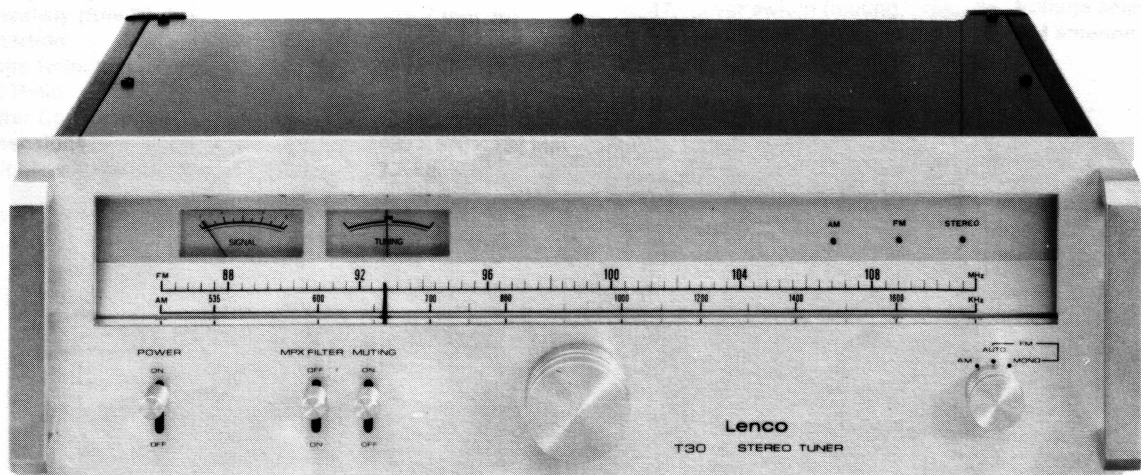


Service Manual



Lenco

Stereo Tuner T30

Correct ordering of Spare Parts

When ordering spare parts please specify the complete name, part number, and the relevant page number of the service manual for each required part.

By this method you will be sure to obtain the required part.

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Description of exploded view	1
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Lenco T30

The T30 is a highly sensitive AM/FM tuner with professional appearance and conveniently arranged operating controls.

Technical Data — FM Section

Tuning Range	87.5—108 MHz
Sensitivity (mono, 60 input, 26 dB S/N, $\Delta f = 40$ kHz)	1.8 μ V
Distortion, Mono	$\leq 0.2\%$
S/N Ratio (Mono, input 1 mV)	≥ 55 dB
Capture Ratio	1.5 dB
IF Rejection	≥ 90 dB
Frequency Response	20—15,000 Hz
Channel Separation	≥ 40 dB
Stereo switching level	5 μ V

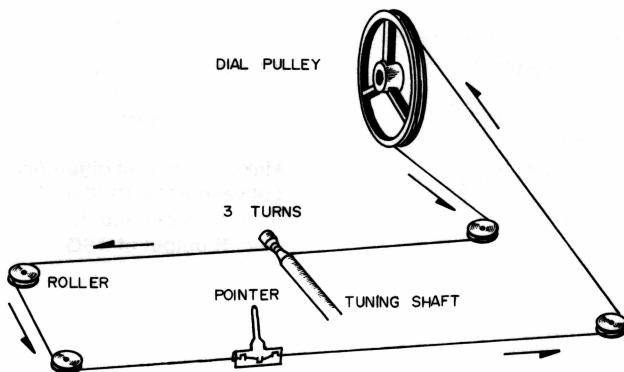
AM Section

Tuning Range MW	525—1650 kHz
Sensitivity (S/N 20 dB)	20 μ V (ant. ip)
Distortion	1%
Image Rejection	≥ 50 dB
S/N Ratio	≥ 50 dB
Power Consumption	15 W max.
Dimensions	430 × 372 × 132 mm
Weight	7.5 kg

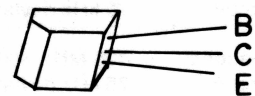
Description of Exploded View

- | | |
|---------------------------------------|---------------------------|
| 1. Handle | 18. Tuning mechanism assy |
| 2. Knob | 19. Dial roller and pivot |
| 3. Knob | 20. Selector switch |
| 4. Knob | 21. Cover, left side |
| 5. Acrylens (scale) | 22. Bracket, side cover |
| 6. Dial pointer | 23. P.C.B. (power supply) |
| 7. Dial scale | 24. Power transformer |
| 8. Meters (tuning and signal) | 25. Main frame |
| 9. Acryl reflector | 26. Rear frame |
| 10. Bracket, lamps | 27. Front end |
| 11. Cover, upper | 28. Cover right side |
| 12. Front frame | 29. Cover bottom |
| 13. Pivot, roller | 30. Rubber foot |
| 14. Bracket, power switch | 31. Bracket roller |
| 15. Power switch | 32. Socket protector |
| 16. Bracket, lever switch | 33. Antenna terminal |
| 17. Lever switch (muting, MPX filter) | 34. Voltage selector |
| | 35. AM antenna assy |

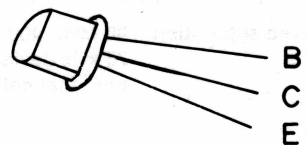
T-30 DIAL CORD STRINGING



Transistor Views



2SC 1166



2SC 381
2SC 732
2SC 733

AM Alignment Procedure

Step	Align	SSG	Dial setting	Adjust	Adjust for
1.	IF	455 kHz \pm 30 kHz		IFT1 T003 IFT2 T004	Best IF curve Maximum
2.	OSC	535 kHz 400 Hz 30 % modulation	535 kHz	OSC T002	Maximum
3.	OSC	1600 kHz 400 Hz 30 % modulation	1,600 kHz	OSC trimmer Front end AM2	Maximum
4.	Reiterate 2 and 3				
5.	RF AMP	600 kHz 400 Hz 30 % modulation	600 kHz	RF coil T001	Maximum
6.	Antenna Circuit	1,400 kHz 400 Hz 30 % modulation	1,400 kHz	Front end AM1, AM3	Maximum

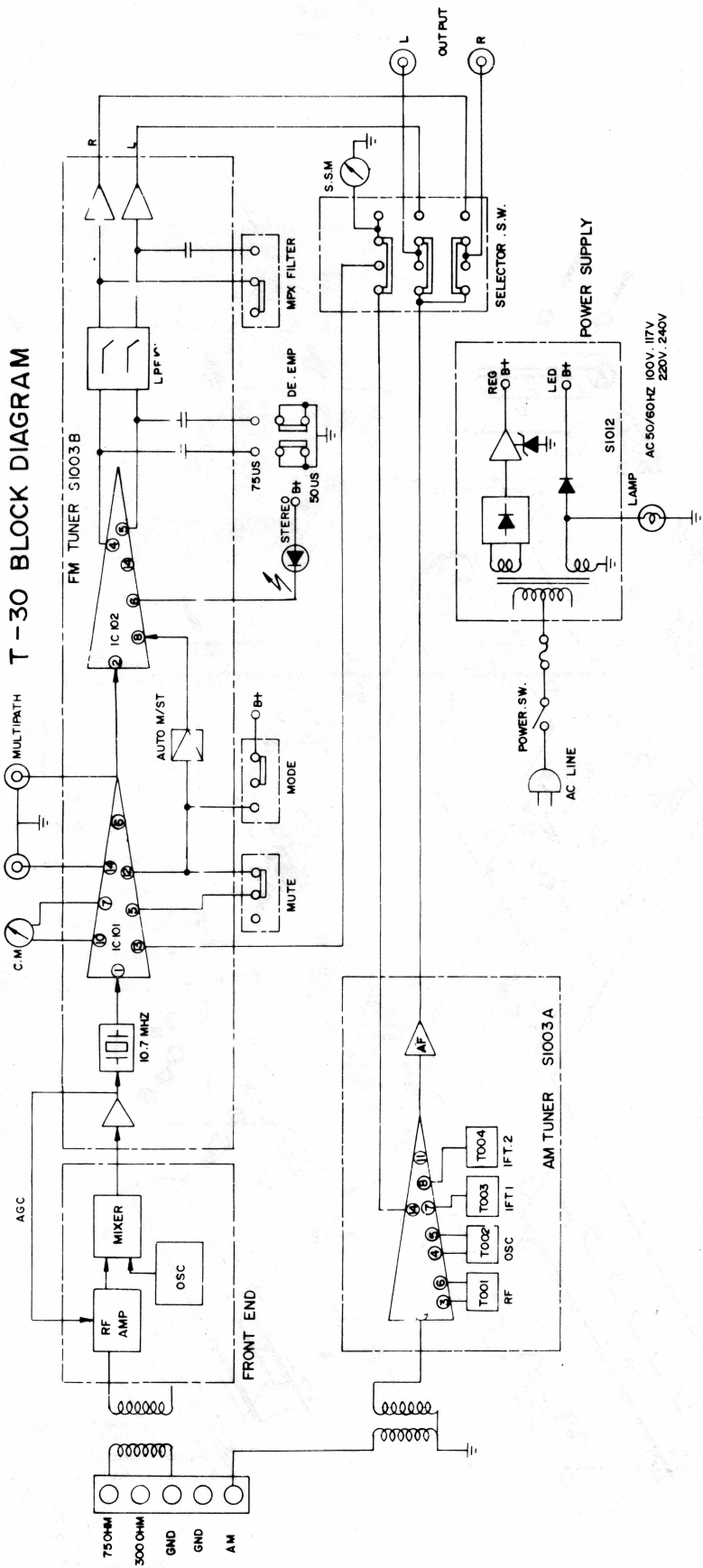
Note: To align, connect AM S.S.G. to AM antenna terminal and connect oscilloscope and VTVM to P008 to indicate output.

FM Alignment Procedure

Step	Align	Generator	Dial setting	Adjust	Adjust for
1.	IF			Front end IF	Maximum noise output
2.	Discriminator	1) Sweep generator 2) 98 MHz 400 Hz 75 kHz deviation	98 MHz	FM detector T101 top and bottom core T101 Top core T101 Front end IF	Maximum S curve Center meter Center position Minimum distortion Minimum distortion
3.	OSC	88 MHz 400 Hz 75 kHz deviation	88 MHz	Front end Lo	Maximum
4.	OSC	108 MHz 400 Hz 75 kHz deviation	108 MHz	Front end Tco	Maximum
5.	Reiterate 3 and 4				
6.	High-frequency Amp. circuit	90 MHz 400 Hz 75 kHz deviation	90 MHz	Front end LR1, LR2, LA	Maximum
7.	High-frequency Amp. circuit	106 MHz 400 Hz 75 kHz deviation	106 MHz	Front end TCR1, TCR2, TCA	Maximum
8.	Reiterate 6 and 7				
9.	FM Stereo lamp			VR101	19 kHz setting with frequency counter connected to P123
10.	Stereo separation	98 MHz 400 Hz 75 kHz deviation one channel only	98 MHz	VR102	Maximum output difference between P119, P120 output from L output and that from R output of SSG

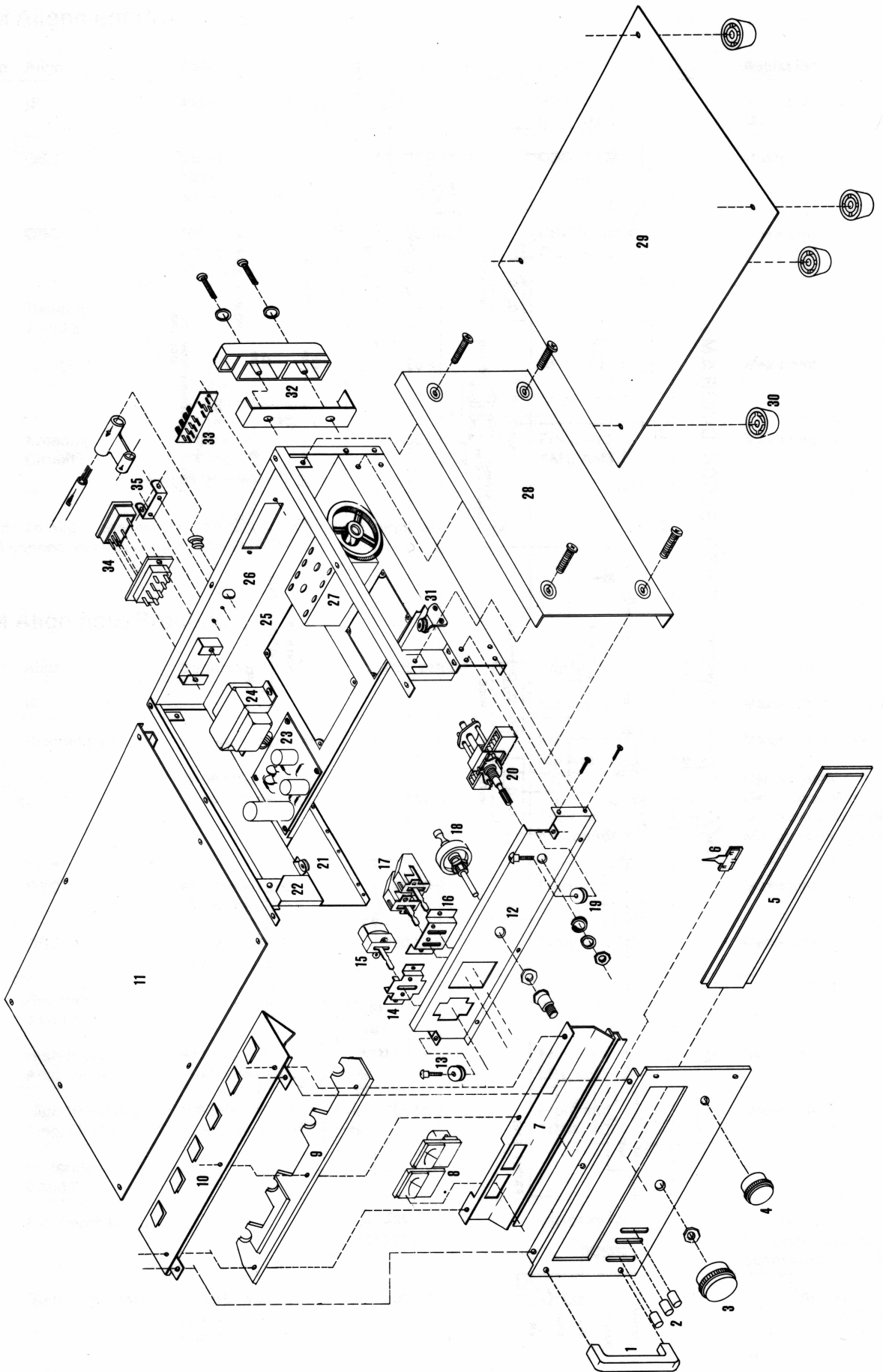
Note: To align, connect the output of FM SSG to 75 ohm antenna terminal and connect the FM output P119 or P120 to VTVM or oscilloscope to indicate output.

T-30 BLOCK DIAGRAM



AC 50/60HZ 100V. 117V
220V. 240V

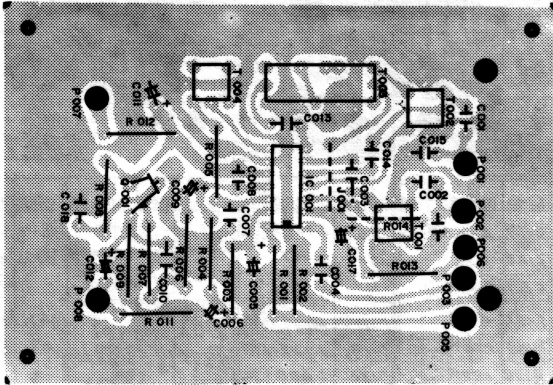
T30 EXPLODED VIEW



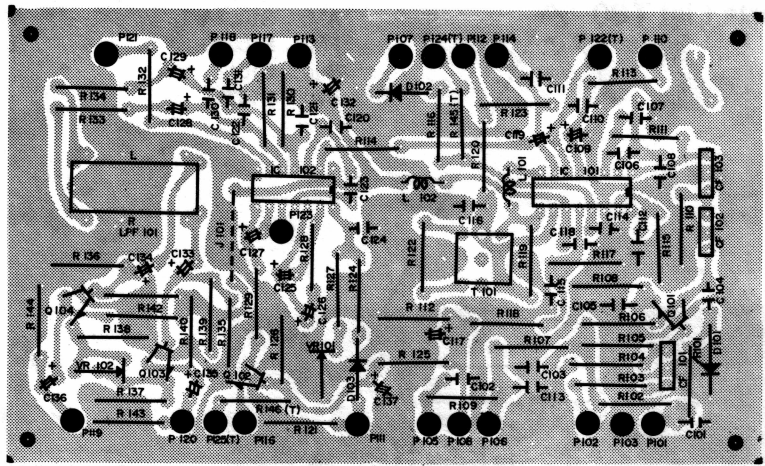
P.C.B. and Parts List T 30

AM: S1003A
 FM: S1003B
 Sup: S1012
 Sw: S1021

S1003A

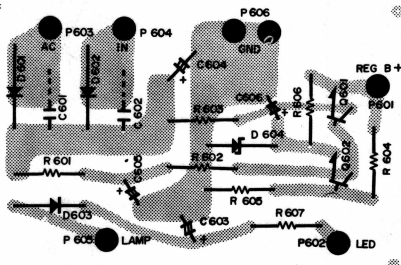


SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
R 001	1.5K	C 001	4 70 P	C 015	2 0 P
R 002	1 K	C 002	0.047 (SR400)	C 016	SR400
RO03	10K	C 003	0.01 UF	C 017	4.7UF16V
RO04	10K	C 004	0.01UF	C 018	0.004UF
R 005	270 OHM	C 005	1UF 50WV	Q 101	2SC 733
RO06	1.5K	C 006	10UF 16V	IC101	HA-1151
RO07	3.9K	C 007	0.002 UF	T 001	AM RF COIL SR-400
RO08	1.5M	C 008	0.01 UF	T 002	AM OSC COIL
RO09	3.9K	C 009	0.047UF	T 003	AM IF T-1
		C 010	0,047 UF	T 004	AM IFT-2
RO11	100K	C 011	47UF16 V	J 001	
RO12	270	C 012	0.1UF16V		
RO13	470	C 013	0.01 UF		
RO14	3.9K	C 014	0.01 UF		



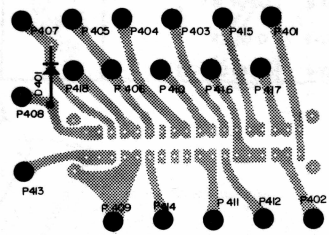
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	
R101	33K 1/4W ±5%	R120	5.6K 1/4W ±5%	R139	47K 1/4W ±5%	C114	0.047µF ±5% PO	C137	4.7µF 16V	JR101	4.7K B	
R102	56K "	R121	100K "	R140	47K "	C115	0.047 "	D101	IN 60	JR102	4.7K B	
R103	100Ω	R122	2.2K "	R141	47K "	C116	0.047 "	D102	MA 161			(M): MYLAR ±5%
R104	680Ω	R123	330Ω	R142	47K "	C117	1µF 50WV	D103	MA 161			(P): Poly ±5%
R105	4.7K "	R124	22K "	R143	100K "	C118	0.047µF ±5% PO	Q101	ZSC 381			
R106	330Ω	R125	22K "	R144	100K "	C119	4.7µF 16V	Q102	ZSC 733			
R107	100Ω	R126	12K "	R145	47K(T) "	C120	580P ±5%	Q103	ZSC 732			
R108	560Ω	R127	18K "	R146	100K(T) "	C121	0.02µF (M)	Q104	ZSC 732			
R109	100Ω	R128	1K "	C101	0.047µF ±5% PO	C122	0.02µF (M)	IC101	HA-1137			
R110	47K "	R129	10K "	C102	0.02µF "	C124	470P (P)	IC102	HA-1156			
R111	330Ω	R130	3.9K "	C103	0.2µF "	C125	0.22µF 50WV	L101	18µH			
R112	22K "	R131	3.9K "	C104	50µ ±10%	C126	0.47µF 50WV	L102	2.2µH			
R113	22K "	R132	1.2K "	C105	0.22µF ±20%	C127	0.47µF 50WV	T-101	FM DETECTOR (72206)			
R114	100Ω	R133	1.2K "	C106	0.047 "	C128	4.7µF 16V	CF101	SFE 10.7MA			
R115	10K "	R134	1.2K "	007	0.047 "	C129	4.7µF 16V	CF102	"			
R116	22K "	R135	5.6K "	C108	0.047 "	C130	0.01µF (M)	CF103	"			
R117	47K "	R136	5.6K "	C109	4.7µF 16V	C131	0.01µF (M)	L-P-F	170-BLR			
R118	2.2K "	R137	680 "	C110	180P ±5%	C132	100µF 16V	J101	JUMP WIRE			D
R119	5.6K "	R138	680 "	C111	0.01µF ±5% PO	C133	4.7µF 16V					
				C112	0.047 "	C134	4.7µF 16V					
				C113	0.02 "	C135	1µF 50WV					

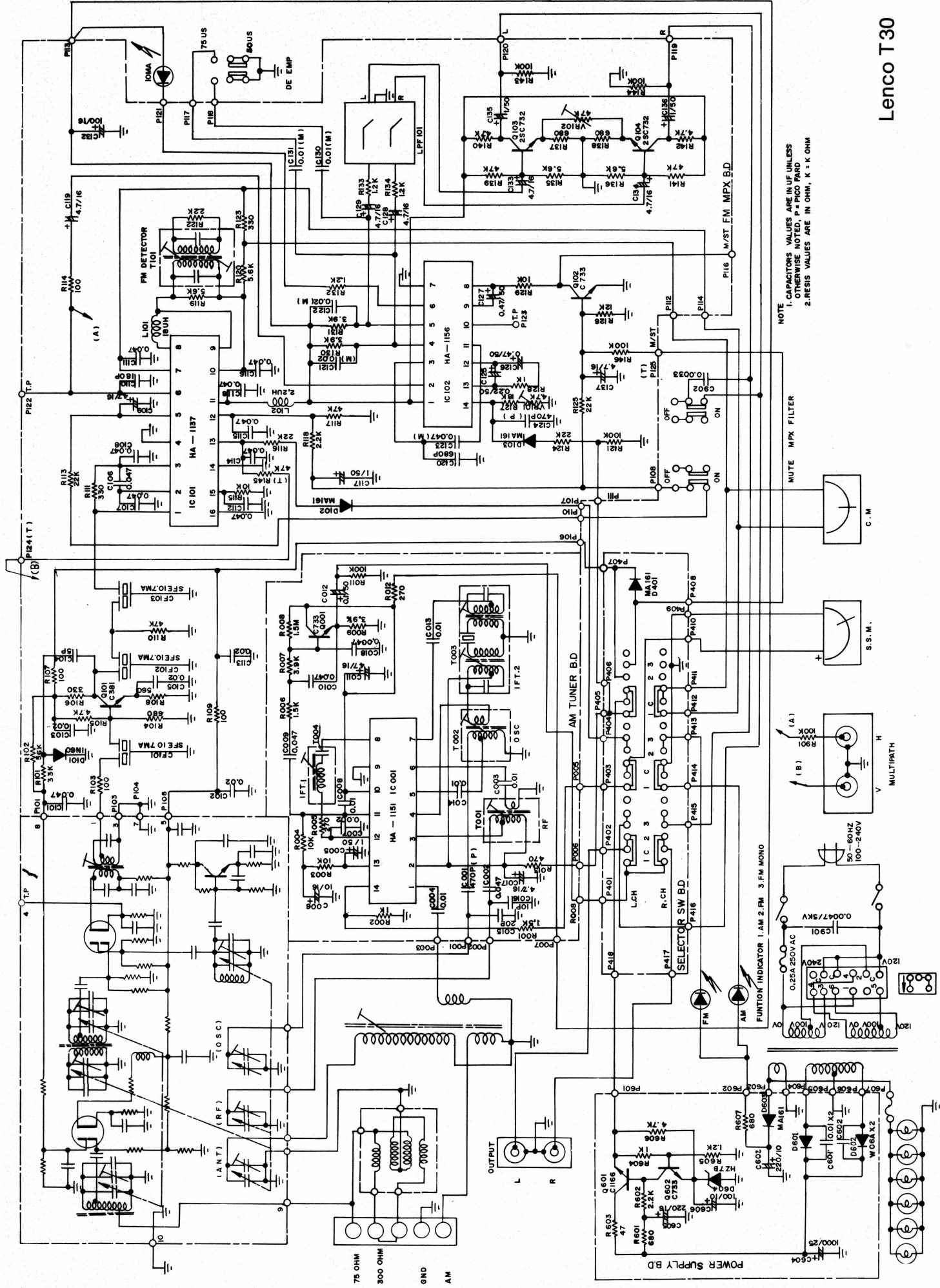
S1012



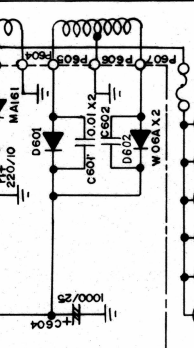
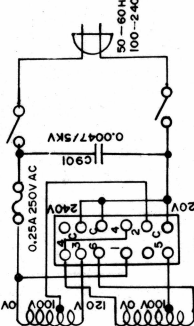
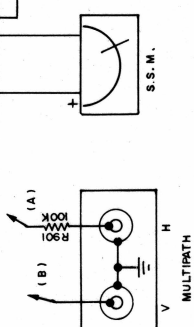
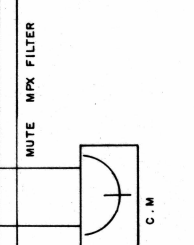
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
R601	680 1/4W ±5%	C605	220UF 16V
R602	2.2K "	C606	100UF 10V
R603	47 "	D601	MA 161
R605	1K "	D602	W06A
R606	4.7K "	D603	W06A
R607	680 "	D604	HZ 7 B
C601	0.01 "	Q601	2SC1166
C602	0.01 "	Q602	2SC733
C603	220UF 10V		
C604	1000UF 25V		

S1021





NOTE
 1. CAPACITORS VALUES ARE IN UF UNLESS
 OTHERWISE NOTED. P = PICO FARAD
 2. RESIS VALUES ARE IN OHM, K = K OHM



75 OHM
 300 OHM
 GND
 AM

POWER SUPPLY BD

FUNCTION INDICATOR 1. AM 2. FM 3. FM MONO

SELECTOR SW BD

AM TUNER BD

MUTE MPX FILTER

DE EMP
 75 US
 100A