REV	ZONE	DESCRIPTION OF CHANGE

37 PART NUMBER 30F002, NEWARK ELECTRONICS, CHICAGO, IL IS AN EQUIVALENT PART FOR SWITCH BOOT (ITEM 72).

36 PART NUMBER 23F229, NEWARK ELECTRONICS, CHICAGO, IL IS AN EQUIVALENT PART FOR SWITCH (ITEM 70).

35 PART NUMBER 41F524, NEWARK ELECTRONICS, CHICAGO, IL IS AN EQUIVALENT PART FOR SWITCH (ITEM 69).

34 TORQUE FASTENERS FOR BOTH INPUT POWER CONNECTOR ASSEMBLIES (ITEMS 3 AND 4) EVENLY TO INSURE PROPER INTERNAL BLIND CONNECTOR ALIGNMENT.

33 RUBBER STAMP REFERENCE DESIGNATORS IN .13 INCH HIGH CHARACTERS USING ITEM 65 PER NASA/JSC PRC-9002. LOCATE APPROXIMATELY AS SHOWN.

32 M39029/64-369, M24308/11-1 AND ITT CANNON 330-5291-037 ARE EQUIVALENT PART NUMBERS.

31 M39029/63-368, M24308/10-1 AND ITT CANNON 031-1007-042 ARE EQUIVALENT PART NUMBERS.

30 FURON, NEW HAVEN, CT

29 3M COMPANY, ST PAUL, MN

28 BRADY COMPANY, MILWAUKEE, MN

27 TWIST THIS PAIR OF WIRES TOGETHER.

26 CONNECT WIRE TO CHASSIS BY MOUNTING TERMINAL LUG TO NEAREST CONNECTOR MOUNTING SCREW.

25 CONNECT WIRE TO POWER SELECT SWITCH (ITEM 70) USING TERMINAL LUG (ITEM 78). APPLY ONE DROP OF SEALANT (ITEM 62) TO SCREW THREADS OF SWITCH.

24 CONNECT SEG46119526-301 FRONT PANEL CABLE ASSEMBLY (ITEM 17) TO FRONT PANEL SWITH (ITEM 69) AND PANEL MOUNTING LIGHTS (ITEM 56) PER SEG46119526-301 WIRE LIST USING SOLDER (ITEM 63).

23 CONNECT TERMINAL LUG OF SEG46119527-301 CABLE ASSEMBLY (ITEM 18) UNDER CONNECTOR "J1" (ITEM 60) MOUNTING SCREW.

22 CONNECT BOTH TERMINAL LUGS OF SEG46119529-302 (ITEM 21) AND SEG46119528-301 (ITEM 19) CABLE ASSEMBLIES TO POWER SELECT SWITCH (ITEM 70) RTN TERMINAL.

21 CONNECT TERMINAL LUG OF SEG46119529-301 CABLE ASSEMBLY (ITEM 20) TO POWER SELECT SWITCH (ITEM 70) 120V IN TERMINAL.

20 PERMANENTLY INK MARK CHASSIS (ITEM 1) NEXT TO UOP BLIND MATE INPUT CONNECTOR "SUP/UOP J3" IN .13 HIGH CHARACTERS WITH INK (ITEM 65). SEE SECTION "B-B".

19 PERMANENTLY INK MARK CHASSIS (ITEM 1) NEXT TO UIP BLIND MATE INPUT CONNECTOR "UIP J2" IN .13 HIGH CHARACTERS WITH INK (ITEM 65). SEE SECTION "B-B".

18 PERMANENTLY INK MARK SWITCH (ITEM 70) AS SHOWN IN DETAIL "C" IN .08 INCH HIGH CHARACTERS USING INK (ITEM 74).

17 BENTLEY HARRIS, LYONSVILLE, PA

16 PANDUIT CORP, TINLEY PARK, IL

15 ELMWOOD SENSOR, PAWTUCKET, RI

14 PART NUMBER MS21027-231E IS AN EQUIVALENT PART FOR ITEM 53 (SWITCH).

13 REMOVE PROTECTIVE BACKING FROM ITEMS 26, 27, 28, 29, 30 AND 31 AND CAREFULLY ADHERE IN PLACE AS SHOWN ONTO ITEMS 1 AND 2.

12 DISCARD VENDOR SUPPLIED LOCKWASHERS.

11 APPLY COPPER TAPE (ITEM 66) TO END OF GROUND STRAP (ITEM 25) AS REQUIRED TO PREVENT FRAYING.

10 ALPHA WIRE, ELIZABETH, NJ

9 APPLY ONE DROP OF SEALANT (ITEM 62) TO SCREW THREADS AND TORQUE TO 7-8 INCH POUNDS.

8 EATON CORP, COMMERCIAL CONTROLS DIV, SELMA, NC

7 ITT CANNON, SANTA ANA, CA

6 LOCTITE CORP, ROCKY HILL, CT

5 APM HEXSEAL CORP, ENGLEWOOD, NJ

4 LITTLEFUSE, DES PLAINS, IL

3 GLOBE ELECTRONIC HARDWARE, INC, WOODSIDE, NY

2 PART NUMBER AND SERNO SHALL BE MARKED IN .12 INCH HIGH CHARACTERS BY RUBBER STAMPING USING ITEM 74 PER NASA/JSC PRC-9002. LOCATE APPROXIMATELY AS SHOWN. SERIAL NUMBER SHALL BE ASSIGNED BY EDCC IN ACCORDANCE WITH JPG 8500.4.

1 INDEPENDENT INK INC, GARDENA, CA

FLAG NOTES:

12. ALL CONNECTORS TO BE FULLY PINNED.
11. WIRE PER INTERCONNECTION DIAGRAM AND WIRE DATA LIST SHOWN ON SHEET 5.
10. APPLY TORQUE OF 65-75 INCH POUNDS ABOVE RUNNING TORQUE TO SIZE .250 FASTENERS.
9. APPLY TORQUE OF 17-20 INCH POUNDS ABOVE RUNNING TORQUE TO SIZE 6 FASTENERS.
8. APPLY TORQUE OF 150-177 INCH OUNCES ABOVE RUNNING TORQUE TO SIZE 6 FASTENERS.
7. APPLY TORQUE OF 77-91 INCH OUNCES ABOVE RUNNING TORQUE TO SIZE 4 FASTENERS.
6. FABRICATE PER NASA/JSC PRC-7003.
5. SOLDER PER NASA/JSC PRC-7001.
4. CLEAN TO LEVEL GC PER NASA/JSC PRC-5001; WIPE CLEAN ALL SURFACES.
3. THIS ASSEMBLY DOES NOT CONTAIN FRACTURE CRITICAL PARTS.
2. ALL DIMENSIONS ARE IN INCHES.
1. INTERPRET DRAWING PER NASA/JSC JPG 8500.4, ENGINEERING DRAWING SYSTEM MANUAL. NOTES: UNLESS OTHERWISE SPECIFIED.

QTY	PART NUMBER	DESCRIPTION	MATERIAL	SPECIFICATION	ITEM
10	M39029/64-369	CONTACT, 20AWG, PIN D	32	MIL-C-39029	94
10	M39029/63-368	CONTACT, 20AWG, SOCKET D	31	MIL-C-39029	93
AR	361	TAPE, GLASS CLOTH		30	92
AR	800	TAPE, CLEAR		29	91
AR	WRCM-717-637W	CABLE MARKER	TEDLAR ROLL FILM	28	90
2	MS25036-101	TERMINAL LUG, 20AWG, NO. 6		MIL-T-25036	89
2 FT	M23053/8-002C	SHRINK TUBING		MIL-I-23053	88
2	MS25036-106	TERMINAL LUG, 16AWG, NO. 6		MIL-T-25036	87
1 FT	HR-1/4	EXPANDO SLEEVING	ECTFE	22	86
2 FT	M22759/11-20-9	WIRE, 20AWG, WHITE		MIL-W-22759	85
2 FT	M22759/11-20-0	WIRE, 20AWG, BLACK		MIL-W-22759	84
2 FT	M22759/11-12-9	WIRE, 12AWG, WHITE		MIL-W-22759	83
2 FT	M22759/11-12-0	WIRE, 12AWG, BLACK		MIL-W-22759	82
2 FT	M22759/11-16-9	WIRE, 16AWG, WHITE		MIL-W-22759	81
2 FT	M22759/11-16-0	WIRE, 16AWG, BLACK		MIL-W-22759	80
4	PLT1M-C76	CABLE TIE	TEFZEL	16	79
6	MS25036-111	TERMINAL LUG, 12AWG, NO.6		MIL-T-25036	78
4	M39029/56-352	CONTACT, 20AWG SOCKET 38999		MIL-C-39029/56	77
4	M39029/57-358	CONTACT, 16AWG SOCKET 38999		MIL-C-39029/57	76
2	DM130343-1	CONTACT, 16AWG SOCKET D		7	75
AR	73X	INK, MARKING, WHITE		1	74
					73
2	N1030B	SWITCH BOOT, HALF TOGGLE	37 5	M5423/2-01	72
1	3200-31-16	SWITCH, THERMAL		15	71
1	8690K2	SWITCH, POWER SELECT TOGGLE		36 8	70
1	7361K5	SWITCH, ON-OFF		35 8	69
2	D38999/33M15R	CAP, CONNECTOR		MIL-C-38999	68
2	DAM3W3PK87	CONNECTOR		7	67
AR	CST-20	TAPE, COPPER		10	66
AR	73X	INK, MARKING, BLACK		1	65
AR	M22759/11-16-9	WIRE	16 AWG WHITE	MIL-W-22759	64
AR	63/37.015P3REL15	SOLDER		QQ-S-571	63
AR	222	SEALANT, THREAD		6	62
1	D38999/20FD97SB	CONNECTOR	(J4 TEST)	MIL-C-38999	61
1	D38999/20FD97SN	CONNECTOR	(J1 POWER OUT)	MIL-C-38999	60
2	326005	FUSE	(SPARE)	4	59
2	342-012	FUSE HOLDER	(SPARE)	4	58
3	A-45007-440-24	HANDLE		3	57
3	JANTXM1900/521-02	LIGHT, PANEL MOUNTING		MIL-L-19500/521	56
5	DM130339-1	CONTACT, 12AWG PIN D		7	55
1	MS25036-148	TERMINAL LUG			54
1	MS21027-E231	SWITCH, RMS	14	9 12	53
4	NAS1102E08-6	SCREW, CSK, 100°	CRES A286 .164-32UNJC-3A X .38		52
10	NAS1102E08-16	SCREW, CSK, 100°	CRES A286 .164-32UNJC-3A X 1.00		51
10	NAS1102E08-28	SCREW, CSK, 100°	CRES A286 .164-32UNJC-3A X 1.75		50
6	NAS1102E06-6	SCREW, CSK, 100°	CRES A286 .138-32UNJC-3A X .38		49
6	NAS1102E04-7	SCREW, CSK, 100°	CRES A286 .112-40UNJC-3A X .44		48
8	NAS1102E04-6	SCREW, CSK, 100°	CRES A286 .112-40UNJC-3A X .38		47
22	NAS1102E04-5	SCREW, CSK, 100°	CRES A286 .112-40UNJC-3A X .25		46
16	NAS1101E06-6	SCREW, FILH	CRES A286 .138-32UNJC-3A X .38		45
2	NAS1101E04-8	SCREW, FILH	CRES A286 .112-40UNJC-3A X .50		44
3	NAS1101E4-10	SCREW, FILH	CRES A286 .250-28UNJF-3A X .63		43
7	NAS1101E04-4	SCREW, FILH	CRES A286 .112-40UNJC-3A X .25		42
3	NAS620C416	WASHER, FLAT	CRES .250 NOMINAL		41
28	NAS620C8	WASHER, FLAT	CRES NO. 8 NOMINAL		40
16	NAS620C6	WASHER, FLAT	CRES NO. 6 NOMINAL		39
17	NAS620C4	WASHER, FLAT	CRES NO. 4 NOMINAL		38
1	MS25082-C8	NUT, ELECTRICAL	CRES		37
3	MS25081-C4	WASHER, KEY	CRES		36
3	MS21043-4	NUT, HEX SELF-LKG	CRES A286 .250-28UNJF-3B		35
20	MS21043-08	NUT, HEX SELF-LKG	CRES A286 .164-32UNJC-3B		34
8	MS21043-04	NUT, HEX SELF-LKG	CRES A286 .112-40UNJC-3B		33
					32
1	SDG32105720-020	DECAL, IMS			31
2	SDG46119610-002	DECAL, SUP/UOP INPUT POWER			30
2	SDG46119610-001	DECAL, UIP INPUT POWER			29
1	SDG46119609-001	DECAL, SPARE FUSES			28
1	SDG46119608-001	DECAL, SAFETY SWITCH			27
1	SDG46119607-001	DECAL, CONTROL PANEL			26
1	SDG46116750-001	RETAINER, GROUND STRAP			25
1	SEG46116735-303	GROUND STRAP ASSY			24
8	SDG46119532-801	SCREW, CAPTIVE, CONNECTOR			23
1	SDG46119531-301	HANDLE ASSY			22
1	SEG46119529-302	CABLE ASSEMBLY, PIP INTERNAL POWER			21
1	SEG46119529-301	CABLE ASSEMBLY, PIP INTERNAL POWER			20
1	SEG46119528-301	CABLE ASSEMBLY, W4 PIP INPUT POWER			19
1	SEG46119527-301	CABLE ASSEMBLY, W3 PIP OUTPUT POWER			18
1	SEG46119526-301	CABLE ASSEMBLY, W2 PIP FRONT PANEL			17
1	SEG46119525-301	CABLE ASSEMBLY, W1 PIP CONTROL			16
1	SEG46119522-301	PWB ASSY, CONTROL BOARD A3			15
1	SEG46119519-301	PWB ASSY, FILTER BOARD A2			14
1	SEG46119516-301	PWB ASSY, SWITCH BOARD A1			13
4	SEG46119515-301	PIP SEAT TRACK MOUNTING ASSY			12
20	SDG46119511-001	PWB INSULATOR/ SPACER			11
10	SDG46119494-001	PWB LONG SPACER			10
1	SDG46119493-002	PWB HEAT SINK			9
1	SDG46119493-301	PWB HEAT SINK ASSY			8
1	SDG46119492-003	PWB INSULATOR SHEET			7
1	SDG46119492-002	PWB INSULATOR SHEET			6
2	SDG46119492-001	PWB INSULATOR SHEET			5
1	SEG46119505-301	SUP/UOP INPUT POWER CONNECTOR ASSY	(J3)		4
1	SEG46119495-301	UIP INPUT POWER CONNECTOR ASSY	(J2)		3
1	SDG46119491-301	COVER ASSY, PIP			2
1	SDG46119489-301	CHASSIS, PIP			1
–	-301	POWER INTERFACE PANEL ASSEMBLY–			

NOT FINAL

QTY	PART NUMBER	DESCRIPTION	MATERIAL	SPECIFICATION	ITEM

UNLESS NOTED OTHERWISE DIM ARE IN INCHES, TOL ARE: .0 ± .1 .000 ± .005 .00 ± .02 ANGULAR ± .5°

SURFACE FINISH IN MICROINCHES RMS UNLESS NOTED OTHERWISE ✓

FRACTURE CRITICAL ☐ YES ☒ NO

NEXT ASSY SEG46119500

PROJECT: HRF MARES RACK

LIBRARY: ELECTRONICS

☒ FLT HDWR ☐ APPLICABLE GSE

☐ OTHER (SPECIFY) _____

SIGNATURES		DATE
DR	J.L. GLASGOW	03/09/02
ENG		
CH	CH Signature	CH Date
APP	APP Signature	APP Date
QE	QE Signature	QE Date
MATL	MATL Signature	MATL Date
STRESS	STRESS Signature	STRESS Date
AUTH	AUTH Signature	AUTH Date
	TEST APP	STAMP Date

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

LYNDON B. JOHNSON SPACE CENTER HOUSTON, TEXAS

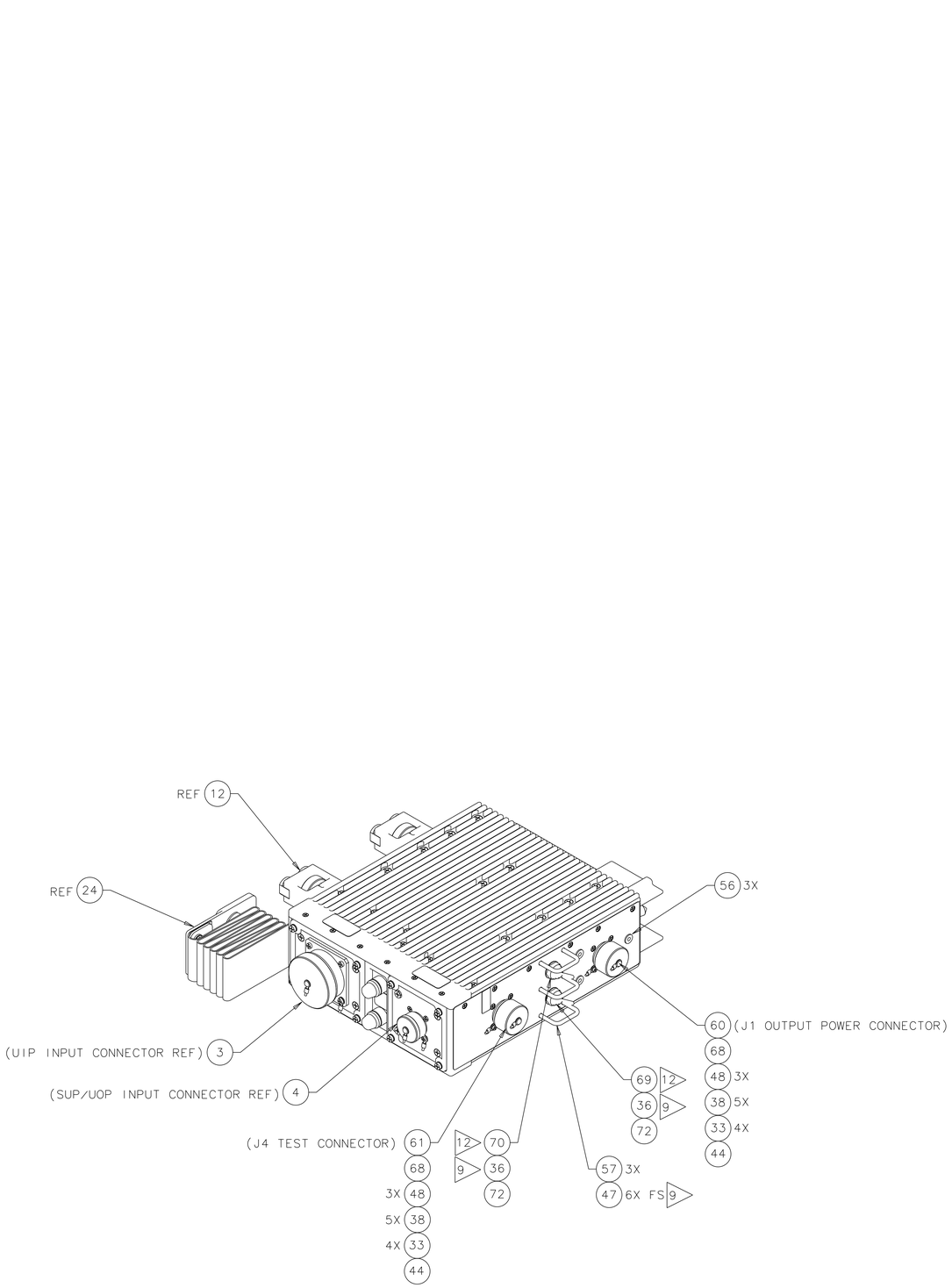
POWER INTERFACE PANEL ASSEMBLY–

PROJECT B132 HRF MARES RACK

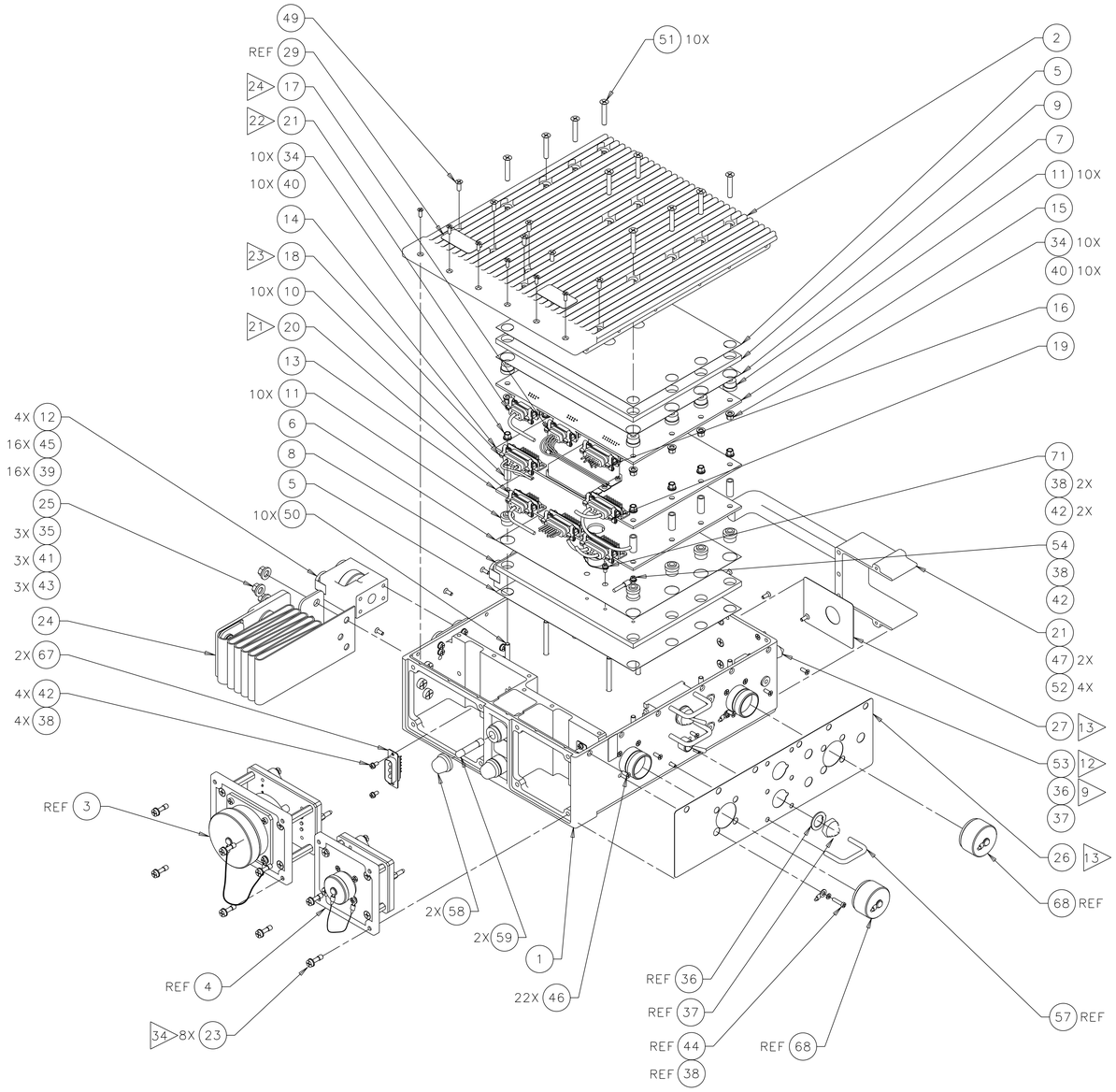
SIZE E | CODE ID NO. 21356 | DWG NO. SEG46119490 | REV TST

SCALE: 1/1 | ORG EB | FMT S01MAR01 | SHEET 1 OF 5

STATUS: Check for DCNs against the drawing.



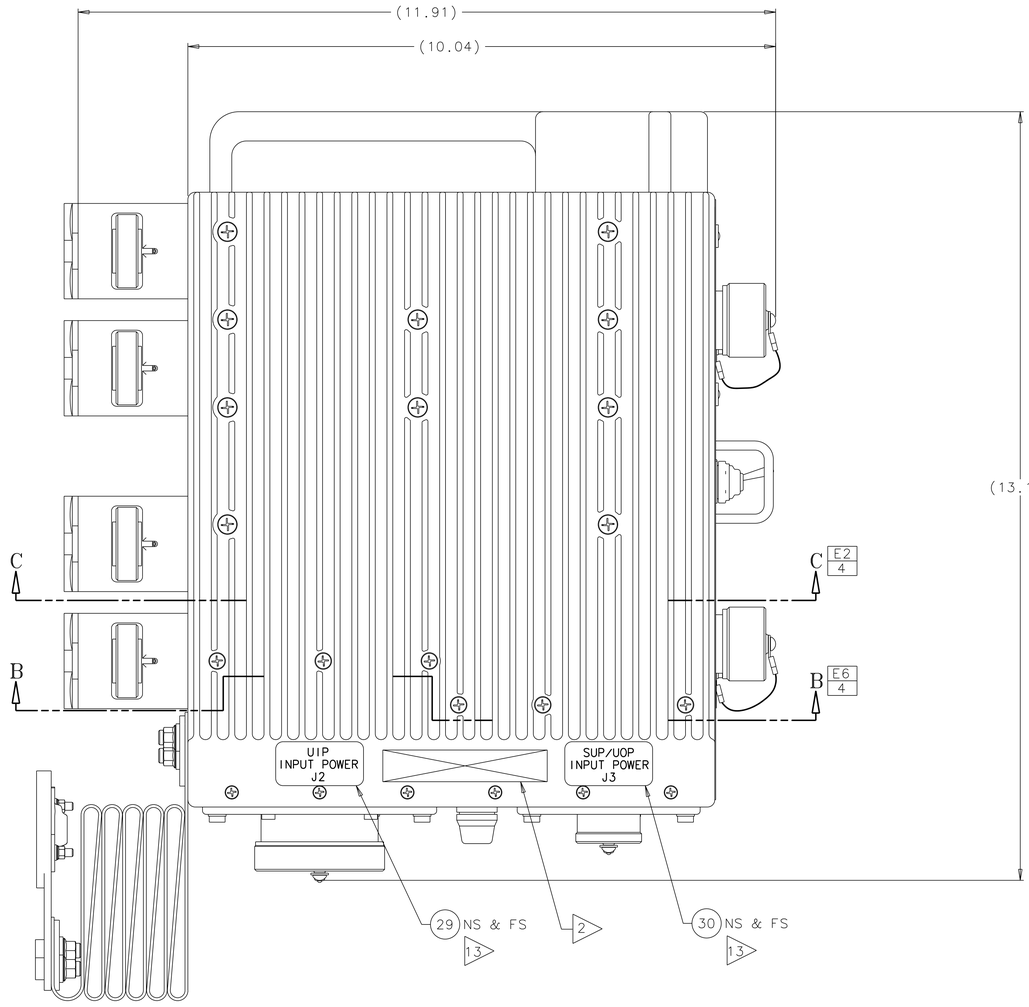
ISO VIEW
FOR REFERENCE ONLY

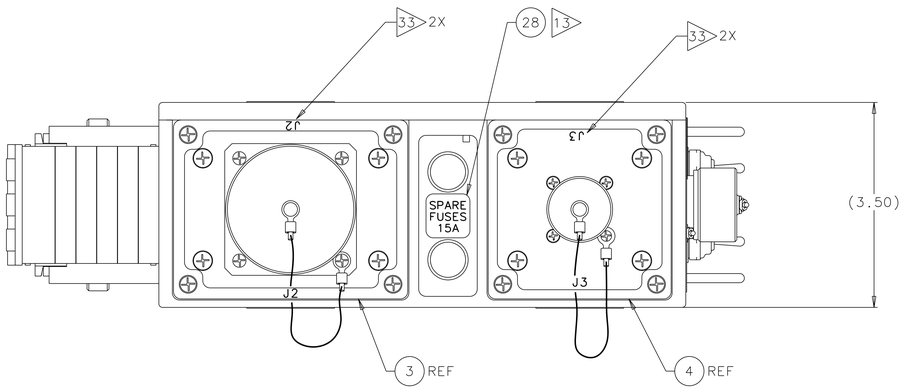


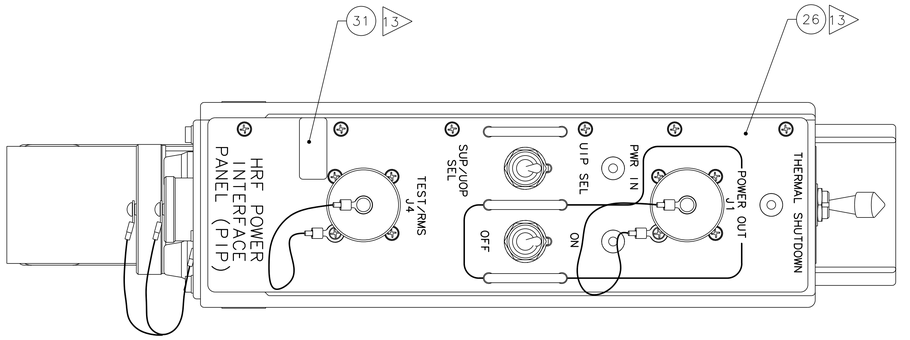
ISO VIEW EXPLODED
FOR REFERENCE ONLY

NOT FINAL

SIZE	CODE ID NO.	DWG NO.	REV
E	21356	SEG46119490	TST
SCALE: 1/1	ORG EB	FMT S01MAR01	SHEET 2 OF 5



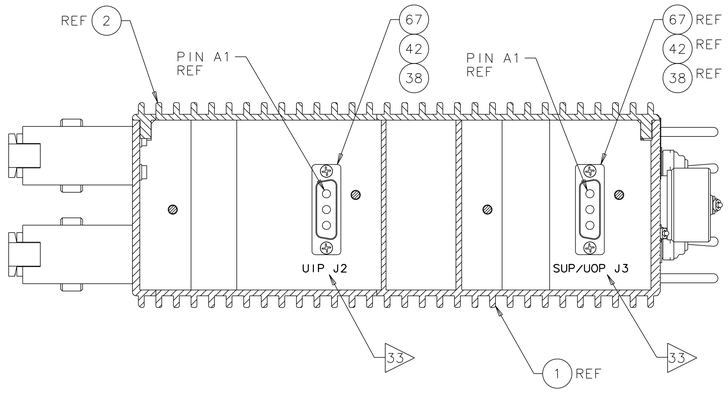




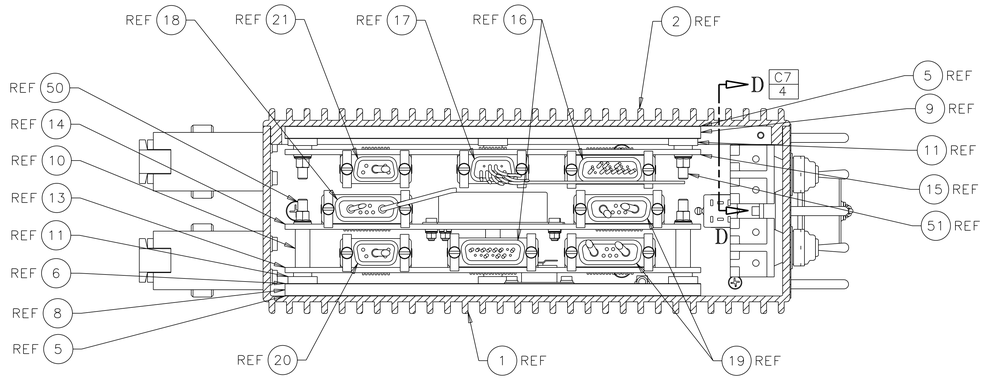
(-301)

NOT FINAL

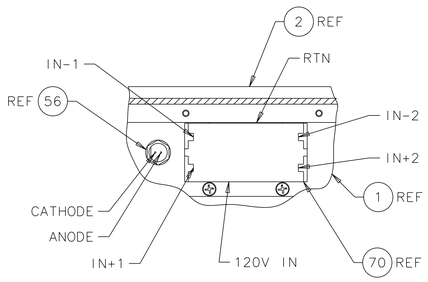
SIZE	CODE ID NO.	DWG NO.	REV
E	21356	SEG46119490	TST
SCALE: 1/1	ORG EB	FMT S01MAR01	SHEET 3 OF 5



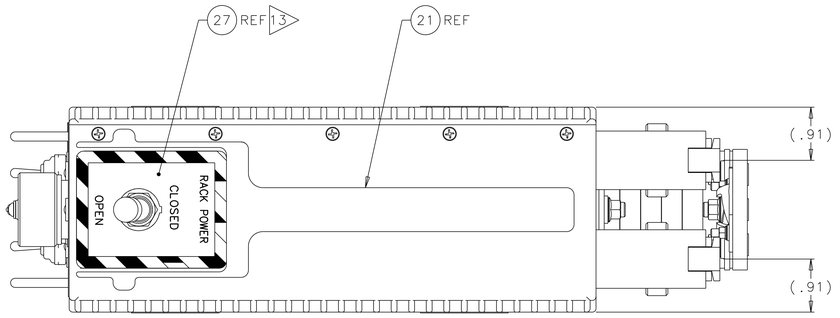
SECTION B–B E5 3



SECTION C–C F5 3



VIEW D–D G2 4



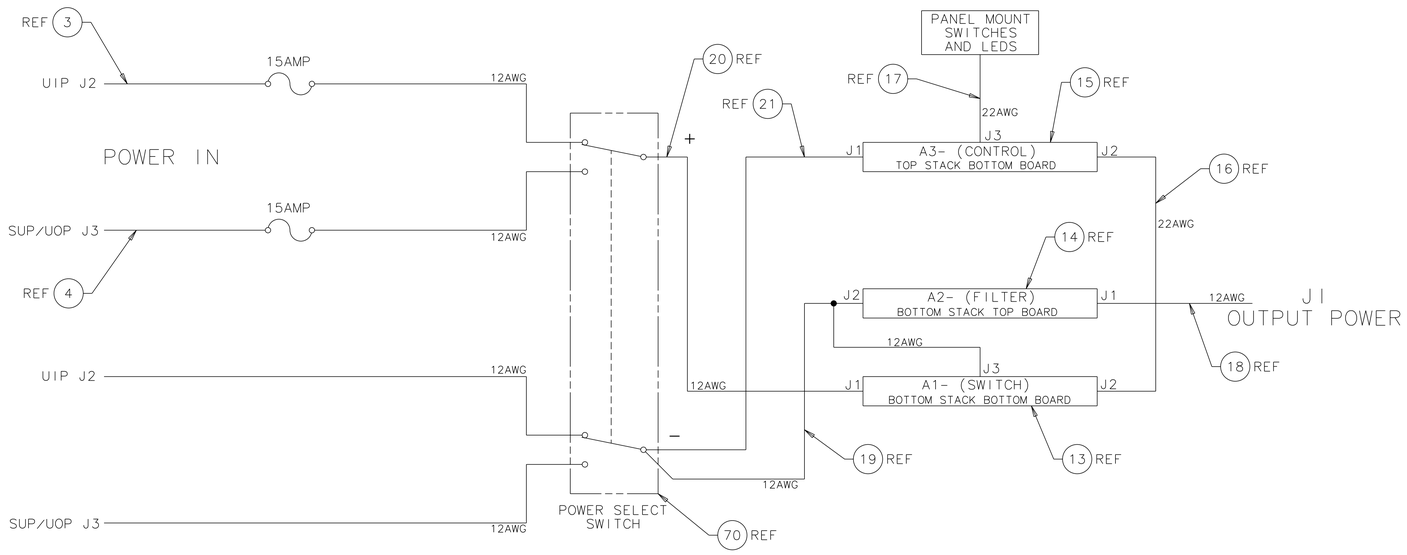
VIEW A–A B1 3

NOT FINAL

SIZE	CODE ID NO.	DWG NO.	REV
E	21356	SEG46119490	TST
SCALE: 1/1	ORG EB	FMT S01MAR01	SHEET 4 OF 5

-301 WIRELIST

FROM CONNECTION				TO CONNECTION				SIGNAL NAME	WIRE LENGTH	WIRE	FLAG NOTE
ASSEMBLY	CONNECTION	PIN	TERMINATION	ASSEMBLY	CONNECTION	PIN	TERMINATION				
UIP INPUT	J2	A1	(55)	FRONT PANEL	PWR SEL SW	IN+1	(62)(78)	120V IN	AR	M22759/11-12-9	25
UIP INPUT	J2	A3	(55)	FRONT PANEL	PWR SEL SW	IN-1	(62)(78)	RETURN	AR	M22759/11-12-0	25
SUP/UOP INPUT	J3	A1	(55)	FRONT PANEL	PWR SEL SW	IN+2	(62)(78)	120V	AR	M22759/11-12-9	25
SUP/UOP INPUT	J3	A2	(55)	FRONT PANEL	PWR SEL SW	IN-2	(62)(78)	RETURN	AR	M22759/11-12-0	25
SUP/UOP INPUT	J3	A3	(55)	FRONT PANEL	CHASSIS		(78)	CHASSIS	2.5"	M22759/11-12-0	26
FRONT PANEL	RACK MAINTAINENCE SWITCH	1	(62)(89)	FRONT PANEL	TEST J4	A	(77)	RMS+	AR	M22759/11-20-9	27
FRONT PANEL	RACK MAINTAINENCE SWITCH	2	(62)(89)	FRONT PANEL	TEST J4	B	(77)	RMS-	AR	M22759/11-20-0	27
HEATSINK 1	TERMINAL LUG		(89)	FRONT PANEL	TEST J4	E	(77)	HEATSINK1	AR	M22759/11-20-0	
HEATSINK 2	TERMINAL LUG		(89)	FRONT PANEL	TEST J4	F	(77)	HEATSINK2	AR	M22759/11-20-0	
	CHASSIS		(87)	FRONT PANEL	TEST J4	G	(76)	CHASSIS	<2.75"	M22759/11-16-0	26
	CHASSIS		(87)	FRONT PANEL	TEST J4	C	(76)	CHASSIS	<2.75"	M22759/11-16-0	26
A3 CONTROL PWB	J3	6	(93)	FRONT PANEL	TEST J4	H	(77)	REMOTE OFF/ON+	AR	M22759/11-20-0	REF
A3 CONTROL PWB	J3	5	(93)	FRONT PANEL	TEST J4	J	(77)	REMOTE OFF/ON-	AR	M22759/11-20-0	REF



INTERCONNECTION DIAGRAM

NOT FINAL

SIZE	CODE ID NO.	DWG NO.	REV
E	21356	SEG46119490	TST
SCALE: 1/1	ORG EB	FMT S01MAR01	SHEET 5 OF 5