

HOW TO BUILD A PORTA-PAK SUPPORT SYSTEM



COMING

SEE FRONT FOR OTHER PORTA-PAKS

AKAI

SPECS

model: VT-100
 tape width: 1/4"
 playback: yes
 viewfinder: optical
 width: 4.1 lbs. + 12.8 lbs. equals 16.9 lbs.
 (camera + deck)
 battery life/recharge time: 40 mins/8 hrs
 recording time: 20 mins
 tape speed: 1 1/4" ips (inches per second)
 camera/deck resolution: 400/200 lines
 signal/noise ratio: better than 40dB
 interlace: ?
 temperature range: ?
 microphone: built-in
 lens: 10-40 zoom f/1.8
 price: \$1,295



DESIGN INTELLIGENCE: The Akai has two major differences which set it apart from the other Porta-Paks. One, it uses quarter-inch tape. All the others use half-inch.

The advantage of quarter-inch videotape is that it's fabulously cheap compared to other standards. Quarter-inch is the same size as audio tape (for reel-to-reel machines) and lists for \$7.95 for twenty minutes as compared to \$14.95 for twenty minutes of Sony videotape. The disadvantage of quarter-inch is that it has less information storage capacity as reflected in the 200 lines resolutions of the system, the lowest of any.

The other unique feature of the Akai is that it has a small detachable monitor which clips onto the recording deck. The camera itself has an optical viewfinder which means reduced weight. Overall this means that Akai is the first system not to place a tiny TV screen between your eye and the lens in imitation of a film camera.

SUPPORT: The Akai is, of course, on its own standard. This means you are limited solely to the Akai line for back-up editing and table deck replay. As we understand it there are only two other decks in the line, one black-and-white, and one (1/4") color.

The problem is that it's literally impossible to find an Akai dealer, at least here in the East. Roberts Corporation used to be the Akai distributor (and the machine was called Roberts) and we saw it about a year ago at an electronics show in New York.

Since then Roberts got nowhere with distribution and Akai took the rights back. Now they have an office in Los Angeles, but the only east coast representation is one man who lives in Philadelphia and it's impossible to get ahold of him. He doesn't answer his phone. So even though the machine has distinct advantages, you'd probably do best to wait until Akai gets itself together. Meanwhile we can only list it as a "coming" Porta-Pak.

EXPERIENCE: None, of course, except for fondling it once at that electronics show. But we have gotten correspondence from Australia and Germany where people said the system worked very well and in one case (Australia) was even broadcast.

TAPE

Tape is too damned expensive (\$35 an hour list price). Everybody is trying to find a way around the high cost. Some people even use computer tape but it's very hard on the VTR heads causing them to wear down quickly. So what you save in tape (used computer tape, we've heard, can be gotten for as little as 50¢ an hour) you pay back in head replacement and downtime (new heads are @\$90).

Sony has two kinds of tape. The old one was brown and has been discontinued. New tape has a black back which generally means higher information capacity and less drop-out. Sony and Scotch (all high energy tapes have black backs) are the best from our experience. Stay away from Memorex and Ampex. Other hardware manufacturers also have their own brand name tape but most of it's made by the same company (Fujica) in Japan.

As the Porta-Paks take 30 minute reels, that's mostly what we use. They list for \$18.95. We (and you should) pay \$13.95 a half-hour in quantities of a dozen.

But even that's too much. Everyone's talking about a tape buying co-op and initial inquiry to 3M (manufacturers of Scotch videotape) is that we would be able to get half-hour rolls for under \$10 and hour rolls for under \$20.

If anyone knows of a cheaper, better source, let us know. Or is any manufacturers read this, the video groups in New York are ready to buy up to \$10,000 worth collectively. So get in touch.

COLOR

There are no color Porta-Paks. Sony has a half-inch color table deck (AV5000a) which will also play the black-and-white tape from a portable (AV3400). But there is no portable color recording deck (battery operated). And while you can get a color camera, the cheapest one is \$5,000 and exclusively non-portable or tripod mounted.

Even the coming Ampex Instavideo Porta-Pak has its color circuitry in a stationary mode and no camera. (See Specs).

Sony has announced, however, a low-cost (under \$1,000) color camera to be marketed by year's end in the U.S. From pictures we've seen, it's relatively small and compact (30 pounds), but nonetheless tripod mounted and dependent on an external electrical outlet.

Sony claims, but it's impossible to believe any manufacturer until you actually see the product in a showroom (and even then sometimes) that they have a prototype color Porta-Pak in Japan which should be on the market next year.

BATTERIES

A major annoyance of the Porta-Paks is the short battery life (from 45 mins to an hour). Of course they're rechargeable, but to do extended shooting you have to carry a supply and they're heavy (5 pounds a set).

We have gotten around this problem by using a movie camera battery belt (Cine 60) which is worn around the waist and lasts three to four hours. But they're expensive (\$350).

Media Access Center in California says they've been using Honda motorcycle batteries which last up to five hours, are cheap (about \$15), and rechargeable. The drawback is that they're heavy (9 pounds) and must be carried in a back pack rig (along with the recording deck).

LENSES

The Porta-Pak cameras all take C-mount lenses which are standard on 16mm movie cameras. You can also get an adaptor for using Nikon and other 35mm still-camera lenses.

The lenses that come with the cameras are alright, but their resolution quality could be better. Our own experience is with a fixed focus (in addition to the zoom) 25mm lens which has a speed of f/1.95, very fast, for low-light-level shooting.

We've also used a fish-eye lens which is very freaky, especially on faces and sense of receding space, but ultimately harder to use than it first seems. Videofreex swear by a normal wide angle lens which they say is the most effective one for pure television. They use a 12mm Cosmivar. We use a 10mm Bolex. Cosmivar also makes a 9mm lens which is faster than the standard zoom (f/1.9). Either way the effects trend towards incredible verite with some distortion in close-up.

Definitely get a wide angle lens as your first additional one. They're indispensable.

MICROPHONES

There are basically two types of microphone: directional and omni-directional. All of the Porta-Paks have omni-directional mics, some of them are built-in.

However, all have jacks for auxilliary mics. If you use one you either need a sound man, or you have to tape it to the top of the camera or leave it in a permanent position.

From experience, we've yet to find a standard microphone with a Porta-Pak that was worth anything. The one built-in to the Sony is only good for conversations between a few people in a small room. Otherwise everything sounds like Grand Central station.

We have been using Sony ECM-22 directional microphones with some success. Another popular one is the Electro-Voice 635. Generally, a good auxilliary mic runs from \$65 to \$500. Some have their own power supply (batteries) which is like a back-up in case of deck malfunction. Definitely recommended for your Porta-Pak system.

CORRECTIONS

Some of the information here is probably wrong, some incomplete, and perhaps not completely up-to-date. So write in and tell us and we'll include it in the next **Radical Software**.

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