ORDER NO. MD9605033C1
A6

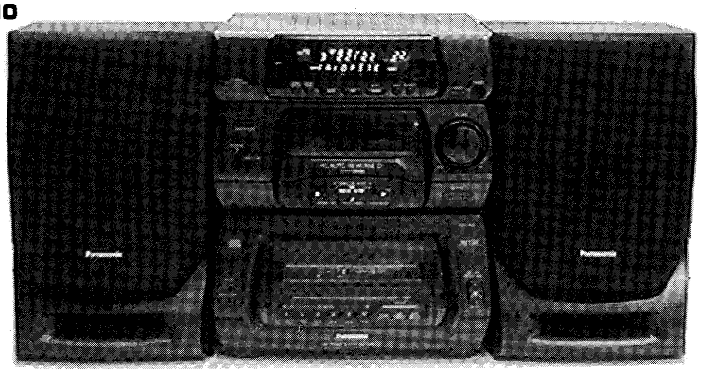
Service Manual

CD Stereo System

SA-CH64M

COMPACT disc DIGITAL AUDIO

MASH* multi-stage noise shaping



Remote Control Transmitter SB-CH64 SA-CH6 4M SB-CH64

Colour

(K) . . . . . Black Type

Area

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

* MASH is a trademark of NTT.

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

System	Music Center	Speaker
SC-CH64M (P)	SA-CH64M (P)	SB-CH64 (P)
SC-CH64M (PC)	SA-CH64M (PC)	

■ Specifications

■ Amplifier Section

Rated minimum sine wave FTC power output	
95 Hz–20 kHz both channels driven	
0.9% total hamonic distortion	2 x 35W (6Ω)
1 kHz continuous power output,	
both channels driven 1% total	
hamonic distortion (DIN POWER)	2 x 40W (6Ω)
Total harmonic distortion	
Half power at 1 kHz	0.07% (6Ω)
Input sensitivity	
AUX	250mV(IHF '66)
Input impedance	
AUX	22kΩ
V. Bass (Vol. level at -30dB)	63Hz, +6dB

■ FM Tuner Section

Frequency range	87.9 — 107.9MHz
Sensitivity	23.3dBf (4.0μV, IHF '58)
Total harmonic distortion	
MONO	0.3%
STEREO	0.5%
S/N MONO	65dB
Image rejection at 98.1 MHz	35dB
Stereo separation at 1 kHz	35dB
Antenna terminal(s)	75Ω (unbalanced)

■ CD Section

Sampling frequency	44.1kHz
Decoding	16 bit linear
Beam source / wave length	Semiconductor laser / 780 nm
Number of channels	Stereo
S/N ratio	
CD UNIT OUT	95 dB (JIS.A)
SP OUT	85 dB (JIS.A)
Wow and flutter	Below measurable limit
Digital filter	8 fs
D/A converter	MASH (1 bit DAC)

■ AM Tuner Section

Frequency range	520 — 1710kHz
Sensitivty (S/N 20 dB)	500μV/m
Image rejection at 1000 kHz	40dB

■ Cassette Deck Section

Track system	4 track, 2 channels
Heads	
Record/playback	Permalloy head
Erasure	Double gap ferrite head
Motor	DC servo motor
Recording system	AC bias 100 kHz
Erasing system	AC erase
Tape speed	4.8cm/sec. ($1^{7}/_{8}$ ips)
Frequency response (EIAJ) at PHONES OUT	
NORMAL	35Hz — 14kHz
S/N ratio	50dB (A weighted)
Wow and flutter	0.18% (WRMS)
Fast forward and rewind time	Approx. 120 seconds with C-60 cassette tape

■ General

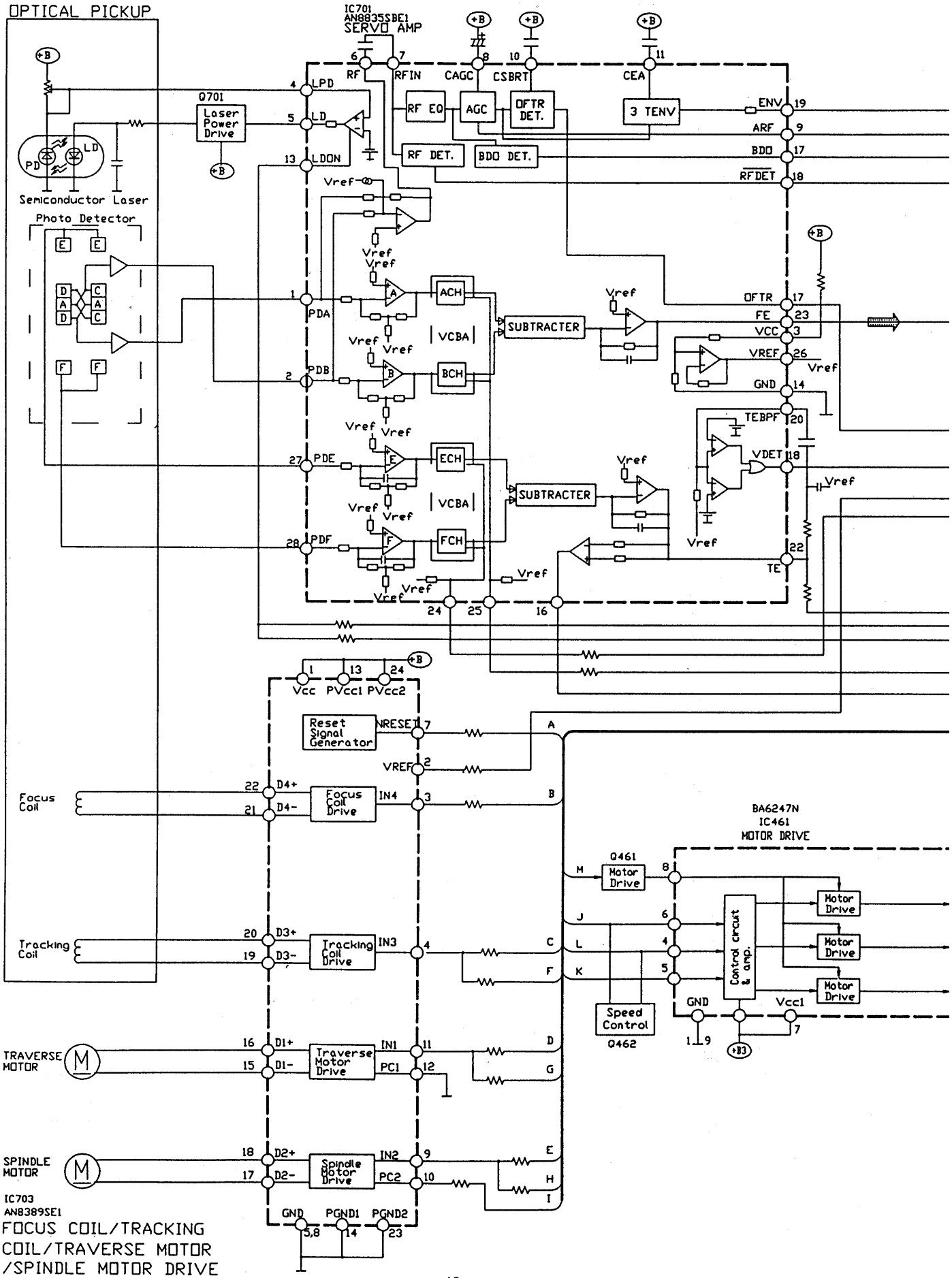
Power consumption	120W
	10W (Power standby)
Power supply	AC 120V, 60Hz
Dimensions (W x H x D)	270 x 347 x 424mm
	($10^{5}/_{8}$" x $13^{21}/_{32}$" x $16^{11}/_{16}$")
Weight	10.3kg (22.7lb.)

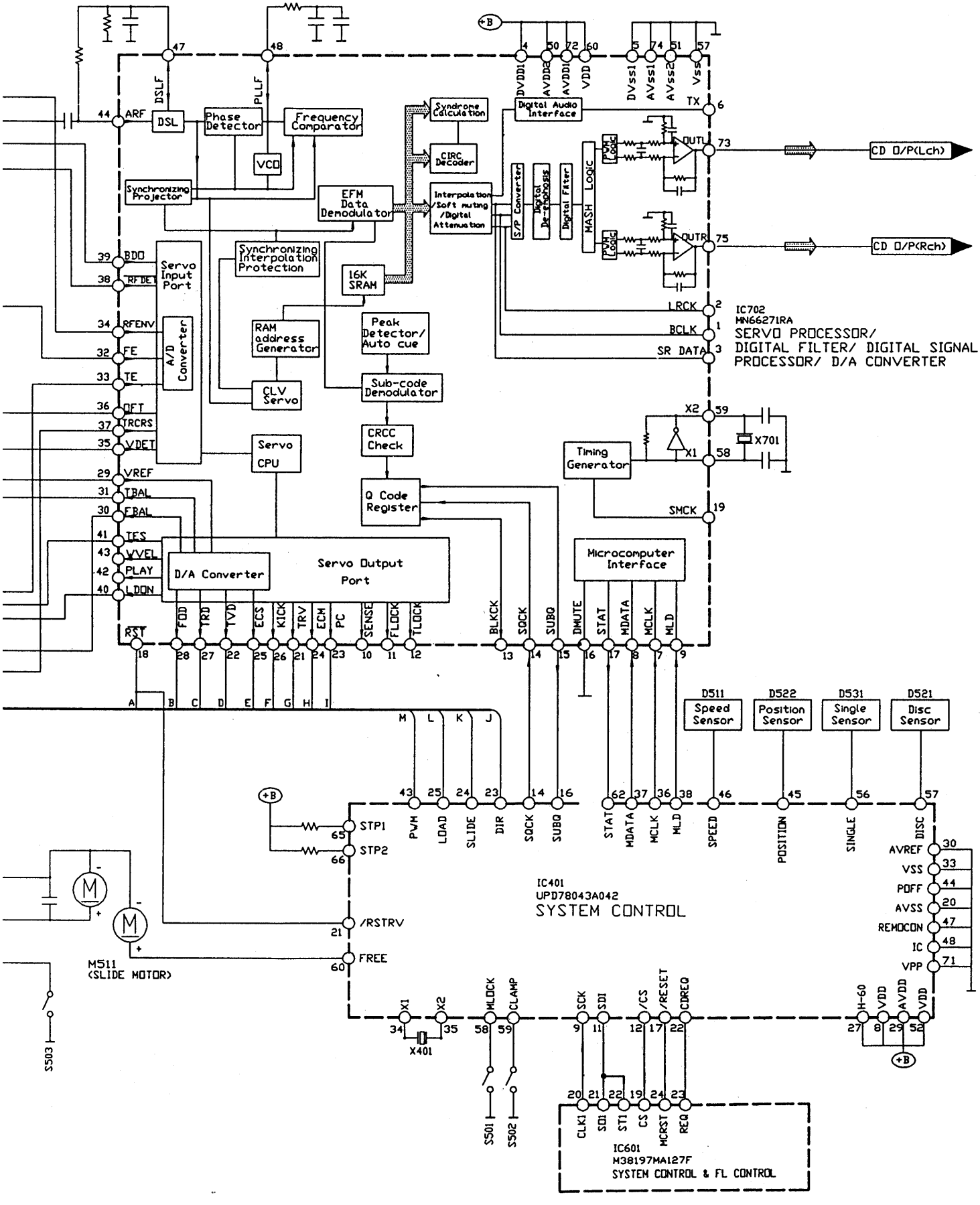
Notes :

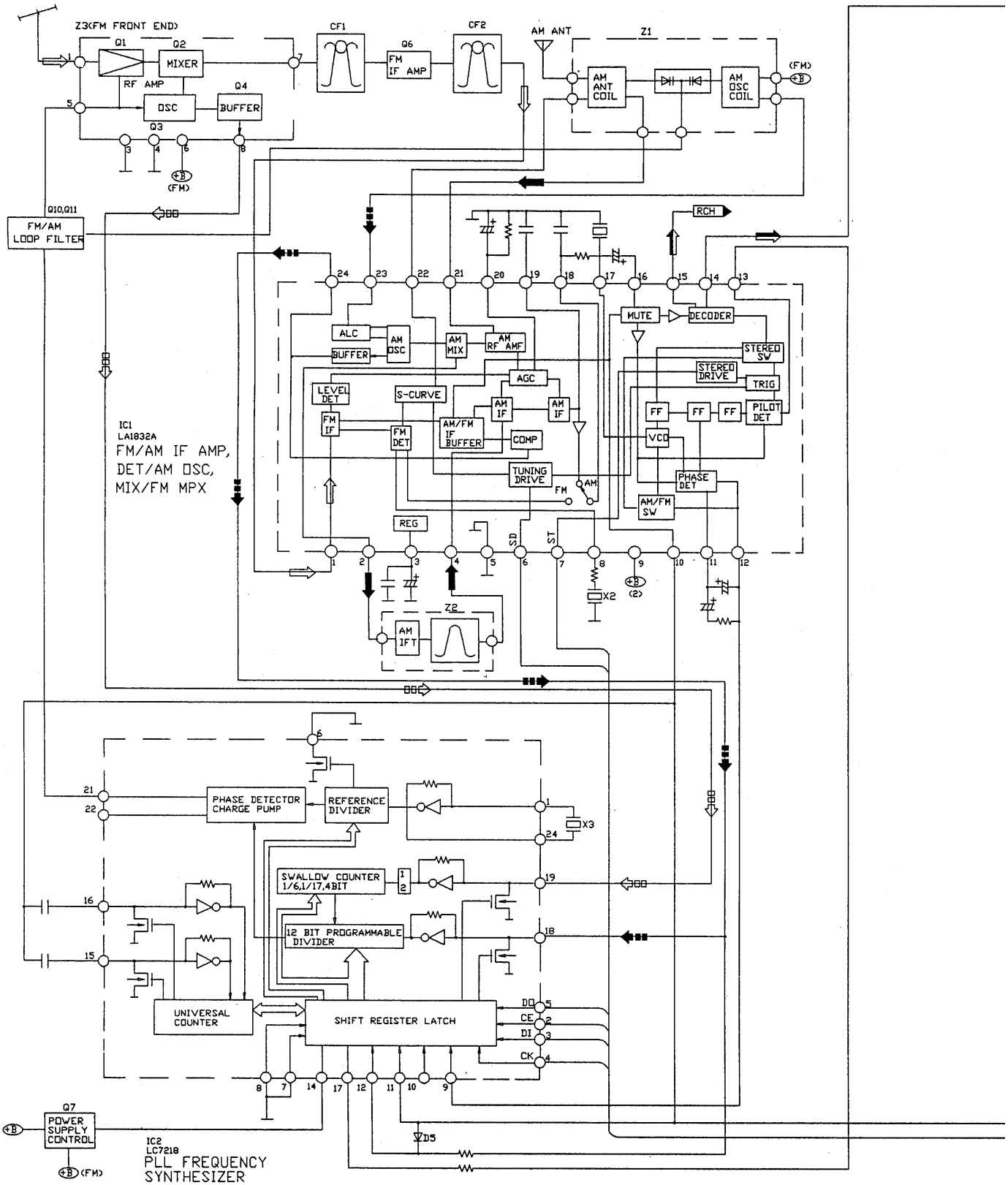
1. Specifications are subject to change without notice. Weight and dimensions are approximate.
2. Total harmonic distortion is measured by the digital spectrum analyzer.

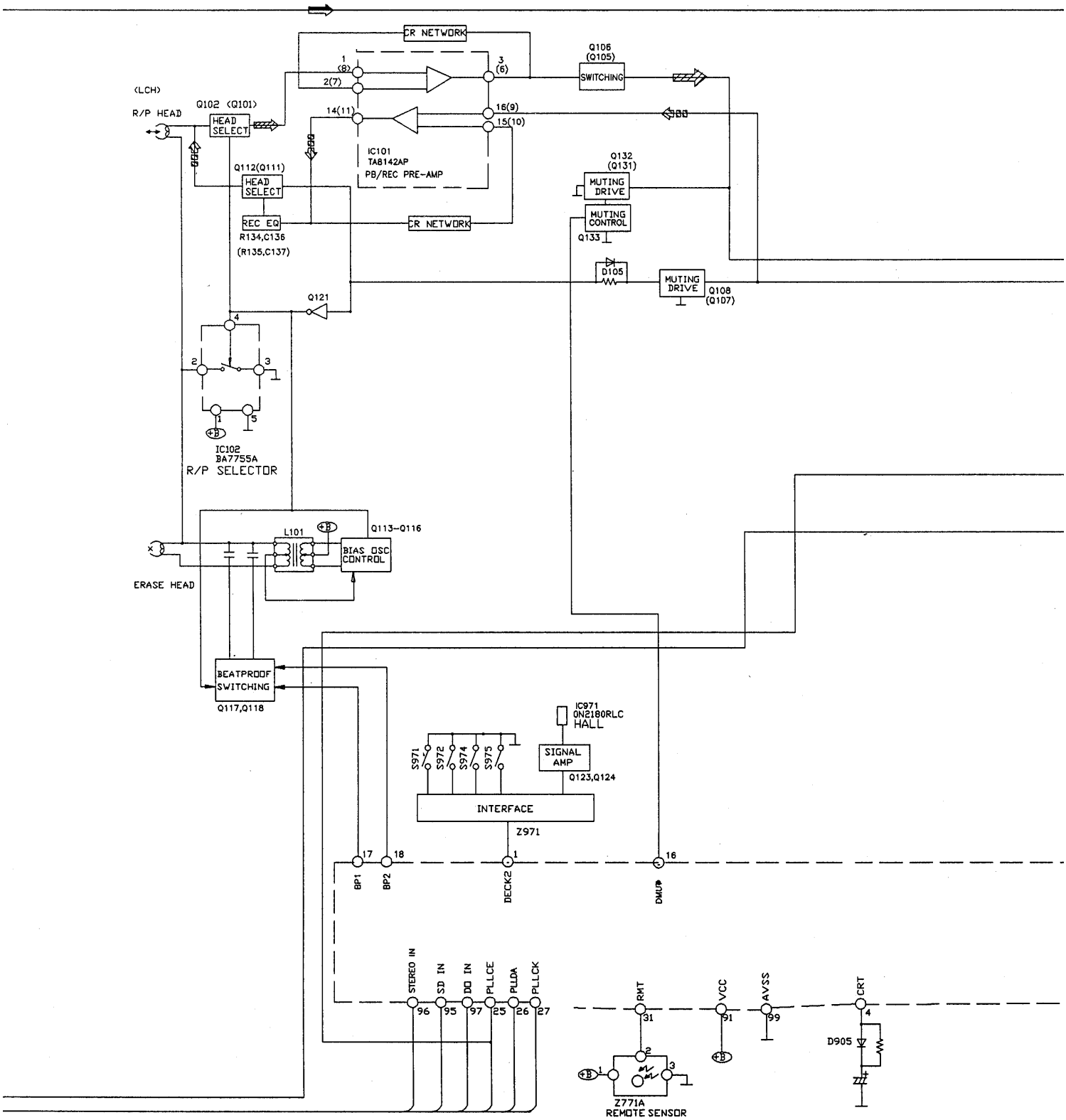
Panasonic®

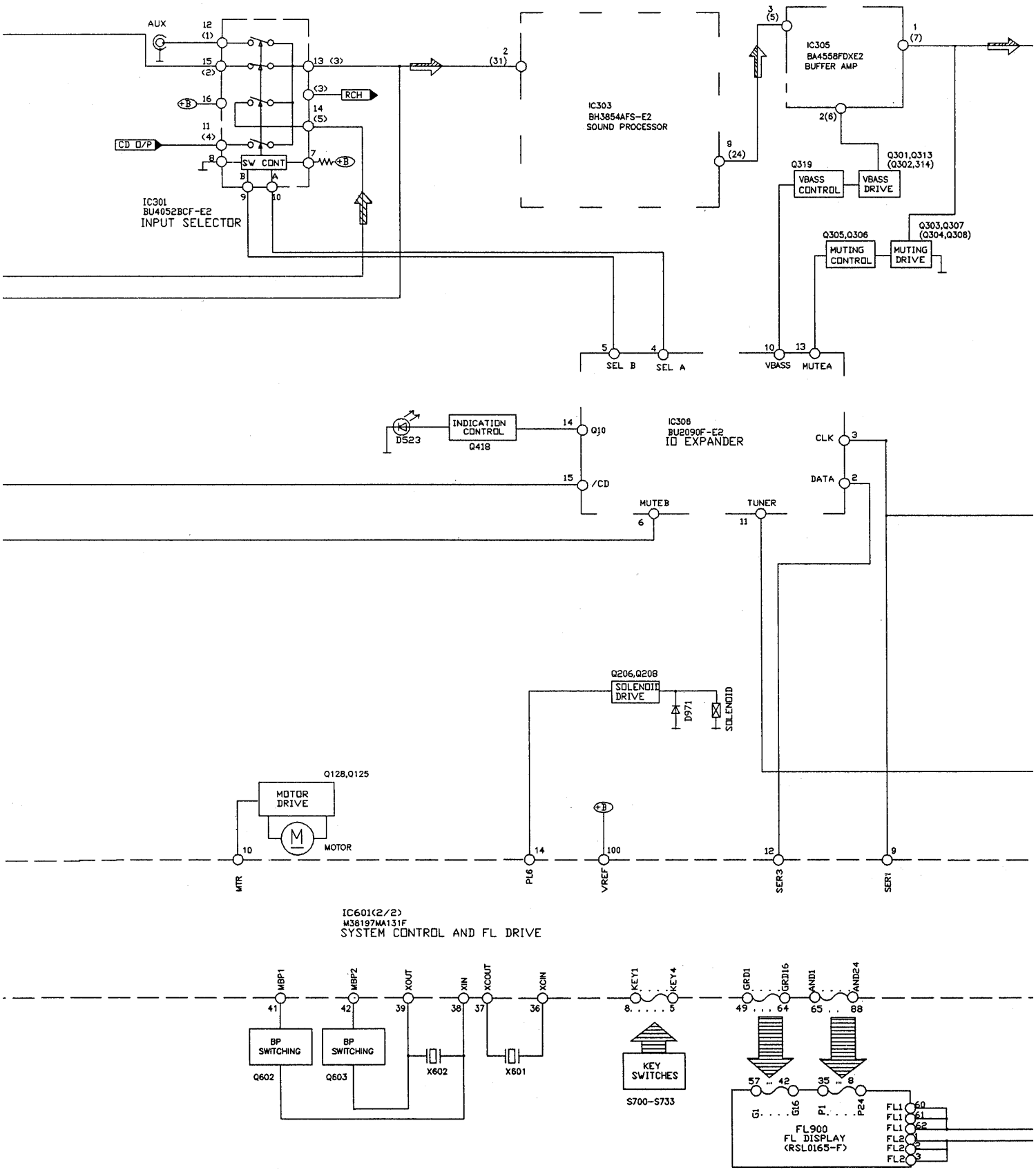
■ Block Diagram

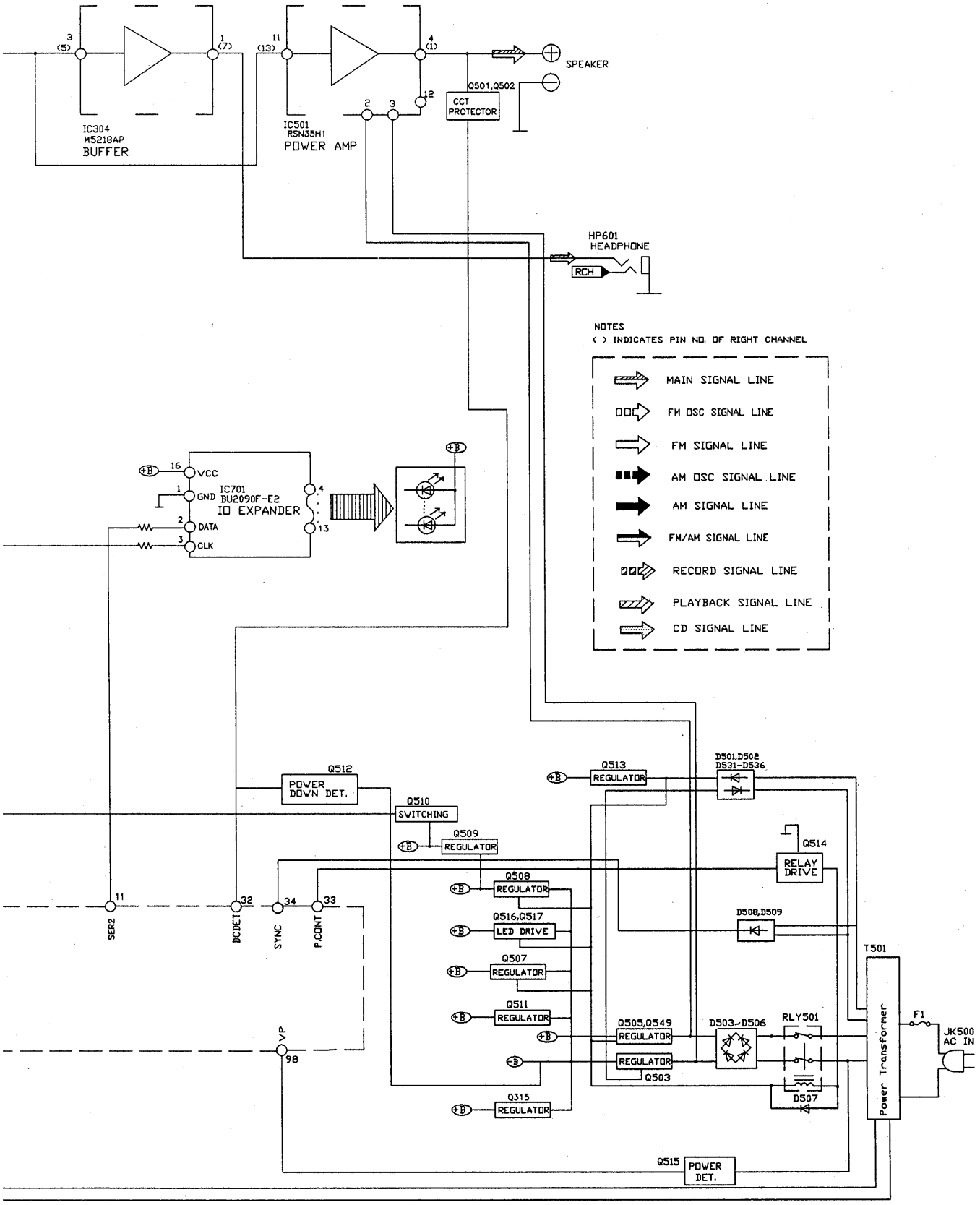



+B
DVDDI
AVDDE
AVDDI
VDD
DVssI
AVssI
AVss2
Vss
TX
Digital Audio Interface
Syndrome Calculation
CIRC Decoder
Interpolation /Soft muting /Digital Attenuation
S/P Converter
Digital De-emphasis
Digital Filter
MASH Logic
PWM Logic
OUTL
OUTR
CD O/P(Lch)
CD O/P(Rch)
LRCK
BCLK
SR DATA
IC702
MN66271RA
SERVO PROCESSOR/
DIGITAL FILTER/ DIGITAL SIGNAL
PROCESSOR/ D/A CONVERTER
ARF
DSL
DSLF
PLLF
Phase Detector
Frequency Comparator
VCO
Synchronizing Projector
EFM Data Demodulator
Synchronizing Interpolation Protection
16K SRAM
RAM address Generator
Peak Detector/ Auto cue
Sub-code Demodulator
CRCC Check
Q Code Register
CLV Servo
Servo CPU
Servo Input Port
A/D Converter
BDO
RFDET
RFENV
FE
TE
OFT
TRCRS
VDET
VREF
TBAL
FBAL
TES
VVEL
PLAY
LDON
D/A Converter
Servo Output Port
Timing Generator
X2
X1
X701
SMCK
Microcomputer Interface
RST
FOD
TRD
TVD
ECS
KICK
TRV
ECM
PC
SENSE
FLOCK
TLOCK
BLKCK
SOCK
SUBQ
DMUTE
STAT
MDATA
MCLK
MLD
D511 Speed Sensor
D522 Position Sensor
D531 Single Sensor
D521 Disc Sensor
SPEED
POSITION
SINGLE
DISC
STP1
STP2
PWM
LOAD
SLIDE
DIR
/RSTRV
FREE
M511
(SLIDE MOTOR)
S503
IC401
UPD78043A042
SYSTEM CONTROL
AVREF
VSS
POFF
AVSS
REMOCON
IC
VPP
X401
MLOCK
CLAMP
SCK
SDI
/CS
/RESET
CDREQ
H-60
S501
S502
IC601
M38197MA127F
SYSTEM CONTROL & FL CONTROL
CLKI
SDI
STI
CS
MCRST
REQ


Z3(FM FRONT END)
Q1
Q2
MIXER
RF AMP
OSC
Q4
BUFFER
Q3
CF1
Q6
FM IF AMP
CF2
AM ANT
Z1
AM ANT COIL
AM OSC COIL
(FM)
+B
Q10,Q11
FM/AM LOOP FILTER
RCH
ALC
AM OSC
BUFFER
AM MIX
AM RF AMP
AGC
LEVEL DET
S-CURVE
AM IF
FM IF
FM DET
AM/FM IF BUFFER
COMP
TUNING DRIVE
FM
AM
REG
MUTE
DECODER
STEREO SW
STEREO DRIVE
TRIG
FF
PILOT DET
VCO
PHASE DET
AM/FM SW
SD
ST
X2
Z2
AM IFT
IC1
LA1832A
FM/AM IF AMP,
DET/AM OSC,
MIX/FM MPX
PHASE DETECTOR CHARGE PUMP
REFERENCE DIVIDER
X3
SWALLOW COUNTER 1/6,1/17,4BIT
12 BIT PROGRAMMABLE DIVIDER
UNIVERSAL COUNTER
SHIFT REGISTER LATCH
DO
CE
DI
CK
Q7
POWER SUPPLY CONTROL
D5
IC2
LC7218
PLL FREQUENCY SYNTHESIZER

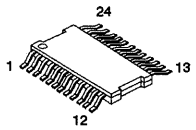

CR NETWORK
Q106
(Q105)
SWITCHING
(LCH)
R/P HEAD
Q102 (Q101)
HEAD SELECT
IC101
TA8142AP
PB/REC PRE-AMP
Q112(Q111)
HEAD SELECT
REC EQ
R134,C136
(R135,C137)
CR NETWORK
Q132
(Q131)
MUTING DRIVE
MUTING CONTROL
Q133
D105
MUTING DRIVE
Q108
(Q107)
Q121
IC102
BA7755A
R/P SELECTOR
L101
Q113–Q116
BIAS OSC CONTROL
ERASE HEAD
BEATPROOF SWITCHING
Q117,Q118
IC971
ON2180RLC
HALL
S971
S972
S974
S975
SIGNAL AMP
Q123,Q124
INTERFACE
Z971
BP1
BP2
DECK2
DMUP
STEREO IN
SD IN
DD IN
PLLCE
PLLDA
PLLCK
RMT
VCC
AVSS
CRT
D905
Z771A
REMOTE SENSOR

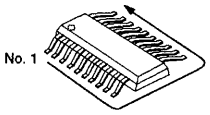

AUX
CD D/P
SW CONT
IC301
BU4052BCF-E2
INPUT SELECTOR
RCH
IC303
BH3854AFS-E2
SOUND PROCESSOR
IC305
BA4558FDXE2
BUFFER AMP
Q319
VBASS CONTROL
VBASS DRIVE
Q301,Q313
(Q302,Q314)
Q305,Q306
MUTING CONTROL
MUTING DRIVE
Q303,Q307
(Q304,Q308)
SEL B
SEL A
VBASS
MUTEA
D523
INDICATION CONTROL
Q418
/CD
IC306
BU2090F-E2
IO EXPANDER
CLK
DATA
MUTEB
TUNER
Q206,Q208
SOLENOID DRIVE
D971
SOLENOID
Q128,Q125
MOTOR DRIVE
MOTOR
MTR
PL6
VREF
SER3
SER1
IC601(2/2)
M38197MA131F
SYSTEM CONTROL AND FL DRIVE
MBP1
MBP2
XOUT
XIN
XCOUT
XCIN
BP SWITCHING
Q602
Q603
X602
X601
KEY1
KEY4
KEY SWITCHES
S700-S733
GRID1
GRID16
AND1
AND24
FL900
FL DISPLAY
(RSL0165-F)


IC304
M5218AP
BUFFER
IC501
RSN35H1
POWER AMP
CCT PROTECTOR
Q501,Q502
SPEAKER
HP601
HEADPHONE
RCH
NOTES
( ) INDICATES PIN NO. OF RIGHT CHANNEL
MAIN SIGNAL LINE
FM OSC SIGNAL LINE
FM SIGNAL LINE
AM OSC SIGNAL LINE
AM SIGNAL LINE
FM/AM SIGNAL LINE
RECORD SIGNAL LINE
PLAYBACK SIGNAL LINE
CD SIGNAL LINE
IC701
BU2090F-E2
IO EXPANDER
VCC
GND
DATA
CLK
Q512
POWER DOWN DET.
Q510
SWITCHING
Q509
REGULATOR
Q513
REGULATOR
D501,D502
D531-D536
Q514
RELAY DRIVE
Q508
REGULATOR
Q516,Q517
LED DRIVE
Q507
REGULATOR
Q511
REGULATOR
Q315
REGULATOR
Q505,Q549
REGULATOR
REGULATOR
Q503
D503-D506
RLY501
D507
D508,D509
T501
Power Transformer
F1
JK500
AC IN
Q515
POWER DET.
SER2
DCDET
SYNC
P.CONT
VP

■ Terminal Guide of ICs, Transistors and Diodes

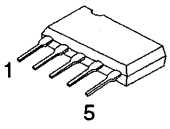
AN8389SE1

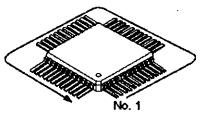




AN8835SBE1 (28P)
BU2090F-E2 (16P)
BU4052BCF-E2 (16P)
LA1832A (24P)
LC7218 (24P)
BH3854AFS-E2 (32P)

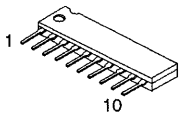
BA7755A



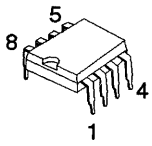


M38197MA131F(100P)
MN662741RPA (80P)
UPD78043A042 (80P)

BA6247N



M5218AP



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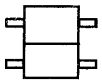

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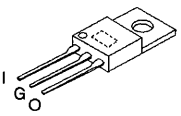
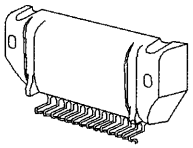


RSN35H1



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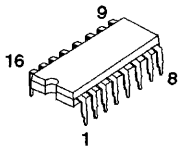

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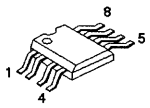
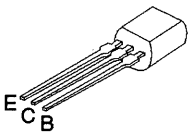
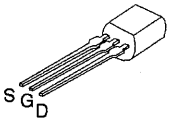


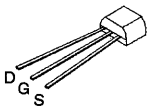


2SB621RTA
2SB621ARTA
2SC2001KTA
2SA1534AQRTA

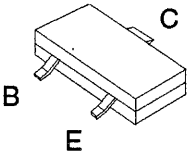
2SK301QTA

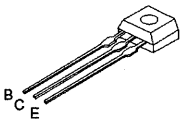


2SD1302STA
2SJ40CDTA



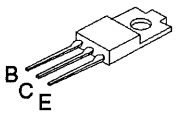
2SB709S



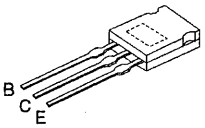


2SC2785FETA
2SC2786MTA
2SD1020HTA
2SC2785FTA
2SC2787FL1TA
2SC2787LTA
BN1L3NTA

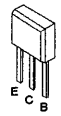
2SB1185E
2SD1762E



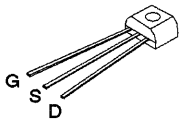
2SD2037ETA

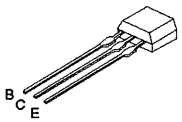


2SC2784FTA
BA1L4ZTA
BA1F4MTA
2SC3311AIQST



2SK544F-AC

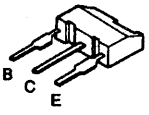


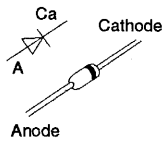


RVTDTA143XST
RVTDTC143TST
2SA933SSTA
RVTDTA114EST

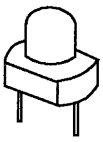
RVDTDTC114TST
RVTDTC124EST
RVTDTA124EST
RVTDTC114EST

2SB1320AQRTA

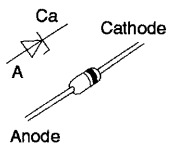




RVD1SS133TA
1SS291TA
MA165TA
1SS254TA
MA167TA
MA4330LTA



LNJ301MPUJAD
SLR-325MC
SLR-325VC



MTZJ12BTA
MTZJ13ATA
MTZJ15CTA
MTZJ5R6CTA
MTZJ6R8ATA
MTZJ6R8BTA
MTZJ5R1BTA

MTZJ5R6BTA
MTZJ10BTA
MTZJ3R6BTA
MTZJ5R1CTA
MTZJ7R5CTA
MTZJ9R1CTA

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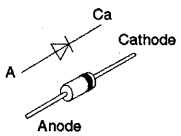
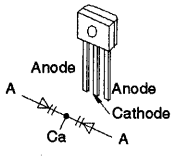
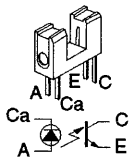


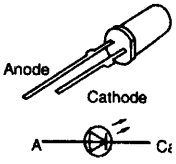
SVC211SPA-AL



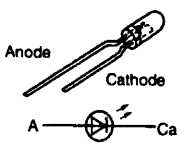
RSQGP1S53V

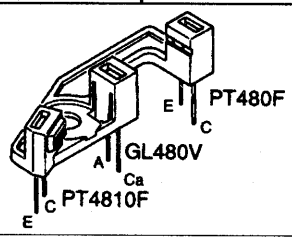


LN66S



BR3433S





• **Signal line**

: +B line
: –B line
: FM/AM signal line
: Main signal line
: Playback signal line
: Record signal line
: CD signal line
: FM signal line
: AM signal line
: AM OSC signal line
: FM OSC signal line
: Aux 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

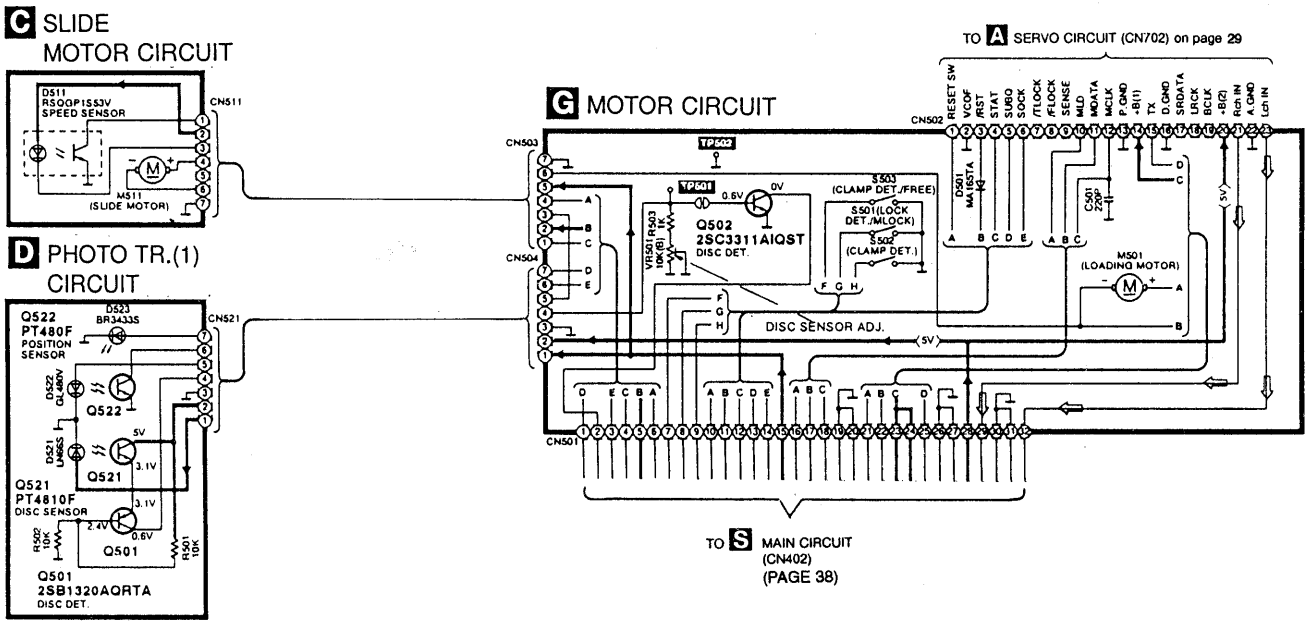
CAUTION : FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE **F1 2.5A 125V FUSE.**

RISK OF FIRE-REPLACE FUSE AS MARKED.

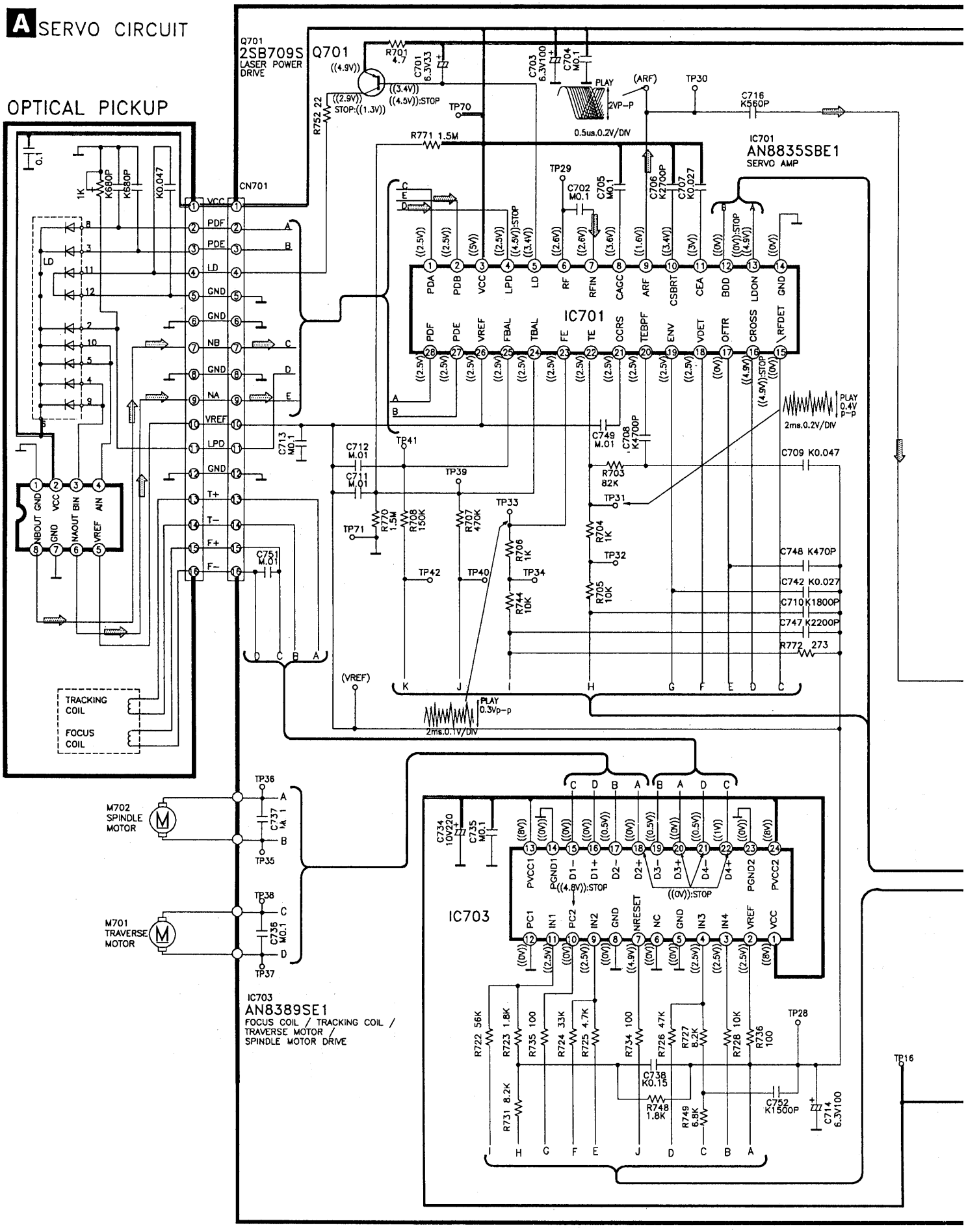
FUSE CAUTION

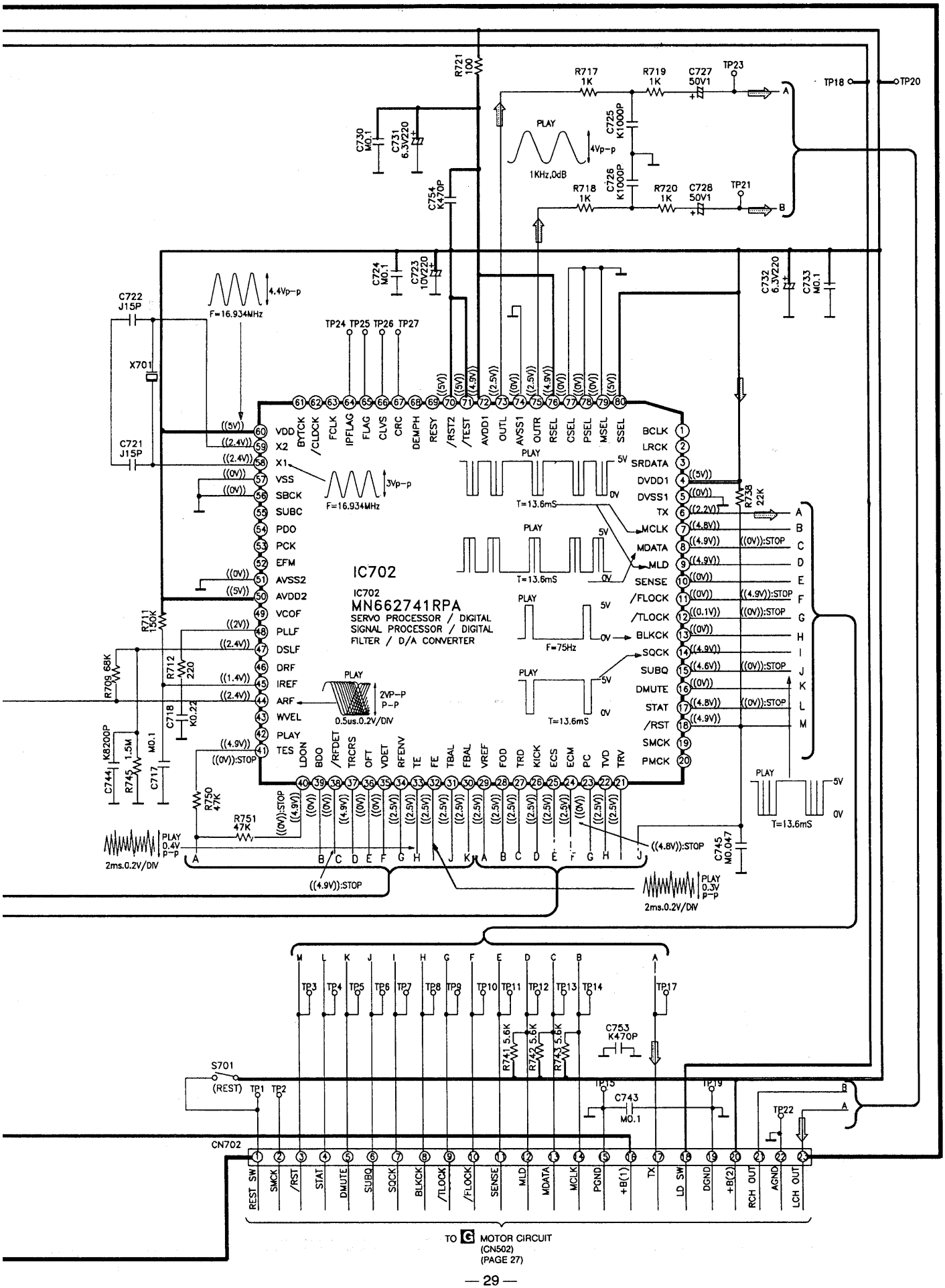
These symbols located near the fuse indicates that the fuse used is a fast operating type. For continued protection against fire harzard, replace with the same type fuse. For fuse rating, refer to the marking adjacent to the symbol.

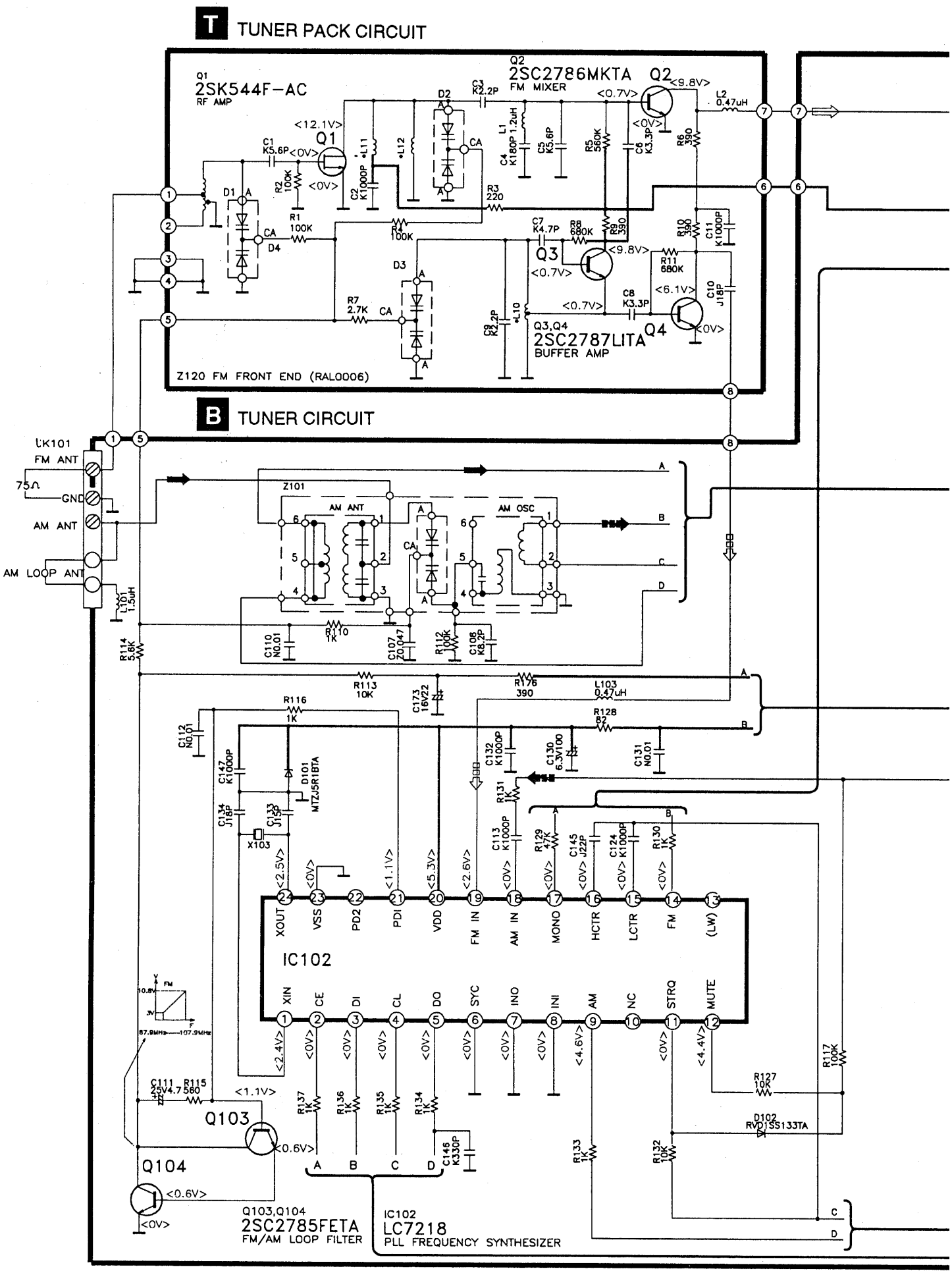
Ce symbole indique que le fusible utilisé est à rapide. Pour une protection permanente, n' utiliser que des fusibles de même type. Ce dernier est indiqué là qù le présent symbole est apposé.

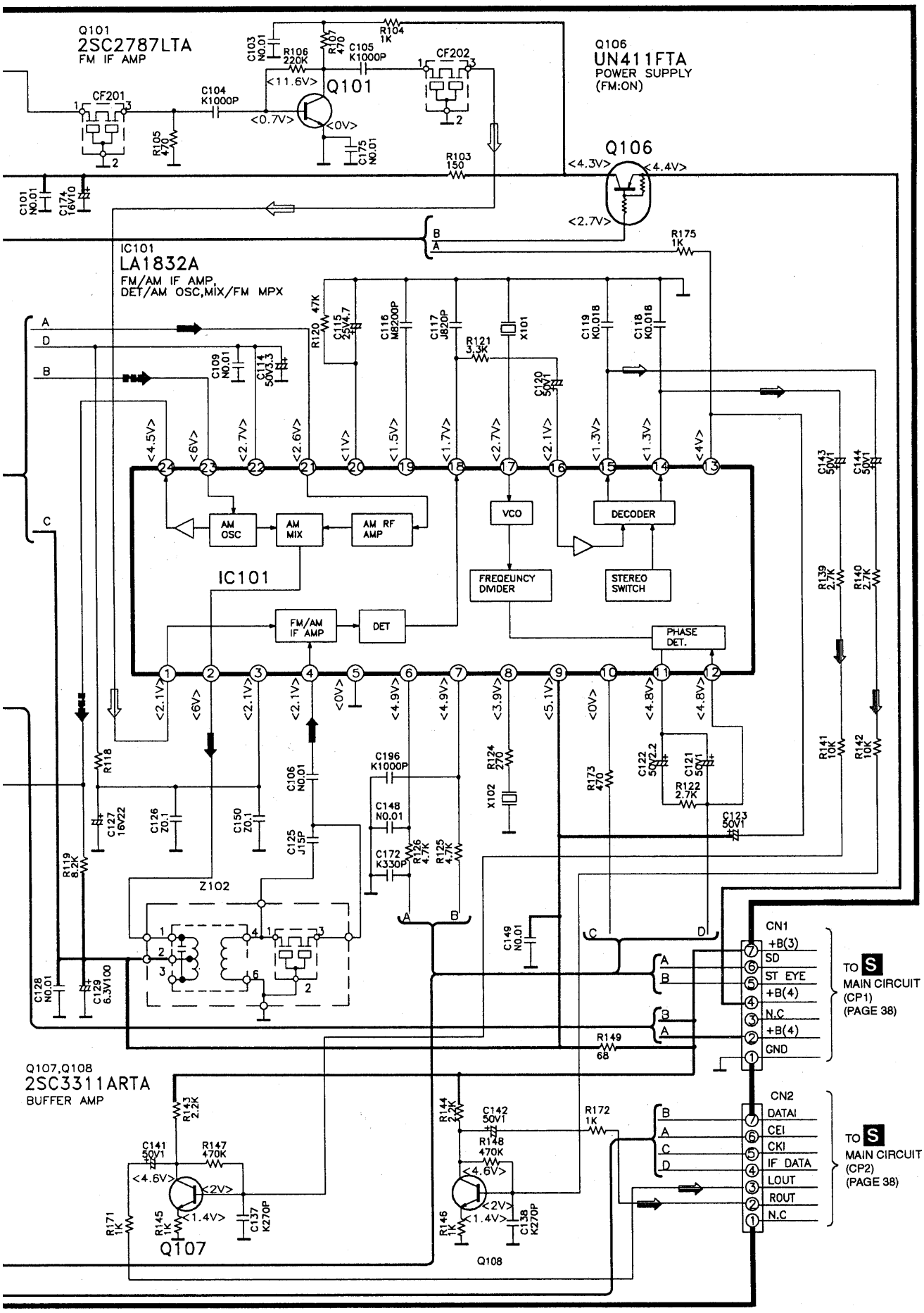


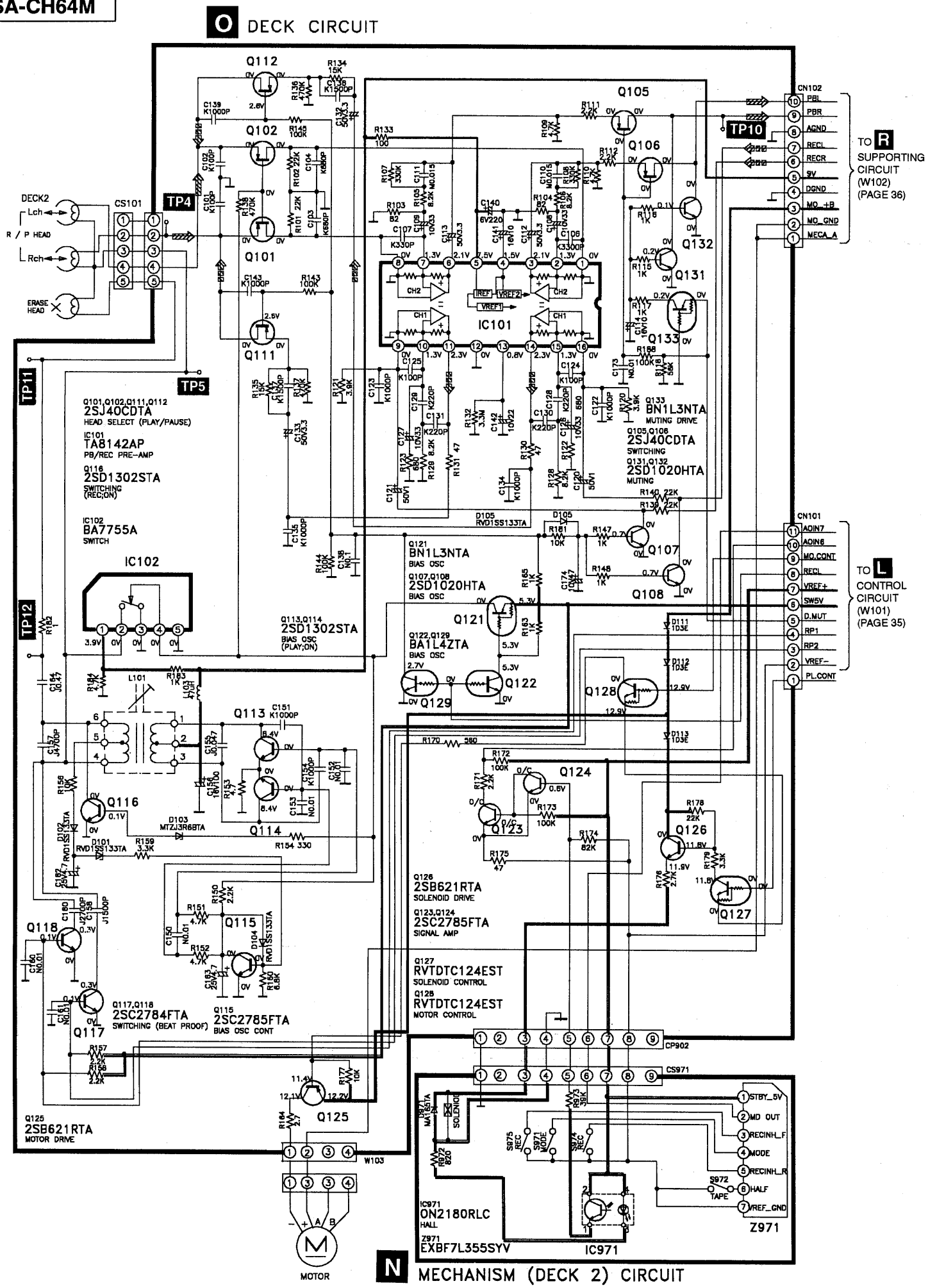
A SERVO CIRCUIT



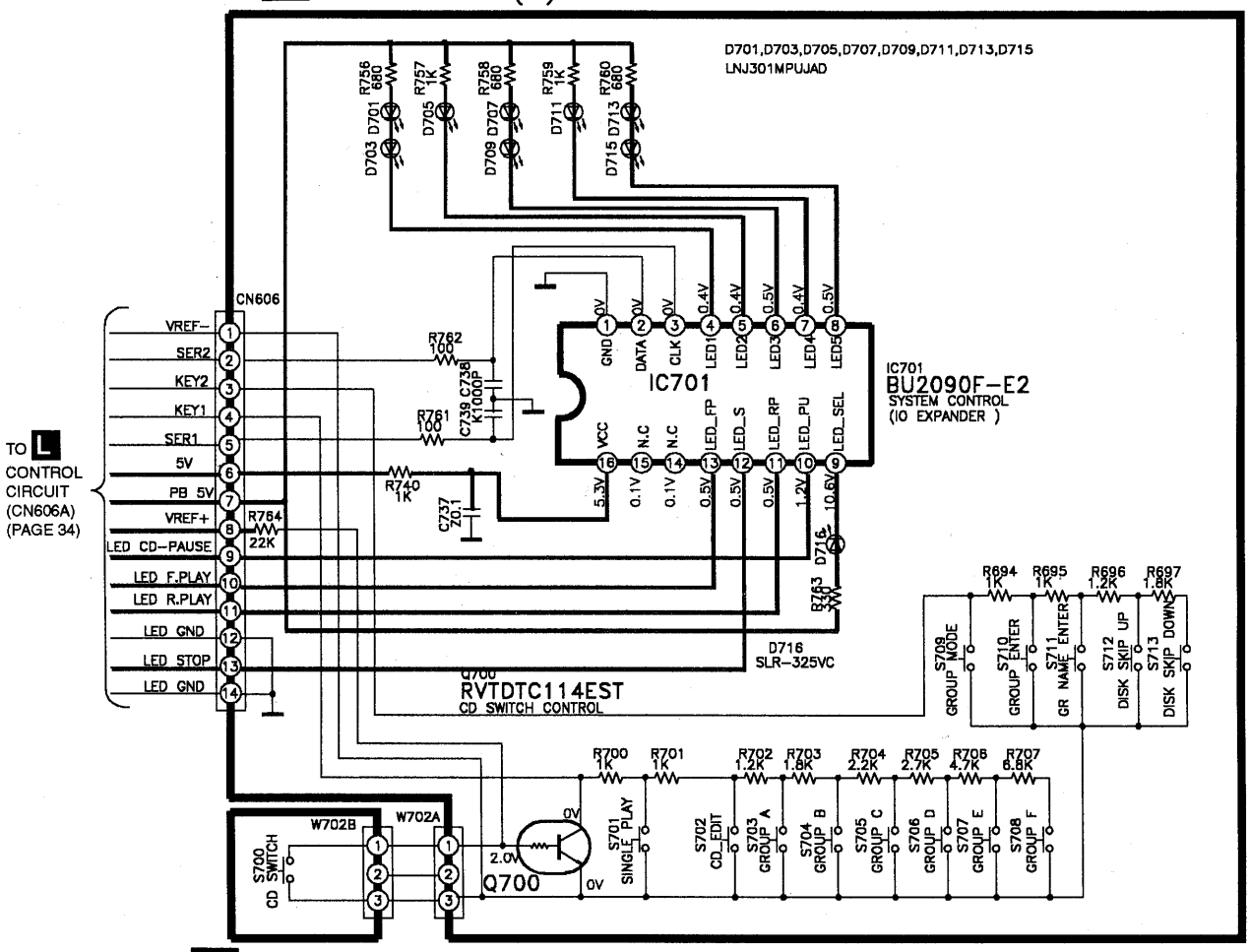

IC702
IC702
MN662741RPA
SERVO PROCESSOR / DIGITAL
SIGNAL PROCESSOR / DIGITAL
FILTER / D/A CONVERTER
X701
F=16.934MHz
4.4Vp-p
3Vp-p
PLAY
1KHz,0dB
4Vp-p
2Vp-p
0.5us.0.2V/DIV
2ms.0.2V/DIV
T=13.6mS
F=75Hz
S701
(REST)
CN702
REST SW
SMCK
/RST
STAT
DMUTE
SUBQ
SQCK
BLKCK
/TLOCK
/FLOCK
SENSE
MLD
MDATA
MCLK
PGND
+B(1)
TX
LD SW
DGND
+B(2)
RCH OUT
AGND
LCH OUT
TO G MOTOR CIRCUIT
(CN502)
(PAGE 27)


T TUNER PACK CIRCUIT
Q1
2SK544F-AC
RF AMP
Q2
2SC2786MKTA
FM MIXER
Q3
Q4
2SC2787LITA
BUFFER AMP
Z120 FM FRONT END (RAL0006)
B TUNER CIRCUIT
LK101
FM ANT
75Ω
GND
AM ANT
AM LOOP ANT
Z101
AM ANT
AM OSC
L101 1.5uH
R114 5.6K
R110 1K
C110 N0.01
C107 Z0.047
R112 100K
C106 K8.2P
R113 10K
C173 16V22
R176 390
L103 0.47uH
R116 1K
R128 82
C112 N0.01
C147 K1000P
D101 MTZJ5R1BTA
C134 J16P
C133 J15P
X103
C132 K1000P
C130 6.3V100
C131 N0.01
R131 1K
C113 K1000P
R129 47K
C145 J22P
C124 K1000P
R130 1K
IC102
XOUT
VSS
PD2
PDI
VDD
FM IN
AM IN
MONO
HCTR
LCTR
FM
(LW)
XIN
CE
DI
CL
DO
SYC
INO
INI
AM
NC
STRQ
MUTE
C111 R115
25V4.7 560
Q103
Q104
<0.6V>
R137 1K
R136 1K
R135 1K
R134 1K
C146 K330P
R133 1K
R132 10K
R127 10K
R117 100K
D102 RVD1SS133TA
Q103,Q104
2SC2785FETA
FM/AM LOOP FILTER
IC102
LC7218
PLL FREQUENCY SYNTHESIZER


Q101
2SC2787LTA
FM IF AMP
Q106
UN411FTA
POWER SUPPLY
(FM:ON)
IC101
LA1832A
FM/AM IF AMP,
DET/AM OSC,MIX/FM MPX
AM OSC
AM MIX
AM RF AMP
VCO
DECODER
FREQEUNCY DMDER
STEREO SWITCH
FM/AM IF AMP
DET
PHASE DET.
Z102
X101
X102
CF201
CF202
Q107,Q108
2SC3311ARTA
BUFFER AMP
Q107
Q108
CN1
+B(3)
SD
ST EYE
+B(4)
N.C
+B(4)
GND
TO S MAIN CIRCUIT (CP1) (PAGE 38)
CN2
DATAI
CEI
CKI
IF DATA
LOUT
ROUT
N.C
TO S MAIN CIRCUIT (CP2) (PAGE 38)

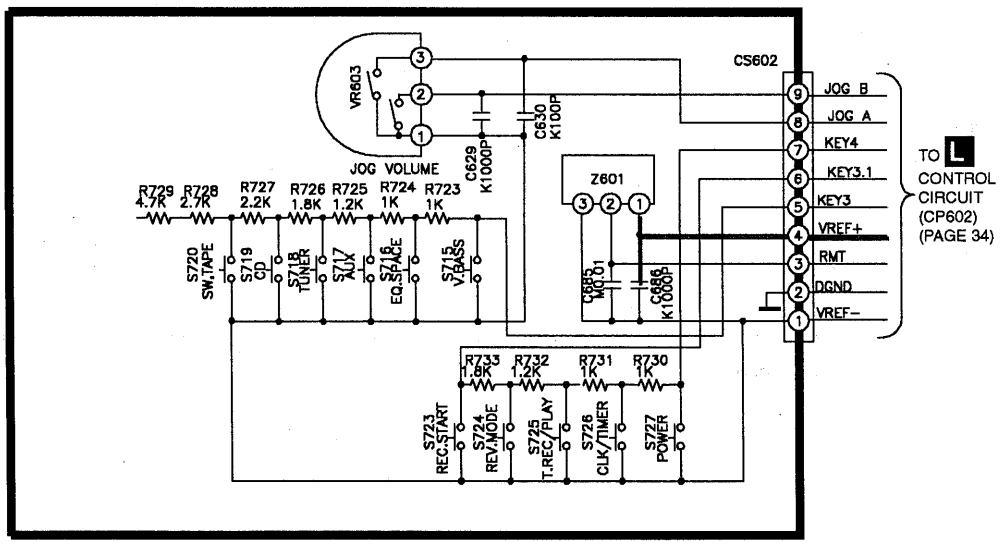

O DECK CIRCUIT
TO R SUPPORTING CIRCUIT (W102) (PAGE 36)
TO L CONTROL CIRCUIT (W101) (PAGE 35)
CN102
CN101
TP4
TP5
TP10
TP11
TP12
CS101
DECK2
R / P HEAD
ERASE HEAD
IC101
TA8142AP
PB/REC PRE-AMP
IC102
BA7755A
SWITCH
Q101,Q102,Q111,Q112
2SJ40CDTA
HEAD SELECT (PLAY/PAUSE)
Q116
2SD1302STA
SWITCHING (REC;ON)
Q113,Q114
2SD1302STA
BIAS OSC (PLAY;ON)
Q121
BN1L3NTA
BIAS OSC
Q107,Q108
2SD1020HTA
BIAS OSC
Q122,Q129
BA1L4ZTA
BIAS OSC
Q133
BN1L3NTA
MUTING DRIVE
Q105,Q106
2SJ40CDTA
SWITCHING
Q131,Q132
2SD1020HTA
MUTING
Q126
2SB621RTA
SOLENOID DRIVE
Q123,Q124
2SC2785FTA
SIGNAL AMP
Q127
RVTDTC124EST
SOLENOID CONTROL
Q128
RVTDTC124EST
MOTOR CONTROL
Q125
2SB621RTA
MOTOR DRIVE
Q117,Q118
2SC2784FTA
SWITCHING (BEAT PROOF)
Q115
2SC2785FTA
BIAS OSC CONT
IC971
ON2180RLC
HALL
Z971
EXBF7L355SYV
MOTOR
CP902
CS971
W103
N MECHANISM (DECK 2) CIRCUIT

F OPERATION (1) CIRCUIT

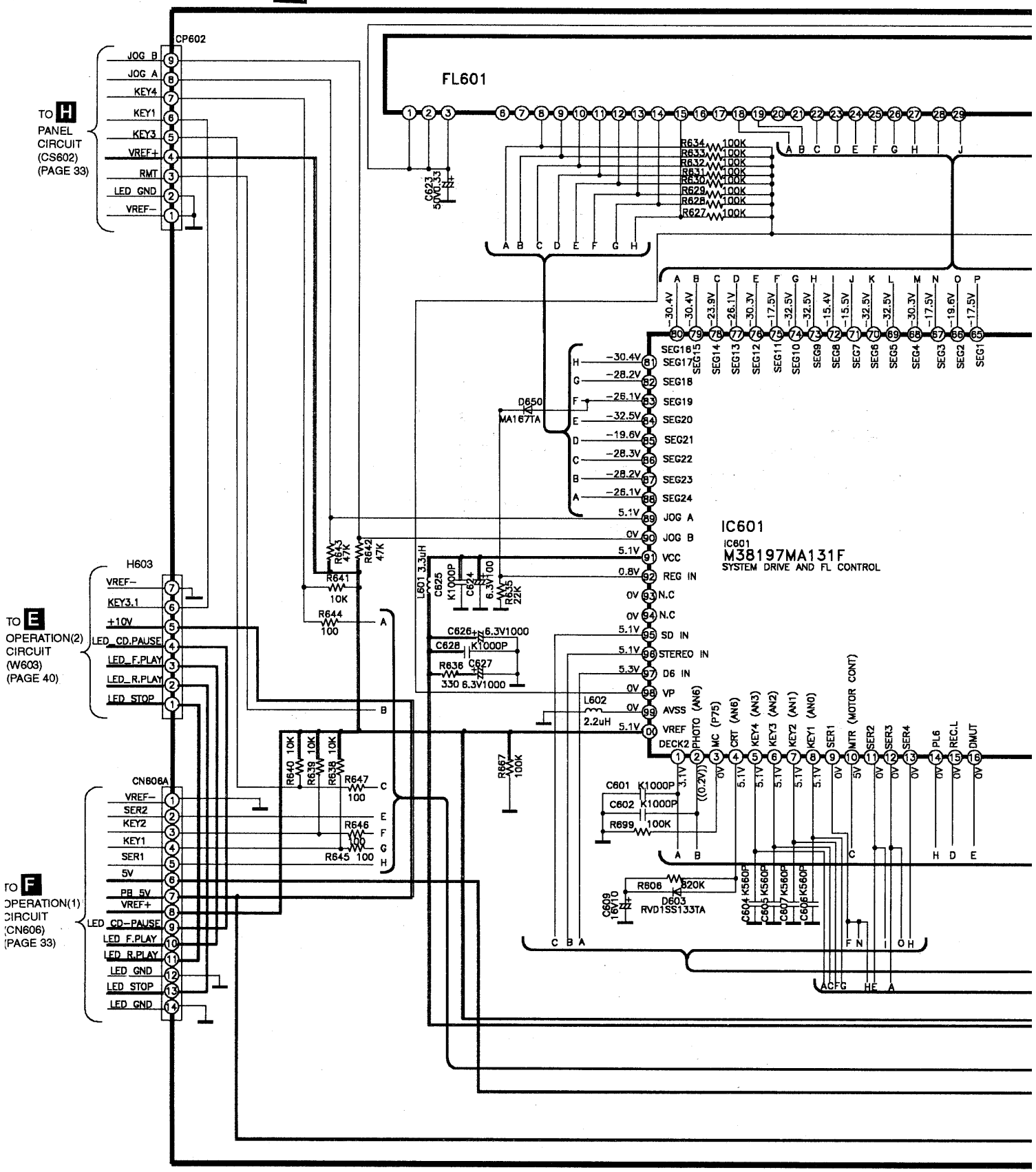


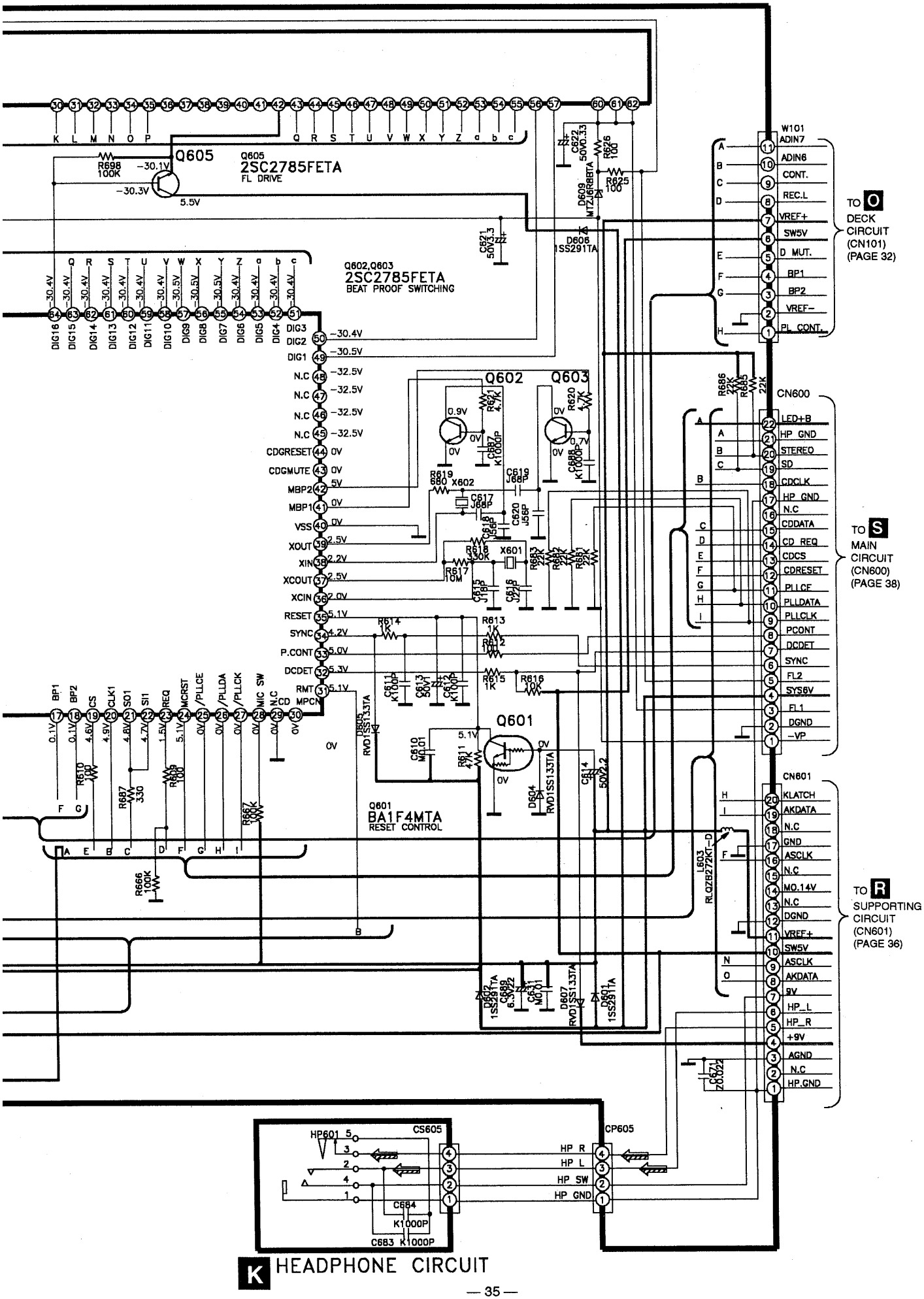
Q CD SWITCH CIRCUIT

H PANEL CIRCUIT



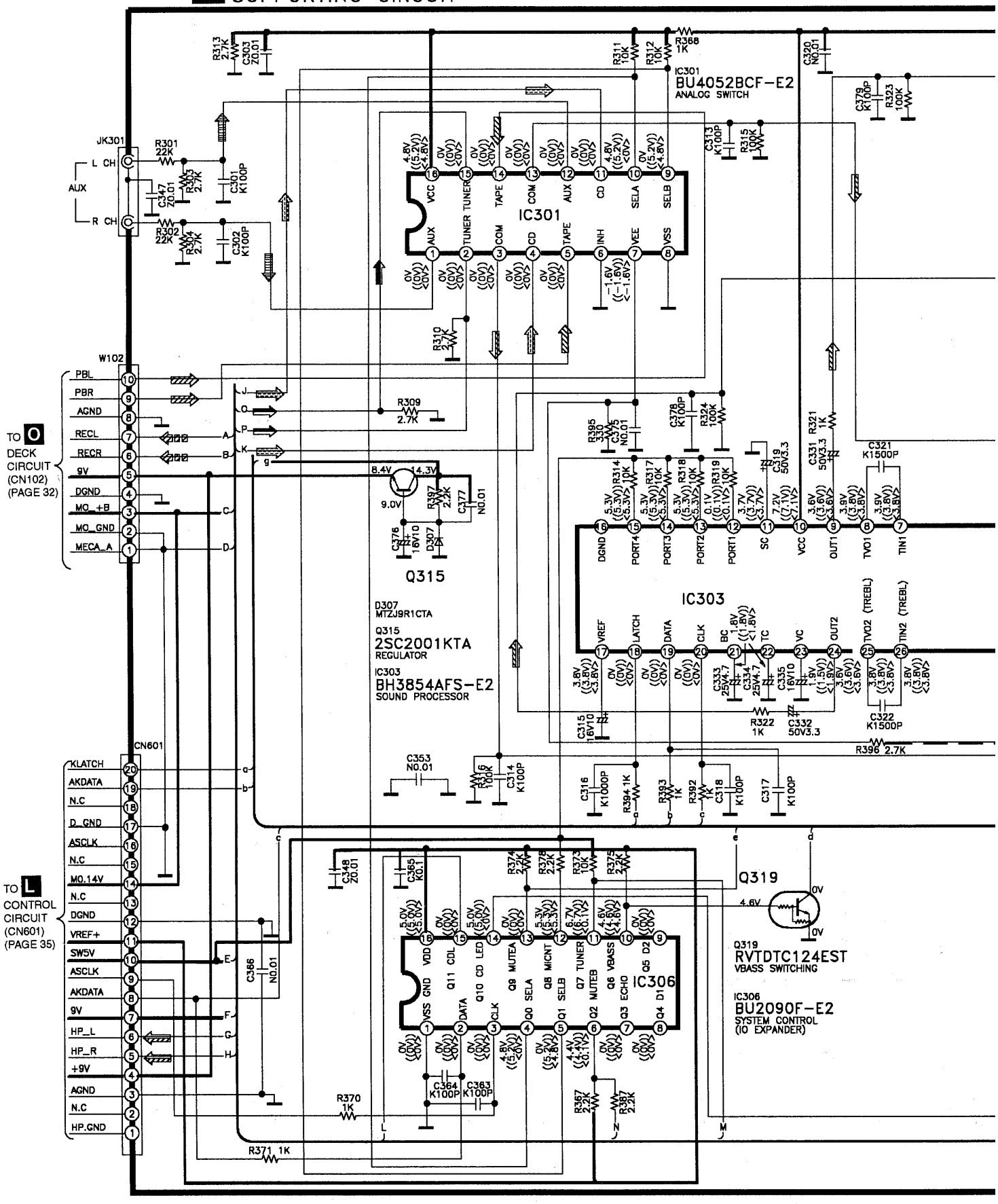
L CONTROL CIRCUIT

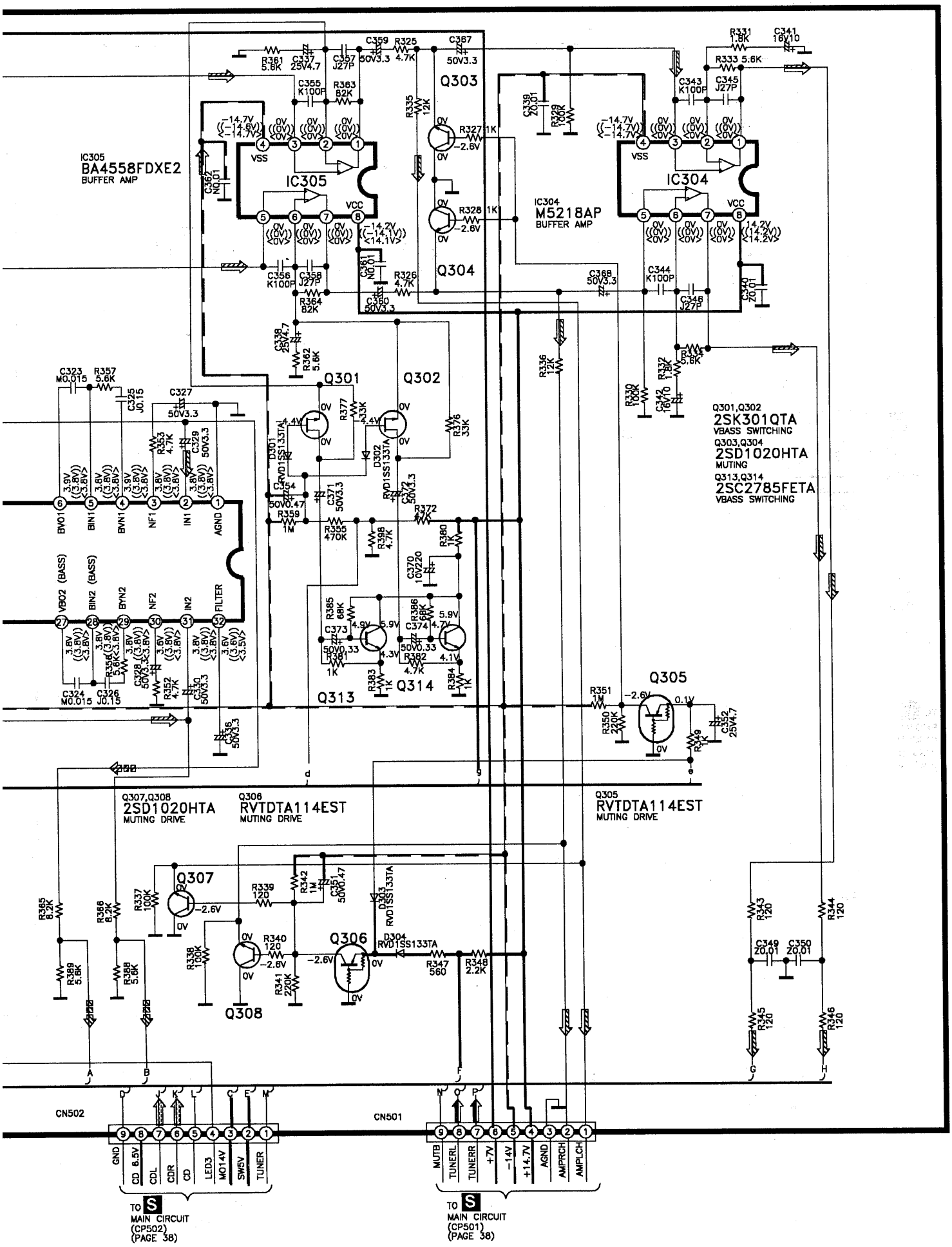




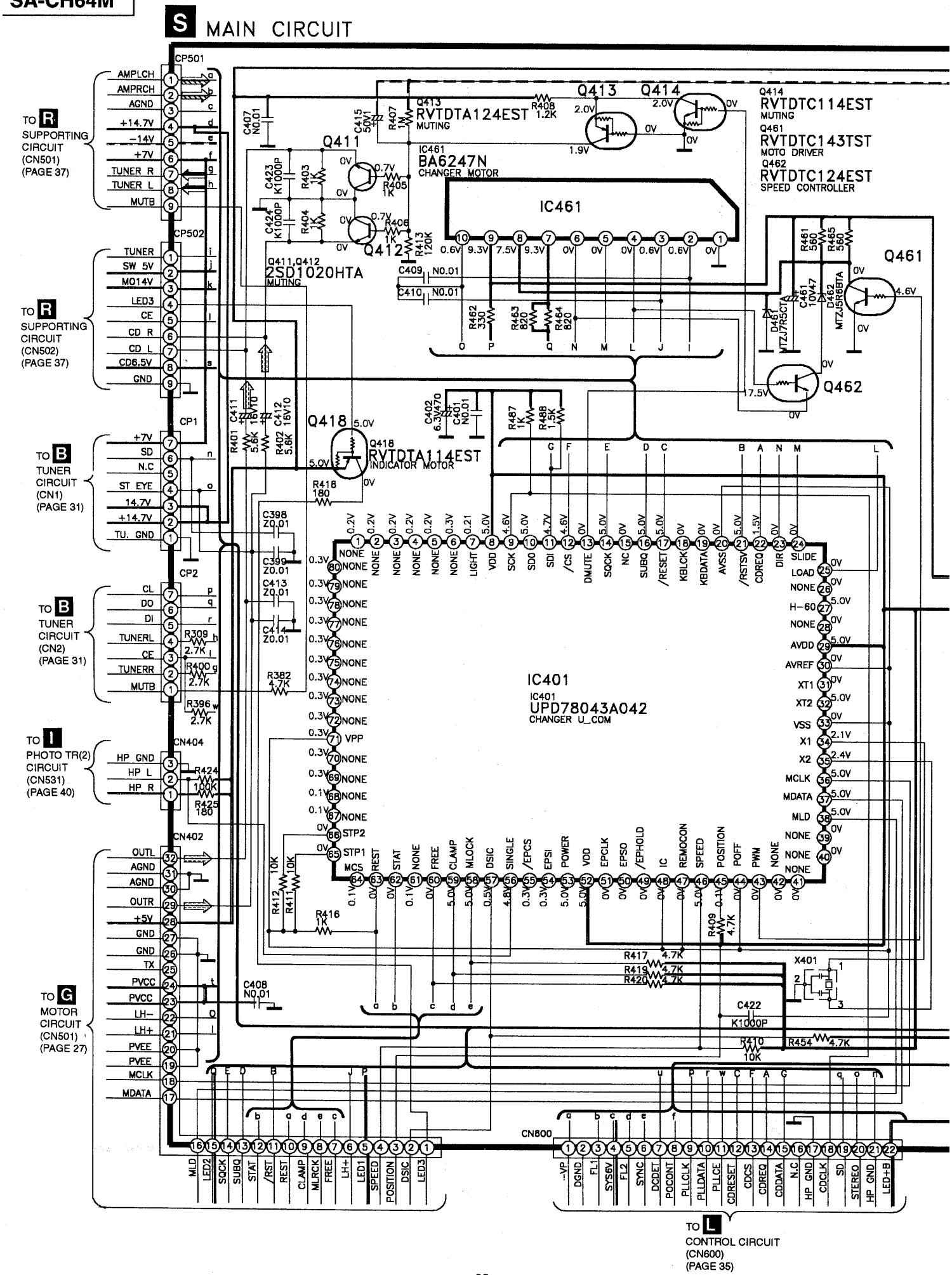
K HEADPHONE CIRCUIT

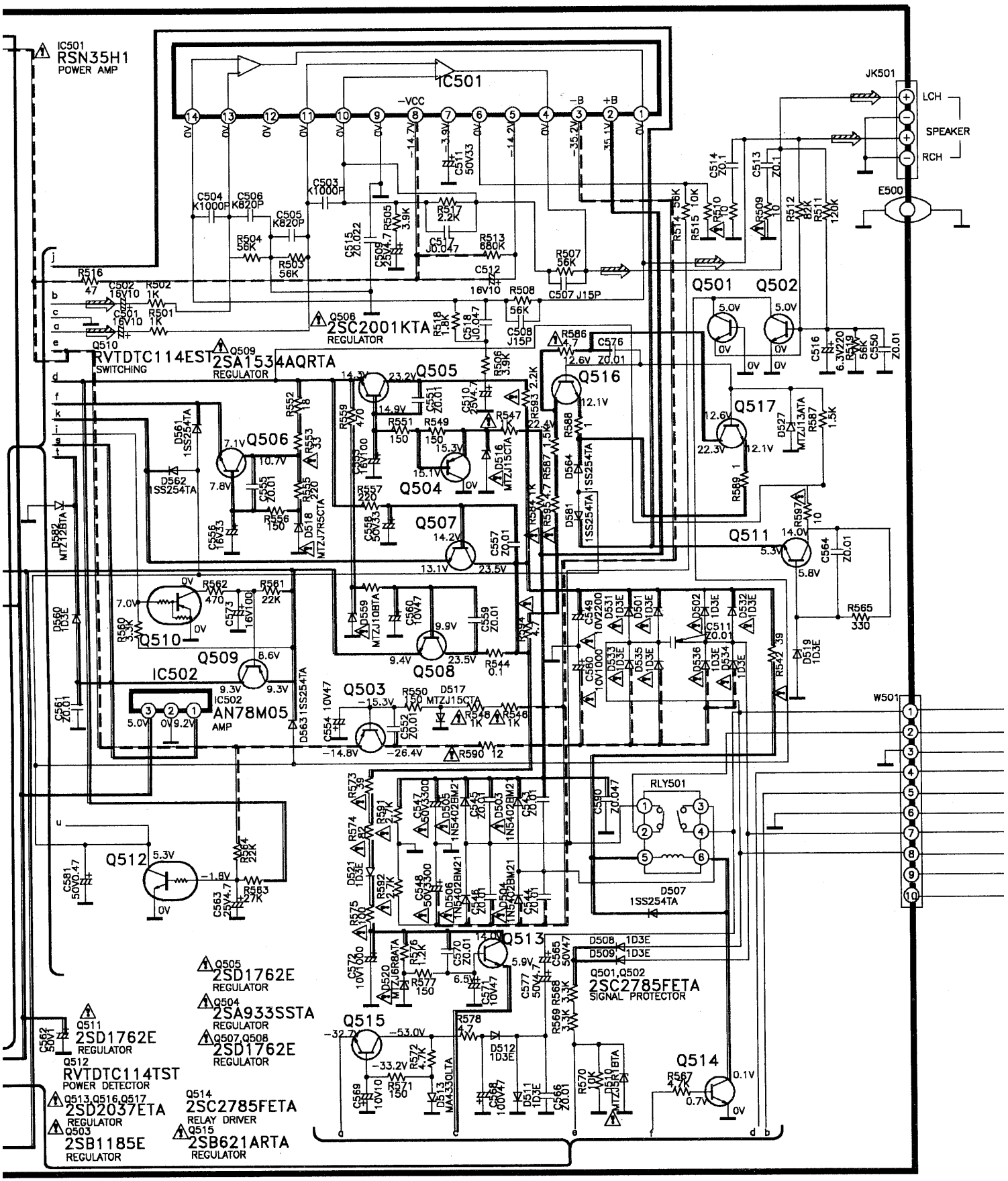
R SUPPORTING CIRCUIT



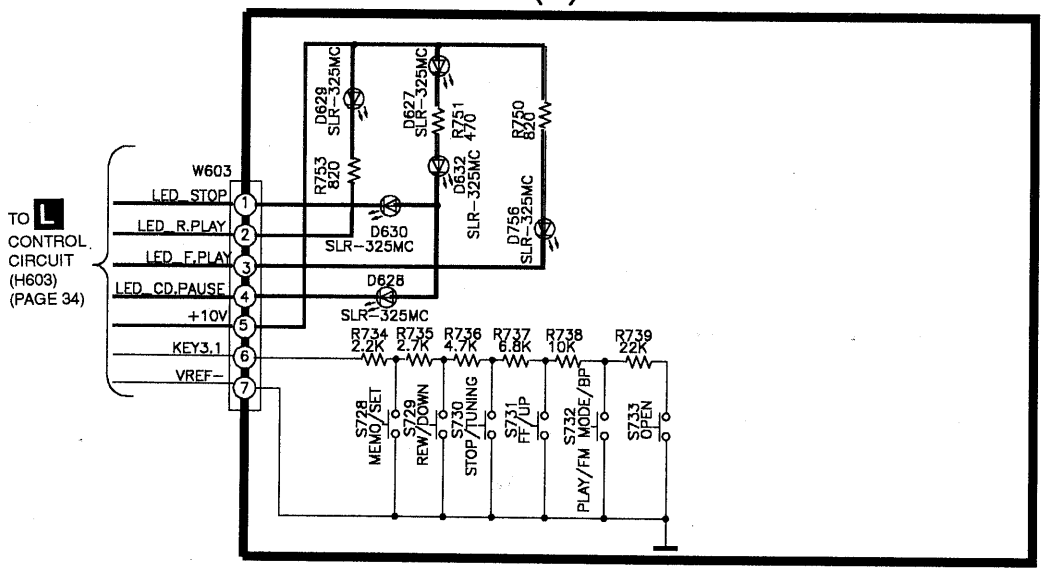

IC305
BA4558FDXE2
BUFFER AMP
IC305
IC304
M5218AP
BUFFER AMP
Q303
Q304
Q301
Q302
Q313
Q314
Q305
Q307
Q306
Q308
Q301,Q302
2SK301QTA
VBASS SWITCHING
Q303,Q304
2SD1020HTA
MUTING
Q313,Q314
2SC2785FETA
VBASS SWITCHING
Q307,Q308
2SD1020HTA
MUTING DRIVE
Q306
RVTDTA114EST
MUTING DRIVE
Q305
RVTDTA114EST
MUTING DRIVE
CN502
CN501
GND
CD 8.5V
CDL
CDR
CD
LED3
MO14V
SW5V
TUNER
MUTB
TUNERL
TUNERR
+7V
−14V
+14.7V
AGND
AMPRCH
AMPLCH
TO S MAIN CIRCUIT (CP502) (PAGE 38)
TO S MAIN CIRCUIT (CP501) (PAGE 38)

S MAIN CIRCUIT

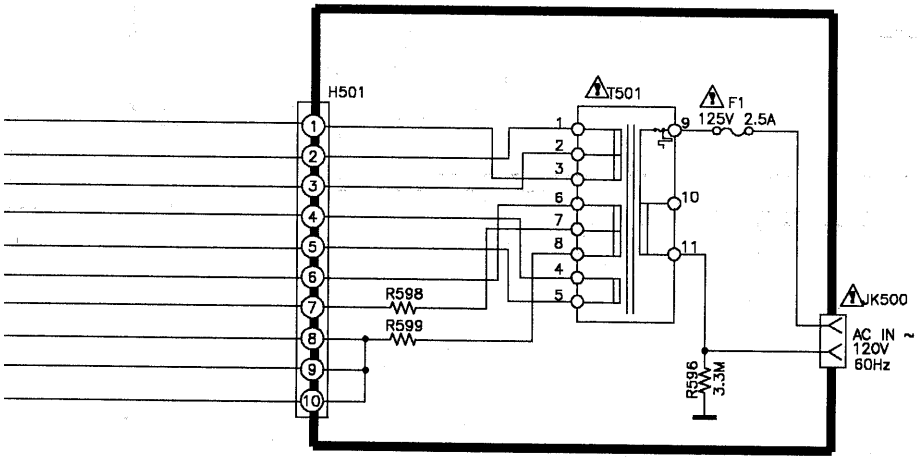



IC501
RSN35H1
POWER AMP
IC501
JK501
LCH
SPEAKER
RCH
E500
Q501 Q502
Q506
2SC2001KTA
REGULATOR
Q510
RVTDTC114EST
SWITCHING
Q509
2SA1534AQRTA
REGULATOR
Q505
Q516
Q517
Q504
Q507
Q511
Q510
Q509
IC502
AN78M05
AMP
Q503
Q508
Q512
RLY501
D507
1SS254TA
W501
Q513
Q515
Q514
Q501,Q502
2SC2785FETA
SIGNAL PROTECTOR
Q505
2SD1762E
REGULATOR
Q504
2SA933SSTA
REGULATOR
Q507,Q508
2SD1762E
REGULATOR
Q511
2SD1762E
REGULATOR
Q512
RVTDTC114TST
POWER DETECTOR
Q513,Q516,Q517
2SD2037ETA
REGULATOR
Q503
2SB1185E
REGULATOR
Q514
2SC2785FETA
RELAY DRIVER
Q515
2SB621ARTA
REGULATOR

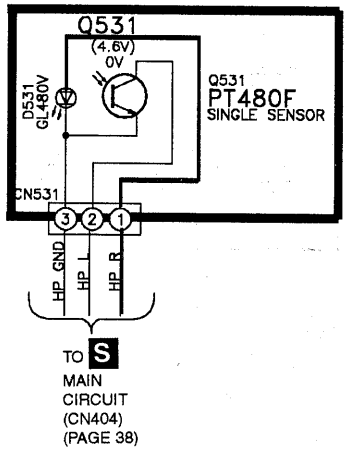
E OPERATION (2) CIRCUIT



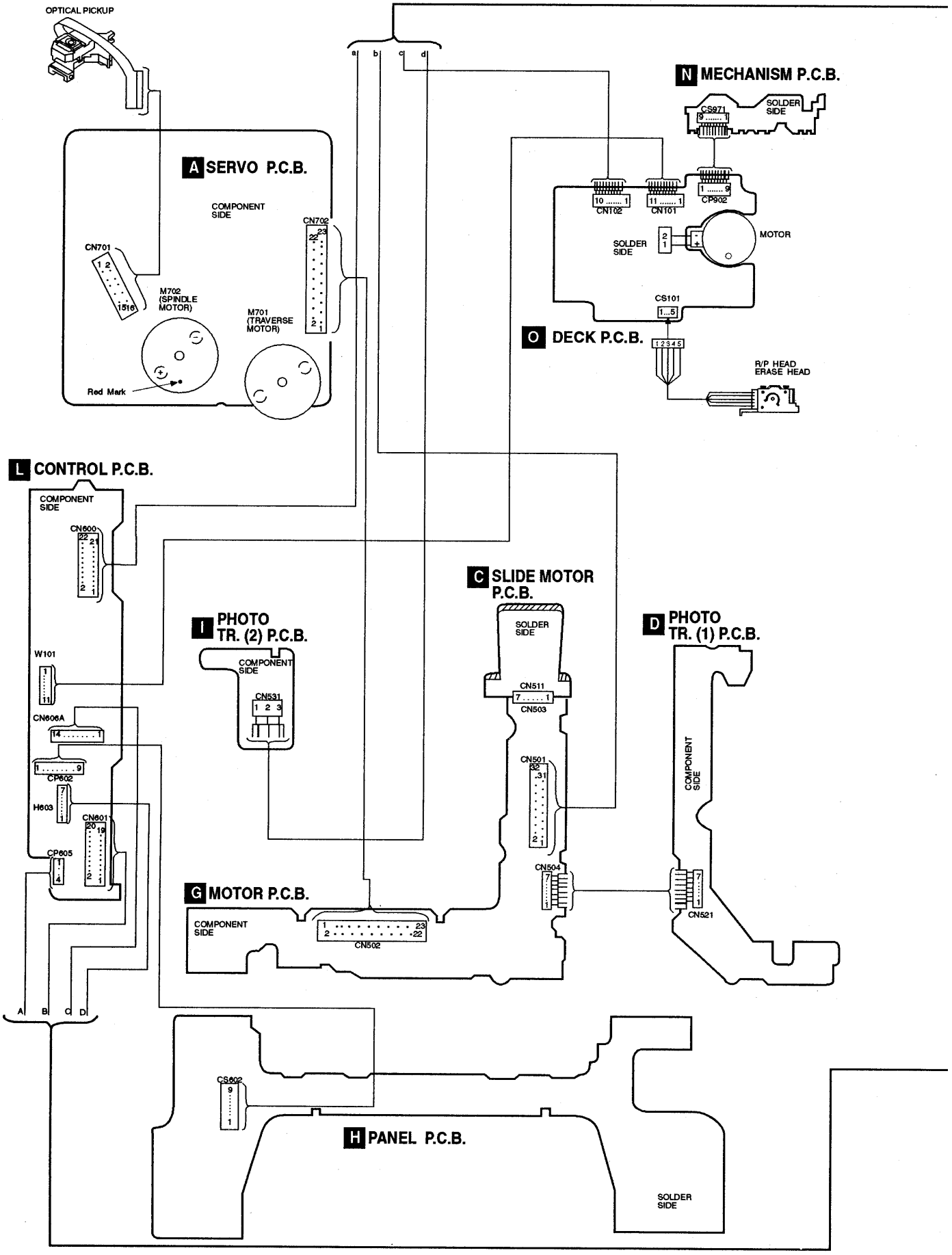
J POWER CIRCUIT

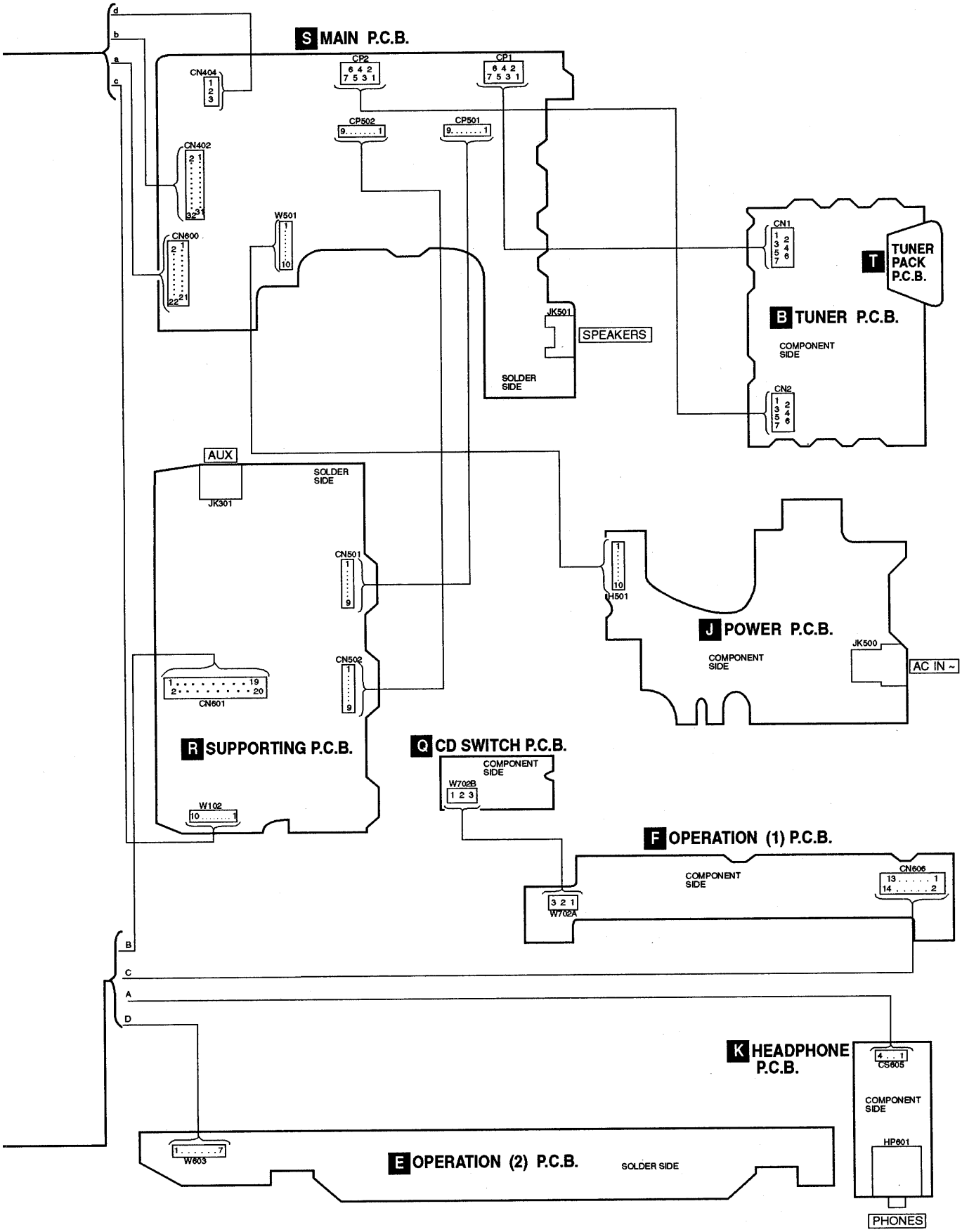


I PHOTO TR2 CIRCUIT

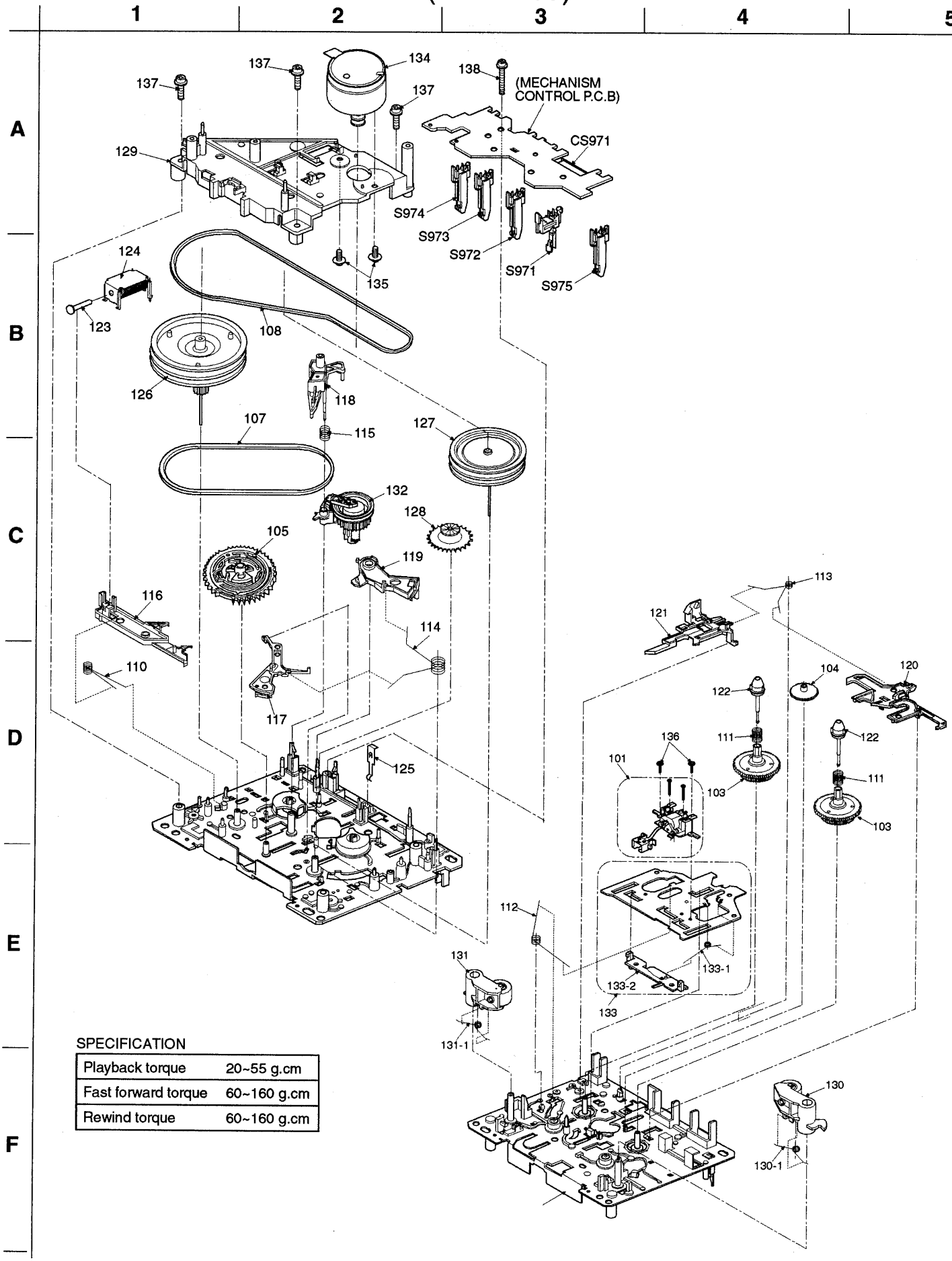


■ Wiring Connection Diagram




S MAIN P.C.B.
CN404
CP2
CP1
CP502
CP501
CN402
W501
CN600
JK501
SPEAKERS
SOLDER SIDE
CN1
T TUNER PACK P.C.B.
B TUNER P.C.B.
COMPONENT SIDE
CN2
AUX
JK301
SOLDER SIDE
CN501
CN502
H501
J POWER P.C.B.
COMPONENT SIDE
JK500
AC IN ~
CN601
R SUPPORTING P.C.B.
Q CD SWITCH P.C.B.
COMPONENT SIDE
W702B
W102
F OPERATION (1) P.C.B.
COMPONENT SIDE
CN606
W702A
K HEADPHONE P.C.B.
CS605
COMPONENT SIDE
HP601
PHONES
W603
E OPERATION (2) P.C.B.
SOLDER SIDE

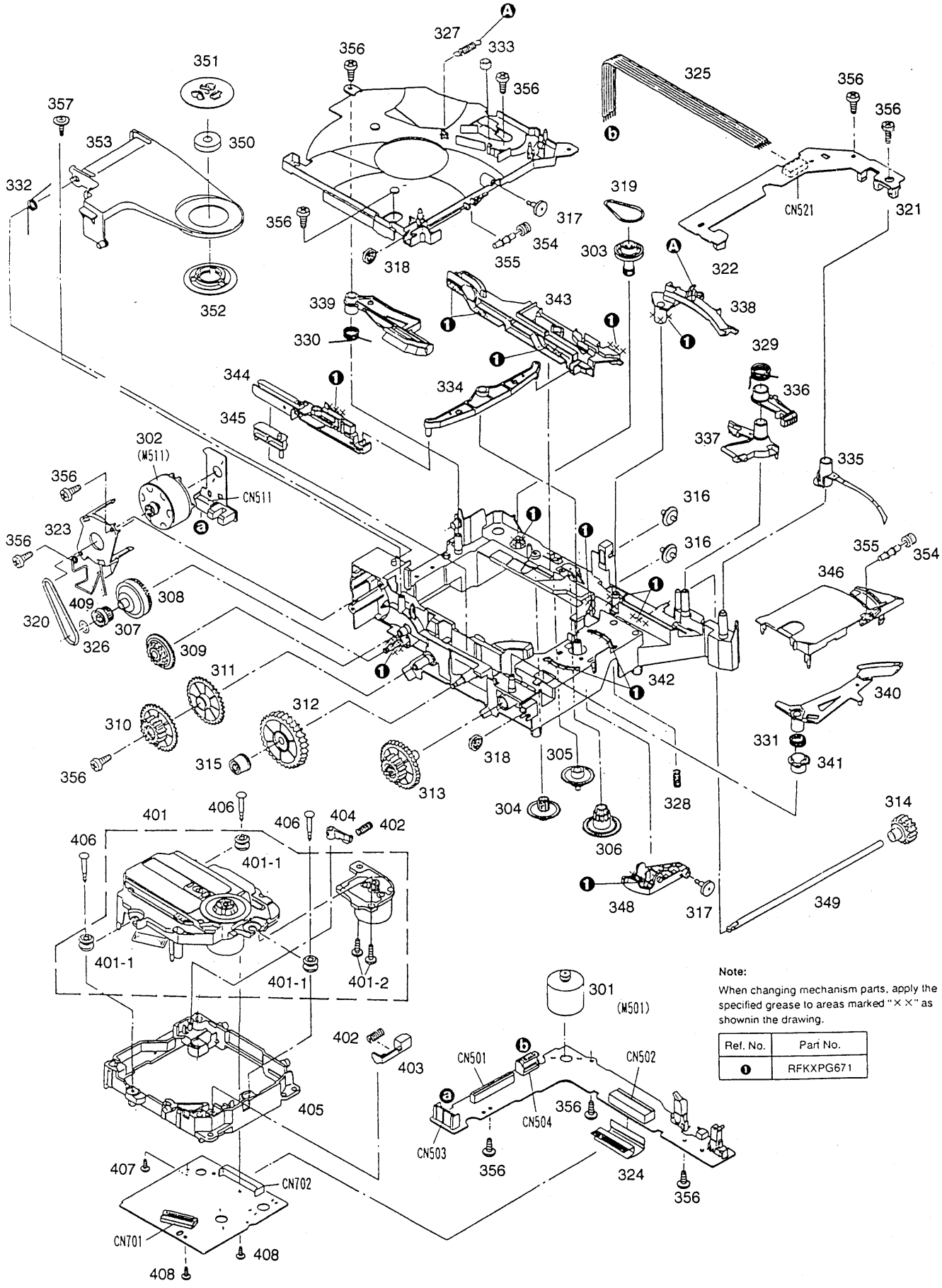
■ Mechanism Parts Location (RAA4105)



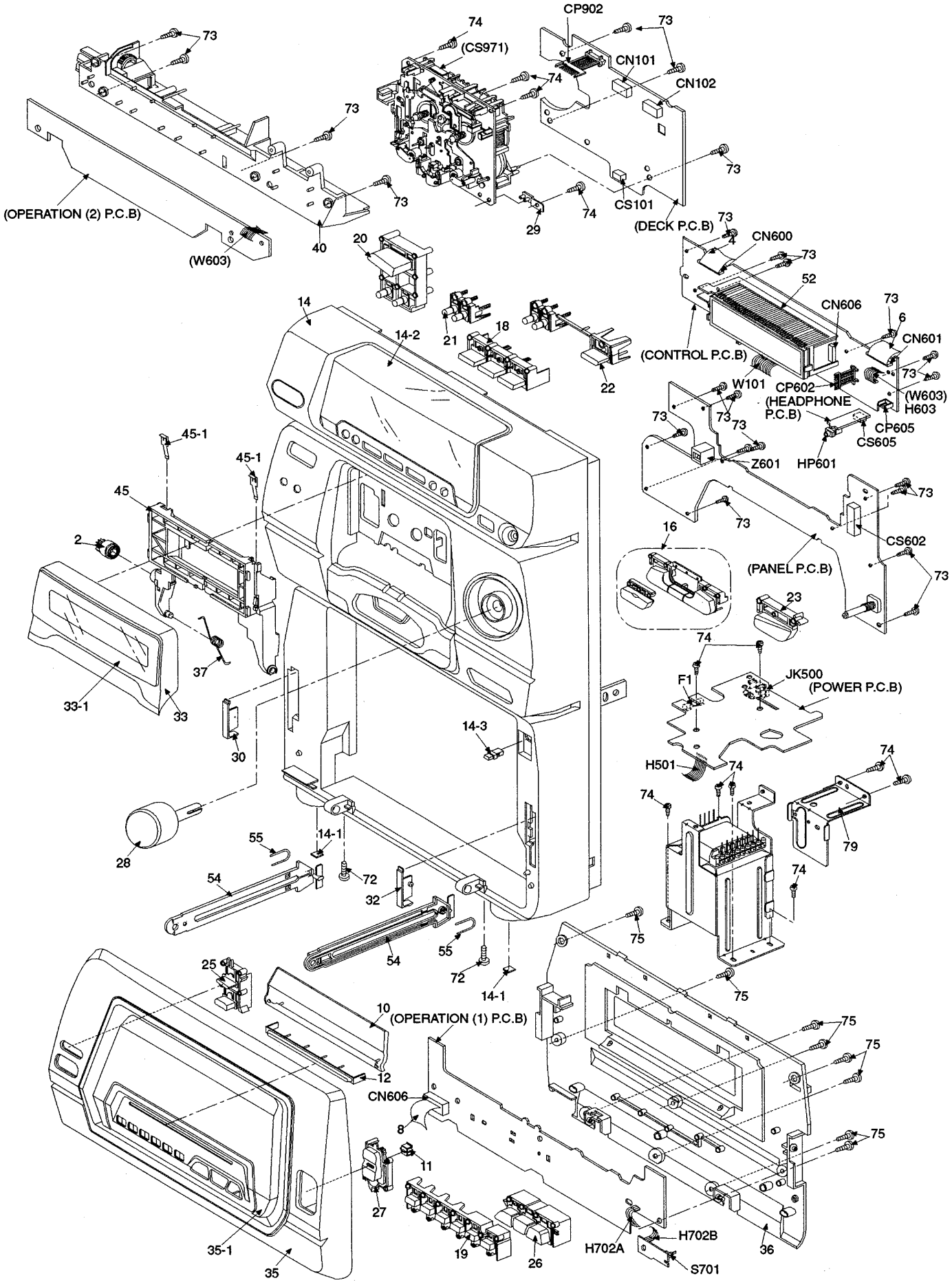
SPECIFICATION

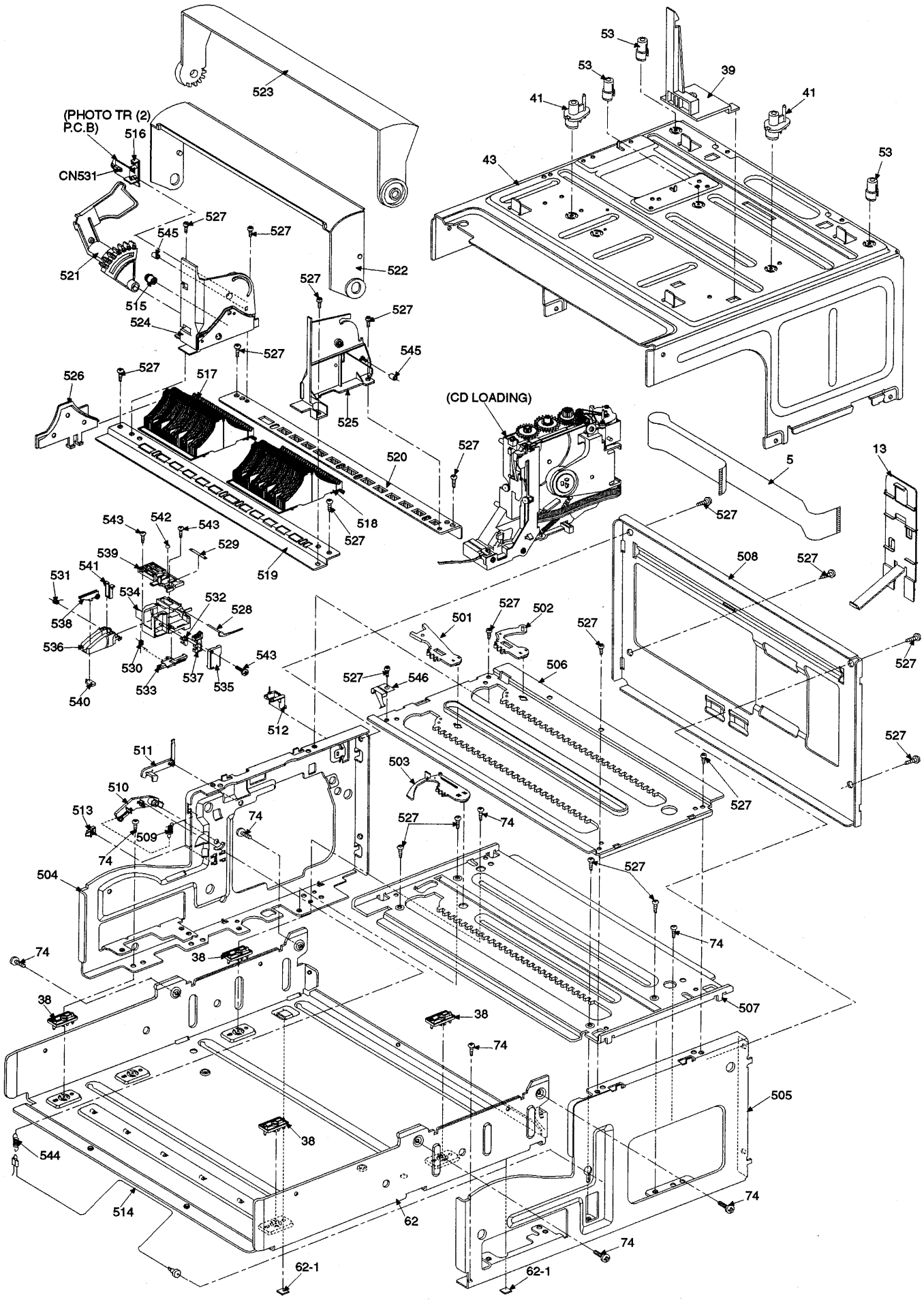
Playback torque	20~55 g.cm
Fast forward torque	60~160 g.cm
Rewind torque	60~160 g.cm

■ Loading Mechanism Parts Location



■ Cabinet Parts Location




(PHOTO TR (2) P.C.B)
CN531
(CD LOADING)
523
522
521
515
524
525
526
517
519
520
518
516
545
527
53
39
41
43
5
13
508
501
502
506
546
512
511
503
510
513
509
74
504
38
507
505
544
514
62
62-1
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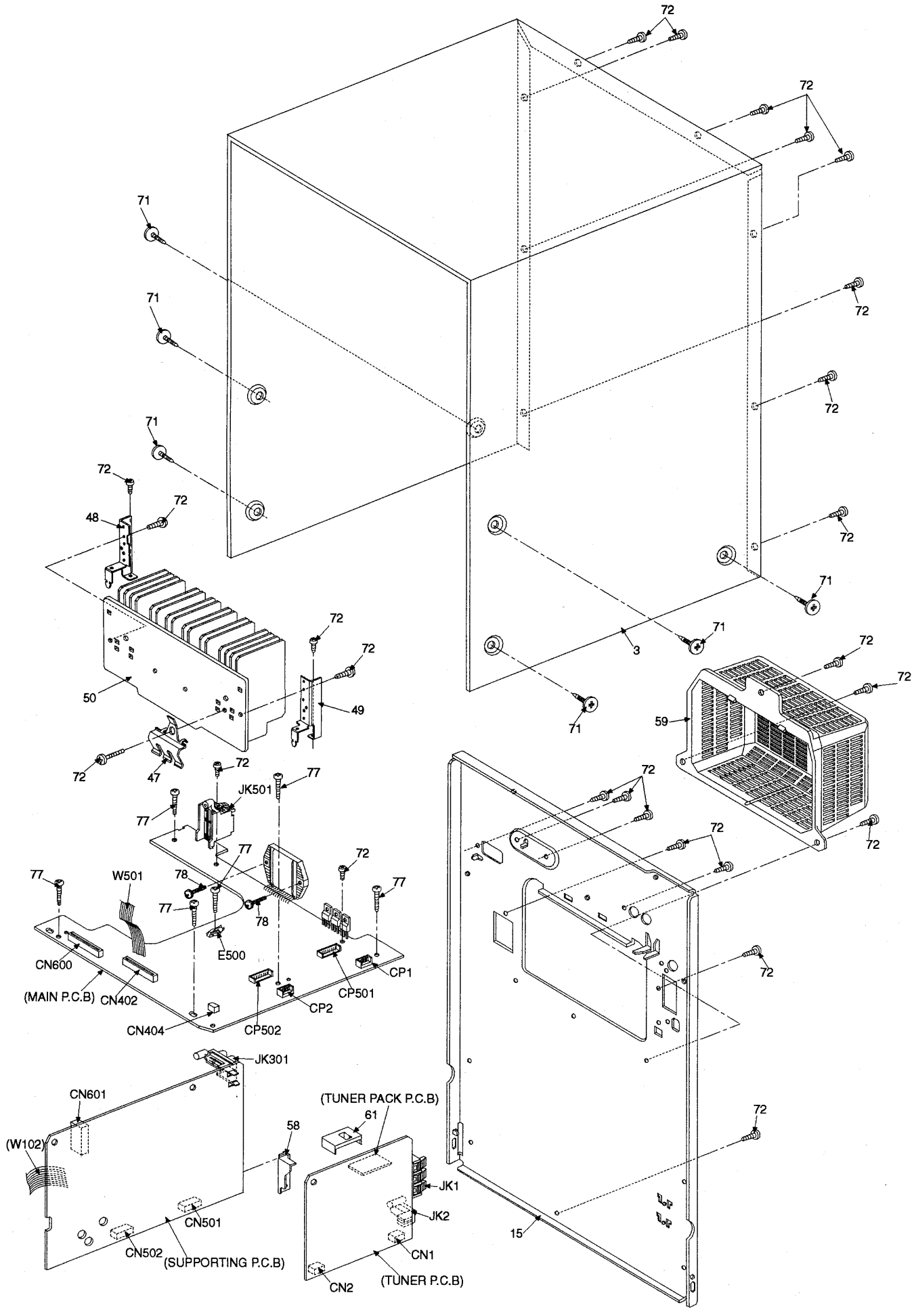
532
528
536
530
537
535
533
540
543
542


72
71
48
50
49
47
3
59
JK501
77
W501
78
E500
CN600
(MAIN P.C.B)
CN402
CN404
CP1
CP501
CP2
CP502
JK301
CN601
(W102)
58
CN501
CN502
(SUPPORTING P.C.B)
(TUNER PACK P.C.B)
61
JK1
JK2
CN1
CN2
(TUNER P.C.B)
15