

EXPORT MODIFICATIONS FOR THE STONER PRO - 40

It may be desirable to incorporate the following modifications to the Stoner Pro-40 when the equipment is exported to foreign countries. It is not legal to make these changes in domestic equipment since it will void the FCC Type Acceptance.

HF Channels - It is possible to increase the frequency coverage of the Stoner Pro-40 up to 27.865 MHz by simply grounding pin 5 of connector P501. This connector is directly aft of the clarifier potentiometer and pin 5 is the 6th pin from the front of the radio.

A popular conversion consists of using the headphone jack for frequency changing. This can be accomplished in the following manner:

1. Disconnect the wires from the headphone jack, connect them together and insulate them.
2. Remove the 100 ohm resistor from the headphone jack.
3. Connect a wire from the "hot" connection of the headphone jack to pin 5 of connector P501. (This wire should be as short as possible to avoid picking up stray voltages that may cause the PLL to unlock in high frequency operation. A shielded cable is ideal. Connect the shield to the ground lug on the headphone jack and terminate the other end to float.)
4. Prepare a shorted headphone plug. When inserted in the headphone jack, the upper register of channels will be selected. This conversion will also place an "H" on the digital display where the hyphen is on low frequency usage.

Frequency Control System - The clarifier diode connects to the arm of the clarifier potentiometer and the arm of the transmit frequency adjust potentiometer via two gating diodes located on the front panel circuit board. On receive, plus 9 volts is applied to the "top end" of the clarifier pot. On transmit, this voltage goes to zero and plus 9 volts is applied to the "top end" of the transmit adjust pot. The "bottom end" of both potentiometers is grounded. Connected in this manner, the clarifier functions on receive only and the transmit frequency adjustment affects only the transmit frequency.

Clarifier Tune, Receive and Transmit - The clarifier control circuit can be modified to function on both receive and transmit modes in the following manner:

1. Clip the top end of the clarifier potentiometer at the point where it enters the circuit board. Note it requires a very thin cutter to clip this lug without cracking the carbon element of the pot. (Some units may have a black wire at this point or a piece of solid conductor wire instead of the potentiometer lug in the circuit board. The point to cut is the lug with plus 9 volts on it during receive.)
2. Connect the top of the clarifier control to the plus 9 volt circuit. A convenient point is located on the center lug of the USB/LSB switch nearest the electrolytic capacitor.
3. Turn the transmit frequency adjustment potentiometer (R-403) full clockwise so it does not affect the frequency of operation.

These two modifications will allow operation up to 27.865 MHz without missing any channels by tuning the clarifier.

Split Frequency Operation - Some users like separate control of the receiver and transmitter frequency. This is extremely useful when someone is causing intentional interference. By operating on two split frequencies, the interference can bother one station or the other, but not both. Usually, the interfering station gives up when his efforts are not immediately successful. The split frequency modification can be accomplished as follows:

1. Do not modify the clarifier as described in the previous section. This control will continue to adjust the receive frequency.
2. Clip the top end and center (or arm) connections of the RF Gain control potentiometer. Use caution not to crack the carbon element to the potentiometer.
3. The two "stumps" sticking up from the front panel board must be soldered together or the receiver will not function.
4. Set the transmit frequency adjust potentiometer to the exact center of its mechanical range.
5. Connect a wire from the center (or arm) of the transmit frequency adjustment potentiometer to the center (or arm) of the former RF Gain control.
6. Connect a wire from the top end of the transmit frequency adjustment potentiometer to the top end of the former RF Gain control.

This completes the conversion. The former RF Gain control will now adjust the transmit frequency. The adjustment of the former RF Gain control will be critical since only 270° or rotation covers 10KHz. However, the transmit frequency can be set very accurately with the aid of the frequency counter.

