

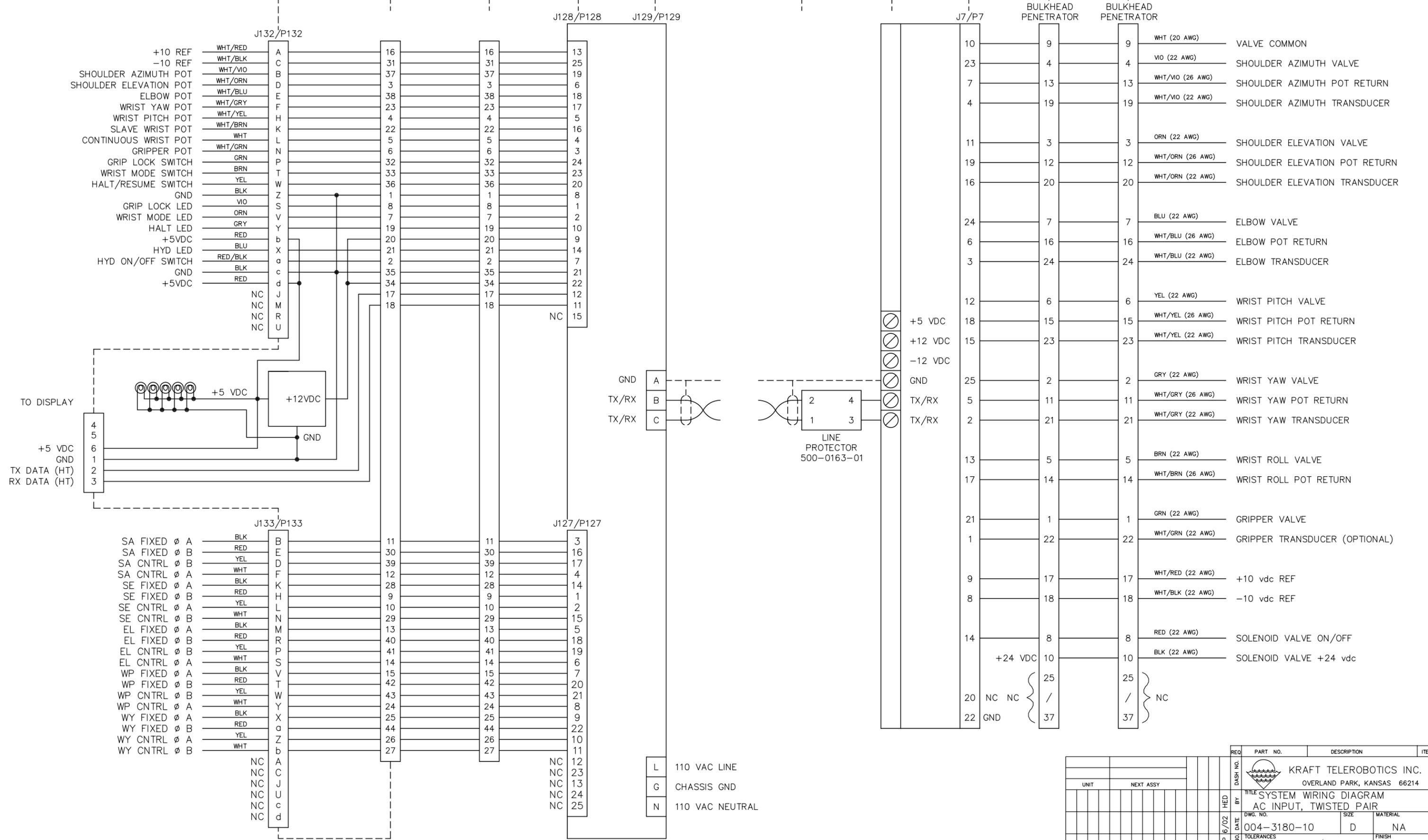
(REFER TO DRAWING NO. 004-3185-00) MASTER

SURFACE EQUIPMENT

VEHICLE EQUIPMENT

326-0034-00 CONSOLE  
326-0033-00 CABLE  
326-0032-00 "Y" ADAPTER  
KMC 9100 F CHASSIS

RSD 9100  
UMBILICAL  
SLAVE (REFER TO DRAWING NO. 004-3179-00)



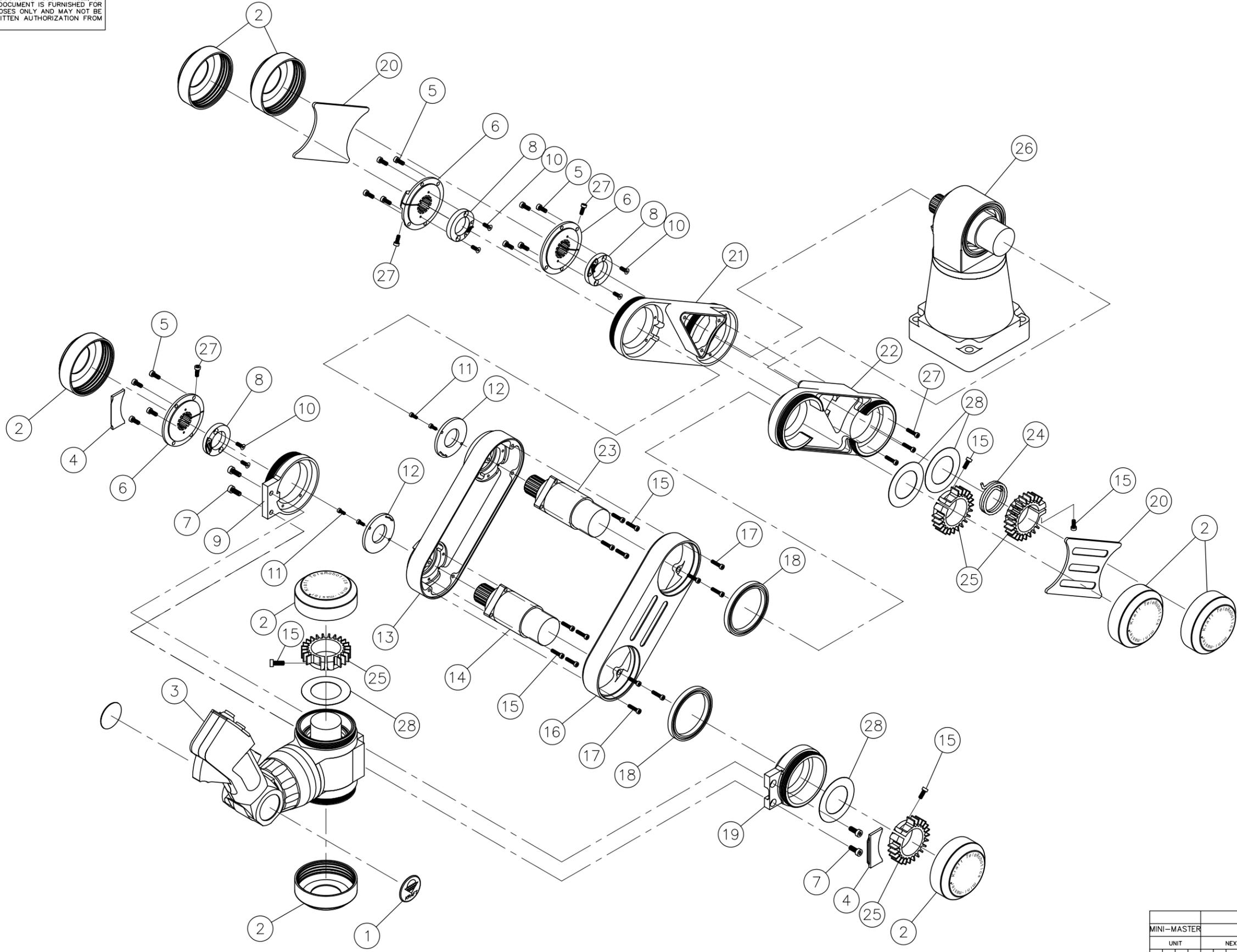
REV	DATE	BY	CHK	DATE	SCALE	SHT	OF
0	6/26/02	HED	OK		NA	1	1

REQ	PART NO.	DESCRIPTION	ITEM
		KRAFT TELEROBOTICS INC.	
		OVERLAND PARK, KANSAS 66214	
		TITLE SYSTEM WIRING DIAGRAM	
		AC INPUT, TWISTED PAIR	
		DWG. NO. 004-3180-10	SIZE D
		TOLERANCES	FINISH
		XX ±	INCHES
		XXX ±	INCHES
		SCALE	NA



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028	052-5019-20	WASHER	4
027	050-0280-06	SCREW, 4-40 x 3/8 SHC	6
026	600-0257-00	AZIMUTH/SHOULDER ASS'Y	1
025	066-0821-01	HEATSINK	4
024	053-4003-00	SPRING, TORSION; LEFT HAND	1
023	600-0261-00	ACTUATOR	1
022	066-0801-01	UPPER ARM; LEFT HALF	1
021	066-0800-01	UPPER ARM; RIGHT HALF	1
020	066-0802-01	COVER, UPPER ARM	2
019	066-0797-01	BRACKET, PITCH/YAW LEFT	1
018	093-5019-00	BEARING, BALL	2
017	050-0280-08	SCREW, 4-40 x 1/2 SHC	6
016	066-0799-01	FOREARM; LEFT HALF	1
015	050-0276-06	SCREW, 2-56 x 3/8 SHC	12
014	600-0260-00	ACTUATOR	1
013	066-0798-01	FOREARM; RIGHT HALF	1
012	529-0144-00	ELEMENT, POTENTIOMETER	2
011	050-0273-04	SCREW, 0-80 x 1/4 SHC	4
010	050-0429-04	SCREW, 0-80 x 1/4 FHP	6
009	066-0796-01	BRACKET, PITCH/YAW RIGHT	1
008	529-0145-00	WIPER, POTENTIOMETER	3
007	050-0280-05	SCREW, 4-40 x 5/16 SHC	4
006	068-0500-01	COUPLING	3
005	050-0276-04	SCREW, 2-56 x 1/4 SHC	12
004	066-0803-01	COVER	2
003	600-0256-00	GRIP/ROLL/YAW ASS'Y	1
002	068-0501-02	CAP	8
001	014-2094-00	LOGO, KRAFT ENCAPSULATED	2
ITEM	PART NO.	DESCRIPTION	QTY

MINI-MASTER		DASH NO.		KRAFT TELEROBOTICS INC.	
UNIT		NEXT ASSY		OVERLAND PARK, KANSAS 66214	
HED BY		BY		TITLE	
DATE		DATE		FINAL ASSEMBLY	
REV		ECO NO.		DWG. NO.	
2				700-9075-00	
CAD		NO.		SIZE	
7/04				MATERIAL	
DATE		DATE		FINISH	
02/01/04		02/01/04		xx ±.01 INCHES	
				xxx ±.005 INCHES	
				SCALE	
				SHR 1	
				NTS	
				of 1	

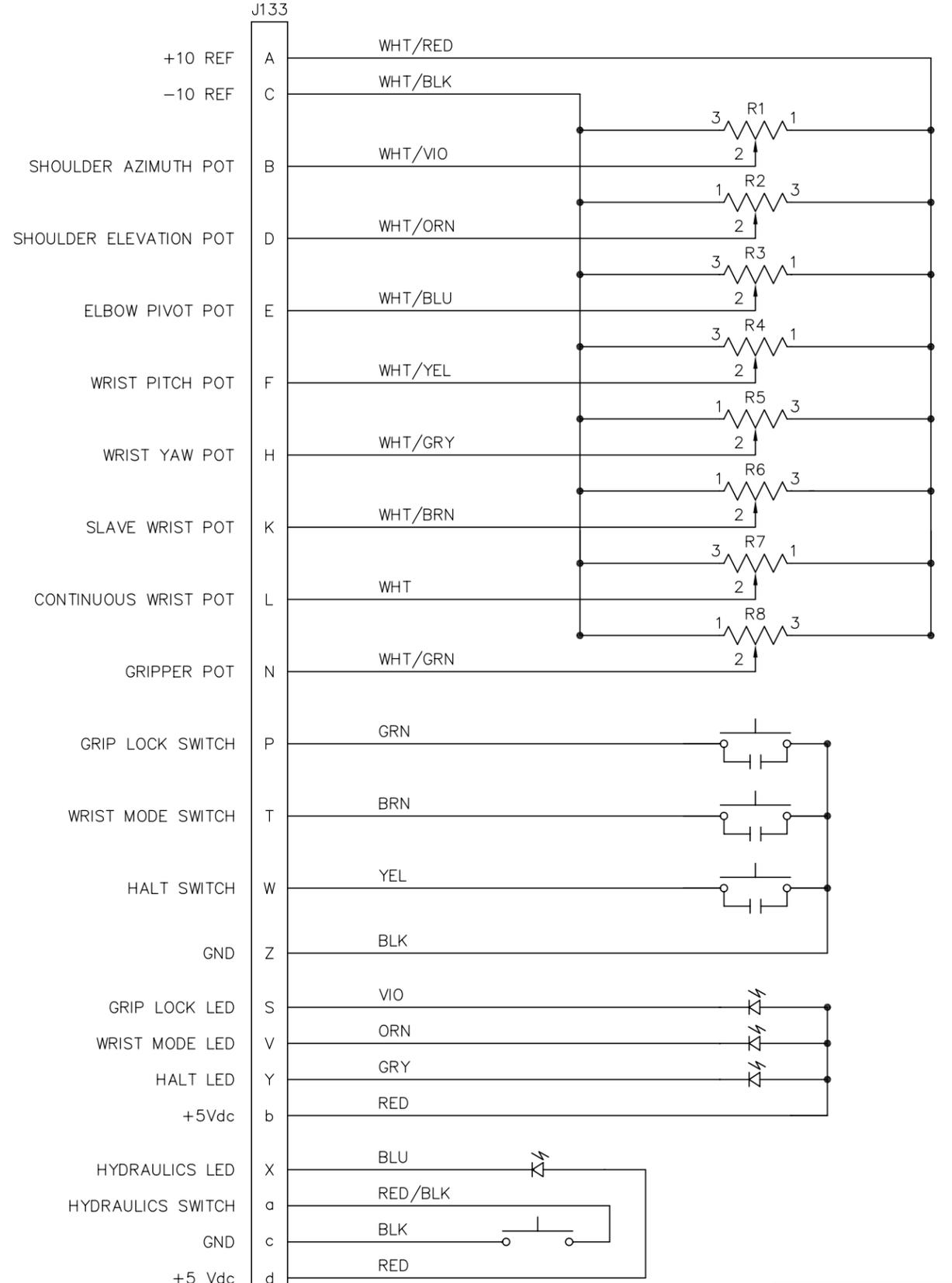
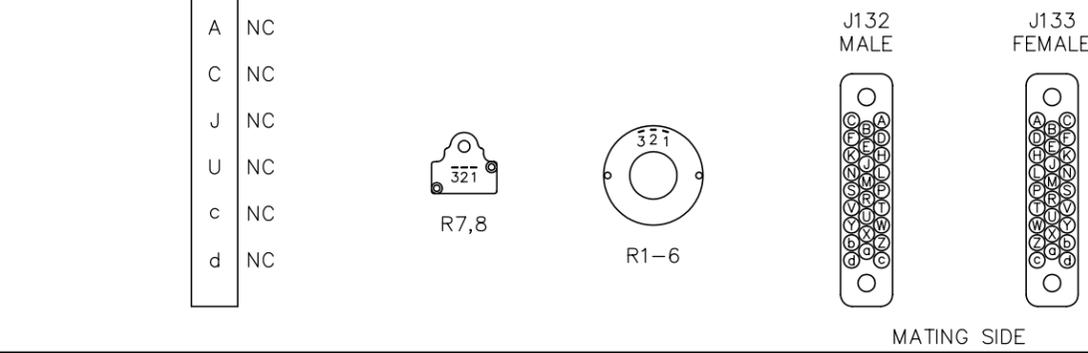
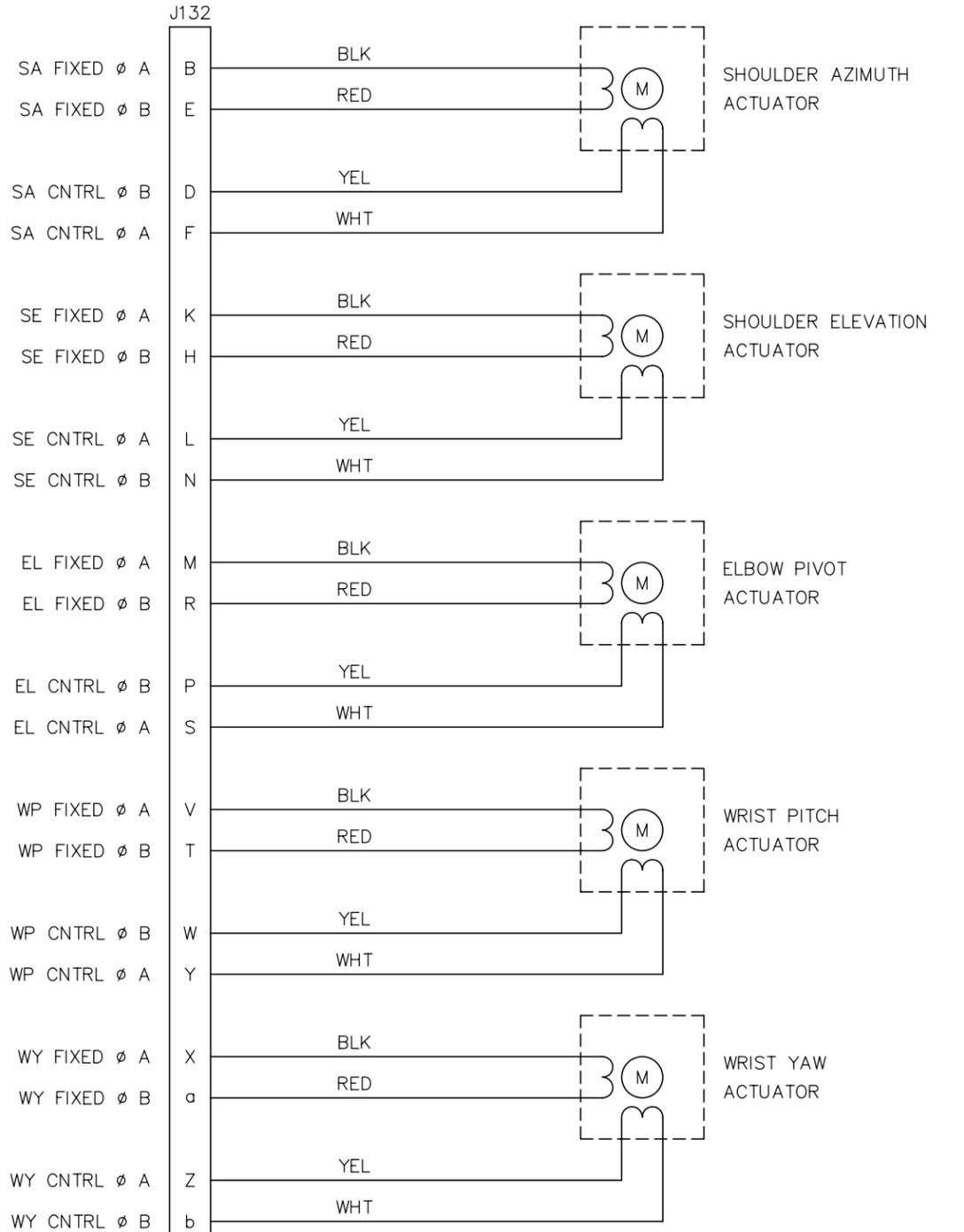








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REV	ECO NO.	DATE	BY	CHK	DATE	UNIT	DESCRIPTION	ITEM
0		4/5/01	HED					
1		4/7/01	HED					
2		5/02	HED					

REV	ECO NO.	DATE	BY	CHK	DATE	UNIT	DESCRIPTION	ITEM
0		4/5/01	HED					
1		4/7/01	HED					
2		5/02	HED					

REV	ECO NO.	DATE	BY	CHK	DATE	UNIT	DESCRIPTION	ITEM
0		4/5/01	HED					
1		4/7/01	HED					
2		5/02	HED					

REV	ECO NO.	DATE	BY	CHK	DATE	UNIT	DESCRIPTION	ITEM
0		4/5/01	HED					
1		4/7/01	HED					
2		5/02	HED					

REQ PART NO. DESCRIPTION ITEM

KRAFT TELEROBOTICS INC.  
OVERLAND PARK, KANSAS 66214

TITLE: WIRING DIAGRAM, MINI-MASTER HAND CONTROLLER (PREDATOR/RAPTOR)

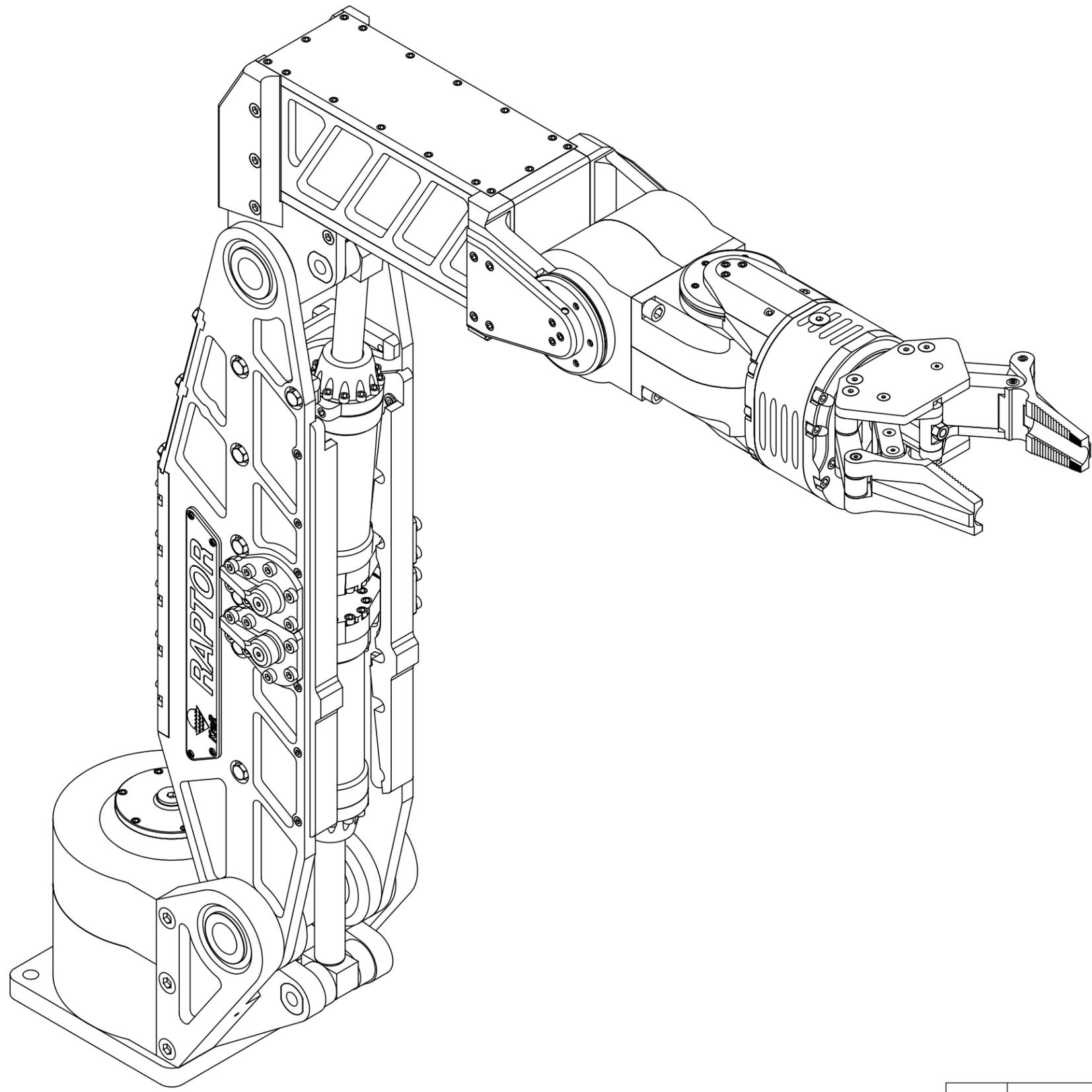
DWG. NO. 004-3185-00 SIZE D MATERIAL NA

TOLERANCES: .XX ± INCHES FINISH NA

SCALE: NA

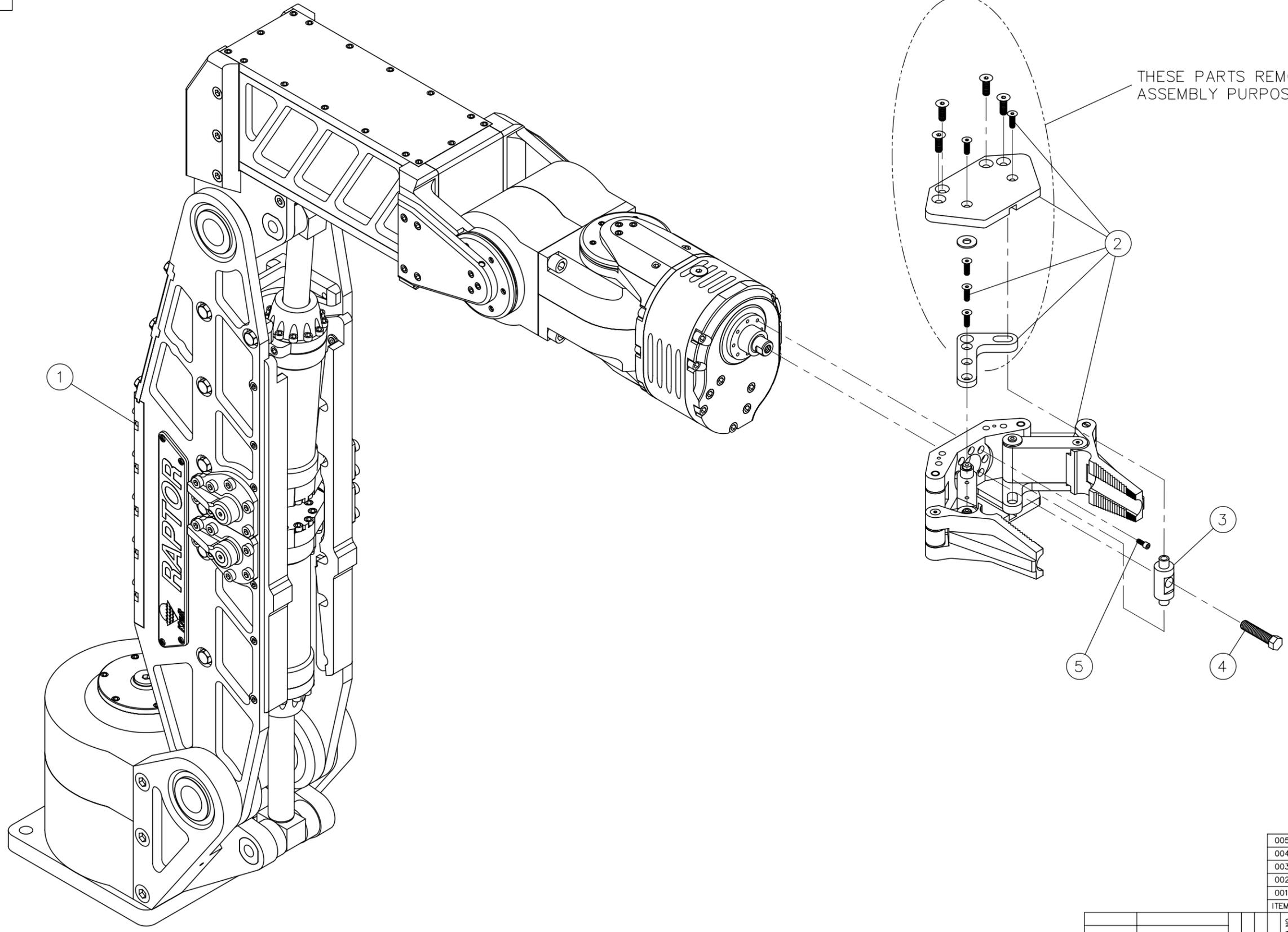
DATE: 4/5/01

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UNIT		NEXT ASSY		DASH NO.		KRAFT TELEROBOTICS INC. OVERLAND PARK, KANSAS 66214	
HED		BY		TITLE		RAPTOR MANIPULATOR	
CAD NO.		DATE		DWG. NO.		SIZE	
1		7/03		620-0040-00		MATERIAL	
REV		ECCO NO.		TOLERANCES		FINISH	
1		1		.XX ± INCHES		ELEC	
DATE		DATE		.XXX ± INCHES		MECH	
6/22/03		6/22/03		SCALE		SHT	
RLC		CHK		NTS		1	
DATE		DATE		DATE		OF	
6/22/03		6/22/03		6/22/03		1	

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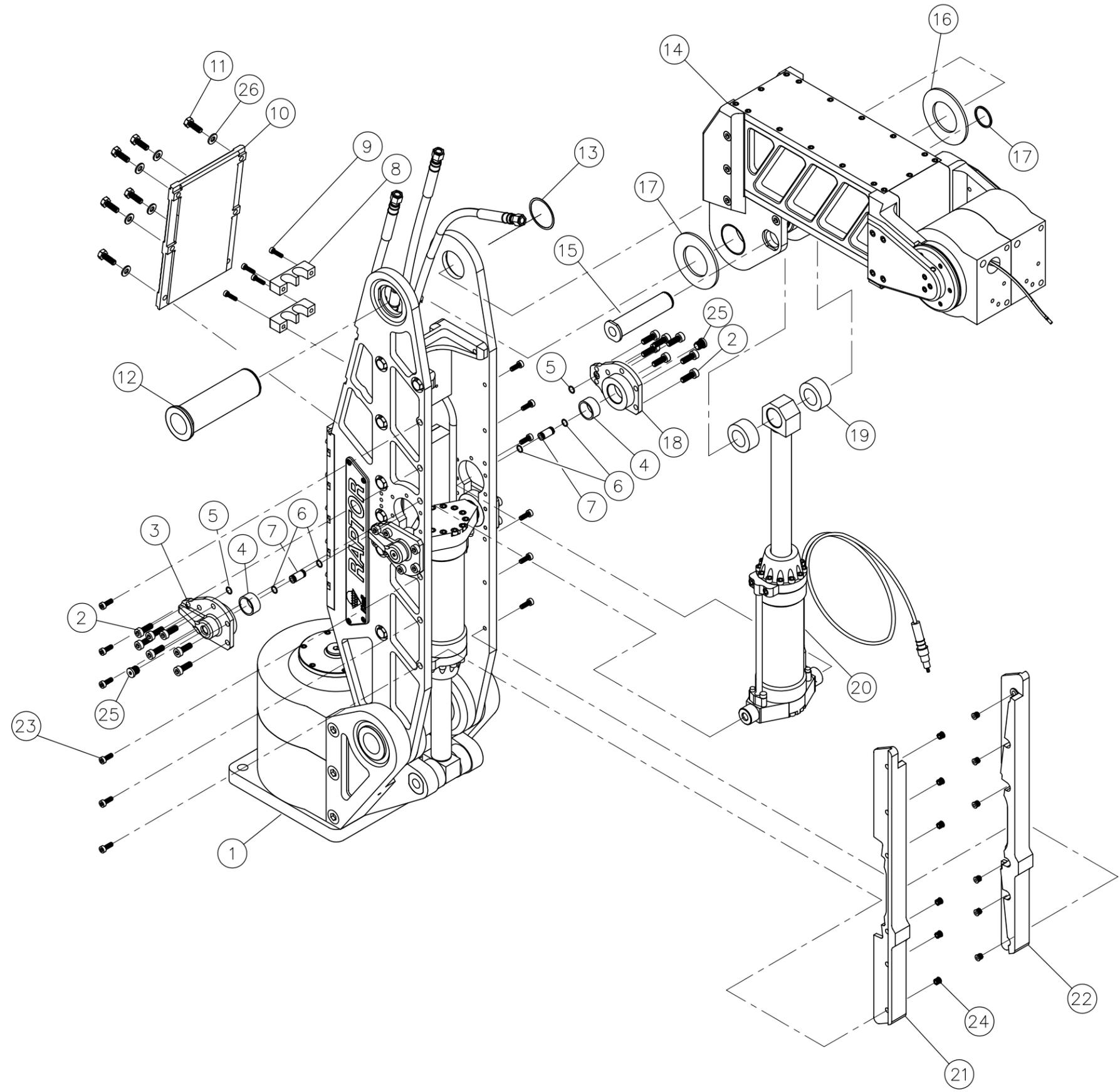


005	050-0288-10	SCREW, SHC 10-24 x 5/8	4
004	050-0338-24	SCREW, HHC 7/16-20 x 1 1/2	1
003	068-0537-00	SWIVEL	1
002	600-0133-02	GRIPPER ASS'Y	1
001	600-0250-01	ARM/WRIST ASS'Y	1
ITEM	PART NO.	DESCRIPTION	QTY

UNIT		NEXT ASSY		DASH NO.		KRAFT TELEROBOTICS INC. OVERLAND PARK, KANSAS 66214	
TITLE		RAPTOR FINAL ASSEMBLY		DATE		DATE	
DWG. NO.		700-9061-00		SIZE		MATERIAL	
TOLERANCES		.xx ±		INCHES		FINISH	
ANGLES ±		.xxx ±		INCHES		SCALE	
DRN	RLC	CHK	MECH	ELEC	SCALE	SHR	1
DATE	6/22/03	DATE	DATE	DATE	NTS	OF	1



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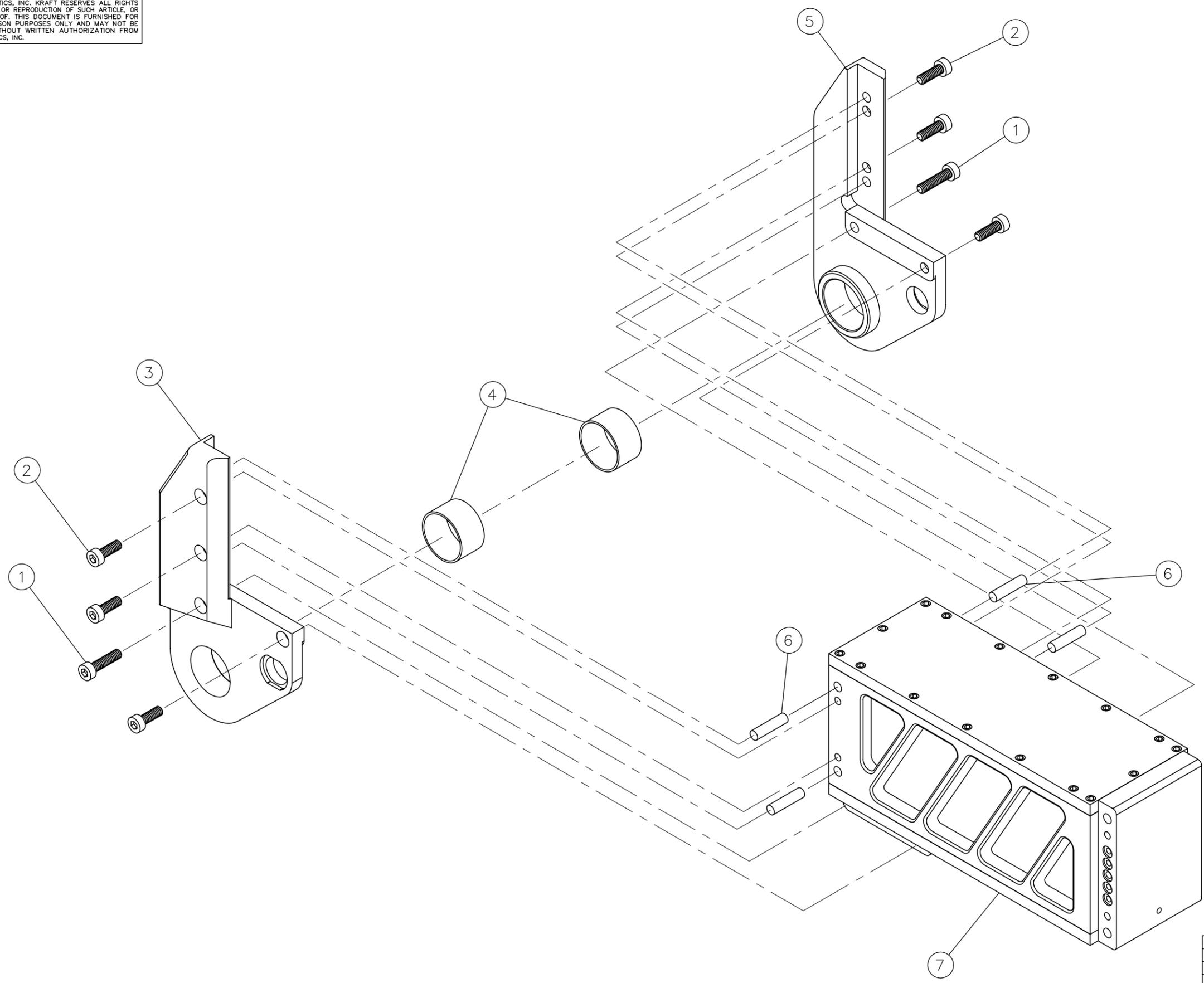


ITEM	PART NO.	DESCRIPTION	REQ
026	052-6010-11	WASHER, FLAT; (SS) 1/4"	6
025	096-0142-04	PLUG	2
024	058-0288-00	INSERT, 10-32	12
023	050-0289-08	SCREW, SHC 10-32 X 1/2	12
022	066-0854-00	BUMPER, LEFT	1
021	066-0853-00	BUMPER, RIGHT	1
020	600-0242-00	ACTUATOR, LINEAR	1
019	068-0489-00	SPACER	2
018	066-0770-02	TRUNION PORT CAP, LEFT	1
017	058-0282-14	RING, RETAINING	1
016	093-7026-24	BEARING	2
015	068-0475-00	PIN, ROD	1
014	600-0248-01	FOREARM/WRIST PITCH ASS'Y	1
013	058-0282-24	RING, RETAINING	1
012	068-0476-00	PIN, ELBOW	1
011	050-0331-12	SCREW, HHC 1/4-20 X 3/4	6
010	066-0852-01	COVER, UPPER ARM	1
009	050-0288-16	SCREW, SHC 10-24 X 1	4
008	066-0782-01	CLAMP	2
007	068-0496-00	PIN, TRUNION PORT	2
006	099-2010-37	O-RING	4
005	099-2009-37	O-RING	2
004	093-7023-08	BEARING	2
003	066-0769-02	TRUNION PORT CAP; RIGHT	1
002	050-0292-12	SCREW, SHC 1/4-20 X 3/4	14
001	600-0245-01	AZ ACT/UPPER ARM ASS'Y	1

RAPTOR		600-0250-01		DASH NO.		KRAFT TELEROBOTICS INC.	
UNIT		NEXT ASSY		BY		OVERLAND PARK, KANSAS 66214	
HED		TITLE		DATE		SCALE	
7/03		UPPER ARM/FOREARM ASSEMBLY		6/22/03		NTS	
REV		DWG. NO.		SIZE		MATERIAL	
1		600-0249-00/01		XX ±		INCHES	
ECCO		TOLERANCES		XXX ±		INCHES	
NO.		DRN		ELEC		MECH	
1		RLC		DATE		DATE	
DATE		DATE		DATE		SCALE	
6/22/03		DATE		DATE		1	
						1	



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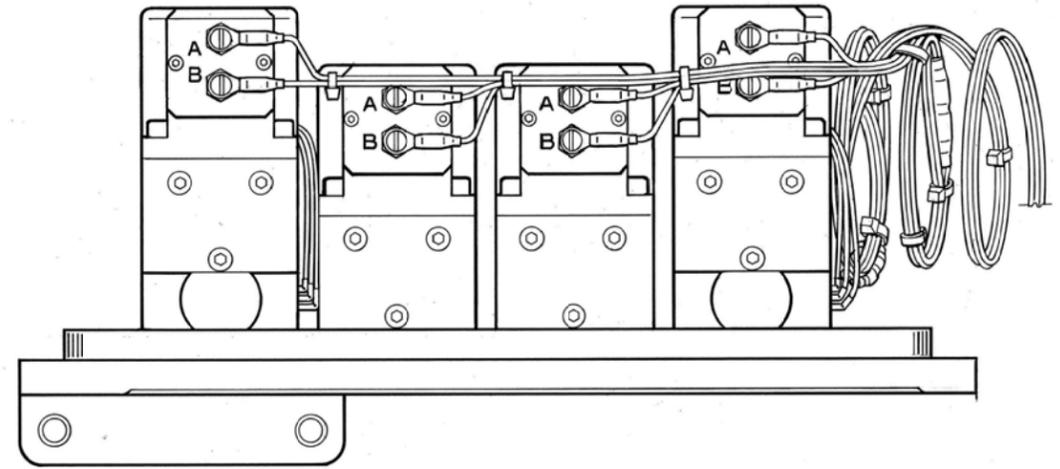
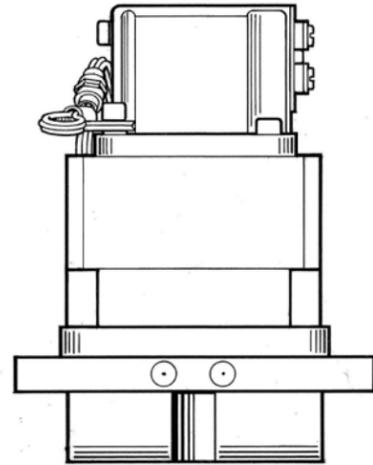
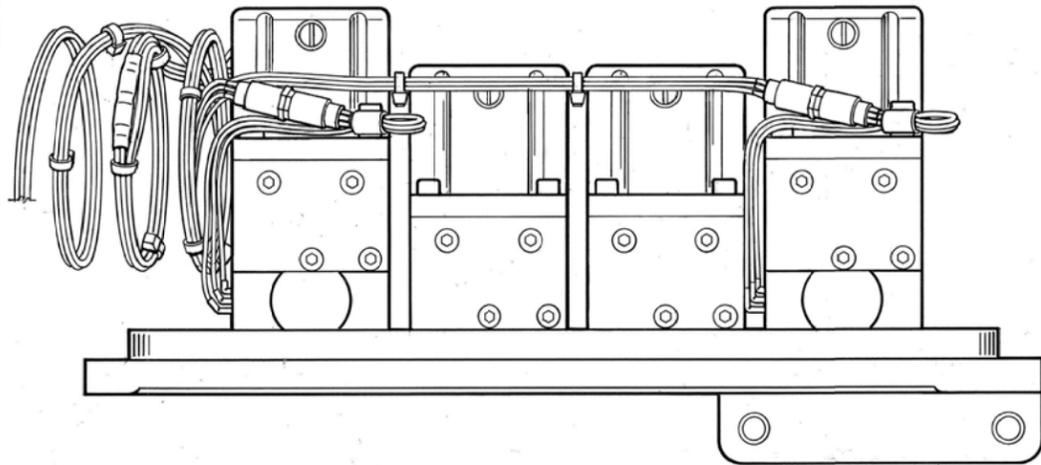
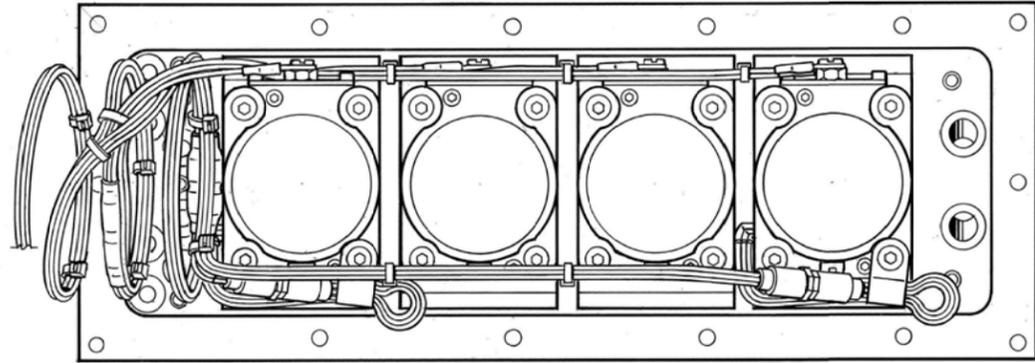


ITEM	PART NO.	DESCRIPTION	QTY
007	600-0246-01	FOREARM MANIFOLD ASS'Y	1
006	057-1006-16	PIN, DOWEL 5/16 x 1 (SS)	4
005	066-0784-01	BRKT, ELBOW; LEFT	1
004	093-7024-14	BEARING, FILAMENT	2
003	066-0783-01	BRKT, ELBOW; RIGHT	1
002	050-0294-14	SCREW, SHC 5/16-18 x 7/8	6
001	050-0294-24	SCREW, SHC 5/16-18 x 1 1/2	2

RAPTOR		600-0248-01		DASH NO.		KRAFT TELEROBOTICS INC.	
UNIT		NEXT ASSY		BY		OVERLAND PARK, KANSAS 66214	
HED		TITLE		DATE		FOREARM ELBOW/ASS'Y	
REV		DWG. NO.		SIZE		MATERIAL	
1		600-0247-01		7/03			
CAD		TOLERANCES		FINISH			
ECCO		ANGLES ±		XXX ±		INCHES	
NO.		DRN		ELEC		MECH	
3/6/03		RLC		DATE		SCALE	
		DATE		DATE		SHT	
						1	
						of	
						1	
						NTS	



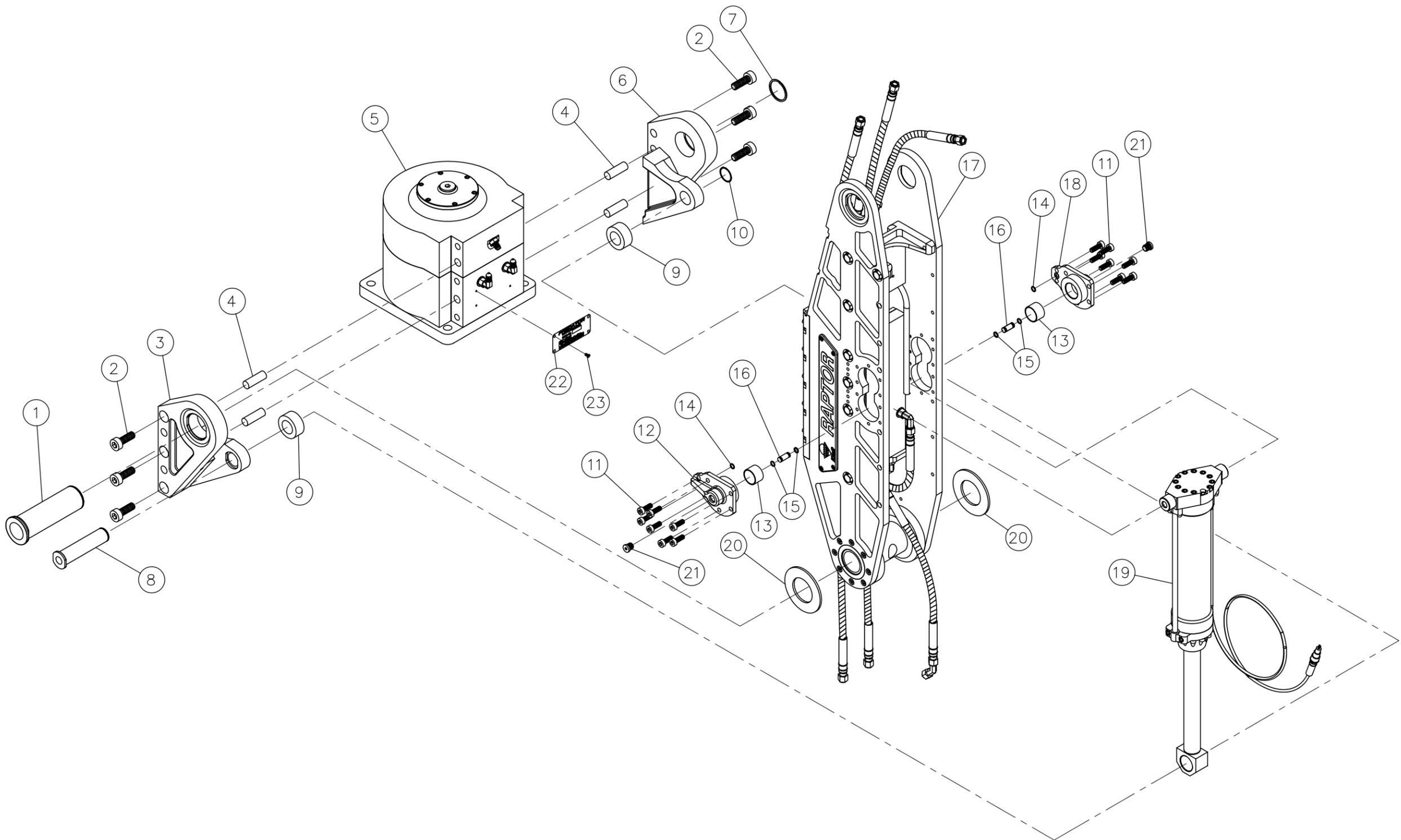
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REQ.	PART NO.	DESCRIPTION	ITEM
		KRAFT TELEROBOTICS INC. OVERLAND PARK, KANSAS 66214	
		TITLE FOREARM VALVE MANIFOLD ASS'Y	
		DWG. NO. 600-0246-01	SIZE D
		TOLERANCES xx ±.01 INCHES xxx ±.005 INCHES	FINISH
		ANGLS ±1/2°	SCALE
		DRN LDB	SHF 2
		DATE 9/30/98	OF 3
			NTS



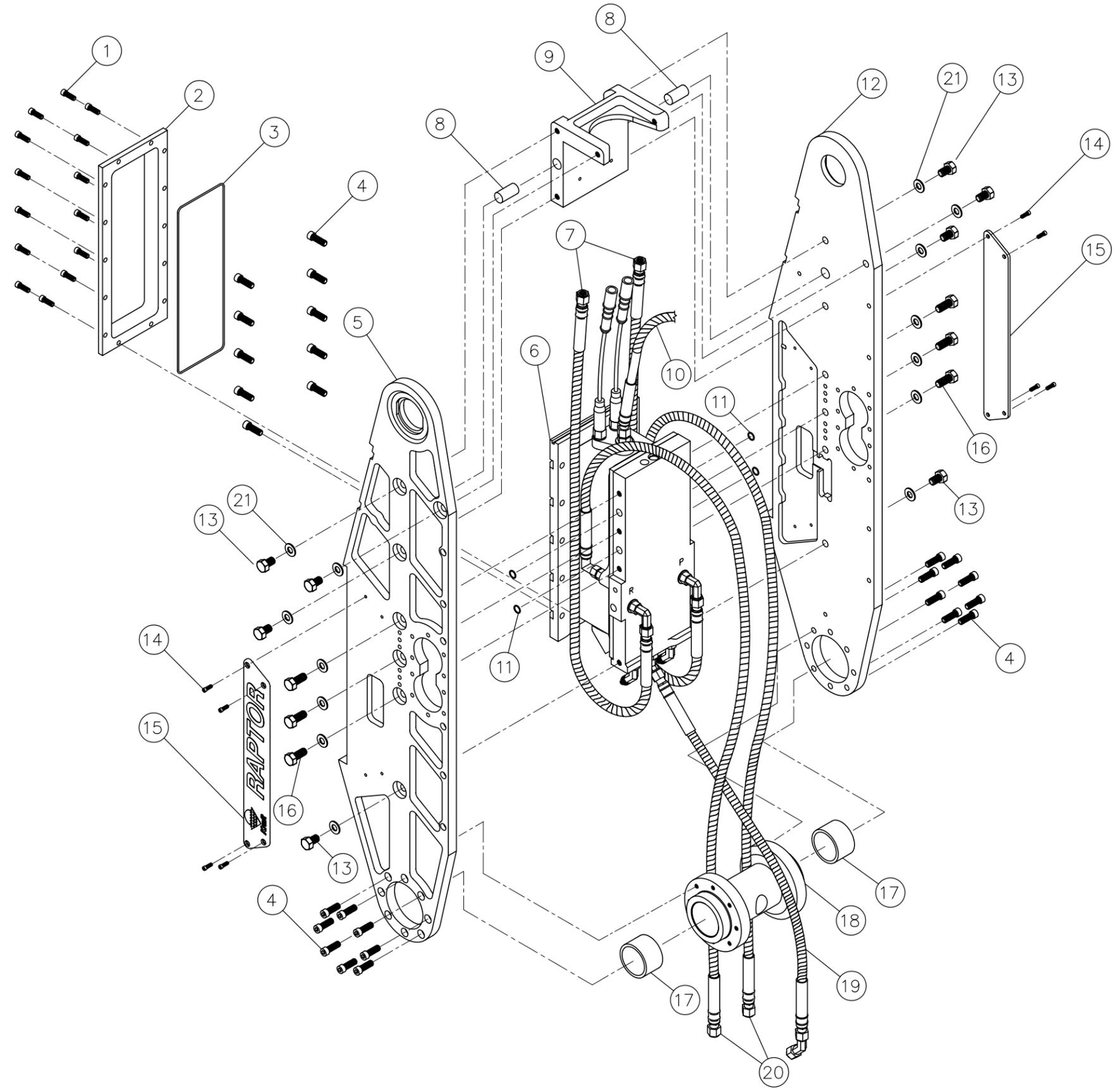
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ITEM	PART NO.	DESCRIPTION	QTY
023	050-0167-04	SCREW, BHS 6-32 x 1/4	4
022	014-2091-00	SERIAL NUMBER PLATE	1
021	096-0124-00	PLUG	2
020	093-7026-24	BEARING	2
019	600-0242-00	ACTUATOR, LINEAR	1
018	066-0769-02	TRUNION PORT CAP; RIGHT	1
017	600-0244-01	UPPER ARM, ASS'Y	1
016	068-0496-00	PIN, TRUNION PORT	2
015	099-2010-37	O-RING	4
014	099-2009-37	O-RING	2
013	093-7023-08	BEARING	2
012	066-0770-02	TRUNION PORT CAP; LEFT	1
011	050-0292-12	SCREW, SHC 1/4-20 x 3/4	14
010	058-0282-14	RING, RETAINING	1
009	068-0489-01	SPACER	2
008	068-0475-00	PIN, ROD	1
007	058-0282-24	RING, RETAINING	1
006	066-0790-01	BRKT, ELEVATION; LEFT	1
005	600-0224-00	AZIMUTH ACTUATOR ASS'Y	1
004	057-1007-24	PIN, DOWEL 1/2 x 1 1/2 (SS)	4
003	066-0789-01	BRKT, ELEVATION; RIGHT	1
002	050-0300-20	SCREW, SHC 1/2-13 x 1 1/4	6
001	068-0498-00	PIN, SHOULDER	1

RAPTOR		600-0246-01		DASH NO.	
UNIT	NEXT ASSY	KRAFT TELEROBOTICS INC. OVERLAND PARK, KANSAS 66214			
		TITLE UPPER ARM/AZIMUTH ACTUATOR ASS'Y W/FFB			
		DWG. NO. 600-0245-01		SIZE	MATERIAL
		TOLERANCES			
		XX ±		INCHES	
		XXX ±		INCHES	
		DRN	ELEC	MECH	SCALE
2	RLC	CHK	DATE	DATE	DATE
					1
					1
					NTS

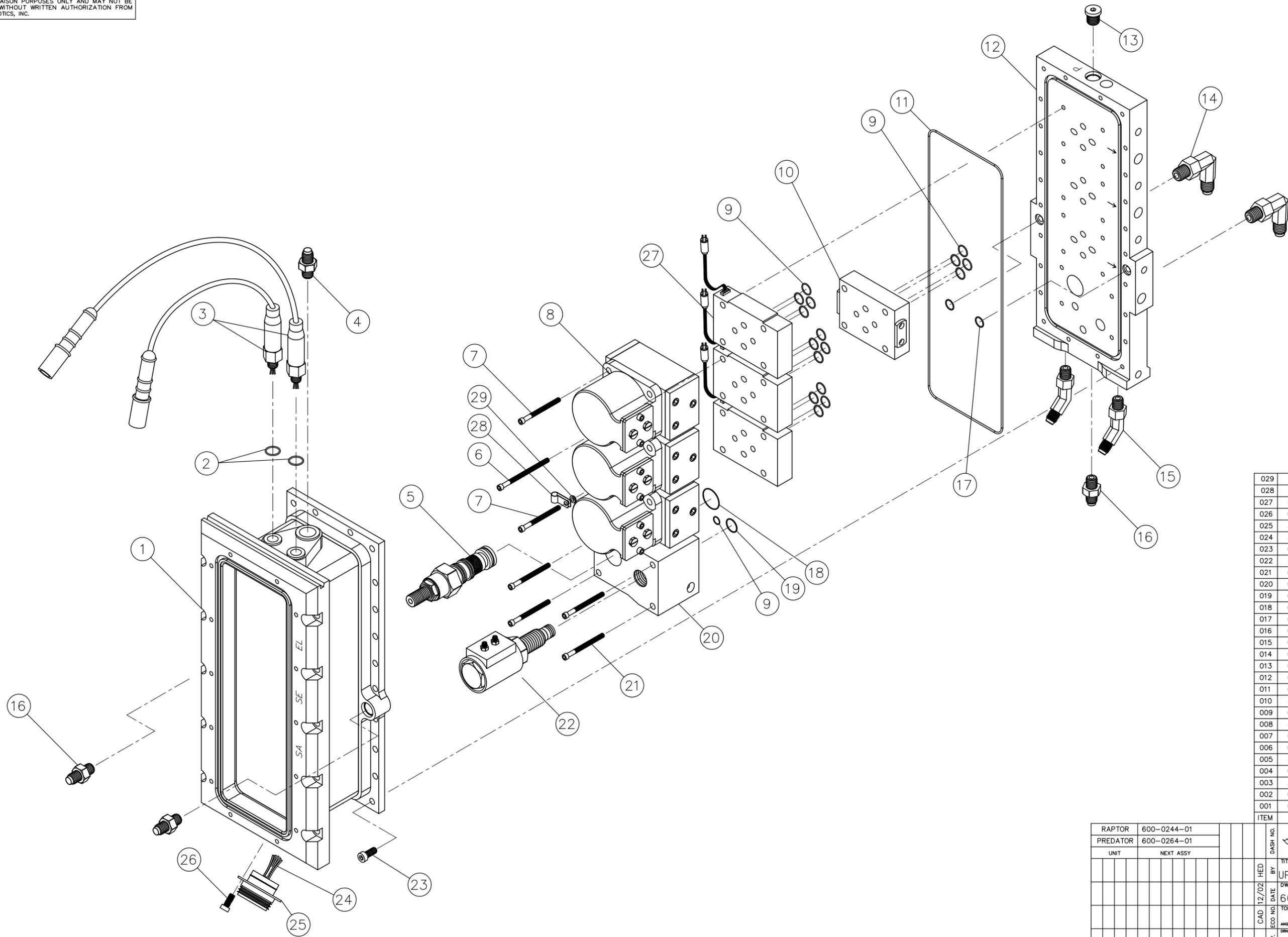
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021	052-6011-11	WASHER, FLAT; 5/16" (SS)	14
020	097-0195-00	HOSE, SA A/B	2
019	097-0796-00	HOSE, UA-SA COMP	1
018	068-0497-01	SPOOL	1
017	093-7024-16	BEARING	2
016	050-0333-12	SCREW, HHC 5/16-18 x 1	2
015	066-0788-01	NAME PLATE	2
014	050-0286-06	SCREW, SHC 8-32 x 3/8	8
013	050-0333-16	SCREW, HHC 5/16-18 x 3/4	12
012	060-0851-01	UPPER ARM PLATE, LEFT	1
011	099-2009-37	O-RING	4
010	097-0194-00	HOSE, UA-FA COMP	1
009	066-0781-01	BRACKET, UPPERARM "L"	1
008	057-1007-16	PIN, DOWEL 1/2 x 1 (SS)	2
007	097-0193-00	HOSE, UA-FA P/R	2
006	600-0243-01	UPPER ARM MANIFOLD ASSEMBLY	1
005	060-0850-01	UPPER ARM PLATE, RIGHT	1
004	050-0292-12	SCREW, SHC 1/4-20 x 3/4	26
003	099-2169-37	O-RING	1
002	066-0774-01	VALVE COVER	1
001	050-0288-08	SCREW, SHC 10-24 x 1/2	14
ITEM	PART NO.	DESCRIPTION	REQ.

RAPTOR		600-0245-01		DASH NO.		KRAFT TELEROBOTICS INC.	
UNIT		NEXT ASSY		BY		OVERLAND PARK, KANSAS 66214	
HED		TITLE		DATE		UPPER ARM ASS'Y W/FFB	
7/03		600-0244-01		DATE		4/6/03	
REV		ELEC		MATERIAL		FINISH	
2		RLC		XX ±		INCHES	
DATE		DATE		XXX ±		INCHES	
4/6/03		DATE		SCALE		SHT 1	
		DATE		NTS		OF 1	

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ITEM	PART NO.	DESCRIPTION	QTY
029	068-0409-00	SPACER	3
028	058-0204-02	WIRE CLAMP	3
027	576-0125-03	PRESSURE TRANSDUCER	3
026	050-0286-06	SCREW, SHC 8-32 x 3/8	4
025	327-2010-00	CONNECTOR, MIN-M-37-FCR	1
024	326-5171-00	WIRING, MANIFOLD; UA	1
023	050-0288-08	SCREW, SHC 10-24 x 1/2	24
022	401-2004-00	VALVE, SOLENOID	1
021	050-0288-36	SCREW, SHC 10-24 x 2 1/4	4
020	066-0732-02	BLOCK, PRESSURE REDUCING	1
019	099-2014-37	O-RING	1
018	099-2019-37	O-RING	1
017	099-2009-37	O-RING	2
016	096-0122-04	FITTING, STRAIGHT	3
015	096-0154-06	FITTING, 45° ELBOW	2
014	096-0120-06	FITTING, 90° ELBOW	2
013	096-0124-04	PLUG	1
012	066-0771-02	MANIFOLD, VALVE; UA	1
011	099-2169-37	O-RING	1
010	401-2006-00	VALVE, CHECK	1
009	099-2011-37	O-RING	17
008	401-2008-00	VALVE, SERVO	3
007	050-0288-40	SCREW, SHC 10-24 x 2 1/2	8
006	050-0288-56	SCREW, SHC 10-24 x 3 1/2	4
005	401-2003-00	VALVE, PRESSURE REDUCING	1
004	096-0122-06	FITTING, TUBE	1
003	326-0028-00	PENETRATOR ASS'Y	2
002	099-3903-39	O-RING	2
001	070-0160-02	CAN, VALVE	1

REV	DATE	BY	DESCRIPTION
2	11/25/02	RLC	DATE DATE DATE

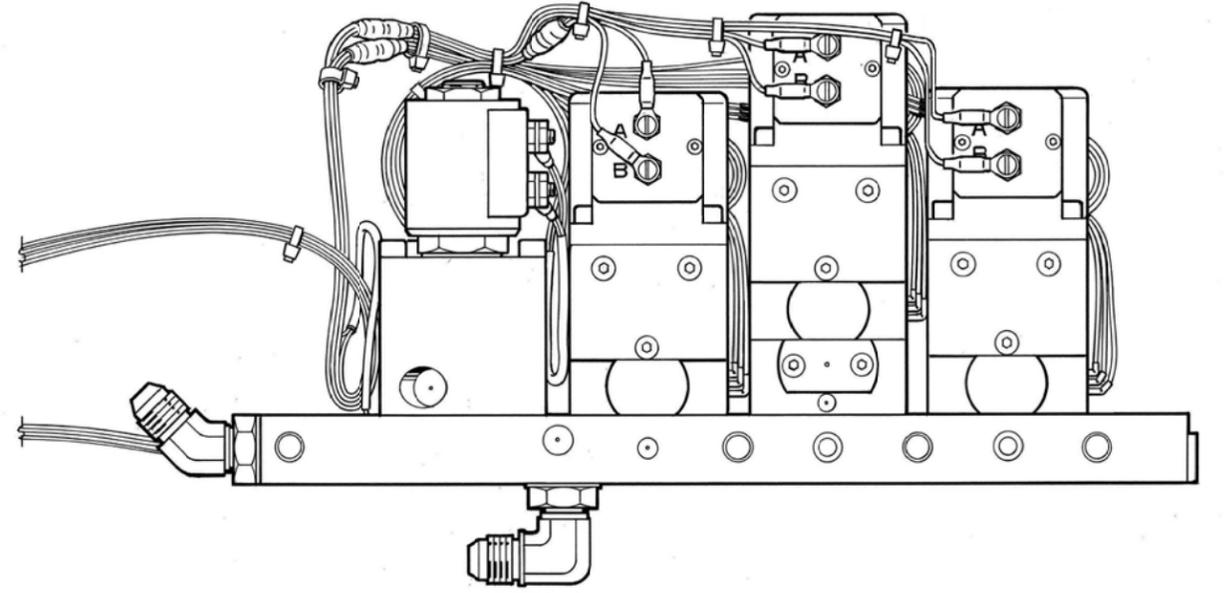
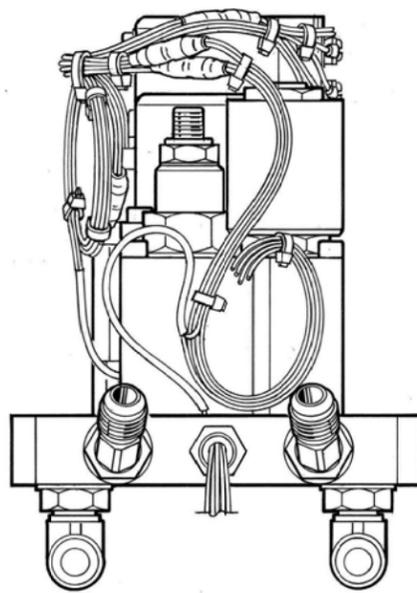
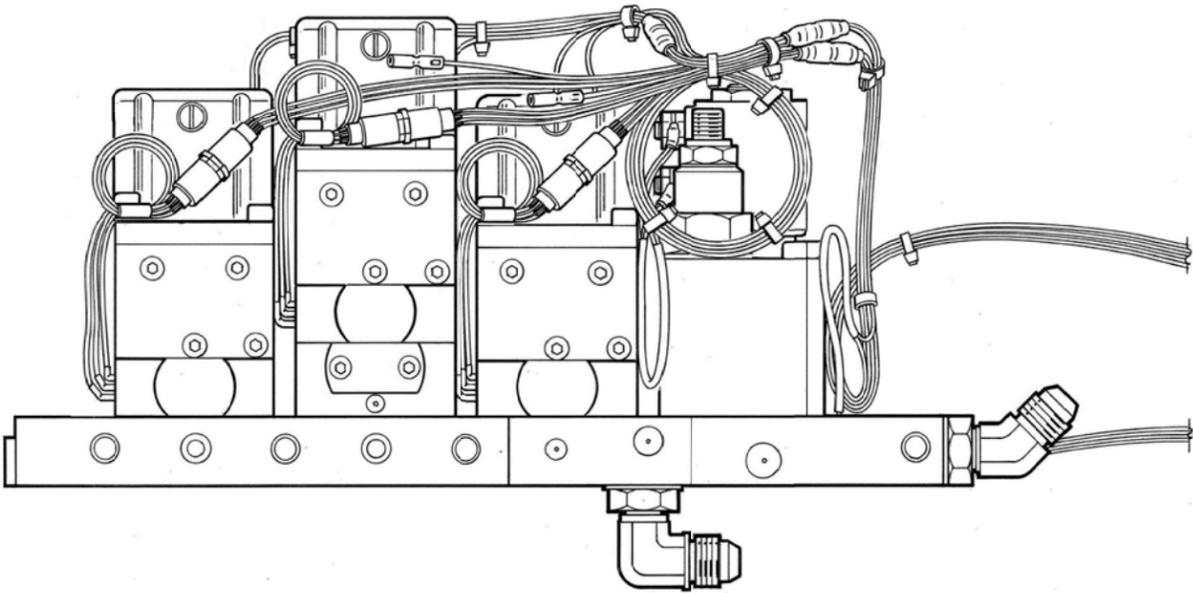
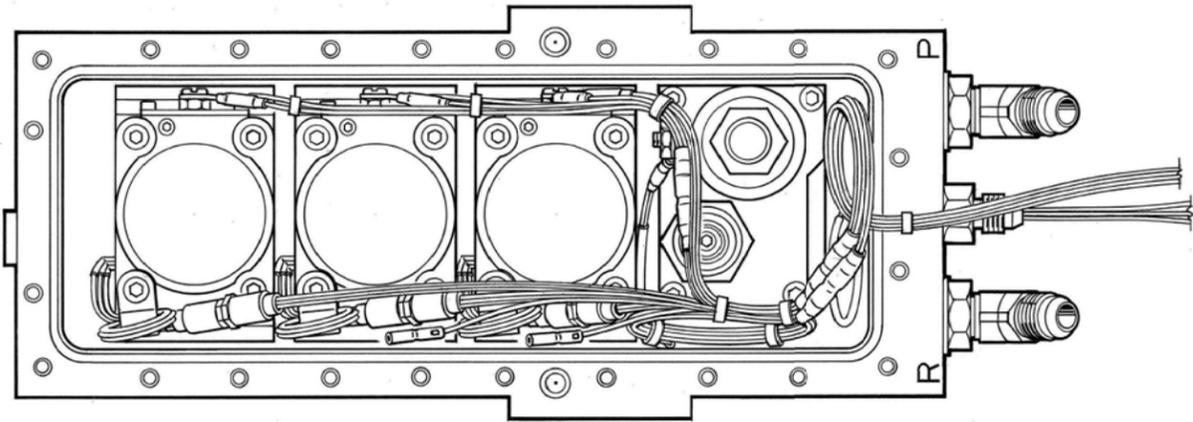
  

RAPTOR	600-0244-01		
PREDATOR	600-0264-01		
UNIT	NEXT ASSY		

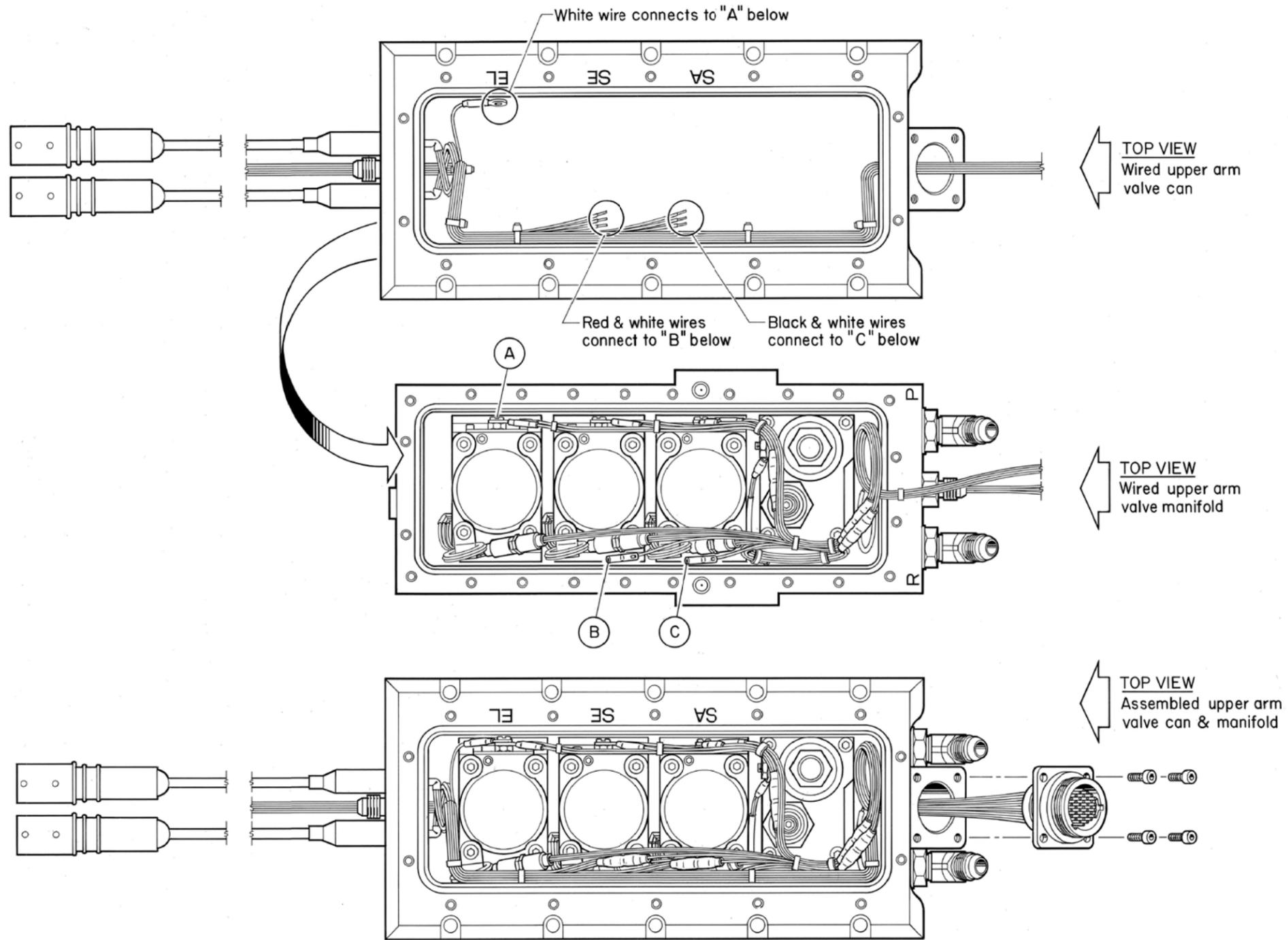
DASH NO.	KRAFT TELEROBOTICS INC.		
	OVERLAND PARK, KANSAS 66214		
HED BY	TITLE		
12/02	UPPER ARM VALVE MANIFOLD ASS'Y (W/ FFB)		
DATE	DWG. NO.	SIZE	MATERIAL
	600-0243-01		
CAD	TOLERANCES		FINISH
ECO	XX ±	INCHES	
NO.	XXX ±	INCHES	
REV	DRN	ELEC	MCH
2	OK	OK	OK
DATE	DATE	DATE	SCALE
11/25/02			NTS
			SHT 1
			OF 1

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REQ.	PART NO.	DESCRIPTION	ITEM
		KRAFT TELEROBOTICS INC. OVERLAND PARK, KANSAS 66214	
		TITLE UPPER ARM VALVE MANIFOLD ASS'Y	
		DWG. NO. 600-0243-01	SIZE D
		TOLERANCES xx ±.01 INCHES xxx ±.005 INCHES	FINISH
		ANGLES ±1/2° DRN LDB DATE 3/30/98	SCALE NTS
			SHT 2 OF 3

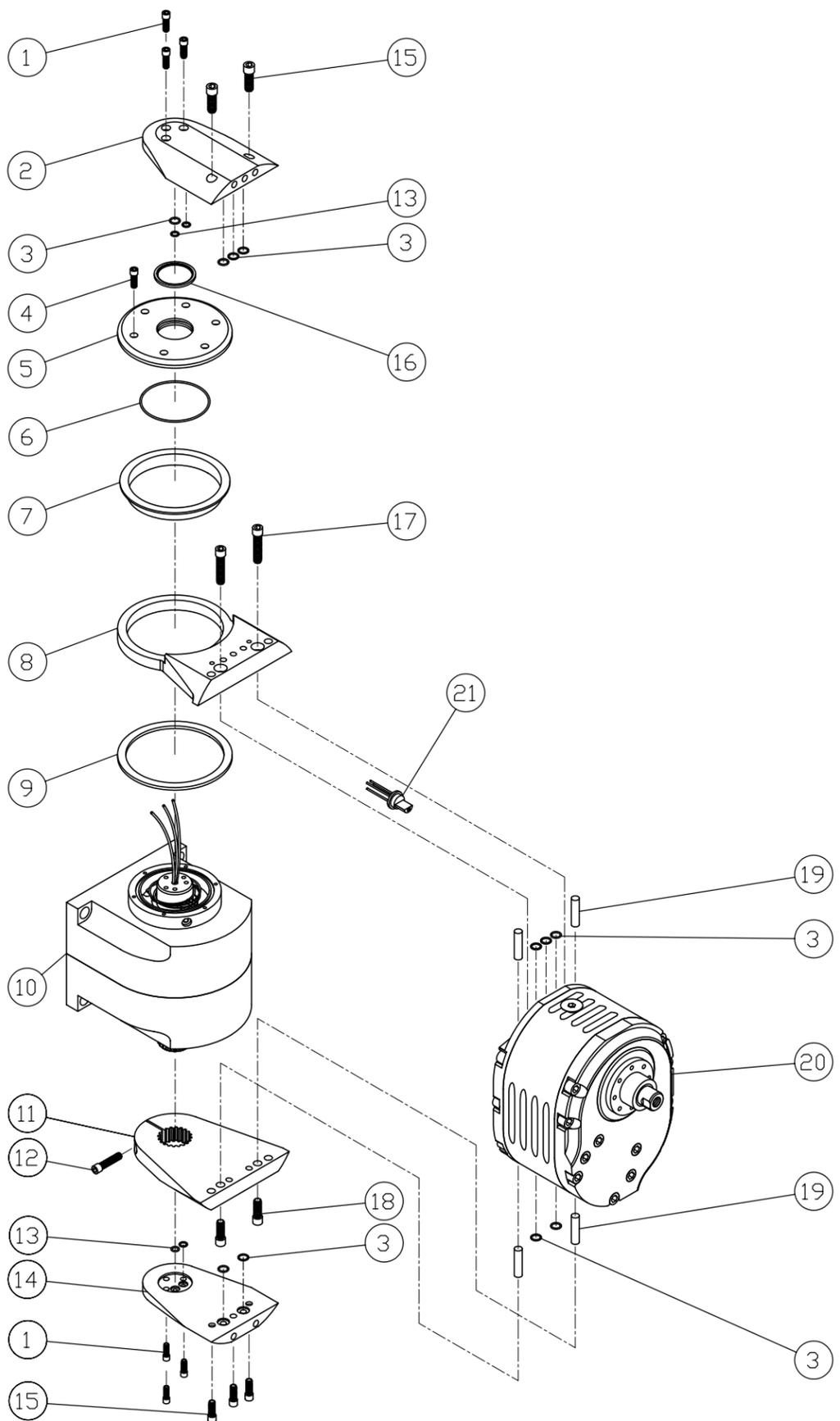
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REQ.	PART NO.	DESCRIPTION	ITEM
		KRAFT TELEROBOTICS INC. OVERLAND PARK, KANSAS 66214	
		TITLE UPPER ARM VALVE MANIFOLD ASS'Y	
		DWG. NO. 600-0243-01	SIZE D
		TOLERANCES xx ±.01 INCHES xxx ±.005 INCHES	FINISH
		ANGLES ±1/2°	SCALE 3 of 3
		DRN LDB	DATE 9/30/98
		CHK	DATE
		MECH	DATE
		SCALE NTS	3 of 3



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ITEM	PART NO.	DESCRIPTION	QTY
021	327-3016-04	CONNECTOR	1
020	600-0229-00	WRIST ROLL ACTUATOR ASS'Y	1
019	057-1001-16	PIN, DOWEL 1/4 x 1 (SS)	4
018	050-0292-10	SCREW, SHC 1/4-20 x 5/8	2
017	050-0292-14	SCREW, SHC 1/4-20 x 7/8	2
016	099-4122-37	SEAL, SHAFT	1
015	050-0288-08	SCREW, SHC 10-24 x 1/2	5
014	066-0652-02	PORT PLATE, WY SHAFT SIDE	1
013	099-2007-37	O-RING	4
012	050-0292-16	SCREW, SHC 1/4-20 x 1	1
011	066-0651-01	BRKT, WY SHAFT SIDE	1
010	600-0228-00	WRIST YAW ACTUATOR ASS'Y	1
009	068-0419-00	BEARING	1
008	066-0653-01	BRKT, WY PDT SIDE	1
007	068-0418-00	BEARING	1
006	099-2035-37	O-RING	1
005	068-0420-01	PLATE, SEAL	1
004	050-0284-06	SCREW, SHC 6-32 x 3/8	6
003	099-2010-37	O-RING	11
002	066-0654-02	PORT PLATE, WY PDT SIDE	1
001	050-0286-08	SCREW, SHC 8-32 x 1/2	6

UNIT	NEXT ASSY	REV.	DATE	BY	DATE	DESCRIPTION	SCALE	SHT OF
		4	11/25/02	RLC			NTS	1 of 1

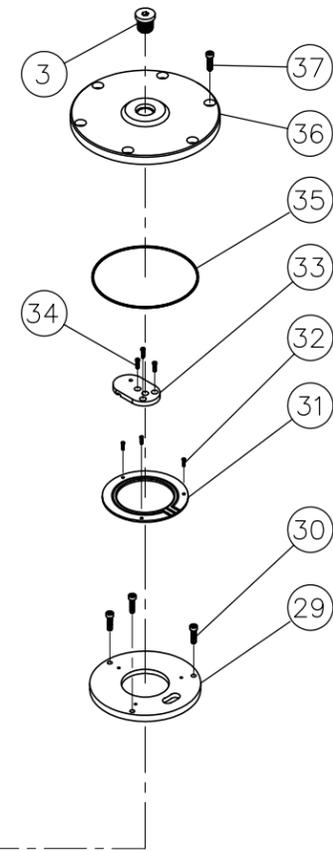
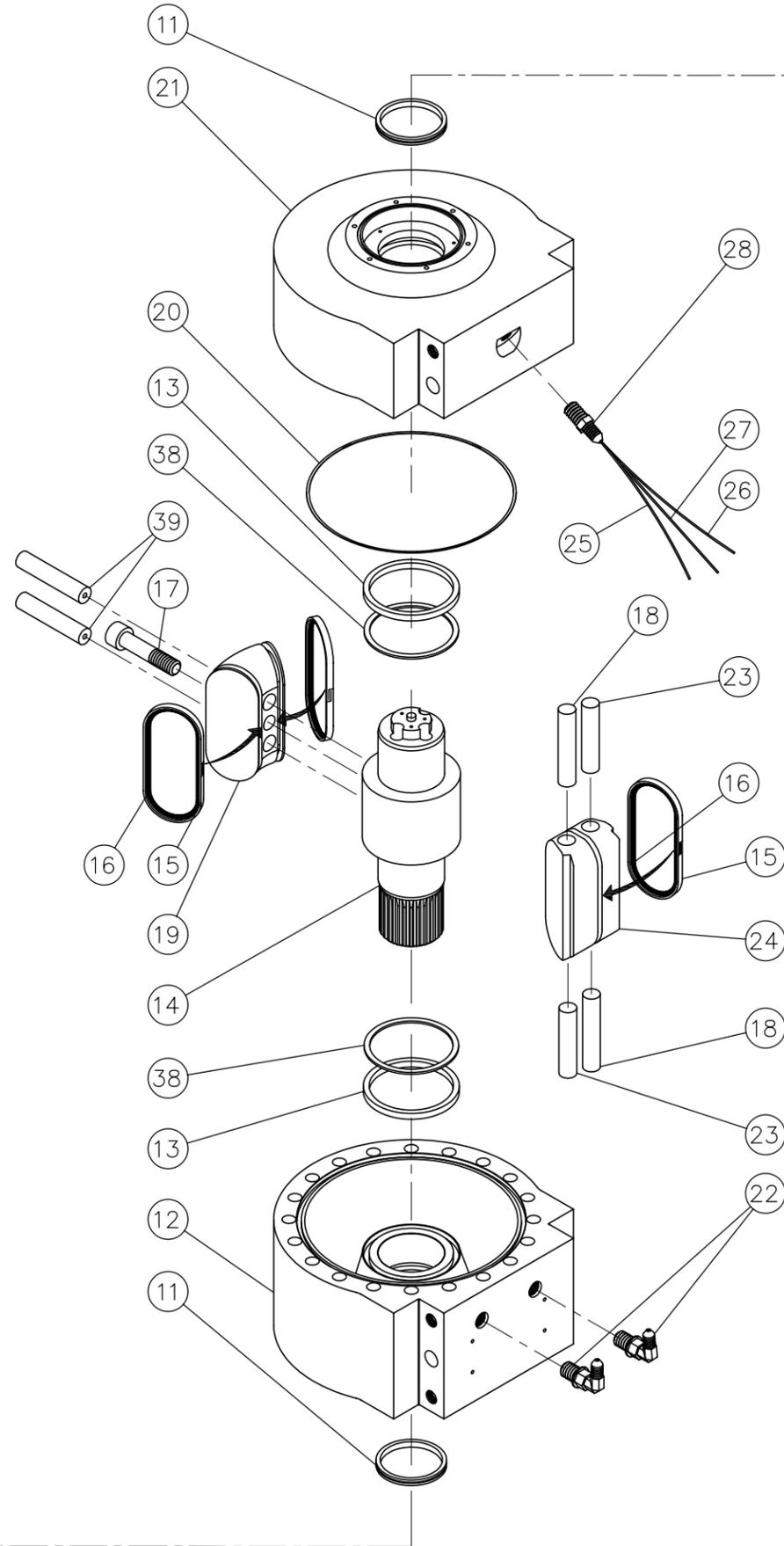
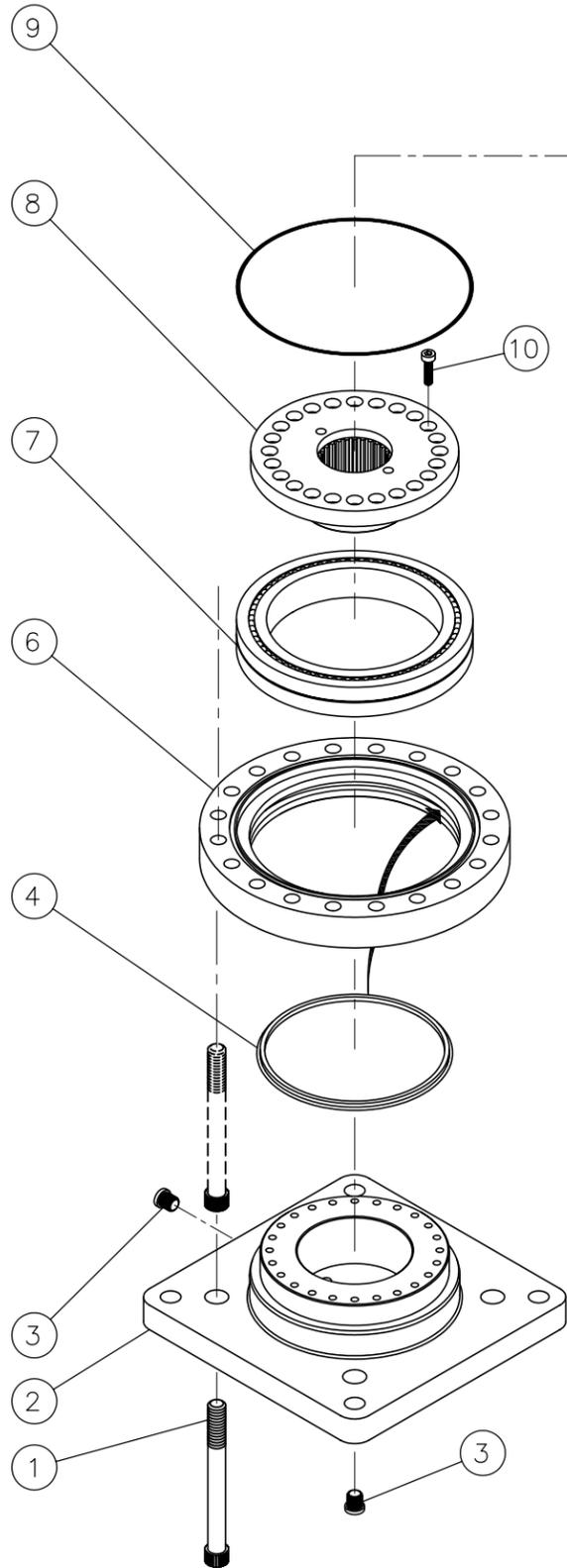
RAPTOR	600-0250-01							
PREDATOR	600-0269-01							
TITLE		KRAFT TELEROBOTICS INC.						
DWG. NO.		OVERLAND PARK, KANSAS 66214						
DATE		DASH NO.						
11/25/02		WRIST YAW/WRIST ROLL ACTUATOR ASS'Y						
REV. DATE		TOLERANCES		FINISH				
11/25/02		xx ± INCHES		xxx ± INCHES				
REV. DATE		ELEC		MECH		SCALE SHT OF		
11/25/02		DATE		DATE		NTS 1 of 1		







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ITEM	PART NO.	DESCRIPTION	QTY
039	068-0531-00	PIN, 1/2 x 2 1/2 (SS) DRILLED	2
038	100-0175-42	SEAL, AZIMUTH SHAFT SHOULDER	2
037	050-0286-08	SCREW, SHC 8-32 x 1/2	6
036	068-0485-01	COVER, POTENTIOMETER	1
035	099-2040-37	O-RING	1
034	050-0436-06	SCREW, FHP 4-40 x 3/8	3
033	529-0143-00	POTENTIOMETER WIPER ASS'Y	1
032	050-0003-03	SCREW, PHP 2-56 x 3/16	3
031	529-0139-00	POTENTIOMETER, ELEMENT	1
030	050-0280-06	SCREW, SHC 4-40 x 3/8	3
029	068-0486-01	PLATE, POT MOUNTING	1
028	096-0157-04	FITTING, TUBE	1
027	325-0012-19	WIRE, 26GA WHT/VIOLET	52"
026	325-0012-12	WIRE, 26GA WHT/RED	42"
025	325-0012-11	WIRE, 26GA WHT/BLK	42"
024	066-0738-00	VANE, STATOR	1
023	057-2007-36	PIN, DOWEL 1/2 x 2 1/4(HGS)	2
022	096-0120-04	FITTING, 90° ELBOW	2
021	068-0482-01	BODY, AZ ACT UPPER HALF	1
020	099-2164-37	O-RING	1
019	066-0739-00	VANE, ROTOR	1
018	057-2007-40	PIN, DOWEL 1/2 x 2 1/2(HGS)	2
017	050-0298-32	SCREW, SHC 7/16-14 x 2	1
016	099-2230-37	O-RING	3
015	100-0171-48	SEAL	3
014	068-0483-01	SHAFT, AZIMUTH ACTUATOR	1
013	099-4229-37	QUAD-RING	2
012	068-0481-01	BODY, AZ ACT LOWER HALF	1
011	099-4328-37	SEAL, SHAFT	2
010	050-0292-16	SCREW, SHC 1/4-20 x 1	24
009	099-2163-37	O-RING	1
008	068-0479-00	COUPLING, AZIMUTH	1
007	093-3008-00	BEARING	1
006	068-0480-01	RING, AZIMUTH SEAL	1
005			
004	099-4356-37	SEAL	1
003	096-0124-04	PLUG, HOLLOW HEX	3
002	066-0737-01	PLATE, AZIMUTH MOUNTING	1
001	050-0296-80	SCREW, SHC 3/8-16 x 5	20

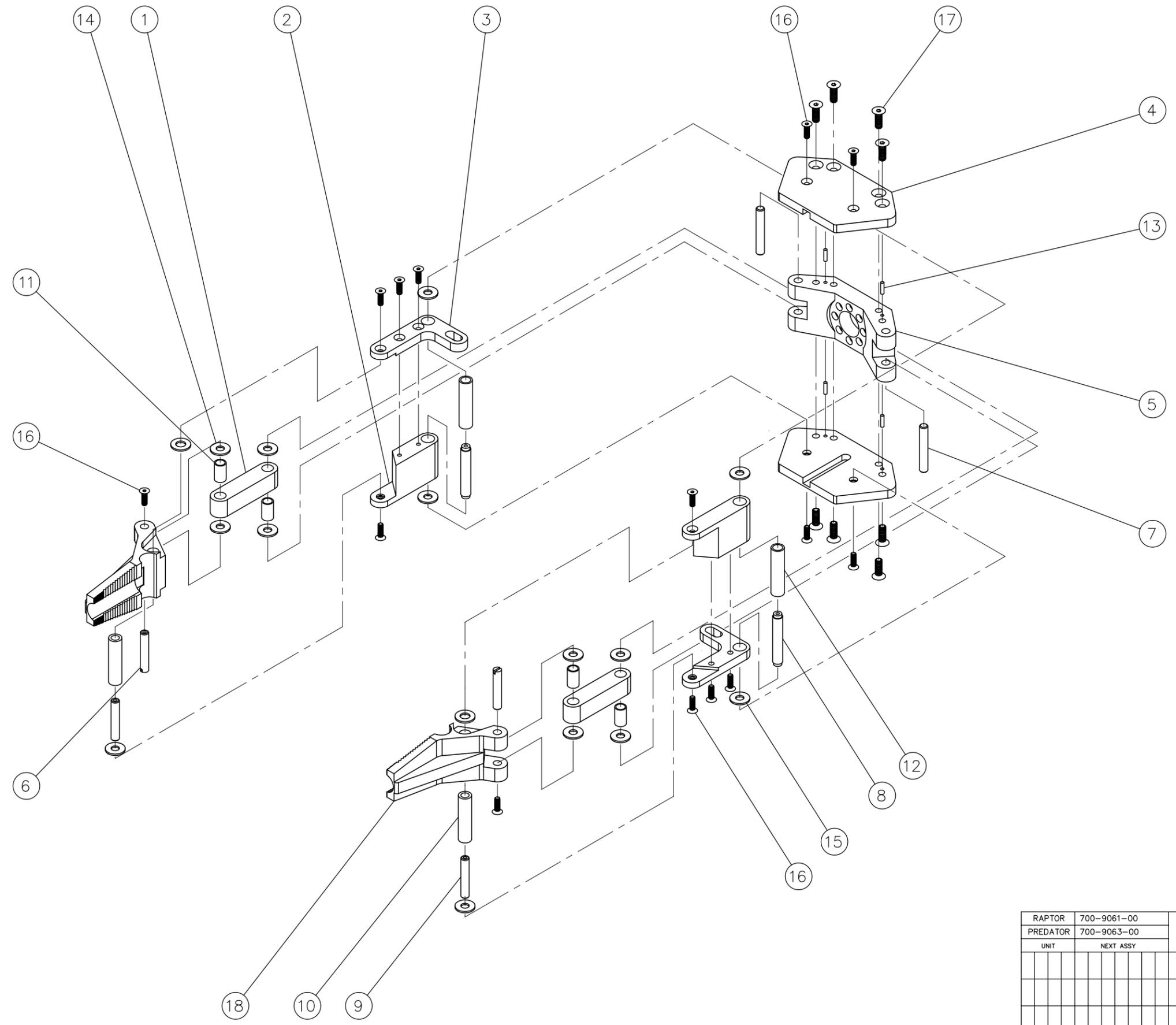
REV.	DATE	BY	CHK	ELEC	MECH	SCALE	SHT OF
4	288 8/10	HED					1
3	235 8/05	HED					1
2	CAD 12/02	HED					1
1							1

RAPTOR	600-0245-01						
PREDATOR	600-0265-01						
UNIT	NEXT ASSY						
TITLE		DWG. NO.		SIZE		MATERIAL	
AZIMUTH ACTUATOR ASS'Y		600-0224-00					
TOLERANCES		FINISH		SCALE		SHT OF	
INCHES ±		INCHES		NTS		1	
DRW	RLC	CHK	ELEC	MECH	SCALE	SHT	OF
DATE	10/9/02	DATE	DATE	DATE	NTS	1	1

KRAFT TELEROBOTICS INC.  
OVERLAND PARK, KANSAS 66214

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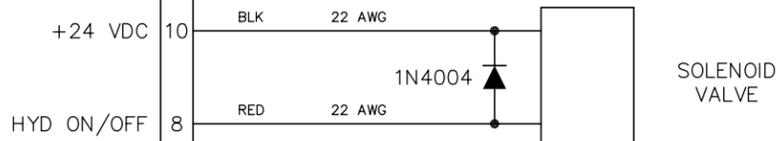
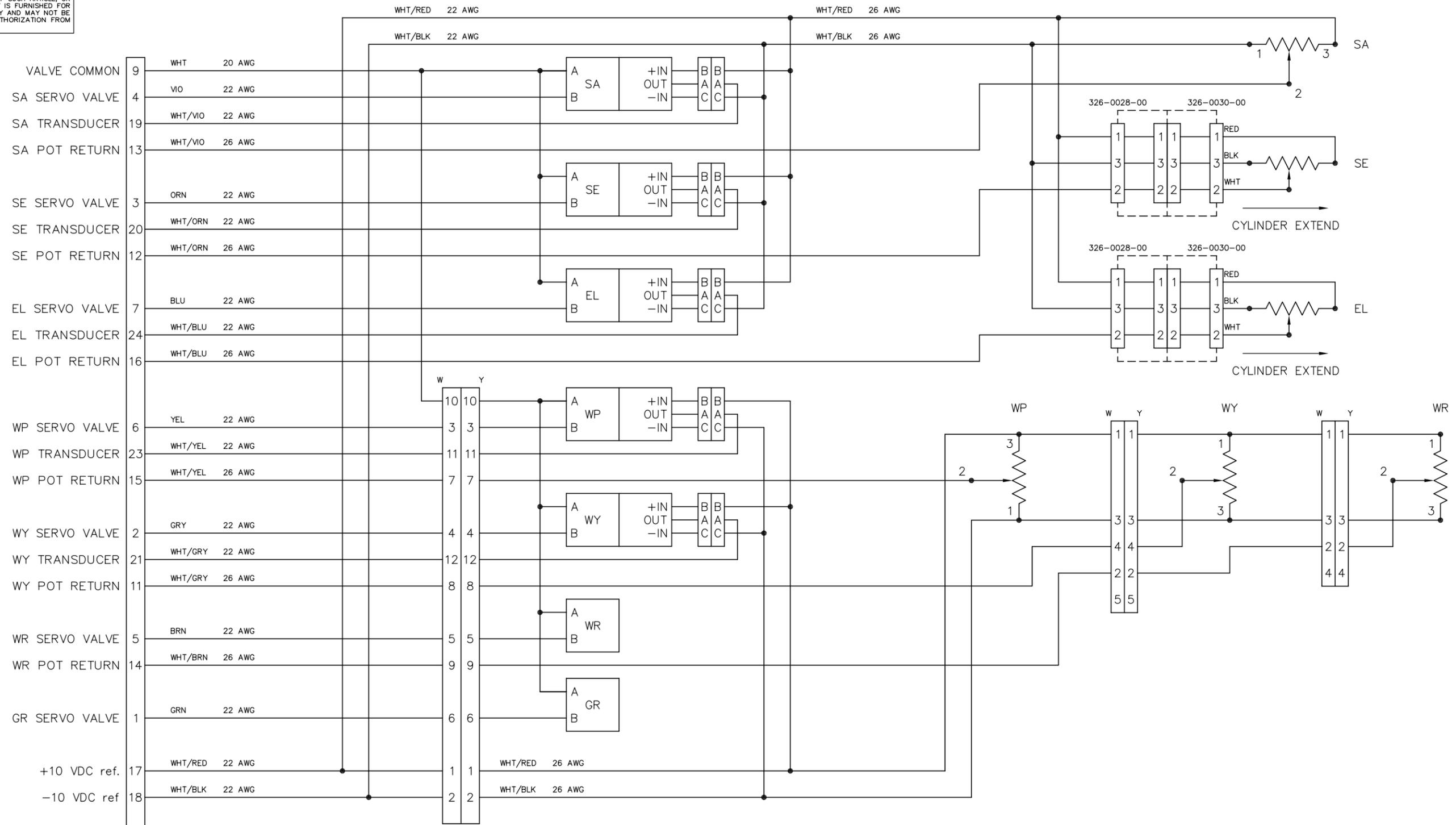


ITEM	PART NO.	DESCRIPTION	QTY
018	066-0765-00	JAW, .75" T-HANDLE	2
017	050-0214-12	SCREW, FHS 1/4-20 x 3/4	8
016	050-0210-10	SCREW, FHS 10-24 x 5/8	14
015	052-5001-20	WASHER, TEFLON	4
014	052-5002-20	WASHER, TEFLON	12
013	057-1002-08	PIN, DOWEL 1/8 x 1/2 (SS)	4
012	093-7002-32	BEARING	2
011	093-7003-12	BEARING	4
010	093-7003-23	BEARING	2
009	068-0234-00	PIN	2
008	068-0231-00	PIN	2
007	068-0232-00	PIN	2
006	068-0491-00	PIN	2
005	066-0323-03	BASE, GRIPPER	1
004	066-0324-01	PLATE, GRIPPER SIDE	2
003	066-0326-01	LEVER, LINK	2
002	066-0325-01	LINK, INNER	2
001	066-0327-01	LINK, OUTER	2

RAPTOR 700-9061-00		DASH NO.	KRAFT TELEROBOTICS INC. OVERLAND PARK, KANSAS 66214
PREDATOR 700-9063-00			
UNIT	NEXT ASSY	HED BY	TITLE
			GRIPPER ASS'Y, PARALLEL JAW (.75" T-HANDLE)
		DATE	DWG. NO.
		12/02	600-0133-02
			TOLERANCES
			xx ± INCHES
			xxx ± INCHES
			FINISH
			SCALE
			NTS
			SHT 1 OF 1
REV	DATE	BY	DATE
2	08/16/02	RLC	



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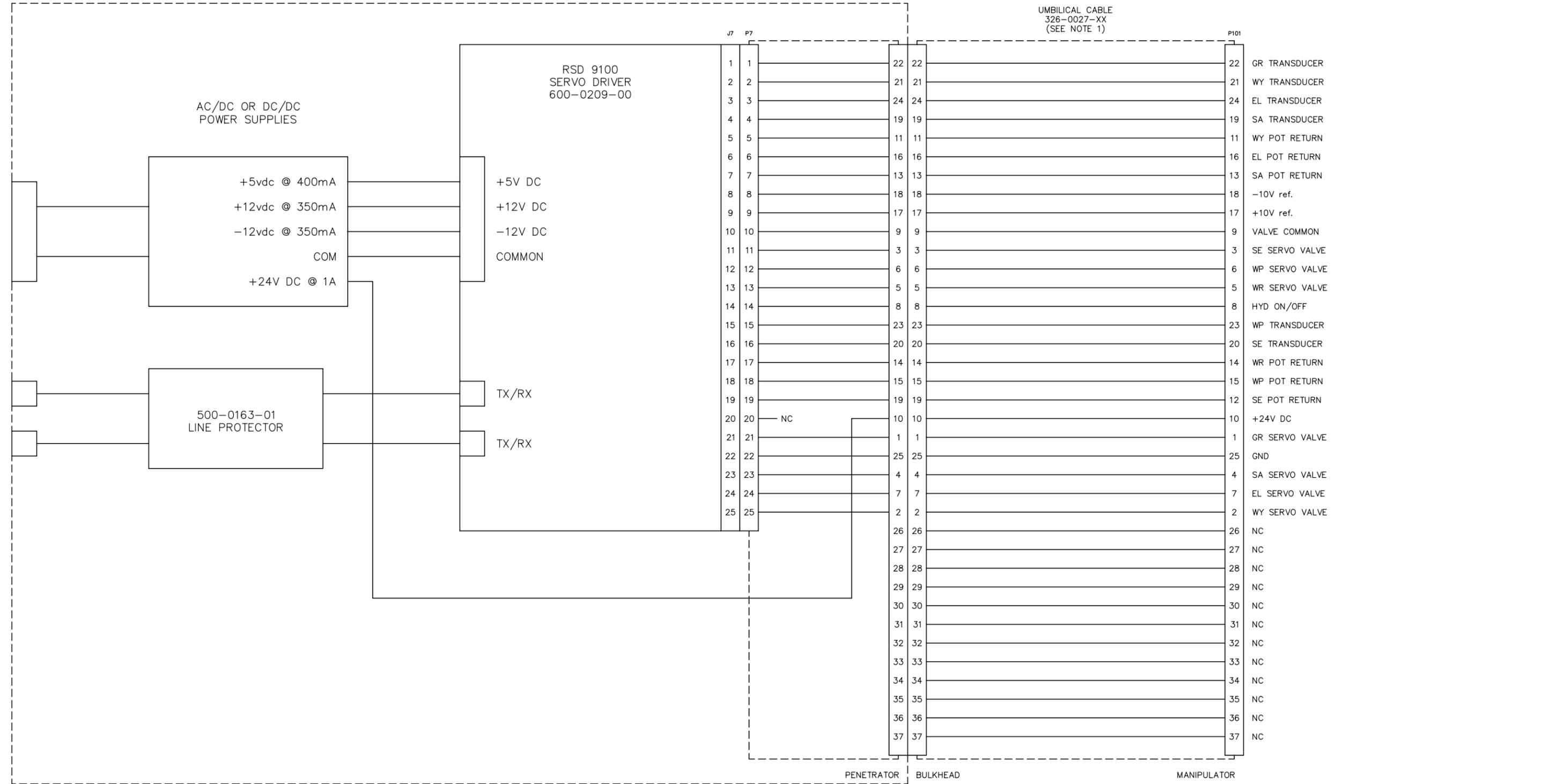


22 NC  
25 } NC  
/ }  
37 }

REV	ECO NO.	DATE	BY	HED	REQ	PART NO.	DESCRIPTION	ITEM
0		6/29/98	HED			KRAFT TELEROBOTICS INC. OVERLAND PARK, KANSAS 66214		
TITLE WIRING DIAGRAM, PREDATOR/RAPTOR MANIPULATOR W/FORCE FEEDBACK								
DWG. NO. 004-3179-00					SIZE D	MATERIAL NA		
TOLERANCES					FINISH			
ANGLES ± °					INCHES			
DIM ±					NA			
DATE					SCALE			
6/29/98					1 of 1			

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CUSTOMER SUPPLIED  
BOTTLE OR ENCLOSURE



NOTES:  
1. SUPPLIED LENGTH FOR UMBILICAL CABLE IS 7 FEET (KPN 326-0027-07). IF DIFFERENT LENGTH IS REQUIRED REPLACE -XX WITH LENGTH IN FEET (-01 TO -99). LENGTHS LONGER THAN 100 FEET ARE NOT RECOMMENDED.

REV	DATE	BY	CHK	DATE	SCALE	SHT	OF
0	9/23/97	HED			NA	1	1
1	5/00	HED			NA	1	1

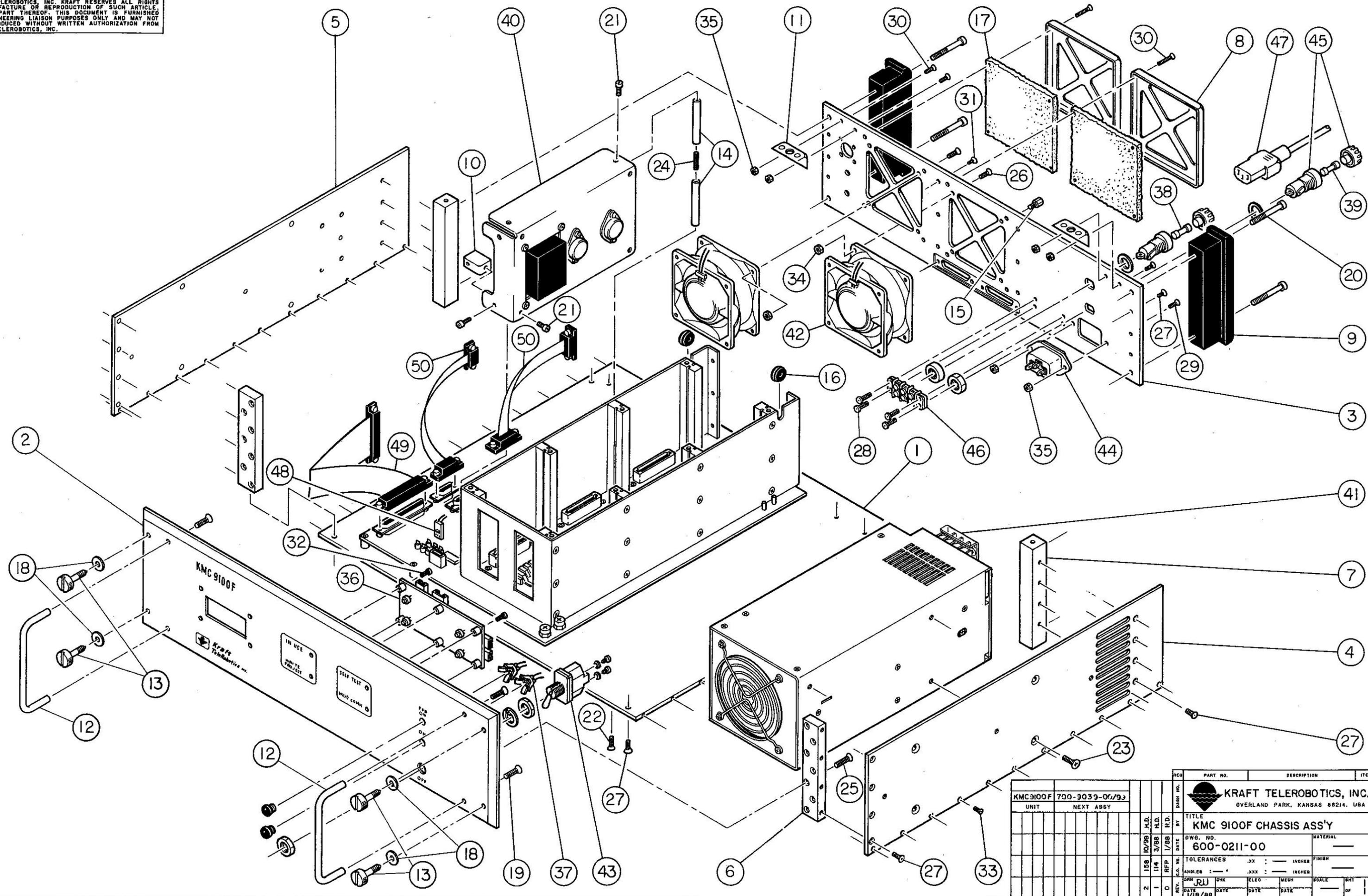
  

UNIT	NEXT ASSY	REQ	PART NO.	DESCRIPTION	ITEM
			KRAFT TELEROBOTICS INC.	OVERLAND PARK, KANSAS 66214	
			004-3178-00	WIRING, RSD; PREDATOR \ RAPTOR (TWISTED PAIR RS485)	
				TOLERANCES	
				ANGLES ± °	FINISH
				INCHES ±	NA
				SCALE	
				DATE	





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REV.	DATE	BY	CHK	DATE	DESCRIPTION
1	1/19/88	RJ			ASSEMBLY
2					

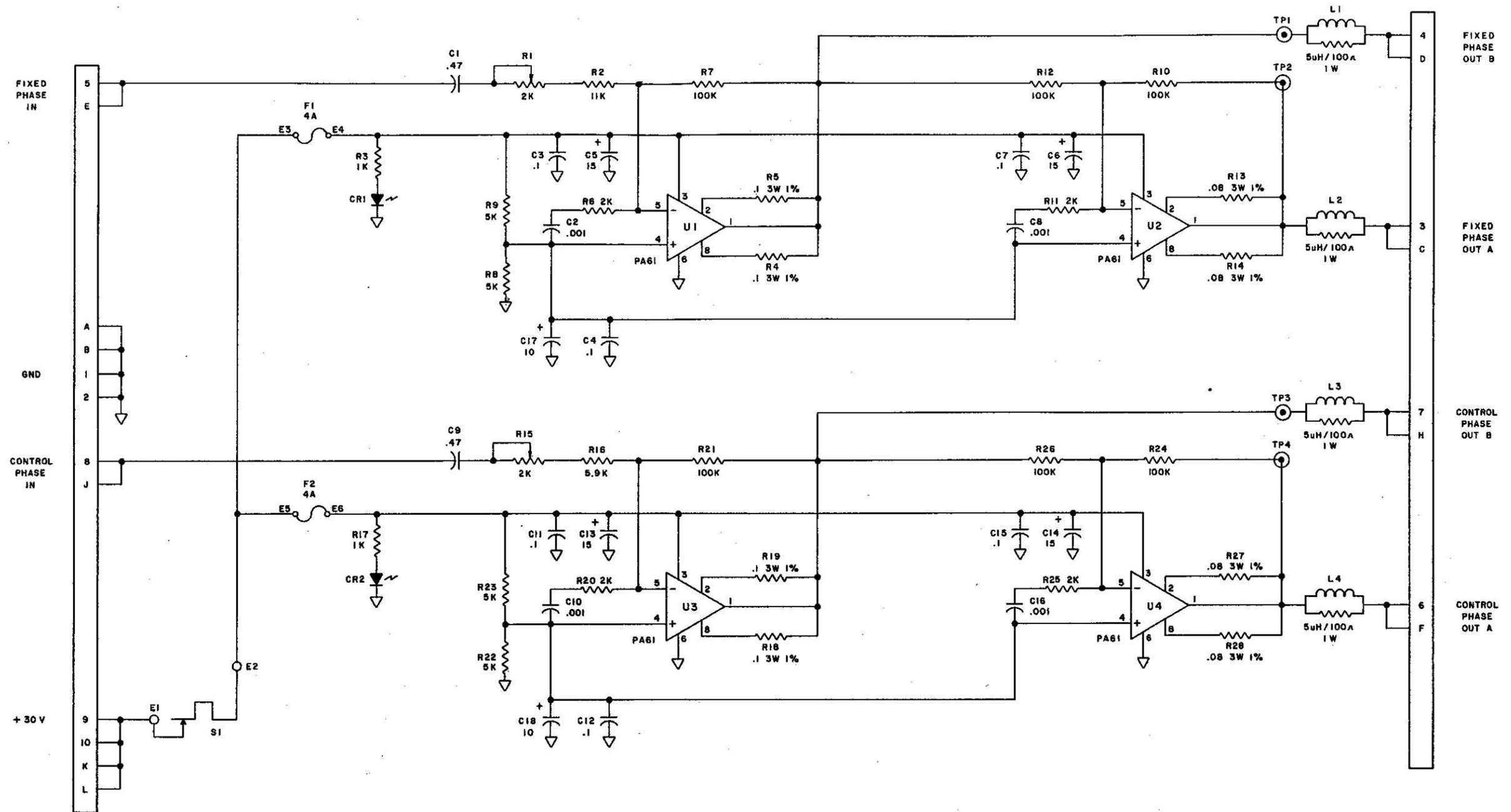
KMC9100F		700-3039-00/93		KRAFT TELEROBOTICS, INC.	
UNIT		NEXT ASSY		OVERLAND PARK, KANSAS 66214, USA	
TITLE: KMC 9100F CHASSIS ASS'Y					
DWG. NO.: 600-0211-00					
MATERIAL: _____					
TOLERANCES: .XX INCHES FINISH _____					
ANGLES: .XXX INCHES					
SCALE: _____					
SHEET _____ OF _____					







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NOTES:

1. ALL RESISTOR VALUES ARE IN OHMS, CW 1% UNLESS OTHERWISE SPECIFIED.
2. ALL CAPACITOR VALUES ARE IN uF, UNLESS OTHERWISE SPECIFIED.

REV.	DATE	BY	CHK	DATE	REV.	DATE	BY	CHK	DATE
0	7/29/86	NRH							

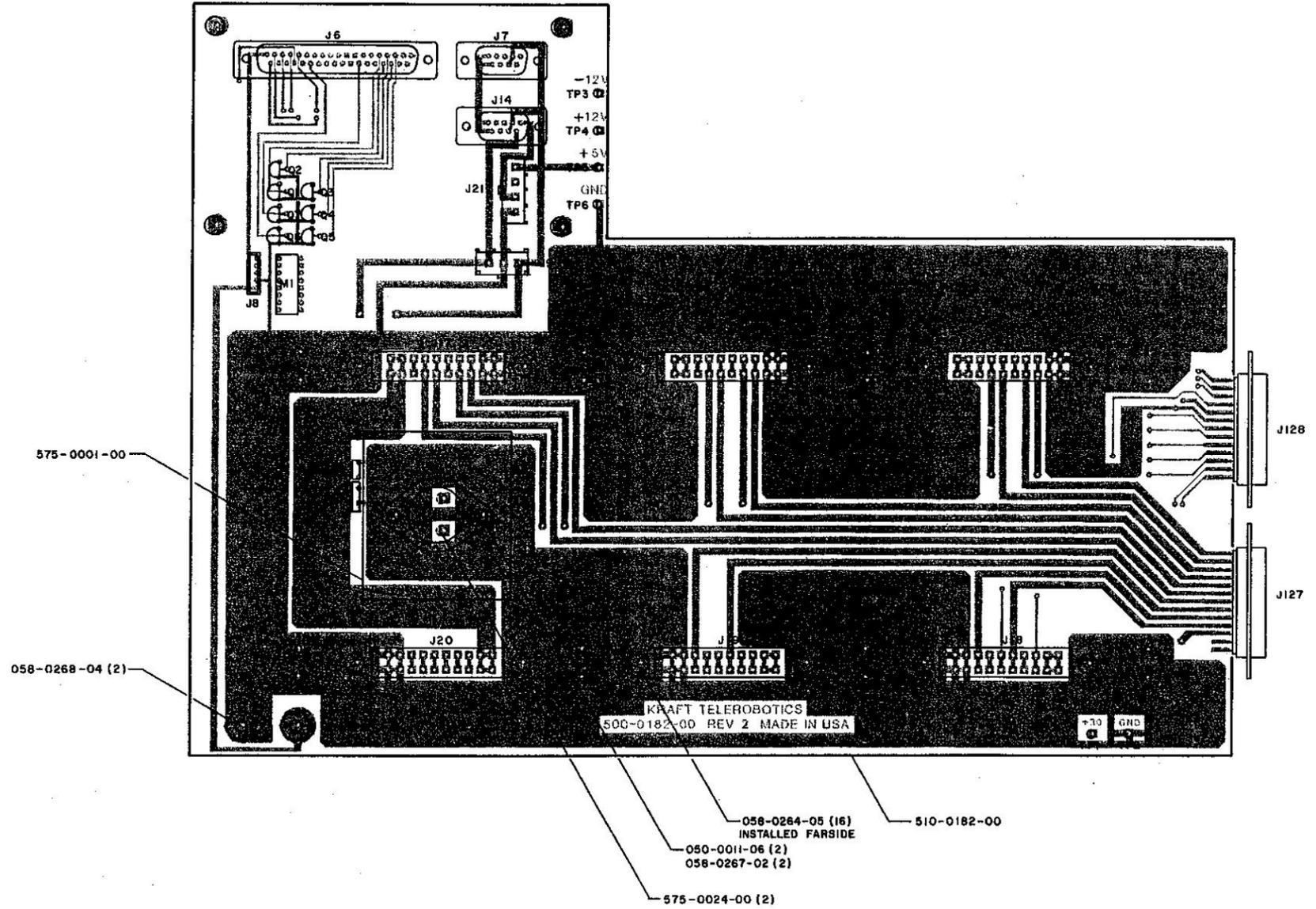
  

KMC 9100F		UNIT		NEXT ASSY	
<p style="text-align: center;"><b>KRAFT TELEROBOTICS</b> OVERLAND PARK, KANSAS 66214, USA</p> <p style="text-align: center;"><b>MOTOR DRIVER BOARD</b></p>					
DWG. NO.				MATERIAL	
002-0181-00				--	
TOLERANCES				FINISH	
.XX : INCHES				--	
.XXX : INCHES				--	
SCALE	UNIT	QTY			
1		1			





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REV.	DATE	BY	CHK.	DATE	DESCRIPTION	ITEM
2	1/14	7/88	1	3/88		
1	1/11		0			
0						

REQ. NO.	PART NO.	DESCRIPTION	ITEM
	500-0182-00		
UNIT	NEXT ASSY		
<b>KRAFT TELEROBOTICS</b> OVERLAND PARK, KANSAS 66214, USA			
TITLE MOTHER BOARD			
DWG. NO.		MATERIAL	
006-0182-00		--	
TOLERANCES		FINISH	
.XX : INCHES		--	
.XXX : INCHES			
DRN	CHK	ELEC	MECH
SCALE	DATE	DATE	DATE
1:1			
1	OF	1	





KRAFT TELEROBOTICS  
ASSEMBLY PARTS LIST

NAME: FFB MINI-MASTER FINAL ASSEMBLY  
REV 2                      7/28/2004

ASS'Y NO. 700-9075-00

ITEM	PART NUMBER	DESCRIPTION	UM	QTY	RSD
001	014-2094-00	LOGO, KRAFT ENCAPSULATED	EA	2	FA
002	068-0501-02	CAP	EA	8	FA
003	600-0256-00	GRIP/ROLL/YAW ASS'Y	EA	1	FA
004	066-0803-01	PLATE, COVER	EA	2	FA
005	050-0276-04	SCREW, 2-56 x 1/4 SHC	EA	8	FA
006	068-0500-01	COUPLING	EA	2	FA
007	050-0280-05	SCREW, 4-40 x 5/16 SHC	EA	4	FA
008	529-0145-00	WIPER, POTENTIOMETER	EA	2	OB
009	066-0796-01	BRACKET, PITCH (RIGHT)	EA	1	FA
010	050-0429-04	SCREW, 0-80 x 1/4 FHP	EA	4	FA
011	050-0273-04	SCREW, 0-80 x 1/4 SHC	EA	4	FA
012	529-0144-00	ELEMENT, POTENTIOMETER	EA	2	OB
013	066-0798-01	FOREARM; RIGHT HALF	EA	1	FA
014	600-0260-00	ACTUATOR, WP	EA	1	FA
015	050-0276-06	SCREW, 2-56 x 3/8 SHC	EA	12	FA
016	066-0799-01	FOREARM; LEFT HALF	EA	1	FA
017	050-0280-07	SCREW, 4-40 x 7/16 SHC	EA	6	FA
018	093-5019-00	BALL BEARING	EA	2	FA
019	066-0797-01	BRACKET, PITCH (LEFT)	EA	1	FA
020	066-0802-01	PLATE, UPPER ARM COVER	EA	2	FA
021	066-0800-01	UPPER ARM; RIGHT HALF	EA	1	FA
022	066-0801-01	UPPER ARM; LEFT HALF	EA	1	FA
023	600-0261-00	ACTUATOR, EL	EA	1	FA
024	053-4003-00	SPRING, TORSION	EA	1	FA
025	066-0821-01	HEATSINK	EA	4	FA
026	600-0257-00	AZIMUTH/SHOULDER ASS'Y	EA	1	FA
027	050-0280-06	SCREW, 4-40 x 3/8 SHC	EA	6	FA
028	052-5019-20	WASHER	EA	4	FA

KRAFT TELEROBOTICS  
ASSEMBLY PARTS LIST

NAME: RAPTOR FINAL ASS'Y W/FFB  
REV: 2

ASS'Y NO. 700-9061-00

ITEM	PART NUMBER	DESCRIPTION	UM	QTY	RSD
001	600-0250-01	ARM/WRIST ASS'Y	EA	1	FA
002	600-0133-02	GRIPPER ASS'Y 3/4"	EA	1	FA
003	068-0316-00	SWIVEL	EA	1	FA
004	052-0022-11	NUT, NYLOCK 5/16-24	EA	1	OB
005	050-0288-10	SCREW, SHC 10-24 x 5/8	EA	8	OB

KRAFT TELEROBOTICS  
ASSEMBLY PARTS LIST

NAME: KMC9100F; TWISTED PAIR WO/TASK RECALL  
REV. 0

ASS'Y NO 700-9039-01

ITEM	PART NUMBER	DESCRIPTION	UM	QTY	RSD
001	600-0211-00	CHASSIS ASS'Y	EA	1	
002	600-0208-00	CONTROLLER MODULE	EA	1	
003	600-0207-00	CIM; TWISTED PAIR	EA	1	
004	600-0206-00	SERVO MOTOR DRIVER	EA	5	
005	326-5129-00	CABLE ASSY; SIGNAL	EA	1	
006	070-0136-02	AIR TUNNEL COVER	EA	1	
007	066-0530-01	CONNECTOR MOUNTING PLT	EA	1	
008	066-0529-01	CONNECTOR MOUNTING PLT	EA	1	
009	066-0463-01	BEZEL, BLANK	EA	1	
010	066-0391-01	TOP PANEL	EA	1	
011	058-0266-04	PLUG, 1/4 HOLE	EA	2	
012	058-0212-00	RING, SNAP	EA	2	
013	058-0211-00	WASHER	EA	2	
014	058-0208-00	QT FASTNER	EA	2	
015	052-0007-11	NUT, HEX NYLOK 4-40	EA	8	
016	050-0442-16	SCREW, FHP 8-32 X 1	EA	4	
017	050-0440-06	SCREW, FHP 6-32 X 3/8	EA	4	
018	050-0441-04	SCREW, FHP 6-32 X 1/4	EA	8	
019	050-0436-06	SCREW, FHP 4-40 X 3/8	EA	8	

KRAFT TELEROBOTICS  
ASSEMBLY PARTS LIST

NAME: TRIGGER POTENTIOMETER ASS'Y (FFB MM)  
REV 0

ASS'Y NO. 600-0259-00

ITEM	PART NUMBER	DESCRIPTION	UM	QTY	RSD
001	066-0819-01	TRIGGER	EA	1	FA
002	529-0148-00	WIPER, GR	EA	1	FA
003	529-0146-00	ELEMENT, POTENTIOMETER	EA	1	FA
004	050-0429-03	SCREW, 0-80 x 3/16 FHP	EA	2	FA

KRAFT TELEROBOTICS  
ASSEMBLY PARTS LIST

NAME: ROCKER POTENTIOMETER ASS'Y (FFB MM)  
REV 1

ASS'Y NO. 600-0258-00

ITEM	PART NUMBER	DESCRIPTION	UM	QTY	RSD
001	066-0818-02	ROCKER	EA	1	FA
002	050-0120-02	SCREW, 2-56 x 1/8 SET	EA	2	FA
003	058-0291-00	SPRING LEVER	EA	2	FA
004	053-4001-00	SPRING, TORSION	EA	1	FA
005	066-0817-00	HOUSING, ROCKER	EA	1	FA
006	529-0147-00	WIPER, WR	EA	1	FA
007	529-0146-00	ELEMENT, POTENTIOMETER	EA	1	FA
008	050-0429-03	SCREW, 0-80 x 3/16 FHP	EA	2	FA

KRAFT TELEROBOTICS  
ASSEMBLY PARTS LIST

NAME: BASE/SHOULDER ASS'Y (FFB MM)  
REV 2

ASS'Y NO. 600-0257-00

ITEM	PART NUMBER	DESCRIPTION	UM	QTY	RSD
001	050-0273-04	SCREW, 0-80 x 1/4 SHC	EA	4	FA
002	529-0144-00	ELEMENT, POTENTIOMETER	EA	2	FA
003	050-0276-08	SCREW, 2-56 x 1/2 SHC	EA	4	FA
004	068-0499-01	PLATE, POT. MOUNTING	EA	1	FA
005	600-0261-00	ACTUATOR	EA	2	FA
006	093-5019-00	BEARING, BALL	EA	2	FA
007	050-0280-05	SCREW, 4-40 x 5/16 SHC	EA	4	FA
008	068-0515-01	SPINDLE, AZIMUTH	EA	1	FA
009	066-0813-01	HOUSING, SHOULDER	EA	1	FA
010	050-0276-06	SCREW, 2-56 x 3/8 SHC	EA	4	FA
011	068-0514-01	HOUSING, AZIMUTH ACTUATOR	EA	1	FA
012	574-0002-00	SWITCH, PUSHBUTTON	EA	1	FA
013	575-0031-00	BEZEL, LED	EA	1	FA
014	066-0812-02	BASE	EA	1	FA
015	551-0005-00	LED, BLUE	EA	1	FA
016	050-0429-04	SCREW, 0-80 x 1/4 FHP	EA	2	FA
017	529-0145-00	WIPER, POTENTIOMETER	EA	1	FA
018	068-0500-01	COUPLING	EA	1	FA
019	050-0276-03	SCREW, 2-56 x 3/16 SHC	EA	4	FA
020	327-3017-26	CONNECTOR, HD M	EA	1	FA
021	327-3018-26	CONNECTOR, HD F	EA	1	FA
022	575-0032-00	GUIDE, POLARIZING; M	EA	2	FA
023	575-0033-00	GUIDE, POLARIZING; F	EA	2	FA
024	014-2093-02	PLATE, SERIAL NO.	EA	1	FA
025	050-0429-03	SCREW, 0-80 x 3/16 FHP	EA	2	FA
026	050-0280-06	SCREW, 4-40 x 3/8 SHC	EA	7	FA

KRAFT TELEROBOTICS  
ASSEMBLY PARTS LIST

NAME: GRIP/ROLL/YAW ASS'Y (FFB MM)  
REV 2

ASS'Y NO. 600-0256-00  
PAGE 1

ITEM	PART NUMBER	DESCRIPTION	UM	QTY	RSD
001	066-0816-01	GRIP, LEFT HALF	EA	1	FA
002	068-0520-00	BEARING	EA	2	FA
003	052-5017-40	WASHER	EA	1	FA
004	057-1008-08	PIN, DOWEL 1/16 x 1/2 (SS)	EA	1	FA
005	057-1009-04	PIN, SPRING 1/16 x 1/4 (SS)	EA	1	FA
006	053-0003-00	SPRING, TRIGGER	EA	1	FA
007	600-0259-00	TRIGGER ASS'Y	EA	1	FA
008	052-5018-40	WASHER	EA	1	FA
009	066-0815-01	GRIP, RIGHT HALF	EA	1	FA
010	050-0436-12	SCREW, 4-40 x 3/4 FHP	EA	1	FA
011	050-0436-10	SCREW, 4-40 x 5/8 FHP	EA	1	FA
012	574-0014-00	SWITCH, PUSHBUTTON	EA	3	FA
013	551-0003-01	LED (GREEN)	EA	3	FA
014	066-0820-02	SWITCH PLATE	EA	1	FA
015	574-0014-01	CAP, SWITCH (BLACK)	EA	3	OB
016	600-0258-00	ROCKER ASS'Y	EA	1	FA
017	050-0276-10	SCREW, 2-56 x 5/8 SHC	EA	2	FA
018	066-0814-01	SWIVEL, GRIP	EA	1	FA
019	068-0518-01	NUT, SWIVEL LOCK	EA	1	FA
020	068-0519-01	SCREW, RETAINING	EA	1	FA
021	093-5020-00	BALL BEARING	EA	1	FA
022	068-0517-01	HOUSING, WRIST ROLL	EA	1	FA
023	100-0180-08	SEAL	EA	1	FA
024	058-0287-08	RETAINING RING	EA	1	FA
025	050-0280-07	SCREW, 4-40 x 7/16 SHC	EA	4	FA
026	093-5019-00	BALL BEARING	EA	2	FA
027	529-0145-00	WIPER, POTENTIOMETER	EA	2	OB
028	050-0429-04	SCREW, 0-80 x 1/4 FHP	EA	4	OB
029	050-0273-04	SCREW, 0-80 x 1/4 SHC	EA	4	OB
030	529-0144-00	ELEMENT, POTENTIOMETER	EA	2	OB
031	050-0280-04	SCREW, 4-40 x 1/4 SHC	EA	4	FA
032	068-0516-01	BASE, WRIST ROLL	EA	1	FA
033	066-0793-01	BRACKET, YAW (TOP)	EA	1	FA
034	050-0276-06	SCREW, 2-56 x 3/8 SHC	EA	4	FA
035	600-0260-00	ACTUATOR	EA	1	FA
036	066-0795-01	HOUSING, WRIST YAW	EA	1	FA
037	066-0794-01	BRACKET, YAW (BOTTOM)	EA	1	FA
038	068-0500-01	COUPLING	EA	1	FA

KRAFT TELEROBOTICS  
ASSEMBLY PARTS LIST

NAME: GRIP/ROLL/YAW ASS'Y (FFB MM)  
REV 2

ASS'Y NO. 600-0256-00  
PAGE 2

ITEM	PART NUMBER	DESCRIPTION	UM	QTY	RSD
039	050-0280-06	SCREW, 4-40 x 3/8 SHC	EA	1	FA
040	050-0276-04	SCREW, 2-56 x 1/4 SHC	EA	4	FA
041	050-0120-02	SCREW, 2-56 x 1/8 SET	EA	1	FA
042	052-5019-20	WASHER	EA	1	FA

KRAFT TELEROBOTICS  
ASSEMBLY PARTS LIST

NAME: ARM/WRIST ASS'Y (W/FFB)  
REV 0

ASS'Y NO. 600-0250-01

ITEM	PART NUMBER	DESCRIPTION	UM	QTY	RSD
001	600-0249-01	UPPER ARM/FOREARM ASS'Y	EA	1	FA
002	099-2023-37	O-RING	EA	1	OB
003	099-2011-37	O-RING	EA	6	OB
004	057-1005-12	PIN, DOWEL 3/8 x 3/4 (SS)	EA	2	OB
005	600-0238-00	WRIST YAW/ROLL ACT. ASS'Y	EA	1	FA
006	050-0296-16	SCREW, SHC 3/8-16 X 1	EA	4	OB

KRAFT TELEROBOTICS  
ASSEMBLY PARTS LIST

NAME: UPPER ARM/FOREARM ASS'Y  
REV 1

ASS'Y NO. 600-0249-01

ITEM	PART NUMBER	DESCRIPTION	UM	QTY	RSD
001	600-0245-01	AZ ACT/UPPER ARM ASS'Y	EA	1	FA
002	050-0292-12	SCREW, SHC 1/4-20 x 3/4	EA	14	OB
003	066-0769-02	TRUNNION PORT CAP; RIGHT	EA	1	FA
004	093-7023-08	BEARING, FILAMENT	EA	2	OB
005	099-2009-37	O-RING	EA	2	OB
006	099-2010-37	O-RING	EA	4	OB
007	068-0496-00	PIN, TRUNNION PORT	EA	2	FA
008	066-0782-01	CLAMP	EA	2	FA
009	050-0288-16	SCREW, SHC 10-24 x 1	EA	4	OB
010	066-0852-01	COVER, UPPER ARM	EA	1	FA
011	050-0331-08	SCREW, HHC 1/4-20 x 1/2	EA	6	OB
012	068-0476-00	PIN, ELBOW	EA	1	FA
013	058-0282-24	RING, RETAINING	EA	1	OB
014	600-0248-01	FOREARM / WRIST PITCH ASS'Y	EA	1	FA
015	068-0475-00	PIN, ROD	EA	1	FA
016	093-7026-24	BEARING, THRUST	EA	2	OB
017	058-0282-14	RING, RETAINING	EA	1	OB
018	066-0770-02	TRUNNION PORT CAP; LEFT	EA	1	FA
019	068-0489-01	SPACER	EA	2	FA
020	600-0242-00	ACTUATOR, LINEAR	EA	1	FA
021	066-0853-00	BUMPER, RIGHT	EA	1	FA
022	066-0854-00	BUMPER, LEFT	EA	1	FA
023	050-0289-08	SCREW, SHC 10-32 x 1/2	EA	12	OB
024	058-0288-00	INSERT, 10-32	EA	12	FA
025	096-0142-04	PLUG	EA	2	OB
026	052-6010-11	WASHER, FLAT; (SS) 1/4"	EA	6	OB

KRAFT TELEROBOTICS  
ASSEMBLY PARTS LIST

NAME: FOREARM/WRIST PITCH ACTUATOR ASS'Y  
REV: 1      7/28/2004

ASS'Y NO. 600-0248-01

ITEM	PART NUMBER	DESCRIPTION	UM	QTY	RSD
001	600-0247-01	FOREARM/ELBOW ASS'Y	EA	1	FA
002	050-0288-10	SCREW, SHC 10-24 x 5/8	EA	8	OB
003	066-0650-02	PORT PLATE, WP POT SIDE	EA	1	FA
004	099-2010-37	O-RING	EA	19	OB
005	050-0284-06	SCREW, SHC 6-32 x 3/8	EA	6	OB
006	068-0420-01	PLATE, SEAL	EA	1	FA
007	068-0418-00	BEARING	EA	1	FA
008	050-0294-24	SCREW, SHC 5/16-18 x 1 1/2	EA	4	OB
009	066-0649-01	BRACKET, WP POT SIDE	EA	1	FA
010	057-1006-16	PIN, DOWEL 5/16 x 1 (SS)	EA	4	OB
011	066-0647-01	BRACKET, WP SHAFT SIDE	EA	1	FA
012	050-0292-16	SCREW, SHC 1/4-20 x 1	EA	1	OB
013	066-0648-02	PORT PLATE, WP SHAFT SIDE	EA	1	FA
014	050-0286-08	SCREW, SHC 8-32 x 1/2	EA	6	OB
015	099-2007-37	O-RING	EA	8	OB
016	600-0227-00	WRIST PITCH ACT. ASS'Y	EA	1	FA
017	068-0419-00	BEARING	EA	1	FA
018	099-4122-37	SEAL, SHAFT	EA	1	OB
019	099-2035-37	O-RING	EA	1	OB

KRAFT TELEROBOTICS  
ASSEMBLY PARTS LIST

NAME: FOREARM/ELBOW ASS'Y (W/FFB)  
REV 1

ASS'Y NO. 600-0247-01

ITEM	PART NUMBER	DESCRIPTION	UM	QTY	RSD
001	050-0294-24	SCREW, SHC 5/16-18 x 1 1/2	EA	2	OB
002	050-0294-14	SCREW, SHC 5/16-18 x 7/8	EA	6	OB
003	066-0783-01	BRACKET, ELBOW; RIGHT	EA	1	FA
004	093-7024-14	BEARING, FILAMENT	EA	2	OB
005	066-0784-01	BRACKET, ELBOW; LEFT	EA	1	FA
006	057-1006-16	PIN, DOWEL 5/16 x 1 (SS)	EA	4	OB
007	600-0246-01	FOREARM MANIFOLD ASS'Y	EA	1	FA

KRAFT TELEROBOTICS  
ASSEMBLY PARTS LIST

NAME: ASS'Y, VALVE MANIFOLD; FOREARM (W/FFB)  
REV 2

ASS'Y NO. 600-0246-01

ITEM	PART NUMBER	DESCRIPTION	UM	QTY	RSD
001	050-0286-08	SCREW, SHC 8-32 x 1/2	EA	30	OB
002	066-0785-02	FOREARM VALVE MANIFOLD	EA	1	FA
003	099-2012-37	O-RING	EA	2	OB
004	401-2001-00	VALVE, SERVO	EA	3	OB
005	401-2002-00	VALVE, SERVO	EA	1	FA
006	099-2170-37	O-RING	EA	2	OB
007	066-0727-01	FOREARM	EA	1	FA
008	096-0120-06	FITTING, 90° ELBOW	EA	3	OB
009	096-0124-04	PLUG, HOLLOW HEX	EA	1	OB
010	050-0288-16	SCREW, SHC 10-24 x 1	EA	5	OB
011	050-0288-28	SCREW, SHC 10-24 x 1 3/4	EA	8	OB
012	099-2011-37	O-RING	EA	8	OB
013	066-0728-01	COVER, FOREARM	EA	1	FA
014	050-0288-38	SCREW, SHC 10-24 x 2 3/8	EA	8	OB
015	576-0125-03	PRESSURE TRANSDUCER	EA	2	OB
016	327-3015-14	CONNECTOR	EA	1	FA
017	327-3016-14	CONNECTOR	EA	1	FA
018	326-5172-00	WIRING,	EA	1	FA
019	058-0204-02	WIRE CLAMP	EA	2	FA
020	068-0409-00	SPACER	EA	2	FA

KRAFT TELEROBOTICS  
ASSEMBLY PARTS LIST

NAME: UPPER ARM/AZIMUTH ACTUATOR ASS'Y (W/FFB) ASS'Y NO. 600-0245-01  
REV 2

ITEM	PART NUMBER	DESCRIPTION	UM	QTY	RSD
001	068-0498-00	PIN, SHOULDER	EA	1	FA
002	050-0300-20	SCREW, SHC 1/2-13 X 1 1/4	EA	6	OB
003	066-0789-01	BRACKET, ELEVATION; RIGHT	EA	1	FA
004	057-1007-24	PIN, DOWEL 1/2 x 1 1/2 (SS)	EA	4	OB
005	600-0224-00	AZIMUTH ACTUATOR ASS'Y	EA	1	FA
006	066-0790-01	BRACKET, ELEVATION; LEFT	EA	1	FA
007	058-0282-24	RING, RETAINING	EA	1	OB
008	068-0475-00	PIN, ROD	EA	1	FA
009	068-0489-01	SPACER	EA	2	FA
010	058-0282-14	RING, RETAINING	EA	1	OB
011	050-0292-12	SCREW, SHC 1/4-20 x 3/4	EA	14	OB
012	066-0770-02	TRUNNION PORT CAP; LEFT	EA	1	FA
013	093-7023-08	BEARING, FILAMENT	EA	2	OB
014	099-2009-37	O-RING	EA	2	OB
015	099-2010-37	O-RING	EA	4	OB
016	068-0496-00	PIN, TRUNNION PORT	EA	1	FA
017	600-0244-01	UPPER ARM ASS'Y	EA	1	FA
018	066-0769-02	TRUNNION PORT CAP; RIGHT	EA	1	FA
019	600-0242-00	ACTUATOR, LINEAR	EA	1	FA
020	093-7026-24	BEARING, THRUST	EA	2	OB
021	096-0124-00	PLUG	EA	2	OB
022	014-2091-00	SERIAL NUMBER PLATE	EA	1	FA
023	050-0167-04	SCREW, BHS 6-32 x 1/4	EA	4	FA

KRAFT TELEROBOTICS  
ASSEMBLY PARTS LIST

NAME: UPPER ARM ASS'Y W/FFB  
REV 2

ASS'Y NO. 600-0244-01

ITEM	PART NUMBER	DESCRIPTION	UM	QTY	RSD
001	050-0288-08	SCREW, SHC 10-24 x 1/2	EA	14	OB
002	066-0774-01	VALVE COVER	EA	1	FA
003	099-2169-37	O-RING	EA	1	OB
004	050-0292-12	SCREW, SHC 1/4-20 x 3/4	EA	26	OB
005	066-0779-01	UPPER ARM PLATE, RIGHT	EA	1	FA
006	600-0243-01	UPPER ARM MANIFOLD ASS'Y	EA	1	FA
007	097-0193-00	HOSE, UA/FA P-R	EA	2	OB
008	057-1007-16	PIN, DOWEL 1/2 x 1 (SS)	EA	2	OB
009	066-0781-01	BRACKET	EA	1	FA
010	097-0194-00	HOSE, UA/FA COMP	EA	1	OB
011	099-2009-37	O-RING	EA	4	OB
012	066-0780-01	UPPER ARM PLATE, LEFT	EA	1	FA
013	050-0333-12	SCREW, HHC 5/16-18 x 3/4	EA	12	OB
014	050-0286-06	SCREW, SHC 8-32 x 3/8	EA	8	OB
015	066-0788-01	NAME PLATE	EA	2	FA
016	050-0333-08	SCREW, HHC 5/16-18 x 1/2	EA	2	OB
017	093-7024-16	BEARING	EA	2	OB
018	068-0497-01	SPOOL	EA	1	FA
019	097-0196-00	HOSE, UA/SA COMP	EA	1	OB
020	097-0195-00	HOSE, SA A-B	EA	2	OB
021	061-6011-11	WASHER, FLAT; 5/16" (SS)	EA	14	OB

KRAFT TELEROBOTICS  
ASSEMBLY PARTS LIST

NAME: UPPER ARM VALVE MANIFOLD ASS'Y (W/FFB)  
REV 1

ASS'Y NO. 600-0243-01

ITEM	PART NUMBER	DESCRIPTION	UM	QTY	RSD
001	070-0160-02	CAN, VALVE	EA	1	FA
002	099-3903-39	O-RING	EA	2	OB
003	326-0028-00	CABLE, PENETRATOR	EA	2	FA
004	096-0122-06	FITTING, TUBE	EA	1	OB
005	401-2003-00	VALVE, PRESSURE REDUCING	EA	1	FA
006	050-0288-38	SCREW, SHC 10-24 x 2 3/8	EA	4	OB
007	050-0288-56	SCREW, SHC 10-24 x 3 1/2	EA	8	OB
008	401-2008-00	VALVE, SERVO	EA	3	FA
009	099-2011-37	O-RING	EA	21	OB
010	401-2006-00	VALVE, CHECK	EA	2	FA
011	099-2169-37	O-RING	EA	1	OB
012	066-0771-02	MANIFOLD, VALVE; UA	EA	1	FA
013	096-0124-04	PLUG	EA	1	OB
014	096-0120-06	FITTING, 90 ELBOW	EA	2	OB
015	096-0154-06	FITTING, 45 ELBOW	EA	2	OB
016	096-0122-04	FITTING, STRAIGHT	EA	3	OB
017	099-2009-37	O-RING	EA	2	OB
018	099-2019-37	O-RING	EA	1	OB
019	099-2014-37	O-RING	EA	1	OB
020	066-0732-02	BLOCK, PRESSURE REDUCING	EA	1	FA
021	050-0288-36	SCREW, SHC 10-24 x 2 1/4	EA	4	OB
022	401-2004-00	VALVE, SOLENOID	EA	1	FA
023	050-0288-08	SCREW, SHC 10-24 x 1/2	EA	24	OB
024	326-5171-00	WIRING, MANIFOLD; UA	EA	1	FA
025	327-2010-00	CONNECTOR, MIN-M-37-FCR	EA	1	FA
026	050-0286-06	SCREW, SHC 8-32 x 3/8	EA	4	OB
027	576-0125-03	PRESSURE TRANSDUCER	EA	3	OB

KRAFT TELEROBOTICS  
ASSEMBLY PARTS LIST

NAME: LINEAR ACTUATOR, ELEVATION, ELBOW  
REV: 2      7/28/2004

ASS'Y NO. 600-0242-00

ITEM	PART NUMBER	DESCRIPTION	UM	QTY	RSD
001	093-7023-16	BEARING, FILAMENT	EA	1	OB
002	066-0730-00	RODEND	EA	1	FA
003	099-2023-37	O-RING	EA	1	OB
004	100-0177-16	WIPER, ROD	EA	1	OB
005	100-0154-16	SEAL, ROD	EA	1	OB
006	050-0288-16	SCREW, SHC 10-24 x 1	EA	14	OB
007	068-0493-01	HEAD, CYLINDER	EA	1	FA
008	100-8131-39	BACKUP-RING	EA	2	OB
009	099-2131-37	O-RING	EA	2	OB
010	099-2010-37	O-RING	EA	1	OB
011	050-0288-12	SCREW, SHC 10-24 x 3/4	EA	4	OB
012	097-5133-01	TUBE ASS'Y	EA	1	FA
013	068-0492-01	BARREL, CYLINDER	EA	1	FA
014	068-0494-00	PISTON/ROD	EA	1	FA
015	100-0172-30	BEARING, PISTON	EA	1	OB
016	099-2221-37	O-RING	EA	1	OB
017	100-0173-30	SEAL, PISTON	EA	1	OB
018	529-0141-01	WIPER, POTENTIOMETER	EA	1	OB
019	529-0141-02	SNAP RING	EA	1	OB
020	529-0142-00	POTENTIOMETER, LINEAR	EA	1	OB
021	529-0141-03	WAVE SPRING	EA	1	OB
022	050-0280-06	SCREW, SHC 4-40 x 3/8	EA	4	OB
023	066-0729-01	PLATE, POT MOUNTING	EA	1	FA
024	099-2009-37	O-RING	EA	1	OB
025	066-0766-01	CAP, CYLINDER	EA	1	FA
026	050-0288-20	SCREW, SHC 10-24 x 1 1/4	EA	12	OB
027	099-2011-37	O-RING	EA	1	OB
028	326-0030-00	CABLE, PENETRATOR	EA	1	FA

KRAFT TELEROBOTICS  
ASSEMBLY PARTS LIST

NAME: WRIST YAW/WRIST ROLL ACTUATOR ASS'Y  
REV: 4      7/28/2004

ASS'Y NO. 600-0238-00

ITEM	PART NUMBER	DESCRIPTION	UM	QTY	RSD
001	050-0286-08	SCREW, SHC 8-32 x 1/2	EA	6	OB
002	066-0654-02	PORT PLATE, WY POT SIDE	EA	1	FA
003	099-2010-37	O-RING	EA	11	OB
004	050-0284-06	SCREW, SHC 6-32 x 3/8	EA	6	OB
005	068-0420-01	PLATE, SEAL	EA	1	FA
006	099-2035-37	O-RING	EA	1	OB
007	068-0418-00	BEARING	EA	1	FA
008	066-0653-01	BRACKET, WY POT SIDE	EA	1	FA
009	068-0419-00	BEARING	EA	1	FA
010	600-0228-00	ACTUATOR, WRIST YAW	EA	1	FA
011	066-0651-01	BRACKET, WY SHAFT SIDE	EA	1	FA
012	050-0292-16	SCREW, SHC 1/4-20 x 1	EA	1	OB
013	099-2007-37	O-RING	EA	4	OB
014	066-0652-02	PORT PLATE, WY SHAFT SIDE	EA	1	FA
015	050-0288-08	SCREW, SHC 10-24 x 1/2	EA	5	OB
016	099-4122-37	SEAL, SHAFT	EA	1	OB
017	050-0292-14	SCREW, SHC 1/4-20 x 7/8	EA	2	OB
018	050-0292-10	SCREW, SHC 1/4-20 x 5/8	EA	2	OB
019	057-1001-16	PIN, DOWEL 1/4 x 1 (SS)	EA	4	OB
020	600-0229-00	ACTUATOR, WRIST ROLL	EA	1	FA
021	327-3016-04	CONNECTOR	EA	1	FA

KRAFT TELEROBOTICS  
ASSEMBLY PARTS LIST

NAME: WRIST ROLL ACTUATOR ASS'Y  
REV: 4      7/28/2004

ASS'Y NO. 600-0229-00  
PAGE 1

ITEM	PART NUMBER	DESCRIPTION	UM	QTY	RSD
001	050-0292-10	SCREW, SHC 1/4-20 x 5/8	EA	11	OB
002	050-0292-16	SCREW, SHC 1/4-20 x 1	EA	6	OB
003	066-0658-02	PLATE, WR COVER	EA	1	FA
004	058-0180-06	BALL, 3/16 STEEL	EA	3	FA
005	093-3007-00	BEARING, NEEDLE	EA	1	FA
006	057-1001-16	PIN, DOWEL 1/4 x 1 (SS)	EA	4	OB
007	099-2145-37	O-RING	EA	1	OB
008	100-0167-40	SEAL, SHAFT	EA	1	OB
009	093-7028-00	BUSHING, BRONZE	EA	1	FA
010	100-0154-10	SEAL, ROD	EA	1	OB
011	068-0535-00	HEAD, GRIPPER CYLINDER	EA	1	FA
012	093-5016-00	BEARING, BALL	EA	1	FA
013	099-2030-37	O-RING	EA	1	OB
014	068-0533-00	PISTON/ROD	EA	1	FA
015	100-0156-20	SEAL, PISTON	EA	1	OB
016	068-0534-02	CYL, GRIPPER	EA	1	FA
017	057-1002-08	PIN, DOWEL 1/8 x 1/2 (SS)	EA	1	FA
018	080-1035-00	GEAR, CYL ROTATE	EA	1	FA
019	093-5021-00	BEARING, BALL	EA	1	FA
020	050-0288-16	SCREW, SHC 10-24 x 1	EA	8	OB
021	099-2015-37	O-RING	EA	4	OB
022	100-0167-08	SEAL, SHAFT	EA	4	OB
023	099-2044-37	O-RING	EA	1	OB
024	099-2008-37	O-RING	EA	2	OB
025	066-0863-01	BODY, WR ACTUATOR	EA	1	FA
026	096-0124-04	PLUG, HOLLOW HEX	EA	1	OB
027	326-5167-00	WIRING HARNESS, WR POT	EA	1	FA
028	327-3015-04	CONNECTOR	EA	1	FA
029	529-0132-01	POTENTIOMETER	EA	1	OB
030	058-0182-00	CLEAT, POT. MOUNTING	EA	2	OB
031	066-0662-01	PLATE, POT MOUNTING	EA	1	FA
032	050-0432-04	SCREW, FHP 2-56 x 1/4	EA	2	OB
033	080-1024-00	GEAR, SPUR	EA	2	OB
034	099-2048-37	O-RING	EA	1	OB
035	099-2011-37	O-RING	EA	4	OB
036	050-0432-03	SCREW, FHP 2-56 x 3/16	EA	4	OB
037	066-0659-01	WIRE RETAINER	EA	1	FA
038	066-0656-02	PLATE, WR BASE	EA	1	FA

KRAFT TELEROBOTICS  
ASSEMBLY PARTS LIST

NAME: WRIST ROLL ACTUATOR ASS'Y  
REV: 4      7/28/2004

ASS'Y NO. 600-0229-00  
PAGE 2

ITEM	PART NUMBER	DESCRIPTION	UM	QTY	RSD
039	050-0286-06	SCREW, SHC 8-32 x 3/8	EA	2	OB
040	050-0286-12	SCREW, SHC 8/32 x 3/4	EA	1	OB
041	093-5014-00	BEARING, BALL	EA	1	FA
042	093-5002-00	BEARING, BALL	EA	1	FA
043	080-1022-00	GEAR, MOTOR/GRIPPER	EA	1	FA
044	099-2034-37	O-RING	EA	1	OB
045	051-0117-00	CHECK VALVE BODY	EA	2	FA
046	093-5005-00	BEARING, BALL	EA	1	FA
047	068-0421-00	RETAINER, BEARING	EA	1	FA
048	050-0436-06	SCREW, FHP 4-40 x 3/8	EA	3	OB
049	080-1021-00	GEAR, MOTOR OUTPUT	EA	1	FA
050	066-0751-00	COUPLING, MOTOR	EA	1	FA
051	600-0223-00	MOTOR	EA	1	FA
052	050-0284-06	SCREW, SHC 6-32 x 3/8	EA	4	OB
053	099-2010-37	O-RING	EA	2	OB
054	057-1001-10	PIN, DOWEL 1/4 x 5/8 (SS)	EA	2	OB
055	068-0536-00	SHIM	EA	1	FA

KRAFT TELEROBOTICS  
ASSEMBLY PARTS LIST

NAME: WRIST YAW ACTUATOR ASS'Y  
REV 4

ASS'Y NO. 600-0228-00

ITEM	PART NUMBER	DESCRIPTION	UM	QTY	RSD
001	050-0276-06	SCREW, SHC 2-56 x 3/8	EA	2	OB
002	529-0140-00	POTENTIOMETER WIPER ASS'Y	EA	1	OB
003	050-0003-08	SCREW, PHP 2-56 x 1/2	EA	1	OB
004	058-0280-00	CLAMP, WIRE	EA	1	OB
005	058-0281-01	STANDOFF	EA	1	OB
006	050-0003-03	SCREW, PHP 2-56 x 3/16	EA	2	OB
007	529-0139-00	POTENTIOMETER, ELEMENT	EA	1	OB
008	051-0118-04	PLUG, 6-32 x 1/4	EA	1	OB
009	068-0412-01	CASE, WY ACT (POT SIDE)	EA	1	FA
010	099-4216-37	QUAD-RING	EA	2	OB
011	100-0179-20	BACKUP	EA	2	OB
012	100-0167-20	SEAL, SHAFT	EA	6	OB
013	099-2025-37	O-RING	EA	6	OB
014	099-4127-39	QUAD-RING	EA	2	OB
015	099-2043-37	O-RING	EA	1	OB
016	066-0646-00	VANE, ROTOR	EA	1	FA
017	068-0530-00	PIN, 1/4 x 1 1/4 (SS) DRILLED	EA	2	OB
018	050-0288-16	SCREW, SHC 10-24 x 1	EA	1	OB
019	100-0169-23	SEAL, VANE	EA	3	OB
020	099-2122-37	O-RING	EA	3	OB
021	068-0417-01	SHAFT, WY ACTUATOR	EA	1	FA
022	066-0645-00	VANE, STATOR	EA	1	FA
023	057-2001-40	PIN, DOWEL 1/4 x 2 1/2 (HGS)	EA	2	OB
024	068-0413-01	CASE, WY ACT (SHAFT SIDE)	EA	1	FA
025	050-0294-32	SCREW, SHC 5/16-18 x 2	EA	2	OB
026	050-0294-40	SCREW, SHC 5/16-18 x 2 1/2	EA	6	OB
027	100-0178-00	SEAL, SHOULDER	EA	2	OB
028	327-3015-05	CONNECTOR	EA	1	FA
029	326-5169-00	WY WIRING HARNESS	EA	1	FA

KRAFT TELEROBOTICS  
ASSEMBLY PARTS LIST

NAME: WRIST PITCH ACTUATOR ASS'Y  
REV 4

ASS'Y NO. 600-0227-00

ITEM	PART NUMBER	DESCRIPTION	UM	QTY	RSD
001	050-0276-06	SCREW, SHC 2-56 x 3/8	EA	2	OB
002	529-0140-00	POTENTIOMETER WIPER ASS'Y	EA	1	OB
003	050-0003-08	SCREW, PHP 2-56 x 1/2	EA	1	OB
004	058-0280-00	CLAMP, WIRE	EA	1	OB
005	058-0281-01	STANDOFF	EA	1	OB
006	050-0003-03	SCREW, PHP 2-56 x 3/16	EA	2	OB
007	529-0139-00	POTENTIOMETER, ELEMENT	EA	1	OB
008	051-0118-04	PLUG, 6-32 x 1/4	EA	1	OB
009	068-0414-01	CASE, WP ACT (POT SIDE)	EA	1	FA
010	099-4216-37	QUAD-RING	EA	2	OB
011	100-0179-20	BACKUP	EA	2	OB
012	100-0167-20	SEAL, SHAFT	EA	8	OB
013	099-2025-37	O-RING	EA	8	OB
014	099-4127-39	QUAD-RING	EA	2	OB
015	099-2043-37	O-RING	EA	1	OB
016	066-0646-00	VANE, ROTOR	EA	1	FA
017	068-0530-00	PIN, 1/4 x 1 1/4 (SS) DRILLED	EA	2	OB
018	050-0288-16	SCREW, SHC 10-24 x 1	EA	1	OB
019	100-0169-23	SEAL, VANE	EA	3	OB
020	099-2122-37	O-RING	EA	3	OB
021	068-0416-01	SHAFT, WP ACTUATOR	EA	1	FA
022	066-0645-00	VANE, STATOR	EA	1	FA
023	057-2001-40	PIN, DOWEL 1/4 x 2 1/2 (HGS)	EA	2	OB
024	068-0415-01	CASE, WP ACT (SHAFT SIDE)	EA	1	FA
025	050-0294-48	SCREW, SHC 5/16-18 x 3	EA	8	OB
026	100-0178-00	SEAL, SHOULDER	EA	2	OB
027	327-3016-05	CONNECTOR	EA	1	FA
028	326-5170-00	WP WIRING HARNESS	EA	1	FA

KRAFT TELEROBOTICS  
ASSEMBLY PARTS LIST

NAME: AZIMUTH ACTUATOR ASS'Y  
REV 4

ASS'Y NO. 600-0224-00

ITEM	PART NUMBER	DESCRIPTION	UM	QTY	RSD
001	050-0296-80	SCREW, SHC 3/8-16 x 5	EA	20	OB
002	066-0737-01	PLATE, AZIMUTH MOUNTING	EA	1	FA
003	096-0124-04	PLUG, HOLLOW HEX	EA	3	OB
004	099-4356-37	QUAD-RING	EA	1	OB
005					
006	068-0480-01	RING, AZIMUTH SEAL	EA	1	FA
007	093-3008-00	BEARING	EA	1	FA
008	068-0479-00	COUPLING, AZIMUTH	EA	1	FA
009	099-2163-37	O-RING	EA	1	OB
010	050-0292-16	SCREW, SHC 1/4-20 x 1	EA	24	OB
011	099-4328-37	SEAL, SHAFT	EA	2	OB
012	068-0481-01	BODY, AZ ACT LOWER HALF	EA	1	FA
013	099-4229-39	QUAD-RING	EA	2	OB
014	068-0483-01	SHAFT, AZIMUTH ACTUATOR	EA	1	FA
015	100-0171-48	SEAL	EA	3	OB
016	099-2230-37	O-RING	EA	3	OB
017	050-0298-32	SCREW, SHC 7/16-14 x 2	EA	1	OB
018	057-2007-40	PIN, DOWEL 1/2 x 2 1/2 (HGS)	EA	2	OB
019	066-0739-00	VANE, ROTOR	EA	1	FA
020	099-2164-37	O-RING	EA	1	OB
021	068-0482-01	BODY, AZ ACT UPPER HALF	EA	1	FA
022	096-0120-04	FITTING, TUBE; 90°	EA	2	OB
023	057-2007-36	PIN, DOWEL 1/2 x 2 1/4 (HGS)	EA	2	OB
024	066-0738-00	VANE, STATOR	EA	1	FA
025	325-0012-11	WIRE, 26GA WHT/BLK	IN	42	FA
026	325-0012-12	WIRE, 26GA WHT/RED	IN	42	FA
027	325-0012-19	WIRE, 26GA WHT/VIOLET	IN	52	FA
028	096-0157-04	FITTING, TUBE	EA	1	OB
029	068-0486-01	PLATE, POT MOUNTING	EA	1	FA
030	050-0280-06	SCREW, SHC 4-40 x 3/8	EA	3	OB
031	529-0139-00	POTENTIOMETER,ELEMENT	EA	1	OB
032	050-0003-03	SCREW, PHP 2-56 x 3/16	EA	3	OB
033	529-0143-00	POTENTIOMETER WIPER ASS'Y	EA	1	OB
034	050-0436-06	SCREW, FHP 4-40 x 3/8	EA	3	OB
035	099-2040-37	O-RING	EA	1	OB
036	068-0485-01	COVER, POTENTIOMETER	EA	1	FA
037	050-0286-08	SCREW, SHC 8-32 x 1/2	EA	6	OB
038	100-0175-42	SEAL, SHOULDER	EA	2	OB
039	068-0531-00	PIN, 1/2 x 2 1/2 (SS) DRILLED	EA	2	OB

KRAFT TELEROBOTICS  
ASSEMBLY PARTS LIST

NAME: CHASSIS ASS'Y, KMC9100F  
REV. 2

ASS'Y NO. 600-0211-00  
PAGE 1

ITEM	PART NUMBER	DESCRIPTION	UM	QTY	RSD
001	600-0210-00	CARD CAGE ASS'Y	EA	1	
002	066-0387-02	FRONT PANEL	EA	1	
003	066-0393-02	REAR PANEL	EA	1	
004	066-0389-01	RIGHT PANEL	EA	1	
005	066-0390-01	LEFT PANEL	EA	1	
006	066-0388-01	FRONT PANEL BRACKET	EA	2	
007	066-0545-01	REAR PANEL BRACKET	EA	2	
008	066-0564-01	FILTER COVER	EA	2	
009	066-0394-00	REAR BUMBER	EA	2	
010	066-0595-01	MOUNTING BLOCK	EA	1	
011	058-0207-00	QT FASTENER RECPT	EA	2	
012	058-0249-00	HANDLE	EA	2	
013	058-0283-00	SCREW, CAPTIVE	EA	4	
014	058-0261-32	STANDOFF, 3/8 X 2 R	EA	2	
015	058-0219-00	THREAD LOCK, FIXED	PR	2	
016	058-0189-06	GROMMET	EA	2	
017	058-0270-00	FILTER FOAM	EA	2	
018	058-0284-00	WASHER	EA	4	
019	050-0210-08	SCREW, FHS 10-24 X 1/2	EA	4	
020	050-0286-20	SCREW, CHS 8-32 X 1 1/4	EA	4	
021	050-0013-06	SCREW, PHP 8-32 X 3/8	EA	3	
022	050-0442-08	SCREW, FHP 8-32 X 1/2	EA	2	
023	051-0119-00	SCREW, FHP M4 x 6	EA	4	
024	051-0113-16	SCREW, TRD 8-32 X 1	EA	1	
025	050-0440-09	SCREW, FHP 6-32 X 9/16	EA	14	
026	050-0440-08	SCREW, FHP 6-32 X 1/2	EA	8	
027	050-0440-06	SCREW, FHP 6-32 X 3/8	EA	26	
028	050-0011-06	SCREW, PHP 6-32 X 3/8	EA	4	
029	050-0436-08	SCREW, FHP 4-40 X 1/2	EA	2	
030	050-0436-06	SCREW, FHP 4-40 X 3/8	EA	12	
031	050-0436-04	SCREW, FHP 4-40 X 1/4	EA	6	
032	050-0007-06	SCREW, PHP 4-40 X 3/8	EA	6	
033	050-0432-04	SCREW, FHP 2-56 X 1/4	EA	30	
034	052-0011-11	NUT, HEX NYLOK 6-32	EA	8	
035	052-0007-11	NUT, HEX NYLOK 4-40	EA	6	
036	500-0184-00	BOARD, LED	EA	1	
037	326-5119-01	LED ASS'Y	EA	2	

KRAFT TELEROBOTICS  
ASSEMBLY PARTS LIST

NAME: CHASSIS ASS'Y, KMC9100F  
REV. 2

ASS'Y NO. 600-0211-00  
PAGE 2

ITEM	PART NUMBER	DESCRIPTION	UM	QTY	RSD
038	559-0100-00	FUSE 1A 250V ABC	EA	1	
039	559-1500-00	FUSE 15A 250V ABC	EA	1	
040	570-0008-00	SUPPLY, LINEAR; +-12V	EA	1	
041	570-1004-00	SUPPLY, SWITCHING	EA	1	
042	573-0001-00	FAN	EA	2	
043	574-0011-00	SWITCH, POWER	EA	1	
044	575-0012-00	RECEPTACLE, AC	EA	1	
045	575-0015-00	HOLDER, FUSE	EA	2	
046	327-4001-03	TERMINAL BLOCK	EA	1	
047	326-0019-02	POWER CORD 14-3 2M	EA	1	
048	326-5128-08	CABLE ASS'Y, 5PIN (8")	EA	1	
049	326-5120-08	CABLE ASS'Y, 37PIN RB	EA	1	
050	326-5124-10	CABLE ASS'Y 9PIN RB	EA	2	
051	326-5131-00	WIRING HARNESS	EA	1	

KRAFT TELEROBOTICS  
ASSEMBLY PARTS LIST

NAME: CARD CAGE ASS'Y  
REV. 0

ASS'Y NO. 600-0210-00

ITEM	PART NUMBER	DESCRIPTION	UM	QTY	RSD
001	500-0182-00	MOTHER BOARD, KMC9100-F	EA	1	
002	070-0135-01	AIR TUNNEL	EA	1	
003	066-0531-01	CARD GUIDE	EA	8	
004	066-0392-01	BOTTOM PANEL	EA	1	
005	050-0440-06	SCREW, FHP 6-32 X 3/8	EA	16	
006	050-0441-04	SCREW, FHP 6-32 X 1/4	EA	24	
007	050-0011-06	SCREW, PHP 6-32 X 3/8	EA	16	

KRAFT TELEROBOTICS  
ASSEMBLY PARTS LIST

NAME: MOTOR DRIVER MODULE ASS'Y  
REV. 0

ASS'Y NO. 600-0206-00

ITEM	PART NUMBER	DESCRIPTION	UM	QTY	RSD
001	066-0442-01	HEAT SINK	EA	1	
002	500-0181-00	BOARD, MOTOR DRIVER	EA	1	
003	574-0013-00	SWITCH, TEMPERATURE	EA	1	
004	545-0061-60	IC, PA61 POWER OPAMP	EA	4	
005	050-0284-05	SCREW, SHC 6-32 x 5/16	EA	8	
006	050-0284-06	SCREW, SHC 6/32 x 3/8	EA	4	
007	098-0117-00	TUBING, SHRINK	IN	8	
		(CUT TO .25" LENGTHS)	EA	32	

KRAFT TELEROBOTICS  
ASSEMBLY PARTS LIST

NAME: 3/4" T-HANDLE GRIPPER ASS'Y  
REV 2

ASS'Y NO. 600-0133-02

ITEM	PART NUMBER	DESCRIPTION	UM	QTY	RSD
001	066-0327-01	LINK, OUTER	EA	2	FA
002	066-0325-01	LINK, INNER	EA	2	FA
003	066-0326-01	LEVER, LINK	EA	2	FA
004	066-0324-01	PLATE, GRIPPER SIDE	EA	2	FA
005	066-0323-01	BASE, GRIPPER	EA	1	FA
006	068-0491-00	PIN	EA	2	FA
007	068-0232-00	PIN	EA	2	FA
008	068-0231-00	PIN	EA	2	FA
009	068-0234-00	PIN	EA	2	FA
010	093-7003-23	BEARING, FILAMENT	EA	2	FA
011	093-7003-12	BEARING, FILAMENT	EA	4	FA
012	093-7002-32	BEARING, FILAMENT	EA	2	FA
013	057-1002-08	PIN, DOWEL 1/8 x 1/2 (SS)	EA	4	FA
014	052-5002-20	WASHER, TEFLON	EA	12	OB
015	052-5001-20	WASHER, TEFLON	EA	4	OB
016	050-0210-10	SCREW, FHS 10-24 x 5/8	EA	14	OB
017	050-0214-12	SCREW, FHS 1/4-20 x 3/4	EA	8	OB
018	066-0765-00	FINGER, 3/4" T-HANDLE	EA	2	FA

KRAFT TELEROBOTICS  
ASSEMBLY PARTS LIST

NAME: BOARD, LED; KMC9100 F  
REV. 2

ASS'Y NO. 500-0184-00

QTY	UM	PART NUMBER	DESCRIPTION	REF
1	EA	510-0184-00	PC BOARD, LED (rev 2)	PC1
3	EA	522-0221-37	RES, 220 OHM 1/2W 5% CC	R1-3
1	EA	522-1501-37	RES, 1.5K OHM 1/2W 5% CC	R4
1	EA	551-0002-01	LED, BARREL; YELLOW	CR1
2	EA	551-0002-00	LED, BARREL; RED	CR2
1	EA	551-0002-02	LED, BARREL; GREEN	CR3,4
2	EA	565-0003-43	CONN, 3PIN MPCRA	J10,12,13
1	EA	565-0005-43	CONN, 5PIN MPCRA	J11
6	EA	058-0272-04	SPACER, 1/4Rx1/4L #4	

KRAFT TELEROBOTICS  
ASSEMBLY PARTS LIST

NAME: MOTHER BOARD; KMC 9100F  
REV. 2

ASS'Y NO. 500-0182-00

QTY	UM	PART NUMBER	DESCRIPTION	REF
1	EA	510-0182-00	PC BOARD, MOTHER BD (rev 2)	PC1
1	EA	528-1500-80	RES, 150 OHM 2% x 8 DIP	M1
1	EA	531-0104-38	CAP, .1uf CER CK	C2
1	EA	531-0334-38	CAP, .33uf CER CK	C1
1	EA	547-3405-60	IC, LM340AK-5	U1
7	EA	550-0010-10	FET, VN10KM	Q1-7
6	EA	561-2020-22	CONN, CARD EDGE	J15-20
2	EA	562-0002-00	D CONN, 9PIN MPCN	J7,14
1	EA	562-2008-00	D CONN, 25PIN FLPCN	J127
1	EA	562-2009-00	D CONN, 25PIN MLPCN	J128
1	EA	562-3002-00	D CONN, 37PIN MPCN	J6
1	EA	564-2003-21	CONN, 3PIN MPC	J9
1	EA	564-2004-21	CONN, 4PIN MPC	J21
1	EA	565-0005-23	CONN, 5PIN MPC	J8
2	EA	058-0268-02	STANDOFF,SWAGE 3/8Hex x 1/4L 10-32	E1,2
2	EA	575-0023-00	JACK, TEST; BLK	TP2,6
1	EA	575-0023-01	JACK, TEST; BRN	TP3
1	EA	575-0023-02	JACK, TEST; RED	TP5
1	EA	575-0023-03	JACK, TEST; ORN	TP4
1	EA	575-0023-04	JACK, TEST; YEL	TP1
2	EA	575-0024-00	JACK, CAGE	FOR U1
1	EA	575-0001-00	HEAT SINK, TO3	FOR U1
2	EA	058-0267-02	STANDOFF,SWAGE 1/4D x 1/8L 6-32	FOR U1
2	EA	050-0011-06	SCREW, PHP 6-32 x 3/8	FOR U1
16	EA	058-0264-05	STANDOFF,SWAGE 1/4D x 5/16L 6-32	
3	PR	562-4002-00	THREAD LOCK, FIXED	

KRAFT TELEROBOTICS  
ASSEMBLY PARTS LIST

NAME: SERVO MOTOR DRIVER  
REV. 2

ASS'Y NO. 500-0181-00

QTY	UM	PART NUMBER	DESCRIPTION	REF
1	EA	510-0181-00	PC BOARD, SMD (rev 2)	PC1
4	EA	521-0008-65	RES, 0.08 OHM 3W 1% WW	R13,14,27,28
4	EA	521-0010-65	RES, 0.10 OHM 3W 1% WW	R4,5,18,19
2	EA	520-1001-15	RES, 1.0K OHM 1/8W 1% MF	R3,17
4	EA	520-2001-15	RES, 2.0K OHM 1/8W 1% MF	R6,11,20,25
4	EA	520-4991-15	RES, 4.9K OHM 1/8W 1% MF	R8,9,22,23
1	EA	520-5991-15	RES, 5.9K OHM 1/8W 1% MF	R16
1	EA	520-1102-15	RES, 11K OHM 1/8W 1% MF	R2
6	EA	520-1003-15	RES, 100K OHM 1/8W 1% MF	R7,10,12,21,24,26
2	EA	529-2001-20	POT, 2K OHM TRIM	R1,15
4	EA	530-0102-38	CAP, 1.0K pf CER TS	C2,8,10,16
6	EA	530-0104-38	CAP, 100K pf CER CK	C3,4,7,11,12,15
2	EA	530-0474-38	CAP, 470K pf CER TS	C1,9
2	EA	532-0106-18	CAP, 10 uf TANT	C17,18
4	EA	532-0156-38	CAP, 15 uf TANT	C5,6,13,14
2	EA	551-0004-00	LED,	CR1,2
4	EA	554-0506-00	CHOKE, 5uH	L1-4
2	EA	559-0400-01	FUSE, 4AMP PICO	F1,2
6	EA	575-0003-00	TERMINAL, TURRET	E1-6
2	EA	575-0022-05	JACK, TEST; GRN	TP1,2
2	EA	575-0022-06	JACK, TEST; BLU	TP3,4
32	EA	575-0024-00	JACK, CAGE	
4	EA	058-0265-02	STANDOFF,SWAGE 1/4Rx1/8L #4 THRU	
4	IN	325-0013-05	WIRE, 22AWG TEF; YEL	

