

EQUIPMENT REVIEW (Cont'd)

BOGEN ST-10 STEREOPHONIC TAPE ADAPTER-AMPLIFIER

One of the problems of converting a hi-fi system to stereo is that it requires an additional amplifier (and speaker, of course) in addition to the stereo playback head itself and the tape preamplifier. If a conventional tape recorder is converted to stereo, it is possible that the preamp may have been added at the same time, but with such an adaptation as provided by the Duetron stereo adapter kit, for example, no internal changes need be made in the recorder—the stereo head is simply attached outside the regular tape playing mechanism. In any case, two head outputs are available from any stereo recorder, and the ST-10 permits both to be fed to similar preamps, with the output of one channel being fed to the remainder of one's system, while the ST-10 also furnishes a small power amplifier for the second channel.

This amplifier would serve especially well for any of the playback—only tape decks that are available, or for any which did not provide any electronic circuitry. Further more, because of the flexibility of the ST-10, it would be a simple matter to convert any ordinary tape recorder to stereo by simply changing the head and adding this adapter-amplifier. Thus, with the change of the head, and the consequent connection of the top track section to the tape recorder amplifier in just the same way as the half-track head had been, and the direct connection of the bottom track head to the ST-10 amplifier and an additional speaker, the system would be complete.

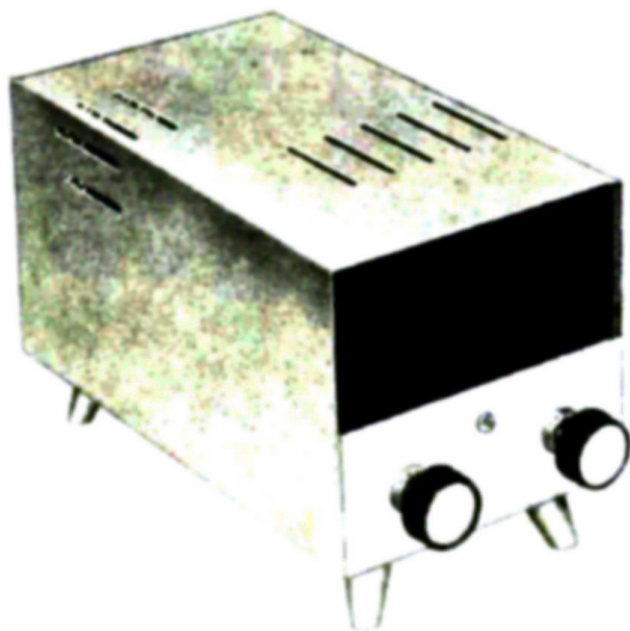
In other words, whatever your problem with respect to a conversion of an existing recorder to stereo, or with respect to providing amplification for a tape deck which had none at all, this adapter-amplifier should answer it.

This amplifier, shown in Fig. 2, consists of two channels—both with the same type of tape preamplifier, equalized for direct connection to the leads from the playback head—and with one channel terminating in a 10-watt push-pull amplifier, while the other terminates in a cathode follower normally intended to feed an existing hi-fi system at some unused high-level input. The

preamplifiers are 12AD7's, with feedback equalization. Channel 1 continues with volume and tone controls, a 6U8 as voltage amplifier and phase splitter-driver, with two 6AQ5's in the output stage, with provision for 4-, 8-, and 16-ohm speaker loads. In Channel 2, the preamplifier is followed by a volume control and a 6C4 cathode follower. The volume controls are ganged, and the tone control is actually a treble control on Channel 1. Adjustment of balance between the two channels can be made by means of the volume control of the auxiliary amplifier used with Channel 2.

The ST-10 is quite compact—measuring only 5½ in. wide by 12 in. deep and 6½ in. high with its protective cage and the legs shown. For installing in an existing cabinet, the overall height is about 5 in. Two short "patch cords" are used to connect the preamplifiers to their following circuits, thus making it possible to reverse the channels readily to make the conversions without any internal connections in the amplifier itself. This is a distinct convenience to most users of tape recorders, especially those to whom a soldering iron and long-nose pliers represent an insurmountable hazard.

Performance will be found quite satisfactory on most stereo tapes—those that are, in themselves, good. Gain is adequate, and equalization conforms to the NARTB standard tape playback curve within 2 db from 20 to 20,000 cps, although it is doubtful if any tape recorder will put out an appreciable signal at 20,000 cps at a speed of 7½ ips. The 10-watt output is perfectly adequate for the average installation on stereo, but we would recommend that for monaural tapes the conventional system amplifier should have rather more than 10 watts for completely satisfactory use. However, as a means of changing from monaural to binaural playback, this Bogen amplifier offers a simple and reliable—as well as fairly economical—answer.



Left: Fig. 2. The Bogen Model ST-10 Amplifier.