

Cleaning the new plasma deposition silicon dioxide, niobium pentoxide coated screen.

These tests were performed on the late 2012 iMac, February 8, 2013.
 iMac13,1 - MD093XX/A; iMac13,1 - MD094XX/A (21.5 inch)
 iMac13,2 - MD095XX/A; iMac13,2 - MD096XX/A (27 inch)

The following cleaning solutions and cloths are used in the screen cleaning test.

- A) Highly filtered water (5 micron sediment filter, 5 micron carbon block filter, 1 micron VOC/carbon block filter and reverse osmosis filter).
- B) 50/50 solution of isopropyl alcohol 70% and highly filtered water.
- C) Highly filtered water with wetting agent (0.05 ml in 240 ml water ≈ 0.02% solution).
- D) iKlear (batch 1360).

All cloths are microfiber with filament size < 0.2 denier.

- a) MCK - micro fiber 'chamois style' cloth.
- b) MKK - micro fiber 'terry style' cloth.
- c) DMT - micro fiber dual textured antimicrobial cloth.

Cleaning Procedure

The iMac was turned off and allowed to cool for 10 minutes. Before starting the final test, the screen was divided into six areas (figure 1). Each area to be cleaned using the assigned solution and cloth.

- 1) Spray two puffs of cleaning solution on the cloth.
- 2) Clean area of screen.
- 3) Turn cloth to dry portion and polish using firm pressure.
- 4) Inspect job.
- 5) Additional polishing/buffing as required.

PRELIMINARY TEST: In a preliminary test I cleaned sections of the 27 inch iMac using the various solutions prepared. I eliminated the water and wetting agent solution (C) as it required the most work to dry the surface. Extreme care needed to be taken to get a good result.

The plain water solution (A) was also eliminated. While fairly effective in removing dust, once the surface was dry additional polishing generated static attracting more dust.

TEST RESULTS

3) Dry cloth was the least effective at cleaning a screen with dust, fingerprints and dried cleaning solution. The dry cloth generated static which will attract more dust.

2) 50/50 Water and isopropyl alcohol was effective and left the least amount of residue but also left the screen without an anti-static finish necessitating more frequent cleaning due to static build up.

1) iKlear and the MKK cloth with its larger surface area and the DMT cloth proved to be the best combinations. The MCK cloth also proved effective but required more work for a satisfactory result.

Note: Excellent results were obtained when enough time and effort was used to *finish* the job. Additional polishing may be required. Second, bringing a dirty cloth to start the job will not produce good results.

CLEANING SOLUTIONS AND CLOTHS



Control	Water	iKlear
Dry DMT	MKK	MKK
Dry MKK	MCK	DMT


Figure 1

SCREEN SHOTS



Both pictures are overexposed to show surface dirt, fingerprints etc.