6 Main Adjustment

1. Measuring instruments required for adjustment

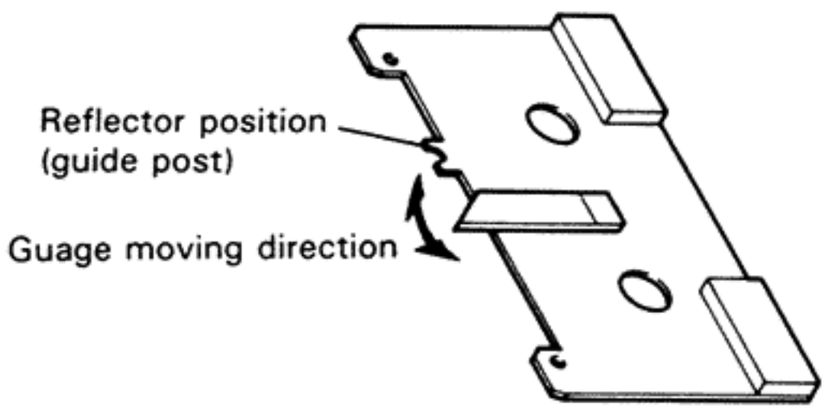
(1) **Audio frequency oscilloator**
(range: 50 ~ 20 kHz and output 0 dB with 600 Ω impedance)
(2) **Attenuator** (impedance 600 Ω)
(3) **Electronic voltmeter**
(4) **Standard tape**
VTT712 (Tape speed, wow and flutter check)
VTT724 (reference level)
VTT739 (for playback frequency characteristics)
VMT6447 (music scanning)
TMT6448 (music scanning)
TMT702 (14 kHz)
(5) **Recording standard tape**
TS-9(UDI), TS-6(SA), TS-7(ME) or the like.
(use standard tape specified by Victor)
(6) **Resistors 600 Ω** (attenuator matching)
(7) **Distortion gauge** (band pass filter)
(8) **Torque gauge** (cassette) CTG-N mechanical adjusting.
(9) **Wow and flutter gauge**
(10) **Frequency counter**
(11) **M300 gauge**

2. Mechanical Adjustment

When replacing head, check the height, direction and tilt (rough adjustment) of each head as follows.

Tape travel adjustment
Use tool M300. Be careful not to damage head.

Tape guide adjustment



Tilt adjustment

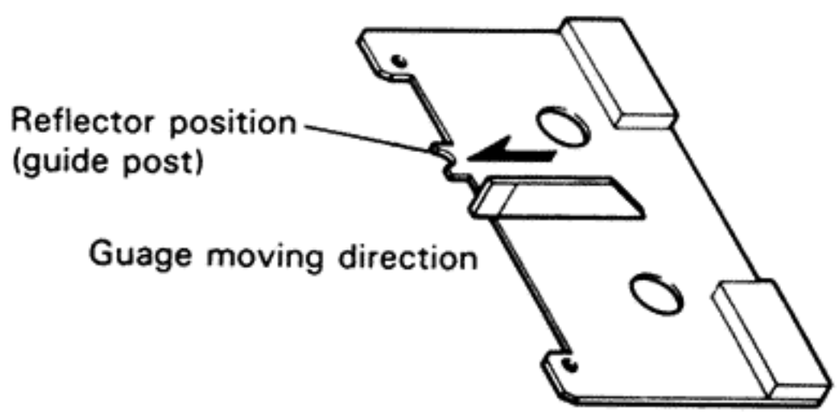


Fig. 6-1

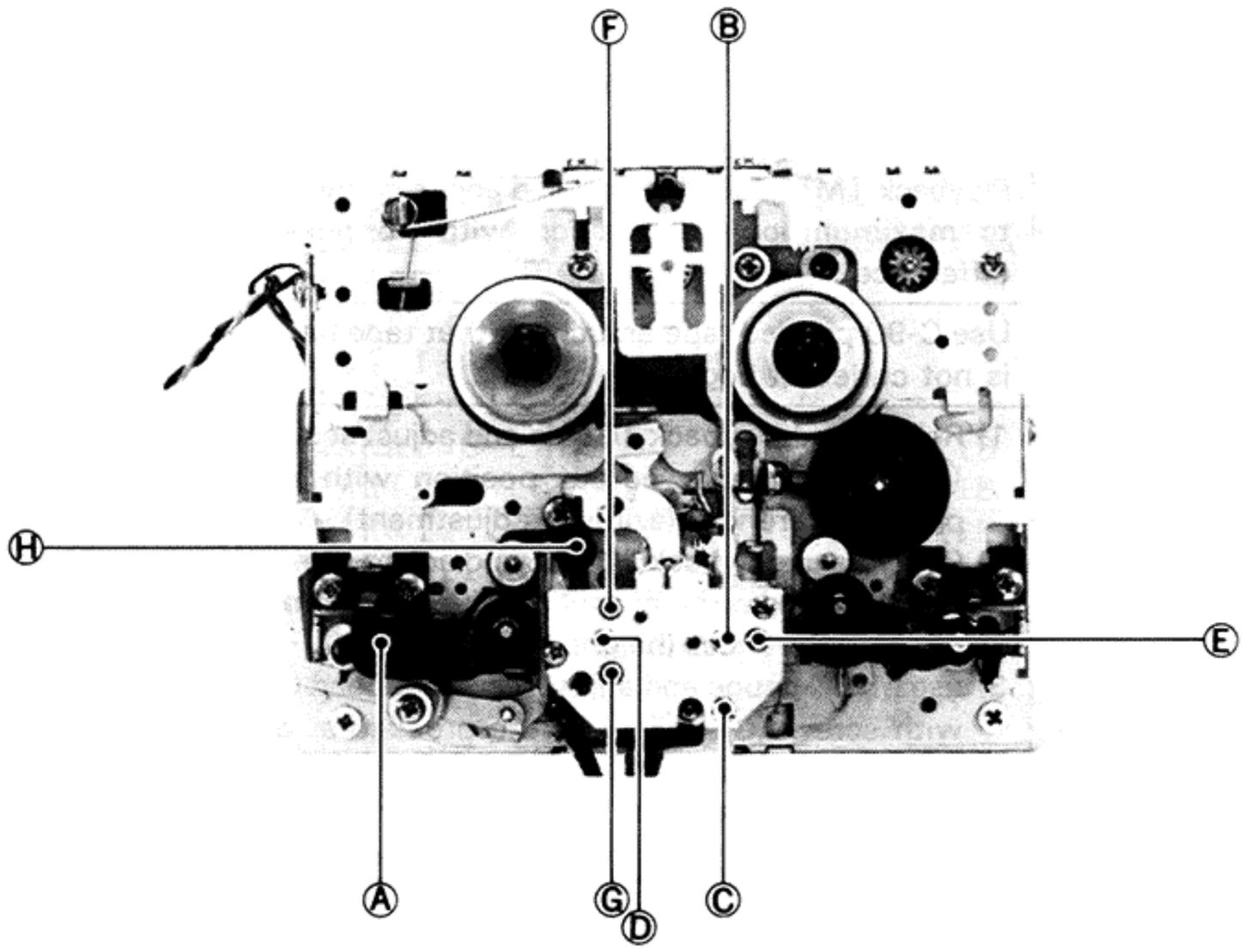
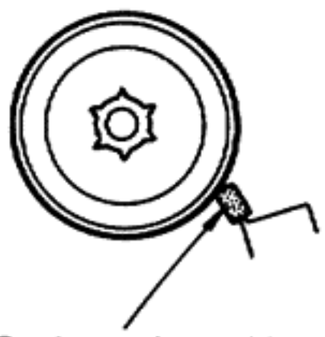
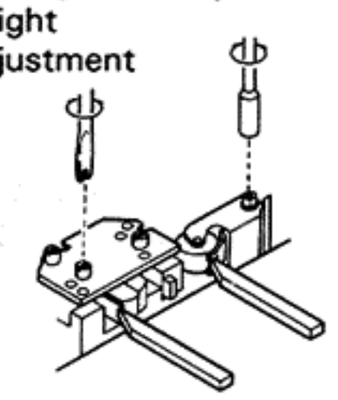
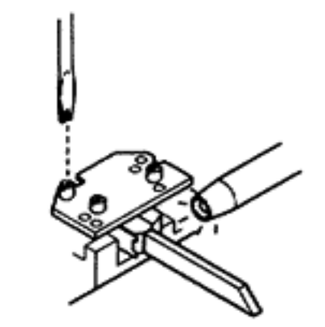
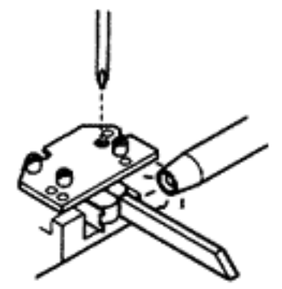
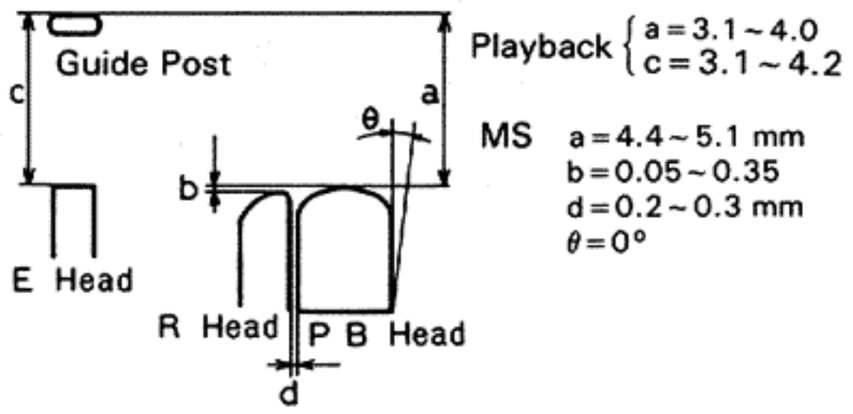
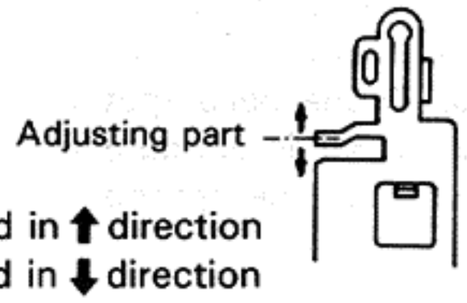
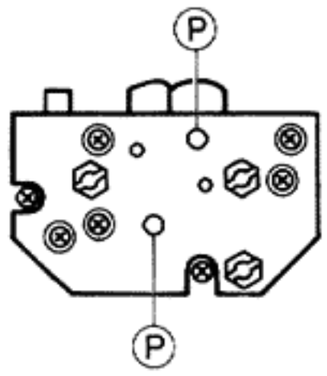
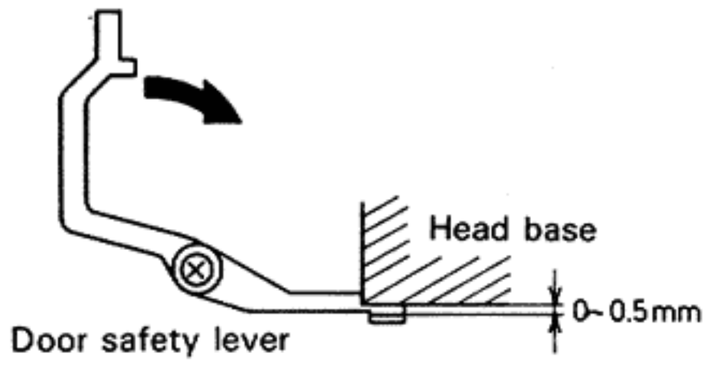


Fig. 6-2

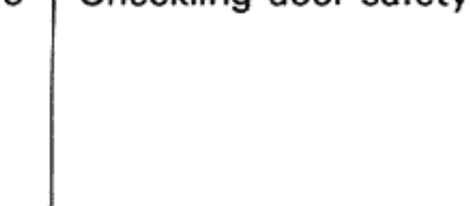
	Item	Method	Standardsng	
1	Fly wheel and thrust check	Check by feeling	0.2 ~0.5 mm	
2	Back tension rubber position check	At PLAY, back tension rubber should touch supply wheel to stop wheel. At MS/Stop, back tension rubber should not touch supply wheel.		Supply disk  Back tension rubber
3	Pinch roller fastening order check	Right pinch roller should fasten to capstan shaft before left pinch roller.		
4	Pinch roller guide height adjustment	Use M300 gauge and adjust Ⓐ so that 3.8 mm gauge can pass.		
5	Playback head height and tilt adjustment	1) Use M300 gauge and adjust playback head tape guide with Ⓑ screw so that 3.8 mm gauge can pass. 2) Adjust Ⓒ screw so that playback head is not tilted and that there is no gap between the gauge and head. 3) Gaugbe will touch gap face, adjust carefully. Hold a flash light from the opposite side and check for light leakage. 4) Re-check guide height. If gauge touches, re-adjsut upper 1), 2).		Pinch roller guide height adjustment Head guide height adjustment   Playback head tilt adjustment
6	Playback azimuth adjustment	Playback TMT7008 (14 khz) and adjust screw Ⓓ to maximum output position with no phase difference.		
7	Tape travel check	Use C-90 padded tape and check that tape head is not curled at beginning of wind.		Use mirror tape to check tape travel.
8	Recording head height, tilt. Azimuth adjustment	1) Record and playback 10 kHz and adjust screw Ⓔ to maximum output position with no phase difference. (azimuth adjustment) 2) Record and playback 10 kHz and adjust screw Ⓕ to maximum output position with no phase difference. (height adjustment) 3) use M300 gauge and adjust recording head tilt with screw Ⓖ following the procedure for adjusting playback head tilt. 4) Record and playback 10 kHz and re-adjust azimuth adjusting screw Ⓔ to maximum output position. Match L/R phases.		 Recording head tilt adjustment

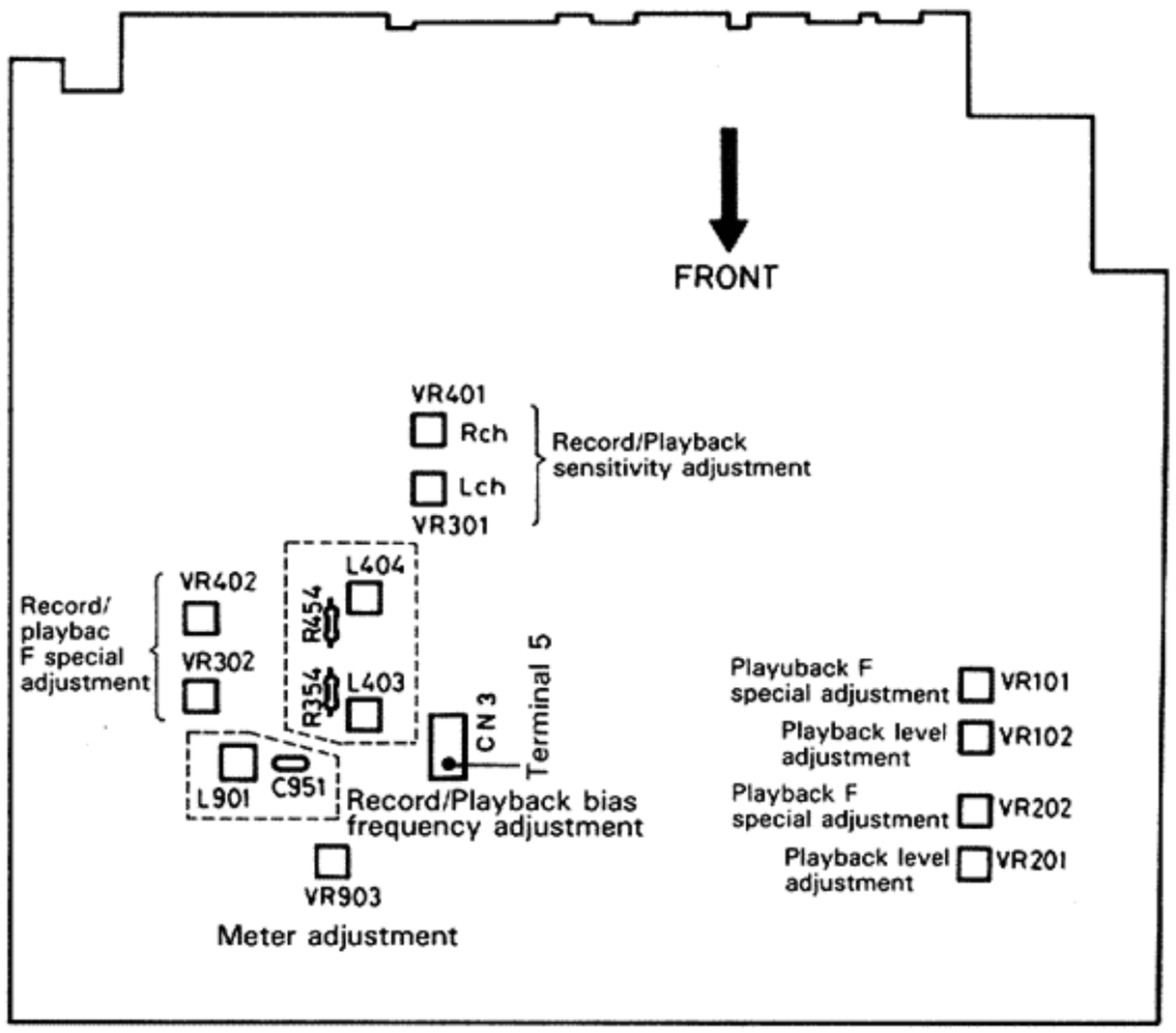
	Item	Method	Standardsng	
9	Head position	Use M300 gauge and adjust so that playback head is in front of recording head. Other standards are as follows. The measurements are as against guide post Ⓗ .  Bend and adjust head base so that a is within 4.4 ~ 5.1 mm at MS.  Excessive = Bend in ⬆ direction Insufficient = Bend in ⬇ direction After this adjustment, check Item ⑩ .	0.05 ~0.35 mm	 Head position adjustment Adjust screw Ⓟ so that playback head is "b" measurement in front of recording head. [re-adjust playback, recording azimuth after adjusting Ⓟ .]
10	Checkling door safety	Controls clearance between head base and door safety when door safety is pulled in the direction of the arrow at STOP. 		

3. Electric Circuit Adjustment Location

Main Amplifier Base (parts side)

Note:
The record a 1 kHz,
– 20 dB signal is reference level (– 8 dBs) level, so
– 20 dB is low level.





AMP P.C. Board

Fig. 6-3