Star Rangers
Manual

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A Short History of the Star Rangers

First organized in 2059, the Star Rangers have been dedicated to protecting the residents of the frontier since "Lithium" Jack Hayes first stopped a riot in the LMC-1 Undertown and established the unofficial Ranger credo:

One riot, one Ranger.

The Star Rangers were initially responsible for the various corporate colonies throughout the Sol system, but the great Expansion after the discovery of Warp technology often left the Star Rangers as the only vestige of government authority on many planets. In fact, Rangers spent much of their time protecting colonists from each other. Additionally, the initial contacts with other races were often brutal and short, making the human frontier even more dangerous, and the Star Rangers' presence even more important. The Expansion is considered the heyday of the Star Rangers, and the names of legends-"Wild Bill" Todderly, Rosalyn Hernandez, Stephen McPhearson, and "Crazy" Jack Caine-roll off the tongue.

The signing of the Orion Convention between humans and their closest neighbors (the Hesperian League, the Tauregs, and the Tanstaals) brought an end to humanity's chaotic expansion, but also brought new challenges.

The Star Rangers were pressed into service as a frontier patrol force, preserving human space from encroachment by expansionist neighbors. Inevitably, there were incidents. The Meggid Insurrection and the Hesperian border clashes led to the first large-scale operations by the Star Rangers, and set the stage for the exploits of Samantha Pierce and a new generation of Rangers.

The Rangers evolved into a force ready to meet any need and perform any duty, from search and rescue to border exclusion operations. Their resources have grown from a single Lunar Hopper and a pair of lasguns to include the latest in propulsion, detection, and weapon technologies, as well as numerous bases, training facilities, and research centers throughout the frontier.

Through all this, the Star Rangers have maintained their commitment to protect the residents of the frontier. They have consistently shown themselves to be superior to any foe, equal to any task.

That's the way it has been.
That's the way it will be.

Introduction to the Game

Star Rangers combines seat-of-your-pants space combat action with strategic decisions made on the fly.

You and your wingman, outnumbered and outgunned, are up against Taureg bandits who threaten the frontiers of human civilization. Whether you are protecting your bases against Taureg attack, intercepting bandit arms convoys along the frontier, or conducting raids against bandit supply centers, you make the decisions. Where will the bandits appear next? Whom should you defend first? If you dock with your base and repair your ship, can you make it back in time to save those civilian transports?

You know your mission,
now it's up to you to carry it out.

Practice

You begin Star Rangers in Practice Mode. Here you can hone your dogfighting skills against a variety of increasingly difficult enemies. Initially, you need only a few simple controls.

Basic Controls

Action	Result
Joystick left	Bank ship left
Joystick right	Bank ship right
Joystick forward	Pitch ship down
Joystick back	Pitch ship up
Trigger	Fire selected gun
/	Toggle guns
Space bar	Fire selected missile
< >	Cycle through missiles

Knowing all of your ship's controls, however, will make you much more effective. The rest of the controls can be found on your Control Reference Card.

NOTE: If you are uncomfortable with the default joystick control setting, you can use the Joystick menu to change the setting from Flight to Arcade. In Arcade mode, pushing the joystick forward pitches the ship up, and pulling the joystick back pitches the ship down.

Periodically, larger ships appear in Practice Mode. Destroying them repairs and refuels your ship.

Practice Mode automatically ends when your ship runs out of energy or your hull integrity is 0 and you are destroyed. You then have the option to reenter Practice Mode, start a Star Rangers Campaign, view the statistics from your Practice session, or view the Practice High Scores. You can also leave Practice Mode at any time by pressing the Esc key.

Enjoy!

Combat Autopilot

If you have trouble keeping track of your target, press the A key to activate (and deactivate) your Combat Autopilot. The Autopilot automatically steers toward and tracks your selected target. It gives control of the ship back to you when you move the joystick, but when you release the joystick it again tracks the target for you. For safety reasons, the Autopilot disengages if you collide with another ship.

Campaigns

The Campaign Mode is the heart of Star Rangers. Here, you test your dogfighting skills when it counts, because other people are relying on your decisions to ensure their safety.

It's time to shoot straight and think smart!

Every Star Rangers campaign is unique. Even if you replay a mission, the positions, movements, and actions of friends and enemies differ. This variability, along with changes in your own actions, makes Star Rangers almost infinitely replayable.

When you first embark on a Star Rangers campaign, you are briefed by your new commander about your first assignment, and given the opportunity to choose a wingman to accompany you on the mission.

Each potential wingman has varying abilities and performs differently in the heat of combat. Some are better pilots than others. Some are better shots. And some might go off on their own rather than follow your orders. Which wingman you choose, though, is up to you.

During a campaign, use the Quadrant Map to assess your situation and make decisions based on what you know-and what you don't.

After you complete a mission, you return to base and your performance is assessed. If you are deserving, you may be promoted or given a medal! You are then briefed on your next mission.

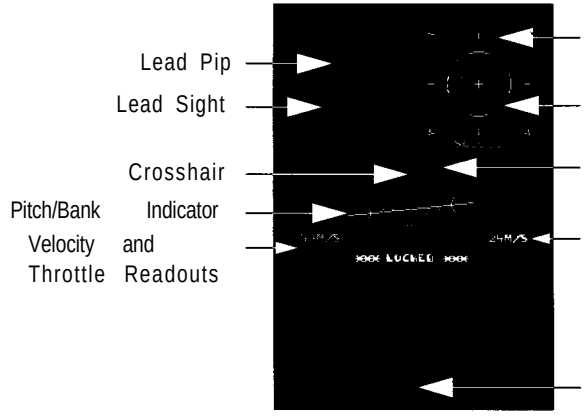
A Ranger's work is never done.

Cockpit

You spend most of your time in the cockpit, so familiarity with it is vital to your success.

Head Up Display (HUD)

The Head Up Display, or **HUD,** is your most important instrument, and it is located in the center of the forward view. It helps you find and shoot targets, and it keeps useful information in front of you, rather than down in your instruments.



Head Up *Display* **(HUD)**

The **HUD** has a number of different components: the Crosshair, Directional Indicator, Pitch/Bank Indicator, **HUD** Readouts, Target Designator, Lead Sight, Missile Lock Circle, and Weapon Indicators.

Crosshair

The stationary Crosshair in the middle of the screen shows where you are flying and gives you an aiming point for your guns. If your target is out of gun range, the Crosshair flashes when it is on your target. If your target is within gun range, your Crosshair flashes when it is on the Lead Sight (see page 6).

Directional Indicator

The Directional Indicator is a small yellow line pointing from the Crosshair to your target. It shows you which direction to fly to get your target in the center of the screen. The Directional Indicator is most useful when your target has flown off the screen and you need help finding it again.

Pitch/Bank Indicator

The Crosshair is overlaid on the blue Pitch/Bank Indicator. The Pitch/Bank Indicator changes as you pilot the ship, and shows the rate at which you are banking left or right, and pitching up or down.

HUD Readouts

Arranged around the Crosshair are four readouts: Velocity, Throttle, Closing Speed, and Intercept Time.

Velocity is to the lower left of the Crosshair, and it displays your velocity in meters per second.

Throttle is to the bottom left, and it displays your throttle setting as a percentage of total capacity.

Closing Speed is to the lower right, and it displays the rate, in meters per second, at which you are moving toward or away from your target. A positive number indicates that you are gaining on your target, and a negative number indicates that you are moving away.

Intercept Time is to the bottom right, and it displays the time, in seconds, at which you will intercept your target.

Target Designator

If you have targeted another ship, a yellow Target Designator appears around the target. The Target Designator changes size to conform to the size of the ship on your screen. Press T to target the nearest enemy ship, and press F to target the nearest friendly ship. The Y and R keys cycle forward and backward through the friendly or enemy targets.

Lead Sight

When your target is in front of you and is within range of your main guns, a green Lead Sight appears. The small inner circle (the Lead Pip) is your targeting computer's estimation of where you should fire to hit your target, assuming the target flies in a straight line and does not change speed. The larger outer circle is the targeting computer's estimate of where your target could be if it changed speed or turned sharply as you fired. Firing within this area might hit the target, depending on how it maneuvers, but the probability of a hit is usually higher if you fire directly at the Lead Pip.

Missile Lock Circle

Missiles can lock onto targets only in the central portion of the HUD. When a missile is locking onto a target, a large Missile Lock Circle appears around the target, and a tone sounds. As time passes, the circle shrinks and turns red, and the tone rises.

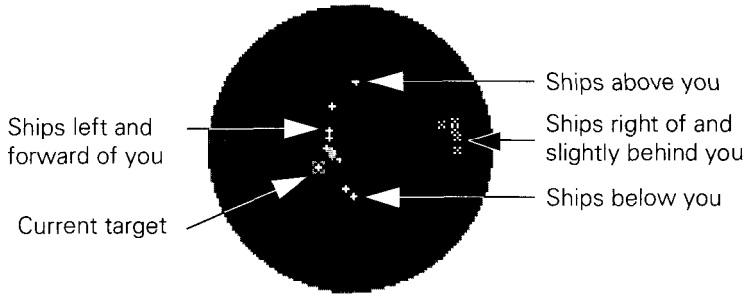
When your missile has loose *lock*, a second circle appears. Missiles fired during loose lock have limited tracking abilities and a much lower chance of hitting the target than missiles fired during *full lock*. When a missile has full lock, the ship's Target Designator turns red, the Missile Lock Circle pulses, a steady beep sounds, and the word LOCKED appears on your HUD. You lose lock if you switch missile types or if the target flies off the screen. Press the space bar to fire a missile.

Weapon Indicators

At the bottom of the HUD are the Weapon Indicators. The Gun Indicator displays the primary guns you have selected. It is green when your target is in gun range, and red when the target is out of gun range. Use the / key to cycle through the guns. The Missile Indicator displays the type of missile you have selected, as well as how many of them you have left. The missile's name is green when your target is in range, and red when the target is out of range. Use the < and > keys to cycle through the missile types.

Radar Display

The circular display in the lower center of the screen is the radar display. Next to the HUD, the Radar Display is your most important instrument.



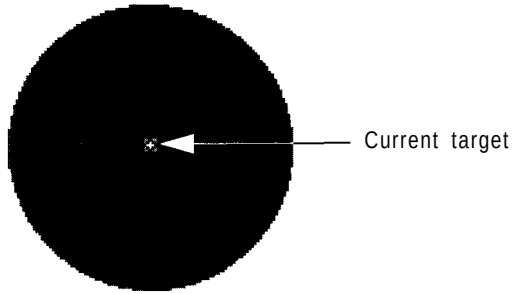
Radar Display

Objects on the radar are differentiated by color, shape, and position. Objects in front of you are represented by dots, and objects behind you are represented by X's.

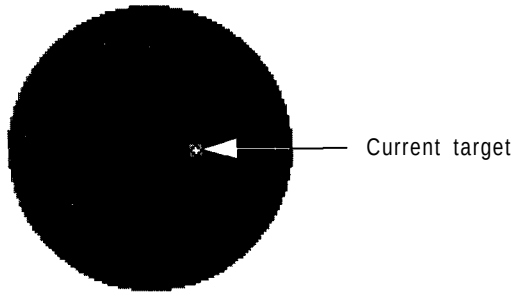
Friendly ships are yellow, your warp destination is white, your wingman is green, and enemy ships are red. Large flashing X's are missiles. Your current target has a yellow box around it to differentiate it from the other ships on the radar.

The Radar Display provides a 360-degree view of the world, and is divided into rings. Objects in the small, central ring are in front of you. Objects in the outer ring are behind you. Objects in the left or right of the middle ring are to your left or right, and objects in the top or bottom of the middle ring are above or below you, respectively.

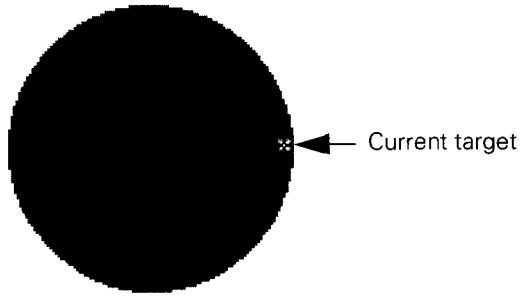
For example, a ship directly in front of you appears in the center of the display. If you turn 90 degrees so that the ship is to your right, it moves to the center right of the display. If you turn again so that the ship is behind you, it appears in the radar's outer ring.



Current target directly ahead



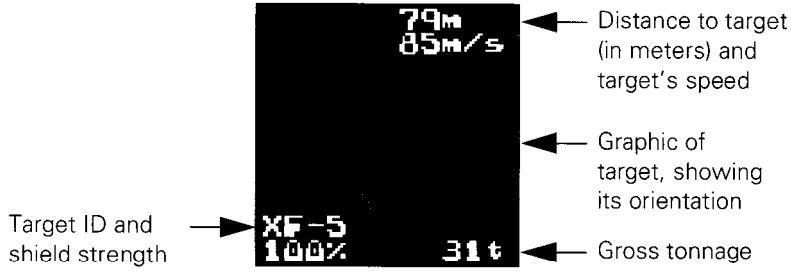
Current target 90 degrees to your right



Current target directly behind you

Target Screen

If you have selected a target, information about it appears on the Target Screen in the lower right corner of the cockpit. The top of the screen shows the distance to the target and the target's speed. In the lower left corner is the target's identification and shield percentage. To the lower right is the ship's gross tonnage. In the center of the display is a graphic of the target, showing its orientation relative to you. This allows you to quickly check where your target is heading and how it is maneuvering. This graphic is green when the target has shields, is yellow when the target has less than 25% shields, and turns red when the target has no more shields remaining.



Target Screen

Multifunctional Display (MFD)

In the lower left of the cockpit is the Multifunctional Display (MFD). It gives you access to communications, ship damage assessment, and energy management systems.

Communications System

Press C to access the Communications System, which displays a numbered list of the ships that you can communicate with. Ships and bases within radar range have an asterisk beside their names. When you select a ship to communicate with, a list of messages that you can send is displayed.

You can select the message recipient, as well as the message you want to send, by pressing the appropriate numbered choice. The messages in the following table may be available, depending on circumstances.

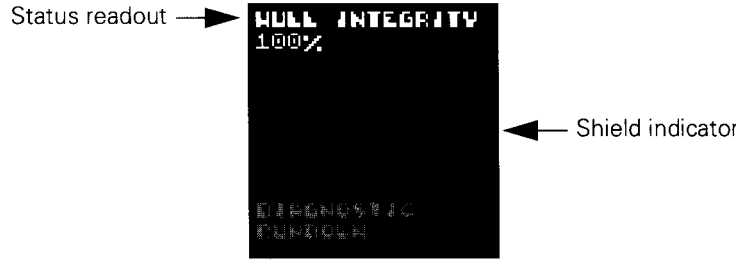
Communications System Messages

Message	Description
Attack target	Tells your wingman to attack your current target.
Ignore target	Tells your wingman not to attack your current target
Cover me	Tells your wingman to fly in formation with you and protect you from attack.
Engage any	Tells wingman to attack enemy at will.
Go home	Tells wingman to warp to nearest base and stay there.
Go to	If you have designated a warp destination on the Quadrant Map (see page 15). tells wingman to go there. Once there, he will attack Taureg ships and defend civilian ships as needed Then he returns as soon as possible.
Status	Asks for a status report.
Dock	Requests permission from a base to dock.

The Communications System is automatically activated when you have incoming communications, and the text of the message appears in the text bar at the bottom of the cockpit.

Ship Damage Assessment System

Press D to access the Ship Damage Assessment System, which provides a graphic representation of your ship and any damaged or destroyed systems, as well as updates on your shield, hull, and energy status.

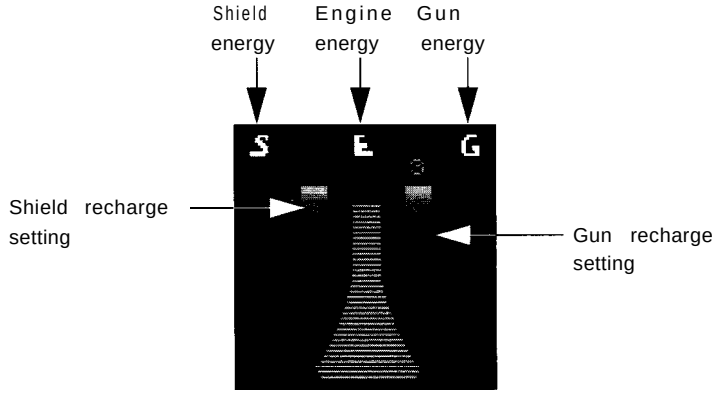


Ship Damage Assessment System

In addition to your cockpit gauges and screens, the following systems can be damaged or destroyed: engine, guns, missile launcher, fire control, shield generator, warp engine, flight controls, and energy storage.

Energy Management System

Press E to access the Energy Management System, which lets you adjust the relative amounts of energy that you give to your shields, engines, and gun. Your ship has a limited energy output, and how you apportion it greatly affects your ship's performance.



Energy *Management System*

Your shields and guns each have four settings. To increase the shield setting, press Shift-S; to decrease it, press S. To increase the gun setting, press Shift-G; to decrease it, press G.

At the lowest setting, these systems receive no additional energy, and even under light usage they quickly deplete their supply. The highest settings direct energy into the gun and shield capacitors at the maximum possible rate, and recharge the shields and guns as quickly as possible. Even under the heaviest usage, the systems consume their energy very slowly, providing the maximum protection and firepower.

Any energy not directed to the guns or shields is automatically used by the engines to propel the ship. Increasing the shield or gun settings draws power away from the engines and reduces your ship's speed. Similarly, decreasing the shield or gun settings redirects power to the engines, increasing your ship's speed.

Gauges

Around the Radar Display are four gauges, marked T, V, S, and E, for throttle, velocity, shields, and energy, respectively.

Throttle (T)

The T gauge shows your current throttle setting. Press the + key to increase your throttle in 10% increments. Press the - key to decrease your throttle in 10% decrements. You can set your throttle to 100% by pressing Backspace, or to 0% by pressing the \ key. To match your target's speed, press Enter.

Your throttle setting is a percentage of available engine output. As you adjust the gun and shield settings in the Energy Management System, the amount of energy available to your engines changes, so your speed can increase or decrease even though your throttle setting remains the same.

Velocity (V)

The V gauge shows your current velocity.

Shields (S)

The S gauge shows your shield strength. Shields prevent weapon hits from damaging your hull, and provide limited protection from collisions, but every hit weakens them. When you have no more shields, further hits damage your hull.

Over time, your shields replenish. The rate at which they replenish depends on your shield setting in the Energy Management System.

Energy (E)

The E gauge shows how much energy you have left. Using your warp engines, recharging your guns, and replenishing your shields all take energy, and that energy is deducted from your storage system.

When your energy is low, the Energy gauge flashes. If you run out of energy, a rescue ship is dispatched to retrieve you.

Indicators

There are three indicators in the cockpit: Warp, Lock, and Launch.

Warp Indicator

The Warp indicator is on the left side of the cockpit, above the MFD, and it indicates the state of your warp engine. When it is unlit, your warp engine is recharging and cannot be activated. When it is lit, you can engage the warp engine. (For more information, see "Warping" on page 17.)

Lock Indicator

The Lock indicator is on the right side of the cockpit, above the Target Display. When a Taureg ship is locking onto your ship, the Lock Indicator flashes and a warning sounds. If a ship locks onto you, a series of sharp turns and velocity changes may break the lock and prevent the enemy ship from launching a missile at you.

Launch Indicator

The Launch indicator (abbreviated Lnch) is also above the Target Display. It flashes when a Taureg ship has launched a missile at you, and it also gives an audible warning. Generally, your ship is more maneuverable than the missile, so a sharp turn at the right time can remove you from harm's way.

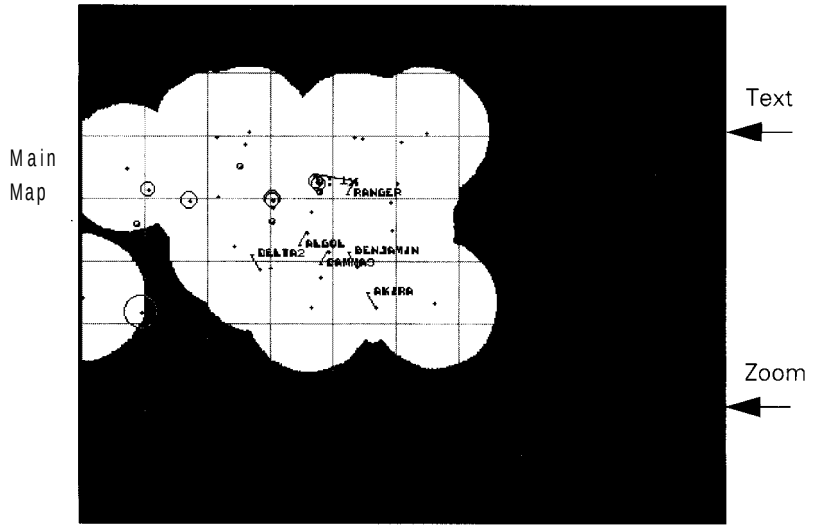
"Lithium" Jack Hayes

The first of the Star Rangers, "Lithium" Jack Hayes is credited with bringing law and order to the dark side lunar mining colonies, back when Luna was the frontier. Working with no backup, he was often called upon to single-handedly stop riots in the Undertowns, and his success formed the basis of the unofficial Ranger credo-One riot, one Ranger-that exemplifies Ranger toughness.

The pop-culture Star Ranger image-no-nonsense messengers of law and order with Colt-Barringer lasguns on their hips and shock batons in their hands-began with "Lithium" Jack Hayes.

Quadrant Map

The Quadrant Map has three sections. The largest area is the Main Map display. To the upper right is the Text window, and to the lower right is the Zoom window.



Quadrant Map

Main Map

The Main Map shows your entire area of responsibility. Friendly ships and bases are light blue dots, and Taureg ships are red dots. When friendly ships and bases are under attack, their names flash to make them easier to identify.

The highlighted areas surrounding friendly ships show the area that their sensors can "see," and any Taureg ships within these areas appear on the map. The black portions of the map are areas that are not covered by friendly sensors. If Taureg ships are in these areas, you can't see them, and you don't know where they're going.

To increase the area covered by your sensors, you can drop transponders during flight. Transponders have their own sensor equipment, and they transmit data back to you about ships in their area. If used effectively, transponders help you evaluate a situation and decide how to react.

You can use your mouse to move the pointer to various locations on the map. As the pointer moves, a readout shows what percentage of your ship's current energy you would expend by warping to that map position. By clicking the left mouse button, you can designate a point on the map as your next warp destination. Doing so records how much energy is required to warp there. If you change your mind after selecting a destination, you can simply select another one, automatically erasing the first.

Designating a warp destination on the map displays the destination in your cockpit HUD, allowing you to fly there under normal power.

Text Window

For easy reference, the Text window categorizes the ships displayed in the Zoom window. Friendly ships are in blue letters. Taureg ships are in red letters. The shield, hull, and remaining energy percentages are displayed for all friendly ships.

Zoom Window

The Zoom window shows the region around your cursor in increased detail. Friendly and enemy ships are represented by distinct icons, indicating the ship type.

Warping

Warp travel is the quickest way to cover long distances across the Quadrant Map, and is extremely important to the Star Rangers, who must be able to respond to new threats at a moment's notice. After you select a warp destination on the Quadrant Map, press the W key to activate your warp engine.

When you activate the warp engine, the navigation computer calculates a safe path through hyperspace and displays the path as a tunnel on

your screen. If you fly through the tunnel accurately, you arrive at your designated warp point, but sloppy flying introduces errors into the computer's calculations and can cause you to miss your intended destination.

Warp Display

When you activate the warp engine, the MFD changes to the Warp Display. The Warp Display has four readouts: Distance, Angle, Error, and Percent Complete.

Distance

The Distance readout displays how far you are from the center of the warp tunnel. The total distance that you deviate from the center of the tunnel during your warp determines the amount of error you incur and how far from your intended destination you arrive.

Angle

The Angle readout shows the angular difference between your flight path and the perfect path straight down the tunnel.

Error

The Error readout shows the amount of error that you have accumulated during your warp. This error corresponds to how far away from your intended destination you will arrive, and in some instances, the error can become quite large.

Percent Complete

The Percent Complete readout graphically depicts how much of your warp jump you have completed.

Warp Limitations

The main limitation of warp travel is that the energy required to warp increases very quickly as the warp distance increases, which makes it expensive to cover long distances in a single warp jump. To get around this problem, most pilots travel in a series of shorter warp jumps. Although this technique takes more time, it uses a lot less energy.

Furthermore, because the warp engine requires a large amount of energy to prime itself for a jump, it must recharge between warps. While the warp engine is recharging, you cannot activate it, and warp travel is impossible. If you are not careful, this can (temporarily) strand you in some very difficult situations!

Docking

When you are within 800 meters of a base, you can use your communications system to request docking clearance. When clearance is granted, you are automatically guided into the docking bay.

Repairs

Once you have successfully docked with a base, the base can replenish your energy and repair damage to your ship.

The Repair Priority List lets you designate the order in which you want your ship's systems repaired. Damaged systems are shown in yellow, and destroyed systems in red. Use the cursor keys to move the selection bar up and down the list. Press Enter to move the currently selected item to the top of the list.

As systems are repaired, their status is updated and they are moved to the bottom of the list.

Launching

Press the L key to launch. You can launch at any time, and it is not necessary to remain in the docking bay until every system has been fully repaired. Indeed, there may be times when the situation warrants launching before all repairs have been completed.

Completing a Mission

A Star Ranger's primary responsibility is to ensure the safety of the residents of the frontier. Since no base or civilian is safe while hostile ships are nearby, your mission is not considered complete until you destroy all bandit ships or force them to flee.

Failure

If you show yourself to be incapable of completing your mission (by repeatedly getting your ship destroyed or running out of energy), you are removed from active duty along the frontier and assigned to other, less strenuous, duties. However, you are given the opportunity to rejoin the Star Rangers and redeem yourself.

Promotions

Although you begin the game as only an Ensign in the Star Rangers, you can rise through the ranks through valor, intelligence, and ability. Commanding officers evaluate your performance by examining the scores for your three most recent missions. If you meet the high Star Ranger standards, you may be promoted. However, promotion to a higher rank does not relieve you of your primary responsibility: protecting the civilians who live along the frontier.

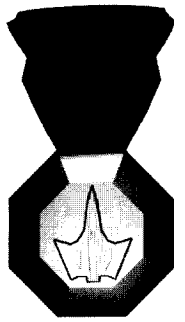
The ranks are Ensign, 2nd Lieutenant, 1st Lieutenant, Major, Captain, Lieutenant Commander, and Commander. But no matter your rank, you must remember this:

A Ranger's work is never done.

Medals

Your performance is also evaluated to determine if your actions warrant the receipt of any medals or citations. These awards and decorations vary in prestige, but earning any of them is an accomplishment to be proud of.

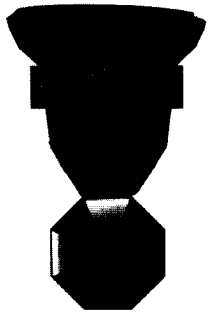
Combat Medallion



History: First awarded in 2096, most Star Rangers have received the Combat Medallion. Some consider it little more than proof of minimum proficiency with a plasma gun.

Critertia Awarded for 25 combat victories in the line of duty.

Combat Medallion (with Bar)



History: First awarded in 2096, the Combat Medallion (with Bar) is a step up from the Combat Medallion. Rangers who have earned the CMB have proven themselves repeatedly. Rangers with multiple CMBs are foes to be reckoned with.

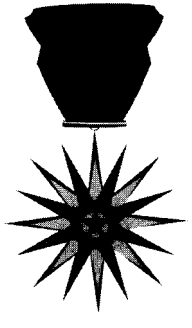
Criteria: Awarded for 80 combat victories in the line of duty, and every additional 80 ships destroyed thereafter.

Protector's Badge

History: Instituted during the Meggid Insurrection to recognize those Rangers who distinguished themselves in the protection of civilian lives. Although some initially felt awkward accepting commendations for doing their job, the Protector's Badge-and its companion, the Protector's Star-have become hallmarks of the Star Rangers and their devotion to the residents of the frontier.

Criteria: Awarded for extraordinary protection of civilians in the line of duty.

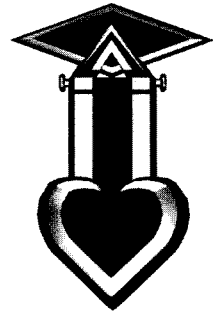
Protector's Star



History: Created at the same time and for similar reasons as the Protector's Badge, the Protector's Star is one of the most easily recognized awards that a Star Ranger can receive.

Criteria: Awarded for extraordinary protection of bases or other fixed installations in the line of duty.

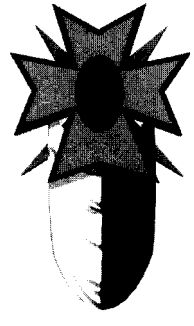
Service Heart



History: Established in 2067 and first awarded in 2069, the Service Heart recognizes Rangers who have successfully completed their appointed tasks despite serious injury to themselves or their craft. When worn, the Service Heart is always worn on the right breast, and was the only medal with this distinction until the creation of the McPhearson Cross.

Criteria: Awarded for mission completion despite serious damage inflicted on the Ranger's ship or person.

McPhearson Cross



History: Created in 2154 after the passing of Stephen McPhearson, the McPhearson Cross is considered the highest decoration that a Star Ranger can receive. It is worn on the right breast, above the Service Heart. To date, only 22 McPhearson Crosses have been awarded, and only Samantha Pierce has received the decoration twice.

Criteria: Awarded for completion of mission despite extraordinary damage inflicted on the Ranger's ship or person.

Stephen McPhearson

Stephen McPhearson was a Star Ranger during the Expansion, when humanity colonized over 1,000 worlds, and when the Star Rangers were often the only form of government on newly settled planets.

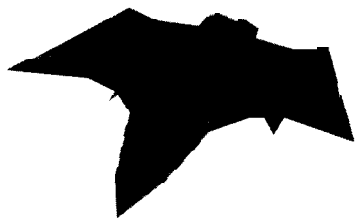
Despite having no food, no water, and being badly wounded, he and two deputies held off 20 SCAT smugglers from inside a terraform dome on Oro III for two days, forcing the smugglers to surrender or face suffocation as their oxygen supplies ran out.

Republic, Civilian, and Taureg Ships

Know your friendlies. More importantly, know the ships of those you protect and serve. And most important of all, commit to memory the ships of your foes.

Republic RG-10

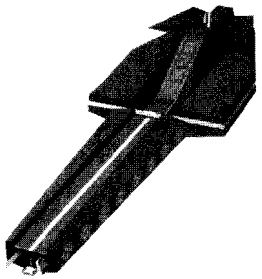
When it first entered service in 2232 as the standard Star Ranger ship, the Republic RG-10 was considered revolutionary. Its Parker-Hall 220 warp engine gives it unprecedented jump capability for a ship its size, duridium plating gives it exceptional hull strength, and it can carry an excellent missile payload when needed-including tac nukes. The Republic RG-10 also benefits from excellent maneuverability while still retaining its stability. Since entering service, all of these capabilities have been put to the test, and the ship has proven itself suited to whatever duty it is called upon to perform, just like the Star Rangers themselves.



Mass (kg)	22,700
Length (m)	20.7
Width (m)	22.2
Height (m)	4
Maximum speed (m/s)	160
Pitch (degrees/s)	60
Roll (degrees/s)	60
Yaw (degrees/s)	60

Civilian Ships

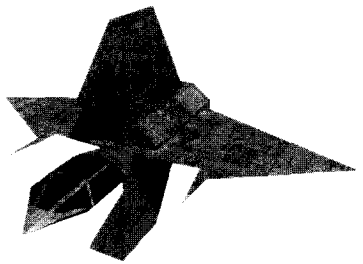
Civilian ships come in a wide variety of shapes and sizes, depending on their function, and they typically stay within the well-traveled space lanes between bases, planets, and other points of interest. Although all civilian ships are equipped with shielding to deflect micrometeorites, these shields provide only limited protection in combat conditions. Typical civilian ships include mining ships, luxury liners, and transport ships.



Typical civilian ship

SC-2 scout

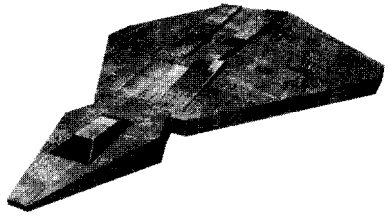
This successor to the SC- 1 fixed many of its predecessor's shortcomings. Most importantly, it features improved energy storage for increased operational range. Additionally, the SC-2 is armed with twin Pulse Plasma Guns, something that SC-l pilots were desperate for, and it more than doubles the shield strength of the SC-l. However, the SC-2 is still hampered by the lack of a modern warp engine or navigational computer, as well as a weak hull. First fielded in 2 174, the SC-2 has undergone a series of upgrades to increase its lifespan, and it capably serves the Tauregs.



Mass kg)	11,400
Length (m)	15
Width (m)	21.6
Height (m)	13.7
Maximum speed (m/s)	130
Pitch (degrees/s)	35
Roll (degrees/s)	25
Yaw (degrees/s)	35

XF-5 Fighter

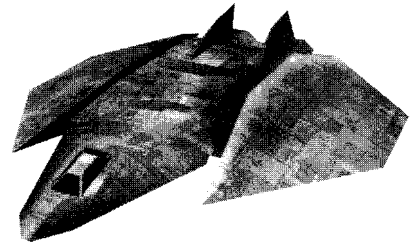
First tested in 2 188 and entered into production in 2 190, the XF-5 is the latest in the highly successful XF line of space superiority fighters. It continues its predecessors' tradition of high offensive firepower combined with stout defensive shielding to create a truly formidable fighter. The XF-5 ably served Taureg Centrist forces during the Kestrian civil war, and XF-5 pilots of the Third Stkar are credited with the first Centrist combat kills of the conflict (a Grey League SC-lb trainer).



Mass (kg)	31,000
Length (m)	22.1
Width (m)	17.3
Height (m)	4.2
Maximum speed (m/s)	120
Pitch (degrees/s)	30
Roll (degrees/s)	35
Yaw (degrees/s)	30

BFB-3 Bomber

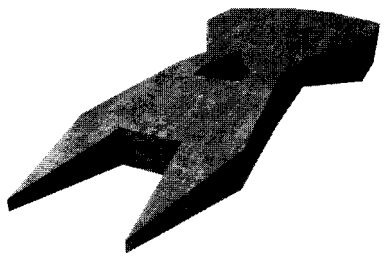
The BFB-3, proposed in 2194 and prototyped in 2197, is an outgrowth of the success the Tauregs experienced with the XF-5 and the demonstrated need during the Kestrian civil war for a tactical space fighter with the ability to successfully attack capital warships. Although it did not reach combat units until the war's closing days, since the war the BFB-3 has become known as a durable ship that carries a good punch. However, the addition of extra weapon storage and twin rear turrets to the basic XF-5 design means that the BFB-3 must make do with older XF-4 engines, leaving it somewhat underpowered and limiting its maneuverability.



Mass kg)	38,900
Length (m)	35.5
Width (m)	29.8
Height (m)	7.2
Maximum speed (m/s)	100
Pitch (degrees/s)	25
Roll (degrees/s)	55
Yaw (degrees/s)	25

Moru-class Cruiser

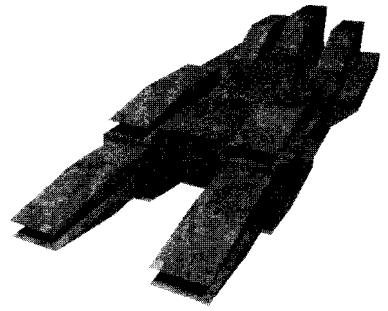
First commissioned in 2180, the Ishin-class cruisers experienced a number of early problems that culminated in 2 18 1 with the loss of the Ksing Lao and all hands when its engines imploded. After an extensive redesign, including a complete overhaul of the engine coupling subsystems, the renamed Moru-class entered service with the Taureg Home Fleet in 2185, and established an excellent safety and operations record. Dominated by its 12 turrets, the Mont-class is capable of presenting a withering wall of firepower to attacking craft, although Grey League pilots found some blind spots in the turret coverage to the rear.



Mass (kg)	2.400.000
Length (m)	418.9
Width (m)	160
Height (m)	41.5
Maximum speed (m/s)	60
Pitch (degrees/s)	10
Roll (degrees/s)	10
Yaw (degrees/s)	10

Martuk-class Light Carrier

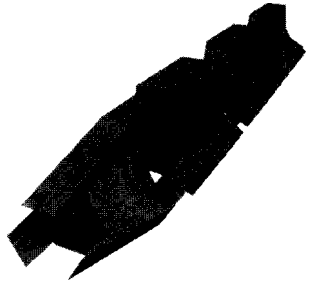
First deployed in 2 188, the Martuk-class light carriers are used mainly as convoy escorts, and in this role they serve well. Their standard complement of eight fighters has been more than a match for the Motaabi pirates and Grey League commerce raiders that they often encounter, and their excellent operational range allows them to cover all of the major supply routes. They encounter difficulties only when pressed into front-line service as the flagships of small Taureg strike fleets, as they lack the sustained fighting power necessary for such tasks.



Mass (kg)	320,000
Length (m)	505.4
Width (m)	180.4
Height (m)	99.6
Maximum speed (m/s)	80
Pitch (degrees/s)	10
Roll (degrees/s)	10
Yaw (degrees/s)	10

Omo-class Transports

A standard Taureg transport that can be modified to carry almost any type of cargo, the Omo-class has been in service for more than GO years with very little updating of the design (as anyone who has been aboard one can attest). Omo transports can be found nearly everywhere due to their high reliability, durability, and ease of maintenance. The most famous Omo-class transport is certainly the Halcyon Moon, the heavily modified flagship of the pirate Misen Enca, who is credited with capturing 12 1 ships before being destroyed by a Tanstaal Q-ship off of Kalamar Prime.



Mass (kg)	150,000
Length (m)	279.9
Width (m)	60.2
Height (m)	60.2
Maximum speed (m/s)	45
Pitch (degrees/s)	15
Roll (degrees/s)	15
Yaw (degrees/s)	15

Samantha Pierce

Sixth in a long line of Rangers, Samantha Pierce was Commander of the Fourth Ranger Frontier Company from 2190 to 2202. Pierce ended the Meggid Insurrection in 2198 by pursuing the Sanchos brothers for seven weeks, killing one and capturing the other when his warp engine malfunctioned and exploded, leaving him adrift. During the Hesperian border clashes, she became the first Ranger to paint kill markers on her ship, and became the only Ranger to earn the McPhearson Cross twice. She was forced to eject after her ship was crippled by a Hesperian gunboat, and her escape capsule was never found.

Star Ranger Weapons

Three types of guns are available: CT8 Plasma Guns, the JG1 Autocannon, and DDG Sharp Stick rockets.

Five types of missiles are available for use on the RG-10: Heat Seeker, Inferno, Bug-Eye, Bludgeon, and Tac Nuke.

CT8 Plasma Gun

CT8 Plasma Guns are the default gun choice for most Rangers. They fire straight ahead, are fast, accurate, and have a high rate of fire. The CT8 can damage targets up to 800 meters away.

JG1 Autocannon

The JGl Autocannon automatically aims itself at targets in the center portion of your forward view, making the pilot's task much easier. Instead of having to line up and lead the target, the pilot only has to keep the target in front. The trade-off is that the autocannon has a lower rate of fire than the CT8 Plasma Guns and is less accurate at long ranges.

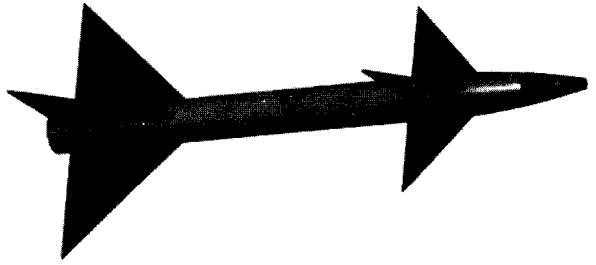
DD6 Sharp Stick

The DDG Sharp Stick rockets are unguided, somewhat inaccurate missiles, rather than guns, but they are fired in the same way as the CT8 Plasma Guns and the JG 1 Autocannon. Their main advantages are that they can do a considerable amount of damage when fired in groups, and that the RG-10 can carry up to GO of them at a time, in addition to other stores. A popular tactic is to make strafing runs with DDG rockets on large targets, such as cruisers and bases.

DDG Sharp Sticks also have the advantage that they do not use any energy when fired.

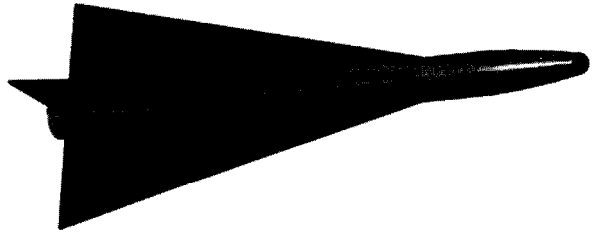
SSH Heat Seeker

The Heat Seeker is one of the least effective missiles at your disposal. It needs to gain a lock on the target's engines to be effective, and so must be launched from behind the target. Furthermore, if the target ever turns to mask its engines from the missile, the Heat Seeker loses its lock and flies off harmlessly into the void. Its only positive attributes are that it has a moderately sized warhead, good speed, and a wide lock cone.



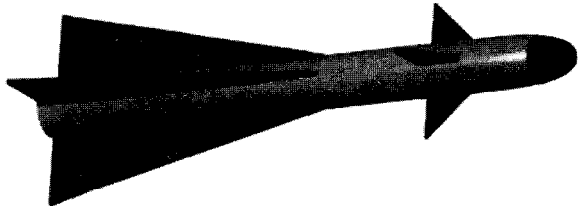
SSAS Inferno

Although it is slightly slower than the Heat Seeker, the Inferno is marginally superior because it is an all-aspect weapon, capable of locking onto targets-and maintaining lock-from any angle. Whether this advantage is enough to offset its disadvantages is a judgment you must make.



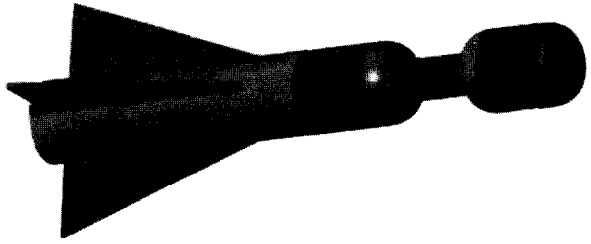
AA6 Bug-Eye

The newest weapon available, and the first in a new generation of ship-to-ship weapons, the Bug-Eye is the most tactically effective weapon at your disposal. It is an all-aspect weapon, has a short lock time, excellent speed and maneuverability, and a large warhead. This combination makes it deadly in combat, and the AAG Bug-Eye is already regarded as the premier ship-to-ship missile today.



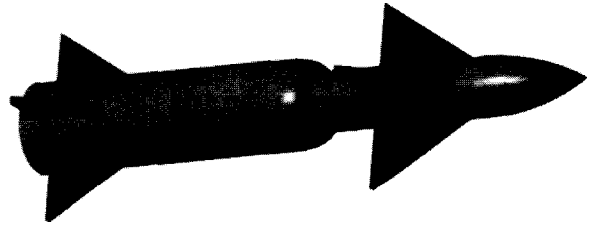
SST Bludgeon

The Bludgeon is the standard all-aspect torpedo, designed to be used against capital warships and bases. It is slow and unmaneuverable, but carries a large warhead that can damage ships up to 200 meters away from the blast. Because of this, it also carries a fuse that prevents detonation for two seconds after launch.



SSX Tac Nuke

The SSX is a low-yield tactical nuclear weapon, primarily used to destroy capital warships, such as cruisers and carriers. Its blast radius of over 700 meters also makes it very effective against groups of ships. It is unusable in dogfights, where its explosion would destroy the launching ship, and is better used as a stand-off weapon against distant targets.



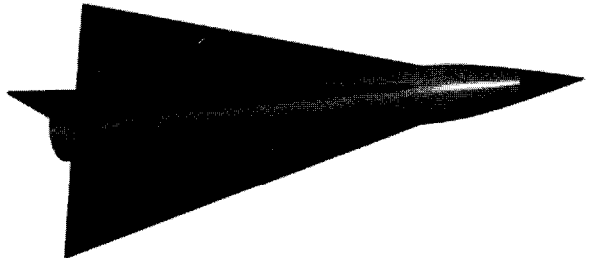
Taureg Weapons

All Taureg ships are equipped with Pulse Plasma Guns (PPG), similar to your own Plasma Guns. In general, PPGs have a lower rate of tire, shorter range, and cause less damage than Plasma Guns.

The Tauregs have three types of missiles: Beano, Bagger, and Devastator.

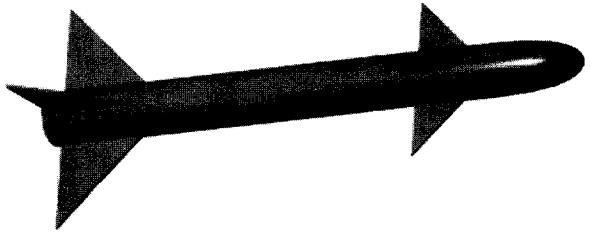
XX5.5 Beano

The Beano is an altogether inferior missile. It is slow, unmaneuverable, has a long lock time, and its small warhead does little damage. Multiple hits are necessary to bring down the shields of an RG-10 or typical civilian vessel. Beanos remain in service only because they are so cheap and easy to produce. They are the only missile type available for use on the SC-2 Scout, but they are also found on many other classes of Taureg ships.



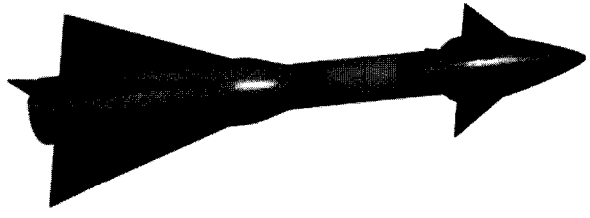
XX5.6 Bagger

The XX5.6 is only an incremental upgrade of the Beano. The XX5.6 retains the small warhead of the XX5.5 but improves its guidance and maneuverability to create a marginally better missile.



TTD-1 Devastator

Developed specifically for use by the BFB line of bombers, the TTD- 1 is an excellent weapon, capable of doing serious damage to many capital ships and bases. Similar to the SST Bludgeon, it deliberately trades both speed and maneuverability for warhead size, with devastating effects. BFB-class bombers are still the only type of Taureg ship that can carry them.



Hints and Tips

Drop transponders at every opportunity. You need to be able to see the whole map.

Watch the map-the situation changes constantly.

Two or three shorter warp jumps use less energy than one big jump.

Keep an eye on your energy. Don't go so far from a base that you can't make it back.

Whenever possible, avoid head-on passes with Taureg ships, especially the heavily armed XF-5 Fighter. Getting on your target's tail is the best way to kill it. But watch out for the BFB-3 Bomber's tail guns.

Changes in speed and direction can help you avoid a lot of shots, especially at long range.

Beware of warping too close to bases or other ships, because you might crash into them when you come out of warp.

If a base or civilian is being attacked, get there as soon as possible to render assistance.

In a dogfight, matching your target's speed (by pressing the Enter key) can keep you from overshooting the target.

Colliding with other ships can cause you to momentarily spin out of control and damage your ship seriously. Avoid collisions at all costs.

When attacking a formation of ships, keep in mind that a missile's blast radius can damage many ships.

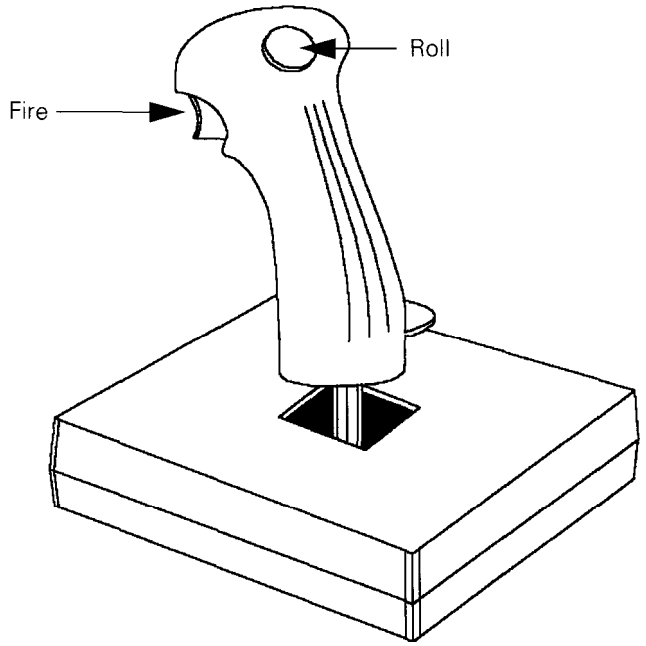
When defending a base or civilian, go after the most dangerous enemy ships first.

Remember to use your wingman.

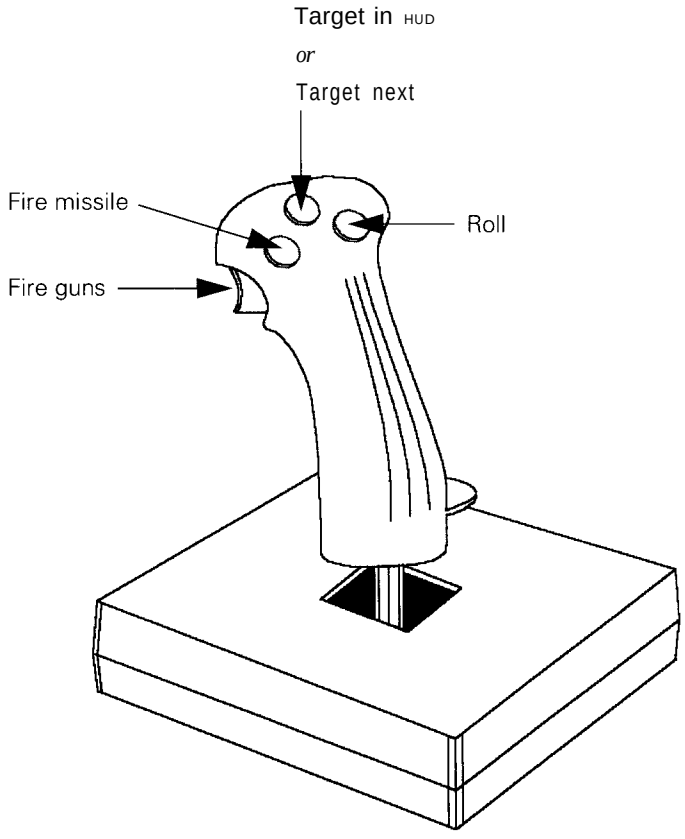
Controls

Star Rangers supports a variety of popular joysticks and other peripherals. See the installation guide for additional information about setting up and configuring joysticks.

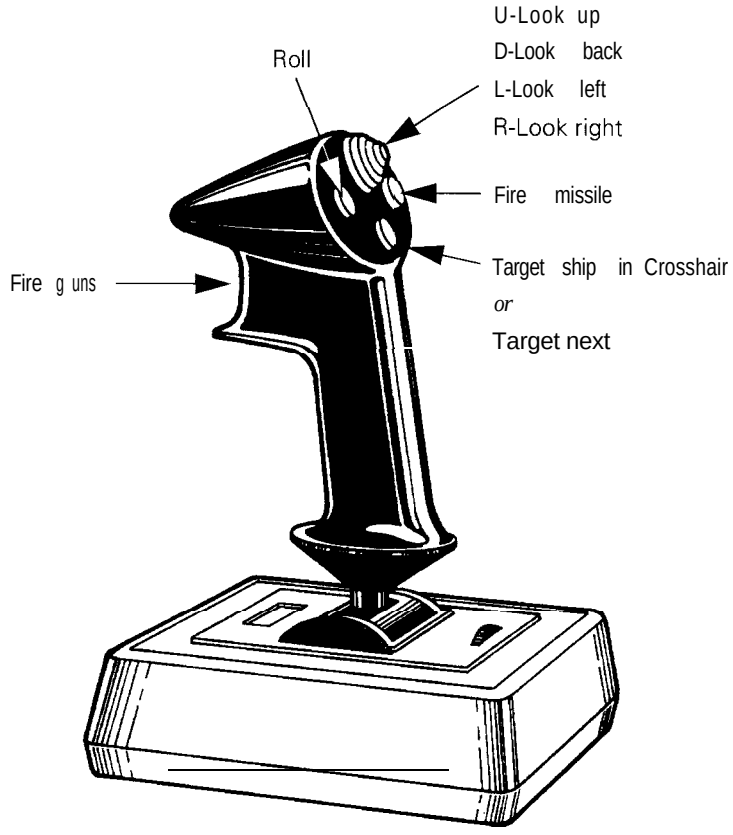
Standard Joystick



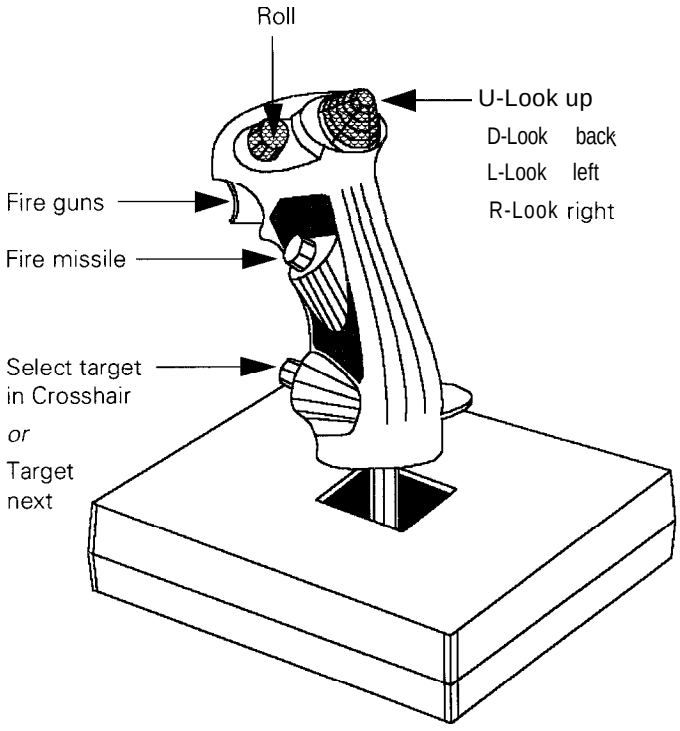
Four-Button Joystick



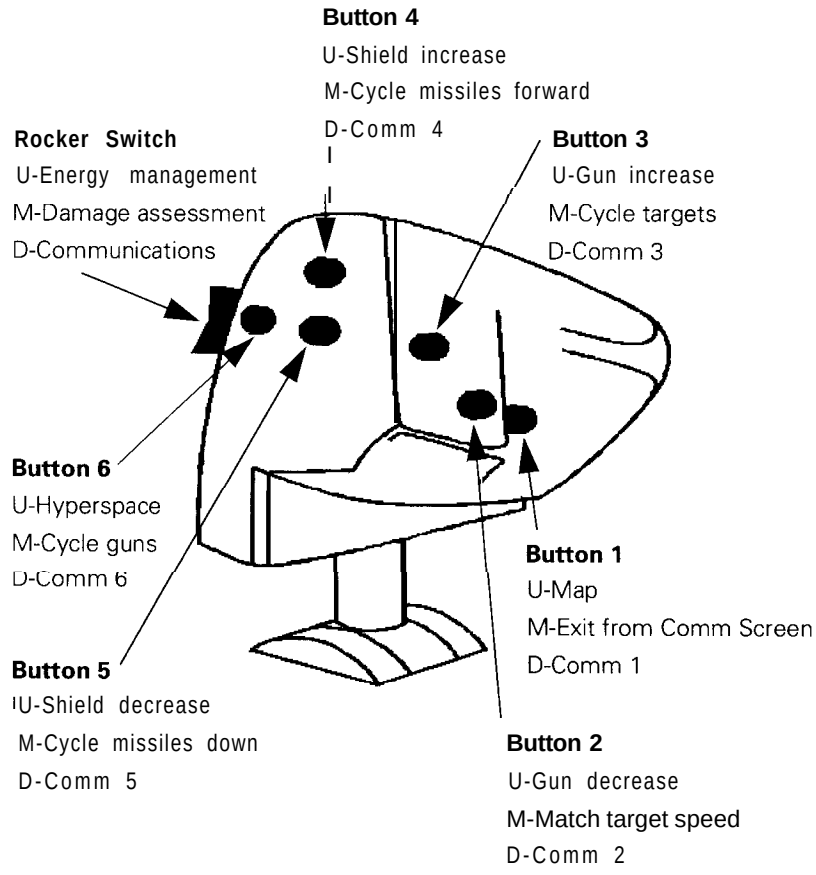
CH Flightstick Pro



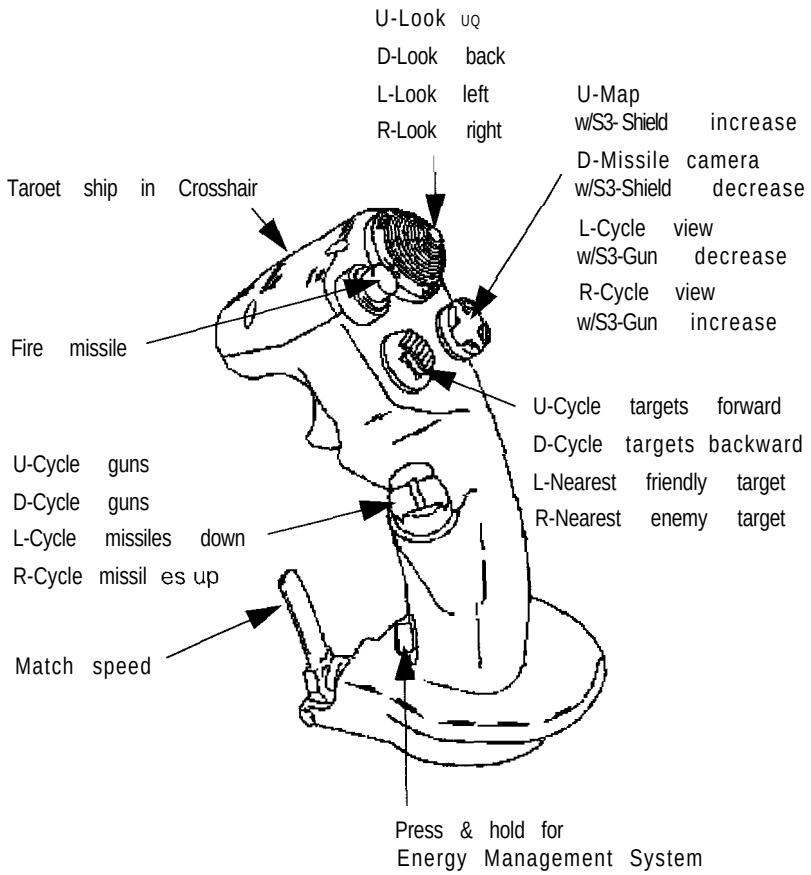
ThrustMaster FCS



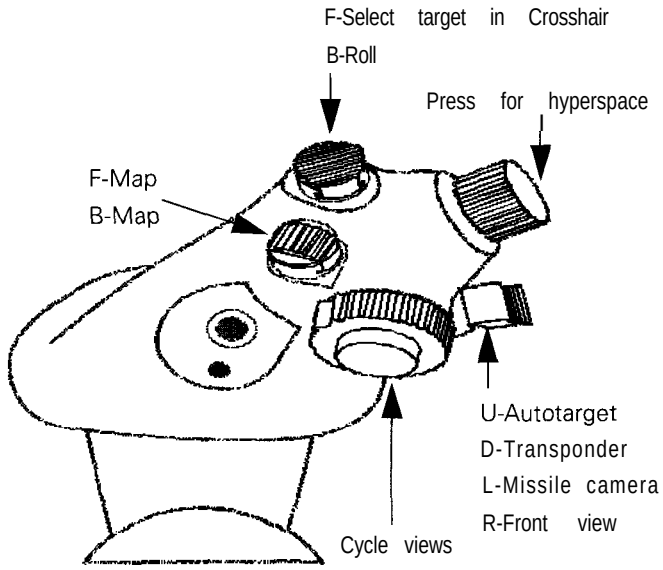
ThrustMaster WCS



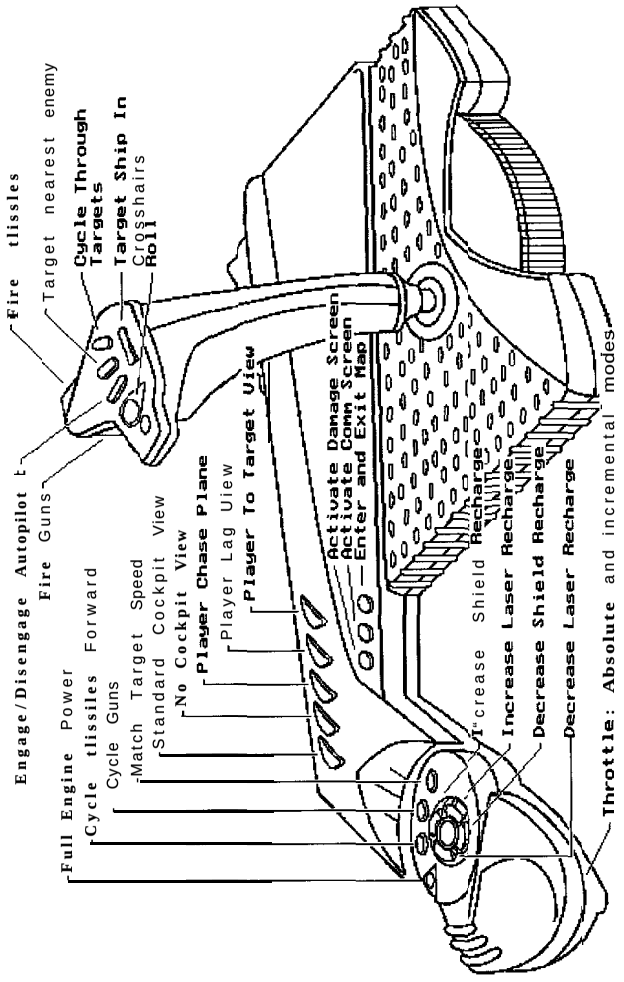
ThrustMaster FLCS



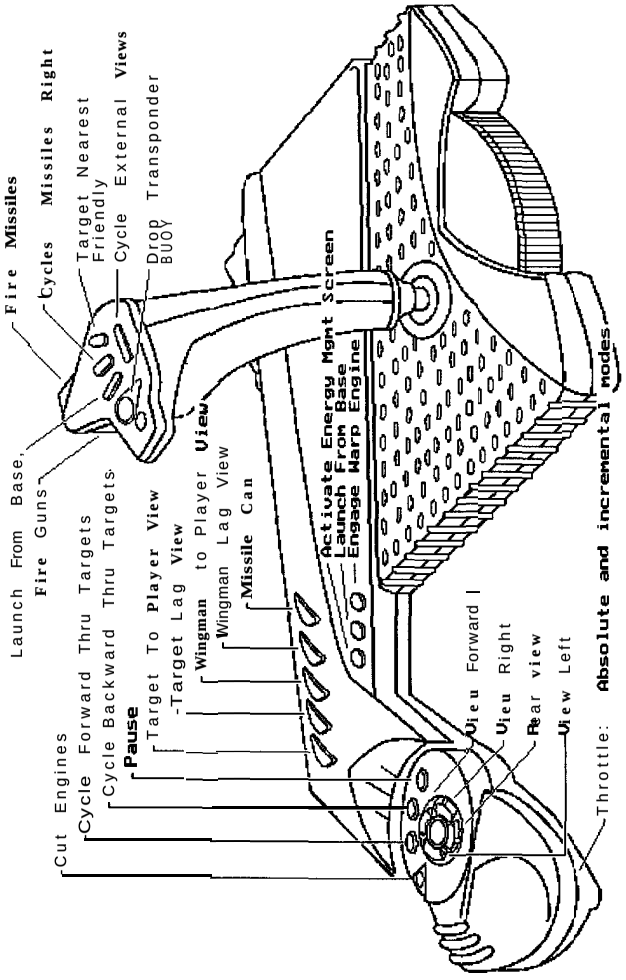
ThrustMaster TQS



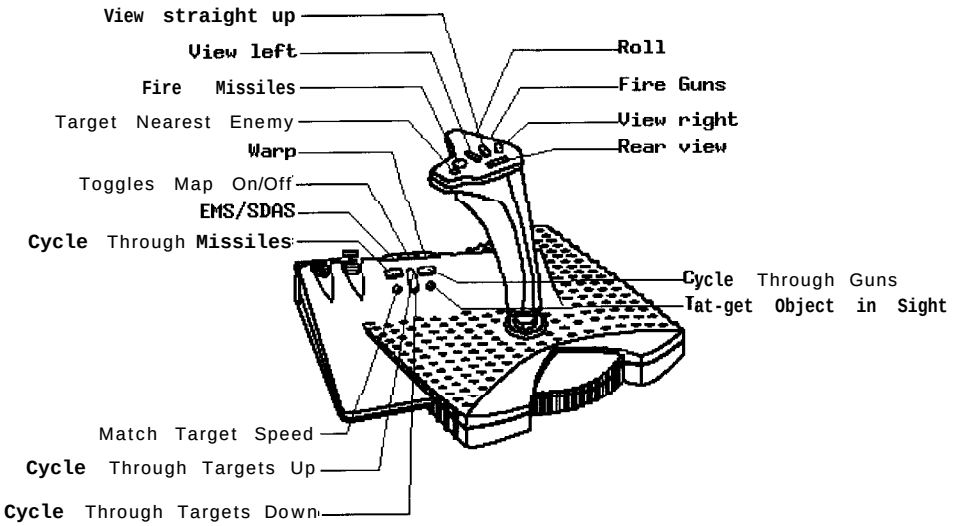
Gravis Phoenix (Primary)



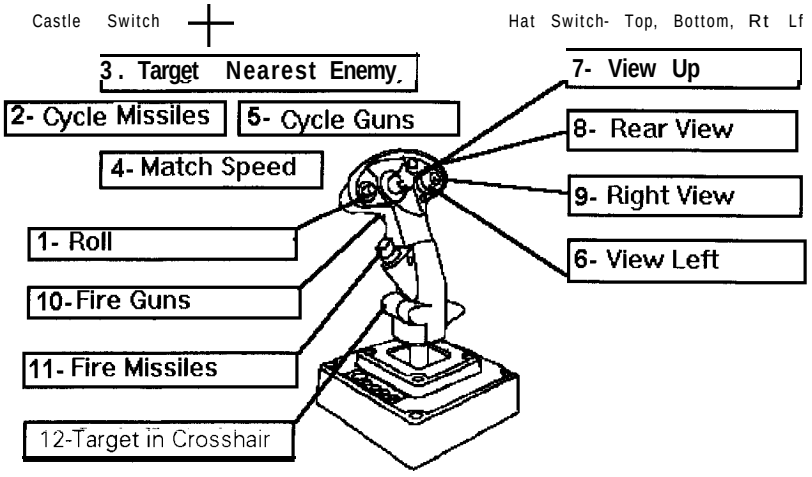
Gravis Phoenix (Secondary)



Gravis Firebird



Suncom F-15E Eagle



Menus, Choices, Keyboard and Mouse Controls

The following pages describe all of the menus, choices, commands, and keyboard and mouse actions available to you in Star Rangers.

Menus and Choices

Menu	Choice	Description
All menus	Accept	Accepts any changes you have made and returns you to the previous menu.
	Cancel	Resets all changes and returns you to the previous menu.
	Return	Returns you to the previous menu.
Options	Settings	Takes you to the Settings menu.
	Practice	Takes you to the Practice menu.
	High Scores	Takes you to the appropriate High Scores menu.
	Save	Takes you to the Save Game menu (not available in Practice Mode).
	Load	Takes you to the Load Game menu.
	Continue	Takes you back into the game
	Campaign	Takes you to the Campaign menu.
	Stats	Takes you to the appropriate Stats menu.
	Joystick	Takes you to the Joystick Calibration menu.
	Quit	Takes you to the Quit menu

Menus and Choices (continued)

Menu	Choice	Description
Practice	Practice at Startup	Designates whether you want to practice or play at startup.
	Enter Practice	Takes you to the beginning of Practice Mode.
	Difficulty	A slider that adjusts initial practice difficulty.
End Practice Menu	Resume Practice	Returns you to Practice Mode.
	Start Campaign	Abandons practice and begins a Star Rangers campaign.
	Load	Takes you to the Load Game menu.
	Practice High Scores	Takes you to the Practice High Scores screen.
	Stats	Takes you to the Practice High Stats screen.
	Quit	Takes you to the Quit menu.
Campaign	Start New Campaign	Allows you to start a new Star Rangers campaign.
	Restart Mission	Restarts the current mission
	Difficulty	A slider that adjusts ampaign difficulty.
	Retire	Permanently retires the current pilot and ends the campaign,
High Scores, Practice High Scores, Campaign High Scores	Stats	Takes you to the appropriate Stats menu.

Menus and Choices (continued)

Menu	Choice	Description
Tally, Practice Tally, Campaign Tally	Scores	Takes you to the appropriate High Scores menu.
Rejoin	**Yes**	Gives you the option to rejoin the Star Rangers and retry your last mission.
	No	Takes you to the Campaign High Scores menu.
Settings	Sound Effects Volume	A slider that sets the volume for sound effects.
	Music Volume	A slider that sets the game's music volume.
	Cinematics	Toggles cinematics high/low/off.
	Textures	Toggles ship textures on/off.
	Background Detail	Toggles background details on/off.
	Resolution	Toggles between high (640 x 480) and low (320 x 240). **NOTE:** Resolution affects flight sequences only. All menus remain at high resolution.
	Gouraud Shading	Toggles Gouraud shading of models on/off.
	Difficulty	A slider that changes the difficulty setting for the next mission.

Menus and Choices (continued)

Menu	Choice	Description
Save Game	Select any unnamed slot	Allows you to type a name for the saved game. **NOTE:** Saving a game saves only what mission you are on, and other, campaign-related information (score, medals, etc.). It does not save your position within the mission.
	Select any named slot	Overwrites the game saved in that slot.
Load Game	Select any named slot	Loads that saved game.
Joystick Calibration	Calibrate	Puts all joysticks into calibration mode. Follow the directions that appear on your screen.
	Joystick Type buttons	Allows you to configure Star Rangers to run with many popular joystick types.
	Joystick Mode	Toggles the Joystick Mode between Flight and Arcade.
	Calibration boxes	When in calibration mode, the calibration boxes show the movements of joystick 1, joystick 2 (throttle), and the hat switch.
Quit	Credits	Lets you view the credits.
	Yes	Gives you the option to quit Star Rangers and return to DOS.
	No	Returns you to the previous menu.

Keyboard and Mouse Controls

Control type	Key(s) or Mouse Button(s)	Description
Speed	+	Increase engine output in 10% increments
		Decrease engine output in 10% decrements
	Backspace	Full engine power
	\	Cut engines
	Enter	Match target speed
	Shift-O-9	Throttle increments from 0% to 100%
Targeting	T	Target nearest enemy
	F	Target nearest friendly
	Y/R	Cycle through targets (forward. backward)
	U	Target ship in Crosshair
Weapons	Spacebar	Fire selected missile
	<	Cycle missiles backward
	>	Cycle missiles forward
	/	Cycle guns
	Trigger or Alt	Fire guns
Map	M	Enter/exit map view
	Left mouse click	Select warp point
	Right mouse click	Toggle range markers for ships in the Zoom window
Repair Priority	Up arrow (cursor)	Move selection bar up
	Down arrow (cursor)	Move selection bar down
	Enter	Move current selection to top of list

Keyboard and Mouse Controls (continued)

Control type	Key(s) or Mouse Button(s)	Description
Internal Views	Forward	Keypad 8
	Rear	Keypad 2
	Left	Keypad 4
	Right	Keypad 6
	UP	Keypad 5
External and Other Views	Forward	F1
	Forward-no cockpit	F2
	Player chase plane	F3
	Player lag	F4
	Player to target	F5
	Target to player	F6
	Target lag	F7
	Player to wingman	F8
	Wingman lag	F9
	Missile camera	F10

Keyboard and Mouse Controls (continued)

Control type	Key(s) or Mouse Button(s)	Description
Multi-functional Display (MFD)	C	Activate Communications System
	Keyboard 1-g	Select numbered choice
	E	Activate Energy Management System
	Shift-S	Increase shield recharge setting
	S	Decrease shield recharge settings
	D	Activate Ship Damage Assessment System
	Shift-G	Increase gun recharge settings
	G	Decrease gun recharge settings
Miscellaneous	Esc	Close the Cinematic/Go To options menu
	L	Launch from base
	P	Pause
	B	Drop transponder buoy
	Shift-J	Enter joystick calibration
	A	Engage/disengage Combat Autopilot
	W	Engage warp engine
	Control+joystick left	Roll left
	Control+joystick right	Roll right

Credits

Executive Producers	Doug Kubel
	Joe Rutledge
Game Designer	Michael Chen
Artists	Allison Britt
	John Dupree
	Scott Martin
Programmers	Jeff Gosztyla
	Anne Sprague
	Chris Tector
Music	Michael Bross
Playtest Coordinator	Brian Davis
Marketing	Gina Waluk
Public Relations	Dave Murray
	Debbie Blair
Manual	Michael Chen
Manual Production	Lorraine Elder
	Sarah O'Keefe

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Miles Design, Inc.	AIL Audio System
LoudMouth, Inc.	OPL instruments
Install-Pro	Installation program

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