GoldStar

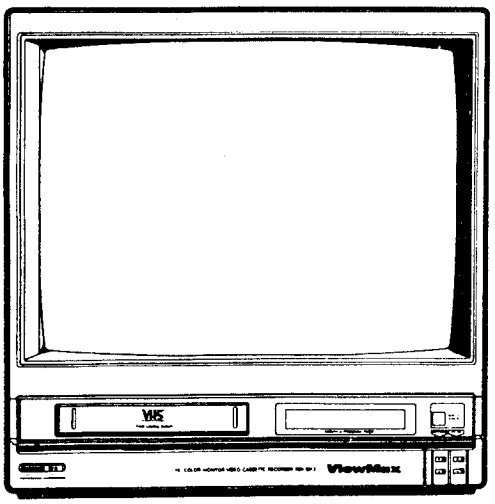
VHS PAL MONITOR VCR

ViewMax

SERVICE MANUAL

CAUTION

BEFORE SERVICING THE CHASSIS, READ THE "SAFETY PRECAUTIONS" IN THIS MANUAL.



CHASSIS: PC-08X8

MODEL: KKV-9012

GoldStar

1. Precautions

Follow these safety, servicing and ESD precautions to prevent damage and protect against potential hazards such as electrical shock and X-rays.

1-1 Safety Precautions

1. Be sure that all of the built-in protective devices are replaced. Restore any missing protective shields.

2. When reinstalling the chassis and its assemblies, be sure to restore all protective devices, including: nonmetallic control knobs and compartment covers.

3. Make sure that there are no cabinet openings through which people—particularly children—might insert fingers and contact dangerous voltages. Such openings include the spacing between the picture tube and the cabinet mask, excessively wide cabinet ventilation slots, and improperly fitted back covers.

   If the measured resistance is less than 1.0 megohm or greater than 5.2 megohms, an abnormality exists that must be corrected before the unit is returned to the customer.

4. Leakage Current Hot Check (Figure 1-1):
   Warning: Do not use an isolation transformer during this test. Use a leakage-current tester or a metering system that complies with American National Standards Institute (ANIS C101.1, Leakage Current for Appliances), and Underwriters Laboratories (UL Publication UL1410, 59.7).

5. With the unit completely reassembled, plug the AC line cord directly into the power outlet. With the unit's AC switch first in the ON position and then OFF, measure the current between a known earth ground (metal water pipe, conduit, etc.) and all exposed metal parts, including: antennas, handle brackets, metal cabinets, screwheads and control shafts. The current measured should not exceed 0.5 milliamp. Reverse the power-plug prongs in the AC outlet and repeat the test.

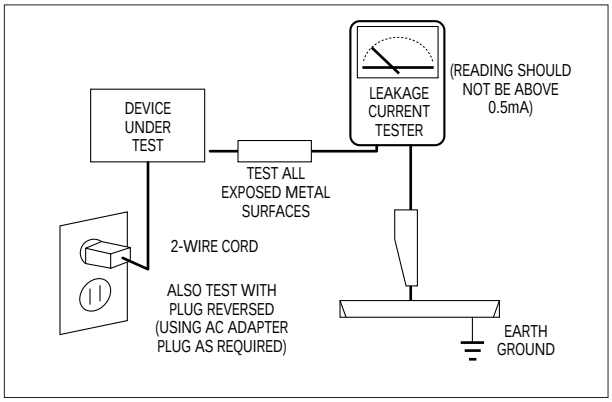


Fig. 1-1 AC Leakage Test

6. Antenna Cold Check:
   With the unit's AC plug disconnected from the AC source, connect an electrical jumper across the two AC prongs. Connect one lead of the ohmmeter to an AC prong. Connect the other lead to the coaxial connector.

7. X-ray Limits:
   The picture tube is especially designed to prohibit X-ray emissions. To ensure continued X-ray protection, replace the picture tube only with one that is the same type as the original. Carefully reinstall the picture tube shields and mounting hardware; these also provide X-ray protection.

8. High Voltage Limits:
   High voltage must be measured each time servicing is done on the B+, horizontal deflection or high voltage circuits. Correct operation of the X-ray protection circuits must be reconfirmed whenever they are serviced. (X-ray protection circuits also may be called "horizontal disable" or "hold-down".)

   Heed the high voltage limits. These include the X–ray Protection Specifications Label, and the Product Safety and X-ray Warning Note on the service data schematic.

1-1 Safety Precautions (Continued)

9. High voltage is maintained within specified limits by close-tolerance, safety-related components and adjustments. If the high voltage exceeds the specified limits, check each of the special components.

10. Design Alteration Warning:
Never alter or add to the mechanical or electrical design of this unit. Example: Do not add auxiliary audio or video connectors. Such alterations might create a safety hazard. Also, any design changes or additions will void the manufacturer's warranty.

11. Hot Chassis Warning:
Some TV receiver chassis are electrically connected directly to one conductor of the AC power cord. If an isolation transformer is not used, these units may be safely serviced only if the AC power plug is inserted so that the chassis is connected to the ground side of the AC source.

    To confirm that the AC power plug is inserted correctly, do the following: Using an AC voltmeter, measure the voltage between the chassis and a known earth ground. If the reading is greater than 1.0V, remove the AC power plug, reverse its polarity and reinsert. Re-measure the voltage between the chassis and ground.

12. Some TV chassis are designed to operate with 85 volts AC between chassis and ground, regardless of the AC plug polarity. These units can be safely serviced only if an isolation transformer inserted between the receiver and the power source.

13. Some TV chassis have a secondary ground system in addition to the main chassis ground. This secondary ground system is not isolated from the AC power line. The two ground systems are electrically separated by insulating material that must not be defeated or altered.

14. Components, parts and wiring that appear to have overheated or that are otherwise damaged should be replaced with parts that meet the original specifications. Always determine the cause of damage or overheating, and correct any potential hazards.

15. Observe the original lead dress, especially near the following areas: Antenna wiring, sharp edges, and especially the AC and high voltage power supplies. Always inspect for pinched, out-of-place, or frayed wiring. Do not change the spacing between components and the printed circuit board. Check the AC power cord for damage. Make sure that leads and components do not touch thermally hot parts.

16. Picture Tube Implosion Warning:
The picture tube in this receiver employs "integral implosion" protection. To ensure continued implosion protection, make sure that the replacement picture tube is the same as the original.

17. Do not remove, install or handle the picture tube without first putting on shatterproof goggles equipped with side shields. Never handle the picture tube by its neck. Some "in-line" picture tubes are equipped with a permanently attached deflection yoke; do not try to remove such "permanently attached" yokes from the picture tube.

18. Product Safety Notice:
Some electrical and mechanical parts have special safety-related characteristics which might not be obvious from visual inspection. These safety features and the protection they give might be lost if the replacement component differs from the original—even if the replacement is rated for higher voltage, wattage, etc.

    Components that are critical for safety are indicated in the circuit diagram by shading, (⚠) or (⚠).
    Use replacement components that have the same ratings, especially for flame resistance and dielectric strength specifications.
    A replacement part that does not have the same safety characteristics as the original might create shock, fire or other hazards.

1-2 Servicing Precautions

Warning1: First read the "Safety Precautions" section of this manual. If some unforeseen circumstance creates a conflict between the servicing and safety precautions, always follow the safety precautions.
Warning2: An electrolytic capacitor installed with the wrong polarity might explode.

1. Servicing precautions are printed on the cabinet. Follow them.

2. Always unplug the unit's AC power cord from the AC power source before attempting to: (a) Remove or reinstall any component or assembly, (b) Disconnect an electrical plug or connector, (c) Connect a test component in parallel with an electrolytic capacitor.

3. Some components are raised above the printed circuit board for safety. An insulation tube or tape is sometimes used. The internal wiring is sometimes clamped to prevent contact with thermally hot components. Reinstall all such elements to their original position.

4. After servicing, always check that the screws, components and wiring have been correctly reinstalled. Make sure that the portion around the serviced part has not been damaged.

5. Check the insulation between the blades of the AC plug and accessible conductive parts (examples: metal panels, input terminals and earphone jacks).

6. Insulation Checking Procedure: Disconnect the power cord from the AC source and turn the power switch ON. Connect an insulation resistance meter (500V) to the blades of the AC plug.

   The insulation resistance between each blade of the AC plug and accessible conductive parts (see above) should be greater than 1 megohm.

7. Never defeat any of the B+ voltage interlocks. Do not apply AC power to the unit (or any of its assemblies) unless all solid-state heat sinks are correctly installed.

8. Always connect a test instrument's ground lead to the instrument chassis ground before connecting the positive lead; always remove the instrument's ground lead last.

1-3 Precautions for Electrostatically Sensitive Devices (ESDs)

1. Some semiconductor (“solid state”) devices are easily damaged by static electricity. Such components are called Electrostatically Sensitive Devices (ESDs); examples include integrated circuits and some field-effect transistors. The following techniques will reduce the occurrence of component damage caused by static electricity.

2. Immediately before handling any semicon ductor components or assemblies, drain the electrostatic charge from your body by touching a known earth ground. Alternatively, wear a discharging wrist-strap device. (Be sure to remove it prior to applying power—this is an electric shock precaution.)

3. After removing an ESD-equipped assembly, place it on a conductive surface such as aluminum foil to prevent accumulation of electrostatic charge.

4. Do not use freon-propelled chemicals. These can generate electrical charges that damage ESDs.

5. Use only a grounded-tip soldering iron when soldering or unsoldering ESDs.

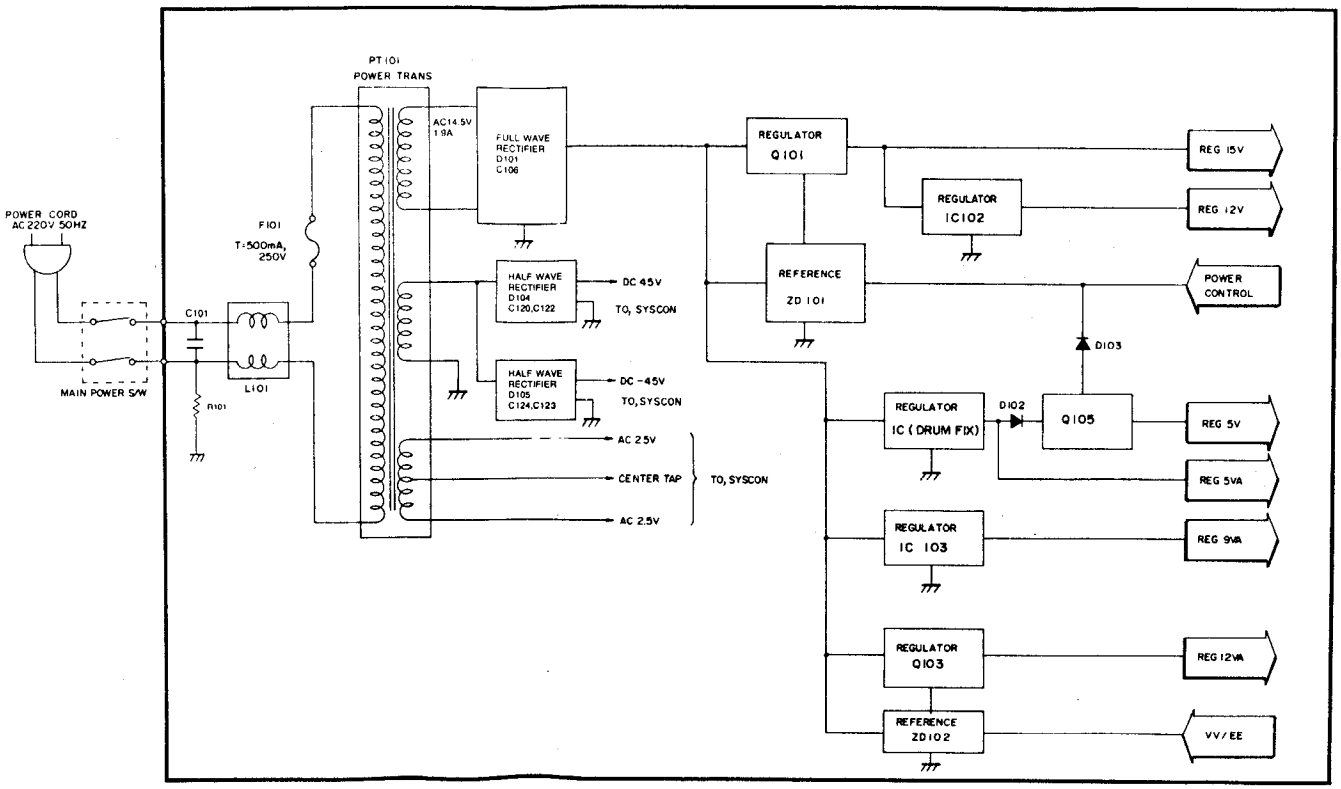
6. Use only an anti-static solder removal device. Many solder removal devices are not rated as “anti-static”; these can accumulate sufficient electrical charge to damage ESDs.

7. Do not remove a replacement ESD from its protective package until you are ready to install it. Most replacement ESDs are packaged with leads that are electrically shorted together by conductive foam, aluminum foil or other conductive materials.

8. Immediately before removing the protective material from the leads of a replacement ESD, touch the protective material to the chassis or circuit assembly into which the device will be installed.

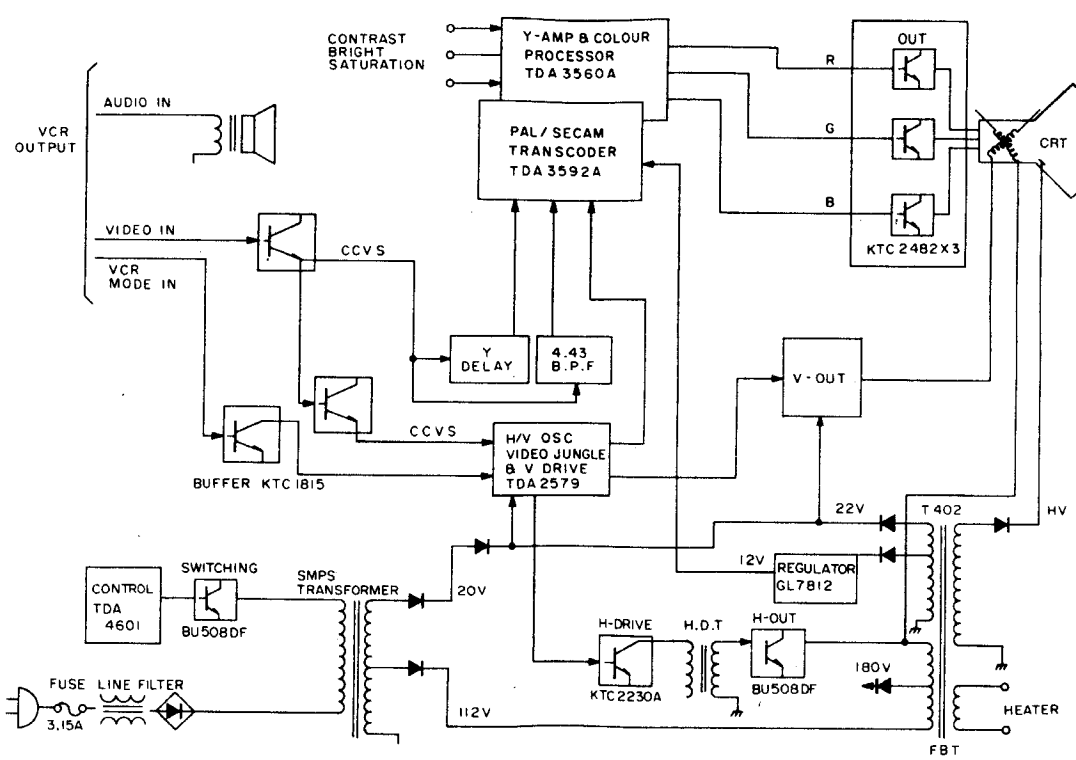
9. Minimize body motions when handling unpackaged replacement ESDs. Motions such as brushing clothes together, or lifting a foot from a carpeted floor can generate enough static electricity to damage an ESD.

9-2 POWER BLOCK DIAGRAM

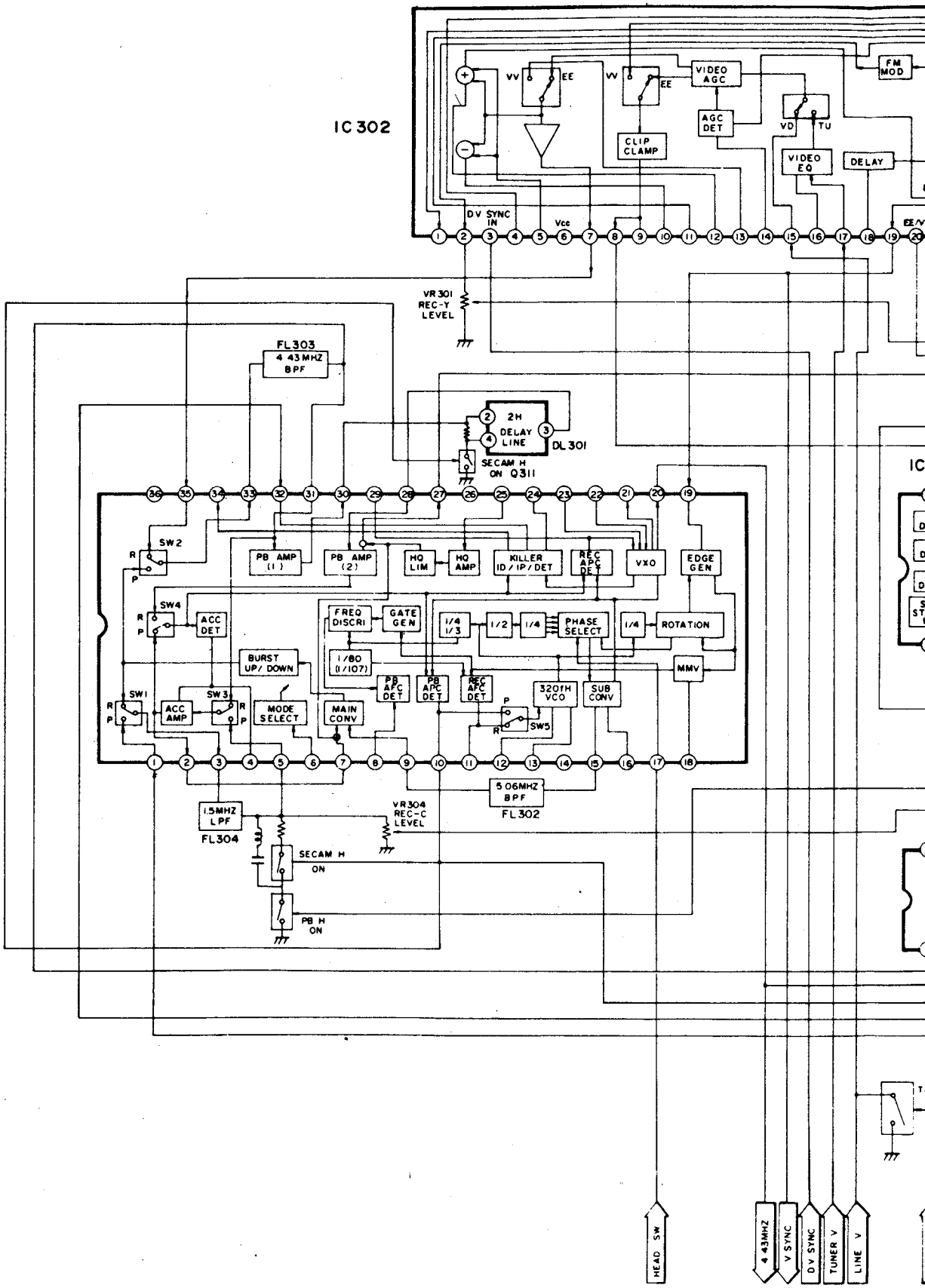


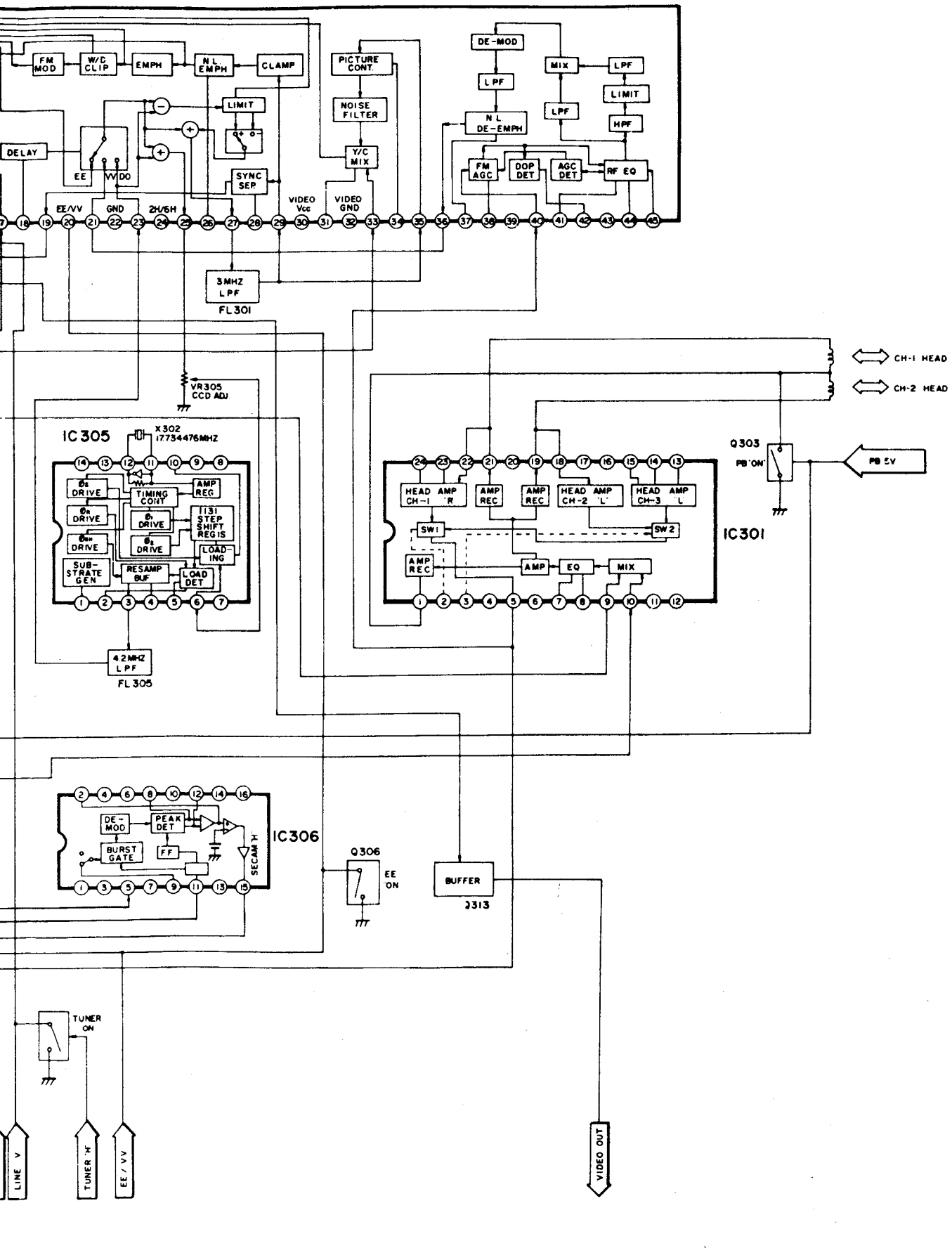
9. BLOCK DIAGRAM

9-1 MONITOR BLOCK DIAGRAM

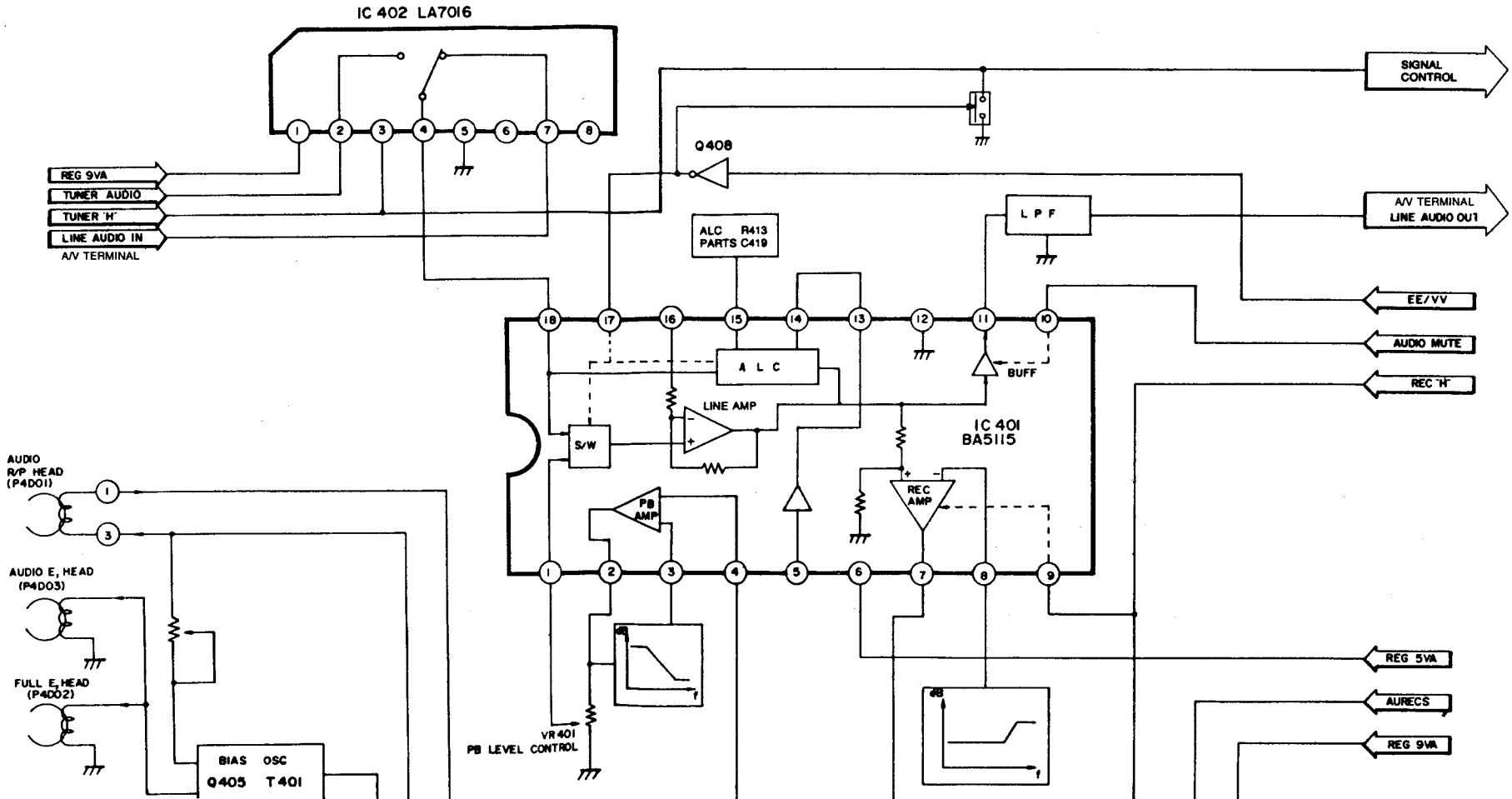


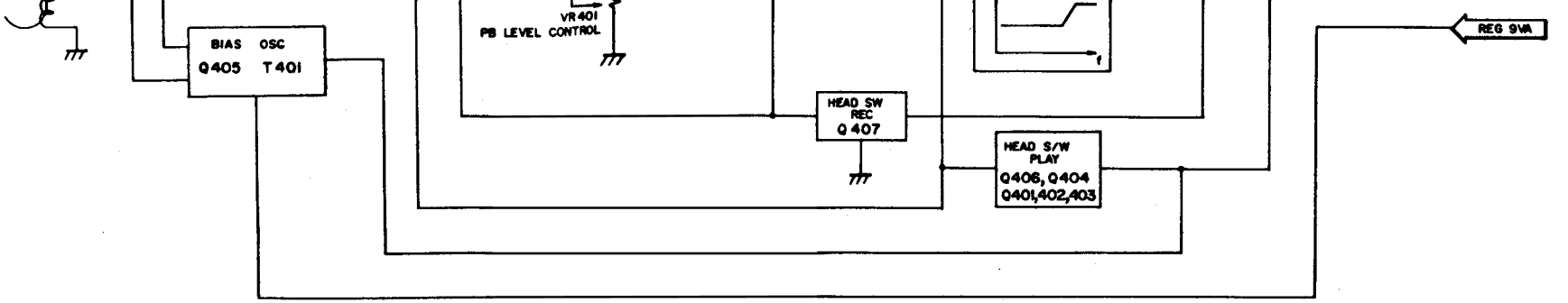
9-3 Y/C BLOCK DIAGRAM



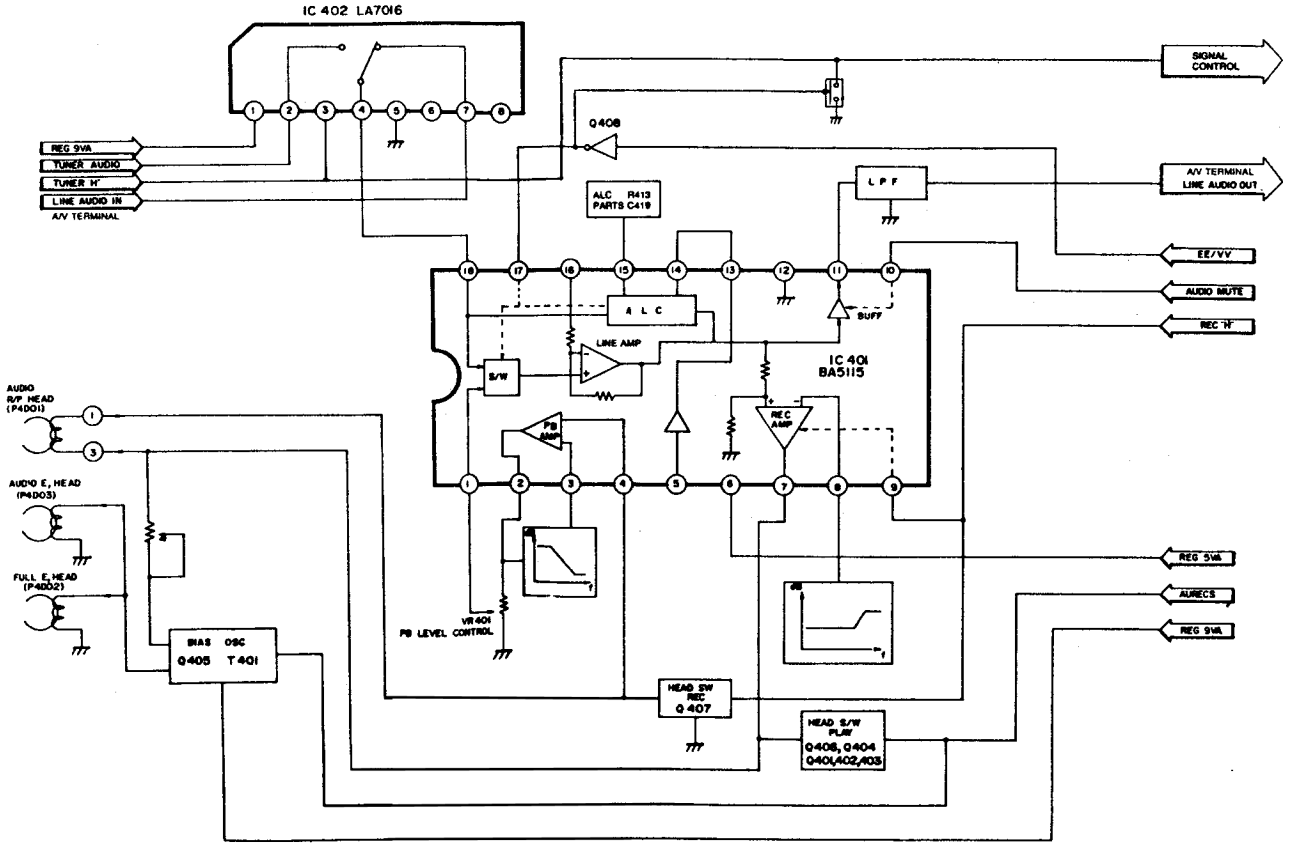

FM MOD
W/C CLIP
EMPH
N L EMPH
CLAMP
PICTURE CONT.
NOISE FILTER
Y/C MIX
DE-MOD
LPF
N L DE-EMPH
MIX
LPF
LIMIT
HPF
FM AGC
DOP DET
AGC DET
RF EQ
DELAY
LIMIT
EE
VV
DO
SYNC SEP.
EE/VV
GND
2H/6H
VIDEO Vcc
VIDEO GND
3MHZ LPF
FL301
VR305 CCD ADJ.
IC305
X302 17734476MHZ
TIMING CONT
AMP REG
131 STEP SHIFT REGIS
LOADING
RESAMP BUF
LOAD DET
SUB-STRATE GEN
4.2MHZ LPF
FL305
CH-1 HEAD
CH-2 HEAD
Q303
PB 'ON'
PB 5V
HEAD AMP CH-1 'R'
AMP REC
HEAD AMP CH-2 'L'
HEAD AMP CH-3 'L'
SW1
SW2
AMP
EQ
IC301
IC306
DE-MOD
PEAK DET
BURST GATE
FF
SECAM 'H'
Q306
EE 'ON'
BUFFER
2313
TUNER ON
LINE 'V'
TUNER 'H'
EE/VV
VIDEO OUT

9-4 AUDIO BLOCK DIAGRAM

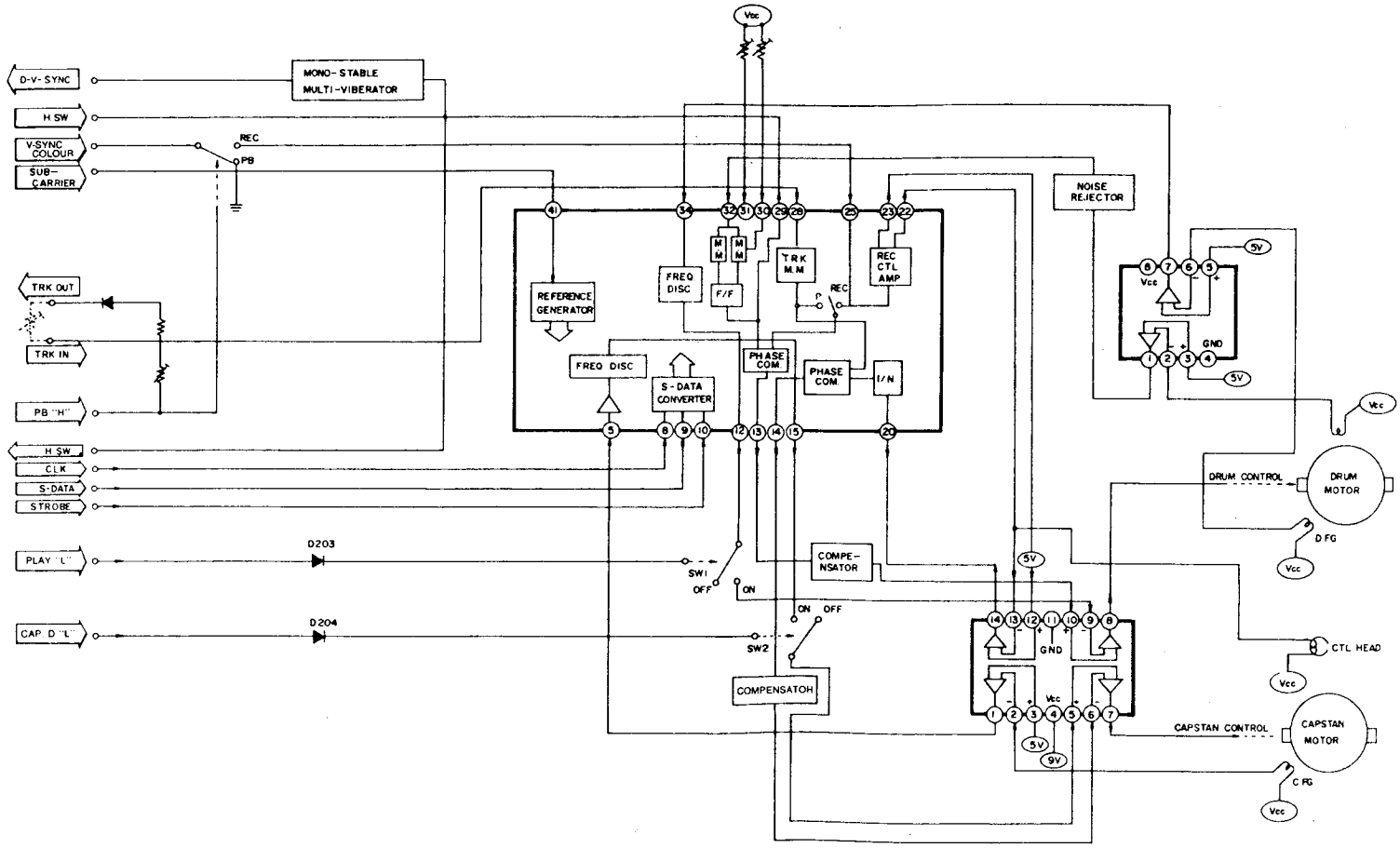




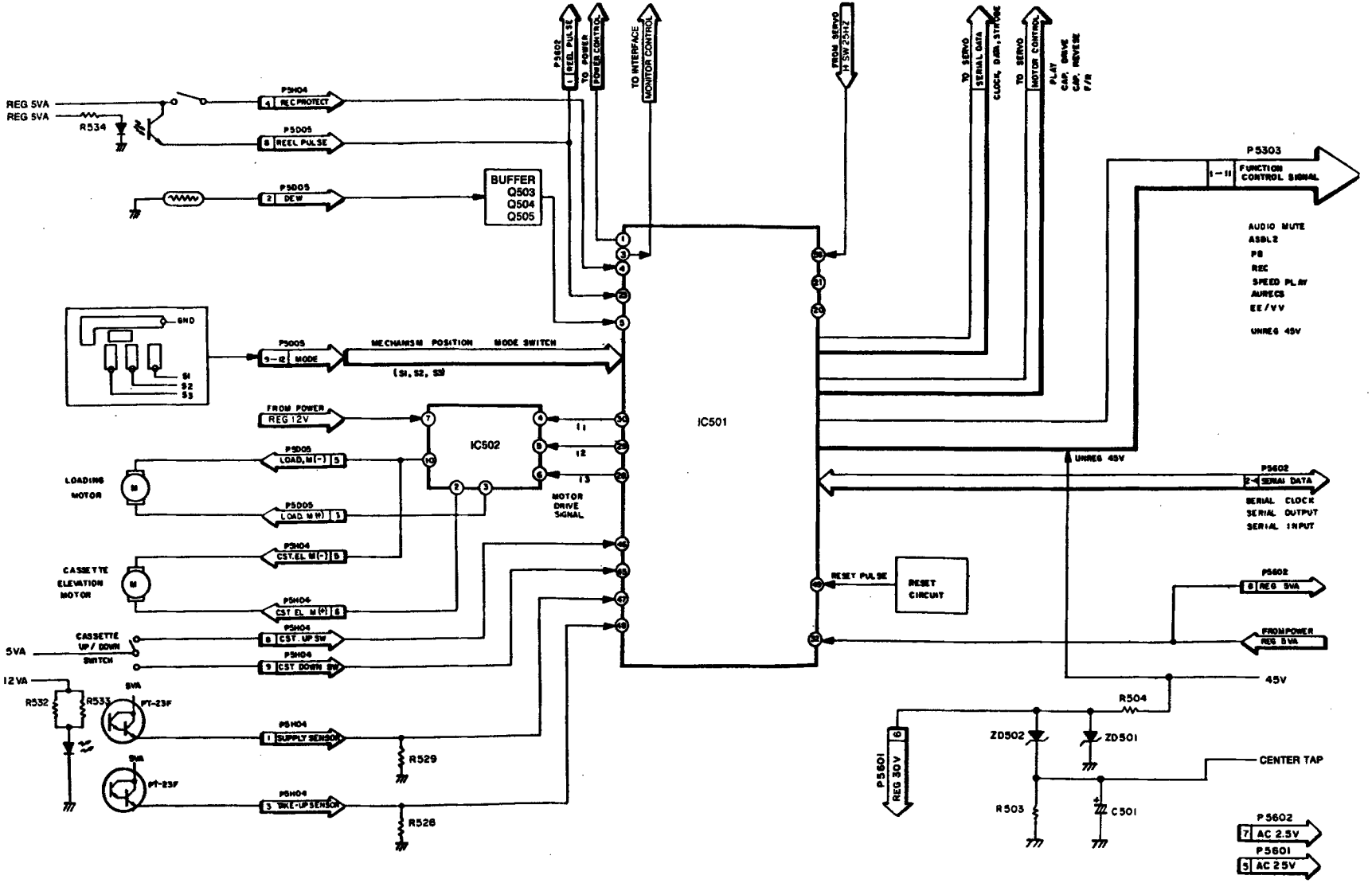
9-4 AUDIO BLOCK DIAGRAM



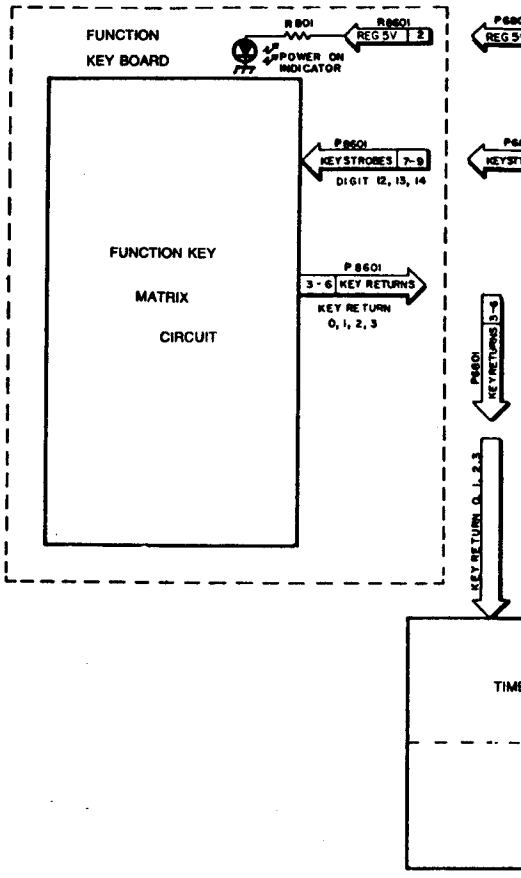
9-5 SERVO BLOCK DIAGRAM



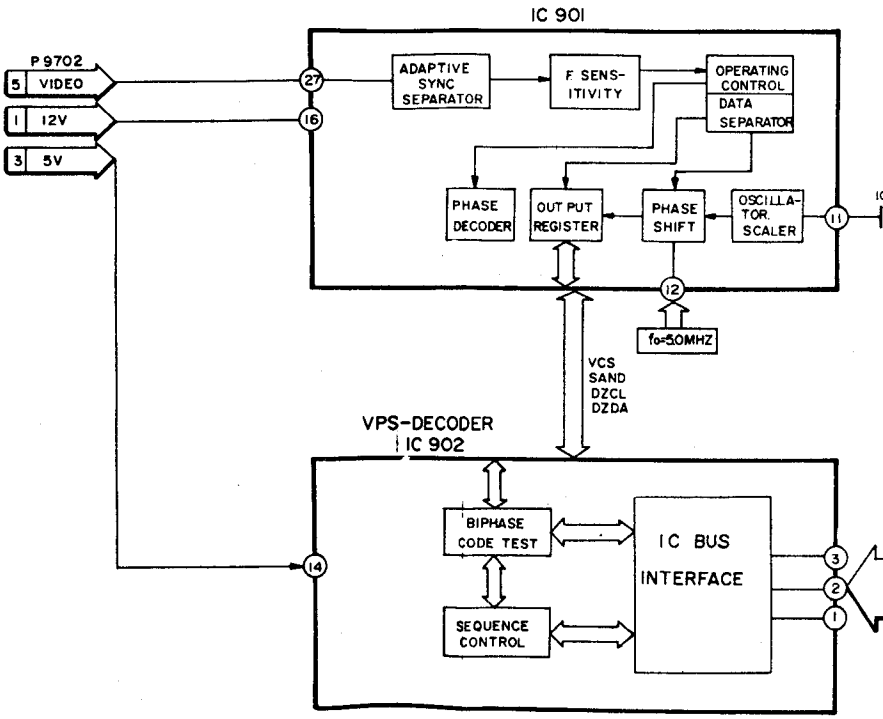
9-6 SYSTEM CONTROL BLOCK DIAGRAM

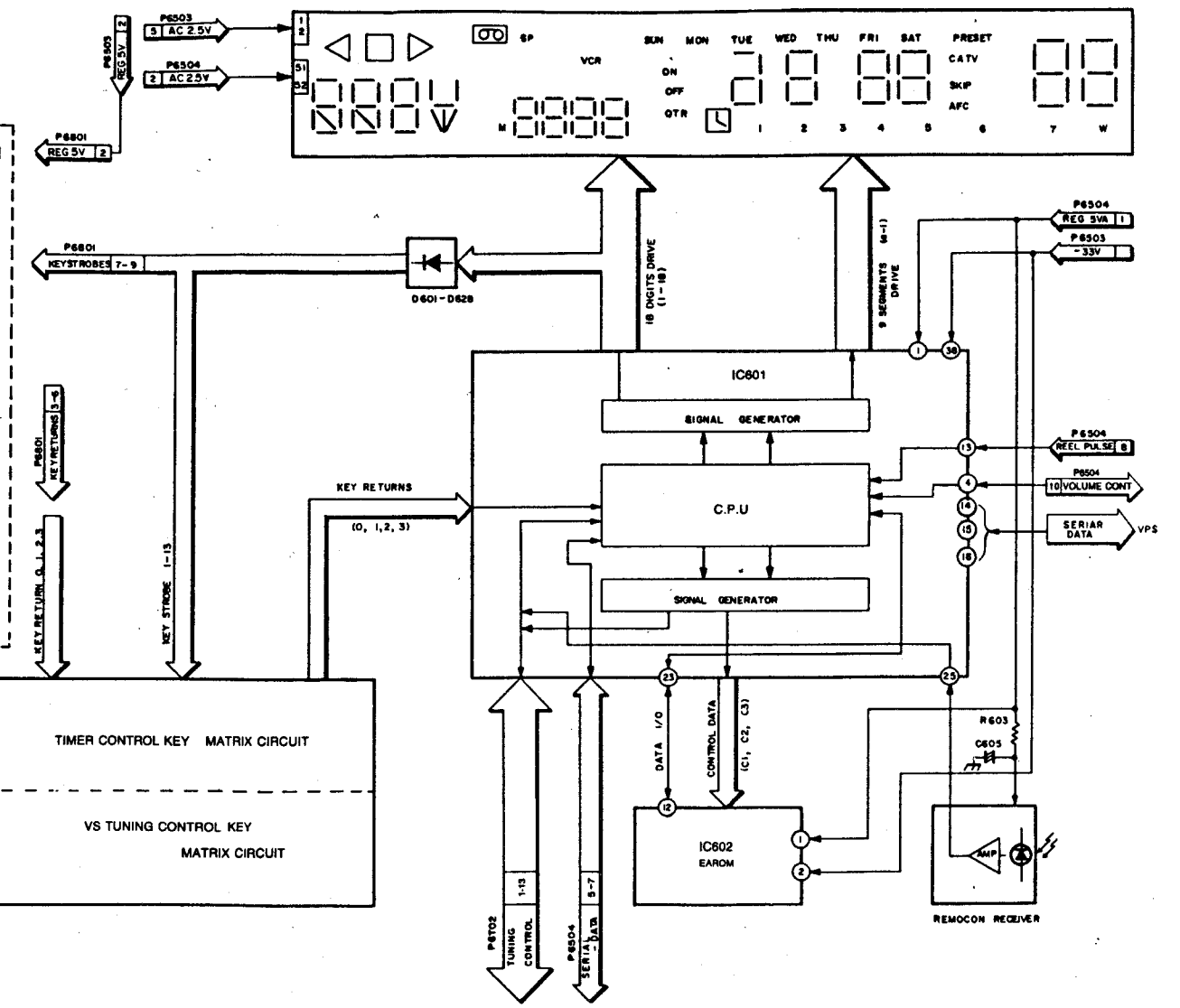


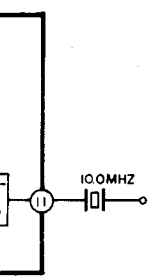
9-7 TIMER/TUNING BLOCK DIAGRAM

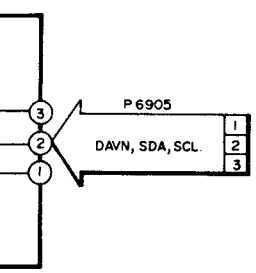


9-8 VPS BLOCK DIAGRAM (NOT IN USE)

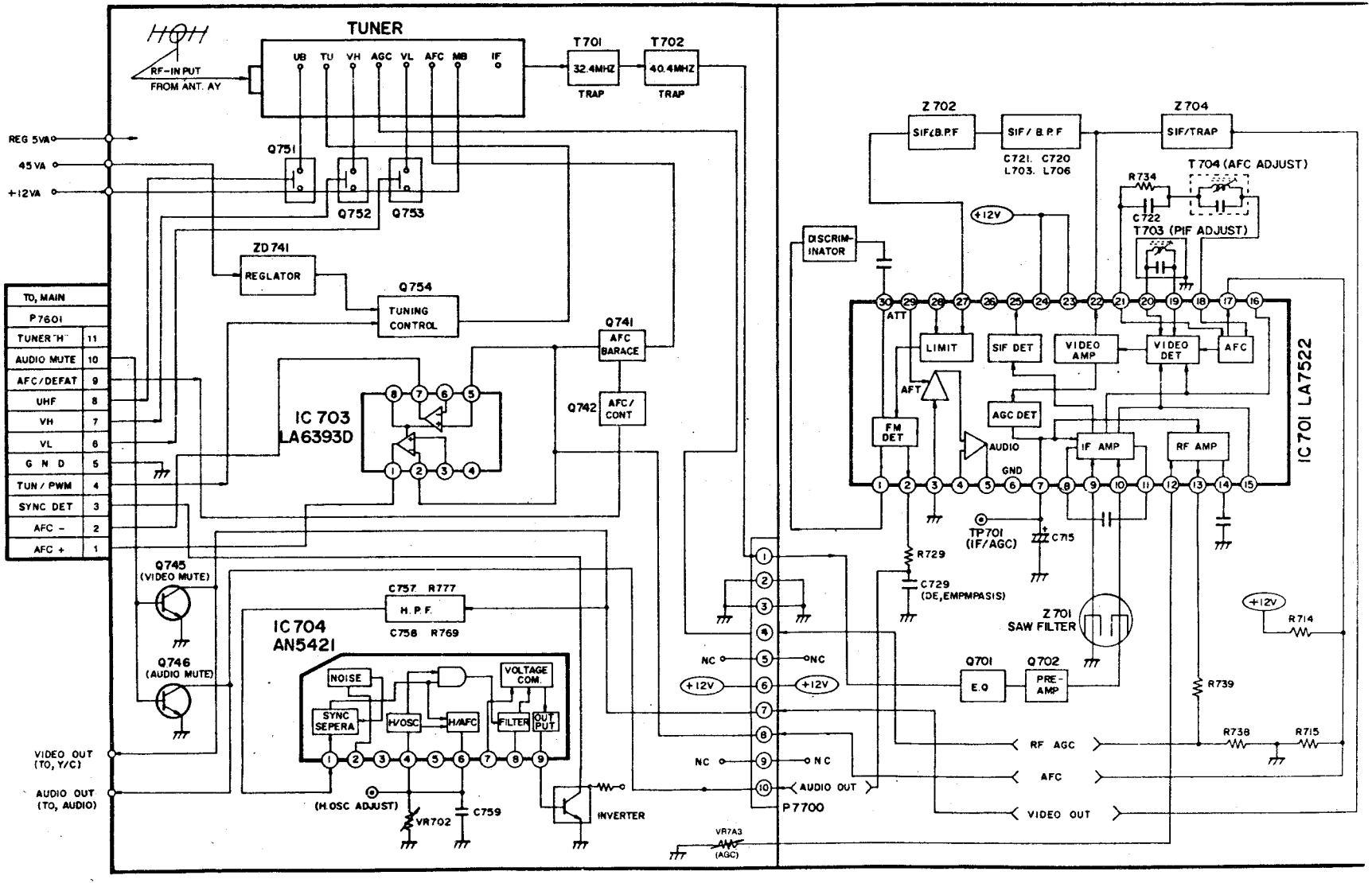



P6503
AC 2.5V
P6504
AC 2.5V
P6503
REG 5V
P6801
REG 5V
SP
VCR
SUN MON TUE WED THU FRI SAT
ON
OFF
QTR
PRESET
CATV
SKIP
AFC
P6801
KEYSTROBES 7-9
D601-D628
18 DIGITS DRIVE (1-18)
9 SEGMENTS (a-i) DRIVE
P6504
REG 5VA
P6503
-33V
IC601
SIGNAL GENERATOR
C.P.U
SIGNAL GENERATOR
P6801
KEY RETURNS 3-6
KEY RETURN 0, 1, 2, 3
KEY STROBE 1-13
KEY RETURNS
(0, 1, 2, 3)
P6504
REEL PULSE 8
P6504
10 VOLUME CONT
SERIAR DATA
VPS
TIMER CONTROL KEY MATRIX CIRCUIT
VS TUNING CONTROL KEY
MATRIX CIRCUIT
DATA I/O
CONTROL DATA
(C1, C2, C3)
R603
C605
IC602
EAROM
AMP
REMOCON RECEIVER
P6702
TUNING CONTROL
1-13
P6504
SERIAL DATA
5-7

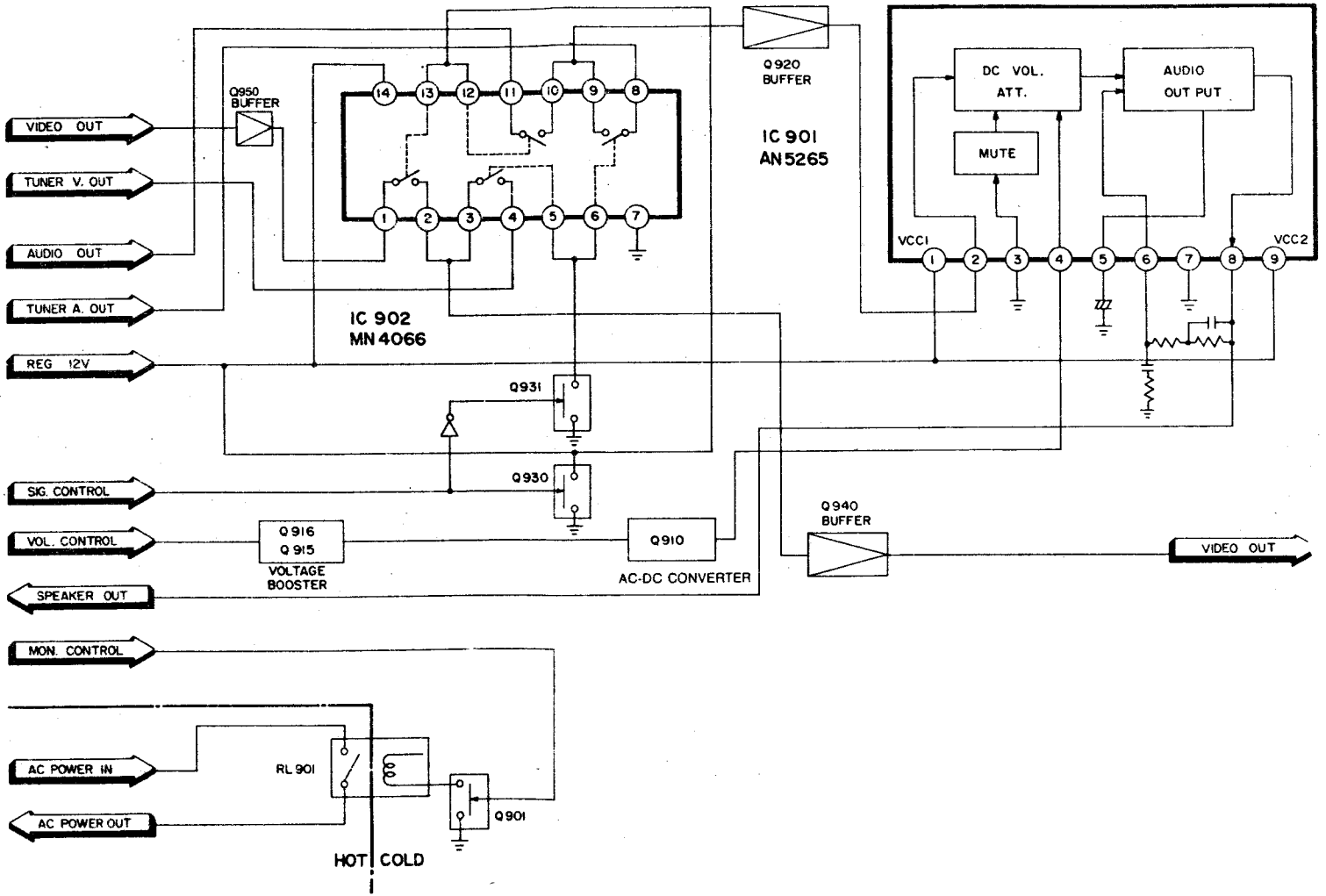

10.0MHZ


P6905
DAVN, SDA, SCL.

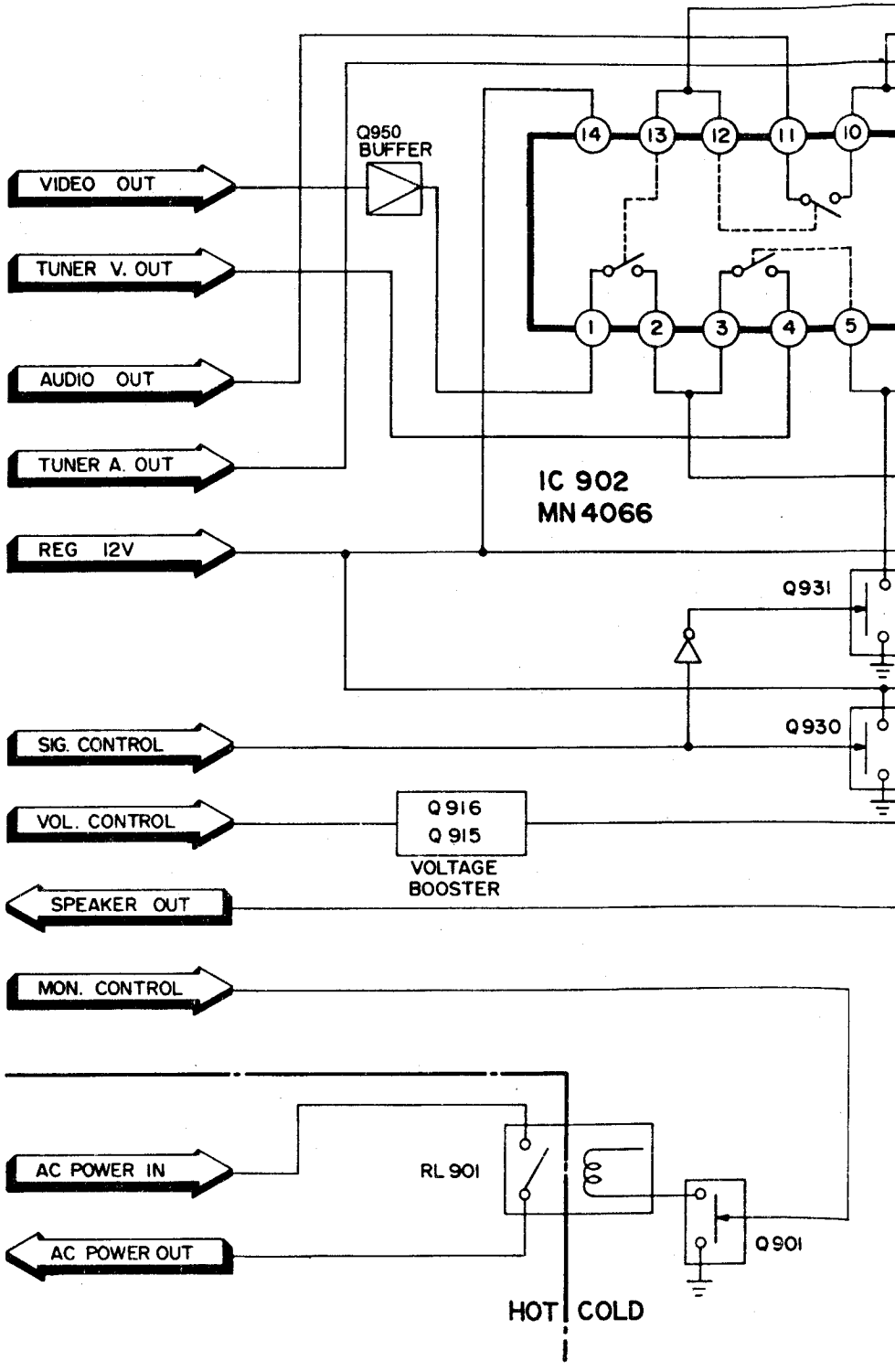
9-9 TUNER/IF BLOCK DIAGRAM

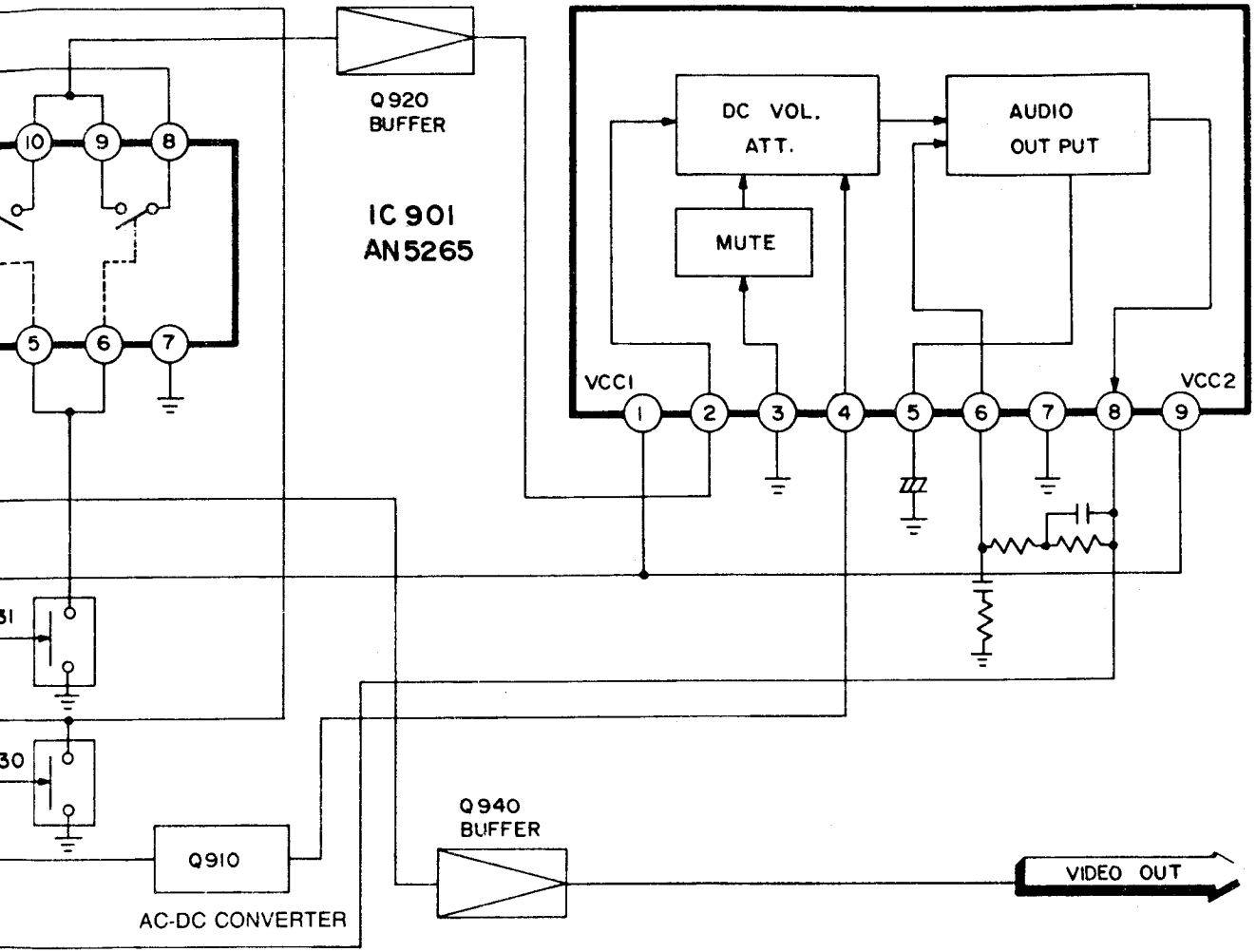


9-10 INTERFACE BLOCK DIAGRAM

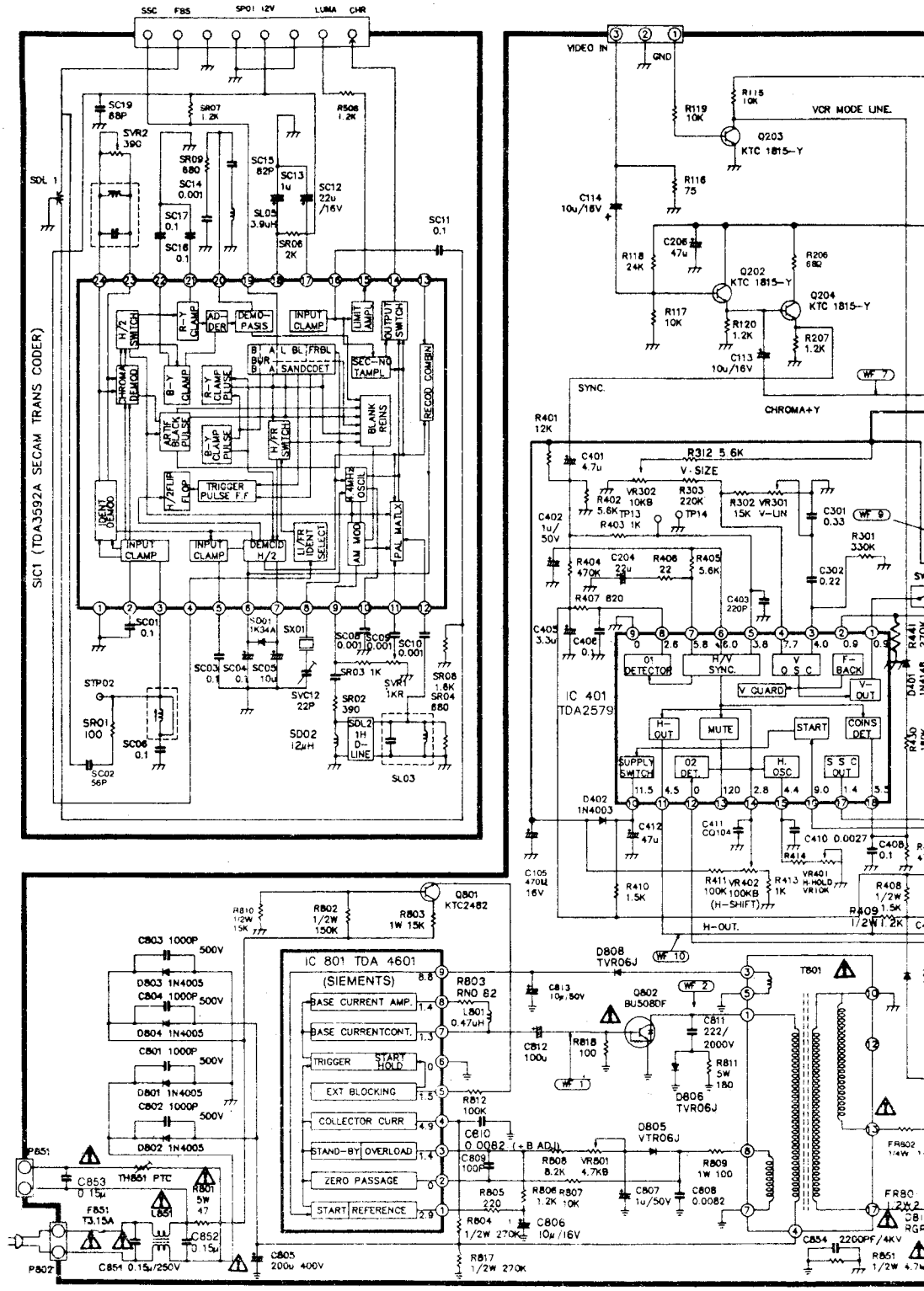


9-10 INTERFACE BLOCK DIAGRAM

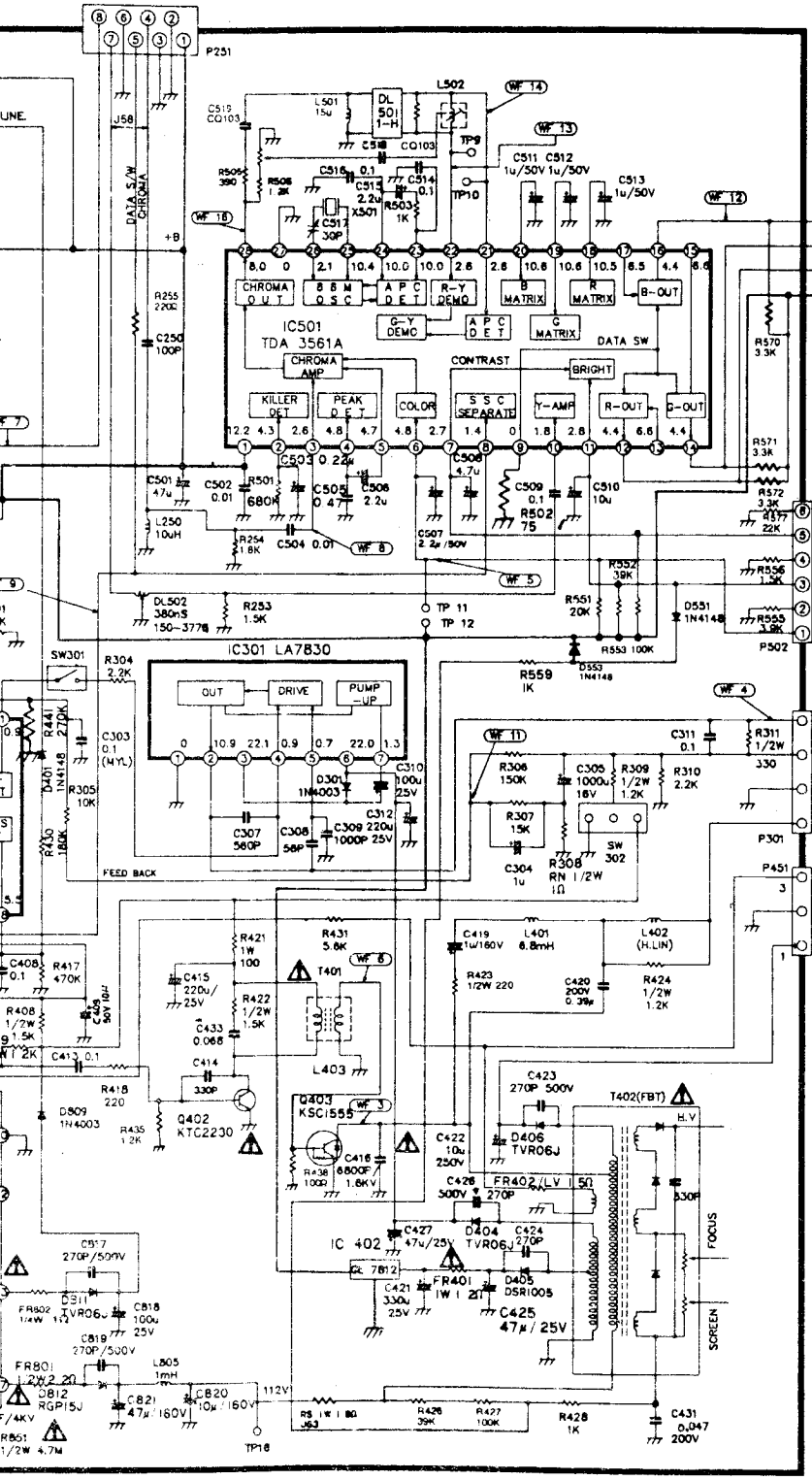


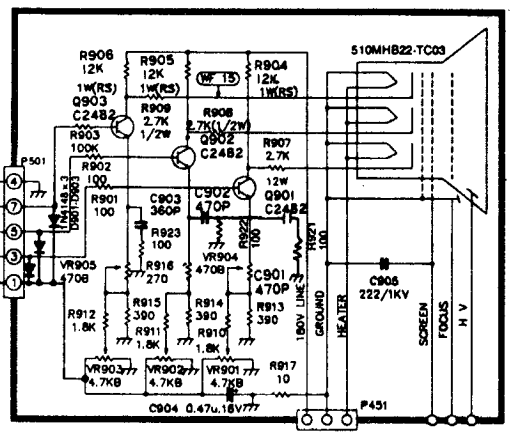

Q920
BUFFER
IC 901
AN5265
DC VOL.
ATT.
AUDIO
OUT PUT
MUTE
VCC1
VCC2
1
2
3
4
5
6
7
8
9
10
9
8
5
6
7
Q940
BUFFER
Q910
AC-DC CONVERTER
VIDEO OUT

10-1 MONITOR SCHEMATIC DIAGRAM

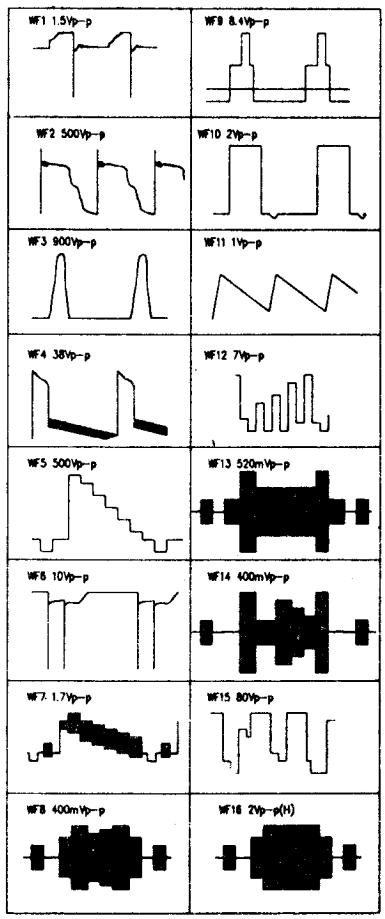


SCHEMATIC DIAGRAM





NOTICE
Since tjis is a basic circuit diagram.
The value of components and some partical connection are subject to be changed for improvement.

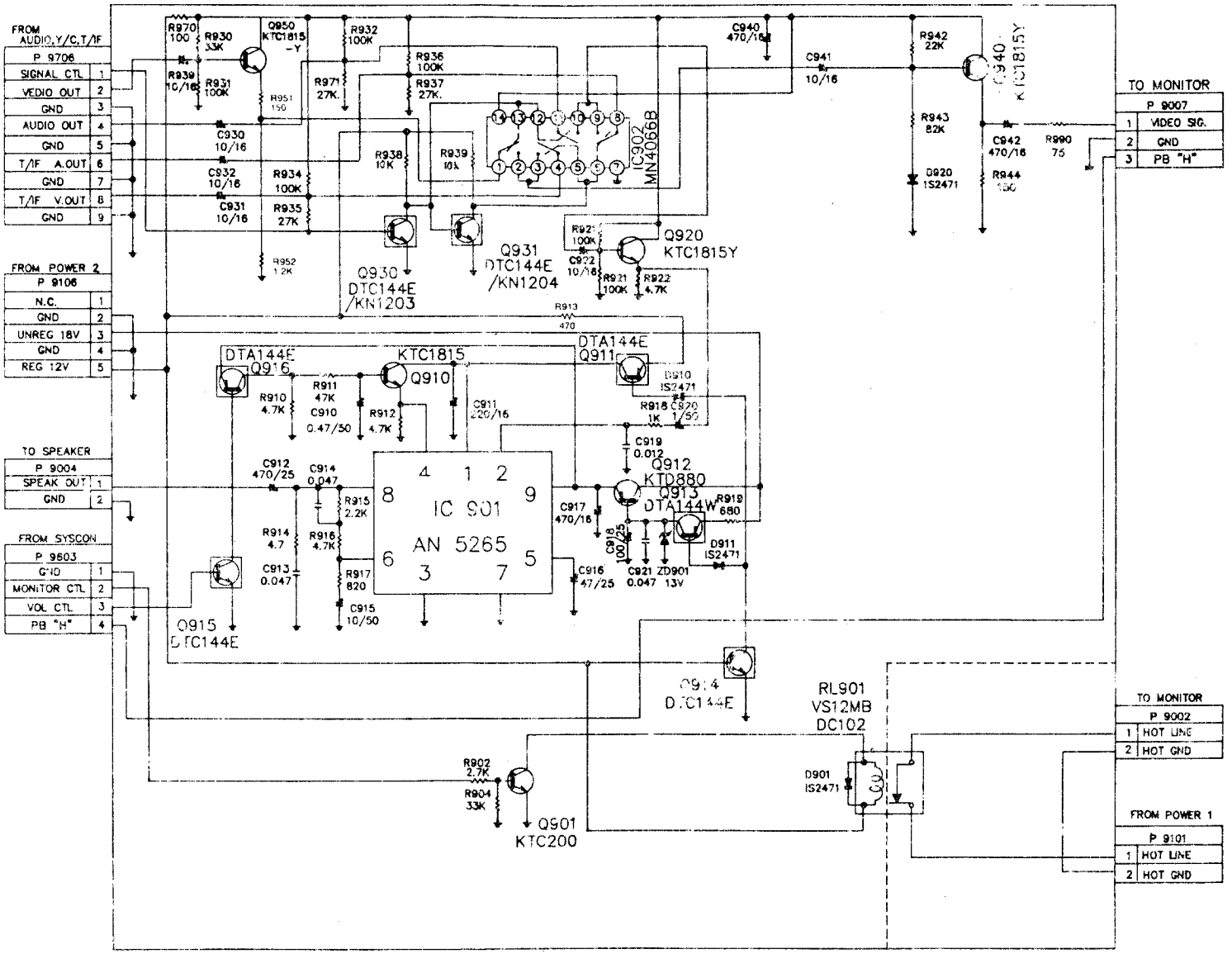


UCTOR
00, M=1,000,000.
c, oil capacitor values less
values more than 1 in pF.
, oil inductor values more
values less than 1 in H.

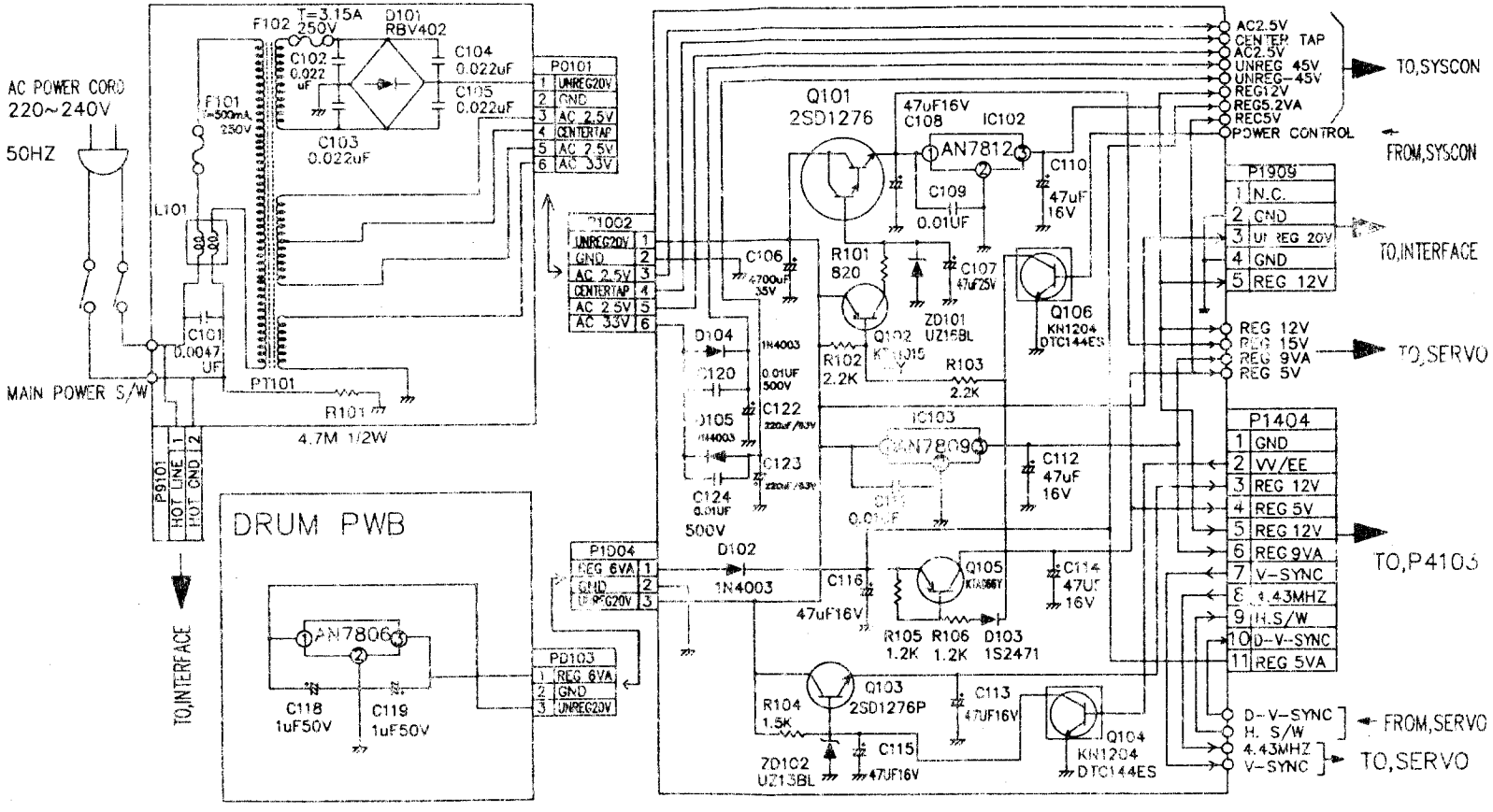
OBSERVATION OF VOLTAGES AND WAVEFORMS

1. Voltages read with VTVM from point shown to chassis ground, line voltages 180~270V volts, colour bar signal.
2. Voltages reading may vary ±20%.
3. The schematic shown is representative only.
4. All waveforms are taken using a wide band oscilloscope and a low capacity probe.
5. Check FINE TUNING, AGC, BRIGHTNESS, CONTRAST and COLOUR controls for best picture, make sure that CONTRAST and COLOUR controls are in mid position and BRIGHTNESS controls is almost in maximum position.
6. waveforms are taken using a standard colour bar signal.

10-3 INTERFACE SCHEMATIC DIAGRAM

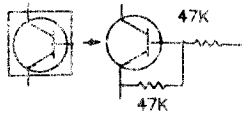


10-2 POWER SCHEMATIC DIAGRAM

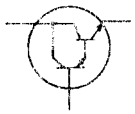


NOTE

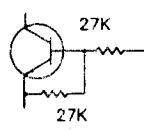
1.KN1204 OR, DTC144ES



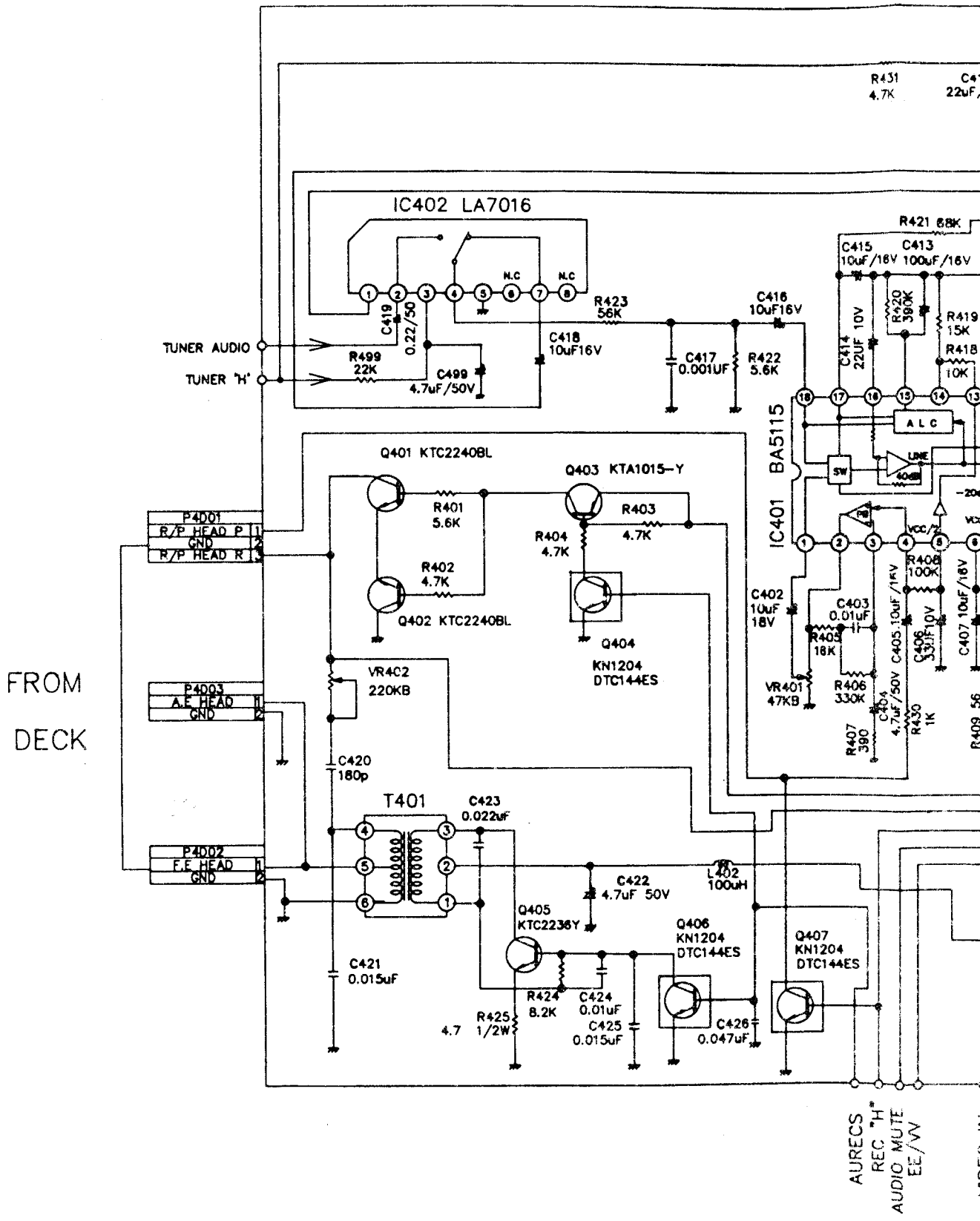
2.Q103=TR,2SD1276P

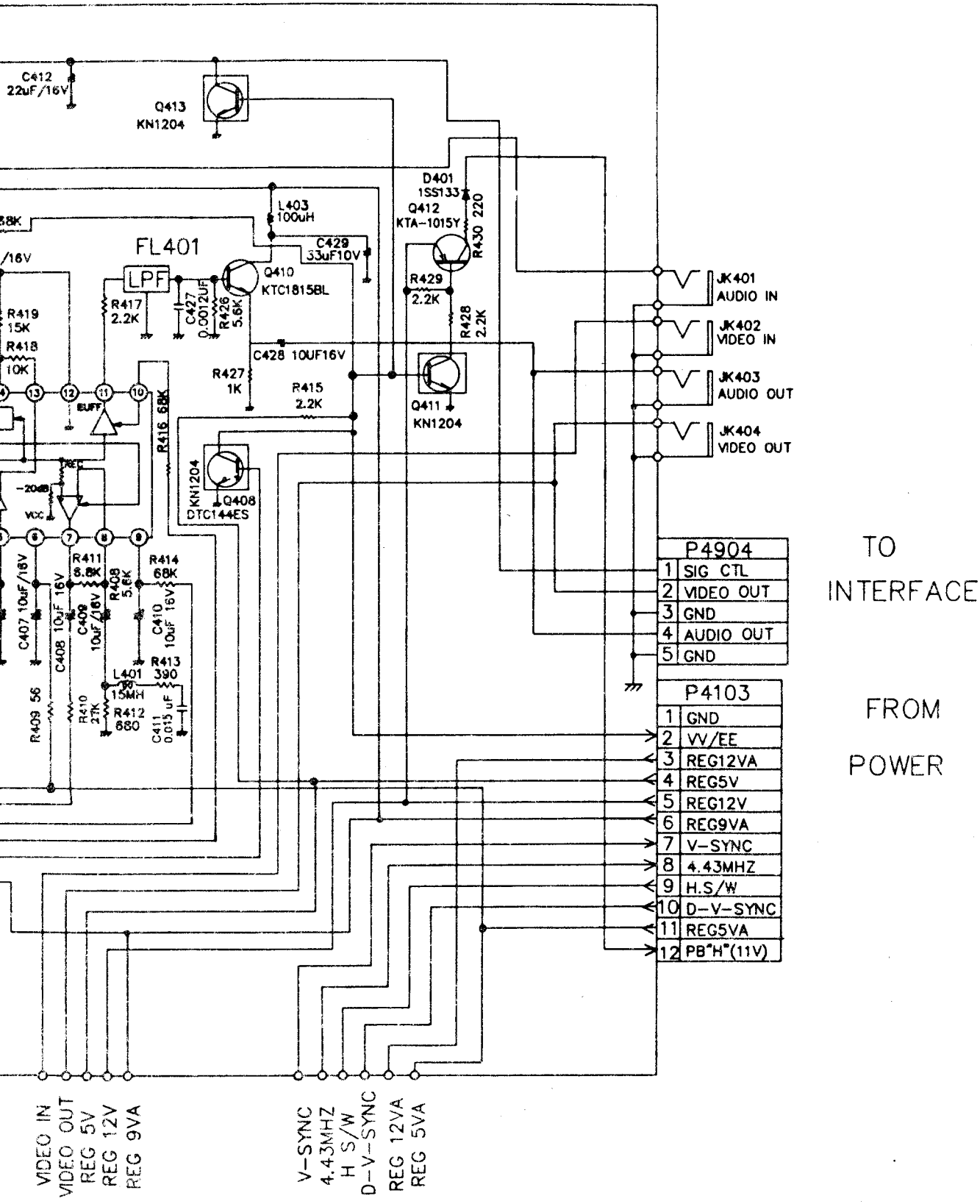


3.DTC124ES

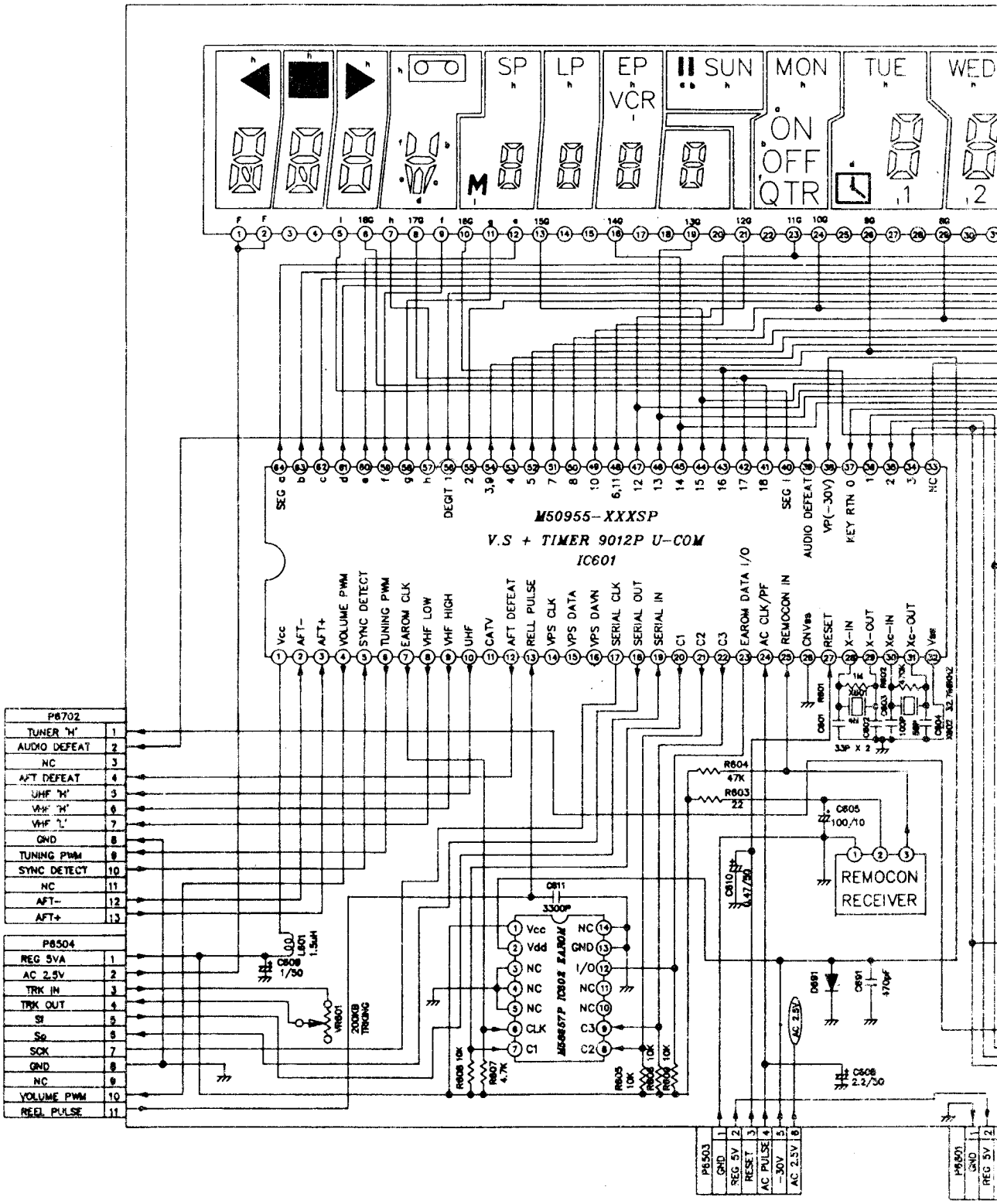


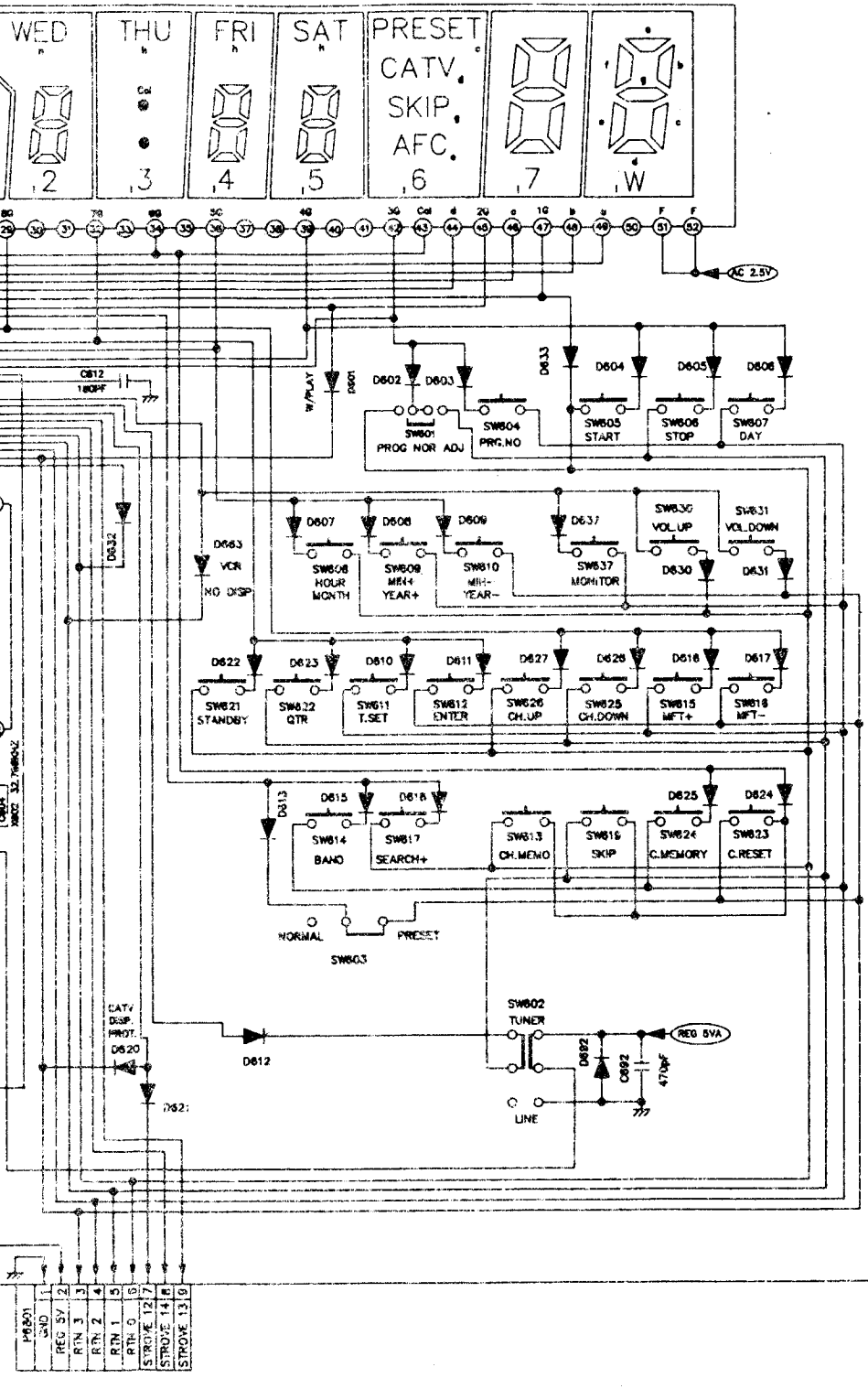
10-4 AUDIO SCHEMATIC DIAGRAM




C412
22uF/16V
Q413
KN1204
D401
1SS133
Q412
KTA-1015Y
R430 220
L403
100uH
FL401
C429
33uF10V
LPF
Q410
KTC1815BL
R429
2.2K
R428
2.2K
R419
15K
R418
10K
R417
2.2K
C427
0.0012UF
R426
5.6K
C428 10UF16V
R427
1K
R415
2.2K
Q411
KN1204
JK401
AUDIO IN
JK402
VIDEO IN
JK403
AUDIO OUT
JK404
VIDEO OUT
BUFF
REC
-20dB
VCC
R416 68K
KN1204
Q408
DTC144ES
R411
6.8K
R414
68K
R408
5.6K
C407 10uF/16V
C408 10uF 16V
C409
10uF/16V
C410
10uF 16V
R413
390
L401
15MH
R409 56
R410
27K
R412
680
C411
0.015 uF
P4904
1 SIG CTL
2 VIDEO OUT
3 GND
4 AUDIO OUT
5 GND
P4103
1 GND
2 VV/EE
3 REG12VA
4 REG5V
5 REG12V
6 REG9VA
7 V-SYNC
8 4.43MHZ
9 H.S/W
10 D-V-SYNC
11 REG5VA
12 PB"H"(11V)
TO
INTERFACE
FROM
POWER
VIDEO IN
VIDEO OUT
REG 5V
REG 12V
REG 9VA
V-SYNC
4.43MHZ
H S/W
D-V-SYNC
REG 12VA
REG 5VA

10-5 TIMER SCHEMATIC DIAGRAM

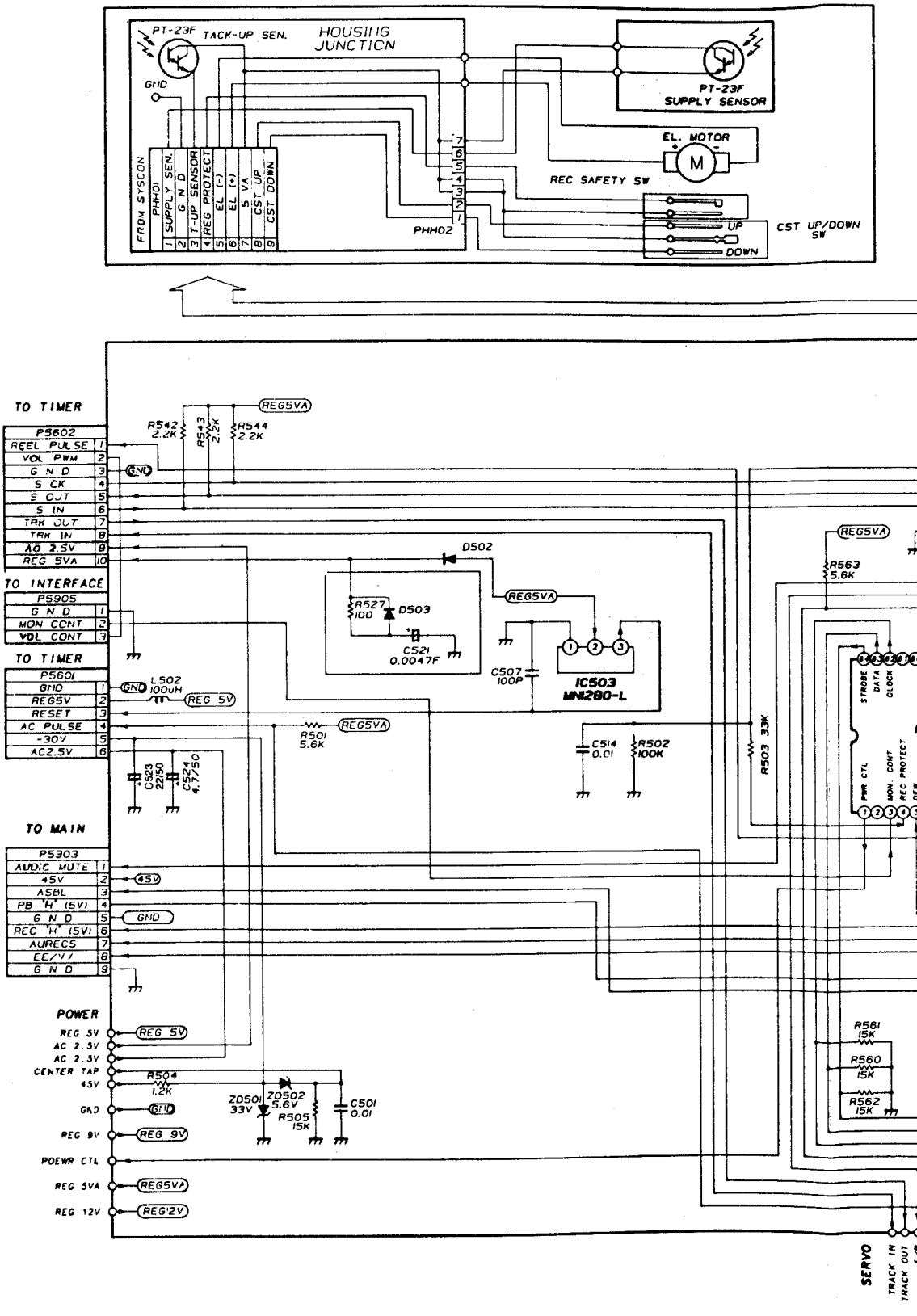


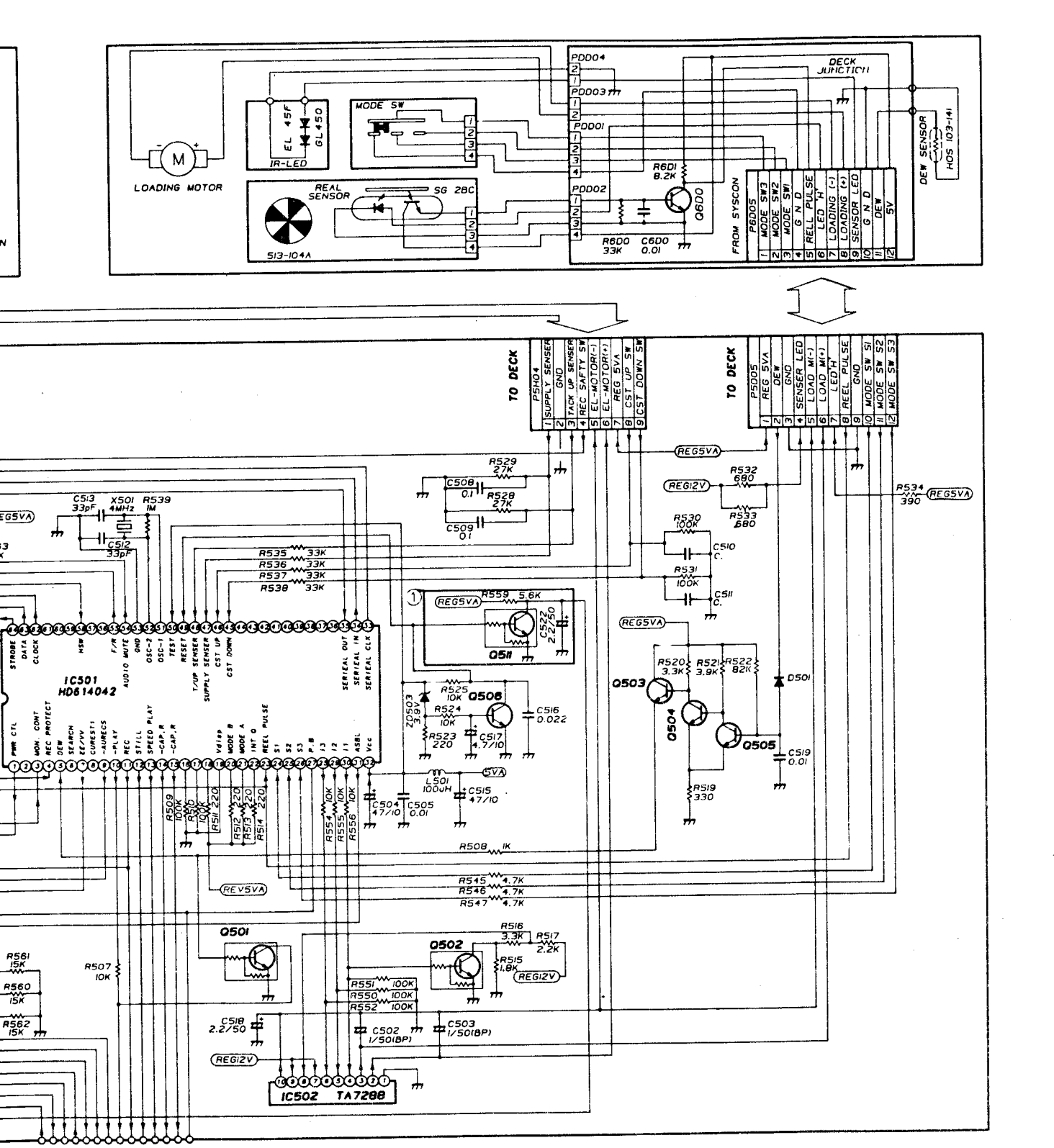


* NOTE

SUFFIX NO		D632	D633	D663	D620	MODEL	RE-MARK
PAL BG	A	–	–	O	O	9012P	VCR CLR QTR 4HR
	B						
	C						
	D						
	E						
	F						
	G						
	H						
PAL I	I						
	J						
	K						
	L						
	M						
	N						
	O						
	P						
PAL H	Q						
	R						
	S						
	T						
	U						
	V						
	W						
	X						
	Y						
	Z						

10-6 SYSCON SCHEMATIC DIAGRAM



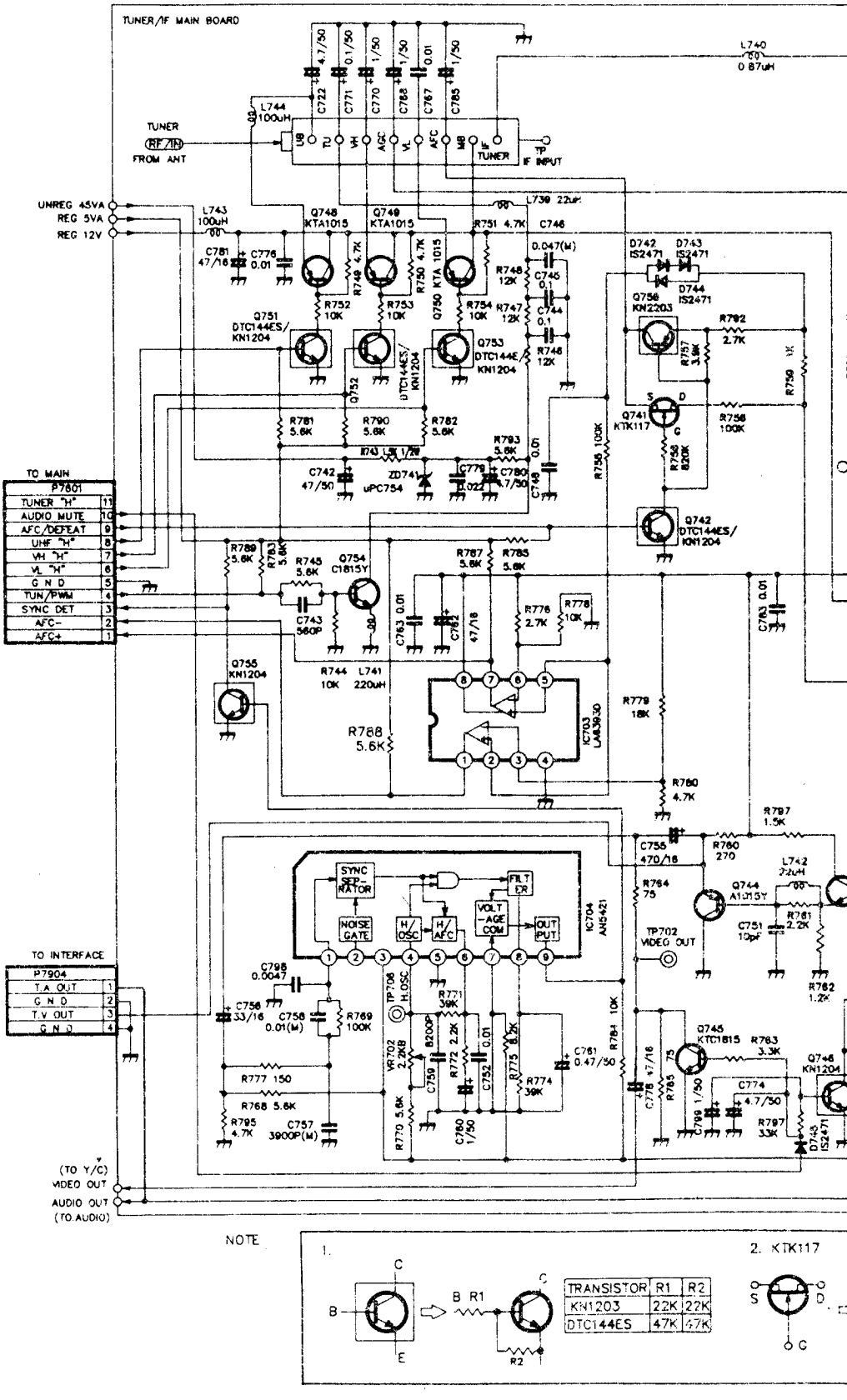


NOTICE

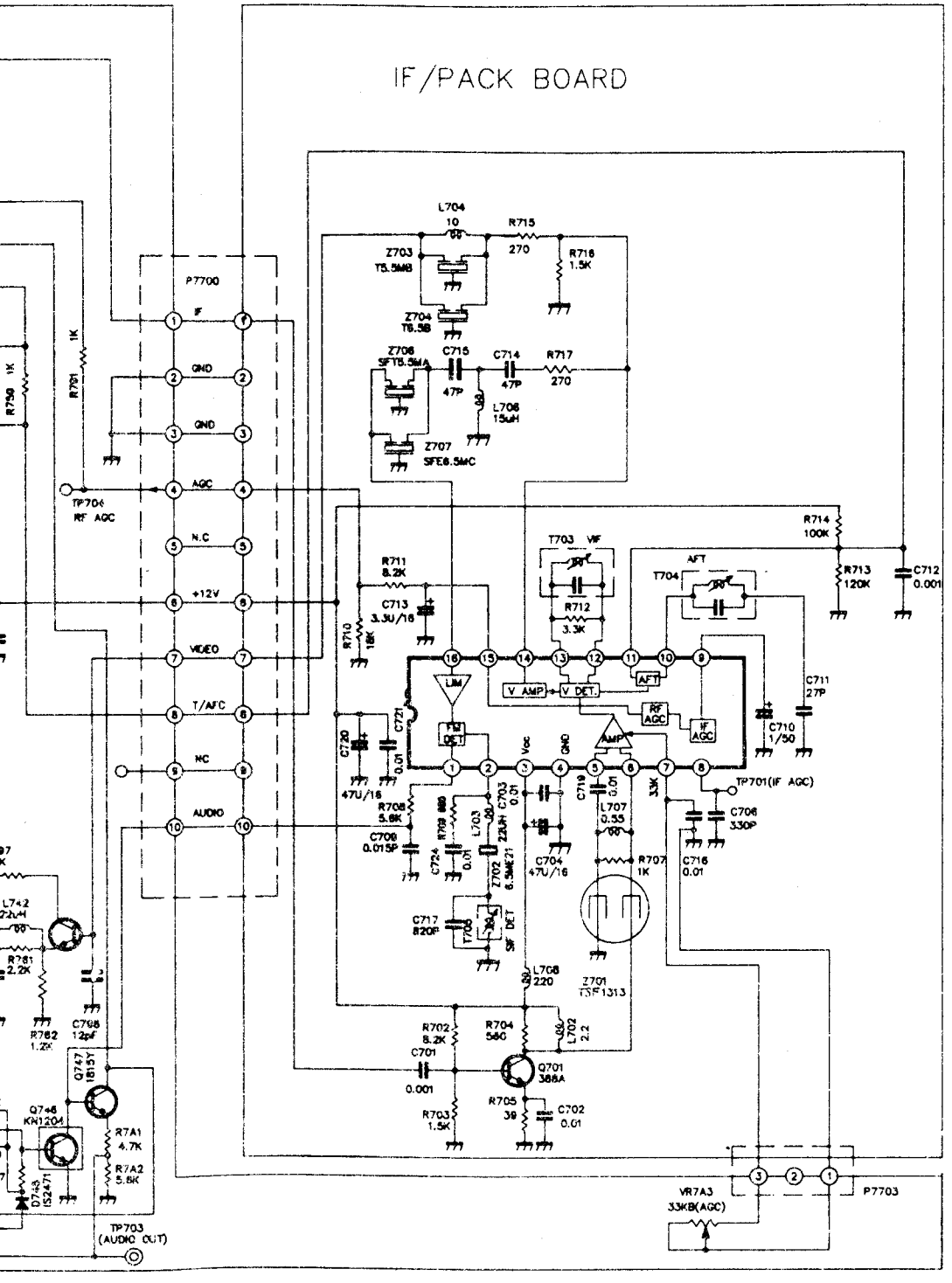
1. OPTION

① Timer Back-up

10-7 TUNER/IF SCHEMATIC DIAGRAM



IF/PACK BOARD



. NOTE : IC PIN VOLTAGE

1. IC701 (LA7545)

PIN NO	VOLTAGE	PIN NO	VOLTAGE
1	4.2	9	9.52
2	4.98	10	8.82
3	11.29	11	5.74
4	GND	12	6.33
5	4.42	13	6.33
6	4.42	14	4.4
7	3.04	15	9.34
8	9.52	16	1.95

2. IC703 (LA83930)

PIN NO	VOLTAGE	PIN NO	VOLTAGE
1	0.05	5	11.18
2	11.18	6	9.57
3	2.53	7	5.15
4	0.01	8	12.13

3. IC704 (AN5421)

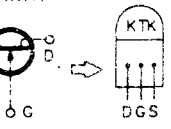
PIN NO	VOLTAGE	PIN NO	VOLTAGE
1	7.71	6	7.46
2	6.82	7	3.36
3	12.11	8	0.15
4	7.75	9	0.06
5	0		

. VOLTAGE E/E MODE

4. TRANSISTOR (VOLTAGE)

SYMBOL NO	E/(S)	C/(G)	B(D)
Q701	0.45	7.62	1.19
Q702	0.38	8.56	1.10
Q741	6.20	0	6.20
Q742	0	0.2	0
Q744	4.56	0	3.87
Q745	0	0	0
Q746	0	5.74	0
Q747	5.13	0	5.75
Q748	12.41	0	12.4
Q749	12.41	12.28	11.66
Q750	12.42	0	12.42
Q751	0	12.39	0
Q752	0	0.1	4.74
Q753	0	12.4	0.05
Q754	0	11.05	0.38
Q755	0	5.23	0.06
Q756	12.3	6.0	12.3

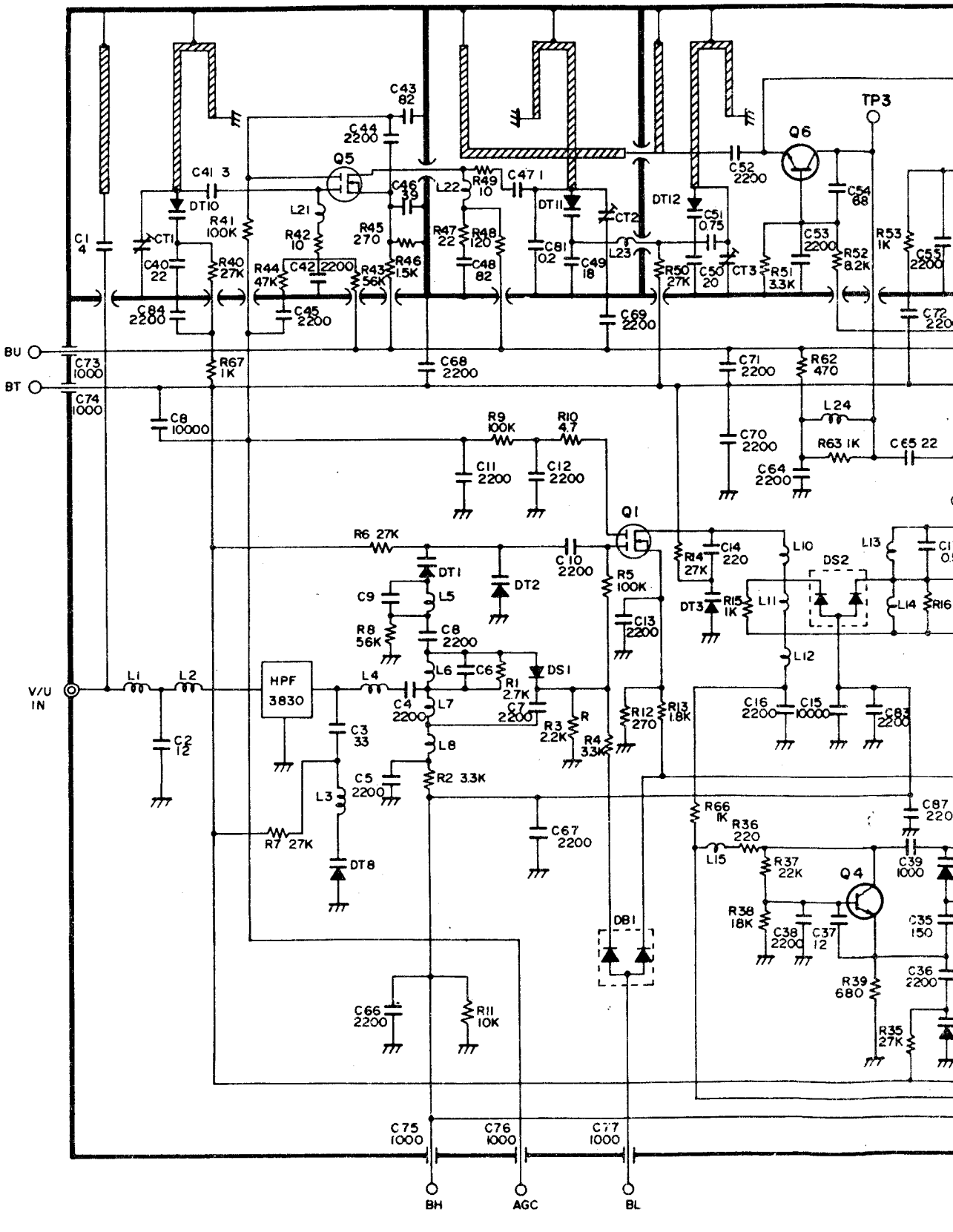
7K117

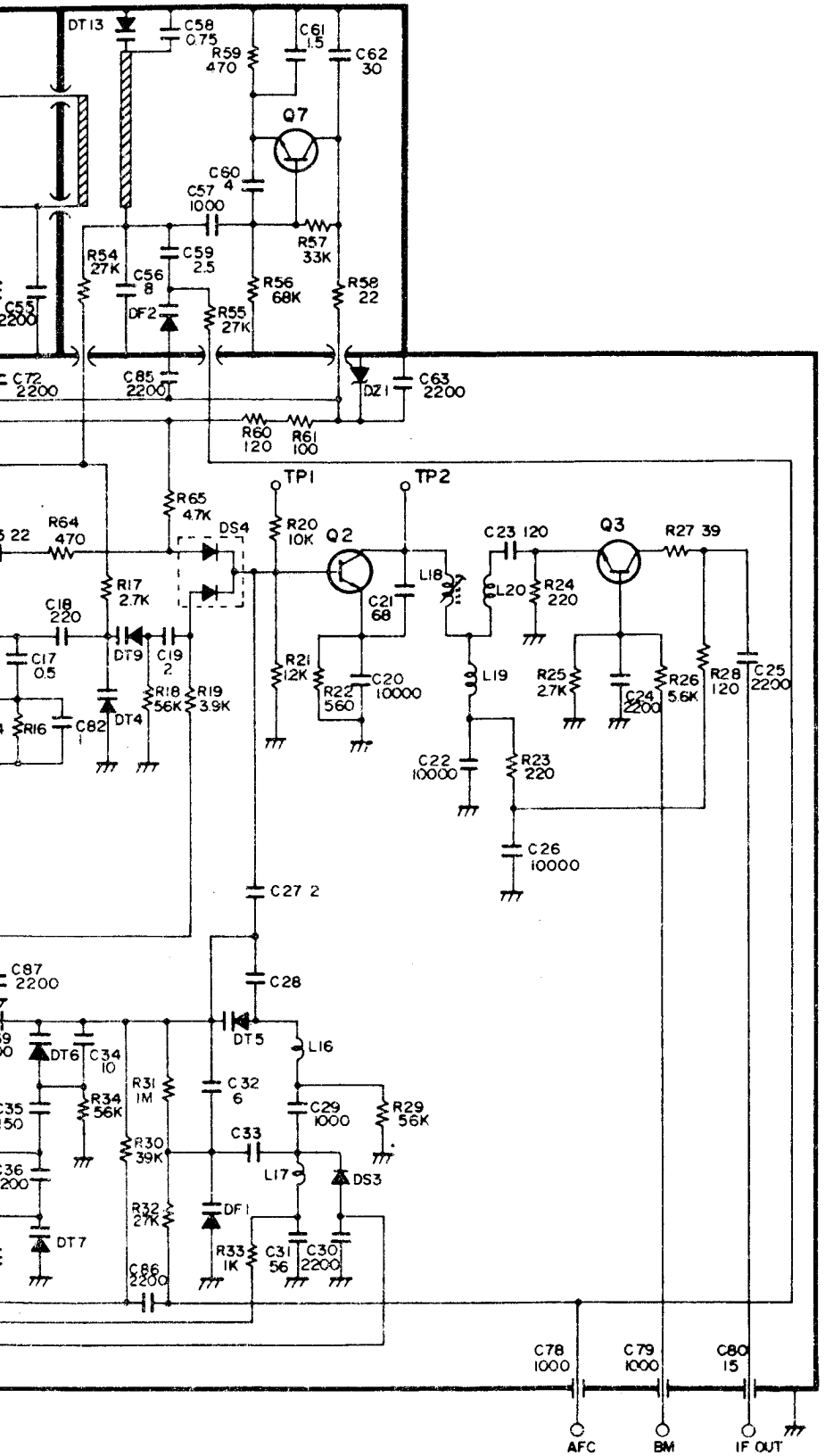


THIS VOLTAGE IS CHECKED UNDER AFC ON CONDITION (AFC SWITCH ON POSISTION) WITH PRE-SETTING CHANNEL

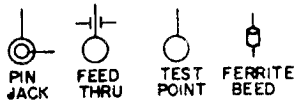
3. UNIT
1) RESISTORS : OHM
2) CAPACITORS
NON UNIT : uF
P : pF
3) INDUCTANCE : uH

10-8 TUNER INSIDE SCHEMATIC DIAGRAM





SYMBOL NAME



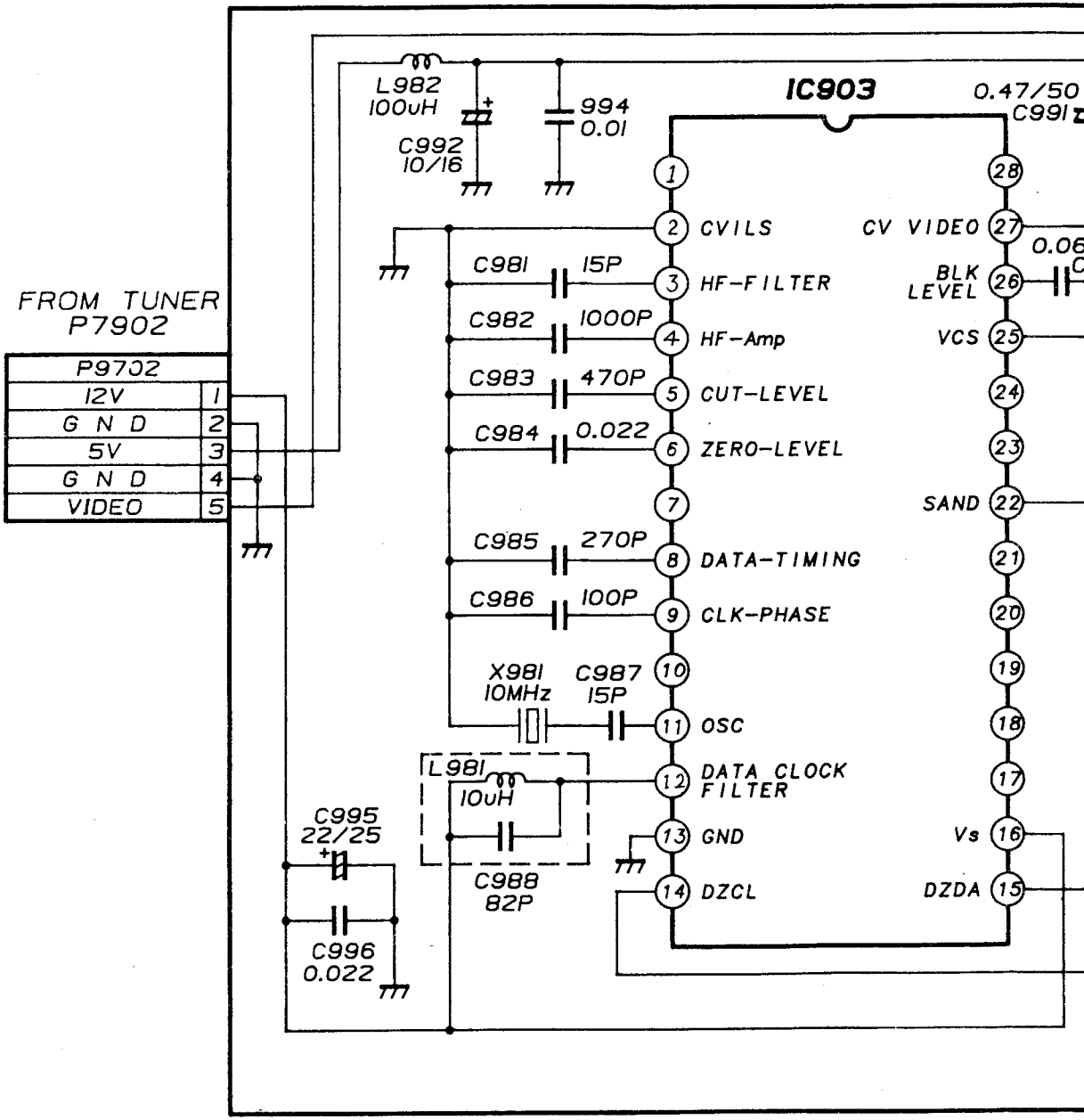
TERMINAL SUPPLY VOLTAGE (VOLTAGE)

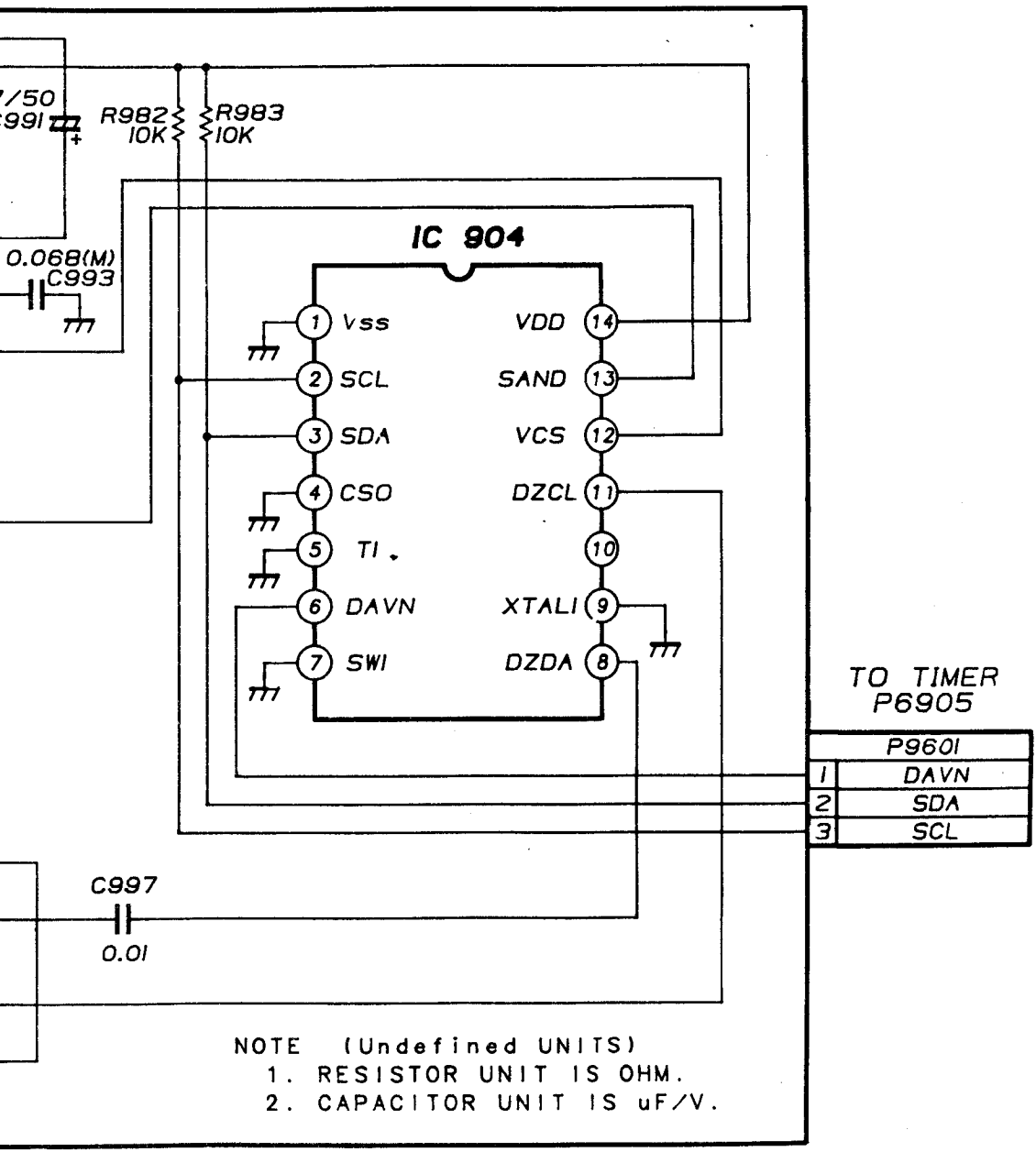
PIN \ BAND	VL	VH	UHF
BU	0	0	12
BT	0-30	0-30	0-30
BH	0	12	0
AGC	0-85	0-85	0-85
BL	12	0	0
AFC	6.5±4	6.5±4	6.5±4
MB	12	12	12
IF/OUT	12	12	12

SYMBOL

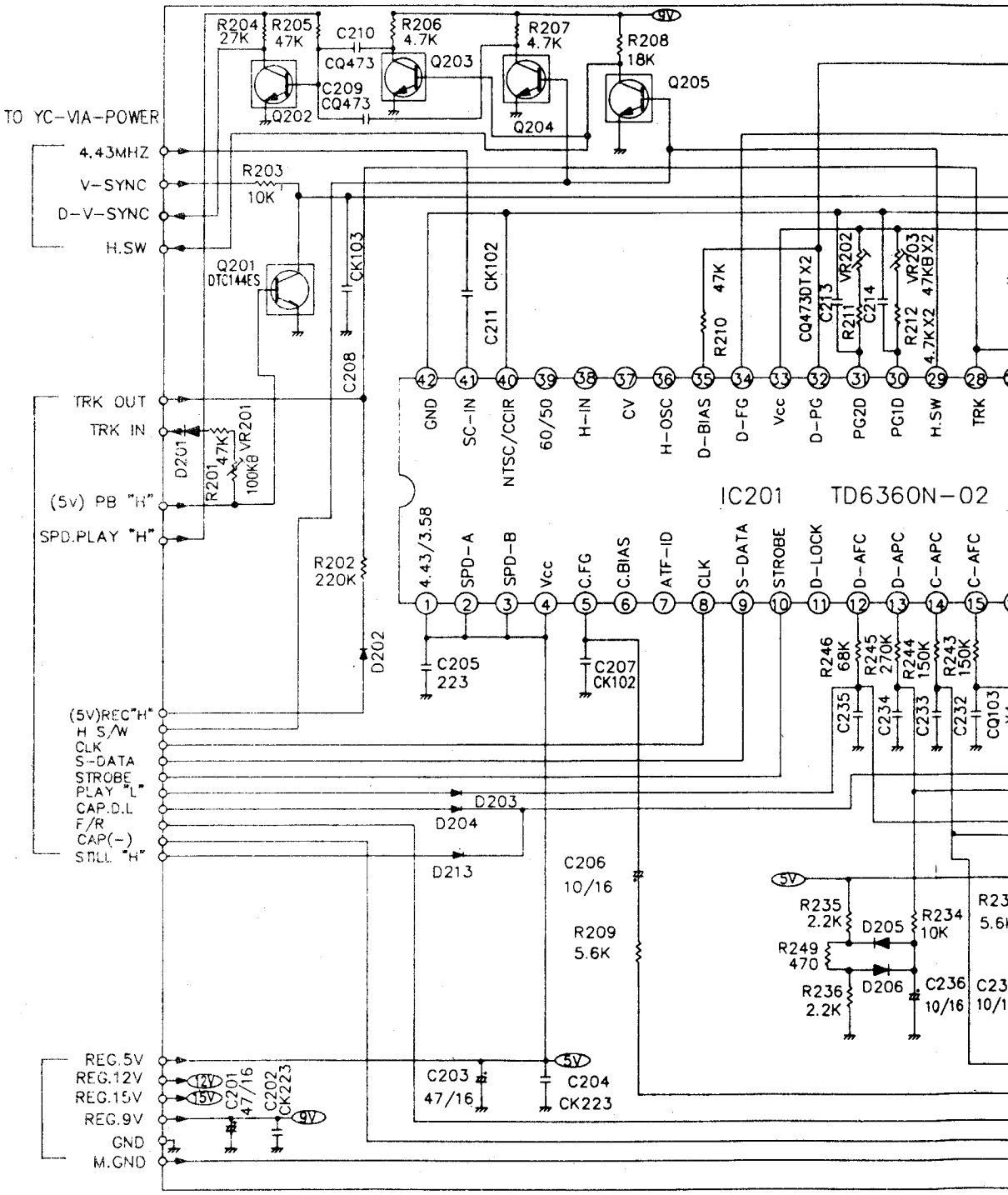
Symbol	Symbol No.	Semiconductor
	R1 — R67 except	resistance(Ω)
	C1 — C88 except	capacitance(pF)
	L1 — L24 except 9	
	DT1-DT7	IT33,ISV161,MA338,MA335
	DT8-DT9	MA342,HVK89,MA341,ISV163
	DT1-DT1	IT32,ISV202,ISV205,MA334
	DF1-DF2	MA342,HVK89,MA341,ISV163
	DS 1	MA77,MA73,HSK277,HSK110
	DS 2	MA75,HSM2694
	DS 3	MA73,MA77,HSK277,HSK110
	DS 4	MC2838,MC804,DAN235
		MA151
	DB 1	MA151,MC2836,HSM2836
	DZ 1	HZL004,MA6082,RLX82
	Q1	3SK144,3SK139,3SK132
		3SK137
	Q2	2SC3130,2SC2759,2SC3793
		2SC3545,2SC2734,2SC2736
	Q3	2SC3123,2SC2757,2SC2404
		2SC2735
	Q4	2SC2759,2SC3130,2SC3793
		2SC3545,2SC2734,2SC2736
	Q5	3SK143,3SK186,3SK146
		3SK138
	Q6	2SC3077,2SC3120
		2SC3130,2SC2758
	Q7	2SC3130,2SC2759,2SC3793
		2SC3545,2SC2734,2SC2736

10-9 VPS SCHEMATIC DIAGRAM (NOT IN USE)

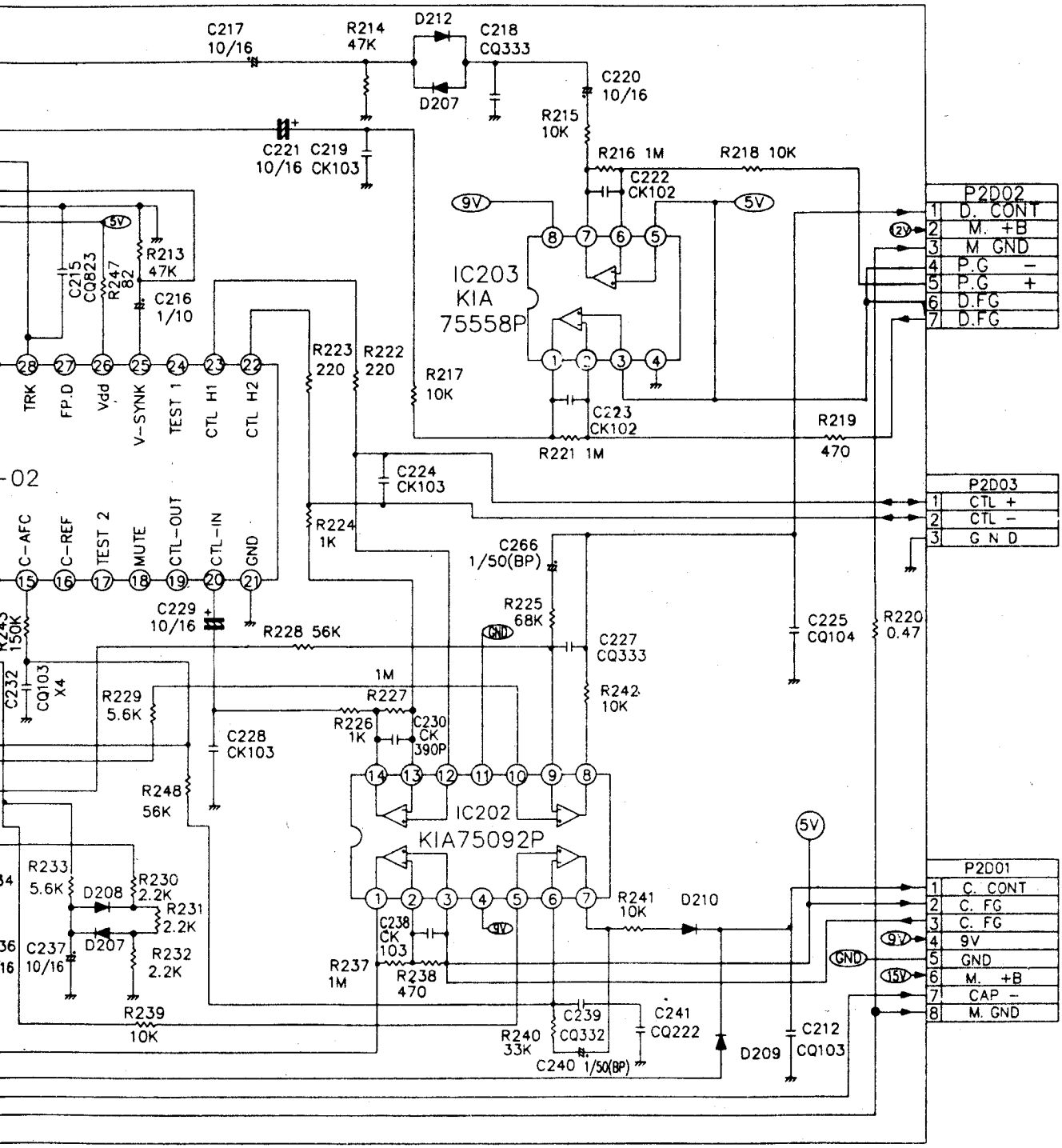



R982
10K
R983
10K
IC 904
1 Vss
2 SCL
3 SDA
4 CSO
5 TI
6 DAVN
7 SWI
14 VDD
13 SAND
12 VCS
11 DZCL
10
9 XTALI
8 DZDA
0.068(M)
C993
C997
0.01
TO TIMER
P6905
P9601
1 DAVN
2 SDA
3 SCL
NOTE (Undefined UNITS)
1. RESISTOR UNIT IS OHM.
2. CAPACITOR UNIT IS uF/V.

10-10 SERVO SCHEMATIC DIAGRAM

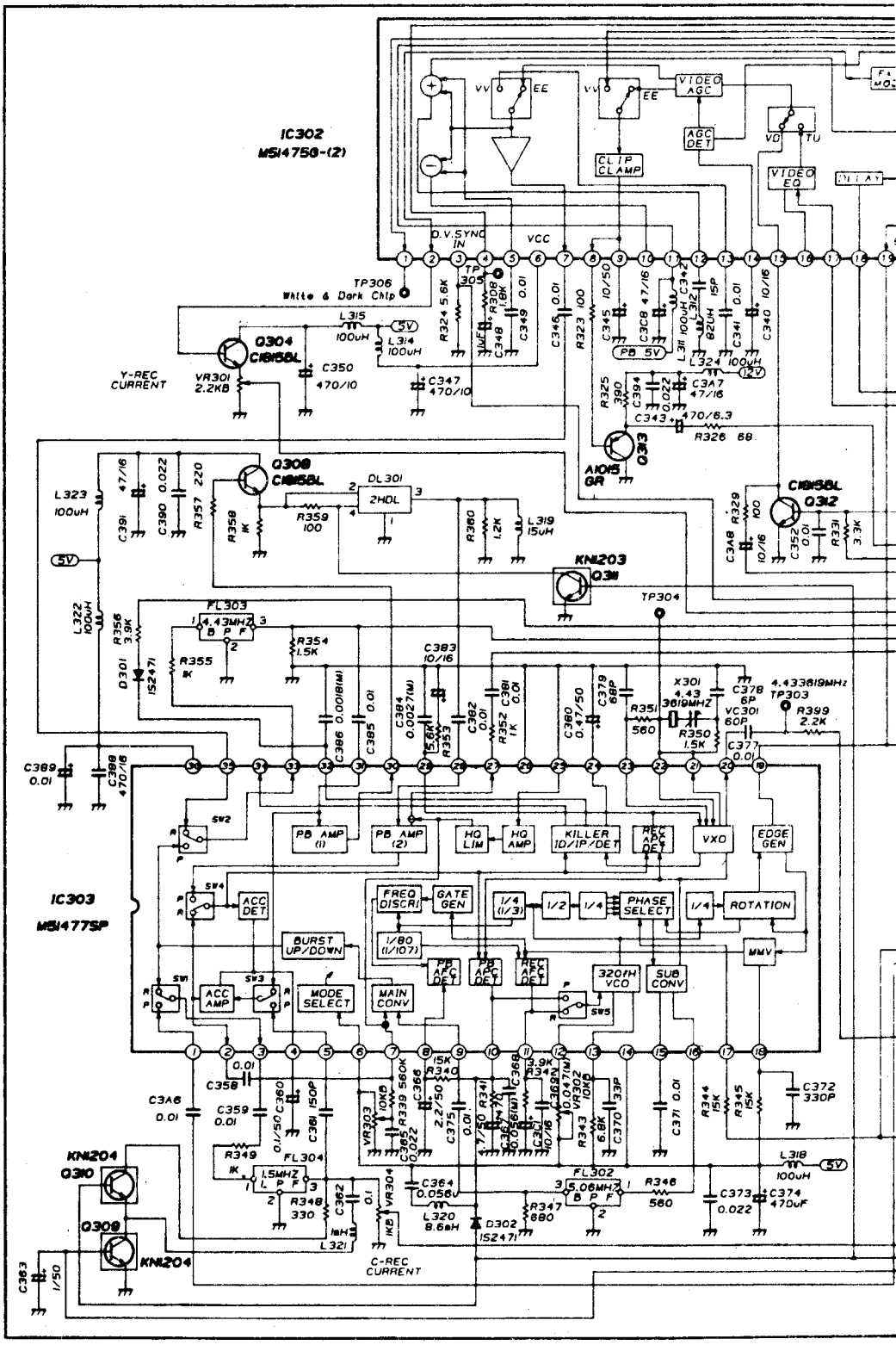


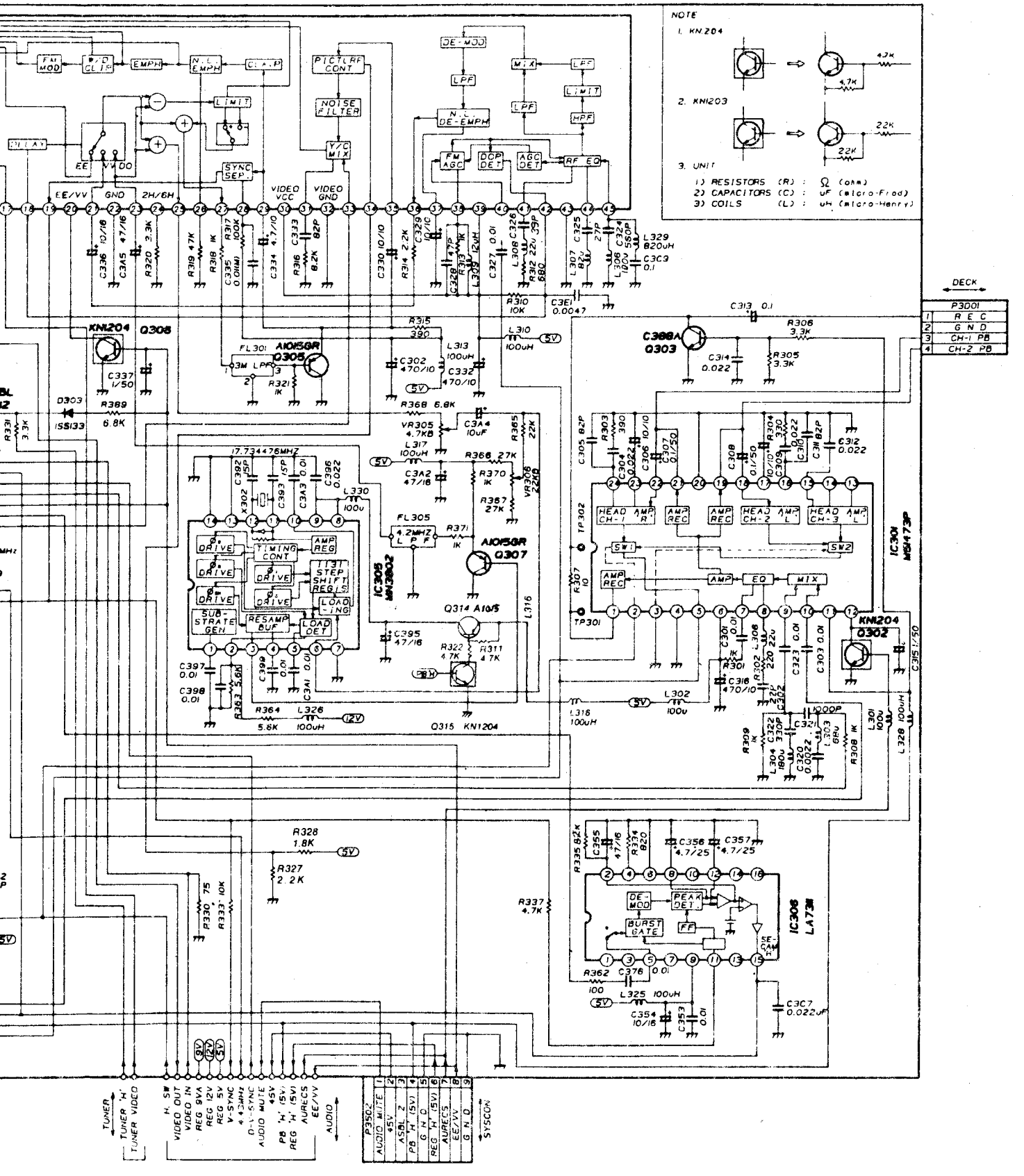
NOTE: NO SPEC DIODES ARE 1S2471
NO SPEC TRANSISTORS ARE



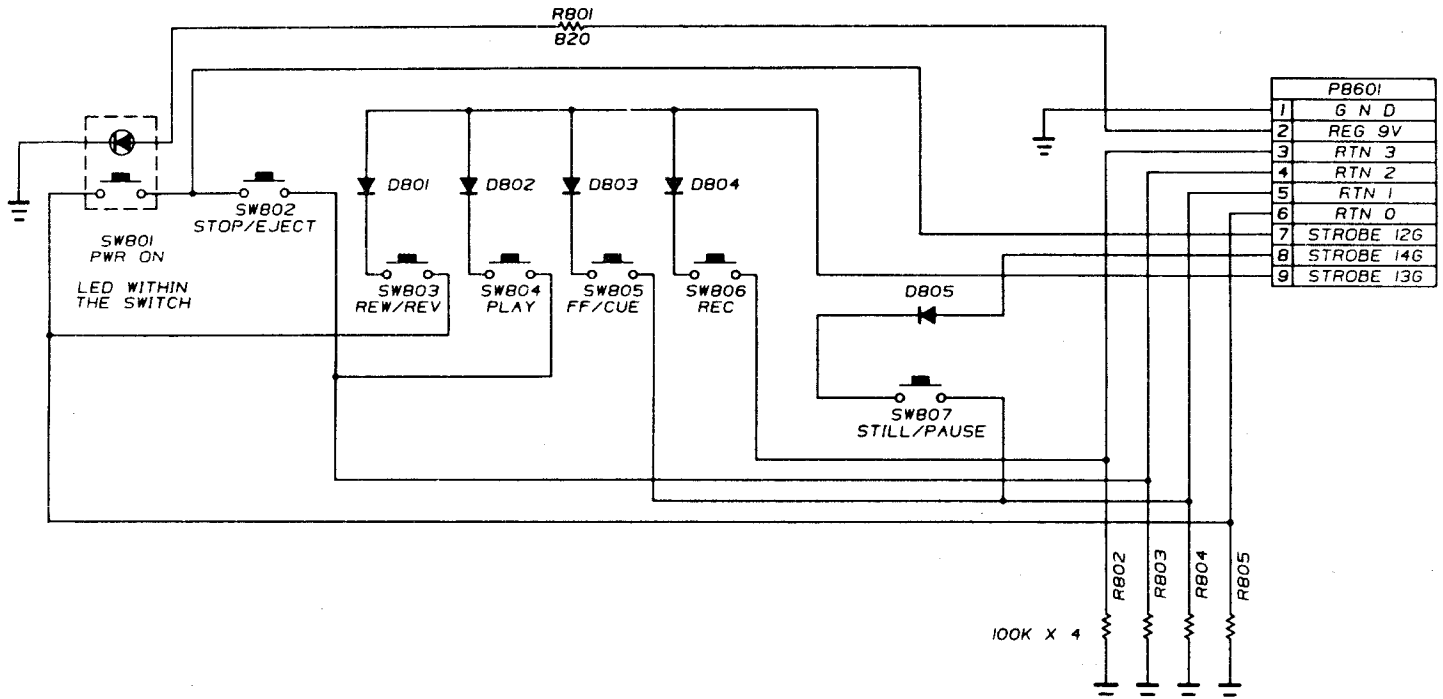
RE 152471 OR 1SS131
ORS ARE DTC144ES

10-11 Y/C SCHEMATIC DIAGRAM



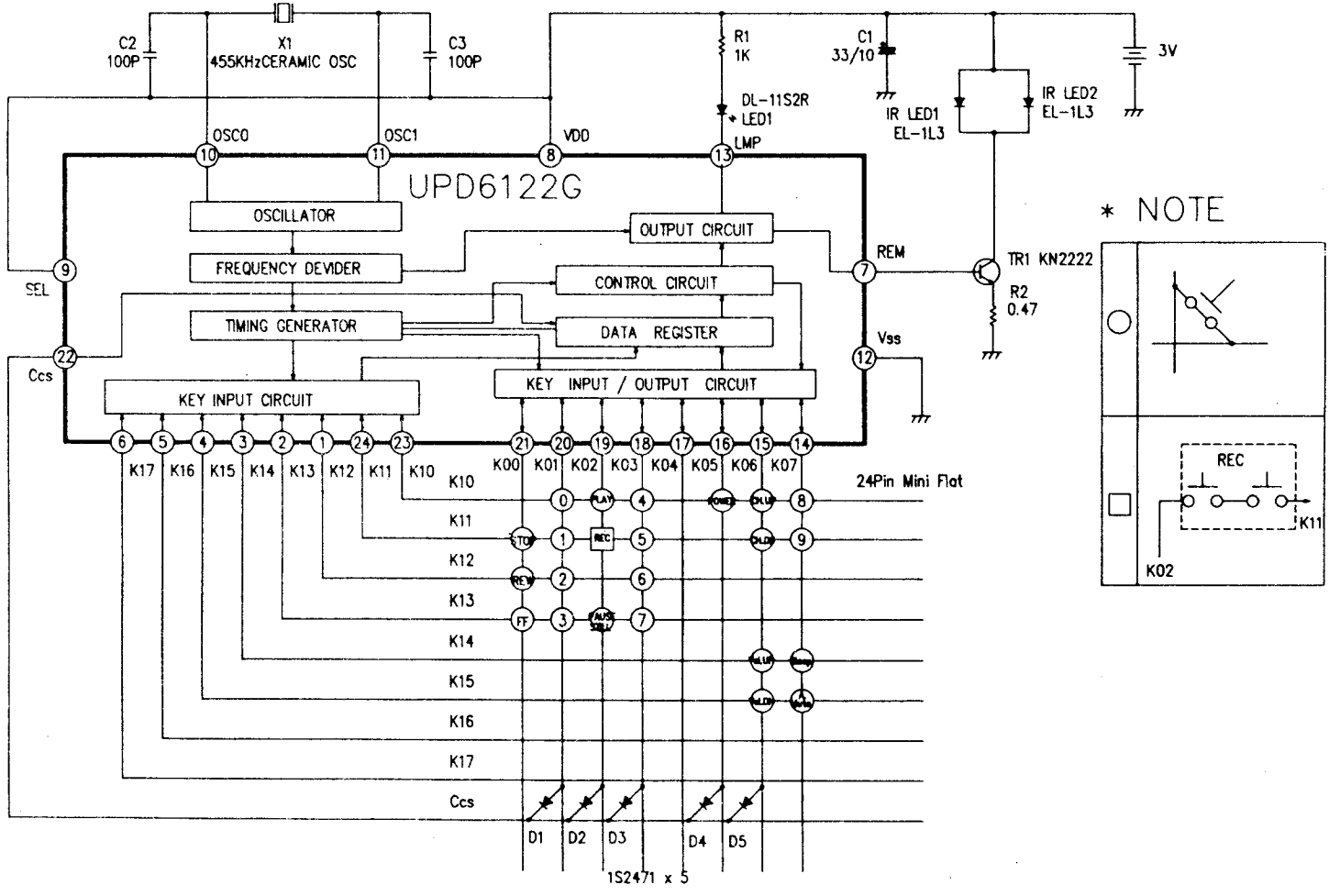

NOTE
1. KN204
2. KN1203
3. UNIT
1) RESISTORS (R) : Ω (ohm)
2) CAPACITORS (C) : uF (micro-Farad)
3) COILS (L) : uH (micro-Henry)
DECK
P3001
REC
GND
CH-1 PB
CH-2 PB
KN204 Q305
KN204 Q303
KN204 Q302
KN204 Q315
A1015GR Q305
A1015GR Q307
Q314 A1015
IC305 MN3802
IC301 MSI473P
IC306 LA731
X302 17.734476MHz
FL301 3M LPF
FL305 4.2MHz LPF
TP302
TP301
D303 1SS133
P3502
AUDIO MUTE
+5V
ASBL 2
PB 'H' (5V)
GND
REG 'H' (5V)
AURECS
EE/VV
GND
SYSCOM
TUNER
TUNER 'H'
TUNER VIDEO
H. SW
VIDEO OUT
VIDEO IN
REG 9V
REG 12V
REG 5V
V-SYNC
4.43MHz
O-V-SYNC
AUDIO MUTE
+5V
PB 'H' (5V)
REG 'H' (5V)
AURECS
EE/VV
AUDIO

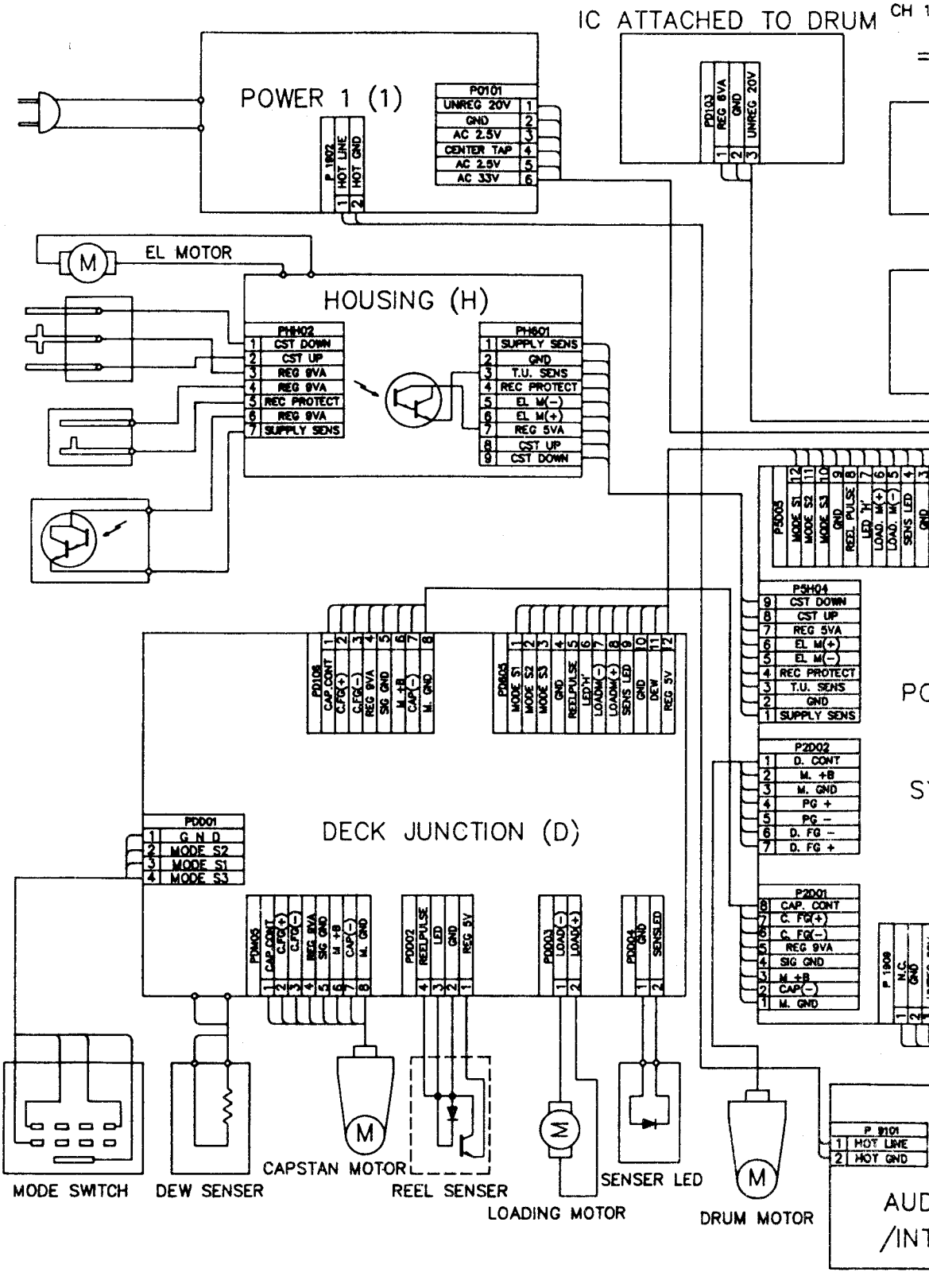
10-12 KEYBOARD SCHEMATIC DIAGRAM



NOTE : 1. ALL RESISTOR UNIT IS OHM
2. ALL DIODE IS 1S2471

10-13 TRANSMITTER SCHEMATIC DIAGRAM




IC ATTACHED TO DRUM
POWER 1 (1)
P0101
UNREG 20V 1
GND 2
AC 2.5V 3
CENTER TAP 4
AC 2.5V 5
AC 33V 6
P 1802
1 HOT LINE
2 HOT GND
P2103
REG 8VA
GND
UNREG 20V
EL MOTOR
HOUSING (H)
PHM02
1 CST DOWN
2 CST UP
3 REG 8VA
4 REG 8VA
5 REC PROTECT
6 REG 8VA
7 SUPPLY SENS
PH601
1 SUPPLY SENS
2 GND
3 T.U. SENS
4 REC PROTECT
5 EL M(-)
6 EL M(+)
7 REG 5VA
8 CST UP
9 CST DOWN
P5005
MODE S1
MODE S2
MODE S3
GND
REEL PULSE
LED 'H'
LOAD M(+)
LOAD M(-)
SENS LED
GND
P5H04
9 CST DOWN
8 CST UP
7 REG 5VA
6 EL M(+)
5 EL M(-)
4 REC PROTECT
3 T.U. SENS
2 GND
1 SUPPLY SENS
PD005
MODE S1
MODE S2
MODE S3
GND
REELPULSE
LED'H'
LOADM(-)
LOADM(+)
SENS LED
GND
DEW
REG 5V
PD006
CAP CONT
C.FG(+)
C.FG(-)
REG 8VA
SIG GND
M +B
CAP(-)
M. GND
P2D02
1 D. CONT
2 M. +B
3 M. GND
4 PG +
5 PG -
6 D. FG -
7 D. FG +
PD001
1 G N D
2 MODE S2
3 MODE S1
4 MODE S3
DECK JUNCTION (D)
P2D01
8 CAP. CONT
7 C. FG(+)
6 C. FG(-)
5 REG 9VA
4 SIG GND
3 M +B
2 CAP(-)
1 M. GND
P 1909
N.C.
GND
PD005
CAP.CONT
C.FG(+)
C.FG(-)
REG 8VA
SIG GND
M +B
CAP(-)
M. GND
PD002
REELPULSE
LED
GND
REG 5V
PD003
LOAD(-)
LOAD(+)
PD004
GND
SENSLED
P 9101
1 HOT LINE
2 HOT GND
MODE SWITCH
DEW SENSER
CAPSTAN MOTOR
REEL SENSER
LOADING MOTOR
SENSER LED
DRUM MOTOR

11. WIRING DIAGRAM