

F32F-19B131-AA	F33F-19B131-AD	F4BF-19B131-AB	F4CF-19B131-AC	F4TF-19B131-AB	F4UF-19B131-AB	F4ZF-19B131-AA	F47F-19B131-AB	F48F-19B131-AB
F33F-19B132-BE	F37F-19B132-DF	F4BF-19B132-AB	F4CF-19B132-AC	F4CF-19B132-BC	F4SF-19B132-AB	F4TF-19B132-AB	F4TF-19B132-BB	F4UF-19B132-AB
F4ZF-19B132-BA	F4XF-19B132-CA	F4XF-19B132-DA	F4ZF-19B132-BA	F48F-19B132-AB				

Transistor Voltages

Trans.	E	B	C	Operation Mode/Comments
Q001	10.0 10.0	9.4 10.0	9.8 0.0	FM AM
Q002	4.4 0.0	5.0 0.0	9.4 10.0	FM AM
Q003	2.4 0.0	3.0 0.0	14.4 14.4	Ignition On Ignition Off
Q004	14.4 14.4	13.6 14.4	14.2 0.0	Ignition On Ignition Off
Q005	4.4 0.0	5.0 0.0	13.6 14.4	Ignition On Ignition Off
Q151	0.0 0.0 0.0	0.0 0.0 0.7 max.	10.0 0.0 0.2 max.	Not Tuning 50μV @ 87.9MHz Not Tuning <8μV @ 87.9MHz Tuning
Q152	10.0 10.0	10.0 9.3	0.0 9.8	Q-Not=10V Q-Not=0V
Q153	10.0 10.0	10.0 9.3	0.0 9.8	Q=10V Q-Not=0V
Q502	0.66	1.30	9.9	
Q503	0.67	1.14	5.1	
Q601	0.0 0.0	0.0 0.7	5.0 0.0	Dolby* On Dolby Off
Q641	S=0.0 S=0.0	G=5.0 G=0.0	D=0.15 D=14.4	AMS Pulse Mode Non-AMS
Q642	0.0 0.0 0.0	0.0 0.0 5.0	0.0 9.5 0.2	Initial Power On, Non-Tape Tape Mode/Audio Present AMS Output
Q661	S=14.4 S=14.4	G=0.2 G=14.4	D=14.4 D=Open	Switch Tape Power On Switch Tape Power Off
Q663	S=0.0 S=0.0	G=5.0 G=0.0	D=0.15 D=14.4	Eject Non-eject
Q664	0.0 0.0	0.7 0.0	0.2 14.4	Switch Tape Power On Switch Tape Power Off
Q702	4.3	3.7	4.0	
Q705	4.3	5.3	0.0	
Q751	0.0 0.0	0.20 0.69	0.13 0.10	Radio Off or Tape Playing Radio On and Tape Not Playing
Q752	0.14 9.7	0.14 9.0	0.0 9.7	Radio Off or Tape Playing Radio On and Tape Not Playing
Q801	14.4	13.7	14.3	
Q802	0.8	1.4	1.0	
Q803	5.0	4.3	4.9	
Q804	0.0	0.7	0.1	
Q805	0.0	0.55	4.9	

* Dolby Noise Reduction.
Dolby is a trademark of Dolby Laboratories Licensing Corporation.

NOTES:

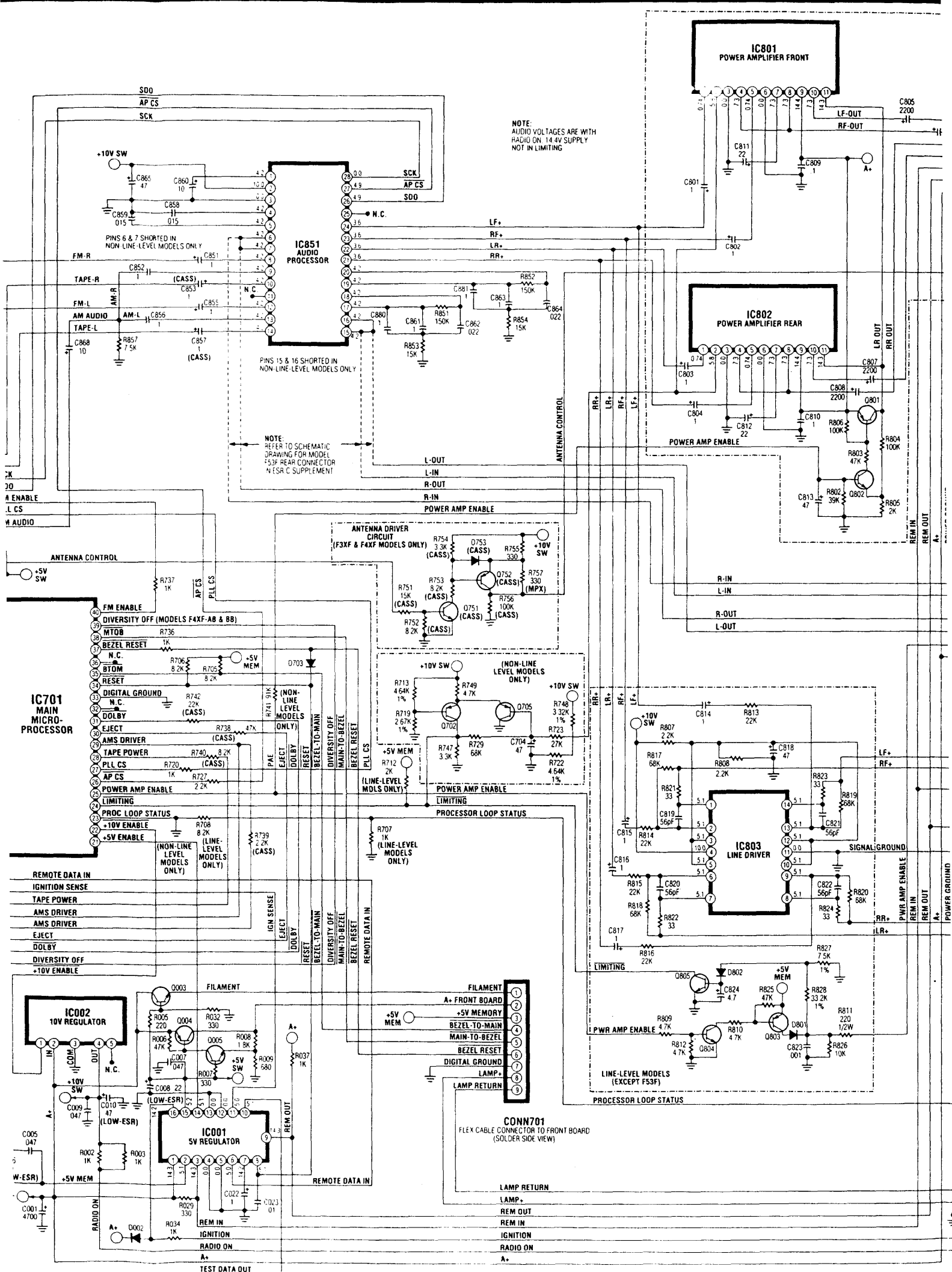
Diversity voltages are with 50μV RF @87.9MHz, no modulation, applied to main antenna socket and standard FM antenna dummy; main antenna selected.

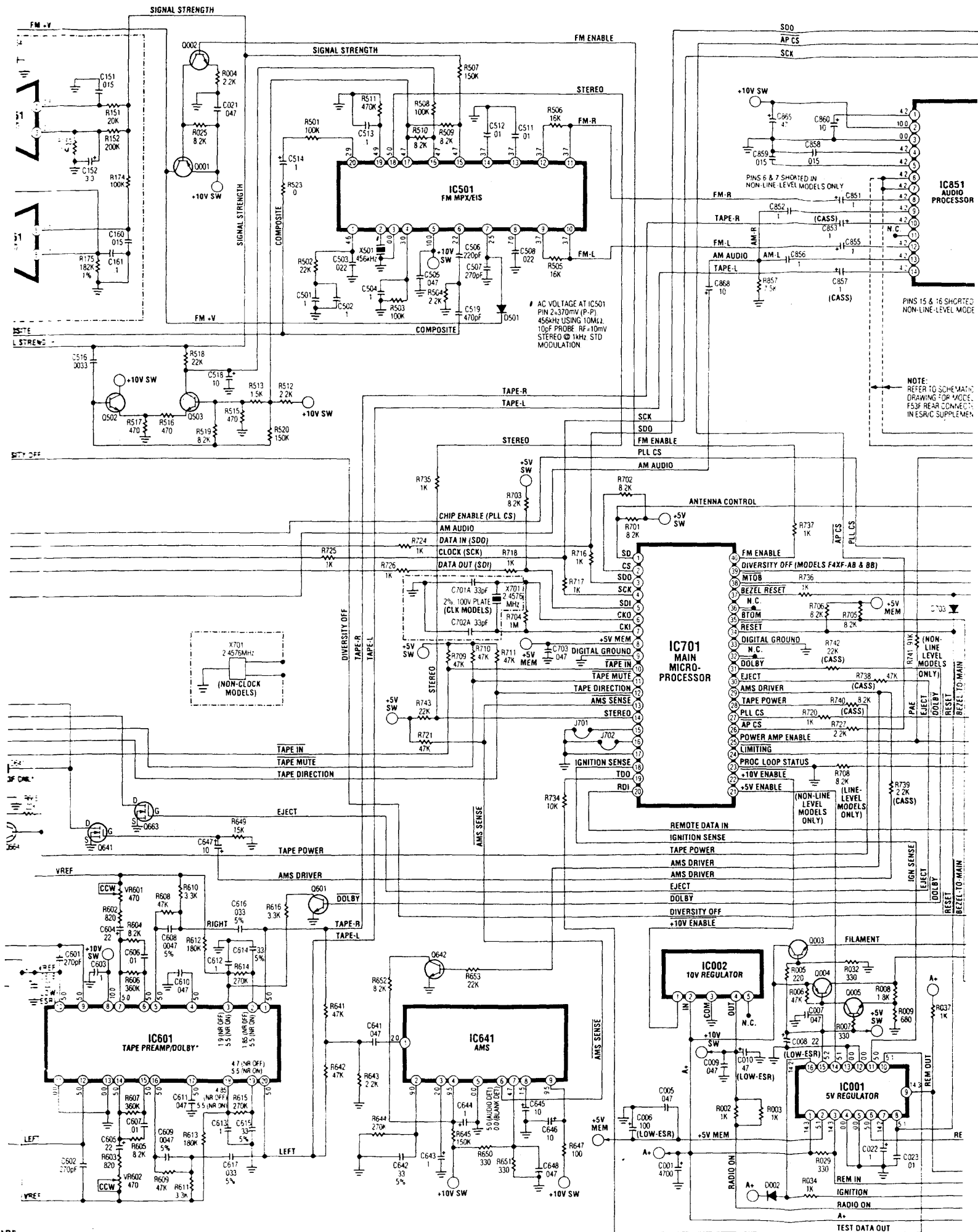
With no RF signal applied:

IC151 pins 2,3,5=noisy DC <0.6V;
pin 7=0V;

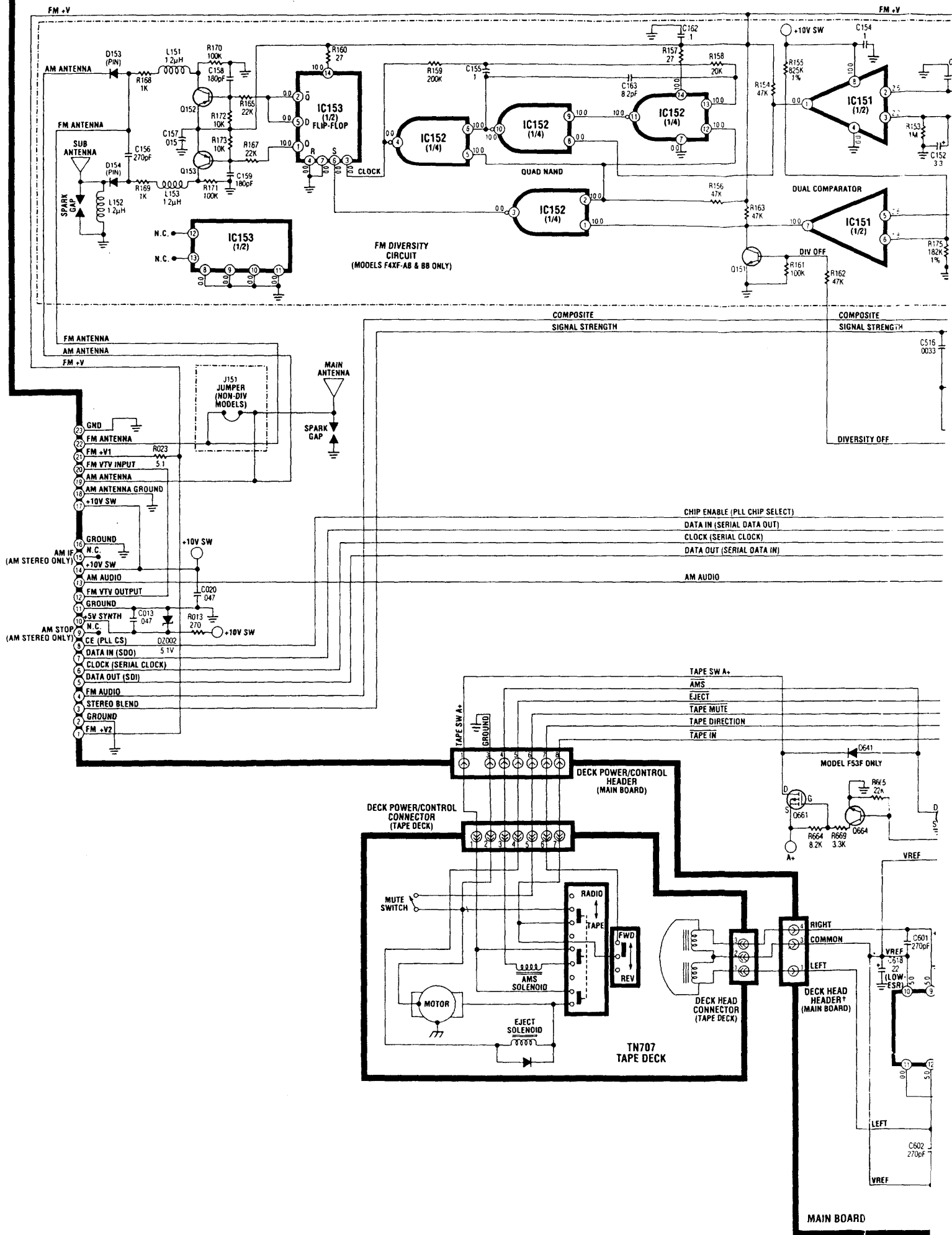
pin 1 may randomly switch 10V/0V.

IC152 pins 4,6,8,9,10,11,13 may randomly switch 10V/0V:

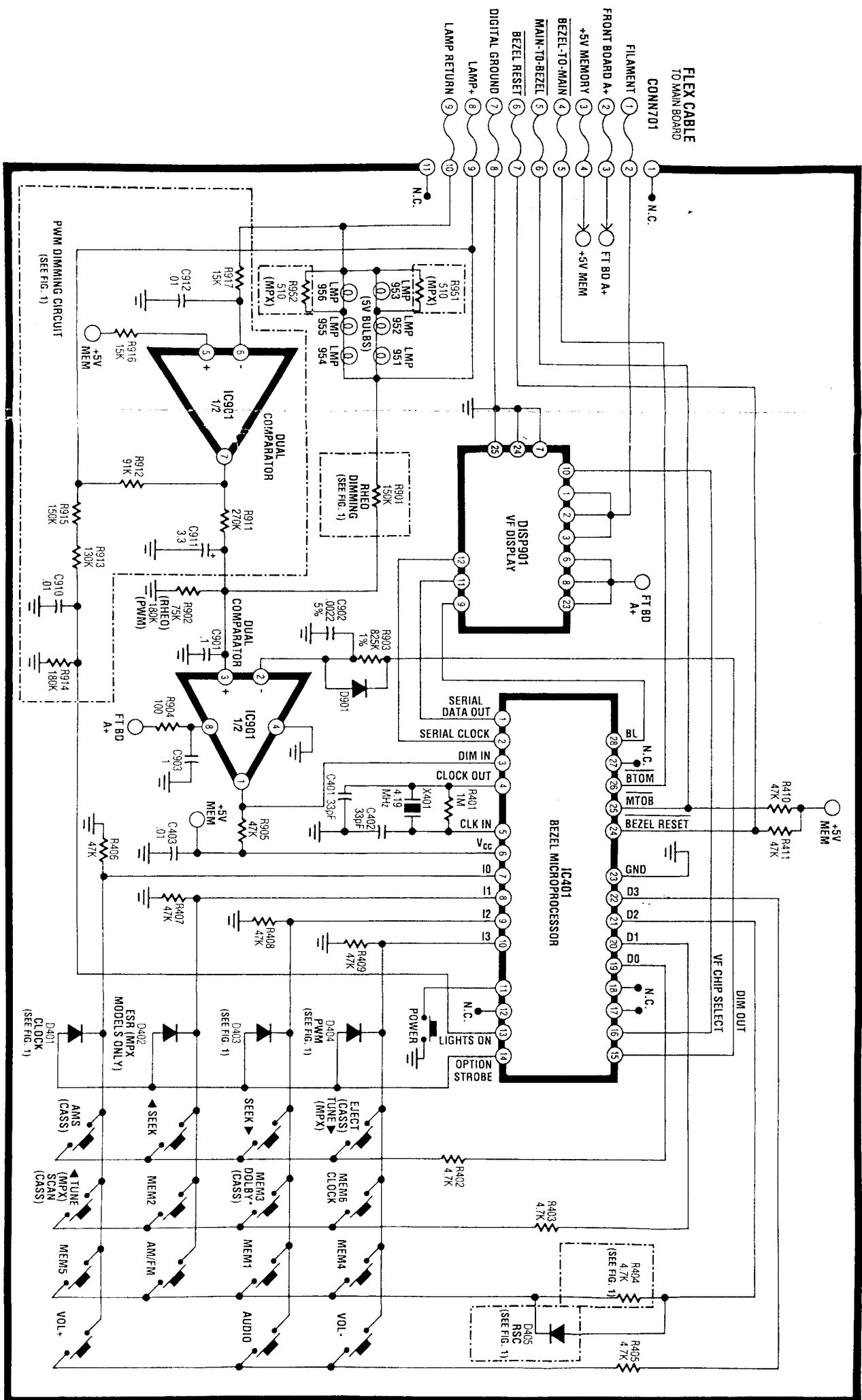




MAIN BOARD



NOTE:
RESISTORS ARE 1/8-W



Component Application Chart

Model	Components							PWM Dimming Circuit
	D401	D402	D403	D404	D405	R404	R901	
Multiplex								
F3AF		■				■	■	
F3DF		■				■	■	
F3XF		■			■			■
F3ZF	■				■		■	
F31F		■				■	■	
F32F		■				■		■
F33F	■	■				■	■	
F4BF	■	■		■		■		■
F4CF	■	■		■		■		■
F4TF	■	■				■	■	
F4UF	■	■				■	■	
F4ZF	■	■				■	■	
F47F	■	■				■	■	
F48F	■	■			■		■	
Cassette								
F3AF						■	■	
F3DF						■	■	
F31F						■	■	
F32F(LL)		■	■			■		■
F33F	■					■	■	
F37F	■					■	■	
F4BF-AB	■			■		■	■	■
F4BF-BB(LL)	■			■		■	■	■
F4CF	■			■		■	■	■
F4CF-CC(LL)	■			■		■	■	■
F4SF						■	■	
F4TF	■					■	■	
F4UF	■					■	■	
F4XF-AB(LL)	■		■					■
F4XF-BB(LL)			■					■
F4XF-CA	■		■		■			■
F4XF-DA	■		■		■			■
F4ZF					■		■	
F48F	■				■		■	■
F53F(LL)							■	

IC901 Voltages

Pin	Function	Voltage
1	RC Voltage (pin 2) Below Dimming Level Threshold Dimming Level Threshold Exceeded	5V 0V
2	Headlights Off (peak RC network voltage) Headlights On (peak RC network voltage)	0-0.3V 0.3-5V
3	Headlights Off Headlights On	0-0.3V 0.3-5V
4		Ground
5		+5V
6	Headlights Off Headlights On	0V 0/14.4V PWM
7	Headlights Off Headlights On	0V 0/14.4V PWM
8	Headlights On Headlights Off	14.4V 0V

Notes:

Resistors are 1/8 Watt SMD
with value in Ohms unless noted

Capacitance values are
in Microfarads unless noted

**Dolby Noise Reduction*

Dolby is a trademark of Dolby Laboratories Licensing Corporation

**FLEX CABLE
TO MAIN BOARD**

