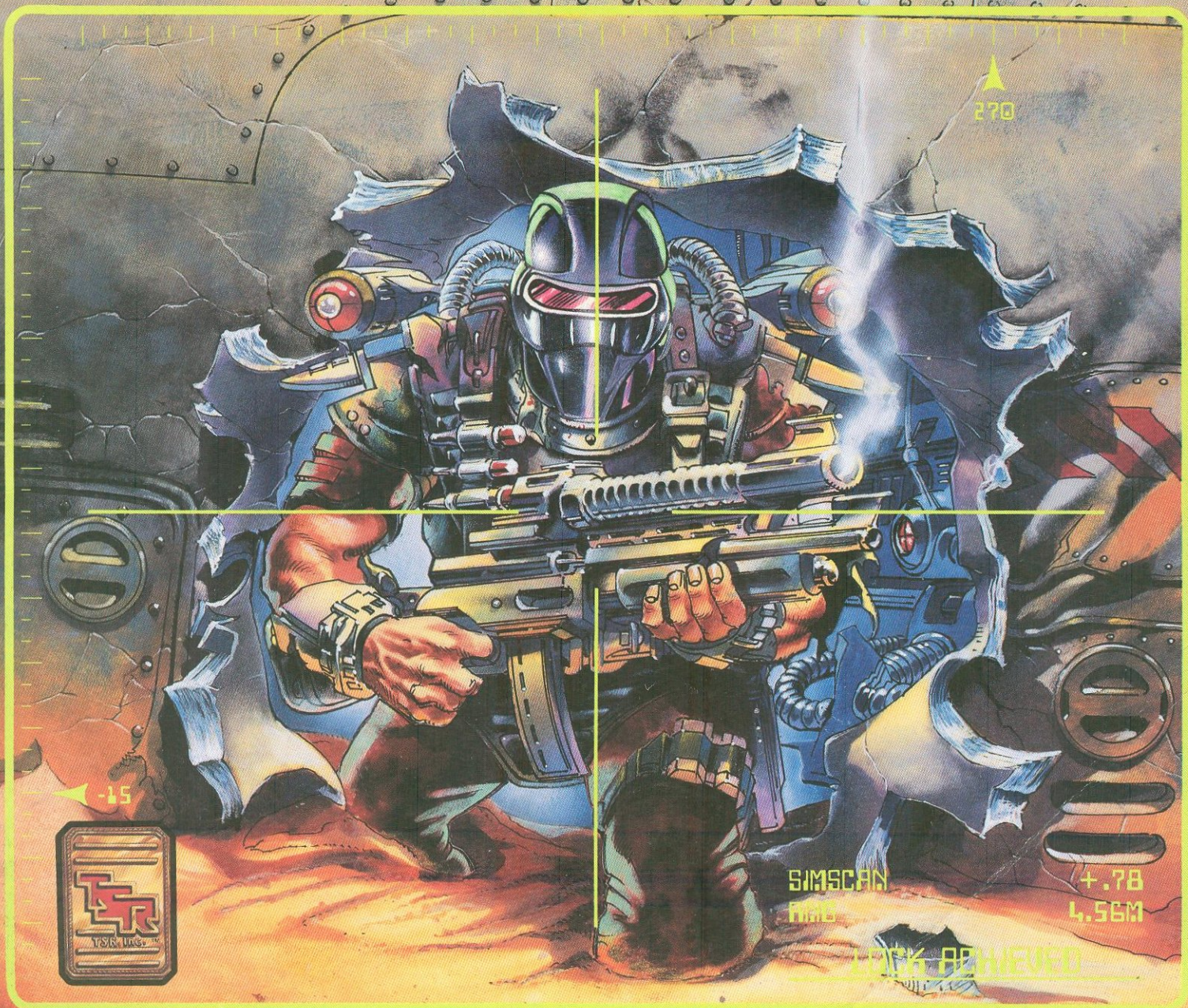


XV^G

THE 25TH CENTURY

Official Game Accessory

HARDWARE



270

15

SIMSCAN
RMC

+78
4.56M

LOCK REVEALED

Hardware

Credits

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Printed in the U.S.A.

ISBN 1-56076-389-2

3582XXX1401

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Introduction

Y'say ya wantcha beam weapons, y'say ya wantcha particle weapons. Well c'mon down to Crazy Marvin's, where we've got every piece of hardware a spacejock could want. We've got lasers, we've got masers, we've got grasers, we've got every kind of beam weapon ya could imagin! Ya say ya're tired of beam weapons, ya want somethin' that'll pack a little more punch? How about a lightnin' gun? Or a cyclorator!

And while you're here, stop by Skip's Ship Shop, where we've got every kind a' space transportation, ground transportation, the best transportation from here ta Saturn! We've got aphids, we've got jet-cars, we've got sailplanes. Heck, we've even got a used renovation waystation—with only a little restoration, ya're up an' running in a new an' lucrative career!

Ya say ya're on a tight budget, don't worry! We got low, low prices, we're practically givin' the stuff away! We'll even meet or beat any competitor's prices! That's right, you find it for less, you can still buy from us! How do we do it? Volume, volume, volumel Ya can't find

another space shop with more volume, or with better prices! We got the lowest prices this side of the solar system!

And ya say ya got no cash? No problem! Ya say ya got no credit? No problem! You say you ain't gonna pay, then there's a problem. But c'mon in to Vinnie's E-Z Financing! We've got convenient financing packages to fit every budget—even if you've got no credit or bad credit—even if you've been turned down for credit elsewhere!

So c'mon and pay a visit to Crazy Marvin's—and Skip's Ship Shop—and Vinnie's E-Z Financing! We can outfit ya with everythin' ya need for a business junket across the solar system—or for just a weekend trip to Mom's. Don't forget our motto—We may be a little outta the way, but we're worth the trip!

Welcome to *Hardware*, your one-stop shopping center for total XXVc™ campaign outfitting. C'mon. Browse through, decide what you want, and then visit your local authorized dealer today. You'll be glad you did.



Beam Weapons

LASER is an acronym for Light Amplification by Stimulated Emission of Radiation. A laser beam is man-made light created in a specially designed chamber. A laser beam begins with a source that emits coherent light—light of only one wavelength. (Ordinary, visible light is made up of many of the wavelengths in the electromagnetic spectrum.) This single-frequency light beam then reflects back and forth among a series of mirrors in the lasing chamber. As the light beam bounces back and forth, its energy accumulates—is amplified—resulting in a light beam with much more power than it originally had. Once it builds to a certain strength, or amplitude, the beam passes through one of the mirrors, which is coated so light of the desired amplitude can pass through it. Depending on the beam's wavelength, the laser beam may only be strong enough to scorch paper—or strong enough to melt large holes in spaceship hulls. Variations include ultraviolet (UV), visual spectrum (VS), infrared (IR), and far infrared (FIR) lasers.

Most people think of lasers only as weapons, but they have other uses as well. Every laser has a "volume" switch that allows the user to adjust the strength of the beam. It is assumed that at maximum power, the weapon inflicts the listed damage. At lower settings, the damage incurred would be less—how much less is determined by the referee.

When set at lower beam strengths, UV, VS, IR, and FIR lasers can be used to cauterize wounds. A medic—and only a medic—can use them to seal internal wounds as well. At any setting, the VS laser's beam can also be used like a flare to signal the user's whereabouts.

In the original XXVc™ boxed set, *The Technology Book* lists four personal beam

weapons: the laser pistol, the laser rifle, the microwave gun, and the Venusian kryptyx. (These weapons are listed in the Missile Weapons Chart on page 59.)

These few specimens are not the only personal weapons available to the citizens of the 25th Century. Eight different types of readily available pistol and rifle lasers are detailed below.

Graser

	Pistol	Rifle
Cost:	800cr	1,600cr
Size:	6" long	24" long
Pack	2' x 3' x 1'	2' x 3' x 1'
Weight:	2	10
Pack	30	30
Range:	300	600
Damage:	Radiation	Radiation
ROF:	1/2	1/3
Shots:	10	5
Reload Cost:	100cr	200cr

The graser is a nasty laser weapon that produces a concentrated stream of deadly gamma rays (10^{20} - 10^{23} Hz) when activated. The weapon consists of a backpack, a pistol or rifle, and a well-insulated, solid cable connecting the two.

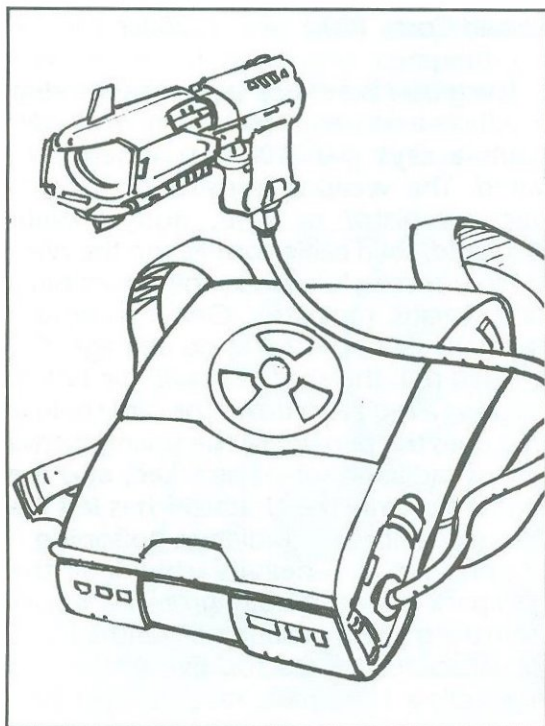
On a successful attack, the target must save versus radiation. On a successful save, the character takes no damage. On a failed roll, the character will die unless he takes a radiation dose. The table below describes the penalty to the saving throw versus radiation when attacked, and the amount of time the character has left before succumbing to radiation poisoning.

Although it's heavily shielded, the backpack cannot wholly protect the user from the gamma radiation produced by its miniature fission reactor. Every time the user rolls a 1, he must save versus radia-

tion (the weapon's heavy shielding will negate the normal saving throw penalties). If this save fails, the character suffers radiation exposure from a 1d6 strength source.

Weapon Type	Save Penalty	Time before Death
Pistol	-2	1d4 turns
Rifle	-4	1d10 rounds

The graser has no use other than the destruction of living tissue. It is often used by RAM forces to clear vegetation from an area supposedly inhabited by snipers and unwanted infiltrators. Use of the weapon is considered an atrocity by most civilized societies.

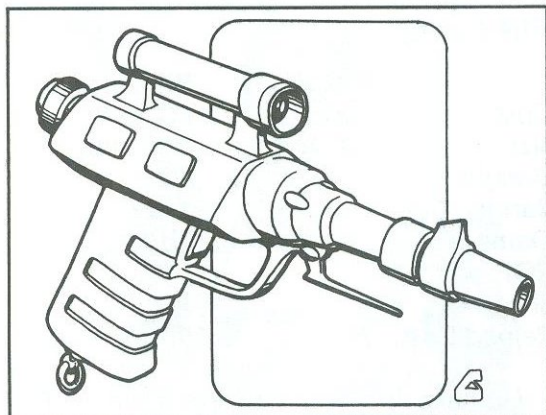


UV Laser

	Pistol	Rifle
Cost:	400cr	800cr
Size:	8" long	32" long
Weight:	1	5
Range:	600	1,200
Damage:	1d12	3d6
ROF:	1	1
Shots:	5	8
Reload Cost:	50cr	100cr

In addition to the ultraviolet (UV) beam, a UV laser produces much heat. For each round of continuous use, starting on the second round, roll a saving throw versus heat for the weapon (hard plastic with a +4 bonus). On a failed roll, the weapon explodes. Everything within 10' takes damage as though struck by the remaining shots. A successful save versus explosion/plasma means a victim takes only half damage.





VS Laser

	Pistol*	Rifle
Cost:	300cr	600cr
Size:	9" long	36" long
Weight:	1	5
Range:	800	1,600
Damage:	1d8	2d8
ROF:	3/2	1
Shots:	7	10
Reload Cost:	25cr	50cr

*The VS (visual spectrum) laser pistol is the standard laser pistol listed in *The Technology Book*.

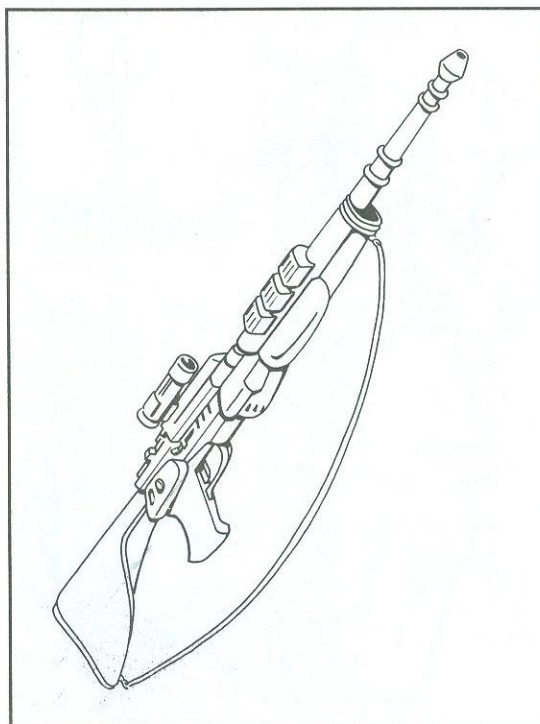
The visual spectrum (VS) laser is one of the most common weapons in production. Its beam can be seen by humans and by gennies who can see the standard light spectrum (10^{15} Hz). VS laser beam colors range from violet to red, with orange and indigo being most common. The color of the beam makes no difference: a red beam causes the same damage as a green beam. VS lasers do not have a problem with heat buildup.

IR Laser

	Pistol	Rifle*
Cost:	300cr	600cr
Size:	9" long	36" long
Weight:	1	5
Range:	1,500	3,000
Damage:	1d6	1d12
ROF:	3/2	1
Shots:	7	14
Reload Cost:	25cr	50cr

*The IR (infrared) laser rifle is the standard laser rifle listed in *The Technology Book*.

The IR (infrared) laser, the most common laser rifle in production, creates an intense beam that is invisible to the unaided eye. Humans and gennies who are using IR goggles or sensors can see the beam. Unless a target can see the beam, he can't tell where it's coming from—until he's hit. Snipers, pirates, hired assassins, and all-around bad guys like this weapon. The IR laser is the RAM Terrine



forces' second choice of skirmish weapon. In fact, combatants who can see in the IR generally use this weapon, since they often believe their opponents can see in the same spectrum they can.

The IR laser pistol does 1d6 of damage and the rifle does 1d12 of damage. The rifle (a two-handed weapon) has several capacitors with heat sinks mounted on top of its barrel.

IR lasers do not have a problem with heat buildup; this weapon maintains a consistent and safe working temperature.



FIR Laser

	Pistol	Rifle
Cost:	300cr	600cr
Size:	10" long	40" long
Weight:	2	9
Range:	800	1,600
Damage:	1d8	2d6
ROF:	3/2	1
Shots:	5	10
Reload Cost:	25cr	50cr

Humans and gennies cannot see the FIR (far infrared spectrum) laser's beam (10^{12} Hz). In fact, geneticists have never been able to produce retinal material that allows vision at such a low frequency.

This weapon is a favorite with assassins and hit men throughout the system. The RAM Terrine forces use the FIR laser pistol as their standard side arm. FIR lasers do not have a problem with heat buildup.

Maser (Microwave Gun)

	Pistol*	Rifle
Cost:	350cr	700cr
Size:	4" long	16" long
Weight:	2	5
Range:	400	800
Damage:	1d10	3d4
ROF:	2	1
Shots:	10	15
Reload Cost:	35cr	70cr

*The maser (microwave amplification by stimulated emission of radiation) pistol is the standard microwave gun listed in *The Technology Book*. This entry updates and expands that information.

Either maser can be fitted with a dispersion mirror (250cr) that allows the user to target a group of 1-4 individuals in a 10' radius. With this option, the weapon's damage is reduced to 1d4 for the pistol and 1d6 for the rifle. Attaching or detaching the mirror takes a round.

With a microphone plug-in option, any maser on a low setting can be used to



send messages. The maser beam is tightly focused and invisible to the naked eye. The chance of enemies (unless they are directly between the sender and receiver) intercepting a maser message decreases to near zero. Unfortunately, this attachment can only send, not receive. The microphone adapter costs 100cr and takes one round to attach or detach. When the microphone adapter is attached, the weapon beam cannot fire.

With the dispersion mirror attached, the maser can be used to warm food and liquids, much as a microwave oven does. The heating tends to be sporadic, creating hot spots and cold veins. Mixing the food during warming helps alleviate this problem. The beam cannot be used to warm a character; the character would take damage as listed above.

SW Raser

	Pistol	Rifle
Cost:	800cr	1,600cr
Size:	18" long	36" long
Weight:	4	8
Range:	2,000'	4,000'
Damage:	Special	Special
ROF:	1	1
Shots:	5	10
Reload Cost:	25cr	50cr

The SW (short wave) raser (Radio wave Amplification by Stimulated Emission of Radiation, 10^9 to 10^{10} Hz) is a line-of-sight, single target weapon that completely disrupts targeted radio communication equipment. If a hit is made, the target hears only static for the round of the attack and the following round. The beam bounces off all metallic substances, regardless of the thickness, and is unable to penetrate more than five inches of any



substance (including wood, plastics, ceramics, flesh, etc.). The SW raser causes no damage.

For the purpose of attacks, target equipment has a base AC of 8. If the attack roll fails, the raser has no effect. Short wave rasers do not affect sensors or radar.

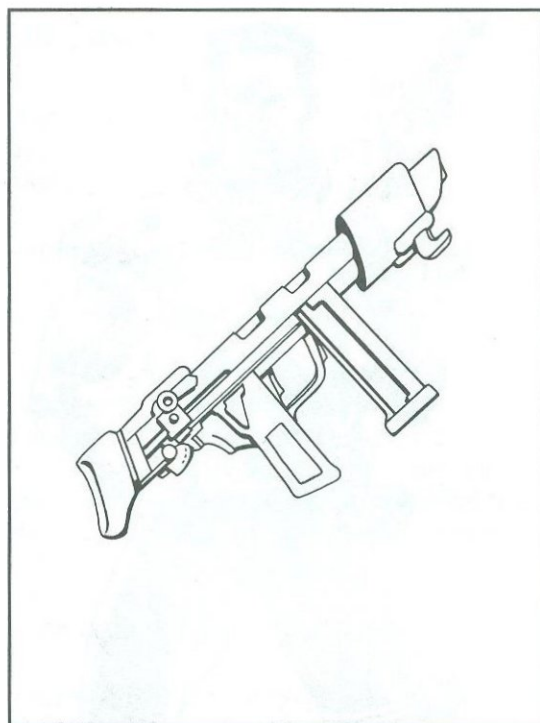
The SW raser has a 200cr optional antenna/microphone that can send tight-beamed messages to a microwave receiver. It takes three rounds to attach or detach the antenna. The chance of interception is near zero, but it requires a special receiver. Sleuths, hit men, and undercover police officers often use SW rasers to relay information to their employers. The microwave receiver field pack (6 lbs.) costs 400cr.

LW Raser

	Pistol	Rifle
Cost:	1,500cr	3,000cr
Size:	18" long	36" long
Weight:	4	8
Range:	2,000'	4,000'
Damage:	2 rounds	4 rounds
ROF:	1	1
Shots:	5	10
Reload Cost:	25cr	50cr

The LW (long wave) raser (Radio wave Amplification by Stimulated Emission of Radiation) masks and distorts the radar-frequency waves received or transmitted by the target. The LW raser phases an enemy's radar, creating ghost images that are impossible to read correctly. It also reduces the enemy's ability to fire, track, and guide radar-controlled missiles.

A successful hit by an LW raser jams the radar tracking and sensing functions of the equipment hit. The effects last for two rounds upon a successful pistol attack and four rounds upon a successful rifle attack. For the purpose of attacks, structures



have an Armor Class of 8. If the attack roll fails, the raser has no effect on the target.

The LW raser beam (in the 10^4 to 10^6 Hz range) does no damage to living flesh or metal. It always bounces off metallic substances—including aluminum foil, the deck of a spacecraft, the hull of a ATV, and the arm of a biotech humanoid. The beams cannot penetrate any material thicker than one inch.

With a receiving antenna and a small external vidscreen (350cr), the LW raser lets the user track moving objects at up to half the weapon's range. It takes three rounds to attach or detach the antenna option. The antenna option's computer uses the Doppler effect to determine how far away the targeted object is and in which direction it's going from the radio feedback. The LW raser cannot disrupt a target's radar while this option is in use.



Particle Weapons

The different types of particle weapons work in slightly different ways. Some chop up and shoot out anything the weapon touches. Some speed neutron particles produced by nuclear fusion to devastatingly high speeds.

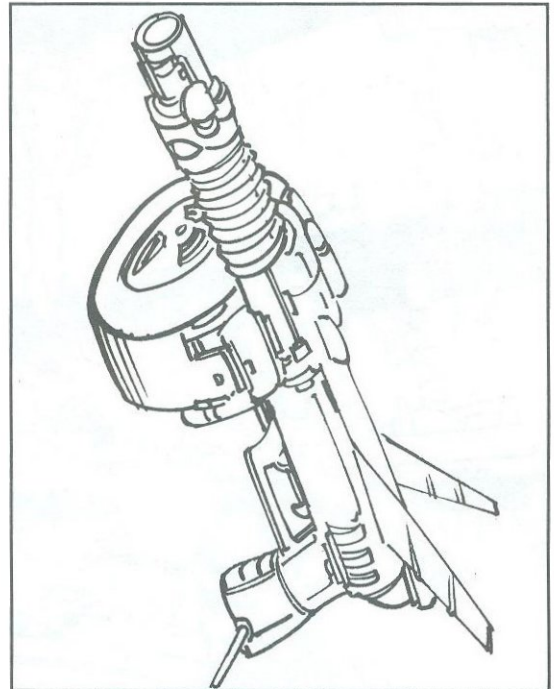
The XXVc™ boxed set lists a number of particle weapons. The enormous magnetic mass drivers on Luna fling huge objects into high Lunar orbit. The personal-size needle gun and bolt gun work like mass drivers, but shoot ordinary projectiles. Here are some new weapons, like the blunderbuss, which fires huge chunks of rock and trash into enemy craft.

Bolt Gun/Needle Gun

	Bolt Gun	Needle Gun
Cost:	200cr	250cr
Size:	18" long	18" long
Weight:	2	2
Range:	400	300
Damage:	1d4	1d3
ROF:	2	3
Shots:	10	20
Reload Cost:	10cr	10cr

These weapons function the same as a mass driver, although on a very much smaller scale. The barrel contains a series of electromagnets that accelerate the projectile to a very high speed. This makes the projectile subject to deflection by a nearby magnetic field, which makes this weapon undesirable in an area containing electrical devices, such as the interior of a space ship. These weapons have a -1 to -5 penalty in such areas (referee judgment), with the lighter needle round affected to a greater degree.

The battery in a needle gun or bolt gun is good for 60 shots and can be recharged in an hour.



Cyclorator

	Pistol	Rifle
Cost:	600cr	1,200cr
Size:	18" x 4" x 4"	42" x 8" x 8"
Weight:	8	16
Range (at various atmospheric pressures):		
High ¹	500	1,500
Average ²	400	1,200
Low ³	300	900
Space ⁴	50	150
Damage:	1d6 + special	2d6 + special
ROF:	1	1/2
Shots:	10	5
Reload		
Cost:	250cr	250cr

¹is greater than 1 Atmosphere (Venus, Jupiter, Saturn, Uranus, Neptune, etc.)

²1 Atmosphere (Earth, the Lunar domes, the mariposas and mines of Mercury, and any space station or spaceship)

³is less than 1 Atmosphere (Martian plains, Titan, etc.)

⁴Space (no atmosphere)

The cyclorator is the second most lethal hand weapon ever created—the graser is

first. The cyclorator's reactor creates a temporary magnetic bottle, fuses heavy tritium pellets into helium, and creates enormous quantities of energy. It then drops the magnetic bottle, forcing the helium particles into an accelerator that speeds them to near 10% the speed of light. The weapon's reload is a heavily shielded container of tritium pellets.

A target wearing any armor takes half damage (round up), as one half of the weapon's energy drills a hole into the armor before the other half can get through. Once punctured, the armor's AC is worsened by -1. Energy fields will not be penetrated.

A character hit by the weapon takes the listed damage and must save versus radiation or suffer radiation effects from a 1d4 source. Radiation exposure be countered by a radiation dose (see Medicines) or a medic with hospital facilities who makes an Average Treat Poisoning check. If one medic fails to cure the victim, other medics may try as well.

Blunderbuss

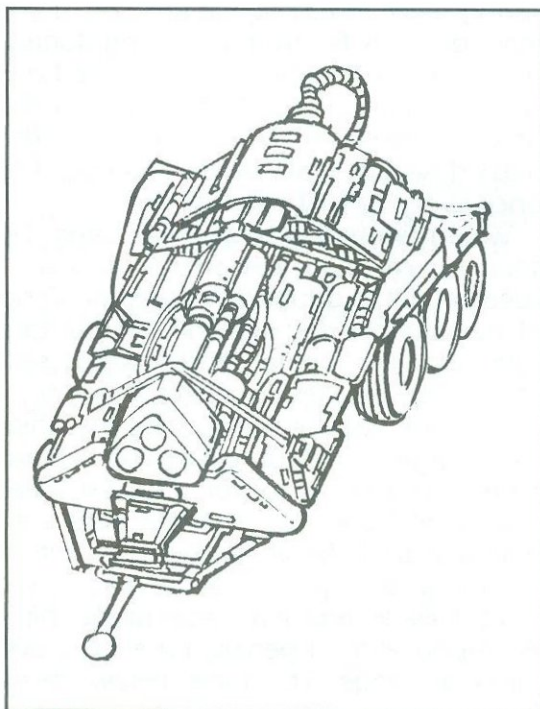
	Cannon	Aphid-Mount
Cost:	1,500cr	2,000cr
Size:	72" x 14" x 16"	144" x 32" x 32"
Weight:	180	360
Range:	1,000	1,500
Damage:	4d8	8d8
ROF:	1	1
Shots:	10 Rounds	10 Rounds
Reload Cost:	0cr	0cr

The blunderbuss (named after the ancient smoothbore weapons used during the 15th Century), also known as the Millennium blaster, is too large for personal use, and is usually towed on a trailer.

The blunderbuss comes in three parts: the "blunder," the hose, and the acceleration gun. It requires a crew of two; a gunner and a hose handler. The "blunder" is a

blender blade/drill attached to the hose that mulches any unarmored surface (plants, the ground, an asteroid, etc.). The rotating blade of the blunder forces the mulched material up through the appendage into the hose. The hose moves the particles into the accelerator, which forces them through a series of tightly woven electromagnetic discs and fires them out through the gun's muzzle. The gun can fire up to four pounds of mulched material in a single round.

The blunderbuss is powered by a miniature cold-fusion reactor that "drip-charges" the gun's 20 capacitors. After the blunderbuss fires for 10 consecutive rounds, the capacitors are drained. The reactor requires a full 20 rounds to recharge the capacitors from full discharge to full charge. For every two consecutive rounds that the gun is not fired, the reactor can charge the capacitors with one additional shot, to a maximum of 10 shots.



Mass Driver

Mass drivers are described in the *Technology Book*. They can hurl hundreds of tons of ferrite material. Mass drivers can easily destroy large targets (for example asteroid colonies, space stations, cities, even planets) that follow steady, unchanging courses—even if the targets are millions of miles away. Large models, such as the mass drivers on Luna, can hurl boulders the size of buildings.

But the mass drivers are not only weapons. By easing down on the acceleration, the operators can launch a payload into a high, stationary orbit. Battler builders' unions and corporations that purchase raw materials from the Lunarian government can then sweep near Luna to retrieve these materials at little cost.

Whenever the mass drivers are shot, they make a faint noise resembling the sound of crumpling metal. The floor shifts and sinks beneath the mass drivers, then springs back to its original position. If the mass driver is far from the living domes, the dome inhabitants don't feel the floor shift, but may feel a slight tremor as the ground absorbs the incredible kick of the mass driver. A mass driver can only fire once every 1d4+1 rounds.

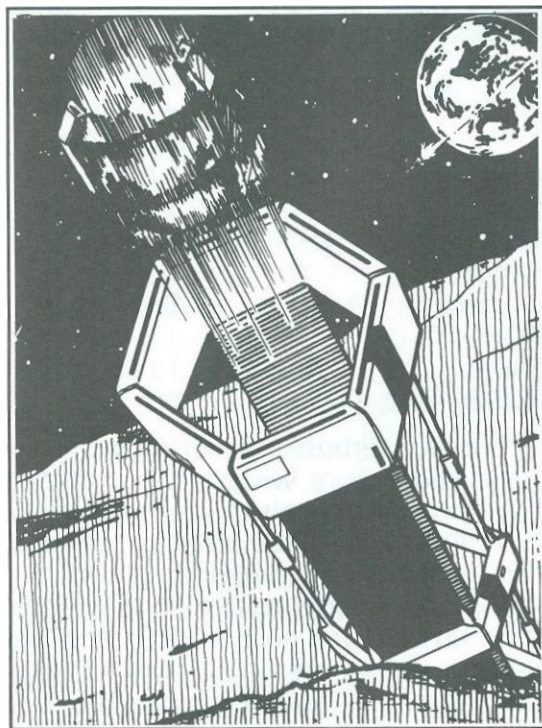
When firing at a large body using the solar system map, the shot travels at a speed equal to double the speed of 40 hp of fuel use per day (use the clear acetate ruler supplied in the XXVc™ boxed set). The referee decides the effect of any such long range bombardment. Against ship-sized targets, mass drivers have a maximum effective range of 150,000 miles (about an hour's travel time). When attempting to strike an enemy ship within this range, the operator of the mass driver must make an attack roll against the ship's AC rating, at a -1 penalty for every 2,500 miles of range. The table below deter-

mines the damage according to the size of the projectile. One half of the damage from a mass driver strike affects the hull; the rest goes to a randomly determined system.

Size (Diameter)	Damage
1" and less ¹	20
1 + " to 1' ²	30
1 + ' to 5'	40
5 + ' to 10'	80
10 + ' to 25'	160
25 + ' to 100'	320
100 + ' to 1/4 mile	640
1/4 + to 1/2 mile	1,280
1/2 + to 1 mile	2,560
1 mile +	5,120

¹This is equivalent to a Light Acceleration Gun.

²This is equivalent to a Heavy Acceleration Gun.



Miscellaneous Weapons

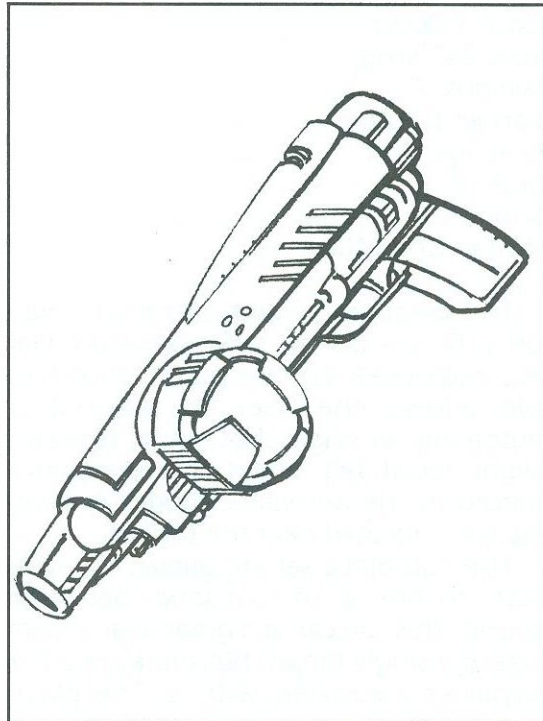
These aren't beam or particle weapons, but some of them still pack a pretty good punch. Some of them have more devious uses than damaging enemies.

Flak Gun

Cost: 800cr
Size: 27" × 14" × 12"
Weight: 4 (empty), 6 (loaded)
Range: 300
Damage: Special
ROF: 1/2
Shots: 1
Reload Cost: 100cr
Reload Size: 12" × 8" Diameter

The flak gun is a one-man portable chaff projector. When loaded, it is bulky and heavy. Unloaded, it is lightweight and easy to transport. The bulk of the gun (86% of its mass) is in its large drum-like load of chaff. A chaff shot is filled with small, light particles of shiny metallic flakes that cover an area of 50' radius. Any character or creature within a 25' radius of the shell when it goes off takes 1d4 points of damage from the detonation. Furthermore, unless protected by goggles or a helmet, those affected must save versus explosion or be blinded for 1-4 rounds. Chaff confuses sensors for a number of rounds as given on the table.

Against sensor-using weapons like smart bullets and heat-seeking missiles, chaff gives complete protection—and any explosive round will detonate on contact with the field. Chaff also jams radar signals, radar guidance systems will lock on the chaff field. It takes a full round to reload the gun.



Location	Duration
Mercury	10 + 1d10 Rounds
Venus	10 + 1d4 Rounds
Earth	10 + 1d4 Rounds
Luna	10 + 1d12 Rounds
Mars	10 + 1d8 Rounds
Vacuum	10 + 2d10 Rounds
Zero-gravity	1 round

Time assumes calm air; a strong wind can disperse chaff in as little as one round.

Automatic Rocket Rifle

Cost: 1,000cr

Size: 24" long

Weight: 7

Range: 1,500

Damage: 2d8

ROF: 4

Shots: 40

Reload Cost: 400cr

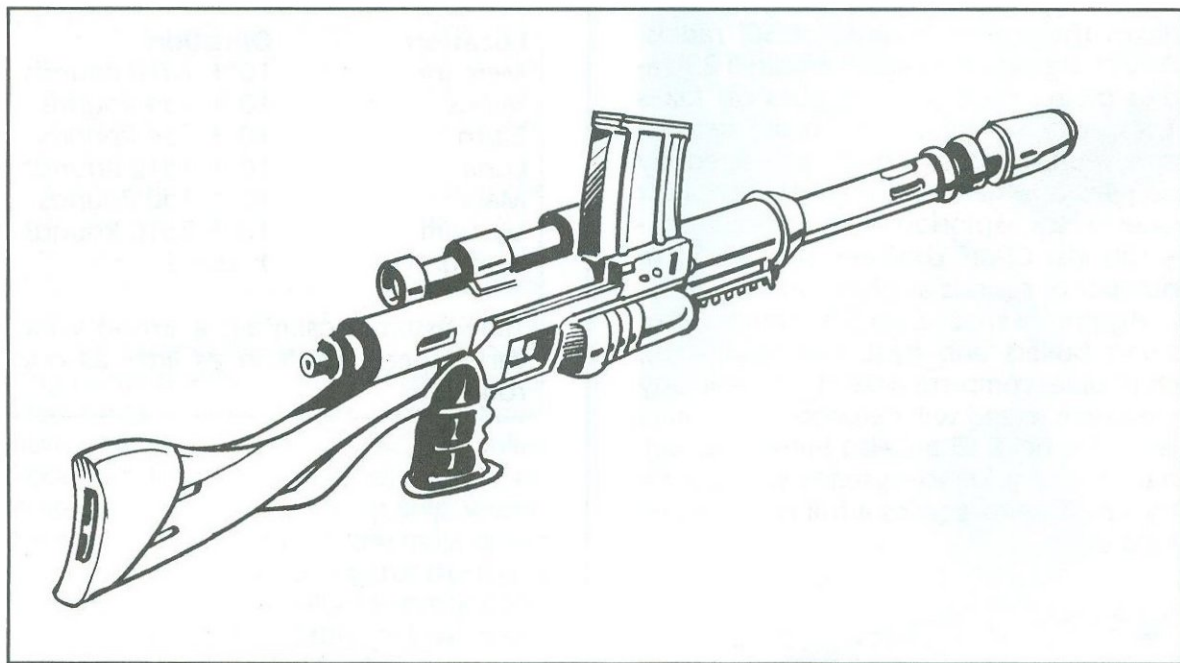
This weapon, as with all rocket weaponry, fires a stubby, self-propelled bullet. A switch located on the pump action handle allows the user to place it in automatic- or single-shot mode. There is a slight recoil felt when this weapon is placed in the automatic mode. A safety switch is located near the trigger.

The automatic setting allows the character to fire up to four times per melee round. This can cause a great deal of damage to a single target, but there are a few penalties associated with it. The player

must state before the beginning of the round, how many shots he wishes to fire. Each shot after the first receives a progressive -1 penalty to hit. This means, the second bullet of the melee round attacks at a -1, the third bullet at -2, and the fourth at -3. If the user wishes to choose different targets, the penalties stated above double.

When the automatic rocket rifle is placed in single-shot mode, it handles like a pump-action shotgun, shooting out a single bullet per melee round. The weapon looks very much like the rocket rifle, except for the pump handle under the barrel, and a top-loading magazine that holds the bullets. This magazine holds 40 rounds.

The weapon has one flaw: if a one is rolled on the d20 attack roll, the firing mechanism jams. Though there is no danger of explosion, 2-5 rounds are required to remove the jam from the weapon. Jams can occur in either full-auto or single-shot mode.



Lightning Gun

	Pistol	Rifle
Cost:	600cr	1,200cr
Size:	24" x 8" x 6"	48" x 12" x 9"
Weight:	8	16
Range (at various atmospheric pressures):		
High ¹	1,000	1,500
Average ²	800	1,200
Low ³	500	800
Space ⁴	50	80
Damage:	3d10 + special	6d10 + special
ROF:	1/3	1/5
Shots:	3	3
Reload Cost:	0cr	0cr

¹is greater than 1 Atmosphere (Venus, Jupiter, Saturn, Uranus, and Neptune)

²1 Atmosphere (Earth, the Lunar domes, the mariposas and mines of Mercury, and any space station or spaceship)

³is less than 1 Atmosphere (Martian plains, Titan, etc.)

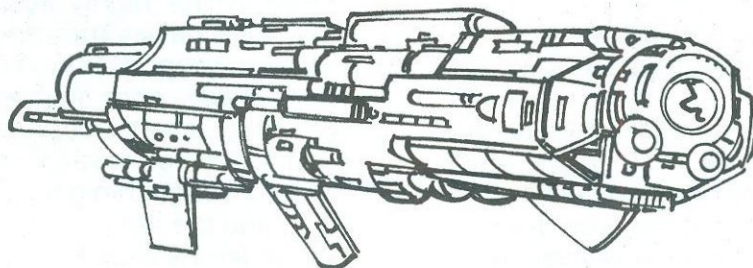
⁴Space (no atmosphere, surface of Mercury, etc.)

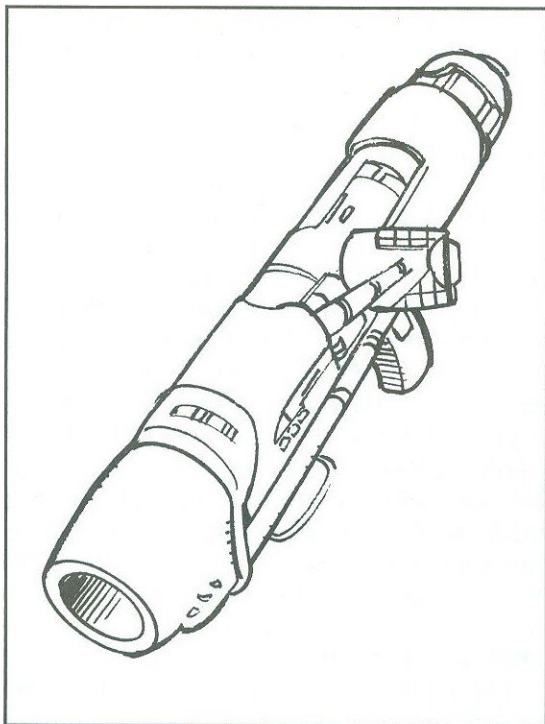
The lightning gun was first used in the early 22nd Century, when Earth's seafaring battleships used it to knock down enemy aircraft. Using the same principles as lightning, the lightning gun creates an ionization path to the target. (The ionized path may cause a victim's hair to

stand on end or clothes to cling.) Once the path is complete, the gun shoots an enormous charge that passes from ion to ion until it strikes the target. The target, regardless of what it is wearing or what it is constructed of, suffers 3d10 hit points of damage from the pistol, 6d10 points from the rifle, and must roll a saving throw versus lightning.

If the victim fails the saving throw, all equipment carried (be it smartsuit, space suit, gun, plastic explosive, laser, radio, etc.) must make a saving throw versus lightning. If the save fails, the item is rendered useless. On a roll of 1 or 2, weapons and similar materials explode, causing additional damage (weapons cause 1d6 per shot remaining). On a roll of 19 or 20, the item saves, but its batteries or capacitors are drained. Capacitors can be recharged normally.

The lightning gun is powered by a series of pre-charged capacitors. Expended capacitors can be replaced in one round. They take 12 hours to recharge from a standard powerpack.





Gyro Gun

Cost: 800cr
 Size: 36" L x 5" W x 12" H
 Weight: 16
 Range: 500'
 Damage: 4d10
 ROF: 1/2
 Shots: 1
 Reload Cost: 50cr (Dumb)
 100cr (Smart)
 200cr (AI Smart)

The gyro gun is a man-carried anti-vehicle weapon that rests on the operator's shoulder, much like a recoilless rifle. A sight lets the operator aim the gyro gun with little difficulty at a target (even a moving target) up to 500 feet away. As the trigger is squeezed, the user hears a "snuff" sound as the gyro shell homes in on its target. Exhaust from the gyro shell can cause

third-degree burns (2d8 points of burning heat) to anyone behind and closer than 20 feet to the launcher's back port.

Gyro shells come in two varieties: smart and dumb. The smart gyro has forward IR and UV sensors that give a +2 to the attack roll. Smart gyros can also be factory-outfitted with a miniature artificial intelligence (AI) program that gives a +4 bonus to the attack roll. Dumb gyro shells are not computer-assisted and do not receive any bonuses to their attack roll. Special types of ammunition are available: aerosol mist, chaff, dazzle, gas, and stun. These have the effect of an equivalent grenade. The gyro shells weigh two pounds per case, and are usually packed in cases of five shells.

Terrine-Issue Combat Knife

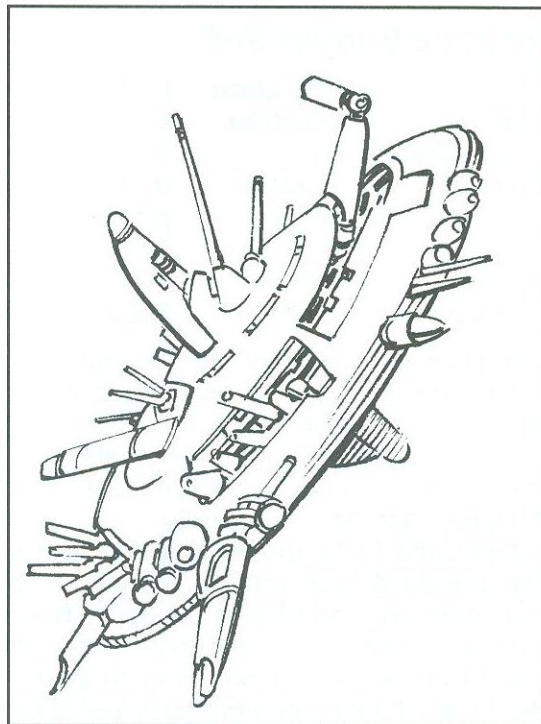
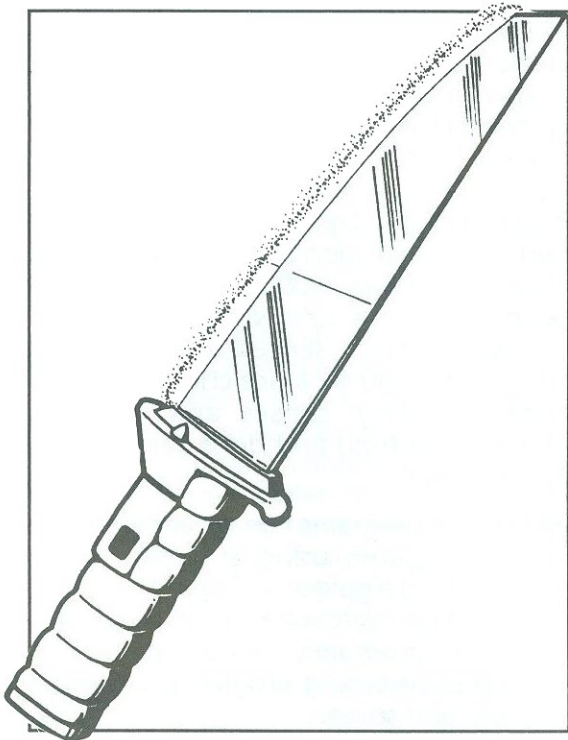
Cost: 250cr
 Size: 12" long
 Weight: 1
 Range: Special
 Damage: 1d6
 Reload Cost: 50cr (sedative),
 Special (poison)

The Terrine-issue combat knife is a lethal-looking weapon that feels heavy in the hand, yet is extremely well-balanced. It can be thrown 30-100' (Strength x 5). Designed for highly accurate throwing, this knife halves the range penalties for thrown weapons (round down). Its matte silver blade, once sharpened, can easily penetrate smart clothing and light body armor. It keeps its razor edge unless used to cut through thin gauge metal, battle armor, and the like.

The Terrine-issue knife conceals dual vials within the hilt. The vials usually contain a potent sedative. When cutting or stabbing a target, the knife wielder can thumb a switch on the knife hilt to inject

the sedative into the wound. Any character struck by a knife may, at the wielder's option, have to make a saving throw versus poison. If this save fails, the wounded character falls unconscious in 1d10 rounds. The effects of the sedative wear off and the character awakens after 1d4 hours. RAM military sedatives (black market, 400cr) give a -4 saving throw penalty and have a 1-4 round delay.

Some Terrine-issue knives used by Earth-based anti-NEO forces have a special "dirty tricks" modification. One vial is filled with a potent poison and is rigged to discharge its contents when the knife is removed from a wound. There is no known antidote; the poison vial must be removed from the knife hilt before the blade is removed from the wound. If this is not done, the victim must make a saving throw versus poison at a -6 or die immediately.



RAM-Issue Land Mines

Cost: 200cr

Blast Radius: 10'

Size: 5" x 5" x 1"

Damage: 4d10

Weight: 1/2

RAM-issue land mines, also known as "hot boxes", are some of the hottest incendiary mines in existence. These small devices can be triggered by radio, sound, motion, or pressure. Usually, when the chance of setting off a mine exists, the character is given a saving throw versus explosion to avoid it.

These mines have a fair blast radius, and they do a great deal of damage (4d10 to every target in the blast radius). The character triggering a mine usually gets no saving throw. Others get a standard saving throw versus explosion. Those who save take only half damage; those who fail take full damage.

Robotic Bodyguard

	Standard	RAM
Cost:	20,000cr	30,000cr
Armor Class:	4	2
Hit Dice:	6 (60 hit points)	8 (80 hit points)
Size:	1' x 2' x 5'	1' x 2' x 5'
Weight:	300	400
Pwr Cst/mo.:	500cr	500cr

Robotic bodyguards are the wave of the future. Everyone who is anyone has at least one continually following him around like a persistent valet, allowing the VIP to concentrate on matters more pressing than personal safety.

Designed to be moderately intelligent, the standard-issue robotic bodyguard is not smart enough to gain the upper hand with its master, yet is resourceful enough not to allow its programming to be fiddled with. (The programming is just as liable to AI, DP, or virus-induced program restructuring as any other program. It's nearly impossible to safeguard completely against viruses, especially against 25th Century viruses!)

The robotic bodyguard looks fairly human. Its artificial skin is warmed to mimic human flesh, its head swivels about on its neck convincingly, and its blinking eyes help give it a lively look. Its two legs are well-balanced, making the robot nearly impossible to topple. It has four arms, each with four flexible fingers. The bodyguard can manipulate all four arms independently (Dexterity 20). It can attack up to four targets simultaneously as a warrior for 1d6 points of damage per attack. The standard robot attacks at 6th level, the RAM model attacks at 8th.

If targets are not within melee range, the robotic unit can attack up to four of its built-in weapons. The list below displays the weapons' ranges and damages.

Standard Unit:

Weapon	Dmg	Range	ROF
4 Laser Pistols	1d8	800'	1
<i>Optional:</i>			
2 Gyro Guns	2d10	250'	1/2
2 Rocket Rifles	2d8	2,000'	1

RAM Unit: This is the same, except that a sonic stunner (Range 40') is also standard.

Both units have a variety of sensors. Treat these as any other skill ratings, assessing difficulty penalties as usual.

Standard sensors:

Sight: senses visual spectrum light within a mile on a 70% Notice check.

Hearing: the unit hears with an 80% Notice check.

Radio: receives radio waves with a 150% Notice check.

Optional sensors and programs:

Sight, IR (500cr): senses infrared emissions with a 75% Notice check.

Sight, UV (500cr): senses ultraviolet radiation with a 75% Notice check.

Speech (500cr): allows robot to verbally respond to questions and orders.

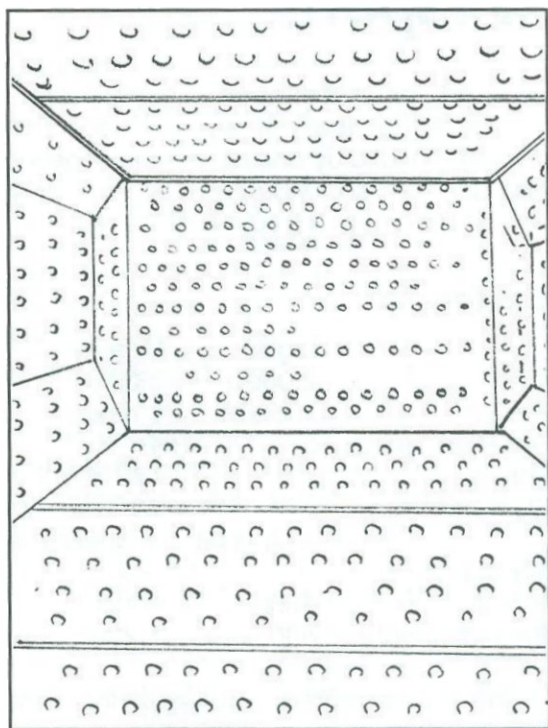
Feeling (600cr): senses the shapes of items within its grasp with a 50% Notice check without light. Success allows the correct manipulation of unfamiliar objects.

Seismographic (600cr): senses motion within 300' on a 50% Notice check.

Smell (800cr): senses and analyzes odors with a 50% Notice check.

Taste (900cr): senses and analyzes chemicals in food and drink with a 90% Notice check.

Additional programs can be added at the referee's option, using standard equipment costs as a guideline. Typical modifications include microwave communications, language programs, sensor monitoring programs, recording programs, voice-lock security, and so on.



Disintegrator Chamber

Cost: 1,640,000cr
 Size: 20' × 30' × 10'
 Weight: 5.5 tons
 Range: Special
 Damage: Special
 Reload Cost: Special

The disintegrator chamber is a room-sized machine. It requires the power available to cities: raw, asteroid-cracking petawattage (quadrillion watts).

A disintegrator chamber works by dissolving the molecular bonds that hold materials together—it can destroy everything except metal. A disintegrator chamber will reduce a living creature to atoms, molecules, and sometimes a fine dust—any metallic substances such as fillings, metal jewelry, and boot tacks stay behind. Some disintegrator chambers have vac-

uum systems that remove the detritus.

RAM has, on occasion, used their disintegrator chambers to quell rebellions and protests. In one instance, RAM destroyed nearly 4,000 worker gennies that NEO force incited to revolt.

Stun Pod

Cost: 1,000cr
 Size: 2' × 3" × 1"
 Weight: 4
 Range: 40'
 Damage: Stun
 Reload Cost: 100cr

The stun pod is a computerized weapon that can be mounted on any rifled weapon. The stun pod incorporates a sonic stunner, tracking mount, and recognition program. The program identifies specific genotypes and automatically adjusts the weapon to the appropriate frequency and strength for stunning. Each shot drains four shots from the power pack of the rifle (if there are less than four shots, the power pack is completely drained with no effect. It requires one complete round to attach or detach the stun pod, and the rifle cannot fire its normal charge while the stun pod is attached.

Ship-to-Ship Weapons

Smaller versions of these weapons were described in the previous section. Statistics for ship-mounted versions are listed below. In most cases, a small explanation illustrates the ship-mounted version's special offensive capabilities.

These weapons aren't just restricted to on-ship use. They can be emplaced almost anywhere that high security is desired—corporate headquarters, mints, factories, space elevator guard stations, prison moonlets, ore-rich asteroids, research stations, etc. Ship weapons can also be placed on All Terrain Vehicles (ATVs), which can carry one weapon space of weapons (see the weapon statistics tables) for every ten tons.

These weapons are too bulky and unwieldy to be used as hand-held weapons, even in low or zero gravity.

Acceleration Gun

	Light	Heavy
Cost:	2,500cr	5,000cr
Range:	2 hexes	2 hexes
Weapon Spaces:	1	2
Damage:	20 points	30 points
Hit Bonus:	-1	-2
ROF:	1	1
Shots:	15	10
Reload Cost:	200cr	400cr

The acceleration gun is a ship-sized version of the mass driver, and a larger version of the needle gun or bolt gun.

The acceleration gun works like its cousins, firing solid projectiles at enemy ships. By the time it leaves the muzzle of the gun, the projectile is traveling at better than a mile a second—and in deep space, there's nothing to slow it down.

The heavy acceleration gun is slightly less accurate than the light acceleration

gun and does not contain as many projectiles in a full load of ammunition. The damage caused by one of the heavy gun's boulder-sized shots is nearly as great as a missile strike—at a fraction of the cost.

Cyclorator

	Light	Heavy
Cost:	2,000cr	3,000cr
Range:	2 hexes	4 hexes
Weapon Spaces:	2	4
Shots:	12	12
Damage:	10	20
	+ special	+ special
Hit Bonus:	-2	-3
Reload Cost:	400cr	600cr
Reload Weight:	600	1,200

The ship-mounted cyclorator does not cause radiation damage to the passengers within a targeted ship until the ship's hull is breached. Once the ship's hull is breached, the cyclorator beam causes radiation damage to 1d4 crew every time the beam hits (a saving throw versus radiation is allowed to avoid the effect). Large windows, such as those in many civilian vehicles do not protect against radiation, and all exposed passengers and crew members must save against the radiation effects.



Graser

	Light	Heavy
Cost:	4,500cr	6,000cr
Range:	1 hex	1 hex
Weapon Spaces:	2	4
Shots:	Unlimited	Unlimited
Damage:	Special	Special
Hit Bonus:	0	0
Reload Cost:	0cr	0cr
Reload Weight:	0	0

This weapon kills the crew of the opposing ship by exposing them to lethal gamma radiation. A light graser affects 2d4-3 crew, a heavy graser affects 3d4-4 crew. If greater than zero, the result is the number of crew members who die of radiation exposure (PCs and important NPCs get a saving throw versus radiation). If the save succeeds, nothing happens to the character: the gamma radiation from the graser missed completely. If the saving throw fails, the character is fatally poisoned by gamma rays. Light graser radiation kills the character within 1d4 rounds. Heavy graser radiation kills within 1d2 rounds.

If the attack roll is a natural 20, the referee should roll on the table below.

Roll	Crew Member Affected
1	Astrogator
2	Pilot/Captain
3	Co-pilot/First Mate
4	Communications Officer
5	Engineer
6	Medic
7	Gunner
8-10	Random PC or major NPC

The use of graser weapons is considered an atrocity. They are rare, and used mostly by RAM intelligence and certain notorious pirates.

Raser (SW)

	Light	Heavy
Cost:	2,000cr	3,000cr
Range:	3 hexes	5 hexes
Weapon Spaces:	1	2
Shots:	Unlimited	Unlimited
Damage:	2 rounds	4 rounds
Hit Bonus:	-1	-2
Reload Cost:	0cr	0cr
Reload Weight:	0	0

When checking the success of an attack roll, make sure that the attacker receives a -1 or a -2 penalty to the attack roll, depending on the size of the weapon used. With a successful hit, the opposing ship is unable to use normal communication equipment for the number of rounds specified under Damage. Since the rased ship is jammed, it cannot receive any new orders or pass on any information that it may have discovered. The time that the target ship's communications is out is cumulative, and can be increased by additional raser hits. It is possible to pump a radio signal strongly enough to punch through the jamming (or bring in a garbled message) by making a Commo Operation roll, Difficult for the light raser and Impossible for the heavy raser.

Raser (LW)

	Light	Heavy
Cost:	6,000cr	9,000cr
Range:	3 hexes	5 hexes
Weapon Spaces:	1	2
Shots:	Unlimited	Unlimited
Damage:	2 rounds	4 rounds
Hit Bonus:	-1	-2
Reload Cost:	0cr	0cr
Reload Weight:	0	0

When checking the success of an attack roll, make sure that the attacker receives a

-1 or a -2 penalty to the attack roll, depending on the size of the weapon used. With a successful hit, the opposing ship is unable to use its sensor equipment for the number of rounds specified under Damage. While the rased ship is blinded, its sensors cannot detect any new ships that arrive at the combat scene. The rased ship has an automatic -4 attack penalty while its sensors are awry. (Characters on rased ships can only tell where their assailants are by waiting until attacked, then calculating the location the attack is likely to have come from.)

Lightning Gun

	Light	Heavy
Cost:	3,500cr	5,000cr
Range:	Same hex	Same hex
Weapon Spaces:	2	3
Shots:	Unlimited	Unlimited
Damage:	25	40
	+ special	+ special
Hit Penalty:	-4	-6
Reload Cost:	0cr	0cr
Reload Weight:	0	0

This ship-mounted weapon is a giant version of the hand-held lightning gun. Its range is so short that the gun can only be used in the same hex as the target ship.

The lightning gun has an attack penalty that makes the success of its use very uncertain. The attack penalty reflects the weapon's incredibly short range, not its inaccuracy. To determine if a ship within the attacker's hex is in range, roll an attack roll using the Hit Penalty listed above; you do not need to determine exactly how far the ships are from each other.

A lightning gun can be used against ground targets within 1,000 feet. Such targets have their normal AC (buildings are AC 8) and the gun has its listed hit penalty. Aircraft ACs are modified by

their Reaction Bonuses. Living targets in a 5' radius take 10d8 electrical damage. When a bolt from a lightning gun hits a ship, one of the ship's systems overloads and shuts down for 1d4 rounds. With a natural 20 roll on the attack roll, the system shuts down permanently until repaired. The table below lists the systems that the lightning gun can affect:

1d12 Roll	Ship System Hit
1	Sensors
2	Communications
3	Controls (-1 initiative)
4	Life Support
5-6	Engines
7	Weapon (one)
8-9	Illumination
10-12	No Effect

Blunderbuss

	Light	Heavy
Cost:	4,000cr	6,000cr
Range:	1 hex	1 hex
Weapon Spaces:	2	3
Shots:	Special	Special
Damage:	30	50
Hit Bonus:	+2	+1
Reload Cost:	0cr	0cr
Reload Weight:	400	800

The blunderbuss (also known as the Millennium blaster cannon) works identically to the smaller version detailed in Beam Weapons. The ship-mounted version, however, is far larger and far more deadly.

Each firing of the blunderbuss requires raw material; 40 pounds per firing for the light blunderbuss and 80 pounds for the heavy version. After 10 firings, the capacitors are drained of their power and the fission reactor must be given 20 rounds to recharge them. For every two consecutive rounds that it is not fired, the reactor charges one additional shot, to a maximum of 10 shots.

Ship Accessories

These stealth and sensor packages will propel the deadly game of hide-and-seek in space to greater heights of danger and excitement.

Stealth Package α

Cost: 5,000cr per 10 tons
Weapon Spaces: 2

This package makes a spacecraft "invisible" to all IR scanning devices. The alpha package is designed to provide ships with unequalled protection from heat-seeking missiles. The package even masks heat emissions from the engines. It cannot, however, mask the long trail of ionized particles and subatomic particles that the ship's engines leave—and which can be detected by particulate sensors.

Each stealth package increases the ship's fuel usage by 25%.

Stealth Package β

Cost: 5,000cr per 10 tons
Weapon Spaces: 2

The beta stealth unit makes a spacecraft "invisible" to UV and radar, letting it run through enemy lines without being detected. When the ship runs blind (engines off, radio transmitters silent, and sensors offline), it cannot be detected. Unfortunately, this also means the ship cannot maneuver, change its direction, or fire its weapons without giving itself away.

This package does not mask the heat emitted from the engines, as does the alpha package. This means that, to gain the benefits from this stealth package, the ship must drift, using its maneuvering jets occasionally to change heading slightly, hoping to reach its destination safely.

Each stealth package increases the ship's fuel usage by 25%.

Stealth Package γ

Cost: 5,000cr per 10 tons
Weapon Spaces: 2

The gamma stealth package is designed to let ships hide in the open—it's a favorite of those who want to ambush unwary travelers. The gamma package makes the spacecraft "invisible" to radar, UV, and VS scanning devices—including the naked eye. The gamma package projects a three-dimensional picture of a star field where the ship should be. Any character can still detect the ship with an Impossible Astro-gation check. The package does not mask engine heat emissions, so the ship can still be detected by IR sensors when its engines are on.

A ship that uses its weapons while its gamma stealth package is activated gives away its location, and anyone can fire upon the ship for two rounds without penalty. If the ship moves, it appears as a shimmering and fluctuating star cluster, and enemy attack rolls are penalized by -4.

Each stealth package increases the ship's fuel usage by 25%.

Sensor: Infrared

Cost: 3,000cr
Range: Two light minutes
(22,320,000 miles)
Weapon Spaces: $\frac{1}{2}$

This ship sensor allows the ship's navigator to locate any object that has a heat signature. Warm bodies, ships with their engines on, and ships whose engines

were turned off within four turns all have heat signatures. Within the Earth-to-Luna orbit, any ship or item larger than a man that is in sunlight will show up on an infrared scan.

(Use the communications section of the clear acetate ruler that came with the XXVc™ boxed set to see how far sensors work within the solar system. Two light minutes are equal to two radio minutes.)

Sensor: VS/UV

Cost: 5,000cr

Range: One light minute

(11,160,000 miles)

Weapon Spaces: 1/2

VS/UV (Visual Spectrum/Ultraviolet) scanners are the most common sensor enhancement. These units pick up anything that is visible to the naked eye, or anything that reflects ultraviolet radiation—that is, everything—within one light minute (11,160,000 miles). Anything in the shade of a planet cannot be seen with the VS scanner, although it can be seen with the UV sensor. Ships using a Stealth Package γ , are concealed from VS/UV sensors.

Sensor: Particulate

Cost: 10,000cr

Range: Three light minutes

(33,480,000 miles)

Weapon Spaces: 1/2

The particulate sensor is by far the most powerful of the three sensor packages, but its use is actually quite restricted. The particulate sensor analyzes the atomic and subatomic particles in deep space. RAM and Venusian military vessels use the particulate sensor when they are looking for ships, as ship engines leave a

relatively dense wake of atomic and subatomic particles. It takes several (1d4+2) hours for these particles to spread out randomly in the vacuum of space. When a particulate sensor detects a wake, it can track the ship's bearing and tell the approximate time since its passage.

By the same token, when a ship flies blind (with its engines off), it disturbs subatomic particles in its path, much as a spoon stirs a liquid. A ship's vacuous wake stays visible to the particulate sensors for 1d4 turns. It is very difficult to detect a blind ship. In game terms, following a ship's engine trail is a Difficult task; locating the trail of a ship flying blind is an Impossible task.

Sensor: Radar

Cost: 10,000cr

Range: Three light minutes

(33,480,000 miles)

Weapon Spaces: 1/2

Hit Bonus: see below

The radar sensor allows the ship's navigator to locate any stationary or moving obstacle, from cold chunks of lifeless asteroids to speeding meteorites, so the ship can maneuver around them safely. Radar can pick up any object that is not protected by an alpha or beta stealth package.

Radar sensors can be used in combat, allowing the operator to relay enemy ship positions to the gunners via the ship's computer. The operator can link with one gunner per character level and must roll a Difficult Sensor Operation check at the beginning of each round. Success gives the linked gunners a +2 bonus to their attack rolls.

Smart Clothes and Accessories

Smart Clothes

Cost: 1,000cr (full basic outfit)

Replacement Pieces:

Tunic: 500cr

Pants: 300cr

Gloves: 100cr

Boots: 100cr

Size: 2' x 2' x 1' (when stowed)

Weight: 30

Armor Class: 4

Much of the combat and military clothing of the 25th Century is smart clothes. Smart clothes incorporate internal circuitry and microcomputers for climate control, communications, and defense. Woven into the fabric of the standard smart uniform are thousands of hair-thin conductive plastic and ceramic wires. Connected to a power pack, this wiring can be heated or cooled as needed. The suit's dense fabric is specially treated to absorb energy from lasers and electric stun devices, dispersing the energy throughout the clothing. In addition, the tough wire net protects against knives, swords, or low caliber hand guns (.35 and smaller). All smart suits require a utility belt to function properly.

Utility Belt

Cost: 200cr

Size: 4" wide, 20" to 40" long (adjusts)

Weight: 5

Armor Class: n/a

Every suit of smart clothing must be accessorized by a utility belt. Each utility belt comes with a single power pack (see the entry below) built into the belt buckle. This battery can power a smart suit for 24 continuous hours when fully charged.

Treat this battery unit as a double-strength power pack, and subtract one hour of use for every energy-using device attached to the belt. Up to five items can be attached to a utility belt. Each item can be powered by the suit's own power supply or by additional power packs.

Power Pack

Cost: 25cr

Size: 3" x 3" x 1"

Weight: 1/2

Armor Class: n/a

A clip-on power pack can operate for 12 hours (minus one hour for every additional power-using item on the utility belt). When the main battery in the utility belt is depleted, the add-on power packs kick in one at a time. If one or more energy-using items are used on the utility belt, a power pack must power the item.

ECM Package

Cost: 50cr

Size: 2" x 2" x 1/2"

Weight: 1/2

Armor Class: see below

With an ECM (electronic countermeasure) package clipped to the utility belt, the integrated wiring within the smartsuit can create a strong jamming field that confuses incoming rockets and smart bullets. Most ECM fields are programmed to tell the projectile to travel straight up (perpendicular to the missile's original path). Other ECM fields are designed to create a ghost image that makes the smart bullet lock onto an incorrect target, missing the intended victim. Either way, there is a 50% chance that the suit will divert any

bullet or rocket (checked after the enemy's attack roll).

Stealth Unit Δ

Cost: 200cr
Size: 2" × 2" × 1/2"
Weight: 1/2
Armor Class: n/a

A personal version of the ship-masking alpha stealth package, this device makes the wearer "invisible" to sonic or infrared alarm systems by masking any sound waves and heat signatures created by the wearer's body.

Stealth Unit ε

Cost: 200cr
Size: 2" × 2" × 1/2"
Weight: 1/2
Armor Class: n/a

This device makes the wearer "invisible" to VS and UV alarm and detection systems by masking any light waves emitted from or reflected by the wearer's body. When activated, this item basically creates a "black hole" where the character stands. When used to hide from intelligent life forms, this option is best used at night as the black hole effect is immediately obvious in normal lighting.

Security Pack

Cost: 35cr
Size: 3" × 2" × 1"
Weight: 1
Armor Class: n/a

This item detects any motion or sound that occurs within 50'. When activated, the unit transmits a silent alarm (a tiny, pulsating vibration) when any object half

man-sized or larger moves into the area. The device can be programmed to ignore up to six particular objects, such as companions or pets.

Communications Pack

Cost: 50cr
Size: 6" × 2" × 1"
Weight: 1
Armor Class: n/a

Essential whenever a smart uniform is used in an airless environment (assuming there's someone else to talk to within range), and certainly convenient the rest of the time, the communications pack consists of a radio receiver and transmitter. Using the uniform's integrated circuitry as an antenna, the communications pack can broadcast signals as far away as 20 miles.

Decoder/Encoder Option

Cost: 100cr
Size: 1" × 1/2" × 1/2"
Weight: 1/4
Armor Class: n/a

The decoder/encoder, an option for the communications pack, stores the user's choice of 12 preprogrammed coding sequences. When the decoder/encoder receives a transmission, it immediately selects the correct decoding sequence from among those with which it has been programmed and relays the message through the communications pack. If the character receives a rogue transmission, there is a 5% chance that the option can decode the transmission. If the decoder cannot decode a message, it sounds a slow beep. Outgoing communications can be encoded by pressing one or more buttons to select the code.

Decrypter Option

Cost: 400cr
Size: 1" x 1" x 1"
Weight: 1/4
Armor Class: n/a

The decrypter, another option for the communications pack, is a cryptography program that attempts to crack any coded message it receives.

The decrypter has a Bypass Security rating of 5%, and the user rolls an Average skill check for it. On a success, the user gets the message. On a close failure, the referee might decide to allow a partial success (for example, if a percentile roll was 33%, the user hears the last 33% of the message).

Vacuum Backup

Cost: 200cr
Size: 2' x 2' x 2'
Weight: 10
Armor Class: 4

This package, consisting of polymer fabric coveralls (75cr), a helmet (75cr), and an air recycler, allows the smart clothes wearer to survive in a vacuum or a poisonous atmosphere for up to 24 hours. The protection afforded is the same as that provided by a space suit. After the first 24 hours, the efficiency of the recycling unit steadily degrades over the next 12 hours, which is as long as the suit's power holds out. If the vacuum backup is within easy reach, it can be snapped on over a smart suit in one round. The micro-circuits of the smart suit will integrate automatically with the wiring of the backup unit. Like the standard vacuum suit, the backup unit is self-sealing; however, users should remember that this is lightweight emergency gear and is not as durable as standard vacuum gear.

Bypass Options

Cost: Various
Size: 4" L x 2" W x 12" H
Weight: 6

The bypass option is a favorite among rogues and pirates throughout the solar system. This briefcase-sized unit grants bonuses on rolls for the Bypass Security, Open Lock, and Repair Electrical skills.

There are several different bypass options. Each unit's cost and the bonuses it confers to the three skill rolls are listed below. Unless a character specifically asks for one of these options by number, he is always given Bypass Option #1.

Bypass Option #1

Cost: 1,500cr
Bypass Security: +5%
Open Locks: +5%
Repair Electrical: +5%

Bypass Option #2

Cost: 1,500cr
Bypass Security: +0%
Open Locks: +15%
Repair Electrical: +0%

Bypass Option #3

Cost: 2,000cr
Bypass Security: +5%
Open Locks: +15%
Repair Electrical: +0%

Bypass Option #4

Cost: 2,500cr
Bypass Security: +0%
Open Locks: +10%
Repair Electrical: +15%

Bypass Option #5

Cost: 3,000cr
Bypass Security: +15%
Open Locks: +10%
Repair Electrical: +5%

Medicines

The following medical products can be purchased at almost every Type A or B spaceport across the solar system. In the seamier sections of space or at the far-flung Type C spaceports, any medicines can be purchased on the black market for up to 10 times the listed price.

Radiation Dose

Cost: 200cr per dose

This drug is very expensive, but without it, someone suffering from radiation poisoning has little chance to live.

The radiation dose comes in pill form. When swallowed, the radiation dose enters the bloodstream, lymphatic system, organs, and the glands (especially the endocrine glands), and binds itself to any radioactive molecules it finds, rendering them inert. The body then flushes these inert substances out, clearing the character of all radioactive elements.

When the character takes a radiation dose, he must roll a saving throw versus radiation with a +1 bonus. If this save is successful, the drug neutralizes the radiation, and the progress of any radiation-associated damage ceases. If the saving throw fails, the radiation damage is too large for one pill to counteract, and the character may take another. Each pill causes a cumulative -1 to all attack rolls and -5% to all skill rolls until the character takes one day of complete bed rest.

Field Kit

Cost: 1,000cr (kit)

2,500cr (refill)

Size: 5" length, 4" width, 3½" height

The field kit is an important instrument for any medic in the field. The kit contains several liquid-and pill-form medicines. It

grants the medic a +10% bonus to the following medic career skills: Diagnose, Treat Disease, Treat Light Wounds, Treat Poisoning, and Treat Stun/Paralysis. If the medic does not have a particular skill, the kit gives a flat 10% chance for it. The kit gives all non-medic characters a 5% chance for each of the listed medic career skills. The kit saves as hard plastic, with a +4 bonus.

The super-concentrated liquid medicines are compressed into tiny urethane tubes, so 24 doses (of up to 50 different fluids) will fit in the field kit. A special syringe that does not puncture the skin safely injects these liquid medicines into the patient. The pills are super-concentrated as well; full potency at half the size of standard pills. A few of the pills and the fluids that can be contained in the field kit are listed below. The referee is encouraged to create medicinal products as the need arises in the individual campaign.

Medicinal Product	Price
Antibiotic	5cr/dose
Antifungal	3cr/dose
Antipoison	10cr/dose
Antiseptic	1cr/dose
Antiviral	8cr/dose
Blood coagulant	100cr/dose
Gravitol	50cr/dose
Life Extend	100cr/dose
Radiation Dose	200cr/dose
Water Purifier	1cr/dose

The field kit also contains equipment that lets the medic test samples of blood and other bodily fluids. For example, the kit would be able to identify a poison in a character's blood sample, and tell the medic which antidote would counteract it.

Note that once the field kit is lost or destroyed, the career skill bonuses are lost until the kit is replaced.

Vehicles

This chapter details many different vehicles found throughout the XXVc™ universe. Anyone with enough cash or credit can purchase any non-military craft. Typical purchase terms are delivery on payment—with a 5% shipping and handling fee, of course.

Venusian Rover

Tonnage: 22	Armor Class: 6
Length: 25'	Crew: 3
Width: 13'	Speed: 50 mph
Cargo: 3 tons	Reaction Bonus: -1
Cost: 40,000cr	Defense Bonus: -2

Weapons:

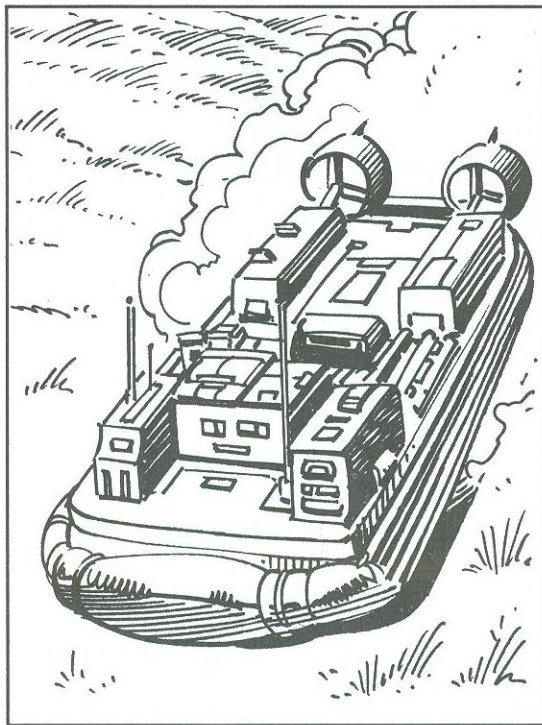
- 1 Beam Laser
- 1 Missile Mount

Hit Points:

Hull: 88
Sensors/Commo: 22
Controls: 22
Life Support: 44
Fuel: 66
Engine: 66

The Venusian rover, a hovering ATV (All-Terrain Vehicle), was originally a military vehicle that has fallen into the lands of private contractors and mercenaries, although the Venusian military still use it. The rover was designed to float across the acidic oceans and flatlands of Venus with ease.

A fibrous, flexible metallic skirt circles the Venusian rover. Large fans powered by a miniature fission reactor produce a pocket of pressurized air under the vehicle, keeping it four feet off the ground. Large dual fans at the craft's rear push the rover across the harsh grounds at speeds of 50 miles per hour.



This craft can be used in any planetary atmosphere with an atmospheric pressure of at least one-half Atmosphere. The vehicle is grounded at lower pressures. The craft's pliant metallic skirt can withstand all known naturally-occurring acids and bases without damage.

The Venusian rover cannot climb heights greater than ten feet. If it drops more than ten feet, the craft suffers 1d6 points of damage per each additional 10 feet (to a maximum of 10d6 points.)

Although the vessel comes with the standard weapons configuration shown above, individual owners tend to install their own favorite combinations. The vehicle has two weapon spaces.

Mercurian Dune Dancer

Tonnage: 1 1/2 Armor Class: 5
Length: 18' Crew: 2
Width: 6' Speed: 30 mph
Cargo: 1 Reaction Bonus: +1
Cost: 20,000cr Defense Bonus: +0

Weapons: 1 Plasma Thrower

Hit Points:

Hull: 6
Sensors/Commo: 2
Controls: 2
Life Support: 3
Fuel: 5
Engine: 5

This two-man, all-terrain vehicle is used primarily by the Desert Dancers of Mercury. The tank-like vehicle runs on two caterpillar treads. Although somewhat cumbersome, the Dune Dancer is able to reach a speed of 30 mph over the roughest traversable terrain.

The vehicle is well insulated and heavily shielded against the radiation and heat of the sun, with a complete life-support system. The shielding gives it an effective Armor Class of 5.

The vehicle, if armed, usually mounts a plasma thrower, which is usually hidden in a concealed gunport.

Mercurian Tri-Fury

Tonnage: 400 lbs Armor Class: 9
Length: 4' Crew: 1
Width: 2' Speed: 40 mph
Cargo: Personal Reaction Bonus: +2
Cost: 900cr Defense Bonus: +4

Weapons: None

Hit Points:

Hull: 1
Controls: 1
Fuel: 1
Engine: 1

This versatile and durable vehicle is a common sight in the warrens of Mercury. Driven by an electric engine, tri-furies resemble the small, three-wheeled all-terrain vehicles that were popular in the 20th Century. Able to reach a maximum of 40 mph, tri-furies can carry up to two persons. Most of these vehicles are built with a large hollow area under the seat for carrying small items.

Mercurian Rocket Sled

Tonnage: 1/2 Armor Class: 6
Length: 8' Crew: 1
Width: 5' Speed: 180 mph
Cargo: Personal Reaction Bonus: +2
Cost: 25,000cr Defense Bonus: +4

Weapons:

2 Laser Rifles
1 Mini-Missile Mount (2 missiles)

Hit Points:

Hull: 2
Controls: 1
Fuel: 1
Engine: 1

This jet-propelled, one-man craft is used by both military and internal security forces as a patrol craft. The vehicle is heavily armed and armored, with two laser rifles and two smart mini-missiles (treat each missile as a one-shot rocket launcher with AI guidance; 5d10; reload cost 500).



HISTAV

High-Speed Tracked Amphibious Vehicle

Tonnage: 8 Armor Class: 4
Length: 40' Crew: 1 + 15 passengers
Width: 20' Speed: 120 mph,
60 mph water
40 mph submerged)
Cargo: 4 Reaction Bonus: +2
Cost: 80,000 Defense Bonus: +1

Weapons:

- 1 Rocket Launcher
- 1 Flamethrower

Hit Points:

Hull: 32
Sensors/Commo: 8
Controls: 8
Life Support: 16
Fuel: 24
Engine: 24

This heavy all-terrain vehicle provides a long-term sealed environment for up to 8 passengers, or transport for up to 15. When sealed, it can support its passengers indefinitely with its built-in life support system. It has cooking facilities and room for four persons to sleep while four others occupy the cabin.

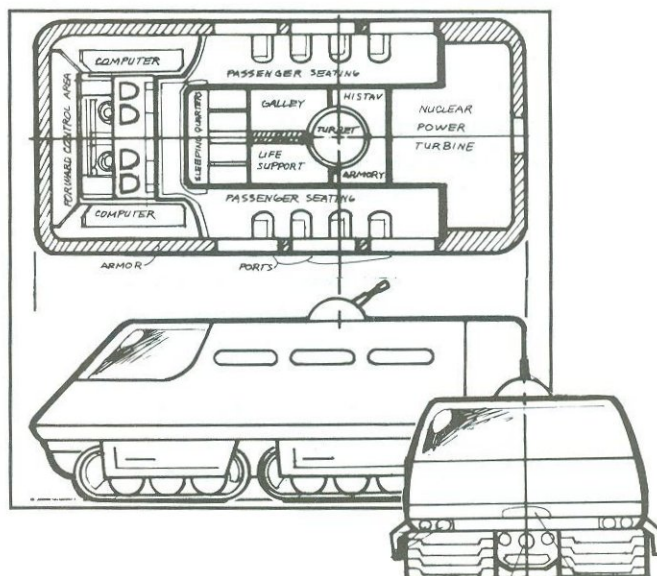
The vehicle can negotiate nearly any type of terrain. Its wide tracks and squat profile allow it to climb steep mountains and negotiate mud flats or deep ditches. The four plastic, rubber, and silicone tracks are equipped with retractable lugs that grip even steep, icy slopes. Each track has an independent suspension and drive, as well as a swivel mount. The nuclear turbine engine is nearly silent, even at high speeds.

The crew has good visibility in all directions, due to plexiglass bubbles on all sides of the vehicle. Extremely bright headlights (one mile range) and several movable

searchlights aid night observation. A high-speed navigation program allows the vehicle's position to be pinpointed anywhere on the planet, if appropriate planetary maps have been loaded.

Amphibious mode can be adopted in five rounds without leaving the vehicle. The vehicle is then propelled by a suction fan with a bow intake and rear port, through which water is jetted at high pressure. The tracks stretch into knife-edged fins in this mode, and the vehicle can move either on the surface or submerged.

The armored shell of the HiSTAV will stop the first 30 hit points of damage from any attack. Greater damage punctures its armor. Hidden gunports allow up to two characters per side (including) top and bottom) to fire out with personal weapons (treat as 75% cover). In addition to a rocket launcher in a dorsal turret, the vehicle carries a flamethrower in its bow. Originally used to deal with snow or ice obstacles, the device has a range of 200 feet, and a fan-shaped area of effect (45° wide). Those in the area take 3d6 points of fire damage (save vs. extreme heat for half damage). The HiSTAV carries enough fuel for 25 blasts.



SATAV

High-Speed All Terrain Amphibious VTOL

Tonnage: 8	Armor Class: 8
Length: 40'	Crew: 8-12
Width: 20'	Speed: Variable
Cargo: 3 tons	Reaction Bonus: -2
Cost: 80,000cr	Defense Bonus: +1

Weapons:

- 2 Rocket Launchers
- 1 Flamethrower

Hit Points:

- Hull: 32
- Sensors/Commo: 8
- Controls: 8
- Life Support: 16
- Fuel: 24
- Engine: 24

This heavy all-terrain vehicle can go almost anywhere. It was originally a military vehicle, but has been adapted to commercial and security use. Like the HiSTAV, provides a long-term sealed environment for up to 8 passengers, or transport for up to 12. It has cooking facilities and room for four persons to sleep while four others occupy the cabin. The hull is proof against the acidic atmosphere of Venus, and against nearly all acid-based attacks.

The vehicle can negotiate nearly any type of terrain. Its wide tracks and squat profile allow it to climb steep mountains and negotiate mud flats or deep ditches. The SATAV also has flight capabilities, and can make vertical takeoffs and landings. While it can lumber through the air at up to 40 mph, its powerful vertical thrusters can propel it upward at twice this rate.

The interior of the SATAV (the cabin, the sleeping quarters, and the passenger compartment) can be shifted into a special mode, in which each section is indepen-

dently gyrostabilized to remain relatively level in spite of how rough the terrain becomes. This optional feature is engaged or disengaged in the driver's cabin. When the feature is engaged, it is impossible to pass from one section to another unless the SATAV is nearly level. Also, the special mechanisms that allow this option reduce the passenger and cargo capacity.

The crew has more restricted visibility than in the HiSTAV, as there are fewer plexiglass vision bubbles. Extremely bright headlights (one mile range) aid night observation, and the vehicle has several flexible searchlights as well. The SATAV also has a high-speed navigation program that allows the crew to pinpoint the vehicle's position anywhere on the planet, if the appropriate planetary maps have been loaded.

The SATAV has an amphibious mode that operates much like that of the HiSTAV, and it can also operate while submerged. However, because of important design differences, the SATAV lacks the underwater speed and maneuverability of the HiSTAV.

The armored shell of the SATAV will stop the first 45 hit points of damage from any attack. A single hidden gunport in the roof allows up to two characters to fire out with personal weapons (treat as 75% cover). Fewer observation ports makes the vehicle somewhat more vulnerable to concealed enemies.

The vehicle carries two rocket launchers in plexiglass side turrets, as well as a flamethrower mounted to fire to the rear. This last weapon is usually used to thwart attacks from this quarter. The flamethrower has a range of 200 feet, and covers a fan-shaped area of effect (45° wide). Those in the area take 3d6 points of fire damage (save vs. extreme heat for half damage). The SATAV carries enough fuel for 20 blasts.

Tank, "Dredge"

Tonnage: 50	Armor Class: 4
Length: 100'	Crew: 5
Width: 45'	Speed: 20 mph (1 mph)
Cargo: 25 tons	Reaction Bonus: -1
Cost: 175,000cr	Defense Bonus: -2

Weapons:

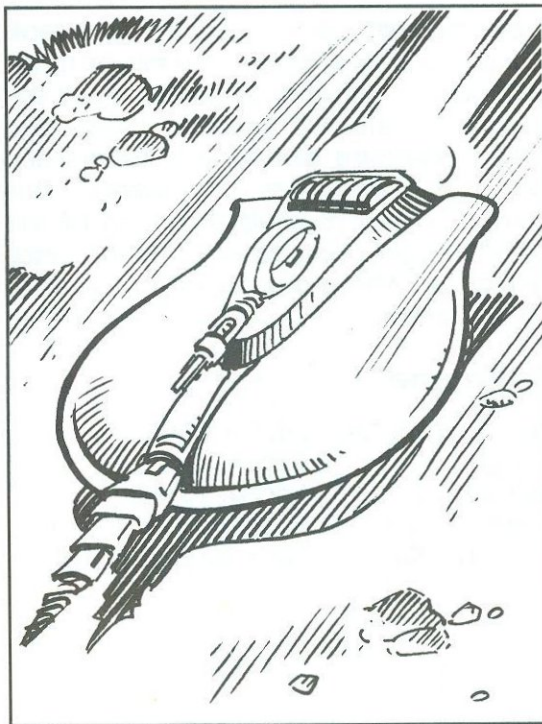
- Many small pulse lasers
(Range 100', ROF 1, Damage 4d8)
- 2 Treads
(Damage 1d100, Attack Bonus +6)

Hit Points:

- Hull: 200
- Sensors/Commo: 50
- Controls: 50
- Life Support: 100
- Fuel: 150
- Engine: 150

The Dredge is RAM's equivalent of an armored tank. Designed to penetrate a modern city sprawl as easily as its ancestors negotiated desert terrain, the Dredge is perfect for plowing through the wastelands of suburban Earth. RAM Terrine forces use these ungainly vehicles to ferret out Terran dissenters in the Sprawls.

The tank's squat, manta ray-shaped body culminates in a blunt nose. Set into the nose is a circular cap with a raised rim. Many small lasers, set 25mm apart, ring the rim. As the dredge moves, the rim turns, and every other laser emits a pulse (and must recharge before it can fire again). Behind the lasers are three circular rings with collars of claws: the first and last whirl clockwise, the second counter-clockwise. These rings throw loosened material aside. The Dredge bores a narrow channel through an obstacle, then rams itself in. Its huge treads turn slowly, scraping the tunnel walls, pushing the Dredge along.



Light Tank "Golden Goose"

Tonnage: 20	Armor Class: 4
Length: 20'	Crew: 2
Width: 15'	Speed: 30 mph
Cargo: 10 tons	Reaction Bonus: -1
Cost: 90,000cr	Defense Bonus: -2

Weapons:

- 50 Impact Mines
- 1 Pumped Laser

Hit Points:

- Hull: 80
- Sensors/Commo: 20
- Controls: 20
- Life Support: 40
- Fuel: 60
- Engine: 60

The ground-hugging, mine-laying light tank called the Golden Goose is surprisingly quiet for its size. It has room for two

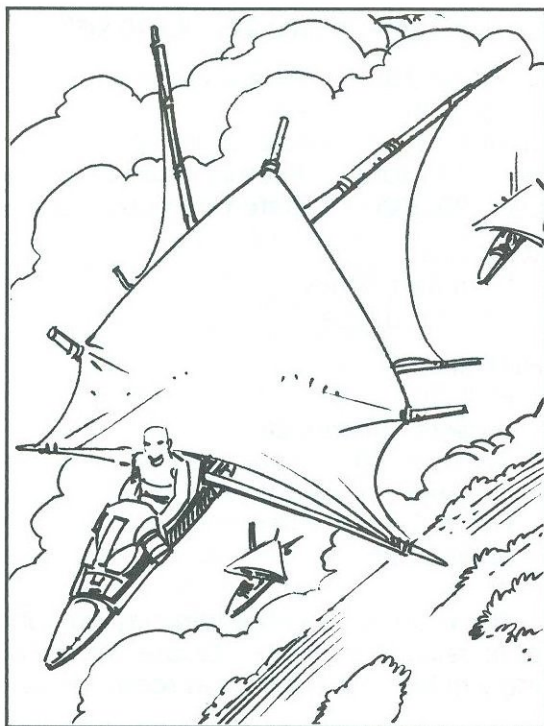
crew members, one who steers the tank while the second drops land mines. Once the tank is far enough away from the mines (usually 30 seconds later), the tank's on-board computer automatically activates each mine in sequence. This computer also controls the firing of the tank's single pumped laser. Firing once per round, the computer fires as a 12th-level warrior.

Sailplane

Tonnage: 1/2 ton	Armor Class: 9
Length: 5'	Crew: 1
Width: 10'	Speed: 40 mph +
Cargo: None	Reaction Bonus: +1
Cost: 8,000cr	Defense Bonus: +2

Weapons: None

Hit Points:
Hull: 4



Sensors/Commo: 1
Controls: 1
Life Support: 2
Fuel: 3
Engine: 3

These small, enclosed, one-man planes resemble the ultralight planes of the 20th Century. The miniature electric motor provides some power, but most of the plane's speed comes from riding wind currents. Sailplanes easily reach speeds up to 200 mph in the Venusian skies; sailplanes used on Jupiter and Saturn have been clocked at speeds over 400 mph!

These small planes are often used by the Venusian Aerostaters to scout ahead of their floating city's path, and to guide the aerial herds of kraken. The Stormriders use their sailplanes for a similar purpose.

Sunray (Jetcar)

Tonnage: 1 ton	Armor Class: 5
Length: 15'	Crew: 4
Width: 6'	Speed: 100 mph (75)
Cargo: 1/2 ton	Reaction Bonus: -1
Cost: 35,000cr	Defense Bonus: -2

Weapons:
1 Gyrocannon or
1 Light Acceleration Gun

Hit Points:
Hull: 4
Sensors/Commo: 1
Controls: 1
Life Support: 2
Fuel: 3
Engine: 3

This four-foot tall vehicle is a modified version of the jetcar. The Sunray is heavily shielded to protect passengers from the hard radiation and heat of Mercury. On Earth, the extra weight of the shielding

drops the maximum speed to 75 mph. The shielding provides an AC of 5. The Sunray's armament is concealed in protected a gunport.

Martian Walker

Tonnage: 400 lbs. Armor Class: 9
Length: 7' Crew: 1
Width: 7' Speed: 10 mph
Cargo: None Reaction Bonus: 0
Cost: 30,000cr Defense Bonus: +4
Power Cost/mo.: 1,000cr

Hit Points: 240

Weapons:

2 Laser Rifles
2 Gyro Guns (12 shots)
Plasma Thrower (Range 200'; Damage 2d20; ROF 1/2; Shots 6)

These skeletal contraptions are special pieces of Martian technology designed for the comfort of delicate Martian bodies in the oppressive gravities of Earth and Venus. These spidery metallic robots have a central sphere that encloses the wearer. Ten flexible legs, each terminating in a single slender thruster toe, extend from a ring around the sphere. The user makes the walker "walk" by alternating the thruster jets. The walker's flexible legs negotiate obstacles with ease.

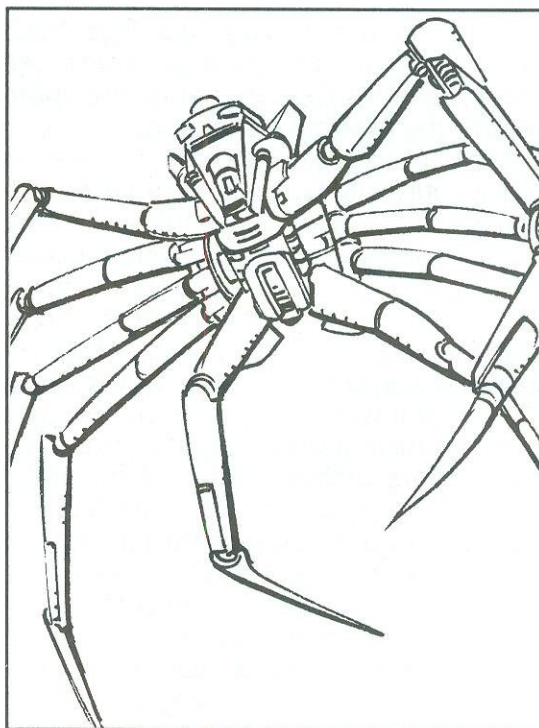
Rising from the sphere is a rod that arches over the wearer and connects to the other side. Both the rod and the legs contain complex circuitry that grants the user a +4 Armor Class bonus against all missile weapons.

Not all Martians use walkers. Those who have Constitution and Strength scores lower than 10 must use the walkers while on Earth or Venus. Those who have Constitution or Strength scores greater than 10 generally use the Martian walker only for its firepower and protec-

tion, which are its greatest benefits. The Martian walker can fire two weapons simultaneously at up to two individual targets with a THACO of 14.

The Martian walker is not a piece of military hardware. Although its firepower makes it a formidable opponent, its main function is to protect weaker Martian dignitaries and help them move about on the surface of heavier-gravity planets.

Each of the walker's legs can take 25 hit points of damage before it becomes useless. Each time a leg is lost, the walker's computer must compensate and force the remaining legs to function in a slightly different way in order to balance the walker. As long as the walker has at least one leg on a side, it can continue to move normally. Once all the legs on one side are damaged, the walker falls, causing 1d6 points of damage to the occupant. The walker itself cannot move until repaired.



Aphid Miner

Tonnage: 60	Armor Class: 6
Length: 130'	Crew: 18
Width: 90'	Speed: 3
Cargo: 30 tons	Reaction Bonus: +0
Cost: 663,000cr	Defense Bonus: +0

Weapons:

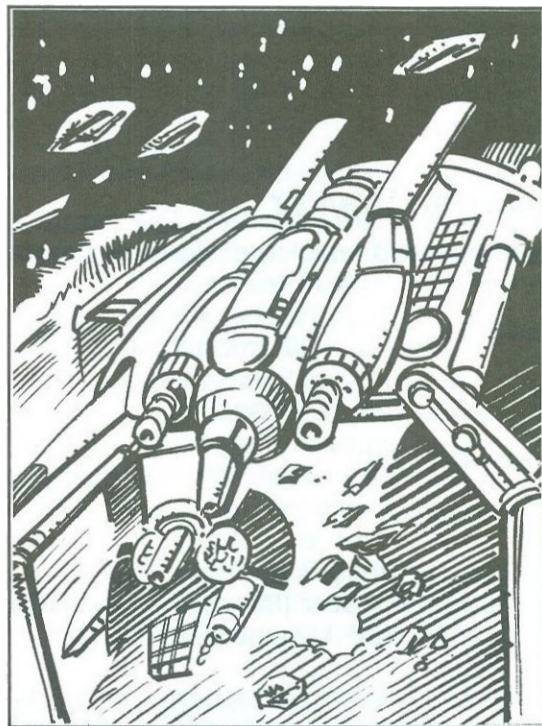
- 2 Beam Lasers
- 2 Light Acceleration Guns
- 2 Missile Mounts

Hit Points:

- Hull: 240
- Sensors/Commo: 60
- Controls: 60
- Life Support: 120
- Fuel: 180
- Engine: 180

The aphid is a special asteroid-roving mining vessel that has met with incredible popularity over the last seven years. The freighter-sized craft has four legs, each with a small graviton pulse generator (see "Miscellaneous Gear"), that let the aphid stick to the asteroid it's mining.

Each aphid has three radio transmitters that continually transmit very low wattage signals. All of the mining colonies throughout the Asteroid Belt monitor every aphid signal within 10 light minutes (approximately 110 million miles) in order to make sure none of the craft—and their valuable cargo with them—is lost. With the flip of a switch, the radio transmitters can also issue a distress signal. The radio transmitters cannot be turned off under normal circumstances, but on an Average Gadgeteering check, a character can find and disconnect the power couplings. Interruption of an aphid's transmission or sending the distress signal often (85% chance) attracts the attention of the nearest mining colony, which may dispatch an



armed transport or cruiser to the site.

Aphids' graviton pulse generators let them cling to the sides of other ships almost as easily as to asteroids. The aphid pilot must make a successful Difficult Pilot Fixed Wing check in order to "grab" the passing vessel. If successful, this allows an aphid to catch a ride—or to walk about, knocking out weaponry, breaking port holes, etc. Two legs can attack at once; the other two legs must anchor the aphid. Each leg can cause 1d10 hull points of damage to a ship, or 10d10 hit points of damage to a character. The pilot must roll a successful attack against the target's AC to cause damage.

An aphid's life support system can be adjusted to match its occupants' specifications. Its batteries and fission power supply are good for up to eight months. The aphid has six weapon spaces; most aphid owners customize their weapon systems.

Jovian Miner

Tonnage: 8,000	Armor Class: 8
Length: 1,000'	Crew: 1,600
Width: 1,000'	Speed: 1
Cargo: 3,000 tons	Reaction Bonus: +2
Cost: 160 million	Defense Bonus: +4

Weapons:

- 2 Heavy Missile Mounts
- 5 K-Cannons

Hit Points:

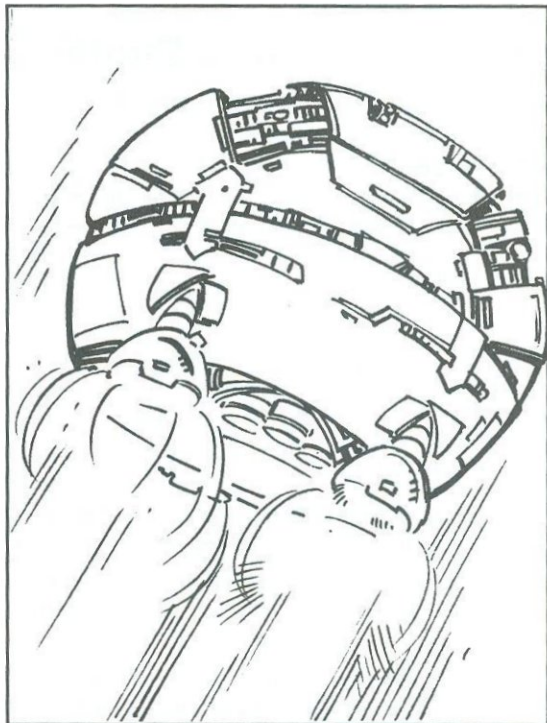
- Hull: 32,000
- Sensors/Commo: 8,000
- Controls: 8,000
- Life Support: 16,000
- Fuel: 24,000
- Engine: 24,000

The Jovian miner is a spherical ship measuring 1,000' in diameter. Under Jupiter's immense cloud cover, it hunts for precious metals and ores for system-wide consumption.

The radiation at the core of Jupiter (also known as "Deep Jupiter") is so intense that miners are in constant danger and must wear special anti-radiation gear (1,000cr). Every day, miners must either take a radiation dose or make a saving throw vs. radiation. Failure results in radiation poisoning from a 1d4 source. Workers leaving Deep Jupiter usually undergo a thorough detoxification program for 1d4 weeks to remove all traces of radiation from their systems.

The miners can expect excellent pay (1,000cr to 5,000cr per month). They sign contracts that lock them into terms from six months to five years. All miners are paid a lump sum at the end of their term. Any worker who breaks the contract forfeits one-half his accumulated pay.

The Jovian miner is outfitted with hundreds of mining implements, so the inhabitants never need to go outside the vessel



into the planet's deadly oceans. Attempts to do so often result in a swift demise. Any character venturing outside must save versus suffocation every round. Failure means the character becomes delirious for two rounds, unable to perform any voluntary motor actions. On the third round, the character falls unconscious, and dies 1d4 rounds later.

Each of the Jovian miners can bring in as much as 16,000,000cr worth of material each month. Such rare materials as titanium, nickel, niobium, tungsten, and hafnium are excavated in vast quantities, making the mining operations on Jupiter the second most successful in the system (the Asteroid Belt is first). Once the cargo bays are filled to capacity, the Jovian miner heads for the Ringer bases in Jupiter's rings to drop off the cargo, and to purchase food, water, oxygen, and millions of credits of radiation doses.

Venusian Aerostate Shuttle

Tonnage: 20	Armor Class: 7
Length: 65'	Crew: 2
Width: 260'	Speed: 4
Cargo: 10 tons	Reaction Bonus: -1
Cost: 275,000cr	Defense Bonus: -2

Hit Points:

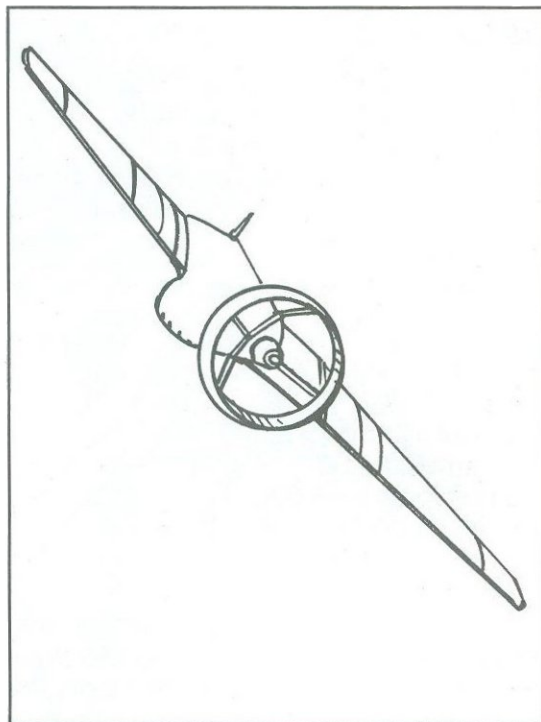
Hull: 80
Sensors/Commo: 20
Controls: 20
Life Support: 40
Fuel: 60
Engine: 60

The Venusian Aerostate shuttle is a slow-moving, graceful, and light craft with broad, thin wings and a 45' diameter dual-bladed propeller at the stern. Shuttles are made from dark titanium alloys that allow the craft to fly unscathed through the acidic lower atmosphere of Venus, and make them hard to spot at night. The passengers' windows are made of a transparent alloy that is just as resistant to the environment.

The shuttle's lines are sharp, and its design reflects stealth engineering. This sleek craft reflects radar, making it very difficult to spot and nullifying any radar-granted attack modifiers.

The shuttle's shape also lets it glide without power for up to 100 miles. It can also land on almost any surface without crashing (an Average Pilot Fixed Wing check is required; poor weather conditions and low altitude can make the task Difficult at the referee's discretion).

The Aerostater cruises a little faster than a normal Terran human can run (movement rate 720). The propeller blades are so quiet that they cannot be heard over 100 feet away. Beyond that point, a character must make an Average Hear Noise check at a -1% penalty per foot to hear the craft. This quiet engine



makes the ship ideal for transporting dignitaries from one Aerostate to another, or from the Aerostates to the groundling nations of Aphrodite, Ishtar, or Lada.

Up to 20 passengers and their luggage can travel in comfort in a Venusian Aerostate shuttle. The craft can travel for 10,000 miles or one week before requiring more lawrencium pellets for its fission reactor. Once a month, the craft's life support system must be cleaned.

The shuttle's delicate design means it's difficult to use in other atmospheres. In Earth's atmosphere, its top speed is 360. On the Jovian planets (Jupiter, Saturn, Uranus, and Neptune), where the Venusian Aerostate shuttle is called the Jovian dinghy, it can travel at 780. Shuttles cannot function in atmospheres thinner than Earth's (i.e., Mars and Titan); in the light atmospheres of Luna, Mercury, or the Asteroid Belt; in high orbit around Earth or Venus; or in outer space.

Martian X-12a TAV

Tonnage: 15	Armor Class: 7
Length: 30'	Crew: 3
Width: 7'	Speed: 5
Cargo: 7½ tons	Reaction Bonus: -2
Cost: 165,000	Defense Bonus: -4

Weapons:

- 1 Missile Mount
- 1 Pumped Laser

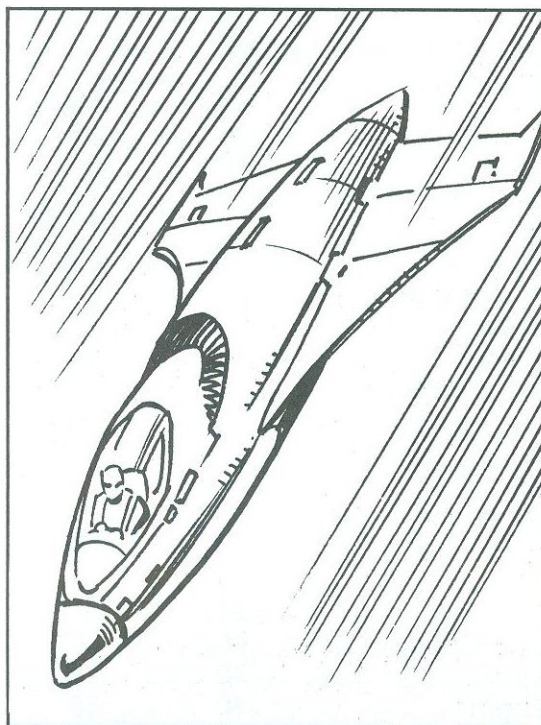
Hit Points:

- Hull: 88
- Sensors/Commo: 22
- Controls: 22
- Life Support: 44
- Fuel: 66
- Engine: 66

The Martian X-12a TAV is a TransAtmospheric Vehicle that can operate both in atmospheres and in space. The Martian shock troop brigades use the X-12a as an escort fighter when attacking heavily defended locations, and as part of their patrol fleet. The Martian Defense Systems Company uses the X-12a to protect their space and ground interests.

The X-12a has a sleek aerodynamic shape that lets it shed the incredible temperatures of re-entry (this shape also lets it reflect radar easily.) The X-12a's unibody frame and modular construction make it so easy to produce that any order under 24 units can be fulfilled in 1d10 days. Its relatively cheap price and high firepower mean make it a very attractive purchase when war looms on the horizon. The normal crew is a pilot and two gunners.

The X-12a's ease of construction also makes it very difficult to repair. Only the finest torch cutting and welding will withstand the temperatures and stresses of atmospheric escape and re-entry. It's surprisingly hard to find high-quality welding—most welders merely slap an



oversized metal plate over a breach in a spacecraft's hull; they're not used to doing precision work. When attempting a repair job on the TAV, the engineer must roll an Average Repair Rocket Hull check. If this check succeeds, the breach is merely covered, and the repair has a 50% chance of holding upon re-entry. If the check succeeds at an Impossible rating, the repair job will definitely hold.

Inferior hull repair may bring disaster. The extreme heat of re-entry can melt weaker seams, and the speed of re-entry rips the welded plate off the ship, exposing the craft's innards. The rocketjock must roll a Difficult Pilot Rocket check to save the craft from re-entry burn, and crew members or passengers in the vicinity of the breach must save against extreme heat. Characters considering buying an X-12a should buy a new one.

LNx Scram Rocket

	LN1	LN2	LN3	LN4	LN5	LN6
Tonnage:	20	25	30	35	40	45
Length (feet):	40	50	60	70	80	90
Width (feet):	10	12 ¹ / ₂	15	17 ¹ / ₂	20	22 ¹ / ₂
Cargo (tons):	10	12 ¹ / ₂	15	17 ¹ / ₂	20	22 ¹ / ₂
Cost (cr):	240,000	300,000	360,000	420,000	480,000	—
Armor Class:	6	6	6	6	6	6
Crew:	2	2	3	3	4	4
Speed:	4	4	4	4	4	5
Reaction Bonus:	-1	-1	-1	-1	-1	-1
Defense Bonus:	-2	-2	-2	-2	-2	-4
Weapons ¹ :	a,a	a,a	a,a,c	a,a,c	a,a,b	a,a,b
Hit Points:						
Hull:	80	100	120	140	160	180
Sensors/Commo:	20	25	30	35	40	45
Controls:	20	25	30	35	40	45
Life Support:	40	50	60	70	80	90
Fuel ² :	20	25	30	35	40	45
Engine ² :	40	50	60	70	80	90

¹The weapons for the six types of Scram rockets are: a—Beam Laser; b—Heavy Acceleration Gun; c—Missile Mount.

²The engine and intake system designs lower the craft's Fuel and Engine Hit Point totals; see below.

The LNx Scram rocket is an old spacecraft design that was resurrected in the first half of the 25th Century. When rocket fuels were cheaper, it wasn't worth using the old Scram rockets. Now, as the price of fuel increases with increasing demand, people are rescuing Scram rockets from the junkyards. (See the *Characters and Combat* booklet for more information on ships and fuel use.) The LNx Scram rocket is an Earth-built craft. Used principally by NEO and the Phoenix, Scram rockets are the second most popular craft in their space fleets, the F-66 Starfire is the most common craft.

The LNx is actually a six-rocket series (LN1 through LN6), each model weighing five tons more than the previous one: the LN1 Scram rocket weighs 20 tons, while the LN6 weighs 45 tons. Each LNx employs a pair of outriggers (much like a ca-

tamaran) with stabilizing rockets. The main engines are in the central fuselage, and the scramjet intakes are under the fuselage and outrigger supports.

The scramjet intake can be expanded in the vacuum of space, letting the craft take in more hydrogen, deuterium, and tritium. In an atmosphere, the scramjet intake can be shrunk to a more aerodynamic design, but this starves the engine, resulting in lower performance. Flaps and rudders allow the ship to fly as a standard aircraft in any atmosphere, but have no use in space.

The Scram rocket propulsion system is highly efficient: the ship can travel twice as far on its fuel as a standard ship can. (When using the clear acetate ruler supplied in the XXVc™ boxed set, the Scram rocket takes half the time specified on the fuel usage scales.) Since they need less

fuel, Scram rockets have smaller fuel cells. Unfortunately, the spacecraft's engine breaks down with very little damage.

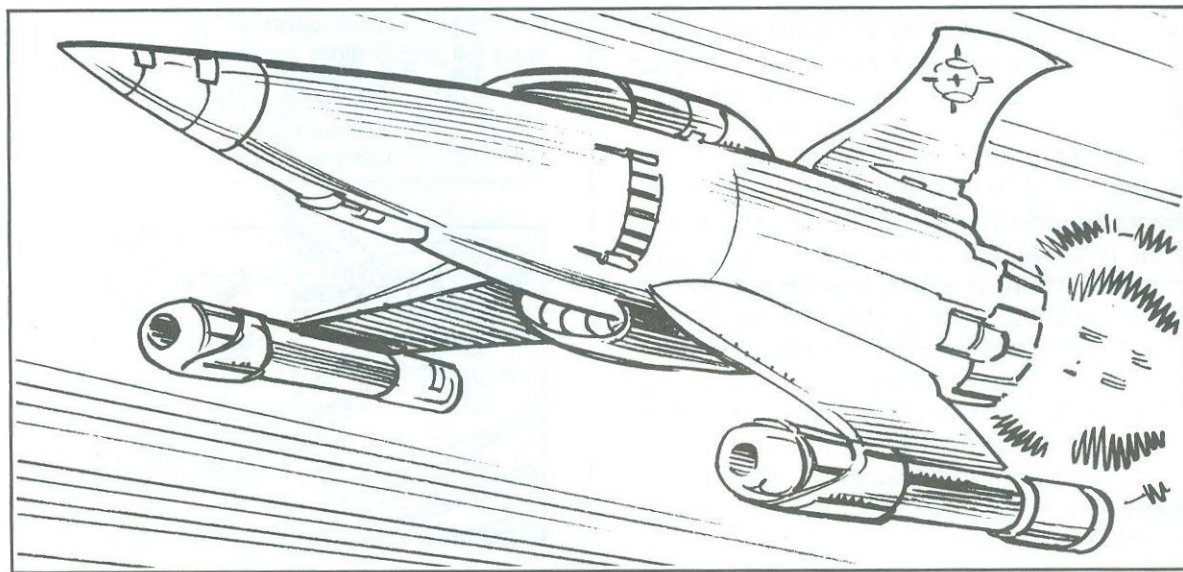
A beam laser is installed in each outrigger. The heavier Scram rocket models have three weapons, the third either placed on the vertical upper stabilizer wing, or within the fuselage (usually between the cockpit and the scramjet intake manifold). The two catamaran-mounted beam weapons fire simultaneously and at the same target; if one misses, they both miss. This, in effect, gives the Scram rocket the equivalent of a single beam laser weapon that causes double damage.

LNx architects, working with a number of scientist Digital Personalities, have recently constructed a stealth version of the Scram rocket, and the LN6 model is the prototype. To this date, only nine LN6 have been built. They are currently in use around the Salvation space station in Earth's L-5 LaGrange point, in the Asteroid Belt, and one is in a mission called Project Deep Space. The LN6 is the size of a scout cruiser and has a high AC Defense Bonus.

To assure the development's complete secrecy, all information on the LN6 prototype has been removed from every directory on the New Earth Organization's and Phoenix's computers. The Digital Personalities' memories regarding it were erased as well—to their chagrin. The four copies of the plans are confined to two microfiche dot patterns and two memory crystals. Both Phoenix and NEO have one copy of the crystal and one copy of the microfiche dot.

NEO's two copies are supposedly stored at Salvation. Phoenix is supposedly storing one copy at the old NORAD station outside Colorado Springs, and the other is thought to be hidden somewhere on the European continent.

Both firms are using some of their most advanced security techniques to keep the plans secure from spies. The rarity of LN6 test craft assures the plans' secrecy, as well. Some LN6 rocketjocks have installed an ECG monitor rigged to plastic explosive in their cockpits—should the pilot's heart stop, the explosive detonates, destroying the LN6 and its secrets.



Nautilus Submersibles

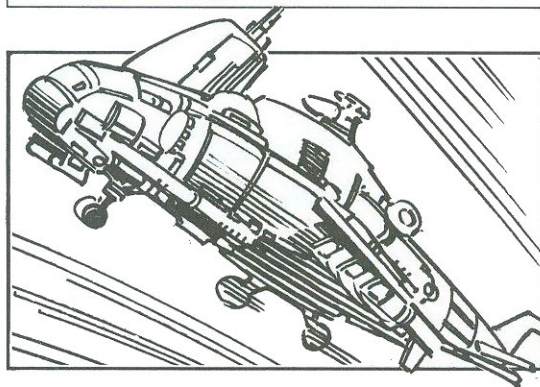
	Tefnut	Ahto	Rudra	Enki	Aegir	Triton
Tonnage:	65	60	55	50	40	30
Length (feet):	128'	110'	100'	90'	70'	50'
Width (feet):	32'	30'	27'	25'	20'	15'
Cargo (tons):	20	18	16	14	10	6
Cost (cr):	590,000	540,000	495,000	450,000	360,000	270,000
AC:	9	9	9	9	9	9
Crew:	12	10	8	6	4	2
Speed:	3	3	3	3	4	4
Reaction Bonus:	+1	+1	+0	+0	-1	-1
Defense Bonus:	+2	+2	+1	+0	-1	-2
Weapons ¹ :	a,b,c,c	a,b,c,c	a,c,c	a,c,c	a,b,c	a,c
Hit Points:						
Hull:	260	240	220	200	160	120
Sensor/Commo:	65	60	55	50	40	30
Controls:	65	60	55	50	40	30
Life Support:	130	120	110	100	80	60
Fuel:	195	180	165	150	120	90
Engine:	195	180	165	150	120	90

¹The weapons for the six types of Nautilus submersibles are: a—Missile Mount; b—Light Acceleration Gun; c—Heavy Missile Mount.

The Nautilus submersible is a unique class of space ship that can function in space, in the atmosphere of any planet, and in the oceans of any planet. The hull of a Nautilus-class ship is especially resistant to corrosion and pressure changes. Although many are well armed, the craft is too lightly built to be a combat vessel.

While underwater, the craft has a +4 Armor Class bonus and a -1 bonus to its Reaction and the Defense bonuses. If the hull is breached while the craft is submerged, there is a 5% chance per round that the water—or acid—pouring in will short out a system. One person pumping out water per ten tons will reduce the chance of systems failure to zero. The "complete electrical failure" result drains all capacitors and batteries, shorts the electrical wiring, and the crew must abandon the craft.

1d12 Roll	Ship System Hit
1	Sensors
2	Communications
3	Maneuvering Controls
4	Life Support
5-6	Engines
7-8	One Weapon
9-10	Interior Lighting
11	Exterior Lighting
12	Complete Electrical Failure



Ringer Transport

Tonnage: 70 Armor Class: 7
Length: 100' Crew: 4
Width: 75' Speed: 3
Cargo: 50 tons Reaction Bonus: +0
Cost: 770,000cr Defense Bonus: +0

Weapons:

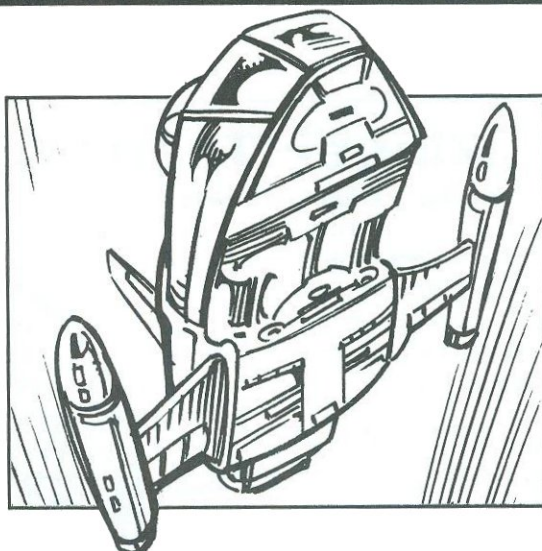
- 1 Light Acceleration Gun
- 1 Light Blunderbuss

Hit Points:

Hull: 280
Sensors/Commo: 70
Controls: 70
Life Support: 140
Fuel: 210
Engine: 210

The Ringer population in the Saturnian system created the Ringer transport. (See the accessory *No Humans Allowed* for more detailed information on this gennie race.) Primarily used as a mining vessel and cargo transport, this vessel's weapons capacity has been drastically reduced, allowing it to carry far more cargo than other spacecraft of its size. Huge transparent metallic bay windows line the ship's front, allowing almost 270° sight. Its two main thrusters are separated from the main fuselage by thick, shielded struts, making the ride a bit more comfortable for the passengers. Its large stabilizer maneuvers the craft as it dips into Saturn's high atmosphere to refill its hydrogen tanks for its propulsion system. (Assume the fuel Hit Points are returned to maximum with every dip.)

The Ringer transport normally requires four crew members: a pilot, a co-pilot, an astrogator, and an engineer. A short-handed crew can operate the craft in an emergency, but at greatly reduced efficiency (the exact details are determined



by the referee). The craft can carry up to 30 persons in relative comfort.

The vessel has better than civilian Armor Class (civilian ships are rated at AC 8) at the cost of a few tons of cargo. This gives the vessel a better chance to survive the often-lethal collisions with the boulders and ice chunks within the Saturn ring system.

In recent years, the Ringer population has expanded, and many have gone to the ring systems of Jupiter, the rings of Uranus, and the minuscule ring system of Neptune for work and more living space. In these new frontier areas (Uranus and Neptune more so than Jupiter), the Ringer transport is the most prevalent vessel.

The Ringer transport does not have interplanetary travel capabilities. The table below, however, shows the fuel usages as compared to sample speeds. The more slowly the transport vehicle travels, the less fuel it uses.

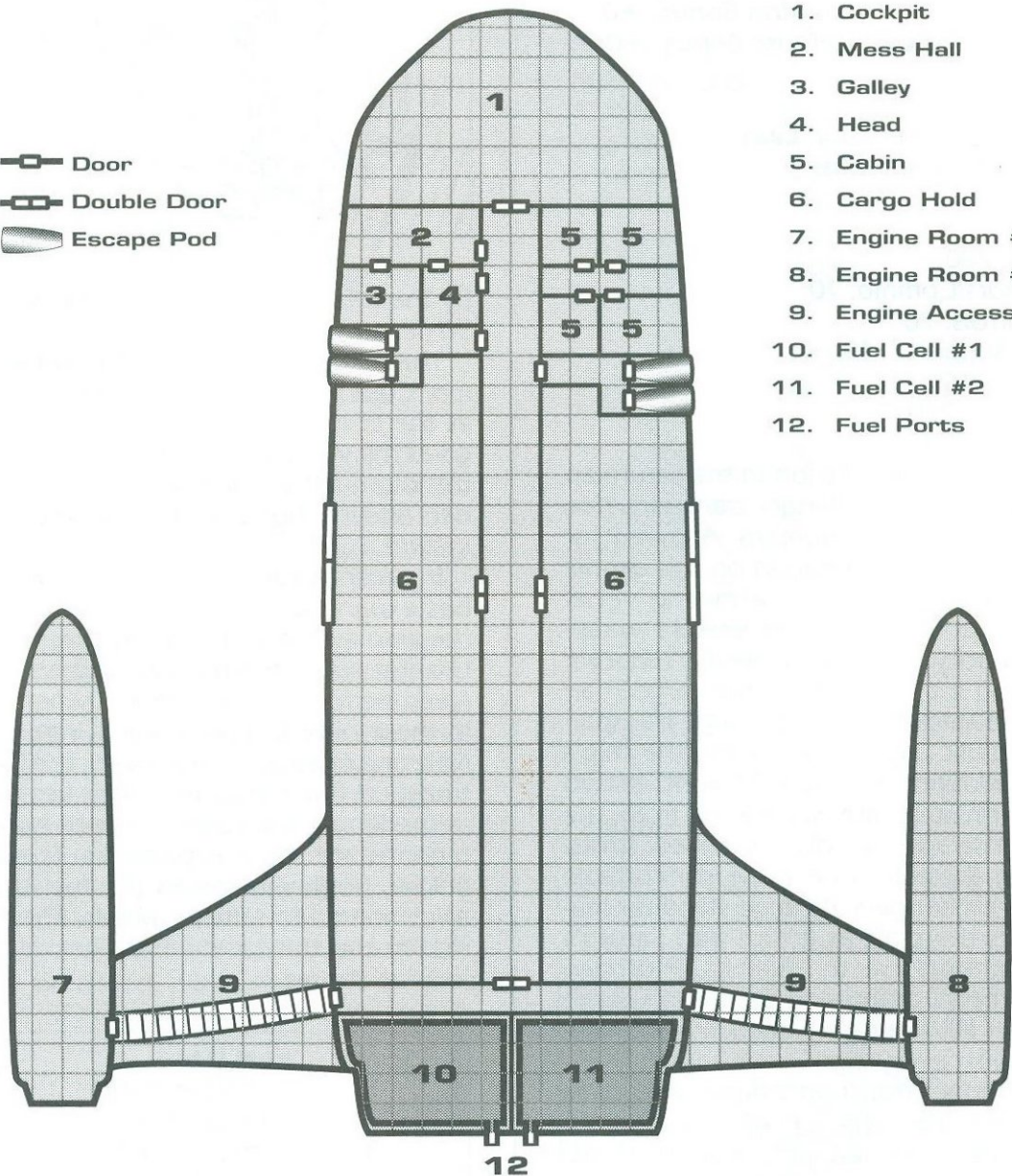
Speed	Fuel Use
1	1/2 hp per hour
2	1 hp per hour
3	3 hp per hour
4	7 hp per hour
5	15 hp per hour

Ringer Transport

Scale: 1 square = 5 feet

-  Door
-  Double Door
-  Escape Pod

- 1. Cockpit
- 2. Mess Hall
- 3. Galley
- 4. Head
- 5. Cabin
- 6. Cargo Hold
- 7. Engine Room #1
- 8. Engine Room #2
- 9. Engine Accessway
- 10. Fuel Cell #1
- 11. Fuel Cell #2
- 12. Fuel Ports



Jovian Hearth

Tonnage: 45,000 Armor Class: 6
Length: 18,500' Crew: 1,500 (90,000)
Width: 22,500' Speed: 1
Cargo: 22,500 tons Reaction Bonus: 0
Cost: 495,000,000cr Defense Bonus: 0

Weapons:

- 100 Beam Lasers
- 100 Gyrocannons
- 100 Heavy Acceleration Guns
- 100 Heavy Blunderbusses
- 100 Heavy Cyclorators
- 100 Heavy Lightning Guns
- 100 Heavy Missile Mounts
- 200 K-Cannons
- 100 Light Acceleration Guns
- 100 Light Blunderbusses
- 100 Light Cyclorators
- 100 Light Grasers
- 100 Light Lightning Guns
- 50 Light LW Rasers
- 50 Light SW Rasers
- 200 Missile Mounts
- 150 Pumped Lasers

Hit Points:

- Hull: 180,000
- Sensors/Commo: 45,000
- Controls: 45,000
- Life Support: 90,000
- Fuel: 135,000
- Engine: 135,000

The Jovian Hearth is the size of a large city, by far the largest ship in the solar system. It is said that the Ringer transport that originated in the Saturnian system is similar in size, but those ships are actually far smaller. The Hearths follow the huge herds of Bloats (the Stormrider's food cow) as they float about in the currents of storm-ridden Jupiter.

The Hearth is a large, aircraft-styled vessel with a wingspan of 22,500 feet, or just

over 4 1/4 miles. The length of the craft from bow to stern is 18,500 feet, or over 3 1/2 miles. The craft weighs over 45,000 tons, or 90 million pounds.

The ship's large surface area enables the vessel to ride the currents of Jupiter's stormy skies without nary a sway. The craft is designed to create as much air friction as possible, making it more buoyant and more airworthy.

One pair of fan blades 3/4-mile in diameter rotates rapidly on each wing. These blades keep the ship aloft by pulling air down, creating a vacuum that the craft is continually drawn up into. These prodigious fans cause 1,000 hit points of damage to the hull of any ship entering the intake ports (the blades take 1,000 hit points, as well), then spit the wreckage out again.

The craft has three large thrusters at its rear that propel the ship through the Jovian atmosphere at Speed 1. The ship does not have additional thrusters to help adjust pitch and facing; surprisingly, the craft's huge blades do this. The pilot can alter the speeds of the blades on the left (these turn counterclockwise) or right wing (these turn clockwise); the craft will turn, pivoting around the slower blades. It takes the Hearth four turns to turn 180°.

The Hearth is confined to the Jovian atmosphere. It is too huge to be towed away, and a Hearth requires an atmosphere to remain aloft, so it can never be spaceworthy. (The first Jovian Hearths were built in orbit near the ring system and sent drifting down toward the cloud cover.)

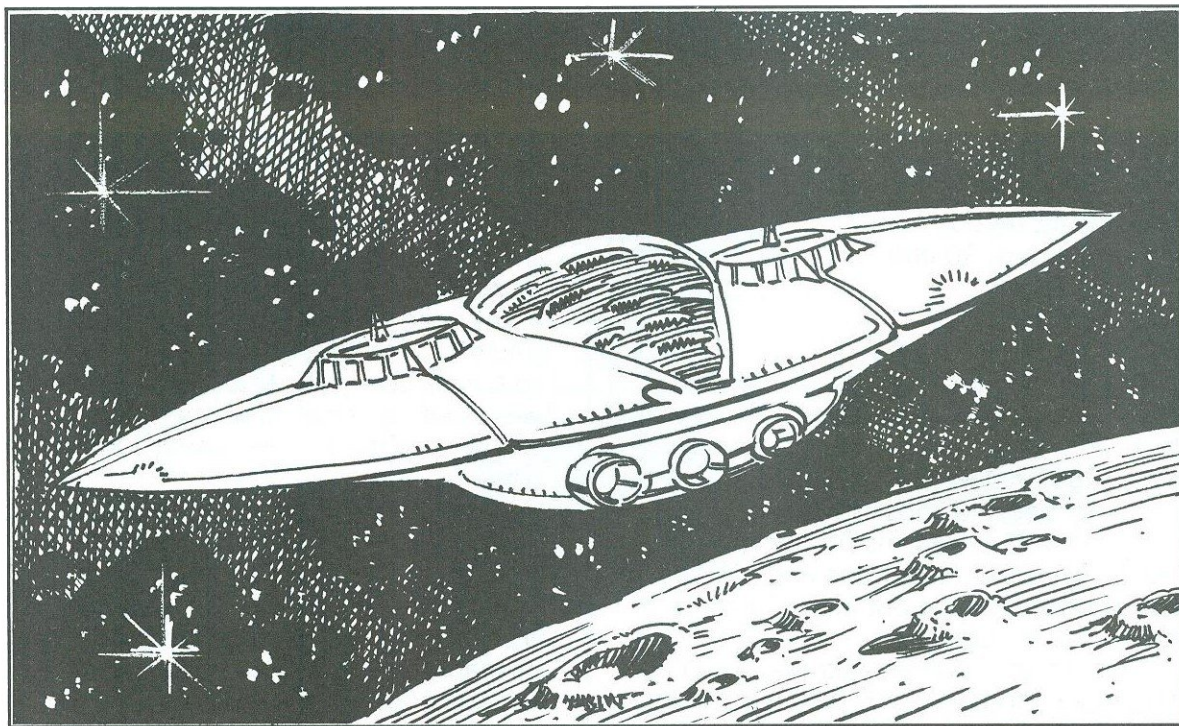
The Jovian Hearth can carry up to 90,000 individuals at one time without straining its ability to feed, shelter and sustain them. The Hearth requires 500 crew members, on continuous duty shifts, to man the equipment necessary to sustain the craft.

If the craft loses its engines or its rotors are badly damaged, it begins to glide toward the planet's oceans, thousands of miles below. Because of the ship's aerodynamic design, it can be without power for up to eight days (2d4 days) before it hits the oceans. Once the Hearth hits the oceans, it floats for another 1d4 days before it sinks to the core of the planet, where it is lost forever. During that time, the Stormriders must get the craft's huge blades working again, otherwise they, the ship, and all the passengers are lost.

The Hearth carries over 1,800 weapons, but is not by any means a warship.

No more than one weapon can fire effectively upon an enemy craft at one time; by the same token, the Hearth can fire on every ship that comes into range (as long as there is at least one weapon for every attacking ship).

The Stormriders, being more peaceful than the average human or gennie, do not fire on unknown vessels unless provoked. They are open to trade and tourism, allowing anyone to land on their Hearths. Areas such as engine rooms and bridge are, of course, off limits to visitors and are heavily guarded at all times.



Renovation Waystation

Tonnage: 5,000	Armor Class: 4
Length: 5,000'	Crew: 12
Width: 5,000'	Speed: 0
Cargo: 3,000 tons	Reaction Bonus: +0
Cost: 125 million	Defense Bonus: +0

Weapons:

- 2 K-cannons
- 3 Pumped Lasers
- 2 Heavy Acceleration Guns
- 1 Heavy Missile Mount

Hit Points:

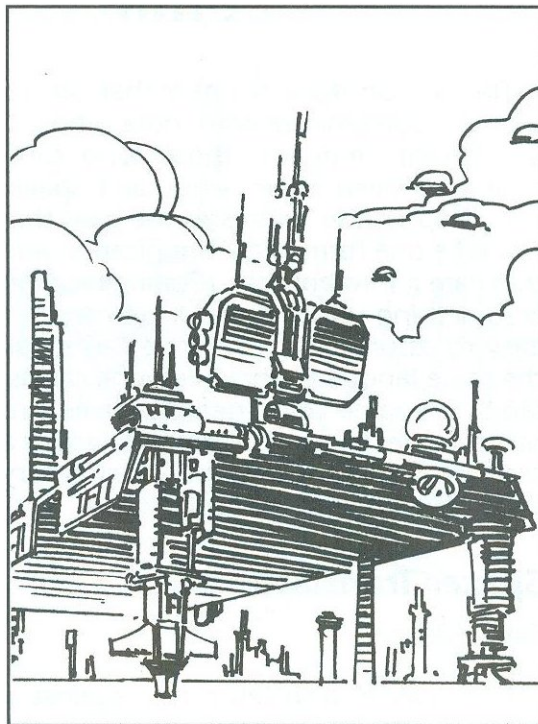
- Hull: 20,000
- Sensors/Commo: 5,000
- Controls: 10,000
- Life Support: 10,000
- Fuel: 135,000
- Engine: 15,000

Flat, archaic-looking, gauche, and frightfully expensive to produce, renovation waystations are the chop shops in space that repair battlers, recondition newly acquired ships to their owner's sometimes exacting specifications, and perform like services.

Waystations are usually in synchronous orbits with the planet or moon they orbit. They do not spin and they do not have gravity, so their large arms can grab and moor ships snugly for repair with very little difficulty.

A typical waystation can repair a Hull Point of damage in 10 minutes at the cost of 100cr. This means that a waystation can repair six points of damage per hour for 600cr per hour. The renovation waystations also are able to fuel ships.

The farther a renovation waystation is from the sun, the more it charges. Renovation waystations use solar power transmitted from the Mercurian mariposas. A great deal of energy is lost in the transmis-



sion, so the more distant waystations must buy extra energy. Also, supplies are shipped from Mars and Venus, and the shipping costs increase over distance.

Human and gennie employees run the majority of the repair equipment on a renovation waystation. Digital Personalities and AI programs control an assortment of common business tasks such as ordering rocket parts, paying workers' salaries, handling banking and payments, running customer credit checks, working out customer payment schedules, inspecting customer criminal records, and notifying authorities when a criminal has anchored for repair.

Many of the Digital Personalities and Artificial Intelligence programs can run the renovation equipment. (The AIs are more apt to do so, since these DPs are generally too proud to perform such tiresome tasks.)

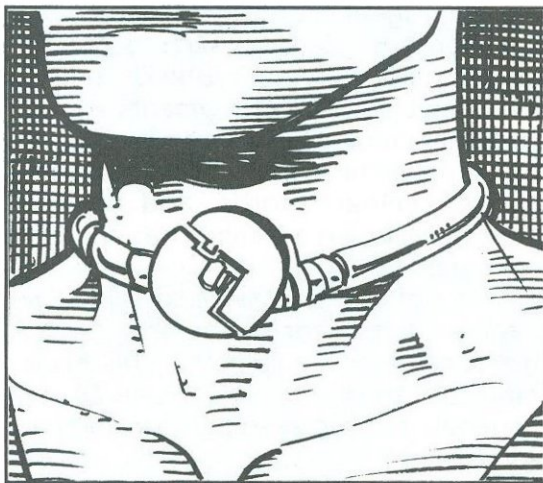
Communications Gear

This section discusses gear that can be used to communicate with those who use a different language, those who can't hear, and even those who can't speak. This chapter also addresses the gear that can take one form of communication and translate it into another. (Communication is something we all take for granted. It's easy to assume that everyone can speak the same language, that everyone can listen to the same voice, hear the same bird song, or see the same letters flash across a scanner. In the world of the 25th Century this isn't always the case).

Spacer Translator

Cost: 40cr

The Spacer translator lies against a Spacer's throat or cheek, or under the chin, and converts the Spacer's neural impulses into speech. The translator produces monotone speech that never varies in pitch or tone.

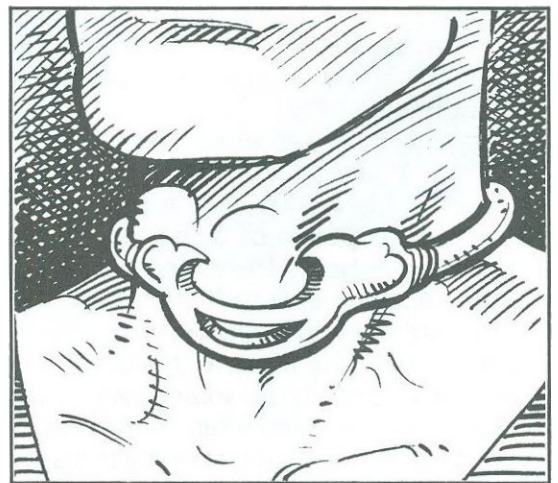


Electronic Vocal Articulator

Cost: 60cr/120cr

This device is like the Spacer Translator, but has been adapted for other human and gennie types. This item must be placed against the throat, where it translates the vibrations of the throat muscles into clear, although monotone speech. The fact that it also distorts the owners original voice is occasionally useful. When not in use, the item is usually turned off and placed in a pocket or some other convenient place. Small batteries power the device for one month; replacements cost 1cr.

The 120cr model fits around the neck like a snug necklace or choker, with vibrators on either side of the larynx. The articulator vibrates whenever the user's speaks. The tone quality is better than the cheaper unit, and the volume can be turned up to loudspeaker intensity. The small batteries that power this device last for about six months before they must be replaced (1cr).



Vocal Proselyter

Cost: 450cr

The vocal proselyter is a briefcase-sized computer that transcribes speech to its liquid crystal screen. The hearing-impaired and diplomats find the proselyter helpful. The proselyter's default language is 25th Century English, but language crystals (200cr each) are available for every known language. The proselyter can hold up to 10 crystals. A proselyter with more than one language crystal will automatically choose the correct crystal. If it can't translate a word, the proselyter lists possible meanings in parentheses.

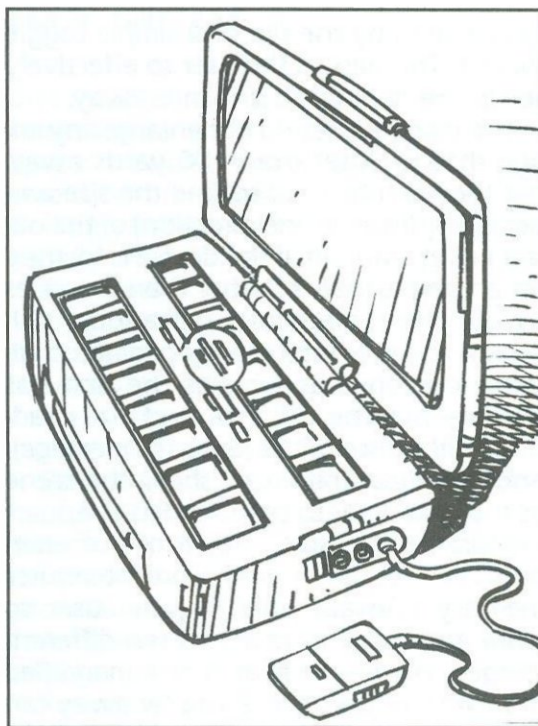
Several options are available for the proselyter. A printer costs 550cr. A computer access option that costs 125cr lets the proselyter connect to a computer where it can store its translations. A memory crystal adapter that costs 350cr stores the devices' translations, up to 24 hours of recordings.

Optical Scanner

Cost: 550cr

The optical scanner scans text and reads it aloud. This is a wonderful tool for the illiterate, the blind, or diplomats who need a handy translator. Like the proselyter, this device uses language crystals (200cr each), and can hold a maximum of 20. However, each translation requires two crystals—one to read the text and another to pronounce the words.

The scanner has two options. A computer connection that lets the scanner read data files costs 125cr. A memory crystal adapter that stores up to 12 hours of information for later use (a favorite with spies) costs 350cr.



Optical Scanner

Megaglasses

Cost: 350cr

Size: 6" wide, 2" tall, 4" deep

Weight: 1/2

These are enhanced macroglasses (see the *Technology Book*). A pair of these computer-assisted binoculars can enlarge an object up to 10 miles distant, making any scene appear as though it were only 100 feet away. By pressing a button, the user can save a digitized record of a single image in the device's memory for later viewing on its internal screen. Small displays along the outside edge of the viewscreen give readouts on an object's distance and direction from the viewer and the object's actual size.

Megaglasses, unlike their macroglass counterparts, are able to view objects using infrared spectrum and thermal imaging equipment that can be activated and

deactivated by the flip of a simple toggle switch. This allows the user to effectively see in the dark up to one mile away.

The megaglasses do not enlarge any image that is closer than 100 yards away, but they can be used to find the size and position (distance and direction) of the object being scanned. If the device is focused on an object that is farther than ten miles away, the directional readout still functions—the internal gyrocompass always operates, as long as the unit has power—but the distance and size readouts will resister all 9s (an error message), and the viewscreen will show the scene as it would look to the unaided eye.

More expensive versions of megaglasses contain additional computer memory crystals, enabling the user to store and recall as many as ten different images. An image that is not magnified because it is too close or too far away can still be recorded in the device's memory. Extra chips, each storing one additional image, costs 50cr (including the software that allows the user to switch from one image to another). A unit with ten-image capacity costs 800cr.

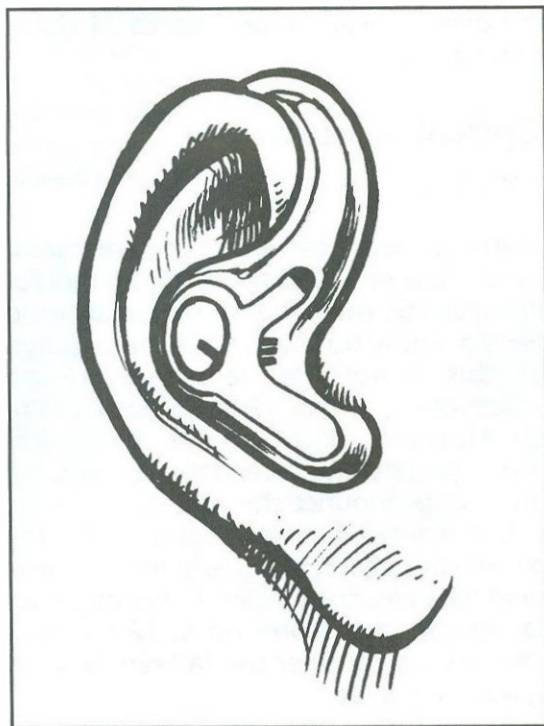
An adjustable strap holds the megaglasses in place on the user's head, leaving his hands free. A smaller version of the device can be installed inside the helmet of a space suit and flipped up and down, visor-style, by moving a lever on the side of the helmet. This version costs 550cr.

Speak-Easy

Cost: 85cr

This miniature communications device fits easily into the ear. It has both a microphone and speaker and allows the user to speak to anyone else who is wearing a speak-easy that is tuned to the same frequency. Speak-easies have a small toggle switch that can be flipped while the item is in place that allows its user to change the frequency. Each speak-easy can function on two frequencies.

The speak-easy is designed to allow hands-free communications with comrades within a one-mile range. Anyone beyond this range cannot receive. Since the speak-easy cannot take translation crystals, the user must be able to understand the language he or she is receiving.



Miscellaneous Gear

Many types of gear can be found in the 25th Century. This section describes some of the more interesting items.

EVA Bubble

Cost: 450cr

Size: 10' diameter (inflated)

Weight: 30

This is a large expandable bubble of tough, flexible polymer used as a rescue and evacuation pod. It can be inflated in only one round, and has an interior air supply and recycler. It has magnetic clamps and internal airlocks on opposite sides, so it can serve as a temporary passageway between ships. As an escape pod, it can hold up to 10 persons for a week.

Ferrofoam

Cost: 175cr, 100cr (refill)

Size: 8" diameter, 30" long

Weight: 6

Ferrofoam is crystallized iron particles in a polymer solution. In the presence of free oxygen, ferrofoam's ferrous particles align and the material becomes strong, gray, and gritty. Ferrofoam hardens rapidly: two seconds after release, on average. Ferrofoam has one disadvantage: it is water-soluble.

Ferrofoam comes in a six-pound can, similar to a fire extinguisher, that holds 7,200 cubic inches (roughly 50 square feet, one inch thick). Stress tests on ferrofoam have shown that one cubic inch easily supports 100 pounds, while the mass of the foam is one gram per cubic inch.

The nozzle of the dispenser can be adjusted to allow thin or wide streams. A wide, flat stream hardens in one second,

and is used when building temporary walls or as an emergency sealant for spacecraft hull breaches. Except in the Asteroid Belt, ferrofoam is not a permanent building material because it disintegrates rapidly in humidity.

Ferrofoam will form a strong bond with any material it touches, though the bond can only be as strong as the material. A sandy cliff cannot support a ferrofoam bridge; rock or metal, however, make better supports.

Ferrofoam can also be used to restrain captured enemies, though standard restraints are more reliable. It can be sprayed on protective gear or vehicles for extra protection up to +3. Every inch of ferrofoam gives a temporary +1 to AC, but it tends to jam or immobilize moving parts.

Ferrofoam has many uses. For example, while leaving the estate of a rich corporate executive in New York, a thief set off an alarm. Finding his vehicle guarded, he ran to the roof and saw another building forty feet away. He couldn't jump the distance and didn't have a jet pack, so he began to spray a foot-thick ferrofoam bridge linking the two buildings. Crossing as he built, he got safely to the other building. He then used an emergency fire hose to dissolve the bridge, and escaped.

Forced Oxygen Ferrofoam

Cost: 275cr, 150cr (refill)

Size: 8" long, 16" wide, 30" high

Weight: 8

Some structures in the Asteroid Belt have been built with ferrofoam. There's a special canister that mixes oxygen with the ferrofoam, called Forced Oxygen Ferrofoam, that's used in airless environments. These buildings are permanent and can safely contain pressurized environments.

Slow Glass

Cost: 100cr per square foot per 15-minute delay

As light passes through a medium, its direction and speed change: the light is refracted. The thicker the refracting medium, the more it bends and slows the light. For instance, ordinary window glass refracts light only very slightly, and once through the glass, the light resumes its original direction and speed.

Slow glass is designed to take full advantage of refraction. It is specially designed to slow any light that hits it by a specific amount of time. Unless it is currently emitting light it previously absorbed, slow glass appears opaque.

Slow glass is also very expensive to make: 100cr per square foot per 15 minutes' slowing time. For example, a two-foot square of slow glass that slows light for two hours costs 1,600 cr. Likewise, a quarter-foot square of slow glass that slows light for 12 hours costs 300cr.

Slow glass has a number of uses. The 12-hour version can be used as a skylight, saving money on lighting at night, and showing the stars during the day. Spies can use 36-hour (or longer) hand-sized pieces of slow glass to record documents, movies, people's actions, or data scrolling on computer screens—an ideal use, since metal detectors can't detect glass. However, since light passes through slow glass, the user must be able to turn the glass over to see any recorded events.

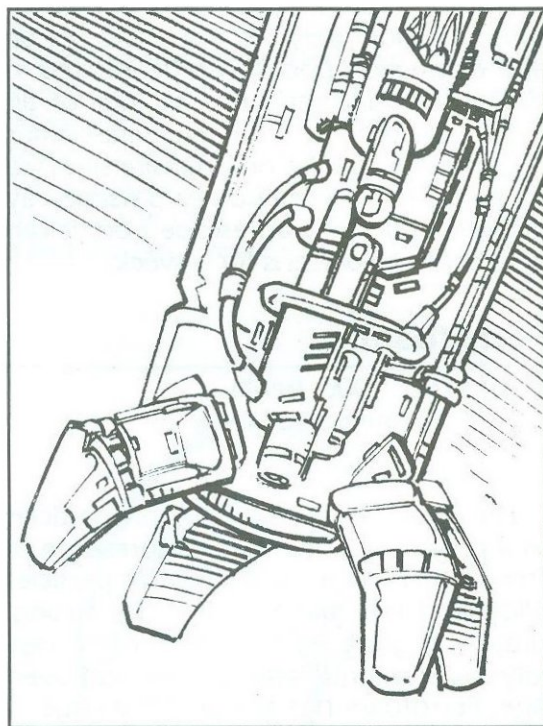
Slow Mirror

Cost: 50cr per square foot per 15 minute delay

Slow glass can also be coated on one side with a reflective material, in essence,

creating a slow mirror. Slow mirrors cost half as much as slow glass, because half the amount of slow glass is needed to construct them. A six-hour slow glass makes a 12-hour slow mirror: the light spends six hours traveling through the slow glass, is reflected, and must travel another six hours to exit.

Since slow mirrors absorb and reflect light from the same side, unlike slow glass, they can be permanently mounted on a wall or ceiling wherever desired.



Graviton Pulse Generator

Cost: 12,000cr
Range: 100 feet

This device creates a weak tractor beam. Just as a laser creates a photon stream by exciting a lasing medium with electromagnetic radiation, so a graviton

pulse generator creates a stream of graviton particles. (A graviton pulse generator rotates a superconductive clot at near-pulsar velocities around a doughnut-shaped magnet. The clot generates graviton particles that bounce back and forth, eventually forming a tightly focused graviton beam that attracts the nearest object.)

The graviton pulse generator has enough pull to attract an object up to 1,000 tons. Unfortunately, the graviton pulse generator has not seen much practical use, since its beam is too weak for most purposes. The most practical use for the graviton pulse generator so far is keeping aphids "stuck" to asteroids.

The graviton pulse generator can also be run in reverse, to push away any object smaller than 100 tons. It can, for example, push a light ship away from larger objects (asteroids, small moonlets, other ships, etc.) that do not have a strong gravitational field. Rocketjocks can use this option to repel debris that threatens to collide with their ship.

The graviton pulse generator can withstand 100 points of damage before breaking.

Gun Scope

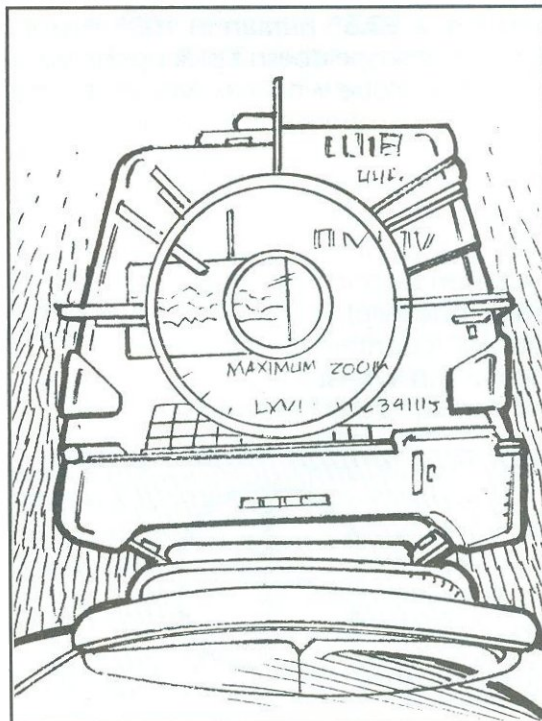
Cost: Variable

Primarily used on rifled weapons and weapons that require two hands, gun scopes can also be used on any pistol grip or one-handed projectile or beam weapon. Scopes increase the weapon's chance to hit. Several scope types, their costs, and their bonus to hit are listed below. In a few cases, the scope grants a special ability, as noted. It takes a full round to attach or detach a scope.

Some scopes alter the weapon's ROF (Rate of Fire). Decreasing the ROF makes

the weapon a little bit slower, and vice versa. On the table, one step down the list is one step faster, while one step up the list is a bit slower.

	ROF	
	1/6	
↑	1/5	↓
	1/4	
↑	1/3	F
	2/5	A
S	1/2	S
L	2/3	T
O	1/1	E
W	3/2	R
E	2/1	
R	5/2	↓
	3/1	
↑	4/1	↓
	5/1	



UV Scope

Scope Cost: 150cr

Attack Bonus: Special

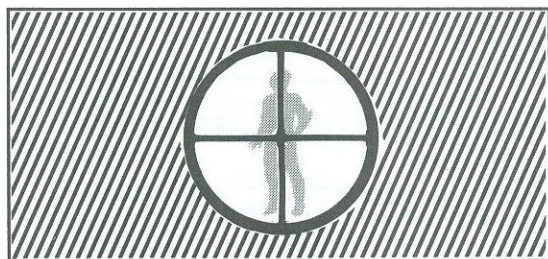
The UV scope allows the user to see objects clearly at night. It completely negates any attack penalties due to darkness. Since it takes longer to target accurately than to pull the trigger, this scope slows the weapon's ROF by one step (moving one step up the ROF table). The scope's enhanced accuracy at night, however, often counters the ROF reduction. The scope can withstand 25 hit points worth of damage before breaking.

IR Scope

Scope Cost: 150cr

Attack Bonus: +2

The IR scope lets the user see target's heat signature clearly as long as the ambient temperature is lower than the target's temperature. If the surroundings are hotter (e.g. a 98.6° human in 105° Arizona heat), the scope doesn't pick up the signature. The scope works as well in space as it does in an atmosphere, so miners in the Asteroid Belt or in the ring systems of Saturn like this scope. Since it takes a longer to target accurately than to pull the trigger, the scope slows the weapon's ROF weapon by one step (moving up the ROF table one step). The scope's enhanced accuracy counters the slower ROF. This scope can withstand 25 hit points worth of damage before breaking.



Laser Scope

Scope Cost: 300cr

Attack Bonus: +2

The laser scope emits a lased beam of red light that places a small, harmless red dot on the target. This scope grants a +2 to the attack roll. The user can fire at normal speed. The beam is blocked by fog, aerosol mist, or chaff; it reveals the shooter's location to IR sensors; and creates a thin red beam back to the shooter if there is particulate matter in the air. This scope can only withstand 10 hit points of damage before breaking.

Vacuum Suit

Cost: 200-500cr

Weight: 25

The vacuum suit, also known as a space suit, can withstand the extreme temperatures of space, from the fridity of complete shade to the furnace heat of a Mercurian orbit. The suit is constructed of a polymer plastic-based fabric. The basic suit includes the body covering, a helmet, and an air recycling unit. All suits have a radio and 24-hr water supply.

The cost of the suit is determined by its endurance. The basic suit has an endurance (air and radio battery) of 12 hours (this is the equivalent of one working shift). The 300cr suit has an endurance of 24 hours. The 400cr suit has an endurance of three days, including a distillation unit (to recycle water) and prepacked meals of nutrient paste. The 500cr unit is similar, except its endurance is a full week.

An important safety factor is that all suits are self-sealing, and any hole, slice, or tear immediately closes to prevent decompression. This does not reduce damage, but will help close a wound and keep it from getting any worse.

Venusian "Lowlander" Suit

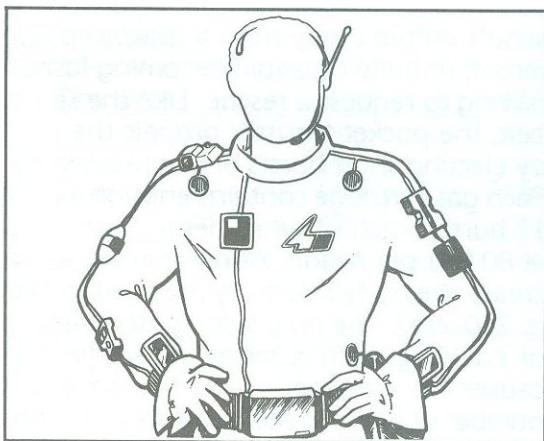
Cost: 400cr

Weight: 20

This suit, also known as the Venusian Lowland Environmental Suit, dates from the earliest days of Venusian settlement. Designed to maintain an Earthlike environment, the suit sheds the acidic Venusian atmosphere. (Although specially designed for conditions on Venus, the suit can be used with some danger in a high pressure environment (such as Jupiter or Saturn). Under these conditions, it must make a saving throw versus crushing blow as soft plastic. If the saving throw fails, the suit implodes, inflicting upon the wearer 1d10 points of damage, and immediately exposing him or her to the environment.)

The suit's air recycler provide a comfortable temperature and breathable air for one week. After that, its tritium store must be recharged or replaced (this takes three hours; spare tritium costs 25cr) Once per month, the suit's fission power plant must be replaced (three minutes; spare plants cost 100cr).

The suit cannot disperse damage like the smart suit, but it is self-sealing if it is holed, ripped, or sliced.



High-Pressure Suit

Cost: 400cr

Weight: 30

This suit, also known as a Jovian Suit, was developed for miners on Jupiter. It functions only in high pressure and frigid temperatures. In a vacuum (i.e., on Luna or in outer space), the suit must make a saving throw versus crushing blow as soft plastic. If the saving throw fails, the suit explodes, exposing the character to the outside elements immediately. In temperatures comparable to those found at the Venusian equatorial regions (300°F), the suit must save versus heat as soft plastic or melt.

The suit can maintain a comfortable temperature and breathable air for one week. After that, the suit must be recharged (a process that takes three hours and costs 25cr) or its fission power plant must be replaced (a process that takes three minutes and costs 100cr).

The suit cannot disperse damage like the smart suit, but it is self-sealing if breached.

Environmental Suit

Cost: 200cr + 100cr per condition

This suit is designed to protect the user from one or more environmental extremes: from extreme heat to extreme cold, from high pressure to vacuum, even radiation. These suits might work in any environment: outer space, Mercury, the clouds of Jupiter, the seas of Venus, even the depths of the Pacific Ocean on Earth. They include a helmet, an air recycler, and a radio; the latter two must be recharged after 24 hours.

Should an environmental suit be subjected to an extreme for which it has not

been designed, it must make a special saving throw. If the save succeeds, the suit never needs to save against that condition again unless it is damaged. The table below shows a few of the conditions the suit can protect against, the save it needs to succeed, and how the suit fares after a failed saving throw.

The suit cannot disperse damage like the smart suit, but it is self-sealing if it is breached.

Extreme Condition	Saving Throw	How Suit Fares
Extreme Heat	12	Useless
Extreme Cold	16	OK*
Radiation	16	OK*
Acid	14	Useless
Vacuum	12	Useless
Pressure	12	Useless

*The character is exposed to the condition.

Disturbance Sensor

Cost: 100cr

This security device is a paper-thin sheet of near-transparent plastic and ceramic that's the size of a playing card. It works strictly off light energy, storing a night's worth of energy in a single day. If the sensor is not exposed to light at least as bright as dusk, it does not function.

This device is useful for detecting searches or other break-ins, and can be placed anywhere—usually around doors, windows, on paths, on rooftops, or walls. If it is moved after activation, the sensor transmits a signal to a monitoring station (usually a computer or a guard station) up to ten miles away. Each disturbance sensor has its own "signature" that tells the computer or sentry which sensor is being moved. The receiver program costs 3500cr.

A character who is specifically looking

for a disturbance sensor will find it on a Difficult Notice check unless special pains have been taken to conceal it (in which case the check is Impossible).

Seismic Sensor

Cost: 100cr

These small security devices look much like pushpins. When set in place and activated, the sensor can detect all seismic activity as delicate as the footfalls of a cat 20 feet away. It then transmits a signal to a guard station, or some other sentry outpost, up to ten miles away. The receiver includes discrimination programs to identify the probable cause of the disturbance with a 95% accuracy. (When using this device, the referee should secretly roll in order to keep the probability of inaccuracy from the players.) The outpost receiver program costs 4,500cr.

Pocket Thruster

Cost: 300cr, 50cr (refill)

Size: 3" diameter, 8" long

Weight: 3

Handy in an emergency, the pocket thruster is a small version of the space belt. It lets a character in zero-gravity who's drifted away from a spaceship, asteroid, or building avoid becoming lost or having to request a rescue. Like the space belt, the pocket thruster propels the user by ejecting short bursts of compressed air. Each gas cartridge contains enough air for 12 bursts, each of which let the user drift at 80 feet per round. Additional bursts increase the body's velocity (from 80 to 160 to 240, etc.). The only way to stop—short of colliding with a larger object (which causes no damage)—is to fire an equal number of blasts in the opposite direction.

Missile Weapon Chart

Missile Weapon Type	Cost	Weight	Range	Damage	ROF	Shots	Reload
Blunderbuss, Cannon	1,500cr	180	1,000	4d8	1	10	—
Blunderbuss, Aphid-Mount	2,000cr	360	1,500	8d8	1	10	—
Bolt Gun	250cr	2	400	1d4	2	10	10cr
Crossbow, Desert Runner	100cr	4	200	1d4/1d8 ¹	1	10	5cr/10cr ¹
Cyclorator, Pistol	600cr	8	400 ²	1d6 + radiation	1	20	250cr
Cyclorator, Rifle	1,200cr	16	1,200 ²	2d6 + radiation	1/2	10	250cr
Dart	15cr	1/2	30-100	1d4	1	1	—
Flak Gun	800cr	14 (2)	300	Special	1/2	1	100cr
Graser Pistol	800cr	32	300	Radiation (save at -2)	1/2	10	500cr
Graser Rifle	1,600cr	40	600	Radiation (save at -4)	1/3	5	500cr
Grenade Launcher	500cr	3	200	As grenade	1/2	—	Grenade
Gyro Gun	800cr	16	500	4d10 ³	1/2	—	Varies
Heat Gun	400cr	2	60	2d6	1	7	80cr
Kryptx (laser)	—	4	400	1d6	1	10	—
Laser Pistol, FIR	300cr	2	800	1d8	3/2	5	25cr
Laser Pistol, IR	300cr	1	1,500	1d6	3/2	7	25cr
Laser Pistol, UV	400cr	1	600	1d12	1	5	50cr
Laser Pistol, VS	300cr	1	800	1d8	3/2	7	25cr
Laser Rifle, FIR	600cr	9	1,600	2d6	1	10	50cr
Laser Rifle, IR	600cr	5	3,000	1d12	1	14	50cr
Laser Rifle, UV	1,000cr	5	1,200	3d6	1	8	100cr
Laser Rifle, VS	600cr	5	1,600	2d8	1	10	50cr
Lightning Gun, Pistol	600cr	8	800 ²	3d10 + special	1/3	3	Rechargeable
Lightning Gun, Rifle	1,200cr	16	1,200 ²	6d10 + special	1/5	3	Rechargeable
Maser (Microwave) Pistol	350cr	2	400	1d10	2	10	Rechargeable
Maser (Microwave) Rifle	700cr	5	800	3d4	1	15	Rechargeable
Needle Gun	200cr	3	300	1d3	3	20	10cr
Plasma Thrower	800cr	35	400	4d10, 25' rad., save vs. explosion for half	1/2	1	80cr
Raser Pistol, LW	1,500cr	4	2,000	Jams sensors/radar	1	5	25cr
Raser Pistol, SW	800cr	4	2,000	Jams radios	1	5	25cr
Raser Rifle, LW	3,000cr	8	4,000	Jams sensors/radar	1	10	50cr
Raser Rifle, SW	1,600cr	8	4,000	Jams radios	1	10	50cr
Rocket Launcher	1,000cr	30	1,000	As shell	1/2		
Rocket Pistol	400cr	3	400	1d10	2	5	50cr
Rocket Rifle	500cr	6	2,000	2d8	1	10	100cr
Rocket Rifle, Automatic	1,000cr	7	1,500	2d8	4	40	400cr
Sonic Stunner	300cr	2	40	save vs. paralysis ²	1	14	Rechargeable
Stun Pod	1,000cr	4	40	save vs. paralysis ²	1	Special	Special

¹The Desert Runner Crossbow takes both standard crossbow bolts and explosive shells.

²Varies according to air pressure; see description.

³Special gyro rounds can duplicate other grenade effects.

Melee Weapon Chart

Melee Weapon Type	Cost	Weight	Range	Damage	ROF	Notes
Brick, Club, Bottle, etc. ¹	0cr	2-5	3	1d4	1	-4 if thrown
Cutlass	100cr	4	6	1d6	1	—
Dagger ¹	15cr	1	3	1d4	1	Not a tool
Knife	10cr	1	3	1d3	1	—
Knife, Mono	200cr	1	3	1d6	1	—
Knife, Terrine-issue ¹	225cr	1	3	1d6 + special	1	save vs. poison
Kryptyx (shock option)	—	4	6	1d12	1	10
Mine, RAM-issue	200cr	1/2	10' radius	4d10	1	save vs. explosion for half
Polearm	120cr	4	9	1d10	1	—
Sword	150cr	6	6	1d8	1	—
Sword, Mono	2,000cr	1	6	1d10	1	—

¹Can be thrown to distance of 30-100'; base range is Strength × 5, with a 30' minimum.

Grenade and Shell Chart

Type	Cost	Weight	Effect
Grenade, Aerosol Mist	50cr	1	Blocks lasers, 100' rad.
Grenade, Dazzle	50cr	1	15' rad., save vs. electrical shock or out 1d6 rounds
Grenade, Explosive	50cr	1	4d10, 10' rad., save vs. explosion for half
Grenade, Gas	50cr	1	20' rad., save vs. gas or out 1d6 rounds
Grenade, Stun	50cr	1	15' rad., save vs. paralysis or out 1d6 rounds
Shell, Aerosol Mist	5/50cr	2	Blocks lasers, 25' rad.
Shell, Chaff	5/50cr	2	Blocks smart weapons/radar, 25' rad.
Shell, Explosive	100cr	2	5d10, 20' rad., save vs. explosion for half

Ship-to-Ship Weapon Chart

Ship Weapon Type	Cost	Range (Hexes)	Weapon Spaces	Shots	Damage	Hit Bonus	Reload Cost	Reload Weight
Acceleration Gun, Light	1,500cr	2	1	15	20	-1	200cr	0
Acceleration Gun, Heavy	3,000cr	2	2	10	30	-2	400cr	0
Blunderbuss, Light	4,000cr	1	2	10	30	+2	0cr	400
Blunderbuss, Heavy	6,000cr	1	3	10	50	+1	0cr	800
Cyclorator, Light	2,000cr	2	4	2	10 + special	-2	400cr	600
Cyclorator, Heavy	3,000cr	4	6	4	20 + special	-3	600cr	1,200
Graser, Light	4,500cr	1	2	Unlimited	Radiation	+0	0cr	0
Graser, Heavy	6,000cr	1	4	Unlimited	Radiation	+0	0cr	0
Gyro cannon	2,000cr	4	1	50	10	+1	100cr	400
K-Cannon	10,000cr	4	5	6	100	-3	1,500cr	4,000
Laser, Beam	1,000cr	6	1	Unlimited	10	+1	0cr	0
Laser, Pumped	1,500cr	4	2	Unlimited	20	+0	0cr	0
Lightning Gun, Light	3,500cr	0	2	Unlimited	25 + special	-4	0cr	0
Lightning Gun, Heavy	5,000cr	0	3	Unlimited	40 + special	-6	0cr	0
Mass Driver ¹	Varies							
1" and less	—	0	1	15	20	-1	200cr	1,500
1" to 1'	—	0	2	10	30	-2	400cr	3,000
1' to 5'	—	1	3	8	40	-2	600cr	—
5' to 10'	—	2	4	6	80	-3	800cr	—
10' to 25'	—	2	5	5	160	-3	1,000cr	—
25' to 100'	—	3	10	3	320	-4	1,500cr	—
100' to 1/4 mile	—	—	—	—	640	—	—	—
1/4 to 1/2 mile	—	—	—	—	1,280	—	—	—
1/2 to 1 mile	—	—	—	—	2,560	—	—	—
1 mile +	—	—	—	—	5,120	—	—	—
Missile Mount, Standard	2,000cr	6	1	4	40	+0	300cr	400
Missile Mount, Heavy	3,000cr	6	2	4	60	-1	900cr	1,200
Raser LW, Light	6,000cr	3	1	Unlimited	Jam sensors and radar	-1	0cr	0
Raser LW, Heavy	9,000cr	5	2	Unlimited	Jam sensors and radar	-2	0cr	0
Raser SW, Light	2,000cr	3	1	Unlimited	Jam radio	-1	0cr	0
Raser SW, Heavy	3,000cr	5	2	Unlimited	Jam radio	-2	0cr	0

¹These weapons are available for ground installation only; they are too large for vehicles.

Item Saving Throws

Item	Acid	Crushing Blow	Disintegration	Fall	Extreme Heat ²	Extreme Cold	Lightning	Explosion/Plasma	Radiation
Ceramic	4	18	19	11	2	4	6	14	2
Cloth	12	—	19	—	13	2	18	6	2
Crystal	3	17	18	8	2	2	14	19	2
Glass	5	20	19	14	4	6	17	20	2
Metal, Hard	13	7	17 ¹	3	2	2	13	8	6
Metal, Soft	12	6	17 ¹	2	2	2	12	6	5
Plastic, Hard	15	12	15	10	10	4	8	10	5
Plastic, Soft	17	10	16	5	14	3	7	14	4
Stone	3	17	18	8	2	2	14	3	2
Rope	12	2	19	—	6	2	9	6	2
Wood, Thick	8	10	19	—	5	2	12	16	2
Wood, Thin	9	13	19	2	9	2	10	18	2

¹The disintegration chamber cannot damage metals; metallic objects in a disintegration chamber require no saving throw.

²Nuclear heat requires a saving throw of 20 for all normal items.

Light Frequency Table

Light Type	Abbreviation	Frequencies
Gamma Radiation	GR	$10^{20}-10^{23}$
Ultraviolet	UV	$10^{16}-10^{17}$
Visual Spectrum	VS	10^{15}
Infrared	IR	$10^{13}-10^{14}$
Far Infrared	FIR	10^{12}
Microwave	MW	$10^{10}-10^{11}$
SW Raser (radio)	SWR	10^9-10^{10}
LW Raser (radar)	LWR	10^4-10^6

Robot Roster

Type	Cost	Weight	Range	Damage	ROF	Shots	Reload
Bodyguard, Standard (AC 4; HD 6; hp 60)	20,000cr	200					
4 Laser Pistols	—	—	800'	1d8	1	7	25cr
2 Gyro Guns	—	—	250'	2d10	1/2	6	Varies
2 Rocket Rifles	—	—	2,000'	2d8	1	10	1,000cr
Bodyguard, RAM ² (AC 2; HD 8; hp 80)	30,000cr	300					
4 Laser Pistols	—	—	800'	1d8	1	7	25cr
2 Gyro Guns	—	—	250'	2d10	1/2	6	Varies
2 Rocket Rifles	—	—	2,000'	2d8	1	10	1,000cr
1 Sonic Stunner	—	—	40'	special	1	14	—

Vehicle Roster

	Weight (tons)	Size	Cargo (tons)	Cost (cr)	AC	Crew	Speed	Reaction Bonus	Defense Bonus
<i>Civilian Land Vehicles:</i>									
Dune Dancer, Mercurian	1½	18' × 6' × 6'	1	20,000	5	2	30 mph	+1	+0
HiSTAV ¹	8	40' × 20'	4	80,000	8	15	120 mph	+2	+1
Jetcar	1	15' × 6' × 4'	½	35,000	7	4	100 mph	+0	-1
Rover, Venusian	22	25' × 13'	3	40,000	6	6	50 mph	+1	+2
SATAV ²	8	40' × 15'	3	100,000	6	12	60 mph	-2	+1
Skimmer	½	10' × 6' × 4'	¼	20,000	7	3	50 mph	+0	+0
Sunray (Jetcar)	1	15' × 6' × 4'	½	35,000	5	4	100 mph	-1	-2
Tri-Fury, Mercurian	400 lbs	4' × 2' × 2'	0	900	9	2	40 mph	+2	+4
Walker, Martian	400 lbs	7' × 7' × 5'	—	30,000	6	1	10 mph	+2	+4
<i>Military Land Vehicles:</i>									
Dredge	50	100' × 45'	25	175,000	4	5	20 mph	-1	-2
Golden Goose	20	20' × 15'	10	90,000	4	2	30 mph	-1	-2
<i>Aerial Vehicles:</i>									
Helicopter, Dragonfly	½	15' × 8' × 6'	0	15,000	8	2	20 mph	+2	+4
Helicopter, Venusian	1½	45' × 24' × 18'	1	30,000	6	2	50 mph	-2	+1
Rocket Sled, Mercurian	½	8' × 5' × 3'	0	25,000	6	1	180 mph	+2	+4
Sailplane	700 lbs	10' × 2' × 5'	0	10,000	6	1	40+ mph	+1	+2
<i>Spacecraft:</i> ³									
Aphid Miner	60	130' × 90'	30	663,000	6	18	3	+0	+0
Jovian Miner	8k	1k' × 1k'	3k	160M	8	1,600	1	+2	+4
<i>Nautilus Submersibles</i>									
Tefnut	65	128' × 32'	20	590,000	9	12	3	+1	+2
Ahto	60	110' × 30'	18	540,000	9	10	3	+1	+2
Rudra	55	100' × 27'	16	495,000	9	8	3	+0	+1
Enki	50	90' × 25'	14	450,000	9	6	3	+0	+0
Aegir	40	70' × 20'	10	360,000	9	4	4	-1	-1
Triton	30	50' × 15'	6	270,000	9	2	4	-1	-2
<i>Scram Rockets</i>									
LN1	20	40' × 10'	10	240,000	6	2	4	-1	-2
LN2	25	50' × 12½'	12½	300,000	6	2	4	-1	-2
LN3	30	60' × 15'	15	360,000	6	3	4	-1	-2
LN4	35	70' × 17½'	17½	420,000	6	3	4	-1	-2
LN5	40	80' × 20'	20	480,000	6	4	4	-1	-2
LN6	45	90' × 22½'	22½	—	6	4	5	-3	-6
Shuttle, Aerostate	20	65' × 260'	10	275,000	7	2	4	-1	-2
Transport, Ringer	70	100' × 75'	50	770,000	7	4	3	+0	+0
X-12a TAV, Martian	15	30' × 7'	7½	165,000	7	3	5	-2	-4
<i>Installations:</i>									
Hearth, Jovian	45k	18k' × 22k'	22k	495M	6	1,500 (90k)	1	+0	+0
Renovation Waystation	5,000	5k' × 5k'	3,000	125M	4	12	0	+0	+0

¹High-Speed Tracked Amphibious Vehicle.

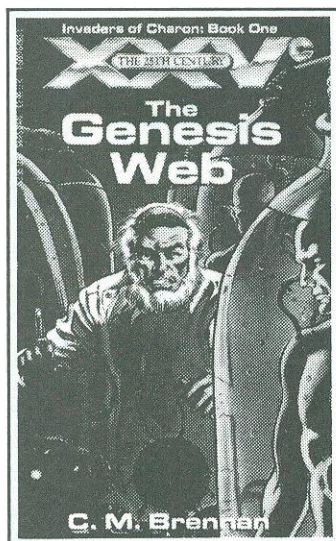
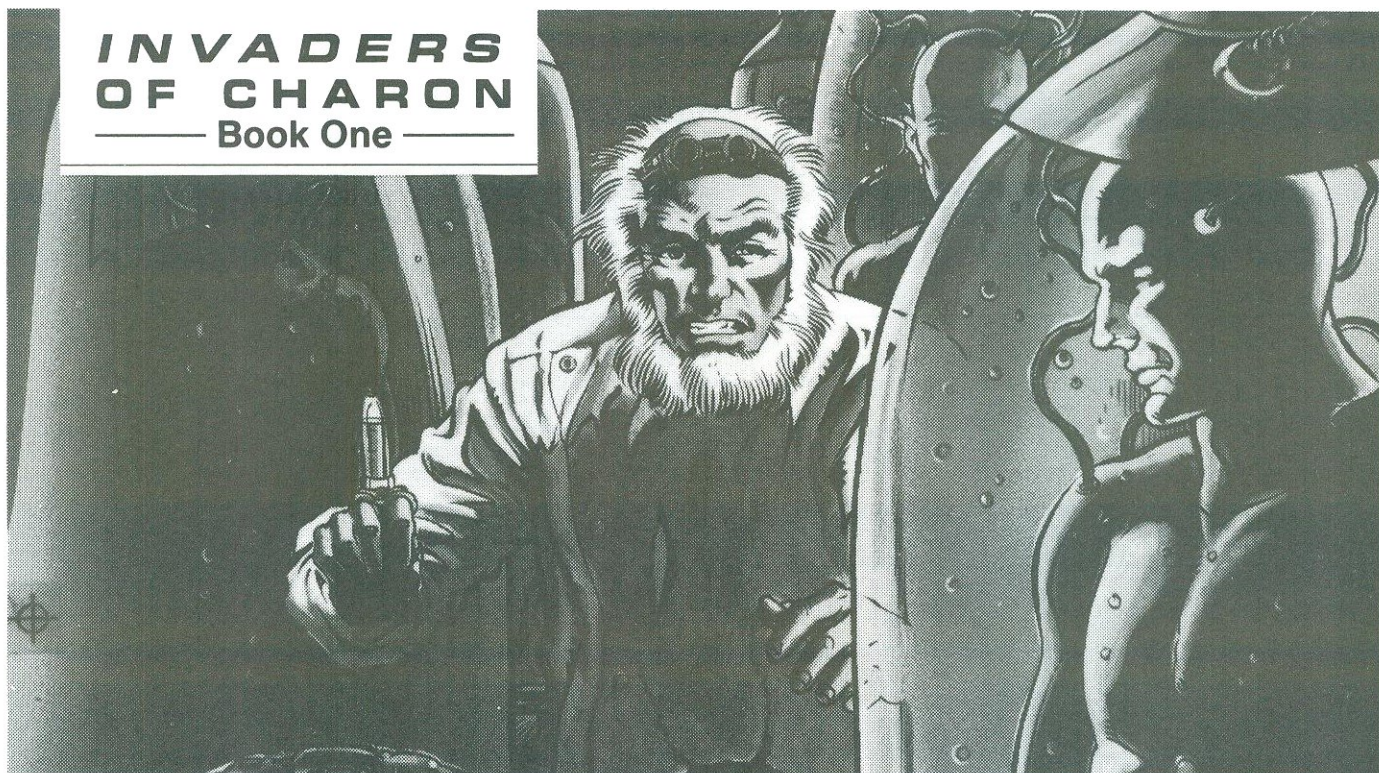
²High-Speed All-Terrain Amphibious VTOL (Vertical Takeoff and Landing).

³Ship speeds on tactical map (see *Characters & Combat*, p. 77)

The Genesis Web!

Black Barney Returns!

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OF CHARON**
— Book One —



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HARDWARE

by Dale "Slade" Henson

Your character has traveled the solar system. He's had close shaves, some of them closer than you would like to remember. As an experienced adventurer, he's been everywhere worth going and done everything worth doing. He's seen it all.

Not quite.

Now, he can amaze his friends and confound his foes with some of the system's hottest new technology. *Hardware* introduces 64 pages of exciting, cutting-edge weaponry, gadgets, and vehicles. From lasers to grasers, from transatmospheric vehicles to scram rockets, to the Venusian aerostate shuttle, from slow glass to ferrofoam, it's all presented here in the *Hardware* book.

NEW hand-held and ship-mounted weapons that give your character—or his enemy—a decisive edge in any combat situation.

GADGETS galore, including a wide variety of communications gear, sneaky electronics that only a rogue could love, and exotic inventions to spice up the old weapons locker.

LOTS of new vehicles, including rockets, light planes, land rovers, and submersibles!

(Referees: This book gives you many new opportunities to get rid of PC's loose cash!)

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120 Church End
Cherry Hinton
Cambridge CB1 3LB
United Kingdom

\$9.95 U.S.
CAN \$11.95
£5.99 U.K.

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ISBN 1-56076-389-2