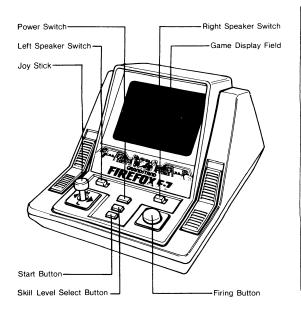
FIREFOX F-7

INSTRUCTION BOOKLET

This is the ultimate game of space warfare, complete with twin speaker sound effects. Your spaceship is engaged in 5 accelerating phases of combat with the enemy. Your energy supply is limited. Use it wisely during battle, whilst avoiding encounters with the barrages of asteroids and walls of radiation. If you have the energy, and skill, to reach phase 6, you can blow up the enemy base to earn a new supply of energy. A perfect game is 1,000 points.



BATTERIES

GRANDSTAND recommend the use of 4 DURACELL MN1400 batteries (not included) to give longer battery life in this game.

FIREFOX F-7 can be operated from the mains with a GRANDSTAND Universal Mains Adaptor (not included). Set polarity switch to negative — polarity.

Game will not operate properly if batteries are weak. If game malfunctions or display is erratic, check or replace batteries. Always be sure game is turned off to avoid battery drain and remove batteries when game is not in use for long periods.

Note: This is a precision electronic instrument and it should not be abused. Please move the Joy Stick gently. Do not press hard on the Firing Button. They will not operate any faster and will avoid damage. Do not leave in the sun or allow it to get wet.

OPERATION KEYS AND GAME DISPLAY FIELD

Power Switch

To play, set the Power Switch to the "ON" position. An electronic tune signals that the power is on and the game display will light up. When you are finished playing, be sure to turn the switch back to the "OFF" position.

Skill Level Select Button

This button is used at the beginning of a game to set the desired skill level. There are three skill levels:

Skill Level #1-Game action at normal pace.

Skill Level #2-Game action at moderate pace.

Skill Level #3-Game action at fast pace.

When the game is switched on, the skill level is automatically set at Level #1 (1 is displayed at top right of the game display field). To change skill level, press the Skill Level Select Button until the desired skill level appears.

Start Button

To begin play, press this button. You will hear an electronic tune that signals the beginning of the action. At the end of a game, press this button to begin a new game.

Joy Stick

The Joy Stick is used to control the movements of your spaceship:

- a) Moving it to the left or right will move your ship horizontally to the left or right. When the Joy Stick is in neutral (resting in the center) your ship will not move.
- b) To speed up your spaceship moves, shift into High (move your joy stick upward to "H"). It is not necessary to hold the joy stick in this position. To show that you are locked into high, the letter "H" will appear at the upper left of the display.
- c) To slow down your spaceship moves, shift into Low (move your joy stick downward to "L"). It is not necessary to hold the joy stick in this position. An "L" will appear on your display.
- Note: 1) You can only play in "H" or "L" speeds for a few seconds at a time. If you wish to change speeds again (at any time during the game), you can shift back in to high or low.
 - 2) If you hit an enemy fighter at normal speed, you score 2 points. In "H", you score 5 points per hit. In "L", you score 1 point per hit.
 - 3) You may switch from high to low, or low to high at any time during the game.
 - 4) Even if you shift the joy stick into "H" or "L" during Game Phase 6, you cannot play in "H" and "L" speed.

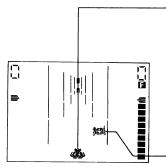
Firing Button

This button is used to fire at the enemy aliens and the enemy base. The spaceship fires upward in a straight line. You can fire a second time, before the first shot disappears from the display.

Left and Right Speaker Switches

You can switch "ON" either, 1 or 2 speakers. If you wish, you can play the game in silence, with both speakers in the "OFF" position.

Game Display Figures



Spaceship

Your spaceship moves left or right, horizontally, across the bottom of the display field.

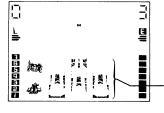
It is equipped with a laser cannon, which is activated each time you press the Firing Button. It is powered by energy units (shown in the energy storage tank at the right side of the display).

Warning — Units of energy are lost each time your spaceship collides with a Wall of Radiation; is hit by an asteroid; an enemy fighter, or the enemy energy base. It will also lose energy if you shoot too often, without scoring a hit; or if you allow an enemy fighter to enter your territory (the bottom of the display field).



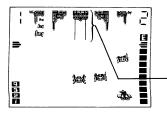
Enemy fighters move and attack in a variety of patterns: up, down, to the left or right, and diagonally across the display.

They appear in all 5 phases of action, but will only fire their beam guns in phases 3, 4 and 5. Enemy fighters can be destroyed by direct hits from the spaceshio's laser cannon.



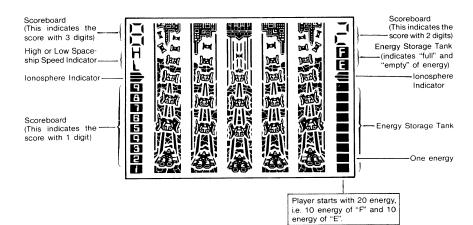
Asteroids

The barrage of asteroids occurs during phase 2. They travel down the display field in groups of three, either to the left, right or in the middle, To avoid being hit by them (and thereby lose one energy unit), you must move your spaceship out of the way.



Enemy Energy Base

The enemy energy base only appears during phase 6. It does not move; it remains in position at the top center of the display field. It fires its super blaster gun downward. Once again, you must move out of the way, or risk losing valuable energy each time you are hit. You gain extra energy units each time you score a direct hit at the enemy energy base. You can blow it up by scoring 8 direct hits. If you accomplish this, within the time limit (to be explained shortly), your energy supply is automatically increased by 9 energy units.



• Scoreboard — As you score points, they are registered in three places. Example: If your score is 829, the "8" appears at the top left; the "2" appears at the top right; and the "9" appears in the vertical meter on the left of the display.

Note: During phase 6, the time limit (starting at 300), will be displayed in these three areas.

• High or Low Spaceship Speed Indicator

Located at the left of the display, either of these letters will appear, when you push the joy stick to "H" or "L" (to play in High or Low speed). These letters will only remain on the display for the few seconds you are allowed to play at these speeds. You must reset them each time you want to increase or decrease the speed.

Ionosphere Indicators

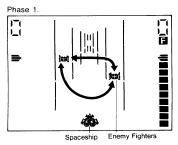
These arrows, at the left and right of the display, show the ionosphere level. You can only destroy an enemy fighter, when one of them is in this area. If they are above or below this level, you are wasting shots (which could cost you energy units).

Energy Storage Tank

Located at the right of the display, this meter shows the amount of energy you have remaining at any point of the game. You start each complete game with 20 energy units. The letter "F" — for Full, indicates that you are working with the first 10 energy units (each unit is indicated by a square box on the meter). Whenever you lose an energy unit, a box will disappear. If you lose the first 10, the letter "E", along with 9 boxes will appear on the meter. This means you are working with your last 10 energy units.

To Play

- 1. Turn the Power Switch to the "ON" position.
- 2. Press the Skill Level Select Button to set the desired skill level. Skill Level "1" is the easiest, Skill Level "3" is the most difficult. The selected number will appear at the upper right of the game display.
- 3. Press the Start Button to begin the game action.



Game Phase 1

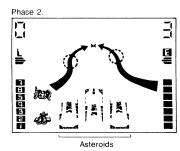
The spaceship, poised for action, starts at the bottom center of the display field. Enemy fighters appear from the top and travel downward, creating zig-zag patterns. Remember, you can only destroy one of them when it is in the ionosphere area (on a line with the two arrows). You score 2 points for each fighter you knock out. If you feel you are quick enough, you can earn 5 points for each direct hit, by switching the joy stick into High (H). If you want to play more cautiously, switch into Low (L). If you do

this, you score 1 point for each enemy fighter you destroy.

While moving your spaceship into position to fire, be careful not to collide with one of the moving walls of radiation. If you bump into one of them, you will lose one energy unit.

The primary purpose of this phase is to increase your point score, and while doing it, preserve your energy supply. You will not lose energy by firing too often at level 1 and 2 (you can fire as often as you wish), and you cannot be hit by an enemy fighter. They will not fire back during this phase. The only way you will lose energy is by colliding with a wall of radiation.

However, you will lose one energy unit for every 8 shots fired at level 3 and also at level 1, you lose one energy unit for every 16 fighters permitted to enter the earth's atmosphere (the bottom of the game display) and for every 8 fighters at level 2 and 3, when you push the joy stick to "H". Phase 1 will last 60 seconds, and you will automatically enter phase 2.



Game Phase 2

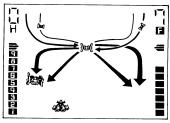
Once again, the spaceship starts at the center, bottom of the display. You will no longer have to be concerned with colliding with the walls of radiation. In this phase, you will have to keep out of the way of the falling asteroids. They start at the top, and travel down towards your spaceship, in groups of three. You must keep out of their way. If one of them hits you, you lose 1 energy unit. Move the joy stick right or left to avoid being hit.

Enemy fighters swarm all over the display. This time their

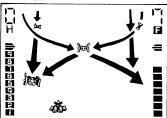
patterns have changed. In order to hit one of them, you must wait until it enters the ionosphere area. As in phase 1, you score 2 points per hit for normal play, 5 points for High, and 1 point for Low. The fighters will not fire their beam guns during this phase. However, you will lose one energy unit for every 8 shots fired at level 3.

The only way you can lose energy units is by being hit by an asteroid. Phase 2 will last 60 seconds, and then Phase 3 will begin.

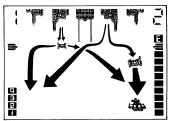
1st Attack:



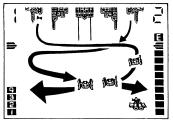
2nd Attack:



1st Attack:



2nd Attack



Game Phase 3

In this phase, there will be no walls of radiation, or falling asteroids. Instead, you will have to avoid being hit by beams from the guns of the enemy fighters. Each time one of them scores a hit, you lose one energy unit. You score points (2 for normal, 5 for high, 1 for low speed) for each enemy fighter you knock out. This phase will last 70 seconds, if you can knock out a total of 8 enemy fighters during this phase. If you eliminate 8 in a shorter period of time, you can continue knocking out fighters, and earning points, until the end of the 70 second time period. If you do not knock out 8 fighters within 70 seconds, you have to continue playing this phase until you accomplish the total of 8 direct hits.

At the end of 70 seconds (provided you knocked out 8 fighters), or at the end of the time it took to knock out 8 fighters, you start to play phase 4. However, you will lose one energy unit for every 8 shots fired at level 3 and also at level 1, you lose one energy unit for every 16 fighters permitted to enter the earth's atmosphere (the bottom of the game display) and for every 8 fighters at level 2 and 3.

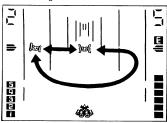
Game Phase 4

For the first time, we can see the enemy launching pads. In groups of three, the enemy fighters are launched and move all over the game display. They fire their beam guns, and you lose one energy unit each time the spaceship is hit. You score points for each one you hit (as in the previous phases).

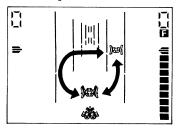
Once more, you have 70 seconds to knock out 8 fighters, or however long it takes you to eliminate a total of 8 in this phase. You cannot proceed into phase 5 without scoring the 8 direct hits.

After you knock out 8 fighters (regardless of how long it took), and 70 seconds have passed, you enter phase 5. However, you will lose one energy unit for every 8 shots fired at level 3 and also at level 1, you lose one energy unit for every 16 fighters permitted to enter the earth's atmosphere (the bottom of the game display) and for every 8 fighters at level 2 and 3.

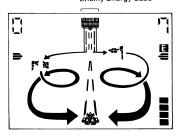
Broad Passage:



Narrow Passage:



Enemy Energy Base



Game phase 5

Here come the walls of radiation again. Collide with one of them and you lose one energy unit. As in phases 3 and 4, you loss energy units each time a fighter hits your spaceship, and you score points for each enemy fighter you knock out.

In order to get to phase 6, you must knock out a total of 8 enemy fighters within the 70 second period. Eliminate all 8 in less time, and you can continue earning points for each hit, until 70 seconds is up. Take longer than 70 seconds to hit 8 fighters, continue trying until you hit all 8. When you accomplish this, you enter phase 6.

However, you will lose one energy unit for every 8 shots fired at level 3 and also at level 1, you lose one energy unit for every 16 fighters permitted to enter the earth's atmosphere (the bottom of the game display) and for every 8 fighters at level 2 and 3, when you push the joy stick to "H".

Game Phase 6

This is the phase you have been working so hard to achieve. Energy supply low? You can earn 9 extra energy units by blowing up the enemy energy supply base. There are no walls of radiation, asteroids or even enemy fighters to battle. All you have to do is score 8 direct hits on the energy supply base, within a given time period, to blow it up. But, be careful, the energy base is armed with a super blaster gun. Each time it scores a hit on your spaceship, you lose a unit of energy.

The enemy energy base appears at the top center of the game display, and remains in position throughout this phase.

The number "300" now appears in the three parts of your scoreboard. This is the the phase 6 time limit; it is not your score. The score, you have achieved up to this point in the game, is stored the memory bank. It will be shown again at the end of this phase, or when you lose all of your energy unit.

This number counter will continually go down. If you can hit the enemy energy base 8 times, by the time this counter reaches 96, for example, you automatically receive the 9 extra energy units. This will be added to your existing supply, and this phase will be complete. The phase will change back to phase 1, and you can play all phases again (provided you do not run out of energy units). You are striving for a perfect 1,000 point score. You continue going through all phases to achieve this goal.

If you do not score the necessary 8 hits, by the time the counter reaches 96, you continue trying (even after the counter reaches zero). You cannot get out of this phase without scoring 8 hits on the enemy energy base. However, you will lose one energy unit for every 8 shots fired at level 3.

If you score the 8 hits before the counter reaches 96, you earn 90 bonus points (10 for each of the 9 bonus energy units you won for blowing up the enemy energy base in the allotted time).

List of scoring possibilities and penalties

1. Scoring

- a) 2 points for every enemy fighter destroyed while playing at normal speed (during all 5 phases).
- b) 5 points for every enemy fighter destroyed while playing at High (H) speed (during all 5 phases).
- c) 1 point for every fighter destroyed while playing at Low (L) speed (during all 5 phases).

2. Penalties (loss of energy units)

- a) 1 lost energy unit for each collision with a wall of radiation. (phases 1 and 5)
- b) 1 lost energy unit for each collision with an asteroid. (phase 2)
- c) 1 lost energy unit for being hit by an enemy fighter's beam gun. (phases 3, 4 and 5)
- d) 1 lost energy unit for every 16 enemy fighters permitted to enter the earth's atmosphere (the bottom of the game display) at level 1 and for every 8 enemy fighters at level 2 and 3. (Phase 1 and 5 when you push the joy stick to "H", and Phase 3 and 4 when the joy stick is in neutral).
- e) 1 lost energy unit for every 8 spaceship laser cannon firings (during playing at level 3 in all phases).

Game Ending

A complete game ends when:

- a) You have lost all of your energy units.
- b) You have scored 1,000 points a perfect score. (If this happens, your scoreboard (top left and right) will read: "H""H", and a victory song will be heard).

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