

12-12. Record Bias Adjustment

- (7) Turn the zenith adjusting screw by the same angle of turns of the height adjusting screw obtained in preceding procedure (6).
- (8) After the adjustment, check the tape pass adjustment again.

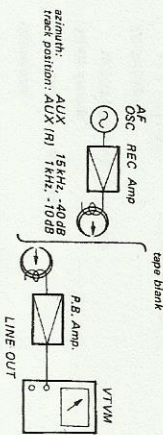


Fig. 12-15 Record head azimuth and track position adjustment setup

12-11. Record Head Phase Check

Connection:  
As shown in Fig. 12-16.

Switch Setting:  
MONITOR switch ..... TAPE

VR Setting:  
AUX VOLUME ..... indicated on page 25

Procedures:

- (1) Make the p.b. head phase check.
- (2) Thread a blank tape.
- (3) Deliver a 1.5 KHz signal of -10 dB (0.24V) into the AUX input jack and record the signal on the blank tape.
- (4) Be sure to obtain the Lissajous figure as shown in Fig. 12-17.

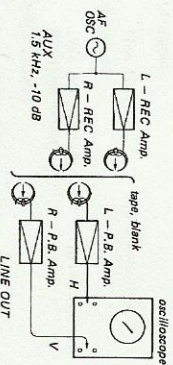


Fig. 12-16 Record head phase check setup

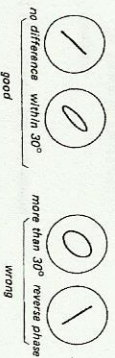


Fig. 12-17 Lissajous figures

Connection:

As shown in Fig. 12-19.

Adjusting Parts:  
C128 (C228) ..... See Fig. 12-2

Switch Setting:  
MONITOR switch ..... TAPE

TAPE SPEED switch ..... 19 cm/s (7 1/2 ips)

VR Setting:  
AUX and MIC VOLUME ..... indicated on page 25

Procedures:

- (1) Be sure that the trap coil adjustment has been made.
- (2) Thread a blank tape.
- (3) Deliver a 1 KHz signal of -10 dB (0.245V) into the AUX input jack.
- (4) While recording the signal on the blank tape, turn the trimmer capacitor C128 (C228) clockwise slowly until the VTVM reads the maximum value.
- (5) Continue to turn the trimmer capacitor until the VTVM reads a value 0.5 dB below the maximum reading.
- (6) Disconnect the VTVM and connect it across the record head.
- (7) Be sure that the VTVM reading is approximately 14V.
- (8) Be sure that the VTVM reading decreases by degrees, as the TAPE SPEED switch is changed to 9.5 cm/s and then 4.8 cm/s.
- (9) After the adjustment, apply lock paint to the capacitors.

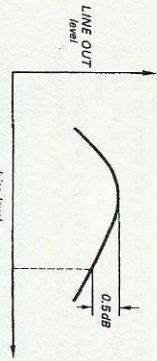


Fig. 12-18 Record bias characteristics

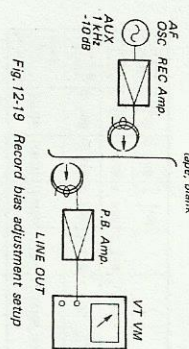


Fig. 12-19 Record bias adjustment setup

12-13. Record Level Adjustment

Connection:  
As shown in Fig. 12-20.

Adjusting Parts:  
R120 (R220) ..... See Fig. 12-2

Switch Setting:  
MONITOR switch ..... TAPE

TAPE SELECT switch ..... NORMAL

NOISE SUPPRESS switch ..... OFF

TAPE SPEED switch ..... 19 cm/s (7 1/2 ips)

VR Setting:  
AUX VOLUME ..... indicated on page 25

Procedures:

- (1) Thread a blank tape.
- (2) Deliver a 1 KHz signal of -10 dB (0.24V) into the AUX input jack and record the signal on the blank tape.
- (3) Adjust R120 (R220) to obtain 0 dB on the VTVM.
- (4) Be sure that the VTVM reading is 0 dB (0.775V) when changing the MONITOR switch to SOURCE and the pointer of the level meter just stays at the boundary between the red portion and the black portion when changing the MONITOR switch to TAPE.
- (5) When changing the TAPE SELECT switch to SLH with the MONITOR switch set in SOURCE, be sure that the reading on the VTVM decreases approximately 1.5 dB.

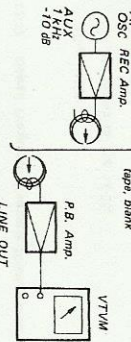


Fig. 12-20 Record level adjustment setup

12-14. Record Equalizer Adjustment

Connection:  
As shown in Fig. 12-21.

Adjusting Parts:  
L101 (L201) ..... See Fig. 12-2

Switch Setting:  
MONITOR switch ..... TAPE

TAPE SPEED switch ..... 19 cm/s (7 1/2 ips)

VR Setting:  
AUX VOLUME ..... indicated on page 25

Procedures:

- (1) Be sure that the p.b. equalizer adjustment, the trap coil adjustment and the record bias adjustment have been made.
- (2) Thread a blank tape.
- (3) Deliver a 1 KHz signal of -40 dB (7.75 mV) into the AUX input jack and memorize the reading on the VTVM, while recording the signal on the blank tape.
- (4) Change the signal from 1 KHz to 20 KHz.
- (5) Adjust L101 (L201) to obtain the same reading obtained in preceding procedure (3) on the VTVM.
- (6) When changing the signal continuously from 20 KHz to 10 KHz be sure that the deviation on the VTVM is within 4.3 dB. If the deviation is more than 4.3 dB in level, make the tape pass and the record head azimuth adjustments.

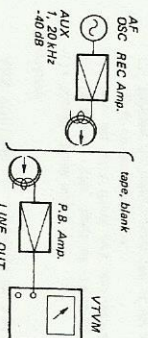


Fig. 12-21 Record equalizer adjustment setup