12. WEAPON CHARACTERISTICS

Briefing

1. Fire and movement are the heart of a wargame, and weapons provide the power to dominate the enemy.

2. Weapon characteristics define the power of a weapon's attack, the ranges at which it is effective and its rate of fire. Other characteristics include any explosive, incendiary or poisonous effects and the ability of enemy forces to detect weapon fire.

3. Players should assign weapons to their vehicles, strongpoints and infantry as they desire. The weapons tables differentiate between vehicle and infantry weapons, artillery weapons and a range of rockets, missiles and bombs.

4. **Vehicle weapons** are generally very large, heavy and powerful. These weapons may be mounted on vehicles or strongpoints, but may not be carried by infantry.

5. **Infantry weapons** may be carried by infantry or may be mounted on vehicles or strongpoints.

6. **Crew-served weapons** are not a separate category of weapons, but represent vehicle, artillery and infantry weapons that are mounted on carriages or platforms. Crew-served weapons may also be emplaced in fixed fortification systems.

Attack factor

1. The attack factor represents the penetrative and killing power of the weapon. The attack factors range from 1 to 9. The highest numbers have the best penetrative power.

2. The general pattern for assigning attack factors to weapons is given in the table below.

Weapon type	Attack factor
Needler, parasonar	1
Dart, driver, neutralizer	2
Bullet, gyrojet, sonic	3
Cone, large caliber bullet	4
Laser, hypervelocity and maser small arms; ultrasonic, chemical	5
Blast, bolt, disruptor, flamer, hellfire, phaser, pulse and ray small arms; high explosive	6
Blazer, fusion and plasma small arms; bolt, ion, laser and maser cannon; hailstorm, hammerhead, hellburner, vaporshock	7
Disintegrator, piercer and scrambler small arms; convergence, conversion and particle beams; fusion and hypervelocity cannon	8
Nuclear	9
Anti-matter	1 to 9

3. The attack factor for anti-matter warheads equals the armor class of the target struck and therefore varies from 1 to 9. (Exception: in the case of armor class 0, the attack factor is 1.)

For example, if an anti-matter warhead hits armor class 6 its attack factor is 6. If an anti-matter warhead hits armor class 2 its attack factor is 2.

Range

1. The range factor given for a weapon is equal to the short range of the weapon. Medium range is equal to the range factor doubled. Long range is equal to the range factor tripled. For example, if a light laser cannon has a range factor of 20, short range is 0 to 20 inches, medium range is 20+ to 40 inches, and long range is 40+ to 60 inches.

2. Some artillery weapons and missiles have a minimum range. This is due to the limitations in the depression of their gun barrels, minimum arming distances for warheads, and minimum lock-on distances for guided and smart weapons.

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Rate of fire

1. The rate of fire represents the number of rounds a weapon fires during a turn. The rate of fire has an effect in hit/miss determination, where weapons with higher rates of fire have a better chance to hit the target.

2. The rate of fire is represented by a letter code.

Rate of fire	Code
Automatic	A
Beam	B
Pulse	P
Rotary automatic	R
Single shot	S

Automatic - projectile weapons that fire several shots when triggered. Examples are submachineguns, automatic rifles and machineguns.

Beam - energy weapons that project a single continuous beam when triggered. Examples are phaser rifles, fusion cannon and particle beams.

Pulse - energy weapons that fire several pulses when triggered. Examples are laser and maser rifles and ultrasonic projectors. (Mini-rocket launchers also rated as pulse weapons because they fire a cluster of missiles that results in multiple impacts.)

Rotary automatic - weapons that fire several shots from multiple rotating barrels when triggered. Examples are gatling guns, miniguns and chain guns. Originally this technology was only used for projectile weapons such as machineguns, cone and driver weapons, and 25mm and 50mm autocannon. More recently its use has been expanded to bolt cannon.

Single shot – energy and projectile weapons that fire one shot when triggered, and weapons that can only be used once. Examples are fusion rifles, grenades, rocket launchers and missiles.

Infantry weapon classification

1. Many infantry weapons are classified as light, medium, heavy, magnum and ultra weapons. These classifications generally capture differences in the sizes of the weapons, their weight, attack factors, projectile sizes, ranges and effect areas. Heavier weapons usually have greater ranges made possible by more powerful cartridges or energy sources than the lighter weapons can handle. Sometimes the heavier weapons also have significantly greater penetrating power.

2. Over a period of time the development of larger and heavier energy rifles for infantry and smaller and lighter energy cannon for vehicles obscured the boundary between these weapons and rendered the nomenclature for weapons increasingly inaccurate and misleading. The development of powered armor for infantry increased the pressure for reform. Armored infantry could now field weapons that formerly were mounted on tripods or light vehicles, or as secondary armament on armored fighting vehicles.

3. The three categories of light, medium and heavy had been standardized for decades and had been fairly stable. As larger and heavier infantry weapons were developed, some manufacturers grouped these with their heavy category while others created new categories for extra-heavy (also referred to as *grande* or *grosse*) and then super-heavy. A third response was to downgrade former medium weapons to the light category, and former heavy weapons to the medium category.

Finally, an industry standards board settled on new terminology. The original three categories were re-imposed and two new categories were added: magnum and ultra. (To avoid confusion with the M for medium weapons, magnum weapons retained the G formerly used to code *grande* weapons.)

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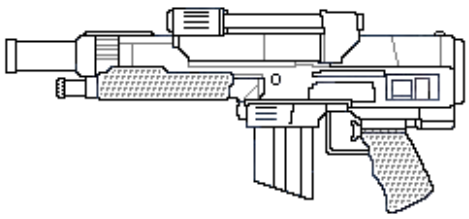
Weapon class	Code
Light	L
Medium	M
Heavy	H
Magnum	G
Ultra	U

4. To avoid confusion, the most powerful sonic and ultrasonic weapons are still classified as super-heavy weapons. Thus the term "super-heavy ultrasonic rifle" is used instead of "ultra ultrasonic rifle."



Infantry weapon employment

1. Light infantry weapons often fire a smaller caliber round or use a lesser charge than standard weapons. The weapon itself may have a shorter barrel or a folding stock. These weapons usually have shorter ranges and smaller effect areas than standard weapons.

2. Medium infantry weapons are weapons of standard size and caliber. They can generally be carried and operated by individual infantrymen without special equipment.

3. Heavy infantry weapons are often larger and heavier than standard weapons. They often have longer barrels, may fire a larger caliber round, and may be equipped with bipods. These weapons usually have longer ranges and larger effect areas than standard weapons.

4. Heavy, magnum and ultra infantry weapons are generally too large and heavy for individual infantrymen to carry without special equipment.

a. They can be fielded by power armored infantrymen, whose power augmentation allows them to carry the weapons.

b. These weapons are also frequently mounted on armored vehicles as roof-mounted or coaxial weapons, and as the primary armament on wardrones and warbots.

c. When heavy, magnum and ultra infantry weapons are issued to infantry units without powered armor, they are usually assigned as crew-served weapons and are generally mounted on tripods or small wheeled or self-propelled carriages.

Additional weapon capabilities

1. Infantry weapons with two or more attack capabilities may only use one capability per turn. For example, a trooper armed with an automatic rifle with a grenade launcher may use either the rifle or the grenade launcher.

2. This restriction does not apply to an attached melee weapon. For example, a trooper armed with laser rifle with a bayonet, may shoot his rifle and use his bayonet in melee combat.

2. This restriction does not apply to a weapon with multiple attacks of the same type. For example, a trooper armed with a twin bolt rifle may fire both barrels when he shoots.

Effect area

1. The effect area represents the potential killing zone of the weapon due to the explosive power of the warhead, the spread of the energy released, or the large number of rounds fired by the weapon.

2. The effect area for automatic weapons and flamethrowers are oblong. They are placed before the hit/miss determination is conducted.

a. The effect area may be placed in any manner over any targets in range that have been detected.

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b. If only one target has been detected, one end of the oblong should be centered on the target and the other end should be placed randomly using a ten-sided die and the compass directions given in the rules for the Hit Locations of Misses.

3. Circular effect areas are used for some energy weapons, but are mainly used for explosive warheads delivered by cannon, grenades, missiles and artillery pieces.

a. The effect areas for energy weapons are placed before the hit/miss determination and are centered over any detected targets.

b. The effect areas for explosive warheads are placed after the hit/miss determination (or random fall of shot determination for indirect fire) to identify which targets are affected by the warhead at the point at which it lands.

c. If there is a fire or flame in the effect area of a vaporshock warhead, the explosive will ignite prematurely. The size of the effect area will be halved, and the attack factor will be reduced to 4.

d. Players should refer to Rule 15. Hit Locations of Misses, and Rule 20. Indirect Fire and Artillery, for more information on effect areas.

Blast effects on troops

1. The blast effect of high explosive, hammerhead, nuclear and vaporshock warheads can knock down, stun or otherwise incapacitate a soldier even if the trooper survives the blast.

2. To represent this fact, a soldier caught in the effect area of a high explosive, hammerhead, nuclear or vaporshock warhead who is not eliminated will be considered incapacitated and may not move or fire for the rest of the turn.

3. This rule applies to all infantrymen, crewmen and other personnel on foot, and to wardrones and warbots of size 0.

Detection effect

1. Some weapons are particularly easy to detect when they fire because they have a characteristic signature such as a large backblast or a brilliant beam of light.

2. The detection effect column of the weapons charts provides a factor to add to the die roll that is needed to detect weapons when they fire. Refer to the Rule 11. Detection for more information.

Cost

1. The cost column of the weapons charts gives the point cost of weapons for use in determining the overall cost of vehicles and infantry.

2. Refer to the Rule 33. Costs, for more information.

Multiple weapons

1. Each weapon can fire once per turn. When several identical weapons are mounted together as a unit each of the weapons can fire once per turn. Thus a triple bolt cannon can fire all three barrels at the same time.

2. Each weapon in a multiple weapon has the normal rate of fire for that weapon type. For example, a twin heavy cone rifle has two automatic fire attacks.

3. Multiple weapons may divide their fire against different targets if they successfully detect the targets and have sufficient weapon or turret traverse to sight on each of them in turn.

4. Since this is a science fiction setting, troops equipped with multiple weapons are assumed to have the required skill to use them. For example, a trooper armed with two machinepistols may fire them both without suffering any reductions in accuracy.

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Rotary weapon hits

1. When a rotary weapon hits a target the player may need to check for penetration and damage for more than one round.

2. The number of hits is based on the number of barrels of the rotary weapon.

Number of barrels	Hits
3	1
4 or 5	2
6 or 7	3
8	4

Rocket Pods and Missile Racks

1. Many armored vehicles and aircraft are armed with rocket pods or missile racks that are equipped with multiple projectiles.

2. Each pod or rack may fire two projectiles per turn until all rockets or missiles have been expended.

Ammunition supply

1. Energy weapons have sufficient energy generation capabilities to fire every turn of a game without running out.

2. Projectile weapons will have sufficient ammunition to fire every turn of a game without running out.

3. Some weapons are not reloadable and have a limited ammunition supply. Rockets and missiles are limited to the actual number deployed at the beginning of the battle.

Example: A heavy battledrone armed with a pod containing seven artillery rockets may fire up to seven rockets during the game. Once they are all fired, the battledrone has no further rockets.

4. Vehicle and troop data sheets should indicate how many "pulses" mini-rocket launchers may fire before their ammunition is expended.

5. Some weapons are expendable and cannot be replaced during a game. Some examples are grenades, mines and air-dropped bombs.

Variable fire (Optional rule)

1. Some beam energy weapons can be set to fire pulses. This increases their ability to hit a target, but dissipates some of the energy of the beam and reduces the strength of the attack.

2. If the weapon is fired in pulse mode, add the +1 for pulse mode during the hit/miss determination, but subtract 1 from the attack factor.

3. Beam weapons that can convert to pulse mode:

Weapon	Reduced attack
Conversion beams	7
Disintegrators	7
Particle beams	7
Ray weapons	5

4. When the weapon is fired in beam mode, use the normal factors in hit/miss determination and use the normal attack factor.

5. It is up to a player to determine whether to maximize the chance for a hit or the chance to cause damage in a specific combat situation.

Weapon crews (Optional rule)

1. Each of the crew members of a crew-served weapon may serve as the gunner if the original gunner is eliminated.

2. When a gunner is eliminated remove one of the crew member figures instead. This represents the fact that the crew member is taking the place of the eliminated gunner. For example, when a gunner is killed the loader can take over the weapon. (Remove the loader figure instead of the gunner.)

3. If a gunner survives the destruction of a

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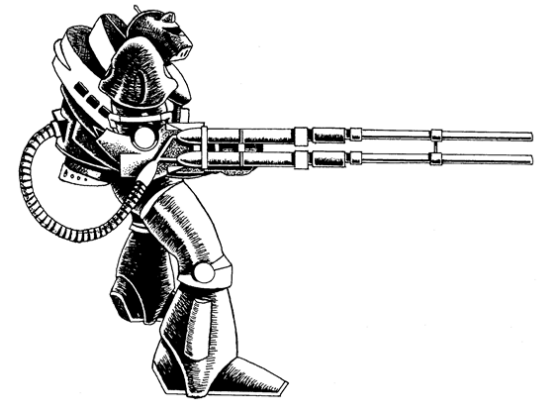
weapon, but the gunner miniature is actually attached to the weapon, another miniature should be placed on the table to represent him.

4. If a crew-served weapon is destroyed it may no longer be crewed and operated.

5. Refer also to the optional rules on damage evaluation for small vehicles and crew-served weapons in Rule 17. Damage Evaluation.

6. **Special fire option** – A weapon with both a gunner and loader can fire twice per initiative, or the weapon can reroll for a miss (representing a quick reload). This option recognizes the fact that the gunner and loader each have an initiative, and allows them to use their initiatives at the same time.

After the gunner fires the crew-served weapon, the loader can use his initiative to allow the weapon to fire again or to reroll if the initial shot missed. If the loader uses his initiative to fire his personal weapon instead of assisting the gunner, the special fire option may not be used.



A Stormer equipped with a twin-barreled heavy driver rifle. A weapon of this size can only be utilized effectively by a trooper equipped with powered armor and a power-stabilized limb.

Driver rifles have a tremendous range but lack stopping power when employed against armored targets.

Convergence Beams – (Optional rule)

1. A convergence beam weapon projects two nearly-parallel beams that converge at a distance. The beams are composed of subatomic particles that do not interact with other particles. Matter is transparent to them, so they can actually penetrate solid objects without affecting them. However, at the point where the beams intersect, the subatomic particles collide with each other and other matter to create high-energy reactions and destructive radiation. The initial velocity and focus of the beams controls the point of convergence, and thus the range, of a convergence beam.

2. Convergence beams were originally intended as an indirect-fire, area-effect weapon for use against concentrations of enemy troops in concealed locations, such as behind hills or inside buildings and fortifications. However, the particles decay so rapidly when the beams intersect that scientists could not find a way to sustain the destructive effect over a very large area. As a result the weapon has a rather small, almost pinpoint, effect area considering the ranges it can fire.

3. Indirect fire

a. Convergence beams are commonly used as indirect fire artillery weapons because of their long ranges.

b. Although the convergence beams travel in a straight line to a target, the weapon crew does not actually have to see the target to hit it since the beams pass through intervening obstacles to reach a target. Therefore, convergence beam fire can be called in by spotters who provide targeting information to the weapon crew.

c. The indirect fire procedure is used to determine the effect of the fire.

4. Direct fire

a. In the field the crews of vehicles armed with convergence beams discovered that they

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could use these weapons effectively in a direct fire role. In addition, once a target was spotted the unique nature of the convergence beam meant that the target received virtually no advantage from any concealment or cover it might have.

b. Determine detection normally.

c. Once a target has been detected the direct fire procedure is used to determine the effect of the fire.

d. The target does not receive the factors for concealment in hit/miss determination. This is because the convergence beams pass through intervening obstacles to reach a target, effectively leaving it with no concealment.

e. The target does not receive the benefit of any cover between it and the firing weapon.

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