

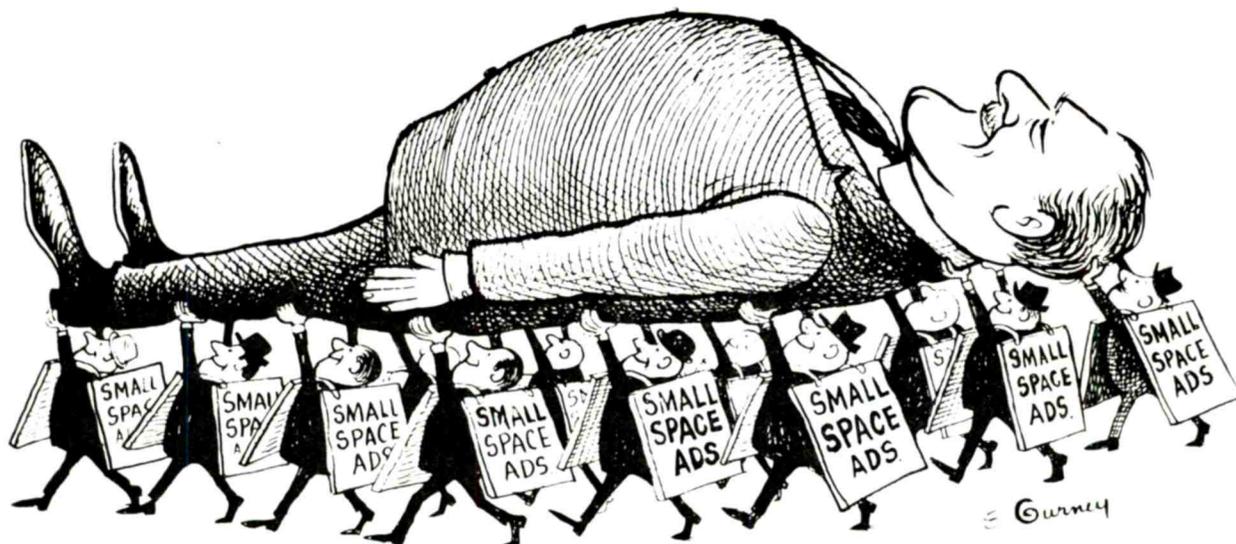
electronic

Vol. 6, No. 7

November, 1966

service dealer

the official publication of the california state electronics association



How to Make Your

SMALL ADS WORK

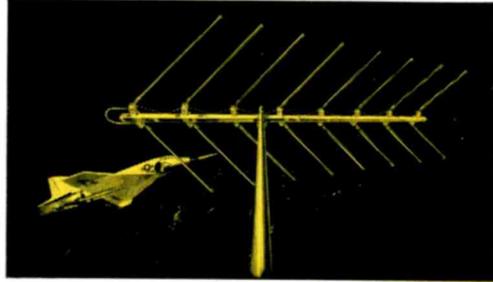


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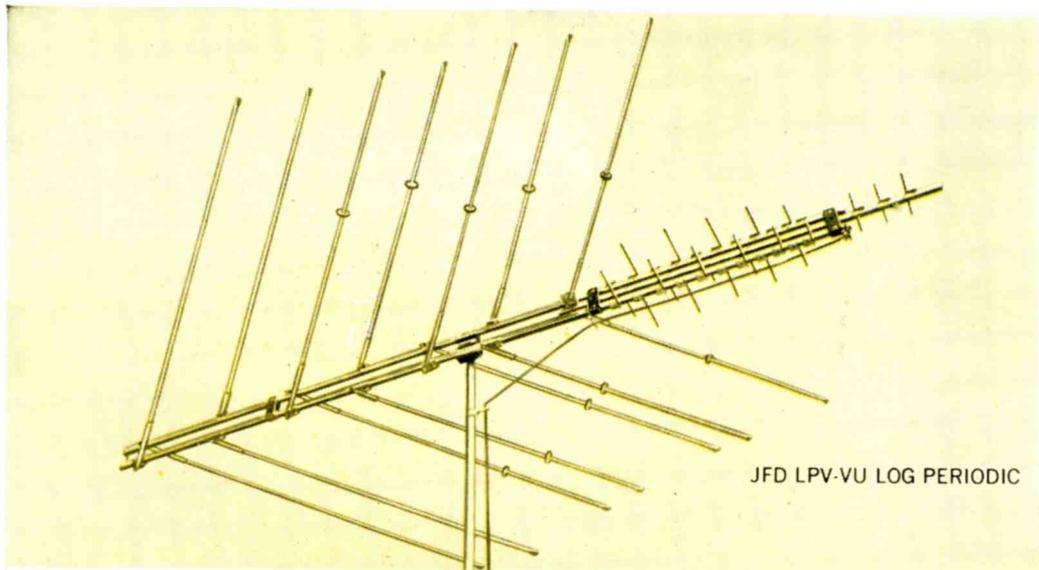
A Broadcaster's View of
The Television Industry



assault on perfect



Back in 1962, we invented a new kind of TV antenna.



Licensed under one or more of U.S. patents 2,958,081; 2,985,879; 3,011,168; 3,108,280; 3,150,376; 3,210,767, RE. 25,740 and additional patents pending in U.S.A. and Canada. Produced by JFD Electronics Co. under exclusive license from the University of Illinois Foundation.

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tion: PERFECTION CONQUERED

We did not improve on an old antenna. We started from scratch to design a new one. *Really new.*

It wasn't easy. And it wasn't cheap. But it worked like mad.

We called it the LPV Log Periodic. Its performance caught our competitors with their charts down. But it wasn't long before they came up with LPV copies in every way—except in performance.

Meanwhile back at the JFD labs in Champaign, Illinois, our scientists and engineers continued their "assault on perfection." In 1963, they again shattered antenna precedent by coming up with the *first* combination VHF/UHF/FM log periodic antenna, the LPV-VU. Instead of three different antennas, installers now needed only *one* LPV-VU and *one* downlead.

Our competitors scoffed at the idea. They said it couldn't be done. Until the "eyepopping" results started to roll in. Then there was a mad scramble for the LPV-VU bandwagon.

These "me-too" antennas looked like the LPV-VU Log Periodic. Sounded like it, too. But their charms were skin-deep.

Only the JFD LPV-VU delivered deluxe 82-channel log periodic performance. Because only the JFD LPV-VU followed the genuine patented log periodic concept of the University of Illinois Antenna Research Laboratories. Thanks to the protection of eleven different LPV-VU U.S. patents issued and pending—more than those of any other antenna.

You would think by now our Research and Development people in Champaign would leave well enough alone. But no. These "Young Turks" have gone and done it again. This time it's a new all-band log periodic design—the LPV-CL Color Laser. (Must be that "assault on perfection" bug they've still got up their polinear recorder.)

Why did we call it the Color Laser?

Well, engineers tell us that laser light beams with their tremendous bandwidth capacity are the communications carrier of the future. And we believe that our new VHF/UHF/FM Color Laser with its extreme bandwidth, among other unique characteristics, is the antenna of the future—only it's available to you *now*. How does the Color Laser deliver unsurpassed natural color, black and white across 82 channels, and FM, too?

Three reasons: (1) *Patented "VHF "cap-electronic" Log Periodic V Design*, (2) *a new*

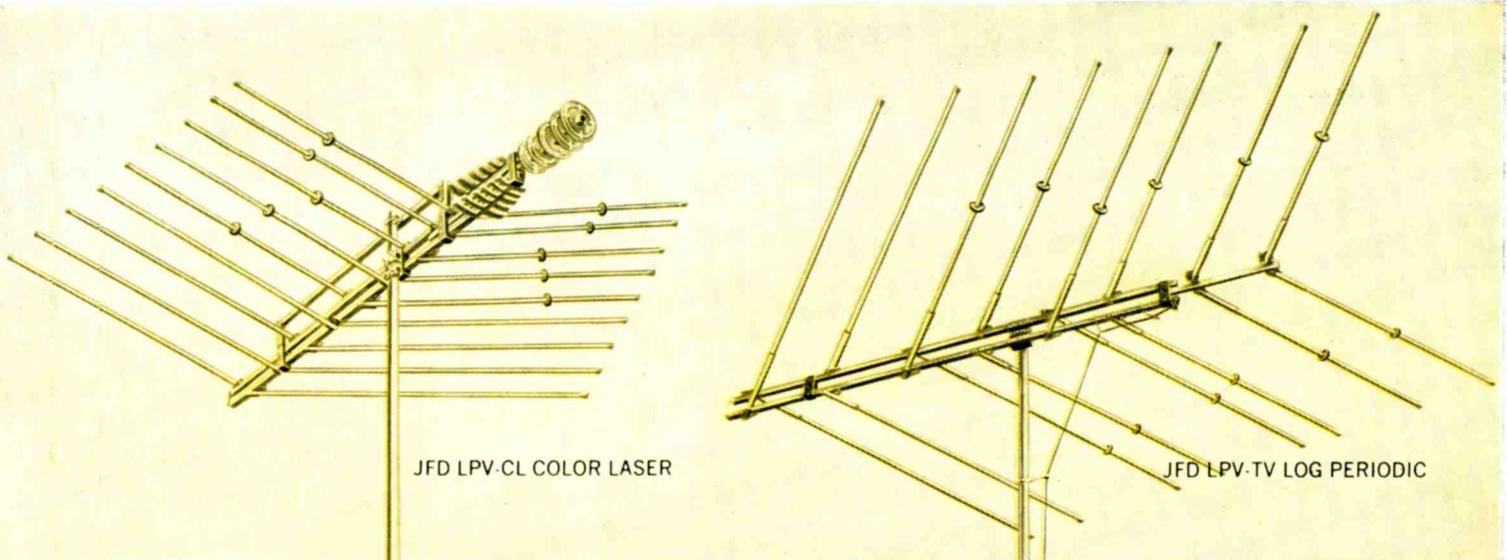
broad band UHF "zoned" trapezoid driver, (3) *a new disc-on-rod UHF director system*. And there are patents issued and pending on all three.

We've also spun off the LPV "cap-electronic" Log Periodic section of the Color Laser. It forms the heart of a great new VHF antenna series we've named the LPV-TV.

This "assault on perfection" of ours involved a complete new mechanical design, as well. Results: "fast-lok" element brackets, "hot" twin booms (no lossy harnesses or transformers), new super-strength double U-bolt profiles, high reliability cylindrical capacitors, plus our electrically conductive gold alodized aluminum.

If you're the breed of professional contract installer or self-servicing appliance dealer who *never* settles for less than the best, we have a suggestion. Use a JFD LPV-CL Color Laser or LPV-TV Color Log Periodic on your next installation. See what it feels like to install the *best* of all in performance and customer satisfaction.

You will also see why our research and development people have now changed their watchword from "assault on perfection" to "perfection conquered".



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San Jose, California

REDWOOD ELECTRONICS SUPPLY COMPANY

711 Summer Street
Eureka, California

WHOLESALE RADIO & ELECTRIC SUPPLY COMPANY

1348 El Camino Real
San Carlos, California

WHOLESALE RADIO & ELECTRIC SUPPLY COMPANY

1116 Folsom Street
San Francisco, California 94103
Also in Petaluma

LETTERS

Dear Sir:

In the October issue of ESD you had in your feature issue a report on service pricing.

I would like very much to obtain some copies of this article. If you are able to send me some reprints of this article they would be used by our men to give to their customers. Your assistance would be greatly appreciated.

Wimpy Jones
Radio Service, Sacramento

Ed: We are trying to work out an idea to reproduce the article and send supplies to all distributors to give to their customers. As yet it is not worked out but, if you wish, you have our permission to reprint the article and use it as you see fit.

Dear Sir:

Would like to procure a copy of ESD

for October if possible. Would you please send me a copy of this or advise me as to cost of same and I will gladly send along my remittance. Also your subscription rate.

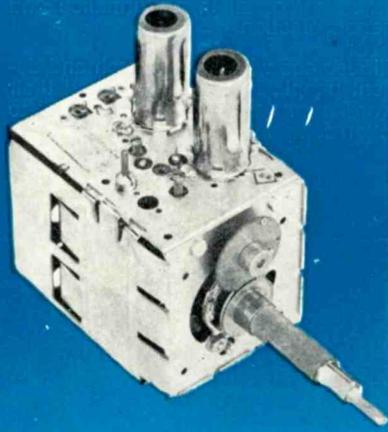
Edward Hocking
Buena Park, Calif.

Dear Mr. Martin:

Thank you for all the personal endeavor that must have gone into compiling the ESD report on Service Pricing. Personally, I wish it could be made available to all registered service shops, on one page, that could be displayed for customers to see. I would eliminate many beefs and then all shops would have a standard foundation for setting their prices. We certainly don't advocate the same price but this is the first real guide to pricing practices we have ever seen.

Warren's Stereo-vision
Corona Del Mar, Calif.

TUNER REPAIRS



\$9.50

FOR COMPLETE OVERHAUL

Includes ALL parts (except tubes)
ALL labor on ALL makes

24-HOUR SERVICE with FULL YEAR WARRANTY

Sarkes Tarzian, Inc., largest manufacturer of TV and FM tuners, maintains two completely-equipped Service Centers to serve YOU. Both centers are staffed by well-trained technicians in this specialized field and are assisted by engineering personnel to assure you of FAST, DEPENDABLE service.

Ⓢ Tarzian-made tuners—identified by this stamping—received one day will be repaired and shipped out the next. A little more time may be required on other makes. Every channel is checked and re-aligned per manufacturer's specifications, not just the channels which might exist in any given area.

You get a 12-month guarantee against defective workmanship and parts failure due to normal usage. Cost to you is only \$9.50 and \$15 for UV combinations, including all labor and parts except tubes. No additional costs. No

hidden charges. All tuners repaired on approved, open accounts. You pay shipping. Replacements on tuners beyond practical repair are available at low cost.

When inquiring about service on other than Tarzian-made tuners, always send TV make, chassis and Model number. Check with your local distributor for Sarkes Tarzian replacement tuners, parts, or repair service. Or, use this address for fast factory repair service.



SARKES TARZIAN, INC.
TUNER SERVICE DIVISION

See your distributor,
or use this address

10654 Magnolia Blvd.,
North Hollywood, Calif.
Tel: 769-2720

MANUFACTURERS OF TUNERS... SEMICONDUCTORS... AIR TRIMMERS... FM RADIOS
AM-FM RADIOS... AUDIO TAPE... BROADCAST EQUIPMENT

A TELEGRAM:

Congratulations your August ESD editorial also Winston Salem Session. Will send copy of our survey later.

John Keppinger Gross Point Magnavox
Detroit, Michigan

Dear Sir:

We wish to thank the Electronic Service Dealer for the editorial leadership in bringing about this vital need to upgrade the industry. Reports on items in the Electronic Service Dealer have a permanent place on the agenda of our monthly meetings.

William E. Phillips, President
Coachella Valley Electronics Association
Palm Desert, California

Editor's Note:

These are just a few of the stacks of letters we have received concerning our current editorial policy to review and report pricing practices throughout California. We sincerely hope we have been a factor in a re-evaluation of the pricing structure and that the Industry as a whole will benefit. We believe that this is the only way in which the industry can take its place as a profession, to attract new people, and to be financially sound.

Dear Don:

I want you to know how much I enjoy reading Electronic Service Dealer from cover to cover and consider it the best service publication in the country. Particularly enjoy your "Service Pricing" articles which I wish could be read by every service dealer.

Sincerely,

John P. Graham, Ed. ARTSD News

electronic service dealer

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NOVEMBER, 1966

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DON MARTIN

Why Should There Be A Different Charge For Color Service Calls?

At a recent meeting in Fresno, one dealer asked the question "why should dealers charge more for a color call than a black and white call?" He went on to point out that the cost for that technician going on the call was the same, the cost of the truck was the same, the amount of time spent on the call was the same, etc.

In our opinion, he is right. Actually, the difference in service call rates for black and white and color is the result of inadequate charges. When color calls went into high gear it gave the dealer, who was under charging, a chance to get a correct fee and hide behind the color idea as an excuse. He had been doing the same thing for years on the receiving tube and here was a chance to get a true service call charge on the basis that it was a color set.

I am not saying that this is true of everyone but it is time to stop and take a look at the difference in charges for color and black and white. Is there really that much difference in the basic call to warrant more money? In talking with many dealers we find that there really isn't any reason for this additional charge. They felt that if special color work is performed it will either mean a shop call or extra chargeable time on the job. Regardless, the work performed would be paid for by the consumer.

Right now many dealers are still resisting the service call rate increase and that is certainly their business. We don't want anyone to think that we know more about their business than they do and we are in no position to say just what should be charged for a certain job. However, I feel it would be a great piece of public relations to abolish the additional charge for color and settle on one service call rate. Many dealers are doing this and successfully. It makes sense and is worth while thinking about. Actually, what many dealers try to do with the additional charge for color is to impress the general public that you must be more qualified to work on color than black and white and therefore it should cost more to do the work. In the beginning, this might have been the case but today, I am sure, no dealer will be able to remain in business and not be able to service color. The farm system is gone forever except for a few tough dog technicians. I believe the profession has now been established.

Pay-TV—Next Big Business Monopoly?

The recent refusal by the United States Supreme Court to review the ruling made by the California Supreme Court that the ban on Pay-TV, established by the voters, was un-constitutional could very well set the groundwork for a super monopoly.

In the ruling, the California Court stated that the ban violated the freedom of speech and therefore was unconstitutional. In our opinion, this could very well be the beginning of a far greater threat to the

public than the loss of Pay-TV's freedom of speech. We in the service industry are selfish in that we do not believe that Pay-TV operators should be in the position of offering captive service. As product sales outlets we are selfish in that we do not believe that Pay-TV operators should be allowed to sell or lease color receivers. As citizens, we are selfish in that we do not believe that Pay-TV operators should be allowed to steal network broadcasts, which major networks have paid millions of dollars for, that advertisers have paid large sums to use as an advertising medium and that these operators are able to charge a monthly fee to people for the right to see the program. We are also selfish in that we do not want to see a giant monopoly that would be able to sell or lease a television receiver, service it at whatever prices they wish and then charge a fixed monthly charge to that same person for the use of a cable.

Without exception the cable-TV operators tell us that they are not interested in service or sales or broadcasting . . . but they don't tell us how long this front will continue. Factory service came into being because the independent didn't fulfill his obligation of top service. Tube checkers came into being because dealers were selling customers too many unnecessary tubes . . . Hogwash. Business men intend to make a profit on whatever they do and however they do it. Sales, service, cable rental all add up to a real good deal and we can not see a good businessman passing up this great opportunity. Oh yes, don't forget broadcasting. With a cable they can break into a program at any time and add their own little commercial. A great opportunity . . . use a top network show and when they break for commercials the cable people can put in their own.

What it adds up to is the possibility of a giant monopoly and the only way it can be stopped is with well thought out legislation that is presented in the best way possible. Eliminate sales, service and broadcasting from the list of activities of cable firms and the biggest job will be accomplished.

Another big factor needed in this growing cable trend is a set of minimum operational standards.

In Fresno, CSEA was able to insert a series of minimum standards that should be included with any franchise awarded by local governments. The following are the standards adopted in Fresno:

Minimum Standards For Cable Television System Recommended By Cable TV Committee

1. The Cable system should pass all channels without: Noticeable degradation of intelligence and color fidelity, picture information, audio distortion; cross channel interference; or sync compression of 5%.
2. The system shall deliver a minimum of 1500 micro volts at 75 ohms or 3000 micro volts at 300 ohms signal strength to each receiver on every

(Continued on Page 10)

First UHF/VHF/FM 2-83 antenna
that really works in fringe areas

New Winegard Chroma-Tel CT-100



NEW! Model CT-100 \$52.50

Winegard's sensational new CT-100 Chroma-Tel has 29 elements in all. And they're all working to provide the finest all-band reception (UHF-VHF-FM) even in difficult fringe areas.

In addition to those 29 elements, the CT-100 incorporates a unique matching network that guarantees maximum signal transfer to the downlead—and on all channels 2-83 plus FM. Gives sharpest color and black & white reception.

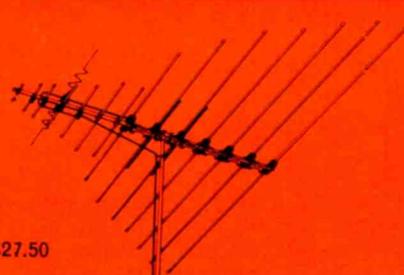
And like all Chroma-Tels, it has Winegard's exclusive Chroma-Lens Director System (intermixes both VHF and UHF directors on the same linear plane without sacrificing

performance) . . . and our Impedance Correlators (special phasing wires that automatically increase the impedance of Chroma-Tel's elements to 300 ohms).

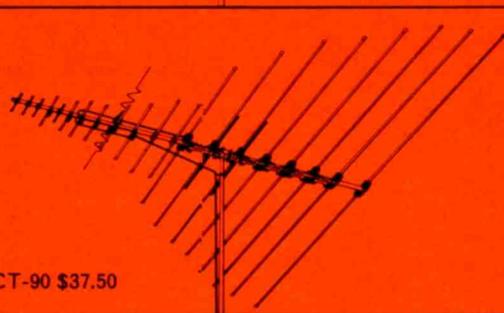
That's Winegard's new CT-100 Chroma-Tel. Bigger and better. But not too big. The full-line of Winegard Chroma-Tels still offers half the bulk; half the wind loading; half the truck space; and half the weight of all other all-band antennas—and at much lower prices. No wonder Winegard Chroma-Tels (now 4 models) are the hottest performing, hottest selling all-band antennas on the market! Better call your Winegard distributor or write for Chroma-Tel Fact Finder 242.



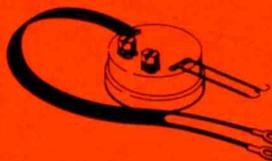
Model CT-40 \$17.50



Model CT-80 \$27.50



Model CT-90 \$37.50



FREE!

Every Winegard Chroma-Tel, including the new CT-100, comes complete with free CS-283 UHF-VHF Signal Splitter. Hangs behind set and separates UHF and VHF signals coming from antenna to the two pairs of set terminals





PRESIDENT'S MESSAGE

By ED FORT

By now most of you are probably aware of the recent refusal of the United States Supreme Court to hear an appeal from the California Courts on the matter of Pay TV. This means that Pay TV now has the green light in California. And it also means that we are again faced with the same challenge that confronted us in the past.

This is no paper tiger that challenges us. This is a real live multi-million dollar adversary with the capability of making the TV service industry—as we know it—virtually non-existent. One of the few things in our favor is that ours is not the only industry challenged. The broadcasters are perhaps even more disturbed than we are—they have much more to lose.

Although, I suspect, when they find that they can not lick them, they will join them. The TV retailers and wholesalers and the parts distributors should be equally apprehensive. They stand either to be bypassed, or to be forced to stand by and watch their margins gradually being eroded through the threat of direct buying.

The amount of help that can logically be anticipated from these sources is, at this point, strictly conjecture. We, as an association, had better plan on a strictly self-help program. Off-hand, I can visualize no one riding to our rescue in a suit of shining armor. What we want done, we will have to do ourselves.

Even though the Courts have ruled that prohibiting Pay TV is really stifling of free speech, this does not mean that monopolistic practices will be condoned. On this basis I feel that we may have a good case when it comes to franchise agreements. Our primary concern is that Pay TV not be allowed to form one huge monopoly in TV servicing—the TV servicing industry must be kept competitive and free from monopolistic practices.

There are ways that these objectives can be achieved, but only if we show a united front and a unity of purpose. If ever this industry needed a united voice—now is the time.

Are you offering today's color?



RCA Hi-Lite color picture tubes bring OEM quality to your replacement tube customers

Odds are that when a dealer is called to replace a customer's color picture tube and he replaces it with an RCA Hi-Lite, he's giving the set owner a better product than he had when his set was new.

That's because RCA Hi-Lite picture tubes are RCA's best... the same quality... the same tubes... that go into today's original equipment sets. RCA Hi-Lites are all-new... glass, gun, the works! And incorporate the continued advancements in picture tube technology achieved by the world's leading color picture tube manufacturer. So your dealer literally "up-dates" his customer's color set when he installs one.

Here's picture brightness and color fidelity at its finest, available for the service trade in 19-inch and 25-inch rectangular and 21-inch round tube types.

How about you? Are you offering your customers today's color?



RCA Electronic Components and Devices, Harrison, N.J.

The Most Trusted Name in Electronics

CALECTRON

San Francisco: 33 Gough Street, MA 1-3400
Fresno: 2930 Butler Avenue, 268-8411
No. Sacramento: 330 Commerce Circle, 922-5885

SPECIAL EVENTS

CSEA BOARD OF DIRECTORS MEETING

Nov. 20th
San Francisco

ZONE F BOAT PARTY

Nov. 19th, 7:30 P.M.
Fisherman's Wharf
San Francisco

NEA (NATIONAL ELECTRONIC ASSOCIATIONS) BOARD OF DIRECTORS MEETING

Nov. 12th & 13th
Indianapolis, Indiana

ZONE F MEETING

Nov. 21st
Riverside, Calif.



CSEA NEWS WIRE

A ROUND-UP OF STATE AND LOCAL NEWS OF
THE CALIFORNIA STATE ELECTRONICS ASSOCIATION

The members of the Television Service Dealers Association of San Mateo County recently heard Mr. Victor Scharar speak on "The Relationship Between TV Sales & Service and Cable TV". Mr. Scharar called for better understanding and cooperation between the Cable TV Industry and the Service Industry and explained that the Cable Industry has no intention of going into the sale or service of television receivers. The Association is also investigating the possibility of running a quarter page ad in the yellow pages advising readers to patronize shops displaying the TSDA and CSEA insignias. Ray Morris, Executive Secretary for the group reported that they are still attempting to get a technician training course and transistor review course started at the College of San Mateo.

ESD ESD ESD

The Santa Barbara Chapter of Electronic Technicians held a special meeting last month to discuss service pricing as reported in ESD. Also on the agenda for discussion was the current membership drive, the BERDR ruling on ten sets, and other Association business. The group also passed a resolution asking that the goal of the BERDR should be a minimum of red tape toward business operations.

ESD ESD ESD

ZONE "B" is putting together final plans for their big Boat Party slated for November 19th. According to Larry Schmitt, chairman for the event, "this will be the finest social evening the Zone has ever held and everyone is encouraged to put in their reservations now." Only 185 people can be carried on the boat so it is important to get reservations in early. A special invitation is being sent to CSEA Board of Director members who will be meeting in San Francisco on the 20th to come early and join the fun. The boat will leave Fisherman's Wharf at 7:30 p.m. and will arrive at the Gallion Restaurant about 8:30 p.m. There will be dinner and dancing to the music of a full orchestra till about 11:30 p.m. Everyone will then go back aboard the boat for the return trip to the Wharf. The entire cost is \$15 per couple.

ESD ESD ESD

On October 4th the ACTRA chapter of CSEA heard Mr. Larry Waldt of the Criminal Division of the Alameda County Sheriff's Office who detailed the problems of law enforcement, what action should be taken in case of trouble and what action his department can and will take. This program was the result of a series of burglaries and an effort to find a solution to this increasing problem. The chapter also held its annual social party on the 22nd of October at Jim Biraglia's in Alameda. Well over 150 people attended the affair and enjoyed the evening of dining, dancing and entertainment.

ESD ESD ESD

The Zone "F" Council of CSEA met last month at the Thistle Inn in Glendale for the first time. Guest speaker for the evening was Ken Keep of Fresno who explained the new CSEA insurance program to the zone delegates. Mr. Keep also went into the new income protection plan as o.k.'d by the CSEA Board of Directors and answered questions regarding both insurance plans.

ESD ESD ESD

CSEA approved uniforms of white shirts and blue pants are available through the California Towel Company. These uniforms are being used by a number of members throughout the State and are also available with insignia and name on the shirts if desired.

ESD ESD ESD

A major complaint regarding the BERDR's activities were discussed at great length recently by the CSEA Board of Directors. The Association is basically upset over the informal adjustment of customer's complaints involving refunds. Many feel that this practice can develop into a racket based on minor violations not affecting the basic issue of whether work was properly done and priced within estimate. At the present time customer complaints are reviewed by the Bureau and, if they find any violations whatsoever they ask for an adjustment. This usually ends up with the dealer giving back a refund.

(Continued on Next Page)

CSEA NEWSWIRE—continued

One example that was pointed out was the case of a complaint by a customer and the only violation was that the dealer had not placed his registration number on the invoice. For this he had to give a refund to the customer. Many dealers feel that if a fine is to be paid it should be paid to the state, not to the customer. After all it is admitting guilt regardless of the charge and gives the dealer a black eye.

ESD ESD ESD

The Zone "F" Council of CSEA is going to begin a program of rotating their meeting place each month. Last month it was held in Glendale with the November meeting slated for Riverside. This idea stems from a successful Zone meeting in Ventura and gives chapters in outlying areas an opportunity to see the Zone in action. Future plans call for meetings in Long Beach, Burbank, South Bay, Santa Monica, etc.

EDITORIAL

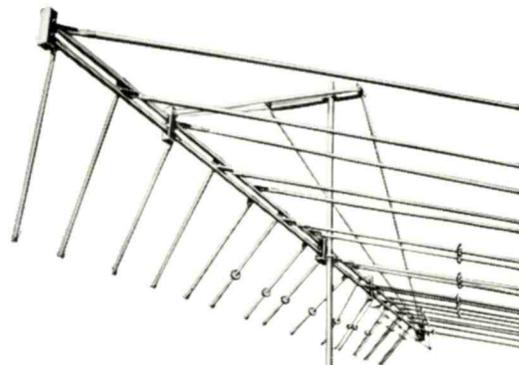
CATV Performance Standards

(Continued from Page 6)

- TV channel in the system; this condition shall be met when every outlet is connected to a load. The levels referred to above are to be measured at the video carrier frequency of the weakest VHF channel. The remaining channels shall have the level of their video carrier no more than 7 db above this specified level.
3. The systems signal to noise ratio shall not be less than 46 db as measured at furthest amplifier from head end.
 4. Cross modulation components shall be down 52 db minimum and no visible components of video shall appear on a blank white screen or any channel of the system with all other channels operating with modulation at their rated levels.
 5. The Hum modulation of the picture signal observed at any point throughout the system shall be less than 5%.
 6. The voltage standing wave ration (VSWR) shall be 1.4:1 or better so that the echo or ghosts are down 40 db or better.
 7. The frequency response of the system shall be flat plus or minus 2.0 db across any 6 mc band width.
 8. Radiation from equipment will be less than 10 microvolts per meter at 10 feet distance measured across 75 ohms.
 9. The audio carrier level shall be adjusted for a minimum of 12 db below the level of any adjacent video carrier.

ZENITH LOG PERIODIC ANTENNAS

offer high
signal gain and
ghost rejection



All-channel VHF/UHF/FM and FM Stereo

Developed by the University of Illinois antenna research laboratories, each Zenith log periodic antenna works like a powerful multi-element Yagi . . . not on just one or a few channels, but across the entire band it's designed for.

Order Zenith antennas and all genuine Zenith replacement parts and accessories from your Zenith distributor.

BUILT TO THE QUALITY STANDARDS OF ZENITH ORIGINAL PARTS

Also Zenith periodic antennas for

- UHF • VHF
- FM AND FM STEREO
- PLANAR HELICAL UHF

ZENITH
®

The quality goes in
before the name goes on

A BROADCASTER'S VIEW OF THE TELEVISION INDUSTRY

by Doyle D. Thompson, Chief Engineer
WKMY, CBS Affiliate in Winston-Salem, No. Carolina

Mr. Doyle D. Thompson, Chief Engineer for station WFMY, CBS affiliate in the North Carolina area, made the following presentation during the recent NEA convention in Winston-Salem. The material he presented represented to us a story that should be heard by every service dealer and we therefore asked permission to use it in ESD. We feel you will find it informative, thought provoking and offers further insight into the problems of the Broadcaster and how the service industry can best serve itself through industry cooperation. The following is his speech:

Color and Solid State are the two subjects that everyone is talking these days. Television stations are going solid state as fast as possible for several reasons. Transistorized equipment, AFTER it is debugged, is very dependable. It is not effected by line voltage changes to the extent that the vacuum tube equipment is. As you know, the heat problem that all stations had is almost non-existent with transistorized equipment. The signal voltages are low, impedances are low, components are smaller, replacement costs are less. The operation is more economical, and usually less complicated.

On the other hand, Color triples what we had to do with monochrome. The studios require much more light with a higher kelvin rating. This is another way of saying "White Light" to get the different colors to look normal. The cameras require additional pick-up tubes with their associated circuitry. New techniques are required for the handling of video signals. All new terminal equipment is required to handle the color signals.

When CBS announced, last year, that they would be full color in the 1966-67 season, it seems like the color boom really started. You think you have problems getting color receivers, you should order some broadcast equipment! I ordered RCA TK-42 color cameras over a year ago. We still do not know for sure when they will be delivered. The TK-42's cost \$72,500.00 each.

Our station is going full color just as fast as the equipment can be supplied. We have on RCA TK-27 Four Vidicon Color Film Camera in full operation and have another that has just been received. These cameras run over \$50,000.00 each. We have a TR-70 High-Low Band Color Video Tape Machine that has been on order for over a year. These machines will cost over \$100,000.00 each. We have two TR-22 Video Tape Machines that are being converted to color now.

To give you an example of how much we think of color, we put four RCA TK-60 studio cameras in operation last January a year ago. These monochrome cameras are still the current production model and, with lens and accessories, sell for approximately \$25,000.00 each. Within six months after they were put on the air, I had ordered color cameras

to replace them. We put in a completely new RCA Transmitter to be sure we had the finest color on the air. The transmitter with its associated equipment cost approximately \$200,000.00. Additional test equipment has been installed, and we have several thousand dollars worth more on order. We even had our antenna completely checked out up on our tower.

Recommended Qualified Technicians

I don't mean to dwell just on our station, but only wanted you to know that no matter which part of the country you may be from, your local stations are going to great trouble and expense to give you the finest color signal that can be produced by state of the art equipment. Now you can appreciate how a station engineer feels when a viewer calls to say they don't get good color from your station, or one of the other stations for that matter. In my case, the caller is always referred to a "QUALIFIED" television service technician. We don't recommend individuals but only qualified service shops.

Here is where you in the service business have a big problem. You already know it so I'm not going to dwell on it . . . BUT, you know what answer I usually get when I refer the caller to his or her service technician. Many times the caller reports their service technician said over the phone that the trouble was at the station.

Other callers report, "I can get Channel 2 good but Channel 12 isn't good or visa versa." My first thought is "Oh well, another screwdriver mechanic has passed the buck." Now I will admit this is not near as bad as it used to be BUT it still happens. I repeat my plea . . . Call a Qualified television service technician. The station is not experiencing any technical problem . . .

Here I wish to make plain . . . our station, being a pioneer of about 18 years, has maintained the policy of putting up a trouble slide if there is trouble. We started this in 1949 at the request of the service technicians and have continued it to date. This can make another problem since some troubles only effect the cheaper sets and the viewers with better sets call in to ask why we have the trouble slide up when everything is all right.

Some of the reception problems that do occur locally, and will also hold true elsewhere, are caused by several different things. In Greensboro, for example, the WFMY-TV transmitter and tower are located within the city limits, therefore, the AGC problems are terrific. Many sets pick up Channel 2 on the first four or five channels! The signal close to the

(Continued on Next Page)

transmitter is extremely high but some service technicians have blamed the problem on the station broadcasting on all those channels!

In areas of very high signal strength, the radio frequency amplifier in the tuner is driven to grid current. This, of course, causes the amplifier to radiate a high harmonic content signal which can cause interference within the set itself. In Greensboro there have been cases of interference to Channel 7 caused by the set itself creating the second harmonic signal of Channel 2. The Channel 7 interference can be cured by padding the Channel 2 signal on the set. This problem can be caused by any local strong signal, not just television stations. FM stations cause it frequently. If any of you have this problem, remember there are several good single channel pads available. This type pad attenuates the indicated channel by 30 DB without causing any loss to the other channels. Works on FM too. I have one on my color set in Greensboro and can tune in my station with the same ease as one twenty miles away. I can also watch Channels 4, 5, 6 or any of the high band channels with no interference.

Television Interference

Television interference is my pet subject. I have been on the local Television Interference Committee for many years and have even had printed a pamphlet covering briefly the normal television interference problems. This was printed up for service technicians, and I have a few left that I will make available here today. You can pick up one, as long as they last, when we adjourn.

A television service technician should be able to clear up the problems of interference for their clients. After all it is just another service that you can offer and receive pay for. Each day there are more and more transmitters licensed for Two-Way Service, Citizen's Band, Amateur Radio, Short Wave and many other services. Just because a television receiver has interference to its sound or picture when a local transmitter operates does not mean the problem is with the transmitter. Of all the cases I have checked over the years, concerning alleged interference being caused by a transmitter licensed to another service, I have yet to find the transmitter to be at fault. So many times we receive complaints that someone is interfering with their television. My stock answer comes up again . . . call your qualified television service technician. The answer, many times, is: "He said it was that Ham Radio Operator down the street and the Ham should clear it up." Here again the Amateur Radio Operator is licensed to operate on his assigned frequencies and just because the television receiver is so broad that it picks up his signal is no reason he should be made to clear the problem. Legally he doesn't have to if he is not radiating a spurious signal on the channel.

Normally just the proper installation of a Drake TV-300-HP filter in the antenna line, at the tuner, will clear up the problem completely. Filters of this type are available free from many manufacturers, just for the asking. To clear up an interference complaint of this type means a service call and more money for you. Every television service technician should be familiar with the types of television interference that are common and should be able to clear them easily. The main thing is to be Qualified.

Keeping Informed

Here is where I think your North Carolina Electronic Technicians Association is a good thing. It is the main reason I wanted to talk with you this morning . . . One of the benefits of having a strong association is to keep your membership informed. You know it is easier for a strong group to have manufacturers come in for seminars covering subjects of interest to you. If you will police your ranks properly, then your Association symbol can be used by the viewing public to assure themselves of a dependable technician and high

quality workmanship. Kind of a quality control. I still think the general viewing public is interested in good workmanship and will pay for it. Screwdriver mechanics should be a thing of the past.

I feel so strongly about this that January before last our station sponsored a television service technicians seminar. We had an excellent turn out and finally had to limit the attendance. We had speakers from different manufacturers cover such subjects as servicing transistors, antenna selection and installation, reception problems and spent the whole afternoon on color receivers.

Our station, along with the other two in our area, is assisting with the sponsorship of an Antenna Promotional Campaign. We are regularly running spots reminding the viewers to call their Qualified Reception Specialists. I am sure some of you are members of the American Institute for Better Television Reception, and have the seal.

Our engineers must study to keep up with the equipment we are installing. I recently enrolled all my engineering staff for a course on Transistors with the RCA Institutes. In this day and age, you must stay qualified to stay in business.

Poor Antenna Installation

Many color problems, in the home set, can be caused by an improper antenna installation, as you know. An antenna may have a poor gain passband with reduced gain on the high end of the channel and not cause any problem when viewing monochrome. The sound carrier is near the high end of the television channel but since it is FM, it only means you run the volume control a little higher if the antenna gain falls off up there. BUT in color, the chroma carrier signal is located $3\frac{1}{2}$ megacycles above the picture carrier and if this is lost in the antenna, there just isn't anything that can be done in the set to correct this . . .

Antennas that do not match the transmission line can cause what is known as standing waves on the line. This can really mess up a good color signal. The little stand off insulators that everyone uses for twin lead should never be pressed until the metal of the stand off touches all the way around the insulator. This can cause ghost problems and loss of signal where signal strengths are low. Coax transmissions line does not have this problem and I recommend it highly. I use matching transformers and coax on my home antenna and can see excellent color as well as monochrome from any station viewable in the area. When I changed from good foam filled twin lead to coax, I could not detect any signal loss. If anything, the signals seemed to be a little stronger, possibly due to less noise pick-up on the transmission line.

Each year the manufacturers come out with more sensitive tuners, it seems. We also have been experiencing abnormal "SKIP Conditions" for the last few years. Skip is when the Ionospheric level changes and the layer gets more saturated causing VHF signals to bounce back to earth. When this happens there is not much that can be done except, at times, antenna orientation. When a client calls about this problem, please explain it to him and let him know that it is not a permanent thing. As you know, the lower channels are affected first but I have seen skip as high as Channel 13 this year.

We receive cards and letters weekly from distant viewers reporting the reception of our signals. I have received good reception reports from Washington State, Cuba, Jamaica, Nova Scotia, most of eastern Canada and all of the mid-western states.

During Daylight Savings Time, as you know, the Eastern Standard Time states receive a one hour video tape delay feed from the networks. When you see a network color program with streaking backgrounds, please remember the local station cannot correct the network feed but that we are trying to get the problem cleared up. All three networks have had this problem from time to time.

—END



RCA VICTOR DISTRIBUTING CORP. ANNOUNCES

The NEW



8 track stereo tape player

-and  **STEREO 8** CARTRIDGE TAPES



The above colorful, eye-catching sales display is yours with your initial order. It is designed to catch the eye of the passer by. Lets the prospect actually test the Stereo unit. The display

sets up in minutes. Is sturdy, attractive and has pockets in the wing panels to hold the twin speakers. The top panel is illuminated.

Ask Your RCA Victor Parts or Record Salesman About This New Exclusive. He has All The Details to Put You in the Auto Stereo Business Today! Or, if You Wish, Call Now and We Will Send Him By.

RCA VICTOR DISTRIBUTING CORP.
6051 TELEGRAPH RD., LOS ANGELES, CALIF.

LOS ANGELES • 723-6661
SAN FERNANDO VALLEY • 781-6501
PASANDEA / BURBANK • 246-8373
SAN GABRIEL VALLEY • 443-6907
WHITTIER / ALHAMBRA • 728-7295

LONG BEACH / DOWNEY • 639-6950
INGLEWOOD / REDONDO • 675-4401
ORANGE COUNTY (714) • 521-6700
SAN BERNARDINO (714) • 889-1518



HOW TO MAKE YOUR

SMALL ADS WORK

by Gordon MacLaren,

Account Supervisor, Cunningham & Walsh, Inc.

Advertising, New York, New York

Are you stalking your prospects with a pea-shooter advertising budget?

Do you feel that your small ads will be lost in the jungle of big money, big space advertisers?

Have you tried a few ads, then thrown up your hands in despair?

Well, take a tip from the Bible—tiny David slew the giant Goliath with a pebble.

While you can derive an important lesson from this Biblical story, don't go off the deep end and assume that you can compete successfully in every way with major advertisers. Big space does attract more attention—and that takes big money. What you can do, is make your small ads more effective.

First of all, take a leaf from the ad handbook of the experts on Madison Avenue. They know from experience that each advertising medium requires a special approach. They even go so far as to hire specialists for each field. Secondly, they know that nothing builds a campaign's effectiveness than repetition. Even a very large ad run just once is likely to have less total impact than a smaller one run consistently.

Obviously, if you're a smaller businessman, you can't afford a stable of experts for each kind of advertising you do. But, if you follow a few tried and true guidelines, you can make all of your small space ads pay off in a big way.

Here are some pointers for each type of advertising:

Newspapers. Flip through your local paper. Don't be intimidated by the big spenders. Sure, at first your eye is attracted to the big ads. But, as you go along consider your own reading habits. Surely you've seen some ads, or even editorial features that always run in the same place, year-in, year-out. If you're like most people, you've come to expect them there, and, subconsciously, you probably look for them in the regular place.

Here again let your own eyes tell you what's best for your ads. If possible, always have your ad run in the same position.

As for your ad itself, its size should tip you off right away to some basic fates. Obviously, you can't say as much as in a big ad. Confine yourself to one idea, and keep your copy crisp and to the point. Add small illustrations for eye appeal, but keep them small and use line drawing for clarity, instead of photos that become "muddy" in smaller sizes.

Remember, the usual impact of your ad will determine to a large extent whether it will pay off. Use unusual borders on your ad to make it different, but don't go whole hog with massive ones that cut down the space for your copy. Above all, use a headline that will attract the reader's attention and save your name for the place where it belongs—further down in your ad. Make your headline as large as possible. Several recent studies have indicated that sheer size makes it more eye-catching.

Since newspapers are dispensers of news, keep your ad timely and newsworthy. If you don't have a special sale you want to promote, tie in with events of the day, such as holidays, sports, seasons, and so forth.

Next, don't overlook classified ads. Though they are even

smaller than the display ads we've been talking about, they can still do a big job for an even smaller investment.

Here, where you're charged by the word, brevity is even more important. Make sure your ad is under the proper heading, and remember that this heading means your ad will run next to those of your competition, and therefore, you've got to make it stand out. Chances are you can't use illustrations, and bold-type headlines are usually not allowed. So, you've got to rely on your headline to convince the reader that he should deal with you and you alone.

Radio. While strictly speaking not a "space" medium, a distinction can be drawn between a big ad and a small one. The bigger type of ad consists of sponsorship of a given program. Unless you've already progressed beyond a small budget, that's not for you.

Your money belongs in "spot" announcements, that run between programs.

Since these spots are sold in one minute and half-minute units, it's readily apparent that you don't have much time to get your message across. Your copy has to be very brief.

And, brief though it is, it has to attract the interest of your prospects by words alone, without the added impact of illustrations or unusual type and border style. Write your copy as if you were speaking it.

The "headline," or introductory sentence, has to be attention-getting. Listeners are besieged with commercials all day long, and for yours to make an impression, and stick in their minds, it has to be different.

Steer clear of unnecessary details, since these may only be confusing. Keep your message as simple as possible, and be sure to repeat the points that you especially want to get across.

Use radio ads, like those in newspapers, for timely events, such as specific sales, seasonal events, and other occurrences of the moment.

Television. Many small advertisers think this medium is too expensive for them. Nothing could be farther from the truth, if you think in terms of small local stations and spot commercials, and not network extravaganzas.

Again, strictly speaking, this is not a space medium, but many of the same rules that apply to radio apply here, too.

Here, too, a small budget won't allow sponsorship of a program, so spots are the best buy. Ask the station to run your spots adjacent to programs that will attract the type of prospects you'd like to reach, and they'll pay off even better.

A golf program, for instance, should be the best adjacent for a product that appeals to men, and likewise, a women's interest show is the best place for female-oriented products.

Bear in mind that different time periods are priced differently, with the highest tag going to evening "prime time" ads. The latter time, incidentally, is best if you want to reach both men and women, while daytime hours are best for reaching housewives at lowest cost per head. Afternoon and early evening shows are best for getting your message across to children.

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Don't be scared off, either, by what you've heard of high production costs for commercials. You can get effective commercials by having the station's staff announcer use a prepared script and a sample of your product, or, failing that, matte-finish photographs. Remember that people are listening to your message, as well as watching it, so write your copy for the way it sounds when spoken.

Since television is largely an entertainment medium, keep your commercials light in tone, and, if possible, even go so far as to make them humorous.

With radio as well as television, there's no coupon for prospects to cut out, nor any ad that they can fire away for future reference. Unless your location is extremely well-known, give them your address in as brief a form as possible. But, concentrate on making your store or your product attractive. Even if they don't remember your address, they can always find you in the Yellow Pages.

Yellow Pages

Yellow Pages. This medium is unlike the others in that its ads don't go prospecting through large numbers of people for those who might be interested in a particular product or service. Prospects turn to it only when they've made up their minds to buy.

Quite frequently, people turn there after some other form of advertising has made a good impression on them, but they've forgotten some vital fact, such as an address or phone number, or even the name of the advertiser, in which case they scan the companies listed under a product or service heading to jog their memories.

Of course, other people turn there without being influenced by any other form of advertising. And, whether they've seen your ads or not, many of these people have only made up

their minds to buy, and may not have decided who to buy from.

Because firms are listed together with all such other firms in the same business, it becomes even more important to tell prospects why they should deal with you and you alone, instead of someone else who's listed there.

The Yellow Pages are in circulation the year 'round, so they're not the place for advertising special sales or other timely events. What should be emphasized are your full line of products and services. In other words, the Yellow Pages ad should be a quick catalog of what you have to offer.

Most effective means of attracting prospects to your ad is an intriguing headline. It should capture their interest because it promises some benefit to them.

Outdoor Advertising

Outdoor Advertising. Quite obviously, we're not talking about huge billboards, as they are quite expensive. What we're concerned with here are smaller-size posters.

Like newspaper ads, the main idea is to get your main selling message across, but since most prospects see your posters for only a very brief time while they're passing it, don't overload your poster with lots of details. Just attract their interest with an intriguing headline or idea, and then sign off with your address.

To sum up, there are certain points that are essential in any type of small space advertising. First, make sure your ad is in the right position to attract the most readers, viewers or listeners. Next, make sure that you attract their interest with an intriguing headline. Follow up with some details, but keep your message crisp and brief. Then, when you're setting up your schedule, make sure you back up your other ads with directory-type advertising, such as the Yellow Pages, and, above all, remember that repetition will make people remember both you and your message.



The RCA Victor Distributing Corp. Says . . .

"It's hard to stump our parts men!"



For the friendliest, most helpful phone service in town call these numbers for all your part needs:

- | | |
|----------------------|------------|
| LOS ANGELES | • 723-6661 |
| SAN FERNANDO VALLEY | • 781-6501 |
| PASADENA/BURBANK | • 256-8373 |
| SAN GABRIEL VALLEY | • 443-6907 |
| WHITTIER/ALHAMBRA | • 728-7295 |
| LONG BEACH/DOWNEY | • 639-6950 |
| INGLEWOOD/REDONDO | • 675-4401 |
| ORANGE COUNTY (714) | • 521-6700 |
| SAN BERNARDINO (714) | • 889-1518 |

and in
SAN DIEGO call us at 234-6316

TRADE/TALK

TECHNICAL SESSIONS ADDED FEATURE FOR SOUND BUSINESS SHOW

Technical sessions of broad appeal to professionals in the commercial sound business have been scheduled as a new feature of the Sound Business Show at the Olympian Motor Hotel in Los Angeles in November according to Norm Marshank, Chairman for the event.

"A total of eight 45-minute sessions will be held," said Marshank, "four on each morning of the two-day show." A panel of three experts has been arranged for each session.

Subjects to be discussed include the following: "Fighting Feedback," "Solving Audio Problems in Closed Circuit TV" (Thursday, November 3rd); "Recent Technical Advances In Intercoms" and "Wireless Microphone Applications" (Friday, November 4th). The first daily sessions begin at 10:00 a.m. and the second at 11:00 a.m. The show itself, restricted to commercial sound people, opens at noon and closes at 10:00 on each of the two days.

Noted industry leaders will participate in the technical sessions. Panelists already slated include William Byron of Concord Electronic Corp. and Charles Swisher of Vega Electronic Corp. Other discussion group participants will be announced at a later date.

ANDI ANNOUNCES NEW PRINTED CIRCUIT UHF-VHF SPLITTER

The Engineering Department of Antenna Designs, Inc. of Burlington, Iowa, manufacturers of ANDI Antennas, announced that they recently developed a printed circuit UHF-VHF coupler splitter Model PC-283 for use with combination UHF-VHF Antennas, and requiring only one lead-in wire.

The ANDI PC-283 is designed to split the signal coming from a combination UHF-VHF Antenna, and with it one can run separate UHF and VHF leads to the Antenna terminals on the back of an all channel T.V. set or UHF converter.

Using a printed circuit board resulting in the total elimination of capacitance between coils, this allows maximum isolation between UHF and VHF signals and a near perfect 300 ohm impedance match.

The PC-283 has an extremely compact size, is individually packaged, and lists for \$3.00.

FULL ONE YEAR GUARANTEE OFFERED BY MERCURY ON TEST

Harry M. Rich, president of the test equipment manufacturing organization, Mercury Electronics Corp. announced a new one year guarantee policy on all their test instruments.

At his headquarters, 315 Roslyn Road, Mineola, New York, Mr. Rich remarked, "We put a lot of engineering and quality into our products. We have a team of specially trained inspectors that check the wiring in various stages of production to assure strict adherence to specifications. Before we ship any unit it is given a thorough going-over to assure long lasting trouble-free service for the technician.

"We know of no better way to demonstrate the confidence we have in our products than to go beyond the conventional test equipment guarantee, and offer a full one year warranty on parts and workmanship under normal usage. It is our feeling that all this effort pays off for the serviceman by assuring his test equipment investment—and for the distributor as well as us in increased goodwill."

CARL BOSHERS REPEATS AS EDISCO GOLF TOURNAMENT CHAMP

San Francisco, California—For the second consecutive year, Carl Bosher of Millbrea TV won the annual EDISCO Golf Tournament Championship.

Bosher, who finished with an 83, was three strokes under his nearest competitor Jack Rainey of San Bruno and Bill Titus of Daly City who posted 86's.

The women's division champion was Beth Feio, wife of Ed Feio of Tri-City Electronics in San Mateo. The runners-up were Grace Caster and Jean Fichter.

Over 50 golfers participated in the fourth annual tournament sponsored by the local San Francisco Parts Distributor. Under the chairmanship of Bill Grayson, there were prizes for the winners and over 80 stayed for the special dinner that followed the day long activities.

Prizes were donated by Sylvania, General Electric, Alliance, Winegard and Jerrold.

MELLOTONE INTRODUCES NEW SWATCHCARD TO INDUSTRY

A new swatchcard with over 60 different patterns has been announced by MELLOTONE, Inc., the largest manu-

(Continued on Page 18)

CHANNEL MASTER

DISTRIBUTED IN CALIFORNIA BY:

ANDREWS ELECTRONICS

1500 W. Burbank Blvd.
TH 5-3536

ASSOCIATED RADIO DIST.

1583 Howard St.
San Francisco, HE 1-0212

IN

Palo Alto: DA 3-3173
San Mateo: FI 5-3575
Vallejo: MI 3-4531

HURLEY ELECTRONICS

2101 N. Fairview, Santa Ana, 638-7220
IN

Inglewood: 679-2276
Ontario: YU 6-6538

San Bernardino: TU 5-0721

Long Beach: HE 6-8268

Oxnard: HU 3-0133

Oceanside: SA 2-7694

KIESUB CORP.

311 W. Pacific Coast Hwy.
Long Beach 591-1335 & SP 5-1428
IN

Anaheim: KI 7-3527 & 865-0688

Bakersfield: FA 7-5535

Oxnard: HU 3-9541

San Bernardino: TU 5-6807

Van Nuys: ST 1-3930

MILLER'S RADIO & TV SUPPLY

530 East 8th Street
Oakland, TE 4-9185

IN

San Jose: CY 5-6818

Santa Rosa: LI 2-5423

Walnut Creek: YE 4-3000

NORCAL ELECTRONICS

1115 "R" Street
Sacramento, 442-9041

WESTERN RADIO & TELEVISION SUPPLY CO.

1415 India St., San Diego
BE 9-0361

Poll shows dealers prefer Channel Master color antennas by tremendous margin. We're not surprised. Read why.

When it comes to color antennas, we know our place. That it happens to be **first** place—and that Channel Master has been up there a long time—is a sweet thing to know. (Just try and budge us.)

But—once in a while—isn't it nice to have somebody else confirm what you've always known?

What happened was this: One of the nation's top three publications in the radio-TV-appliance merchandising field—(name on request)—made an independent survey of color set appliance dealers. Result? The lopsided box-score, in case you haven't noticed,

is down below. Please observe that the opposition isn't even close.

Now as long as Channel Master Crossfires are up there we wanted to know why they're up there. So we requested the same publication to take a second poll. And just as we thought: Any specific brand of antenna may be preferred on many counts. But one reason leads all the rest. Performance! That's why the Crossfires are No. 1. They work better! (With color sets or black-and-white, naturally). This includes our VHF/FM series for suburbs-to-fringes, our Coloray ghost-killer series, and our

Ultradyne Crossfire 82-channel FM or Ultradyne UHF only series.

To what do we owe our success? Our principles. (Unique engineering ones, of course. All of them patented or with patents pending.) They make the Crossfires the mightiest antennas ever developed. With remarkably high gain and up to 30-to-1 front-to-back ratios. (Maybe the competition's principles just aren't as powerful as ours.)

So call your nearest Channel Master distributor, join the rest of the gang, and come on up. The installation's fine and the profit's high.

High Man
On The
Totem Poll!



OF THE 5 TOP-SELLING
ANTENNA BRANDS DEALERS
PREFER CHANNEL MASTER:

2 to 1 over Brand **B**
3 to 1 over Brand **C**
3½ to 1 over Brand **D**
5½ to 1 over Brand **E**



ORIGINAL



**FACTORY
REPLACEMENT
PARTS
FOR T.V.
& RADIO**

- DELCO AUTO RADIOS
- RCA
- ZENITH
- GENERAL ELECTRIC

**PLUS—THE BEST LINES
OF GENERAL
REPLACEMENT PARTS**



ANDREWS
ELECTRONICS
1500 W. BURBANK BLVD.
BURBANK, CALIF.
TH 5-3536 ST 1-3120
VI 9-6014

TRADE TALK

(Continued)

facturers of speaker cloth in the nation. These patterns are especially designed for installation for Hi-Fi and Stereo. TV sets, Pianos, and Organs. Old and worn-out material on a television set can easily be replaced — stapled or glued — to renovate “the old sick-looking” set. Another important feature is that dealers can now match the decor of homes by using this material. Uprights and Organs can be covered in the back and can be used as room dividers.

Swatchcards are available either from over 150 MELLOTONE Distributors in California, or Erlanger Sales Company —4217 W. Jefferson Blvd., Los Angeles, California 90016, who are the west coast warehouse representatives.

JERROLD LAUNCHES BIGGEST SPOT TV AD CAMPAIGN IN HISTORY

Jerrold Electronics has announced a massive spot radio-TV ad campaign for this fall.

According to Sandy Berlin, Manager of Jerrold's Distributor Sales Division, “this is the antenna industry's first really extensive spot campaign.”

While declining to reveal the total cost of the campaign, Mr. Berlin pointed out that spot radio and TV ads will be run in 125 key cities from coast to coast.

Mr. Berlin, explained the reasoning behind Jerrold's substantial investment in consumer advertising as follows:

“Our MAAP and Show 'n Sell programs have enabled us to get the leading distributors in many areas to promote the Jerrold antenna line. And these distributors, using Jerrold merchandising aids, have been able to sign up the

leading department, discount and appliance stores in their areas.”

According to Mr. Berlin, the MAAP program, which encourages retailers to sell antennas as installed appliances, has been very successful. “Floor salesmen who use our special customized sales book find that they can easily sell antennas to 30 to 50% of their customers who have bought color sets.”

“The antennas are installed by the top professional antenna men in each MAAP area. These men are specially trained as Jerrold Reception Specialists. Of course, we feature the Reception Specialist concept in our TV commercials.”

“Heretofore, if a consumer was sold on the idea of a good outdoor antenna, he could easily wander into the store of a competitive dealer and be switched. Now, if our commercials sell the consumer, he goes into his favorite retail store and is offered a Jerrold antenna.”

“Because we're in the best possible position to benefit from building a demand for antennas in areas where the MAAP program is working, it pays us to invest in heavy spot campaigns.”

RCA VICTOR DIST. CORP. TAKES ON BORG WARNER AUTO STEREO UNITS

Los Angeles, California—Walt Pasner, Parts Manager for RCA Victor Distributing Corp. in Los Angeles has announced that his firm has taken on the exclusive distribution of the new Borg Warner Auto Stereo units.

This new system comes complete with twin speakers that are easily installed under the dash as well as the cartridge receiver itself. Full details will be available from the local distributor salesman.

CLASSIFIED ADVERTISING

ELECTRONIC SERVICE SHOP (no sales) IN CLIMATE CAPITOL OF THE WORLD (Million pop.) Major work in audio, some TV inc. color. Expansion limited to skilled help availability. Major Mfr. contracts, completely equipped, little competition. May be had for fraction of value. Details, Wm. H. Harrison, P.O. Box 257, Granby, Colorado.

HEALTH PLAN OFFERED

SAVE more than 40% on your Hospitalization Plan. Call J. Wartels—Insurance Counselor to Electric League.

JACK M. WARTELS
CR 8-0543 TR 8-0161

FOR SALE

Because of other pressing business out of state, I will sell my little gold mine of a TV sales and service business in this thriving little mountain community of more than 3500 people at 4000 ft. elev. Presently doing \$60 to \$70,000 annual gross. Nearest competition 13 miles away. Only 45 miles from Lake Tahoe on U.S. 50. Excellent TV reception from S.F. and Sacramento. Color sales booming. 2 top brand franchises. Established 5 years. Buy inventory at cost, plus small amount for good will. Write Bob Hance, Box 165, Pollock Pines, Calif. Ph. 644-2405.

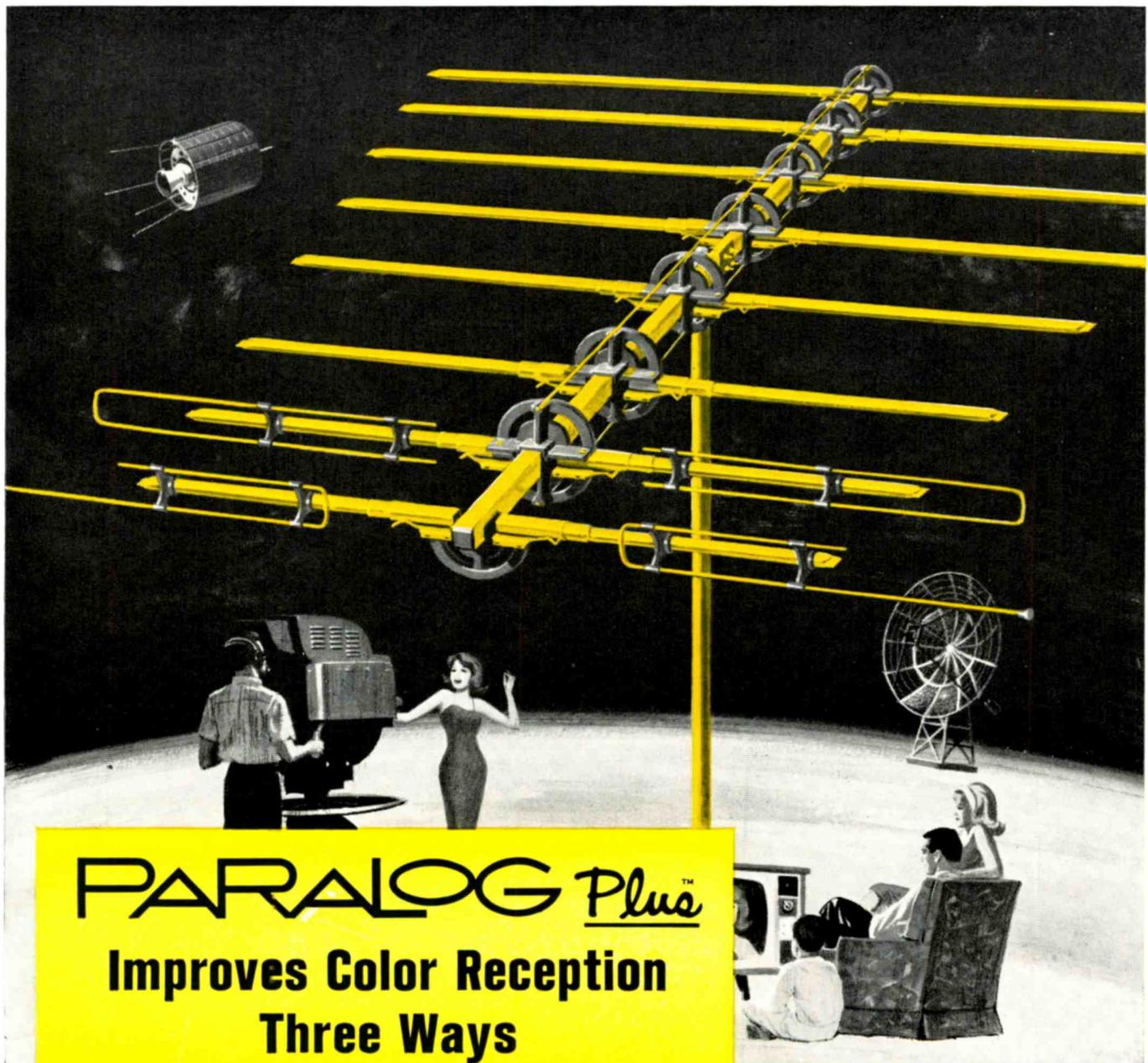
HUNDREDS OF WORKING

**USED LATE MODEL
THIN LINE—PORTABLES**

Low shipping costs anywhere

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PARALOG *Plus*[™]

Improves Color Reception Three Ways

1. Plus GAIN—to provide sharper directivity to eliminate multipath reception.

2. Plus FLATNESS—to eliminate tilts which cause incorrect colors on the TV screen. Industry experts say that color antennas must be flat within ± 2 db. Paralog-Plus antennas are flat within ± 1 db per channel.

3. Plus MATCH—to prevent color-distorting phase shifts.

The unique feature of the Paralog-Plus is a BI MODAL DIRECTOR system. Its parasitic elements combine two hi-band directors into a single director covering all lo-band channels, plus the entire FM band. Thus, more of the elements work to bring in any given channel.

Plus—300 and 75 ohm outputs for match to *either* twinlead or coax. And full, flat gain over the entire FM band.

Plus these quality mechanical features: Self-cleaning wedge-snap locks that tighten with vibration, Cylolac insulators to eliminate cumbersome cross feed points, Golden Armor coating, Square boom construction, One-piece antenna array—and more.

Check on how these plus features can help make plus profits for you. See your Jerrold distributor, or write:

DISTRIBUTOR SALES DIVISION
401 Walnut St., Phila., Pa. 19105

JERROLD

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**FROM PHILCO PARTS STORES
 JUST IN TIME FOR CHRISTMAS!**

**Philco Stereo Component System
 Including Turntable
 dealer net**

\$169⁹⁵



**PHILCO 7 WA/C
 DELUXE TURNTABLE WITH
 MATCHING WALNUT FINISH**

- Scratch Guard Tone arm with diamond-sapphire stylus has feather-lite 2 gram touch
- Multi-mix 4-speed record changer plays all sizes
- Rugged 11" turntable with protective cushion mat
- Automatic turn-off after last record.

**PHILCO 1007 WA
 SOLID STATE TRANSISTORIZED STEREO
 FM; FM/AM TABLE RADIO**

- Genuine hardwood cabinets luxuriously finished to blend with finest Walnut furniture
- Two dual-speaker stereo enclosures each contain 9" oval and 2 3/4" speakers
- Bass, treble, balance and loudness controls
- 18 transistors, 17 diodes
- 15 peak music watts output
- Slide rule Vernier tuning
- Stereo FM, FM/AM tuner
- Stereo FM On-dicator signal light
- Philco stereo monitor
- Separate AFC switch for drift-free FM
- Function control switch selects Off, Tuner Mode, Phono Input
- Stereo phono input jacks

Dimensions: Tuner—6 5/8" high; 14 5/8" wide; 9 7/8" deep

Speakers—10" high; 16" wide; 6" deep

Shipping Wgt.—31 1/2 lbs.



EXCLUSIVE FROM PHILCO PART STORES
 GUITAR-PHONOGRAPH SOUND SYSTEM
 Just In Time For Big Holiday Sales
 Dealer Net \$97.10

PHILCO THE SERVICEMAN'S FRIEND FOR 38 YEARS

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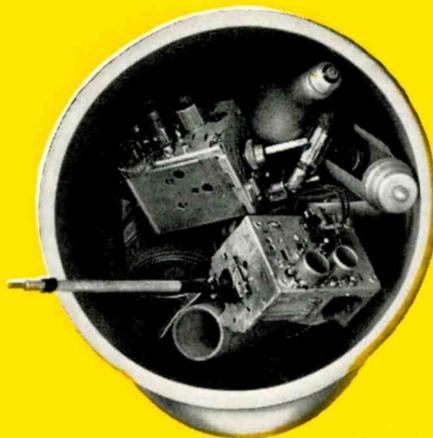
the official publication of the california state electronics association

One Solitary Life

On Christmas Day we commemorate the birth of a baby in an obscure village, the child of a peasant woman. He grew up in another village. He worked in a carpenter shop until he was thirty, and then for three years he was an itinerant preacher. He never wrote a book. He never held an office. He never owned a home. He never had a family. He never went to college. He never put his foot inside a big city. He never traveled 200 miles from the place where he was born. He never did one of the things that usually accompany greatness. He had no credential but himself.

While he was still a young man, the tide of public opinion turned against him. His friends ran away. He was turned over to his enemies. He went through the mockery of a trial. He was nailed to a cross between two thieves. While he was dying, his executioners gambled for the only piece of property he had on earth, and that was his coat. When he was dead, he was laid in a borrowed grave through the pity of a friend.

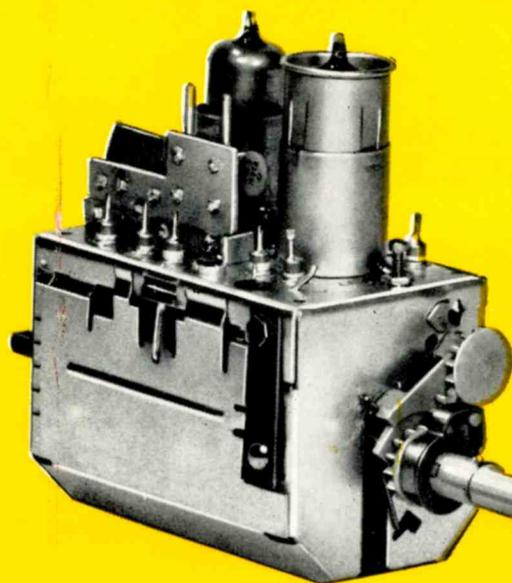
Nineteen centuries wide have come and gone, and today he is the central figure of the human race and the leader of the column of progress. I am far within the mark when I say that all armies that ever marched, and all navies that ever sailed, and all parliaments that ever sat, and all kings that ever reigned, put together, have not affected the life of man upon this earth as has that One Solitary Life.



Scrap it!

WHY BOTHER REPAIRING IT...WHEN YOU CAN REPLACE IT FOR ONLY \$10.95?

(FACTORY ALIGNED)



Repairing broken tuners is trouble. You pack it, mail it, wait for it, get it back, unpack it, install it . . . it's wait, wait, wait—and for what? A second-hand tuner.

Why bother? Simply replace broken tuners with a brand new Standard Kollsman Arbor Preset VHF Memory-fine tuner. All you do is fill out the coupon, we ship factory-to-you the same day. You get a new original equipment tuner and guaranteed customer satisfaction—for less money and less trouble.

Standard Kollsman Replacement Tuners offer the latest in design and the maximum in performance. Simply check your mounting space: SK Preset Height 4.58" max. to top of tubes; length 3.61" max.; Width 2.50" max. Shafts have extended "flats" . . . simply cut to proper length.

13 Position Switch	AR-250 (Parallel)	ARS-252 (Series)	AR4S-251 (Series AC-DC)
Antenna Input	300 ohms balanced to ground		
Intermediate Frequency	41.25 mc sound 45.75 mc video		
RF Amplifier Tube	6HQ5	2HQ5	3HQ5
Oscillator-Mixer Tube	6GX7	4GX7	5GX7
Heater	6.3 volts	600 ma	450 ma
B Plus	125-145 volts dc		

REMEMBER THESE STANDARD KOLLSMAN EXCLUSIVES

Memory Fine Tuning • Direct UHF Plug-in for Fast Replacement on 82-Channel Sets • Universal Mounting • 100% American Made • Preset Fine Tuning • Outstanding Oscillator Frequency Stability • 3-Position Detent Turret Switch for Positive Lock-in Tuning • Fits Most T.V. Sets Produced From 1956 to Now

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Just fill out this coupon and enclose it, along with payment, for same-day shipment of your order.

Please rush _____ **sk** Arbor replacement tuner(s) at \$10.95 each

Quantity _____ Check M.O.
(Illinois customers add 4% tax)

Name _____

Company _____

Address _____

City _____ State _____ Zip _____



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First UHF/VHF/FM 2-83 antenna that really works in fringe areas

New Winegard Chroma-Tel CT-100



NEW! Model CT-100 \$52.50

Winegard's sensational new CT-100 Chroma-Tel has 29 elements in all. And they're all working to provide the finest all-band reception (UHF-VHF-FM) even in difficult fringe areas.

In addition to those 29 elements, the CT-100 incorporates a unique matching network that guarantees maximum signal transfer to the downlead—and on all channels 2-83 plus FM. Gives sharpest color and black & white reception.

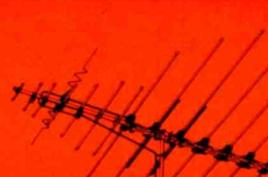
And like all Chroma-Tels, it has Winegard's exclusive Chroma-Lens Director System (intermixes both VHF and UHF directors on the same linear plane without sacrificing

performance) . . . and our Impedance Correlators (special phasing wires that automatically increase the impedance of Chroma-Tel's elements to 300 ohms).

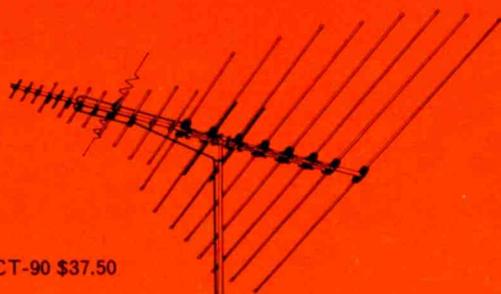
That's Winegard's new CT-100 Chroma-Tel. Bigger and better. But not too big. The full-line of Winegard Chroma-Tels still offers half the bulk; half the wind loading; half the truck space; and half the weight of all other all-band antennas—and at much lower prices. No wonder Winegard Chroma-Tels (now 4 models) are the hottest performing, hottest selling all-band antennas on the market! Better call your Winegard distributor or write for Chroma-Tel Fact Finder 242.



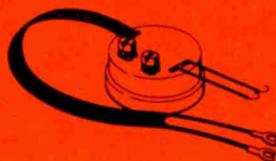
Model CT-40 \$17.50



Model CT-80 \$27.50



Model CT-90 \$37.50



FREE!

Every Winegard Chroma-Tel, including the new CT-100, comes complete with free CS-283 UHF-VHF Signal Splitter. Hangs behind set and separates UHF and VHF signals coming from antenna to the two pairs of set terminals.

Winegard ANTENNA SYSTEMS Winegard Co. • 3000 Kirkwood • Burlington, Iowa 52602



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