

Liebert PRE Parts Manual

Pumped Refrigerant Economizer



While every precaution has been taken to ensure accuracy and completeness in this manual, Vertiv Co. assumes no responsibility, and disclaims all liability for damages resulting from use of this information or for any errors or omissions.

© 2016 Vertiv Co. All rights reserved throughout the world. Specifications subject to change without notice.

® Vertiv and the Vertiv logo are the registered trademarks of the Vertiv Co.

Table of Contents

1. Product Description	3
2. Model Number Definition	4
3. Electrical Section	5
3.1. Electrical - Main	5
3.2. Electrical Section	6
3.3. Disconnect Assembly	8
4. Exterior Section	9
5. Piping Section	10
5.1. Piping Circuit Assembly	11
6. Parts Gallery	12
7. Revision Page	14

1. Product Description

This economizer provides one of the simplest cooling solutions available. Control is integral to the unit, and eliminates the risks of some economizer approaches during transition to and from the “free-cooling” mode of operation.

- The EconoPhase pumped refrigerant economizer ensures efficiency and cost-savings while retaining a simple installation – and it's only available with the Liebert DSE. Risks and Issues Avoided with EconoPhase vs. other “free-cooling” approaches:
- Avoid the cost of water
- Avoid the cost of treating water
- Avoid the complexities of starting a chiller with cold condensing water
- Simple transition provides ability to use free cooling when the length of time is short
- Keep your vapor barrier intact
- No limitation on operation when humidity is very low
- Minimizes risk of gaseous contamination impacting IT gear

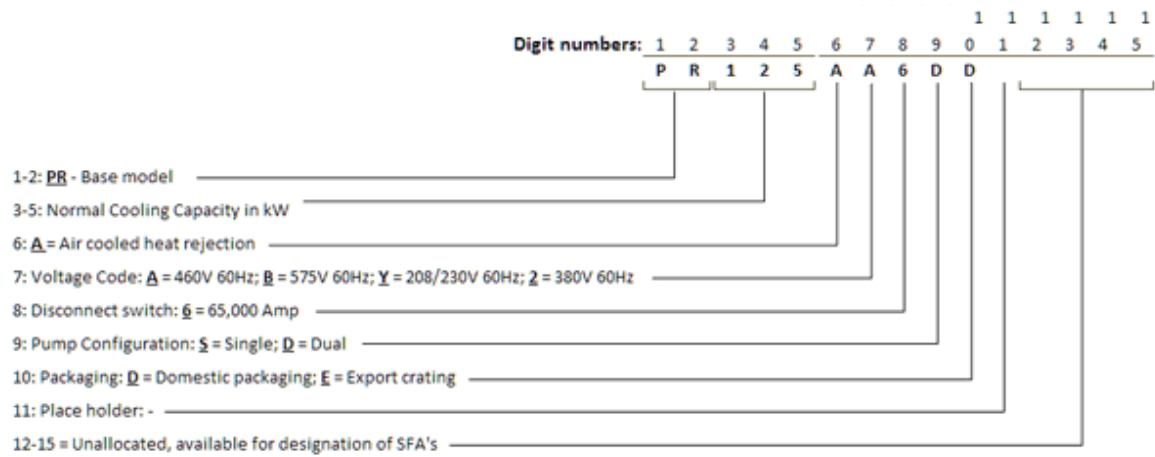
Summer Time Operation

Even during summer time operation, the Liebert DSE is 40% more efficient than historic data center cooling systems. Energy savings are significant.

Night Time or Winter Operation

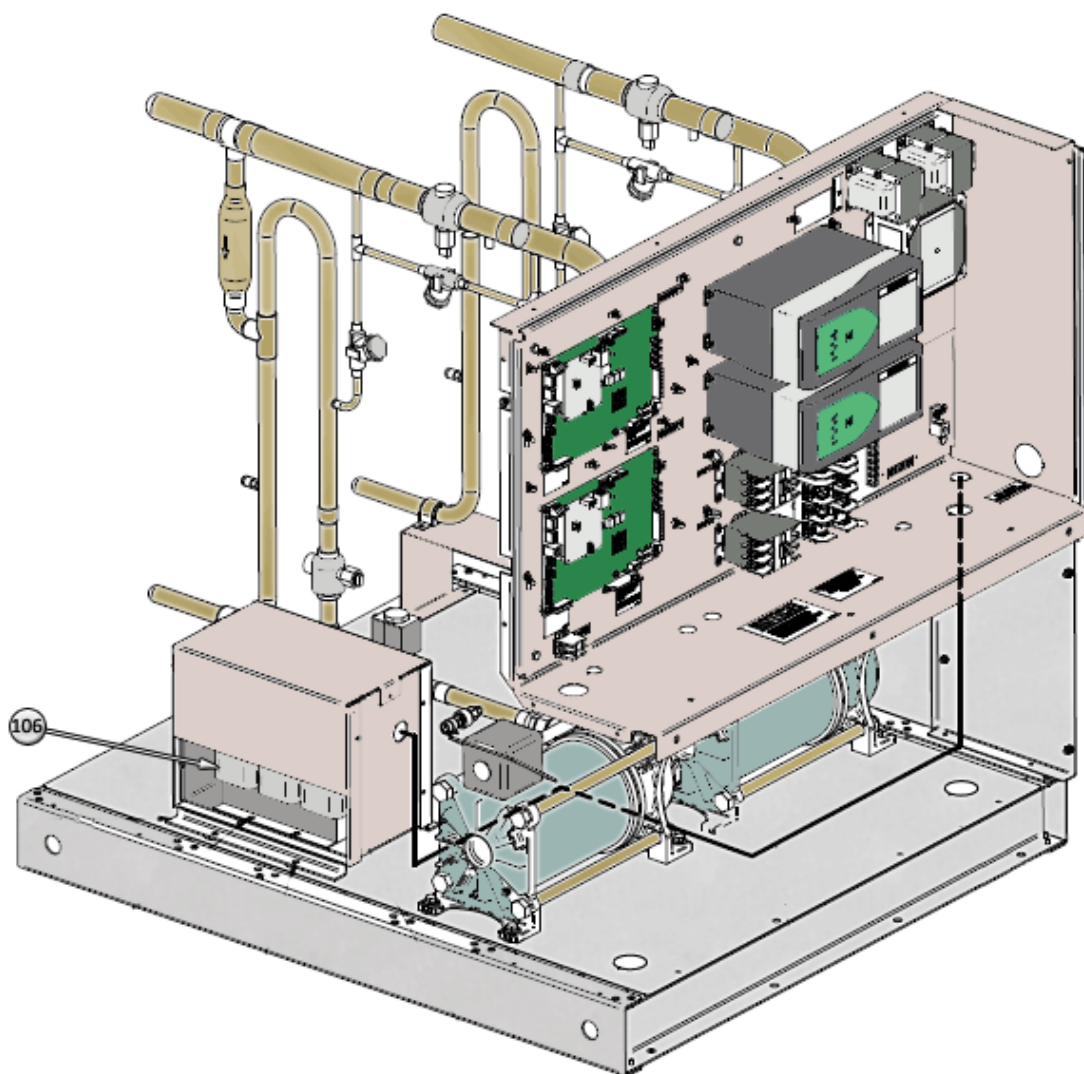
During full EconoPhase economizer operation, the Liebert DSE is 1000% more efficient than historic data center cooling systems. Energy savings far exceed any system in the industry.

2. Model Number Definition



3. Electrical Section

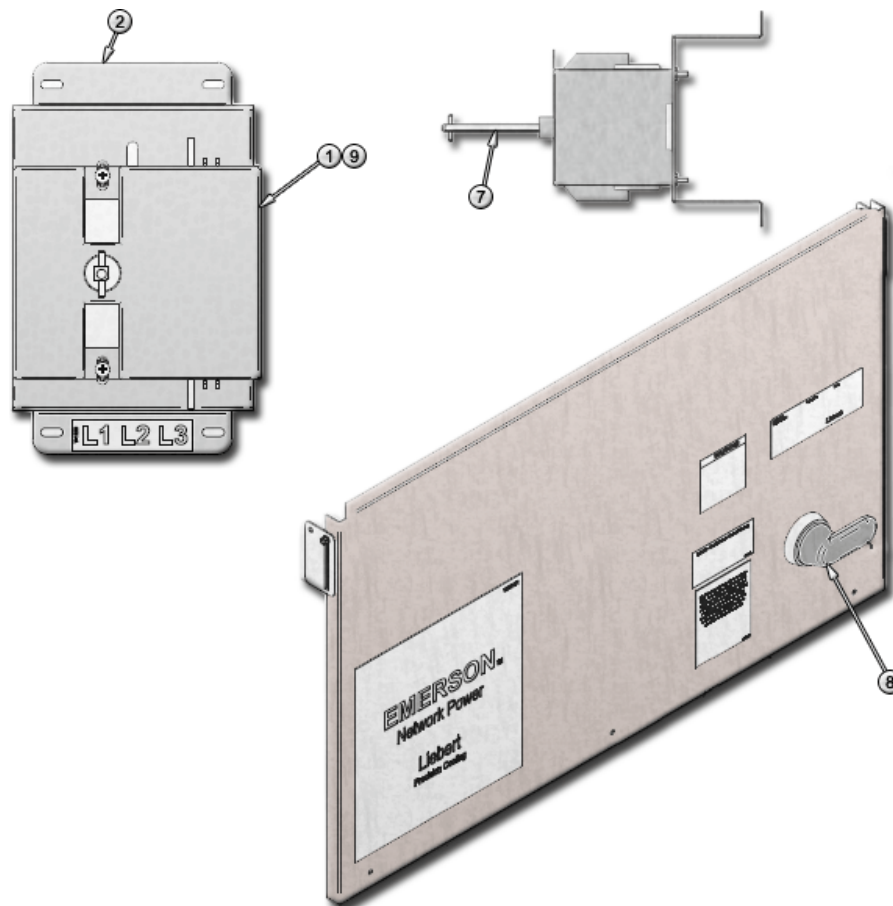
3.1. Electrical - Main



Item	Part Number	Description	Quantity
106	307212P3	XFMR 7KVA 600-480V 60H 3PH	1

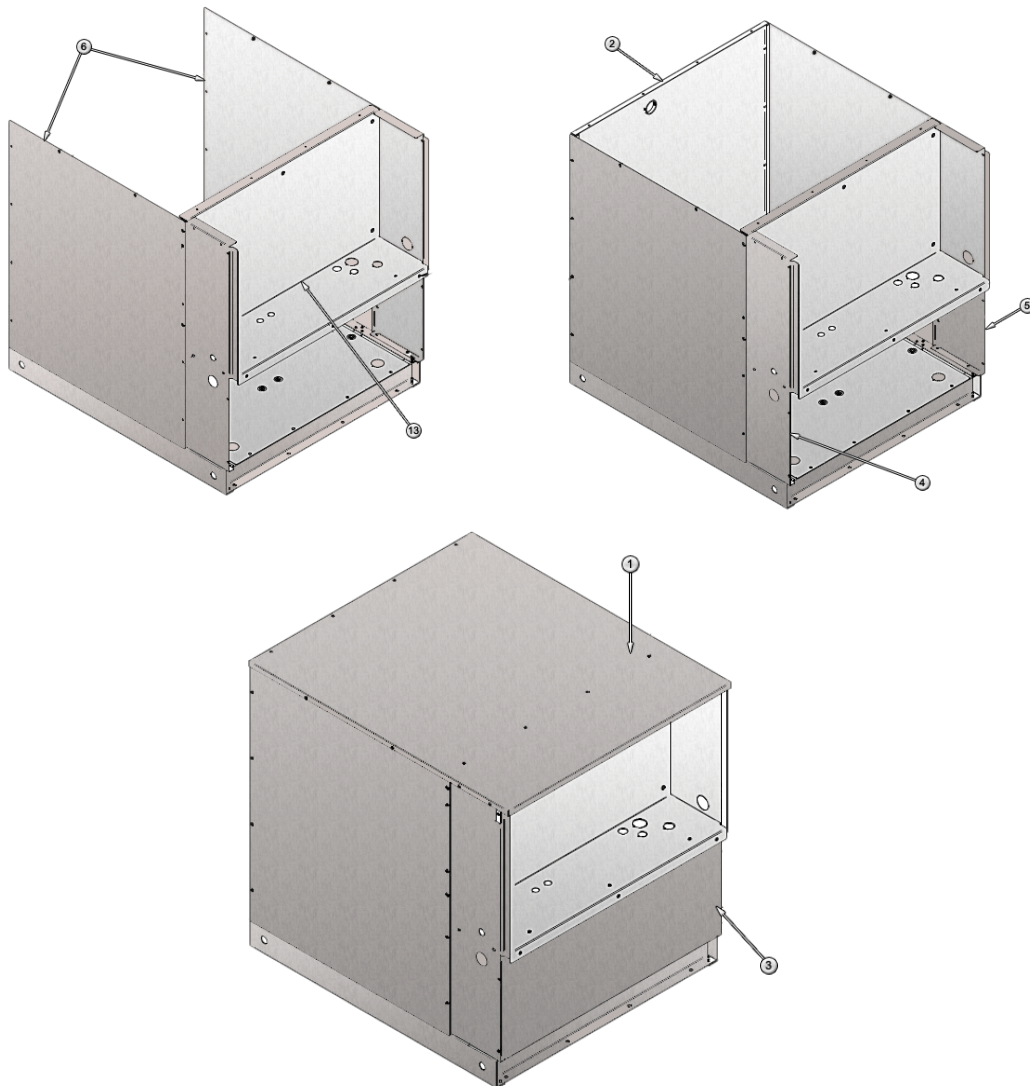
Item	Part Number	Description	Voltage	Quantity
	E-007B	XFMR 075VA 60 460-24	460/575V	1
20	E-007A	XFMR 075VA 60 230-24	208/230V	1
	E-007B	XFMR 075VA 60 460-24	460/575V	1
21	132487P1	TERMLSTRIP SECTION 1 POS	ALL	2
22	132487P2	TERMLSTRIP SECTION END BARRIER	ALL	1
24	184904P1	TVSS 480V 25KA/PHASE POWERSURE	380/460/575V	1
	184904P2	TVSS 240V 25KA/PHASE POWERSURE	208/230V	1
62	300297P1	GROUND LUG STRIP 4POS SCRTRM	ALL	1
90	307760G1	FUSE KIT QTY 4-3A NON-TD	ALL	1
91	307760G1	FUSE KIT QTY 4-3A NON-TD	ALL	1

3.3.Disconnect Assembly



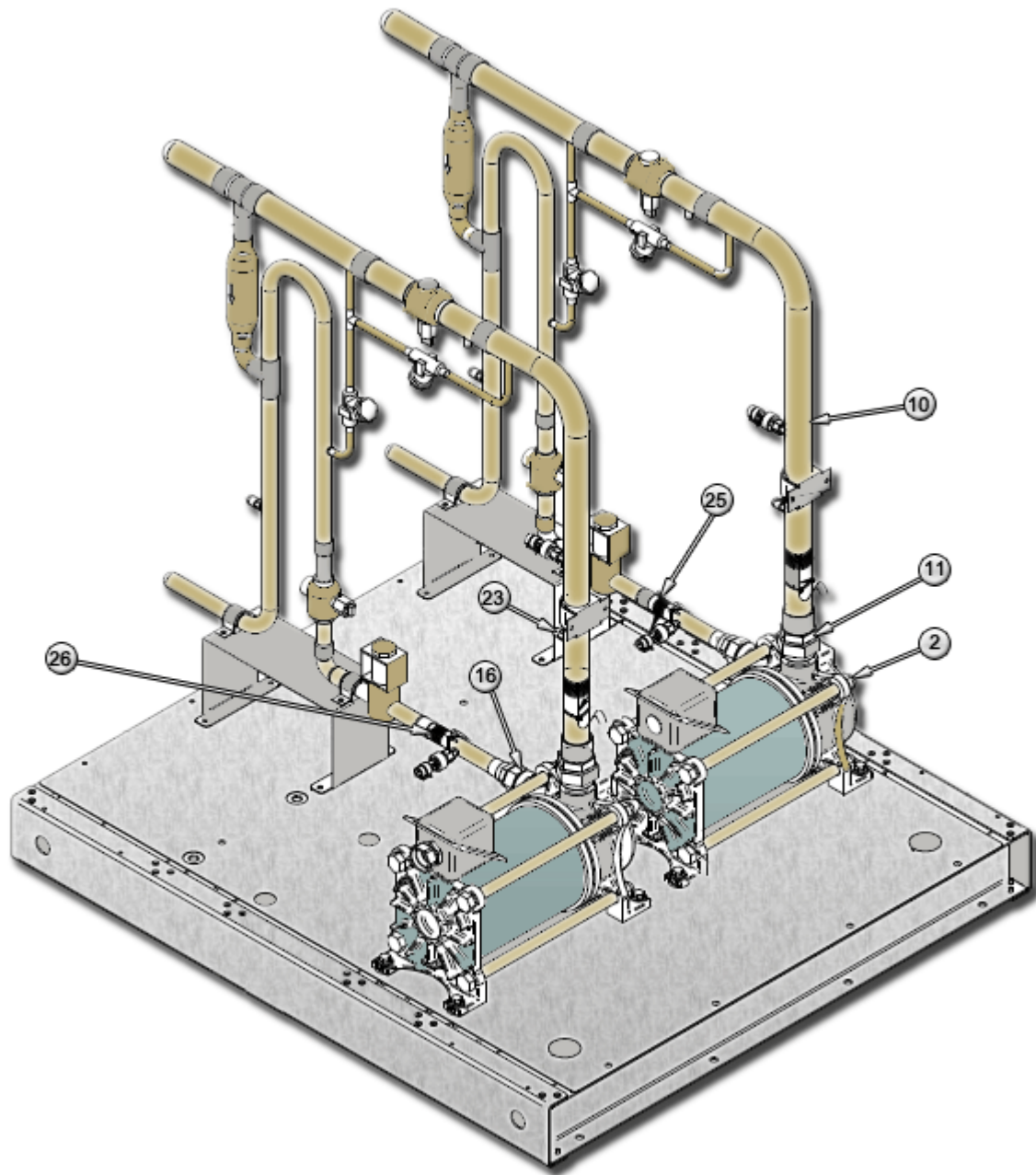
Item	Part Number	Description	Voltage	Quantity
1	303398P1	DISC FUSED 600V ABB 30A	ALL	1
	300308P1	DISC 600V 25A IEC	208/230/460V	1
2	304912P2	BRKT DISC PRE UNIT FUSED	ALL	1
	304912P3	BRKT DISC PRE UNIT ABB/SOC	208/230/460V	1
7	303395P04	SHAFT DISC ABB 158MM	ALL	1
8	303392P3	HANDLE DISC ABB 80MM	ALL	1
9	136821P11	FUSE DUAL ELMNT "J" 600V 12A	575V	3
	136821P12	FUSE DUAL ELMNT "J" 600V 15.0A	380/460V	3
	136821P14	FUSE DUAL ELMNT "J" 600V 20.0A	208V	3

4. Exterior Section



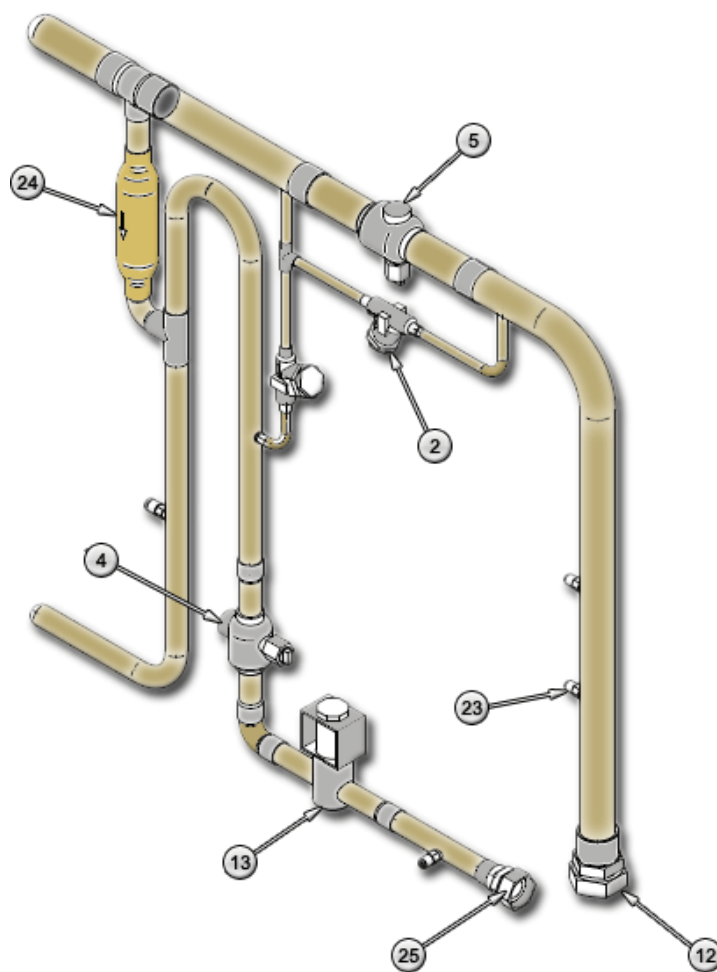
Item	Part Number	Description	Quantity
1	304881P1	PANEL TOP PRE UNIT	1
2	304882P2	PANEL SIDE PRE UNIT 2PUMP	1
3	304883P1	PANEL SIDE EP PRE UNIT	1
4	304884P1	PANEL SIDE LEFT PRE UNIT	1
5	304885P1	PANEL SIDE RGHT PRE UNIT	1
6	304887P1	PANEL ACCESS R/L PRE UNIT	2
13	304894P1	BOX EP PRE UNIT	1

5. Piping Section



Item	Part Number	Description	Quantity
2	304930P1	PUMP MTH 1.6HP PRE UNIT	2
10		PIPING CIRCUIT ASSEMBLY	
11	P05-383B	SEAL ROTOLOCK 1-3/4"X12 TEFLON	2
16	W-0330	SEAL ROTOLOCK 1-1/4"X12"TEFLON	2
23	P02-0290	VALVE CORE REFRIGERANT	8
25	181388P2	TRANSDUCER 0-500 PSIS 0.5-4.5V	4
26	183800P2	CNTL FANSPEED ICM326HC THERMST	4

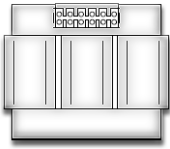
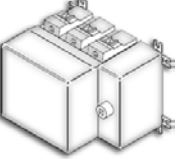
5.1.Piping Circuit Assembly



Item	Part Number	Description	Quantity
2	167770P1	VALVE CHECK 3/8" OD SPRING	2
4	197286P3	VALVE BALL REFRIG 7/8" R410A	1
5	197286P5	VALVE BALL REFRIG 1-3/4" R410A	1
12	304931P1	ADAPTER ROTOLOCK 1-3/4"-12UNF	1
13	304932P1	VALVE SOLND 7/8 24V WTRTIGHT	1
23	P02-0270	VALVE ACCESS BODY 1/4X SWT	4
24	W-0090	VALVE CHECK 7/8" OD	1
25	W-0110	ADAPTER ROTOLOCK 1-1/4"-12UNF	1

6. Parts Gallery

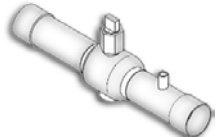
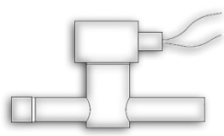
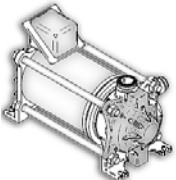
Electrical Section

			
132487P1	132487P2	136811P1	136821P11
			
E-007A	E-007B	E-0110	E-330B
			
E-362B	307212P3	301471P1	184179P1
			
304912P2	303398P1	303395P04	303392P3
			
184904P2	307760G1	300297P1	

Exterior Section

			
304881P1	304882P2	304883P1	304884P1
			
304885P1	304887P1		

Piping Section

			
167770P1	181388P2	P02-0270	P02-0290
			
W-0090	W-0110	W-0330	197286P5
			
304932P1	304930P1	183800P2	

7. Revision Page

Revision Date	Modification	Details
02/15/2013	Electrical Section	Modify VS drive part numbers - removed 192386P2 - added 195671G43 and 195671G44
10/2012	-	Manual Released Date