



# COLOR TV

## Is It Worth the Money?

**An expert on TV color circuits confesses he got quite a surprise when he finally broke down and bought a color-TV set**

**By Charles Tepfer**

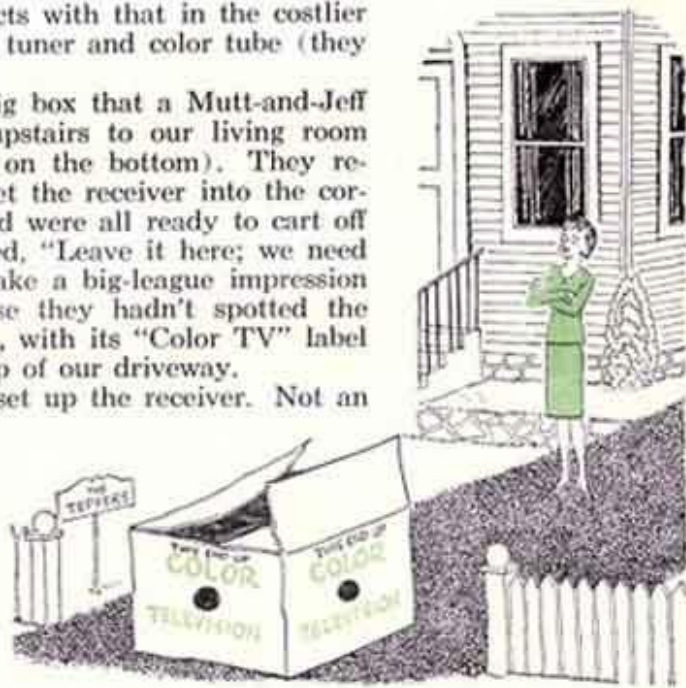
**W**HEN I had a chance to examine the new color-TV circuits recently, I realized how far color TV had come along. For too long, I decided, I had been like the cobbler with no shoes of his own. I made up my mind to buy a color-TV set.

We picked out a \$500 RCA set because its chassis is identical in all important aspects with that in the costlier sets. It has the same Nuvistor tuner and color tube (they are all 21" in diameter).

The color set arrived in a big box that a Mutt-and-Jeff team of deliverymen hauled upstairs to our living room (naturally, the little guy was on the bottom). They removed the set from the box, set the receiver into the corner we had prepared for it, and were all ready to cart off the box when my wife protested, "Leave it here; we need it!" This was her chance to make a big-league impression on our neighbors (just in case they hadn't spotted the truck). She set the empty box, with its "Color TV" label plainly in view, right at the top of our driveway.

Soon a serviceman came to set up the receiver. Not an extra-charge operation, installation is free for color-TV buyers. The serviceman explained to my wife what he was doing, but she fled to the kitchen the minute he started to wave his degaussing coil around the picture tube to demagnetize it. The last time she had seen anything like that was when I had built a Tesla coil and the transformer burned up. I guess she remembered. Still, when the serviceman left, after a setup time of three-quarters of an hour, she was all wrapped up in "It Could Be You" in full color.

One thing that made the job so fast was that the service-



*She set the empty box, with its label in plain view, at the top of our driveway.*

man didn't have to strap a new antenna to my chimney. He decided that our picture was excellent when connected to the antenna we had. This came as a surprise to me because my antenna merely lies on the rafters in the attic.



*The patient serviceman tried to explain to my wife what he was doing—but she fled to the kitchen.*

We live about 35 airline miles from New York City. At the least, I thought, we would have to set it up outside.

Next came surprise Number 2: The color-TV set brought in a better picture on all channels than my black-and-white set, and brought in one channel I'd never gotten before.

The first color show on that evening was a quiz game, "Concentration." Ordinarily I would have switched to another channel. This time I watched the show clear through to the end: Color had made it bearable for me. Why? Well, watching any show in color was novel. But there was more to it than that. The scene seemed to be three-dimensional and, no question about it, the girls looked cuter.

Incidentally, I didn't have to change the color controls on the set at all during the show; I guess I agreed with the serviceman as to what was a true flesh tone. He had adjusted the set for this before he left.

The next show we watched was a color movie with Brigitte Bardot. The color was pleasant but not spectacular; it seemed rather washed out. I tried those controls marked "Tint" and "Color" to see if they could sparkle up the picture. The first controls the actual colors of the picture and can vary a face from sickly green to deep lavender; the other varies the amount of color in the picture, from oversaturated to none—that is, black and white. Adjusting these controls brought new life to the picture. Of course my wife suggested that the only reason I got so worked up about the color was because I really was trying to get Bardot in the flesh; she said I took this three-dimensional effect too seriously.



*Watching any show in color was novel, but there was more to it than that—the scene seemed to be three-dimensional.*

Since the set also has a tone control, I naturally fiddled with it. It isn't very effective except in cutting high frequencies—it gives more bass by simply cutting the highs.

Some other impressions:

1. The contrast control is not as effective on a color picture as it is on black and white.
2. On unoccupied channels you get multicolored confetti, one sure way of showing off your color-TV set when no color programs are on.
3. The black-and-white picture on the color tube is less sharp than on a black-and-white set; the color tube needs three light spots to make black (equal blue, green, and red) to the black-and-white set's one spot.
4. The color varies with the TV studio lighting and camera. Bright colors in the foreground muddy up in the background; some colors actually appear changed.
5. Color is truest on live shows, next best on taped shows, and varies from good to poor on filmed shows.

## BUYER'S GUIDE TO COLOR TV SETS

| Make                    | No. of Models | Price Range   | Chassis Type    | Picture Size <sup>a</sup> | High Voltage <sup>b</sup> | Tuner Type | Remote Control | No. of Speakers | Printed Circuits |
|-------------------------|---------------|---------------|-----------------|---------------------------|---------------------------|------------|----------------|-----------------|------------------|
| Admiral                 | 6             | \$595-\$1,000 | RCA             | 21"                       | 24,000                    | Nuvistor   | on some        | 1 or more       | yes              |
| Delmonico-International | 1             | \$595         | Victor of Japan | 21"                       | 24,000                    | Cascode    | no             | 6               | no               |
| DuMont                  | 3             | \$795         | RCA             | 21"                       | 24,000                    | Nuvistor   | no             | 3               | yes              |
| Emerson                 | 2             | \$750         | RCA             | 21"                       | 24,000                    | Nuvistor   | no             | 2               | yes              |
| General Electric        | 8             | \$529-\$700   | RCA             | 21"                       | 24,000                    | Nuvistor   | no             | 1 or 2          | yes              |
| Magnavox                | 3             | \$699-\$795   | RCA             | 21"                       | 24,000                    | Nuvistor   | no             | 2 or 3          | yes              |
| Olympic                 | 2             | \$795-\$1,195 | RCA             | 21"                       | 24,000                    | Nuvistor   | no             | 2 or more       | yes              |
| Packard-Bell            | 2             | \$895-\$1,325 | RCA             | 21"                       | 24,000                    | Nuvistor   | no             | —               | yes              |
| Philco                  | 5             | \$750-\$900   | RCA             | 21"                       | 24,000                    | Nuvistor   | no             | 1               | yes              |
| RCA                     | 21            | \$495-\$1,500 | RCA             | 21"                       | 24,000                    | Nuvistor   | on some        | 1 to 6          | yes              |
| Zenith                  | 10            | \$695-\$1,050 | Zenith          | 21"                       | 24,000                    | Neutrode   | on some        | 1 to 3          | no               |

<sup>a</sup>Total diameter of round picture-tube faceplate. <sup>b</sup>With normal three-beam current. <sup>c</sup>Some models have bonded-faceplate picture tube.

### ... And bear in mind

1. The Nuvistor is an RCA-developed, transistor-size metal-ceramic vacuum tube whose triode elements are so close together that the tube yields tremendous gain at a high signal-to-noise ratio. Its type number is 6CW4 (black-and-white portable sets use the 2CW4) and it is used as a low-noise (or snow) r.f. amplifier for greater sensitivity.

2. All RCA-type chassis include a back-of-the-set circuit breaker, eliminating the need for changing a fuse or calling a serviceman if it opens as a result of momentary overloads.

3. The high-voltage circuits in all color-TV sets are well regulated, must not vary

by more than one percent from 24,000 volts or the three beams won't converge.

4. All color sets have one-step fine tuning. This needs adjustment when the set is installed, but seldom afterwards.

5. A new TV antenna may be necessary if the old one is a narrow-band-width type.

6. All color picture tubes are presently made by RCA.

7. Most of the RCA-type chassis listed on the table are made by RCA.

8. Best buy in any brand is the least expensive table model or "consolette"; generally all models use the same chassis.

9. RCA offers free 90-day service (including parts and labor) plus a year's warranty on all parts including picture tube; most other manufacturers do, too.

6. Many color shows are unimpressive after the novelty has worn off. Many are not designed for color—one show had a big dance production with the dancers wearing black-and-white costumes.

7. But the sense of participation in color shows is heightened. This, I suppose, is due to the naturalness of seeing everything in its true colors. We become more absorbed in the stories; the dividing line between make-believe and the real thing is not so sharp.

Saturday is color day for the kids, with good cartoon and live shows. Of course, it wasn't long before the neighbors' kids were knocking on our door early Saturday and asking to come in and play, actually to watch. Our kids were never so popular. Another dividend we hadn't counted on—we no longer have any trouble at our house getting baby sitters.

About 40 percent of NBC's evening schedule is in color, plus most of the special shows. Many independent TV stations such as Channel 9 in New York City, WGN-TV



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in Chicago, KHJ-TV in Los Angeles, KTVU in San Francisco, and some CBS and ABC affiliated stations broadcast color programs more or less regularly.

**Control trouble.** Baby sitters can play havoc with the color set, we found. We left one in charge of the brood one night and when my wife turned on the set the next day she ran for the phone. The picture was dark, she reported, with people who had bloated lavender faces which she could see only momentarily because the picture was tearing sideways. I told her to relax until I could take care of it.

When I got home, I discovered that the baby sitter had done just about every wrong thing with the controls. The first thing I did was adjust the conventional horizontal-hold and contrast and brightness controls to get a stable picture. After that, it was a cinch to turn the two color controls to zero in on John Wayne's baby-blue eyes and ruddy complexion. Seems to me that was the finest Western I ever watched.

**Leave the back alone.** To a confirmed do-it-yourselfers, those out-of-reach servicing adjustments on the back of the set are a temptation. They carry such exotic names as "Red SCR," "Kine Bias," and "Green Drive." Beware—they are not for meddlers. For unlike the front-of-set color controls, which have a wide latitude and are easily set to rights, the controls on the back can really mess up the color.

During a break in a color Western, "Bonanza," last week, my skeptical friend Willie, whose belief that color TV is a waste of money doesn't stand in the way of his enjoying mine, asked me if I had heard about the latest breakthrough on color-TV sets: a new, thinner color tube that will reduce the depth of the receiver.

Well, such talk had kept me from buying a color set for three years—and no big change had come along. I figure I'll be enjoying my color set (and so will Willie) for at least another two years before any radical change lowers the price. By that time I will have made up in enjoyment whatever I could have saved in cost. That sounds like a pretty good gamble to me. ■ ■