

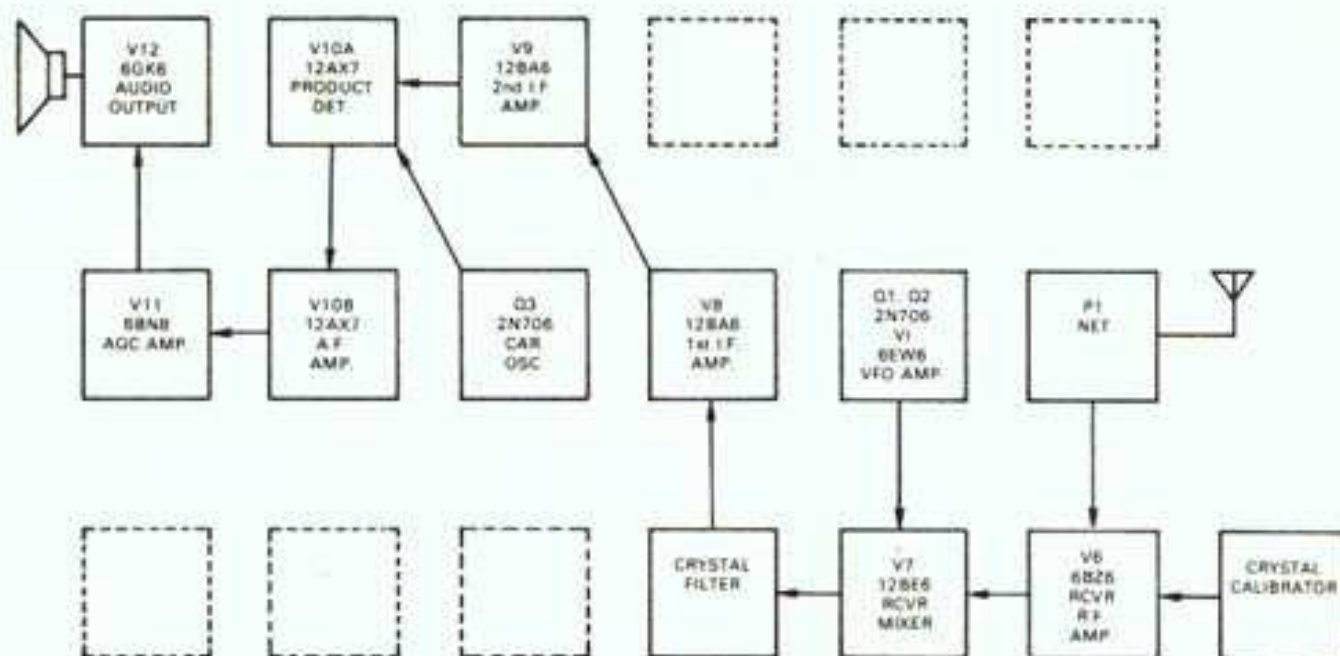


FIGURE 1. BLOCK DIAGRAM, RECEIVE MODE

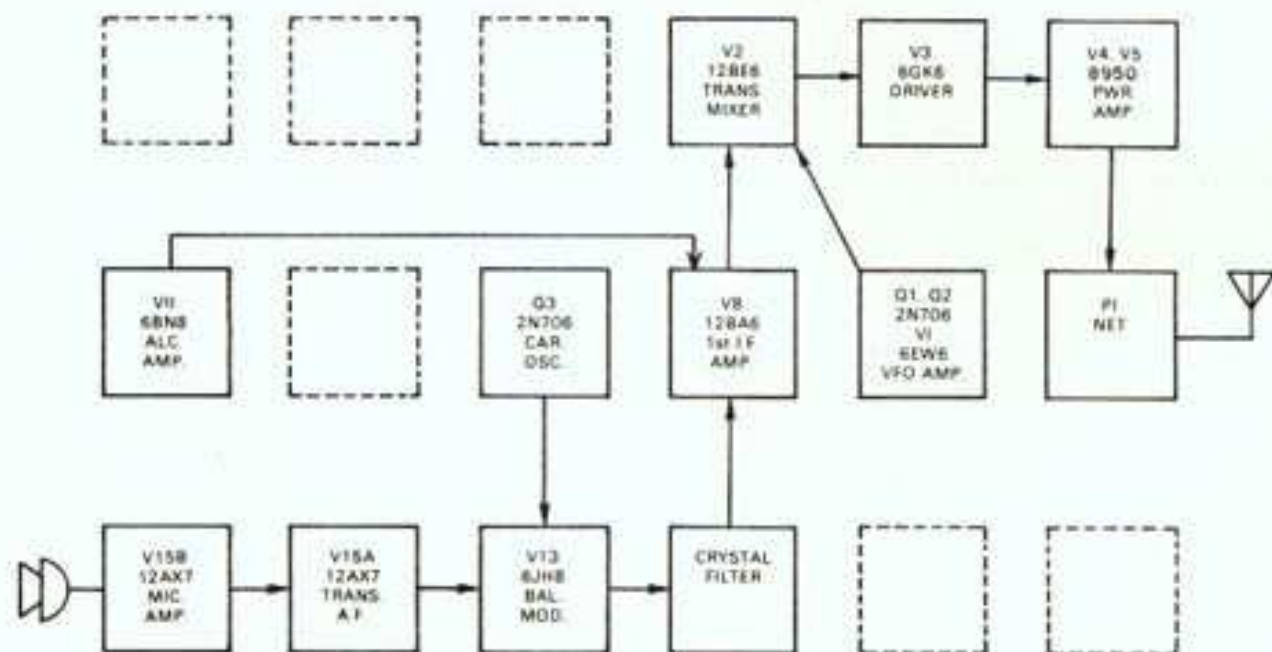


FIGURE 2. BLOCK DIAGRAM, TRANSMIT MODE

SIGNAL GENERATION (cont.)

The single sideband, suppressed carrier signal from the first IF Amplifier is fed to the Transmitter Mixer, V2, where it is heterodyned with the VFO signal. The resultant signal at the desired transmit frequency is amplified by the Driver, V3, and the Power Amplifiers, V4 and V5. The signal from the VFO Amplifier is initiated in the transistorized VFO-Emitter Follower circuit Q1 and Q2. The signal from the VFO is routed to the VFO Amplifier, and on 40 and 80 meters, is subtractively mixed with the single sideband signal from the IF Amplifier, and result in LSB operation. On 20, 15,

and 10 meters, the frequencies are additively mixed, resulting in output on the upper sideband.

When in TRANSMIT, the gain of the First IF Amplifier, is controlled by an amplified ALC circuit, V11, in response to the average input power to the Power Amplifiers. This ALC system will compensate for extremely strong input signals, but does not completely eliminate the necessity of proper adjustment of the Mic. Gain Control. This feature will help prevent the transmitter from flat topping and spurious emissions, but considerable distortion may occur if the Mic. Gain Control is not properly adjusted. Refer to Operating Instructions.