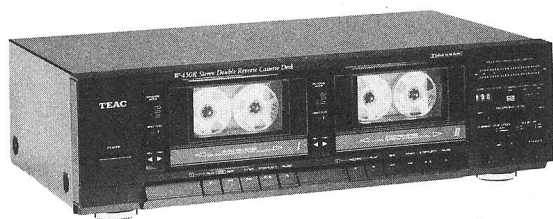


TEAC®



SERVICE MANUAL

W-450R

Stereo Double Cassette Deck

CAUTION

⚠ Parts marked with this sign are safety critical components. They must always be replaced with identical components—refer to the appropriate parts list and ensure exact replacement.

* Dolby noise reduction manufactured under license from Dolby Laboratories Licensing corporation. "Dolby" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

1. SPECIFICATIONS AND SERVICE DATA

SPECIFICATIONS

Track System 4-track, 2-channel stereo
Heads Play I: Playback *1
REC/PLAY II: Erase *1, Record/Playback *1
Type of Tape Cassette tape, C-60 and C-90 (philips type)
Tape Speed 4.76 cm/s (1-7/8 ips), 9.5 cm/s (3-3/4 ips);
(Hi speed Dubbing)
Input (level and impedance)
MIC: Specified input level: -57dB (1.09mV)
Min. input level: -67dB (346 μ V)
LINE IN: Specified input level: -9dB (275 mV)/50 kohms
Min. input level: -19dB (86.9mV)
Output (level and load impedance)
OUTPUT: Spec. output level: -3dB (548mV)
PHONES: Spec. output level: -19dB (86.9mV)/8 ohms
Equalization
METAL: 3180 μ S+ 70 μ S
CrO2: 3180 μ S+ 70 μ S
NORMAL: 3180 μ S+ 120 μ S
Head Configuration
1/2-track, 1-channel erase head
1/4-track, 2-channel record/playback head
Motor PLAY I: 1 DC servo motor,
REC/PLAY II: 1 DC servo motor
Bias Frequency 100kHz
Operation Position Horizontal
Power Requirements
110/120/220/240 V AC, 50/60Hz (General Export Models)
120 V AC, 60Hz (U.S.A/Canada)
220 V AC, 50Hz (Europe)
240 V AC, 50Hz (U.K./Australia)
100 V AC, 50Hz (JAPAN)
Power Consumption 16W
Weight 4.7kg (10.36 lbs)
Dimensions (W*H*D)
435*127*262mm
(17-1/8"*5"*10-5/16")

SERVICE DATA

MECHANICAL

Tape Speed Deviation 3,000 Hz +90, -90 Hz, 6000 Hz +180, -180 Hz
Tape Speed Drift 45 Hz (LOW SPEED), 90Hz (HIGH SPEED)
Wow and Flutter
Playback: 0.30 % (WRMS)
Pinch Roller Pressure 250 g to 470 g (8.8oz to 16.5 oz)
Reel Torque
Take-up: 35 to 70 g-cm (0.49 to 0.97 OZ-inch)
Supply: FWD: 2.5 to 6 g-cm (0.035 to 0.083 OZ-inch)
REV: 2.0 to 6 g-cm (0.028 to 0.083 OZ-inch)
F.F: 80 to 160 g-cm (1.1 to 2.22 OZ-inch)
REW: 80 to 160 g-cm (1.1 to 2.22 OZ-inch)
Fast Wind Time
125 sec or less for MTT-5511 (C-60)
Auto End-stop Time 5 sec. or less

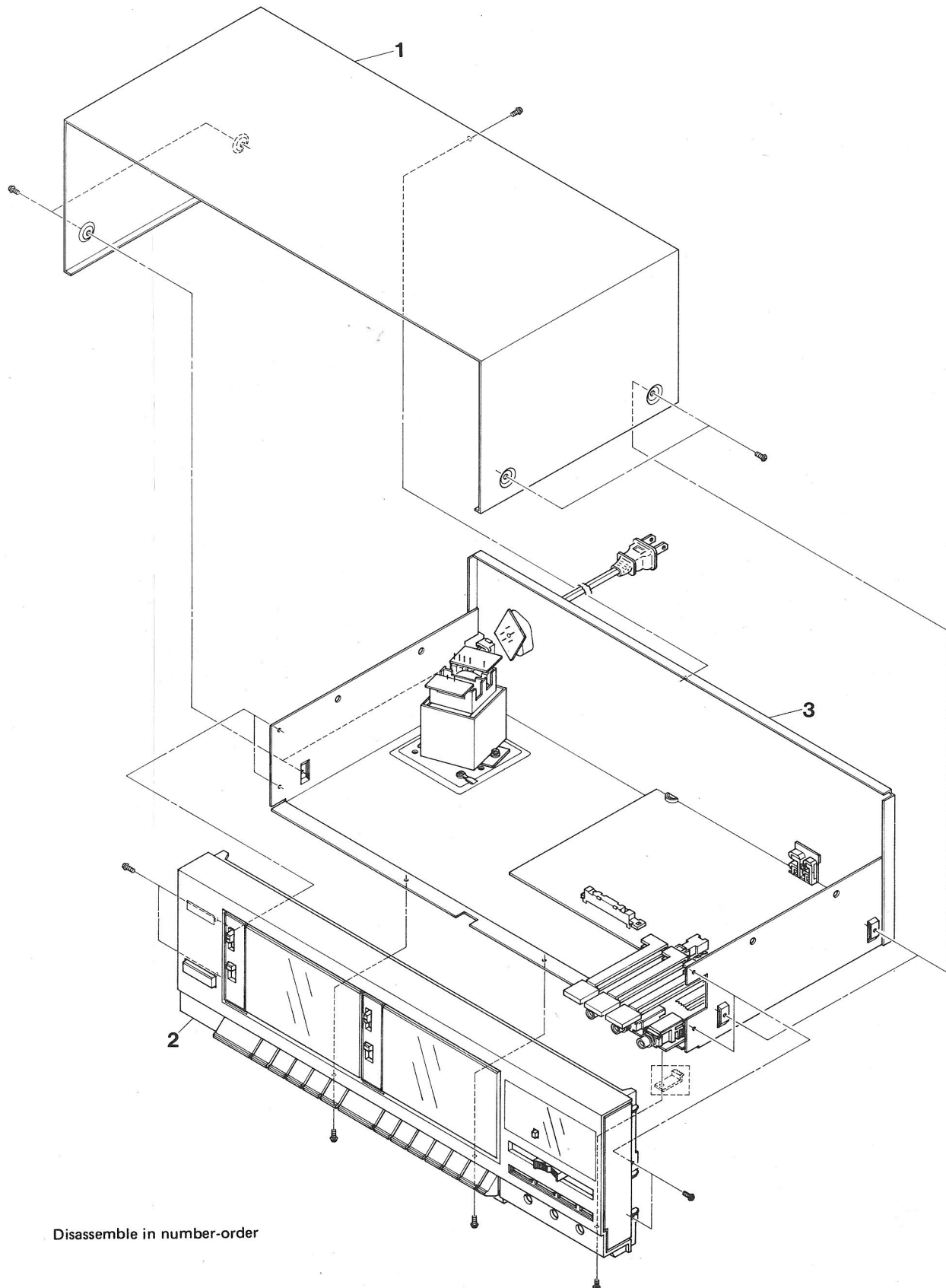
ELECTRICAL

Frequency Response
See Figs. 5-7 & 5-9
Signal-to-noise Ratio
Playback: NORMAL: 46 dB min.
Record/Playback
METAL, CrO2: 45 dB min.
NORMAL: 44 dB min.
Erase Efficiency
65 dB min. at 1 kHz (measured with input 10 dB higher than the specified input level).
Channel Separation 30 dB min. at 1 kHz
Adjacent Track Crosstalk 40 dB min. at 125 Hz
Total Harmonic Distortion 2.0 % or less with NORMAL
2.5 % or less with CrO2, METAL

NOTES:

Improvements may result in SPECIFICATIONS AND SERVICE DATA changes.
Value of "dB" in the data refers to 0 dB (0.775 V), expect where Specified.

2 CASE AND FRONT PANEL REMOVAL



Disassemble in number-order

3 PARTS LOCATION

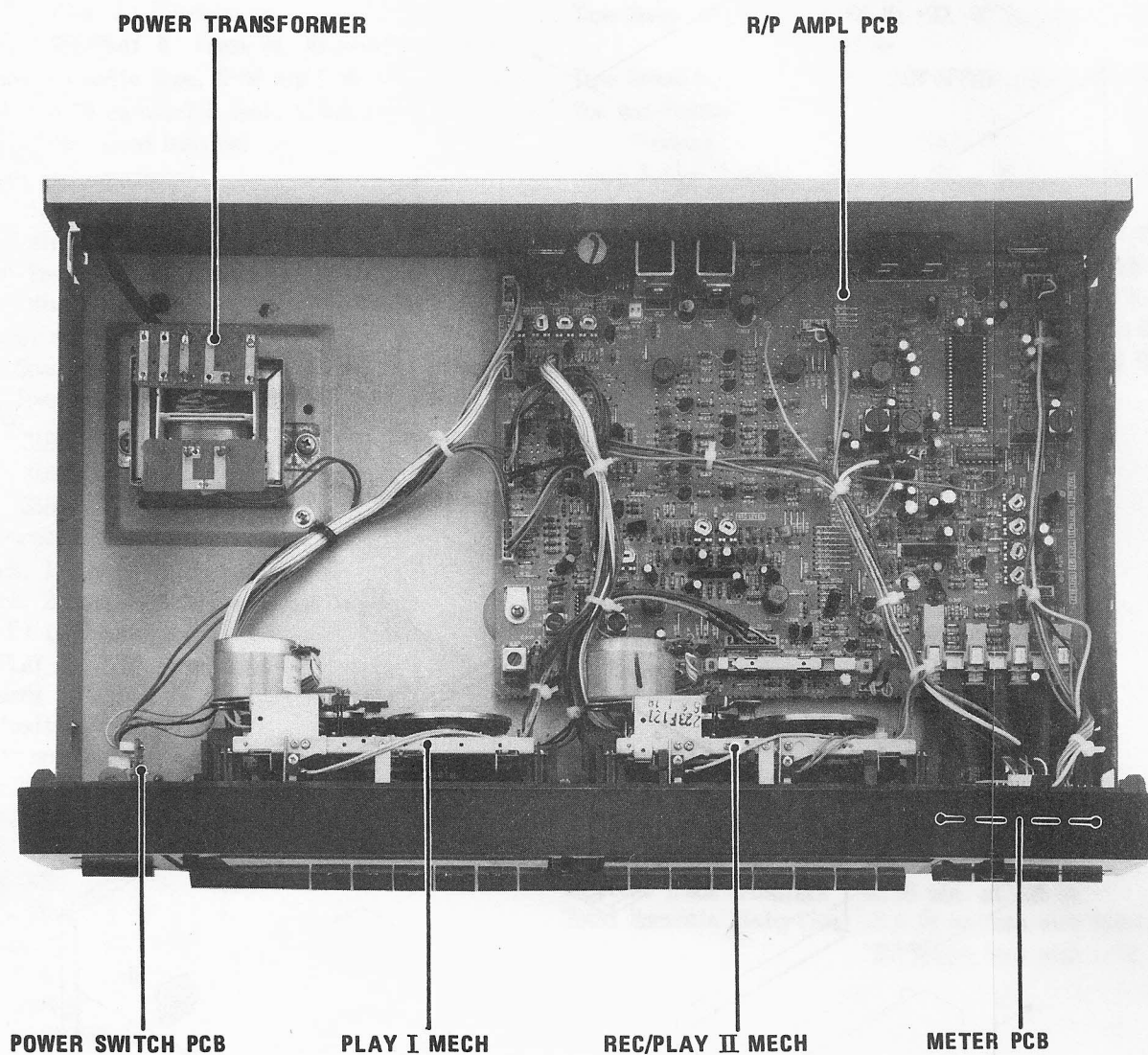


Fig. 3-1 Top view (W-450R)

4 MECHANICAL ADJUSTMENT AND CHECKS

4-1 WOW AND FLUTTER

Note: This measurement should be made at the beginning, middle, and the end of the tape.

PLAYBACK

1. Connect a wow-and-flutter meter to the deck as shown in Fig. 4-1.
2. Load and play a TEAC MTT-111 test tape.
3. Check that the reading on the wow-and-flutter meter is within 0.38% (RMS).

4-2 TAPE SPEED

1. Connect a frequency counter to the deck as shown in Fig. 4-1.
2. Simply press POWER switch to ON to rotate the motor, then continue the motor rotation for approx. 1 minute for warm-up.
3. As soon as the warm-up finishes, load a TEAC MTT-111 test tape with a 3,000 Hz test tone and play the end of the test tape.
4. Adjust each variable resistor to get the following figures.
Short TP (SPEED ADJ) to get the double tape speed (HIGH speed). Never press TAPE SPEED switch to HIGH position.

	Adjustment point		Adjustment value
PLAY I	HIGH speed	R31	6020 ~ 6040
	LOW speed	R32	3010 ~ 3020
REC/PLAY II	HIGH speed	R33	6000 ~ 6020
	LOW speed	R34	3000 ~ 3010

* At first, adjust NORMAL tape speed.

5. In play mode, check that the following figures are obtained at the beginning and at the end of the tape.

	LOW speed	HIGH speed
Speed deviation	3000 Hz +90, -90 Hz	6000 Hz +180, -180 Hz
Speed drifting	Within 45 Hz	Within 90 Hz

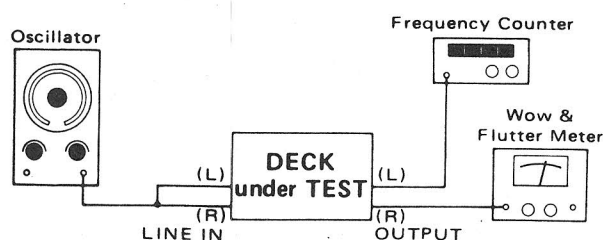


Fig. 4-1

4-3 REEL TORQUE

1. Load the cassette torque meter on the deck and read the pointer indication on the dial scale for each tape transport operation. The measured torque should be within the following specified values:

Specifications:

Take-up: 35 ~ 70g-cm (0.55 ~ 0.970 oz-inch)

Supply: FWD 2.5 ~ 6.0g-cm (0.035 ~ 0.083 oz-inch)

REV 2.0 ~ 6.0g-cm (0.028 ~ 0.083 oz-inch)

F.F./REW: 80 ~ 160g-cm (1.1 ~ 2.22 oz-inch)

4-4 LUBRICATION

Lubrication is only required when parts are replaced. For this purpose, use the oil specified below.

Oil: TEAC spindle oil (from TEAC TZ-255 oil kit),

Mobil D.T.E. Oil Light, or equivalent

Apply a drop of oil with an oil applicator to a point about 1/3 the way down the shaft (from the free end) of the flywheel, then insert the shaft into the capstan housing.

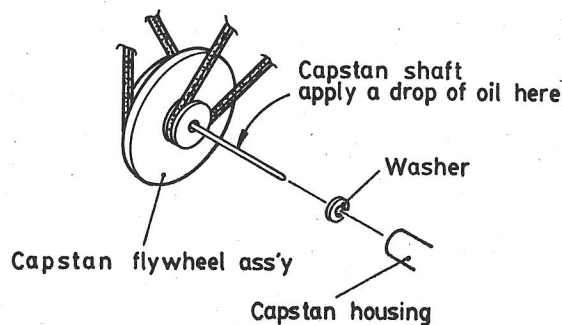


Fig. 4-2

4-5 VOLTAGE CONVERSION (General Export Models only)

1. ALWAYS DISCONNECT THE POWER LINE CORD BEFORE MAKING THESE ADJUSTMENTS!
2. Locate the voltage selector on the rear panel.
3. Using a regular screwdriver, turn the selector until the numerals corresponding to the voltage requirements of your area appear.

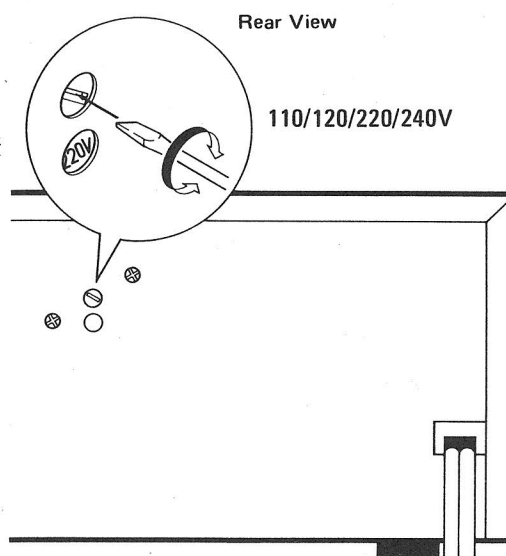


Fig. 4-3

5 ELECTRICAL ADJUSTMENT AND CHECKS

PRECAUTIONS

1. Before performing adjustments and checks clean and demagnetize the entire tape path.
2. Make sure the deck is properly set for the voltage in your locality.
3. In general, adjustments and checks are made in the order of L-ch then R-ch. Double REF. Nos. and test point designations indicate L-ch/R-ch. (Example: R11/R21)
4. 0 dB is referenced to 0.775 V. If an AC voltmeter that references 0 dB to 1 V is used, appropriate compensation should be made.
5. The AC voltmeter used in the procedures must have an input impedance of 1 M-ohms or more.
6. Note the "Deck settings" at the top of each chart. The settings apply to all check for a specific chart unless explicitly stated otherwise.
7. Since this deck has an automatic tape selector, be sure to use test tapes that have tape position detecting holes.

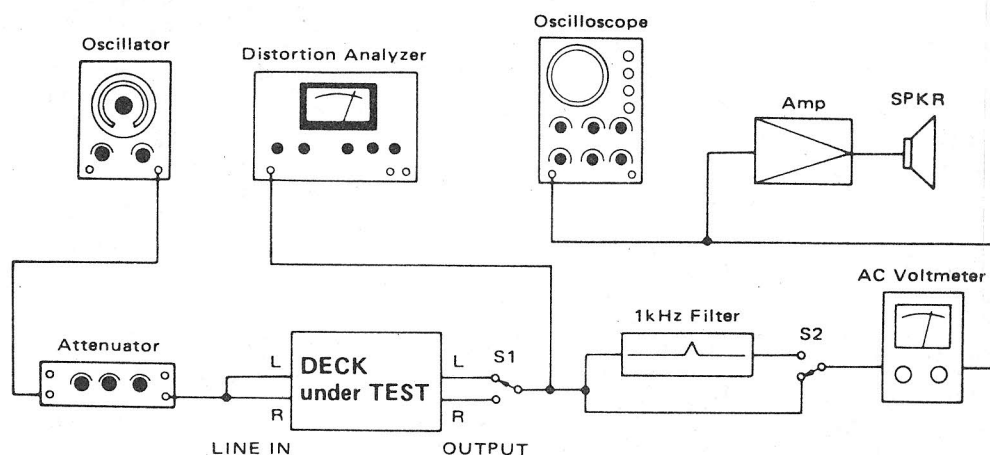


Fig. 5-1 Basic test setup

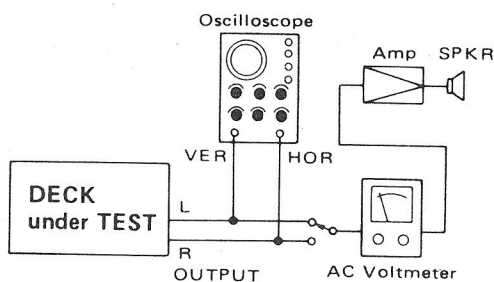


Fig. 5-2 Test setup for azimuth check

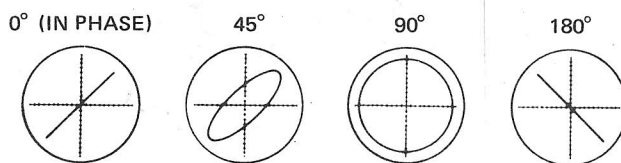


Fig. 5-3 Confirming phase relationship

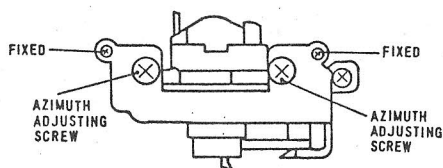


Fig. 5-4 Azimuth screw location

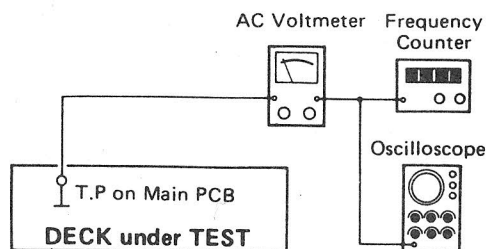


Fig. 5-5 Test setup for bias adjustment

5-2 PLAYBACK PERFORMANCE

Deck settings:
DOLBY NR sw: OUT

TEAC test tapes:
MTT-150C: For Dolby level calibration
MTT-256: For playback frequency response check for NORMAL
MTT-356: For METAL and CrO2
MTT-5511: For S/N check with NORMAL

ITEM	SETTING	INPUT SIGNAL	ADJUST (or CHECK)	MEASURING POINT: RESULT	REMARKS
1. REC/PLAY head azimuth	Connection: Fig. 5-2	MTT-150C	CHECK	OUTPUT: Phase: within 45°	Refer to Fig. 5-3
		MTT-256 (10 kHz)	Azimuth screws or R-P head (Fig. 5-4)	OUTPUT: Max. output at L & R-ch's (on VTVM)	
2. Specified output level	Connection: Fig. 5-1	MTT-150C	R11/R21 (PLAY I) R12/R22 (REC/PLAY II)	T.P. (DOBLV) 245mV (-10dB)	
	Connection: Fig. 5-1	MTT-150C	Check	OUTPUT: -3dB $\pm$ 1 dB (489 to 615 mV)	
3. Frequency response	NORMAL	MTT-256	Check	OUTPUT: Fig. 5-7	
	CrO2	MTT-356	Check	OUTPUT: Fig. 5-7	
4. Signal-to- noise ratio S/N	Tape: MTT-5511 Play mode	Fully erased MTT-5511 tape (Use bulk tape eraser)	Check	OUTPUT: 46 dB min.	Ratio of spec. output level -3 dB to noise

5-3 MONITOR PERFORMANCE

Deck settings:
RECORD-PAUSE mode
DOLBY NR sw: OUT

ITEM	SETTING	INPUT SIGNAL	ADJUST (or CHECK)	MEASURING POINT: RESULT	REMARKS
5.Min. input level	RECORDING LEVEL cont (L/R): MAX	MIC:400Hz/-67 dB (346 μ V) LINE IN :400Hz/ -19 dB (86.9mV)	Check	OUTPUT: -3 dB $\pm$ 3 dB (388mV to 775mV)	MIC min. input level LINE min. input level
6.Specified LINE input level		LINE IN: 400 Hz/-9 dB (275mV)	RECORDING LEVEL cont. (L/R)	OUTPUT: -3dB $\pm$ 1dB (489 to 615mV)	
	IMPORTANT:Do not change the setting of the RECORD LEVEL controls after establishing setting as above				
7.Headphone output level	Connection:Fig. 5-6	LINE IN: 400Hz/-9 dB (275mV)	Check	PHONES: -19 dB $\pm$ 3dB (61.5mV to 122mV)	8 ohm load

5-4 RECORDING PERFORMANCE

Deck settings:
DOLBY NR sw: OUT
RECORDING LEVEL cont. (L/R):
Specified position (item 5)

TEAC recording test tapes:
MTT-5571: For METAL
MTT-5561: For CrO2
MTT-5511: For NORMAL

ITEM	SETTING	INPUT SIGNAL	ADJUST (or CHECK)	MEASURING POINT: RESULT	REMARKS
8. BIAS osc.	Connection: Fig. 5-5 Tape: MTT-5511 RECORD/PAUSE mode	LINE IN: No signal	L302	T.P L/R (BIAS) 100 kHz on frequency counter	Specified bias frequency
9. Record bias	Tape: MTT-5511 RECORD/PLAY mode	LINE IN: 400 Hz & 10 kHz alternately/ -42dB (6.15mV) Record and reproduce them.	R13/R23	OUTPUT: Nearly equal level at both frequencies	Repeat if the result is unsatisfactory
10.Record level	Tape: MTT-5511	LINE IN: 400 Hz/-12 dB (195mV) Record and reproduce them.	R14/R24	OUTPUT: -6 dB (388mV)	
	Tape: MTT-5561 Tape: MTT-5571 NR SYSTEM: IN & OUT		Check	OUTPUT: -6 dB $\pm$ 1.5 dB (327 mV to 461 mV)	
11.Frequency response	Tape: MTT-5511 Tape: MTT-5561 Tape: MTT-5571	LINE IN: Required frequencies: -42 dB (6.15mV)	Check	Standard: Fig.5-8 to Fig.5-9	If out of spec. recheck #8
12.Signal-to- noise ratio	Tape: MTT-5571 Tape: MTT-5561 Tape: MTT-5511	LINE IN: 1kHz/-9dB (275mV) ↓ no signal	Check	OUTPUT: 45 dB min. [METAL,CrO2] 44 dB min. [NORMAL]	Ratio of specified output level: -3 dB to noise

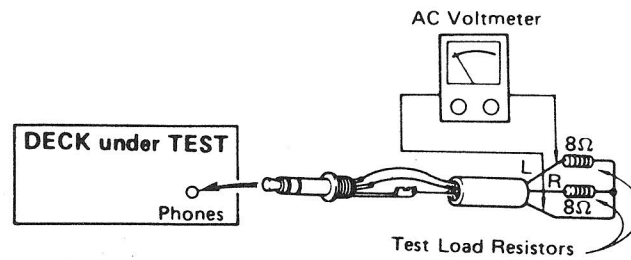


Fig. 5-6 Test setup for headhone check

5-5 FREQUENCY RESPONSE

5-5-1 PLAYBACK

Tape: MTT-256 (NORMAL)

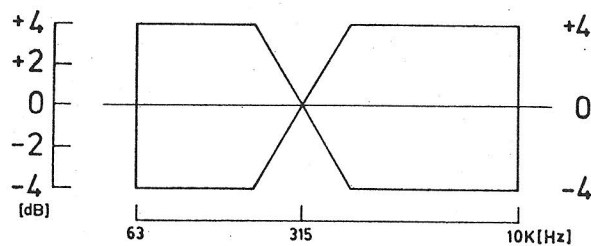


Fig. 5-7 Playback frequency response

5-5-2 OVERALL

Tape: MTT-5511 (NORMAL)

Tape: MTT-5561 (CrO₂)

Tape: MTT-5571 (METAL)

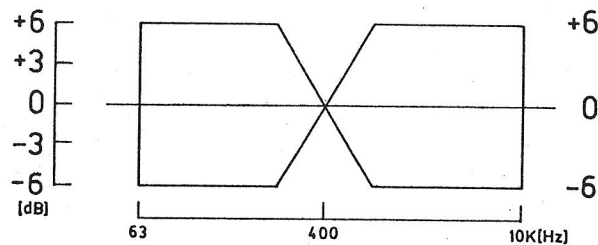


Fig. 5-8 Overall frequency response (Dolby NR: 1N)

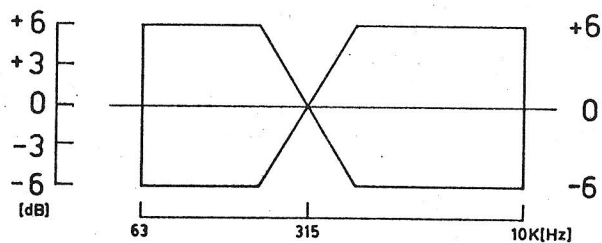


Fig. 5-9 Overall frequency response (Dubbing: Low/High speed)

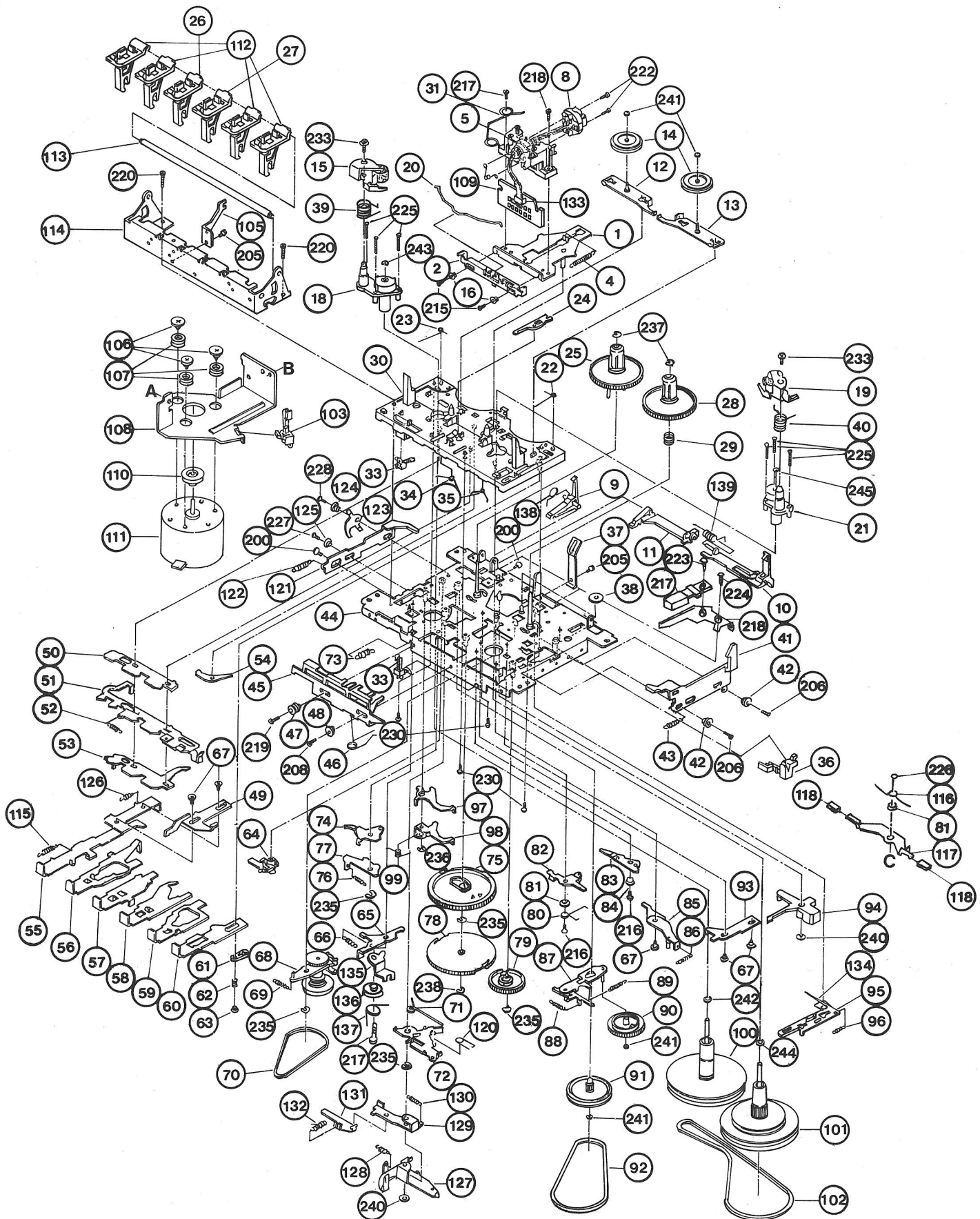
PARTS LIST SECTION

NOTES:

1. As regards the resistors and capacitors, refer to the circuit diagrams and the PCB ass'y drawings included in this brochure.
2. parts marked with $\triangle$ this sign are safety critical components. They must always be replaced with identical components - refer to the appropriate parts list and ensure exact replacement.

6 EXPLODED VIEWS AND PARTS LIST

EXPLODED VIEW-1



W-450R

EXPLODED VIEW - 1

REF.NO.	PARTS NO.	DESCRIPTION	REMARKS
1-1	9278213000	HEAD PANEL ASS'Y	
1-2	9278213100	C.H.P. LEVER	
1-4	9278213200	HEAD PANEL SP.	
1-5	9278213300	H BASE ASS'Y	
1-8	9278220100	R/P/E HEAD YK14RBA-409	
1-9	9278253600	REC.SAFETY LEVER (F)	
1-10	9278253700	REC.SAFETY LEVER (R1)	
1-11	9278253800	REC.SAFETY LEVER (R2)	
1-12	9278213500	T. ROLLER PLATE (R)	
1-13	9278213600	T. ROLLER PLATE (F)	
1-14	9278213700	T. ROLLER ASS'Y	
1-15	9278213800	PINCH ROLLER ARM (R) ASS'Y	
1-16	9278213900	C.H.P. LEVER COLLAR	
1-18	9278214000	F.L. METAL (R) ASS'Y	
1-19	9278214100	PINCH ROLLER ARM (F) ASS'Y	
1-20	9278214200	PINCH ROLLER SP.	
1-21	9278214300	F.L. METAL (F) ASS'Y	
1-22	9278214400	T. ROLLER PLATE SP (F)	
1-23	9278214500	T. ROLLER PLATE SP (R)	
1-24	9278214600	CONTROL LEVER	
1-25	9278214700	REEL ASS'Y	
1-26	9278214800	OPERATION LEVER	
1-27	9278214900	OPERATION LEVER	
1-28	9278215000	REEL ASS'Y	
1-29	9278215100	BACK TENSION SP.	
1-30	9278215200	MAIN BASE ASS'Y	
1-31	9278215300	CLAMP SP.	
1-32	9278215400	BUTTON LEVER SP.	
1-33	9278215500	LEAF SW. MSW-1541ACV	
1-34	9278215600	BUTTON LEVER SP.	
1-35	9278215700	BUTTON LEVER SP.	
1-36	9278215800	LEAF SW. MSW-1752	
1-37	9278215900	PACK SP. PLATE	
1-38	9278216000	FF GEAR	
1-39	9278216100	P. ARM SP. (R)	
1-40	9278216200	P. ARM SP. (F)	
1-41	9278216300	E. SLIDE LEVER	
1-42	9278216400	COLLAR	
1-43	9278216500	SPRING	
1-44	9278216600	CHASSIS ASS'Y	
1-45	9278216700	CH. SLIDE LEVER	
1-46	9278216800	CH. GEAR SP.	
1-47	9278216900	CH. COLLAR (A)	
1-48	9278217000	CH. COLLAR (B)	
1-49	9278253900	REC. SENSOR LEVER	
1-50	9278254000	R/P STOPPER	
1-51	9278254100	PUSH BUTTON ACTUATOR ASS'Y	
1-52	9278217300	PUSH BUTTON ACTUATOR SP.	
1-53	9278217400	SW. ACTUATOR	
1-54	9278217500	REW. LEVER	
1-55	9278254200	REC. BUTTON LEVER	
1-56	9278217600	PLAY BUTTON LEVER	
1-57	9278217700	REW. BUTTON LEVER	
1-58	9278217800	FF. BUTTON LEVER	
1-59	9278217900	STOP BUTTON LEVER	

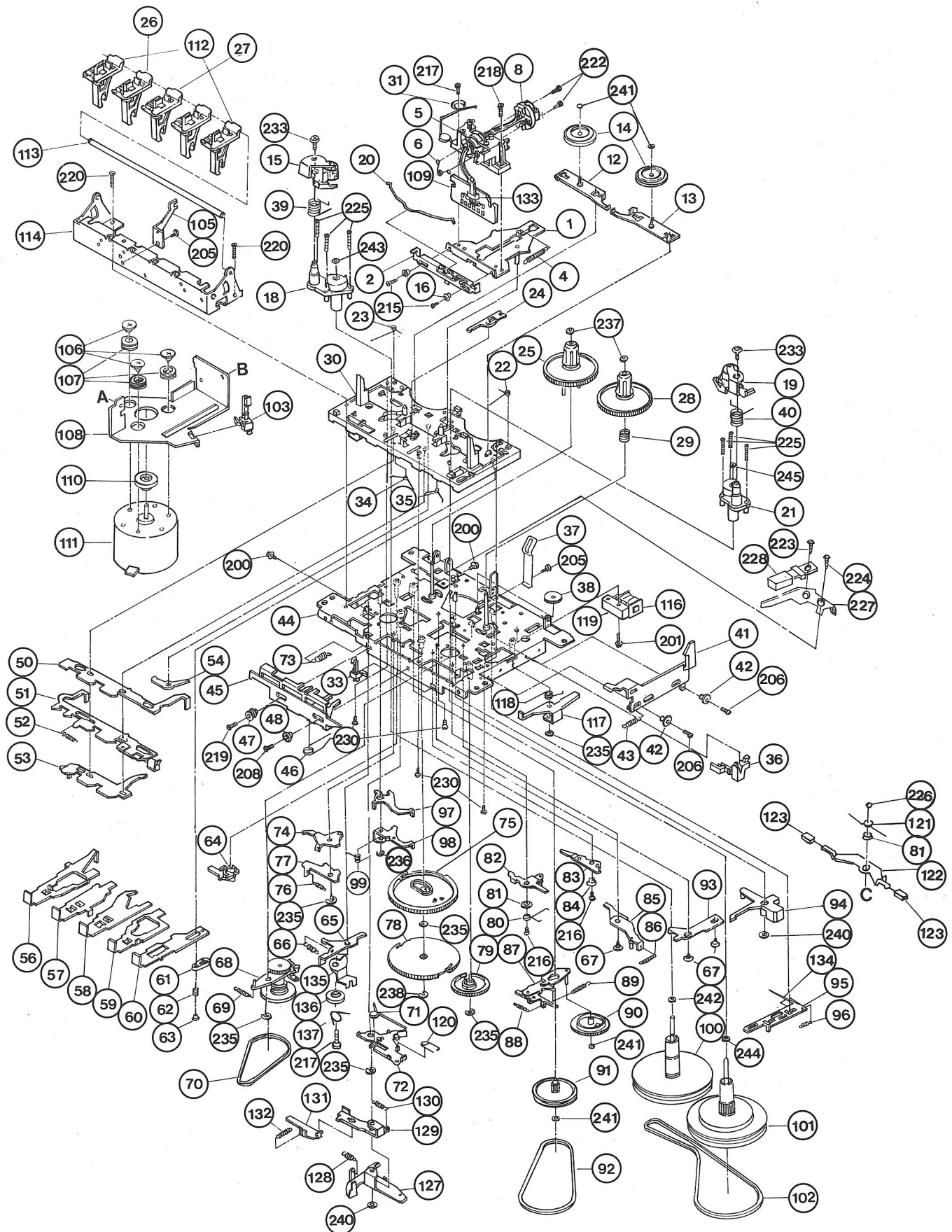
EXPLODED VIEW - 1

REF.NO.	PARTS NO.	DESCRIPTION	REMARKS
1-60	9278218000	PAUSE BUTTON LEVER ASS'Y	
1-61	9278207200	PAUSE LEVER	
1-62	9278196200	PAUSE LEVER SP.	
1-63	9278196300	P. STOPPER	
1-64	9278218400	MODE LEVER	
1-65	9278218500	DOUBLE SIDED SENSING PLATE	
1-67	9278218700	COLLAR SCREW	
1-68	9278218800	RF CLUTCH ASS'Y	
1-69	9278218900	SPRING	
1-70	9278219000	RF BELT	
1-71	9278219100	LIFT SP.	
1-72	9278219200	LIFT ARM ASS'Y	
1-73	9278219300	SPRING	
1-74	9278219400	M. TRIGGER ARM (A) ASS'Y	
1-75	9278219500	M. GEAR	
1-76	9278219600	SPRING	
1-77	9278219700	M. TRIGGER ARM (B) ASS'Y	
1-78	9278219800	M. GEAR	
1-79	9278219900	P. GEAR	
1-80	9278245000	P. TRIGGER ARM SP.	
1-81	9278245100	BRAKE ARM COLLAR	
1-82	9278245200	P. TRIGGER ARM ASS'Y	
1-83	9278245300	RF TRIGGER ARM	
1-84	9278245400	RF COLLAR	
1-85	9278245500	P. ACTUATOR ARM ASS'Y	
1-86	9278245600	SPRING	
1-87	9278245700	CAM GEAR PLATE ASS'Y	
1-88	9278245800	SENSOR PLATE SP.	
1-89	9278245900	CAM GEAR PLATE SP.	
1-90	9278246000	CAM GEAR	
1-91	9278246100	PULLEY	
1-92	9278246200	FULL AUTO BELT	
1-93	9278246300	RF LEVER	
1-94	9278246400	SENSING PLATE	
1-95	9278246500	CONTROL LEVER	
1-96	9278246600	CONTROL LEVER SP.	
1-97	9278246700	STOP LEVER	
1-98	9278246800	DOUBLE SIDED FUNCTION LEVER	
1-99	9278246900	FUNCTION LEVER SP.	
1-100	9278247000	FL. PULLEY ASS'Y	
1-101	9278247100	FL. GEAR ASS'Y	
1-102	9278247200	MAIN BELT	
1-103	9278247300	LEAF SW MSW-1649CV	
1-105	9278247400	SHAFT STOPPER	
1-106	9278208300	M. COLLAR SCREW	
1-107	9278200600	MOTOR RUBBER	
1-108	9278247700	MOTOR BRACKET	
1-109	9278247800	RELAY BASE PLATE	
1-110	9278254400	MOTOR PULLEY	
1-111	9278248000	MOTOR SHU-2L50	
1-112	9278248100	OPERATION LEVER	
1-113	9278203800	BUTTON LEVER SHAFT	
1-114	9278248300	BUTTON LEVER FRAME	
1-115	9278254500	REC. BUTTON LEVER SP.	
1-116	9278248900	BRAKE SP.	

EXPLODED VIEW - 2

REF.NO.	PARTS NO.	DESCRIPTION	REMARKS
2-121	9278248900	BRAKE SP.	
2-122	9278249000	BRAKE ARM	
2-123	9278249100	BRAKE SHOE	
2-127	9278249200	CH. LEVER (H) B	
2-128	9278249300	CH. LEVER (H) SP	
2-129	9278249400	CH. LEVER (J)	
2-130	9278249500	SPRING	
2-131	9278249600	CH. LEVER (K)	
2-132	9278249700	CH. LEVER (K) SP.	
2-133	9278249800	CODE CLAMPER	
2-134	9278249900	C. LEVER SP.	
2-135	9278250000	M. SWITCH LEVER	
2-136	9278250100	M. SEITCH LEVER COLLAR	
2-137	9278250200	M. SWITCH LEVER SP.	
2-200	9278208700	TAMS SCREW 2*3	
2-201	9278201900	TAMS SCREW 2*4	
2-202	9278250500	TAMS SCREW 2*5	
2-205	9278250600	C. TAPPING SCREW 2*3 SPECIAL	
2-206	9278204600	C. TAPPING SCREW 2*5	
2-208	9278250800	CAP SCREW 2*6	
2-210	9278250900	BIND SCREW 2*6	
2-214	9278251000	SCREW 2*3	
2-215	9278251100	CAMERA SCREW 1.7*3	
2-216	9278251200	CAMERA SCREW 2*3.5	
2-217	9278251300	CAMERA SCREW 2*4.5	
2-218	9278251400	CAMERA SCREW 2*5.5	
2-219	9278251500	CAMERA SCREW 2*6	
2-220	9278251600	CAMERA SCREW 2*8	
2-222	9278251700	H COLLAR S	
2-223	9278251800	BIND SCREW 2*3	
2-224	9278251900	C. TITE SCREW 2*3	
2-225	9278252000	CAMERA SCREW 2*8.5 (FH)	
2-226	9278252100	CAMERA SCREW 2*3.5 (FH)	
2-227	9278252200	SENSING SW BRACKET	
2-228	9278252300	LEAF SW. MSW-1432NBKU	
2-230	9278252400	P. TAPPING SCREW 2*6	
2-233	9278252500	CAP POWER LOCK SCREW 2*6	
2-235	9278252600	E. RING S2.0	
2-236	9278252700	E. RING S1.5	
2-237	9278252800	E. RING (SPECIAL) BLACK S1.5	
2-238	9278252900	E. RING (S. SPECIAL) S1.5	
2-240	9278253000	POLY. WASHER CUT 2.1*5*0.4	
2-241	9278253100	POLY. WASHER CUT 1.2*3*0.25	
2-242	9278253200	POLY. WASHER 2*3.5*0.3	
2-243	9278253300	POLY. WASHER CUT 1.55*5*0.5	
2-244	9278253400	POLY. WASHER 2.2*3.8*0.3	
2-245	9278253500	POLY. WASHER CUT 1.85*5*0.5	

EXPLODED VIEW-2



EXPLODED VIEW - 2

REF.NO.	PARTS NO.	DESCRIPTION	REMARKS
2-1	9278213000	HEAD PANEL ASS'Y	
2-2	9278213100	C.H.P. LEVER	
2-4	9278213200	HEAD PANEL SP.	
2-5	9278213300	HEAD BASE ASS'Y	
2-6	9278213400	TRUN OVER SP.	
2-8	9278210100	PLAY HEAD YK10RBA409	
2-12	9278213500	T. ROLLER PLATE (R)	
2-13	9278213600	T. ROLLER PLATE (F)	
2-14	9278213700	T. ROLLER ASS'Y	
2-15	9278213800	PINCH ROLLER ARM (R) ASS'Y	
2-16	9278213900	C.H.P. LEVER COLLAR	
2-18	9278214000	F.L. METAL (R) ASS'Y	
2-19	9278214100	PINCH ROLLER ARM (F) ASS'Y	
2-20	9278214200	PINCH ROLLER SP	
2-21	9278214300	F.L. METAL (F) ASS'Y	
2-22	9278214400	T. ROLLER PLATE SP (F)	
2-23	9278214500	T. ROLLER PLATE SP (R)	
2-24	9278214600	CONTROL LEVER	
2-25	9278214700	REEL ASS'Y (R)	
2-26	9278214800	OPERATION LEVER	
2-27	9278214900	OPERATION LEVER	
2-28	9278215000	REEL ASS'Y (F)	
2-29	9278215100	BACK TENSION SP.	
2-30	9278215200	MAIN BASE ASS'Y	
2-31	9278215300	CLAMP SP.	
2-32	9278215400	BUTTON LEVER SP	
2-33	9278215500	LEAF SW. MSW-1541ACV	
2-34	9278215600	BUTTON LEVER SP.	
2-35	9278215700	BUTTON LEVER SP.	
2-36	9278215800	LEAF SW. MSW-1752	
2-37	9278215900	PACK SP. PLATE	
2-38	9278216000	FF GEAR	
2-39	9278216100	P. ARM SP. (R)	
2-40	9278216200	P. ARM SP. (F)	
2-41	9278216300	E. SLIDE LEVER	
2-42	9278216400	COLLAR	
2-43	9278216500	SPRING	
2-44	9278216600	CHASSIS ASS'Y	
2-45	9278216700	CH. SLIDE LEVER	
2-46	9278216800	CH. GEAR SP.	
2-47	9278216900	CH. COLLAR (A)	
2-48	9278217000	CH. COLLAR (B)	
2-50	9278217100	T.P.S. ACTUATOR	
2-51	9278217200	PUSH BUTTON ACTUATOR ASS'Y	
2-52	9278217300	PUSH BUTTON ACTUATOR SP.	
2-53	9278217400	SW. ACTUATOR	
2-54	9278217500	REW. LEVER	
2-56	9278217600	PLAY BUTTON LEVER	
2-57	9278217700	REW. BUTTON LEVER	
2-58	9278217800	FF BUTTON LEVER	
2-59	9278217900	STOP BUTTON LEVER	
2-60	9278218000	PAUSE BUTTON LEVER ASS'Y	
2-61	9278207200	PAUSE LEVER	
2-62	9278196200	PAUSE LEVER SPRING	
2-63	9278196300	P. STOPPER	

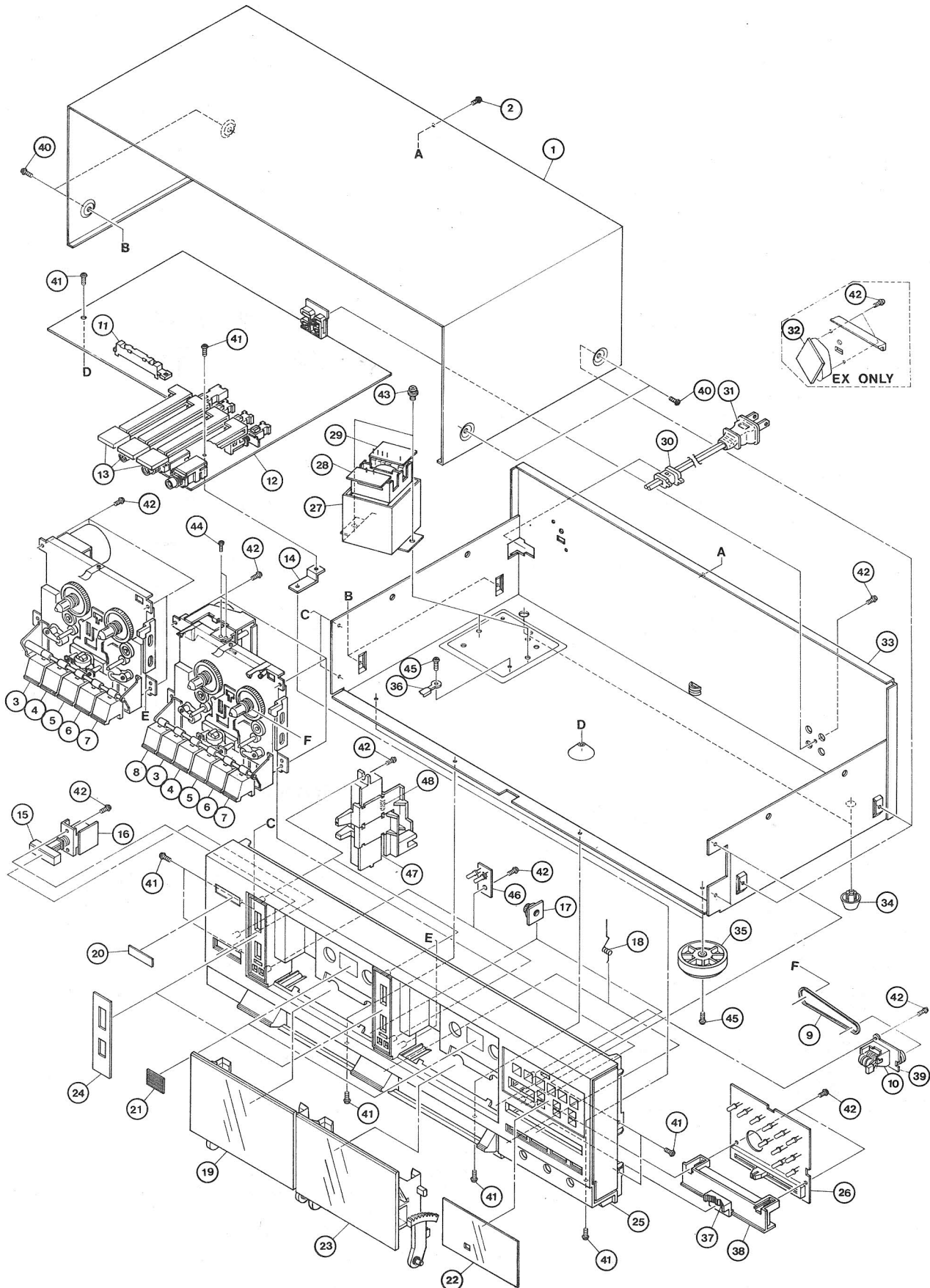
EXPLODED VIEW - 2

REF.NO.	PARTS NO.	DESCRIPTION	REMARKS
2-64	9278218400	MODE LEVER	
2-65	9278218500	DOUBLE-SIDED SENSING PLATE	
2-66	9278218600	SPRING	
2-67	9278218700	COLLAR SCREW	
2-68	9278218800	RF CLUTCH ASS'Y	
2-69	9278218900	SPRING	
2-70	9278219000	RF BELT	
2-71	9278219100	LIFT SP.	
2-72	9278219200	LIFT ARM ASS'Y	
2-73	9278219300	SPRING	
2-74	9278219400	M. TRIGGER ARM (A) ASS'Y	
2-75	9278219500	M. GEAR	
2-76	9278219600	SPRING	
2-77	9278219700	M. TRIGGER ARM (B)	
2-78	9278219800	CH. GEAR	
2-79	9278219900	P. GEAR	
2-80	9278245000	P. TRIGGER ARM SP.	
2-81	9278245100	BRAKE ARM COLLAR	
2-82	9278245200	P. TRIGGER ARM ASS'Y	
2-83	9278245300	RF TRIGGER ARM	
2-84	9278245400	RF COLLAR	
2-85	9278245500	P. ACTUATOR ARM ASS'Y	
2-86	9278245600	SPRING	
2-87	9278245700	CAM GEAR PLATE ASS'Y	
2-88	9278245800	SENSOR PLATE SP.	
2-89	9278245900	CAM GEAR PLATE SP.	
2-90	9278246000	CAM GEAR	
2-91	9278246100	PULLEY	
2-92	9278246200	FULL AUTO BELT	
2-93	9278246300	RF LEVER	
2-94	9278246400	SENSING PLATE	
2-95	9278246500	CONTROL LEVER	
2-96	9278246600	CONTROL LEVER SP.	
2-97	9278246700	STOP LEVER	
2-98	9278246800	DOUBLE SIDED FUNCTION LEVER	
2-99	9278246900	FUNCTION SP.	
2-100	9278247000	F.L. PULLEY ASS'Y	
2-101	9278247100	F.L. GEAR ASS'Y	
2-102	9278247200	MAIN BELT	
2-103	9278247300	LEAF SW MSW-1649CV	
2-105	9278247400	SHAFT STOPPER	
2-106	9278208300	M. COLLAR SCREW	
2-107	9278200600	MOTOR RUBBER	
2-108	9278247700	MOTOR BRACKET	
2-109	9278247800	RELAY BASE PLATE	
2-110	9278247900	MOTOR PULLEY	
2-111	9278248000	MOTOR SHW-2L51	
2-112	9278248100	OPERATION LEVER	
2-113	9278203800	BUTTON LEVER SHAFT	
2-114	9278248300	BUTTON LEVER FRAME	
2-116	9278248400	COIL ASS'Y	
2-117	9278248500	T.P.S. LEVER	
2-118	9278248600	T.P.S. LEVER SP.	
2-119	9278248700	CORE	
2-120	9278248800	LIFT ARM SP.	

EXPLODED VIEW - 1

REF.NO.	PARTS NO.	DESCRIPTION	REMARKS
1-117	9278249000	BRAKE ARM	
1-120	9278248800	LIFT ARM SP.	
1-121	9278254600	REC.CHANGE LEVER	
1-122	9278254700	REC. CHANGE LEVER SP.	
1-123	9278254800	M. KICK LEVER	
1-124	9278254900	M. KICK LEVER COLLAR	
1-125	9278255000	COLLAR	
1-126	9278255100	SPRING	
1-127	9278249200	CH. LEVER (H) B	
1-128	9278249300	CH. LEVER (H) SP	
1-129	9278249400	CH. LEVER (J)	
1-130	9278249500	SPRING	
1-131	9278249600	CH. LEVER (K)	
1-132	9278249700	CH. LEVER (K) SP.	
1-133	9278249800	CODE CLAMPER	
1-134	9278249900	C. LEVER SP	
1-135	9278250000	M. SWITCH LEVER	
1-136	9278250100	M. SWITCH LEVER COLLAR	
1-137	9278250200	M. SWITCH LEVER SP.	
1-138	9278255200	REC. SAFETY LEVER SP (F)	
1-139	9278255300	REC. SAFETY LEVER SP. (R1)	
1-200	9278208700	TAMS SCREW 2*3	
1-201	9278201900	TAMS SCREW 2*4	
1-202	9278250500	TAMS SCREW 2*5	
1-205	9278250600	C. TAPPING SCREW 2*3 SPECIAL	
1-206	9278204600	C. TAPPING SCREW 2*5	
1-208	9278250800	CAP SCREW 2*6	
1-210	9278250900	BIND SCREW 2*6	
1-214	9278251000	SCREW 2*3	
1-215	9278251100	CAMERA SCREW 1.7*3	
1-216	9278251200	CAMERA SCREW 2*3.5	
1-217	9278252300	LEAF SW. MSW-1432 NBKU	
1-218	9278252200	SENSING SW. BRACKET	
1-219	9278251500	CAMERA SCREW 2*6	
1-220	9278251600	CAMERA SCREW 2*8	
1-222	9278251700	H COLLAR S	
1-223	9278251800	BIND SCREW 2*3	
1-224	9278251900	C. TAPPING SCREW 2*3	
1-225	9278252000	CAMERA SCREW 2*8.5 (FH)	
1-226	9278252100	CAMERA SCREW 2*3.5 (FH)	
1-227	9278255400	CAMERA C. TAPPING SCREW 2*3. 5	
1-228	9278255500	CAMERA C. TAPPING SCREW 2.3* 5	
1-230	9278252400	P. TAPPING SCREW 2*6	
1-231	9278251300	CAMERA SCREW 2*4.5	
1-232	9278251400	CAMERA SCREW 2*5.5	
1-233	9278252500	CAP POWER LOCK SCREW 2*6	
1-235	9278252600	E. RING S2.0	
1-236	9278252700	E. RING S1.5	
1-237	9278252800	E. RING (SPECIAL) BLACK S1.5	
1-238	9278252900	E. RING (S.SPECIAL) S1.5	
1-240	9278253000	POLY. WASHER CUT 2.1*5*0.4	
1-241	9278253100	POLY. WASHER CUT 1.2*3*0.25	
1-242	9278253200	POLY. WASHER CUT 2*3.5*0.3	
1-243	9278253300	POLY. WASHER CUT 1.55*5*0.5	
1-244	9278253400	POLY. WASHER 2.2*3.8*0.3	
1-245	9278253500	POLY. WASHER CUT 1.85*5*0.5	

EXPLODED VIEW-3



W-450R

EXPLODED VIEW - 3

REF.NO.	PARTS NO.	DESCRIPTION	REMARKS
3-1	*9260084800	BONNET	
3-2	9783593008	SCREW C-TITE M3*8 N1-BLK	
3-3	9260084901	BUTTON PLAY	
3-4	9260085100	BUTTON REW	
3-5	9260085000	BUTTON FF	
3-6	9260085200	BUTTON STOP	
3-7	9260085300	BUTTON PAUSE	
3-8	9260085400	BUTTON REC	
3-9	9260068200	BELT COUNTER	
3-10	9260071900	COUNTER	
3-11	9260090000	SLIDE SEITCH	
3-12	9260058102	R/P AMP PCB	
3-13	9260086000	PUSH BUTTON	
3-14	9260079600	PCB BRACKET	
3-15	9260081900	BUTTON POWER	
3-16	*9260058300	PCB ASS'Y POWER SWITCH	
3-17	9260077301	DAMPER	
3-18	*9260091901	SPRING, CASE	
3-19	*9260084501	LOADING CASE (I)	
3-20	5720175500	TEAC EMBLEM	
3-21	5800822400	REFLECT TAPE	
3-22	9260086301	PANEL SHEET (A)	
3-23	9260084601	LOADING CASE (II)	
3-24	9260086401	PANEL SHEET (B)	
3-25	*9260084401	PANEL FRONT	
3-26	*9260058201	PCB ASS'Y METER	
3-27	△ 9125055200	POWER TRANSFORMER (EUR)	
	△ 9260055300	POWER TRANSFORMER (EX)	
	△ 9260055500	POWER TRANSFORMER (CSA)	
	△ 9260055800	POWER TRANSFORMER (JPN)	
3-28	9260058900	TRANS PCB C	
3-29	9260058700	TRANS PCB A	
	9260061300	TRANS PCB C	
3-30	*9121000100	BUSHING #2271	
3-31	△ 9109025800	AC CORD (UL)	
	△ 9109025700	AC CORD (EUR)	
	△ 9109026000	AC CORD (AUS)	
	△ 9109026100	AC CORD (JPN)	
	9109025900	BS CORD	
3-32	9145058400	PCB ASS'Y VOLTAGE SLECTOR SW	
3-33	9260084700	MAIN CHASSIS (TAI)	
	9260091200	MAIN CHASSIS (EX)	
	9260092500	MAIN CHASSIS (EUR)	
3-34	9260088200	FOOT	
3-35	9260082400	FOOT ASS'Y	
3-36	9788823059	WIRE CLAMPER	
3-37	*9260085900	VR KNOB	
3-38	9260085500	VR RAIL	
3-39	*9260086200	BRACKET COUNTER	
3-40	9783101006	SCREW CAP-S M3*6	
3-41	9783203006	SCREW BTT-S M3*6	
3-42	9783603008	SCREW BTT-P M3*8	
3-43	9783204006	SCREW BTT-S M4*6	
3-44	9783022004	SCREW PTT-S M2*4	
3-45	9783203008	SCREW BTT-S M3*8	
3-46	9145058501	DIRECTION LED PCB ASS'Y	
3-47	9260092700	RAIL ASS'Y	
3-48	9260069900	DIRECTION SPRING	

I N C L U D E D A C C E S S O R I E S

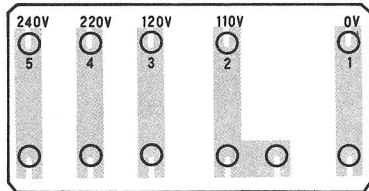
REF.NO.	PARTS NO.	DESCRIPTION	
	*9101373701	OWNER'S MANUAL (ENGLISH)	W-450R
	*9101373801	OWNER'S MANUAL (5 MULTI)	W-450R
	*9101376101	OWNER'S MANUAL (5 MULTI)	W-450R
	*9101374200	OWNER'S MANUAL (JPN)	W-450R
	*9109025100	IN-OUTPUT CORD	

Parts marked with *require longer delivery time.

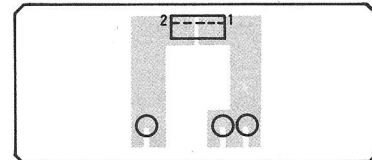
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[GE]:GENERAL EXPORT [J]:JAPAN

7 PC BOARDS AND PARTS LIST

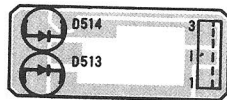
TRANS PCB A



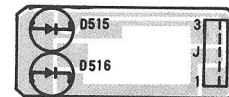
TRANS PCB C



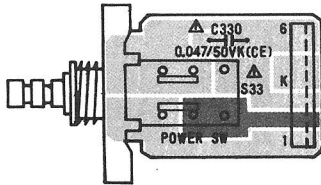
LED PCB A ASSY



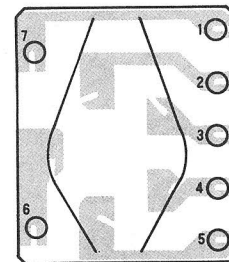
LED PCB B ASSY



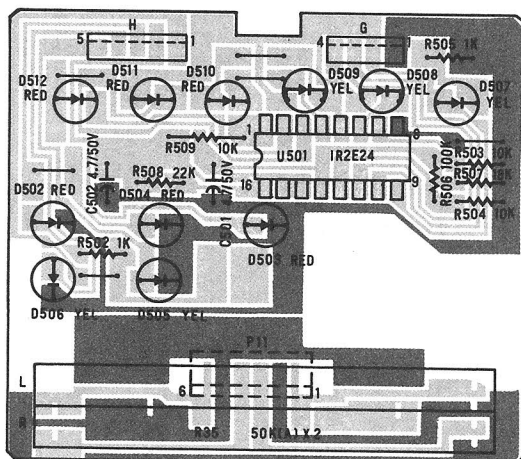
POWER SW PCB ASSY



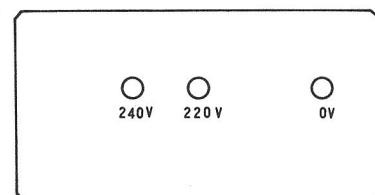
SELECTOR SW PCB ASSY



METER PCB ASSY



TRANS PCB B

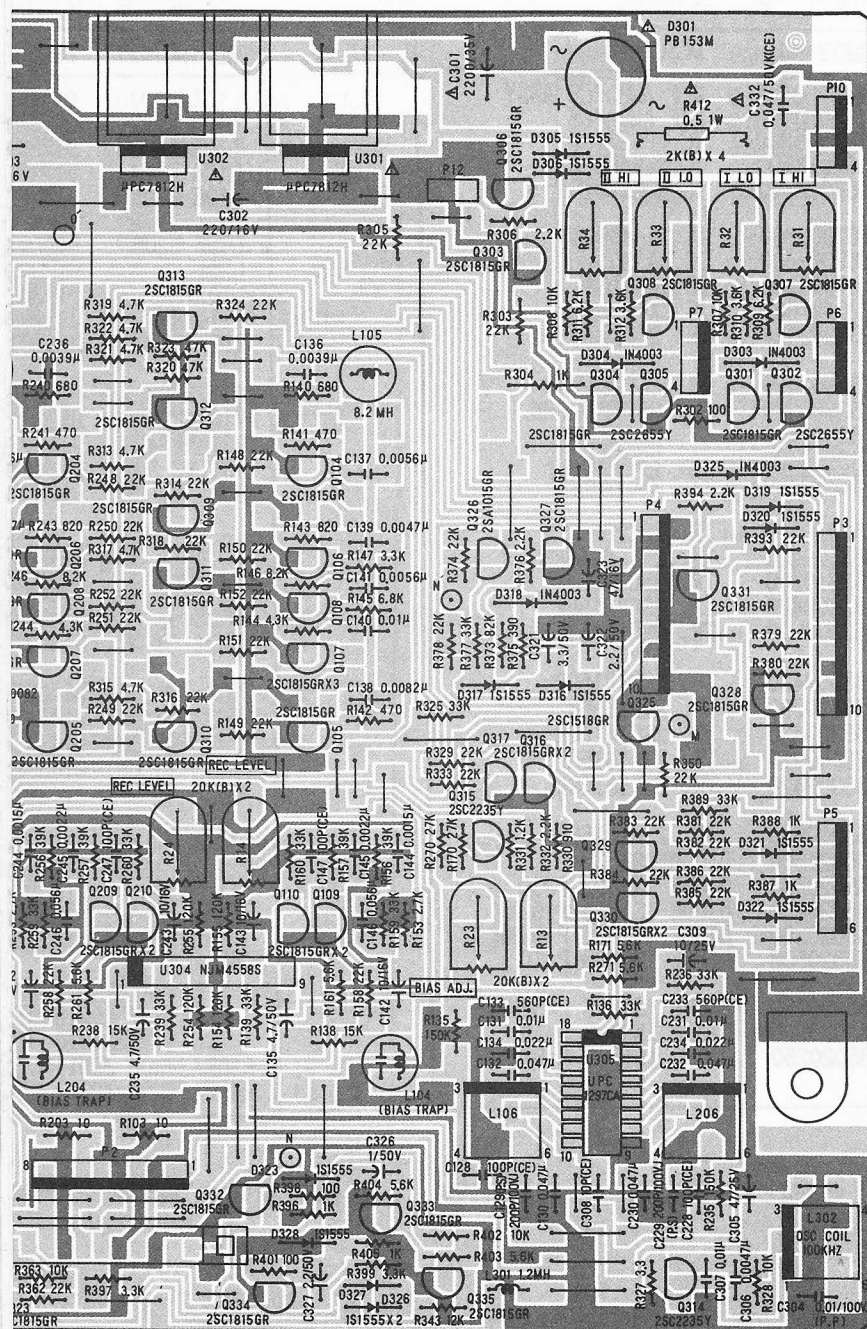


NOTES

1. PC boards are shown viewed from foil side.
2. The colors on the PC board illustrations have the following significance:
 : GND
 : other
3. Resistor values are in ohms (k=kilo-ohms M=megohms).
4. All capacitor values are in microfarads (p=picofarads).
5. Δ Parts marked with this sign are safety critical components. They must always be replaced with identical components. Refer to the appropriate parts list to ensure exact replacement.

W-450R

L PCB ASSY(W-450R)



R/P PCB ASSY (W-450R)

REF.NO.	PARTS NO.	DESCRIPTION
	*9145058103	R/P AMP PCB ASSY
	9155058102	R/P AMP PCB
U301 U302	△9167010300	IC uPC7812H
U303 U304	9167012100	IC NJM4558S
U305	9167012800	IC uPC1297CA
U306	9167009800	IC TC-4066BP
U307	9167012400	IC BA335
U308	9167013000	IC BA3416BL
U309	5220427000	IC CX-20187
Q101 Q201	9163309420	TR, 2SC1815GR
Q102 Q202	9163309420	TR, 2SC1815GR
Q103 Q203	9163309720	TR, 2SC732TM-BL
Q104-Q111	9163309420	TR, 2SC1815GR
Q204-Q211	9163309420	TR, 2SC1815GR
Q301	9163309420	TR, 2SC1815GR
Q302	9163310200	TR, 2SC2655Y
Q303 Q304	9163309420	TR, 2SC1815GR
Q305	9163310200	TR, 2SC2655Y
Q306-Q313	9163309420	TR, 2SC1815GR
Q314 Q315	9163308900	TR, 2SC2235Y
Q316-Q321	9163309420	TR, 2SC1815GR
Q322	9163310200	TR, 2SC2655Y
Q323-Q325	9163309420	TR, 2SC1815GR
Q326	9163009920	TR, 2SA1015GR
Q327-Q336	9163309420	TR, 2SC1815GR
Q337-Q338	9163009920	TR, 2SA1015GR
D301	△9165021500	DIODE PB153M
D303-D304	9165020508	DIODE IN4003 P=10
D305-D306	9165020250	DIODE 1S1555 P=52MM
D308-D317	9165020250	DIODE 1S1555 P=52MM
D318	9165020508	DIODE IN4003 P=10
D319-D324	9165020250	DIODE 1S1555 P=52MM
D325	9165020508	DIODE IN4003 P=10
D326-D330	9165020250	DIODE 1S1555 P=52MM

R/P PCB

REF.NO.	PARTS
L101 L201	91220
L102 L202	91730
L103 L203	91730
L104 L204	91220
L105 L205	91220
L106 L206	91220
L301	91220
L302	91730
R11 R21	91120
R12 R22	91120
R13 R23	91120
R14 R24	91120
R31 -R34	91120
S31	91340
S32	91350
	97888
	97888
	97888
P1	91432
P2	91432
P3 P4	91432
P5	91432
P6 P7	91432
P8	91432
P9	91432
P10	91432
P11	91431
J11 J21	91431
J31	53305
J32	91431
	92290
	91600
	91600
R361	△91112
R412	△91112

[US]:U.S.A.

[E]:EUROPE

[UK]:U.K.

[C]:CANADA

[A]:AUSTRALIA

[GE]:

-450R W-450R

R/P PCB ASSY (W-450R)

REF.NO.	PARTS NO.	DESCRIPTION
L101 L201	9122017501	LOW PASS FILTER 100KHZ
L102 L202	9173002501	LOW PASS FILTER MPX
L103 L203	9173002700	LOW PASS FILTER 19.8KHZ
L104 L204	9122017600	BIAS TRAP COIL 100KHZ
L105 L205	9122015300	COIL 8.2mH
L106 L206	9122018400	STEP UP COIL
L301	9122013300	COIL 1.2mH
L302	9173002800	OSC COIL 100KHZ
R11 R21	9112017000	SEMI-FIXED VR 20K(B)
R12 R22	9112017000	SEMI-FIXED VR 20K(B)
R13 R23	9112017000	SEMI-FIXED VR 20K(B)
R14 R24	9112017000	SEMI-FIXED VR 20K(B)
R31 -R34	9112016000	SEMI-FIXED VR 2K(B)
S31	9134009000	SLIDE SWITCH 7-2
S32	9135030500	PUSH SW 4-GANG
	9788830605	JUMP WIRE P=5MM
	9788830610	JUMP WIRE P=10MM
	9788830615	JUMP WIRE P=15MM
P1	9143220000	PLUG 4P SC25-04WS
P2	9143224000	PLUG 8P SC25-08WS
P3 P4	9143226000	PLUG 10P SC25-10WS
P5	9143222000	PLUG 6P SC25-06WS
P6 P7	9143220000	PLUG 4P SC25-04WS
P8	9143222000	PLUG 6P SC25-06WS
P9	9143221000	PLUG 5P SC25-05WS
P10	9143220000	PLUG 4P SC25-04WS
P11	9143195000	CONNECTOR PLUG 6P
J11 J21	9143189000	MIC JACK
J31	5330506600	4P PIN JACK
J32	9143190000	PHONE JACK
	9229021000	EARTH PLATE A
	9160013000	2P T.P PIN
	9160012600	PIN T.P
R361	△9111223060	R. NONFLAMMABLE 1W 22
R412	△9111224000	R. NONFLAMMABLE 1W 0.5

METTER PCB ASSY

REF.NO.	PARTS NO.	DESCRIPTION
	9145058203	METER PCB ASSY
	9155058201	METER PCB
U501	5220058400	IC IR2E24
D502-D504	9174011720	LED (RED)
D505-D509	9174012120	LED (VEL) LTL-307YE-031A
D510-D512	9174011720	LED (RED)
R502	9113072050	R. CARBON R-16 JFT 1K
R503-R504	9113096050	R. CARBON R-16 JFT 10K
R505	9113072050	R. CARBON R-16 JFT 1K
R506	9113120050	R. CARBON R-16 JFT 100K
R507	9113102050	R. CARBON R-16 JFT 18K
R508	9113104050	R. CARBON R-16 JFT 22K
R509	9113096050	R. CARBON R-16 JFT 10K
C501	9117111120	C, ELEC 4.7u 50V
C502	9117111120	C, ELEC 4.7u 50V
R35	9172016600	REC VR 50K(A)*2

[A]: AUSTRALIA [GE]: GENERAL EXPORT [J]: JAPAN

SELECTOR SW PCB ASSY

REF.NO.	PARTS NO.	DESCRIPTION
	9145058400	SELECTOR SW PCB ASSY
	9155058400	SELECTOR SW PCB
	△5332019700	VOLTAGE SELECTOR SW (SD385)

POWER SW PCB ASSY

REF.NO.	PARTS NO.	DESCRIPTION
	9145058300	POWER SW PCB ASSY
	9155058300	POWER SW PCB
S33	△9135029300	POWER SWITCH
C330	△9115823120	C, CERAMIC 0.047u50VK (YF)

DIRECTION LED PCB A ASSY

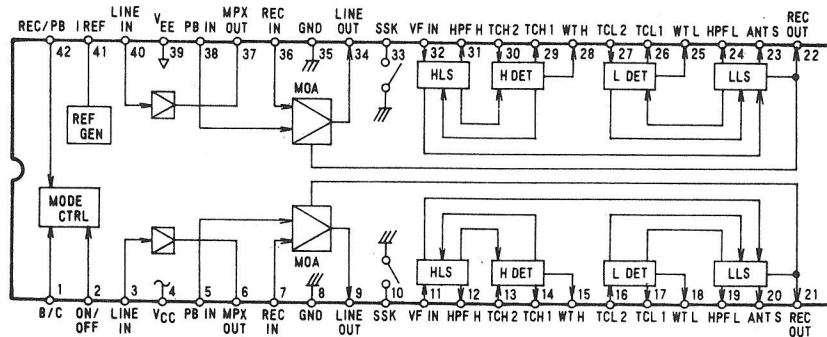
REF.NO.	PARTS NO.	DESCRIPTION
	9145058501	LED PCB A ASSY
	9155058500	LED PCB A
D513 D514	9174012120	LED (YEL) LTL-307YE-031A

DIRECTION LED PCB B ASSY

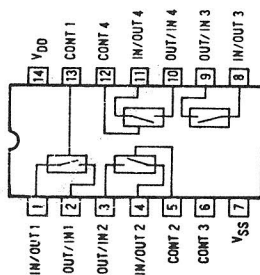
REF.NO.	PARTS NO.	DESCRIPTION
	9145058601	LED PCB B ASSY
	9155058600	LED PCB B
D515 D516	9174012120	LED (YEL) LTL-307YE-031A

IC BLOCK DIAGRAM

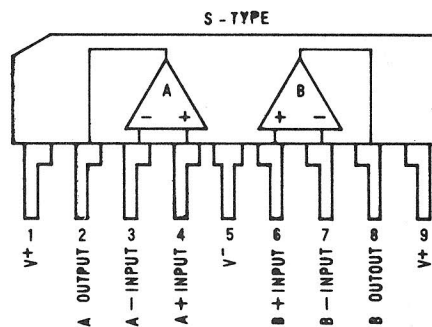
CX-20187



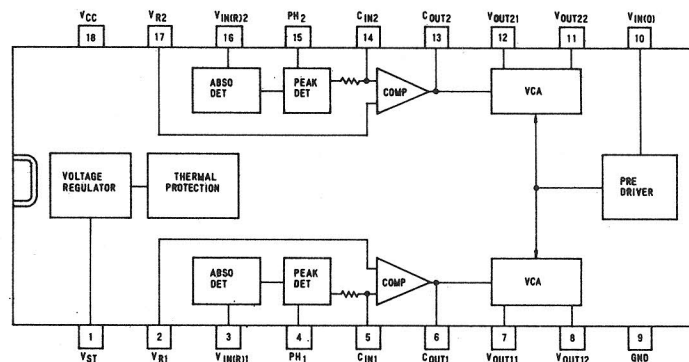
TC-4066BP



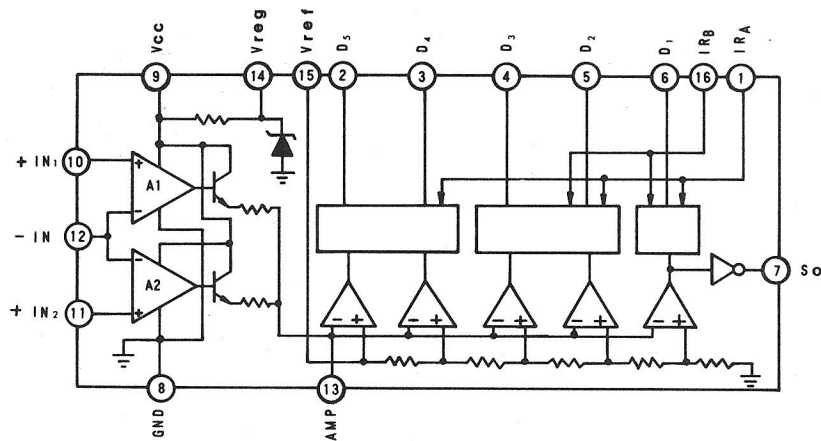
NJM4558S



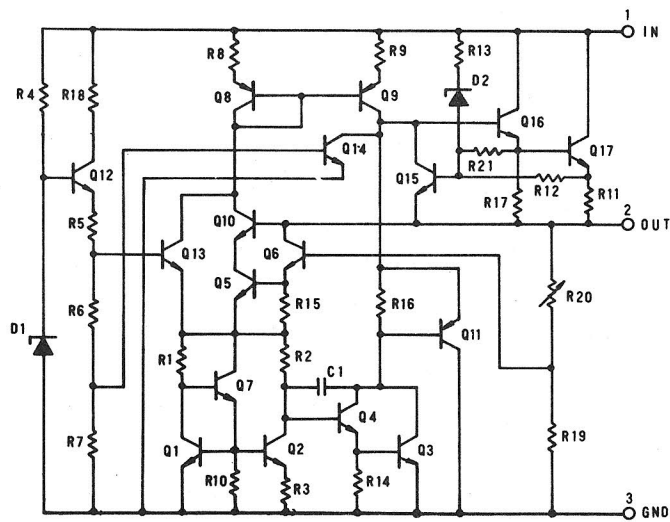
μPC1297CA



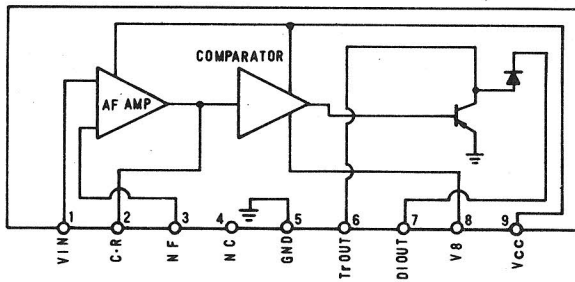
IR2E24



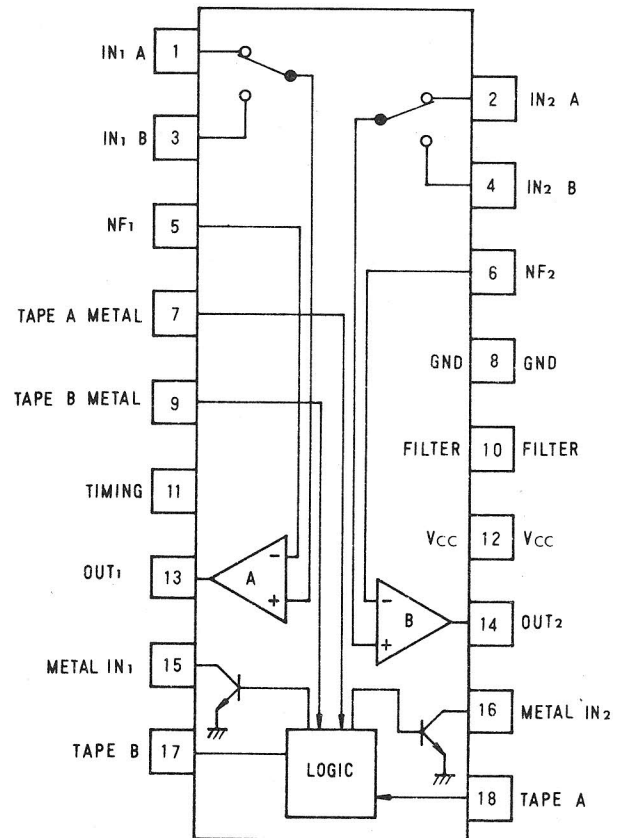
μPC7812H



BA335



BA3416BL



W-450R

TEAC[®]

TEAC CORPORATION

MAIN OFFICE: 3-7, Nakacho 3-chome, Musashino, Tokyo, Japan Phone (0422) 53-1111
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TEAC UK LIMITED

5 Marlin House, Marlin's Meadow, The Croxley Centre, Watford, Herts., WD1 8YA, U.K.
Phone: 0923-225235

TEAC CANADA LTD.

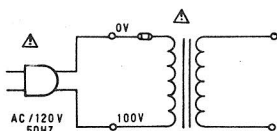
340 Brunel Road Mississauga, Ontario L4Z 2C2, Canada Phone: 416-890-8008

TEAC AUSTRALIA PTY., LTD.

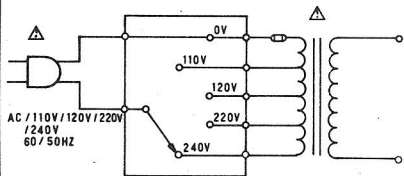
106 Bay Street, Port Melbourne Victoria 3207, Australia Phone: 646-1733

TEAC SCHEMATIC DIAGRAM W-450R

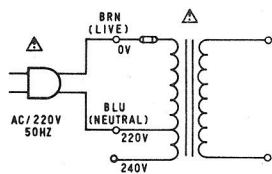
F: JPN



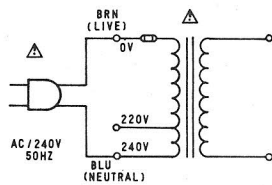
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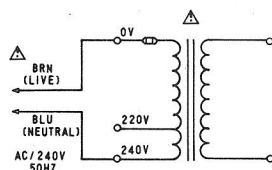
N: EUR



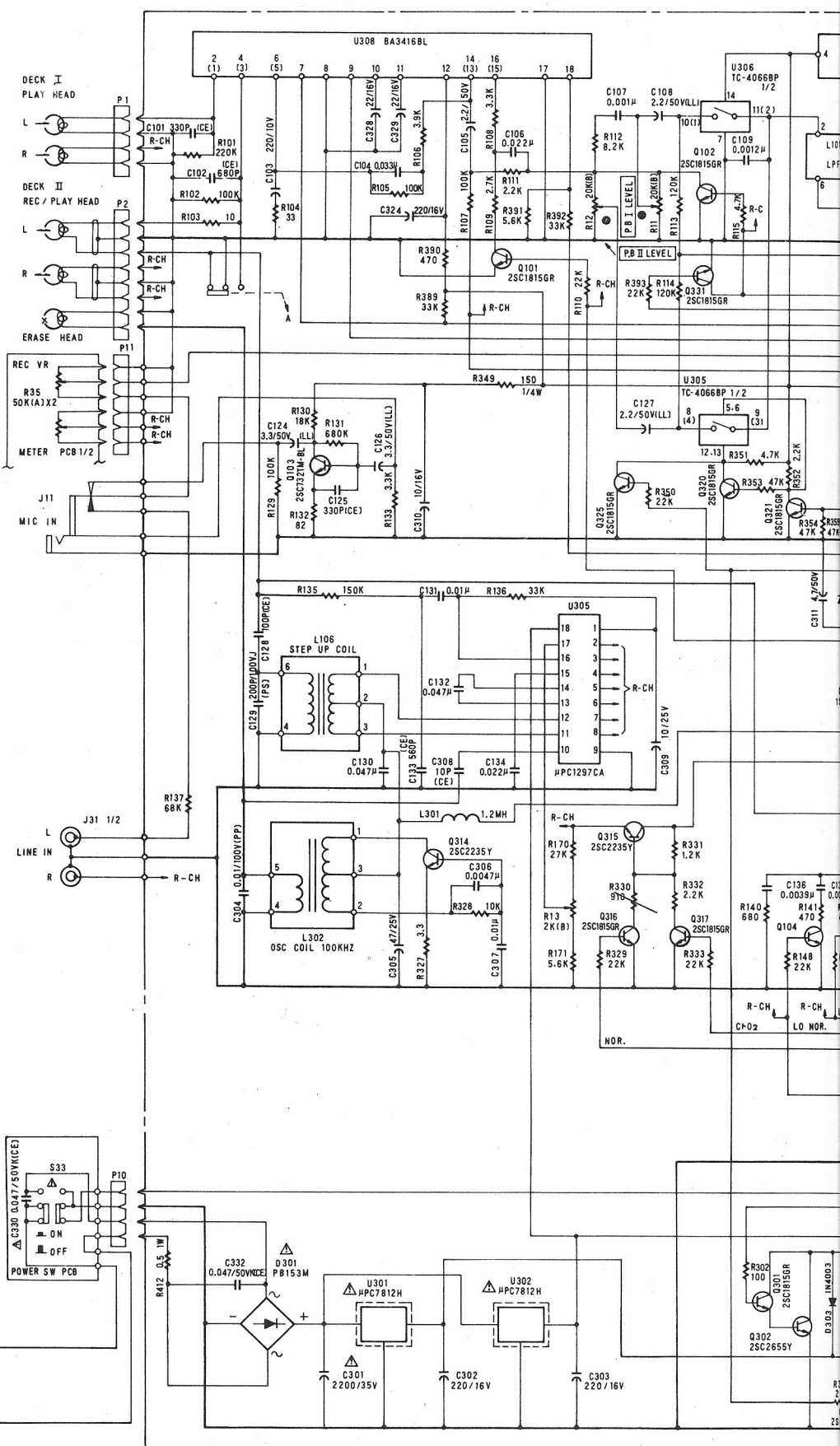
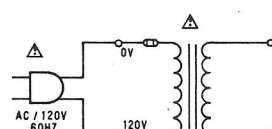
A: AUS

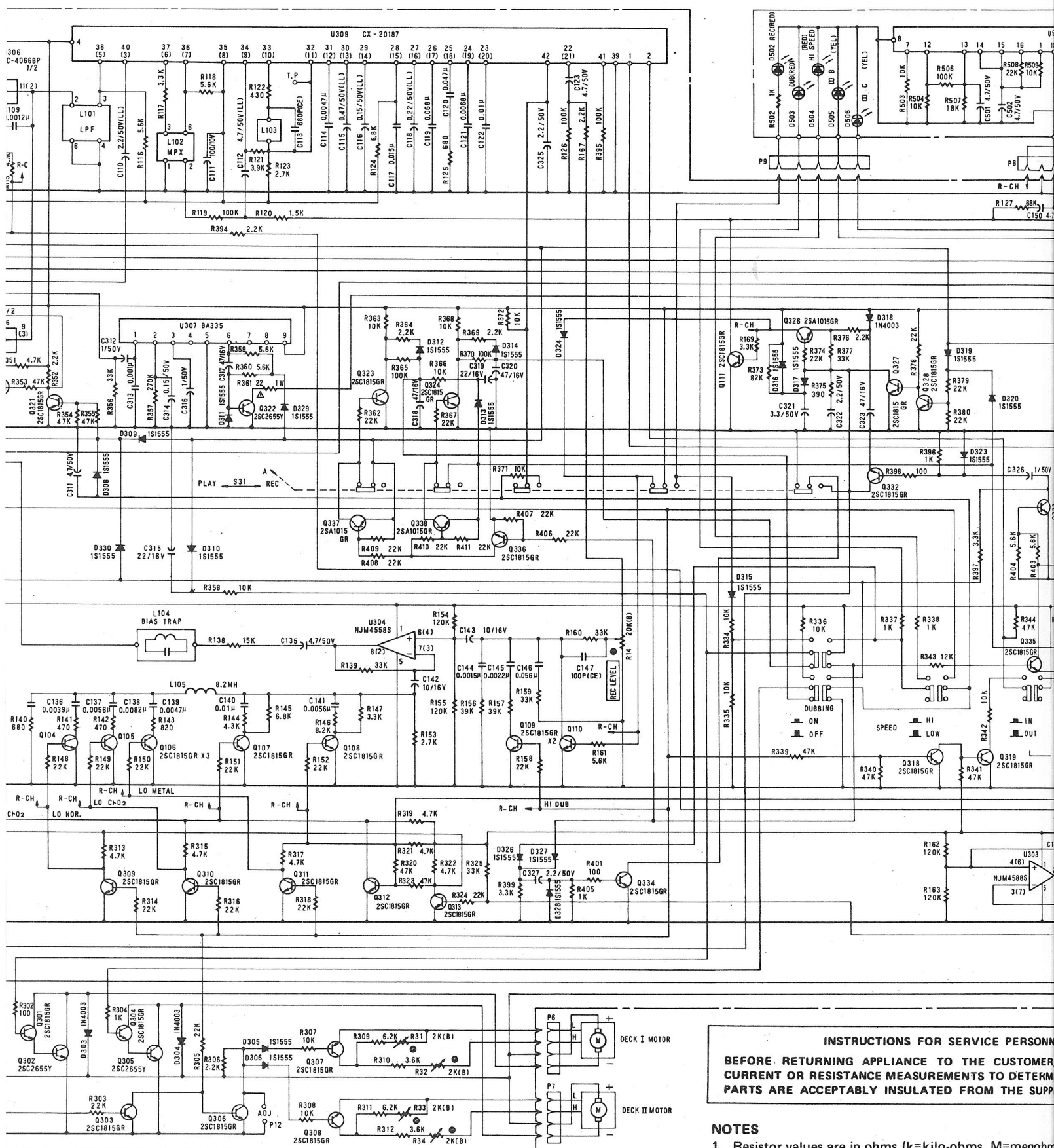


T: UK



U: USA
C: CND



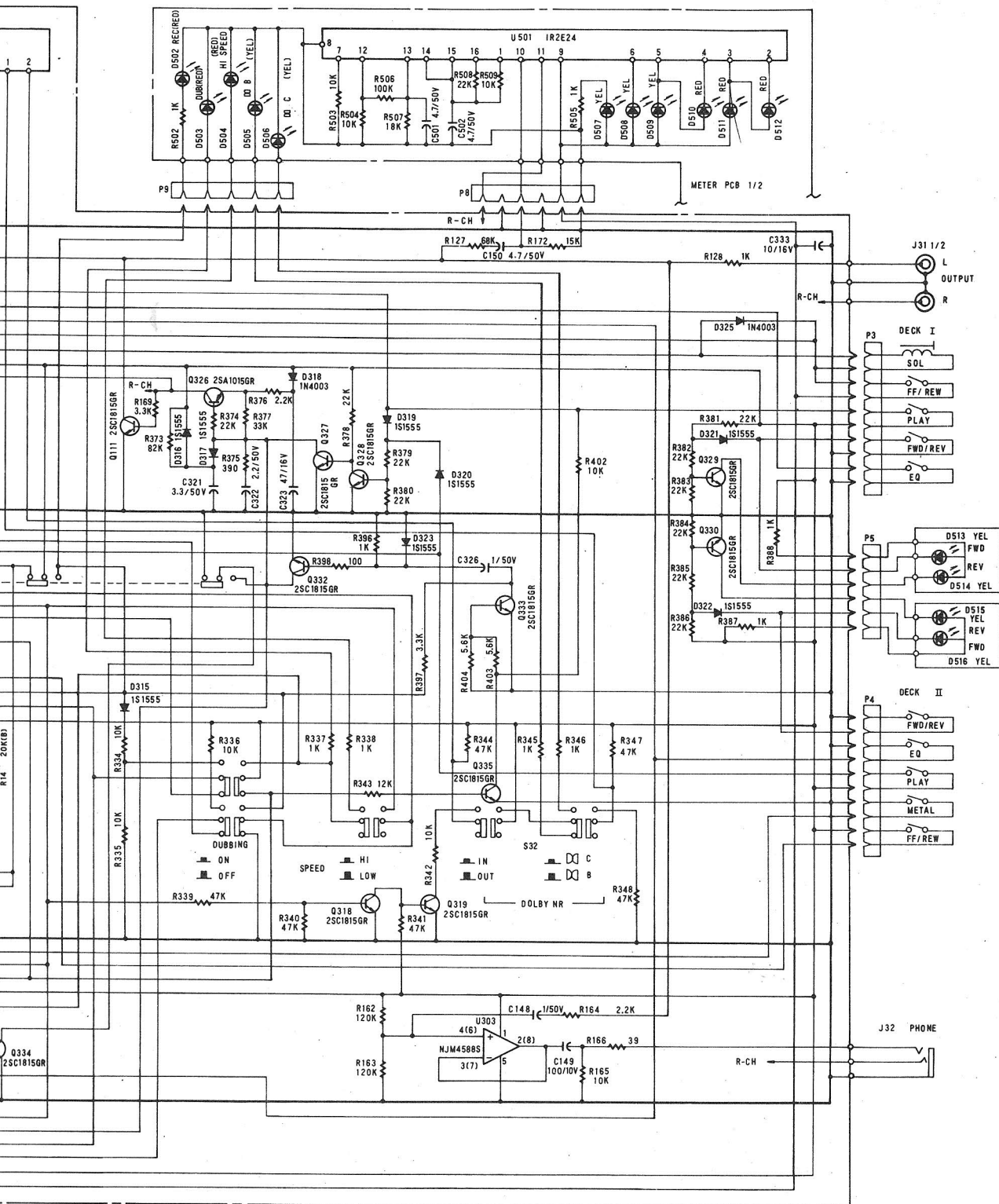


INSTRUCTIONS FOR SERVICE PERSONNEL

BEFORE RETURNING APPLIANCE TO THE CUSTOMER
CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE
PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY

NOTES

1. Resistor values are in ohms (k=kilo-ohms, M=megohms).
2. Capacitor values are in microfarads (p=picofarads).
3. Voltage and signal level values are for reference only.
0dB=0.775V
4. : Front panel indication
5. : Rear panel indication
6. Parts marked with this sign are safety critical.
They must always be replaced with identical components.
to the appropriate parts list and ensure exact replacement.



CK I MOTOR

CK II MOTOR

INSTRUCTIONS FOR SERVICE PERSONNEL

BEFORE RETURNING APPLIANCE TO THE CUSTOMER, MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT.

- NOTES
1. Resistor values are in ohms (k=kilo-ohms, M=megohms).

2. Capacitor values are in microfarads (p=picofarads).

3. Voltage and signal level values are for reference only.

QdB=0.775V

4.  : Front panel indication

5.  : Rear panel indication

6.  Parts marked with this sign are safety critical components. They must always be replaced with identical components-refer to the appropriate parts list and ensure exact replacement.

W-450R

Stereo Double Cassette Deck