The color TV situation at the present time might well be compared to a huge kettle in which vast new profits—and problems—are being cooked up for the TV industry. Color TV is provoking an air of expectancy throughout the country—both among the public and among dealers and servicemen, with the latter wondering how soon they will be facing large-scale color servicing. To help in answering their questions, we decided to lift the lid on the color TV kettle and look inside. We chose the Chicago area for our field investigation because that city has been the site of perhaps the most active promotional campaign for color TV.

FIRST-HAND REPORT ON SERVICE AND SALES IN THE CHICAGO AREA

by Thomas A. Lesh and Verne M. Ray

We went to Chicago in September and visited consumers, service shops, retail stores, distributors, and television stations to find out what they were doing with color. Our impressions can be summed up in one statement: the kettle is beginning to simmer.

Servicing

At the time of our survey, the amount of color servicing which had been done in Chicago was unimpressive in terms of cold statis-
What's Cooking in Color TV
(Continued from page 21)

tics, but a number of shops have done enough color work that they could begin to establish standard procedures for servicing color sets.

The RCA Service Co., Inc., does a large share of all color servicing in Chicago because it contracts for maintenance of RCA Victor receivers sold through many retail outlets. Out of a total of around 7,000 contracts in force at the west side branch of this company at the start of the 1956 fall season, 277 were for color sets. Activity at this same branch during a period of three weeks in late summer of 1956 included an average of 15 requests per week for color installations and 50 requests per week for color service calls. Not included in the above figures are receivers which were installed and set up for home demonstrations. An average of 12 of these home-demo installations were made each week during the abovementioned period.

In addition to the actual service calls which have been mentioned, periodic courtesy calls are made a part of color service contracts. On these calls, the technician checks for customer satisfaction as well as proper receiver operation.

We visited several independent service shops which advertised that they did color servicing. Each of these had a small number of color contracts—as few as three. In addition, they did some service work on a single-call basis. The number of calls made by these shops ranged from several per week to “few and far between.”

Service Charges

It is probably safe to say that most color servicing is done on a contract basis. An example of a price schedule for color contracts is that of the RCA Service Co., Inc.: 

$39.95 Unlimited service and parts for 90 days.
$69.95 Above plus service for remainder of one year at a flat rate of $7.50 per call, parts included.
$99.50 Unlimited service and parts for one year.

Color service calls not on a contract basis were priced at $12.50 by one independent dealer and at $10 by another. These prices include one hour’s labor. Complete purity, convergence, screen, and background adjustments on a color receiver are not included in this charge because, taken together, they are regarded as too complex to be within the scope of an ordinary service call. All dealers queried said that a flat rate of $25 is charged for a set-up job.

Technical Training

The training situation varies considerably among different shops. Here are some of the answers we got to questions about training:

SHOP NO. 1. Out of 25 bench and field men, 14 are qualified to do color work. They learn by experience and by home study of factory training courses.

SHOP NO. 2. Out of 10 men, 3 have been to color training schools run by manufacturers. They continue to study on their own. At one time, they participated in a group who hired an engineer to give color lectures. They received one manufacturer's home study course as a premium by buying a certain quantity of tubes from a distributor.

SHOP NO. 3. The head technician services all color sets at present. Other men are studying color in their spare time.

SHOP NO. 4. Technicians have been taking home study courses, but interest is lagging. If a qualified color man is not available when a color service call is requested, another man is sent. He fixes the set if he can; if he gets stumped, he calls the shop for instructions or else takes the set into the shop.

The factory color schools which offer courses lasting 1 or 2 weeks have a big backlog of prospective students. Dealers say that good men trained in color work are in extremely short supply and will continue to be scarce.

Test Equipment

A dot generator, considered the most essential piece of color test equipment, is used in set-up procedures on home calls. Most shops soliciting color work also have a color-bar generator and a wideband oscilloscope. Independent shops generally have only one set of color-test instruments but plan to buy more as the demand develops.

We saw only one test bench especially equipped for color work. It included substitute 21" and 15" picture tubes. In most shops, it has not been thought practical to build a special color bench because most of the color sets encountered have been repaired in the home.

One shop prefers to remove a color set from the home, cabinet and all, if it requires bench work. The shop manager claims that time and money are saved in the long run, since unnecessary disassembly is avoided and an accurate set-up can be accomplished in the shop with only slight additional work needed when the set is returned to the home.

Customer Attitudes

Surprisingly enough, technicians who had serviced color TV agreed that the average customer is not highly critical of the quality of the picture on his color set. When a new receiver is delivered, the technician usually goes through a complete set-up procedure only if the customer indicates dissatisfaction with the performance. Sets are normally received from the factory in such good alignment that there are only minor imperfections in convergence and purity, and many customers overlook the slight color fringing or shading that results.

The general opinion was that most customers were also satisfied with the black-and-white pictures on color receivers. Although they frequently keep their old black-and-white sets, many use them in other rooms in their homes as second sets.

In some color sets after several months of use, color fringing in black-and-white pictures makes its appearance. This happens because the electron beams in the color picture tube sometimes tend to drift gradually out of alignment. Viewers usually fail to notice this effect because it is so gradual. We were told of one receiver which had assumed a sepia tone during monochrome pro-
grams. When the technician restored the original gray appearance, the customer objected, saying he liked the tint!

In problem locations (districts of skyscraper apartment buildings, for example), we heard of several customers who showed amazing patience even though they were able to obtain color pictures only occasionally. One set owner was "delighted as a kid" when a technician managed to obtain some weak color on his receiver after a great deal of effort.

We received several reports of shorted or burned focus and screen potentiometers on certain models of color sets but there were no repeated failures in the chrominance circuits. In the main, color receivers have the same types of failures as black-and-white sets and present many of the same servicing problems.

Programming

Station WBNQ, channel 5 in Chicago, has been widely publicized as the world's first all-color TV station. Since last spring, all local live programs (more than five hours daily) have been telescast in color. Except for a few hours weekly, the NBC network shows have been in black and white, but the network has laid plans to transmit at least one color show every evening during the 1956-57 winter season.

We toured the WBNQ studios and saw an impressive array of color transmitting equipment. Even more impressive, however, was a public lounge designed especially for the display of color TV. This is advertised over the station and attracts large crowds daily. About 10 closed-circuit color receivers are distributed throughout the lounge. The general atmosphere of the room, with its soft seats and low illumination, invites the public to relax and see color TV in living-room surroundings.

The effectiveness of this display was revealed when we interviewed some of the people in the lounge. Our impression was that the display causes many people to think seriously for the first time about buying a color set.

The following comments were gleaned from some of the interviews. An elderly woman said that she liked color and found it easier on the eyes than black and white, but she could not yet afford a color set. Two couples who definitely have been interested in color if they had not recently bought elaborate black-and-white consoles. Each said their next set would probably be color. Another couple, recently married, were just furnishing a house and had no TV set. They intended to check over their budget to see if they could afford a color receiver as their first set.

We heard a minority of negative comments, including dissatisfaction with the quality of the color. One woman complained that the colors on the screen had a bluish cast and that the background colors were faint. Several people seemed bothered by the fact that the colors were reproduced somewhat differently by the various sets on display, even though all the sets were adjusted for a pleasing picture. Many of their doubts were cleared up with an explanation of the use of the hue and saturation controls—something which could profitably be done in a store as part of a demonstration.

Color activity is not confined to WBNQ, although that station carries the most color programming by far. We visited WBBM-TV, the CBS station in Chicago, and learned that it could transmit network shows which originate in color. This station has not yet installed equipment for local colorcasting because of the feeling that color does not particularly improve the effectiveness of local programming (such as news) nearly as much as it enhances the appeal of big network shows. A third Chicago station is also working with color—indeed WGN-TV has installed color equipment and is experimenting with it.

Sales

It is no secret that RCA is feeding the fire under the color kettle. A spokesmen for the RCA Victor Distributing Co. in Chicago told us that about 90% of his firm's newspaper advertising in the fall of 1956 would emphasize color. A 480% increase in color receiver sales was achieved in the third quarter of 1956, compared to the last quarter of 1955. The goal for the final quarter of 1956 was said to be a sales increase of greater than 1000% over the corresponding period of 1955. It was estimated that over 6,000 color sets had been installed in homes in the Chicago area by the end of September, 1956.

Some of the biggest retail promotions of color TV are being staged by a major department store and its 16 neighborhood branches, a well-known music store, and one of the largest appliance stores. Several smaller appliance outlets have also been aggressively selling color. The RCA Victor distributor told us that color accounted for 30% of the TV sales of one local service dealer.

Color receivers are being exposed to groups of people as widely as possible by such methods as loaning sets to neighborhood organizations and donating other sets for raffles. Home demonstrations are hard work, but they have been effective. Several dealers are getting good results by arranging special demonstration rooms where color programs can be shown under ideal conditions. Color TV is sometimes grouped with hi-fi equipment in such a room.

On one occasion, we watched a color set demonstrated in an ordinary salesroom side by side with black-and-white receivers. The light level in the room was so high that the colors were partly washed out, and the picture was full of color contamination because the...
2. Many organizations are making definite preparations for color, but they are being somewhat cautious in their efforts. As one spokesman put it, "Why should we go out on a limb with color when black-and-white sales have never been better?" Two Chicago manufacturers, Motorola, Inc. and Admiral Corp., who are both producing new color sets for sale at competitive prices, intend to advertise these receivers but to proceed cautiously with production. The CBS network has a similar attitude toward color programming. In the "middle-of-the-road" category are many TV dealers who have a few color sets on their floors. They let their customers know that color is available but do not push it to any great extent.

3. A large number of service dealers are not yet interested in selling or servicing color TV receivers—not until color becomes more popular with the public.

Color, even in Chicago, still appears to be in a formative stage of commercial development. Nevertheless, the color situation is gradually improving, and it is our personal opinion, judging from the comments received from both the general public and members of the TV industry, that color TV will not create the tremendous boom that black-and-white TV did but will instead enjoy a steady, substantial growth. ▲

---

**Trouble Shooting with George**

The Solution

George had actually detected the faulty component, but a slight case of mistaken identity arose because of his hasty attempt to solve the mystery. When he examined the original capacitor more closely (see below), he found it to be of a special type used in many horizontal AFC circuits. You will notice that the markings indicate a tolerance of ±5% from 0 to 85°C. Had George either taken heed to all the markings on the capacitor or consulted the parts list in the service literature before selecting a replacement, he would have arrived at an earlier solution.

---

**Summary**

We found three general attitudes toward color in the Chicago area:

1. RCA, NBC, and several stores are enthusiastic about color and are going all out to create a big demand for it. They are convinced that prices and programming have been brought to such levels that substantial amounts of color receivers can now be sold.

PF REPORTER • December, 1956