CLAIMS

1. A conducted electrical weapon ("CEW") comprising:

a magazine; and

a handle comprising a bay for receiving the magazine, wherein the bay comprises a first set of datum and a first bias spring, the first set of datum comprising respective portions of a surface on at least a first side of the bay configured to align the magazine to be coupled to the bay and the first bias spring configured to maintain tension against a corresponding surface of the magazine;

wherein the magazine comprises a second set of datum configured to interact with the first set of datum to align the magazine to be coupled with the bay.

2. The CEW of claim 1, wherein the tension causes the second set of datum of the magazine to interact with the first set of datum of the bay.

3. The CEW of claim 1, wherein the magazine further comprises a second bias spring, the second bias spring configured to maintain tension against a surface of the bay, wherein the tension causes the second set of datum of the magazine to interact with the first set of datum of the bay.

4. The CEW of claim 1, wherein the first set of datum is disposed along a top handle surface of the bay, and wherein the second set of datum is disposed along a top magazine surface of the magazine.

5. The CEW of claim 1, wherein the first set of datum is disposed along first opposing sides of the bay, and wherein the second set of datum is disposed along second opposing sides of the magazine.

6. The CEW of claim 1, wherein one or more of the first set of datum or the second set of datum comprises at least one of:

one or more protrusions;

one or more grooves; and

one or more planar surfaces.

7. The CEW of claim 1, wherein at least one of the handle or the magazine comprises one or more additional mechanisms for coupling the magazine to the bay.

8. The CEW of claim 7, wherein the one or more additional mechanisms for coupling the magazine to the bay comprises a third set of datum disposed in the bay and a fourth set of datum disposed on the magazine.

9. A handle for a conducted electrical weapon ("CEW") comprising:

a bay defining an opening configured to receive a magazine and comprising a first side and a second side of the bay;

a first mechanical interface disposed in a top surface of the bay, wherein:

the first mechanical interface is configured to align the magazine for insertion within the bay; and

the first mechanical interface comprises a bias spring coupled to the second side of the bay; and

a second mechanical interface disposed in a bottom surface of the bay, wherein the second mechanical interface is configured to provide at least one of an upward force or an inward force against a bottom surface of the magazine.

10. The handle of claim 9, wherein the first mechanical interface comprises at least two of one or more grooves, one or more protrusions, one or more engagement surfaces, or the bias spring.

11. The handle of claim 9, wherein the first mechanical interface comprises at least one of a convex surface or a concave surface.

12. The handle of claim 9, wherein the first mechanical interface comprises at least one of a first set of datum, a second set of datum, or a third set of datum.

13. The handle of claim 12, wherein the first mechanical interface comprises the first set of datum, wherein the first set of datum comprises a first datum defining a first contact surface of the

bay proximate the first side of the bay and a second datum defining a second contact surface of the bay proximate the second side of the bay.

14. The handle of claim 13, wherein the bias spring is coupled to the second side of the bay proximate the second datum.

15. The handle of claim 12, wherein the first mechanical interface comprises the second set of datum, wherein the second set of datum comprises a third datum defining a protrusion proximate the opening of the bay and a fourth datum defining a groove in the top surface of the bay.

16. The handle of claim 12, wherein the first mechanical interface comprises the third set of datum, wherein the third set of datum comprises a fifth datum extending from the first side of the bay proximate the opening of the bay and a sixth datum extending from the second side of the bay proximate the opening of the bay.

17. A magazine for a conducted electrical weapon ("CEW") comprising:

a body having a first end opposite a second end and a top surface opposite a bottom surface;

a first mechanical interface disposed on the top surface of the body, wherein the first mechanical interface is configured to engage a top inner surface of a bay of the CEW; and

a second mechanical interface disposed on the bottom surface of the body and comprising a locking ramp and a release ramp, wherein the second mechanical interface is configured to engage a bottom inner surface of the bay of the CEW, and wherein the second mechanical interface is different from the first mechanical interface.

18. The magazine of claim 17, wherein the first mechanical interface comprises at least two of one or more grooves, one or more protrusions, one or more engagement surfaces, or a bias spring.

19. The magazine of claim 17, wherein the first mechanical interface comprises at least one of a convex surface or a concave surface.

20. The magazine of claim 17, wherein the first mechanical interface comprises at least one of a first set of datum, a second set of datum, a third set of datum, or a bias spring.

21. The magazine of claim 20, wherein the first mechanical interface comprises the first set of datum, wherein the first set of datum comprises a first datum extending from a first side of the body proximate the first end and a second datum extending from a second side of the body proximate the first end.

22. The magazine of claim 20, wherein the first mechanical interface comprises the second set of datum, wherein the second set of datum comprises a third datum and a fourth datum disposed proximate the second end of the body.

23. The magazine of claim 20, wherein the first mechanical interface comprises the third set of datum, wherein the third set of datum comprises a fifth datum defining a groove in the top surface of the body and a sixth datum defining a protrusion on the top surface of the body.

24. A conducted electrical weapon ("CEW") comprising:

a magazine comprising:

a locking ramp comprising a first leading edge and a first trailing edge; and

a release ramp comprising configured to operate from a first position to a second position responsive to a translatable grip being operated; and

a handle comprising a bay for receiving the magazine, wherein the bay comprises a retaining snap, the retaining snap configured to:

interact with the first trailing edge of the locking ramp responsive to the magazine being coupled to the bay; and

uncouple from the bay responsive to the release ramp operating from the first position to the second position.

25. The CEW of claim 24, wherein the first trailing edge comprises a steeper grade relative to the first leading edge.

26. The CEW of claim 25, wherein the first trailing edge of the locking ramp comprises a steeper grade relative to a second trailing edge of the release ramp.

27. The CEW of claim 24, wherein the locking ramp is coupled to a bottom surface of a body of the magazine, and wherein the release ramp is coupled to the translatable grip.

28. The CEW of claim 27, wherein in the first position of the release ramp, the first trailing edge of the locking ramp is closer to a first end of the body than a second trailing edge of the release ramp, and wherein in the second position of the release ramp, the second trailing edge of the release ramp is closer to the first end of the body than the first trailing edge of the locking ramp.

29. The CEW of claim 24, wherein the translatable grip is configured to automatically return to the first position of the translatable grip in response to being operated into the second position of the translatable grip.