CLAIMS

1. A filter assembly for an active field polarized media air cleaner comprising:

a conductive screen that conducts a high voltage therethrough;

a probe that delivers voltage to the conductive screen; and

a conductive patch attached to the conductive screen, wherein the probe delivers the high voltage to the conductive screen through the conductive patch, wherein the patch has rounded edges and is a distinct element from the conductive screen, while attached thereto.

2. The filter assembly of claim 1, further comprising filter media located on either side of the conductive screen.

3. The filter assembly of claim 2, further comprising ground screens on either side of the conductive screen.

4. The filter assembly of claim 3, further comprising an insulating element attached to at least one of the ground screens in an area of the ground screen near the probe, wherein the insulating element prevents a short of the high voltage to ground.

5. The filter assembly of claim 2, wherein the filter media include a hole therethrough, wherein the probe extends through the hole to contact the conductive patch.

6. The filter assembly of claim 1, further comprising a ground screen that grounds the assembly.

7. The filter assembly of claim 1, wherein the conductive patch comprises an aluminum foil.

8. The filter assembly of claim 1, wherein the conductive patch comprises a metal sheet.

9. The filter assembly of claim 1, wherein the conductive patch comprises a conductive plastic.

10. The filter assembly of claim 1, wherein the conductive patch comprises a conductive portion attached to a backing.

11. The filter assembly of claim 1, wherein the patch comprises splines reaching outwards from a central portion.

12. The filter assembly of claim 1, wherein the probe and conductive patch engage one another through an adhesive.

13. The filter assembly of claim 1, further comprising a second conductive patch applied to an opposite side of the conductive screen, wherein each patch comprises a conductive portion.

14. The filter assembly of claim 13, wherein the second conductive patch is in electrical contact with the conductive patch.

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15. The filter assembly of claim 13, wherein the second conductive patch is adhesively connected to the conductive patch through gaps in the conductive screen.

16. The filter assembly of claim 1, further comprising an insulating spacer on an opposite side of the conductive screen.

17. The filter assembly of claim 1, wherein the conductive patch is adhesively attached to the conductive screen.

18. The filter assembly of claim 1, wherein the conductive patch is oblong.

19. The filter assembly of claim 1, wherein the conductive patch is attached to a center of the conductive screen.

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