gradient

Item Nº	Part Number	Qty	Description	GPRS
	5147904		ASSEMBLY, PASSIVE SHIM TRAY, XRMb GRADIENT	Yes
1	5147899	1	TRAY, PASSIVE SHIM, XRMb GRADIENT	No
2	5147900	1	FITTING, SHIM TRAY RETAINING, XRMb GRADIENT	No
5	5306007-3	1	SETSCREW, M8 X 12 FLAT SLOTTED FLAT POINT, SHORT GLASS FILLED NYLON	No

6.1.20. 5534973, Revision 1: MR450w Safety Cover FRU Collector

Item Nº	Part Number	Qty	Description	GPRS
	5147904		MR450W SAFETY COVER FRU COLLECTOR	Yes
1	5506392	1	COVER ASSEMBLY, 450W	No
2	5508411	1	HSCHS, M10-1.5 X 60MM LG, 316 SS	No
3	2370892	1	G10 FIBERGLASS FLAT WASHER	No

6.1.21. 5534975, Revision 2: MR750w Safety Cover FRU Collector

Item Nº	Part Number	Qty	Description	GPRS
	5534975		MR750W SAFETY COVER FRU COLLECTOR	Yes
1	5507842	1	SAFETY COVER ASSEMBLY, MR750W	No
2	5538449	2	NYLON-INSERT HEX LOCKNUT, .250-20, BRASS	No
3	5535175	2	SET SCREW, .25-20 X 1.25, SS316	No
4	5534978	2	G10 WASHER	No
5	5415261-2	1	LOCTITE 243 10 ML	No

6.1.22. 5534976, Revision 1: MR750 Safety Cover FRU Collector

Item Nº	Part Number	Qty	Description	GPRS
	5534976		MR750 SAFETY COVER FRU COLLECTOR	Yes
1	5506393	1	COVER ASSEMBLY, MR750	No
2	5506138	1	MOUNTING BRACKET, SAFETY COVER, MR750	No
3	1000-M6C016-31	2	HEXAGON SOCKET HEAD CAP SCREW, M6-1, X16MM LONG, A2-70 STAINLESS STEEL, PASSIVATE, ROHS FASTENER	No
4	1000-M8C012-31	2	HEXAGON SOCKET HEAD CAP SCREW, M8-1.25, X12MM LONG, A2-70 STAINLESS STEEL, PASSIVATE, ROHS FASTENER	No
5	1000-M10C050-31	2	HEXAGON SOCKET HEAD CAP SCREW, M10-1.5, X50MM LONG, A2-70 STAINLESS STEEL, PASSIVATE, ROHS FASTENER	No
6	2000-M8-30	2	FLAT WASHER, ISO7089, M8, NYLON, ROHS FASTENER	No
7	5146169	2	M10X24MM WASHER	No
8	5394712	2	WASHER M6, GLASS LAMINATE	No

6.1.23. 5538535, Revision 1: Collector FRU, Clamp Replacement, MR750w

Item Nº	Part Number	Qty	Description	GPRS
	5538535		COLLECTOR FRU, CLAMP REPLACEMENT, MR750W	Yes
1	5508113	2	CLAMP, BUSBAR, XRMW GRADIENT, MR750W	No
2	5538449	6	NYLON-INSERT HEX LOCKNUT, .250-20, BRASS	No

6.2. FRU Parts – Gradient

6.2.1. 2214166-4, Revision 20, BRM-F LCC GRAD ISO INSTALL PART LIST

Item Nº	Part Number	Qty	Description	GPRS
	2214166-4	1	BRM-F LCC GRAD ISO INSTALL PART LIST	Yes

6.2.2. 2214166-5, Revision 16, BRM-F LCC GRAD ISO MOBILE INSTALL

Item Nº	Part Number	Qty	Description	GPRS
	2214166-5	1	BRM-F LCC GRAD ISO MOBILE INSTALL	Yes

6.2.3. 5414896, Revision 2, Hardware FRU Kit, FRMW Gradient Asm

Item Nº	Part Number	Qty	Description	GPRS
	5414896		HARDWARE FRU KIT, FRMW GRADIENT ASM	Yes
1	5214523-13	6	SCREW, M10 X 50 CUP POINT HEX SOCKET SET, A2 OR A4 STAINLESS, WITH LOCKING COMPOUND	No
2	5214524-6	6	WASHER, M10 LARGE OD NORDLOCK, A4 STAINLESS	No
3	3000-M10C-40	6	HEXAGON NUT, ISO4032, M10-1.5, BRASS, ROHS FASTENER	No
4	5344896	6	SPACER, GRADIENT TO BUSBAR, DVW	No
5	5371820	6	LUG AND RING TERMINAL INSULATOR	No
6	2381283-3	12	TIE WRAP, NYLON, 50LB MIN, 2.0 OD	No
7	2274863-2	6	FLANGE NUT, M10 X 1.5, A2, PER DIN6923	No
8	5214523-15	6	SCREW, M10 X 60 CUP POINT HEX SOCKET SET WITH LOCKING COMPOUND, A2 OR A4 STAINLESS, DIN 916	No
9	5415261-2	1	LOCTITE 243 10 ML	No

6.3. Tool Kits – Gradient

6.3.1. 5453169, Revision 1: Tool, Pencil Style Soldering Iron

Item Nº	Part Number	Qty	Description
	5453169		TOOL, PENCIL STYLE SOLDERING IRON, 40 WATTS, VOLTAGE 110-120 VAC

6.3.2. 2164744-8, Revision 1: Gradient Insertion Lifting Tool for BRM, TRM, XRMB and XRMW

Item Nº	Part Number	Qty	Description
	2164744-8		KIT, GRADIENT INSERTION LIFTING TOOL BRM,TRM,XRMB, XRMW
1	5191132	1	TOOL, GRADIENT INSTALLATION JACK
2	2284929	1	MALE TUBE ASM - INSERTION TOOL
3	2284930	1	FEMALE TUBE ASM - INSERTION TOOL
4	2284928-2	1	TOOL, SUPPORT PLATE, BRM, TRM, XRMB INSTALLATION
5	2172196	1	CRATE - BRM INSERTION TOOL
6	2121111	4	BODY COIL WHEEL HOUSING ASSEMBLY
7	2188986	1	ROPE AND SNAP ASSEMBLY
8	2326753	1	GRADIENT COIL LIFT KIT
9	2280510	1	BRM INSERTION TOOL IDENT LABEL
10	2187590	2	MOUNTING PLATE, CRM INSERTION TOOL
11	46-318508P59	10	HEX HEAD CAP SCREW, M10 X 80MM, FULL THREAD, SS
12	5308402	2	TOOL, TUBE GUIDE ROLLER ASSEMBLY, FIELD SERVICE
13	5161983	1	TOOL, SERVICE END INSTALLATION PLATE, DUAL USE TRM ,XRMB
14	5161985	1	TOOL, PATIENT END INSTALLATION PLATE, DUAL USE TRM , XRMB
15	5191626	1	TOOL, STANDOFF, GRADIENT INSTALLATION TUBE,
16	46-318508P20	14	HEX HEAD CAP SCREW, M10 X 25, FULL THREAD, STAINLESS STEEL
17	2180498	16	STUD, M10 X 120MM LONG, STAINLESS
18	2109875-4	40	NUT HEXAGON M10 A2-70
19	2109878-4	24	WASHER FLAT ISO7089 M10 A2
20	46-318508P25	10	HEX HEAD CAP SCREW, M10 X 50, FULL THREAD.
21	46-328430P8	8	WASHER PLAIN - NORMAL 13 MM 24 MM
22	46-252065P118	2	HAIRPIN COTTER, 1/8 DIA WIRE, SS
23	2116325-2	6	STUD SST M10 X 65
24	2224994	8	3/8 - 16 STEEL NUT WING
25	2224996	2	3/8 X 3/4 X 3~ PLAIN STEEL SPACER
26	2109866-24	10	SCREW HEXAGON HEAD 10 MM 50 MM
27	2315733	8	STAINLESS STEEL SLEEVE SPACER
28	46-260789P89	4	SCREW HEXAGON SOCKET 9.53 MM 38.1 MM .375-16UNC X 1.50
29	5303993-18	4	SCREW, SOCKET HEAD CAP, SS .38-16 X 4.0
30	5303994-9	4	SET SCREW, SLOTTED, SS M10 X 90
31	5265166	1	SLEEVE, INSERTION TUBE, THREAD PROTECTOR
32	5266408	1	TOOL, ROTATIONAL ALIGNMENT, XRMB GRADIENT
33	5262238	4	SPACER, GRADIENT INSTALLATION PLATE
34	5338222	3	XRMW INSTALL LINK PLATE A
35	5338223	2	XRMW INSTALL LINK PLATE B
36	5338224	1	XRMW INSTALL LINK PLATE C
37	5339882	2	ADAPTER PLATE, GRADIENT INSERTION TOOL, DVW
38	46-260950P79	4	CAP SCREW, HEX HD, .75-16UNF X 1.25 LG. STAINLESS STL
39	5342525	1	JACK HANDLE, NON MAGNETIC
40	5308861	3	LABEL, MAGNETIC MATERIALS DANGER
41	46-318508P19	32	HEX HEAD CAP SCREW, M10 X 20, FULL THREAD.
42	2269326-2	1	WARNING LABEL: FERROUS MATERIAL (SM)
43	5389303	1	TOOL, ROTATIONAL ALIGNMENT, XRMW GRADIENT

Chapter 7 – MISCELLANEOUS ITEMS

7. Miscellaneous Items

7.1. Non-Magnetic/Non-Ferrous Hand Tools

7.1.1. 2385097, Revision 0: FE Basic Nonmagnetic Tool Kit

Item Nº	Part Number	Qty	Description
	2385097		FE BASIC NON-MAGNETIC HAND TOOL KIT
1	2385098		AMPCO TOOL KIT
	2357186	1	WRENCH, 8~ CRESCENT
	2357187	1	PLIERS
	2357188	1	CUTTERS, DIAGONAL
	2357186-2	1	WRENCH, 10~ CRESCENT
	2357187-2	1	NEEDLE-NOSE PLIERS
	2357187-3	1	CHANNEL LOCK PLIERS
2	2385099		IMPERIX TOOL KIT
	46-320688P1	1	PHILLIPS SCREWDRIVER #0 X 3~ LG
	46-320688P2	1	PHILLIPS SCREWDRIVER #1 X 3~ LG
	46-320688P3	1	PHILLIPS SCREWDRIVER #2 X 6~ LG
	46-320688P4	1	PHILLIPS SCREWDRIVER #3 X 6~ LG
	46-320466P1	1	3/8 SPL DRIVE RATCHET
	46-320466P2	1	4~ EXTENSION
	46-320467P5	1	3/8 DRIVE X 9/16
	46-320468P12	1	3/8 DRIVE X 17MM
	46-320468P15	1	3/8 DRIVE X 17MM DEEP WELL
	46-320469P12	1	5/16 ALLEN WRENCH
	46-320469P8	1	5/32 ALLEN WRENCH
	46-320469P9	1	3/16 ALLEN WRENCH
	46-320470P10	1	6MM ALLEN WRENCH
	46-320470P13	1	9MM ALLEN WRENCH
	46-320470P6	1	4MM ALLEN WRENCH
	46-320470P8	1	5MM ALLEN WRENCH
	46-320472P5	1	OPEN END 8MM X 10MM
	46-320473P10	1	STD SCREWDRIVER 1/4 DIA X 5~ LG
	46-320473P13	1	STD. SCREWDRIVER 5/16 DIA X 6~ LG
	46-320473P18	1	STD. SCREWDRIVER 1/8 DIA X 8~ LG.
	46-320473P4	1	STD SCREWDRIVER 1/8 DIA X 4~ LG
	46-320473P7	1	STD. SCREWDRIVER 3/16 DIA X 4~ LG
	46-320686P4	1	COMBO 7/16 X 7/16
	46-320686P5	1	COMBO 1/2 X 1/2
	46-320686P6	1	COMBO 9/16 X 9/16
46-320686P7	1	COMBO 5/8 X 5/8	
46-320686P8	1	COMBO 11/16 X 11/16	
46-320686P9	1	COMBO 3/4 X 3/4	
46-320687P6	1	COMBO 17MM	
3	46-194451P16	1	15.5X11.25X2.5 WITH OUTSIDE EAPANDABLE POCKETS BLACK CORDURA CHICAGO CASE CD-48

7.1.2. 46-320273G4, Revision 0: Nonmagnetic Tool Kit

Item N ^o	Part Number	Qty	Description
	46-320273G4		INCH/METRIC NON-MAGNETIC TOOL KIT
2	46-216784P12	1	TOOL CASE
3	2168869	1	46-320273G4 CASE LABEL
4	46-320270P1	1	FOAM INSERT
5	46-320718G1	1	METRIC BASE TOOLS ENCASED
6	46-320719G1	1	INCH BASE TOOL ENCASED
7	46-320287P2	1	PALLET
8	46-320288P1	1	SINGLE
9	46-320466P1	1	3/8 SPL DRIVE RATCHET
10	46-320466P2	1	4~ EXTENSION
11	46-320466P3	1	8~ EXTENSION
12	46-320466P4	1	3/8 DRIVE SPEED HANDLE
13	46-320466P5	1	3/8 DRIVE ~T~ HANDLE
14	46-320466P6	1	3/8 DRIVE UNIVERSAL JOINT
15	46-320473P1	1	STD. SCREWDRIVER 3/32 DIA X 3~ LG
17	46-320473P7	1	STD. SCREWDRIVER 3/16 DIA X 4~ LG
18	46-320473P10	1	STD SCREWDRIVER 1/4 DIA X 5~ LG
19	46-320473P13	1	STD. SCREWDRIVER 5/16 DIA X 6~ LG
20	46-320473P3	1	STD. SCREWDRIVER 1/8 DIA X 2~ LG
21	46-320473P18	1	STD. SCREWDRIVER 1/8 DIA X 8~ LG.
22	46-320688P3	1	PHILLIPS SCREWDRIVER #2 X 6~ LG
23	46-320474P2	1	ADJUSTABLE WRENCH 8~
24	46-320474P1	1	ADJUSTABLE WRENCH 10~
25	46-320475P1	1	SLIPJOINT 10~
26	46-320475P2	1	NEEDLENOSE
27	46-320475P3	1	SIDE CUTTER
28	46-320475P4	1	STRIPPER
29	46-320476P1	1	BALLPEEN 1LB.
30	46-320477P1	1	HALF ROUND 13~LG
31	46-320687P3	1	COMBO 9MM
32	46-320687P4	1	COMBO 11MM
33	46-320687P5	1	COMBO 14MM
34	46-320687P6	1	COMBO 17MM
35	46-320687P7	1	COMBO 19MM
36	46-320472P1	1	OPEN END 6MM X 7MM
37	46-320472P4	1	OPEN END 8MM X 9MM
38	46-320472P5	1	OPEN END 8MM X 10MM
39	46-320472P11	1	OPEN END 12MM X 13MM
40	46-320472P13	1	OPEN END 14MM X 15MM
41	46-320472P16	1	OPEN END 16MM X 18MM
42	46-320686P2	1	COMBO 5/16 X 5/16
43	46-320686P3	1	COMBO 3/8 X 3/8
44	46-320686P4	1	COMBO 7/16 X 7/16
45	46-320686P5	1	COMBO 1/2 X 1/2
46	46-320686P6	1	COMBO 9/16 X 9/16
47	46-320686P7	1	COMBO 5/8 X 5/8
48	46-320686P8	1	COMBO 11/16 X 11/16
49	46-320686P9	1	COMBO 3/4 X 3/4
50	46-320471P1	1	OPEN END 7/32 X 1/4
51	46-320471P2	1	OPEN END 1/4 X 5/16
52	46-320687P1	1	COMBO 6MM
53	46-320687P2	1	COMBO 7MM
54	46-328349P1	4	PLASTIC ARROW CLIP (.248 BODY X .54 LG)
55	46-320475P5	1	PLIERS, SLIP JOINT, 15~

7.1.3. 46-320718G1, Revision 0: Nonmagnetic Metric Tool Kit

Item N ^o	Part Number	Qty	Description
	46-320718G1		METRIC BASE TOOLS ENCASED
2	46-320738P1	1	1 COMPARTMENT BOX, 14 X 6.25 X 2.5~ FLAMBEAU PRODUCTS MIDDLEFIELD OHIO PART V601
3	46-320804P1	1	FOAM INSERT
4	46-320806P1	1	FOAM INSERT
5	46-320809P1	1	LABEL
6	46-320468P3	1	3/8 DRIVE X 8MM
7	46-320468P4	1	3/8 DRIVE X 9MM
8	46-320468P5	1	3/8 DRIVE X 10MM
9	46-320468P6	1	3/8 DRIVE X 11MM
10	46-320468P7	1	3/8 DRIVE X 12MM
11	46-320468P8	1	3/8 DRIVE X 13MM
12	46-320468P9	1	3/8 DRIVE X 14MM
13	46-320468P10	1	3/8 DRIVE X 15MM
14	46-320468P11	1	3/8 DRIVE X 16MM
15	46-320468P12	1	3/8 DRIVE X 17MM
16	46-320468P13	1	3/8 DRIVE X 18MM
17	46-320468P14	1	3/8 DRIVE X 19MM
18	46-320808G2		ALLEN TOOL KIT - METRIC
	46-320807P2	1	POUCH
	46-320470P1	1	1.5MM ALLEN WRENCH
	46-320470P2	1	2MM ALLEN WRENCH
	46-320470P3	1	2.5MM ALLEN WRENCH
	46-320470P4	1	3MM ALLEN WRENCH
	46-320470P5	1	3MM SHORT ALLEN WRENCH
	46-320470P6	1	4MM ALLEN WRENCH
	46-320470P7	1	4MM SHORT ALLEN WRENCH
	46-320470P8	1	5MM ALLEN WRENCH
	46-320470P9	1	5MM SHORT ALLEN WRENCH
	46-320470P10	1	6MM ALLEN WRENCH
	46-320470P11	1	7MM ALLEN WRENCH
	46-320470P12	1	8MM ALLEN WRENCH
	46-320470P13	1	9MM ALLEN WRENCH
46-320470P14	1	10MM ALLEN WRENCH	
46-320470P15	1	11MM ALLEN WRENCH	
46-320470P16	1	12MM ALLEN WRENCH	
46-320470P17	1	14MM ALLEN WRENCH	
19	46-320948P1	1	CASE LABEL

7.1.4. 46-320719G1, Revision 0: Nonmagnetic Inch Tool Kit

Item N ^o	Part Number	Qty	Description
	46-320719G1		INCH BASE TOOL ENCASED
2	46-320738P1	1	1 COMPARTMENT BOX, 14 X 6.25 X 2.5~ FLAMBEAU PRODUCTS MIDDLEFIELD OHIO PART V601
3	46-320804P1	1	FOAM INSERT
4	46-320805P1	1	FOAM INSERT
5	46-320810P1	1	LABEL
6	46-320467P2	1	3/8 DRIVE X 3/8
7	46-320467P3	1	3/8 DRIVE X 7/16
8	46-320467P4	1	3/8 DRIVE X 1/2
9	46-320467P5	1	3/8 DRIVE X 9/16
10	46-320467P6	1	3/8 DRIVE X 5/8
11	46-320467P7	1	3/8 DRIVE X 11/16
12	46-320467P12	1	3/8 DRIVE X 1 1/16
13	46-320467P13	1	3/8 DRIVE X 1 1/4
14	46-320808G1		ALLEN TOOL KIT - INCH
	46-320807P1	1	POUCH
	46-320469P1	1	0.50 ALLEN WRENCH
	46-320469P2	1	1/16 ALLEN WRENCH
	46-320469P3	1	5/64 ALLEN WRENCH
	46-320469P4	1	3/32 ALLEN WRENCH
	46-320469P5	1	7/64 ALLEN WRENCH
	46-320469P6	1	1/8 ALLEN WRENCH
	46-320469P7	1	9/64 ALLEN WRENCH
	46-320469P8	1	5/32 ALLEN WRENCH
	46-320469P9	1	3/16 ALLEN WRENCH
	46-320469P10	1	7/32 ALLEN WRENCH
	46-320469P11	1	1/4 ALLEN WRENCH
	46-320469P12	1	5/16 ALLEN WRENCH
	46-320469P13	1	3/8 ALLEN WRENCH
46-320469P14	1	7/16 ALLEN WRENCH	
46-320469P15	1	1/2 ALLEN WRENCH	
15	46-320467P1	1	3/8 X 5/16
16	46-320949P1	1	LABEL CASE

7.1.5. 5113258, Revision 1: Titanium Nonmagnetic Tool Set

Item Nº	Part Number	Qty	Description
	5113258		TITANIUM NON-MAGNETIC TOOL SET - BASIC TOOL SET
1	5112578		TITANIUM ADJUSTABLE WRENCH SET, INCLUDES CASE
	5109896	1	ADJUSTABLE WRENCH, 10 INCH, TITANIUM
	5109896-2	1	ADJUSTABLE WRENCH, 8 INCH, TITANIUM
2	5112579-2		TITANIUM PLIERS AND CUTTERS, INCLUDES CASE.
	5109897	1	PLIERS, CHANNEL LOCK, 10 INCH, TITANIUM
	5109897-2	1	PLIERS, NEEDLE NOSE, TITANIUM
	5109897-3	1	PLIERS, SIDE CUTTER, TITANIUM
	5109897-6	1	TITANIUM SLIP JOINT PLIERS
3	5112580-2		TITANIUM SCREW DRIVER SET, INCLUDES CASE.
	5109895-10	1	STANDARD SCREWDRIVER, 1_4 INCH DIA, 5 INCHES LONG, TITANIUM
	5109895-13	1	STANDARD SCREWDRIVER, 5_16 INCH DIA, 6 INCHES LONG, TITANIUM
	5109895-18	1	STANDARD SCREWDRIVER, 1_8 INCH DIA, 8 INCHES LONG, TITANIUM
	5109895-4	1	STANDARD SCREWDRIVER 1_8 DIA, 4 INCH LONG, TITANIUM
	5109895-7	1	STANDARD SCREWDRIVER, 3_16 INCH DIA, 4 INCHES LONG, TITANIUM
	5109894	1	PHILLIPS SCREWDRIVER, # 0 POINT, 3 INCH LONG, TITANIUM
	5109894-2	1	PHILLIPS SCREWDRIVER, # 1 POINT, 6 INCH LONG, TITANIUM
	5109894-3	1	PHILLIPS SCREWDRIVER, #2 POINT, 6 INCHES LONG, TITANIUM
5109894-4	1	PHILLIPS SCREWDRIVER, #3 POINT, 6 INCHES LONG, TITANIUM	
4	5113260		TITANIUM 3_8 INCH DRIVE AND SOCKET SET.
	5109888	1	3_8 INCH DRIVE, RATCHET, TITANIUM
	5109888-2	1	3_8 INCH DRIVE EXTENSION, 4 INCHES LONG, TITANIUM
	5109890-5	1	INCH SOCKET, 3_8 INCH DRIVE X 9_16 INCH, TITANIUM
	5109891-12	1	METRIC SOCKET, 3_8 INCH DRIVE X 17 MM, TITANIUM
	5109891-15	1	METRIC SOCKET 3_8 DRIVE X 17 MM, DEEP WELL, TITANIUM.
5	5113261		ALLEN KEY SET. PART OF SMALL MAINTENANCE TOOL SET.
	5109892-12	1	ALLEN KEY, 5_16 INCH, TITANIUM
	5109892-8	1	ALLEN KEY, 5_32 INCH, TITANIUM
	5109892-9	1	ALLEN KEY, 3_16 INCH, TITANIUM
	5109893-4	1	ALLEN KEY, 3 MM, TITANIUM
	5109893-6	1	ALLEN KEY, 4 MM, TITANIUM
	5109893-8	1	ALLEN KEY, 5 MM, TITANIUM
	5109893-10	1	ALLEN KEY, 6 MM, TITANIUM
	5109893-11	1	ALLEN KEY, 7 MM, TITANIUM
	5109893-12	1	ALLEN KEY, 8 MM, TITANIUM
	5109893-13	1	ALLEN KEY, 9 MM, TITANIUM
6	5113262		WRENCH SET AND KNIFE, INCLUDES CASE.
	5109900-4	1	INCH COMBINATION WRENCH, 7_16 INCH OPEN END X 7_16 INCH BOX, TITANIUM
	5109900-5	1	INCH COMBINATION WRENCH, 1_2 INCH OPEN END X 1_2 INCH BOX, TITANIUM
	5109900-6	1	INCH COMBINATION WRENCH, 9_16 INCH OPEN END X 9_16 INCH BOX, TITANIUM
	5109900-7	1	INCH COMBINATION WRENCH, 5_8 INCH OPEN END X 5_8 INCH BOX, TITANIUM
	5109900-8	1	INCH COMBINATION WRENCH, 11_16 INCH OPEN END X 11_16 INCH BOX, TITANIUM
	5109900-9	1	INCH COMBINATION WRENCH, 3_4 INCH OPEN END X 3_4 INCH BOX, TITANIUM
	5109901-6	1	METRIC COMBINATION WRENCH, 17 MM OPEN END X 17 MM BOX, TITANIUM
	5109901-8	1	METRIC COMBINATION WRENCH, 10 MM OPEN END X 10 MM BOX, TITANIUM
5113253	1	UTILITY KNIFE, TITANIUM	

7.1.6. 5112581, Revision 1: Titanium Non-Magnetic Tool Set - Installation Set

Item Nº	Part Number	Qty	Description
	5112581		TITANIUM NON-MAGNETIC TOOL SET - INSTALLATION SET.
1	5112573	1	TITANIUM 3_8 DRIVE HANDLE AND ACCESSORIES SET, INCLUDES CASE.
2	5112571	1	TITANIUM 3_8 DRIVE INCH SOCKET SET, INCLUDES CASE
3	5112572	1	TITANIUM 3_8 DRIVE METRIC SOCKET SET, INCLUDES CASE
4	5112574	1	TITANIUM INCH ALLEN KEY SET, INCLUDES CASE
5	5112575	1	TITANIUM, METRIC, ALLEN KEY SET, INCLUDES CASE
6	5112580	1	TITANIUM SCREWDRIVER SET, INCLUDES CASE
7	5112578	1	TITANIUM ADJUSTABLE WRENCH SET, INCLUDES CASE
8	5112579	1	TITANIUM PLIERS, HAMMER, FILE, KNIFE SET, INCLUDES CASE
11	5112576	1	TITANIUM, INCH, WRENCH SET, INCLUDES CASE
12	5112577	1	TITANIUM, METRIC, WRENCH SET, INCLUDES CASE

7.1.7. 5112573, Revision 1: Titanium 3/8 Drive Handle and Accessories Set

Item Nº	Part Number	Qty	Description
	5112573		TITANIUM 3_8 DRIVE HANDLE AND ACCESSORIES SET, INCLUDES CASE.
1	5109888	1	3_8 INCH DRIVE, RATCHET, TITANIUM
2	5109888-2	1	3_8 INCH DRIVE EXTENSION, 4 INCHES LONG, TITANIUM
3	5109888-3	1	3_8 INCH DRIVE, 8 INCH LONG EXTENSION, TITANIUM
4	5109888-4	1	3_8 INCH DRIVE, SPEED HANDLE, TITANIUM
5	5109888-5	1	3_8 INCH DRIVE, T HANDLE, TITANIUM
6	5109888-6	1	3_8 INCH DRIVE, UNIVERSAL JOINT, TITANIUM

7.1.8. 5112571, Revision 1: Titanium 3/8 Drive Inch Socket Set

Item Nº	Part Number	Qty	Description
	5112571		TITANIUM 3_8 DRIVE INCH SOCKET SET, INCLUDES CASE
1	5109890	1	INCH SOCKET, 3_8 INCH DRIVE X 5_16, TITANIUM
2	5109890-2	1	INCH SOCKET, 3_8 INCH DRIVE X 3_8 INCH, TITANIUM
3	5109890-3	1	INCH SOCKET, 3_8 INCH DRIVE X 7_16 INCH, TITANIUM
4	5109890-4	1	INCH SOCKET, 3_8 INCH DRIVE X 1_2 INCH, TITANIUM
5	5109890-5	1	INCH SOCKET, 3_8 INCH DRIVE X 9_16 INCH, TITANIUM
6	5109890-6	1	INCH SOCKET, 3_8 INCH DRIVE X 5_8 INCH, TITANIUM
7	5109890-7	1	INCH SOCKET, 3_8 INCH DRIVE X 11_16 INCH, TITANIUM
12	5109890-12	1	INCH SOCKET, 3_8 INCH DRIVE X 1 AND 1_16 INCH, TITANIUM
13	5109890-13	1	INCH SOCKET, 3_8 INCH DRIVE X 1 AND 1_4 INCH, TITANIUM

7.1.9. 5112572, Revision 1: Titanium 3/8 Drive Metric Socket Set

Item Nº	Part Number	Qty	Description
	5112572		TITANIUM 3_8 DRIVE METRIC SOCKET SET, INCLUDES CASE
3	5109891-3	1	METRIC SOCKET, 3_8 INCH DRIVE X 8 MM, TITANIUM
4	5109891-4	1	METRIC SOCKET, 3_8 INCH DRIVE X 9 MM, TITANIUM
5	5109891-5	1	METRIC SOCKET, 3_8 INCH DRIVE X 10 MM, TITANIUM
6	5109891-6	1	METRIC SOCKET, 3_8 INCH DRIVE X 11 MM, TITANIUM
7	5109891-7	1	METRIC SOCKET, 3_8 INCH DRIVE X 12 MM, TITANIUM
8	5109891-8	1	METRIC SOCKET, 3_8 INCH DRIVE X 13 MM, TITANIUM
9	5109891-9	1	METRIC SOCKET, 3_8 INCH DRIVE X 14 MM, TITANIUM
10	5109891-10	1	METRIC SOCKET, 3_8 INCH DRIVE X 15 MM, TITANIUM
11	5109891-11	1	METRIC SOCKET, 3_8 INCH DRIVE X 16 MM, TITANIUM
12	5109891-12	1	METRIC SOCKET, 3_8 INCH DRIVE X 17 MM, TITANIUM
13	5109891-13	1	METRIC SOCKET, 3_8 INCH DRIVE X 18 MM, TITANIUM
14	5109891-14	1	METRIC SOCKET, 3_8 INCH DRIVE X 19 MM, TITANIUM
15	5109891-15	1	METRIC SOCKET 3_8 DRIVE X 17 MM, DEEP WELL, TITANIUM

7.1.10. 5112574, Revision 1: Titanium Inch Allen Key Set

Item Nº	Part Number	Qty	Description
	5112574		TITANIUM INCH ALLEN KEY SET, INCLUDES CASE
1	5109892	1	ALLEN KEY, 0.05 INCH, TITANIUM
2	5109892-2	1	ALLEN KEY, 1_16 INCH, TITANIUM
3	5109892-3	1	ALLEN KEY, 5_64 INCH, TITANIUM
4	5109892-4	1	ALLEN KEY, 3_32 INCH, TITANIUM
5	5109892-5	1	ALLEN KEY, 7_64 INCH, TITANIUM
6	5109892-6	1	ALLEN KEY, 1_8 INCH, TITANIUM
7	5109892-7	1	ALLEN KEY, 9_64 INCH, TITANIUM
8	5109892-8	1	ALLEN KEY, 5_32 INCH, TITANIUM
9	5109892-9	1	ALLEN KEY, 3_16 INCH, TITANIUM
10	5109892-10	1	ALLEN KEY, 7_32 INCH, TITANIUM
11	5109892-11	1	ALLEN KEY, 1_4 INCH, TITANIUM
12	5109892-12	1	ALLEN KEY, 5_16 INCH, TITANIUM
13	5109892-13	1	ALLEN KEY, 3_8 INCH, TITANIUM
14	5109892-14	1	ALLEN KEY, 7_16 INCH, TITANIUM
15	5109892-15	1	ALLEN KEY, 1_2 INCH, TITANIUM

7.1.11. 5112575, Revision 1: Titanium, Metric, Allen Key Set

Item Nº	Part Number	Qty	Description
	5112575		TITANIUM, METRIC, ALLEN KEY SET, INCLUDES CASE
1	5109893	1	ALLEN KEY, 1.5 MM, TITANIUM
2	5109893-2	1	ALLEN KEY, 2 MM, TITANIUM
3	5109893-3	1	ALLEN KEY, 2.5 MM, TITANIUM
4	5109893-4	1	ALLEN KEY, 3 MM, TITANIUM
5	5109893-5	1	ALLEN KEY, 3 MM, SHORT SHAFT, TITANIUM
6	5109893-6	1	ALLEN KEY, 4 MM, TITANIUM
7	5109893-7	1	ALLEN KEY, 4 MM, SHORT SHAFT, TITANIUM
8	5109893-8	1	ALLEN KEY, 5 MM, TITANIUM
9	5109893-9	1	ALLEN KEY, 5 MM, SHORT SHAFT, TITANIUM
10	5109893-10	1	ALLEN KEY, 6 MM, TITANIUM
11	5109893-11	1	ALLEN KEY, 7 MM, TITANIUM
12	5109893-12	1	ALLEN KEY, 8 MM, TITANIUM
13	5109893-13	1	ALLEN KEY, 9 MM, TITANIUM
14	5109893-14	1	ALLEN KEY, 10 MM, TITANIUM
15	5109893-15	1	ALLEN KEY, 11 MM, TITANIUM
16	5109893-16	1	ALLEN KEY, 12 MM, TITANIUM
17	5109893-17	1	ALLEN KEY, 14 MM, TITANIUM

7.1.12. 5112578, Revision 1: Titanium Adjustable Wrench Set

Item Nº	Part Number	Qty	Description
	5112578		TITANIUM ADJUSTABLE WRENCH SET, INCLUDES CASE
1	5109896	1	ADJUSTABLE WRENCH, 10 INCH, TITANIUM
2	5109896-2	1	ADJUSTABLE WRENCH, 8 INCH, TITANIUM

7.1.13. 2384264, Revision 0: Titanium Wrench, Combination, 10mm

Item Nº	Part Number	Qty	Description
	2384264		WRENCH, COMBINATION,10MM,TITANIUM

7.1.14. 5112579, Revision 1: Titanium Pliers, Hammer, File, Knife Set

Item Nº	Part Number	Qty	Description
	5112579		TITANIUM PLIERS, HAMMER, FILE, KNIFE SET, INCLUDES CASE
1	5109897	1	PLIERS, CHANNEL LOCK, 10 INCH, TITANIUM
2	5109897-2	1	PLIERS, NEEDLE NOSE, TITANIUM
3	5109897-3	1	PLIERS, SIDE CUTTER, TITANIUM
4	5109897-4	1	WIRE STRIPPERS, TITANIUM
5	5109897-5	1	PLIERS, CHANNEL LOCK, 15 INCH, TITANIUM
6	5109898	1	HAMMER, BALL PEEN, 1 POUND, TITANIUM
7	5109899	1	FILE, HALF ROUND, 13 INCH LONG, ALUMINUM BRONZE
8	5109897-6	1	TITANIUM SLIP JOINT PLIERS
9	5113253	1	UTILITY KNIFE, TITANIUM

7.1.15. 5112576, Revision 1: Titanium, Inch, Wrench Set

Item Nº	Part Number	Qty	Description
	5112576		TITANIUM, INCH, WRENCH SET, INCLUDES CASE
1	5109902	1	INCH OPEN END WRENCH, 7_32 X 1_4, TITANIUM
2	5109902-2	1	INCH, OPEN END WRENCH, 1_4 INCH X 5_16 INCH, TITANIUM
3	5109900-2	1	INCH COMBINATION WRENCH, 5_16 INCH OPEN END X 5_16 BOX, TITANIUM
4	5109900-3	1	INCH COMBINATION WRENCH, 3_8 INCH OPEN END X 3_8 INCH BOX, TITANIUM
5	5109900-4	1	INCH COMBINATION WRENCH, 7_16 INCH OPEN END X 7_16 INCH BOX, TITANIUM
6	5109900-5	1	INCH COMBINATION WRENCH, 1_2 INCH OPEN END X 1_2 INCH BOX, TITANIUM
7	5109900-6	1	INCH COMBINATION WRENCH, 9_16 INCH OPEN END X 9_16 INCH BOX, TITANIUM
8	5109900-7	1	INCH COMBINATION WRENCH, 5_8 INCH OPEN END X 5_8 INCH BOX, TITANIUM
9	5109900-8	1	INCH COMBINATION WRENCH, 11_16 INCH OPEN END X 11_16 INCH BOX, TITANIUM
10	5109900-9	1	INCH COMBINATION WRENCH, 3_4 INCH OPEN END X 3_4 INCH BOX, TITANIUM

7.1.16. 5112577, Revision 1: Titanium, Metric, Wrench Set

Item Nº	Part Number	Qty	Description
	5112577		TITANIUM, METRIC, WRENCH SET, INCLUDES CASE
1	5109903	1	METRIC, OPEN END WRENCH, 6 MM X 7 MM, TITANIUM
2	5109903-11	1	METRIC, OPEN END WRENCH, 12 MM X 13 MM, TITANIUM
3	5109903-13	1	METRIC, OPEN END WRENCH, 14 MM X 15 MM, TITANIUM
4	5109903-16	1	METRIC, OPEN END WRENCH, 16 MM X 18 MM, TITANIUM
5	5109903-4	1	METRIC, OPEN END WRENCH, 8 MM X 9 MM, TITANIUM
6	5109903-5	1	METRIC, OPEN END WRENCH, 8 MM X 10 MM, TITANIUM
7	5109901	1	METRIC COMBINATION WRENCH, 6 MM OPEN END X 6 MM BOX, TITANIUM
8	5109901-2	1	METRIC COMBINATION WRENCH, 7 MM OPEN END X 7 MM BOX, TITANIUM
9	5109901-3	1	METRIC COMBINATION WRENCH, 9 MM OPEN END X 9 MM BOX, TITANIUM
10	5109901-4	1	METRIC COMBINATION WRENCH, 11 MM OPEN END X 11 MM BOX, TITANIUM
11	5109901-5	1	METRIC COMBINATION WRENCH, 14 MM OPEN END X 14 MM BOX, TITANIUM
12	5109901-6	1	METRIC COMBINATION WRENCH, 17 MM OPEN END X 17 MM BOX, TITANIUM
13	5109901-7	1	METRIC COMBINATION WRENCH, 19 MM OPEN END X 19 MM BOX, TITANIUM

7.2. FRU Assemblies, Parts and Kits – Miscellaneous

7.2.1. 46-271137G1, Revision 2: Cryogen Safety Equipment Kit

Item Nº	Part Number	Qty	Description	GPRS
	46-271137G1		SAFETY EQUIPMENT KIT CONSISTING OF HEAD GEAR, VISION SHIELD, SAFETY GLASSES, GLOVES AND CASE WITH FOAM	Yes
2	46-271135P10	1	HEAD GEAR WITH NO VISOR	Yes
3	46-271135P11	1	VISION SHIELD TO BE USED WITH HEAD GEAR	Yes
4	46-271135P12	1	SAFETY GLASSES	Yes
5	46-258217P2	1	LEATHER FOAM INSULATED GLOVES	Yes
6	46-301453P8	1	BLOW MOLDED, 17 X 13 X 7-3/8	No
7	46-306748P1	1	FOAM FOR CASE TOP, SAFETY EQUIPMENT KIT	No
8	46-306748P2	1	FOAM FOR CASE BOTTOM, SAFETY EQUIPMENT KIT	No
9	46-306710P1	1	LABEL FOR SAFETY EQUIPMENT KIT	No

7.2.2. Miscellaneous Safety Items

Item Nº	Part Number	Qty	Description	GPRS
	46-194427P320		PADLOCK,BRASS WITH BRASS SHACKLE MASTER LOCK #4B	Yes
	2387081		EHS BRASS TRANSITION LOCK MASTER LOCK 4KAB 3609 BRASS PADLOCK (535384)	Yes
	46-194427P322		LOCKOUT TAG, BLACK WHITE ON RED. PKG OF 25 GLAVIN SPECIALTY NO. GE GT409-2	Yes
	2393064		TAG LOTO TRANSITION	Yes
	46-194427P313		1 INCH MULTIPLE LOCKOUT DEVICE. PRINZING MODEL T210	Yes
	46-194427P321		PLUG LOCKOUT-- LOCKS OUT ANY PLUG UP TO 3~WIDE AND 5-7/8~LONG WITH A MAXIMUM CORD DIA.OF 1-1/4~. PRINZING # PL023	Yes
	46-194427P284		DIGITAL VOLT METER. VENDOR NAME: FLUKE VENDOR PART NO. 87	Yes

7.2.3. 46-260888G4, Revision 1: LCC Magnet Leveling Kit

Item Nº	Part Number	Qty	Description	GPRS
	46-260888G4		MAGNET LEVELING KIT- LCC	Yes
1	2213945	12	SHIM PLATE,LCC MAGNET	Yes
2	2213945-2	8	SHIM PLATE,LCC MAGNET	Yes
3	2180016	24	SHIMS, 6 X 6 ALUM.,.020 THK.-CONQUEST	No
4	2180016-2	16	SHIMS, 6 X 6 ALUM.,.032 THK.-CONQUEST	No
5	2180016-3	8	SHIMS, 6 X 6 ALUM.,.040 THK.-CONQUEST	No
6	2180016-4	4	SHIMS, 6 X 6 ALUM.,.063 THK.-CONQUEST	No

7.2.4. 5366120, Revision 4: Stud Replacement Kit, DVw

Item Nº	Part Number	Qty	Description	GPRS
	5366120		STUD REPLACEMENT KIT, DVW	Yes
1	5366178	1	STUD REPLACEMENT BLOCK, DVW CYLINDER	No
2	5366177	1	STUD REPLACEMENT BLOCK, DVW FLANGE	No
3	5370258	1	SPACER ISOLATION STUD REPAIR KIT	No
4	5370258-2	1	SPACER ISOLATION STUD REPAIR KIT	No
5	5368503	1	SPACING BAR, FOR SIDE ELECTRONICS, STUD REPLACEMENT	No
6	U1-SVC-520047	1	SAND PAPER, 60 GRIT, PK OF 10	No
7	46-252065P158	1	TACK CLOTH, 18 X 36 INCHES, TRIMACO SKU #10501 OR EQUAL	No
8	5265376	1	DISPENSER, EPX PLUS II, APPLICATOR	No
9	46-252065P154	3	MIXING NOZZLE 9742, 3M SCOTCH-WELD EPX APPLICATOR, 50 ML, PN 62974299356	No
10	46-2914151P64	1	LOCTITE H3000 STRUCTURAL ADHESIVE - SPEEDBONDER, COLOR: CREAM, 50ML DUO-PAK DISPENSER WITH MIXING NOZZLE. MATERIAL MUST BE USED ONE YEAR FROM DATE OF MANUFACTURE. OUTER BOX OR PACKAGE MUST BE LABELED WITH A VISIBLE USE BY DATE.	No
11	5268439	10	SHIM, POWER CONNECTION LEADBOARD AXIAL ADJUSTMENT, XRMB GRADIENT	No
12	5214524-5	12	WASHER, M10 LARGE OD NORDLOCK, A4 STAINLESS	No

7.2.5. 5339638, Revision 2: IO Angle Bracket Asm

Item Nº	Part Number	Qty	Description	GPRS
	5339638		IO ANGLE BRACKET ASM	Yes
1	5335556	1	IO ANGLE BRACKET	No
2	5110749-2	2	3M DUAL LOCK RECLOSABLE FASTENER SJ3560	No
3	5122507	1	BULKHEAD ADAPTER, FIBER OPTIC - LC TO LC DUPLEX, PLASTIC BODY, CERAMIC SLEEVE, 0.525IN SQ. PANEL OPENING: LCOM FOA-550A-OD1	Yes
4	5110749-3	1	VELCRO	No

7.2.6. 46-318565G1, Revision 4: Vacuum Tool Kit [Emergency Vacuum Port Operator]

Item Nº	Part Number	Qty	Description	GPRS
	46-318565G1		SIV VACUUM TOOL KIT.	No
1	46-260852G3	1	EMERGENCY EVACUATION RELEASE TOOL	Yes

7.2.7. Miscellaneous Vacuum Maintenance Equipment

Item Nº	Part Number	Qty	Description	GPRS
	46-252210P1	1	VALVE OPERATOR	Yes
	46-265273G1	1	HELIUM LEVEL METER (GE MAGNET) CON- SISTING OF METER, CABLE ASM, CASE WITH FOAM	No
	46-265387G1	1	HELIUM FLOW GAUGE ASM	Yes
	46-260267P3	1	SEAL OFF VALVE OPERATOR WITH KF16 FLANGE	Yes

7.2.8. FRU Parts (R/HM/WB/UA) – Miscellaneous

Item Nº	Part Number	Qty	Description	GPRS
	5155291	1	SERVICE PLATFORM, HD	Yes
	5451642	1	MAGNET SIDE PROTECTION PLATE ASSEMBLY	No
	2349529	1	RUPTURE DISK	Yes
	46-281387P13	1	BELLEVILLE WASHER, 0.375 IN. NOMINAL	Yes
	2237498	1	RELIEF VALVE, 0.50 IN. NPT, 5 PSIG	Yes
	2249367	1	PRESSURE GAUGE, 0-15 PSI, 4.5 IN DIAMETER	Yes
	46-260926P1	1	SWING CHECK VALVE, 0.75IN NPT	Yes
	2219776	1	STRAIN RELIEF, COMPRESSOR LINE	Yes
	2142318	1	INSTRUMENTATION LEAD COUPLING NUT	Yes
	2214062	1	SLEEVE/COLDHEAD ADAPTER CABLE (RUN832)	Yes

7.2.9. FRU Parts for R Series Magnets - Miscellaneous

Item Nº	Part Number	Qty	Description	GPRS
	2173354	1	RETRACTABLE SHIM LEAD ASSEMBLY	Yes
	2204723	1	INSTRUMENTATION & ELECTRICAL LEAD ASSEMBLY (G-10 SLEEVE ASSEMBLY)	Yes
	2204623	1	INSTRUMENT BOX ASSEMBLY	Yes
	46-318060P1	1	SAV-CON CONNECTOR	Yes
	2237254	1	DRIP TROUGH WITH SPONGE	Yes
	46-271260G4	1	WIDE OPEN DOCK ASSEMBLY	Yes
	5160991	1	DOCK BRACKET ASSEMBLY	Yes
	2226264	1	WIDE OPEN DOCK MOUNT CNTRL BOX ASM	Yes
	2156980	1	SPIKE NOISE INSULATION KIT	Yes
	2217622	1	BRACKET KIT,SHIM LEAD MOUNTING,LCC [Mobile]	Yes
	46-252209P1	1	NUPRO VALVE, 0.25 IN ORIFICE (PART OF SHIM LEAD PLUMBING)	Yes
	2194545-7	1	BURST DISC & GASKET ASSEMBLY, 10PSIG	Yes

7.2.10. FRU Parts for HM Series Magnets– Miscellaneous

Item Nº	Part Number	Qty	Description	GPRS
	5264199	1	DVW BAFFLE ASSEMBLY	Yes
	5265523	1	INSTRUMENTATION & ELECTRICAL LEAD ASSEMBLY (G-10 SLEEVE ASSEMBLY)	Yes
	5306594	1	INSTRUMENTATION ASSEMBLY, DVW	Yes
	5366120	1	STUD REPLACEMENT KIT	Yes
	5265523	1	DVW G10 SLEEVE ASSEMBLY	Yes
	2237254	1	DRIP TROUGH WITH SPONGE	Yes

7.2.11. FRU Parts for WB Series Magnets - Miscellaneous

Item Nº	Part Number	Qty	Description	GPRS
	2173354	1	RETRACTABLE SHIM LEAD ASSEMBLY	Yes
	2237254	1	DRIP TROUGH WITH SPONGE	Yes
	46-271260G4	1	WIDE OPEN DOCK ASSEMBLY	Yes
	5160991	1	DOCK BRACKET ASSEMBLY	Yes
	2226264-2	1	WIDE OPEN DOCK MOUNT CNTRL BOX ASM	Yes
	46-252209P1	1	NUPRO VALVE, 0.25 IN ORIFICE (PART OF SHIM LEAD PLUMBING)	Yes

7.3. Helium Vent Kits

7.3.1. 46-318057G6, Revision 4: LCC Vent Kit Assembly

Item Nº	Part Number	Qty	Description	GPRS
	46-318057G6		VENT KIT ASSEMBLY, LCC	Yes
2	2258644	1	VENT, VERTICAL HELIUM	No
3	46-281101P2	1	8.237 ID X .103 THK #2-172	Yes
4	2262680	1	CLAMP RING	Yes
5	46-281971P2	1	VENTGLAS, 8.00 WIDE X 80.00 LONG	Yes
6	46-281972P2	4	CLAMP, AERO-SEAL #300152H, STAINLESS STEEL, BREEZE CORPORATION, INC.	Yes
7	46-318057P1	2	SCREW, #10-16 X 1.00 LG. SELF-DRILL, PAN HEAD, PHILLIPS DRIVE, STAINLESS STEEL, TYPE 304 OR 18-8, HARDENED POINT, DRILL POINT #3, MCMASTER-CARR PART # 90415A460 OR EQUIVALENT.	No
8	46-252635P9	6	PLAIN WASHER, .375 NOM., STAIN. STL.	Yes
9	46-281046P38	6	BRASS, HEX HEAD CAP SCREW .375-16 X 1.75 LG	No

7.3.2. 46-318057G2, Revision 0: Vent Kit Assembly, Mobile Sites

Item Nº	Part Number	Qty	Description	GPRS
	46-318057G2		VENTGLAS KIT FOR CONQUEST MOBILE	Yes
5	46-281971P2	1	VENTGLAS, 8.00 WIDE X 80.00 LONG	Yes
6	46-281972P2	4	CLAMP, AERO-SEAL #300152H, STAINLESS STEEL, BREEZE CORPORATION, INC.	Yes
7	46-318057P1	2	SCREW, #10-16 X 1.00 LG. SELF-DRILL, PAN HEAD, PHILLIPS DRIVE, STAINLESS STEEL, TYPE 304 OR 18-8, HARDENED POINT, DRILL POINT #3, MCMASTER-CARR PART # 90415A460 OR EQUIVALENT.	No

7.4. Tool Kits – Miscellaneous

7.4.1. 2230707-2, Revision 0: Service Platform, Wide Open, Mobile

Item Nº	Part Number	Qty	Description
	2230707-2		LADDER PLATFORM,WIDE OPEN,MOBILE

7.4.2. 46-294872G3, Revision 2: Sav-Con Kit

Item Nº	Part Number	Qty	Description
	46-294872G3		KIT, SAV-CON
2	46-318612G51	1	CASE ASSEMBLY FOR SAV-CON TOOLS
3	46-294310G1	1	TOOL ASSEMBLY SAV-CON INSERT REMOVE
4	46-294292G1	1	TOOL ASSEMBLY SCREW INSERT REMOVE
5	46-294765G1	1	LEXAN TURRET COVER
6	46-294306G1	1	FLANGE ASSEMBLY SAV-CON INSERT REMOVE TOOL
7	46-318561P1	1	PENETRATION ADAPTER PLATE
8	46-281934P1	1	REMOVAL-INSTRUMENTATION CONNECTOR
9	46-294310G2	1	SAV-CON INSTALLATION TOOL FOR SIII / MAX.
10	46-318241G1	1	LEXAN PENETRATION COVER PLATE.
11	46-260963P2	1	FLANGE BLANK
13	2119965	1	BELLOWS COVER ASSY, VMX
14	2117683	1	COVER ASM, PENETRATION, VMX

7.4.3. 5158913, Revision 1: Latching Lemo Tool Kit

Item Nº	Part Number	Qty	Description
	5158913		LATCHING LEMO TOOL KIT
1	5145459	1	TOOL, LATCHING INSTRUMENTATION LEMO REMOVAL
2	46-328349P1	4	PLASTIC ARROW CLIP (.248 BODY X .54 LG)
3	5103265-5	1	CASE, BLACK PLASTIC, PLANO MOLDING MODEL NUMBER 1535-00 OR EQUIVALENT.
4	5158912	1	LABEL, LATCHING LEMO TOOL KIT
99	5158913-2	1	INSTRUCTIONS, LATCHING LEMO TOOL KIT

7.4.4. 5105189, Revision 1: Kit, Instrumentation Connector Reinsertion

Item Nº	Part Number	Qty	Description
	5105189		KIT, INSTRUMENTATION CONNECTOR REINSERTION
1	46-281934P1	1	REMOVAL-INSTRUMENTATION CONNECTOR
2	5105892	1	FIXTURE, CONNECTOR REINSERTION, LCC
3	2303292	1	CAP ASM, VIEWER
4	46-320466P5	1	3/8 DRIVE ~T~ HANDLE
5	46-320466P3	1	8~ EXTENSION
6	46-320467P3	1	3/8 DRIVE X 7/16
7	46-320467P5	1	3/8 DRIVE X 9/16
8	46-260950P32	3	CAP SCREW, .375-16 X 1.00 LONG
9	46-252365P27	3	BOLT, 3/8-16 X 4.00, HEX HD, S.S.
10	2275388-2	1	CASE
11	5114892	1	LEMO CONNECTOR RESEATING

7.4.5. 2262769, Revision 1: Plumbing Asm, LCC Replacement

Item N°	Part Number	Qty	Description
	2262769		PLUMBING ASM, LCC REPLACEMENT
1	2225905	1	TUBE ASM, WARM VENT, LCC
2	46-260898P1	2	MALE CONN., .50 ODT X .50 NPT, BRASS
3	46-252065P19	0	TEFLON TAPE .50 WIDE
4	46-252205P1	1	.50 NPT BRASS, TEE
5	2237498	1	RELIEF VALVE - .50 NPT X 5 PSIG
6	46-252557P1	1	STREET ELBOW, .50 NPT, BRASS
7	2239615	1	TUBE, LCC, LOOP
8	46-252552P4	1	.50 NPT, BRASS, PIPE PLUG
9	46-252539P3	1	ELBOW, .50FNPT - .50 TUBE, BRASS
10	46-252251P3	1	MALE RUN TEE, .50 ODT X .50 NPT, BRASS
11	46-252250P6	1	.50 STN. STL. UNION ELBOW

7.5. MCATs – Miscellaneous

7.5.1. M1060SR, Revision 0: 2.5 Ceiling Ht Kit

Item N°	Part Number	Qty	Description
	M1060SR		SHIM LEAD ASM, RETRACTABLE, LOW CEILING HEIGHT