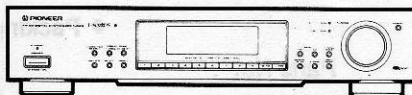


Service Manual



ORDER NO.
ARP2830

FM/AM DIGITAL SYNTHESIZER TUNER

F-502RDS

F-502RDS - G

F 303 RDS

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model		Power Requirement	The voltage can be converted by the following method.
	F-502RDS	F-502RDS - G		
HEWZIX1K	○	—	AC 220 - 230V	AC 240V, *
HZIX1K	—	○	AC 220 - 230V	AC 240V, *
HEX1K	○	○	AC 220 - 230V	AC 240V, *
HBX1K	○	—	AC 240V	AC 220-230V, *

* : Alter the wiring of the Power-supply block at the primary winding of Power-transformer referring to the "Line Voltage Selection" described in Service Manual.

- For the following: F-502RDS/HEX1K and HBX1K; F-502RDS - G/HZIX1K and HEX1K, refer to page 34.
- F-502RDS - G is the same as F-502RDS except for color.

CONTENTS

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PIONEER ELECTRONICS OF CANADA, INC. 300 Allstate Parkway Markham, Ontario L3R 0P2 Canada

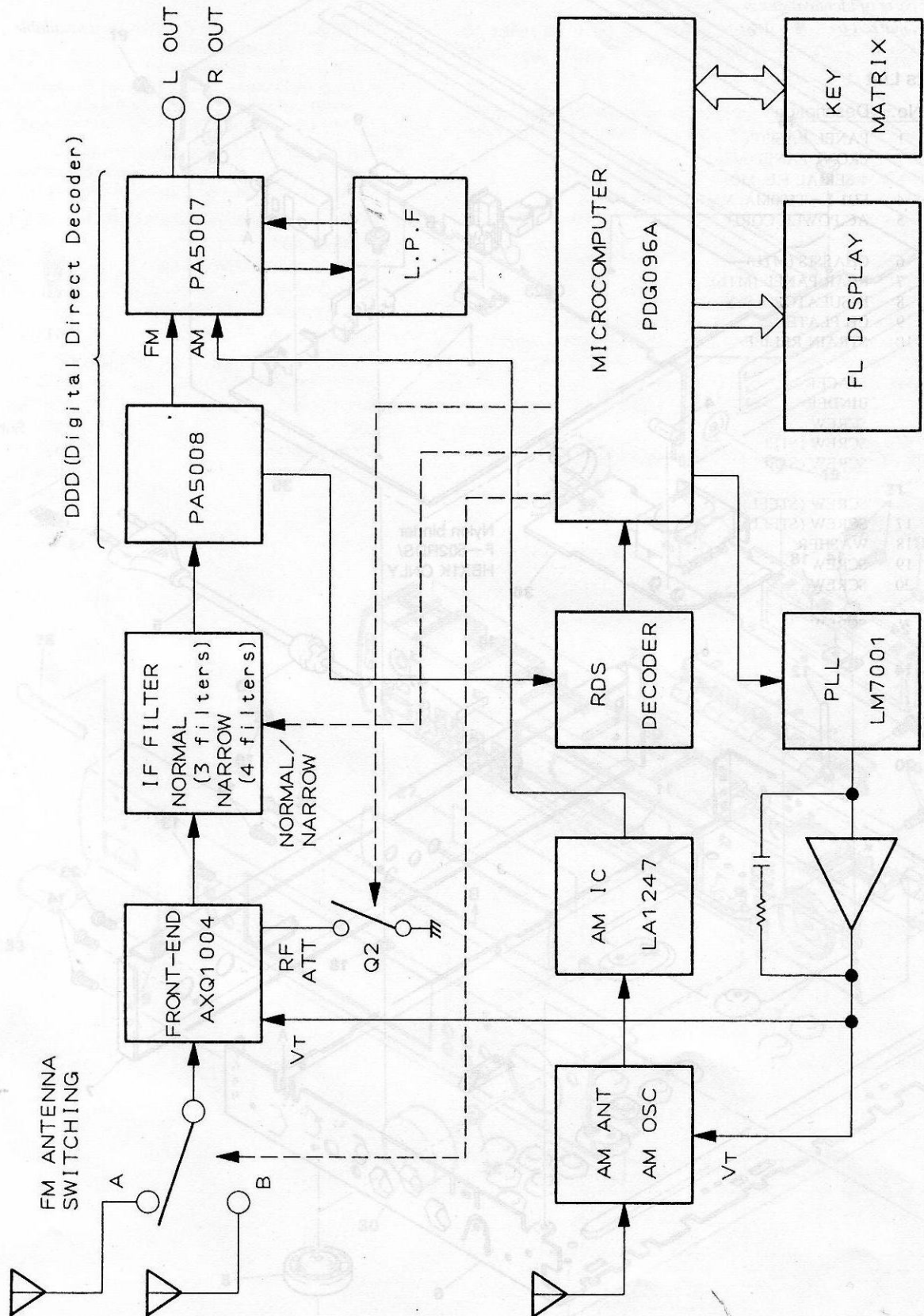
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FO AUG, 1993 Printed in Japan

2. BLOCK DIAGRAM



NOTE: Screws adjacent to mark on product are used for disassembly.

3. SCHEMATIC AND PCB CONNECTION DIAGRAMS

NOTE FOR SCHEMATIC DIAGRAMS

(Type 3A)

1. When ordering service parts, be sure to refer to "PARTS LIST OF EXPLODED VIEWS" or "PCB PARTS LIST".

2. Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.

3. RESISTORS:

Unit: k: k Ω , M: M Ω , or Ω unless otherwise noted.

Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.

Tolerance: (F): $\pm 1\%$, (G): $\pm 2\%$, (K): $\pm 10\%$, (M): $\pm 20\%$ or $\pm 5\%$ unless otherwise noted.

4. CAPACITORS:

Unit: p: pF or μ F unless otherwise noted.

Ratings: capacitor (μ F)/ voltage (V) unless otherwise noted.

Rated voltage: 50V except for electrolytic capacitors.

5. COILS:

Unit: m: mH or μ H unless otherwise noted.

6. VOLTAGE AND CURRENT:

 : Signal voltage at FM 1kHz, 100% MOD.

 or $\pm$ V :

DC voltage (V) at no input signal unless otherwise noted.

Value in () is DC voltage at rated power.

$\Rightarrow$ mA or $\leftarrow$ mA :

DC current at no input signal unless otherwise noted.

7. OTHERS:

•  or  : Adjusting point.

•  : Measurement point.

• The Δ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.

8. SCH-□ ON THE SCHEMATIC DIAGRAM:

• SCH-□ indicates the drawing number of the schematic diagram. (SCH stands for schematic diagram.)

9. SWITCHES (Underline indicates switch position):

DISPLAY ASSY

S901: POWER(STANDBY/ON)

S902: CT/FREQ

S903: CHARACTER/SEARCH

S904: ANT A/B

S905: RF. ATT

S906: RT/PS/PTY

S907: CLASS

S908: 4

S909: DIRECT

S910: MEMORY

S911: FM

S912: 5

S913: 3

S914: 0/10

S915: TUNING MODE

S916: 2

S917: 9

S918: 1

S919: 8

S920: AM

S921: IF BAND

S922: 6

S923: 7

S924: MPX MODE

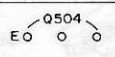
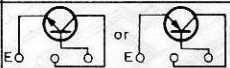
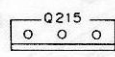
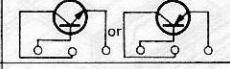
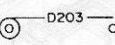
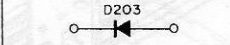
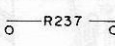
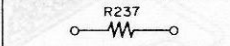
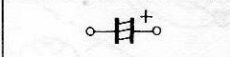
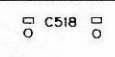
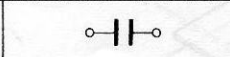
S925: MEMORY SCAN

S928: TUNING

NOTE FOR PCB CONNECTION DIAGRAMS

NOTE

- This P.C.B. connection diagram is viewed from the parts mounted side.
- The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

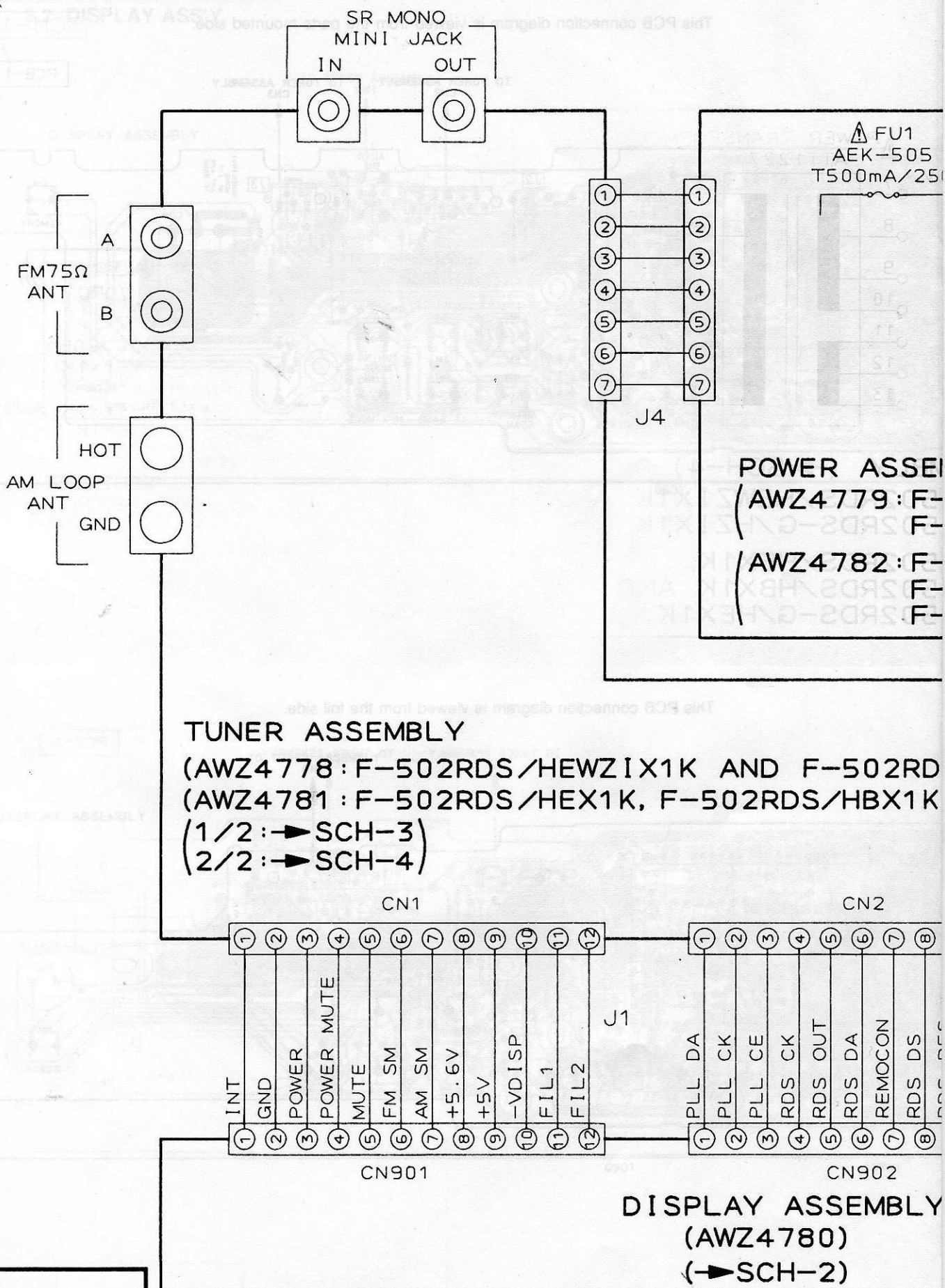
P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
		Transistor
		Radiator type transistor
		Diode
		Resistor
		Capacitor (Polarity)
		Capacitor (Non-polarity)

Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

- The capacitor terminal marked with $\odot$ (double circles) shows negative terminal.
- The diode terminal marked with $\odot$ (double circles) shows cathode side.
- The transistor terminal to which E is affixed shows the emitter.

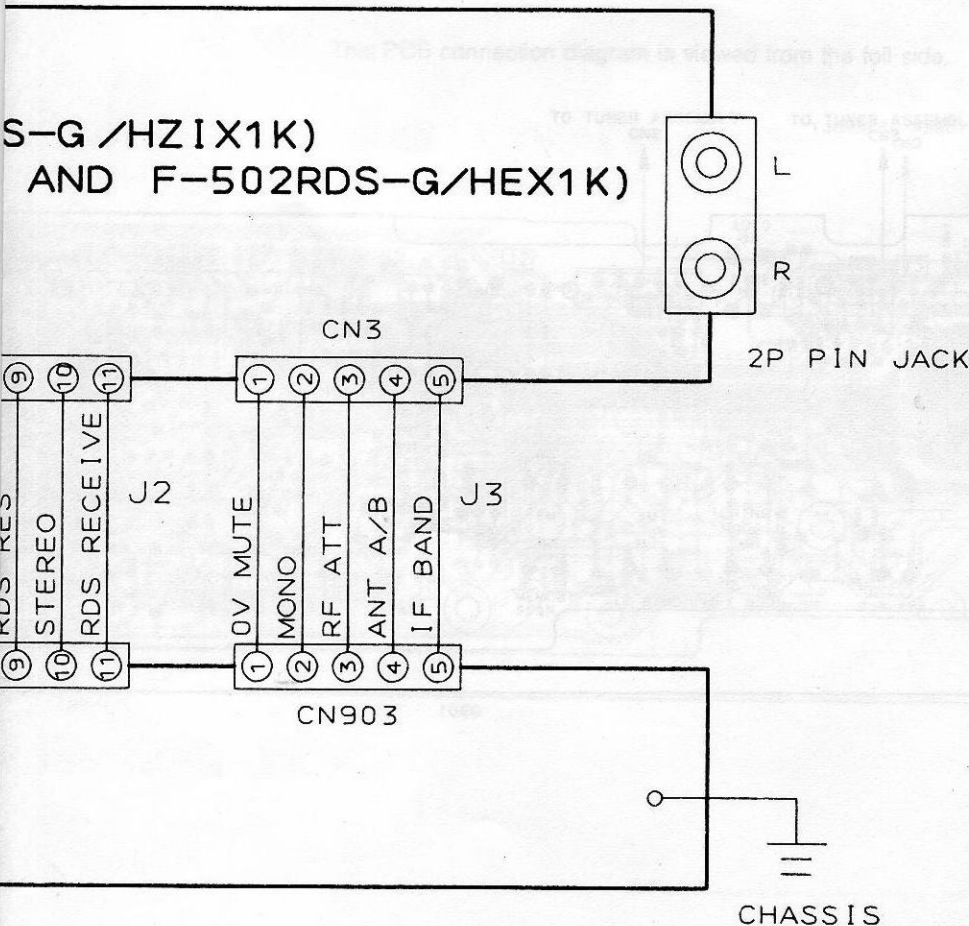
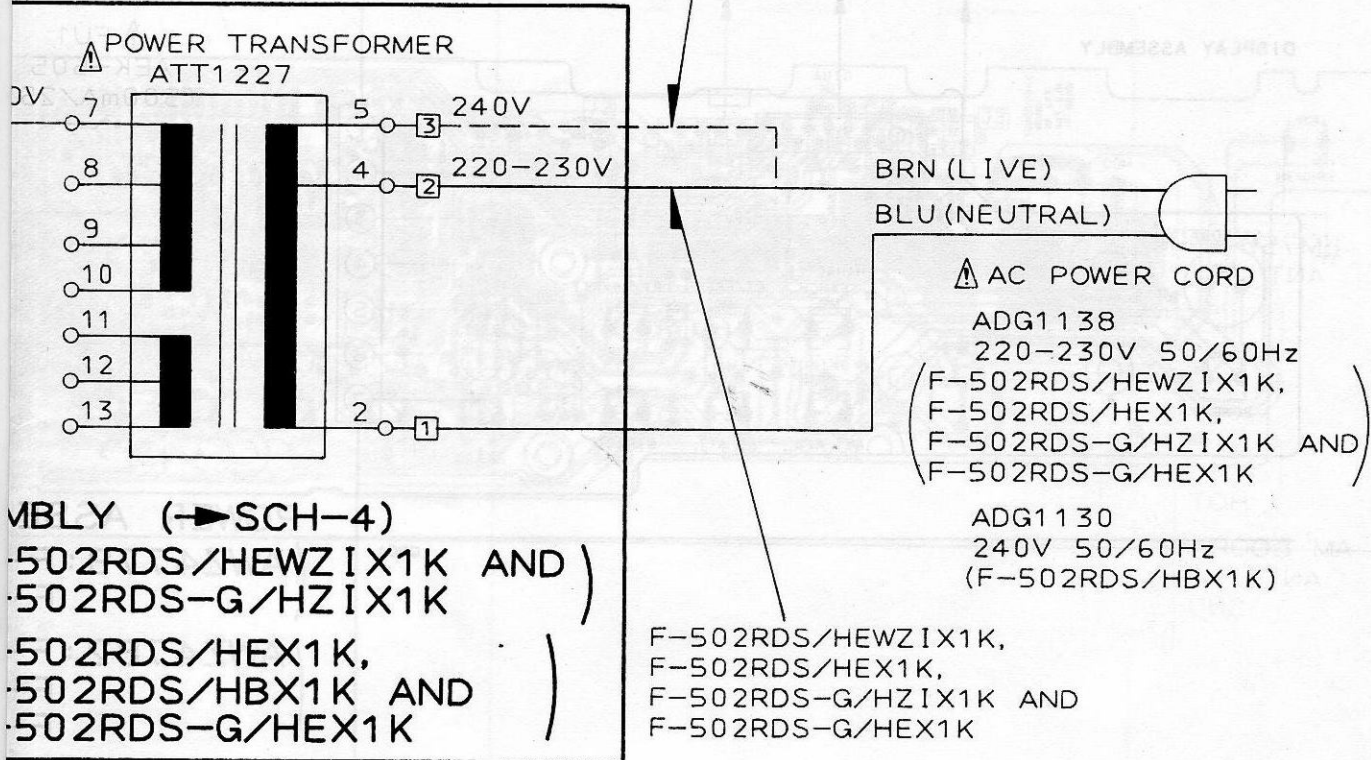
3.1 OVERALL WIRING DIAGRAM



SCH-1

OVERALL

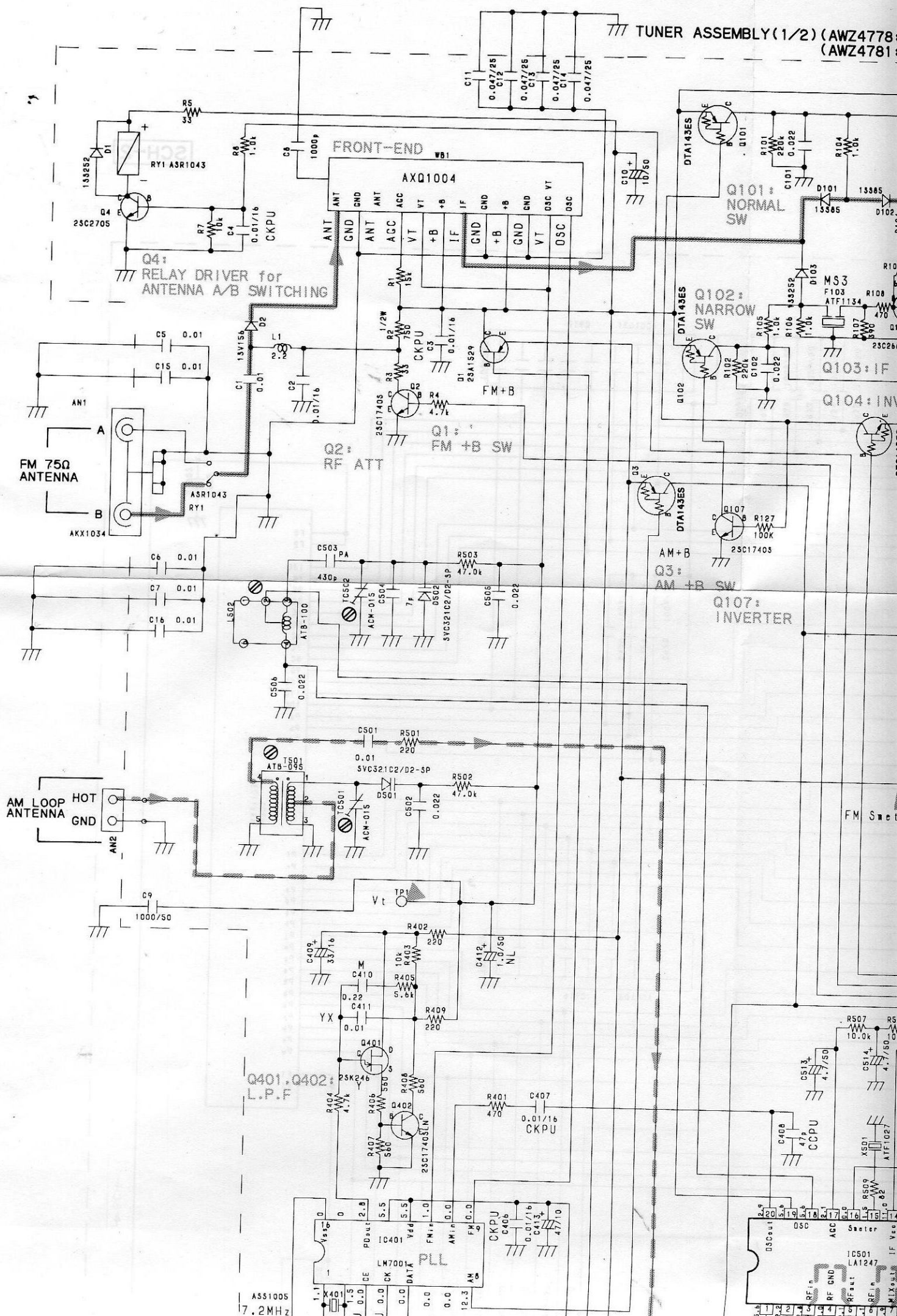
SCH-1



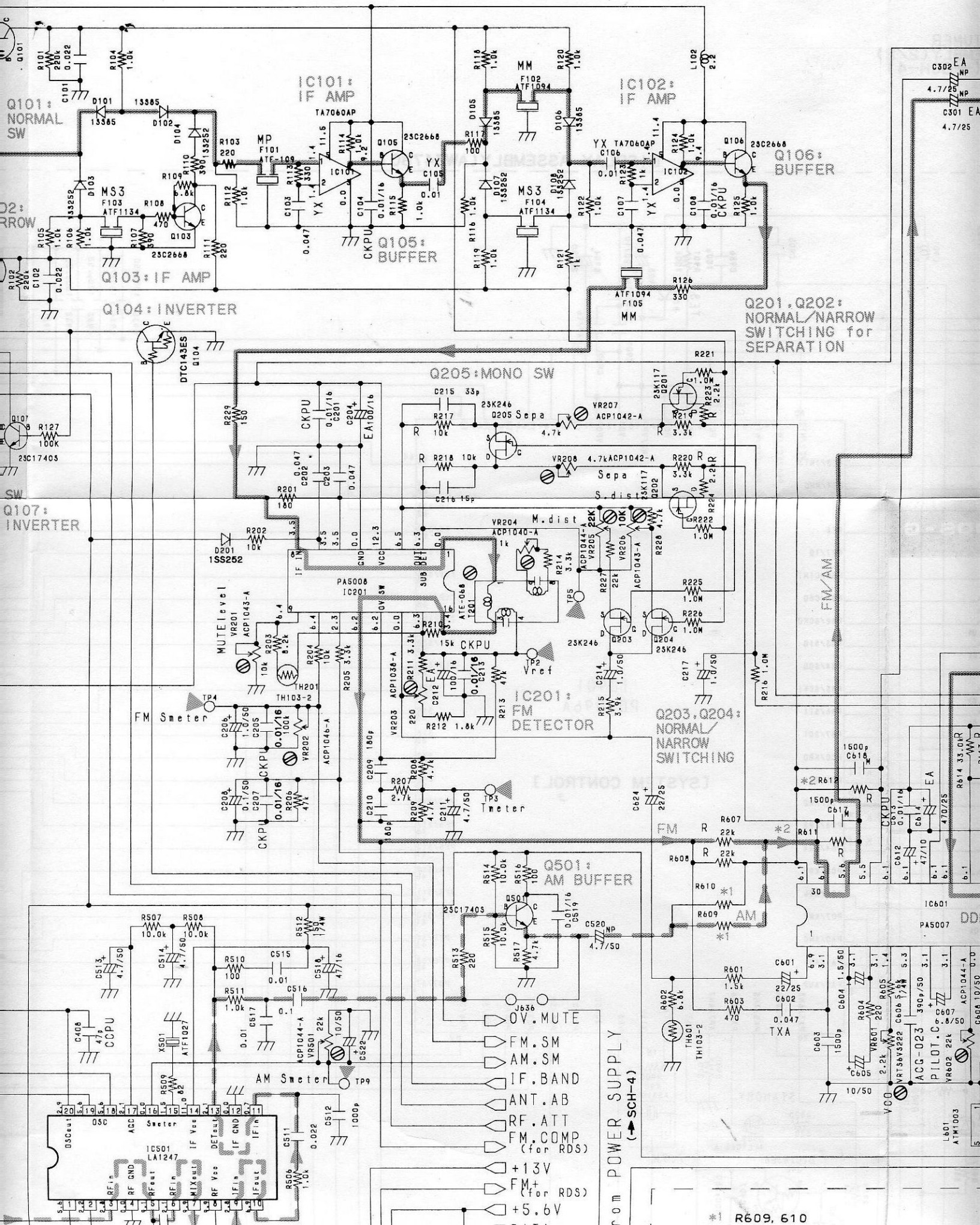
SCH-1

OVERALL

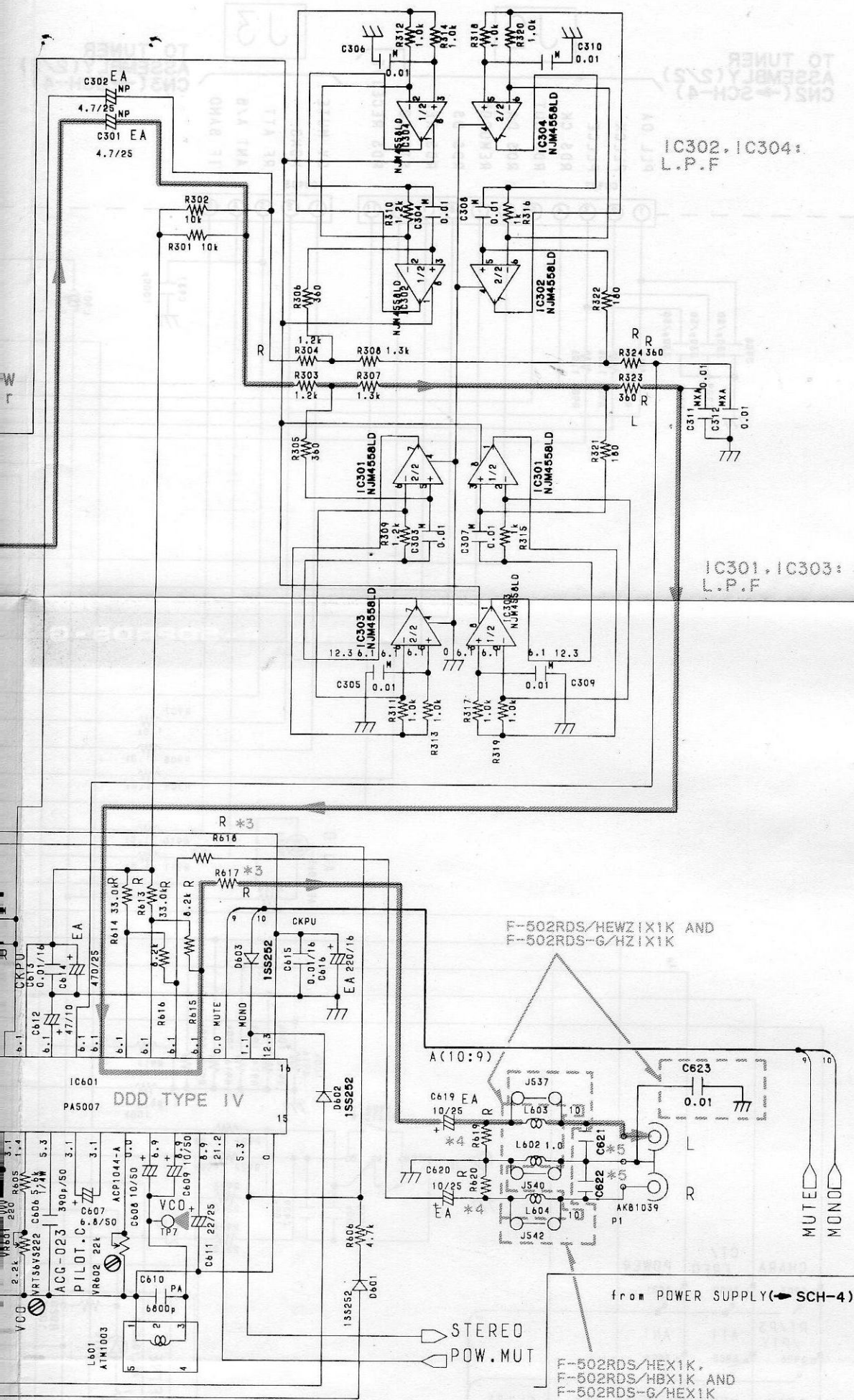
3.3 TUNER ASS'Y (1/2)

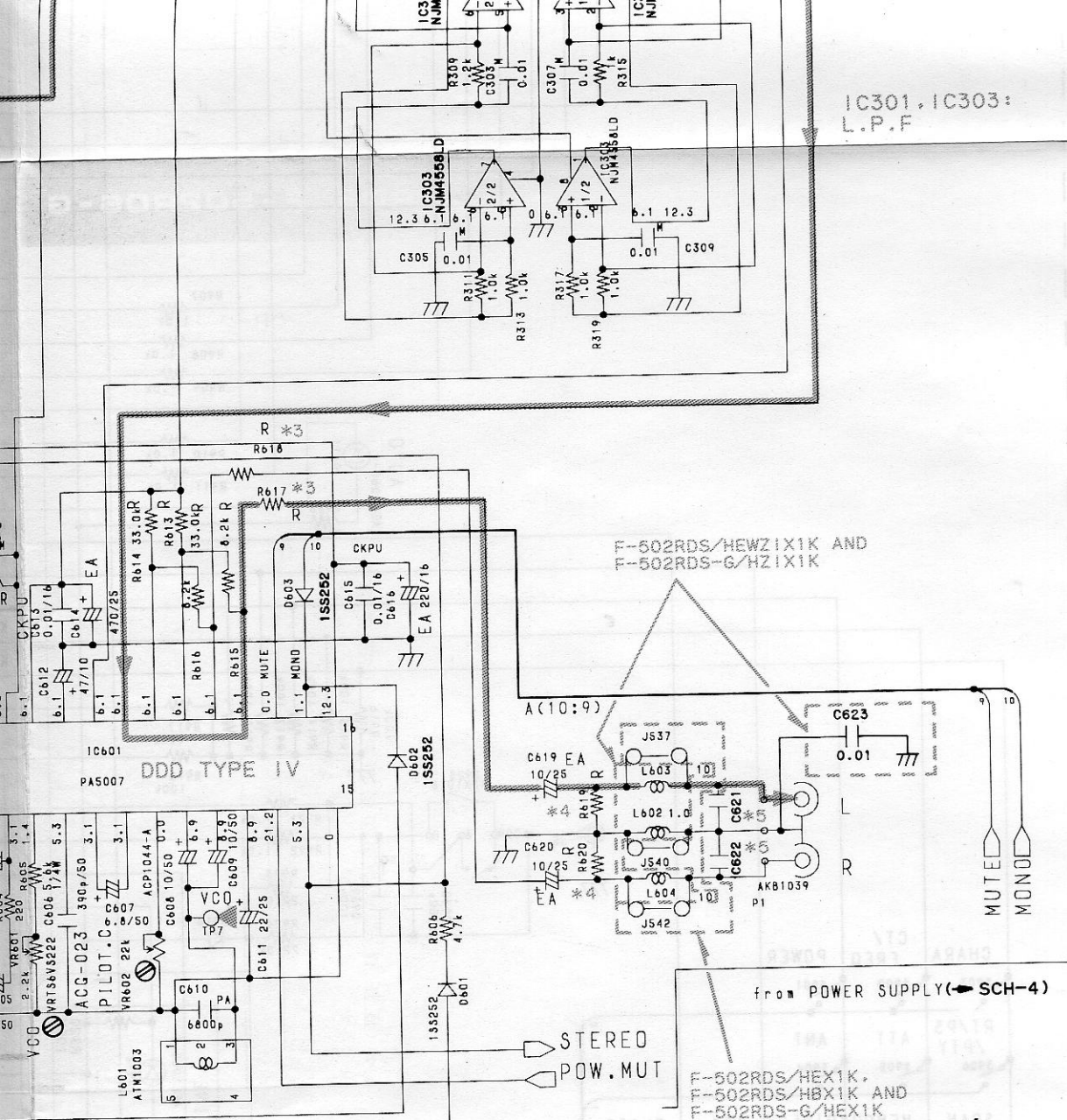


EMBL Y(1/2) (AWZ4778:F-502RDS/HEWZIX1K AND F-502RDS-G/HZIX1K)
(AWZ4781:F-502RDS/HEX1K, F-502RDS/HBX1K AND F-502RDS-G/HEX1K)



—————: FM Signal Route
 - - - - -: AM Signal Route



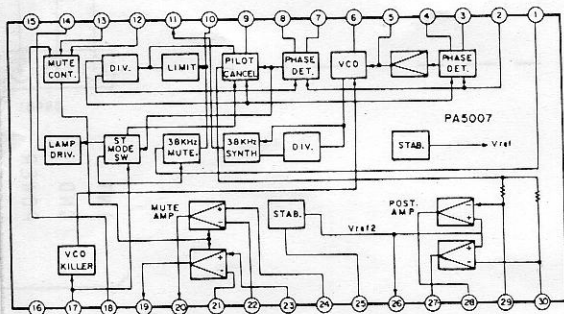


*3 R617, 618
560: F-502RDS/HEWZIX1K AND
F-502RDS-G/HZIX1K
1K: F-502RDS/HEX1K,
F-502RDS/HBX1K AND
F-502RDS-G/HEX1K

*4 R619, 620
2.2K: F-502RDS/HEWZIX1K AND
F-502RDS-G/HZIX1K
1.5K: F-502RDS/HEX1K,
F-502RDS/HBX1K AND
F-502RDS-G/HEX1K

*5 C621, 622
4700P: F-502RDS/HEWZIX1K AND
F-502RDS-G/HZIX1K
3300P: F-502RDS/HEX1K,
F-502RDS/HBX1K AND
F-502RDS-G/HEX1K

IC601:PA5007

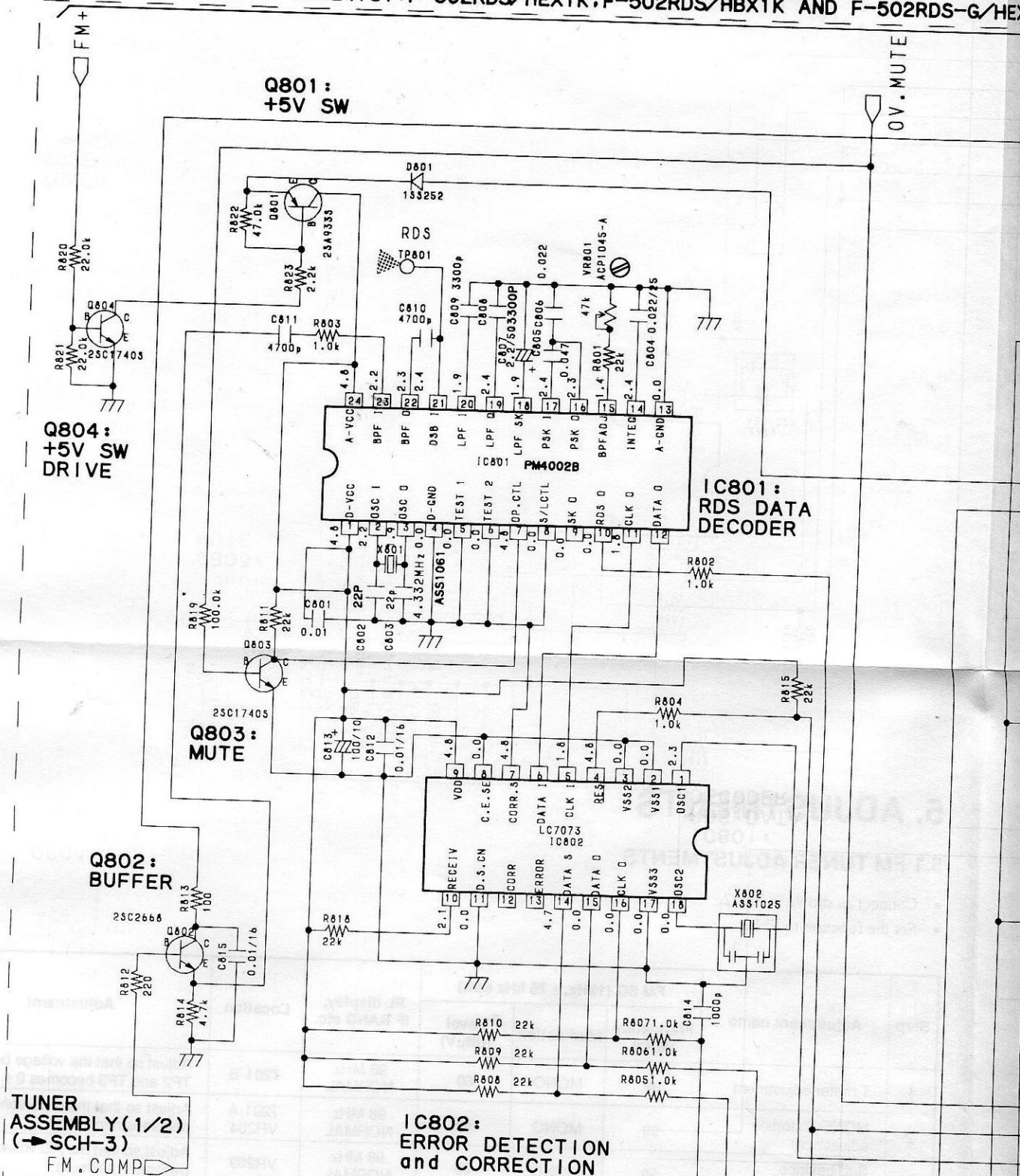


TUNER ASSY (1/2)

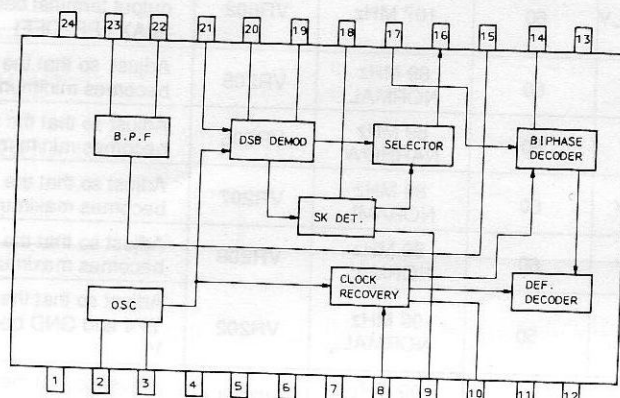
SCH-3

3.4 TUNER ASS'Y (2/2) AND POWER ASS'Y

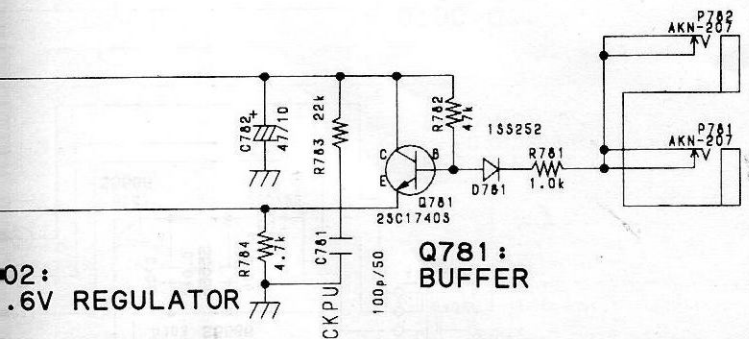
TUNER ASSEMBLY(2/2) (AWZ4778:F-502RDS/HEWZIX1K AND F-502RDS-G/HZIX1K)
(AWZ4781:F-502RDS/HEX1K,F-502RDS/HBX1K AND F-502RDS-G/HEX1K)



IC801:PM4002B



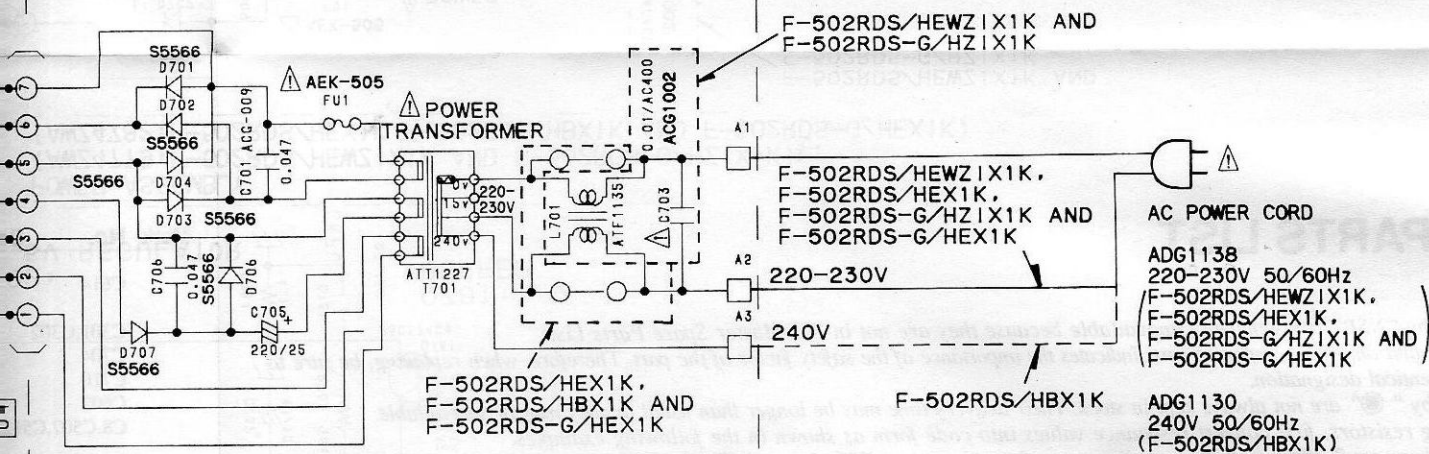
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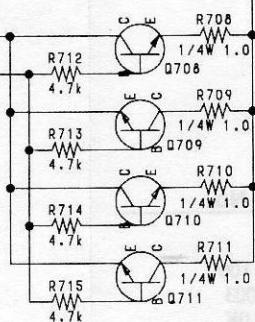
POWER ASSEMBLY

(AWZ4779:F-502RDS/HEWZIX1K AND F-502RDS-G/HZIX1K)

(AWZ4782:F-502RDS/HEX1K, F-502RDS/HBX1K AND F-502RDS-G/HEX1K)

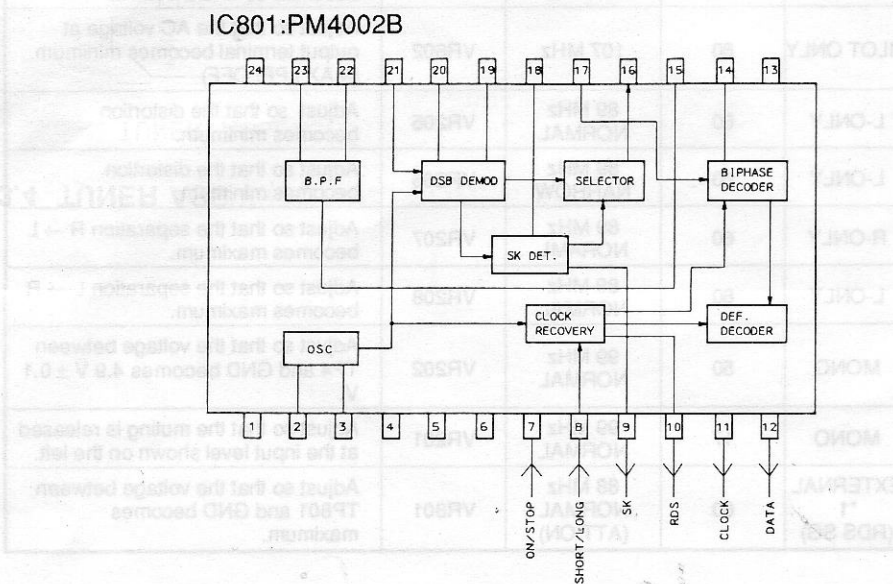
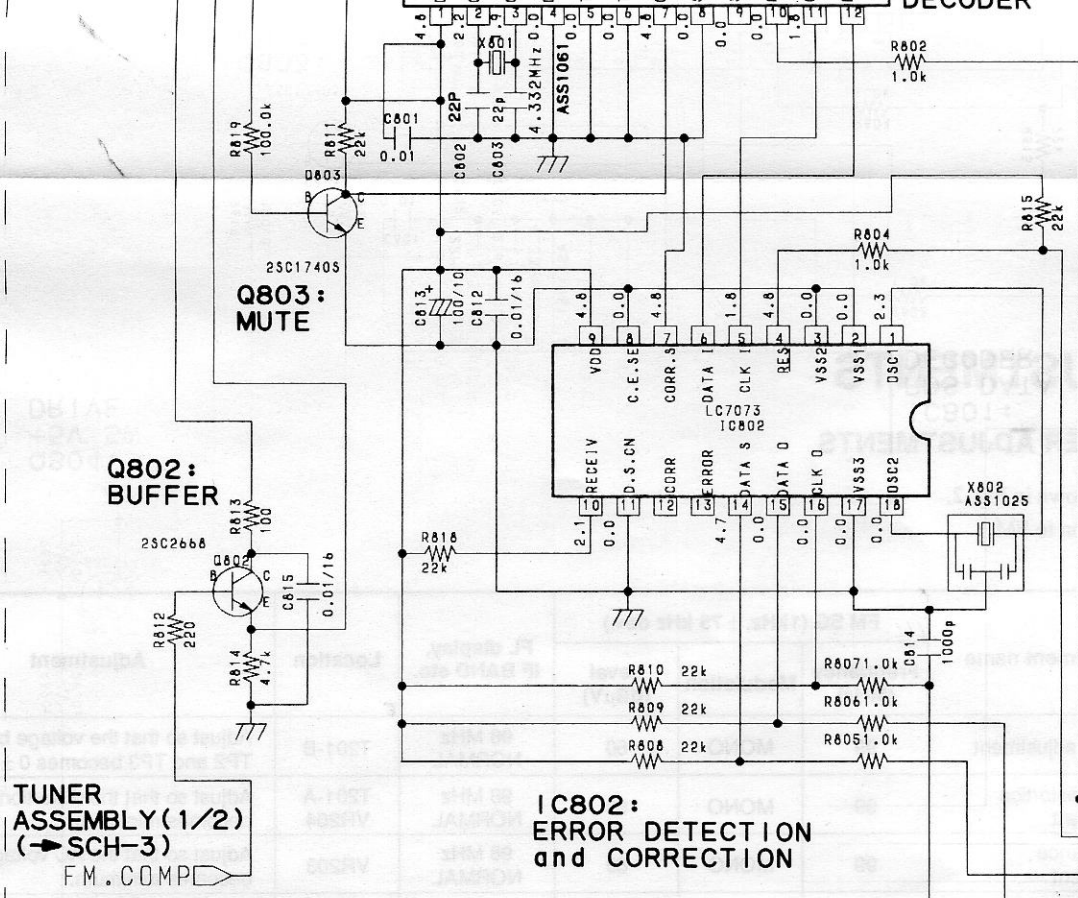


Q708-Q711:2SC2878

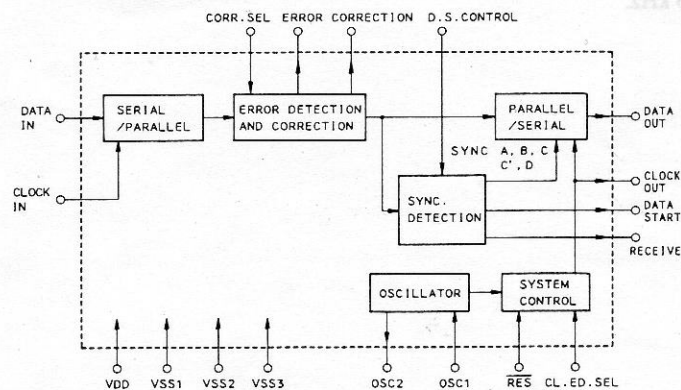


- ▷ MUTE
- ▷ FM.SM
- ▷ AM.SM
- ▷ DATA
- ▷ CK
- ▷ CE
- ▷ RF.ATT
- ▷ MONO
- ▷ STEREO
- ▷ IF.BAND

TUNER ASSEMBLY (1/2) (SCH-3)



IC802: LC7073



SCH-4

TUNER ASSY (2/2)
POWER ASSY

POWER ASSEMBLY
(AWZ4779:F-5)
(AWZ4782:F-5)

Q701:
+12.6V
SW

Q702:
+12.6V SW
DRIVE

Q704:
FL POWER SW
DRIVE

Q712:
INVERTER

Q703:
-29.4V
REGULATOR

INT
GND
POWER
POWER MUTE
MUTE
FM SM
AM SM
+5.6V
+5V
-V disp
FIL 1
FIL 2

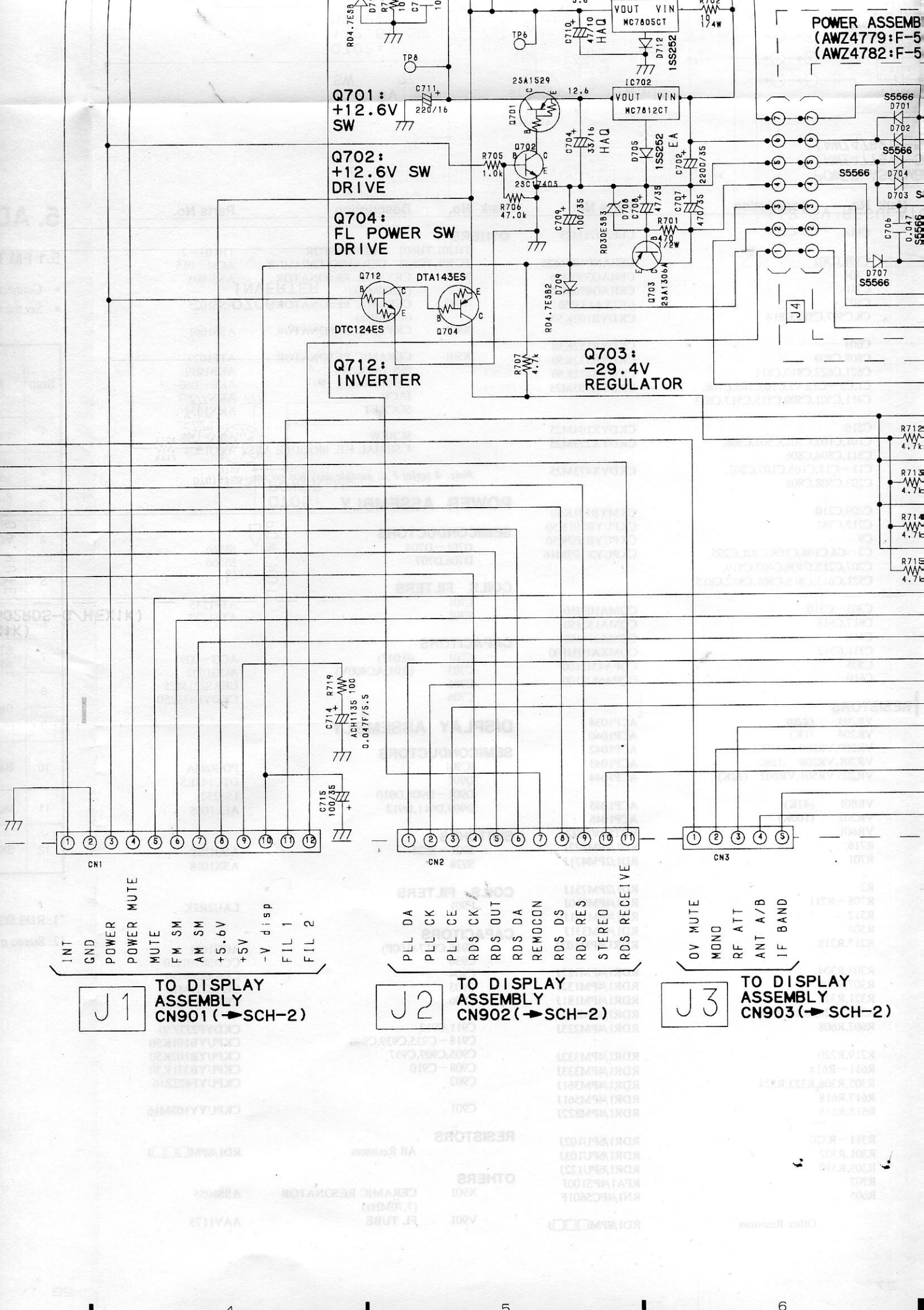
J1
TO DISPLAY
ASSEMBLY
CN901 (→SCH-2)

PLL DA
PLL CK
PLL CE
RDS CK
RDS OUT
RDS DA
REMOCON
RDS DS
RDS RES
STEREO
RDS RECEIVE

J2
TO DISPLAY
ASSEMBLY
CN902 (→SCH-2)

OV MUTE
MONO
RF ATT
ANT A/B
IF BAND

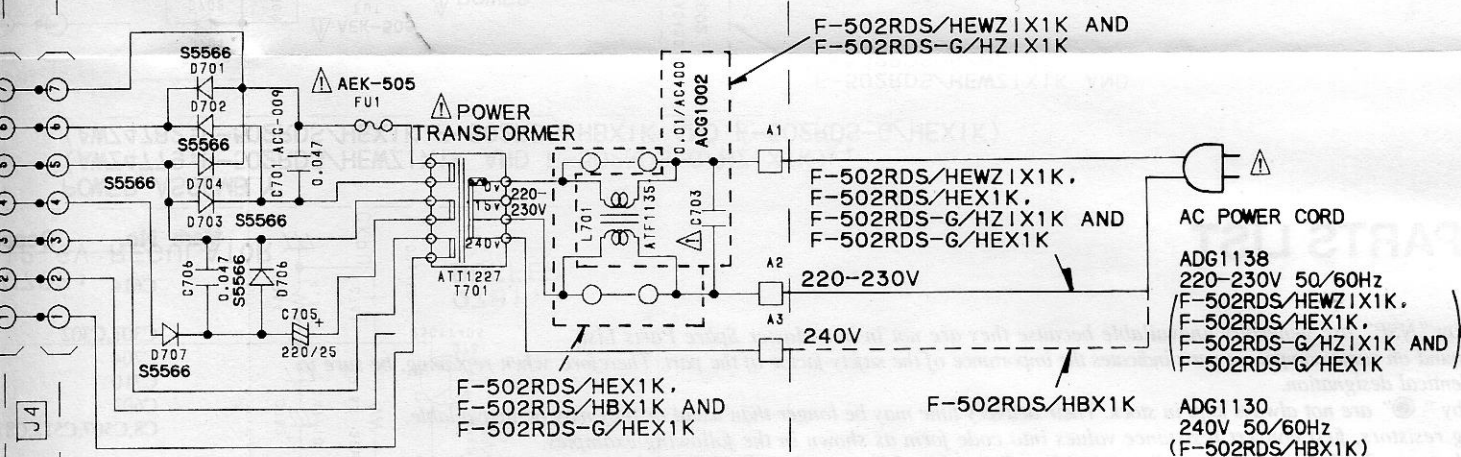
J3
TO DISPLAY
ASSEMBLY
CN903 (→SCH-2)



POWER ASSEMBLY

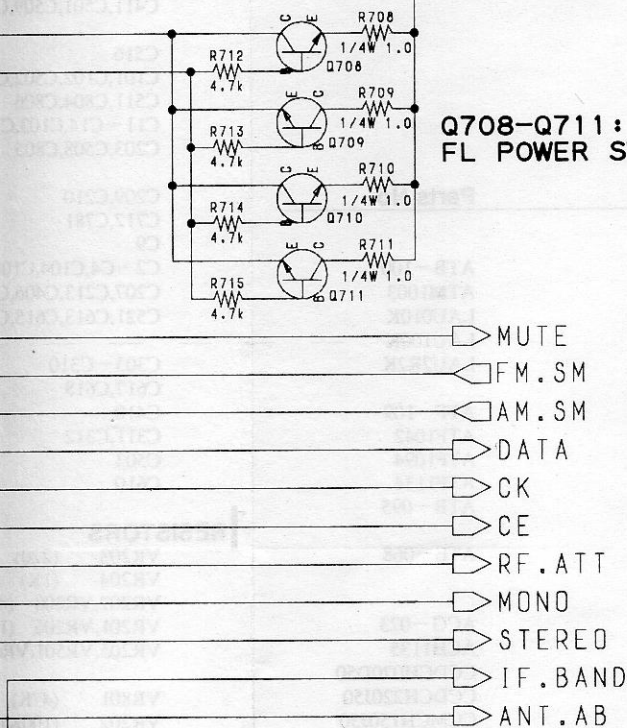
(AWZ4779:F-502RDS/HEWZIX1K AND F-502RDS-G/HZIX1K)

(AWZ4782:F-502RDS/HEX1K.F-502RDS/HBX1K AND F-502RDS-G/HEX1K)



Q708-Q711:2SC2878

Q708-Q711:
FL POWER SW



TUNER ASSEMBLY(1/2)(→SCH-3)

IF BAND
DISPLAY
EMBL
03(→SCH-2)

TUNER ASSY (2/2)
POWER ASSY

SCH-4

SCH-3

FM Signal Route
AM Signal Route

A

B

C

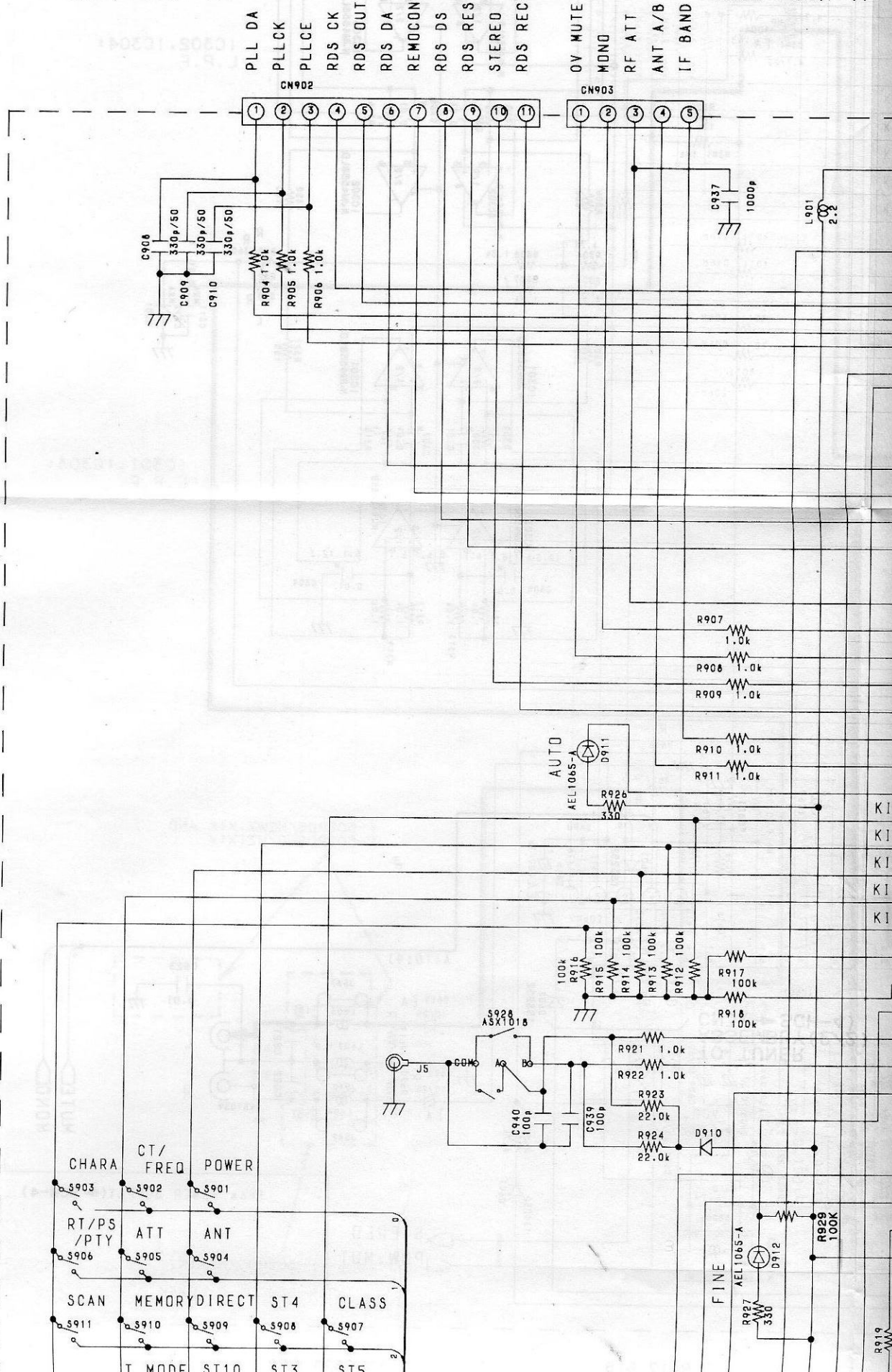
D

TO TUNER
ASSEMBLY (2/2)
CN2 (→SCH-4)

J2

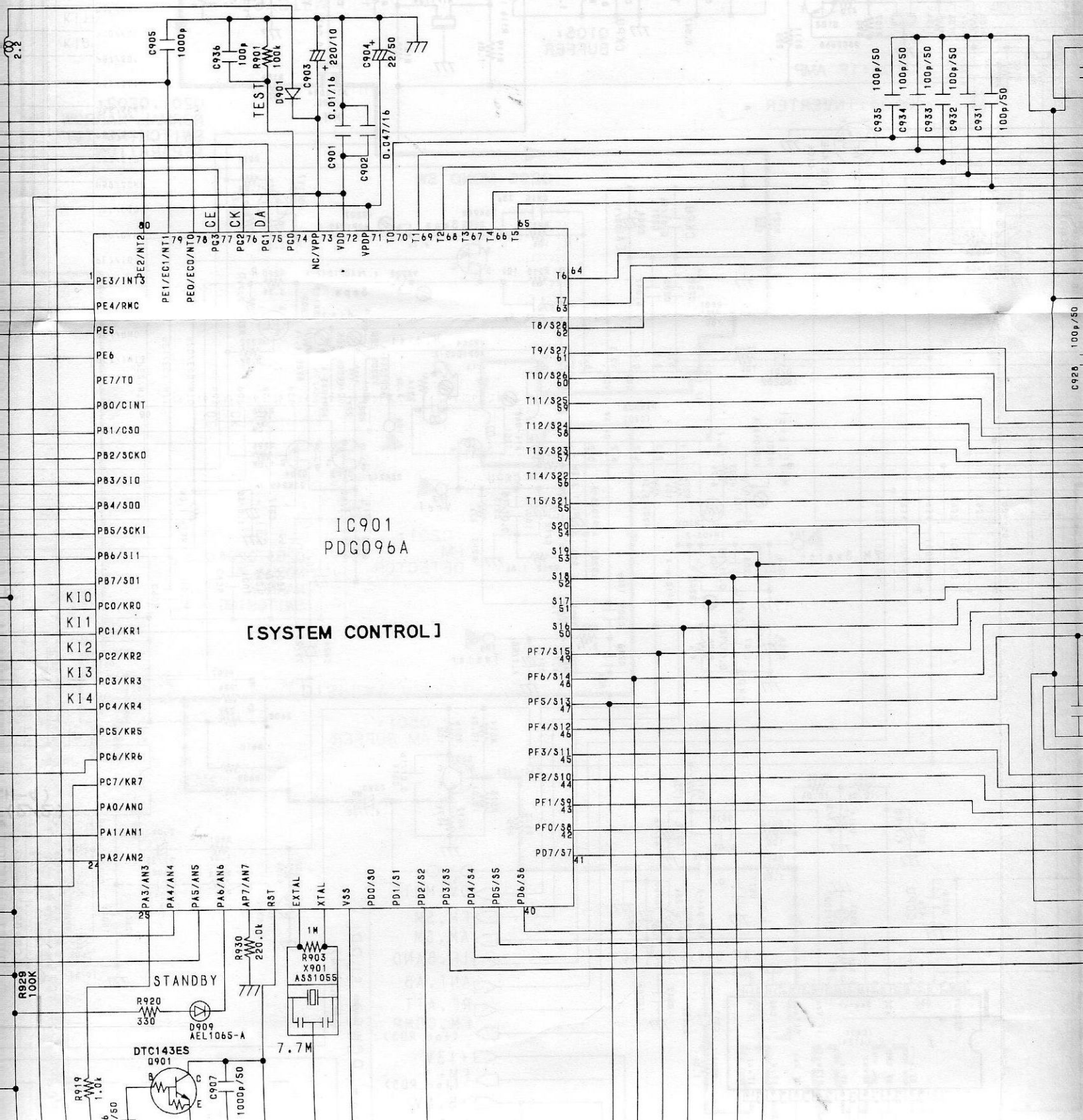
J3

TO TUNER
ASSEMBLY (2/2)
CN3 (→SCH-4)

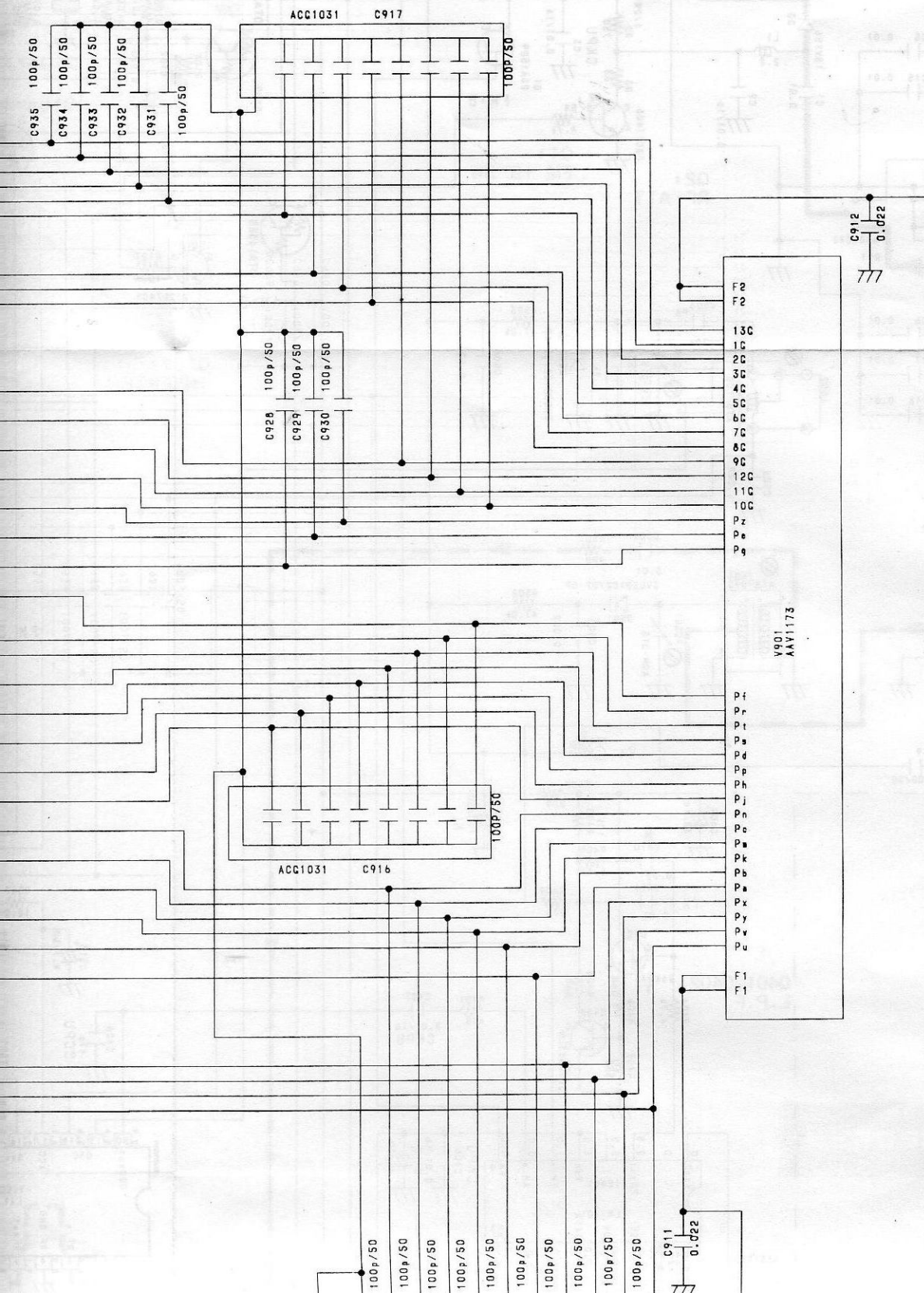


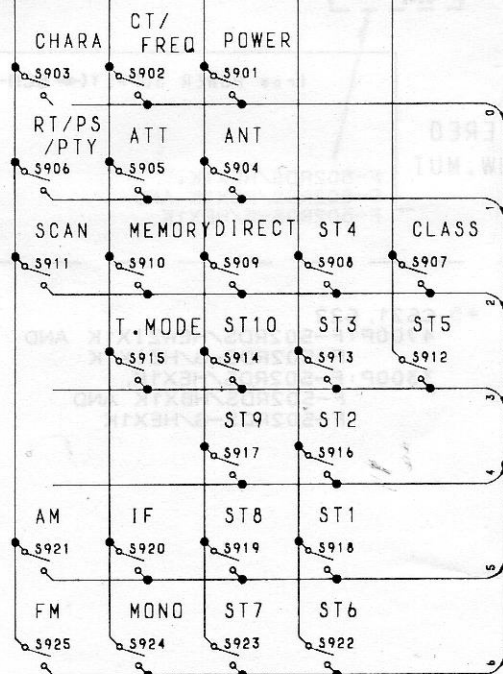
(2/2)
H-4)

DISPLAY ASSEMBLY(AWZ4780)

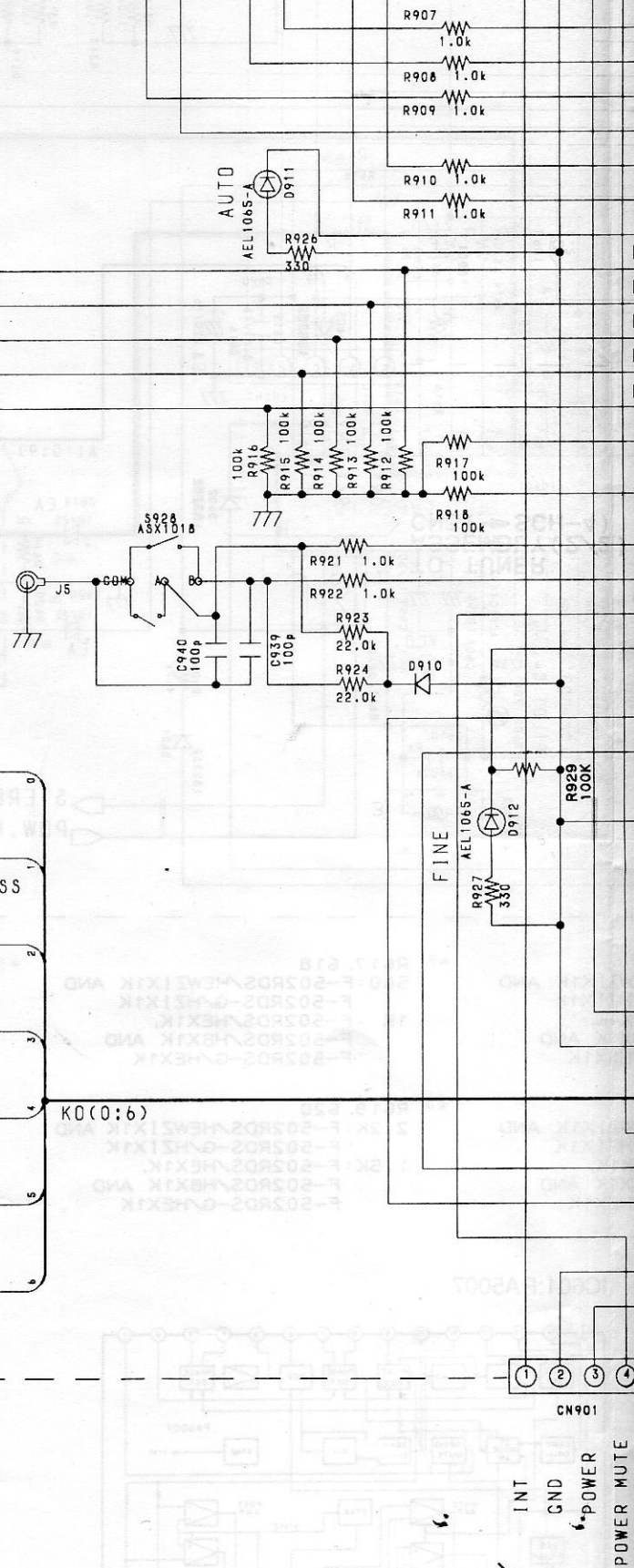


SCH-2



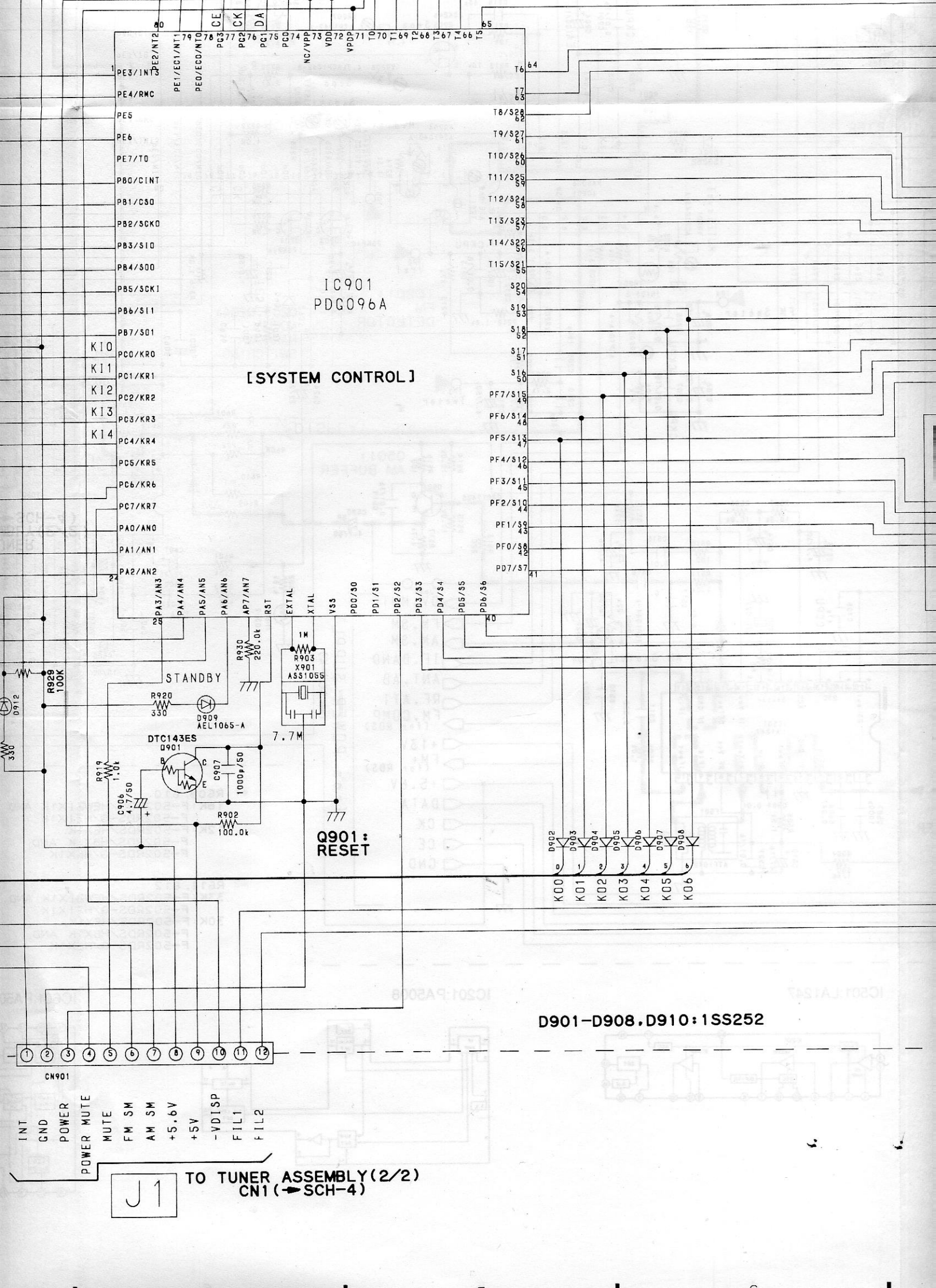


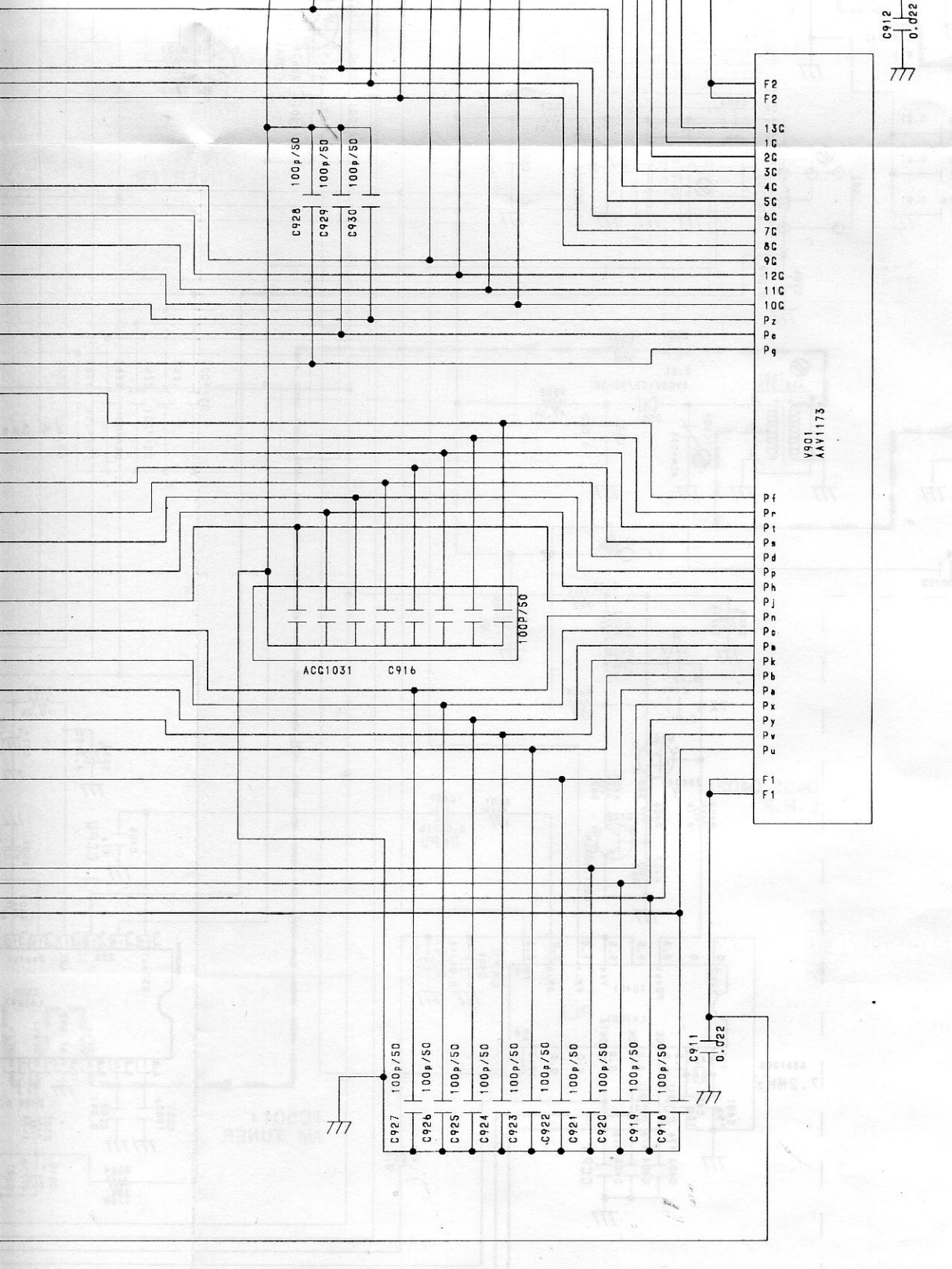
S901-S925:ASG1029



SCH-2

DISPLAY ASSY





DISPLAY ASSY

SCH-2

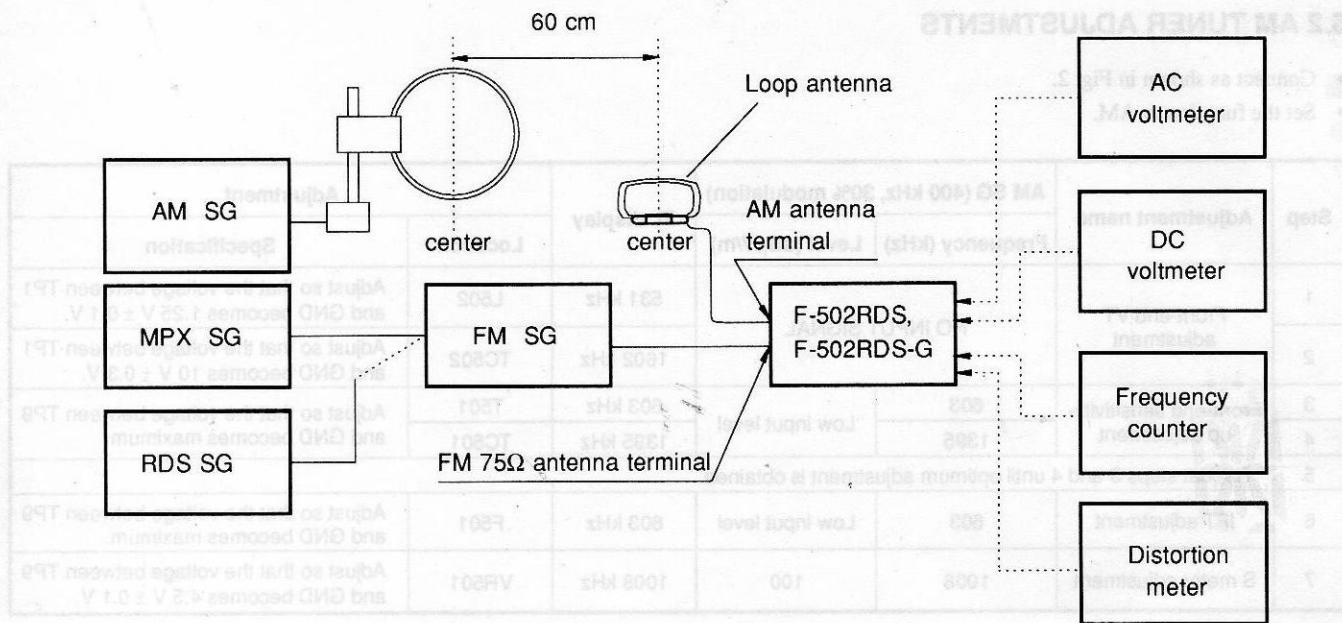


Fig. 2 Connection Diagram

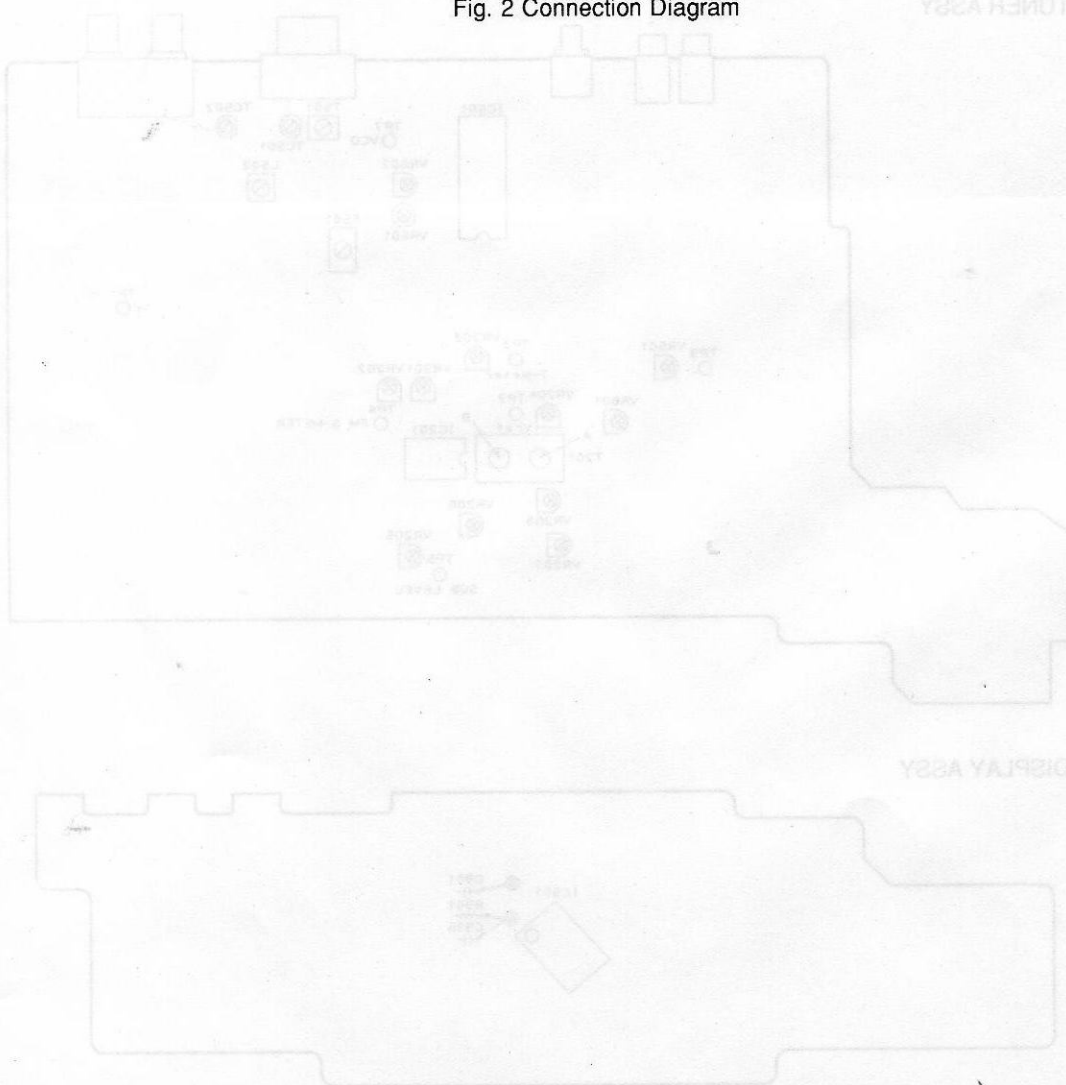


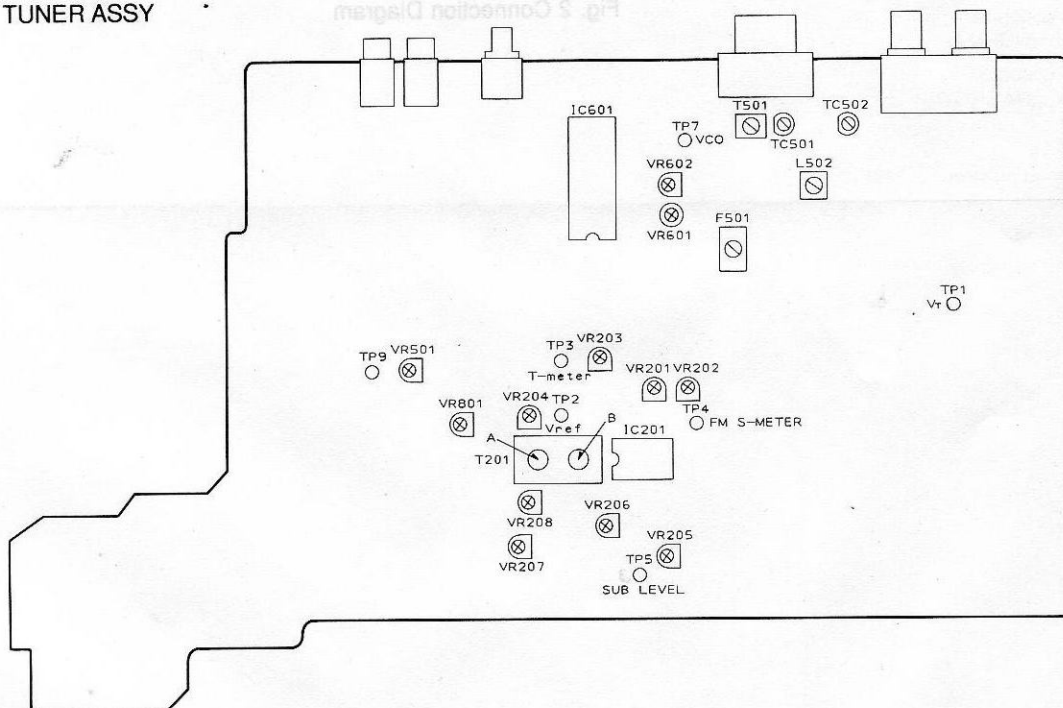
Fig. 1 Adjustment Points

5.2 AM TUNER ADJUSTMENTS

- Connect as shown in Fig. 2.
- Set the function to AM.

Step	Adjustment name	AM SG (400 kHz, 30% modulation)		FL display	Adjustment	
		Frequency (kHz)	Level (dBμV/m)		Location	Speciflication
1	Front-end VT adjustment	NO INPUT SIGNAL		531 kHz	L502	Adjust so that the voltage between TP1 and GND becomes 1.25 V ± 0.1 V.
2				1602 kHz	TC502	Adjust so that the voltage between TP1 and GND becomes 10 V ± 0.3 V.
3	Front-end sensitivity-up adjustment	603	Low input level	603 kHz	T501	Adjust so that the voltage between TP9 and GND becomes maximum.
4		1395		1395 kHz	TC501	
5	Repeat steps 3 and 4 until optimum adjustment is obtained.					
6	IFT adjustment	603	Low input level	603 kHz	F501	Adjust so that the voltage between TP9 and GND becomes maximum.
7	S meter adjustment	1008	100	1008 kHz	VR501	Adjust so that the voltage between TP9 and GND becomes 4.5 V ± 0.1 V.

TUNER ASSY



DISPLAY ASSY

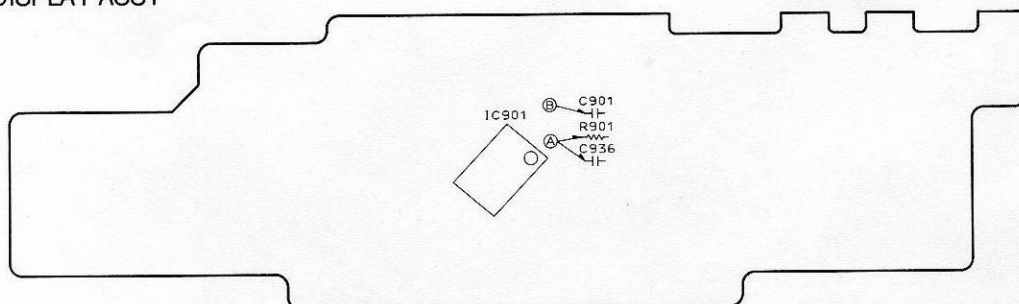
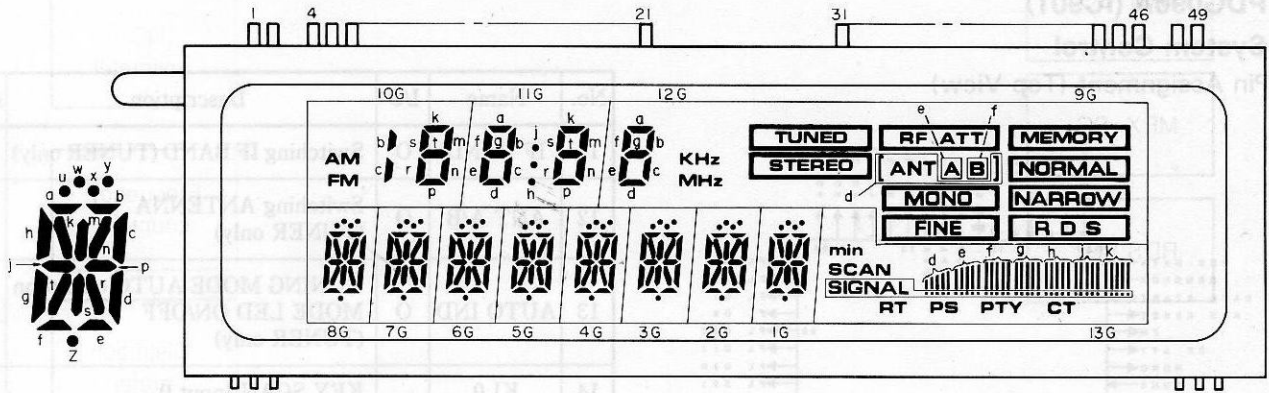


Fig. 1 Adjustment Points

6. FL INFORMATION

■ AAV1173 (DISPLAY ASSY : V901)

- FL Tube
- Grid and Segment Assignment



● Pin Connection

Terminal No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Electrode	F1	F1	NP	S17	S18	S20	S19	S1	S2	S10	S11	S3	S12	S9	S8	S13	S4	S15	S16	S14	S6	NP	NP	NP	NP
Terminal No.	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	
Electrode	NP	NP	NP	NP	NP	S7	S5	S21	10G	11G	12G	9G	8G	7G	6G	5G	4G	3G	2G	1G	13G	NP	F2	F2	

(Notes) F : Filament G : Grid S : Segment (Anode) NP : No Pin

● Anode Connection

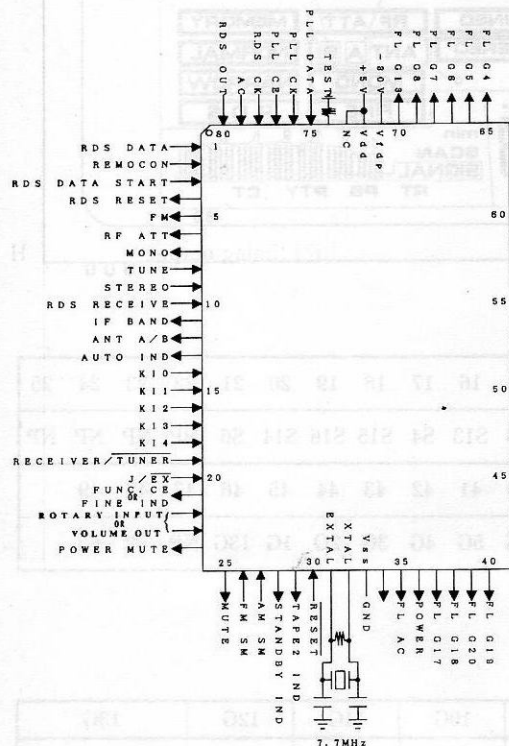
	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	11G	12G	13G
S1	a	a	a	a	a	a	a	a	TUNED	AM	a	a	min
S2	b	b	b	b	b	b	b	b	STEREO	b	b	b	SCAN
S3	c	c	c	c	c	c	c	c	RF ATT	c	c	c	SIGNAL
S4	d	d	d	d	d	d	d	d	ANT	FM	d	d	d
S5	e	e	e	e	e	e	e	e	A	—	e	e	e
S6	f	f	f	f	f	f	f	f	B	—	f	f	f
S7	g	g	g	g	g	g	g	g	MONO	—	g	g	g
S8	h	h	h	h	h	h	h	h	FINE	—	h	MHz	h
S9	j	j	j	j	j	j	j	j	MEMORY	—	j	kHz	j
S10	k	k	k	k	k	k	k	k	NORMAL	k	k	5	k
S11	m	m	m	m	m	m	m	m	NARROW	m	m	—	RT
S12	n	n	n	n	n	n	n	n	RDS	n	n	—	PS
S13	p	p	p	p	p	p	p	p	—	p	p	—	PTY
S14	r	r	r	r	r	r	r	r	—	r	r	—	CT
S15	s	s	s	s	s	s	s	s	—	s	s	—	ON
S16	t	t	t	t	t	t	t	t	—	t	t	—	—
S17	u	u	u	u	u	u	u	u	—	—	—	—	—
S18	w	w	w	w	w	w	w	w	—	—	—	—	—
S19	x	x	x	x	x	x	x	x	—	—	—	—	—
S20	y	y	y	y	y	y	y	y	—	—	—	—	—
S21	z	z	z	z	z	z	z	z	—	—	—	—	—

7. IC INFORMATION

- The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

■ PDG096A (IC901)

- System Control
- Pin Assignment (Top View)



● Pin Function

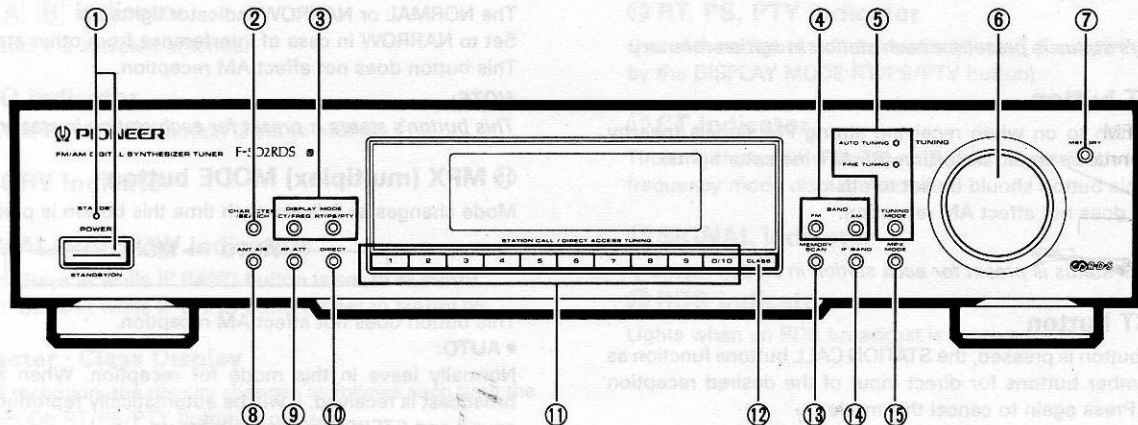
No.	Name	I/O	Description	ACT.
1	RDS DATA	I	DATA from LC7073	—
2	REMOCON	I	REMOCON Signal	—
3	RDS DATA START	I	Synchronized Signals of each block from LC7073	—
4	RDS RESET	O	Reset output to LC7073 when reception frequency is altered	—
5	FM	O	FM BAND select	H
6	RF ATT	O	RF ATT ON/OFF	H
7	MONO	O	FM MONO output	H
8	TUNE	I	TUNE signal	L
9	STEREO	I	STEREO signal	L
10	RDS RECEIVE	I	RDS verification indicator signal	L

No.	Name	I/O	Description	ACT.
11	IF BAND	O	Switching IF BAND (TUNER only)	—
12	ANT A/B	O	Switching ANTENNA (TUNER only)	—
13	AUTO IND	O	TUNING MODE AUTO operation MODE LED ON/OFF (TUNER only)	L
14	KI 0	I	KEY SCAN Input 0	H
15	KI 1		KEY SCAN Input 1	
16	KI 2		KEY SCAN Input 2	
17	KI 3		KEY SCAN Input 3	
18	KI 4		KEY SCAN Input 4	
19	RECEIVER/TUNER	I	Switching RECEIVER/TUNER	—
20	J / EX	I	J (H) / EX (L) input	—
21	FUNC.CE	O	Function switching IC (TC9163N) Chip enable (RECEIVER only)	H
	FINE IND	O	TUNING MODE FINE operation MODE LED ON/OFF (TUNER only)	L
22	VOLUME OUTPUT	O	VOLUME control (Pin No. 22 : UP Pin No. 23 : DOWN)	H
23	ROTARY INPUT	I	Rotary Encoder A/B (Pin No. 22 : A, Pin No. 23 : B)	—
24	POWER MUTE	O	MUTE control	H
25	MUTE	O	MUTE control	H
26	FM S METER	I	FM S METER input (TUNER only)	A/D
27	AM S METER	I	AM S METER input (TUNER only)	A/D
28	STANDBY IND	O	LED for STANDBY ON/OFF	L
29	TAPE2 IND	O	LED for TAPE2 ON/OFF (RECEIVER only)	H
30	RESET	I	μ-COM. RESET input	—

No.	Name	I/O	Description	ACT.
31	EXTAL		Connected to Ceramic oscillator (7.7MHz)	—
32	XTAL			
33	Vss		Reference Voltage (GND)	—
34	—	O	Not Used	—
35	FL AC	O	FL AC ON/OFF	L
36	POWER	O	Switching POWER ON/OFF	H
37	FL S17	O	FL control segment output	H
38	FL S18			
39	FL S20			
40	FL S19			
41	FL S1			
42	FL S2			
43	FL S10			
44	FL S11			
45	FL S3			
46	FL S12			
47	FL S9 /KO 0	O	FL control segment output/KEY SCAN output	H
48	FL S8 /KO 1			
49	FL S13 /KO 2			
50	FL S4 /KO 3			
51	FL S15 /KO 4			
52	FL S16 /KO 5			
53	FL S14 /KO 6			
54	FL S6 /KO 7			

No.	Name	I/O	Description	ACT.
55	FL S7	O	FL control segment output	H
56	FL S5			
57	FL S21			
58	FL G10	O	FL control timing output	H
59	FL G11			
60	FL G12			
61	FL G9			
62	FL G1			
63	FL G2			
64	FL G3			
65	FL G4			
66	FL G5			
67	FL G6			
68	FL G7			
69	FL G8			
70	FL G13			
71	Vfdp		Negative voltage (−30V) for FDP input	—
72	Vdd		+5V Power supply	—
73	—		Connected to Vdd	—
74	TEST	I	TEST MODE	H
75	PLL DATE	O	Tuner PLL IC (LM7001) DATA	—
76	PLL CK	O	Tuner PLL IC (LM7001) CLOCK	—
77	PLL CE	O	Tuner PLL IC (LM7001) Chip enable	H
78	RDS CK	I	Synchronized Clock of each bits from LC7073	—
79	AC	I	AC PULS input	—
80	RDS OUT	I	Effective RDS signal verification	L

10. PANEL FACILITIES



① POWER (STANDBY/ON) switch/STANDBY indicator

This is the switch for electric power.

ON When set to ON position, power is supplied and the unit becomes operational.

STANDBY .. When set to STANDBY position, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain operation readiness.

NOTE:

- The memory will be backed up so long as the power cord is not unplugged.
- If the power cord is unplugged, the memory will be retained for several days.
- When not using the unit for a long period, disconnect the power cord.

② CHARACTER/SEARCH button

When receiving an AM broadcast, or when in the FM RT, PS modes:

Press this button, "INPUT" is displayed, and the mode switches to manual station name input.

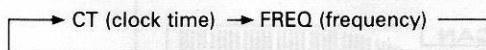
When in the FM PTY mode:

Press this button, "SEARCH" is displayed, and the mode switches to program type search.

③ DISPLAY MODE buttons

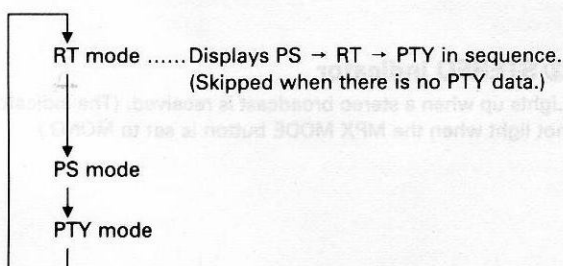
CT/FREQ:

Switches between frequency and clock time displays during FM reception. Each time you press it, the display changes as follows.



RT/PS/PTY:

Switches between displays during FM reception. Each time you press it, the display changes as follows.



④ BAND selector buttons

These buttons are used to select either FM or AM reception.

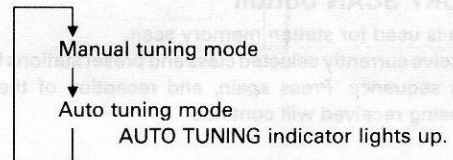
FM : Press to receive FM broadcasts.

AM : Press to receive AM broadcasts.

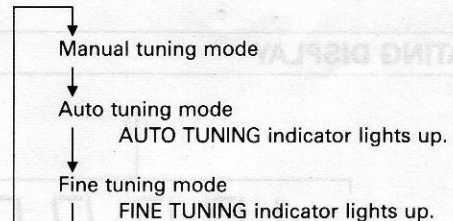
⑤ TUNING MODE button and AUTO TUNING • FINE TUNING indicator

Each time you press this button, the TUNING knob's function changes as follows.

AM:



FM:



NOTE:

Switching to AM from the FM fine tuning mode will result in the manual tuning mode.

⑥ TUNING knob

Use for tuning. To raise the frequency, turn in a clockwise direction; to lower the frequency, turn counterclockwise.

AM : Frequency changes in 9 kHz steps.

FM : Frequency changes in 50 kHz steps when FINE TUNING is off, and 25 kHz steps when FINE TUNING is on.

In the Manual Name input mode, and PTY Search mode, use to select characters and program type.

⑦ MEMORY button

Use to preset stations.

This is also used for FM broadcast manual station name character selection.

5. ADJUSTMENTS

5.1 FM TUNER ADJUSTMENTS

- Connect as shown in Fig. 2.
- Set the function to FM.

Step	Adjustment name	FM SG (1 kHz, ± 75 kHz dev.)			FL display, IF BAND etc.	Location	Adjustment
		Frequency (MHz)	Modulation	Level (dB μ V)			
1	T meter adjustment	99	MONO	60	98 MHz NORMAL	T201-B	Adjust so that the voltage between TP2 and TP3 becomes 0 ± 100 mV.
2	MONO distortion adjustment	99	MONO	60	98 MHz NORMAL	T201-A VR204	Adjust so that the distortion becomes minimum.
3	Sub-balance adjustment	99	MONO	60	98 MHz NORMAL	VR203	Adjust so that the AC voltage at TP5 becomes minimum.
4	VCO adjustment	108	OFF	60	108 MHz	VR601	Adjust so that the output at TP7 becomes $38 \text{ kHz} \pm 100 \text{ Hz}$.
5	Pilot cancel	107 (*2)	PILOT ONLY	60	107 MHz	VR602	Adjust so that the AC voltage at output terminal becomes minimum. (MAX LPF: OFF)
6	STEREO distortion adjustment (NORMAL)	89 (*2)	L-ONLY	60	89 MHz NORMAL	VR205	Adjust so that the distortion becomes minimum.
7	STEREO distortion adjustment (NARROW)	89 (*2)	L-ONLY	60	89 MHz NARROW	VR206	Adjust so that the distortion becomes minimum.
8	Separation adjustment	89 (*2)	R-ONLY	60	89 MHz NORMAL	VR207	Adjust so that the separation R $\rightarrow$ L becomes maximum.
9			L-ONLY	60	89 MHz NORMAL	VR208	Adjust so that the separation L $\rightarrow$ R becomes maximum.
10	S meter adjustment	99	MONO	50	99 MHz NORMAL	VR202	Adjust so that the voltage between TP4 and GND becomes $4.9 \text{ V} \pm 0.1 \text{ V}$.
11	Muting level adjustment	99	MONO	17	99 MHz NORMAL	VR201	Adjust so that the muting is released at the input level shown on the left.
12	SK level adjustment	88	EXTERNAL *1 (RDS SG)	60	88 MHz NORMAL (ATT ON)	VR801	Adjust so that the voltage between TP801 and GND becomes maximum.

*1: RDS SG (AUDIO, PILOT, RDS, BK and DK: OFF, SK: ON)

*2: Stereo modulation: Main 1 kHz L+R $\pm 68.25 \text{ kHz}$.
Pilot $19 \text{ kHz} \pm 6.75 \text{ kHz}$.

11. SPECIFICATIONS

TECHNISCHE DATEN

German

UKW-Tunerteil

Frequenzbereich	87,5 bis 108 MHz
Nutzempfindlichkeit	
NORMAL	Mono: 12,1 dBf, IHF (1,1 μ V/75 Ω)
50 dB Empfindlichkeitsschwelle	
NORMAL	Mono: 16,2 dBf, IHF (1,8 μ V/75 Ω)
	Stereo: 36,2 dBf, IHF (17,7 μ V/75 Ω)
Empfindlichkeit (DIN)	
NORMAL	Mono: 0,9 μ V/75 Ω
	Stereo: 28 μ V/75 Ω
Signal/Rauschabstand	Mono: 84 dB (bei 80 dBf)
	Stereo: 78 dB (bei 80 dBf)
Signal/Rauschabstand (DIN)	Mono: 72 dB
	Stereo: 65 dB
Verzerrung (bei 80 dBf)	
NORMAL	Mono: 0,06 % (1 kHz)
	Stereo: 0,15 % (1 kHz)
NARROW	Mono: 0,2 % (1 kHz)
	Stereo: 0,8 % (1 kHz)
Ausweichkanal-Trennschärfe	
NORMAL	75 dB (400 kHz)
NARROW	75 dB (300 kHz)
Stereotrennung	55 dB (1 kHz)
	40 dB (20 Hz bis 10 kHz)
Frequenzgang	± 1 dB (20 Hz bis 15 kHz)
Spiegelselektion	80 dB
ZF-Sicherheit	90 dB
AM-Unterdrückung	60 dB
Nebenwellenunterdrückung	70 dB
Hilfsträgerunterdrückung	55 dB
Anspruchsschwelle für Geräuschspere	28,2 dBf (7,1 μ V/75 Ω)
Antenneneingang	75 Ω unsymmetrisch

MW-Tunerteil

Frequenzbereich	531 kHz bis 1.602 kHz (Schritten 9 kHz)
Empfindlichkeit (IHF, Rahmenantenne)	300 μ V/m
Trennschärfe	40 dB
Signal/Rauschabstand	55 dB
Spiegelselektion	40 dB
ZF-Sicherheit	50 dB
Antenne	Rahmenantenne

Audioteil

Ausgang (Pegel/Impedanz)	
UKW (100 % Mod.)	1 V/0,9 k Ω
MW (30 % Mod.)	220 mV/0,9 k Ω

Sonstiges

Netzspannung	Wechselstrom 220 — 230 Volts, 50/60 Hz
Leistungsaufnahme	20 W
Abmessungen	420 (B) x 86 (H) x 340 (T) mm
Gewicht (ohne Verpackung)	3,6 kg

Mitgeliefertes Zubehör

T-förmige UKW-Antenne	1
MW-Rahmenantenne	1
Cinch-Anschlußkabel	1
Bedienungsanleitung	1
Steuerungskabel	1

HINWEIS:

Änderung des Designs und der technischen Daten zum Zwecke der Verbesserung vorbehalten.

SPECIFICHE TECHNICHE

Italian

Sezione del sintonizzatore FM

Gamma di frequenza	Da 87,5 a 108 MHz
Sensibilità usufruibile	
NORMAL	Mono: 12,1 dBf, IHF (1,1 μ V/75 Ω)
Sensibilità di smorzamento a 50 dB	
NORMAL	Mono: 16,2 dBf, IHF (1,8 μ V/75 Ω)
	Stereo: 36,2 dBf, IHF (17,7 μ V/75 Ω)
Sensibilità (DIN)	
NORMAL	Mono: 0,9 μ V/75 Ω
	Stereo: 28 μ V/75 Ω
Rapporto S/R	Mono: 84 dB (a 80 dBf)
	Stereo: 78 dB (a 80 dBf)
Rapporto S/R (DIN)	Mono: 72 dB
	Stereo: 65 dB
Distorsione (a 80 dBf)	
NORMAL	Mono: 0,06 % (1 kHz)
	Stereo: 0,15 % (1 kHz)
NARROW	Mono: 0,2 % (1 kHz)
	Stereo: 0,8 % (1 kHz)
Selettività canali alternati	
NORMAL	75 dB (400 kHz)
NARROW	75 dB (300 kHz)
Separazione stereo	55 dB (1 kHz)
	40 dB (da 20 Hz a 10 kHz)
Risposta di frequenza	± 1 dB (da 20 Hz a 15 kHz)
Rapporto risposta d'immagine	80 dB
Rapporto risposta IF	90 dB
Rapporto di soppressione AM	60 dB
Rapporto di risposta spurio	70 dB
Rapporto prodotto sottoportante	55 dB
Soglia di silenziamento	28,2 dBf (7,1 μ V/75 Ω)
Ingresso antenna	75 Ω non bilanciato

Sezione del sintonizzatore AM

Gamma di frequenza	Da 531 a 1.602 kHz (passi di 9 kHz)
Sensibilità (IHF, antenna ad anello)	300 μ V/m
Selettività	40 dB
Rapporto S/R	55 dB
Rapporto risposta d'immagine	40 dB
Rapporto risposta IF	50 dB
Antenna	Antenna ad anello

Sezione audio

Uscita (livello/impedenza)	
FM (100 % MOD)	1 V/0,9 k Ω
AM (30 % MOD)	220 mV/0,9 k Ω

Varie

Alimentazione	c.a. 220 — 230 Volts, 50/60 Hz
Consumo	20 W
Dimensioni	420 (L) x 86 (A) x 340 (P) mm
Peso (senza imballaggio)	3,6 kg

Accessori in dotazione

Antenna FM a T	1
Antenna AM ad anello	1
Cavo di collegamento con spinotti a spillo	1
Istruzioni per l'uso	1
Cavo di controllo	1

NOTA:

Le specifiche tecniche ed il disegno sono soggetti a possibili modifiche senza preavviso per motivi di miglioramento.