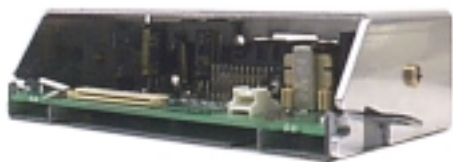


Service Manual

AUTOMOTIVE ELECTRONICS



MAZDA CY-VM4290A

Power Supply Unit [Center Panel
Module System]

VEHICLE : Mazda 6

DESTINATION : Europe

PRODUCED AFTER : Feb., 2002

Specifications*

General

Power Supply

DC 12V (11V - 16V)

Test Voltage 14.4V

Negative Ground

Current Consumption

Less than 2A

Dimensions** (WxHxD)

138 x 34 x 60 (mm)

Weight**

200g

* Specifications and the design are subject to possible modification without notice due to improvements.

** Dimensions and Weight shown are approximate.

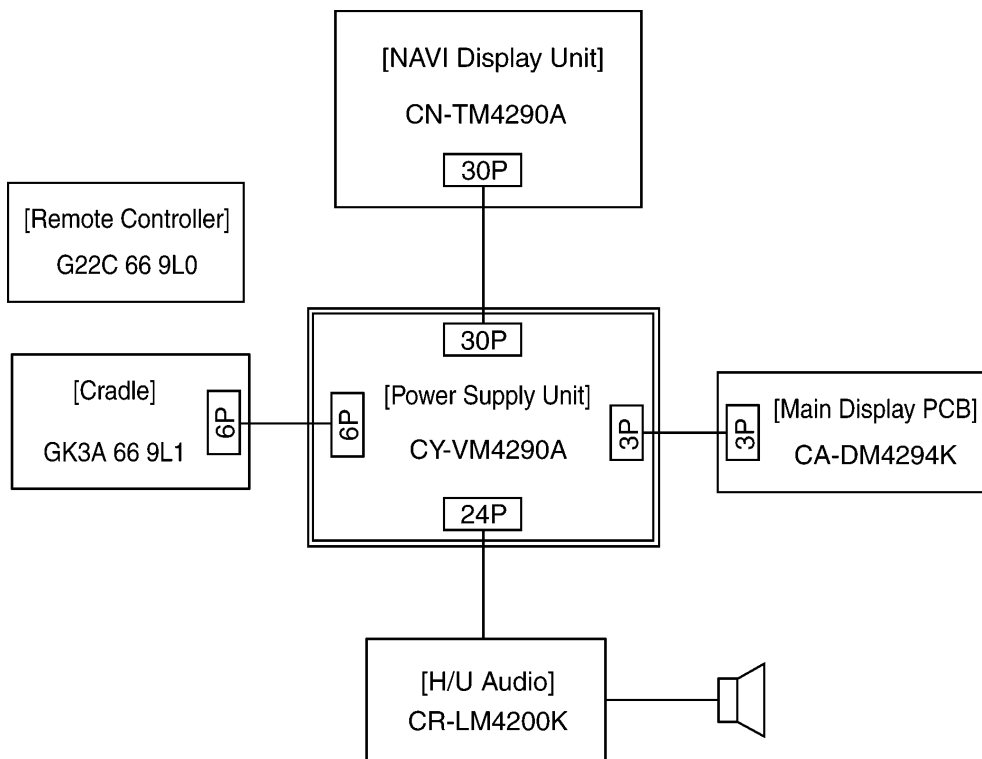
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1 FEATUERS

- ACC5V and LCD backlight 8V power generation.
- Reverse and Parking signals detection.
- NV_SYNC, R, G, B signals surge protection.

2 SYSTEM BLOCK DIAGRAM

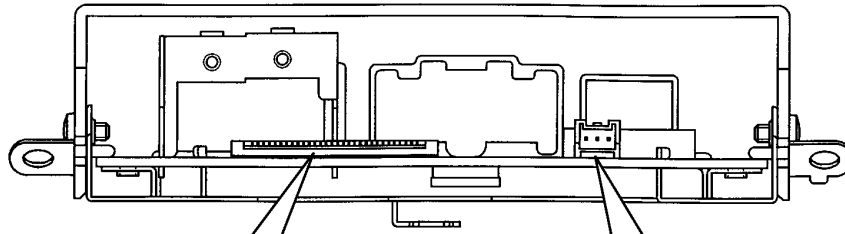


3 CENTER PANEL MODULE SYSTEM PART NUMBERS

GK3A 66 DV0	—	CY-VM4290A (Panasonic) -----	Power Supply Unit
	—	CN-TM4290A (Panasonic) -----	7" TFT Pop Up Display Unit
	—	GJ6A G1 DV3 -----	Display Unit Mounting Base
	—	GJ6A G1 DV0 02 -----	Lid
	—	GJ6A G0 DV4 -----	Pin
	—	PS-250 (YAZAKI)-----	Coupler
	—	YEFX031163 (Panasonic) -----	Gear
	—	YEAJ071521 (Panasonic) -----	Harness Z
	—	YEAJ011707 (Panasonic) -----	Harness A
	—	YEJT01069 (Panasonic) -----	Screw, M4x12mm
	—	XTB3+8GFX (Panasonic) -----	Screw, M3x8mm
	—	CA-DM4293K (Panasonic) -----	Main Display Unit

GK3B 66 DV0 02	—	CY-VM4290A (Panasonic) -----	Power Supply Unit
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	—	XTB3+8GFX (Panasonic) -----	Screw, M3x8mm
	—	CA-DM4294K (Panasonic) -----	Main Display Unit

4 FRONT VIEW AND CONNECTORS



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
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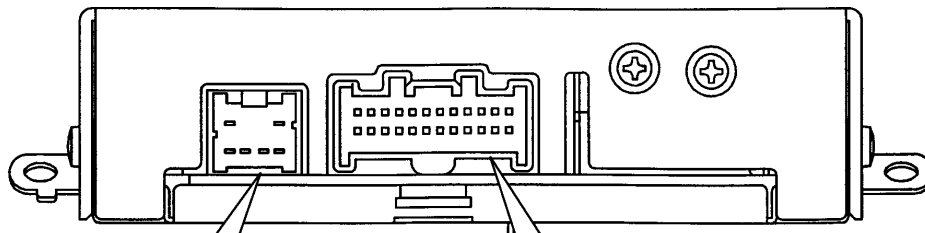
<CN11 30Pin CONNECTOR>

1. BL +8V	16. SIO_1
2. BL +8V	17. TV_BUS-
3. BL +8V	18. TV_BUS+
4. BL_GND	19. OP/CL_SW
5. BL_GND	20. TILT_SW
6. BL_GND	21. PKB
7. P_GND	22. REV
8. ACC_CONT	23. TNS+
9. BATT	24. REM_1
10. ACC	25. REAR_CAM
11. ACC +5V	26. NV_SYNC
12. P_GND	27. B
13. UART_1	28. G
14. UART_2	29. R
15. SIO_2	30. COMPOS

<CN13 3Pin CONNECTOR>

<table border="1" style="border-collapse: collapse;"> <tr> <td>1</td><td>2</td><td>3</td> </tr> </table>	1	2	3	1. Open/Close SW 2. Tilt SW 3. P.GND
1	2	3		

5 REAR VIEW AND CONNECTORS



1	5		
2	3	4	6

<CN12 5Pin CONNECTOR>

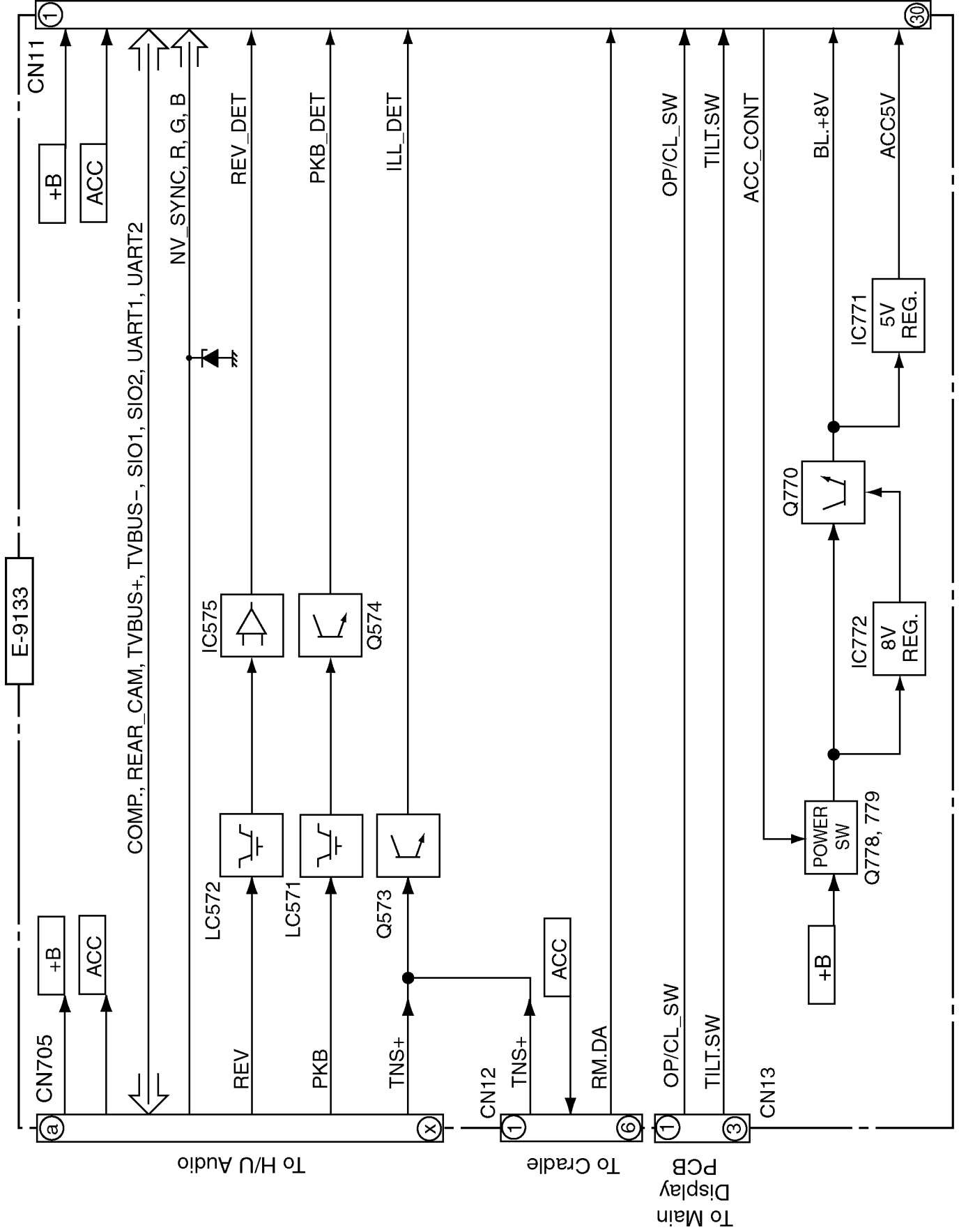
1. GND
2. TNS+
3. NC
4. D.GND
5. RM.DA
6. ACC

w	u	s	q	o	m	k	i	g	e	c	a
x	v	:	r	p	n	l	j	h	f	d	b

<CN705 24Pin CONNECTOR>

a. B.SIG	m. REAR_CAM.
b. G.SIG	n. TVBUS+
c. NY.SYNC	o. ACC
d. R.SIG	p. P.GND
e. V.GND	q. +B
f. V.GND	r. PKB
g. D.GND	s. D.GND
h. COMPOS	t. REV
i. SIO1	u. UART2
j. D.GND	v. TNS+
k. SIO2	w. UART1
l. TVBUS-	x. NC

6 BLOCK DIAGRAM



To NAVI Display Unit

To H/U Audio

To Cradle

To Main Display PCB

7 REPLACEMENT PARTS LIST

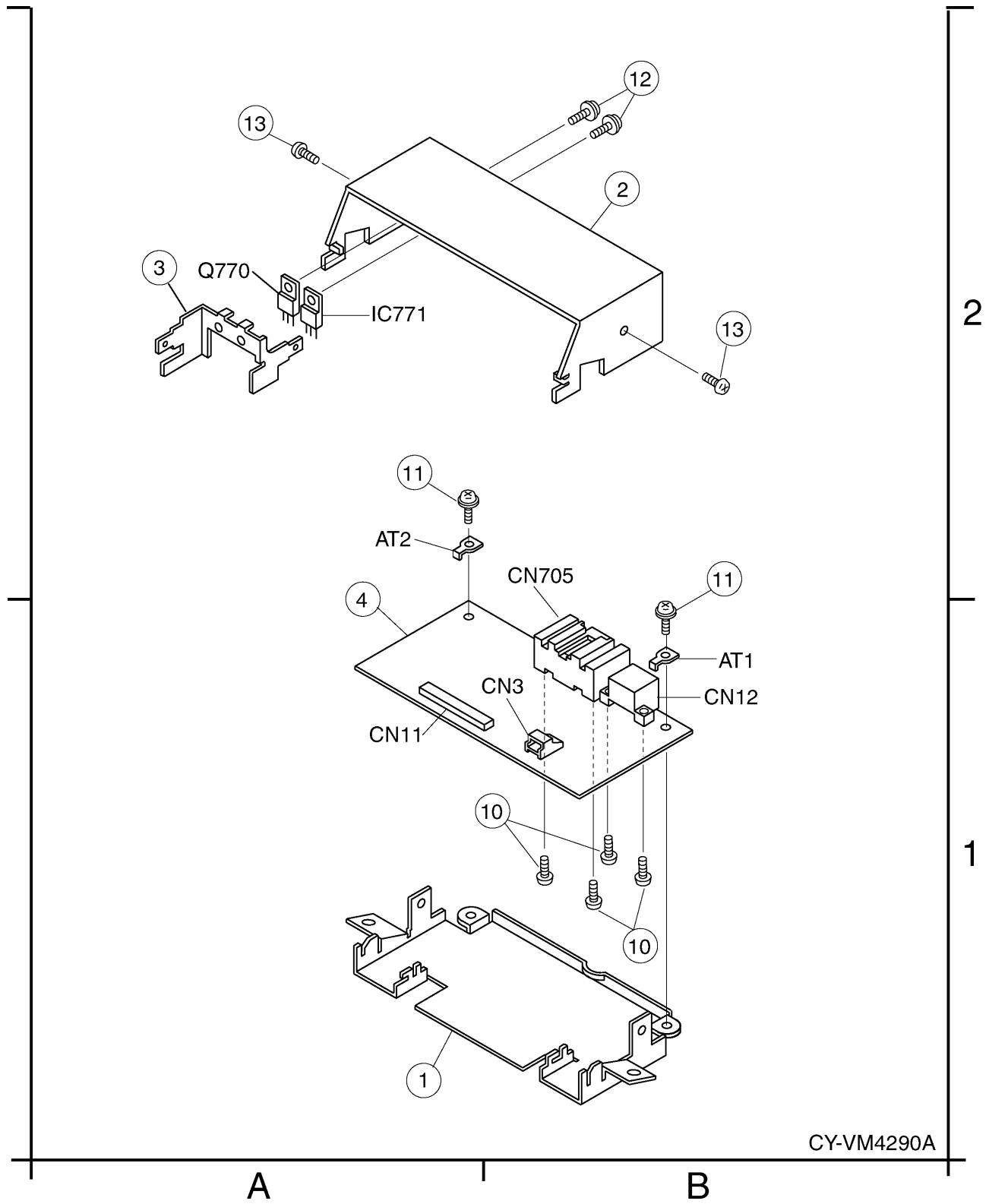
Notes :

1. Be sure to make your orders of replacement parts according to this list.
2. Important safety notice: Components, identified by Δ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
3. Location keys in the remarks column indicates the general location of the parts shown in the exploded drawing, as in a road map.
4. The marking (RTL) indicates that Retention Time is limited for this item. After the discontinuation of assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.
5. "MCC" marks in remarks column are indicated supply parts of Matsushita Communication Industrial Corp. of America (MCC).

Ref. No.	Part No.	Part Name & Description	Remarks
[E9133]			
IC's and TRANSISTORS			
IC575	COBBBA000024	IC	
IC771	AN7805F	IC	
IC772	YEAM78L08T3	IC	
IC872	B0BD6R800002	IC	
Q573	YEANC114WKTX	Transistor	
Q574	B1ABCF000044	Transistor	
Q770	2SD1265A	Transistor	
Q778	2SB1398TA	Transistor	
Q779	YEANC114YKX	Transistor	
DIODES			
D573	MA8068MTX	Diode	
D574	YEADDEC10DS1	Diode	
D575	MA153TX	Diode	
D576	MA3X152K0L	Diode	
D580	YEADUZMA62T2	Diode	
D777	MA3X152K0L	Diode	
D795	YEADZSA5A27F	Diode	
D871	YEADUZMA62T2	Diode	
CAPACITORS			
C571	FLJ1H102A026	Ceramic, 1000PF 50WV	
C572	YECUS1H103KX	Ceramic, 0.01 μ F 50WV	
C573	YECUS1C104KX	Ceramic, 0.1 μ F 16WV	
C577	YECUS1C104KX	Ceramic, 0.1 μ F 16WV	
C587	YECUS1C104KX	Ceramic, 0.1 μ F 16WV	
C771	YECUS1C334KX	Ceramic, 0.33 μ F 16WV	
C772	EEUF1C471B	Electrolytic, 470 μ F 16WV	
C775	YECUS1C334KX	Ceramic, 0.33 μ F 16WV	
C776	EEUF1A221H	Electrolytic, 220 μ F 10WV	
C783	YECUS1C334KX	Ceramic, 0.33 μ F 16WV	
C784	YECUS1C104KX	Ceramic, 0.1 μ F 16WV	
C785	YECUS1C104KX	Ceramic, 0.1 μ F 16WV	
C786	EEUF1A221H	Electrolytic, 220 μ F 10WV	
C787	EEUF1A470H	Electrolytic, 47 μ F 10WV	
C789	EEUF1C471B	Electrolytic, 470 μ F 16WV	
C790	YECUB1H104KX	Ceramic, 0.1 μ F 50WV	
C794	ECALEHG102B	Electrolytic, 1000 μ F 25WV	
C795	ECALEHG102B	Electrolytic, 1000 μ F 25WV	

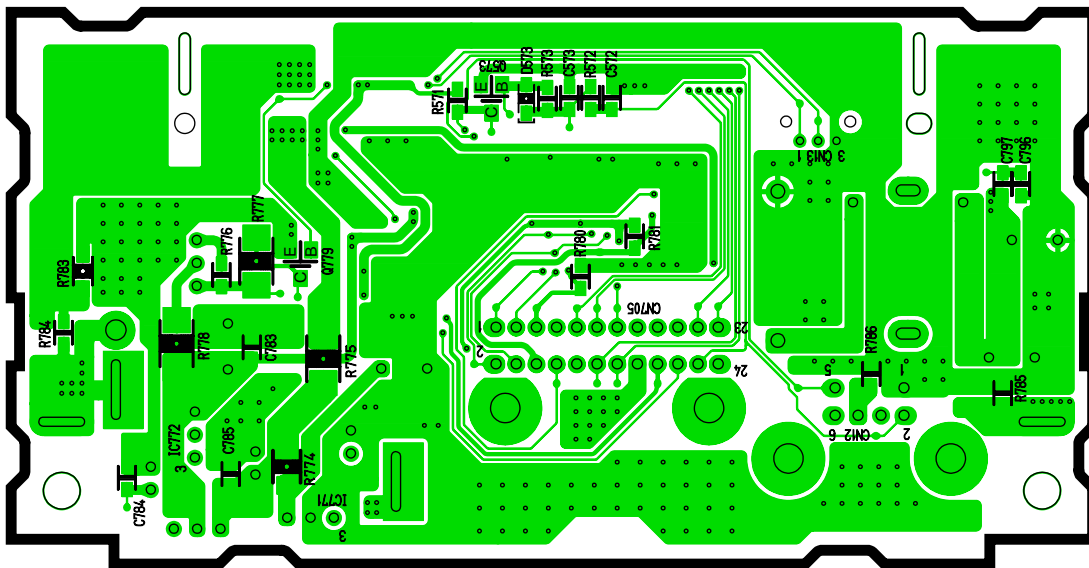
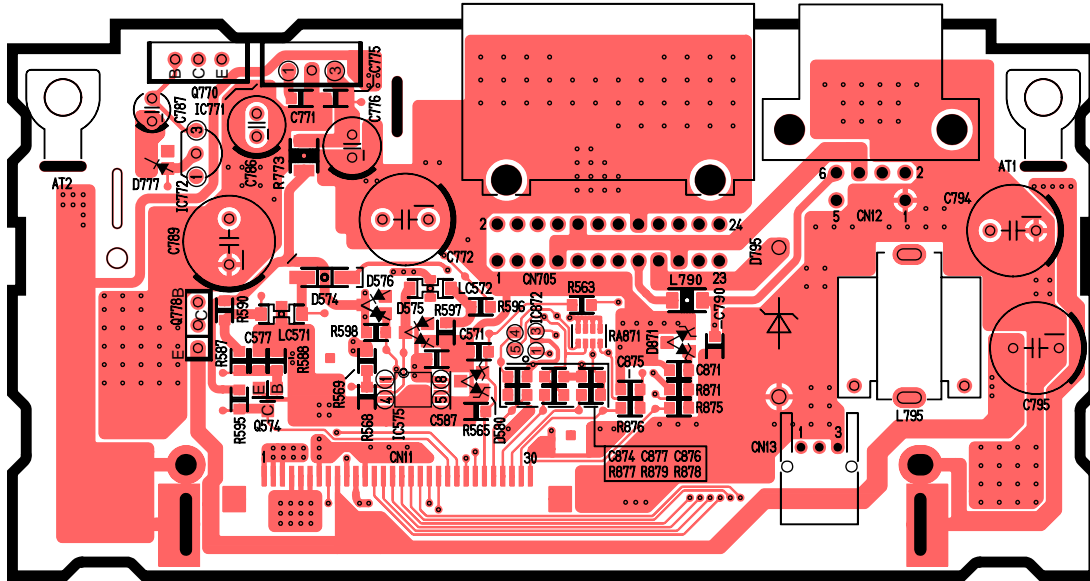
Ref. No.	Part No.	Part Name & Description	Remarks
C796	YECUB1H104KX	Ceramic, 0.1 μ F 50WV	
C797	YECUB1H104KX	Ceramic, 0.1 μ F 50WV	
C871	YECUS1H220JC	Ceramic, 22PF 50WV	
C874	YECUS1H220JC	Ceramic, 22PF 50WV	
C875	YECUS1H220JC	Ceramic, 22PF 50WV	
C876	YECUS1H220JC	Ceramic, 22PF 50WV	
C877	YECUS1H220JC	Ceramic, 22PF 50WV	
RESISTORS			
R563	ERJ6GEYJ101	Chip, 100 Ω 1/10W	
R565	ERJ6GEYJ153	Chip, 15k Ω 1/10W	
R568	ERJ6GEYJ103	Chip, 10k Ω 1/10W	
R569	ERJ6GEYJ273	Chip, 27k Ω 1/10W	
R571	ERJ6GEYJ473	Chip, 47k Ω 1/10W	
R572	ERJ6GEYJ102	Chip, 1k Ω 1/10W	
R573	ERJ6GEYJ102	Chip, 1k Ω 1/10W	
R587	ERJ6GEYJ203	Chip, 20k Ω 1/10W	
R588	ERJ6GEYJ472	Chip, 4.7k Ω 1/10W	
R590	ERJ6GEYJ122	Chip, 1.2k Ω 1/10W	
R595	ERJ6GEYJ473	Chip, 47k Ω 1/10W	
R596	ERJ6GEYJ103	Chip, 10k Ω 1/10W	
R597	ERJ6GEYJ104	Chip, 100k Ω 1/10W	
R598	ERJ6GEYJ562	Chip, 5.6k Ω 1/10W	
R773	ERJ14Y0R00H	Chip, 0 Ω 1/4W	
R774	ERJ14Y0R00H	Chip, 0 Ω 1/4W	
R775	ERJ12Y0R00H	Chip, 0 Ω 1/4W	
R776	ERJ6GEYJ473	Chip, 47k Ω 1/10W	
R777	ERJ12YJ561H	Chip, 560 Ω 1/2W	
R778	ERJ12RQJR22U	Chip, 0.22 Ω 1/2W	
R780	ERJ6GEY0R00V	Chip, 0 Ω 1/10W	
R781	ERJ6GEY0R00V	Chip, 0 Ω 1/10W	
R783	ERJ8GEY0R00V	Chip, 0 Ω 1/8W	
R784	ERJ6GEY0R00V	Chip, 0 Ω 1/10W	
R785	ERJ6GEY0R00V	Chip, 0 Ω 1/10W	
R786	ERJ6GEY0R00V	Chip, 0 Ω 1/10W	
R871	ERJ6GEYJ750	Chip, 75 Ω 1/10W	
R875	ERJ6GEYJ101	Chip, 100 Ω 1/10W	
R876	ERJ6GEYJ101	Chip, 100 Ω 1/10W	
R877	ERJ6GEYJ101	Chip, 100 Ω 1/10W	
R878	ERJ6GEYJ101	Chip, 100 Ω 1/10W	
R879	ERJ6GEYJ101	Chip, 100 Ω 1/10W	
CONNECTORS			
CN11	K1MN30B00008	Connector, 30P	
CN12	K1FA106B0010	Connector, 6P	
CN13	K1KA03B00133	Connector, 3P	
CN705	K1FA124B0007	Connector, 24P	
COILS			
L790	YELT03N101JT	Coil	
L795	YETQ016F001	Coil	
FILTERS			
LC571	YECCL41R222T	Filter	
LC572	YECCL41R222T	Filter	
Mechanical Parts			
MISCELLANEOUS			
AT1, 2	YEAT03346A	Terminal	
1	YEFA011997A	Chassis	
2	YEFA031816A	Upper Cover	
3	YEFX0215867	Bracket	
4	YEP0PT9133A0	PCB w/Component	RTL
10	YEJT01089	Tapping Screw,	
11	YEJT03015	Tapping Screw, M3x6mm	
12	YEJT03008	Tapping Screw, M3x10mm	
13	XTB3+6FFX	Tapping Screw, M3x6mm	

8 EXPLODED VIEW



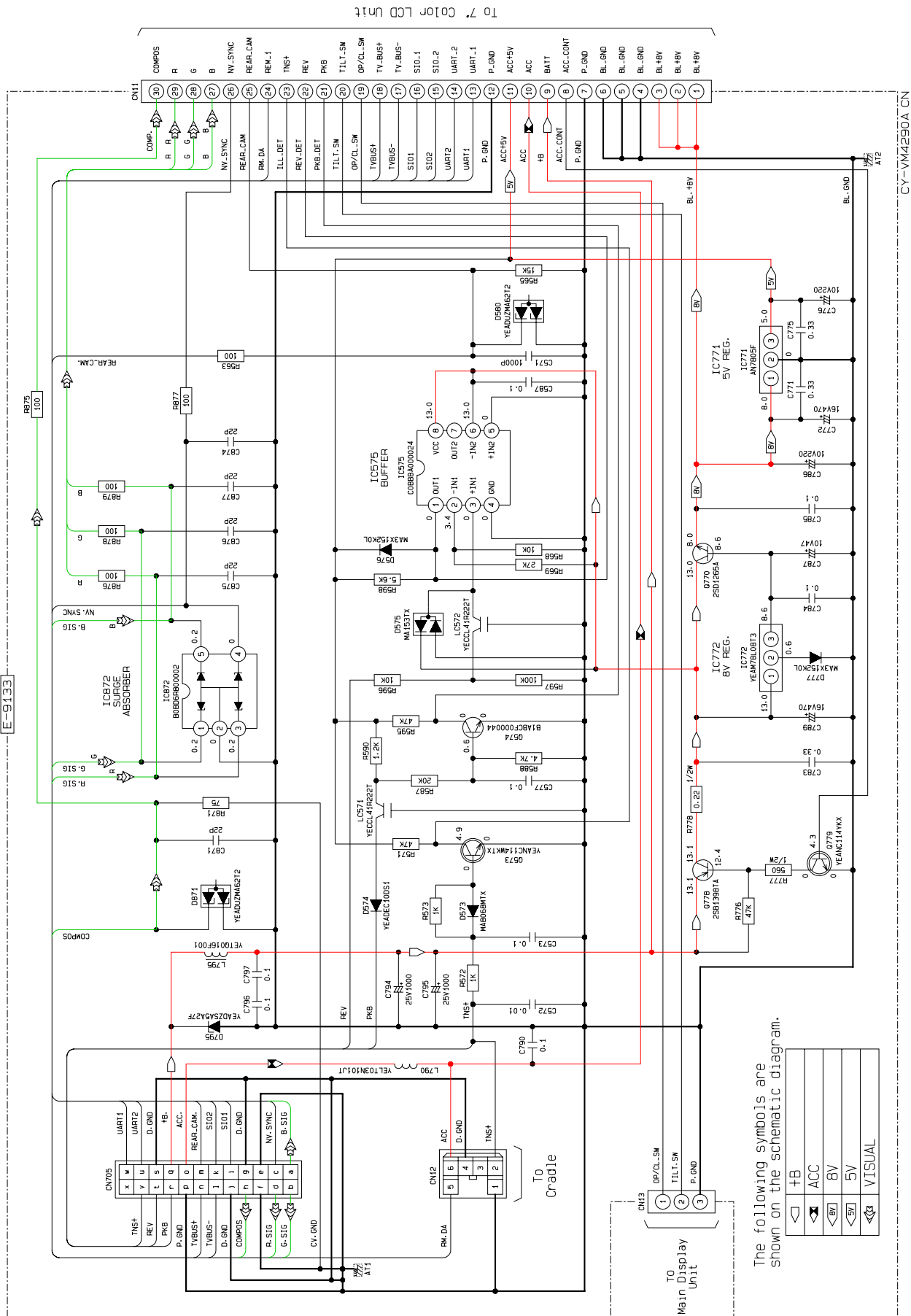
9 WIRING DIAGRAM

[E-9133][Top View]



[E-9133][Bottom View]

10 SCHEMATIC DIAGRAM



E-9133