

is between 10 and 20 dollars.

If you build a game that has video only output, you'll need to tap into your home TV at a point on the first video amplifier's input. Carefully check the schematic of your television before deciding on this point. Locate a place which is after the 4.5 MHz and 920 kHz traps and doesn't upset any biasing arrangements of the video amplifier's input. Problems with local TV stations "feeding through" video stages and mixing with game displays can be eliminated by using a switch to temporarily disconnect b-plus from rf and i-f stages.

As an alternate solution to modifying the home TV, an externally modulated VHF oscillator (commonly known as an rf modulator) may be connected between a TV game's video output and the antenna terminals of any television for instant action. One example of such a converter is the Pixe-Verter which costs approximately 9 dollars and is manufactured by ATV Research, 13 and Broadway, Dakota City, Nebraska 68731.

If you tire of viewing any of your TV games in black and white, ATV Research also manufactures a Chroma-Plex 7700 digital color converter which performs beautifully. The unit connects between a game's video output and a VHF oscillator or TV's video amplifier and generates dozens of color combinations. The cost of this kit ranges from 20 to 35 dollars, depending on the size of your junk box.

CCTV Systems

There's a kaleidoscope of useful applications for the presently popular and comparatively inexpensive closed circuit TV systems. These units are available from sources like Advance Video, 5835 Herma, San Jose, California 95123. The systems can be used for video babysitting, for implementing hands-off magazine reading

(close-up lenses permit 6x magnification), for monitoring outdoor activities, for amateur fast scan and slow scan TV operations, and much more (sunbathing enthusiasts will find their standard equipment zoom lens an absolute necessity!). Let your wit and humor be your guide.

Most CCTV cameras are basically inexpensive fast scan units which output with 4 MHz of conventional TV video. You'll need another one of the previously mentioned modulated VHF oscillators if you want to connect it to the antenna terminals of a regular TV set. That, incidentally, brings to mind a quick and easy means of getting CCTV signals from one end of your house to the other. Simply disconnect your outdoor antenna (you surely don't want the neighbors to confirm their vicious suspicions of you) and use your antenna leads to convey the signal between rooms. Be sure your TV signal doesn't radiate further than a hundred feet, however, or the



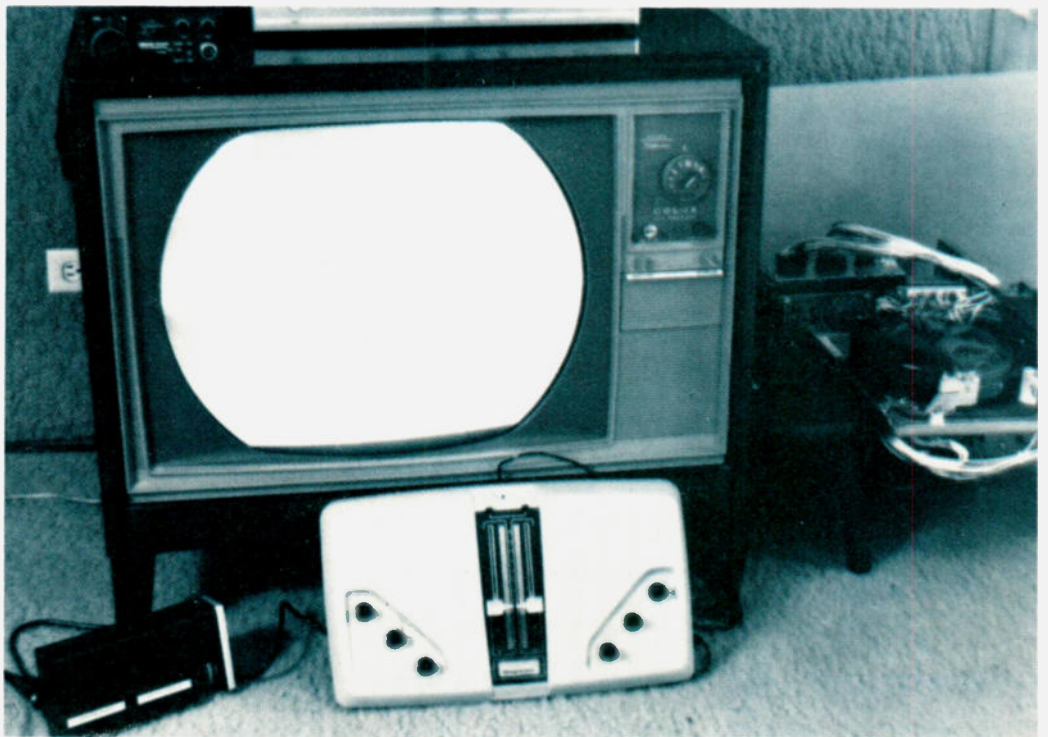
Close-up of ATV Research Pixe-Verter. This unit is a miniature TV transmitter which may be modulated with conventional video. Output is selectable — channels 2 through 6.

FCC gang will hunt you with a 5-ton ax.

Video Tape Recorders

Until recent times, one could merely dream of owning his personal video taping system. The typical cost of such units was definitely in the kilobuck range, and specific information on their

use was rare as slippers for snakes' feet. Today, however, that situation has changed radically. Companies like Advance Video now distribute high quality color video cassette recorder/players which sell for approximately 300 dollars and perform very well. Advance Video's matching CCTV



Video entertainment gear set up and ready for action. The cartridge tape deck is propped on the footstool and support circuitry is behind it. The CCTV camera and TV game can drive either television or tape recorder. The recorder can also tape programs during the operator's absence.