

DELUXE ELECTRIC MISTRESS ALIGNMENT  
(FOR UNITS SHIPPED UP TO 3/15/79)

Set RATE and FEEDBACK controls to min(CCW); set mode switch to FILTER MATRIX. The clock frequency is now fixed(not modulated) and its frequency is determined by the RANGE control.

Set the RANGE control fully CW. Set the clock frequency trimpot(100K) for approx. 20KHZ at pin 1 or 5 of the CD 4013A. This is a square wave with a period of approx. 50 usec. Feed in a 200 HZ signal and set the bias adj. for an unclipped sig of 1V p-p min. at the output of the balance adj.

Set the gain adj. for unity gain between the bal. adj. output and pin 6 of the 741. Set the bal. adj. for minimum clock freq. with no audio sig., and make sure the unity gain is still OK.

Vary the RANGE control over its full range, and trim the bias adj. for max unclipped p-p signal through the SAD 1024A. Recheck the bal. adj. with no signal.

Decrease the input to .5V p-p and increase the frequency to about 3KHZ. The output level from the 1024A should go up about 5db (almost  $\times 2$ , or to about .9V p-p) due to the pre-emphasis, but the output from the unit should not due to the de-emphasis.

Look at the clock (pin 1 or 5 of 4013A) and switch to the FLANGE mode. Check for proper freq. modulation and action of RATE and RANGE controls.

With RATE at midpoint and RANGE at max(CW), set the F. B. trim so that with the FEEDBACK control at max (CW) the unit cannot oscillate but has sufficient feedback effect.