control fully counterclockwise. Depress all four SUB ASSIGN buttons. Set the RECORD LEVEL controls fully clockwise, and depress the four RECORD READY buttons. Place a <u>blank</u> tape (not the alignment tape) in the transport, and place the machine in the RECORD-PAUSE mode. Input a 1 KHZ @ +4dBm (1.23V RMS) sine wave into the RETURN 1 jack. Adjust VR-10 trim on each SUB board located towards the bottom of the mixer for a 0VU reading on the meters. To adjust SUB 2, the PAN control must now be turned fully clockwise.

Depress the SOLO button on RETURN 1, and adjust the extra trim on SUB 3 for a 0 VU level on the SOLO meter.

STEP 7: BIAS CURRENT ADJUSTMENT

With the SPEED control in the 9.5 (down) position, connect an <u>ungrounded</u> AC voltmeter or oscilloscope between the top two test points located on the PLAYBACK AMP board (the one just above the transport). With <u>no signal</u>, place the machine in the RECORD-PAUSE mode. The bias current trims are located on the mother board below the RECORD AMP board (the one with the RECORD READY buttons), and can be adjusted through the slot in the RECORD AMP board's mounting bracket. Adjust the trim closest to the right side of the mixer for a meter reading of 4.2mv RMS or an oscilloscope reading of 11.9mv P-P. Place the test leads on the next lower set of test points, and repeat using the next trim in line. This method is approximate, and yields good results. If using tape other than TDK SA-type, either: (1) record 1kHz and 10kHz tones at -20dBv, and adjust trims for equal output, or (2) use a spectrum analyzer with pink-noise or swept-sine source and adjust for flattest response.

Uses CN13 As Testpoint.

STEP 8: RECORD-PLAY LEVEL ALIGNMENT

Place the SPEED control in the 9.5 (down) position, and input a 1kHz @ -6dBm (.388v RMS) sine wave through the RETURN 1 jack as described above. Place the meter at the TAPE OUT 1 jack, and place the machine in the RECORD-PAUSE mode (RECORD LEVEL controls fully clockwise, RECORD READY buttons depressed). The meter at TAPE OUT 1 jack should read approximately -6dBm; if not, repeat steps 5 @ 6. Set the input signal level to read exactly -6dBm (.388v RMS) at TAPE OUT 1 jack. Record several seconds of tone, rewind, and play back. The TAPE OUT 1 signal should read -6dBm; if not, slightly adjust the trim on the RECORD AMP and repeat record-play process, adjusting the trim until levels match. Repeat process for each track.

STEP 9: REASSEMBLE UNIT

- check all inputs/outputs
- check FF/REW