

Randall



JAGUAR SPEAKER RES-80



JAGUAR SPEAKER RES-80

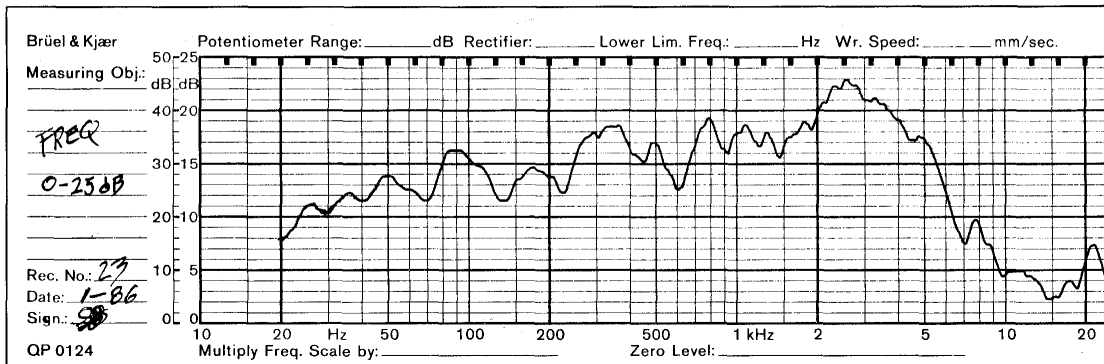
The Jaguar is a remarkable speaker for practically all replacement purposes. It's extremely "up front" sound is today's sound and it's high efficiency can actually seem to increase the power output of many amplifiers or reproducing instruments. To achieve a noticeable increase in volume it is necessary to increase power 100%. This is not usually possible or practical. Increasing power increases the need for additional heat dissipation by the speaker which is a major cause of failure. By increasing the efficiency of the speaker, the same results can be achieved without the detrimental heating effects and certainly at lower dollar cost.

The voice coil and voice coil support of the Jaguar speaker, which is really it's heart, is formed of polyimide and will withstand a temperature in excess of 675 degrees fahrenheit which assures long life and faithful reproduction. The other materials in the speaker are the best available and the entire frame and basket assembly is coated with electro-deposition epoxy acrylic.

The Jaguar is truly a fine speaker and it is completely American made and guaranteed.

SPECIFICATIONS

Name — JAGUAR
 Model — RES-80
 IMPEDANCE — 8 Ohms @ 400 HZ
 POWER HANDLING — 80 watts
 FREE AIR RESONANCE — 58 HZ
 FREQUENCY RESPONSE — See Curve
 SPL 1 MTR 1 WATT WHITE NOISE — 96 dB
 SPL 1 MTR 1 WATT PINK NOISE — 99 dB
 AVERAGE SENSITIVITY — 102 dB
 VOICE COIL DIA — 1.5 IN
 FERRITE WEIGHT — 2.5 LB
 MOTOR WEIGHT — 5.0 LB
 TOTAL WEIGHT — 7.75 LB
 FLUX DENSITY — 13,000 Gauss
 APPLICATIONS — Lead and Rhythm Combo & Guitar Stacks
 DIAMETER — 12"
 HEIGHT — 4.75
 VOICE COIL SUPPORT — Polyimide
 VOICE COIL BINDER — Polyimide
 MAXIMUM VOICE COIL TEMP — 700 F
 FRAME COATING — Electro Deposition Epoxy Acrylic



SPEAKER WIRING, PHASING, AND MEASUREMENT

In preparing proper speaker wiring it is necessary that the total speaker impedance reflected to the amplifier falls within the manufacturers recommended amplifier load impedance envelope. Most modern day solid state amplifiers have a recommended load impedance of from 2 to 8 ohms. Randall amplifiers are designed for a 4 ohm load, but will work on 8 ohms (which reduces available power) or 2 ohms which will cause the amplifier to generate more power which could, in some cases, overload the amplifier. Randall Amplifiers will normally operate into a 2 ohm load without problems.

To achieve the proper load for a particular amplifier one can refer to the accompanying diagrams. In 'A' an 8 ohm load is reflected to the amplifier. In 'B' there are two 8 ohm speakers in series reflecting a 16 ohm load. In 'C' there are two 8 ohm speakers in parallel reflecting a 4 ohm load. In 'D' there are four 8 ohm speakers in series parallel reflecting an 8 ohm load.

Speakers of different impedances should never be used in combination, unless for a specific purpose, due to the unequal power that would be applied to them.

A very important part of connecting any two or more speakers together is the phasing. If speakers are not phased properly, the resulting sound will be thin and hollow and usually reduced in volume.

The phasing of any speaker system can be checked by applying a low voltage direct current to the speaker line connecting the various speakers. By intermittently touching the speaker wire to the voltage source, one can observe the speaker cones. They should all move in the same direction. If they don't the connections on

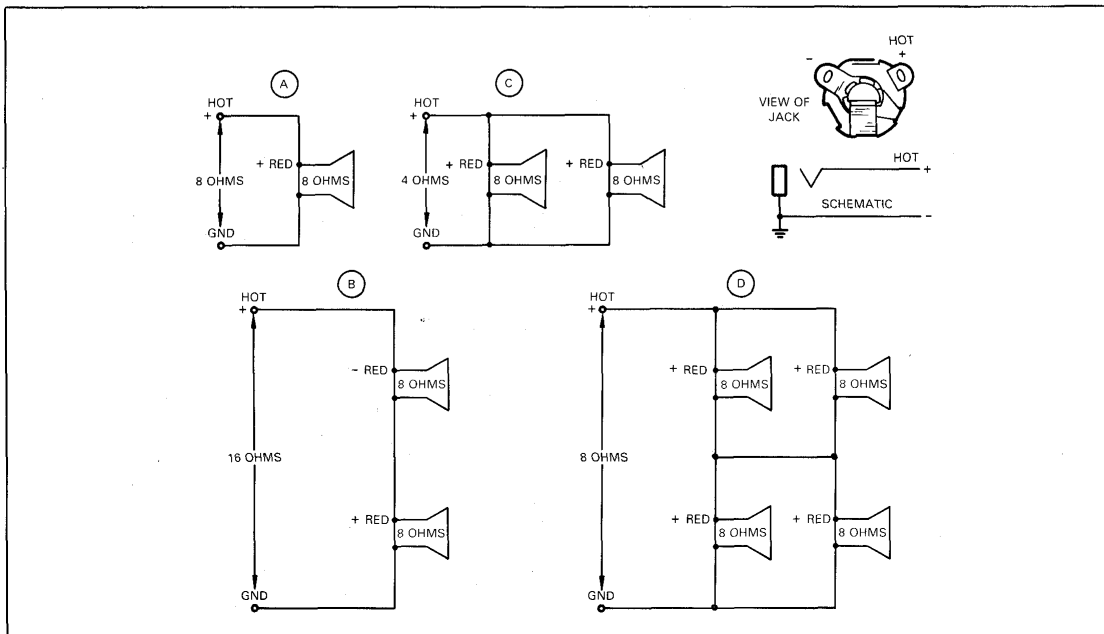
the speakers should be reversed until they all move in unison. In phasing the speakers it is good practice to connect the positive voltage wire to the positive terminal of the speaker (usually denoted by a dot or red mark) this will cause the speaker cone to move forward. Six volts D.C. is quite sufficient for this phasing test. It should be pointed out that JBL speakers use a black binding post for the positive terminal and a red one for the negative, which is directly opposite to most others.

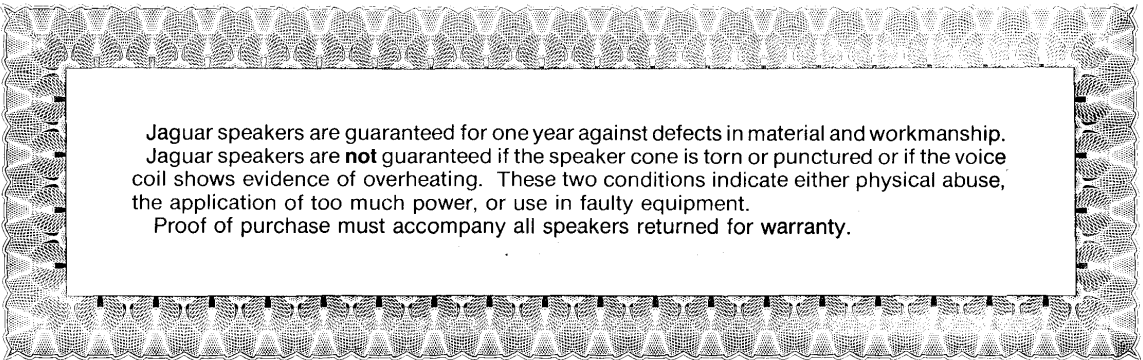
To achieve impedance standardization, all speaker manufacturers measure impedance at 400 cycles. Therefore, at 400 cycles an 8 ohm speaker is actually 8 ohms. However, below or above 400 cycles the impedance of the speaker will vary--seldom becoming lower, generally measuring higher.

As a matter of information it should be pointed out that speaker impedance cannot be measured with a common ohm meter--this would only measure the D.C. resistance of the wire on the voice coil. To measure the A.C. impedance of a speaker, it is necessary to have an impedance bridge which incorporates a signal source.

If any doubt should exist concerning the proper connecting of speakers and amplifier, competent assistance should be obtained.

In any electrical system there is a certain amount of exposure to shock which in some instances could even prove to be fatal--Be extremely careful and obtain help from a qualified technician if there is any doubt concerning the hook up.





Jaguar speakers are guaranteed for one year against defects in material and workmanship. Jaguar speakers are **not** guaranteed if the speaker cone is torn or punctured or if the voice coil shows evidence of overheating. These two conditions indicate either physical abuse, the application of too much power, or use in faulty equipment.
Proof of purchase must accompany all speakers returned for warranty.