

PRREPARED BY : DATE	<p style="text-align: center;"><b>SHARP</b></p> <p>LIQUID CRYSTAL DISPLAY GROUP SHARP CORPORATION</p> <p style="text-align: center;"><b>SPECIFICATION</b></p>	SPEC No. LD - 1 1 2 0 6
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		Page : 6 Page APPLICABLE GROUP Liquid Crystal Display Group

DEVICE SPECIFICATION FOR

**BACKLIGHT UNIT**

MODEL No. LQ0DDB5166

CUSTOMER'S APPROVAL

DATE \_\_\_\_\_

BY \_\_\_\_\_

PRESENTED  
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(1) Subject

LQ0DDB5166 : Literature on backlight unit for 38cm(15.0") TFT-LCD module.

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(2) Introduction

This backlight unit is a service part for 38cm TFT-LCD module (LQ150X1DG11/16) of which backlight is designed to be replaceable. This is composed with lamp unit, lamp reflector and a lamp holder.

(3) Construction and Outline

Fig. 1. is a figure of external form of lamp unit.

Fig. 2. is a figure of external form of backlight unit.

## (4) Input / Output terminals

## 4-1) I/O terminal order

Table 1

Pin No.	Symbol	i/o	Description
1	V <sub>HIGH</sub>	i	Power supply for lamp (High voltage side)
2	NC	-	No connection
3	V <sub>LOW</sub>	i	Power supply for lamp (Low voltage side)

## 4-2) I/O connector

- 1) Installed socket housing : BHR-03VS-1
- 2) Applicable connector housing : SM02(8.0)B-BHS-1  
( produced by Japan Solderless Terminal MFG CO., LTD. )

## (5) Electrical characteristics

Table 2

Ta=25°C

Parameter	Symbol	MIN.	TYP.	MAX.	Unit	Remarks
Lamp current	I <sub>L</sub>	-	-	6.0	mArms	(just for reference)
Lamp voltage	V <sub>L</sub>	-	660	-	Vrms	【Note 1】
Power consumption	W <sub>L</sub>	-	4.0	-	W	【Note 2】
Frequency	F <sub>L</sub>	20	60	70	kHz	I <sub>L</sub> =6.0mArms
Kick-off voltage	V <sub>s</sub>	-	-	1,250	Vrms	Ta=25°C
		-	-	1,450	Vrms	Ta=0°C
Lamp life	L <sub>L</sub>	30,000	50,000	-	hours	【Note 3】

【Note 1】 Available current range considering light-adjustment.

【Note 2】 Calculated value for reference (I<sub>L</sub> × V<sub>L</sub>)

【Note 3】 Lamp life terminates when the luminance under the rated power reached 50% of the initial value after the continuous operation in the room temperature.

## (6) Optical characteristics

Table 3

Ta=25°C

Parameter	Symbol	MIN.	TYP.	MAX.	Unit	Remarks
Luminance	Y <sub>L</sub>	25200	28000		cd/m <sup>2</sup>	(just for reference)
Chromaticity	X		0.295			【Note 4】
	Y		0.273			

【Note 4】 The measurement shall be executed 15~20 minutes after lighting attracted power.

The value is measured at the center of the cold cathode fluorescent tube at a viewing cone 0.1° by TOPCON luminance meter BM-7.

(7) Environmental condition

- 7-1) Operating temperature range : It is based on the conformity module.
- 7-2) Storage temperature range : It is based on the conformity module.

(8) Procedure to exchange backlight unit

Fig. 3 shows the procedure to exchange backlight unit.

\* As working, please put on the finger stall, and pay attention by the handling not to pollute the lamp.

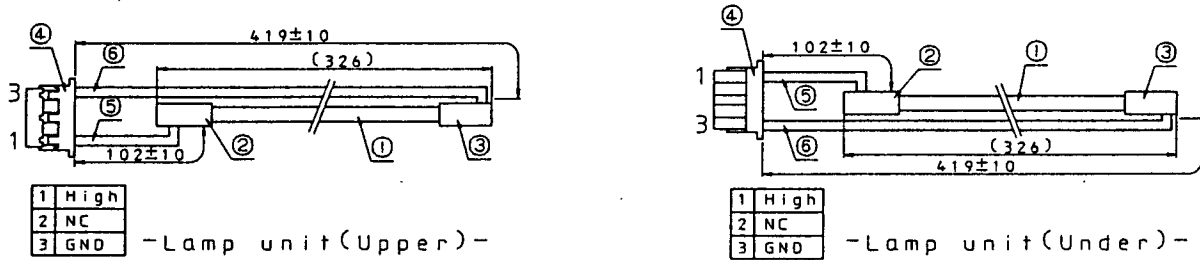
- 8-1) Make the module into a back direction, and remove the fixation screw of a backlight.
- 8-2) Pull the backlight unit to the arrow direction, and remove it.
- 8-3) Replace the backlight units for maintenance.
- 8-4) In opposite procedure, please assemble the removed parts again.

(9) Packing form

Packing form is shown Fig.4.

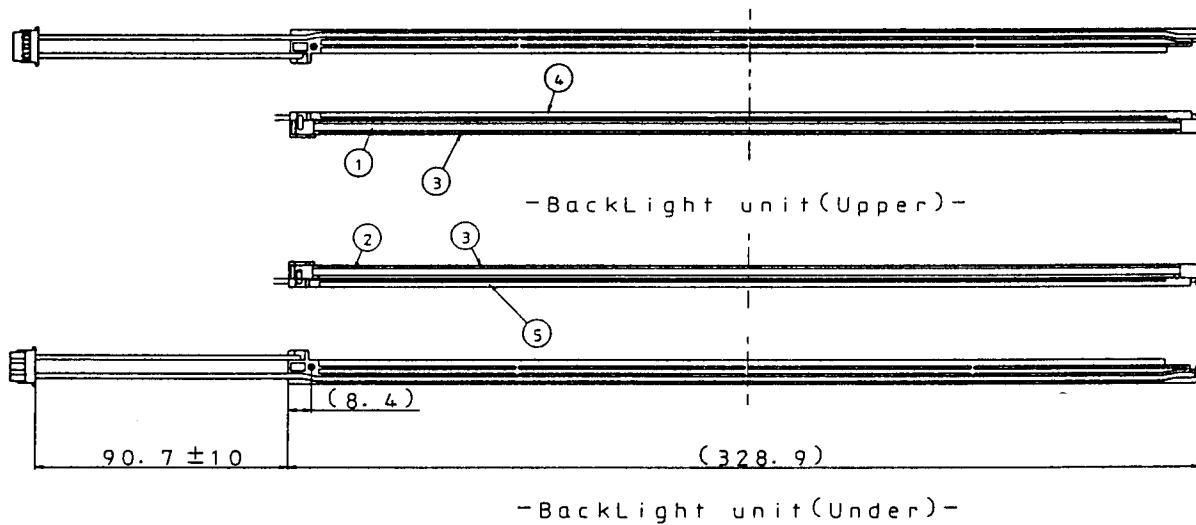
(10) Others

If any problem occurs in relation to the description in the present specifications or other relevant items, it shall be eliminated in all sincerity through discussion.



Part unit	Q'ty	Material
1 Lamp	1	φ2.6 L=321
2 Lamp rabber cushionH	1	Silicon rubber(SH502U)
3 Lamp rabber cushionG	1	Silicon rubber(SH502U)
4 Connector	1	BHR-03VS-1(JST)
5 WireH	1	UL10267W Pink
6 WireG	1	UL10267W White

Fig. 1. Outline drawing of lamp unit



Part unit	Q'ty	Material
1 Lamp unit(Upper)	1	φ2.6 L=321
2 Lamp unit(Under)	1	φ2.6 L=321
3 Lamp reflecter	2	PET
4 Lamp holder(Upper)	1	PC(GF10%) White
5 Lamp holder(Under)	1	PC(GF10%) White

Fig. 2. Outline drawig of BackLight unit

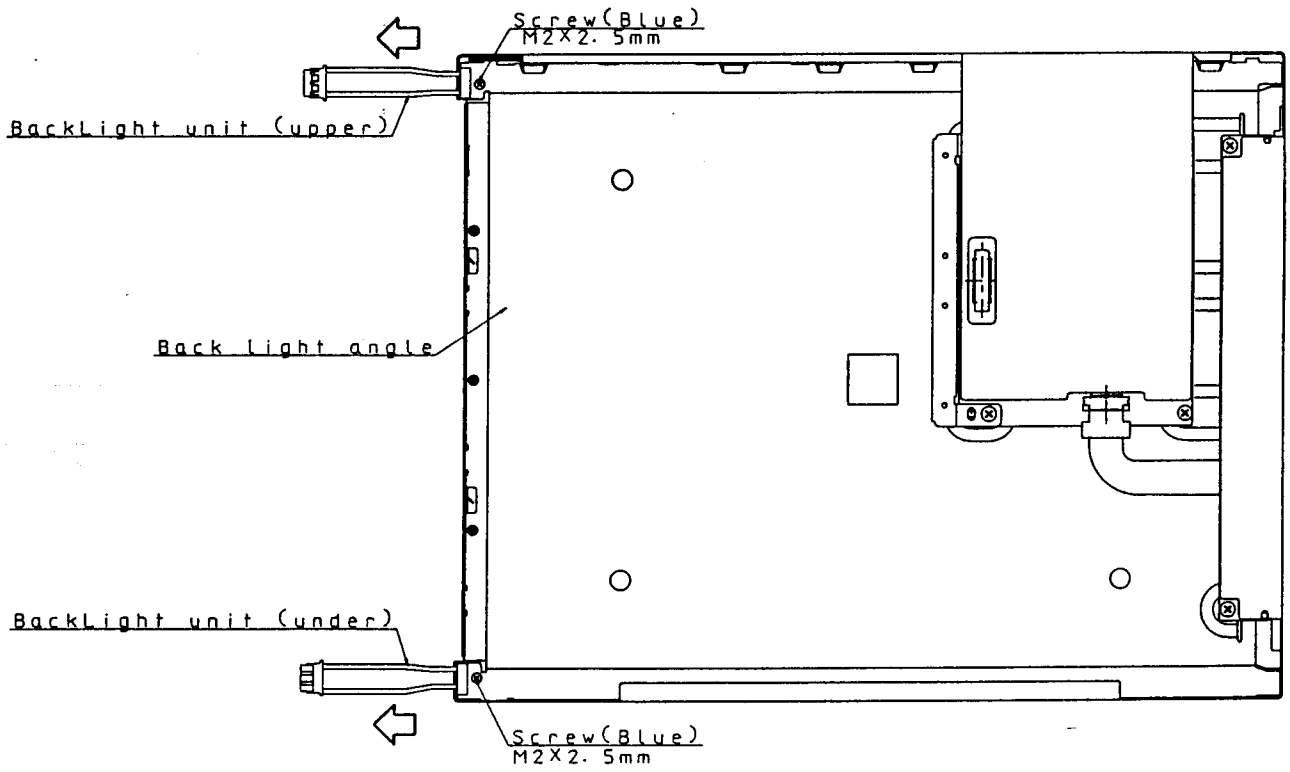
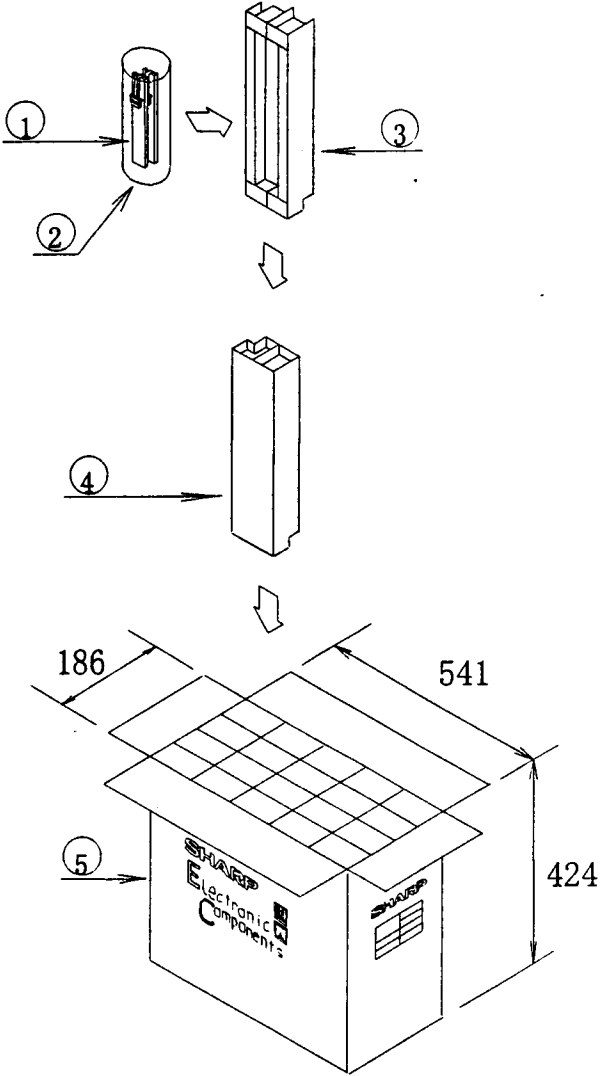


Fig. 3



No.	Part unit	Q'ty
1	Lamp Unit × 2	20set
2	Air cap sheets	20
3	Bumper	20
4	Unit Carton	20
5	Master Carton	1

20 units in each carton  
 Total weight (g) : 4,000 g

TYPE	LQ0BDD5166
QUANTITY	20
LOT(DATE)	

Fig. 4. Package form



CCFT, Backlight, LQ0DDB5166