

Service Manual

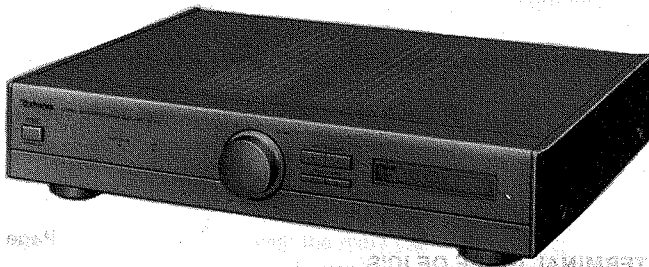
Stereo Integrated Tuner Amplifier

Receiver

SA-E10

Color

(S)... Silver Type



Area

Country Code	Area	Color
(E)	Continental Europe.	(S)
(EB)	Great Britain.	
(EG)	F.R. Germany & Italy.	

System Name	Unit	
SC-E10 (E, EB, EG)	Tuner Amplifier	SA-E10 (E, EB, EG)
	CD Player	SL-E10 (E, EB, EG)
	Cassette Deck	RS-E10 (E, EG, EG)
	Speaker	SB-EX2 (E)

SPECIFICATIONS

■ AMPLIFIER SECTION

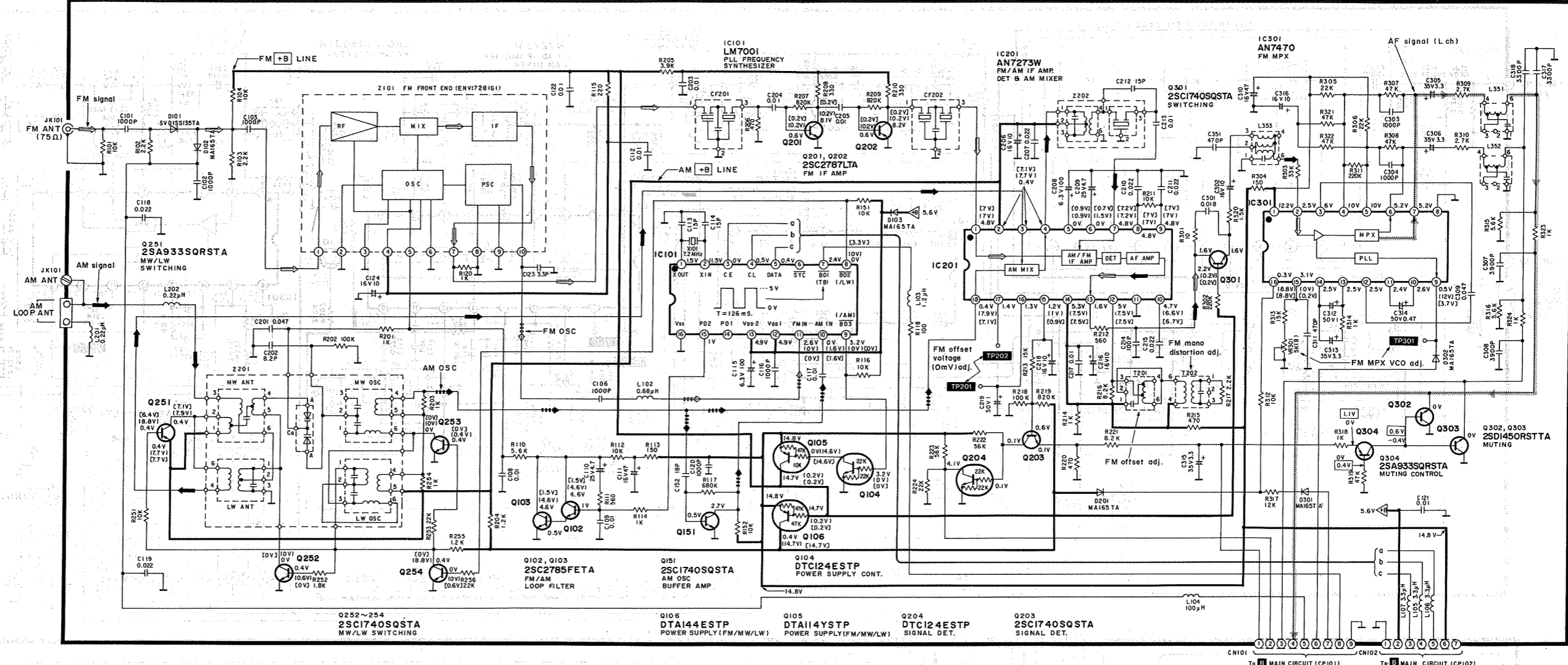
Power output	
DIN 1 kHz (T.H.D. 1 %)	2 × 65 W (4 Ω)
40 Hz~20 kHz continuous power output	
both channels driven	2 × 40 W (8 Ω)
Total harmonic distortion	
rated power at 40 Hz~20 kHz	0.05 % (8 Ω)
half power at 1 kHz	0.007 % (8 Ω)
Intermodulation distortion	
rated power at 60 Hz: 7 kHz=4:1, SMPTE	0.1 % (8 Ω)
Damping factor	40 (8 Ω)
Input sensitivity and impedance	
PHONO	2.5 mV/47 kΩ
CD, DAT	200 mV/22 kΩ
AUX, TAPE	150 mV/22 kΩ
PHONO maximum input voltage (1 kHz, RMS)	150 mV
S/N at rated power (8 Ω)	
PHONO	70 dB (IHF A: 80 dB)
CD, AUX, DAT	85 dB (IHF, A: 93 dB)
Frequency response	
PHONO	RIAA standard curve (30 Hz~15 kHz) ±0.8 dB
CD, AUX, DAT	10 Hz~40 kHz (±3 dB)
Tone controls	
BASS	50 Hz, +7 dB~-7 dB
TREBLE	20 kHz, +10 dB~-10 dB
Super bass	50 Hz, +14 dB
Output voltage	
DAT, TAPE REC OUT	150 mV
Channel balance, 250 Hz~6.3 kHz	±1 dB
Channel separation	54 dB
Headphones output level and impedance	420 mV/330 Ω
Load impedance	4 Ω~16 Ω

■ FM TUNER SECTION

Frequency range	87.50~108.00 MHz
Sensitivity	
S/N 30 dB	1.5 μV/75 Ω
S/N 26 dB	1.3 μV/75 Ω
S/N 20 dB	1.2 μV/75 Ω
IHF usable sensitivity (IHF'58)	1.5 μV/75 Ω
IHF 46 dB stereo quieting sensitivity	22 μV/75 Ω
Total harmonic distortion	
MONO	0.2 %
STEREO	0.3 %
S/N	
MONO	60 dB (75 dB, IHF)
STEREO	58 dB (71 dB, IHF)
Frequency response	20 Hz~15 kHz, +1 dB~-2 dB
Alternate channel selectivity	±400 kHz, 65 dB
Capture ratio	1.0 dB
Image rejection at 98 MHz	40 dB
IF rejection at 98 MHz	70 dB
Spurious response rejection at 98 MHz	70 dB
AM suppression	50 dB
Stereo separation	
1 kHz	40 dB
Carrier leak	
19 kHz	-55 dB (-60 dB, IHF)
38 kHz	-50 dB (-55 dB, IHF)
Channel balance (250 Hz~6.3 kHz)	±1.5 dB
Limiting point	1.2 μV
Bandwidth	
IF amplifier	180 kHz
FM demodulator	1000 kHz
Antenna terminals	75 Ω (unbalanced)

Technics

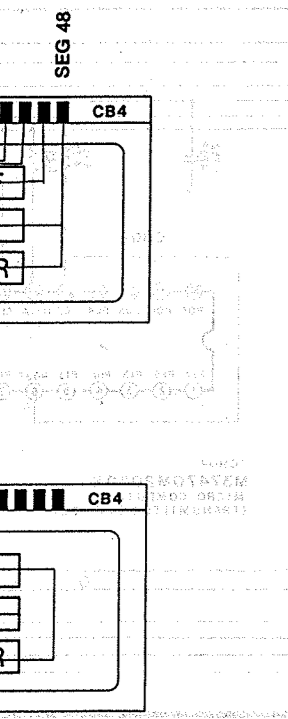
A TUNER CIRCUIT For [E, EB] areas.



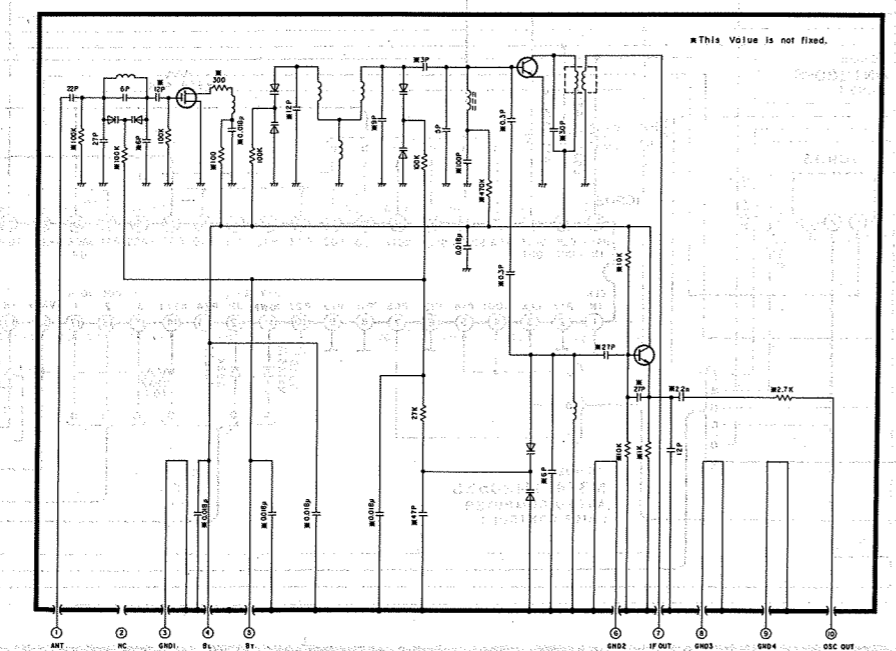
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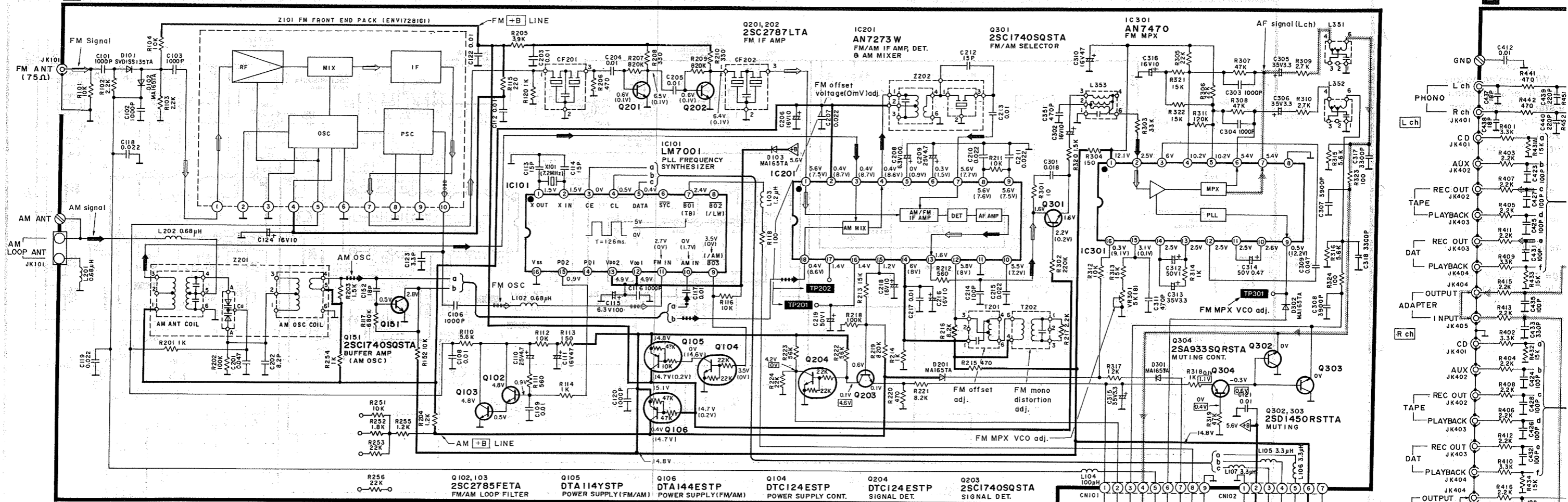


• Tuner pack (FM FRONT END)

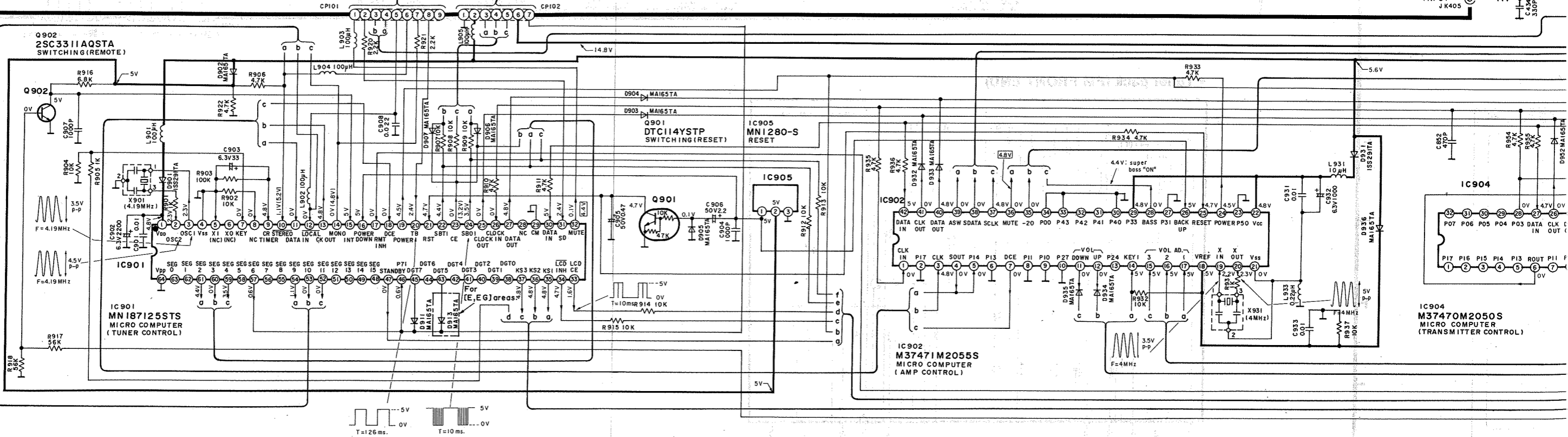


A TUNER CIRCUIT For [EG] area.

B MAIN CIF

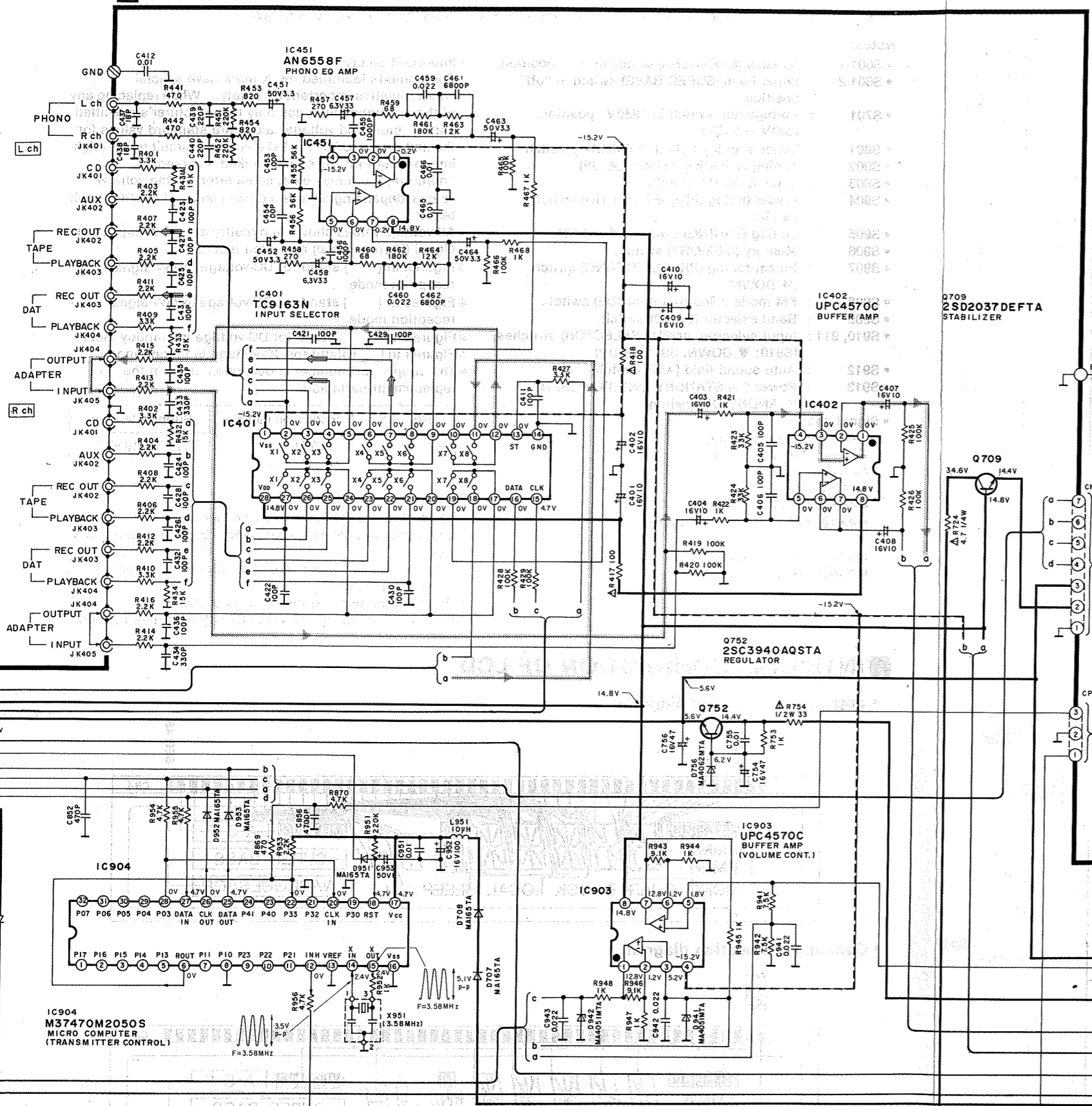


- Q102, 103 2SC2785FETA FM/AM LOOP FILTER
- Q105 DTA114YSTP POWER SUPPLY (FM/AM)
- Q106 DTA144ESTP POWER SUPPLY (FM/AM)
- Q104 DTC124ESTP POWER SUPPLY CONT.
- Q204 DTC124ESTP SIGNAL DET.
- Q203 2SC1740SQSTA SIGNAL DET.

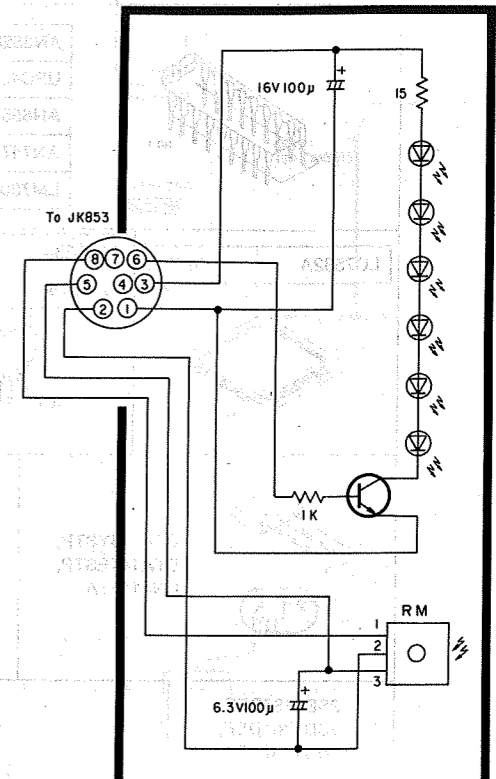


- Q901 5V
- Q902 4.4V

B MAIN CIRCUIT

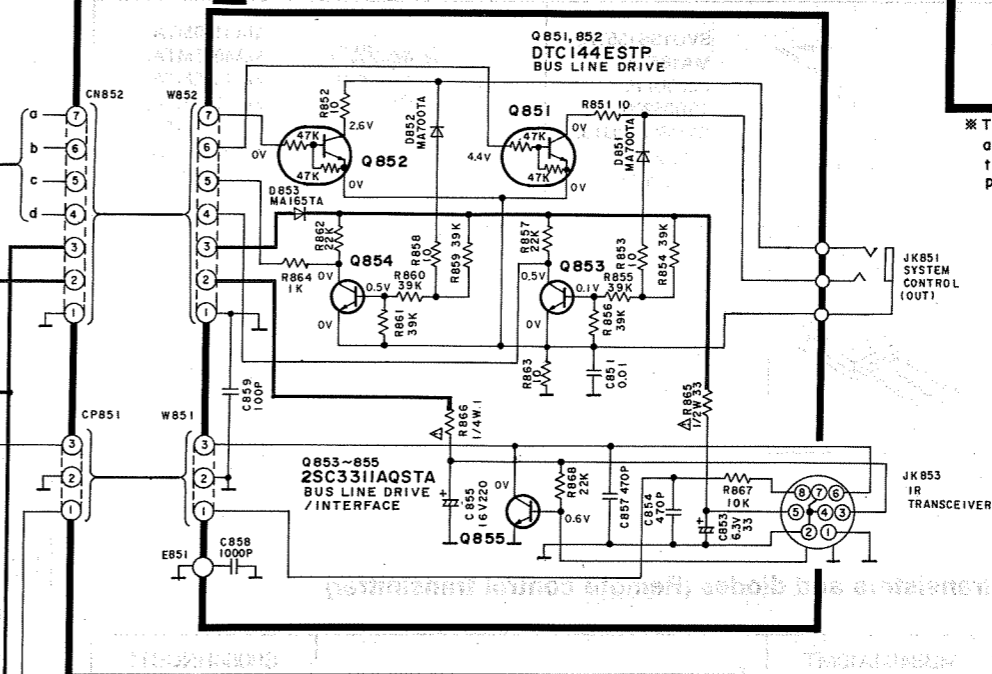


IR trnceiver circuit(EUR66680)

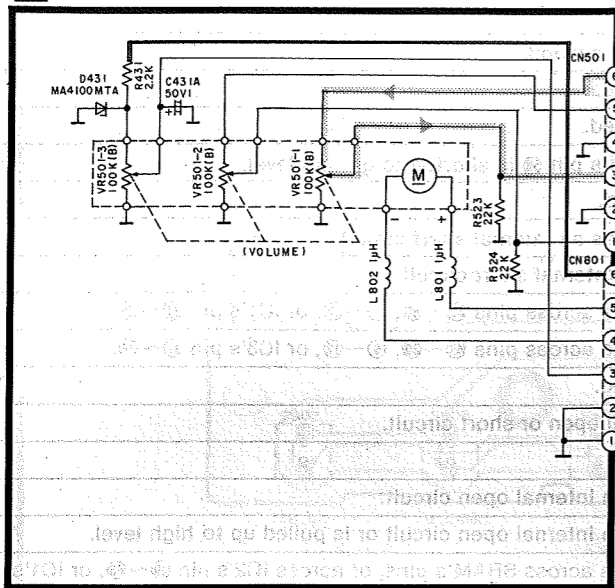


*These parts of IR trnceiver circuit are supplied as a unit. Therefore, they are not supplied as the replacement parts.

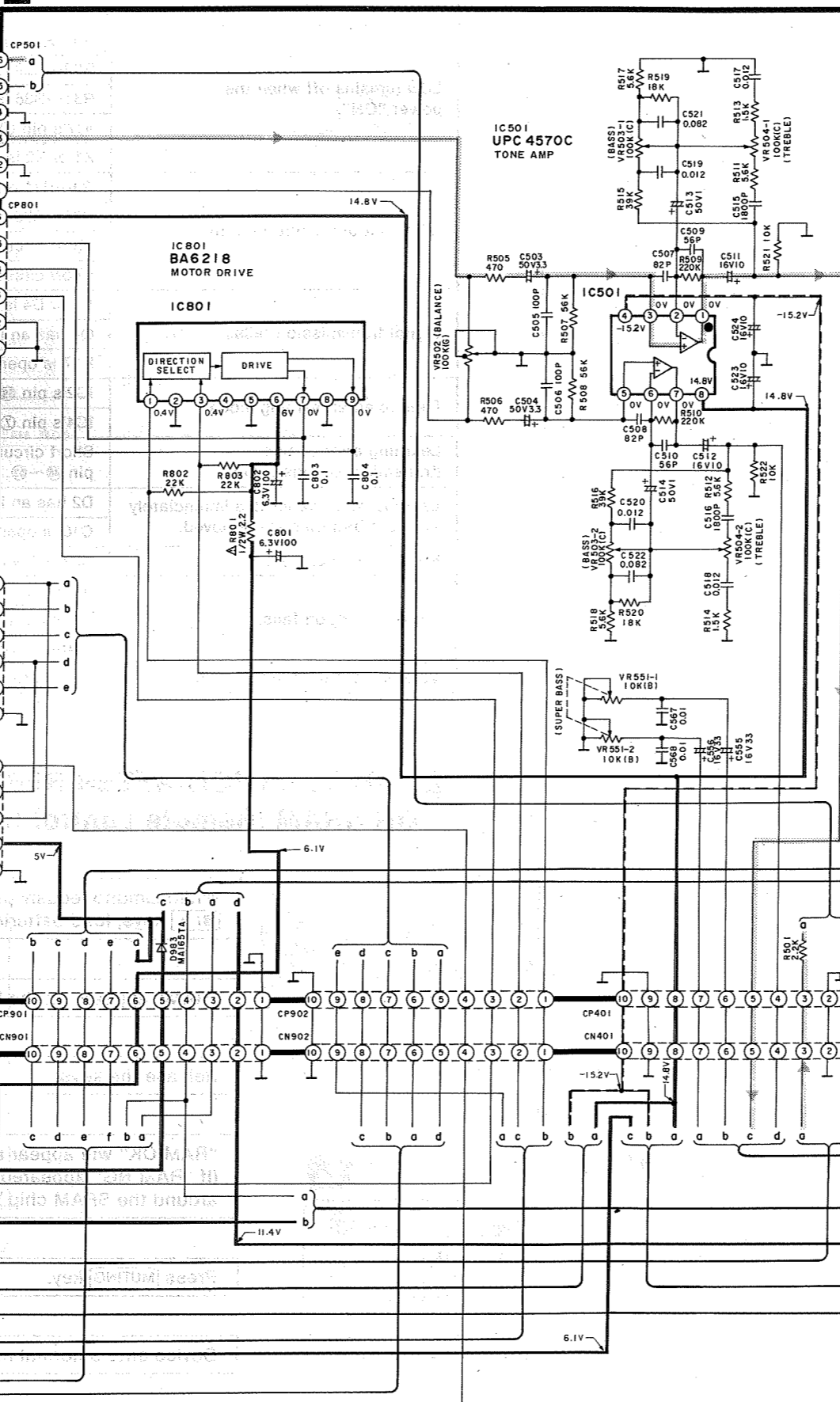
C IR TRANSCEIVER CIRCUIT



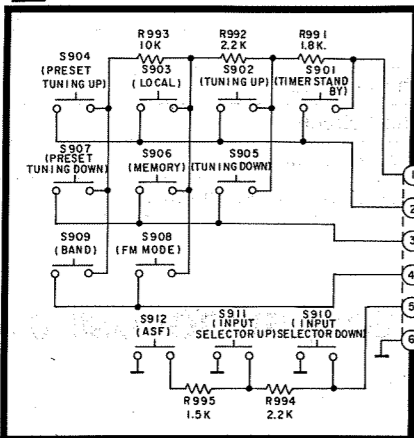
D VOLUME CIRCUIT



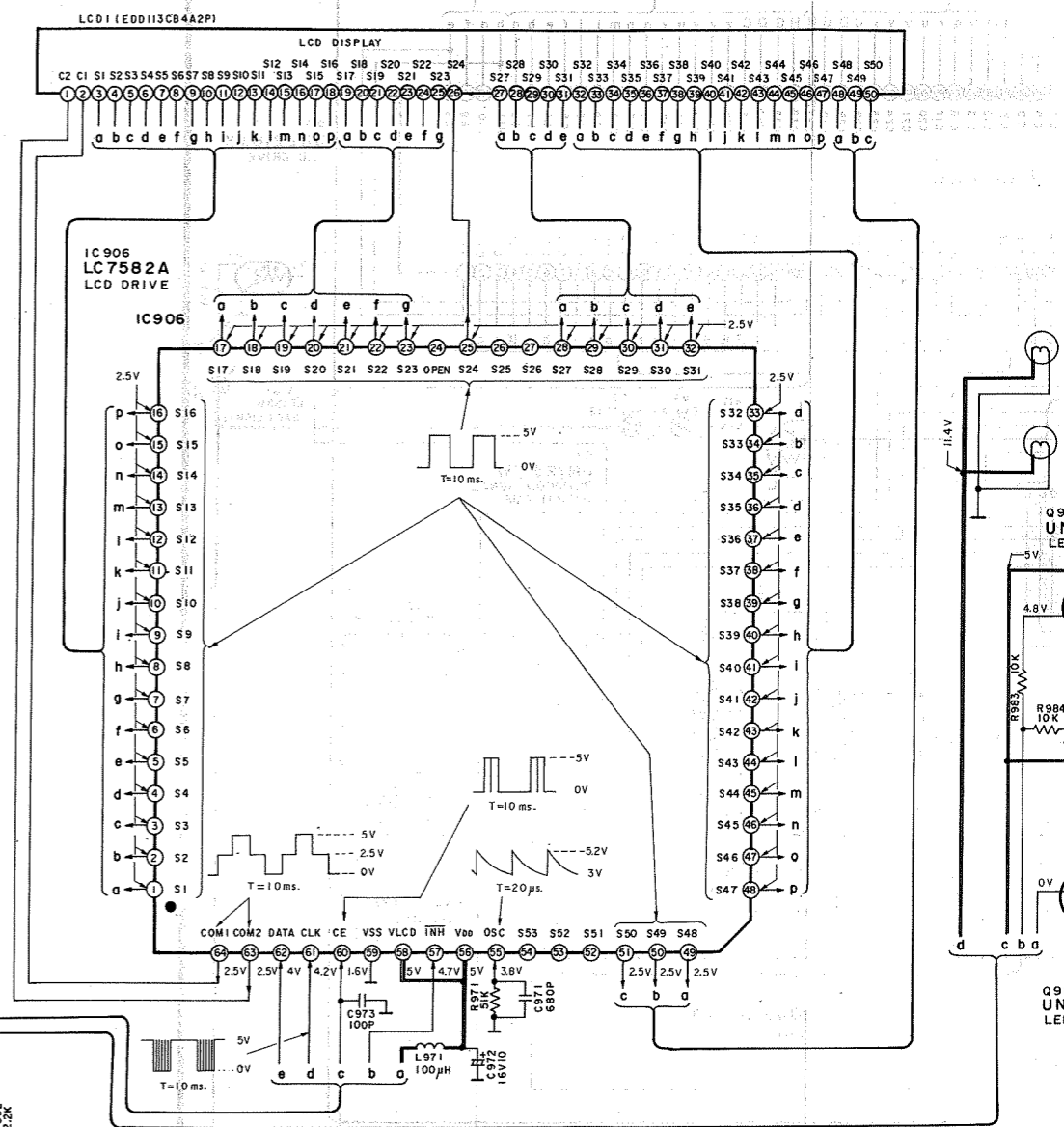
G LCD CIRCUIT

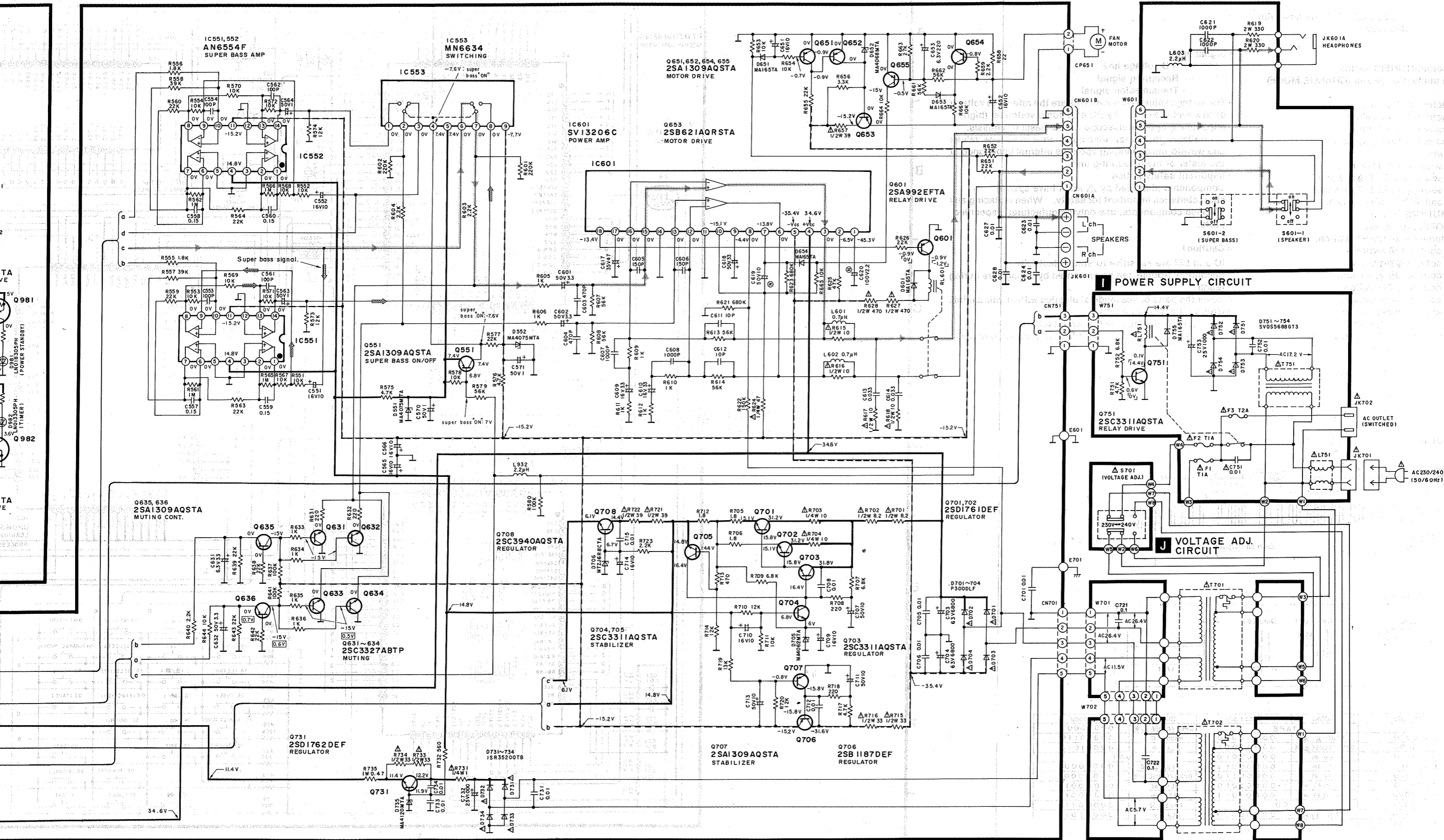


E OPERATION CIRCUIT



F POWER SWITCH CIRCUIT





H HEADPHONES/SPEAKER SELECTOR SWITCH/SUPER BASS SWITCH CIRCUIT

I POWER SUPPLY CIRCUIT

J VOLTAGE ADJ. CIRCUIT

