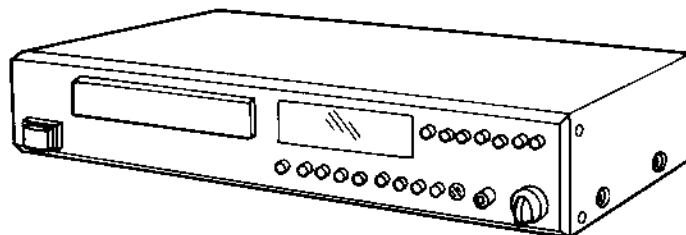


ADCOM[®]

SERVICE MANUAL

COMPACT DISC PLAYER

GCD-575



DANGER

Invisible laser radiation when open and interlock failed or defeated. AVOID DIRECT EXPOSURE TO BEAM.

CONTENTS

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SAFETY PRECAUTIONS

The following precautions should be observed when servicing.

1. Since many parts in the unit have special safety related characteristics, always use genuine replacement parts. Especially critical parts in the power circuit block should not be replaced with any substitutes. Critical parts are marked with Δ in the schematic diagram and circuit board diagram.
2. Before returning a repaired unit to the customer, the service technician must thoroughly test the unit to ascertain that it is completely safe to operate without danger of electrical shock.

SPECIFICATIONS

| | | | |
|----------------------------|--------------------------------|--------------------|-----------------------------------|
| FREQUENCY RESPONSE | : 5 Hz ~ 20 kHz, +0.1, -0.5 dB | FORMAT | : Optical |
| SIGNAL-TO-NOISE RATIO | : 105 dB | LASER | : GaAlAs semiconductor |
| DYNAMIC RANGE | : 98 dB | SAMPLING RATE | : 176.4 kHz |
| THD | : 0.0025 % | QUANTIZATION BITS | : 16-bit linear |
| IMD (70Hz difference) | : 5 kHz ~ 0.0018 % | POWER | : 120 V AC/60 Hz |
| | 10 kHz ~ 0.0003 % | POWER CONSUMPTION | : 24 Watts |
| | 15 kHz ~ 0.0015 % | CHASSIS DIMENSIONS | : 17" (430 mm) x |
| IMD (SMPTE) | : 0.0015 % | | 10-3/16" (260 mm) x 3" (76 mm) |
| CHANNEL SEPARATION (1 kHz) | : 95 dB | MAXIMUM DIMENSIONS | : 17" (430 mm) x 11-1/4" (285 mm) |
| INTERCHANNEL PHASE SHIFT | : 20 kHz — Less than 1.8° | | x 3-7/16" (87 mm) |
| OUTPUT IMPEDANCE | : Fixed — 100 Ω | WEIGHT | : 12 lbs. (5.5 kg.) |
| | Variable — 100 Ω | ACCESSORIES | : Remote Transmitter AR-575 |
| | Digital — 75 Ω | | Two AA, 1.5V batteries |
| OUTPUT LEVEL | : Fixed — 2.5V RMS | | Low-loss audio cable |
| | Variable — Greater than 4.5V | | |
| | RMS | | |
| | Digital — 0.5V peak-to-peak | | |

CAUTIONS REGARDING HANDLING OF THE LASER

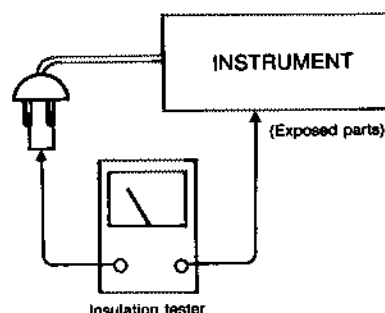
This device uses an invisible (near-infrared) laser to pick up signals recorded on the disc. Laser radiation does not leak from the unit during normal operation. However, when the top cover is removed care must be taken to avoid looking directly at the beam emitted by the laser. The laser's maximum rated power output from the lens is 0.4mW. However, when this is focused the power reaches $1.3 \times 10^4 \text{ mW/cm}^2$. Beside the laser diode, the pickup ass'y contains optical components such as the beam splitter, and lens, etc., as well as a 6-way photo diode, and is precisely constructed. Please do not disassemble the pickup ass'y as the optical components are very easily damaged by dust and dirt and the laser diode contains dangerous substances.

Check that exposed parts are properly insulated from the supply circuit before returning the instrument repaired to the customer.

- **Checking method**

Power switch is set to ON.

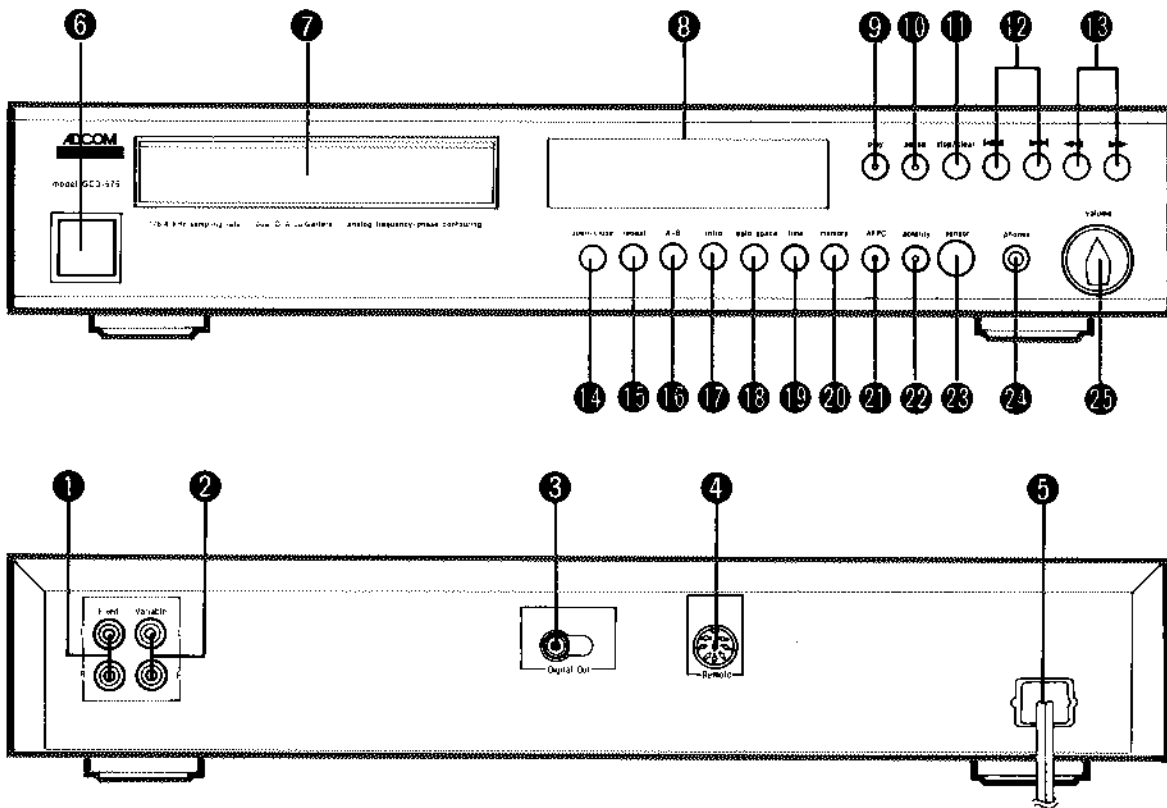
Next, measure the resistance value between both poles of the AC power supply plug, and the outside, ground connection of the RCA jacks on the rear panel. The resistance value must be 500 k Ω or more.



FEATURES

- Very-low-impedance output (100 Ω)
- Dual digital-to-analog, 16-bit linear converters
- Triple-beam laser format
- 176.4kHz, four-times-oversampling filters
- Low-group-delay, digital and innovative analog filters
- Unique, selectable Analog Frequency/Phase Contouring circuitry
- High-grade-contact muting relays
- Direct-coupled audio amplifiers employ very fast, linear-gain semiconductors with circuitry based on the GFP-555
- OCL outputs with virtually no DC offset
- Fixed and variable outputs usable simultaneously
- Direct digital output
- Very-high-quality variable headphone output
- Selectable absolute polarity switch
- Outstanding interchannel phase coherence
- Reversible cast-metal feet with built-in "iso-points"
- Front-drawer loading
- Plays 3-inch CDs with no adaptor required
- Programs up to 24 tracks in any sequence
- Repeats disc, track, program or any selected sequence or phrase
- Fast-forward and fast-reverse scans are audible
- Displays simultaneously total tracks up to 20, track being played, programmed tracks, tracks to be played
- Timer displays elapsed time of track being played, total time elapsed on disc, time remaining on track, time remaining on disc

FRONT AND REAR PANELS

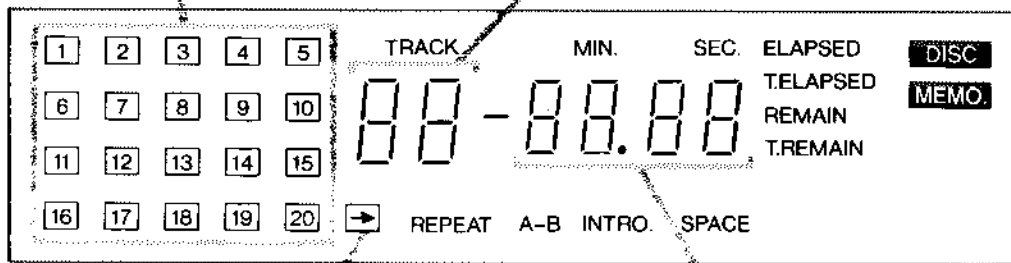


Music Calendar

Displays the number of the tracks on the disc.

TRACK Display

Displays the track number.



Over Indicator

Lights when the number of tracks exceeds 20.

Time Display

Displays the time.

- Output jacks (Fixed)
- Output jacks (Variable)
- Digital output jack
- Remote jack
- Power supply cord
- Power switch
- Tray
- Display panel

- Play button
- Pause button
- Stop/Clear button
- Track button
- FF/FR button
- Open/Close button
- Repeat button
- A—B button

- Intro button
- Auto space button
- Time button
- Memory button
- AFPC button
- Polarity button
- Sensor window
- Headphone jack
- Volume knob

DISASSEMBLY

Caution on Disassembly

Follow the notes below when disassembling the unit and reassembling it, to insure its safety and performance:

1. Be sure to remove the power supply plug from the wall outlet before starting to disassemble the unit.
2. Remove tie-wraps or wire holders where they need to be removed when disassembling the unit. After servicing the unit, be sure to arrange the leads as they were before disassembly, and replace all tie-wraps and wire holders.
3. Be extremely careful with the devices sensitive to static electricity, and associated circuits, when servicing.

| Step | Removal | Procedure | Figure |
|------|----------------|---|--------|
| 1 | Cabinet | 1. Screw A x 1 2. Screw B x 4 3. Rivet C x 4 | 1 |
| 2 | Front Panel | 1. Screw D x 6 | 2 |
| 3 | Main P.C.B. | 1. Screw E x 2 2. Screw F x 3 3. Snap G x 2 4. Screw H x 2 | 3 |
| 4 | Phone P.C.B. | 1. Knob I x 1 2. Nut J x 1 3. Stopper . . . K x 1 | 5 |
| 5 | Control P.C.B. | 1. Rivet L x 7 | 4 |
| 6 | Mechanism Unit | 1. Screw M x 3 | 3 |

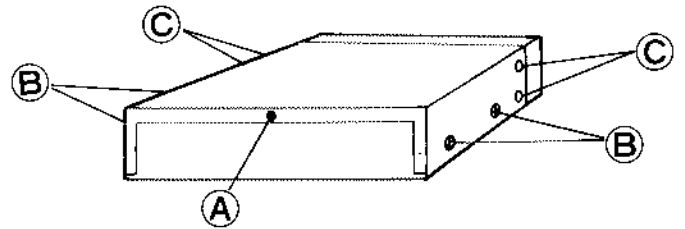


Figure 1

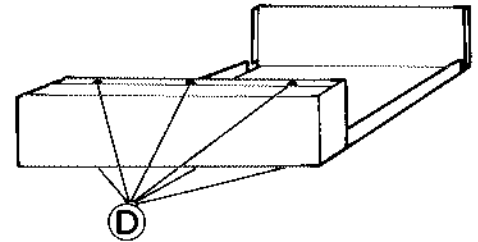


Figure 2

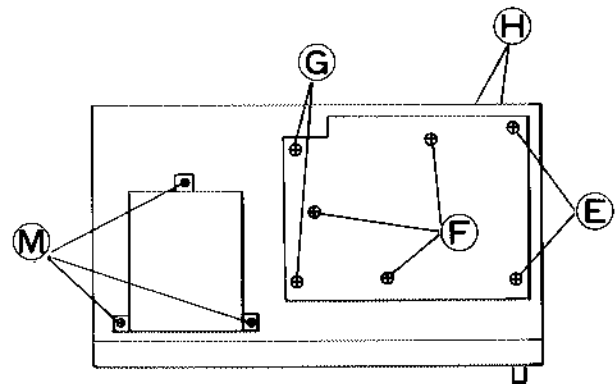


Figure 3

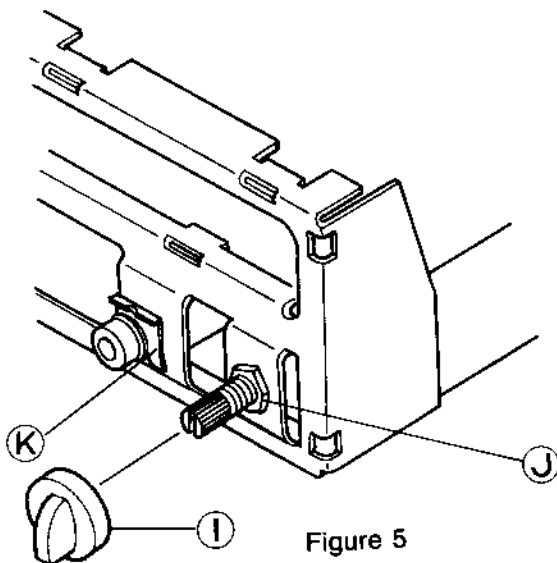


Figure 5

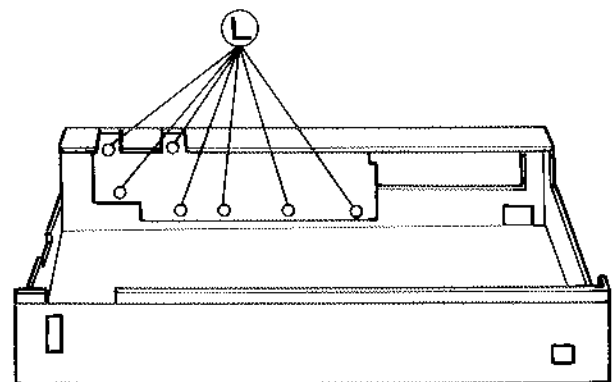


Figure 4

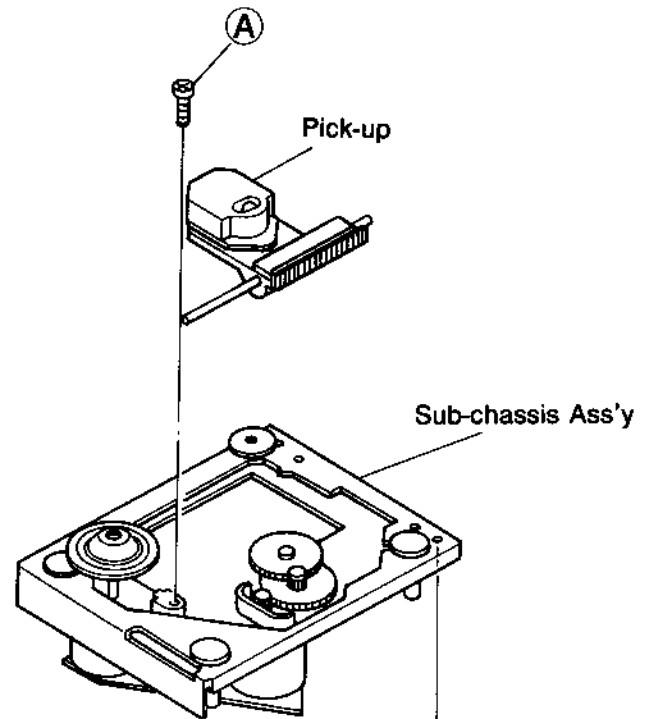
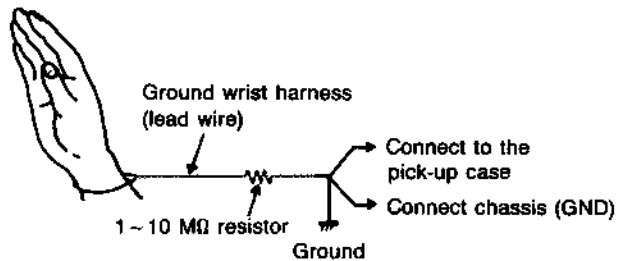
DISASSEMBLY OF MECHANISM

1. Removing the pick-up.

- (1-1) Open the table.
- (1-2) Remove screw (A).
- (1-3) Take out the entire pick-up assembly, including the rail.

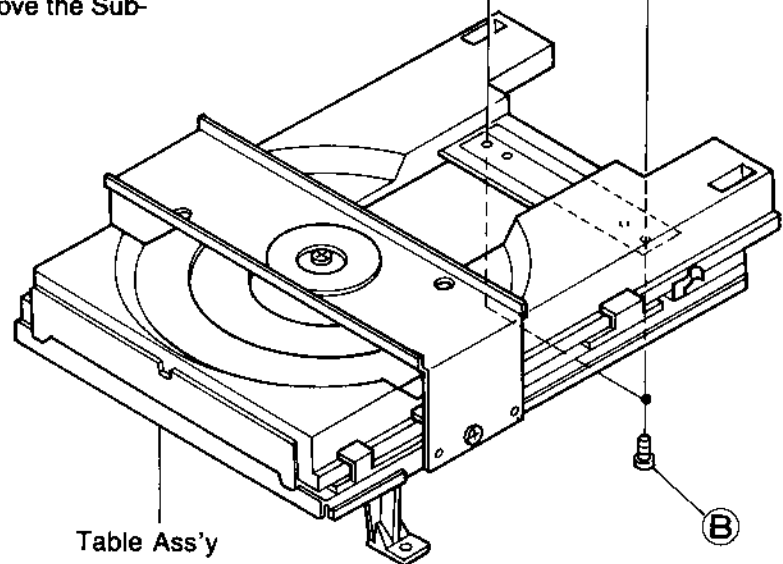
NOTE:

The pick-up is extremely sensitive to static electricity. Be sure to take adequate measures to protect the pick-up from static electricity when replacing or handling it.



2 Removing the Sub-chassis Ass'y

- (2-1) Open the table.
- (2-2) Remove screw (B), and then remove the Sub-chassis Ass'y.



ADJUSTMENT PROCEDURES

1. Meters and Jigs

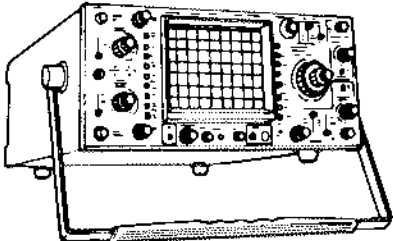


Figure 1

Oscilloscope (3 or more Modes, 100 MHz, X-Y Input capable)

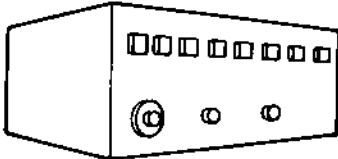
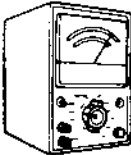


Figure 2

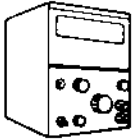
Audio Frequency Oscillator
(Output impedance: 600Ω)



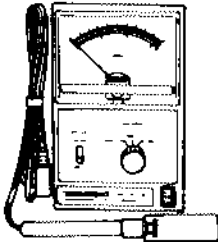
AC Voltmeter
Figure 3



Distortion Meter
Figure 4



Frequency Counter
Figure 5



Optical Power Meter
Figure 6

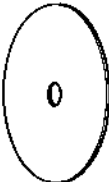


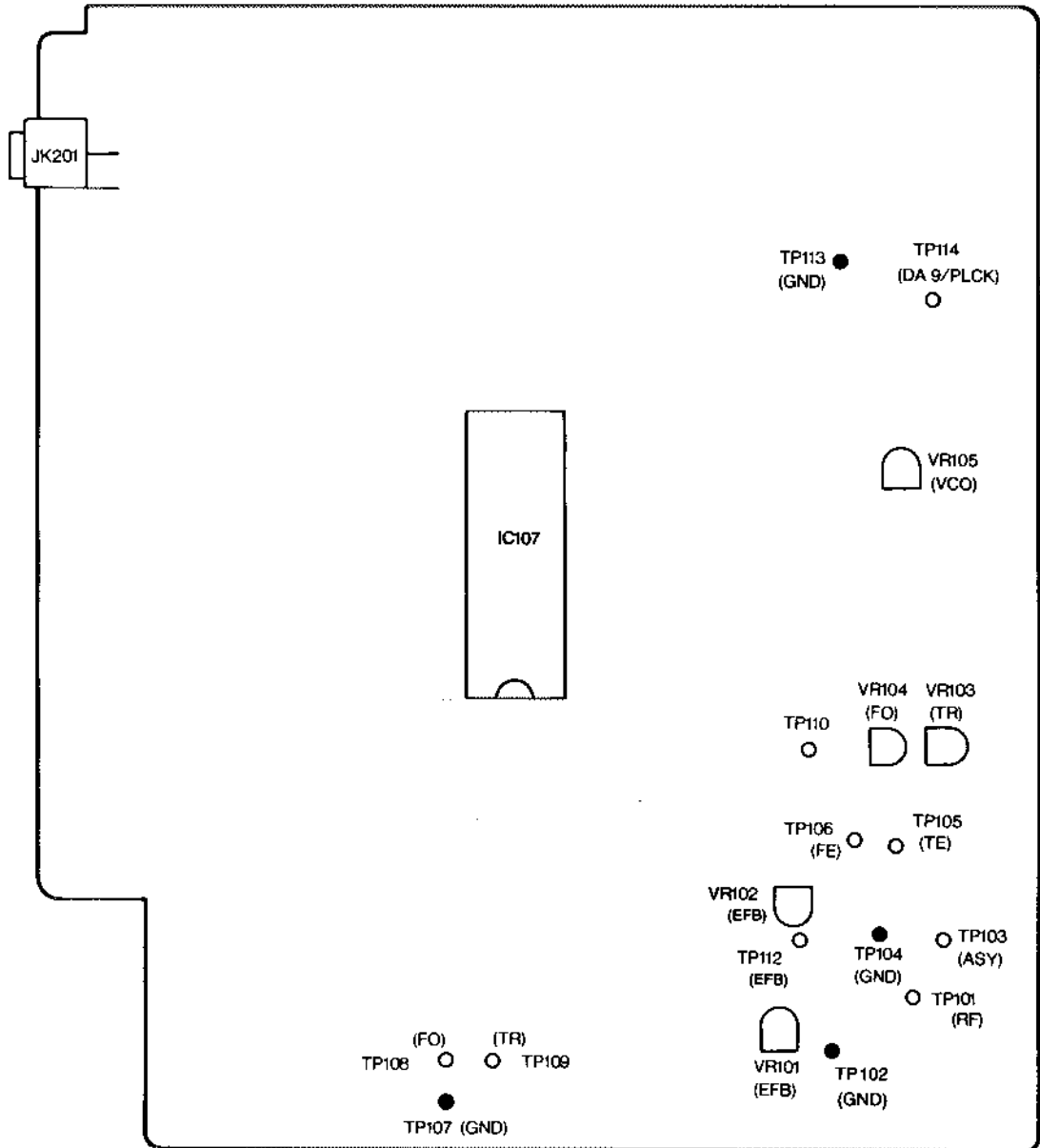
Figure 7

Test Discs
Philips
Philips

Test Sample 5
Test Sample 5A

2. Adjustment Points

Main PWB VR, TP and IC placement diagram.



3. VCO Frequency Adjustment

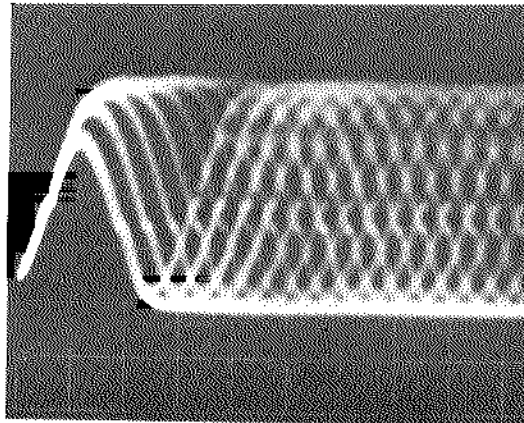
- (3-1) With no disc loaded, short TP103 (ASY) and TP104 (GND).
- (3-2) Connect the frequency counter (10/1 probe) to TP114 (DA9/PLCK) and TP113 (GND), and adjust VR105 so that $4.305 \pm 0.005\text{MHz}$ is obtained.

4. Focus Offset Adjustment

- (4-1) With no disc loaded, connect the oscilloscope (10/1 probe) between TP106 (FE) and TP104 (GND).
- (4-2) Adjust VR102 so that a DC level value of $0.0\text{V} \pm 0.01\text{V}$ is obtained.

5. Visual EFM Signal Adjustment

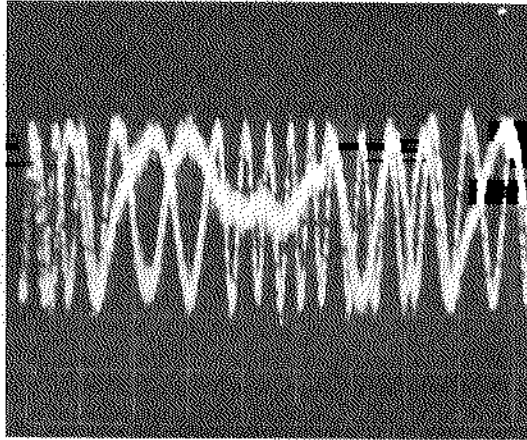
- (5-1) Connect the oscilloscope (10/1 probe) between TP101 (RF) and TP104 (GND).
- (5-2) Play the first track of the test disc (Philips Test Sample 5) and adjust VR102 so that the output waveform is clear (without blurring).



Range 0.2V, 0.5 μ S

6. E-F Balance Adjustment

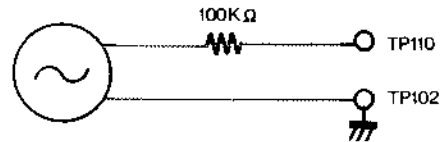
- (6-1) Connect the oscilloscope (10/1) to TP105 (TE) and TP104 (GND) and turn VR103 fully counter-clockwise.
- (6-2) Play the first track of the test disc (Philips Test Sample 5) and adjust VR101 so that the center of the output waveform comes within the range of $0V \pm 0.1V$.
- (6-3) Return VR103 to mechanical center.



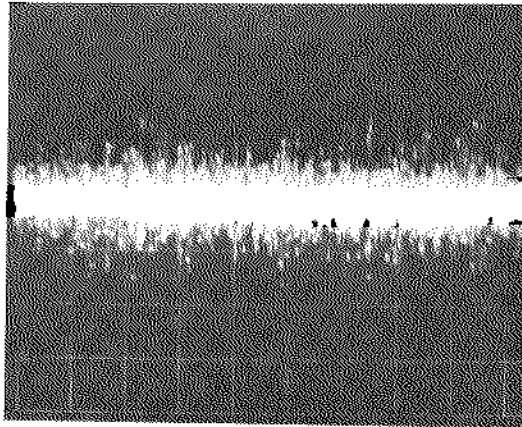
Range 0.5V, 2mS

7. Tracking Gain Adjustment

- (7-1) Connect the oscilloscope and AC voltmeter between TP109(TR) and TP107 (GND).
- (7-2) Connect a sine wave generator (0.5Vrms, 4kHz output) to TP110 and TP104 (GND) through a 100k Ω resistor.



- (7-3) Play the first track of the test disc (Philips Test Sample 5) and adjust VR103 so that the voltmeter reads $0.7V, \pm 0.07$ Vrms.



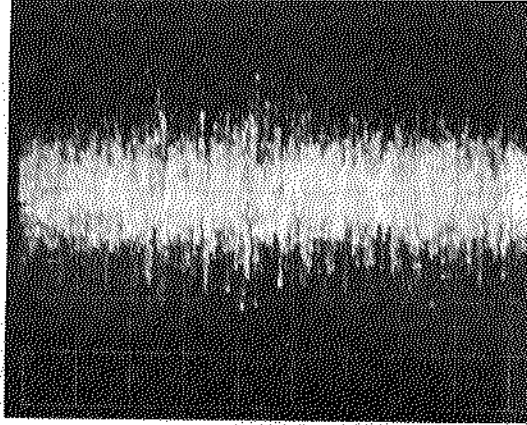
Range 1V, 2mS

8. Focus Gain Adjustment

Perform this adjustment last.

(8-1) Connect the oscilloscope and AC voltmeter between TP108 (FO) and TP107 (GND).

(8-2) Play the first track on the test disc (Philips Test Sample 5) and adjust VR104 so that the voltage is $0.23\text{V}, \pm 0.01\text{ Vrms}$.



Range 0.5V, 2mS

9. Operation Check

Use the Philips Test 5A test disc (814126-2) and check to make sure that the following portions can be played without track-jumping.

(9-1) Interruption

700 μm , Track 8, 0'00" ~ 0'20"

(9-2) Black dot

600 μm , Track 14 0'00" ~ Track 14 0'20"

(9-3) Simulated fingerprint

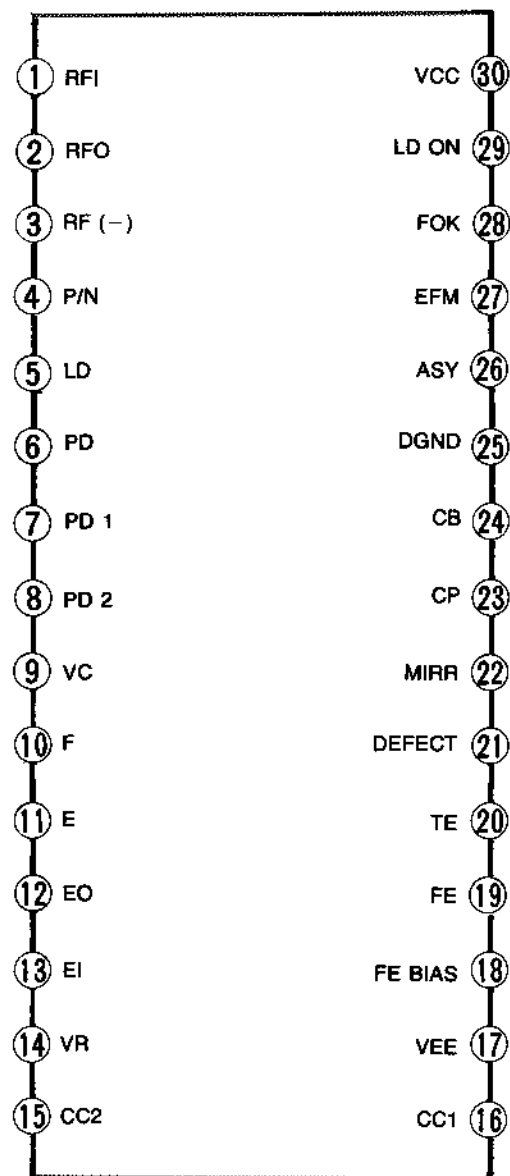
Track 18, 0'00" ~ 0'20"

DESCRIPTION OF MISCELLANEOUS PARTS

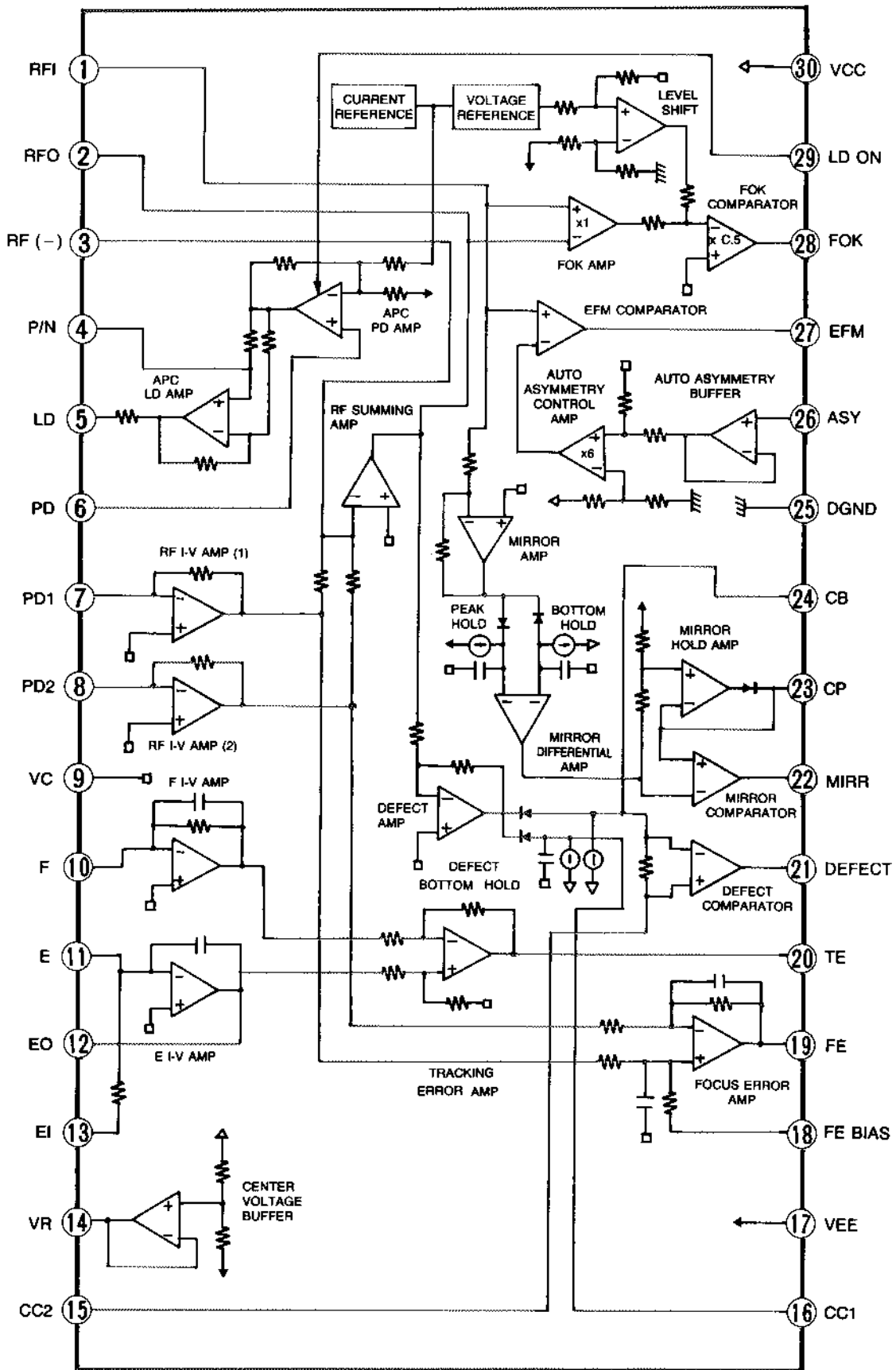
1. CXA1081M (IC101)

- FUNCTIONS
 - RF amplifier
 - Focus error amplifier
 - Tracking error amplifier
 - APC circuit
 - Auto asymmetry control amplifier
 - Focus OK detection circuit
 - Mirror detection circuit
 - Defect detection circuit
 - EFM comparator

(1) External View



(2) Block Diagram



PIN FUNCTIONS

| TERMINAL NUMBER | SYMBOL | I/O | DC VOLTAGE (V) | EQUIVALENCE CIRCUIT DIAGRAM | EXPLANATION OF TERMINALS |
|-----------------|--------|-----|----------------|-----------------------------|--|
| 1 | RFI | I | 0 | | RF Input Terminal |
| 2 | RFO | O | VRFO | | RF Output Terminal |
| 3 | RF(-) | I | 0 | | RF summing return input terminal. |
| 4 | P/N | I | 0 (VC) | | LD's P-sub/N-sub switching terminal. |
| 5 | LD | O | -1.8 | | APC LD amp output terminal. (DC voltage: when N-sub, and PD open) |
| 6 | PD | I | 0 | | APC PD amp input terminal. (DC voltage: open) |
| 7 | PD1 | I | 0 | | RFI-V amp (1) inverted input terminal. Connected to the PIN diode A + C for current input. |
| 8 | PD2 | I | 0 | | RF I-V amp (2) inverted input terminal. Connected to the PIN diode B + D for current input. |
| 9 | VC | - | 0 | | GND |
| 10 | F | I | 0 | | F I-V amp inverted input terminal. Connected to the PIN diode F for current input. |

| TERMINAL NUMBER | SYMBOL | I/O | DC VOLTAGE (V) | EQUIVALENCE CIRCUIT DIAGRAM | EXPLANATION OF TERMINALS |
|-----------------|----------|-----|----------------|-----------------------------|--|
| 11 | E | I | 0 | | E I-V amp inverted input terminal. Connected to the PIN diode E for for current input. |
| 12 | EO | O | 0 | | E I-V amp output terminal. |
| 13 | EI | I | 0 | | E I-V amp return input terminal. Used to adjust the gain of the E I-V amp. |
| 20 | TE | O | V_{TEO} | | Tracking error amp output terminal. |
| 14 | VR | O | V_{CVO} | | $(V_{OC} + V_{EE})/2$ DC voltage output terminal. |
| 15 | CC2 | I | 1.0 | | DEFECT Input Terminal |
| 16 | CC1 | O | 1.2 | | DEFECT bottom hold output terminal. |
| 21 | DEFECT | O | V_{DFCTL} | | DEFECT comparator output terminal. (DC voltage: load of 10K Ω connected) |
| 24 | CB | I | 0 | | DEFECT bottom hold condenser connection terminal. |
| 17 | V_{EE} | - | -2.5 | | V_{CC} (-5V) |
| 18 | FE BIAS | I | 0 | | Focus error amp non-inverted side bias terminal. Used for focus error amp CMR adjustment. |
| 19 | FE | O | V_{FEO} | | Focus error amp output terminal. |

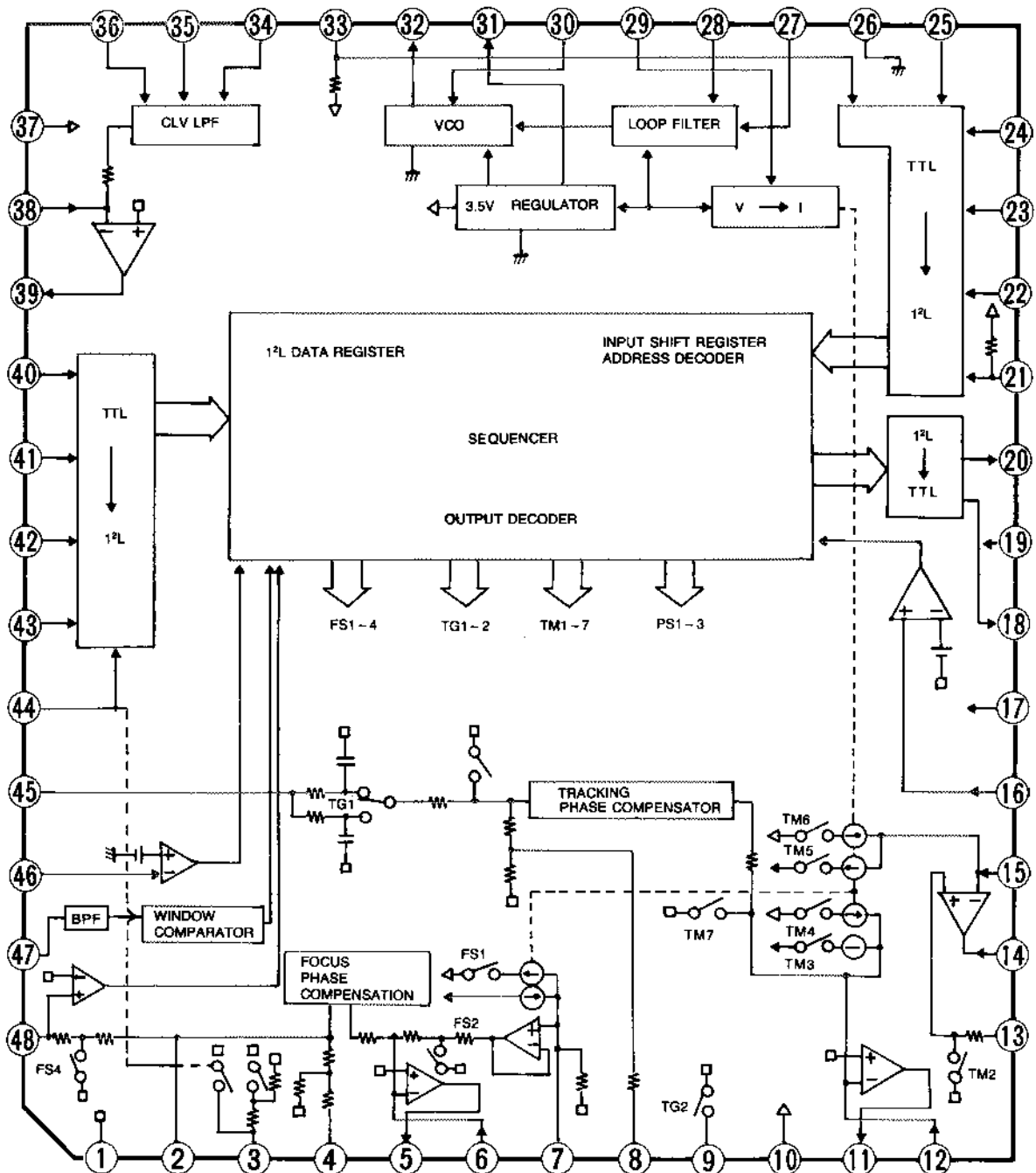
| TERMINAL NUMBER | SYMBOL | I/O | DC VOLTAGE (V) | EQUIVALENCE CIRCUIT DIAGRAM | EXPLANATION OF TERMINALS |
|-----------------|----------|-----|----------------|-----------------------------|---|
| 22 | MIRR | O | V_{MIRL} | | MIRR comparator output terminal (DC voltage: load of 10KΩ connected) |
| 23 | CP | I | -1.3 | | MIRR hold condenser connection terminal. MIRR comparator non-inverted input. |
| 25 | DGND | - | -2.5 | | GND |
| 26 | ASY | I | - | | Auto asymmetry control input terminal |
| 27 | EFM | O | V_{EFMH} | | EFM comparator output terminal (DC voltage: load of 10KΩ connected) |
| 28 | FOK | O | V_{FOKL} | | FOK comparator output terminal. (DC voltage: load of 10KΩ connected) |
| 29 | LD ON | I | -2.5 (DGND) | | LD ON/OFF switching terminal. (DC voltage: when LD is ON) |
| 30 | V_{cc} | - | 2.5 | | Positive power supply. |

2 CXA1082AQ (IC102)

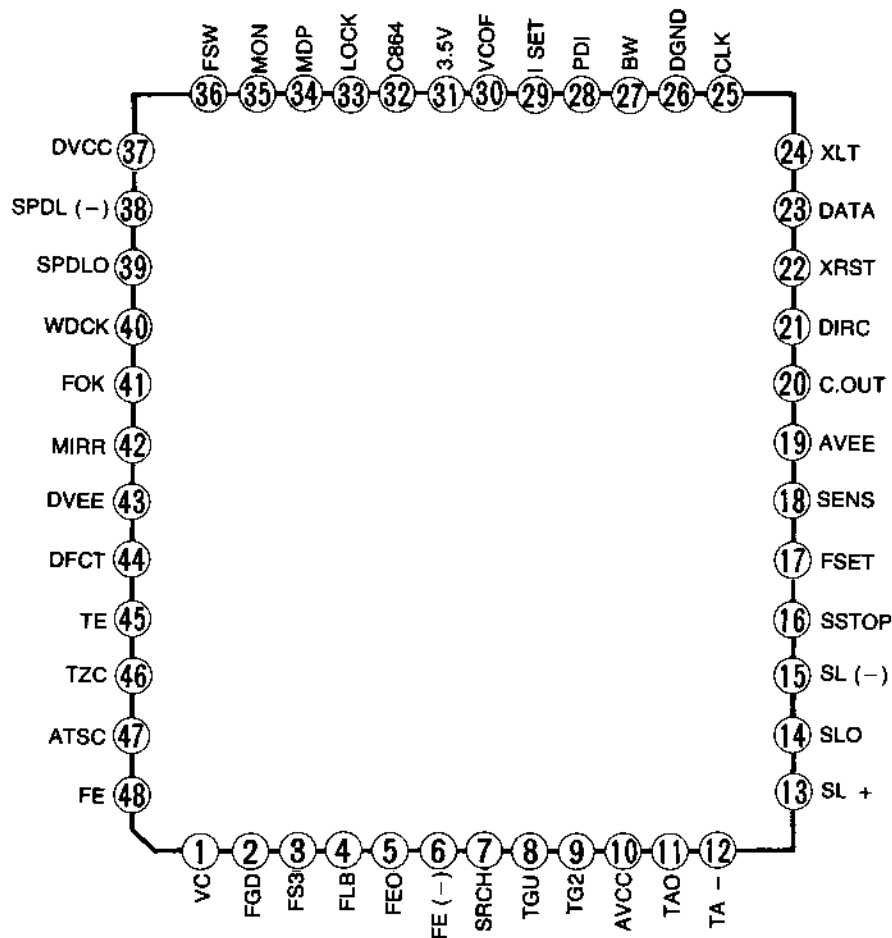
CXA1082AQ A CD Servo Signal Processor

- **FEATURES**
 - Focus servo control
 - Tracking servo control
 - Sled servo control
 - Spindle servo LPF, drive amplifier
 - EFM clock playback PLL filter 8.64MHz VCO
 - Auto sequencer RAM built-in

1 Block Diagram



2 External View



3 Pin Functions

| TERMINAL NUMBER | TERMINAL SYMBOL | EQUIVALENCE CIRCUIT DIAGRAM | EXPLANATION OF TERMINALS |
|-----------------|-----------------|-----------------------------|---|
| 2 | FGD | | When lowering the high-range gain of the focus servo, a capacitor is inserted between this terminal and terminal 3. |
| 3 | FS3 | | The focus servo high-range gain is switched by turning the FS3 on and off. |

| TERMINAL NUMBER | TERMINAL SYMBOL | EQUIVALENCE CIRCUIT DIAGRAM | EXPLANATION OF TERMINALS |
|---------------------|----------------------------|-----------------------------|--|
| 4 | FLB | | Focus servo external time constant circuit terminal for raising focus servo time constant. |
| 5 11 14 39 | FEO TAO SLO SPDLO | | OP amp output terminals for driving power transistors. |
| 6 | FE - | | Focus amp inverted input terminal. |
| 7 | SRCH | | External time constant circuit terminal for producing the focus search waveform. |
| 8 | TGU | | External time constant circuit terminal for switching the tracking high-range gain. |
| 9 | TG2 | | External time constant circuit terminal for switching the tracking high-range gain. |

| TERMINAL NUMBER | TERMINAL SYMBOL | EQUIVALENCE CIRCUIT DIAGRAM | EXPLANATION OF TERMINALS |
|-----------------|-----------------|-----------------------------|--|
| 12 | TA - | | Tracking amp inverted input terminal. |
| 13 | SL + | | Sled amp non-inverted input terminal. |
| 15 | SL - | | Sled amp inverted input terminal. |
| 16 | SSTOP | | Limit SW ON/OFF detection signal terminal for detecting the innermost circumference of the disc. |
| 17 | FSET | | Focus tracking phase compensation peak and CLV LPF servo-loop filter operating frequency setting terminal. |
| 18 20 | SENS C.OUT | | Output terminal for microprocessor and interface. |

| TERMINAL NUMBER | TERMINAL SYMBOL | EQUIVALENCE CIRCUIT DIAGRAM | EXPLANATION OF TERMINALS |
|----------------------------------|--|-----------------------------|--|
| 21 22 23 24 25 33 | DIRECT XRST DATA XLT CLK LOCK | | Input terminal for microprocessor and interface. 21 and 33 only have 47KΩ pull-up. |
| 27 | BW | | External time constant circuit terminal for loop filter. |
| 28 | PDI | | Terminal for input of CX23035/CXD1135 phase-comparator output PDO. |
| 29 | ISET | | Provides the current which determines the height of the focus search, track jump, and sled skip. |
| 30 | VCOF | | The free-running frequency of the VCO is roughly proportional to the resistance between this terminal and terminal 31. |
| 32 | C864 | | 8.64MHz VCO output terminal. |

| TERMINAL NUMBER | TERMINAL SYMBOL | EQUIVALENCE CIRCUIT DIAGRAM | EXPLANATION OF TERMINALS |
|----------------------|-----------------------------|-----------------------------|---|
| 34 | MDP | | Connects the CX23035/CXD1135 MDP terminals. |
| 35 | MON | | Connects the CX23035/CXD1135 MON terminals. |
| 36 | FSW | | LPF external time constant circuit terminal for CLV servo error signal. |
| 38 | SPDL - | | Spindle drive amp inverted input terminal. |
| 40 41 42 44 | WDCK FOK MIRR DFCT | | Input terminal for interfacing with the microprocessor, etc. |
| 45 | TE | | Tracking error signal input terminal. |

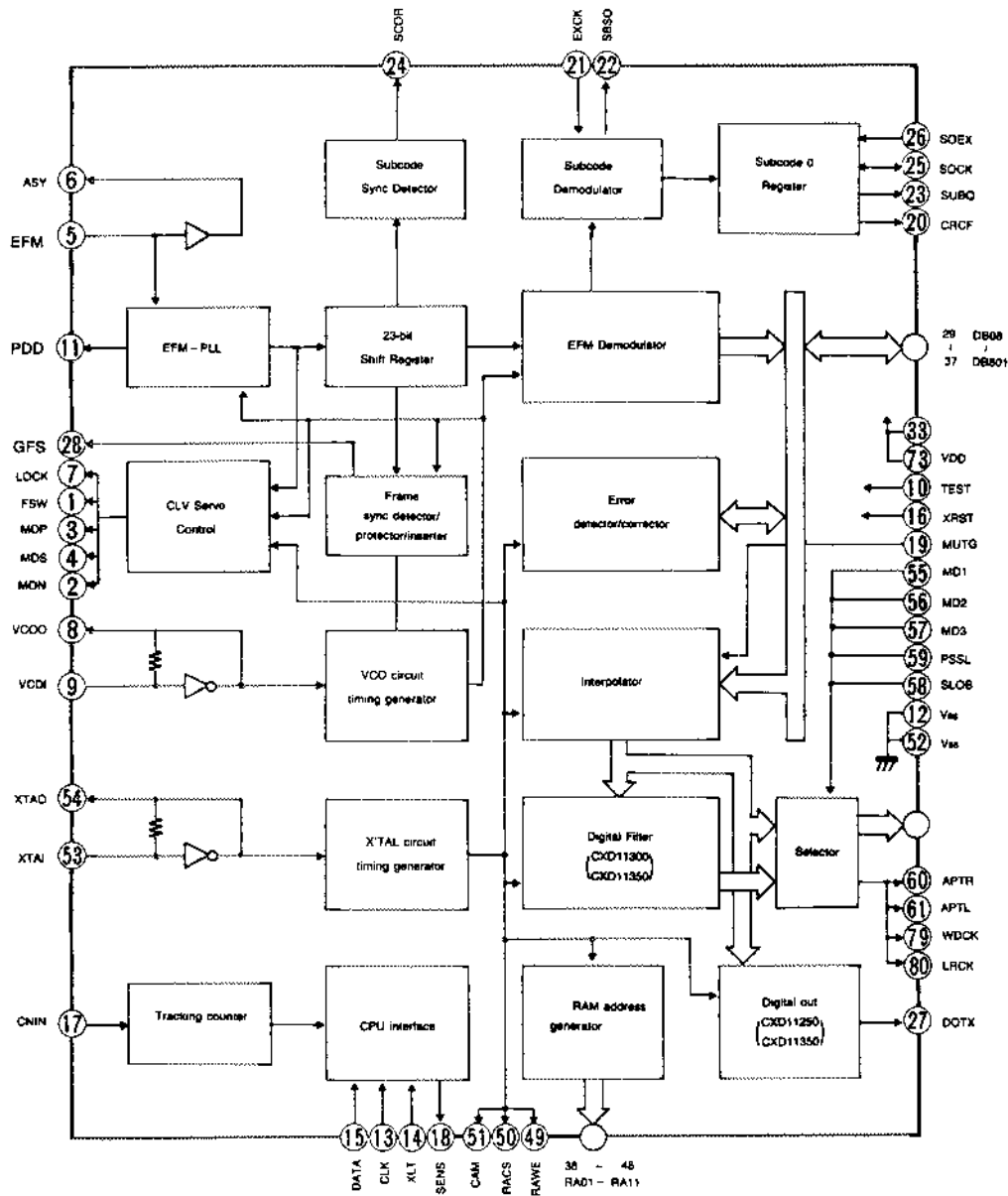
| TERMINAL NUMBER | TERMINAL SYMBOL | EQUIVALENCE CIRCUIT DIAGRAM | EXPLANATION OF TERMINALS |
|-----------------|-----------------|-----------------------------|--|
| 46 | TZC | | Tracking zero cross comparator input terminal. |
| 47 | ATSC | | Window comparator input terminal for ATSC detection. |
| 48 | FE | | Focus error signal input terminal. |

3 CXD1135Q (IC106)

CX1135Q CD digital signal processing

- **FUNCTIONS**
- 1 Bit-clock playback by EFM-PLL circuit
- 2 EFM data demodulation
- 3 Frame sync signal detection, protection, and insertion
- 4 Powerful error detection and correction
- 5 Hold by average value, previous value
- 6 Sub-code demodulation, and sub-code, Q-error detection
- 7 Spindle motor CLV servo
- 8 8-bit tracking counter
- 9 CPU interface through serial bus
- 10 Sub-code Q register
- 11 Digital filter
- 12 Digital audio interface output

1 Block Diagram



2 Pin Function

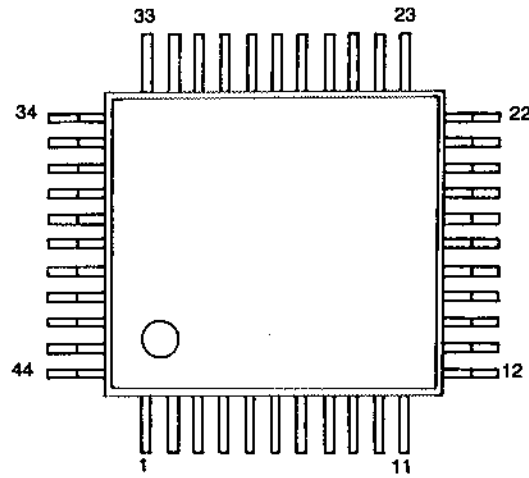
| TERMINAL NUMBER | TERMINAL SYMBOL | I/O | EXPLANATION OF TERMINAL |
|-----------------|-----------------|-----|--|
| 1 | FSW | O | Spindle motor output filter time constant switch output. |
| 2 | MON | O | Spindle motor ON/OFF control output. |
| 3 | MDP | O | Spindle motor drive output. Rough control during CLV-S mode, and phase control during CLV-P mode. |
| 4 | MDS | O | Spindle motor drive output. Speed control during CLV-P mode. |
| 5 | EFM | I | EFM signal input from RF amp. |
| 6 | ASY | O | Output for controlling the slice level of the EFM signal. |
| 7 | LOCK | O | Samples the GFS signal at WFCK/16 and outputs "H" if it is H, or outputs "L" if it is L eight consecutive times. |
| 8 | VCOO | O | VCO output. $f = 8.6436\text{MHz}$ when the EFM signal is locked. |
| 9 | VCOI | I | VCO input. |
| 10 | TEST | I | (0V) |
| 11 | PDO | O | Phase comparison output of the EFM signal and VCO/2. |
| 12 | V _{SS} | - | GND (0V) |
| 13 | CLK | I | Serial data transmission clock input from the CPU. Latches data at the clock initialization edge. |
| 14 | XLT | I | Latch input from the CPU. Latches the 8 bit shift register data (serial data from CPU) to the registers. |
| 15 | DATA | I | Serial data input from the CPU. |
| 16 | XRST | I | System reset input. Reset by "L". |
| 17 | CNIN | I | Tracking pulse input. |
| 18 | SENS | O | Outputs the internal status corresponding to a given address. |
| 19 | MUTG | I | Muting input. When the ATTM of internal register A is "L", MUTG is normal when "L" and muted when "H". |
| 20 | CRCF | O | Outputs the result of the sub-code Q CRC check. |
| 21 | EXCK | I | Clock input for sub-code serial output. |
| 22 | SBSO | O | Sub-code serial output. |
| 23 | SUBQ | O | Sub-code Q output. |
| 24 | SCOR | O | Sub-code sync S0 + S1 output. |
| 25 | SQCK | I/O | Sub-code Q read clock. |
| 26 | SQEX | I | SQCK selection input. |
| 27 | DOTX | O | Digital out output. (Outputs WFCK when the CXD1130Q or DO is off.) |
| 28 | GFS | O | Outputs indication of the state of the frame sync lock. |
| 29 | DB08 | I/O | External RAM data terminal DATA8 (MSB) |
| 30 | DB07 | I/O | External RAM data terminal DATA7 |
| 31 | DB06 | I/O | External RAM data terminal DATA6 |
| 32 | DB05 | I/O | External RAM data terminal DATA5 |
| 33 | VPP | - | Power supply (+5V) |
| 34 | DB04 | I/O | External RAM data terminal DATA4 |
| 35 | DB03 | I/O | External RAM data terminal DATA3 |
| 36 | DB02 | I/O | External RAM data terminal DATA2 |
| 37 | DB01 | I/O | External RAM data terminal DATA1 (LSB) |
| 38 | RA01 | O | Output of external RAM address ADDR01 (LSB) |
| 39 | RA02 | O | Output of external RAM address ADDR02 |
| 40 | RA03 | O | Output of external RAM address ADDR03 |

| TERMINAL NUMBER | TERMINAL SYMBOL | I/O | EXPLANATION OF TERMINAL |
|-----------------|-----------------|-----|--|
| 41 | RA04 | O | Output of external RAM address ADDR04 |
| 42 | RA05 | O | Output of external RAM address ADDR05 |
| 43 | RA06 | O | Output of external RAM address ADDR06 |
| 44 | RA07 | O | Output of external RAM address ADDR07 |
| 45 | RA08 | O | Output of external RAM address ADDR08 |
| 46 | RA09 | O | Output of external RAM address ADDR09 |
| 47 | RA10 | O | Output of external RAM address ADDR10 |
| 48 | RA11 | O | Output of external RAM address ADDR11 (MSB) |
| 49 | RAWE | O | Write enable signal output to external RAM. (Active when "L".) |
| 50 | RACS | O | Chip select signal output to external RAM. (Active when "L".) |
| 51 | C4M | O | 1/2 demultiplication output for crystal. |
| 52 | V55 | - | GND (0V) |
| 53 | XTAI | I | Crystal oscillator circuit input. $f = 8.4672\text{MHz}$ or $f = 16.934\text{MHz}$, depending on the mode selection. |
| 54 | XTAO | O | Crystal oscillator circuit output. $f = 8.4672\text{MHz}$ or $f = 16.934\text{MHz}$, depending on the mode selection. |
| 55 | MD1 | I | Mode selection input 1. |
| 56 | MD2 | I | Mode selection input 2. |
| 57 | MD3 | I | Mode selection input 3. |
| 58 | SLOB | I | Code switch input for audio data output. 2's complement output when "L", and offset binary output when "H". |
| 59 | PSSL | I | Mode switch input for audio data output. Serial output when "L". Parallel output when "H". |
| 60 | APTR | O | Control output for aperture correction. "H" when R-ch. |
| 61 | APTL | O | Control output for aperture correction. "H" when L-ch. |
| 62 | DA01 | O | DA01 (parallel audio data LSB) output when PSSL = "H" C1F1 output when PSSL = "L". |
| 63 | DA02 | O | DA02 output when PSSL = "H". C1F2 output when PSSL = "L". |
| 64 | DA03 | O | DA03 output when PSSL = "H". C2F1 output when PSSL = "L". |
| 65 | DA04 | O | DA04 output when PSSL = "H". C2F2 output when PSSL = "L". |
| 66 | DA05 | O | DA05 output when PSSL = "H". C2FL output when PSSL = "L". |
| 67 | DA06 | O | DA06 output when PSSL = "H". C2PO output when PSSL = "L". |
| 68 | DA07 | O | DA07 output when PSSL = "H". RFCK output when PSSL = "L". |
| 69 | DA08 | O | DA08 output when PSSL = "H". WFCK output when PSSL = "L". |
| 70 | DA09 | O | DA09 output when PSSL = "H". PLCK output when PSSL = "L". |
| 71 | DA10 | O | DA10 output when PSSL = "H". UGFS output when PSSL = "L". |
| 72 | DA11 | O | DA11 output when PSSL = "H". GTOP output when PSSL = "L". |
| 73 | VPP | - | Power supply (+5V) |
| 74 | DA12 | O | DA12 output when PSSL = "H". RAOV output when PSSL = "L". |
| 75 | DA13 | O | DA13 output when PSSL = "H". C4LR output when PSSL = "L". |
| 76 | DA14 | O | DA14 output when PSSL = "H". C210 output when PSSL = "L". |
| 77 | DA15 | O | DA15 output when PSSL = "H". C210 output when PSSL = "L". |
| 78 | DA16 | O | DA16 (parallel audio data MSB) output when PSSL = "H". DATA output when PSSL = "L". |
| 79 | WDCK | O | Strobe signal output. 176.4kHz when DF on, and 88.2kHz when DF off. |
| 80 | LRCK | O | Strobe signal output. 88.2kHz when DF on, and 44.1kHz when DF off. |

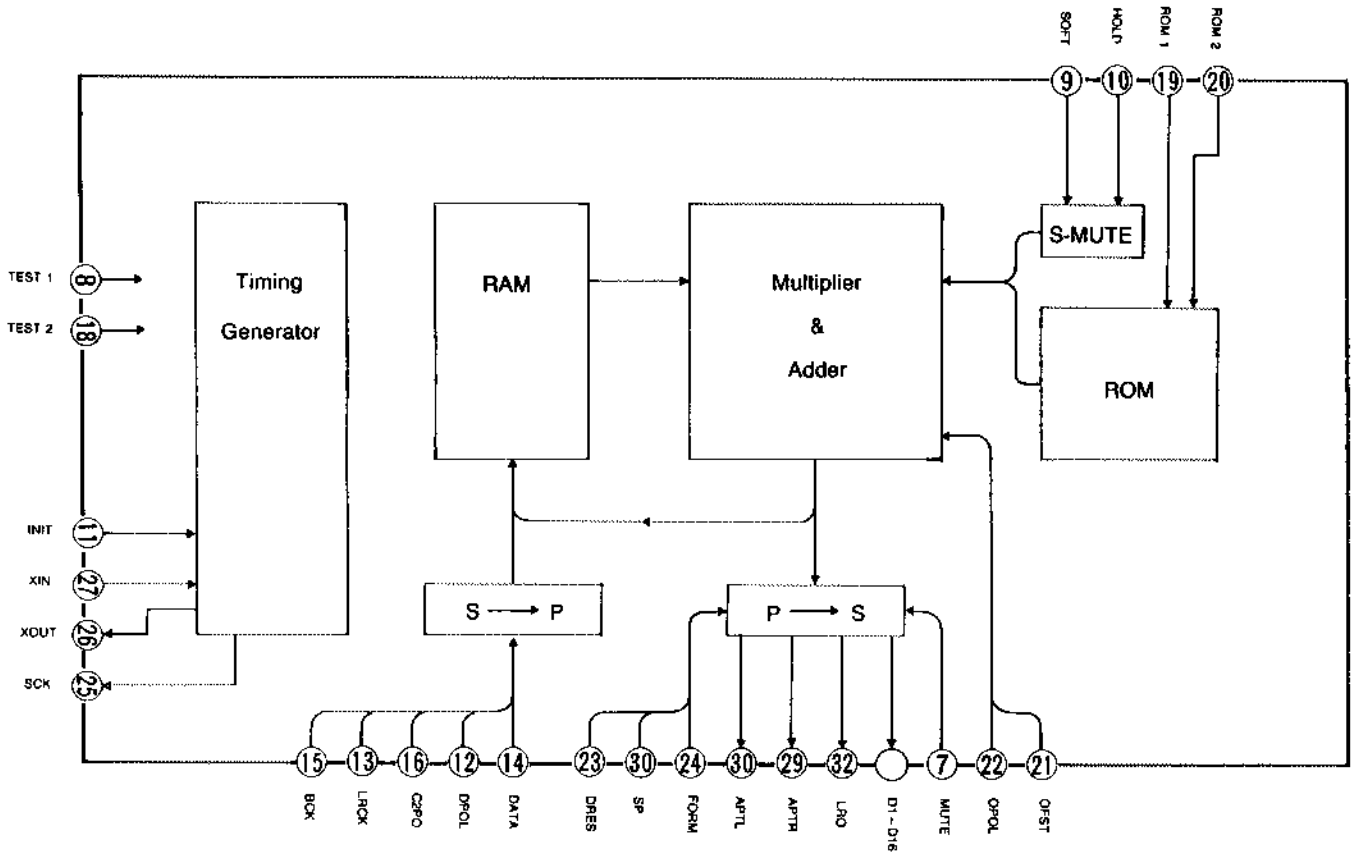
NOTE :

- C1F1 : □ Monitor output of the error correction status of C1 decode.
- C1F2 : □
- C2F1 : □ Monitor output of the error correction status of C2 decode.
- C2F2 : □
- C2FL : Correction status output. Becomes "H" when the C2 series currently being corrected is is incor-
rectable.
- C2PO : C2 pointer indication output. Synchronous with the audio data output.
- RFCK : Read frame clock output. Crystal circuit's 7.35kHz.
- WFCK : Write frame clock output. 7.35kHz when locked on the crystal circuit.
- PLCK : VCO/2 output. $f = 4.3218\text{MHz}$ when locked on the EFM signal.
- UGFS : Unprotected frame sync pattern output.
- GTOP : Indication output of the frame sync protection status.
- RAOV : Indication output of the ± 4 frame jitter absorption RAM overflow and underflow.
- C4LR : Strobe signal: 352.8kHz when DF is on, 176.4kHz when DF is off.
- C210 : Inverted output of C210
- C210 : Bit clock output. 4.2336MHz when DF on, 2.1168MHz when DF off.
- DATA : Serial data output of audio signal.

4 CXD1088Q (IC110) System Clock and Digital Filter



2 Block Diagram

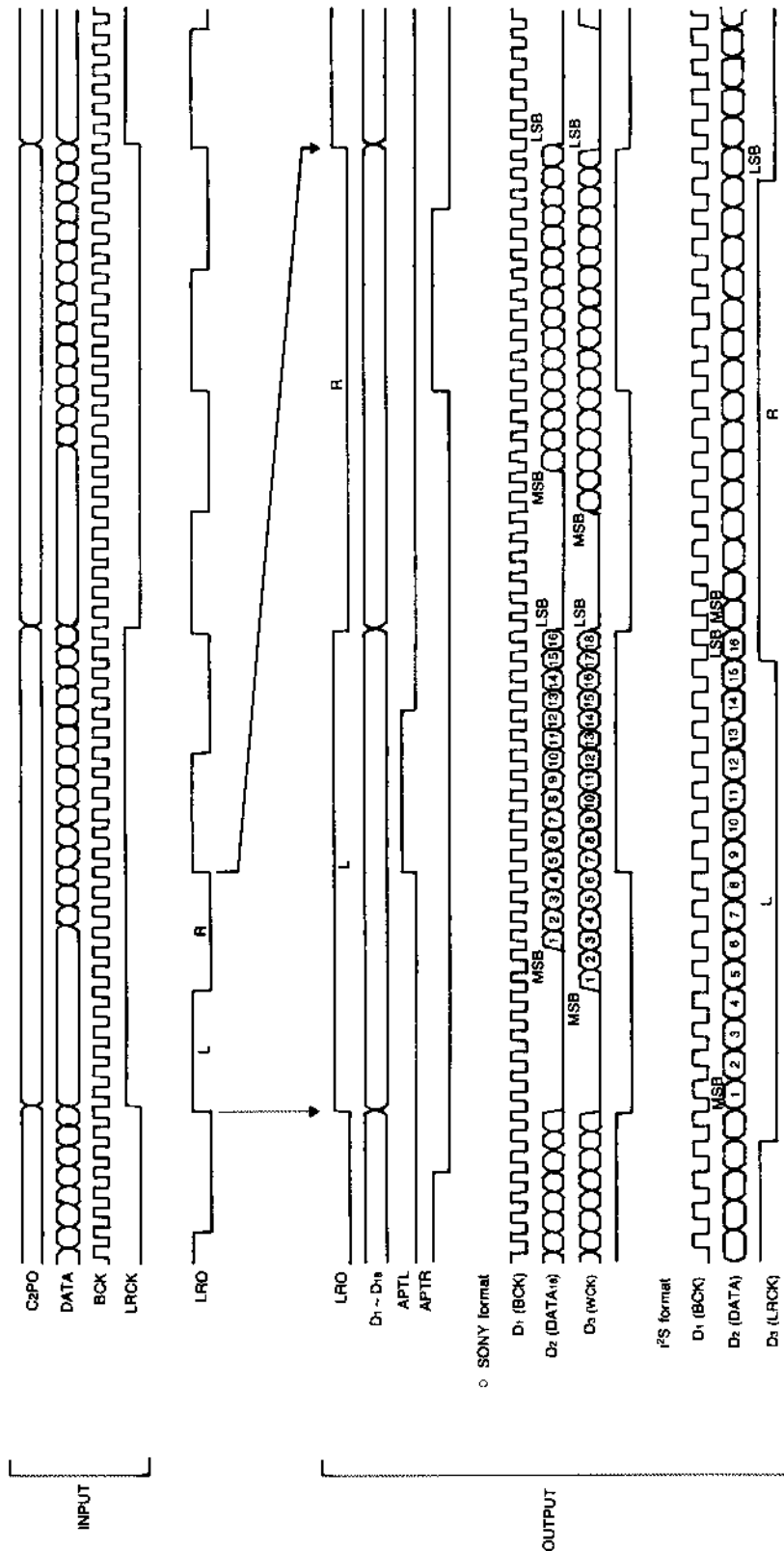


3 Pin Functions

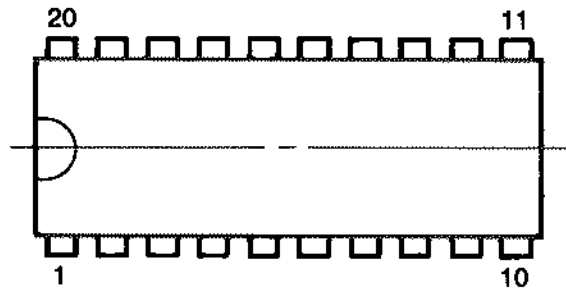
| TERMINAL NUMBER | TERMINAL SYMBOL | I/O | EXPLANATION OF TERMINAL |
|-----------------|-----------------------------------|-----|---|
| 1 ~ 5 | D ₁₂ ~ D ₁₆ | O | D ₁₂ ~ D ₁₆ output when parallel. Fixed at "L" level when serial. |
| 6 | V _{SS} | – | Power supply (0V) |
| 7 | MUTE | I | Sets the output to "0" or the offset value. "H" valid. |
| 8 | TEST1 | I | Test terminal. Usually fixed at the "L" level during normal use. |
| 9 | SOFT | I | ON/OFF for soft muting. Mute when "H". |
| 10 | HOLD | I | Stops the mute operation. |
| 11 | INIT | I | Power on reset input. Active when "L". |
| 12 | DPOL | I | Inverts polarity of input data. |
| 13 | LRCK | I | LRCK input |
| 14 | DATA | I | 16 bit x 2 serial data input. |
| 15 | BCK | I | BCK input |
| 16 | C2PO | I | Error flag input |
| 17 | V _{DD} | – | + Power supply (+5V) |
| 18 | TEST2 | I | Test terminal. Fixed at the "L" level during normal use. |
| 19 | ROM1 | I | 83 ROM switching. Refer to filter characteristics. |
| 20 | ROM2 | I | 21 ROM switching. Refer to filter characteristics. |
| 22 | OPOL | I | Offset value polarity designation. "H" (+1%) "L" (–1%). |
| 23 | DRES | I | Data word length when Sony format serial output. "H" : 18 bit "L" : 16 bit |
| 24 | FORM | I | Output format designation. |
| 25 | SCK | O | System clock output for external IC. (384fs) |
| 26 | XOUT | O | Crystal oscillator circuit output. (384fs) |
| 27 | XIN | I | Crystal oscillator circuit input. (384fs) |
| 28 | V _{SS} | – | – Power supply (0V) |
| 29 | APTR | O | Aperture clock for R channel. |
| 30 | APTL | O | Aperture clock for L channel. |
| 31 | SP | I | Serial/parallel switching for output. "H" : Parallel. "L" : Serial |
| 32 | LRO | O | LRCK output (4fs) |
| 33 | D ₁ | O | D ₁ (MSB) output when parallel. BCK output (4fs) when serial. |
| 34 | D ₂ | O | D ₂ output when parallel. DATA output (4fs) when serial. |
| 35 | D ₃ | O | D ₃ output when parallel. When serial: LRCK output (I ² mode), WCK output (SONY mode) |
| 36 ~ 38 | D ₄ ~ D ₆ | O | D ₄ ~ D ₆ output when parallel. Fixed to the "L" level when serial. |
| 39 | VDD | – | + Power supply (+5V) |
| 40 ~ 44 | D ₇ ~ D ₁₁ | O | D ₇ ~ D ₁₁ output when parallel. Fixed to the "L" level when serial. |

4 I/O Timing

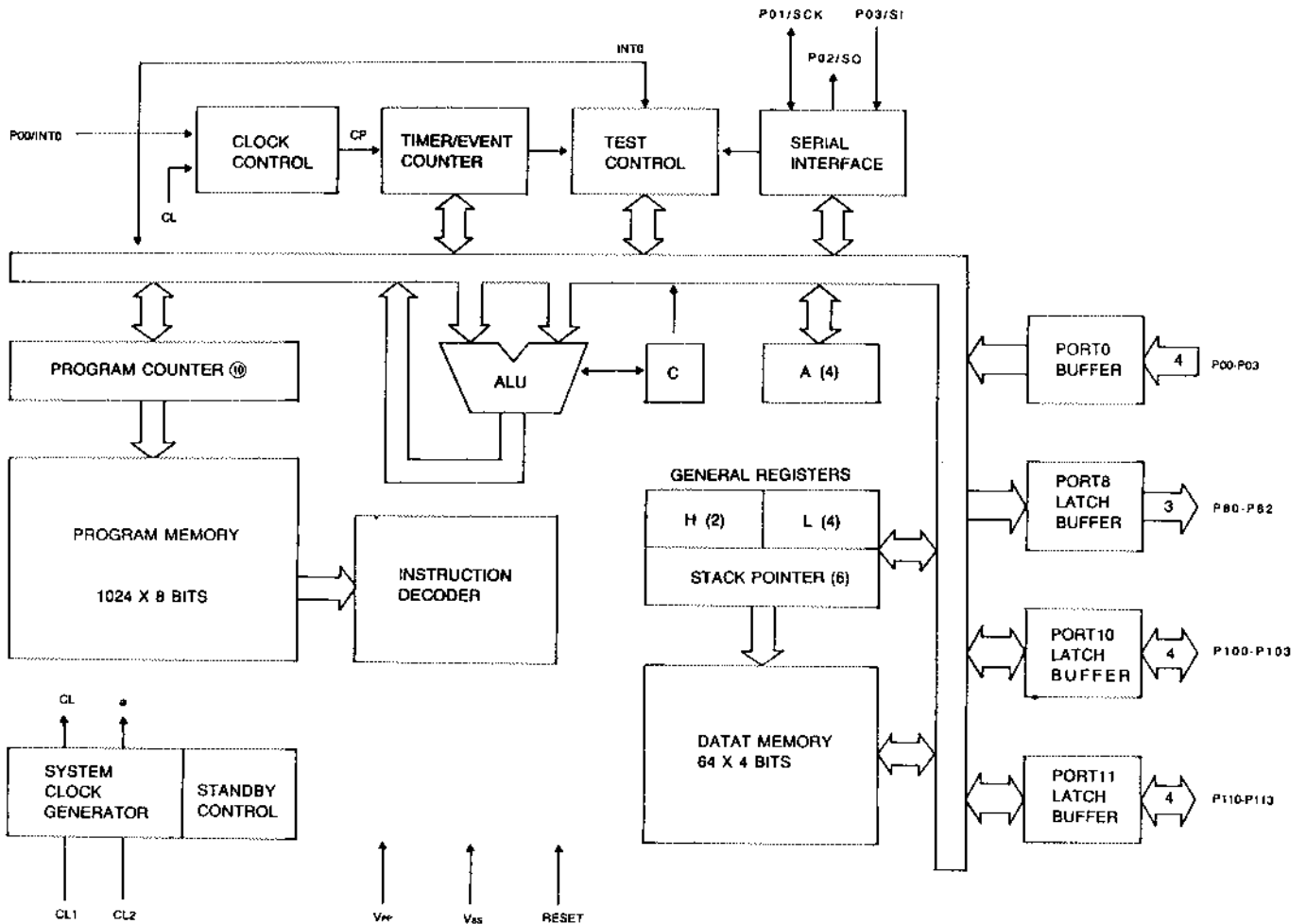
Input/Output timing



5. μ PD 7564cs (IC108)
Remote Control Decoder
1 External View



2 Block Diagram
 μ PD7564 block diagram



3 Pin Functions

1 Functions

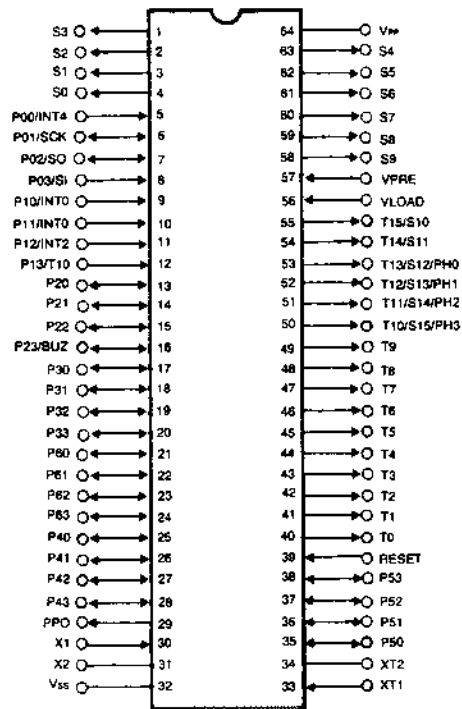
| TERMINAL NAME | I/O | DOUBLE TERMINAL | FUNCTION | WHEN RESET | I/O circuit type |
|---------------|--------|-----------------|---|--|------------------|
| P00 | INPUT | INT0 | 4-bit input port (PORT 0) P00 doubles as the count clock (event pulse) input. | INPUT | S |
| P01 | INPUT/ | SCK | | | X |
| P02 | OUTPUT | SO | | | W |
| P03 | INPUT | SI | | | S |
| P80-P82 | OUTPUT | — | 3 bit output port (PORT 8) large current (15mA), medium-dielectric (12V) output | High-impedance | O |
| P100-P103 | INPUT/ | — | 4-bit input/output port (PORT 10) medium-current (10mA), medium-dielectric (12V) output | High-impedance or high-level output | P |
| P110-P113 | INPUT/ | — | 4-bit input/output port (PORT 11) medium-current (10mA), medium-dielectric (12V) output. | | |

2 Functions other than ports

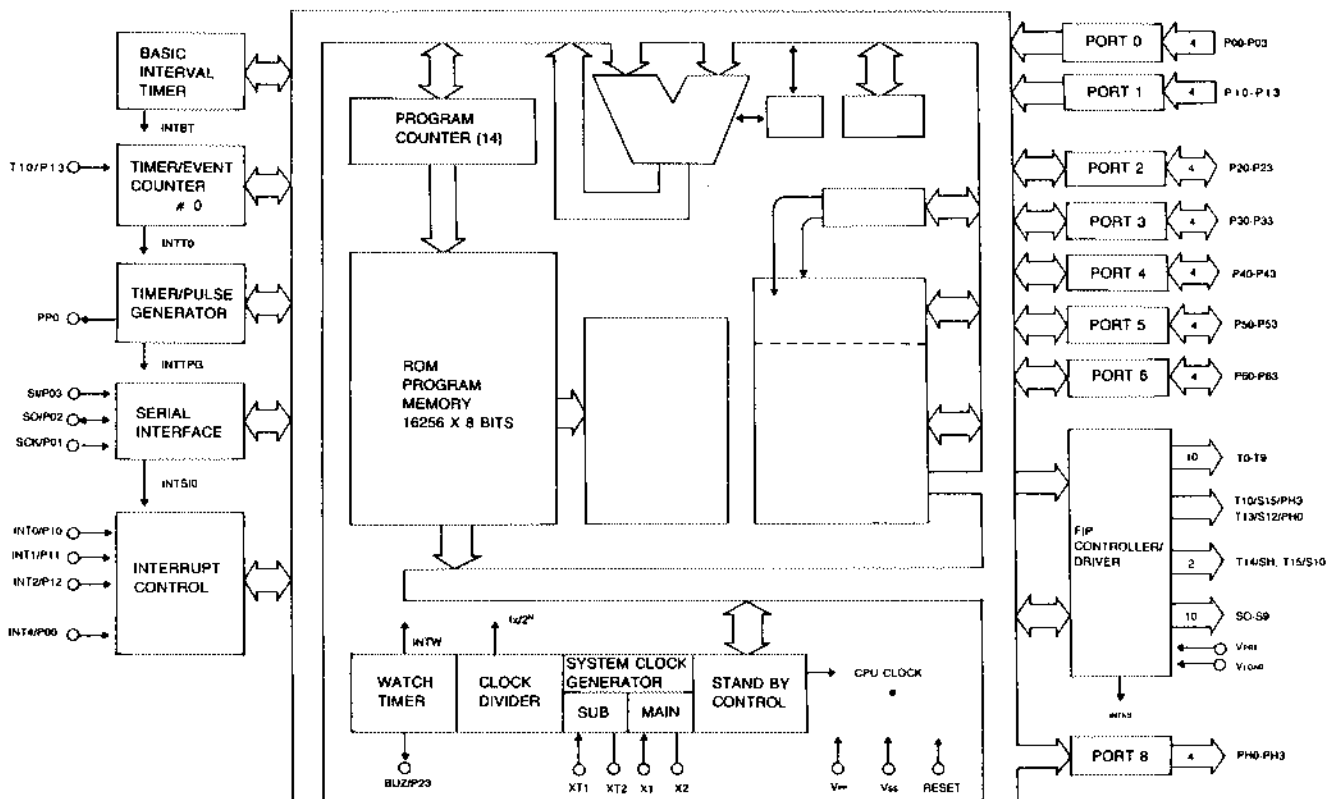
| TERMINAL NAME | I/O | DOUBLE TERMINAL | FUNCTION | WHEN RESET | I/O circuit type |
|-----------------|--------|-----------------|--|------------|------------------|
| INT0 | INPUT | P00 | Edge detection testable input terminal. | | S |
| SCK | INPUT/ | P01 | Serial clock input/output terminal. | INPUT | X |
| SO | OUTPUT | P02 | Serial data output terminal. | INPUT | W |
| SI | INPUT | P03 | Serial data input terminal. | INPUT | S |
| CL1 | | | Ceramic oscillator connection terminal. | | — |
| CL2 | | | | | |
| RESET | | | System reset input terminal. (High level active) Pull down resistor can be built-in with mask option | | R |
| V _{DD} | | | Positive power supply terminal | | |
| V _{SS} | | | GND electrical potential terminal | | |

6 μ PD75216A (IC107) MICRO PROCESSOR

1 External View



2 Block Diagram



3 Pin Functions

Terminals other than ports

| TERMINAL NAME | I/O | DOUBLE TERMINAL | FUNCTION | | WHEN RESET | I/O circuit type |
|-------------------|--------------|-----------------|--|---|---|------------------|
| T0-T9 | OUTPUT | —— | FIP controller/driver terminal. Pull down resistance possible by bit. (Mask option). | High dielectric/large current output terminal for digit output. | Low level (with built-in pull down resistance) or high impedance (without pull down resistance) | I |
| T10/S15-T13/S12 | | PH3-PH0 | | High dielectric/large current output terminal for both digit and segment output. The extra port can be used as PORTH. | | |
| T14/S11, T15/S10 | | —— | | High dielectric/large current output terminal for segment output. Static output also possible. | | |
| S9 | | —— | | High dielectric output terminal for segment output. | | |
| S0-S8 | | —— | | Timer/pulse generator pulse output terminal. | | |
| PPO | OUTPUT | P13 | External event/pulse input to the timer/event counter. | | High impedance | D |
| T10 | INPUT | P01 | Serial clock input/output terminal. | | | (B) |
| SCK | INPUT/OUTPUT | P02 | Serial data output terminal, or serial data input/output terminal. | | Input | (F) |
| SO | INPUT/ | P03 | Serial data input terminal or normal data terminal. | | Input | (G) |
| SI | OUTPUT | P00 | Edge detection vector break input terminal (either edge detected). | | Input | (B) |
| INT 4 | INPUT | P10 | Noise-eliminating edge detection vector break input terminal. (Edge to be detected is selectable). | | | (B) |
| INT 0 | INPUT | P11 | Edge detection testable input terminal (initialization edge detection). | | | (B) |
| INT 1 | | P12 | Fixed frequency output terminal (used for the buzzer or the system clock's trimming). | | | |
| INT 2 | INPUT | P23 | Crystal/ceramic connection terminal for main system clock oscillation. | | | E |
| BUZ | INPUT | —— | When using an external clock, input to X1 and input the reverse phase to X2. | | Input | |
| X1, X2 | INPUT/OUTPUT | —— | Crystal connection terminal for sub system clock oscillation. | | | |
| XT1, XT2 | | —— | When using an external clock, input to XT1 and open XT2. | | | (B) |
| RESET | | —— | System reset input terminal (low level active). | | | I |
| V _{PRE} | INPUT | —— | FIP controller/driver output buffer power supply terminal. | | | I |
| V _{LOAD} | | —— | FIP controller/driver pull down resistance connection terminal. | | | |
| V _{DD} | | —— | Positive power supply terminal. | | | |
| V _{SS} | | —— | GND electric potential terminal. | | | |

* : The ○ circuit types in parentheses are have Schmidt Trigger inputs.

Terminal Functions

Port terminals

| TERMINAL NAME | I/O | DOUBLE TERMINAL | FUNCTION | 8 bit I/O | WHEN RESET | I/O circuit type | |
|---------------|------------------|-----------------|--|-----------|---|------------------|--------------------------------|
| P00 | INPUT | INT 4 | 4-bit input port (PORT 0). | X | INPUT | (B) | |
| P01 | INPUT/ OUTPUT | SCK | | | | (F) | |
| P02 | INPUT/ OUTPUT | SO | | | | (G) | |
| P03 | INPUT | SI | | | | (B) | |
| P10 | INPUT | INT 0 | 4-bit input port (PORT 1). | X | INPUT | (B) | |
| P11 | | INT 1 | | | | | Has noise elimination function |
| P12 | | INT 2 | | | | | Has noise elimination function |
| P13 | | T10 | | | | | |
| P20 | INPUT/ OUTPUT | — | 4-bit input/output port (PORT 2). | X | INPUT | E | |
| P21 | | — | | | | | |
| P22 | | — | | | | | |
| P23 | | BUZ | | | | | |
| P30-P33 | INPUT/ OUTPUT | — | Programmable 4-bit input/output port (PORT 3) Input/output can be set by bit. | O | INPUT | E | |
| P40-P43 | INPUT/ OUTPUT | — | 4-bit input/output port (PORT 4) The LED can be driven directly. | | INPUT | E | |
| P50-P53 | INPUT/ OUTPUT | — | 4-bit input/output port (PORT 5) The LED can be driven directly. | X | INPUT | E | |
| P60-P63 | INPUT/ OUTPUT | — | Programmable input/output port (PORT 6). Input/output can be set by bit. Pull down resistance built-in. Perfect for key input. | | INPUT | V | |
| PH0 | OUTPUT | T13/S12 | 4-bit P-ch open-drain high-dielectric/large-current output port (PORT H). The LED can be driven directly. Pull-down resistance can be built-in (mask option). | X | Low level (when pull down resistance) or high im- pedance | I | |
| PH1 | | T12/S13 | | | | | |
| PH2 | | T11/S14 | | | | | |
| PH3 | | T10/S15 | | | | | |

* : The circuit types in parentheses have Schmidt Trigger inputs.

7. TDA1541 (IC201)

DUAL 16-BIT DAC

Features

- Selectable two-channel input format: offset binary or two's complement.
- Internal timing and control circuit
- TTL compatible digital inputs
- High maximum input bit-rate and fast settling time

(1) EXTERNAL VIEW

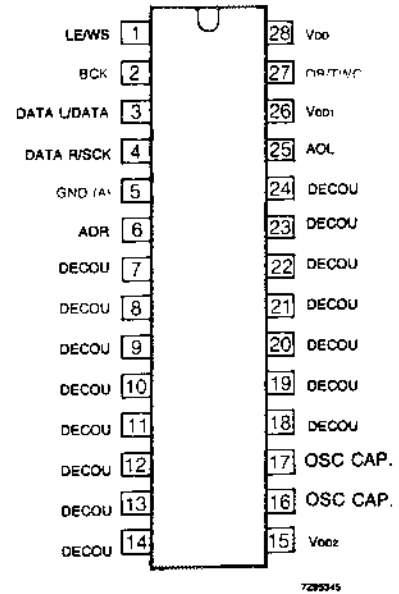


Fig. 2 Pinning diagram

(2) BLOCK DIAGRAM

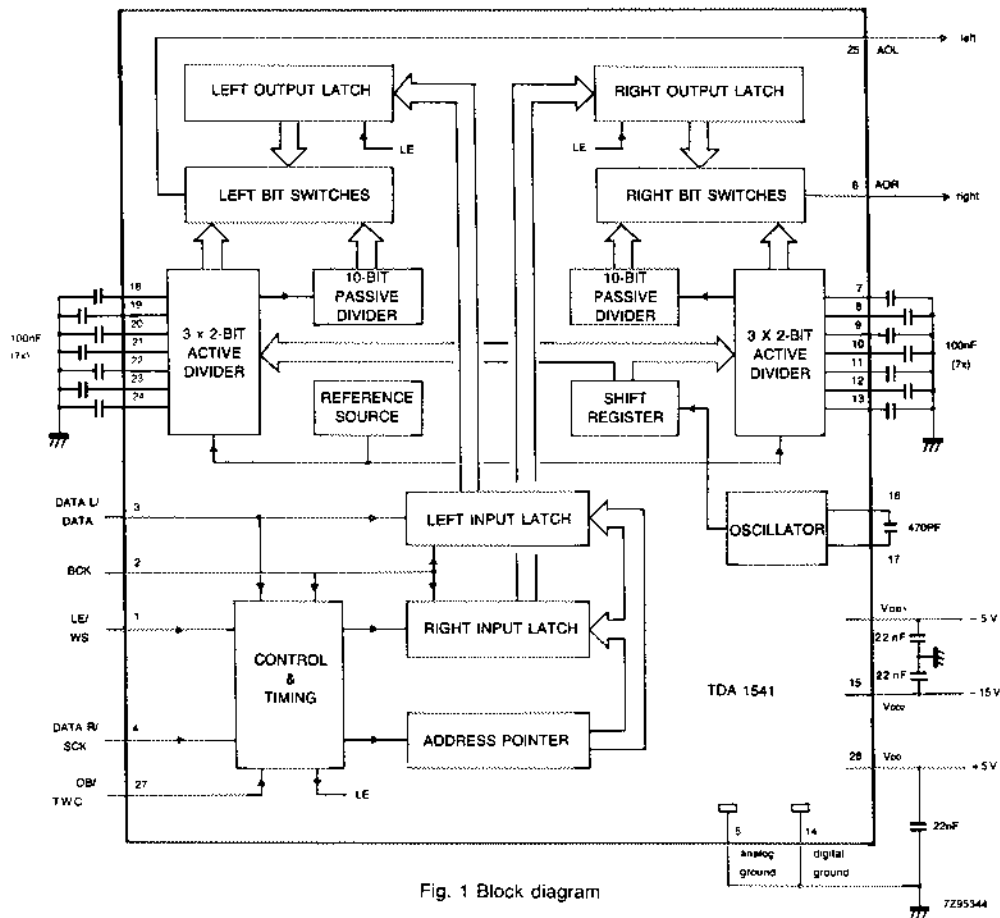


Fig. 1 Block diagram

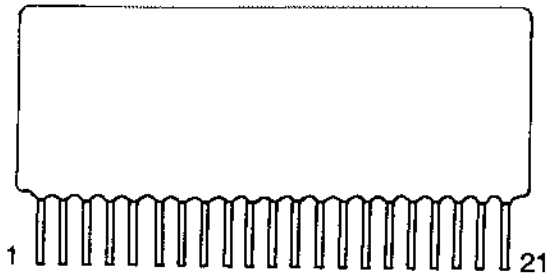
(3) PIN FUNCTIONS

| | | | | | | | | |
|----------------|--------------|---|------------------------------|----|------------------|----------------------|---------------------|----------------------|
| PINNING | | | | | | | | |
| 1 | LE/WS | } | Latch enable input | 15 | V _{DD2} | - 15V supply voltage | | |
| | | | Word select input | 16 | OSC CAP. | | | |
| 2 | BCK | | Bit clock input | 17 | OSC CAP. | | | |
| 3 | DATA L/DATA* | } | Data left channel input | 18 | DECOU | } Decoupling | | |
| | | | Data input (selected format) | 19 | DECOU | | | |
| 4 | DATA R/SYS* | } | Data right channel input | 20 | DECOU | | | |
| | | | System clock input | 21 | DECOU | | | |
| 5 | GND (A) | | Analogue ground | 22 | DECOU | | | |
| 6 | AOR | | Right channel output | 23 | DECOU | | | |
| 7 | DECOU | } | | 24 | DECOU | | | |
| 8 | DECOU | | | | 25 | | AOL | Left channel output |
| 9 | DECOU | | | | 26 | | V _{DD1} | |
| 10 | DECOU | | | | 27 | | OB/TWC | Mode selection input |
| 11 | DECOU | | | | 28 | V _{DD} | + 5V supply voltage | |
| 12 | DECOU | | | | | | | |
| 13 | DECOU | | | | | | | |
| 14 | GND (D) | | Digital ground | | | | | |

8. WCP22D4C9TDA (IC202)

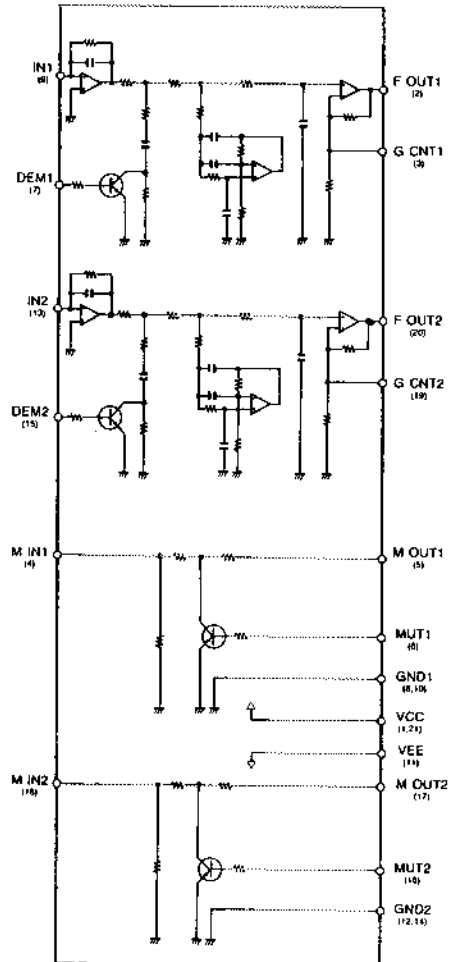
Analog Filter with FDNR

(1) EXTERNAL VIEW

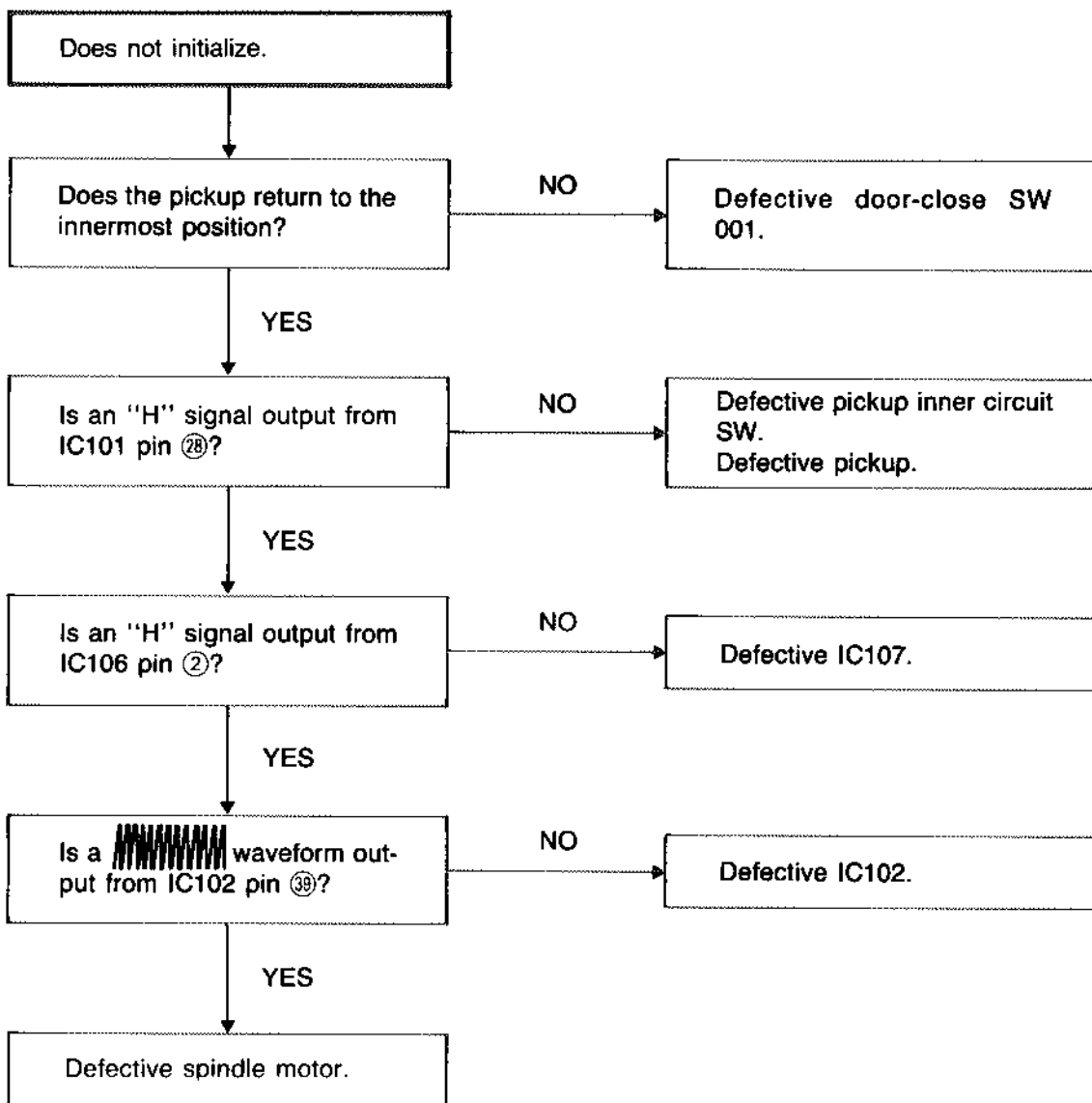


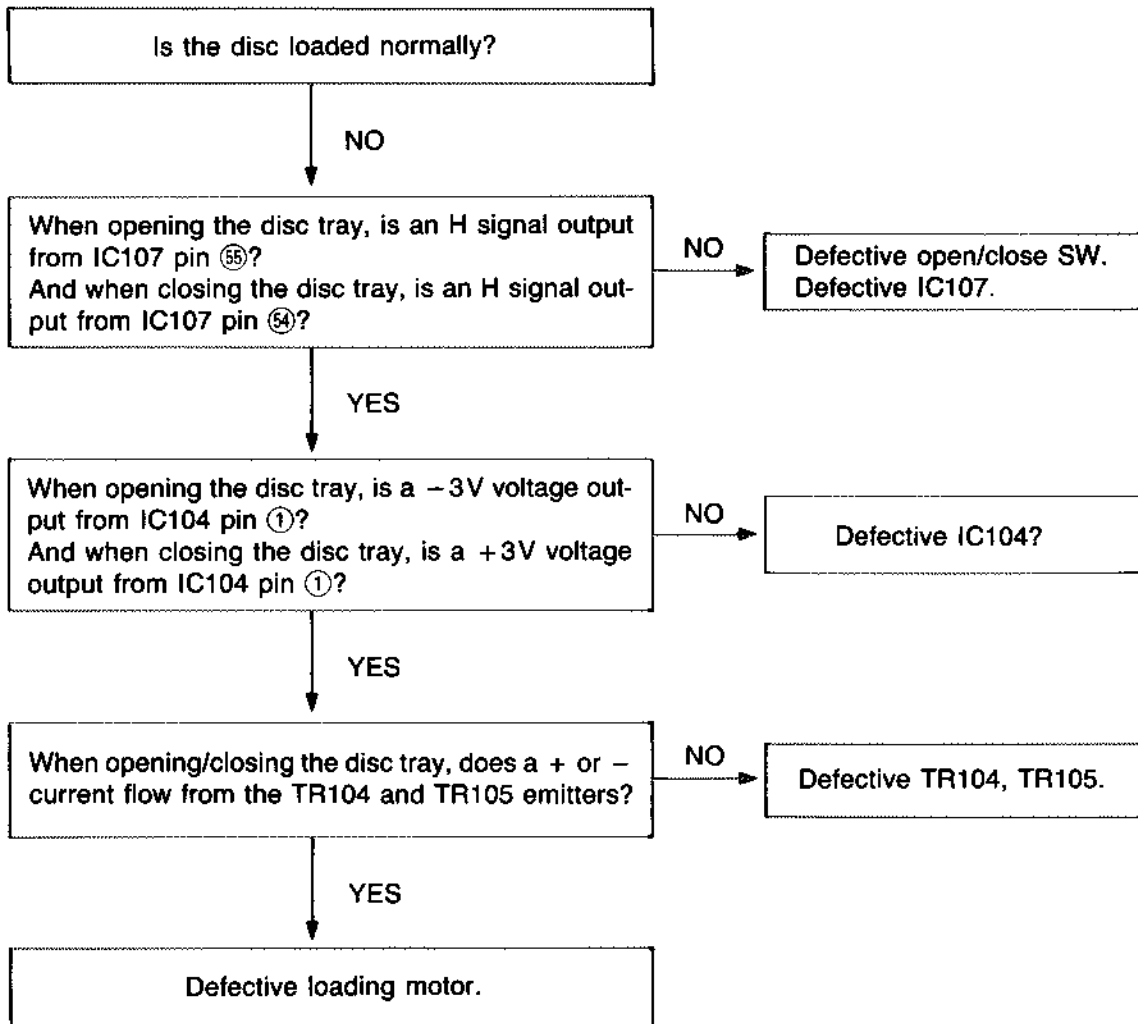
| | |
|------------|-------------|
| 1. VCC | 12. GND 2 |
| 2. F OUT 1 | 13. IN 2 |
| 3. G CNT 1 | 14. GND 2 |
| 4. M IN 1 | 15. DEM 2 |
| 5. M OUT 1 | 16. MUT 2 |
| 6. MUT 1 | 17. M OUT 2 |
| 7. DEM 1 | 18. M IN 2 |
| 8. GND 1 | 19. G CNT 2 |
| 9. IN 1 | 20. F OUT 2 |
| 10. GND 1 | 21. VCC |
| 11. VEE | |

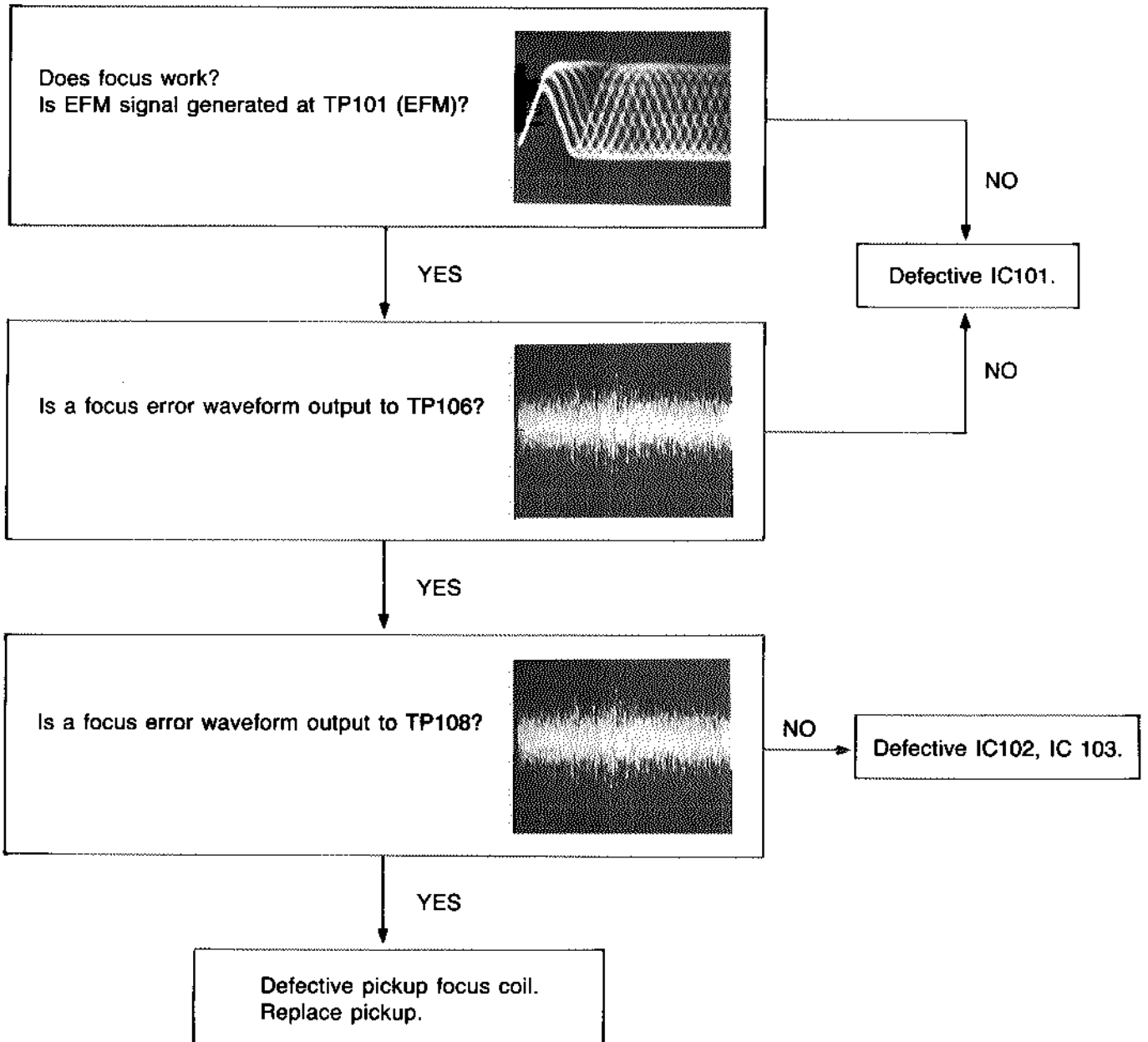
(2) BLOCK DIAGRAM

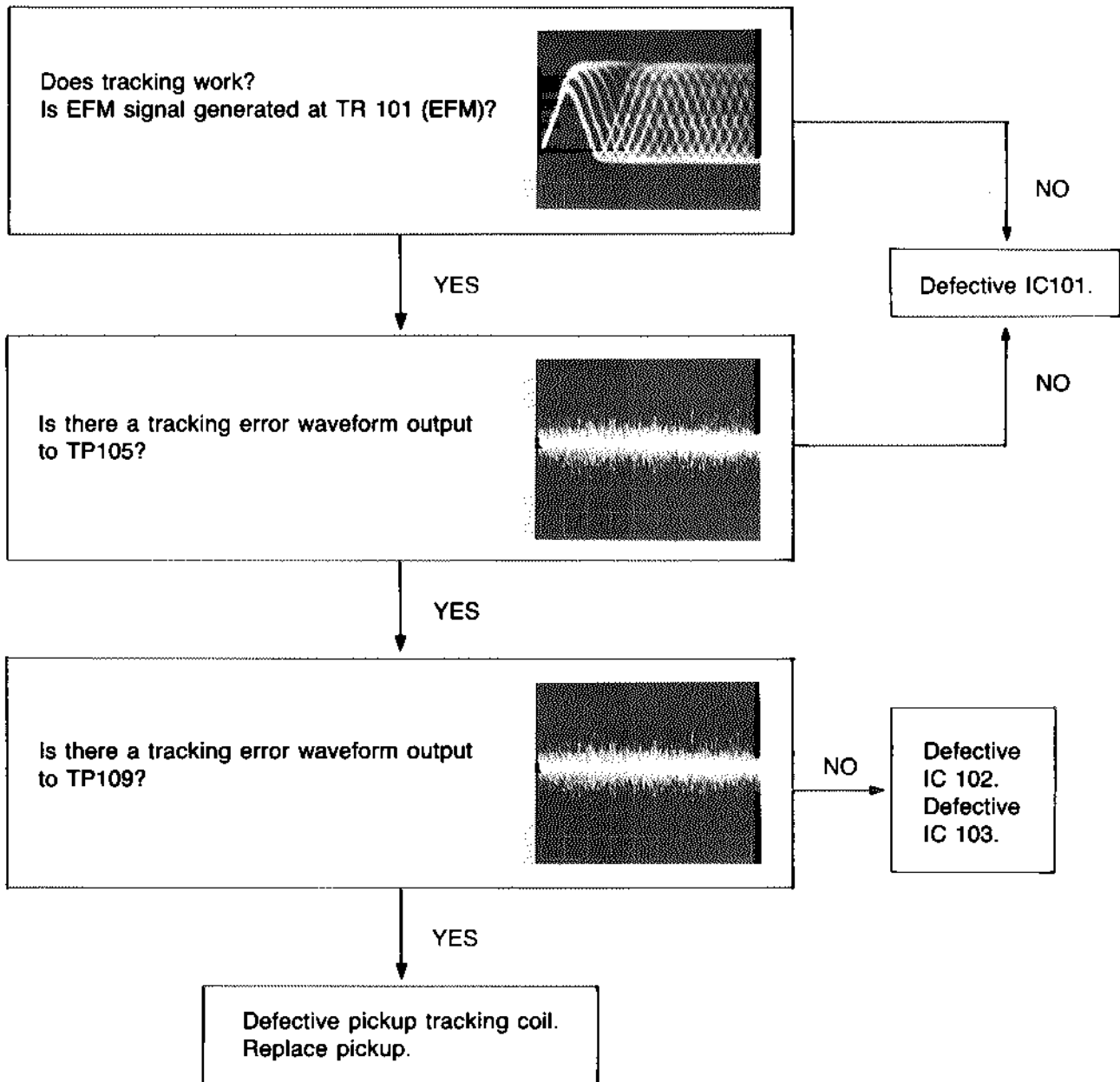


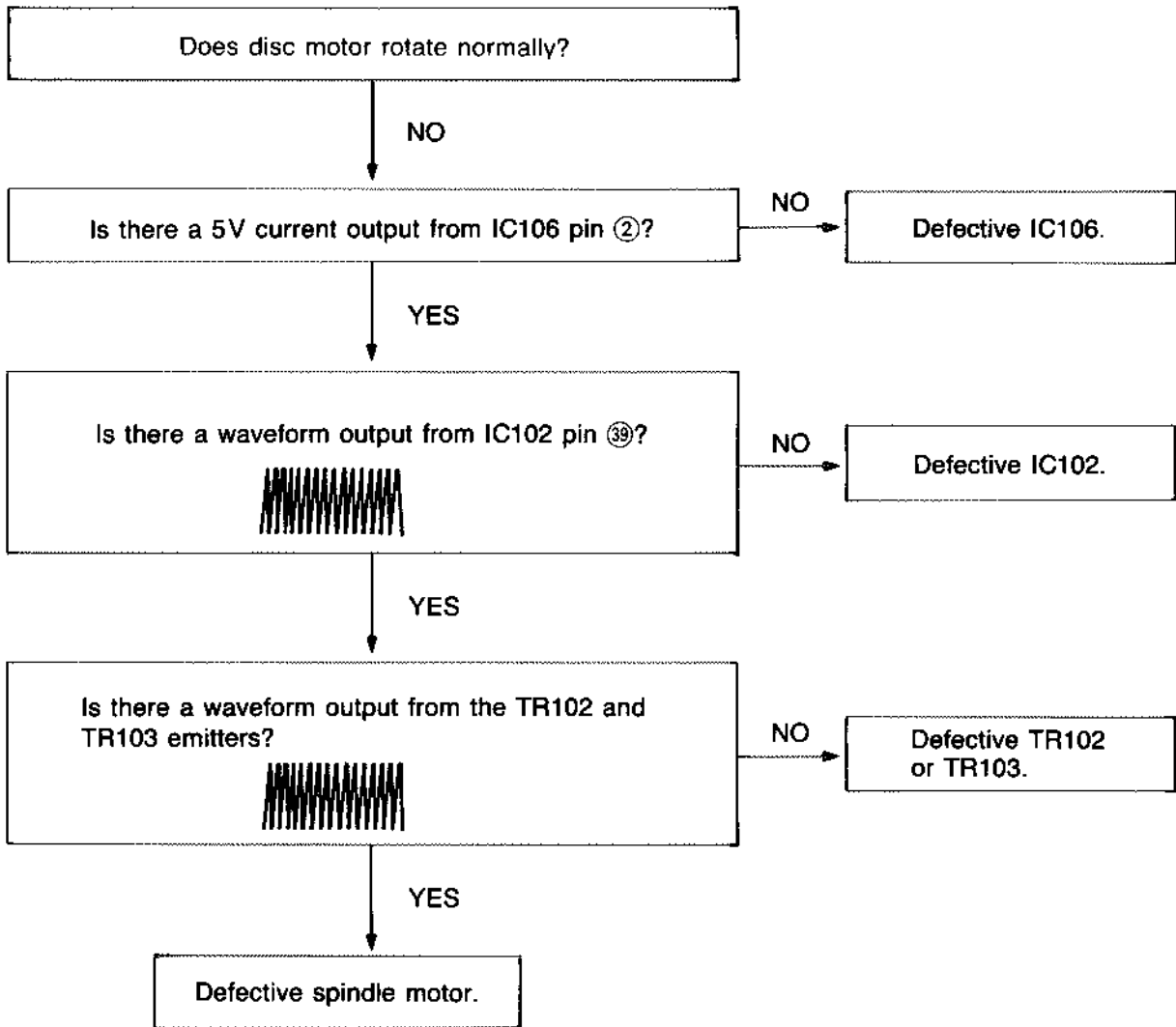
TROUBLESHOOTING





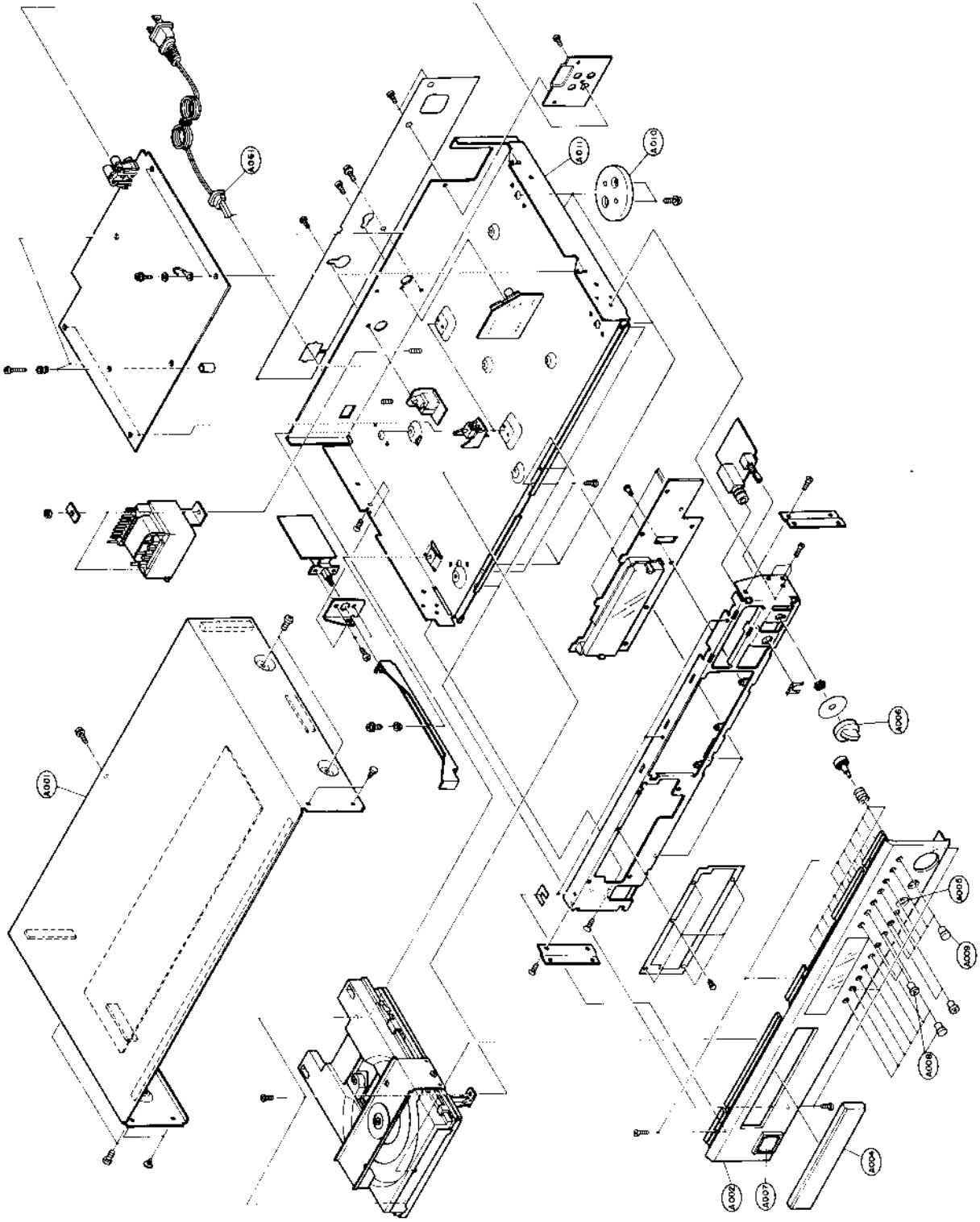




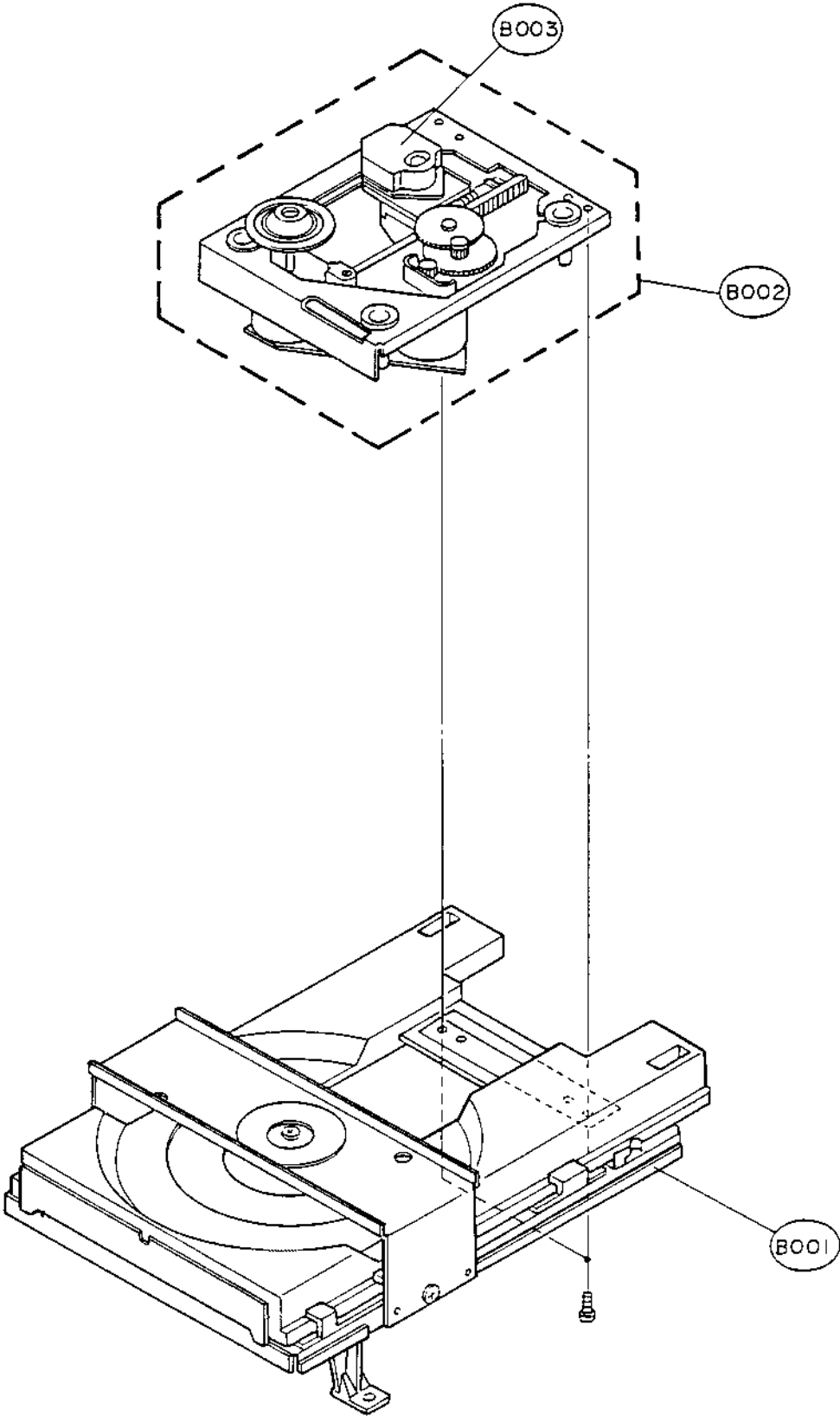


EXPLODED VIEW

CABINET AND CHASSIS ASSEMBLY



MECHANISM ASSEMBLY



REPLACEMENT PARTS LIST MODEL : GDC-575 (B1)

CD..... Ceramic disc EL..... Electrolytic ST..... Styrol ME..... Metal CO..... Composition
 CC . Cylindrical ceramic MF..... Mylar, film CF. Carbon film MO..... Metal, oxide FR Fuse resistor

| SYMBOL | PARTS NO | DESCRIPTION | SYMBOL | PARTS NO | DESCRIPTION |
|---------|----------|------------------------|----------------------------|----------|---------------------------|
| | *** | IC | *** | | |
| IC101 | 37901188 | IC CXA1081M | D101 | 360K1025 | DIODE 1SS133 |
| IC102 | 37901189 | IC CXA1082AQ | D103 | 360K1025 | DIODE 1SS133 |
| IC103 | 37903227 | IC STA341M | D106 | 360K1025 | DIODE 1SS133 |
| IC104 | 37101135 | IC UPC4558C | D107 | 360K1025 | DIODE 1SS133 |
| IC105 | 37951265 | IC MOS LC3517BML-15 | D108 | 360K1025 | DIODE 1SS133 |
| IC106 | 37951210 | IC MOS CXD1135Q | Δ D302 | 36902089 | RECTIFIER BLOCK S1VB10 |
| IC107 | 37951333 | IC MOS UPD75216ACW-153 | Δ D304 | 369K2131 | DIODE MPG06D |
| IC108 | 37951177 | IC UPD7564CS-061 | Δ D305 | 369K2131 | DIODE MPG06D |
| IC109 | 37903217 | IC M51951ASL | Δ D306 | 369K2131 | DIODE MPG06D |
| IC110 | 37951259 | IC MOS CXD 1088Q | Δ D307 | 369K2131 | DIODE MPG06D |
| IC201 | 37951323 | IC MOS TDA 1541A N2 | Δ D308 | 369K2131 | DIODE MPG06D |
| IC202 | 39907029 | FILTER WLP22D4C9TDA | D401 | 360K1025 | DIODE 1SS133 |
| IC203 | 37901203 | IC ADCOM 6A | D402 | 360K1025 | DIODE 1SS133 |
| IC204 | 37901203 | IC ADCOM 6A | D403 | 360K1025 | DIODE 1SS133 |
| Δ IC301 | 37901127 | IC UPC7805H | D404 | 360K1025 | DIODE 1SS133 |
| Δ IC302 | 37901181 | IC UPC 79L05 | D501 | 360K1025 | DIODE 1SS133 |
| Δ IC303 | 37901127 | IC UPC7805H | D502 | 360K1025 | DIODE 1SS133 |
| Δ IC304 | 37005029 | IC UPC7905H | D503 | 360K1025 | DIODE 1SS133 |
| Δ IC305 | 37901123 | IC UPC7815H | D504 | 360K1025 | DIODE 1SS133 |
| Δ IC306 | 37901124 | IC UPC7915H | D505 | 360K1025 | DIODE 1SS133 |
| IC401 | 37903186 | IC BA634 | D506 | 360K1025 | DIODE 1SS133 |
| IC402 | 37903117 | IC,UPC1237H | D507 | 360K1025 | DIODE 1SS133 |
| IC601 | 37101118 | IC NJM4556D | ZD101 | 369K5178 | ZENER DIODE RD9.1EB1(A) |
| IC701 | 37951157 | IC MOS UPD74HC04C | Δ ZD301 | 369K5224 | ZENER DIODE RD33EB2(A),AT |
| | | | Δ ZD302 | 369K5178 | ZENER DIODE RD9.1EB1(A) |
| TR101 | 350K4412 | TR,2SA952 L,AT | ZD401 | 369K5444 | ZENER DIODE RD12JB1,AT |
| TR102 | 35962203 | TR,2SD667C | ZD402 | 369K5462 | ZENER DIODE RD22JB1,AT |
| TR103 | 35921903 | TR,2SB647 C | | | |
| TR104 | 35962203 | TR,2SD667C | *** TRANSFORMERS *** | | |
| TR105 | 35921903 | TR,2SB647 C | Δ T01 | 45006209 | POWER TRANS |
| TR106 | 355D2709 | DTC 114ES AT | T01 | 45006210 | POWER TRANS (MULTI) |
| TR107 | 355D2711 | TR,DTC144ES,AT | | | |
| TR108 | 355D2711 | TR,DTC144ES,AT | *** VARIABLE RESISTORS *** | | |
| TR110 | 355K2125 | DTA114ES,AT | VR101 | 41951255 | R,VARIABLE 22KB |
| TR111 | 355D2711 | TR,DTC144ES,AT | VR102 | 41951257 | R,VARIABLE 47KB |
| TR112 | 355K2105 | TR,DTA144ES | VR103 | 41951255 | R,VARIABLE 22KB |
| TR115 | 355D2711 | TR,DTC144ES,AT | VR104 | 41951255 | R,VARIABLE 22KB |
| TR201 | 355D2709 | DTC 114ES AT | VR105 | 41952271 | VM6CK-PVIS 1K |
| TR202 | 355K2125 | DTA114ES,AT | VR601 | 41950591 | VOLUME 5KA*2KEY |
| Δ TR301 | 35025517 | TR,2SB744 Q | | | |
| TR401 | 355D2709 | DTC 114ES AT | *** RELAYS & SWITCHES *** | | |
| TR402 | 355D1908 | TR,2SC2785(H)AT | RY401 | 65910073 | RELAY DF (DC24V) |
| TR403 | 355K2105 | TR,DTA144ES | RY402 | 65910073 | RELAY DF (DC24V) |
| TR404 | 355K2105 | TR,DTA144ES | RY403 | 65910073 | RELAY DF (DC24V) |
| TR501 | 355D2711 | TR,DTC144ES,AT | SW01 | 65904341 | POWER SWITCH SDLO1P |
| TR502 | 355K2105 | TR,DTA144ES | S501 | 65904494 | TACT SW |
| TR503 | 355D2711 | TR,DTC144ES,AT | S502 | 65904494 | TACT SW |
| TR504 | 355K2105 | TR,DTA144ES | S503 | 65904494 | TACT SW |
| TR505 | 355D2711 | TR,DTC144ES,AT | S504 | 65904494 | TACT SW |
| TR506 | 355K2105 | TR,DTA144ES | S505 | 65904494 | TACT SW |
| TR507 | 355D2711 | TR,DTC144ES,AT | S506 | 65904494 | TACT SW |
| TR508 | 355K2105 | TR,DTA144ES | S507 | 65904494 | TACT SW |
| TR509 | 355D2711 | TR,DTC144ES,AT | S508 | 65904507 | TACT SWITCH LED RED |
| TR510 | 355K2105 | TR,DTA144ES | S509 | 65904507 | TACT SWITCH LED RED |
| TR511 | 355D2711 | TR,DTC144ES,AT | S510 | 65904508 | TACT SWITCH LED GREEN |
| | | | S511 | 65904507 | TACT SWITCH LED RED |
| | | | S512 | 65904494 | TACT SW |
| | | | S513 | 65904494 | TACT SW |
| | | | S514 | 65904494 | TACT SW |
| | | | S515 | 65904494 | TACT SW |
| | | | S516 | 65904494 | TACT SW |

| SYMBOL | PARTS NO | DESCRIPTION |
|--|------------|--------------------------------|
| *** COILS & FILTERS *** | | |
| CF102 | 61919070 | FILTER, CERAMIC CSB400P |
| LF01 | 61911223 | LINE FILTER COIL |
| L101 | 610E2074 | COIL FILTER 100KA.AT |
| L102 | 610E2074 | COIL FILTER 100KA.AT |
| L103 | 610E2074 | COIL FILTER 100KA.AT |
| L104 | 610E2074 | COIL FILTER 100KA.AT |
| L105 | 610E2074 | COIL FILTER 100KA.AT |
| L701 | 61052074 | COIL FILTER 100KA |
| T701 | 61911227 | PULSE TRANS (7.3*7.3) |
| *** PWB ASSYS *** | | |
| PA01 | 87J69601 | DIN JACK PWB FULL ASSY |
| PA02 | 87J69101 | MAIN PWB FULL ASSY |
| PA03 | 87J69201 | FRONT PWB FULL ASSY |
| PA04 | 87J69301 | HEADPHONE PWB FULL ASSY |
| PA04 | 87J69401 | DIG. OUT PWB FULL ASSY |
| PA05 | 87J69501 | SW PWB FULL ASSY |
| *** ELECTRICAL PARTS & MISCELLANEOUS PARTS *** | | |
| CF101 | 79799559 | REMOTE CONT. UNIT AR-575 |
| DJ801 | 39080025 | CERAMIC RESO. FCR 4.0MHZ |
| FIP | 71905224 | DIN SOKET 8P |
| HP601 | 67930089 | FIP-9BAMS |
| HP601 | 70905627 | JACK, HEAD PHONE |
| PC01 | 70802510 | POWER SUPPLY CORD (10A) |
| RS501 | 79539009 | IR RECIEVER SBX-1483-55 |
| X101 | 64920203 | XTAL 16.9344MHZ KD6586FUA |
| | OM00001943 | BUTTON CONNECTOR, AC SWITCH |
| | OM10001955 | BUTTON CONNECTOR, LED |
| | OM10000383 | BUTTON CONNECTOR, BLIND |
| | W108000734 | ADCOM, AUDIO CABLE |
| | BU00000645 | BEZEL (BLACK), AC SWITCH |
| | BU00000670 | BEZEL (WHITE), AC SWITCH |
| *** APPEARANCE PARTS *** | | |
| | 16287811 | PUSH RIVET 3*4.5 |
| | 16876081 | SCREW STB3*8*15BF |
| | 18291091 | CLAMPER, WIRE L94 WHITE |
| | 18609861 | BS DAMPER |
| | 18768561 | SERIAL LABEL |
| A001 | 18359061 | CABINET |
| A002 | 18180373 | FRONT PANEL ASSY |
| A002 | 18180381 | FRONT PANEL ASSY (WHITE) |
| A003 | 18726022 | MODEL NAME PLATE GCD-575 |
| A003 | 18726101 | MODEL NAME PLATE (MULTI) |
| A004 | 18412931 | ORNAMENTAL PLATE (BLACK) |
| A004 | 18412941 | ORNAMENTAL PLATE (WHITE) |
| A052 | 18540851 | CHASSIS BASE (SE) ASSY |
| A058 | 18292401 | HOLDER L=10 |
| A060 | 18540901 | FOOT |
| A061 | 18293241 | WIRE CLAMPER #2271 |
| A062 | 18293981 | SPACER, HINGE |
| A063 | 19516371 | WIRE CLAMPER-B |
| A005 | OM00001931 | SENSOR WINDOW |
| A006 | KB10001217 | VOLUME KNOB (BLACK) |
| A006 | KB10001254 | VOLUME KNOB (WHITH) |
| A007 | KB20001342 | PUSH BUTTON (BLACK), AC SWITCH |
| A007 | KB20001410 | PUSH BUTTON (WHITE), AC SWITCH |
| A008 | KB20001366 | PUSH BUTTON (BLACK), LED |
| A008 | KB20001433 | PUSH BUTTON (WHITE), LED |
| A009 | KB20001354 | PUSH BUTTON (BLACK), BLIND |
| A009 | KB20001421 | PUSH BUTTON (WHITE), BLIND |

| SYMBOL | PARTS NO | DESCRIPTION |
|-------------------------------------|----------|--------------------------|
| *** PRINTED & PACKING MATERIALS *** | | |
| | 18813751 | BAG, POLYETHYLENE |
| | 18815791 | CARTON BOX (GCD-575) |
| | 18815801 | SPACER (L) |
| | 18815811 | SPACER (R) |
| | 19800561 | POLYETHYLENE BAG |
| | 19800672 | BAG-B, POLYETHYLENE |
| | 78925341 | INSTRUCTION BOOK GCD-575 |
| *** MECHANICAL PARTS *** | | |
| | 72952681 | MECHA UNIT KSL-150A CM2 |
| | 72952721 | MECHA UNIT KSL-150A CM4 |
| B001 | 18940280 | LOADING ASSY |
| B002 | 18940288 | MECHANISM ASSY (KSM150A) |
| B003 | 18940287 | PICK UP (KSS150A) |
| *** RESISTORS *** | | |
| R101 | 409H2633 | R, CARBON 22H 5% 1/4W |
| R102 | 401K5673 | R, CARBON 1.0K 5% 1/6W |
| R103 | 401K5705 | R, CARBON 22K 5% 1/6W |
| R105 | 401K5705 | R, CARBON 22K 5% 1/6W |
| R106 | 401K5721 | R, CARBON 100K 5% 1/6W |
| R107 | 401K5697 | R, CARBON 10K 5% 1/6W |
| R108 | 401K5689 | R, CARBON 4.7K 5% 1/6W |
| R109 | 401K5721 | R, CARBON 100K 5% 1/6W |
| R110 | 401K5721 | R, CARBON 100K 5% 1/6W |
| R111 | 401K5709 | R, CARBON 33K 5% 1/6W |
| R112 | 401K5713 | R, CARBON 47K 5% 1/6W |
| R113 | 401K5685 | R, CARBON 3.3K 5% 1/6W |
| R114 | 401K5721 | R, CARBON 100K 5% 1/6W |
| R115 | 401K5738 | R, CARBON 510K 5% 1/6W |
| R117 | 401K5712 | R, CARBON 43K 5% 1/6W |
| R118 | 409E0049 | R, METAL 100K 1% 1/6W |
| R119 | 401K5697 | R, CARBON 10K 5% 1/6W |
| R120 | 409E0049 | R, METAL 100K 1% 1/6W |
| R121 | 401K5723 | R, CARBON 120K 5% 1/6W |
| R122 | 401K5686 | R, CARBON 3.6K 5% 1/6W |
| R123 | 401K5721 | R, CARBON 100K 5% 1/6W |
| R124 | 401K5704 | R, CARBON 20K 5% 1/6W |
| R125 | 401K5745 | R, CARBON 1.0M 5% 1/6W |
| R126 | 401K5721 | R, CARBON 100K 5% 1/6W |
| R127 | 401K5656 | R, CARBON 200H 5% 1/6W |
| R128 | 401K5700 | R, CARBON 13K 5% 1/6W |
| R129 | 401K5697 | R, CARBON 10K 5% 1/6W |
| R130 | 401K5697 | R, CARBON 10K 5% 1/6W |
| R131 | 401K5700 | R, CARBON 13K 5% 1/6W |
| R132 | 401K5697 | R, CARBON 10K 5% 1/6W |
| R133 | 401K5689 | R, CARBON 4.7K 5% 1/6W |
| R134 | 401K5609 | R, CARBON 2.2H 5% 1/6W |
| R135 | 401K5609 | R, CARBON 2.2H 5% 1/6W |
| R136 | 401K5731 | R, CARBON 270K 5% 1/6W |
| R137 | 401K5609 | R, CARBON 2.2H 5% 1/6W |
| R138 | 401K5697 | R, CARBON 10K 5% 1/6W |
| R140 | 401K5697 | R, CARBON 10K 5% 1/6W |
| R141 | 401K5697 | R, CARBON 10K 5% 1/6W |
| R142 | 401K5673 | R, CARBON 1.0K 5% 1/6W |
| R143 | 401K5673 | R, CARBON 1.0K 5% 1/6W |
| R145 | 401K5673 | R, CARBON 1.0K 5% 1/6W |
| R146 | 401K5721 | R, CARBON 100K 5% 1/6W |
| R150 | 401K5693 | R, CARBON 6.8K 5% 1/6W |
| R151 | 401K5679 | R, CARBON 1.8K 5% 1/6W |

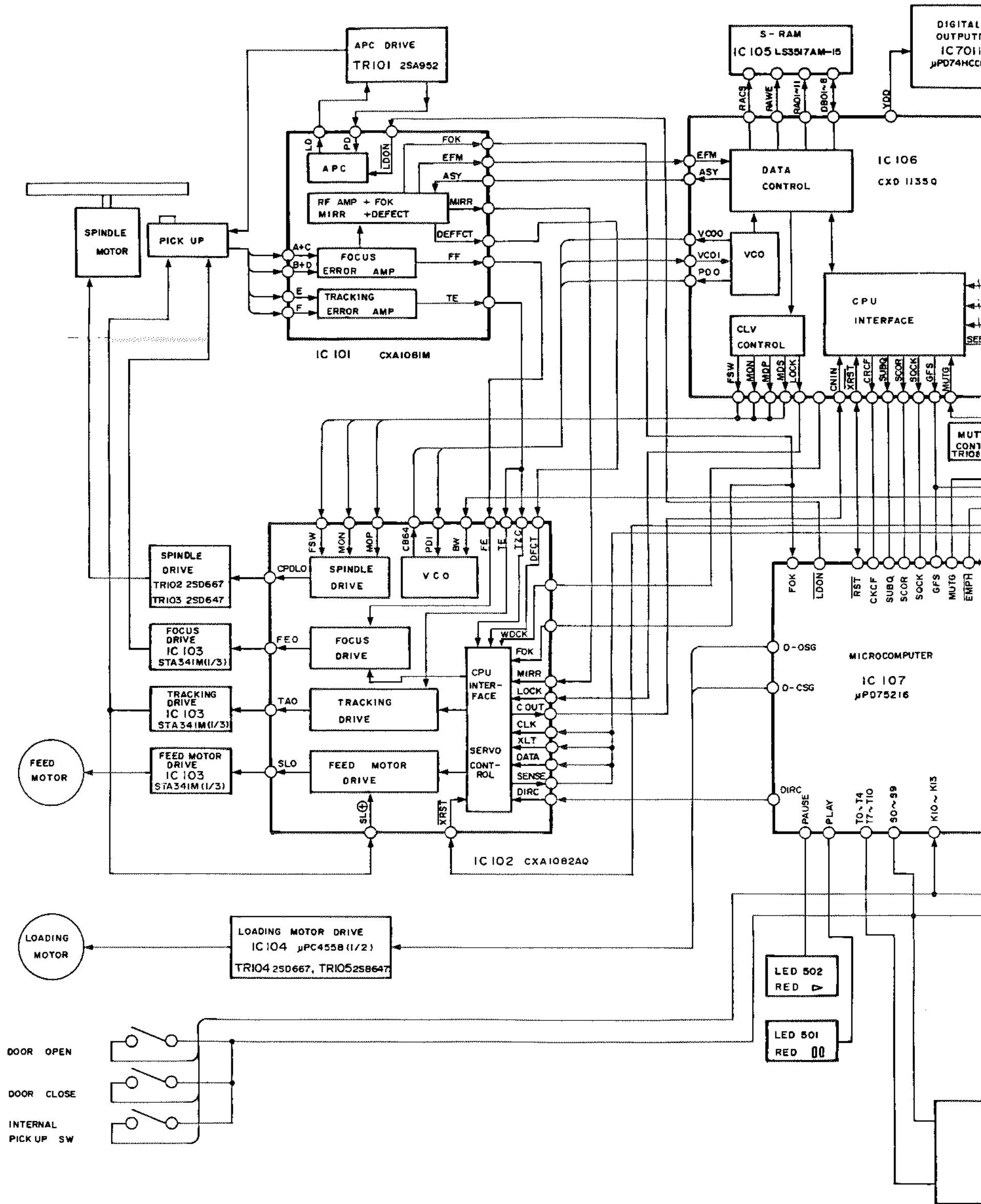
| SYMBOL | PARTS NO | DESCRIPTION |
|--------|----------|-----------------------|
| R152 | 401K5649 | R,CARBON 100H 5% 1/6W |
| R153 | 401K5689 | R,CARBON 4.7K 5% 1/6W |
| R154 | 401K5653 | R,CARBON 150H 5% 1/6W |
| R155 | 401K5697 | R,CARBON 10K 5% 1/6W |
| R156 | 401K5697 | R,CARBON 10K 5% 1/6W |
| R157 | 401K5697 | R,CARBON 10K 5% 1/6W |
| R158 | 401K5697 | R,CARBON 10K 5% 1/6W |
| R159 | 401K5717 | R,CARBON 68K 5% 1/6W |
| R161 | 401K5673 | R,CARBON 1.0K 5% 1/6W |
| R162 | 401K5673 | R,CARBON 1.0K 5% 1/6W |
| R163 | 401K5721 | R,CARBON 100K 5% 1/6W |
| R164 | 401K5673 | R,CARBON 1.0K 5% 1/6W |
| R165 | 401K5673 | R,CARBON 1.0K 5% 1/6W |
| R166 | 401K5673 | R,CARBON 1.0K 5% 1/6W |
| R167 | 401K5713 | R,CARBON 47K 5% 1/6W |
| R170 | 401K5713 | R,CARBON 47K 5% 1/6W |
| R201 | 401K5681 | R,CARBON 2.2K 5% 1/6W |
| R202 | 401K5689 | R,CARBON 4.7K 5% 1/6W |
| R203 | 409E0063 | R,METAL 49.9K 1% 1/4W |
| R204 | 409E0063 | R,METAL 49.9K 1% 1/4W |
| R205 | 409E0052 | R,METAL 604K 1% 1/4W |
| R206 | 409E0052 | R,METAL 604K 1% 1/4W |
| R207 | 409E0053 | R,METAL 5.11K 1% 1/4W |
| R208 | 409E0053 | R,METAL 5.11K 1% 1/4W |
| R209 | 409E0054 | R,METAL 6.19K 1% 1/4W |
| R210 | 409E0054 | R,METAL 6.19K 1% 1/4W |
| R211 | 409E0059 | R,METAL 100K 1% 1/4W |
| R212 | 409E0059 | R,METAL 100K 1% 1/4W |
| R213 | 409E0055 | R,METAL 3.9K 1% 1/4W |
| R214 | 409E0055 | R,METAL 3.9K 1% 1/4W |
| R215 | 409E0056 | R,METAL 4.12K 1% 1/4W |
| R216 | 409E0056 | R,METAL 4.12K 1% 1/4W |
| R217 | 409E0057 | R,METAL 1.3K 1% 1/4W |
| R218 | 409E0057 | R,METAL 1.3K 1% 1/4W |
| R225 | 409E0055 | R,METAL 3.9K 1% 1/4W |
| R226 | 409E0055 | R,METAL 3.9K 1% 1/4W |
| R227 | 409E0059 | R,METAL 100K 1% 1/4W |
| R228 | 409E0059 | R,METAL 100K 1% 1/4W |
| R229 | 409E0061 | R,METAL 5.9K 1% 1/4W |
| R230 | 409E0061 | R,METAL 5.9K 1% 1/4W |
| R233 | 409E0058 | R,METAL 9.1K 1% 1/4W |
| R235 | 409E0062 | R,METAL 7.5K 1% 1/4W |
| R236 | 409E0062 | R,METAL 7.5K 1% 1/4W |
| R301 | 40913109 | R,CARBON 2.2H 5% 1/4W |
| Δ R302 | 40913109 | R,CARBON 2.2H 5% 1/4W |
| R303 | 40913109 | R,CARBON 2.2H 5% 1/4W |
| R304 | 401K5685 | R,CARBON 3.3K 5% 1/6W |
| R307 | 409H2687 | R,CARBON 3.9K 5% 1/4W |
| R401 | 401K5709 | R,CARBON 33K 5% 1/6W |
| R404 | 401K5719 | R,CARBON 82K 5% 1/6W |
| R405 | 401K5668 | R,CARBON 620H 5% 1/6W |
| R406 | 401K5715 | R,CARBON 56K 5% 1/6W |
| R407 | 409H2687 | R,CARBON 3.9K 5% 1/4W |
| R408 | 401K5689 | R,CARBON 4.7K 5% 1/6W |
| R409 | 401K5665 | R,CARBON 470H 5% 1/6W |
| R410 | 401K5665 | R,CARBON 470H 5% 1/6W |
| R501 | 401K5659 | R,CARBON 270H 5% 1/6W |
| R502 | 401K5659 | R,CARBON 270H 5% 1/6W |
| R503 | 401K5659 | R,CARBON 270H 5% 1/6W |
| R504 | 401K5659 | R,CARBON 270H 5% 1/6W |
| R603 | 409E0060 | R,METAL 4.75K 1% 1/4W |
| R604 | 409E0060 | R,METAL 4.75K 1% 1/4W |
| R605 | 409E0060 | R,METAL 4.75K 1% 1/4W |
| R606 | 409E0060 | R,METAL 4.75K 1% 1/4W |
| R607 | 409H2647 | R,CARBON 82H 5% 1/4W |
| R608 | 409H2647 | R,CARBON 82H 5% 1/4W |

| SYMBOL | PARTS NO | DESCRIPTION |
|--------------------|----------|-----------------------|
| R609 | 409H2625 | R,CARBON 10H 5% 1/4W |
| R610 | 409H2625 | R,CARBON 10H 5% 1/4W |
| R701 | 40107151 | R,CARBON 120H 5% 1/6W |
| R702 | 40107146 | R,CARBON 75H 5% 1/6W |
| R801 | 401K5673 | R,CARBON 1.0K 5% 1/6W |
| R802 | 401K5673 | R,CARBON 1.0K 5% 1/6W |
| *** CAPACITORS *** | | |
| C01 | 42910036 | C,CERAMIC 400V 4700PF |
| C101 | 439J3015 | C,ELEC 10V 100UF |
| C102 | 421C0213 | C,CERAMIC 50V 1000PF |
| C103 | 429G6505 | C,FILM 50V 2200PF 5% |
| C104 | 439J3062 | C,ELEC 50V 3.3UF |
| C105 | 421A0433 | C,CERAMIC 50V 0.047UF |
| C106 | 429G6519 | C,FILM 50V 0.033UF 5% |
| C107 | 421A0433 | C,CERAMIC 50V 0.047UF |
| C108 | 439J3026 | C,ELEC 16V 33UF |
| C109 | 429G6509 | C,FILM 50V 4700PF 5% |
| C110 | 429G6513 | C,FILM 50V 0.010UF 5% |
| C111 | 439J3059 | C,ELEC 50V 0.47UF |
| C112 | 429G6513 | C,FILM 50V 0.010UF 5% |
| C113 | 439J3026 | C,ELEC 16V 33UF |
| C114 | 421A0433 | C,CERAMIC 50V 0.047UF |
| C115 | 429G6505 | C,FILM 50V 2200PF 5% |
| C116 | 429G6509 | C,FILM 50V 4700PF 5% |
| C117 | 429G6525 | C,FILM 50V 0.10UF 5% |
| C118 | 429G6521 | C,FILM 50V 0.047UF 5% |
| C119 | 439J3063 | C,ELEC 50V 4.7UF |
| C120 | 429G6525 | C,FILM 50V 0.10UF 5% |
| C121 | 439J3014 | C,ELEC 10V 47UF |
| C122 | 439J3015 | C,ELEC 10V 100UF |
| C123 | 429G6516 | C,FILM 50V 0.018UF 5% |
| C124 | 439J3014 | C,ELEC 10V 47UF |
| C125 | 421J9001 | C,CERAMIC 50V 0.1UF |
| C126 | 439J3060 | C,ELEC 50V 1.0UF |
| C127 | 439J3063 | C,ELEC 50V 4.7UF |
| C128 | 429G6505 | C,FILM 50V 2200PF 5% |
| C129 | 423A1045 | C,CERAMIC 50V 100PF |
| C130 | 439J3015 | C,ELEC 10V 100UF |
| C131 | 429G6501 | C,FILM 50V 1000PF 5% |
| C132 | 439J3059 | C,ELEC 50V 0.47UF |
| C133 | 429G6519 | C,FILM 50V 0.033UF 5% |
| C134 | 439J3064 | C,ELEC 50V 10UF |
| C135 | 439J3064 | C,ELEC 50V 10UF |
| C136 | 423A1045 | C,CERAMIC 50V 100PF |
| C138 | 439J3064 | C,ELEC 50V 10UF |
| C140 | 439J3041 | C,ELEC 25V 100UF |
| C143 | 421A0433 | C,CERAMIC 50V 0.047UF |
| C144 | 439J3064 | C,ELEC 50V 10UF |
| C145 | 423A2028 | C,CERAMIC 50V 20PF |
| C146 | 423A2028 | C,CERAMIC 50V 20PF |
| C147 | 423A1053 | C,CERAMIC 50V 220PF |
| C148 | 423A1053 | C,CERAMIC 50V 220PF |
| C150 | 421A0433 | C,CERAMIC 50V 0.047UF |
| C151 | 421A0433 | C,CERAMIC 50V 0.047UF |
| C152 | 439J3064 | C,ELEC 50V 10UF |
| C154 | 439J3064 | C,ELEC 50V 10UF |
| C155 | 429G6513 | C,FILM 50V 0.010UF 5% |
| C201 | 429G6913 | C,FILM 50V 0.1UF |
| C202 | 429G6913 | C,FILM 50V 0.1UF |
| C203 | 429G6913 | C,FILM 50V 0.1UF |
| C204 | 429G6913 | C,FILM 50V 0.1UF |
| C205 | 429G6913 | C,FILM 50V 0.1UF |

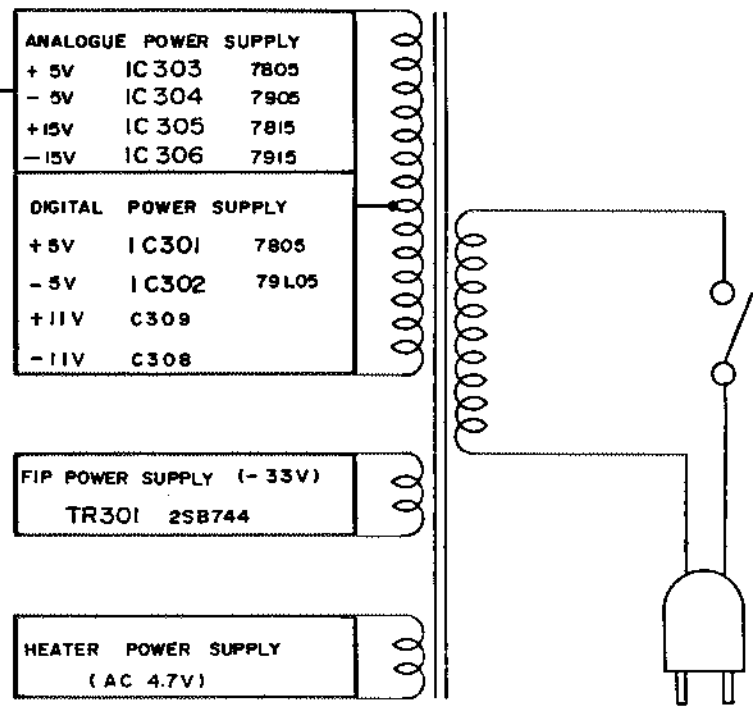
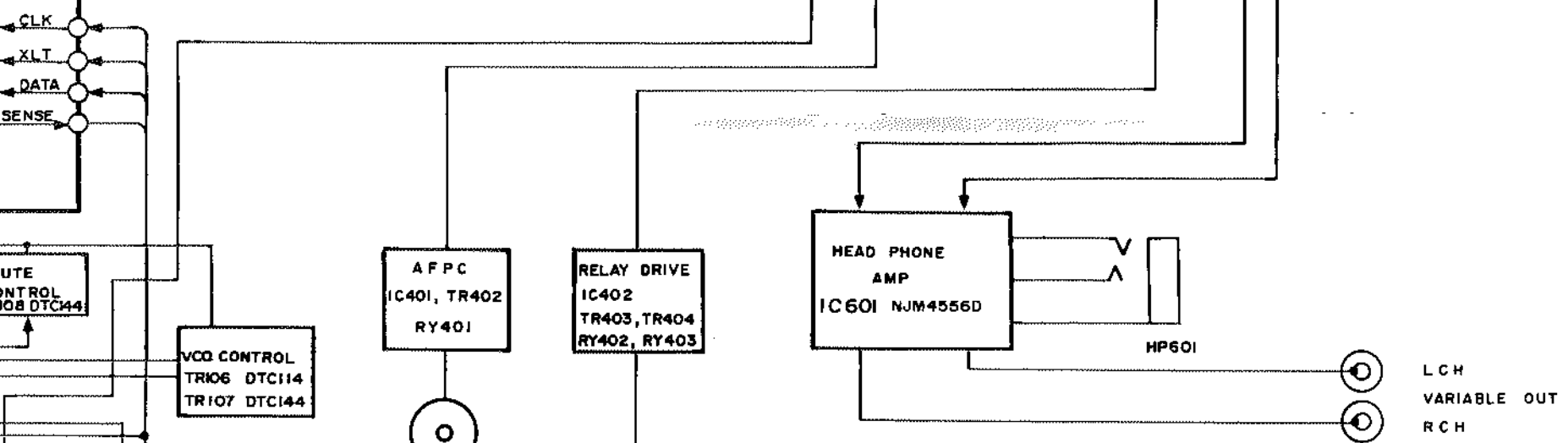
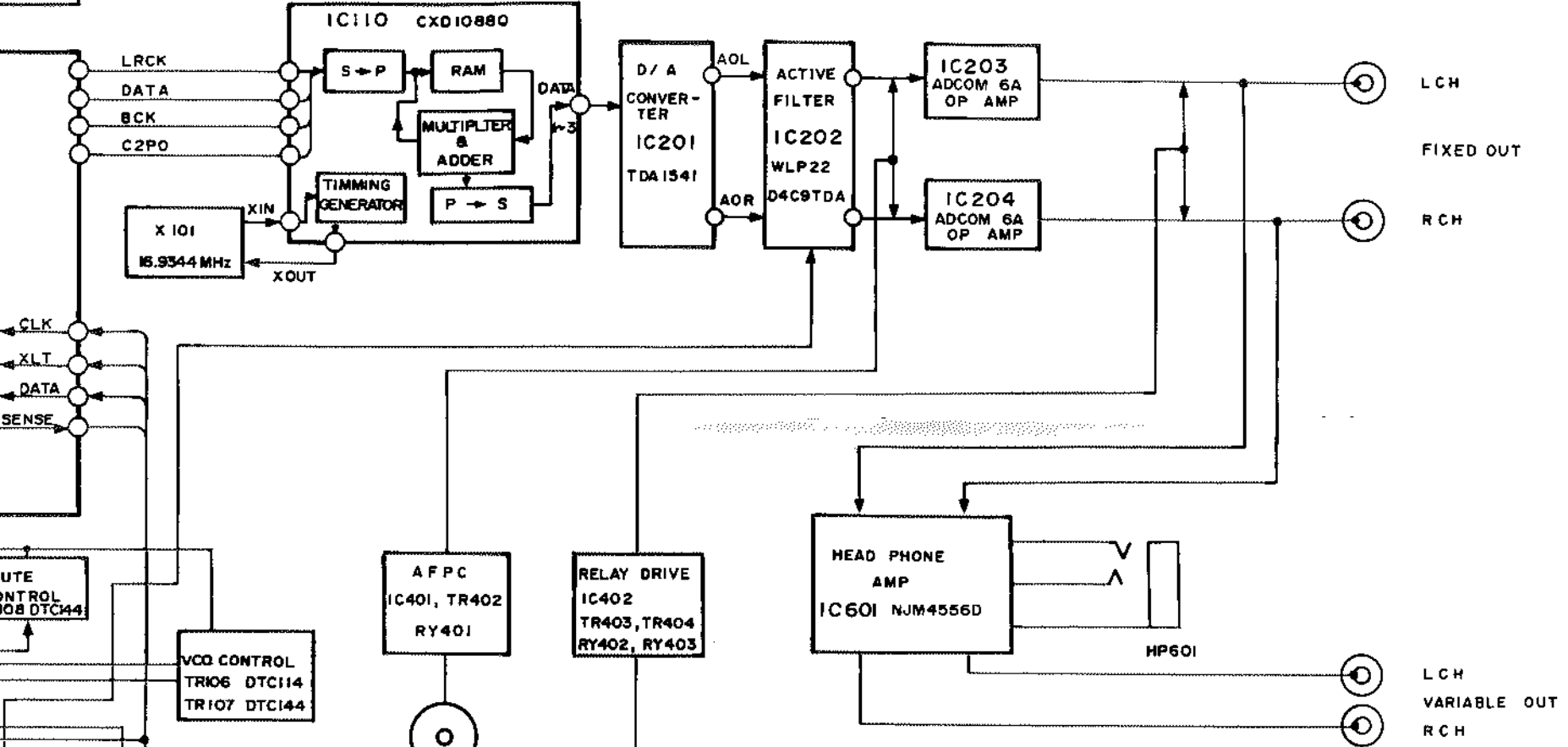
| SYMBOL | PARTS NO | DESCRIPTION |
|--------|----------|--------------------------|
| C206 | 429G6913 | C,FILM 50V 0.1UF |
| C207 | 429G6913 | C,FILM 50V 0.1UF |
| C211 | 42977141 | C,FILM 100V 680PF 5% |
| C212 | 429G6913 | C,FILM 50V 0.1UF |
| C213 | 429G6913 | C,FILM 50V 0.1UF |
| C214 | 429G6913 | C,FILM 50V 0.1UF |
| C215 | 429G6913 | C,FILM 50V 0.1UF |
| C216 | 429G6913 | C,FILM 50V 0.1UF |
| C217 | 429G6913 | C,FILM 50V 0.1UF |
| C218 | 429G6913 | C,FILM 50V 0.1UF |
| C221 | 439A1454 | C,ELEC 50V 10UF UTCS,AT |
| C222 | 439A1454 | C,ELEC 50V 10UF UTCS,AT |
| C223 | 439I2337 | C,ELEC 63V 22UF |
| C224 | 439I2337 | C,ELEC 63V 22UF |
| C225 | 429G6917 | C,METAL FILM 50V 0.22UF |
| C226 | 429G6917 | C,POLYSTER 50V 30PF |
| C227 | 42978212 | C,POLYSTER 50V 30PF |
| C228 | 42978212 | C,FILM 50V 30PF |
| C233 | 429G6917 | C,METAL FILM 50V 0.22UF |
| C234 | 429G6917 | C,METAL FILM 50V 0.22UF |
| C235 | 429G6907 | C,METAL FILM 50V 0.033UF |
| C236 | 429G6907 | C,METAL FILM 50V 0.033UF |
| C237 | 429G6901 | C,METAL FILM 50V 0.01UF |
| C241 | 421J9001 | C,CERAMIC 50V 0.1UF |
| C242 | 421J9001 | C,CERAMIC 50V 0.1UF |
| C243 | 421J9001 | C,CERAMIC 50V 0.1UF |
| C244 | 421J9001 | C,CERAMIC 50V 0.1UF |
| C251 | 429G6917 | C,METAL FILM 50V 0.22UF |
| C252 | 429G6917 | C,METAL FILM 50V 0.22UF |
| C253 | 42977158 | C,FILM 100V 3600PF 5% |
| C254 | 42977158 | C,FILM 100V 3600PF 5% |
| C255 | 42977158 | C,FILM 100V 3600PF 5% |
| C256 | 42977158 | C,FILM 100V 3600PF 5% |
| C303 | 439I1425 | C,ELEC 16V 470UF |
| C304 | 439I1425 | C,ELEC 16V 470UF |
| C305 | 439I1438 | C,ELEC 25V 2200UF |
| C306 | 439I1438 | C,ELEC 25V 2200UF |
| C308 | 439J3041 | C,ELEC 25V 100UF |
| C309 | 439J3041 | C,ELEC 25V 100UF |
| C310 | 439J3041 | C,ELEC 25V 100UF |
| C311 | 439J3041 | C,ELEC 25V 100UF |
| C312 | 439I1427 | C,ELEC 10V 2200UF UTCS |
| C313 | 43920019 | C,ELEC 16V 3300UF |
| C314 | 439J3066 | C,ELEC 50V 33UF |
| C315 | 439J3066 | C,ELEC 50V 33UF |
| C316 | 43993069 | C,ELEC 50V 220UF |
| C318 | 439I1423 | C,ELEC 16V 220UF |
| C319 | 439I1423 | C,ELEC 16V 220UF |
| C401 | 439J3025 | C,ELEC 16V 22UF |
| C402 | 439J3039 | C,ELEC 25V 47UF |
| C403 | 439J3063 | C,ELEC 50V 10UF |
| C404 | 421C0213 | C,CERAMIC 50V 1000PF |
| C405 | 421A0433 | C,CERAMIC 50V 0.047UF |
| C501 | 430A8108 | C,ELEC 10V 100UF |
| C502 | 421A0433 | C,CERAMIC 50V 0.047UF |
| C601 | 423A1015 | C,CERAMIC 50V 10PF |
| C602 | 423A1015 | C,CERAMIC 50V 10PF |
| C603 | 439A1420 | C,ELEC 16V 33UF UTCS,AT |
| C604 | 439A1420 | C,ELEC 16V 33UF UTCS,AT |
| C610 | 421A0433 | C,CERAMIC 50V 0.047UF |
| C701 | 439I1351 | C,ELEC 25V 47UF |

| SYMBOL | PARTS NO | DESCRIPTION |
|--------|----------|-----------------------|
| C702 | 4211K425 | C,CERAMIC 50V 0.01UF |
| C703 | 42311037 | C,CERAMIC 50V 47PF |
| C704 | 439I1351 | C,ELEC 25V 47UF |
| C705 | 42110933 | C,CERAMIC 50V 0.047UF |
| C706 | 42331053 | C,CERAMIC 50V 220PF |
| C707 | 42199001 | C,CERAMIC 50V 0.1UF |
| C708 | 42199001 | C,CERAMIC 50V 0.1UF |

BLOCK DIAGRAM



TOTAL
OUT
DI
IC04



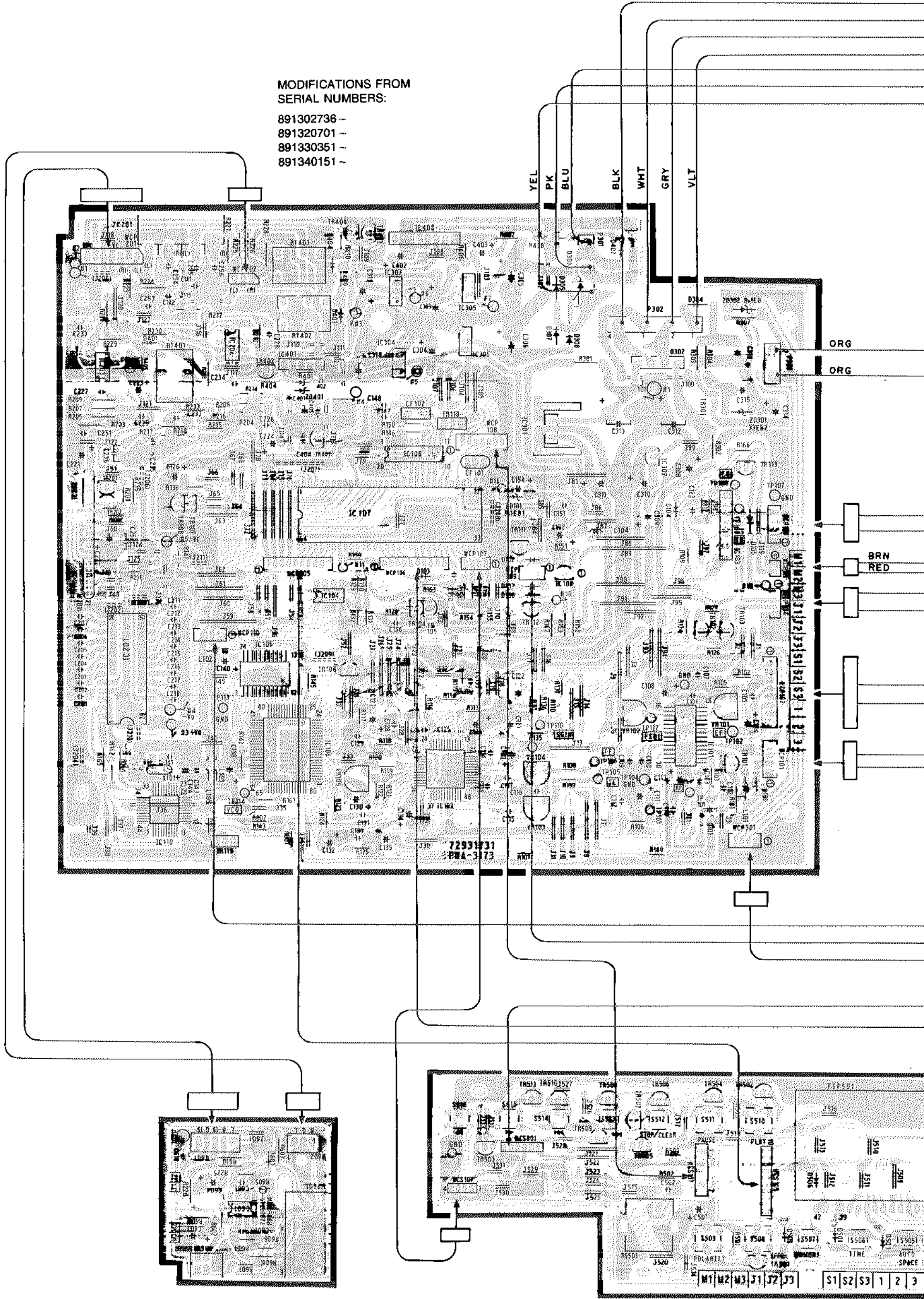
| | | | | | | |
|-------|-------|------------|-------|--------|------------|------------|
| PLAY | FS | RS | | | | |
| PAUSE | FF | FR | | | | |
| | | POLARITY | A - B | REPEAT | MEMO | |
| TIME | INTRO | AUTO SPACE | | | STOP CLEAR | OPEN/CLOSE |

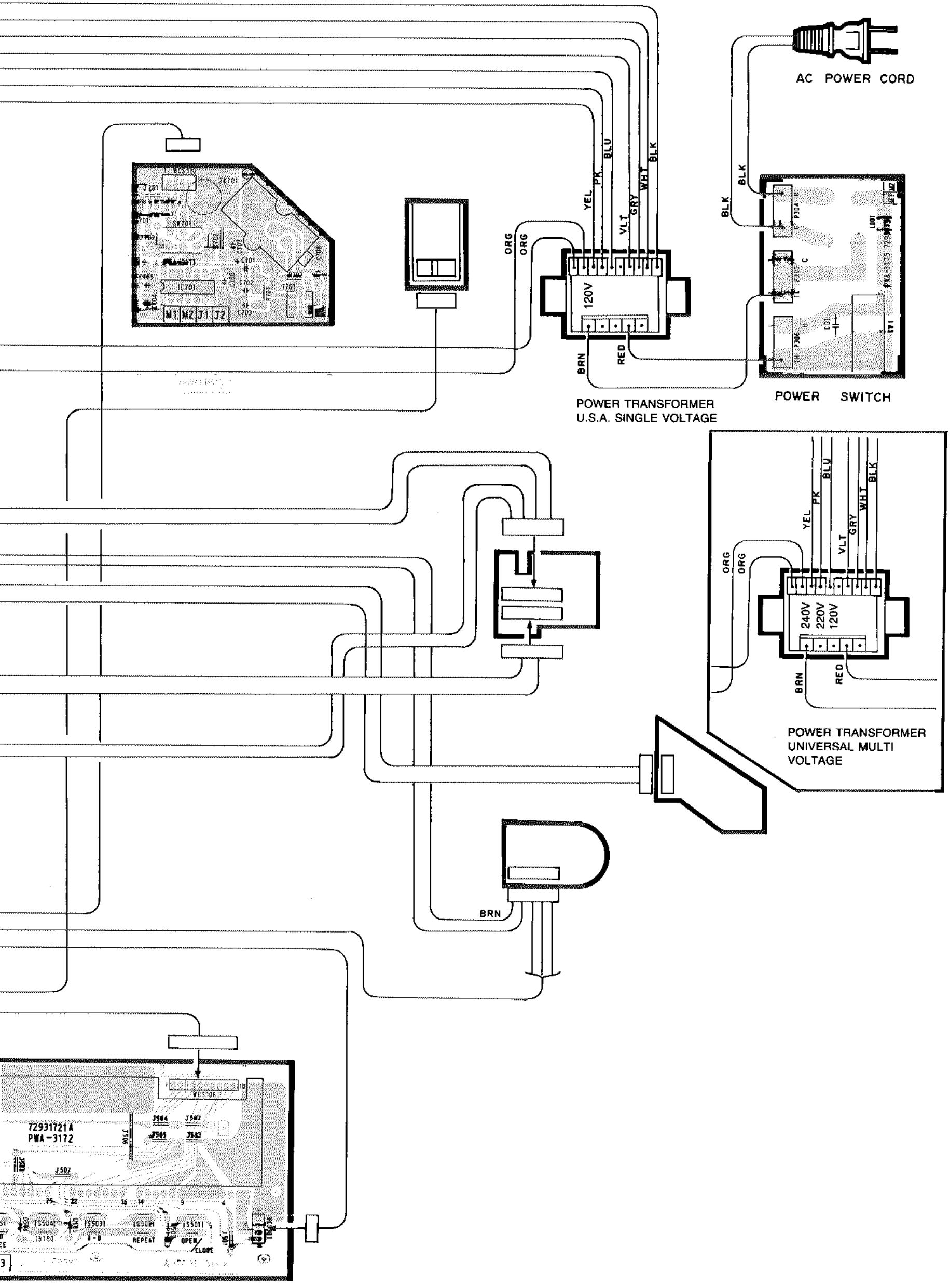
PRINTED WIRING BOARD

(Up to the 600th unit produced)

MODIFICATIONS FROM SERIAL NUMBERS:

- 891302736 -
- 891320701 -
- 891330351 -
- 891340151 -



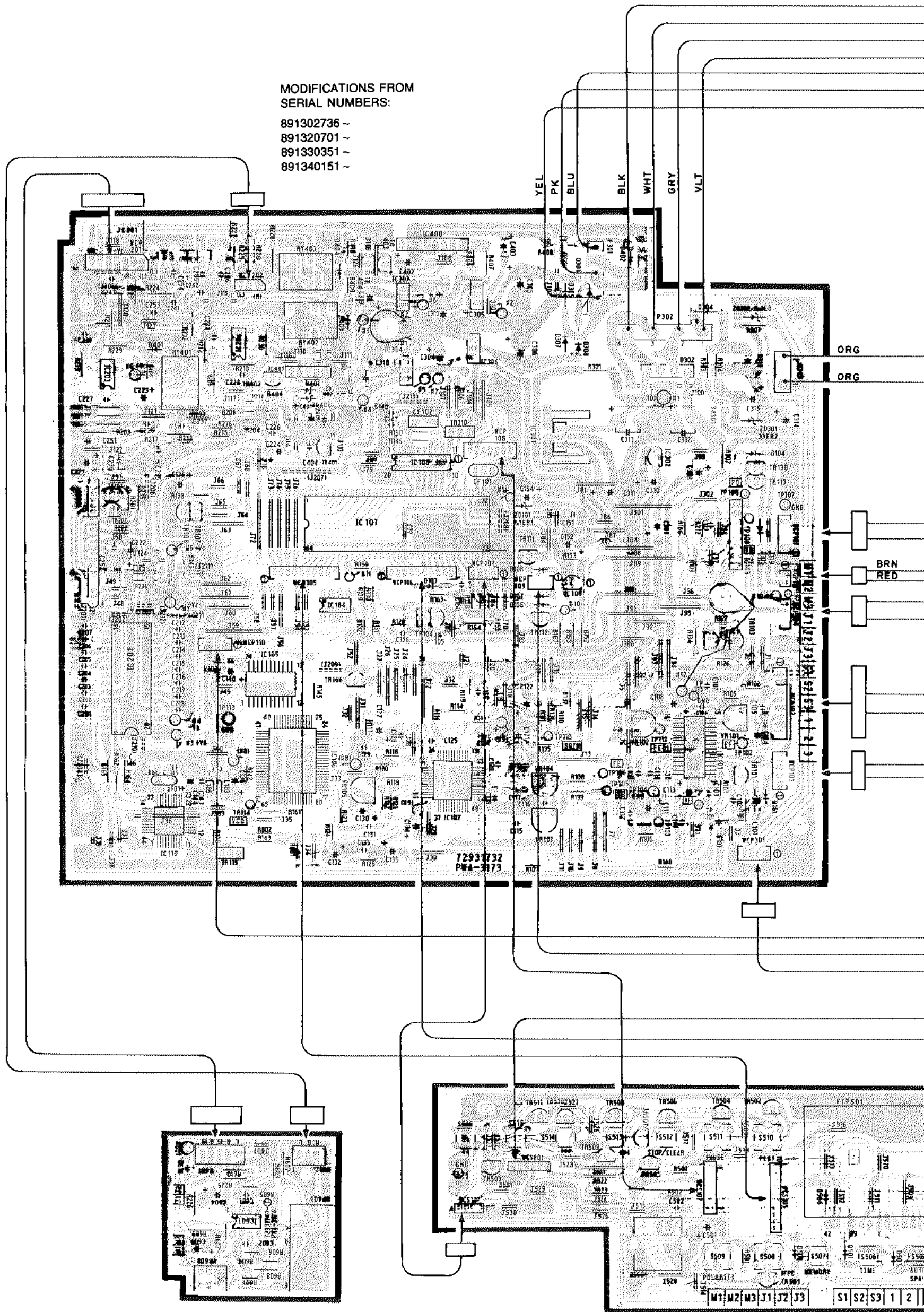


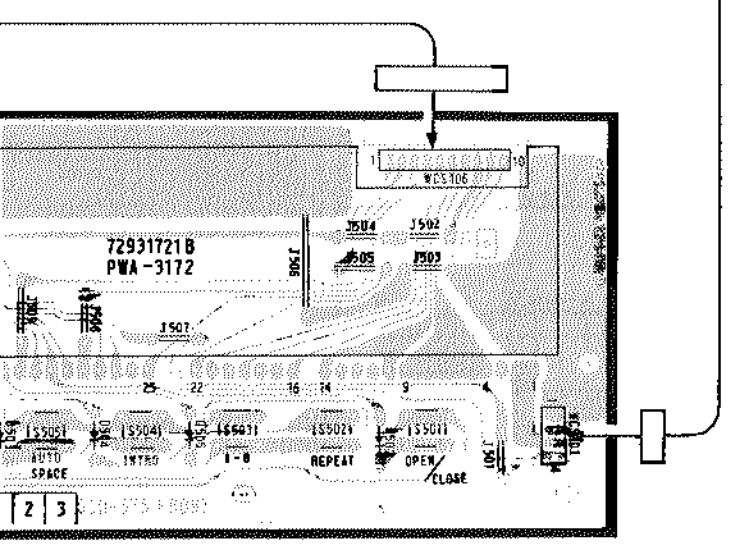
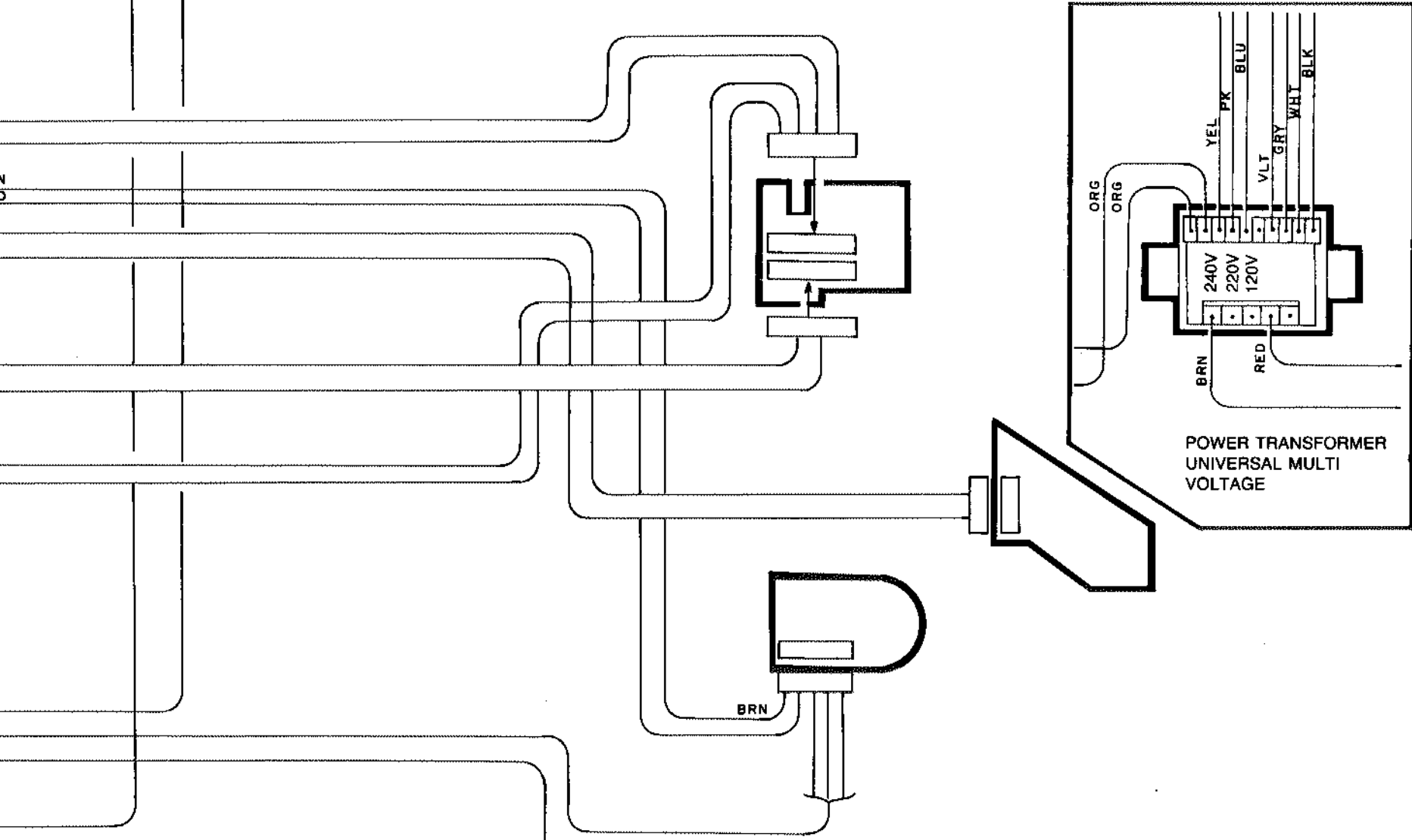
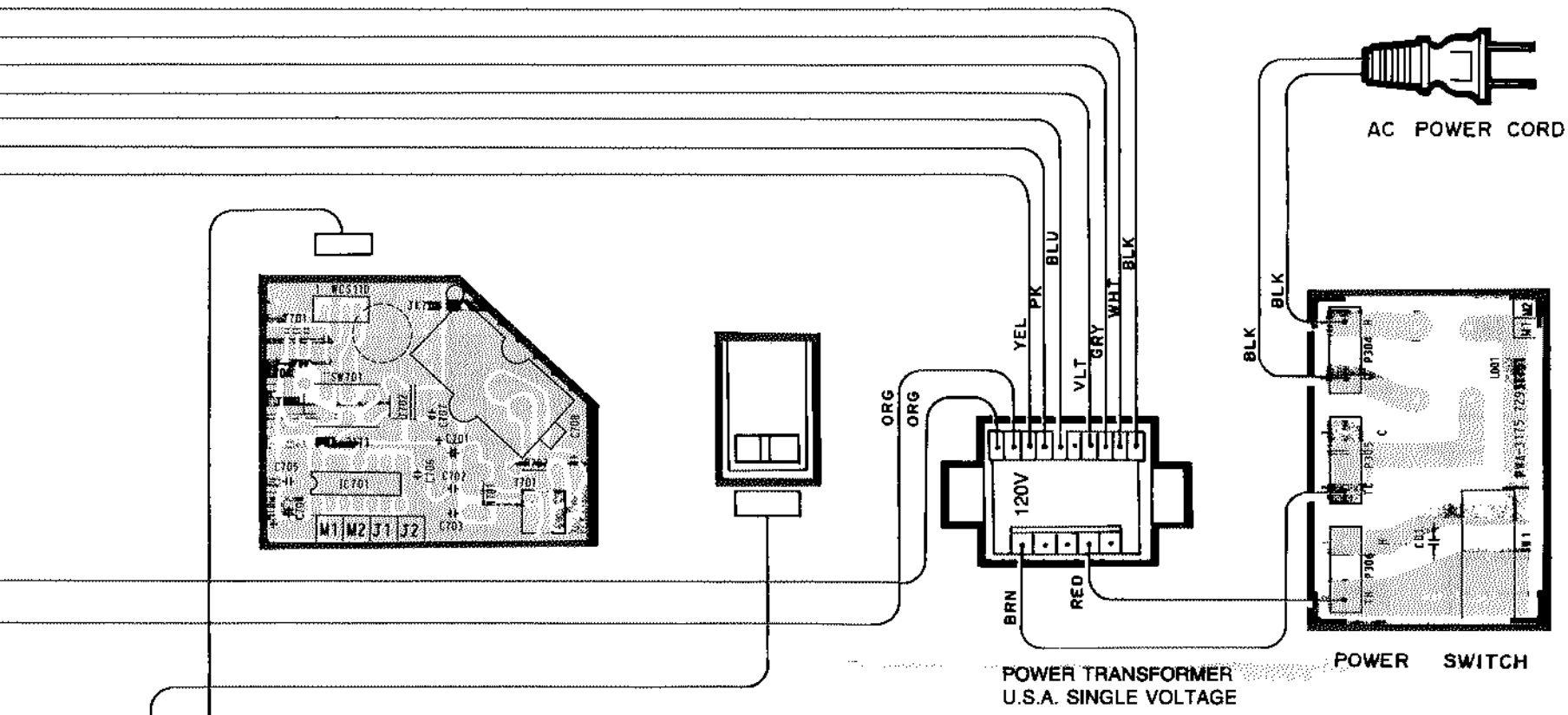
PRINTED WIRING BOARD

(From 601st unit produced)

MODIFICATIONS FROM SERIAL NUMBERS:

- 891302736 -
- 891320701 -
- 891330351 -
- 891340151 -





CIRCUIT DIAGRAM

