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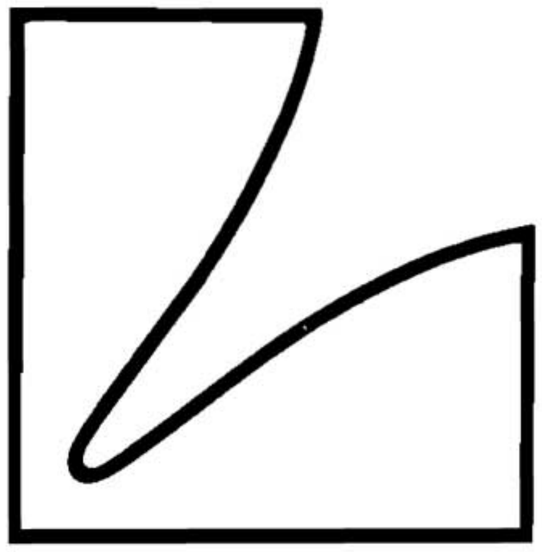
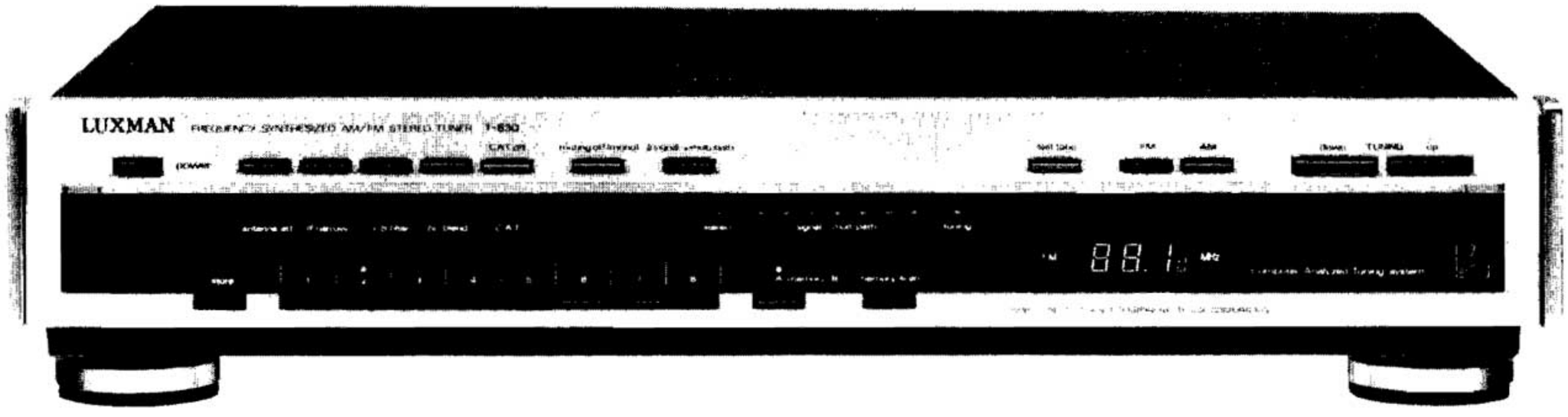
SERVICE MANUAL



Synthesized AM FM Stereo Tuner T-530



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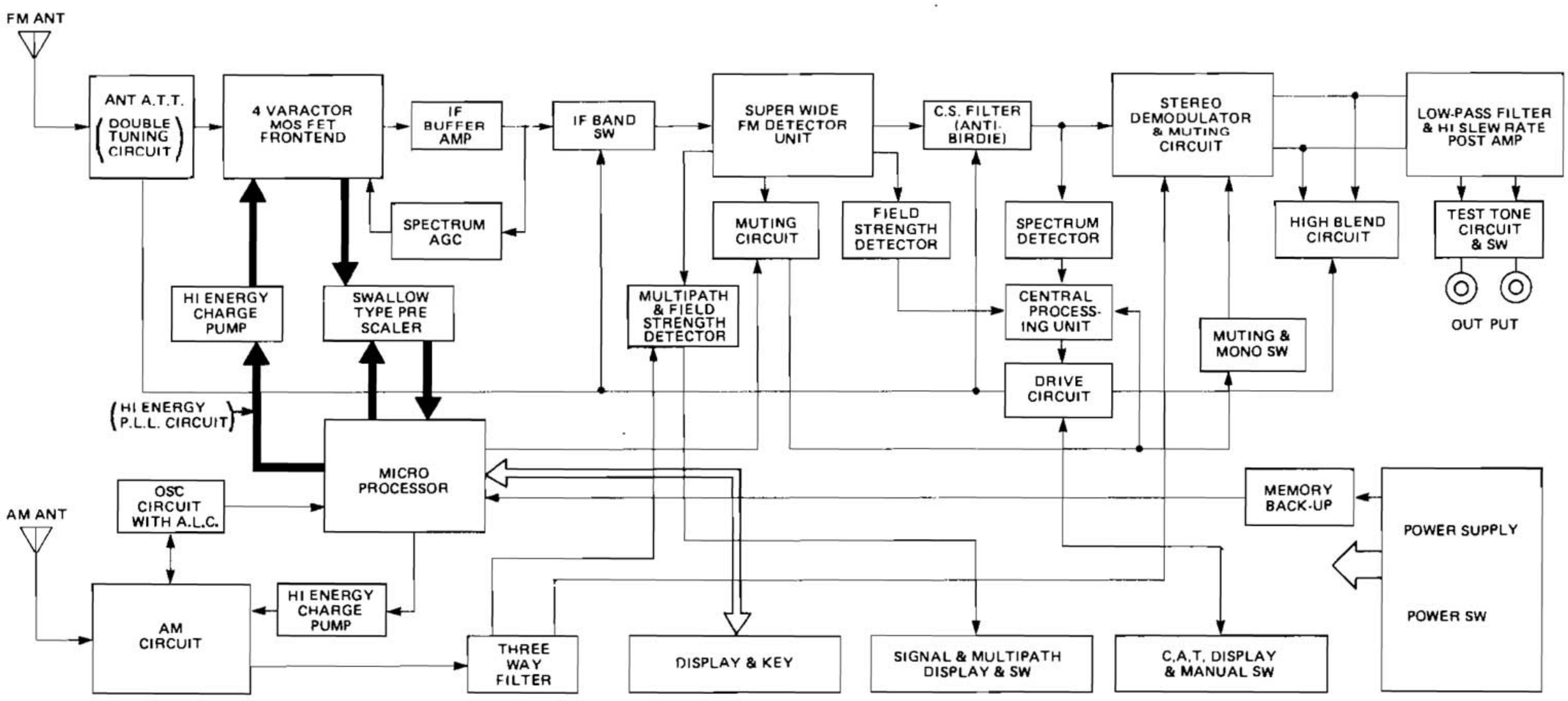
Block Diagram



T-530 BLOCK DIAGRAM

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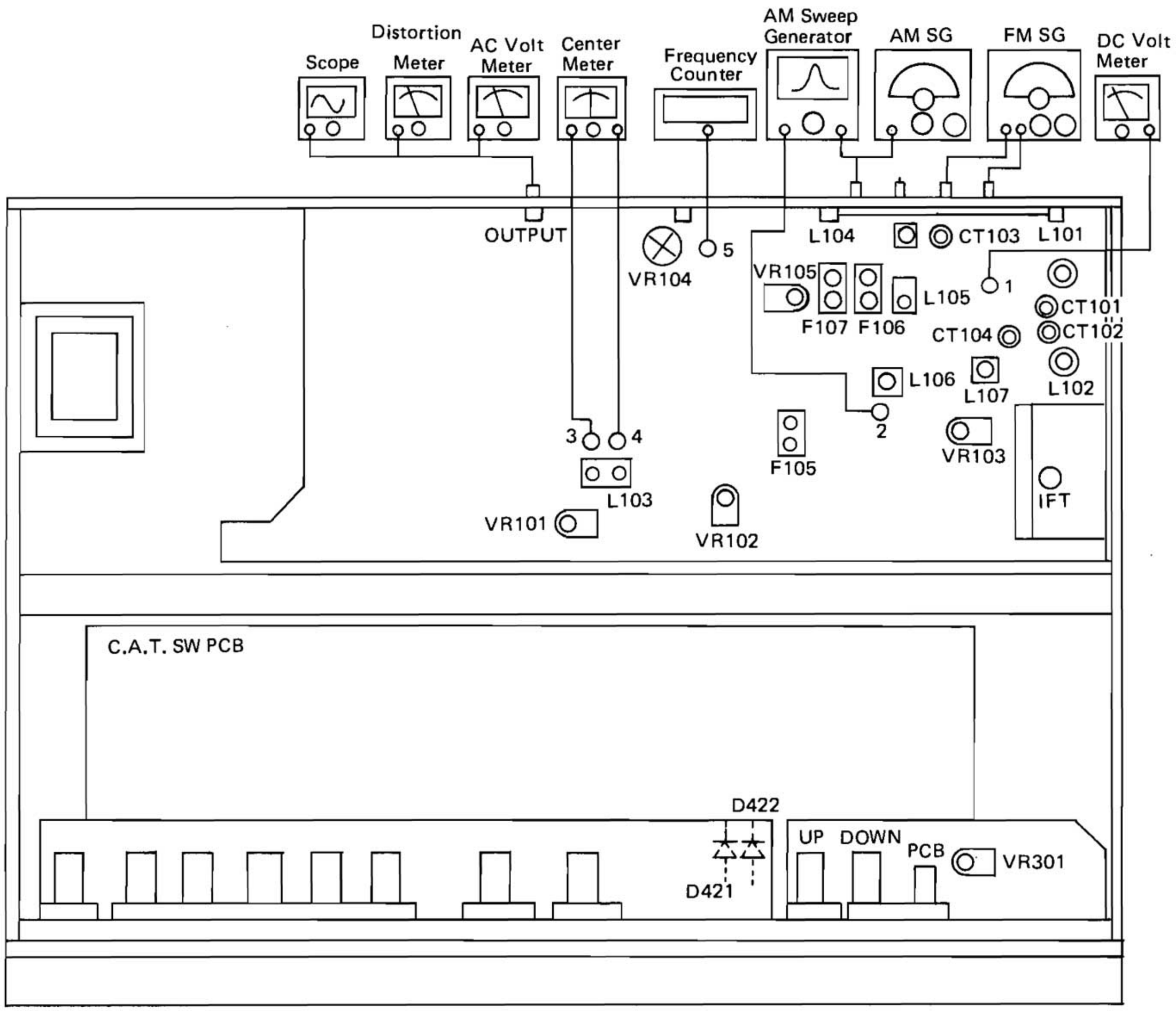
Adjustment Locations



VR101 ..... FM Signal LED
VR102 ..... FM Muting
VR103 ..... AM Signal LED
VR104 ..... VCO
VR105 ..... FM Stereo Separation
VR301 ..... Test Tone

CT101 ..... FM Tracking (High End)
CT102 ..... FM Tracking (High End)
CT103 ..... AM Tracking (1400KHz)
CT104 ..... AM Tracking (1400KHz)

IFT ..... FM Stereo Distortion

L101 ..... FM Tracking (Low End)
L102 ..... FM Tracking (Low End)
L103(Left) ..... FM Distortion
(Right) .... FM Center
L104 ..... AM Tracking (600KHz)
L105 ..... AM IF
L106 ..... AM IF
L107 ..... AM Tracking (600KHz)

F106 ..... FM Stereo Carrier Leak
F107(Black) .... FM Stereo Carrier Leak

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Adjustment Procedure

[FM Section]

1. Connect FM SG to FM antenna terminal.
2. Connect AC voltage meter, distortion meter and Osciloscope to output terminal of the tuner.
3. Set the mode function at FM position. (press FM switch)
4. Set C.A.T. switch and muting switch at off position (press both switches) while all other switch buttons are unpressed.
5. Tune the set at no-signal position.
6. Set the frequency of FM SG to the tuned position of the tuner with output at 1mV, mono 1KHz modulation and 75KHz deviation.
7. Connect the center to the IF PCB test terminals, 3 and 4.
8. Adjust the primary coil (IC side) of the L103 so that the center meter indicates Zero volt.
9. Adjust secondary coil of the L103 so that the distortion becomes lowest. At this stage, in case of the distortion exceeding 0.05%, readjust by lowering the frequency of the SG fixed in the above 6 slightly so that the distortion becomes lowest.

   In case the frequency difference between the SG fixed in the above 6 and one with the lowest distortion shows about -20KHz, remove diodes D421 and D422(2pcs) located on the C.A.T. switch PCB. Or in case of the difference at about 40KHz, remove the diode D422 only.

10. Release the modulation of the FM SG.
11. Connect the frequency counter to the IF PCB test terminal 5.
12. Set the muting off switch at unpressed position.
13. Adjust the semi-fixed resistor VR104 so that the frequency counter is set at 19KHz±10Hz.
14. Set the muting off switch at pressed position.
15. Connect the stereo signal generator to FM SG with 1KHz modulation.
16. Adjust the semi-fixed resistor VR105 so that the stereo separation more that 50dB is procured.
17. Adjust the IFT of the front-end so that the distortion becomes lowest.
18. Repeat the adjustment 16.
19. Adjust the low-pass filters, F106 and F107(black core) so that the stereo carrier leakage over 65dB can be obtained.
20. Set the FM SG mono, 1KHz modulation and output at 20dB(10uV).
21. Set the muting off switch at the unpressed position.
22. Adjust the semi-fixed resistor VR102 so that the output can be obtained from the set.
23. Set the muting off switch at the pressed position.
24. Set the signal multi-path switch at the pressed position.
25. Set the FM SG with 30%-50/AM modulation and make it sure that the signal multi-path LED is lit up when the output is changed by 20dB-50dB.
26. Set the output of the FM SG at 50dB(300uV).
27. Adjust the semi-fixed resistor VR101 so that all of the signal LEDs are lit up.
28. Set the test tone switch at the pressed position.
29. Adjust the semi-fixed resistor VR301 located on the UP DOWN PCB so that the output of the set becomes -6dB level.
30. Set the FM SG frequency to the lowest receivable level.
31. Set the frequency of the tuner to meet the frequency of FM SG.
32. Set the antenna att. switch at the pressed position.
33. Adjust the coils the L101 and L102 so that the output level of the tuner becomes highest.
34. Set the freuqency of the FM SG at the lowest receivable level under the output 30-60dB.
35. Adjust the Trimer CT101 and CT102 so that the output level of the tuner becomes maximum.
36. Repeat the procedures 30-35.

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Final Check Point

1) Ensure the sensitivity on the antenna attenuator switch "ON" and "OFF" positions respectively.
2) Ensure the S/N ratio on the C.A.T. switch "ON" and "OFF" positions respectively.
3) Ensure output voltage of the tuner.
4) Ensure the sequential control by the C.A.T. automatic functions with two signals (desired signal and interference noise) as per the separate instruction sheet, "CAT OPERATION CHECK".
5) Ensure the muting function when the tuned frequency is shifted by the preset function from the lowest to the highest.
6) Ensure Pop-noise when the power is switched on.
7) Ensure the auto-scanning function of the pre-sets.
8) Ensure the A/B switch function of the presets.
9) Ensure the specifications of the de-enphasis.
10) Ensure the level of stereo pilot signal level.

[AM Section]

1. Set the mode at AM.
2. Connect the output of AM Sweep Generator to the AM antenna terminal. Connect the input of AM Sweep Generator to the test terminal 2 on IF PCB. Set the output level of AM Sweep Generator at 60-70dB.
3. Adjust the coils, L105 and L106 so that the IF wave-form can be symmetrical.
4. Connect the digital voltage meter (or high-impedance voltage meter) to the test terminal L on IF PCB.
5. Tune the unit into 600KHz and adjust the coil, L107 so that the voltage shows 2V.
6. Tune the unit into 1400KHz, and adjust trimmer, CT104 so that the voltage shows 7V.
7. Set the frequency of AM SG at 600KHz, output 50dB-80dB/m, modulation 30% at 1KHz.
8. Tune the unit into 600KHz and adjust the coil, L104 so that the output can be maximum.
9. Set the frequency of AM SG at 1400KHz.
10. Tune the unit into 1400KHz and adjust the trimmer CT103 so that the output can be maximum.
11. Set the frequency of AM SG at 1000KHz output 60dB/m.
12. Tune the unit into 1000KHz, and adjust semi-fixed resistor VR103 so that 1 segment of signal LED can light up.

Final Check Point

1) The output voltage of tuner.
2) S/N ratio
3) Distortion
4) Frequency response
5) Sensitivity

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C.A.T. Operation Check

1) Set the desirable signal on Signal Generator, which is referred to SG-1 hereinafter, and add 110% modulation to 'L' or 'R' at 1KHz, STEREO.
2) Set the interference signal on the other Signal Generator, which is referred to SG-2 hereinafter, and add 100% modulation at 400Hz, MONO.
3) The frequency to be checked is left free, however, the difference of frequency between SG-1 and SG-2 shall be set at 150KHz.
4) According to the degree of field effect strength in SG-1 and SG-2, proceed check the following CAT sequence.
5) The actual check is made by setting AGS at the relevant filed effect, and then shifting CAT switch from 'Manual' to 'Auto'.

SG-1 output SG-2 output	20dB	30dB	40dB	50dB	60dB
0dB	ANTI	ANTI	ANTI	CAT non-operated	CAT non-operated
20dB	IF+ANTI+HI B	ANTI	ANTI	ANTI	CAT non-operated
25dB	IF+ANTI+HI B	IF+ANTI	ANTI	ANTI	CAT non-operated
30dB	signal unreceivable	FULL CAT	ANTI	ANTI	ANTI
35dB	signal unreceivable	FULL CAT	IF+ANTI	ANTI	ANTI
40dB	signal unreceivable	signal unreceivable	FULL CAT	ANTI	ANTI
45dB	signal unreceivable	signal unreceivable	FULL CAT	IF+ANTI	ANTI
50dB	signal unreceivable	signal unreceivable	signal unreceivable	FULL CAT	ANTI
55dB	signal unreceivable	signal unreceivable	signal unreceivable	FULL CAT	IF+ANTI
60dB	signal unreceivable	signal unreceivable	signal unreceivable	signal unreceivable	FULL CAT
65dB	signal unreceivable	signal unreceivable	signal unreceivable	signal unreceivable	FULL CAT

Remarks:

ANTI: Anti-birdy, IF: IF Narrow,
Signal unreceivable: The desirable signal is automatically converted into unreceivable signal due to capture.

Check points:

1) The sensitivity of beat-noise detecter circuit.
2) The operation of inhibit circuit for the double tuning under weak field effect (signal LED lighting is less than 4 points).
3) Operation of HI-BLEND which works only at STEREO mode.
4) Confirmation of re-sequence of CAT facility when CAT switch is shifted from 'Manual' to 'Auto'.
5) Confirmation of CAT facility in every filter.
6) Confirmation of CAT sequency at FULL CAT operation.

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調整手順書

《FM》

1. ユニットのFMアンテナ端子にFM SGに接続する．
2. ユニットのOUTPUTにAC電圧計，歪率計，オシロスコープを接続する．
3. ユニットをFMモードにする．(FM SWを押した状態)
4. ユニットのC.A.T. offスイッチ，muting offスイッチを押した状態にする．
   (他のスイッチ類は飛び出した状態にする)
5. ユニットを放送局や妨害電波の無い周波数にする．
6. FM SGをユニットの周波数に合わせる．そしてFM SGをmono，1kHz変調，75kHz偏位，出力1mVにする．
7. センターメーターをIF P.C.B.のテスト端子③と④に接続する．
8. センターメーターが零Vになるように，コイルL103の一次側(IC側)を調整する．
9. 歪が最小になるように，コイルL103の二次側を調整する，この時の歪率が0.05%以上の場合は，すでに6で設定されているSGの周波数を歪率が最小になるようマイナス側に微調する．そして6で設定されたSGの周波数と歪率が最小になるSGの周波数の差が約−20kHzである場合，C.A.T. SW PCBのダイオード2本，D421，D422を取り除く．又，周波数の差が約40kHzである場合，ダイオードD422だけ取り除く．
10. FM SGの変調をOFFにする．
11. 周波数，カウンターをIF PCBのテスト端子⑤に接続する．
12. ユニットのmuting offスイッチを飛び出した状態にする．
13. 周波数カウンターの値が19kHz±10Hzになるよう半固定抵抗VR104を調整する．
14. ユニットのmuting offスイッチを押し込んだ状態にする．
15. FM SGにステレオ信号発生器を接続し，1kHz変調にする．
16. ステレオセパレーションが50dB以上になるよう半固定抵抗VR105を調整する．
17. 歪が最小になるようフロントエンドのIFTを調整する．
18. 再び16の調整をする．
19. ステレオキャリアリークが65dB以上になるようローパスフィルターF106，F107(黒コア)を調整する．
20. FM SGをmono，1kHz変調，出力20dB(10μV)にする．
21. ユニットのmuting offスイッチを飛び出した状態にする．
22. ユニットのOUTPUTに出力が出るよう半固定抵抗VR102を調整する．
23. ユニットのmuting offスイッチを押し込んだ状態にする．
24. signal multi path SWを押し込んだ状態にする．

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25. FM SGに30%～50%のAM変調をかけ，出力を20dB～50dBに変化させた時，signal multi path LEDが点灯することを確認する．
26. FM SG出力を50dB (300μV) にする．
27. signal LEDが全灯するよう半固定抵抗VR101を調整する．
28. test toneスイッチを押し込んだ状態にする．
29. ユニットのOUTPUTが－6dBになるようUP DOWN PCBの半固定抵抗VR301を調整する．
30. FM SGを受信可能周波数の下端に設定し，出力は30～60dBにする．
31. ユニットの受信周波数をFM SGの周波数に合わせる．
32. antenna att，スイッチを押し込んだ状態にする．
33. ユニットのOUTPUTが最大になるよう，コイルL101，L102を調整する．
34. FM SGを受信可能周波数の上端に設定し，出力は30～60dBにする．
35. ユニットのOUTPUTが最大になるよう，トリマーCT101，CT102を調整する．
36. 30～35を数回くり返して調整する．

確認項目

1. antenna att，SW ON/OFFそれぞれの感度．
2. C.A.T. SW OFF時のS/N比．
3. チューナーの出力電圧．
4. 2信号を使った時のC.A.T.自動シーケンス動作．
5. 受信バンド最下端から最上端にプリセットで周波数を飛ばした時のミューティング動作．
6. 電源SW ON/OFF時，出力ポップノイズ．
7. プリセットのオートスキャン動作．
8. プリセットのA/B切換．
9. ディンファシス特性．
10. ステレオパイロットONレベル．

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《AM》

1. ユニットをAMモードにする.
2. AMスイープジュネレーターのOUTPUT端子をユニットのAMアンテナ端子に接続する.
   AMスイープジュネレーターのINPUT端子をIF PCBのテスト端子②に接続する.
   AMスイープジュネレーターの出力を60～70dBにする.
3. IF波形が整えるよう，コイルL105，L106にて調整する.
4. ディジタル電圧計(又は高インピーダンス電圧計)をIF PCBのテスト端子①に接続する.
5. ユニットの受信周波数を600kHzにし，電圧の値が2Vになるよう，コイルL107を調整する.
6. ユニットの受信周波数を1400kHzにし，電圧の値が7Vになるよう，トリマーCT104を調整する.
7. AM SGを600kHz，1kHz 30%変調，出力50dB/m～80dB/mにする.
8. ユニットの受信周波数を600kHzにし，出力が最大になるよう，コイルL104を調整する.
9. AM SGを1400kHzにする.
10. ユニットの受信周波数を1400kHzにし，出力が最大になるよう，トリマーCT103にて調整する.
11. AM SGを1000kHz，出力60dB/mにする.
12. ユニットの受信周波数を1000kHzにし、signal LEDが1個点灯するよう半固定抵抗VR103を調整する.

確認項目

1. チューナー出力電圧.
2. S/N比.
3. 歪.
4. F特.
5. 感度.

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《CAT動作確認》

1. 希望信号SGをSG-1としstereo 1kHz L or Rに100%変調をかける.
2. 妨害信号SGをSG-2としmono 400Hzで100%変調をかける.
3. 測定周波数は任意とするが，SG-1，SG-2の周波数差は150kHzとする.
4. SG-1，SG-2の電界強度に応じ，次のCATシーケンスを確認する.
5. 確認手法はSGをそれぞれの電界に設定して，CAT SWをマニュアルからオートに切換する.

SG-1 出力 / SG-2 出力	20 dB	30 dB	40 dB	50 dB	60 dB
0 dB	ANTI	ANTI	ANTI	CAT動作せず	CAT動作せず
20 dB	IF+ANTI+HI B	ANTI	ANTI	ANTI	CAT動作せず
25 dB	IF+ANTI+HI B	IF+ANTI	ANTI	ANTI	CAT動作せず
30 dB	受信不能	FULL CAT	ANTI	ANTI	ANTI
35 dB	受信不能	FULL CAT	IF+ANTI	ANTI	ANTI
40 dB	受信不能	受信不能	FULL CAT	ANTI	ANTI
45 dB	受信不能	受信不能	FULL CAT	IF+ANTI	ANTI
50 dB	受信不能	受信不能	受信不能	FULL CAT	ANTI
55 dB	受信不能	受信不能	受信不能	FULL CAT	IF+ANTI
60 dB	受信不能	受信不能	受信不能	受信不能	FULL CAT
65 dB	受信不能	受信不能	受信不能	受信不能	FULL CAT

(ANTI：アンティバーディ　IF：IFナロー　受信不能：キャプチャーにて妨害信号にすり変わる)

確認項目

1. ビート検出回路の感度.
2. 弱電界(シグナルLED 4灯以下)にて復同調インピビット回路の動作.
3. Hiブレンドステレオ時のみ動作.
4. CAT SWマニュアル——→オート時の再シーケンス確認.
5. 各種CATフィルターの動作確認.
6. FULL CAT動作時のシーケンス確認.

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Parts List for Each Destination

Symbol No.	Description	J (100V)	SK (220V)	EK (220V)	EKZ (220V)
3	Ass'y, IF PCB	01V54300F27	01V56700F33	01V56700F33	01V56700F33
4	Ass'y, SNY PCB	01V54300F28	01V56700F34	01V56700F34	01V56700F34
6	Connector Wire Joint	09T47688F01	Non Use	Non Use	Non Use
13	Trans, Power	25T53413F01	25T53413F03	25T53413F04	25T53413F04
15	Cover, Rear	15D53262F01	15D53262F03	15D53262F03	15D53262F03
16	Plug, AC Cord	28T43851U01	28T50179F01	28T50179F01	28T50179F01
17	Stopper, Cord	43B41625J03	43B41625J02	43B41625J02	43B41625F02
29	Knob, Push D	36B53266F01	36B53266F01	36B53266F01	36B53266F02
30	Cabinet, Wood	16C55046F01	16C55046F01	16C55046F01	Non Use
	Cover, Top	Non Use	Non Use	Non Use	15C53260F02
31	Spacer, Cabinet	43A56702F01	43A56702F01	43A56702F01	Non Use
33	Pad Trannleg	75A53282F01	75A53282F01	75A53282F01	75A52969F01
34	Frame Trannleg	07A53283F01	07A53283F01	07A53283F01	75A52969F01
35	Cap, Trannleg	36A53284F01	36A53284F01	36A53284F01	75A52969F01
36	Panel, Front	64D53275F02	64D53275F02	64D53275F02	64D53275F01
42	Panel Side L	64A53276F01	64A53276F01	64A53276F01	Non Use
43	Panel Side R	64A53277F01	64A53277F01	64A53277F01	Non Use
44	Spacer, Panel Side	43A53267F01	43A53267F01	43A53267F01	Non Use
46	Label, Serial	54A56061F01	54A51740F01	54A51740F01	54A51740F01
47	Trannleg	75T57659F01	75T57659F01	75T57659F01	75A52969F01
49	Plug, SW P-2120	Non Use	Non Use	09T51830F01	09T51830F01
50	Socket, SW H-1615	Non Use	Non Use	09T51831F01	09T51831F01
91	Scr, Tpg M2.6x8	03S40012G47	03S40012G47	03S40012G47	Non Use
92	Scr, Tpg M3x8	03S40012G28	03S40012G28	03S40012G28	Non Use
93	Washer	04S40070G40	04S40070G40	04S40070G40	04S40072G16
94	Plug, Antenna	28T55051F01	28T51066F01	28T51066F01	28T51066F01
96	Antenna, FM	85T53411F01	85T51069F01	85T51069F01	85T51069F01
101	Owner's Manual	68R53280F01	68R56057F01	68R56057F01	68R56057F01
102	Carton, Pgk	56C53420F16	56C53420F16	56C53420F16	56C50570F38
AT101	Terminal, ANT	09T53410F01	09T53421F01	09T53421F01	09T53421F01
FE101	FM Front End	77T53422F01	77T51132F01	77T51132F01	77T51132F01
SW101	SW, Slide SW343-1	Non Use	40T51963F01	40T51963F01	40T51963F01
D152	Diode SI 1S1555	Non Use	48S134816	48S134816	48S134816
C155	Cap,Polyethelen 270p	Non Use	08T42081U11	08T42081U11	08T42081U11
C157	Cap,Polyethelen 270p	Non Use	08T42081U11	08T42081U11	08T42081U11
R269	Res,F.C. 10K-1/4	Non Use	06S44593P89	06S44593P89	06S44593P89
	Holder, Fuse	09T51960F01	09T51410F01	09T51410F01	09T51410F01
F401	Fuse	65T55050F08	65T42077U16	65T42077U16	65T42077U16
F402	Fuse	65T55050F08	65T42077U16	65T42077U16	65T42077U16
F403	Fuse	65T55050F05	65T42077U13	65T42077U13	65T42077U13
SW412	SW, Slide SW343-1	Non Use	40T51963F01	40T51963F01	40T51963F01
SW413	SW, Slide SW343-1	Non Use	40T51963F01	40T51963F01	40T51963F01
D420D	Diode SI, MA-150	Non Use	48T51582F01	48T51582F01	48T51582F01
D422	Diode SI, MA-150	Non Use	48T51582F01	48T51582F01	48T51582F01
D421	Diode SI, MA-150	48T51582F01	Non Use	Non Use	Non Use
D434A	Diode SI, MA-150	Non Use	48T51582F01	48T51582F01	48T51582F01

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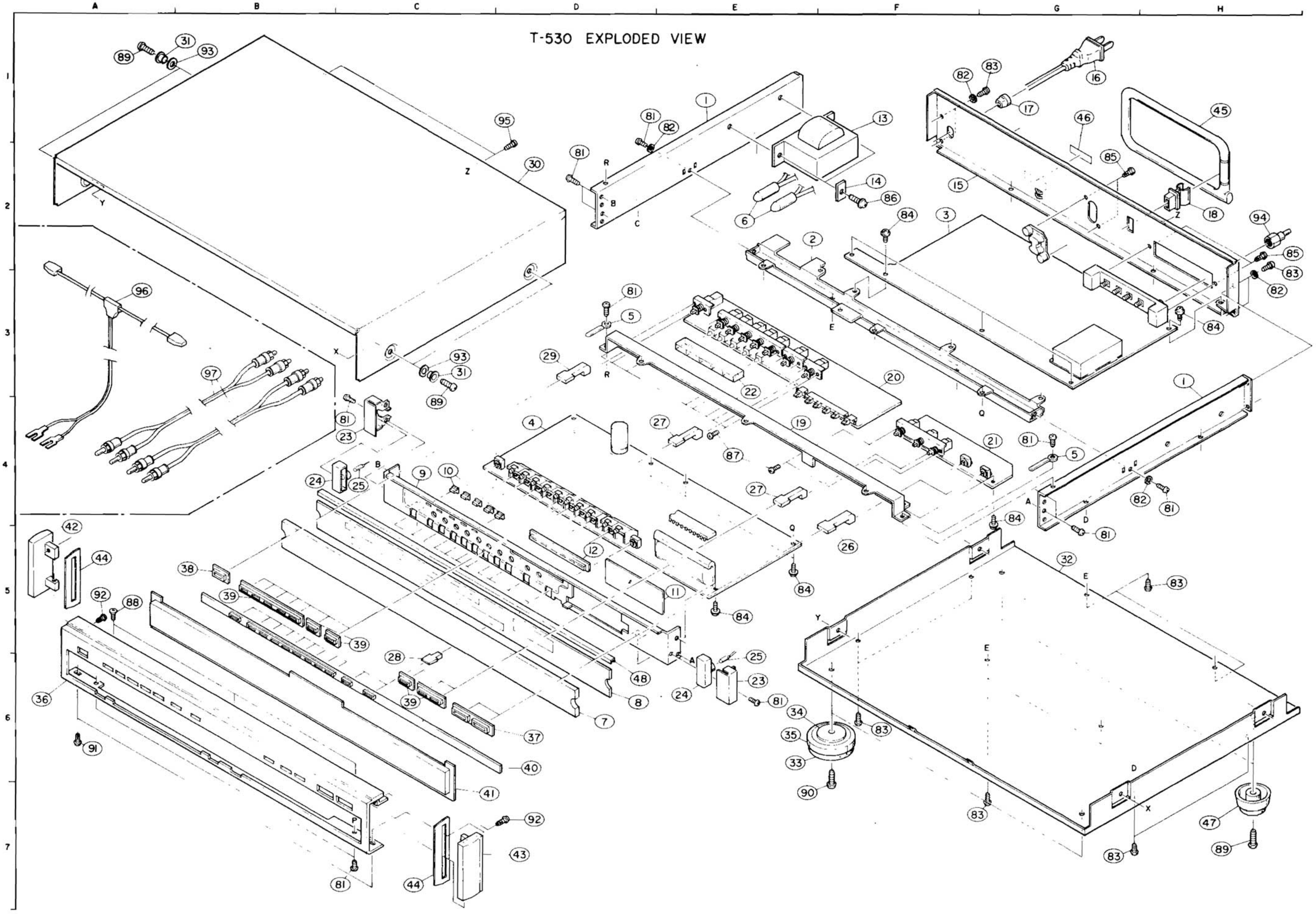

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Exploded View Parts List

Symbol No.	Stock No.	Description
1	07C53251F01	Bkt,Side
2	07C53252F01	Bkt,C
3	01V54300F27	Ass'y,IF PCB (J)
	01V56700F33	Ass'y,IF PCB
4	01V54300F28	Ass'y,SNY PCB (J)
	01V56700F34	Ass'y,SNY PCB
5	29C41045P03	Lug W Around
6	09T47688F01	Connector,Wire (J)
7	61B53270F01	Crystal,IND. B
8	61B53271F01	Crystal,IND. C
9	27D53274F01	Chassis,Front
10	61A53272F01	Crystal,IND. D
11	61A53273F01	Crystal,IND. E
12	07B53258F01	Frame,LED A
13	25T53413F01	Trans,Power (J)
	25T53413F03	Trans,Power (SK)
	25T53413F04	Trans,Power (Z,EK)
14	07A40871F01	Support,Trans Washer
15	15D53262F01	Cover,Rear (J)
	15D53262F03	Cover,Rear
16	28T43851U01	Cord,AC Plug
	28T50179F01	Cord,AC Plug
17	43B41625J03	Stopper,Cord (J)
	43B41625J02	Stopper,Cord
18	55T51079F01	Lock,ANT. Holder
19	07C53250F01	Bkt,SW
20	01V54300F30	Ass'y,CAT. PCB
21	01V54300F31	Ass'y,Up Down SW PCB
22	43A53278F01	Bushing,Rubber A
23	07A53253F01	Bkt,Lamp
24	43A53279F01	Bushing,Rubber B
25	65T53343F02	Lamp,Pilot
26	36B53263F01	Knob,Push A
27	36B53264F01	Knob,Push B
28	36B53265F01	Knob,Push C
29	36B53266F01	Knob,Push D
	36B53266F02	Knob,Push D (Z)
30	16C55046F01	Cabinet,Wood
	15C53260F02	Cover,Top (Z)
31	43A56702F01	Spacer,Cab. (J,SK,EK)
32	15D53261F01	Cover,Bottom
33	75A53282F01	Pad,Trannleg
	75A52969F01	Pad,Trannleg (Z)
34	07A53283F01	Frame,Trannleg
	75A52969F01	Pad,Trannleg (Z)

Symbol No.	Stock No.	Description
35	36A53284F01	Cap,Trannleg
	75A52969F01	Pad,Trannleg
36	64D53275F02	Panel,Front
	64D53275F01	Panel,Front (Z)
37	07A53254F01	Frame,Knob A
38	07A53255F01	Frame,Knob B
39	07B53256F01	Frame,Knob C
40	07D53257F01	Frame,Knob D
41	61B53269F01	Crystal,IND. A
42	64A53276F01	Panel,Side L (J,SK,EK)
43	64A53277F01	Panel,Side R (J,SK,EK)
44	43A53267F01	Spacer,Panel (J,SK,EK)
45	85T51078F01	Antenna,Loop
46	54A56061F01	Label,Serial (J)
	54A51740F01	Label,Serial
47	75T57059F01	Pad,Trannleg
	75A52969F01	Pad,Trannleg (Z)
48	43A57309F01	Spacer
49	09T51830F01	Plug,SW P-2120 (Z,EK)
50	09T51831F01	Socket,SW M-1615 (Z,EK)
81	03S44205G01	Scr,T-Tite M3x6
82	04S40072G16	Wsr,T.L. M3
83	03S44205G02	Scr,T-Tite M3x6
84	03C42723U01	Scr,Cup M3x6
85	03S40012G41	Scr,Tpg M3x8
86	03S40036U01	Scr,T-Tite M4x8
87	03C40014G04	Scr,Mch M3x6
88	03S44205G16	Scr,T-Tite M3x6
89	03S40036U07	Scr,T-Tite M4x12
90	03S44205G52	Scr,T-Tite M4x14
91	03S40012G47	Scr,Tpg. M2.6x8 (J,SK,EK)
92	03S40012G28	Scr,Tpg. M3x8 (J,SK,EK)
93	04S40070G40	Washer,4ϕ
	04S40072G16	Washer (Z)
94	28T55051F01	Plug,ANT. (J)
	28T51066F01	Plug,ANT.
95	03S44205G16	Scr,T-Tite M3x6
96	85T53411F01	ANT,FM (J)
	85T51069F01	ANT,FM
97	28C42374J02	Cord,Output
101	MA1061	Owner's Manual (J)
	ME0244	Owner's Manual
102	56C53420F16	Carton,Packing
	56C50570F38	Carton,Packing (Z)
103	56C53281F01	Tray,Packing

J ..... 100V for Japan
SK .... 220V for Europe, South-East Asia
EK .... 220V (With Line Voltage Selector) for Europe, South-East Asia
Z T-530Z
220V (With Line Voltage Selector) for Europe, South-East Asia

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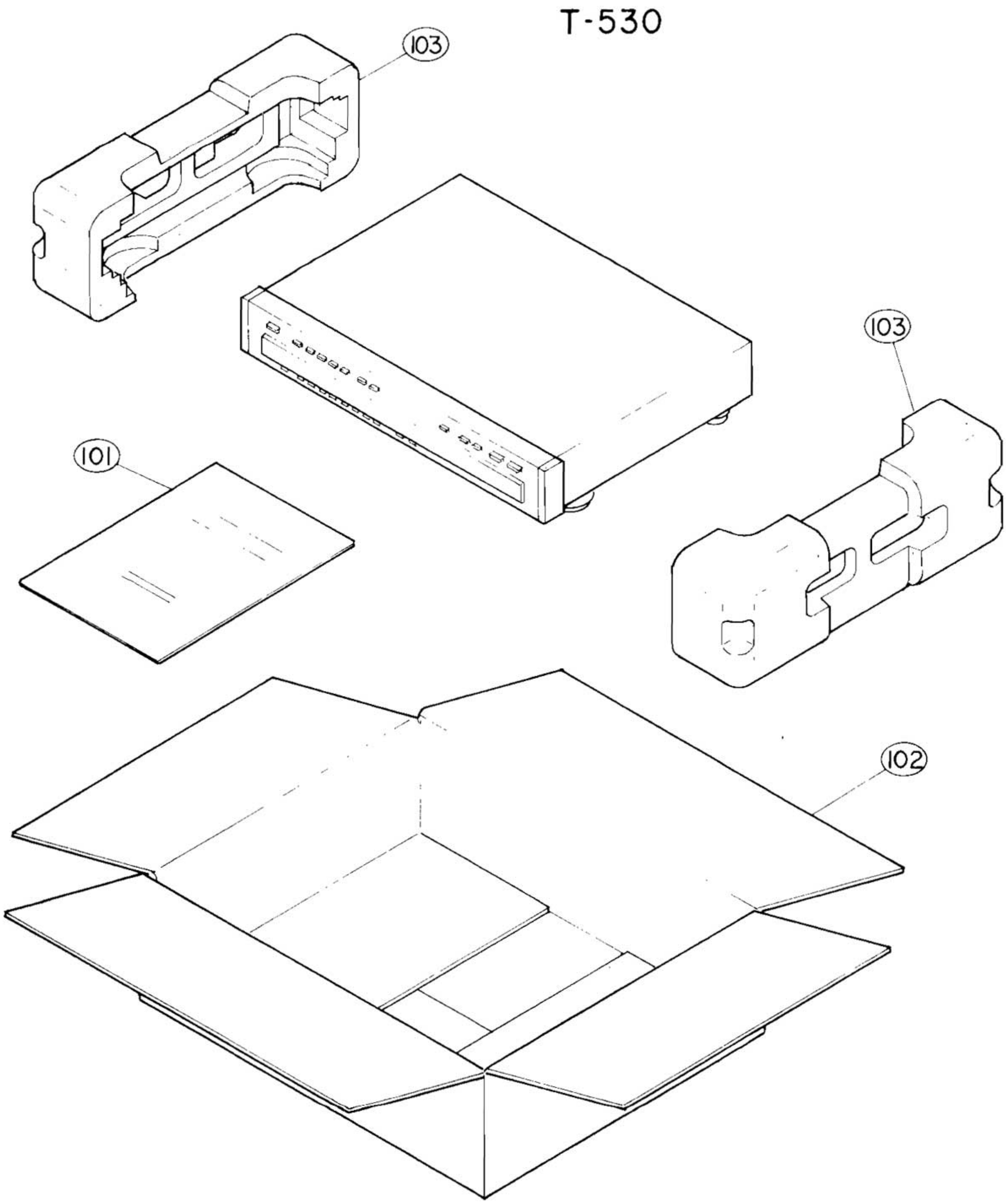
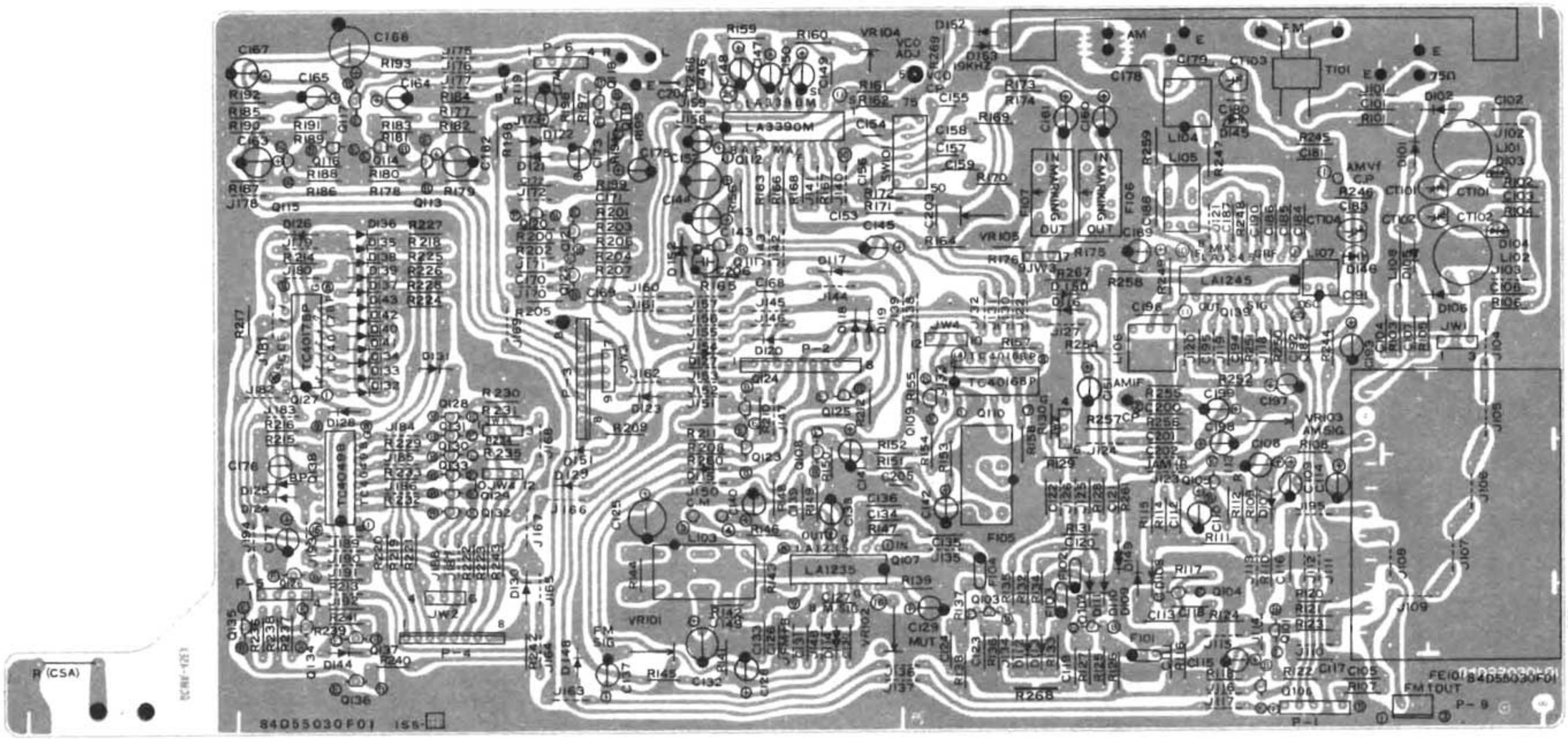


Remarks:

Capacitor: El...Electrolytic, Ce...Ceramic, My...Mylar,
Pp...Polyprophlene, Pe...Polyethelen

IF PCB Parts List



Symbol No.	Stock No.	Description
(Variable Resistor)		
VR101	18C42061J14	10K-B
VR102	18C42061J14	10K-B
VR103	18C42061J14	10K-B
VR104	18C41732G06	10K-B
VR105	18C42061J15	50K
(Baloon)		
T101	24T53408F01	LA1052
(Coil)		
L101	24T53423F01	Coil, FM ANT (FE-12C)
L102	24T53423F01	Coil, FM ANT (FE-12C)
L103	24T51128F01	Trans, FM DET
L104	24T51125F01	Trans, ANT(AM) LA1210
L105	24T51126F01	Trans, IF(455KHz)
L106	24T53327F01	Trans, IF LA1100
L107	24T53326F01	Trans, AM OSC LA1073
L108	24T41686U24	Coil, Inductor 0.018M
(Trimmer)		
CT101	20T47503F02	TZ03(RED)
CT102	20T47503F02	TZ03(RED)
CT103	20T47503F02	TZ03(RED)
CT104	20T47503F02	TZ03(RED)
(Terminal Anttena)		
AT101	09T53410F01	4P T5637 (J)
	09T53421F01	4P T5646 (E,SK,Z)
(Plate,Phone)		
OT101	09T50231F01	Plate,Phone 2P
(FM Front End)		
FE101	77T53422F01	FD216 (J)
	77T51132F01	FD216U11X (E,SK,Z)
(Filter)		
F101	91T51130F01	CER SFE10.7MM
F102	91T53407F01	CER 10.7MS3GY-A
F103	91T53407F01	CER 10.7MS3GY-A
F104	91T51131F01	CER SFE10.7ML
F105	91T51083F01	ANTI BIRDY
F106	91T53325F01	LA1196
F107	91T53325F01	LA1196

Symbol No.	Stock No.	Description
(Switch)		
SW101	40T51963F01	Slide SW343-1 (E,SK,Z)
(Transistor & IC)		
Q101	48S40732P02	2SC1674 L
Q102	48S40732P02	2SC1674 L
Q103	48S40732P02	2SC1674 L
Q104	48S40732P02	2SC1674 L
Q105	48T55181F01	2SC1740 R,S
Q106	48T55181F01	2SC1740 R,S
Q107	51T51095F01	LA1235
Q108	48T55181F01	2SC1740 R,S
Q109	48T55181F01	2SC1740 R,S
Q110	51T51696F01	IC, TC4016BP
Q111	48T55181F01	2SC1740 R,S
Q112	51T53322F01	LA3390M
Q113	48T55181F01	2SC1740 R,S
Q114	48T55349F01	2SA933A R,Q
Q115	48T55181F01	2SC1740 R,S
Q116	48T55349F01	2SA933A R,Q
Q117	48T55181F01	2SC1740 R,S
Q118	48T55181F01	2SC1740 R,S
Q119	48T55181F01	2SC1740 R,S
Q120	48T55181F01	2SC1740 R,S
Q121	48T55181F01	2SC1740 R,S
Q122	48T55181F01	2SC1740 R,S
Q123	48T55181F01	2SC1740 R,S
Q124	48T55181F01	2SC1740 R,S
Q125	48T55349F01	2SA933A R,Q
Q126	48T55181F01	2SC1740 R,S
Q127	51T53403F01	TC4017
Q128	48T55181F01	2SC1740 R,S
Q129	48T55181F01	2SC1740 R,S
Q130	48T55181F01	2SC1740 R,S
Q131	48T55181F01	2SC1740 R,S
Q132	48T55181F01	2SC1740 R,S
Q133	48T55181F01	2SC1740 R,S
Q134	48T55349F01	2SA933A R,Q
Q135	48T55181F01	2SC1740 R,S

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Symbol No.	Stock No.	Description
Q136	48T55181F01	2SC1740 R,S
Q137	48T55349F01	2SA933A R,Q
Q138	51T47655F01	IC,TC4049 BP
Q139	51T53323F01	IC, LA1245
(Diode)		
D101	48T51881F01	DS442-BT
D102	48T51881F01	DS442-BT
D103	48T53402F01	SVC211,VARACTOR
D104	48T53402F01	SVC211,VARACTOR
D105	48T51881F01	DS442-BT
D106	48T51881F01	DS442-BT
D107	48B41768G01	1N60(75uA MAX)
D108	48B41768G01	1N60(75uA MAX)
D109	48B41768G01	1N60(75uA MAX)
D110	48T51881F01	DS442-BT
D111	48T51881F01	DS442-BT
D112	48T51881F01	DS442-BT
D113	48T51881F01	DS442-BT
D114	48T51087F01	KB-265C4 VARISTOR
D115	48T51881F01	DS442-BT
D116	48T51881F01	DS442-BT
D117	48T51881F01	DS442-BT
D118	48T51881F01	DS442-BT
D119	48T51881F01	DS442-BT
D120	48T51881F01	DS442-BT
D121	48B41768G01	1N60(75uA MAX)
D122	48B41768G01	1N60(75uA MAX)
D123	48T51881F01	DS442-BT
D124	48T51881F01	DS442-BT
D125	48T51881F01	DS442-BT
D126	48T51881F01	DS442-BT
D127	48T51881F01	DS442-BT
D128	48T51881F01	DS442-BT
D129	48T51881F01	DS442-BT
D130	48T51881F01	DS442-BT
D131	48T51881F01	DS442-BT
D132	48T51881F01	DS442-BT
D133	48T51881F01	DS442-BT
D134	48T51881F01	DS442-BT
D135	48T51881F01	DS442-BT
D136	48T51881F01	DS442-BT
D137	48T51881F01	DS442-BT
D138	48T51881F01	DS442-BT
D139	48T51881F01	DS442-BT
D140	48T51881F01	DS442-BT
D141	48T51881F01	DS442-BT
D142	48T51881F01	DS442-BT
D143	48T51881F01	DS442-BT
D144	48T51881F01	DS442-BT
D145	48T52826F01	SVC321 SP VARACTOR
D146	48T52826F01	SVC321 SP VARACTOR
D148	48T51881F01	DS442-BT
D149	48T51087F01	KB-265C4 VARISTOR
D150	48T51881F01	DS442-BT

Symbol No.	Stock No.	Description
D151	48T51881F01	DS442-BT
D152	48S134816	1S1555 (E,SK,Z)
(Capacitor)		
C101	08S44505P63	22000pF Ce
C102	08S44505P63	22000pF Ce
C103	08S44505P61	10000pF Ce
C104	08S44505P63	22000pF Ce
C105	08S44505P61	10000pF Ce
C106	08S44505P63	22000pF Ce
C107	08S44505P63	22000pF Ce
C108	23T51235F16	10uF 16V E1
C109	23T51235F03	1uF 50V E1
C110	23T51235F01	0.47uF 50V E1
C111	08S44505P63	22000pF Ce
C112	08S44505P49	1000pF Ce
C113	08S44505P49	1000pF Ce
C114	23T51235F16	10uF 16V E1
C115	23T51235F44	100uF 16V E1
C116	08S44505P63	22000pF Ce
C117	08S44505P63	22000pF Ce
C118	08S44505P61	10000pF Ce
C119	08S44505P63	22000pF Ce
C120	08S44505P63	22000pF Ce
C121	08S44505P63	22000pF Ce
C122	08S44505P63	22000pF Ce
C123	08S44505P63	22000pF Ce
C124	08S44505P63	22000pF Ce
C125	23T51235F44	100uF 16V E1
C126	08S44505P63	22000pF Ce
C127	08S44505P63	22000pF Ce
C128	23T51235F03	1uF 50V E1
C129	23T51235F01	0.47uF 50V E1
C130	08S44505P63	22000pF Ce
C131	08S44505P63	22000pF Ce
C132	23T51235F44	100uF 16V E1
C133	08S44505P63	22000pF Ce
C134	08S44505P63	22000pF Ce
C135	08S44505P63	22000pF Ce
C136	08S44505P63	22000pF Ce
C137	08S44505P63	22000pF Ce
C139	08S44505P41	220pF Ce
C140	23T51235F05	2.2uF 50V E1
C141	23T51235F16	10uF 16V E1
C142	23T51235F08	3.3uF 50V E1
C143	23T51235F38	47uF 16V E1
C144	23T51235F44	100uF 16V E1
C145	23T51235F08	3.3uF 50V E1
C146	08S40656F21	0.047uF My
C147	23T51235F08	3.3uF 50V E1
C148	23T51235F05	2.2uF 50V E1
C149	08T52448F13	0.0010uF Pp
C150	23T51235F03	1uF 50V E1
C151	23T51235F01	0.47uF 50V E1
C152	23T51235F16	10uF 16V E1

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Symbol No.	Stock No.	Description
C154	08T52448F05	0.00047uF Pp
C155	08T42081U11	270pF (E,SK,Z) Pp
C156	08T52448F05	0.00047 Pp
C157	08T42081U11	270pF(E,SK,Z) Pe
C158	08S44505P61	10000pF Ce
C159	08S44505P61	10000pF Ce
C160	23T51235F08	3.3uF 50V E1
C161	23T51235F08	3.3uF 50V E1
C162	23T51235F38	47uF 16V E1
C163	23T51235F38	47uF 16V E1
C164	23T51235F13	4.7uF 50V E1
C165	23T51235F13	4.7uF 50V E1
C166	23T51235F44	100uF 16V E1
C167	23T51235F38	47uF 16V E1
C168	08T52448F05	0.00047 Pp
C169	08T52448F05	0.00047 Pp
C170	08S44505P49	1000pF Ce
C171	21B41870J02	0.1uF
C172	08S44505P63	22000pF Ce
C173	23T51235F01	0.47 50V E1
C174	23T51235F16	10uF 16V E1
C175	23T51235F13	4.7uF 50V E1
C176	23T42477F15	0.47uF 50V E1
C177	23T51235F16	10uF 16V E1
C178	08S44505P63	22000pF Ce
C179	08S44505P61	10000pF Ce
C181	08S44505P61	10000pF Ce
C182	08S44505P63	22000pF Ce
C183	21C41701J52	10pF Ce
C184	08S44505P63	22000pF Ce
C185	08S44505P63	22000pF Ce
C186	08S44505P63	22000pF Ce
C187	08S44505P63	22000pF Ce
C188	08S44505P63	22000pF Ce
C189	23T51235F16	10uF 16V E1
C190	08S44505P63	22000pF Ce
C191	08T52448F01	0.00033 Pp
C192	08S44505P63	22000pF Ce
C193	23T51235F13	4.7uF 50V E1
C194	08S44505P63	22000pF Ce
C195	08S44505P63	22000pF Ce
C196	08S44505P49	1000pF Ce
C197	23T51235F08	3.3uF 50V E1
C198	23T51235F01	0.47uF 50V E1
C199	23T51235F44	100uF 16V E1
C200	08S44505P63	22000pF Ce
C201	08S44505P53	2200pF Ce
C202	08S44505P63	22000pF Ce
C203	08S40656F21	0.047uF My
C204	08S40805F07	1000pF Ce
C205	08S40805F03	220pF Ce
C206	23S40657F16	4.7uF 25V E1
(Resistor)		
R101	06S44593P65	1K 1/4W Rd

Symbol No.	Stock No.	Description
R102	06S44594P14	100K 1/4W Rd
R103	06S44593P65	1K 1/4W Rd
R104	06S44594P14	100K 1/4W Rd
R105	06S44593P65	1K 1/4W Rd
R106	06S44593P89	10K 1/4W Rd
R107	06S44593P97	22K 1/4W Rd
R108	06S44594P02	33K 1/4W Rd
R109	06S44594P02	33K 1/4W Rd
R110	06S44594P12	82K 1/4W Rd
R111	06S44594P06	47K 1/4W Rd
R112	06S44593P77	3.3K 1/4W Rd
R113	06S44594P30	470K 1/4W Rd
R114	06S44593P75	2.7K 1/4W Rd
R115	06S44594P14	100K 1/4W Rd
R116	06S44593P77	3.3K 1/4W Rd
R117	06S44594P26	330K 1/4W Rd
R118	06S44593P65	1K 1/4W Rd
R119	06S44593P41	100K 1/4W Rd
R120	06S44593P57	470 1/4W Rd
R121	06S44593P81	4.7K 1/4W Rd
R122	06S44593P41	100 1/4W Rd
R123	06S44593P57	470 1/4W Rd
R124	06S44593P73	2.2K 1/4W Rd
R125	06S44593P59	560 1/4W Rd
R126	06S44593P69	1.5K 1/4W Rd
R127	06S44593P57	470 1/4W Rd
R128	06S44593P53	330 1/4W Rd
R129	06S44593P89	10K 1/4W Rd
R130	06S44593P89	10K 1/4W Rd
R131	06S44593P53	330 1/4W Rd
R132	06S44593P71	1.8K 1/4W Rd
R133	06S44593P63	820 1/4W Rd
R134	06S44593P63	820 1/4W Rd
R135	06S44593P63	820 1/4W Rd
R136	06S44593P71	1.8K 1/4W Rd
R137	06S44593P53	330 1/4W Rd
R138	06S44593P41	100 1/4W Rd
R139	06S44594P12	82K 1/4W Rd
R141	06S44594P10	68K 1/4W Rd
R142	06S44593P83	5.6K 1/4W Rd
R143	06S44593P49	220 1/4W Rd
R144	06S44593P73	2.2K 1/4W Rd
R145	06S44593P89	10K 1/4W Rd
R146	06S44593P95	18K 1/4W Rd
R147	06S44593P57	470 1/4W Rd
R149	06S44593P41	100 1/4W Rd
R150	06S44593P81	4.7K 1/4W Rd
R151	06S44593P89	10K 1/4W Rd
R152	06S44593P89	10K 1/4W Rd
R153	06S44593P89	10K 1/4W Rd
R154	06S44593P81	4.7K 1/4W Rd
R155	06S44593P33	47 1/4W Rd
R156	06S44593P65	1K 1/4W Rd
R157	06S44594P18	150K 1/4W Rd

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Symbol No.	Stock No.	Description	
R158	06S44593P89	10K	1/4W Rd
R159	06S44593P65	1K	1/4W Rd
R160	06S44593P91	12K	1/4W Rd
R161	06S44594P14	100K	1/4W Rd
R162	06S44594P22	220K	1/4W Rd
R163	06S44593P89	10K	1/4W Rd
R164	06S44594P38	1M	1/4W Rd
R165	06S44594P14	100K	1/4W Rd
R166	06S44594P14	10K	1/4W Rd
R167	06S44594P14	100K	1/4W Rd
R168	06S44594P14	100K	1/4W Rd
R169	06S44593P17	10K	1/4W Rd
R170	06S44593P17	10K	1/4W Rd
R171	06S44593P65	1K	1/4W Rd
R172	06S44593P65	1K	1/4W Rd
R173	06S44593P73	2.2K	1/4W Rd
R174	06S44593P73	2.2K	1/4W Rd
R175	06S44593P77	3.3K	1/4W Rd
R176	06S44593P77	3.3K	1/4W Rd
R177	06S44594P14	100K	1/4W Rd
R178	06S44594P14	100K	1/4W Rd
R179	06S44594P06	47K	1/4W Rd
R180	06S44593P89	10K	1/4W Rd
R181	06S44593P57	470	1/4W Rd
R182	06S44593P57	470	1/4W Rd
R183	06S44593P41	100	1/4W Rd
R184	06S44593P89	10K	1/4W Rd
R185	06S44594P14	100K	1/4W Rd
R186	06S44594P14	100K	1/4W Rd
R187	06S44594P06	47K	1/4W Rd
R188	06S44593P89	10K	1/4W Rd
R189	06S44593P57	470K	1/4W Rd
R190	06S44593P57	470K	1/4W Rd
R191	06S44593P41	100K	1/4W Rd
R192	06S44593P89	10K	1/4W Rd
R193	06S44593P95	18K	1/4W Rd
R194	06S44594P22	220K	1/4W Rd
R195	06S44594P06	47K	1/4W Rd
R196	06S44593P77	3.3K	1/4W Rd
R197	06S44593P97	22K	1/4W Rd
R198	06S44594P14	100K	1/4W Rd
R199	06S44593P65	1K	1/4W Rd
R200	06S44593P77	3.3K	1/4W Rd
R201	06S44593P65	1K	1/4W Rd
R202	06S44593P87	8.2K	1/4W Rd
R203	06S44593P71	1.8K	1/4W Rd
R204	06S44593P73	2.2K	1/4W Rd
R205	06S44593P97	22K	1/4W Rd
R206	06S44593P65	1K	1/4W Rd
R207	06S44593P97	22K	1/4W Rd
R208	06S44593P65	1K	1/4W Rd
R209	06S44593P65	1K	1/4W Rd
R210	06S44593P89	10K	1/4W Rd
R211	06S44593P33	47K	1/4W Rd

Symbol No.	Stock No.	Description	
R212	06S44594P06	47K	1/4W Rd
R213	06S44593P97	22K	1/4W Rd
R214	06S44594P14	100K	1/4W Rd
R215	06S44594P08	56K	1/4W Rd
R216	06S44593P77	3.3K	1/4W Rd
R217	06S44594P14	100K	1/4W Rd
R218	06S44593P89	10K	1/4W Rd
R219	06S44593P89	10K	1/4W Rd
R220	06S44593P89	10K	1/4W Rd
R221	06S44593P89	10K	1/4W Rd
R222	06S44593P61	680K	1/4W Rd
R223	06S44593P93	15K	1/4W Rd
R224	06S44593P89	10K	1/4W Rd
R225	06S44594P14	100K	1/4W Rd
R226	06S44593P89	10K	1/4W Rd
R227	06S44594P14	100K	1/4W Rd
R228	06S44594P14	100K	1/4W Rd
R229	06S44593P89	10K	1/4W Rd
R230	06S44593P89	10K	1/4W Rd
R231	06S44593P89	10K	1/4W Rd
R232	06S44593P89	10K	1/4W Rd
R233	06S44593P89	10K	1/4W Rd
R234	06S44593P89	10K	1/4W Rd
R235	06S44593P89	10K	1/4W Rd
R236	06S44593P89	10K	1/4W Rd
R237	06S44594P06	47K	1/4W Rd
R238	06S44593P89	10K	1/4W Rd
R239	06S44593P89	10K	1/4W Rd
R240	06S44594P06	47K	1/4W Rd
R241	06S44593P89	10K	1/4W Rd
R242	06S44594P10	68K	1/4W Rd
R243	06S44593P61	680K	1/4W Rd
R244	06S44593P89	10K	1/4W Rd
R245	06S44594P14	100K	1/4W Rd
R246	06S44594P14	100K	1/4W Rd
R247	06S44593P41	100K	1/4W Rd
R248	06S44593P65	1K	1/4W Rd
R249	06S44593P57	470K	1/4W Rd
R250	06S44593P89	10K	1/4W Rd
R251	06S44593P37	68K	1/4W Rd
R252	06S44593P89	10K	1/4W Rd
R254	06S44593P65	1K	1/4W Rd
R255	06S44593P75	2.7K	1/4W Rd
R256	06S44593P99	27K	1/4W Rd
R257	06S44594P02	33K	1/4W Rd
R258	06S44593P41	100K	1/4W Rd
R259	06S44593P89	10K	1/4W Rd
R260	06S44593P89	10K	1/4W Rd
R261	06S44593P81	4.7K	1/4W Rd
R262	06S44593P53	330K	1/4W Rd
R267	06S44593P81	4.7K	1/4W Rd
R268	06S40150T17	10	1/4W Rd
R269	06S44593P89	10K	1/4W Rd

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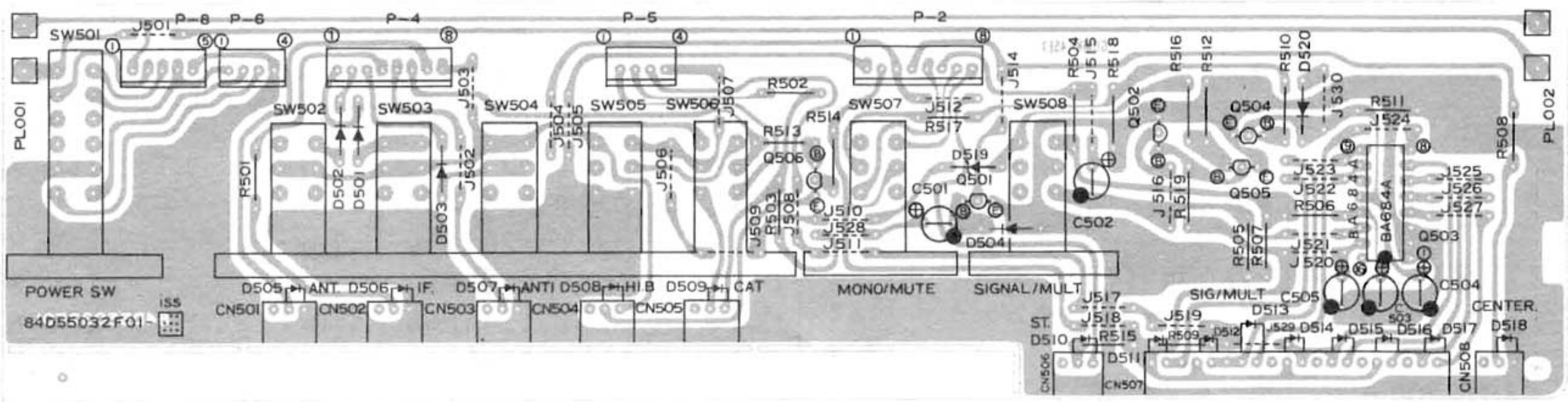
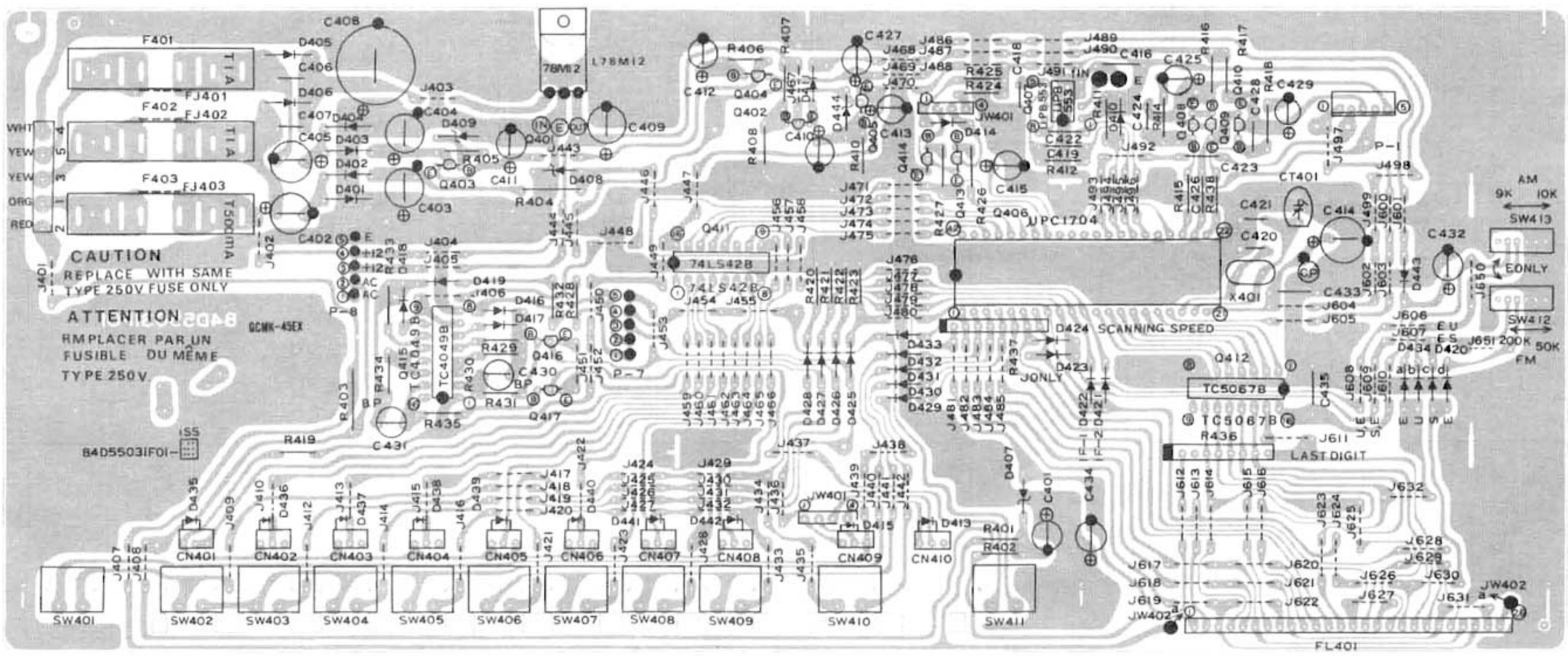
CAT PCB Parts List



Symbol No.	Stock No.	Description
(Switch, Push)		
SW501	40T53424F01	SUL122A
SW502-506	40T53427F01	SUL532A
SW507	40T53425F01	SUL122A
SW508	40T53425F01	SUL122A
(Transistor & IC)		
Q501	48T55181F01	2SC1740R,S
Q502	48T55181F01	2SC1740R,S
Q503	51T53404F01	IC, BA684A
Q504	48T55181F01	2SC1740R,S
Q505	48T55181F01	2SC1740R,S
Q506	48T55181F01	2SC1740R,S
(Diode & LED)		
D501	48T51582F01	MA-150
D502	48T51582F01	MA-150
D503	48T51582F01	MA-150
D504	48T51582F01	MA-150
D505	48T52953F01	LED,Red BR3432S
D506	48T52953F01	LED,Red BR3432S
D507	48T52953F01	LED,Red BR3432S
D508	48T52953F01	LED,Red BR3432S
D509	48T52953F01	LED,Red BR3432S
D510	48T50435F02	LED,SEL1123R
D511	48T50435F02	LED,SEL1123R
D512	48T50435F02	LED,SEL1123R
D513	48T50435F02	LED,SEL1123R
D514	48T50435F02	LED,SEL1123R
D515	48T50435F02	LED,SEL1123R
D516	48T50435F02	LED,SEL1123R

Symbol No.	Stock No.	Description
D517	48T50435F02	LED,SEL1123R
D518	48T50435F02	LED,SEL1123R
D519	48T52739F36	Zener, HZ6A-3
(Resistor)		
R501	06S44593P61	680 1/4W Rd
R502	06S44593P61	680 1/4W Rd
R503	06S44593P89	10K 1/4W Rd
R504	06S44593P97	22K 1/4W Rd
R505	06S44594P06	47K 1/4W Rd
R506	06S44593P41	100 1/4W Rd
R507	06S44593P85	6.8K 1/4W Rd
R508	06S44593P49	220 1/4W Rd
R509	06S44593P81	4.7K 1/4W Rd
R510	06S44594P06	47K 1/4W Rd
R511	06S44594P06	47K 1/4W Rd
R512	06S44593P14	100K 1/4W Rd
R513	06S44593P97	22K 1/4W Rd
R514	06S44593P67	1.2K 1/4W Rd
R515	06S44593P67	1.2K 1/4W Rd
R516	06S44593P89	10K 1/4W Rd
R517	06S44593P97	22K 1/4W Rd
R518	06S44593P89	10K 1/4W Rd
R519	06S44593P89	10K 1/4W Rd
(Capacitor)		
C501	23T51235F08	3.3uF 50V E1
C502	23T51235F08	3.3uF 50V E1
C503	23T51235F24	22uF 16V E1
C504	23T51235F08	3.3uF 50V E1
C505	23T51235F24	22uF 16V E1

Synthesized PCB Parts List



Symbol No.	Stock No.	Description
(Holder, Fuse)		
	09T51960F01	YSH-401T (J)
	09T51410F01	Holder, Fuse (E,SK,Z)
(Fuse)		
F401	65T55050F08	MF60NR 1-125 (J)
	65T42077U16	T-1A (E,SK,Z)
F402	65T55050F08	MF60NR 1-125 (J)
	65T42077U16	T-1A (E,SK,Z)
F403	65T55050F05	MF60NR 0.5-125 (J)
	65T42077U13	T-500mA (E,SK,Z)
(Switch)		
SW401	40T51081F01	TACT
SW402	40T51081F01	TACT
SW403	40T51081F01	TACT
SW404	40T51081F01	TACT
SW405	40T51081F01	TACT
SW406	40T51081F01	TACT
SW407	40T51081F01	TACT
SW408	40T51081F01	TACT
SW409	40T51081F01	TACT
SW410	40T51081F01	TACT
SW411	40T51081F01	TACT
SW412	40T51963F01	Slide,SW343-1 (E,SK,Z)
SW413	40T51963F01	Slide,SW343-1 (E,SK,Z)
(FL Meter)		
FL401	65T51088F01	FIP7D8
(Crystal)		
X401	48T55072F01	(4.5MHz)-M
(Transistor & IC)		
Q401	51T53320F01	L78M12
Q402	48T55181F01	2SC1740 R,S
Q403	48T55181F01	2SC1740 R,S
Q404	48T55181F01	2SC1740 R,S
Q405	48T55874F01	2SC2060 R,Q
Q406	51T52357F01	IC,UPD1704C-534
Q407	51T43271F01	IC,UPD553AC
Q408	48T55181F01	2SC1740 R,S
Q409	48T55181F01	2SC1740 R,S
Q410	48T55348F01	2SC1645B
Q411	51T53321F01	IC,M74LS42P
Q412	51T53316F01	IC,TC5067BP
Q413	48T55181F01	2SC1740 R,S
Q414	48T55181F01	2SC1740 R,S
Q415	51T47655F01	IC,TC4049 BP
Q416	48T55349F01	2SA933A R,Q
Q417	48T55349F01	2SA933A R,Q
(Capacitor)		
C401	23T51235F17	10uF 25V E1
C402	23T51235F41	47uF 50V E1
C403	23T51235F41	47uF 50V E1
C404	23T51235F41	47uF 50V E1
C405	23T51235F41	47uF 50V E1
C406	08S40805F21	22000pF Ce
C407	08S40805F21	22000pF Ce
C408	23T51234F85	2200uF 25V E1

Symbol No.	Stock No.	Description
C409	23T51235F44	100uF 16V E1
C410	23T51235F24	22uF 16V E1
C411	23T51235F39	47uF 25V E1
C412	23T51235F39	47uF 25V E1
C413	23T51235F24	22uF 16V E1
C414	23T51234F68	470uF 10V E1
C415	23T51235F24	22uF 16V E1
C416	08S44505P63	22000pF Ce
C418	21S40655F11	10pF Ce
C419	08S44505P41	220pF Ce
C420	21S40655F15	22pF Ce
C421	21S40655F15	22pF Ce
C422	08S44505P63	22000pF Ce
C423	08S44505P63	22000pF Ce
C424	08S40805F21	22000pF Ce
C425	23T51235F13	4.7uF 50V E1
C426	08S44505P63	22000pF Ce
C427	23T51235F39	47uF 25V E1
C428	08S40805F21	22000pF Ce
C429	23T51235F13	4.7uF 50V E1
C430	23T42477F15	0.47M 50V BP E1
C431	23T42477F15	0.47M 50V BP E1
C432	23T51235F24	22uF 16V E1
C433	08S44505P63	22000pF Ce
C434	23T51235F17	10uF 25V E1
C435	08S44505P63	22000pF Ce
(Diode & LED)		
D401	48T55186F01	GP10D
D402	48T55186F01	GP10D
D403	48T55186F01	GP10D
D404	48T55186F01	GP10D
D405	48T55186F01	GP10D
D406	48T55186F01	GP10D
D407	48T52739F36	HZ6A-3 Zenner
D408	48T52739F92	HZ24-2 Zenner
D409	48T52739F96	HZ27-1 Zenner
D410	48T51582F01	MA-150
D411	48T51582F01	MA-150
D413	48T45517F01	LED,SEL 1112R
D414	48T51582F01	MA-150
D415	48T45517F01	LED,SEL 1112R
D416	48T51582F01	MA-150
D417	48T51582F01	MA-150
D418	48T51582F01	MA-150
D419	48T51582F01	MA-150
D420D	48T51582F01	MA-150 (E,SK,Z)
D421	48T51582F01	MA-150
D422	48T51582F01	MA-150 (E,SK,Z)
D423	48T51582F01	MA-150 (J)
D425	48T51582F01	MA-150
D426	48T51582F01	MA-150
D427	48T51582F01	MA-150
D428	48T51582F01	MA-150
D429	48T51582F01	MA-150
D430	48T51582F01	MA-150

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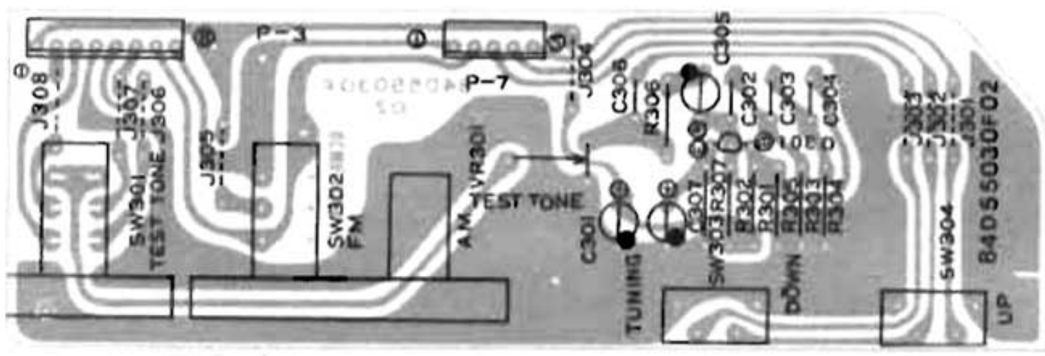
Symbol No.	Stock No.	Description	
D431	48T51582F01	MA-150	
D432	48T51582F01	MA-150	
D433	48T51582F01	MA-150	
D434	48T51582F01	MA-150	
D435	48T45517F01	LED,SEL 1112R	
D436	48T45517F01	LED,SEL 1112R	
D437	48T45517F01	LED,SEL 1112R	
D438	48T45517F01	LED,SEL 1112R	
D439	48T45517F01	LED,SEL 1112R	
D440	48T45517F01	LED,SEL 1112R	
D441	48T45517F01	LED,SEL 1112R	
D442	48T45517F01	LED,SEL 1112R	
D443	48T51582F01	MA-150	
D444	48T52739F36	HZ6A-3 Zenner	
(Resistor)			
R401	06S44593P49	220K	1/4W Rd
R402	06S44593P49	220K	1/4W Rd
R403	06D40801G27	33K	1/2W Rd
R404	06D40801G63	1K	1/2W Rd
R405	06S44593P89	10K	1/4W Rd
R406	06S44593P89	10K	1/4W Rd
R407	06S44593P71	1.8K	1/4W Rd
R408	06S44593P73	2.2K	1/4W Rd
R410	06S44593P73	2.2K	1/4W Rd
R411	06S44594P06	47K	1/4W Rd
R412	06S44594P22	220K	1/4W Rd

Symbol No.	Stock No.	Description	
R414	06S44593P59	560K	1/4W Rd
R415	06S44593P65	1K	1/4W Rd
R416	06S44593P81	4.7K	1/4W Rd
R417	06S44593P89	10K	1/4W Rd
R418	06S44593P65	1K	1/4W Rd
R419	06S44593P57	470K	1/4W Rd
R420	06S44594P14	100K	1/4W Rd
R421	06S44594P14	100K	1/4W Rd
R422	06S44594P14	100K	1/4W Rd
R423	06S44594P14	100K	1/4W Rd
R424	06S44593P57	470K	1/4W Rd
R425	06S44593P57	470K	1/4W Rd
R426	06S44593P89	10K	1/4W Rd
R427	06S44593P89	10K	1/4W Rd
R428	06S44594P06	47K	1/4W Rd
R429	06S44593P77	3.3K	1/4W Rd
R430	06S44594P22	220K	1/4W Rd
R431	06S44594P06	47K	1/4W Rd
R432	06S44594P06	47K	1/4W Rd
R433	06S44594P06	47K	1/4W Rd
R434	06S44594P22	220K	1/4W Rd
R435	06S44594P06	47K	1/4W Rd
R436	51T51133F01	Network,Res	
R437	51T51133F01	Network,Res	
R438	06S44593P81	4.7K	1/4W Rd

UP DOWN SW PCB Parts List



Symbol No.	Stock No.	Description	
(Switch)			
SW301	40T53426F01	Push SUL121A	
SW302	40T53428F01	Push SUL231A	
SW303	40T51081F01	Tact	
SW304	40T51081F01	Tact	
(Transistor)			
Q301	48T55181F01	2SC1740 R,S	

Symbol No.	Stock No.	Description	
(Variable Resistor)			
VR301	18C42081J14	10K (B)	
(Capacitor)			
C301	23T51234F14	10uF	16V El
C302	08S41442F17	0.022uF	My
C303	08S41442F17	0.022uF	My
C304	08S41442F17	0.022uF	My
C305	23T51235F01	0.47uF	50V El
C306	08S41442F17	0.022uF	My
C307	23T51234F14	10uF	16V El
(Resistor)			
R301	06S44594P17	82K	1/4W Rd
R302	06S44593P81	4.7K	1/4W Rd
R303	06S44593P81	4.7K	1/4W Rd
R304	06S44593P81	4.7K	1/4W Rd
R305	06S44593P91	12K	1/4W Rd
R306	06S44593P97	22K	1/4W Rd
R307	06S44593P65	1K	1/4W Rd

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Specifications

			50usec.(S)	75usec.(U)
(FM Section)				
Usable Sensitivity (at front end input)	75 /300		0.9uV/1.8uV(10.3dBf)	0.9uV/1.8uV(10.3dBf)
50dB Quieting Sensitivity	mono	75 /300	1.8uV/3.6uV(16.3dBf)	1.7uV/3.4uV(15.8dBf)
	stereo	75 /300	17.5uV/35uV(36.1dBf)	16.5uV/33uV(35.6dBf)
Signal to Noise Ratio at 65dBf	mono		81dB	82dB
	stereo		77dB	78dB
Frequency Response			20-15,000Hz(within±0.5dB)	20-15,000Hz(within±0.5dB)
Distortion at 65dBf	wide mono	100Hz	0.03%	0.03%
	wide mono	1kHz	0.05%	0.05%
	wide mono	6kHz	0.06%	0.06%
	wide stereo	100Hz	0.05%	0.05%
	wide stereo	1kHz	0.06%	0.06%
	wide stereo	6kHz	0.08%	0.08%
Image Response Ratio			80dB	80dB
Alternate Channel Selectivity	narrow/wide		more than 100dB/66dB(±400kHz)	more than 100dB/66dB(±400kHz)
(Except For 40kHz Deviation Country)	narrow/wide		76dB/34dB(±300kHz)	76dB/34dB(±300kHz)
Adjacent Channel Selectivity	narrow/wide		20.5dB/6dB(±200kHz)	20.5dB/6dB(±200kHz)
(Except For 40kHz Deviation Country)				
Alternate Channel Selectivity	narrow/wide		more than 100dB/72dB(±400kHz)	
(For 40kHz Deviation Country)	narrow/wide		80dB47dB(±300kHz)	
Adjacent Channel Selectivity	narrow/wide		45dB/15dB(±200kHz)	
(For 40kHz Deviation Country)				
If Response Ratio			more than 100dB	more than 100dB
Spurious Response Ratio			more than 100dB	more than 100dB
AM Suppresssion Ratio			65dB	65dB
Capture Ratio	narrwo/wide		2.5dB/1.3dB	2.5dB/1.3dB
Stereo Separation	wide	1kHz	55dB	55dB
	wide	50-10kHz	45dB	45dB
SCA Rejection Ratio			60dB	60dB
Muting Threshold			5uV	5uV
Output Level			1V	1V
(AM Section)				
Usable Sensitivity	ext.ant./loop ant.		15uv/550uV	15uV/550uV
Signal to Noise Ratio			50dB	50dB
Image Response Ratio			40dB	40dB
Distortion			0.3%	0.3%
Output Level			300mV	300mV
(General)				
Power Consumption			15W	15W
Dimensions			453(W)x344(D)x87(H) mm (17.8"x13.5"x3.4")	
			438(W)x344(D)x87(H) mm (T-530Z with metal bonnet)	
Weight			Net 4.8kgs(10.51bs), 4.9kgs(T-530Z) Gross 6.5kgs(14.31bs)	

〈FMセクション〉		
IHF実用感度	75Ω/300Ω	0.9μV/1.8μV (10.3dBf)
S/N 50dB感度		
	MONO 75Ω/300Ω	1.75μV/3.5μV (16dBf)
	STEREO 75Ω/300Ω	16.5μV/33μV (35dBf)
S N 比	STEREO	80dB
周波数特性		10～15,000Hz (−1dB以内)
歪率	MONO 100Hz	0.02%
(WIDE)	1kHz	0.03%
	6kHz	0.04%
	STEREO 100Hz	0.02%
	1kHz	0.05%
	6kHz	0.07%
イメージ妨害比		80dB
2信号選択度	NARROW	80dB (±300kHz)
	WIDE	65dB (±400kHz)
IF妨害比		120dB
スプリアス妨害比		120dB
AM抑圧比		70dB
キャプチャ比	NARROW/WIDE	2.5/1.3dB
サブキャリア抑圧比		65dB
ステレオ・セパレーション	WIDE 1kHz	60dB
	WIDE 50～10kHz	50dB
出力電圧		1V
〈AMセクション〉		
IHF実用感度	EXT/Loop	15μV/550μV
歪率		0.3%
S N 比		50dB
イメージ妨害比		40dB
出力電圧		0.3V
〈その他〉		
電源電圧		100V (50Hz/60Hz)
消費電力		15W
外形寸法		453(幅)×344(奥行)×87(高)mm
重量		4.8kg

★規格および外観は改良のため予告なしに変更することがあります。

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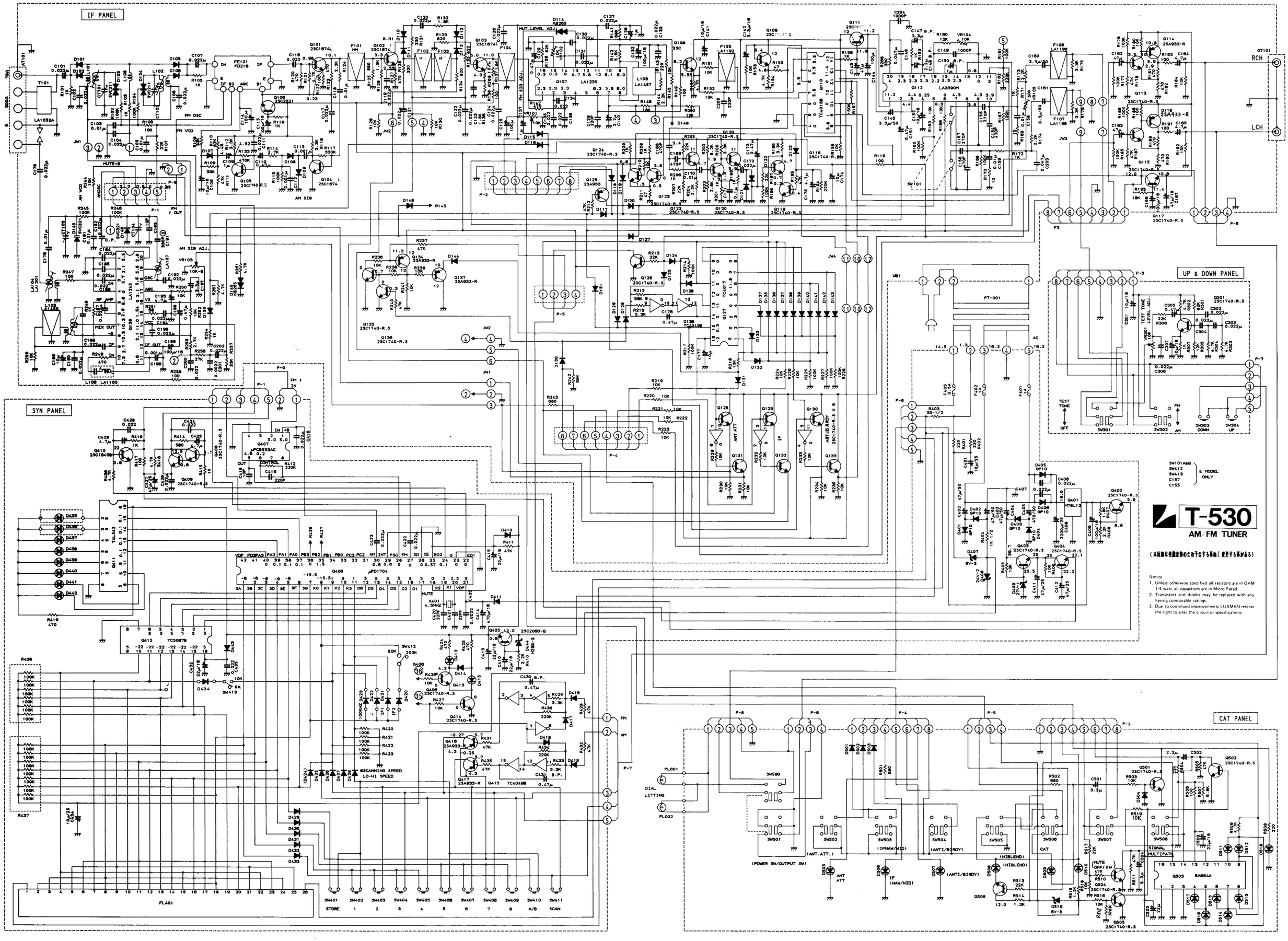
Schematic Diagram