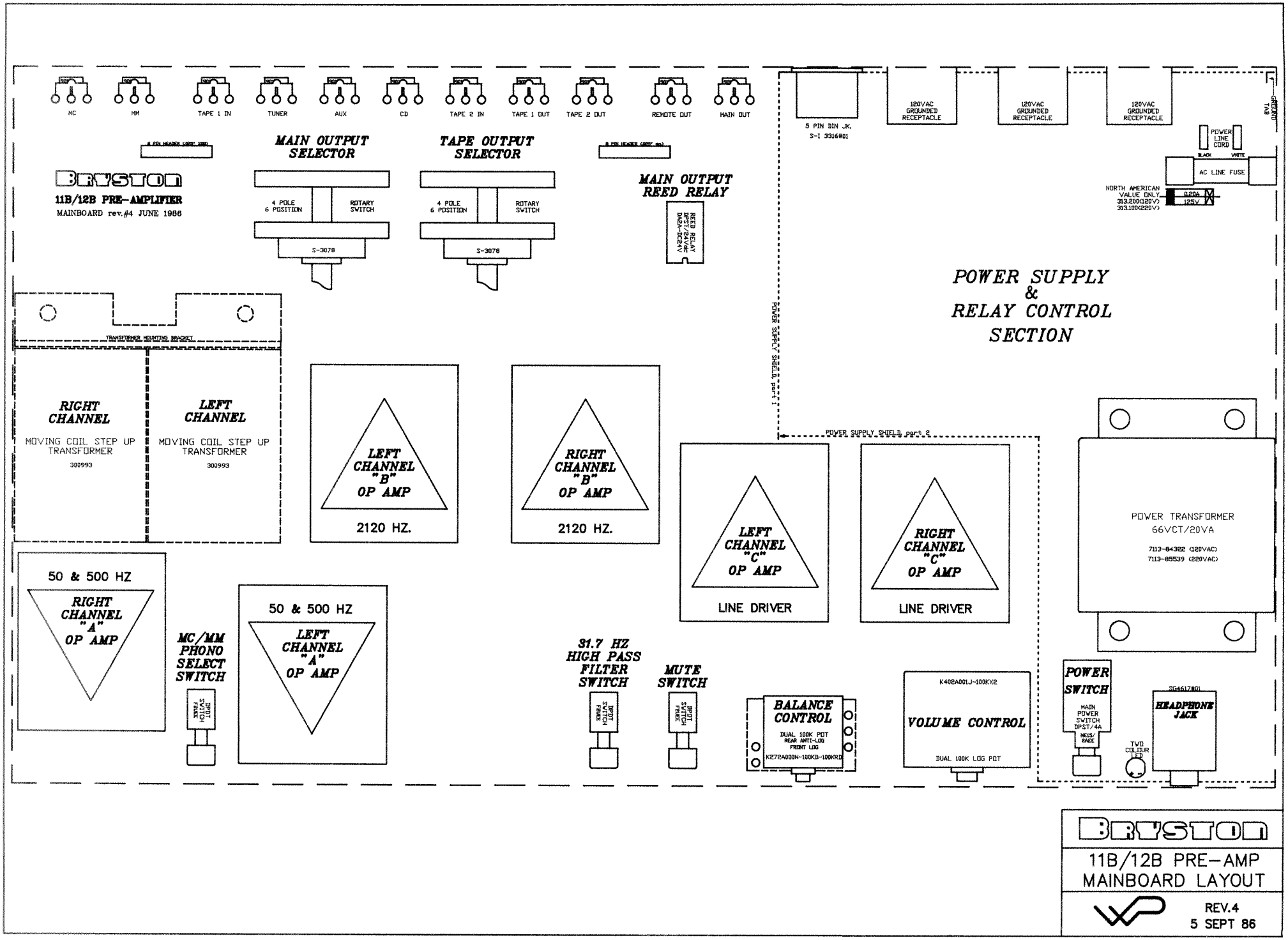

MC
MM
TAPE 1 IN
TUNER
AUX
CD
TAPE 2 IN
TAPE 1 OUT
TAPE 2 OUT
REMOTE OUT
MAIN OUT
5 PIN DIN JK.
S-I 3316901
120VAC GROUNDED RECEPTACLE
120VAC GROUNDED RECEPTACLE
120VAC GROUNDED RECEPTACLE
GROUND TAB
POWER LINE CORD
BLACK
WHITE
AC LINE FUSE
NORTH AMERICAN VALUE ONLY
313.200(120V)
313.100(220V)
0.20A
125V
BRYSTON
11B/12B PRE-AMPLIFIER
MAINBOARD rev.#4 JUNE 1986
MAIN OUTPUT SELECTOR
4 POLE 6 POSITION
ROTARY SWITCH
S-3078
TAPE OUTPUT SELECTOR
4 POLE 6 POSITION
ROTARY SWITCH
S-3078
MAIN OUTPUT REED RELAY
REED RELAY DPST/24VAC DA424-DC24V
POWER SUPPLY & RELAY CONTROL SECTION
POWER SUPPLY SHIELD part 1
POWER SUPPLY SHIELD part 2
TRANSFORMER MOUNTING BRACKET
RIGHT CHANNEL
MOVING COIL STEP UP TRANSFORMER
300993
LEFT CHANNEL
MOVING COIL STEP UP TRANSFORMER
300993
LEFT CHANNEL "B" OP AMP
2120 HZ.
RIGHT CHANNEL "B" OP AMP
2120 HZ.
LEFT CHANNEL "C" OP AMP
LINE DRIVER
RIGHT CHANNEL "C" OP AMP
LINE DRIVER
POWER TRANSFORMER
66VCT/20VA
7113-84322 (120VAC)
7113-85539 (220VAC)
50 & 500 HZ
RIGHT CHANNEL "A" OP AMP
MC/MM PHONO SELECT SWITCH
SPDT SWITCH FRAME
50 & 500 HZ
LEFT CHANNEL "A" OP AMP
31.7 HZ HIGH PASS FILTER SWITCH
SPDT SWITCH FRAME
MUTE SWITCH
SPDT SWITCH FRAME
BALANCE CONTROL
DUAL 100K POT
REAR ANTI-LOG
FRONT LOG
K272A000N-100KD-100KRD
K402A001J-100KX2
VOLUME CONTROL
DUAL 100K LOG POT
POWER SWITCH
MAIN POWER SWITCH DPST/4A
HE15/RACE
TWO COLOUR LED
SG4617801
HEADPHONE JACK
BRYSTON
11B/12B PRE-AMP
MAINBOARD LAYOUT
REV.4
5 SEPT 86

BRYSTON 11B/12B PREAMPLIFIER - TEST PROCEDURE

A complete operational check of the 11B/12B pre-amp may be executed with the following test equipment:

1> Dual channel oscilloscope
2> Low distortion oscillator/distortion analyzer
3> AC voltmeter
4> Inverse RIAA and "A" weighting filters
5> AC socket tester (three prong grounded)
6> C.R.I. RM-6A Breakdown Testor

DISTORTION TEST

1> Connect the oscillaltor/analyzer to the pre-amplifier.
2> Set the oscillator output to the appropriate level for the frequency and input selected (see table below).

N.B. when testing via the Moving Coil (MC) inputs a 50 ohm load must be connected across the MC phono input.

3> Set the MAIN OUTPUT and MC/MM switchs to the appropriate inputs, and the LOW FILTER and MUTE switches in the out position.

4> A turn on delay of 3 to 4 seconds will be noted after the pre-amplifier is switched on.
Adjust the volume control for 5v(rms) output.

INPUT	FREQUENCY	Vin	Vout	%THD(max)
MM PHONO	20 Khz	1.4 v	5 v	.0050
	2 Khz	200 mv	5 v	.0045
	200 hz	60 mv	5 v	.0040
	20 hz	16 mv	5 v	.0040
MC PHONO	20 Khz	60 mv	5 v	.0050
	2 Khz	9 mv	5 v	.0050
	200 hz	3 mv	5 v	.0040
	20 hz	1 mv	5 v	.0050
AUX	20 Khz	5 v	5 v	.0050
	2 Khz	5 v	5 v	.0045
	200 hz	5 v	5 v	.0040
	20 hz	5 v	5 v	.0040

BRYSTON 11B/12B PREAMPLIFIER - TEST PROCEDURE

NOISE TEST

1> Connect an "A" weight filter between the MAIN OUTPUT and the analyzer input.

2> Set a reference level by injecting the appropriate input level to the desired input at 1 Khz and turning the VOLUME control to maximum (see table below).
N.B. Ensure that the BALANCE control is centered.

3> Short the appropriate input to ground and measure the relative output level.

INPUT	FREQUENCY	Vin	Vout	-dbA
MM PHONO	1 Khz	5 mv	maximum	80
MC PHONO	1 Khz	375 uv	maximum	80
AUX	1 Khz	500 mv	maximum	90

MUTE SWITCH

The MUTE switch also serves as a MONO switch adding the left and right inputs.
Attenuation is approx. -20db (+/-10%) (-10db both channels driven)

LOW FILTER

The LOW FILTER is a first order (6 db/octve) high pass type with an attenuation of -3db at 31.7 hz (-5.5db at 20 hz).

PHONO EQUALIZATION

1> Connect an inverse RIAA filter between the oscillator output and the pre-amp PHONO-MM input.

2> Set the oscillator to 1 K hz at approx. 1.5v.

3> Establish a 0db reference point for 1 Khz on the analyzer voltmeter.

4> Measure the deviation in pre-amp output voltage at 20 Khz, 10 Khz, 200 hz and 20 hz.
Maximum deviation is +/- 0.1db

BRYSTON 11B/12B PREAMPLIFIER - TEST PROCEDURE

SIGNAL CONTINUITY & SEPARATION

When checking continuity and separation, apply the oscillator signal to only one input at a time. Referring to chart below, verify that an input signal at each input is present at the appropriate outputs (and only at the appropriate outputs) for every position of all selector switches with an amplitude of at least 40 db or greater than the undriven channel.

SELECTOR SWITCHES			OUTPUTS		
MAIN	MM/MC	TAPE	MAIN	TAPE-1	TAPE-2
PHONO	MM	X	PHONO-MM		
PHONO	MC	X	PHONO-MC		
TUNER	X	X	TUNER		
AUX	X	X	AUX		
CD	X	X	CD		
TAPE-1	X	X	TAPE-1		
TAPE-2	X	X	TAPE-2		
X	MM	PHONO		PHONO-MM	PHONO-MM
X	MC	PHONO		PHONO-MC	PHONO-MC
X	X	TUNER		TUNER	TUNER
X	X	AUX		AUX	AUX
X	X	CD		CD	CD
X	X	TAPE-1		-------	TAPE-1
X	X	TAPE-2		TAPE-2	--------
TAPE-2	X	TAPE-1	TAPE-2	-------	TAPE-1
TAPE-1	X	TAPE-2	TAPE-1	TAPE-2	--------

(X = DON'T CARE) (------- = NO SIGNAL)

D.C OUTPUT PROTECTION TEST

Momentarily connect a 130 ohm resistor from the negative rail (-24vdc) to ground. The pilot light should turn red, and the relay should open.

HEADPHONE OUTPUT

1> Inject a 2 Khz signal at 200 mv into the PHONO-MM input.

2> Connect the headphone jack to the distortion analyzer with a 100 ohm load from the headphone jack hot output to gnd.

3> The pilot light should turn red and the relay should open as soon as the 1/4" phone plug is inserted into the headphone jack.

4> Adjust the output level to 4 v(rms) using the VOLUME CONTROL. THD should be less than .005% . Maximum output level at the threshold of clipping should be approx. 6.5v.

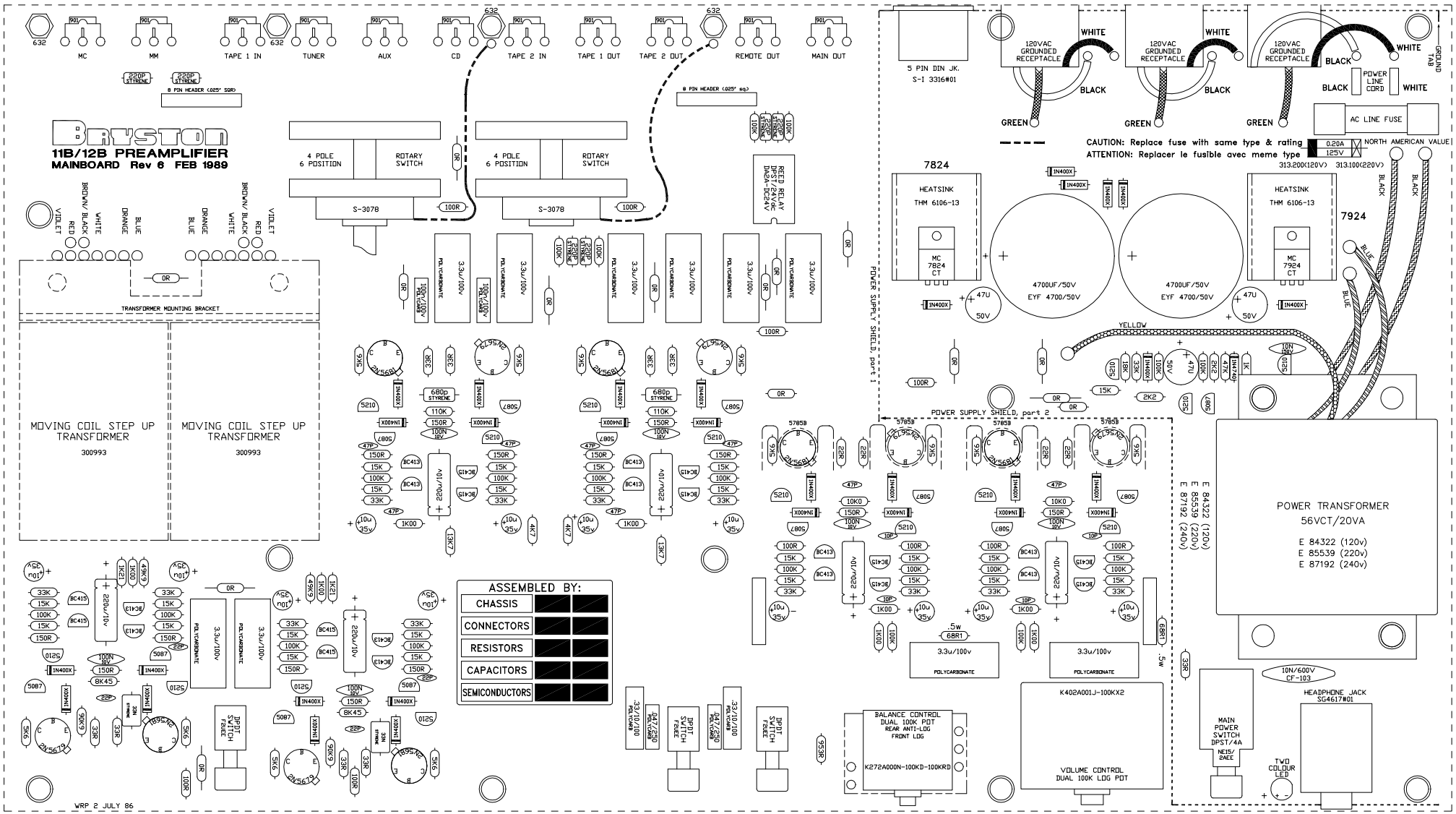
POWER SUPPLY

The unregulated rails should be between +/-35vdc and +/-40vdc.
The regulated rails should be between +/-22.8v and +/-25.2v.

A.C. LINE TEST

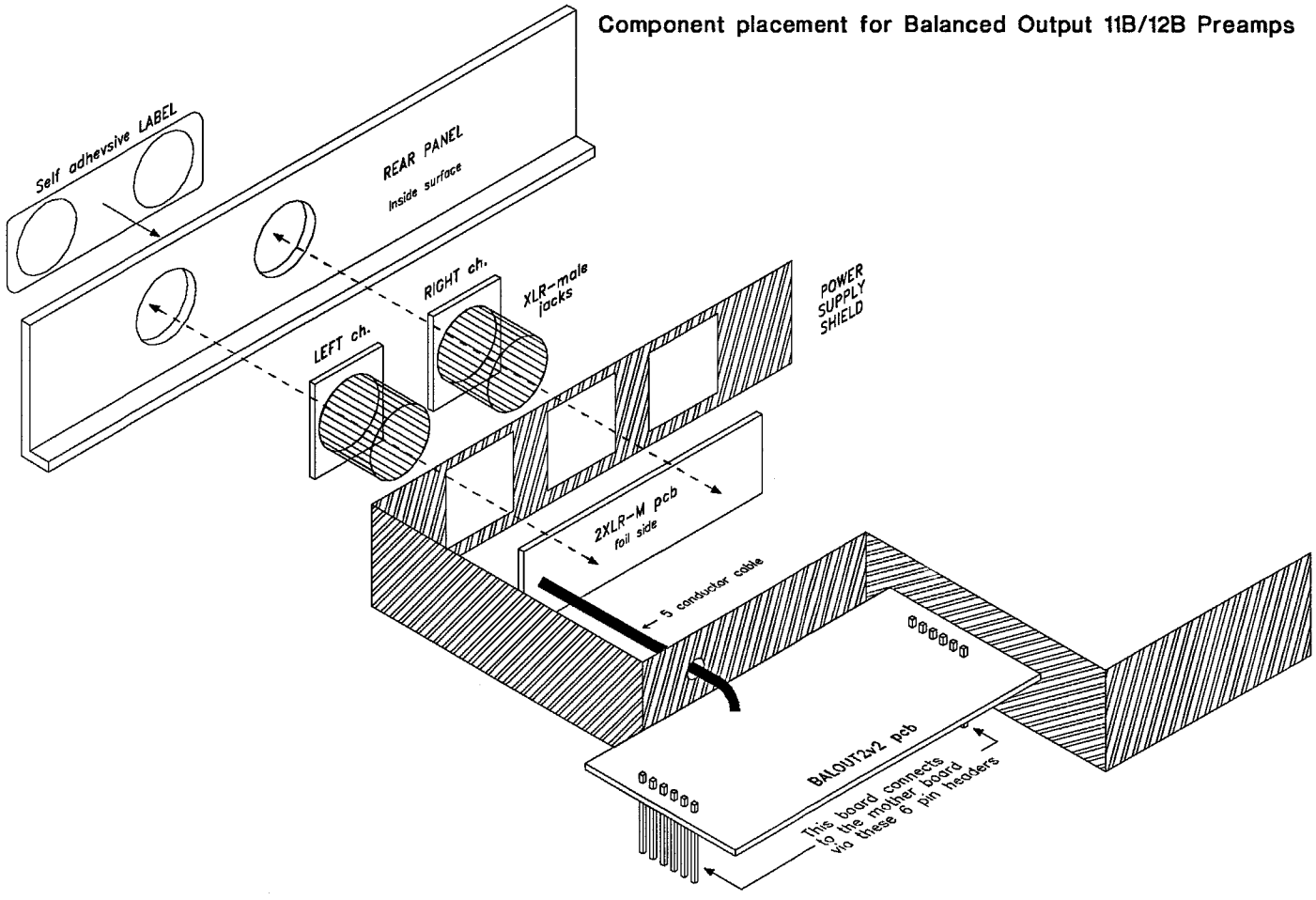
Using a grounded A.C. socket testor check for mechanical security and proper lead orientation of the accessory outlets.

N.B. Final checkout prior to shipping requires a Highpot test. Apply 1100 vac for one second between each side of the AC line and ground. There must be no trip of the cutout on the C.R.I. Model RM-6A Breakdown Testor employed for this test.

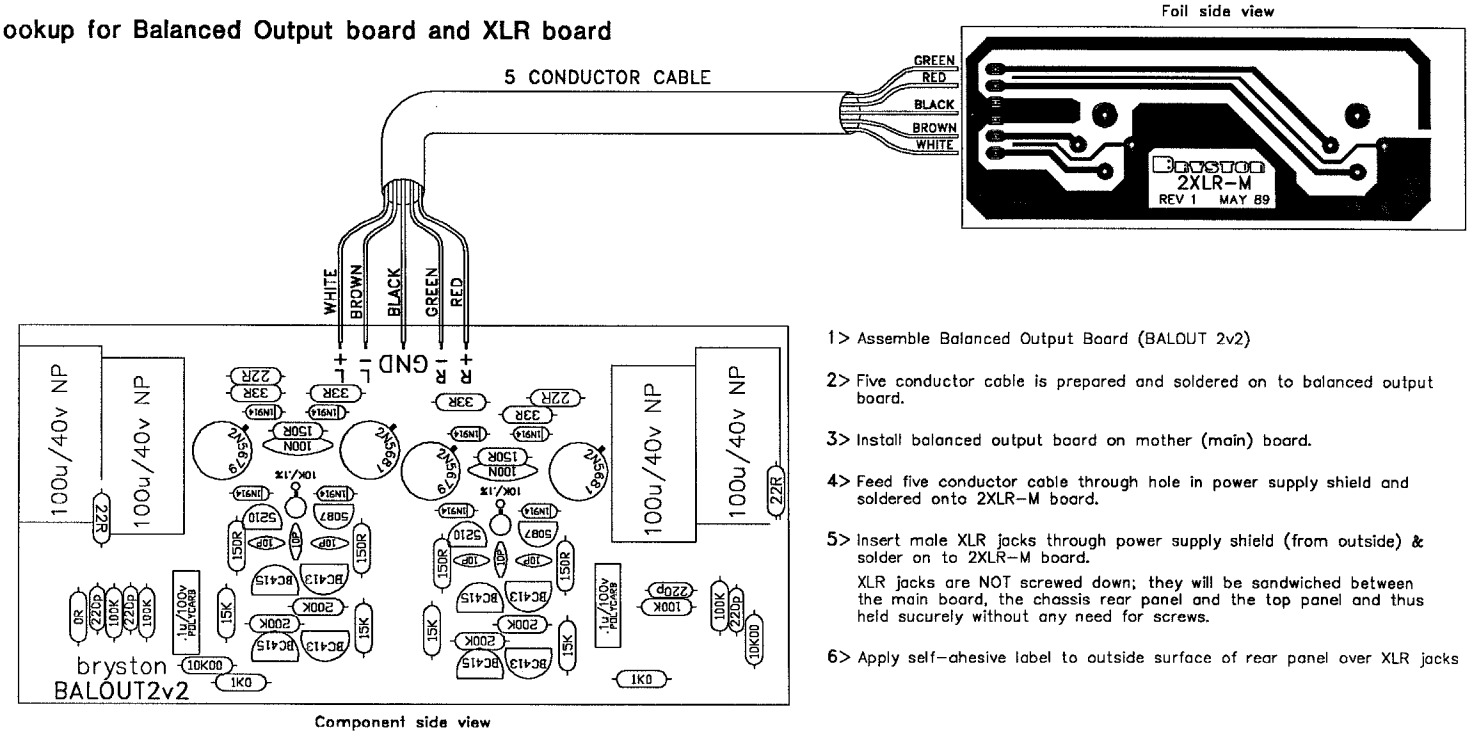

DAYSTON
11B/12B PREAMPLIFIER
MAINBOARD Rev 6 FEB 1989
MC
MM
TAPE 1 IN
TUNER
AUX
CD
TAPE 2 IN
TAPE 1 OUT
TAPE 2 OUT
REMOTE OUT
MAIN OUT
8 PIN HEADER (.025" SQR)
4 POLE 6 POSITION ROTARY SWITCH
S-3078
REED RELAY DA3A-DC24V
TRANSFORMER MOUNTING BRACKET
MOVING COIL STEP UP TRANSFORMER
300993
MOVING COIL STEP UP TRANSFORMER
300993
5 PIN DIN JK.
S-I 3316#01
120VAC GROUNDED RECEPTACLE
WHITE
BLACK
GREEN
GROUND TAB
POWER LINE CORD
AC LINE FUSE
CAUTION: Replace fuse with same type & rating
ATTENTION: Replacer le fusible avec meme type
0.20A 125V
NORTH AMERICAN VALUE
313.200(120V) 313.100(220V)
7824
7924
HEATSINK THM 6106-13
MC 7824 CT
MC 7924 CT
4700UF/50V EYF 4700/50V
POWER SUPPLY SHIELD, part 1
POWER SUPPLY SHIELD, part 2
POWER TRANSFORMER
56VCT/20VA
E 84322 (120v)
E 85539 (220v)
E 87192 (240v)
ASSEMBLED BY:
CHASSIS
CONNECTORS
RESISTORS
CAPACITORS
SEMICONDUCTORS
BALANCE CONTROL DUAL 100K POT REAR ANTI-LOG FRONT LOG
K272A000N-100KD-100KRD
VOLUME CONTROL DUAL 100K LOG POT
K402A001J-100KX2
MAIN POWER SWITCH DPST/4A
HEADPHONE JACK SG4617#01
TWO COLOUR LED
WRP 2 JULY 86

Assembly Notes
for
11B/12B Preamps with Balanced Outputs

Component placement for Balanced Output 11B/12B Preamps



Hookup for Balanced Output board and XLR board



1> Assemble Balanced Output Board (BALOUT 2v2)

2> Five conductor cable is prepared and soldered on to balanced output board.

3> Install balanced output board on mother (main) board.

4> Feed five conductor cable through hole in power supply shield and soldered onto 2XLR-M board.

5> Insert male XLR jacks through power supply shield (from outside) & solder on to 2XLR-M board.

XLR jacks are NOT screwed down; they will be sandwiched between the main board, the chassis rear panel and the top panel and thus held sucurely without any need for screws.

6> Apply self-ahesive label to outside surface of rear panel over XLR jacks