CABLE-READY HOME ELECTRONICS INTERFACE DEVICES AND THE CULTURE AND PHILOSOPHY THAT SURROUNDS THEM

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A combined total of fifty million cable ready TV sets and VCRs are in use today. Cable systems are still not ready to serve cable-ready equipment. Some of the problems are described and a few solutions are offered.

There are twenty-six million cable-ready TV sets in use at this time and it is anticipated that at least ten million more will be provided in 1985. There are roughly twenty-five million VCRs existing today, most of them cable-ready and eleven million more will be added this year. Most cable-ready TV sets are bought by people who have cable service, with the thought, hope and belief that this new set will provide more convenience. VCR owners, using the unit as a time-delay for watching programs more conveniently, expect to be able to interface directly with cable. Unfortunately, only the equipment is ready, the cable is not ready.

Cable-ready equipment came into being when digitally controlled synthesized tuners began to appear on TV sets with remote control. Adding these new channels, and additional channels imposed a very small price penalty. So small, that most top-of-the-line sets are offered with 101 channels, 181 channels, or any other variety which makes market sense. Market acceptance was quick! Advertising proceeded to praise the great convenience and flexibility of these new devices. Quite properly, the consumer expected that the marriage between cable and something cable-ready would be without serious complications.

For a long time, a number of cable systems ignored the VCR, cable-ready or not, and refused to make a hook-up. Other cable systems did hook up VCR's as a second outlet and provided a second converter. The second converter then required an A-B switch to allow the subscriber to watch a recorded program and also, required the subscriber to forego the fourteen-day, eight event, unattended recording features of his VCR.

We have now come full circle. Cable systems are now much more aware of the importance of subscriber satisfaction and are moving forcefully to insure subscriber retention in their systems. They recognize that the problems caused by VCR's and cable-ready TV sets are irritating their subscribers and they are trying to do something about it.

In a classic cable-ready, cable-TV subscriber home, we find a remote control TV set being fed by a remote control converter descrambler and interconnected with a remote control cable-ready VCR. The subscriber can now plan to watch TV, using the left hand remote control to turn on the TV set, selecting the channels with the right hand remote control, turning the sound up or down with the left hand, and then deciding to watch a prerecorded program. If the subscriber is lucky, this operation will take place at a control box with an A-B switch feeding the VCR directly to the TV set input. Now control of the VCR is with the right hand remote control, with the left hand remote control used to operate the sound control on the TV receiver. What are the solutions? What can be done? Will things get any better or worse?

The first thing to recognize is that this type of equipment will undoubtedly persist in the marketplace for at least one or two decades. Zenith, Sony, and Quasar indicate that approximately 95% of their color TV set production is now cable-ready. With the average replacement of TV sets being on a seven to ten year cycle, it can be expected that the majority of TV sets connected to cable television systems will be cable-ready by 1990. Even today, there are many cable systems reporting thirty to forty percent of their connections are to cable-ready TV sets.

VCR's are not only being sold at a high rate, with prices dropping, but are being offered by cable systems. Obviously, the cable system offering to provide the VCR also will provide a convenient method of connecting the VCR. It behooves all cable systems to look toward simplicity and convenience in providing these connections to serve the subscriber.

Many MSOs are studying this problem and a number have initiated advertising campaigns and provided guidance to their subscribers showing them how to hook up a cable-ready TV set, a cable-ready VCR and how to perform the various functions that these devices offer. Group W Cable, for example, offers its subscribers a collection of simple cartoon diagrams with step-by-step instructions for a do-it-yourself activity. They also offer to make the connections for the subscriber at a "small fee." Other systems have been exploring modifications in the converter to allow remote control selection so the TV set can be fed with either the VCR or the cable system.

It appears that the industry has a good handle on the method of providing A-B switches or remote controlled diode switches which will allow connection between VCR and TV set. The industry is also beginning to educate the subscriber by helpfully offering assistance in connecting all of these devices. A problem still exists, however, in providing for the pre-programmed, unattended recording activities which make the VCR attractive to so many people.

An approach has been made and devices are available which will interface with the remote control of the converter descrambler to switch channels at prearranged times, over fourteen days, and eight separate events. In effect, these units duplicate the equipment built into the VCR for week, day, time, and channel selection, and also duplicate the infra-red remote control transmitter that is used to operate the converter. The ads for these devices talk about "lost VCR programability" and offer these one hundred dollar units as a solution. They are one solution. At this time, there have been suggestions from converter manufacturers that they may build just such a capability into the IR control package being offered for their individual converters. This may provide for a lower cost, more integrated and simpler to operate package.

Is there any other solution? Well, everything seems to be simple if there is no scrambling and if all authorized channels are on the cable feed at the subscriber's location. In a trapped system, cable-ready TV sets and cable-ready VCR's would work simply and conveniently with the addition of an A-B switch to allow the VCR output to feed the TV set. In a system where off-premise control is involved, an addressable tap, using trap or using jamming osullators, will allow the same convenience.

An off-premise converter does not change anything as far as cable-ready or VCR programability is concerned. The same solution that is used for an on-premise descrambler converter will work with an off-premise system.

A trade-off analysis is required to determine how far the operator can go with technology to offer cable service and to satisfy subscribers. The use of off-premise control provides a very high degree of security and simplifies maintenance operations. An off-premise converter has more flexibility in the number of channels that can be controlled than any off-premise tap offered to date. The off-premise converter also has a higher degree of security when used in locations where subscribers might elect to "feed their neighbors." Both devices have different costs for equipment, for installation and for multiple set operations. The costs, the convenience, the flexibility, and the security must be compared first. Decisions can then be made as to the best way to serve the subscriber and the cable-ready equipment with the least hassle.