CLAIMS

1. A Multi-Piece Insert device for an Ophthalmic Lens comprising:

at least a first insert Back Curve Piece;

at least a first insert Front Curve Piece;

a conductive material upon one or both of the first insert Front Curve Piece and first insert Back Curve Piece;

an electronic component attached to one or both of the first insert Front Curve Piece and first insert Back Curve Piece, wherein an attachment is made at least in part to the conductive material;

a first self-locking feature which fixedly holds the first insert Back Curve Piece in a relative position to the first insert Front Curve Piece, wherein a combining causes the first self-locking feature to seal a first cavity interior to the combination of the first insert Back Curve Piece and the first insert Front Curve Piece, resulting in a first ophthalmic insert piece.

2. The device of claim 1 additionally comprising:

at least a second insert Back Curve Piece;

a second self-locking feature which fixedly holds either or both of the first insert Front Curve Piece and the second insert Back Curve Piece, wherein a combining causes the second self-locking feature to seal a second cavity interior to the combination of the first ophthalmic insert piece and the second insert Back Curve Piece.

3. The device of claim 1 additionally comprising:

a first sealing material upon a surface of either or both of the first insert Front Curve Piece and the first insert Back Curve Piece, wherein a combining causes the first sealing material to seal the first cavity interior to the combination of the first Back Curve Piece and the first Front Curve Piece

4. The device of claim 1 wherein:

the first cavity contains the electronic Component.

5. The device of claim 1 wherein:

the electronic Component is exterior to the sealed first cavity.

6. The device of claim 1 wherein:

the first sealing material is preformed into a shape to form the seal.

7. The device of claim 3 wherein:

the first sealing material forms a seal by the physical contact of at least a portion of either or both the first insert Back Curve Piece and the first insert Front Curve Piece to the first sealing material.

8. The device of claim 7 additionally comprising:

a second sealing material which forms a second material adhesive seal between at least a portion of both the first insert Front Curve Piece and first insert Back Curve Piece; wherein the second material adhesive seal maintains the physical contact of at least a portion of either or both the first insert Back Curve Piece and the first insert Front Curve Piece to the first sealing material.

9. The device of claim 1 additionally comprising:

a sealing agent that is applied to at least a portion of the electronic Component after attachment of the electronic Component is made to the conductive material.

10. The device of claim 1 additionally comprising :

a sealing agent that is applied to at least a portion of the conductive material.

11. The device of claim 2 additionally comprising :

a sealing agent that is applied to at least a portion of the conductive material.

12. An Ophthalmic Lens device comprising the insert device of claim 1 additionally comprising:

an insert encapsulating layer, wherein the insert encapsulating layer is formed from the polymerization of a Reactive Mixture between two Mold parts while the insert device of claim 1 is located between the two Mold parts.

13. An Ophthalmic Lens device comprising the insert device of claim 2 additionally comprising:

an insert encapsulating layer, wherein the insert encapsulating layer is formed from the polymerization of a Reactive Mixture between two Mold parts while the insert device of claim 1 is located between the two Mold parts.

14. The device of claim 12 wherein:

the Reactive Mixture comprises or forms a hydrogel.

15. The device of claim 13 additionally comprising:

an energization component.

16. The device of claim 15 additionally comprising:

a liquid meniscus Ophthalmic Lens element.

17. The device of claim 1 additionally comprising:

at least a first liquid within the first cavity.

18. The device of claim 3 wherein:

the first sealing material is an epoxy adhesive.

19. The device of claim 12 additionally comprising:

a liquid meniscus Ophthalmic Lens element.

CLAIMS

1. A multi-piece insert device for an ophthalmic lens comprising:

at least a first insert back curve piece;

at least a first insert front curve piece;

a conductive material upon one or both of the first insert front curve piece and first insert back curve piece;

an electronic component attached to one or both of the first insert front curve piece and first insert back curve piece, wherein the attachment is made to at least part of the conductive material; and

a first self-locking feature which fixedly holds the first insert back curve piece in a relative position to the first insert front curve piece to seal a first cavity interior to the combination of the first insert back curve piece and the first insert front curve piece.

2. The multi-piece insert device of claim 1 additionally comprising:

at least a second insert back curve piece; and

a second self-locking feature which fixedly holds the first insert front curve piece in a relative position to the second insert back curve piece to seal a second cavity interior to the combination of the first insert front curve piece and the second insert back curve piece.

3. The multi-piece insert device of claim 1 additionally comprising:

a first sealing material disposed between the first insert front curve piece and the first insert back curve piece to seal the first cavity interior to the combination of the first insert back curve piece and the first insert front curve piece.

4. The multi-piece insert device of claim 1 wherein:

the first cavity contains the electronic component.

5. The multi-piece insert device of claim 1 wherein:

the electronic component is exterior to the sealed first cavity.

6. The multi-piece insert device of claim 3 wherein:

the first sealing material is preformed into a shape to form the first seal.

7. The multi-piece insert device of claim 3 wherein:

the first sealing material forms a seal by the physical contact of at least a portion of either or both the first insert back curve piece and the first insert front curve piece to the first sealing material.

8. The multi-piece insert device of claim 7 additionally comprising:

a second sealing material between the first sealing material and at least a portion of one or both of the first insert front curve piece and the first insert back curve piece, wherein the second sealing material maintains the physical contact of at least a portion of either or both the first insert back curve piece and the first insert front curve piece to the first sealing material.

9. The multi-piece insert device of claim 1 additionally comprising:

a sealing agent that is applied to at least a portion of the electronic component after attachment of the electronic component is made to the conductive material.

10. The multi-piece insert device of claim 1 additionally comprising :

a sealing agent applied to at least a portion of the conductive material.

11. The multi-piece insert device of claim 2 additionally comprising :

a sealing agent applied to at least a portion of the conductive material.

12. An ophthalmic lens device comprising the multi-piece insert device of claim 1, additionally comprising:

an insert encapsulating layer, wherein the insert encapsulating layer is formed from the polymerization of a reactive mixture between two mold parts while the insert device of claim 1 is located between the two mold parts.

13. An ophthalmic lens device comprising the multi-piece insert device of claim 2, additionally comprising:

an insert encapsulating layer, wherein the insert encapsulating layer is formed from the polymerization of a reactive mixture between two mold parts while the multi-piece insert device of claim 1 is located between the two mold parts.

14. The ophthalmic lens device of claim 12 wherein:

the reactive mixture comprises or forms a hydrogel.

15. The ophthalmic lens device of claim 14 additionally comprising:

an energization component.

16. The ophthalmic lens device of claim 15 additionally comprising:

a liquid meniscus ophthalmic lens element.

17. The multi-piece insert device of claim 1 additionally comprising:

at least a first liquid within the first cavity.

18. The multi-piece insert device of claim 3 wherein:

the first sealing material is an epoxy adhesive.

19. The ophthalmic lens device of claim 12 additionally comprising:

a liquid meniscus ophthalmic lens element.