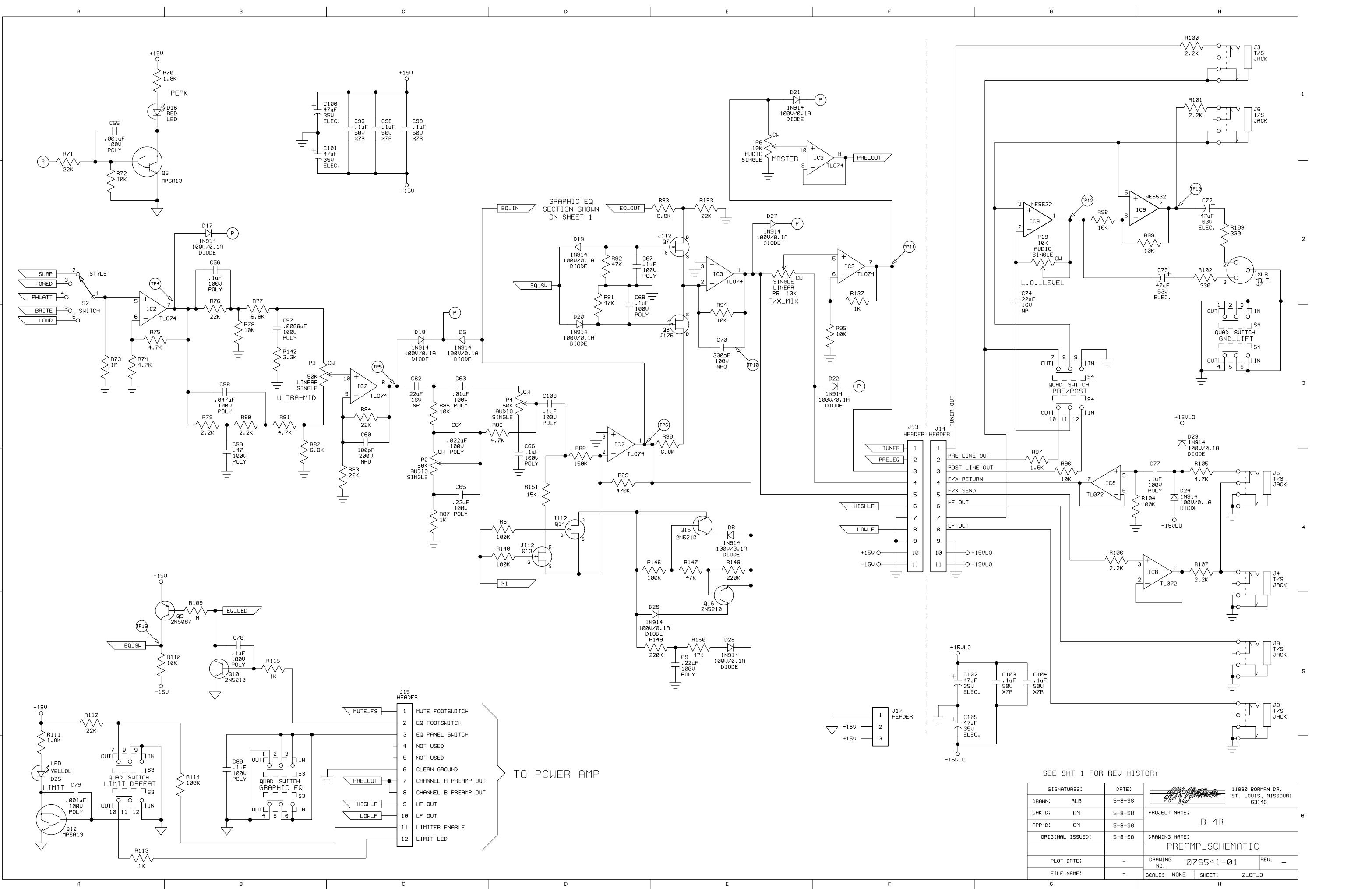


CAUTION:
THIS SCHEMATIC IS PROVIDED FOR USE BY QUALIFIED PERSONNEL.
TO AVOID RISK OF ELECTRIC SHOCK, REFER SERVICING TO QUALIFIED
SERVICE PERSONNEL. DO NOT PERFORM ANY SERVICING BEYOND
THAT EXPLAINED IN THE OPERATING INSTRUCTIONS.

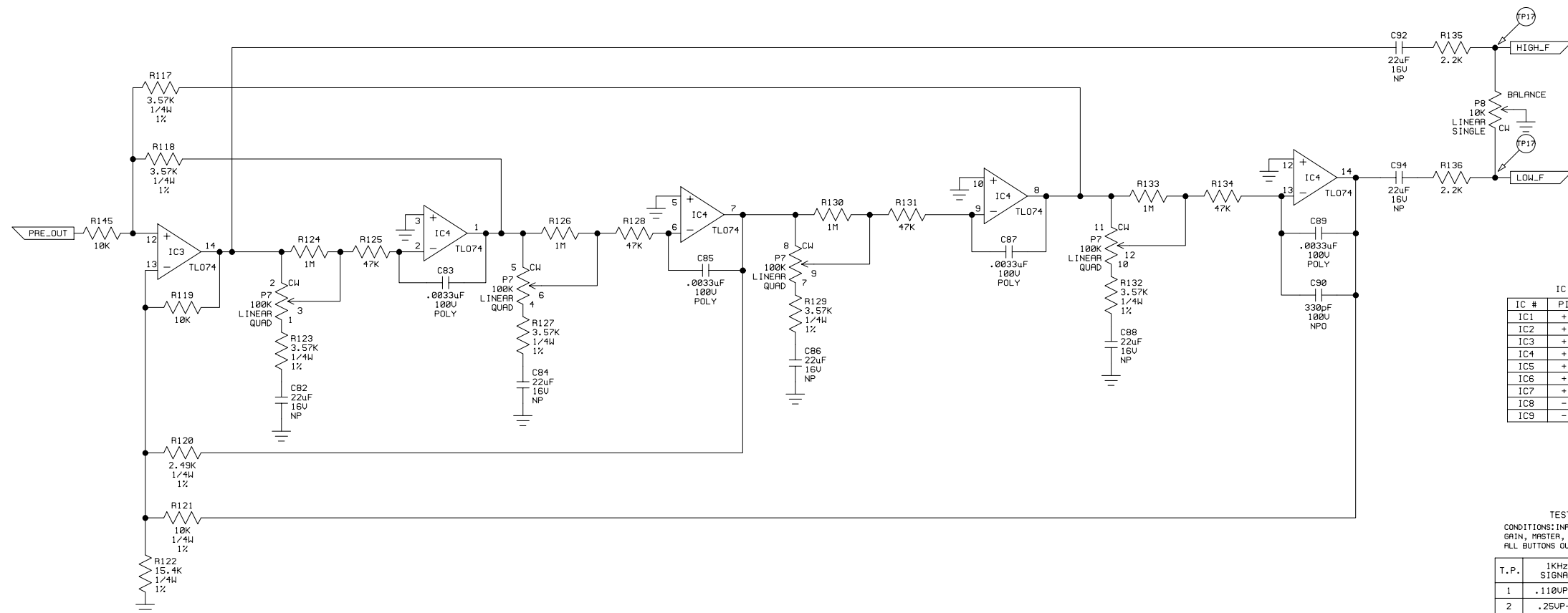
- NOTES:
- 1) CAUTION: SHOCK HAZARD!!
THIS UNIT CONTAINS HAZARDOUS VOLTAGE. DISCONNECT POWER
AND BE SURE POWER SUPPLY IS DISCHARGED BEFORE
TOUCHING INTERNAL PARTS.
 - 2) UNLESS NOTED, RESISTOR VALUES IN OHMS, 1/4W-5% TOL.
CAPACITOR VALUES IN MICROFARADS, 50V-10% TOL.
 - 3) VOLTAGES ARE MEASURED WITH 1 MEGOHM OSCILLOSCOPE
AND 10 MEGOHM DIGITAL VOLTMETER.

3	3/11/98	VALUES_&_JACK_P/N_PER_EC0990083_AND	EC0990085
-	-	RELOCATED_S2_ON_ASSY	EC0990595
2	9/14/98	C4-&R116_DO_NOT_INSTALL	EC0990542
1	6-23-98	UPDATE_TO_AGREE_WITH_PICTORIAL	E980408
REV	DATE	DESCRIPTION	ECM
SIGNATURES:		DATE:	11880 BORHAN DR. ST. LOUIS, MISSOURI 63146
DRAWN:	RLB	5-8-98	PROJECT NAME: B-4R
CHK'D:	GM	5-8-98	DRAWING NAME: PREAMP_SCHEMATIC
APP'D:	GM	5-8-98	DRAWING NO. 07S541-01
ORIGINAL ISSUED:	5-8-98	DRAWING NAME:	REV. -
PLOT DATE:	-	DRAWING NO.	07S541-01
FILE NAME:	S4101C3_	SCALE:	NONE
		SHEET:	1_OF_3



SEE SHT 1 FOR REV HISTORY

SIGNATURES:	DATE:		11880 BORMAN DR.
DRAWN: RLB	5-8-98		ST. LOUIS, MISSOURI
CHK'D: GM	5-8-98	PROJECT NAME:	63146
APP'D: GM	5-8-98	B-4R	
ORIGINAL ISSUED:	5-8-98	DRAWING NAME:	
		PREAMP_SCHEMATIC	
PLOT DATE:	-	DRAWING NO.	07S541-01
FILE NAME:	-	SCALE:	NONE
		SHEET:	2_OF_3



IC POWER CHART

IC #	PIN 4	PIN 11	PIN 8
IC1	+14U	-14U	-
IC2	+15U	-15U	-
IC3	+15U	-15U	-
IC4	+15U	-15U	-
IC5	+15U	-15U	-
IC6	+15U	-15U	-
IC7	+15U	-15U	-
IC8	-15U	-	+15U
IC9	-15U	-	+15U

TEST POINT CHART

CONDITIONS: INPUT 75mV-P (26mVRMS) @ 1KHZ
 0PIN, MASTER, LINE OUT LEVEL @ 10; TONES @ 5;
 ALL BUTTONS OUT

T.P.	1KHZ SIGNAL	D.C. (V)	-
1	.110V-P-P	0	
2	.25V-P	0	
3	12V-P	0	
4	7V-P	0	
5	5.5V-P	0	
6	1.8V-P	0	
7	1.8V-P	0	
8	1.8V-P	0	
9	2.5V-P	0	
10	2.7V-P	0	
11	3V-P	0	
12	.75V-P	0	
13	.75V-P	0	
14	MUTE_OFF	-15	
14	MUTE_ON	0.6	
15	TEXTURE_OUT	-15	
15	TEXTURE_IN	-0.2	
16	EQ_OUT	-12	
16	EQ_IN	15	
17	+3dB FROM PREAMP OUT IN PASS BAND	0	

LAST USED DESIGNATOR
 R155
 C110
 D28

- NOTES:
- 1) CAUTION: SHOCK HAZARD!! THIS UNIT CONTAINS HAZARDOUS VOLTAGE. DISCONNECT POWER AND BE SURE POWER SUPPLY IS DISCHARGED BEFORE TOUCHING INTERNAL PARTS.
 - 2) UNLESS NOTED, RESISTOR VALUES IN OHMS, 1/4W-5% TOL. CAPACITOR VALUES IN MICROFARADS, 50V-10% TOL.
 - 3) VOLTAGES ARE MEASURED WITH 1 MEGOHM OSCILLOSCOPE AND 10 MEGOHM DIGITAL VOLTMETER.

CAUTION:
 THIS SCHEMATIC IS PROVIDED FOR USE BY QUALIFIED PERSONNEL. TO AVOID RISK OF ELECTRIC SHOCK, REFER SERVICING TO QUALIFIED SERVICE PERSONNEL. DO NOT PERFORM ANY SERVICING BEYOND THAT EXPLAINED IN THE OPERATING INSTRUCTIONS.

SEE SHT 1 FOR REV HISTORY

SIGNATURES:	DATE:	11880 BORNMAN DR. ST. LOUIS, MISSOURI 63146	
DRAWN: RLB	5-8-98	PROJECT NAME:	B-4R
CHK'D: GM	5-8-98	DRAWING NAME:	PREAMP_SCHEMATIC
APP'D: GM	5-8-98	DRAWING NO.	07S541-01
ORIGINAL ISSUED:	5-8-98	REV.	-
PLOT DATE:	-	SCALE:	NONE
FILE NAME:	-	SHEET:	3_OF_3