

## COMPUTERS

TECH	LEVEL	DESCRIPTION
BATTLE SCANNER	1	Reveals technical specifications of enemy spacecraft in battle
ECM JAMMER MARK I	2	Adds 1 level to defense against enemy missile attacks
DEEP SPACE SCANNER	4	Detects enemy ships up to 5 parsecs away from your colonies and 1 parsec away from your ships
BATTLE COMPUTER MARK II	5	Increases weapon accuracy to level 2
ECM JAMMER MARK II	7	Adds 2 levels to defense against enemy missile attacks
IMPROVED ROBOTIC CONTROLS III	8	Allows up to 3 factories to be operated per population. Refit cost to upgrade to RC-III is half the standard cost of each factory
BATTLE COMPUTER MARK III	10	Increases weapon accuracy to level 3
ECM JAMMER MARK III	12	Adds 3 levels to defense against enemy missile attacks
IMPROVED SPACE SCANNER	13	Detects enemy ships up to 7 parsecs away from your colonies and 2 parsecs away from your ships. Also displays enemy destinations and ETA.
BATTLE COMPUTER MARK IV	15	Increases weapon accuracy to level 4

ECM JAMMER MARK IV	17	Adds 4 levels to defense against enemy missile attacks
IMPROVED ROBOTIC CONTROLS IV	18	Allows up to 4 factories to be operated per population. Refit cost to upgrade to RC-IV is the standard cost of each factory
BATTLE COMPUTER MARK V	20	Increases weapon accuracy to level 5
ECM JAMMER MARK V	22	Adds 5 levels to defense against enemy missile attacks
ADVANCED SPACE SCANNER	23	Allows exploration of planets from colony bases up to 9 parsecs away and detects enemy ships up to 3 parsecs away from your ships
BATTLE COMPUTER MARK VI	25	Increases weapon accuracy to level 6
ECM JAMMER MARK VI	27	Adds 6 levels to defense against enemy missile attacks
IMPROVED ROBOTIC CONTROLS V	28	Allows up to 5 factories to be operated per population. Refit cost to upgrade to RC-V is 1 1/2 times the standard cost of each factory
BATTLE COMPUTER MARK VII	30	Increases weapon accuracy to level 7
ECM JAMMER MARK VII	32	Adds 7 levels to defense against enemy missile attacks
HYPERSPACE COMMUNICATIONS	34	Allows communication with ships and transports in hyperspace, and changing of destination while en route
BATTLE COMPUTER MARK VIII	35	Increases weapon accuracy to level 8

ECM JAMMER MARK VIII	37	Adds 8 levels to defense against enemy missile attacks
IMPROVED ROBOTIC CONTROLS VI	38	Allows up to 6 factories to be operated per population. Refit cost to upgrade to RC-V is twice the standard cost of each factory

### COMPUTERS ( PAGE 2 )

TECH	LEVEL	DESCRIPTION
BATTLE COMPUTER MARK IX	40	Increases weapon accuracy to level 9
ECM JAMMER MARK IX	42	Adds 9 levels to defense against enemy missile attacks
BATTLE COMPUTER MARK X	45	Increases weapon accuracy to level 10
ORACLE INTERFACE	46	Coordinates all beam weapon attacks into one simultaneous burst of concentrated fire, halving the enemy's shield strength
ECM JAMMER MARK X	47	Adds 10 levels to defense against enemy missile attacks
IMPROVED ROBOTIC CONTROLS VII	48	Allows up to 7 factories to be operated per population. Refit cost to upgrade to RC-V is 2 1/2 times the standard cost of each factory
TECHNOLOGY NULLIFIER	49	Scrambles enemy battle computers, reducing the level of the computers up to 2-6 levels each time the nullifier is fired. Technology nullifier has a four space range.
BATTLE COMPUTER MARK XI	50	Increases weapon accuracy to level 11

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## CONSTRUCTION

TECH	LEVEL	DESCRIPTION
IMPROVED INDUSTRIAL TECH 9	3	Reduces factory construction costs to 9 BC each
REDUCED INDUSTRIAL WASTE 80%	5	Decreases factory pollution levels to 80% of the normal rate
IMPROVED INDUSTRIAL TECH 8	8	Reduces factory construction costs to 8 BC each
DURALLOY ARMOR	10	Increases the hit points of ships and transports by 50%. Personal combat armor is also enhanced, adding 5 to all ground attacks.
BATTLE SUITS	11	Armor that not only protects but also boosts strength. Adds 10 to all ground combat rolls.
IMPROVED INDUSTRIAL TECH 7	13	Reduces factory construction costs to 7 BC each
AUTOMATED REPAIR SYSTEM	14	Undestroyed ships can repair up to 15% of their total hit points at the end of each turn
REDUCED INDUSTRIAL WASTE 60%	15	Decreases factory pollution levels to 60% of the normal rate
ZORTIUM ARMOR	17	Increases the hit points of ships and transports by 100%. Personal combat armor is also enhanced, adding 10 to all ground attacks.
IMPROVED INDUSTRIAL TECH 6	18	Reduces factory construction costs to 6 BC each
IMPROVED INDUSTRIAL TECH 5	23	Reduces factory construction costs to 5 BC each

ARMORED EXOSKELETON	24	Advanced mobile suits that not only boost power and increase defenses but also offer limited flight to ground troops. Adds 20 to all ground combat rolls.
REDUCED INDUSTRIAL WASTE 40%	25	Decreases factory pollution levels to 40% of the normal rate
ANDRIUM ARMOR	26	Increases the hit points of ships and transports by 150%. Personal combat armor is also enhanced, adding 15 to all ground attacks.
IMPROVED INDUSTRIAL TECH 4	28	Reduces factory construction costs to 4 BC each
IMPROVED INDUSTRIAL TECH 3	33	Reduces factory construction costs to 3 BC each
TRITANIUM ARMOR	34	Increases the hit points of ships and transports by 200%. Personal combat armor is also enhanced, adding 20 to all ground attacks.
REDUCED INDUSTRIAL WASTE 20%	35	Decreases factory pollution levels to 20% of the normal rate
ADVANCED DAMAGE CONTROL	36	Undestroyed ships can repair up to 30% of their total hit points at the end of each turn
IMPROVED INDUSTRIAL TECH 2	38	Reduces factory construction costs to 2 BC each
POWERED ARMOR	40	Combines high mobility, anti-grav flight, and heavy armored plating to form the most advanced armor available for ground troops. Adds 30 to all ground combat rolls.
ADAMANTIUM ARMOR	42	Increases the hit points of ships and transports by 250%. Personal combat armor is also enhanced, adding 25 to all ground attacks.
INDUSTRIAL WASTE ELIMINATION	45	Factories cease to pollute

NEUTRONIUM ARMOR	50
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Provides the best internal protection of any armor and increases the hit points of a ship by 300%. Personal combat armor is also enhanced, adding 30 to all ground attacks.

## FORCE FIELDS

TECH	LEVEL	DESCRIPTION
CLASS I DEFLECTOR SHIELD	1	Absorbs 1 point of damage from all attacks
CLASS II DEFLECTOR SHIELD	4	Absorbs 2 points of damage from all attacks
PERSONAL DEFLECTOR SHIELD	8	Protects individual ground troops with a directional force field. Adds 10 to all ground combat attacks.
CLASS III DEFLECTOR SHIELD	10	Absorbs 3 points of damage from all attacks
CLASS V PLANETARY SHIELD	12	Absorbs 5 points of damage from attacks against planet surfaces, and is cumulative with missile base deflector shields
CLASS IV DEFLECTOR SHIELD	14	Absorbs 4 points of damage from all attacks
REPULSOR BEAM	16	Repels enemy ships back 1 space away from the attacking ship. The special weapon has a 1 space range
CLASS V DEFLECTOR SHIELD	20	Absorbs 5 points of damage from all attacks
PERSONAL ABSORPTION SHIELD	21	Absorbs damage from all hand weapons. Adds 20 to all ground combat battles.
CLASS X PLANETARY SHIELD	22	Absorbs 10 points of damage from attacks against planet surfaces, and is cumulative with missile base deflector shields
CLASS VI DEFLECTOR SHIELD	24	Absorbs 6 points of damage from all attacks



CLOAKING DEVICE	27	Renders ships nearly invisible until they attack. While cloaked, ships receive a +5 to their missile and beam defenses.
CLASS VII DEFLECTOR SHIELD	30	Absorbs 7 points of damage from all attacks
ZYRO SHIELD	31	An energy field that destroys incoming missiles and torpedoes 75% of the time, -1% per technology level of the missile.
CLASS XV PLANETARY SHIELD	32	Absorbs 15 points of damage from attacks against planet surfaces, and is cumulative with missile base deflector shields
CLASS IX DEFLECTOR SHIELD	34	Absorbs 9 points of damage from all attacks
STASIS FIELD	37	Freezes one stack of enemy ships up to one space away, for one turn. Frozen ships cannot attack or be attacked.
PERSONAL BARRIER SHIELD	38	Completely encases the soldier in a nearly impenetrable force field. Adds 30 to all ground combat rolls.
CLASS XI DEFLECTOR SHIELD	40	Absorbs 11 points of damage from all attacks
CLASS XX PLANETARY SHIELD	42	Absorbs 20 points of damage from attacks against planet surfaces, and is cumulative with missile base deflector shields
BLACK HOLE GENERATOR	43	Creates a subspace field that warps normal space, creating an instantaneous black hole and destroying 25-100% of enemy ships, -2% per shield class

#### FORCE FIELDS ( PAGE 2 )

CLASS XIII DEFLECTOR SHIELD	44	Absorbs 13 points of damage from all attacks
LIGHTNING SHIELD	46	An energy field that destroys incoming enemy missiles and torpedoes 100% of the time, -1% per technology level of the missile

CLASS XV DEFLECTOR SHIELD	50

Absorbs 15 points of damage from all attacks

PLANETOLOGY		
TECH	LEVEL	DESCRIPTION
ECOLOGICAL RESTORATION	1	Eliminates 2 units of industrial waste for a cost of 1 BC
TERRAFORMING +10	2	Increases the population capacity of planets by 10M for a cost of 5 BC per million
CONTROLLED BARREN LANDINGS	3	Permits the colonization of barren planets
IMPROVED ECO RESTORATION	5	Eliminates 3 units of industrial waste for a cost of 1 BC
CONTROLLED TUNDRA LANDINGS	6	Permits the colonization of tundra planets
TERRAFORMING +20	8	Increases the population capacity of planets by 20M for a cost of 5 BC per million
DEAD PLANET LANDINGS	9	Permits the colonization of dead planets
DEATH SPORES	10	Biological weapons capable of reducing the maximum planetary populations by 1M per attack
CONTROLLED INFERNO LANDINGS	12	Permits the colonization of inferno planets
ENHANCED ECO RESTORATION	13	Eliminates 5 units of industrial waste for a cost of 1 BC
TERRAFORMING +30	14	Increases the population capacity of planets by 30M for a cost of 4 BC per million

CONTROLLED TOXIC LANDINGS	15	Permits the colonization of toxic planets
SOIL ENRICHMENT	16	Converts standard planets to fertile environments, increasing population growth by 50% and raising the base planetary size by +25% for a one time cost of 150BC
BIO TOXIN ANTIDOTE	17	Reduces casualties taken from biological weapons by 1 million per attack
RADIOACTIVE LANDINGS	18	Permits the colonization of radioactive planets
TERRAFORMING +40	20	Increases the population capacity of planets by 40M for a cost of 4 BC per million
CLONING	21	Allows bio-engineered colonists to be grown at a rate of 1 million per 10BC
ATMOSPHERIC TERRAFORMING	22	Converts hostile planets to standard minimal environments, normalizing population growth for a one-time cost of 200BC
ADVANCED ECO RESTORATION	24	Eliminates 10 units of industrial waste for a cost of 1BC
TERRAFORMING +50	26	Increases the population capacity of planets by 50M for a cost of 3 BC per million
DOOM VIRUS	27	Biological weapons capable of reducing planetary populations by 2 million per attack
ADVANCED SOIL ENRICHMENT	30	Converts standard and fertile planets to gaias, doubling the population growth and increasing the base planetary size by +50% for a one time cost of 300BC
TERRAFORMING +60	32	Increases the population capacity of planets by 60M for a cost of 3 BC per million
COMPLETE ECO RESTORATION	34	Eliminates 20 units of industrial waste for a cost of 1BC

UNIVERSAL ANTIDOTE	36	Reduces casualties taken from biological weapons by 2 million per attack
TERRAFORMING +80	38	Increases the population capacity of planets by 80M for a cost of 2 BC per million
BIO TERMINATOR	40	Biological weapons capable of reducing planetary populations by 3 million per attack
ADVANCED CLONING	42	Allows bio-engineered colonists to be grown at a rate of 1 million per 5BC
TERRAFORMING +100	44	Increases the population capacity of planets by 100M for a cost of 2 BC per million
COMPLETE TERRAFORMING +120	50	Increases the population capacity of planets by 120M for a cost of 2 BC per million
PROPULSION		
TECH	LEVEL	DESCRIPTION
RETRO ENGINES (WARP 1)	1	Moves ships at warp one (1 parsec per turn) and allows a maximum maneuverability of Class I in combat
HYDROGEN FUEL CELLS (RANGE 4)	3	Fuel reserves allow ships to move up to 4 parsecs away from colony planets
DEUTERIUM FUEL CELLS (RANGE 5)	5	Fuel reserves allow ships to move up to 5 parsecs away from colony planets
NUCLEAR ENGINES (WARP 2)	6	Moves ships at warp two (2 parsecs per turn) and allows a maximum maneuverability of Class II in combat

IRRIDIUM FUEL CELLS (RANGE 6)	9	Fuel reserves allow ships to move up to 6 parsecs away from colony planets
INERTIAL STABILIZER	10	Generates a field that reduces the inertia of ships and adds 2 classes of maneuverability in combat (+2 defense and +1 combat speed)
SUB-LIGHT DRIVES (WARP 3)	12	Moves ships at warp three (3 parsecs per turn) and allows a maximum maneuverability of Class III in combat
DOTOMITE CRYSTALS (RANGE 7)	14	Fuel reserves allow ships to move up to 7 parsecs away from colony planets
ENERGY PULSAR	16	A potent engine modification which generates a sudden spherical burst of energy, striking all adjacent ships for up to 5 points of damage plus 1 per two ships
FUSION DRIVE (WARP 4)	18	Moves ships at warp four (4 parsecs per turn) and allows a maximum maneuverability of Class IV in combat
URIDIUM FUEL CELLS (RANGE 8)	19	Fuel reserves allow ships to move up to 8 parsecs away from colony planets
WARP DISSIPATOR	20	Specialized weapon that disrupts the warp fields surrounding enemy ships, reducing their speed by 0-1 each turn the weapon is fired
REAJAX FUEL CELLS (RANGE 9)	23	Fuel reserves allow ships to move up to 9 parsecs away from colony planets
IMPULSE DRIVE (WARP 5)	24	Moves ships at warp five (5 parsecs per turn) and allows a maximum maneuverability of Class V in combat
INTERGALACTIC STAR GATES	27	Allows your ships to move between any two planets equipped with star gates in only one turn
TRILITHIUM CRYSTALS (RANGE 10)	29	Fuel reserves allow ships to move up to 10 parsecs away from colony planets
ION DRIVE (WARP 6)	30	Moves ships at warp six (6 parsecs per turn) and allows a maximum maneuverability of

		Class VI in combat
HIGH ENERGY FOCUS	34	Increases the firing range of all energy weapons by three
ANTI-MATTER DRIVE (WARP 7)	36	Moves ships at warp seven (7 parsecs per turn) and allows a maximum maneuverability of Class VII in combat
SUB SPACE TELEPORTER	38	Teleports ships to any space on the combat map and gives initiative to teleporting ship
IONIC PULSAR	40	A powerful engine modification capable of generating a spherical burst of phased energy striking all adjacent ships for up to 10 points of damage plus one per ship

### PROPULSION (PAGE 2)

TECH	LEVEL	DESCRIPTION
THORIUM CELLS (UNLIMITED RANGE)	41	Self-replenishing fuel that allows ships to move any distance from colony planets
INTERPHASED DRIVE (WARP 8)	42	Moves ships at warp eight (8 parsecs per turn) and allows a maximum maneuverability of Class VIII in combat
SUB SPACE INTERDICTOR	43	Surrounds colony planets with an intense gravity well, rendering sub space teleporters useless and halving combat transporter effectiveness. Placed in all missile bases
COMBAT TRANSPORTERS	45	Transports equipped with these devices have a 50% chance of beaming down onto enemy surfaces before the transports can be attacked by enemy ships and bases
INERTIAL NULLIFIER	46	Generates a field that negates the inertia of ships and adds 2 classes of maneuverability in combat (+4 defense and +2 combat speed)
HYPER DRIVE (WARP 9)	48	Moves ships at warp nine (9 parsecs per turn) and allows a maximum maneuverability of Class IX in combat

DISPLACEMENT DEVICE	50
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Randomly shifts the equipped ship in and out of normal space, allowing the ship to avoid 1/3 of all non-area attacks



## WEAPONS

TECH	LEVEL	DESCRIPTION
LASERS	1	Direct-fire beam weapon that inflicts 1-4 points of damage. Heavy lasers have a two space range and do 1-7 points of damage.
HAND LASER	2	Personal lasers that add 5 to your ground combat rolls
HYPER-V ROCKETS	4	Swift missiles that explode for 6 points of damage and move at a speed of 2.5
GATLING LASER	5	An advanced laser that fires up to four times per turn for 1-4 points of damage with each hit
ANTI-MISSILE ROCKETS	6	Trans-light rockets capable of destroying incoming enemy missiles 40% of the time, -1% per technology of the missile
NEUTRON PELLET GUN	7	Heavy particle stream weapon that halves the effectiveness of enemy deflector shields and inflicts 2-5 points of damage
HYPER-X MISSILE	8	Missiles equipped with high energy warheads that explode for 8 points of damage, move at a speed of 2.5 and are controlled by a +1 level targeting computer
FUSION BOMB	9	Bombs that explode for 5-20 points of damage on planetary targets only
ION CANNON	10	High intensity beam weapons capable of inflicting 3-8 points of damage. Heavy ion cannons strike for 3-15 and have a two space range
SCATTER PACK V ROCKETS	11	MIRV versions of Hyper-V Rockets, splitting into five separate warheads that each explode for 6 points of damage and move at a speed of 2.5
ION RIFLE	12	Personal beam weapons that add 10 to your ground attacks

MASS DRIVER	13	A linear accelerator that halves the effectiveness of enemy deflector shields and inflicts 5-8 points of damage
MERCULITE MISSILES	14	Hard-hitting, swift missiles that explode for 10 points of damage, move at a speed of 3, and are controlled by a +2 level targeting computer
NEUTRON BLASTER	15	High powered beam weapons capable of inflicting 3-12 points of damage. Heavy neutron blasters strike for 3-24 points and have a two space range.
ANTI-MATTER BOMB	16	Bombs that explode for 10-40 points of damage on planetary targets only
GRAVITON BEAM	17	Tractor-repulsor beam capable of rending ships to pieces. The beam strikes for 1-15, and the continuous streaming effect of the ray allows damage to carry over from one ship to another.
STINGER MISSILES	18	Slow, hyper-accurate missiles that do 15 points of damage, move at a speed of 3.5, and are controlled by a sophisticated +3 level targeting computer.
HARD BEAM	19	An energy-to-matter beam weapon that halves the effectiveness of deflector shields and inflicts 8-12 points of damage.
FUSION BEAM	20	High intensity beam weapon capable of doing 4-16 points of damage. Heavy fusion beams strike for 4-30 points and have a two space range.

#### WEAPONS ( PAGE 2 )

TECH	LEVEL	DESCRIPTION
ION STREAM PROJECTOR	21	Fires an intense ionic blast reducing an opponent's armor by 20% plus 1% per two firing ships. The projector has a two space range.
OMEGA-V BOMB	22	High yield bombs that explode for 20-50 points of damage on planetary targets only
ANTI-MATTER TORPEDOES	23	High energy tracking torpedoes that deliver 30 points of damage but may only be fired every other

		turn. Each torpedo is equipped with a +4 level targeting computer
FUSION RIFLE	24	Inaccurate but incredibly powerful beam weapons that add 20 to your ground combat rolls
MEGABOLT CANNON	25	Releases multiple bolts of pure energy in a wide field. It has a +30% bonus chance to hit and strikes for 2-20 points of damage
PHASOR	26	Phased energy beams capable of inflicting 5-20 points of damage. Heavy phasors strike for 5-40 points of damage and have a two space range
SCATTER PACK VII ROCKETS	27	MIRV versions of Hyper-X Missiles, splitting into 7 separate warheads that each explode for 10 points of damage, move at a speed of 3, and are guided by a +2 level targeting computer
AUTO BLASTER	28	An advanced neutron blaster that fires up to 3 times per turn for 4-16 points of damage per hit
PULSON MISSILE	29	Powerful missiles equipped with anti-matter warheads that explode for 20 points of damage, move at speed 4, and are controlled by a +4 level targeting computer
TACHYON BEAM	30	Fires an intense stream of tachyon particles that strike enemy ships for 1-25 hits. The continuous streaming effect of the ray allows it to carry damage over from one ship to another
HAND PHASOR	31	Potent hand-held energy weapons capable of reducing an opponent to his component atoms. Adds 25 to your ground combat rolls.
GAUSS AUTOCANNON	32	An advanced linear accelerator capable of firing four explosive rounds per turn that inflict 7-10 points of damage each. The projectile rounds half the effectiveness of enemy shields.
PARTICLE BEAM	33	High intensity particle accelerators capable of striking enemy ships for 10-20 points of damage and halving the effectiveness of deflector shields.
HERCULAR MISSILES	34	Highly advanced missile that explodes for 25 points of damage, moves at speed 4.5, and is controlled by a +5 level targeting computer
PLASMA CANNON	35	Fires intense bolts of energy that inflict 6-30 points of damage

DISRUPTOR	37	Unleashes tremendous bolts of pure energy that can strike enemy targets up to 2 spaces away for 10-40 points of damage
PULSE PHASOR	38	An advanced phasor capable of firing three bursts per turn for 5-20 points of damage per hit
NEUTRONIUM BOMB	39	Devastating bombs that explode for 40-70 points of damage against planetary targets only
HELLFIRE TORPEDOES	40	Enveloping energy torpedoes that simultaneously strike all shields, delivering damage equivalent to four 25 point attacks. They may be fired only once every other turn.

### WEAPONS ( PAGE 3 )

TECH	LEVEL	DESCRIPTION
ZEON MISSILES	41	Most advanced missile available. Capable of striking enemy ships for 30 points of damage and moving at a speed of 5, guided by a +6 level targeting computer.
PLASMA RIFLE	42	The most devastating hand-held weapon available. Adds 30 to your ground attacks.
PROTON TORPEDOES	43	High yield energy torpedoes that deliver 75 points of damage but may be fired only every other turn. Each torpedo is equipped with a +6 level targeting computer.
SCATTER PACK X MISSILES	44	MIRV versions of Stinger Missiles, splitting into ten separate warheads that each explode for 15 points of damage, move at speed 3.5, and are guided by a +3 level targeting computer
TRI-FOCUS PLASMA	45	Fires a triad of high intensity plasma beams capable of inflicting 20-50 points of damage
STELLAR CONVERTER	46	Surrounds the target with an extremely powerful matter-energy conversion field, inflicting four 10-35 point attacks. It has a range of three spaces
NEUTRON STREAM PROJECTOR	47	Fires a blast of concentrated neutrino rays, reducing an opponent's armor by 40% plus 1% per firing

		ship. The projector has a range of two spaces.
MAULER DEVICE	48	Unleashes enormous amounts of focused energy at enemy targets, inflicting 20-100 points of damage
PLASMA TORPEDOES	50	Pure energy torpedoes that deliver 150 points of damage, but lose 15 strength per space traveled. The launcher fires every other turn and has a +7 level guidance computer.
DEATH RAY		An ancient weapon of unbelievably destructive power that inflicts 200-1000 points of damage with a 1 space range