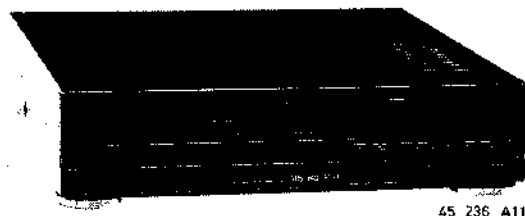


Service
Service
Service



45 236 A11

Service Manual

VHS

PAL

VR6491/75 is a video cassette recorder with a TV-reception part and electronic timer, suitable for recording and playing back TV-signals which meet the CCIR-PAL-BH standard.
The signals are recorded on tape according to the VHS-standard.
The recorder may be operated in the Standard Play (SP) or in the Long Play (LP) mode.
The video cassette recorder has been provided with the Picture in Picture (PIP) facility.

CONTENTS	CHAPTER
Specifications, Replacements, Adjustments.	1
Block diagrams, Circuit diagrams, Drawings of CBA's.	2
Exploded views, Partslist.	3

For the adjustment of the tape deck, reference is made to the Service Manual of tape deck DM 4/0.

I.R.—Remote Control AV5666/00 Servicecodenumber :
4822 218 30536

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.

Documentation Technique Service Dokumentation Documentazione di Servizio Huolto-Ohje Manual de Servicio Manual de Servicio

"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne".

Subject to modification

4822 726 14786

Printed in The Netherlands

© Copyright reserved

Published by
Consumer Electronics

CS 27 429

TABLE OF CONTENTS

CHAPTER 1

1. Specification	1-1
2. Description of controls	1-2
3. Service instructions	1-4
1. Service test program	1-4
2. Service position	1-4
3. Manual unloading of VCR	1-4
4. Service of capstan rotor	1-5
5. Use of variable transformer	1-5
6. Measures against ESD	1-5
7. Measuring conditions	1-5
8. Servicing Head amp. unit	1-5
9. Servicing PIP module	1-5
10. Connecting/disconnecting of plugs	1-6
11. Identification of plugs	1-6
4. Disassembly of cabinet parts and service position 1-6 of CBA's	
1. Disassembly flow chart	1-6
2. Removal of top cover	1-6
3. Removal of bottom plate	1-6
4. Removal of front cover	1-6
5. Service position of upper CBA's	1-7
6. Removal of power supply unit	1-7
7. Removal of the lower CBA	1-7
8. Removal of the rear holder	1-7
9. Removal of the upper CBA from the rear holder	1-7
10. Removal of the video head amplifier	1-8
11. Removal of the tape deck	1-8
12. Removal of the display/control IR sensor CBA's	1-8
5. Electrical adjustment procedures	
1. Test equipment	1-9
2. Servo section	1-9
3. Linear Audio section	1-10
4. Video section	1-10
5. Timer tuning section	1-11
6. Picture in picture section	1-11
6. Location of Test points	1-12

CHAPTER 2

Overall block diagram 1	2
Overall block diagram 2	2-1
Luminance block diagram	2-2
Chrominance block diagram	2-3
Head amplifier block diagram	2-4
Linear audio block diagram	2-5
UHF/VHF tuner block diagram	2-6
Power supply block diagram	2-7
Cylinder servo block diagram	2-8
Capstan servo block diagram	2-9
PIP block diagram	2-10
Wiring block diagram	2-11
Audio/Video selector CBA drawing	2-12
Audio/Video selector circuit diagram (II04)	2-13
Luminance circuit diagram (IVA-1)	2-14
Chrominance circuit diagram (IVA-2)	2-15
Chrominance sub circuit diagram (IVA-3)	2-16
Head amplifier circuit diagram (IHA-4)	2-17
Luminance/Chrominance/Tuner Timer/Logic /Servo CBA drawing (PM01)	2-18
Linear Audio circuit diagram (IAD-4)	2-20
UHF/VHF Tuner TV demodulator circuit diagram (IFE-4)	2-21
Timer Tuning circuit diagram (ITT)	2-22
Logic circuit diagram (IDE-1)	2-23
Servo circuit diagram (IDE-2)	2-24
Driver circuit diagram (IDE-3)	2-25
PIP Analog circuit diagram (IPI-1)	2-26
Audio/Front-end/Servo (IDE-3), PIP Analog CBA (PM-02)	2-27
PIP Digital circuit diagram (IPI-2)	2-28
PIP Digital CBA (PP-01)	2-29
Display/Control CBA (PC-01, PC-02)	2-30
Display/Control circuit diagram (IDC)	2-31
Power supply circuit diagram	2-32

CHAPTER 3

Cabinet exploded view	3-1
Tape deck exploded view (Bottom)	3-2
Tape deck exploded view (Top)	3-3
Tape deck exploded view (Cassette compartment)	3-4
Parts list	3-5

Service Information

1990-02-08

VIDEO CASSETTE RECORDER VR6491/75

VR.O.S.-90-01

The following components have been changed

From production number 1501:

C464 has been changed into 0.022 μ F 25V 4822 122 40588

C465 has been changed into 0.022 μ F 25V 4822 122 40588

To improve the P.B. picture quality on LP mode

C811 has been changed into 0.1 μ F 50V 4822 121 42698

SPECIFICATIONS**SPECIFICATIONS**

Format : VHS PAL standard
 Video recording system : Two rotary head helical scan system
 Video signal : PAL colour and B/W signals 625 lines
 Recording playing time : 4 hours max with E240 tape (SP mode)
 8 hours max with E240 tape (LP mode)
 Tape width : 12.7 mm
 Tape speed : SP 23.39 mm/sec.
 LP 11.70 mm/sec.
 Antenna : 75 ohm unbalanced
 Receiving channel : VHF Channel NZ1-AU5A
 AU6-NZ11
 UHF Channel 21-69
 RF converter output signal : UHF Channel 31-40 (Adjustable)
 Preset to Channel 34
 Power requirement : AC 240V 50Hz
 Power consumption : Approx. 25W
 Operating temperature : 5°C to 40°C
 Storage temperature : -20°C to 55°C
 Weight : 5 kg
 Dimensions : 360 mm (W) x 330 mm (D) x 85mm (H)

VIDEO

Input : 1.0 Vp-p, 75 ohm
 Output : 1.0 Vp-p, 75 ohm

AUDIO 0dB = 0.775 Vrms

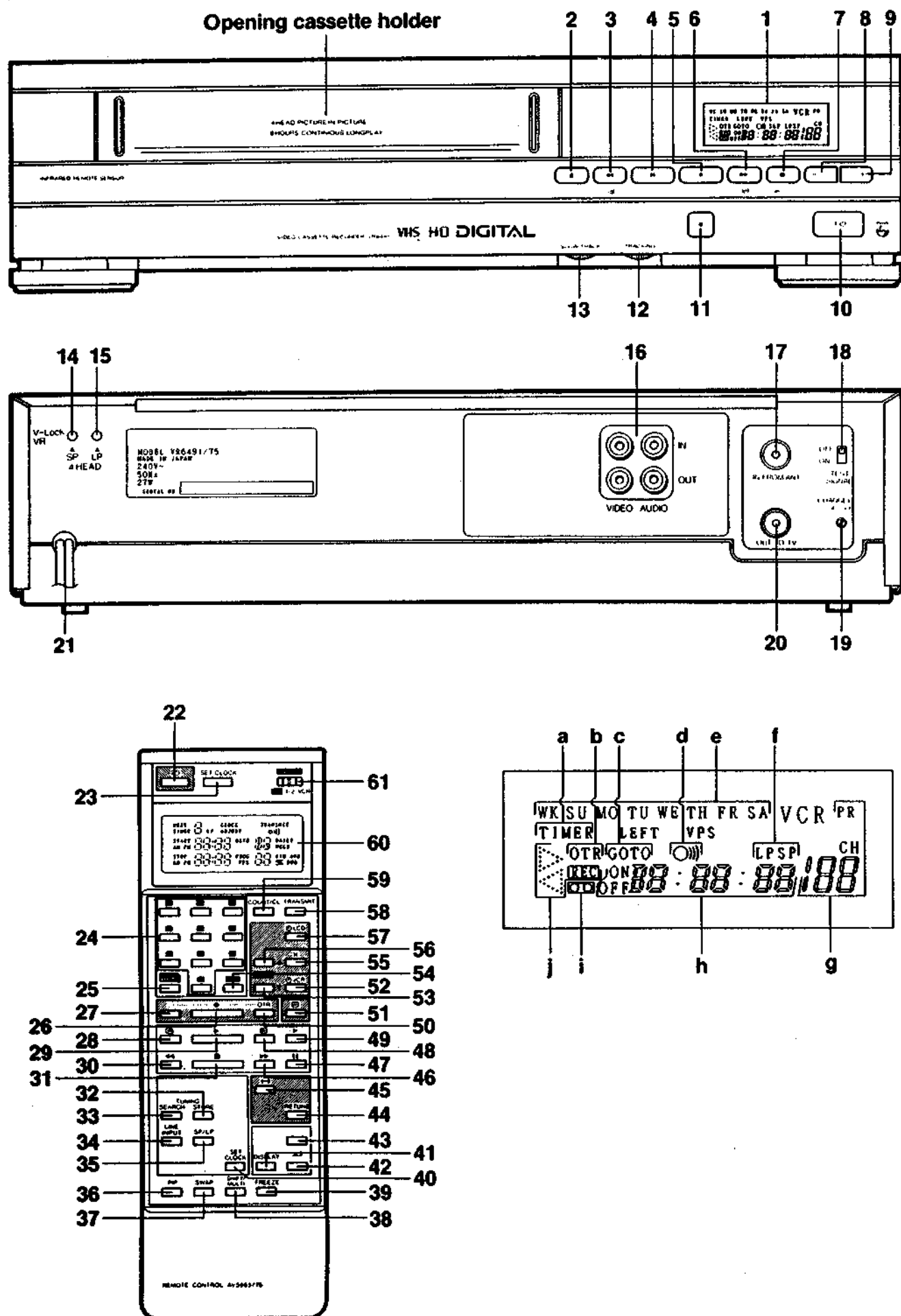
Input : Line : -8dBs, more than 56k ohm
 Output : Line : -5dBs, less than 1k ohm

Accessories included : Antenna 75 ohm coaxial connector cable
 (plug provided)
 Operation Manual
 Infrared remote control
 Battery

As part of our policy of continuous improvement, we reserve the right to alter design and specifications without notice.

Note :

The antenna must correspond to the new standard DIN 45325 (IEC 169-2) for combined UHF/VHF antenna with 75 ohm connector.



Front

- 1 Display
- 2 ▲ Eject button
- 3 ◀◀/◻◻ Rewind/Picture search reverse button
- 4 || Pause/Still Frame button
- 5 ▶ Play button
- 6 ▶▶/◻◻ Wind/Picture search forward button
- 7 ■ Stop button
- 8 - Down button
- 9 + Up button
- 10 |⏻ On/Standby button
- 11 • Record button
- 12 Tracking control
- 13 Slow tracking control

Rear

- 14 Vertical lock adjustment control (SP)
- 15 Vertical lock adjustment control (LP)
- 16 CINC connectors (AUDIO, VIDEO)
- 17 Antenna in socket
- 18 Test SIGNAL switch
- 19 Ⓢ VCR output channel adjuster
- 20 RF out socket
- 21 Mains lead (power cord)

Remote Control

- 22 |⏻ On/Standby button
- 23 Clock set button for LCD
- 24 0-9 0-9 Digit buttons
- 25 -/-- Single/Double entry button
- AM/PM AM/PM Select button
- 26 • Record button
- 27 Active button
- 28 ◻◻ Picture search reverse button
- 29 ▶ Play/X2 button
- 30 ◀◀ Rewind button
- 31 ■ Stop button
- 32 Tuning Store button
- 33 Tuning Search button
- 34 LINE input selector
- 35 SP/LP Tape speed selector
- 36 Picture-in-Picture button (PIP)
- 37 Swap button
- 38 Shift/Multi button
- 39 Freeze button
- 40 Clock set button for VCR

- 41 Display button for TV
- 42 - ▴ Down volume TV sound (IF TV/VCR1/VCR2 is in position TV)
- 43 + ▴ Up volume TV sound (IF TV/VCR1/VCR2 is in position TV)
- 44 Retuning button
- 45 ↔ GoTo button
- 46 ▶▶ Wind button
- 47 || Still picture/Frame advance/ Pause button
- 48 ◻◻ Picture search forward button
- 49 |⏻ Slow motion button
- 50 OTR button (one touch recording)
- 51 ◻◻ Fast motion button
- 52 Ⓢ VCR Timer VCR button
- 53 ▽ Down button
- 54 Channel/Programme (C/P) selector
- 55 X Reset button
- 56 ▴ Up button
- 57 Ⓢ LCD Timer LCD button
- 58 Transmit button
- 59 Clock/Counter mode button
- 60 LCD display
- 61 TV/VCR1/VCR2 selector switch

Display

- a Timer indicator 'TIMER'
- b OTR indicator
- c Go To indicator
- d Remote control indicator
- e Day indicators
- f Speed indicator 'SP' 'LP'
- g Channel/Programme input signal selector indicators
- h Digital clock/Start time/ Stop time/Counter indicator
- i Cassette-in indicator
- j Function indicator

Remember. Only use cassettes of a well-known brand which carry the VHS logo.

3. SERVICE INSTRUCTIONS

3.1 SERVICE TEST PROGRAM

This VCR has been provided with a service test program. The following lines describe what can be checked with the program and how it is activated.

A. Continuous test

- a. This test may be used to check if the VCR with loaded cassette is working correctly.

Start procedure:

Keep STOP and UP buttons pressed in simultaneously when connecting the VCR to the mains voltage.

Two different tests are available:

- a) continuous PLAY.

The VCR is brought into the continuous play/rewind mode when, prior to the start procedure, a recorded cassette is loaded into the VCR. The recorder will play the tape till its end, rewind till the beginning of the tape, go back to play and so on.

- b) continuous RECORD/PLAY

When the cassette is loaded into the VCR before the start procedure is executed and after the start procedure RECORD is pressed, the VCR will enter the record mode till the end of the tape and then go into the continuous play/rewind mode.

Note: the continuous tests are interrupted by disconnecting the VCR from the mains supply.

B. Display test

This test may be used to confirm that all elements and symbols of the multifunction display are working correctly.

Start procedure:

Keep the STILL and FF buttons pressed in simultaneously when connecting the VCR to the mains supply. All indication leds must be ignited.

C. Initialisation of the microprocessor

This function is used to initialize (to reset) the microprocessor, all the data that is stored in the RAM memory is lost.

Start procedure:

Keep STILL and FF buttons pressed in simultaneously when connecting the VCR to the mains supply. All leds must be ignited, press reset via the remote control. All data is removed from the RAM.

D. Microprocessor program indication

Start procedure:

Keep STOP and DOWN buttons pressed in simultaneously when connecting the VCR to the mains supply. The "hours" indication (2 digits) of the multifunction display will show the stroke number of the VCR e.g. 75 for Australia.

The minutes display will show the features mono or stereo sound.

(5 # Stereo, black # Mono)

3.2 Service position

Place the unit as shown in Fig. 1 for servicing. Refer to Disassembly procedure item 4.6

Note: To operate the unit with the upper CBA's open, use the extended cable code number 4822 321 60545 to connect the Display Control CBA with the main CBA. If the Display Control CBA is removed, then the 4 pin plug will be disconnected and will disable the Units Display.

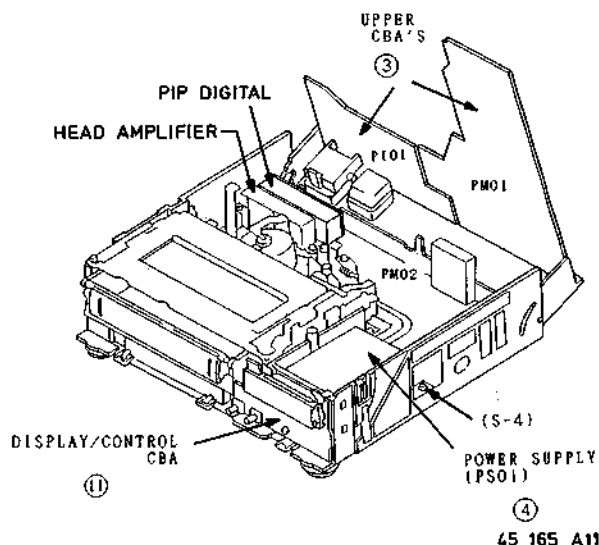


Fig. 1

3.3 Manual unloading of the VCR

When, due to some electrical or mechanical failure of the VCR a cassette is stuck in the recorder, it is possible to remove the cassette by hand.

- Remove the bottom plate.
- Rotate the center pulley (Fig. 2) counterclockwise while pushing the change lever on the bottom side of the tape deck (Fig. 3) as indicated by the arrow to release the lock. See also the relevant chapter in tape deck manual DM 4/0.

Warning: Removal of the loader from the tape deck requires vast readjustments of the deck after remounting of the loader.

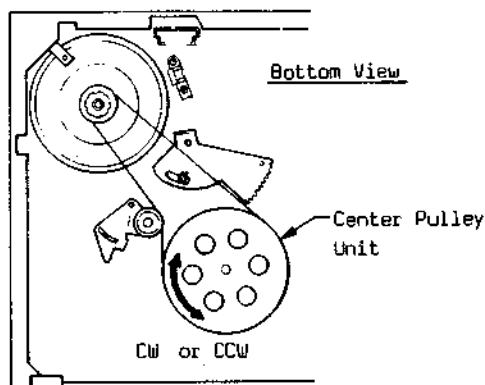


Fig. 2

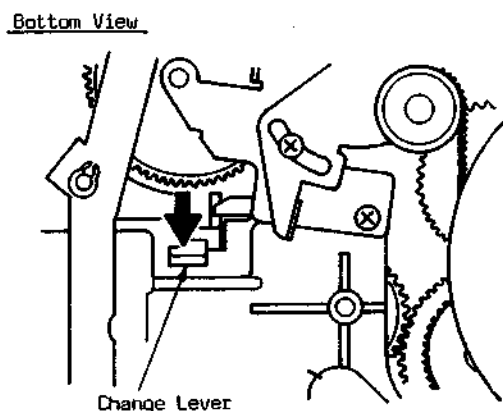


Fig. 3

3.4 Capstan rotor unit

The Capstan rotor unit is supplied as a replacement part in a complete unit with a spring loaded capstan pulley. Do not remove the retaining ring on the capstan pulley of the capstan rotor unit or the replacement unit will be rendered useless (Fig. 4).

For more information see tapedeck manual DM 4/0.

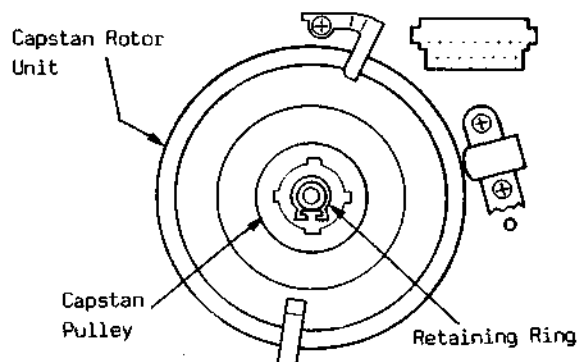


Fig. 4

3.5 Variable voltage transformer

Because a hot chassis ground is present in the power supply circuit, an isolation transformer must be used. Also, in order to have the ability to increase the input slowly, when trouble shooting in this type power supply circuit, a variable transformer is required.

3.6 Prevention of electrostatic discharge (ESD)

All IC's and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce their life drastically. When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools also at this potential.

3.7 Measurements

All voltages, given on the circuit diagrams, have been measured in the SP recording mode.

3.8 Parts replacement on Head amplifier ass'y

- Unsnap and remove the shield case.
- Remove the Head Amp CBA by unsoldering the 5 fixing points (A) that connect the shield case with the Head Amp CBA (Fig. 5).
- Open the side of the shield case slightly and pull out the Head Amp CBA.
- After parts replacement it is necessary to resolder the shield case at points (A) on the Head Amp CBA.
- Re-install the shield case.

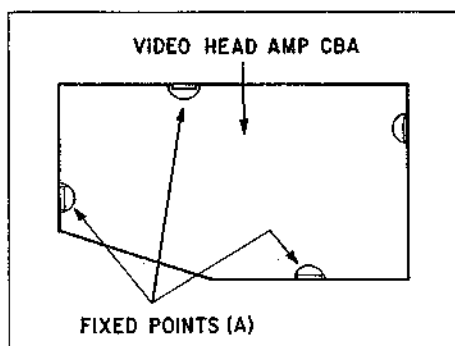
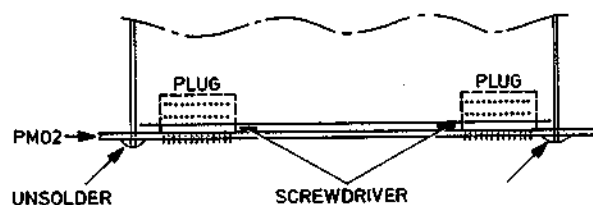


Fig. 5

3.9 Parts replacement on PiP-Module

- Unsolder the shield case 2 points from the lower CBA.
- Remove the plugable module with help of a screwdriver (Fig. 6).
- Unsolder the 3 fixing points of the shield case of the PiP-Module (Fig. 7).
- After replacement of parts it is necessary to resolder the shield case in reverse order.



45 169 A11

Fig. 6

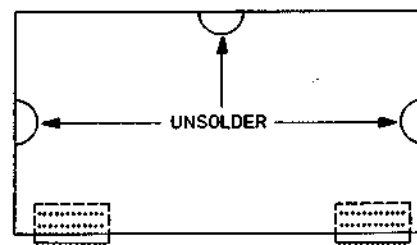


Fig. 7

45 170 A11

3.10 Connecting/disconnecting of plugs

- Disconnecting the flexible cable to the trap connector P1504 and P1508 on the tapedeck (Fig. 8).
 - Pull-out both ends of the locking tab which surrounds the connector to release the connector.
 - Remove the flexible cable carefully (See Fig. 8).
 - Connecting the flexible cable is done in the reverse order

Note: Take care not to damage the cable.

- Flat cable connectors.

Connecting/disconnecting is done by carefully pushing in or pulling out the flexible cable.

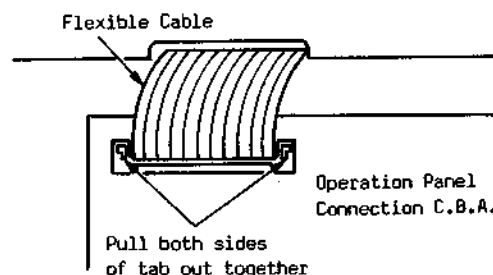


Fig. 8

3.11 Identification of connectors on schematic diagrams

- Each connector is labelled with a specific schematic and connector number, which indicates to what it is connected to and on which diagram it is located (Fig. 9).
- Each connector shown as a number inside a square is a connection within a circuit and within the same CBA.
- Use the wiring diagram to find the connections between associated connectors.

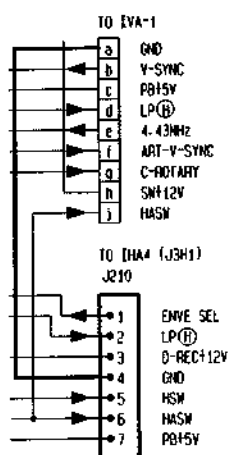


Fig. 9

4. DISASSEMBLY OF CABINET PARTS AND SERVICE POSITION OF CBA'S

4.1 Disassembly flow chart

- The following flow chart indicates the correct order to be used when disassembling the VCR (Fig. 10).
- The chart starts with the removal of the cabinet parts, and the order used to gain access to the CBA's.
- When reassembling perform the steps in the reverse order.

Note: When removing the front cover and its associated CBA's, use extreme care when unlocking the plastic tabs as they may break easily.

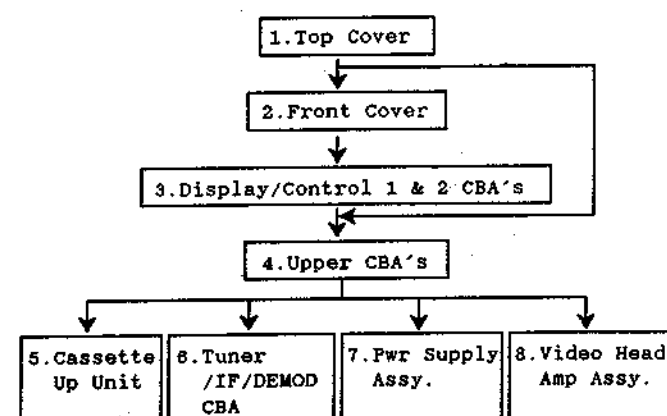


Fig. 10

4.2 Removal of the top cover

- Undo the 2 screws (Fig. 11).
- Spread the top cover at the points where the 2 screws were removed, enough to clear the side indentations.
- Lift the top cover up while pulling it back to remove it.

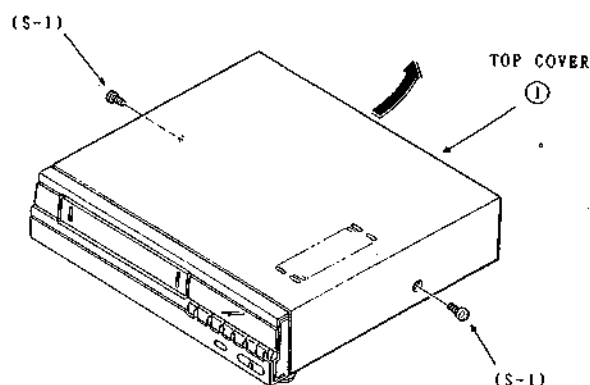


Fig. 11

4.3 Removal of the bottom plate

- Unscrew the 5 screws (Fig. 12).
- Remove the bottom plate.

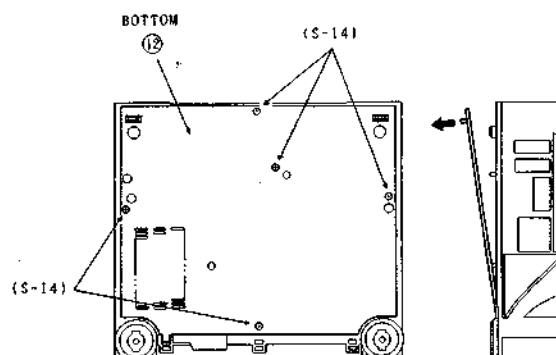


Fig. 12

4.4 Removal of the front cover

- Remove the screw on the top of the front panel (Fig. 13).
- Unlock the locking tabs on the right hand and left hand side of the front cover (Fig. 13).
- Remove the front cover.

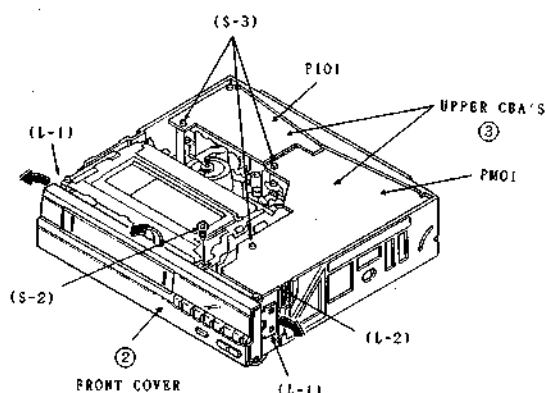


Fig. 13

4.5 Service position of the upper CBA's

- Unscrew the 3 red screws (Fig. 14).
- Unlock the locking tab.
- Lift up the upper CBA's slightly and remove the plug.
- Put the upper CBA's in the upright position.

Note: Use the extended cable 4822 321 60545 when the VCR must be operated with the upper CBA's in the service position.

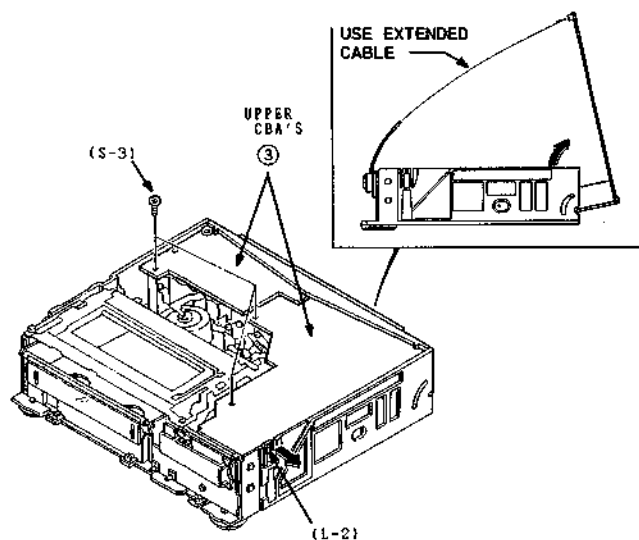


Fig. 14

4.6 Removal of the power supply unit.

- Remove the fixing screw (Fig. 15).
- Take out the power supply unit in an upward direction.

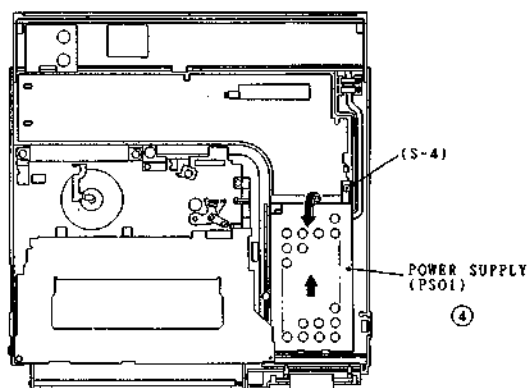


Fig. 15

4.7 Removal of the lower CBA and wiring connections

Note: The lower CBA may be turned 90 degrees. The CBA is then accessible from both sides (Fig. 16).

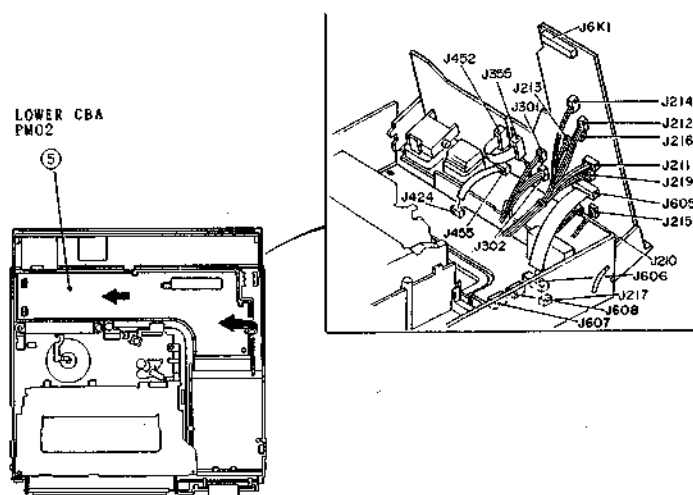


Fig. 16

4.8 Removal of the rear holder

Note: Put the VCR on a 5-10 cm high box when measuring in the PIP module. The rear holder with the CBA's will move in a downward direction (Fig. 17).

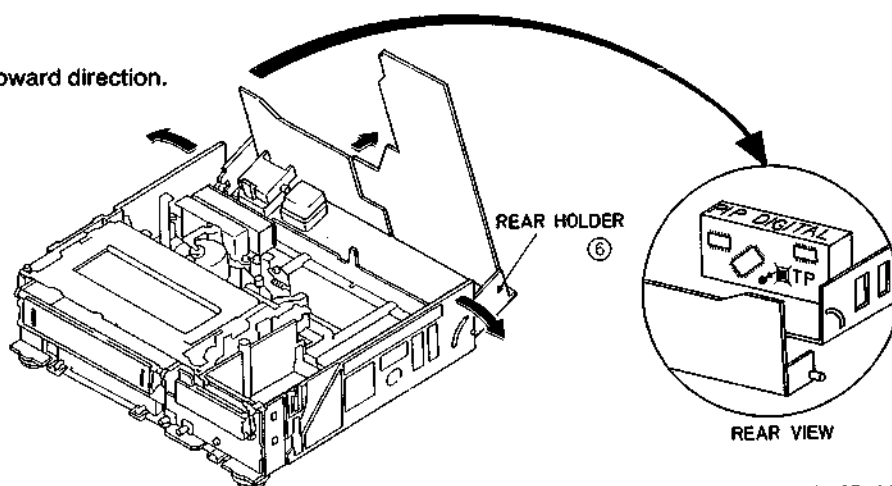


Fig. 17

4.9 Removal of the upper CBA's from the rear holder

- Undo the screws S-15 and S-16 (Fig. 18).
- Pull the CBA's out of the holder.

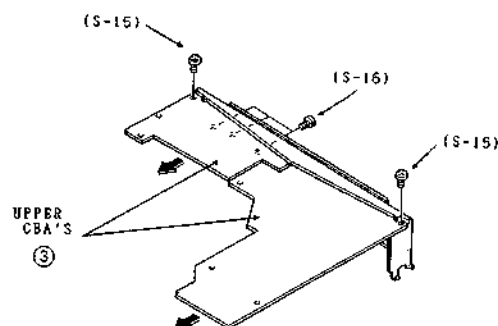


Fig. 18

1-8

4.10 Removal of the Video head amplifier

- Undo the 2 red screws (Fig 19).
- Take out the head amplifier unit.

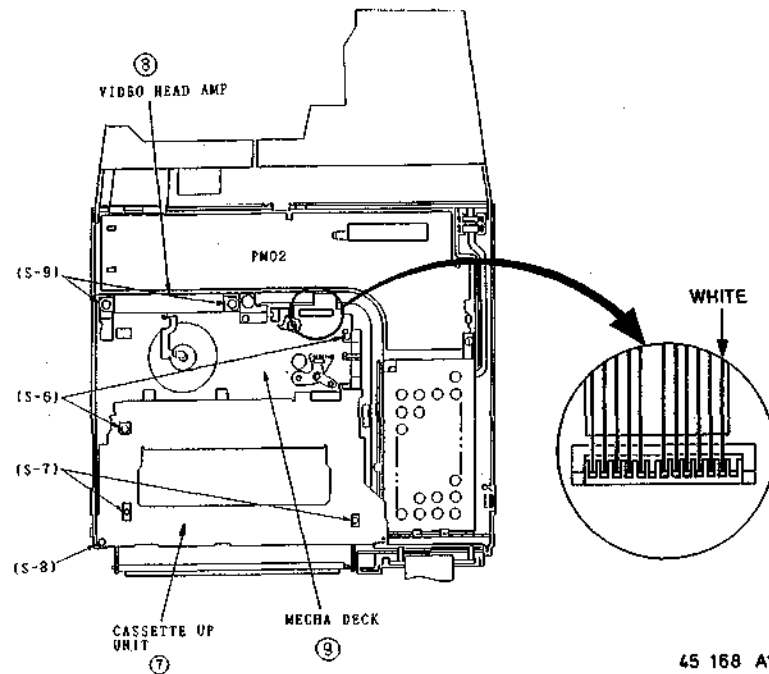


Fig. 19

4.12 Removal of the Display/Control/IR sensor CBA's

- Remove the screws (Fig. 21).
- Unlock the 2 locking tabs.

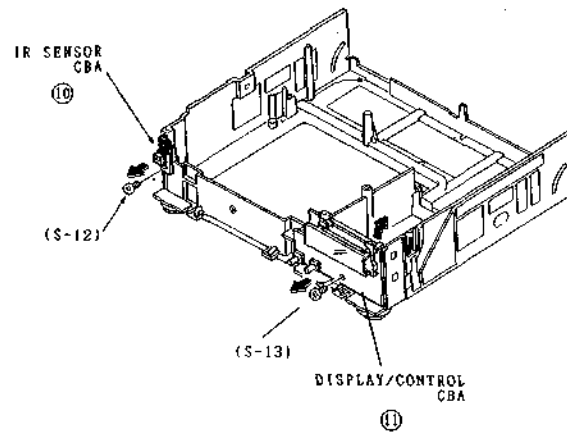


Fig. 21

45 168 A11

4.11 Removal of the tape deck

- Remove the screws S-8, S-10 and S-11 (Fig. 20).
- Disconnect the various plugs.
- Lift the tape deck out of the frame.

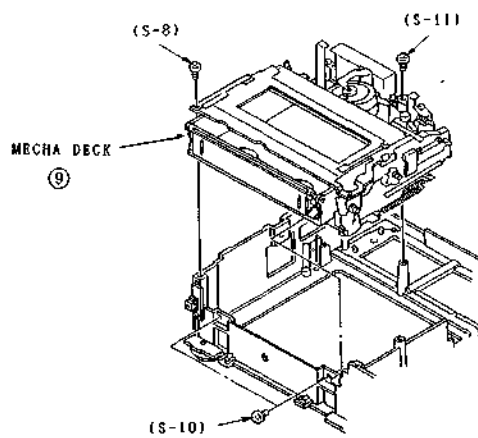


Fig. 20

5. ELECTRICAL ADJUSTMENT PROCEDURES

5.1 Test equipment

- DVM (Digital voltmeter). Measuring range: 0.01–50 V.
- Dual trace oscilloscope. Sensitivity: 0.001–50 V/Div.
- Frequency counter: Frequency range 0–50 MHz.
- Signal generator: Sine wave: 0–10 MHz.
- PAL Video pattern generator.
- Colour TV Receiver or Monitor.
- Plastic Tip driver and non metallic screwdriver.
- VHS Alignment tape (4822 397 30103).
- Extended cable (4822 321 60545).

Attention:

Because a life chassis ground is present in the power supply part, an isolation transformer must be used. Also, in order to have the possibility to alter the input voltage slowly when troubleshooting in the power supply section, an adjustable isolation transformer is required.

5.2 Servo section

Note: When making adjustments in the servo section of the VCR, always take care that the tape deck has been correctly aligned and that the tracking control is in its centre position.

5.2.1 Head switch point

- Connect the A channel of the oscilloscope to TPV0 in the Audio/Video selector section of PI01, sensitivity 1 V/Div.
- Connect the B channel of the oscilloscope to TP221 on the servo section of PM01, sensitivity 5 V/Div.
- Set the time base of the oscilloscope to 1 msec./Div., magnification x 10.
- Trigger the time base with the signal on TP221.(+ slope).
- Play-back (SP) the colour part of the alignment tape.
- Adjust R225 in the servo section PI01 such that 6.5 $\pm$ 1 lines prior to the frame sync. pulse are visible (Fig. 22).

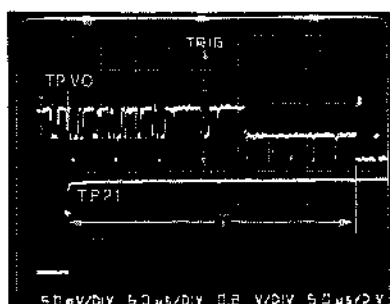


Fig. 22

5.2.2 Tracking fix

- Connect the A channel of the oscilloscope with TP221 in the servo section of PM01, sensitivity 5 V/Div.
- Connect the B channel of the oscilloscope with TP222 in the servo section of PM01, sensitivity 5 V/Div.
- Set the time base to 2 msec./Div.
- Trigger the time base with the signal on TP221 (+ slope).
- Play-back (SP) the colour part of the alignment tape.
- Adjust R 280 in the servo section of PM01 such that the leading edge of the signal on TP222 1.6 $\pm$ 0.4 msec. later is than the trailing edge of the signal on TP221 (Fig. 23).
- Let the VCR stabilize and confirm that the adjustment has been made correctly.

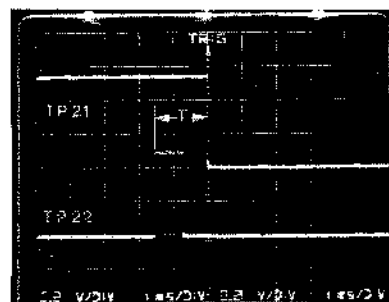


Fig. 23

5.2.3 Slow free run

- Put the **Still/slowtracking** control in the centre position.
 - Connect the VCR to a signal source and make a recording.
 - Connect a jumper wire between TP24 in servo section of PM01 and ground.
 - Connect a jumper wire between TP25 in servo section of PM01 and ground.
 - Connect a frequency counter to TP23 in servo section in PM01.
 - Set the VCR to the play-back mode and next to the still mode.
 - Adjust R272 on the servo section of PM01 until the frequency counter reads 453 $\pm$ 15 Hz.
- Remove the 2 jumper wires.

5.2.4 Artificial V-sync.

- Play-back a self recorded tape in **SP** mode.
- Place the VCR in the slow mode using the remote control.
- Adjust the slow tracking control to minimize the noise in the picture.
- Place the VCR in the still mode.
- Adjust R2B0 in the logic section of PM01 until no vertical jitter is observed at the centre of the monitor display.
- Repeat these steps when the VCR is in the **(LP)** mode.
- Adjust R2A9 in the logic section of PM01 until no vertical jitter is observed at the centre of the monitor screen.

5.2.5 Slow tracking

- Set the slow tracking control on the front panel to its centre position.
- Play-back a self recorded tape in SP mode.
- Place the VCR in the slow mode using the remote control.
- Adjust R257 in servo section of PM01 until no noise is observed in slow picture mode.
- Rotate the slow tracking control on the front panel in both directions and ensure that the noise appears evenly from the top and the bottom of the picture.
- Repeat these steps when the VCR is in the LP mode.
- Adjust R253 until no noise is observed on the screen of the monitor in the LP slow picture mode.

5.3 Linear audio section

5.3.1 Bias current

- Adjust the VCR to AV input.
- Supply a colour bar signal to the video input terminal.
- Short circuit the audio input terminal.
- Load a cassette tape into the VCR.
- Connect an oscilloscope or a milli voltmeter to TP402 in the Audio section of PM02
- Connect the shield of the measuring cable to TP401 in the Audio section of PM02.

Note: Maximum length of measuring cable 1 meter.

- Put the VCR in the SP record mode.
- Adjust the signal level on TP402 with R 431 in the audio section of PM02 to 2.4 ± 0.05 mV RMS on the millivoltmeter or to 6.8 ± 0.1 mVp.p on the oscilloscope.

5.4 Video section

5.4.1 E-E Level

- Feed a PAL colour bar with white window signal to the VCR.
- Connect the A channel of the oscilloscope to TPVO in the Audio/video section of the PI01 CBA.
- Set the sensitivity of the oscilloscope to 0.2 V/Div. and the timebase to 10 usec./Div.
- Adjust the signal on TPVO to 1.0 ± 0.05 Vp.p (when terminated with 75 ohm or to 2.0 ± 0.1 Vp.p when unterminated) with R328 in the luminance section of the PM01 CBA (Fig. 24).

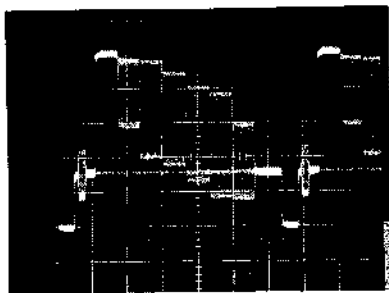


Fig. 24

5.4.2 Sync.tip frequency and deviation

5.4.2a Sync.tip frequency

- Put the VCR in the STOP mode.
- No input signal to the VCR.
- Connect a frequency counter to TP301 in luminance section of PM01 CBA.
- Adjust the frequency of the signal on TP301 to 3.8 ± 0.04 MHz with R333 in the luminance section of PM01 CBA.

5.4.2b Play-back video level

- Load the alignment tape into the VCR.
- Connect the A channel of the oscilloscope to TPVO in the Audio/video section of PI01 CBA. Connect the ground lead of the probe to the scope ground at the left rear corner (foil side) of PI01BD.
- Set the sensitivity of the scope to 0.1 V/Div., the time base to 10 usec./Div.
- Put the VCR in SP play-back mode.
- Adjust the amplitude of the signal on TPVO to 1.0 ± 0.05 Vp.p. (when terminated with 75 ohm or 2.0 ± 0.1 Vp.p. when unterminated) with R301 in the Luminance section of PI01 CBA (Fig. 25).

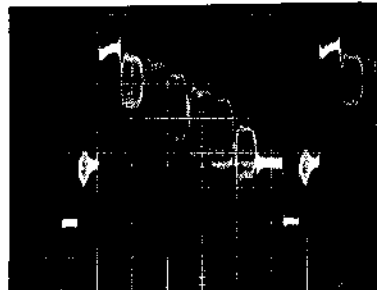


Fig. 25

5.4.2c Deviation

- Put the VCR in the **STOP** mode
 - Feed a colour bar with white window signal to the VCR.
 - Connect the A channel of the oscilloscope to **TP301** in the luminance section of PM01 CBA.
 - Set the sensitivity of the scope to 0.2 V/Div., the time base to 5 usec./Div., the timebase magnifier to 10 x.
 - Adjust **A=0.21 +/- 0.01 usec.** (Fig....) with **R332** in the luminance section of PM01 CBA.
 - Adjust from the beginning of the sweep and measure the first line seen, which is the white window trace on the multiple wave form.
- Focus the scope on the first multiple waveform trace (Fig. 26).
- After completion of the adjustment self record a SP colour bar with white window.
 - Play-back the portion just recorded and confirm the level at TPVO is 1.0 +/- 0.05 Vp.p. (terminated) or 2.0 +/- 0.1 Vp.p. unterminated.
 - If the levels are not correct then confirm 5.5.2b (Play-back video level) and readjust the deviation again.

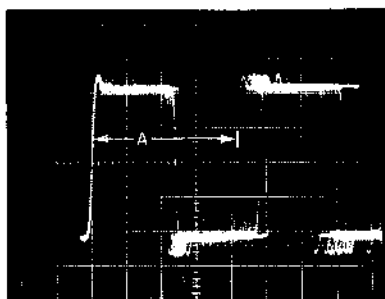


Fig. 26

5.5 Timer tuning section

5.5.1 Clock frequency

- Put the VCR in the stop mode.
- Set clock.
- Connect a frequency counter via a 1:10 probe to **TP6K** in Tuner timer section of PM01.
- Adjust the frequency of the signal on TP 6K to **32.769 KHz +/- 0.1Hz** with **C6K5** in the Tuner timer section of PM01.

5.6 Picture in picture unit

5.6.1 4.43 MHz.

- Connect a frequency counter via a 1:10 probe to **TP801**.
- Adjust the frequency of the signal on TP801 to **4.433618MHz. +/- 50 Hz.** with **C 865**.

5.6.2 17.73 MHz

- Connect a frequency counter via a 1:10 probe to **TP802**.
- Adjust the frequency of the signal on TP802 to **17.73447 MHz. +/- 50 Hz.** with **C866**.

5.6.3 5 MHz.

- Connect a frequency counter via a 1:10 probe to **TP803**.
- Adjust the frequency of the signal on TP803 to **4.895 MHz. +/- 5 KHz.** with **C898**.

PP01 (viewed from copper side)

TP GRND

AUDIO/VIDEO Selector (1104)

LO LI RO RI VO VI

IC43

IC44

IC46

IC42

J452

J455

TP450

PP01 (viewed from c

[illegible]

PMU2 (viewed from copper side)

FRONTEND (IFE4)

SERVO (IDE-3)

AUDIO (IAD4)

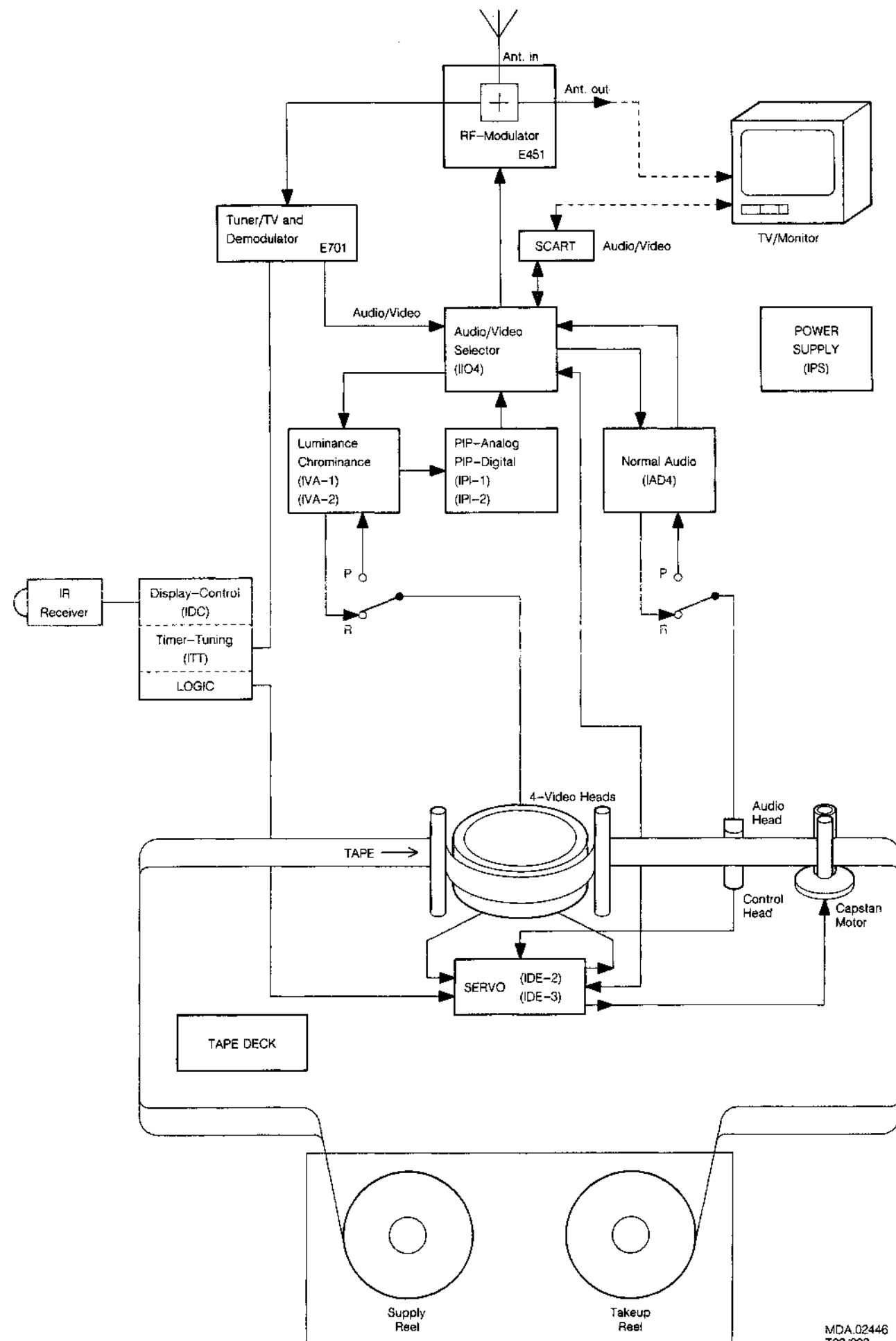
BIAS CURRENT

PIP-ANALOG (IPI-1)

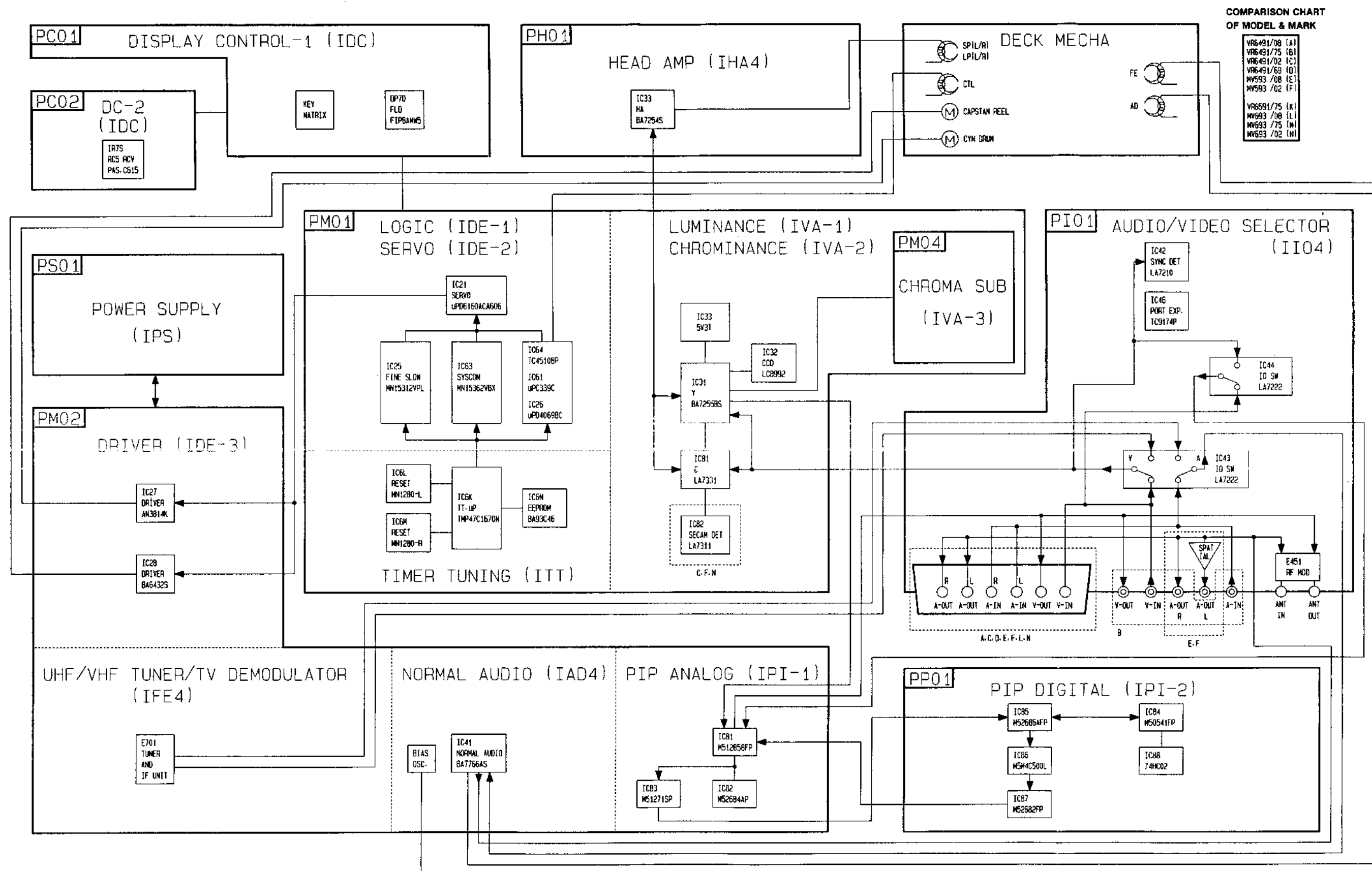
Components and connections shown include:

- IC41, IC27, IC28, IC81
- TP401, TP801, TP802
- R431
- J424, J425
- J701, J801, J802, J803, J804, J805, J806, J807, J808
- C865 (4.43MHz), C866 (17.7...MHz)
- E701 (Frontend block)

OVERALL BLOCK DIAGRAM 1

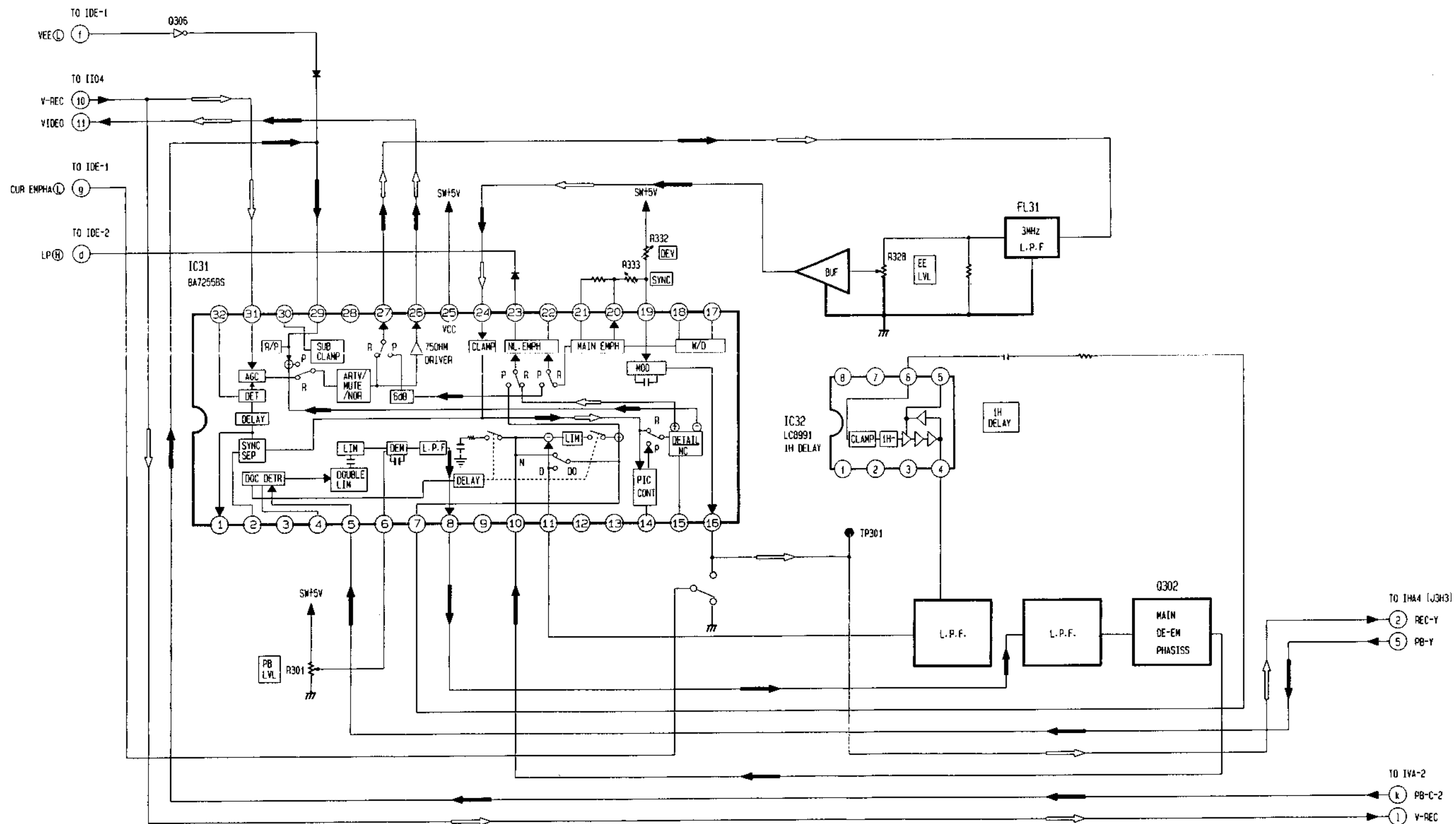


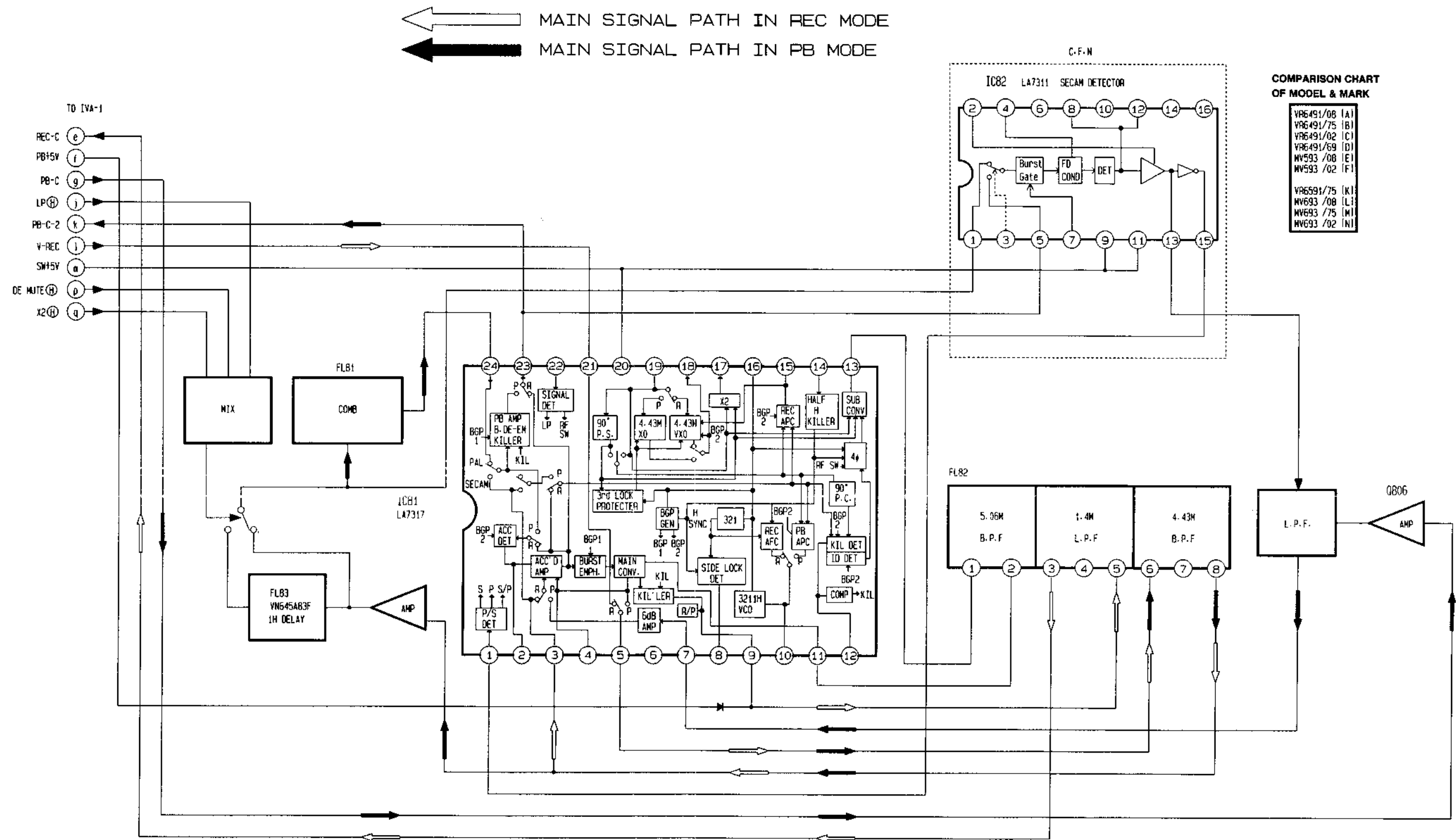
MDA.02446
T28/003

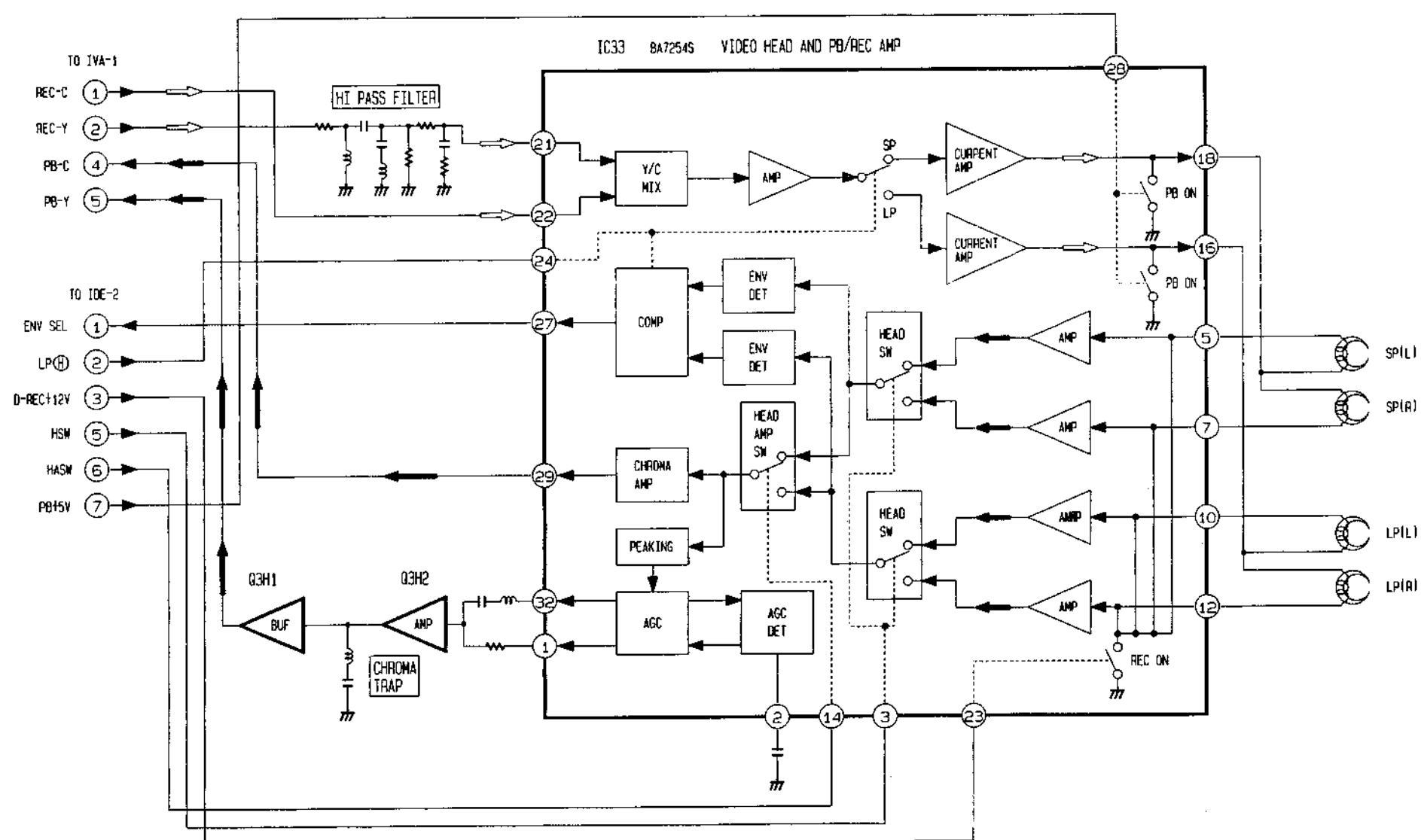


2
LUMINANCE BLOCK DIAGRAM

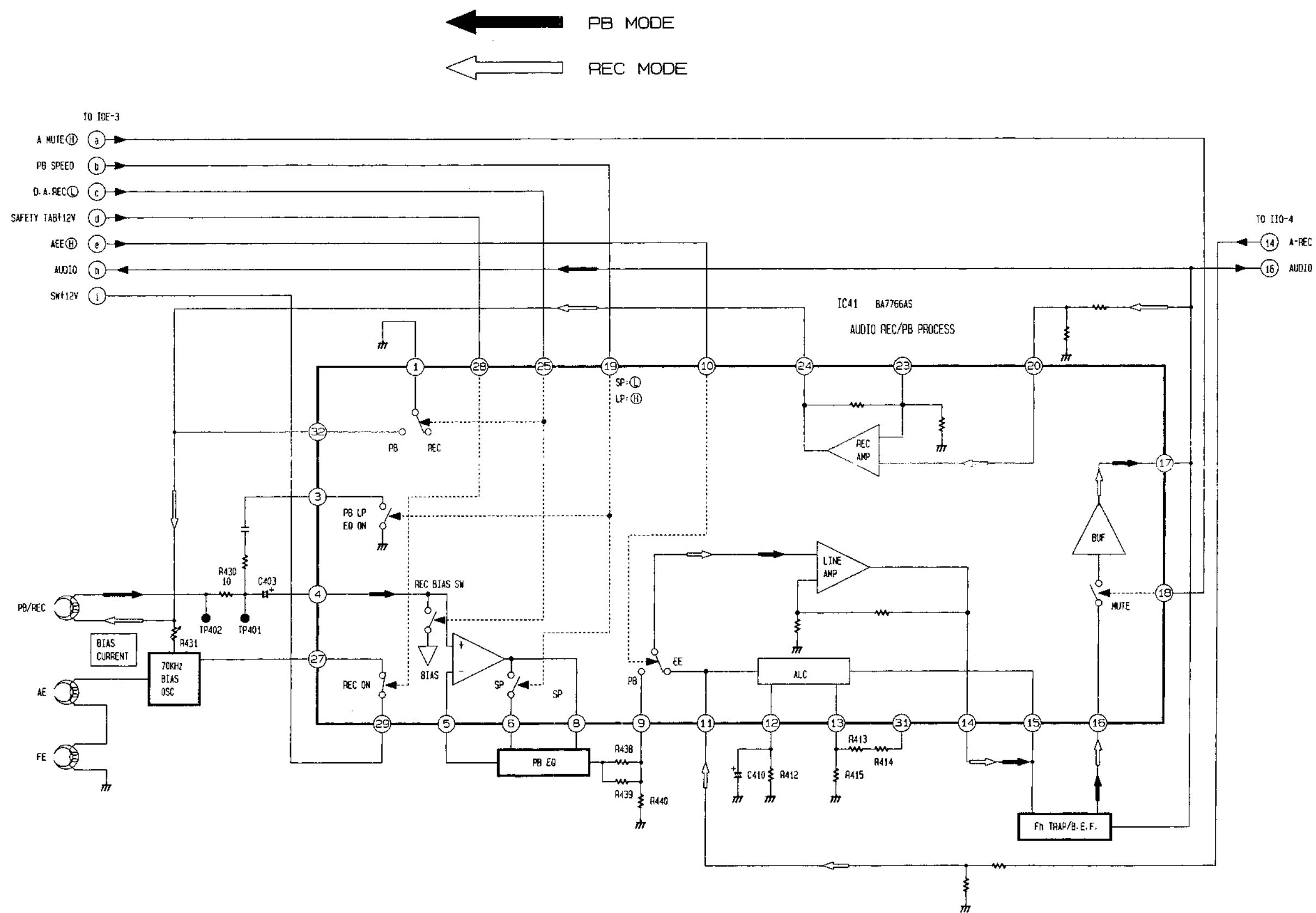
← MAIN SIGNAL PATH IN PB
← MAIN SIGNAL PATH IN REC



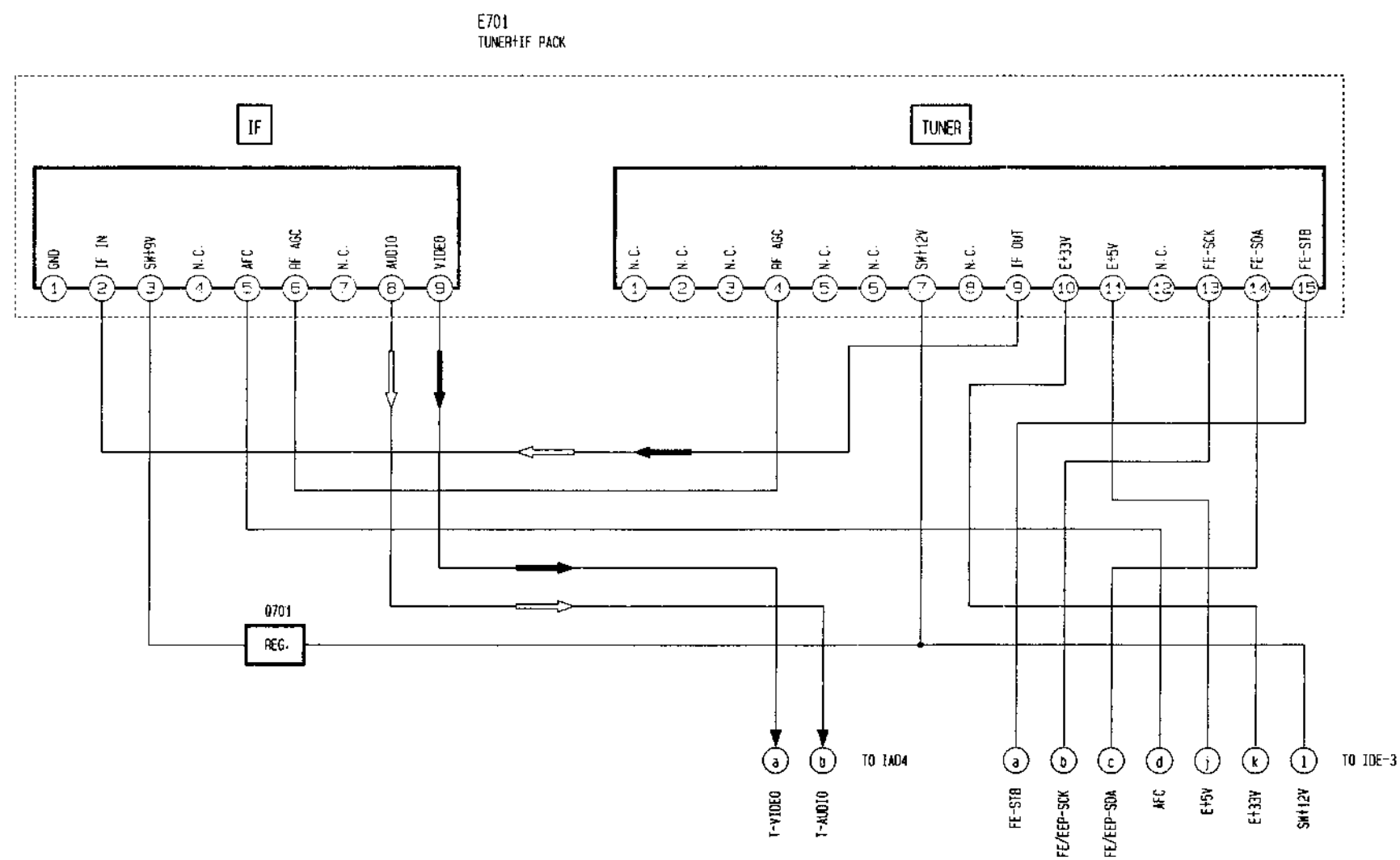




NORMAL AUDIO BLOCK DIAGRAM



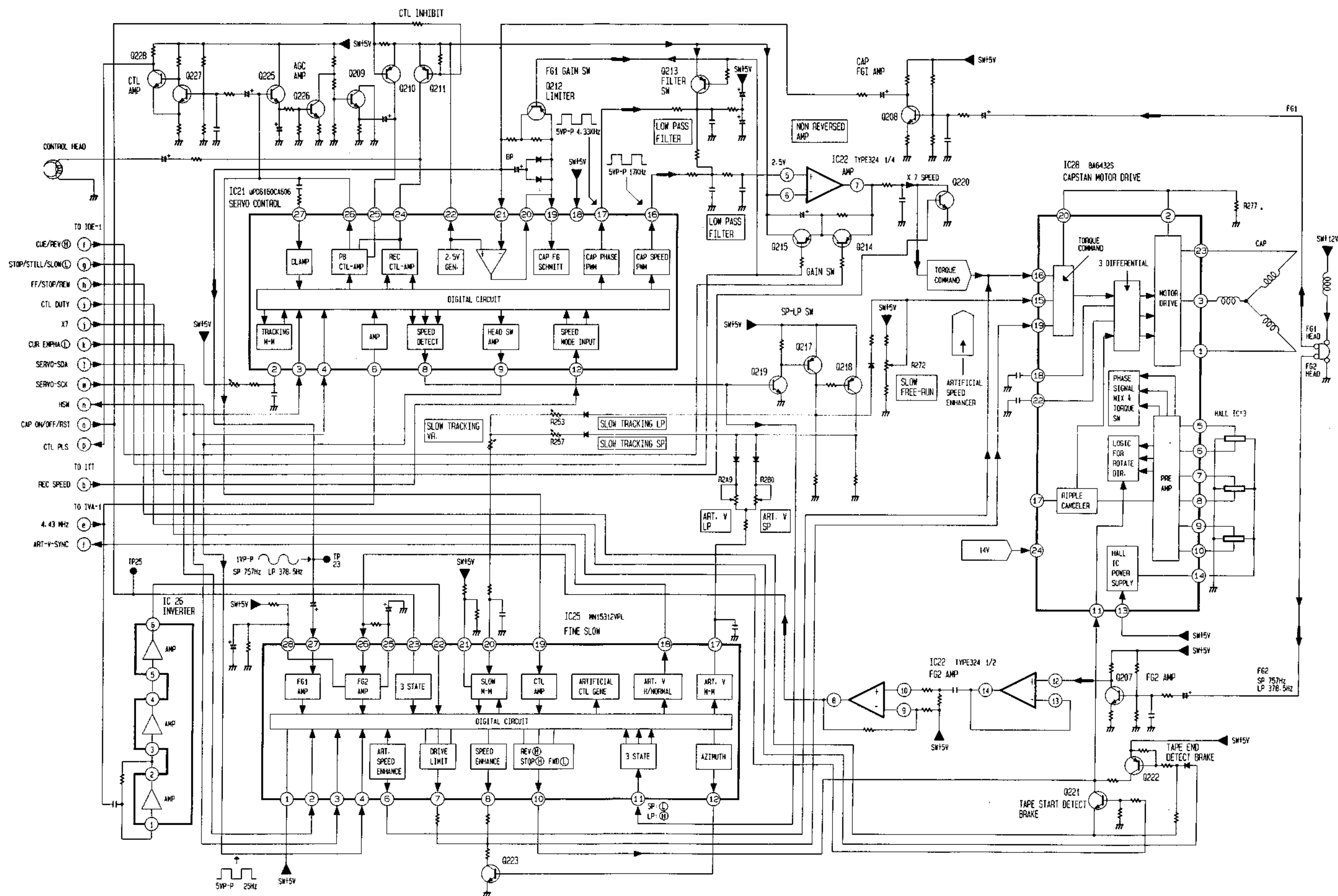
UHF/VHF TUNER/TV DEMODULATOR BLOCK DIAGRAM

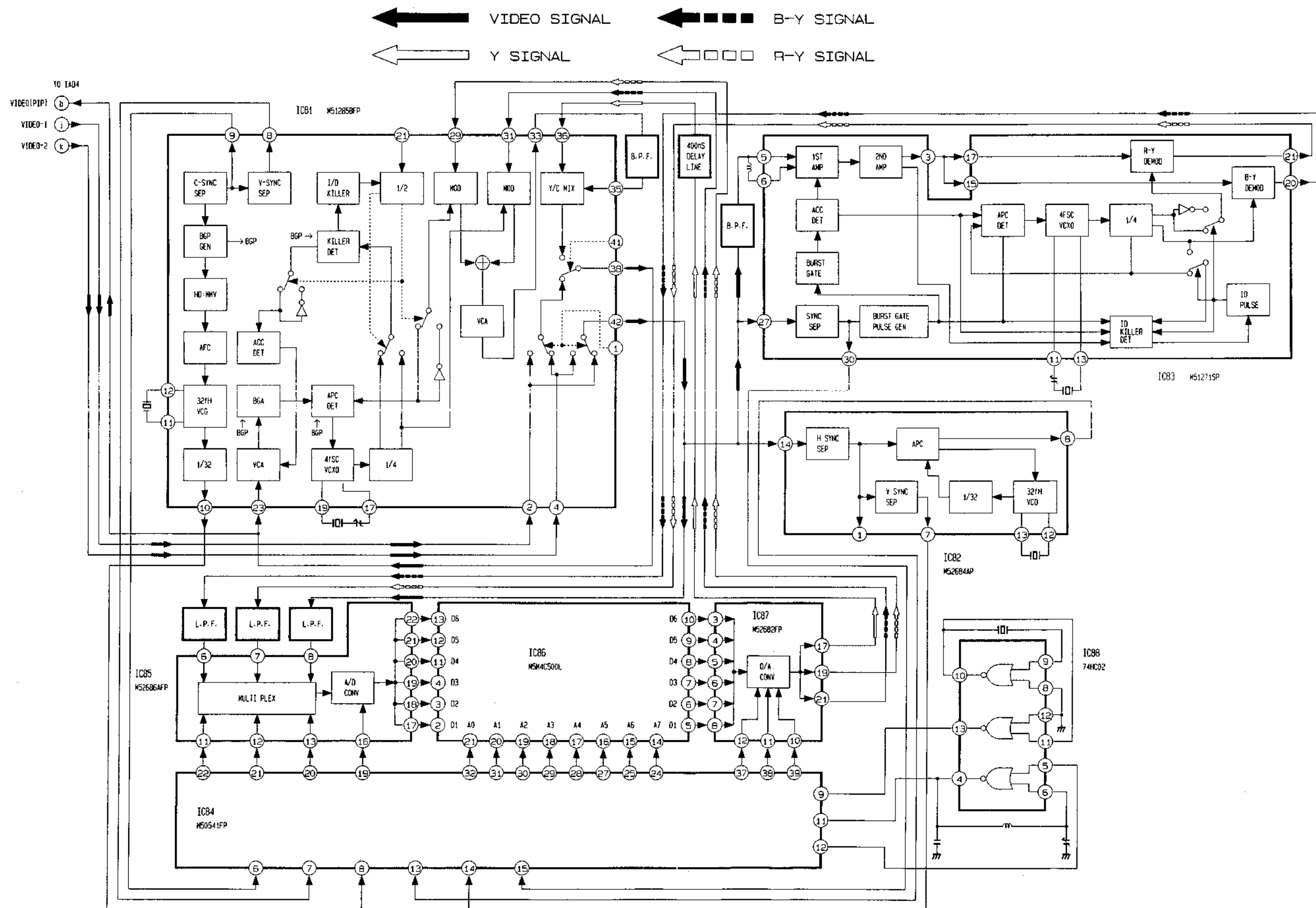


CYLINDER SERVO BLOCK DIAGRAM



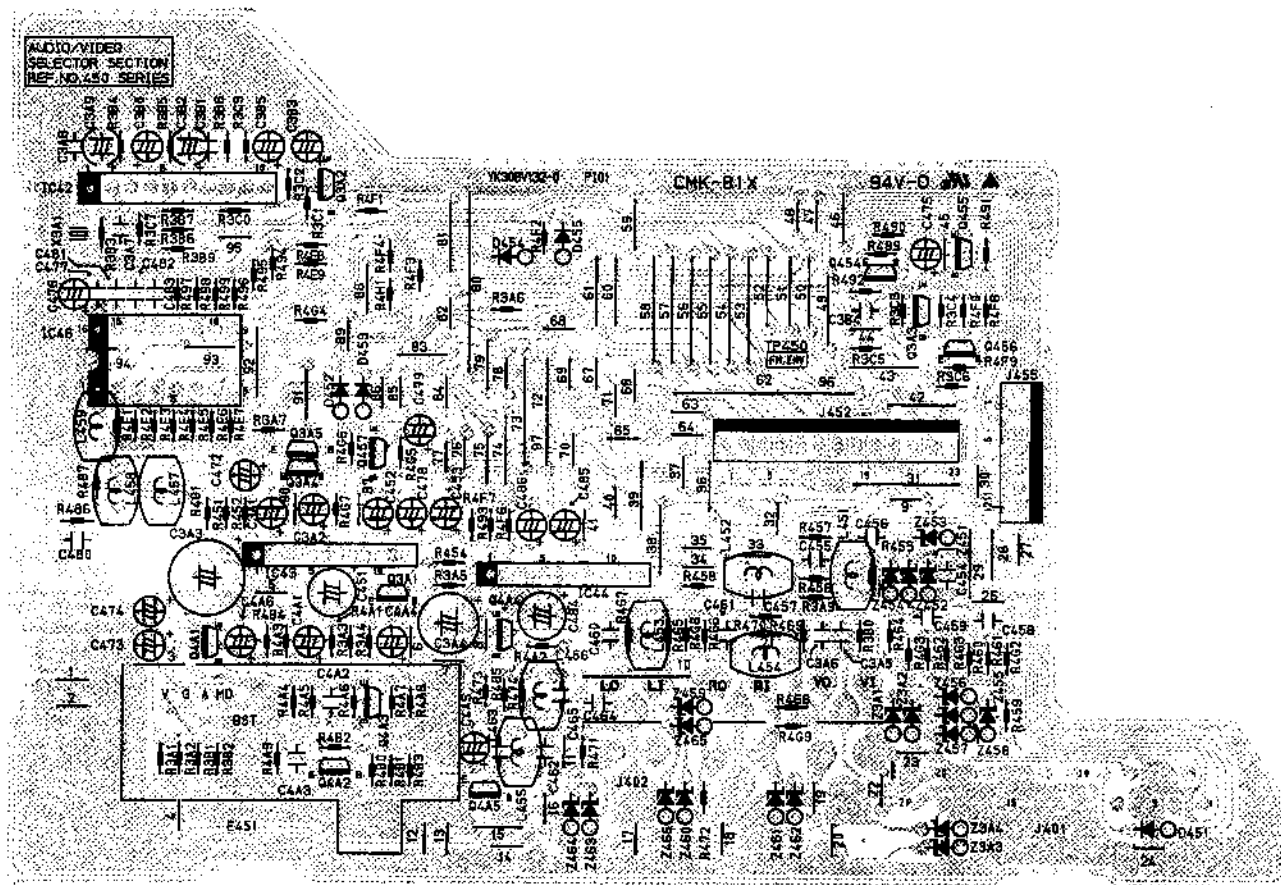
CAPSTAN SERVO BLOCK DIAGRAM



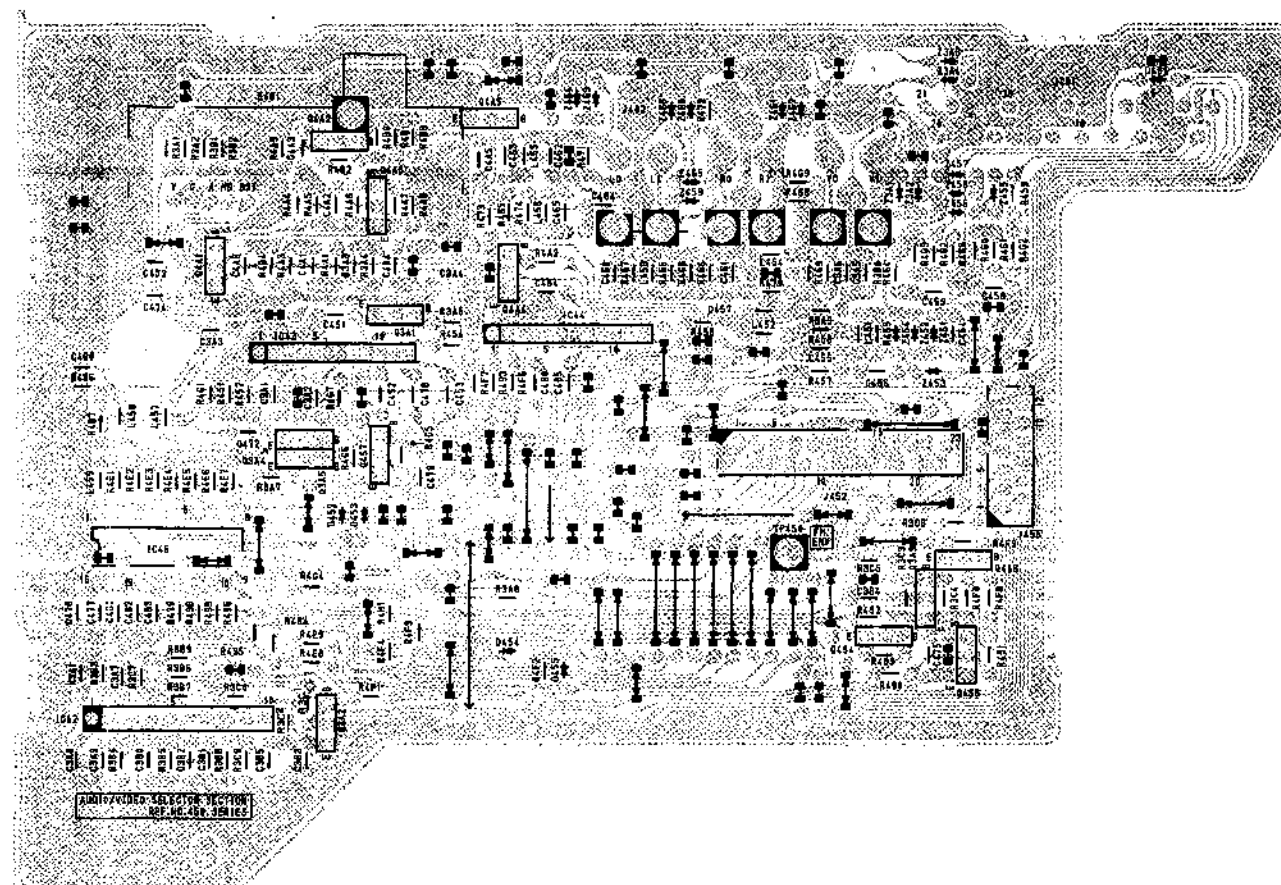


AUDIO/VIDEO SELECTOR P.C.B. DRAWING PI01

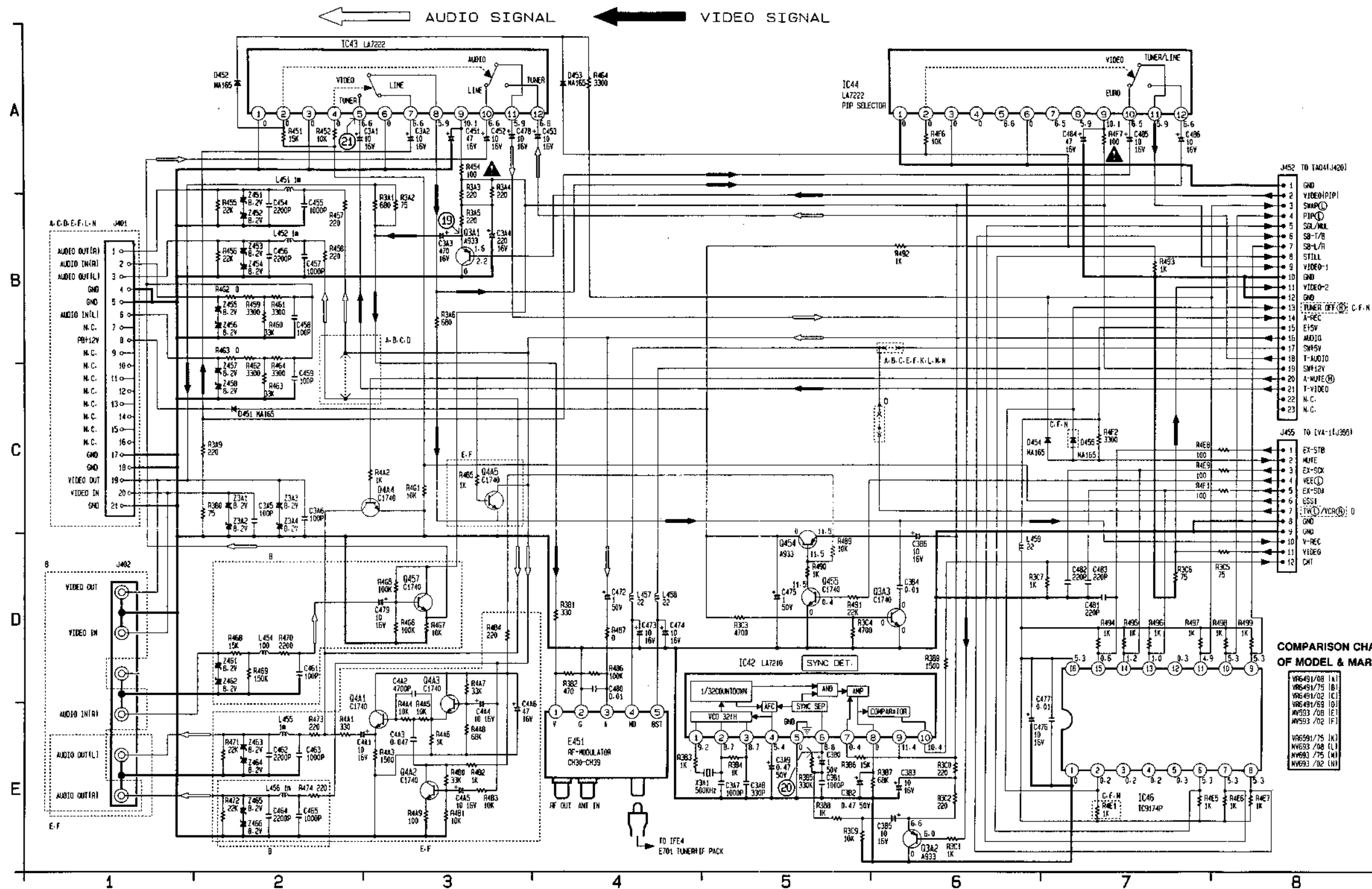
(viewed from the component side)



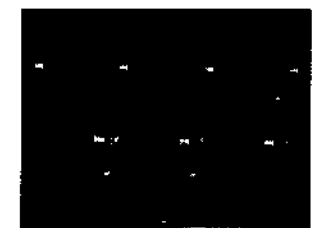
(viewed from the copper side)



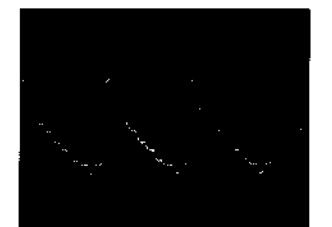
AUDIO/VIDEO SELECTOR SCHEMATIC DIAGRAM (II04) PI01



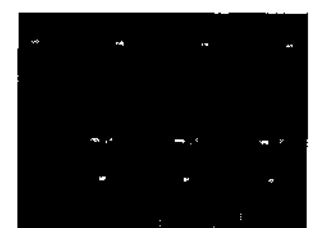
ZENERS	
Q3A1 B3	Z3A1 C2
Q3A2 E6	Z3A2 C2
Q3A3 D6	Z3A3 C2
Q4A1 E2	Z3A4 C2
Q4A2 E3	Z451 B2
Q4A3 D3	Z452 B2
Q4A4 C3	Z453 B2
Q4A5 C3	Z454 B2
Q454 D5	Z455 B2
Q455 D5	Z456 B2
Q457 D3	Z457 B2
	Z458 C2
	Z461 D2
	Z462 D2
	Z463 E2
	Z464 E2
	Z465 E2
	Z466 E2



19 Q3A1 Emitter
500mV/Div 20μSec/Div



20 IC42 Pin 6
200mV/Div 20μSec/Div



21 IC43 Pin 5
200mV/Div 20μSec/Div

COMPARISON CHART
OF MODEL & MARK

MODEL	MARK
W6491/08	1A1
W6491/75	1B1
W6491/02	1C1
W6491/65	1D1
W6533/08	1E1
W6533/02	1F1
W6591/75	1K1
W6533/08	1L1
W6593/75	1M1
W6593/02	1N1

IC42	1	2	3	4	5	6	7	8	9	10
MODE										
REC	9.2	8.7	8.7	5.4	0	8.8	0.4	0	11.4	10.4
PLAY	9.2	8.7	8.7	5.4	0	8.8	0.4	0	11.4	10.4
STOP	9.2	8.7	8.7	5.4	0	8.8	0.4	0	11.4	10.4

IC43	1	2	3	4	5	6	7	8	9	10	11	12
MODE												
REC	0	0	0	0	6.6	0	6.6	5.9	10.1	6.6	5.9	6.6
PLAY	0	0	0	0	6.6	0	6.6	5.9	10.1	6.6	5.9	6.6
STOP	0	0	0	0	6.6	0	6.6	5.9	10.2	6.6	5.9	6.6

IC44	1	2	3	4	5	6	7	8	9	10	11	12
MODE												
REC	0	0	0	0	6.6	0	6.6	5.9	10.1	6.6	5.9	6.6
PLAY	0	6.6	0	0	6.6	0	6.6	5.9	10.1	6.6	5.9	6.6
STOP	0	0	0	0	6.6	0	6.6	5.9	10.1	6.6	5.9	6.6

IC46	1	2	3	4	5	6	7	8	9	10	11	12	13	14
MODE														
REC	0	0.2	0.2	0.2	0.3	5.3	5.3	5.3	5.3	4.9	0.3	1.0	1.2	
PLAY	0	0.2	0.2	0.2	0.2	5.3	5.3	5.3	5.3	4.9	0.3	1.0	1.2	
STOP	0	0.2	0.2	0.2	0.2	5.3	5.3	5.3	5.3	4.9	0.3	1.0	1.2	

IC46	15	16
MODE		
REC	0.6	5.3
PLAY	0.6	5.3
STOP	0.6	5.3

Q3A1			Q3A2			Q3A3		
MODE								
REC	1.6	2.2	0	6.6	6.0	0	0	0
PLAY	2.2	2.3	0	6.6	6.0	0	0	0
STOP	1.6	2.2	0	6.6	6.0	0	0	0

Q454			Q455		
MODE					
REC	11.5	11.5	0	0	0.4
PLAY	10.7	11.5	11.5	0	0.7
STOP	11.5	11.5	0	0	0.3

LUMINANCE SCHEMATIC DIAGRAM (IVA-1) PM01

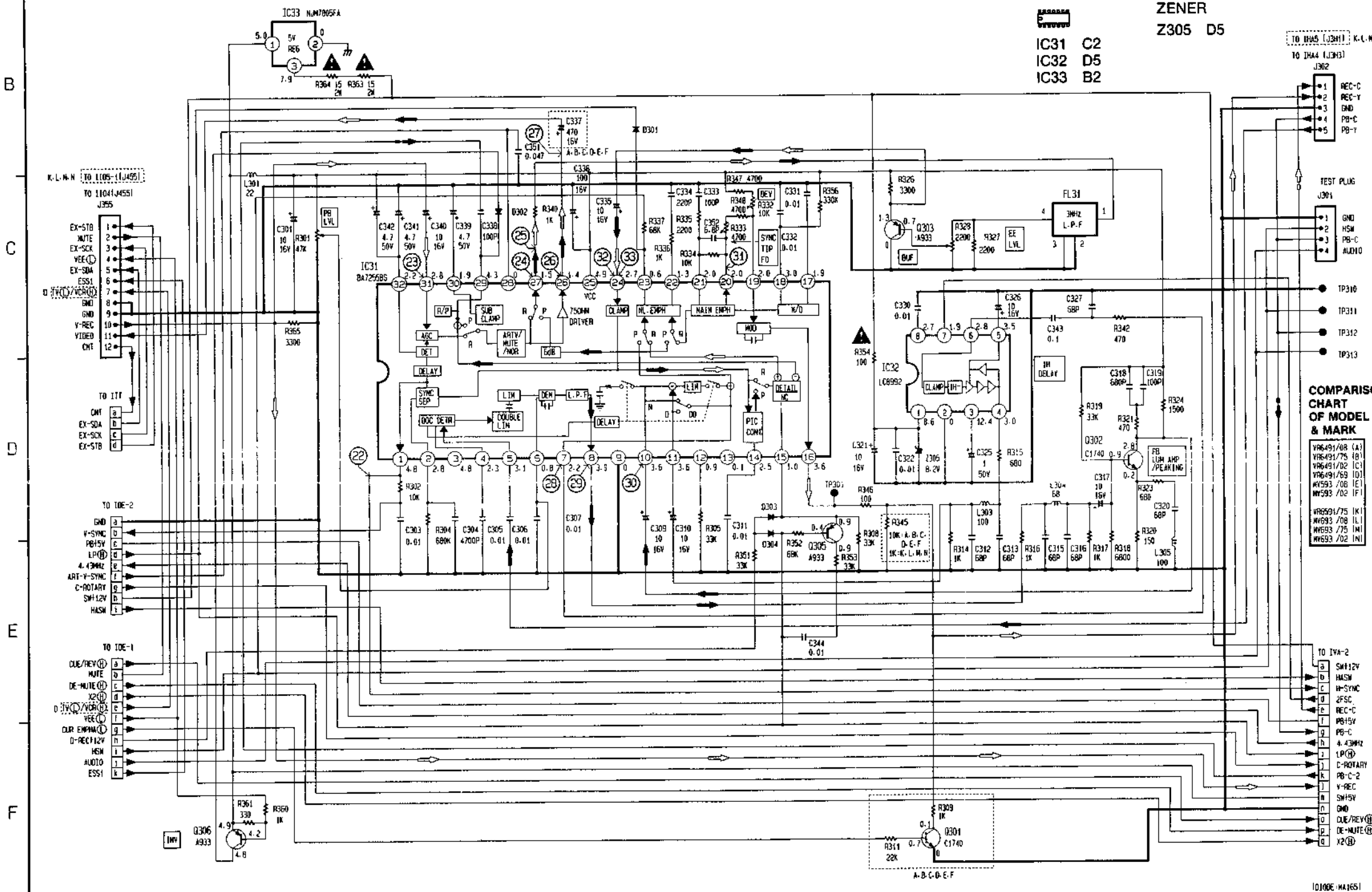
A
B
C
D
E
F

← MAIN SIGNAL PATH IN PB Y MODE ← PB C MODE
← MAIN SIGNAL PATH IN REC Y MODE ← REC C MODE

- Q301 F6
Q302 D6
Q303 C5
Q305 E5
Q306 F1
- D301 B4
D302 C3
D303 D5
D304 E5
- ZENER
Z305 D5
- IC31 C2
IC32 D5
IC33 B2

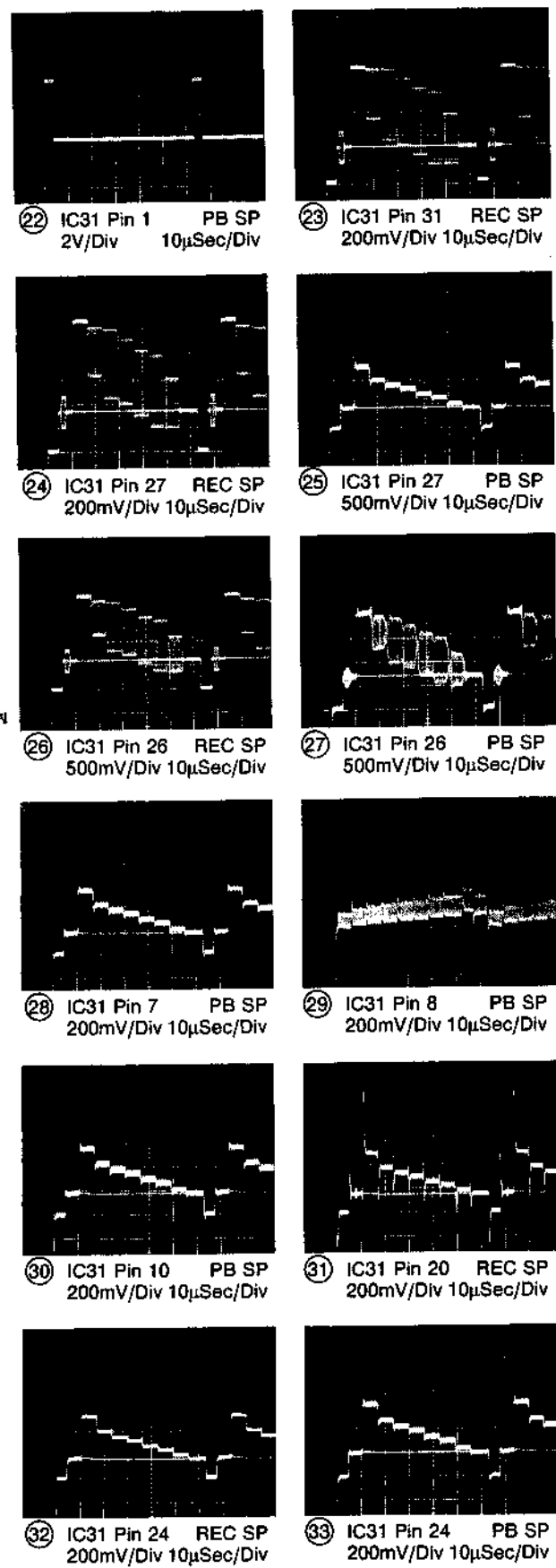
TESTPOINTS

- TP301 D5
TP310 C8
TP311 C8
TP312 C8
TP313 C8



COMPARISON
CHART
OF MODEL
& MARK

V6491/48 (A)
V6491/75 (B)
V6491/75 (C)
V6491/75 (D)
V6491/75 (E)
V6491/75 (F)
V6491/75 (G)
V6491/75 (H)
V6491/75 (I)
V6491/75 (J)



IC31	1	2	3	4	5	6	7	8	9	10	11	12	13	14
MODE														
REC	4.8	2.8	2.3		3.1	0.8	2.2	3.9	0	3.6	3.8	0.9	0.1	2.5
PLAY	0.4	2.8	4.7	3.0	3.1	0.8	2.2	3.4	0	3.6	3.6	0.8	0.1	2.5
STOP	4.8	2.9	2.7	2.6	3.1	0.8	2.2	3.9	0	3.6	3.6	0.9	0.1	2.5

IC31	29	30	31	32
MODE				
REC	4.3	1.9	2.8	2.2
PLAY	3.0	1.7	2.8	2.9
STOP	4.3	1.9	2.8	2.2

	15	16	17	18	19	20	21	22	23	24	25	26	27	28
MODE														
REC	1.0	3.6	1.9	3.0	2.0	2.0	2.0	1.3	0.6	2.7	4.9	1.4	1.5	0
PLAY	0.9	4.0	1.9	3.0	2.0	2.1	2.1	1.5	0.6	3.0	4.9	2.3	2.6	0
STOP	0.9	3.7	1.9	3.0	2.0	2.0	2.0	1.3	0.6	2.7	4.9	1.4	1.5	0

IC32	1	2	3	4	5	6	7	8
MODE								
REC	8.6	0	12.4	3.0	3.5	2.8	1.9	2.7
PLAY	8.6	0	10.7	3.0	3.8	3.2	1.9	2.7
STOP	8.6	0	10.9	3.0	3.6	3.7	2.1	2.7

IC33	1	2	3
MODE			
REC	5.0	7.9	0
PLAY	5.0	7.9	0
STOP	5.0	7.9	0

	Q301			Q302			Q303			Q305			Q306		
MODE	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C
REC	0	0.7	0.1	0.2	0.9	2.8	1.3	0.7	0	0.9	0.4	0.9	4.9	4.2	4.8
PLAY	0	0.7	0.1	0.2	0.8	2.9	1.7	0	1.1	0.9	0.4	0.9	4.9	4.8	0.1
STOP	0	0.1	2.1	0.2	0.8	2.8	1.3	0.7	0	0.9	0.4	0.9	4.8	4.2	4.8

CHROMINANCE SCHEMATIC DIAGRAM (IVA-2) PM01

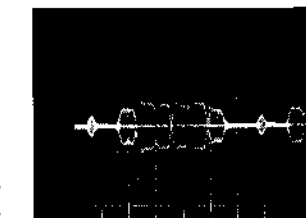
← MAIN SIGNAL PATH IN REC MODE
 ← MAIN SIGNAL PATH IN PB MODE

COMPARISON CHART
OF MODEL & MARK

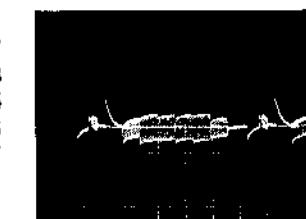
V6491/08 (A1)
 V6491/75 (B1)
 V6491/02 (C1)
 V6491/65 (D1)
 V6491/06 (E1)
 V6491/02 (F1)
 V6491/75 (G1)
 V6491/75 (H1)
 V6491/75 (I1)
 V6491/02 (J1)

Q803 C7
 Q804 C7
 Q805 B7
 Q806 C8
 Q812 D7

IC81 C3
 IC82 A6
 D801 B5
 D802 B5
 D803 E4
 D804 E2
 D805 E2
 D807 E4
 D808 C7
 D809 C8
 D810 D5
 D871 A6
 D872 A7



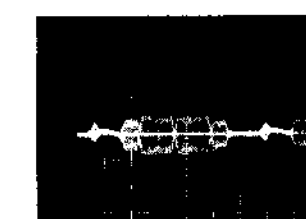
34 IC81 Pin 23 PB SP
500mV/Div 10µSec/Div



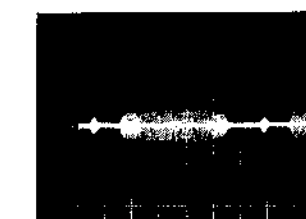
35 IC81 Pin 21 REC SP
500mV/Div 10µSec/Div



36 IC81 Pin 14
1V/Div 10µSec/Div



37 IC81 Pin 3 PB SP
100mV/Div 10µSec/Div



38 IC81 Pin 5 PB SP
500mV/Div 10µSec/Div



39 IC81 Pin 9 REC SP
500mV/Div 10µSec/Div

10100E/MA1651

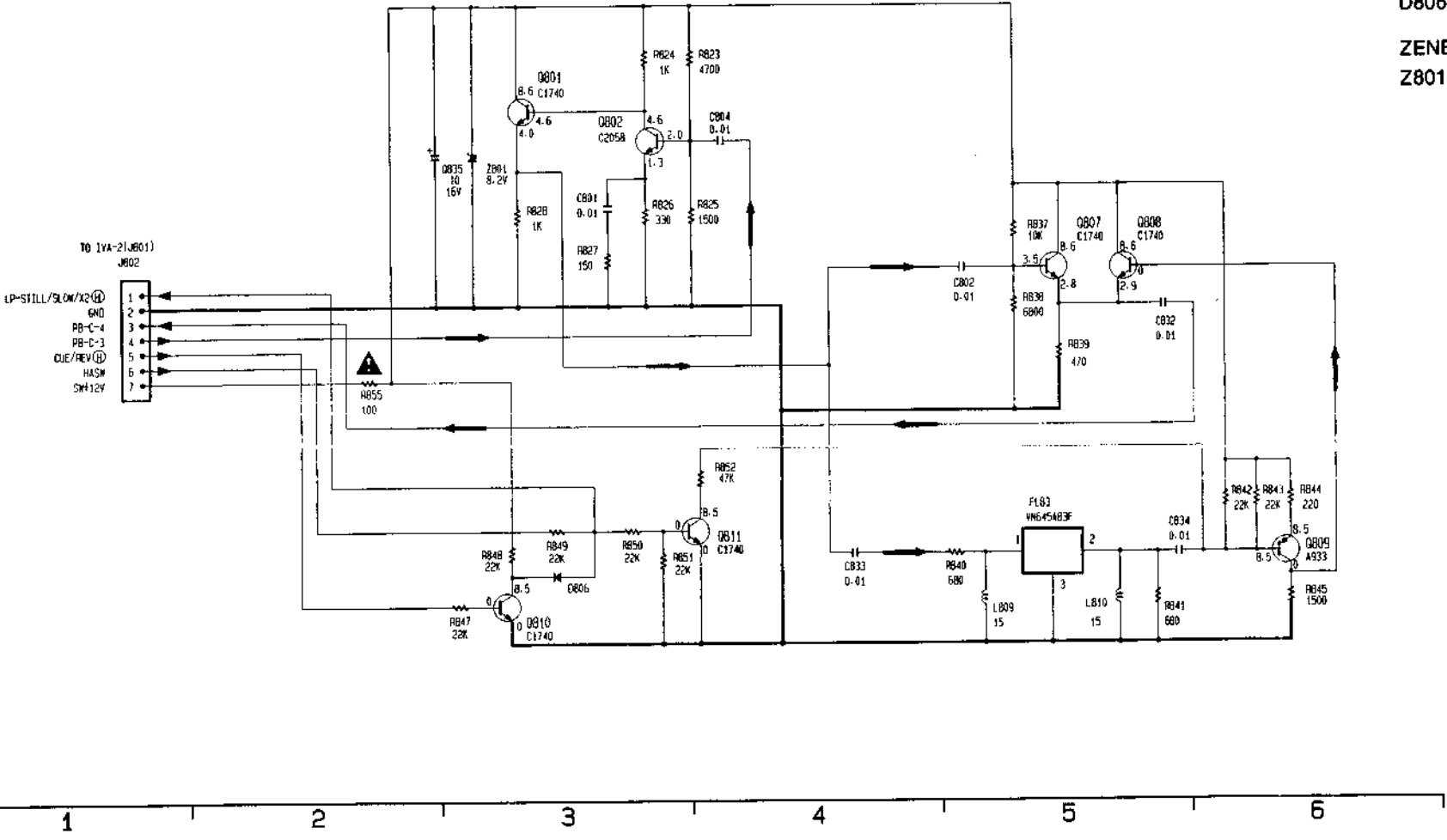
IC81	1	2	3	4	5	6	7	8	9	10	11	12	13	14
MODE	0	1.0	3.1	2.5	1.7	0	3.1	2.2	1.0	2.3	2.5	2.3	4.5	1.3
REC	0	1.0	3.1	2.5	2.7	0.1	3.1	2.9	4.7	2.3	2.6	2.0	4.5	1.2
PLAY	0.1	1.0	3.1	2.5	2.7	0.1	3.1	2.4	4.7	2.4	2.6	2.0	4.5	1.2
STOP	0.1	1.0	3.1	2.5	2.7	0.1	3.1	2.4	4.7	2.4	2.6	2.0	4.5	1.2

	15	16	17	18	19	20	21	22	23	24
MODE										
REC	2.3	4.8	4.8	2.9		4.8	1.7		2.2	3.1
PLAY	2.3	4.8	4.8	2.9		4.8	1.6		0	3.2
STOP	2.4	4.8	4.8	2.9	3.8	4.8	1.7		2.0	3.3

	Q803			Q804			Q805			Q806		
	E	B	C	E	B	C	E	B	C	E	B	C
MODE	0	0	0	0	0	0	0	0	0	0	0	0
REC	0	0	0	0	0	0.1	0	0	0	0	0	0.1
PLAY	0	0	0	0	0.3	5.3	5.3	5.3	0	2.5	3.1	4.0
STOP	0	0	0	0	0	5.3	5.3	5.3	0.1	2.5	3.1	4.0

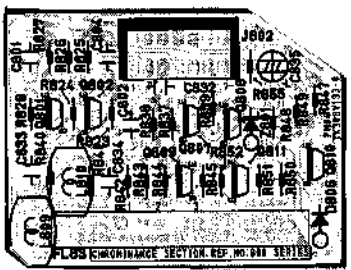
CHROMINANCE SUB SCHEMATIC DIAGRAM (IVA-3) PM04

← MAIN SIGNAL PATH IN PB MODE

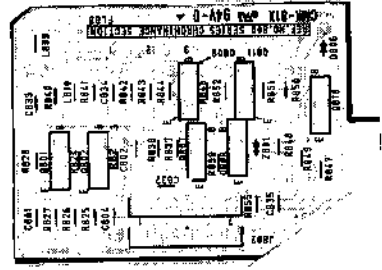


- Q801 B3
- Q802 B3
- Q807 B5
- Q808 B5
- Q809 C6
- Q810 D3
- Q811 C4
- D806 D3
- ZENER
- Z801 B3

(viewed from the component side)



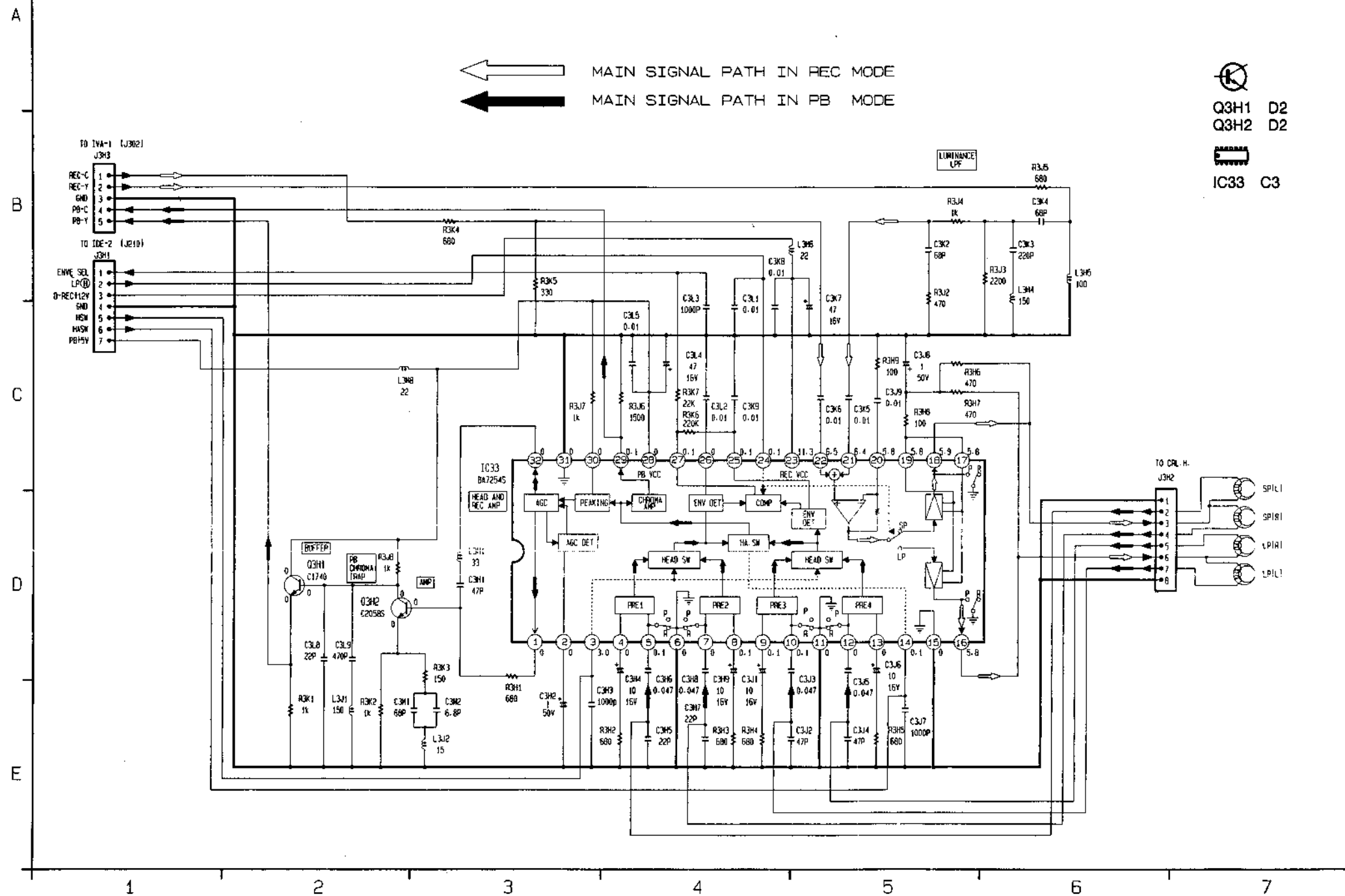
(viewed from the copper side)



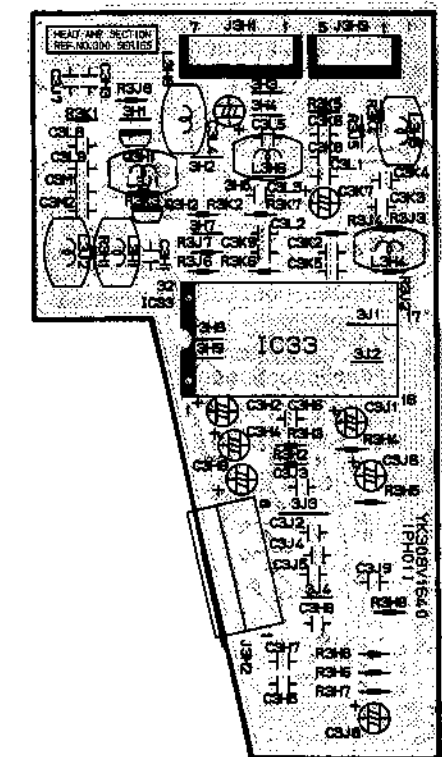
	Q801			Q802			Q807			Q808			Q809		
	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C
MODE															
REC	4.0	4.6	8.6	1.3	2.0	4.6	2.8	3.5	8.6	2.9	0	8.6	8.5	8.5	0
PLAY	4.2	4.6	8.6	1.3	2.0	4.6	2.9	3.5	8.5	2.9	0	8.6	8.5	8.6	0
STOP	4.0	4.6	8.6	1.3	2.1	4.6	2.9	3.5	8.6	2.9	0	8.6	8.5	8.5	0

	Q810			Q811		
	E	B	C	E	B	C
MODE						
REC	0	0	8.5	0	0	8.5
PLAY	0	0	8.5	0	0	8.5
STOP	0	0	8.5	0	0	8.5

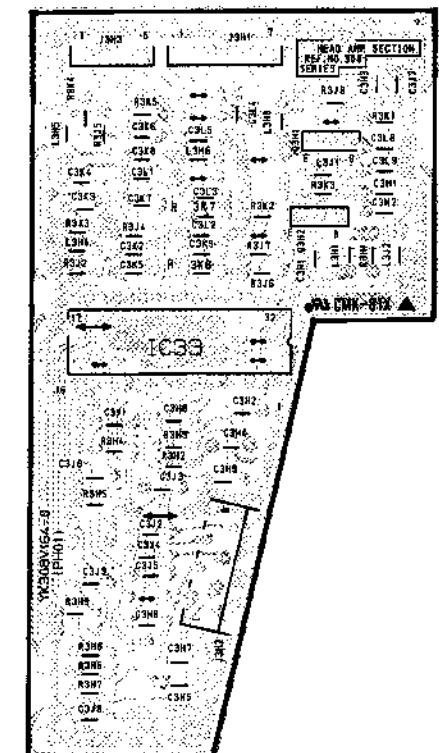
HEAD AMP SCHEMATIC DIAGRAM (IHA4) PH01



(viewed from the component side)



(viewed from the copper side)



IC33

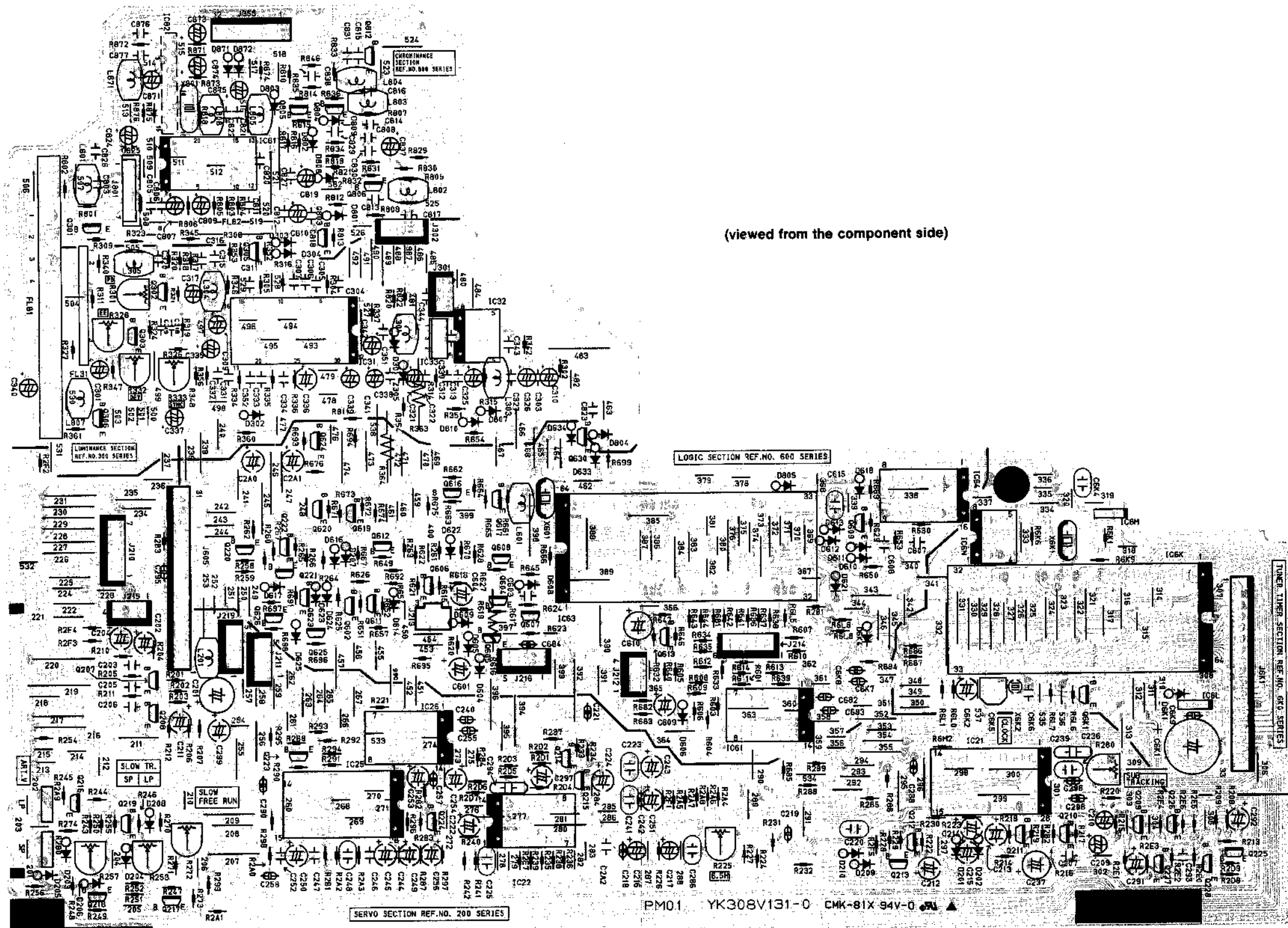
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
REC	0	0	3.0	0	0.1	0	0	0.1	0.1	0.1	0	0	0	0.1
PLAY	1.9	3.4	3.9	0.8	0.7	0	0.7	0.8	0.8	0.7	0	0.7	0.8	0
STOP	1.9	3.2	5.2	0.8	0.7	0	0.7	0.8	0.8	0.7	0	0.7	0.8	2.0

MODE	15	16	17	18	19	20	21	22	23	24	25	26	27	28
REC	0	5.8	5.8	5.9	5.8	5.8	6.4	6.5	11.3	0.1	0.1	0	0.1	0
PLAY	0	0	0	0	0	0	0	0	0.1	0.1	2.6	2.6	5.1	5.3
STOP	0	0	0	0	0	0	0	0	0.1	0.1	2.6	2.6	0.1	5.3

MODE	29	30	31	32
REC	0.1	0	0	0
PLAY	3.1	5.0	0	3.5
STOP	3.1	5.0	0	3.5

	Q3H1			Q3H2		
MODE	E	B	C	E	B	C
REC	0	0	0	0	0	0
PLAY	3.5	4.2	5.3	1.2	1.8	4.1
STOP	3.5	4.2	5.3	1.2	1.8	4.2

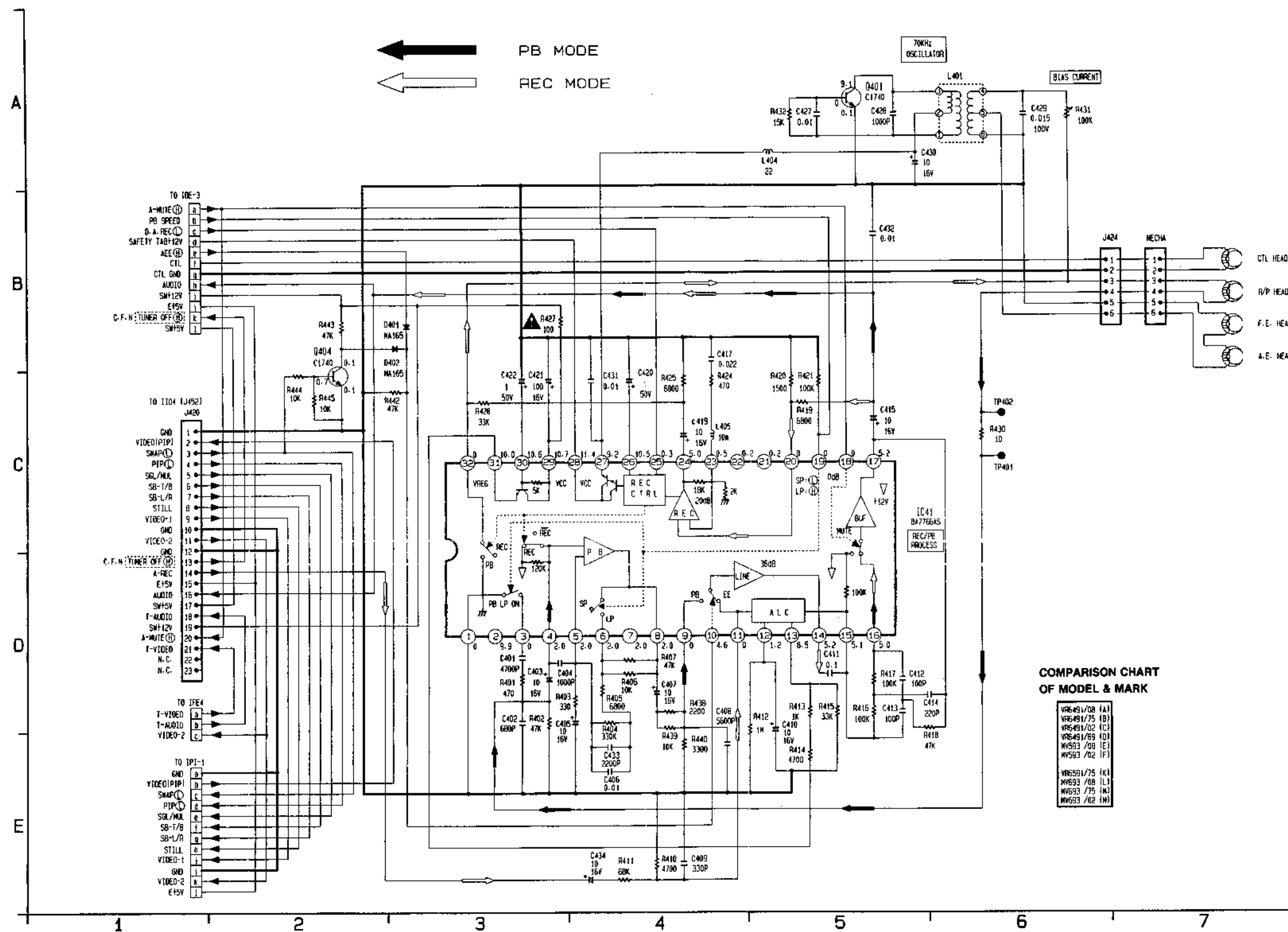
LUMINANCE/CHROMINANCE/TUNER TIMER/LOGIC/SERVO (IDE - 1 & 2) P.C.B. DRAWING PM01



LUMINANCE/CHROMINANCE/TUNER TIMER/LOGIC/SERVO (IDE - 1 & 2) P.C.B. DRAWING PM01



NORMAL AUDIO SCHEMATIC DIAGRAM (IAD4) PM02



Q401 A5
Q404 B2

IC41 C5

D401 B3
D402 B3

TESTPOINTS
TP401 C6
TP402 C6

IC41

MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
REC	0	9.9	0	2.0	2.0	2.0	2.0	2.0	0	4.6	0	1.2	8.5	5.2
PLAY	0	6.9	0	2.0	2.0	2.1	1.7	2.1	0	1.0	0	0	8.0	4.9
STOP	0	7.0	0	2.0	2.0	2.1	2.1	2.1	0	4.6	0	0	8.1	5.0

MODE	15	16	17	18	19	20	21	22	23	24	25	26	27	28
REC	5.1	5.0	5.2	0	0	0	0.2	0.2	0.5	5.0	0.3	10.5	9.2	11.4
PLAY	4.9	4.8	5.0	0	5.3	0	0	0	0.5	4.8	10.8	0	0.3	11.5
STOP	5.0	4.9	5.0	0	0	0	0	0	0.5	0	10.8	0	0.3	11.4

MODE	29	30	31	32
REC	10.7	10.6	10.0	0
PLAY	10.3	10.2	9.4	0
STOP	10.4	10.3	9.5	0

	Q401			Q404		
MODE	E	B	C	E	B	C
REC	0.1	0	9.1	0.1	0.7	0.1
PLAY	0.1	0.3	0.3	0.1	0.7	0.1
STOP	0.1	0.3	0.4	0.1	0.7	0.1

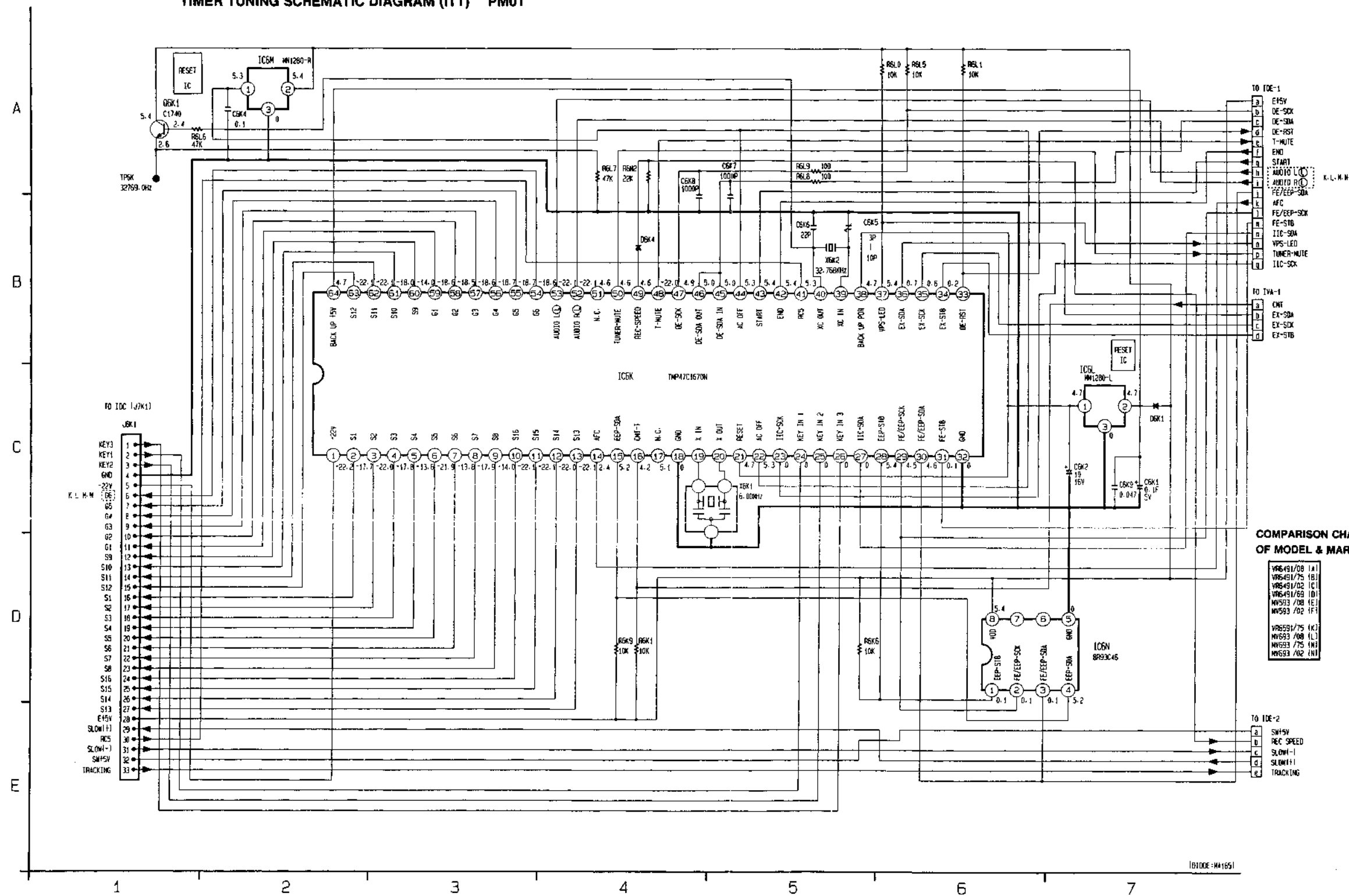


Q701

E701 (TUNER)

	2	4	7	9	10	11	12	13	14	15
MODE										
REC		6.0	11.4	0.1	34.5	5.3		4.6	4.6	0.2
PLAY		6.0	11.4	0.1	34.5	5.3		4.6	4.6	0.2
STOP		6.0	11.4	0.1	34.5	5.3		4.6	4.6	0.2

TIMER TUNING SCHEMATIC DIAGRAM (ITT) PM01



- Q6K1 A1
- IC6K C4
- IC6L C7
- IC6M A2
- IC6N D7
- D6K1 C7
- D6K4 B4
- TESTPOINT
- TP6K A1

COMPARISON CHART OF MODEL & MARK

VR6491/08	(A)
VR6491/75	(B)
VR6491/92	(C)
VR6491/99	(D)
VR6491/98	(E)
VR6491/92	(F)
VR6491/75	(K)
VR6491/98	(L)
VR6491/75	(M)
VR6491/92	(N)

MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
REC	-22.2	-17.7	-22.0	-17.8	-13.8	-21.9	-13.8	-17.9	-14.0	-22.1	-22.1	-22.0	-22.1	2.4
PLAY	0	5.4	0.4	0	2.5	3.2	3.5	3.2	3.5	0	5.4	5.4	5.4	5.4
STOP	5.1	0	5.4	0.5	0	4.7	2.6	3.2	3.5	3.2	3.5	0	5.4	5.4

MODE	43	44	45	46	47	48	49	50	51	52	53	54	55	56
REC	6.4	5.3	5.0	5.0	4.9	-22.0	4.6	4.6	4.6	-22.1	-22.1	-18.6	-18.7	-18.7
PLAY	5.4	5.3	4.9	4.9	4.9	-22.0	4.6	4.6	4.6	-22.1	-22.1	-18.7	-18.8	-18.7
STOP	4.5	5.3	4.9	4.9	4.9	-22.1	4.6	4.6	4.6	-22.3	-22.3	-18.6	-18.6	-18.6

MODE	1	2	3
REC	5.3	5.4	0
PLAY	5.3	5.4	0
STOP	5.3	5.4	0

MODE	E	B	C
REC	2.6	2.4	5.4
PLAY	2.6	2.4	5.4
STOP	2.6	2.4	5.4

MODE	15	16	17	18	19	20	21	22	23	24	25	26	27	28
REC	5.2	4.2	5.1	0			4.7	5.3	0	0	0	0	0	5.4
PLAY	5.2	4.2	5.1	0			4.7	5.3	0	0	0	0	0	5.4
STOP	5.2	4.2	5.1	0			4.7	5.3	0.2	0	0	0	0.2	5.4

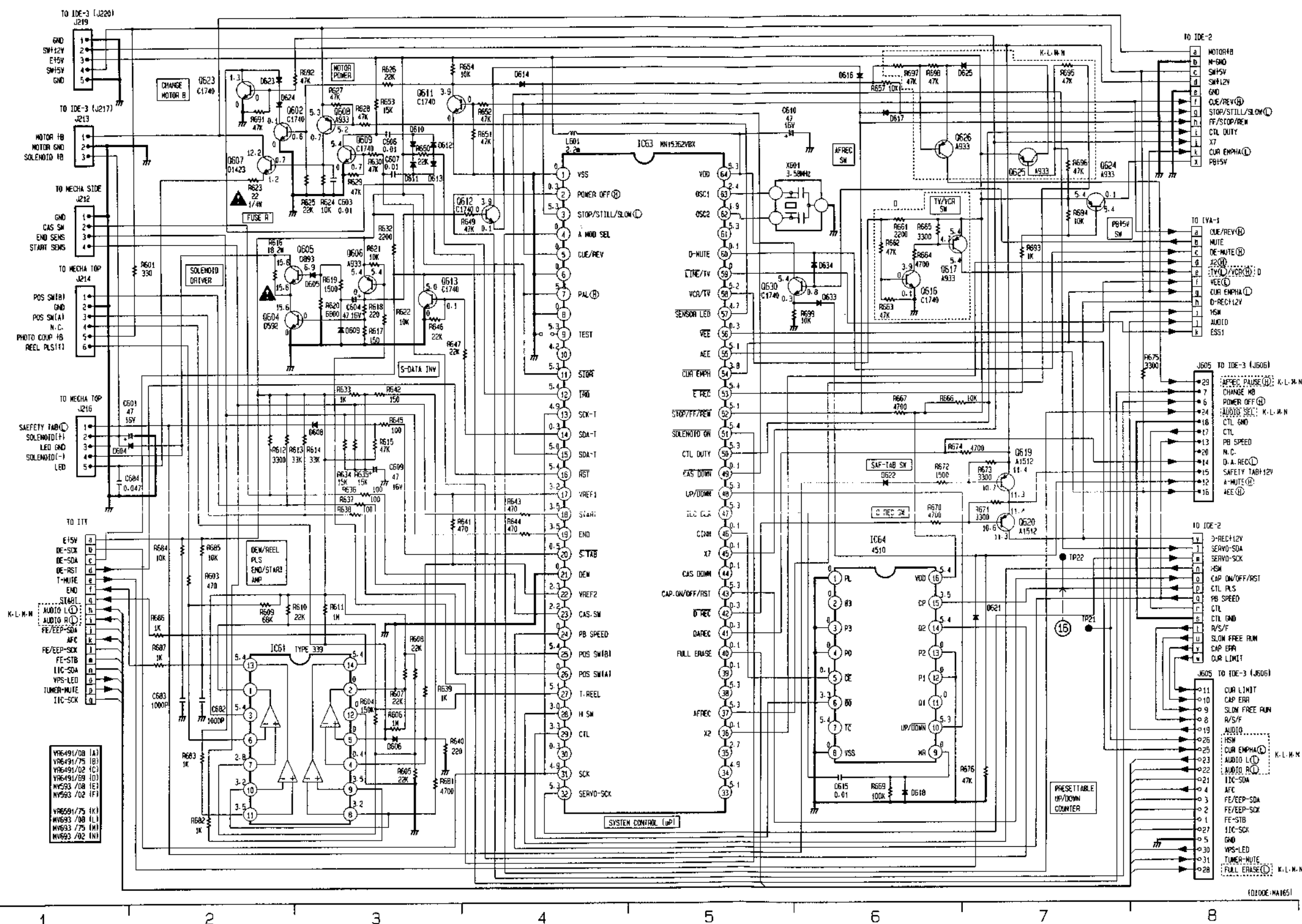
MODE	57	58	59	60	61	62	63	64
REC	-18.6	-18.5	-18.6	-14.0	-18.0	-22.1	-22.1	4.7
PLAY	-18.6	-18.6	-18.6	-14.0	-18.0	-22.2	-22.2	4.7
STOP	-18.6	-18.6	-18.6	-14.0	-22.4	-22.4	-22.3	4.7

MODE	1	2	3
REC	4.7	4.7	0
PLAY	4.7	4.7	0
STOP	4.7	4.7	0

MODE	29	30	31	32	33	34	35	36	37	38	39	40	41	42
REC	4.5	4.6	0.1	0	5.3	0.2	0.6	0.7	5.4	4.7			5.3	5.4
PLAY	4.5	4.5	0.1	0	5.3	0.2	0.6	0.5	5.4	4.7			5.3	5.4
STOP	0	4.6	0.1	0	5.3	0.2	0.8	0.8	5.4	4.7			5.3	4.3

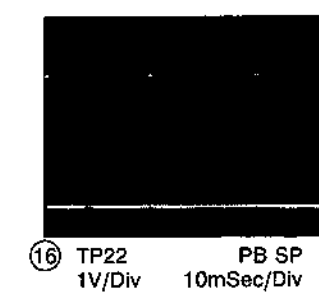
MODE	1	2	3	4	5	6	7	8
REC	0.1	0.1	0.1	5.2	0	0	0	5.4
PLAY	0.1	0.1	0.1	5.2	0	0	0	5.4
STOP	0.1	0.1	0.1	5.2	0	0	0	5.4

LOGIC SCHEMATIC DIAGRAM (IDE-1) PM01



Q602	B2	D604	D1
Q604	C2	D605	C3
Q605	C3	D606	F3
Q606	C3	D608	D3
Q607	B2	D609	E2
Q608	B3	D610	B3
Q609	B3	D611	B3
Q611	B3	D612	B3
Q612	B4	D613	B3
Q613	C3	D614	B4
Q616	C6	D616	B6
Q617	C6	D617	B6
Q619	D7	D618	F6
Q620	D7	D621	E7
Q623	B2	D622	D6
Q624	B7	D623	B2
Q625	B7	D624	B2
Q626	B6	D625	B7
Q630	C5	D633	C6
		D634	C6

TESTPOINTS	
IC61	E2
IC63	B5
IC64	D6
TP21	E7
TP22	D7



TP22 1V/Div PB SP 10mSec/Div

IC81

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
MODE														
REC		0	5.4	0.4	0		2.8	3.2	3.5	3.2	3.5	0	5.4	5.4
PLAY		0	5.4	0.4	0		2.5	3.2	3.5	3.2	3.5	0	5.4	5.4
STOP	5.1	0	5.4	0.5	0	4.7	2.5	3.2	3.5	3.2	3.5	0	5.4	5.4

IC83

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
MODE														
REC	0	0.3	5.3	0	0	0	5.3	0	5.3	4.2	5.3	5.4	4.9	0.3
PLAY	0	0.3	5.3	0	0	0	5.3	0	5.3	4.1	5.3	5.4	4.9	0.4
STOP	0	0.3	0.1	0	0	0	5.3	0	5.3	4.2	5.3	5.3	4.9	0.4

	15	16	17	18	19	20	21	22	23	24	25	26	27	28
MODE														
REC	5.0	5.4	3.2	3.5	3.5	0.5	0	2.3	2.2	0	5.4	0	5.1	3.0
PLAY	4.9	5.4	3.2	3.5	0	0.5	0	2.3	2.2	0	5.4	0	5.1	3.0
STOP	4.9	5.4	3.2	3.5	3.5	0.5	0	2.3	2.2	0	2.2	5.4	0.1	0

	29	30	31	32	33	34	35	36	37	38	39	40	41	42
MODE														
REC	3.3	0.3	4.9	5.3	5.1	4.9	2.7	0.1	5.3	5.3	0.1	0.1	0.3	0.3
PLAY	2.2	0.2	4.9	5.3	5.1	4.9	2.7	0	5.3	5.3	0.2	0.2	10.8	11.4
STOP	0	0.4	4.9	5.2	5.1	4.9	2.6	0	5.3	5.3	0.3	0.3	10.8	11.4

	43	44	45	46	47	48	49	50	51	52	53	54	55	56
MODE														
REC	5.3	0.1	0.1	0.1	5.3	5.3	0.1	5.3	5.4	5.1	5.4	4.8	5.1	0.3
PLAY	5.3	0	0.1	0	5.3	5.3	0	5.3	5.4	5.1	0.4	3.7	0.2	4.6
STOP	2.2	0	0.1	5.3	5.3	0	0	5.3	5.4	0.2	0.4	0.1	5.1	0.3

	57	58	59	60	61	62	63	64
MODE								
REC	4.7	5.2	0	0.1	5.3	1.9	2.4	5.3
PLAY	4.7	5.2	0	0.2	5.3	1.9	2.4	5.3
STOP	4.6	5.2	0	0.2	5.3	1.9	2.4	5.3

IC84

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
MODE														
REC	0	0	0	0	0.1	3.3	5.4	0	0	5.3	0	0	0	5.4
PLAY	0	0	0	0	0	3.3	3.3	0	0	5.3	0	0	0	5.4
STOP	0	0	0	0	0	5.3	5.4	5.4	0	0	0	0	0	5.4

	1	2
MODE		
REC	3.5	5.4
PLAY	0.4	5.4
STOP	0.7	5.4

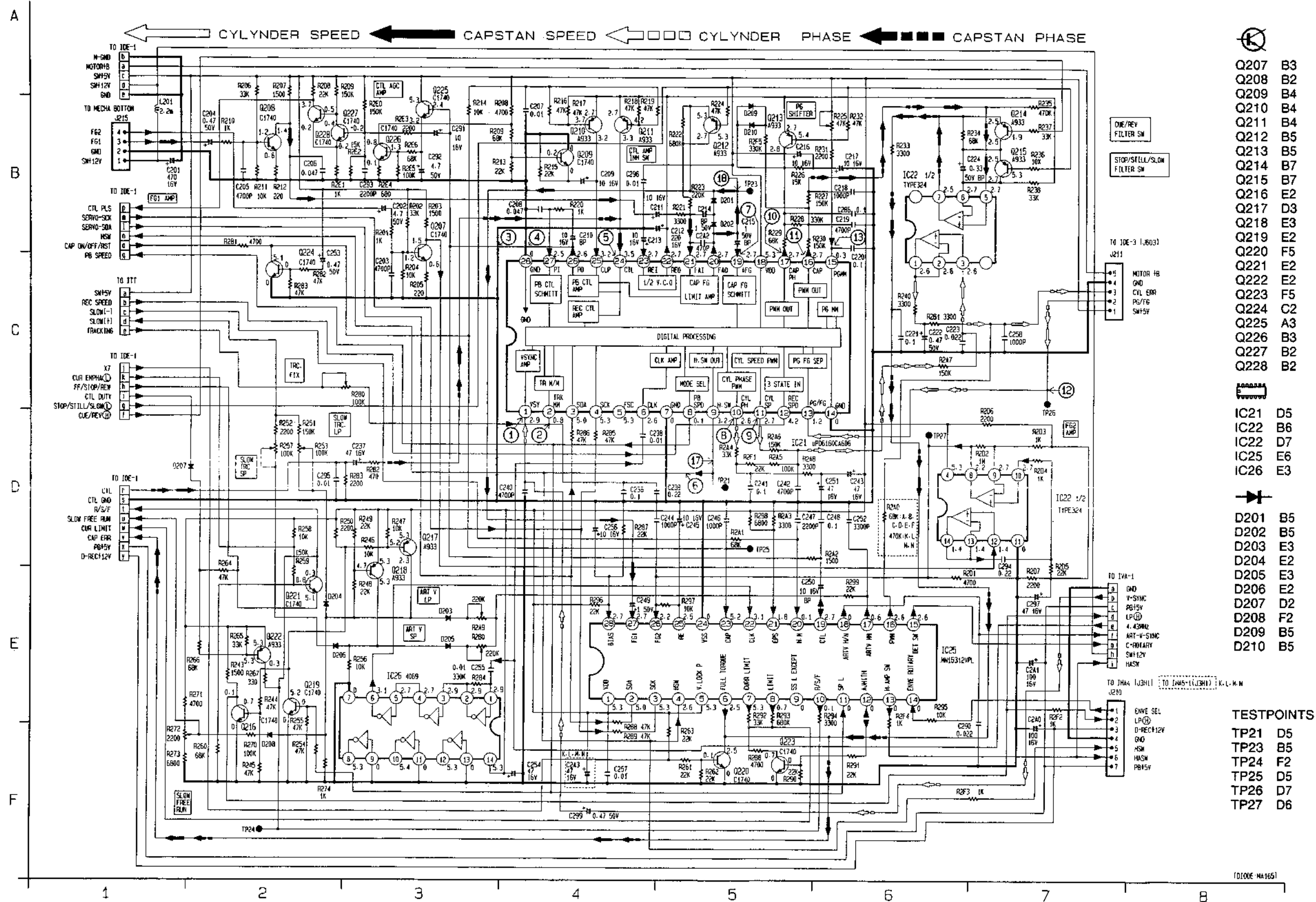
	Q602			Q604			Q605			Q606			Q607		
	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C
MODE															
REC	0	0.6	0.1	0	0	15.6	15.6	6.9	15.6	5.4	5.4	0	1.2	0.7	12.2
PLAY	0	0.6	0.1	0	0	15.6	15.6	6.9	15.6	5.4	5.4	0	1.2	0.7	12.2
STOP	0	0.3	4.2	0	0	16.0	16.0	7.3	16.0	5.4	5.4	0	1.1	0.7	13.0

	Q608			Q609			Q611			Q612			Q613		
	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C
MODE															
REC	5.3	5.2	0.7	0	0.7	5.4	0	0	3.9	0.1	0	3.9	0	0.1	5.0
PLAY	5.3	5.2	0.7	0	0	5.4	0	0	3.9	0	0	3.9	0	0.1	5.0
STOP	5.3	5.3	0.7	0	0	5.4	0	0	0.6	0.2	0	0.6	0	0.1	5.0

	Q616			Q617			Q619			Q620			Q623		
	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C
MODE															
REC	0.1	0	3.9	5.4	4.7	5.4	11.4	10.7	11.3	11.4	10.6	11.3	0	0	1.3
PLAY	0	0.6	0.1	5.4	4.7	5.4	11.4	10.7	11.4	11.4	11.4	0.4	0	0.1	1.4
STOP	0.1	0	0.6	5.4	4.7	5.4	11.4	10.7	11.4	11.4	11.4	0.5	0	0.1	1.4

	Q624			Q630		
	E	B	C	E	B	C
MODE						
REC	5.4	5.4	0.1	0.3	0.8	5.4
PLAY	5.4	4.6	5.3	0.3	0.8	5.4
STOP	5.4	4.6	5.3	0.3	0.8	5.4

SERVO SCHEMATIC DIAGRAM (IDE-2) PM01



Q207 B3
 Q208 B2
 Q209 B4
 Q211 B4
 Q212 B5
 Q213 B5
 Q214 B7
 Q215 B7
 Q216 E2
 Q217 D3
 Q218 E3
 Q219 E2
 Q220 F5
 Q221 E2
 Q222 E2
 Q223 F5
 Q224 C2
 Q225 A3
 Q226 B3
 Q227 B2
 Q228 B2



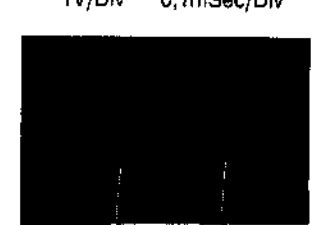
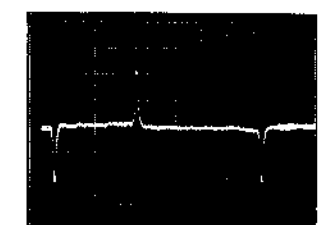
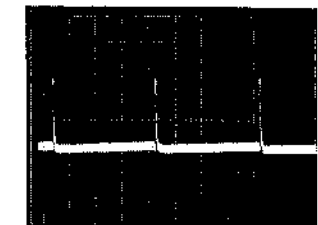
IC21 D5
 IC22 B6
 IC25 E6
 IC26 E3

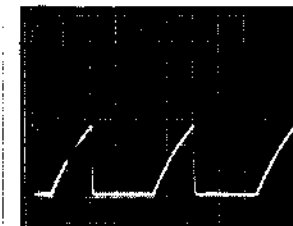


D201 B5
 D202 B5
 D203 E3
 D204 E2
 D205 E3
 D206 E2
 D207 D2
 D208 F2
 D209 B5
 D210 B5

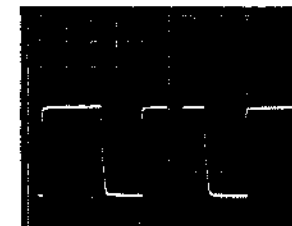
TESTPOINTS

TP21 D5
 TP23 B5
 TP25 F2
 TP24 D5
 TP26 D7
 TP27 D6

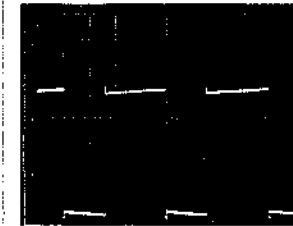




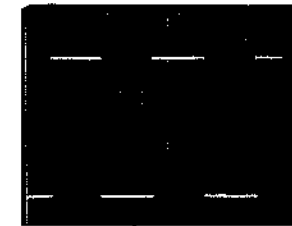
② IC21 Pin 2 REC SP
1V/Div 10mSec/Div



③ IC21 Pin 26 REC SP
1V/Div 10mSec/Div



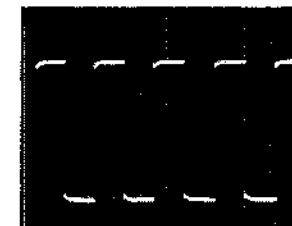
⑤ IC21 Pin 24 REC SP
1V/Div 10mSec/Div



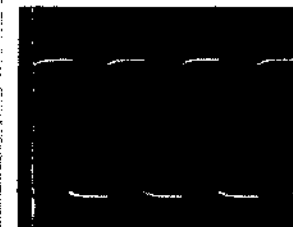
⑥ IC21 Pin 9 PB SP
1V/Div 10mSec/Div



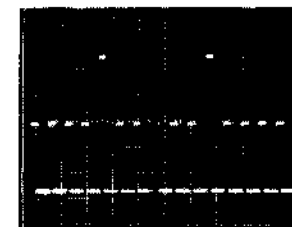
⑧ IC21 Pin 10 PB SP
1V/Div 50μSec/Div



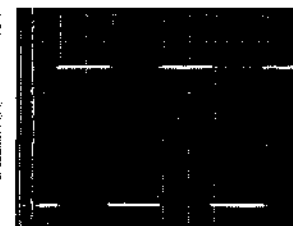
⑨ IC21 Pin 11 PB SP
1V/Div 0.1mSec/Div



⑪ IC21 Pin 16 PB SP
1V/Div 20μSec/Div



⑫ IC21 Pin 13 PB SP
1V/Div 10mSec/Div



⑰ TP21 PB SP
1V/Div 10mSec/Div



⑱ TP23 PB SP
20mV/Div 0.5mSec/Div

IC21

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
MODE														
REC	2.9	0.8	5.0	5.3	5.3	2.6	0	0	3.2	2.6	2.7	4.2	1.2	0
PLAY	2.9	0.8	4.9	5.2	5.3	2.6	0	0	3.2	2.6	2.7	4.1	1.2	0
STOP	2.9	0.9	4.9	5.2	5.3	2.6	0	0	0	2.7	5.3	4.1	5.3	0

	15	16	17	18	19	20	21	22	23	24	25	26	27	28
MODE														
REC	0.3	2.7	2.7	5.3	2.7	2.7	2.7	2.7	2.7	3.5	3.2	2.6	2.5	0
PLAY	0.3	2.7	2.7	5.3	2.7	2.7	2.7	2.7	2.7	2.7	2.7	1.2	2.9	0
STOP	0.2	4.9	2.3	5.3	2.7	2.7	2.7	2.7	2.7	2.7	2.7	1.5	2.5	0

IC22

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
MODE														
REC	2.6	2.6	2.6	5.3	2.7	2.7	2.5	2.2	2.7	2.7	0	1.4	1.4	1.4
PLAY	2.6	2.6	2.6	5.3	2.7	2.7	2.5	2.2	2.7	2.7	0	1.4	1.4	1.4
STOP	4.1	3.4	3.9	5.3	2.0	2.0	2.0	0.8	2.7	2.7	0	1.4	1.4	1.4

IC25

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
MODE														
REC	5.3	5.0	5.3	2.6	5.3	2.5	5.3	0.7	0	0.1	0	0	0	0
PLAY	5.3	4.9	5.3	2.6	5.3	2.5	5.3	0.7	0	0.1	0	0	0	5.0
STOP	5.3	5.0	5.2	5.3	5.3	2.6	5.3	2.4	0.2	2.5	0	1.9	2.2	0.1

	15	16	17	18	19	20	21	22	23	24	25	26	27	28
MODE														
REC	2.6	2.6	0.6	0	2.7	0.1	1.8	3.1	5.2	0	2.5	2.2	2.7	2.7
PLAY	2.6	2.6	0.6	0	2.6	0.1	1.8	3.1	5.1	0	2.5	2.2	2.7	2.7
STOP	0.7	4.1	0.6	0	2.6	0.1	1.8	3.2	2.2	0	2.4	0.8	2.7	2.7

IC26

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
MODE														
REC	2.9	2.9	2.9	2.7	2.7	3.1	0	5.3	0	5.4	0	5.3	0	5.3
PLAY	2.9	2.9	2.9	2.7	2.7	3.1	0	5.3	0	5.3	0	5.3	0	5.3
STOP	2.9	2.9	2.9	2.7	2.7	3.1	0	5.3	0	5.3	0	5.3	0	5.3

	Q207			Q208			Q209			Q210			Q211		
	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C
MODE															
REC	0.5	1.2	1.5	0.6	1.2	1.4	0	0.2	0	2.7	3.7	3.2	2.7	4.2	3.3
PLAY	0.6	1.2	1.5	0.6	1.2	1.4	0	0.6	0	2.7	3.7	2.7	2.7	3.7	2.7
STOP	0.6	1.2	1.5	0.6	1.2	1.4	0	0.6	0	2.7	2.5	2.7	2.7	2.5	2.7

	Q212			Q213			Q214			Q215			Q216		
	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C
MODE															
REC	2.7	5.3	2.7	2.7	5.3	2.8	2.5	1.9	2.5	2.5	5.3	2.7	0	0.7	0.1
PLAY	2.7	5.3	2.7	2.7	5.3	2.7	2.5	1.9	2.5	2.5	5.3	2.7	0	0.7	0.1
STOP	2.7	2.1	2.7	2.7	2.1	2.7	2.1	1.5	2.0	2.1	1.5	2.0	0	0.7	0.1

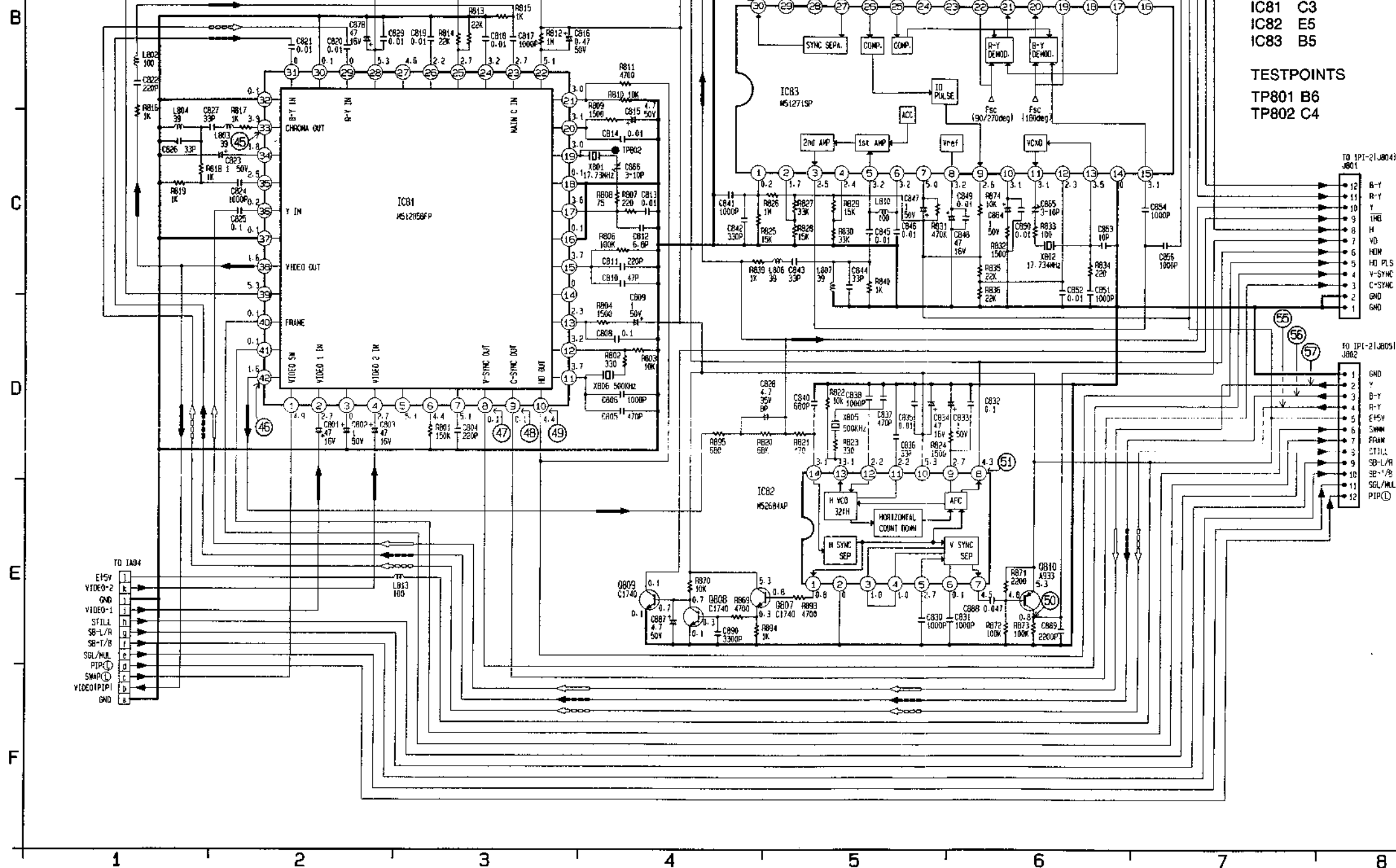
	Q217			Q218			Q219			Q220			Q221		
	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C
MODE															
REC	5.3	5.2	2.3	5.3	4.7	5.3	0	0	5.2	0	0.1	2.5	5.1	0.8	0.3
PLAY	5.3	5.2	2.3	5.3	4.7	5.3	0	0	5.1	0	0.1	2.5	5.1	0.8	0.3
STOP	5.3	5.3	2.4	5.3	4.7	5.3	0	0	5.2	0	0.1	2.1	0.2	0	2.5

	Q222			Q223			Q224			Q225			Q226		
	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C
MODE															
REC	5.3	5.3	0.3	0	0	0.7	0	0	5.1	3.2	2.4	5.3	0.1	1.3	0.8
PLAY	5.3	5.3	0.3	0	0	0.7	0	0	5.1	0.8	1.2	5.3	0	0.6	5.0
STOP	5.3	5.2	2.5	0	0.2	0.6	0	0	2.2	1.6	0.3	5.3	0.3	0.9	3.1

	Q227			Q228		
	E	B	C	E	B	C
MODE						
REC	0.2	-0.2	0.4	0.2	0.5	3.7
PLAY	0.3	0.5	0.9	0.3	0.8	0.5
STOP	0.3	0.5	0.9	0.3	0.8	0.7

PIP ANALOG SCHEMATIC DIAGRAM (IPI-1) PM02

VIDEO SIGNAL
 Y SIGNAL
 B-Y SIGNAL
 R-Y SIGNAL



Q807 E5
 Q808 E4
 Q809 E4
 Q810 E6

IC81 C3
 IC82 E5
 IC83 B5

TESTPOINTS
 TP801 B6
 TP802 C4

45 IC81 Pin 33
500mV/Div 10μSec/Div

46 IC81 Pin 42
1V/Div 10μSec/Div

47 IC81 Pin 8
1V/Div 5mSec/Div

48 IC81 Pin 9
1V/Div 10μSec/Div

49 IC81 Pin 10
1V/Div 10μSec/Div

50 Q810 Collector
1V/Div 5mSec/Div

51 IC82 Pin 8
1V/Div 10μSec/Div

52 IC83 Pin 30
1V/Div 10μSec/Div

53 IC83 Pin 21
1V/Div 20μSec/Div

54 IC83 Pin 20
1V/Div 20μSec/Div

55 J802 Pin 4
200mV/Div 10μSec/Div

56 J802 Pin 3
200mV/Div 10μSec/Div

57 J802 Pin 2
200mV/Div 10μSec/Div

IC81	1	2	3	4	5	6	7	8	9	10	11	12	13	14
MODE														
REC	4.9	2.7	0	2.7	5.3	4.4	5.1	0.1	0.1	4.4	3.7	3.2	2.3	0
PLAY	0	2.7	0	2.9	5.3	4.4	0.1	4.6	4.6	4.4	3.7	3.0	2.7	0
STOP	4.9	2.7	0	2.7	5.3	4.4	5.1	0.1	0.1	4.4	3.8	3.2	2.3	0

IC81	15	16	17	18	19	20	21	22	23	24	25	26	27	28
MODE														
REC	3.7	0.1	3.6	0.1	3.0	3.1	3.0	5.1	2.7	3.2	2.7	2.2	4.6	5.3
PLAY	2.5	0.1	3.5	0.1	3.0	3.1	3.0	5.1	2.7	3.2	2.7	2.1	4.6	5.3
STOP	3.7	0.1	3.6	0.1	3.0	3.1	3.0	5.1	2.7	3.2	2.7	2.1	4.6	5.3

IC81	29	30	31	32	33	34	35	36	37	38	39	40	41	42
MODE														
REC	0	0.1	0	0.1	3.9	1.8	2.5	0.2	0.1	1.6	5.3	0.1	0.1	1.6
PLAY	0	0.1	0	0.1	3.9	1.8	2.6	0.2	0.1	2.2	5.3	0.1	0.1	1.6
STOP	0	0.1	0	0.1	3.9	1.8	2.5	0.2	0.1	1.5	5.3	0.1	0.1	1.6

IC82	1	2	3	4	5	6	7	8	9	10	11	12	13	14
MODE														
REC	0.8	0	1.0	1.0	2.7	0.1	4.5	4.3	2.7	5.3	2.2	2.2	3.1	3.1
PLAY	0.8	0	1.0	1.0	2.6	0	4.5	4.3	2.7	5.3	2.2	2.2	3.1	3.1
STOP	0.8	0	1.0	1.0	2.7	0.1	4.5	4.3	2.7	5.3	2.2	2.2	3.1	3.1

IC83	1	2	3	4	5	6	7	8	9	10	11	12	13	14
MODE														
REC	0.2	1.7	2.5	2.4	3.2	3.2	5.0	3.2	2.6	3.1	3.1	2.3	3.5	0
PLAY	0.2	1.7	2.5	2.4	3.2	3.2	5.0	3.2	2.6	3.1	3.1	2.3	3.5	0
STOP	0.2	1.7	2.5	2.4	3.2	3.2	5.0	3.2	2.6	3.1	3.1	2.3	3.5	0

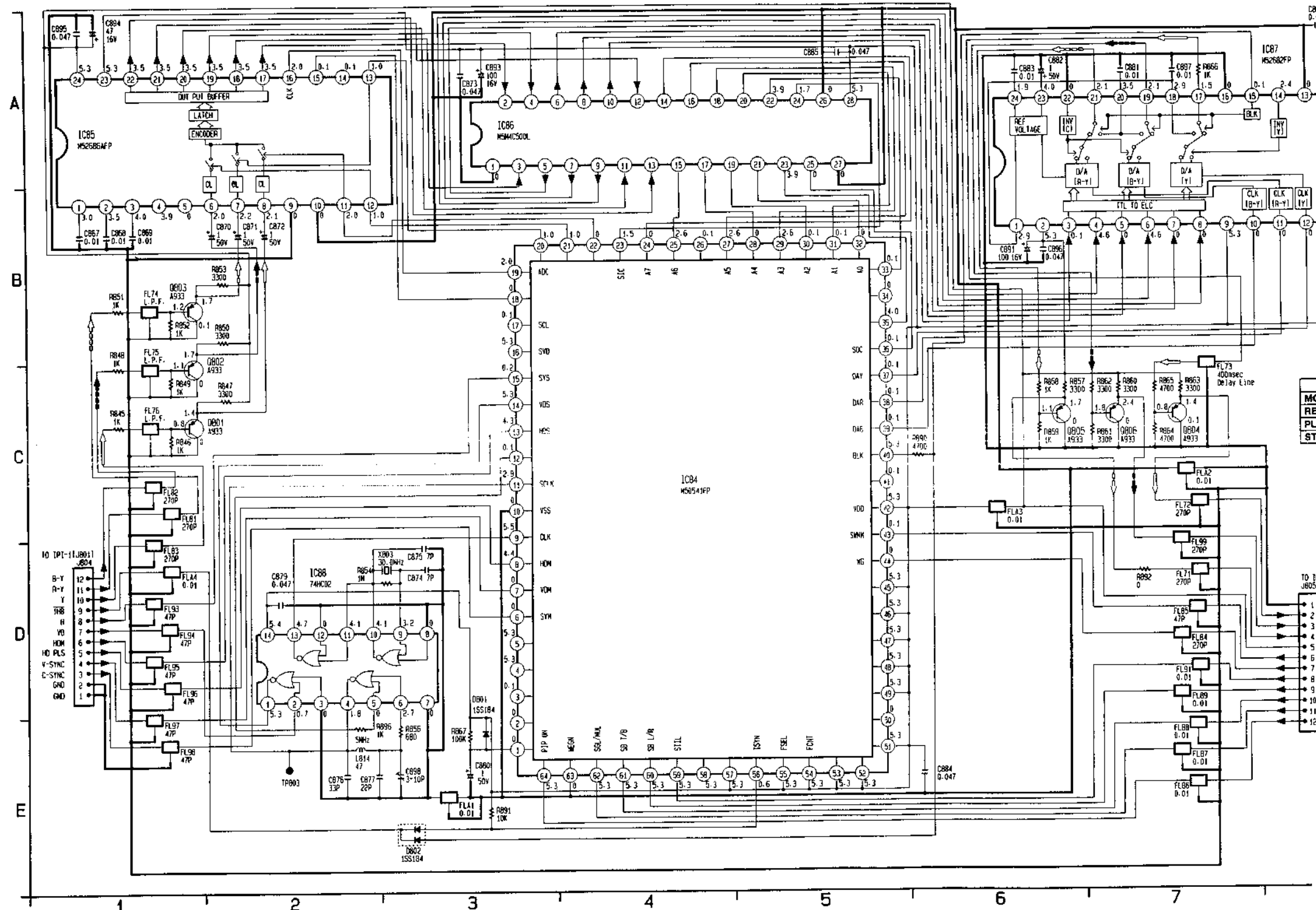
IC83	15	16	17	18	19	20	21	22	23	24	25	26	27	28
MODE														
REC	3.1	5.3	3.1	0	4.5	2.3	2.3	5.3	0	3.0	5.3	4.3	3.1	2.6
PLAY	3.1	5.3	3.1	0	4.5	2.2	2.2	5.3	0	3.0	5.3	4.3	3.1	2.6
STOP	3.1	5.3	3.1	0	4.5	2.3	2.3	5.3	0	3.0	5.3	4.3	3.1	2.6

IC83	29	30
MODE		
REC	2.6	0.2
PLAY	2.6	0.2
STOP	2.6	0.2

	Q807			Q808			Q809			Q810		
MODE	E	B	C	E	B	C	E	B	C	E	B	C
REC	0.3	0.8	5.3	0.1	0.3	0.7	0.1	0.7	0.1	5.3	4.8	0.8
PLAY	0.3	0.8	0	0.1	0.3	0.7	0.1	0.7	0.1	5.3	4.7	0.8
STOP	0.3	0.8	5.3	0.1	0.3	0.7	0.1	0.7	0.1	5.3	4.8	0.8

PIP DIGITAL SCHEMATIC DIAGRAM (IPI-2) PP01

← Y SIGNAL ← B-Y SIGNAL ← R-Y SIGNAL



Q801 C2
Q802 B2
Q803 B1
Q804 C7
Q805 C6
Q806 C7



IC84 C4
IC85 A1
IC86 A3
IC87 A8
IC88 D2



D801 D3
D802 E3

TESTPOINT
TP803 E2

	Q801			Q802			Q803			Q804			Q805		
MODE	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C
REC	1.4	0.8	0	1.7	1.1	0	1.7	1.2	0.1	1.4	0.8	0.1	1.7	1.1	0
PLAY	1.4	0.8	0.1	1.7	1.1	0	1.7	1.1	0	1.4	0.8	0.1	1.7	1.1	0.1
STOP	1.4	0.8	0	1.7	1.1	0	1.7	1.1	0	1.4	0.8	0	1.6	1.1	0

	Q806		
MODE	E	B	C
REC	2.4	1.8	0
PLAY	2.4	1.8	0
STOP	2.4	1.8	0

	IC85													
MODE	15	16	17	18	19	20	21	22	23	24	25	26	27	28
REC	0.1	2.0	3.5	3.5	3.5	3.5	3.5	3.5	5.3	5.3				
PLAY	0.1	2.0	1.3	0.2	1.3	3.5	3.5	3.5	5.3	5.3				
STOP	0	2.0	3.5	3.5	3.5	3.5	3.5	3.5	5.3	5.3				

	IC86													
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
REC	0													
PLAY	0													
STOP	0													

	15	16	17	18	19	20	21	22	23	24	25	26	27	28
MODE														
REC														
PLAY														
STOP														

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
MODE														
REC	2.9	5.3	0.1	4.6	0	4.6	0	0	5.3	0	0	0	0	2.4
PLAY	2.9	5.3	0	0	0	0	0	4.6	5.3	0	0	0	0	0
STOP	2.9	5.3	0	0.1	0	0	0	4.6	5.3	0	0	0	0	2.3

	15	16	17	18	19	20	21	22	23	24
MODE										
REC	0.1	0	1.5	2.9	2.1	3.5	2.1	0	4.0	1.9
PLAY	0	0	1.5	2.9	0	3.5	2.1	0	0	1.9
STOP	0	0	1.5	2.9	2.1	3.5	2.1	0	0	1.9

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
MODE														
REC	5.3	0.7	0	1.8	0	2.7	0	0	3.2	4.1	4.1	0	4.7	5.4
PLAY	5.4	0.7	0	2.1	0	2.7	0	0	3.2	4.2	4.2	0	5.1	5.4
STOP	5.3	0.7	0	2.1	0	2.7	0	0	3.2	4.1	4.1	0	5.0	5.4

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
MODE														
REC	0	0	0.1	5.3	5.3	0	0	4.4	5.5	0	2.9	0.1	4.3	5.3
PLAY	5.3	0	0.3	5.0	5.3	4.4	4.5	4.4	5.1	0	2.9	0.1	4.3	5.3
STOP	5.3	0	0	5.3	5.3	0	0	4.4	5.1	0	2.9	0.1	4.3	5.3

	15	16	17	18	19	20	21	22	23	24	25	26	27	28
MODE														
REC	0.2	5.3	0.1	0	2.0	1.0	1.0	0	1.5	0	2.6	0.1	2.6	0
PLAY	0.2	5.3	0	0	2.0	1.0	1.0	2.0	1.5	0	2.6	0	2.6	0
STOP	0.2	5.3	0	0	2.1	1.0	1.0	2.0	1.5	0	2.6	0.1	2.6	0.1

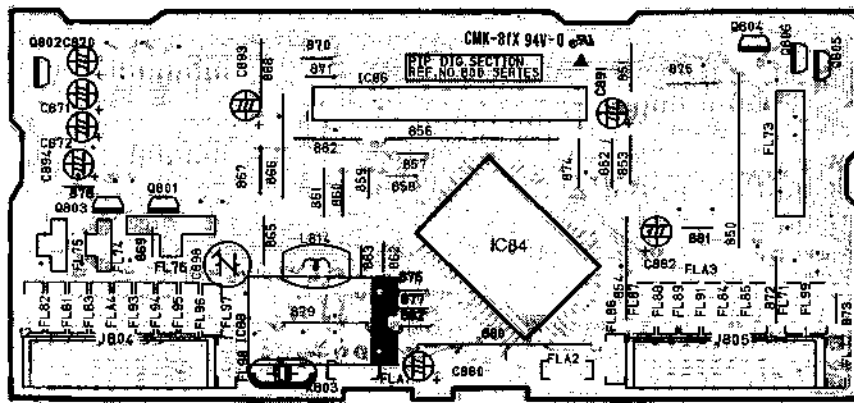
	29	30	31	32	33	34	35	36	37	38	39	40	41	42
MODE														
REC	2.6	0.1	0.1	0	0.1	0	4.0	0.1	0.1	0.1	0.1	5.3	0.1	5.3
PLAY	2.6	0	0	0	3.9	0	3.9	0	0	0	0	5.3	0.1	5.3
STOP	2.6	0	0.1	0	3.9	0	4.0	0	0	0	0	5.3	0	0

	43	44	45	46	47	48	49	50	51	52	53	54	55	56
MODE														
REC	0.1	0	5.3	5.3	5.3	5.3	5.3	0	5.3	5.3	5.3	5.3	5.3	0.6
PLAY	0.1	0.1	5.3	5.3	5.3	5.3	5.3	0	5.3	5.3	5.3	5.3	5.3	0.6
STOP	0	0	5.3	5.3	5.3	5.3	5.3	0	5.3	5.3	5.3	5.3	5.3	0.6

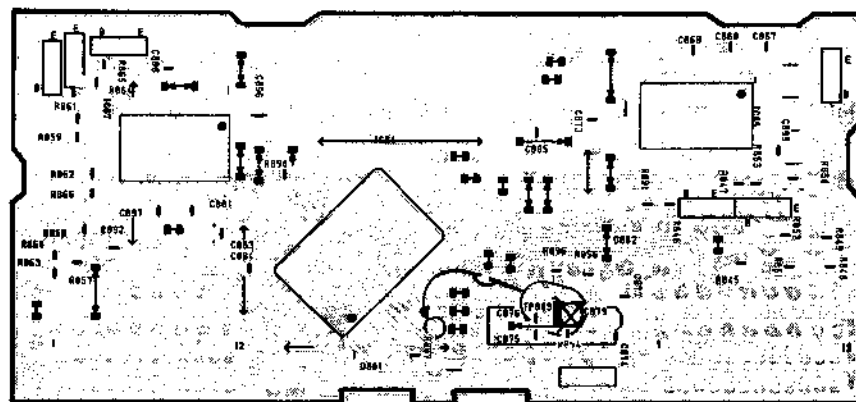
	57	58	59	60	61	62	63	64
MODE								
REC	5.3	5.3	5.3	5.3	5.3	5.3	0	5.3
PLAY	5.3	5.3	5.3	5.3	5.3	5.3	0	5.3
STOP	5.3	5.3	5.3	5.3	5.3	5.3	0	0.3

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
MODE														
REC	3.0	3.5	4.0	3.9	0	2.0	2.2	2.1	0	0	2.0	1.0	1.0	0.1
PLAY	2.9	3.5	4.0	3.9	3.0	2.0	2.2	2.1	0	0	2.0	1.0	1.0	0
STOP	2.9	3.5	4.0	3.9	2.9	1.9	2.2	2.0	0	0	2.0	1.0	1.0	0

(viewed from the component side)

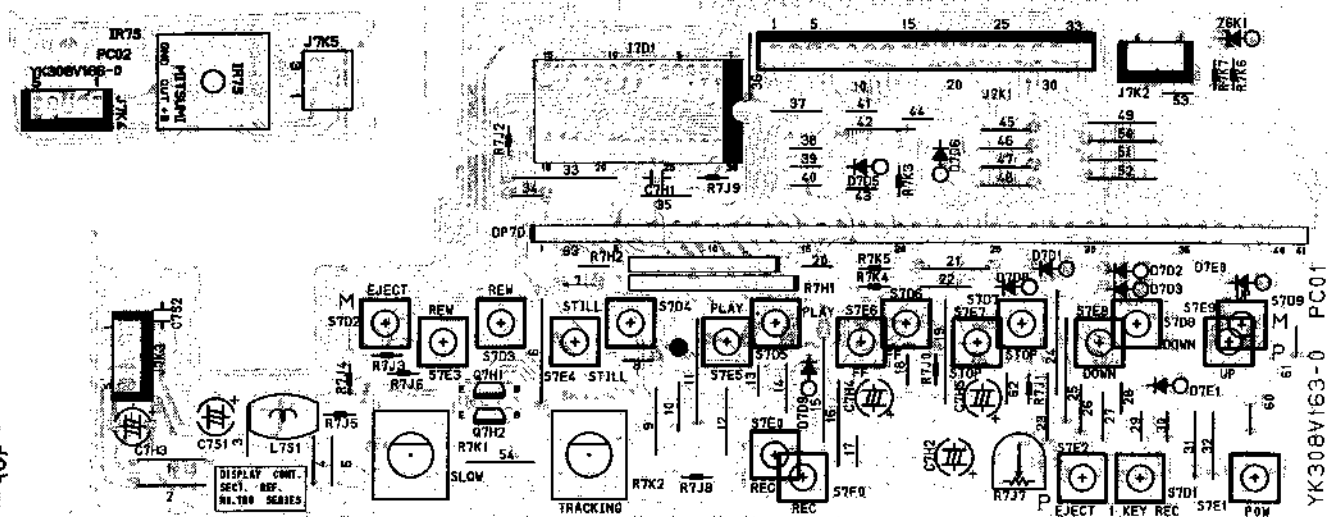


(viewed from the copper side)

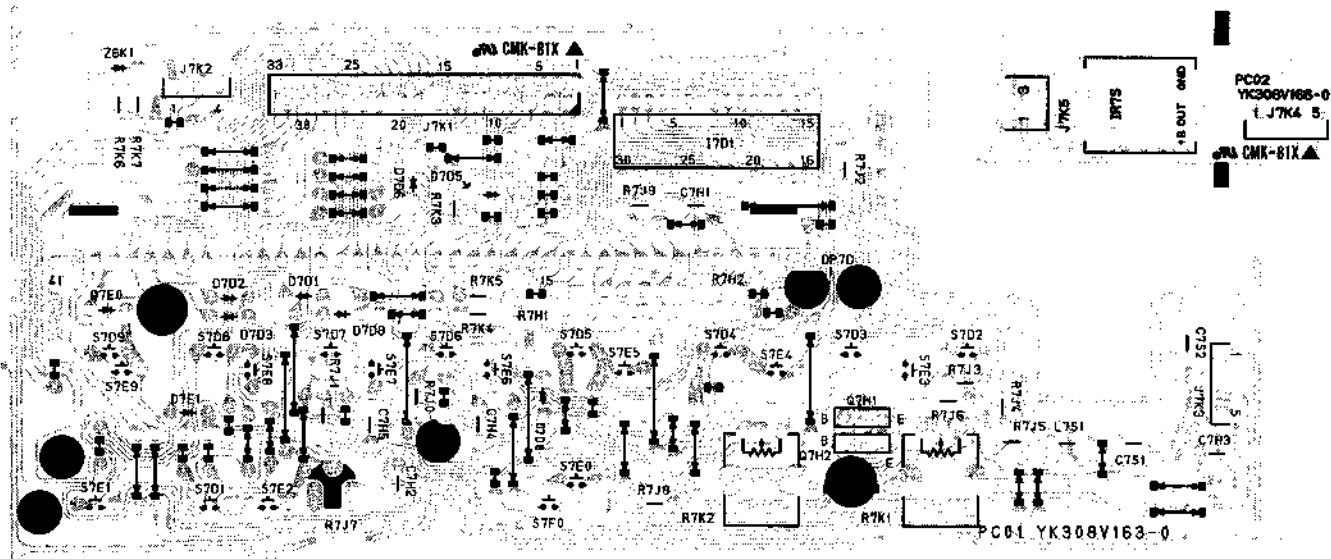


DISPLAY CONTROL P.C.B. DRAWING PC01 PC02

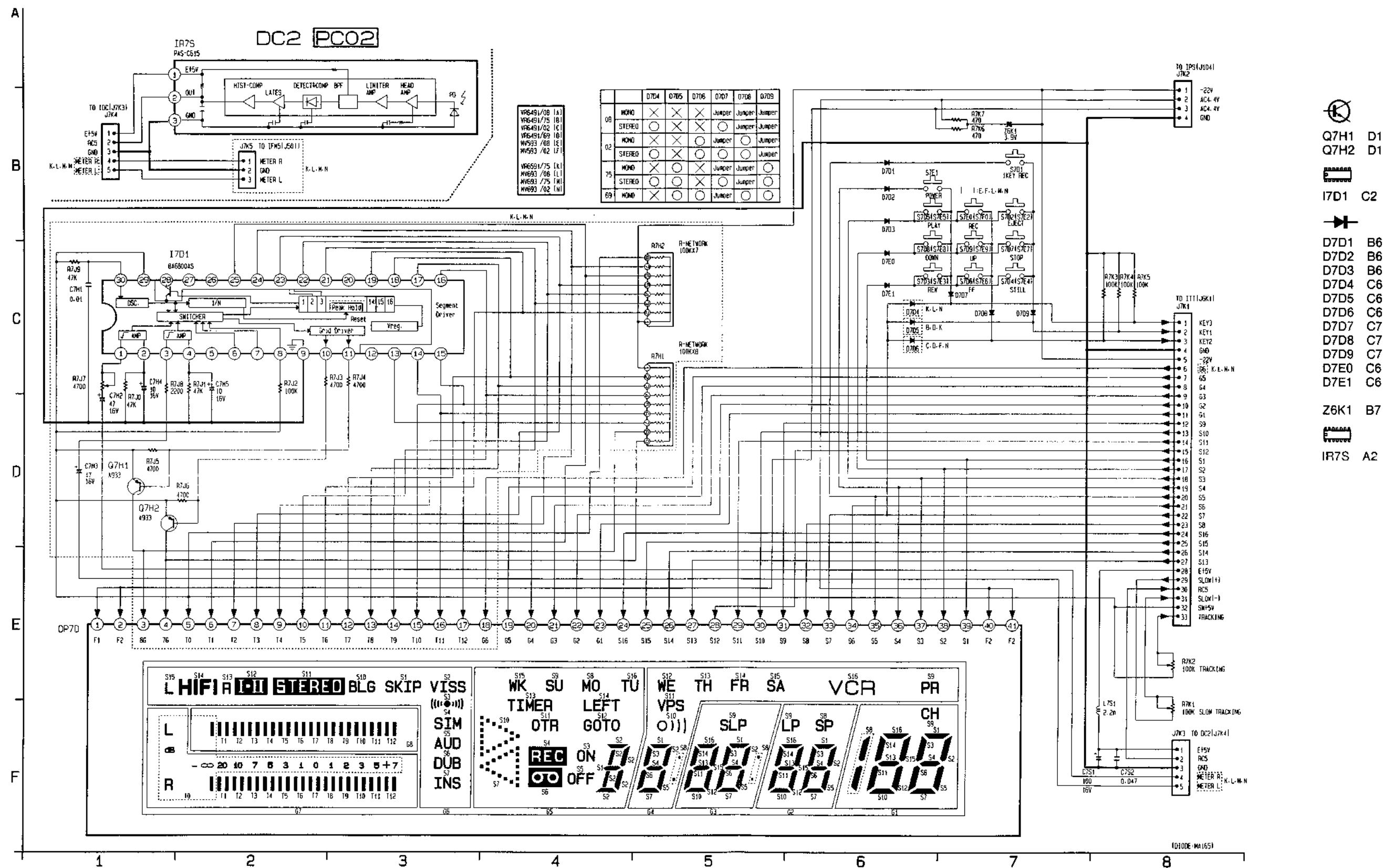
(viewed from the component side)



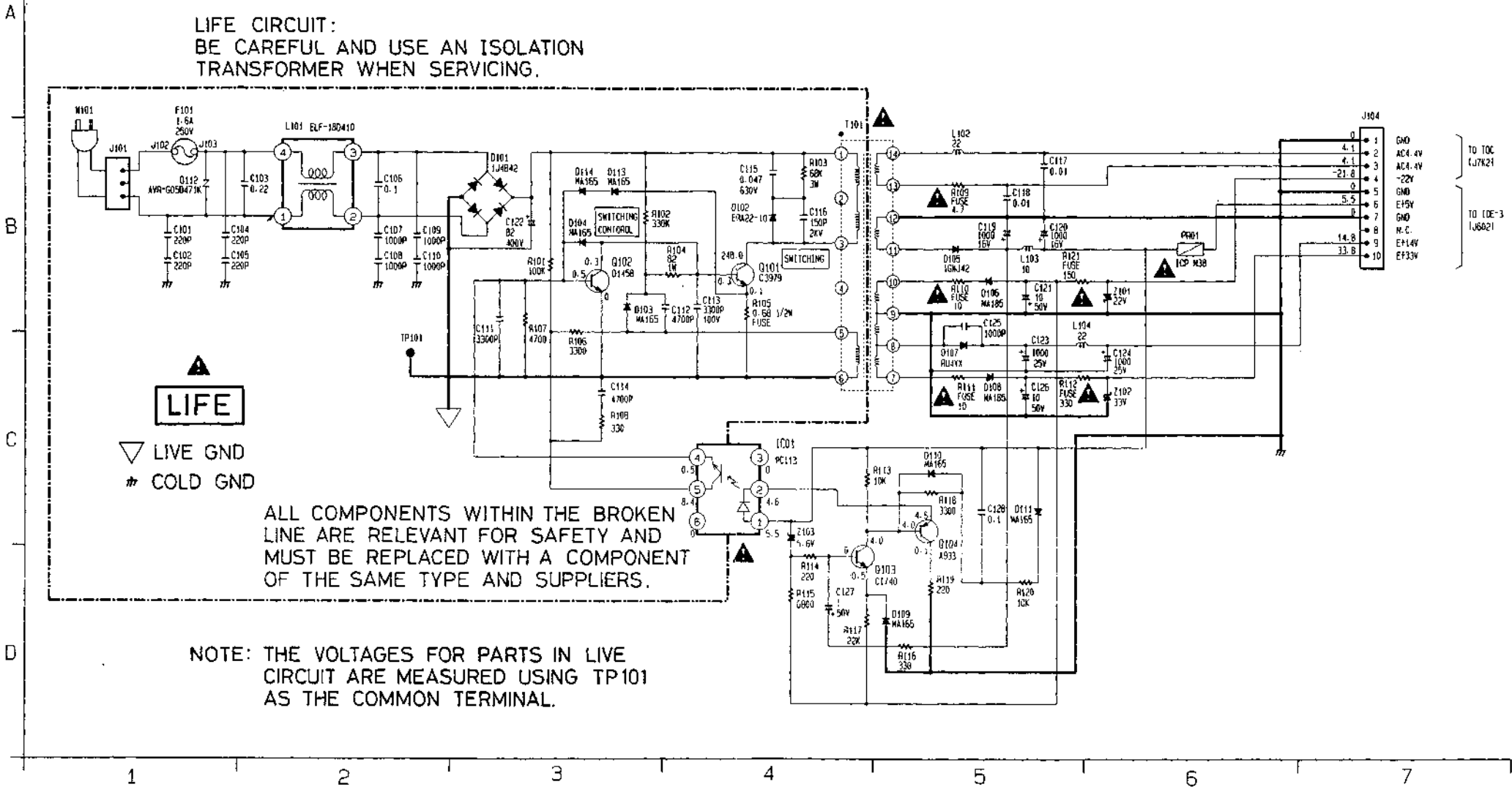
(viewed from the copper side)



DISPLAY CONTROL SCHEMATIC DIAGRAM (IDC) PC01



POWER SUPPLY SCHEMATIC DIAGRAM (IPS) PS01



- Q101 B4
- Q102 B3
- Q103 C5
- Q104 C5
- IC01 C4
- D101 B3
- D102 B4
- D103 B3
- D104 B3
- D105 B5
- D106 B5
- D107 C5
- D108 C5
- D109 D5
- D110 C5
- D111 C5
- D112 B1
- D113 B3
- D114 B3
- ZENERS
- Z101 B6
- Z102 C6
- Z103 C4
- TESTPOINT
- TP101

IC01

	1	2	3	4	5	6
MODE						
REC	5.5	4.8	0	0.5	8.4	0
PLAY	5.5	4.8	0	0.5	8.4	0
STOP	5.5	4.8	0	0.8	8.4	0

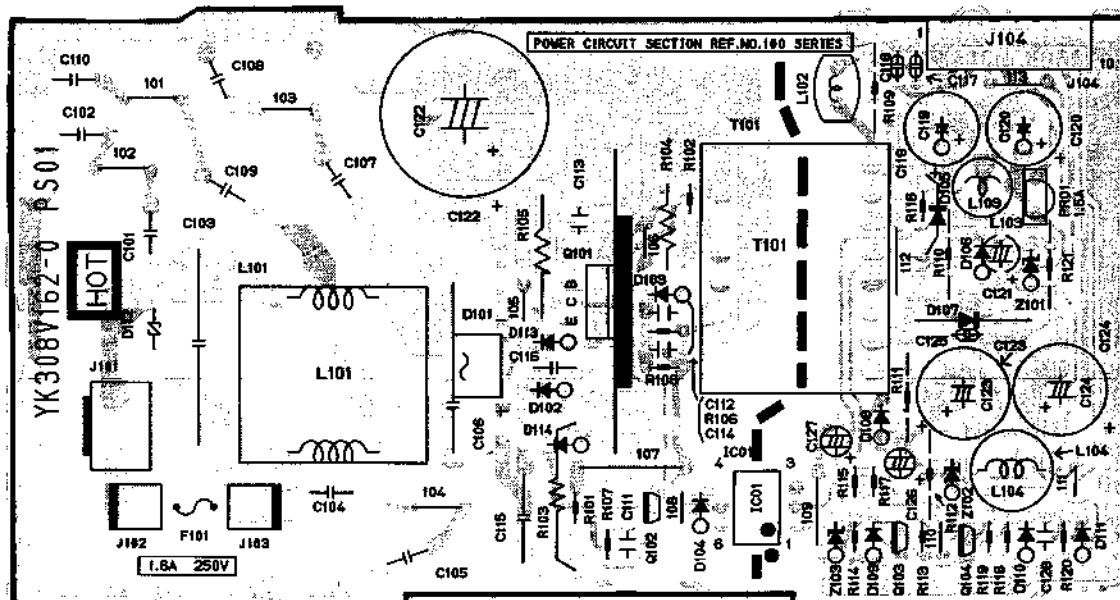
J104 PINS

	1	2	3	4	5	6	7	8	9	10
0	3.8	3.8	-21.8	0	5.5	0	-	14.8	33.8	

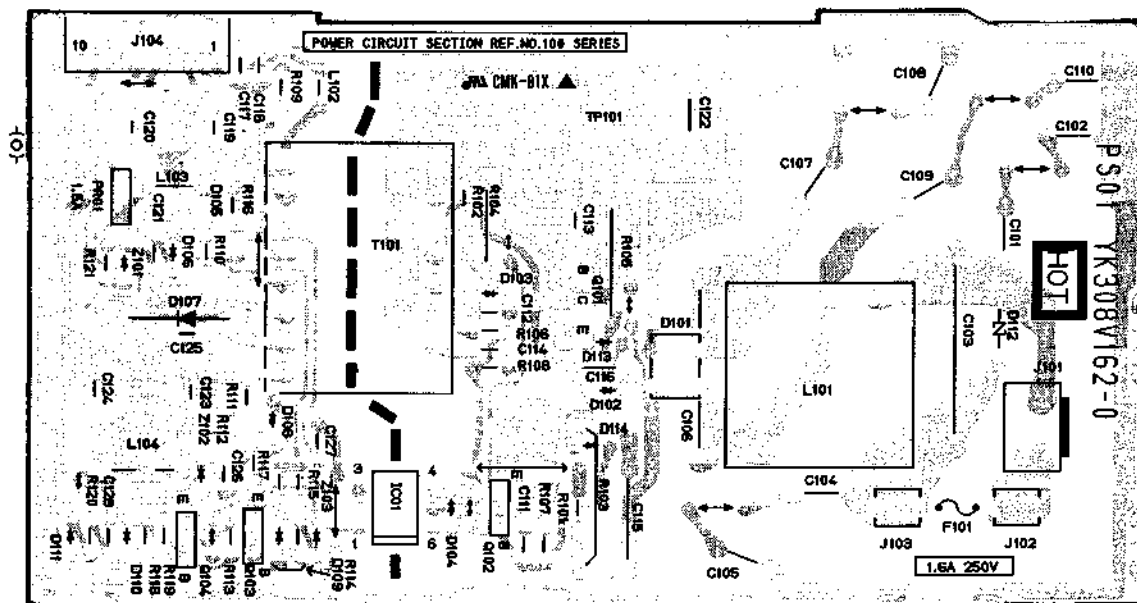
	Q101			Q102			Q103			Q104		
MODE	E	B	C	E	B	C	E	B	C	E	B	C
REC	0.1	0.3	+248.0	0	0.5	0.3	-0.5	0	4.0	4.6	4.0	0.1
PLAY	0.1	0.3	+264.0	0	0.5	0.3	-0.5	0	4.1	4.6	4.0	0.1
STOP	0.1	0.3	+249.0	0	0.5	0.3	-0.5	0	4.1	4.6	4.0	0

POWER SUPPLY P.C.B. DRAWING PS01

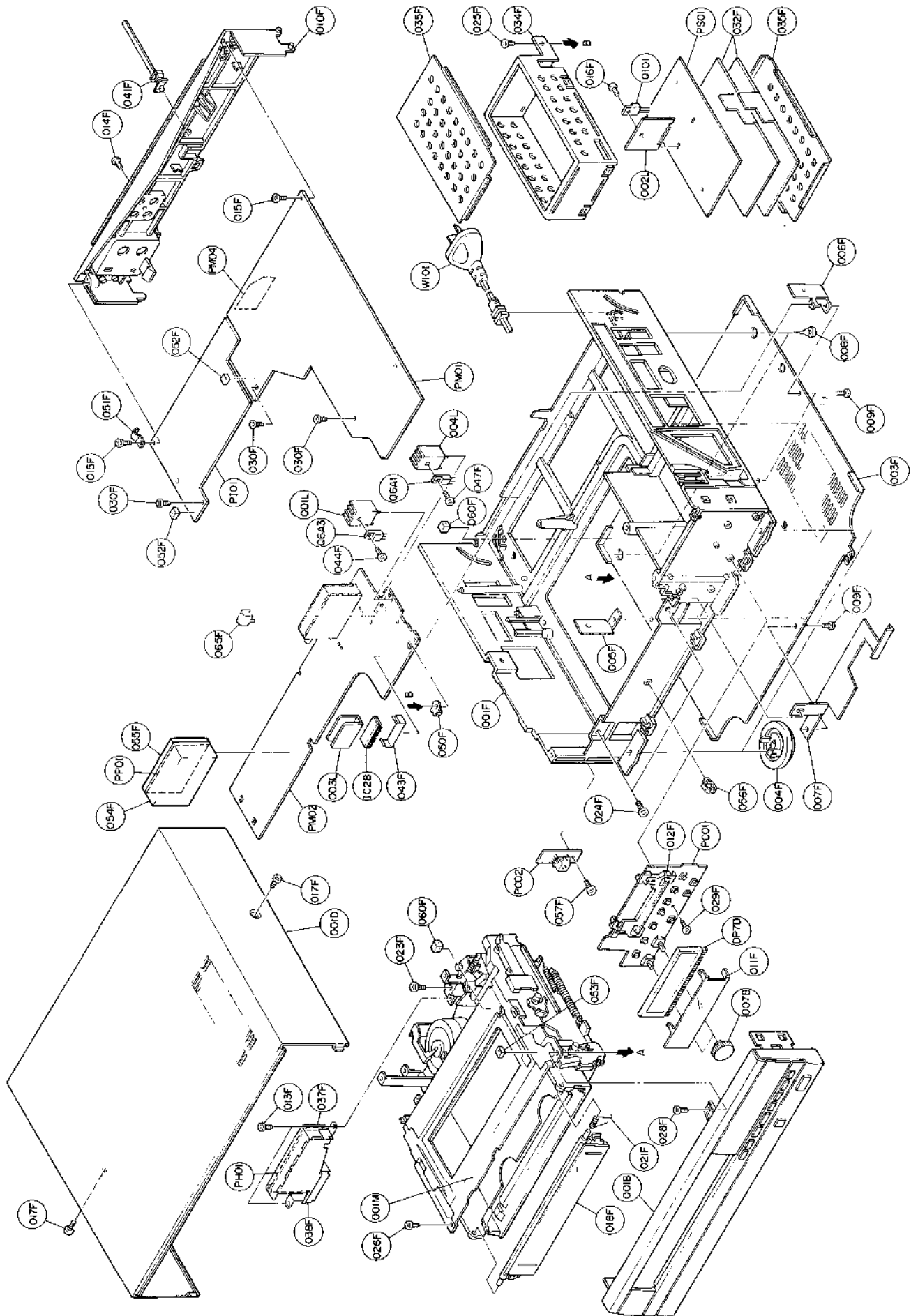
(viewed from the component side)

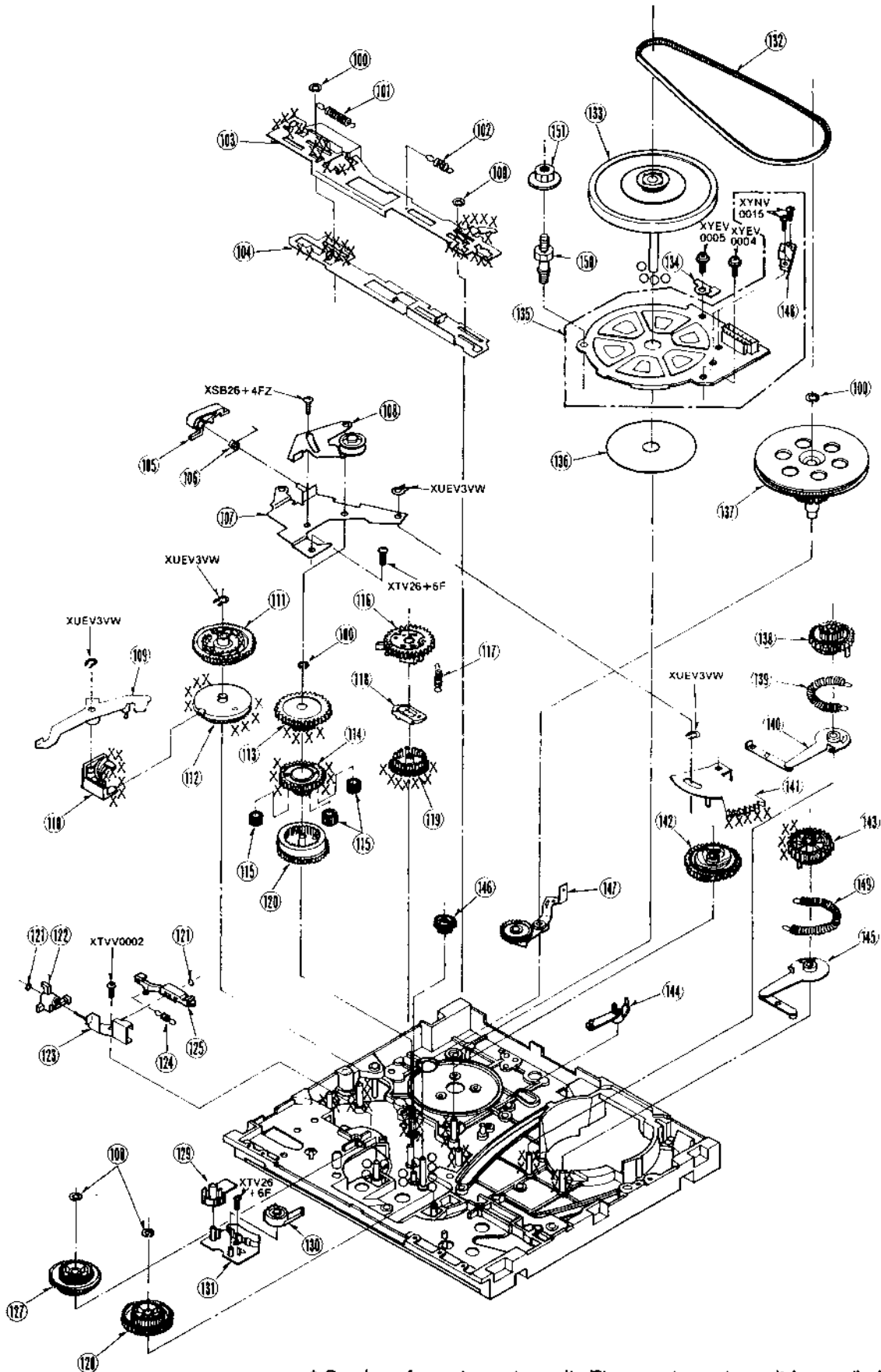


(viewed from the copper side)

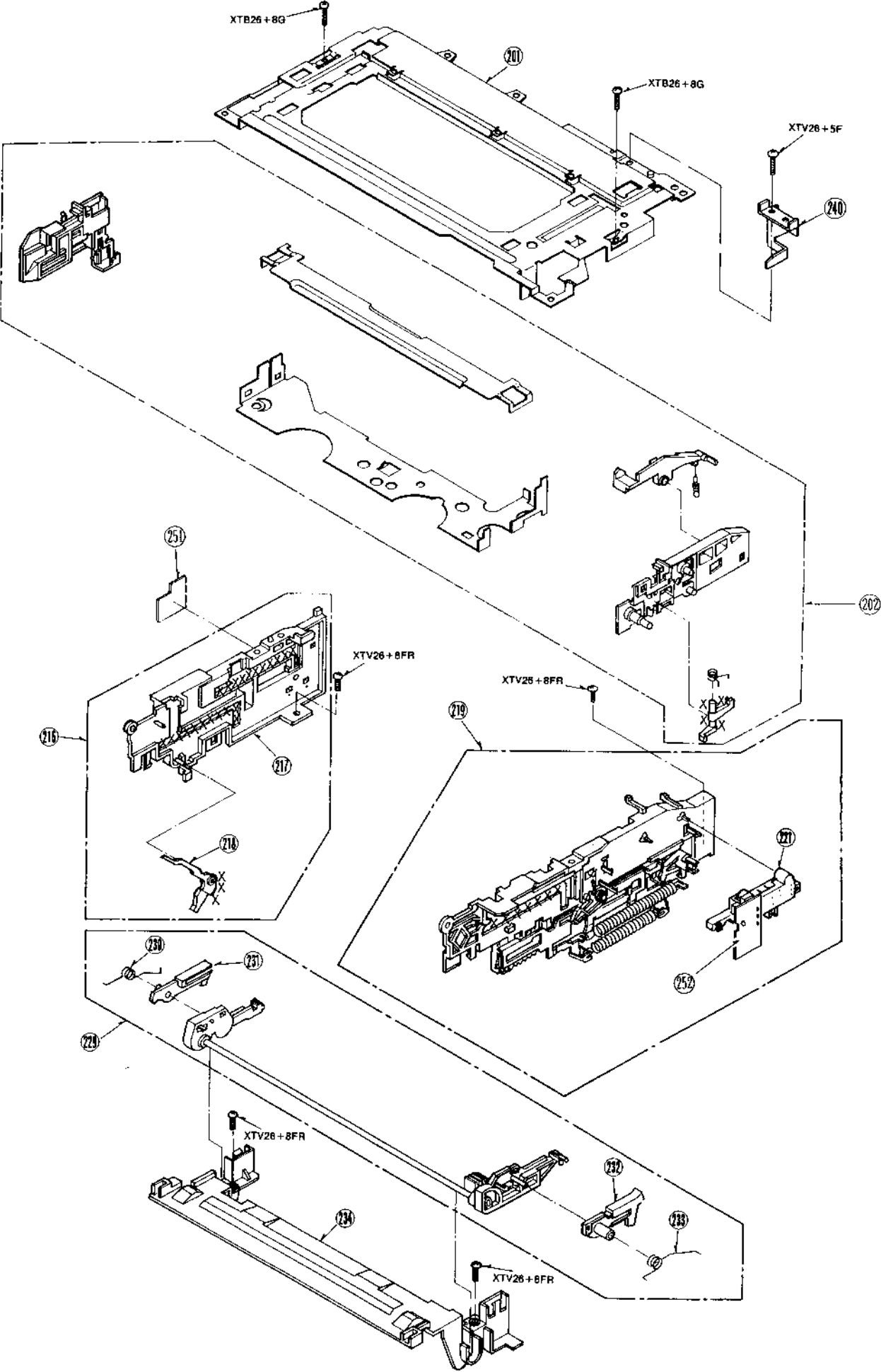


"HOT" printed on PCB has the same meaning as "LIVE"





* Service of capstan rotor unit: The capstan rotor unit is supplied as a replacement part in a complete unit with a spring loaded capstan pulley. Do not remove the retaining ring on the capstan pulley of the capstan rotor unit.



VR6491/75 PARTS LIST

PC01 IDC1 DISPLAY CONTROL 1

DISPLAY		
DP7D	4822 130 90746	FIP8AMW5 FL-DISPLAY
		
D7D1	4822 130 32362	MA165
D7D2	4822 130 32362	MA165
D7D3	4822 130 32362	MA165
D7D5	4822 130 32362	MA165
D7D9	4822 130 32362	MA165
D7E0	4822 130 32362	MA165
D7E1	4822 130 32362	MA165
ZENER		
Z6K1	4822 130 80132	3.9V ZENER
		
L7S1	4822 152 20652	2.2mH
		
R7K1	4822 100 11479	TRACKING VOLUME
R7K2	4822 100 11479	TRACKING VOLUME
R7K3	4822 116 52234	100kΩ J 1/6W
R7K4	4822 116 52234	100kΩ J 1/6W
R7K5	4822 116 52234	100kΩ J 1/6W
R7K6	4822 116 52224	470Ω J 1/6W
R7K7	4822 116 52224	470Ω J 1/6W
		
C7S1	4822 124 41139	100μF 16V
C7S2	4822 122 40589	0.047 CERAMIC
SWITCHES		
S7D1	4822 276 12455	TACT SWITCH 1 KEY REC
S7D2	4822 276 12455	TACT SWITCH EJECT
S7D3	4822 276 12455	TACT SWITCH REW
S7D4	4822 276 12455	TACT SWITCH STILL
S7D5	4822 276 12455	TACT SWITCH PLAY
S7D6	4822 276 12455	TACT SWITCH FF
S7D7	4822 276 12455	TACT SWITCH STOP
S7D8	4822 276 12455	TACT SWITCH DOWN
S7D9	4822 276 12455	TACT SWITCH UP
S7E0	4822 276 12455	TACT SWITCH REC
S7E1	4822 276 12455	TACT SWITCH POWER
		
J7K1	4822 265 61201	33 PIN
J7K2	4822 265 30776	4 PIN
J7K3	4822 265 30669	5 PIN

PC02 DC2 DISPLAY CONTROL 2

MISCELLANEOUS		
IR7S	4822 130 81731	RECEIVER
		
J7K4	4822 265 30669	5 PIN

PH01 IHA4 HEAD AMPLIFIER

					
Q3H1	4822 130 42431	2SC1740S(R OR S)	C3H1	4822 122 31205	47pF J CH 50V BLK
Q3H2	4822 130 61486	2SC2058S(P OR Q)	C3H2	4822 124 21736	1μF 50V
			C3H3	4822 122 33639	1000pF
IC33	4822 209 60075	BA7254S	C3H4	4822 124 21894	10μF 16V
			C3H5	5322 122 32143	22pF J CH 50V BLK
L3H1	4822 157 60446	33μH	C3H6	4822 122 40589	0.047 CERAMIC
L3H4	4822 157 60449	150μH	C3H7	5322 122 32143	22pF J CH 50V BLK
L3H5	4822 152 20641	100μH	C3H8	4822 122 40589	0.047 CERAMIC
L3H6	4822 152 20663	22μH	C3H9	4822 124 21894	10μF 16V
L3H8	4822 152 20663	22μH	C3J1	4822 124 21894	10μF 16V
L3J1	4822 157 60449	150μH	C3J2	4822 122 31205	47pF 50V
L3J2	4822 157 60445	15μH	C3J3	4822 122 40589	0.047 CERAMIC
			C3J4	4822 122 31205	47pF 50V
R3H1	4822 116 52228	680Ω J 1/6W	C3J5	4822 122 40589	0.047 CERAMIC
R3H2	4822 116 52228	680Ω J 1/6W	C3J6	4822 124 21894	10μF 16V
R3H3	4822 116 52228	680Ω J 1/6W	C3J7	4822 122 33639	1000pF
R3H4	4822 116 52228	680Ω J 1/6W	C3J8	4822 124 21736	1μF 50V
R3H5	4822 116 52228	680Ω J 1/6W	C3J9	4822 122 40586	0.01μF
R3H6	4822 116 52224	470Ω J 1/6W	C3K2	4822 122 40568	68pF J CH 50V BLK
R3H7	4822 116 52224	470Ω J 1/6W	C3K3	4822 122 40464	220pF 50V
R3H8	4822 116 52175	100Ω J 1/6W	C3K4	4822 122 40568	68pF J CH 50V BLK
R3H9	4822 116 52175	100Ω J 1/6W	C3K5	4822 122 40586	0.01μF
R3J2	4822 116 52224	470Ω J 1/6W	C3K6	4822 122 40586	0.01μF
R3J3	4822 116 52256	2.2kΩ J 1/6W	C3K7	4822 124 41246	47μF 16V
R3J4	4822 116 52204	1kΩ J 1/6W	C3K8	4822 122 40586	0.01μF
R3J5	4822 116 52228	680Ω J 1/6W	C3K9	4822 122 40586	0.01μF
R3J6	4822 116 52243	1.5kΩ J 1/6W	C3L1	4822 122 40586	0.01μF
R3J7	4822 116 52204	1kΩ J 1/6W	C3L2	4822 122 40586	0.01μF
R3J8	4822 116 52204	1kΩ J 1/6W	C3L3	4822 122 33639	1000pF
R3K1	4822 116 52204	1kΩ J 1/6W	C3L4	4822 124 41246	47μF 16V
R3K2	4822 116 52204	1kΩ J 1/6W	C3L5	4822 122 40586	0.01μF
R3K3	4822 116 52211	150Ω J 1/6W	C3L8	5322 122 32143	22pF J CH 50V BLK
R3K4	4822 116 52228	680Ω J 1/6W	C3L9	4822 122 30034	470pF K 50V
R3K5	4822 116 52219	330Ω J 1/6W	C3M1	4822 122 40568	68pF J CH 50V BLK
R3K6	4822 116 52258	220kΩ J 1/6W	C3M2	4822 122 33817	6.8pF
R3K7	4822 116 52257	22kΩ J 1/6W			
			J3H1	4822 265 40796	7 PIN
			J3H2	4822 267 50879	8 PIN
			J3H3	4822 265 30669	5 PIN

PI01 IIO4 AUDIO / VIDEO SELECTOR

 Q3A1 4822 130 42433 2SA933S(R OR S) Q3A2 4822 130 42433 2SA933S(R OR S) Q3A3 4822 130 42431 2SC1740S(R OR S) Q4A4 4822 130 42431 2SC1740S(R OR S) Q454 4822 130 42433 2SA933S(R OR S) Q455 4822 130 42431 2SC1740S(R OR S) Q457 4822 130 42431 2SC1740S(R OR S)	 R3C9 4822 116 52233 10kΩ J 1/6W R4A2 4822 116 52204 1kΩ J 1/6W R4E5 4822 116 52204 1kΩ J 1/6W R4E6 4822 116 52204 1kΩ J 1/6W R4E7 4822 116 52204 1kΩ J 1/6W R4E8 4822 116 52175 100Ω J 1/6W R4E9 4822 116 52175 100Ω J 1/6W R4F1 4822 116 52175 100Ω J 1/6W R4F2 4822 116 52269 3.3kΩ J R4F6 4822 116 52233 10kΩ J 1/6W R4F7 4822 111 91285 100Ω J 1/6W R4G1 4822 116 52233 10kΩ J 1/6W R4G4 4822 116 52269 3.3kΩ J R4G5 4822 116 52234 100kΩ J 1/6W R4G6 4822 116 52234 100kΩ J 1/6W R4G7 4822 116 52233 10kΩ J 1/6W R451 4822 116 52244 15kΩ J 1/6W R452 4822 116 52233 10kΩ J 1/6W R454 4822 111 91285 100Ω J 1/6W R468 4822 116 52244 15kΩ J 1/6W R469 4822 116 52245 150kΩ J 1/6W R470 4822 116 52256 2.2kΩ J 1/6W R472 4822 116 52257 22kΩ J 1/6W R474 4822 116 52215 220Ω J 1/6W R486 4822 116 52234 100kΩ J 1/6W R489 4822 116 52233 10kΩ J 1/6W R490 4822 116 52204 1kΩ J 1/6W R491 4822 116 52257 22kΩ J 1/6W R492 4822 116 52204 1kΩ J 1/6W R493 4822 116 52204 1kΩ J 1/6W R494 4822 116 52204 1kΩ J 1/6W R495 4822 116 52204 1kΩ J 1/6W R496 4822 116 52204 1kΩ J 1/6W R497 4822 116 52204 1kΩ J 1/6W R498 4822 116 52204 1kΩ J 1/6W R499 4822 116 52204 1kΩ J 1/6W
 IC42 4822 209 61687 LA7210 IC43 4822 209 60079 LA7222 IC44 4822 209 60079 LA7222 IC46 4822 209 61704 TC9174	
 D452 4822 130 32362 MA165 D453 4822 130 32362 MA165 D454 4822 130 32362 MA165	
ZENERS Z3A1 4822 130 80273 8.2V ZENER Z3A2 4822 130 80273 8.2V ZENER Z3A3 4822 130 80273 8.2V ZENER Z3A4 4822 130 80273 8.2V ZENER Z461 4822 130 80273 8.2V ZENER Z462 4822 130 80273 8.2V ZENER Z465 4822 130 80273 8.2V ZENER Z466 4822 130 80273 8.2V ZENER	
CRYSTAL X3A1 4822 242 72939 CSB500E5 500kHz	
 L454 4822 157 60444 100μH L456 4822 152 20642 1mH L457 4822 152 20663 22μH L458 4822 152 20663 22μH L459 4822 152 20663 22μH	
 R3A1 4822 116 52228 680Ω J 1/6W R3A2 4822 111 41355 75Ω J 1/6W R3A3 4822 116 52215 220Ω J 1/6W R3A4 4822 116 52215 220Ω J 1/6W R3A5 4822 116 52215 220Ω J 1/6W R3A6 4822 116 52228 680Ω J 1/6W R3A9 4822 116 52215 220Ω J 1/6W R3B0 4822 111 41355 75Ω J 1/6W R3B1 4822 116 52219 330Ω J 1/6W R3B2 4822 116 52224 470Ω J 1/6W R3B3 4822 116 52204 1kΩ J 1/6W R3B4 4822 116 52204 1kΩ J 1/6W R3B5 4822 116 52272 330kΩ J 1/6W R3B6 4822 116 52244 15kΩ J 1/6W R3B7 4822 116 52297 68kΩ J 1/6W R3B8 4822 116 52204 1kΩ J 1/6W R3B9 4822 116 52243 1.5kΩ J 1/6W R3C0 4822 116 52215 220Ω J 1/6W R3C1 4822 116 52204 1kΩ J 1/6W R3C2 4822 116 52215 220Ω J 1/6W R3C3 4822 116 52283 4.7kΩ J 1/6W R3C4 4822 116 52283 4.7kΩ J 1/6W R3C5 4822 111 41355 75Ω J 1/6W R3C6 4822 111 41355 75Ω J 1/6W R3C7 4822 116 52204 1kΩ J 1/6W	 C3A1 4822 124 21894 10μF 16V C3A2 4822 124 21894 10μF 16V C3A3 4822 124 21852 470μF 16V M C3A4 4822 124 41153 220μF 16V C3A5 5322 122 31626 100pF J CH 50V BLK C3A6 5322 122 31626 100pF J CH 50V BLK C3A7 4822 122 33639 1000pF C3A8 5322 122 32335 330pF K 50V C3A9 4822 124 21407 0.47μF 50V C3B0 4822 124 21736 1μF 50V C3B1 4822 122 33639 1000pF C3B2 4822 124 21407 0.47μF 50V C3B3 4822 124 21894 10μF 16V C3B4 4822 122 40586 10000pF C3B5 4822 124 21894 10μF 16V C3B6 4822 124 21894 10μF 16V C451 4822 124 41246 47μF 16V C452 4822 124 21894 10μF 16V C453 4822 124 21894 10μF 16V C461 5322 122 31626 100pF J CH 50V C464 4822 122 30114 2200pF C465 4822 122 33639 1000pF C472 4822 124 21736 1μF 50V C473 4822 124 21894 10μF 16V C474 4822 124 21894 10μF 16V C475 4822 124 21736 1μF 50V C476 4822 124 21894 10μF 16V C477 4822 122 40586 10000pF C478 4822 124 21894 10μF 16V



C479	4822 124 21894	10 μ F 16V
C480	4822 122 40586	10000pF CERAMIC
C481	4822 122 40464	220pF 50V
C482	4822 122 40464	220pF 50V
C483	4822 122 40464	220pF 50V
C484	4822 124 41246	47 μ F 16V
C485	4822 124 21894	10 μ F 16V
C486	4822 124 21894	10 μ F 16V

RF MODULATOR

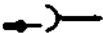
E451	4822 214 32871	MDLK6D403A ALPS
------	----------------	-----------------



J402	4822 265 30562	4 PIN RCA
J452	4822 265 51256	23 PIN FFC
J455	4822 265 40957	12 PIN FFC

PM01 IDE1 LOGIC

 Q602 4822 130 42431 2SC1740S(R OR S) Q604 4822 130 61474 2SD592R Q605 4822 130 61475 2SD893R Q606 4822 130 42433 2SA933S(R OR S) Q607 4822 130 61476 2SD1423Q Q608 4822 130 42433 2SA933S(R OR S) Q609 4822 130 42431 2SC1740S(R OR S) Q611 4822 130 42431 2SC1740S(R OR S) Q612 4822 130 42431 2SC1740S(R OR S) Q613 4822 130 42431 2SC1740S(R OR S) Q619 4822 130 61473 2SA1512R Q620 4822 130 61473 2SA1512R Q623 4822 130 42431 2SC1740S(R OR S) Q624 4822 130 42433 2SA933S(R OR S) Q630 4822 130 42431 2SC1740S(R OR S)	 R619 4822 116 52243 1.5kΩ J 1/6W R620 4822 116 52296 6.8kΩ J 1/6W R621 4822 116 52233 10kΩ J 1/6W R622 4822 116 52233 10kΩ J 1/6W R623 4822 113 90119 22Ω FUSE RESISTOR R624 4822 116 52233 10kΩ J 1/6W R625 4822 116 52257 22kΩ J 1/6W R626 4822 116 52257 22kΩ J 1/6W R627 4822 116 52284 47kΩ J 1/6W R628 4822 116 52284 47kΩ J 1/6W R629 4822 116 52284 47kΩ J 1/6W R630 4822 116 52284 47kΩ J 1/6W R632 4822 116 52256 2.2kΩ J 1/6W R633 4822 116 52204 1kΩ J 1/6W R634 4822 116 52244 15kΩ J 1/6W R635 4822 116 52244 15kΩ J 1/6W R636 4822 116 52175 100Ω J 1/6W R637 4822 116 52175 100Ω J 1/6W R638 4822 116 52175 100Ω J 1/6W R639 4822 116 52204 1kΩ J 1/6W R640 4822 116 52215 220Ω J 1/6W R641 4822 116 52224 470Ω J 1/6W R642 4822 116 52211 150Ω J 1/6W R643 4822 116 52224 470Ω J 1/6W R644 4822 116 52224 470Ω J 1/6W R645 4822 116 52175 100Ω J 1/6W R646 4822 116 52257 22kΩ J 1/6W R647 4822 116 52257 22kΩ J 1/6W R649 4822 116 52284 47kΩ J 1/6W R650 4822 116 52257 22kΩ J 1/6W R651 4822 116 52284 47kΩ J 1/6W R652 4822 116 52284 47kΩ J 1/6W R653 4822 116 52244 15kΩ J 1/6W R654 4822 116 52233 10kΩ J 1/6W R657 4822 116 52233 10kΩ J 1/6W R666 4822 116 52233 10kΩ J 1/6W R667 4822 116 52283 4.7kΩ J 1/6W R669 4822 116 52234 100kΩ J 1/6W R670 4822 116 52283 4.7kΩ J 1/6W R671 4822 116 52269 3.3kΩ J 1/6W R672 4822 116 52243 1.5kΩ J 1/6W R673 4822 116 52269 3.3kΩ J 1/6W R674 4822 116 52283 4.7kΩ J 1/6W R675 4822 116 52269 3.3kΩ J 1/6W R676 4822 116 52284 47kΩ J 1/6W R681 4822 116 52283 4.7kΩ J 1/6W R682 4822 116 52204 1kΩ J 1/6W R683 4822 116 52204 1kΩ J 1/6W R684 4822 116 52233 10kΩ J 1/6W R685 4822 116 52233 10kΩ J 1/6W R686 4822 116 52204 1kΩ J 1/6W R687 4822 116 52204 1kΩ J 1/6W R691 4822 116 52284 47kΩ J 1/6W R692 4822 116 52284 47kΩ J 1/6W R693 4822 116 52204 1kΩ J 1/6W R694 4822 116 52233 10kΩ J 1/6W R699 4822 116 52233 10kΩ J 1/6W
 IC61 4822 209 60045 339 TYPE QUAD CONPAR IC63 4822 209 60052 MN15362 VBX IC64 4822 209 60051 MN4510B	
 D604 4822 130 32362 MA165 D605 4822 130 32362 MA165 D606 4822 130 32362 MA165 D608 4822 130 32362 MA165 D609 4822 130 32362 MA165 D610 4822 130 32362 MA165 D611 4822 130 32362 MA165 D612 4822 130 32362 MA165 D613 4822 130 32362 MA165 D614 4822 130 32362 MA165 D616 4822 130 32362 MA165 D617 4822 130 32362 MA165 D618 4822 130 32362 MA165 D621 4822 130 32362 MA165 D622 4822 130 32362 MA165 D623 4822 130 32362 MA165 D624 4822 130 32362 MA165 D633 4822 130 32362 MA165 D634 4822 130 32362 MA165	
CRYSTAL X601 4822 242 72403 CST3.58MGW CERAMLOCK	
 L601 4822 152 20652 2.2mH	
 R601 4822 116 52219 330Ω J 1/6W R603 4822 116 52224 470Ω J 1/6W R604 4822 116 52245 150kΩ J 1/6W R605 4822 116 52257 22kΩ J 1/6W R606 4822 116 52235 1MΩ J 1/6W R607 4822 116 52257 22kΩ J 1/6W R608 4822 116 52257 22kΩ J 1/6W R609 4822 116 52297 68kΩ J 1/6W R610 4822 116 52257 22kΩ J 1/6W R611 4822 116 52235 1MΩ J 1/6W R612 4822 116 52269 3.3kΩ J 1/6W R613 4822 116 52271 33kΩ J 1/6W R614 4822 116 52271 33kΩ J 1/6W R615 4822 116 52284 47kΩ J 1/6W R616 4822 116 60462 18Ω J 2W R617 4822 116 52211 150Ω J 1/6W R618 4822 116 52215 220Ω J 1/6W	 C601 4822 124 41246 47μF 16V C603 4822 122 40586 10000pF C604 4822 124 41246 47μF 16V C606 4822 122 40586 10000pF C607 4822 122 40586 10000pF C609 4822 124 41246 47μF 16V C610 4822 124 41246 47μF 16V C615 4822 122 40586 10000pF

		
C682	4822 122 33639	1000pF
C683	4822 122 33639	1000pF
C684	4822 122 40589	0.047 CERAMIC
		
J212	4822 265 30668	4 PIN
J213	4822 265 30777	3 PIN
J214	4822 265 30671	6 PIN
J216	4822 265 30669	5 PIN
J219	4822 265 30669	5 PIN
J605	4822 265 61199	31 PIN

PM01 IDE2 SERVO

					
Q207	4822 130 42431	2SC1740S(R OR S)	R2D6	4822 116 52256	2.2kΩ J 1/6W
Q208	4822 130 42431	2SC1740S(R OR S)	R2D7	4822 116 52256	2.2kΩ J 1/6W
Q209	4822 130 42431	2SC1740S(R OR S)	R2D8	4822 116 52257	22kΩ J 1/6W
Q210	4822 130 42433	2SA933S(R OR S)	R2D9	4822 116 52245	150kΩ J 1/6W
Q211	4822 130 42433	2SA933S(R OR S)	R2E0	4822 116 52245	150kΩ J 1/6W
Q212	4822 130 42433	2SA933S(R OR S)	R2E1	4822 116 52204	1kΩ J 1/6W
Q213	4822 130 42433	2SA933S(R OR S)	R2E2	4822 116 52244	15kΩ J 1/6W
Q214	4822 130 42433	2SA933S(R OR S)	R2E3	4822 116 52256	2.2kΩ J 1/6W
Q215	4822 130 42433	2SA933S(R OR S)	R2E4	4822 116 52228	680Ω J 1/6W
Q216	4822 130 42431	2SC1740S(R OR S)	R2E5	4822 116 52234	100kΩ J 1/6W
Q217	4822 130 42433	2SA933S(R OR S)	R2E6	4822 116 52297	68kΩ J 1/6W
Q218	4822 130 42433	2SA933S(R OR S)	R2F1	4822 116 52257	22kΩ J 1/6W
Q219	4822 130 42431	2SC1740S(R OR S)	R2F2	4822 116 52204	1kΩ J 1/6W
Q220	4822 130 42431	2SC1740S(R OR S)	R2F3	4822 116 52204	1kΩ J 1/6W
Q221	4822 130 42431	2SC1740S	R2F4	4822 116 52204	1kΩ J 1/6W
Q222	4822 130 42433	2SA933S(R OR S)	R2F5	4822 116 52272	330kΩ J 1/6W
Q223	4822 130 42431	2SC1740S	R201	4822 116 52204	1kΩ J 1/6W
Q224	4822 130 42431	2SC1740S(R OR S)	R202	4822 116 52271	33kΩ J 1/6W
Q225	4822 130 42431	2SC1740S(R OR S)	R203	4822 116 52243	1.5kΩ J 1/6W
Q226	4822 130 42431	2SC1740S(R OR S)	R204	4822 116 52233	10kΩ J 1/6W
Q227	4822 130 42431	2SC1740S(R OR S)	R205	4822 116 52215	220Ω J 1/6W
Q228	4822 130 42431	2SC1740S(R OR S)	R206	4822 116 52271	33kΩ J 1/6W
			R207	4822 116 52243	1.5kΩ J 1/6W
IC21	4822 209 61705	UPD6160CA606	R208	4822 116 52283	4.7kΩ J 1/6W
IC22	4822 209 61686	QUAD OP AMP TYPE 324	R209	4822 116 52297	68kΩ J 1/6W
IC25	4822 209 60493	MN15312VPL	R210	4822 116 52204	1kΩ J 1/6W
IC26	4822 209 83843	TC4069UBP	R211	4822 116 52233	10kΩ J 1/6W
			R212	4822 116 52215	220Ω J 1/6W
D201	4822 130 32362	MA165	R213	4822 116 52257	22kΩ J 1/6W
D202	4822 130 32362	MA165	R214	4822 116 52233	10kΩ J 1/6W
D203	4822 130 32362	MA165	R215	4822 116 52257	22kΩ J 1/6W
D204	4822 130 32362	MA165	R216	4822 116 52284	47kΩ J 1/6W
D205	4822 130 32362	MA165	R217	4822 116 52284	47kΩ J 1/6W
D206	4822 130 32362	MA165	R218	4822 116 52284	47kΩ J 1/6W
D207	4822 130 32362	MA165	R219	4822 116 52284	47kΩ J 1/6W
D208	4822 130 32362	MA165	R220	4822 116 52204	1kΩ J 1/6W
D209	4822 130 32362	MA165	R221	4822 116 52269	3.3kΩ J 1/6W
D210	4822 130 32362	MA165	R222	4822 116 52298	680kΩ J 1/6W
			R223	4822 116 52258	220kΩ J 1/6W
L201	4822 152 20652	2.2mH	R224	4822 116 52284	47kΩ J 1/6W
			R225	4822 100 11372	47kΩ VARIABLE RES.
R2A0	4822 116 52297	68kΩ J 1/6W	R226	4822 116 52244	15kΩ J 1/6W
R2A1	4822 116 52297	68kΩ J 1/6W	R227	4822 116 52245	150kΩ J 1/6W
R2A2	4822 116 52243	1.5kΩ J 1/6W	R228	4822 116 52272	330kΩ J 1/6W
R2A3	4822 116 52269	3.3kΩ J 1/6W	R229	4822 116 52297	68kΩ J 1/6W
R2A4	4822 116 52271	33kΩ J 1/6W	R230	4822 116 52245	150kΩ J 1/6W
R2A5	4822 116 52234	100kΩ J 1/6W	R231	4822 116 52256	2.2kΩ J 1/6W
R2A6	4822 116 52245	150kΩ J 1/6W	R232	4822 116 52284	47kΩ J 1/6W
R2A7	4822 116 52245	150kΩ J 1/6W	R233	4822 116 52269	3.3kΩ J 1/6W
R2A8	4822 116 52269	3.3kΩ J 1/6W	R234	4822 116 52297	68kΩ J 1/6W
R2A9	4822 100 11473	220kΩ	R235	4822 116 52285	470kΩ J 1/6W
R2B0	4822 100 11473	220kΩ	R236	4822 116 52233	10kΩ J 1/6W
R2B1	4822 116 52269	3.3kΩ J 1/6W	R237	4822 116 52271	33kΩ J 1/6W
R2B2	4822 116 52224	470Ω J 1/6W	R238	4822 116 52271	33kΩ J 1/6W
R2B3	4822 116 52256	2.2kΩ J 1/6W	R240	4822 116 52269	3.3kΩ J 1/6W
R2B8	4822 116 52283	4.7kΩ J 1/6W	R243	4822 116 52243	1.5kΩ J 1/6W
R2D1	4822 116 52283	4.7kΩ J 1/6W	R244	4822 116 52284	47kΩ J 1/6W
R2D2	4822 116 52235	1MΩ J 1/6W	R245	4822 116 52284	47kΩ J 1/6W
R2D3	4822 116 52204	1kΩ J 1/6W	R246	4822 116 52233	10kΩ J 1/6W
R2D4	4822 116 52204	1kΩ J 1/6W	R247	4822 116 52233	10kΩ J 1/6W
R2D5	4822 116 52257	22kΩ J 1/6W	R248	4822 116 52257	22kΩ J 1/6W
			R249	4822 116 52257	22kΩ J 1/6W
			R250	4822 116 52256	2.2kΩ J 1/6W
			R251	4822 116 52245	150kΩ J 1/6W
			R252	4822 116 52256	2.2kΩ J 1/6W
			R253	4822 100 11471	100kΩ



R254	4822 116 52284	47kΩ J 1/6W
R255	4822 116 52284	47kΩ J 1/6W
R256	4822 116 52233	10kΩ J 1/6W
R257	4822 100 11471	100kΩ
R258	4822 116 52233	10kΩ J 1/6W
R259	4822 116 52245	150kΩ J 1/6W
R260	4822 116 52297	68kΩ J 1/6W
R261	4822 116 52257	22kΩ J 1/6W
R262	4822 116 52257	22kΩ J 1/6W
R263	4822 116 52257	22kΩ J 1/6W
R264	4822 116 52284	47kΩ J 1/6W
R265	4822 116 52271	33kΩ J 1/6W
R266	4822 116 52297	68kΩ J 1/6W
R267	4822 116 52219	330Ω J 1/6W
R270	4822 116 52234	100kΩ J 1/6W
R271	4822 116 52283	4.7kΩ J 1/6W
R272	4822 100 11472	CERMET VR 2.2kΩ
R273	4822 116 52296	6.8kΩ J 1/6W
R274	4822 116 52204	1kΩ J 1/6W
R280	4822 100 11471	100kΩ TRIMMING RESISTOR
R281	4822 116 52283	4.7kΩ J 1/6W
R282	4822 116 52284	47kΩ J 1/6W
R283	4822 116 52284	47kΩ J 1/6W
R284	4822 116 52272	330kΩ J 1/6W
R285	4822 116 52284	47kΩ J 1/6W
R286	4822 116 52284	47kΩ J 1/6W
R287	4822 116 52257	22kΩ J 1/6W
R288	4822 116 52284	47kΩ J 1/6W
R289	4822 116 52284	47kΩ J 1/6W
R290	4822 116 52257	22kΩ J 1/6W
R291	4822 116 52257	22kΩ J 1/6W
R292	4822 116 52271	33kΩ J 1/6W
R293	4822 116 52298	680kΩ J 1/6W
R294	4822 116 52269	3.3kΩ J 1/6W
R295	4822 116 52233	10kΩ J 1/6W
R296	4822 116 52257	22kΩ J 1/6W
R297	4822 116 52233	10kΩ J 1/6W
R298	4822 116 52296	6.8kΩ J 1/6W
R299	4822 116 52257	22kΩ J 1/6W



C2A0	4822 124 41139	100μF 16V
C2A1	4822 124 41139	100μF 16V
C2A2	4822 122 30034	470pF
C201	4822 124 21852	470μF 16V
C202	4822 124 21844	4.7μF 50V
C203	4822 122 33795	4700pF K 16V
C204	4822 124 21407	0.47μF 50V
C205	4822 122 33795	4700pF 16V
C206	4822 122 40589	0.047 CERAMIC
C207	4822 122 40586	10000pF
C208	4822 122 40589	0.047 CERAMIC
C209	4822 124 21894	10μF 16V
C210	4822 124 23112	10μF 16V BP
C211	4822 124 21894	10μF 16V
C212	4822 124 41153	220μF 16V



C213	4822 124 21894	10μF 16V
C214	4822 124 21903	1μF 50V BP
C215	4822 124 21903	1μF 50V BP
C216	4822 124 21894	10μF 16V ELECTR.
C217	4822 124 21894	10μF 16V ELECTR.
C218	4822 122 33639	1000pF
C219	4822 122 33795	4700pF 16V
C220	4822 121 42698	0.1μF ,J,N, 50V
C221	4822 121 42698	0.1μF ,J,N, 50V
C222	4822 124 21407	0.47μF 50V
C223	4822 121 41856	0.022μF
C224	4822 124 22768	0.33μF 50V ELECTR.
C236	4822 121 42698	0.1μF ,J,N,
C237	4822 124 41246	47μF 16V
C238	4822 122 40586	10000pF
C239	4822 121 42666	0.22μF ,J,T, 50V
C240	4822 122 33795	4700pF
C241	4822 121 42698	0.1μF ,J,N, 50V
C242	4822 122 33795	4700pF
C243	4822 124 41246	47μF 16V
C244	4822 122 33639	1000pF
C245	4822 124 21894	10μF 16V
C246	4822 122 33639	1000pF
C247	4822 121 42771	2200pF
C248	4822 121 42698	0.1μF ,J,N, 50V
C249	4822 124 21736	1μF 50V ELECTR.
C250	4822 124 23112	10μF 16V BP
C251	4822 124 41246	47μF 16V
C252	4822 121 42616	0.0033μF J 50V
C253	4822 124 21407	0.47μF 50V
C254	4822 124 41246	47μF 16V
C255	4822 122 40586	10000pF
C256	4822 124 21894	10μF 16V
C257	4822 122 40586	10000pF
C258	4822 122 33639	1000pF
C286	4822 121 42698	0.1μF ,J,N, 50V
C290	4822 121 41856	0.022μF ,J,N, 50V
C291	4822 124 21894	10μF 16V
C292	4822 124 21844	4.7μF 50V
C293	4822 122 30114	2200pF K 50V
C294	4822 121 42666	0.22μF ,J,T, 50V
C295	4822 122 40586	10000pF
C296	4822 122 40586	10000pF
C297	4822 124 41246	47μF 16V
C299	4822 124 21407	0.47μF 50V



J210	4822 265 40796	7 PIN
J211	4822 265 30669	5 PIN
J215	4822 265 30668	4 PIN

PM01 ITT TIMER TUNING

		
Q6K1	4822 130 42431	2SC1740S(R OR S)
		
IC6K	4822 209 61728	TMP47C1670N TTU-COM
IC6L	4822 209 71435	MN1280 RESET
IC6M	4822 209 60047	MN1280-RESET
IC6N	4822 209 61725	BR93C46
		
D6K1	4822 130 32362	MA165
D6K4	4822 130 32362	MA165
CRYSTALS		
X6K1	4822 242 72596	CST6.00MGW-TF01
X6K2	4822 242 72236	DT-38 32.768kHz
		
R6K1	4822 116 52233	10kΩ J 1/6W
R6K6	4822 116 52233	10kΩ J 1/6W
R6K9	4822 116 52233	10kΩ J 1/6W
R6L0	4822 116 52233	10kΩ J 1/6W
R6L1	4822 116 52233	10kΩ J 1/6W
R6L5	4822 116 52233	10kΩ J 1/6W
R6L6	4822 116 52284	47kΩ J 1/6W
R6L7	4822 116 52284	47kΩ J 1/6W
R6L8	4822 116 52175	100Ω J 1/6W
R6L9	4822 116 52175	100Ω J 1/6W
R6M2	4822 116 52257	22kΩ J 1/6W
		
C6K1	4822 124 23181	DYNA DB-5R5D104
C6K2	4822 124 21894	10μF 16V
C6K4	4822 121 42698	0.1μF ,J,N, 50V
C6K5	4822 125 50437	3P-10P TRIM VCT5
C6K6	5322 122 32143	22pF J CH 50V BLK
C6K7	4822 122 33639	1000pF
C6K8	4822 122 33639	1000pF
C6K9	4822 122 40589	0.047 CERAMIC
		
J6K1	4822 265 61202	33 PIN

PM01 IVA1 LUMINANCE

					
Q301	4822 130 42431	2SC1740S(R OR S)	R351	4822 116 52271	33kΩ J 1/6W
Q302	4822 130 42431	2SC1740S(R OR S)	R352	4822 116 52297	68kΩ J 1/6W
Q303	4822 130 42433	2SA933S(R OR S)	R353	4822 116 52271	33kΩ J 1/6W
Q305	4822 130 42433	2SA933S(R OR S)	R354	4822 111 91285	100Ω J 1/6W
Q306	4822 130 42433	2SA933S(R OR S)	R356	4822 116 52272	330kΩ J 1/6W
					
IC31	4822 209 71938	BA7255BS	R360	4822 116 52204	1kΩ J 1/6W
IC32	4822 209 61727	LC8992 1H CCD	R361	4822 116 52219	330Ω J 1/6W
IC33	4822 209 71903	NJM7805FA +5V	R363	4822 116 60207	15Ω 2W
					
D301	4822 130 32362	MA165	C301	4822 124 21894	10μF 16V
D302	4822 130 32362	MA165	C303	4822 122 40586	0.01μF
D303	4822 130 32362	MA165	C304	4822 122 33795	4700pF
D304	4822 130 32362	MA165	C305	4822 122 40586	0.01μF
ZENER			C306	4822 122 40586	0.01μF
Z305	4822 130 80273	8.2V ZENER	C307	4822 122 40586	0.01μF
			C309	4822 124 21894	10μF 16V
L301	4822 152 20663	22μH	C310	4822 124 21894	10μF 16V
L303	4822 157 60444	100μH	C311	4822 122 40586	0.01μF
L304	4822 157 60454	68μH	C312	4822 122 40568	68pF J CH 50V BLK
L305	4822 157 60444	100μH	C313	4822 122 40568	68pF J CH 50V BLK
FILTERS			C315	4822 122 40568	68pF J CH 50V BLK
FL31	4822 242 72948	3.0MHz LPF	C316	4822 122 40568	68pF J CH 50V BLK
			C317	4822 124 21894	10μF 16V
R301	4822 100 11372	47kΩ	C318	4822 122 32831	680pF 50V
R302	4822 116 52233	10kΩ J 1/6W	C319	5322 122 31626	100pF 50V
R304	4822 116 52298	680kΩ J 1/6W	C320	4822 122 40568	68pF 50V
R305	4822 116 52271	33kΩ J 1/6W	C321	4822 124 21894	10μF 16V
R308	4822 116 52271	33kΩ J 1/6W	C322	4822 122 40586	0.01μF
R309	4822 116 52204	1kΩ J 1/6W	C325	4822 124 21736	1μF 50V
R311	4822 116 52257	22kΩ J 1/6W	C326	4822 124 21894	10μF 16V
R314	4822 116 52204	1kΩ J 1/6W	C327	4822 122 40568	68pF J CH 50V
R315	4822 116 52228	680Ω J 1/6W	C330	4822 122 40586	0.01μF
R316	4822 116 52204	1kΩ J 1/6W	C331	4822 122 40586	0.01μF
R317	4822 116 52204	1kΩ J 1/6W	C332	4822 122 40586	0.01μF
R318	4822 116 52296	6.8kΩ J 1/6W	C333	5322 122 31626	100pF J CH 50V BLK
R319	4822 116 52271	33kΩ J 1/6W	C334	4822 122 40464	220pF 50V
R320	4822 116 52211	150Ω J 1/6W	C335	4822 124 21894	10μF 16V
R321	4822 116 52224	470Ω J 1/6W	C336	4822 124 41139	100μF 16V
R323	4822 116 52228	680Ω J 1/6W	C337	4822 124 21852	470μF 16V
R324	4822 116 52243	1.5kΩ J 1/6W	C338	5322 122 31626	100pF J CH 50V BLK
R326	4822 116 52269	3.3kΩ J 1/6W	C339	4822 124 21844	4.7μF 50V
R327	4822 116 52256	2.2kΩ J 1/6W	C340	4822 124 21894	10μF 16V
R328	4822 100 20681	2.2kΩ	C341	4822 124 21844	4.7μF 50V
R332	4822 100 11351	10kΩ	C342	4822 124 21844	4.7μF 50V
R333	4822 100 11373	4.7kΩ	C343	4822 121 42698	0.1μF 50V
R334	4822 116 52233	10kΩ J 1/6W	C344	4822 122 40586	0.01μF
R335	4822 116 52256	2.2kΩ J 1/6W	C351	4822 122 40589	0.047μF 50V
R336	4822 116 52204	1kΩ J 1/6W	C352	4822 122 33817	6.8pF
R337	4822 116 52297	68kΩ J 1/6W			
R340	4822 116 52204	1kΩ J 1/6W	J301	4822 265 30668	4 PIN
R342	4822 116 52224	470Ω J 1/6W	J302	4822 265 30669	5 PIN
R345	4822 116 52233	10kΩ J 1/6W	J355	4822 265 40957	12 PIN
R346	4822 116 52175	100Ω J 1/6W			
R347	4822 116 52283	4.7kΩ J 1/6W			
R348	4822 116 52283	4.7kΩ J 1/6W			

PM01 IVA2 CHROMINANCE

 Q803 4822 130 42431 2SC1740S(R OR S) Q804 4822 130 42431 2SC1740S(R OR S) Q805 4822 130 42433 2SA933SLN(R OR S) Q806 4822 130 42431 2SC1740S(R OR S)	 R816 4822 116 52233 10kΩ J 1/6W R817 4822 116 52233 10kΩ J 1/6W R818 4822 116 52243 1.5kΩ J 1/6W R819 4822 116 52258 220kΩ J 1/6W R820 4822 116 52204 1kΩ J 1/6W R821 4822 116 52284 47kΩ J 1/6W R822 4822 116 52204 1kΩ J 1/6W R829 4822 116 52215 220Ω J 1/6W R830 4822 116 52204 1kΩ J 1/6W R831 4822 116 52195 47Ω J 1/6W R832 4822 116 52256 2.2kΩ J 1/6W R833 4822 116 52215 220Ω J 1/6W R834 4822 116 52204 1kΩ J 1/6W R835 4822 116 52257 22kΩ J 1/6W R836 4822 116 52257 22kΩ J 1/6W R846 4822 116 52211 150Ω J 1/6W R854 4822 116 52204 1kΩ J 1/6W
 IC81 4822 209 61726 LA7331	 C803 4822 122 40586 0.01μF C805 4822 121 42698 0.1μF 50V C806 4822 122 40586 0.01μF C807 4822 124 21736 1μF 50V C808 5322 122 32335 330pF 50V C809 4822 124 21736 1μF 50V C810 4822 124 21736 1μF 50V C811 4822 122 40588 0.022μF Z 50V C812 4822 122 40589 0.047 CERAMIC C813 4822 122 40589 0.047 CERAMIC C814 5322 122 31626 100pF 50V C815 5322 122 32335 330pF K 50V C816 4822 122 40586 0.01μF 16V C817 4822 122 30034 470pF K 50V C818 4822 122 40588 0.022μF Z 50V C819 4822 124 21736 1μF 50V C820 4822 122 40589 0.047 CERAMIC C821 4822 122 33656 39pF J CH 50V C822 4822 122 40568 68pF 50V C823 4822 122 40586 0.01μF 16V C824 4822 124 41246 47μF 16V C825 4822 122 40586 0.01μF C826 5322 122 31626 100pF J CH 50V BLK C827 4822 122 40586 0.01μF 16V C829 4822 122 40588 0.022μF 25V C830 4822 122 40586 0.01μF C831 4822 122 32831 680pF K 50V C837 4822 124 21894 10μF 16V C838 4822 122 40586 0.01μF
 D801 4822 130 32362 MA165 D802 4822 130 32362 MA165 D803 4822 130 32362 MA165 D804 4822 130 32362 MA165 D805 4822 130 32362 MA165 D806 4822 130 32362 MA165 D807 4822 130 32362 MA165 D808 4822 130 32362 MA165 D809 4822 130 32362 MA165 D810 4822 130 32362 MA165	 J801 4822 265 40956 7 PIN
CRYSTAL X801 4822 242 72951 4.43MHz	
 L801 4822 157 60445 15μH L802 4822 152 20652 2.2mH L803 4822 157 60452 330μH L804 4822 157 60451 220μH L805 4822 152 20663 22μH L807 4822 152 20663 22μH L808 4822 157 60458 3.3μH	
FILTERS FL81 4822 320 40219 PAL 2H COMB TER FL82 4822 242 72949 1.4M-LPF 4.43M-BPF 5	
 R801 4822 116 52219 330Ω J 1/6W R802 4822 116 52243 1.5kΩ J 1/6W R803 4822 116 52257 22kΩ J 1/6W R804 4822 116 52243 1.5kΩ J 1/6W R805 4822 116 52204 1kΩ J 1/6W R806 4822 116 52204 1kΩ J 1/6W R807 4822 116 52204 1kΩ J 1/6W R808 4822 116 52204 1kΩ J 1/6W R809 4822 116 52224 470Ω J 1/6W R810 4822 116 52257 22kΩ J 1/6W R811 4822 116 52284 47kΩ J 1/6W R812 4822 116 52257 22kΩ J 1/6W R813 4822 116 52257 22kΩ J 1/6W R814 4822 116 52233 10kΩ J 1/6W R815 4822 116 52233 10kΩ J 1/6W	

PM02 IAD4 NORMAL AUDIO

 Q401 4822 130 42431 2SC1740S(R OR S) Q404 4822 130 42431 2SC1740S(R OR S)	 R438 4822 116 52256 2.2kΩ J 1/6W R439 4822 116 52233 10kΩ J 1/6W R440 4822 116 52269 3.3kΩ J 1/6W R442 4822 116 52284 47kΩ J 1/6W R443 4822 116 52284 47kΩ J 1/6W R444 4822 116 52233 10kΩ J 1/6W R445 4822 116 52233 10kΩ J 1/6W
 IC41 4822 209 60074 BA7766AS	
 D401 4822 130 32362 MA165 D402 4822 130 32362 MA165	 C401 4822 122 33795 4700pF C402 4822 122 32831 680pF C403 4822 124 21894 10μF 16V C404 4822 122 33639 1000pF C405 4822 124 21894 10μF 16V C406 4822 121 41857 0.01μF J,M, 50V C407 4822 124 21894 10μF 16V C408 4822 121 42775 0.0056μF C409 5322 122 32335 330pF K 50V C410 4822 124 21894 10μF 16V C411 4822 121 42698 0.1μF J,N, 50V C412 5322 122 31626 100pF J CH 50V BLK C413 5322 122 31626 100pF J CH 50V BLK C414 4822 122 40464 220pF K 50V C415 4822 124 21894 10μF 16V C417 4822 121 41856 0.022μF C419 4822 124 21894 10μF 16V C420 4822 124 21736 1μF 50V ELECTR. C421 4822 124 41139 100μF 16V C422 4822 124 21736 1μF 50V C427 4822 122 40586 10000pF C428 4822 122 33639 1000pF C429 4822 121 43027 0.015μF 100V C430 4822 124 21894 10μF 16V C431 4822 122 40586 10000pF C432 4822 122 40586 10000pF C433 4822 122 30114 2200pF K 50V C434 4822 124 21894 10μF 16V
 L401 4822 157 53914 OSC COIL L404 4822 152 20663 22μH L405 4822 152 20643 10mH	
 R401 4822 116 52224 470Ω J 1/6W R402 4822 116 52284 47kΩ J 1/6W R403 4822 116 52219 330Ω J 1/6W R404 4822 116 52272 330kΩ J 1/6W R405 4822 116 52296 6.8kΩ J 1/6W R406 4822 116 52233 10kΩ J 1/6W R407 4822 116 52284 47kΩ J 1/6W R410 4822 116 52283 4.7kΩ J 1/6W R411 4822 116 52297 68kΩ J 1/6W R412 4822 116 52235 1MΩ J 1/6W R413 4822 116 52204 1kΩ J 1/6W R414 4822 116 52283 4.7kΩ J 1/6W R415 4822 116 52271 33kΩ J 1/6W R416 4822 116 52234 100kΩ J 1/6W R417 4822 116 52234 100kΩ J 1/6W R418 4822 116 52284 47kΩ J 1/6W R419 4822 116 52296 6.8kΩ J 1/6W R420 4822 116 52243 1.5kΩ J 1/6W R421 4822 116 52234 100kΩ J 1/6W R424 4822 116 52224 470Ω J 1/6W R425 4822 116 52296 6.8kΩ J 1/6W R427 4822 111 91285 100Ω J 1/6W R428 4822 116 52271 33kΩ J 1/6W R430 4822 116 52176 10Ω J 1/6W R431 4822 100 11471 100kΩ R432 4822 116 52244 15kΩ J 1/6W	 J420 4822 265 51256 23 PIN J424 4822 267 40823 6 PIN

PM02 IDE3 DRIVER

 Q6A1 4822 130 42254 2SD1275 Q6A2 4822 130 42431 2SC1740S(R OR S) Q6A3 4822 130 42254 2SD1275 Q6A4 4822 130 61439 2SB1237(R)	 C260 4822 121 42698 0.1μF ,J,N, 50V C261 4822 124 41153 220μF 16V C262 4822 124 21844 4.7μF 50V C263 4822 124 41246 47μF 16V C264 4822 124 21844 4.7μF 50V C265 4822 124 21844 4.7μF 50V C266 4822 122 40589 0.047 CERAMIC C267 4822 122 33794 3300pF 16V C268 4822 122 40589 0.047 CERAMIC C269 4822 122 33794 3300pF K 50V C270 4822 122 40589 0.047 CERAMIC C271 4822 122 33794 3300pF 16V C272 4822 124 21844 4.7μF 50V C273 4822 124 21844 4.7μF 50V C274 4822 124 21844 4.7μF 50V C276 4822 124 21894 10μF 16V C277 4822 122 40589 0.047 CERAMIC C278 4822 121 42698 0.1μF ,J,N, 50V C279 4822 121 42698 0.1μF ,J,N, 50V C280 4822 121 42698 0.1μF ,J,N, 50V C281 4822 121 42698 0.1μF ,J,N, 50V C282 4822 121 42698 0.1μF ,J,N, 50V C283 5322 121 42491 0.047μF ,J,N, 50V C284 4822 124 41139 100μF 16V C285 4822 122 40588 0.022μF C6A0 4822 124 21852 470μF 16V C6A1 4822 122 40586 10000pF C6A2 4822 124 21736 1μF 50V ELECTR. C6A3 4822 124 41153 220μF 16V ELECTR. C6A4 4822 124 41246 47μF 16V
 IC27 4822 209 60048 AN3814k IC28 4822 209 60046 BA6432S CAP.MOTOR	 J217 4822 265 30777 3 PIN J220 4822 265 30669 5 PIN J601 4822 265 30668 4 PIN J602 4822 265 30671 6 PIN J603 4822 265 30669 5 PIN J604 4822 265 30669 5 PIN J606 4822 265 61199 31 PIN J607 4822 265 30669 5 PIN J608 4822 265 30671 6 PIN
 D6A1 4822 130 32362 MA165 D6A2 4822 130 32362 MA165 D6A3 4822 130 32362 MA165	
ZENER Z6A1 4822 130 80273 8.2V ZENER Z6A2 4822 130 33948 5.6V ZENER Z6A3 4822 130 80273 8.2V ZENER Z6A4 4822 130 80132 3.9V ZENER Z6A5 4822 130 80132 3.9V ZENER Z6A6 4822 130 80273 8.2V ZENER	
 R2B4 4822 116 52176 10Ω J 1/6W R2B5 4822 116 52176 10Ω J 1/6W R2B6 4822 116 52176 10Ω J 1/6W R2B7 4822 116 52908 1.0Ω J 1/2W R2C1 4822 116 52243 1.5kΩ J 1/6W R268 4822 116 52283 4.7kΩ J 1/6W R269 4822 116 52204 1kΩ J 1/6W R275 4822 116 52195 47Ω J 1/6W R276 4822 116 52195 47Ω J 1/6W R277 4822 116 52908 1.0Ω J 1/2W R278 4822 116 52195 47Ω J 1/6W R279 4822 116 52195 47Ω J 1/6W R6A0 4822 116 60306 1Ω J 1/2W R6A1 4822 116 52257 22kΩ J 1/6W R6A2 4822 116 52283 4700Ω J 1/6W R6A3 4822 116 52296 6800Ω J 1/6W R6A4 4822 116 52204 1kΩ J 1/6W R6A5 4822 116 60306 1Ω FUSE RESISTOR R6A6 4822 116 52296 6.8kΩ J 1/6W R6A7 4822 116 52204 1kΩ J 1/6W	

PM02 IFE4 UHF / VHF TUNER / TV DEMODULATOR

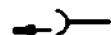
		
Q701	4822 130 61474	2SD592R
Q702	4822 130 42431	2SC1740S(R OR S)
		
D701	4822 130 32362	MA165
ZENERS		
Z701	4822 130 33948	5.6V ZENER
Z702	4822 130 80132	3.9V ZENER
		
L701	4822 152 20663	22μH
L702	4822 152 20663	22μH
L703	4822 152 20663	22μH
L704	4822 152 20663	22μH
		
R701	4822 116 52283	4.7kΩ J 1/6W
R702	4822 116 52283	4.7kΩ J 1/6W
R703	4822 116 52283	4.7kΩ J 1/6W
R704	4822 116 52257	22kΩ J 1/6W
R705	4822 116 52284	47kΩ J 1/6W
R712	4822 116 52228	680Ω J 1/6W
R715	4822 116 52175	100Ω J 1/6W
R716	4822 116 52175	100Ω J 1/6W
R717	4822 116 52175	100Ω J 1/6W
R720	4822 116 52256	2.2kΩ J 1/6W
R721	4822 116 52271	33kΩ J 1/6W
R722	4822 116 52284	47kΩ J 1/6W
R723	4822 116 52257	22 kΩ J 1/6W
		
C701	4822 122 40586	10000pF
C702	4822 124 21894	10μF 16V
C703	4822 122 40589	0.047μF Z 50V
C704	4822 122 40586	10000pF
C705	4822 124 21894	10μF 16V
C706	4822 124 21407	0.47μF 50V
C718	4822 124 41246	47μF 16V
C719	4822 124 41246	47μF 16V
C720	5322 122 31626	100pF 50V
C721	5322 122 31626	100pF 50V
C722	5322 122 31626	100pF 50V
C723	4822 122 33639	1000pF
C724	4822 124 21894	10μF 16V
TUNER / IF PACK		
E701	4822 210 10379	TBKS3-001A ALPS

PM02 IPI1 PIP ANALOG

 Q807 4822 130 42431 2SC1740 Q808 4822 130 42431 2SC1740 Q809 4822 130 42431 2SC1740 Q810 4822 130 42433 2SA933	 R869 4822 116 52283 4.7kΩ J 1/6W R870 4822 116 52233 10kΩ J 1/6W R871 4822 116 52256 2.2kΩ J 1/6W R872 4822 116 52234 100kΩ J 1/6W R873 4822 116 52234 100kΩ J 1/6W R874 4822 116 52233 10kΩ J 1/6W R893 4822 116 52283 4.7kΩ J 1/6W R894 4822 116 52204 1kΩ J 1/6W R895 4822 116 52228 680Ω J 1/6W
 IC81 4822 209 61696 M51285BFP IC82 4822 209 61697 M52684AP IC83 4822 209 61698 M51271SP	
CRYSTALS X801 4822 242 72946 17.73447MHz X802 4822 242 72946 17.73447MHz X805 4822 242 72945 500kHz CERAMLOCK X806 4822 242 72945 500kHz CERAMLOCK	
 L802 4822 152 20641 100μH L803 4822 157 60453 39μH L804 4822 157 60453 39μH L806 4822 157 60453 39μH L807 4822 157 60453 39μH L810 4822 152 20641 100μH L813 4822 152 20641 100μH	
 R801 4822 116 52245 150kΩ 1/6W R802 4822 116 52219 330Ω J 1/6W R803 4822 116 52233 10kΩ J 1/6W R804 4822 116 52243 1.5kΩ J 1/6W R806 4822 116 52234 100kΩ J 1/6W R807 4822 116 52215 220Ω J 1/6W R808 4822 111 41355 75Ω J 1/6W R809 4822 116 52243 1.5kΩ J 1/6W R810 4822 116 52233 10kΩ J 1/6W R811 4822 116 52283 4.7kΩ J 1/6W R812 4822 116 52235 1MΩ J 1/6W R813 4822 116 52257 22kΩ J 1/6W R814 4822 116 52257 22kΩ J 1/6W R815 4822 116 52204 1kΩ J 1/6W R816 4822 116 52204 1kΩ J 1/6W R817 4822 116 52204 1kΩ J 1/6W R818 4822 116 52204 1kΩ J 1/6W R819 4822 116 52204 1kΩ J 1/6W R820 4822 116 52297 68kΩ J 1/6W R821 4822 116 52224 470Ω J 1/6W R822 4822 116 52233 10kΩ J 1/6W R823 4822 116 52219 330Ω J 1/6W R824 4822 116 52243 1.5kΩ J 1/6W R825 4822 116 52244 15kΩ J 1/6W R826 4822 116 52235 1MΩ J 1/6W R827 4822 116 52271 33kΩ J 1/6W R828 4822 116 52244 15kΩ J 1/6W R829 4822 116 52244 15kΩ J 1/6W R830 4822 116 52271 33kΩ J 1/6W R831 4822 116 52285 470kΩ J 1/6W R832 4822 116 52243 1.5kΩ J 1/6W R833 4822 116 52175 100Ω J 1/6W R834 4822 116 52215 220Ω J 1/6W R835 4822 116 52257 22kΩ J 1/6W R836 4822 116 52257 22kΩ J 1/6W R837 4822 116 52297 68kΩ J 1/6W R838 4822 116 52256 2.2kΩ J 1/6W R839 4822 116 52204 1kΩ J 1/6W R840 4822 116 52204 1kΩ J 1/6W R868 4822 116 52284 47kΩ J 1/6W	II C801 4822 124 41246 47μF 16V C802 4822 124 21736 1μF 50V ELECTR. C803 4822 124 41246 47μF 16V C804 4822 122 40464 220pF K 50V C805 4822 122 30034 470pF K 50V C806 4822 122 33639 1000pF C808 4822 121 42698 0.1μF ,J,N, 50V C809 4822 124 21736 1μF 50V ELECTR. C810 4822 122 31205 47pF 50V C811 4822 122 40464 220pF 50V C812 4822 122 33817 6.8pF 50V C813 4822 122 40586 10000pF C814 4822 122 40586 10000pF C815 4822 124 21844 4.7μF 50V C816 4822 124 21407 0.47μF 50V C817 4822 122 33639 1000pF C818 4822 122 40586 10000pF C819 4822 122 40586 10000pF C820 4822 122 40586 10000pF C821 4822 122 40586 10000pF C822 4822 122 40464 220pF K 50V C823 4822 124 21736 1μF 50V ELECTR. C824 4822 122 33639 1000pF C825 4822 121 42698 0.1μF ,J,N, 50V C826 4822 122 32917 33pF C827 4822 122 32917 33pF C828 4822 124 40464 4.7μF 35V BP C829 4822 122 40586 10000pF C830 4822 122 33639 1000pF C831 4822 122 33639 1000pF C832 4822 121 42698 0.1μF ,J,N, 50V C833 4822 124 21736 1μF 50V ELECTR. C834 4822 124 41246 47μF 16V C835 4822 122 40586 10000pF C836 4822 122 32917 33pF J CH 50V BLK C837 4822 122 30034 470pF K 50V C838 4822 122 33639 1000pF C840 4822 122 32831 680pF K 50V C841 4822 122 33639 1000pF C842 5322 122 32335 330pF C843 4822 122 32917 33pF C844 4822 122 32917 33pF C845 4822 122 40586 10000pF C846 4822 122 40586 10000pF C847 4822 124 21736 1μF 50V ELECTR. C848 4822 124 41246 47μF 16V C849 4822 122 40586 10000pF C850 4822 122 40586 10000pF C851 4822 122 33639 1000pF C852 4822 122 40586 10000pF C853 4822 122 33792 10pF C854 4822 122 33639 1000pF C856 4822 122 33639 1000pF C857 4822 122 40589 0.047 CERAMIC C858 4822 122 40589 0.047 CERAMIC

-||-

C859	4822 124 21736	1 μ F 50V ELECTR.
C860	4822 124 21407	0.47 μ F 50V
C861	4822 124 21736	1 μ F 50V ELECTR.
C862	4822 122 40586	10000pF
C863	4822 124 22047	1000 μ F 6.3V
C864	4822 124 21736	1 μ F 50V ELECTR.
C865	4822 125 50437	3-10P
C866	4822 125 50437	3-10P
C878	4822 124 41246	47 μ F 16V
C887	4822 124 21844	4.7 μ F 50V
C888	5322 121 42491	0.047 μ F
C889	4822 122 30114	2200pF
C890	4822 122 30099	3300pF



J801	4822 267 50877	12 PIN
J802	4822 267 50877	12 PIN

PM04 IVA3 CHROMINANCE SUB



Q801	4822 130 42431	2SC1740S(R OR S)
Q802	4822 130 61486	2SC2058S(P OR Q)
Q807	4822 130 42431	2SC1740S(R OR S)
Q808	4822 130 42431	2SC1740S(R OR S)
Q809	4822 130 42433	2SA933SLN(R OR S)
Q810	4822 130 42431	2SC1740S(R OR S)
Q811	4822 130 42431	2SC1740S(R OR S)

ZENER

Z801	4822 130 80273	8.2V ZENER
------	----------------	------------



L809	4822 157 60445	15 μ H
L810	4822 157 60445	15 μ H

FILTER

FL83	4822 320 40218	PAL-1H DELAY LINE VN
------	----------------	----------------------



R823	4822 116 52283	4.7k Ω J 1/6W
R824	4822 116 52204	1k Ω J 1/6W
R825	4822 116 52243	1.5k Ω J 1/6W
R826	4822 116 52219	330 Ω J 1/6W
R827	4822 116 52211	150 Ω J 1/6W
R828	4822 116 52204	1k Ω J 1/6W
R837	4822 116 52233	10k Ω J 1/6W
R838	4822 116 52296	6.8k Ω J 1/6W
R839	4822 116 52224	470 Ω J 1/6W
R840	4822 116 52228	680 Ω J 1/6W
R841	4822 116 52228	680 Ω J 1/6W
R842	4822 116 52257	22k Ω J 1/6W
R843	4822 116 52257	22k Ω J 1/6W
R844	4822 116 52215	220 Ω J 1/6W
R845	4822 116 52243	1.5k Ω J 1/6W
R847	4822 116 52257	22k Ω J 1/6W
R848	4822 116 52257	22k Ω J 1/6W
R849	4822 116 52257	22k Ω J 1/6W
R850	4822 116 52257	22k Ω J 1/6W
R851	4822 116 52257	22k Ω J 1/6W
R852	4822 116 52284	47k Ω J 1/6W
R855	4822 111 91285	100 Ω 1/6W

-||-

C801	4822 122 40586	0.01 μ F
C802	4822 122 40586	0.01 μ F
C804	4822 122 40586	0.01 μ F
C832	4822 122 40586	0.01 μ F
C833	4822 122 40586	0.01 μ F
C834	4822 122 40586	0.01 μ F
C835	4822 124 21894	10 μ F 16V



J802	4822 265 40955	7 PIN
------	----------------	-------

PP01 IPI2 PIP DIGITAL

					
Q801	4822 130 42433	2SA933S(R OR S)	R850	4822 111 91076	3.3kΩ J 1/10W
Q802	4822 130 42433	2SA933S(R OR S)	R851	4822 111 90894	1kΩ J 1/10W
Q803	4822 130 42433	2SA933S(R OR S)	R852	4822 111 90894	1kΩ J 1/10W
Q804	4822 130 42433	2SA933S(R OR S)	R853	4822 111 91076	3.3kΩ J 1/10W
Q805	4822 130 42433	2SA933S(R OR S)	R854	4822 111 90897	1MΩ J 1/10W
Q806	4822 130 42433	2SA933S(R OR S)	R856	4822 111 90924	680Ω J 1/10W
			R857	4822 111 91076	3.3kΩ J 1/10W
IC84	4822 209 61699	M50541FP	R858	4822 111 90894	1kΩ J 1/10W
IC85	4822 209 61701	M52686AFP	R859	4822 111 90894	1kΩ J 1/10W
IC86	4822 209 61702	M5M4C500L	R860	4822 111 91076	3.3kΩ J 1/10W
IC87	4822 209 61703	M52682FP	R861	4822 111 91076	3.3kΩ J 1/10W
IC88	4822 209 61688	N0R 74HC02	R862	4822 111 91076	3.3kΩ J 1/10W
			R863	4822 111 91076	3.3kΩ J 1/10W
D801	4822 130 81166	1SS184	R864	4822 111 90918	4.7kΩ J 1/10W
D802	4822 130 81166	1SS184	R865	4822 111 90918	4.7kΩ J 1/10W
CRYSTAL			R866	4822 111 90894	1kΩ J 1/10W
X803	4822 242 72944	30MHz CERALOCK	R867	4822 111 90896	100kΩ J 1/10W
			R890	4822 111 90918	4.7kΩ J 1/10W
L814	4822 157 61916	47μH	R891	4822 111 90895	10kΩ J 1/10W
FILTERS			R892	4822 111 90892	0Ω
FLA1	4822 126 10441	10000pF 100VDC	R896	4822 111 90894	1kΩ J 1/10W
FLA2	4822 126 10441	10000pF 100VDC			
FLA3	4822 126 10441	10000pF 100VDC	C867	4822 122 33689	0.01μF
FLA4	4822 126 10441	10000pF 100VDC	C868	4822 122 33689	0.01μF
FL71	4822 126 10442	DSS306 270pF 100VDC	C869	4822 122 33689	0.01μF
FL72	4822 126 10442	DSS306 270pF 100VDC	C870	4822 124 21736	1μF 50V ELECTR.
FL73	4822 242 72941	SDL-1727 400ns DELAY	C871	4822 124 21736	1μF 50V ELECTR.
FL74	4822 242 72942	SLP-2513 0.65MHz L,P	C872	4822 124 21736	1μF 50V ELECTR.
FL75	4822 242 72942	SLP-2513 0.65MHz L,P	C873	4822 122 32669	0.047μF
FL76	4822 242 72943	SLP-2224A 1.2MHz L,P	C874	4822 126 10006	7pF
FL81	4822 126 10442	DSS306 270pF 100VDC	C875	4822 126 10006	7pF
FL82	4822 126 10442	DSS306 270pF 100VDC	C876	4822 122 32693	33pF
FL83	4822 126 10442	DSS306 270pF 100VDC	C877	4822 122 33132	22pF
FL84	4822 126 10442	DSS306 270pF 100VDC	C879	4822 122 32669	0.047μF
FL85	4822 126 10443	DSS306 47pF 100VDC	C880	4822 124 21736	1μF 50V ELECTR.
FL86	4822 126 10441	DSS306 0.01μF 100VDC	C881	4822 122 33689	0.01μF
FL87	4822 126 10441	DSS306 0.01μF 100VDC	C882	4822 124 21736	1μF 50V ELECTR.
FL88	4822 126 10441	DSS306 0.01μF 100VDC	C883	4822 122 33689	0.01μF
FL89	4822 126 10441	DSS306 0.01μF 100VDC	C884	4822 122 32669	0.047μF
FL91	4822 126 10441	DSS306 0.01μF 100VDC	C885	4822 122 32669	0.047μF
FL93	4822 126 10443	DSS306 47pF 100VDC	C886	4822 122 32669	0.047μF
FL94	4822 126 10443	DSS306 47pF 100VDC	C891	4822 124 41139	100μF 16V
FL95	4822 126 10443	DSS306 47pF 100VDC	C893	4822 124 41139	100μF 16V
FL96	4822 126 10443	DSS306 47pF 100VDC	C894	4822 124 41246	47μF 16V
FL97	4822 126 10443	DSS306 47pF 100VDC	C895	4822 122 32669	0.047μF
FL98	4822 126 10443	DSS306 47pF 100VDC	C896	4822 122 32669	0.047μF
FL99	4822 126 10442	DSS306 270pF 100VDC	C897	4822 122 33689	0.01μF
			C898	4822 125 50437	3P-10P TRIMMING
R845	4822 111 90894	1kΩ J 1/10W			
R846	4822 111 90894	1kΩ J 1/10W	J804	4822 267 50878	12 PIN SOCKET SIDE TYPE
R847	4822 111 91076	3.3kΩ J 1/10W	J805	4822 267 50878	12 PIN SOCKET SIDE TYPE
R848	4822 111 90894	1kΩ J 1/10W			
R849	4822 111 90894	1kΩ J 1/10W			

PS01 IPS POWER SUPPLY

					
Q101	4822 130 61902	2SC3979	R112	4822 116 81748	330Ω G 1/4W
Q102	4822 130 42571	2SD1458	R113	4822 116 52233	10kΩ J 1/6W
Q103	4822 130 42431	2SC1740S(R OR S)	R114	4822 116 52215	220Ω J 1/6W
Q104	4822 130 42433	2SA933S(R OR S)	R115	4822 116 52296	6.8kΩ J 1/6W
			R116	4822 116 52219	330Ω J 1/6W
IC01	5322 130 90735	PHOTO COUPLER PC113	R117	4822 116 52257	22kΩ J 1/6W
			R118	4822 116 52269	3.3kΩ J 1/6W
D101	4822 130 81732	1J4B42 BRIDGE DIODE	R119	4822 116 52215	220Ω J 1/6W
D102	4822 130 81244	ERA22-10	R120	4822 116 52233	10kΩ J 1/6W
D103	4822 130 32362	MA165	R121	4822 116 82051	150Ω G 1/4W
D104	4822 130 32362	MA165			
D105	4822 130 81728	1GWJ42	C101	4822 122 33822	DE7090 B 221k VA1-KC
D106	4822 130 80528	MA185	C102	4822 122 33822	DE7090 B 221k VA1-KC
D107	4822 130 81249	RU4YX	C103	4822 121 43363	ECQ-U 0.22μF AC250V
D108	4822 130 80528	MA185	C104	4822 122 33822	DE7090 B 221k VA1-KC
D109	4822 130 32362	MA165	C105	4822 122 33822	DE7090 B 221k VA1-KC
D110	4822 130 32362	MA165	C106	4822 121 51422	ECQ-UN 0.1μF AC250V
D111	4822 130 32362	MA165	C107	4822 122 31956	SPARK KILLER 0.001 μF
D112	4822 130 10037	AVR-G05D471k	C108	4822 122 31956	SPARK KILLER 0.001 μF
D113	4822 130 32362	MA165	C109	4822 122 31956	SPARK KILLER 0.001 μF
D114	4822 130 32362	MA165	C110	4822 122 31956	SPARK KILLER 0.001 μF
ZENERS			C111	4822 122 30099	3300pF K 50V
Z101	4822 130 80598	22V ZENER	C112	4822 122 30128	4700pF K 50V
Z102	4822 130 81729	MTZJ33D	C113	4822 121 43362	ECQ-P 0.0033μF 100V
Z103	4822 130 33948	5.6V ZENER	C114	4822 122 30128	4700pF K 50V
			C115	4822 121 51421	ECQ E6473MZ(MZB)
T101	4822 146 21474	SW TRANSFORMER	C116	4822 122 33821	150pF K 2kVDC ECK
			C117	4822 122 40586	10000pF
L101	4822 157 53917	18mH	C118	4822 122 40586	10000pF
L102	4822 152 20663	22μH	C119	4822 124 23111	1000μF 16V 105C
L103	4822 157 60448	10μH	C120	4822 124 23111	1000μF 16V 105C
L104	4822 152 20648	22μH	C121	4822 124 22777	10μF M 50V
			C122	4822 124 23114	82μF 400V 85C
R101	4822 116 52234	100kΩ J 1/6W	C123	4822 124 22781	1000μF 25V 105C
R102	4822 116 52272	330kΩ J 1/6W	C124	4822 124 22781	1000μF 25V 105C
R103	4822 116 82107	68kΩ J 3W	C125	4822 122 30027	1000pF K 50V
R104	4822 116 82105	82Ω J 1W	C126	4822 124 22777	10μF M 50V
R105	4822 116 82104	0.68Ω FUSE RESISTOR	C127	4822 124 22776	1μF 50V
R106	4822 116 52269	3.3kΩ J 1/6W	C128	4822 121 42698	0.1μF J,N, 50V
R107	4822 116 52283	4.7kΩ J 1/6W	FUSES		
R108	4822 116 52219	330Ω J 1/6W	F101	4822 253 30191	1.6 A 250V BS LISTED
R109	4822 111 90967	4.7Ω J 1/4W	PR01	4822 209 61685	CURRENT PROTECTOR
R110	4822 115 90166	10Ω G 1/4W			
R111	4822 115 90166	10Ω G 1/4W	J101	4822 265 20359	2 PIN
			J102	4822 256 30329	FUSE CLIP
			J103	4822 256 30329	FUSE CLIP
			J104	4822 265 40958	10 PIN

MECHANICAL PARTS CABINET

002B	4822 443 40839	FRONT (K)	026F	4822 502 13208	SCREW :MECHA
007B	4822 413 31588	TRACKING KNOB	028F	4822 502 13208	SCREW :FRONT PANEL
001D	4822 443 62885	TOP COVER	029F	4822 502 13208	SCREW :DC
001F	4822 464 50782	FRAME K	030F	4822 502 13208	SCREW :VS
002F	4822 464 50791	FRAME	032F	4822 466 92434	INSULATOR FOR SOPS
003F	4822 443 51181	BOTTOM	034F	4822 443 62883	SOPS A
004F	4822 462 41498	FOOT	035F	4822 443 62884	SOPS B
005F	4822 403 53985	EARTH BRACKET L	041F	4822 401 11216	AC CORD CLAMPER
006F	4822 403 53986	EARTH BRACKET R	043F	4822 403 53715	BRACKET FOR HEATSINK
007F	4822 403 53994	EARTH BRACKET FRONT	044F	4822 502 12101	SCREW FOR HEAT SINK
008F	4822 462 41343	RUBER FOOT	047F	4822 502 12101	SCREW :PS HEAT SINK
009F	4822 502 12128	SCREW :BOTTOM	050F	4822 403 53984	TERMINAL
010F	4822 443 62951	REAR HOLDER	051F	4822 492 70396	LEAF SPRING
011F	4822 443 62887	DISP COVER	056F	4822 401 11323	CODE CLAMPER
012F	4822 255 41081	DISP HOLDER	057F	4822 502 13208	SCREW :IR PCB
013F	4822 502 13208	SCREW :HA	065F	4822 462 71643	COVER
014F	4822 502 12128	SCREW :RCA	066F	4822 462 41501	BUFFER :TUNER
015F	4822 502 12128	SCREW :REAR HOLDER	001L	4822 511 61011	HEAT SINK :DE PCB
016F	4822 502 12128	SCREW :SOPS	002L	4822 511 61012	HEAT SINK :SOPS
017F	4822 502 12128	SCREW :TOP COVER	004L	4822 511 61011	HEAT SINK :SOPS
018F	4822 443 62889	CASS LID (K)	001M	4822 443 30773	MECHA K
021F	4822 492 70395	CASS LID SPRING	W101	4822 321 10661	AC CORD
023F	4822 502 12133	SCREW :MECHA REAR			
024F	4822 502 13207	SCREW :MECHA FRONT			
025F	4822 502 13208	SCREW :FM FE PCB			

TAPE DECK CHASSIS 1 (BOTTOM VIEW)

002N	4822 403 53564	HA MOUNT ANGLE(L)	044N	4822 403 53596	PINCH CAM
003N	4822 403 53565	HA MOUNT ANGLE(R)	045N	4822 528 81371	PRESSURE ROLLER UNIT
005N	4822 290 81211	EARTH PLATE UNIT	046N	4822 492 33143	PIN PRESSURE SPRING
006N	4822 691 20567	CYLINDER UNIT	047N	4822 403 53975	PINCH PRESSURE ARM
007N	4822 691 20568	UPPER CYLINDER UNIT	048N	4822 492 32915	PINCH PRESS ARM SPRING
011N	4822 403 53614	TENSION ARM (1) UNIT	049N	4822 403 53583	PINCH LIFT ARM
012N	4822 492 32912	TENSION SPRING	050N	4822 522 32859	P5 PULL OUT SECT GEAR
013N	4822 401 11322	TENSION BAND UNIT	051N	4822 522 32525	PINCH CAM
014N	4822 528 10772	SUPPLY REEL TABLE UNIT	052N	4822 505 10743	M3 NYLON NUT
015NA	4822 532 52058	REEL WASHER 0.3MM	053N	4822 403 53609	P5 UNIT
015NB	4822 532 52057	REEL WASHER 0.2MM	054N	4822 492 70088	P5 SPRING
015NC	4822 532 52055	REEL WASHER 0.5MM	055N	4822 276 12496	MODE SW
016N	4822 403 53615	RELEASE ARM (A) UNIT	057N	4822 528 90699	ROLLER POST UNIT
017N	4822 249 20076	FE HEAD	058N	4822 256 91349	INCLIND BASE(S)(1) UNIT
018N	4822 403 53605	TENS ARM BASE (1) UNIT	059N	4822 502 11831	ROLLER POST SCREW
019N	4822 403 53562	MOUNT ANGLE (L)	060N	4822 403 53571	POST STOPPER
020N	4822 532 52054	CUT WASHER	061N	4822 528 90698	ROLLER POST UNIT
021N	4822 403 53616	RELEASE ARM (B) UNIT	062N	4822 403 53973	INCLIND BASE(TX1)UNIT
022N	4822 492 32916	TENSION RELEASE SPRING	063N	4822 466 82389	INCLIND ADJ PLATE UNIT
023N	4822 271 30685	SAFETY SW	064N	4822 522 32529	PINCH SPEED DOWN GEAR
024N	4822 403 53938	SUPPLY MAIN BRAKE UNIT	065N	4822 522 32512	CONNECTION GEAR
025N	4822 403 53988	SOFT BRAKE (1) UNIT	066N	4822 526 20165	SOLENOID UNIT
026N	4822 492 42296	SOFT BRAKE SPRING	067N	4822 403 53603	KICK ROD UNIT
027N	4822 403 53989	MAIN BRAKE UNIT	068N	4822 403 53972	SOLENOID LEVER(1)UNIT
028N	4822 403 53619	SOFT BRAKE UNIT	069N	4822 492 32908	KICK ROD SPRING
029N	4822 492 42295	SOFT BRAKE SPRING	070N	4822 492 33144	MAIN BRAKE SPRING
030N	4822 403 53563	MOUNT ANGLE (R)	071N	4822 528 10773	TAKE UP REEL UNIT
031N	4822 502 13168	ADJUST SCREW	072N	4822 691 20483	HOUSING UNIT
032N	4822 492 52043	ADJUST SPRING	076N	4822 502 13169	HOUSING SCREW
033N	4822 502 11831	AZIMUTH ADJUST SCREW	077N	4822 502 13243	CYLINDER SCREW
034N	4822 249 10395	A/C HEAD	080N	4822 255 41082	LED HOLDER
035N	4822 505 10945	M4 NYLON NUT	081N	4822 403 53979	REINFORCEMENT PLATE
036N	4822 505 11022	ADJUST NUT	082N	4822 403 53981	REINFORCEMENT PLATE
037N	4822 403 53987	HEAD BASE UNIT	083N	4822 492 70087	LEAF SPRING
038N	4822 492 42297	A/C HEAD SPRING	084N	4822 530 70449	SUPPLY UPPER LIMITER
039N	4822 403 53974	LOADING ARM (1) UNIT	085N	4822 528 81369	SUPPLY ROLLER
040N	4822 492 32907	SUB POST SPRING	086N	4822 535 80816	P1 COLLAR
041N	4822 502 13171	THRUST SCREW UNIT	087N	4822 532 52193	SUPPLY ROLLER LIMITER
042N	4822 502 13167	HOUSING SCREW	088N	4822 532 52194	P4 UPPER LIMITER
043N	4822 532 52053	OIL SEAL	089N	4822 532 21402	P4 SLEEVE
			090N	4822 532 52195	P4 LOWER LIMITER
			254N	4822 214 32912	MECHA CONNECTION CBA

TAPE DECK CHASSIS 2 (TOP VIEW)

100N	4822 532 52192	CUT WASHER
101N	4822 492 32917	TAKE UP ARM SPRING
102N	4822 492 70085	MAIN LEVER SPRING
103N	4822 403 53992	MAIN LEVER (1) UNIT
104N	4822 403 53991	SUB LEVER
105N	4822 403 53976	SS BRAKE ARM UNIT
106N	4822 492 42303	SS BRAKE SPRING
107N	4822 403 53982	SS BRAKE BASE(1)UNIT
108N	4822 403 53993	TENSION ROLLER UNIT
109N	4822 403 53618	CAM FOLLOWER ARM UNIT
110N	4822 403 53581	DETENT ARM
111N	4822 522 32861	MAIN CAM GEAR
112N	4822 522 32516	SUB CAM GEAR
113N	4822 522 32519	CENTRE GEAR
114N	4822 522 32526	RETAINER GEAR
115N	4822 522 32517	PLANET GEAR
116N	4822 528 30386	CLUTCH DISK
117N	4822 492 32911	CLUTCH SPRING
118N	4822 403 53561	LOCK SLIDE GEAR
119N	4822 522 32513	DRIVE DISK
120N	4822 522 32515	RING GEAR
121N	4822 532 52052	CUT WASHER
122N	4822 403 53578	CHANGE LEVER
123N	4822 403 53599	RELEASE LEVER(1)UNIT
124N	4822 492 32909	RELEASE SPRING
125N	4822 403 53579	RESEASE LEVER
127N	4822 522 32532	TAKE UP REEL GEAR UNIT
128N	4822 522 32527	SUPPLY REEL GEAR
129N	4822 403 53577	RETURN LEVER (R)
130N	4822 403 53576	RETURN LEVER (L)
131N	4822 403 53572	STOPPER BASE
132N	4822 358 30881	TIMING BELT
133N	4822 528 81368	ROTOR UNIT
134N	4822 403 53983	ROTOR STOPPER
135N	4822 691 20571	STATOR UNIT
136N	4822 466 92285	SUB PLATE
137N	4822 528 81246	CENTRE PULLEY UNIT
138N	4822 522 32862	LOADING GEAR (T)
139N	4822 492 32923	LOADING SPRING (T)
140N	4822 403 53612	LOADING ARM(T)(1)UNIT
141N	4822 403 53978	SECTOR GEAR UNIT
142N	4822 522 32528	LOADING CAM GEAR
143N	4822 522 32523	LOADING GEAR (S)
144N	4822 403 53575	PLAY CONTROL ARM
145N	4822 403 53611	LOADING ARM(S)(1)UNIT
146N	4822 522 32863	INTERMEDIATE GEAR
147N	4822 403 53977	PLAY ARM UNIT
148N	4822 249 20075	FG HEAD
149N	4822 492 32918	LOADING SPRING (S)
150N	4822 502 13244	STATOR SPACER SCREW
151N	4822 505 10957	STATOR UNIT

CASSETTE COMPARTMENT

201N	4822 443 30737	TOP PLATE
202N	4822 691 20569	CASSETTE HOLDER UNIT
216N	4822 443 40718	SIDE PLATE(L) UNIT
217N	4822 443 40716	SIDE PLATE (L)
218N	4822 403 53586	OPENER LEVER
219N	4822 691 20566	SIDE PLATE(R)UNIT
221N	4822 277 21383	SLIDE SW UNIT
229N	4822 535 92528	MAIN SHAFT UNIT
230N	4822 492 42298	SUB WIPER SPRING
231N	4822 403 53584	SUB WIPER ARM (L)
232N	4822 403 53585	SUB WIPER ARM (R)
233N	4822 492 42306	SUB WIPER SPRING (R)
234N	4822 403 53626	CASSETTE GUIDE
240N	4822 403 53627	CASSTE HOLDER ANGLE
251N	4822 214 32532	PHOTO TR(S) CBA
252N	4822 214 32552	PHOTO TR(T) CBA

SERVICE TOOLS

4822 397 30103	ALIGNMENT CASSETTE
4822 395 80184	POST ADJUSTMENT PLATE
4822 395 90587	TENSION POST ADJ. FIXTURE
4822 395 90584	BACK TENSION METER
4822 395 40055	RETAINING RING REMOVER
4822 395 50274	HOR. POSITION SCREWDRIVER
4822 395 50275	POST ADJ. SCREWDRIVER
4822 395 80304	UPPER CYLINDER REMOVER
4822 395 90585	CHECK LIGHT
4822 395 90586	HEIGHT ADJ. FIXTURE
4822 395 90253	TOOL KIT
4822 395 90256	HEAD CLEANING STICK
4822 395 90238	MICRO METER.
4822 395 84011	SPRING PRESSURE METER
4822 321 60545	EXTENSION CABLE

MISCELLANEOUS

001T	4822 736 51898	USERS MANUAL
001Z	4822 218 30536	REMOTE CONTROL
002Z	4822 321 23706	RF CABLE
003Z	4822 138 10106	BATTERY R6P1.5V