CLAIMS

1. A bracket, the bracket comprising

   a first jaw member, the first jaw member comprising an inner surface including a first clamping portion,

   a second jaw member, the second jaw member comprising an inner surface including a second clamping portion,

   a pin assembly comprising a latching pin including a latch bolt hole, the pin assembly configured to connect the first and second jaw members and enable the first and second jaw members to slidably translate toward one another in a first direction or away from one another in a direction opposite the first direction, and

   a latch bolt assembly comprising a latch bolt slidably fitted within a latch bolt bore, the latch bolt including a first end and a second end, the latch bolt comprising a latch bolt compression spring capable of providing a separating bias that forces the latch bolt in a direction outward from the latch bolt bore,

   wherein the bracket can adopt an open configuration and a closed configuration, and

   wherein when the bracket is in the closed configuration, the first and second jaw members are in close proximity to one another and the latch bolt is inserted in the latch bolt hole of the latching pin.

2. The bracket of claim 1, wherein the first clamping portion including one or more engagement bosses, the second clamping portion including one or more engagement bosses, or both the first and second clamping portions each include one or more engagement bosses.

3. The bracket of claim 1 or 2, wherein the latch bolt assembly is housed in the second jaw member.

4. The bracket of any one of claims 1-3, wherein the bracket further comprises one or more jaw compression springs, the one or more jaw compression springs capable of providing a separating bias that forces the first jaw member and the second jaw member apart.

5. The bracket of claim 4, wherein each of the one or more jaw compression springs including a first end and a second end, wherein the first end is seated on a first mating portion of the first jaw member and the second end is seated on a second mating portion of the second jaw member.

6. The bracket of any one of claims 1-5, wherein the pin assembly further comprises a guide pin, the guide pin configured for disposal perpendicular to the first and second clamping portions of the first and second jaw members.

7. The bracket of any one of claims 1-6, configured for, when the bracket is in the open configuration, the first and second jaw members are apart from one another and the latch bolt is removed from the latch bolt hole of the latching pin.

8. The bracket of any one of claims 1-7, wherein the bracket further comprises a back plate and a back plate recess, the back plate being cantilevered from the first jaw member and the back plate recess being formed on the second jaw member, the back plate recess configured to receive the back plate.

9. The bracket of claim 8, wherein the back plate includes one or more attachment points configured to reversibly secure a device or component thereof to the back plate.

10. The bracket of claim 9, wherein each of the one or more attachment points is a blind screw hole capable of receiving a threaded screw.

11. The bracket of claim 9 or 10, wherein the back plate further includes one or more indexing holes configured to properly orientate the device of component thereof to the back plate.

12. The bracket of any one of claims 1-9, wherein the bracket further comprises an outer surface comprising a hinged coupler, the hinged coupler comprising a coupler base including a

latching socket, the latching socket comprising a socket body and a socket formed within the socket body, the latching socket configured to reversibly secure a coupler.

13. The bracket of claim 12, wherein the outer surface is located on the first jaw member or the second jaw member.

14. The bracket of claim 12 or 13, wherein the coupler base includes a first outer knuckle, a second outer knuckle, and an inner knuckle.

15. The bracket of claim 14, configured for the inner knuckle to be rotatably coupled to the coupler base by a hinge pin inserted through the first outer knuckle, the inner knuckle and the second outer knuckle.

16. The bracket of claim 14 or 15, configured for the inner knuckle to be rotatably coupled to the latching socket.

17. The bracket of any one of claims 12-16, wherein the socket body further comprises a first latching pin bore, a first latching pin, and a first latching pin spring,

the first latching pin bore located transversely to the socket and intersecting the socket, the first latching pin bore having a first open end and a second closed end and configured to slidably receive the first latching pin, and

the first latching pin having a keyway notched laterally therein, the keyway including a locking edge,

wherein the second closed end of the first latching pin bore includes a spring cup configured to receive the first latching pin spring, the first latching pin spring capable of providing a separating bias that forces the locking edge of the first latching pin into the socket.

18. The bracket of claim 17, wherein the socket body further comprises a second latching pin bore, a second latching pin, and a second latching pin spring,

the second latching pin bore located transversely to the socket and intersecting the socket, the second latching pin bore having a first open end and a second closed end and configured to slidably receive the second latching pin, and

the second latching pin having a keyway notched laterally therein, the keyway including a locking edge,

wherein the second closed end of the second latching pin bore includes a spring cup configured to receive the second latching pin spring, the second latching pin spring capable of providing a separating bias that forces the locking edge of the second latching pin into the socket.

19. The bracket of any one of claims 1-18, wherein the latch bolt further comprises a tab attached to the first end of the latch bolt, the tab capable of rotating relative to latch bolt.

20. A mounting system comprising

a bracket according to any one of claims 2-19; and

a rail including a rail body, the rail body comprising

a first engagement surface comprising one or more engagement slots,

a second engagement surface comprising one or more engagement slots,

a third surface,

wherein the rail is configured to have the first engagement surface disposed adjacent the third surface, the second engagement surface disposed adjacent the third ~~engagement~~ surface, and the second engagement surface disposed parallel, spaced apart and facing oppositely the first engagement surface, with the third ~~engagement~~ surface spanning between the first engagement surface and the second engagement surface;

wherein the one or more engagement slots of the first engagement surface of the rail body are configured to receive the one or more engagement bosses of the first jaw member of the bracket and the one or more engagement slots of the second engagement surface of the rail body are configured to receive the one or more engagement bosses of the second jaw member of the bracket.

21. The mounting system of claim 20, wherein the third ~~engagement~~ surface of the rail further comprises a plurality of through holes.

22. The mounting system of claim 20 or 21, wherein the rail further comprising a base support.

23. The mounting system of claim 22, wherein the base support of the rail comprises an adhesive layer on the side that will come in contact with a support.

24. The mounting system of claim 22, wherein the base support of the rail comprises one or more tabs configured to be inserted into one or more pockets or pouches on a base support mount.

25. The mounting system of claim 20, wherein the rail is a device case, the device case comprising

    a. a first frame member, the first frame member including the first engagement surface, the first engagement surface further comprising a plurality of through holes,

    b. a second frame member, the second frame member including the second engagement surface, the second engagement surface further comprising a plurality of through holes,

    c. a sidewall frame member, the sidewall frame member including the third ~~engagement~~ surface, and

    d. a gasket, the gasket being composed of an elastomeric material and shaped to configure to at least fit around an outer perimeter of a device and align in close proximity with an inside surface of the sidewall frame member,

    wherein the sidewall frame member is sandwiched between and spaces apart the first frame member and the second frame member, and in a manner that forming an interior space for ~~a~~

the device to fit therein and aligns each through hole of the plurality of through holes from the first frame member with each through hole of the plurality of through holes from the second frame member to form a plurality of paired through holes,

wherein the first frame member and the second frame member compressively bear down on the sidewall frame member by securing the first frame member to the second frame member using a plurality of screws, each screw of the plurality of screws inserted through a paired through hole of the plurality of paired through holes from the first and second frame member, and

wherein the device case forms a water-tight seal preventing moisture from entering the interior space.

26. The mounting system of claim 25, wherein the sidewall frame member further comprises an attachment point and one or more indexing holes.

27. The mounting system of claim 26, further comprising a device case adaptor, the device case adaptor comprising an indexing plate and an adaptor plate, the indexing plate including one or more indexing pins configured to align and insert into one or more indexing holes and the adaptor plate including a coupler on a first surface of the adaptor plate and a threaded screw on a second surface of the adaptor plate.

28. The mounting system of any one of claims 25-27, wherein the sidewall frame member is configured to receive the sealing plate, the sealing plate comprising one or more through ports.

29. A lock assembly comprising a latch bolt assembly and a housing,

the latch bolt assembly including a positive latching mechanism comprising a latch bolt and a latch bolt compression spring, the latch bolt compression spring being housed within an elongated channel running axially within the latch bolt, and

the housing including a latch bolt bore, the latch bolt bore being configured to slidably receive the latch bolt,

wherein the latch bolt assembly is configured to adopt an unlocked position and a locked position,

wherein in the unlocked position, the latch bolt is compressed against a bias of the latch bolt compression spring, and

wherein in the locked position, release of the bias of the latch bolt compression spring causes the latch bolt to insert into the latch bolt bore.

30. The lock assembly of claim 29, wherein the housing further includes a positive separating mechanism comprising one or more compression springs located in the housing.

31. The lock assembly of claim 30, wherein in the locked position, each of the one or more compression springs is compressed against its respective bias.

32. The lock assembly of claim 30 or 31, wherein in the unlocked position, a bias of each of the one or more compression springs is released.

33. The lock assembly of any one of claims 30-32, wherein release of a bias of each of the one or more compression springs causes compression of the latch bolt compression spring.

34. The lock assembly of any one of claims 30-33, wherein release of the bias of the latch bolt compression spring causes compression of each of the one or more compression springs.

35. The lock assembly of any one of claims 30-34, wherein the bias of each of the one or more compression springs is oriented perpendicular to a direction that the latch bolt slidably inserts into the latch bolt bore.

36. The lock assembly of any one of claims 29-35, wherein a limiter slot is formed within the elongated channel and a limiter pin is contained in the housing, the limiter pin configured to traverse the limiter slot and to restrict travel of the latch bolt within the lock assembly.

37. The lock assembly of any one of claims 29-36, wherein the latch bolt bore is contained in a jaw member of the housing.