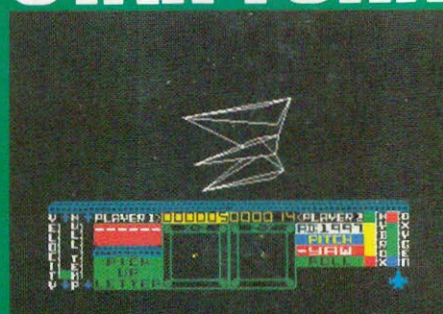


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**STAR TURN**



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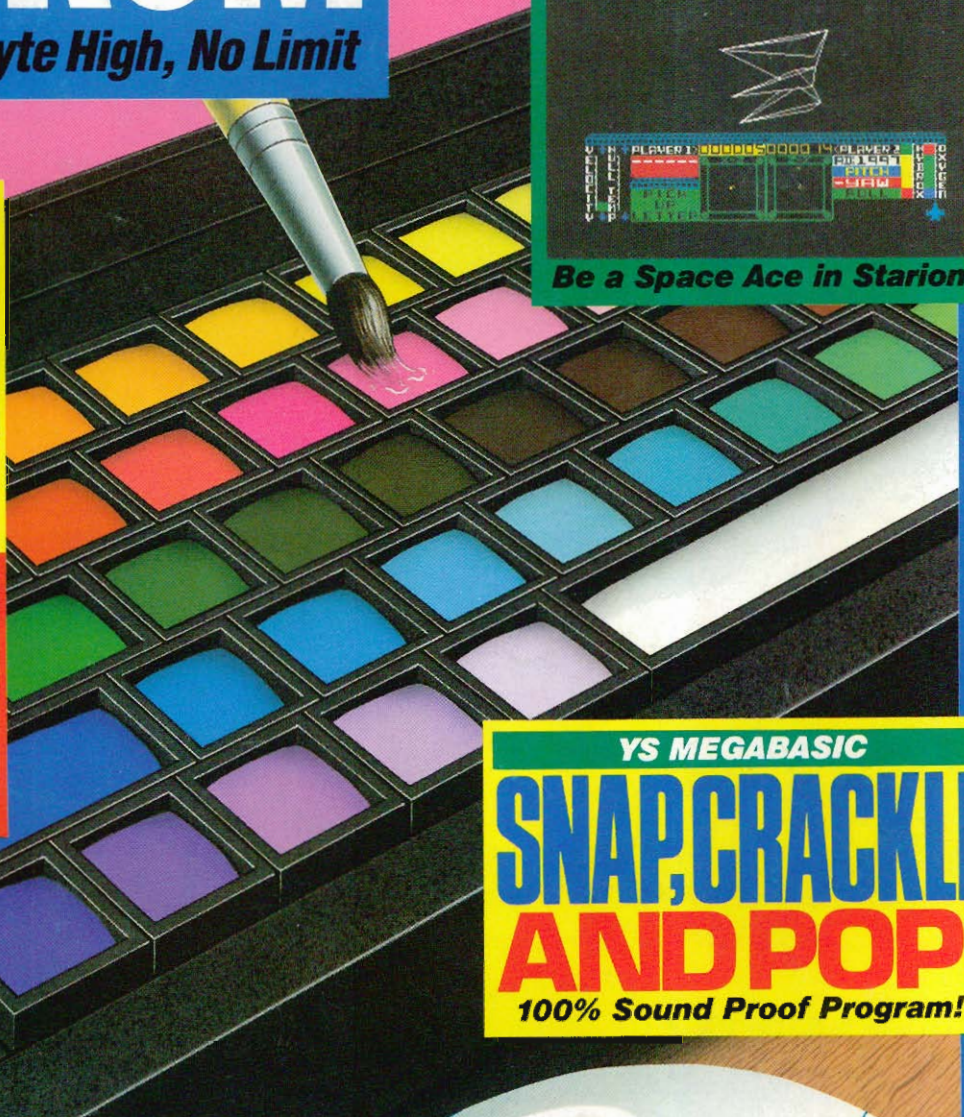
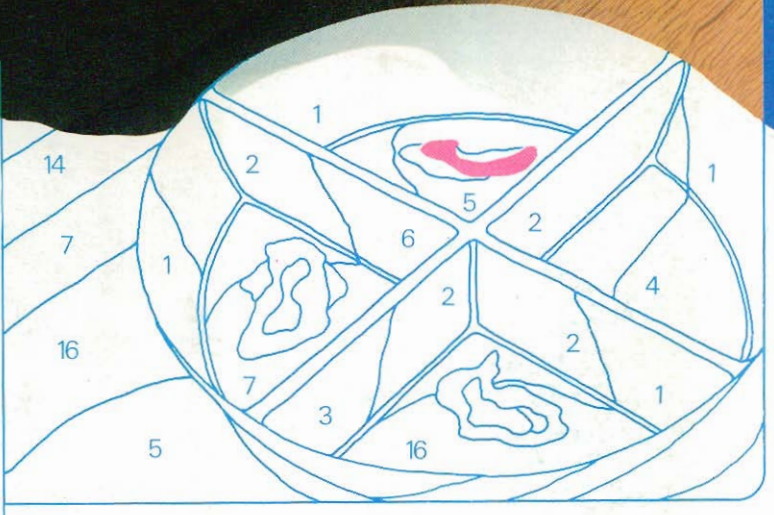
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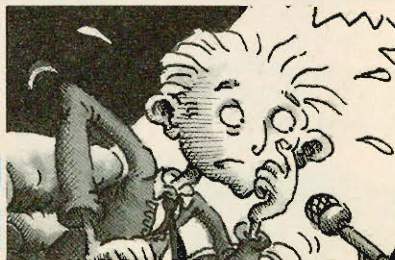
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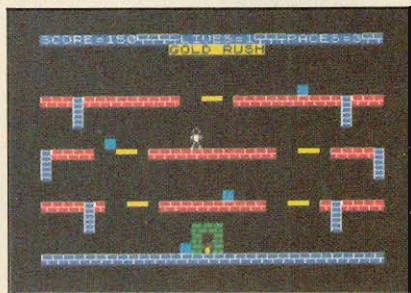
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**01-631 1433**

EDITORIAL ENQUIRIES

Kevin Cox

PUBLISHING ENQUIRIES

Stephen England

**01-580 0504/**

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David Baskerville

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ABC



# SPACE AGE

Welcome to the YS Space Academy. Here you'll receive full in-flight training from Space Commander, Ross Holman. Master the techniques of time travelling in *Starion*, the stunning new 3D space game from Melbourne House. Time waits for no man, so go for it now!

Long, long ago on another computer, space was opened up for exploration. Now *Starion* leads the way into time travel on the Spectrum. It's a fast 3D game that takes you into the 4th dimension — time.

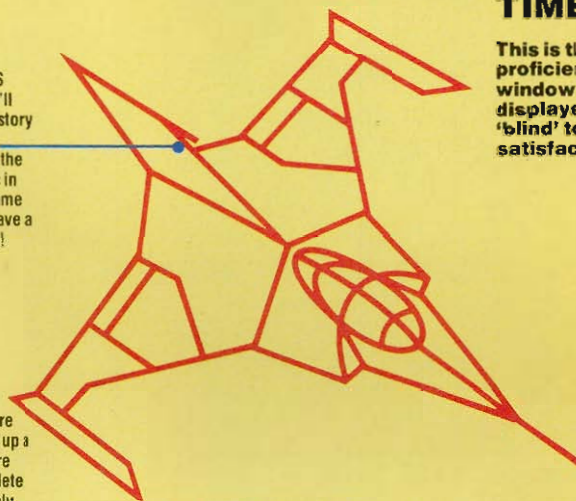
You play the part of Starion, the pilot of the SS Stardate, the first spaceship capable of time travel. Your mission is to rectify the discontinuities in the space-time continuum that've been caused by a bunch of anarchist aliens running amok. They've been taking objects of historical significance from their true time periods and placing them in another time zone. You must set about undoing the damage caused by these renegade time bandits.

Time in *Starion* is split into 243 separate zones arranged in groups of nine. Nine zones from a time grid, nine grids a

## TIME — THE FINAL FRONTIER?

This is the view from your spaceship but once you've become a proficient star pilot you'll hardly need to look out of the cockpit window. All the information for your survival in the dog-fights is displayed on the console at the bottom of the screen. Try flying 'blind' to improve your scanner reading skills — there's immense satisfaction in shooting down an enemy before you've seen him.

Here's a view of the SS Stardate, the ship that'll shape the course of history if you complete the mission. This is about the most complex graphic in the game, so it's a shame that you don't get to have a go at shooting it down!



Watch out for your score — you'll need to clock up a pretty high score before you qualify for a complete re-fit of your ship. If only we knew just how high!

Your spaceship's acceleration is an incredible 0-top speed in just over a second. But you're at your most vulnerable when travelling flat out, so go sparing on the old throttle. The only time you'll have to really give it some welly's when you're picking up the cargo from an alien ship.

This is the cargo hold where you'll store the letters from the alien spaceships as you collect them. They'll always come up in the same order so there's no chance of the word forming as you go zapping.

Keep a careful eye on your hull temperature gauge. The faster you go and the more laser fire you use, the hotter things are gonna get. And if you're already burning up when an alien missile makes a direct hit, that could mean another hull blasted into oblivion. As a general guide you'll find that you're at half the max temp when travelling at top speed.

Your on-board computer will constantly keep you up-to-date on what you should be doing. If it's telling you to pick up a letter, pick it up 'cos until you do, you won't get another one no matter how many aliens you blast.

If you use the two scanners correctly, you'll be able to pin-point your position exactly. The one on the left shows the horizontal plane flying up the screen. The other covers the vertical plane, so if there's an enemy on the same level he'll appear on the right of the scanner. Don't panic, with a little bit of practice, you'll soon have it sussed.

There are two schools of thought in the YS Space Academy about the cross-hair sights. Some reckon they're essential to line up on the enemy while others say they block the view. Luckily, you can choose for yourself as they can be turned on and off at the press of a key.

Just in case you lose track of time, the year you're in is displayed on your console.

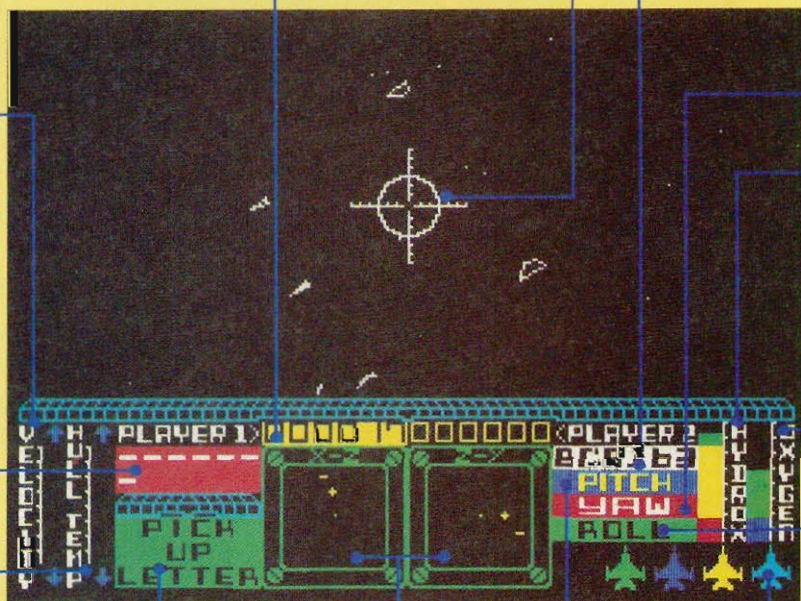
Yaw is just the rancy term for left and right. Of course, there's not really an up and down or left and right in space but you've got to keep some bearings.

The spaceship is fuelled by hydrox and although it drops more quickly the faster you travel, you won't have to stop off at any intergalactic filling stations — 'cos there aren't any.

The oxygen level's likely to cause you most trouble. It goes down at an alarming rate and when it reaches rock bottom that's goodbye to another hull. Land on a planet and you can breathe again!

Your ship rolls for just a second or so as you yaw to the left or right. Go on try it — it's the closest you'll come to space sickness!

You start off with five protective hulls around your ship but unless you're very careful they'll peel off pretty quickly. And it's no joke being naked in space!



If you're using a joystick, pull back for positive pitch (up) and push forward for negative (down).

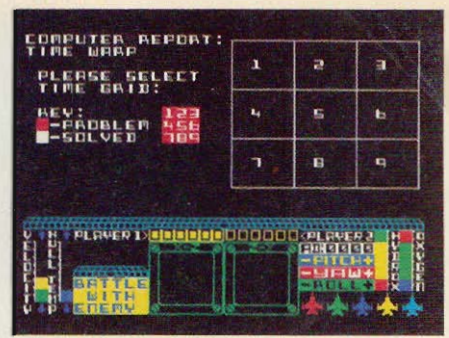


time block and there are three of those! To complete the game you've got to trek round all of the zones patching up the holes in history. Ranged against you are the aliens in a fleet of different sized and shaped spaceships. They're lugging around with them the stolen objects that should form our heritage, but being a brainy bunch they've split each object into the different letters that spell it. Each ship then carries one letter. To sort out the shambles, you've got to blast the aliens, retrieve the letters, reform the word and then take it back to its rightful date in history. And with 243 different objects to be collected, this is not the work of an afternoon.

*Starion's* a very fast, very playable shoot 'em up. The wire frame graphics are easily the smoothest and most realis-

tic I've ever seen on the Spectrum. But it has to be said that it won't be everyone's galactic gargle. Solving the anagrams to form the objects slows the flow of the game down and if you're not into puzzles and word-games you'll soon get cheesed off with those bits. And, yes, it does look a bit too close to *Elite* for it to be a coincidence. Still, the arcade sections seem to me to be a lot faster on *Starion* even if it hasn't got quite the same in-depth game content. And after all, *Elite's* not out on the Spectrum yet so you could always get a bit of training in, while you wait.

For all that it's a very playable arcade game — you'll soon find that reading the scanners, accelerating and decelerating and judging hull temperature is second nature to you. If you're a budding time traveller or space cadet, go for it!

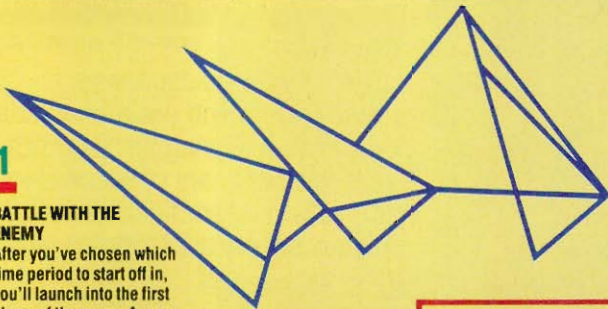


When you begin your mission this is the first screen to greet you. Choose Time Grid 1 as we've solved it for you below. Your status increases the more time zones you solve — starting as a Novice, one time zone will elevate you to a Chronotourist, three in a row and you're a Trizoner and when you've completed the whole grid, step forward a new Gridmaster!

**1**

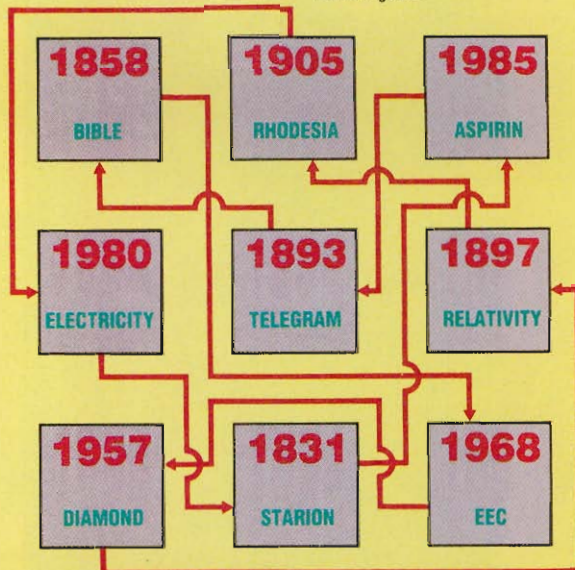
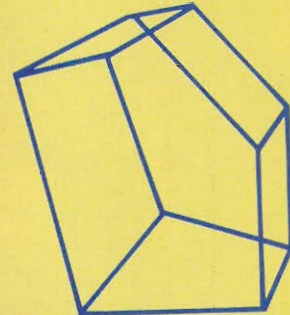
**BATTLE WITH THE ENEMY**

After you've chosen which time period to start off in, you'll launch into the first phase of the game. As you destroy an enemy ship it'll reform into the shape of a letter that you must collect. When you have all the letters for your chosen time period, you'll be asked to re-arrange them into a word. Sometimes that's a doddle (CEE becomes EEC, for example) but others'll have you racking your brains for hours!



**2 GO FOR TIME WARP**

As soon as you've solved the puzzle of what cargo you're carrying, you'll have to make your way to the time gate. Just fly for the centre but keep an eye open for alien ships — you haven't thrown them off yet. As soon as you pass through, you'll have to make your choice of which of the other eight time zones to go for.

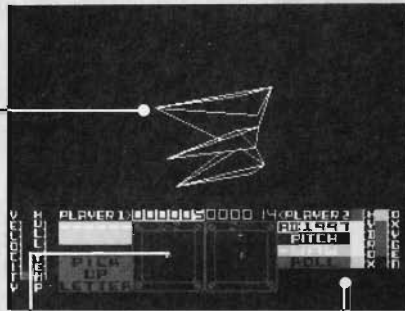




## Let Battle Commence!

### Blast him!

Each of the enemy spaceships has its own distinct characteristics. The smaller dart-like ones are often the trickiest to take out as they're faster and more manoeuvrable. Generally, the more cumbersome the spaceship, the easier it is to blast.

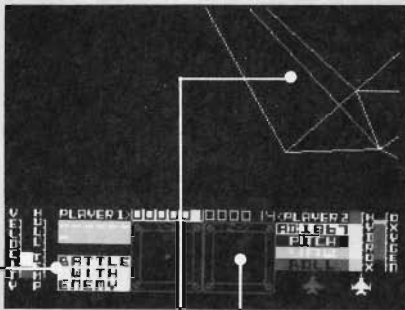


The enemy ships don't zoom in at you but zig-zag their way across the sky, so it's usually easier to keep your distance and blast them when they're just in range.

Use your lasers little and often. Firing rapidly is a great temptation but it's a sure fire way of overheating and losing hulls. Only when the spaceship is dead centre on the screen will your laser have any effect on it.

### A Close Shave

The enemy ships carry an unlimited arsenal and they're not afraid to use it. Each of the different types of ship fires a different shape missile, but they all have the same effect. If one hits you smack on, your temperature rises and you're more vulnerable to hull loss. That's why it's best to travel at slower speeds — that way your hull can absorb the rapid heat rise of a direct hit.

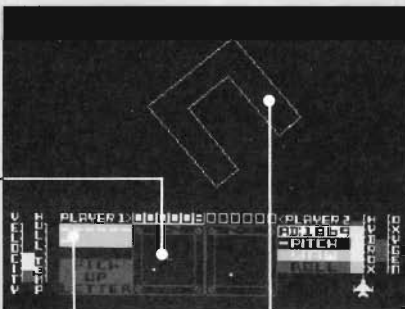


If you let the enemy get in close you may find yourself in big trouble. If you collide it's goodbye cruel world!

If a missile's coming straight for you, shoot it down. But the general rule is, take evasive action and don't go out of your way to look for them.

### Go for Cargo

Keep an eye open for the enemy because you're at your most vulnerable when travelling at top speed and in a straight line towards a letter. Close in on the cargo, get it slap bang in the middle of your screen and fly for it. There's no need to slow down or stop as it'll be picked up automatically.



As soon as you've shot down one of the enemy it'll drop its cargo in the shape of a letter. Go straight for it rather than hanging around waiting for the next alien wave to arrive.

As soon as you've shot a ship, flip right over and you'll see the fragments form into the shape of a letter — a nice touch. Now hit the throttle and go for it — this is the only time you really ought to be travelling at full whack, 'cos if you're too slow the letter starts to back off.

### Safe Landing

You'll come across three different planetary formations — one has a single moon, another has two moons in orbit around it and the third consists of two identical octahedrons rotating round each other. All rather strange as the planet is supposed to be Earth. Still, it can be quite exhilarating getting as close as possible to a planet to watch it rotating above you.



Remember that you're never free of the aliens so keep an eye on your scanner. The enemy always appears as a plus sign, missiles as dots and everything else as a minus sign.

The technique required for docking on a planet is much the same as for picking up the letters. Fly straight at it and you'll make a safe landing automatically.

# HACKER'S GUIDE

Join Chris Wood on a journey through time and space — into the centre of Starion.

From a programming point of view, two things make Starion stand out from the crowd — its 3D animated graphics and its speed. Just take a look at those spaceships move as they come towards you. They're smooth and completely shimmer free and certainly the best I've yet seen on the Speccy.

So, how's it done? Well, briefly, they're constructed using SINE tables to calculate the perspective and to give the illusion of depth.

Perhaps the space-ships look a little squashed from some angles and the point of infinity is pitched a little close owing to the compact size of the programmer's universe, but these are minor criticisms. There's no over plotting here.

Speed is essential to a realistic shoot 'em up like this and the programmer's gone for it in a big way. Take a look at the way he clears the screen. The method he uses is four times faster than LDIR, the usual means of moving blocks of data, and that's certainly no sluggard!

He does it by using the Stack. It's a bit complicated but I'll have a go at explaining. First off, he saves the Stack Pointer and then moves it to the end of the screen. He then LOADS the HL register pair with zero, goes into a massive loop PUSHing HL onto the Stack. The Stack moves up the screen and down through memory and in the process, clears the screen. (You have to remember that the screen is upside down as far as memory's concerned).

Now that's an awful lot of explanation for a process that takes just 0.0067! In that time the top two-thirds of the screen is cleared which is only a quarter of the time it takes your telly to refresh the picture. Now, that's fast!

As for the 3D shapes, they're all constructed in high memory and transferred onto the screen using another version of the Stack method. In fact, he uses nearly all the alternate registers except for the two HL pairs. It all happens so swiftly that both the actions of clearing and re-drawing the screen are nigh on completed in less than the time it takes to refresh the television. And that's why you don't get any of that 'now you see it, now you don't' sort of flickering.

Now let's have a look at the

```
10 REM STARION LIVES ETC. v2
20 FOR n=65450 TO 65480: READ a: POKE n,a: NEXT n: PRINT AT 10,10;"LOADING"
40 RANDOMIZE USR 65450
100 DATA 49,0,0,221,33,0,64,17,170,191,62,255,55,205,86,5,175,50,21,179,50,235,177,62,201,50,107,178,195,67,128
110 DATA 49,0,0,221,33,0,64,17,170,191,62,255,55,205,86,5,175,50,100,179,50,7,178,62,201,50,107,178,195,67,128
```

We've seen two versions of Starion, so to be on the safe side, here's two loaders in one. First type it in without line 110 and try it. If your version crashes, replace line 100 with line 110 and the universe is yours!

devious ways that this programmer's mind works. You only have to take a butchers at the way he's encrypted not just the passwords but even the normal game messages. He's obviously paranoid about people finding them out by PEEKing the program rather than playing the game (as if we would! Ed).

To print a message on the screen, he partially decrypts it in its original place in memory and then it's copied to a work space to be further decrypted. Connected with this, you've probably noticed that you get a momentary mess appearing on the screen when any messages are printed. This comes about because the same area of memory is used to decrypt the text as to store the screen before it's down-loaded. At least it has the effect of making you look down at your console to read a message you might otherwise have missed.

You'll probably have gathered by now that this is one programmer who knows what he's doing and isn't afraid of a bit of showing off. Take those enormous numbers that indicate every countdown, for example. The first time they appear it looks as though the machine's crashed — but you soon suss out that the numbers fill the whole screen, including the border. Very flash! It's done with a neat little Interrupt Mode 2 routine that sends bands of colours to the border in much the same way as the SAVE and LOAD commands. Only these ones are so precisely timed that they stay stationary and vary in size to make a perfect match with the rest of the shape on the screen.

After Alien 8 last month, Starion's protection was a doddle. Mind you, the complexity of the programming made it very difficult to get any more than a POKE for infinite hulls, but at least you'll have a very thick ship! Still, just to be on the safe side I've included the POKES for infinite oxygen and hydrox.

To incorporate the POKES I have found, type in the short program below. SAVE it before you RUN it and rewind your tape of Starion. Load that as normal until after the second short block — there is a small bit of Basic followed by some code. When it's in, stop the tape, take it out, reset your Speccy and then type in LOAD and RUN the program below. When it prints up 'LOADING', replace the Starion tape and the remainder will load and run but this time you'll have the thickest ship in the galaxy.

Oh, and by the way. When you've got to the end and reached event Zero, you're told that you are now the Creator and you're given a Richmond telephone number to ring and told to ask for God. Funny, I always thought he lived in Cambridge!