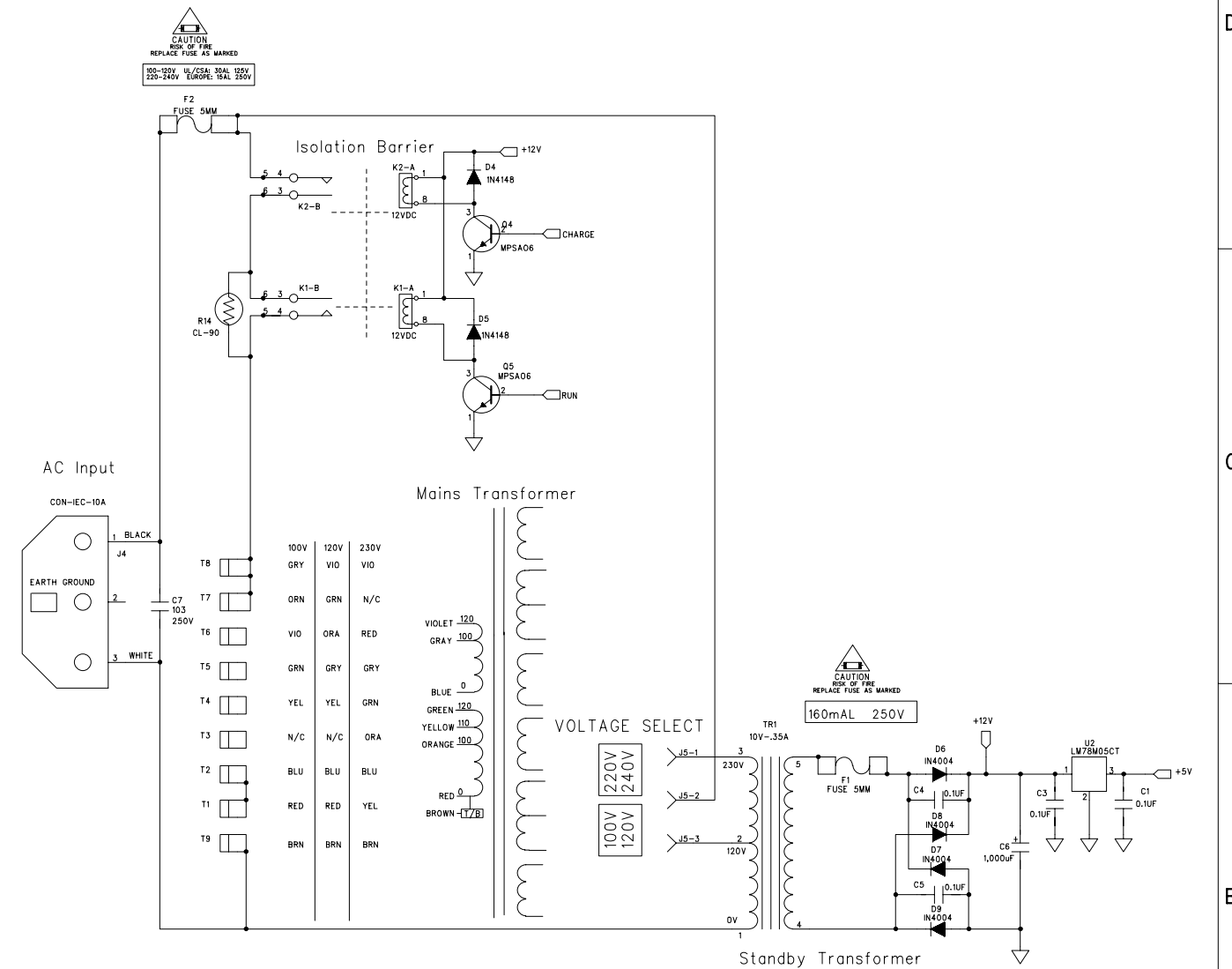
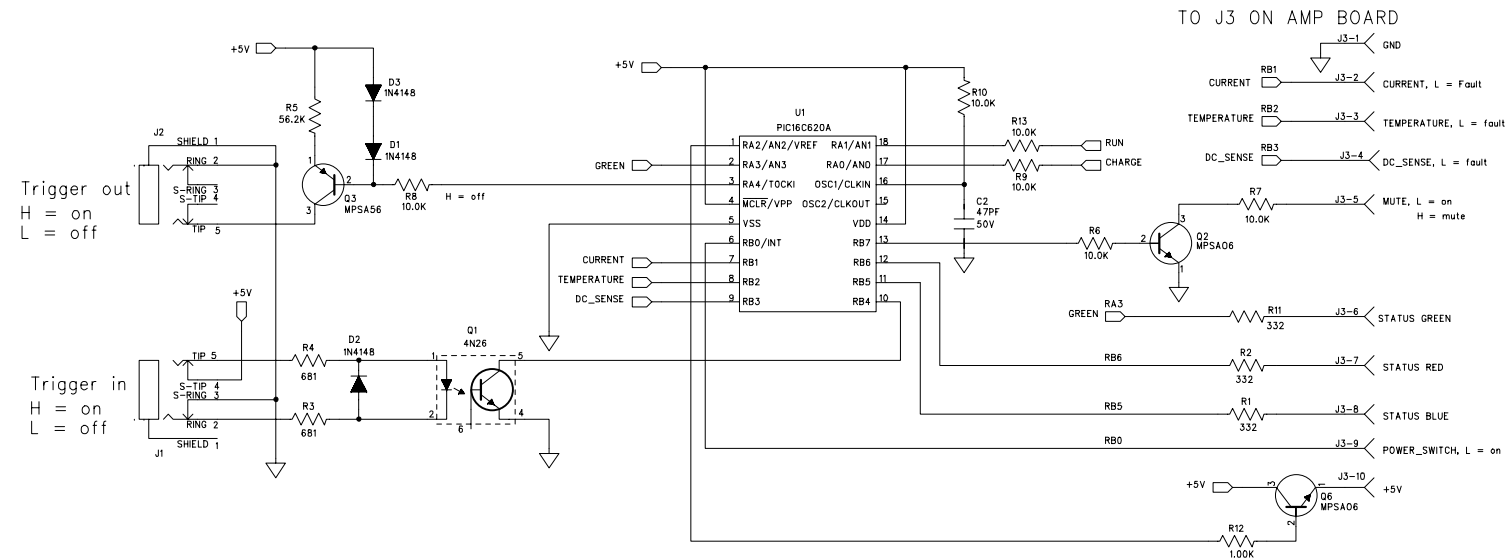


REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



States for switch board processor.

State	Action	Exit condition	Next state	Indication
0. Start up	Processor has been reset as a result of a reboot or processor failure.	Perform boot up sequence.	Boot up complete	Idle Standby None
1. Idle	Power switch is off unit plugged in.	Wait for power switch to activate.	Power switch closes	Charge RED
2. Standby	Power switch closed, trigger low.	Wait for Trigger to go high.	Power switch opens Trigger activates	Idle Charge AMBER
3. Charge	Power switch has been closed <5 seconds. Trigger if present, is high. No faults have occurred.	Close CHARGE relay. Set 5 second timer. Hold power amp in MUTE. Check for faults until timer runout.	Timer runs out Non-failing fault Failing fault	Active Protect Fault Blink WHITE At 4 Hz
4. Active	Power switch has been closed <5 seconds, and no faults have occurred.	Close RUN relay. Release power amp from MUTE. Check for faults.	Power switch opens Non-failing fault Failing fault	Idle Protect Fault BLUE
5. Protect	A non-failing fault condition is present. (Temperature or Current)	Hold power amp in MUTE. Wait for fault to recover. Check for additional faults.	Fault recovers Failing fault occurs	Charge Fault Blink AMBER At 4 Hz
6. Fault	A failing fault is present DC	Set timer for 20mS. Hold power amp in MUTE. Check for fault until timer runout.	Fault recovers Timer runs out	Charge Goto FAIL. Blink RED At 4 Hz
7. Fail	A persistent failing fault has occurred.	Hold amp in MUTE. Drop power to relays. Remain in FAIL state.	Power switch opens	Idle Blink RED At 4 Hz

NOT VALID UNLESS STAMP IS RED

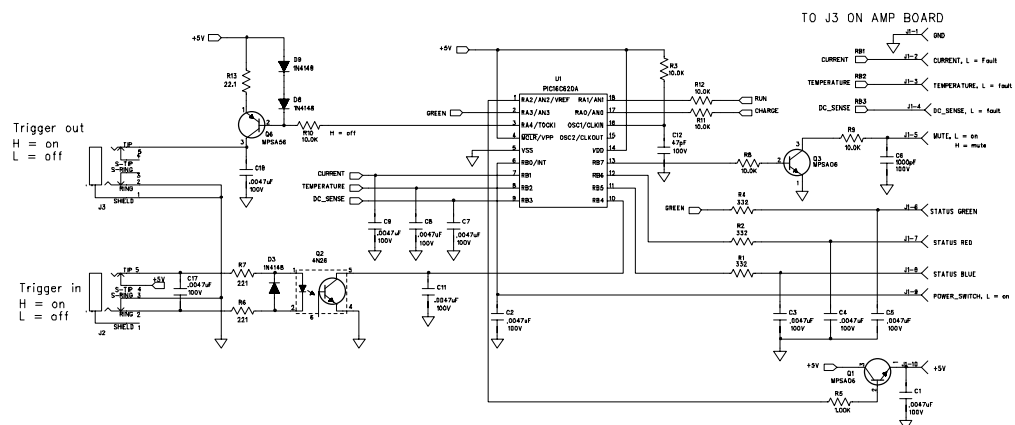
**gallien technology**

2240 PARAGON DRIVE  
SAN JOSE CA. 95131  
VOICE: 408-441-8081  
FAX: 408-441-8085

APPROVALS		TITLE:	
INIT	DATE	2001RB Switch Board	
DESIGNED: R.A.G.	2/02/01	SIZE	406-0131-A
DRAWN: R.A.G.	4/18/01	PART NO:	206-0131-A
ELEC:		COMPANY:	Gallien-Krueger
MECH:		FILENAME:	6131A.sch
Q/A:			
RELEASED:			

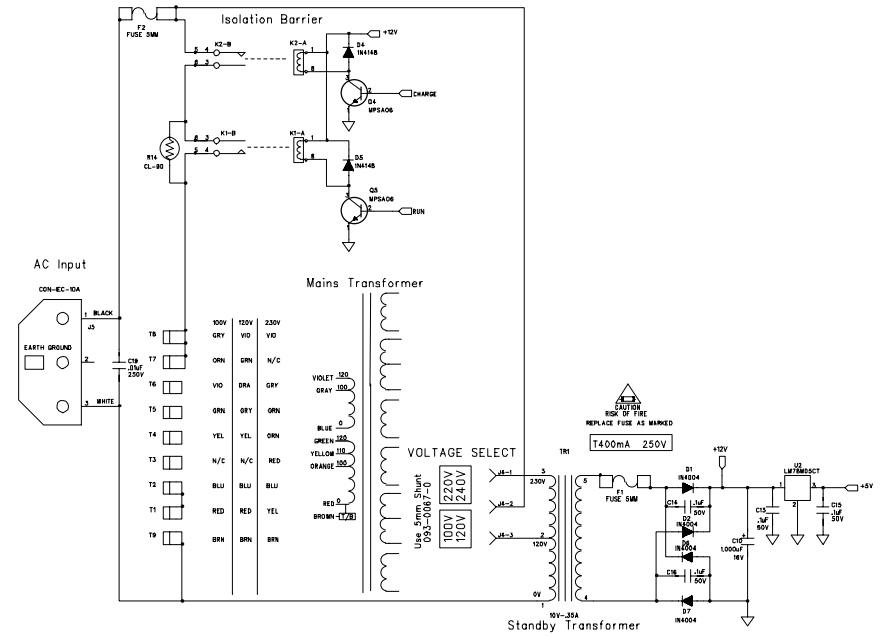
MH 125NP 1 X1  
MH 125NP 1 X3  
MH 125NP 1 X2

REVISION RECORD			
LTR	ECO NO.	APPROVED	DATE



**CAUTION**  
RISK OF FIRE  
REPLACE FUSE AS MARKED

100-120V UL/CSA: F1SA 125V  
220-240V EUROPE: T8A 250V



States for switch board processor.

State	Action	Exit condition	Next state	Indication	
0. Start up	Processor has been reset as a result of a reboot or processor failure.	Perform boot up sequence.	Boot up complete	Idle Standby	None
1. Idle	Power switch is off unit plugged in.	Wait for power switch to activate.	Power switch closes	Charge	GREEN
2. Standby	Power switch closed, trigger low.	Wait for Trigger to go high.	Power switch opens Trigger activates	Idle Charge	AMBER
3. Charge	Power switch has been closed <5 seconds. Trigger if present, is high. No faults have occurred.	Close CHARGE relay. Set 5 second timer. Hold power amp in MUTE. Check for faults until timer runout.	Timer runs out Non-failing fault Failing fault	Active Protect Fault	Blink WHITE At 4 Hz
4. Active	Power switch has been closed >5 seconds, and no faults have occurred.	Close RUN relay. Release power amp from MUTE. Check for faults.	Power switch opens Non-failing fault Failing fault	Idle Protect Fault	BLUE
5. Protect	A non-failing fault condition is present. (Temperature or Current)	Hold power amp in MUTE. Wait for fault to recover. Check for additional faults.	Fault recovers Failing fault occurs	Charge Fault	Blink WHITE At 4 Hz
6. Fault	A failing fault is present DC	Set timer for 20ms. Hold power amp in MUTE. Check for fault until timer runout.	Fault recovers Timer runs out	Charge Goto FAIL.	Blink RED At 4 Hz
7. Fail	A persistent failing fault has occurred.	Hold amp in MUTE Drop power to relays. Remain in FAIL state.	Power switch opens	Idle	Blink RED At 4 Hz

NOT VALID UNLESS STAMP IS RED

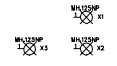
**gallien technology**

2240 PARAGON DRIVE  
SAN JOSE CA. 95131  
VOICE: 408-441-8088  
FAX: 408-441-8085

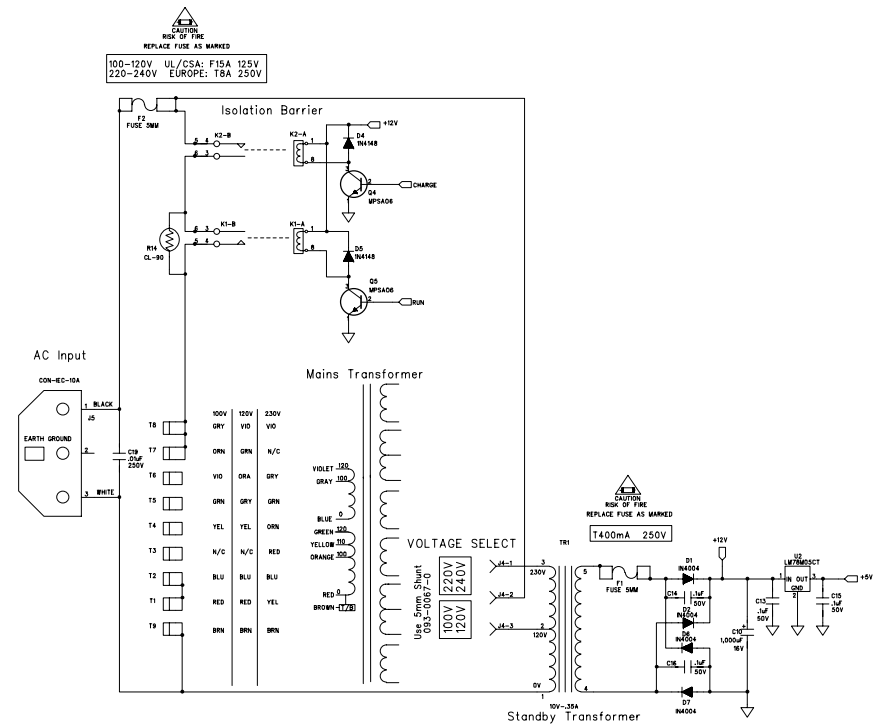
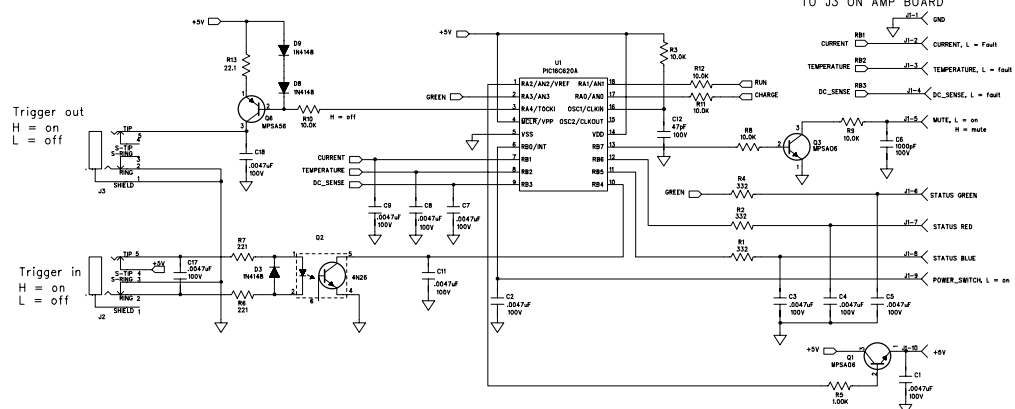
2001RB Switch Board

REV	DATE	FILE	REV
DESIGNED: R.A.G.	2/02/01	DWG NO:	406-0131-A1
DRAWN: R.A.G.	6/28/01	PART NO:	206-0131-A1
ELEC:		COMPANY:	Gallien-Krueger
MECH:		FILENAME:	6131A1.sch
QA:			
RELEASED:			

1. CHANGED R13 TO 22.1  
2. CHANGED R6, R7 TO 221  
3. ADDED C1-8, 11, 17, 18  
4. NEW PRIMARY ARRANGEMENT.  
5. NEW FUSES.  
6. J4 CHANGED TO 3 PIN.



REVISION RECORD			
LTR	ECO NO.	APPROVED	DATE



States for switch board processor.

State	Action	Exit condition	Next state	Indication	
0. Start up	Processor has been reset as a result of a reboot or processor failure.	Perform boot up sequence.	Boot up complete	Idle Standby	None
1. Idle	Power switch is off unit plugged in.	Wait for power switch to activate.	Power switch closes	Charge	GREEN
2. Standby	Power switch closed, trigger low.	Wait for Trigger to go high.	Power switch opens Trigger activates	Idle Charge	AMBER
3. Charge	Power switch has been closed <5 seconds. Trigger if present, is high. No faults have occurred.	Close CHARGE relay. Set 5 second timer. Hold power amp in MUTE. Check for faults until timer runout.	Timer runs out Non-failing fault Failing fault	Active Protect Fault	Blink WHITE At 4 Hz
4. Active	Power switch has been closed >5 seconds, and no faults have occurred.	Close RUN relay. Release power amp from MUTE. Check for faults.	Power switch opens Non-failing fault Failing fault	Idle Protect Fault	BLUE
5. Protect	A non-failing fault condition is present. (Temperature or Current)	Hold power amp in MUTE. Wait for fault to recover. Check for additional faults.	Fault recovers Failing fault occurs	Charge Fault	Blink WHITE At 4 Hz
6. Fault	A failing fault is present DC	Set timer for 20ms. Hold power amp in MUTE. Check for fault until timer runout.	Fault recovers Timer runs out	Charge Goto FAIL.	Blink RED At 4 Hz
7. Fail	A persistent failing fault has occurred.	Hold amp in MUTE Drop power to relays. Remain in FAIL state.	Power switch opens	Idle	Blink RED At 4 Hz

NOT VALID UNLESS STAMP IS RED

**gallien technology**

2240 PARAGON DRIVE  
SAN JOSE CA. 95131  
VOICE: 408-441-8081  
FAX: 408-441-8055

APPROVALS		TITLE	
INT	DATE	REV	DRWING NO.
DESIGNER: R.A.G.	2/22/01	B	2001RB Switch Board
DRAWN: R.A.G.	11/07/01		406-0131-A2
ELEC:			206-0131-A2
MECH:		COMPANY:	Gallien-Krueger
QA:		FILENAME:	6131A2.sch
RELEASED:			

UPDATED ALL COMPONENTS.  
SWITCHED TRIGGER IN AND OUT POSITIONS.

WALSH#P 1.1  
WALSH#P 1.1  
WALSH#P 1.1  
WALSH#P 1.1

PCB WORK INSTRUCTIONS  
 DWG 420-0131-A1

NOTES:

UNLESS OTHERWISE SPECIFIED:

1. SQUARE PADS ON THRU HOLE PARTS (ie: CONNECTORS, DIPS, SIPS, LEADS) DENOTE PIN 1.
2. ALL BOARDS REQUIRE A COMPLETE AND THOROUGH VISUAL INSPECTION.
3. ALL BOARDS MUST BE BARE BOARD TESTED.
4. ASSEMBLE AND SOLDER PER ANSI/IPC-A-610B.

LOADING

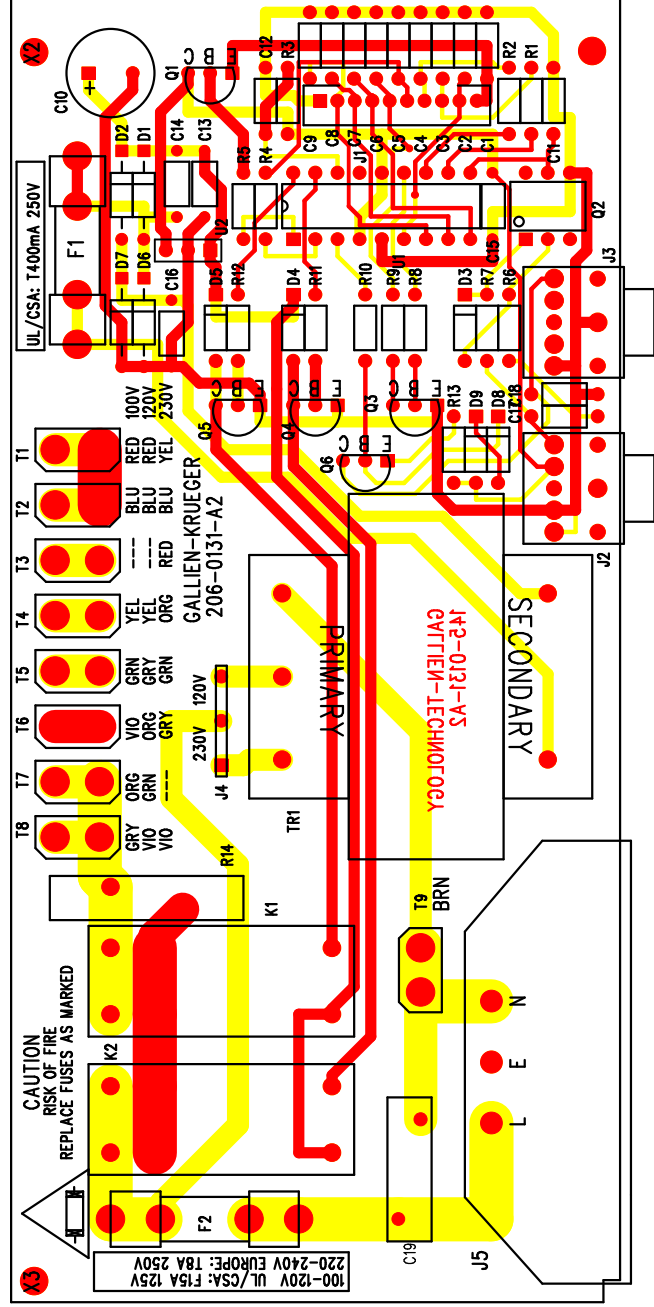
5. U1 MUST BE SOCKETED, DO NOT LOAD IC IF NOT PROGRAMED.
6. GLUE C7 TO J4 WITH SILICON RTV.
10. FUSE LOADING - F1

FOR 120V MODEL: LOAD FUSE, 5MM, F15A, 125V FOR F2  
 FOR 230V MODEL: LOAD FUSE, 5MM, T8A, 250V FOR F2

11. GLUE TR1 TO PCB WITH SILICON RTV.

FINAL QA

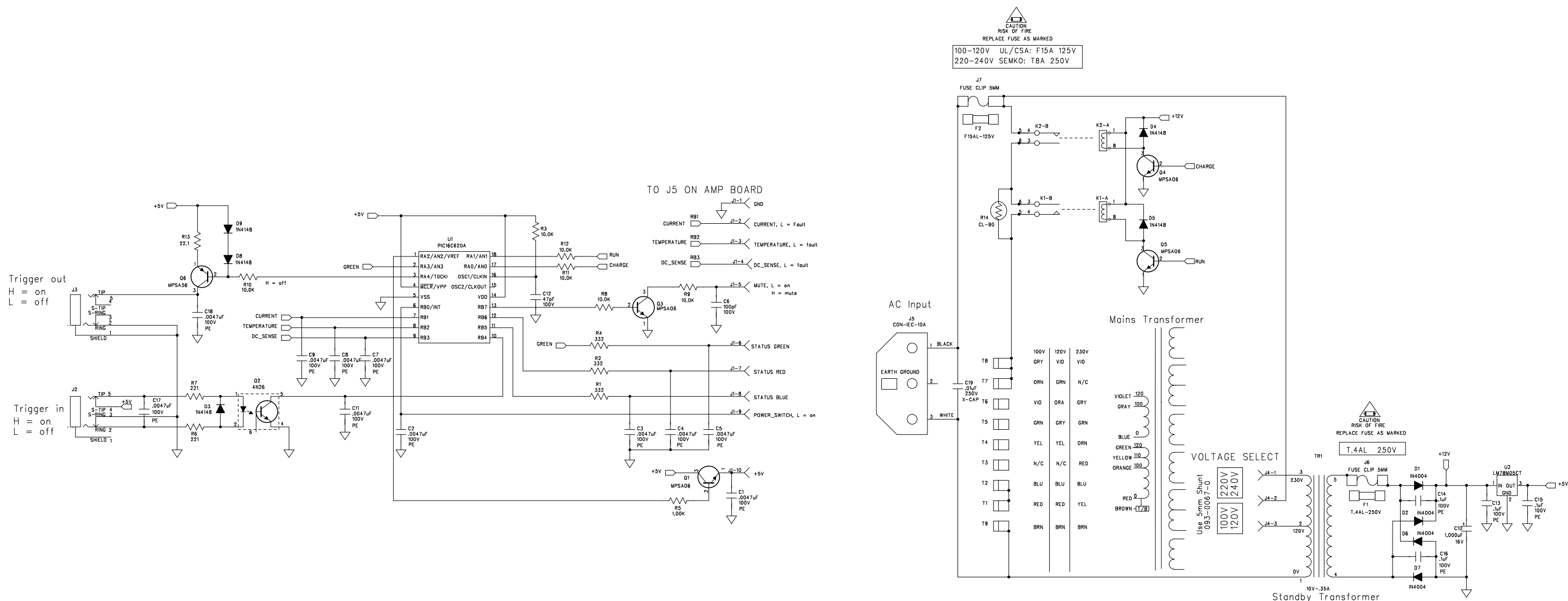
12. CHECK R41, 43, 45, 47 TO BE FLUSH WITH PCB
13. CHECK THAT J1,2,3,4 & 5 ARE STRAIGHT AND FLUSH WITH PCB.



NOT VALID UNLESS STAMP IS RED

		2240 PARAGON DRIVE SAN JOSE CA. 95131 VOICE: 408-441-8081 FAX: 408-441-8085		
		TITLE: 2001RB Switch Board		
APPROVALS		SIZE	DRAWING NO:	REV.
INIT	DATE	B	145-0131-A2	A2
DESIGNED: R.A.G.	12/21/00			
DRAWN: R.A.G.	10/31/01			
ELEC:				
MECH:		COMPANY: GALLIEN-KRUEGER		
GERBER FILE NAME: sstb0209ppbo		FILENAME: 5131A2.pcb		
LAYER DESCRIPTION:				

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



States for switch board processor.

State	Action	Exit condition	Next state	Indication	
0. Start up	Processor has been reset as a result of a reboot or processor failure.	Perform boot up sequence.	Boot up complete	Idle Standby	None
1. Idle	Power switch is off unit plugged in.	Wait for power switch to activate.	Power switch closes	Charge	GREEN
2. Standby	Power switch closed, trigger low.	Wait for Trigger to go high.	Power switch opens Trigger activates	Idle Charge	AMBER
3. Charge	Power switch has been closed <5 seconds. Trigger if present, is high. No faults have occurred.	Close CHARGE relay. Set 5 second timer. Hold power amp in MUTE. Check for faults until timer runout.	Timer runs out Non-failing fault Failing fault	Active Protect Fault	Blink WHITE At 4 Hz
4. Active	Power switch has been closed >5 seconds, and no faults have occurred.	Close RUN relay. Release power amp from MUTE. Check for faults.	Power switch opens Non-failing fault Failing fault	Idle Protect Fault	BLUE
5. Protect	A non-failing fault condition is present. (Temperature or Current)	Hold power amp in MUTE. Wait for fault to recover. Check for additional faults.	Fault recovers Failing fault occurs	Charge Fault	Blink WHITE At 4 Hz
6. Fault	A failing fault is present DC	Set timer for 20mS. Hold power amp in MUTE. Check for fault until timer runout.	Fault recovers Timer runs out	Charge Goto FAIL.	Blink RED At 4 Hz
7. Fail	A persistant failing fault has occurred.	Hold amp in MUTE Drop power to relays. Remain in FAIL state.	Power switch opens	Idle	Blink RED At 4 Hz

NOT VALID UNLESS STAMP IS RED

**gallien technology**

2240 PARAGON DRIVE  
SAN JOSE CA. 95131  
VOICE: 408-441-8081  
FAX: 408-441-8085

**2001RB Switch Board**

ALL AXIAL CERAMIC CAPS TO POLYESTER  
CHANGED C6 TO 100PF RADIAL CERAMIC.

APPROVALS		DATE	TITLE
INIT	DATE	2/02/01	2001RB Switch Board
DESIGNED: R.A.G.	DATE	6/19/02	DRAWING NO: 406-0131-A3
DRAWN: R.A.G.	DATE		PART NO: 206-0131-A3
ELEC:			REV: A3
MECH:			COMPANY: Gallien-Krueger
D/A:			FILENAME: 6131A3.sch
RELEASED:			

PCB WORK INSTRUCTIONS

DWG 420-0131-A3

NOTES:

UNLESS OTHERWISE SPECIFIED:

1. SQUARE PADS ON THRU HOLE PARTS (ie: CONNECTORS, DIPS, SIPS, LEDS) DENOTE PIN 1.
2. ALL BOARDS REQUIRE A COMPLETE AND THOROUGH VISUAL INSPECTION.
3. ALL BOARDS MUST BE BARE BOARD TESTED.
4. ASSEMBLE AND SOLDER PER ANSI/IPC-A-610B.

LOADING

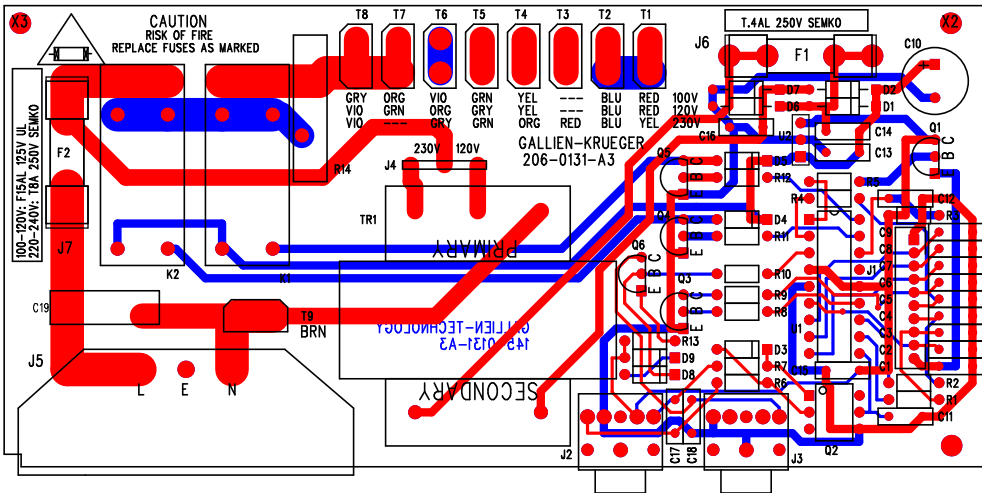
5. U1 MUST BE SOCKETED, DO NOT LOAD IC IF NOT PROGRAMED.
6. GLUE C19 TO J5 WITH SILICON RTV.
10. FUSE LOADING - F2

FOR 120V MODEL: LOAD FUSE, 5MM, F15AL, 125V UL FOR F2  
 FOR 230V MODEL: LOAD FUSE, 5MM, T8AL, 250V SEMKO FOR F2

11. GLUE TR1 TO PCB WITH SILICON RTV.

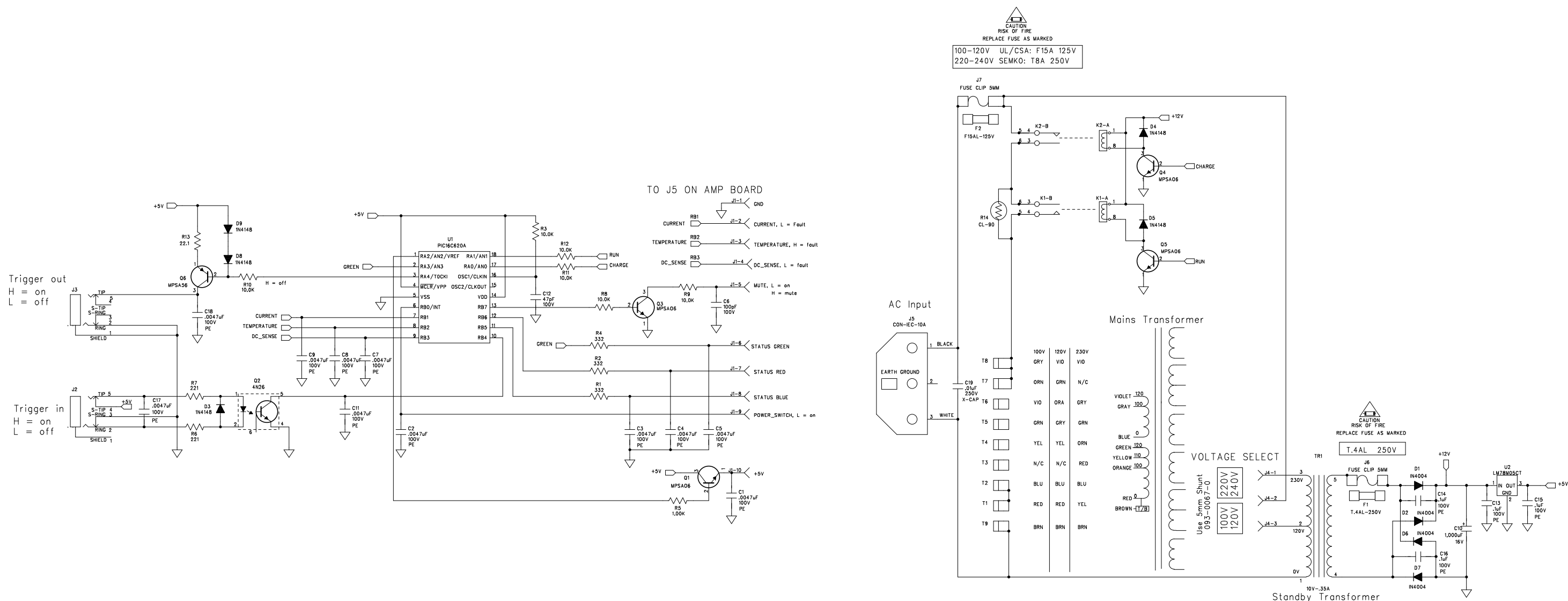
FINAL QA

12. CHECK THAT J1,2,3,4 & 5 ARE STRAIGHT AND FLUSH WITH PCB.



NOT VALID UNLESS STAMP IS RED	<b>gallien technology</b>		2240 PARAGON DRIVE SAN JOSE CA. 95131 VOICE: 408-441-8081 FAX: 408-441-8085	
	APPROVALS		TITLE: 2001RB Switch Board	
LAYER DESCRIPTION: <b>BOPTSIDESSIEKSCREENG</b>	INIT	DATE	SIZE	DRAWING NO: 145-0131-A3
	DESIGNED: R.A.G.	12/21/00	B	REV. A3
	DRAWN: R.A.G.	6/19/02		PART NO: 405-0131-A3
	ELEC:		COMPANY: GALLIEN-KRUEGER	
	MECH:	GERBER FILE NAME: sst0261.pho	FILENAME: 5131A3.pcb	

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



States for switch board processor.

State	Action	Exit condition	Next state	Indication
0. Start up	Processor has been reset as a result of a reboot or processor failure.	Perform boot up sequence.	Boot up complete	Idle Standby None
1. Idle	Power switch is off unit plugged in.	Wait for power switch to activate.	Power switch closes	Charge GREEN
2. Standby	Power switch closed, trigger low.	Wait for Trigger to go high.	Power switch opens Trigger activates	Idle Charge AMBER
3. Charge	Power switch has been closed <5 seconds. Trigger if present, is high. No faults have occurred.	Close CHARGE relay. Set 5 second timer. Hold power amp in MUTE. Check for faults until timer runout.	Timer runs out Non-failing fault Failing fault	Active Protect Fault Blink WHITE At 4 Hz
4. Active	Power switch has been closed >5 seconds, and no faults have occurred.	Close RUN relay. Release power amp from MUTE. Check for faults.	Power switch opens Non-failing fault Failing fault	Idle Protect Fault BLUE
5. Protect	A non-failing fault condition is present. (Temperature or Current)	Hold power amp in MUTE. Wait for fault to recover. Check for additional faults.	Fault recovers Failing fault occurs	Charge Fault Blink AMBER At 4 Hz
6. Fault	A failing fault is present DC	Set timer for 20mS. Hold power amp in MUTE. Check for fault until timer runout.	Fault recovers Timer runs out	Charge Goto FAIL. Blink RED At 4 Hz
7. Fail	A persistant failing fault has occurred.	Hold amp in MUTE. Drop power to relays. Remain in FAIL state.	Power switch opens	Idle Blink RED At 4 Hz

NOT VALID UNLESS STAMP IS RED

**gallien technology**

2240 PARAGON DRIVE  
SAN JOSE CA. 95131  
VOICE: 408-441-8081  
FAX: 408-441-8085

**2001RB Switch Board**

1. MOVED FOUR TRACES TO MEET CREEP 4mm.

APPROVALS		TITLE:	
INIT	DATE	REV	
DESIGNED: R.A.G.	2/02/01	B	DRAWING NO: 406-0131-A4
DRAWN: R.A.G.	8/15/02		PART NO: 206-0131-A4
ELEC:			
MECH:			
Q/A:			
RELEASED:			

COMPANY: **Gallien-Krueger**  
FILENAME: 6131A4.sch

MH125NP 1 X1  
MH125NP 1 X3  
MH125NP 1 X2

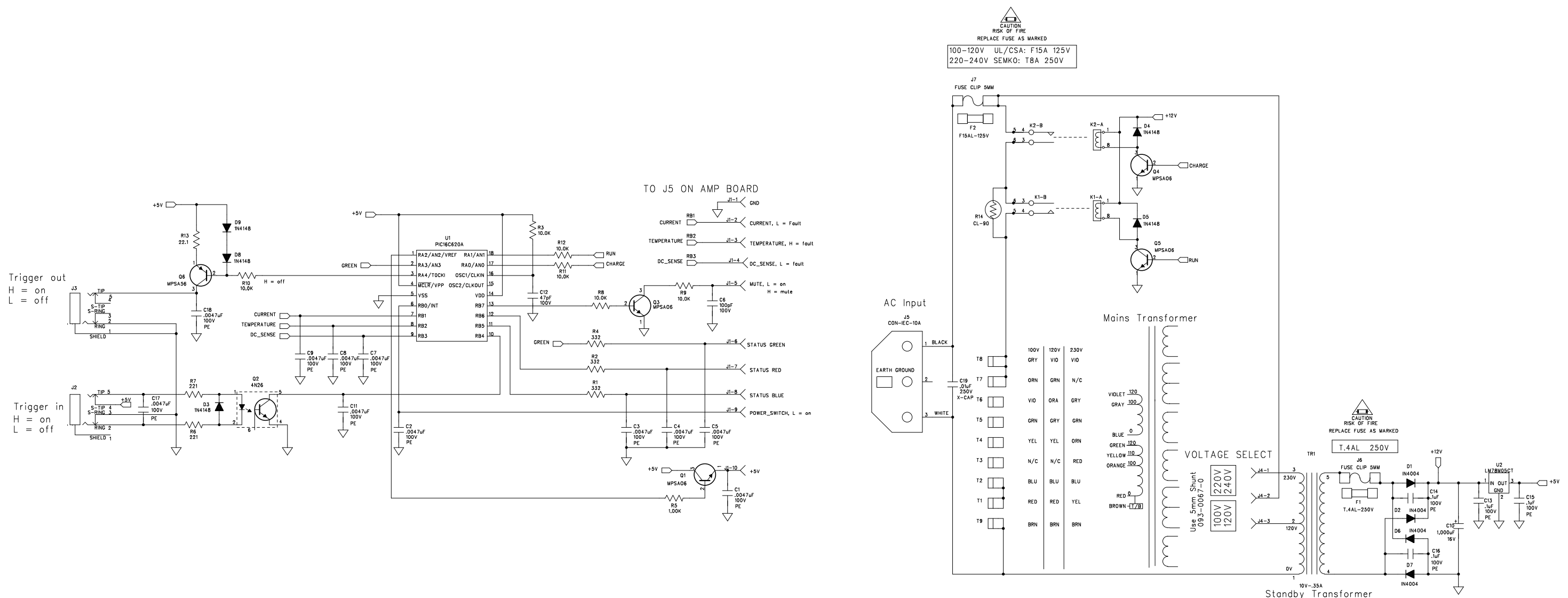
Customer Name: <b>Gallien-Krueger</b>		Current Rev #: <b>A0</b>	New ECO Rev #: <b>A04</b>
Model: <b>2001RB</b>		Distribute To:	Page: <b>1</b> Of: <b>1</b>
Assembly Description: <b>2001RB power switch board</b>		Originator: <b>Alvin Villaflor</b>	
Assembly Numbers: <b>206-0131-A</b>		Approved by:	
		Effective Date: <b>8/19/2002</b>	

Effective	Document Update	Date	Initials
<input checked="" type="checkbox"/> All in Process	<input type="checkbox"/> Artwork		
<input type="checkbox"/> Next Buy	<input type="checkbox"/> Assembly Dwg.		
<input checked="" type="checkbox"/> All in Service	<input checked="" type="checkbox"/> Board Artwork		RAG
<input type="checkbox"/> Next Production Run	<input checked="" type="checkbox"/> BOM		RAG
<input type="checkbox"/> All in Stock	<input type="checkbox"/> Control Form		
Reason For Change			
A1-Add RF filter caps c1-9,11,17 & 18. Change R6,7 to 221, & R13 to 22.1. Change F1 to T400mA, F2 to F15A Change J4 to be 3 pin. New primary pin arrangement for creep.	<input type="checkbox"/> Costing		
	<input type="checkbox"/> Fab Drawing		
	<input type="checkbox"/> Inspection Proc.		
	<input checked="" type="checkbox"/> Part Master File		RAG
	<input checked="" type="checkbox"/> Schematic		RAG
A2-Reverse trigger in/out jack positions.	<input type="checkbox"/> Service Manual		
A3-Change all axial ceramic to polyester. Change C6 to 100pF radial ceramic to eliminate slight turn on pop.	<input type="checkbox"/> Test Procedure		
A4-Reroute four primary and secondary traces to meet creep requirements.			
<input type="checkbox"/> Continued on ECO Supplement Page	Other Affected Assemblies		
	302-2090-A, 302-0090-A, 302-1090-A		
Description Of Change	Distribution	Date	Initials
Replace Rev-A BOM completely with Rev-A4 BOM.	<input type="checkbox"/> Accounting		
	<input type="checkbox"/> Assembly		
	<input type="checkbox"/> Customer		
Revs-A2 & A3 were not released to production so no ECOs were written.	<input checked="" type="checkbox"/> Engineering		
	<input checked="" type="checkbox"/> Incoming Q.C.		
	<input type="checkbox"/> Planning		
	<input checked="" type="checkbox"/> Production Eng.		
	<input checked="" type="checkbox"/> Purchasing		
	<input type="checkbox"/> Q.A.		
	<input type="checkbox"/> Receiving		
	<input type="checkbox"/> Service		
	<input checked="" type="checkbox"/> Test		
	<input type="checkbox"/> Vendor		
<input type="checkbox"/> Continued on ECO Supplement Page	<input type="checkbox"/>		
	<input type="checkbox"/> Drawing(s) attached		

Part Number	Description	Parts Added		Parts Deleted	
		Qty	Ref. Designator	Qty	Ref. Designator



REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



States for switch board processor.

State	Action	Exit condition	Next state	Indication
0. Start up	Processor has been reset as a result of a reboot or processor failure.	Perform boot up sequence.	Boot up complete	Idle Standby None
1. Idle	Power switch is off unit plugged in.	Wait for power switch to activate.	Power switch closes	Charge GREEN
2. Standby	Power switch closed, trigger low.	Wait for Trigger to go high.	Power switch opens Trigger activates	Idle Charge AMBER
3. Charge	Power switch has been closed <5 seconds. Trigger if present, is high. No faults have occurred.	Close CHARGE relay. Set 5 second timer. Hold power amp in MUTE. Check for faults until timer runout.	Timer runs out Non-failing fault Failing fault	Active Protect Fault Blink WHITE At 4 Hz
4. Active	Power switch has been closed >5 seconds, and no faults have occurred.	Close RUN relay. Release power amp from MUTE. Check for faults.	Power switch opens Non-failing fault Failing fault	Idle Protect Fault BLUE
5. Protect	A non-failing fault condition is present. (Temperature or Current)	Hold power amp in MUTE. Wait for fault to recover. Check for additional faults.	Fault recovers Failing fault occurs	Charge Fault Blink AMBER At 4 Hz
6. Fault	A failing fault is present DC	Set timer for 20mS. Hold power amp in MUTE. Check for fault until timer runout.	Fault recovers Timer runs out	Charge Goto FAIL. Blink RED At 4 Hz
7. Fail	A persistant failing fault has occurred.	Hold amp in MUTE. Drop power to relays. Remain in FAIL state.	Power switch opens	Idle Blink RED At 4 Hz

NOT VALID UNLESS STAMP IS RED

**gallien technology**

2240 PARAGON DRIVE  
SAN JOSE CA. 95131  
VOICE: 408-441-8081  
FAX: 408-441-8085

APPROVALS		TITLE: <b>2001RB Switch Board</b>	
INIT	DATE	REV	DRAWING NO: 406-0293-A
DESIGNED: R.A.G.	2/02/01	B	PART NO: 206-0293-A
DRAWN: R.A.G.	12/17/02		
ELEC:			
MECH:			
Q/A:			
RELEASED:			

1. UPDATED ALL PAD AND HOLE SIZES.  
2. CHANGED BOARD NO. TO 206-0293-A FROM 206-0131-A4.

PCB WORK INSTRUCTIONS  
DWG 420-0293-A

NOTES:

UNLESS OTHERWISE SPECIFIED:

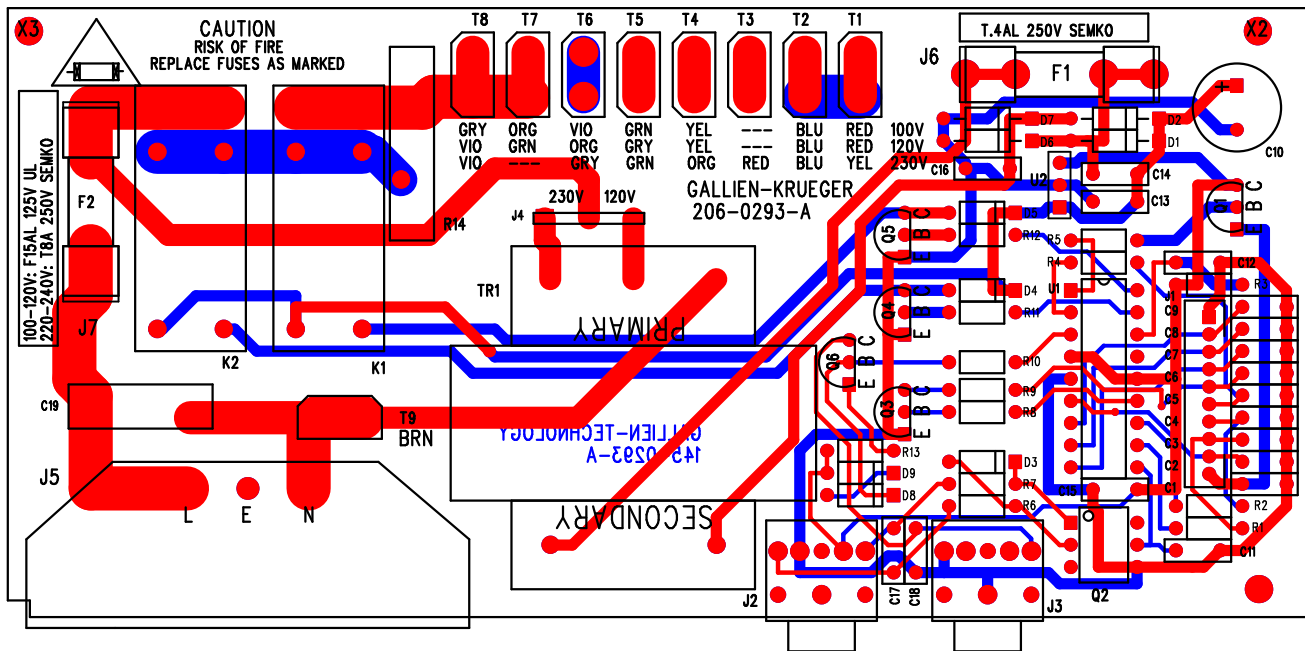
- 1. SQUARE PADS ON THRU HOLE PARTS (ie: CONNECTORS, DIPS, SIPS, LEADS) DENOTE PIN 1.
- 2. ALL BOARDS REQUIRE A COMPLETE AND THOROUGH VISUAL INSPECTION.
- 3. ALL BOARDS MUST BE BARE BOARD TESTED.
- 4. ASSEMBLE AND SOLDER PER ANSI/IPC-A-610B.

LOADING

- 5. U1 MUST BE SOCKETED, DO NOT LOAD IC IF NOT PROGRAMED.
- 6. GLUE C19 TO J5 WITH SILICON RTV.
- 10. FUSE LOADING - F2
  - FOR 120V MODEL: LOAD FUSE, 5MM, F15AL, 125V UL FOR F2
  - FOR 230V MODEL: LOAD FUSE, 5MM, T8AL, 250V SEMKO FOR F2
- 11. GLUE TR1 TO PCB WITH SILICON RTV.

FINAL QA

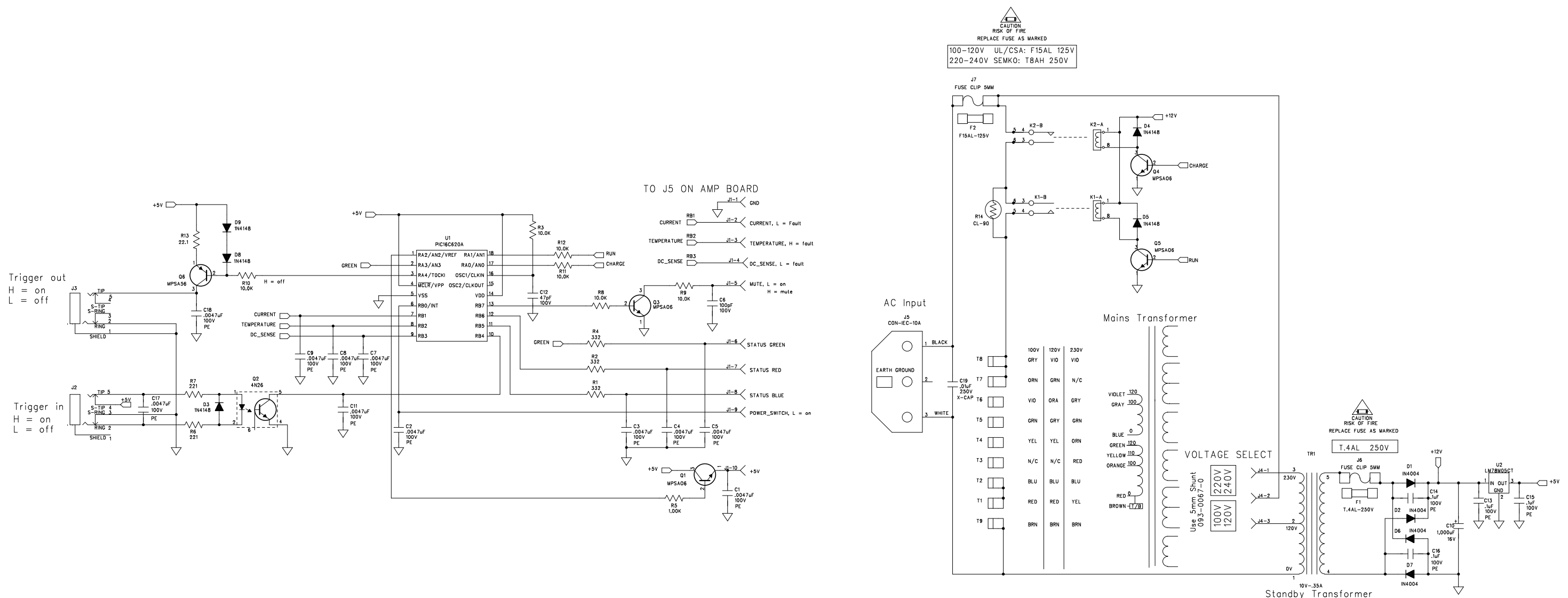
- 12. CHECK THAT J1,2,3,4 & 5 ARE STRAIGHT AND FLUSH WITH PCB.



NOT VALID UNLESS STAMP IS RED	<b>gallien technology</b>		2240 PARAGON DRIVE SAN JOSE CA. 95131 VOICE: 408-441-8081 FAX: 408-441-8085	
	APPROVALS		TITLE: 2001RB Switch Board	
	INIT	DATE	SIZE	DRAWING NO: 145-0293-A
DESIGNED: R.A.G.	12/21/00	B	PART NO: 405-0293-A	REV. A
DRAWN: R.A.G.	12/17/02			
ELEC:		COMPANY: GALLIEN-KRUEGER		
LAYER DESCRIPTION: BDRS01ES1BSC010C	MECH:	FILENAME: 5293A.pcb		
	GERBER FILE NAME: sst0293.pcb			

Customer Name: <b>Gallien-Krueger</b>		Current Rev #:		New ECO Rev #: <b>A</b>	
Model: <b>2001RB</b>		Distribute To:		Page: <b>1</b>	Of: <b>1</b>
Assembly Description: <b>2001RB power switch board</b>		Originator: <b>Gallien</b>			
Assembly Numbers: <b>206-0293-A</b> <b>145-0293-A</b>		Approved by:		Effective Date: <b>8/19/2002</b>	
Effective			Document Update		Initials
<input type="checkbox"/>	All in Process	<input checked="" type="checkbox"/>	Next Buy	<input type="checkbox"/>	Artwork
<input type="checkbox"/>	All in Service	<input checked="" type="checkbox"/>	Next Production Run	<input type="checkbox"/>	Assembly Dwg.
<input type="checkbox"/>	All in Stock	<input type="checkbox"/>		<input checked="" type="checkbox"/>	Board Artwork
Beginning Serial Number:			<input checked="" type="checkbox"/>	BOM	RAG
Reason For Change			<input type="checkbox"/>	Control Form	
Update artwork for larger hole sizes for auto insertion.			<input type="checkbox"/>	Costing	
Change part number to 206-0293-A.			<input type="checkbox"/>	Fab Drawing	
			<input type="checkbox"/>	Inspection Proc.	
			<input checked="" type="checkbox"/>	Part Master File	RAG
			<input checked="" type="checkbox"/>	Schematic	RAG
			<input type="checkbox"/>	Service Manual	
			<input type="checkbox"/>	Test Procedure	
			<input type="checkbox"/>		
			<input type="checkbox"/>		
Other Affected Assemblies					
<b>302-0290-A, 302-1290-A, 302-2290-</b>					
<input type="checkbox"/>	Continued on ECO Supplement Page				
Description Of Change			Distribution		Initials
			<input type="checkbox"/>	Accounting	
			<input type="checkbox"/>	Assembly	
			<input type="checkbox"/>	Customer	
			<input checked="" type="checkbox"/>	Engineering	
			<input checked="" type="checkbox"/>	Incoming Q.C.	
			<input type="checkbox"/>	Planning	
			<input checked="" type="checkbox"/>	Production Eng.	
			<input checked="" type="checkbox"/>	Purchasing	
			<input type="checkbox"/>	Q.A.	
			<input type="checkbox"/>	Receiving	
			<input type="checkbox"/>	Service	
			<input checked="" type="checkbox"/>	Test	
			<input type="checkbox"/>	Vendor	
			<input type="checkbox"/>		
			<input type="checkbox"/>		
<input type="checkbox"/>	Continued on ECO Supplement Page				
			<input type="checkbox"/>	Drawing(s) attached	
Part Number	Description	Parts Added		Parts Deleted	
		Qty	Ref. Designator	Qty	Ref. Designator

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



States for switch board processor.

State	Action	Exit condition	Next state	Indication	
0. Start up	Processor has been reset as a result of a reboot or processor failure.	Perform boot up sequence.	Boot up complete	Idle Standby	None
1. Idle	Power switch is off unit plugged in.	Wait for power switch to activate.	Power switch closes	Charge	GREEN
2. Standby	Power switch closed, trigger low.	Wait for Trigger to go high.	Power switch opens Trigger activates	Idle Charge	AMBER
3. Charge	Power switch has been closed <5 seconds. Trigger if present, is high. No faults have occurred.	Close CHARGE relay. Set 5 second timer. Hold power amp in MUTE. Check for faults until timer runout.	Timer runs out Non-failing fault Failing fault	Active Protect Fault	Blink WHITE At 4 Hz
4. Active	Power switch has been closed >5 seconds, and no faults have occurred.	Close RUN relay. Release power amp from MUTE. Check for faults.	Power switch opens Non-failing fault Failing fault	Idle Protect Fault	BLUE
5. Protect	A non-failing fault condition is present. (Temperature or Current)	Hold power amp in MUTE. Wait for fault to recover. Check for additional faults.	Fault recovers Failing fault occurs	Charge Fault	Blink AMBER At 4 Hz
6. Fault	A failing fault is present DC	Set timer for 20mS. Hold power amp in MUTE. Check for fault until timer runout.	Fault recovers Timer runs out	Charge Goto FAIL.	Blink RED At 4 Hz
7. Fail	A persistant failing fault has occurred.	Hold amp in MUTE. Drop power to relays. Remain in FAIL state.	Power switch opens	Idle	Blink RED At 4 Hz

NOT VALID UNLESS STAMP IS RED

**gallien technology**

2234 INDUSTRIAL DRIVE  
STOCKTON, CA 95206  
VOICE: 209-234-7300  
FAX: 209-234-8420

**2001RB Switch Board**

1. UPDATED REV TO A1.  
2. CHANGED F2 TO T8AH FROM T8AL.  
3. ADD TWO HOLES TO CABLE TIE T1 TO BOARD.

APPROVALS		DATE	TITLE
INIT	DATE	2/02/01	2001RB Switch Board
DRAWN: R.A.G.	DATE	4/03/03	DRAWING NO: 406-0293-A1
ELEC:			PART NO: 206-0293-A1
MECH:			REV. A1
Q/A:			COMPANY: Gallien-Krueger
RELEASED:			FILENAME: 6293A1.sch

PCB WORK INSTRUCTIONS  
DWG 420-0293-A1

NOTES:

UNLESS OTHERWISE SPECIFIED:

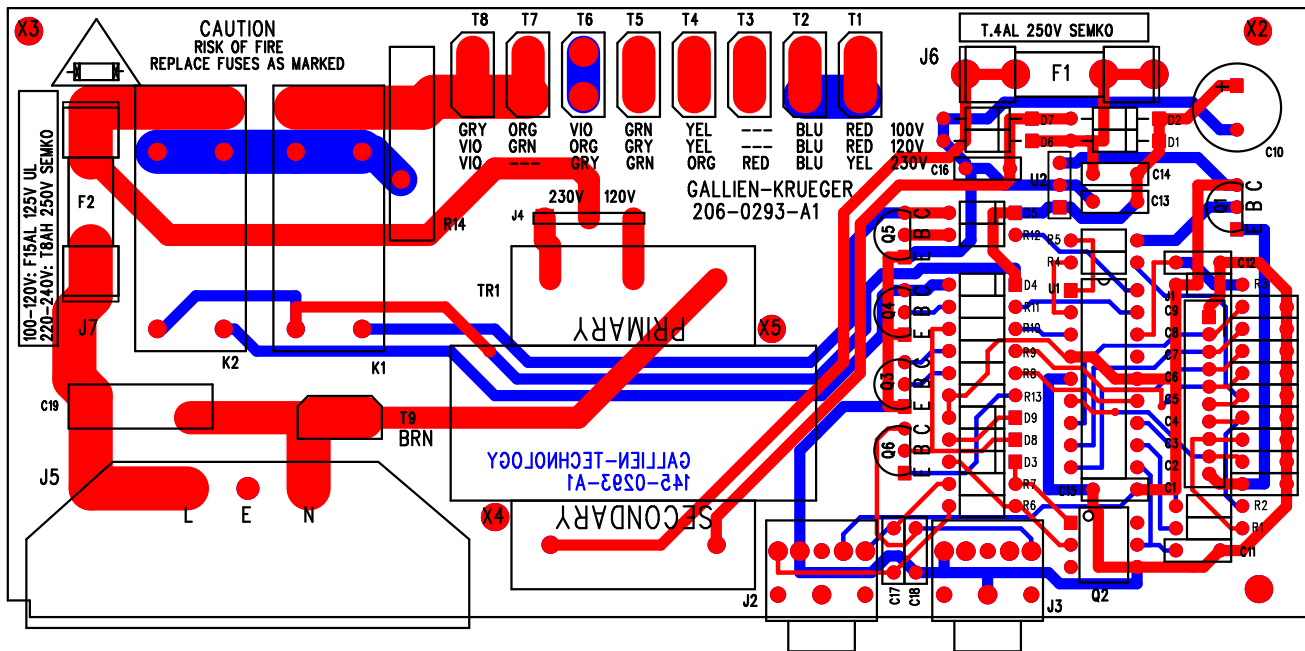
1. SQUARE PADS ON THRU HOLE PARTS (ie: CONNECTORS, DIPS, SIPS, LEDS) DENOTE PIN 1.
2. ALL BOARDS REQUIRE A COMPLETE AND THOROUGH VISUAL INSPECTION.
3. ALL BOARDS MUST BE BARE BOARD TESTED.
4. ASSEMBLE AND SOLDER PER ANSI/IPC-A-610B.

LOADING

5. U1 MUST BE SOCKETED, DO NOT LOAD IC IF NOT PROGRAMED.
6. GLUE C19 TO J5 WITH SILICON RTV.
10. FUSE LOADING - F2
  - FOR 120V MODEL: LOAD FUSE, 5MM, F15AL, 125V UL FOR F2
  - FOR 230V MODEL: LOAD FUSE, 5MM, T8AL, 250V SEMKO FOR F2
11. GLUE TR1 TO PCB WITH SILICON RTV AND STRAP TO BOARD WITH CABLE TIE B1.

FINAL QA

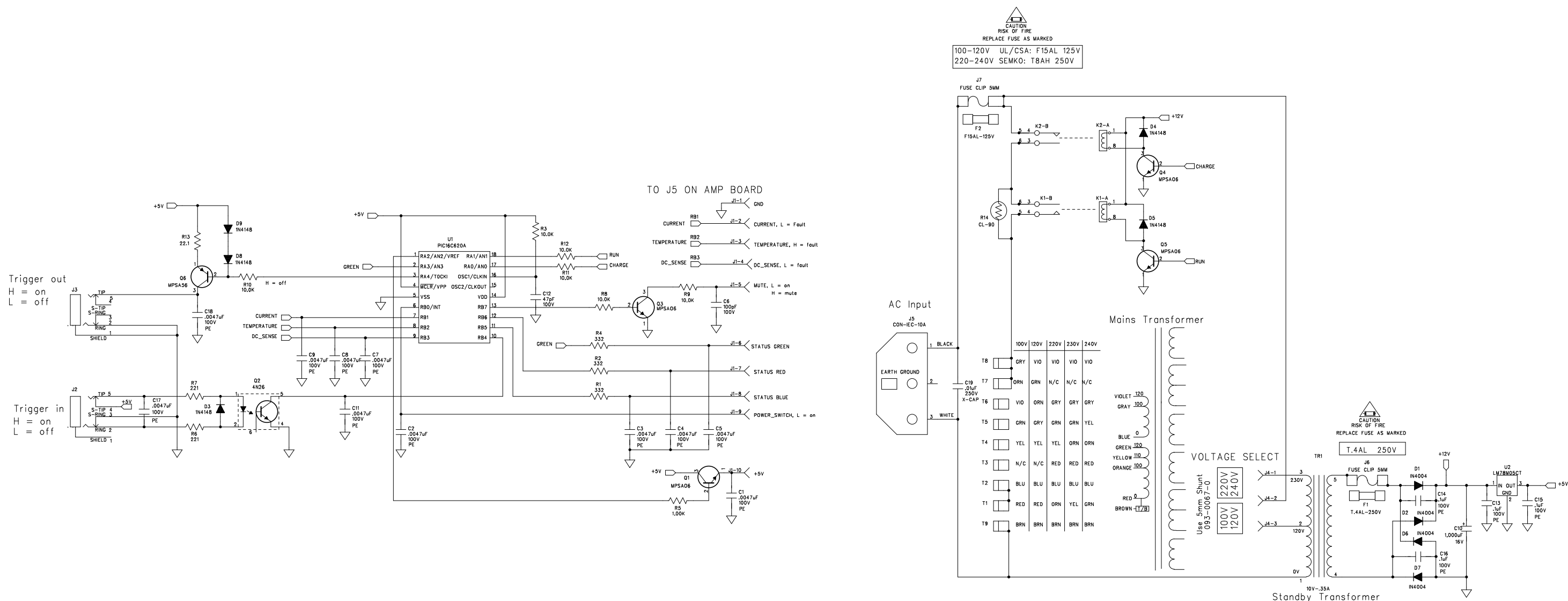
12. CHECK THAT J1,2,3,4 &5 ARE STRAIGHT AND FLUSH WITH PCB.



NOT VALID UNLESS STAMP IS RED	<b>gallien technology</b>		2234 INDUSTRIAL DRIVE STOCKTON, CA 95206 VOICE: 209-234-7300 FAX: 209-234-8240	
	APPROVALS		TITLE: 2001RB Switch Board	
LAYER DESCRIPTION: <b>BOPTSDMESSIEKSOREENG</b>	INIT	DATE	SIZE	DRAWING NO: 145-0293-A1
	DESIGNED: R.A.G.	12/21/00	B	PART NO: 405-0293-A1
	DRAWN: R.A.G.	4/03/03		REV. A1
	ELEC:		COMPANY: GALLIEN-KRUEGER	
	GERBER FILE NAME: sst01261pho		FILENAME: 5293A1.pcb	

Customer Name: <b>Gallien-Krueger</b>		Current Rev #: <b>A</b>		New ECO Rev #: <b>A1</b>	
Model: <b>2001RB</b>		Distribute To:		Page: <b>1</b>	Of: <b>1</b>
Assembly Description: <b>2001RB power switch board</b>		Originator: <b>Gallien</b>			
Assembly Numbers: <b>206-0293-A1</b> <b>145-0293-A1</b>		Approved by:			
		Effective Date: <b>8/19/2002</b>			
Effective		Document Update		Date	Initials
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<input type="checkbox"/>	All in Service	<input checked="" type="checkbox"/>	Next Production Run		
<input type="checkbox"/>	All in Stock	<input type="checkbox"/>			
Beginning Serial Number:		<input checked="" type="checkbox"/>	BOM		RAG
Reason For Change		<input type="checkbox"/>	Control Form		
Change F1 notation to 230V to T8AH.		<input type="checkbox"/>	Costing		
Add two holes to cable tie T1 to the board.		<input type="checkbox"/>	Fab Drawing		
		<input type="checkbox"/>	Inspection Proc.		
		<input checked="" type="checkbox"/>	Part Master File		RAG
		<input checked="" type="checkbox"/>	Schematic		RAG
		<input type="checkbox"/>	Service Manual		
		<input type="checkbox"/>	Test Procedure		
		<input type="checkbox"/>			
		<input type="checkbox"/>			
Other Affected Assemblies					
<b>302-0290-A, 302-1290-A, 302-2290-</b>					
<input type="checkbox"/>	Continued on ECO Supplement Page				
Description Of Change		Distribution		Date	Initials
		<input type="checkbox"/>	Accounting		
		<input type="checkbox"/>	Assembly		
		<input type="checkbox"/>	Customer		
		<input checked="" type="checkbox"/>	Engineering		
		<input checked="" type="checkbox"/>	Incoming Q.C.		
		<input type="checkbox"/>	Planning		
		<input checked="" type="checkbox"/>	Production Eng.		
		<input checked="" type="checkbox"/>	Purchasing		
		<input type="checkbox"/>	Q.A.		
		<input type="checkbox"/>	Receiving		
		<input type="checkbox"/>	Service		
		<input checked="" type="checkbox"/>	Test		
		<input type="checkbox"/>	Vendor		
		<input type="checkbox"/>			
		<input type="checkbox"/>			
<input type="checkbox"/>	Continued on ECO Supplement Page				
		<input type="checkbox"/>	Drawing(s) attached		
Part Number	Description	Parts Added		Parts Deleted	
		Qty	Ref. Designator	Qty	Ref. Designator
100-0036-0	Cable tie 8"	1			

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



States for switch board processor.

State	Action	Exit condition	Next state	Indication	
0. Start up	Processor has been reset as a result of a reboot or processor failure.	Perform boot up sequence.	Boot up complete	Idle Standby	None
1. Idle	Power switch is off unit plugged in.	Wait for power switch to activate.	Power switch closes	Charge	GREEN
2. Standby	Power switch closed, trigger low.	Wait for Trigger to go high.	Power switch opens Trigger activates	Idle Charge	AMBER
3. Charge	Power switch has been closed <5 seconds. Trigger if present, is high. No faults have occurred.	Close CHARGE relay. Set 5 second timer. Hold power amp in MUTE. Check for faults until timer runout.	Timer runs out Non-failing fault Failing fault	Active Protect Fault	Blink WHITE At 4 Hz
4. Active	Power switch has been closed >5 seconds, and no faults have occurred.	Close RUN relay. Release power amp from MUTE. Check for faults.	Power switch opens Non-failing fault Failing fault	Idle Protect Fault	BLUE
5. Protect	A non-failing fault condition is present. (Temperature or Current)	Hold power amp in MUTE. Wait for fault to recover. Check for additional faults.	Fault recovers Failing fault occurs	Charge Fault	Blink AMBER At 4 Hz
6. Fault	A failing fault is present DC	Set timer for 20mS. Hold power amp in MUTE. Check for fault until timer runout.	Fault recovers Timer runs out	Charge Goto FAIL.	Blink RED At 4 Hz
7. Fail	A persistent failing fault has occurred.	Hold amp in MUTE. Drop power to relays. Remain in FAIL state.	Power switch opens	Idle	Blink RED At 4 Hz

NOT VALID UNLESS STAMP IS RED

**gallien technology**

2234 INDUSTRIAL DRIVE  
STOCKTON, CA 95206  
VOICE: 209-234-7300  
FAX: 209-234-8420

2001RB Switch Board

DRAWING NO: 406-0293-A2  
PART NO: 206-0293-A2

APPROVALS		DATE	TITLE
INIT	DATE	2/02/01	2001RB Switch Board
DESIGNED: R.A.G.	DATE	11/19/03	
DRAWN: R.A.G.	DATE		
ELEC:			
MECH:			
Q/A:			
RELEASED:			

REV. A2

PCB WORK INSTRUCTIONS  
 DWG 420-0293-A2

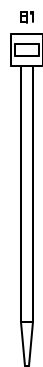
NOTES:

UNLESS OTHERWISE SPECIFIED:

1. SQUARE PADS ON THRU HOLE PARTS (ie: CONNECTORS, DIPS, SIPS, LEDS) DENOTE PIN 1.
2. ALL BOARDS REQUIRE A COMPLETE AND THOROUGH VISUAL INSPECTION.
3. ALL BOARDS MUST BE BARE BOARD TESTED.
4. ASSEMBLE AND SOLDER PER ANSI/IPC-A-610B.

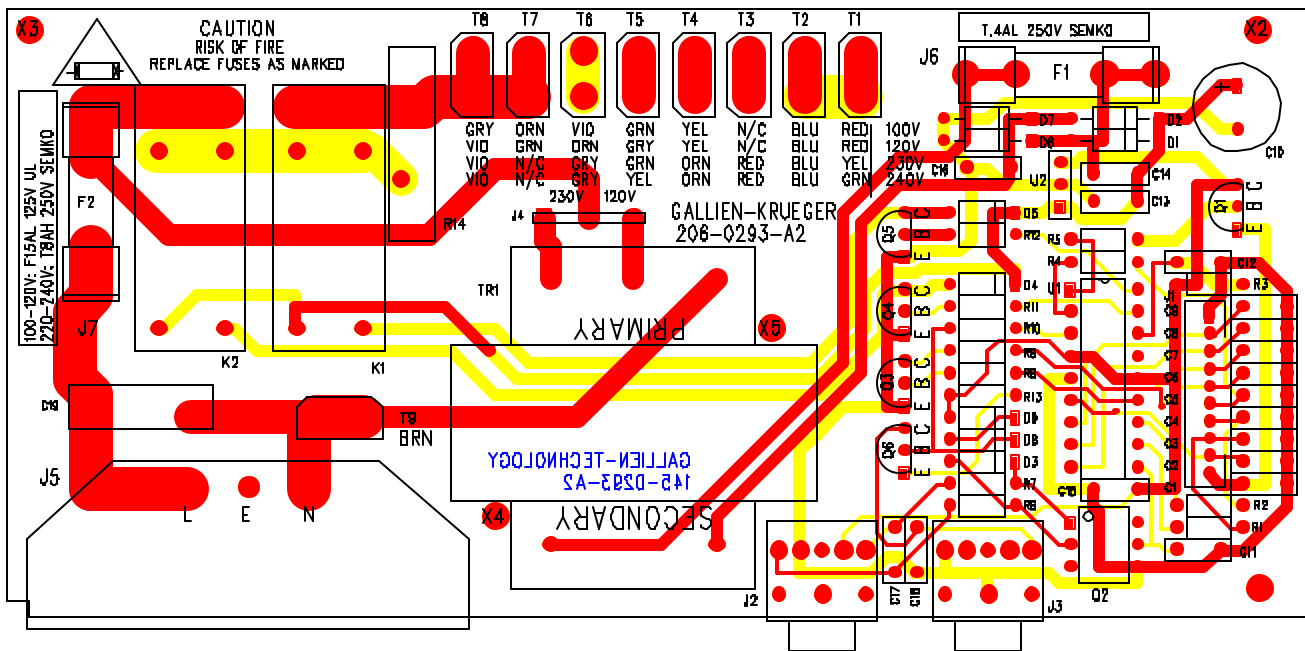
LOADING

5. U1 MUST BE SOCKETED, DO NOT LOAD IC IF NOT PROGRAMED.
6. GLUE C19 TO J5 WITH SILICON RTV.
10. FUSE LOADING - F2
  - FOR 120V MODEL: LOAD FUSE, 5MM, F15AL, 125V UL FOR F2
  - FOR 230V MODEL: LOAD FUSE, 5MM, T8AL, 250V SEMKO FOR F2
11. GLUE TR1 TO PCB WITH SILICON RTV AND STRAP TO BOARD WITH CABLE TIE B1.



FINAL QA

12. CHECK THAT J1,2,3,4 & 5 ARE STRAIGHT AND FLUSH WITH PCB.



NOT VALID UNLESS STAMP IS RED	<b>gallien technology</b>		2234 INDUSTRIAL DRIVE STOCKTON, CA 95206 VOICE: 209-234-7300 FAX: 209-234-8240	
	APPROVALS		TITLE: 2001RB Switch Board	
LAYER DESCRIPTION: <b>DRILL ENDS SCREW</b>	INIT	DATE	SIZE	DRAWING NO: 145-0293-A2
	DESIGNED: R.A.G.	12/21/00	B	PART NO: 405-0293-A2
	DRAWN: R.A.G.	11/19/03		REV. A2
	ELEC:			
	MECH:		COMPANY: GALLIEN-KRUEGER	
	GERBER FILE NAME: sst0293.pcb		FILENAME: 5293A2.pcb	



Customer Name: <b>Gallien-Krueger</b>		Current Rev #: <b>A1</b>	New ECO Rev #: <b>A2</b>		
Model: <b>2001RB</b>		Distribute To:	Page: <b>1</b> Of: <b>1</b>		
Assembly Description: <b>2001RB power switch board</b>		Originator: <b>Gallien</b>			
Assembly Numbers: <b>206-0293-A</b> <b>145-0293-A</b>		Approved by:			
		Effective Date:			
Effective		Document Update	Date	Initials	
<input type="checkbox"/> All in Process	<input checked="" type="checkbox"/> Next Buy	<input type="checkbox"/> Artwork			
<input type="checkbox"/> All in Service	<input type="checkbox"/> Next Production Run	<input type="checkbox"/> Assembly Dwg.			
<input type="checkbox"/> All in Stock		<input checked="" type="checkbox"/> Board Artwork		RAG	
Beginning Serial Number:		<input checked="" type="checkbox"/> BOM		RAG	
Reason For Change		<input type="checkbox"/> Control Form			
<b>Add 240V supply table to board and schematic.</b>		<input type="checkbox"/> Costing			
		<input type="checkbox"/> Fab Drawing			
		<input type="checkbox"/> Inspection Proc.			
		<input checked="" type="checkbox"/> Part Master File		RAG	
		<input checked="" type="checkbox"/> Schematic		RAG	
		<input type="checkbox"/> Service Manual			
		<input type="checkbox"/> Test Procedure			
		<input type="checkbox"/>			
		<input type="checkbox"/>			
<b>Other Affected Assemblies</b>					
<b>302-0290-A, 302-1290-A, 302-2290-</b>					
<input type="checkbox"/>	Continued on ECO Supplement Page				
Description Of Change		Distribution	Date	Initials	
		<input type="checkbox"/> Accounting			
		<input type="checkbox"/> Assembly			
		<input type="checkbox"/> Customer			
		<input checked="" type="checkbox"/> Engineering			
		<input checked="" type="checkbox"/> Incoming Q.C.			
		<input type="checkbox"/> Planning			
		<input checked="" type="checkbox"/> Production Eng.			
		<input checked="" type="checkbox"/> Purchasing			
		<input type="checkbox"/> Q.A.			
		<input type="checkbox"/> Receiving			
		<input type="checkbox"/> Service			
		<input checked="" type="checkbox"/> Test			
		<input type="checkbox"/> Vendor			
		<input type="checkbox"/>			
		<input type="checkbox"/>			
<input type="checkbox"/>	Continued on ECO Supplement Page				
		<input type="checkbox"/>	Drawing(s) attached		
Part Number	Description	Parts Added		Parts Deleted	
		Qty	Ref. Designator	Qty	Ref. Designator