

Service Manual

COMPACT
disc
DIGITAL AUDIO

MASH*
multi-stage noise shaping

CD Stereo System

SA-CH64M

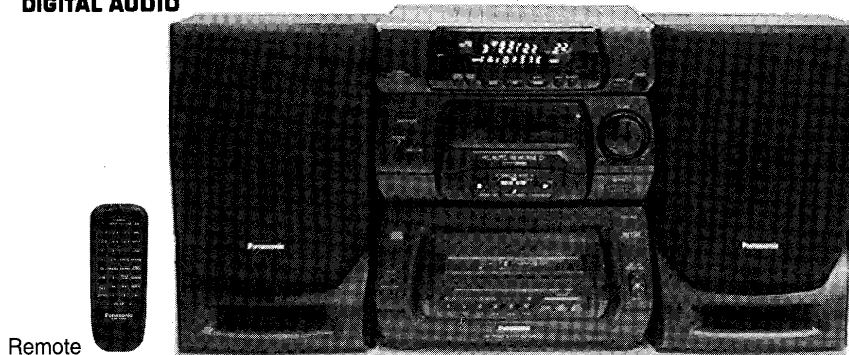
Colour

(K) Black Type

Area

Suffix for Model No.	Area	Colour
(P)	U.S.A.	(K)
(PC)	Canada	

* MASH is a trademark of NTT.



Remote
Control
Transmitter

SB-CH64

SA-CH6 4M

SB-CH64

TAPE SECTION : AR-2 MECHANISM SERIES
CD SECTION : RAE0113Z TRAVERSE DECK SERIES

■ Specifications

■ Amplifier Section

Rated minimum sine wave FTC power output
95 Hz—20 kHz both channels driven
0.9% total harmonic distortion
1 kHz continuous power output,
both channels driven 1% total
harmonic distortion (DIN POWER)
Total harmonic distortion
Half power at 1 kHz
Input sensitivity
AUX
Input impedance
AUX
V. Bass (Vol. level at -30dB)

2 x 35W (6Ω)
2 x 40W (6Ω)
0.07% (6Ω)
250mV (IHF '66)
22kΩ
63Hz, +6dB

■ FM Tuner Section

Frequency range
Sensitivity
Total harmonic distortion
MONO
STEREO
S/N MONO
Image rejection at 98.1 MHz
Stereo separation at 1 kHz
Antenna terminal(s)

87.9 — 107.9MHz
23.3dBf (4.0μV, IHF '58)
0.3%
0.5%
65dB
35dB
35dB
75Ω (unbalanced)

■ CD Section

Sampling frequency
Decoding
Beam source / wave length
Number of channels
S/N ratio
CD UNIT OUT
SP OUT
Wow and flutter
Digital filter
D/A converter

44.1kHz
16 bit linear
Semiconductor laser / 780 nm
Stereo
95 dB (JIS.A)
85 dB (JIS.A)
Below measurable limit
8 fs
MASH (1 bit DAC)

■ AM Tuner Section

Frequency range
Sensitivity (S/N 20 dB)
Image rejection at 1000 kHz

520 — 1710kHz
500μV/m
40dB

■ Cassette Deck Section

Track system
Heads
Record/playback
Erasure
Motor
Recording system
Erasing system
Tape speed
Frequency response (EIAJ) at PHONES OUT
NORMAL
S/N ratio
Wow and flutter
Fast forward and rewind time

4 track, 2 channels
Permalloy head
Double gap ferrite head
DC servo motor
AC bias 100 kHz
AC erase
4.8cm/sec. (17⁷/₈ ips)
35Hz — 14kHz
50dB (A weighted)
0.18% (WRMS)
Approx. 120 seconds with C-60 cassette tape

■ General

Power consumption
Power supply
Dimensions (W x H x D)
Weight

120W
10W (Power standby)
AC 120V, 60Hz
270 x 347 x 424mm
(10⁵/₈" x 13²¹/₃₂" x 16¹¹/₁₆")
10.3kg (22.7lb.)

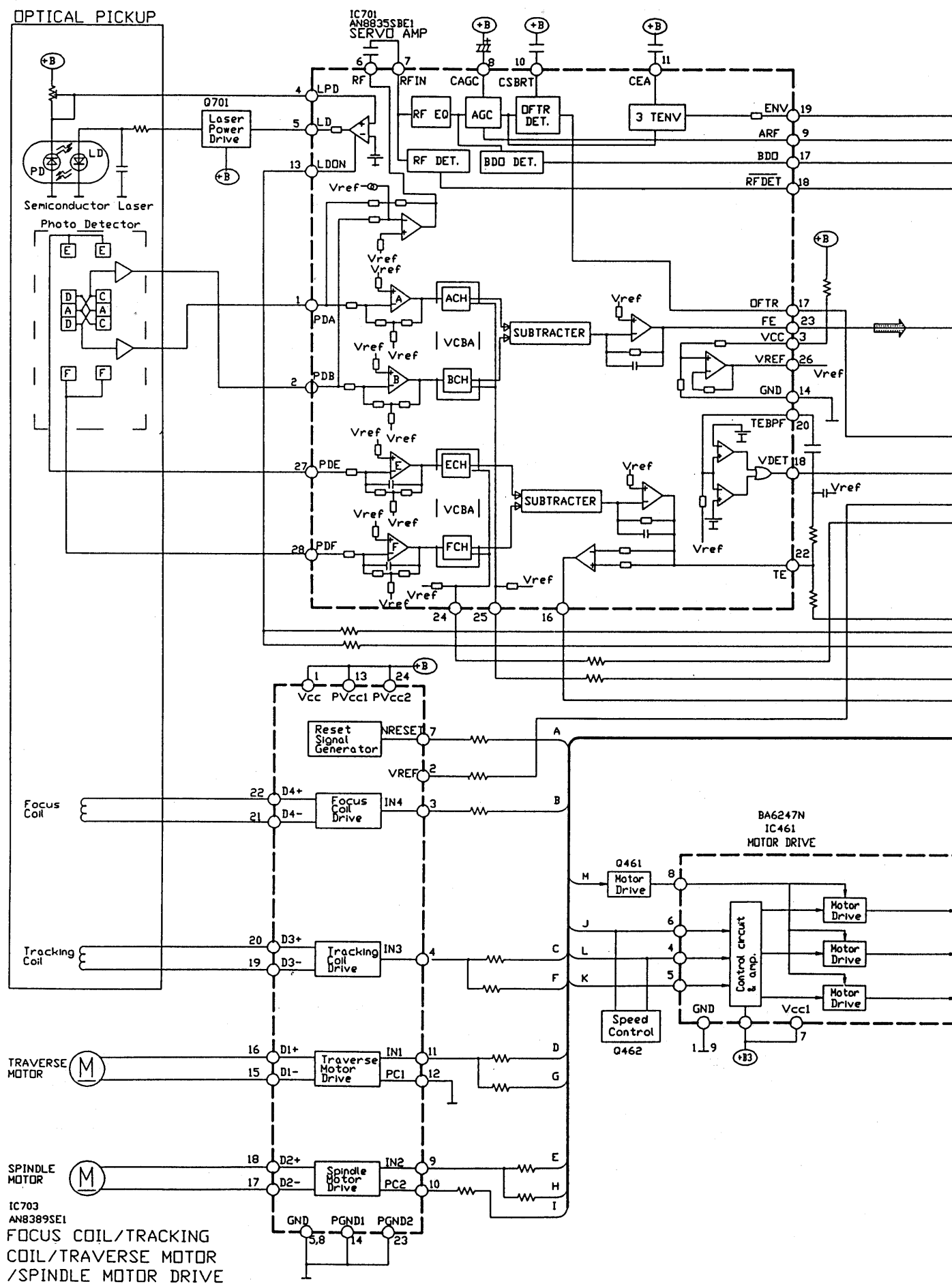
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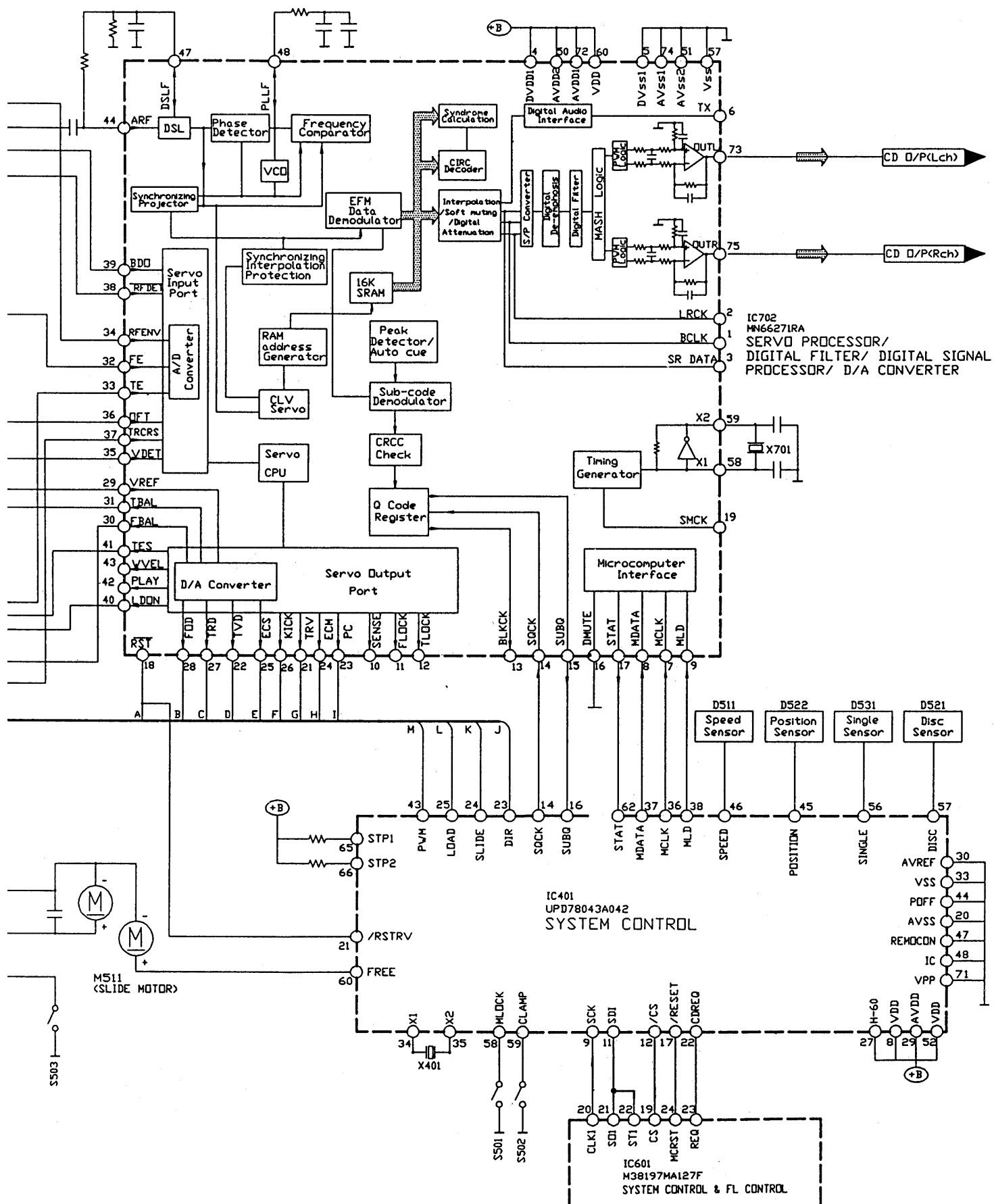
- Specifications are subject to change without notice. Weight and dimensions are approximate.
- Total harmonic distortion is measured by the digital spectrum analyzer.

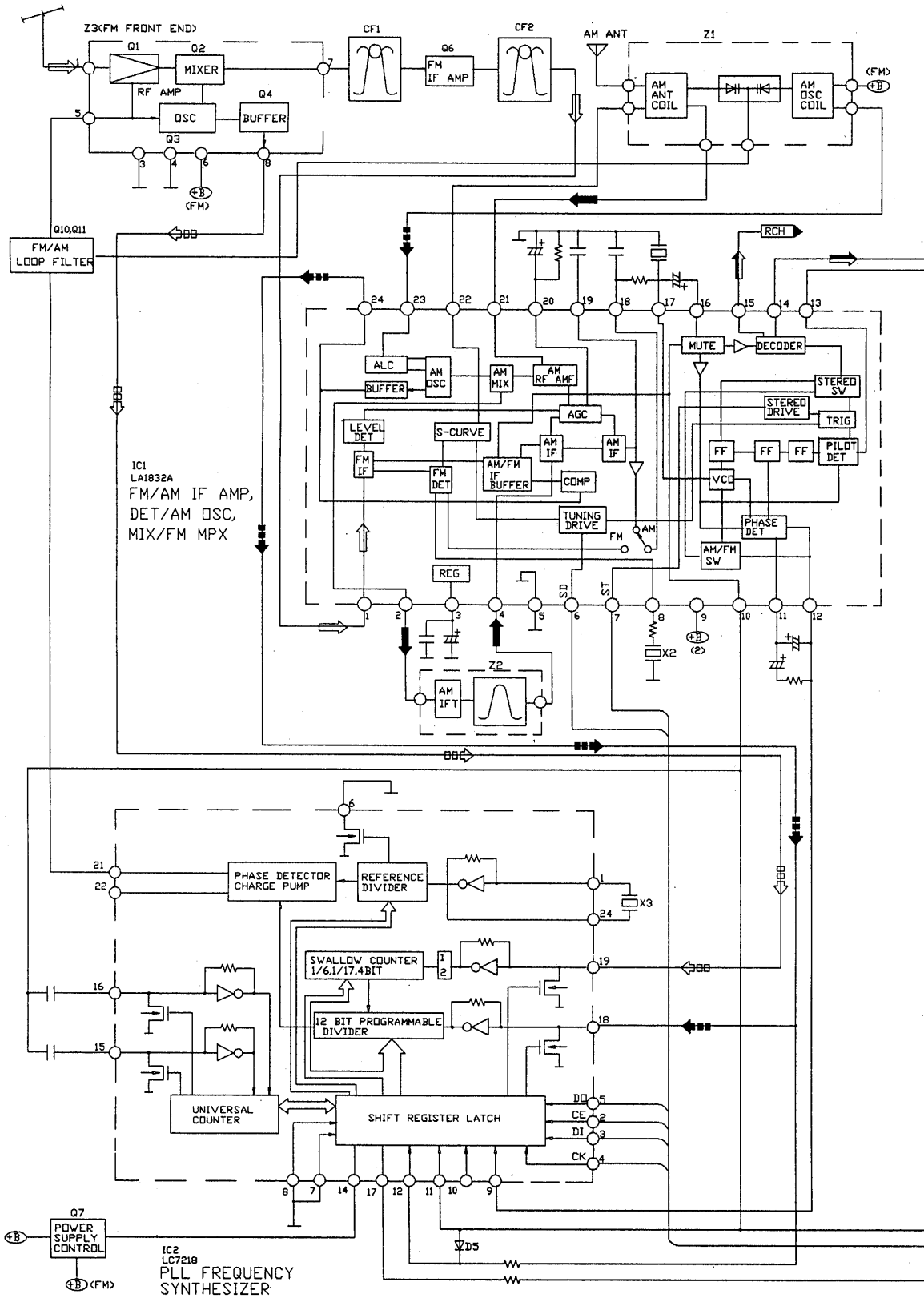
Panasonic®

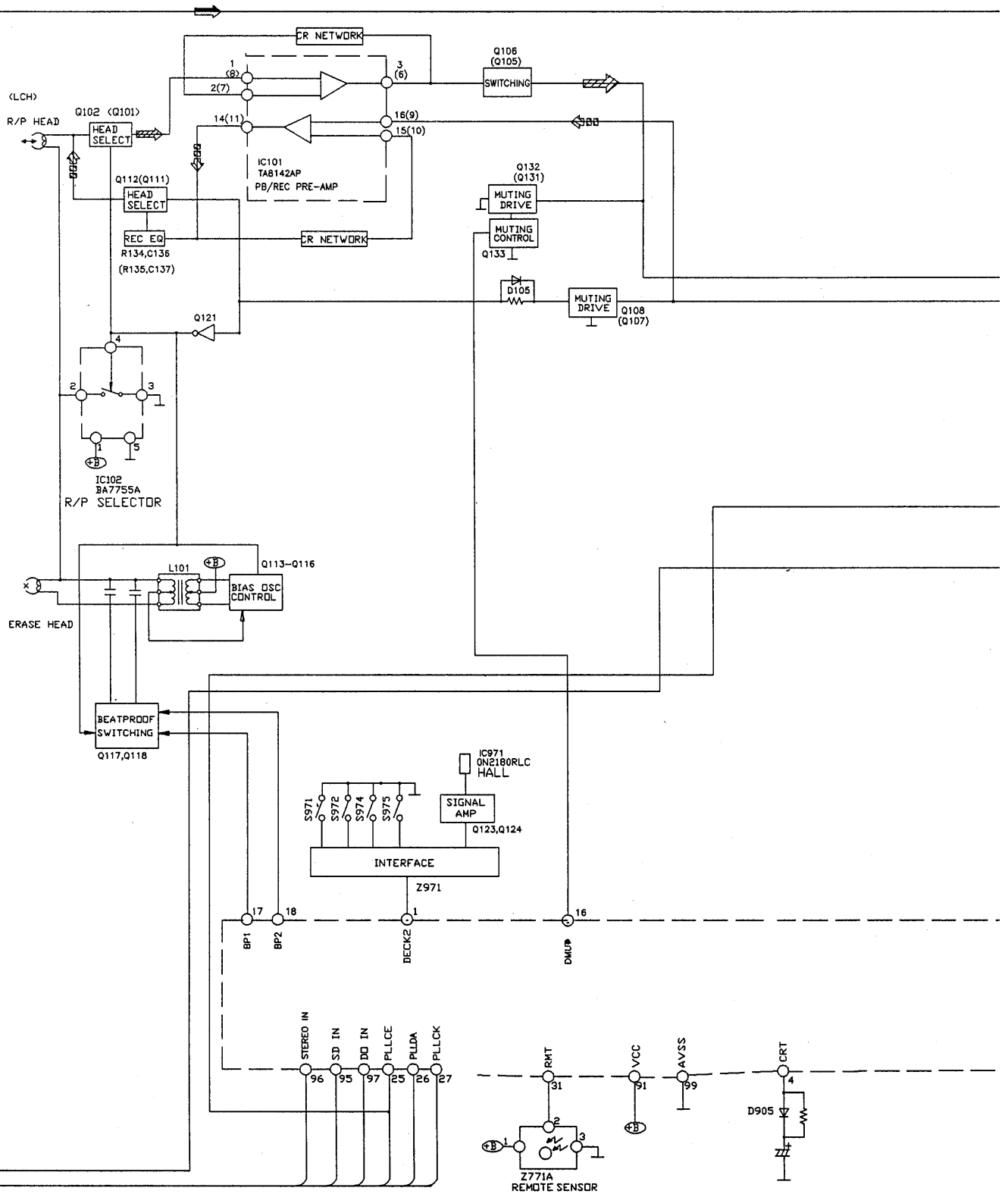
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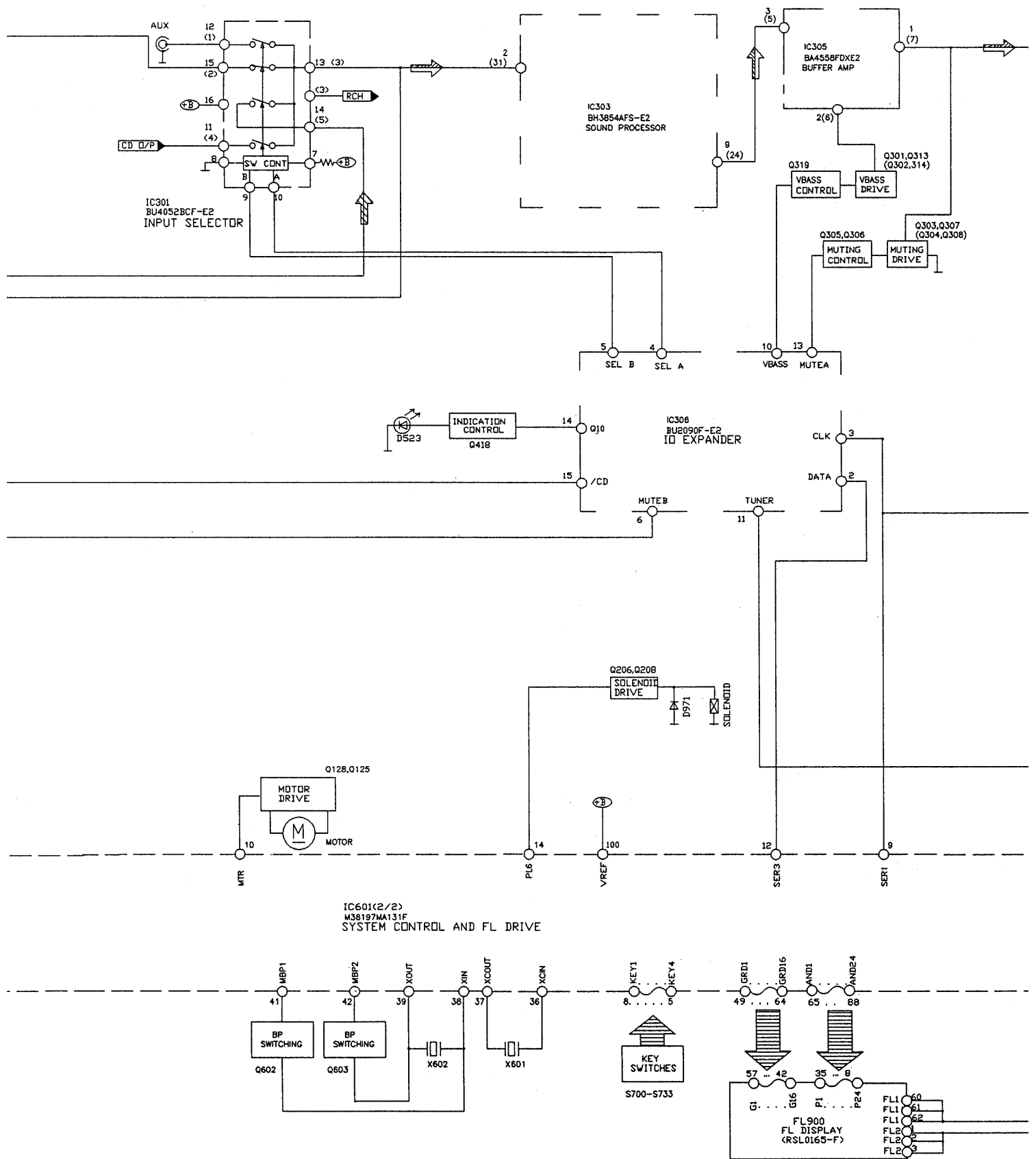
■ Block Diagram

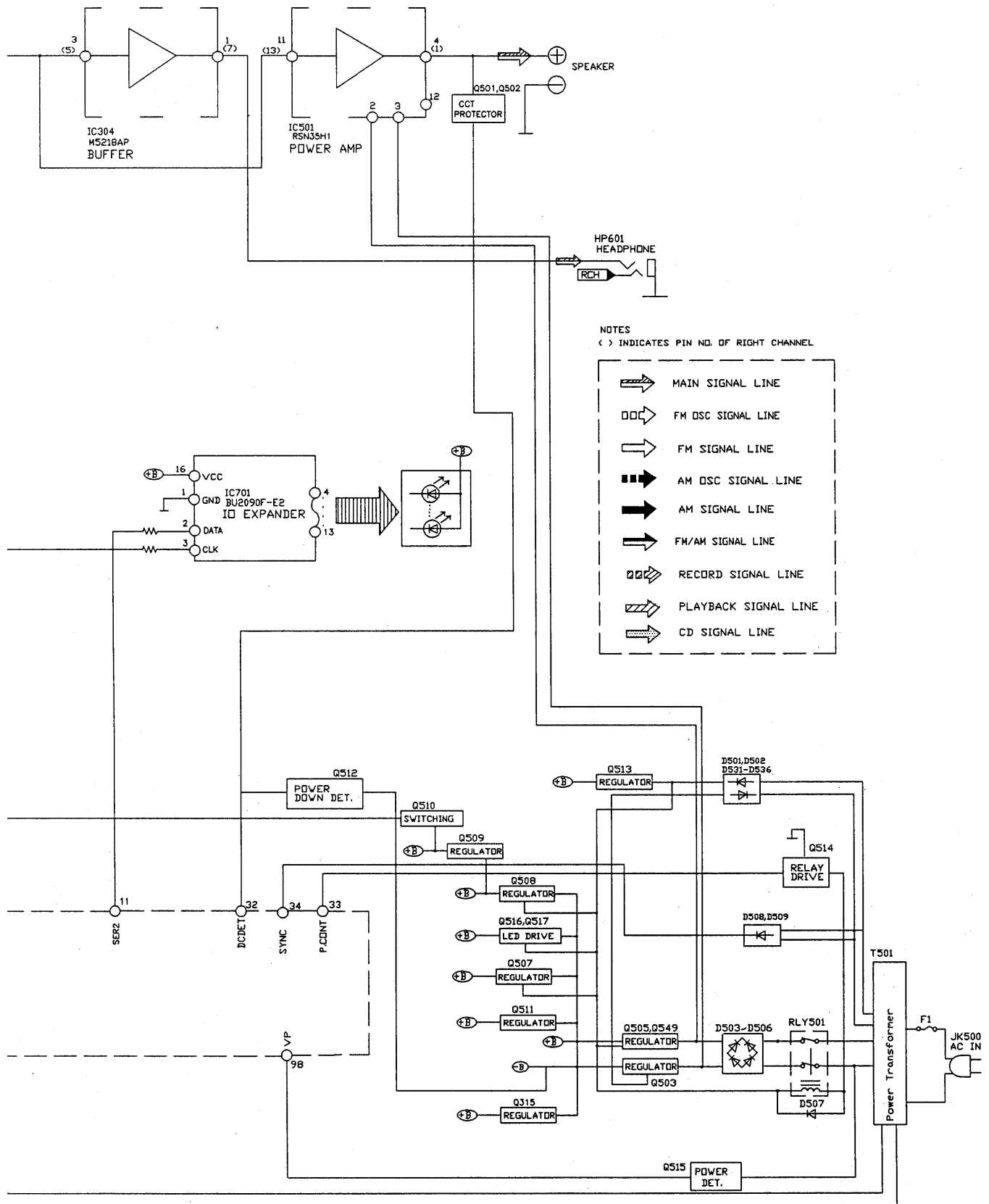




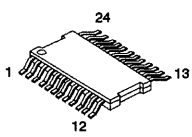
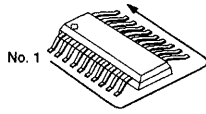
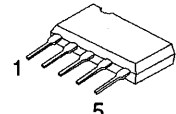
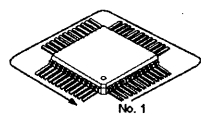
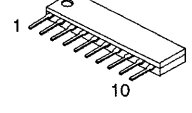
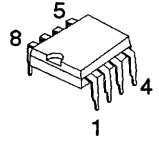
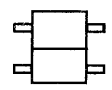
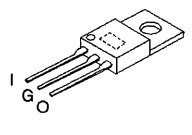
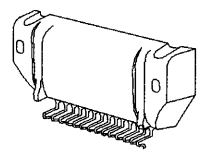
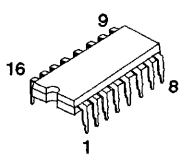
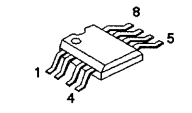
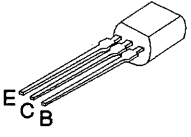
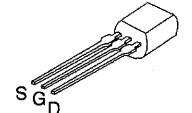
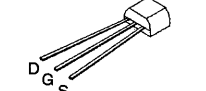
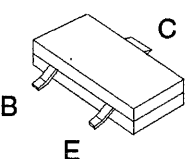
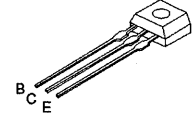

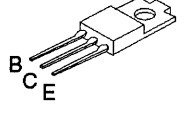
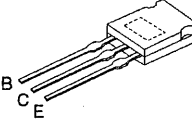
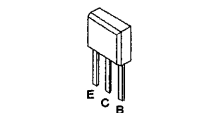
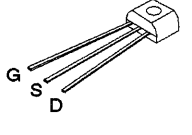
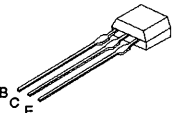
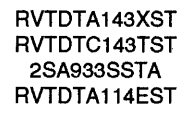

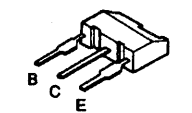
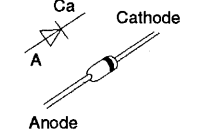

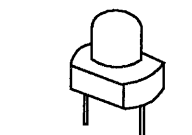
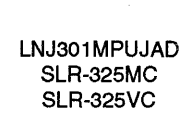
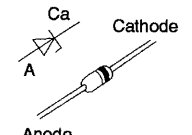


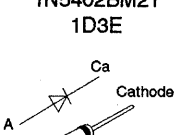
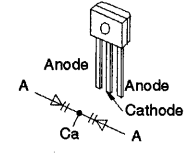
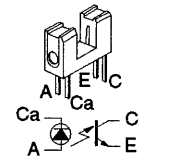
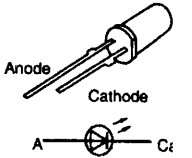
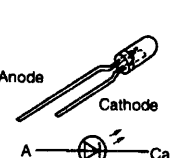
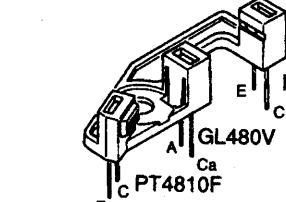




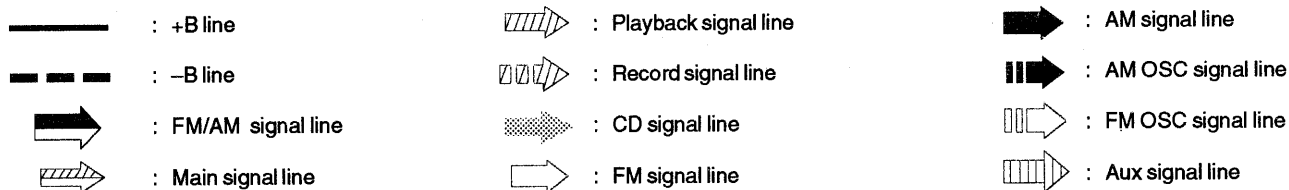




■ Terminal Guide of ICs, Transistors and Diodes

AN8389SE1 	AN8835SBE1 (28P) BU2090F-E2 (16P) BU4052BCF-E2 (16P) LA1832A (24P) LC7218 (24P) BH3854AFS-E2 (32P) 		BA7755A 	M38197MA131F(100P) MN662741RPA (80P) UPD78043A042 (80P) 	
BA6247N 	M5218AP 	ON2180RLC 	AN78M05 	RSN35H1 	TA8142AP 
BA4558FDXE2 	2SB621RTA 2SB621ARTA 2SC2001KTA 2SA1534AQRTA 		2SK301QTA 	2SD1302STA 2SJ40CDTA 	2SB709S 
	2SC2785FETA 2SC2786MTA 2SD1020HTA 2SC2785FTA 2SC2787FL1TA 2SC2787LTA BN1L3NTA 	2SB1185E 2SD1762E 	2SD2037ETA 	2SC2784FTA BA1L4ZTA BA1F4MTA 2SC3311AIQST 	2SK544F-AC 
	RVTDTA143XST RVTDTA143TST 2SA933SSTA RVTDTA114EST 	RVDTDTA114TST RVTDTA124EST RVTDTA124EST RVTDTA114EST 	2SB1320AQRTA 		RVD1SS133TA 1SS291TA MA165TA 1SS254TA MA167TA MA4330LTA 
	LNJ301MPUJAD SLR-325MC SLR-325VC 		MTZJ12BTA MTZJ13ATA MTZJ15CTA MTZJ5R6CTA MTZJ6R8ATA MTZJ6R8BTA MTZJ5R1BTA 	MTZJ5R6BTA MTZJ10BTA MTZJ3R6BTA MTZJ5R1CTA MTZJ7R5CTA MTZJ9R1CTA 	1N5402BM21 1D3E 
SVC211SPA-AL 	RSQGP1S53V 	LN66S 	BR3433S 		

• Signal line



•The voltage value and waveforms are the reference voltage of this unit measured by DC electronic voltmeter (high impedance) and oscilloscope on the basis of chassis.

Accordingly, there may arise some error in voltage values and waveforms depending upon the internal impedance of the tester or the measuring unit.


No mark: Playback << >>.....Tape Recording

(()): CD

()..... AM

< >..... FM

•Importance safety notice:

Components identified by  mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

Caution !

IC, LSI and VLSI are sensitive to static electricity.

Secondary trouble can be prevented by taking care during repair.

•Cover the parts boxes made of plastics with aluminium foil.

•Ground the soldering iron.

•Do not touch the pins of IC, LSI or VLSI with fingers directly.

•Put a conductive mat on the work table.

ADDITIONAL FUSE CAUTION


Caution : Replace fusible resistor with the same type
R598, R599
RSFMB40KT-L
fusible resistor


CAUTION : FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE **F1 2.5A 125V FUSE**.

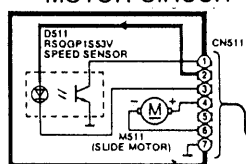
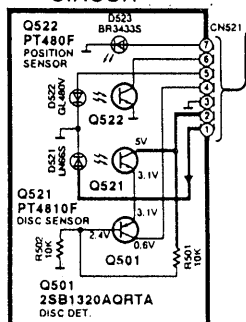
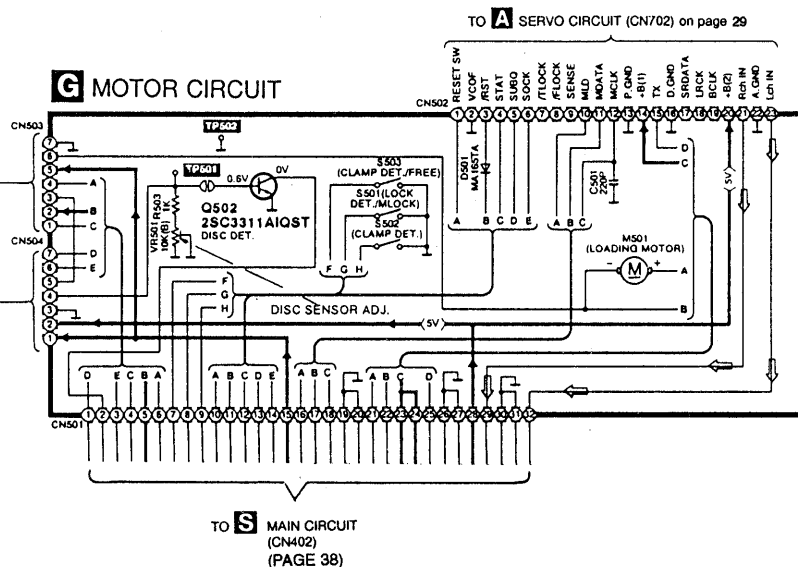


RISK OF FIRE-REPLACE FUSE AS MARKED.

FUSE CAUTION

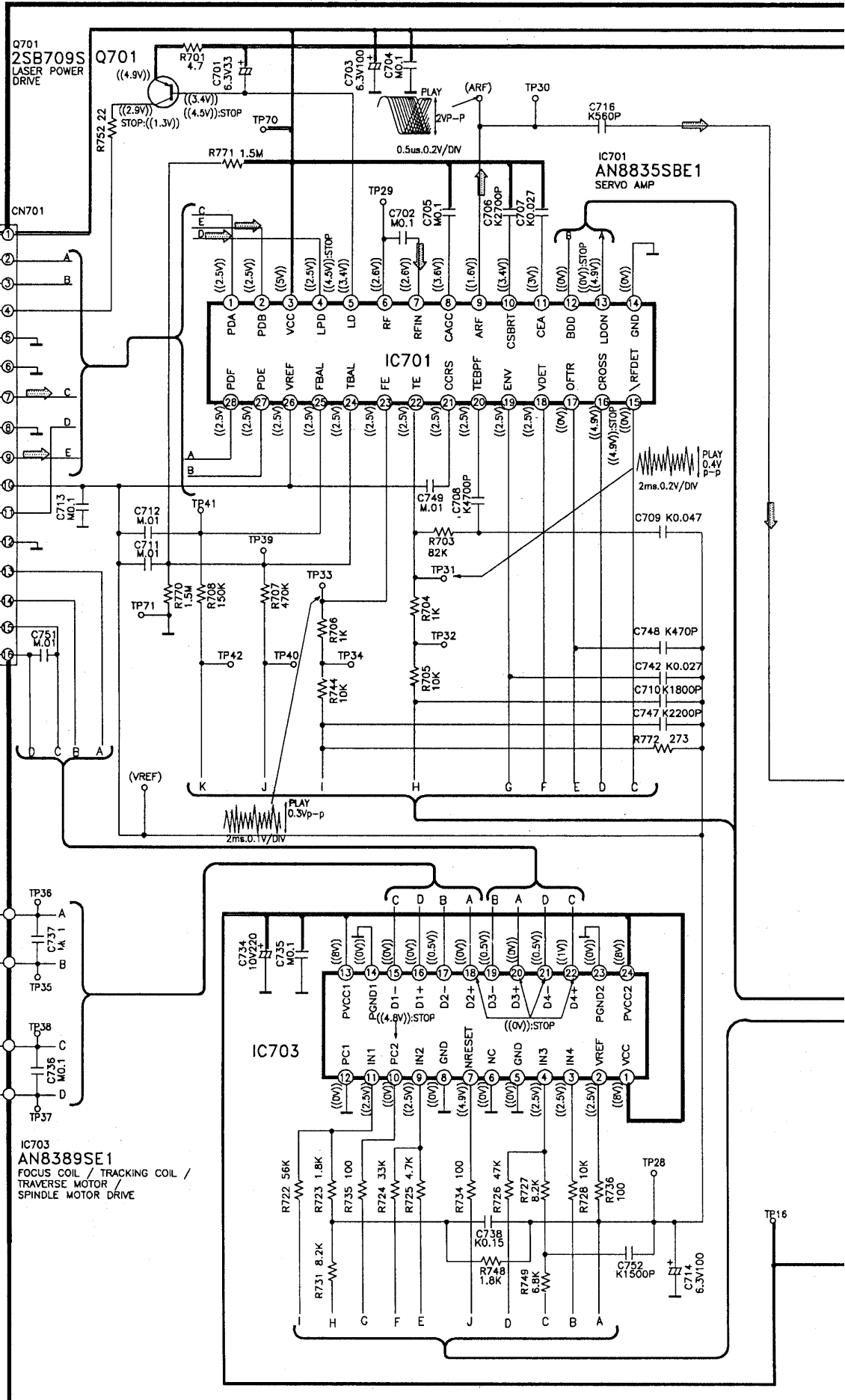
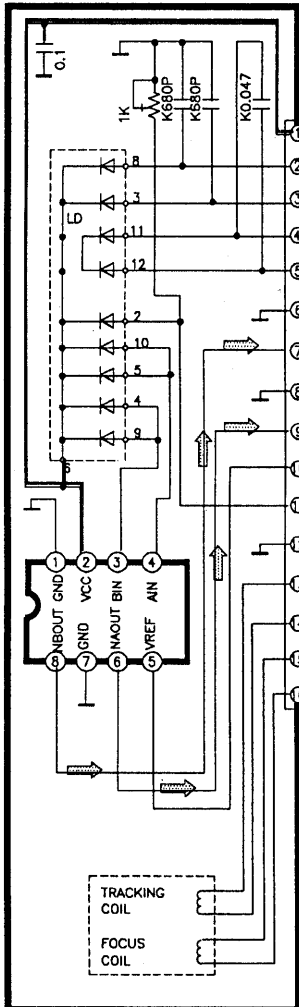
 These symbols located near the fuse indicates that the fuse used is a fast operating type. For continued protection against fire hazard, replace with the same type fuse. For fuse rating, refer to the marking adjacent to the symbol.

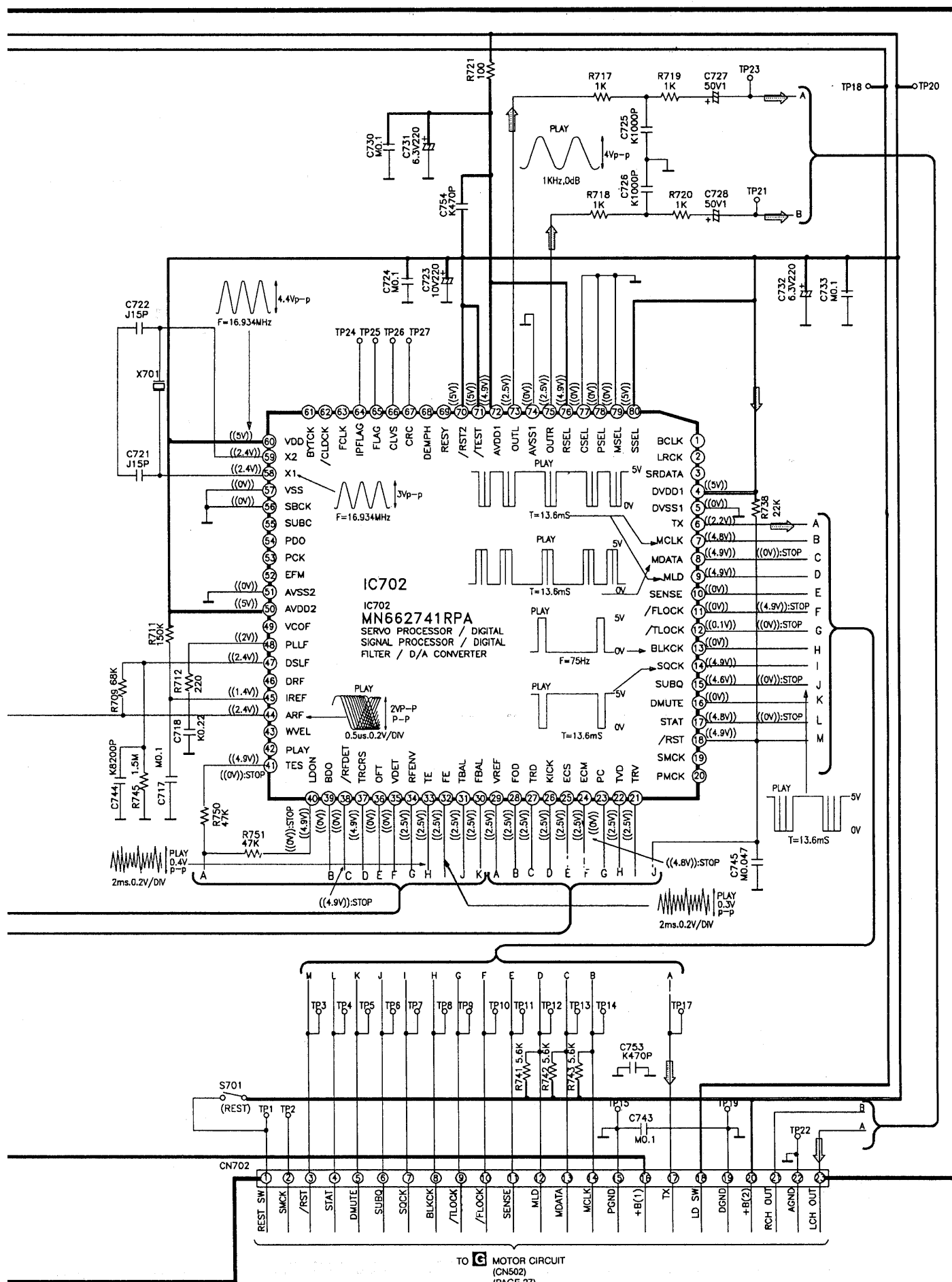
 Ce symbole indique que le fusible utilisé est à rapide. Pour une protection permanente, n'utiliser que des fusibles de même type. Ce dernier est indiqué là où le présent symbole est apposé.

C SLIDE MOTOR CIRCUIT**D PHOTO TR.(1) CIRCUIT****G MOTOR CIRCUIT**

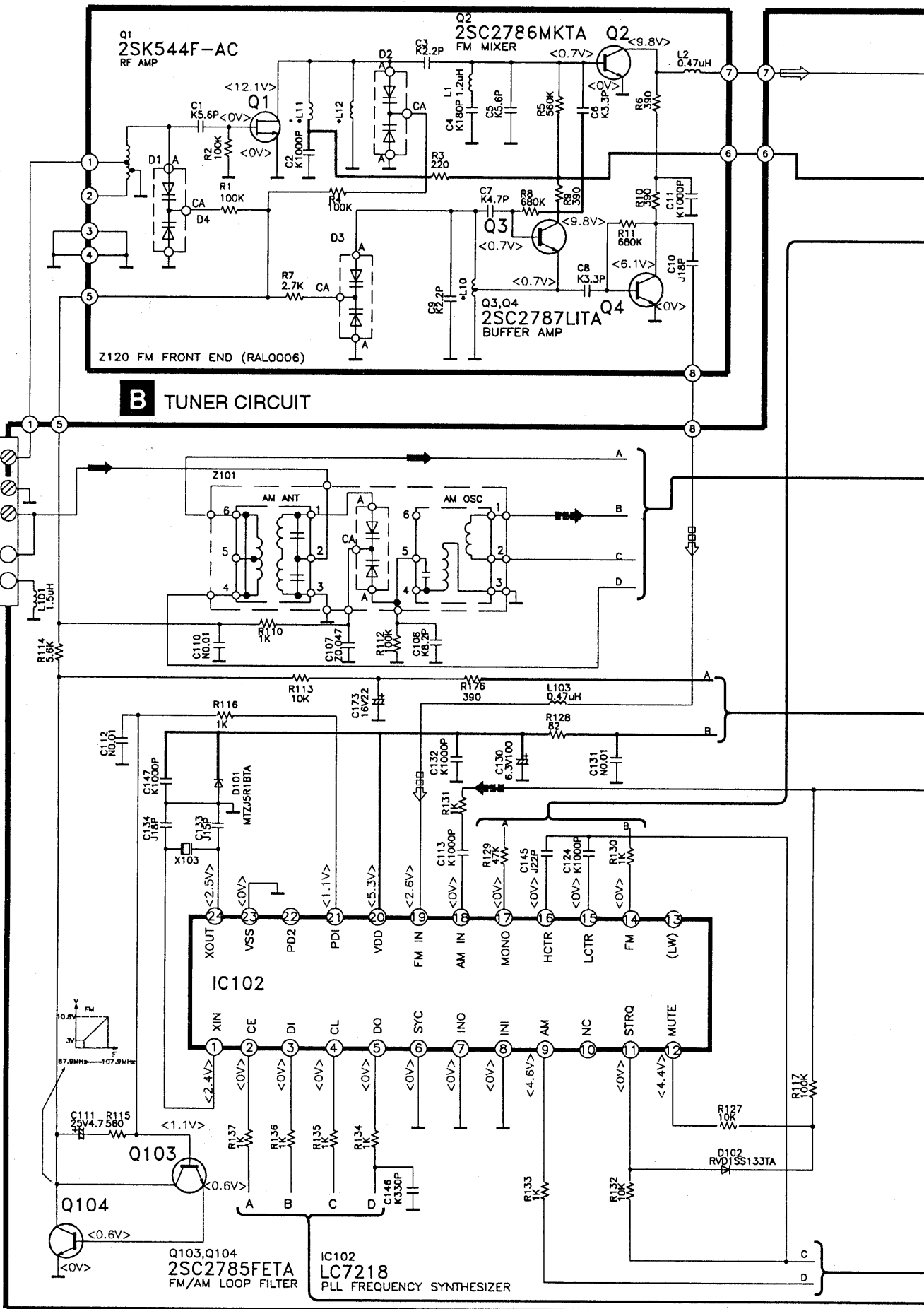
A SERVO CIRCUIT

OPTICAL PICKUP



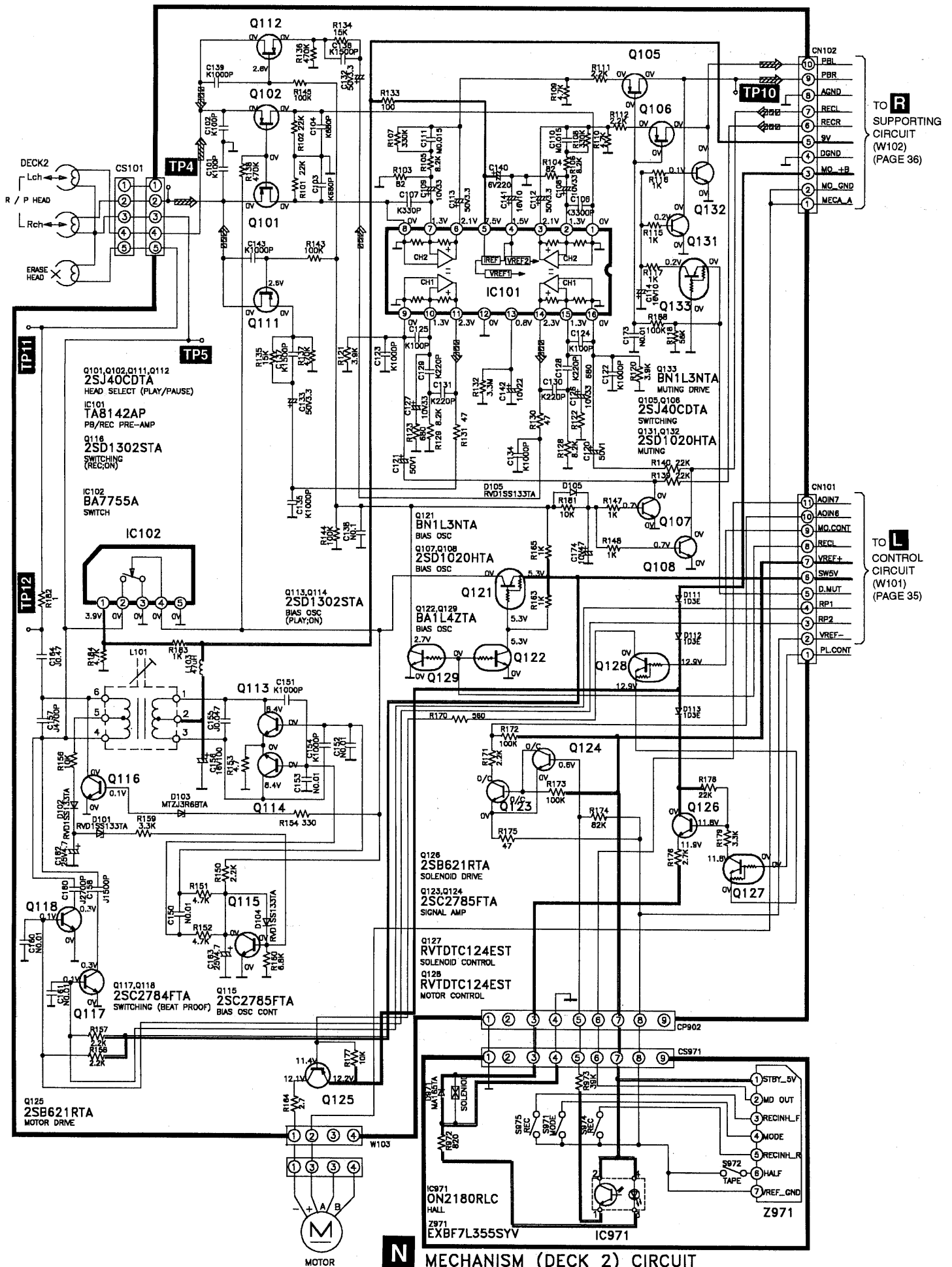


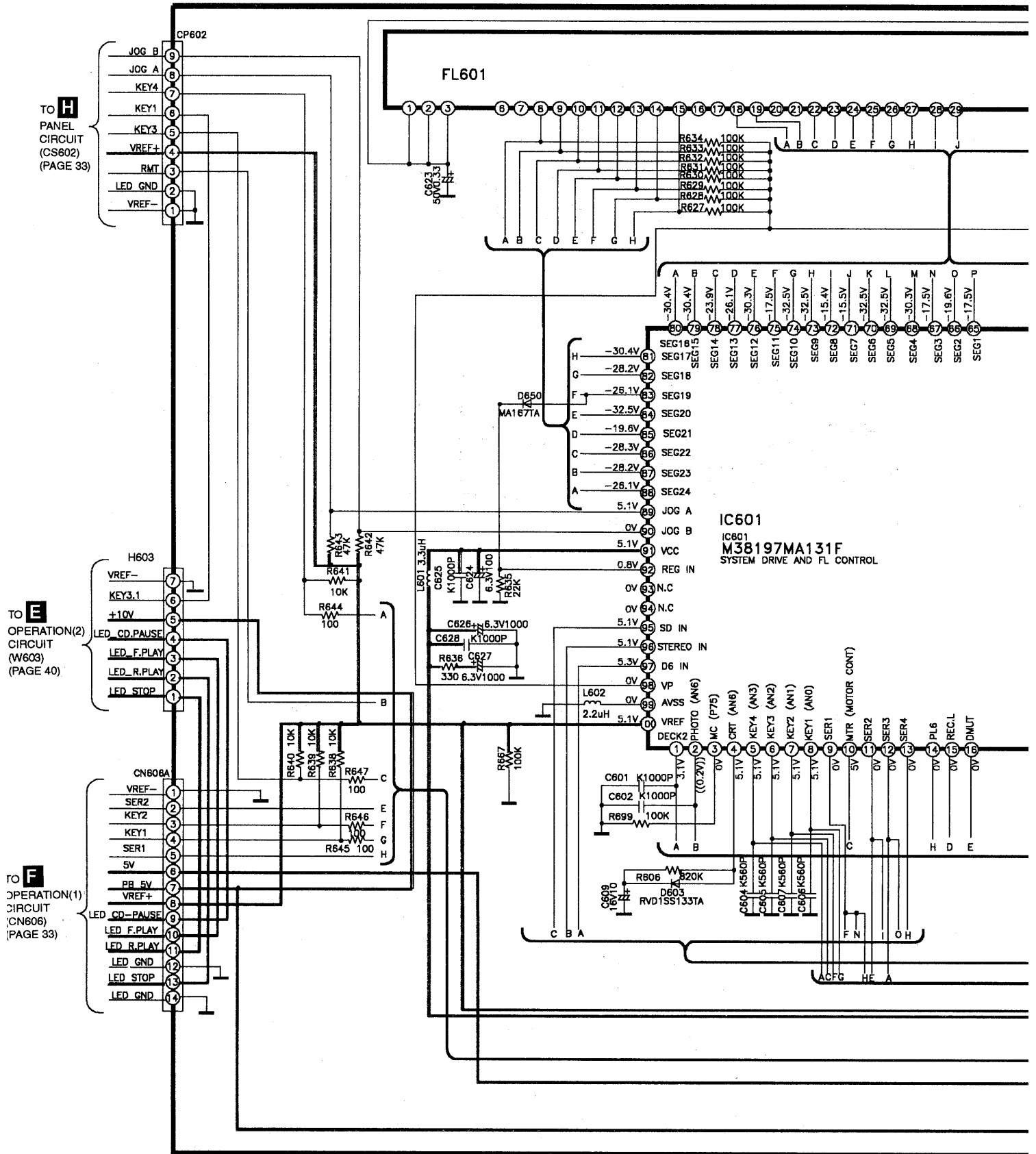
T TUNER PACK CIRCUIT





O DECK CIRCUIT



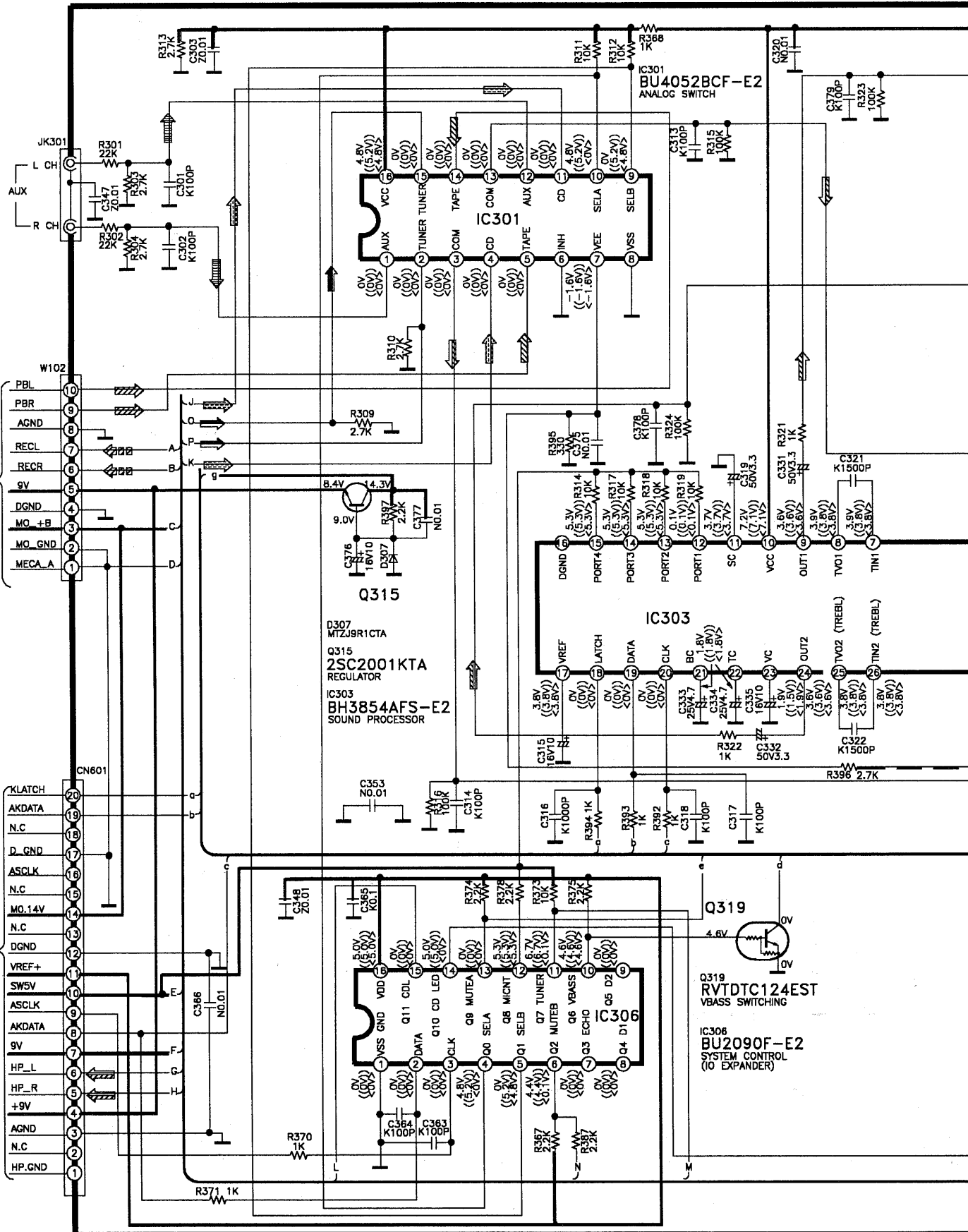


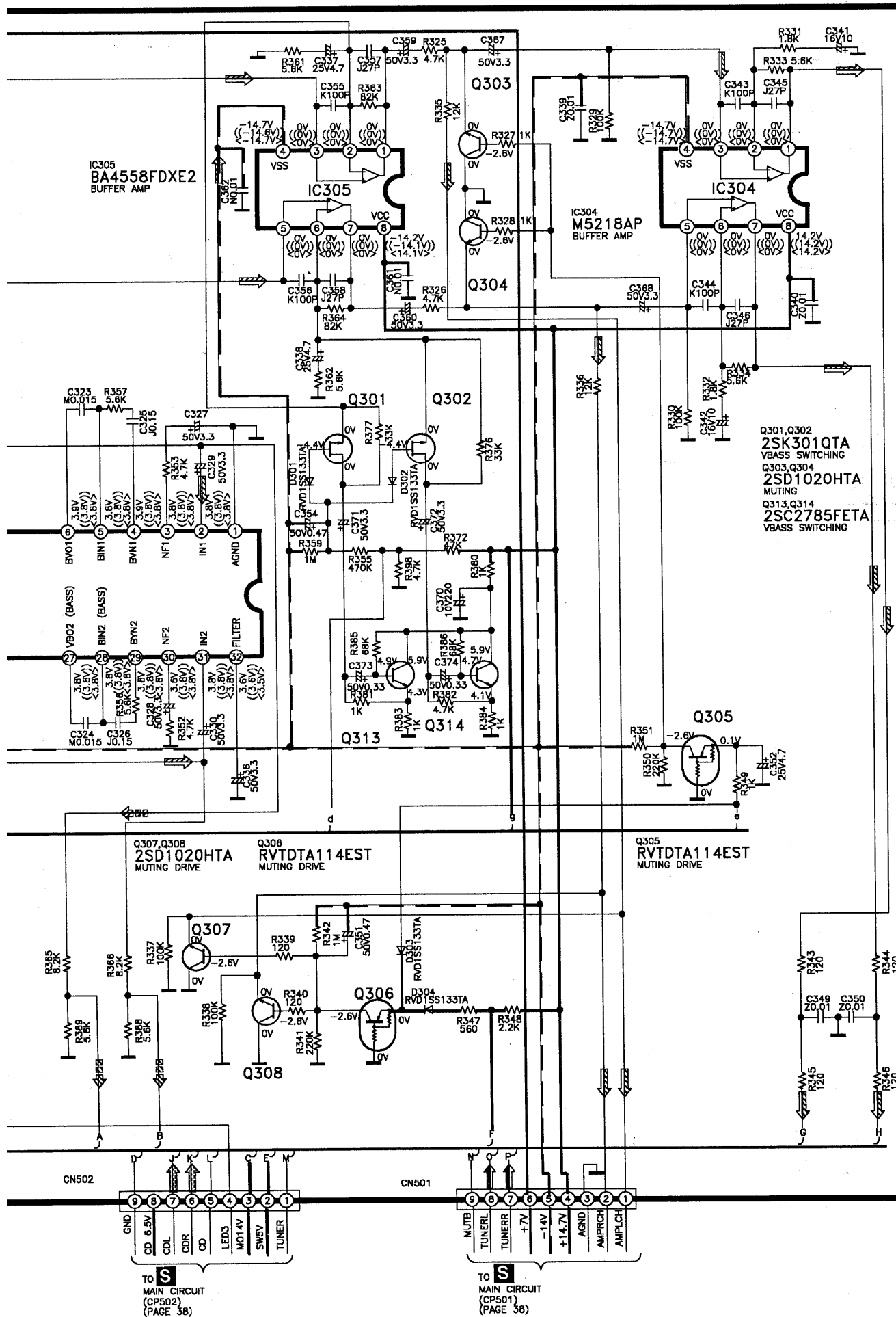


R SUPPORTING CIRCUIT

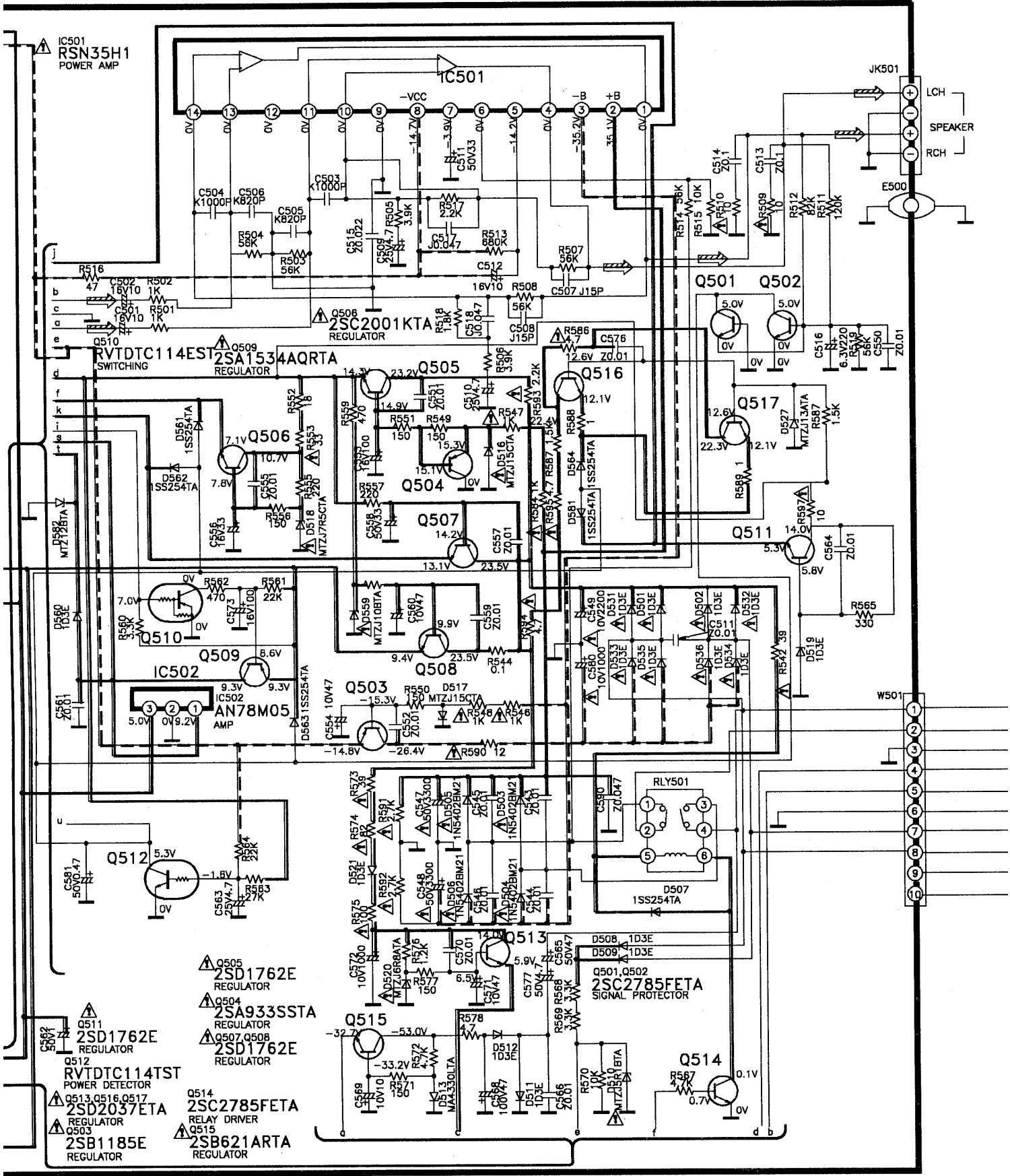
TO DECK
CIRCUIT
(CN102)
(PAGE 32)

TO CONTROL
CIRCUIT
(CN601)
(PAGE 35)

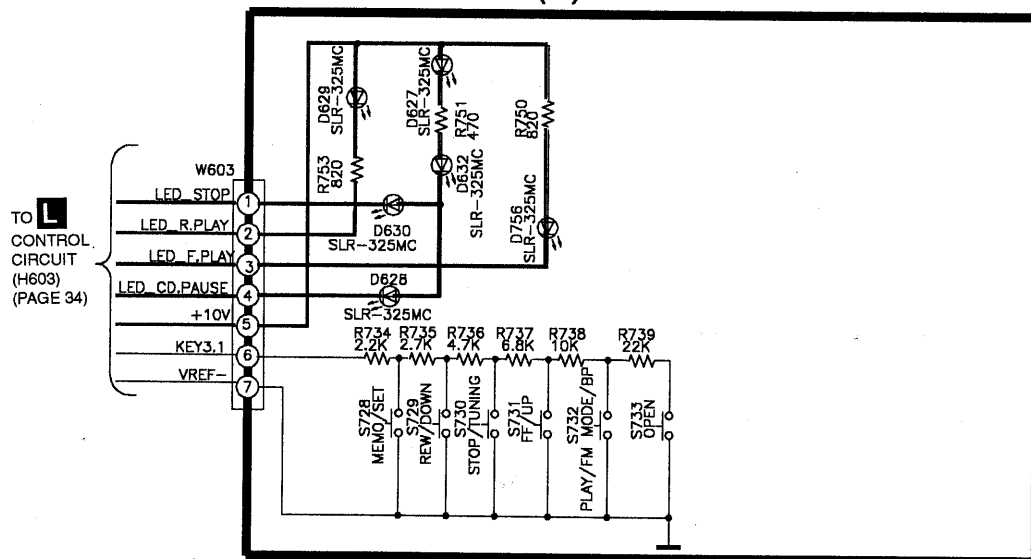




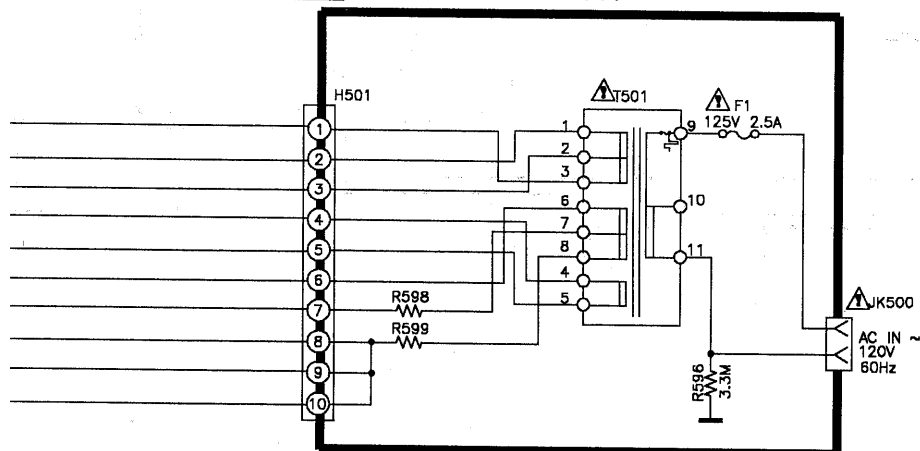




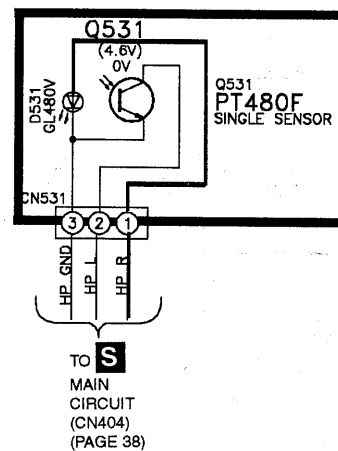
E OPERATION (2) CIRCUIT



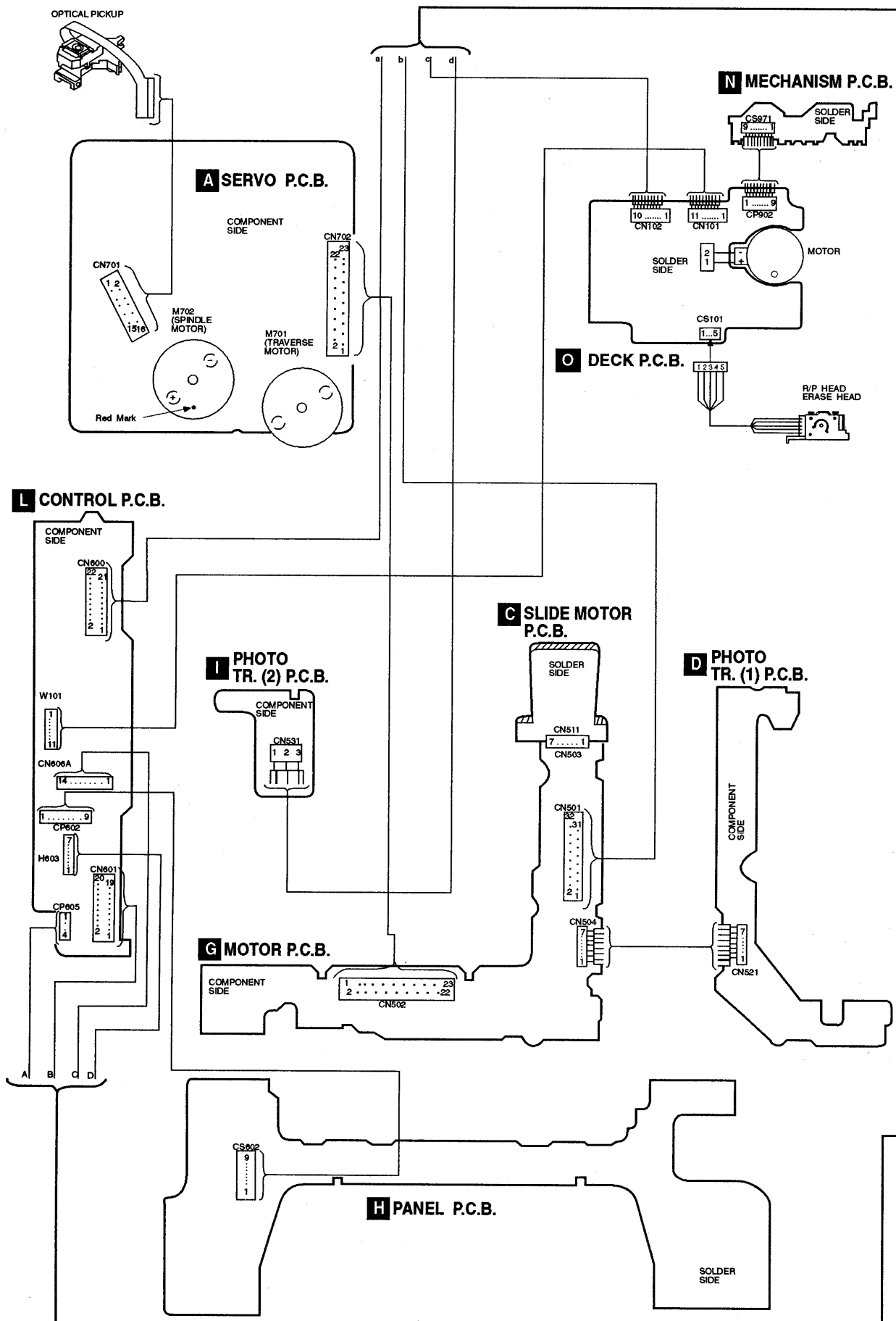
J POWER CIRCUIT

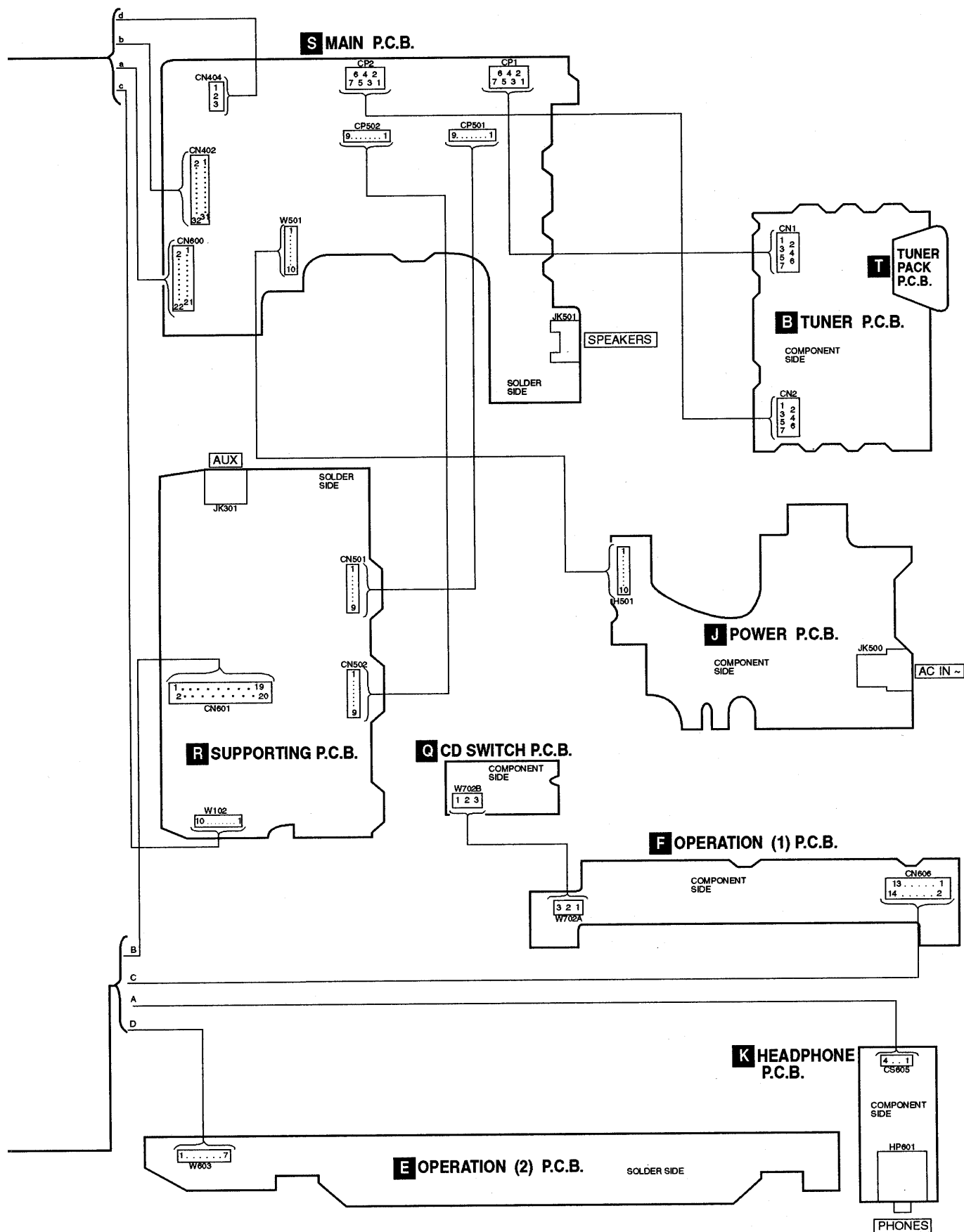


I PHOTO TR2 CIRCUIT

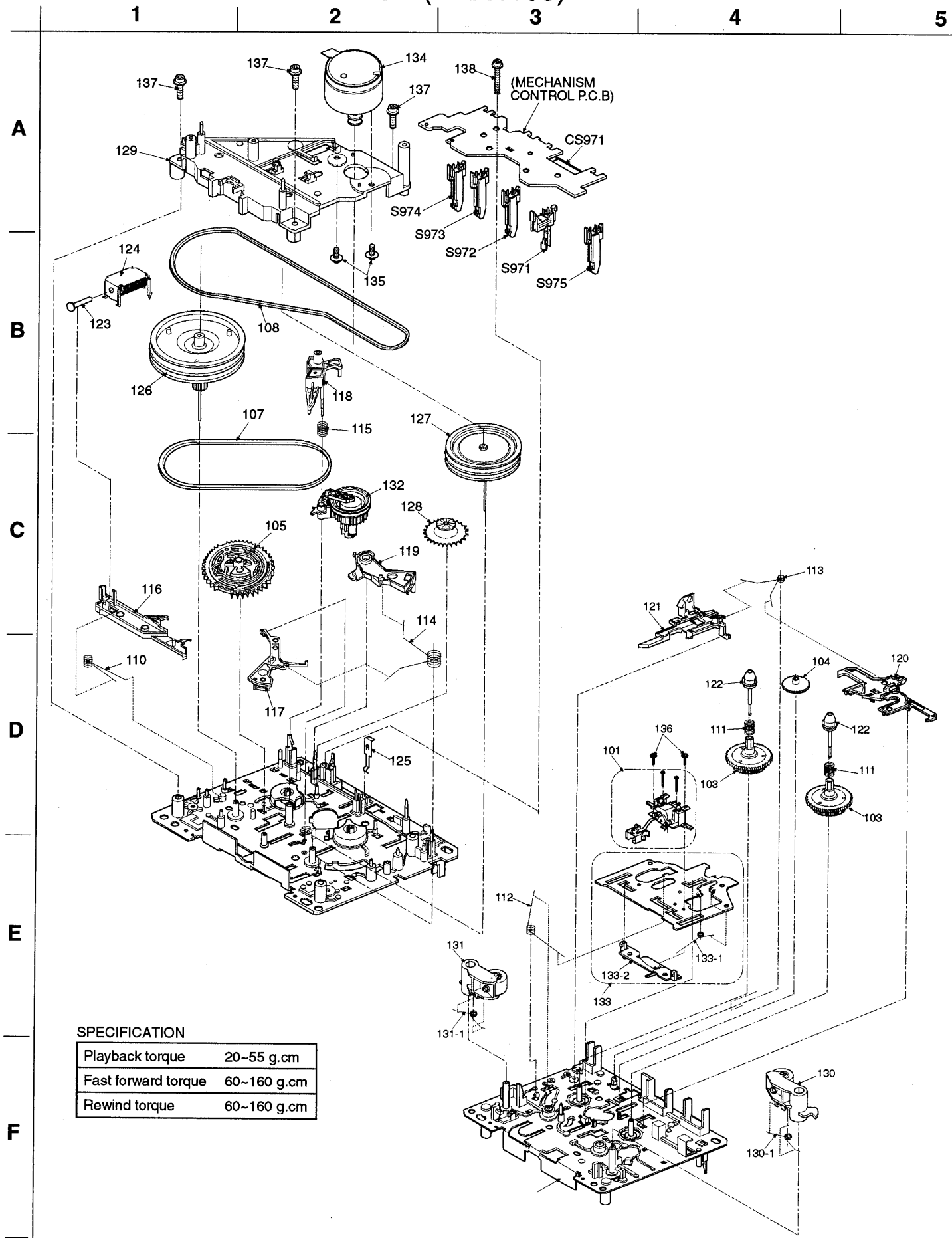


Wiring Connection Diagram

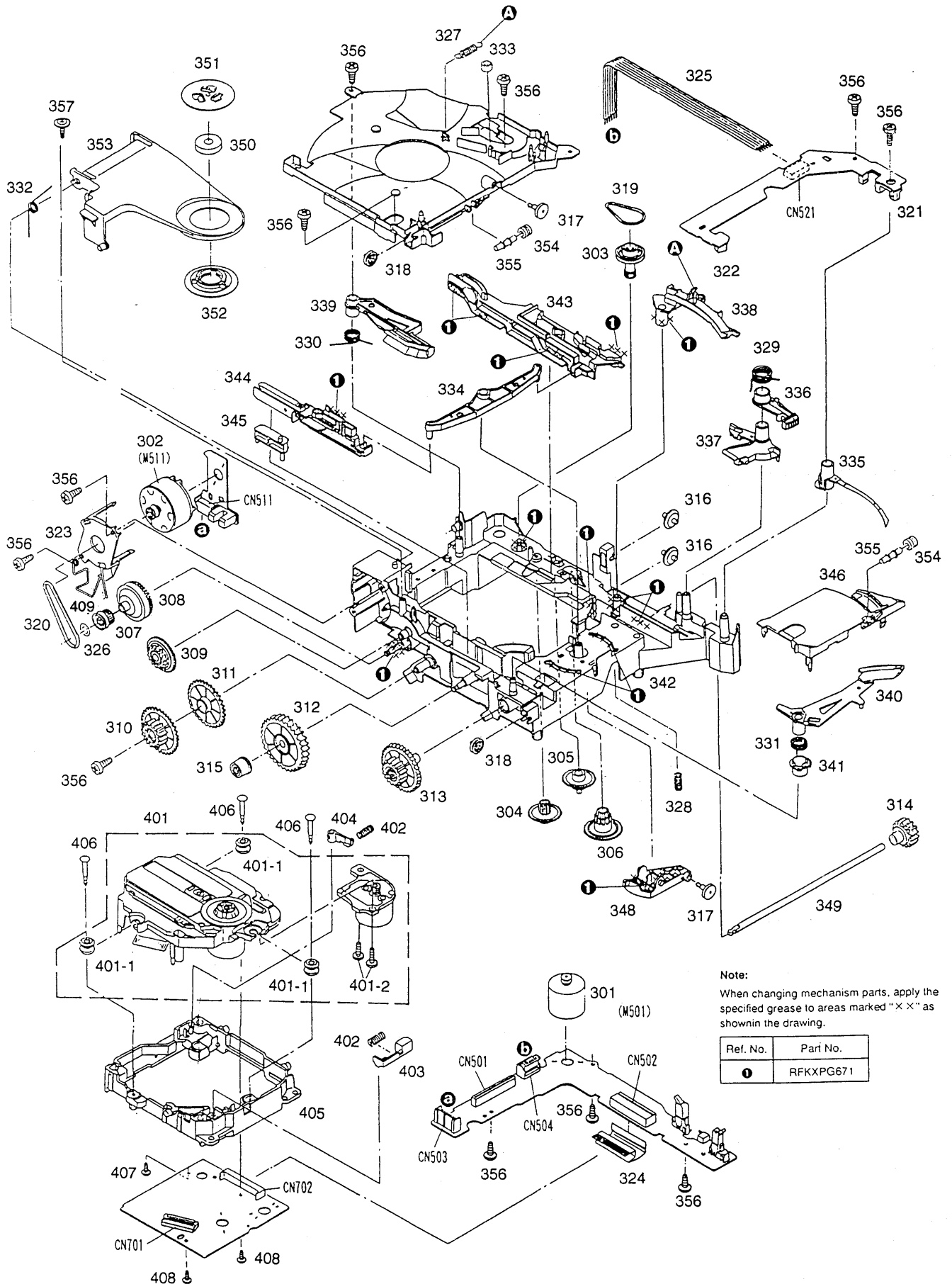




Mechanism Parts Location (RAA4105)



■ Loading Mechanism Parts Location



Cabinet Parts Location

