Volume 1, Issue 3. published November 1971.

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New or Altered Products



 Here is a picture of the 2505 bracket assembly announced last month.





3. 2345 – We have made a new foundry pattern for the 2345 so that the mounting flange is countinuous around the bell of the horn. This will facilitate flush mounting in an enclosure. The price does not change.



- 4. 7126 We have a compressor for those applications requiring low compression ratios. This unit can also be used as a booster amp in the linear mode. As shipped, the single input is wired for microphone use and will accept a 5901
- 2212 This is not really a new product but a new model number assignment. The 2212 has been used in the 4310 monitor as the low frequency driver.

Specifications: Size: 12 inch Power Input: 50 Watts program Frequency Response: ±3dB from 40Hz to 2kHz in a closed 6 cu. ft. box. Sensitivity: 42dB (1mw/30 ft.) Impedance: 8 ohms average, 6 ohms minimum Price: \$78.00 list price input transformer. The input can be converted to line service with an internal wiring change and the use of a 5195. The line input can be matching or bridging depending upon the 5195 connection. Instructions for this change are noted on the schematic. \$300.00 list price.

Specifications: Output: +24dBm at less than 0.5% into 600 ohms Frequency Response: ±1dB, 20-20kHz for line input service. Noise: Linear mode, Input min. -52dBm Input max. -43dBm (unweighted) Threshold: 0dBm Release Time: 0.5 sec and 1.5 sec Meter Range: +4dBm or -18dBm at 0 VU Inputs: 250 ohm microphone (with 5901) 15k ohm or 600 ohm line (with 5195) 2202A - This is a new 12 inch speaker. We have not actually gone into production yet but we will be able to take orders for 60 day delivery.

The 2202A is intended for use as a mid-range driver in high-power systems or as a low-frequency driver for restricted space applications. The performance falls mid-way between a 2220 and a 2205. It has a curve-a-linear cone, a 4 inch copper voice coil, a 2205 magnet assembly, and an accordion-pleat cloth surround.

Specifications:	Free-air resonance: 40Hz
	Power input: 100W program or 50W sine wave
	Impedance: 8 ohms (16 and 32 ohms on special order)
	Frequency Response: ±3dB, 100 to 4kHz (400 Hz ref., 6 cu ft closed box)
	Weight: 13.0 lbs.
	Price: \$105.00 List



Product Hints

1. Multiple usage of 5600-2-

Very often the occasion arises where the multiple use of a mixer, such as the 5600, is the best way to do a certain job. The 5600, with its dual program inputs, can be utilized very neatly in a set of three units. The connection outline below allows a certain amount of pre-mixing control and also provides a "grand master" control not possible with the usual parallel connection.

2 PROGRAMS



The schematic can be expanded by using 5904 pads on the mic inputs of the third 5600-2 and connecting additional mixers to those inputs. Naturally the signal to noise ratio will not be as good for those channels but in many applications the difference would not be noticeable.

- 4310 The 4310 can get rather bass heavy in some small control rooms when mounted against a wall surface. A less accentuated bass can be achieved by lightly stuffing the port with fiberglass. A small degree of regulation is possible by changing the amount and density of the packing.
- 3. 5101 The 5101 can be converted to a line or isolation amp when the microphone module is bypassed. The simplest way to do this is to unsolder the shielded lead going to the 50k pot and move that wire to the transformer socket in place of the microphone module input lead. A 5195 transformer can now be used in place of the 5901 at the input. With the standard wiring on the socket, the 5195 will be connected for 15k bridging input. Moving the appropriate wire on the transformer socket will give a 600 ohm matching input. This is very handy for isolation amplifier service between filters or distribution busses.



TESTING THE 5306 MIXER.....Several 5306 mixers are now in the field getting their shake-down prior to full scale production. Results to date are excellent, but the comments that many of you have made will help us to make the mixer an even better product. Unfortunately, we weren't able to expose all of you to the preproduction run, but made an effort to test under most conditions that the mixer will be expected to see. The photos show some of our engineers making in-service tests during a rock concert in Pasadena.



The "Alabama State Troupers Rock'n Revival" (live recording for Electra Records – album soon to be released) on stage with JBL speaker clusters supplied by Swanson Sound Service. Mixer for the evening was Milt Chapman. Milt used two stacked 4550 bass horns with 2220 low frequency drivers for his low end. For the high end, a 2350 horn with a 2440 driver was selected. Augmenting the 2440 driver above 8000Hz, a 2345 horn with a 2410 high frequency driver was also used. To get to the back of the house, Milt used our new long throw 2356 horn with a 2440 driver. For center fill, a 4560 bass unit with the same high frequency units mentioned above were used.





Walter Dick with the new JBL 5306 mixer setting it up for the Sunday night performance in Pasadena. Our mixers are in the lower left hand corner of the console. The other mixers are our competitor's. Our engineers are using the oscilloscope to monitor the power into the speakers, both low and high frequency, and simultaneously observing the acoustic output from the speakers through a calibrated laboratory standard microphone. Permanent records for engineering usage were made by taking pictures with a scope camera. Data accumulated will be used by JBL Engineering.



DOES DIRECT MAIL HELP IN GETTING NEW BUSINESS?

notes from Bob Vendeland

One of our professional audio contractors had an interesting experience in utilizing direct mail as a lead to new business. We thought you would be interested in his approach and our analysis of his program based on our own experience as a manufacturer trying to get YOUR business.

In this particular case the contractor had tied his program to churches and the willingness of a prominent consultant to work with him (for a fee). The consultant checked his design and equalized the system after the installation. Although the specific mechanism for paying the consultant and reducing the contractor's risk of giving free engineering to the customer was fascinating, the details are not important as far as the direct mail aspects are concerned. Key elements follow:

- The contractor hired a part time employee responsible ONLY for the direct mail aspects of the business. This employee identified churches in the area and sent individually typed letters to the minister, etc. COMMENT – An individually typed letter, signed by the writer and addressed to a specific person if possible, is WORTH THE TIME. From our standpoint, we have had so much catching up to do as far as communicating with our contractors is concerned that we have had to assume that you would read our correspondence even though many of the messages would have been better received if they were individually typed letters.
- 2. The lead-in paragraph quickly made the point that if the congregation could hear his sermon on Sunday morning he

 When the appointment was made, a salesman made his call on a specific person. This person expected him and was receptive.

RESULTS – The contractor indicates that of 100 letters sent, his salesman got ten leads. Of the ten leads, they closed one sale. This is well worth the effort.

CONCLUSION - The elements of "fishing for business by mail" are simple. Pick a specific application. Identify a potential problem area. Tell the recipient of the letter that you know he has a problem and tell him QUICKLY that your experience in this particular type of installation might solve his problem. Ask for an appointment. FOLLOW-UP with a phone call. Make the appointment and when you submit your written proposal, give it your best effort. In many situations (and especially churches) a great many people are in the decision loop. Only a few people usually work directly with the salesman and you have to depend on their carrying your sales message to others. The details in your proposal, the background of your organization, the list of other jobs similar to the one to be installed, the reputation of the consultant you may elect to use, all contribute to the sale. When committee decisions are made, the strength of your written proposal is important.

would have to consider himself fortunate. His experience was that of the minority. Then, and quickly, the letter offered a solution – new JBL equipment and a consultant who could tune the sound system to the church. The letter asked for an appointment so that the contractor could better explain the new developments in sound reinforcement.

3. The employee responsible for the mail program then phoned each person who was sent the letter and asked for a specific appointment. COMMENT – This is the *critical* part of the program. Direct mail is practically useless if there is no follow up. Our own experience indicates that you, the contractor, have too many other things to do than read all of the details of an offering. Our recent promotion on the 6010 amplifier would have been a bust if we hadn't been on the phone calling many of you as a follow-up. In territories where we did take the time to call, we sold 6010 amplifiers. In the other territories, we sold few. In any case, LIMIT YOUR LETTERS TO SPECIFIC TARGETS AND DON'T SEND OFF MORE THAN YOU CAN HANDLE BY FOLLOW-UP PHONE CALLS DURING THE NEXT TWO WEEK PERIOD.



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