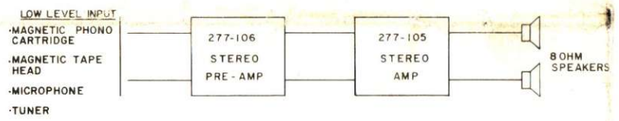
ARCHER® **CATALOG NUMBER 277-106**

project-board T.M.

STEREO PREAMPLIFIER

This PROJECT BOARD is designed for use with the STEREO POWER AMPLIFIER (Radio Shack Cat. No. 277-105). It can be used to improve the quality of an inexpensive stereo system equipped with a ceramic cartridge by permitting the substitution of a magnetic cartridge phonograph. Equalization is provided for TAPE (NAB) at 3 3/4 IPS, PHONO (RIAA), TUNER or MICROPHONE. The Stereo Pre-amp features a wide power supply range——12 volts to —24 volts.

TYPICAL APPLICATION



This package contains a complete printed circuit board ready for parts to be added. To construct this project, you'll need the following parts:

PARTS LIST

SYMBOL	DESCRIPTION	QUANTITY	RADIO SHACK CAT. NO.
C1, C7	50μF/16V Electrolytic Capacitor	2	272-954
C2, C8	0.001μF Disc Capacitor	2	272-126
C3, C9	0.01μF Mylar Capacitor (PC)	2	272-1065
C4, C5, C10, C11	0.022μF Mylar Capacitor (PC)	4	272-1066
C6, C12	5μF/16V Electrolytic Capacitor	2	272-1001
C13	1000μF/35V Electrolytic Capacitor	1	272-1032
CR1	1A/50PIV Diode	1	276-1135
F1	¼A Slo-Blo Fuse	1	270-1288
IC	Dual Preamplifier	1	276-1729
R1, R5	33Ω½W Resistor	2	271-018
R2, R4, R6, R8	2.2K ½W Resistor	4	271-009
R3, R7	3.3K ½W Resistor	2	271-028
S1	DPDT Switch (neutral center)	1	275-1545
S2	ON/OFF Switch (SPST)	1	275-324
T1	12V/300mA Transformer	1	273-1385
	*Cabinet (Chassis)	1	270-252
	Fuse Holder	1	270-364
	Quad Phono Jack	1	274-322
	2 Lug Tie Down Terminal Strip	1	274-685
	Power Cord	1	278-1255
	Single Conductor Shielded Microphone Cable	1	278-1277
	#22 Hookup Wire		278-1307

*This is a suggested case to use for this Project.

STEREO PREAMPLIFIER ASSEMBLY INSTRUCTIONS

WARNING: The transformer will have 120 volts across the primary; therefore, it is very important that you insulate the complete Project properly.

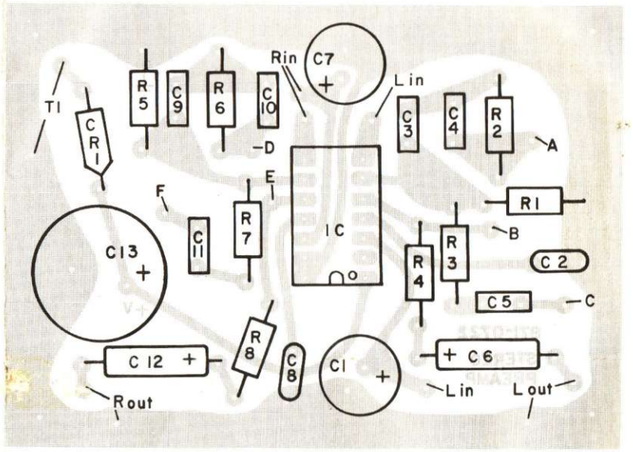
P. C. BOARD

NOTE: Solder all leads on copper side of P.C. Board and clip excess wire as you perform each step:

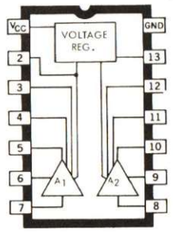
1. Mount 33Ω½W resistors R1 and R5.
2. Mount 2.2K ½W resistors R2, R4, R6 and R8.
3. Mount 3.3K ½W resistors R3 and R7.
4. Mount 1A/50PIV diode CR1. Be careful to mount it in the proper direction as shown on the P.C. Board.
5. Install the integrated circuit (IC). Be sure to mount it correctly. The "notch" at one end should correspond to the "notch" as shown on the P.C. Board. DO NOT TOUCH THE PINS. Carefully solder the pins and tabs on the copper side of the P.C. Board. Clip excess wire.
6. Mount 0.001μF capacitors C2 and C8.
7. Mount 0.01μF capacitors C3 and C9.
8. Mount 0.022μF capacitors C4, C5, C10 and C11.

NOTE: When mounting the electrolytic capacitors, be sure to observe polarity as indicated on the capacitors and on the P.C. Board.

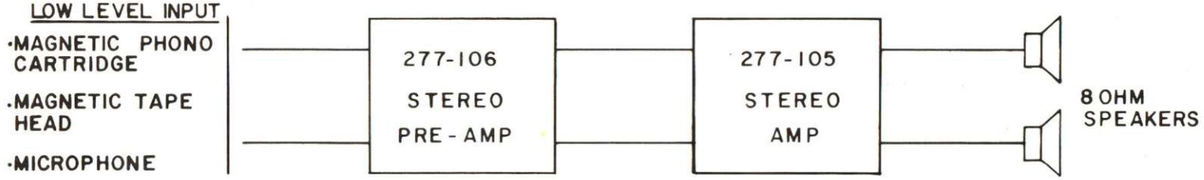
9. Mount 50μF/16V electrolytic capacitors C1 and C7.
10. Mount 5μF/16V electrolytic capacitors C6 and C12.
11. Mount 1000μF/35V electrolytic capacitor C13.



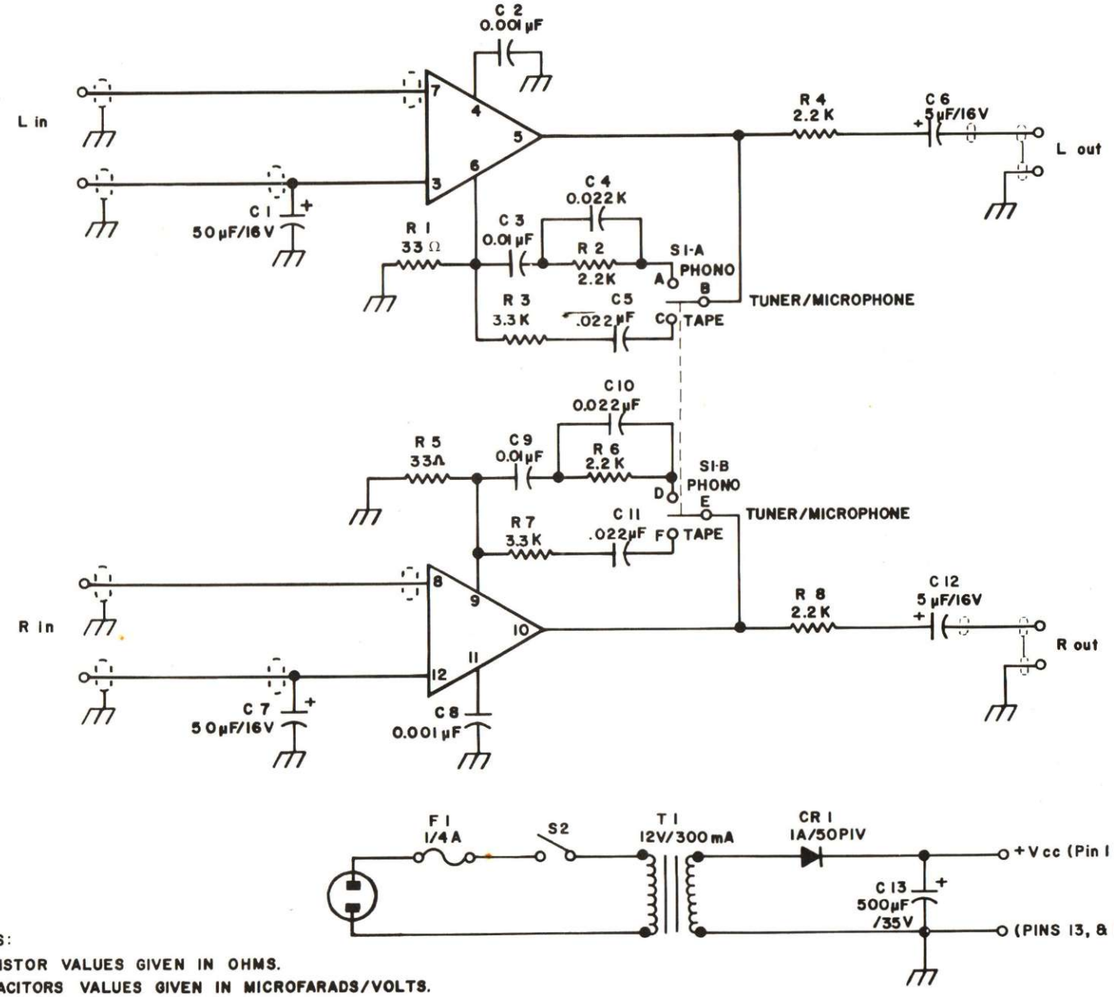
DUAL PREAMPLIFIER (ULN-2126A)



TYPICAL APPLICATION

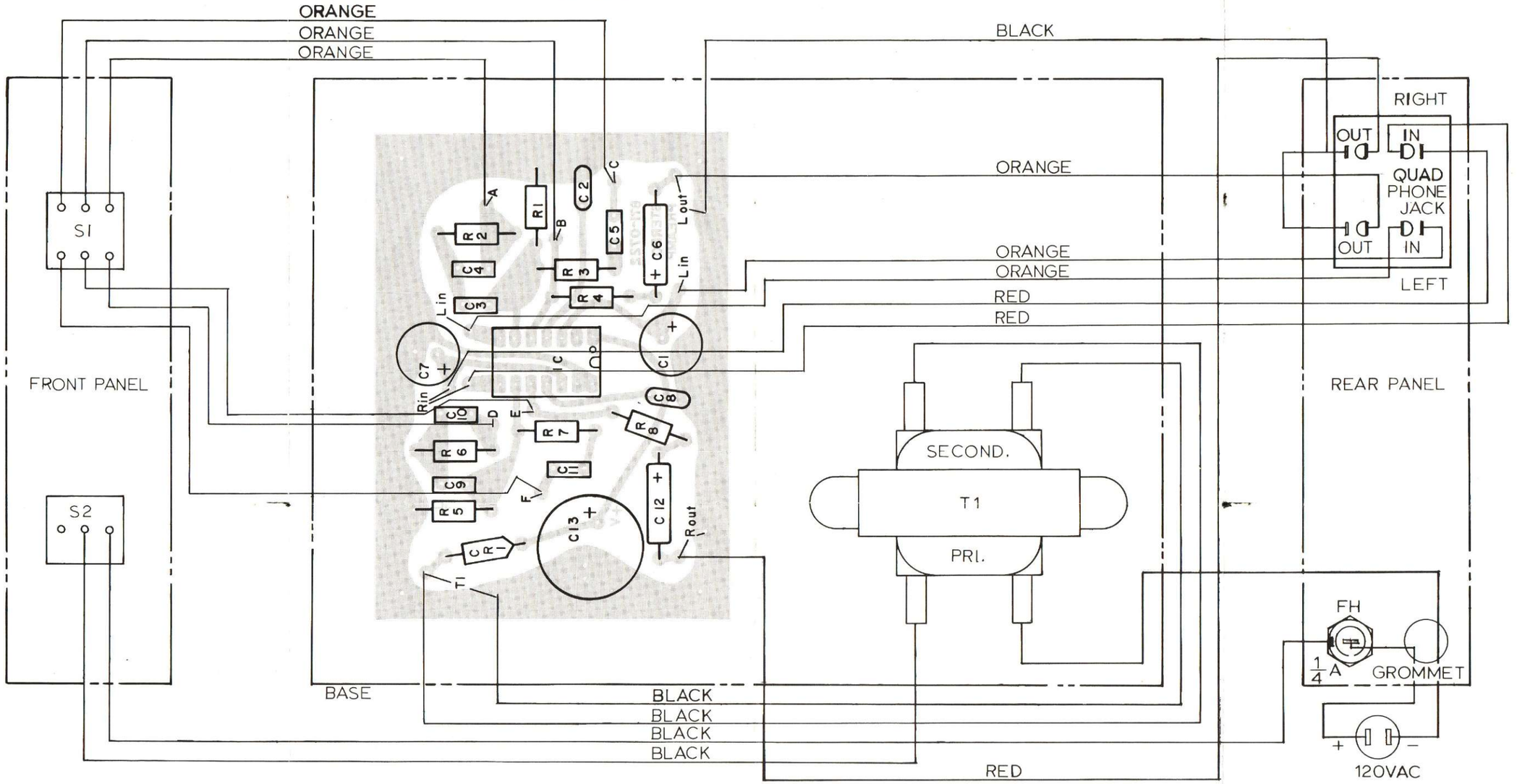


IT IS RECOMMENDED THAT YOU USE SHIELDED CABLE ON THE INPUT WIRING TO MINIMIZE NOISE AND HUM PICK-UP.



NOTES:
1. RESISTOR VALUES GIVEN IN OHMS.
2. CAPACITORS VALUES GIVEN IN MICROFARADS/VOLTS.
3. ALL RESISTORS 1/2 W.
4. ALL CAPACITORS P.C.-MOUNT TYPES.
5. IC = PA-239(2126A),(276-1729)
6. IC PIN 2 NOT USED.

THE INTERCONNECTION DIAGRAM IS BASED ON THE USE OF THE CHASSIS LISTED IN THE PARTS LIST.



INTERCONNECTION DIAGRAM
I.C.STEREO PREAMPLIFIER

NOTES:

1. One end of all wire shield (Single Conductor Shielded Microphone Cable) must be connected to a common ground.
2. The length of hookup wire between components and the P.C. Board will depend on the style of cabinet (chassis) you select and the placement of the components thereon.
3. Wire colors are optional.
4. It is recommended that you use shielded cable on the input and the output wiring to minimize noise and hum pick up.
5. The transformer wires from the primary should be twisted together as well as those from the secondary.

* Grommet—Radio Shack Cat. No. 64-3025.

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