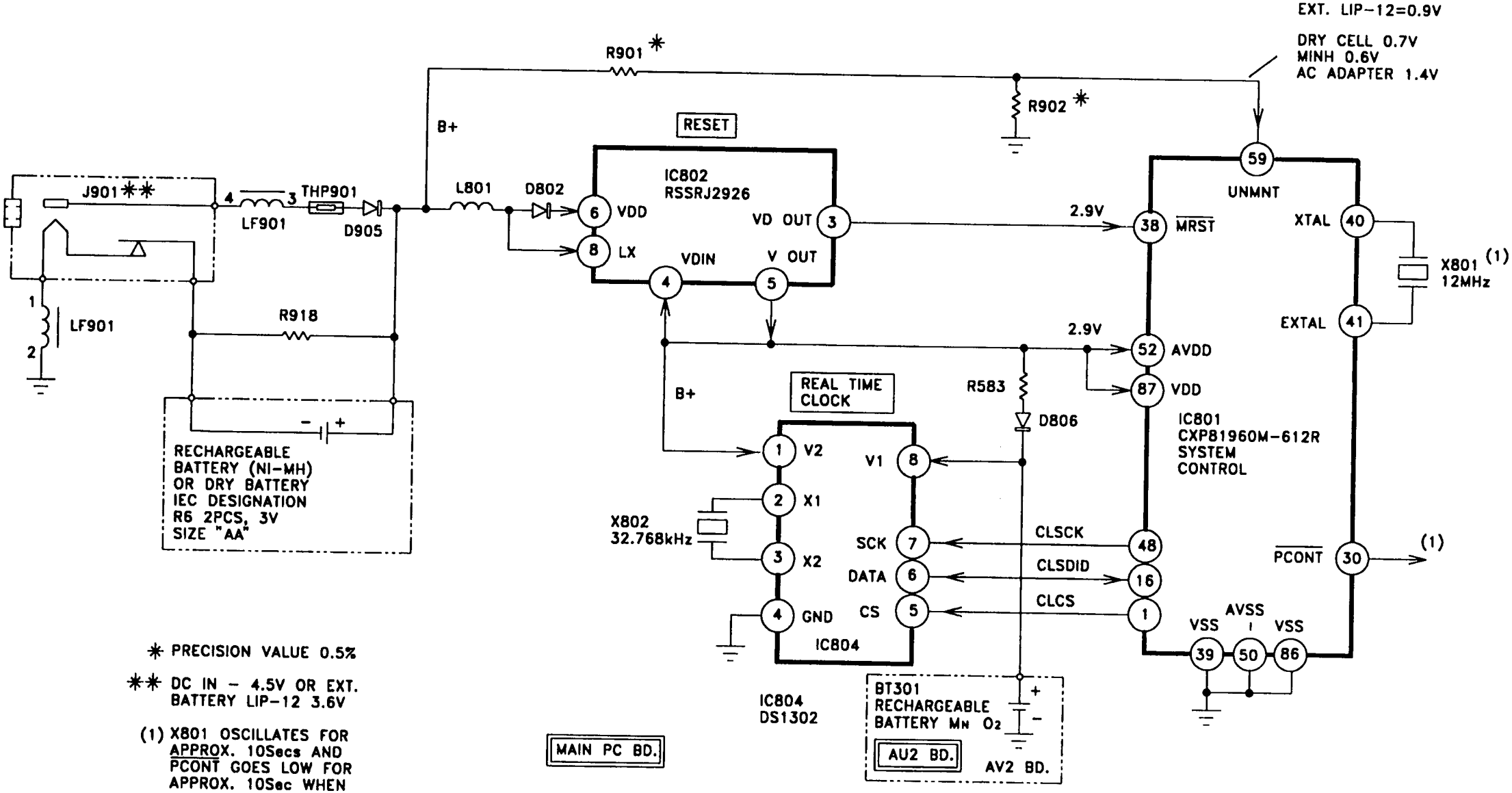
SONY
Mini Disc
DIGITAL RECORDING
MD WALKMAN
CARNEGIE
REMAIN -23:45
SONY
SONY
MD



STANDBY - RESET

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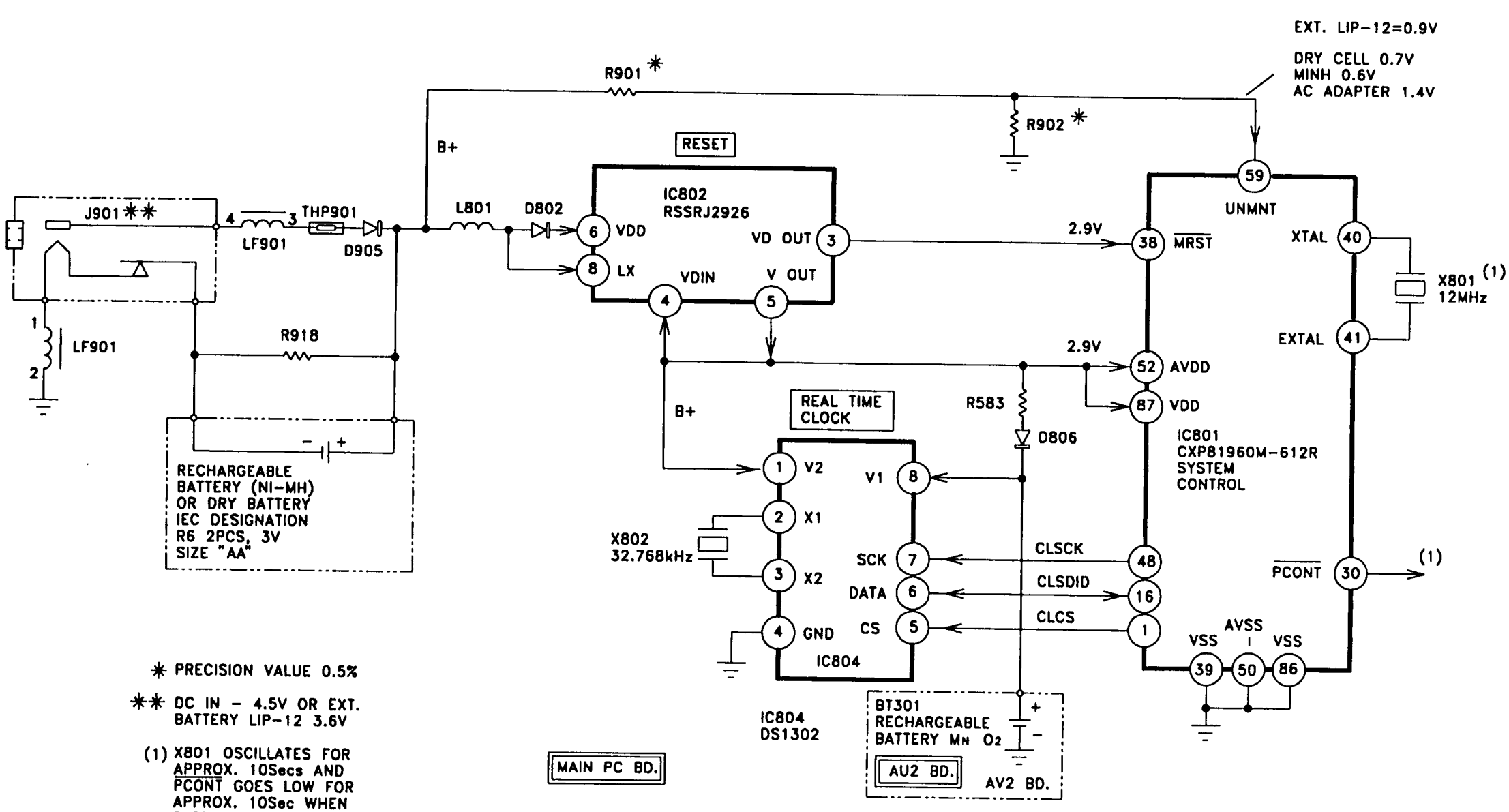


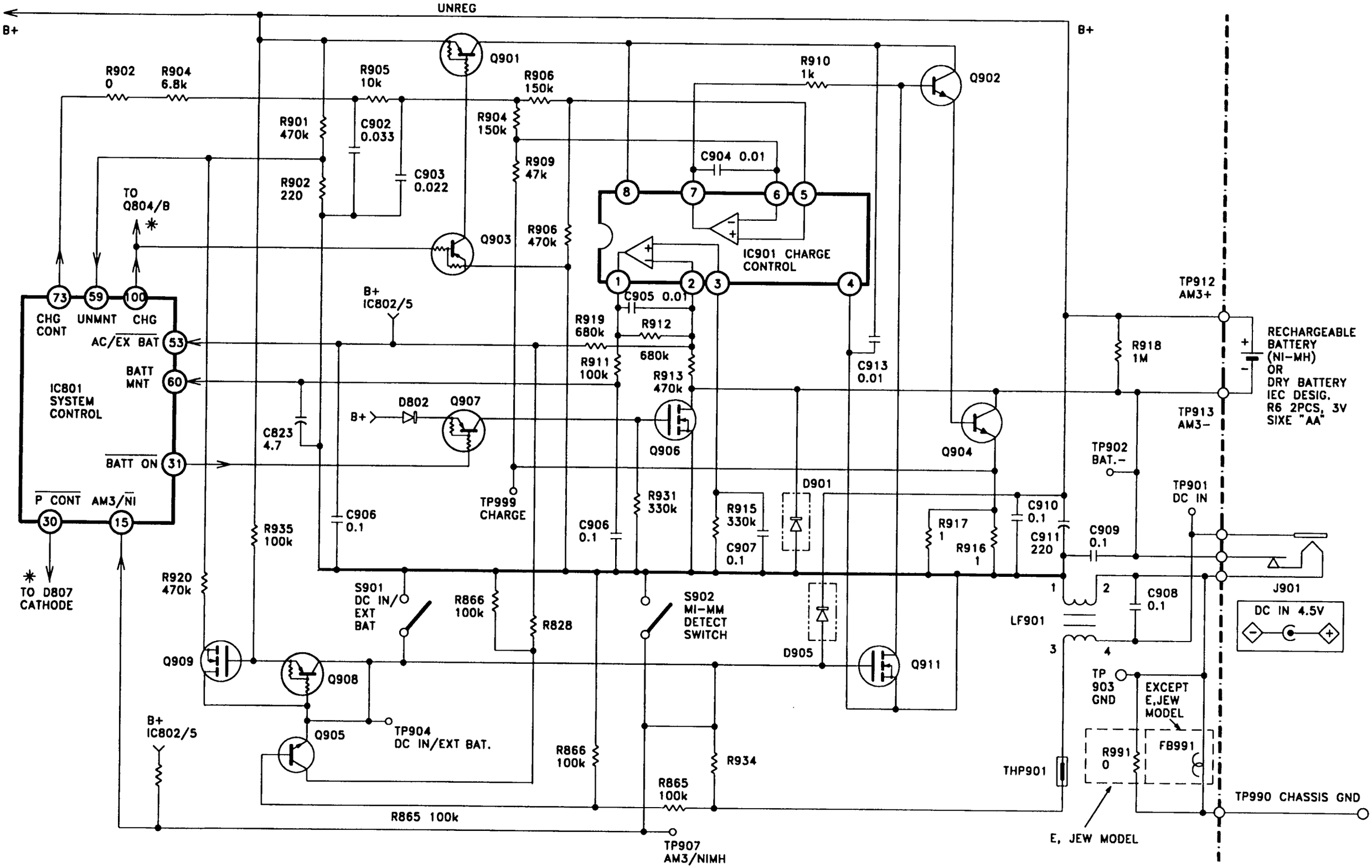
* PRECISION VALUE 0.5%

** DC IN – 4.5V OR EXT. BATTERY LIP-12 3.6V

(1) X801 OSCILLATES FOR APPROX. 10Secs AND $\overline{\text{PCONT}}$ GOES LOW FOR APPROX. 10Sec WHEN BATTERY IS APPLIED

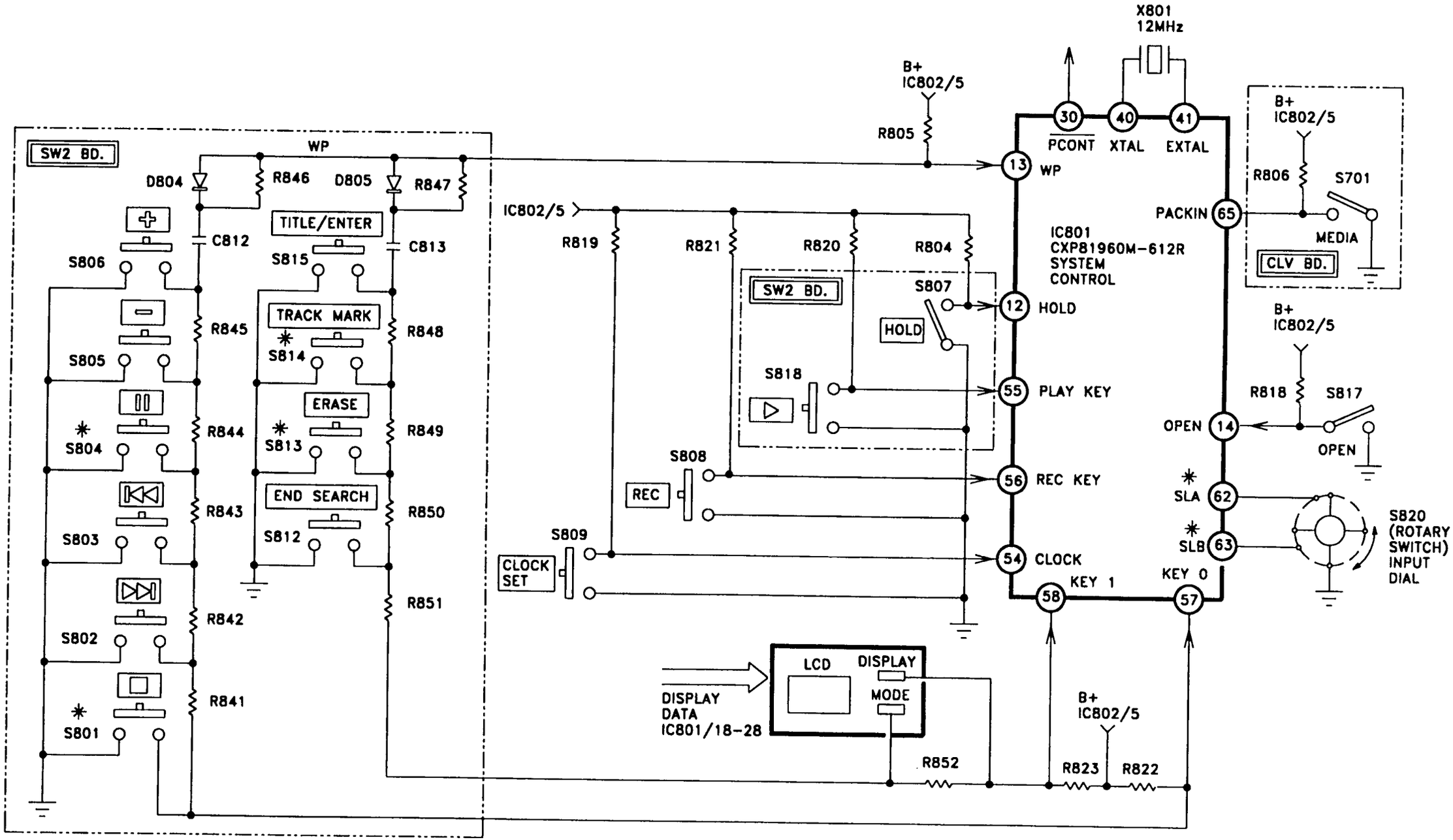
STANDBY – RESET

A121J01 463 11 12 96



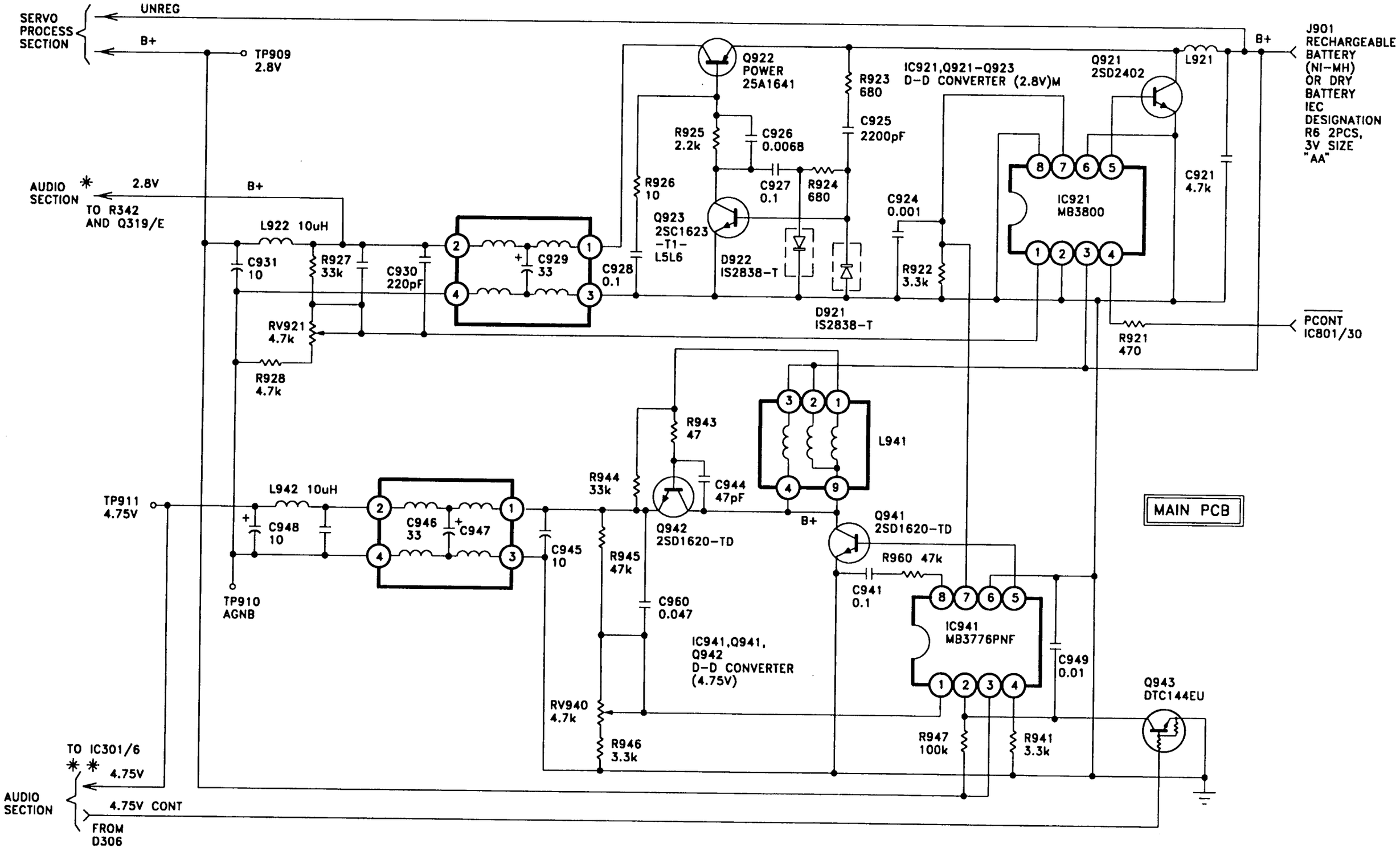
POWER DETECTION & CHARGE CONTROL

A121J11 482 12 6 96



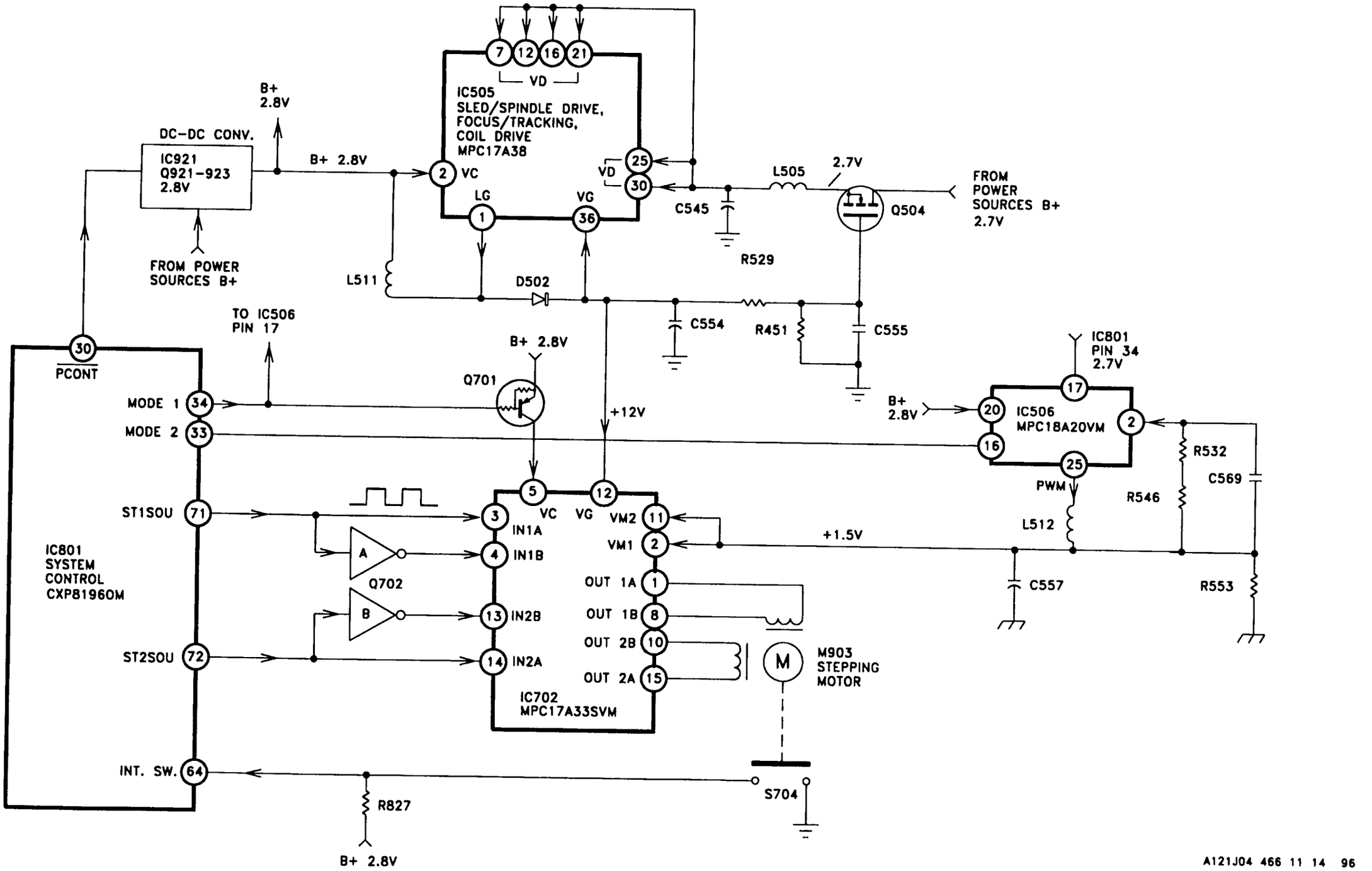
POWER ON KEY-INPUT

A121J03 469 11 15 96

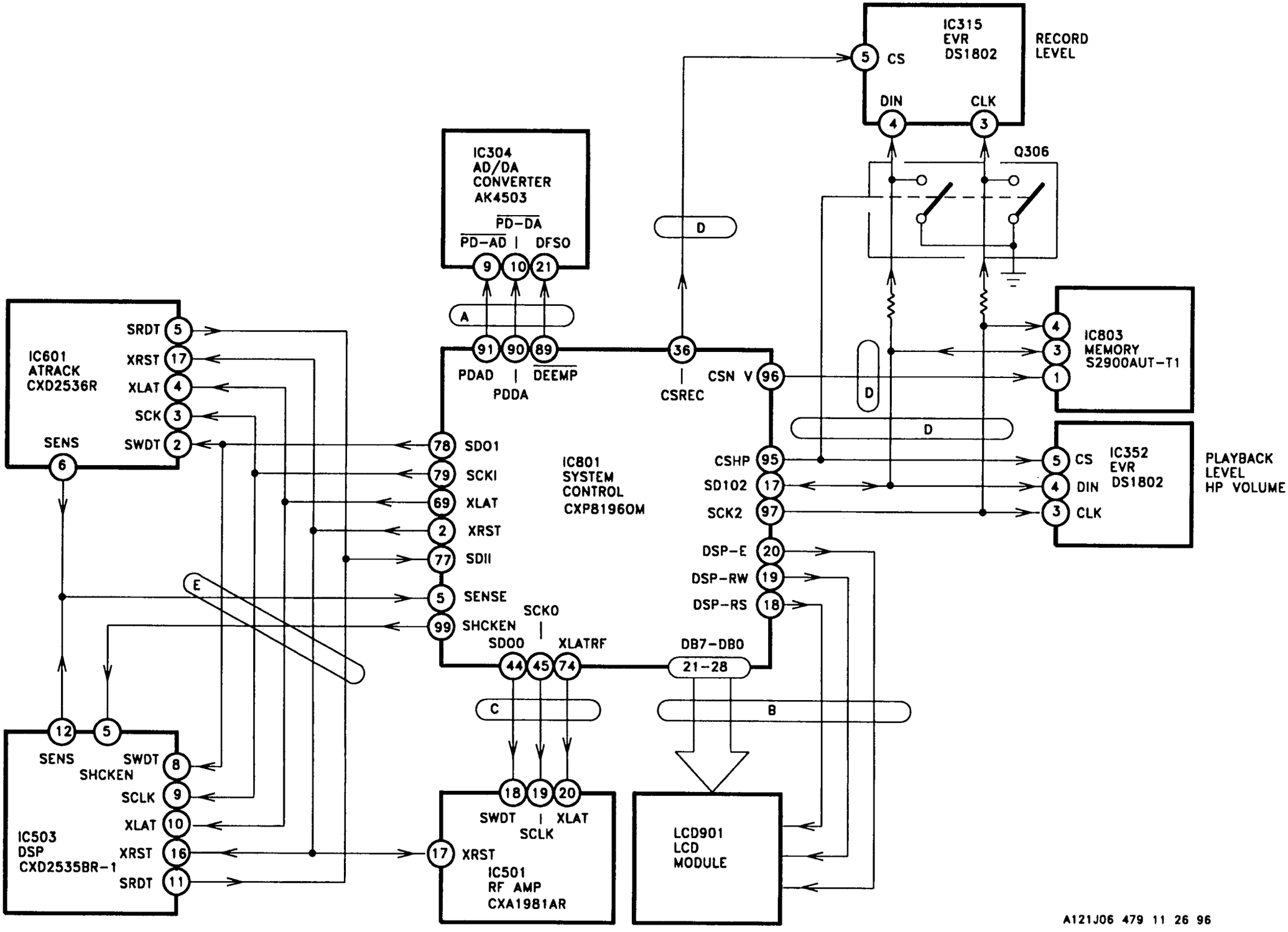


SWITCHED SUPPLIES – POWER ON

A121J12 481 11 27 96



TRANSPORT MODE SELECTION (STEPPING MOTOR CONTROL)

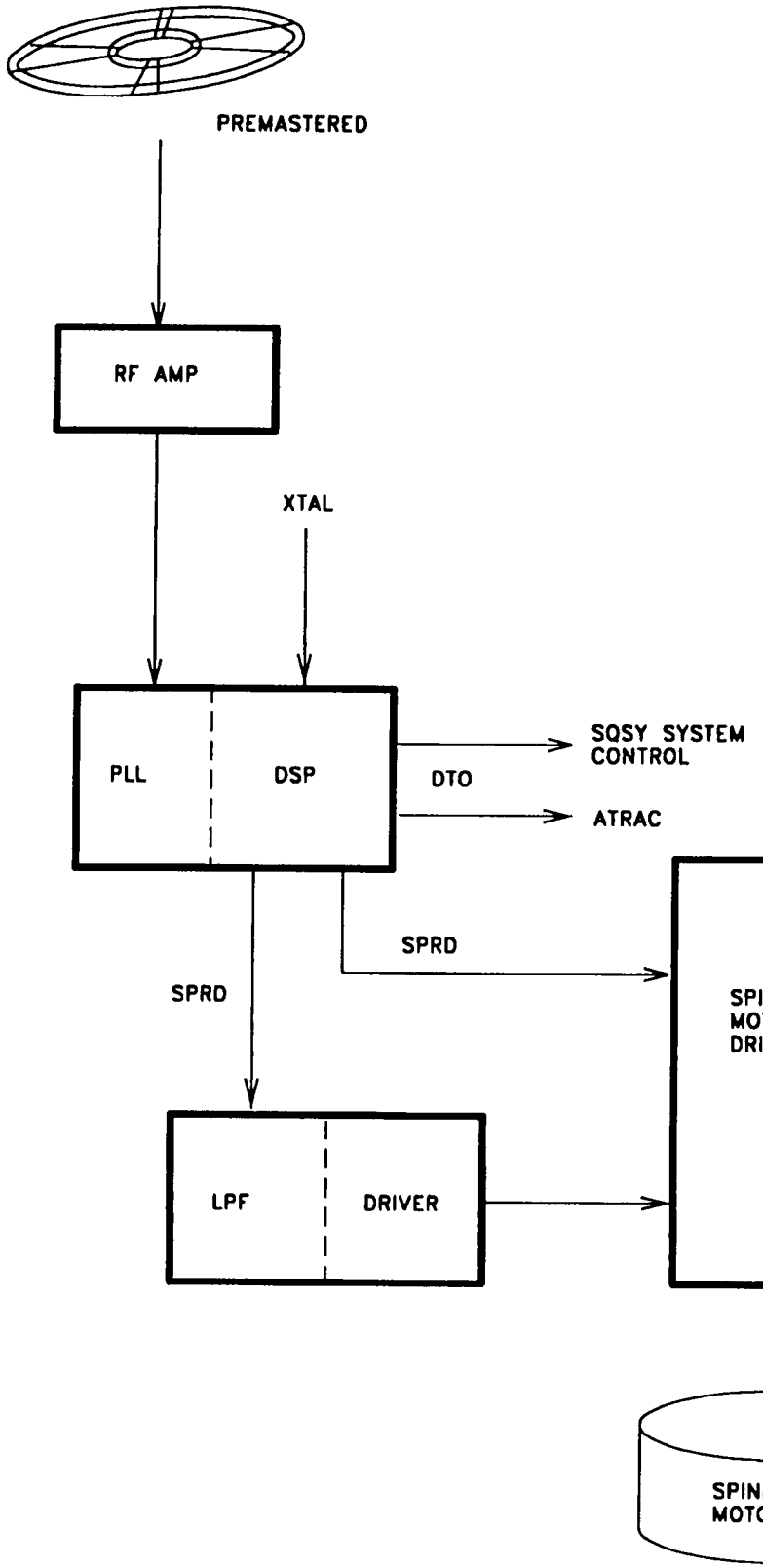


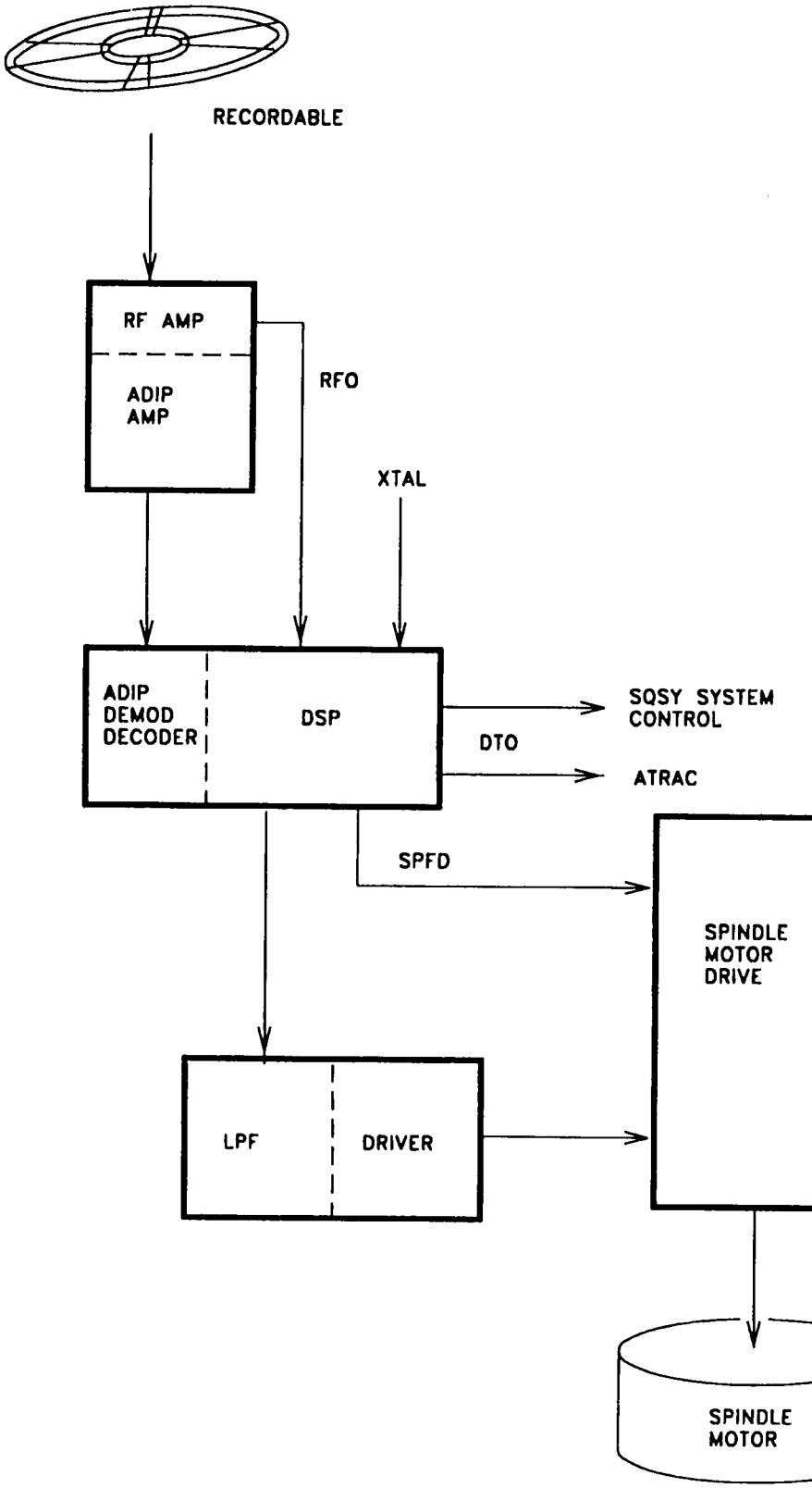
COMMUNICATIONS

Communications Table

COMMUNICATIONS TABLE IC801 (DC IN)			
GROUP A	**STOP**	**PLAY**	**RECORD**
PIN 89 DEEMP	H	H (L during deemphasis playback)	H
PIN 90 PDDA	L	H	H
PIN 91 PDAD	L	L	H
GROUP B	**STOP**	**PLAY**	**RECORD**
PIN 18 DSP-RS	3v with negative going pulses		
PIN 19 DSP-RW	0v with positive going pulses		
PIN 20 DSP-E	0V with positive going pulses		
PINS 21-28 DB0 - DB7	3V with negative going pulses 0V with positive going pulses		
GROUP C	**STOP**	**PLAY**	**RECORD**
PIN 44 SDO0	L	1V DC with 3V P-P single burst of data	1V DC with 3V P-P bursts of data
PIN 45 SCK0	2V	3V with a single burst of negative going data	3V with negative going bursts of data
PIN 74 XLATRF	2V	3V with a single negative going pulse	3V with negative going bursts of data

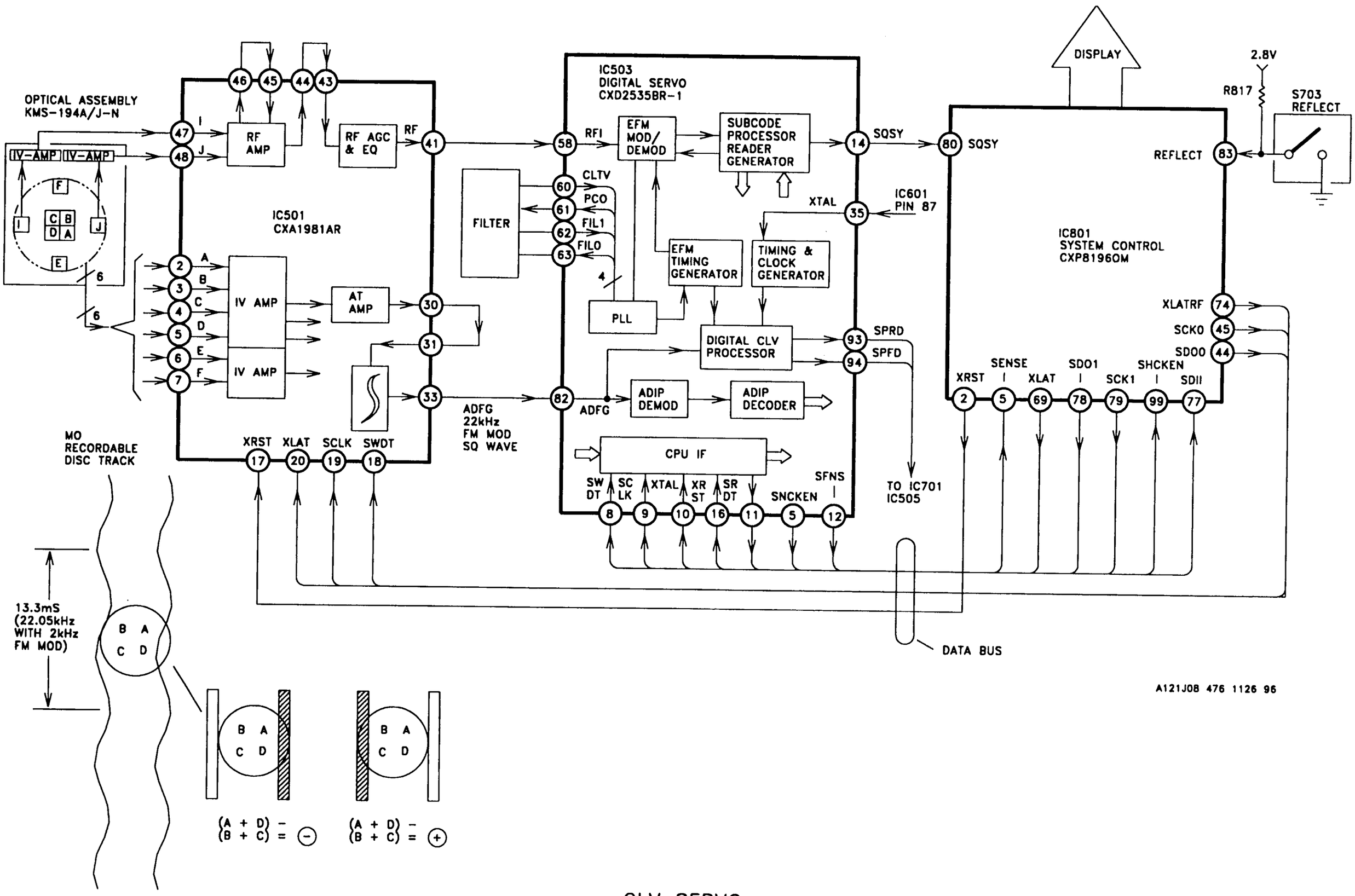
GROUP D	**STOP**	**PLAY**	**RECORD**
PIN 17 SDIO2	0V with positive going pulses when VOLUME +/- keys are pressed and Adjustment mode data write.		
PIN 36 CSREC	H	L	3V with negative going pulses when REV/FWD keys are pressed (Manual Rec level)
PIN 95 CSHP	0V with positive going pulses when VOLUME +/- keys are pressed		
PIN 96 CSNV	0V pulses H during Power up and Adjustment mode data write		
PIN 97 SCK2	0V with positive going pulses when VOLUME +/- keys are pressed and Adjustment mode write		
GROUP E	**STOP**	**PLAY**	**RECORD**
PIN 2 XRST	H	H	H
PIN 5 SENSE	3V with negative going pulses		
PIN 69 XLAT	3V with negative going pulses		
PIN 77 SDI1	0V with positive going pulses		
PIN 78 SDO1	3V with negative going pulses		
PIN 79 SCK1	3V with negative going pulses		
PIN 99 SHCKEN	L	L	Toggles from 0V to 3V during Record





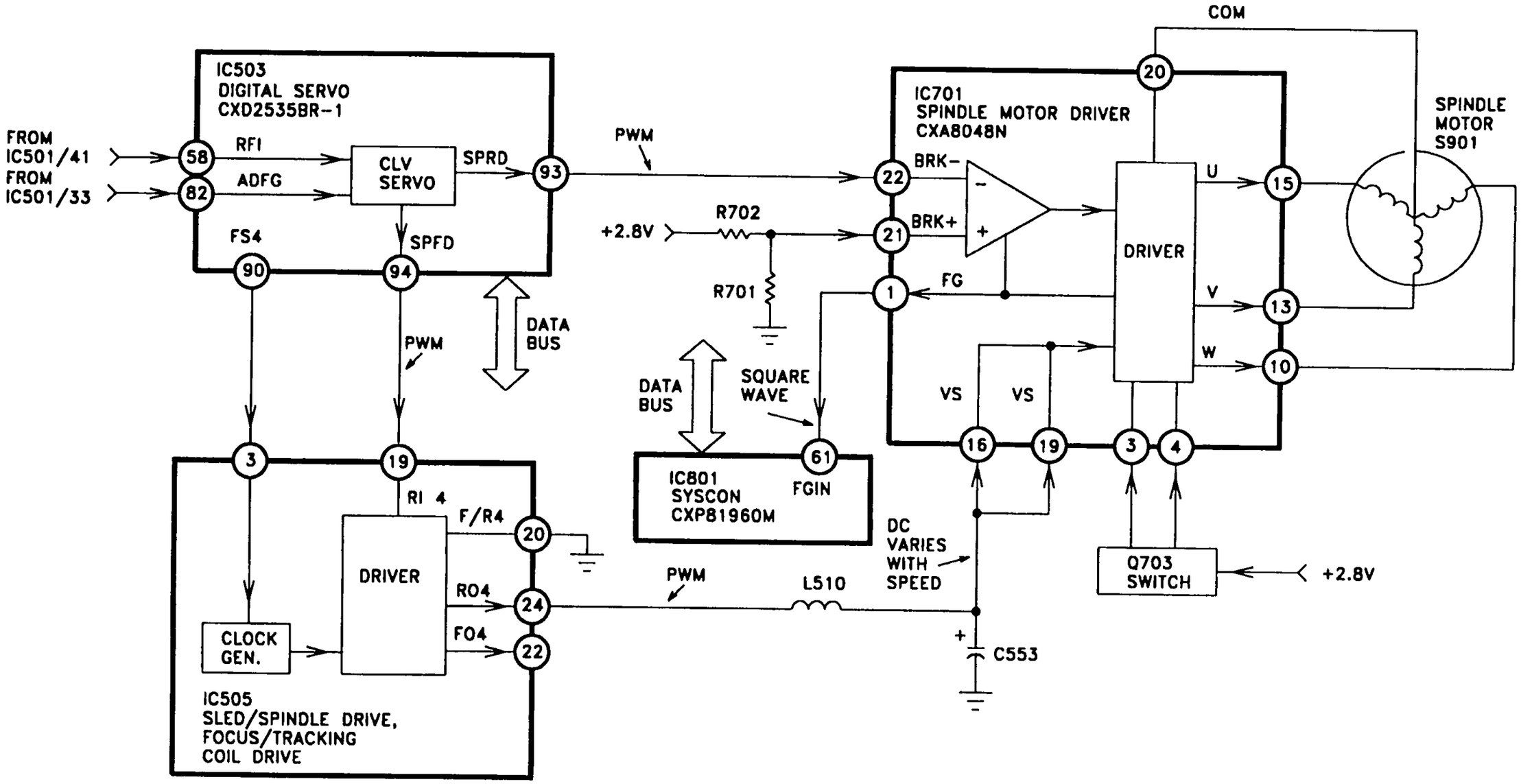
CLV SERVO BLOCK

A121J18 495 1 3 97



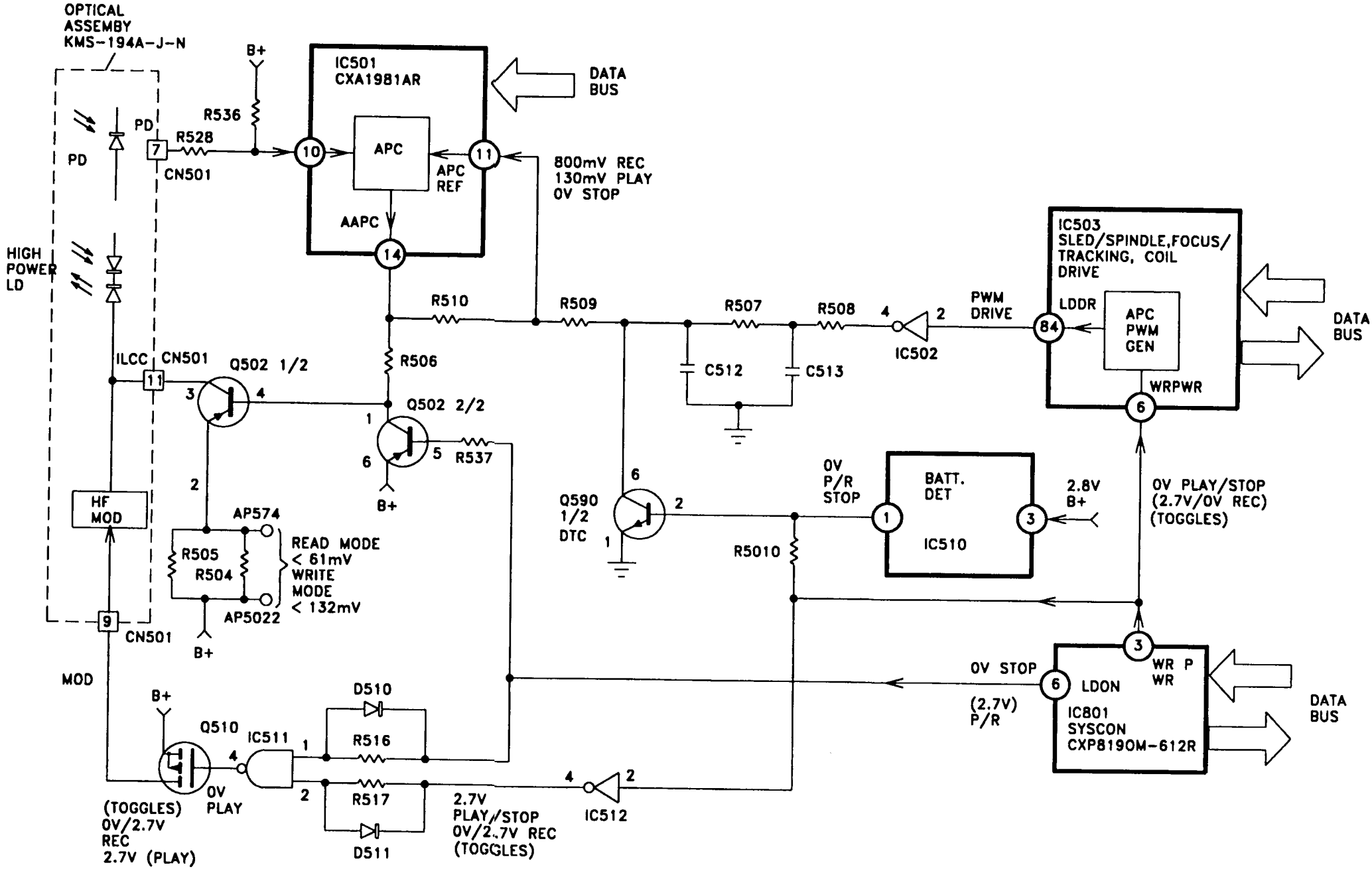
A121J08 476 1126 96

CLV SERVO



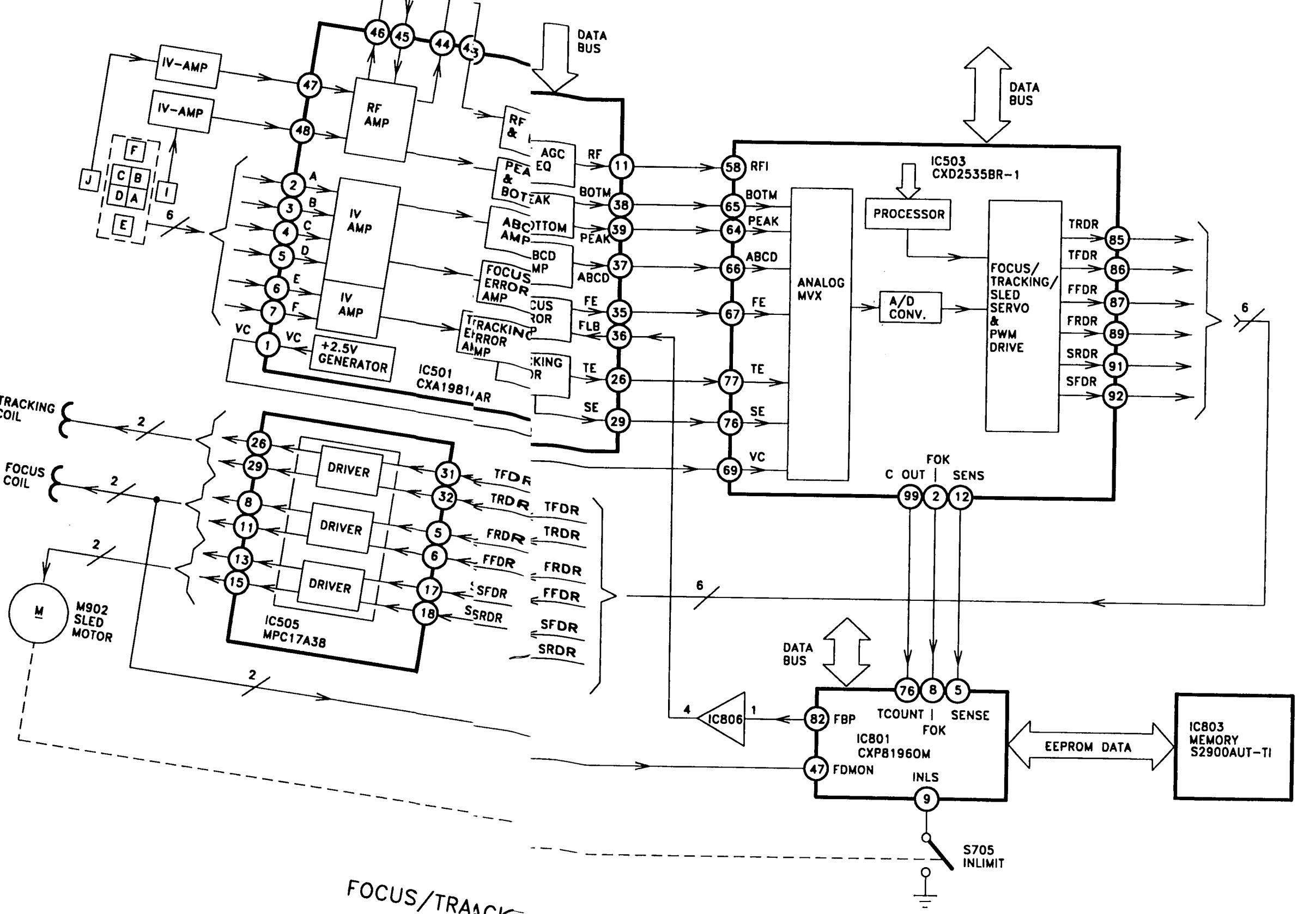
CLV SERVO DRIVE

A121J15 494 12 30 96



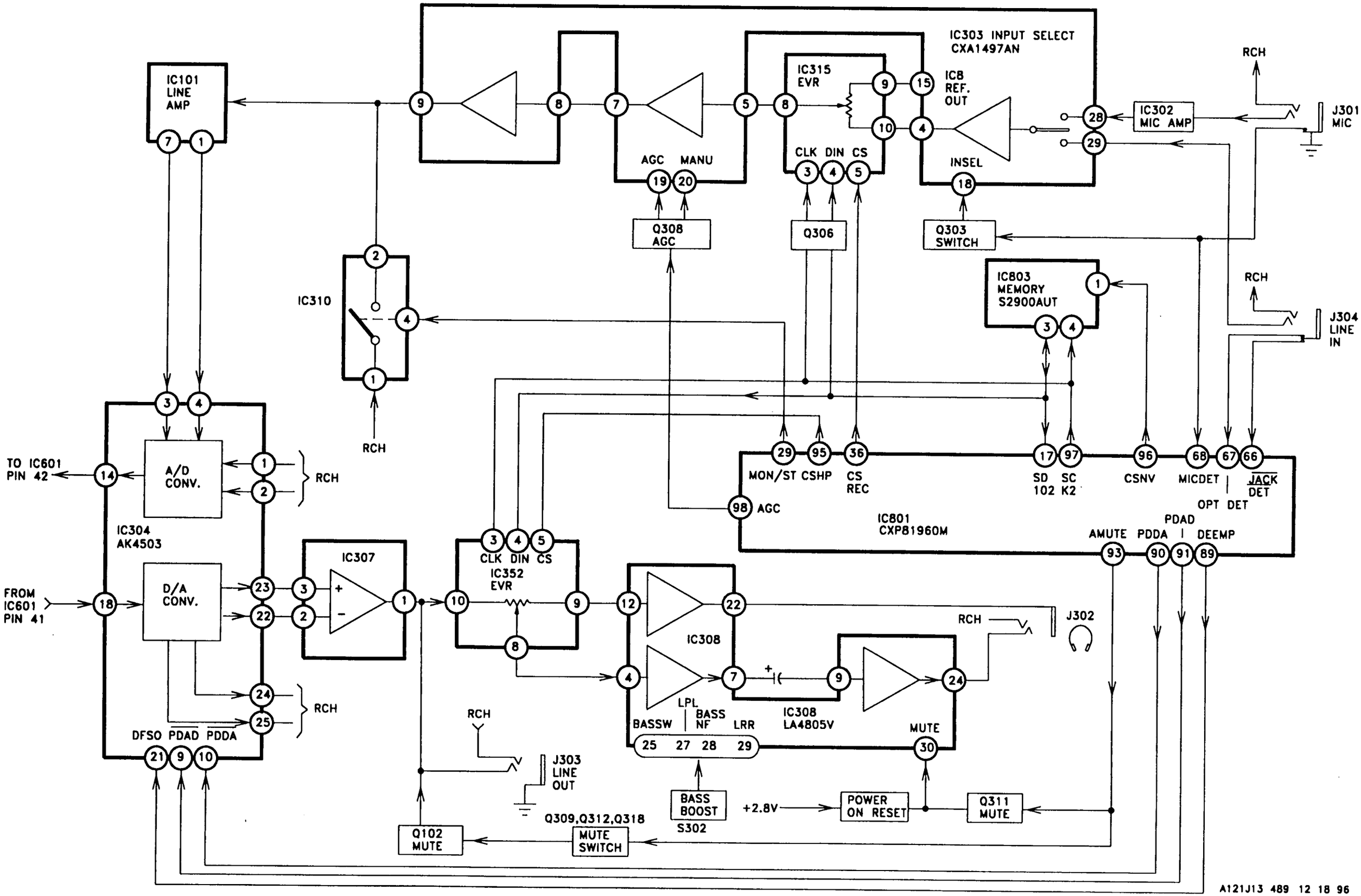
A121J17 491 12 19 96

LASER POWER CONTROL



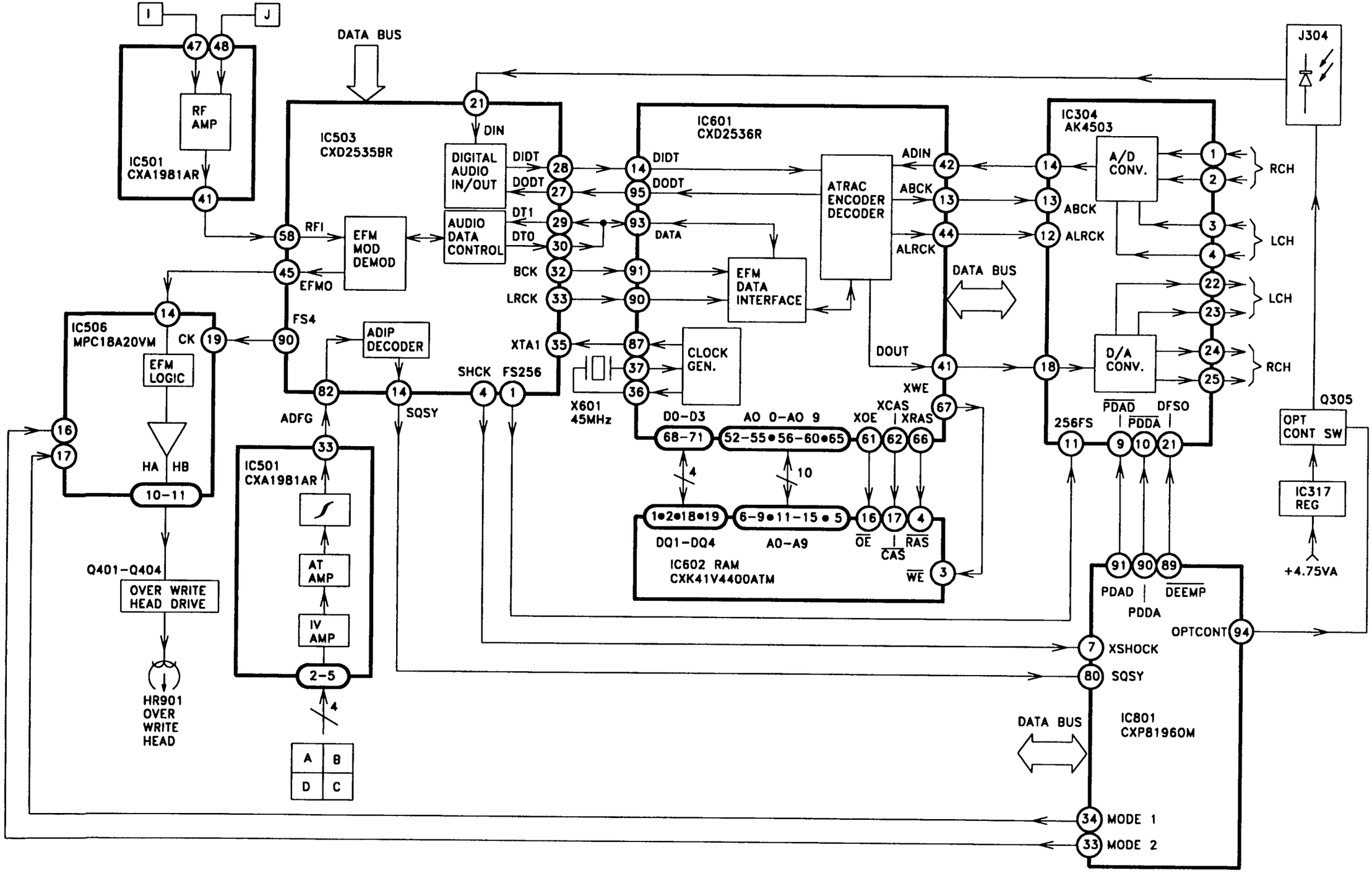
FOCUS/TRACK /TRACKING SERVO/SLED DRIVE SERVO

A121J16 493 12 27 96



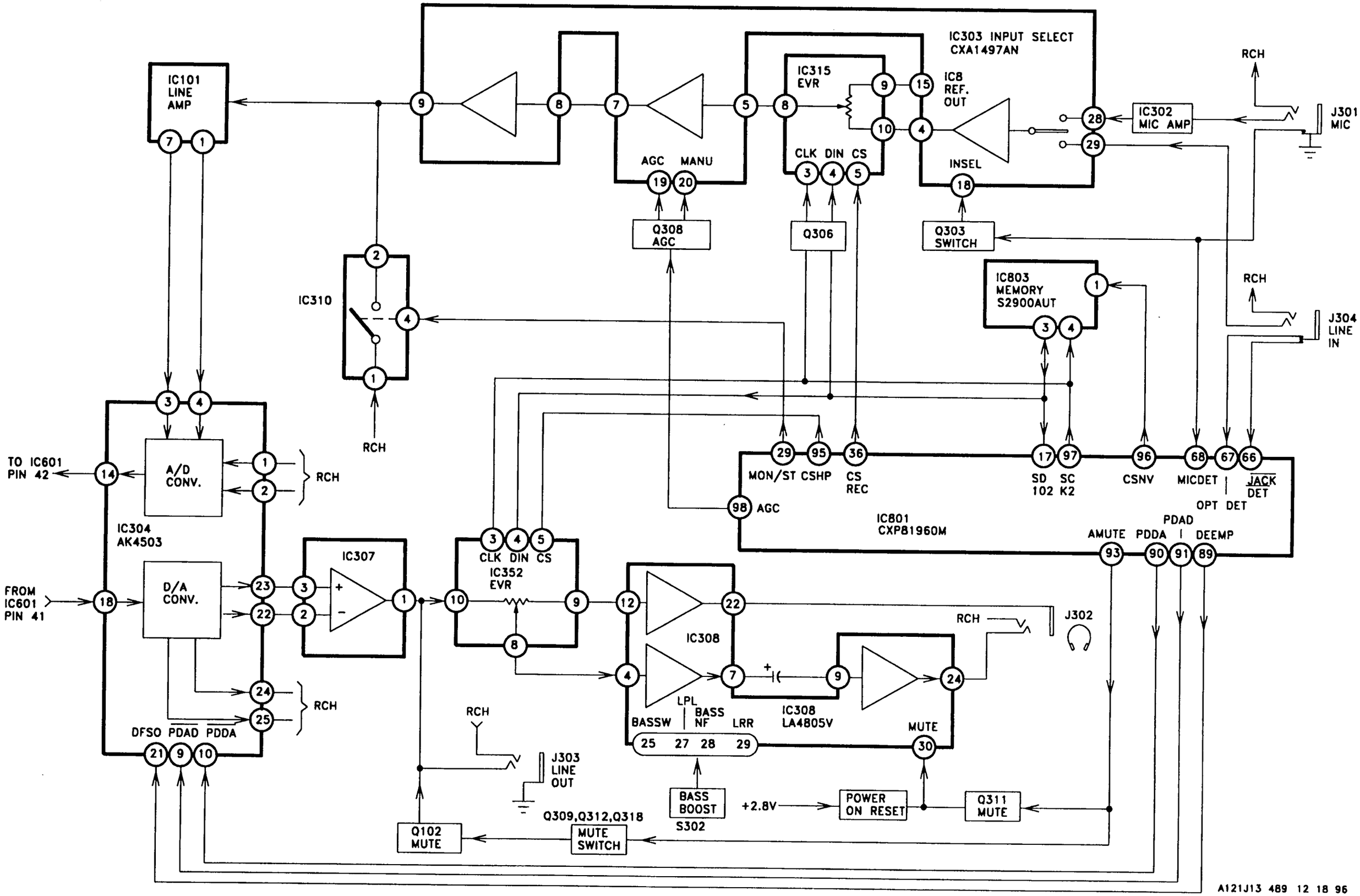
A121J13 489 12 18 96

ANALOG AUDIO REC/PLAY



DIGITAL AUDIO REC/PLAY

A121J14 492 12 27 96



A121J13 489 12 18 96

ANALOG AUDIO REC/PLAY

MZ-R3 Revised Service Manual
Electronic Adjustments

Tools Required:

1. CD test disc TDYS-1 (4-963-646-01) (Premastered CD)
2. Recordable MO disc PTDM-1 (J-2501-054-A)
3. Oscilloscope
4. DVM
5. Laser Power Meter LPM-8001 (J-2501-046-A)
6. Blue Handle Screwdriver
7. Soldering Iron
8. MZ-R3 and Power Adapter (supplied)

SERVICE MODE PREPARATION

1. Remove the six (6) silver screws from the bottom cover of the unit and set the screws aside.

Remove the bottom cover and battery compartment door and set aside.

2. Locate the **TAP801** soldering bridge test point on the Main PCB next to IC801. (see diagram on following page)

3. Solder bridge the **TAP801** test point.

4. Locate the **VC**, **FE**, **TE** and **RF** test points on the Main PCB. (see diagram)

5. Solder temporary test leads to the **VC**, **FE**, **TE** and **RF** test points on the Main PCB.

6. Apply power and observe that the unit enters the Test Mode. The display should indicate the "Display when Test Mode is Set".