

PD-1 SSB ADAPTER

Description

The PD-1 SSB Adapter provides high quality SSB and AM reception using the R390, R390-A, and 51J series receivers. A product detector is used as both the SSB and AM detector. Using the product detector for AM detection eliminates the distortion associated with diode detectors. No modification to the receiver is required. The adapter simply connects to the IF OUTPUT connector on the rear of the receiver. An amplified speaker with a volume control must be connected to the SSB Adapter. Carrier injection for SSB reception is crystal controlled which makes the unit very easy to operate. Power is from a plug-in AC to DC power supply.

Installation

Using the cable and adapter provided, connect the IF output of the receiver to the IF input of the PD-1. Connect the AUDIO output of the PD-1 to your audio amplifier. Connect the power adapter to the PD-1. If the PD-1 is operational during transmit, your transmit audio may feed through to the amplifier and speaker. If this happens run either the PD-1 power or the speaker connection through contacts on your PTT relay.

Adjustments

There are three adjustments inside the unit. None of these adjustments is at all critical. To remove the cover first remove the knob, then remove the four screws on the sides. The factory settings may be OK but you should check them to be sure. The drawing on the back of the schematic shows the location of the adjustments.

AM Carrier

Switch the adapter to AM and tune in an AM station. Adjust the AM CARRIER control fully CCW, then turn the control CW until there is no more increase in audio level as the control is turned. Then turn it a little more. It is not at all critical.

Audio

Adjust the AUDIO control for sufficient drive to your amplifier and speaker.

Signal

If this control is set too high, distortion will be heard. Adjust it below the point of distortion.

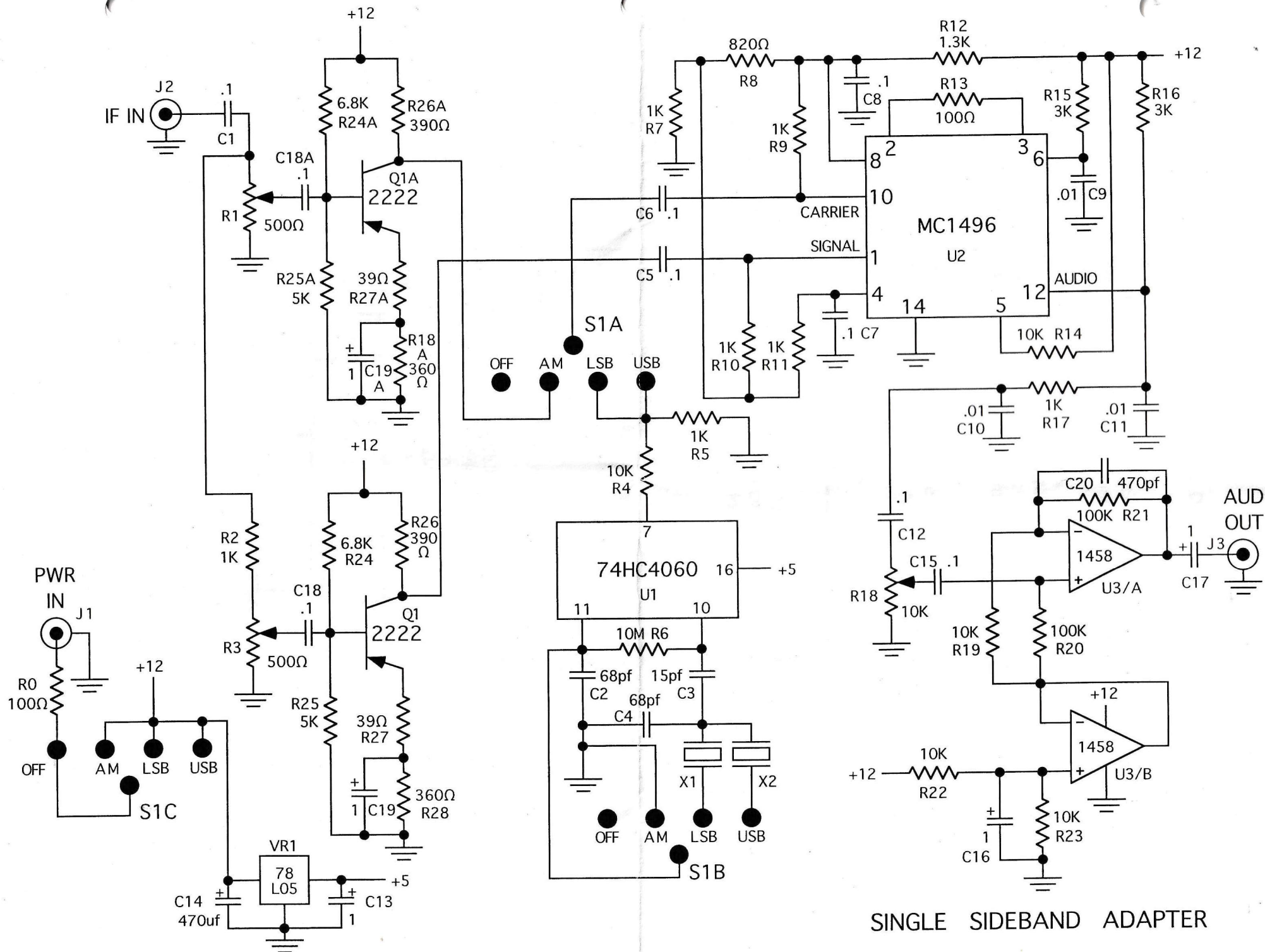
Operation

For SSB reception on the R390 or R390A, the 2KHz or 1KHz IF bandwidth should be used. On the 51J series the 3KHz should be used. Any bandwidth can be used for AM.

Notice

When the PD-1 is used on receivers without mechanical or crystal filters, it will not work properly unless the IF stages are accurately aligned. Evidence of misaligned IFs is receiving USB or LSB with the PD-1 set on the wrong mode for the band you're on. If the PD-1 works properly with the receiver set on a wide bandwidth but does not work properly at 2 or 3KHz bandwidth, the IFs need to be aligned.

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SINGLE SIDEBAND ADAPTER

