AKAI-00351

SERVICE MANUAL

PARTS LIST

MODEL GX-635D

AKAI

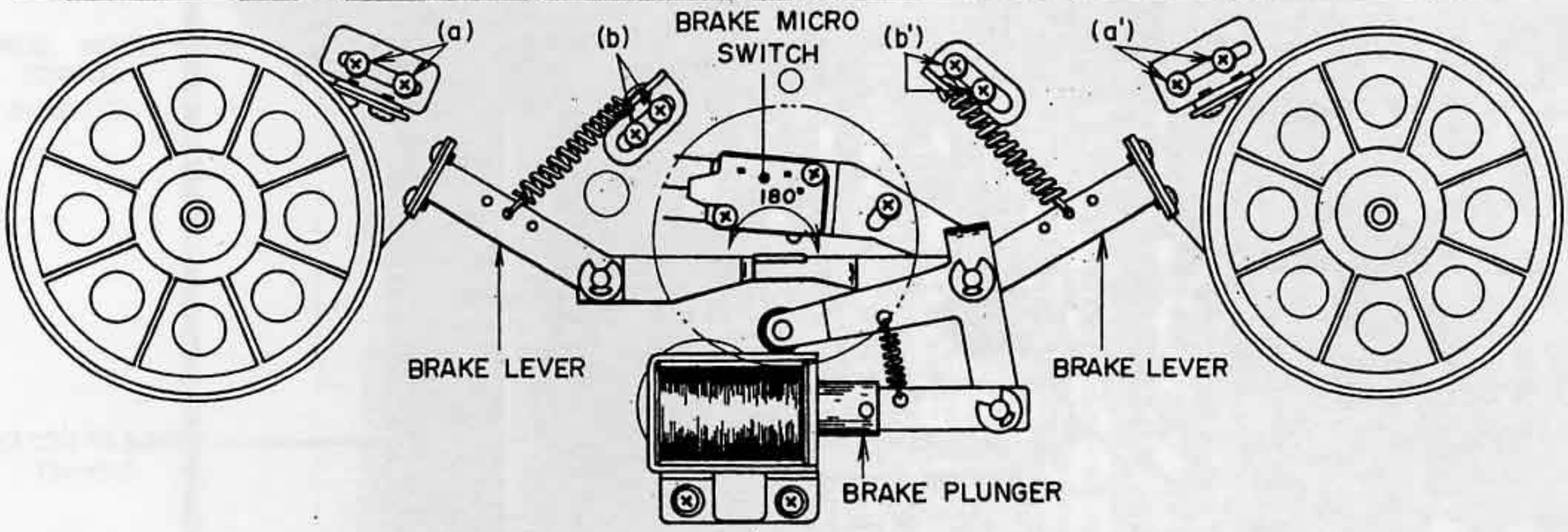


Fig. 11

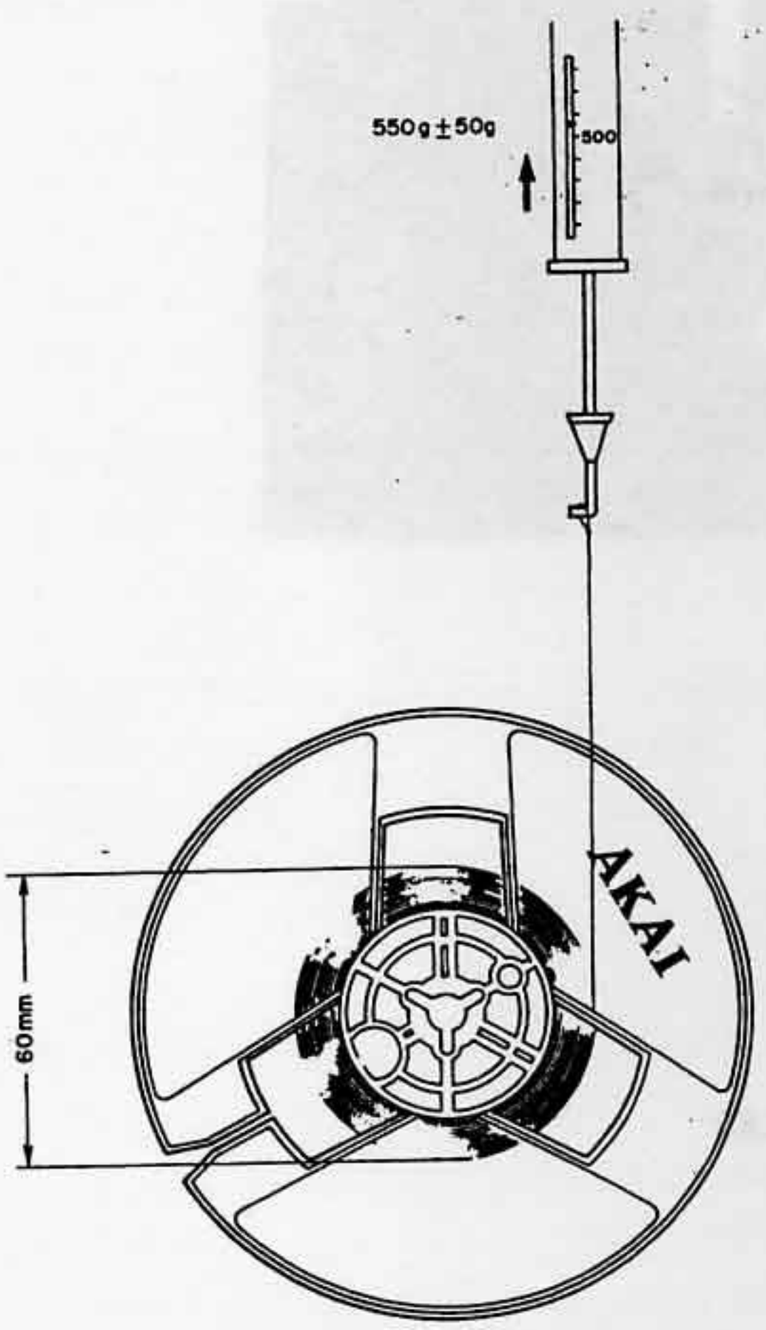


Fig. 12

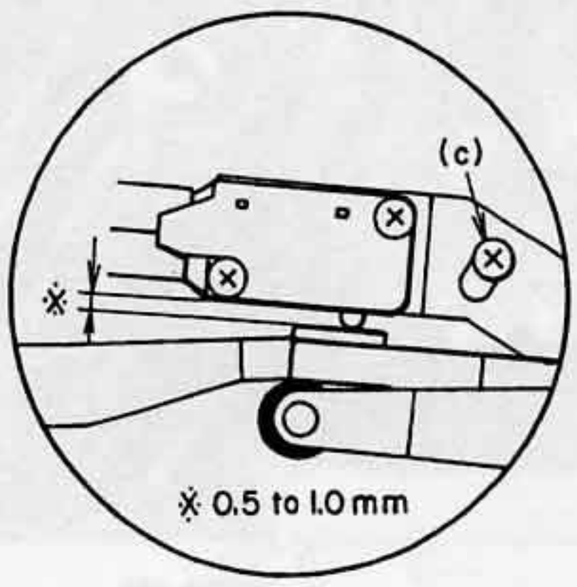


Fig. 13

6. BRAKE BAND POSITION ADJUSTMENT AND BRAKE TENSION ADJUSTMENT

(Refer to Figs. 11 to 13)

1) Adjust the brake lever to 180° position by loosening the screws (a) and (a').
2) Work the brake plunger to check that the brake band is not slanted.
3) Adjust the position of the part with screws (b) and (b') to obtain a brake tension of 550 ± 50g on both brakes at stop mode.
   (Use a 1000g spring gauge for a reel with 60 mm diameter of tape.)
   In case the specified brake tension cannot be obtained, connect the springs to the other holes on the brake lever and adjust.
4) By working the brake plunger with a finger, adjust the position of the microswitch screw (c) so that the gap between the brake lever and the microswitch body is 0.5 to 1.0 mm.

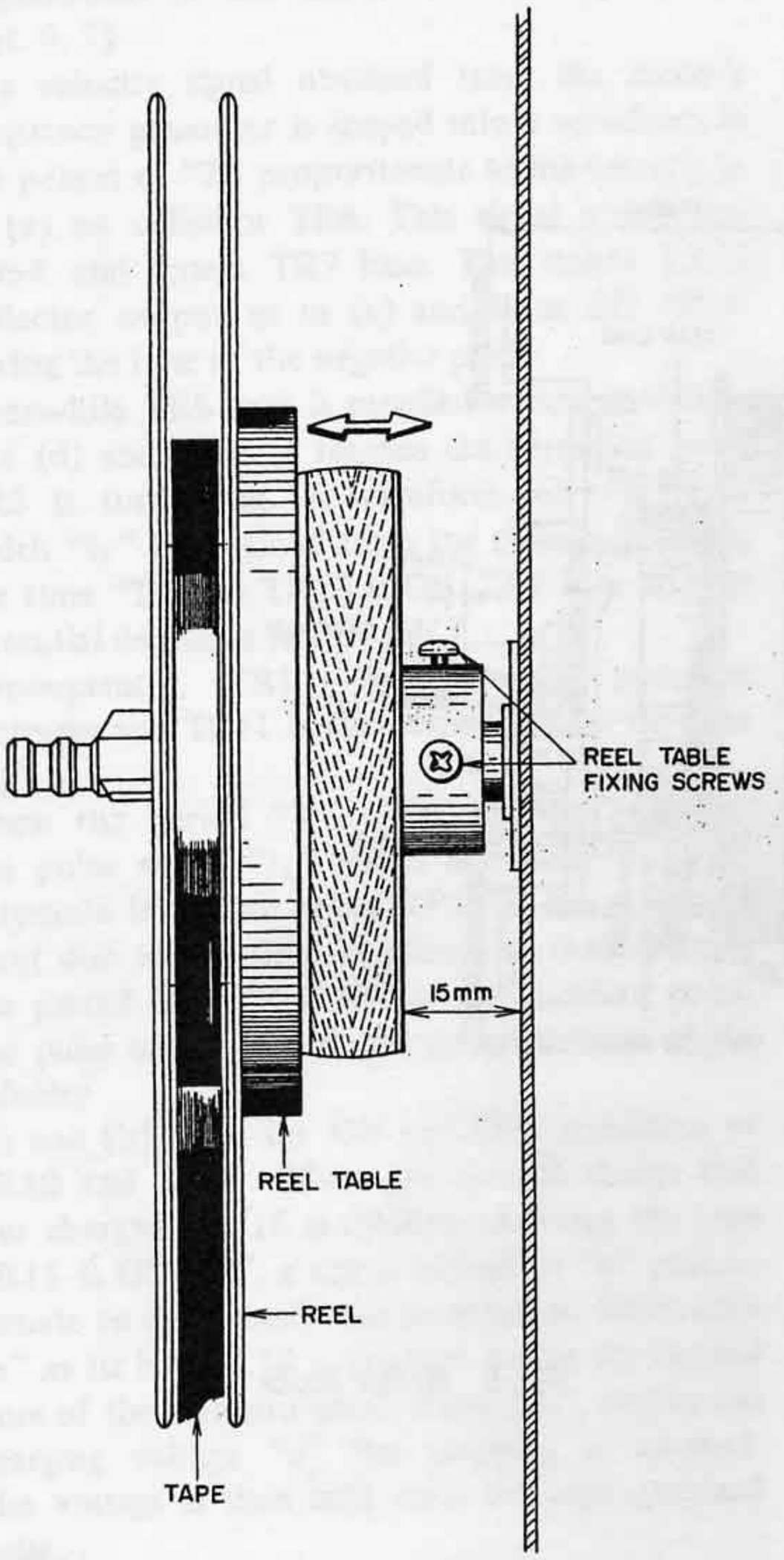


Fig. 9

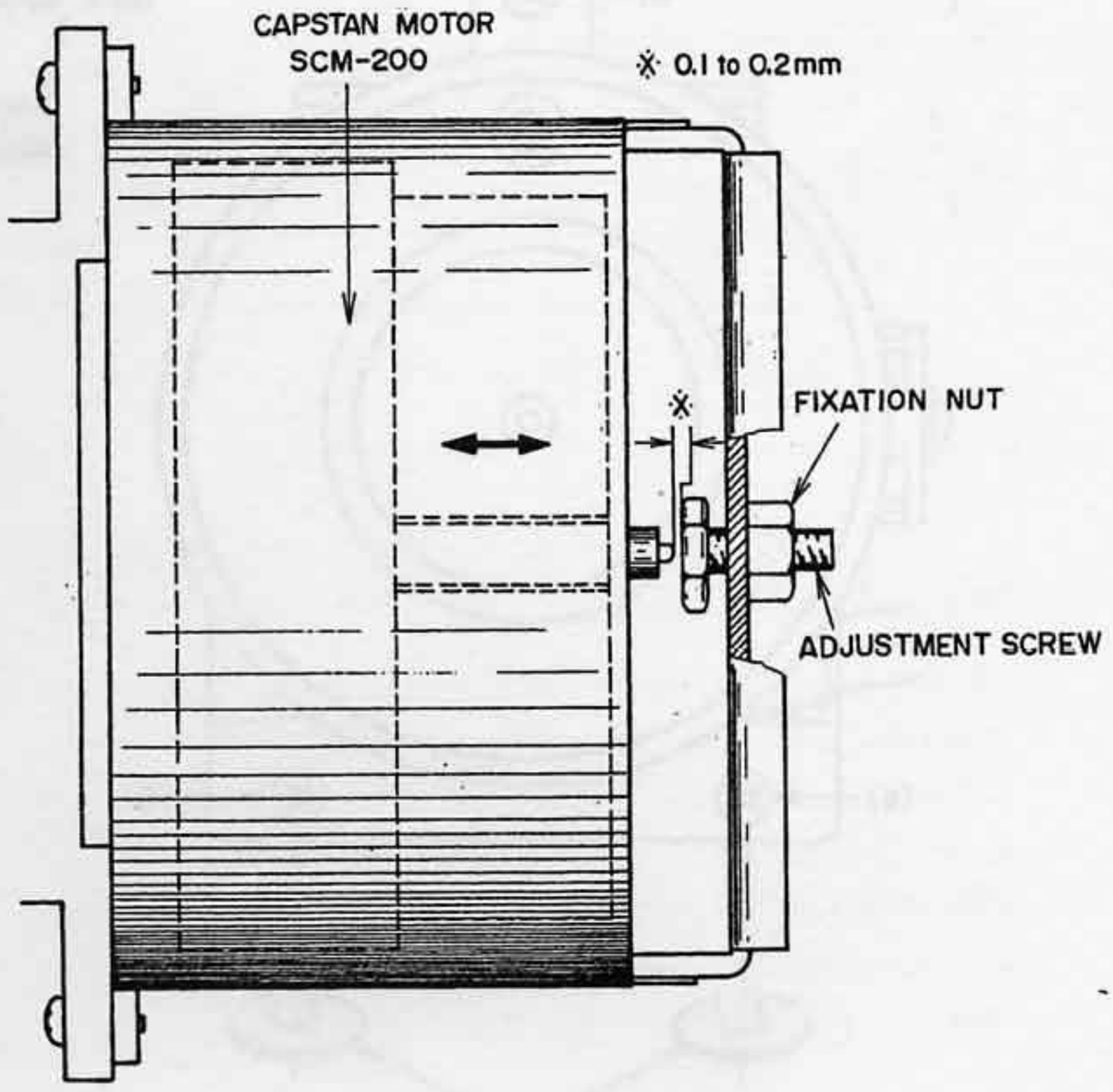


Fig. 10

4. REEL TABLE HEIGHT ADJUSTMENT (Refer to Fig. 9)

1) Temporarily screw in the fixing screws leaving a gap of 15 mm between the reel table and the chassis board.
2) Run the tape and adjust the height of the reel table so that the tape is taken up in the center of the reel. Tighten fixing screws.
   Adjust the height of the right reel table at fast forward, of the left reel table at rewind.

5. CAPSTAN SHAFT LOOSE PLAY ADJUSTMENT (Refer to Fig. 10)

Adjust by turning Adjustment Screw to obtain a 0.1 to 0.2 mm degree of loose play when the capstan shaft is moved as indicated by the arrow mark. Tighten fixation nut to maintain optimum adjusted condition.

VI. MECHANISM ADJUSTMENT

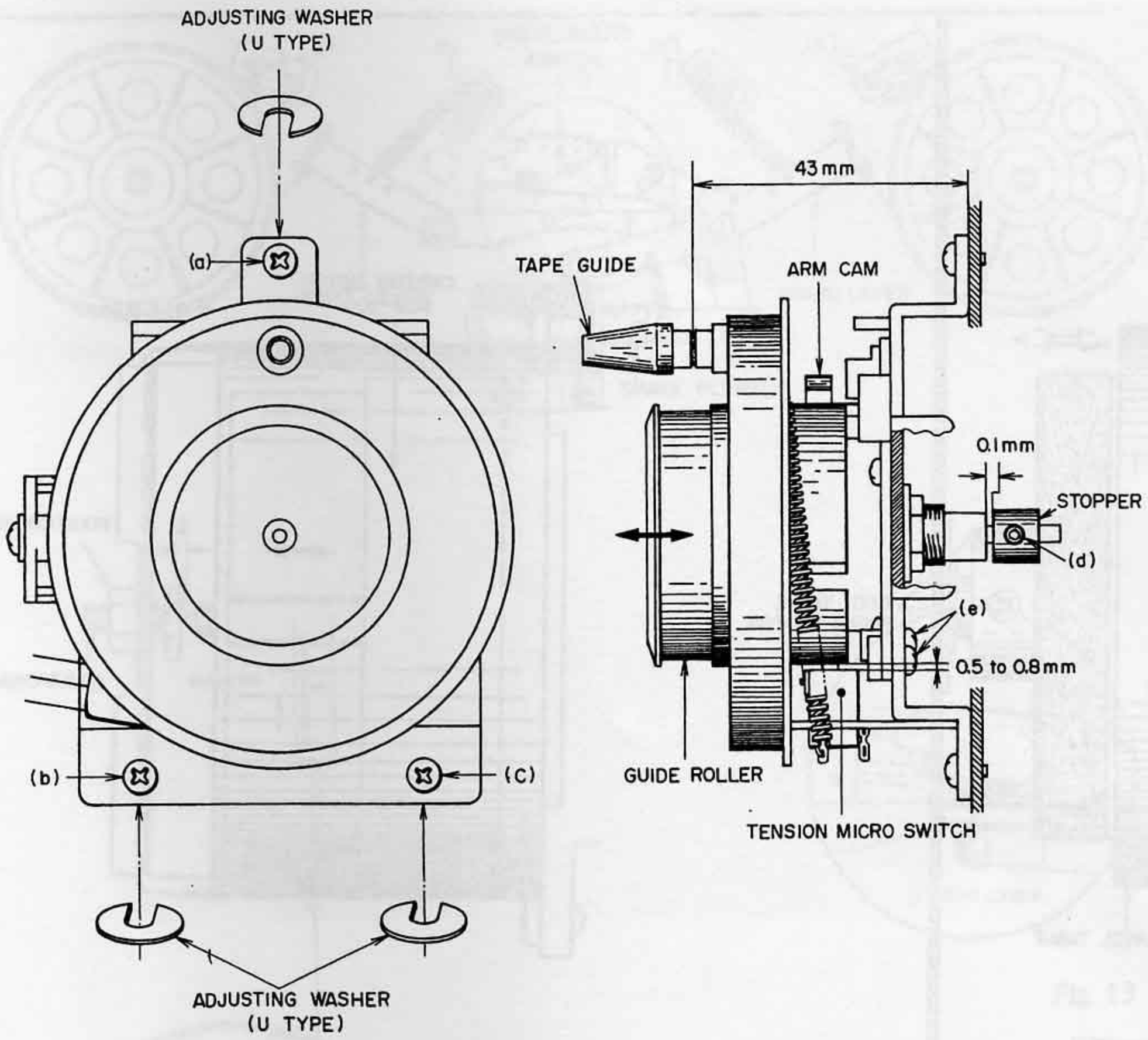


Fig. 8 Roller Block

1. GUIDE ROLLER LOOSE PLAY ADJUSTMENT (Refer to Fig. 8)

Adjust the stopper (roller pulley on the right) screw (d) so that the loose play gap is approximately 0.1 mm when the guide roller is moved as indicated by arrow mark in Fig. 8.

2. TENSION MICRO SWITCH POSITION ADJUSTMENT (Refer to Fig. 8)

Adjust the screws (e) so that the gap between the arm cam and the micro switch is approximately 0.5 to 0.8 mm. Check that the micro switch works and that the arm lock smoothly disengages.

3. ROLLER BLOCK HEIGHT ADJUSTMENT (Refer to Fig. 8)

Use the U type adjusting washers for screws (a), (b), and (c) to adjust the roller block height: the distance between the tape guide center to the chassis board should be 43 mm.

NOTE: Steps 1 and 3 also apply to the right guide roller.

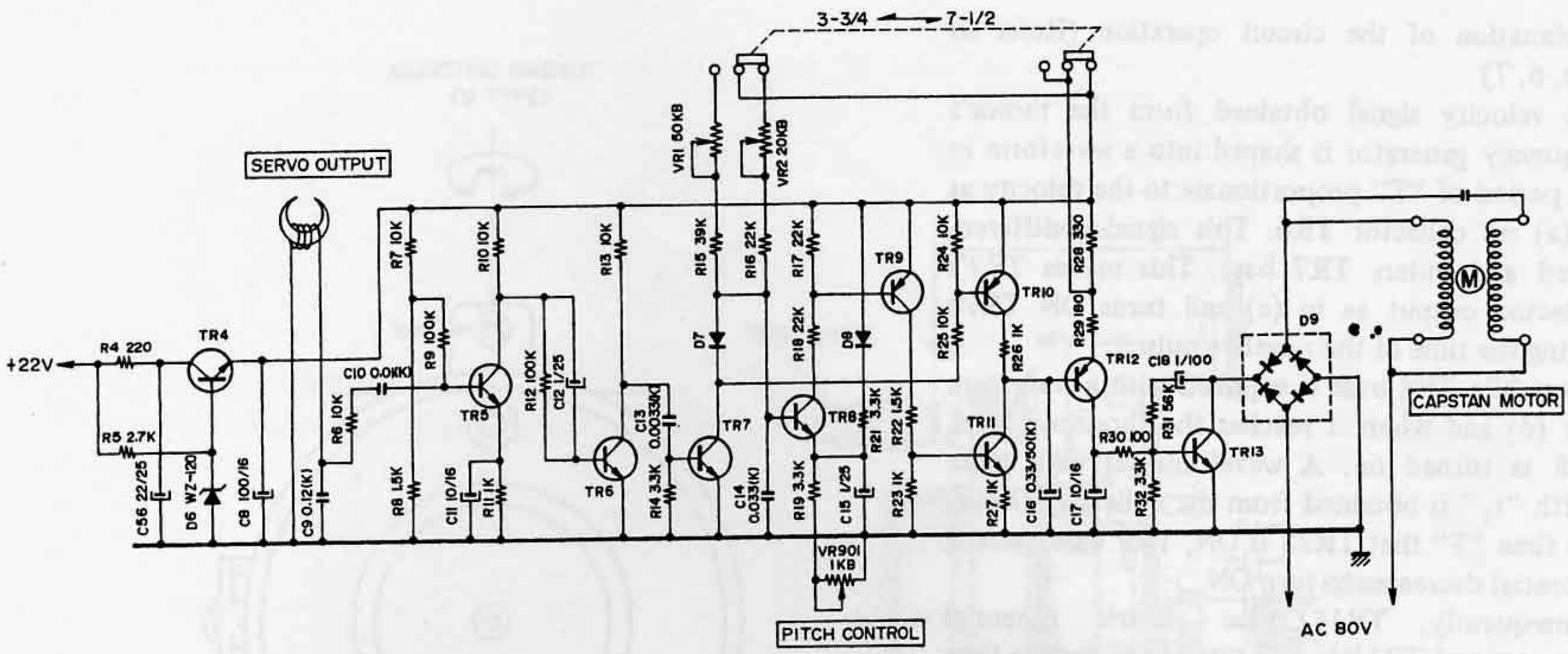

3-3/4
7-1/2
SERVO OUTPUT
VR1 50KB
VR2 20KB
+22V
R4 220
TR4
R5 2.7K
C56 22/25
D6 WZ-120
C8 100/16
C9 0.12(K)
R6 10K
R7 10K
R8 1.5K
C10 0.0(KK)
R9 100K
TR5
C11 10/16
R10 10K
R11 1K
R12 100K
C12 1/25
TR6
R13 10K
C13 0.0033(K)
R14 3.3K
TR7
R15 39K
R16 22K
C14 0.033(K)
D7
R17 22K
R18 22K
TR8
R19 3.3K
C15 1/25
VR901 1KB
PITCH CONTROL
D8
TR9
R21 3.3K
R22 1.5K
R23 1K
R24 10K
R25 10K
TR10
R26 1K
TR11
R27 1K
C16 0.033/50(K)
R28 330
R29 180
TR12
C17 10/16
C18 1/100
R30 100
R31 56K
TR13
R32 3.3K
D9
M
CAPSTAN MOTOR
AC 80V

Fig. 6

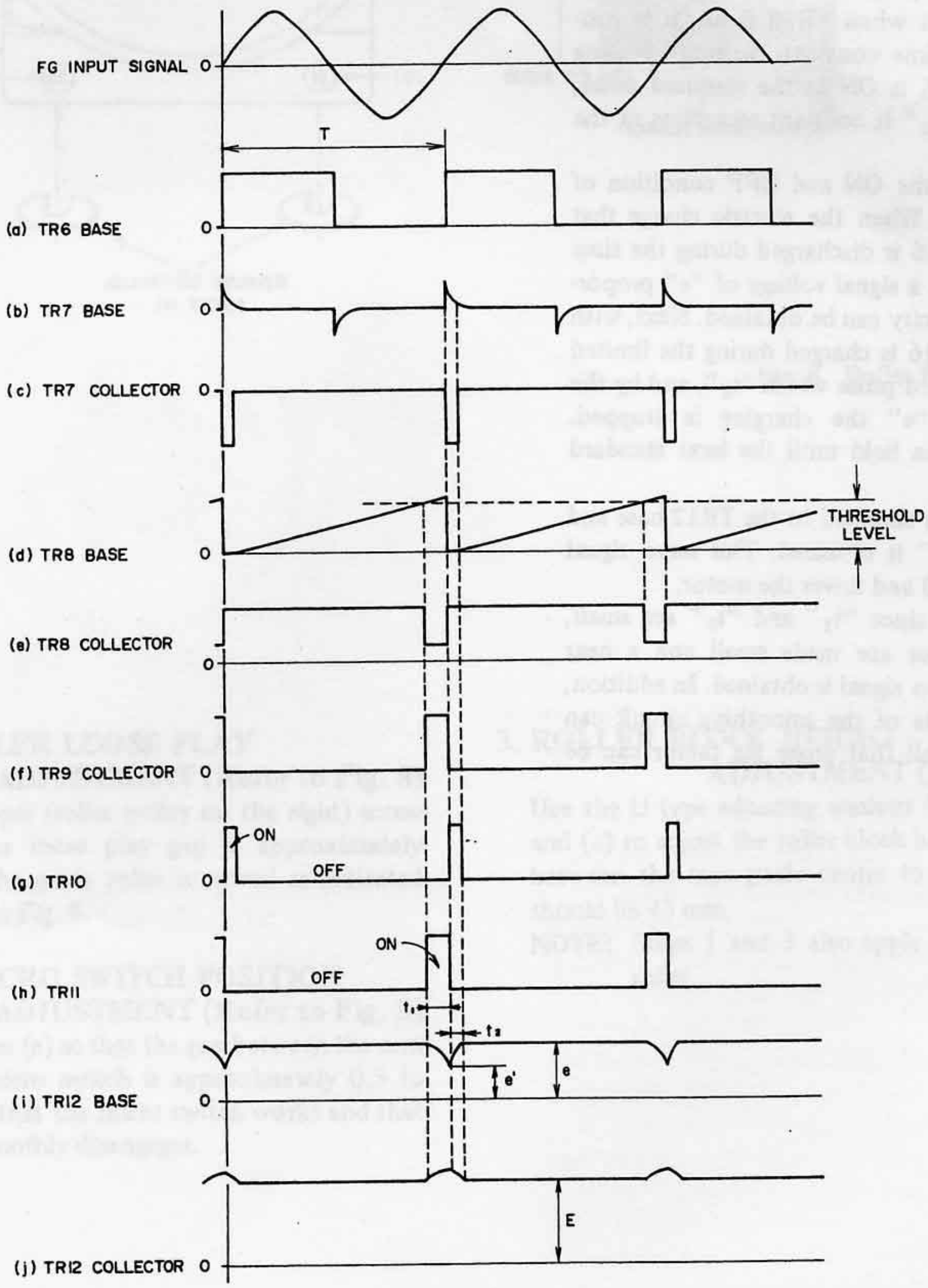

FG INPUT SIGNAL
0
T
(a) TR6 BASE
(b) TR7 BASE
(c) TR7 COLLECTOR
(d) TR8 BASE
THRESHOLD LEVEL
(e) TR8 COLLECTOR
(f) TR9 COLLECTOR
ON
OFF
(g) TR10
(h) TR11
t1
t2
e'
e
(i) TR12 BASE
E
(j) TR12 COLLECTOR

Fig. 7

GX-635D

TR1,2,3 2SC458LG(D)

TR4 2SC458(D)

TR5,6 2SC945L(P)

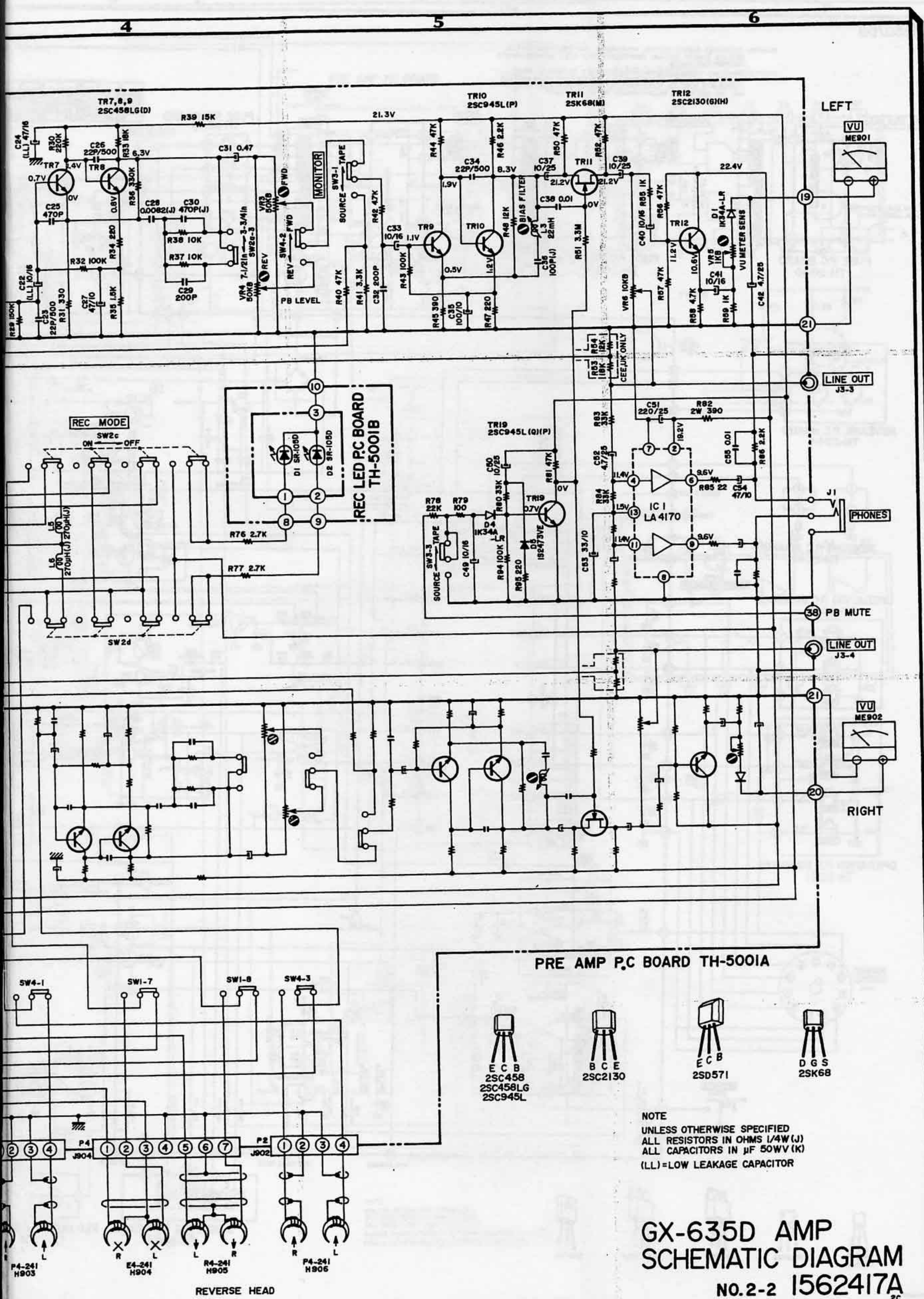
TR13,14,15,17,18 2SC945L(Q)(P)

TR16 2SD571(K)

VOLUME P.C BOARD TH-5002

※ REC MODE		7-1/2in	3-3/4in
TR13	B	0.3V	0.3V
	C	22.0V	22.0V
TR14	B	0V	0V
	C	17.0V	14.3V
TR15	B	17.0V	14.3V
	E	16.5V	13.8V
TR16	E	15.9V	13.2V
L4	1 to 3	−0.4V	−0.2V
	4 to 6	15.9V	13.2V
	8	65.2V AC	54.0V AC
	9	120.4V AC	101.8V AC
TR17,18	E	0V	0V

001001D



NOTE

UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W(J)
ALL CAPACITORS IN μF 50WV(K)
(LL)=LOW LEAKAGE CAPACITOR

GX-635D AMP SCHEMATIC DIAGRAM

NO.2-2 1562417A 2C

GX-635D/DB

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQU LES COMPOSANTS CRITIQUES DE SÛRETÉ. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL NE REMPLACER LES CONPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT

$	F1	F2	F3
U/T(200V AREA)	250V 1A	250V L6A	250V 0.8A
U/T(100V AREA)	250V 2A	250V L6A	250V 0.8A
JPN, CSA, AAL	250V 2A	250V L6A	250V 0.8A
CEE, UK	T500mA	T1A	T300mA

JPN, CSA, AAL

JPN AC100V 50/60Hz
CSA, AAL AC120V 60Hz

FUSE P.C BOARD TH-2040

CEE, UK

AC INLET AC220/240V

FUSE P.C BOARD TH-2040

U/T

AC110 to 240V 50/60Hz

FUSE P.C BOARD TH-2040

FUSE P.C BOARD TH-2040

REVERSE P.C BOARD TH-2044

SENSING P.C BOARD TH-2045

OPERATION P.C BOARD (B) TH-2042

OPERATION P.C BOARD (A) TH-2041

DIRECTION P.C BOARD TH-2043

REC MUTE P.C BOARD TH-2046

IC1 M54410P

IC2,3 M53200P
IC4 M53202P
IC5 M53204P

2SA733 2SC945L
2SC2130
2SC1061
2SC2336B
2SD794

001000F

F1	F2	F3	F4	F5
250V 1A	250V 1.6A	250V 0.8A	250V 0.8A	250V 0.8A
250V 2A	250V 1.6A	250V 0.8A	250V 0.8A	250V 0.8A
250V 2A	250V 1.6A	250V 0.8A	250V 0.8A	250V 0.8A
T500mA	T1A	T500mA	T1A	T 500mA

PRE AMP P.C BOARD

SPEED SW2a 3-3/4in — 7-1/2in

SERVO OUTPUT

+22V GND

TR1 2SC1061(B)(C)

TR2 2SC945L(P)(Q)

TR4 to 8 2SC945L(P)(Q)

TR9,10,12 2SA733(P)(Q)

TR11 2SC945L(P)(Q)

TR13 2SC2336R(Q)(R)

CAPSTAN MOTOR M903 SCM-200 (YLW, BLU, BRN, RED)

REV-4 CR1 CR2

REV-3 CR3 CR4

D9 SVB10-200

PITCH CONTROL VR901 1KB

RLS-1 PLAY BACK / RECORD

U/T, JPN: C19 1.5/100(B) 50Hz 3W 60Hz

AAL, CSA: NO CIRCUIT CONNECTION

CEE, UK: C19 1.0/100(K)

U/T, JPN CSA, AAL	CR	CR1 to 14 0.1μF+120 ohms/125V
CEE UK	100 0.1/200(M) X2	R201 to 214 C101 to 128

FOR CEE AND UK MODELS, C101 to 128 AND R201 to 214 ARE INCLUDED INSTEAD OF CR1 to 14

QUICK TENSION RL1 FRL-264 TR18 2SC2130(G)(H) TR19 2SC2130(GXH)

FAST-1

IC2,3 M53200P
IC4 M53202P
IC5 M53204P

PLAY/FF RL4 FRL-264 TR24 2SC2130(G)(H)

TR25 2SC2130(G)(H)

RL5 RE11 TR26 2SC945L (P)(Q)

TR31,32 2SC945L(P)(Q)

D1 SR-1080

EC MUTE P.C BOARD TH-2046

GT-1

D50 SVB10-200

FAST-2 GT-2 FAST-4 REV-1 PLAY/FF-1

REV PLAY BRAKE

BRAKE SW SW904

REEL MOTOR M901 LEFT 24XD-TD

REEL MOTOR M902 RIGHT 24XD-TD

REEL SIZE SW903 7in / 10in

FAST-3 GT-4 REV-2 PLAY/FF-4 FAST-2 PLAY/FF-2

SL804 TDS-07A PAUSE

OSC

SYSTEM CONTROL P.C BOARD TH-1015

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W (J)
ALL CAPACITORS IN μF 50WV (J)
POWER TRANSFORMER IS DIFFRENT ACCORDING TO AREA
(—‖—) MARK INDICATES NON POLAR CAPACITORS

GX-635D/DB
SCHEMATIC DIAGRAM
NO. 2-1 1562416A 2C

VII. HEAD ADJUSTMENT

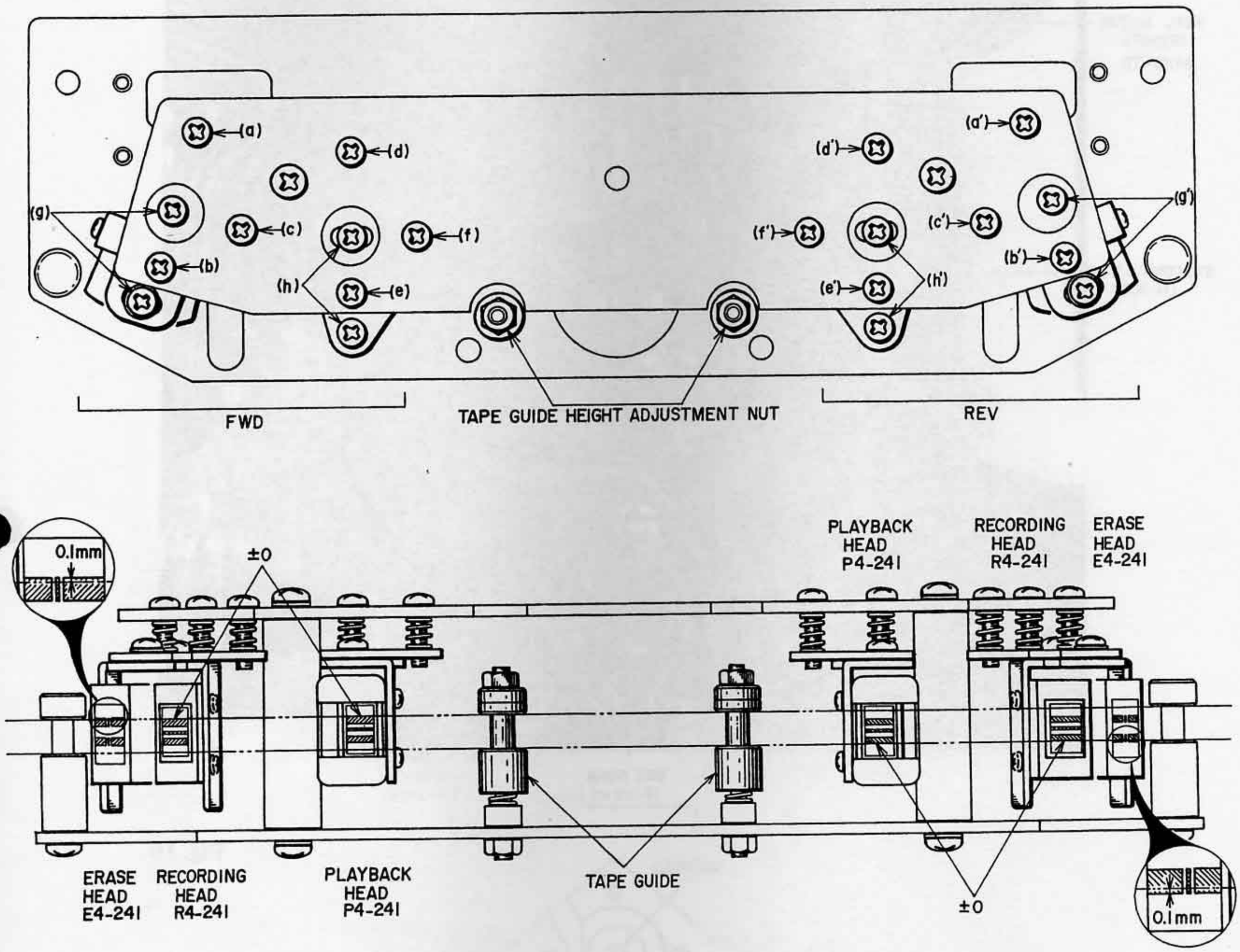


Fig. 17

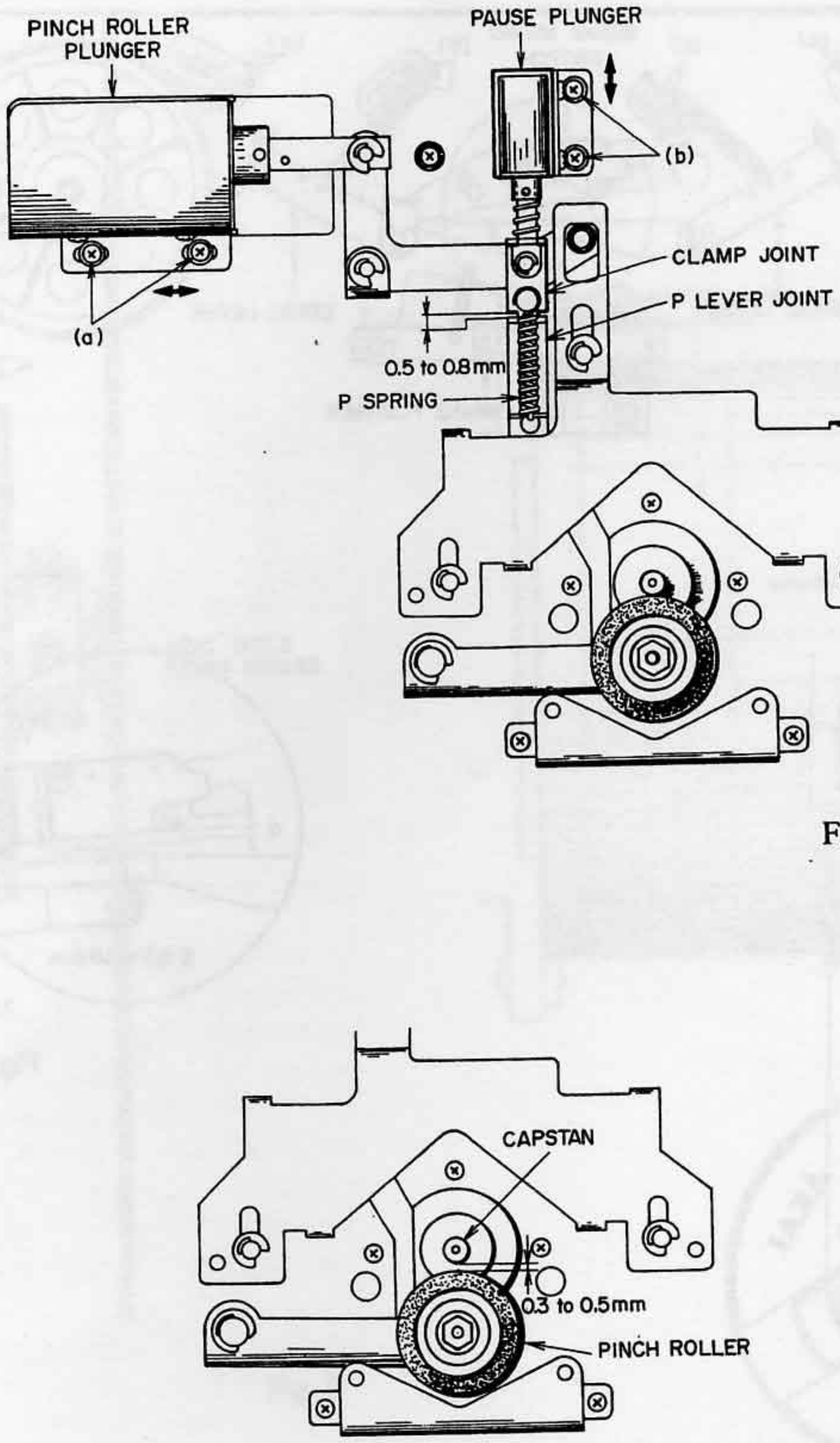


Fig. 14

Fig. 15

7. PINCH ROLLER POSITION ADJUSTMENT (Refer to Fig. 14)

At the play mode, the gap between the clamp joint and the P lever joint should be 0.5 to 0.8 mm. Adjust the pinch roller plunger position with screws (a).

8. PAUSE PLUNGER POSITON ADJUSTMENT (Refer to Figs. 14, 15)

At the pause mode, the gap between the capstan and the pinch roller should be 0.3 to 0.5 mm. Adjust the pause plunger position with screws (b).

9. PINCH ROLLER PRESSURE ADJUSTMENT

Connect a 2 kg spring gauge to the pinch roller fixing screws. Pull down the pinch roller and then let it slowly move back. Check that the spring gauge reads 1.2 kg ±200g at the moment the pinch roller touches the capstan and starts rolling. If it reads otherwise, replace the P spring (See Fig. 14).