



PROFESSIONAL

by **HARMAN**

# Service Manual

VLA-C265-BK

Two-Way Full Range Loudspeaker with  
2 x 10" Differential Drive® LF



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<b>JBL Professional Engineering</b>	<b>Loudspeaker Engineering Design Specification</b>	<b>Date Effective: 8/6/2018 Date Revised: 8/6/2018</b>	<b>Number 1000320931 Page 1</b>
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**GENERAL DESCRIPTION**

MODEL: VLA-C265  
DESCRIPTION: Dual 10", Two-Way Line Array

**SYSTEM COMPONENTS**

LF 354964-003 2261FF x2 (EDS #1922)  
HF 5020810 D2415 x3 (EDS #1000112860)

**ACOUSTICAL AND ELECTRICAL SPECIFICATIONS**

Sensitivity – Raw pass bands	See attached curves, page 2
Frequency Response (-3dB)	108Hz – 16.7 kHz (4 $\pi$ )
Frequency Response (-6dB)	96Hz – 18.2 kHz (4 $\pi$ )
Frequency Response (-10dB)	85Hz – 19.2 kHz (4 $\pi$ )
Rated Impedance	Passive: 8 $\Omega$ , LF: 8 $\Omega$ , HF: 16 $\Omega$
Minimum Impedance	Passive: 6.6 $\Omega$ @ 162 Hz, LF: 6.8 $\Omega$ @ 185 Hz, HF: 16.2 $\Omega$ @ 11 kHz
Crossover Frequency	950Hz
Coverage (-6dB)	75° × 5°
Power Handling with Array preset Passive	80Vrms / 160Vpk @ 100hrs, SMS
Power Handling with Array preset LF	80Vrms / 160Vpk @ 100hrs, SMS
Power Handling with Array preset HF	50Vrms / 135Vpk @ 100hrs, SMS
Maximum SPL measured with Array Preset (2m GP, NTI XL2, 12dB CF Pink Noise)	137.9 dB
System Input Type	Barrier Strip
System Polarity	All (+) polarity when driven from (+) pin – EXCEPT with Passive Network: HF(-)
System Protection	DSP driven
Speaker DSP File	1000336780
Engineering Test Specification:	1000320930

**PHYSICAL SPECIFICATIONS**

Enclosure Volume for each LF	1.3 cu.ft. / 36liters
Maximum External Dimensions (in/mm)	15.0/380 H × 33.4/848 W × 18.3/466 D
Weight (ea.)	83 lbs / 37.7 kg

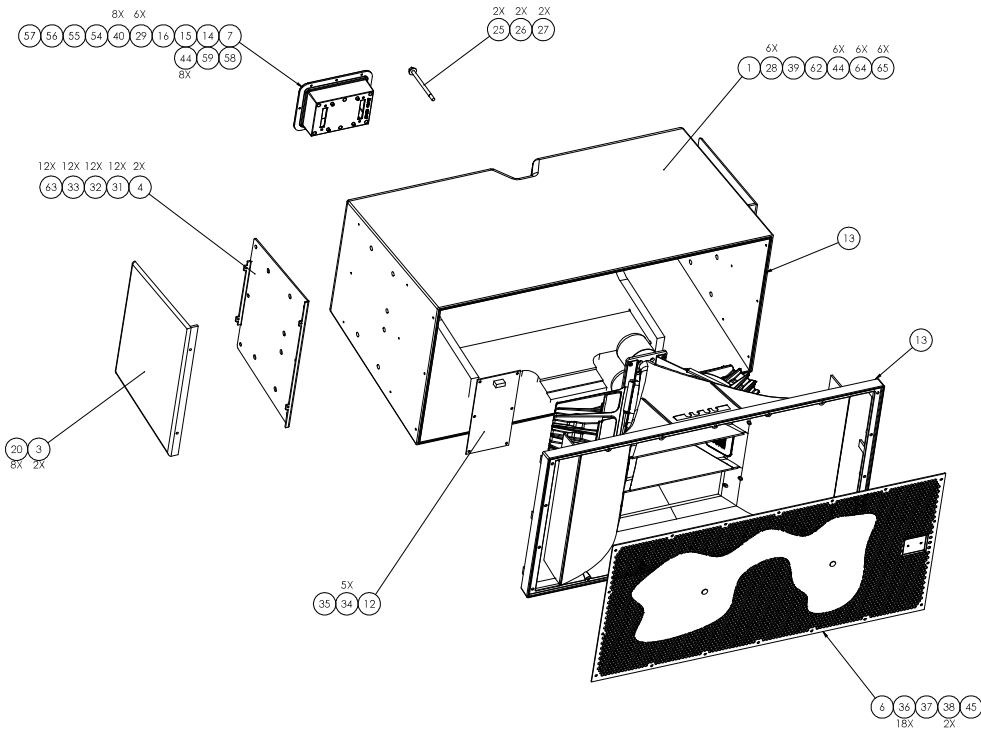
DESIGN ENGINEER

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REVISIONS						
CHG	LTR	DESCRIPTION	DRFT	CHK	DATE	APPR
SEE SHEET 1						



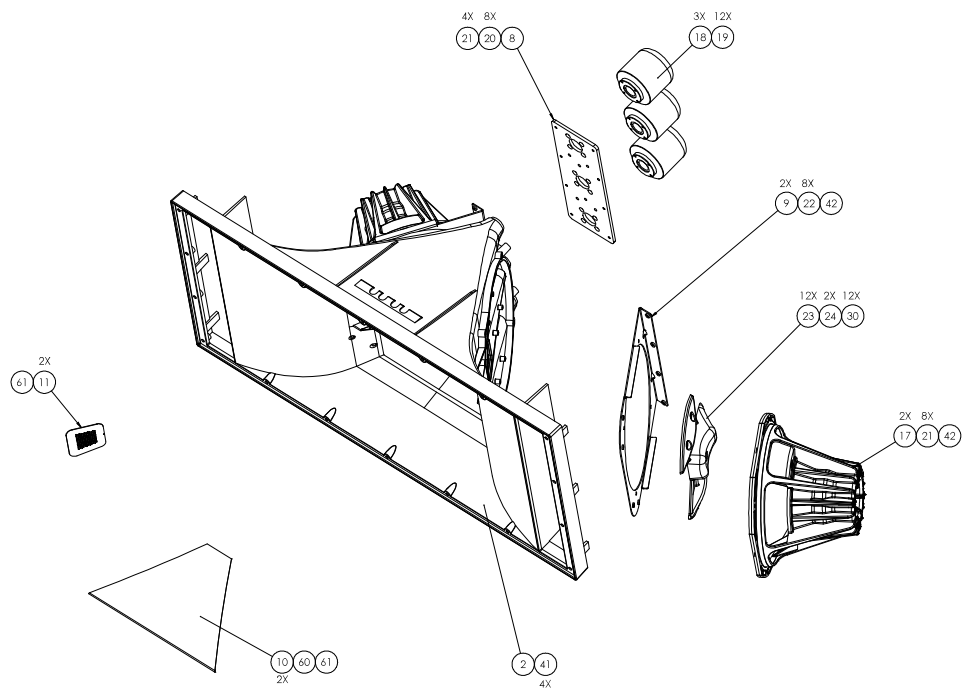
NOTES: (UNLESS OTHERWISE SPECIFIED)

<b>HARMAN</b>		SOUND BY DESIGN	
S/M VLA-C265-BK			
REV	DRAWING NO.	REV	
D	1000334746	A	
SCALE 1:1		SHEET 2 of 4	

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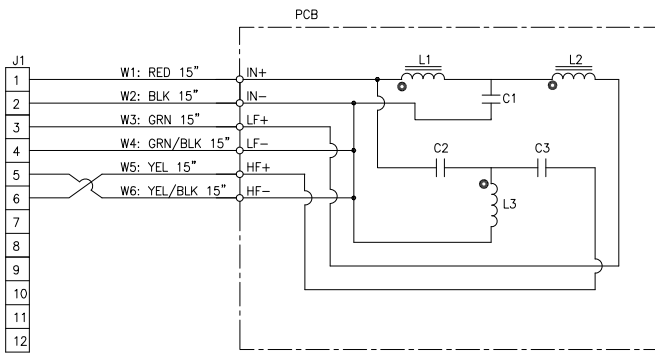
NOTES: (UNLESS OTHERWISE SPECIFIED)

<b>HARMAN</b>		3300 Riva Road #100 Fort Myers, FL 33907, U.S.A.	
TITLE			
S/M VLA-C265-BK			
REV	DRAWING NO.	REV	
D	1000334746	A	
SCALE 1:1		SHEET 3 of 4	

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REVISION HISTORY				
REV.	DESCRIPTION	ZONE	DATE	BY
A	INITIAL RELEASE		9/11/2017	NM
B	UPDATE TOPOLOGY L3/C2	C5-C6	10/19/2017	NM
C	UPDATE J1, TOPOLOGY L3/C2	C5-C6	10/31/2017	NM

SCHEMATIC



PARTS LIST			
ITEM #	REF	QTY	DESCRIPTION
1	L1	1	INDUCTOR, 1.8mH, I76/SB6 LAMINATED CORE, ±5%, COIL Ø1.4mm, 0.3Ω DCR, 81x30.5x30.5mm
2	L2	1	INDUCTOR, 0.75mH, I57/SB2 LAMINATED CORE, ±5%, COIL Ø1.2mm, 0.15Ω DCR, 59x22x23mm
3	L3	1	INDUCTOR, 4.0mH, 5025 AIR CORE, ±5%, COIL Ø0.75mm, Ø50x25mm
4	C1	1	CAPACITOR, 15µF, 400V, MET TYPE, ±5%, Ø34x56mm
5	C2	1	CAPACITOR, 1.8µF, 400V, MET TYPE, ±5%, Ø17x32mm
6	C3	1	CAPACITOR, 3.0µF, 250V, MET TYPE, ±5%, Ø13x32mm
7	PCB	1	PCB, 7" x 4", FR-4, 2 OZ COPPER, TWO SIDED
8	J1	1	MOLEX MINI-FIT JR 12P MALE P/N: 39-01-2125
9	PIN1	6	MOLEX PIN 39-00-0077 (USE WITH J1)
10	J2		DELETED
11	PIN2		DELETED
12	WIRE	A/R	WIRE, UL1015 #16 AWG CSA TYPE TEW
13	RVT	5	RIVET, Ø5X7mm, BRASS
14	SPCR	5	SPACER, YJ-002
15	CT	6	CABLE TIE
16	ADH	A/R	ADHESIVE, RTV SILICONE, ELECTRONICS GRADE

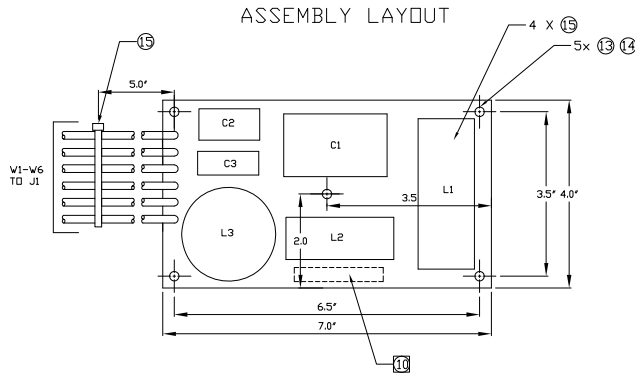
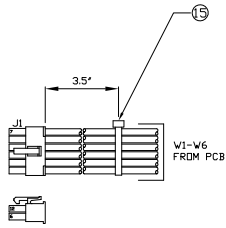
- 13. PLACE CABLE TIE (ITEM 15) AROUND ALL WIRES 3.5" FROM J1 (ITEM 8) AND 5" FROM PCB (ITEM 7)
- 12. WIRE LENGTH TOLERANCE ±0.5"
- 11. PLACE COMPONENTS APPROXIMATELY WHERE SHOWN ON SHEET 2
- 10. JBL P/N AND REVISION TO BE SHOWN APPROXIMATELY WHERE SHOWN ON SHEET 2 ASSEMBLY LAYOUT
- 9. ALL STANDOFF TO BE APPROXIMATELY 0.25" HIGH
- 8. ALL PLATED THROUGH HOLES SHALL HAVE 100% SOLDER BARREL FILL
- 7. PCB SHALL BE FR-4, DOUBLE SIDED WITH PLATED THRU HOLES, COPPER SHALL BE 2OZ
- 6. ALL INDUCTOR WIRE TO BE 180° RATED
- 5. PCB ASSY TO BE FREE OF FLUX
- 4. ALL WIRE TO BE UL1015 16AWG (CSA TYPE TEW, ITEM 12)
- 3. ALL CAPACITORS TO BE SECURED WITH ELECTRONICS GRADE RTV (ITEM 16)
- 2. ALL INDUCTORS TO BE CABLE TIED TO PCB AND SECURED WITH ELECTRONICS GRADE RTV (ITEMS 15 & 16)
- 1. "•" INDICATES BEGINNING OF INDUCTOR WINDING

NOTES: (UNLESS OTHERWISE SPECIFIED)

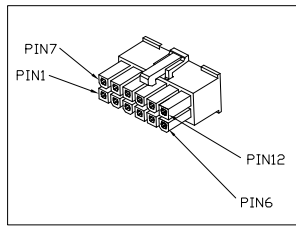
THESE ANGLE PROJECTIONS 	TOLERANCES UNLESS OTHERWISE SPECIFIED DIMENSIONS SHOWN ARE FOR REFERENCE UNLESS OTHERWISE SPECIFIED REFER TO DIMENSIONAL CONTROL PLAN FOR PART TOLERANCES		<b>HARMAN</b> JBL Professional 8000 Balboa Park San Diego, CA 92129 USA
	DIMENSIONS IN INCHES FRACTIONAL 1/32 DECIMAL 0.005 DECIMAL 0.01	DIMENSIONS IN MILLIMETERS FRACTIONAL 1/32 DECIMAL 0.05 DECIMAL 0.10	
RESTRICTION OF HAZARDOUS SUBSTANCES THIS PART MUST BE DESIGNED BY HARMAN DESIGN ENGINEER HARMAN SHALL FURNISH A CERTIFICATE OF COMPLIANCE WITH THESE ARTICLES	DRAWN BY DATE CHECKED BY DATE	REV. BY DATE	REV. BY DATE

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REVISION HISTORY				
REV.	DESCRIPTION	ZONE	DATE	BY



J1 PIN DESIGNATION



NOTES: (UNLESS OTHERWISE SPECIFIED)

THIRD ANGLE PROJECTION 	TOLERANCES UNLESS OTHERWISE SPECIFIED DIMENSIONS GIVEN ARE FOR REFERENCE DIMENSIONS SHALL BE FOR REFERENCE REFER TO DRAWING PROVIDED WITH THIS DRAWING FOR ORIGINAL SPECIFICATION OF PART GEOMETRY.		HARMAN JBL Professional 2500 Dallas Ave Azusa, CA 91709 USA
	RESTRICTION OF HAZARDOUS SUBSTANCES NONE	DRAWN BY DATE CHECKED BY DATE	
ALL MATERIALS USED IN THIS PART MUST BE DESIGNATED BY HARMAN OR JBL SUPPLIER SHALL FURNISH A CERTIFICATE OF COMPLIANCE WITH THESE ARTICLES	ENGINEER DATE	PART NO 5092749-00	REV C SCALE: 1:1 SHEET 2 of 2

Bill of Materials

Number	Name	Quantity	Unit
VLA-C265-BK	S/M, VLA-C265-BK		
22389P	FBRGL,1"x72",600SF/ROLL	14	Square Foot SF
315953-001	BAG,ZIPLOCK,9X12	2	each
352951-001	THREADLOCK, 9 GRAM STICK, LOCTITE 248	0.001	gram
354964-003	M/I, 2261FF	2	each
29074S	PRIMER,BOSTIC,98,O/P,15	0.2	ounce
31385-08	D/DOME, 2161FF	1	each
333101-001	ADH,LOCTITE,4204/PRISM,CLEAR	2.8	ounce
335-00022-00	MAGNET, 2265H	1	each
337035-001	SHORT RING, 2265	1	each
337317-001	RIVET, 2265H	1	each
339-36001-00	POLE PLATE, 2265H	2	each
340-30003-00	GAP SLEEVE, 226X	1	each
353219-001	ACTIVATOR, LOCTITE 7091, VARIOUS	0.007	Milliliter
353289-002	CONE COMPLIANCE(STRAIGHT BODY) 2261	1	each
353595-002	FRAME, 10", 2261H (TUMBLE DEBURRED)	1	each
354130-001	SPIDER, 2261	1	each
362890-001	SOLDER, MULTICORE 96SC (SAC 357)	0.28	gram
363236-003	VOICE COIL ASSY, 2261FF	1	each
363672-001	TINSEL LEAD, DUAL, 2261FF	1	each
363751-001	TERMINAL CUP ASSY, CSYS-U1	1	each
364219-002	ACC, CYBERBOND BLAST 6003 (SAME AS -001)	0.001	gram
364743-001	TRIM RING, 261G	1	each
440906-001	ADHESIVE, LOCTITE E120	1.5	Milliliter
440906-002	ADHESIVE, LOCTITE E120 400ml	1.16	Milliliter
444641-002	LABEL, 2261FF (HADM)	1	each
5036645	CLIP, RETAINER, DVC	2	each
71396	ADH,AIRFLEX,400	5.95	gram
71636-27	SHIM, 2262	0.05	Piece
71666	ADH, SPEEDBONDER 3270	0.2	ounce
72266	ADH,SICOMET,5181	6.5	gram
74822	LBL, DTC	1	each
72471	RIBBON,XFR, THRM,4.5"x1181	0.2	Meter
75225	LABEL, BLANK	1	each
863-41610-08	SCR,8-32 X 1/2,PAN,PH,TT,BLK ZINC,LCS	2	each
CONSUMABLES	ADHESIVES/PAINTS/CHEMICALS/LABELS/ETCALL	1.999	Piece
364542-001	WASHER, 3/8x.875 STAINLESS NEOPRENE BACK	12	each
364835-001	GASKET, ENCLOSURE EON515	17	Lineal Foot
49790P	MICROFOAM 1/32X18X20	8	each
5018271	Large Plastic Logo, STX800	1	each
5020810	M/I, D2415	3	each
352859-001	ADH, MOYEN 3087	0.001	Milliliter
353928-002	VOICE COIL, 2408J	2	each
353929-999	FINISHED, DIAPHRAGM, 2408	2	each
353929-001	DIAPHRAGM, 2408	1	each
361864-001	DUPONT TEIJIN FILM TOENEX	27	Square inch
354261-001	RING, CENTER, 2408H	2	each
354266-001	PSA, INNER RING, 2408H	6	each
354312-001	PSA, OUTER	2	each
361513-001	KAPTON FILM-TAPE, 5mm WIDE, 0.025 MM THK	0.2	Lineal Foot



361514-001	TERMINAL BOARD, .250, 2408H	1	each
361514-002	TERMINAL BOARD, .187, 2408H	1	each
361514-003	TERMINAL BOARD, .250, WHITE	1	each
361514-004	TERMINAL BOARD, .187, WHITE	1	each
361573-001	PSA STRIP, 2408H	8	each
362890-001	SOLDER, MULTICORE 96SC (SAC 357)	0.001	gram
363073-001	GLASS BEADS, COMCO INC., P/N PD1033-3	0.096	US pound
363122-001	SILICONE SEALANT	0.001	gram
365108-001	RUBBER RING, 2408H-1	2	each
444956-010	LABEL, D2415	1	each
5013144	LABEL, TERMINAL FRONT DRIVER (POS) D2430K	1	each
5013145	LABEL, TERMINAL FRONT DRIVER (NEG) D2430K	1	each
5013147	LABEL, TERMINAL REAR DRIVER (POS) D2430K	1	each
5013149	LABEL, TERMINAL REAR DRIVER (NEG) D2430K	1	each
5020759	D2415 POLE PIECE REAR	1	each
5020760	D2415 TOP PLATE FRONT	1	each
5020761	D2415 TOP PLATE REAR	1	each
5020762	D2415 PHASING PLUG FRONT	1	each
5020765	D2415 PHASING PLUG REAR	1	each
5020774	D2415 OD SPACER RING	2	each
5031164	D2415 POLE PIECE FRONT	1	each
5031167	D2415 MAGNET	2	each
5031660	D2415 HEAT SINK	1	each
5038516	D2415 SCREEN	1	each
5038781	JUMPER WIRE, D2415	1	each
5083690	FERROFLUID, APG CDF 1120	0.24	Cubic Centi Meter
5086939	ADHESIVE, LOCTITE E-120HP	0.058	Milliliter
5086940	ADHESIVE, RESIN E-120HP	1	gram
5086941	ADHESIVE, HARDENER E-120HP	0.5	gram
63627	ADH,C.A.,SICO-MET	1	ounce
69437	ADHES,LOCTITE 242	0.001	Milliliter
71666	ADH, SPEEDBONDER 3270	0.001	ounce
71667	PRIMER,ADH,LOCTITE 7090	0.001	ounce
803-73056-09	SCR, 8-32 x 9/16, SCT, HEX, NF, SS	4	each
803-73056-18	SCR, 8-32 x 1- 1/8, SCT, HEX, NFD, SS	1	each
5036396	1/4 BONDED SEALER WASHER S/S	2	each
5057179	COVER, 1/2", WATERPROOF, BLK	1	each
5057643	HEYCO LIQUID TIGHT M3216, W/NUT, FOR 1/2"	1	each
5057646	GASKET, WATER SEAL, INPUT CUP	1	each
5059045	JUMPER WIRE, GREEN, PD500	1	each
5059046	JUMPER WIRE, GRN/BLK, PD500	1	each
5059047	JUMPER WIRE, YELLOW, PD500	1	each
5059048	JUMPER WIRE, YEL/BLK, PD500	1	each
5080663	INPUT CUP ASSY, WRX, BLACK	1	each
5081025	SIDE PLATE, VLA-C265	2	each
5082315	HORN, VLA-C265	1	each
5082336	HF PLATE, VLA-C265	1	each
5082337	WOOFER PLATE, VLA-C265	2	each
5082340	V-GRILL, HORN, VLA-C265	2	each
5084048	GRILLE, FRONT, VLA-C265/2100	1	each
5086692	RBI, VLA-C 2** SERIES	2	each
5088928-01	CBL,WA,VLA-C	1	each

5088929-00	LABEL, OVERLAY, VLA-C	1	each
5089347-00	GASKET, RBI, VLA-C	2	each
5089984-00	HYDROMESH, VLA-C2100	1	each
5090639-00	FSTNR,WSHR,LKW,M10,SST	12	each
5090833-00	FSTNR,MSCR,FLH,PH,8-32X3/8",SST	12	each
5090853-00	HDWR,FOAM STRIP,EDPM,1/2WD,1/16THK	0.2	Piece
5090856-00	SHPMAT,CTN	1	each
5091137-00	HDW, BRKT, ANGLE PL	2	each
5092749-00	PCB,ASY,NTWK,VLA-C265	1	each
5092750-00	TAPE,PAINTERS,24mm,3M 2090	8	Foot
5092751-00	ADH,SILIC,CLEAR,GE IRON GRIP	10	gram
5092804-00	ADH,MULTI PURPOSE,SPRAY,TL	10	gram
5093074-00	SPKRSYS, GRL, HORN, SMALL	2	each
5093577-00	FSTNR,RVT,SNAP,BLK,0.093"THK	2	each
5093592-00	ENCL, PNL, SIDE	2	each
5093593-00	ENC, FG, BLK	1	each
5082668	INNER PLATE, ENCL, VLA-C265	2	each
5083836	INNER TRIM, ENC, VLA-C (INPUT CUP)	1	each
5089084-00	STIFFENER ASSY, VLA-C265	1	each
5086721	STIFFENER, TOP/BOT, VLA-265	2	each
334003-002	PLYWD,BALT,18mm,48"x96"	1.28	Square Foot SF
5086722	STIFFENER, SIDE, VLA-C265	2	each
334003-002	PLYWD,BALT,18mm,48"x96"	1.524	Square Foot SF
5095210-00	SHPMAT,FLR,VLA-C265	2	each
5095211-00	LBL,PRNT,UNDERLAY,VLA-C265-BK	1	each
5082073	LABEL, STOCK UNDERLAY, WRX INPUT CUP	0.029	Piece
5096109-00	HDW, # 8X3/8, SLFTAP, TRUSS, PHI, SS	12	each
5097116-00	FSTNR,MSCR,FLH,PH,6-32x3/4in,SS	12	each
5100158-00	FSTNR,MSCR,PH-PNH,8-32x3/8in,SS,BLK	18	each
5100161-00	FSTNR,TAP,PH-PNH,6x3/4in,TYPE AB,SS,BLK	6	each
5101936-00	FSTNR,MSCR,PH-PNH,6-32x5/8in,SS,BLK	8	each
5101962-00	FSTNR,MSCR,FLH,PH,6-32x1/2in,SS,BLK	6	each
5101963-00	FSTNR,MSCR,PH-PNH,8-32x1/2in,SS,BLK	16	each
5101965-00	FSTNR,WSHR,FLW,SIZE6,SS,BLK	6	each
5106918-00	FSTNR,WSHR,0.12x0.25x0.047-0.077in,RBR	6	each
59660	WARRANTY CARD, 5YR,PRO	1	each
802-31156-12	SCR,6-32 x 3/4 PHIL,TRUSS,MS 18-8 SS	8	each
804-41156-12	SCR,10-32 X 3/4,PAN,PH,NO FIN, SS	12	each
818-93756-35	M-10 - 1.5 X 35MM BUT HD SOCK C/S 18-8	12	each
841-90056-00	WASHER, #6 BONDED SEALING NEO SS	14	each
844-03156-06	1/4 SPLIT LOCK WASHER STAINELSS STEEL	2	each
854-00056-64	1/4-20 X 4 HEX HD SS	2	each
883-31156-10	SCR,8 X 5/8,TRUSS,PH,PB,NO FIN, SS	4	each
883-41110-12	SCR,8 X 3/4,PAN,PH,PB,BLK ZINC,LCS	5	each