



ALLEGRA X-12/R, X-15R

RED BOOK SERVICE PARTS LIST

ISSUED 9/28/04

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Allegra X-12R 208V/ 60 Hz	392302
Allegra X-12R 200V/ 50/60 Hz	392303
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Allegra X-12 208V/ 60 Hz	392472
Allegra X-12 200V/ 50/60 Hz	392473
Allegra X-12 230V 50 Hz	392474
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Allegra X-15R 230V 50 Hz	392934

Allegra X-12/R, X-15R
Replacement Parts List

ELECTRONICS

	All	X-15R only
Board Assy, P.W. System Ctrl. Bd	392453(X-12R) 392740(X-12) 392963	
Board Assy, P.W. Motor Driver Board	392375 393289	
Fuse Holder, Brake	869899	
Fuse 1A	8395	
Relay K1	979842	
Relay K2	979852	
Brake Resistor	A09041	
Cable Driver Interface	392460	
Cable, VFD	392459	
Circuit Breaker	A09122	
Display VFD	392741	
EMI Filter	A09068	
Second EMI Filter		A18788
Fan, DC	392469	
Fan, heatsink	392454	
Harness, AC	392458	
Harness, DC	392456	392994
Harness refrigeration	392461	
Imbalance, Switch Assy optical	392467	392955
Keypad	392377	
Module Power Inlet	964643	
Switch Plunger, (Striker X-15R)	979485	A15801
Switch Sensitive, (Latch X-15R)	978999	A13385
Solenoid, Latch (X-15R)		392996
Thermistor	392372	
Thermostat, OT	369103	
Power Cord 208V	364184	
Power Cord 230V	964654	

DRIVE ASSEMBLY

Drive Motor Assembly	392357	392914
Boot, Bowl	392356	
Ferrule, Drive Shaft	392361	
Flag Optical	392429	392903
Grommet, Motor Mounting	349786	
Housing Assy, Rotor ID	392352	392916
Lock-Nut, Motor Mounting	829294	
Mounts, Compression (orange)	392427	
Mounts, Screws	964964	
Mounts, Washer	979564	
Mount Shock, Sandwich		392997
Nut, M5 Motor Mount		964847
Nut, Sandwich Mount		885321
Ring mount, Motor (molded)	367218	
Screw, Rotor ID	979177	
Screw, Motor Mount	948159	

Allegra X-12/R, X-15R
Replacement Parts List

DRIVE ASSEMBLY

All

X-15R only

Spacer, Rotor ID	979225	A17712
Spacer, Motor Tie down		393000
Tach Sensor	A16477	
Washer, Flat, Mounting	878492	
Washer, Motor, M5		A16113
Washer, Sandpaper		961811

REFRIGERATION

Bowl, refrigerated	392387	393007
Compressor Unit 208Vac 50/60Hz, R404a	392398	393012
Compressor 208V	A12630	
Compressor Unit 230Vac 50Hz , R404a	392399	393013
Compressor 230V	A12631	
Capacitor Box 60 Hz	A12300	
Capacitor Box 50 Hz	A12301	
Motor, Fan 60 Hz	A12298	
Motor, Fan 50 Hz	A12299	
Blade, Fan,	A12302	
Shrader Valve	979018	
Thermistor, Nut	885317	
Thermistor O-Ring	42550	
Pressure Control Valve	A13097	

DOOR ASSEMBLY

Door Assy	392320	392950
Striker, Door Lock	392435	392948
Striker, Nut	927746	868288
Striker, Washer	976094	
Hinge Assy, Door left	392318	
Hinge Assy, Door Right	392319	
Hinge spacer	393045	
Window, Strobe Port	358753	
Gasket, Strobe Port	362260	
Latch Assy (X-15R only)		392900
Latch Assy Door left	392329	
Latch Assy Door right	392330	
Gasket housing/ Door, inside	392396	393054
Gasket housing/ Door, outside	392397	393053
Gasket door, D Profile	392477	
Gasket door, Square profile	392894	
Tether, Door release		392998
Cord, Dacron	978139	

Allegra X-12/R, X-15R
Replacement Parts List

MISCELLANEOUS

All

X-15R only

Cable Assy, Control Panel	392383	
Grommet Door Latch	392484	
Panel Front Control	392378	
Panel, Refrigeration Front	392384	
Foot	392344	
Tie Down Anchoring Kit	392482	392988
Screw M8, Tie Down		A16602
Strip D shape	A12045	

Rotors

SX4750 w/o bucket covers	369702
Yoke only	393074
Tie Down Assy	369716
Buckets Set of 2	392804
Covers, Set of 2	392805
Bucket O-ring (pkg/8)	961648
μ Plate Carriers for SX4750, Set of 2	392806
Carriage Assembly Repl. kit, set of 2	392873
Covers for μ Carriers, Set of 2	392807
μ Plate, Pad replacement, set of 4	392872
μ Plate, Gasket Repl., Set of 4	392812
 SX4750A Rotor Assembly	 369704
Yoke only	393073
Tie Down Assy	369718
 FX6100 Rotor Assembly	 369735
Lid Assy	369738
Large O-ring	870612
Small O-ring	010179

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CHG.	E.O.NO.	DATE	BY	CHK
AL	SEE SHEET 1			

AL				40		
				39		
				38		
				37		
AL				36		
	1	1	1	A12	35	456025 LABEL, HIGH VOLTAGE
	1	1	1	A12	34	455771 LABEL, CAUTION - INT. MAINT
	1	1	1	A12	33	455770 LABEL, DISCONNECT POWER
AL	2	2	2	C11	32	392902 LABEL, PRESS HERE TO CLOSE
	1	1	1	D4	31	393001 LABEL, IMBAL CALIBRATION
	1	1	1	A12	30	A33233 LABPCE, MULTI COMPLIANCE NON-IVD
	1	1	1	A12	29	369430 LABEL, SOFTWARE LICENSE, OPERATING SYSTEM
AC	1	1	1	A12	28	393082 LABEL, REFRIGERANT R404A
AL AF				27		
				26		
				25		
				24		
AL				23		
	1	1	1	A7, A14	22	392939 CONTROL PANEL ASSY, ALLEGRA X-15R
				21		
				20	393013	REFRIGERATION-COMPRESSOR ASSY, ENGLAND/EUROPE
AB	5		1	C2	19	393012 REFRIGERATION-COMPRESSOR ASSY, USA/JAPAN
AB	5	1	1	C2	18	
AL				17		
				16		
				15		
				14		
2 3				13		
	1			A11, C8	12	392945 PLATE, NAME RATING, 208V ALLEGRA X-15R
		1		A11, C8	11	392946 PLATE, NAME RATING, 200V ALLEGRA X-15R
			1	A11, C8	10	392947 PLATE, NAME RATING, 230V ALLEGRA X-15R
2 3				9		
				8		
			1	(NOT SHOWN)	7	392992 SHIP LIST, ALLEGRA X-15R 230V
		1		(NOT SHOWN)	6	392991 SHIP LIST, ALLEGRA X-15R 200V
AB	1			(NOT SHOWN)	5	392990 SHIP LIST, ALLEGRA X-15R 208V
				4		
	1	1	1	(NOT SHOWN)	3	393061 PACKAGING, TIE DOWN
				2		
AB	1	1	1	(NOT SHOWN)	1	392931 CENTRIFUGE ASSEMBLY, COMMON
QTY				ZONE	ITEM	PART NO.
						DESCRIPTION

ALLEGRA X-15R
208V 60HZ
392932

ALLEGRA X-15R
200V, 50/60HZ
392933

ALLEGRA X-15R
230V 50HZ
392934

MOD ALLEGRA X-15R

BECKMAN

BECKMAN INSTRUMENTS INC.
SPINCO DIVISION
1050 PAGE MILL ROAD
PALO ALTO, CALIFORNIA 94304

TITLE
TABULATION,
CENTRIFUGE ASSEMBLY

C
SIZE
07978
DWG NO.
392930

SCALE — 1st USE — SHEET 2 OF 8

392930
DWG. NO.

C
SIZE

		130			
	B8	129	1	340574	LABEL, ROTATION - ARROW
	C15	128	1	456024	LABEL, PROTECTIVE EARTH
		127			
	C10	126	1	392485	SHROUD, EMI FILTER
		125			
		124			
		123			
	A3	122	2	004595	CLAMP, CABLE, LOOP .50 NYLON
	B3	121	8	928450	CLAMP, CABLE, LOOP .75 NYLON
	B4	120	2	928449	CLAMP, CABLE, LOOP .50 NYLON
	B5	119	1	863201	CLAMP, PVC BLACK - 1/4
		118			
	A8,C6	117	1	392383	CABLE ASSY
16	A6,B5	116	2	392998	TETHER, DOOR RELEASE
	C6	115	1	392384	PANEL ASSY, REFRIG
		114			
AC	D3	113	A/R	A20315	STRIP, EPDM, PSA, D-SHAPE .50 W X.50 H
AB	B8	112	A/R	A12045	STRIP, EPDM RUBBER, D-SHAPE .375W
13 6	C7	111	2	392484	GROMMET, DOOR LATCH
		110			
		109			
	A8,C6,D5,D7.	108	2	392900	LATCH ASSY, DOOR
AB 17	C8	107	A/R	393045	SPACER, HINGE
AG	D7	106	1	393279	DOOR ASSY, WRAP AROUND
	D6,D7	105	2	392948	STRIKER, DOOR
	C8	104	1	392319	HINGE ASSY, DOOR RIGHT
	C8	103	1	392318	HINGE ASSY, DOOR LEFT
		102			
AB	D2,D3	101	1	393057	GASKET, FOAM BOWL
11	D8	100	1	392477	GASKET, DOOR - D PROFILE
AB 11	C7	99	1	393053	SEAL, ENCLOSURE - OUTER
AB 11	D2	98	1	393054	SEAL, ENCLOSURE - INNER
		97			
8	C3,D1	96	1	392356	BOOT, BOWL
AB 8	B1,C3,C6,D1	95	1	393007	FOAMED BOWL ASSY, SIDE COILS
AJ		94			
AJ	B4	93	3	393275	KIT, MOUNT ASSEMBLY
	B3,B14,B15	92	1	392923	DRIVE ASSY
		91			
		90			
		89			
AB AJ		88			
AJ		87			
AJ		86			
	ZONE	ITEM	QTY	PART NO.	DESCRIPTION
	CENTRIFUGE ASSY, COMMON				
	392931				

AJ		85			
AJ		84			
AB AJ		83			
AJ		82			
AB AJ		81			
		80			
		79			
AE	D12	78	A/R	6002323	ADHESIVE, 3M NO. 77
	A4	77	1	008395	FUSE, NON-TIME DELAY 1A, 250V
	A4,B15	76	1	869899	FUSE HOLDER, PANEL MOUNT - 250V
	B8	75	1	A09122	CIRCUIT BREAKER - 2 POLE, 20A
	B4,C1	74	1	392918	FLAG ASSY
	A4,B15,C1	73	1	392955	SENSOR ASSY, OPTICAL
AJ		72			
	B15,C4	71	1	392469	FAN ASSEMBLY, DC
AB	A12,D14	70	1	393009	ELECTRICAL PANEL ASSY
AE	D12	69	A/R	3003003	ALUM STRIP, .005THK
AE	D12	68	A/R	6002501	ADHESIVE, SLNT - GRY/GRN
AE	D12	67	1	369103	THERMOSTAT ASSY
AE	D11	66	1	042550	O-RING, BUNA-N 120 .364ID X .05 OD
AE	C11	65	1	885317	NUT, HEX - 0.375-32 NYL NATURAL
AE	D12	64	1	392372	THERMISTOR ASSY 10K
9	B15	63	(1)	392457	JUMPER, MOTOR
9	B15	62	(1)	392466	HARNESS, DRIVER BOARD POWER
AB 9	B14,D15	61	(1)	393011	HARNESS AC
9	B5	60	(1)	392994	HARNESS DC
AB 9	B3,C15	59	(1)	393056	CABLE, GROUND STRAP
9	(NOT SHOWN)	58	1	392995	J.I.T. KIT HARNESS
		57			
		56			
		55			
	A3	54	6	358798	FOOT, (SCD)
	A3	53	12	392385	SPACER, FOOT
		52			
	D4	51	4	392492	BRACKET, BARRIER
	C7	50	2	392748	BRACKET, PANEL, REFRIGERATION
	A7	49	2	392747	BRACKET, PANEL, FRONT
	A4	48	1	392729	BRACKET, FUSE
		47			
		46			
AJ 9	D9	45	(1)	393500	ENCLOSURE ASSY
AB 9	B15,D2,D4	44	(1)	393055	BARRIER WELDMENT, CHAMBER
AH		43			
AH 9	A3,B5,C1,C16	42	(1)	393494	BASE, ASSEMBLY
9	(NOT SHOWN)	41	1	392949	J.I.T. KIT MECHANICAL
	ZONE	ITEM	QTY	PART NO.	DESCRIPTION
	CENTRIFUGE ASSY, COMMON				
	392931				
	MODEL ALLEGRA X-15R				
	BECKMAN				
	BECKMAN INSTRUMENTS INC. SPINCO DIVISION 1050 PAGE MILL ROAD PALO ALTO, CALIFORNIA 94304				
	C	CODE IDENT NO.	DWG NO.		
	SIZE	07978	392930		
	SCALE ---	1st USE ---	SHEET 3 OF 8		

392930
DWG. No.
C
SIZE

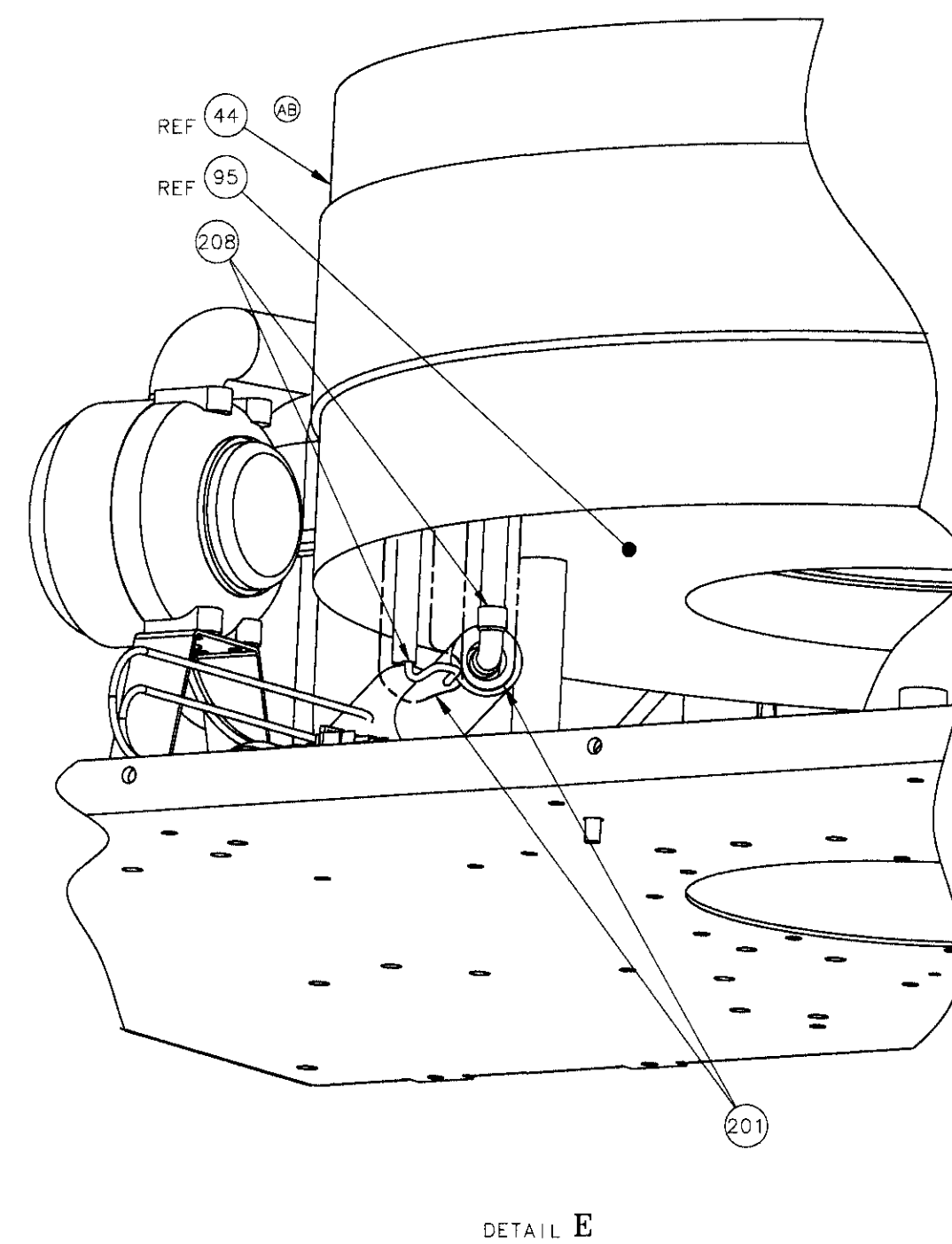
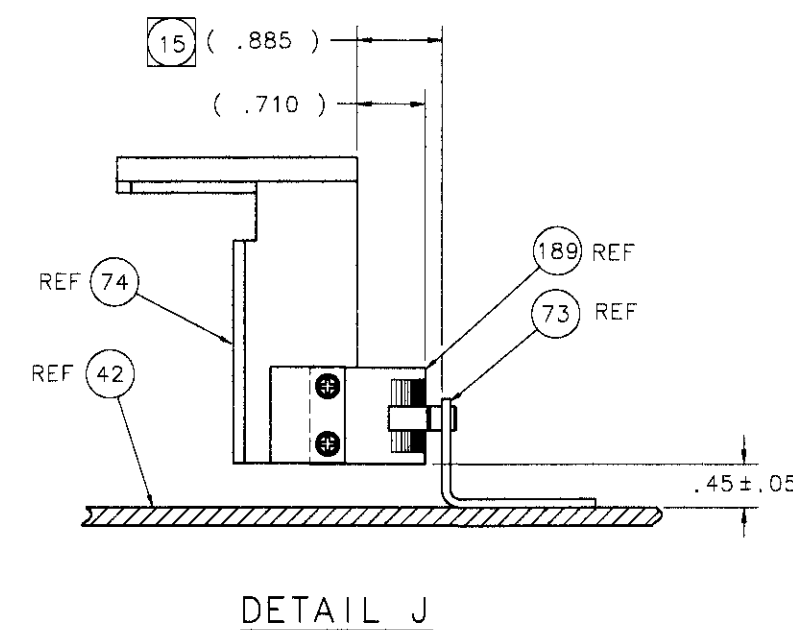
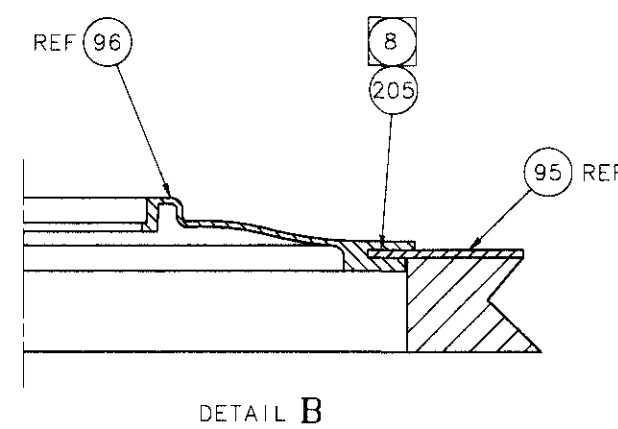
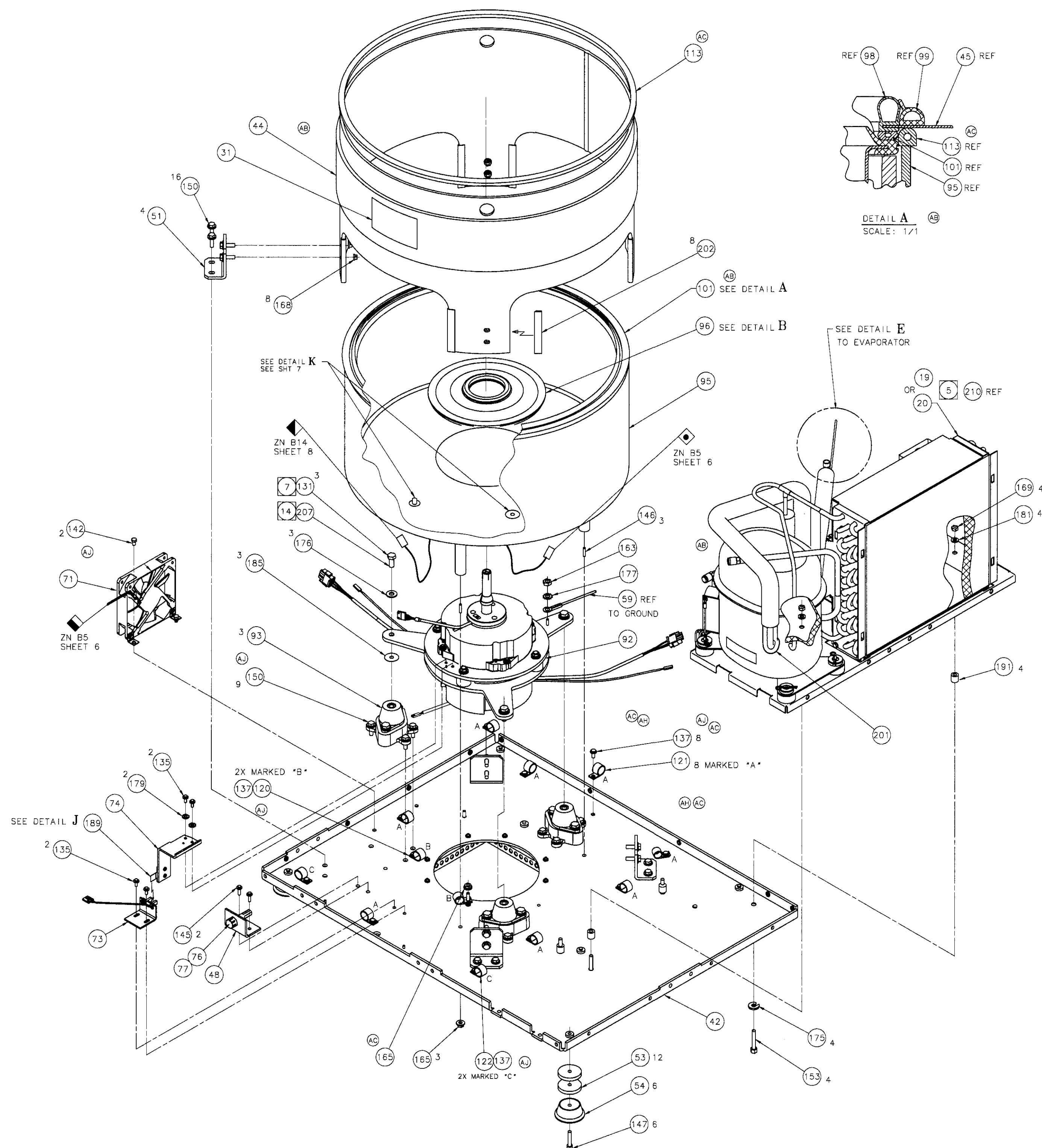
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CHG.	E.O.NO.	DATE	BY	CHK
AL	SEE SHEET 1			

		220			
		219			
		218			
		217			
		216			
		215			
		214			
		213			
		212			
(13)	C7	211	A/R	6500201	GREASE, VAC, SILICONE
(AB)(5)	C2	210	20oz	7028118	REFRIGERANT R404A
		209			
	B1	208	A/R	4007106	SOLDER, SILVER ALLOY - .125 W, .05 THK
(14)	C4	207	A/R	6000106	ADHESIVE, LOCTITE-242 - BLU
(4)(12)(6)	A5,C7	206	A/R	6000808	ADHESIVE, LOCTITE-416
(8)	D1	205	A/R	5302524	LIQ,SILI, RUBBER RTV 108 CLEAR
		204			
(AC)	A12,B7	203	A/R	A09797	SHIELD, EMI - .5 WD X .125 THICK
	D3	202	A/R	4522947	EXTN, PVC-BLK MOLDING, 3/16
	A1,B2	201	A/R	5504301	TAPE, CLOTH 1/8 THK
(AB)		200			
		199			
		198			
(12)	A5,B5	197	1	870761	BUSHING, SNAP -.375 ID, NYLON
		196			
	A8	195	2	964823	HINGE, BUTT - 2LG X 2W CRES
		194			
		193			
		192			
	B2	191	4	964612	STANDOFF, INSULATOR - .5 OD X .5LG NYLON BLK
		190			
	A4,C1	189	1	392903	FLAG, OPTICAL
		188			
(AL)	A7,C6	187	6	A29282	WASHER, FLAT, RET.- NO.10 .18 ID X .45 OD
		186			
	C4	185	3	961811	WASHER, SANDPAPER
	A6,C7	184	10	964880	WASHER, FLAT - M4 S-ZI
(AJ)		183			
(AB)	C15,D16	182	3	964920	WASHER, EXTERNAL - M6 SSTL ZINC
	C2	181	4	979689	WASHER, FLAT - M6
		180			
	B4	179	2	808252	WASHER, EXT. - #8 STL ZINC
	D6,D7	178	2	976094	WASHER, FLAT - 3/8 S-ZI
	C3	177	1	828590	WASHER, EXTERNAL - #8 STL BLK ZINC
	C4	176	3	827385	WASHER, FLAT - 5/16 SS
	ZONE	ITEM	QTY	PART NO.	DESCRIPTION
CENTRIFUGE ASSY, COMMON 392931					

	A2	175	4	802186	WASHER, SPLIT, 1/4, STL ZINC
(AD)	C8	174	A/R	6000106	LOCTITE, MEDUIM STRENGTH
		173			
		172			
(AJ)		171			
	D6,D7	170	2	868288	NUT, HEX .375-24 CRES PSVT
	C2	169	4	964788	NUT, M6 NYLOC
(AB)	B8,C15,C4,C8,D16	168	27	961735	NUT, M6 SLFLKG
(16)	A6	167	2	889805	NUT, 6-32 ACORN CRES
(16)	A6	166	2	024687	NUT, 6-32 SLFLKG STL ZINC
(AC)	A3,A8,D6	165	8	964847	NUT, M5 SLFLKG
		164			
	C3	163	1	861132	NUT, M4X0.7 STL
(AJ)		162			
		161			
		160			
(4)	A5,B5	159	1	040889	GROMMET
		158			
		157			
(AJ)		156			
		155			
		154			
	A2	153	4	A10364	SCREW, M6X1.0 X 35mm HEX S ZINC
		152			
		151			
	B4,D4	150	25	964630	SCREW, HXFLG - M6 x 20mm S ZINC
	A12	149	6	964855	SCREW, HXFLG - M6 X 12mm
		148			
	A3	147	6	A16400	SCREW,CAP - M6X1.0 X 35mm S BLK HXSO
	C3	146	3	A08781	SCREW, SET, M5 X 30mm S BLK HXSO CP
(AH)(AC)	A4	145	2	978372	SCREW, HXFLG - M5X0.8 X 16mm S ZI
(AL)	A7,C6	144	6	A28470	SCREW, MACH, M5X0.8X16 PHIL CRES
(AJ)(AC)	B3	143	2	964885	SCREW, HXFLG M5 x 12mm
(AJ)	A8,A12,B8,C4	142	23	978101	SCREW, HXSO BU M5 X 10mm SS
	C6	141	1	A08790	SCREW, HXFLG M5X0.8 X 10mm S-BLK
(AJ)(AH)(AC)	A7	140	1	979691	SCREW,HXFLG M5 x 8MM
	A8	139	8	A10363	SCREW, M5 x 10mm FL 90° PHIL SS
		138			
(AJ)(AB)	B3	137	10	A19870	RIVET,SNAP,NYL BLK, .197SHK .217-.256PNL
(AJ)		136			
	B4,B6	135	6	964870	SCREW, HXFLG M4 X 10mm S ZN YEL
	A6,C7	134	10	978440	SCREW, MACH PAN HD, M4 X 10mm SS
		133			
		132			
(7)	C4	131	3	848549	SCREW, HEX HEAD 5/16-18 X 3/4 S ZINC
	ZONE	ITEM	QTY	PART NO.	DESCRIPTION
CENTRIFUGE ASSY, COMMON 392931				BECKMAN BECKMAN INSTRUMENTS INC. SPINCO DIVISION 1050 PASE MILL ROAD PALO ALTO, CALIFORNIA 94304	
	C SIZE		CODE IDENT NO.	DWG NO.	
			07978	392930	
MODEL		ALLEGRA X-15R		SCALE ---	1st USE --- SHEET 4 OF 8

392930
DWG. NO.
C
SIZE



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AL		SEE SHEET 1		

D

D

C

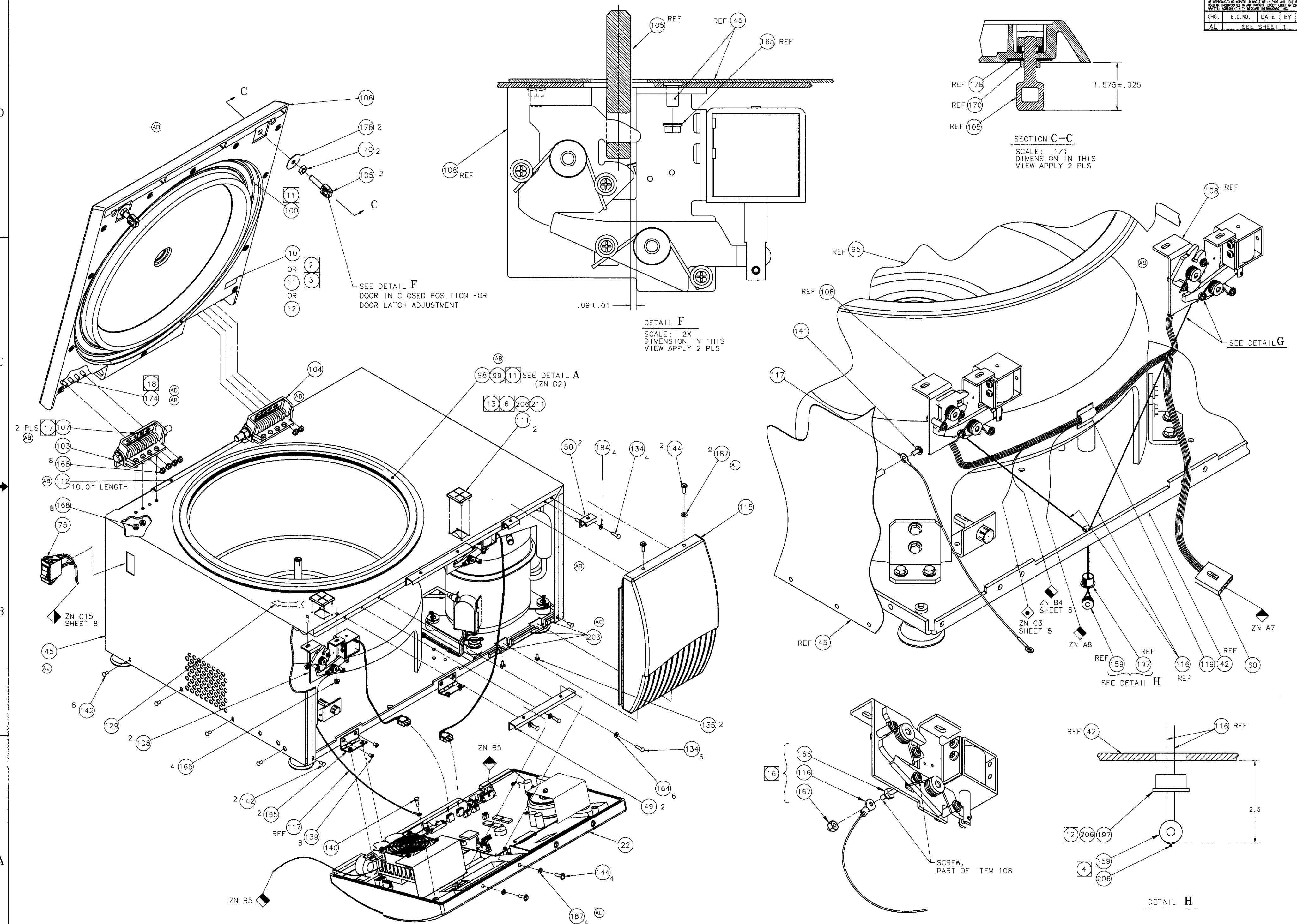
C

B

B

A

A



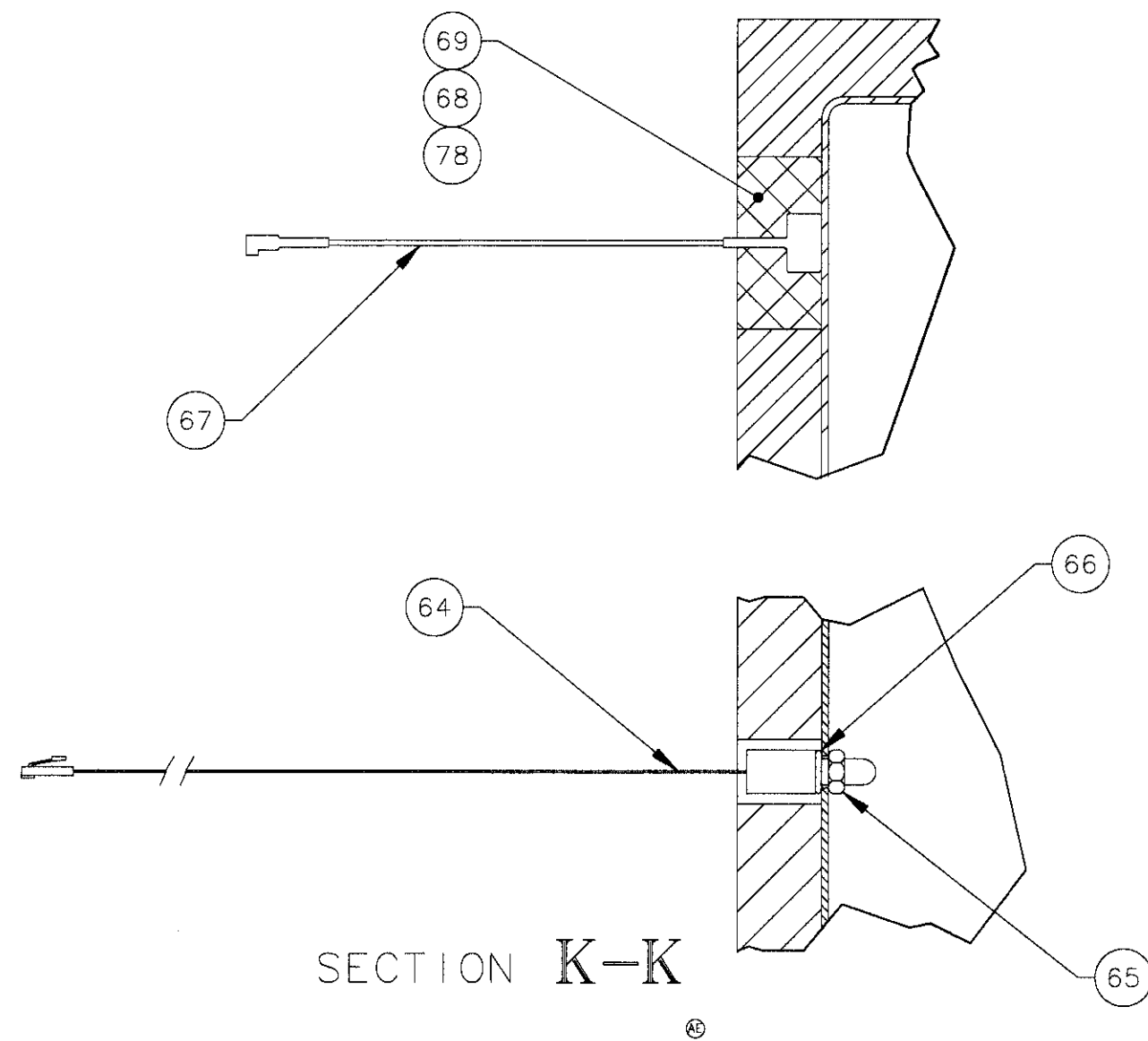
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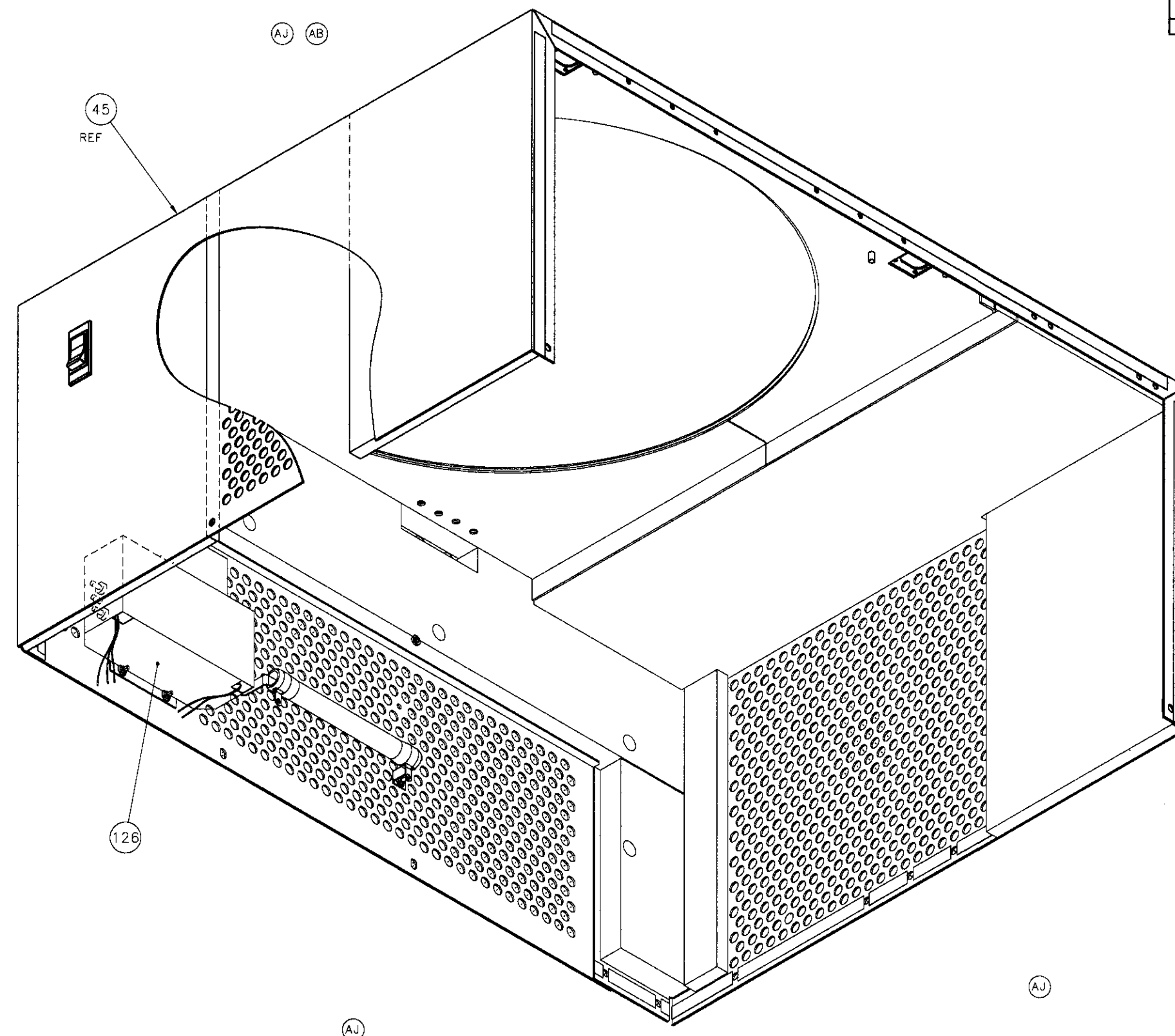
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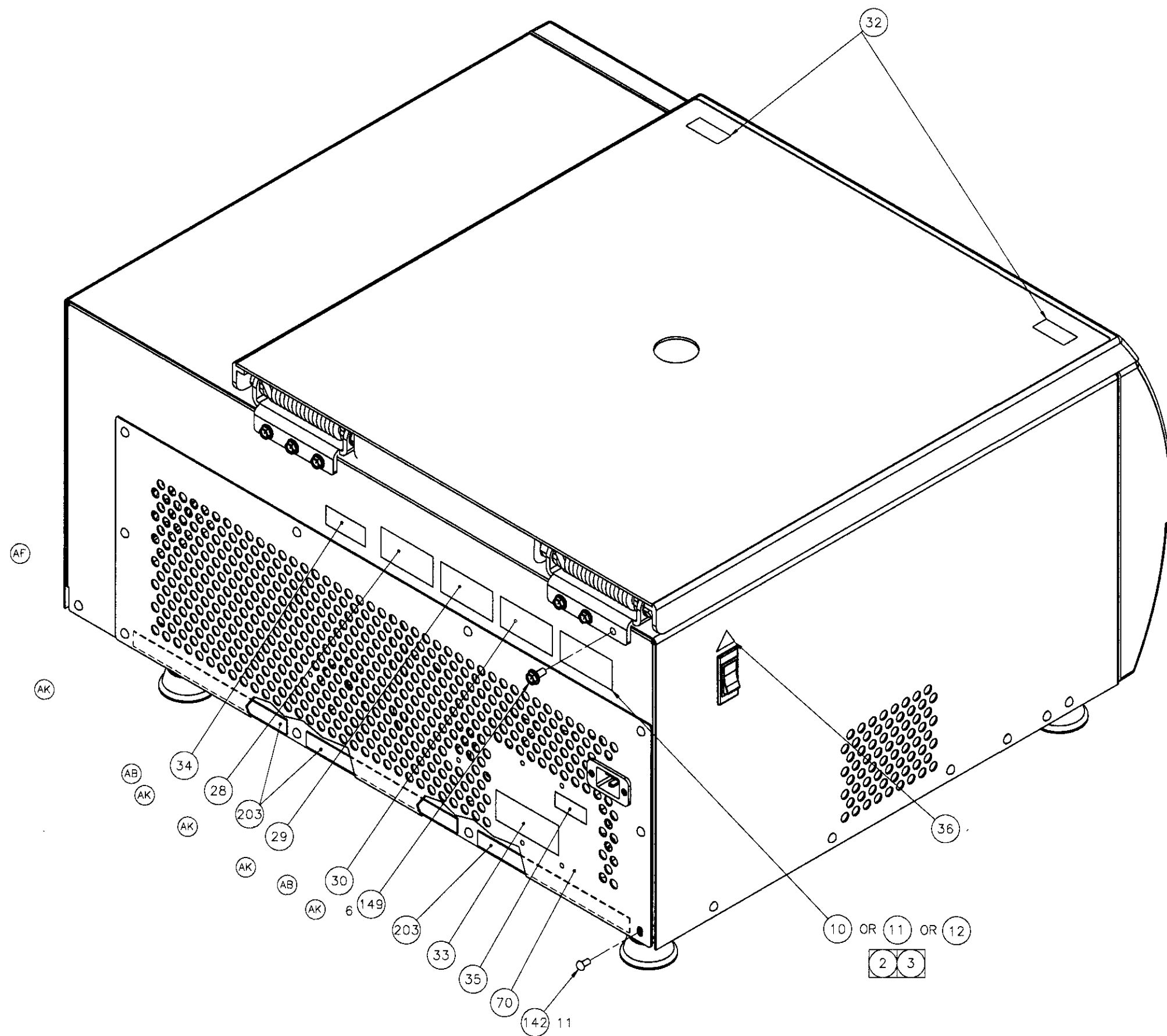
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AL		SEE SHEET 1		



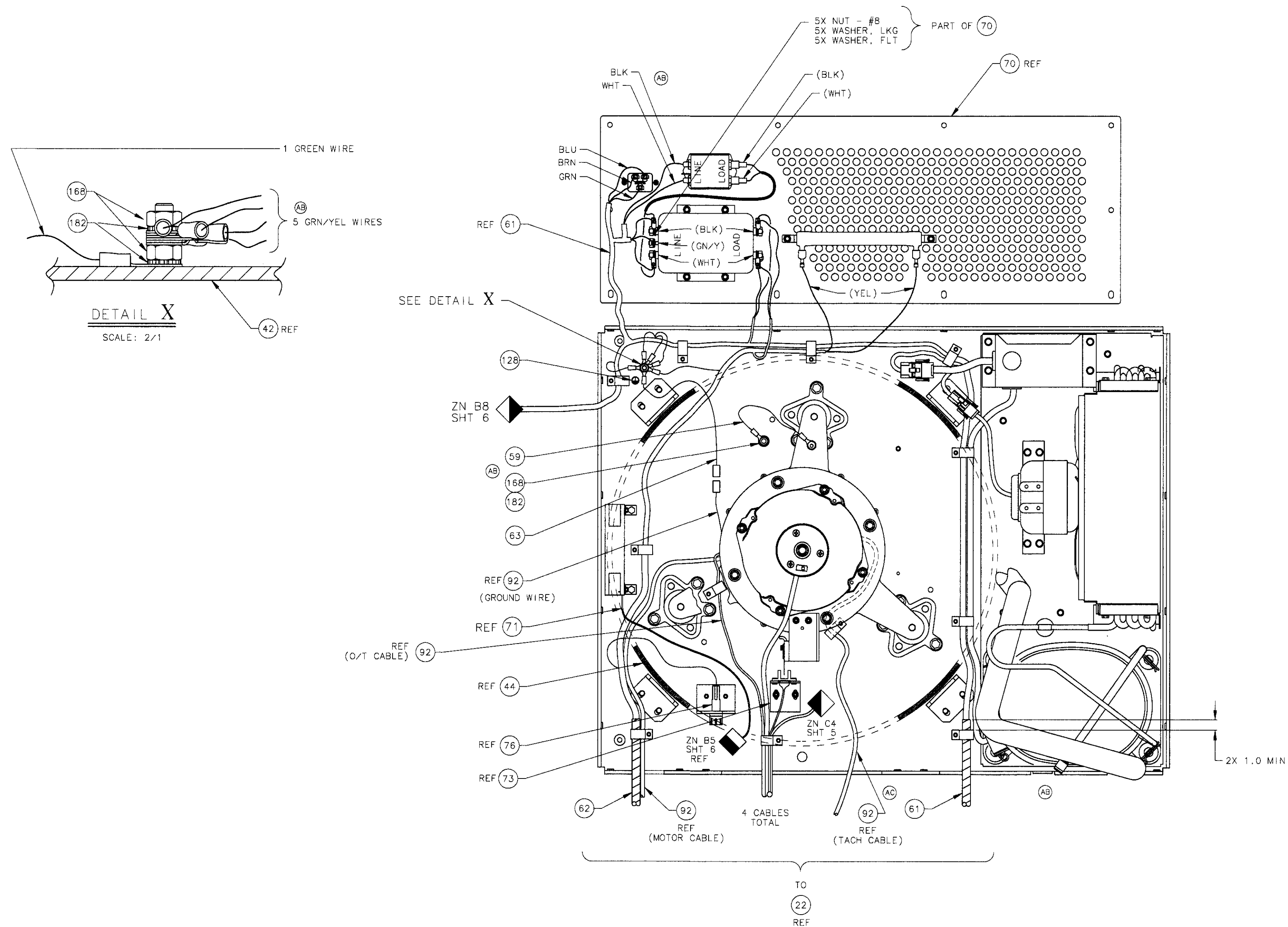
SECTION K-K



VIEW FROM BOTTOM UP

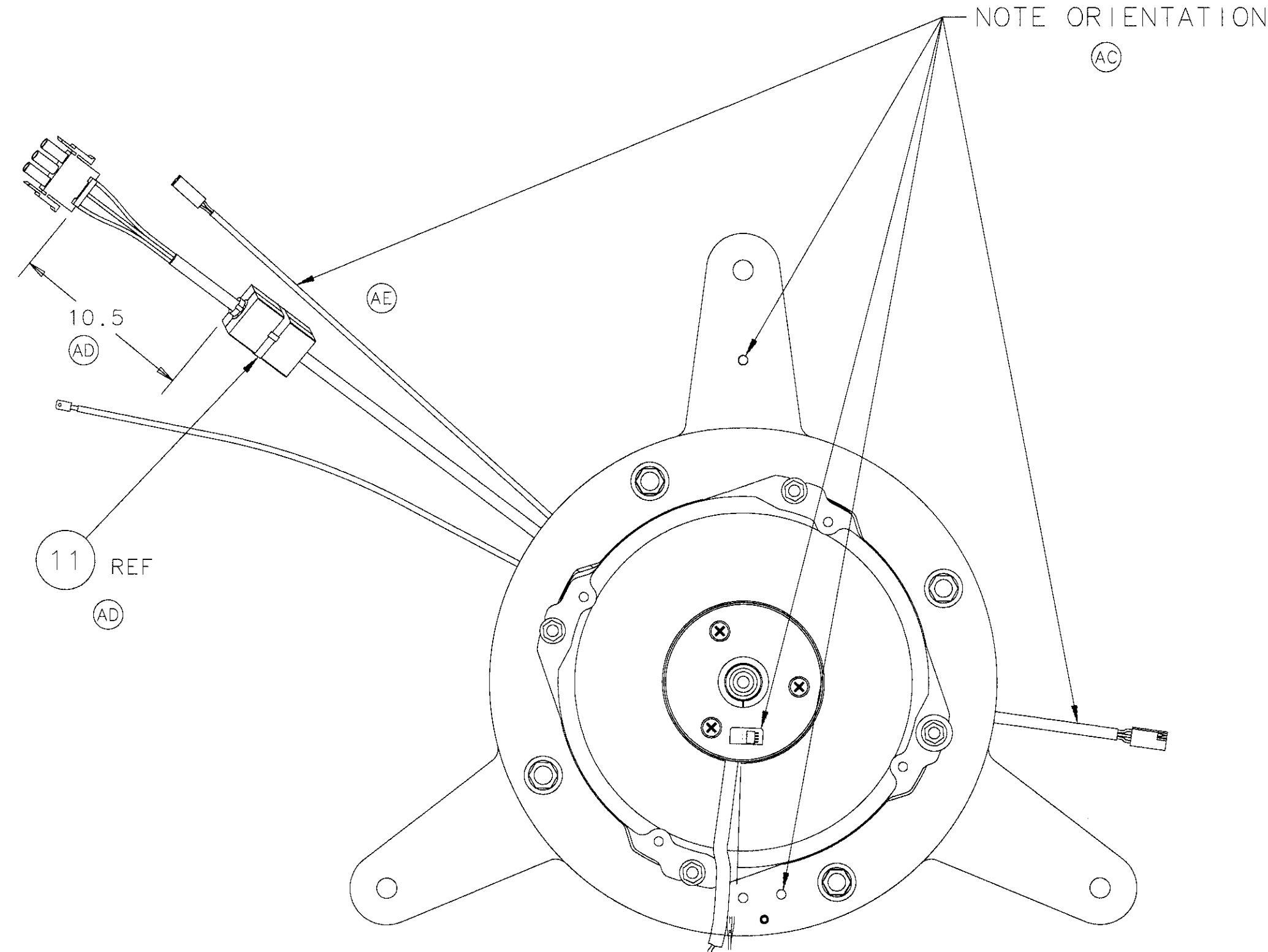
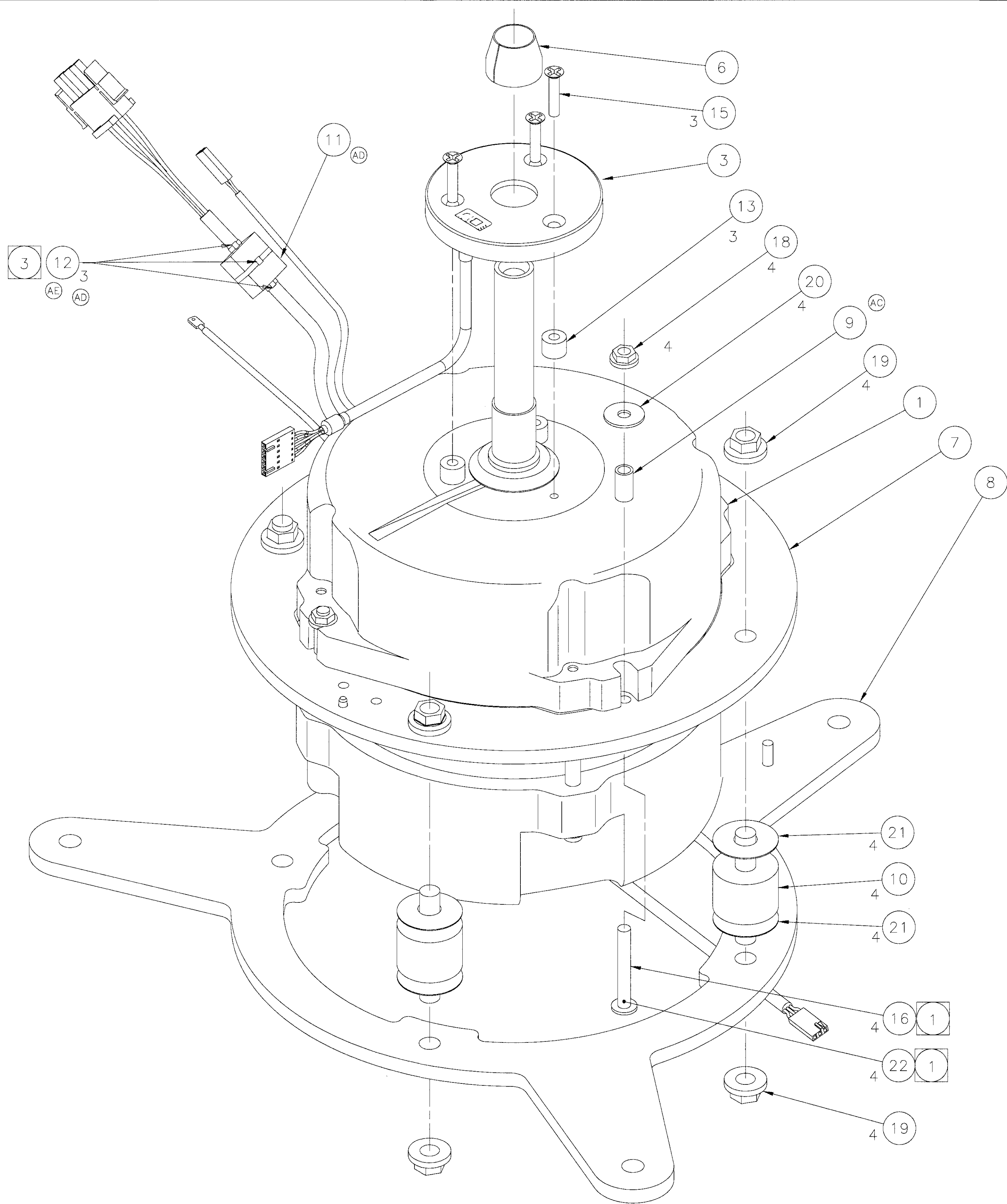


BECKMAN		BECKMAN INSTRUMENTS, INC.	
E		DWG. NO.	
07978		392930	
SCALE NONE		SHEET 7 OF 8	



CABLE AND HARNESS ROUTING

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CHG.	E.O.NO.	DATE	BY	CHK
AA	---	---	---	---
AB	42133	3/26/04	CWB	SC
AC	42147	4/8/04	CWB	SC
AD	42297	9/1/04	BDC	SC
AE	42567	8/4/05	SC	ADP



TOP VIEW

22				LOCTITE, 262
22	A/R	6000144		
21	8	961811		WASHER, SAND PAPER
20	4	878492		WASHER, FLAT #10 .199 ID X.64 OD SS
19	8	885321		NUT, SLFLKG. .312-18THD STL ZINC
18	4	964847		NUT, SLFLKG M5 X0.5 ZINC
17				
16	4	979224		SCREW, CAP M5 X 0.8 X 30MM BU SS HXS0
15	3	979177		SCREW, M4X0.7 X 20mm LG, FLAT 90° SS
14				
13	3	A17712		SPACER, .166 ID X .375 OD X.281 LG AL
12	3	878485		CABLE TIE
11	1	963700		BEAD, FILTER
10	4	392997		SANDWICH MOUNT, COMPRESSION
9	4	393000		SPACER, MOTOR TIE DOWN
8	(1)	392921		PLATE, SUSPENSION, MOTOR
7	(1)	392919		PLATE, RING MOUNT, MOTOR
6	1	392361		FERRULE, DRIVE SHAFT
5				
4				
3	1	392916		HOUSING ASSY, ROTOR ID
2				
1	1	392914		MOTOR, HANNING

- 3 SECURE OUTSIDE OF FILTER (ITEM 11) WITH CABLE TIES (ITEM 12).
- 2 QUANTITIES IN PARENTHESIS "()" ARE FOR REFERENCE ONLY. PARTS COME FROM JIT KIT 392949.
- 1 PRE-INSTALL SCREW (ITEM 16) TO RING MOUNT PLATE (ITEM 7). ADD ONE DROP LOCTITE (ITEM 22) TO SCREW (ITEM 16) ON AREA AS SHOWN.

NOTES: (UNLESS OTHERWISE SPECIFIED)

MATERIAL	UNLESS OTHERWISE SPECIFIED		ITEM	QTY	PART NO.	DESCRIPTION
	DIMENSIONS ARE IN INCHES TOLERANCES: .X +.050 ANGULAR +0° 30' .XX +.020 .XXX +.005 MACH. SURF. ✓ INTERNAL THD HEIGHT .55* MIN THREADS: CLASS 2A OR 2B REMOVE BURRS & SHARP EDGES .020 MAX. MACH. FILLET RADIUS .020 MAX. MACH. SURF. FLAT WITHIN .001 IN./IN. OTHER SURF. FLAT WITHIN .005 IN./IN. CONCENTRICITY MACH. SURF. T.I.R. WITHIN 1/2 SUM OF DIAS. TOLS., .001 MIN. DO NOT SCALE DRAWING		BY	DATE	BECKMAN BECKMAN INSTRUMENTS, INC. SPIND DIVISION 1500 PAGE MULL ROAD PALO ALTO, CALIFORNIA 94304	
FINISH			DR	H. TRAN	02-12-04	TITLE
			CHK	C.W. BROWN	3/4/04	DRIVE ASSEMBLY
			DSGN	H. TRAN	3/4/04	
			ENGR	G. ERMOL	3/4/04	
					D SIZE	CODE IDENT NO. DWG NO.
					07978 392923	
					MOD ALLEGRA X-15R SCALE NONE 1st USE 392931 SHEET 1 OF 1	

