

PORTA-PAKS

INDICATES TYPE ONE (COMPATIBLE) STANDARD ◀

HERE

COMING

SONY

PANASONIC CONCORD

SHIBADEN APECO

CRAIG

AMPEX

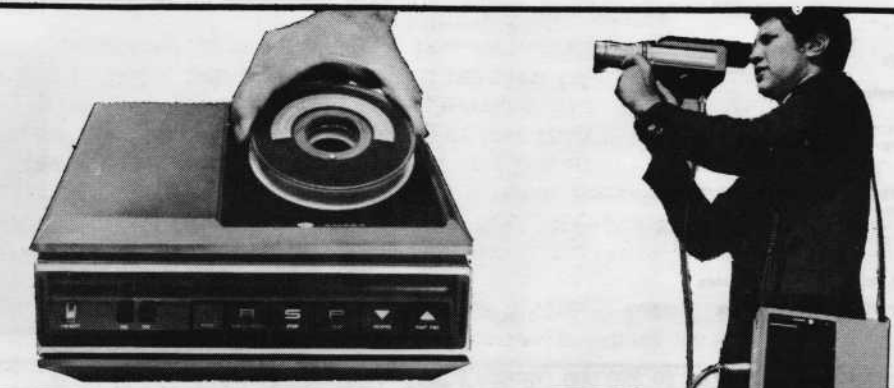
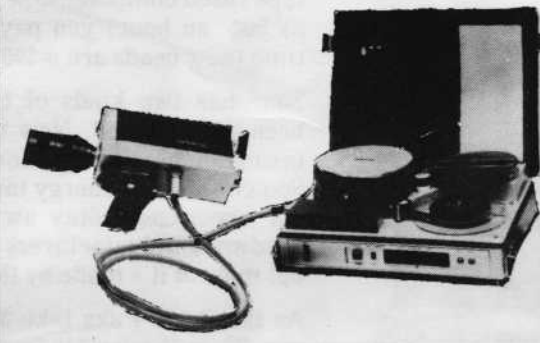
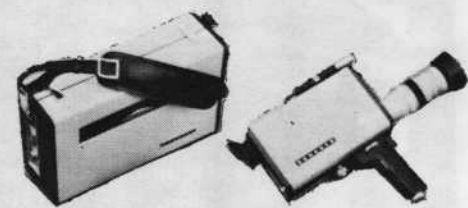
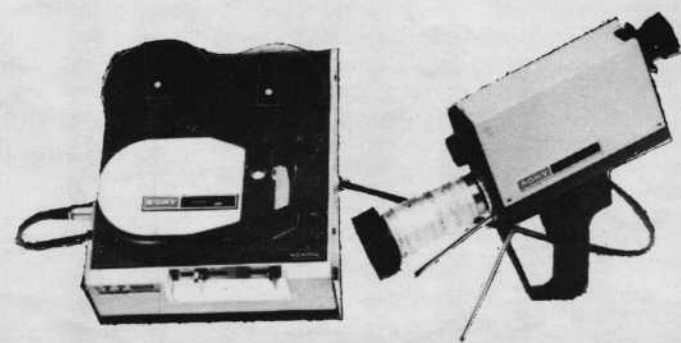
SPECS
 model: AV3400 ◀
 tape width: 1/2"
 playback: yes
 viewfinder: CRT (cathode ray tube)
 weight: 6 lbs. plus 19 lbs. equals 25 lbs. (camera plus deck)
 battery life/recharging time: 50 minutes/8 hrs.
 recording time: 30 mins
 tape speed: 7 1/2 ips (inches per second)
 camera/deck resolution: 400/300 lines
 signal/noise ratio: greater than 40 dB
 interlace: 2:1
 temperature range: 32-104 degrees
 standard lens: 16-64mm zoom f/2 C-mount
 microphone: built-in
 price: \$1,495

SPECS
 NV 3080 (Panasonic) ◀ VTR 450 T (Concord) ◀
 1/2"
 no
 CRT
 5.5 lbs. plus 15 lbs. equals 20.5 lbs.
 80 mins/10 hrs.
 30 mins
 7 1/2 ips
 525/260 lines
 greater than 40 dB
 ?
 40-104 degrees
 15-75mm zoom f/2.1 C-mount
 auxiliary
 \$1,250

SPECS
 SV-707 U (Shibaden) TELE-TAPE BATTERY PAK (Apeco)
 1/2"
 no
 CRT
 6 lbs. plus 15 lbs. equals 21 lbs.
 ?/5 hrs
 20 mins
 7 1/2 ips
 525/300 lines
 40 dB
 2:1
 ?
 14-70mm zoom f/2 C-mount
 auxiliary
 \$1,395

SPECS
 6406
 1/2"
 yes, but manual rewind
 CRT
 6 lbs. plus 15 lbs. equals 21 lbs.
 ?/?
 22 mins
 9.5 ips
 450/250
 more than 40 dB
 2:1
 ?
 15-45mm zoom f 1.8 C-mount
 two built-in, one front, one back
 \$1,500

SPECS
 Instavideo ◀
 1/2"
 yes
 CRT
 5 lbs. plus 15 lbs. equals 20 lbs.
 ?/?
 30 mins
 7 1/2 ips
 525/300 lines
 ?
 2:1
 ?
 4 to 1 zoom, C-mount
 built-in
 \$1,300



DESIGN INTELLIGENCE: Sony is both so good and so bad it's hard to know where to begin.

In its favor, Sony was the first manufacturer to come out with Porta-Paks (their CV series) and the first to make a quantum leap with a second generation: a totally self-contained system with record and playback (the CV series was record only) through any TV set (using an RF converter which changes the output signal to a broadcast one. \$39.95 extra). The Sony also has playback through the monitor eyepiece for on-the-scene previewing which can really turn on people you've just taped and help build an instant trust.

On the downside, the Sony camera and deck seem to have been designed by engineers *in vitro*, not for people *in vivo*. The camera is overly heavy and not well-weighted. The pack is very cumbersome and can only be carried in a leather case which obscures visibility to the tape path so you can't run quick checks on whether or not its running right. (see **EXPERIENCE**)

Sony has its own form of mini-plugs for microphones which are incompatible with other manufacturers'. While the cable from the camera to the deck is a standard ten-pin, that is the only way to get in and out in video mode. Normal systems accept coax plugs which are universally compatible. In essence, this all means that technological support is not inherent in the system and any options, like editing with a Porta-Pak, require special modifications.

SUPPORT: The rest of the Sony half-inch line (AV series) is pretty good. With a modified cable (see back) you can have editing on a compact table deck (AV3600) for only \$650 more. The pack itself has audio dubbing and still-framing.

Next up in the Sony half-inch line is their color deck (AV5000) although cameras are not yet compact or cheap enough, and certainly not portable. The final piece is a full-blown editing deck (AV3650) but they've only been around a month or so and we've not gotten feedback yet. First reports are that it's pretty good except for sound which has the usual two second lag on cuts.

As for dealers, Sony is everywhere. Service will always vary individually, of course, but in terms of getting parts we'd count on Sony everywhere in the U.S.

EXPERIENCE: The Sony Porta-Pak has many, many faults, partly because they rushed it into production which meant that those of us first owners have been doing the necessary field testing. Here are the results:

Mechanically the problems are many. The control levers break off after not much use (they're made of plastic). You'll never see anyone who uses their Porta-Pak a lot who has a camera eyepiece intact. They break off like crazy because of poor hinges which can't take much stress. Finally, it's very easy for the tape to become wrapped around the capstan inside because the reels don't hang onto the spindles. This means that you think you're recording and open the deck up later to find a useless spaghetti of videotape. If you're moving around a lot this can really be a problem.

Electronically, the system could be better overall but there doesn't seem to be any recurring problem.

DESIGN INTELLIGENCE: The configuration of the record deck (more rectangular than Sony) makes for a better weighting and the camera has a detachable microphone instead of a hardwired one. But there is no playback mode on the Porta-Pak itself (tape must be transferred to another deck).

Panasonic actually makes two models of Porta-Pak although they are visually the same. The one not listed here is on their old standard which had a high recording speed (12 ips) and therefore a low recording time (14 mins) and was compatible with only Panasonic decks. Sony, on the other hand, has discontinued its old series (CV) Porta-Paks (which had no play-back) and table recorders.

SUPPORT: Panasonic has a generally good reputation, especially in its half-inch editing. But not all of its current line is Type One (the compatible) standard. As for Concord, its marketing organization is much less solid and hearsay feedback is that it's not very reliable to work with.

EXPERIENCE: Except for encounters with the Panasonic table decks, we've never used the Porta-Pak except demos at trade shows.

DESIGN INTELLIGENCE: The configuration of the deck is similar to that of the Panasonic/Concord and likewise the Shibaden/Apeco has no internal playback. Still not much of an improvement over the Sony.

SUPPORT: Shibaden has a good reputation, most of their equipment is made for professional use (although they've just been bought out by Hitachi, a Japanese electronics conglomerate), and they just make video hardware. As for Apeco, its an offshoot of a Midwestern company whose main product is office copying equipment. Neither one seems to have a high access marketing and servicing system.

EXPERIENCE: None.

DESIGN INTELLIGENCE: The Craig has one nice, and one sort of nice thing about it. First, there are two microphones, one front, one back. This means that whoever is taping can also talk into the soundtrack. The other thing is that the Craig has playback but only with a manual rewind. This offers the convenience of a total system without the extra weight that a rewind motor means. Like Sony and Ampex, it also has playback through the camera eyepiece as well as any TV set.

SUPPORT: The Craig is not Type One standard although there is one model in the support line that is. But it's pretty hard to find a dealer.

EXPERIENCE: Except for some editing we did once from Sony half-inch to Craig one-inch, which worked very well, we have none.

DESIGN INTELLIGENCE: Ah, here it is, the first total system Porta-Pak. Instavideo (it used to be called Instavision but Ampex changed it because someone else had that copyright) has all the options of the Sony and more.

This is because the pack itself sets into a more stationary (weight 6.5 lbs.) service pod. The back of the pod is a regular patchboard with standard coax and audio in-and-out jacks. (Of course, it also interfaces with a regular TV set through the antennae plugs, like the Sony). This means you don't have to hassle modifications to do editing.

The pod is upgradable with modules. Basic price is \$800 for a black-and-white playback only system. For \$900 you get record too (plus \$400 separate for the camera, or \$1,300 system total) and another \$100 buys a color clip-in circuit board. (Remember that the module, not the pack, has the additional circuitry so color is not a function of the Porta-Pak per se).

The reason for all this is that Ampex (in conjunction with Toshiba, the Japanese company which will do the actual manufacturing) wanted a machine to compete with both cassettes and Porta-Paks. Thus, the tape has two play modes. One is normal recording and playback with a thirty minute tape time. In an extended mode, for prepackaged material, it will play 60 minutes.

Here's some more goodies: The tape has a plastic leader and is self-threading. You don't have to touch the tape path. There is an internal brush activated by a button for head cleaning. And a pulse code button which electronically marks your last stopping place so next time you insert the tape it will do an automatic high speed search.

You can also do electronic editing, still-framing, and slow motion (no other Porta-Pak has that). There are two sound tracks which means the option of stereo, and of course the system subscribes to Type One standard.

Finally, you can adjust tape tension (Sony has only a tracking control on its portable) and both audio and video input levels. The control levers themselves are configured like an autotape cassettes recorder for easy control and access.

What's wrong with Instavideo? Well, the camera design is awfully hokey, sort of an old movie (or video) camera in drag.

Another major problem is that although tape is compatible with other systems, the physical reel is indigenous only to Ampex. Thus although you have the electronic capability of playing another systems tapes, you are totally restricted mechanically.

SUPPORT: Ampex has a generally bad reputation in its one- and two-inch lines. They have too many mechanical parts and down time is high.

Instavideo is their only half-inch machine and they have done a pure paranoid thing. They keep hyping it as a non-professional machine, but people are going to start producing with it. This means that come editing time to stay with Ampex you've got to go to at least a \$6,000 machine (in one-inch format).

Not many people can afford that. As a result Ampex will be used for shooting, its competitors for editing support. So for every Porta-Pak they sell, Ampex will generate business for another company. Control instead of service.

EXPERIENCE: Ha! The only machine we've seen represents three prototypes travelling in America. In that form they're high Technology costing about \$75,000 apiece. There simply are no production models available (Ampex claims late summer). They wouldn't even let us touch the thing at a demonstration which consisted of one vacuous model shooting another rattling her hair. They were even too paranoid to let us shoot the scene with our Sony, which they made us keep in a closet.

So, even though the thing shapes up as the next generation of Porta-Pak, a major improvement over the last, stay skeptical until you can actually feel and buy one.