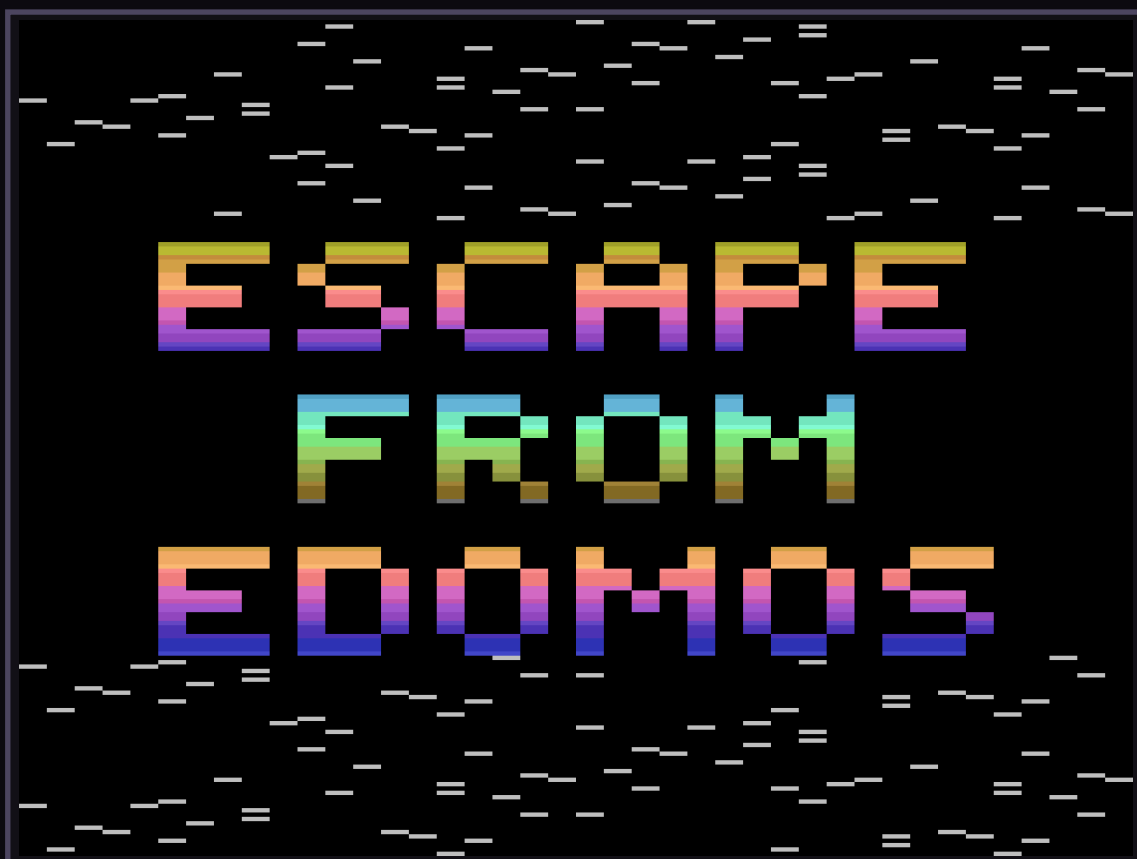




USER MANUAL

This manual covers build/escape_from_edomos.bin, an 8 KB cartridge for the Atari 2600. The German edition is called handbuch-de.pdf and describes the same game.

9

LEVELS

20

RAYS

8

HIT POINTS

8K

ROM

TAUSCHKE INTERACTIVE

Drawn from the ROM. Every screenshot is built from the same tables the game itself draws from.

What this is

01

ESCAPE FROM EDMOS is a first-person shooter for the Atari 2600. You are aboard station Edomos and you want out. Nine levels lie between you and the last bulkhead. In each one you look for the same key card, open the same barred gate with it, and come out one level deeper — until the ninth, where something is waiting that does not run away.

The station is not a picture, it is a calculation. Every wall you see comes into being the moment it appears: twenty rays run from your eye into the room, and wherever one hits a wall a column gets drawn. The 2600 has 76 cycles per scanline for that, and 128 bytes of memory — not 128 kilobytes, 128 bytes.

■ Forty columns, eight heights

The picture is forty columns wide and knows eight wall heights. That is all the console gives. A wall therefore comes closer in steps rather than smoothly, and the view rebuilds itself about ten times a second while your movement runs at sixty. You get used to it faster than you would think.

The controls

One joystick in the left port, plus the two console switches. The game needs nothing else.

INPUT	EFFECT
Joystick left/right	Turn on the spot — a full turn takes a good two seconds
Joystick up	Forward, about 2.8 cells per second
Joystick down	Backward, without turning around
Fire	Shoot, up to five times a second
Down, then up	Reload — the gesture, see below
Select	Next level (only with the left difficulty on A)
Reset	Start over, also after game over

■ The one grip that matters

Reloading is done with the stick, not with a button: down first, then up within a third of a second. The 2600 has exactly one button and it belongs to the shot — if reloading lived there too, it would always come at the wrong moment. You visibly rock back and forward while doing it. That is not a fault, it is the movement the gesture is made of.

Holding a direction does nothing for reloading or for the level switch: what counts is the moment a direction is newly pressed. The fire button is the other way round — hold it and you keep shooting as long as there is ammunition.

The screen

02

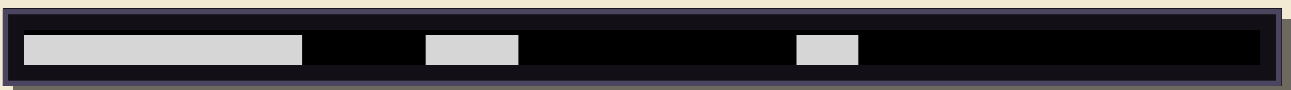
The title screen



The title. The lettering runs through a colour ramp, with a starfield drifting above and below it.

Fire starts the game. With the left difficulty on A, SELECT already picks the level here — which makes the title screen the level select as well. The right switch decides how much lies around in the levels; both are covered in chapter 06.

The status bar



Eight lines above the picture: card, hit points, level, magazines.

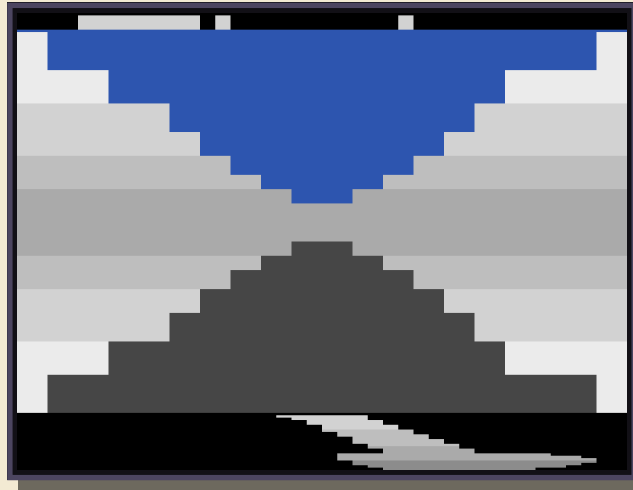
The four bars always sit in the same place and grow from left to right. They are bars and not numbers on purpose: a digit has to be read, a bar is simply seen.

COLUMNS	BAR	MEANING
0-3	Card	Full once the key card has been found
4-11	Hit points	Eight segments. At zero the game is over
13-21	Level	One segment per level, one through nine
25-34	Magazines	Your reload supply, ten at most

■ The red flash

When you are hit, the background of the status bar turns red for a moment. It flashes in the bar and not in the picture because the 3D kernel has no cycle to spare for it — and because a red band right across the row that carries your hit points says exactly the right thing anyway.

The view



The topmost corridor of the Docking Lock. Near walls are bright, distant ones fade into fog; the weapon sits below.

Wall colour means distance. Every level has its own ramp from a near colour to a far one, with sixteen steps in between. What is bright stands right in front of you; what blends into ceiling and floor is far away. That is the only depth information the picture carries — there are no shadows and no textures.

Ceiling and floor have their own colours per level and meet at the horizon, exactly in the middle of the picture. A wall is symmetrical about that horizon — a low wall is a distant one.

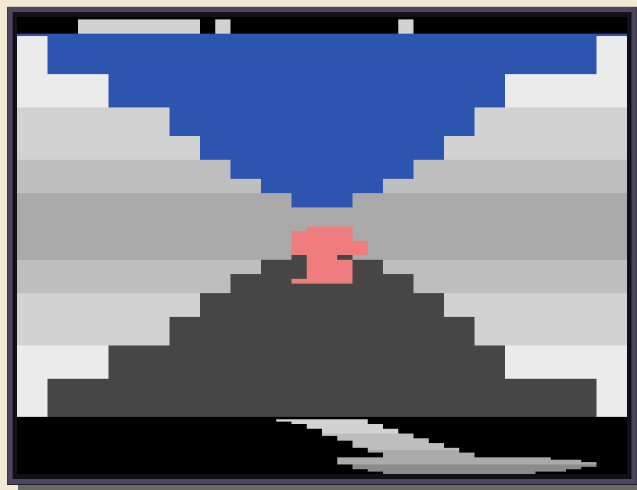
Moving and shooting

03

You walk at about 2.8 cells per second and take a good two seconds to turn all the way around. Both sound slow and both are: the view rebuilds only ten times a second, and turning faster makes walls jump instead of travel.

You do not stop dead at walls, you slide along them. Each axis is tested on its own — walk diagonally into a wall and you lose only the one direction and keep the other.

The shot

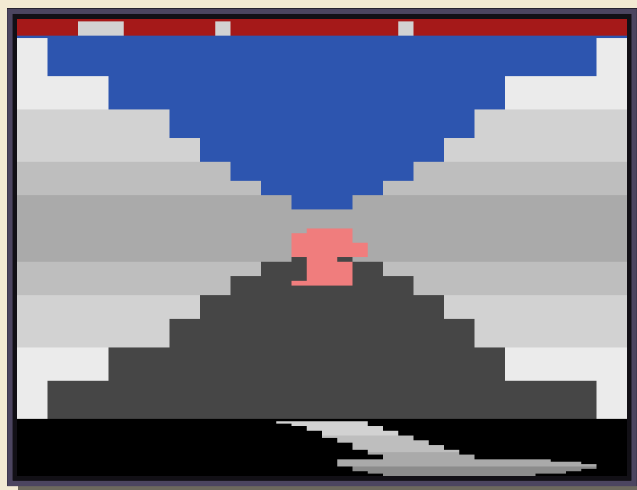


An enemy two cells ahead. Whatever stands in the middle of the picture gets hit — this shot would land.

The shot is not a projectile, it is a glance: whatever stands in the middle of the picture is hit. The window is fixed and is not the width of the enemy — otherwise a close enemy, already filling half the screen, would also be trivially easy to hit. An enemy behind a wall cannot be seen and therefore cannot be hit.

A magazine holds eight shots. Empty, it only clicks. Reloading costs one magazine from your supply and fills you back up to eight — even if three were still in there, and those are gone. Each level starts you with a full magazine and **one** in reserve; everything else lies around in the level.

Being hit



Three of eight hit points, an enemy close in, and the status bar flashing red.

Enemies do not shoot on sight. They take aim, hold it for about half a second and only then pull the trigger — and if you step behind a wall during that half second, the shot never happens. Cover works, and it works for exactly as long as you are out of sight.

Hit points come back inside a level, not between levels: the count belongs to the run, not to the level. Enter the next one with three points and you start it with three. What helps are the medi-packs — chapter 04.

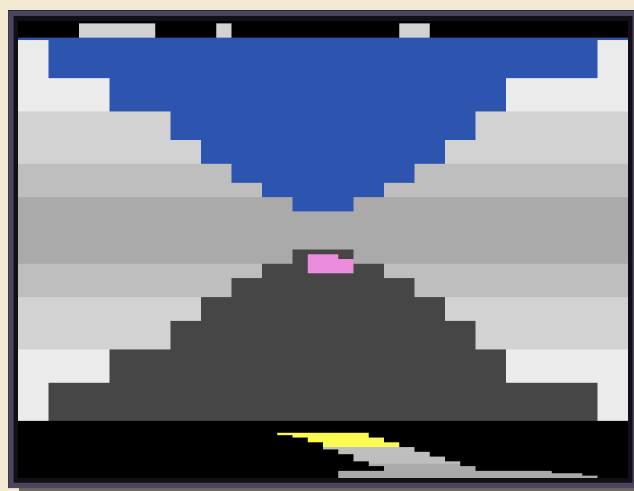
What lies in a level

04

Three kinds of pickup lie around, and all three look the same: a small object on the floor line that grows as you approach. They are told apart by colour. That is not a compromise but a calculation — separate shapes would have cost some 150 bytes each, and across four to twelve line pairs colour reads better than silhouette anyway.

PICKUP	COLOUR	EFFECT
Key card	Magenta	Opens the barred gate. One per level
Magazine	Bright cyan	One more magazine in reserve. Three per level
Medi-pack	Bright green	Fills hit points back to eight. Three per level

The key card



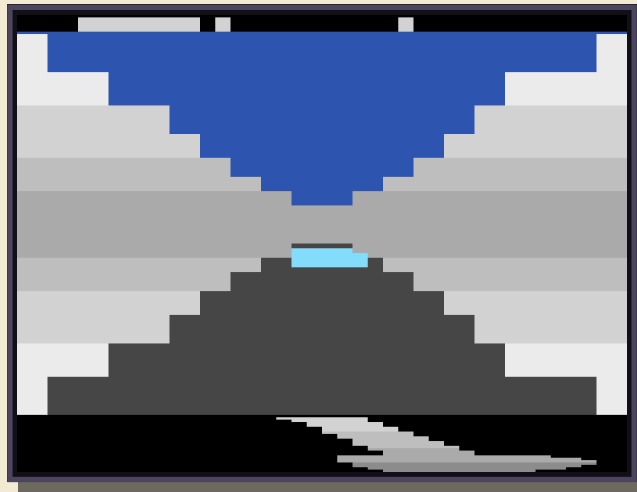
The card at the end of the bottom corridor, and a shot just fired: muzzle flash and recoil.

It lies at a fixed spot in every level and stays visible beyond the normal draw distance — as a glint at the end of a long corridor that gives the way away. You cannot see it through walls: if you can see it, you have a clear line to it. You pick it up by stepping onto its cell.

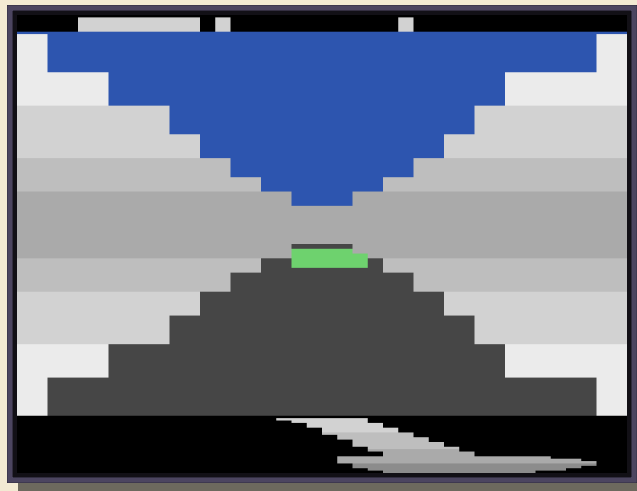
Magazines and medi-packs

Every level holds three magazines and three medi-packs. Both are picked up by stepping onto them, and both announce themselves: closer than three cells, a pickup takes the single drawing

slot that all objects share — and the card steps aside for as long as that lasts.



A magazine three cells ahead. Closer than three cells, a pickup takes the drawing slot ahead of the card.

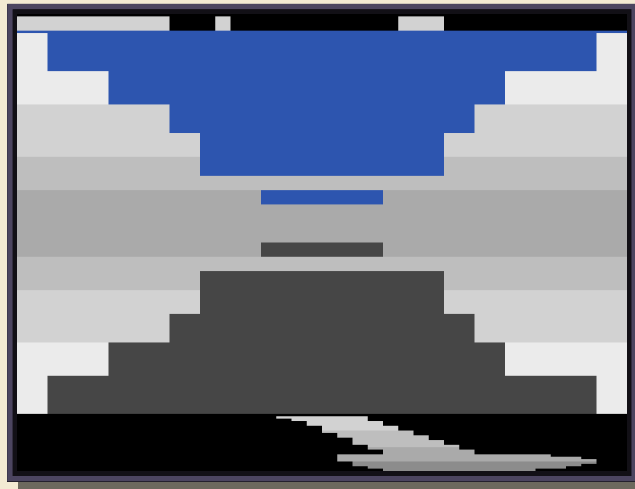


A medi-pack, the same shape in green. It fills the bar; it does not heal by an amount.

■ **A medi-pack fills the bar**

It does not heal by an amount, it sets your hit points to eight. Walk over one with seven of eight points and you throw away seven eighths of it. It pays to remember where they are and to fetch them only when it hurts — they are not going anywhere.

The barred gate



The exit, three cells away: horizontal bars, symmetrical about the horizon, shrinking with distance.

The exit is a wall with bars in it. It looks like that from about four cells out, so it is recognisable for what it is from a distance. You cannot walk into it — the cell **in front of it** ends the level, and only with the card in hand. Without it you just walk into a grating.

Enemies and boss

05

Every level holds a pool of enemies, but at most **two** stand in the room at a time. When one falls, a replacement steps in after a second and a half from one of six spawn points — and from one far enough away from you. Nobody appears behind your back.

An enemy is always doing one of two things: walking towards you, or taking aim. It aims as soon as it can see you and stands closer than a good four cells; half a second later it fires. That half second is where the shot is decided — not by its aim, but by your cover.

How well they shoot

Hit chance depends on distance, and the level adds a modifier: level 1 takes twenty points off, level 9 adds twenty-five. The figures in the table are the bare band chances out of 255.

DISTANCE	CHANCE	PER CENT
At the horizon	20 of 255	8 %
About four cells	50 of 255	20 %
Two cells	70 of 255	27 %
Right in front	90 of 255	35 %

That sounds harmless and is not: two enemies together put out about four and a half shots a second. Stand in the open in front of one and you are through in just under nine seconds.

The boss



The boss arena. The boss is larger, gold-coloured, and the only enemy in the level.

The ninth level has a single enemy and it takes twelve hits. Every four hits it vanishes and reappears a few moments later somewhere else in the room — so you have to find it three times over.

■ The gate stays shut while it lives

In the arena the card does you no good until the boss is down: the gate only opens afterwards. And the ammunition is tight — twelve hits at eight shots per magazine means you will need the magazines lying in the room unless every second shot lands.

The console switches

06

The two difficulty switches do different things, and neither of them is cosmetic.

SWITCH	POSITION	EFFECT
Right	B	Everything lies around: three magazines and three medi-packs
Right	A	One of each kind only — the one nearest the start
Left	B	SELECT is locked out
Left	A	SELECT steps to the next level

The **right** switch is read once when you enter a level. Flipping it mid-level changes nothing — the next one counts. Which pickup stays on the hard setting is not random: it is the one that is quickest to reach from the start. One find early and none later.

The **left** switch enables SELECT, and that lock is deliberate: without it a switch brushed by accident would change level in the middle of a run. RESET always works, including after game over — it is the only way back into the game.

Tactics

07

The game has few adjustments, but they work on each other. Everything here can be checked in the game itself.

Cover is the only armour

There is no armour and no dodging. What stops a shot is a wall between you and the enemy — and it still stops it after the enemy has taken aim. A step sideways at the right moment is worth more than any hit you land in the same second.

It cuts both ways: what you cannot see, you cannot hit. In the twisted levels — Ring Corridor, Reactor, Bridge — the player who uses corners beats the one who stands on them.

Distance is on your side

You hit equally well at any distance — the enemy does not. At the horizon it hits eight per cent of the time, right in front of you thirty-five. An enemy at the end of a long corridor is therefore not a problem but an opportunity: stop, aim, shoot. Letting it come to you costs nothing but hit points.

Ammunition is the quiet limit

Sixteen shots at the start of a level, three magazines in the room: that is forty if you find them all, and twenty-four on the hard setting. An enemy takes two to four hits. Do the arithmetic before shooting at something you could also walk around.

■ Reload before it is empty

A magazine is a magazine, however full it was. Reload with seven shots left and you throw six away. Reload with none and you stand there weaponless for a third of a second — and the gesture takes two movements. The right time to reload is the one when nobody is pointing at you.

A route that works

If you do not know where to start — this order is a usable default, not a rule.

Do the round first, the card second. Walk the level once while you still have all your hit points. You will find the magazines, see where the medi-packs are, and know where the gate is by the end.

Leave the medi-packs lying. Remember the spots and fetch them only once the bar is half empty. A pack taken at seven of eight points is almost entirely wasted.

Reload before the gate. The next level starts with whatever you bring — so a half-empty magazine is a bad way to arrive.

The nine levels

08

Every level should feel different, and the palette changes with it. The 'Route' column is the shortest measured time from start to gate without a single detour — in practice it takes longer.

LEVEL	CHARACTER	ENEMIES	ROUTE
1 Docking Lock	Four long straights, impossible to get lost	4	13 s
2 Quarters	Nine chambers in a grid, one door each	5	13 s
3 Laboratory	Open hall with a grid of pillars	6	12 s
4 Service Tunnel	One corridor, folded six times	5	33 s
5 Hangar	Large open floor, long-range fighting	7	12 s
6 Ring Corridor	A loop around a core	6	19 s
7 Reactor	Three rings inside one another	7	23 s
8 Bridge	A spiral of four rings, the longest route	8	36 s
9 Boss Arena	One room, four pillars, one enemy	1	8 s

Enemies get faster, tougher and better aimed from level to level. The routes get longer. The Service Tunnel and the Bridge are the two you spend the most time walking — and therefore the two where the medi-packs are worth the most.

The screen that ends it, and the one you have to earn



At zero hit points. Fire returns to the title, RESET starts over at once.

What waits behind the last gate is not printed here. It runs for just under six seconds, it has a tune of its own, and it is the only picture in the game this booklet keeps to itself. Turn the sound up before you step through.

A practised run takes about four minutes of actual playing time. The game cannot save — the console has no memory for it, and the 128 bytes it does have are spoken for.

■ How this manual was made

Not one screenshot in this booklet was photographed. Each is built from the same tables the game draws from: wall bands from the raycaster, sprites from the packed strips, status bar and weapon from the playfield lanes, coloured with the NTSC palette of the TIA. Change a level and the next build gives you the new picture — a screenshot that looks different from the game cannot happen here.

TAUSCHKE INTERACTIVE