

Stage/Control	Function
De-emphasis C 516, 517	These capacitors are selected to provide the necessary roll-off at high audio frequencies to compensate for pre-emphasis at the transmitter.
AudioPre-amplifier X 504, 505	Demodulated L and R signals are amplified by these stages.
HI-BLEND Switch SW-2	The HI-BLEND switch allows mixing of high-frequency audio signals between stereo channels. Three different coupling capacitors are used to permit a choice of the mixing bandwidth.
Gain Adjustment R 531, 532	The resistors are selected to compensate for differences in demodulator efficiency and provide equal over-all gain in both channels.
Channel Separation Adj. R 537	The network that connects the emitters of X 504 and X 505 provides a form of negative feedback between left and right channels. Any residual L signals in the R channel are cancelled out by the inverted "L" signal from the L channel. The same is true of residual R signals in the L channel. R 537 is therefore set for maximum channel separation.
Emitter Follower X 506, 507	Emitter followers are used at this point to provide a low-impedance source of signal for the low-pass filters that follow.
Low-Pass Filter LPF 501	The filter removes all residual IF and subcarrier components. It is important that these components be removed completely to prevent beat interference with bias oscillators in tape recorders fed from the tuner.
Audio Amplifier and Emitter Follower X 508, 509, 510, 511	Transistors X 508 and X 509 make up for the insertion loss of the low-pass filter. X 510 and 511 act as emitter followers to produce output signals across a low impedance. Positive feedback is employed between the collector of X 510/511 and the emitter of X 508/509 via C 525/526 compensate for the loss of high audio frequencies in the

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Output Level R 567, 570	low pass filter. Both fixed and variable outputs are provided. Fixed outputs are obtained from the voltage dividers R 565/567 and R 566/568. Variable outputs are fed from potentiometers R 569, 570.
Mode Switching X 512, 513, 514	These three transistors operate as direct-coupled switches to establish the operating mode.
Mode Switch in MONO position	In the MONO position, the base of X 512 is grounded and X 512 turns off. X 513 is then switched on and X 514 is switched off. When X 514 is off a positive voltage is applied to R 577, R 517 and R 515 in series. The DC voltage across R 515 is sufficient to hold both D 503 and D 506 in the forward biased conditions. In that case, sub-carrier demodulation stops and the L+R signal is fed through both D 503 and D 506 to the left and right channels.
Mode Switch in AUTO position	When stereo signals are received, the DC component of the signal developed by the 38 kHz doubler is coupled through R 509 to turn X 512 on. This turns X 513 off and X 514 on. When X 514 is saturated the forward bias applied to D 503 and D 506 is removed and the demodulator functions in the multiplex mode.
Mode Switch in STEREO position	The switcher circuit X 512, 513, 514 functions in the same way as in the AUTO position, except that the muting relay is controlled by X 514. (See Muting Circuit Board). The effect is to mute all but stereo signals.

**Muting Circuit Board**

These circuits act to mute output when tuning is between stations or not sufficiently tuned to the center of a channel.

Stage/Control	Function
Interstation Muting X 409, D 401, D 402	The hiss and static of interstation noise is extracted from the emitter of X 304 and applied to the base of X 409. R 420 and