

CONTENTS - Understanding Hi-Fi Circuits by Norman H. Crowhurst - code 3006

title	page No.
1. The Approach to Hi-Fi	5
The background of audio. Early advances. Triode versus pentode. Use of positive and negative feedback.	
2. Special Output Stages	13
Push-pull triodes. Tetrode or pentode. Ultra-linear. Grid drive. Effective plate resistance. Cathode followers. Unity coupling. Modified ultra-linear. Circlotron. Comparative qualities of output circuits.	
3. Feedback and Damping	33
Loop gain and feedback factor. Negative and positive feedback. Cyclic blocking. Avoiding overload blocking. Effects of feedback. Stability of gain. Frequency response. Output impedance. Stability margins. Phase margin. Gain Margin. Maximal flatness. Loading. Multiple-loop feedback. Phase correction methods. Variable damping.	
4. Inverter and Driver Stages	69
Direct-coupled transformers. Parallel-fed transformers. Tapped or choke. Split-load inverter. Paraphase. Output-coupled paraphase. Floating paraphase. Long-tailed inverter. Cross-coupled inverter. Extra push-pull drive stages. Positive feedback drive. Comparative qualities of phase inverters	
5. Input Stages	101
Thermal noise. Noise voltages. Hum. Cable microphony. Microphonic tubes. Distortion. Bootstrap pentode input. Transistors.	
6. Matching	121
Input circuits. Output circuits. Minimum distortion. Transistors.	
7. Equalization	131
Phono and tape equalization. Disc and tape standards. Methods of equalization. Passive equalizer. Separate sections. Feedback type. Single triode stage. Single pentode stage. Two-triode stages. Relative properties of equalizer circuits.	
8. Speaker Distribution and Crossovers	157
Kinds of reproducer. Intermodulation. Multiple-unit speakers. Peaky highs. Balance. Crossovers. Inductors and capacitors. Channel separators. Feedback separators.	
9. Loudness and Volume Controls	175
Fletcher-Munson Curve. Position of controls in circuit. Circuits. Continuously variable or stepped. Feedback types.	
10. Tone Controls	187
Tone-control functions. Response. Simple step circuits. Practical considerations. Feedback and peaking types. Variable-slope rolloff.	
11. Overall View of Hi-Fi	217
Index	221