HITACHI
Hitachi, Ltd. Tokyo Japan

SOLID STATE STEREO TAPE RECORDER

MODEL TRQ-737

SERVICE MANUAL

No. 207 1969

SPECIFICATIONS

ELECTRICAL CHARACTERISTICS

POWER SUPPLY RATING ..... AC 120V, 50/60 Hz (U)
AC 100/120/210/230V, 50/60 Hz (E)

POWER CONSUMPTION ..... 75W at AC120V, 50/60 Hz (U)
80W at AC 100/120/210/230V, 50/60 Hz (E)

RECORDING SYSTEM ..... AC bias
(with LEVELMATIC)

ERASING SYSTEM ..... AC erase

CONTINUOUS R. M. S. AUDIO OUTPUT ..... 6W or more

PEAK AUDIO OUTPUT ..... 12W or more

FREQUENCY RANGE ..... 30-18,000 Hz at 7½ ips speed
30-13,000 Hz at 3¾ ips speed

INPUT IMPEDANCE

MICROPHONE JACK ..... 2K ohms

LINE-IN JACK ..... 150K ohms

REC./P. B. (DIN) JACK ..... 2K ohms

OUTPUT IMPEDANCE

EXT. SPEAKER JACK ..... 8 ohms

REC./P. B (DIN) JACK ..... 600 ohms

HEADPHONE JACK ..... 8 ohms (Used stereo headphone)

MECHANICAL CHARACTERISTICS

TAPE SPEED ..... 7½ ips(19cm/s)
3¾ ips (9.5cm/s)
1⅞ ips (4.75cm/s)

TAPE REEL ..... Up to 7″ (18cm)

RECORDING OR PLAYING TIME

Stereo (Using 7″, 35μ tape)
1.5hr at 7½ ips speed
3hr at 3¾ ips speed
6hr at 1⅞ ips speed

Monaural (Using 7″, 35μ tape)
3hr at 7½ ips speed
6hr at 3¾ ips speed
12hr at 1⅞ ips speed

REWINDING TIME ..... Less than 4 min, using 7″, 50μ tape

FAST FORWARDING TIME ..... Less than 4 min.
Using 7″, 50μ tape

COMPONENTS USED

TRANSISTORS ..... 2SB 73(B)×2, 2SB 75(F)×2
2SB 75(C)×2, 2SB 77(B)×2
2SB367(B)×4, 2SB370(B)×2
2SB370(A)×1.

DIODES ..... 1N34A×4

VARISTORS ..... HV-16×2

THERMISTORS ..... 13D27×4, D-1E×1

LOUDSPEAKER ..... 6″ PM (16cm PM)×2

MICROPHONE ..... Hitachi dynamic microphone
(NDM-24, impedance 300 ohm.)

MISCELLANEOUS

TRACK SYSTEM ... 4-track stereo system

DIMENSIONS

RECORDER ..... 13 11/16″(H) × 14¼″(W) × 6¾″(D)

SPEAKER BOX ... 13 11/16″(H) × 10 5/16(W) × 5 5/16″(D)

WEIGHT

RECORDER ..... 21.0 lbs (9.5kg)

SPEAKER BOX ... 7.2 lbs ×2 (3.2kg×2)

ACCESSORIES

MICROPHONE WITH STAND (NDM-24) 2
7″ EMPTY REEL 1

CONTROLS

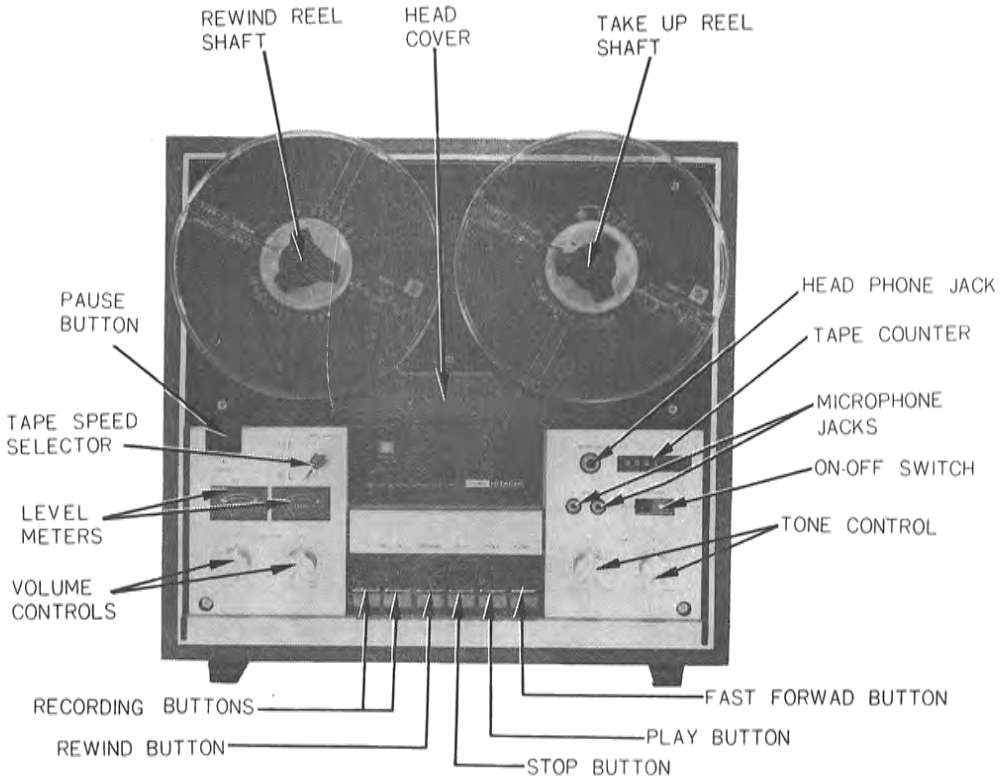


Fig. 1

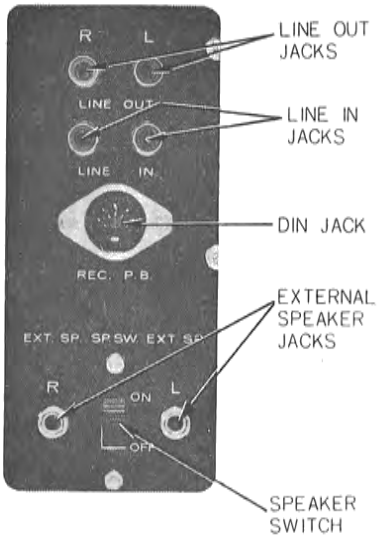


Fig. 2

DISASSEMBLY

When inspecting, repairing and lubricating, disassemble the machine in the following manner:

1. **Removal of the front panel**

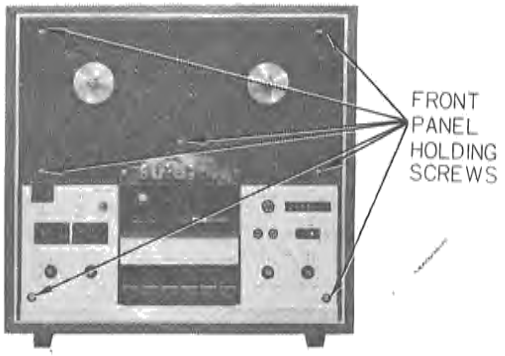


Fig. 3

2. **Removal of the chassis**

Upon removing the rubber legs and four screws holding chassis located on the bottom of the case, as shown in Fig 4, and remove two screws holding chassis as shown in Fig 5, the chassis can be removed from the case body.

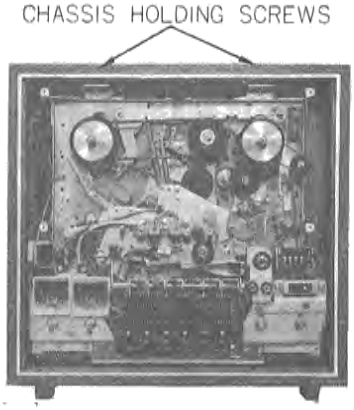


Fig. 5

After take out the head cover, tape speed selector knob, volume control knobs and tone control knobs, remove seven screws holding front panel as shown in Fig. 3.

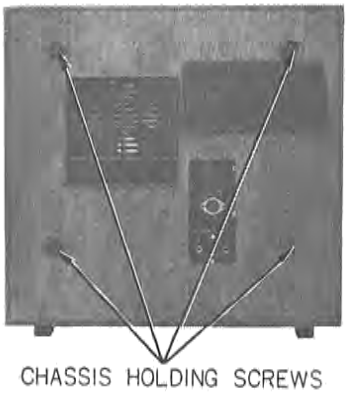


Fig. 4

3. **Removal of the printed circuit board**

Remove eight screws holding printed circuit board as shown in Figs. 6(A) and 66(B).

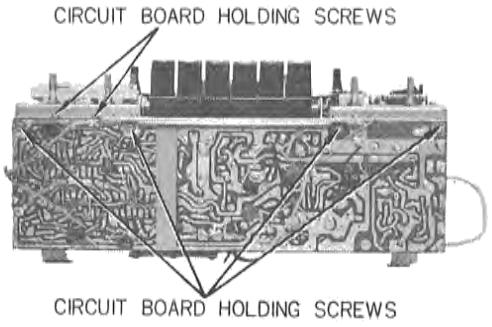


Fig. 6 (A)

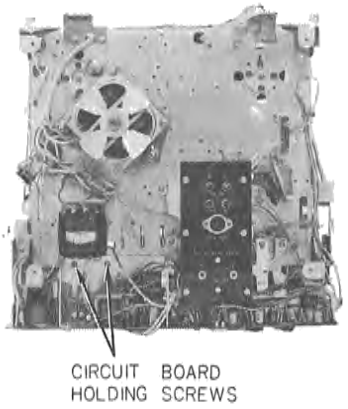


Fig. 6 (B)

LUBRICATING

Lubricate each part shown in Fig. 7, when repairing.

Lubricate to each revolving part with one drop of pan motor oil and use a suitable quantity of grease on each sliding part.

On the shafts of the idler, pinch roller and capstan, oilless metal is used, ensuring stable operation without the use of feeding oil.

(Note) If oil is deposited on belts, idler, capstan, pinch roller and so on, they will slip. Be sure to remove the oil with alcohol.

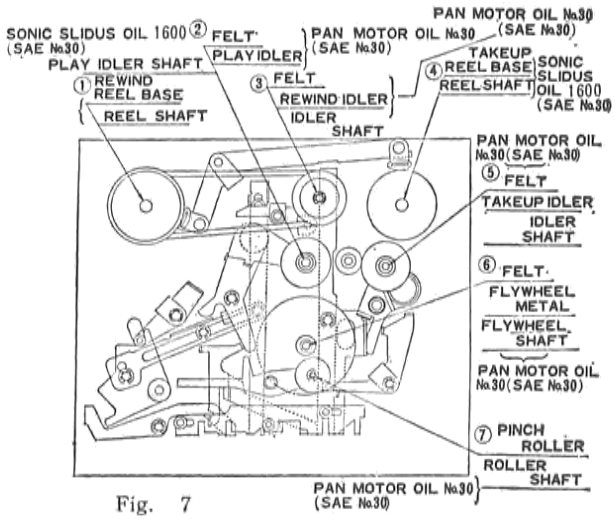


Fig. 7

ADJUSTMENT

1. **Adjustment of electric circuit**

1) **Angle adjustment of recording and playback head**

a) Adjustment of tape position

Check whether or not the tape is correctly positioned on the recording and playback head. This adjustment can be made by regulating the height of the tape guide (⊖ screw).

b) Angle adjustment of the tape

Prepare a standard tape for angle adjustment and adjust the screw for angle adjustment so that the voltage of the reproducing output reaches the maximum. Further, connect the V. T. V. M. (vacuum tube voltmeter) on each output side of L channel and R channel to measure respective voltage, and at the same time, check whether or not there is a large difference in the output between both channels. Pay special attention to the pad pressing force and check to see if it is the same for both channels.

After the adjustment, the output level should not change excessively if the pad is slightly pressed manually.

When using an ordinary recorded tape (4-track, 2-channel), adjust the volume of the right and left channels according to the desired volume of sound.

Adjustment is made under conditions of maximum sound volume and high-stressed, high-pitched tone by turning the volume control knob (VOLUME) and tone control knob (TONE) completely to the right (clockwise).

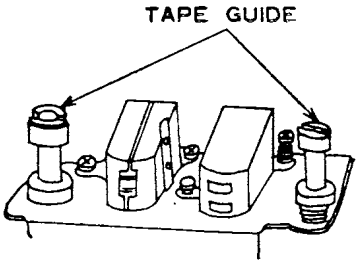


Fig. 8

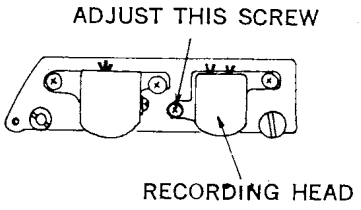


Fig. 9

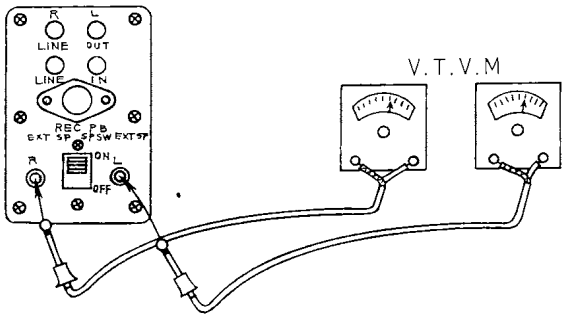


Fig. 10

2) **Adjustment of the recording level**···Figs. 10, 11and 12.

a) Place the machine in the recording condition and transmit 1000 Hz low-frequency signals from the low-frequency oscillator to the microphone terminal or LINE IN terminal.

b) Place the SPEAKER switch of the set to ON position, and turn the volume control knob (VOLUME: LorR) completely to the right (clockwise) to gain maximum volume. Then connect the V. T. V. M. (vacuum tube voltmeter) to the speaker terminal as shown in Fig. 10. Adjust the output of the low-frequency oscillator so that the output voltage reaches 0.45V (Adjust the intensity of input signals). Even when decreasing the input, if the output voltage does not decrease to the predetermined value (0.45V) try to decrease the volume output by turning the volume control knob (VOLUME) to the left (counterclockwise).

c) In this condition, adjust the semi-fixed resistors (VR3, VR6) so that deflection of the level meter pointer indicates a borderline position between black and red.

Adjust { VR3 for L channel (L)
VR6 for R channel (R)

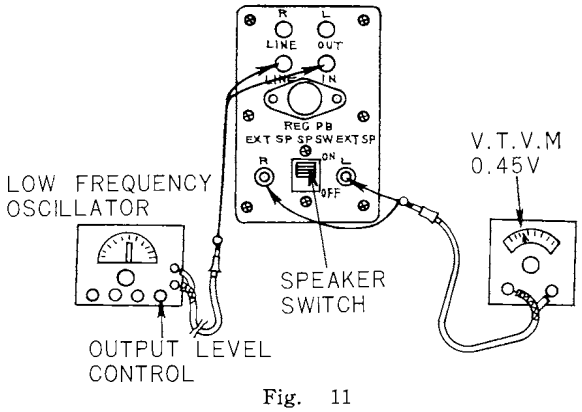


Fig. 11

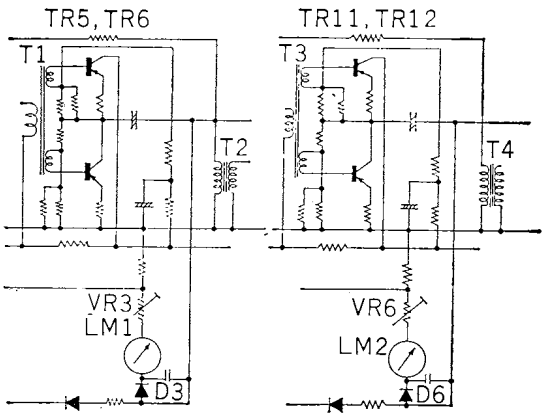


Fig. 12

3) **Bias adjustment**

Bias oscillating frequency of TRQ-737 is approximately 60KHz. Adjust the bias current in the following way:

a) Place the machine in a recording condition.

b) Remove the ground side lead wire of the recording and playback head terminal, then connect the resistor (100Ω) and connect the resistor to the ground side.

c) Measure the voltage after connecting V. T. V. M. (vacuum tube voltmeter) as shown in Fig. 13, and adjust the semi-fixed resistors (VR7, VR8) so that the voltage is 40mV.

Adjust { VR7 for L channel / VR8 for R channel

- Erasing current of the erasing head is normal when it is within 22~32mA.

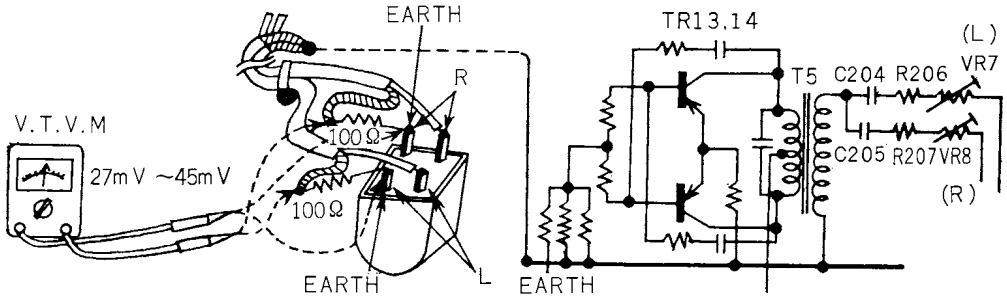


Fig. 13

4) **Bias trap adjustment**·····Fig. 14

This adjustment is made to eliminate high-frequency which leaks into the audio amplifier circuit from the bias oscillating circuit (oscillating frequency:aprox, 60KHz) Adjusting order

- This is begun from L channel (L)

a) Place the L channel (L) in a playback condition and also place the R channel (R) in a recording condition. Do not insert the microphone and auxiliary cord into the mic-jack (MIC) or the input jack (LINE IN).

b) Turn the volume control knob (L VOLUME, R VOLUME) and the tone control knob (L TONE, R TONE) completely clockwise to produce a maximum output.

c) Connect 8Ω pure resistor to the L channel speaker jack (EXTERNAL SPEAKER L) in a playback condition as shown in Fig.14, then connect V.T.V.M. (vacuum tube voltmeter) to both ends of it.
A high-frequency voltage leaking from the oscillating circuit is indicated in this condition. Turn the core of the TRAP COIL (L1) to produce minimum voltage (under 40mV).

- Next, adjust the trap for R channel (R), following the same procedures as used in L channel (L) adjustment.

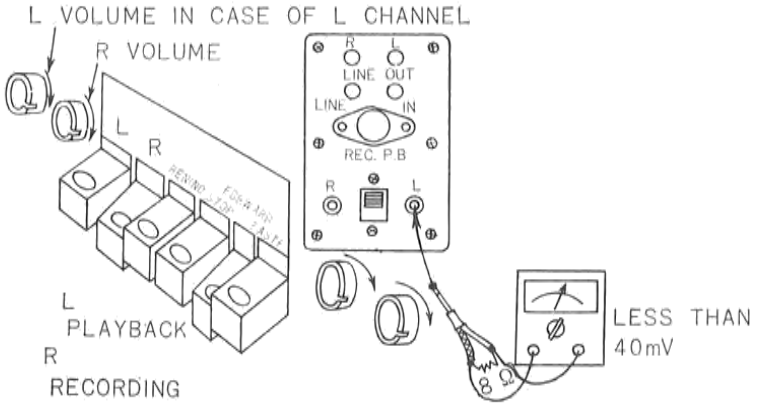


Fig. 14

Adjustment for mechanical sections

1) Pressing force on each section

a) Pinch roller Pressing force ····· 1.0kg $^{+0.3}_{-0.1}$kg.

Measuring method····· Fig. 15

Arrange so that the pinch roller presses against the capstan shaft (playback condition), and pull the pinch roller in a right angle direction against the pinch roller arm. Then measure the slight value remaining, occasioned by using a bar pressure of the pinch roller against the capstan shaft.

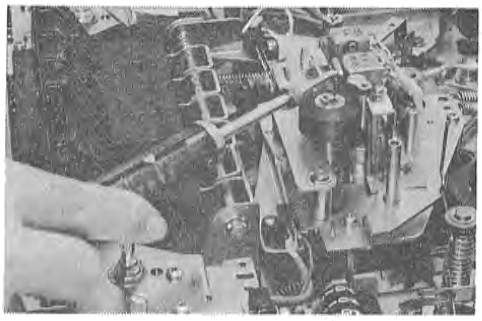


Fig. 15

b) Pad pressing force 50gr ±10gr·····Fig. 16

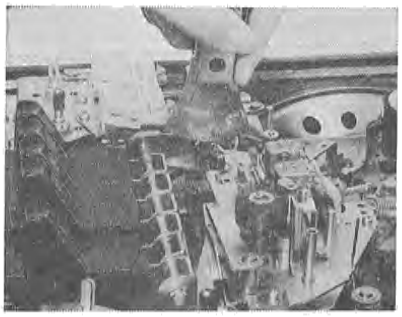


Fig. 16

c) Winding idler pressing force····· 150gr±30gr

Measuring method····· Fig. 17

Lock the machine by depressing the play button (play condition).

Measure the value when the winding idler disengages from the motor pulley and the winding pulley at the same time.

d) Playback idler pressing force

When the tape speed is 19 cm/sec·····200gr ±40gr
When the tape speed is 9.5cm/sec·····175gr ±40gr
When the tape speed is 4.75cm/sec ··· 150gr ±40gr
Measuring method·····Fig. 18

Lock the machine by depressing the play button (play condition). Measure the value when the playback idler disengages from the flywheel and the motor pulley at the same time.

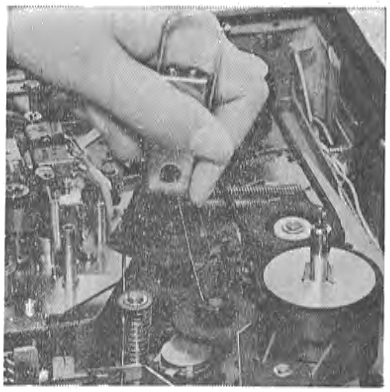


Fig. 17

e) Rewinding (R) idler pressing force·····550gr ±50gr
Measuring method·····Fig. 19

Lock the machine by depressing the rewinding button (REWIND) (rewinding condition). Measure the value when the rewinding idler disengages from the motor pulley.

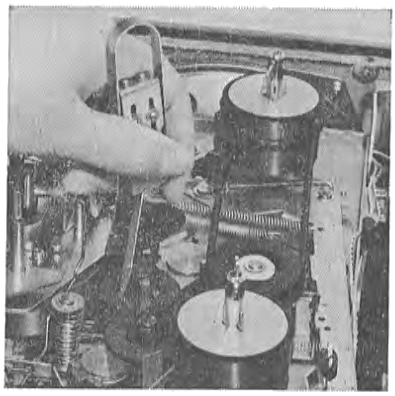


Fig. 18

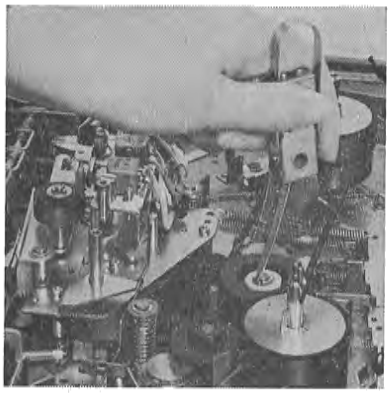


Fig. 19

2) Torque of each section

a) Winding torque····· 50~90gr

Measuring method·····Fig. 20

Place the machine in a horizontal position and turn the power source to ON position: then place the 7″ empty reel on the winding side reel shaft Wind a thread inside it and measure the winding torque in a play condition (PLAY).

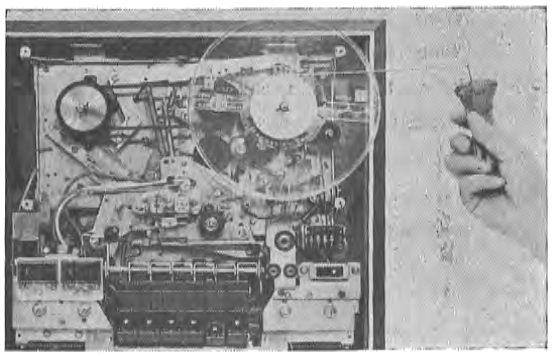


Fig. 20

b) Winding and supplying friction coupling torque

Takeup or rewinding torque·····200~300gr

Measuring method·····Fig. 21

Place the machine in a vertical position, and throw the power source to ON position. Wind a thread inside the 7″ empty reel and measure the torque in a fast forwarding condition of the takeup. Place in a rewinding condition for the rewinding

Fig. 21

c) Back tension·····15-36gr·····Fig. 22

Place empty reel on the rewinding reel shaft after winding a thread. Set the machine to play condition. Measure the force when pulling out the thread.

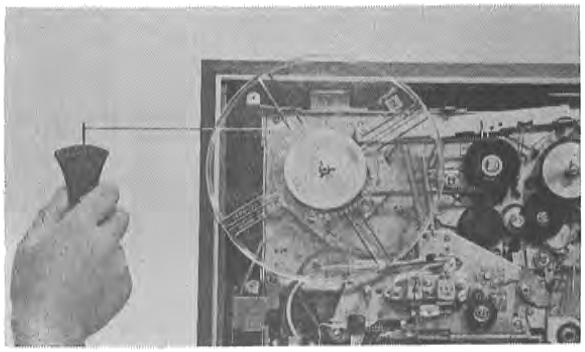


Fig. 22

d) Takeup back tension·····15～35gr·····Fig. 23

Place 7" empty reel on the takeup reel shaft after winding a thread. Set the machine to rewinding condition. Measure the force when pulling out the thread.

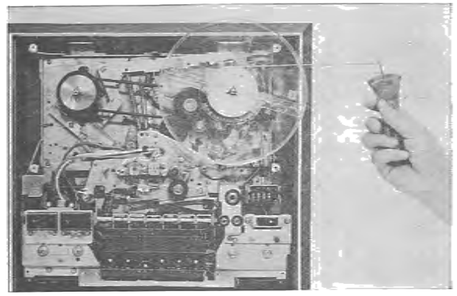


Fig. 23

e) Push button operating force···Under 3.5kg···Fig. 24

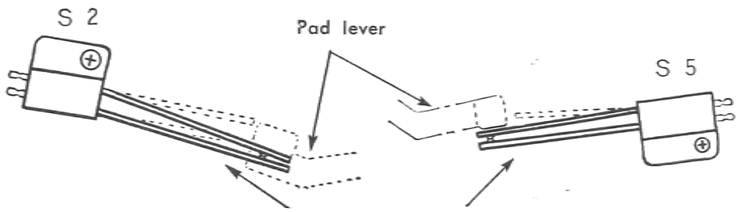
Place the machine in a horizontal position. Apply the bar gauge to the tip of the push button and measure the force until the button is locked.

Note) When applying the bar gauge directly to the push button, the push button may be damaged. To prevent any possible damage, use a rubber sheet between the gauge and the button.

Fig. 24

3) Adjustment of installation position

a) Installation position of the muting switch···Fig. 25



Muting switch should be bent more than 0.5mm after making contact with pad lever Fig. 25

b) Installation position of motor pulley·····Fig. 26

The standard distance bet ween the chassis and the motor pulley is 2 mm ± 0.1mm. After installing the pulley in this position, try the speed change and adjust the position, while confirming that the playback idler correctly enters each stage of the motor pulley.

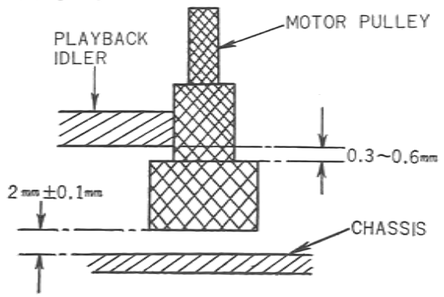


Fig.26 (A)

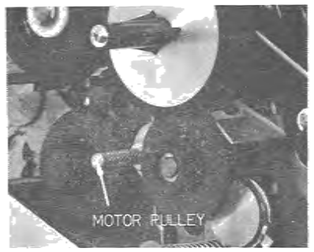


Fig.26 (B)

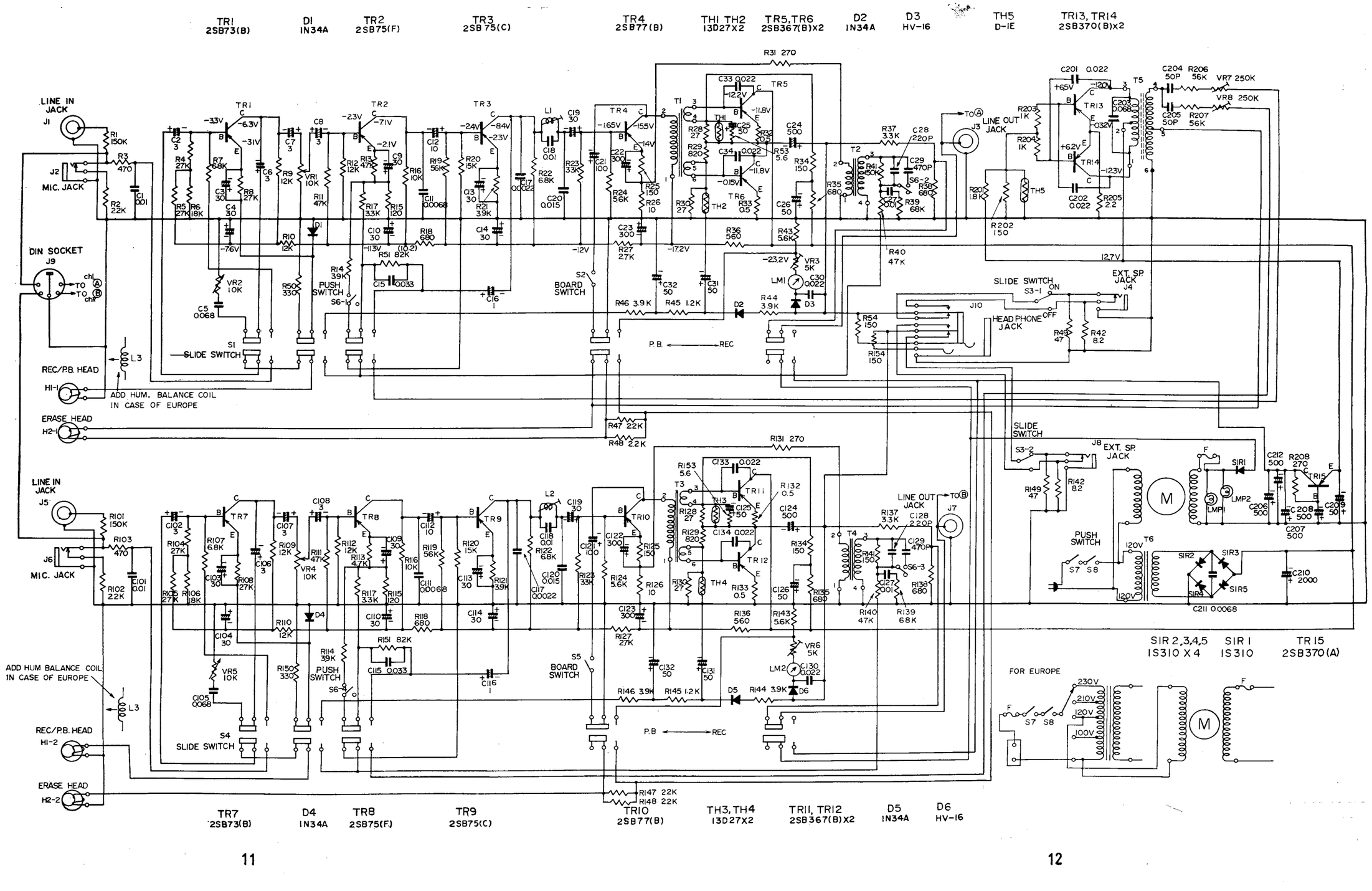
MODEL TRQ-737 SERVICE MANUAL

TROUBLE-SHOOTING

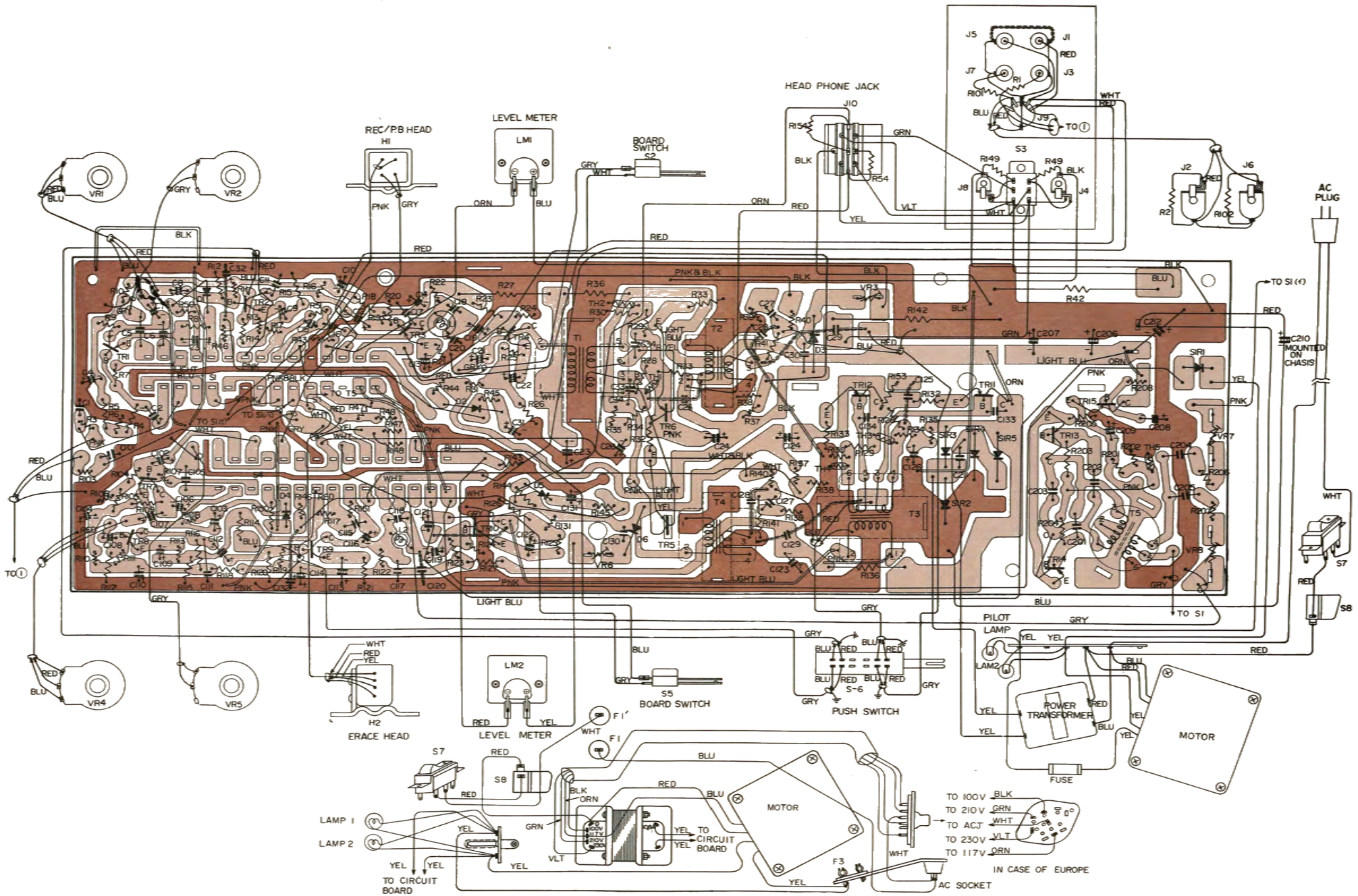
The following are important malfunctions and their countermeasures.

While reproduciug	Cause	Countermeasures
Tape does not run.	Pinch roller does not press, or it slips.	Is pressing force normal? Is the spring disconnected? Does oil adhere to the pinch roller and the capstan?
Speeds do not coincide. Unstable revolution	Heights of the playback idler and the motor pulley do not coincide. Winding torque is large. Insufficient oil on the capstan shaft.	Pulley is lowered because of loose screwing of the motor pulley. Check the pressing force on each section. Check relative mechanisms of the winding reel base Oiling.
Disabledfast forward	Check the supply back tension. Check the winding coupling torque.	Oiling. When the torque and tension are too weak, replace the assembly.
Disabled rewinding	Check slipping portion. Check the supply coupling torque and winding side back tension. Check the pressing force of playback idler.	When it is weak and does not conform to designated value,replace the assembly. Oiling. Confirm any deformation of the spring.

CIRCUIT DIAGRAM

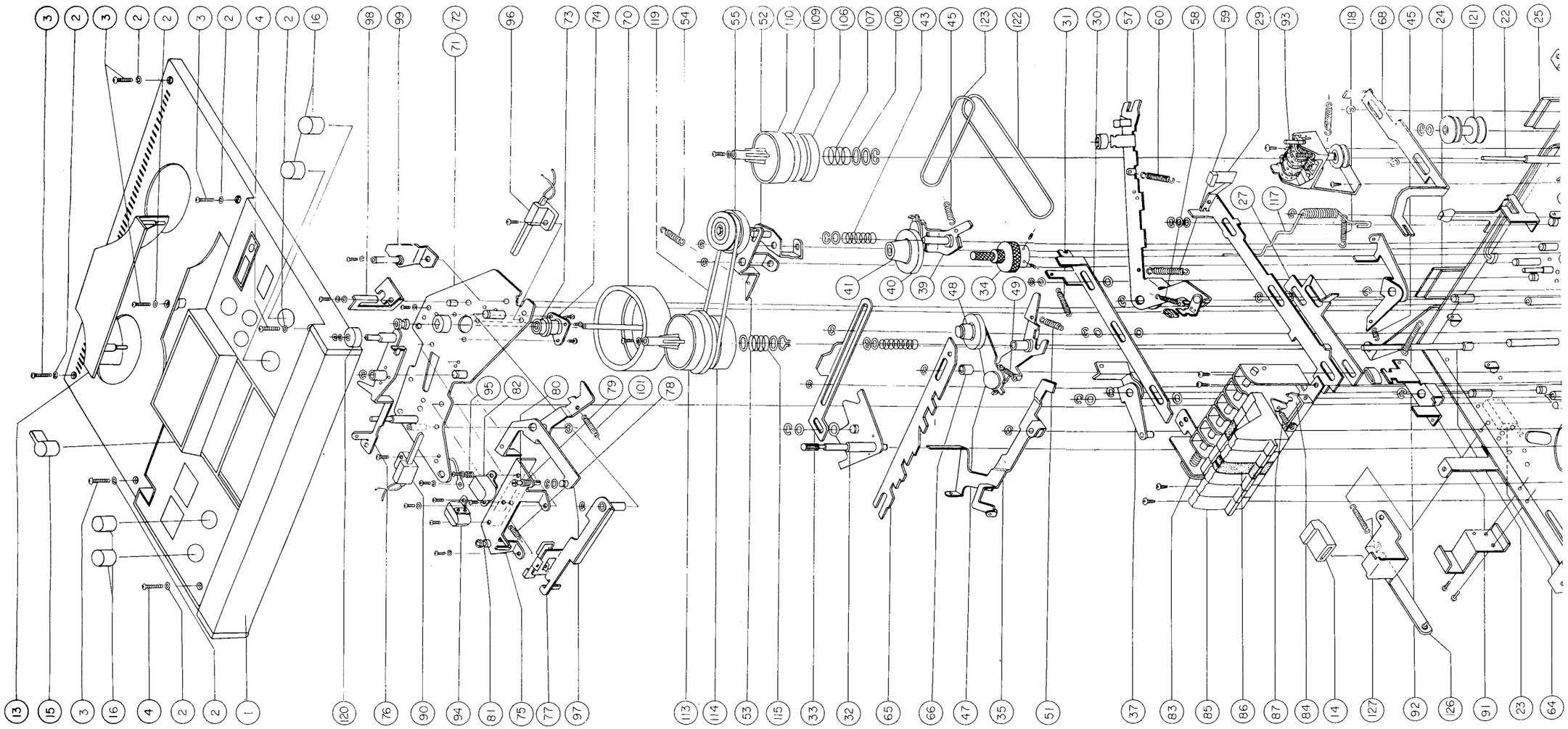


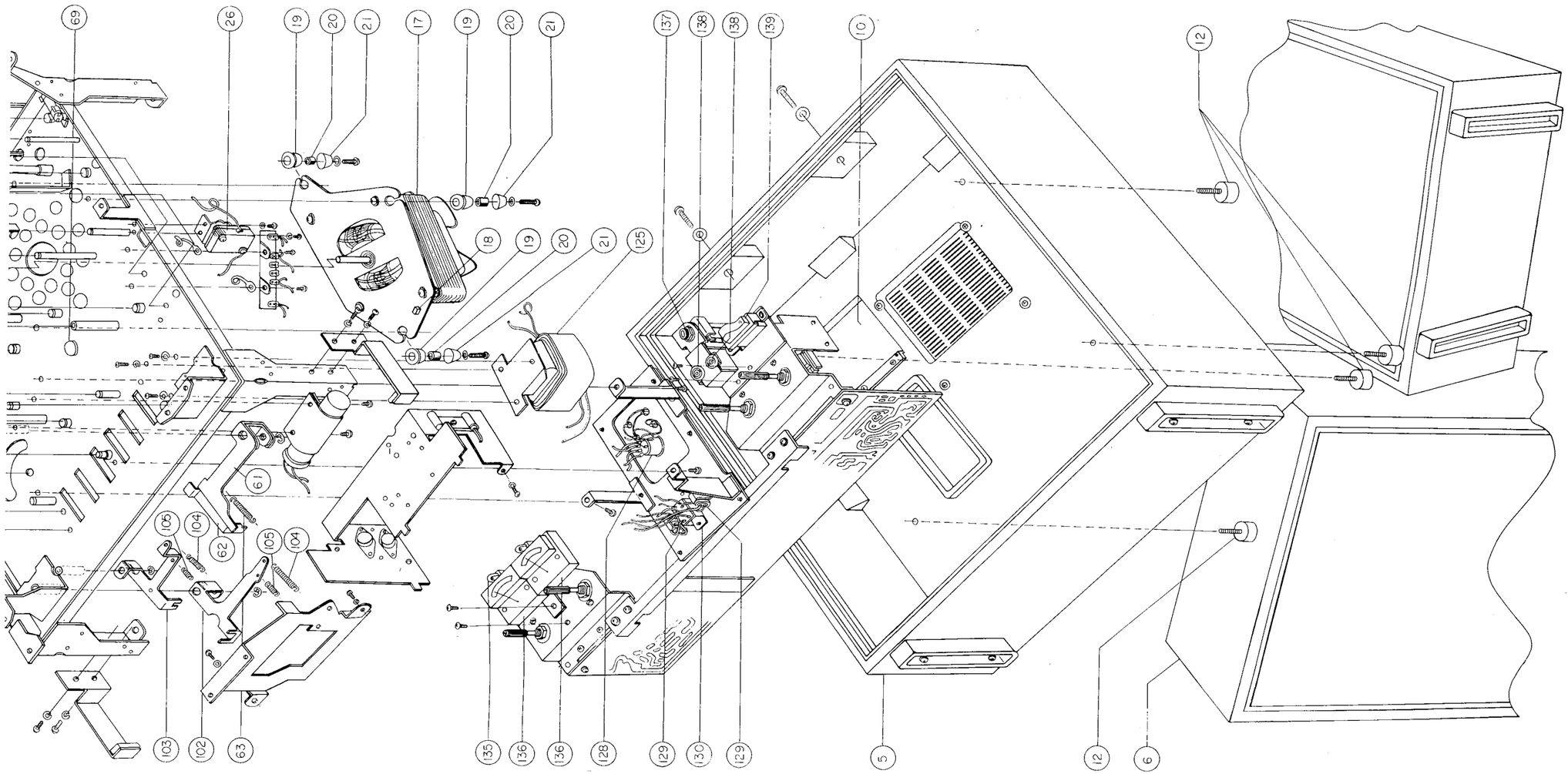
CIRCUIT BOARD DIAGRAM



MODEL TRQ-737 SERVICE MANUAL

MECHANICAL PARTS VIEW

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REPLACEMENT PARTS

Symbol No.	Stock No.	Description		
CAPACITORS:				
C 1,101	0275111	Polyester	0.01μF±20%	50WV
C 2,102	0252313	Electrolytic	3μF	10WV
C 3,103	0252323	Electrolytic	30μF	10WV
C 4,104	0252323	Same as C3	30μF	
C 5,105	0275016	Polyester	0.068μF ±10%	50WV
C 6,106	0252313	Same as C2	3μF	
C 7,107	0252313	Same as C2	3μF	
C 8,108	0252313	Same as C2	3μF	
C 9,109	0252323	Same as C3	30μF	
C 10,110	0252323	Same as C3	30μF	
C 11,111	0274016	Polyester	0.0068μF±10%	50WV
C 12,112	0252321	Electrolytic	10μF	10WV
C 13,113	0252323	Same as C3	30μF	
C 14,114	0252523	Electrolytic	30μF	15WV
C 15,115	0275014	Polyester	0.033μF ±10%	50WV
C 16,116	0276013	Polyester	0.02μF ±10%	50WV
C 17,117	0274013	Polyester	0.0022μF±10%	50WV
C 18,118	0275011	Polyester	0.01μF ±10%	50WV
C 19,119	0252323	Same as C3	30μF	
C 20,120	0275012	Polyester	0.015μF ±10%	50WV
C 21,121	0252331	Electrolytic	100μF	10WV
C 22,122	0251133	Electrolytic	300μF	3WV
C 23,123	0252633	Electrolytic	300μF	25WV
C 24,124	0256008	Electrolytic	500μF	25WV
C 25,125	0252125	Electrolytic	50μF	3WV
C 26,126	0252625	Electrolytic	50μF	25WV
C 27,127	0275011	Same as C18	0.01μF ±10%	
C 28,128	0248732	Ceramic	220pF ±10%	50WV
C 29,129	0243449	Ceramic	470pF ±10%	500WV
C 30,130	0275113	Polyester	0.022μF ±20%	50WV
C 31,131	0252325	Electrolytic	50μF	10WV
C 32,132	0252325	Same as C31	50μF	
C 33,133	0275113		0.022μF ±20%	
C 34,134	0275113		0.022μF ±20%	
C 201	0275013	Same as C15	0.022μF ±10%	
C 202	0275013	Same as C15	0.022μF ±10%	
C 203	0275016	Same as C 5	0.068μF ±10%	
C 204	0242820	Ceramic	50pF ±10%	500WV
C 205	0242820	Same as C204	50pF ±10%	
C 206	0252535	Electrolytic	500μF	15WV
C 207	0252535	Same as C206	500μF	
C 208	0252535	Same as C206	500μF	
C 209	0252525	Electrolytic	50μF	15WV
C 210	0259717	Electrolytic	2000μF	
C 211	0274116	Polyester	0.0068μF±20%	50WV
C 212	0252535	Electrolytic	500μF	
RESISTORS:				
R 1,101	0134399	Composition	150kΩ ±10%	RD½GF
R 2,102	0134385	Composition	10kΩ ±10%	RC½GF
R 3,103	0137809	Carbon film	470Ω ±10%	SRD¼SD
R 4,104	0137906	Carbon film	27kΩ ±10%	SRD¼SD
R 5,105	0137906	Same as R4	27kΩ ±10%	SRD¼SD
R 6,106	0137904	Carbon film	18kΩ ±10%	SRD¼SD
R 7,107	0137621	Carbon film	6.8kΩ ± 5 %	SRD¼SD
R 8,108	0137906	Same as R4	27kΩ ±10%	
R 9,109	0137902	Carbon film	12kΩ ±10%	SRD¼SD
R 10,110	0137902	Same as R9	12kΩ ±10%	
R 11,111	0137909	Carbon film	47kΩ ±10%	SRD¼SD
R 12,112	0137902	Same as R9	12kΩ ±10%	
R 13,113	0137859	Carbon film	4.7kΩ ±10%	SRD¼SD
R 14,114	0137860	Carbon film	5.6kΩ ±10%	SRD¼SD
R 15,115	0137802	Carbon film	120Ω ±10%	SRD¼SD
R 16,116	0137901	Carbon film	10kΩ ±10%	SRD¼SD
R 17,117	0137857	Carbon film	3.3kΩ ±10%	SRD¼SD
R 18,118	0137811	Carbon film	680Ω ±10%	SRD¼SD
R 19,119	0137910	Carbon film	56kΩ ±10%	SRD¼SD
R 20,120	0137903	Carbon film	15kΩ ±10%	SRD¼SD
R 21,121	0137858	Carbon film	3.9kΩ ±10%	SRD¼SD
R 22,122	0137861	Same as R17	6.8kΩ ±10%	
R 23,123	0137907	Carbon film	33kΩ ±10%	SRD¼SD
R 24,124	0137860	Same as R14	5.6kΩ ±10%	
R 25,125	0137803	Carbon film	150Ω ±10%	SRD¼SD
R 26,126	0137759	Carbon film	10Ω ±10%	SRD¼SD
R 27,127	0134378	Composition	2.7kΩ ±10%	RC½GF
R 28,128	0137764	Carbon film	27Ω ±10%	SRD¼SD
R 29,129	0137812	Carbon film	820Ω ±10%	SRD¼SD
R 30,130	0137764	Same as R28	27Ω ±10%	
R 31,131	0137806	Carbon film	270Ω ±10%	SRD¼SD
R 32,132	0149101	Wire wound	0.5Ω ±10%	RU½
R 33,133	0149101	Same as R32	0.5Ω ±10%	
R 34,134	0137803	Same as R25	150Ω ±10%	
R 35,135	0137811	Same as R18	680Ω ±10%	
R 36,136	0134370	Composition	560Ω ±10%	RC½GF
R 37,137	0137857	Carbon film	3.3kΩ ±10%	SRD¼SD
R 38,138	0137811	Same as R18	680Ω ±10%	
R 39,139	0137911	Carbon film	68kΩ ±10%	SRD¼SD
R 40,140	0137909	Same as R11	47kΩ ±10%	
R 41,141	0137953	Carbon film	150kΩ ±10%	SRD¼SD
R 42,142	0190046	Wire wound	8.2Ω ±10%	RG5
R 43,143	0137860	Same as R14	5.6kΩ ±10%	
R 44,144	0137858	Same as R21	3.9kΩ ±10%	
R 45,145	0137852	Carbon film	1.2kΩ ±10%	SRD¼SD
R 46,146	0137615	Carbon film	3.9kΩ ± 5 %	SRD¼SD
R 47,147	0134377	Composition	2.2kΩ ±10%	RC½GF
R 48,148	0134377	Same as R47	2.2kΩ ±10%	
R 49,149	0134297	Composition	47Ω ±10%	
R 50,150	0137807	Carbon film	330Ω ±10%	SRD¼SD
R 51,151	0137912	Carbon film	82kΩ ±10%	SRD¼SD
R 53,153	0131600	Composition	5.6Ω ±10%	RC¼GF
R 54,154	0134363	Composition	150Ω ±10%	RC½GF
R 201	0137854	Carbon film	1.8kΩ ±10%	SRD¼SD
R 202	0137803	Same as R25	150Ω ±10%	
R 203	0137851	Carbon film	1kΩ ±10%	SRD¼SD
R 204	0137851	Same as R203	1kΩ ±10%	
R 205	0134281	Composition	2.2Ω ±10%	
R 206	0137910	Same as R19	56kΩ ±10%	
R 207	0137910	Same as R19	56kΩ ±10%	
R 208	0137806	Same as R31	270Ω ±10%	
VR 1	0153152	Variable	10kΩ (A)	
VR 2	0153152	Same as VR1	10kΩ (A)	
VR 3	0151091	Semi variable	5kΩ (B)	
VR 4	0153152	Variable	10kΩ (A)	
VR 5	0153152	Same as VR4	10kΩ (A)	
VR 6	0151091	Same as VR3	5kΩ (B)	
VR 7	0151129	Semi variable	250kΩ (B)	
VR 8	0151129	Same as VR3		
TRANSISTORS:				
TR 1	0573018	Transistor	2SB37 (B)	
TR 2	0573125	Transistor	2SB75 (F)	
TR 3	0573153	Transistor	2SB75 (C)	
TR 4	0573114	Transistor	2SB77 (B)	
TR 5, TR 6	0573031	Transistor	2SB367(B)P	
TR 7	0573018	Same as TR1	2SB73 (B)	
TR 8	0573125	Same as TR2	2SB75 (F)	
TR 9	0573153	Same as TR9	2SB75 (C)	
TR 10	0573114	Same as TR4	2SB77 (B)	
TR 11, TR 12	0573031	Same as TR5	2SB367(B)P	
TR 13, TR 14	0573023	Transistor	2SB370(B)P	
TR 15	0573022	Transistor	2SB370 (A)	
D 1	0575001	Diode	1N34A	
D 2	0575001	Same as D1	1N34A	
D 3	0576005	Varistor	HV-16	
D 4	0575001	Same as D1	1N34A	
D 5	0575001	Same as D1	1N34A	
D 6	0576005	Same as D3	HV-16	
TH 1	0576031	Thermistor	13D27	
TH 2	0576031	Same as TH1	13D27	
TH 3	0576031	Same as TH1	13D27	
TH 4	0576031	Same as TH1	13D27	
TH 5	0576056	Thermistor	D-1E	
SIR1～5	0552010	Silicon rectifier	1S310	
TRANSFORMERS:				
T 1	0441054	Input		
T 2	0451106	Output		
T 3	0441054	Same as T1		
T 4	0451106	Same as T2		
T 5	0316534	Oscillator coil		
T 6	5210232			
COILS:				
L 1	0317148	Trap coil		
L 2	0317148	Same as L1		

MODEL TRQ-737 SERVICE MANUAL

Symbol No.	Stock No.	Description
MISCELLANEOUS:		
for Final assembly		
	7750251	Dust cover
	5420046	Microphone
	5425082	Stand
①	6112805	Escutcheon sub ass'y
②	0941277	Washer-dressing (7req'd)
③	7771274	Screw-dressing (5 req'd)
④	7771276	Screw-dressing (2 req'd)
⑤	6114611	Cabinet
⑥	6115171	Speaker box sub ass'y
	6115141	Speaker back board
	7169592	Cord holder
	8755406	Screw-3.1mmø×6.3mm wood (8 req'd)
	5410371	Speaker
	5433086	Plug cord
	0948483	Staple
	8751306	Screw-2.7mmø×6.3mm round wood (2 req'd) for staple fitting
	8811114	Washer-3mmø (8 req'd) for speaker fitting
	8815124	Washer-3mmø lock (8 req'd) for speaker fitting
	8821114	Nut-3mmø (8 req'd) for speaker fitting
	8811234	Washer-3mmø (12 req'd)
	8755413	Screw-3.1mmø×13mmwood (12 req'd) for speaker back board fitting
⑩	0015464	Accessory compartment lid sub ass'y
	7711692	Accessory compartment
	7711691	Accessory compartment
	8811234	Washer-3mmø (9 req'd) for accessory compartment lid, accessory compartment fitting
	8751410	Screw-3.1mmø×10mm wood (3 req'd) for accessory compartment lid fitting
	8751406	Screw-3.1mmø×6.3mm wood (6 req'd) for accessory compartment fitting
	7171491	Washer-4mmø special (2 req'd) for
	8745625	Screw-4mmø×25mm bind (2 req'd) cabinet fitting
⑫	0971279	Rubber-base
	8812116	Washer-4mmø (4 req'd)
	8711620	Screw-4mmø×20mm pan head (4 req'd)
⑬	6161372	Head cover
⑭	6261561	Pause control button
⑮	6261861	Speed changing knob
	7612042	Nylon washer for speed changing knob spacer
⑯	6262622	Volume control knob sub ass'y
for Chassis assembly		
⑰	5570334	Induction motor (TRQ-737A)
	5570332	Induction motor (TRQ-737W)
	8813126	Washer-4mmø spring (4 req'd)
	8711608	Screw-4mmø×8mm pan head(4 req'd) ISO
	0971149	Motor rubber
⑲	0971120	Motor cushion (3 req'd)
⑳	0944450	Coller for motor fitting (3 req'd)
㉑	0941291	Motor carrier (3 req'd)
	8813126	Washer-4mmø spring
	0954020	Screw-4mmø×18mm pan head ISO (3 req'd) for motor mounting plate fitting
㉒	7500502	Shaft for takeup reel stand
㉓	7500522	Shaft for rewind reel base
	8821116	Nut-4mmø (2 req'd) ISO
	8813126	Washer-4mmø spring (2req'd)
	0948544	Fiber washer (2 req'd)
	0591162	Fuse (1A) (TRQ-737W)
	8781436	Screw-3mmø×6mm tapping (2 req'd) (TRQ-737W) for fuse holder fitting
㉔	7163922	Handle holder (left) sub ass'y
㉕	7163932	Handle holder (right) sub ass'y
	8813124	Washer-3mmø spring
	8711406	Screw-3mmø×6mm pan head ISO (4 req'd) for handle holder fitting
㉖	0539132	Micro switch (TRQ-737W)
	8811233	Washer-2.6mmø
	8813123	Washer-2.6mmø spring (2 req'd)
	0711316	Screw-2.6mmø×16mm pan head for micro switch fitting
	0539135	Micro switch (TRQ-737A)
	8813124	Washer-3mmø spring
	8711406	Screw-3mmø×6mm pan head ISO (2 req'd) for switch holder fitting
㉗	0941141	Fast forward lever
	0662124	Fast forward lever spring
㉙	7111631	Brake function lever sub ass'y
	0948544	Fiber washer (3 req'd) for brake function lever
	0941259	"E" ring (3 req'd) for brake function lever
㉚	0941150	R idler function lever
	0948544	Fiber washer (4 req'd) for R idler lever
	0941259	"E" ring (2 re'd)
㉛	0948637	R function lever spring
㉜	7169771	Tape speed exchange cam sub ass'y
㉝	0941292	Tape speed exchange lever
	0948544	Fiber washer (3 req'd) for tape speed exchange lever
	0941259	"E" ring (2req'd)
	6340293	
㉞	6340294	Motor pulley (50Hz)
㉟	0941829	P function lever sub ass'y
	0941259	"E" ring
	0948316	Fast forward roller spring for P function lever
㊲	0941970	Adjusting lever sub ass'y
	0941259	"E" ring
	0948316	Fast forward roller spring for adjusting lever
㊴	0941159	F idler lever sub ass'y
	0948595	Nylon washer (2 req'd)
㊵	0971150	Idler wheel
	0948601	Idler oil washer
	0941259	"E" ring
㊶	0971105	Idler cap
	0958067	Felt for push button
㊸	0948631	F idler exchange spring
	0948675	Fiber washer
	0941259	"E" ring
㊹	0941162	F idler function lever
	0941259	"E" ring
㊺	0662126	F idler lever spring
	6310531	F idler lever spring for F idler function lever
㊼	0941821	P idler lever sub ass'y
	0941818	P idler lever sub ass'y
	0948727	P nylon washer (2 req'd)
	0948601	Idler oil washer
	0941258	"E" ring
㊽	0971215	Idler cap
㊾	0662128	P idler spring
	0958067	Felt for push button
	0662127	Exchange spring
	0941259	"E" ring
㊿	0662129	P idler lever spring
(51)	0941310	R idler lever sub ass'y
	0941259	"E" ring (2 req'd) for R idler lever
(53)	0941170	R idler lever (2)
(54)	0662125	R idler lever spring for R idler lever (2)
(55)	0971191	R idler sub ass'y
	0948544	Fiber washer
	0958067	Felt for push button
	0948633	R idler washer
	0941259	"E" ring
(57)	7160952	Brake lever sub ass'y
	0941259	"E" ring
(58)	0662130	Brake spring
(59)	0662222	Brake spring
(60)	0639391	Motor spring
(61)	0941763	Switch function plate (1)
(62)	0941931	Switch function plate (2)
	0941259	"E" ring
(63)	0662187	Slide switch spring
(64)	0533159	Push switch-4 circuit 2 point
	8811113	Washer-2.6mmø
	8813123	Washer-2.6mmø spring (2 req'd)
	0711305	Screw-2.6mmø×5mm pan head (2 req'd)
(65)	0941175	Timing plate
(66)	0944467	Collar for timing plate
	0941259	"E" ring for timing plate
	0639391	Motor spring for timing plate
(68)	7162982	Slide plate

Symbol No.	Stock No.	Description
	0948544	Fiber washer (2 req'd)
	0941259	"E" ring (2 req'd)
⑥⑨	0630564	Flywheel holder
⑦⓪	0971258	Flywheel sub ass'y (TRQ-737A)
	7502465	Flywheel sub ass'y (TRQ-737W)
	0948753	Washer-flywheel (R)
⑦①	7160832	SH plate sub ass'y
⑦②	7169803	SH plate sub ass'y
⑦③	0944832	Flywheel metal
⑦④	0638150	Metal holder
⑦⑤	7160853	Head base sub ass'y
⑦⑥	0941176	P roller arm sub ass'y
	0941259	"E" ring
	8781435	Screw-3mmø×5mm tapping
⑦⑦	7160872	Pad lever sub ass'y
⑦⑧	0662183	Pad spring for pad lever
⑦⑨	0948154	Tape guide spring
⑧⓪	0944741	Tape guide (right)
⑧①	7503563	Tape guide (left)
⑧②	0513293	Record playback head control 4 track stereo
⑨④	0513222	Erase head
	0711306	Screw-2.6mmø×6mm pan head (3 req'd)
⑨⑤	0948102	Head adjust spring
	0711316	Screw-2.6mmø×16mm pan head
	8811113	Washer-2.6mmø
⑨⑥	0539087	Muting switch
	8781438	Screw-3mmø×8mm tapping
⑨⑦	0941378	Pause function lever (2) sub ass'y
	0941259	"E" ring (2 req'd) for PAUSE lever (2)
⑨⑧	0941964	Tape guide plate
	8811114	Washer-3mmø
	8813124	Washer-3mmø spring
	8711406	Screw-3mmø×6mm pan head for tape guide plate fitting
⑨⑨	7166361	Guide pad sub ass'y
	0662071	Spring-slide switch for P roller arm
(101)	0948637	P function lever spring for pause function lever (2)
	8813124	Washer-3mmø spring (3 req'd)
	8711408	Screw-3mmø×8mm pan head ISO
	8711406	Screw-3mmø×6mm pan head ISO
	8711410	Screw-3mmø×10mm pan head ISO for SH plate fitting
	0948634	Flywheel washer
	0941183	Oil cap
⑧③	7165122	Push holder sub ass'y
⑧④	0941304	Lock plate
⑧⑤	0015237	Push button (5 req'd)
⑧⑥	0015238	Stop push button
⑧⑦	0662131	Push lever spring (4 req'd)
	0662062	Spring-record, playback switch
	0941259	"E" ring
	0941257	"E" ring
	8781436	Screw-3mmø×6mm tapping (4req'd) for push holder fitting
	0638651	Staple for head shield wire fixed
⑨⓪	0539063	Muting switch
	8813124	Washer-3mmø spring
	8711412	Screw-3mmø×12mm pan head for muting switch
⑨①	0941380	Pause lever sub ass'y
	0941259	"E" ring
⑨②	0662195	Spring-(B) pause lever for pause lever
⑨③	5550242	Counter-M480
	8813124	Washer-3mmø spring (3 req'd)
	8711405	Screw-3mmø×5mm pan head ISO (3 req'd)
	8781436	Screw-3mmø×6mm tapping (2 req'd) for counter holder fitting
(102)	0941366	Recording lever (1)
(103)	0941367	Recording lever (2)
	0941259	"E" ring (2 req'd)
(104)	0948658	Switch spring (1) (2 req'd)
(105)	0948659	Switch spring(2) (2 req'd)
	7111574	Voltage change-over holder sub ass'y (TRQ-737W)
	7162992	Plug cover sub ass'y (TRQ-737W)
	8781436	Screw-3mmø×6mm tapping (4 req'd) (TRQ-737W) for voltage change-over holder, plug cover fitting

Symbol No.	Stock No.	Description
(106)	6700751	Takeup pulley (B)
(107)	6310311	Takeup spring
(108)	7500511	Takeup collar
	7660241	Nylone washer
	7161437	"E" ring (2 req'd)
(109)	6410661	Takeup pulley (A) sub ass'y
(110)	6410053	Takeup reel stand sub ass'y
	7710151	Coupling washer
	6310301	Reel stand spring
(113)	6410083	Rewind reel base sub ass'y
(114)	0015172	Rewind pulley
(115)	7771362	Washer-rewind reel base (2 req'd)
	0948234	Spring-rewind reel base
	0948662	Snap 12α
	7771312	Screw-special (2 req'd)
	0948482	Fiber washer (2 req'd)
	7660261	Reel stopper (2 req'd)
	8781438	Screw-3mmø×8mm tapping (2 req'd) for electrolytic capacitor fitting
(117)	0662254	Stopper spring
	0941259	"E" ring
(118)	0662166	Spring-brake shoe
(119)	0971126	Rewinding belt
(120)	0971104	Pressure roller
	0636553	Rewinding washer
	0941258	"E" ring
(121)	0948003	Counter pulley
	0636553	Rewinding washer
	0941258	"E" ring
(122)	7660164	Counter belt (large)
(123)	7661012	Counter belt (small)
	0544404	
	8781436	2 pole terminal board
	0591188	Screw-3mmø×6mm tapping (2 req'd)
	0591201	Fuse (TRQ-737W)
	5210232	Fuse (TRQ-737A)
(125)	5210272	Power transformer (TRQ-737A)
	5210361	Power transformer (TRQ-737W)
	8711406	Screw-3mmø×6mmpan head (3 req'd) ISO
	8813124	Washer-3mmø spring (3 req'd) (TRQ-737A)
	8811114	Washer-3mmø (4 req'd)
	8781436	Screw-3mmø×6mm tapping (7 req'd) for trans holder (TRQ-737W)
(126)	7169932	Pause function lever (1) sub ass'y
	0941259	"E" ring
(127)	6311001	Lever spring for pause function lever (1)
	0948544	Fiber washer
	0043793	Bushing (TRQ-737A)
	5740503	
	0593587	Power cord (TRQ-737A)
	5740481	Power cord (TRQ-737W)
(128)	5670081	Pin jack
(129)	0543082	Jack (red)
(130)	5620192	Slide switch
	8781436	Screw-3mmø×6mm tapping (3 req'd) for jack plate holder fitting for printed circuit board assembly
	6310981	Pause spring
	7170272	Pause lock
	7503502	Pause pin
	8813124	Washer-3mmø spring
	6311721	Motor spring
(135)	0594110	Pilot lamp (2 req'd)
(136)	7661051	Level meter sub ass'y
	8711406	Screw-3mmø×6mm pan head (4 req'd) ISO
	8813124	Washer-3mmø spring (4 req'd)
	8811114	Washer-3mmø flat (A)
	7710091	Fiber washer for volume holder fitting
(137)	5670261	Headphone jack
	0958453	Jack washer
	6704271	Insulating washer
(138)	0543082	Jack (red)
	8711406	Screw-3mmø×6mm pan head (2 req'd) ISO
	8813124	Washer-3mmø spring (2 req'd)
(139)	0533161	Power switch (TRQ-737W)
	0533173	UL power switch (TRQ-737A)
	8711406	Screw-3mmø×6mm pan head (2 req'd) ISO
	8813124	Washer-3mmø spring (2 req'd) for tone holder fitting

Symbol No.	Stock No.	Description
	8811114	Washer-3mm ø flat (A) (2 req'd) for tone holder fitting
	5620252	Slide switch
	8811114	Washer-3mm ø flat (A)
	8813124	Washer-3mm ø spring
	8711406	Screw-3mm ø ×6mm pan head
	0948570	Radiator
	0629902	Radiator
	0680175	Radiator
	0544193	Brake terminal (3 req'd)
	0544449	Print terminal (2 req'd)
	0544408	Lug terminal (2 req'd)

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