

# TECHNICAL BULLETIN

**[Issue No.]** T10-0022  
**[Title]** Guidelines for backlight replacement  
**[Relevant Models]** A975GOT, A970GOT

**[Page]** 1/6  
**[Date of Issue]** July, '02

Thank you for your continued support of Mitsubishi Graphic Operation Terminal GOT Series.

This bulletin provides guidelines for replacing GOT backlight; some models include backlights that cannot be replaced as before.

Refer to “3. Backlight replacement” for replacing the backlight of the models listed in “1. Model list”.

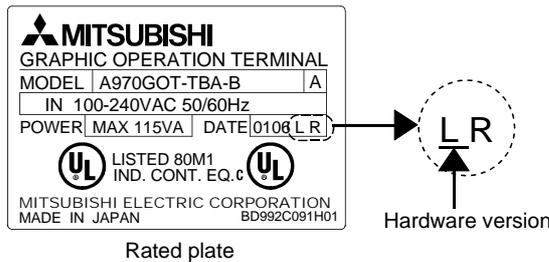
## 1. Model list

Please replace the backlight of the following models according to “3. Backlight replacement”.

Product name	Model	Hardware version
A975GOT	A975GOT-TBA-B	Version L (2001, June) to Q (2002, April)
	A975GOT-TBD-B	Version L (2001, June) to P (2002, April)
	A975GOT-TBA	Version L (2001, June) to Q (2002, April)
	A975GOT-TBD	Version L (2001, June) to P (2002, April)
A970GOT	A970GOT-TBA-B	Version L (2001, June)to Q (2002, April)
	A970GOT-TBD-B	Version L (2001, June)to P (2002, April)
	A970GOT-TBA	Version L (2001, June)to Q (2002, April)
	A970GOT-TBD	Version L (2001, June)to P (2002, April)
	A970GOT-SBA	Version L (2001, June)to R (2002, April)
	A970GOT-SBD	Version L (2001, June)to Q (2002, April)
	A970GOT-LBA	Version L (2001, June)to R (2002, April)
A970GOT-LBD	Version L (2001, June)to Q (2002, April)	

## 2. Checking hardware version

The GOT hardware version is located on the rating plate at the rear of the GOT.



## TECHNICAL BULLETIN

**[Issue No.]** T10-0022

**[Title]** Guidelines for backlight replacement

**[Relevant Models]** A975GOT, A970GOT

**[Page]** 2/6

**[Date of Issue]** July, '02

### 3. Backlight replacement

(1) Precautions for backlight replacement

This section explains the precautions for backlight replacement.

- (a) Be sure to externally shut off all phases of GOT power supply and remove the GOT from the panel before backlight replacement. (In addition, externally shut off the all phases of PLC CPU power supply, if the GOT is bus-connected).  
Failure to observe this instruction may cause electric shock or injury due to the panel falling.
- (b) Do not touch the printed board or electric components of the GOT during backlight replacement.  
This may cause trouble or malfunction.
- (c) Wear gloves while replacing backlight to prevent injury.
- (d) Start backlight replacement five or more minutes after the GOT power supply is shut off.  
Failure to observe this instruction may cause burn injury due to the backlight heat.
- (e) Remove the static electricity on your body in advance, since it may cause breakdown.
- (f) Do not touch the liquid crystal display, frame or electronic parts, not to rust them.  
If you accidentally touch the parts, remove fingerprints from the surface with a soft cloth.  
If dust has lain on the parts, remove it using adhesive material such as tape.  
Do not use cleanser for them.

(2) Requirement for backlight replacement

Prepare the following items for backlight replacement.

- Driver
- Gloves
- Sheet (to prevent liquid crystal display from being scratched or dirty.)

**[Issue No.]** T10-0022  
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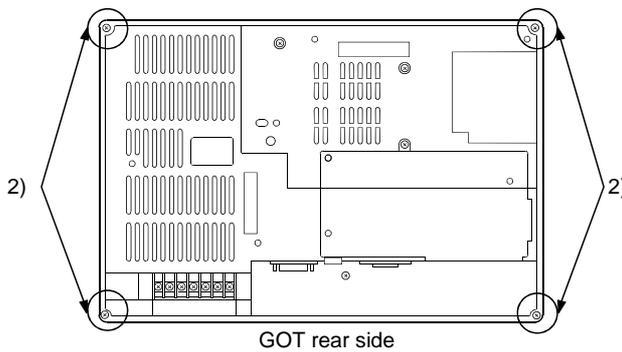
**[Page]** 3/6  
**[Date of Issue]** July, '02

(3) Backlight replacement procedure

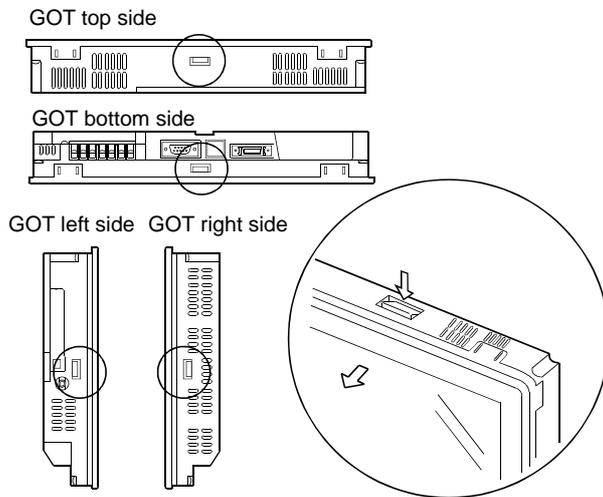
This section explains how to replace the backlight of the models shown in “1. Model list”.

Remove the screws recognizing each size during backlight replacement, since they have different sizes depending on the mounted positions.

Be sure to store the screws by size after removing them.



- 1) Remove the connector cover for RS-232C interface, printer interface or communication module, if it has been mounted to the GOT. Also, remove the wires connecting cable, various modules or terminal block to the GOT, if the wiring has been installed.
- 2) Unscrew four fixing screws on the GOT rear side with a driver. (They cannot be completely removed.)  
 (Tightening torque range: 36 to 48N•cm)



- 3) Remove the display cover from the GOT while pressing four fixing tabs, which are situated on top/bottom/right/left sides of the GOT.

A flat cable is attached under the fixing tab on the top side of the GOT.

Take care not to apply excessive force on the fixing tabs while pressing them with a driver or similar device. Failure to observe this instruction may damage them.

Be sure not to apply excessive pressure on the GOT case, which is made of resin. Failure to observe this instruction may also damage them.



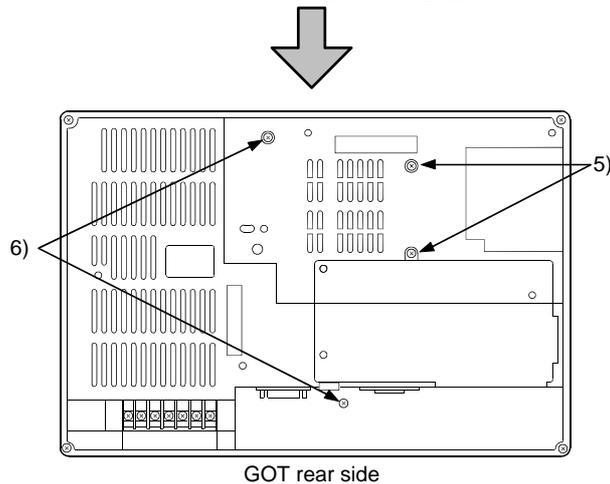
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## TECHNICAL BULLETIN

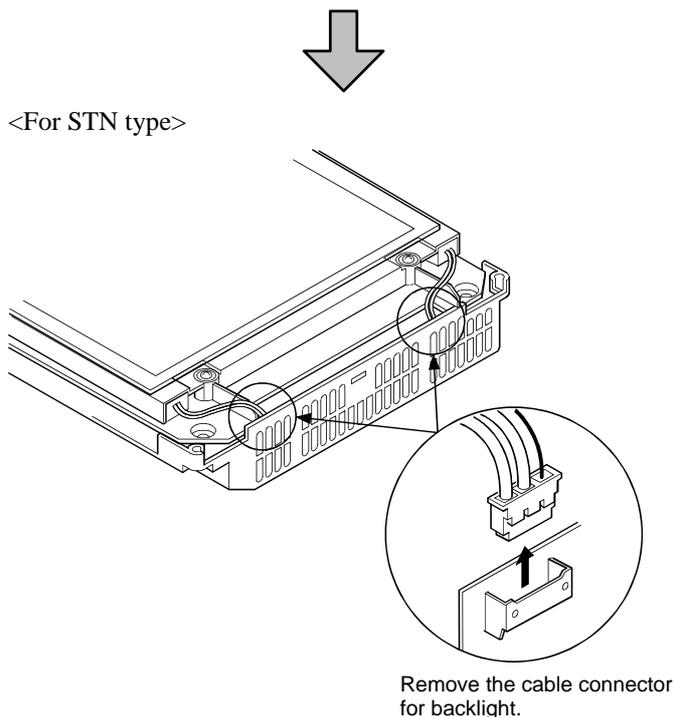
[Issue No.] T10-0022  
[Title] Guidelines for backlight replacement  
[Relevant Models] A975GOT, A970GOT

[Page] 4/6  
[Date of Issue] July, '02

(Continued from previous page)



- 4) Put the GOT on the liquid crystal display side. Keep the liquid crystal display away from scratch or dirt by laying a sheet on the work table in advance.
- 5) Remove two screws from the rear side. ((M2.6 screw)10 to 13N•cm)
- 6) Remove two screws from the rear side. ((M3 screw)18 to 24N•cm)  
Please note that the screws are different in size.



- 7) Put the liquid crystal display side up and then remove the cable connector for backlight.

A97□GOT-TB□ (-B):

Remove one connector on the top side.

A970GOT-SB□, A970GOT-LB:

Remove two connectors on the top and bottom sides.

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## TECHNICAL BULLETIN

[Issue No.] T10-0022

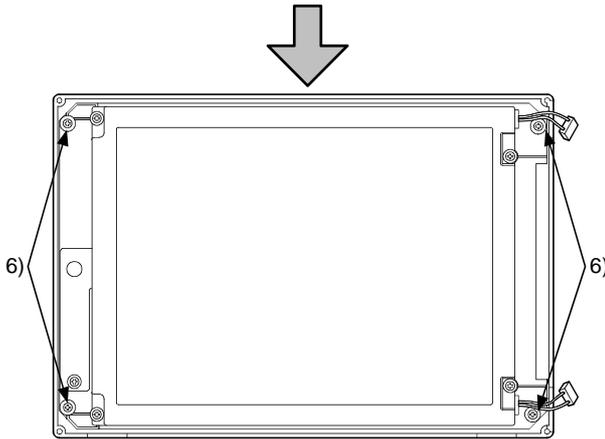
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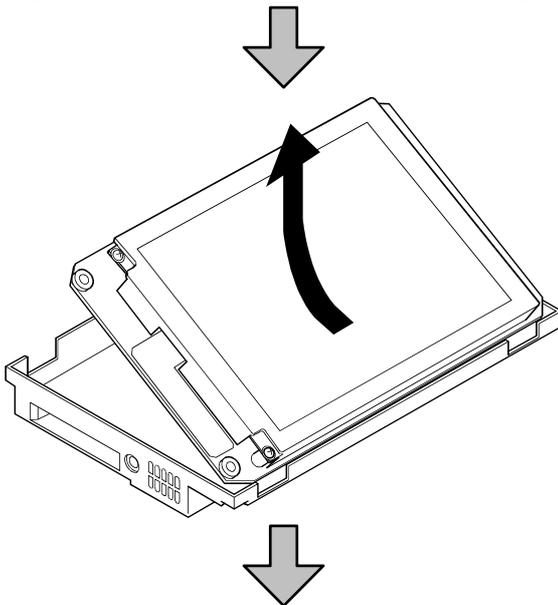
[Page] 5/6

[Date of Issue] July, '02

(Continued from previous page)



- 8) Remove four screws (chassis mounting screw) on the outmost side.  
(Tightening torque range: 36 to 48N•cm)



- 9) Remove the liquid crystal display and circuit board from the rear case by holding up the top side.

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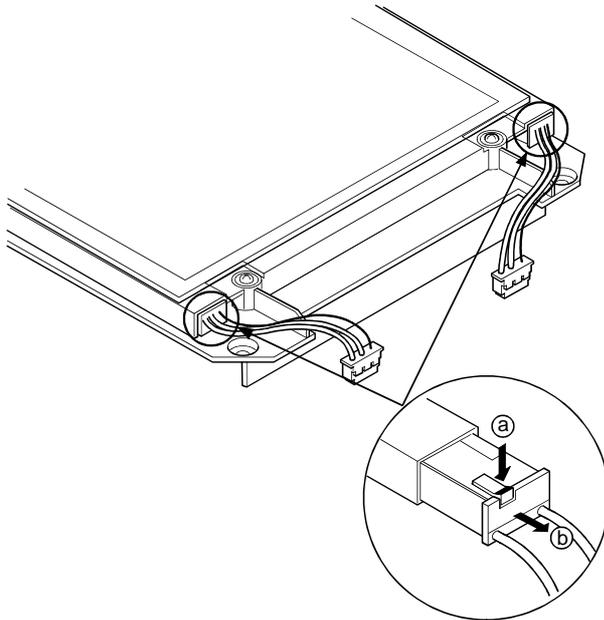
[Page] 6/6

[Date of Issue] July, '02

(Continued from previous page)



<For STN type>



Pull out the backlight in (b) direction pressing the fixing tab (black) in (a) direction.

- 10) Remove the backlights keeping the liquid crystal display up.  
Keep the liquid crystal display away from scratch or dirt by laying a sheet on the work table in advance.

A97□GOT-TB□ (-B):

Remove one backlight on the top side.

A970GOT-SB□, A970GOT-LB□:

Remove two backlights on the top and bottom sides.

- 11) Mount new backlight(s) in a reverse order to the removal procedures.  
Then, mount the liquid crystal display, circuit board and display cover in a reverse order as well. \*1  
Be sure to securely mount the liquid crystal display, circuit board and display cover, and tighten the fixing screws within the specified torque range.

\*1 Pay full attention to the followings while mounting the liquid crystal, circuit board and display cover.

- Insert the GOT connectors and terminals into the corresponding holes on the rear case when mounting liquid crystal and circuit board onto it.
- Be sure to gently tighten the screws mentioned in 8) and 2), and then retighten them within the specified torque range.
- Insert the cable connectors for backlights completely, making sure that it is correctly mounted.
- Attach the display cover taking care that the flat cable is not pinched between the GOT and display cover.
- Remove the dust from the liquid crystal display or inside of the front panel.

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