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Directions for replacing the display set for digital viewer model 18-04-D55



If for some reason the LCD inside the 3D digital viewer is damaged or not working properly, it might be necessary to replace the electronic parts.

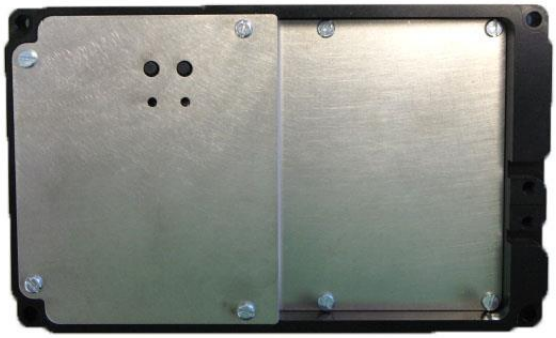
This manual describes the steps to be taken to replace the display set for digital viewer model 18-04-D55.
The set holds the 5.5” LCD panel or double LCD set, as well as the HDMI controller. All fixed in a plastic frame that fits inside the rear digital viewer enclosure.

Warnings:

- Avoid touching the visible LCD panel. You can clean the surface with a soft brush or, when finger prints are visible, rub very light with a soft cloth to remove it.
- Avoid the sun light to enter the viewer though the lenses, they act like burning glasses and might damage the LCD.
- Avoid forces on the flex cable that connects the controller to the LCD.

Step one:

- Disconnect all the cables to the viewer. Also take them out of the cable relieve.



- Unscrew the 4 screws that covers the controller with the 2 buttons first. (M3x6)
- Take this cover away and the controller becomes visible. A small thermal pad might stick to the cover. You should leave that on. It is needed for the replacement Display set.
- Unscrew the 4 screws that covers the right side of the viewer (M3x6, see above image).
- Find a way to lift the right side of the cover and tilt about 45 degrees. Then pull it to the right to release it from the connectors of the controller.



- Unscrew the 2 screws above and below the controller (M3x5).

- Gently pull with your fingers on the side of the controller board upwards.



It might need a little force to pull it upwards, the set is fixed accurate in its seat. If it won't move, push it back and try again, all gently.

To replace this set for the new set, just insert it in the same orientation in the rear of the viewer. The re- assembly is achieved in reversed steps as described above.

A new Display set needs an optical check and adjustment.

The best way to get the new Display ready to work together with the viewer enclosure is to check visually through the lenses. Two things might need attention:

1. Dust. During the reassembly dust might have entered the viewer or was already there on the surface of the LCD.
2. Miss alignment of the optical splitter between left and right path.

First apply a source to the viewer showing a 3D image or, when using the Raspberry pi, showing the test image with the white jigsaw line in the middle.



Splitter miss alignment:

The image above indicates a miss alignment of the splitter to the left.

Take the lens barrels out of the front of the viewer by unscrewing them (they should be locked by a small screw on the side of the viewer enclosure so you need to release these as well).

With your fingers, you can push the image splitter through the left lens barrel opening to the right. It will bend a little.
Check if that push / bend is enough to have the splitter aligned right in the middle of the jigsaw

Removing dust.

The easiest way to remove dust inside the viewer, on the LCD, is to blow with compressed air through the holes for the lens barrels. Lower the pressure to a level that it won't result in a lot of force on the LCD. Also clean the thread of the lens barrels.

If the dust won't come off from the LCD, you can apply a soft brush before blowing air.

When inserting the lens barrels in the enclosure again with screwing, it often happens that small miniscule flakes drop on the LCD again. Keep the viewer horizontal when inserting the barrels.