

AR-313      KEYBOARD INTERFACE

TRIM PROCEDURE ( WITH ARIES SYNTHESIZER)

VOICE TRIM

1. Connect the keyboard power cable to the synthesizer. Turn on.
2. Connect a patch cord from one voice output just to control #2 on one VCO.
3. Set keyboard tuning to center, and portamento off.
4. Mix the sawtooth outputs of this VCO and another one, with NO control inputs, and listen to them. Set both dials to 250 Hz.
5. While holding down the lowest key (c), carefully tune either VCO for zero beat, that is, the same frequency.
6. Loosen locking nut on VOICE INTERVAL trim pot on keyboard panel (if used).
7. Release the lowest key, and hold down the "C" key two octaves up (the 15th white key).
8. Adjust the VOICE INTERVAL trim so that the VCO's are exactly two octaves apart.
9. Repeat steps 5, 7, and 8 until the VCO's are in unison at the lowest key, and two octaves apart at the 15th white key, without needing further trimming.
10. Tighten the lock nut and check the VCO's again.

AUXILIARY VOICE TRIM

1. Now connect a patch cord from the VOICE output to control input #2 of the second VCO. (Leave the first one connected also).
2. While holding the lowest key down, tune the VCO's exactly in unison.
3. Play different notes, and check that the VCO's stay in unison closely. If not, one of them needs adjustment of its "VOLTS PER OCTAVE " trim.
4. Connect a patch cord from one AUX. VOICE output jack to control input #3 of one VCO.
5. Hold the lowest note down, and tune the VCO's exactly in unison.
6. Loosen the locking nut (if used) on the AUX. VOICE INTERVAL trim pot.
7. Simultaneously hold down the lowest key and the one an octave higher (the 8th white key).
8. Adjust the AUX. VOICE INTERVAL trim so the VCO's are exactly one octave apart.
9. Repeat steps 5, 7, and 8 until the VCO's are in unison with only one key down, and one octave apart with two keys an octave apart held down.

NOTE: THIS TRIM MAY BE DIFFICULT BECAUSE IT ALSO AFFECTS THE TUNING. IF YOU HAVE TROUBLE, THE FOLLOWING WILL HELP.

ADDITIONAL TRIM INSTRUCTION

1. Listen only to the VCO which has the AUX. VOICE connection plus the VOICE connection.
2. Hold down the lowest key, and alternately push and release the next octave (8th white key).
3. Adjust the AUX. VOICE INTERVAL trim so that you hear an octave change when you play and release the octave key. When adjusted, tighten the locking nut and check the intervals again.