

# **AKAI**

**MODEL AP-A301/C**

## **SCHEMATIC DIAGRAM AND PC BOARDS**

1. SCHEMATIC DIAGRAM.....	2
2. FILTER PCB, JUNCTION PCB, LED PCB, POSITION PCB, POWER PCB, REGULATOR PCB, REPEAT LED PCB, SYSTEM CONTROL PCB .....	3
3. BLOCK DIAGRAM .....	4

JUNCTION PCB PI050C502A

FILTER PCB PI050C502D

POSITION SENSOR PCB PI050C502B

LED PCB PI050C502C

POWER SW PCB PI050B501B

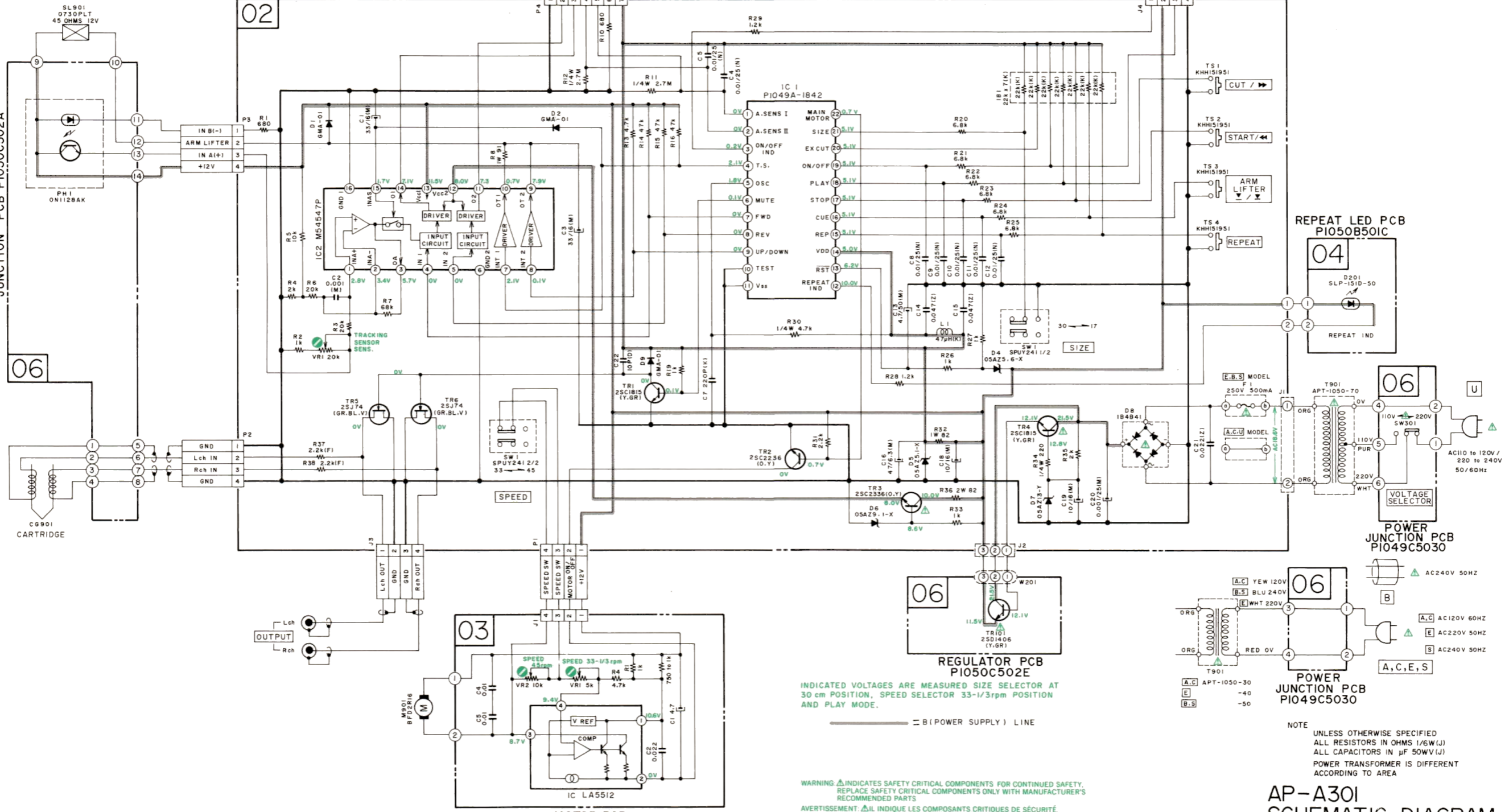
SYSTEM CONTROL PCB PI050B501A

REPEAT LED PCB PI050B501C

POWER JUNCTION PCB PI049C5030

REGULATOR PCB PI050C502E

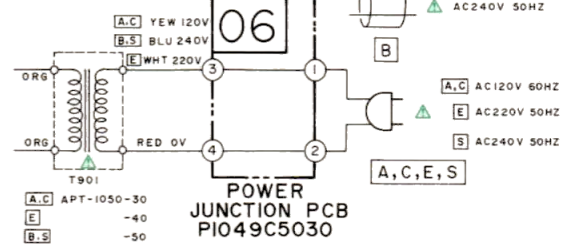
MOTOR PCB



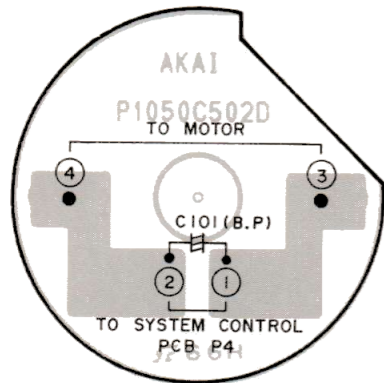
INDICATED VOLTAGES ARE MEASURED SIZE SELECTOR AT 30 cm POSITION, SPEED SELECTOR 33-1/3rpm POSITION AND PLAY MODE.

— B (POWER SUPPLY) LINE

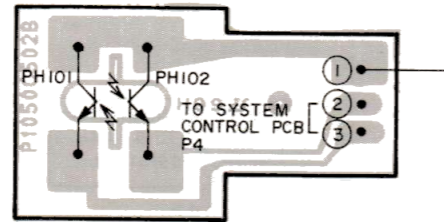
WARNING:  $\Delta$  INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.  
 AVERTISSEMENT:  $\Delta$  IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT.



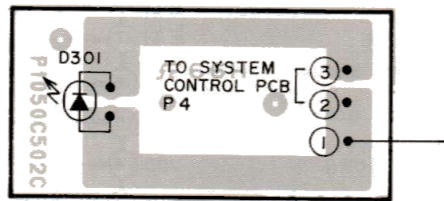
NOTE  
 UNLESS OTHERWISE SPECIFIED  
 ALL RESISTORS IN OHMS 1/6W(J)  
 ALL CAPACITORS IN  $\mu$ F 50WV(J)  
 POWER TRANSFORMER IS DIFFERENT  
 ACCORDING TO AREA



FILTER PCB  
P1050C502D

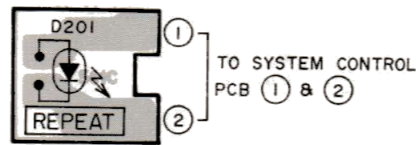
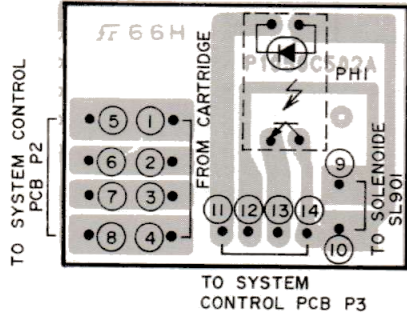


POSITION SENSOR PCB  
P1050C502B

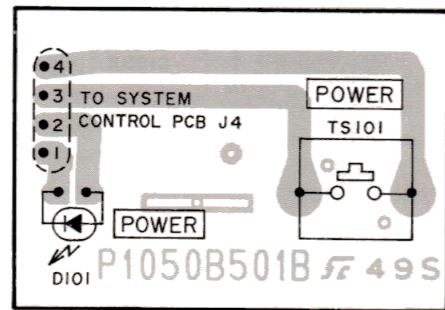


LED PCB P1050C502C

JUNCTION PCB  
P1050C502A

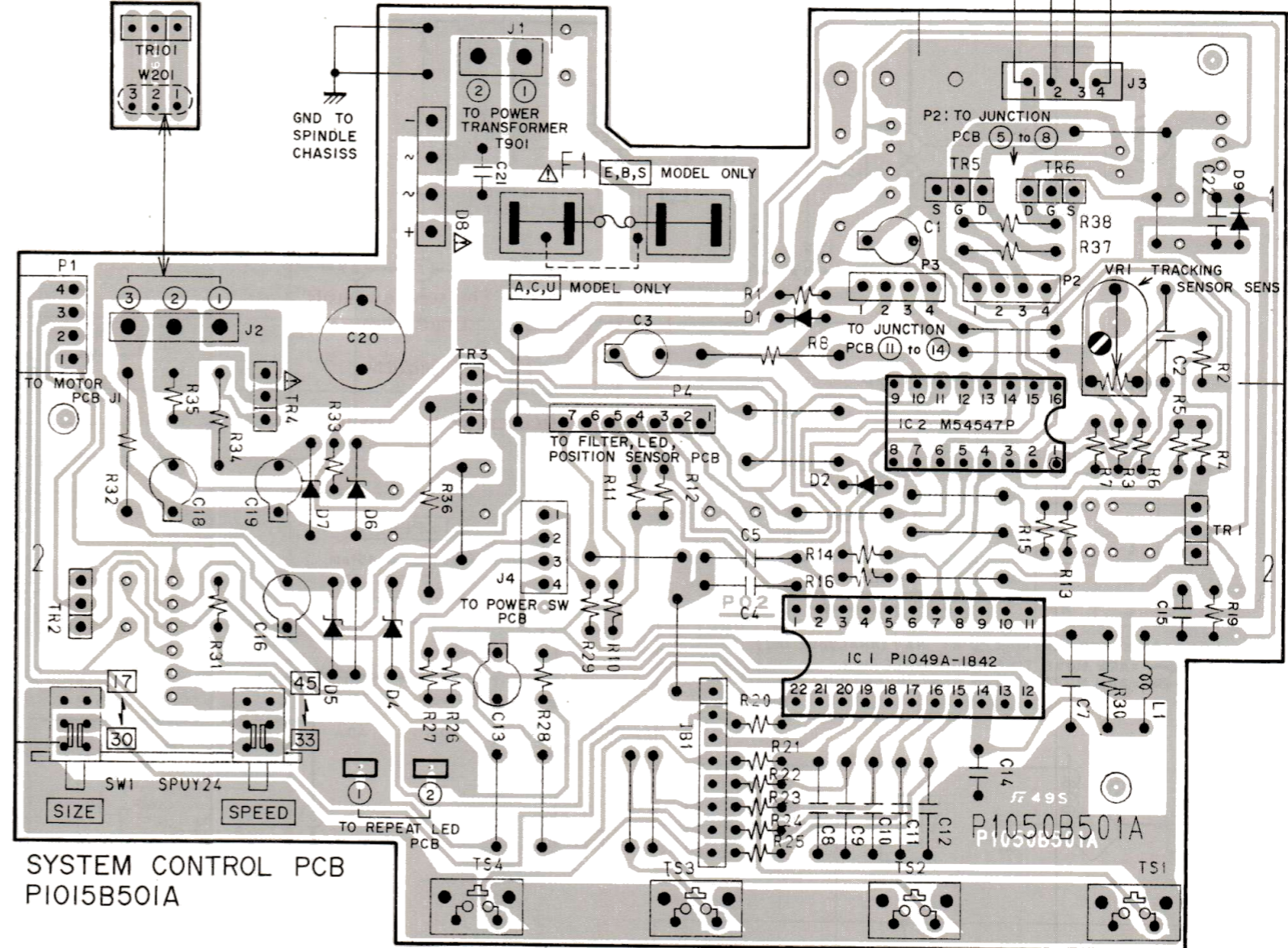
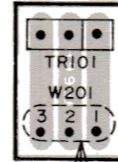


REPEAT LED PCB  
P1050B501C

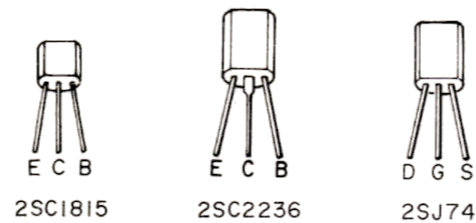


POWER SW PCB  
P1050B501B

REGULATOR PCB  
P1050C502E



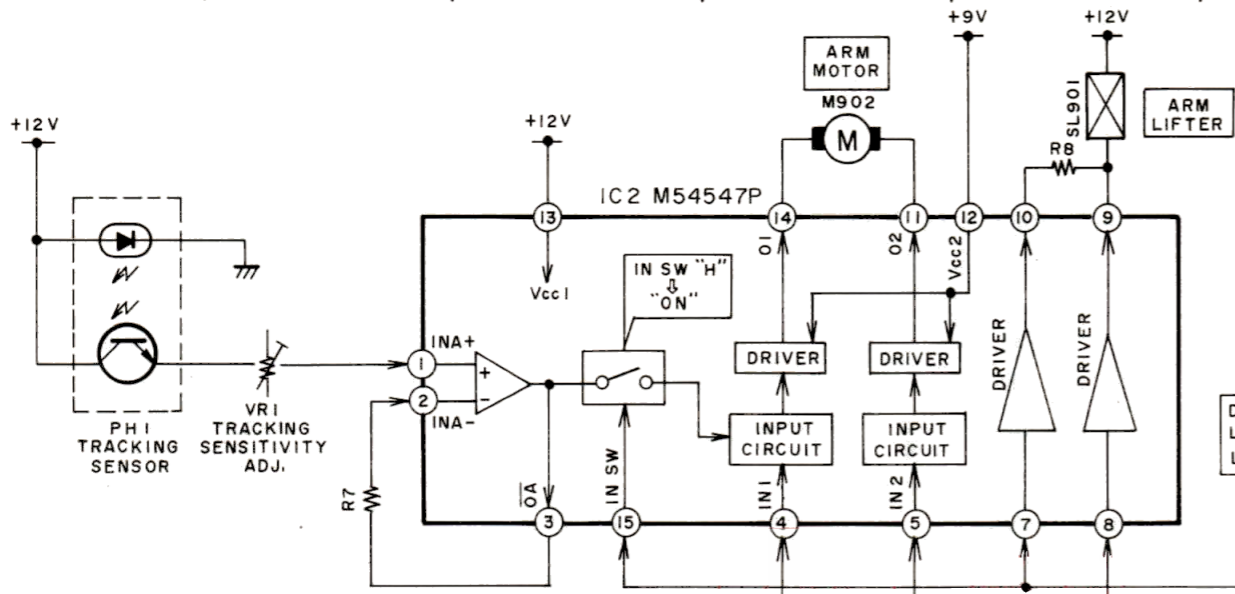
SYSTEM CONTROL PCB  
P1050B501A



B  
● ● ● = NPN TRANSISTOR

TR1,4 ---- 2SC1815 (Y,GR)  
TR2,3 ---- 2SC2236 (O,Y)  
TR5,6 ---- 2SJ74 (GR,BL,V)

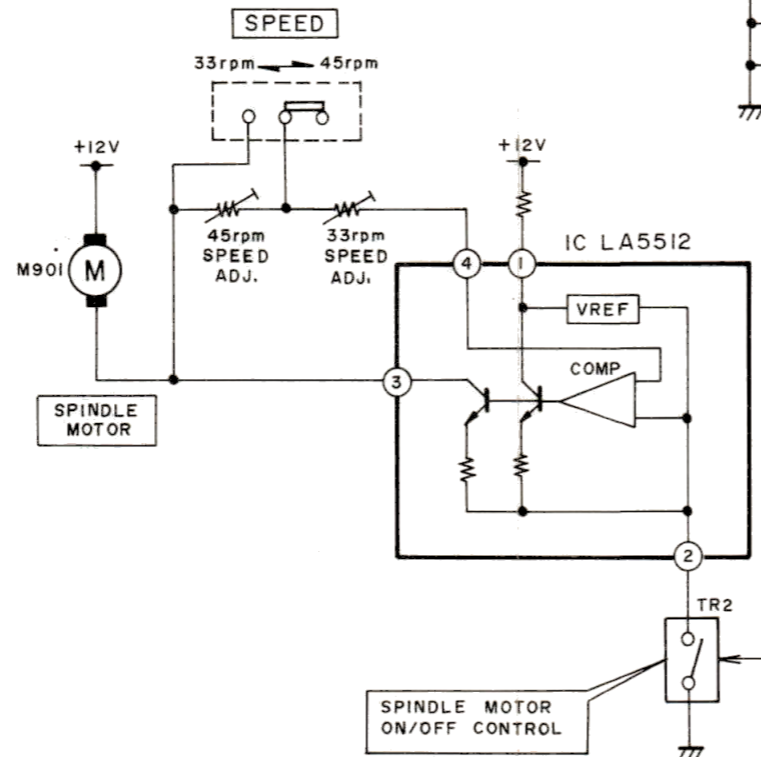
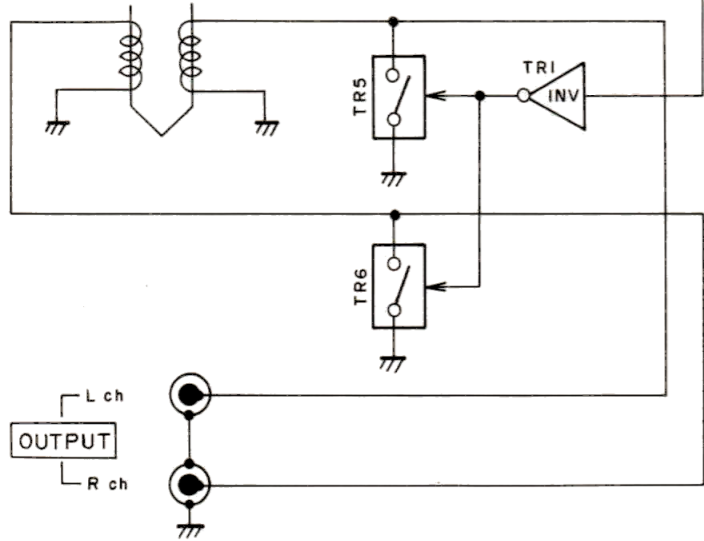
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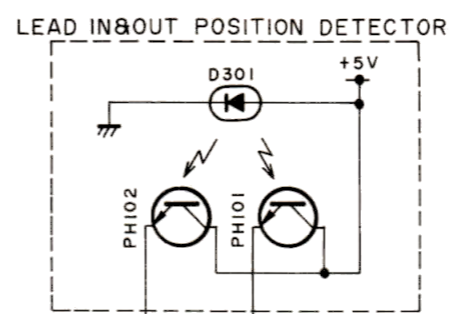
TRUTH TABLE OF IC M54547P

INPUT			OUTPUT		MODE
15 IN SW	4 IN 1	5 IN 2	14 O1	11 O2	
H	L	H	H	L	←
H	H	L	L	H	→
H	L	L	H	H	BRAKE
L	L	L	H	L	*INA ←
L	L	H	L	H	*INA →

\* MOTOR SPEED CONTROLLED BY INA+ (ANALOGUE IN)  
 ← = ARM MOVE TO SPINDLE DIRECTION  
 → = ARM MOVE TO ARM REST DIRECTION

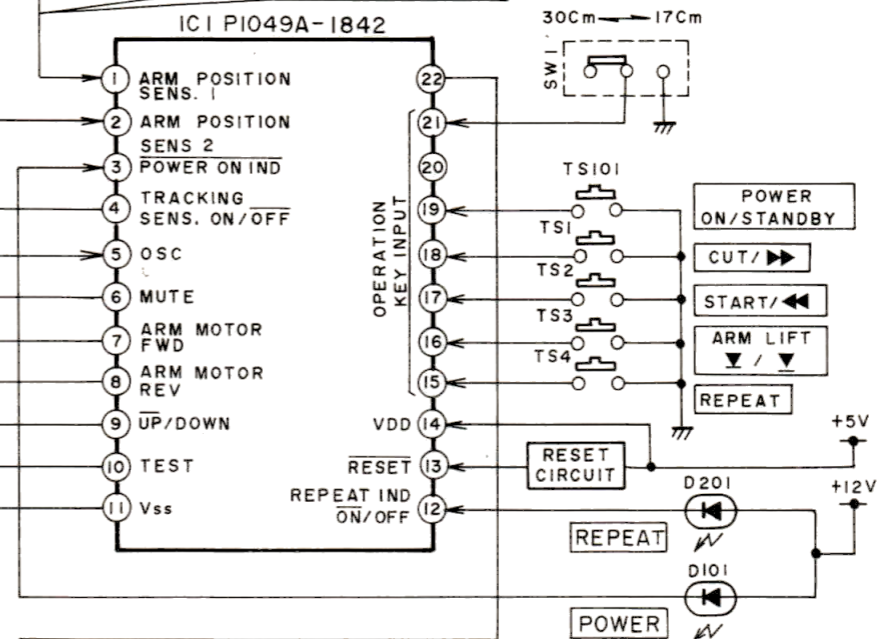


SPINDLE MOTOR ON/OFF CONTROL

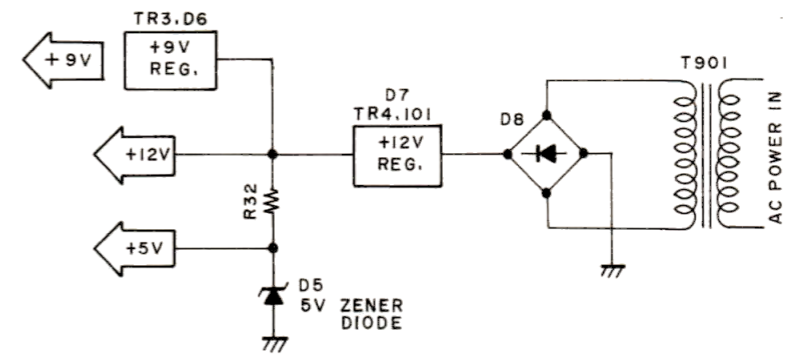


DETECTION OF 30cm LEAD OUT & EACH LEAD IN POSITION

DETECTION OF 17cm LEAD OUT & ARM RESET POSITION



SPINDLE MOTOR ON/OFF CONTROL  
 'H' ⇒ MOTOR ROTATE  
 'L' ⇒ MOTOR STOP



AP-A301  
 BLOCK DIAGRAM  
 No. 860413A<sup>(A2)</sup>