



RADIO CORPORATION PTY. LTD.

1090-1140 Centre Road, Clayton

SERVICE DATA

MODEL MN-C33 SERIES

MANUALLY TUNED

22 TRANSISTOR RADIO - STEREO TAPE PLAYER

for operation from 12 volt negative to chassis supply

**Incorporates a Broadcast Band Receiver and a Stereo Compact
Cassette Tape Unit.**

MODEL MN-C33AK - ASTOR UNIVERSAL PACKAGE - CS801

MODEL MN-C33AH - AIRCHIEF - HOLDEN 'H.Q.' PACKAGE - CS802

C33-1

File: **RECEIVERS
GENERAL**

Date: **22-6-71**

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TUNING RANGE
INTERMEDIATE FREQUENCY
SUPPLY VOLTAGE
CURRENT CONSUMPTION
POWER OUTPUT
SPEAKER IMPEDANCE
TAPE TYPE
TAPE SPEED

530 - 1605 KHz.
455 KHz.
13.0 Volts D.C.
500 milliamps
3 Watts - each channel
8 Ohms
Compact Cassette
1-7/8" per second

INFORMATION CONTAINED HEREIN MUST NOT BE REPRODUCED WITHOUT PRIOR
WRITTEN PERMISSION FROM RADIO CORPORATION PTY. LTD.

ASTOR

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SERVICE DATA

MODEL MN-C33 SERIES

MANUALLY TUNED

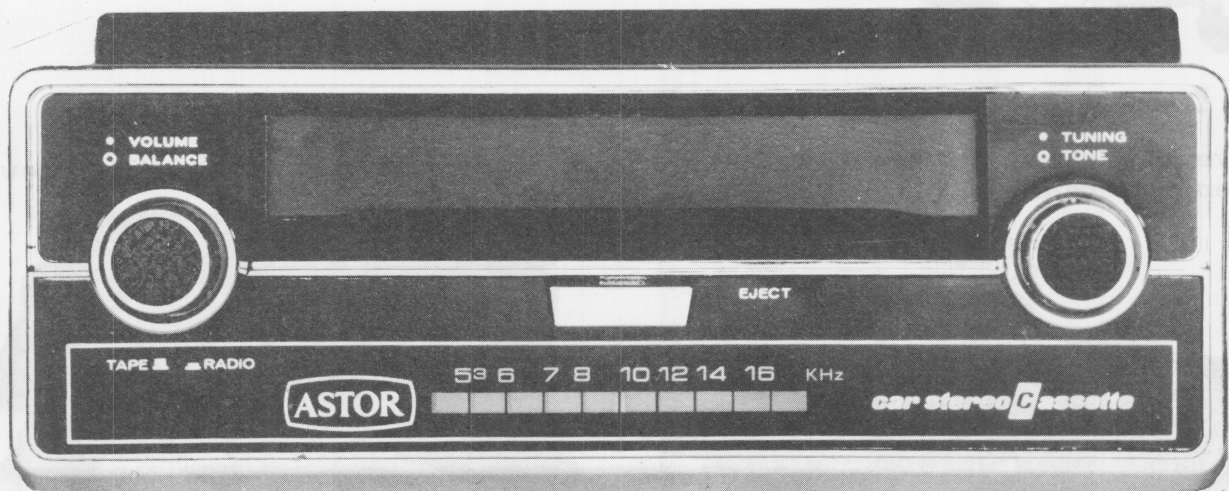
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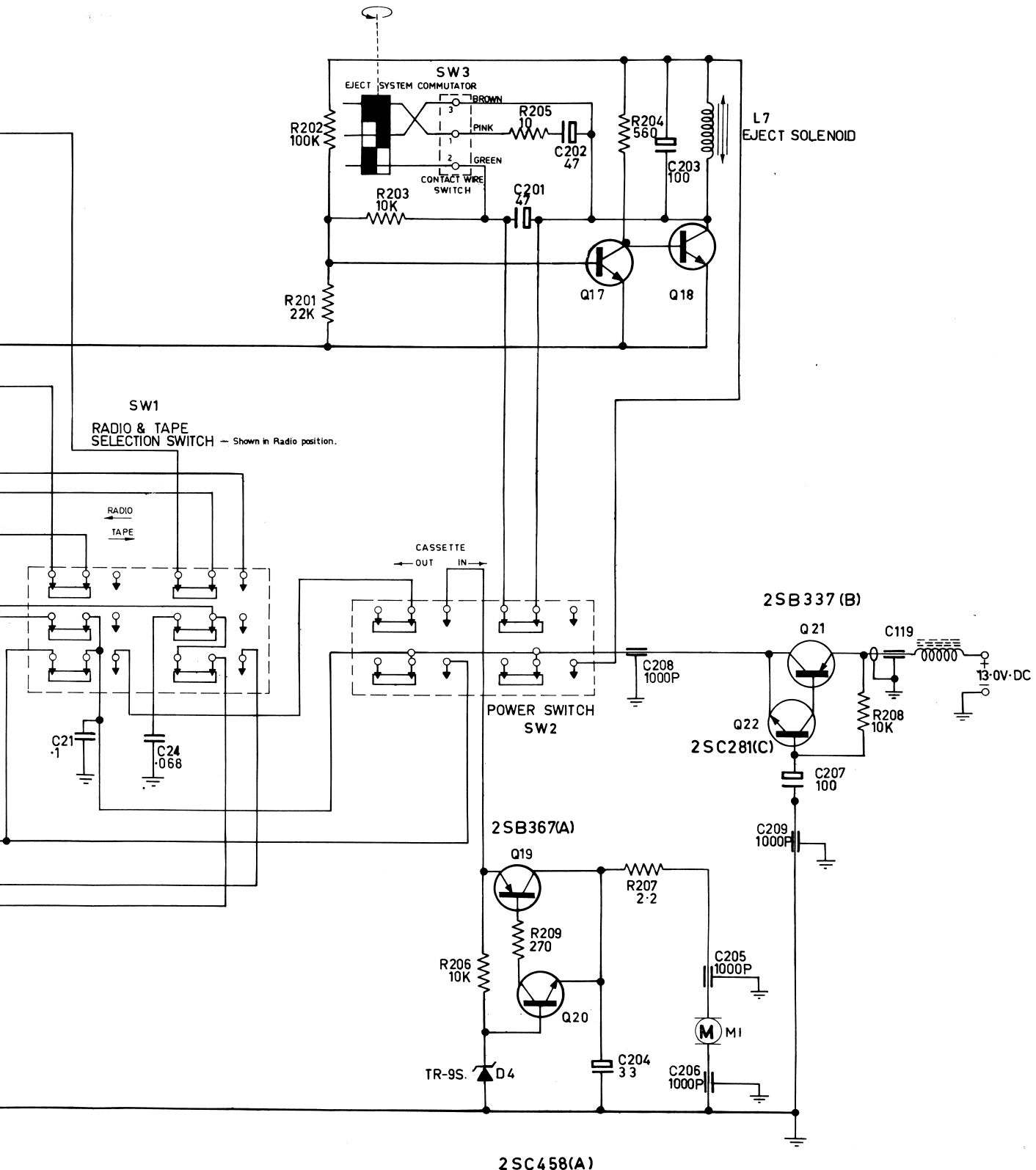
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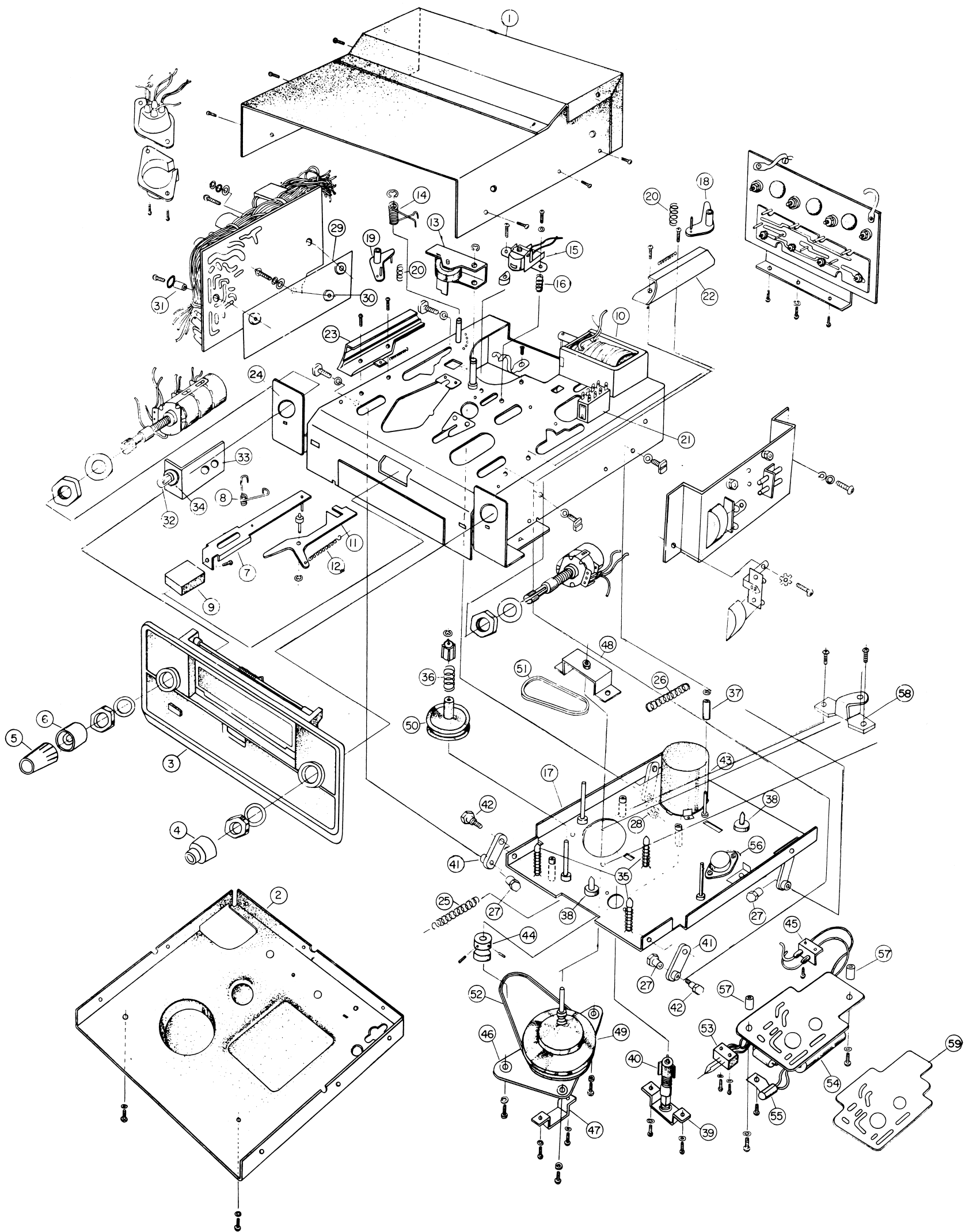
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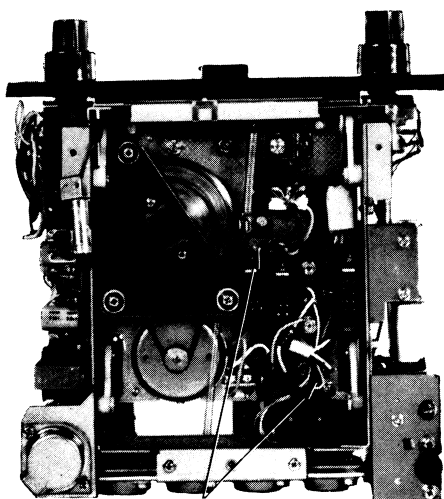


2SC458(A)

MODEL MN-C33 SERIES



Removal of Voltage Regulator Circuit Board



VOLTAGE REGULATOR
CIRCUIT BOARD
HOLDING SCREWS

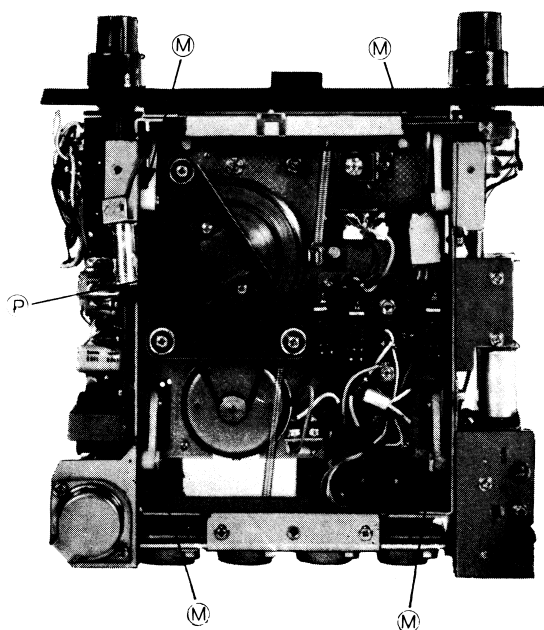
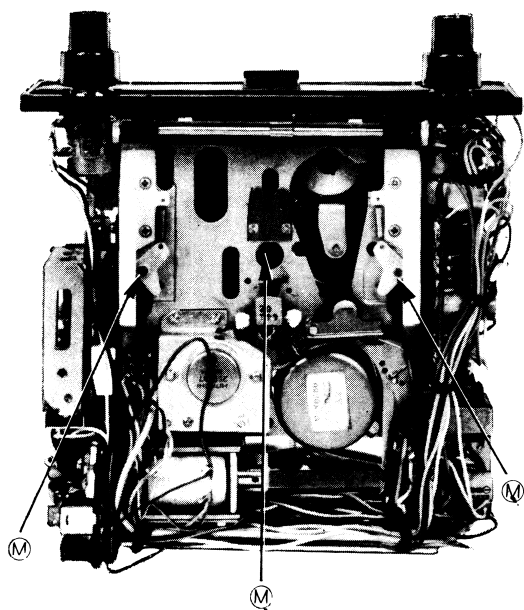
Remove two screws
fastening circuit
board.

LUBRICATION

CAUTION: When applying oil and grease to the unit, use care to ensure that these lubricants are kept away from the drive belt, capstan and pinch roller.

Clean off any accumulated dust or grit then apply molybdenum-di-sulphate base grease to the surfaces designated "M".

Apply light machine oil at point designated "P".



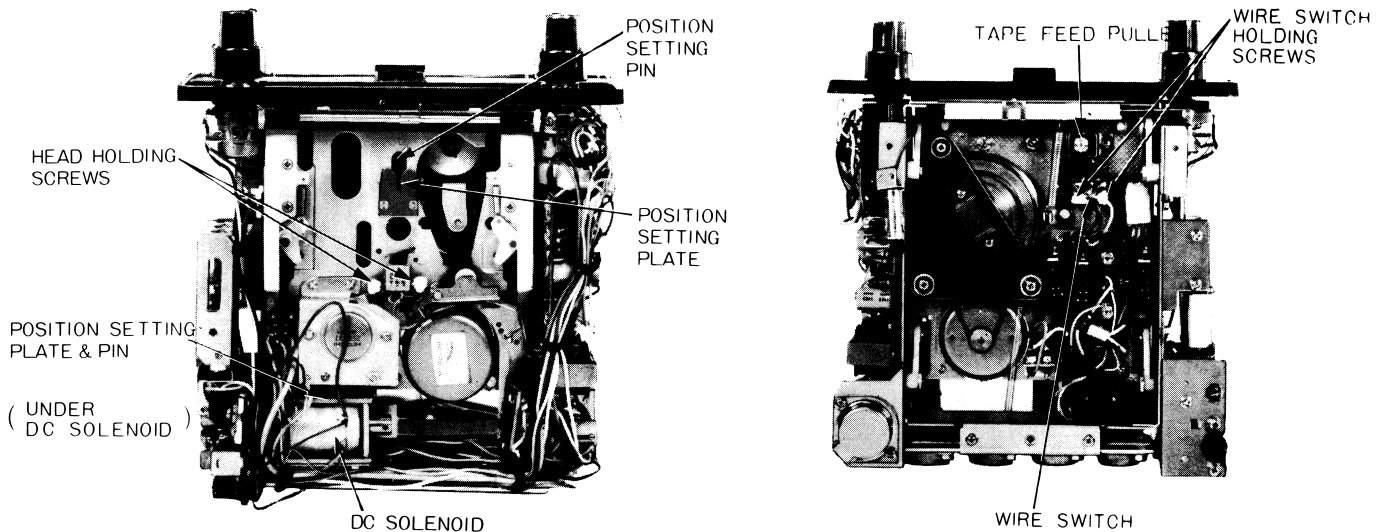
SETTING OF DIAL POINTER

Accurately tune the receiver to a station of known frequency near the centre of dial.

Unseal pointer carriage from cord, slide carriage along cord until centre of pointer coincides with centre of tuned station frequency mark.

Check logging of pointer then seal carriage to cord.

INTERNAL VIEW



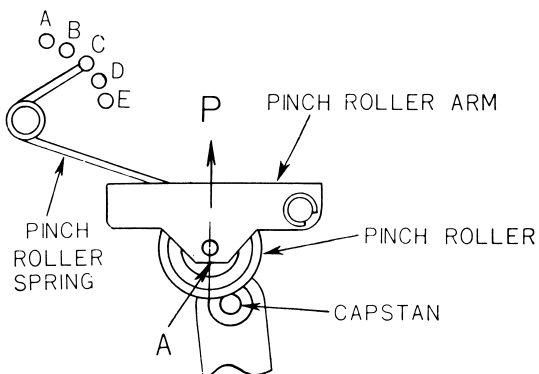
ADJUSTMENT

To prevent the Auto Ejection System from switching the unit "OFF" during checks and measurements, disconnect the red leads from the solenoid coil terminal.

Pinch Roller Pressure

Play tape on the equipment, pull point A of the pinch roller arm in the P direction with a tension gauge. Read the indication on the tension gauge when the pinch wheel stops turning.

Reading should be between 490 and 610 gram.



If the reading exceeds 610 gram, move the end of pinch roller spring to hole "B" or "A".

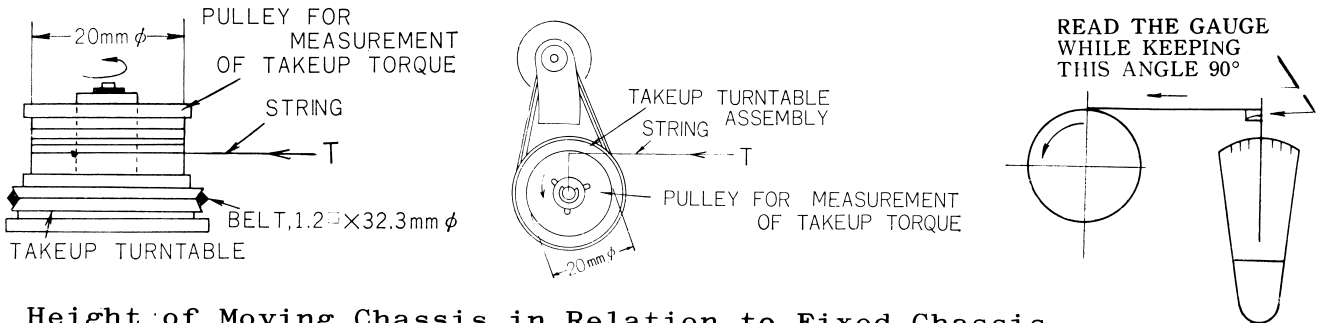
If the reading is below 490 gram, move the end of pinch roller spring to hole "D" or "E".

Take-up Hub Torque

Locate torque measuring pulley on to take-up hub. Wind string around pulley and connect end to torque gauge.

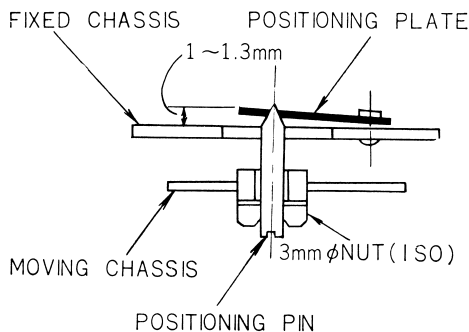
Switch ON the equipment and read the gauge, which should indicate between 40 and 90 gram/cm.

When the reading is outside these limits, carefully inspect all components to ensure that they are clean and correctly located. If after correction torque reading is out of tolerance, replace take-up turntable assembly.



Height of Moving Chassis in Relation to Fixed Chassis.

Excessive chassis height will result in harsh operation of the locking mechanism and erratic jamming of the ejection system. The tip of the rear positioning pin may foul the winding of the ejection solenoid.



Insufficient chassis height will result in occasional non-locking of the chassis and intermittent tape rotation.

Check and adjust pins and lock nuts to provide clearance within the 1 to 1.3 mm. tolerance.

Slow Tape Speed and Excessive Wow

These conditions can be caused by any one of the following faults :

Circumference of pinch roller is dirty - Oil on the capstan shaft - Oil on the square belt - Dirt or oil on the motor pulley.

Clean all the above components with methylated spirits.

Excessive take-up hub torque or the pinch wheel pressure is insufficient.

Check and adjust.

Square belt is cracked - replace.

Flywheel bearing dry and/or bearing plate loose.

Tighten the two screws and lubricate felt pad.

CASSETTE AUTOMATIC EJECTION SYSTEM

The Auto-eject System operates as follows :-

When the cassette tape is played to the end, the tape feed pulley stops revolving. The commutator type changeover switch attached to the pulley detects this and so operates the solenoid plunger to push out the cassette. Simultaneously the power switch moves to the "OFF" position.

Whilst tape is being fed from the supply reel, the revolving switch charges and discharges capacitor C202. With switch terminal No. 1 connected to terminal No. 2, capacitor C202 is charged through series resistor R205. With terminal No. 1 connected to terminal No. 3, C202 is discharged.

The charge and discharge of C202 causes current I3 (approx. .2 to 1.2mA) to flow continuously maintaining voltage V1 at approx. 0 volt. No. I1 or I2 currents flow.

At the end of the tape the charge and discharge cycles of C202 performed by the switch stop. Capacitor C201 and depending on the switch position, C202 will now charge completely. Current I3 will cease and the base current of transistor Q17 will drop and thus a voltage V1 will appear at Q17 collector - Q18 base.

With a base current I2 of approx. 10 to 15mA. flowing, Q18 is switched on with a large collector current I1, operating the solenoid, the plunger of which trips the ejection mechanism.

FAULT FINDING

CAUTION: DO NOT SHORT D.C. SUPPLY TO CHASSIS.

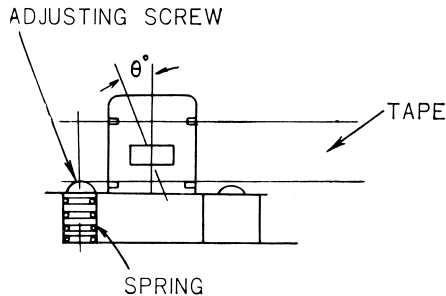
FAULT	PROCEDURE	ACTION
Unit or indicator lamp does not operate.	Check fuse, polarity of supply source, lead connector and connections.	Replace or repair.
	Check Q21 and Q22. Check switches SW1 and SW2.	Clean, repair or replace.
Motor does not operate.	Check Q19, Q20, D4 and M1.	Replace.
Auto Eject does not operate.	Check commutator switch, C202, Q17, Q18, L7 solenoid winding and switch SW2.	Clean or replace.
Loss of high frequency response.	Check tape head azimuth angle.	Clean head surface and adjust.
Low Output from one Channel.	Check tape head surface, balance and volume controls.	Clean head surface and/or replace.

Azimuth Alignment of Tape Head

This adjustment is to be performed whenever the tape head has been replaced or the adjusting and mounting screws have been altered from their original settings.

CAUTION: Do not place magnetised tools in close proximity of tape head.

Insert an "azimuth" test cassette into the unit and connect an AC voltmeter to the output (speaker) of one channel.



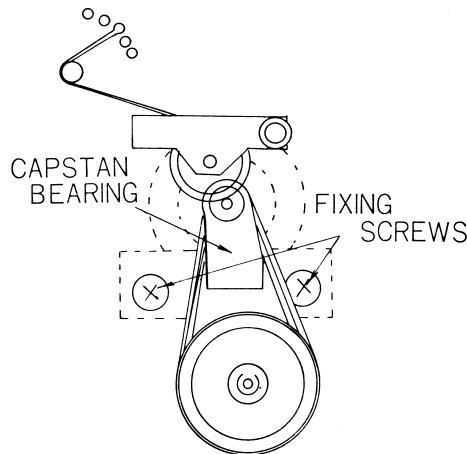
Check that head spacer screw is tight, then adjust other screw until a maximum reading is obtained.

NOTE: Some units are fitted with a leaf type spring at this position. Lock both screws with lacquer.

Capstan Bearing Mount Plate

If the attaching screws or the plate have been removed for service, the following procedure must be performed :

Connect a 1 Amp. current meter in series with one of the leads to the motor.



Switch unit on by lifting moving chassis by hand. Move bearing plate to obtain minimum current reading then securely tighten both screws. Lock both with lacquer.

If, after adjustment, motor current exceeds 130mA, check pinch roller pressure, take-up hub torque and motor.

ALIGNMENT PROCEDURE

EQUIPMENT

Signal Generator - modulated 400Hz.
Output Meter - 8 ohms impedance.
Generator Series Capacitor - .1uF Part No. 4006-005-03
for I.F. alignment.
Dummy Aerial - 100pF Part No. 4121-041-01.
Alignment Tools :- Flat metal blade types Part No.
4121-015-01 and 4121-001-01.

CONDITIONS

Remove screws then lift upper cover off unit.
Volume Control - maximum clockwise.
Tone Control - clockwise, treble.
Output Meter Connection - across speaker terminals,
one channel.
Balance Control - maximum meter reading.
Output Level - 25 milliWatts.
Supply Voltage - 13.0V. DC. Connect positive supply
lead and connection to unit battery lead. Connect
negative supply lead to unit can.

INTERMEDIATE FREQUENCY TRANSFORMER ALIGNMENT

Turn tuning control until cores of tuning unit are out of coil windings.

Insert .1uF capacitor in series with generator "hot" lead, then connect to the base of the converter transistor (white lead lug on tuner).

Tune generator to 455KHz then adjust iron cores of the 4th, 3rd, 2nd and 1st I.F. transformer (in that order) for maximum signal.

BROADCAST ALIGNMENT

Connect 100pF. dummy aerial to aerial socket, then connect signal generator to dummy aerial terminals.

Set generator to 1200KHz, tune receiver accurately to generator frequency.

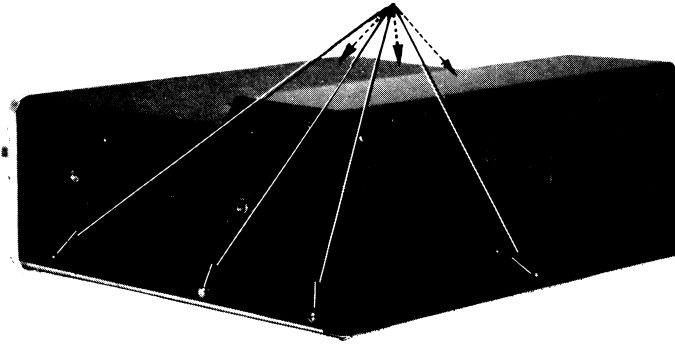
Adjust R.F. and aerial trimmer capacitors to maximum output.

IMPORTANT

When the receiver has been installed in the vehicle and the aerial connected, the aerial trimmer must be re-adjusted. Raise aerial to half extended height. Adjust the trimmer for maximum output on a weak station near 1200KHz. NOTE If a fully retractable aerial is fitted, pull the large outer rod upward against stop in aerial base.

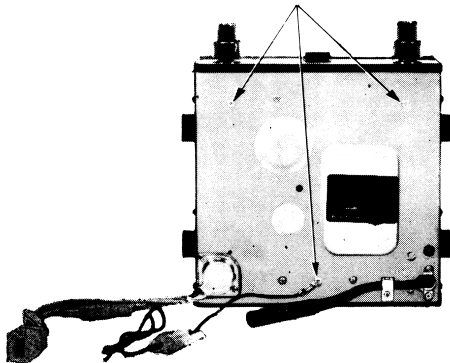
DISASSEMBLY

UPPER COVER HOLDING SCREWS



To gain access to the interior, remove the seven screws fastening the upper cover in position.

BOTTOM COVER HOLDING SCREWS

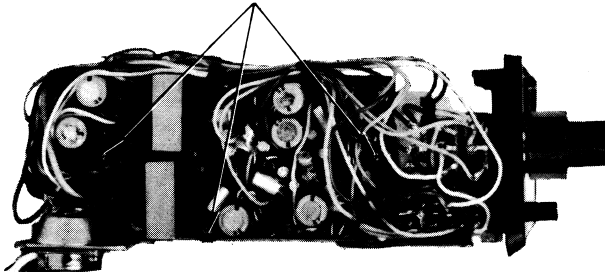


To service the motor, belt drive, flywheel or associated circuit board, it is necessary to remove the screw fastening the aerial socket lead anchor clip and the three screws fastening bottom cover in position.

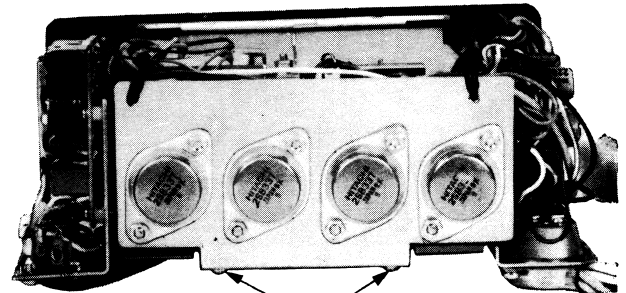
Power Amplifier Circuit and Output Transistors Mounting Plate

Remove the three screws fastening the circuit board, and the two screws fastening transistor mount plate.

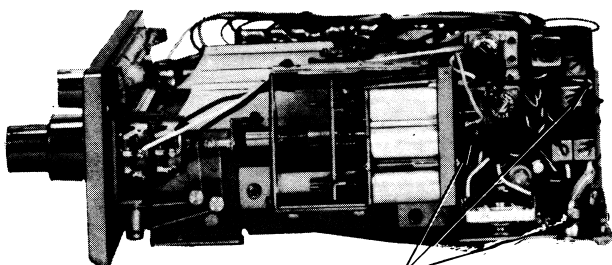
POWER AMPLIFIER
CIRCUIT BOARD
HOLDING SCREWS



OUTPUT TRANSISTOR
MOUNTING PLATE
HOLDING SCREWS



Removal of Radio Circuit Board



RADIO PRINTED CIRCUIT BOARD
HOLDING SCREWS

Remove the three screws fastening circuit board.

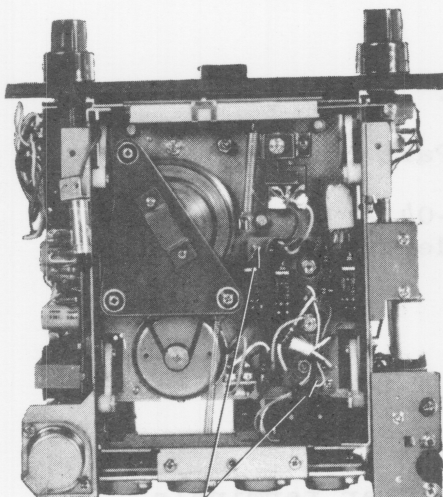
MECHANICAL

DIAGRAM NO.	PART NUMBER	DESCRIPTION	ORIGINAL STOCK NO.
1	7045-089-02	Upper Cover Assy.	7170972
2	7016-205-02	Bottom Cover	7165112
3	7084-386-01	Escutcheon Assy. AIRCHIEF	-
	7084-392-01	Escutcheon Assy. ASTOR	-
4	7124-543-01	Knob - rear, tone	6261081
5	7124-537-01	Knob - front, AIRCHIEF	-
	7124-542-01	Knob - front, ASTOR	6261071
6	7124-543-01	Knob - rear, balance	6261081
	7229-067-01	Support Strap, ASTOR	0642588
7	7015-092-01	Bar Assy.	7164182
	7055-610-01	Circlip - 'E' ring	0942010
8	7225-343-01	Spring - eject	6310451
9	7032-025-01	Button - manual ejection	6260723
10	4089-008-01	Solenoid	5640012
11	7131-071-01	Lock Lever Assy.	7164201
12	7225-344-01	Spring - lock lever	6310941
13	7189-028-01	Pressure Roller Assy.	7177321
	7055-611-01	Circlip - 'E' ring	0941257
14	7225-345-01	Spring - Roller Assy.	6310651
15	4066-006-01	Play Back Head	5440441
16	7225-346-01	Spring - head mount	6310421
17	7159-052-01	Pad - chassis cushion	7660553
18	7004-093-01	Lock Arm Assy. - R.H.	6701341
19	7004-093-02	Lock Arm Assy. - L.H.	6701351
20	7225-347-01	Spring	6330091
21	4059-264-01	Switch	5620141
22	7108-035-01	Cassette Guide - R.H.	6701363
23	7108-035-02	Cassette Guide - L.H.	6701373
24	7113-096-01	Mount Bracket - Volume Control	7163782
25	7225-348-01	Spring - ejection	6310621
26	7225-349-01	Spring - tension	6310641
27	7167-181-01	Pin (C)	7501101
28	7167-182-01	Pin (D)	7501111
29	7169-962-01	Insulating Plate	7710293
30	7120-318-01	Insulator	0630343
31	7294-195-01	Spacer - insulated	7710293
32	4068-020-01	Lamp - Radio 'ON' indicator	-
33	7111-007-01	Lamp Mount	-
34	7160-963-01	Plate - rubber	0948295
35	7113-097-01	Cassette Holder	6701391
36	7225-350-01	Spring	6310472
	7261-405-01	Washer - fibre	0921917
37	7189-029-01	Roller - lock	6340141
38	7167-183-01	Pin - chassis height adj.	7501551
39	7113-098-01	Bracket - tape feed shaft	7164211
40	7174-088-01	Pulley - tape feed	6410141
41	7134-027-01	Link	6701381
42	7167-184-01	Pin - Link	7504701
43	4054-046-01	Motor Assy. with pulley	5570266
	7309-083-01	Locking Screw	0970080
44	7174-090 01	Pulley - motor	6340154
45		Feedthru Capacitor Assy. - motor	0239905
46	7169-964-01	Plate Assy. - flywheel mount	7164231
47	7236-213-01	Thrust Bearing Support - flywheel	7167101
48	7236-214-01	Top Bearing Support - flywheel	0630564

CAPACITORS

Circuit No.	Value	Description	Tol. ±	Rating V.DCW	Part Number	Original Stock Number
C001	22pF	Ceramic Disc	10%		4008-003-21	0248708
C002		Trimmer			4000-063-01	0283552
C003	.01uF	Mylar	20%	50	4009-014-45	0275111
C004	.047uF	Mylar	20%		4009-001-40	0275115
C005	.0047uF	Mylar	20%		4009-017-23	0274115
C006	50pF	Trimmer			4000-064-01	0283082
C007	100pF	Ceramic Disc	10%		4008-006-16	0284724
C008	22pF	Ceramic Disc	10%		4008-003-21	0248708
C009	.01uF	Mylar	20%	50	4009-014-45	0275111
C010	.001uF	Mylar	20%		4009-010-23	0274111
C011	.0047uF	Mylar	20%		4009-017-23	0274115
C012	20uF	Electrolytic		6	4005-012-10	0252222
C013	50pF	Trimmer			4000-046-06	0283082
C014	200pF	Ceramic Disc	10%		4008-046-06	0248361
C015	15pF	Ceramic Disc	10%		4008-050-10	0248704
C016	.047uF	Mylar	20%		4009-001-40	0275115
C017	1.5pF	Ceramic Disc	.25pF		4008-020-04	0241834
C018	.22uF	Mylar	20%		4009-011-36	0275113
C019	.22uF	Mylar	20%		4009-011-36	0275113
C020	.01uF	Mylar	20%		4009-014-45	0275111
C021	15pF	Ceramic Disc	10%		4008-050-10	0248704
C022	30uF	Electrolytic		15	4005-033-10	0252523
C023	.0047uF	Mylar	20%		4009-017-23	0274115
C1/101	3uF	Electrolytic		10	4005-034-04	0252313
C2/102	.033uF	Polyester	10%	50	4009-019-30	0275014
C3/103	.001uF	Polyester	20%	50	4009-010-23	0274111
C4/104	3uF	Electrolytic	10%	6	4005-034-05	0252213
C5/105	.022uF	Polyester	10%	50	4009-011-35	0275013
C6/106	10uF	Electrolytic		10	4005-007-35	0252321
C7/107	100uF	Electrolytic		15	4005-002-57	0252531
C8	200uF	Electrolytic		15	4005-006-18	0252532
C9/109	10uF	Electrolytic		10	4005-007-35	0252321
C10/110	10uF	Electrolytic		10	4005-007-35	0252321
C11/111	10uF	Electrolytic		10	4005-007-35	0252321
C12/112	.047uF	Polyester	20%	50	4009-001-40	0275115
C13/113						
C14	100uF	Electrolytic		15	4005-002-57	0252531
C15/115	.015uF	Polyester	10%	50	4009-018-28	0275012
C16						
C17/117	220uF	Electrolytic		15	4005-006-18	0252532
C18/118	.001uF	Ceramic Feed Thru			4008-040-25	0234413
C19/119	.001uF	Ceramic Feed Thru			4008-040-25	0234413
C20	33uF	Electrolytic		25	4005-057-03	0252623
C21						
C22	220uF	Electrolytic		16	4005-059-04	0252532
C23						
C24	.068uF	Mylar	20%		4009-013-26	0275116
C25						
C26						
C201	50uF	Electrolytic		15	4005-001-25	0251525
C202	50uF	Electrolytic		15	4005-001-25	0251525
C203	100uF	Electrolytic		15	4005-002-58	0251531
C204	3uF	Electrolytic		15	4005-034-06	0252513
C205	.001uF	Ceramic Feed Thru			4008-040-25	0234413
C206	.001uF	Ceramic Feed Thru			4008-040-25	0234413
C207	100uF	Electrolytic		15	4005-002-57	0252531
C208	.001uF	Ceramic Feed Thru			4008-040-25	0234413
C209	.001uF	Ceramic Feed Thru			4008-040-25	0234413
C210						
C211	.047uF	Polyester	20%	50	4009-001-40	0275115

Removal of Voltage Regulator Circuit Board



VOLTAGE REGULATOR
CIRCUIT BOARD
HOLDING SCREWS

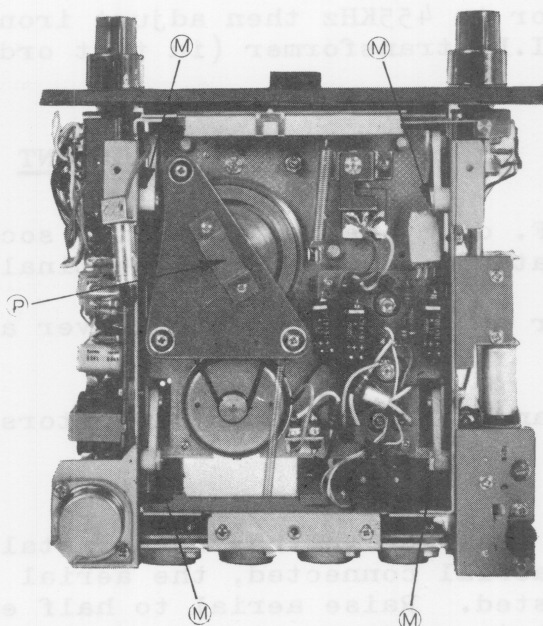
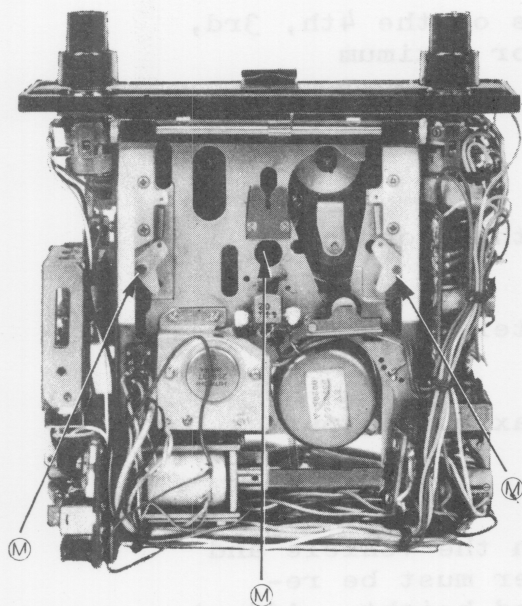
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C004	.047uF	Mylar	20%		4009-001-40	0275115
C005	.0047uF	Mylar	20%		4009-017-23	0274115
C006	50pF	Trimmer			4000-064-01	0283082
C007	100pF	Ceramic Disc	10%		4008-006-16	0284724
C008	22pF	Ceramic Disc	10%		4008-003-21	0248708
C009	.01uF	Mylar	20%	50	4009-014-45	0275111
C010	.001uF	Mylar	20%		4009-010-23	0274111
C011	.0047uF	Mylar	20%		4009-017-23	0274115
C012	20uF	Electrolytic		6	4005-012-10	0252222
C013	50pF	Trimmer			4000-046-06	0283082
C014	200pF	Ceramic Disc	10%		4008-046-06	0248361
C015	15pF	Ceramic Disc	10%		4008-050-10	0248704
C016	.047uF	Mylar	20%		4009-001-40	0275115
C017	1.5pF	Ceramic Disc	.25pF		4008-020-04	0241834
C018	.22uF	Mylar	20%		4009-011-36	0275113
C019	.22uF	Mylar	20%		4009-011-36	0275113
C020	.01uF	Mylar	20%		4009-014-45	0275111
C021	15pF	Ceramic Disc	10%		4008-050-10	0248704
C022	30uF	Electrolytic		15	4005-033-10	0252523
C023	.0047uF	Mylar	20%		4009-017-23	0274115
C1/101	3uF	Electrolytic		10	4005-034-04	0252313
C2/102	.033uF	Polyester	10%	50	4009-019-30	0275014
C3/103	.001uF	Polyester	20%	50	4009-010-23	0274111
C4/104	3uF	Electrolytic	10%	6	4005-034-05	0252213
C5/105	.022uF	Polyester	10%	50	4009-011-35	0275013
C6/106	10uF	Electrolytic		10	4005-007-35	0252321
C7/107	100uF	Electrolytic		15	4005-002-57	0252531
C8	200uF	Electrolytic		15	4005-006-18	0252532
C9/109	10uF	Electrolytic		10	4005-007-35	0252321
C10/110	10uF	Electrolytic		10	4005-007-35	0252321
C11/111	10uF	Electrolytic		10	4005-007-35	0252321
C12/112	.047uF	Polyester	20%	50	4009-001-40	0275115
C13/113						
C14	100uF	Electrolytic		15	4005-002-57	0252531
C15/115	.015uF	Polyester	10%	50	4009-018-28	0275012
C16						
C17/117	220uF	Electrolytic		15	4005-006-18	0252532
C18/118	.001uF	Ceramic Feed Thru			4008-040-25	0234413
C19/119	.001uF	Ceramic Feed Thru			4008-040-25	0234413
C20	33uF	Electrolytic		25	4005-057-03	0252623
C21						
C22	220uF	Electrolytic		16	4005-059-04	0252532
C23						
C24	.068uF	Mylar	20%		4009-013-26	0275116
C25						
C26						
C201	50uF	Electrolytic		15	4005-001-25	0251525
C202	50uF	Electrolytic		15	4005-001-25	0251525
C203	100uF	Electrolytic		15	4005-002-58	0251531
C204	3uF	Electrolytic		15	4005-034-06	0252513
C205	.001uF	Ceramic Feed Thru			4008-040-25	0234413
C206	.001uF	Ceramic Feed Thru			4008-040-25	0234413
C207	100uF	Electrolytic		15	4005-002-57	0252531
C208	.001uF	Ceramic Feed Thru			4008-040-25	0234413
C209	.001uF	Ceramic Feed Thru			4008-040-25	0234413
C210						
C211	.047uF	Polyester	20%	50	4009-001-40	0275115

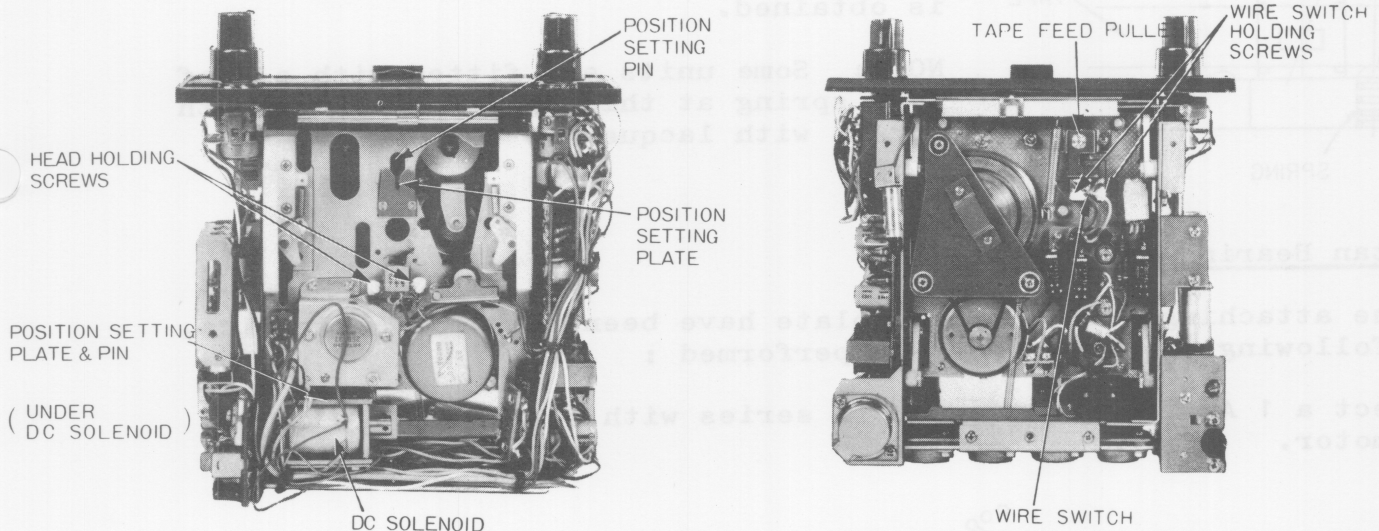
SETTING OF DIAL POINTER

Accurately tune the receiver to a station of known frequency near the centre of dial.

Unseal pointer carriage from cord, slide carriage along cord until centre of pointer coincides with centre of tuned station frequency mark.

Check logging of pointer then seal carriage to cord.

INTERNAL VIEW



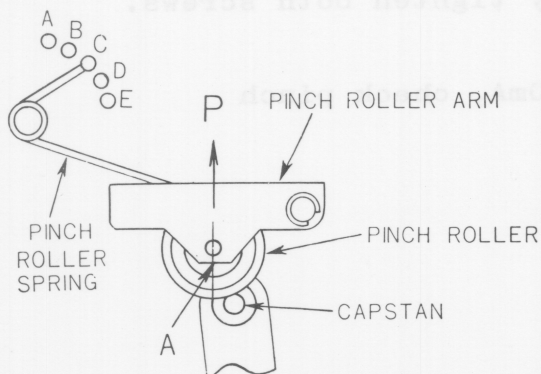
ADJUSTMENT

To prevent the Auto Ejection System from switching the unit "OFF" during checks and measurements, disconnect the red leads from the solenoid coil terminal.

Pinch Roller Pressure

Play tape on the equipment, pull point A of the pinch roller arm in the P direction with a tension gauge. Read the indication on the tension gauge when the pinch wheel stops turning.

Reading should be between 490 and 610 gram.



If the reading exceeds 610 gram, move the end of pinch roller spring to hole "B" or "A".

If the reading is below 490 gram, move the end of pinch roller spring to hole "D" or "E".

RESISTORS

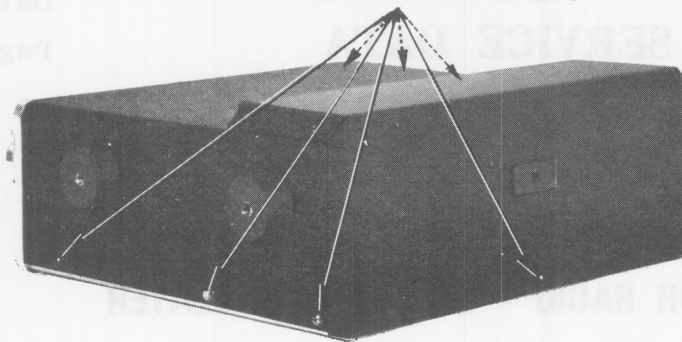
Circuit No.	Value Ohms	Description	Tol. ±	Rating Watts	Part Number	Original Stock Number
R001	22K	Carbon	10%	.25	4022-026-20	0137855
R002	100	Carbon	10%	.25	4022-062-15	0137801
R003	22K	Carbon	10%	.25	4022-026-20	0137855
R004	33K	Carbon	10%	.25	4022-059-18	0137907
R005	68K	Carbon	10%	.25	4022-048-13	0137861
R006	100	Carbon	10%	.25	4022-062-15	0137801
R007	22K	Carbon	10%	.25	4022-026-20	0137855
R008	2.7K	Carbon	10%	.25	4022-043-14	0137856
R009	100K	Carbon	10%	.25	4022-013-20	0137951
R010	82K	Carbon	10%	.25	4022-037-12	0137912
R011	47K	Carbon	10%	.25	4022-051-18	0137859
R012	220	Carbon	10%	.25	4022-017-16	0137805
R013	12K	Carbon	10%	.25	4022-029-11	0137902
R014	47K	Carbon	10%	.25	4022-051-18	0137859
R015	100	Carbon	10%	.25	4022-062-15	0137801
R016	2.7K	Carbon	10%	.25	4022-043-14	0137856
R017	47K	Composition	10%	.25	4022-051-19	0131741
R1/101	100K	Carbon	10%	.25	4022-013-18	0137957
R2/102	220	Carbon	10%	.25	4022-017-16	0137805
R3/103	33K	Carbon	10%	.25	4022-059-18	0137905
R4/104	4.7K	Carbon	10%	.25	4022-005-19	0137859
R5/105	1K	Carbon	10%	.25	4022-008-19	0137851
R6/106	6.8K	Carbon	10%	.25	4022-002-18	0137861
R7/107	10K	Carbon	10%	.25	4022-004-22	0137901
R8/108	680	Carbon	10%	.25	4022-028-12	0137811
R9/109	2.2K	Carbon	10%	.25	4022-021-20	0137855
R10/110	22K	Carbon	10%	.25	4022-026-18	0137905
R11/111	120K	Carbon	10%	.25	4022-031-12	0137952
R12/112	2.2K	Carbon	10%	.25	4022-021-20	0137855
R13/113	12K				4022-029-11	0137902
R114	330				4022-011-11	0137807
R15/115	22K	Carbon	10%	.25	4022-026-18	0137905
R16/116	180K	Carbon	10%	.25	4022-014-11	0137954
R17/117	33	Carbon	10%	.25	4022-072-12	0137765
R18						
R19	2.2K	Carbon	10%	.25	4022-021-20	0137855
R20/120	270	Composition	10%	.5	4022-071-13	0134366
R21/121	10	Carbon	10%	.25	4022-035-14	0137759
R22/122	270	Composition	10%	.5	4022-071-13	0134366
R23/123	10	Carbon	10%	.25	4022-035-14	0137759
R24/124	680	Carbon	10%	.25	4022-028-12	0137811
R25/125	6.8K	Carbon	10%	.25	4022-002-18	0137861
R201	22K	Composition	10%	.25	4022-026-19	0131737
R202	100K	Composition	10%	.25	4022-013-19	0131801
R203	10K	Composition	10%	.25	4022-004-23	0131733
R204	560	Composition	10%	.5	4002-010-14	0134370
R205	10	Composition	10%	.25	4022-035-15	0131603
R206	10K	Composition	10%	.25	4022-004-23	0131733
R207	2.2	Composition	10%	.5	4022-085-03	0134281
R208	1.5K	Carbon	10%	.25	4022-007-15	0137853
R209	270	Composition	10%	.5	4022-071-13	0134366

VARIABLE RESISTORS

RV1/101	Volume Control and Balance Control	4021-104-01	0152351
RV2	Triple concentric shaft potentiometer REAR AND CENTRE SECTION Ganged 10K ohm FRONT SECTION 10K ohm.		
RV3/103	Tone Control - ganged 10K ohm potentiometer.	4034-005-01	

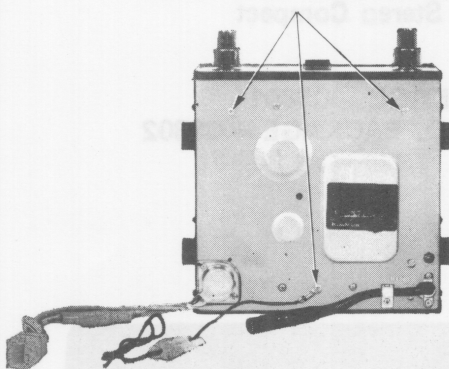
DISASSEMBLY

UPPER COVER HOLDING SCREWS



To gain access to the interior, remove the seven screws fastening the upper cover in position.

BOTTOM COVER HOLDING SCREWS

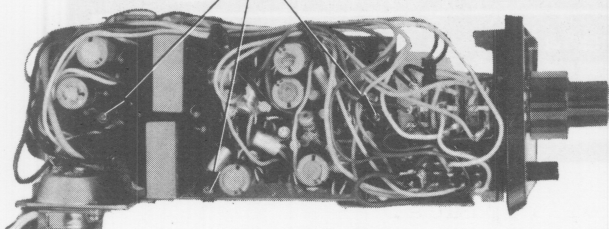


To service the motor, belt drive, flywheel or associated circuit board, it is necessary to remove the screw fastening the aerial socket lead anchor clip and the three screws fastening bottom cover in position.

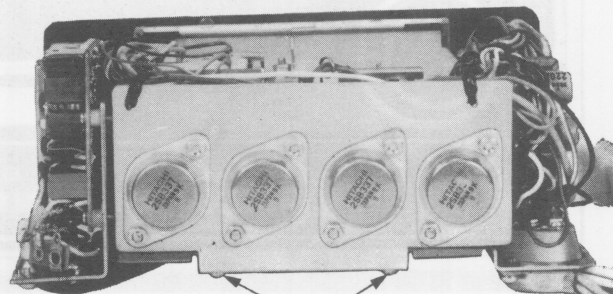
Power Amplifier Circuit and Output Transistors Mounting Plate

Remove the three screws fastening the circuit board, and the two screws fastening transistor mount plate.

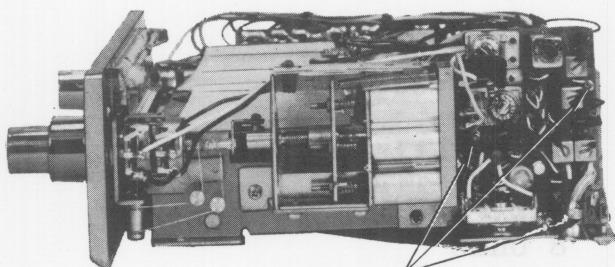
POWER AMPLIFIER
CIRCUIT BOARD
HOLDING SCREWS



OUTPUT TRANSISTOR
MOUNTING PLATE
HOLDING SCREWS



Removal of Radio Circuit Board



RADIO PRINTED CIRCUIT BOARD
HOLDING SCREWS

Remove the three screws fastening circuit board.

TRANSISTORS

Circuit No.	Description	Part Number	Original Stock Number
Q1	R.F. Amplifier Type 2SC460(B)	4128-285-01	0573486
Q2	Converter Type 2SC454(B)	4128-286-01	0573491
Q3	I.F. Amplifier Type 2SC454(B)	4128-286-01	0573491
Q4	Audio Pre-Amp. Type 2SC458(C)	4128-281-01	5320023
Q5	Audio Pre-Amp. Type 2SC458(C)	4128-281-01	5320023
Q6	Audio Amplifier Type 2SC458	4128-281-02	0573481
Q7	Audio Amplifier Type 2SC458	4128-281-02	0573481
Q8	Audio Output Type 2SB337(A)P	4128-040-03	0573039
Q9	Audio Output Type 2SB337(A)P	4128-040-03	0573039
Q10	Voltage Regulator Type 2SC458(A)	4128-281-04	0573479
Q11	Audio Pre-Amp. Type 2SC458(C)	4128-281-01	5320023
Q12	Audio Pre-Amp. Type 2SC458(C)	4128-281-01	5320023
Q13	Audio Amplifier Type 2SC458	4128-281-02	0573481
Q14	Audio Amplifier Type 2SC458	4128-281-02	0573481
Q15	Audio Output Type 2SB337(A)P	4128-040-03	0573039
Q16	Audio Output Type 2SB337(A)	4128-040-03	0573039
Q17	Tape Ejection Type 2SC458(B)	4128-281-03	0573480
Q18	Tape Ejection Type 2SC1061(B)	4128-282-01	5320432
Q19	Motor Voltage Regulator Type 2SB367(A)	4128-283-01	0573030
Q20	Motor Voltage Regulator Type 2SC458(A)	4128-281-04	0573479
Q21	Voltage Regulator Type 2SB337(B)	4128-040-04	0573040
Q22	Voltage Regulator Type 2SC281(C)	4128-284-01	5320361

DIODES

D1	A.G.C. Type 1N34A	4127-136-01	0575001
D2	Detector Type 1N34A	4127-136-01	0575001
D3	A.G.C. Type 1N34A	4127-136-01	0575001
D4	Zener Type TR-9S	4127-135-01	5330011

THERMISTORS

TH.1	Type D-1B	4021-105-01	0576028
TH.2	Type D-1B	4021-105-01	0576028
TH.3	Type D-1B	4021-105-01	0576028
TH.4	Type D-1B	4021-105-01	0576028

TRANSFORMERS

T1	I.F. 455KHz	4044-047-01	0322127
T2	I.F. 455KHz	4044-047-01	0322127
T3	I.F. 455KHz	4044-047-02	0322083
T4	I.F. 455KHz	4044-047-02	0322083
T5	Audio Driver 2K ohm - 70 ohm	4042-195-01	0441058
T7	Audio Driver 2K ohm - 70 ohm	4042-195-01	0441058

COILS

L1	Aerial Choke - 14uH	4036-124-01	0316071
L2	Aerial Coil - part of tuner		
L3	R.F. Coil - part of tuner		
L4	Oscillator Coil	4036-125-01	0316099
L5	Padding Coil - 4uH	4036-126-01	0333118
L6	Oscillator Coil - part of tuner		
L7	Solenoid Assy. - cassette ejection	4089-008-01	5640012

MISCELLANEOUS

PT1	Permeability Tuner Unit	4050-064-01	5580121
SK1	Aerial Socket	7122-004-01	05433197
SP1	Speaker - 8 ohm impd.	4056-012-16	
SP2	Speaker - 8 ohm impd.	4056-012-16	
H1/H2	Play Back Head	4066-006-01	5440441
SW1	Radio/Tape Changeover Switch	4059-267-01	
SW2	Power Switch	4059-264-01	5620141
SW3	Ejection System Switch	4059-265-01	5630174
M1	Motor - with pulley	4054-046-01	5570266
PL1	Lamp - 12 volt 1.2W capless with leads		
	Radio "ON" indicator	4068-020-01	