

Service
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Service Manual

SAFETY NOTICE

ANY PERSON ATTEMPTING TO SERVICE THIS CHASSIS MUST FAMILIARIZE HIMSELF WITH THE CHASSIS AND BE AWARE OF THE NECESSARY SAFETY PRECAUTIONS TO BE USED WHEN SERVICING ELECTRONIC EQUIPMENT CONTAINING HIGH VOLTAGES.

CAUTION: USE A SEPARATE ISOLATION TRANSFORMER FOR THIS UNIT WHEN SERVICING

Important Safety Notice

Proper service and repair is important to the safe, reliable operation of all DELL Company Equipment. The service procedures recommended by DELL and described in this service manual are effective methods of performing service operations. Some of these service operations require the use of tools specially designed for the purpose. The special tools should be used when and as recommended.

It is important to note that this manual contains various CAUTIONS and NOTICES which should be carefully read in order to minimize the risk of personal injury to service personnel. The possibility exists that improper service methods may damage the equipment. It is also important to understand that these CAUTIONS and NOTICES ARE NOT EXHAUSTIVE. DELL could not possibly know, evaluate and advise the service trade of all conceivable ways in which service might be done or of the possible hazardous consequences of each way. Consequently, DELL has not undertaken any such broad evaluation. Accordingly, a servicer who uses a service procedure or tool which is not recommended by DELL must first satisfy himself thoroughly that neither his safety nor the safe operation of the equipment will be jeopardized by the service method selected.

Hereafter throughout this manual, DELL Company will be referred to as DELL.

WARNING

Use of substitute replacement parts, which do not have the same, specified safety characteristics may create shock, fire, or other hazards.

Under no circumstances should the original design be modified or altered without written permission from DELL. DELL assumes no liability, express or implied, arising out of any unauthorized modification of design.

Servicer assumes all liability.

FOR PRODUCTS CONTAINING LASER:

DANGER-Invisible laser radiation when open. AVOID DIRECT EXPOSURE TO BEAM.

CAUTION-Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

CAUTION -The use of optical instruments with this product will increase eye hazard.

TO ENSURE THE CONTINUED RELIABILITY OF THIS PRODUCT, USE ONLY ORIGINAL MANUFACTURER'S REPLACEMENT PARTS, WHICH ARE LISTED WITH THEIR PART NUMBERS IN THE PARTS LIST SECTION OF THIS SERVICE MANUAL.

Take care during handling the LCD module with backlight unit

- Must mount the module using mounting holes arranged in four corners.
- Do not press on the panel, edge of the frame strongly or electric shock as this will result in damage to the screen.
- Do not scratch or press on the panel with any sharp objects, such as pencil or pen as this may result in damage to the panel.
- Protect the module from the ESD as it may damage the electronic circuit (C-MOS).
- Make certain that treatment person's body is grounded through wristband.
- Do not leave the module in high temperature and in areas of high humidity for a long time.
- Avoid contact with water as it may a short circuit within the module.
- If the surface of panel becomes dirty, please wipe it off with a soft material. (Cleaning with a dirty or rough cloth may damage the panel.)

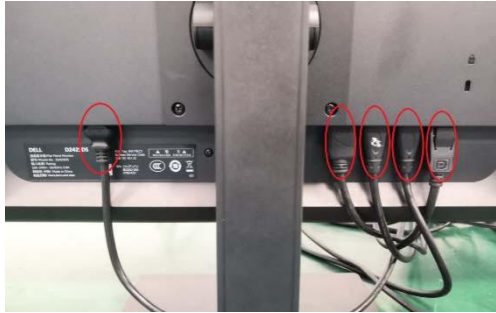
1. Mechanical Instruction

DELLD2421DS 1

1 Disassembly Procedures:

S1 Turn off power

S2 Unplug external cables from product



S3 Remove stand from product: use a screwdriver to remove six screws out



(No.1-4 screw size=M4x12; Torque=7.5-8.5kgfxcm
No.5-6 screw size=M3x6; Torque=5-6kgfxcm.)

S4 Wedge plastic picks between the rear cover and the middle bezel on the corners of the bottom side of the monitor to release the rear cover, then pull up carefully the rear cover in order of arrow preference for unlocking mechanisms of rear cover.



S5 Put it on a protective cushion and remove the rear cover.



- S6** Tear off 4 pieces of aluminum foil (pic.7.1) then disconnect the keypad cable from the connectors of the main board(pic.7.2). Tear off 2 pieces tape, disconnect the backlight cable from the connectors of the power board and panel module(pic.7.3).



Pic.7.1



Pic.7.2

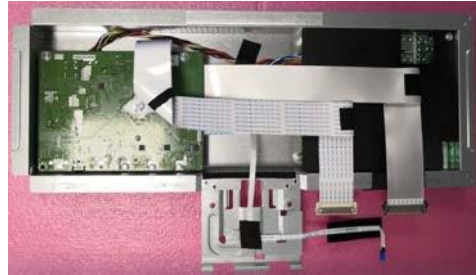


Pic.7.3

- S7** Disconnect the LVDS cable from the connectors of the main board and panel module



- S8** Lift up the bracket chassis module and put it on a protector cushion. Please pay attention to ESD protection(wear ESD ring and so on).

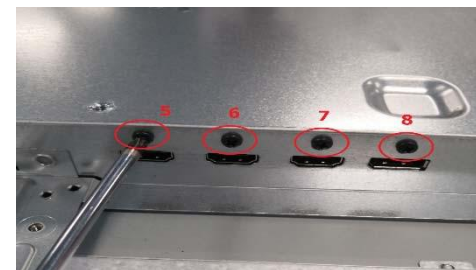


Pic.9.1

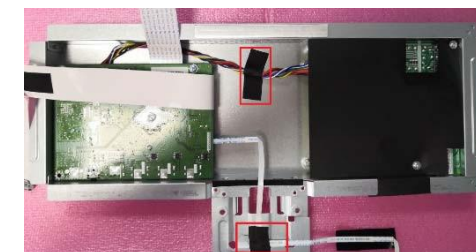
- S9** Turn over the bracket chassis. Use a screwdriver to remove 8 screws(bottom side*4,inside*4) (Pic.9.1&2), Tear off the black tape(Pic.9.3) (No.1-8 screw size=M3x6; Torque=4.5-6.5 kgfxcM)



Pic.9.1

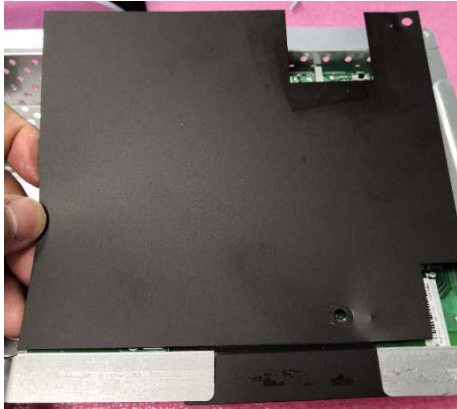


Pic.9.2



Pic.9.3

S10 Take off the mylar



S11 Use a screwdriver to remove last 2 screws for unlocking the power board, then remove the board from the hooks of the bracket chassis.

(No.1-2 screw size=M3x6, Torque=4.5-6.5kgfxc



S12 Use a Philips-head screwdriver to remove 9 screws for unlocking the bezel, then remove bezel

