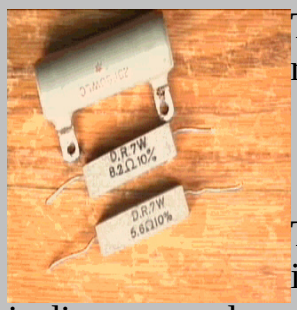
Feeding a B&H Projector into an External Amplifier

This tip applies to all projectors, not just B&H. When running from the speaker out jack into an external amplifier, you should have a dummy load or L-pad control in the line.

The speaker jack on the B&H is intended to feed an external speaker which will provide a load to replace that of the internal speaker. If a line is run from the speaker jack to a line input of an amplifier or tape recorder, there is not sufficient load on the output of the B&H amplifier, and if the B&H volume control is turned up to a high level the output transistors may be damaged.



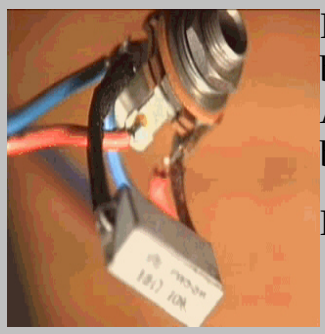
To avoid this, a resistor should be replaced across the line to replace the load of the speaker.

Installing a 15 ohm resistor, 5 to 10 watts, acts as a dummy load and protects the amp.

The B&H speaker jack is designed so that when a plug is inserted, it is connected to the amplifier and the internal speaker is disconnected.

Of the four leads shown here, the two blue ones are a common ground to the amplifier, the speaker, and the jack. It goes to the center of the rear of the jack, and continues forward to the screw thread.

One of the orange wires, from the amplifier output goes to the long curved portion of the jack, and connects to the insulated portion of the plug when it is inserted. The other orange lead goes from the speaker to the short contact on the jack, and as a plug is inserted this is disconnected.



In this illustration a resistor is soldered from the amplifier output to ground. It will be in parallel with the internal speaker resulting in a slight loss of volume. Alternately it could be placed at the line input of the external amplifier, or it could be built into a small box in the cable running between the machines.

Note the spaghetti tubing on the resistor to prevent it shorting to anything.

The older Bell & Howell projectors had an uncommon size jack and when you do this conversion you may want to install the more common size 1/4" jack and plug, readily available at Radio Shack.

I hope this helps.

Charlie Fox