

# Service Manual

## AUTOMOTIVE ELECTRONICS



**MAZDA**  
**CA-DM4290K**  
**CA-DM4291K**  
**CA-DM4292K**  
**CA-DM4293K**  
**CA-DM4294K**

Main Display Unit [Center Panel Module System]

VEHICLE : Mazda 6

DESTINATION : Universal

PRODUCED AFTER : Feb., 2002

### Specifications\*

Clock Display	12H/24H display
Outside Air Temperature Display	
<North America>	Fahrenheit display
<Except for North America>	Centigrade display
DIS Display Unit	
<Instantaneous Mileage>	L/100km (Mile zone : L/100mile)
<Average Mileage>	L/100km (Mile zone : L/100mile)
<The Balance of Mileage>	km (Mile zone : mile)
<Average Car Speed>	km/h (Mile zone : mile/h)

Dimensions\*\* (W×H×D) 270.3 × 41.6 × 57.4 (mm)

Weight\*\* 270g

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

\*\* Dimensions and Weight shown are approximate.

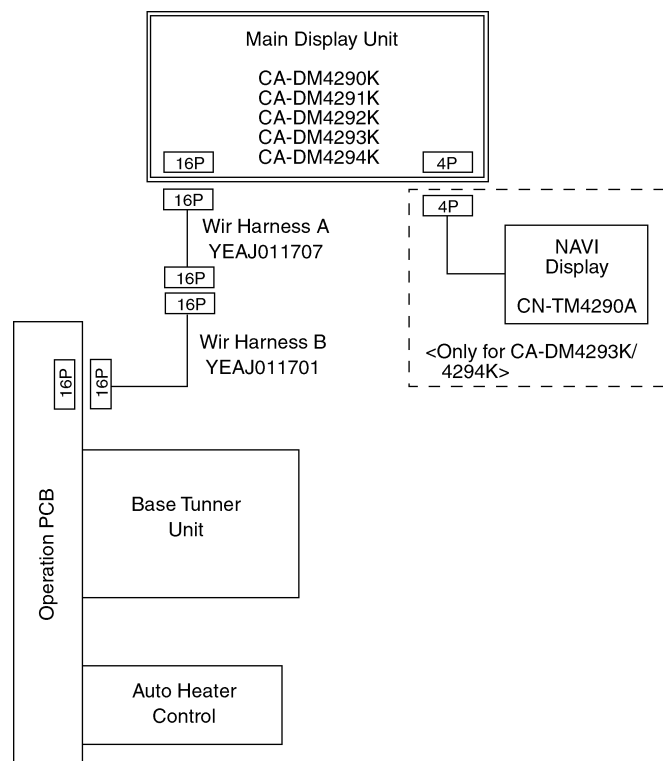
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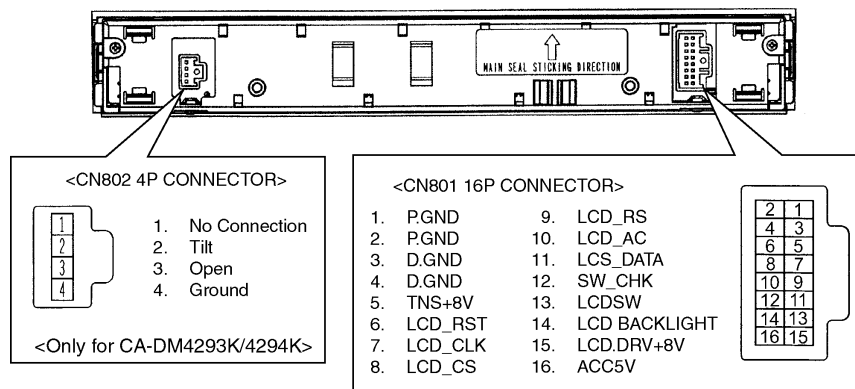
## 1 FEATUERS

- Clock display.
- Air conditioner status dispaly.
- Audio status dispaly.
- Open/Close button (CA-DM4293K/4294K).
- TILT button (CA-DM4293K/4294K).
- AMB botton (CA-DM4291K - 4294K).
- DIMMER botton.
- CLOCK and SET botton.

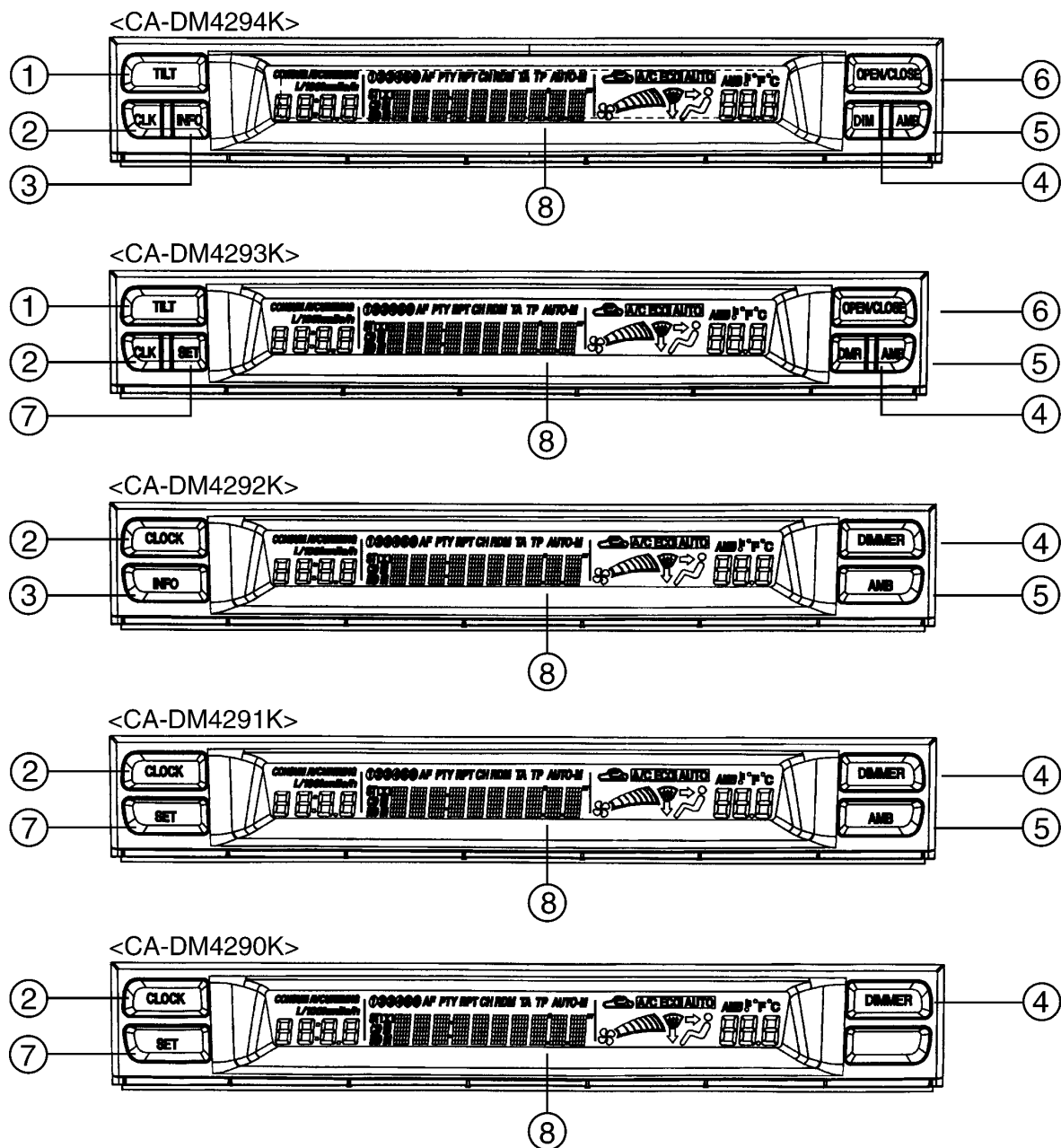
## 2 SYSTEM BLOCK DIAGRAM



## 3 REAR VIEW AND CONNECTORS

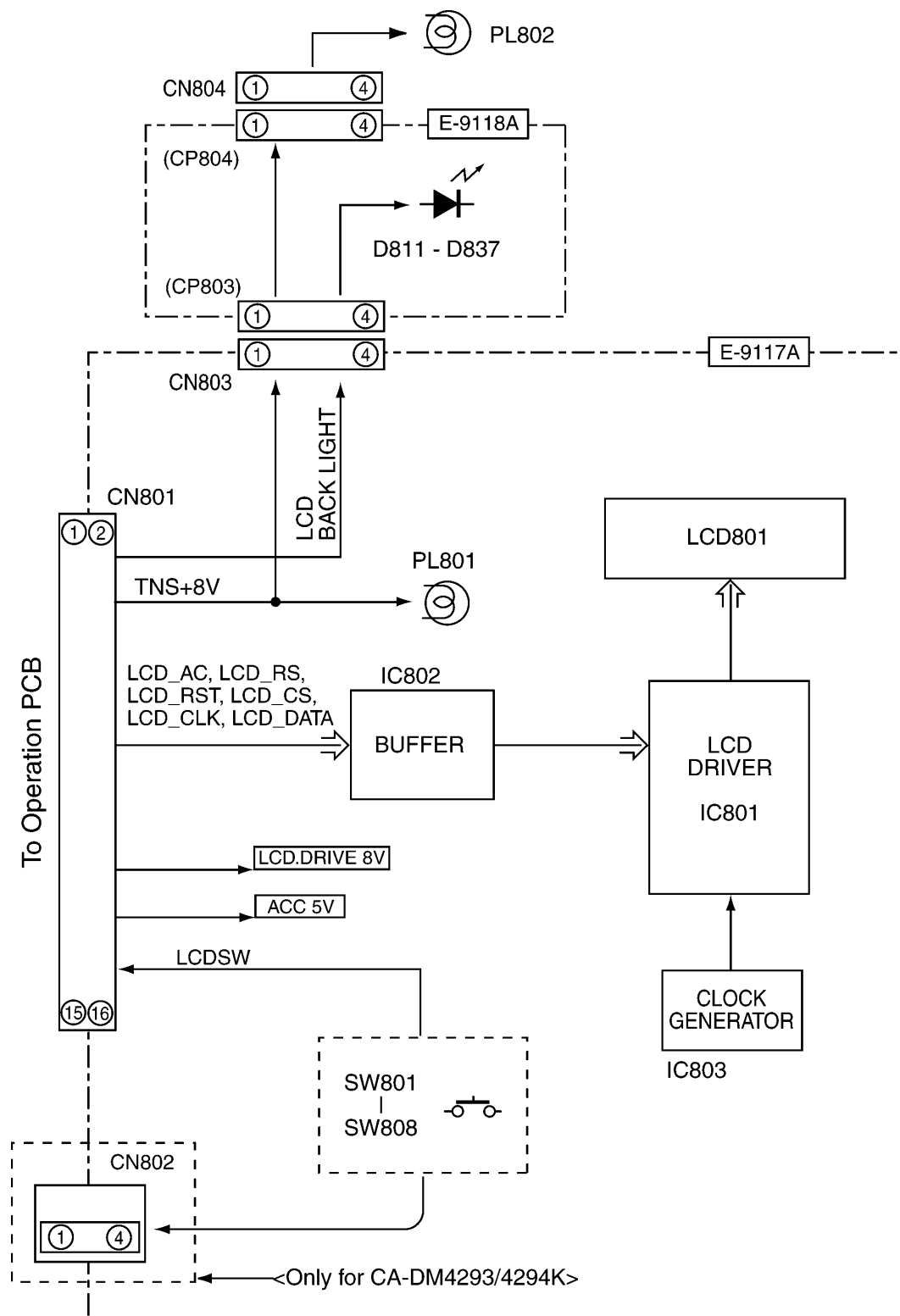


## 4 FRONT VIEW AND FUNCTIONS



- |  |   |
|--|---|
| ① TILT :<br>NAVI display angle adjustment.       | ⑤ AMB :<br>Outside temperature display.             |
| ② CLK (CLOCK) :<br>Clock adjustment mode change. | ⑥ OPEN/CLOSE :<br>NAVI display opening and closing. |
| ③ INFO :<br>Vehicle information display.         | ⑦ SET :<br>Time adjustment.                         |
| ④ DIM (DIMMER) :<br>Dimmer mode cancellation.    | ⑧ LCD display.                                      |

# 5 BLOCK DIAGRAM



# 6 TERMINALS DESCRIPTION

## IC801 C0HBA0000108

Pin No.	Port	Descriptions	I/O(V)	Vol (V)
1	VDD	+5V power supply	-	5.0
2	OSCI	Oscillator terminal	I	2.2
3	RS		I	0
4	AC		I	0
5	CS	LCD driver chip selection	I	0
6	SCL	Shift clock for LCD data	I	0
7	DATA	LCD data	I	0
8	RESET	LCD driver reset	I	0
9	INH	LCD operation inhibition	I	5.0
10-13	P0-3	Not used	-	-
14	VSS	Ground	-	0
15-21	COM1-7	LCD common signal	O	3.9
22	COMMK	LCD common signal	O	3.9
23	NC	No connection	-	-
24-98	SEG1-75	LCD segment data	O	3.9
99	VLCD2	LCD drive voltage	-	7.7
100	VLCD1	LCD drive voltage	-	6.1

# 7 REPLACEMENT PARTS LIST

Notes :

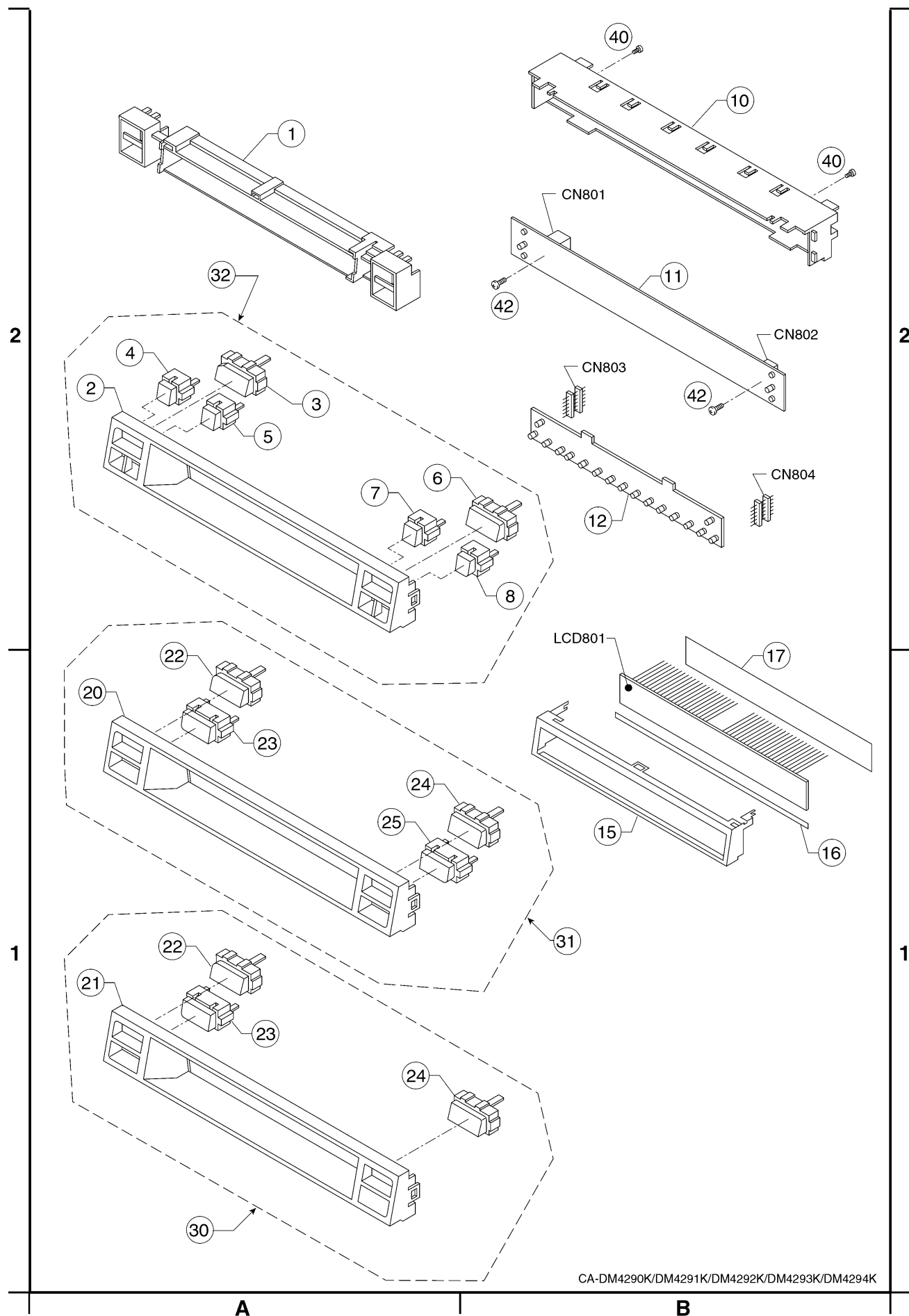
- Be sure to make your orders of replacement parts according to this list.
- Important safety notice: Components, identified by  $\Delta$  mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
- Location keys in the remarks column indicates the general location of the parts shown in the exploded drawing, as in a road map.
- 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.
- "MCC" marks in remarks column are indicated supply parts of Matsushita Communication Industrial Corp. of America (MCC).
- "A", "B", "C", "D" and "E" marks in remarks column are indicated as follows :
  - A : CA-DM4290K
  - B : CA-DM4291K
  - C : CA-DM4292K
  - D : CA-DM4293K
  - E : CA-DM4294K

Ref. No.	Part No.	Part Name & Description	Remarks
[E9117A] Display Block			
IC's and TRANSISTORS			
IC801	C0HBA0000108	IC	
IC802	C0JBAB000435	IC	
IC803	C0JBAB000044	IC	

Ref. No.	Part No.	Part Name & Description	Remarks
DIODES			
D801	YEADUZMA62T2	Diode	
D802	YEADUZMA62T2	Diode	
D803	YEADUZMA62T2	Diode	
CAPACITORS			
C802	YECUV1H104ZF	Ceramic, 0.1 $\mu$ F 50WV	
C803	YECUV1H104ZF	Ceramic, 0.1 $\mu$ F 50WV	
C804	YECUV1H104ZF	Ceramic, 0.1 $\mu$ F 50WV	
C806	YECUS1C104KX	Ceramic, 0.1 $\mu$ F 16WV	
C807	YECUS1H270JC	Ceramic, 27PF 50WV	
C809	YECUS1H270JC	Ceramic, 27PF 50WV	
C811	YECUS1H471JC	Ceramic, 470PF 50WV	
C841	YECUS1C104KX	Ceramic, 0.1 $\mu$ F 16WV	
C842	F1J1H331A025	Ceramic, 330PF 50WV	
RESISTORS			
L801	ERJ6GEY0R00	Chip, 0 $\Omega$ 1/10W	
L802	ERJ6GEY0R00	Chip, 0 $\Omega$ 1/10W	
L803	ERJ6GEY0R00	Chip, 0 $\Omega$ 1/10W	
L804	ERJ6GEY0R00	Chip, 0 $\Omega$ 1/10W	
L805	ERJ6GEY0R00	Chip, 0 $\Omega$ 1/10W	
L806	ERJ6GEY0R00	Chip, 0 $\Omega$ 1/10W	
L807	ERJ6GEY0R00	Chip, 0 $\Omega$ 1/10W	
L809	ERJ6GEY0R00	Chip, 0 $\Omega$ 1/10W	
R801	ERJ6GEY0R00	Chip, 0 $\Omega$ 1/10W	A,B,C
R802	ERJ6GEY0R00	Chip, 0 $\Omega$ 1/10W	C,E
R803	ERJ3GEYJ472V	Chip, 4.7k $\Omega$ 1/16W	
R810	ERJ6ENF1001V	Chip, 1k $\Omega$ 1/10W	
R811	ERJ6ENF1301V	Chip, 1.3k $\Omega$ 1/10W	
R812	ERJ6ENF2201V	Chip, 2.2k $\Omega$ 1/10W	
R813	ERJ6ENF3001V	Chip, 3.0k $\Omega$ 1/10W	
R814	ERJ6ENF2001V	Chip, 2.0k $\Omega$ 1/10W	
R815	ERJ6ENF3001V	Chip, 3.0k $\Omega$ 1/10W	
R816	ERJ6ENF4701V	Chip, 4.7k $\Omega$ 1/10W	
R817	ERJ6ENF8201V	Chip, 8.2k $\Omega$ 1/10W	
R818	ERJ6GEY0R00	Chip, 0 $\Omega$ 1/10W	A,B,C
R819	ERJ6GEY0R00	Chip, 0 $\Omega$ 1/10W	A,B,C
R820	ERJ6GEY0R00	Chip, 0 $\Omega$ 1/10W	A,B,C
R821	ERJ6GEY0R00	Chip, 0 $\Omega$ 1/10W	D,E
R822	ERJ6GEY0R00	Chip, 0 $\Omega$ 1/10W	D,E
R823	ERJ6GEY0R00	Chip, 0 $\Omega$ 1/10W	D,E
R824	ERJ6ENF3602V	Chip, 36k $\Omega$ 1/10W	
R825	ERJ3GEYJ102V	Chip, 1k $\Omega$ 1/16W	
R826	ERJ6GEYJ102	Chip, 1k $\Omega$ 1/10W	
R827	ERJ3GEYJ102V	Chip, 1k $\Omega$ 1/16W	
R828	ERJ6GEYJ102	Chip, 1k $\Omega$ 1/10W	
R829	ERJ3GEYJ102V	Chip, 1k $\Omega$ 1/16W	
R830	ERJ3GEYJ102V	Chip, 1k $\Omega$ 1/16W	
R843	ERJ6GEY0R00	Chip, 0 $\Omega$ 1/10W	
R846	ERJ6GEYJ105	Chip, 1M $\Omega$ 1/10W	
R847	ERJ6GEYJ332	Chip, 3.3k $\Omega$ 1/10W	
R848	ERJ6GEYJ471	Chip, 470 $\Omega$ 1/10W	
R849	ERJ6GEYJ102	Chip, 1k $\Omega$ 1/10W	
R850	ERJ6GEYJ222	Chip, 2.2k $\Omega$ 1/10W	
R851	ERJ6GEYJ102	Chip, 1k $\Omega$ 1/10W	
CONNECTORS			
CN801	K1KA16A00162	Connector, 16P	
CN802	K1KA04A00334	Connector, 4P	D,E
CN803	K1MR04A00045	Connector, 4P	
CN804	K1MR04A00045	Connector, 4P	
SWITCHES			
SW801	K0F111A00149	Switch	D,E
SW802	K0F111A00149	Switch	D,E



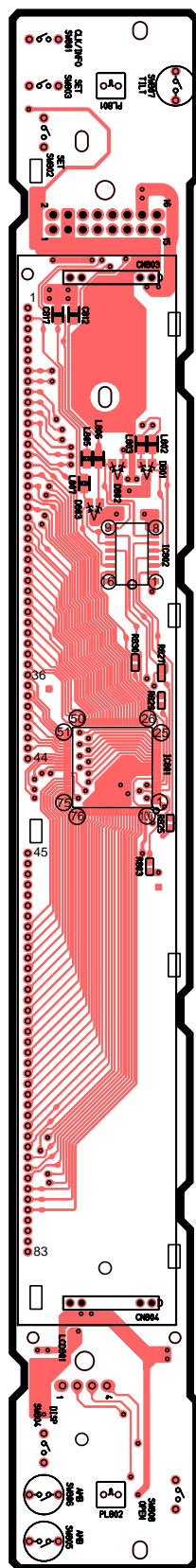
# 8 EXPLODED VIEW



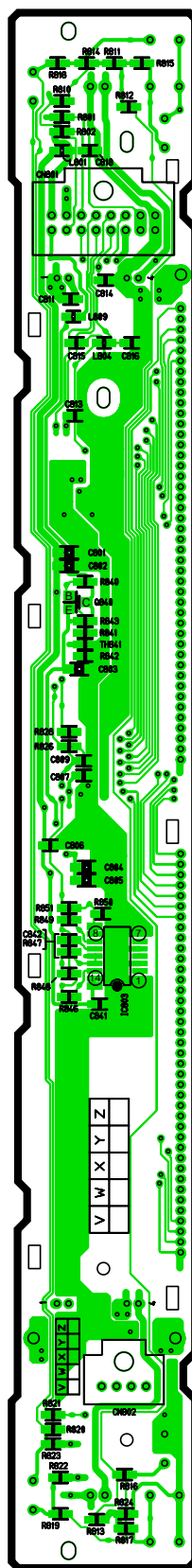
CA-DM4290K/DM4291K/DM4292K/DM4293K/DM4294K

## 9 WIRING DIAGRAM

### 9.1. Display Block



[E-9117A]  
[Top View]

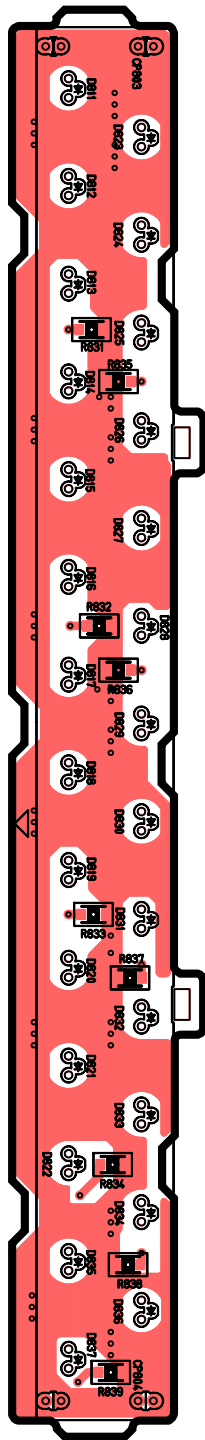


[E-9117A]  
[Bottom View]

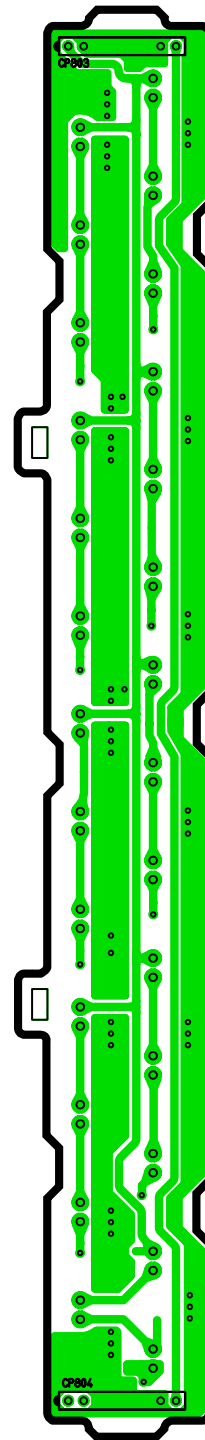
CA-DM4290K-94K DISPLY P.C.B



## 9.2. LED Block



[E-9118A]  
[Top View]



[E-9118A]  
[Bottom View]

CA-DM4290K-94K LED P.C.B

**THIS PAGE IS JUST FOR  
THE PAGE LAYOUT USE  
ONLY.**

10 SHEMATIC DIAGRAM

