CLAIMS

~~What is claimed is:~~

1. A non-mechanical-interfacing electronic switch comprising:

an electronic switching mechanism disposed within a housing of the non-mechanical-interfacing electronic switch, wherein the electronic switching mechanism is configured to modulate the non-mechanical-interfacing electronic switch between an active state and an inactive state;

an aperture ~~defining an opening~~ in the housing, wherein the ~~opening~~aperture defines an insertion path extending from a first location external to the housing to a second location internal to the housing; ~~and~~

a ~~receiver~~photodiode disposed within the housing, wherein the ~~receiver~~photodiode is configured to operate the electronic switching mechanism; and

a mechanical lockout device having a protrusion configured to be inserted through the aperture along the insertion path, wherein the protrusion includes a light emitting diode configured to transmit a signal along a signal path to the photodiode.

2. The non-mechanical-interfacing electronic switch of claim 1, wherein the electronic switching mechanism includes at least one semiconductor defining a non-mechanical electronic switch, and wherein the non-mechanical electronic switch is configured to switch the non-mechanical-interfacing electronic switch between the active state and the inactive state based on electronic action.

~~**3.** The non-mechanical-interfacing electronic switch of claim 1, wherein the electronic switching mechanism includes at least one movable part defining a mechanical electronic switch and wherein the mechanical electronic switch is configured to switch the non-mechanical-interfacing electronic switch between the active state and the inactive state.~~

~~**4.** The non-mechanical-interfacing electronic switch of claim 1, further including a transmitter disposed in the housing, wherein the transmitter is configured to transmit a signal along a signal path to the receiver.~~

~~5. The non-mechanical-interfacing electronic switch of claim 4, further including a mechanical lockout device having a protrusion configured to be inserted through the opening of the aperture along the insertion path to intersect the signal path and obstruct the signal.~~

~~6.~~3. The non-mechanical-interfacing electronic switch of claim ~~4~~1, including a structure having a reflective surface oriented to reflect the signal along the signal path from the ~~transmitter~~light emitting diode to the ~~receiver~~photodiode.

~~7.~~4. The non-mechanical-interfacing electronic switch of claim ~~6~~3, wherein the reflective surface faces the ~~transmitter~~light emitting diode and the ~~receiver~~photodiode, and wherein the ~~transmitter~~light emitting diode is configured to transmit an incident signal along the signal path to the reflective surface and the reflective surface is oriented to reflect the incident signal as a reflected signal along the signal path to the ~~receiver~~photodiode.

~~8. The non-mechanical interfacing electronic switch of claim 4, further including a mechanical lockout device having a protrusion configured to be inserted through the opening of the aperture along the insertion path, wherein the protrusion includes a reflective surface oriented to reflect the signal along the signal path from the transmitter to the receiver.~~

~~9. The non-mechanical interfacing electronic switch of claim 4, wherein the transmitter is an electromagnetic transmitter configured to transmit the signal as electromagnetic radiation, and wherein the receiver is an electromagnetic receiver.~~

~~10. The non-mechanical electronic switch of claim 9, wherein the electromagnetic transmitter is a light emitting diode and the electromagnetic receiver is a photodiode.~~

~~11.~~5. The non-mechanical ~~electronic switch of claim 10,~~ electronic switch of claim 1, wherein the signal is infrared light.

~~12. The non-mechanical electronic switch of claim 4, wherein the transmitter is a magnet configured to transmit the signal as a magnetic field, and wherein the receiver is a sensor configured to detect a change in the magnetic field.~~

~~13. The non-mechanical interfacing electronic switch of claim 1, further including a mechanical lockout device having a protrusion configured to be inserted through the opening of the aperture along the insertion path, wherein the protrusion includes a transmitter configured to transmit a signal along a signal path to the receiver.~~

~~14.~~6. A method of mechanically locking a non-mechanical-interfacing electronic switch comprising:

inserting a protrusion of a mechanical lockout device through an aperture ~~defining an opening~~ in a housing of the non-mechanical-interfacing electronic switch, wherein the protrusion is inserted along an insertion path extending from a first location external to the housing to a second location internal to the housing~~; and~~, and wherein the inserting includes transmitting a signal transmitted from a light emitting diode disposed on the protrusion along a signal path to a photodiode disposed within the housing; and

controlling an electronic switching mechanism disposed within the housing based on the inserting.

~~15. The method of claim 14, wherein the inserting includes obstructing a signal transmitted from a transmitter disposed within the housing along a signal path to a receiver disposed within the housing with the protrusion.~~

~~16. The method of claim 14, wherein the inserting includes obstructing at least one of an incident signal and a reflected signal with the protrusion, wherein the incident signal is transmitted from a transmitter disposed within the housing along the signal path to a reflective surface, and wherein the reflective surface is oriented to reflect the incident signal as the reflected signal along the signal path to a receiver disposed within the housing.~~

~~17. The method of claim 14, wherein the inserting includes reflecting a signal transmitted from a transmitter disposed within the housing along a signal path to a receiver disposed within the housing with a reflective surface of the protrusion.~~

~~18. The method of claim 14, wherein the protrusion includes a transmitter, and wherein the inserting includes transmitting a signal from the transmitter along a signal path to a receiver disposed within the housing.~~

~~19.~~7. A mechanical-interfacing electronic switch comprising:

an electronic switching mechanism disposed within a housing of the mechanical-interfacing electronic switch, wherein the electronic switching mechanism includes at least one semiconductor defining a non-mechanical electronic switch, and wherein the non-mechanical electronic switch is configured to switch the mechanical-interfacing electronic switch between an active state and an inactive state based on electronic action;

a ~~receiver~~photodiode disposed within the housing; and

a ~~transmitter~~light emitting diode disposed in the housing, wherein the ~~transmitter~~light emitting diode is configured to transmit a signal along a signal path to the ~~receiver.~~photodiode; and

a mechanical-interfacing control part having a base portion located external to the housing and a protrusion located internal to the housing, ~~the base portion being moveable between a first position wherein the protrusion does not intersect the signal path and a second position wherein the protrusion intersects the signal path.~~

~~The mechanical-interfacing electronic switch of claim 19, further including~~ wherein movement of the base portion causes movement of the protrusion such that in a first position the protrusion does not intersect a signal path produced between the light emitting diode and the photodiode, and in a second position the protrusion intersects with the signal path, such that the mechanical interface serves to actuate the electronic switch between an active state and an inactive state; and

~~20.~~ a hasp, wherein the base portion is oriented to engage the hasp in one of the first position or the second position.