

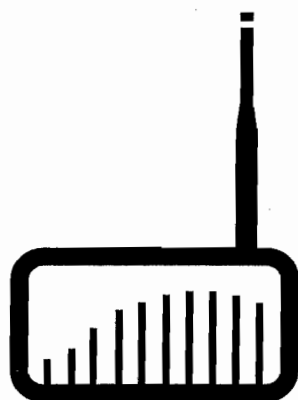
Ivie Technologies

884IF
LDS Interface Board

065-1990 Rev B3 PCB

3/25/2002

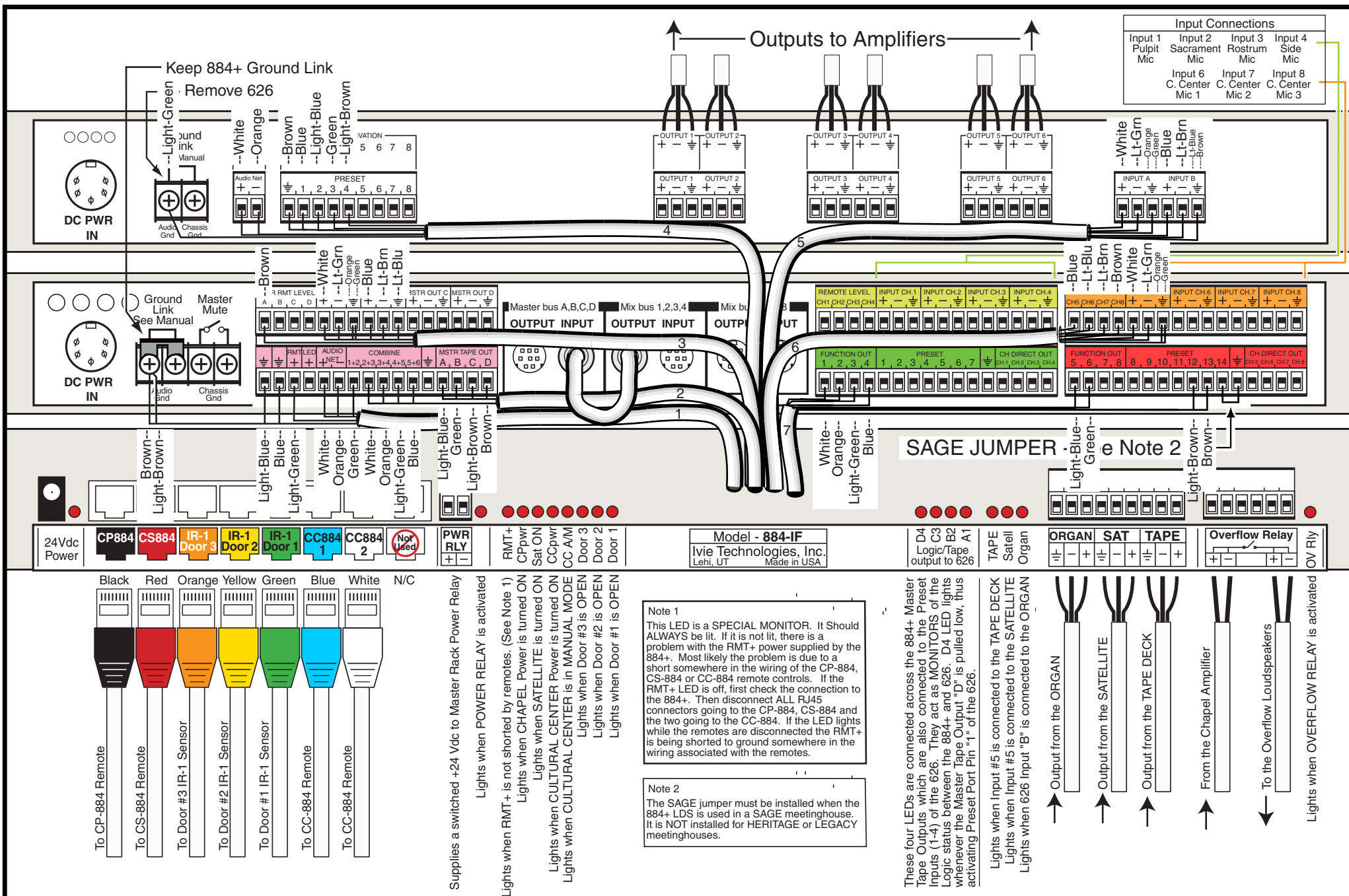
5/13/2002 - Rev B4



Ivie
Technologies Inc.

Ivie 884-IF Harness Wiring Diagram

Rev. 18 Feb. 2002

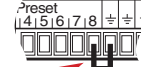


SAGE wiring diagram for the Ivie 1026/1026IF

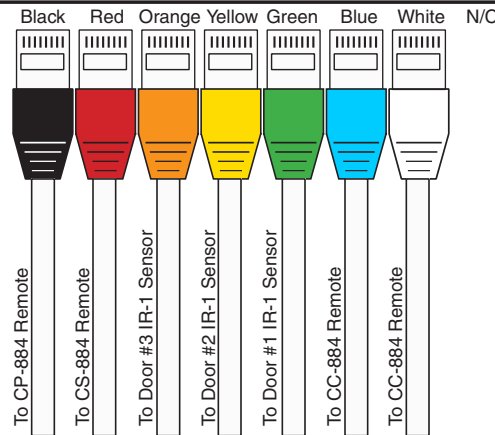
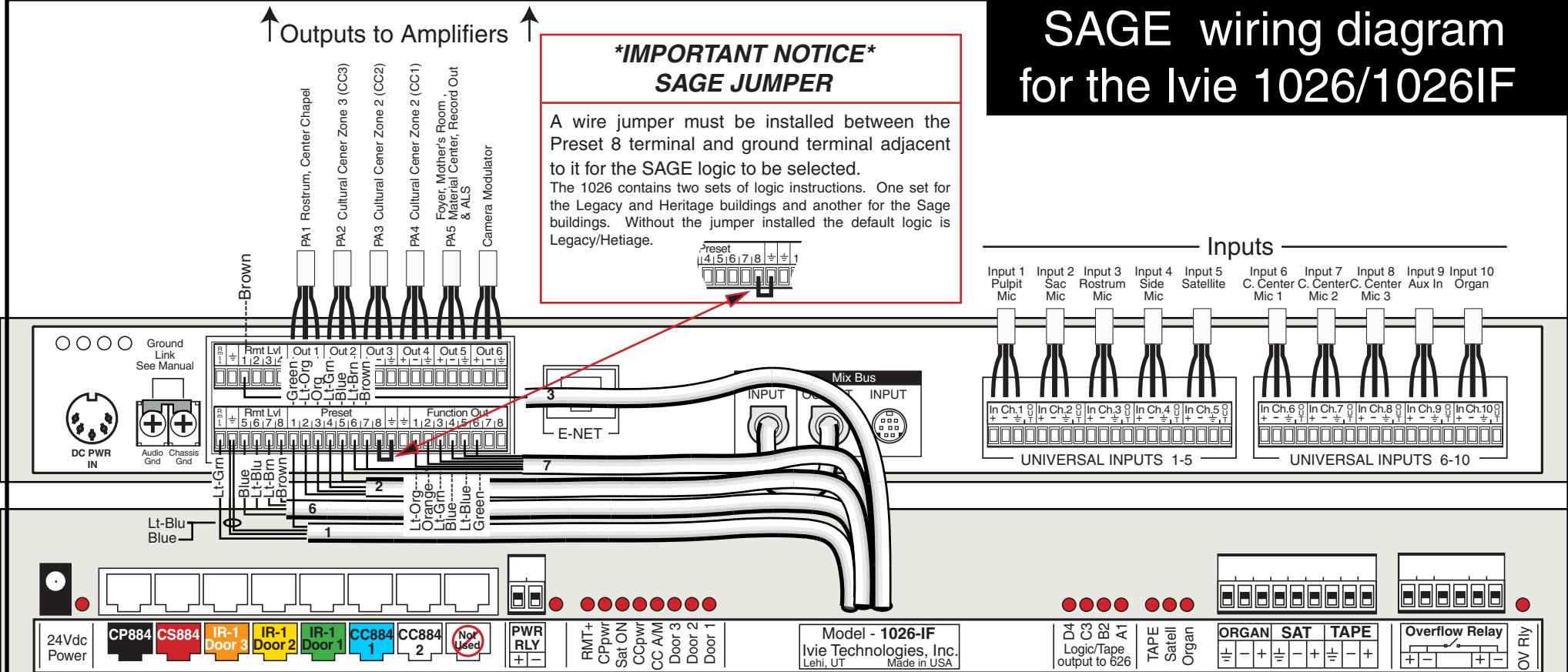
IMPORTANT NOTICE SAGE JUMPER

A wire jumper must be installed between the Preset 8 terminal and ground terminal adjacent to it for the SAGE logic to be selected.

The 1026 contains two sets of logic instructions. One set for the Legacy and Heritage buildings and another for the Sage buildings. Without the jumper installed the default logic is Legacy/Heritage.



↑ Outputs to Amplifiers ↑



Supplies a switched +24 Vdc to Master Rack Power Relay

Lights when POWER RELAY is activated

Lights when RMT+ is not shorted by remotes. (See Note 1)

Lights when CHAPEL Power is turned ON

Lights when SATELLITE is turned ON

Lights when CULTURAL CENTER Power is turned ON

Lights when CULTURAL CENTER is in MANUAL MODE

Lights when Door #3 is OPEN

Lights when Door #2 is OPEN

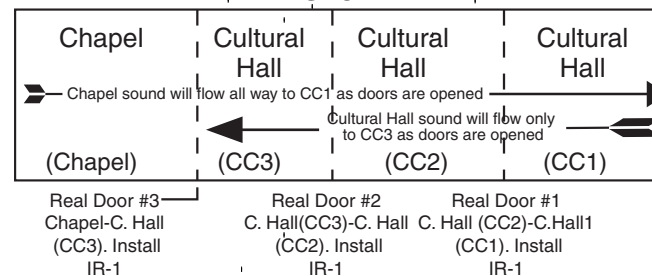
Lights when Door #1 is OPEN

Note 1
This LED is a SPECIAL MONITOR. It Should ALWAYS be lit. If it is not lit, there is a problem with the RMT+ power supplied by the 1026. Most likely the problem is due to a short somewhere in the wiring of the CP-884, CS-884 or CC-884 remote controls. If the RMT+ LED is off, first check the connection to the 1026. Then disconnect ALL RJ45 connectors going to the CP-884, CS-884 and the two going to the CC-884. If the LED lights while the remotes are disconnected the RMT+ is being shorted to ground somewhere in the wiring associated with the remotes.

These seven LEDs are not used on the 1026-IF and should be ignored.

These connectors are not used on the 1026-IF and should be ignored.

SAGE



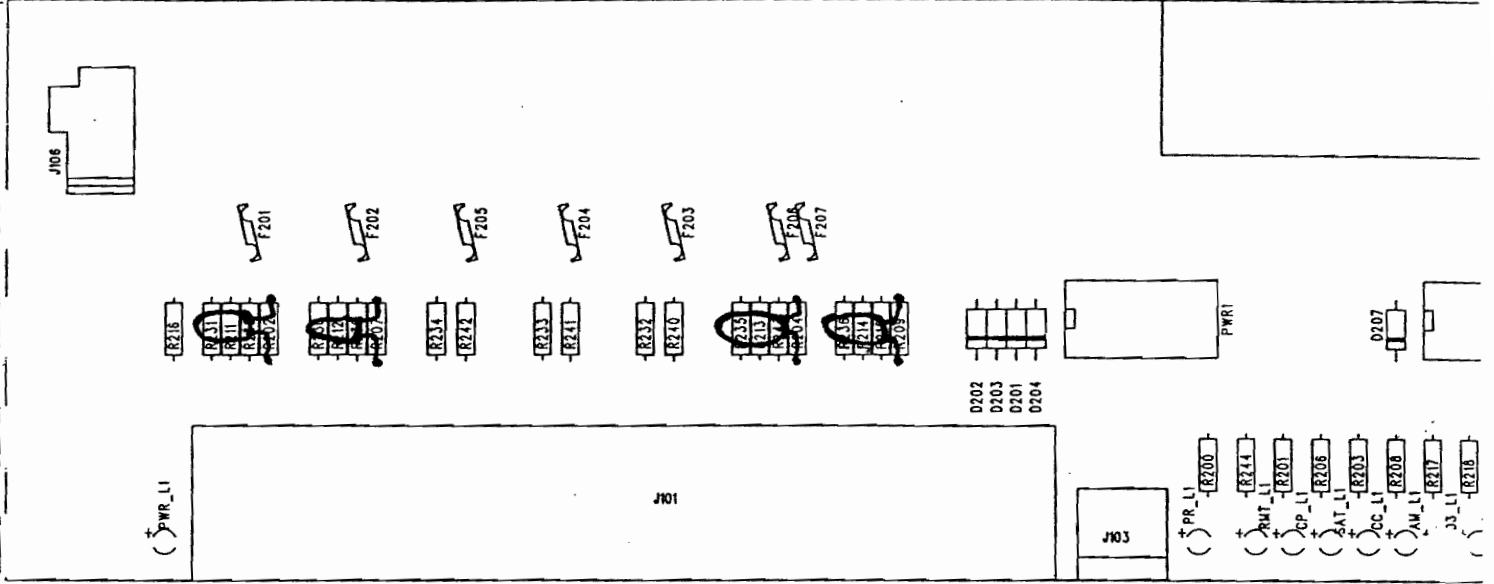
ENGINEERING CHANGE ORDER NO. 126

REASON: <u>Protect P.F. PC</u>			EFFECTIVITY:		ARTWORK CHNG? <u>YES</u> NO					
<u>Board if 240x is started</u>			<u>884 P.F.</u>		B/M CHNG? ONLY <u>YES</u> NO					
<u>To function out</u>					DRILLING CHNG? <u>YES</u> NO					
DISPOSITION OF PARTS			APPROVAL		DATE		DOCUMENT NO. AFFECTED	REV	COO BY	CHK BY
IN PROCESS	IN STOCK	IN FIELD	INITIATED BY: <u>MD</u>		<u>5-13-2002</u>			-		
☒ CHANGE	☒ CHANGE	☐ CHANGE	ENGR <u>D.R. M. T.</u>		<u>5-13-2002</u>		<u>SCHEMATIC</u>	<u>B3-B4</u>		
☐ NO CHNG	☐ NO CHNG	☐ NO CHNG	PROD <u>B. J. D. Moore</u>		<u>5-14-02</u>			-		
☐ SCRAP	☐ SCRAP	☒ OPTIONAL	PRCH <u>RP</u>		<u>5-14-02</u>		<u>BOM</u>	-		
			MRKT <u>W.A.R.</u>		<u>5-14-02</u>			-		
			COMP <u>E. Koch</u>		<u>5-13-02</u>			-		
OTHER:			STRS <u>E. Koch</u>		<u>5-13-02</u>			-		
			FINAL				<u>Rev</u>	<u>Org to yellow</u>		

DESCRIPTION:

Replace ~~R~~ R202, R204, R207, R209 100 Ω resistor p# 1440010
with Lamp New p# 244-0030

load lamps in place of 100 Ω resistor - Bend over
and hot glue to top of resistor (See next page)



Revision History

02/18/2002 ECO B1 (see schematic page 2)
Replace R247 with 1.00M (was 100K)

03/07/2002 ECO B2 (see schematic page 3)
a) Remove R307 (was 22.1 ohm)
b) Replace U307 (LM317) with PTC Fuse (Ivive part #
261-0250) connected from U307 pin 1 to U307 pin 3

03/22/2002 ECO B3 (see schematic page 3)
To power older Podium Up/Down Relay Assemblies,
change the CP +24 Supply to allow more current.
a) Remove R301, R302, R303, R304, R305, R306.
b) Replace U301 (LM317) with wire Jumper connected
from U301 pin 1 to U301 pin 3.
c) Replace U302 (LM317) with wire Jumper connected
from U302 pin 1 to U302 pin 3.
d) Replace U303 (LM317) with wire Jumper connected
from U303 pin 1 to U303 pin 3.
e) Replace U304 (LM317) with wire Jumper connected
from U304 pin 1 to U304 pin 3.
f) Replace U305 (LM317) with wire Jumper connected
from U305 pin 1 to U305 pin 3.
g) Replace U306 (LM317) with wire Jumper connected
from U306 pin 1 to U306 pin 3.

ENGINEERING CHANGE ORDER NO. 125

REASON: <u>Current limiting</u>			EFFECTIVITY: <u>884 IF</u>		ARTWORK CHNG? <u>YES</u> NO	
<u>Curcorty incompatible with</u>			<u>Rev B</u>		B/M CHNG? ONLY <u>YES</u> NO	
<u>Podium up/down relay</u>					DRILLING CHNG? <u>YES</u> NO	
DISPOSITION OF PARTS			APPROVAL	DATE	DOCUMENT NO. AFFECTED	REV
IN PROCESS	IN STOCK	IN FIELD	INITIATED BY: <u>DRM</u>	<u>3/26/2002</u>	<u>Sch</u>	<u>B2-B3</u>
☒ CHANGE	☒ CHANGE	☒ CHANGE	ENGR <u>DRM</u>	<u>3/26/2002</u>		-
☐ NO CHNG	☐ NO CHNG	☐ NO CHNG	PROD <u>DRM</u>	<u>3-26-02</u>	<u>Bom</u>	-
☐ SCRAP	☐ SCRAP	☐ OPTIONAL	PRCH <u>DRM</u>			-
			MRKT			-
			COMP <u>E. Roach</u>	<u>3-26-02</u>		-
OTHER:			STRS <u>E. Roach</u>	<u>3-26-02</u>		-
			FINAL			-

DESCRIPTION:

In process, In Stock, In Field 884 IF's will have U301 ~~and R301~~ Removed and jumper installed between +24 and +24cp. See diagram #1

Next production Run of Boards will have U301, R301 - U302, R302 - U303, R303 - U304, R304 - U305, R305 - U306, R306 - ~~Removed~~ Not loaded and jumpers installed. See diagram #2

- Bom
- 1) Delete 6ea 144-1170
22.1 OHM RESISTOR
 - 2) DELETE 6ea 157-0120
LM 317 T
 - 3) ADD 6ea 673-0000
- PAGE 1 OF 3

Diagram 1

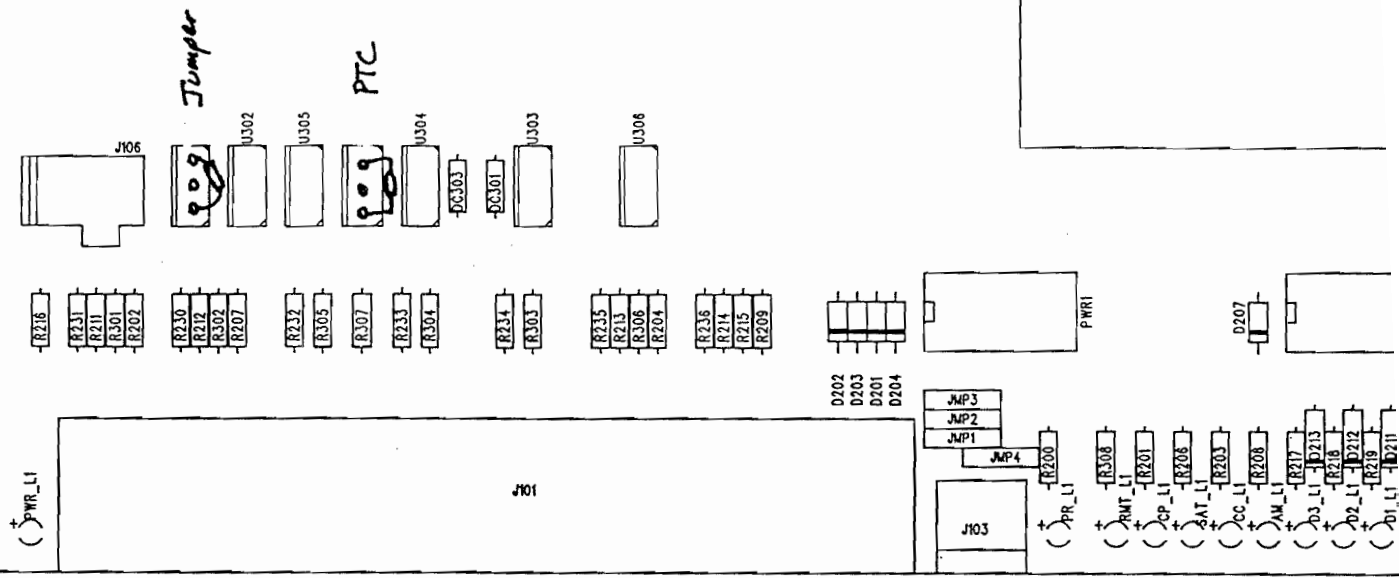
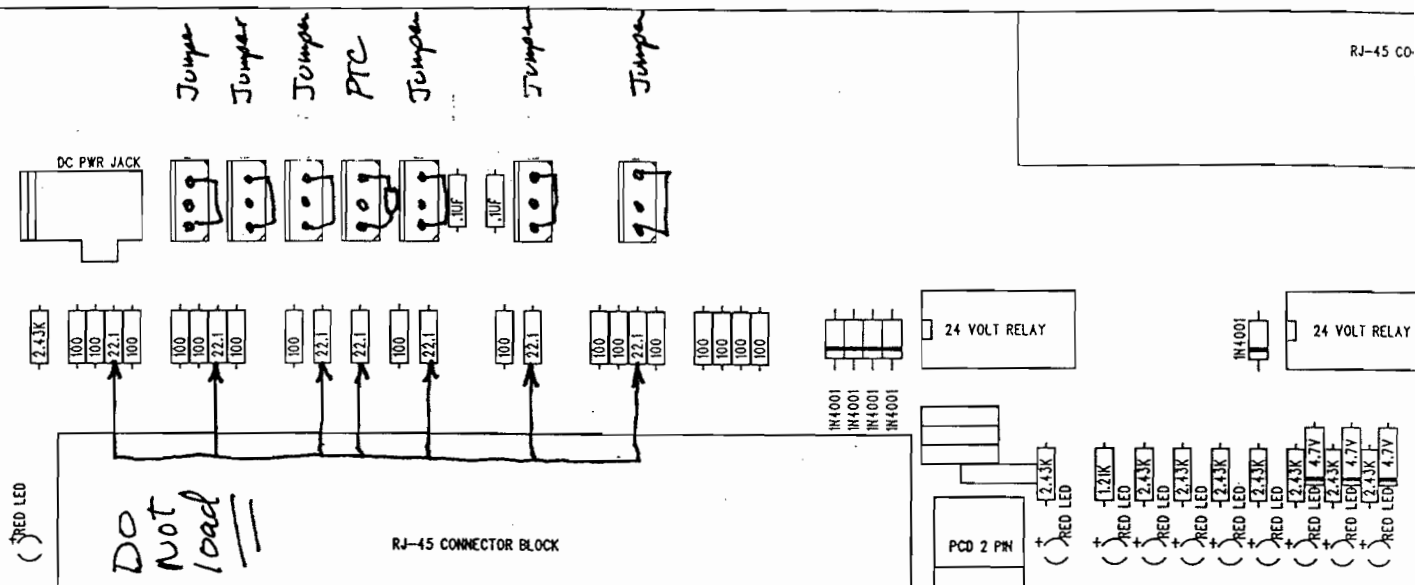


Diagram 2



ENGINEERING CHANGE ORDER NO.

124

REASON: Remote power will not function			EFFECTIVITY: Rev B 8841F		ARTWORK CHNG? <u>YES</u> NO	
					B/M CHNG? ONLY <u>YES</u> NO	
					DRILLING CHNG? <u>YES</u> NO	
DISPOSITION OF PARTS			APPROVAL	DATE	DOCUMENT NO. AFFECTED	REV
IN PROCESS	IN STOCK	IN FIELD	INITIATED BY: <u>JMP</u>	3-7-02	Schem	B1 - B2
☒ CHANGE	☒ CHANGE	☒ CHANGE	ENGR <u>WLM</u>	3-7-02	BOM	-
☐ NO CHNG	☐ NO CHNG	☐ NO CHNG	PROD <u>D. Johnson</u>	3-7-02	LOADING DIAGRAM	-
☐ SCRAP	☐ SCRAP	☐ OPTIONAL	PRCH <u>K16</u>	3-7-02		-
			MRKT			-
			COMP <u>E. Roach</u>	3-7-02		-
OTHER:			STRS <u>E. Roach</u>	3-7-02		-
			FINAL			-

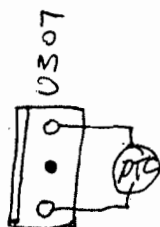
DESCRIPTION:

R307 is not loaded. Part # 144-1170 Delete

U307 is not loaded. Part # 157-0120 Delete

Resettable Fuse is loaded from pin 1 to pin 3

Were U307 was loaded. Part # 261-0250 Add



ENGINEERING CHANGE ORDER NO. 122

REASON: To keep Tape LED
off when SAT LED comes
on.

EFFECTIVITY:

8841F

ARTWORK CHNG? YES NO

B/M CHNG? ONLY YES NO

DRILLING CHNG? YES NO

DISPOSITION OF PARTS

APPROVAL

DATE

DOCUMENT NO.
AFFECTED

REV

COO
BY

CHK
BY

IN
PROCESS

IN
STOCK

IN
FIELD

INITIATED BY:

2-19-2002

ENGR

2-19-2002

PROD

2-19-02

PRCH

MRKT

COMP

STRS

FINAL

SCH/PCB

A1-A2

" "

B0-B1

-

-

-

-

-

☒ CHANGE

☒ CHANGE

☒ CHANGE

☐ NO CHNG

☐ NO CHNG

☐ NO CHNG

☐ SCRAP

☐ SCRAP

☐ OPTIONAL

OTHER:

DESCRIPTION:

Change R247 From 100K to 1.0meg Ω Resistor part # 1440045

CABLES TO ROOMS

CP-884	SATELLITE	D00R3	D00R2	D00R1	CC-884	
J101	J101	J101	J101	J101	J101	J101
8-GND	8-GND	8-GND	8-GND	8-GND	8-GND	8-
7-GND	7-GND	7-GND	7-GND	7-GND	7-GND	7-
6-CP_LED	6-SAT_LED	6-	6-	6-	6-CC_LED	6-AM_LED
5-+24	5-+24	5-+24	5-+24	5-+24	5-+24	5-
4-+24	4-+24	4-+24	4-+24	4-+24	4-+24	4-
3-FUSED_RMT+	3-FUSED_RMT+	3-	3-	3-	3-FUSED_RMT+	3-C8_WIPER
2-CP_WIPER	2-SAT_WIPER	2-	2-	2-	2-C6_WIPER	2-C7_WIPER
1-CP_SW	1-SAT_SW	1-D3_SW	1-D2_SW	1-D1_SW	1-CC_SW	1-AM_SW

CABLES TO 884 / 626

J112	J112	J112	J112	J112	J112	J112
H 8-EGND	G 8-LOGIC_D4	F 8-MSTR_A	E 8-GND	D 8-AGND	C 8-RMTL_8	B 8-PSET_13
7-EGND	7-LOGIC_C3	7-MOUTB-	7-LOGIC_D4	7-626_INB-	7-RMTL_7	7-PSET_12
6-CMB_1+2	6-LOGIC_B2	6-MOUTA_GND	6-LOGIC_C3	6-MOUTA_GND	6-INS_GND	6-FOUT6
5-GND	5-LOGIC_A1	5-AGND	5-LOGIC_B2	5-AGND	5-RMTL_6	5-FOUT5
4-GND	4-CMB_5+6	4-MOUTB+	4-LOGIC_A1	4-626_INB+	4-RMTL_5	4-FOUT4
3-RMT+	3-CMB_4+5	3-MOUTA-	3-EGND	3-MOUTA-	3-INS-	3-FOUT3
2-ANET-	2-CMB_3+4	2-MOUTA_GND	2-ANET-	2-MOUTA_GND	2-INS_GND	2-FOUT2
1-ANET+	1-CMB_2+3	1-MOUTA+	1-ANET+	1-MOUTA+	1-INS+	1-FOUT1

PWR RELAY

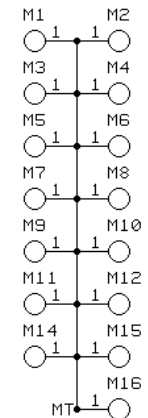
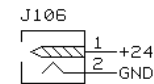
J103
2-PWR_RLY2
1-PWR_RLY1

AUDIO IN / OUT

J104
6-OV_OUT-
5-OV_OUT+
4-AGND
3-AGND
2-OV_IN-
1-OV_IN+

POWER SUPPLY

J105
9-AGND
8-ORGAN-
7-ORGAN+
6-AGND
5-SAT-
4-SAT+
3-AGND
2-TAPE-
1-TAPE+



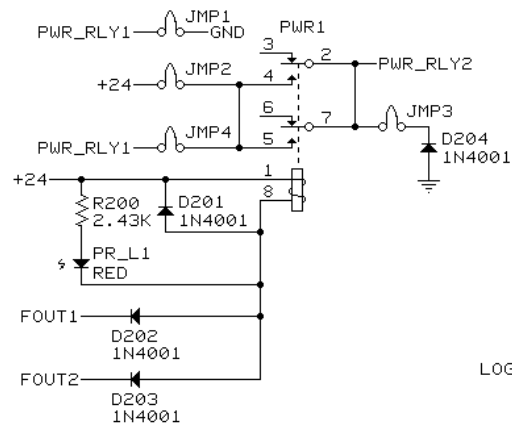
IVIE Technologies, Inc

1605 N WEST STATE ST, LEHI, UTAH 84043

884IF INTERFACE BOARD

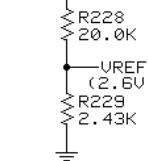
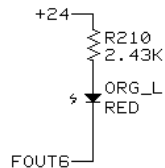
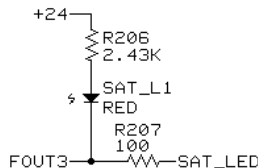
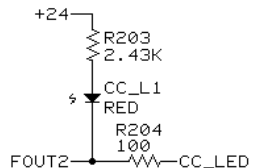
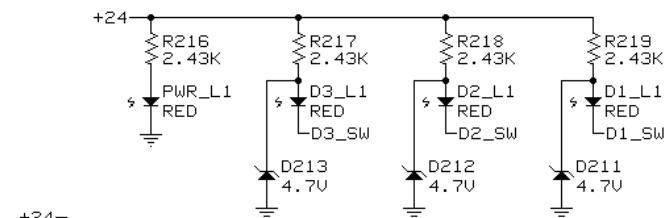
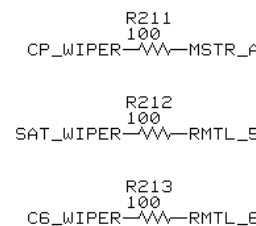
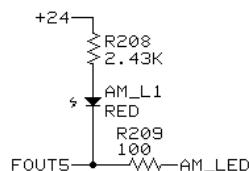
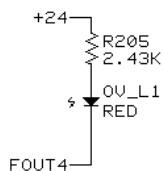
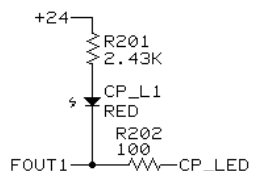
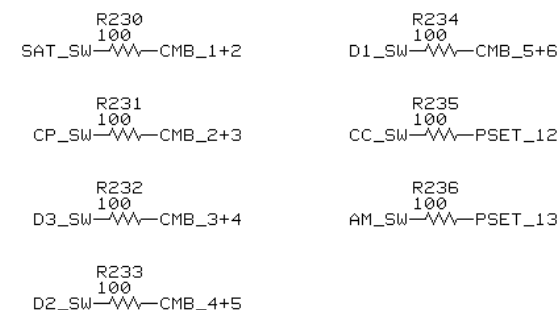
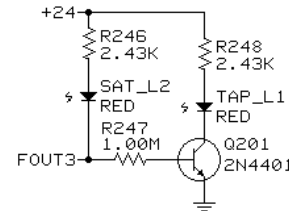
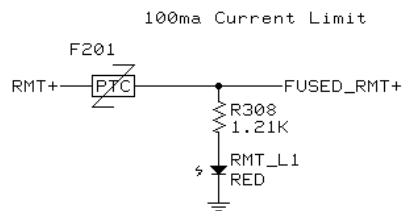
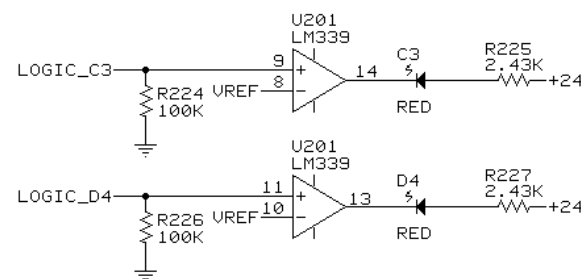
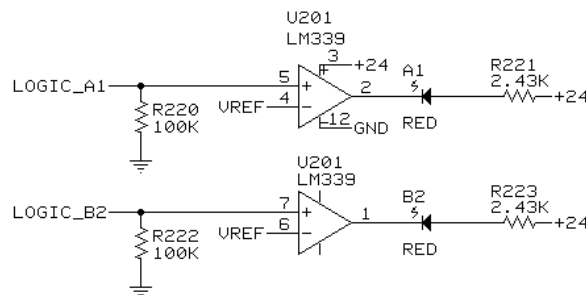
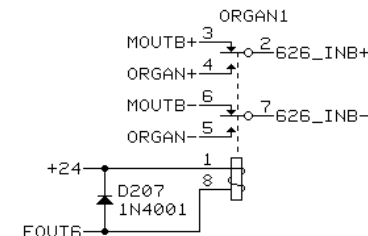
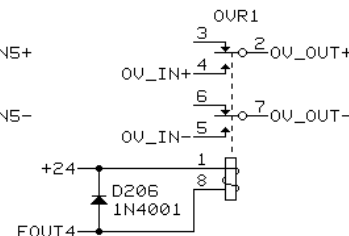
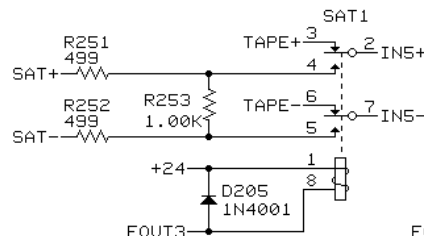
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8 7 6 5 4 3 2 1



+24 OUTPUT ON PWR RELAY CONNECTOR
INSTALL JMP1, JMP2, JMP3 - CUT JMP4

DRY CONTACTS ON PWR RELAY CONNECTOR
CUT JMP1, JMP2, JMP3 - INSTALL JMP4



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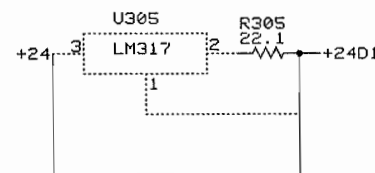
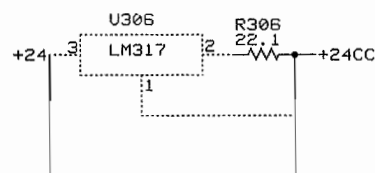
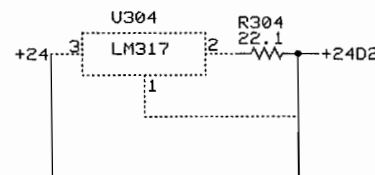
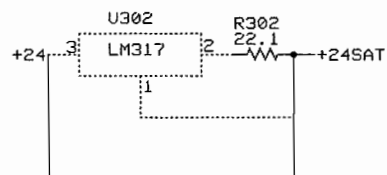
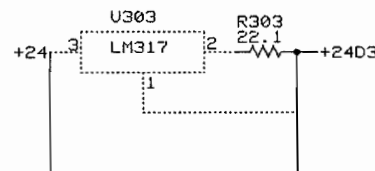
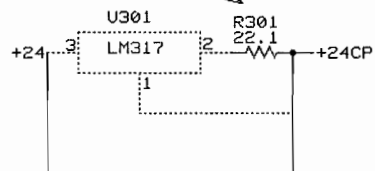
8841F INTERFACE BOARD

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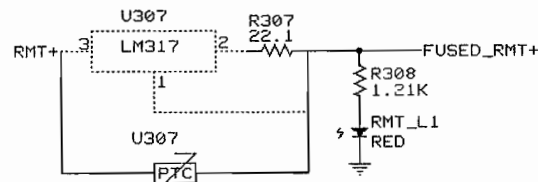
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ECO B3 - 3/25/02

ALLOW OPERATION WITH OLDER
PODIUM UP/DWN RELAY ASSEMBLIES
SET CURRENT LIMIT USING
POWER SUPPLY FOLD BACK
CURRENT LIMIT



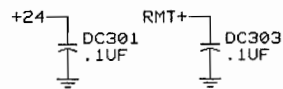
100ma Current Limit



ECO B2 - 3/7/02

A) REMOVE R307 (WAS 22.1 OHM)
B) REPACE U307 (LM317) WITH PTC FUSE
CONNECTED FROM U307 PIN 1 TO U307 PIN 3

CURRENT	--RX--	PART #
50 MA	24 OHM	
100 MA	12 OHM	140-0150
120 MA	10 OHM	140-0070
175 MA	6.8 OHM	140-0870
250 MA	4.7 OHM	140-0710
500 MA	2.2 OHM	140-0400



IVIE Technologies, Inc

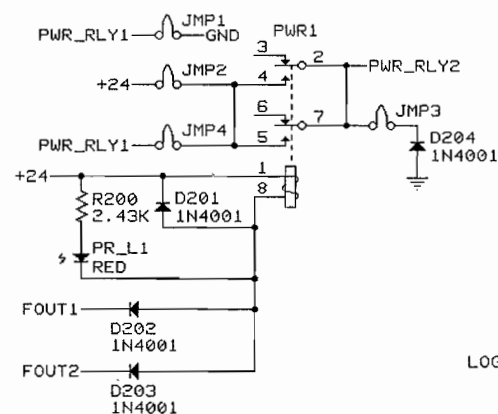
1605 N WEST STATE ST, LEHI, UTAH 84043

884IF INTERFACE BOARD

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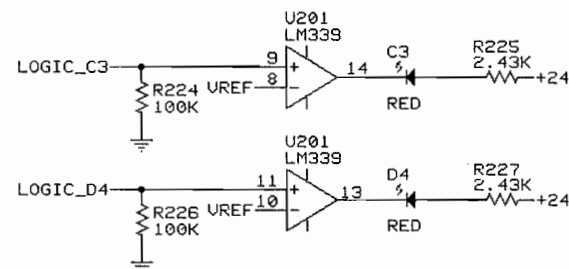
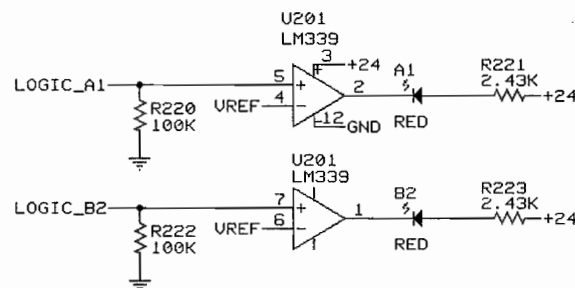
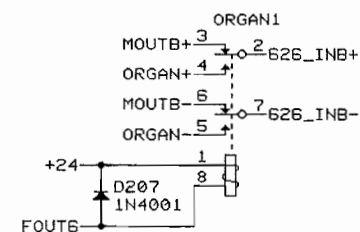
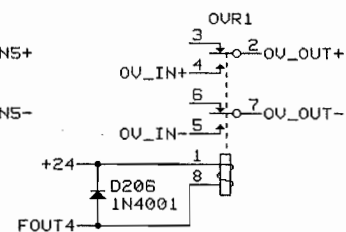
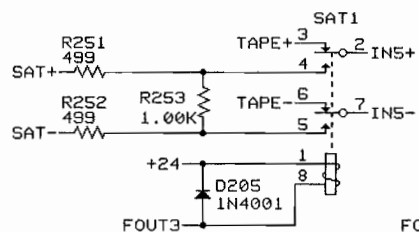
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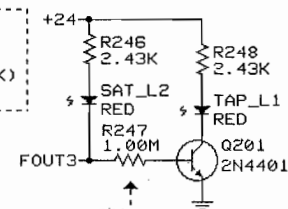
+24 OUTPUT ON PWR RELAY CONNECTOR
INSTALL JMP1, JMP2, JMP3 - CUT JMP4

DRY CONTACTS ON PWR RELAY CONNECTOR
CUT JMP1, JMP2, JMP3 - INSTALL JMP4



ECO A2/B1 - 2/18/02

REPLACE R247 WITH 1.00M (WAS 100K)



R230 100 SAT_SW—CMB_1+2

R234 100 D1_SW—CMB_5+6

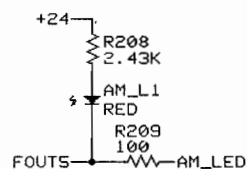
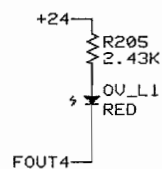
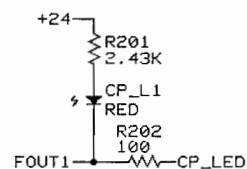
R231 100 CP_SW—CMB_2+3

R235 100 CC_SW—PSET_12

R232 100 D3_SW—CMB_3+4

R236 100 AM_SW—PSET_13

R233 100 D2_SW—CMB_4+5



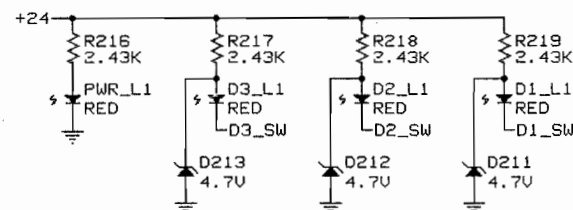
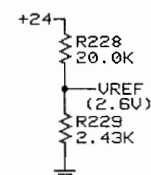
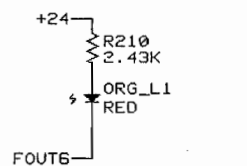
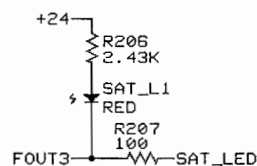
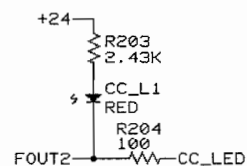
R211 100 CP_WIPER—MSTR_A

R212 100 SAT_WIPER—RMTL_5

R213 100 C6_WIPER—RMTL_6

R214 100 C7_WIPER—RMTL_7

R215 100 C8_WIPER—RMTL_8



IVIE Technologies, Inc

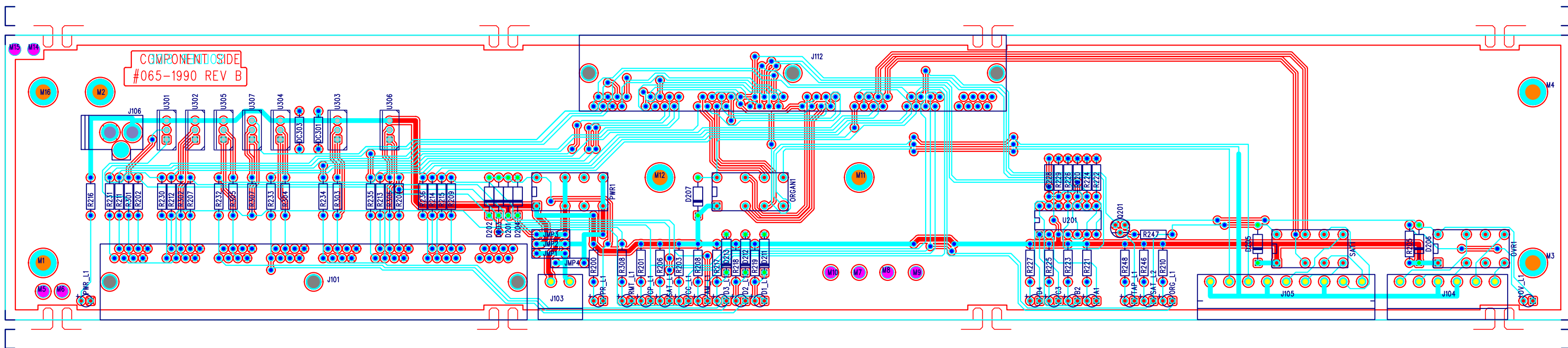
1605 N WEST STATE ST, LEHI, UTAH 84043

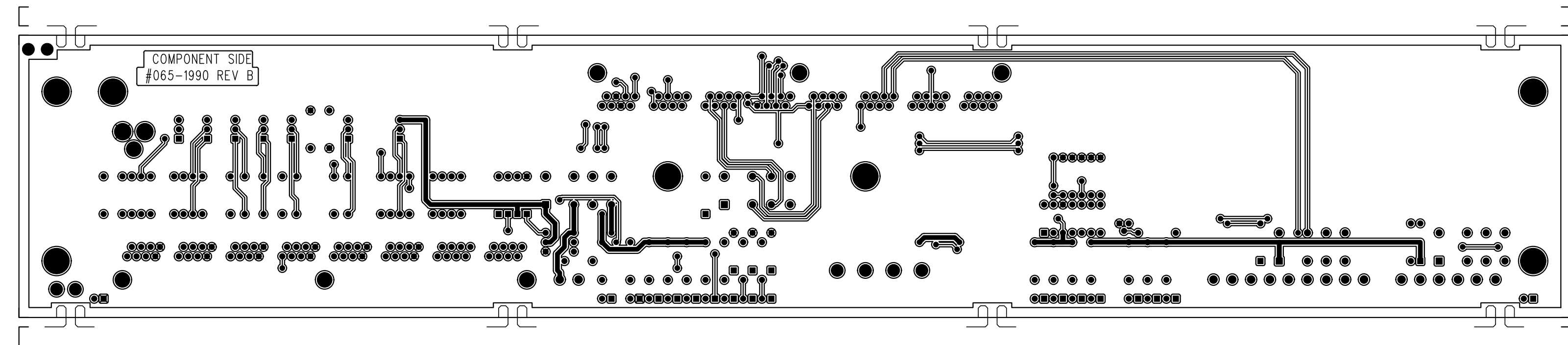
884IF INTERFACE BOARD

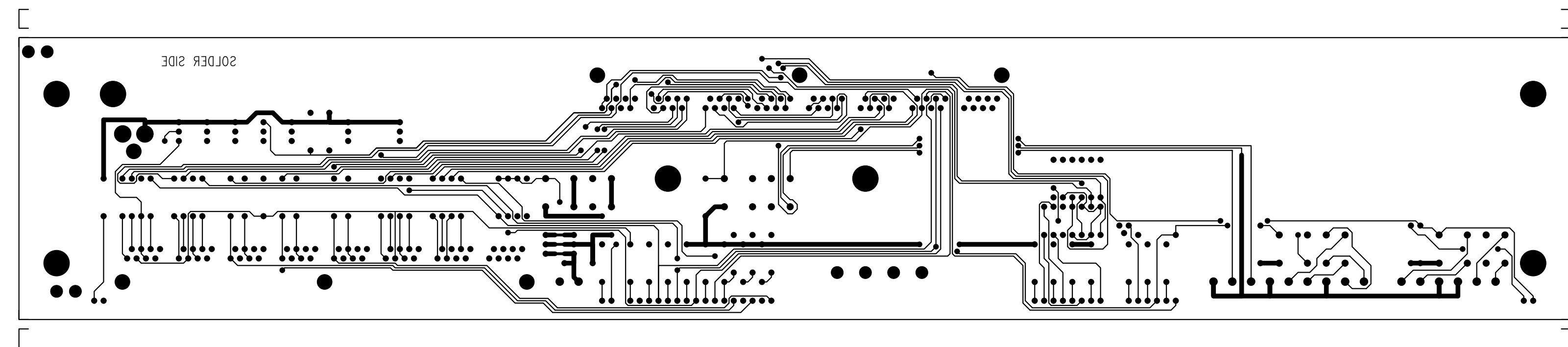
D 884IF.P02 002-1990 REV B2

DATE: 03/07/02 10:31:38 SHEET 02 OF 03

8 7 6 5 4 3 2 1







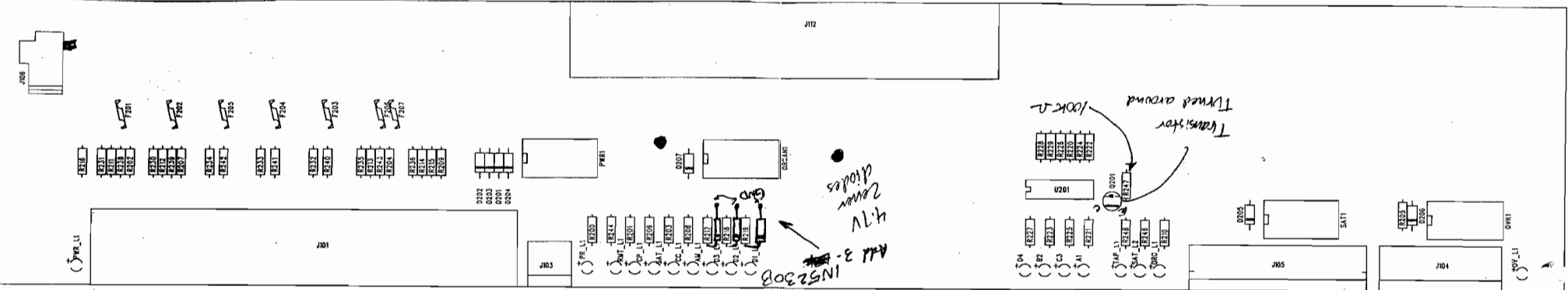
ENGINEERING CHANGE ORDER NO. 120

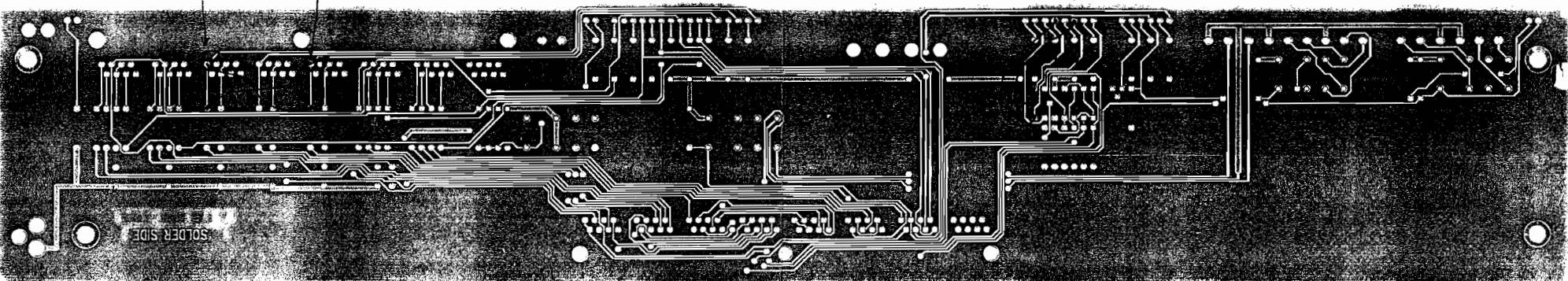
COMPLETED IN FULL OR IT WILL BE RETURNED.

REASON:			EFFECTIVITY:		ARTWORK CHNG?		YES	NO
Engineering Change			IF Board		B/M CHNG? ONLY		YES	NO
					DRILLING CHNG?		YES	NO
DISPOSITION OF PARTS			APPROVAL	DATE	DOCUMENT NO. AFFECTED	REV	COO BY	CHK BY
IN PROCESS	IN STOCK	IN FIELD	INITIATED BY: R.P.	11-Feb-2002		-		
☒ CHANGE	☒ CHANGE	☒ CHANGE	ENGR			-		
☐ NO CHNG	☐ NO CHNG	☐ NO CHNG	PROD 2-11-02	(Signature)		-		
☐ SCRAP	☐ SCRAP	☐ OPTIONAL	PRCH			-		
			MRKT			-		
			COMP			-		
OTHER:			STRS			-		
			FINAL			-		

DESCRIPTION:

- 1) Q201 Needs to be rotated as shown on drawing
- 2) R247 Needs to change from 20.0K to 100K Ω resistor
- 3) Add (3) 4.7 volt Zener diodes across R219, R218 + R217 as shown on drawing. Part # 1610230 IN5230B
- 4) Cut traces and add jumpers as shown on drawing
- 5) Drill (2) holes 11/64 as shown on drawing
- 6) Bent leg on J106 as shown on drawing





SOLDER SIDE

Isolate Pad
Add Jumps

Isolate Pad
Add Jumps

cut traces
add jumps

ITEM	QUAN.	PART NUMBER	DESCRIPTION	REF. DES.
1	2	110-0230	CAPACITOR,.1UF,,	DC301,DC303
2	16	144-0010	RESISTOR,100.	R202,R204,R207 R209,R211,R212 R213,R214,R215 R230,R231,R232 R233,R234,R235 R236
3	5	144-0040	RESISTOR,100K.	R220,R222,R224 R226,R247
4	1	144-0305	RESISTOR,1.21K.	R308
5	1	144-0990	RESISTOR,20.0K.	R228
6	7	144-1170	RESISTOR,22.1.	R301,R302,R303 R304,R305,R306 R307
7	18	144-1280	RESISTOR,2.43K.	R200,R201,R203 R205,R206,R208 R210,R216,R217 R218,R219,R221 R223,R225,R227 R229,R246,R248
8	1	149-0040	NPN TRANSISTOR, 2N4401	Q201
9	7	157-0120	LM317T - 3-TERMINAL ADJUSTABLE OUTPUT VOLTAGE REG	U301,U302,U303 U304,U305,U306 U307
10	7	161-0080	DIODE, 1N4001	D201,D202,D203 D204,D205,D206 D207
11	3	161-0230	ZENER, 4.7V	D211,D212,D213
12	18	161-0380	LIGHT EMITTING DIODE, RED	A1,B2,C3,D4 AN_L1,CC_L1 CP_L1,D1_L1 D2_L1,D3_L1 OV_L1,PR_L1 ORG_L1,PWR_L1 RMT_L1,SAT_L1 SAT_L2,TAP_L1
13	4	180-0090	RELAY, DPDT, 24V	OVR1,PWR1,SAT1 ORGAN1

ITEM	QUAN.	PART NUMBER	DESCRIPTION	REF. DES.
14	1	407-0970	JACK, MALE PWR, 2.5MM	J106
15	1	415-0635	HEADER, PHX, 6 PIN SINGLE ROW	J104
16	1	415-0746	HEADER, PHX, 2 PIN SINGLE ROW (Becky)	J103
17	2	415-0980	CONNECTOR, RJ-45, PCB MOUNT	J101,J112
18	1	415-1030	HEADER, PHX, 9 PIN SINGLE ROW (Becky)	J105
19	1	425-0190	LM339 - LOW POWER QUAD VOLTAGE COMPARATOR	U201
20	8	999-9999	HOLE, EMPTY, MTG, .116 DIA	M5,M6,M7,M8,M9 M10,M14,M15
21	7	999-9999	HOLE, EMPTY, MTG, .157 DIA	M1,M2,M3,M4,M11 M12,M16
22	4	999-9999	JUMPER, WIRE	JMP1,JMP2,JMP3 JMP4

BILL OF MATERIALS 002-1990 8841F - INTERFACE BOARD IVIE TECHNOLOGIES INC

REF DES	DESCRIPTION
A1	LIGHT EMITTING DIODE, RED
AM_L1	LIGHT EMITTING DIODE, RED
B2	LIGHT EMITTING DIODE, RED
C3	LIGHT EMITTING DIODE, RED
CC_L1	LIGHT EMITTING DIODE, RED
CP_L1	LIGHT EMITTING DIODE, RED
D1_L1	LIGHT EMITTING DIODE, RED
D201	DIODE, 1N4001
D202	DIODE, 1N4001
D203	DIODE, 1N4001
D204	DIODE, 1N4001
D205	DIODE, 1N4001
D206	DIODE, 1N4001
D207	DIODE, 1N4001
D211	ZENER, 4.7V
D212	ZENER, 4.7V
D213	ZENER, 4.7V
D2_L1	LIGHT EMITTING DIODE, RED
D3_L1	LIGHT EMITTING DIODE, RED
D4	LIGHT EMITTING DIODE, RED
DC301	CAPACITOR, .1UF,,
DC303	CAPACITOR, .1UF,,
J101	CONNECTOR, RJ-45, PCB MOUNT
J103	HEADER, PHX, 2 PIN SINGLE ROW (Becky)
J104	HEADER, PHX, 6 PIN SINGLE ROW

BILL OF MATERIALS 002-1990 8841F - INTERFACE BOARD IVIE TECHNOLOGIES INC

REF DES	DESCRIPTION
J105	HEADER, PHX, 9 PIN SINGLE ROW (Becky)
J106	JACK, MALE PWR, 2.5MM
J112	CONNECTOR, RJ-45, PCB MOUNT
JMP1	JUMPER, WIRE
JMP2	JUMPER, WIRE
JMP3	JUMPER, WIRE
JMP4	JUMPER, WIRE
M1	HOLE, EMPTY, MTG, .157 DIA
M10	HOLE, EMPTY, MTG, .116 DIA
M11	HOLE, EMPTY, MTG, .157 DIA
M12	HOLE, EMPTY, MTG, .157 DIA
M14	HOLE, EMPTY, MTG, .116 DIA
M15	HOLE, EMPTY, MTG, .116 DIA
M16	HOLE, EMPTY, MTG, .157 DIA
M2	HOLE, EMPTY, MTG, .157 DIA
M3	HOLE, EMPTY, MTG, .157 DIA
M4	HOLE, EMPTY, MTG, .157 DIA
M5	HOLE, EMPTY, MTG, .116 DIA
M6	HOLE, EMPTY, MTG, .116 DIA
M7	HOLE, EMPTY, MTG, .116 DIA
M8	HOLE, EMPTY, MTG, .116 DIA
M9	HOLE, EMPTY, MTG, .116 DIA
ORGAN1	RELAY, DPDT, 24V
ORG_L1	LIGHT EMITTING DIODE, RED
OVR1	RELAY, DPDT, 24V

BILL OF MATERIALS 002-1990 8841F - INTERFACE BOARD IVIE TECHNOLOGIES INC

REF DES	DESCRIPTION
OV_L1	LIGHT EMITTING DIODE, RED
PR_L1	LIGHT EMITTING DIODE, RED
PWR1	RELAY, DPDT, 24V
PWR_L1	LIGHT EMITTING DIODE, RED
Q201	NPN TRANSISTOR, 2N4401
R200	RESISTOR,2.43K,
R201	RESISTOR,2.43K,
R202	RESISTOR,100,
R203	RESISTOR,2.43K,
R204	RESISTOR,100,
R205	RESISTOR,2.43K,
R206	RESISTOR,2.43K,
R207	RESISTOR,100,
R208	RESISTOR,2.43K,
R209	RESISTOR,100,
R210	RESISTOR,2.43K,
R211	RESISTOR,100,
R212	RESISTOR,100,
R213	RESISTOR,100,
R214	RESISTOR,100,
R215	RESISTOR,100,
R216	RESISTOR,2.43K,
R217	RESISTOR,2.43K,
R218	RESISTOR,2.43K,
R219	RESISTOR,2.43K,

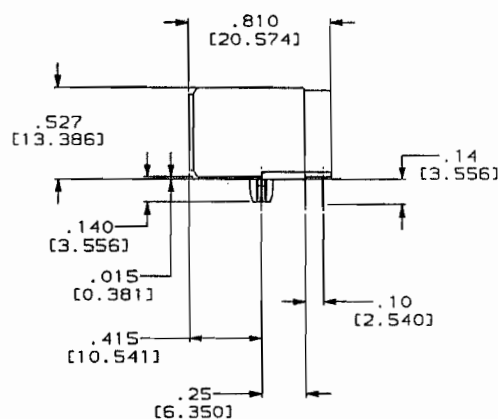
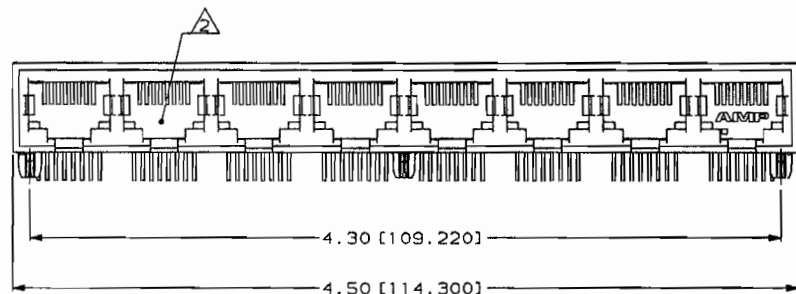
BILL OF MATERIALS 002-1990 8841F - INTERFACE BOARD IVIE TECHNOLOGIES INC

REF DES	DESCRIPTION
R220	RESISTOR,100K,
R221	RESISTOR,2.43K,
R222	RESISTOR,100K,
R223	RESISTOR,2.43K,
R224	RESISTOR,100K,
R225	RESISTOR,2.43K,
R226	RESISTOR,100K,
R227	RESISTOR,2.43K,
R228	RESISTOR,20.0K,
R229	RESISTOR,2.43K,
R230	RESISTOR,100,
R231	RESISTOR,100,
R232	RESISTOR,100,
R233	RESISTOR,100,
R234	RESISTOR,100,
R235	RESISTOR,100,
R236	RESISTOR,100,
R246	RESISTOR,2.43K,
R247	RESISTOR,100K,
R248	RESISTOR,2.43K,
R301	RESISTOR,22.1,
R302	RESISTOR,22.1,
R303	RESISTOR,22.1,
R304	RESISTOR,22.1,
R305	RESISTOR,22.1,

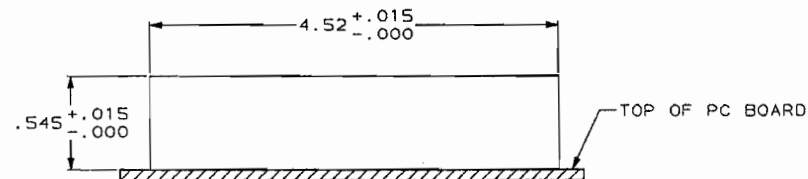
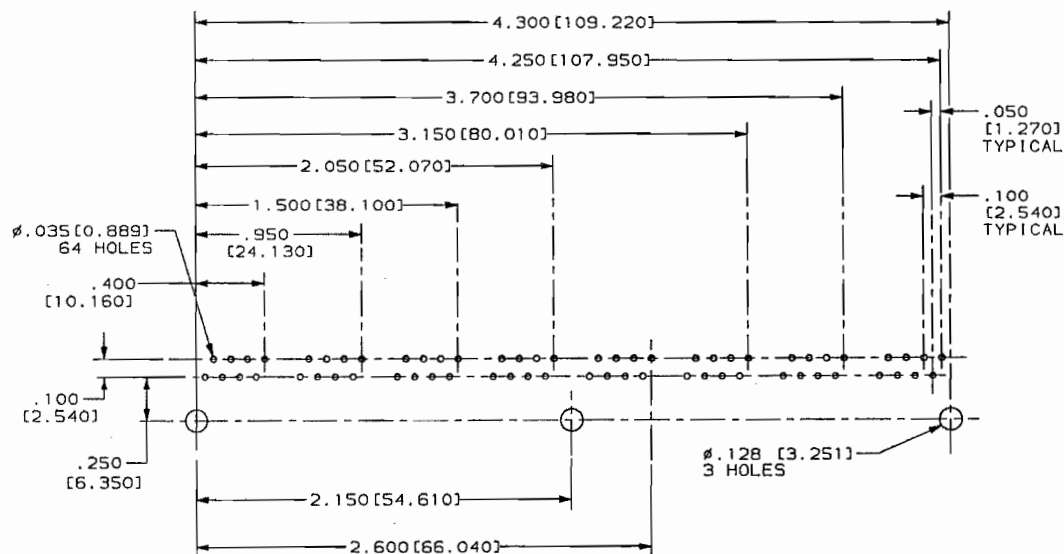
BILL OF MATERIALS 002-1990 8841F - INTERFACE BOARD IVIE TECHNOLOGIES INC

REF DES	DESCRIPTION
R306	RESISTOR,22.1,
R307	RESISTOR,22.1,
R308	RESISTOR,1.21K,
RMT_L1	LIGHT EMITTING DIODE, RED
SAT1	RELAY, DPDT, 24V
SAT_L1	LIGHT EMITTING DIODE, RED
SAT_L2	LIGHT EMITTING DIODE, RED
TAP_L1	LIGHT EMITTING DIODE, RED
U201	LM339 - LOW POWER QUAD VOLTAGE COMPARATOR
U301	LM317T - 3-TERMINAL ADJUSTABLE OUTPUT VOLTAGE REG
U302	LM317T - 3-TERMINAL ADJUSTABLE OUTPUT VOLTAGE REG
U303	LM317T - 3-TERMINAL ADJUSTABLE OUTPUT VOLTAGE REG
U304	LM317T - 3-TERMINAL ADJUSTABLE OUTPUT VOLTAGE REG
U305	LM317T - 3-TERMINAL ADJUSTABLE OUTPUT VOLTAGE REG
U306	LM317T - 3-TERMINAL ADJUSTABLE OUTPUT VOLTAGE REG
U307	LM317T - 3-TERMINAL ADJUSTABLE OUTPUT VOLTAGE REG

LOC	DIST	REV	DESCRIPTION	DATE	BY	APP
AA	22	B	REV, EC 0502-0030-96	18DEC96	DS	EL



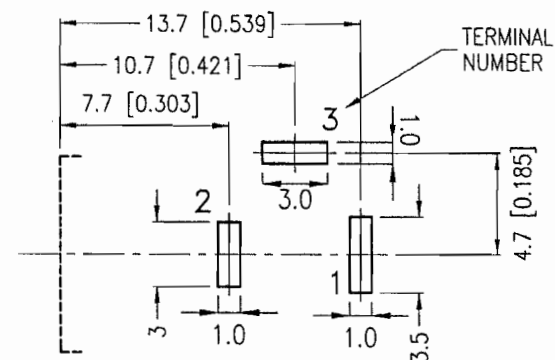
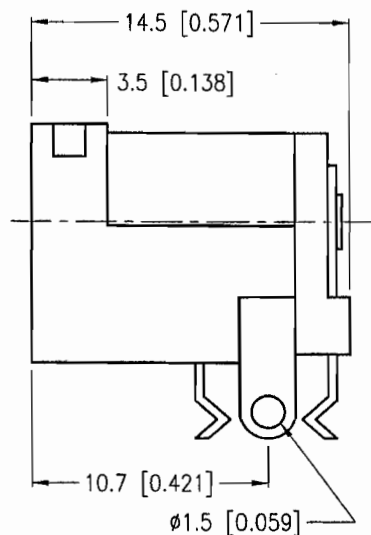
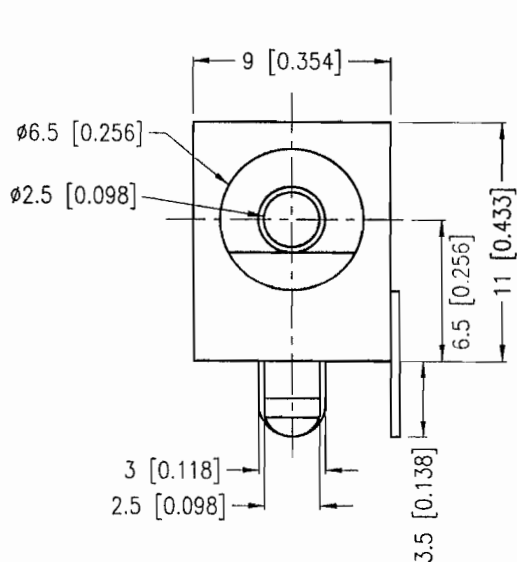
- △ MATERIAL: HOUSING-HTN NYLON, BLACK, IR REFLOW PROCESSING COMPATIBLE, UL 94V-0. TERMINALS-.013[0.33] THICK PHOS BRONZE PLATED WITH .000050 [1.27μm] THICK HARD GOLD IN LOCALIZED AREA AND .000150 [3.18μm] THICK TIN-LEAD IN SOLDER AREA OVER .000050 [1.27μm] THICK NICKEL UNDERPLATE.
- △ JACK CAVITY CONFORMS TO FCC RULES AND REGULATIONS, PART 68 SUBPART F.
3. ALL DIMENSIONS SHOWN ARE NOMINAL UNLESS OTHERWISE SPECIFIED.
4. ALL DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.



SUGGESTED PANEL CUTOUT
 NOT TO SCALE

SUGGESTED PC BOARD LAYOUT
 COMPONENT SIDE
 SEE APPLICATION SPECIFICATION

THIS DRAWING IS UNCLASSIFIED UNLESS INDICATED OTHERWISE. 1. IT IS THE USER'S RESPONSIBILITY TO OBTAIN THE LATEST REVISION. 2. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.		DATE: 31/JAN/92 V. SLACK B. FOX G. REED PRODUCT SPEC: 108-1392 APPLICATION SPEC: 114-2048 WEIGHT: - CUSTOMER DRAWING		AMP AMP Incorporated Harrisburg, PA 17105-3608 MODULAR JACK ASSEMBLY, EIGHT PORT, 8 POSITION, RIGHT ANGLE SIZE: A2 CASE CODE: 00779 DRAWING NO: C-557566 SCALE: 2:1 SHEET: 1 OF 1 REV: B	
--	--	---	--	---	--



PCB LAYOUT
(BOTTOM VIEW)

SPECIFICATIONS:

RATING: 12V DC @ 1A

CONTACT RESISTANCE:

30m OHMS MAX

INSULATION RESISTANCE:

50M OHMS MIN: 100V DC

VOLTAGE WITHSTAND:

250V AC R.M.S. FOR 1 MINUTE

LIFE: 5,000 CYCLES

MODEL NO.	PJ-202B
SCHEMATIC	

CENTER PIN DIAMETER
2.5MM DIA.



CUI STACK

9615 SW Allen, Suite 103
Beaverton, OR 97005
Phone: (503) 643-4899
800-275-4899
Fax: (503) 643-6129
Website: www.cuistack.com

TITLE: DC POWER JACK		
PART NO. PJ-202B	UNITS: MM [INCHES]	
DRAWN BY: Todd R. White	APPROVED BY:	SCALE: 3X

PC FILE NAME:
PJ-202B.DWG

COPYRIGHT 1997 BY CUI STACK, INC.



V23105 series

High Sensitivity, DIP PC Board Relay

File E48393

File LR45064-27

Features

- Standard DIP configuration mates with 16-pin socket.
- Meets FCC Part 68 (10/160 μ s).
- For applications in telecommunications, office automation, security devices, measurement and control equipment.
- Immersion cleanable, plastic sealed case.
- 150mW, 200mW, 400mW or 500mW coil.
- Ultrasonic cleaning not recommended.

Contact Data @ 20°C

Arrangement: 2 Form C (DPDT) single contacts.

Material: Stationary: Silver-nickel, gold overlaid.

Ratings: Max. Switched Current: 3A.

Max. Carry Current: 3A.

Max. Switched Voltage (at nom. voltage): 250VDC, 230VAC.

Max. Switched Power: 60W DC or 120VA AC, resistive load.

Min. Switching Load: 10mVDC.

Initial Contact Resistance: 100 milliohms @ 10mA / 20mV.

Expected Mechanical Life: 15,000,000 ops.

Expected Electrical Life: 2 million operations @ 100mA / 6VDC.

500,000 operations @ 1.0A / 30VDC.

100,000 operations @ 2.0A / 30VDC for

400mW and 500mW versions only.

300,000 operations @ 500mA / 230VAC.

Thermoelectric potential: <15 μ V.

Initial Dielectric Strength

Between Open Contacts: 750VAC rms; 1,000VDC for 1 minute.

Between Coil and Contacts: 1,000VAC rms; 1,500VDC for 1 minute.

Between Poles: 750VAC rms; 1,000VDC for 1 minute.

Surge Voltage: 1,500V surge per FCC Part 68.

Initial Insulation Resistance

Between Contact and Coil: 10⁹ ohms or more @ 500VDC.

Coil Data @ 20°C

Voltage: 5 to 48VDC.

Nominal Power: See Coil Data table.

Duty Cycle: Continuous.

Coil Data @ 20°C

Nominal Voltage (VDC)	Minimum Voltage (VDC)	Maximum Voltage (VDC)	Resistance $\pm 10\%$ (Ohms)	Coil Version Voltage Code
150mW versions				
3	2.4	10.2	60	008
5	4.0	13.0	167	001
6	4.8	15.6	240	002
9	7.2	23.4	540	006
12	9.6	31.2	960	003
24	19.2	59.5	3,480	005
200mW versions				
3	2.1	6.7	45	308
5	3.5	11.2	125	301
6	4.2	13.5	180	302
9	6.3	20.3	405	306
12	8.4	27.0	720	303
24	16.8	54.1	2,880	305
48	33.6	108.3	11,520	307
400mW versions				
5	3.5	7.9	62	401
6	4.2	9.5	90	402
9	6.3	14.3	203	406
12	8.4	19.1	360	403
24	16.8	37.9	1,440	405
48	33.6	75.8	5,760	407
500mW versions				
5	3.5	6.3	36	501
6	4.2	8.9	70	502
9	6.3	12.5	140	506
10	7.0	15.0	200	504
12	8.4	18.0	280	503
24	16.8	36.0	1,050	505
48	33.6	72.0	4,000	507

Operate Data @ 20°C

Operate Voltage: 70% of nominal voltage (80% for 150mW coil).

Release Voltage: 5% of nominal voltage.

Operate Time (Including Bounce): <10 ms.

Release Time (Including Bounce): <10 ms.

Environmental Data

Temperature Range: 150/200mW coil: -25°C to +85°C.

400mW coil: -25°C to +70°C.

500mW coil: -25°C to +60°C.

Maximum Allowable Coil Temperature: 105°C.

Thermal Resistance: approx. 100K/W.

Shock: Functional: 10g.

Destructive: 40g.

Vibration, 10-55 / 55-500 Hz.: Functional: 10g.

Destructive: 20g.

Mechanical Data

Termination: DIP compatible, printed circuit terminals.

Enclosure Type: Immersion cleanable (IP67) plastic case.

Weight: 0.21 oz. (6g) approximately.

Ordering Information

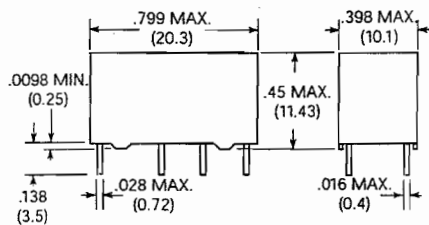
Typical Part Number ►		V23105-A5	4	01	A201
1. Basic Series: V23105-A5 = Miniature PC board relay.					
2. Version: 0 = 150mW coil. 3 = 200mW coil. 4 = 400mW coil. 5 = 500mW coil.					
3. Coil Voltage: 08 = 3VDC (150mW and 200mW coils only) 02 = 6VDC 04 = 10VDC (500mW coil only) 05 = 24VDC 01 = 5VDC 06 = 9VDC 03 = 12VDC 07 = 48VDC*					
4. Contact Type and Material: A201 = DPDT, silver-nickel, gold overlaid.					

* Not available with 150mW coil.

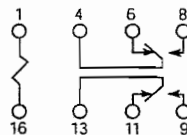
Stock Items – The following items are normally maintained in stock for immediate delivery.

V23105A5001A201 V23105A5401A201
V23105A5003A201 V23105A5403A201
V23105A5005A201 V23105A5405A201
 V23105A5407A201

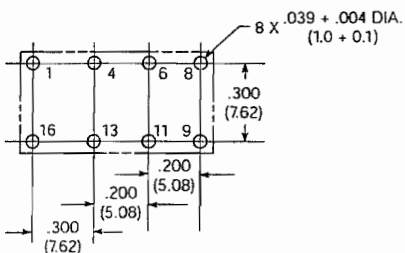
Outline Dimensions



Wiring Diagram (Bottom View)



PC Board Layout (Bottom View)



Parts List for Assembly P/N: 001-1990

Printed 10/1/2009

001-1990

Final Assembly, 884IF, LDS Interface

Type	PL	Size
Revision		PCB Decal
Status	U	DataSheet
Date	2/13/2002	PCB Mfr P/N
By		Stock Bin

Item	P/N	Qty	Title	Vendor	Vendor P/N	Mfr	Mfr P/N	Reference(m)
1	002-1990	1	Assembly, 884IF Main PCB					
2	021-4090	1	Metal, Baseplate with Frontpanel, 884IF	MetalFORM		MetalFORM		
3	212-0150	1	Power Supply, 24V, 1.1A	Foresight Electronics	CUP36-14 B2	IPS	CUP36-14 B2	
4	407-0610	5	'Jack' (Evan) 16-Pin Screw Term Plug	Nedco		PCD	ELFP16111	
5	415-0745	1	Plug, Screw Terminal, 6pos, .2in Pitch	Digi-Key	APC1172-ND (w Strain Relief - NON GOLD)	PCD	ELFP0621P0	
6	415-0746	2	Plug, Screw Terminal, 2pos, .2in Pitch			PCD	ELFP02210	
7	415-1040	2	Plug, Screw Terminal, 9pos, .2in Pitch			PCD	ELFP09210	
8	484-0330	1	Screw, FLTHD, 6-23 x 1/4, MCNE					
9	484-0340	1	Screw, PNHD, 6-23 x 1/4, Phillips	Fastener Eng				
10	484-0650	1	Screw, PNHD, 10-32 x 1/2, Phillips, Black	Fastener Eng				
11	486-0190	1	Spacer, 1/4 x 1/2, HEX, 6-32 Thread	Fastener Eng				
12	672-0020	4	Patch Cbl, CAT5E, 6ft, Stranded, NON-Booted	MilesTek	26-200-072			
13	672-0070	1	Pwr Cord, Domestic, IEC320-C7	Digi-Key	AE1123-ND	ASSMANN	AK 500/U-3-2	

Parts List for Assembly P/N: 002-1990

Printed 10/1/2009

002-1990

Assembly, 884IF Main PCB

Type	PL	Size
Revision	B2	PCB Decal
Status	U	DataSheet
Date	3/7/2002	PCB Mfr P/N
By		Stock Bin

Item	P/N	Qty	Title	Vendor	Vendor P/N	Mfr	Mfr P/N	Reference(m)
1	065-1990	1	PCB, 884IF Main PCB	Prec		Precision Technology		
2	110-0230	2	Cap CER, .1uF, 50v, X7R, 10%, Axial			AVX	SA115C104KAA	
3	144-0010	16	Rstr, 100 OHM, 1/4W, 1%	Mouser		Xicon	271-100/AP-RC	
4	144-0040	5	Rstr, 100K, 1/4W, 1%	Mouser		Xicon	271-100k	
5	144-0305	1	Rstr, 1.21K, 1/4W, 1%	Mouser		Xicon	271-1.21k	
6	144-0990	1	Rstr, 20.0K, 1/4W, 1%	Mouser		Xicon	271-20K/AP-RC	
7	144-1170	6	Rstr, 22.1 OHM, 1/4W, 1%	Mouser		Xicon	271-22.1	
8	144-1280	18	Rstr, 2.43K, 1/4W, 1%	Mouser		Xicon	271-2.43K/AP-RC	
9	149-0040	1	Tstr, NPN, 2N4401, TO-92	Future		MOT	2N4401	
10	157-0120	6	Regulator, +Adj, LM317T			ON Semi	LM317TG	
11	161-0080	7	Diode, 1N4001, 50v, 1A	Digi-Key	641-1310-1-ND	ComChip	1N4001T-G	
12	161-0230	3	Diode, Zener, 4.7v, 1N5230B, 500mW	Future		ON Semi	1N5230B	
13	161-0680	18	LED, Red, RA PCB Mount, Reg Current	Future	(Preferred - Slightly Taller, Wider Housing)	Kingbright	L934CB/1D	
14	180-0090	4	Relay, DPDT, 24v coil, 1A Contact	Digi-Key	Z110-ND	Omron	G5V-2-H1 DC24	
15	261-0250	1	PTC Fuse, Resettable, 100ma Hold Current	Future		Raychem (Tyco)	RXE010	
16	407-0970	1	Jack, Male Pwr, 2.5mm ID, 5.5mm OD	Digi-Key	CP-202BH-ND	CUI Stack	PJ-202BH	
17	407-0980	2	Jack, Modular, RJ-45, 8pin, 8pos	Digi-Key	A9019-ND	AMP (Tyco)	557566-1	
18	407-1100	1	RJ45 Plug Boot, White	MilesTek	10-9033			
19	407-1110	1	RJ45 Plug Boot, Black	MilesTek	10-9036			

Parts List for Assembly P/N: 002-1990
 Assembly, 884IF Main PCB

002-1990
 Rev B2
 Printed 10/1/2009

Item	P/N	Qty	Title	Vendor	Vendor P/N	Mfr	Mfr P/N	Reference(m)
20	407-1120	1	RJ45 Plug Boot, Red	MilesTek	10-9046			
21	407-1130	1	RJ45 Plug Boot, Yellow	MilesTek	10-9047			
22	407-1140	1	RJ45 Plug Boot, Blue	MilesTek	10-9048			
23	407-1150	1	RJ45 Plug Boot, Green	MilesTek	10-9049			
24	407-1160	1	RJ45 Plug Boot, Orange	MilesTek	10-9051			
25	415-0635	1	Header, Euro, 6pin, Right Angle, Gold			PCD	ELFH06211	
26	415-0640	1	Header, Euro, 2pin, Right Angle	Digi-Key	APC1258-ND	PCD	ELFH02210	
27	415-1030	1	Header, Euro, 9pin, Right Angle			PCD	ELFH09210	
28	425-0190	1	DIP IC, LM339, Quad Comparator	Digi-Key	296-1393-5-ND	Texas Instruments	LM339N	