

AGC for automatic recording level

Admiral recorder uses transistor's collector-emitter resistance as heart of its recording circuit.

The Admiral model STR901 cartridge tape recorders do not have recording-level meters because the recording level is automatically controlled by an agc system. The diagram shows the simplified circuit of one of the channels of the recorder.

A portion of the signal from the collector of the output transistor is tapped off and rectified by the agc rectifier. The resulting dc signal is fil-

tered by the 1000- μ F electrolytic. The AGC BALANCE control determines the amount of the dc voltage that is applied as a variable base bias to the agc controlled transistors. The varying base bias makes the controlled transistor act as a variable control that determines the amount of the signal that will bypassed to ground through the transistor and the 12,000-ohm resistor.

During playback, the adjustable

volume or LEVEL controls are switched into the circuits. A portion of the output of each channel is tapped off and fed as negative feedback to the emitters of the third af amplifiers. The out-of-phase signal fed back determines the bias and gain of the third stage amplifier. **R-E**

RECORDING LEVEL is held relatively constant by this circuit. It eliminates the need for a manual input control when recording.

