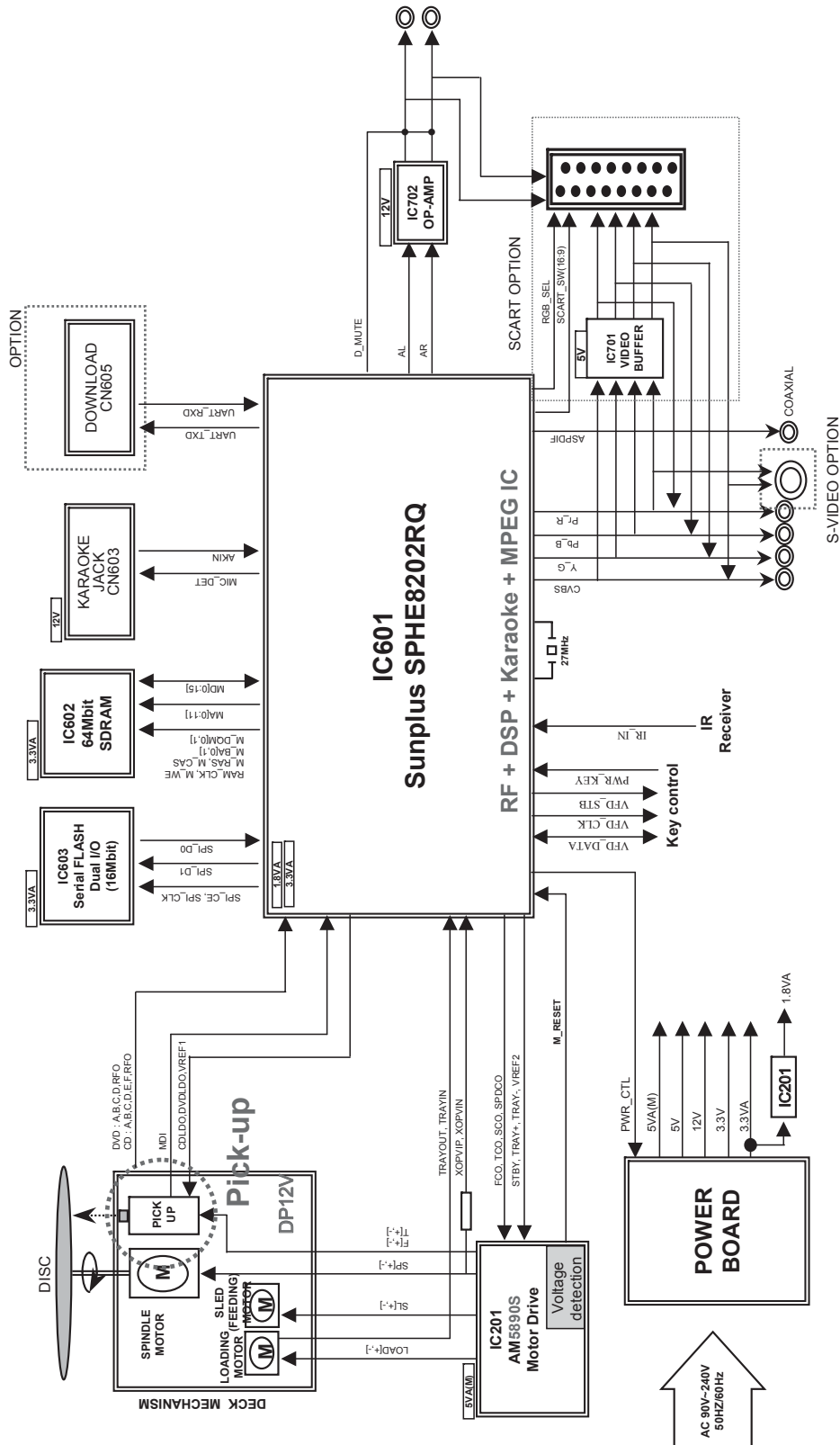
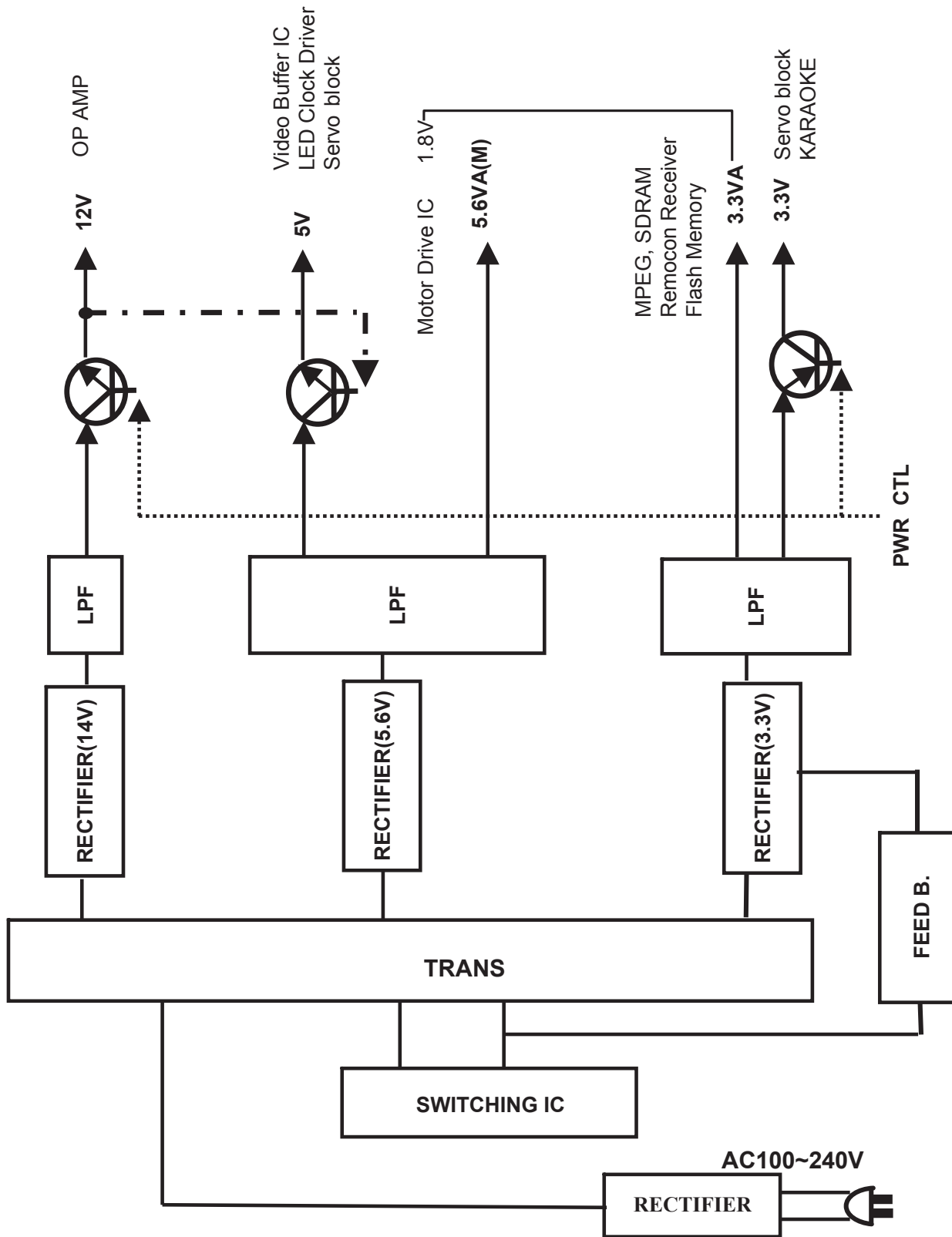


# BLOCK DIAGRAMS

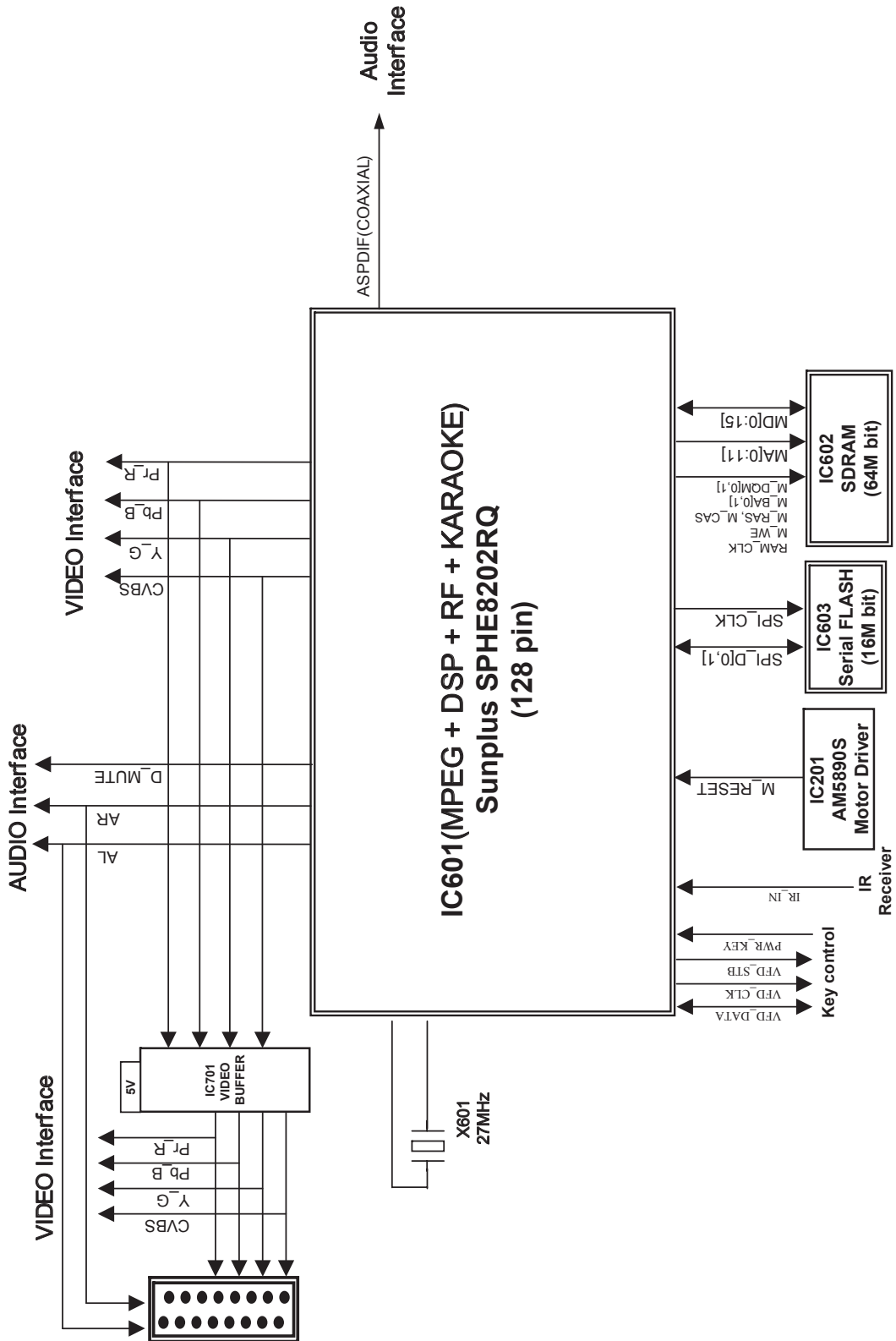
## 1. OVERALL BLOCK DIAGRAM



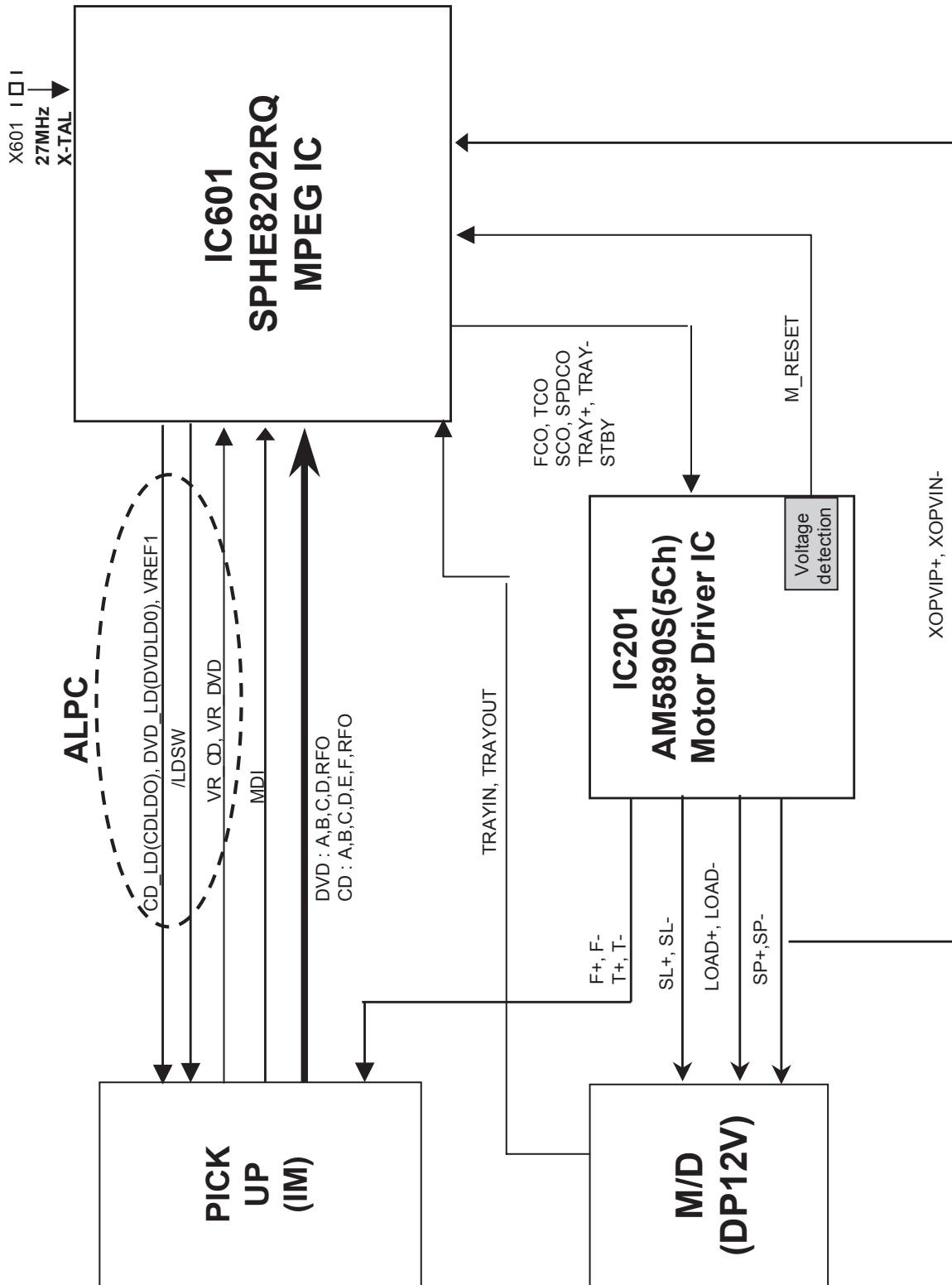
## 2. POWER (SMPS) BLOCK DIAGRAM



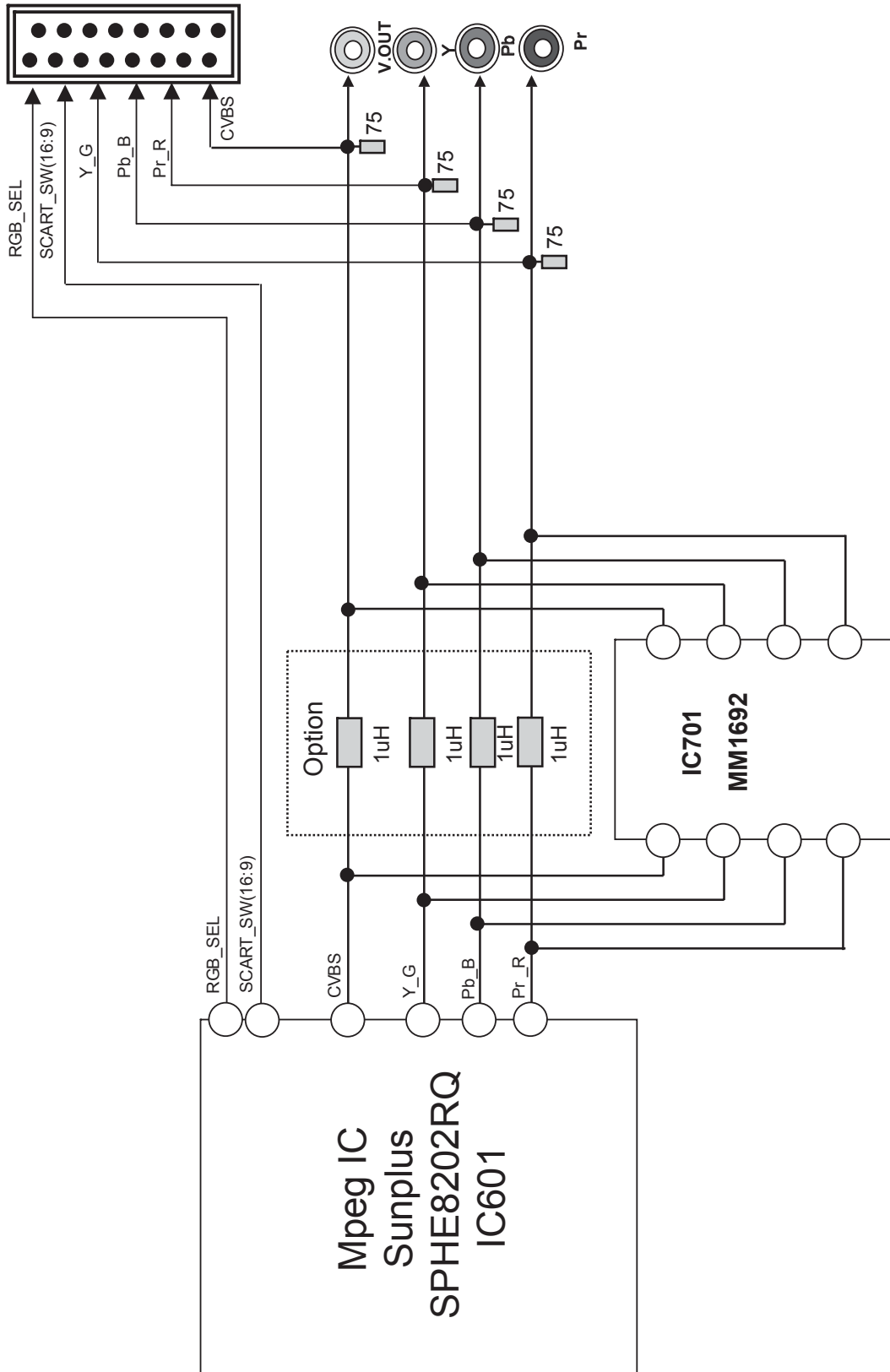
### 3. SYSTEM BLOCK DIAGRAM



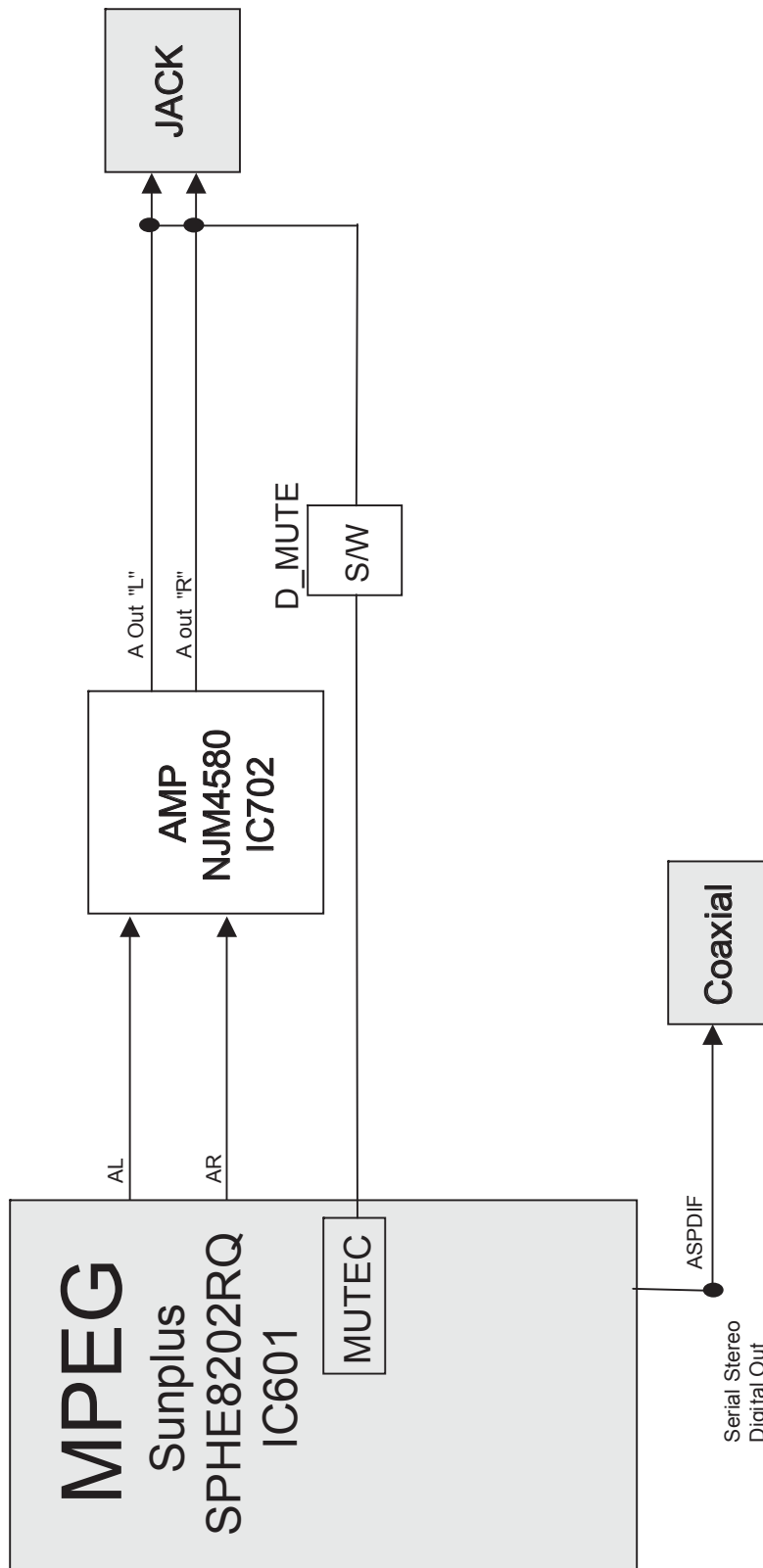
## 4. SERVO BLOCK DIAGRAM



# 5. VIDEO BLOCK DIAGRAM



## 6. AUDIO BLOCK DIAGRAM



# CIRCUIT DIAGRAMS

## 1. POWER (SMPS) CIRCUIT DIAGRAM

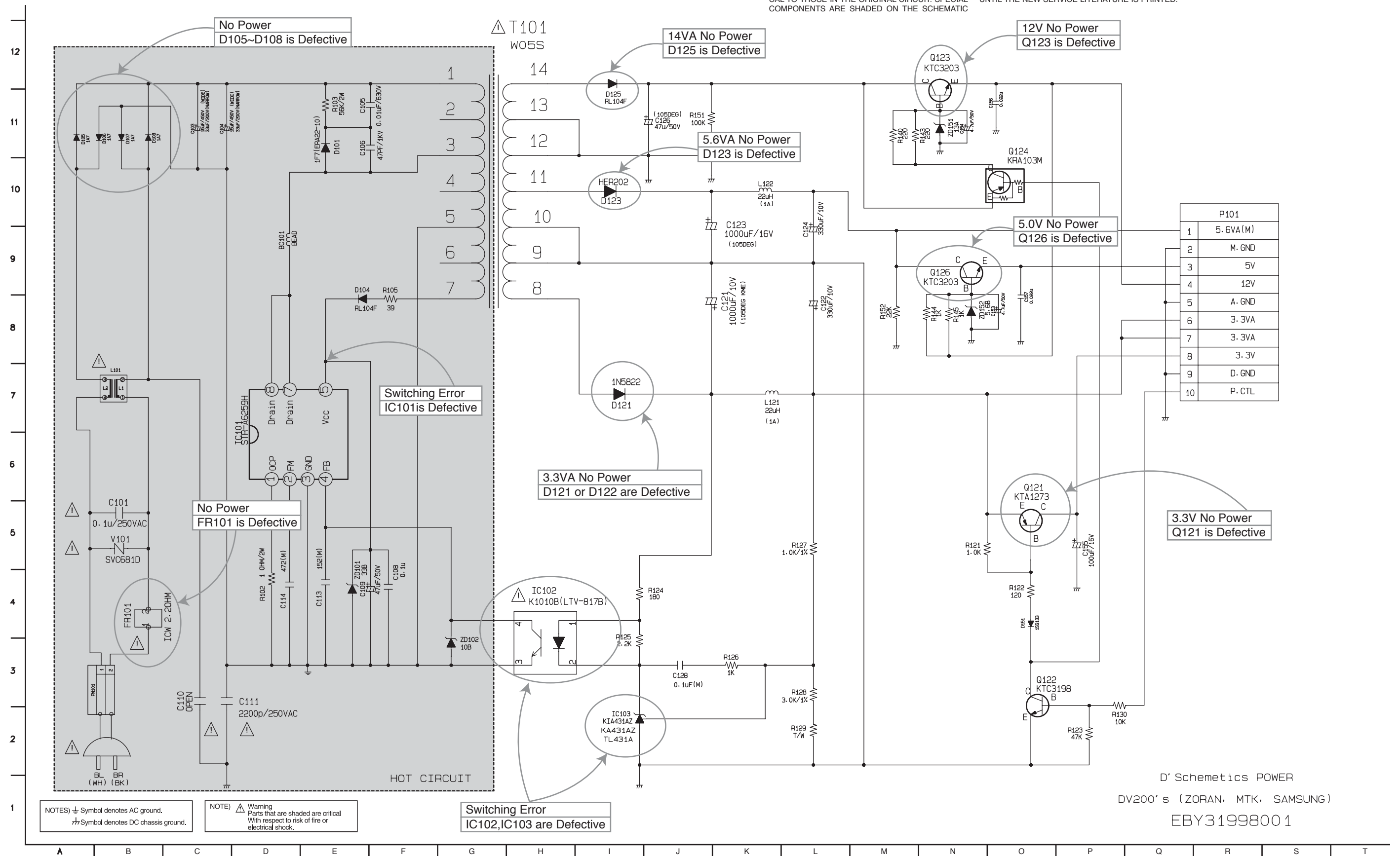
### IMPORTANT SAFETY

WHEN SERVICING THIS CHASSIS, UNDER NO CIRCUMSTANCES SHOULD THE ORIGINAL DESIGN BE MODIFIED OR ALTERED WITHOUT PERMISSION FROM THE LG CORPORATION. ALL COMPONENTS SHOULD BE REPLACED ONLY WITH TYPES IDENTICAL TO THOSE IN THE ORIGINAL CIRCUIT. SPECIAL COMPONENTS ARE SHADED ON THE SCHEMATIC

FOR EASY IDENTIFICATION, THIS CIRCUIT DIAGRAM MAY OCCASIONALLY DIFFER FROM THE ACTUAL CIRCUIT USED. THIS WAY, IMPLEMENTATION OF THE LATEST SAFETY AND PERFORMANCE IMPROVEMENT CHANGES INTO THE SET IS NOT DELAYED UNTIL THE NEW SERVICE LITERATURE IS PRINTED.

### NOTE :

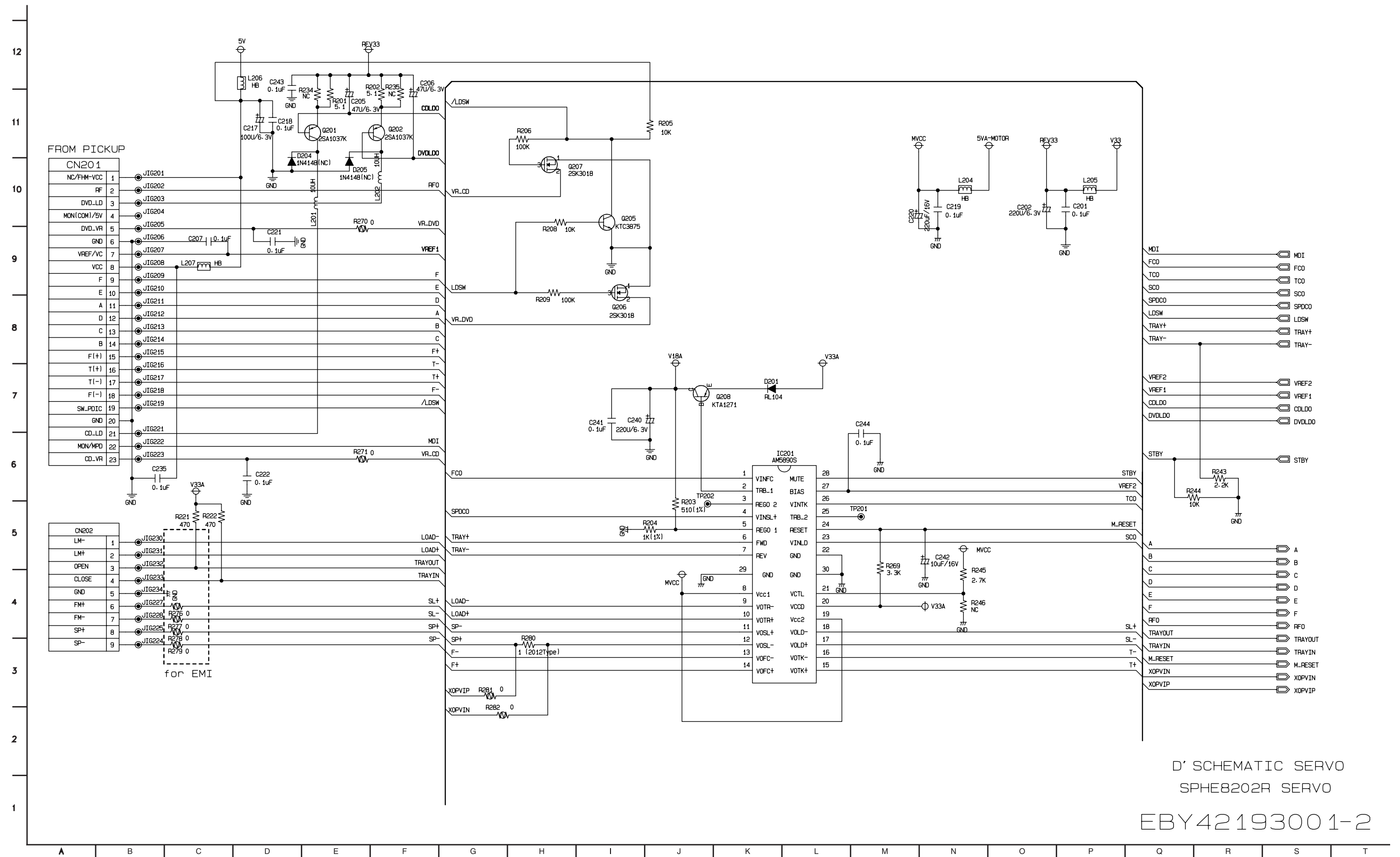
1. Shaded (■) parts are critical for safety. Replace only with specified part number.
2. Voltages are DC-measured with a digital voltmeter during Play mode.







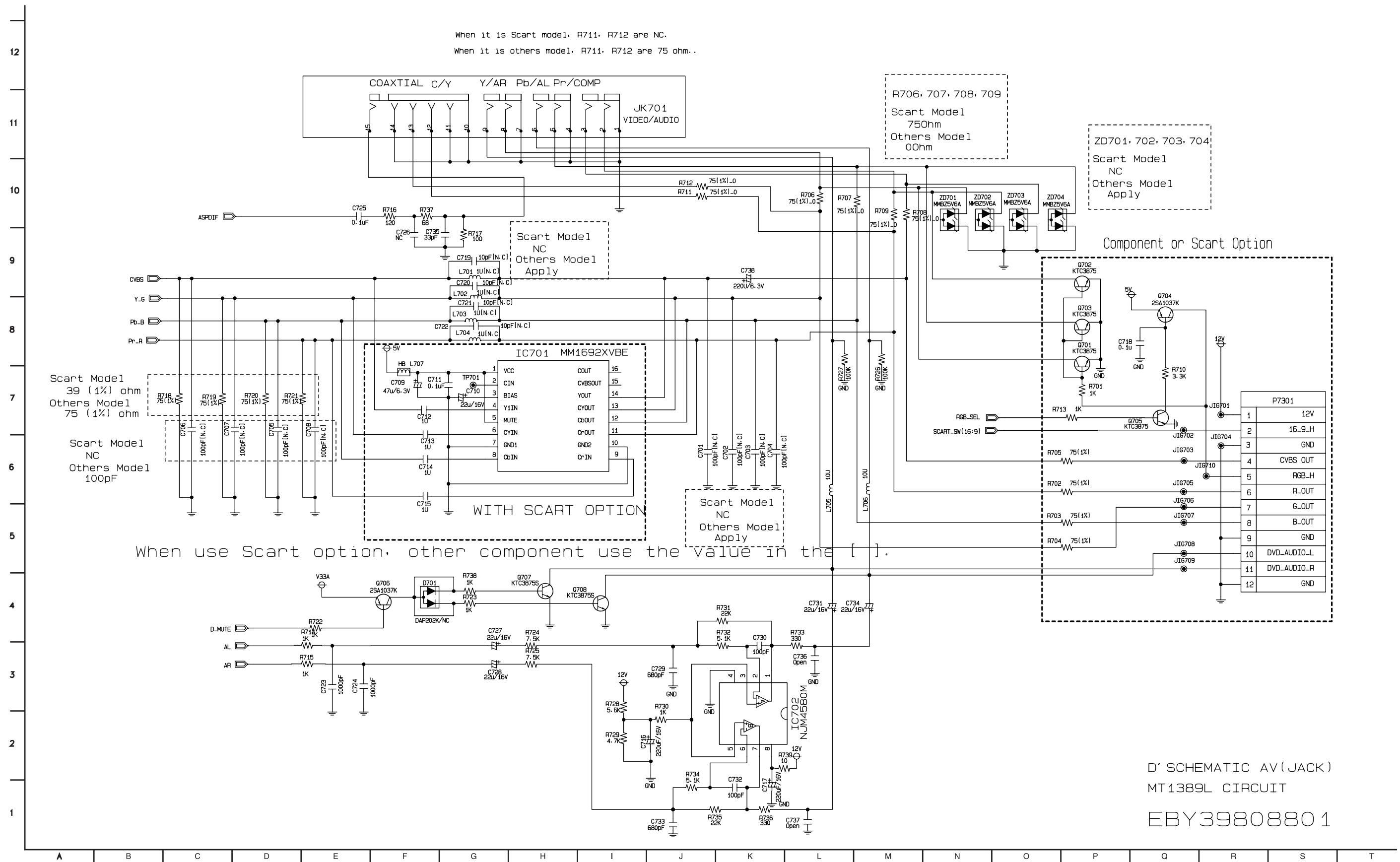
### 3. SERVO CIRCUIT DIAGRAM



D' SCHEMATIC SERVO  
SPHE8202R SERVO

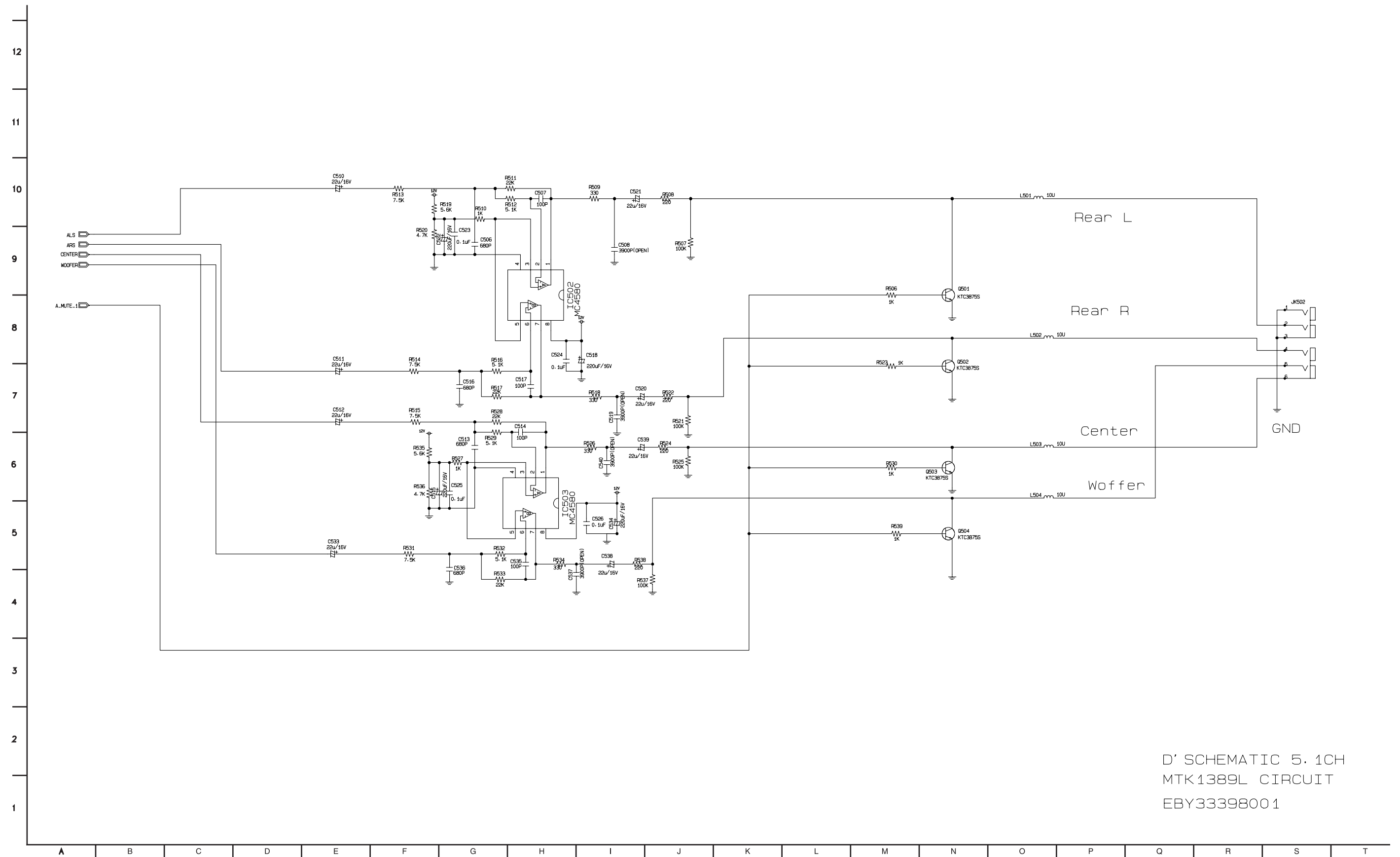
EBY42193001-2

# 4. AV (JACK) CIRCUIT DIAGRAM



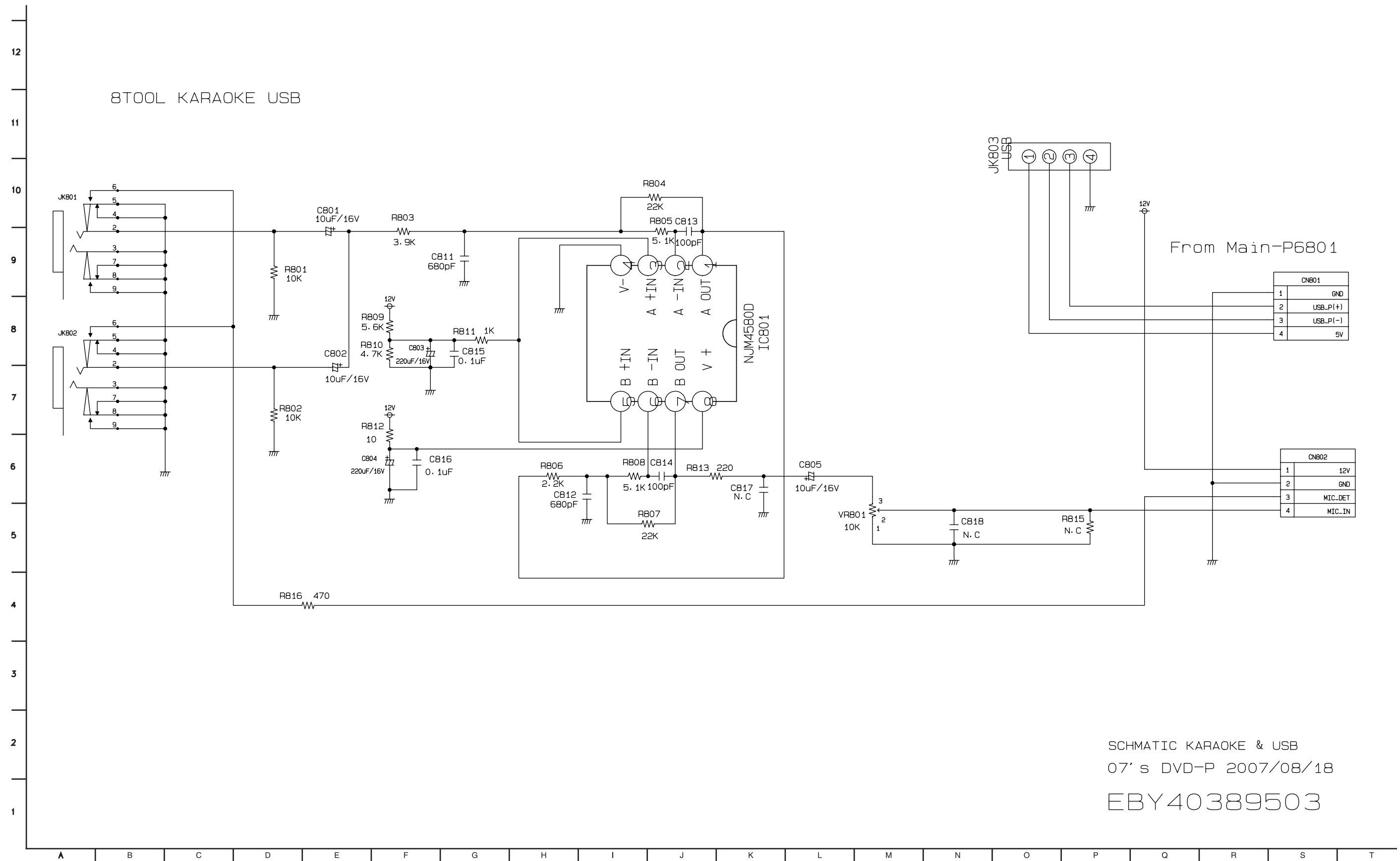
D' SCHEMATIC AV (JACK)  
MT1389L CIRCUIT  
EBY3980880 1

## 5. 5.1CH CIRCUIT DIAGRAM (OPTION)



D' SCHEMATIC 5.1CH  
MTK1389L CIRCUIT  
EBY33398001

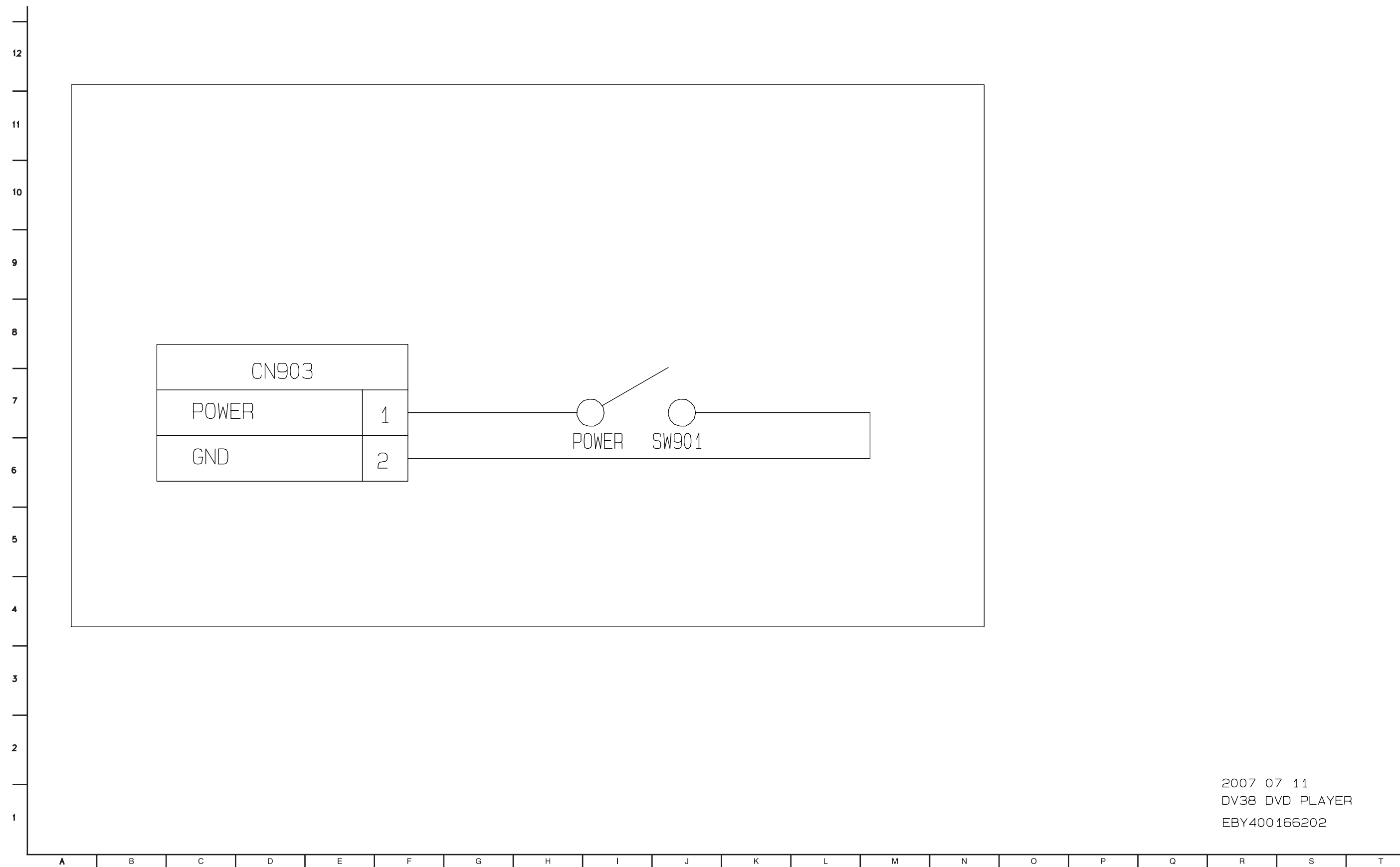
## 6. KARAOKE & USB CIRCUIT DIAGRAM (OPTION)



SCHMATIC KARAOKE & USB  
07's DVD-P 2007/08/18

EBY40389503

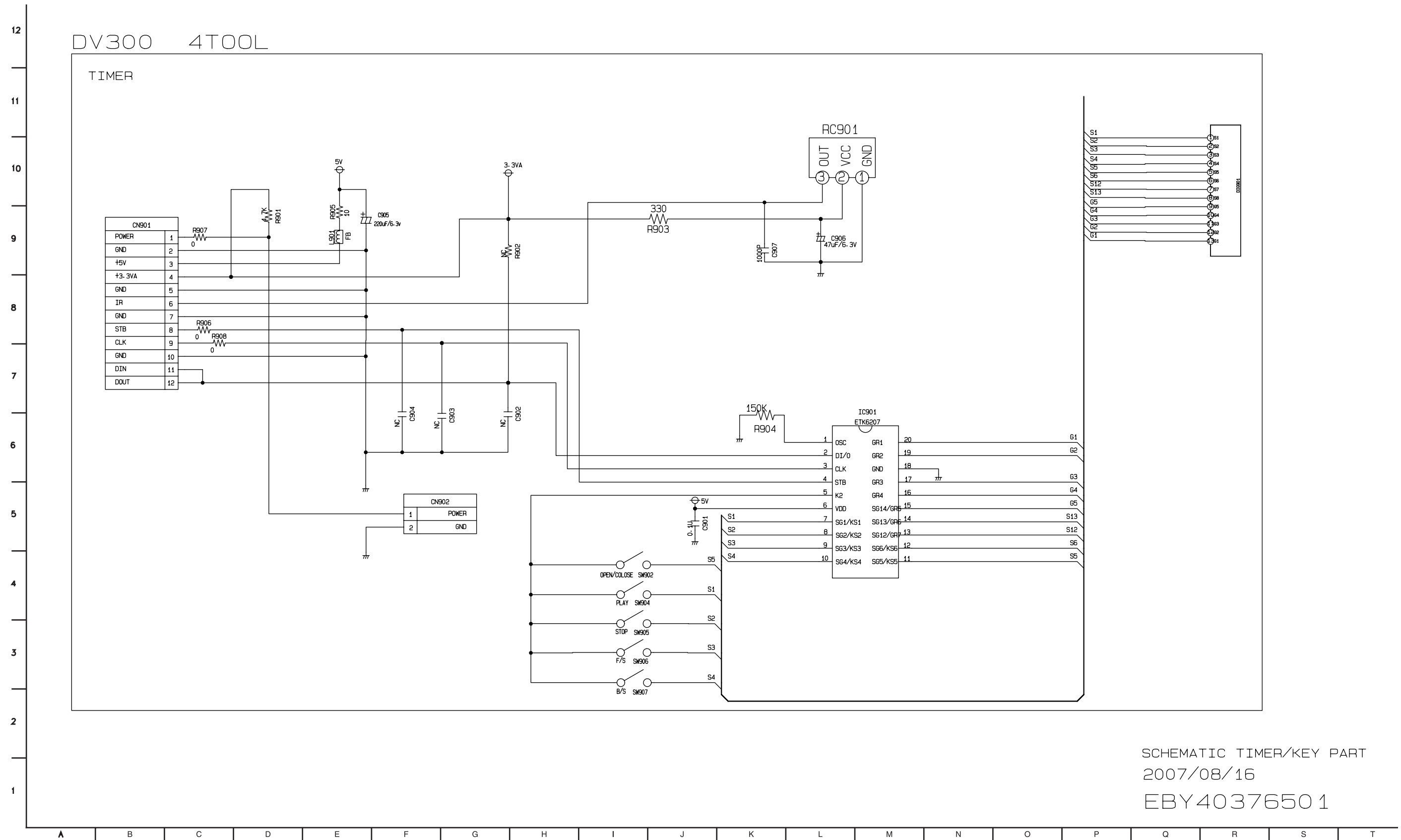
## 7. KEY CIRCUIT DIAGRAM



2007 07 11  
 DV38 DVD PLAYER  
 EBY400166202

# 8. TIMER CIRCUIT DIAGRAM

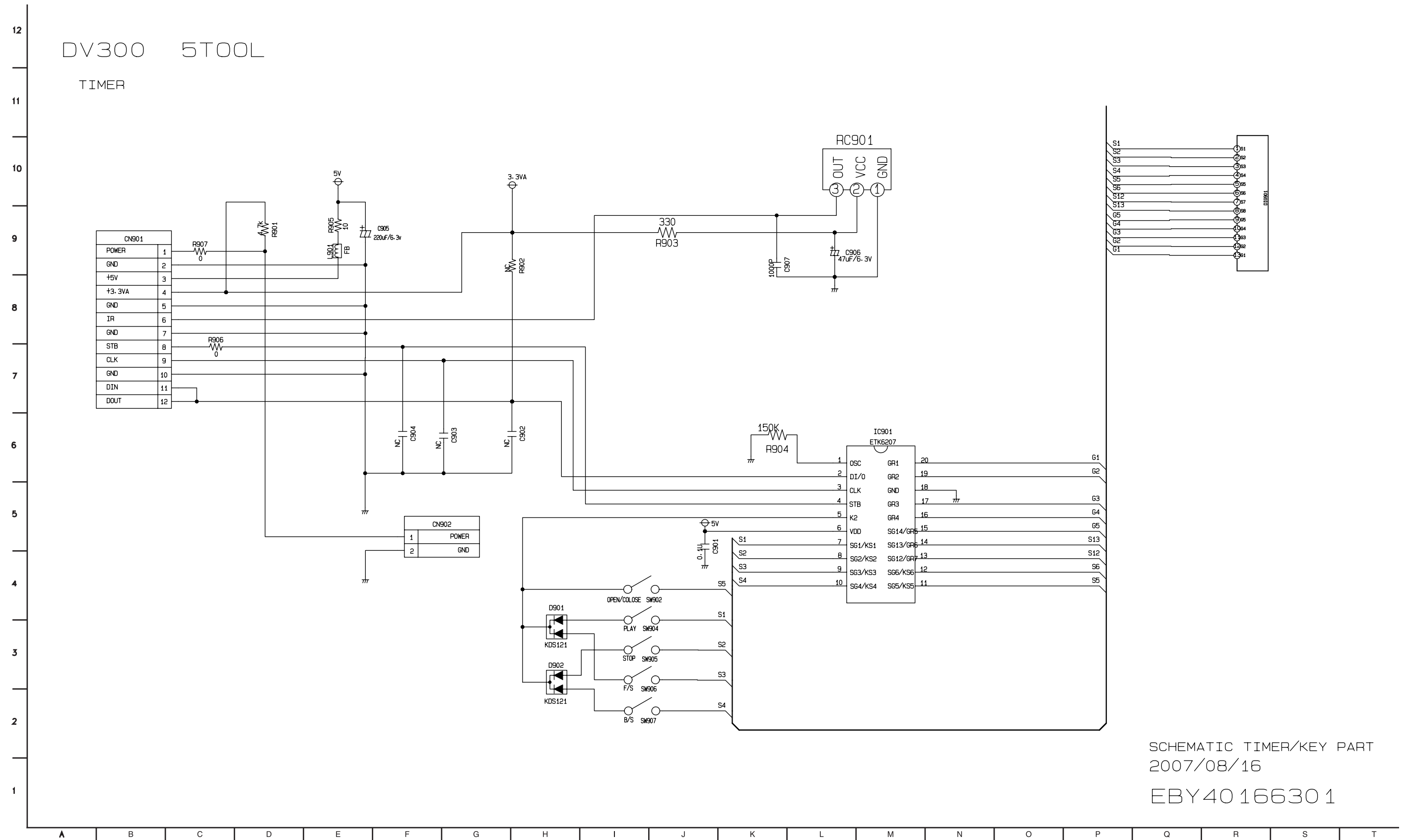
## 8-1. 4 TOOL



SCHEMATIC TIMER/KEY PART  
 2007/08/16  
 EBY4037650 1

8-2. 5 TOOL

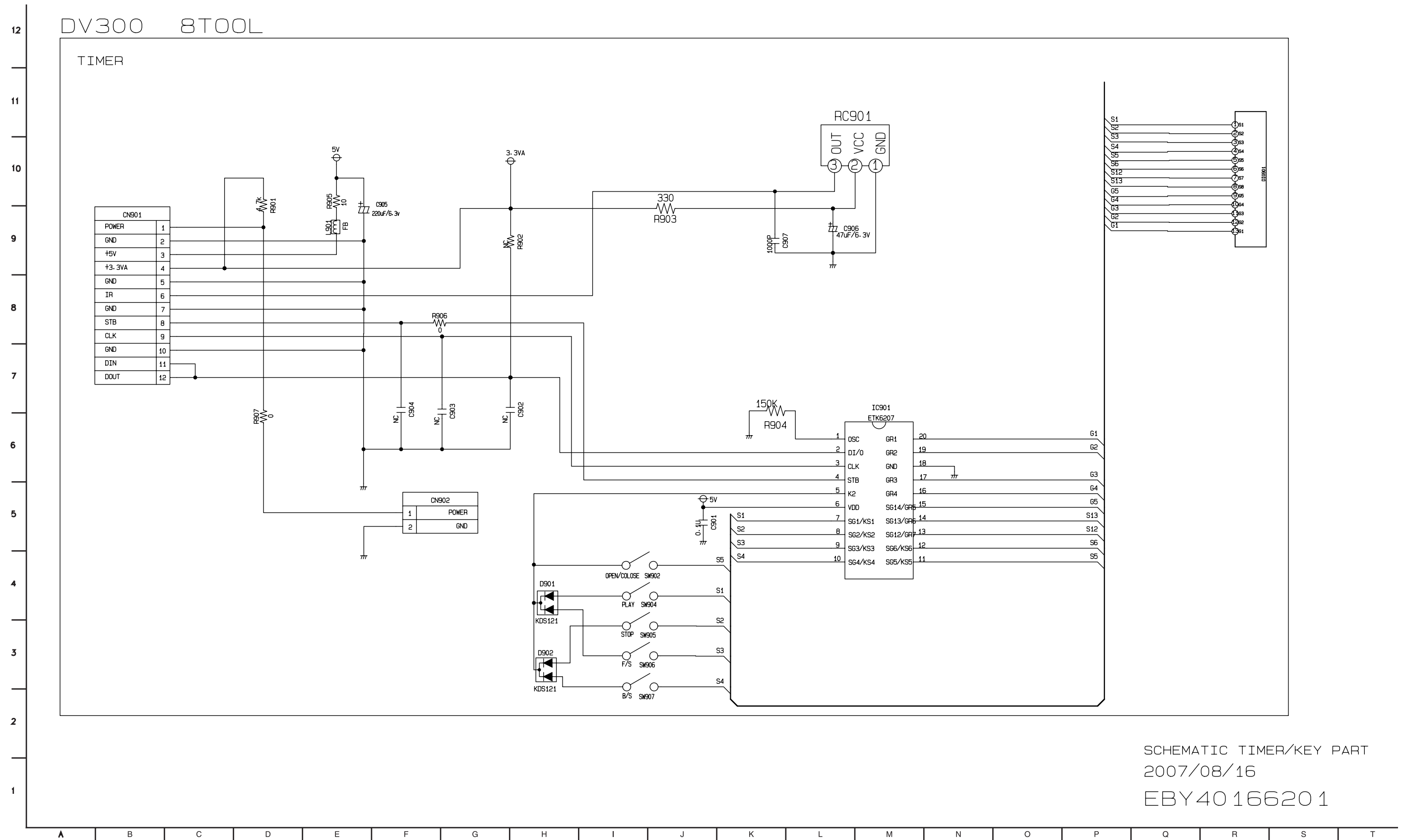
DV300 5TOOL  
TIMER



SCHEMATIC TIMER/KEY PART  
2007/08/16

EBY40166301

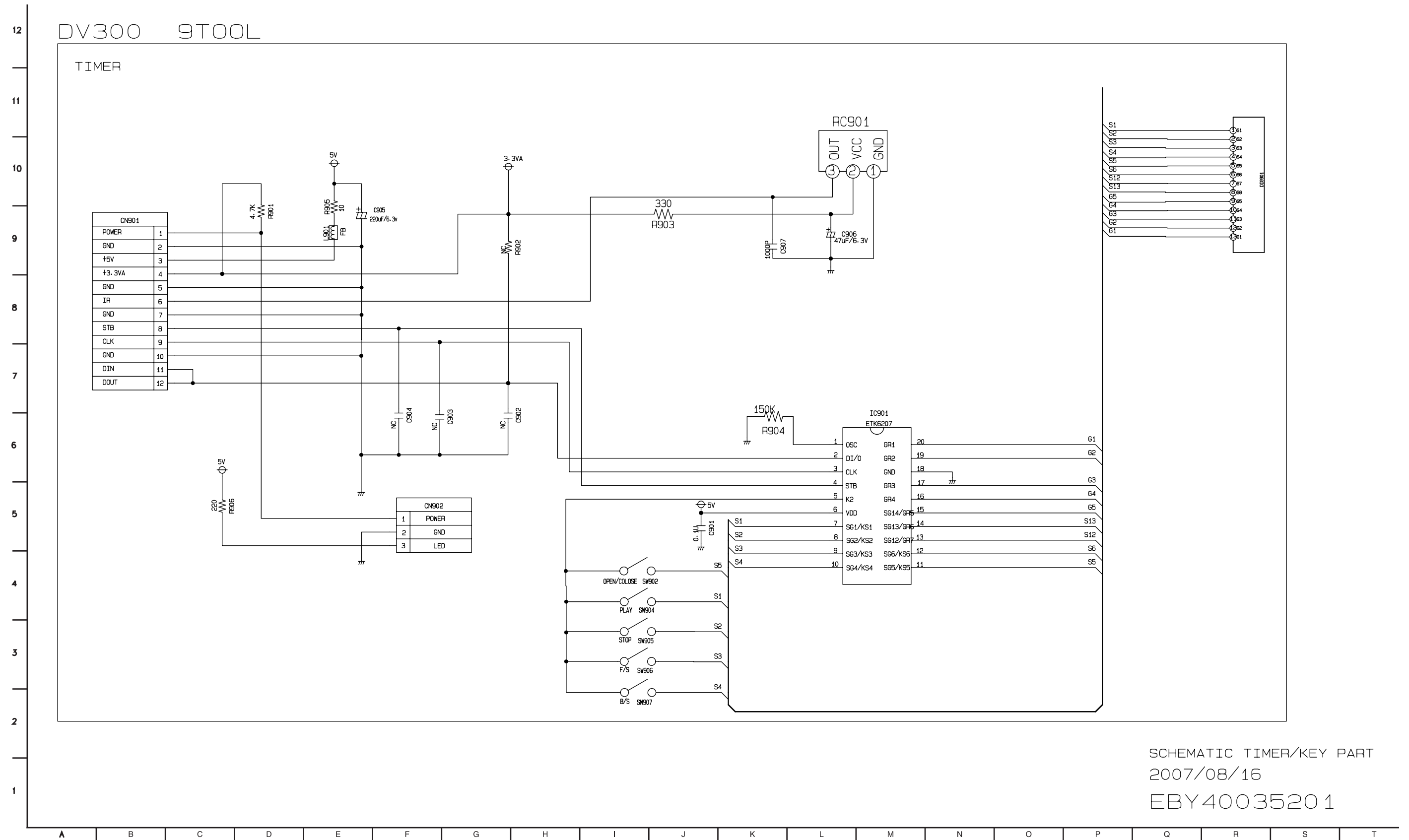
8-3. 8 TOOL



SCHEMATIC TIMER/KEY PART  
 2007/08/16  
 EBY40166201



8-4. 9 TOOL



SCHEMATIC TIMER/KEY PART  
 2007/08/16  
 EBY4003520 1

# • CIRCUIT VOLTAGE CHART

## 1. IC\_Standby

Mode Pin No.	Pin Name	PIN Description	Voltage	Spec Range
<b>IC201 (AM5890S)</b>				
8	VCC1	Power supply voltage	6.21	4.3 ~ 13.2V
19	VCC2	Power supply voltage	6.21	4.3 ~ 13.2V
20	VCCD	Power supply voltage	3.285	0 ~ 12V
<b>IC601 (Sunplus SPHE8202RQ)</b>				
4	VDD33	I/O Power supply	3.295	3.15~3.45V
10	VDD18	Kernel logic power supply	1.814	1.7~1.9V
32	VDD33	I/O Power supply	3.293	3.15~3.45V
54	AVDD33_AD	3.3V power for Audio DAC	3.188	3.15~3.45V
61	VREF	Reference voltage for audio DAC	1.382	
62	ADD_ADAC	3.3V power for Audio DAC #0	3.185	3.15~3.45V
63	ADD_ADAC	3.3V power for Audio DAC #1	3.185	3.15~3.45V
70	VDD_TVA0 (2B)	3.3V power for Video DAC channel 0	3.237	3.15~3.45V
72	VDD_TVA0 (3B)	3.3V power for Video DAC channel 1~3	3.237	3.15~3.45V
77	VDD18	Kernel logic power supply	1.825	1.7~1.9V
78	AVDD_USB(3B)	3.3V power for USB PLL and USB tranceiver	3.294	3.15~3.45
83	VDD_PLL(4B)	3.3V power for PLLTV, PLLA, PLLAFE, SSPLL, and Crystal PAD	3.294	3.15~3.45V
86	VDD18	1.8V power for flash ADC	1.817	1.7~1.9V
90	AD_AVDD(4B)	3.3V power for servo ADC	3.147	3.15~3.45V
106	SRV_AVDD(3B)	3.3V power for servo	3.145	3.15~3.45V
107	V21	Reference DC bias voltage	2.046	
108	V165	Reference DC bias voltage	1.576	
112	DA_AVDD(2B)	3.3V power for DAC	3.145	3.15~3.45V
<b>IC602 (M12L32162A)</b>				
1	VDD	Power supply for internal circuits and input buffers	3.296	3.0V ~ 3.6V
3	VDDQ	Power supply for outpur buffers	3.297	3.0V ~ 3.6V
9	VDDQ	Power supply for outpur buffers	3.296	3.0V ~ 3.6V
14	VDD	Power supply for internal circuits and input buffers	3.296	3.0V ~ 3.6V
27	VDD	Power supply for internal circuits and input buffers	3.295	3.0V ~ 3.6V
43	VDDQ	Power supply for outpur buffers	3.296	3.0V ~ 3.6V
49	VDDQ	Power supply for outpur buffers	3.296	3.0V ~ 3.6V
<b>IC701 (MM1692XVBE)</b>				
1	VCC	5V Power Supply		4.5~5.5V
5	MUTE	5V Power Supply		4.5~5.5V
<b>IC702 (NJM4580M)</b>				
8	VCC	12V Power Supply	12.21	±2V ~ ±18V

## 2. IC\_Play

Mode Pin No.	Pin Name	PIN Description	Voltage	Spec Range
<b>IC201 (AM5890S)</b>				
8	VCC1	Power supply voltage	5.75	4.3 ~ 13.2V
19	VCC2	Power supply voltage	5.75	4.3 ~ 13.2V
20	VCCD	Power supply voltage	3.284	0 ~ 12V
<b>IC601 (Sunplus SPHE8202RQ)</b>				
4	VDD33	I/O Power supply	3.294	3.15~3.45V
10	VDD18	Kernel logic power supply	1.811	1.7~1.9V
32	VDD33	I/O Power supply	3.292	3.15~3.45V
54	AVDD33_AD	3.3V power for Audio DAC	3.186	3.15~3.45V
61	VREF	Reference voltage for audio DAC	1.381	
62	ADD_ADAC	3.3V power for Audio DAC #0	3.184	3.15~3.45V
63	ADD_ADAC	3.3V power for Audio DAC #1	3.184	3.15~3.45V
70	VDD_TVA0 (2B)	3.3V power for Video DAC channel 0	3.236	3.15~3.45V
72	VDD_TVA0 (3B)	3.3V power for Video DAC channel 1~3	3.236	3.15~3.45V
77	VDD18	Kernel logic power supply	1.822	1.7~1.9V
78	AVDD_USB(3B)	3.3V power for USB PLL and USB tranceiver	3.293	3.15~3.45
83	VDD_PLL(4B)	3.3V power for PLLTV, PLLA, PLLAFE, SSPLL, and Crystal PAD	3.293	3.15~3.45V
86	VDD18	1.8V power for flash ADC	1.815	1.7~1.9V
90	AD_AVDD(4B)	3.3V power for servo ADC	3.089	3.15~3.45V
106	SRV_AVDD(3B)	3.3V power for servo	3.087	3.15~3.45V
107	V21	Reference DC bias voltage	2.046	
108	V165	Reference DC bias voltage	1.546	
112	DA_AVDD(2B)	3.3V power for DAC	3.088	3.15~3.45V
<b>IC602 (M12L32162A)</b>				
1	VDD	Power supply for internal circuits and input buffers	3.294	3.0V ~ 3.6V
3	VDDQ	Power supply for outpur buffers	3.294	3.0V ~ 3.6V
9	VDDQ	Power supply for outpur buffers	3.293	3.0V ~ 3.6V
14	VDD	Power supply for internal circuits and input buffers	3.293	3.0V ~ 3.6V
27	VDD	Power supply for internal circuits and input buffers	3.292	3.0V ~ 3.6V
43	VDDQ	Power supply for outpur buffers	3.293	3.0V ~ 3.6V
49	VDDQ	Power supply for outpur buffers	3.293	3.0V ~ 3.6V
<b>IC701 (MM1692XVBE)</b>				
1	VCC	5V Power Supply		4.5~5.5V
5	MUTE	5V Power Supply		4.5~5.5V
<b>IC702 (NJM4580M)</b>				
8	VCC	12V Power Supply	12.18	±2V ~ ±18V

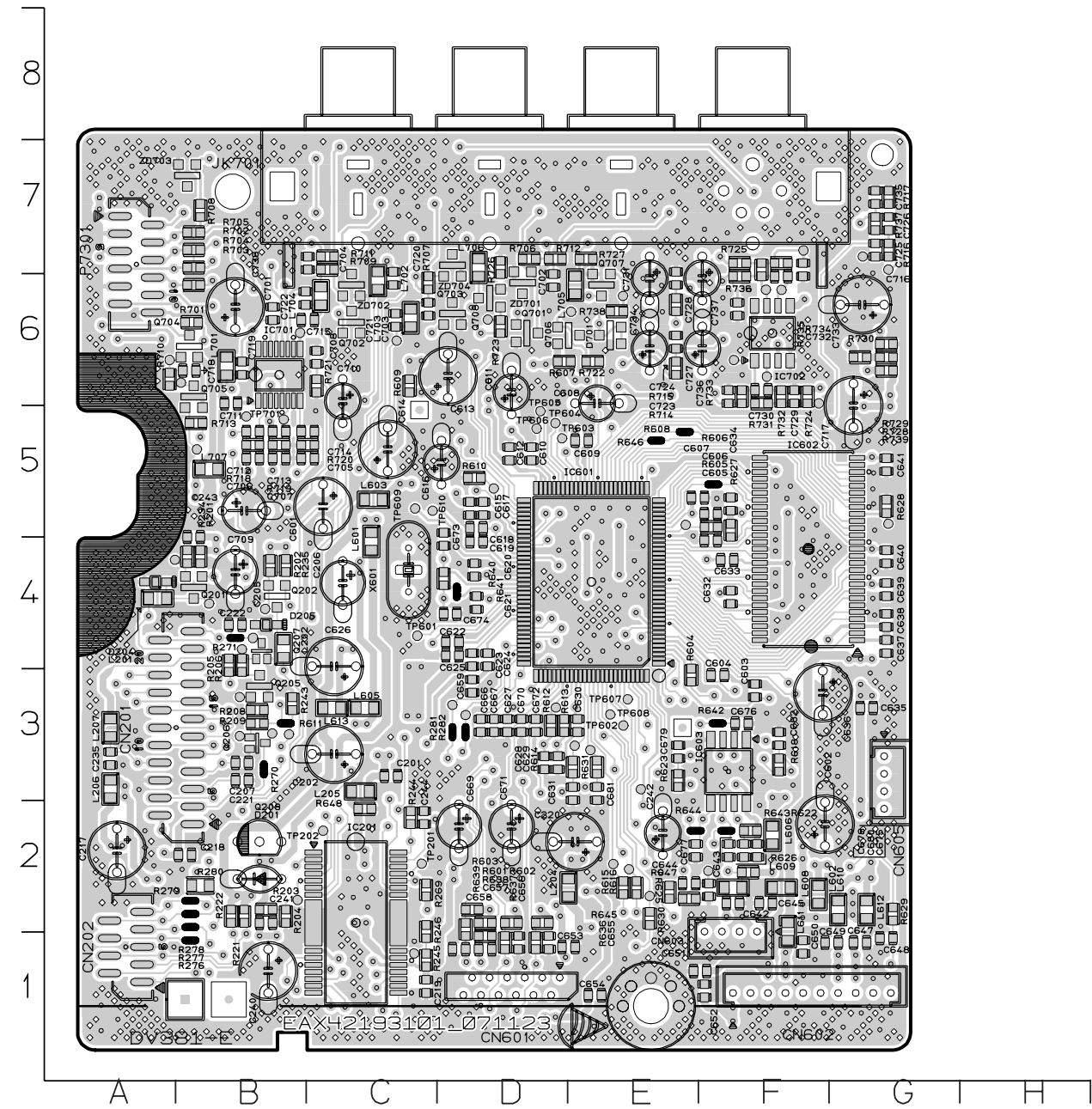
## 3. DC voltmeter Measurement methods

Condenser	Capacitor	WV (Withstanding Voltage)	PLAY		Standby		Condenser	Capacitor	WV (Withstanding Voltage)	PLAY		Standby	
			+A	-K	+A	-K				+A	-K	+A	-K
C202	220µF	6.3V	3.129	0.000	3.183	0.000	C626	100µF	6.3V	3.100	0.000	3.155	0.000
C205	47µF	6.3V	3.124	0.000	3.181	3.145	C636	100µF	6.3V	3.289	0.000	3.291	0.000
C206	47µF	6.3V	3.124	2.100	3.181	3.145	C669	47µF	6.3V	2.068	0.000	2.068	0.000
C217	100µF	6.3V	5.040	0.000	5.060	0.000	C671	47µF	6.3V	1.552	0.000	1.579	0.000
C220	220µF	16V	5.670	0.000	6.010	0.000	C709	47µF	6.3V	0.084	0.000	0.089	0.000
C240	220µF	6.3V	1.890	0.000	1.889	0.000	C710	22µF	16V	0.114	0.000	0.124	0.000
C242	10µF	16V	3.277	0.000	3.279	0.000	C716	220µF	16V	5.670	0.000	5.690	0.000
C601	220µF	6.3V	1.844	0.000	1.846	0.000	C717	220µF	16V	12.390	0.000	12.440	0.000
C602	220µF	6.3V	3.288	0.000	3.288	0.000	C727	22µF	16V	5.660	1.381	5.680	1.383
C608	10µF	16V	3.181	0.000	3.181	0.000	C728	22µF	16V	5.660	1.383	5.680	1.383
C611	10µF	16V	1.379	0.000	1.381	0.000	C731	22µF	16V	5.660	0.002	5.680	0.004
C613	100µF	6.3V	3.179	0.000	3.181	0.000	C734	22µF	16V	5.660	0.002	5.680	0.004
C614	100µF	6.3V	3.229	0.000	3.231	0.000	C738	220µF	6.3V	1.845	0.000	1.928	0.000
C616	10µF	16V	3.228	1.332	3.231	1.339							

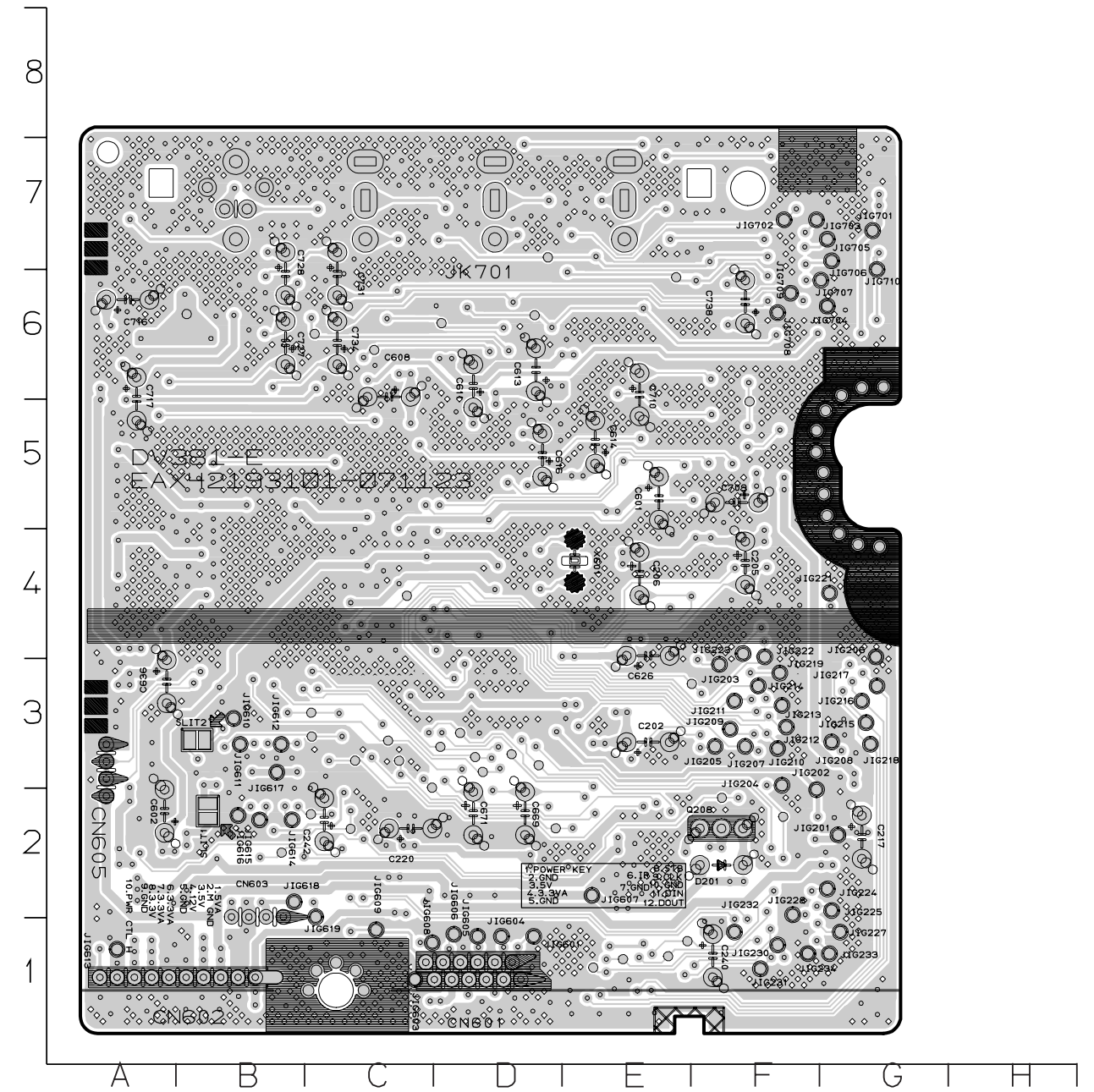
# PRINTED CIRCUIT BOARD DIAGRAMS

## 1. MAIN P.C.BOARD

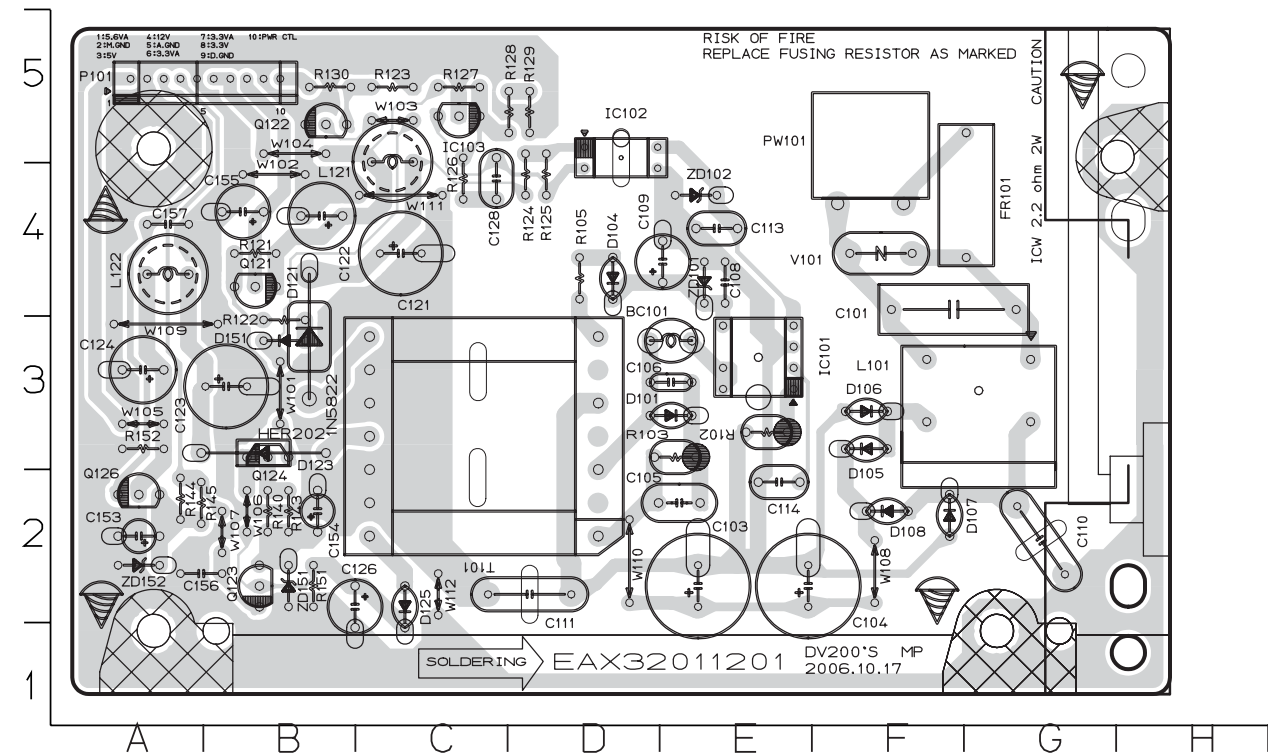
(TOP VIEW)



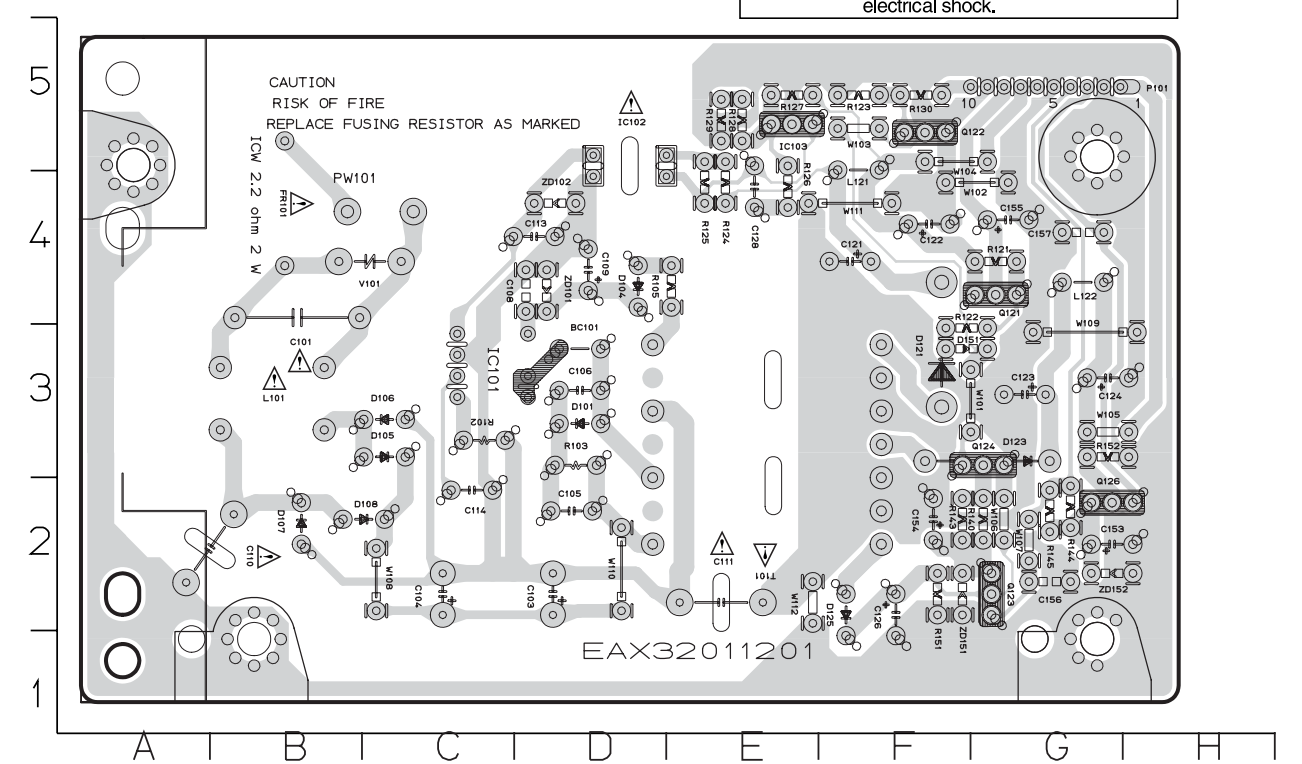
(BOTTOM VIEW)



## 2. POWER (SMPS) P.C.BOARD (TOP VIEW)

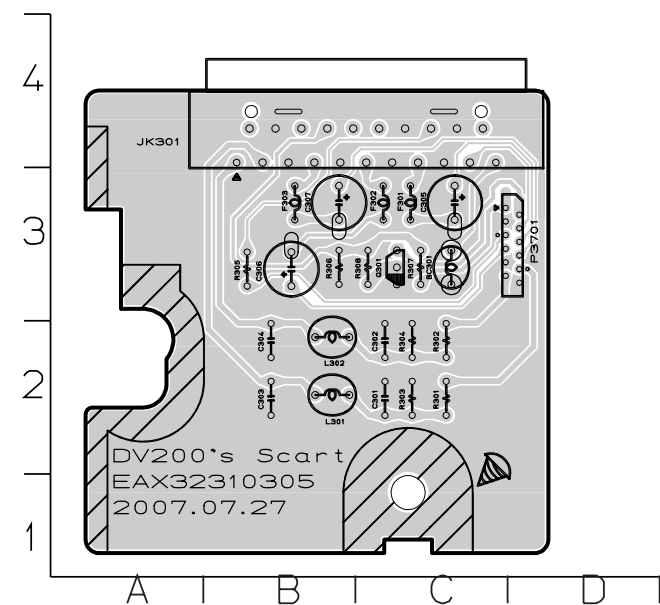


## (BOTTOM VIEW)

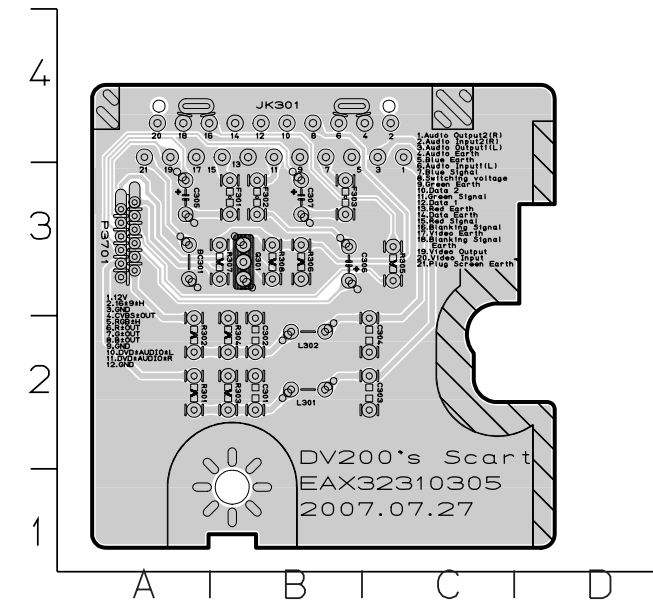


NOTE) ⚠ Warning  
Parts that are shaded  
with respect to risk of fire or  
electrical shock.

## 3. 5.1CH & SCART P.C.BOARD (OPTIONAL PART) (TOP VIEW)

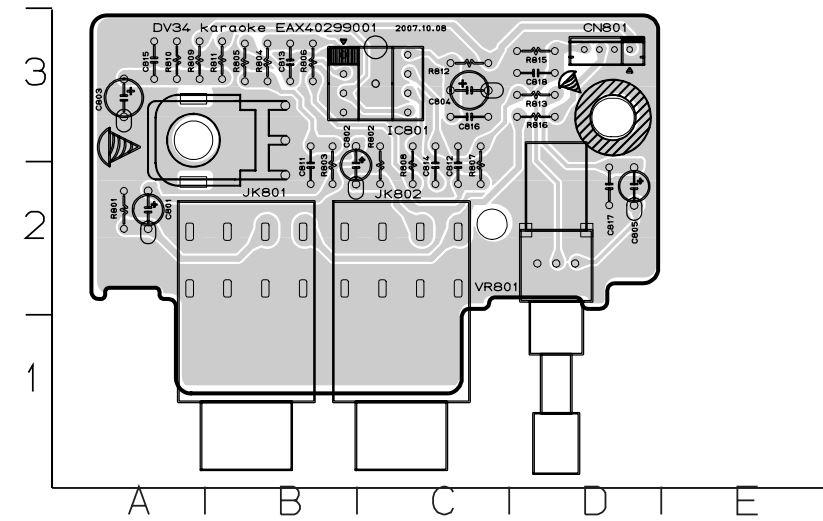


## (BOTTOM VIEW)

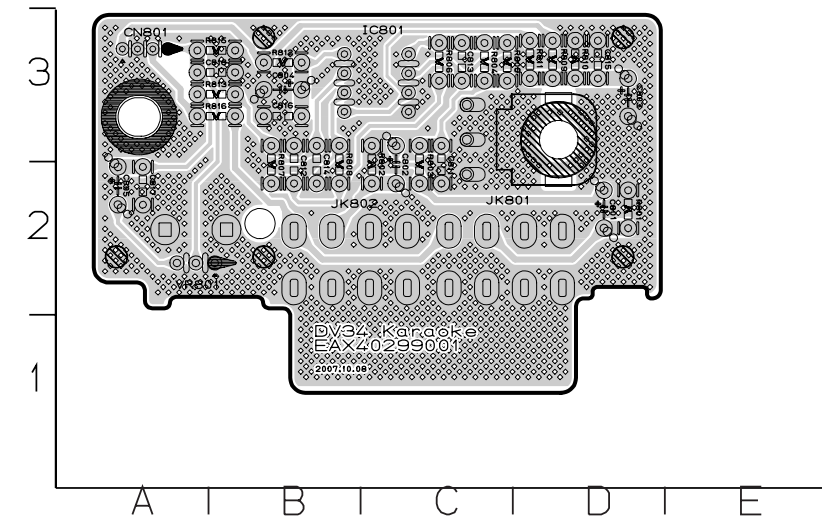


## 4. KARAOKE & USB P.C.BOARD (OPTIONAL PART)

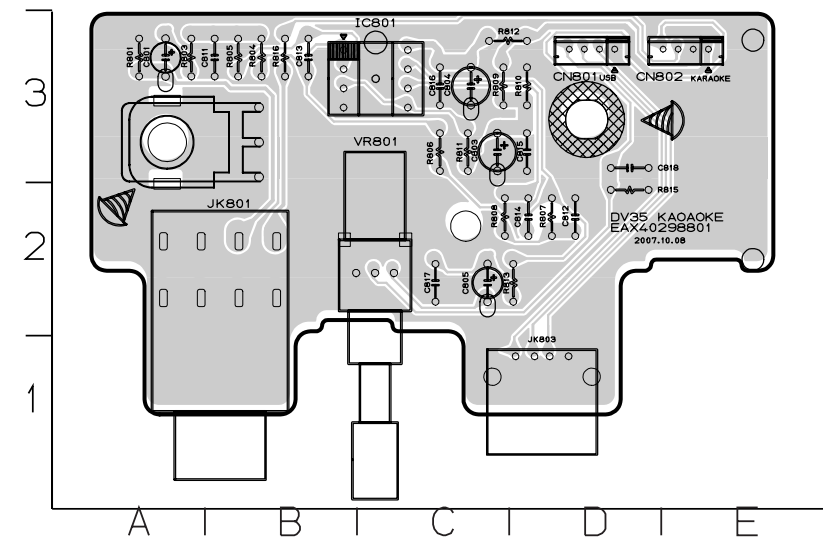
### 4-1. 4 TOOL (TOP VIEW)



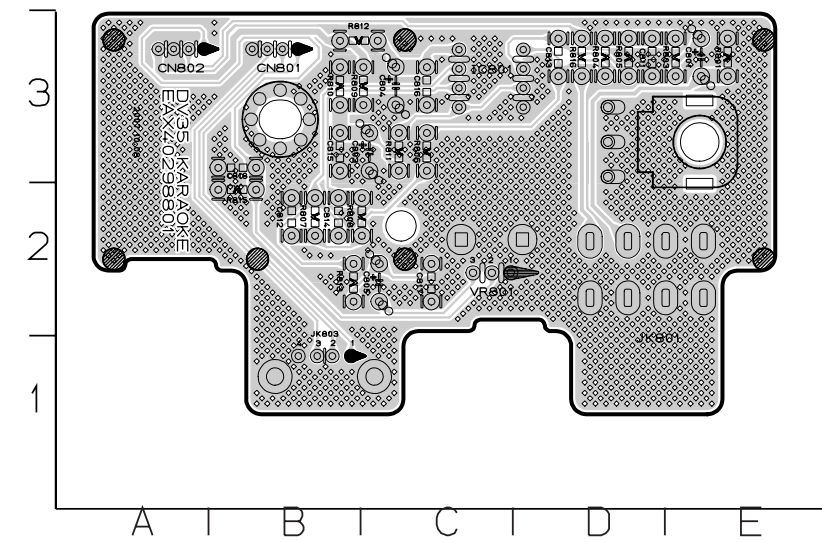
### (BOTTOM VIEW)



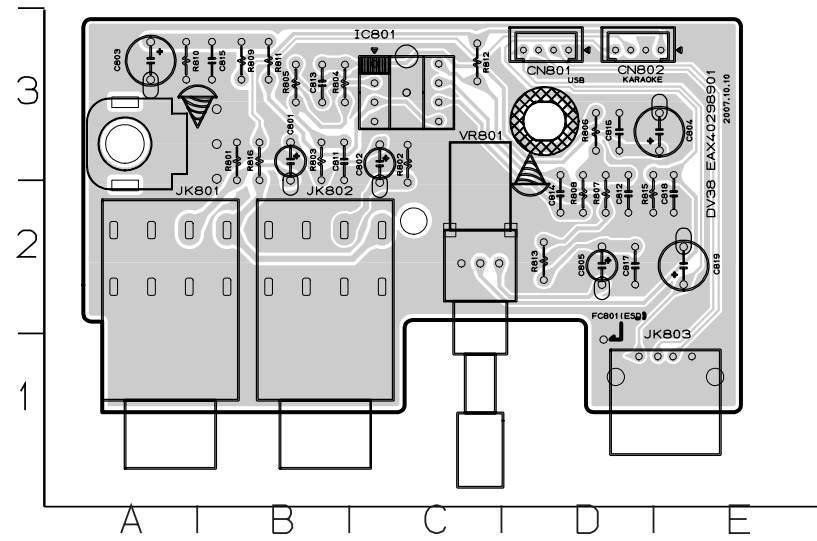
### 4-2. 5 TOOL (TOP VIEW)



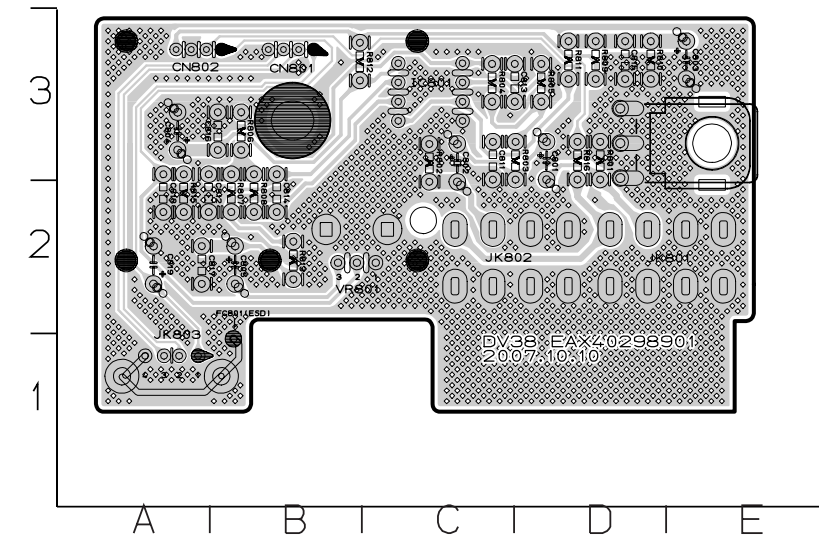
### (BOTTOM VIEW)



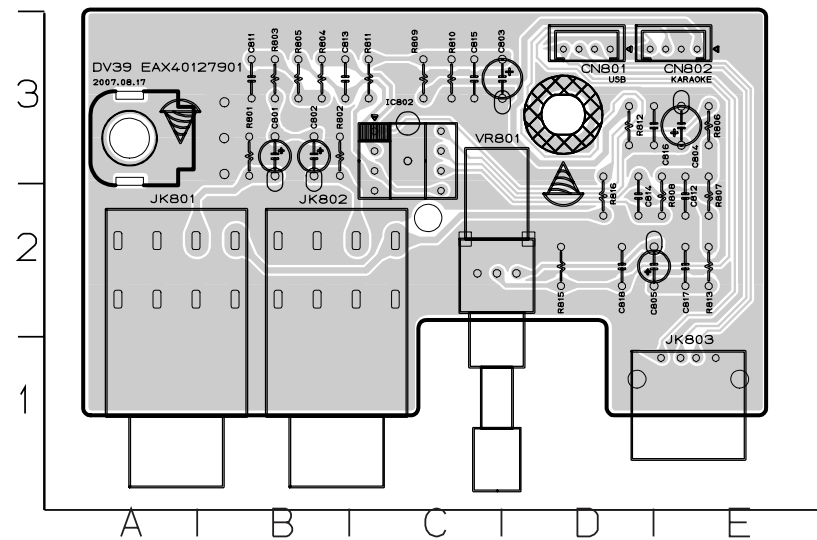
**4-3. 8 TOOL  
(TOP VIEW)**



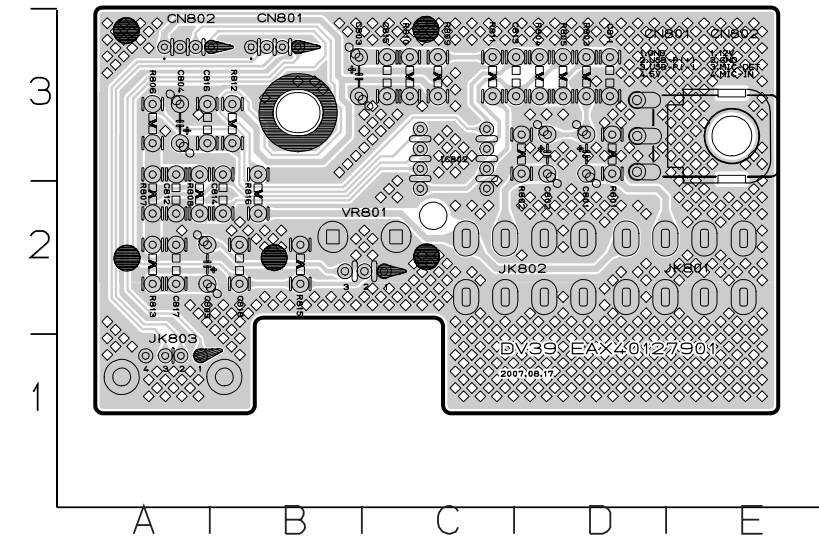
**(BOTTOM VIEW)**



**4-4. 9 TOOL  
(TOP VIEW)**

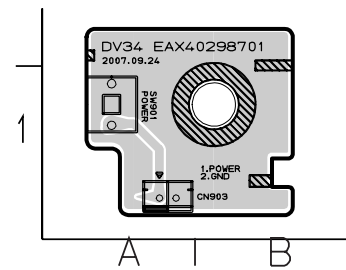


**(BOTTOM VIEW)**

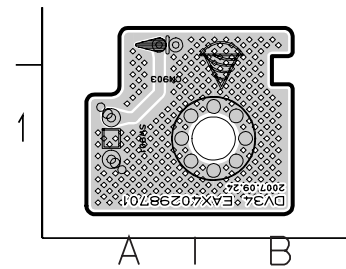


### 5. KEY P.C.BOARD

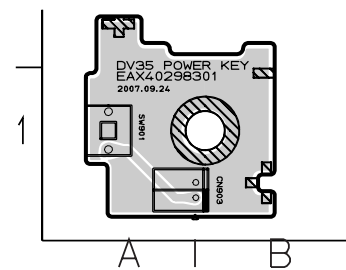
#### 5-1. 4 TOOL (TOP VIEW)



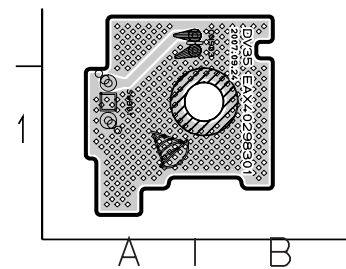
#### (BOTTOM VIEW)



#### 5-2. 5 TOOL (TOP VIEW)

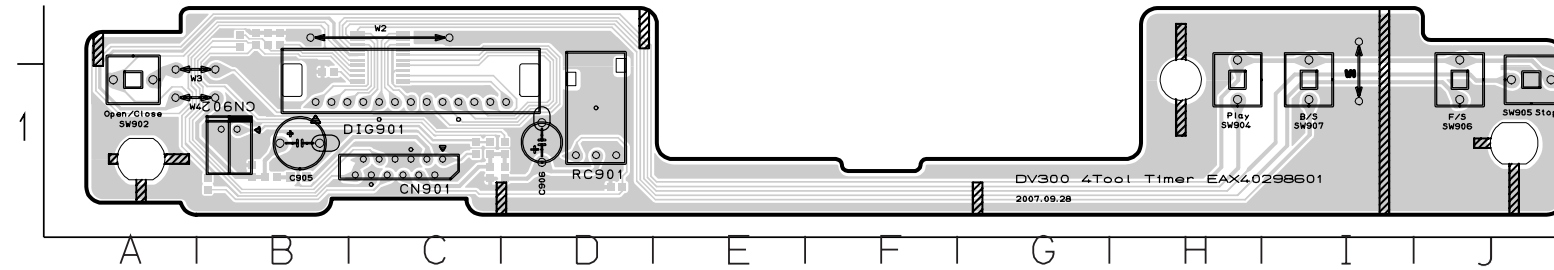


#### (BOTTOM VIEW)

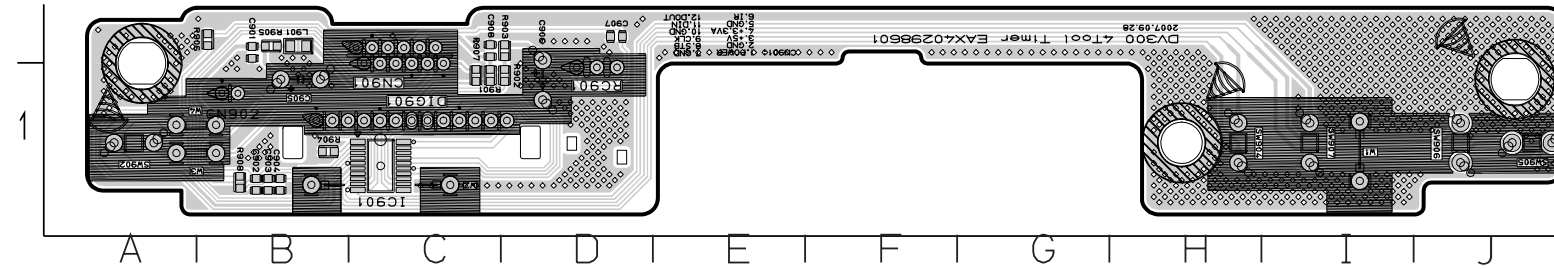


### 6. TIMER P.C.BOARD

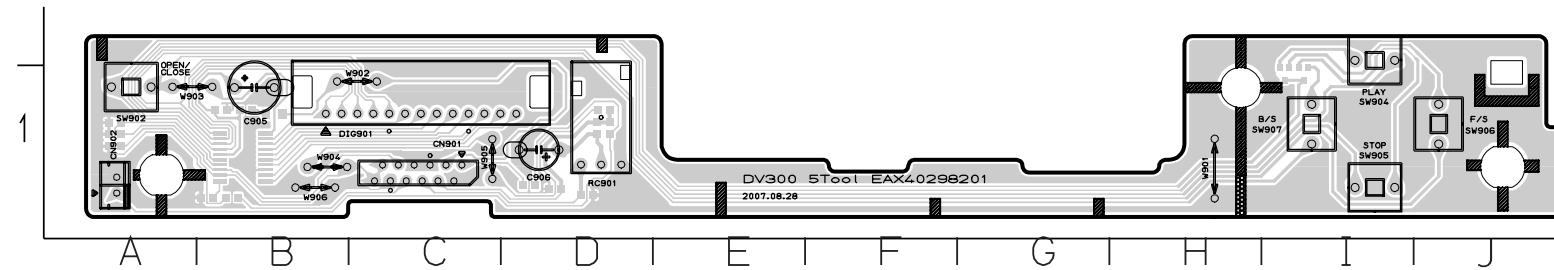
#### 6-1. 4 TOOL (TOP VIEW)



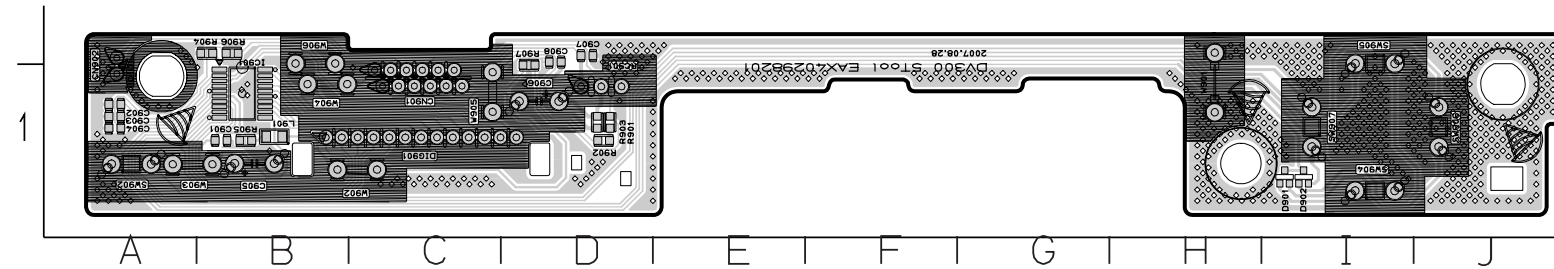
#### (BOTTOM VIEW)



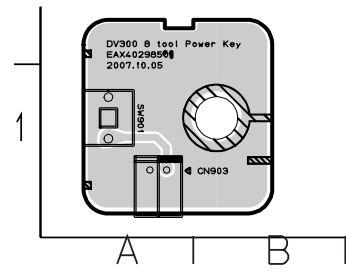
#### 6-2. 5 TOOL (TOP VIEW)



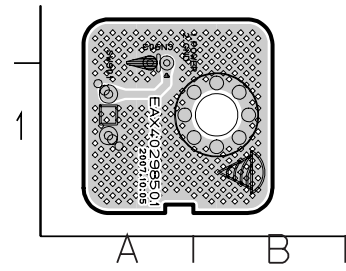
#### (BOTTOM VIEW)



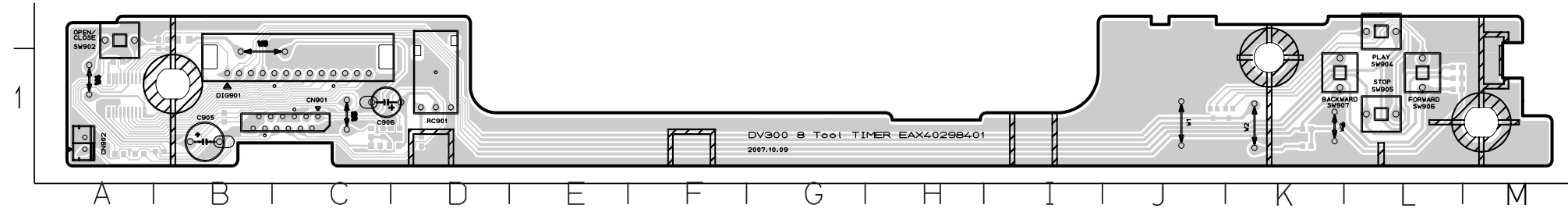
**5-3. 8 TOOL  
(TOP VIEW)**



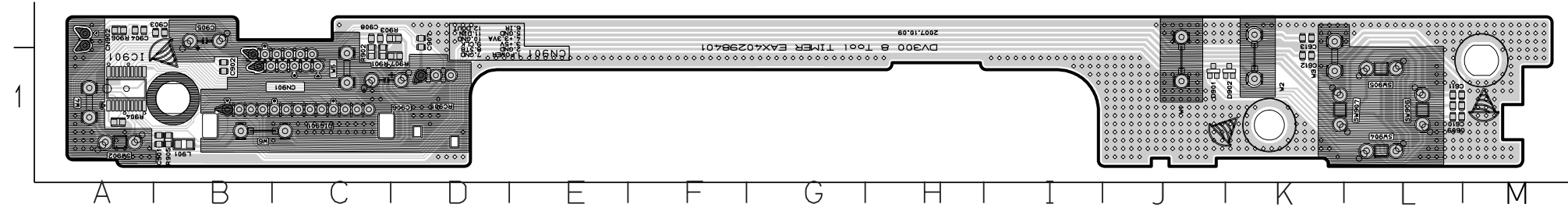
**(BOTTOM VIEW)**



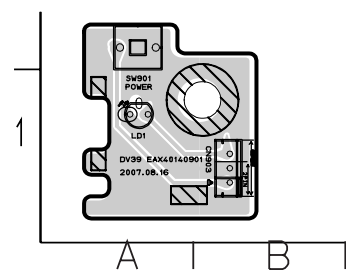
**6-3. 8 TOOL  
(TOP VIEW)**



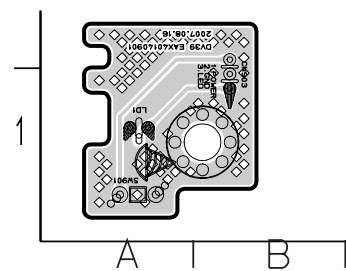
**(BOTTOM VIEW)**



**5-4. 9 TOOL  
(TOP VIEW)**



**(BOTTOM VIEW)**



**6-4. 9 TOOL  
(TOP VIEW)**



**(BOTTOM VIEW)**

