transmit and signal strength on receive, quarter inch jack sockets for microphone and headphones, and an LED labelled ALC which lights whenever the ALC circuit operates. This is used in conjunction with the DRIVE control to set the output level, the control being adjusted so that the LED just lights on speech peaks (or when the key is pressed).

On the rear panel, besides a generous heat sink, are the power connector (a four pole locking type which also carries mains to and from the ON/OFF switch), an SO239 socket for the aerial, and six phono sockets, one for the key, two providing a 12 volt DC power output for operating accessories, and the other three being left unwired for possible future modifications. In addition the rear panel carries a screw terminal for an earth connection, and the HIGH/LOW power switch, which bypasses the PA and connects the driver stage direct to the aerial, thus reducing the power output from 50 watts to 5 watts. The internal loudspeaker is mounted in the base of the rig, presumably with mobile operation in mind. For base station use a fold-away stand (described as a "bail" in the handbook) is fitted at the front of the rig, the effect being to raise the front about two inches above the surface on which it is standing so that the sound can escape. No provision is made for an external speaker, although it would be possible to plug one into the headphone jack.

Circuit description

The *Argosy* uses a single conversion system, the IF being 9 MHz; a block diagram is shown in **Fig. 1.** On receive, the signal from the aerial passes through the SWR bridge and then through a switched low pass filter for the selected band. PIN diode switches route it from there to a further filter, this time a bandpass type, again switched to cover the selected band. The signal then passes through a bipolar RF amplifier to a Schottky diode ring mixer, where it is mixed with the local oscillator signal to produce the IF of 9 MHz.

The local oscillator consists of a VFO tuning 5 to 5.5MHz (called the 'PTO' by the manufacturers, due to its permeability tuning). The output of the VFO is combined in a double double balanced mixer with the signal from a crystal oscillator, the crystals being switched to select bands. The output from this mixer is passed through a bandpass filter, which is selected by the bandswitch to cover the required frequency range for the band in use, and then amplified by a two transistor buffer amplifier before being fed to the RF/Mixer board. Here it feeds both the receive mixer described above, and the transmit mixer, which will be mentioned later.

Receive path

Returning to the receive signal path, the IF signal from the receive mixer is amplified by a power transistor buffer before being fed to the optional noise blanker (Model *223*); this unit is replaced by a link when not fitted. From here it returns to the RF/Mixer board and passes through the main crystal filter before being fed to the IF amplifier. The crystal filter fitted as standard is a four pole device, built on to a small plug-in circuit board which mounts on top of the RF/Mixer board. This can be replaced by an optional 8-pole filter (Model *220*), giving better adjacent channel rejection and sideband suppression; this improved filter simply plugs in place of the standard one. From the crystal filter the signal passes to the IF/AF board, where it passes through a single transistor buffer amplifier, and then to a socket which feeds an optional narrow crystal filter. This filter mounts on the IF/AF board and is selected by the XTAL push-button on the front panel of the transceiver.