

Quality Uncompromised

ROTEL®

Technical Manual

STEREO CONTROL AMPLIFIER RC-870BX

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Specifications

Total Harmonic Distortion . . .	No more than 0.004%
	(CD/TUNER, 20 to 20,000 Hz)
Intermodulation Distortion . . .	No more than 0.004%
(60 Hz : 7 kHz = 4 : 1)	(CD/TUNER)
Output	Headphone 4-16 ohms
Input Sensitivity/Impedance:	
PHONO (MM)	2.5 mV/47 kohms
PHONO (MC)	250 μ V/180 ohms
CD, TUNER, TAPE 1/2 . . .	150 mV/24 kohms
AV/AUX 1, AV/AUX 2 . . .	150 mV/24 kohms
Output sensitivity/Impedance . .	1.0V/330 ohms
Overload Level (THD 0.5%, 1 kHz):	
PHONO (MM)	180 mV
PHONO (MC)	15 mV
CD, TUNER, TAPE 1/2 . . .	5V
AV/AUX 1, AV/AUX/2 . . .	5V
Frequency Response:	
PHONO	20 to 20,000 Hz, \pm 0.2 dB
	(RIAA STD)
CD, TUNER, TAPE 1/2 . . .	4 to 100,000 Hz, +0.5 dB, -3 dB
AV/AUX 1, AV/AUX 2 . . .	4 to 100,000 Hz, +0.5 dB, -3 dB

Signal-to-Noise Ratio (IHF A network):	
PHONO (MM)	80 dB
PHONO (MC)	70 dB
CD, TUNER, TAPE 1/2 . . .	95 dB
AV/AUX 1, AV/AUX 2 . . .	95 dB
Power Requirement	120V/60 Hz, 220V/50 Hz, 240V/50 Hz or 120, 220, 240V/ 50-60 Hz (switchable) (depending on destinations)
Power Consumption	10 watts
Dimensions (overall)	430(W) x 66(H) x 320(D) mm 16-15/16" x 2-19/32" x 12-19/32"
Weight (net)	3.8 kg/8.36 lbs.

• Specifications and design subject to possible modification without notice.

Serial No.
Beginning

THE ROTEL CO., LTD.
ROTEL ELECTRONICS CO., LTD.

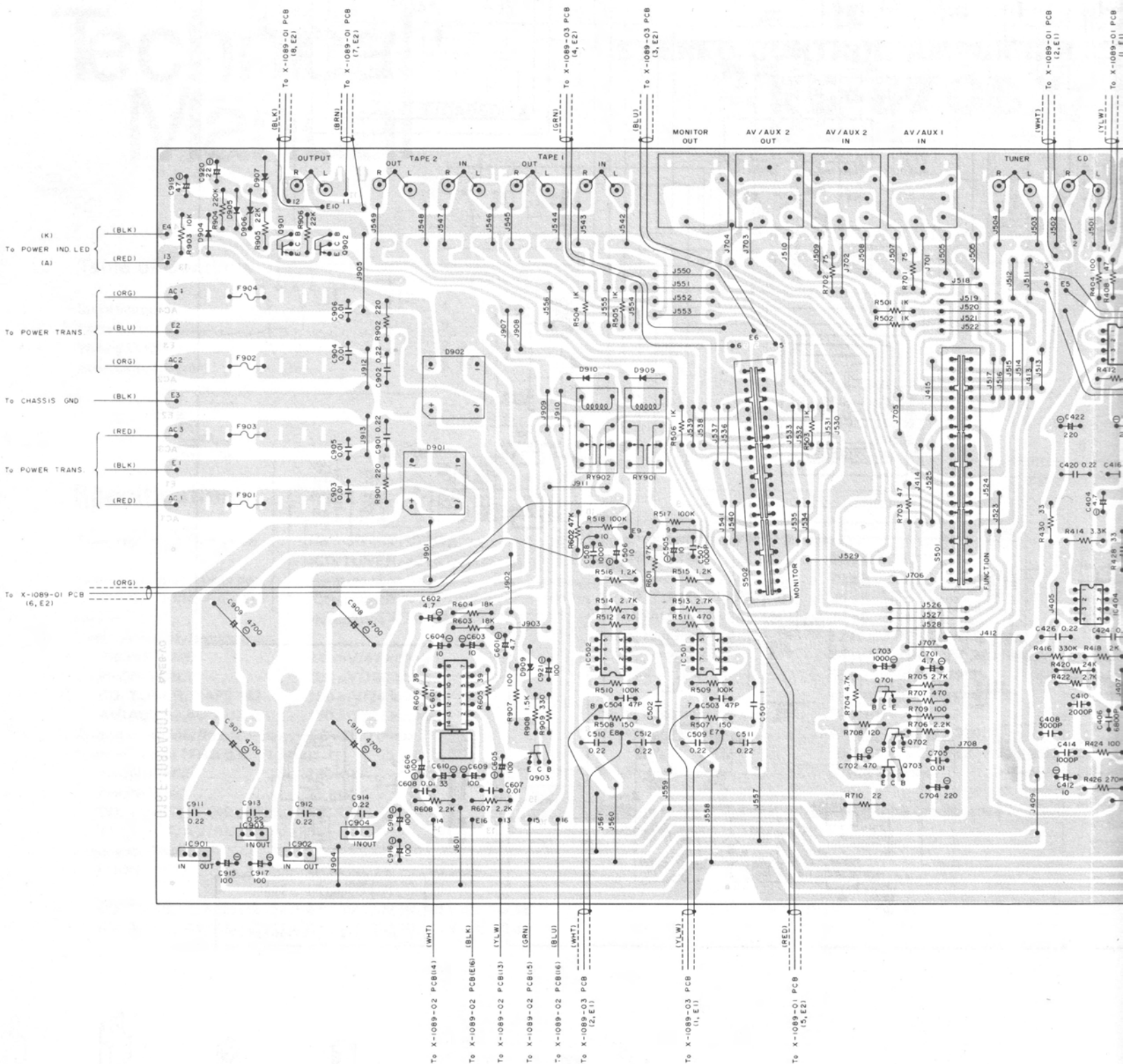
1-36-8 OHOKAYAMA, MEGURO-KU, TOKYO 152, JAPAN
3RD FLOOR, ROTEL BLDG., NO. 35 FUSHING, NORTH
ROAD, TAIPEI, TAIWAN, REPUBLIC OF CHINA

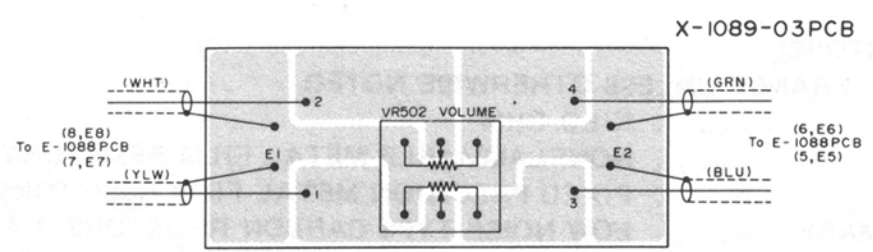
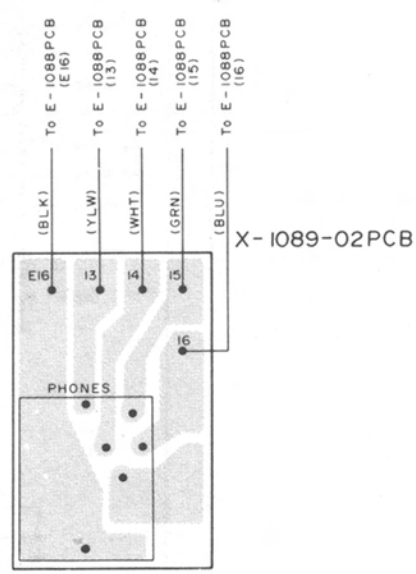
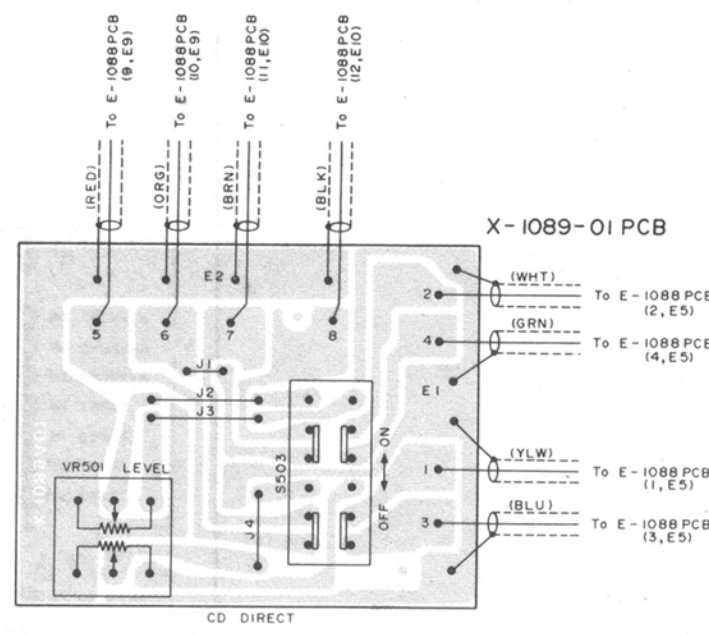
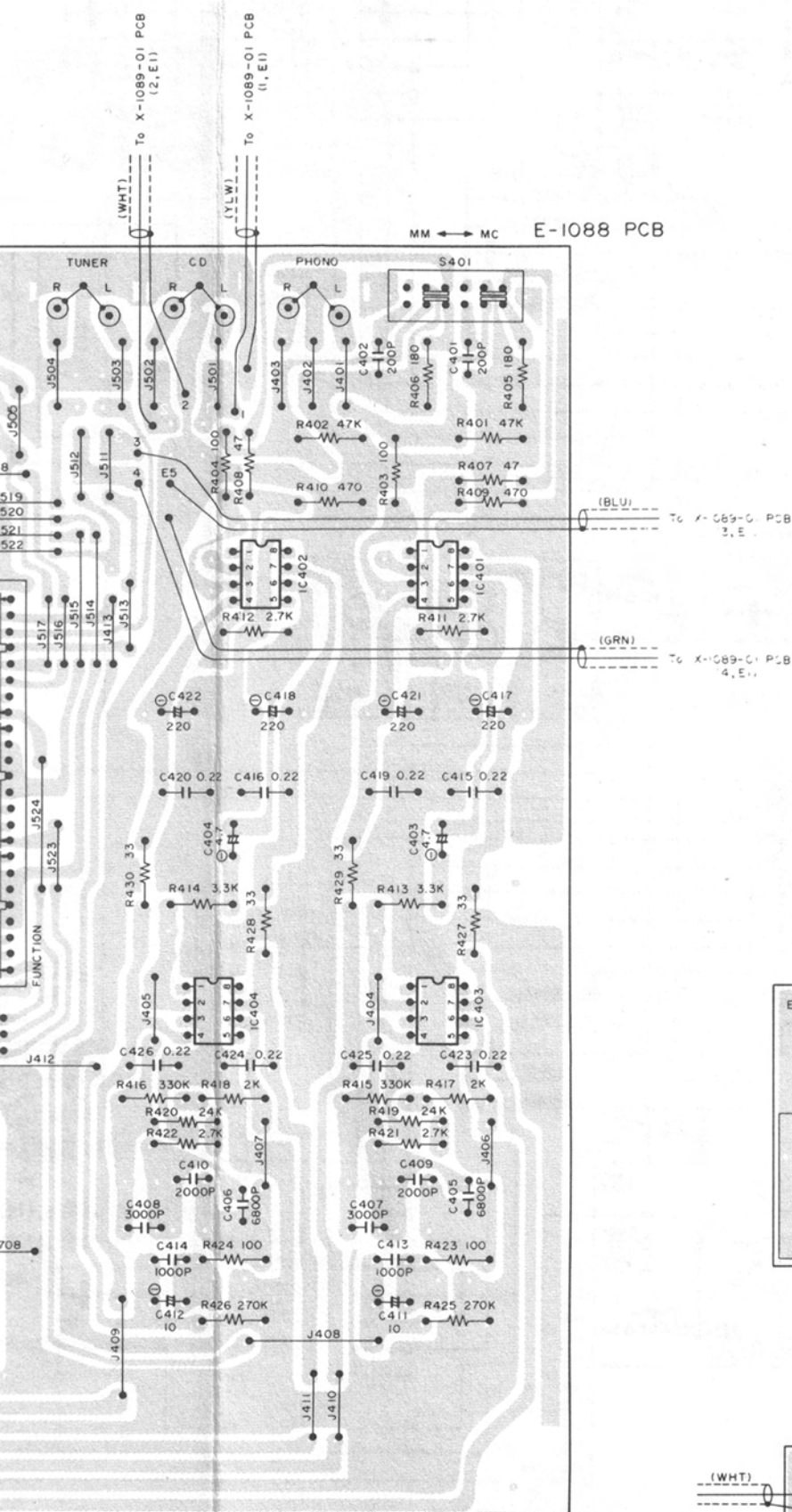
Parts List

Schematic Location	Computer No.	Description
Q701	0322SC1815	
Q702	0322SC1815	
Q703	0322SD600-EF	
Q801	0322SC1815	
Q902	0322SC1815	
Q903	0322SD600-EF	
D901	034KBPC102	Rectifier
D902	034KBPC102	Rectifier
D904	034DS135C	
D905	034IS1588	
D906	034RD15EB	Zener
D907	034RD10EB	Zener
D908	034RD15EB	Zener
D909	034IS1588	
D910	034IS1588	
IC401	031NE5534AN	
IC402	031NE5534AN	
IC403	031NE5534AN	
IC404	031NE5534AN	
IC501	031NE5534N	
IC502	031NE5534N	
IC601	031LA4170	
IC901	031NJM78M18A	Voltage Regulator
IC902	031NJM78M18A	Voltage Regulator
IC903	031NJM79M18A	Voltage Regulator
IC904	031NJM79M18A	Voltage Regulator
VR501	051C-4170A10	CD Direct Level Volume
VR502	051C-4170A12	Volume
S401	0644TR-2294	Phono Selector

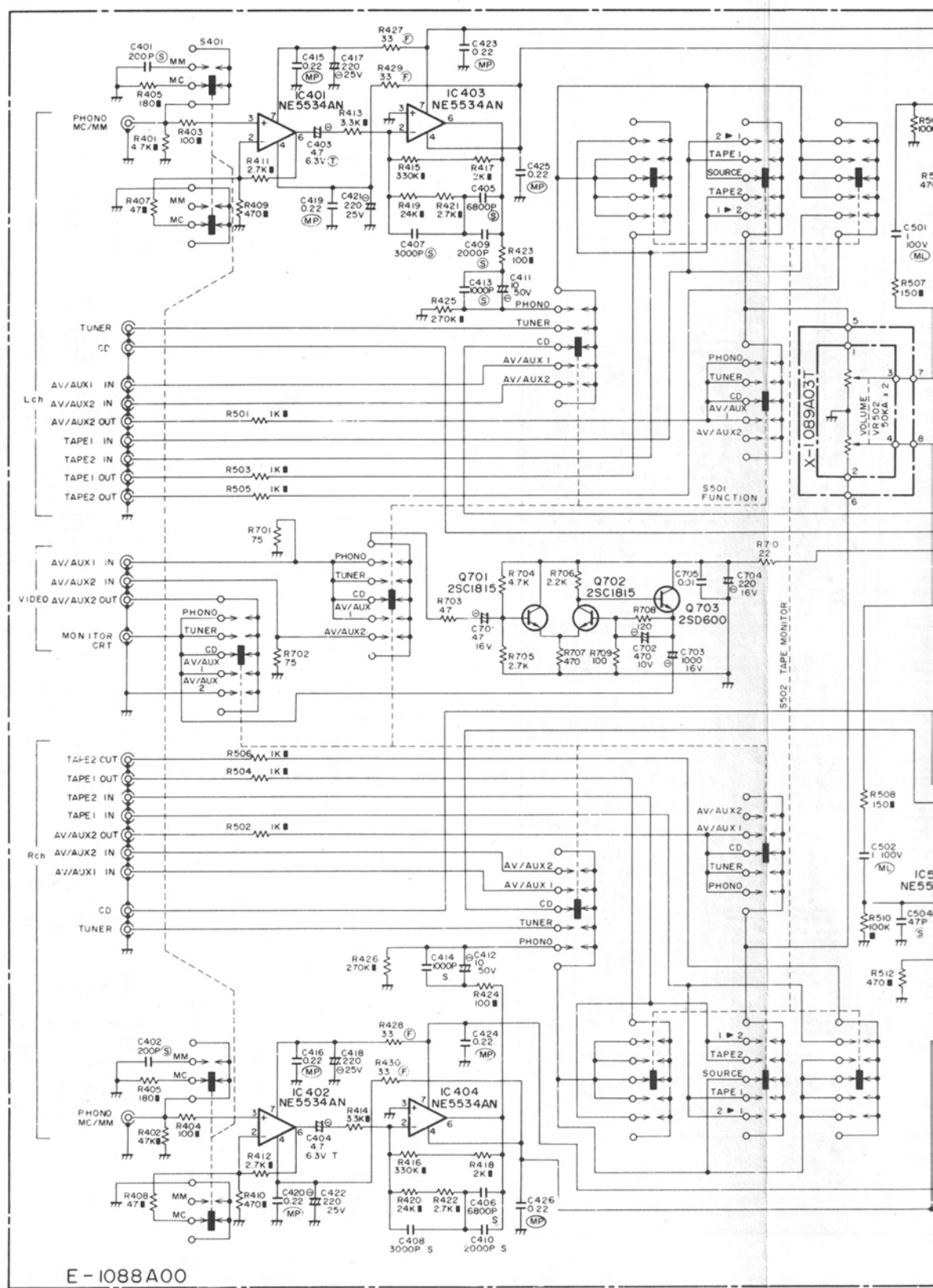
Schematic Location	Computer No.	Description
S501	064C-4175A52	Function
S502	064C-4175A52	Monitor
S503	0614TR-2380	CD Direct Selector
RY901	063ORZ-SS224L	Relay
RY902	063ORZ-SS224L	Relay
D001	034SEL1124R	Power Ind.
C001	044DE7150F472M	Speak Killer
S001	061C-4176A01	Power Switch
T001	022T-1012G01	Power Transformer
	011PF2-07A00	Front Panel
	0124TR-2176	Knob (Power)
	0124TR-2366	Knob (Volume L)
	0124TR-2367	Knob (Volume R)
	012C-3049A#3	Knob (CD Direct Select)
	012C-3187#5-T	Knob (Function, Monitor, CD Level)
	0143TTE-6#2	Upper Cover
	0143TTE-7	Ornamental Side Plate
	062C-4175A09	Rotary Switch (Function, Monitor)
	065C-3654#3	Phone Jack
	0664TR-2166#3	2P Pin Jack (Output)
	0664TR-2167#3	4P Pin Jack (Phono, CD Input)
	066C-4298A03	4P Pin Jack (Tape In/Out)
	066C-4298A04	2P Pin Jack (Tuner Input)
	066C-4319A01	3P Pin Jack (AV In/Out)
	066C-4319A02	1P Pin Jack (TV Monitor)
	069C-4304A01	Voltage Selector
	072C-4188A00	RCA Pin Cord

Wiring Diagram





Schematic Diagram



E-1088A00

(RESISTORS)

5% TOLERANCE UNLESS OTHERWISE NOTED.

K KILO OHM

▼ NONFLAMMABLE METAL FILM RESISTORS. 1/2 WATT

■ FIXED PRECISION METAL FILM RESISTORS. (F): 1% TOLERANCE

NON MARK LOW NOISE TYPE CARBON RESISTORS. 1/4 WATT

Ⓣ FUSIBLE CARBOB FILM RESISTORS. 1/4 WATT

(CAPACITORS)

Ⓢ POLYSTYRENE FILM CAPACITORS.

Ⓣ TANTALUM CAPACITORS.

Ⓜ MYLAR FILM CAPACITORS.

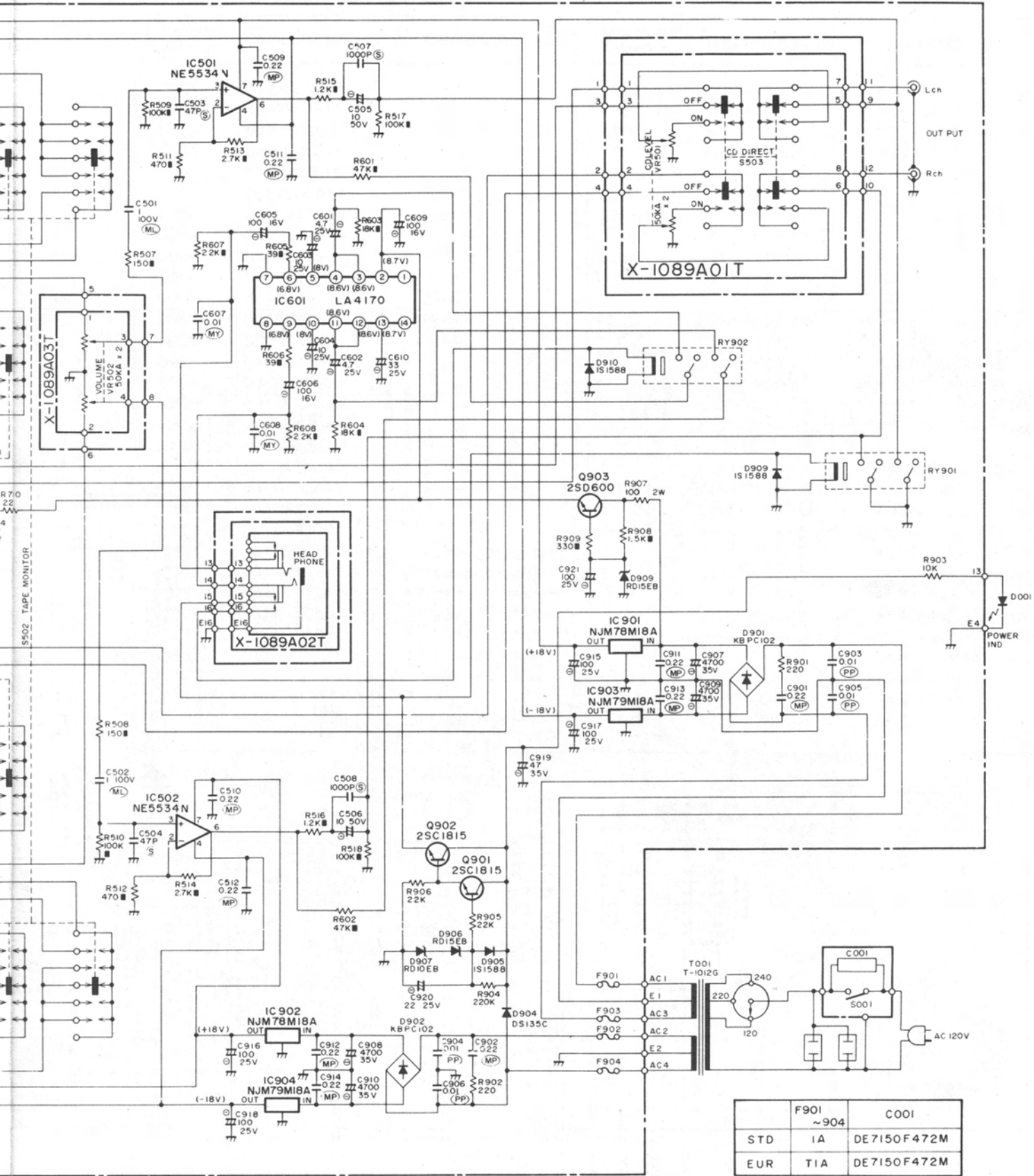
Ⓟ POLYPROPYLENE FILM CAPACITORS.

Ⓜ METALIZED POLYESTER FILM CAPACITORS.

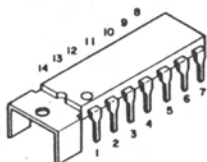
Ⓛ ELECTROLYTIC CAPACITORS.

NON MARK CERAMIC CAPACITORS.

Ⓜ METAL LAYER CAPACITORS.



	F901 ~904	C001
STD	IA	DE7150F472M
EUR	TIA	DE7150F472M



LA4170



NE5534N



2SC1815



2SD600



NJM78M18A



NJM79M18A

• UNLESS OTHERWISE NOTED IN SCHEMATIC ALL CAPACITANCE VALUES ARE EXPRESSED IN MFD.

• VOLTAGE READING WITH VTVM FROM THE POINT SHOWN TO THE CHASSIS GROUND. (LINE VOLTAGE 120 VOLTS)

• VOLTAGE READING MAY $\pm 20\%$