

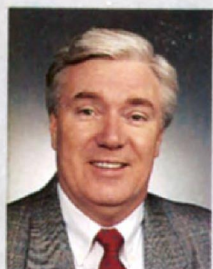
Heathkit®



Build our new kit picture-in-picture TV with premium stereo sound and full-featured remote control. Turn to pages 4 and 5.

Heath **Computers &**
ZENITH **Electronics**

Units of Veritechnology Electronics Corporation



Dear Friends:

Computer technology is advancing faster than ever. And at Heath/Zenith, we always keep on top of what's hot and what's new. We carry everything from

powerful business computers to the ultimate in laptop portables, both Zenith Data Systems and Apple Computer. Plus we bring you printers, software and accessories from a wide variety of big-name manufacturers. At prices that other computer chains will find hard to beat.

If you're into kit building, we carry a full line of fun-to-build Heathkit computers and electronics – for home and business. If you like your electronics assembled, we have that too – everything from home entertainment and security systems to amateur radio and instruments.

And, of course, there's that added dimension that puts Heath/Zenith one step ahead of the competition: fast and friendly service that meets – and even exceeds – your expectations.

We have 65 stores nationwide to serve you. Stop by or call your nearest Heath/Zenith Computers & Electronics Center today.

Sincerely,

Joseph M. Schulte
President
Veritechnology Electronics
Corporation

The Heathkit Pledge

You will succeed. Carefully written instruction manuals help make certain that you clearly understand the assembly and operation of your kit. And if you do have any questions, just call or write our Heath technical advisors or consult your nearest Heath/Zenith Computers and Electronics Center. We've built our world famous reputation on this one simple pledge: **"We won't let you fail!"**

Your Heathkit Catalog

The new spring '89 Heathkit catalog brings a selection of fine electronic products into your home. You'll find both quality assembled products and our own electronic kits.

Fine Assembled Products

Many of the assembled products we feature carry another manufacturer's name; others are our own. Whether they carry our name or another name, all must meet the stringent standards of our engineers and undergo the careful testing and evaluation of our quality control experts.

Our Own Electronic Kits

What makes us special, however, is our electronic kit line. Our kits are fun to build and give you a real sense of accomplishment when you're finished. Like puzzles, they simply require you to follow directions and pay close attention to detail.

When you build one of our kits, *you* become the expert. You learn exactly what's inside and how the parts relate to each other. This kind of product knowledge gives you a unique advantage in operating and maintaining your kit.

Kit Skill Levels

Skill Level 1 kits include relatively few components and require simple, if any, soldering. A few ordinary household tools such as pliers, blade and Phillips screwdrivers, wire strippers and a pencil soldering iron are all you need. Our starter kits on pages 48 and 49 and even our computers are examples of skill level one kits.

Skill Level 2 kits, such as our new 27" TVs on pages 4 and 5, have more components and require more complex solder connections. Build time also increases and a few additional tools, such as a nut driver, may be required.

Skill Level 3 kits are the most challenging projects, with increased numbers of components and soldering connections. Our ID-5001 Weather Computer on page 23 is an example.

World Famous Manuals

Included with each kit is one of our world famous assembly manuals to aid you every step of the way. They're written by our own technical writers, experts in the product lines, who are actively involved in the various stages of building each new product.

Clearly written manuals are the result of such involvement. The step-by-step format and large pictorials of key assembly steps give even the novice electronic kit builder the tools necessary to succeed.

Manual Preview Offer

If you'd like to see how easy kit building really is, order the manual first. We'll deduct the price of the manual when you buy the kit.

Most of our manuals sell for \$8.00. If the one you're interested in costs less than \$8.00, we'll refund the overpayment. If it costs more than \$8.00, we'll bill you for the balance. Please add 10% for shipping and handling for each manual ordered.

Send your request to Heath Company, Parts Department, Benton Harbor, Michigan, 49022.



Technical Consultation

Our specially trained technical consultants are available during regular business hours. Experts in their product lines, they'll help you troubleshoot a kit building problem or answer your questions about a product.

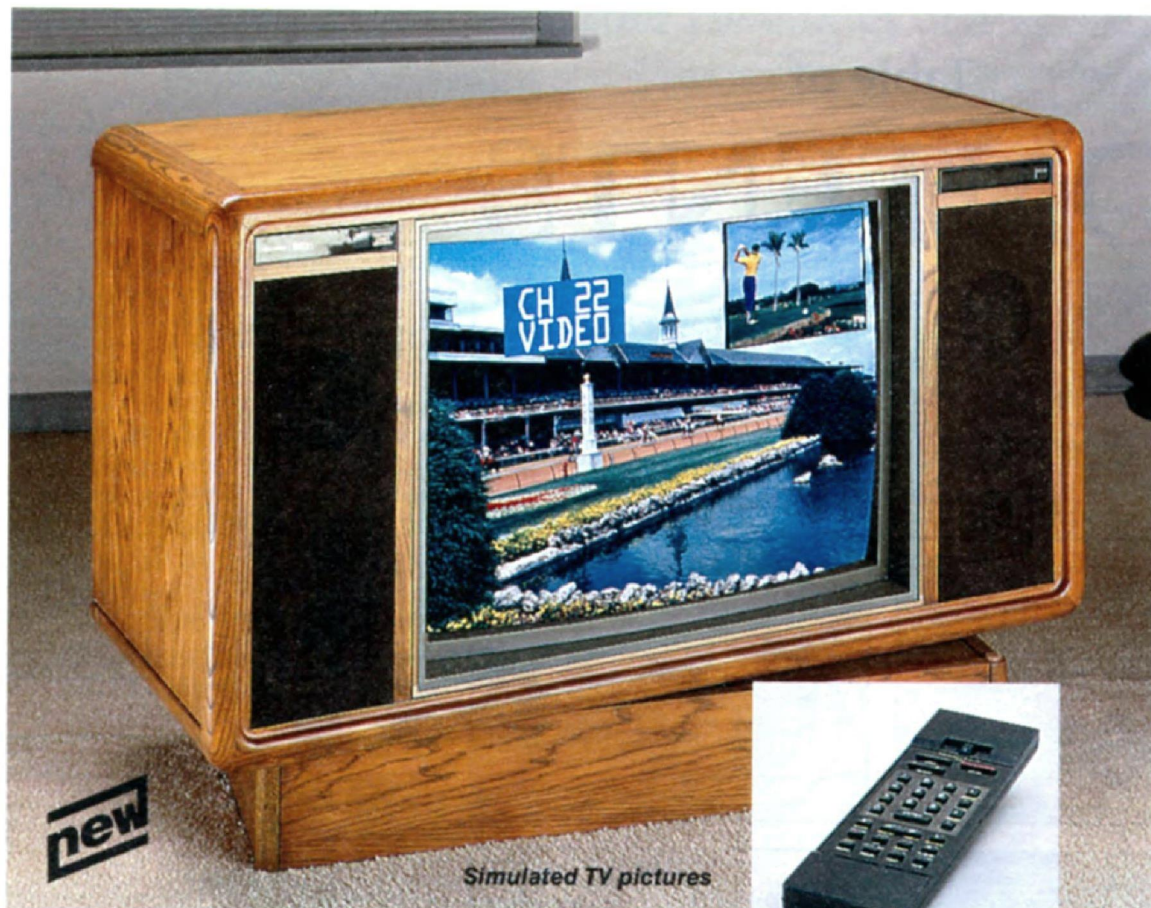
Their phone numbers are listed on page 51, according to product category. Call or write them in care of Heath Company, Technical Consultation, Benton Harbor, Michigan, 49022.

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CONTENTS

Home Entertainment

Five Heathkit TVs to build yourself including our two new 27" kit TVs with premium stereo sound, Zenith camcorders and VCRs, plus our complete line of hi fi components.





Feature-packed TV/
VCR remote control

Get two TVs in one with our kit picture-in-picture* TV

Channel flipping becomes a thing of the past with our new 27" picture-in-picture kit TV. This Digital System 3 television features the new picture-in-picture technology that allows you to watch simultaneously one video source on the main screen and another inside a framed inset. The second source can come from an external TV tuner, VCR, video camera or video disc player. Great for keeping up on more than one ball game at a time. With the picture swap feature, you can switch the inset with the main screen at any time to keep up with the most important action. In

addition, you can sequentially sample and freeze video from three different TV channels in three separate insets. All by remote control!

New premium stereo sound

Enjoy the latest in television audio with our new premium stereo sound system. Two 2-way stereo speaker systems are constructed inside their own ported enclosure and then mounted into the TV's cabinet to deliver deep bass response and greater dynamic range. The system's crossover network helps provide clear, virtually distortion-free

sound. Five watts minimum continuous RMS power is delivered to each channel's 4½" high compliance woofer and 2" piezo tweeter for true component system sound. An MTS stereo decoder processes stereo telecasts, simultaneously telecast second audio programs (SAP) or mono telecast programs. Also, an audio only feature allows you to listen to high quality sound through the television's speakers without having a picture on the screen.

On-screen menu displays

On-screen menus let you adjust the settings for picture, sound, programming, signal input and other selections all by remote control or from the convenient front panel controls. A master reset option allows you to return adjustments to factory-set levels if desired. And, automatic demonstration shows you how to select and adjust menu-driven controls and special features. Special picture alignment menus are also included.

World System Teletext

Available to nearly 40 million American homes (not broadcast in Canada), World System Teletext programming lets you receive news, sports, weather or business reports right on your TV. It's like having a news wire right in your living room – delivering the most up-to-date reports.

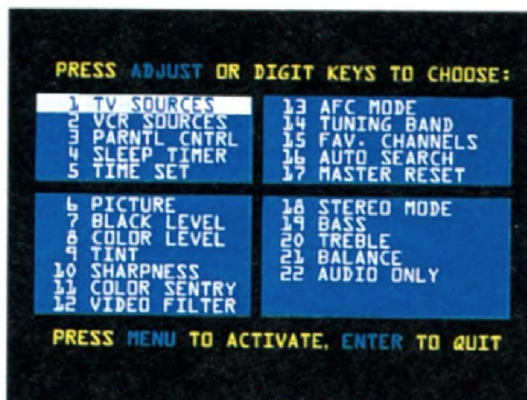
Infrared remote control

Sit back and relax as you turn your TV on/off, swap pictures, select channels, scan favorite programmed channels, mute sound and adjust volume all by remote control. You can even recall channel number and time, flash back to last channel viewed, and select TV stereo, monaural or second audio sound. In addition, you can make Teletext mode selection and access various functions of the on-screen menus. The remote also operates all Zenith VHS video recorders.

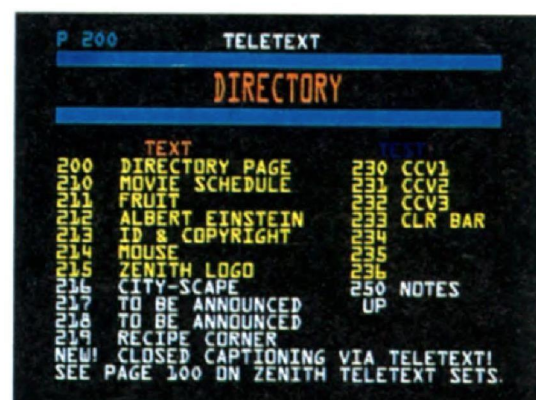


Experience double the TV excitement
with picture-in-picture

*Requires an external TV tuner such as a VCR.



Adjust TV settings with the convenient
on-screen menus



Keep track of changing news with
built-in World System Teletext

Tune up to 178 channels

A quartz-controlled electronic tuner automatically locks onto the exact broadcast frequency for a striking picture. The 178 channel tuner permits reception of all VHF/UHF broadcast channels and up to 122 cable channels. You can choose channels by instant entry, timed entry (2-second automatic change after selection) or by up/down programmable favorite channel scanning, which skips unwanted channels.

Computer-controlled picture

Your eyes will appreciate pure, bright, true-to-life colors. The chromacolor contrast picture tube combines tinted phosphors and black matrix which together with reflection absorbing glass produce exceptional contrast and color fidelity. Colors are constantly in balance thanks to an exclusive digital computer brain which automatically monitors and adjusts the output of the red, blue and green guns of the picture tube. In addition, a crosshatch generator is included for initial color alignment.

Audio/video input/output jacks

Enjoy remote switching and volume control of audio/video components. The auxiliary jack panel allows you to connect a variety of audio/video components to your TV. These can include VCRs, camcorders, home video games, video disc players, satellite receivers and audio speakers.

RF inputs

The GR-2701 also includes two 75-ohm antenna connection jacks for outdoor or master antenna, cable TV, or RF output from a VCR.

Build it yourself

By building the GR-2701 yourself, you'll discover the fun and educational value of kit building, and obtain the confidence to do your own repairs – saving on costly TV service bills. Assembly is



easy, because all boards except one are preassembled and tested.

At Heath we believe in you, our customer, and understand the pride you take in assembling your kit. That's why we guarantee your success with clearly written, step-by-step assembly manuals and pictorials. It's easier than putting a jigsaw puzzle together, because we show you where to place the pieces. And, if you feel more comfortable with a knowledgeable guide at your side, give one of our television technical consultants a call at 616-982-3307.

27" Digital TV with Contemporary Cabinet. Honey Oak finish on genuine wood veneers and hardwood solids. Swivel base. Dimensions are 29³/₈" H x 41" W x 20³/₄" D.

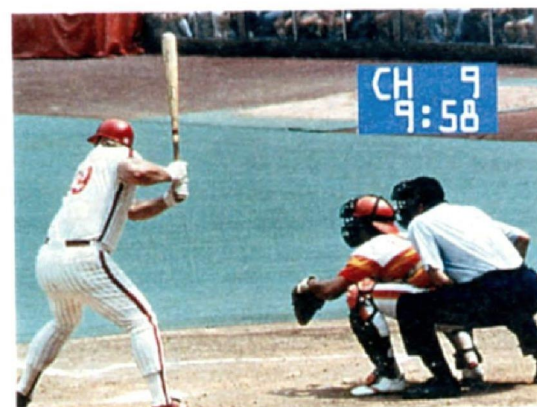
Kit GR-2701-H
(170 lbs.) Mtr. Frt. \$849.00

27" Digital TV with Mediterranean Cabinet. Pecan finish on hardwood solids and durable wood products. Dimensions are 32" H x 44¹/₄" W x 21⁵/₈" D.

Kit GR-2701-P
(170 lbs.) Mtr. Frt. \$799.00



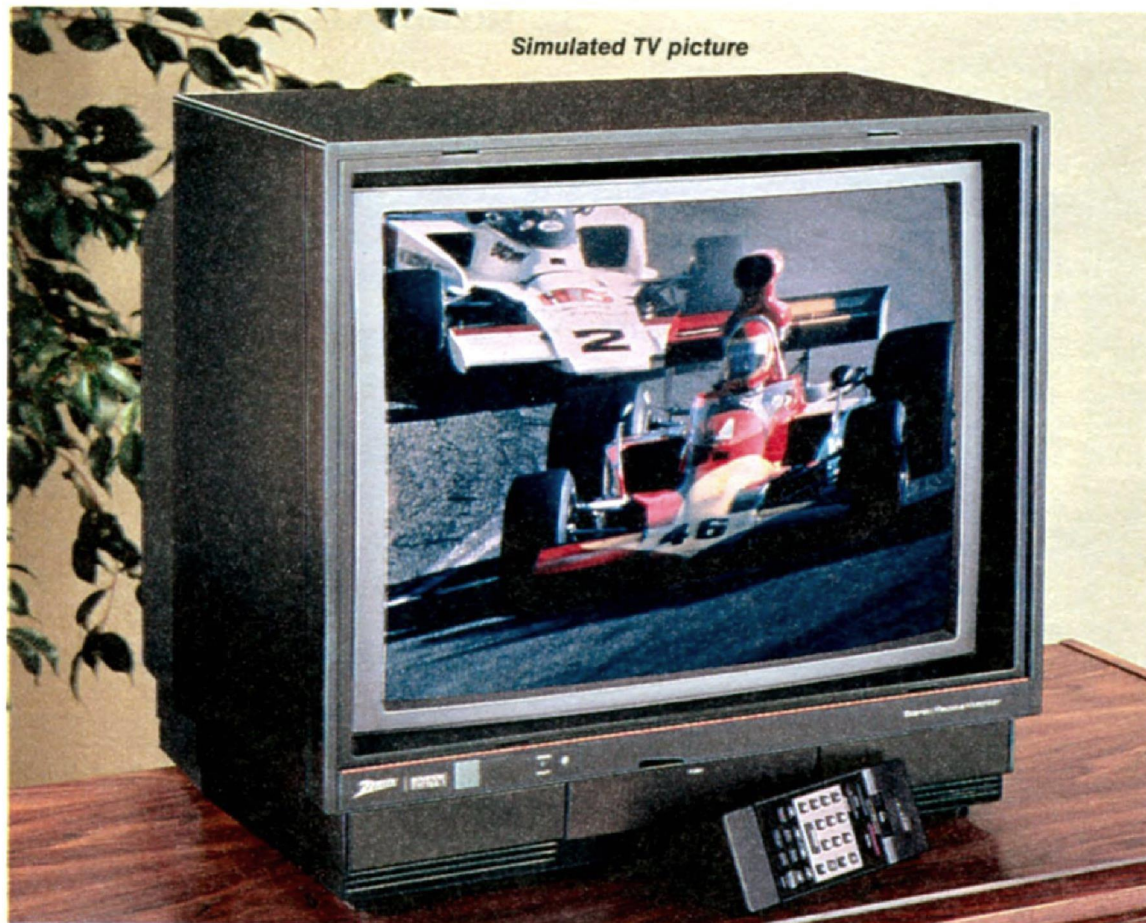
Switch between different signal inputs with the TV source index



Time and channel are displayed on-screen with large numerals



Set your TV to turn off automatically with the sleep timer



High-technology Zenith 20" stereo receiver/monitor with remote control **new**

The remarkable picture quality and sound characteristics of Zenith's Advanced System 3 20"-diagonal stereo receiver/monitor will bring new life to your television viewing. And, the contemporary styling of the Stardust Black finish cabinet gives the unit the good looks to blend in with any entertainment system.

Chromacolor picture tube

Zenith's Chromacolor Contrast Picture Tube combines tinted phosphors and black matrix with reflection-absorbing glass to give you a more detailed picture with exceptional contrast and color fidelity. Your picture is then electronically sharpened by a comb filter that provides maximum resolution of the TV signal. A removable tinted glass panel further enhances picture contrast, and an advanced color sentry system automatically maintains picture quality.

MTS stereo reception

Enjoy rich stereo with Zenith's Multi-Channel Television Sound (MTS) system. Incoming stereo signals are decoded and sent to separate stereo amplifiers that drive two 3½" oval front-firing speakers for powerful sound. The set even reproduces second audio (non-stereo) sound when broadcast. A head-

set jack allows for private listening.

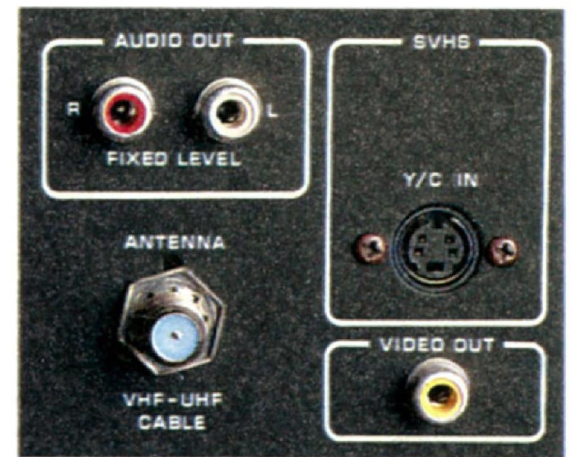
No need to worry about drifting signals, because a quartz-controlled electronic tuner automatically locks onto the exact broadcast frequency. The 178 channel tuner permits reception of all VHF/UHF broadcast channels and up to 122 cable channels.

Space Command remote control

Take command of a variety of television features from the infrared remote control. Turn the TV on/off, activate the on-screen menu display, adjust TV functions and select channels. You'll scan favorite channels, adjust volume, mute sound, set time, even recall channel number and time, flash back and set the sleep timer. Also operates all Zenith VHS and Super VHS (S-VHS) video recorders.

Get the most out of your video camera, video disc player or VCR, including S-VHS (providing over 400 lines of resolution), with the auxiliary jack panel. Audio/video input/output jacks, including a Y/C connector, allow direct hookup between video/audio sources and the TV for superior picture and sound. Dimensions are 19¼" H x 20½" W x 19" D.

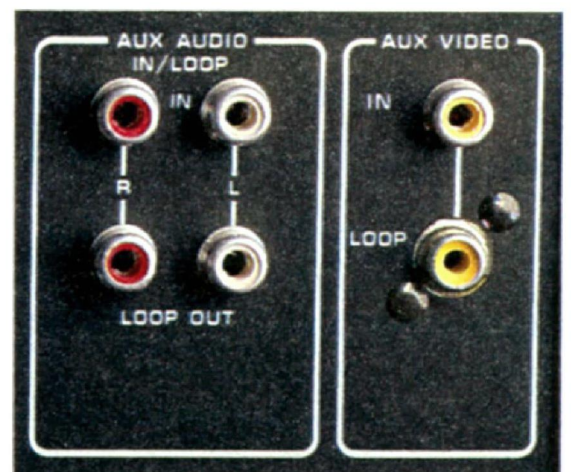
Assembled SE-2033-Y
(68 lbs.) Mtr. Frt. \$449.00



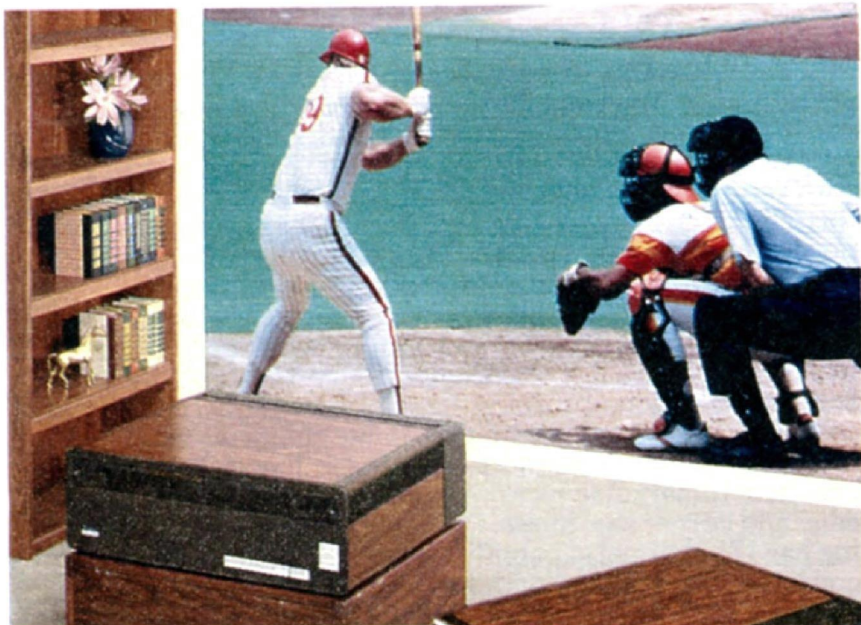
A Y/C connector allows direct connection of S-VHS VCRs. The result is high quality video with over 400 lines of resolution.



Drive external speakers through the Variable Audio jacks.



Audio/video input/output jacks give you monitor capabilities.



Simulated TV picture

Heathkit projection receiver/monitor with 8-foot diagonal picture

SKILL LEVEL 3 It's like going to the movies. Characters come to life right on your living room wall in a picture so large it rivals the screen of your favorite movie theater. And, the clean, crisp picture of the Heathkit Projection Receiver/Monitor projects on to any plain white wall. There's no picture degradation when you watch from the side or from wide angles, so no matter where you sit, your view will be undistorted — just like at the movies.

Optimum wall space is an 8-foot diagonal area, though any 7- to 10-foot flat white or off white area will work just as



well. Or use the Projection Receiver/Monitor with a screen such as the GRA-8000-3 described below. You'll want a distance of approximately 12 feet from the back of the TV to the projection surface, whether you're using a wall or screen.

Perfect for business presentations

With receiver/monitor capabilities, the GR-8000 is great for business meetings or presentations. You can directly connect a VCR, video camera or video disc player with outstanding picture results.

Use the remote control to turn the TV on and off, select channels, scan your favorite pre-programmed channels and adjust volume. You can also mute the sound, recall channel number and time, and select TV stereo, monaural or second audio sound. The flashback feature provides you with instant return to the last channel you were watching.

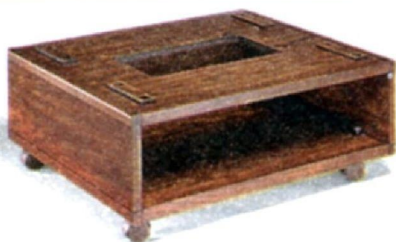
Enjoy Multi-Channel TV Sound (MTS) which provides you with clear, crisp stereo broadcast reception. Select the most pleasing sound adjustment with separate bass, treble and balance controls. And delight in extended stereo control which electronically increases the apparent separation of your speakers, giving a more "spacious" sound to your favorite program.

Long life liquid cooled tubes

Optical lens and picture tube coupling increases contrast and brightness by reducing the number of reflecting surfaces. Each tube is liquid cooled for long life and superior light output. You'll also get all VHF/UHF broadcast channels and up to 122 cable channels with the 178 channel tuning capability.

Other features include a 100% modular chassis for peak performance; digital true-lock picture hold; electronic power sentry voltage regulator; single antenna connector for VHF, UHF and CATV; two 5" oval speakers and built-in crosshatch generator for convergence adjustments. The pecan color contemporary style cabinet measures 10¼" H x 31" W x 25" D.

Kit GR-8000 (116 lbs.) Mtr. Frt. **\$1495.00**

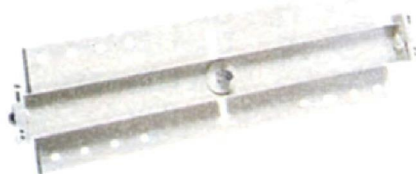


TV floor stand

The pecan color finish of the Zenith TV and VCR floor stand perfectly matches the finish of the projection television shown above. Built-in castors make it easy for you to move the stand around the room to the most convenient projection location.

The GRA-8000-1 is designed with a flat top surface to hold the Zenith projection television and with additional shelf space below to house your VCR. Dimensions of the floor stand are 12¾" H x 3½" W x 25½" D.

GRA-8000-1 (64 lbs.) **\$69.95**



Ceiling mount for GR-8000

Mount your GR-8000 projection TV in your family room viewing area. The unit is designed for mounting to a finished ceiling where joists are accessible. Can also be attached directly to a slab ceiling.

GRA-8000-2 (16 lbs.) **\$49.95**



Three easy ways to shop at your nearest Heath/Zenith Computers & Electronics Center



Simulated TV picture

98" diagonal screen

The GRA-8000-3 is a heavy-duty, manually operated pull-down screen specially designed for use with the Zenith projection system. If you don't have a flat white wall surface large enough for projection purposes, the GRA-8000-3 is a good quality screen that will serve the purpose.

Designed for systems with three separate light sources, this matte finish 98" diagonal screen prevents the side-to-side color distortion which can occur with conventional screens.

GRA-8000-3 (16 lbs.) **\$149.95**



AC/DC operation

9" color TV for your active lifestyle

SKILL LEVEL The GR-9009 9" diagonal color television is designed to get up and go. You can take this portable with you while you're camping, relaxing by the pool, working in the garage or preparing a meal in the kitchen. Now you can follow along with your favorite cooking or do-it-yourself program because this TV can go anywhere you go. It operates anywhere there's normal house current (AC) or from a 12-volt DC (negative ground) lighter socket in automobile electrical systems.

This easy-to-carry, ultra-compact portable with all its advanced features provides you with excellent performance wherever you take it. The chromacolor contrast picture tube features reflection-absorbing glass for exceptional contrast and color fidelity. You get bright, true-to-life colors with its black matrix and tinted phosphors. Plus, the in-line electron gun produces remarkable picture detail and dramatically improved edge and corner sharpness. Quartz-controlled electronic tuning has 178 channel capability and makes channel selection convenient and exact – with no moving parts to wear out or cause picture problems. Once adjusted, the TV maintains accurate color, tint and contrast with the auto-control color system. The system also blends color levels and tint for lifelike flesh tones and assures channel-to-channel color stability.

The GR-9009 portable is also easy to operate. Up/down channel scanning can be programmed to scan your favorite channels or all available channels. Or make instant channel changes simply by pressing *enter* after you've selected the channel number.

Most circuit boards are preassembled and the GR-9009 has a built-in cross-hatch generator. Includes sun screen, earphone, built-in whip antenna, DC power cord and flush-mounted carrying handle. Cabinet measures 10¼" H x 10½" W x 11⅞" D.

Kit GR-9009 (25 lbs.) **\$249.95**

Save \$100 on our MTS stereo 45" diagonal super screen television

SKILL LEVEL You'll think you're a part of the action when television comes to life on this 45" receiver/monitor. And, you'll enjoy the realism of big screen viewing without crowding the living room. The GR-4500 takes no more floor space than a console TV.

A big sound system matches the big picture. The innovative Multichannel Stereo Sound System processes multichannel television sound into exciting stereo. It also processes simultaneously telecast second audio programs or mono telecasts. The stereo power amplifier has an output of 5-watts RMS per channel and features wide frequency response and low distortion. You also get bass, treble and balance controls. Plus, 6½" round woofers and 2½" tweeters deliver dramatic sound. Audio input/output jacks allow you to run the sound through your own hi-fi system or run other audio equipment through the TV's stereo.

The remote control features parental control, flashback and VCR functions. With parental control you can program the TV to make selected channels accessible only by entering a secret code that you choose. Touch the flashback button to alternate viewing between two programs. Up/down channel scanning can be programmed to scan your favorite channels or all available channels. Or use the remote to make instant channel selections.

Quartz-controlled electronic tuning ends the need for fine-tuning adjustments and has 178 channel capability. Liquid-cooled CRTs and optically-coupled lenses provide exceptional

picture contrast and brightness. You'll always have comfortable viewing because the special black matrix screen absorbs room light to reduce glare and reflections. You can also use the TV as a monitor for your VCR, video camera or video disc player.

All circuit boards except one are preassembled and the GR-4500 has a built-in crosshatch generator. Includes cabinet. Uses 120 VAC/60 Hz.

Kit GR-4500 (256 lbs.) Mtr. Frt. Was \$1295.00 Now **\$1195.00**



Simulated TV pictures

Reduced \$100, this compact camcorder is perfect for the traveller

With the new Zenith VHS-C camcorder, you get all the features of a full size unit in a camera that takes up only half the space. At less than 3 lbs., this compact camcorder lets you film longer – without the bulk and weight of larger cameras.

Zenith's new camcorder is small because it uses VHS-C mini-cassettes that let you record up to one full hour of memories per tape using the Extended Play (EP) mode. Smaller than standard cassettes, the VHS-C tapes are a perfect fit for your VCR, thanks to the special adapter included with your camcorder.

Picture quality will be excellent, regardless of your recording speed, with the four video heads used in the compact camcorder. Automatic exposure ensures accuracy indoors and out, even in extremely low lighting, down to 8 lux. New high quality (HQ) circuitry with White Clip and Detail Enhancement gives you excellent picture detail and clean, crisp images. Plus, the 1/2" CCD pickup device has 360,000 picture elements for superior color and over 400 lines of horizontal resolution, while still offering reduced power drain. Picture quality is further enhanced with a flying erase head that eliminates video signals frame by frame for smooth, precise, professional quality edits or transitions from one scene to another.

Through the VM-6180's electronic viewfinder you can play back what you just recorded – to see if you captured that special moment. The viewfinder also provides easy-to-use indicators that display mode, warning, date/time, elapsed time and other information.

Other features include high speed 1/1000 shutter for recording fast action shots, f/1.4 auto focus lens with 6:1 power zoom and macro capability, fully automatic white balance and iris with backlight compensation, omni-directional



Lightweight at less than 3 lbs.

condenser microphone, and 3-way power capability for recording using the camera mounted battery pack, AC power supply or a cigarette lighter adapter (not included).

Included accessories are AC adapter/charger, rechargeable battery, mini-cassette tape, cassette adapter, 75-ohm RF cable, RF converter unit, and lens hood and cap. Optional hard-shell carrying case is padded and compartmentalized to hold your video camcorder and accessories.

Assembled VM-6180 (8 lbs.) . . . Was \$949.00 Now **\$849.00**

Accessory:

Hard-Shell Carrying Case

VAC-618 (2 lbs.) **\$49.95**

Save \$296 on this Zenith full size, auto focus camcorder

The VMS-7050 is a full size camcorder that uses the same standard VHS format tapes that you use in your VCR. With these full size cassettes, you can record up to 2 hours and 40 minutes in standard play (SP) mode on a T160 tape. You get more time filming and less time changing tapes.

Let this camcorder work for you with its quick and precise auto focus system. This image sensing system includes a two speed f/1.4-2.0 auto focus lens and 6:1 power zoom with macro capability. The two speed lens can tape at 1/60 speed or at 1/1000 speed – for fast action sequences.

Superior picture quality is a standard feature of the VMS-7050. A 1/2" CCD pickup device delivers outstanding color and picture resolution with less power drain. This two head camcorder also utilizes HQ circuitry with Detail Enhancement and White Clip to achieve sharp images. Even record great pictures in poor lighting situations – to as low as 7 lux.

Through the electronic viewfinder you can watch all the action as you see it, or play back what you just recorded. The viewfinder also displays mode, date/time, warning, elapsed time and more.

You won't miss a word with the built-in unidirectional condenser microphone, or add more sound during or after recording with the background music input.

Further features include an animation mode with variable shutter speeds for shooting individual frames of illustrated animation, flying erase head for precise edits, date/time insert



Weights less than 6 lbs.

capability, audio/video input, 3-way power, and fully automatic white balance and iris with backlight compensation.

Standard accessories include a rechargeable battery pack, video cassette, AC power adapter/battery charger, RF converter unit, shoulder strap, and lens hood and cap. An added value is the made-to-fit hard-shell carrying case included with your VMS-7050. The padded lining and sturdy outer casing give your camcorder and accessories the protection they deserve.

Assembled VMS-7050 (12 lbs.) . . Was \$1295.00 Now **\$999.00**



Slimline 6-head Hi-Fi stereo VCR with wireless remote

With all the advanced features in the VRE-510-HF, you may never go to a movie theatre again! Incorporating two rotary, slant azimuth audio heads, this VHS Hi-Fi VCR achieves a dynamic range of over 80 dB – for stereo sound approaching compact disc quality. Also, a built-in MTS (Multi-Channel Television Sound) decoder processes broadcast TV-stereo and SAP (Second Audio Program) signals, when available.

Four video heads for sharp images

The Slimline VCR features two pairs of video heads, one for the most economical use of tape (EP mode), and the other exclusively for picture quality (SP mode). Your picture will appear clear and undistorted when you pause to view a particular moment in your instructional tape or exercise routine. In addition, a series of high quality (HQ) circuits creates sharp edges around dark and light areas, sharpens detail in images where texture is important, and reduces irrelevant noise in the light and dark portions of the video signal.

Remote on-screen programming

For convenience, remote on-screen programming lets you set your VCR's controls all from the comfort of your favorite chair. Just watch your screen as you program days, start and stop times, channels, recording speed and other secondary controls. You can even program your VCR for unattended recording of up to four events over a two week period.

Slow motion special effects

With the 157 channel quartz electronic tuner you can access 101 cable channels either by direct access or scanning. In addition, with 5-speed ($\frac{1}{30}$, $\frac{1}{24}$, $\frac{1}{18}$, $\frac{1}{12}$ and $\frac{1}{6}$ normal speed) slow motion, you can reduce all your favorite programs to a crawl. Ideal for seeing how Hollywood directors really create those special effects.

Quick program search

When you need to find a taped program quickly, the VRE-510-HF is the machine to do the job. The new VHS Index Search System speeds to your favorite show, scanning a tape in forward or backward mode at seven times normal speed. And, Counter Go-To assists in fast, accurate tape searching.

Auto functions replace routine commands

Other special features include Auto Power-On with Auto Play, Rewind, Eject, and Next Function Memory; Instant Record and dual function wireless TV/VCR remote control. And on nonbroadcast channels, Zenith's Silent Blue Screen replaces noisy static. Dimensions of the Slimline VCR are $3\frac{1}{4}$ " H x $17\frac{1}{4}$ " W x 13" D.

Assembled VRE-510-HF (19 lbs.) \$499.00



Zenith VHS recorder with quartz electronic tuning

The VRE-150 is a 3-head, remote control VCR integrating Double Azimuth design, for clean still pictures. The use of HQ circuitry further enhances the superb picture quality of this video recorder.

This VCR tunes up to 101 cable channels, either by direct access or scanning, and you won't miss any of the action on these channels with the 2-week, 4-event timer. In addition, via remote control, you can quickly locate the beginning of recorded programs with the VHS Index Search System.

Other features include Auto Power-On with Auto Play, Rewind, Eject and Next Function Memory; Instant Record; wireless remote; two recording speeds; 5-speed slow motion and Counter Go-To. $3\frac{7}{8}$ " H x $17\frac{1}{4}$ " W x 13" D.

Assembled VRE-150 (18 lbs.) \$299.00



Compact 4-head VCR with on-screen menus and remote programming

More than three inches narrower than a conventional VHS deck, the 4-head VRE-200 features 157 channel quartz electronic tuning, including 101 cable channels, and high quality (HQ) circuitry for picture enhancement. Also, Double Azimuth heads enable clear still frame, slow motion and speed search.

No need to turn on the power of your Zenith VCR because with Auto Power-On the VRE-200 does it for you. Additionally, with Auto Eject, you can take a tape out of your VCR without turning on the power, and with Auto Rewind your tape will rewind itself when completed.

Further features include 5-speed slow motion; VHS Index Search System; Counter Go-To; dual function wireless remote; 2-week, 4-event timer; remote on-screen programming; Instant Record and Silent Blue Screen on nonbroadcast channels. Dimensions are $3\frac{3}{4}$ " H x 14" W x 13" D.

Assembled VRE-200 (17 lbs.) .. Was \$349.00 Now \$329.00



Control your TV, VCR and CATV all from one remote with Zenith's PCC

Operate your TV, VCR and cable converter from a single remote control. Zenith's Personal Control Center (PCC), programmable for multiple brands, is as easy to use as any ordinary remote. Set the switches one time only to operate specific products. The on/off, volume, mute and other control functions will remain independent and you can operate them from any mode. Designed to control units operated via IR (infrared) signals. Three AAA batteries included.

Assembled PCC-200 (2 lbs.) \$59.95

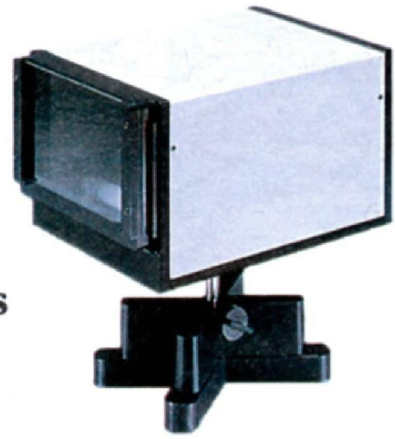
Operates recent models of these TV brands**:
 Akai • AOC • Centurion • Coronado • Curtis Mathis • Daytron • Emerson • Fisher • GE • Goldstar • Hitachi • JCP • JVC • KMC • KTV • Magnavox • Marantz • MGA • Mitsubishi • NEC • Panasonic • Philco • Philips • Portland • Quasar • Radio Shack • RCA • Sampo • Samsung • Sanyo • Scott • Sears • Sharp • Sony • Sylvania • Technika • Toshiba • Wards • Yorx • Zenith.

Operates recent models of these VCR brands**:
 Akai • Broksonic • Cannon • Citizen • Curtis Mathis • Daytron • Emerson • Fisher • Funai • GE • Goldstar • Hitachi • JVC • Kenwood • Magnavox • Marantz • Marta • Mitsubishi • NEC • Panasonic • Pentax • Philips • Pioneer • Quasar • RCA • Realistic • Samsung • Sanyo • Scott • Sears • Sharp • Shintom • Sony • Sony Video 8 • Sylvania • Symphonic • Tashiko • Teac • Toshiba • Vector Research • Wards • Yamaha • Zenith Beta • Zenith VHS.

Operates these cable converters**:
 Gemini MAC10 • General Instrument Starcom CS, XT • Hamlin CRP6, CRP6S, CRP7, CRP8, RCPX • Jerrold 400, 440, 450, 700, 770, SRCII, VI • Macom Satellite • Macom • Oak 500, 550, RCU-400, Sigma, TC56 • Panasonic TZ120, TZ170 • Philips CP67, CP100, CP200, CTC8R, CTC9, CV1000, CV2000, CV2500, CVS2700, PG67, TS67 • Pioneer BR50, BR80, BR81 • Regency • Scientific Atlanta 8550 • Texscan • Tocom RC100, VIP • Toshiba • Viewstar MXC2001A, MXC2501, VSC2000, VSC2020, VSC2040, VSC2500, VSC2511 • Zenith Drake Satellite • Zenith.

**Zenith cannot guarantee the PCC will operate every model of the brands listed because of possible changes by the manufacturer.

new



Convert photos to videotape and save with new low price

Boxes of photos from several years back. Albums you never really had time to organize. Sound familiar? With the Photo Converter you can transfer all your photo prints up to 4 by 6 inches onto videotape. A special macro lens and built-in balanced fluorescent illumination eliminate glare from the photographs, giving you excellent picture quality. You can view your family album on TV and even add music or other audio through your VCR. The Photo Converter mounts on its own tablepod for easy alignment with a video camera. Unit may be shipped with black or white casing. Color choice is not available.

Assembled V-617 (6 lbs.) \$79.95



Slide and movie converter for only \$79.95

Enjoy watching your slides and 8mm or 16mm home movies on TV without the bother of setting up a projector and screen. This converter makes it easy to transfer slides and movies to video. You can even add your own soundtrack using your VCR. Either narrate the occasion or add music. Making copies for family and friends is inexpensive, too. The converted tapes make wonderful gifts that remind special people of special occasions. An adjustable tablepod mount allows for easy set up with your projector and video camera. Unit may be shipped with black or white casing. Color choice is not available.

Assembled BV-612 (3 lbs.) \$79.95

Heath high-fidelity components – standing at the summit of audio technology

Enjoy the pride of building it yourself with the new line of high-quality stereo equipment from Heath Company. Once a leader in kit audio components, we went to the best names in the business to help put us back on top – and we got them.

Components designed with sonic excellence in mind

For the state-of-the-art electronics the obvious choice was Harman Kardon.* An innovator in the Hi-Fi industry for 35 years, Harman Kardon is dedicated to sonic excellence. They introduced the first Ultrawideband amplifier and the world's first cassette deck utilizing Dolby® noise reduction. Now Harman Kardon has achieved another first, designing for Heath a quality line of kit audio components integrating the latest in stereo technology.

Loudspeakers for the demanding audiophile

To generate the high-quality sound reproduction you expect from your audio system we went to JBL,** the company the pros depend upon for exacting performance. World renowned for studio monitors, JBL was the obvious choice to develop our high-efficiency speakers for those who insist upon studio-quality sound. With the new line of Heath/JBL loudspeakers you get stylistic excellence without sacrificing the technical attributes necessary to handle today's demanding music sources.

Enjoy the challenge of building it yourself

If you want to get a better understanding of the principles of sound reproduction, there is no better way than to build our

new line of high-quality audio equipment.

You may want to start by assembling the Heath/JBL loudspeakers if you've never built a kit before. These speakers carry a skill level one, which means a minimum amount of soldering is involved and you'll have a completed speaker system after only a few hours of kitbuilding enjoyment. Caution: After assembling your first kit you may become a kit building fanatic.

A completed kit in just three short evenings

For those who want a little more challenge, Heath stereo components are the perfect choice. Carrying a skill level two, these component kits require only a moderate amount of soldering. You'll find that most of your build time will involve mechanical assembly. Indeed, all circuit boards are pre-assembled and tested for guaranteed reliability. Also, there are no adjustments or testing involved with the kits, except with the AA-2500 amplifier which needs its bias tuned after assembly. In fact, we include with the AA-2500 the meter you need to perform the bias adjustment. After just three short evenings, you'll have a high quality audio component that will provide years of listening pleasure. Always remember, whether you're a beginning kit builder or not, we guarantee your success.

An offer you only dreamed of – before now

If you always dreamed of having a high-fidelity audio system and wanted the challenge of building it yourself, then components specially designed for Heath by Harman Kardon and Heath/JBL loudspeakers are what you've been waiting for. They're what dreams are *built* of.

Outstanding reception made easy with this digital stereo tuner

Easy enough for the beginner yet challenging enough for the experienced kit builder, the AJ-2520 gives you a unique opportunity to understand your stereo tuner inside and out.

The 2520 guarantees optimum sound quality with a digitally synthesized, quartz-locked tuning system that uses a combination of a digital frequency control system and a highly accurate quartz reference crystal. The control system automatically locks onto the assigned frequency of any broadcast and compares it to the reference frequency 25,000 times per second. The result is not just automatic centering, but drift-free reception, as well. Also, an all-metal chassis helps maintain audio signal purity by providing shielding and noise rejection.

With 16 station FM or AM memory, you'll have plenty of room to program all of your favorite frequencies. And, should a power failure occur, station memory is retained for up to one week.



When Harman Kardon specially designed for Heath the 2520 Tuner, they used meticulous care in circuit layout and component selection to help minimize harmonic distortion and cross-coupling. A Low Group Delay I.F. (Intermediate Frequency) section makes for even lower distortion and wider stereo separation.

Other features include a 3-segment LED signal strength meter, muting, manual up/down tuning, bi-directional tuning and tuned indicator. Dimensions are 2¾"H x 17½"W x 14¼"D.

Kit AJ-2520 (11 lbs.) \$229.00

Assembled AJW-2520 (10 lbs.) \$249.00

Specifications: **Usable FM Sensitivity:** 10.8 dBf/0.95 μV. **50 dB Quieting Sensitivity:** 37 dBf mono, 19.4 μV stereo. **THD:** 0.2% mono, 0.3% stereo. **S/N:** 82 dB mono, 74 dB stereo. **Capture Ratio:** 1.3 dB. **Alternate Channel Selectivity:** 50 dB. **Power Supply:** 120 VAC, 60 Hz. **Power Consumption:** 14W.

Dolby is a registered trademark of Dolby Laboratories, Inc.

*Harman Kardon is a registered trademark of Harman Kardon, Inc.

**JBL is a registered trademark of JBL, Inc.

Get complete control over your audio signal with this preamplifier

SKILL LEVEL 2 With the AP-2510 Preamplifier you not only get a quality component designed for Heath by Harman Kardon, but you get the satisfaction of saying, "I built it myself."

Virtually eliminating dynamic distortion, the 2510 has ultrawideband frequency response and low negative feedback to aid in the delivery of extremely fast transient response – a necessity in the accurate reproduction of digital recordings.

Transient response is also improved in the phono section with the use of dual RIAA equalization circuitry, which requires only low levels of negative feedback throughout the audio range. Also, a discrete Moving Coil (MC) head amplifier allows the use of nearly all MC cartridges. In addition, the 2510 features capacitance trim for the widest, flattest frequency response from Moving Magnet (MM) cartridges.

Other features include low noise discrete circuitry, subsonic and high cut filters, and a tape copy selector for dubbing between two tape decks or recording from another input. You'll also enjoy tone defeat which maximizes the purity of the signal when tone controls aren't necessary, and switchable bass



and treble turnover frequencies which allow for custom-tailoring of the tone control to the listening environment. Includes inputs for two tape decks, two turntables, a CD player and a video sound source. 4"H x 17½"W x 13¾"D.

- Kit AP-2510** (19 lbs.) \$349.00
- Assembled APW-2510** (16 lbs.) \$399.00

Specifications: **Frequency Response:** 0.1Hz-180kHz. **THD:** 0.006%. **S/N:** 83dB phono (MM), 80dB phono (MC), 92dB aux, 92dB tape. **Input Sensitivity/Impedance:** 2.2mV/47k ohms 130pF phono (MM), 130µV/56 ohms phono (MC), 130mV/22k ohms aux, 130mV/22k ohms tape. **Output Level:** 1V Rated, 10V Max. **Filters:** 15Hz Subsonic (6dB/Octave), 6kHz High Cut (6dB/Octave). **Power Supply:** 120 VAC, 60Hz. **Power Consumption:** 45W.

100W power amplifier unleashes the potential of your music

SKILL LEVEL 2 Featuring a High instantaneous Current Capability (HCC) of 60 amps, the 2500 Power Amplifier develops far more power under peak loads than its already impressive 100W per channel. The result is more headroom to handle today's demanding digital recordings.

Specially designed for Heath by Harman Kardon, the 2500 also demonstrates exceptionally wide bandwidth due to its low 12dB of negative feedback which provides improved transient accuracy and phase linearity. In addition, a massive toroidal power transformer eliminates the stray magnetic fields that cause hum. And, the power supply and amplifier circuitry include high grade capacitors with extremely low loss.

A superior example of high technology electronics, the 2500 features four dual polarity power supplies that eliminate channel-to-channel interference and assure proper balance of current between high and low level stages.

Another advanced feature of the 2500 is a protection circuit that shields speakers from turn-on transients and prevents short circuit by muting audio if a load of less than 2 ohms is placed across the speaker terminals.



When you assemble the AA-2500 yourself, you save money and get the satisfaction of knowing the care and effort you put into the construction of your new amplifier. Dimensions are 5¾"H x 17½"W x 14½"D.

- Kit AA-2500** (33 lbs.) \$449.00
- Assembled AAW-2500** (30 lbs.) \$499.00

Specifications: **Power Output:** 100W RMS per channel into 8 ohms, 20Hz-20kHz. **THD:** <0.06%. **HCC:** 60A. **Power Bandwidth:** 10Hz-70kHz (half rated output into 8 ohms). **Frequency Response:** 0.1Hz-170kHz (at 1W output, +0/-3dB). **S/N:** 98dB (IHF-A Wtd). **Input Sensitivity:** 1V/22k ohms. **Power Supply:** 120 VAC, 60Hz. **Power Consumption:** 550W.



Get remote control convenience with the Heath compact disc player

The ADW-2530 is a remote control compact disc player that uses a three-beam laser optical head for precise tracking and exact laser positioning. Also incorporated is a Sample-and-Hold Processor to reduce switching noise, and a Discrete Analog Output Section that significantly decreases inter-modulation distortion.

With the 10-function wireless remote control, you can skip forward and reverse, repeat, program, display, skip, search, play/pause and stop/clear all from the comfort of your favorite chair.

In addition, you can quickly scan through a disc to find your favorite passage with 2-speed audible cue and review. And, 36-track programmable memory lets you custom select which songs will play and in what order. Also included are track and index search, and separate analog, digital and transport power supplies. Dimensions are 3 $\frac{3}{4}$ "H x 17 $\frac{1}{2}$ "W x 10"D.

Assembled ADW-2530 (11 lbs.) \$349.00

Specifications: **Frequency Response:** 4Hz-20kHz \pm 0.5dB. **THD:** 0.03%. **S/N:** 103dB. **Dynamic Range:** 96dB. **Channel Separation:** 83dB. **Wow-and-Flutter:** Immeasurable. **Signal Detection:** 3-Beam Semiconductor Laser. **Error Correction:** CIRC System. **Quantization:** 16-bit. **Sampling Frequency:** 88.2kHz. **Line Output Level/Load Impedance:** 2.0V/10k ohms. **Power Consumption:** 15W.



The Heath ACW-2540 Cassette Deck for exacting sound reproduction

Developed specially for Heath by Harman Kardon, the ACW-2540 employs Dolby HX Professional, a headroom extension system that retains dynamic audio signals during recording – an especially important feature when recording from CDs. In addition, recording levels are easily set with the 7-segment LED peak metering system.

Using Ultrawideband technology, the ACW-2540 produces a frequency response of 20Hz-20kHz (\pm 3dB), using any tape formulation. Matching each tape formulation is effective and convenient too, with the bias fine trim control. And, Dolby B

noise reduction circuitry helps to reduce tape hiss considerably, while Dolby C knocks it out – dropping noise well below the level of audibility.

Other special features include an Amorphous Tape Head, record mute, memory search, MPX filter, metal tape capability and a solenoid transport for smooth operation. Dimensions are 4 $\frac{3}{4}$ "H x 17 $\frac{1}{2}$ "W x 10 $\frac{1}{4}$ "D.

Assembled ACW-2540 (12 lbs.) \$349.00

Specifications: **Heads:** 2. **Frequency Response:** 20Hz-20kHz \pm 3dB (all formulations). **THD:** 1.0%. **S/N:** 57dB no NR, 65dB Dolby B, 73dB Dolby C. **Channel Separation:** 45dB. **Wow-and-Flutter:** 0.05% WRMS. **Line Input Sensitivity:** 50mV (0dB). **Output Level:** 580mV (0dB, 10k ohm load).



Superior 3-way floor-standing speaker system

The Heath/JBL 3-way floor-standing speaker system combines quality electronics and fine cabinetry for a pleasurable kitbuilding experience.

You'll enjoy accurate stereo imaging from the three vertically aligned drivers which consist of a 12" Aquaplas laminate low-frequency transducer, a 5" high-polymer laminate mid-frequency transducer and a 1" pure titanium diaphragm high-frequency transducer. Together these drivers ensure a clean, flat frequency response. In addition, the speaker system is ported to extend the low-frequency response and allow it to operate with negligible distortion, for startling realism.

Constructed of real walnut veneer, the 1230 loudspeakers look good with or without their grills because of a finished facing board. Dimensions are 40" H x 14" W x 10½" D.

Kit AS-1230 (58 lbs.) . . each \$349.00
Assembled ASW-1230
 (58 lbs.) each \$399.00

Specifications: **Configuration:** 3-way ported enclosure. **Recommended Amplifier Power Range:** 10-200 watts. **Sensitivity:** 91 dB. **Frequency Response:** 60 Hz-20 kHz (-3 dB). **Frequency Range:** 45 Hz-23 kHz (-10 dB). **Woofer:** 12" Aquaplas laminate low-frequency transducer. **Midrange:** 5" high-polymer laminate mid-frequency transducer. **Tweeter:** 1" pure titanium diaphragm high-frequency transducer. **Impedance:** 8 ohms. **Crossover:** 800 Hz, 4,000 Hz.



High-performance 2-way bookshelf speaker system

Enclosed in an attractive walnut vinyl veneer cabinet, the Heath/JBL 2-way bookshelf speaker system offers you compact performance.

The 1082 speaker system delivers exacting sound reproduction from a 1" pure titanium diaphragm high-frequency transducer and an 8" high-polymer low-frequency transducer. In addition, precise circuitry, as well as low loss capacitors, provides maximum performance. Dimensions are 23" H x 13¼" W x 9" D.

Kit AS-1082 (29 lbs.) . . each \$129.95
Assembled ASW-1082
 (28 lbs.) each \$159.95

Specifications: **Configuration:** 2-way ported enclosure. **Recommended Amplifier Power Range:** 10-100 watts. **Sensitivity:** 90 dB. **Frequency Response:** 80 Hz-20 kHz (-3 dB). **Frequency Range:** 50 Hz-23 kHz (-10 dB). **Woofer:** 8" high-polymer low-frequency transducer. **Tweeter:** 1" pure titanium diaphragm high-frequency transducer. **Impedance:** 8 ohms. **Crossover:** 3 kHz.

High-tech stereophones

Using technologically advanced titanium elements, these two stereophones reproduce every detail of digital recordings. In addition, tuning each channel to perfection is made easy with the unique in-line volume/balance control. Other common features include a full length coiled cord and a ¼" stereo plug.

1 Open-Air Stereophone. The TE-200 features comfortable hear-through ear cushions that let you absorb yourself in music, without shutting out your surroundings. Frequency response is 20-20,000 Hz.

Assembled TE-200 (2 lbs.) . . \$59.95



Display your audio components in this attractive cabinet

Made of select oak solids and veneers, the AE-2501 stereo equipment cabinet uses hidden construction and a metal-to-metal fastener assembly for greater strength and durability.

Features include four shelves (one a glide-out), ⅜" tempered glass with oak wood trim and hidden casters. Dimensions are 46½" H x 22¾" W x 16½" D.

AE-2501
 (102 lbs.) Mtr. Frt. \$189.95



2 Closed-Back Stereophone. The TE-400's closed-back design eliminates background noise for private listening. Frequency response is 20-30,000 Hz.

Assembled TE-400 (1 lb.) . . . \$69.95