

ELECTRONIC service dealer



THE OFFICIAL PUBLICATION OF THE NATIONAL
ELECTRONIC ASSOCIATIONS . . FEBRUARY, 1970



EXCLUSIVE

ZENITH TUNER EXCHANGE

ALL TUNERS REBUILT WITH GENUINE ZENITH REPLACEMENT PARTS!

\$12.95

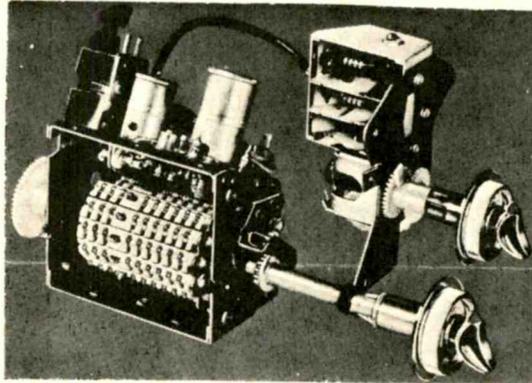
PARTS & LABOR

(If Required)
TUBES & TRANSISTORS
WILL BE CHARGED AT
NET PRICE

UHF TUNERS
\$9.95

PARTS & LABOR

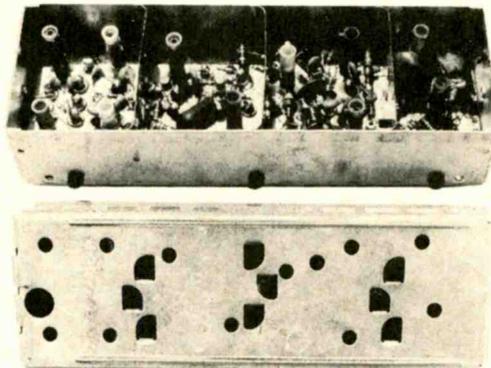
- FINE TUNING RANGE CHECKED ON ALL CHANNELS
- OVERALL RESPONSE ALL CHANNELS SHIELD COVER IN PLACE
- CONTACT SURFACES CLEANED AND LUBRICATED PROPERLY
- OVER COUNTER EXCHANGES WELCOME



Shipping Instructions: Fill out job card, tag tuner, enclose all parts and ship United Parcel for faster service. Send us the defective tuner complete: Include tubes, shield cover and any damaged parts with model number and complaint. Your tuner will be exchanged, returned promptly and warranted for 90 days.

NOW OFFERS *Exclusive* ZENITH I.F. SUB-CHASSIS EXCHANGES

- COMPLETELY ALIGNED
- OVER COUNTER EXCHANGES WELCOME



\$12.95

Includes Parts & Labor

SHIPPING INSTRUCTIONS - Send us the defective I.F. Sub-Chassis complete: include shield cover, and any damaged parts with model number and complaint. Fill out job card and an exchange will be sent to you promptly. Ship United Parcel for faster service.

Add More Profit to SERVICE Exchange It!

PHONE (213) 466-9311

ADVANCE TUNER EXCHANGE 1233 N. HIGHLAND AVE., LOS ANGELES, CALIF. 90028

NOTE: Above price does not include shipping charges.

DONALD J. MARTIN
Publisher

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Editor

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Advertising Director

ELECTRONIC service dealer

THE OFFICIAL PUBLICATION OF THE NATIONAL
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ON OUR COVER

Captain Alan Bean of Apollo 12 fame received a scale model hammer, mounted on a plaque to certify his lifetime honorary membership in Texas Electronics Association, when he was welcomed to Fort Worth December 22. Pictured with the plaque is J. W. Williams, TEA Executive Director. The hand-carved hammer was designed and produced by Norris R. Browne of Houston, past president of this Texas group of TV retail dealers and technical firms.

ELECTRONIC SERVICE DEALER, the Business Journal for the Professional Electronic Dealer, is published monthly by Associated Publications, 13543 South Hawthorne Boulevard, Hawthorne, California 90250. Subscription rate is \$5 per year or \$7.50 for two years. The publication is entered as Controlled Circulation postage paid at Los Angeles, California.

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letters

An Open Letter to All NEA Members . . .

Now that the holidays are over and we are all getting back to work for a happy and prosperous 1970 — I would like to take this opportunity — first — to wish all of our NEA friends Health, Happiness and Prosperity in the New Year and with the assurance of The Finney Company's continued maximum support and friendship.

We would like this "Open Letter"

to be an important reminder that time is passing and that there are not too many months left in which to meet the exciting and thrilling anticipated goal of 1,000 New Members before the Annual NEA 1970 Convention. Once again — we reiterate our promise and most sincere desire that NEA will win the FINCO \$1,000 Cash Award for New Membership Accomplishment. It is our prayer and humble opinion that this goal can and must be accomplished.

Also may I remind you that, once again, there will be beautiful Awards to the individual, the local group and the state that is selected by your committee as having made the outstanding New Membership Accomplishment. "Success breeds success" and "Confidence breeds accomplishment." So — it should be done — it can be done — and we hope it will be done!

Cordially yours,
THE FINNEY ANTENNA
COMPANY
Morris L. Finneburgh, E.H.F.
Chairman of the Board

Dear Don:

Am sitting me down right now and sending you my long overdue change of address. I have been mooching your wonderful magazine off of friends too long.

Since selling my business through the classified ad in your magazine I have gotten too fat and lazy to write you to send me the magazine at my home. I've been doing a lot of traveling and expect to do a lot more in the next year. But I just can't get the electrons out of my blood, and have to keep dabbling here and there. I still am treasurer of the Zone F council and of our local chapter. Through their indulgence of my frequent absences am able to keep in touch with this ever-changing industry.

May I take this opportunity to wish you continued success in your efforts in behalf of the independent serviceman. We need more people like you and the excellent informative trade publications like yours.

Yours truly,
Jimmie Scarborough
2323 Chapman Rd.
La Crescenta, Calif. 91214

Dear Mr. Martin:

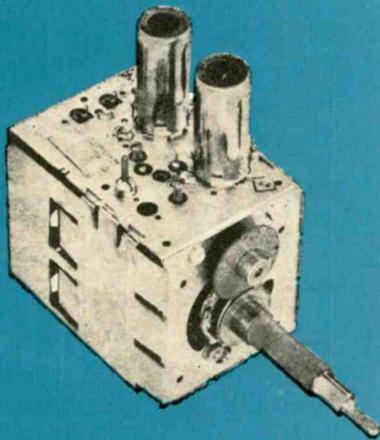
Thank you very much for running our ad in your magazine. Our business is being sold and we are most grateful. Please forward our copy to our home address. We enjoy every issue and look forward to receiving it.

Mrs. S. Bardach
Sig's TV & Stereo
North Hollywood, Calif. Ed

Note:

We are very pleased to learn that you have sold your business through our publication. You might be interested to know that we have sold many shops over the years and hope to provide an even greater service in the years to come. (Cont'd pg. 26)

TUNER REPAIRS



\$9.75

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

ELECTRONIC SERVICE DEALER

NEA president's report



by EMMETT MEFFORD, C.E.T.

The beginning of a New Year and a time for promoting new ideas and re-examine current policies and schedules. The growth of NEA this past year must be proof that strength, drive and fair policies for all in the Electronics Industry is the National Association that the State Associations and individual Servicicers are looking to for leadership.

The past year has brought me, as NEA President, a great deal of

satisfaction and pride in observing how the committees and members of NEA have responded with ideas and suggestions for the betterment of our trade.

Outstanding programs which will in most cases directly effect Electronic Servicicers in striving for professionalism and greater efficiency in conducting their businesses for a profit are many, a few examples follow, but mutual assistance and participation as

members of the association can gain enormous knowledge by taking advantage of these programs offered by NEA.

Tech-N-tips are a valuable time saver properly used and filed. For prestige and recognition a CET certificate is invaluable and steadily growing in value. An Electronic Hall of Fame Corporation has been instituted by NEA to recognize outstanding men in the Electronics Industry. Six divisions have been incorporated into the Hall of Fame structure to encompass all phases of the industry, member or nonmember.

The Serviceability program is increasing in importance in that its intention is to bridge the gap between factory design Engineers and the Service Technician.

The National Service Council and NEA are presently engaged in a joint venture of improving the availability of parts, technical information, warranties and training of Technicians and parts countermen. Parts availability and proper cross references is of major importance to servicicers.

The third joint meeting of NEA and NSC will be held in Peoria, Illinois February 5, 1970. At this meeting we hope to improve on previous programs of mutual benefit and to create a favorable arrangement where questions and information pertaining to electronic parts and literature can be aired, when, presented through proper channels, by individual technicians.

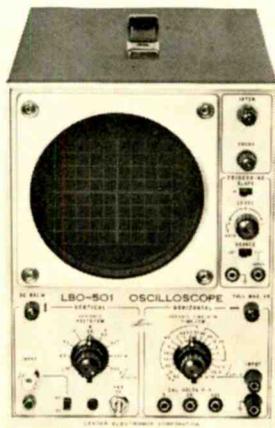
I would like to encourage all electronic servicicers and dealers to join your State Association and then become affiliated with NEA for the increased advantages that a National Association can offer its members through strength in numbers.

Introducing the world's only \$339 triggered scope.

Before you say you don't need a triggered scope, look what's happening to TV servicing: tubes are out, transistors and IC's are in.

With tubes you could play hit-or-miss, knowing the tube would take the overload. Try the same thing now, and good-bye transistors.

For new-era circuitry, Leader introduces a new-era troubleshooter. A triggered scope, just like the ones the TV designers use.



Now the wave shape is locked in and continuously displayed. Now you can look at a waveform containing high and low frequency components. Now you can determine voltage directly and instantly.

Before you say \$339 is a lot of bread, look what it buys: Leader's LBO-501 5-inch triggered scope, with a bandwidth of DC to 10MHz and a solid state package.

Going like hotcakes at your Leader distributor.

Seeing is believing.

LEADER INSTRUMENTS

37-27 27th Street, Long Island City, N.Y. 11101, (212) 729-7411

editorial



DONALD J. MARTIN, *Editor/Publisher*

returned, on most major brands, that their service department is right on the job with the sale of an additional nine month policy and when it is sold . . . there goes a customer for life. Once a person has purchased a policy from a service company the chances of them going back to independent service is very remote. Remember, there are second, third and fourth year policy sales just waiting to be sold.

This, of course, is not new but what is new is that there is no reason, in my opinion, why NEA could not form their own national organization of independent dealers to handle service contracts. With close to 2,000 members it gives the organization a truly national concentration of service dealers who can get the job done.

My idea is that NEA would form such a service company. Each member of NEA would be able to sell a nine month policy to his original customer, **AT THE TIME OF PURCHASE, NOT AFTER THE WARRANTY CARD HAS BEEN SENT IN.** The sale price could be competitive to the factory service companies and a commission paid on each sale to the dealer. The contract and the balance would be sent to NEA and placed into trust for payment of future invoices.

When service is needed, the NEA dealer who sold the policy is going to get the call and not some other service company. He would service the set and then invoice NEA the full amount of the call. The big advantage to the dealer is that he keeps his customers and the customer benefits from doing business with an individual instead of a corporation.

Another major asset to the consumer would be the national availability of service no matter where he moves. With the American people on the move it makes good sense to share a good customer with another NEA member when he shows up in the new neighborhood.

One of the first questions asked is what about dead beat dealers and phoney bills. First of all, I can not see any NEA member in this category and second, if one should turn up, he could be warned the first time and have his membership terminated if it occurred again. With NEA being run by experienced electronic technicians I can not foresee any problem along this line.

The organization of such a program is extremely important and I would recommend that a new corporation be formed with all members having stock in the corporation. It could be set up in such a way so that all members would share in the profits. In fact, it could work like workman's compensation where the profits are passed on to the participating dealers through increased commissions, special dividends, etc.

There is little doubt in my mind that such a service corporation could be formed with NEA members. It could also be expanded to include these same people in warranty franchises for nationally distributed consumer products. There is no limit to the possibilities of such a movement but time is going to run out if someone doesn't move fast. Let's think about it and then start the ball rolling.

What about a NEA National Service Policy?

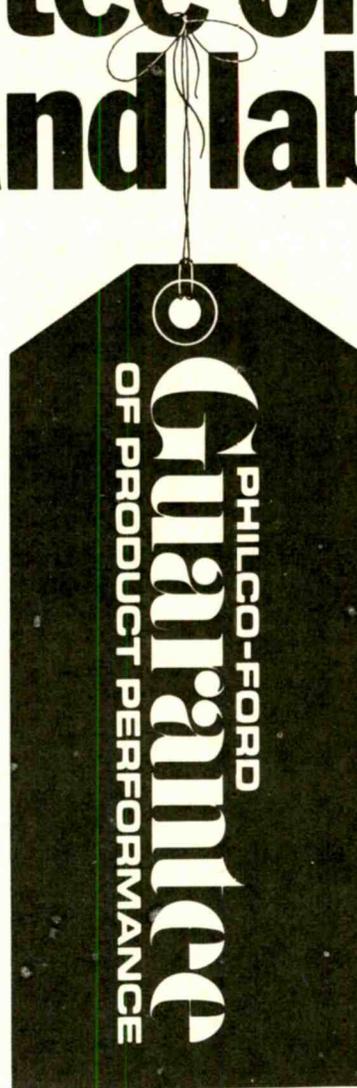
On several occasions I have advocated the formation of a National Service Policy, sponsored by NEA, and made available for sale by NEA members.

I don't have to tell you that the major manufacturers are going all out to sell service policies and it is becoming big business. Since the advent of the 90 day free parts and labor warranty, the attractiveness of an additional nine months for only \$39 has great appeal to the consumer.

I am sure that you are all aware that as soon as a warranty card is

Still

Philco-Ford has the industry's first nationwide 90-day guarantee on both parts and labor.



And it covers our entire electronics line. How's that for a better idea?

PHILCO 

The better idea people in electronics.



PHILCO



For More Information Call

Ed Dean
PHILCO PARTS STORE
6393 E. Washington Blvd.
L.A. 22, RA 3-0345

Bill Louderback
PHILCO PARTS STORE
6150 Mission Gorge Rd.
San Diego, 283-7361

Bill Calvert
PHILCO PARTS STORE
1579 Adrian Rd.
Burlingame, 692-3835

Jim Brady
PHILCO PARTS STORE
1891 W. Roosevelt St.
Phoenix, AL 8-3965

Philco-Ford Corp., Philadelphia, Pa.

from the V.P.



by R. L. GLASS, C.E.T.

A Plea For A United 'Manufacturers' Association!

It probably isn't a matter of general conversation amongst all of our NEA dealers and technicians, but in the past few weeks the trade press has reported a most interesting problem within the manufacturer's national association — the ELECTRONIC INDUSTRIES ASSOCIATION — EIA.

What happened? The president of EIA, Mr. George Butler, fired the executive in charge of the Consumer Products Division: Mr. Jack Wayman. And, this division of EIA contains the manufacturers whom our members are most closely associated with . . . the home entertainment manufacturers. Important in the picture is that this division of EIA accounts for about 20% of the entire association membership. And these members have been pretty vocal that they want Wayman rehired.

The entire story of the difference of opinion may be more involved than simply assuming the consumer products division wanted more say-so in running its own affairs. And the threat that the majority of the consumer products division members might pull out of EIA and form another mfg. association, with Mr. Wayman at the head, may be completely forgotten by the time we read this in ESD.

Whatever the outcome, NEA hopes the manufacturers in the CP Division end up with an association that serves them in the best possible manner and gives them the services they need to help build an even stronger — more

profitable — consumer electronics industry. (Including providing adequate service and part facilities.)

What has this got to do with we service techs and dealers in NEA? Simple. It is a CRYSTAL CLEAR EXAMPLE that everything doesn't always run smoothly in ANY association. Even in EIA that financially is bigger than NARDA, NATESA, NEA, and all the state associations put together!

Now, if we in NEA should follow the thinking of dozens of industry reps from EIA companies, and from other associations, our attitude now should be one of SCORN, RIDICULE, STANDOFFISHNESS, and holier - than - thou suggestions that they "QUIT SQUABBING"!

But that attitude wasn't right in the past with the NEA / NATESA differences and it isn't right now.

Having your appendix removed isn't pleasant, they tell me, and if a problem like appendectomy could be best solved by ignoring it, that would be good. But life isn't like that and the alternatives to the operation are considerably worse than the operation itself.

By the same token, if this industry and our business of electronics sales and service is to improve, we have to be willing to use our intelligence to face and solve problems in the best manner for the future.

Some will say, no doubt, that the title of this article, (stolen from a recent piece by the president of Sprague, R. W. Woodbury,) is a little bit like chuckling down our sleeves. It isn't meant in that light. We wish EIA the best of success and congratulations to the members for ironing out their problems. Discussion and debate are still allowed in this country.

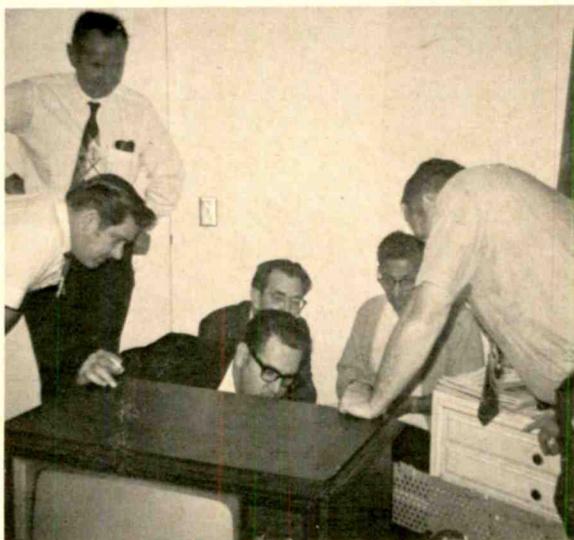
CALIFORNIA CET'S REACH THE 500 MARK

A challenge is hereby issued to any of the 49 states by CSEA. Any state that surpasses the current number of CET's in California will receive a trophy for the achievement. The trophy will be designed as an annual achievement award. A space will be provided for the name of the state who achieves the award for the year. Each year thereafter an additional plate will be added. The first trophy will be presented at the 1970 NEA annual convention.

THE CHALLENGE IS MADE – The glove is slapped across your face. What are you going to do about it?

C.E.T. "CERTIFICATION" PAMPHLET PREPARED BY N.E.A. COMMITTEE

The N.E.A. has prepared a concise and informative pamphlet for the Certified Electronic Technician program. The pamphlet explains the need for the certification, the work that went into the establishing the training program, and the requirements and information on becoming a Certified Electronic Technician. The "Certification" pamphlet is a strong step in industry and public relations to establish a level of professional acceptance for electronic technicians. Available from the N.E.A., for the fee of twenty-five cents to cover cost of printing and mailing, 12 South New Jersey Street, Indianapolis, Indiana 46204.



ARIZONA DEALERS PERFORM SERVICEABILITY INSPECTION WHILE ATTENDING CONVENTION

Never to be outdone, members of the Arizona Electronic Association performed an impromptu serviceability inspection while attending the Motorola Convention in Phoenix. Shown above standing to the left is Jim Marsh, CET of Prescott. Immediately behind the set is Alan Tope, Executive Director of ASEA. Behind him is Chic Myer and Tom Farrah while at the far right is ASEA President Leonard Dean. The men used the occasion to pull the back off of a hotel TV and proceeded to check it out. An unusual way to spend your time while at a convention but it turned into a serviceability report on the unit.

NEA TO CONDUCT FIRE HAZARD SURVEY

NEA began last month a survey of all member shops to determine the extent of television as a fire hazard. The committee, under the direction of John Jage, CET, President of Universal Video Corp. in Whiting, Indiana, is interested in the actual occurrences of fire caused by television sets rather than to accept the government or manufacturer's reports of incidence. According to Jage, a member of the National Commission on Product Safety, "through NEA members we can learn whether or not this is a real hazard or something that has been blown all out of proportion. NEA went on record recently as opposing the "scare tactics" being used by politicians in order to get accepted by the consumer as a benefactor. The results will be present during the coming National Service Conference and will be released at that time to the press.

NATIONAL SERVICE CONFERENCE SLATED FOR FEBRUARY 5TH IN PEORIA, ILLINOIS

The third session of the National Service Conference is slated for Peoria, Illinois on February 5th with many well known industry personalities being invited to take part. The purpose of the NSC is to expose the problems of the industry and try to solve them through industry wide support. In the past, representatives of almost every major manufacturer, association leaders, and key people have taken part in these conferences with several worthwhile programs being achieved. Serviceability, warranty problems, apprenticeship and training programs as well as parts availability and industry practices are all scheduled for discussion. Electronic Service Dealer will host the event and publisher Don Martin will coordinate the activities.

M.L. FINNEBURGH TO ADDRESS FIRST MEETING OF ILLINOIS STATE ASSOCIATION

M. L. Finneburgh, Sr., Chairman of the Board of the Finney Company, will be the major speaker at the first convention of the Illinois Electronic Association. Finneburgh, who was elected to the Electronic Hall of Fame last year, will keynote the first convention of the new organization. Always a major attraction whenever and wherever he speaks, his presentation has been acclaimed throughout the nation.

ILLINOIS ELECTRONICS ASSOCIATION TO HOLD FIRST CONVENTION IN PEORIA, FEB. 7TH

The first annual convention of the newly formed Illinois Electronics Association will be held in Peoria, Illinois at the Ramada Inn on February 7th. In addition to the convention, the new group will host the regular NEA quarterly Board of Directors meeting and the third National Service Conference. The newly elected President of IEA is Bob Griffin, CET of Bloomington, Illinois and the President of the local host association in Peoria is Mike Endres, CET. Convention information can be obtained from either of these two men. Bob Griffin can be contacted at (309) 828-0710 and Mike Endres can be called at (309) 682-8332.



MORE MISSOURI TECHNICIANS TAKE CET TEST

Brightman Distributing in Springfield, Missouri was the scene last month for the giving of more CET tests. Pictured above are some of the men taking the test (right) while others wait the outcome. Left to right are Vince Lutz, CET, who gave the test, Mr. and Mrs. George Oviatt, CET, Mr. and Mrs. Ray Grooms, CET and, on the far right, Clyde Wicks, V.P. of Brightman Distributing, Philco Distributors in Southwest Missouri.

NEA YEARBOOK TO BE PUBLISHED

NEA will publish their annual yearbook just prior to the national convention in St. Louis as a major means of covering convention activities. The board of directors voted to eliminate meal sponsorships by manufacturers this year and, instead, have asked them to participate through the yearbook program. Those firms who have already confirmed participation include The Finney Company; Leader Instruments Corp.; RCA Components and Devices; Panasonic and Sylvania Electric Products Inc. In addition to their ads appearing in the yearbook, advertisers will be publicized through all convention bulletins and will be acknowledged in the Electronic Service Dealer so that the service dealers will recognize the firms who are supporting their efforts.

STATE ASSOCIATIONS TO SPONSOR CONVENTION FUNCTIONS AT NATIONAL CONVENTION

The sponsorship of convention functions for the NEA national convention in St. Louis will be handled by many of the local state affiliates for the first time this year. In the past, national manufacturers were invited to sponsor meals, tours, etc. but the NEA board of directors voted not to ask for this type of sponsorship this year and instead, to invite local state affiliates to take over this function. It is hoped that several of the states can combine their efforts to sponsor a major meal and to use this time to talk about the activities of their own organization. In order to finance this program, NEA will sponsor a national raffle in which all proceeds are split between NEA and the local state association. These funds can then be used for the sponsorships. Every NEA member will be requested to purchase five tickets for \$4 and this amount will be credited to his state for sponsorship. Indiana and Nebraska have already agreed to sponsorship and others are expected soon.

NEA PUBLISHES NEW BOOKLET "FACTS YOU SHOULD KNOW ABOUT COLOR TV INSTALLATION & SERVICE"

NEA has just published a new booklet that should be used by every dealer at the time he sells a color television set. The booklet tells the customer about color television, how it is adjusted for quality and picture reception and what you can expect from a service call. A sample copy can be obtained from the NEA office along with prices.

NEW FINCO
Home entertainment distribution wiring system designed for easy installation

MODEL HWK-75 (75 ohm)
 MODEL HWK-300 (300 ohm)

Packaged in a self-selling display
 • for Color TV UHF-VHF • FM/FM Stereo

Get in on the MATV boom for more profits. Everything needed to wire a home for multiple set reception. Your service department can easily install this system.

THE FINNEY COMPANY
 34 W. Interstate St., Dept. E
 Bedford, Ohio 44146



Temporary Officers of the Illinois Electronics Association are shown above soon after the organizational meeting held in December. Left to right are: George Sopocko, CET, Vice President; Robert Griffin, CET, President; Ron Boryles, Treasurer and John Stoll, Secretary.

Vince Lutz . . .

50 Years As An Electronic Technician He Begins His Busiest Year



1970 NEA CONVENTION CHAIRMAN

Vincent J. Lutz will complete 50 years in the radio and television service business this year and it must set a record, not only for our industry, but for any business in the country.

Vince built one of the first crystal sets in 1916 but really got "serious" about radio in 1919 when the local papers started publishing diagrams of how to build your own radio on Quaker Oats boxes. He was able to build them while his neighbors could not make theirs work . . . the result . . . he started fixing theirs for them and the first service call on electronic equipment was made. Soon after this he started to build tube sets and selling them. Many companies put out "kits" and people who bought these asked Vince to assemble them . . . the charge . . . \$10.00 per tube.

It was not too long after that he opened his first radio sales and service shop, next door to his cousin's hardware store, and became the first Stromberg-Carlson dealer in St. Louis.

No one can imagine Vince without thinking about Association work. He started early in life by helping to organize the Kilster Radio Club, a group of radio dealers who wanted to solve industry problems. This was in 1926 and in 1928, with the help of the St. Louis Electrical Board of Trade, he helped organize the St. Louis Radio Service Engineers and served as their president for two years. In 1929 when the depression hit, the group dissolved and nothing more was done until some 20 years later when he helped form the TV Dealers of Greater St. Louis. In 1949 the name was changed to TISA-St. Louis and the group became affiliated with NATESA. He served as president of both groups. In 1951 TISA merged with the Contractors Association (TV) of Greater St. Louis and it became known as TESA-St. Louis with Vince becoming president.

All in all, Vince served five terms as a NATESA V.P., one year as Assistant to President Frank Moch, 2 years as

NATESA membership coordinator and in 1957-58 was President of NATESA. In total he spent over 13 years on the NATESA Executive Board.

In 1965 he dropped his membership in NATESA and joined the National Electronic Associations (NEA) and since that time has held numerous committee posts. He became a CET in December of 1966 and is currently chairman of the Radio-TV Station Liaison Committee and now Chairman of the National Convention to be held in St. Louis this summer.

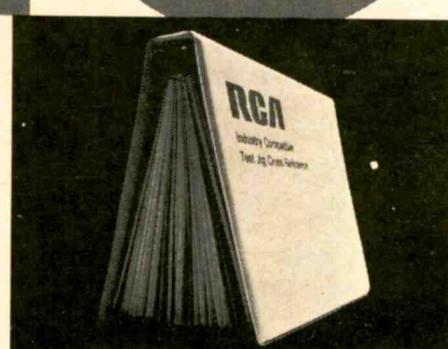
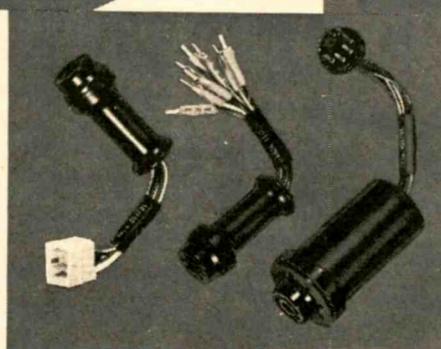
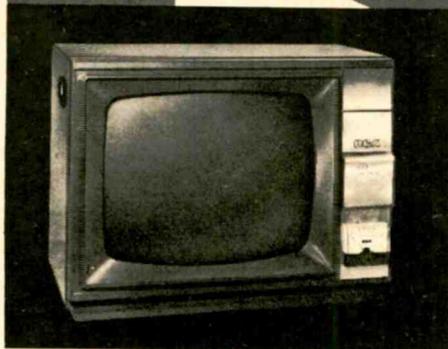
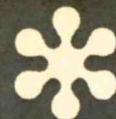
In addition to his career in electronic service, Vince has done his share in community work as well. For 38 years he has been involved in Boy Scouts. He served as a Scoutmaster for 12 years and Merit Badge and Commissioner for 26 years.

Vince served on the BBB Advisory Board for three years, has been active in Lions, PTA, Politics and has been a Sunday school teacher for his church.

Even though he will be celebrating his 50th year and should be taking things a little easier, 1970 will be the busiest of them all. In accepting the chairmanship for the 1970 NEA Convention he took on the toughest job of them all. Starting last summer in Waterbury, Conn., much of the planning for the big St. Louis affair this July has been completed. Business, social, tours, dinners, technical seminars, etc. are already taking shape and, in addition to this, he will be in charge of the NEA yearbook. This year the NEA Board of Directors voted against asking manufacturers for meal sponsorships and instead, will use the annual yearbook and state association sponsorships to finance the five day event.

Truly one of America's most remarkable men we want to congratulate Vince on his Golden Anniversary and to thank him for the ground work he has laid in setting the standards for the service industry as we know it today.

ICTJ



RCA CALLS IT ICTJ. YOU'LL CALL IT THE GREATEST SERVICE AID EVER TO COME ALONG.

ICTJ* is more than a test jig. It's a complete system designed by RCA to help you service Color Television faster and more precisely.

With the updated ICTJ system you'll be able to service more than 90% of all Color TV consoles on the market—that's over 1,500 different models from more than 17 different manufacturers.

Here's what it includes: First, the test jig itself, in bench or portable models.

Second, an assortment of adapters engineered to match almost any Color console chassis to the test jig.

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Third, a complete reference book to take the guesswork out of which adapter to use with each chassis—and RCA keeps it up to date through a subscription service.

And there's also a new optional high voltage meter kit to give you safe, accurate and continuous monitoring.

ICTJ lets you pull a chassis with the complete assurance that the picture in your shop will be the same as the customer sees in his home.

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ELECTRONIC service dealer

CALIFORNIA SECTION

CSEA president's report

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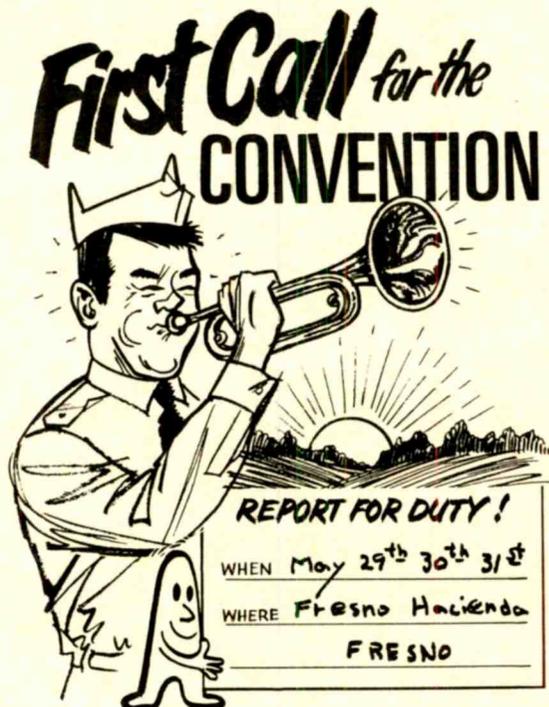
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Executive Vice President
13666 S. Hawthorne Blvd.
Hawthorne, California 90250
(213) 644-4636

By VIRGIL GAITHER



In the past years the CSEA convention has been such a tremendous success I feel it is now the appropriate time to remind you to mark your calendars well in advance.

The place once again, the Fresno Hacienda. The dates are May 29, May 30 (Memorial Day), and the 31st. The Hacienda, for those of you have never attended, is a rambling, spacious spanish style motel. Because of our

many years of using their facilities, the Hacienda rolls out a red carpet and provide our association with the finest service and excellent food.

In checking with our Executive Vice President, Mr. Ralph Johonnot, about the programs and sponsors, he states:

“Once again the three day convention will be sponsored by manufacturers. Each manufacturer is planning a display booth and both factory and local California reps will be present to discuss product, service problems, franchises, etc. The meals will be provided by the sponsors, the only cost for those attending will be: motel, travel, and a small registration fee of \$15 per person.”

Johonnot states that the convention will officially start on May 29. Association business first, then seminars, panel discussions, etc. will follow for the remainder of the convention. A luau will be featured on the evening of the 29th followed by a get-together cocktail party.

Last year the attendance was slightly over 300 persons. Rooms were at a premium at the Hacienda and many persons had to use the facilities of nearby motels. Because of the tremendous growth of our association this last year may I urge you to make your reservations as soon as the state office gets them in the mail.

CSEA news wire



RALPH JOHONNOT, CSEA Executive Director

The bright new year of 1970 has started. Many chapters of CSEA are holding elections for offices for the next term. Returns are now coming into our office. May we salute these new officers:

Marin Chapter – Otto Gramlich, President; Orin Moon, Vice President; Joseph Zeeman, Secretary - treasurer; Al Cox, delegate.

Alameda Chapter – Al Zitterkoph, President; Frank Lozano, Vice President; A. L. Thomas, Secretary - treasurer; Gil Rose, delegate.

San Antonio Chapter – Burr Deal, President; Victor Seekman, Vice President; Stan Young, Secretary - treasurer; John English, delegate.

San Diego Chapter – Dick Pritchard, President; Bud Rettig, vice president; Wes Novotny, Secretary - treasurer; Steve Burkhead, delegate.

Santa Barbara – Darryl Widman, president; Robert Holt, vice president; John Grimes, Secretary - treasurer; and delegate.

South Bay – Vic Williams, President; Ellis Driver, Vice President; Reuvon Baskin, Secretary; Bill Chaney, Treasurer; Harry Kiyomura, delegate.

Harbor-Mid Cities – Mel Synder, President; David Grubb, Vice President; Karl Vosk, Secretary - treasurer; Walt Rundquist, delegate.

San Luis Obispo – Roy Kernaghan, President; Howard Stafford, Vice President; Wes Swan, Secretary - treasurer.

Coachella Valley – Ken Parker, President; Jack Ragsdale, Vice President; Gene Bowman, Secretary - treasurer; Jim Ragsdale, delegate.

Solano Co. – Mike Rickley, President; J. Johnson, Vice President; Ken Sutherlin, Secretary - treasurer; George Crosson, delegate.

Next month further reports will be published on chapter elections.

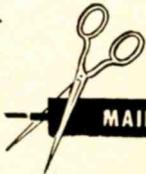
Zone B Officers Election Report

Al Zitterkoph – Chairman - Al's TV Clinic - San Leandro

Mike Littleton – Vice Chairman - Lew Shafer TV - Danville

Claude Schwarz – Sec-treas - Alfa Electronics, Santa Rosa

Ralph Lee Hoy – Zone Executive Secretary.



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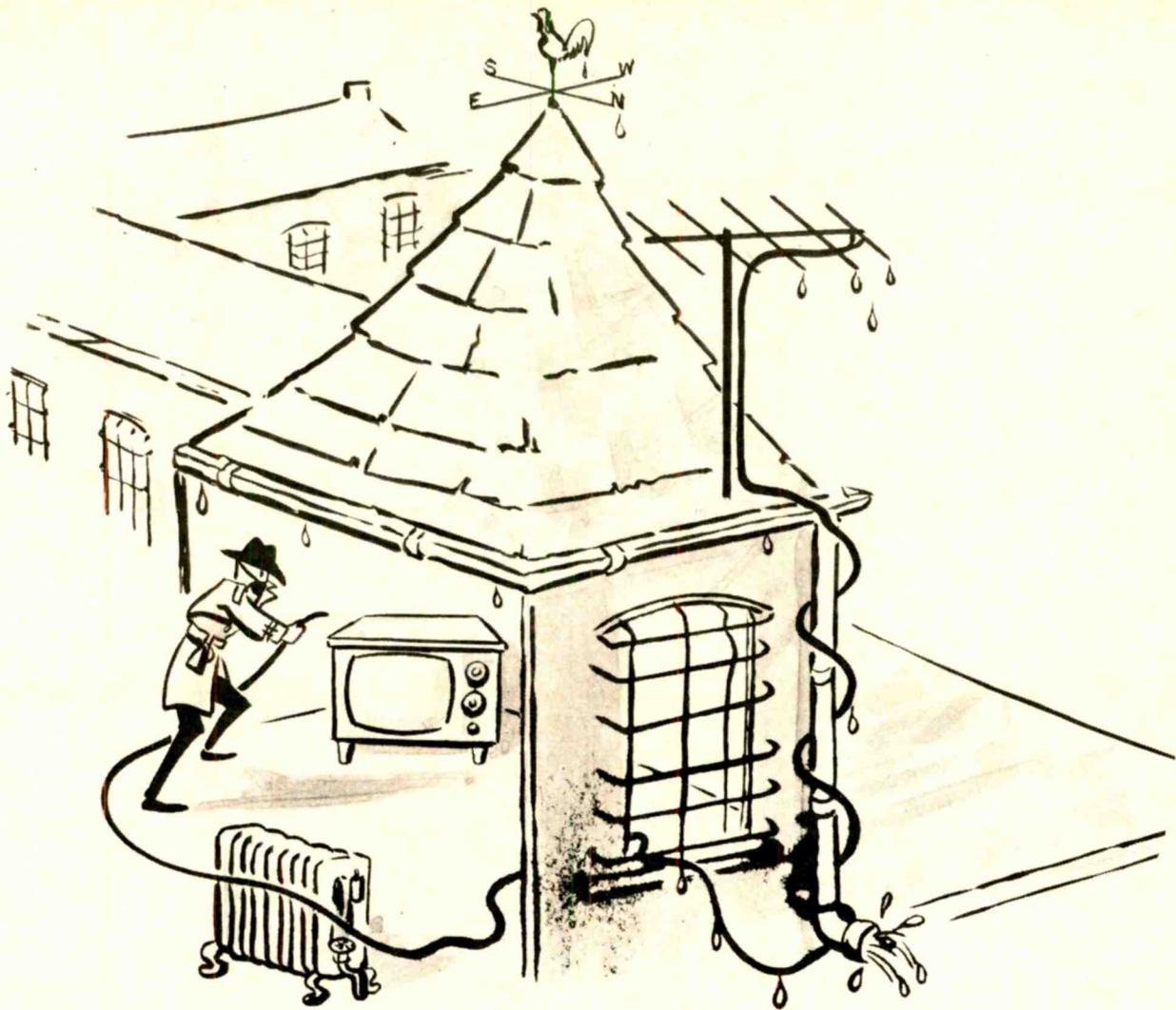
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transmission IMPOSSIBLE

Your mission . . . lead a VHF transmission line along a drainpipe, through a window and behind a radiator without having the picture self-destruct. You look in your file and summon the all-weather high performance transmission lead that handles impossible missions . . . newly engineered Channel Master 300 OHM SPECTROHM

Channel Master SPECTROHM protects a greater portion of the electrical field to give you a cleaner, sharper picture—even under impossible conditions. Our agents tested SPECTROHM against ordinary flat twin lead under drench conditions, and

then gave them the squeeze-torture test. Here's how they compare:

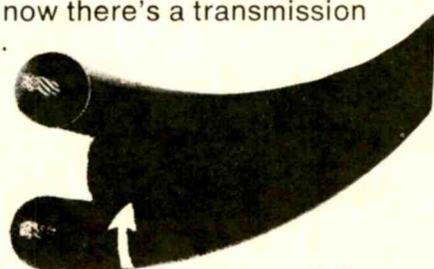
In the drizzly gloom at VHF 13, ordinary wire loses almost twice as much as SPECTROHM. At UHF 80, ordinary wire losses are 50% greater than SPECTROHM.

Under murderous squeeze conditions, SPECTROHM'S loss is 90% less than ordinary wire.

So remember . . . whenever laying lines poses intrigue, now there's a transmission impossible line.

300 OHM SPECTROHM
new from **CHANNEL MASTER**

Division of Avnet, Inc. • Ellenville, N.Y. 12428



UNIQUE STRIPPING GROOVES provide fast, easy stripping and strong lug connections.

The Professional Way to Service TV Tuners

by Tony Ferris

Tuners Inc. does not deal with the public. We are strictly "technicians' technicians", solving the really tough servicing problems that it doesn't pay the average man in the field to tackle. We handle all kinds of TV work but, as our name implies, we specialize in tuners. This article will tell you how to cure tuner troubles rapidly — and profitably.



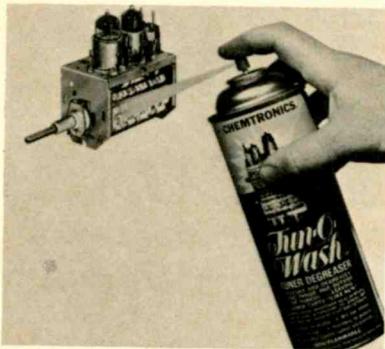
Types of Tuner Troubles

The following symptoms may be caused by a defective tuner: (1) snowy picture; (2) streaking or flashing in picture; (3) loss of sound and picture; (4) loss of certain channels; (5) picture pulling or distortion; (6) partial blanking of raster.

If you suspect tuner trouble, try the following approach:

1. Clean and Degrease Contacts with Tun-O-Wash

In servicing tuners, it's important to start with clean contacts. Poor contacts cause at least 70% of all tuner troubles. In fact, we get many tuners in for repair that need nothing more than a thorough cleaning.



Chemtronics TUN-O-WASH is excellent for this purpose. It's almost like an ultrasonic bath in a can. Use this high pressure degreasing spray on all tuner contacts. Be sure to remove the tubes and spray the sockets thoroughly, to remove corrosion.

A thorough cleaning will often eliminate intermittents and restore tuner alignment.

2. Lubricate and Protect Contacts with Tun-O-Foam

After the tuner has been flushed out with TUN-O-WASH, let it dry thoroughly. Then, re-spray all contacts (including tube sockets) with TUN-O-FOAM. Once the TUN-O-FOAM has been applied, rotate the channel selector through all channels several times. Also, work the tubes in and out of their sockets several times. This will spread the lubricant to all critical surfaces.



You will find that a thorough cleaning and lubrication will clear up about 70% of the tuner troubles you encounter (aside from tubes, which should always be checked by substitution before any servicing is attempted).

What's more, the TUN-O-FOAM protects contacts from future corrosion, provides excellent

lubricity for smooth operation, and continues to clean and lubricate contacts each time the channel is changed.

Most important, neither TUN-O-WASH nor TUN-O-FOAM attack plastics or cause detuning. This is vital, since a spray that detunes a color set almost always results in a profit-consuming callback.

Isolate the Trouble to the Tuner

If a thorough cleaning and lubrication (which takes only a moment) fails to restore proper operation, you will have to start troubleshooting. But before you start tearing into the circuit, make sure it's the tuner that's at fault. IF and AGC defects often look an awful lot like tuner troubles.

If the picture is snowy, for example, too much AGC voltage may be the problem. To check this out, simply short the AGC test point to ground. This makes AGC voltage zero, permitting the RF amplifier to operate at full gain.

Next, check out the IF stages. Start with a good TV set connected to a good antenna. Connect the IF cable from the tuner of the known good receiver to the IF input of the set you are troubleshooting, if you get a good picture with the substitute tuner, you know you have tuner trouble. Otherwise, it's a chassis problem.

The 10 Minute Tuner Check

Once you have cleaned and lubricated the tuner and made sure that it is really the trouble source, give it a 10 minute check. Discipline yourself **not** to spend too much time tracking down tuner trouble. If you can't spot the trouble in 10 minutes, it may take you hours. Therefore you're a lot better off to send the tuner to a professional rebuilder. But the 10 minute check will reveal many tuner troubles.

If your preliminary checks revealed a shorted or gassy tube, chances are that excessive current has damaged a resistor. Burned resistors, of course, are fairly easy to spot.

After a brief visual inspection, make voltage checks at the test points provided. B+ voltage should be accurate $\pm 20\%$. Then, use a test socket to make voltage and resistance checks at tube pins. If you read a low plate or screen voltage, this generally indicates that a series resistor has changed value or a capacitor has shorted.

Check to see if the oscillator is working by measuring the mixer grid test point voltage. A dead oscillator is often caused by the plate load resistor.

Be sure to check the balun. Defective baluns often cause snow or loss of certain channels. Your ohmmeter will generally spot balun troubles. One final word of advice: Treat all tuners carefully. Don't poke around in coils or you'll cause misalignment. Replace defective parts carefully with exact replacements. If you do have to send the tuner in, mark all leads clearly, keep the brackets in a safe place, wrap the tubes well and pack them carefully with the tuner.

Follow these simple rules and you'll make money on tuner repairs, whether you spot the trouble yourself or send the tuner to a specialist.

CET Tests Where & When

Los Angeles — Last Wednesday of each month at 7:30 p.m., 13666 So. Hawthorne Blvd., Suite 5, Hawthorne.

Sacramento — Third Thursday of each month at 7:30 p.m., 930 Enterprise Dr., Sacramento.

Pomona — Second Wednesday of each month at 7:30 p.m., Riverside City College, Tech. Bldg., A, Room 101 in Riverside.

North San Diego — by appointment, 727-0524.

Alameda — Last Wednesday of each month at 7:30 p.m., 1696 San Leandro Blvd., San Leandro.

San Francisco — Third Tuesday of each month at 7:30 p.m., EDISCO, Inc., 550 Sylvan, Daly City.

San Diego — Second Tuesday of each month — phone 291-2810 for time and place.

CET TESTS NOW
AVAILABLE
IN SPANISH

California CET's Reach the 500 mark — see article in National Section. Listed below are the latest card holders.

443, Gardon, Gary L.	San Diego
444 Foerster, Eric D.	Napa
445 Weiner, Gerrald H.	Daly City
446 Mudge, Richard A.	Daly City
447 Katsigianis, Chris	San Francisco
448 Ries, Dennis E.	Santa Ana
449 Samson, Steve S.	Novato
450 Chandler, Norman	Temple City
451 Leffler, V.L., Jr.	Temple City
452 Badger, Ross	Pomona
453 Gaither, Virgil	Los Angeles
454 Schirding, Wm	Glendale
455 Miles, Gerald	La Puente
456 Hewitt, Maurice	Duarte
457 White, James	Valinda
458 Sackett, Lee	Duarte
459 Corcoran, Wm	Fremont
460 Evins, Harrell	Travis AFB
461 Ledford, J.R.	Arcadia, S.C.
462 Kovach, John	Vacaville
463 Shafer, Lewis	Danville
464 Ferlingere, R.D.	Antioch
465 Tachini, R.R.	San Leandro
466 Jankovic, M.M.	Sacramento
467 Derie, W.H.	Sacramento
468 Schlosser, D.W.	Rancho Cordova
469 Brown, L.	No. Highlands
470 Gill, J.	Salinas
471 Butler, C.	Vacaville
472 Smith, G.	Vacaville
473 Baldwin, H.	Garden Grove
474 Cory, R.	Costa Mesa
475 Waltch, H.	Long Beach
476 Williams, E.	Huntington Beach
477 Nagle, J.	Saugus
478 Chairez, C.	Bellflower
479 McKettrick, C.	Lakewood
480 Vosk, K.	Bellflower
481 Ketcham, K.	Long Beach
482 Tank, W.	Long Beach

CALIFORNIA NEWS NOTES

BERDR REGULATION HEARING DRAWS RECORD NUMBER OF DEALERS

There wasn't an empty seat last month when the Bureau of Electronic Repair Dealer Registration held its hearing on several proposed new regulations in Los Angeles.

Of particular importance to the crowd of dealers who attended was the proposed regulation that would require a dealer to disclose over the phone or in his advertising whether or not his service call included parts, labor and pick up delivery charges. The regulation was in three parts and no one objected to quoting whether or not a service call included parts and labor but the pick up and delivery charges was another story.

Everyone felt that the addition of pick up and delivery charges to any conversation regarding his service call would only cause more confusion in the minds of the consumer. It was felt that the very mention of a charge for pick-up and delivery would intimate that the set was going to the shop regardless of what was wrong with it. At the same time, it was pointed out that 90% of the dealers include pick-up, if a set does go to the shop, as part of the service call being made at the time and the delivery is included in the shop labor. One dealer stated that labor was labor whether or not it was working on the bench or delivering a set.

Another major point of contention was in the definition of a service call. Under the proposed new regulation a service call would mean the calling of a service dealer to "Repair, Service or Maintain" a set. Many felt that if a dealer did not repair the set in the home, didn't service it in the home because it needed shop work or didn't maintain it, that they couldn't get paid for the service call. Everyone agreed that the word "inspect" should be added so that a dealer could collect for a service call even though he didn't repair, service or maintain the set.

Other segments of the hearing included the new regulations on the grading of picture tubes and some up-dating of recent legislation into the regulations.

The next hearing on the proposed regulations will be held in San Francisco on Thursday, February 5th. We encourage every dealer in the Bay area to attend the meeting and to voice their objections to these regulations as they are currently written. The hearings are not required by law but the Bureau wants to make sure everyone has had a say in the matter. The results of the hearing will be reported as quickly as possible in ESD.

19 TECHNICIANS TAKE CET EXAM IN ORANGE COUNTY

On December 16th, 1969, nineteen hopeful prospects buried themselves in the CET Examination in Orange County, California.

After the turmoil of signing up the eager applicants and seating each one at an individual table, a hush settled over the well lighted room and not a sound was heard.

The examination was conducted by Ed Wineberg, CET, Secretary of the Orange County Chapter. The test was given in the regular meeting room of the Lincoln Savings and Loan Building at Santa Ana, California.

Of the nineteen applicants, sixteen were from the immediate Orange County area and three were from such distant points as Culver City, San Fernando and even Saugus, which is almost 100 miles away.

The enthusiasm of the group for the NEA sponsored

CET program was clearly obvious by the keenly felt desire to master this ultimate of challenges and to join the ranks of the justly proud CET's.

This was the last chance for technicians to take the Exam for the \$5.00 fee. Effective January 1, 1970 the cost of taking the examination will be \$10.00 with the usual free retakes. Five of the nineteen applicants at this session were on a retake basis.

BERDR REVOKES REGISTRATION OF SAN FRANCISCO DEALER

The registration of a San Francisco television repair firm has been revoked by the Bureau of Electronic Repair Dealer Registration, it was announced today by Bureau Chief Donald G. Livingston.

Walter E. Levy, who does business as D&S TV Service, 1885 11th Avenue, San Francisco, lost his registration following an administrative hearing at which he was found guilty of two counts of fraud and dishonest dealings and two counts of failure to return old parts of a set under repair. Evidence was gathered, Livingston said, by running state-owned sets through Levy's repair shop on two occasions.

In addition to the revocation, Levy received a 30-day suspended jail sentence contingent upon 18-month probation, fined \$100.00 and ordered to make restitution of \$98.22 to the Bureau.

The revocation is subject to review upon request one year after effective date and is now in effect.

CSEA HAS A NEW CODE OF ETHICS

After many months of deliberation, CSEA has developed both a Code of Ethics for the consumer and a Code of Standards for the dealer to abide by. Printed below is the new Code of Ethics - NEXT month the Code of Standards will be published.

THE CSEA SHOP OWNERS' PLEDGE TO HIS CUSTOMER

We will render you our services in a professional manner.

We will treat you with courtesy at all times.

We will promptly repair your equipment to manufacturer's specifications, observing all precautions for your protection.

We will protect your property at all times with proper and diligent care.

We will provide you with, and fully honor, a concisely and clearly stated warranty or guarantee on all work performed and parts used.

We will honestly clarify all charges and/or other conditions pertaining to our transaction with you.

We will treat electronic problems brought to us by you as though they were our own.

We will endeavor to conduct ourselves in matters affecting community interests in such manner as to improve the community we both live in.

We will constantly strive to improve our technical skill and to keep abreast of changes in equipment and servicing techniques in order to serve you better.

We will comply with all national, state and local laws and CSEA rules and regulations pertaining to our electronic services.

Only by our firm adherence to this pledge shall we expect to merit your confidence and support.



HOOSIER TEST PROBE

A SPECIAL ESD FEATURE

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82-channel signal grabber

The Jerrold VUfinder* Antenna. The first 300-ohm UHF-VHF-FM antenna designed—from the ground up—for uncompromising color and black-and-white excellence across the entire TV spectrum. Models available for metropolitan to deepest fringe areas.

- Sharp directivity eliminates color ghosts
- Flat response (± 1 db per channel) for optimum color fidelity
- Exclusive bi-modal director system for extra gain

VUfinders are easy to put together, can't possibly fall apart. The quality that's built in stays in. Quickly convertible to 75-ohm Color-axial performance. VUfinders come in 5 models. Each is supplied with a UHF/VHF frequency splitter. And the list prices range from \$17.95 to \$79.95. There's no better performance per dollar than this—anywhere.

We have the complete line of JERROLD ANTENNAS IN STOCK . . . ONE TO FIT YOUR NEEDS AND BUDGET.

adi ASSOCIATED DISTRIBUTORS, INC.
210 South Meridian Street - Indianapolis, Indiana 46225 - Telephone (317) 634-2591

Bits & Pieces of I.E.S.A. Just for the heck of it, this month's news is a collection of paragraphs taken from two newsletters from our executive director's desk. Leon is doing a fabulous job in hot communications, and our new central headquarters at 125 New Jersey St., Indianapolis, Ind. isn't hurting one bit.

1970 - a fresh new year. A time to pause and look back on last year's mistakes and progress. Force your mistakes of 1969 to help you in the year 1970.

Lake County Association assured good leadership for 1970.

December 17th, 1969, John R. Jage, CET, became the newly elected president of the Lake County Association. Mr. Jage's address is 422 Highland St., Hammond. It is nice to know that this group, one of I.E.S.A.'s strongest, affiliates is assured of strong leadership for the coming year.

Mr. Jage's officers are as follows: Vice President, Mr. Joseph Bryja, 5551-J Bruce Avenue, Portage; Secretary Mr. Donald Springer, 1935 Stanton, Whiting; Treasurer, Richard Goodlander, 7522 Birch Ave., Hammond; Sergeant at Arms, Emery Hall, 1134 Conkey, Hammond. We wish them all the satisfaction of a job well done.

Lake County Association will hold its installation of officers Banquet, January 14th at the San Reno Restaurant in Griffith, Indiana. The time 6:30 p.m. FUN, FRIVOLITY & FRIENDSHIP.

Besides hosting the upcoming Board Meeting, organizing the I.E.S.A. Spring Convention, Jage himself is serving on the U.S. Government National Committee on Product Safety as liaison to I.E.S.A. and N.E.A., keeping their dues paid and on time. They come with TWELVE NEW MEMBERS.

Make a mental note for the February 15th I.E.S.A. Board Meeting. It will be held in Lake County, Portage, Indiana, at the Holiday Inn. 9:30 a.m. to 4:30 p.m. Have your snow shoes polished and have no excuses for not attending.

Lake County President and I.E.S.A. Convention Chairman, John Jage, wants you to note this will be the site of the Indiana Electronic Service Association Spring Convention, April 24th, 25th and 26th.

This February Board Meeting will give the officers a chance to inspect the facilities for the convention and it will be an opportunity to inject ones own ideas and suggestions and meet the hotel personnel. It never hurts to have hotel management friends when you attend an IESA Convention.

Frank Baker, Indianapolis, received his CET Certificate at the ITTA meeting, January 6, 1970. At the same time certificates were presented to Charles Schawrk and Thomas Bertram, both from Indianapolis. Six from Lake County, as follows Mr. Carl Bremer, Mr. Rossie O. Terry, Mr. Richard J. Carr, Mr. James G. Frye, Mr. John W. Beuter, and Mr. Bela Tallhammer. Congratulations to all.

(Continued on Page 26)

FEBRUARY, 1970



ELECTRONIC service dealer

IOWA BEACON

IOWA president's report

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BILL GULLIVER, Vice-President
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BOOTS HARWELL, Secretary
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FLOYD WEBB, Des Moines
FLOYD KEETON, Red Oak
WALTON VAN MAANEN, Lynville
KENNETH YOUNG, Washington

by CLARK POHL



A new year has arrived and what plans have you made to assure success for your business? Most dealers do not see the necessity for taking the time to make plans for the coming year. We have personally found in our own business that planning can give you great assurance that you'll end the year with a profit you hoped for at the beginning. There are many items other than direct dollars spent for tangibles that can be planned (or budgeted if you like) to make work easier and profits greater. One of major importance is manpower. Some dealers I've known have admitted they will need additional help starting with fall season but fail to plan or act until then to solve their needs. Wouldn't it be much smoother and profitable to schedule hiring someone months in

advance of needs. Why you ask? First, you can set up a reserve to pay for training from a profitable season thus relieving your expenses at a slower time of year. Now with money available you can more easily give your time to training as you should when things have slowed down. You know from experience waiting to hire until needed, you may be forced to hire less than desirable as you need help right now. You will also not give your time to training. Had you started 3 to 4 months earlier your new employee would be much better able to handle the job you hired him for when really needed. Budgeting all items from advertising, truck expense, insurance, utilities, etc., right on thru to sales by category can often times ward off unexpected complications that seem to snare up on us from time to time.

When I think of planning it brings to mind a couple of important items all dealers should begin on now as very little progress has been made. Payment of warranty repairs and fair mark-up on parts being used. In talking to an

automobile dealer he stated it was the Automobile Dealers Association who won not only labor rates for repairing merchandise received defective but a 20 - 25% mark-up on parts. Wouldn't this be a change from practices now being applied to our industry. The statement was made why didn't our association work on manufacturers as it seemed dealers were being taken on fixing a manufacturer's product that wasn't even delivered in operating condition. Besides costing him time it cost money for freight and parts handling plus losing mark-up on parts handled. You say OK what are your

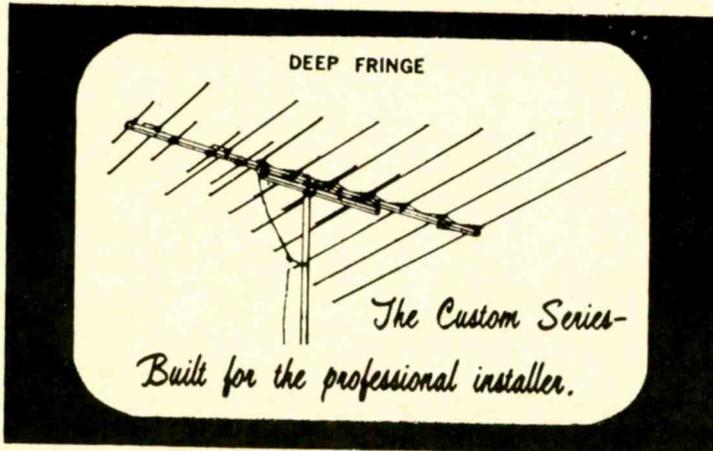
plans as an association to solve this problem. Because most of you dealers won't spend \$4.00 a month for association membership, you don't know that NEA has a very active serviceability committee working on this problem and this very month is having a national all industry service conference to discuss these situations. The statement has been made by industry leaders that the Electronics Association represents only 30% of dealers so the other 70% must not care about the way they get treated by manufacturers. Don't you get the message, manufacturers will listen to a

majority and numbers count even if you aren't one to attend meetings and participate.

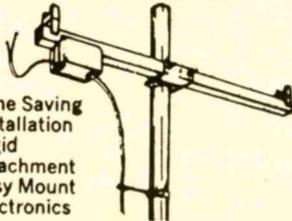
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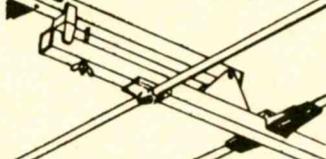


CRADLE-MOUNT

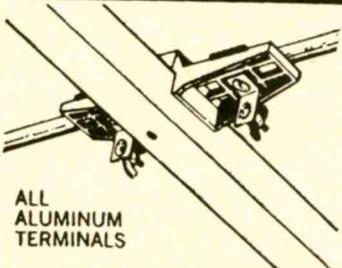


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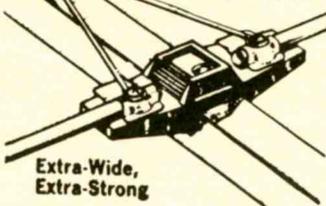


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ELECTRICITY, ELECTRONICS, RADIO, TELEVISION - Electricity Fundamentals, 30 hours - \$14.00, Friday - Principles of DC and AC electricity; magnetism, simple series and parallel circuits; use of meters, batteries. Basic principles of generators, transformers. Electric laws, terms, measures, symbols and diagrams.

AC CIRCUITS AND TEST EQUIPMENT, 36 hours - \$17.00, Wednesday (12 weeks) - Course follows Fundamentals of Electricity, progressing through AC principles, basic circuits, electronic components and their functions, and the use of meters. Laboratory participation.

ELECTRONIC FUNDAMENTALS, 36 hours - \$17.00, Wednesday (12 weeks) - Continuation of AC circuits and test equipment. Additional circuits, circuit functions and values, hookups and testing.

ELECTRONIC CONTROL SYSTEMS, 20 hours, Monday (7:00 to 9:00) - \$12.00 - Trouble shoot variety of industrial electronic control systems. **COMMERCIAL RADIOTELEPHONE**, 30 hours \$17.00, Tuesday - To aid in securing 2nd and 1st class FCC licenses. Covers 2-3-4 of radiotelephone exam. Based on Radio Operator's License Q&A Manual, by Kaufman.

TELEVISION TROUBLESHOOTING, COLOR/BW, 36 hours, \$18.00, Tuesday (12 weeks) - Practical trouble shooting. Use of service information and test equipment.

TRANSISTOR FUNDAMENTALS, 30 hours \$16.00, Monday - Semiconductor fundamentals including atomic structure; diodes; transistor construction and operation; forward and reverse currents; leakage; characteristic curves. Transistor amplifiers and basic circuits.



NOTES . . . FROM LES

Les Buchan, TSA-Iowa Executive Secretary

Some thoughts for you to ponder —

WHAT IS A COMPETITOR — A competitor is a person who spends his days and often his nights dreaming up ways to give your customers better service. When he finds out how, it will be your turn to find still better ways to keep your customers happy. A competitor sometimes does more for you than a friend. A friend is too polite to point out your weaknesses, but a competitor will advertise them! A competitor is never too far away to affect jobs of your employees. If the quality of your work decreases, or the alertness of your service, he will prosper and everyone will feel the effect. A competitor's ability should never be underestimated. The business graveyard is full of companies who figured competition was stupid, shortsighted, or just plain lazy. A competitor helps make life worth living. He keeps you alert and in peak condition. Without his rivalry you would find the race less interesting, and the victory less satisfying. A competitor is hard to live with, but harder to live without. Competition brings progress by encouraging the development of better products at better prices. It makes the customer the boss of the economy.

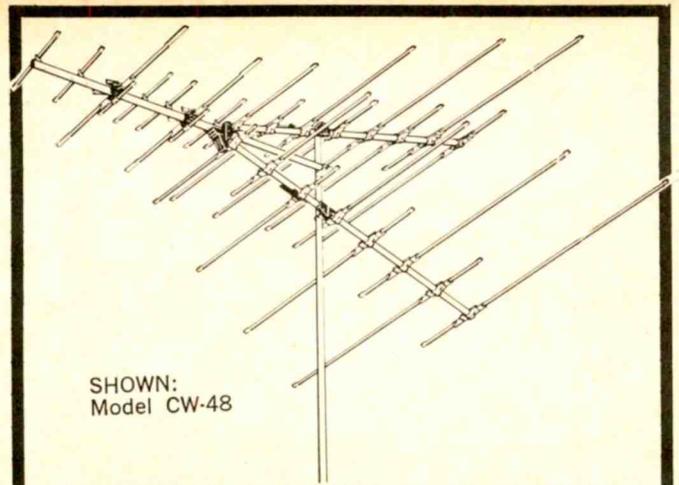
IDEAS — Ideas have much in common with rubber balls. The way they bounce depends on where they start from; the force with which they are thrown, dropped, or pushed, the character of the surface on which they hit; the texture itself; the ambient temperature in which the bounce takes place. All these influence the bounce of a ball.

EDUCATION — Education is what you have left over after you subtract what you have forgotten from what you learned.

A scientist says it is the lower part of the face, not the eyes, that gives away one's thoughts; especially when one opens the lower part of the face.

RESOLUTION — One of my New Year's resolutions was to lose ten pounds. As of now, I only have 15 pounds to go.

ELECTRONIC SERVICE DEALER



SHOWN:
Model CW-48

NEW WINEGARD COLOR WEDGE DELIVERS BEST TV ON ALL CHANNELS

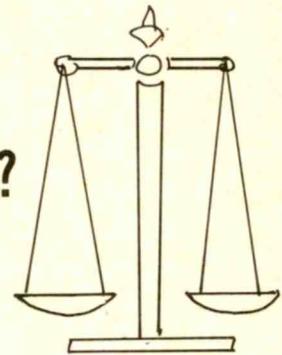
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KEA NOTES

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KEA President's Report

By EMMETT HUGHES



The Kansas Electronic Association held their mid-year general membership meeting January 10 and 11 in Wichita, Kansas. Saturday afternoon was devoted to a study session in preparation for the CET tests which were taken Sunday morning. Sunday afternoon we held our regular business meeting, some of the subjects discussed were membership, CET, parts availability, 1970 State Convention. The next board meeting will be held March 15, 1970 at Wichita. Our state convention will be held Friday, Saturday and Sunday April 24, 25, 26, 1970 at the Broadview Hotel, Wichita, Kansas. Make plans now to attend.

In the past month we have given 15 CET tests in the Wichita area. We have already received the results of these tests. We appreciate this and hope that it will continue. Tests are now being set up in the Liberal and Hutchinson area, we are trying to double our CETs by July 1970.

At the present time Kansas is planning on having a good representation at the next NEA board meeting in Peoria. Plans also are being made to attend the NEA convention in St. Louis.

In the past month the Liberal Chapter has been re-organized and will be known as the Great Plains Chapter. We have several new members in this area and are looking forward to its growth.

The following are more Kansas CETs:

- Harry Wright Sublett
- Joseph Jarmer Buhler
- John Farrell Manhattan
- Larry Buatte Manhattan
- Melvin Thamas Emporia
- Joseph Garcia Washington
- Keith Knos Liberal
- Frank Marcy Scott City
- Robert Grimes Ulysses
- Paul Hinderliter
- Michael Smith Parsons
- Almond D. Shaw Wichita
- Ira Dale Hutchinson

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the **KETA** news

Kentucky Electronic Technicians Association

Kentucky Electronic Technicians Association

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Sergeant-at-Arms

president's report



By FRED B. WATJEN, CET

With the coming of 1970 the state of Kentucky becomes two hundred years old – KETA becomes six years old, and I think has accomplished national recognition in this much time with the hard working few in the association.

The weather here has had us snowbound, and setting up the coming convention at this time impossible, so be sure to watch the next issue for agenda, time and place – planning so far will be as great as the last, every service man enjoyed the service seminars!

Mr. Chas Cave, KETA's VP and NEA's director of training is setting up a troubleshooting contest that will be held statewide in May 1970, hosted by the Kentucky Electronic Technicians Association.



Your Center for Zenith Replacement Parts



FACTORY REBUILT TUBE SPECIAL

Get the most for your trade-ins! Monarch is now offering a special price on Zenith Cinebeam factory rebuilt tubes. These tubes will satisfy about 95% of your needs for replacing tubes in your trade-in sets. Sale prices are in effect through February 15. Don't delay . . . order today!

MONARCH EQUIPMENT COMPANY

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LOUISVILLE, KENTUCKY 40201
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Ed Milburn, RCA Indianapolis, left and Jerry Rath, RCA Regional manager, right.

The Collins Company of Louisville sponsored two service meetings, one in Lexington and one in Louisville. Service technicians are hungry for information on new equipment. No one went to sleep on the talk of the MD2000 RCA Tuning System! More instructive courses are needed like this.



LEXINGTON



LOUISVILLE

Ky News Notes

ZeViKe Troubleshooting Contest Guidelines

The troubleshooting contest will be held in conjunction with the State V.I.C.A. Convention, which will be held the first week of May, 1970. This contest will be sponsored by the Monarch Equipment Company, distributors of Zenith Radio Corporation products; hosted by the Kentucky Chapter of the Kentucky Electronic Technicians Association.

All vocational and technical schools that have a Television Technician Development Program are asked to participate.

The following procedure seems to be most logical:

1. Contestants will be in two groups: high school seniors, and out of school youths and apprentices.
2. All students in each class will study and participate in a class troubleshooting contest.
3. The winner and runner-up from each class will be sent to a State contest to represent their school.
4. Only the winner in each class from each school will perform in the State contest. In the event of the winner not being able to perform; the runner-up will take his place.
5. The Monarch Equipment Company will make available one black and white, 1970 model Zenith Television set to each school; for the purpose of analyzing and troubleshooting the circuits before the class contest.

When the class winner and runner-up has been decided, the set will be returned to the Monarch Equipment Company.

The estimated time for the school's possession will be 15 to 20 days.

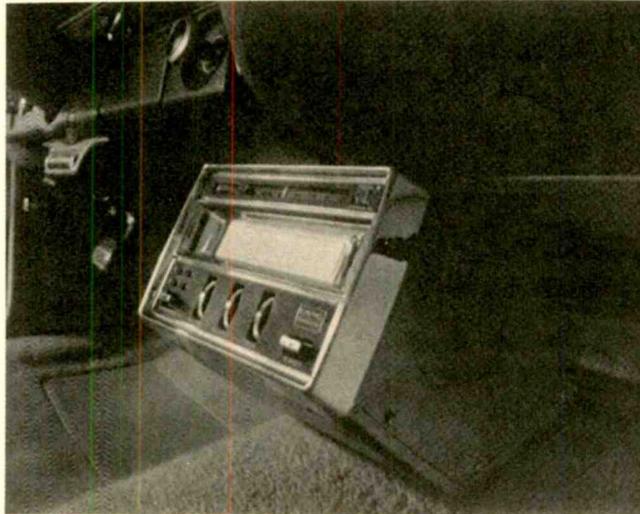
6. Each school is to furnish the following test equipment:
 - A. 1076 or 1077 model B/K television analyst.
 - B. Wide-band scope with direct low-capacity and detector probe.
 - C. Vacuum tube volt meter
 - D. One set of hand tools
 - E. Stop watch
7. The Kentucky Electronics Technicians Association with the aid of each school will enlist the services of two technicians from each school area to monitor the troubleshooting stations.
8. The Kentucky Electronics Technicians Association will:
 - A. Develop monitor sheets and checklists to be used in student performances.
 - B. Act as technical advisors and referees in case of ties.
 - C. Will assist Monarch Service Department in bugging the sets and delivering them to the test site.
9. The ZeViKe troubleshooting contest committee will:
 - A. Supply one TV-39 Zenith Service Manual to each instructor.
 - B. Send sufficient numbers of schematic and block diagrams so that each student may have one or more.
 - C. Furnish unmarred schematic and block diagrams at the test stations.
 - D. Design and set-up the individual test stations for the contest.

(Continued on Page 26)

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all the reasons
you've ever had
for not buying
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\$119⁹⁵

We've made it as hard as possible for you not to buy our new car stereo. We mounted it on the floor so you couldn't complain about it looking out of place. Then we put an intricate magnetic lock on it so you couldn't complain about it being stolen.



Model 3123 The Craig floor-mounted, burglar-proof car stereo.

We designed the face at an angle so you couldn't complain about taking your eyes off the road to load tapes. Finally we priced it so you couldn't complain about the price. The Craig Floor-mounted, Burglar-proof car stereo.

CRAIG

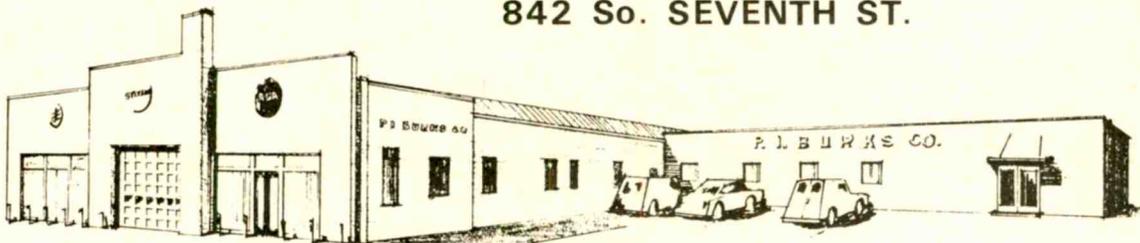


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**MODERN STORE
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GOOD THROUGH MARCH 1, 1970

HOOSIER TEST PROBE *Continued*

Les Nesvik, CET, from Wholesale TV, Indianapolis, our IESA CET Director, has been instrumental in the close working relationship with the Magnavox Corp. and will be in Ft. Wayne, this date to administer exams to a group of their field technicians, Mr. Nesvik and Mr. McLin, CET, from Magnavox, arranged for this group exam. We will be pleased to welcome them into the most elite ranks of Indiana Technicians.

National Electronic Associations Board Meeting in Peoria, Illinois. The dates, February 5th, 6th, 7th and 8th. The place, Ramada Inn, 415 St. Mark Court, Peoria, Illinois. Plan now to be a charter member of the Society of Certified Electronic Technicians. Your chance to be an officer of this new group of the most elite technicians in the world.

Help the Illinois group form their new state association and attend NEA's Board of Directors Meeting and participate in national policy. You are all most welcome. Enjoy four days escaping from the store.

Besides Picos and Hertz, now you will have a new color code to learn. The bad boys limerick will no longer apply. Being in the electronics game a thousand years is really tough.

One final note: just got word that the final indenture papers on the Versailles apprenticeship program have been signed and being sent to the committee on apprenticeship

of SIETA, a brand new hard working association in S.E. Indiana.

This has been a long drawn out, but worthy enterprise. Get on the ball, you other 48 states! Naturally, Kentucky and Indiana would be first, but don't let that stop you. The end is worthy of the means.

KY NEWS NOTES *Continued*

- E. Develop suggested lesson plans and worksheets to be used in the classroom.
- F. Supervise and coordinate contest.
- 10. At the close of the contest when a winner has been decided:
 - A. A prize for first, second, and third places will be given to the winner in each group.
 - B. The television sets will be boxed and returned to Monarch Equipment Company.
 - C. Each school will take charge of boxing and returning their own test gear.
- 11. Suggested timetable:
 - A. January 23-24 - Meeting of ZeViKe Committee.
 - B. February 10 - Confirmation of each school's participation.
 - C. February 24 - Mailing of instructional materials.
 - D. March 9 - Sets made available to schools.
 - E. April 10 - Sets returned to Monarch Equipment Company for bugging.
 - F. First week in May - Contest.

LETTERS *Continued*

Mr. Martin:

On page 29 of the November issue of Electronic Service Dealer, you mentioned Zenith, through their distributor was donating a color TV

chassis to a vocational school in Kentucky. This is a national program and any non-profit educational institution can write the local Zenith distributor requesting such a donation. This actually consists of a color TV chassis and CRT along with yoke and related parts.

Zenith, through Sues, Young and Brown, Inc. has donated 18 chassis in the Los Angeles area to date.

I will welcome any inquiries regarding this program.

Very truly yours,
SUES, YOUNG AND BROWN,
INC.

L. Atchison
General Service Manager

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FOR SALE:

Stock & Equipment in well established Radio and TV shop located in Sun City area. Owner, C.E.T., leaving for Japan. Write to Box 638, Perris, California.

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Big NEW catalog includes needles, cartridges, spindle adapters, microphones, headphones, audio cords and plugs. WE SHIP EVERYTHING PREPAID! Write now for FREE catalog.

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\$30,000 Total Price
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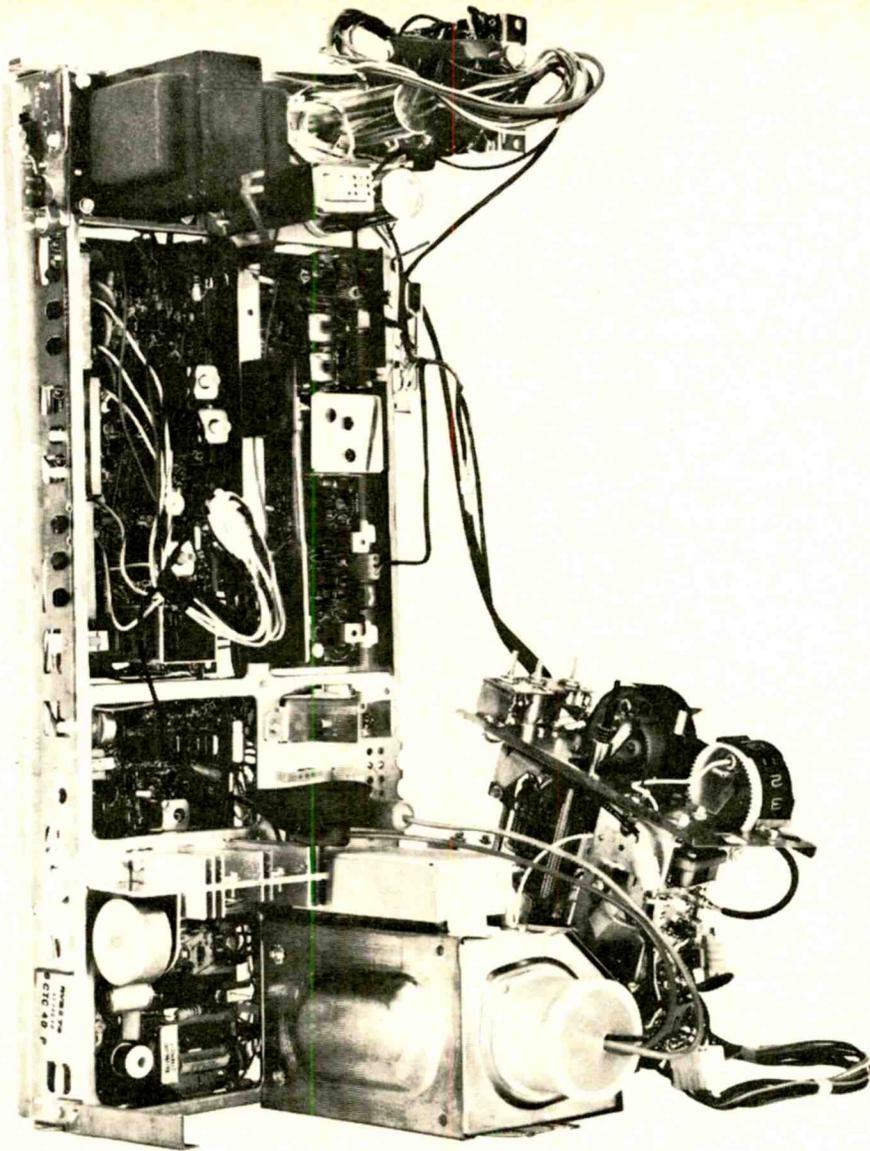
Complete TV and Radio service equipment, like new. Original cost over \$1,700. For quick sale will accept \$700. For details, write P.O. Box 968, Fort Bragg, California 95437.

Dear Sir:

All through grade school and high school I was a spelling champion, so I offer a mild reproach to you for misspelling of Accessibility in your September issue. I would be very pleased to offer my time (for free) in helping to proofread your information. At the same time, I would like to suggest that you use some "fun" cartoons in ESD. We need a little fun poked at the TV field.

Ralph Sutherland
Torrance, Calif.

Ed Note: Your spelling of Accessibility was correct and ours was not. One thing you must admit and that is that we were consistent . . . it was misspelled seven times . . . but always the same way.



There's more here than meets the eye.

What you are looking at is RCA's solid-state* color chassis—the CTC-40.

A whole lot went into that chassis. Like fifteen years of technical research. Pioneering in the development of Solid State. And the backing of a national workshop program like nobody else's.

That's where you come in.

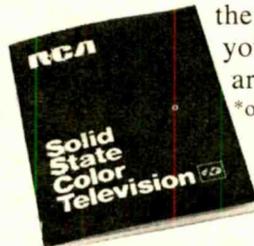
We've written a technical manual on the CTC-40 especially for Electronic Service Technicians. It has color

diagrams, pictures, and everything there is to know about our CTC-40.

You can buy it from your RCA Consumer Electronics Distributor, but there's a better way.

Attend the next RCA Consumer Electronics Distributor CTC-40 Workshop and get the manual free. Our distributor can tell you when it will be held next in your area. See you there.

*one tube rectifier

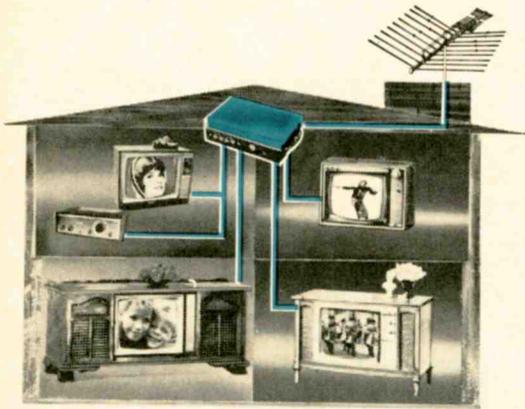


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