

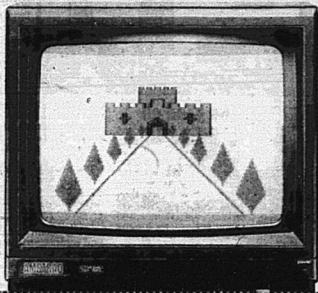
# AMSTRAD

# This computer system won't give you any arguments at home.

The Amstrad CPC464 computer system comes complete with its own colour monitor or green screen VDU plus an in-built, fast loading data recorder. Yet it costs around the same price as a comparable micro computer without monitor or data recorder.

The advantage is two fold. Your home computer operates independently of your television set, so both can be used simultaneously. And the money you save on hardware costs will provide an extensive array of software and accessories.

The Amstrad system is unique, and offers greater convenience and far greater economy than any comparable systems.



## Complete, ready-to-go system.

The Amstrad CPC464 is a complete personal computer system that's ready to go the moment you plug it in. You get a powerful computer with a full colour typewriter style keyboard that's a breeze to use. Plus you get a full colour monitor and in-built cassette data recorder for around the same price as most computer keyboards. Amstrad offers 64K of RAM (42K available), 32K of ROM and a very fast, extended BASIC. Dollar for dollar no other system adds up to Amstrad. That's why it's fast becoming Europe's number one choice in personal computers.

## 12 MONTHS GUARANTEE

\*Registered trademark of Digital Research.

## Software for home and business.

Amstrad software features some of the most exciting games ever devised for the home computer, plus many wanted business and financial programs. All are designed to maximise the CPC464's impressive graphics, sound and processing capabilities.

Amstrad high resolution graphics (640x200 pixels) coupled with the precision of the Amstrad colour monitor make for visibly superior screen images which, in turn, facilitate greater enjoyment and understanding. Feet! Amstrad's 3 voice, 7 octave stereo output through your hi-fi amplifier and you'll match brilliant pictures with equally brilliant sound.

At home or in business, Amstrad's speed loading facility means even the most complex programs can be loaded without undue delay. And for business use, features such as numeric keypad, copy cursor facility, 32 user defined keys and a high definition green screen VDU set Amstrad apart.

## Games? Try your skill.

Amstrad high performance video games will have you on the edge of your seat with excitement. Choose from a range that includes



3D adventure games, classics like Chess and Xanagrams, childrens' fun and educational programs and sci-fi fantasies.

The substantial RAM in the Amstrad CPC464 computer means software authors have extra scope to develop games and ideas that lesser computers do not have the capability for.

## Unlimited scope for expansion

At Amstrad, we look to the future. With a centronics compatible parallel printer interface and joystick port. Plus inexpensive add-ons like the DMPI 80 column dot matrix printer and CP/M\* and LOGO disk drive [available shortly].

You get 12 months unconditional guarantee on the computer, monitor, printer and disk drive.



Add up the built-in features and low cost extras and you'll decide on Amstrad. (Extensive range of Software for small business applications). Distributed and guaranteed throughout Australia by AWA-Thorn, available from leading electrical stores and computer retailers.

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## Maybe You Should Be Spending For It.

At last, the world's number one selling computer in a pack. The Commodore 64 now available in a family pack at a very affordable family price. \$700 value for just \$499. You get the powerful Commodore 64, plus datacassette and joystick, four software programs: Money Manager, An Arcade Game, Rolf Harris Picture Builder and Introduction To Basic (a teach yourself program). A great gift for the whole family who work and play together.

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MSCC320



Speed, versatility and impressive additional features

# Disc makes Sega complete home computer

**JOHN Sands** has released a micro floppy-disk drive system for the Sega home computer.

It is claimed to be the first international standard three-inch disk drive for the Australian home computer market and is part of the John Sands Sega Super Control Station.

The SF7000 from Sega Enterprises of Japan, rounds out the total home computing package marketed in Australia by John Sands and closely follows the Sega SC3000H Personal Computer released last month.

The "Super Control Station" comes with impressive additional features which give the home user complete flexibility in choosing optional extras to combine with the -Sega home computer.

of basic programming, total 80K random access memory and both standard centronics and RS232C interfaces.

The disk-drive incorporated by Sega in this Sands Sega Super Control Station is manufactured by National Panasonic. This single-ended high-speed drive gives the Sega user the benefit of being able to find programs and data quickly and store them quickly and easily for future use.

### High speed

Any Sega user who already has programs on cassette tape can transfer most of these quickly and easily onto disk.

The Sega disk drive operates 40 times faster than most tape systems. As well as being a disk drive, it also gives the user an extended level

system on a cassette tape.

Programs can be found and loaded in seconds instead of minutes.

By way of comparison the standard cassette system John Sands Electronics claims the SF7000 disk-drive gives the user an even higher speed than the old 5.25in floppy disks.

The Super Control Station operates at a baud rate of 200k bits per second.

The SF7000 expands the memory of the Sega computer to 80K, but then takes all but 19k of this memory to operate the disk drive, the high resolution graphics and basic interface.

So what it gives with one hand it takes with the other. The disk Operating System and the SF7000's enhanced basic language allow the Sega user to store more programs and files, which can be either sequential (one after the other) or random access.

The advantage of random access is the user can quickly read any section of the file at will. To make programming easier, the designers incorporated basic commands such as DSK1K and DSK2K to access the disk by track and sector, and also such commands as LOADM, SAVEM and VERIFYM to store files.



□ John Sands Sega Super Control Station — a complete system.

any section of the file at will.

To make programming easier, the designers incorporated basic commands such as DSK1K and DSK2K to access the disk by track and sector, and also such commands as LOADM, SAVEM and VERIFYM to store files.

### Uses

The SF7000's disk basic allows the home programmer to produce a printout or hardcopy of the screen using a dot matrix printer.

The Sega Super Control Station gives ideal high-speed computing for dealing with such material as files of names and addresses, details of collections like wine cellars or stamp collections, spreadsheets and tasks like writing letters, reports and essays. Now becoming known generally as word processing, spreadsheet and database is currently being produced by Mitec — the designers of Sega

disk basic and due for release in Australia this year.

The John Sands Sega SF7000 Super Control Station is available in leading retail stores in Australia for a recommended retail price of \$559.

"We believe this unit, together with the popular Sega SC3000H Personal Computer, makes up the finest home computing package currently available for under \$1000 on the Australian market," said a John Sands Sega spokesman.

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# WA education institutions in international scheme

**APPLE Computers** Australia will donate \$9 million of computers to tertiary institutions around Australia including WAIT and UWA.

The company says it wants to promote personal computers in higher education and assist the development of course programs for educational computing. They will get the innovative Macintosh and Lisa equipment.

Other computer suppliers such as Microsoft, Imagination and Compuserve will support the scheme.

Australian members of the Apple Universities Consortium include the University of Wollongong, the University of Tasmania, the University of WA, WA Institute of Technology, the NSW Institute of Technology, the University of Adelaide and the University of Melbourne.

Students and staff will use the computers for research, curriculum development, teaching and some commercial activities.

All consortium members have undertaken to become active in the development of joint software with local and international members and each member automatically becomes a registered Apple Software Developer eligible for further computer support.

Difficult access to ideas will be exchanged between local and international members.

Members of the Australian consortium can re-sell the Apple equipment to full-time students and faculty or administrative staff.

### Saving

Typically a 128K Apple Macintosh personal computer will be available on campuses for about \$1900 — a saving of about \$100 on the current Australian retail price.

Dr Stephen Withers, of the Melbourne University Computer Centre, said substantial interest has already been expressed on the campus by international members approaching the centre requesting details. The Australian announcement follows the success of an international Apple university consortium program.

Some 50,000 equipment installations were expected in the initial US program, which included such institutions as Yale, Stanford, Brown and the University of Michigan, with each expected to sell \$2 million worth of Apple products over three years.

In May, seven New Zealand universities made that country's largest-ever single purchase of micro computer equipment under the universities consortium program.

Several hundred Macintosh and Lisa computers worth about £21.5 million, were flown into New Zealand.

# Rentals market moves on new field

**THOSE** unable to decide which home computer to buy this Christmas and those who want to take one "for a test drive" before buying may get help from a new rental scheme from Visionhire.

David Hall, managing director of Visionhire Australia said: "We've been thinking about the home computer market for some time. 'Rental has become a well accepted and even preferred method of getting television and video recorders. 'Why not rent a home computer as well'?"

### Rental

Now available for rental are the Commodore 64 and Vic 20 home computers. "We chose the Vic 20 and Commodore 64 for their popularity in their established popularity in the market and the excellent range of software available," said David Hall.

Western Australians can now rent a Vic 20 or Commodore 64 for up to six months or just overnight.

"As with all Visionhire rental products, our customers are supported by a full service back-up," Mr Hall said. "If there are any technical problems our servicemen will repair it within 24 hours or provide a replacement computer if it has to be taken back to the shop."

### Appealing

"Already the idea is enormously appealing to many people. 'One major advantage is it gives a chance to try out computers before deciding to buy. 'Many families have been thinking of getting a computer, but have been put off because of their lack of understanding about new technology. 'Renting gives the leaseholder to know the computer first-hand and decide which one to buy. 'Visionhire offers a purchase deal after the rental period."

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### Consortium

This Apple announcement is a further move in establishing an international Apple universities consortium, which is already strongly established in the United States, Canada and New Zealand.

Apple Computer Australia expects that 89 million worth of Macintosh and Macintosh will be supplied over the three years.

# TEST DRIVE IT AT THE BACKGAMMON SHOP

Available now at a very affordable \$499. Each family pack includes the powerful Commodore 64 plus diskette and joystick and two software programs: Money Manager, Arcade Game, Roll, Harris Picture Builder and Introduction to Basic (a teach yourself program).

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\*Recommended retail price.

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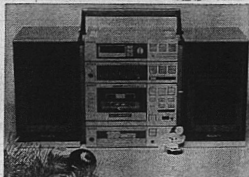
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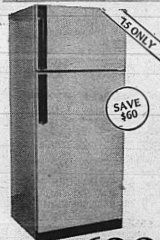
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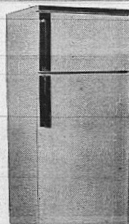
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# Atari maintains its success

For example the new Atari compatible games from K-Tel (which are double ended) use all 128K of the cartridge tracking system to enable 100K games to run in the 64K cartridge.

The game is effectively broken down into two sections and as one section of the game finishes another section takes over.

But this super charger called Starpath pushes Atari to even greater versatility. It lifts the memory capacity of the Atari game centre by 40 times, says the manufacturer of the add-on, and this can be connected to another section called Starpath.

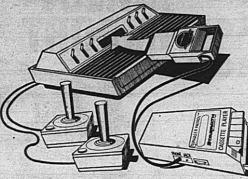
This means you can load games from a cartridge as you would with a computer.

Starpath Corp. actually writes its games on cassettes rather than cartridges because it says it's cheaper. It also enables the company to produce what it calls Multi games which is like comparing an LP to a 45.

The Multi Load games have a number of comments to every game that are loaded into the Atari as you play a hit like the K-Tel games. And the scores and achievements are added as you go.

Distributed by Computer Classics in Australia the Backgammon game is available for Christmas.

It costs around \$69.95 with games costing another \$19.95. It will operate from any cassette deck with an ear socket.



Starpath's supercharger that expands the Atari game console to almost 50 times its power. These days computers have a lot more memory ranging up to 64K.

But despite the power and capacity of these new computers and game centres they haven't even dominated the market long enough to pick up as big a software support as the Atari.

Go while Atari may, in the electronics industry, be long in the tooth, it beats all comers to hold its title as king of the games.

The Atari game centre has virtually dominated the industry standard over the years and still survives as the top game centre despite fierce competition.

To succeed is directly attributed to its range of games which is much larger than other systems, and the fact that its prices have allowed greatly over the years to keep it ahead of competition.

It is its population base that is its strength. Until another system, no matter how smart, gets as many games into homes around the world, the software companies' first priority will always be to produce games for Atari first.

In recent months it has come under attack with smarter game centres like the new Coleco trying to muscle in on its domination of the market. But as companies world wide try to write games for the Atari do technology companies try to come through with new games that will attract Atari owners to help keep their game centres going with the times.

A gadget just released in Australia and available only through the Backgammon

shops in WA gives the Atari fan a new lease of life.

It's a super-charger that effectively turns the Atari into a far more powerful game centre and opens up even more games for it.

The Atari has an on-board memory capacity of 4K, which limits the size complexity and graphic detail that can be run on it.

When the Atari game centre was developed some years ago 4K was considered very power-

# Game shop hits back with computers

All major game companies are moving quickly to counter the threat of the home computer.

As home computers get cheaper and games become readily available, the trend is for people to buy computers instead of game centres.

This year the game centres will still outsell home computers, but probably that will change next year.

But game centres are fighting back. They are

much cheaper this year, with bonus offers available through Atari and Coleco.

Now keyboards are available to turn them into home computers.

Keyboards are now available to convert Atari and Intellivision game centres into computers.

But you need to buy it into the game

centre and it becomes a computer.

In the case of the Atari, the keyboard is from Spectravideo (they also have their own computer) and this gives the Atari a 32K memory.

Not great for any serious computer enthusiast but an inexpensive option for all those people with Atari game centres at \$129.

It means they can still have a game centre that has the widest range of games and the power to learn computing.

For Intellivision owners, the long talked about keyboard and computer conversion is also here and costs \$150. It converts the 16-bit Intellivision into quite a powerful home computer.

This bridging between computer and game centres and see-sawing of technology is creating special problems in the retail arena.

Many stores sell game centres and other stores specialise in certain computers like Commodore or Atari, there appears that few will specialise in the cross-over area.

One group that has taken on this challenge is the Backgammon chain. Previously, a board game specialist, the company has in the past months, strongly to change its retail emphasis from box games to a computer game store.

It has always carried whatever game centres have been available such

as Hanmer, Atari, Intellivision, and now Coleco.

But in the last few months it has made a dramatic change in policy to lift its game image to electronics.

Besides game centres it now has all the add-on components to convert these game centres to computers, and also stocks a range of home computers including Atari, Commodore, Sinclair and Sesa computers.

Says Stewart Nicholson of the Backgammon group: "We still carry the famous backgammon games and chess sets that made us famous in Perth. But we have moved into the new electronic area of game playing with a vengeance."

With six stores already operating in major centres we see more competition in the New Year to make us the strongest electronics retailer chain in WA, similar to Tandy but trading in a different sphere.

Tandy is a specialist electronics-computer retailer catering for enthusiasts and businessmen. We will cater for both players and hobbyist home computer.

Enthusiasts already see us as a one-stop shop for everything to do with game centres and add-on to game centres.

We plan to strengthen our computer identity off the back of this, still emphasising the fun side rather than the business side of home computers.

When it becomes the control centre for a range of add-ons like a computer keyboard, and a musical keyboard as in this Intellivision game system.

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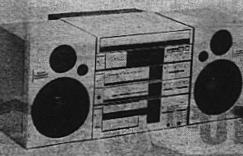
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# Big deliveries to ease the CD rush

Alberts Hi-Fi has shipped 20 container loads of Kenwood electronics including Kenwood CD players direct from Japan to help promote CD.

The first landed this week and the second is due for delivery on Tuesday — both in time for the pre-Christmas push.

The second container has a shipment of the new Kenwood digital disc player that has full remote control and yet will sell under \$1000.

It was due for release through the normal importers at \$1299 retail. But by buying direct with a bulk shipment, the managing director of Alberts Hi-Fi, Hal Wallis, says they have been able to make dramatic savings.

"We have almost as many Kenwood CD players for the Perth market as they have for the rest of the Australia," says Wallis. "What we are aiming to do is put CD on the map in WA. As we pioneered hi-fi 20 years ago, we have now set ourselves up as CD experts."

"We now have up to six different models available, when most audio retailers can't offer any, and most offer only one model."

"But to have the range of CD players isn't enough. One has to have the high-quality, high-power electronics to go with it."

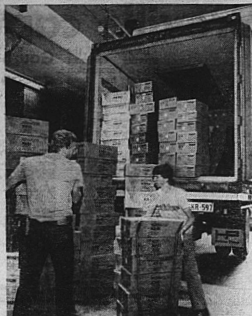
Putting high-quality electronics with CD players that kept the CD experience out of the reach of most buyers because the price is too high.

"So we made a decision to ship direct a range of CD compatible electronics and a shipment of CD players from Kenwood to get the price down."

"We will be promoting heavily in the next few weeks to sell the shipment and it will have a dramatic effect on the Perth market."

While the stocks last we will be able to offer people a complete hi-fi system with a CD player for \$1399. That includes a 40-watt-per-channel high quality Kenwood amplifier, a Philips top-loading CD player, and a pair of large three-way speakers which will handle the CD sound which most budget speakers can't.

Wallis says, "Alberts have bought amplifiers which match the Philips CD player not only in sound quality, but aesthetics. Wallis predicts that the upcoming campaign off the back of this Kenwood CD shipment will really give CD a boost in the WA market."



Bulk orders, to help bring CD to more people, more cheaply.

## Introducing the SEGA COMPUTER



**SEGA**  
It's the personal computer that outpowers, outfunctions, outcomputes, outcolours everything in its class — in a word outstanding!

The John Sands SEGA SC3000. OUTSTANDING in terms of power (32K ROM and 32K RAM — expandable to 48K). OUTSTANDING in terms of high resolution display (256 x 192 dot screen matrix and 5 x 7 character dot matrix). OUTSTANDING in terms of colour (16 separate colours and 225 colour hues). OUTSTANDING in terms of its capacity to interface with a wide range of peripherals and OUTSTANDING IN TERMS OF EASE OF USE AND VALUE. \$329.

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**musgroves**

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THE SOUND CENTRE OF THE WEST

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# Commodore Computers goes walkabout

When Commodore Computers launched its unique Commodore 64 earlier this year the then sales manager for Australia, Roger Davis, described it as "a marketing nightmare".

He should be proud now as the launch of the portable Commodore 64 earlier this year, taking well over 40 per cent of the computer market world wide, has a marketing?

Mr Davis says it is so good it bridges the gap between a home computer and business computer. It is aimed to sell in the home computer market where the \$499 price tag, but it is also a portable machine that would be used as a business machine.

If Commodore promoted it to the business market they would lose out in the home computer market where the biggest number of them are promoted. It is a computer for children, business people, and down on it.

Commodore didn't have to worry about any sort of promotion for it.

The only sort of nightmare they were trying to get enough stock to supply the demand.

Word of mouth did the trick and when word got around that parents who wanted their children to have a computer and who wanted to learn something about computing themselves.

The dual image is further consolidated with the release of the month of the first portable Commodore 64.

About the size of a machine size, this carry-around unit, built in color monitor, a disc drive and keyboard.

The only thing visually comparable to it is the \$3000 complete system and the \$400 Commodore 64 is the name.

## Redesigned keyboard and circuit make it possible



Commodore's new portable Commodore 64 with its built-in color monitor and disc drive.

Nigel Headlam, of Brunting Headlam, the Commodore business computer specialist, said the machine had been rebuilt completely to enable it to fit into such a tight space.

"It's not just a Commodore 64 shoved into a box," he said. "They have built a new keyboard and redesigned the circuit boards to get

them into the small container along with a TV monitor and disc drive.

The monitor is a high quality unit that is fed by a direct video signal instead of an RF signal, and is clear and sharp.

Despite the smallness of the screen (about 10 cm) you can read the text quite easily when using it as a word processor. In fact you can

change the colors of both the background and text to get maximum contrast.

But good as the screen is I couldn't see me working with it all the time. When at home or in the office I would suggest looking in a much larger TV monitor.

All Commodore 64 programs will run on it including word processing and games. The programs can be loaded either through the cartridge port or the disc drive.

This is truly a business version of the Commodore 64 and will run all the 40 column business software. But this it will run all the games as well.

The people who would buy it probably are the more serious user of the Commodore 64, such as university students, engineers, computer programmers and serious hobbyists.

It's nice having it all in one unit for carrying around.



Nigel Headlam, of Brunting Headlam Computers, with the portable Commodore 64.

# Prices far festive rush

Tandy has reduced dramatically the prices of much of its computer hardware for the Christmas rush.

The reductions cover everything from the popular home Color computer through to the 16bit upmarket personal computer.

For example, the very popular 8K version of the Color home computer has been dropped from \$449 to \$349.

Likewise the 16K extended Color computer is down \$109 to \$499, and the 32K version is down from \$799 to \$599.

The new Model 100 portable has caused a minor sensation when it was released two months ago has been dropped from \$1099 to \$699, and the 24K version is down from \$1399 to \$1099.

## Tandy moves in on market

At this price the Model 100 will gain an even bigger following than before. It is unique in that it carries on board enough memory for word processing, a daily schedule for the man who likes to plan out his day, and a list of names and addresses.

So you can go away on a trip with all the appointments programmed into the

unit, and with all the names and addresses of people you plan to contact while you are away.

You can also write your reports ready for printing when you get back.

The Model 100 is certainly one of the top models and more so at this price.

In the business area many of the top models have been dropped by several hundred and often thousands of dollars.

The Model 16, complete with disc drive, is down from \$6499 to \$6099, and the 16K Model 4 is down from \$1799 to \$1499.

Although there is no official reason given for the reduction it is being seen in the industry as a move by Tandy to become more aggressive in the market place.

Prices have fallen dramatically on most personal and home computers in recent months and Tandy was becoming non-competitive. It was relying on its strong service back up and software and hardware support to win sales away from the competition.

But even with one of the most successful and strongest support systems for personal computers in the market there is only so much one can expect the consumer to pay.

In one swoop Tandy is now more competitive price-wise and still has the excellent support system to offer customers.

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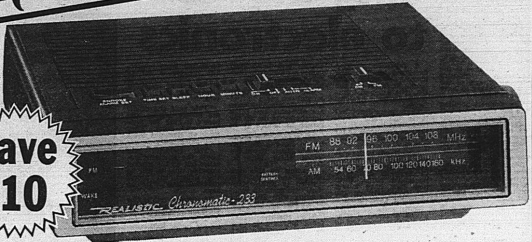
# Tandy ELECTRONICS Christmas Gift Ideas

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There's no present like the time! This Christmas give a gift that will be used every day of every year! Popular **Chromatic®-233 AM/FM Clock Radio** features large easy-to-read LED digital display with hi/lo dimmer, FM and Wake LEDs. Radio has lighted dial, AFC and ceramic filter for superior FM reception, 7.6cm speaker. Battery Backup runs clock up to 8 hours, alarm for 10 minutes should AC fail. Requires 9V battery. 121540

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**32K Extended Color Computer.** More memory, bigger features! 203003 Save \$200!

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\*Independent Tandy Dealers may not be participating in this ad or have every item advertised. Prices may also vary at individual Dealers' stores.

# Electronics 5

## 10,000 Sega computers ready for initial launch

# Board games king moves to electronics

As the traditional board games king slumps the king of the board games, John Sands, has moved strongly into the home computer market with the launch of the Sega.

One of the biggest questions on a consumer's mind when buying a home computer is will the company still be around three or six months after they buy? With so many products being launched and the electronics industry racing along, one of the toughest things to have is credibility.

The simplest solution is to buy one of the well known brands like Commodore, Tandy, Apple or one of the other well known systems even though there may be better or cheaper machines around.

Because of this syndrome it is very difficult for new home computers to establish themselves on the market to matter how good.

But one that does have some, breaking through the traditional in a few short weeks, is the John Sands Sega.

A Japanese machine developed by Sega, the king of the arcade companies in Japan and the US, it is being distributed to Australia by John Sands.

There is no doubt that it is the John Sands name that has made the Sega so acceptable as far as the public is concerned.

John Sands is the biggest indoor game manufacturer and distributor in Australia and it is a household name. Until now they have missed out completely on the electronic game boom.

With a line of board games dropping dramatically they have had to face up to the challenge of the new era. Giving game

centres and hand held games a wide berth, they opted to go with a home computer.

But it took them around two years to find a suitable machine, says a spokesman, and three months to get the act together to launch it in Australia.

We are the first console released there only in outside Japan. It was released there only in June.

Heading up this new John Sands electronics venture is John Sands, who shall who spent 18 years working with IBM and to know his market and by.

The challenge that faced him was to find a home computer that his company could put their name to that would stay the course. They had too much to lose trying their name to a computer that foisted up.

The Sega appears to fit the bill.

Although the selection of cartridges is small for the launch, it should have no problems in getting software because Sega owns the rights to most of the leading games. They buy and develop them for their arcade machines and the past have sold many a title in Coleco.

### Credibility

Now, says a spokesman for John Sands, the games will be produced for the Sega as well as sold to companies like Coleco.

So important is the credibility of the home computer that John Sands has tied his name to the machine in all promotion and advertising calling it the John Sands Sega. The name is carried on all packaging as well as literature.

More than 10,000 machines were shipped for the initial launch and John Sands plans to keep the pressure up through the summer holidays.

The machines are sold in Perth through Myer, Bonanz, and the hardware chain of shops.

Mr Michael McClelland, sales and marketing manager for John Sands Electronics, says that the specialist computer retailer is too limited as major outlets. He says that the home computer belongs with mass merchandisers.

Last year computer

specialists were important because a lot of people were wanting to ask a lot of questions before they bought," he said.

"This year the public are simply buying and aren't looking for answers any more. They are just put when they get home.

"The industry still needs the specialist retailer but as the market expands then it will be the department stores that will handle it," he says.

The Sega retails for around \$300 and Keith Marshall maintains that it is the best value for money under \$500.

"It is a true home entertainment centre that will provide hours of enjoyment and education for the whole family," he said.

John Sands' entry into the electronic entertainment market, the Sega computer - ideal for beginners.

### VIDEO GAME REVIEWS

# Ossoft mosquitoes lack bite

**OSMOG**  
Commander Osoff from Ossoft (disappointing).

It is a trap set within the lost dungeons of the Lankia, armed with a man of deadly fly spray to help you escape.

You must get the key and escape through the maze of passages to the next level where more vicious mosquitoes await you.

But there is an added danger, the lights on the next level may have faded and so making the game difficult to play.

### Defined

The graphics, which were made up from not as exciting as they could have been. For an example, the mosquitoes were represented by five dots.

An actual drawing of the mosquito would have added to the enjoyment.

The sound was also disappointing. It is the constant buzzing of a mosquito over and over on your nerves after a while of buzzing or varying levels of buzzing which have made it more bearable.

Eventually I turned the sound off and played in silence.

The instructions that came with the package were very comprehensive and easy to understand, they were only a photograph, but they were professional.

But the external packaging looks very professional.

Mosquitoes is not one of Ossoft's best, but it does run in the standard VIC and is cheap - M.L.

**PARATROOPA**  
(1935) for the Commodore VIC-30 by Ossoft.

You are the commander of the last remaining anti-aircraft gun. Your job is to defend the skies and ground from enemy helicopters.

Paratroopers keep dropping into your area in a non-stop barrage. The game uses high resolution graphics as well as a wide range of characters plus very realistic sound. The music is most impressive but since it fits in an

when a paratrooper lands on your anti-aircraft gun.

One minor gripe is that once you have started the game you cannot change the level of difficulty.

All in all Paratroopa is an excellent game which uses the VIC's sound and graphics to the full. - M.L.

unexpended VIC. It is quite an achievement.

The program comes on cassette packaged in a see-through wrapping with a fancy picture depicting a battle scene.

The game comes in several stages which are controlled by the instructions, level of difficulty, redefining characters and the game. The sound effects are very realistic from the bullets firing to the sput as a paratrooper hits the ground.

The graphics are the best feature of the game, especially the paratroopers falling from the helicopter. They are very small but quite detailed. Their arms and legs wiggle around until their parachute opens.

But if their chute is shot full of holes they continue to wiggle and plummet to the ground.

When they hit the ground the body explodes and sounds like a bag of wet cement hitting the ground.

The helicopters look very authentic and are made of different colors (not easy on the VIC).

The game recognizes a helicopter's outline and automatically destroys them for you.

Your anti-aircraft gun

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The DP-11008 Kenwood CD was selected as the best of 24 models of CD tested by 23 authoritative reviewers in Japan in "Weekly FM" issue No. 20 December 1983. "Weekly FM" is one of the most popular audio magazines in Japan.

The reviewers value the Kenwood CD as the most accurate because of its optimum servo control, very low total harmonic distortion (0.015% at 1 kHz), extremely clear & pure sound and an excellent 24 function infra red remote control.

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**KENWOOD R5** YOU SAVE \$300

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# Industry pulse on new market

- By Christmas the industry anticipates that over 120,000 home computers will have found their way into our homes this year.
- It will have grown over by then \$75-\$110 million.
- Next year the figures are expected to double as the computer craze, cable, modems and software grow at the rate of 60 per cent

year and won't stop until we all have one.

□ It's a market that the whole electronics industry is beginning to focus on, expecting it to become another area of growth that will lay golden eggs as the video boom has.

□ So far it is dominated by the US manufacturers, but the Japanese are hovering on the edge waiting for their opportunity to leap in next first.

□ While the industry looks to it for cash flow and increased manufacturing, the parents look to it for their children becoming better educated and more employable.

□ But the anxiety about home computers is the whole industry, whether it be the multi-nationalists,

the millionaires, or even the parents, is hanging on the whims and decisions of the kids.

□ Hardly any of the manufacturers of the parents understand what the hell it's all about and don't have a clue where to start.

□ The industry is driven by kids who enthusiastically embrace some machines, and with equal enthusiasm reject others.

- They don't respond to massive advertising budgets so companies investing in research and manufacturing do so hanging on the whim of children.
- There is only one thing we are sure about — we wonder through the world of bits and bytes — we will all eventually have one in our homes because we have been told we will — by the kids.

## Computers worth the outlay

### Children can gain a lot

One of the hottest products on every parent's Christmas list this year is a home computer.

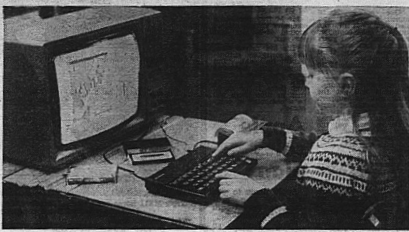
While there is no doubt there won't be a computer left on a shop shelf by the second week in December, the actual buying and the item is giving parents a real headache.

Will their children take to it, is one nagging question, or will it end up in a broom cupboard along with all the other abandoned expensive toys down the years?

And if they do take to it, will it do so much more than just give them a chance to play with something that will ignore household chores?

And finally, what makes somebody say "I remember complaining to somebody in the pub one night about my son who spent so much time with a computer he had forgotten how to speak to human beings, and his school work in everything but maths and English which he needed for computing, suffered."

A fellow drinker said: "I know exactly what you mean. A mate of mine has a son your son's age and he has similar problems. The boy is out



The ZX Spectrum personal computer is widely used in both primary and secondary schools in the United Kingdom.

all hours of the night chasing girls and drinking beer and his school work is suffering."

He was making a point. Our son grew out of the computer drug syndrome in his own good time and his 'TAE' looming on the horizon made him shift his attention back to school work.

He rationed the computer time to weekends only.

And so what if you take a gamble and buy a computer and it ultimately ends in the cupboard.

We bought our son expensive electric train sets, and Scalextric car racing sets which are now buried in the attic rotting away.

Other parents bought these items for their sons, urged on by the child that they would treasure it for ever, only to find the same thing happened.

Yet other children became so involved in train sets they joined model train societies and slot car racing clubs.

With children who win some and lose some. Ours became good at golf, but money spent on tennis coaching was a waste. That's the price you pay for helping kids.

But computers are going to feature in every child's work life. They may not become a computer programmer, but even doctors, lawyers, real estate

**HOME COMPUTERS**  
SPECIAL FEATURE

agents and life insurance salesmen will have one on their desk and use it as they now use a calculator.

And the better they are using it, the better they will be in their business.

So the only question you need worry about now is how much you want to spend.

Basic computers are available from under \$100 these days, such as the Sinclair. These are only black and white and so have a limited appeal. But there is less heartache if they finish up in a cupboard.

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