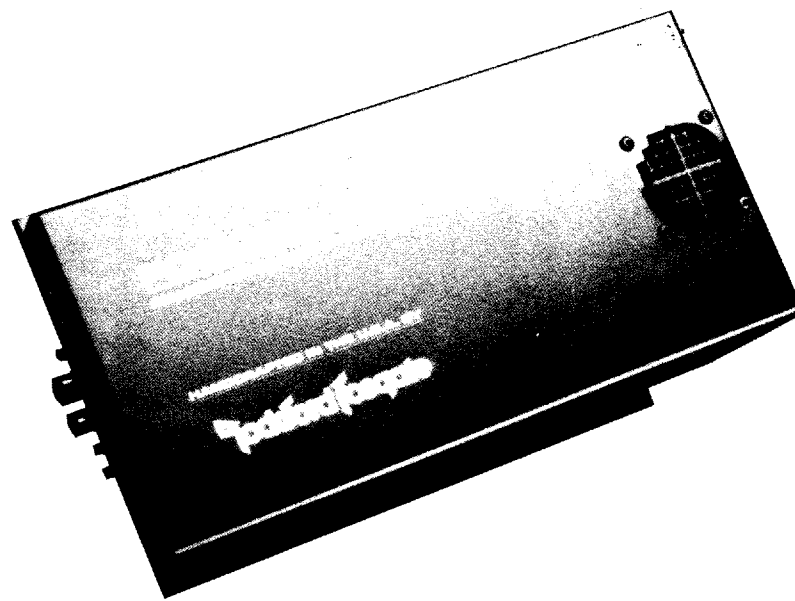
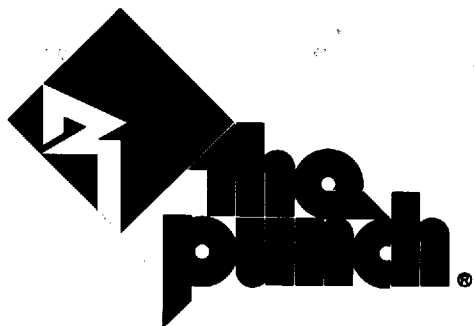


POWER 300 MOSFET AMPLIFIER



Rockford Fosgate

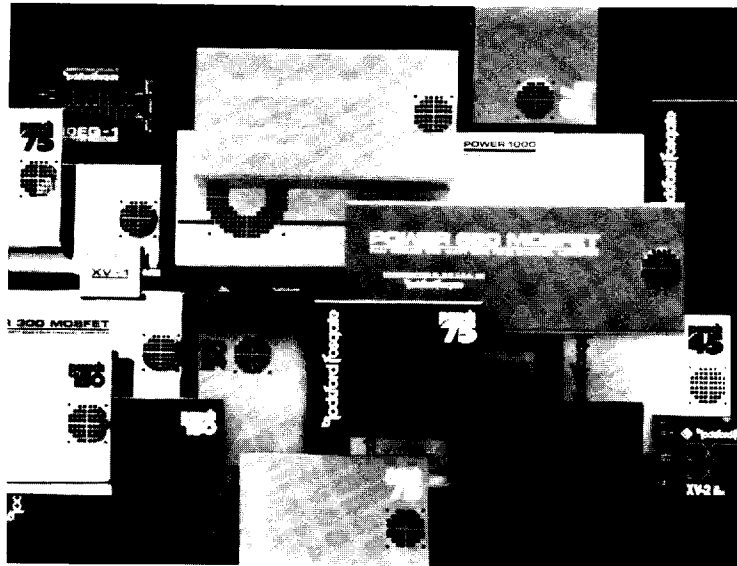
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TABLE OF CONTENTS

Introduction	Page 1
System Flexibility	Page 2
Amplifier Bridging	Page 2
Punch Equalizer	Page 3
Input Connections	Page 3
Input Level Controls	Page 4
Power Connections	Page 4
Ground Connection	Page 5
Input Mode Switch	Page 5
Block Diagram	Page 6
Turn On Connection	Page 7
Speaker Connections	Page 7
Speaker Wire	Page 7
Speaker Impedance	Page 8
Bridging Mode	Page 8
Speaker Fusing	Page 8
Passive Crossover Impedance	Page 9
Speaker Power Ratings	Page 9
6 dB/Octave Crossover Values	Page 10
12 dB/Octave Crossover Values	Page 11
Piezoelectric Tweeters	Page 12
Battery and Charging	Page 12
Using the Crossovers	Page 13
Module Location Diagram	Page 13
Crossover Settings	Page 14
Crossover Response Curves	Page 15
Crossover Modules	Page 16
Warranty	Page 17
Power 300 Specifications	Page 18
Bi-amplified Mode Wiring Diagram	Page 19
Bi-amplified Stereo Diagram	Page 20
Bi-amplified Stereo Bridged Mono Woofer Diagram	Page 21
Dual Stereo Diagram	Page 22
Bridged Stereo Diagram	Page 23
Bridged Mono Bi-amplified Diagram	Page 24

INTRODUCTION

The Rockford Power 300 is an automotive stereo power amplifier which will provide state-of-the-art sound in cars, vans, boats, or wherever a 9 to 16 Volt battery is available.

The Power 300 adjustable input circuits are designed to match almost any music source, from low preamp levels to speaker levels, with negligible noise. The amplifiers will drive all normal speaker types, impedances, and configurations.

Two rotary potentiometers control bass and treble equalization circuits specially designed to compensate for the response errors present in most mobile installations. Unlike conventional tone controls, the Punch equalization corrects the specific problems of poor low bass response and high frequency rolloff. The result is full-range sound without excessive boost in areas where it is not needed.

Internal fusing in the Power 300 amplifier prevents damage due to shorts, system power problems, or internal failures. The Power 300 incorporates internal battery line filtering and extensive noise prevention circuitry.

The Power 300 amplifier should be **PROFESSIONALLY INSTALLED**. The length and nature of your warranty are dramatically affected if you attempt to install it yourself (see Warranty).

This is because professional installers are experienced with making your car sound right the first time. They make their installation durable because they don't want continuing problems and complaints—their reputations are valuable.

SYSTEM FLEXIBILITY

A combination of module selectable crossovers and four bridgeable channels in the Power 300 MOSFET provide unmatched system flexibility with simple wiring changes. Some of the possibilities are:

Bi-amplified Stereo - A pair of channels drives mid and high frequency speakers; another pair drives the woofers. The crossovers are set to separate the input frequencies into high and low frequencies for each speaker system.

Bi-amplified Stereo with Bridged Mono Woofer - Otherwise similar to the Bi-amplified Stereo system above, this arrangement bridges the two low channels into a single woofer.

Bridged Stereo - Each pair of channels on the Left and Right sides is bridged into a full-range speaker system. The crossover switches are pushed to flat.

Bridged Mono Bi-amplified - This configuration produces full power into one mono channel. The high-frequency channel pair is bridged into a mid-tweeter speaker system and the low-frequency channel pair is bridged into a woofer. The crossovers are set to separate woofer and midrange frequencies.

Dual Stereo - With the crossovers set to "Flat", the power amp will act as two separate stereo amplifiers, one channel pair for rear full range speakers, one for front full range speakers. If only one set of speakers can handle bass frequencies, the high crossover can be set to cut off the front speakers' low frequency drive.

All of these system configurations are obtained with simple wiring variations; there are no special "black boxes" to buy and the system may be modified at any time.

AMPLIFIER BRIDGING

Operating an amplifier in the "bridged" or "strapped mono" mode means driving one speaker or speaker system with two amplifier channels. Each channel will put out full power into its half of the speaker load, so the system can drive the speaker with double the power that a single amplifier channel would be capable of.

When amplifiers are bridged into a single speaker, each amplifier "sees" half the total speaker impedance.

New Rockford Fosgate amplifiers are designed so that connecting the amplifier for bridged mode is a simple matter of using the correct speaker leads as shown in the appropriate system diagram. In these amplifiers, one channel of each pair is inverted in the amplifier. In normal stereo use, the inverted channel output is connected to the negative lead of its speaker load, thus preserving the system's polarity. In the bridged mode, the inverted channel is connected to the negative lead of the speaker to be bridged, and the positive lead is connected to the non-inverted channel. This provides the out-of-phase drives required for bridged operation.

The Power 300 MOSFET is designed so that the four amplifier sections can be bridged in several ways. Right and Left High-Frequency channels can be bridged, Right Low and Left Low-Frequency channels can be bridged, Right High and Right Low channels can be bridged together, and Left Low and Left High channels can be bridged. These combinations allow an unmatched flexibility in designing stereo, bi-amplified, or hybrid bridged systems.

PUNCH EQUALIZER

The Punch equalizer incorporates unique, patented circuitry which is specifically designed to overcome the problems commonly found in mobile speaker installations. The design minimizes the unpleasant changes in midrange sound produced by most tone control and equalizer circuits.

INPUT CONNECTIONS (RCA PIN JACKS)

The amplifier's signal input female pin jacks should be connected to the source unit's signal outputs.

If the source unit has "RCA" pin jack outputs, connect the Power 300 to the source with an "RCA" adapter cable. In some cases, system noise rejection will be improved by using high-quality braided-shield or double-shielded interconnecting cables.

When the source unit does not have pin jack outputs, wire the left signal output to the black center conductor of an adapter cable; the right signal output to the red conductor, and the ground to the shield lines, or use Rockford adapter cable No. AS-524.

Some higher-powered source units employ "bridged" output circuits ("BTL" outputs). Units with bridged outputs are normally rated at 15 to 25 Watts output by the manufacturer. To connect this type of unit to a Power 300 amplifier, the speaker positive (+) wires should go to the adapter cable center conductors, but the cable shield ground must be connected to the source chassis, NOT the speaker negative (-) wires.

Be sure to route the Power 300 signal input cable away from the White power wire and the car's wiring harnesses, to avoid noise coupling.

Pre-assembled interconnector adapters are available from Rockford Corporation for a wide variety of source units.

NOTE: In most Pioneer pre-amp output units, and some others, the audio shield ground is not at the source chassis common. For these units, connect the shield lines to both the audio shield and the chassis common.

INPUT LEVEL CONTROLS

The Power 300 input level controls are accessible with a jeweler's screwdriver through four holes in the cover. The controls are factory-present to a level which matches most 500 millivolt to 1 Volt rated preamp-output source units. If you are using the amp in bridged stereo or bi-amp stereo adjust only the controls labeled 2-channel / 4-channel front. If you are using a fader before the amplifier then adjust all four channels.

If you are using the speaker-output leads of the source unit, turn the Power 300 input controls fully counterclockwise to their minimum gain position.

If the volume control of the source is "touchy" and/or noisy - that is, if just a little volume from the source drives the amplifier into distortion - reduce the Power 300 input gain controls so that the distortion doesn't start until the source volume is at about 3/4 of its rotation.

If maximum volume from the source won't drive the Power 300 into distortion, increase the Power 300 input gain controls until distortion starts at about 3/4 volume.

POWER CONNECTION (WHITE 12-GAUGE WIRE)

The White wire must be connected directly to the positive terminal of the battery to provide a power source with a low voltage drop and low noise. If the power is connected to any other point (the fuse block, for instance) the amplifier's power output will be reduced and oscillations and noise may distort the sound. If the power wire must be extended, use only 12-gauge or larger wire and make a good splice.

It is best to use as short a wire run as possible. DO NOT run the power wire next to the input cabling to the amplifier; it will induce noise.

Avoid running the White power wire near the radio's antenna or power leads, or near sensitive equipment or harnesses. The White power wire carries substantial currents and could induce noise.

The White wire is provided with an in-line 35 ampere circuit breaker. Do not use a larger circuit breaker or the amplifier will not be adequately protected, and you risk damage to your car's electrical system.

GROUND CONNECTION (BLACK 12-GAUGE WIRE)

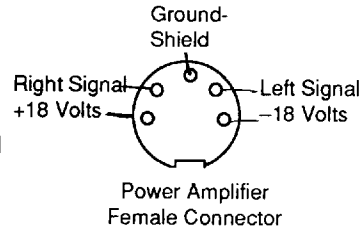
The ground wire must be connected directly to the car chassis, near the amplifier. Ground loops are aggravated by the length of the ground wire or any resistance in the ground path. For this reason we don't recommend extending the ground wire in any installation.

The ground point in the car should be a piece of chassis metal that is welded to the main body of the car. Painted surfaces should be scraped or sanded clean before the ground lug is bolted down. (Cover the bare-metal area with paint or grease to prevent rust.)

DIN CONNECTOR

The 5-pin DIN connector is used to connect the POWER 300 to a preamplifier that requires ± 18 Volts to operate. Run the cable for the preamp away from the main power wire (white 10-gauge) to prevent noise from being coupled into the cable. Cable color code and pin configuration are given below:

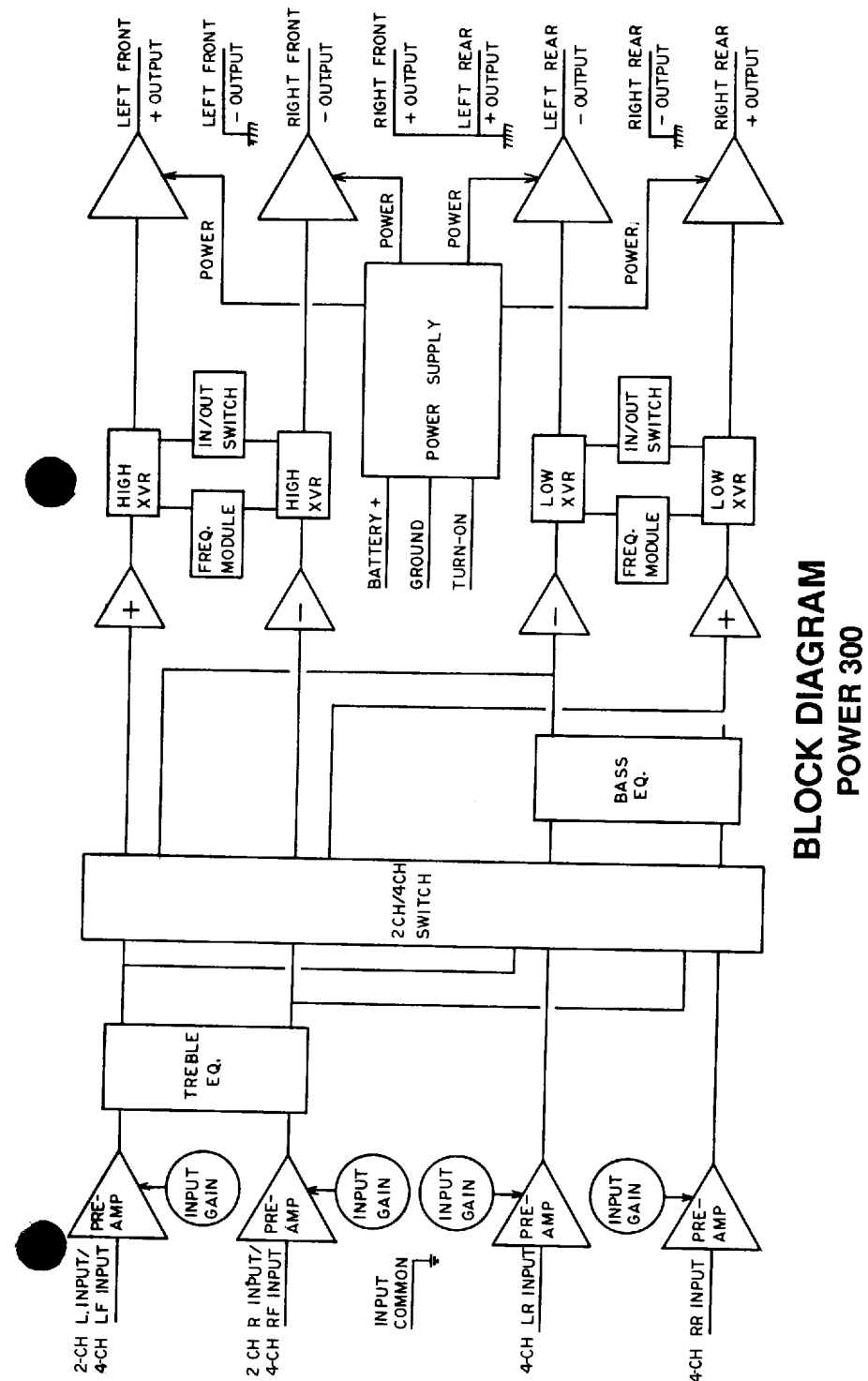
SHIELD	Ground
RED	+18 Volts
BLACK	-18 Volts
WHITE	Right Channel Signal
GREEN	Left Channel Signal



INPUT MODE SWITCH

The input of the Power 300 normally comes from the "pigtail" RCA connectors of the DIN connector and is split by the crossovers into high and low channel drives. However, there are some cases where it is desirable to be able to drive the low channels independently. For instance, if one wanted to drive the system as two completely independent stereo amplifiers, one would need to drive the high channel with one stereo pair, and the low channel with another.

The 2-channel / 4-channel switch (located near the bass equalizer control on the amplifier front panel) switches the low channel inputs over to the board mount RCA connectors. The low-frequency crossover remains in the circuit and can be used as usual. To use the amplifier with 4-channel inputs push the switch in.



**BLOCK DIAGRAM
POWER 300**

TURN-ON CONNECTION (RED WIRE FROM 6-PIN CONNECTOR)

The Power 300 is turned on by applying positive 12 Volts to the red wire. Usually, the red wire is connected to the source unit's "Accessory" or "Auto-Antenna" lead, either of which will go positive when the source is turned on.

Although the majority of high-quality automotive source units have an Accessory or Auto-Antenna output, there are many which may require different turn-on methods. If the source has no Auto-Antenna lead (or if Auto-Antenna goes down during tape operation):

- a) Find the internal switched power voltage inside the source unit and solder a lead to it. Run the lead out through the back of the unit (being sure to use a grommet for insulation from the case) and connect to the amplifier turn-on wire.
- b) Or: Install a switch in the car with one terminal connected to +12 Volts and the other to the Power 300 red lead.
- c) Or: Connect the Power 300 red lead to the accessory point at the car's fuse block. In this case the amplifier will be on whenever the car is on. This method will allow the amplifier to amplify any noise and turn-on and turn-off transients, and may therefore be unsatisfactory.

SPEAKER CONNECTIONS (WIRES FROM 9-PIN CONNECTOR)

Be certain to observe speaker terminal polarity throughout the system. It is critical for the Power 300 to use the correct negative leads for the right and left channels, since the right negative lead (brown) is the "hot" lead for the right speaker. DO NOT chassis ground any of the speaker+ leads. Unstable operation may result.

SPEAKER WIRE

We recommend that you always use substantial wire for speaker wiring harnesses. For short runs, 18-Gauge wire is the smallest we suggest; for runs over 6 feet, 16-Gauge should be used. Many users find that sound quality is improved by the use of specially-made heavy-duty speaker wiring from one of several manufacturers. The power 300 output harness uses short runs of 16-Gauge wire and should not reduce any benefits gained from specialized speaker wiring.

SPEAKER IMPEDANCE

The Power 300 is rated for operation into loads of 2-Ohms or greater in stereo operation.

The primary load on the amplifier comes from directly connected speakers (not isolated by capacitors), and the measured resistance for each side cannot be less than 1.8 Ohms. Single 4-Ohm woofers or parallel 4-Ohm pairs per side will form a high-performance system. The maximum direct load per side is a 4-Ohm speaker in parallel with a 4-Ohm speaker.

If the amplifier load drops below approximately 1.5 Ohms, the Power 300 amplifier will blow the internal fuses or overheat.

The heaviest load on the power amp normally comes from the woofers. In speaker systems where midrange speakers are isolated with crossover capacitors, only the woofers impedance usually needs to be considered.

BRIDING MODE

The Power 300 amplifier is capable of driving 4-Ohm or 8-Ohm speakers in a bridged stereo configuration to deliver full power into a single speaker. This is done by connecting the positive hot wire of one channel to the speaker's positive terminal and the negative wire of the other channel to its negative terminal details. See diagrams on pages 21, 23, and 24 for appropriate hookup. This capability can be used to run a single woofer in a stereo system, to run two bridged amplifiers as a high-power stereo system, to run one amplifier with a bridged mono woofer and another as a high-frequency stereo amp, and many other applications.

In any bridged application, DO NOT use speakers with less than 4-Ohms impedance.

SPEAKER FUSING

The Power 300 amplifier is supplied with in-line fuses for speaker protection. The Power 300 amplifier is fully protected internally against loading problems, and external fuses are not required for amplifier protection. However, speakers are not normally capable of continuous full-power operation and should be fused to prevent damage due to overheating.

The amplifier is provided with Type AGC (3AG) 5-ampere fuses. This fuse value was selected to provide adequate protection for most high-

power 4-Ohm speakers. If a light-duty speaker is found to fail frequently, a smaller fuse may be used for better protection. Always use fast-blow type fuses.

If the speaker fuses for the Power 300 are excessively large or are eliminated, the internal fuses will blow if the speaker shorts. Replace only with recommended fuse.

PASSIVE CROSSOVER IMPEDANCE

When passive crossover components are used in multiple-speaker systems, the crossover system's impedance must be considered along with the speaker's impedance in determining amplifier loading.

For 6dB per Octave systems (where a single capacitor in series is used for high-pass or single inductor (choke) in series is used for low-pass) the net impedance of the system will be increased and problems are un-

12dB per Octave systems (where both an inductor and a capacitor are used with each speaker) can cause trouble. A 12dB choke-capacitor pair forms a series-resonant circuit to ground whose impedance at resonance is determined by the speaker's dynamic impedance. For instance, if the speaker is open or disconnected, the crossover input impedance is theoretically ZERO at resonance—a direct short!

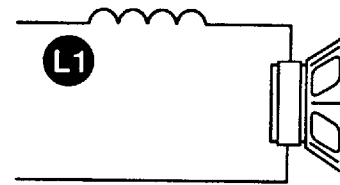
Since speaker impedance varies considerably from rated values at various frequencies, it is common to find that "standardized" 12dB per Octave crossovers (which are designed for pure resistor loads) have serious impedance dips near their crossover frequencies, possibly causing overheating and fuse-blowing in the amplifier.

We recommend that you be cautious in using 12dB/Octave crossover systems unless they are specifically designed to have minimal impedance variation for the speakers in use.

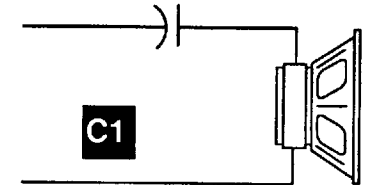
SPEAKER POWER RATINGS

The power rating required for speakers corresponds to the rated output of the amplifier:

A problem at high power levels is that some woofers which are rated to handle the power sometimes "pop", "clang", "snap", or otherwise show signs of bottoming. These speakers are designed to use the "air spring" of an enclosed box to prevent bottoming. This applies to almost all woofers originally designed for home or professional use. One solution is to use speakers designed for "infinite baffle" use, which have very stiff suspensions. The best solution is to build boxes for the woofers.



6 dB/Octave Low Pass



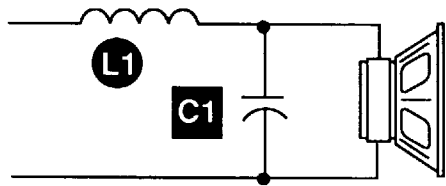
6 dB/Octave High Pass

Frequency Hertz	Speaker Impedance					
	2 OHMS		4 OHMS		8 OHMS	
	L	C	L	C	L	C
80	4.1mH	1000uF	8.2mH	500uF	16mH	250uF
100	3.1mH	800uF	6.2mH	400uF	12mH	200uF
130	2.4mH	600uF	4.7mH	300uF	10mH	150uF
200	1.6mH	400uF	3.3mH	200uF	6.8mH	100uF
260	1.2mH	300uF	2.4mH	150uF	4.7mH	75uF
400	.8mH	200uF	1.6mH	100uF	3.3mH	50uF
600	.5mH	136uF	1.0mH	68uF	2.0mH	33uF
800	.41mH	100uF	.82mH	50uF	1.6mH	25uF
1000	.31mH	78uF	.62mH	39uF	1.2mH	20uF
1200	.25mH	66uF	.51mH	33uF	1.0mH	16uF
1800	.16mH	44uF	.33mH	22uF	.68mH	10uF
4000	.08mH	20uF	.16mH	10uF	.33mH	5uF
6000	51uH	14uF	.10mH	6.8uF	.20mH	3.3uF
9000	34uH	9.5uF	68uH	4.7uF	.15mH	2.2uF
12000	25uH	6.6uF	51uH	3.3uF	100uH	1.6uF

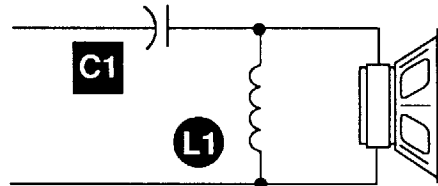
6 dB/Octave High and Low Pass Filters

Table of Component Values

PIEZOELECTRIC TWEETERS



12dB/Octave Low Pass



12dB/Octave High Pass

Frequency Hertz	Speaker Impedance					
	2 OHMS		4 OHMS		8 OHMS	
	L	C	L	C	L	C
80	5.6mH	700uF	11mH	330uF	22mH	180uF
100	4.5mH	550uF	9.1mH	270uF	18mH	150uF
130	3.5mH	470uF	6.8mH	200uF	15mH	100uF
200	2.3mH	330uF	4.7mH	150uF	9.1mH	75uF
260	1.7mH	220uF	3.6mH	100uF	6.8mH	50uF
400	1.1mH	140uF	2.2mH	68uF	4.7mH	33uF
600	.75mH	100uF	1.5mH	47uF	3.0mH	26uF
800	.56mH	68uF	1.0mH	33uF	2.0mH	15uF
1000	.45mH	55uF	.91mH	27uF	1.8mH	13uF
1200	.38mH	47uF	.75mH	22uF	1.5mH	11uF
1800	.25mH	33uF	.50mH	15uF	1.0mH	6.8uF
4000	.11mH	14uF	.22mH	6.8uF	.47mH	3.3uF
6000	75uH	10uF	.15mH	4.7uF	.33mH	2.2uF
9000	50uH	6uF	.10mH	3.3uF	.20mH	1.5uF
12000	38uH	4.7uF	75uH	2.2uF	.15mH	1.0uF

12 dB/Octave High and Low Pass Filters

Table of Component Values

Piezoelectric tweeters ("piezos") offer ruggedness, efficiency and extended frequency capability. They also often have a "rough" or "harsh" sound due to large response irregularities and distortion. They are usually a difficult load for an amplifier.

One characteristic of piezos is that they are a nearly pure capacitive load. This means that their impedance continuously decreases with increasing frequency. Unless some means is used to prevent this continuous decrease, a typical piezo tweeter's impedance falls to well under 1-Ohm within the bandwidth of the amplifier. This low capacitive impedance can upset the amplifier's compensation scheme and cause ultrasonic (inaudible) oscillations, overheating or damaging the amplifier.

A simple method of preventing problems is to be sure there is at least 6 feet of speaker lead between the amplifier and the piezo. All Power 300 amps are tested with piezo loads and 6 feet of lead, and they will have no problem.

Another method of taming the piezo is to insert a 1- to 10- Ohm-2 Watt resistor in series with one of its leads.

BATTERY AND CHARGING SYSTEM

High-powered amplifiers will naturally put an extra load on the battery and charging system. A Power 300 may draw up to 25-50 amperes average current.

Stock electrical systems in good condition will typically handle the extra load of an amplifier without problems, although battery and alternator life may be slightly reduced.

Some special situations will require greater attention to the electrical system:

1. If the sound system will be used often when the car is not running, the battery will obviously be discharged, perhaps enough to prevent restarting. The discharge/recharge cycle will reduce battery life, and alternator life will be shorter because of the high-current recharge requirements.

If problems arise:

- a) Use a premium battery of deep-discharge marine battery.
- b) Use a heavy duty alternator.
- c) Use a trickle-charge or battery charger.
- d) Install a second battery with a switching system for recharge.

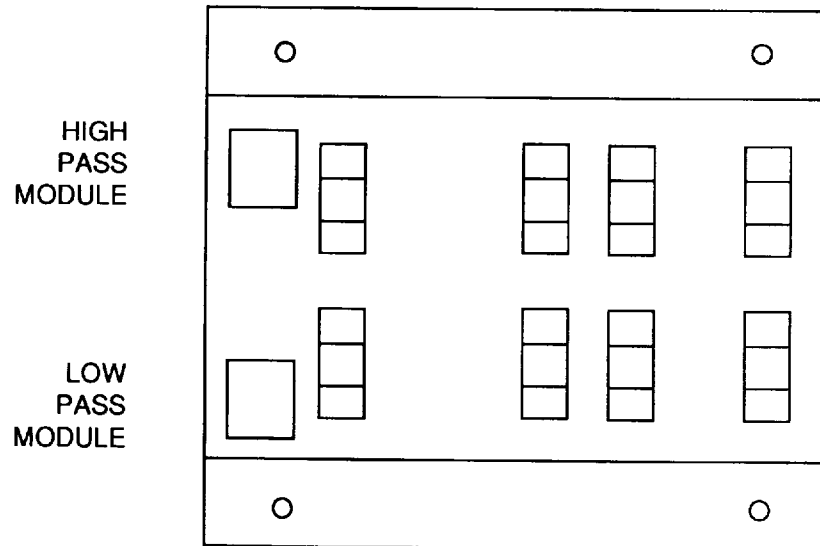
2. If multiple amplifiers are installed, average currents may be high enough to overload the standard alternator and reduce alternator and battery life. In this case it's a good idea to use a heavy-duty alternator and a high quality battery.

USING THE CROSSOVERS

To run the High Channel or Low Channel crossovers in the "Flat" (defeat) position, push the switch in.

High and Low crossover frequencies in the Power 300 are controlled by inserting frequency modules in a socket in the internal PC board. The modules that control both High and Low frequencies are identical.

In order to change a frequency module, remove the four screws that hold the fuse access cover and remove the access cover. Remove the frequency module you wish to change and put in the new module.

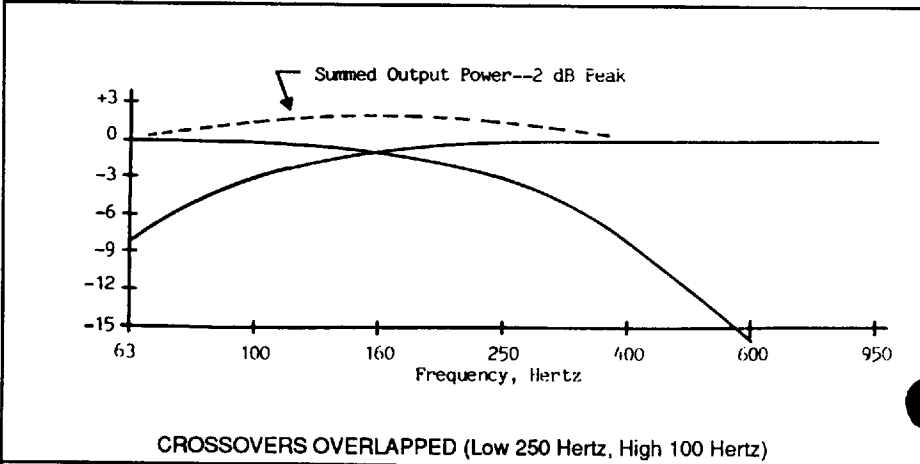
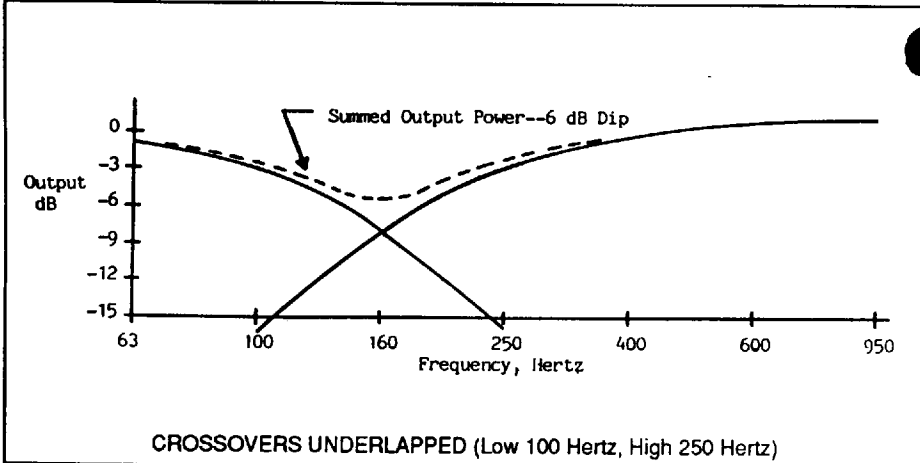
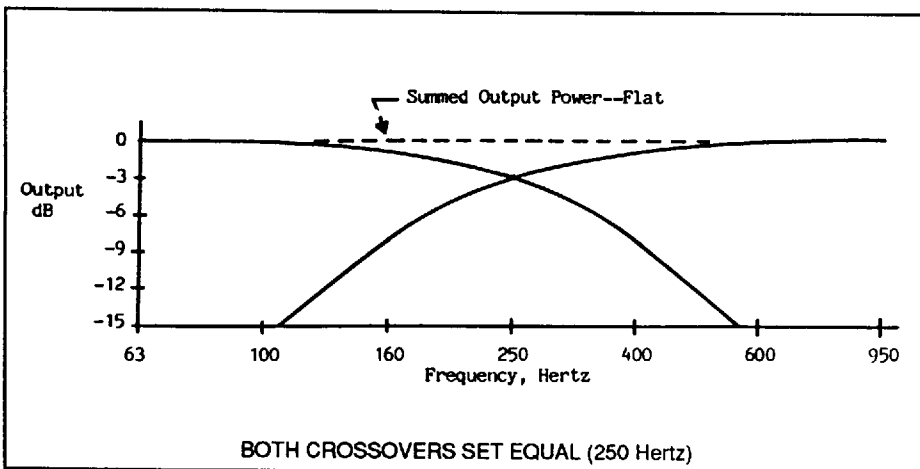


CROSSOVER MODULE LOCATION

Disconnect white power wire before removing fuse access cover screws. Carefully remove the old module with a DIP Extractor. (Rockford P/N AS-090)
The standard Rockford crossover modules are available at half-octave intervals from 50 Hertz to 9,000 Hertz.

CROSSOVER SETTINGS

Crossover Setting, Hz (Low/High)	Suggested Applications
Flat/Flat	Dual Stereo systems with two pairs of full range speaker systems. All bridged stereo systems.
Flat/100	Dual Stereo systems with front speakers having less bass capability.
Flat/250	Dual stereo with small front speakers.
100/100	"Subwoofer" biamplified systems. Large woofers on low channel, essentially full-range system on high channel (usually a strong midrange-tweeter pair). Excellent imaging.
250/250	"Three-way" biamp systems. Woofers on low channel, midranges and tweeters on high channel. Good imaging.
100/250	"Subwoofer" and three-way systems in cars which have a lower-midrange resonance. Combines imaging advantages of subwoofer with reduced midrange power requirements. Excellent imaging.
600/600	"Three-way" biamp systems. As above in 250/250 section, but midrange drivers handle less power. Fair imaging.
1500/1500	"Three-way" biamp systems with a very light duty midrange. "Two-way" biamp systems with wide-range woofers on the low channel and extremely rugged tweeters on the high channel.
4000/4000	Primarily a midrange-to-tweeter crossover point for triamplified systems.



CROSSOVER RESPONSE CURVES

CROSSOVER MODULES

FREQUENCY	PART NO.	FREQUENCY	PART NO.
50 Hz	XV-50	70 Hz	XV-70
100 Hz	XV-100	150 Hz	XV-150
200 Hz	XV-200	275 Hz	XV-275
400 Hz	XV-400	550 Hz	XV-550
800 Hz	XV-800	1 kHz	XV-1
2 kHz	XV-2	3 kHz	XV-3
4.5 kHz	XV-4.5	6.5 kHz	XV-6.5
9 kHz	XV-9	Empty Module	CC-547

If you want a frequency not available in the standard Rockford modules, you can, in fact, build your own module.

You will need:

1. An 8-pin DIP component carrier (Part No. CC-547)
2. Soldering equipment
3. A source of 1/4-watt or 1/8 watt resistors

Determine the resistance value you need for the frequency you want from the formula below.

$$R = \frac{1}{1.38 (10)^{-7}f}$$

ROCKFORD FOSGATE LIMITED ELECTRONICS WARRANTY

Rockford Fosgate warrants all electronics to the original consumer purchaser to be free from defects in materials or workmanship for a period of three (3) years parts and labor provided the product was purchased from an Authorized Rockford Fosgate Dealer. This warranty does not apply to any product on which the seals and/or serial number have been broken, removed, tampered with, defaced or altered in any manner. This warranty only applies to the original consumer purchaser and is not transferable.

Electronics found to be defective during the warranty period will be repaired or replaced at Rockford Fosgate's discretion. Repaired or replaced electronics will be covered by the balance of the original warranty period only. Rockford Fosgate shall not be responsible for any incidental or consequential damages resulting from a defect in electronics. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the previous limitation may not be applicable.

The warranty does not cover any appearance item, any cost or expense related to the removal or reinstallation of the product, any accessory used in conjunction with the product, or any damage to the product resulting from alteration, accident, misuse or abuse. This warranty does not apply if the parts or labor, which would otherwise be provided without charge under this warranty, are obtained from any other source than Rockford Fosgate or an Authorized Rockford Fosgate Service Center.

This warranty is the only express warranty and does not create any implied warranties. Rockford Fosgate limits its obligations under any implied warranties under state laws to a period not to exceed the written warranty period. Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply. This warranty applies only to products sold in the United States of America or its possessions. For warranty outside the U.S.A., please contact the nearest Authorized Rockford Fosgate Dealer. This warranty gives the consumer specific legal rights, and the consumer may have other rights which vary from state to state.

A defective product must be shipped prepaid to the Authorized Rockford Fosgate Dealer from which the consumer purchased the product or to the Rockford Fosgate factory in Tempe, Arizona in the original factory carton or equivalent. Any shipping loss or damage will be borne by the consumer or the consumer's shipper. A consumer returning a product to the factory should call (800) 669-9899 for a Return Authorization Number. All shipments shall be clearly marked with the Return Authorization Number on the outside of the shipping carton.

Ship to:
Rockford Corporation
Warranty Repair Department
2055 E. 5th Street
Tempe, AZ 85281 U.S.A.
Return Authorization Number: _____

POWER 300 SPECIFICATIONS

POWER RATINGS:

- 4 Ohms: 50 Watts per channel continuous power, 4 channels driven into 4 Ohms, from 20 to 20,000 Hertz, with less than 0.05% THD+N (Total Harmonic Distortion plus Noise).
- 4 Ohms: 75 Watts per channel continuous power, 4 channels driven into 4 Ohms at 1000 Hertz, with less than 10% THD + N (Total Harmonic Distortion plus Noise).
- 2 Ohms: 75 Watts per channel continuous power, 4 channels driven into 2 Ohms, from 20 to 20,000 Hertz, with less than 0.10% THD + N (Total Harmonic Distortion plus Noise).

POWER RATINGS: 2 CHANNEL (Bridged)

- Frequency Response: 20 to 100,000 Hertz, ± 5 dB
- Bandwidth: 15 to 100K Hz ± 3 dB
- Damping Factor: At circuit board:
Over 200 (referred to 4 Ohms)
At speaker lead:
Over 50 (referred to 4 Ohms)
- Signal to Noise Ratio: Over 80 dB, unweighted
- Slew Factor: Over 5
- IM Distortion (IHF): Less than 0.05%
- Input Gain: Variable from 40 dBV to 14 dBV
Factory pre-set at 32 dBV (correct for most 500 millivolt-rated source units).

EQUALIZATION:

- Bass Boost: 0 to +18dB Maximum at 45 Hertz
- Treble Boost: 0 to +12dB Maximum at 20,000 Hertz

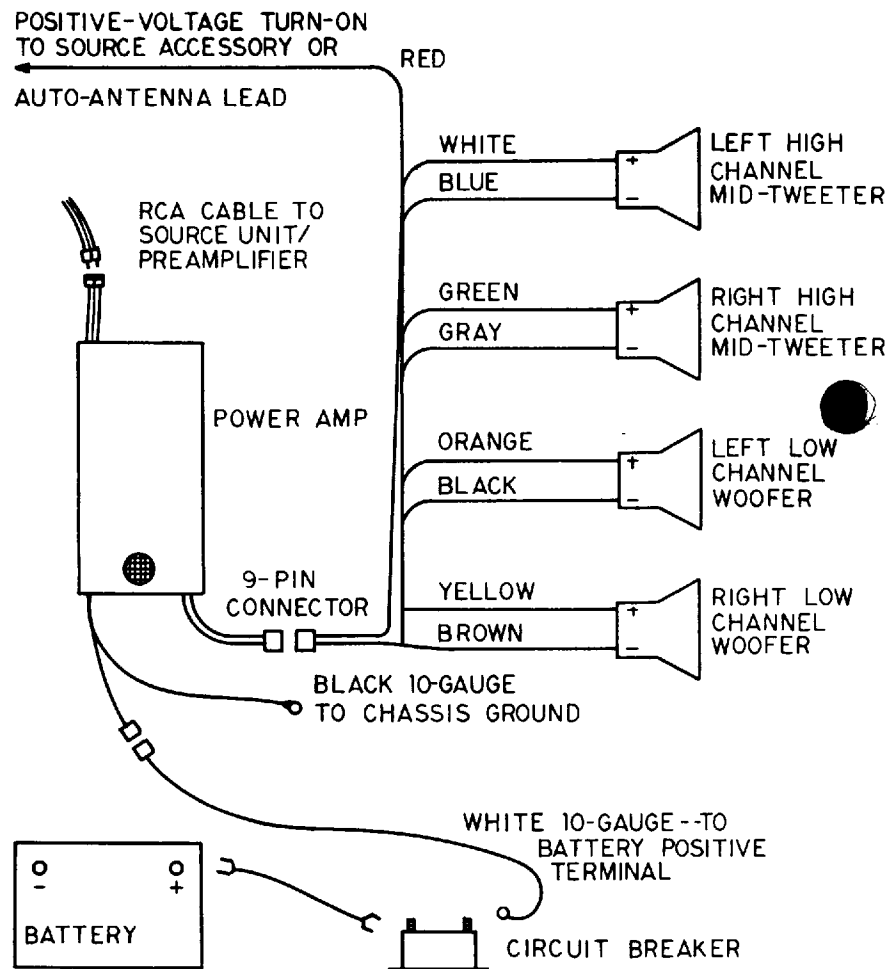
PROTECTION:

The Power 300 is protected by four 6-Ampere blade fuses and by a 35-Ampere circuit breaker. A thermal sensor shuts down the amplifier in case of overheating. Eight 5-Ampere Type AGA (1AG) fuses provide internal protection.

DIMENSIONS:

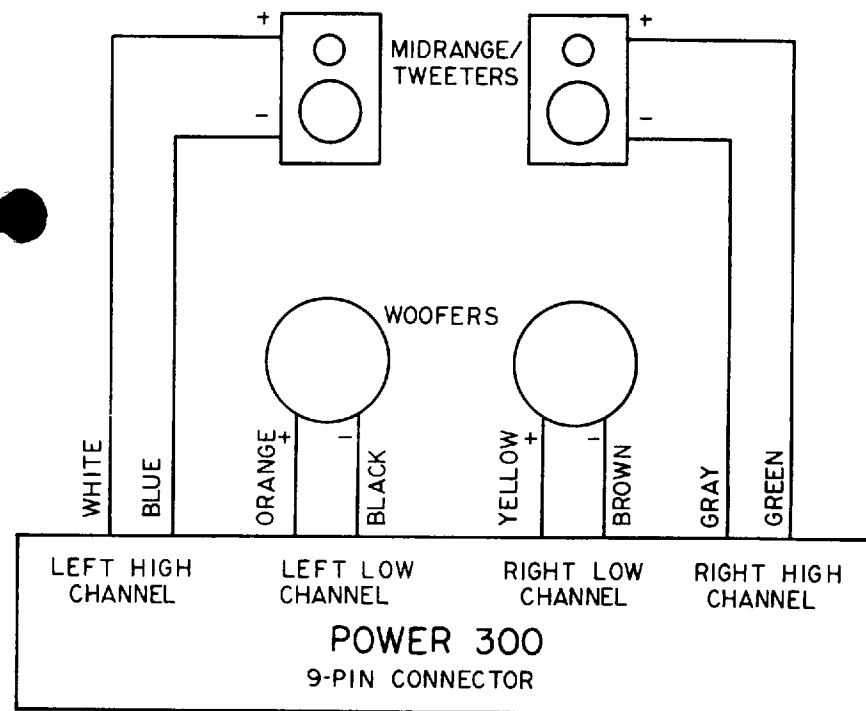
- 14.2" long X 8" wide X 2.2" high, exclusive of knobs and wiring.
- 15.2" long by 8" wide by 2.2" high, minimum mounting dimensions.

NOTE: Specifications subject to change without notice



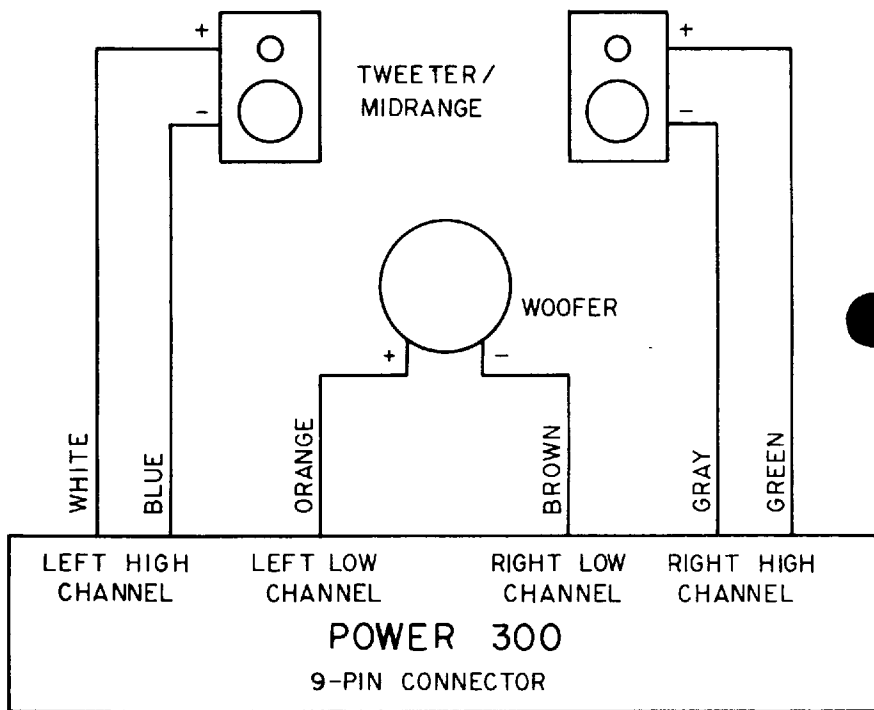
NOTE: HIGH AND LOW CROSSOVERS SET TO SAME FREQUENCY

BIAMPLIFIED MODE



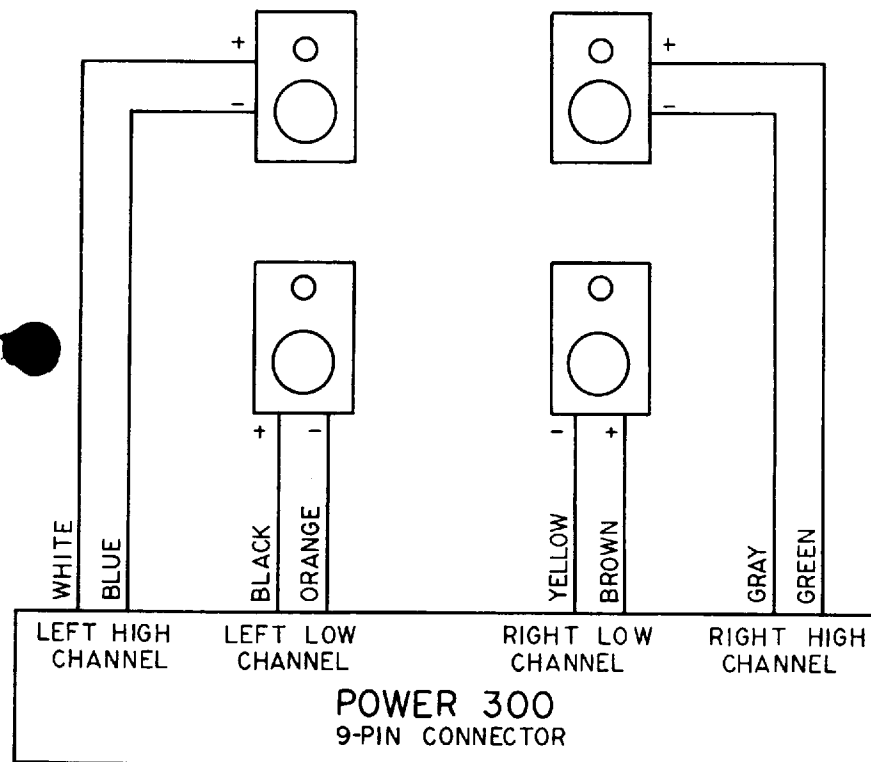
NOTE: HIGH AND LOW CROSSOVERS SET FROM 50HZ TO 500 HZ

BIAMPLIFIED STEREO



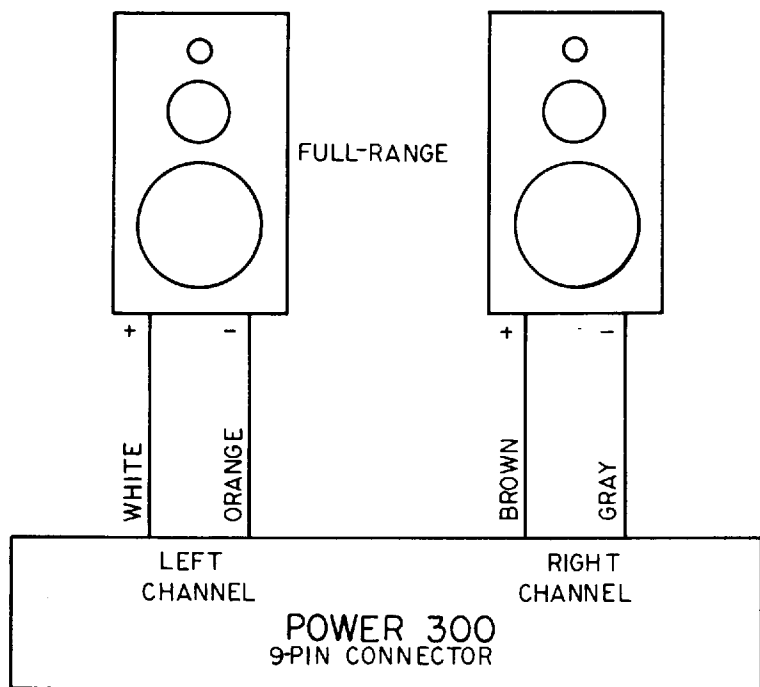
NOTE: BOTH HIGH AND LOW CROSSOVERS SET TO 70, 100 OR 275 HZ. WOOFER IMPEDANCE TO BE AT LEAST 4 OHMS.

BIAMPLIFIED STEREO BRIDGED MONO WOOFER



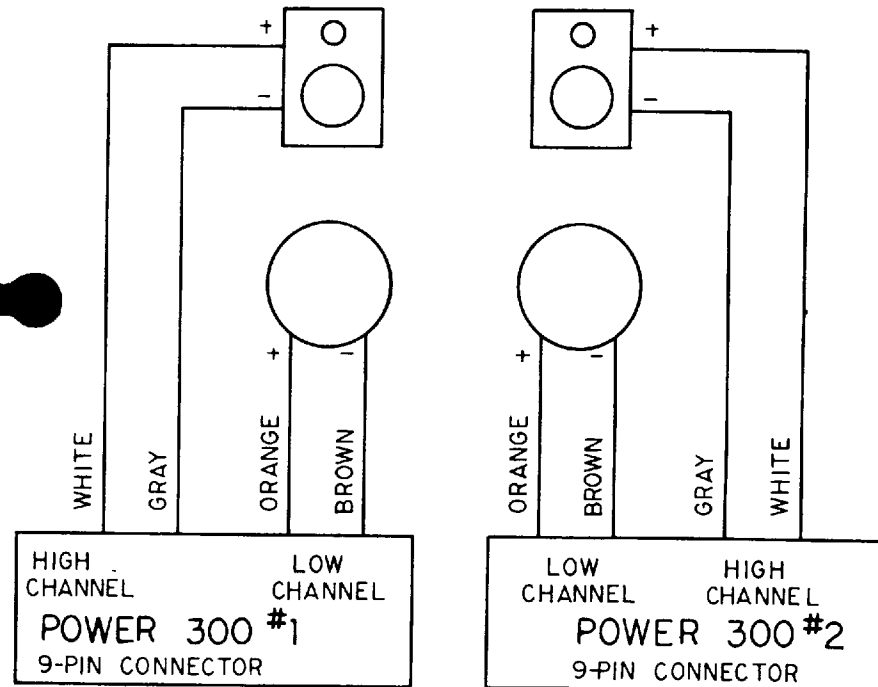
NOTE: LOW CROSSOVER SET TO "FLAT".
HIGH CROSSOVER SET TO "FLAT" FOR FULL-RANGE FRONT SPEAKER SYSTEM, 100 TO 200 HZ FOR MIDRANGE/TWEETER FRONT SYSTEM.
NOTE THAT LOW CHANNEL COLOR CODES ARE REVERSED FROM THOSE OF BIAMPLIFIED SYSTEMS.

DUAL STEREO



NOTE: BOTH HIGH AND LOW CROSSOVERS SET TO "FLAT".
SPEAKER IMPEDANCE TO BE AT LEAST 4-OHM.

BRIDGED STEREO



NOTE: HIGH AND LOW CROSSOVERS SET AT 50 TO 500 HZ.
BRIDGING "Y" ADAPTER, P/N AS-517 IS USED TO SPLIT OUT
LEFT AND CHANNELS TO SEPARATE AMPLIFIERS.
SPEAKER IMPEDANCE TO BE AT LEAST 4 OHM.

BRIDGED MONO BIAMPLIFIED