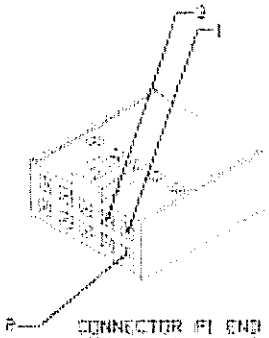
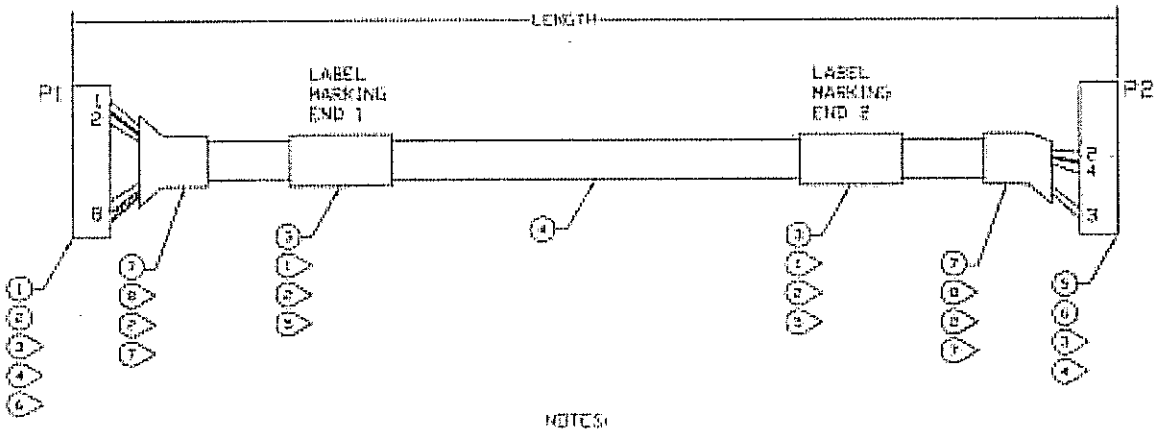
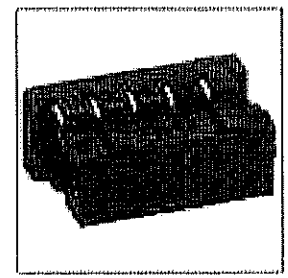






CONNECTOR P2 END VIEW

NOTES:

1. HARN BY 1/2 INCH POGO CONNECTORS
2. SHRINK TUBING PER MANUFACTURER INSTRUCTIONS
3. CRIMP TERMINALS PER MANUFACTURER INSTRUCTIONS
4. ASSEMBLE PER MANUFACTURER INSTRUCTIONS
5. CABLE LABELS TO BE WITHIN 1 INCH OF APPROPRIATE CONNECTOR END
6. CRIMP THE BRAIDED CABLE SHIELD IN WITH THE BLACK WIRE
7. TRIM BACK BRAIDED SHIELD AND INSULATION
8. CUT 0.25 INCHES OF HEATSHRINK AND PUSH UP NEXT TO THE P1 AND P2 CONNECTORS BEFORE SHRINKING

COLOR CODE TABLE II

CONNECTOR P1	CONNECTOR P2	COLOR CODE
PIN 1	PIN 2	RED
PIN 7	PIN 4	GREEN
PIN 8	PIN 3	BLACK

TABLE I

PART NO.	LENGTH (IN)	NO. CONDUCTORS	COLOR CODE TABLE	CONNECTOR P1	CONNECTOR P2	LABEL MARKING P1	LABEL MARKING P2
WIB7	18	7	II	96042-0003	DF11-8DS-2C	WIB7/P1-J2	WIB7/P2-J2
WIB8	18	7	II	96042-0002	DF11-8DS-2C	WIB8/P1-J6	WIB8/P2-J2

QTY.	PART NO.	DESCRIPTION	ITEM NO.
[illegible]	[illegible]	NELSON - CABLE, MULTI-CONDUCTOR, 7 CONDUCTOR, BRAIDED SHIELD	4
[illegible]	[illegible]	3M - HEATSHRINK TUBING, BLACK, [illegible]	[illegible]
2	[illegible]	BRADY - PERMANSLEEVE VINYL MARKER SLEEVE, HEATSHRINK	2
8	[illegible]	MOLEX - CRIMP TERMINAL, [illegible]	8
2	[illegible]	MOLEX - HOUSING, 10 CONDUCTOR CONNECTOR	5
8	[illegible]	MOLEX - CRIMP TERMINAL, [illegible]	6
8	[illegible]	MOLEX - HOUSING, 8 CONDUCTOR CONNECTOR, [illegible] INCH SPACING	1

DRAWN BY - [illegible]

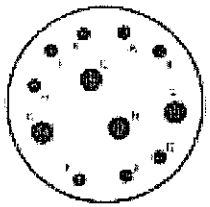
CENTRAL WEATHER INFORMATION [illegible]

POWER DISTRIBUTION UNIT

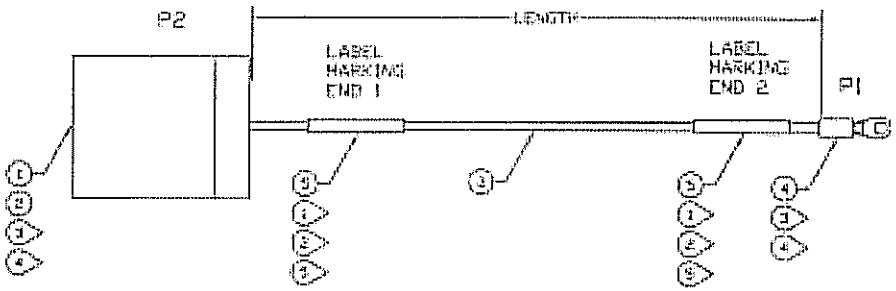
DO NOT SCALE DRAWING

[illegible]	D	L2R-000067-0006	A

SHEET 1 OF 1



CONNECTOR P2 (J3)
PIN END VIEW
SHOWN OPPOSITE
FOR SOCKETS



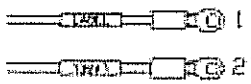


TABLE I

PART NO.	LENGTH (IN)	WIRE	TERMINAL P1	LABEL MARKING P1	LABEL ORIENTATION	TERMINAL P2	LABEL MARKING P2	LABEL ORIENTATION
W53	26.5	5056-1	RA10-6	W53/A0TE3-0	1	M39029/58-[illegible]	W53/J3-4	2
W54	26	5056-1	RA10-6	W54/A0TE3-0	1	M39029/58-[illegible]	W54/J3-4	2
W55	25	5056-1	RA10-6	W55/A0TE3-7	1	M39029/58-[illegible]	W55/J3-4	2
W56	20.5	5056-1	RA10-6	W56/A0TE3-0	1	M39029/58-[illegible]	W56/J3-8	2
W120	27.5	5056-1	RA10-6	W120/A0TE10-7	2	M39029/58-[illegible]	W120/J3-4	2
W121	27.5	5056-1	RA10-6	W121/A0TE10-0	2	M39029/58-[illegible]	W121/J3-8	2

NOTES

1. MARK IN .110 INCH HIGH CHARACTERS
2. SHRINK TUBING PER MANUFACTURER INSTRUCTIONS
3. CRIMP CONTACTS AND TERMINALS PER MANUFACTURER INSTRUCTIONS
4. ASSEMBLE PER MANUFACTURER INSTRUCTIONS
5. CABLE LABELS TO BE WITHIN 1 INCH OF APPROPRIATE CONNECTOR END

ITEM	PART NO.	DESCRIPTION	REQ'D
12	[illegible]	WIRE - POLYVINYL WIRE, [illegible]	3
6	RA10-6	TERMINAL, RING, INSULATED, [illegible]	4
SEE TABLE I	5056-1	ALPHAWIRE - HIGH-UP WIRE, [illegible], STRANDED, SPE JACKET, WHITE	7
8	M39029/58-[illegible]	CONTACT, ELECTRICAL CONNECTOR, SOCKET, CRIMP [illegible], [illegible] WIRE	2
1	[illegible]	CONNECTOR, ELECTRICAL CIRCULAR, ELECTROLESS NICKEL FINISH, [illegible] MOUNT RECEPTACLE	1
QTY	PART NO.	DESCRIPTION	ITEM NO.

[illegible] - [illegible]

[illegible]

LRR ENCODER REPLACEMENT

[illegible]

CAGE CODE	SIZE	DWG NO.	REV
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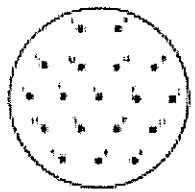
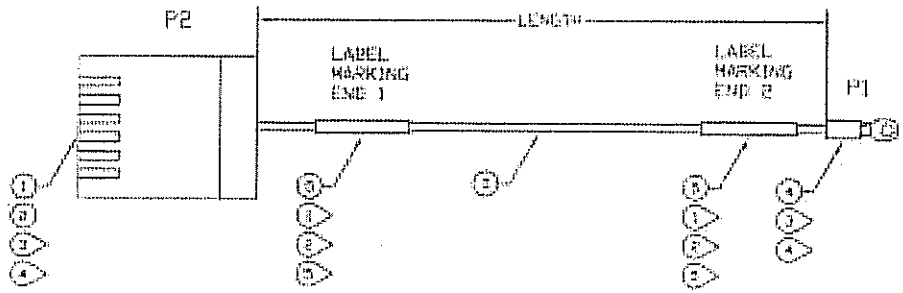
SCALE: [illegible] SHEET [illegible] OF [illegible]



CONNECTOR P2 (J7)
PIN END VIEW
SHOWN OPPOSITE FOR
SOCKETS



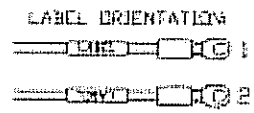


TABLE I

PART NO.	LENGTH (IN)	WIRE	TERMINAL P1	LABEL MARKING P1	LABEL ORIENTATION	TERMINAL P2	LABEL MARKING P2	LABEL ORIENTATION
W41	29.5	5856-1	RA28-6	W41/AB7812-6	2	M39029/56-351	W41/J7-A	1
W42	29	5856-1	RA28-6	W42/AB7808-7	2	M39029/56-351	W42/J7-B	1
W79	27.5	5856-1	RA28-6	W79/AB7808-4	2	M39029/56-351	W79/J7-F	1
W103	26.5	5856-1	RA28-6	W103/AB7808-7	1	M39029/56-351	W103/J7-C	1
W104	25	5856-1	RA28-6	W104/AB7808-9	1	M39029/56-351	W104/J7-D	1
W105	25	5856-1	RA28-6	W105/AB7808-10	1	M39029/56-351	W105/J7-E	1
W109	24.5	5856-1	RA28-6	W109/AB7812-4	2	M39029/56-351	W109/J7-K	1
W140	24.5	5856-1	RA28-6	W140/AB7808-5	1	M39029/56-351	W140/J7-L	1
W138	24.5	5856-1	RA28-6	W138/AB7812-3	1	M39029/56-351	W138/J7-H	1

NOTES:

1. MARK IN 0.10 INCH HIGH CHARACTERS
2. SHRINK TUBING PER MANUFACTURER INSTRUCTIONS
3. CRIMP CONTACTS AND TERMINALS PER MANUFACTURER INSTRUCTIONS
4. ASSEMBLE PER MANUFACTURER INSTRUCTIONS
5. CABLE LABELS TO BE WITHIN 1 INCH OF APPROPRIATE CONNECTOR END

DIST.	PART NO.	DESCRIPTION	FIND NO.
H	[illegible]	BRACKET - [illegible] WIRE HARNESS SLEEVE, [illegible]	5
V	[illegible]	THOMAS & BETTS - TERMINAL, [illegible], [illegible], HAVIS - [illegible]	4
PER TABLE I	[illegible]	ALPHAWIRE - [illegible] WIRE, [illegible], [illegible], STANDARD, [illegible] JACKET, [illegible]	3
P	M39029/56-351	CONTACT, ELECTRICAL, CONNECTOR, PIN, CRIMP REMOVABLE, [illegible] WIRE	2
I	[illegible]	CONNECTOR, ELECTRICAL, CIRCULAR, [illegible] SIZE 23, INSERT ARRANGEMENT 21, ELECTRICAL MODEL [illegible] PALE [illegible] HOUSE ACCESSORY	1

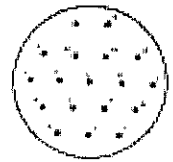
FEDERAL AVIATION ADMINISTRATION
[illegible]

LSR ENCODER REPLACEMENT

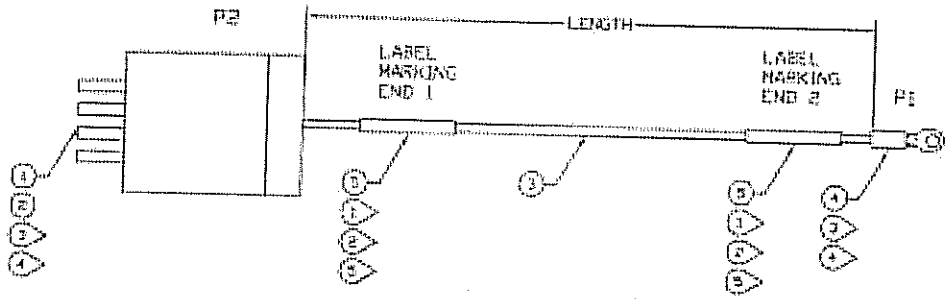
[illegible]

D LSR-000067-C008 A

SHEET 1 OF 1



CONNECTOR P2
(JB) PIN END
VIEW SHOWN



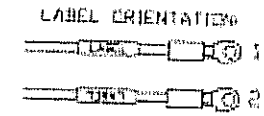


TABLE 1

PART NO.	LENGTH (IN)	WIRE	TERMINAL P1	LABEL MARKING P1	LABEL ORIENTATION	TERMINAL P2	LABEL MARKING P2	LABEL ORIENTATION
W80	23.5	5856-1	RA10-6	W80/A2TB06-5	2	M39029/58-363	W80/JB-F	1
W100	25.5	5856-1	RA10-6	W100/A2TB08-5	1	M39029/58-363	W100/JB-E	1
W120	22.5	5856-1	RA10-6	W120/A2TB10-5	2	M39029/58-363	W120/JB-C	1
W124	21.5	5856-1	RA10-6	W124/A2TB13-5	2	M39029/58-363	W124/JB-C	1
W125	21	5856-1	RA10-6	W125/A2TB15-10	2	M39029/58-363	W125/JB-B	1
W139	23	5856-1	RA10-6	W139/A2TB12-4	1	M39029/58-363	W139/JB-B	1
W141	22.5	5856-1	RA10-6	W141/A2TB12-6	1	M39029/58-363	W141/JB-A	1
W43	27.5	5856-1	RA10-6	W43/A2TB02-8	2	M39029/58-363	W43/JB-A	1
W44	27.5	5856-1	RA10-6	W44/A2TB02-9	2	M39029/58-363	W44/JB-B	1

NOTES:

1. MARK IN 0.10 INCH HIGH CHARACTERS
2. SHRINK TUBING PER MANUFACTURER INSTRUCTIONS
3. CRIMP CONTACTS AND TERMINALS PER MANUFACTURER INSTRUCTIONS
4. ASSEMBLE PER MANUFACTURER INSTRUCTIONS
5. CABLE LABELS TO BE WITHIN 1 INCH OF APPROPRIATE CONNECTOR END

QTY.	PART NO.	DESCRIPTION	FIND NO.
10	[illegible]	[illegible]	5
9	RA10-6	THOMAS & BETTS - TERMINAL, [illegible]	4
SEE TABLE 1	5856-1	ALPHAWIRE - WEEN-UP WIRE, [illegible]	3
2	M39029/58-363	CONTACT, ELECTRICAL, CONNECTOR, PIN, CRIMP, [illegible]	2
1	[illegible]	CONNECTOR, ELECTRICAL, CIRCULAR, ELECTRICLESS, [illegible]	1

DIMENSIONS - INCHES

FEDERAL AVIATION ADMINISTRATION
[illegible]

LRR ENCODER REPLACEMENT

Power Distribution Unit
Contact [illegible]

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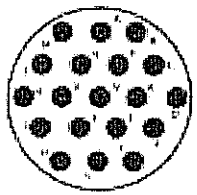
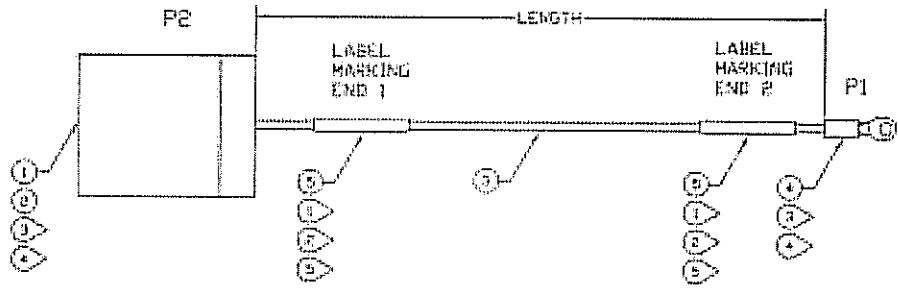
SHEET 1 OF 1



CONNECTOR P2 (J9)
PIN END VIEW
SHOWN OPPOSITE
FOR SOCKETS.



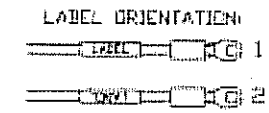


TABLE I

PART NO	LENGTH (IN)	WIRE	TERMINAL P1	LABEL MARKING P1	LABEL ORIENTATION	TERMINAL P2	LABEL MARKING P2	LABEL ORIENTATION
W81	23.5	5856-1	RA18-6	W81/A2TD13-6	2	M39029/56-351	W81/J9-A	1
W82	23	5856-1	RA18-6	W82/A2TD13-7	2	M39029/56-351	W82/J9-B	1
W83	22.5	5856-1	RA18-6	W83/A2TD13-8	2	M39029/56-351	W83/J9-C	1
W84	22	5856-1	RA18-6	W84/A2TD13-9	2	M39029/56-351	W84/J9-D	1
W62	27	5856-1	RA18-6	W62/A2TB04-7	1	M39029/56-351	W62/J9-G	1
W63	26.5	5856-1	RA18-6	W63/A2TB04-8	1	M39029/56-351	W63/J9-H	1
W64	26	5856-1	RA18-6	W64/A2TB04-9	1	M39029/56-351	W64/J9-J	1
W65	25.5	5856-1	RA18-6	W65/A2TB04-10	1	M39029/56-351	W65/J9-K	1

NOTES:

1. MARK IN 0.33 INCH HIGH CHARACTERS
2. SHRINK TUBING PER MANUFACTURER INSTRUCTIONS
3. CRIMP CONTACTS AND TERMINALS PER MANUFACTURER INSTRUCTIONS
4. ASSEMBLE PER MANUFACTURER INSTRUCTIONS
5. CABLE LABELS TO BE WITHIN 1 INCH OF APPROPRIATE CONNECTOR END

QTY.	PART NO.	DESCRIPTION	FIND NO.
16	[illegible]	[illegible]	5
8	RA18-6	THOMAS & BETTS - TERMINAL, RING, INSULATED, NYLON, [illegible]	4
SEE TABLE I	5856-1	ALPHAWIRE - HOOK-UP WIRE, [illegible], STRANDED, ITE JACKET, WHITE	3
8	M39029/56-351	CONTACT, ELECTRICAL, CONNECTOR, SOCKET, CRIMP, REMOVABLE, [illegible] WIRE	2
1	[illegible]	CONNECTOR, ELECTRICAL, CIRCULAR, ELECTRIC, [illegible], FEMALE, [illegible], MOUNT RECEPTACLE	1

DIMENSIONS - INCHES

FEDERAL AVIATION ADMINISTRATION
[illegible]
[illegible]

LRR ENCODER REPLACEMENT

[illegible]

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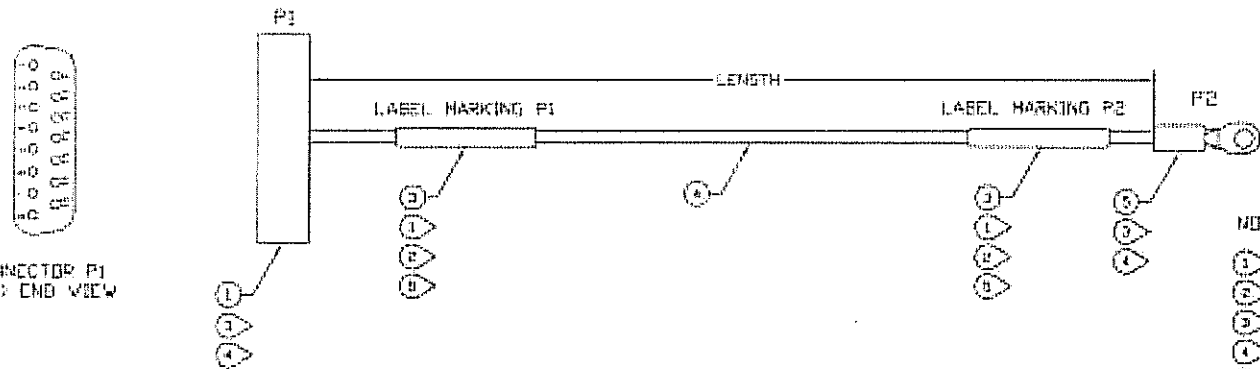
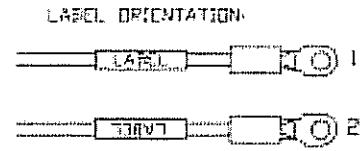




NOTES:

1. MARK IN 0.10 INCH HIGH CHARACTERS
2. SHRINK TUBING PER MANUFACTURER INSTRUCTIONS
3. CRIMP CONTACTS PER MANUFACTURER INSTRUCTIONS
4. ASSEMBLE PER MANUFACTURER INSTRUCTIONS
5. CABLE LABELS TO BE WITHIN 1 INCH OF APPROPRIATE CONNECTOR END

TABLE I

PART NO.	LENGTH (IN)	TERMINAL P1	LABEL MARKING P1	LABEL ORIENTATION	TERMINAL P2	LABEL MARKING P2	LABEL ORIENTATION
W28	22	M39029/63-368	W28/J2-2	2	RA10-6	W28/A27T032-3	2
W29	21.5	M39029/63-368	W29/J2-8	2	RA10-6	W29/A27T036-4	2
W40	21	M39029/63-368	W40/J2-01	2	RA10-6	W40/A27T060-5	2
W99	21.5	M39029/63-368	W99/J2-7	2	RA10-6	W99/A27T073-10	1
W70	22	M39029/63-368	W70/J2-1	2	RA10-6	W70/A27T006-3	2
W94	27	M39029/63-368	W94/J2-9	2	RA10-6	W94/A27T037-9	1
W101	23	M39029/63-368	W101/J2-4	2	RA10-6	W101/A27T080-6	1
W103	27.5	M39029/63-368	W103/J2-6	2	RA10-6	W103/A27T095-8	1
W121	26.5	M39029/63-368	W121/J2-3	2	RA10-6	W121/A27T110-5	2
W127	28	M39029/63-368	W127/J2-5	2	RA10-6	W127/A27T127-2	1
W159	32	M39029/63-368	W159/J2-01	2	RA10-6	W159/A27T153-10	2
W162	29	M39029/63-368	W162/J2-10	2	RA10-6	W162/A27T164-7	2
W176	31	M39029/63-368	W176/J2-13	2	RA10-6	W176/A27T016-7	1
W185	27.5	M39029/63-368	W185/J2-14	2	RA10-6	W185/A27T185-10	1

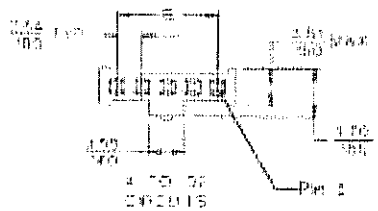
14	RA10-6	THERMAL & MOTOR - TERMINAL, RING, INSULATED, 10 TOL, WIRE-CRIMP, RED, 4A STYLE	9
SEE TABLE I	[illegible]	ELECTRICAL - HEAT-SHRINK WIRE, POLY-OLEFIN, CRIMP, STAINLESS TUBE LABEL, WHITE	4
13	M27500-125-[illegible]	SPACE - FLUORESCENT WIRE MARKER SLEEVE, MONTHLY	3
12	[illegible]	CONTACT, ELECTRICAL CONNECTOR, SOCKET, CRIMP REMOVABLE, [illegible]	2
1	[illegible]	CONNECTOR, ELECTRIC RECTANGULAR, FEMALE MOUNTABLE	1
QTY.	PART NO.	DESCRIPTION	FIND NO.

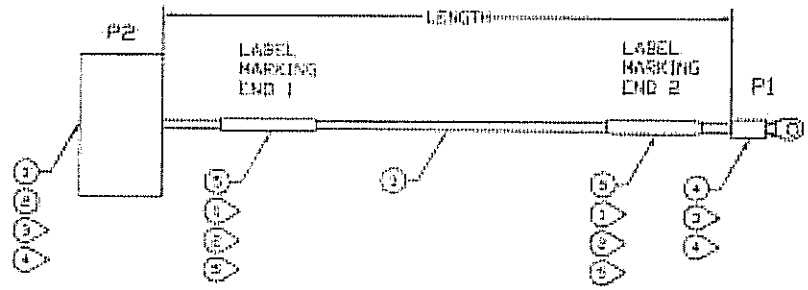
[illegible]

LRR ENCODER REPLACEMENT

[illegible]

[illegible]	II	LRR-000067-COIL	A





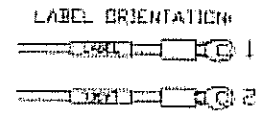


TABLE 1

PART NO.	LENGTH	WIRE	TERMINAL P1	LABEL MARKING P1	LABEL ORIENTATION	TERMINAL P2	LABEL MARKING P2	LABEL ORIENTATION
W77	29	5855-1	9A18-6	W77/A18E36-0	2	9B19-2B9	W77/A13-1/+5	2
W45	29	5855-1	9A18-6	W45/A8T112-10	1	9B19-2B9	W45/A13-2/+5	2

NOTES:

1. MARK IN .110 INCH HIGH CHARACTERS
2. SHRINK TUBING PER MANUFACTURER INSTRUCTIONS
3. CRIMP CONTACTS AND TERMINALS PER MANUFACTURER INSTRUCTIONS
4. ASSEMBLE PER MANUFACTURER INSTRUCTIONS
5. CABLE LABELS TO BE WITHIN 1 INCH OF APPROPRIATE CONNECTOR END

QTY.	PART NO.	DESCRIPTION	FIND NO.
4	[illegible]	[illegible] WIRE MARKER SLEEVE, [illegible]	5
2	[illegible]	THERMAL & [illegible] - TERMINAL, [illegible]	4
[illegible]	[illegible]	ALPHANUMERIC - [illegible] WIRE, [illegible]	3
2	[illegible]	CONTACT, [illegible], [illegible]	2
1	[illegible]	[illegible] & [illegible], [illegible]	1

CONTRACT - NONE

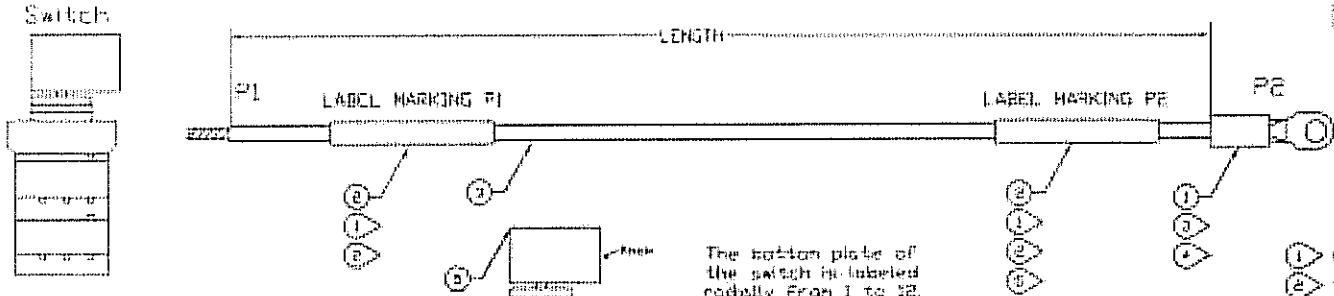
FEDERAL AVIATION ADMINISTRATION
[illegible] MACARTHUR BLVD - [illegible]
OKLAHOMA CITY, OK 73169

LRS ENCODER REPLACEMENT

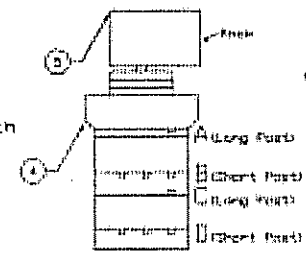
[illegible]

D | [illegible] | [illegible]-000067-C012 | A

SHEET 1 OF 1



Instructions:
1 End P1 is at the switch.
2 Strip end P1 approximately 0.25 inch
3 Bend end P1 into an open loop.
4 Solder end P1 to the pin on the switch indicated by the chart.
5 Slide label on end P1 up to post. Apply heat to shrink label.
6 Slide label for end P2 over wire.
7 Crimp RA18-6 to end P2.
8 Slide label for end 2 up to within 1 inch of the ring terminal. Apply heat to shrink label.



Viewed from side of switch

The bottom plate of the switch is labeled radially from 1 to 12.

Viewed from bottom of switch

NOTES:
1. MARK IN 0.10 INCH HIGH CHARACTERS
2. THREAD TUBING PER MANUFACTURER INSTRUCTIONS
3. CRIMP TERMINALS PER MANUFACTURER INSTRUCTIONS
4. ASSEMBLE PER MANUFACTURER INSTRUCTIONS
5. CABLE LABELS TO BE WITHIN 1 INCH OF APPROPRIATE CONNECTOR END

LABEL ORIENTATION:

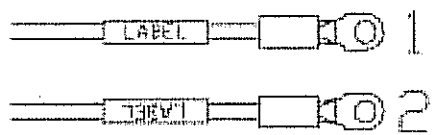


TABLE I

PART NO.	LENGTH (IN)	TERMINAL P1	LABEL MARKING P1	LABEL ORIENTATION	TERMINAL P2	LABEL MARKING P2	LABEL ORIENTATION
W18	21	ROTARY SWITCH	W18/SW1-1A	1	RA18-6	W18/A3-3	1
W19	15	ROTARY SWITCH	W19/SW1-1C	1	RA18-6	W19/A3-3	1
W20	18.5	ROTARY SWITCH	W20/SW1-5A	1	RA18-6	W20/A6-3	1
W21	11.5	ROTARY SWITCH	W21/SW1-5C	1	RA18-6	W21/A5-3	1
W22	17	ROTARY SWITCH	W22/SW1-9A	1	RA18-6	W22/A4-3	1
W23	11	ROTARY SWITCH	W23/SW1-9C	1	RA18-6	W23/A8-3	1
W47	65.5	ROTARY SWITCH	W47/SW1-6B	1	RA18-6	W47/A2TB03-2	1
W49	63.75	ROTARY SWITCH	W49/SW1-7B	1	RA18-6	W49/A2TB03-4	1
W50	64	ROTARY SWITCH	W50/SW1-5B	1	RA18-6	W50/A2TB03-3	1
W67	60	ROTARY SWITCH	W67/SW1-2B	1	RA18-6	W67/A2TB05-2	2
W69	61	ROTARY SWITCH	W69/SW1-3B	1	RA18-6	W69/A2TB05-4	2
W70	61.5	ROTARY SWITCH	W70/SW1-3D	1	RA18-6	W70/A2TB05-3	2
W87	26.5	ROTARY SWITCH	W87/SW1-2D	1	RA18-6	W87/A2TB07-2	1
W89	61	ROTARY SWITCH	W89/SW1-3D	1	RA18-6	W89/A2TB07-4	1
W90	61.5	ROTARY SWITCH	W90/SW1-1D	1	RA18-6	W90/A2TB07-3	1
W107	57.5	ROTARY SWITCH	W107/SW1-11B	1	RA18-6	W107/A2TB09-2	2
W109	58	ROTARY SWITCH	W109/SW1-11D	1	RA18-6	W109/A2TB09-4	2
W110	58.5	ROTARY SWITCH	W110/SW1-9D	1	RA18-6	W110/A2TB09-3	2
W127	57.5	ROTARY SWITCH	W127/SW1-6D	1	RA18-6	W127/A2TB11-2	1
W129	58	ROTARY SWITCH	W129/SW1-7D	1	RA18-6	W129/A2TB11-4	1
W130	58.5	ROTARY SWITCH	W130/SW1-5D	1	RA18-6	W130/A2TB11-3	1
W147	50	ROTARY SWITCH	W147/SW1-12D	1	RA18-6	W147/A2TB13-2	2
W149	56	ROTARY SWITCH	W149/SW1-11D	1	RA18-6	W149/A2TB13-4	2
W150	56.5	ROTARY SWITCH	W150/SW1-9D	1	RA18-6	W150/A2TB13-3	2

QTY.	PART NO.	DESCRIPTION	FUNC NO.
SEE TABLE I	5855-6	NEPRAWIRE - ASSY(B) WIRE NE/W-NRTNE 20AWG, STRANDED, TFE JACKET, WHITE	3
1	[illegible]	GRAPHICS - BACK FOR ROTARY SWITCH - BLACK	5
1	[illegible]	GRAPHICS - ROTARY SWITCH - 1.375 - 1.0 [illegible] - 1.375	4
24	[illegible]	THOMAS & BETTS - TERMINAL, RING INSULATED, [illegible] 20AWG - 22AWG, [illegible]	1
AR	[illegible]	3M/ATT - PERMANENT WIRE MARKER SLEEVE, [illegible]	2

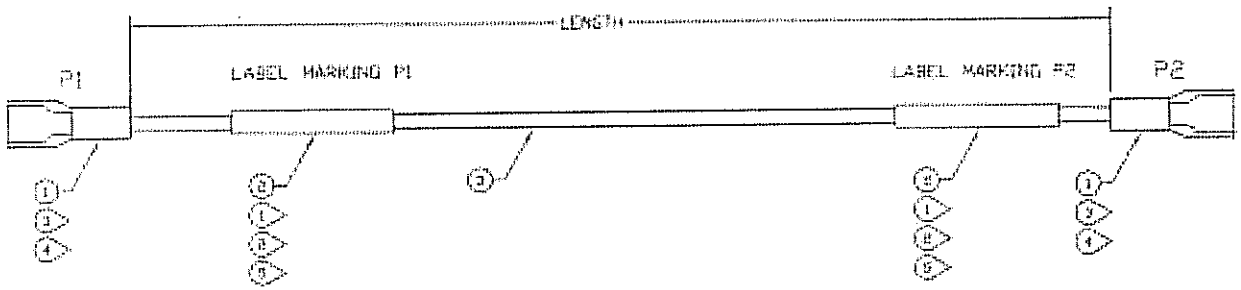
DRAWING - [illegible]

[illegible] STATION [illegible]

LRR ENCODER REPLACEMENT

[illegible] ROTARY SWITCH

SIZE D | LRR-000067-0013 | A



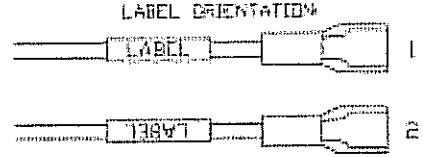
NOTES:

1. MARK IN 100 INCH HIGH CHARACTERS
2. SHRINK TUBING PER MANUFACTURER INSTRUCTIONS
3. CRIMP TERMINALS PER MANUFACTURER INSTRUCTIONS
4. ASSEMBLE PER MANUFACTURER INSTRUCTIONS
5. CABLE LABELS TO BE WITHIN 1 INCH OF APPROPRIATE CONNECTOR END

TABLE I

PART NO	LENGTH (IN)	WIRE	TERMINAL P1	LABEL MARKING P1	LABEL ORIENTATION	TERMINAL P2	LABEL MARKING P2	LABEL ORIENTATION
W24	3	5859-2	1488-2577	W24/SW2-E	2	1488-2577	W24/P13-H	1
W25	45	5859-2	1488-2577	W25/SW2-B	2	1488-2577	W25/P13-H	1

LABEL ORIENTATION



QTY.	PART NO	DESCRIPTION	FSCM NO
3	5859-2	WIRE, ELECTRICAL, TWISTED, TFE JACKET, BLACK	
8	1488-2577	TERMINAL & BUTTS - BUTT CONNECT, INSULATED, CRIMP, WIRE RANGE - 16AWG - BLACK	
4	[illegible]	[illegible] - HEAT SHRINK SLEEVE, [illegible]	

FEDERAL AVIATION ADMINISTRATION
[illegible] MACARTHUR BLVD - BLDG [illegible]
OKLAHOMA CITY, OK 73169

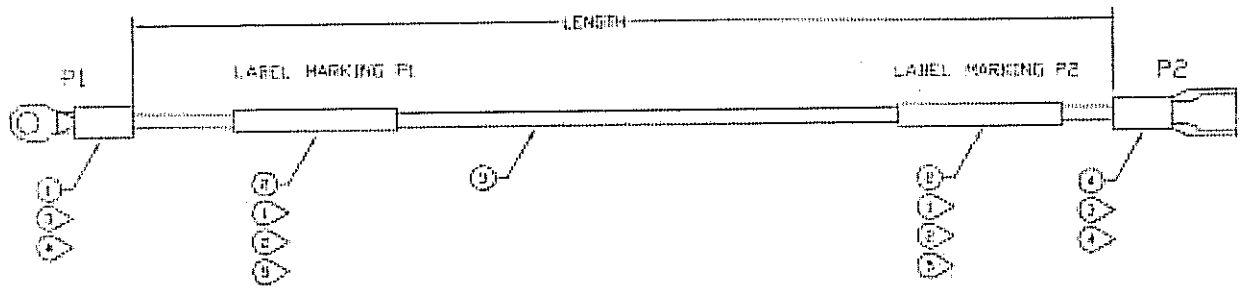
LRR ENCODER REPLACEMENT

POWER DISTRIBUTION UNIT

FEMALE DISCONNECT TO FEMALE DISCONNECT TERMINAL

SIZE	CAGE CODE	DRAWING NO	REV
D		LRR-000067-0014	A

SCALE: [illegible] | SHEET [illegible]



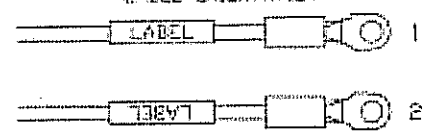
NOTES:

1. MARK IN .125 INCH HIGH CHARACTERS
2. SHRINK TUBING PER MANUFACTURER INSTRUCTIONS
3. CRIMP TERMINALS PER MANUFACTURER INSTRUCTIONS
4. ASSEMBLE PER MANUFACTURER INSTRUCTIONS
5. CABLE LABELS TO BE WITHIN 1 INCH OF APPROPRIATE CONNECTOR END

TABLE I

PART NO.	LENGTH (IN)	WIRE	TERMINAL P1	LABEL MARKING P1	LABEL ORIENTATION	TERMINAL P2	LABEL MARKING P2	LABEL ORIENTATION
W1	13	5889-7	RB14-6	W1/TB1-1	2	14RB-2577	W1/CE3-1	2
W4	13	5889-1	RB14-6	W4/TB1-3	2	14RB-2577	W4/CE2-4	2
W6	9	5889-4	RB14-6	W6/TB1-5	2	14RB-2577	W6/CE2-[illegible]	2
W7	105	5889-4	RB14-6	W7/TB1-7	2	14RB-2577	W7/CE2-[illegible]	1
W12	13	5889-1	RB14-6	W12/TB1-16	2	14RB-2577	W12/CE3-6	2
W13	105	5889-4	RB14-6	W13/TB1-18	2	14RB-2577	W13/CE2-1	1
W15A	228	5826-1	RA10-6	W15A/02RB14-1	2	14RB-2577	W15A/W11-[illegible]	2
W15	89	5826-1	RA10-6	W15A/ASTEM-10	2	5RB4-2577	W15/W11-[illegible]	2

LABEL ORIENTATION



REF DES	PART NO.	DESCRIPTION	QTY
SEE TABLE I	5889-1	ALPHAWIRE - HOOK-UP WIRE, MIL-W-16878C, 14AWG, STRANDED, TFE JACKET, WHITE	X
SEE TABLE I	5889-7	ALPHAWIRE - HOOK-UP WIRE, MIL-W-16878C, 14AWG, STRANDED, TFE JACKET, BLACK	X
SEE TABLE I	5889-4	ALPHAWIRE - HOOK-UP WIRE, MIL-W-16878C, 14AWG, STRANDED, TFE JACKET, GREEN	X
SEE TABLE I	5826-1	ALPHAWIRE - HOOK-UP WIRE, MIL-W-16878C, 20AWG, STRANDED, TFE JACKET, WHITE	X
X	RB14-6	THOMAS & BETTS - TERMINAL RING, INSULATED, NYLON, 14AWG - 16AWG, #6 STUD	X
X	RA10-6	THOMAS & BETTS - TERMINAL RING, INSULATED, NYLON, 20AWG - 18AWG, #6 STUD	X
X	14RB-2577	THOMAS & BETTS - QUICK CONNECT, FEMALE, INSULATED, NYLON, 14AWG - 18AWG, BLUE	X
X	5RB4-2577	THOMAS & BETTS - QUICK CONNECT, FEMALE, INSULATED, NYLON, 20AWG - 22AWG, RED	X
X	PSFT-UE-075-L	SHRINK - FLUOROLOCK WIRE MARKER SLEEVE, HEATSHRINK	X
QTY.	PART NO.	DESCRIPTION	ITEM NO.

CONTRACT - SPACE

FLORIDA AVIATION ADMINISTRATION
ERNEST A. GRUNTHAL N.W. - 6.39 BY
TALLAHASSEE, FL 32303

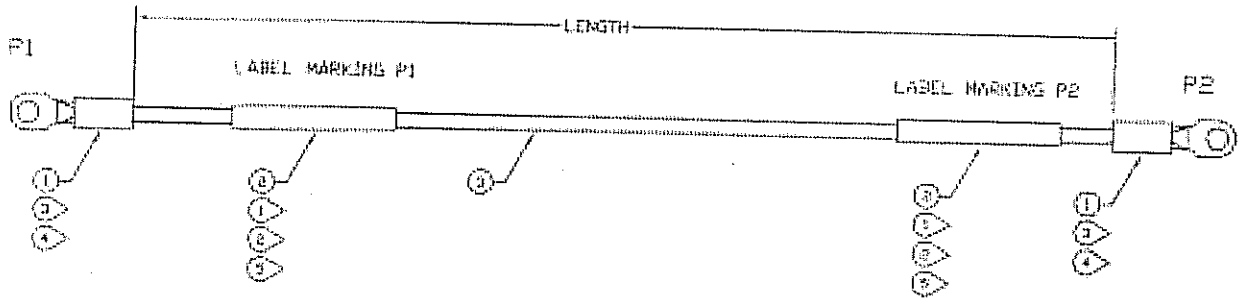
LRR ENCODER REPLACEMENT

WIRE INTERCONNECT
ENC TERMINAL TO RCU TERMINAL BLOCK

DRAWN BY: [illegible] DATE: [illegible]
CHECKED: [illegible] DATE: [illegible]
APPROVED: [illegible] DATE: [illegible]

SIZE: D | CAGE CODE: [illegible] | LRR-000067-0005 | REV: A

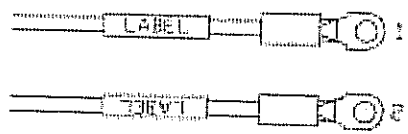
SCALE: [illegible] | SHEET: [illegible] OF [illegible]



NOTES

1. MARK IN 0.10 INCH HIGH CHARACTERS
2. SHRINK TUBING PER MANUFACTURER INSTRUCTIONS
3. CRIMP TERMINALS PER MANUFACTURER INSTRUCTIONS
4. ASSEMBLE PER MANUFACTURER INSTRUCTIONS
5. CABLE LABELS TO BE WITHIN 1 INCH OF APPROPRIATE CONNECTOR END

LABEL ORIENTATION:



QTY.	PART NO.	DESCRIPTION	FIND NO.
REF TABLE I	[illegible]	ALPHAWIRE - HOOK-UP WIRE, MIL-W-16878E, 24AWG, STRANDED, TFE JACKET, WHITE	3
REF TABLE I	[illegible]	ALPHAWIRE - HOOK-UP WIRE, MIL-W-16878E, 24AWG, STRANDED, TFE JACKET, WHITE	3
REF TABLE I	[illegible]	ALPHAWIRE - HOOK-UP WIRE, MIL-W-16878E, 24AWG, STRANDED, TFE JACKET, BLACK	3
REF TABLE I	[illegible]	ALPHAWIRE - HOOK-UP WIRE, MIL-W-16878E, 24AWG, STRANDED, TFE JACKET, GREEN	3
P1	[illegible]	THOMAS & BETTS - TERMINAL RING, INSULATED, NYLON, 16AWG-14AWG, #10 STUD	1
P2	[illegible]	THOMAS & BETTS - TERMINAL RING, INSULATED, NYLON, 16AWG - 14AWG, BLUE, #10 STUD	1
J1	[illegible]	THOMAS & BETTS - TERMINAL RING, INSULATED, NYLON, 16AWG - 14AWG, BLUE, #6 STUD	1
J2	[illegible]	THOMAS & BETTS - TERMINAL RING, INSULATED, NYLON, 16AWG - 14AWG, BLUE, #10 STUD	1
J	[illegible]	THOMAS & BETTS - TERMINAL RING, INSULATED, NYLON, 16AWG - 14AWG, BLUE, 1/4 STUD	1
NS	[illegible]	SHRINK - FLUOROPOLYMER TUBE, HEAT SHRINKABLE	4

DRAWING / MODEL	FEDERAL AVIATION ADMINISTRATION 800 INDEPENDENCE AVE - S.W. WASHINGTON, D.C. 20591
	LOR ENCODER REPLACEMENT POWER DISTRIBUTION UNIT (ONE TERMINAL TO ONE TERMINAL)
	U LPR-000067-0016 B

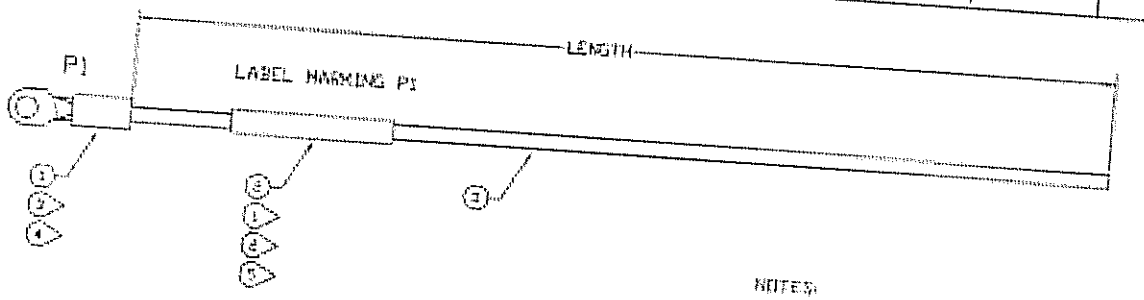
TABLE 1

PART NO	LENGTH (IN)	WIRE	TERMINAL P1	LABEL MARKING P1	LABEL ORIENTATION	TERMINAL P2	LABEL MARKING P2	LABEL ORIENTATION
W146	20	5059-1	RB14-6	W146/A2TB17-1	2	RB14-10	W146/P52/+24V	2
W148	26.25	5059-1	RB14-6	W148/A2TB03-3	2	RB14-10	W148/P52/+24V	2
W65	13	5059-1	RB14-6	W65/A2TB01-1	2	RB14-10	W65/P52/+24V_RET	2
W19	17.75	5059-1	RB14-6	W19/A2TB03-4	2	RB14-10	W19/P52/+24V_RET	2
W37	18.5	5059-1	RB14-6	W37/A2TB03-2	2	RB14-10	W37/P52/+24V_RET	2
W66	14.5	5059-1	RB14-6	W66/A2TB05-1	2	RB14-10	W66/P52/+24V_RET	2
W68	25.25	5059-1	RB14-6	W68/A2TB05-3	2	RB14-10	W68/P52/+5V	2
W99	24.75	5059-1	RB14-6	W99/A2TB06-4	2	RB14-10	W99/P52/+5V	2
W8	7	5059-1	RB14-6	W8/TB1-5	1	RB14-10	W8/P52/+24V_RET	2
W102	19.75	5059-1	RB14-6	W102/A2TB09-1	1	RB14-14	W102/P52/+24V_RET	2
W103	20.75	5059-1	RB14-6	W103/A2TB09-2	2	RB14-4	W103/P51/+15V	2
W104	20	5059-1	RB14-6	W104/A2TB09-3	2	RB14-4	W104/P51/+15V	2
W128	26	5059-1	RB14-6	W128/A2TB11-1	1	RB14-4	W128/P52/+15V	2
W166	21	5059-1	RB14-6	W166/A2TB03-1	1	RB14-4	W166/P51/-15V	2
W168	22.5	5059-1	RB14-6	W168/A2TB19-1	1	RB14-4	W168/P52/-15V	2
W172	24.75	5059-1	RB14-6	W172/A2TB05-3	1	RB14-4	W168/P52/+12V_REF	2
W176	32	5059-1	RB14-6	W176/A2TB06-2	1	RB14-4	W176/P52/+12V_REF	2
W27	13	5059-1	RB14-6	W27/A2TB01-2	1	RB14-4	W27/P51/+12V_REF_RET	2
W28	13.5	5059-1	RB14-6	W28/A2TB01-3	2	RB14-4	W28/P52/+12V_REF_RET	2
W30	23.25	5059-1	RB14-6	W30/A2TB01-5	2	RB14-4	W30/P51/+12V_RET	2
W31	22.75	5059-1	RB14-6	W31/A2TB01-6	2	RB14-4	W31/P52/-12V_RET	2
W35	18.5	5059-1	RB14-6	W35/A2TB00-11	2	RB14-4	W35/P52/+12V_RET	2
W36	19.5	5059-1	RB14-6	W36/A2TB02-1	2	RB14-4	W36/P51/+12V_RET	2
W46	13.5	5059-1	RB14-6	W46/A2TB01-1	2	RB14-4	W46/P51/+12V_RET	2
W48	19.75	5059-1	RB14-6	W48/A2TB03-3	1	RB14-4	W48/P51/+12V	2
W64	19.75	5059-1	RB14-6	W64/A2TB01-1	1	RB14-4	W64/P52/+12V	2
W89	21.5	5059-1	RB14-6	W89/A2TB07-1	1	RB14-4	W89/P51/-12V	2
W97	27.25	5059-1	RB14-6	W97/A2TB02-3	1	RB14-4	W97/P52/-12V	2
W98	27.25	5059-1	RB14-6	W98/A2TB02-2	1	RB14-4	W98/P52/+12V_RET	2
W10	16	5059-1	RB14-6	W10/A2TB03-3	1	RB14-4	W10/P52/+12V_RET	2
W13	14.5	5059-1	RB14-6	W13/TB1-7	1	RB14-4	W13/P52/-15V_RET	2
W14	17.5	5059-2	RB14-6	W14/TB1-10	1	RB14-6	W14/P52-HE	1
W15	12	5059-2	RB14-6	W15/TB1-12	1	RB14-6	W15/P51-H	1
W2	11.5	5059-1	RB14-6	W2/TB1-1	1	RB14-6	W2/P51-H	1
W3	10.5	5059-1	RB14-6	W3/TB1-2	1	RB14-6	W3/P52-H	1
W4	10.5	5059-1	RB14-6	W4/TB1-4	1	RB14-6	W4/P52-H	1
W172	44.75	5059-1	RA18-6	W172/A2TB13-5	1	RB14-6	W4/P52-N	1
W173	42.5	5059-1	RA18-6	W173/A2TB03-6	1	RA18-6	W173/A2-E	1
W175	43	5059-1	RA18-6	W175/A2TB05-7	2	RA18-6	W175/A2-E	2
W174	46	5059-1	RA18-6	W174/A2TB05-8	1	RA18-6	W174/A2-E	2
W175	47.5	5059-1	RA18-6	W175/A2TB05-9	1	RA18-6	W175/A2-E	2
W179	42.5	5059-1	RA18-6	W179/A2TB05-10	1	RA18-6	W179/A2-E	2
W180	50	5059-1	RA18-6	W180/A2TB16-4	1	RA18-6	W180/A2-E	2
W181	47	5059-1	RA18-6	W181/A2TB16-5	1	RA18-6	W181/A2-I	1
W182	54.5	5059-1	RA18-6	W182/A2TB16-6	1	RA18-6	W182/A2-I	1
W183	53.5	5059-1	RA18-6	W183/A2TB16-7	1	RA18-6	W183/A2-I	1
W184	57	5059-1	RA18-6	W184/A2TB16-8	1	RA18-6	W184/A2-I	1
W161	39	5059-1	RA18-6	W161/A2TB14-6	1	RA18-6	W161/A2-I	1
					2	RA18-6	W161/A2TB16-4	1

LRR ENCODER REPLACEMENT

POWER DISTRIBUTION UNIT

D ILRR-000067-0006 Δ



NOTES:

1. MARK IN 110 INCH HIGH CHARACTERS
2. SHRINK TUBING PER MANUFACTURER INSTRUCTIONS
3. CRIMP TERMINALS PER MANUFACTURER INSTRUCTIONS
4. ASSEMBLE PER MANUFACTURER INSTRUCTIONS
5. CABLE LABEL TO BE WITHIN 1 INCH OF APPROPRIATE CONNECTOR END

TABLE 1

PART NO.	LENGTH	WIRE	TERMINAL P1	LABEL MARKING P1
W15	55.5	S059-4	R804-14	W15/GND-STUD

QTY.	PART NO.	DESCRIPTION	FIND NO.
SEE TABLE 1	S059-4	ALPHAWIRE - HIGH-UP WIRE, HI-UP-SUITING, FAMAC, STRANDED, TYP. JACKET, DEPTH	3
2	R804-14	THOMAS & BETTS - TERMINAL, RING, INSULATED, HOLES, 14AWG - USAGE, SIZE, 1/4" STUD	4
3	FSPT-005-LTSTL	BRADY - PERMASLEEVE WIRE MARKER SLEEVE, HEATSHRINK	5

CONTRACT - DCIRS

TERRAL AVIATION ADMINISTRATION
AND A MACHINIUM ALIAS - ALSO ARE
INCLUDING CITY OR TRAIN

LRR ENCODER REPLACEMENT

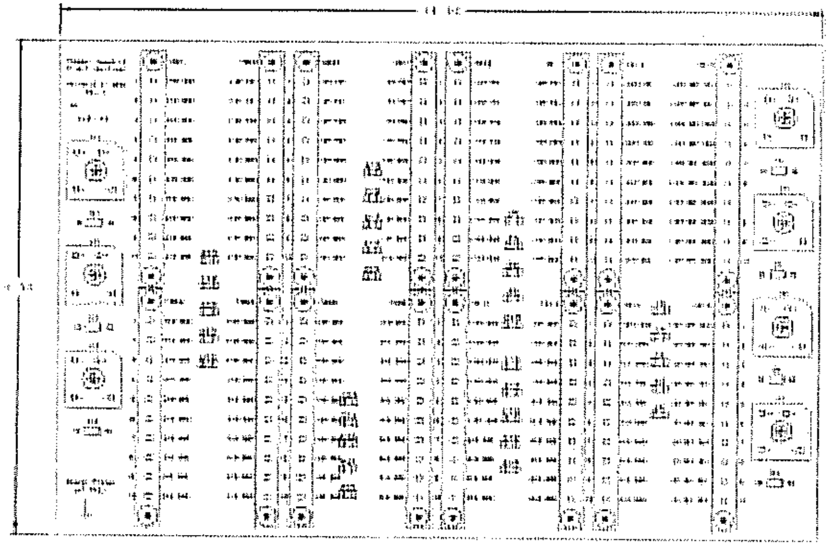
LRR-CC0067-0017 A

POWER DISTRIBUTION BOARD (A2)
PS_DIST_BRD

FABRICATION DRAWING PAGE 2
BILL OF MATERIALS PAGE 3

PS_DIST_BRD REV E

LRR-000067-001B E



FAB NOTES:
Layers: 2
Material: 0.093" FR4
Dimensions: 14.5" x 9.5"
Plating: Lead Free Solder
Cu Weight: 2 oz min
Inner Layer Cu Weight: 2 oz min
Plated Slots: No
Gold Fingers: None
Soldermask: Both Sides with LPI
Soldermask Color: Green
Counter Sinks: No
Counter Bores: No
CNC Route points: 4
Tab Route: No
Scoring: No
Plated Edges: No
Controlled Dielectric: No
Controlled Impedance: No
Inspected to IPC-A-600G Class 2
All holes plated through

COMPONENT PLACEMENT NOTES:
General: All thru-hole parts should be inserted from the top side of the board. The top side has the terminal block silkscreen is present.

Diodes: The line on the diode should be oriented to match the same side as the silkscreen line on the board.

Heatsinks: Add heatsinks to the rectifiers after they have been soldered onto the board.

Terminal Blocks: Use 3/4" #4-40 screws, nuts, and washers to secure the terminal blocks to the board before soldering.

FEDERAL AVIATION ADMINISTRATION

Power Supply Distribution Board Fabrication Drawing

Parts:

DESCRIPTION	REFERENCE DESIGNATOR	PART #	MANUFACTURER	TOTAL QUANTITY
Terminal Block, 10 Pos., 0.375" Spacing	TB1	38720-6210	Molex	16
Terminal Block, 10 Pos., 0.375" Spacing	TB2	38720-6210	Molex	
Terminal Block, 10 Pos., 0.375" Spacing	TB3	38720-6210	Molex	
Terminal Block, 10 Pos., 0.375" Spacing	TB4	38720-6210	Molex	
Terminal Block, 10 Pos., 0.375" Spacing	TB5	38720-6210	Molex	
Terminal Block, 10 Pos., 0.375" Spacing	TB6	38720-6210	Molex	
Terminal Block, 10 Pos., 0.375" Spacing	TB7	38720-6210	Molex	
Terminal Block, 10 Pos., 0.375" Spacing	TB8	38720-6210	Molex	
Terminal Block, 10 Pos., 0.375" Spacing	TB9	38720-6210	Molex	
Terminal Block, 10 Pos., 0.375" Spacing	TB10	38720-6210	Molex	
Terminal Block, 10 Pos., 0.375" Spacing	TB11	38720-6210	Molex	
Terminal Block, 10 Pos., 0.375" Spacing	TB12	38720-6210	Molex	
Terminal Block, 10 Pos., 0.375" Spacing	TB13	38720-6210	Molex	
Terminal Block, 10 Pos., 0.375" Spacing	TB14	38720-6210	Molex	
Terminal Block, 10 Pos., 0.375" Spacing	TB15	38720-6210	Molex	
Terminal Block, 10 Pos., 0.375" Spacing	TB16	38720-6210	Molex	
TVS Diode, Vbr 27V	D1	1N6281AG	ON Semiconductor	3
TVS Diode, Vbr 27V	D3	1N6281AG	ON Semiconductor	
TVS Diode, Vbr 27V	D4	1N6281AG	ON Semiconductor	
TVS Diode, Vbr 10V	D2	1N6271AG	ON Semiconductor	1
TVS Diode, Vbr 51V	D5	1N6288AG	ON Semiconductor	1
TVS Diode, Vbr 33V	D6	1N6283AG	ON Semiconductor	2
TVS Diode, Vbr 33V	D7	1N6283AG	ON Semiconductor	
Bridge Rectifier, 35A	U1	GBPC3506W	Fairchild Semiconductor	7
Bridge Rectifier, 35A	U2	GBPC3506W	Fairchild Semiconductor	
Bridge Rectifier, 35A	U3	GBPC3506W	Fairchild Semiconductor	
Bridge Rectifier, 35A	U4	GBPC3506W	Fairchild Semiconductor	
Bridge Rectifier, 35A	U5	GBPC3506W	Fairchild Semiconductor	
Bridge Rectifier, 35A	U6	GBPC3506W	Fairchild Semiconductor	
Bridge Rectifier, 35A	U7	GBPC3506W	Fairchild Semiconductor	
BGA Heatsink, 28mm, Omindirectional		658-60ABT3	Wakefield	7
BGA Heatsink, 28mm, Omindirectional		658-60ABT3	Wakefield	
BGA Heatsink, 28mm, Omindirectional		658-60ABT3	Wakefield	
BGA Heatsink, 28mm, Omindirectional		658-60ABT3	Wakefield	
BGA Heatsink, 28mm, Omindirectional		658-60ABT3	Wakefield	
BGA Heatsink, 28mm, Omindirectional		658-60ABT3	Wakefield	
BGA Heatsink, 28mm, Omindirectional		658-60ABT3	Wakefield	
#4-40 Screws, 3/4", Pan-Head Phillips, Stainless Steel				32
#4-40 Nuts, Stainless Steel				32
#4 Flat Washers				32

PS_DIST_BRD REV B

PARTS LIST

D LRR-000067-0028 E

POWER SUPPLY MONITOR - A1

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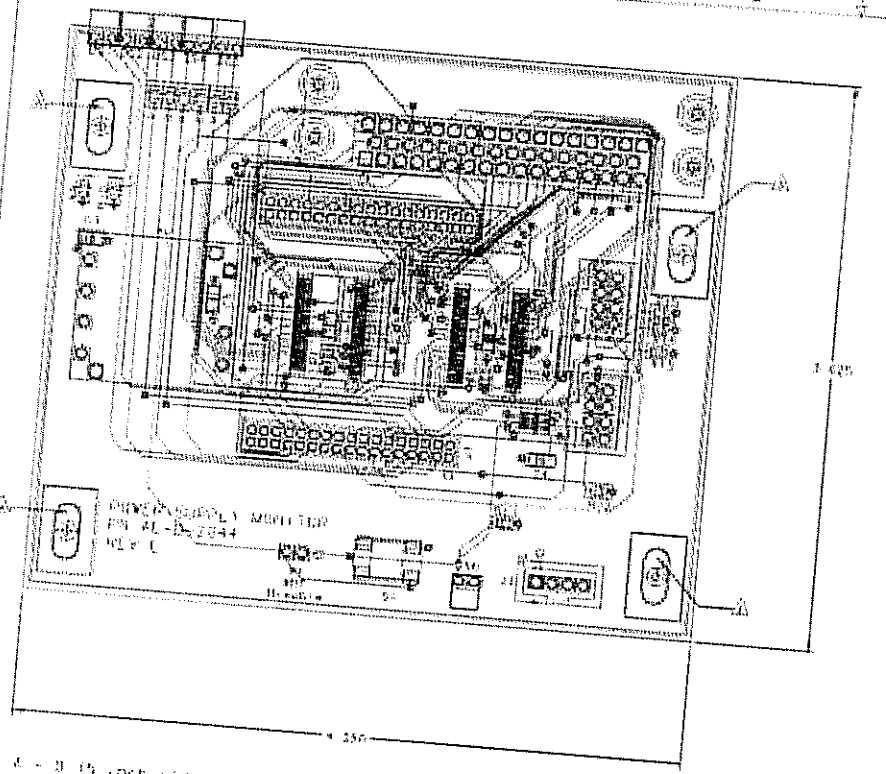


A - 3 PL .062 *106, B .38 .000 [mm], .001-.002 Slot centered on drill hole

MASTER DRILL SCHEDULE

SYMBOL	DRILL SIZE	QUANT.	PLATED	REMARKS
0	0.13	193	YES	----
B	0.18	55	YES	----
W	0.31	2	NO	----
D	0.41	27	YES	----
E	0.46	32	YES	----
F	0.25	2	YES	----
G	3	4	YES	----
H	.10	9	YES	----

Layers: 8
Material: G-10FR4
Dimensions: 4.5"x7.5"
Finish: Lead Free Solder
Cu Wt: 1oz, .001 min
Copper Clad Wt: 1 oz min
# of holes plated through: 1
Gold Fingers: None
Solderpaste: Both Sides with LPI
Silkscreen Color: Green
PWB Route Method: A
Tab Route: No
Beveling: No
Plated Edges: No
Controlled Impedance: No
Controlled Dielectric: No
Inspected to IPC-A-600C Class 2

PLACEMENT NOTES
-J1 HAS A CIRCLE TO INDICATE THE SIDE TO HAVE THE METAL SIDE OF THE SWITCH FACE
-USE #4-40 HARDWARE (SCREW,LOCK,FLAT,NUT) TO FASTEN THE 50 PIN CONNECTOR TO THE PSW
-ALL LED'S SHOULD FACE AWAY FROM THE CENTER OF THE BOARD
-CIRCLE/DOTS INDICATE PIN 1 FOR THE CONNECTORS.

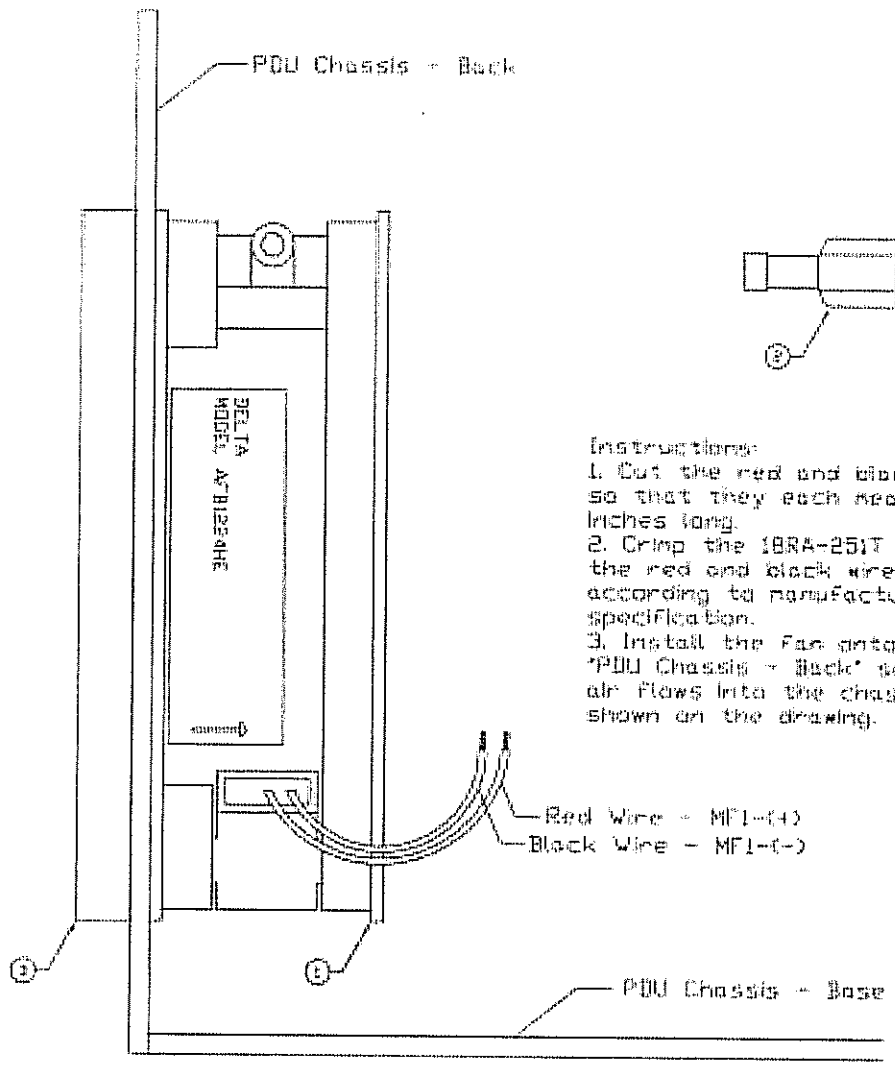
INSTALLATION INSTRUCTIONS
MOUNT PSW BOARD ONTO THE 4 STANDOFFS IN THE BOTTOM OF THE PDU. THE LED'S SHOULD FACE OUT THE REAR OF THE PDU CHASSIS.
USE THE FOLLOWING HARDWARE TO FASTEN PSW BOARD (#4-40 PAN HEAD PHILLIPS SCREW 3/8" LENGTH, #4 FLAT WASHER, #4 SPLIT WASHER)
INSTALL PROVIDED RADIO CORE DOUBLE INTO TOP OF COMPLETED PSW CARD.
INSTALL PDU INTERNAL CABLES TO PSW ACCORDING TO LABELING

			PSW - Fabrication Drawing
			28-10-2004

PSM Parts List

Ref Des	Qty	Part Number	Description	Manufacturer
U1	1	MAX6370KA	Watchdog Timer	Maxim
U2, U3	2	DS89C386TMEA/NOPB	12 Channel Differential Rx	National Semiconductor
U4	1	CC6-0503SF-E	3.3V DC-DC Converter	Lambda
J1, J2	2	SOT-117-01-F-D	2x17 2mm Socket, PCB Mount	Samtec
J3	1	90135-1104	.100" Pitch, 4 Position PCB Header (for Power)	Molex
J4	1	747193-1	DB50, 90 degree, PCB Mount	AMP
J5, J6	2	90130-1108	.100" Pitch, 8 Position PCB Header (for I2C)	Molex
DS1	1	WP934CB/ID	3mm LED, PCB mount, Red	Kingbright
DS2	1	WP934CB/YD	3mm LED, PCB mount, Yellow	Kingbright
DS3 - DS5	3	WP937CB/EGW	3mm LED, PCB mount, Red/Green	Kingbright
DS6	1	WP934CB/GD	3mm LED, PCB mount, Green	Kingbright
R1, R2	2	RR1220P-1131-D-M	Metal Film Resistor, 1130.0 ohm, 100V, .5%	Susumu
R3 - R8	6	RR1220Q-54R9-D-M	Metal Film Resistor, 54.9 ohm, 100V, .5%	Susumu
R9 - R11	3	RR1220P-1070-D-M	Metal Film Resistor, 107.0 ohm, 100V, .5%	Susumu
R12 - R15	4	RR1220P-1401-D-M	Metal Film Resistor, 1401.0 ohm, 100V, .5%	Susumu
C1 - C4	4	C1206C104K5RAC-TU	Capacitor, .1uf, 50V, 10%	Kemet
C5	1	C1206C105K3RAC-TU	Capacitor, 1uf, 25V, 10%	Kemet
W1	1	TSW-102-08-F-S	.100" Pitch, 2 Position PCB Header (WDT Jumper)	Samtec
	1	SNT-100-BK-G	.100" Pitch, 2 Position Jumper	Samtec
S1	1	GP11MSABE	SPST Pushbutton Switch, .4VA at 20VAC/DC	C&K Components
	4		#4-40 Screw, S/S, Panhead Phillips, 3/8"	
	4		#4 Flat Washer, S/S	
	4		#4 Split Washer, S/S	

Drawn: CFORD	AE-B-2044 - REV E	PAGE 3 OF 3



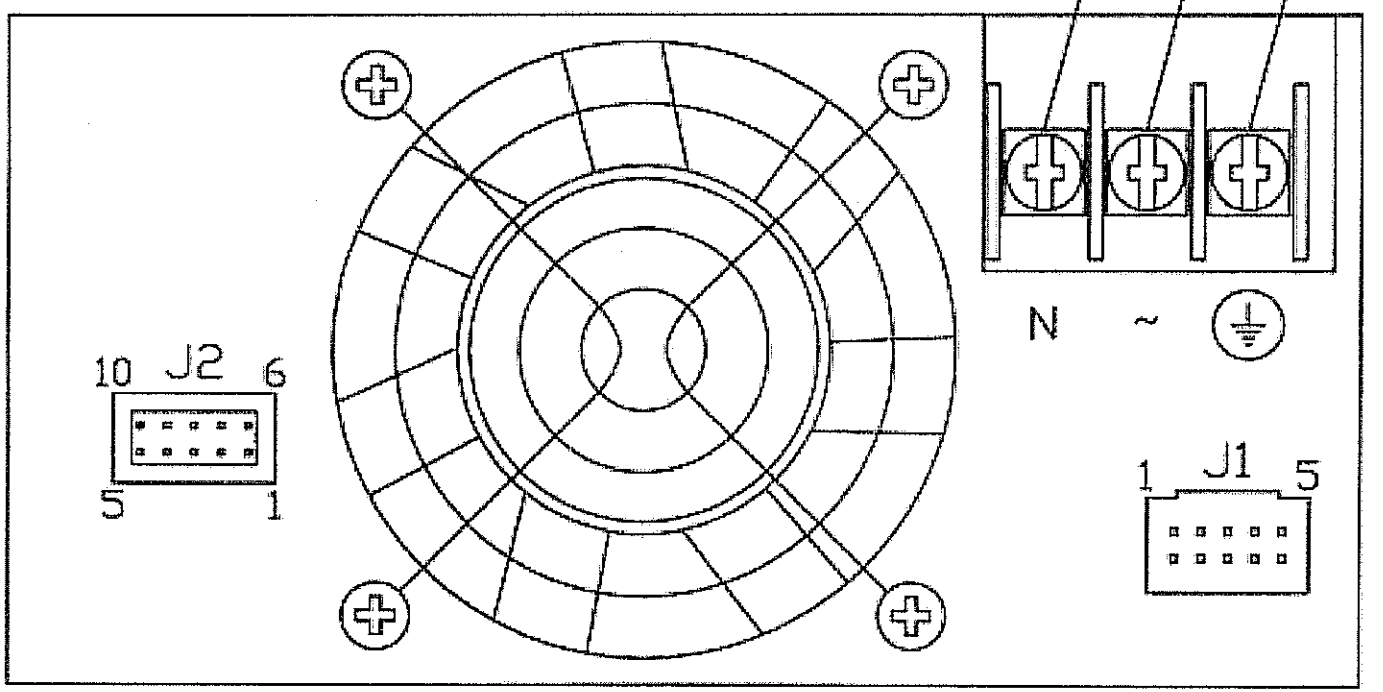
Instructions:
1. Cut the red and black wires so that they each measure 4 inches long.
2. Crimp the 18RA-251T onto the red and black wires according to manufacturers specification.
3. Install the fan onto the "PDU Chassis - Back" so that air flows into the chassis, as shown on the drawing.

QTY.	PART NO.	DESCRIPTION	FIND NO.
1	8205-5005-0413 -MOD	TECH-ETCH - EMI MUFFIN FAN FILTER	3
2	18RA-251T	THOMAS & BETTS - QUICK CONNECT, MALE, INSULATED, NYLON, 16AWG - 22AWG, RED	2
1	AFB1224HE	DELTA - 24VDC FAN, 120X120MM	1

LRR ENCODER REPLACEMENT

LRR-000067-0019 A

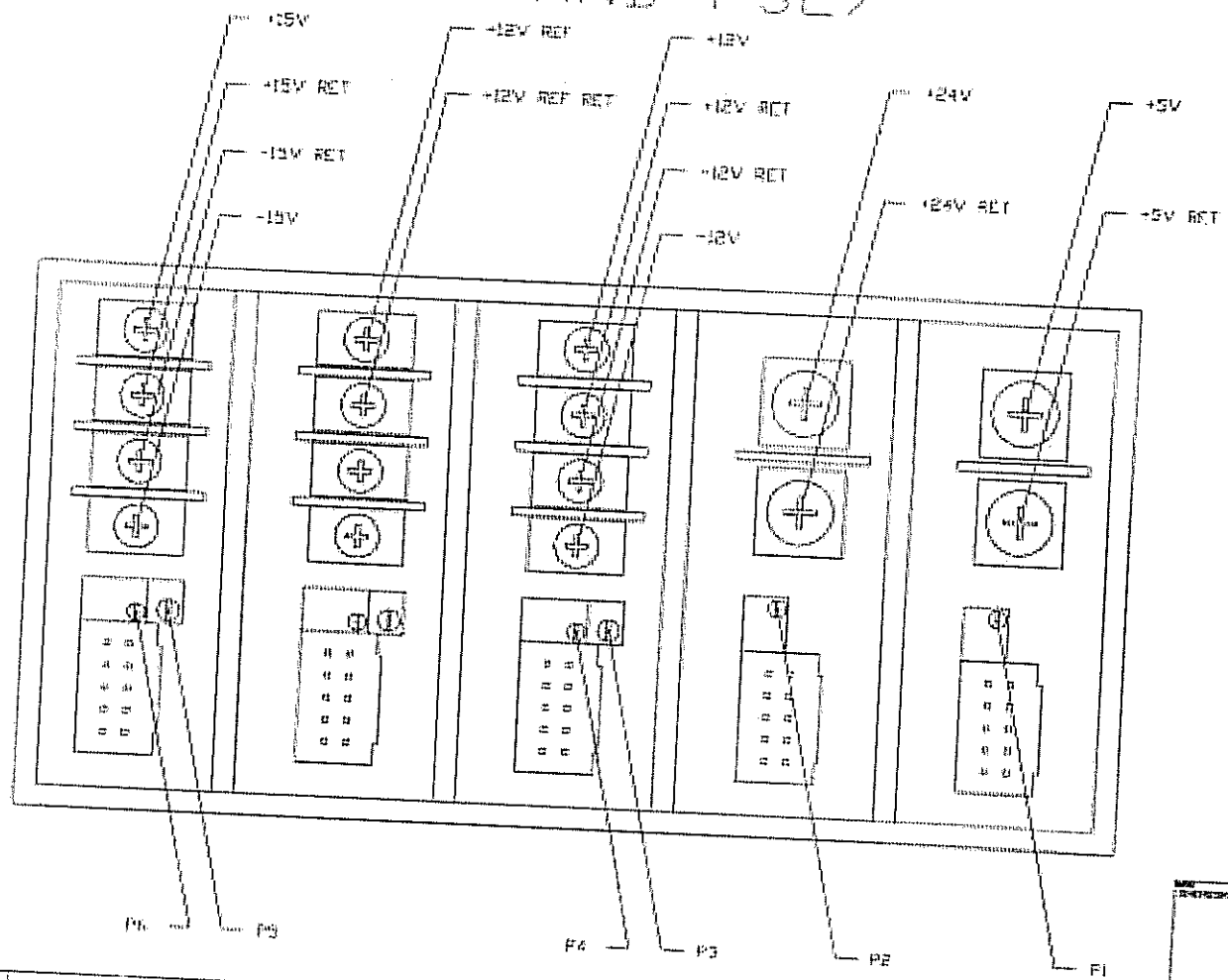
POWER SUPPLY INPUTS



LRR ENCODER REPLACEMENT

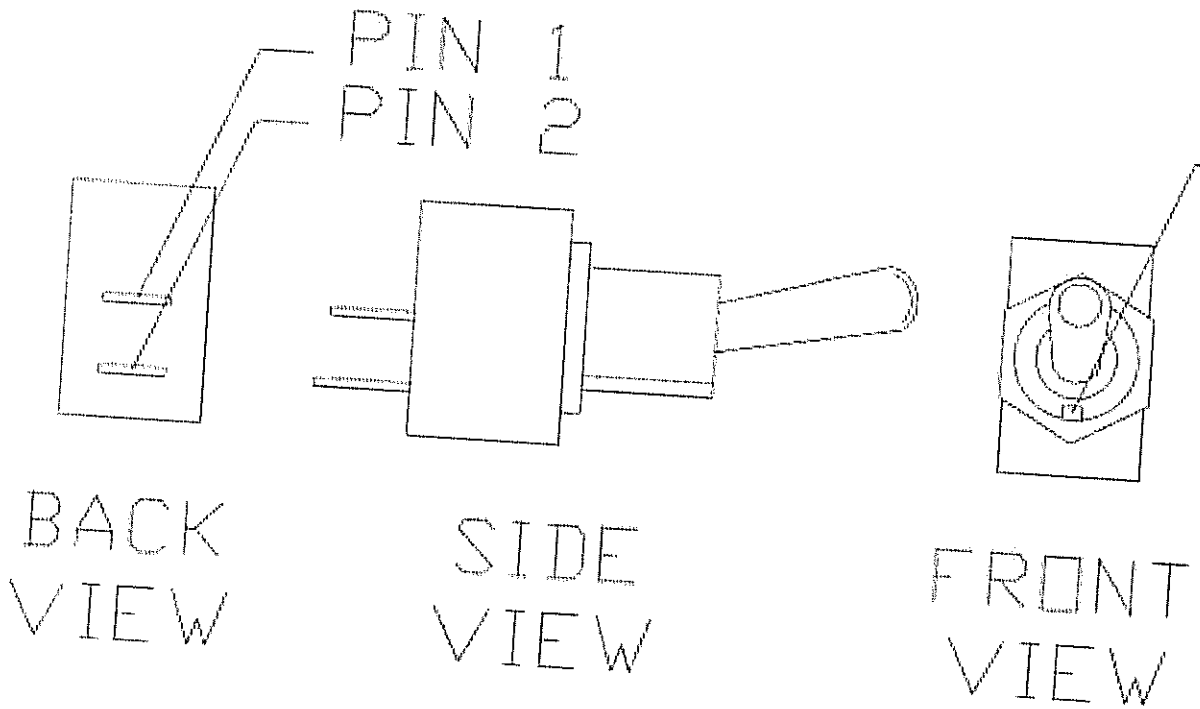
LRR-000067-0020

POWER SUPPLY OUTPUTS
(PS1 AND PS2)



LRR ENCODER REPLACEMENT

LRR-000067-0021



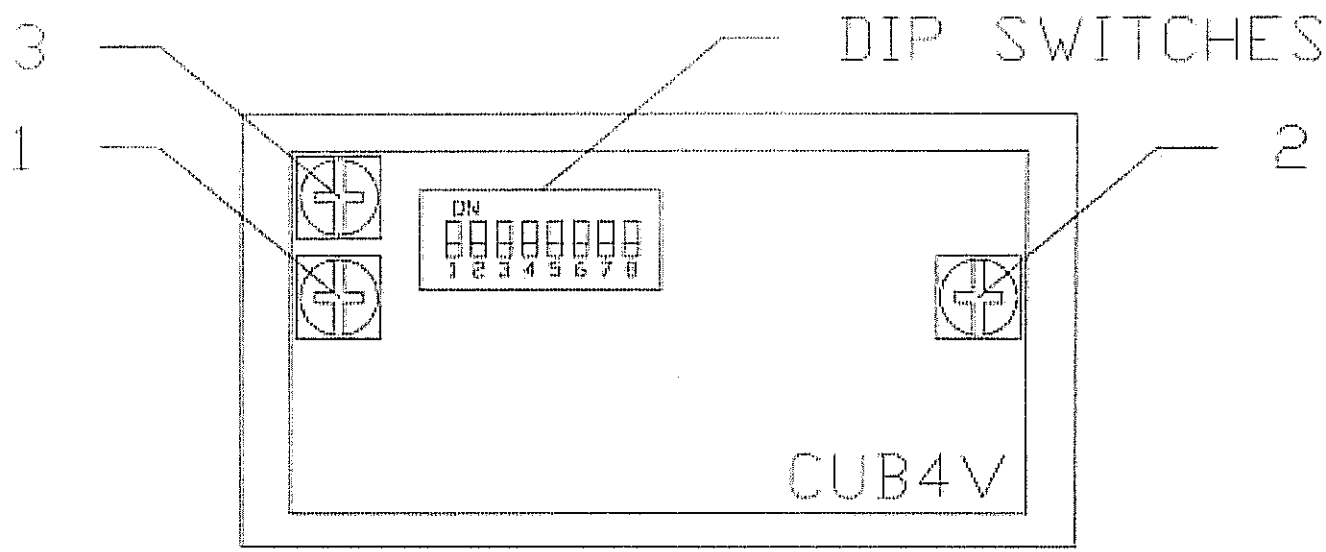
KEY DENOTES BOTTOM OF SWITCH

Mounting Instructions:
Install switch according to manufacturer's instructions with the key facing the bottom of the PDU Chassis.

LRR ENCODER REPLACEMENT

LRR-000067-0022 A

LCD METERS BACK LAYOUT
(A3,A4,A5,A6,A7,A8)



LRR ENCODER REPLACEMENT

LRR-000067-0023