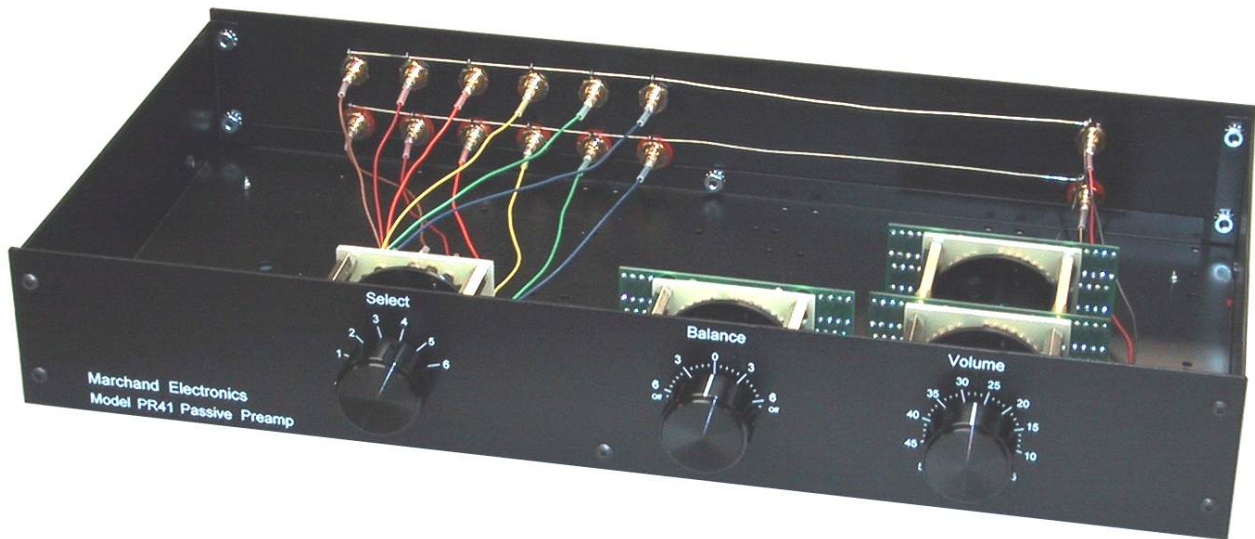


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PR41 Installation Instructions



The PR41 passive preamp provides a volume and balance control and input selector of the highest quality.

The stepped attenuator volume control has 46 steps of attenuation of 1.25 dB each. The balance control also uses a stepped attenuator with 0.6 dB steps. In one direction only the left channel gets attenuated and in the other direction only the right channel gets attenuated. The level and balance controls are each assembled using a high quality mil-spec rotary switch and precision metal film resistors.

The input selector switch can select from 6 input channels.

The front panel has the 3 controls. The rear channel has the 6 pair of input connectors and the output connectors. There is no power cord or

power supply of any kind. All connectors are heavy duty brass and gold plated with Teflon insulation. The cabinet is black with white lettering. Knobs are black aluminum.

The PR41 is compatible with most any component with line level outputs, like CD player, tuner, tape recorder, etc., and with most power amplifiers, tube or solid state. It can also drive any of our electronic crossover networks.

The readings for volume and balance are calibrated in dB. These readings are accurate to 0.2 dB when the PR41 is used with an amplifier that has the nominal input impedance of 50 Kohm. The deviation from the calibration when using amplifiers with different input impedance is small and generally not relevant.

Specifications.

Dimensions:	17" X 2.8" X 8.5 "(WxHxD)
Frequency response:	DC - 100KHz +/- 0.5B
Input impedance:	20 KOhm
Volume control steps	1.25 dB
Volume control range	-56dB .. 0dB
Balance control steps	0.6 dB
Balance control range	-6dB..0dB...6dB
Accuracy of volume/balance readings	2% (0.2 dB)
Output load:	50 Kohm typical

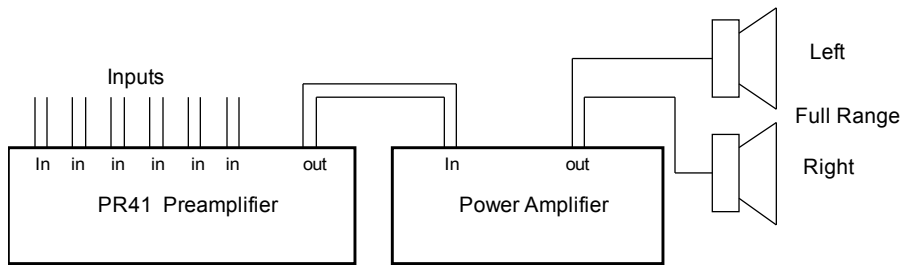


Figure 1 Typical Sound System

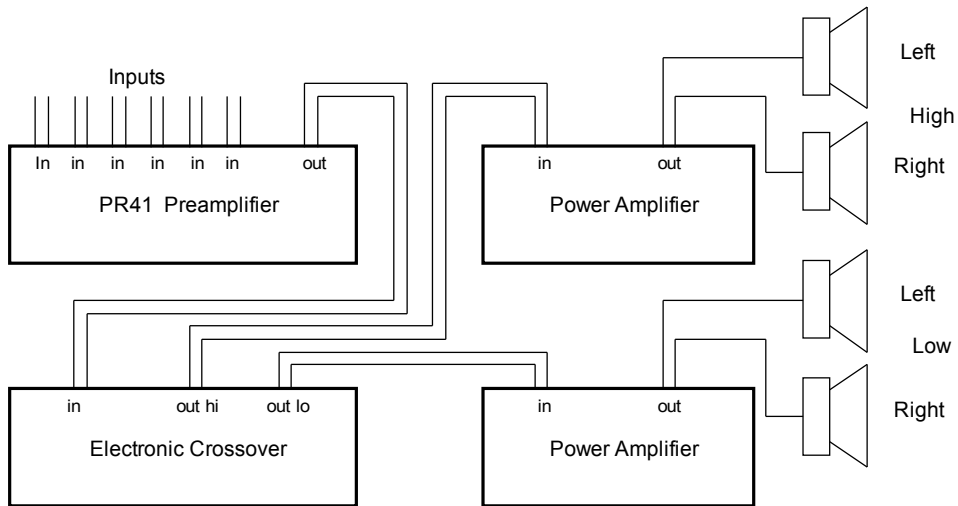


Figure 2 Sound System with Electronic Crossover Network

Assembly Instructions for the PR41-KK Kit.

Introduction.

The assembly of the PR41 passive preamplifier involves installing the three controls for channel selection, balance and volume on the front panel and the connectors for input and output on the rear panel and the wiring.

Before the controls for volume and balance can be installed they must each be assembled separately. Assembly instructions for these controls are given below. This is followed by the final assembly instructions.

Assembly of the Balance Control Attenuator.

The balance control attenuator is assembled by installing a circuit board onto the 23 position rotary switch. This rotary switch has two poles on a single wafer. See Figure 3.

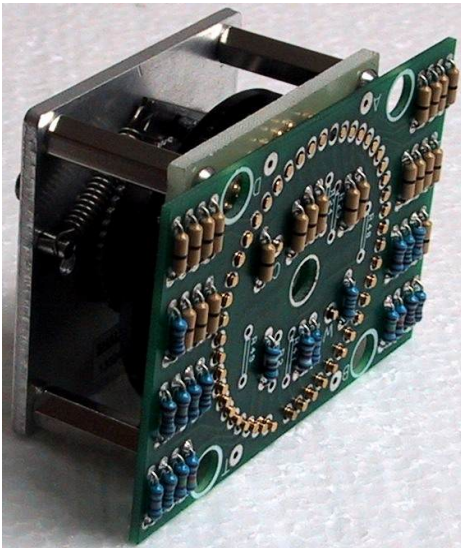


Figure 3. Balance control attenuator.

Assemble the circuit board for the balance control by using one of the 3 identical circuit boards and soldering the resistors and jumpers to the board as shown in Figure 4. Note that the components are placed on the side that has the lettering for the resistor locations (1-43). The values of the resistors are shown in the parts list for the balance control above. The leads of the resistors and jumpers, on the solder side, should not be bent over against the circuit board, but should be left sticking out straight and then soldered and cut. This will make it possible

to remove and replace a resistor after the completion of the attenuator. If the leads are bent on the solder side it will be very hard to replace a component without damaging the circuit board.

After assembly the circuit board should be cleaned in order to remove all residue from the solder. Several solvents can be used for this. Isopropyl alcohol works well. It is available in most drug stores. Check the board for solder bridges and cold joints. It will be impossible to see the solder side of the board after assembly onto the switch.

Now check the total resistance of the resistor string using a DVM. For the left channel hold the leads of the DVM at point T and D on the circuit board. For the right channel hold the leads of the DVM at point A and 47 on the circuit board. The nominal resistance is 14.22K. The resistance reading should be between 13.5K and 15.0K. If this reading is correct proceed to mount the circuit board onto the rotary switch.

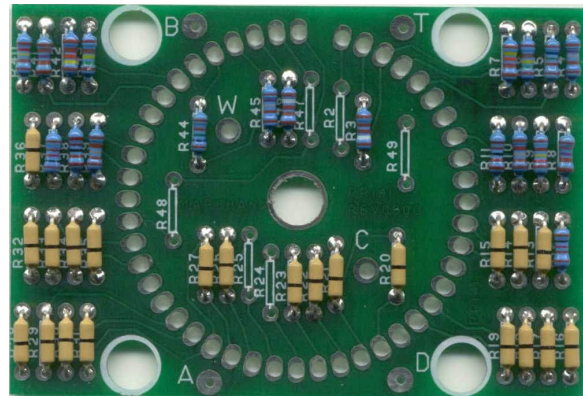


Figure 4. Balance control circuit board.

Mount the circuit board to the rotary switch by placing the circuit board onto the rear of the switch so that the terminal pins of the switch align with the holes on the board. Two orientations are possible, and both are correct. Push the circuit board down onto the pins far enough so that they just stick out on the component side, but not all the way down. The pins should stick out just enough to make it possible to solder them, about 0.050". Now solder all the pins. The assembly of the Balance control attenuator is now complete.

Assembly of the Volume Control Attenuator.

The volume control attenuator is assembled by installing a circuit board onto the 46 position rotary switch. This rotary switch has two poles and two wafers. See Figure 6.

The two volume control circuit are assembled the same way as described above for the balance control. Assemble the circuit boards for the volume control by using the remaining two of the 3 identical circuit boards and soldering the resistors to the board as shown in Figure 5. Note that the components are placed on the side that has the lettering for the resistor locations (1-43). The values of the resistors are shown in the parts list for the volume control above.

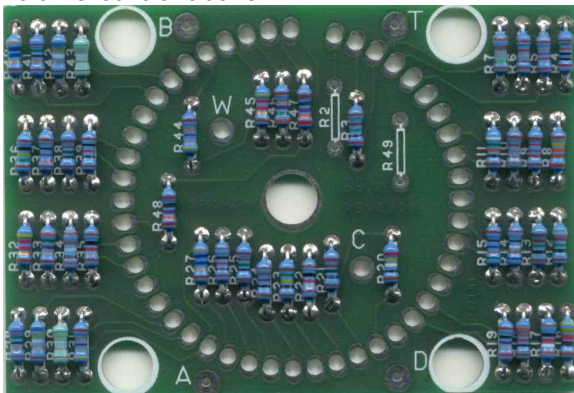


Figure 5. Volume control circuit board.

After assembly the circuit board should be cleaned in order to remove all residue from the solder. Several solvents can be used for this. Isopropyl alcohol works well. It is available in most drug stores. Check the board for solder bridges and cold joints. It will be impossible to see the solder side of the board after assembly onto the switch.

Now check the total resistance of the resistor string using a DVM. Hold the leads of the DVM at point T and B (note that there are two pads marked B; use the one near R43) on the circuit board. The nominal resistance is 20.0K. The resistance reading should be between 19K and 21K. If this reading is correct proceed to mount the circuit board onto the rotary switch.

In order to mount the circuit boards to the rotary switch it must be partially disassembled. Carefully note the procedure for taking the switch apart; this will help when putting the switch back together. Loosen the rotor of the outside wafer from the control-shaft by removing the cotter pin and loosening the two setscrews. Now remove the four machine screws that hold the outside wafer. Carefully remove the wafer and the rotor from the switch. Be careful not to loose the switch contacts

that are mounted onto the rotor, as they will fall out of the rotor.

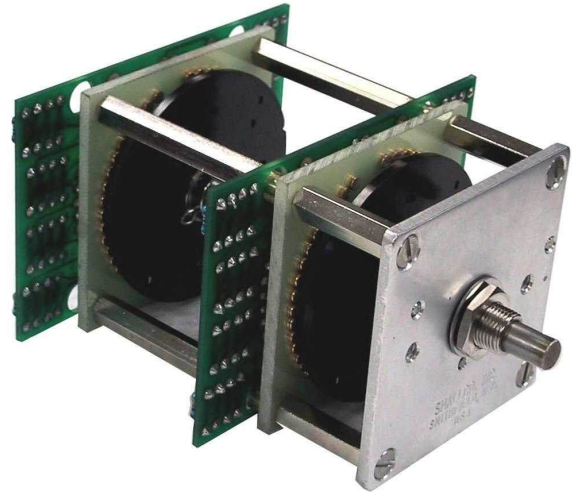


Figure 6. Volume control attenuator.

Now mount one of the two volume control circuit boards onto the inner switch wafer. It can only go on one way. Push the circuit board down onto the pins far enough so that they just stick out on the component side, but not all the way down. The pins should stick out just enough to make it possible to solder them, about 0.050". Now solder all the pins.

Now put the parts that were removed from the switch in the previous step back together. Make sure the orientation of both rotors and the position of the switch contacts are the same. Install the cotter pin, tighten the two setscrews and install the switch wafer with the 4 machinescrews. Check the operation of the switch.

Now install the second volume control circuit board onto the rear of the switch.

The assembly of the volume control attenuator is now complete.

Assembly of the cabinet.

Mount the three components on the front panel as shown in Figure 7.(1) the 6 position selector switch, (2) the balance control attenuator and (3) the volume control attenuator. Use the fiber washers and lock washers supplied with the switches. All washers should be installed on the inside, behind the front panel. Fasten the nuts on the switches securely. All three nuts on the switches should be tightened hard.

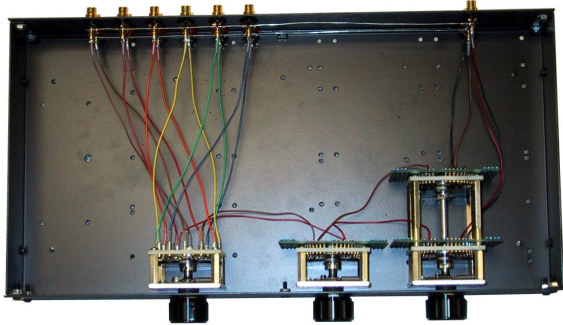


Figure 7. PR41 inside view.

Now install the 14 gold plated RCA connectors for the signal inputs and outputs on the rear panel of the cabinet. See Figure 8 for details on the installation of the connectors. Use black washers for the left channel and red washers for the right channel.

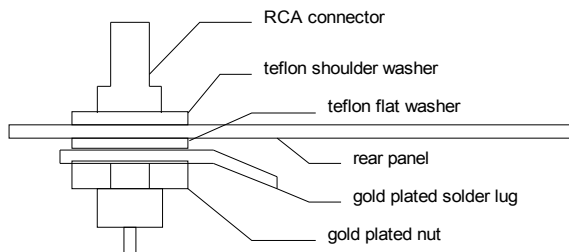


Figure 8. RCA connector mounting cross section

Wiring Instructions.

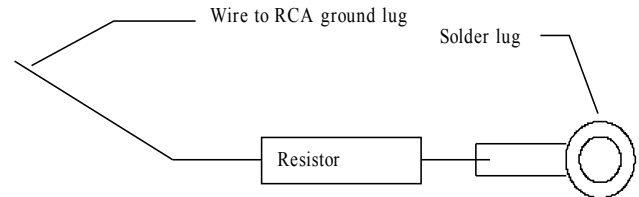
Refer to Figure 11 when wiring the switches and connectors. First connect the ground lugs of all 7 left and right channel connectors on the rear panel together using bare hookup wire. Note that the left channel ground is not connected to the right channel ground. Wire the center pins of the input connectors to the terminals of the 6 position selector switch as shown in the wiring diagram. Using the colors as indicated on the wiring diagram will make troubleshooting easier, but this is not essential from a functional point of view. After attaching the wire to each connector place a 1" length of clear heat shrink tubing over the connection. Also place a 1" length of heat shrink tubing over each wire before soldering it to the switch and place it over the switch terminal after soldering.

Now hook the center pins of the output connectors to the terminals marked W on the volume control attenuator.

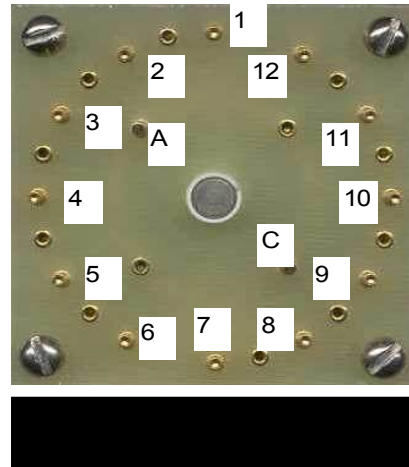
The heat shrink tubing can now be heated using a heat gun or by holding a soldering iron near it. Now finish wiring between the three front panel switches, as shown in Figure 11.

Install a the black wire between the points marked B (see note **) of the volume control attenuator and the ground lug of the output connector.

Prepare a **grounding assembly** as shown below using a piece of wire, the 2.4K power resistor and a solder lug. Install the solder lug under one of the nuts on the rear panel and connect the wire to the ground lug of one of the output RCA connectors.



The wiring is now complete.



Final steps.

Install the knobs to the front panel switches and fasten with the two setscrews in each knob.

Install the top cover using four 6/32 x1/4" black phillips head machine screws.

The assembly is now complete.

PR41 Resistor Identification 20Kohm model (standard)

Volume control

Balance Control

ID	Value	Description	ID	Value	Description
R1	not used		R1	not used	
R2	not used		R2	not used	
R3	2.00K	1% ,1/4W, Metal Film	R3	1.87K	1% ,1/4W, Metal Film
R4	2.00K	1% ,1/4W, Metal Film	R4	1.87K	1% ,1/4W, Metal Film
R5	1.87K	1% ,1/4W, Metal Film	R5	1.50K	1% ,1/4W, Metal Film
R6	1.87K	1% ,1/4W, Metal Film	R6	1.50K	1% ,1/4W, Metal Film
R7	1.50K	1% ,1/4W, Metal Film	R7	1.37K	1% ,1/4W, Metal Film
R8	1.50K	1% ,1/4W, Metal Film	R8	1.37K	1% ,1/4W, Metal Film
R9	1.18K	1% ,1/4W, Metal Film	R9	1.18K	1% ,1/4W, Metal Film
R10	1.18K	1% ,1/4W, Metal Film	R10	1.18K	1% ,1/4W, Metal Film
R11	909 Ohm	1% ,1/4W, Metal Film	R11	1.02K	1% ,1/4W, Metal Film
R12	909Ohm	1% ,1/4W, Metal Film	R12	1.02K	1% ,1/4W, Metal Film
R13	649 Ohm	1% ,1/4W, Metal Film	R13	jumper	
R14	649 Ohm	1% ,1/4W, Metal Film	R14	jumper	
R15	487Ohm	1% ,1/4W, Metal Film	R15	jumper	
R16	487Ohm	1% ,1/4W, Metal Film	R16	jumper	
R17	332 Ohm	1% ,1/4W, Metal Film	R17	jumper	
R18	332 Ohm	1% ,1/4W, Metal Film	R18	jumper	
R19	249 Ohm	1% ,1/4W, Metal Film	R19	jumper	
R20	249 Ohm	1% ,1/4W, Metal Film	R20	jumper	
R21	191 Ohm	1% ,1/4W, Metal Film	R21	jumper	
R22	191 Ohm	1% ,1/4W, Metal Film	R22	jumper	
R23	154 Ohm	1% ,1/4W, Metal Film	R23	jumper	
R24	154 Ohm	1% ,1/4W, Metal Film	R24	not used	
R25	102 Ohm	1% ,1/4W, Metal Film	R25	not used	
R26	102 Ohm	1% ,1/4W, Metal Film	R26	jumper	
R27	75.0 Ohm	1% ,1/4W, Metal Film	R27	jumper	
R28	75.0 Ohm	1% ,1/4W, Metal Film	R28	jumper	
R29	64.9 Ohm	1% ,1/4W, Metal Film	R29	jumper	
R30	64.9 Ohm	1% ,1/4W, Metal Film	R30	jumper	
R31	42.2 Ohm	1% ,1/4W, Metal Film	R31	jumper	
R32	42.2 Ohm	1% ,1/4W, Metal Film	R32	jumper	
R33	32.4 Ohm	1% ,1/4W, Metal Film	R33	jumper	
R34	32.4 Ohm	1% ,1/4W, Metal Film	R34	jumper	
R35	191 Ohm	1% ,1/4W, Metal Film	R35	jumper	
R36	191 Ohm	1% ,1/4W, Metal Film	R36	jumper	
R37	154 Ohm	1% ,1/4W, Metal Film	R37	1.02K	1% ,1/4W, Metal Film
R38	154 Ohm	1% ,1/4W, Metal Film	R38	1.02K	1% ,1/4W, Metal Film
R39	102 Ohm	1% ,1/4W, Metal Film	R39	1.18K	1% ,1/4W, Metal Film
R40	102 Ohm	1% ,1/4W, Metal Film	R40	1.18K	1% ,1/4W, Metal Film
R41	75.0 Ohm	1% ,1/4W, Metal Film	R41	1.37K	1% ,1/4W, Metal Film
R42	75.0 Ohm	1% ,1/4W, Metal Film	R42	1.37K	1% ,1/4W, Metal Film
R43	64.9 Ohm	1% ,1/4W, Metal Film	R43	1.50K	1% ,1/4W, Metal Film
R44	64.9 Ohm	1% ,1/4W, Metal Film	R44	1.50K	1% ,1/4W, Metal Film
R45	42.2 Ohm	1% ,1/4W, Metal Film	R45	1.87K	1% ,1/4W, Metal Film
R46	42.2 Ohm	1% ,1/4W, Metal Film	R46	1.87K	1% ,1/4W, Metal Film
R47	237 Ohm	1% ,1/4W, Metal Film	R47	not used	
R48	237 Ohm	1% ,1/4W, Metal Film			

PR41 Parts List 20Kohm model (standard)

Resistors

Volume Control

4	2.00K	1% ,1/4W, Metal Film	1
4	1.87K	1% ,1/4W, Metal Film	1
4	1.50K	1% ,1/4W, Metal Film	1
4	1.18K	1% ,1/4W, Metal Film	1
4	909 Ohm	1% ,1/4W, Metal Film	4
4	649Ohm	1% ,1/4W, Metal Film	4
4	487Ohm	1% ,1/4W, Metal Film	5
4	332 Ohm	1% ,1/4W, Metal Film	9
4	249 Ohm	1% ,1/4W, Metal Film	7
8	191Ohm	1% ,1/4W, Metal Film	7
8	154 Ohm	1% ,1/4W, Metal Film	1
8	102 Ohm	1% ,1/4W, Metal Film	
8	75.0 Ohm	1% ,1/4W, Metal Film	1
8	64.9 Ohm	1% ,1/4W, Metal Film	
8	42.2 Ohm	1% ,1/4W, Metal Film	1
4	32.4 Ohm	1% ,1/4W, Metal Film	
4	237 Ohm	1% ,1/4W, Metal Film	3

Balance Control

22	Zero Ohm Jumper		4'
4	1.02K	1% ,1/4W, Metal Film	8'
4	1.18K	1% ,1/4W, Metal Film	8'
4	1.37K	1% ,1/4W, Metal Film	4'
4	1.50K	1% ,1/4W, Metal Film	4'
4	1.87K	1% ,1/4W, Metal Film	4'

Grounding

1	2400 Ohm, 1W grounding assembly		1
---	---------------------------------	--	---

Mechanical

1	Cabinet Base
1	Front Panel
1	Rear Panel
1	Cabinet Top
4	Rubber feet
4	6/32 x 1/2" Macine screws
5	6/32 x 1/2" Buttonhead screws, black
9	6/32 x 1/4" Machine screws, black
7	RCA connector, RED
7	RCA Connector, BLACK
1	Rotary Switch, 1x2Pole, 6Position 13394-5
1	Rotary Switch, 1x2Pole 23Position 13394-2
1	Rotary Switch, 2x1Pole 46Position 13394-1
3	fiber washer 3/8"
3	PR41 Circuit board
3	Knob, Black
4'	Hookup Wire, Black
8'	Hookup Wire, Brown
8'	Hookup Wire, Red
4'	Hookup Wire, Orange
4'	Hookup Wire, Yellow
4'	Hookup Wire, Green
4'	Hookup Wire, Blue
4'	Hookup Wire, Bare
3	Heat Shrink Tubing
1	Allen wrench, 0.050"

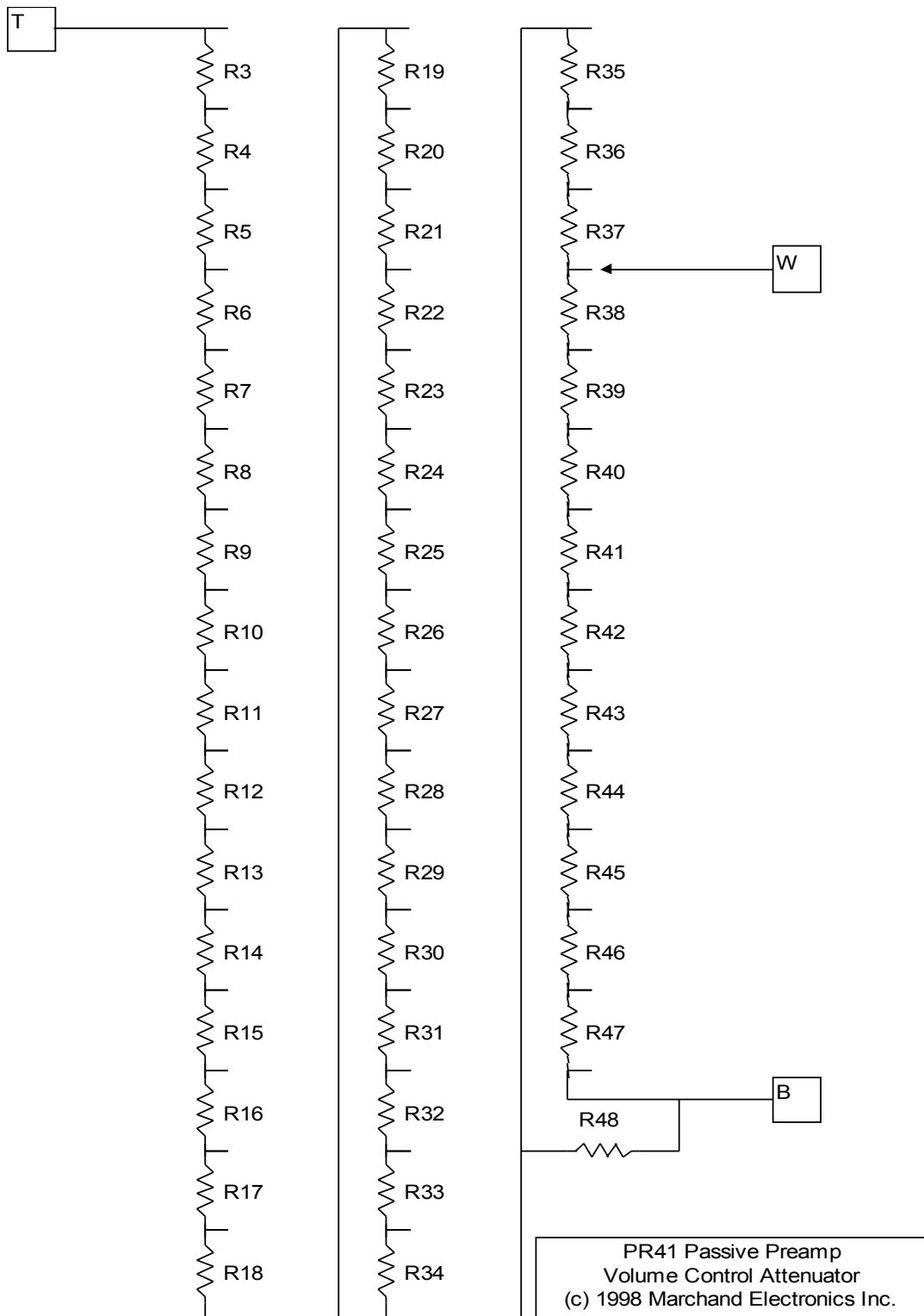
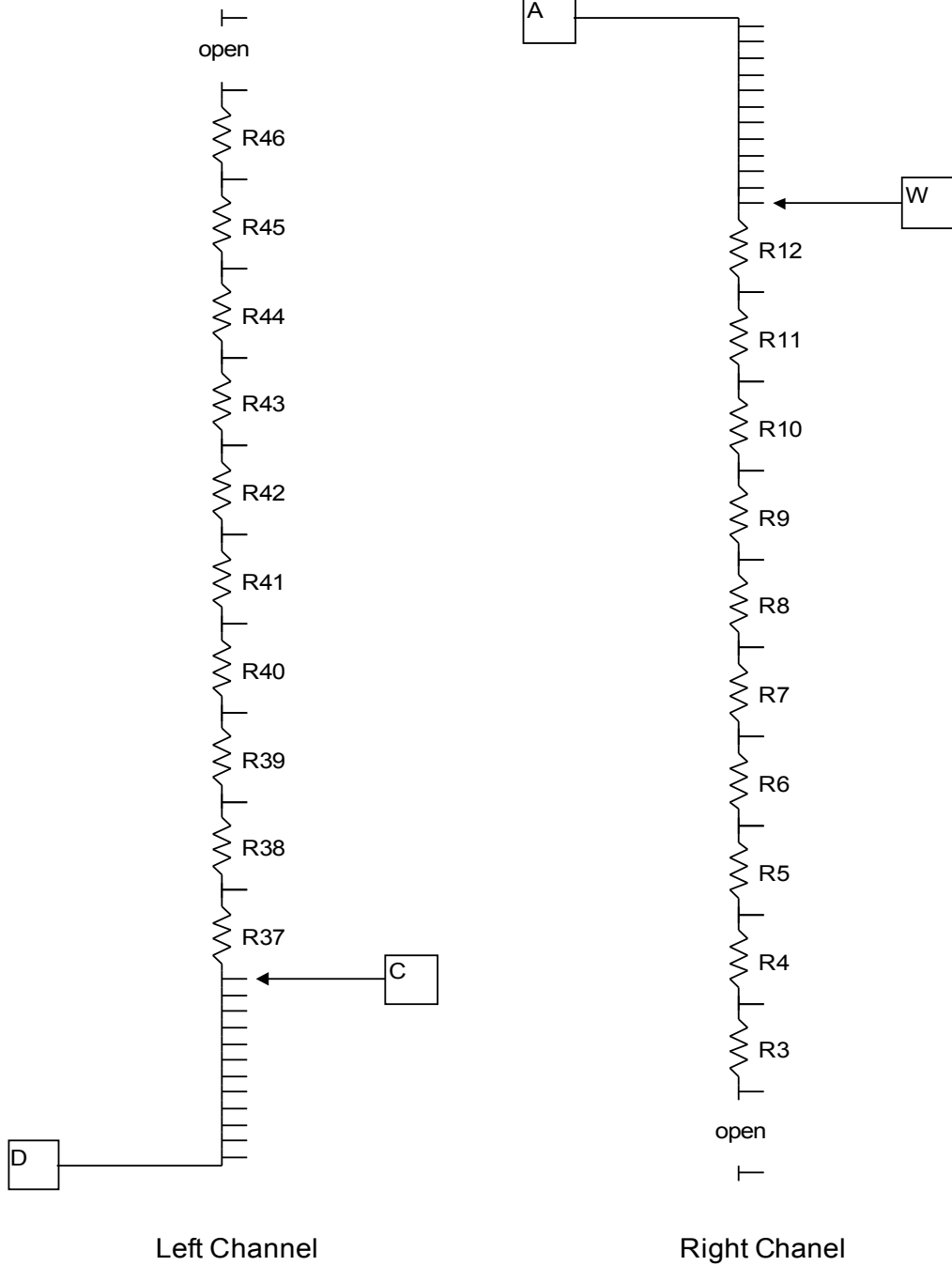
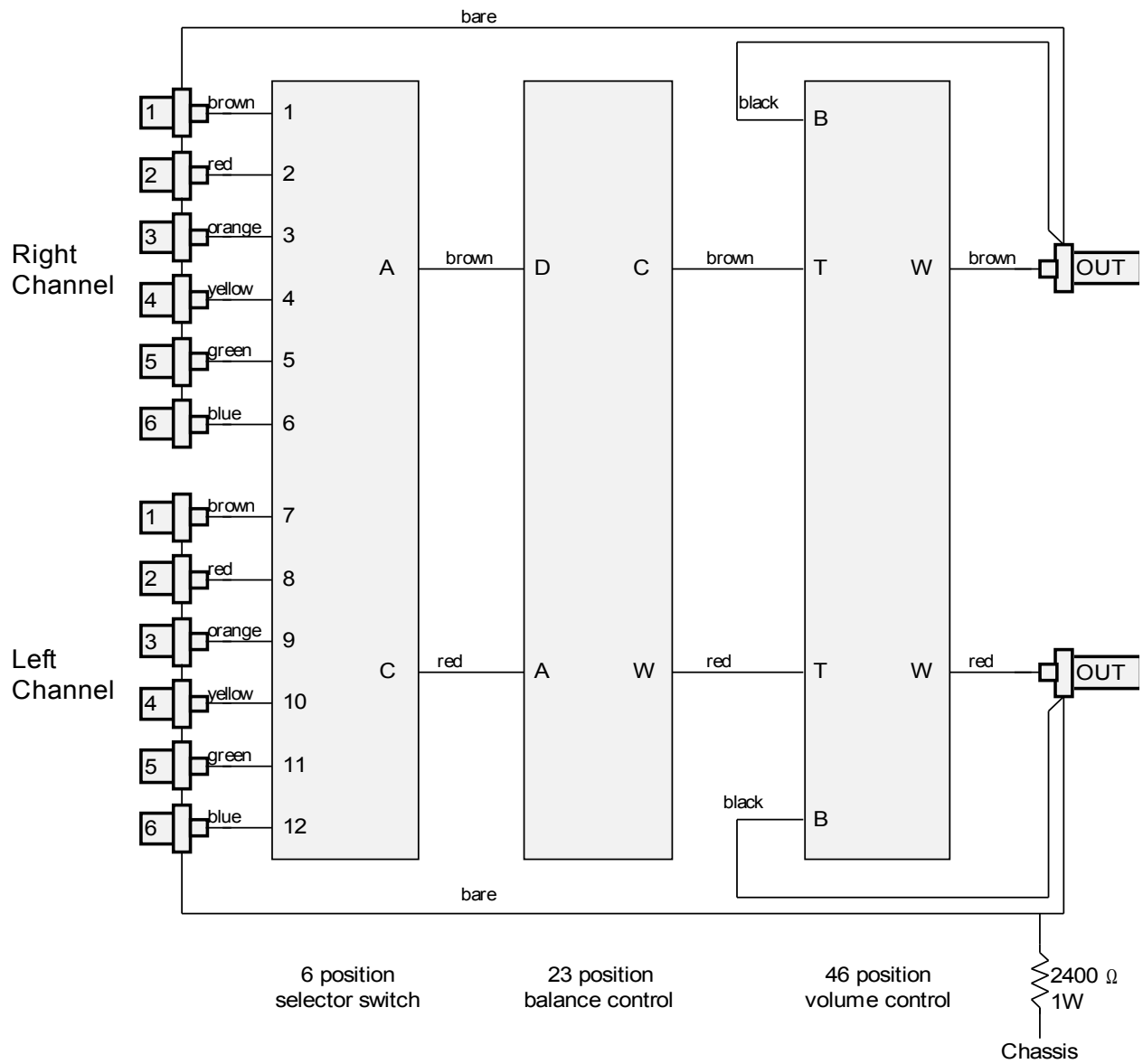


Figure 9



PR41 Passive Preamp
 Balance Control
 (c) 1998 Marchand Electronics Inc.

Figure 10



PR41 Passive Preamp
 Wiring Diagram
 (c) 1998 Marchand Electronics Inc.

Figure 11

PR41 Resistor Identification 10Kohm model (custom)

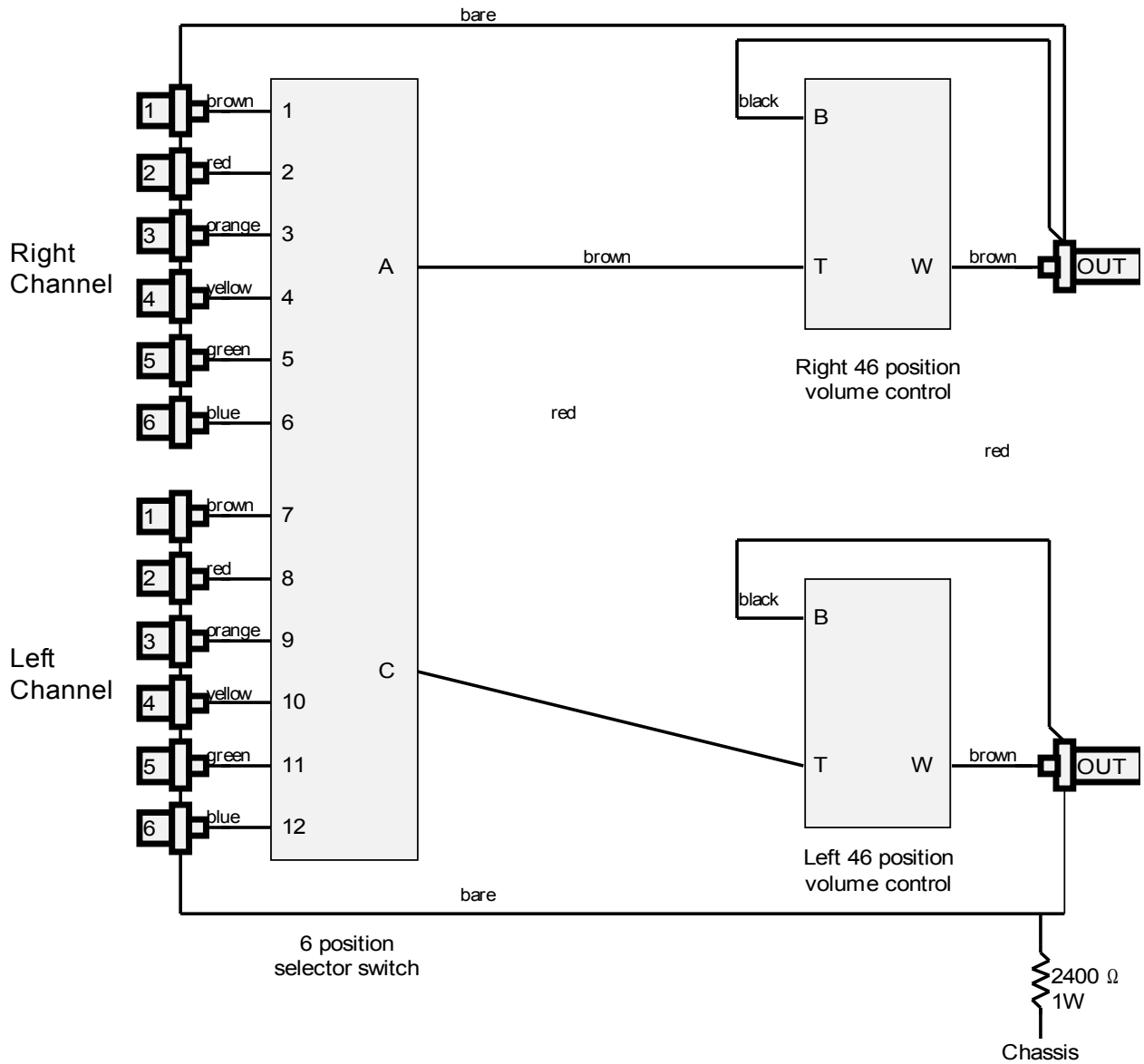
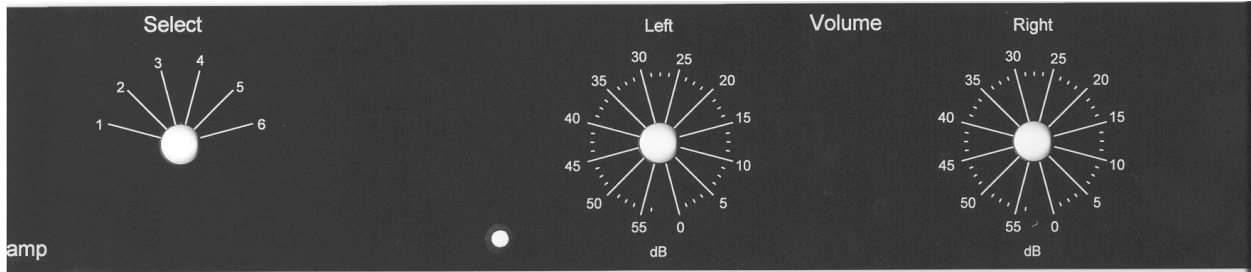
Volume control			Balance Control		
ID	Value	Description	ID	Value	Description
R1	not used		R1	not used	
R2	not used		R2	not used	
R3	1.18K	1% ,1/4W, Metal Film	R3	953 Ohm	1% ,1/4W, Metal Film
R4	1.18K	1% ,1/4W, Metal Film	R4	953 Ohm	1% ,1/4W, Metal Film
R5	931 Ohm	1% ,1/4W, Metal Film	R5	806 Ohm	1% ,1/4W, Metal Film
R6	931 Ohm	1% ,1/4W, Metal Film	R6	806 Ohm	1% ,1/4W, Metal Film
R7	715 Ohm	1% ,1/4W, Metal Film	R7	698 Ohm	1% ,1/4W, Metal Film
R8	715 Ohm	1% ,1/4W, Metal Film	R8	698 Ohm	1% ,1/4W, Metal Film
R9	549 Ohm	1% ,1/4W, Metal Film	R9	619 Ohm	1% ,1/4W, Metal Film
R10	549 Ohm	1% ,1/4W, Metal Film	R10	619 Ohm	1% ,1/4W, Metal Film
R11	412 Ohm	1% ,1/4W, Metal Film	R11	536 Ohm	1% ,1/4W, Metal Film
R12	412 Ohm	1% ,1/4W, Metal Film	R12	536 Ohm	1% ,1/4W, Metal Film
R13	309 Ohm	1% ,1/4W, Metal Film	R13	jumper	
R14	309 Ohm	1% ,1/4W, Metal Film	R14	jumper	
R15	226 Ohm	1% ,1/4W, Metal Film	R15	jumper	
R16	226 Ohm	1% ,1/4W, Metal Film	R16	jumper	
R17	169 Ohm	1% ,1/4W, Metal Film	R17	jumper	
R18	169 Ohm	1% ,1/4W, Metal Film	R18	jumper	
R19	127 Ohm	1% ,1/4W, Metal Film	R19	jumper	
R20	127 Ohm	1% ,1/4W, Metal Film	R20	jumper	
R21	95.3 Ohm	1% ,1/4W, Metal Film	R21	jumper	
R22	95.3 Ohm	1% ,1/4W, Metal Film	R22	jumper	
R23	71.5 Ohm	1% ,1/4W, Metal Film	R23	jumper	
R24	71.5 Ohm	1% ,1/4W, Metal Film	R24	not used	
R25	53.6 Ohm	1% ,1/4W, Metal Film	R25	not used	
R26	53.6 Ohm	1% ,1/4W, Metal Film	R26	jumper	
R27	40.2 Ohm	1% ,1/4W, Metal Film	R27	jumper	
R28	40.2 Ohm	1% ,1/4W, Metal Film	R28	jumper	
R29	30.1 Ohm	1% ,1/4W, Metal Film	R29	jumper	
R30	30.1 Ohm	1% ,1/4W, Metal Film	R30	jumper	
R31	22.1 Ohm	1% ,1/4W, Metal Film	R31	jumper	
R32	22.1 Ohm	1% ,1/4W, Metal Film	R32	jumper	
R33	16.9 Ohm	1% ,1/4W, Metal Film	R33	jumper	
R34	16.9 Ohm	1% ,1/4W, Metal Film	R34	jumper	
R35	127 Ohm	1% ,1/4W, Metal Film	R35	jumper	
R36	127 Ohm	1% ,1/4W, Metal Film	R36	jumper	
R37	95.3 Ohm	1% ,1/4W, Metal Film	R37	536 Ohm	1% ,1/4W, Metal Film
R38	95.3 Ohm	1% ,1/4W, Metal Film	R38	536 Ohm	1% ,1/4W, Metal Film
R39	71.5 Ohm	1% ,1/4W, Metal Film	R39	619 Ohm	1% ,1/4W, Metal Film
R40	71.5 Ohm	1% ,1/4W, Metal Film	R40	619 Ohm	1% ,1/4W, Metal Film
R41	53.6 Ohm	1% ,1/4W, Metal Film	R41	698 Ohm	1% ,1/4W, Metal Film
R42	53.6 Ohm	1% ,1/4W, Metal Film	R42	698 Ohm	1% ,1/4W, Metal Film
R43	40.2 Ohm	1% ,1/4W, Metal Film	R43	806 Ohm	1% ,1/4W, Metal Film
R44	40.2 Ohm	1% ,1/4W, Metal Film	R44	806 Ohm	1% ,1/4W, Metal Film
R45	30.1 Ohm	1% ,1/4W, Metal Film	R45	953 Ohm	1% ,1/4W, Metal Film
R46	30.1 Ohm	1% ,1/4W, Metal Film	R46	953 Ohm	1% ,1/4W, Metal Film
R47	182 Ohm	1% ,1/4W, Metal Film	R47	not used	
R48	115 Ohm	1% ,1/4W, Metal Film	R48	not used	

PR41 Resistor Identification 50Kohm
model (vishay)

Volume control

ID	Value	Description
R1	not used	
R2	not used	
R3	6K04	1% ,1/4W, Metal Film
R4	6K04	1% ,1/4W, Metal Film
R5	4K64	1% ,1/4W, Metal Film
R6	4K64	1% ,1/4W, Metal Film
R7	3K65	1% ,1/4W, Metal Film
R8	3K65	1% ,1/4W, Metal Film
R9	2K74	1% ,1/4W, Metal Film
R10	2K74	1% ,1/4W, Metal Film
R11	2K00	1% ,1/4W, Metal Film
R12	2K00	1% ,1/4W, Metal Film
R13	1K50	1% ,1/4W, Metal Film
R14	1K50	1% ,1/4W, Metal Film
R15	1K10	1% ,1/4W, Metal Film
R16	1K10	1% ,1/4W, Metal Film
R17	825 Ohm	1% ,1/4W, Metal Film
R18	825Ohm	1% ,1/4W, Metal Film
R19	681 Ohm	1% ,1/4W, Metal Film
R20	681 Ohm	1% ,1/4W, Metal Film
R21	475 Ohm	1% ,1/4W, Metal Film
R22	475 Ohm	1% ,1/4W, Metal Film
R23	348 Ohm	1% ,1/4W, Metal Film
R24	348 Ohm	1% ,1/4W, Metal Film
R25	261 Ohm	1% ,1/4W, Metal Film
R26	261 Ohm	1% ,1/4W, Metal Film
R27	200 Ohm	1% ,1/4W, Metal Film
R28	200 Ohm	1% ,1/4W, Metal Film
R29	150 Ohm	1% ,1/4W, Metal Film
R30	150 Ohm	1% ,1/4W, Metal Film
R31	100 Ohm	1% ,1/4W, Metal Film
R32	100 Ohm	1% ,1/4W, Metal Film
R33	82.5 Ohm	1% ,1/4W, Metal Film
R34	82.5 Ohm	1% ,1/4W, Metal Film
R35	475 Ohm	1% ,1/4W, Metal Film
R36	475 Ohm	1% ,1/4W, Metal Film
R37	348 Ohm	1% ,1/4W, Metal Film
R38	348 Ohm	1% ,1/4W, Metal Film
R39	261 Ohm	1% ,1/4W, Metal Film
R40	261 Ohm	1% ,1/4W, Metal Film
R41	200 Ohm	1% ,1/4W, Metal Film
R42	200 Ohm	1% ,1/4W, Metal Film
R43	150 Ohm	1% ,1/4W, Metal Film
R44	150 Ohm	1% ,1/4W, Metal Film
R45	100 Ohm	1% ,1/4W, Metal Film
R46	100 Ohm	1% ,1/4W, Metal Film
R47	681 Ohm	1% ,1/4W, Metal Film
R48	681 Ohm	1% ,1/4W, Metal Film

Dual Mono Version



PR41 Passive Preamp
Wiring Diagram
(c) 2000 Marchand Electronics Inc.

Instructions for the Balanced option.

Introduction.

The balanced option has XLR connectors instead of the RCA connectors. Because each XLR connector has two signal lines there are double the number of attenuators and switches. The dual volume and balance controls are replaced with a quad volume controls. The selector switch is also a quad unit. The assembly of the balanced unit is essentially the same as for the unbalanced unit, except for the use of XLR connectors and the doubling up of the wiring.

Wiring

The wiring diagram is shown in Figure 12. This diagram shows the wiring for a single channel (left or right) Both channels are wired the same.

Selector Switch.

The selector switch is a two-deck rotary switch. Otherwise it is the same as the selector switch

for the unbalanced version. Use one deck for the left channel and the other for the right channel.

Attenuator.

Use the 2 channels of the 4-channel attenuator for the left and the other two for the right channel.

Balance control.

Use the D and C terminals of the balance control for the right channel and the A and W terminals for the left channel.

PR41 Parts List for Balanced model

Resistors

Volume Control

Double the number for each value as shown for unbalanced unit

Balance Control

Double the number for each value as shown for unbalanced unit

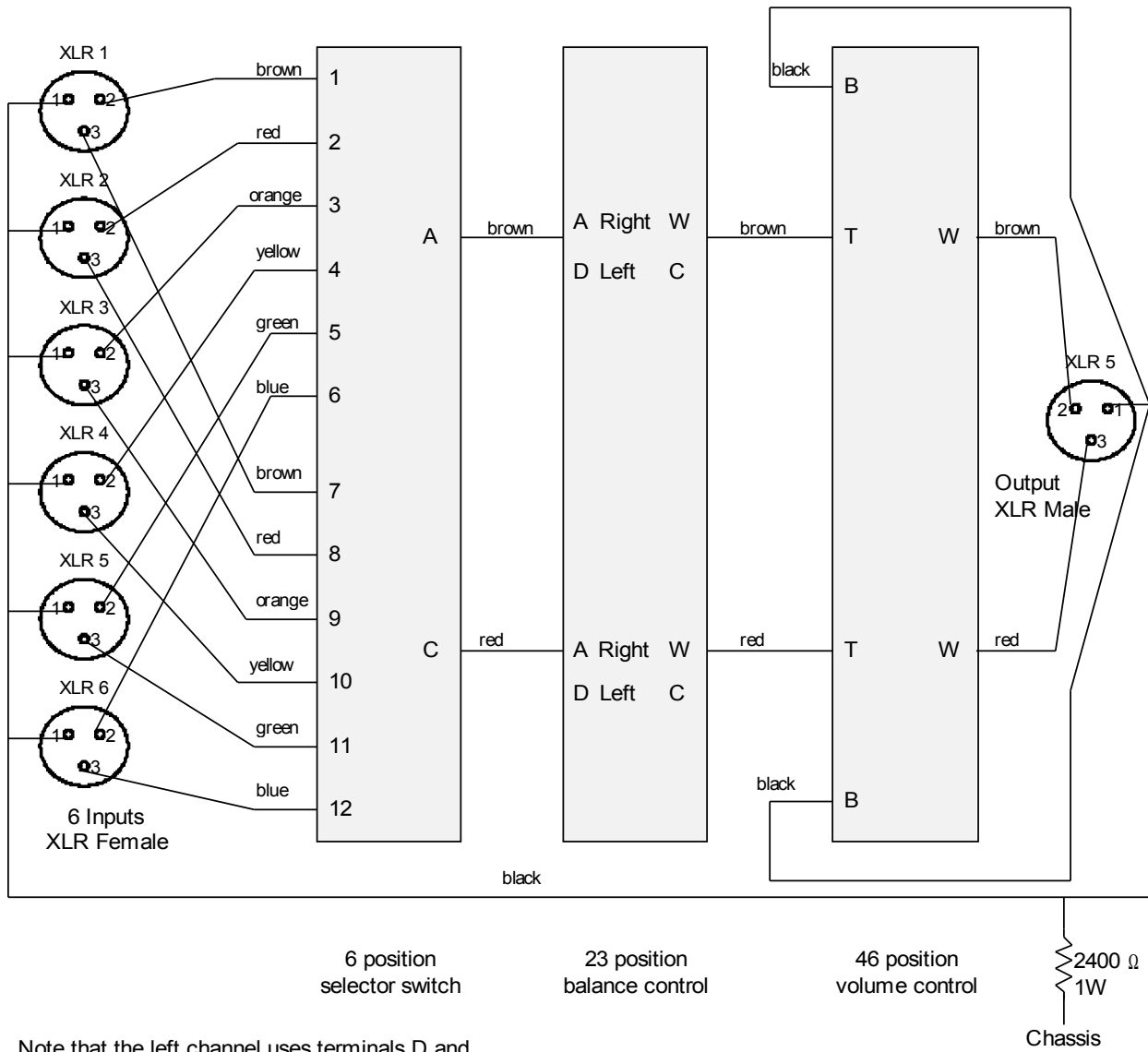
8'	Hookup Wire, Black
16'	Hookup Wire, Brown
16'	Hookup Wire, Red
8'	Hookup Wire, Orange
8'	Hookup Wire, Yellow
8'	Hookup Wire, Green
8'	Hookup Wire, Blue
8'	Hookup Wire, Bare
6'	Heat Shrink Tubing

Grounding

2 2400 Ohm, 1W grounding assembly

Mechanical

1 Cabinet Base
1 Front Panel
1 Rear Panel
1 Cabinet Top
14 6/32 x 1/4" Machine Screws, black
10 6/32 locknut
28 4/40 x 1/2" Machine Screws
28 4/40 locknut
2 XLR connector, Male
12 XLR Connector, Female
7 Modified plastic flat washers
1 Rotary Switch, 4Pole, 6Position
1 Rotary Switch, 2Pole 23Position
1 Rotary Switch, 4Pole 46Position
6 PR41 Circuit board
3 Knob, Black



Note that the left channel uses terminals D and C of the balance control switch and the right channel uses terminals A and W

PR41 Passive Preamp
 Wiring Diagram, balanced
 Left or right channel
 (c) 1998 Marchand Electronics Inc.

Figure 12 Wiring diagram for the balanced version.