

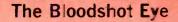
electronic service dealer

MODERN

THE OFFICIAL PUBLICATION OF THE CALIFORNIA STATE ELECTRONICS ASSOCIATION

VOL. 1, NO. 2

JUNE, 1961

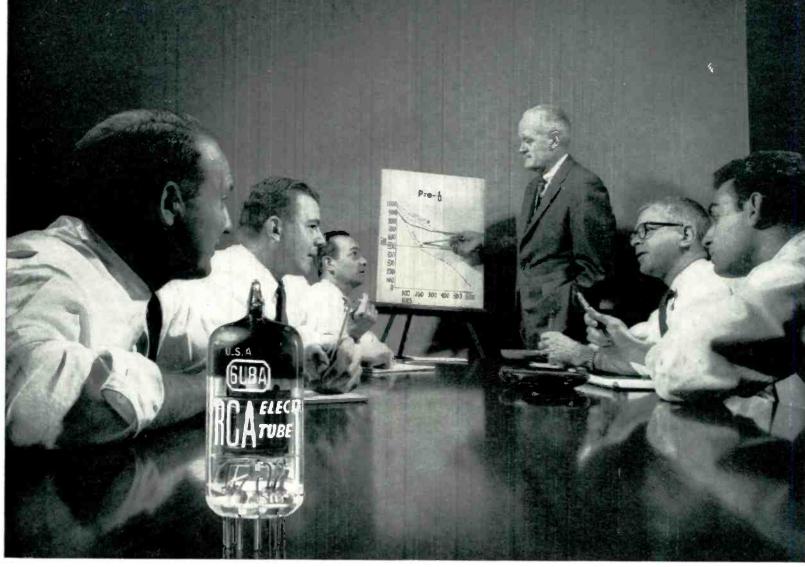




- The difference between New and Rebuilt.
- How are they made?

... story page 14





YOUR CUSTOMERS' CONFIDENCE BEGINS HERE

From a tube design conference like this at RCA comes a stream of innovations that continually improve the quality of RCA receiving tubes you install... which in turn helps build your customers' confidence.

A typical design conference includes design and development engineers, applications engineers, production supervisors, quality-control specialists, chemists and physicists. It takes many skills to make a basic tube improvement.

This group may be discussing a more effective pattern of anti-leakage slots in tube micas; or a sturdier cage structure to minimize microphonics; or a new metal alloy to improve heat dissipation; or new shielding and basing arrangements to minimize shorts and leakage; or a new heater wire coating to improve heater performance and assure longer life.

Whatever the problem, it's attacked with a single goal in mind: to provide you with a tube you can depend on. Another reason why every RCA tube you install is an investment in customer confidence. Give yourself the extra advantage of RCA tube dependability. Check with your Authorized RCA Distributor this week. Electron Tube Division, Harrison, N. J.



The Most Trusted Name in Electronics RADIO CORPORATION OF AMERICA



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HIGHEST QUALITY SERVICE

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JUNE, 1961



JON MARTIN

WILL FIVE OUT OF SEVEN SHOPS BE CLOSED IN FIVE YEARS?

Yes, say many industry leaders, 1F, we allow pay TV to get a foothold in California.

For many months the Industry has struggled with the pros and cons of licensing but many feel that there is an even greater struggle about to take place. Actually, this could be the battle of life or death for the independent service dealer, independent electronic distributor and for the service industry as a whole.

To bring you up to date on how much progress has been made by Pay TV. Sports Illustrated magazine says it is worth \$6,000,000,-000 to sports people alone!

On April 3, 1961, a New York Broadway hit was shown live and uncut on Pay TV in Canada. Certain high promoters are claiming that hoxing is controlled by closed circuit television people. Zenith Corporation is spending their second \$10.000,000 to develop decoding devices and many other sources of information indicate movement towards pay TV.

HOW WILL THIS AFFECT YOU AS A SERVICE DEALER? First, it will become such a tremendously large operation, and become an inter-state operation, that it will be a public utility. And secondly, the people who have the decoders, or who control Pay TV, will be in a beautiful position for captive service. CSEA has had considerable experience in this area which has gone from free television to receiving their signal through a cable for a price, and in those particular areas found that three-quarters of the service people were eliminated.

Also opposed to Pay TV are the theatre owners, major television networks, advertisers, etc. It is certain that the price of razor blades and Wheaties would not be lowered if they did not sponsor free television. In fact, due to a loss of TV as an advertising medium it could very well mean an increase in price.

At the present time there is a bill before the California State legislature that will prohibit Pay TV in this state. The bill, A.C.A. #73, introduced by Assemblyman Don Allen, should be supported by every Service-Dealer in the State.

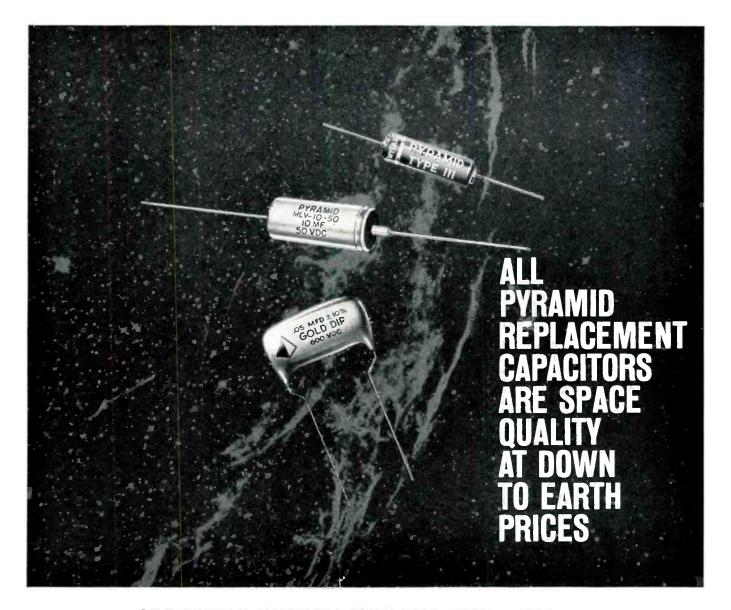
ALL INDUSTRY MEETING

I just returned from the Chicago Parts Show where on the 18th of May 1 attended an all Industry meeting filling in for Jim Wakefield.

This was the first meeting of this kind that I have ever attended and, I believe for all others at the meeting. Gathered in one room where people representing manufacturers such as Helen Quam Bean, Robert Burns of Stancore, H. B. Nelson of General Electric, Etc. There were others representing Distributors and several representing the service dealer. Of course, the trade press was also in attendance.

The reason for this meeting, and it now looks as if it will be a perminent committee, was to air once and for all the problems of the service dealer to the Manufacturer-Distributor-Dealer pattern.

In the next issue of MESD I will discuss some of the ideas that came from this meeting and what, I believe, it may lead to in the future.



SEE THESE NEARBY PYRAMID DISTRIBUTORS FOR ALL YOUR CAPACITOR NEEDS

CALIFORNIA

ANAHEIM

Orvac Electronics 112-B E. Orangethorpe

COMPTON Jan Electronics 803 E. Rosecrans Ave.

CULVER CITY Electronic Trading Post 4364 Sepulveda Blvd.

GLENDALE Logans Electronics 937 N. Pacific

INGLEWCOD Acorn Radio & Electronics

4736 W. Century Blvd. Inglewood Electronics Supply 4701 Century Blvd.

NATIONAL CITY Willy's Electronic Supply Co. 1636 D Ave.

LOS ÀNGELES

Arco Electronics 111 So. Vermont Atlas Radio & TV Parts Co. 1044-48 Venice Blvd. Papel Brothers 4652 E. Third St. Scope Distributors 14127 S. McKinney Ave. NORTH HOLLYWOOD

Honig Distributors 6452 Lankershim Blvd.

PARAMOUNT

Elwyn W. Ley Co. 16514 S. Garfield Ave.

SAN DIEGO Silvergate Radio Supply 1528 India St.

Telrad Electronics 3453 University Ave. LONG BEACH R. C. & L. F. Holl

R. C. & L. F. Holl 4686 Long Beach Blvd.



RIVERSIDE

Massey's Radio Supply 2944 8th Street SANTA ANA

Santa Ana Electronics 832 East Fourth St.

SANTA MONICA Shel-Bern Electronics 1829 Pico Blvd.

SOUTH GATE Mac's Radio Supply 8320 Long Beach Blvd.

WEST COVINA West Covina Wholesale Electronics 610 A. South Sunset

NEVADA LAS VEGAS

Electronic Supply Corp. 203 E. Charleston Metcalf's Radio & Sound Supply 25 East California Ave.

Darlington, South Carolina

LETTERS TO THE EDITOR:

Dear Sir:

In the last seven years working very closely with CSEA, covering the state many times, by virtue of being president of CSEA (their first president and again president last year) and very active in the present legislative activity in Sacramento, I have seen how most television-radio service companies, due to the fact they are small, just sit back and literally watch the world go by. They do this because they do not feel they have much in common with other people and they feel there isn't much they can do to help their industry. I feel very strongly that the whole picture of radio and television includes all of the different facets and one is very vital to the other. It is very foolish when we think that we can continue in this servicing business without the help and assistance from the distributors, manufacturers, etc., and of course, they need our assistance too. My major effort is directed toward drawing all of these interested parties together so that they will make our industry a better industry. I hope that in this magazine you will follow this type of principle in your editorials and articles.

Your first issue of the magazine looks very good. I was reluctant to lose control of it and not have our state office print it, but after looking at the first issue I believe it was the right move.

Sincerely,

KEITH KIRSTEIN

Editor's Note: Thank you Mr. Kirstein for those kind words and we will do our best to create better understanding, communication and cooperation to make the service dealer industry one of the tops in the country.

Dear Sir:

I would like to congratulate you on your new magazine. It certainly is attractive and everyone that I have talked with thinks its topnotch.

I clipped the attached editorial letter out of one of the local papers thinking perhaps you would like to see it. It may sum up what the general public thinks of our industry but I hope not.

Sincerely JIM JOHNSON

Editor's Note: Thanks for the newspaper clip. We thought it might be a good idea to reprint it here. Writes Mr. Grant N. Stiner of Orange, California: "It is easy to understand why many television set owners are unhappy with tv service companies, since uninformed, inexperienced and careless men are operating in the field.

"Actually, one seldom finds a patently dishonest tv technician, but more frequently one who is careless or undeveloped. The pity of it is that operational costs are practically the same for all, and you will pay the same price for a bungled television repair as for an expert job. "I would be inclined to doubt the ethics of a person who advertised his tv service lower than the going rate in the area, but there are extremes in all the affairs of mankind.

"Price is not always the criterion of good tv service. One man may charge \$3 for a service call, another \$6, and they may be equally as honest and proficient.

"I am of the opinion that the tv repairman is afraid to charge a fair and sufficient fee for his time when actually service is about all he has left to sell. The supermarket probably sells more tubes than the tv serviceman.

"The difference is that the honest tv technician sells only the tubes you need and not a half dozen you could very well get along without.

"In that regard I think it is oftentimes better for you to have your set repaired in the shop than in your home.

"With over a decade of experience in ty service, I offer this opinion:

"I believe the good television technician has uppermost in his mind the desire to build, to repair, to put things in operational balance and to witness then, with a certain understandable pride, the result of professional workmanship."

> GRANT N. STINER, Orange.

Dear Mr. Martin

We are very much impressed with your first issue of the MODERN ELECTRONIC SERV-ICE DEALER and can well imagine that your response has been excellent. We have discussed incorporating this book in our advertising programing for the balance of the year and I believe the decision will be favorable.

Your editorial on page 18 entitled "Building A Community Image Through Service" struck a responsive chord with me since the General Electric Company has been urging servicemen in this direction for the last few years. In fact, the heart of our All-American program is built around this concept.

> Very truly yours, H. B. NELSON Manager-Trade Relations & Distributor Development General Electric Co.

Dear Don:

Congratulations on the new magazine. Everyone in CSEA is proud of this new publication and feel it will go along way in building better service dealer relationships. If I can ever be of any help please do not hesitate to call.

Best wishes, RALPH JOHONNOT

Dear Don:

The first issue of Modern Electronic Service Dealer is terrific and it has a lot of meat in it for anyone in the service industry.

I did notice a few typos but I guess that goes right along with the publication business.

All in all it is tops and we are proud that it is the official publication of the California State Electronics Association.

Sincerely, ROBERT WHITMORE President CSEA

Editor's Note: Our proof reader did miss a few so from now on he is going home at 5:00 p.m.

Dear Don:

I certainly did like your first issue of the new magazine but would like to suggest that in future issues you try to add some "Tips for TV Servicemen". It could be a little contest possibly but I know that the Service Dealer does like to read these kind of tips.

CHARLES BROKAW RCA Electron Tube

Editor's Note: We have taken this suggestion and you will find in this issue a couple of "Trade Tips" and also a few "Telephone Tips." We are most anxious to get these and hope that we can get dealers to send them along. Maybe we can work out a small prize for the "one of the month." We are certainly willing to listen.



Trade Tip

"SWISH Aerosol ELEKTRO-KLEEN," an aerosol cleaning compound for a wide variety of uses in cleaning electrical equipment, electronic components, typewriters and office machinery, power tools, fans and ducts, is now available with a removable extension tube for cleaning hard-to-reach places and to provide a "pinpoint" spray for cleaning miniaturized components.

The polypropylene tube, developed after considerable experimentation with other materials, is sufficiently flexible to permit spraying "SWISH ELEKTROKLEEN" around corners and into small areas.

"SWISH Aerosol," used without the extension tube, provides a long range, drenching spray for more thorough cleaning instead of a "mist". By placing an old newspaper under the item to be cleaned, the drenching spray flows the dirt and grease onto the paper which is then discarded.



business wire

dates

business trends

CSEA news

business flashes

Retail sales and production of radio and television sets continued to rise during March, but cumulative totals remained below those for the first three months of last year in all categories except radio sales, according to figures released by the Marketing Data Department of the Electronic Industries Association. TV sales to consumers in March

totaled 530,105 units, an increase of 77,823 above the February total. Production increased by 53,040 sets to a March total of 497,458. Radio retail sales in March were 853,821, an increase of 187,593 over February. Production of radio totaled 1,384,052 in March, 271,023 higher than the previous month.

Through March of this year, television sales at retail totaled 1,382,178 sets, against a total of 1,600,369 during the same period in 1960. TV production for 1961 stood at 1,309,811, compared with 1,579,447 last year. Radio sales totaled 2,100,729, just above last year's cumulative mark of 2,079,308. Radio production for the 1961 period totaled 3,589,154, against 4,465,706 produced last year. EIA's latest statistics are shown below.

TV	and	Radio	Retail	Sales	(Units)

	ir anu na	ulo netali Jai	ca (onita)		
	Tel	levision	Radio	(Ecluding	auto)
March	5	30,105		853,821	
February	4	52,282		666,228	
January	3	99,791		580,680	
Year-to-date '61	1.3	82,178		2,100,729	
Year-to-date '60		00,369		2,079,308	
	TV and R	adio Productio	n (Units)		
		V with			
	Television UH	F Tuner Tota	al Radio Auto	Radio FN	Radio
March	497,458	21,540 1,	384,052 3	84,227	75,044
February	444,418	24,514 1,	115,029 3	07,973	41,357
January	367,935	25,270 1,	090,073 3	87,136	50,421
Year-to-date '61	1,309,811	71,324 3,	589,154 1,0	79,336 1	66,822
Year-to-date '60	1,579,447 1	39,067 4,4	465,706 1,8	63,094 1	92,764

Factory sales of transistors showed a healthy gain in March of 1,858,845 units worth \$4,115,666 over February totals, it was disclosed in monthly totals released today by the Marketing Data Department of the Electronic Industries Association.

Transistors sold at the factory in March totaled 15,129,273 valued at \$29,815,291. In February, the totals were 13,270,428 units sold and 25,699,625 in revenue from sales.

For the first three months of this year, 40,583,632 transistors worth \$78,470,083 were sold at the factory, compared with 31,155,798 units worth \$78,246,279 sold during the same period in 1960. The transistor statistics appear below:

	Factory Sales (Units)	Factory Sales (Dollars)
March	15,129,273	\$29,815,291
February	13,270,428	25,699,625
January	12,183,931	22,955,167
Year-to-date '61	40,583,632	78,470,083
Year-to-date '60	31,155,798	78,246,279

PETS SHOW TO BE HELD IN LOS ANGELES AS PART OF WESTERN ELECTRONICS WEEK

Los ANGELES, CALIF.—The Second Annual Pacific Electronic Trade Show will be held at the Shrine Convention Hall in Los Angeles on February 9-11, 1962, and will be the culminating feature of a newly-created Western Electronics Week, according to Gene Rothman, chairman of the show.

CSEA Glendale-Burbank Install New Officers

New officers for the coming year officially took over at the annual installation dinner of the Glendale-Burbank Chapter of CSEA at the Olive Branch Cafe in Burbank on Thursday evening, May 11.

The incoming officers: president Everett O. Pershing, vice president "Buzz" Seal, secretary Ralph Singleton, and treasurer Jimmy Scarborough. They were sworn in by Dr. Howard Bogue, CSEA state secretary.

Also assuming office was a new Board of Directors, including Lee R. Neal, 'Tac Kanasa, Walter Avril, "Buss" Dixon and retiring president Ralph Johonnot.

A welcome surprise was the attendance at the dinner of out-of-town visitors, including CSEA president Bob Whitmore and his charming wife, Lois, as well as CSEA members from other chapters throughout Southern California.

Outgoing president Johonnot expressed his gratitude to the other retiring officers for their help over the past year, and also thanked retiring board members Win Howie, Harold Previs and Gene Sheppard.

For the future, the Glendale-Burbank chapter announced it would hold its regular meetings at Genio's Restaurant, 1420 W. Olive, Burbank. Meetings will be held the second Thursday of each month.

Official proclamation of February 3 through February 11 as Western Electronics Week is expected to be made by the Mayor of Los Angeles. The week is being planned to include a series of activities embracing all aspects of the electronics industry in the west. Manufacturers, distributors and dealers' organizations will participate in the various events.

The week will begin with a Palm Springs Conference on Saturday, February 3, through Tuesday, February 6. Sponsored by the west coast chapter of the Electronic Representatives Association and sanctioned by the national headquarters, this conference will include discussions, seminars and other meetings between manufacturers, sales managers and local distributors from the 13 western states.

Plans for Wednesday and Thursday, February 7 and 8, have not yet been finalized, but possibilities include a National Electronics Distributors Association seminar and a conference for service dealers from the western states.

The week will conclude with the PETS show on Friday, Saturday and Sunday, February 9-10-11. at the Shrine Convention Hall; which is expected to reach an attendance of 25.000 people.

Electronic dealers, distributors, service men, engineers, military and government purchasing agents, and industrial representatives will be on hand to view more than 150 exhibits from electronic components manufacturers from all over the country.

Purpose of creating a Western Electronic Week, according to Rothman, is to enable various segments of the in-(Continued next page)

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Federal Reserve Bank COMPARATIVE SALES INDEX of Department Store Volume

Percentages of changes in the value of Department Store sales for the periods shown are comparisons with the corresponding periods a year ago. Fgures are taken from the weekly reports of the Federal Reserve Bank . . . Statistics being what they are, we remind our readers that in interpreting these figures the significance may sometimes be affected by an unusual situation of one or two years previously; by special holiday selling periods which may not coincide one year with another; and other pitfalls to the analyst. With this caution in mind, this monthly chart is an excellent weather vane of the retail sales trends

THE PACIFIC AREA (12th district)	% CHANGE FROM SAME Period Last year				
Metropolitan Area, Center or FRB district	One week ending May 6	4 weeks ending May 6	Cumulative from Jan. 7, to May 6		
LOS ANGELES-LONG BEACH AREA DOWNTOWN L.A. WESTSIDE L.A. SAN DIEGO AREA SAN FRANCISCO-OAKLAND AREA SAN FRANCISCO OAKLAND SACRAMENTO AREA SAN JOSE AREA PORTLAND AREA SEATTLE AREA TACOMA AREA SPOKANE AREA SALT LAKE CITY AREA TWELFTH DISTRICT UNITED STATES	$ \begin{array}{r} -16 \\ -12 \\ -14 \\ +22 \\ -10 \\ -11 \\ -7 \\ +1 \\ -8 \\ -3 \\ -12 \\ -6 \\ -8 \\ +4 \\ -10 \\ -10 \\ -10 \\ \end{array} $	$ \begin{array}{r} - 7 \\ - 12 \\ - 5 \\ + 9 \\ - 6 \\ + 1 \\ + 2 \\ - 6 \\ - 7 \\ - 8$	$ \begin{array}{c} 3 \\ - 3 \\ + 7 \\ - 3 \\ + 2 \\ + 2 \\ - 1 \\ - 1 \\ - 1 \\ - 1 \end{array} $		

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CSEA Members

&

Their Employees

GROUP LIFE INSURANCE

and

COMPREHENSIVE MAJOR MEDICAL EXPENSE BENEFITS

Issued & Underwritten

by





Action Expected On Licensing Bill

As Modern Electronic Service Dealer went to press, the controversial Licensing Bill for servicemen was still in the Ways and Means Committee up in Sacramento. It was expected to come out of committee very soon, however.

CSEA is confident that this bill will ultimately be passed and is working very hard toward that end, according to Ralph Johonnot.

PASADENA-CSEA

DISCUSS NEW STEREO SERVICE

An up-to-the-minute explanation of the new stereo multiplex provisions just approved by the FCC was the feature of a CSEA Pasadena chapter meeting at Vasa Hall in Pasadena on the evening of May 25.

The hows and whys of the new stereo service and what it means to the service dealer were discussed.

BURBANK-GLENDALE

JOINT OUTING FOR CSEA GROUPS

Fifty CSEA members and their families attended a joint outing of the Burbank-Glendale and Pasadena chapters on top of Mt. Wilson on Sunday, May 7.

Adults were given a conducted tour through the transmitter facilities of stations KHJ and KABC, while the youngsters occupied themselves with baseball and a trip to Mt. Wilson Observatory.

EIA Sees Big Stereo Radio Market

CHICAGO, 1LL. — The prospect of a new broadcasting service—FM stereo radio —promises to open a "substantial market" for a new type of radio receiver and puts the consumer segment of the electronics industry in an "optimistic frame of mind", the Electronic Industries Association's Consumer Products Division said in its annual report at EIA's 37th national convention.

The report cautioned manufacturers. however, against "rushing on the market with unsatisfactory and untested products which could seriously damage this market before it fairly opens". The division's Radio Section, the report noted, is developing basic information on FM stereo "as a guide to both the consumer and the dealer in selecting good reecivers".

The report was submitted by the division chairman, Edward R. Taylor, an executive vice president of Motorola lnc.,

PETS SHOW . . .

(Continued)

dustry to gather for a comparatively short but intensive period to discuss mutual problems. Manufacturers will especially benefit from the week because it means they need send their representatives to the west coast only once rather than many times.

California State Electronics Association will probably hold evening seminars during the event, Rothman added, concluding with its annual installation ceremonies on Sunday night, February 11. Other events by electronics associations are in the tentative stage.

If Western Electronics Week proves successful, it is expected to become a regular annual feature of the industry on the west coast.

MODERN ELECTRONIC SERVICE DEALER



ROBERT WHITMORE

Look Forward to Next Years Meeting

At the time most of our readers are browsing through the pages of this magazine, many of us will be in attendance at our annual convention in Fresno. We certainly hope that in the years to come, YOU will be with us for this event.

Write . . . Key to License Bill

It is becoming ever more important to write those letters to your Assemblymen and Senators in support of our license bill. Getting it through the Governmental Efficiency and Economy Committee was a big step, but the biggest challenge is yet to come when it reaches the floor of the Assembly, and again in the Senate.

We again ask for your support in this effort, which 1 believe to be the most important project we could have at this time. I sincerely believe that before we can gain the recognition we so sorely desire, we must have some basis for establishing a level of training and education to qualify those engaged in the business of servicing electronic equipment.

I've heard many people say it won't help to have shops licensed. This, I think, is a gross misunderstanding. I, for one, think it will do more good than anything we have seen in the past to upgrade this industry from being considered a second class business and raise it to its proper place among other industries in our country.

It seems to me that the few people

in the service business who are against licensing are against it simply because they are afraid of the standards which will be required as acceptable.

I think, however, you will have to agree that if we raise our standards to the point where we are looked upon as businessmen rather than hobbyists, it certainly would create a much healthier atmosphere.

The public is entitled to the protection a good license bill could give. We have a good bill. So let's all get behind it with letters, and send in your checks to the state office so that we may continue the drive to get our bill through this session.

* * 4

Election of New CSEA Officers

As the new officers take the reins of the Association for the coming year, l, on behalf of the outgoing officers, would like to extend our thanks to the many individuals who have offered their support and help in pursuing those projects we've had this past year.

For me personally it has been enjoyable to meet so many who seem to have similar objectives. My wife and I have had the opportunity to meet with many chapters, who before were just names. It has given me a new desire to work a little harder to try and raise the level of our industry, when I see so many who are also willing to give freely of their time to try and make ours a better, bigger, stronger association.

It is my fervent hope that we shall continue to grow, and that we will always be able to look upon our association with pride.



Mr. Ron Kealey Kealey's Radio & TV 1657 E. Colorado Pasadena 4, Calif.

Mr. Howard Singer Day & Night TV Service Co. 7511 Sunset Blvd. Los Angeles 46, Calif.

Mr. Ken Mendes Ken's TV Clinic 8812 Las Tunas Drive San Gabriel, Calif.

Mr. Virgil V. Gaither Television Central 4305 Eagle Rock Blvd. Los Angeles 41, Calif.

The Question:

HOW TO BASE A CHARGE FOR SERVICE CALLS

In my opinion, the charge for service calls should be based on two main factors: the distance traveled, and the time spent in the customer's home.

In our shop, we quote minimum prices on a call. Our minimum charge is \$5 for any call within a radius of one mile from our shop. We make a \$6 charge for calls between one mile and five miles from the shop. We do not make service calls more than five miles away.

These prices are our minimum charge covering only the first half hour in the customer's home. After this time, our regular rates of \$7.50 per hour prevail.

By limiting ourselves to a radius of five miles from the shop, we maybe lose out on a little bit of business. But we feel strongly that customers should patronize their local servicemen and call them when they need service. Every serviceman is entitled to the business in his own area.

During our 15 years in the tv service business in Los Angeles, our rate for service calls has increased gradually to match the increased cost of doing business. We originally started out with a \$5 charge. Our present rate is \$6.75.

Our basic policy is to sell a customer only what he needs, whether it be one tube, five tubes or no tubes. By cost analysis, our actual cost of making a service call is \$5.10. Last year it was \$4.80. Up to last January we were charging \$5.75 and decided the profit margin was too low if we were to continue our policy of a fair shake to the customer. We then increased to our present rate.

This still does not allow much of a profit, but our fair shake policy has paid off in increased business every year for the past nine years, including so-called recession times. Recommendations bring us 90% of our business.

There is no such thing as cheap TV service. Anyone who advertises \$2.50 service calls will only get the chiseler type of trade. We very rarely have any problem with price because we never repair a set until the customer has okayed it beforehand.

It is impossible to make a service call for \$2.50 on the basis of a fair operation. It could be done by a "night crawler" who works for some type of bucket shop operation. We prefer to keep our standards high and our prices fair.

Ken's TV Clinic is a one-man, owner-operated, strictly service operation. Repair service has been my field since 1941. Lacking any appreciable income from sales, I find it necessary to make certain that time expended in the repair, handling, pickup and delivery should be charged directly to the consumer whose product is being serviced. I give no "free" estimates, pickup, delivery, etc. All service labor is based on a charge of \$6 per hour. My charge for service

All service labor is based on a charge of \$6 per hour. My charge for service calls since 1956 has been \$5.95. This allows travel time of about ten minutes (\$1 at \$6 per hour), five to six miles maximum trip (cost 50 cents, on a basis of 10 cents per mile, auto cost), and the first half hour of working time in the home (cost \$3, at \$6 per hour).

This adds up to \$4.50, leaving a balance of \$1.45 for various forms of overhead expense, equipment replacement, etc.

Also, any appreciable time on the home call above the first half hour is charged for as "extended call time" and based on the \$6 per hour figure to the nearest quarter of an hour.

Regardless of repair time spent on the first piece of equipment, an adjusted charge of \$2.50 up is made for work on other items, such as a second tv set, radio, phonograph, etc. I believe the consumer should be charged a professional rate and given a professional job.

At Television Central, we charge \$5.50 for a home service call. Many dealers tend to subsidize their service departments, on the theory that good service is essential to sales, but we feel that the service department itself should be on a paying basis.

We figure our charge this way: A good service man can handle approximately 45 calls per week, plus callbacks. It costs us an average of \$250 per week to keep a man and service truck in the field. This includes salary, truck expense, depreciation, and all operating and overhead expenses. Dividing this \$250 by 45 calls, we get a cost figure of \$5.55 for each service call.

From this figure, it is clear that the only profit to be made on a service call is from the sale of parts. An average of two tubes sold per call adds up to \$2.50 profit. To charge less than our \$5.50 and still come out ahead, therefore, we would have to either load the set with unneeded tubes or pull the chassis in for unnecessary shop work. We refuse to do this.

OPEN YOUR MIND!

ONLY IF YOU'RE A SERVICE DEALER interested in the future of your business. You owe it to yourself to inquire about the DU MONT abd "Captive Customer" merchandising program, the most effective dealer aid offered by any manufacturer. The success of countless service dealers throughout the Nation has proven that with DU MONT abd Picture Tubes, you gain a decided advantage over your competition. Just OPEN YOUR MIND and ask . . . you'll be amazed by how much you can benefit.

LET OUR DISTRIBUTORS SHOW AND PROVE TO YOU HOW YOU CAN AND MUST . . .

- Make faster and easier sales with DU MONT abd method.
- With your "Captive Customers," make more profitable service calls, sell more parts and receiving tubes, thus giving you a larger overall PROFIT.



PICTURE TUBES - RECEIVING TUBES with exclusive 2 year warranty plan the industry's best warranty

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- CULVER CITY
- COOK ELECTRONICS
- INGLEWOOD
- HUNTINGTON PARK
- HONIG DISTRIBUTORS
- NORTH HOLLYWOOD
- SAN DIEGO
- SHANKS & WRIGHT
- SAN DIEGO WHOLESALE ELECTRONIC SPECIALTIES
- CATHEDRAL CITY

MID-STATE ELECTRONICS

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- ASSOCIATED RADIO
- SAN FRANCISCOVALLEJO
- PALO ALTO
- SAN MATEO
 SAN JOSE
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DALIC RADIO • PHOENIX STANDARD RADIO PARTS • TUCSON

THE PROFIT LINE FOR THE "SIXTYS"



The **BLOOD**

During the last few months, before beginning this new publication, we tried to learn as much as possible about the problems, workings, and ideas involved in our industry. One of the most outstanding subjects being discussed and one that no one seemed to know much about was the picture tube . . , what the difference seemed to be . . . How they were manufactured, etc.

In this article we have tried to discuss and describe such things as: The category and level of TV tube manufacturers, distribution, the service dealer and merchandising.

Another important factor in our decision to prepare this article was the recent action by the Federal Trade Commission to require all manufacturers to disclose in a prominent area, in prominent type on the carton, the tube, the label, the warranty card, price schedules, distributor and dealer, invoicing and all advertising, a full disclosure of what is used and what is new in their particular picture tube. This new activity by the F.T.C. should go a long way in "raising the stature" of the "step-child" picture tube industry.

To our knowledge, this is the first article on this matter to appear in the trade press. We hope that it will give the service-dealer a better insight into what is involved in manufacturing picture tubes and provide an aid to him in explaining the cost differences, in tubes, to his customers.

It is flatly stated that 97% of the electronic parts distributors and service dealers have never been inside a television picture tube manufacturing plant. Because of the above fact, it becomes quite apparent why this particular industry is so maligned, abused, misunderstood, and has less respect offered it than any of the component manufacturers in the television industry. Rarely has an industry been beset by more confusion, mislabeling, lack of understanding and intelligence in the use, installation and merchandising of a single product. The picture tube industry is a nightmare of falsehoods, name calling and categorizing to serve the interests of which team you're on at the moment. Good examples are: used, new rebuilt, regunned, rejuvenated, off-brand, and a multitude of other terms.

It's true there is a big difference in television tubes. They may look alike and may have the same tube type identity, but in many cases that's where the similarity stops.

In an attempt to clear away a great deal of the smoke screen in this industry let's first categorize the T.V. tube manufacturer himself.

Category 1:

New Tubes: This is a very loosely used word which should be defined as follows: a manufacturer who uses 100% all new parts, including the glass envelope. Unfortunately, until the F.T.C. action, this term and category have usually been associated with 'Brand Names' when actually most major manufacturers utilize 80 to 85% used glass envelopes. Many years ago the television picture tube industry discovered that the glass envelope of a picture tube could be reused more than once, and that this valuable component in the manufacture of a T.V. picture tube could, if properly handled, fall into the same reuse category as the milk bottle or soft drink bottle. By reusing the glass envelope core, the cost could be reduced substantially, affecting the commercial aspect of the market.

Category 2:

Remanufactured tubes-(Rebuilt): The term rebuilt is a much maligned word, since unfortunately many different categories of manufacturing process have been lumped under this category unjustly. A true definition of the word rebuilt should read as follows: a manufacturer who utilizes brand new parts 100% with the exception of the glass or metal envelope which prior to re-use is inspected and tested to meet the same standards as a new envelope. This class of tube is manufactured and merchandised by most of the major tube manufacturers and a few larger independent manufacturers.

Category 3:

The Shortcut Tube: Many of the smaller manufacturers have a limited ability to screen tubes and will preserve the old phosphor screen, aluminum, aquadag, (conducive coating) and will merely seal in a new electron gun. Depending upon the manufacturer it will vary up to 100% of their production.

Category 4:

Used (Hotshot): There are unfortunately many fly-bynight operators who hot-shot or electrically try to rejuvenate an old tube, clean it up and offer it for sale as a rebuilt tube.

SHOT EYE

An article that trys to describe just what a picture tube is . . . How it is made . . . What makes the difference in their cost.

MANUFACTURING EQUIPMENT & CAPABILITY

Modern Electronic Service Dealer is designed primarily for Western consumption, so let's discuss types of manufacturers here in the west.

Class A Factory: This factory will have an extremely large investment in equipment and is usually almost 100% automated. The result of an automated process and equipment is obviously standard, uniform high quality. There are two manufacturing facilities to our knowledge in the West which fall in this category. One a major "Brand" tube manufacturer and an independent, one of the nation's largest. For example, here is just some of the equipment you will find in these factories that you will not find in most rebuilt plants. 1.) AUTOMATIC WASHING: This equipment insures clean bulbs, not acid etched, 2.) SETTLING BELT: For uniform phosphor screens with an excellent wet strength for high light output. 3.) ALUMINIZING EQUIPMENT CONTROLLED AUTOMATICALLY. BARRIER LACQUER and aluminum applied automatically with control of aluminum thickness, 4.) INLINE EQUIPMENT: Automated inline exhaust or rotary exhaust ovens. 5.) SUPPLEMENTAL OPERATIONS: Automated getter-flashing, basing, electrical aging, spot knocking and soldering. 6.) TESTING EQUIP-MENT: Production testing of tube parameters (cooling) period and preshipped testing. (Almost all of these major operations will be fed by conveyors, for the ultimate in efficiency.)

DETAILS OF MANUFACTURING RE-BUILT TUBES

First of all, each step is important in its effect on the quality of the finished tube. Improper washing can result in permanent damage to the face plate of a tube if it is subjected to acid etching for instance, streak faces (molmark or cord). In some instances a poor color or heavy center screen is due to new phosphor being settled over the remaining old phosphor. It is hard to overemphasize the importance of uniformly distributed phosphor, free of contamination with good adhesion and good re-wet strength. This is difficult, if not impossible to accomplish with manual equipment. Only through the use of a screening belt can uniform quality be achieved. The smaller rebuilders who do not have this type of equipment, are plagued with non-uniform color and hardness of screens and often mark their tubes with blue or green poison spots which glow while tubes are in service.

(2) Lacquer and aluminization techniques are the basis of high light output. It is quite possible to make a tube with such heavy lacquer and heavy aluminum that there is no light advantage over a non-aluminized tube. It is quite important to be able to accurately time the lacquer spray cycle and to meter the aluminum thickness. The degree of high vacuum attained during the aluminization process is important in its effect on aluminum distribution. Poor aluminum distribution can result in a tube with a dark center, in operation. Many of the rebuilt operators again must use hand lacquering and a manually operated aluminizing equipment. If they do screen their tubes, this must be done through a manually operated tilt table. This can often result in non-uniform screens, depending upon the skill of the operator. No two tubes have exactly the same settling time or drain before drying.

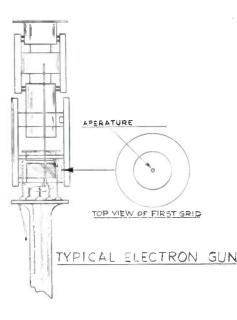
(3) An inline exhaust system has the basic advantage of reducing the influence of the exhaust operator. With stationary ovens, utilized by many smaller firms, the operator's skill determines the quality of the product and as a result, human error is a large factor. With an inline system, the operators merely load and unload the machine. The all important processing of the cathode and outgassing of the electron gun are accomplished and metered automatically and are subject to close engineering control rather than being left to the mercy of an operator.

(4) Human error is a big factor in the manual basing, getterflashing, soldering and electrical aging. The so-called major tube manufacturers and larger independents age their product automatically on large aging conveyors. When these steps are accomplished on a conveyor, each tube receives the proper treatment in its proper sequence and timing.

(5) Testing—The proper test equipment is essential in this particular industry. There are 18 basic inspections which should be applied to all tubes before sale. Emission warm up time, gas control, interelectrode leakage or shorts, beam current, focus, high voltage breakdown, cathode picture and cutoff voltage, as well as screen inspection are just a few of the more important tests performed by the major manufacturers and the larger independents.

THE ELECTRON GUN

This is the heart of a fine picture tube. As there is a difference in picture tube quality and manufacturers, there is a definite difference in the type of electron gun used by the various manufacturers. A precision electron gun which for best focus, definition and resolution will use a small grid (Continued on Page 28)



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BRINGING WAYWARD CUSTOMERS BACK HOME

An Article That Tells How to Keep Track Of . . . And Bring Back Customers

"I would have it made definitely if I were only able to hold onto every customer I secured for my business, but I know that is impossible."

This service shop owner's comment is similar to hundreds directed in all areas within the trade during past months. As new customers become more difficult to find and competition increases in intensity enough to affect all of our regular customers the point is of even more profitable importance.

There are many methods of holding onto one's customers and most shop owners practice one or more of them religiously. Yet, in so doing, all of us tend to overlook the business possibilities in bringing back into the fold those "wayward" customers who have strayed elsewhere.

Part of the appeal which brought such customers to us in the first place still remains; the cost and effort required to sell them on doing business with one's shop once again is therefore far less than it would be to go out and locate new customers.

Bringing these "wayward" customers back home is therefore excellent procedure and well worth some specific and determined efforts in that direction. Here are some of the steps and procedures being used by shop owners who have been particularly successful along these lines.

Have adequate records to spot the amount of business customers are giving the shop and when this business stops. This is the first step which should always be taken. If no such records exist, then it is well worth while for any shop owner to go through his records and set up such a card system.

Even where this is not desired, a thorough check through one's books can achieve the same purpose, though it will not be as valuable in spotting strayed customers in the future. A complete check will have to be made through the entire system, where the card idea will spot such customers much more readily.

We can never depend on memory or chance to do the good job of developing a concerted drive toward bringing "wayward" customers back onto the books. No one's memory is sufficiently good to achieve anything better than a 25 percent effectiveness in this method and that leaves far too many unknown or uncontacted. Good results can be forthcoming only when every last such old customer who is no longer doing business with us is known and contacted; not 25 percent or so of the group.

tacted; not 25 percent or so of the group. Show those customers "We Miss You" with a specific direct mail effort if the number is large enough to justify the preparation and printing of an effective promotion piece. If it is not, then design such an appeal on a personal letter basis.

Using the phrase "We Miss You" as often as possible has the dual effect of putting over the thought the words present and showing that old customer he is important enough to one's business to merit special attention.

"We Miss You" efforts may also employ the use of the telephone or personal calls. The very important thing is to make certain that each customer knows he has been missed and is wanted back.

Regularity of direct mail on any program developed toward bringing lost customers back is a necessity. Keeping these individuals reminded impresses the idea upon them repeatedly. Experience shows that percentage of returns is as much as 70 percent higher on second, third and fourth such mailings as where one only was used.

People are not inclined by nature to take action on a single reminder. It must also be kept in mind that such reminders must hit the customer at the right time when he is in the need of the services of our business or has time to do something about it. A first mailing only may hit at an inopportune time and therefore be nonproductive. Multiple mailings have a much better chance of finding that right time.

Attach personal notes to such mailings from time to time. On a major effort this is quite a chore. Most shop owners handle it by writing such notes in longhand for a small portion of the list each time a mailing is made. This reduces the chore involved but still attains the very worthwhile asset such a personally signed and written note can give the appeal directed toward any such wayward customer.

Use the anniversary card system in the business. This entials obtaining such dates at the start of business relations with customers, of course, and has been proven well worth the effort. Use on birthdays, wedding anniversaries and at Christmas are some of the occasions when this type of reminder does a job of returning lost customers to the fold. It might also be added that such card mailing to one's regular customers builds up an enormous amount of good will which can very well prevent their ever becoming lost customers.

Use every opportunity for contact with such customers; entails obtaining such dates at the start of business relations any such contact overlooked is a missed opportunity to bring this business back to the shop. Such overtures need have no element of pressure salesmanship; the more informal the better.

They will also serve as another big advantage in unearthing the reasons why these customers left in the first place. If misunderstandings are involved they can be corrected on the spot. If there were good and legitimate reasons for the customers having taken their business elsewhere, this gives the shop owner an excellent opportunity to discover these. Repair of the damaging situation forthwith can assure less customer loss in the future.

Put the telephone to use during slack periods in directing personal telephone calls of such lost customers. Usually these occur during hours of the day when the ex-customer will likewise not be too busy.

Some firms have employees do this; in others the boss himself does so. The latter can always obtain much better results than any member of his staff.

Check into present and recent sales methods, for mistakes may have been made which brought about such customer loss. If mistakes can be discovered quickly they will, of course, prevent further customer loss. Also, if they are discovered quickly, it is much easier to bring any such strayed customer back to the business than when one waits a considerable length of time to begin the effort.

"Have the right items and services been featured?" This is always a good question to ask at such a time. We can easily lose business by misdirected appeals to customers; if we persist in them we continue to lose business and have little hope of bringing back any of those lost customers.

No customer continues business with any firm when the latter has no special appeal to him. He finds no difficulty in locating some competitor who does have such an appeal.

in locating some competitor who does have such an appeal. Make a special study of "No sales" experenced during recent business weeks. These reasons for failure to make a sale can very often supply the information we need to correct mistakes before programming an effort toward bringing old customers back.

Patronize the business enterprises of your own customers. As obvious as this mutual back-scratching axiom is to all of us, we tend to neglect putting it into actual practice.

We can hardly blame any of our customers who may be in business themselves for stopping patronizing our own firm when we neglect theirs.

Reviewing such a business relationship is often all that one needs to bring such a lost customer back onto one's own books.

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HURLEY ELECTRONICS 1501 Magnolia Long Beach, California

How To Keep A Good

TUBE INVENTORY CONTROL

Did you ever discover you were out of a particular tube just when a customer was waiting hopefully in your shop for the needed replacement to be made in his radio, television or hi-fi set?

Have you ever put in a full stock of a certain tube only to find most of them lying around on your shelves gathering dust for several months?

Have you no real idea of how many of a certain tube you will need for the coming month?

The service dealer who answers yes to any or all of these questions has a problem. His problem is how to set up and maintain an inventory program that will assure him of a dependable supply of the tubes he is likely to need most, and at the same time to keep from laying in an uneconomic oversupply of tubes for which there is little demand.

One way (not recommended) of meeting this problem is to make an educated guess as to what he should order, based on his memory of the service jobs he has had recently. Memory, however, is a notoriously faulty device for arriving at logical decisions.

Of course, he can go over his invoices at the end of the month, make a note of what tubes he has sold, and order replacements for them. This is time-consuming and offers no real assurance that he will not run out of the tube before the month is over.

Even if he places an order daily for the tubes he has sold that day, he is likely to find it an annoying and costly way to do business.

The service dealer who is also a good businessman will take a hint from government statistics, which prove that one of the most common causes of business failure is lack of an inventory control system.

This may sound like it calls for the

installation of an IBM or other electronic device, but actually there are far easier and less expensive ways of doing the same job.

Bear in mind that simply reordering what stock you have used up may be helpful, but it does not solve the problem of whether your over-all inventory is too high or too low. Nor does it give you any record of the rate of movement of any given tube.

It is an easy thing to set up a form which will give you the information you need. A tube inventory control sheet can be drawn up easily, using 14 colums, of which 12 are for each month of the year.

In the first column, list the tubes in stock by number. Leave a few spaces for tubes you do not presently stock but perhaps intend to.

The second column is used to list the quantity of each tube you have in stock. If stock is pretty low at the time you draw up this control sheet, put in the figure you feel you should carry for a one-month supply.

The other columns are used to reveal the movement of each tube for each month. A comparison of the figure for each month with the total number of tubes in stock will help you decide how many to order and whether or not you are carrying too large an inventory of that particular tube.

Service dealers who set up this type of inventory control will find it expedient to adopt a procedure something like this:

From work orders, determine the tubes you have used up that week and order replacements. Make a duplicate copy of your order. Then take the information from the duplicate orders at the end of each month and write the figures on the Control Sheet under that month for each tube. This will give you the monthly movement for each tube you have in stock. Knowing that, it is a matter of common sense to adjust your inventory and gear yourself to a rapid turnover on the smallest possible investment.

Many dealers have found that certain tubes move faster during given months, or during a particular season. Your Tube Inventory Control sheet will tell you if this is so in your case, and it will thus enable you to set up a re-order schedule to assure yourself of an adequate supply any time of the year.

If special deals or premiums come along, you will want to take advantage of them in your tube-buying; but here again your control system will keep you from over-buying any tube for which you have found little demand. Taking advantage of specials is fine, but the idea is to save you money, not hurt you with a burdensome over-supply of tubes you don't need.

The inventory control system described here is workable, but it is by no means the only one. Record card systems and other visual aids to tube inventory control are available and are generally inexpensive.

The major tube manufacturers will usually be glad to make recommendafor solving your tube inventory problems.

Service dealers who have adopted some form of tube inventory control have found that it pays off in quicker turnover, lower inventory and better service for the customers. Many have set up a master inventory control system, somewhat like the one described in this article, for every part they use in their shop.

They have found that such control systems are not just another bookkeeping chore. They are an important part of running a successful business.

SYLVANIA EXTENDS RADIO WARRANTIES

BATAVIA, N. Y.— Parts and labor warranties, presently valid for only 90 days, will be extended to five years on transistor radios and one year on tube radios effective May 1, 1961, it has been announced by Sylvania Home Electronics Corp., marketing subsidiary of Sylvania Electric Products Inc. Sylvania is a subsidiary of General Telephone & Electronics Corporation.

Peter J. Grant, president of the marketing subsidiary, said that with a few exceptions, the ney warranties cover all current 1961 lines radios. This includes all of these models in distributor and dealer inventories on the effective date, he said.

To obtain service, under the terms of the warranty, the customer or his dealer must deliver or send the radio prepaid to the nearest Authorized Sylvania Radio Repair Station. Sylvania has approximately 150 repair stations strategically located throughout the country. Radios will be returned to the customer, transportation prepaid, Mr. Grant said.

"We believe that our willingness to stand behind components and workmanship for these extended periods of time, and the ease of obtaining service from convenient repair stations will aid us greatly in competition with foreign imports." he said.

Transistor radios which will carry the five year warranty are: TH10, 8P18. 7K10, 6P08, 6P09, 5P16, 4P15, AP05, and 4P06.

Tube radios which will carry the one year warranty are: 5T11, 5T12, 5T18, 5T17, 5T16, 4T15, 5T13, 5C12, 5C18, 5C17, 4C15, 8F16, 8F15, 6F18, and 6F17.

ELECTRO-MECHANICAL COMPONENTS EXHIBITED

An extensive line of electro-mechanical components was exhibited at the May Parts Show at the Conrad Hilton Hotel in Chicago by the Sterling Instrument Division of Designatronics, Inc., Port Washington, N.Y.

Executives of the firm report that more than 20.000 electro-mechanical components previously non-accessible to electronics part distributors were made available for the first time. They said this offers the distributor an opportunity to break into the highly profitable electro-mechanical sales area.



The missing link in TV service

SENCORE SS105 SWEEP CIRCUIT TROUBLE SHOOTER



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1962 PARTS SHOW DATES SET FOR MAY 21-23

CHICAGO. ILLINOIS — The board of directors of the Electronic Industry Show Corp. have established their show dates for 1962.

According to the announcement, May 21-23 has been set for next year with the Conrad Hilton Hotel once again retained for this outstanding industry show. Kenneth C. Prince is the general manager of the show.

ZACHARIAH RE-ELECTED CHAIRMAN OF NEDA'S BOARD

CHICAGO, ILL. — Mr. V. N. Zachariah of Zack Electronics, San Francisco was re-elected Chairman of the Board of NEDA during the annual meeting held prior to the "Parts Show" opening.

Others re-elected to the board were: Mauro E. Schifino, president; Roy J. Schneider, vice president; Rubin Green, second vice president; Sam Poncher, vice president industrial; Meyer J. Spiro, secretary-treasurer. The contract of Gail S. Carter, executive vice president of NEDA was also renewed.

PORTABLE RADIO MONTH SET FOR JUNE

NEW YORK, NEW YORK — Portable Radio Month, the broadcast industry's annual salute to the nation's set owners, will be observed in communities from coast-to-coast during June. Co-sponsored by the makers of "Eveready" Radio batteries. Portable Radio Month, 1961, will mark the tenth anniversary of the event.

A special feature of this year's celebration in New York City will be the selection of New York's favorite radio personality by radio fans. Ballot boxes will be available at participating stores May 22 through June 23 and the winner will be announced during the final week of June. Miss Portable Radio, a leading radio star, will present the award at Stern's department store in special ceremonies.

Distributor Rep Notes

Kierulff Merges with Ducommun Co.

LOS ANGELES. CALIF. — A merger of two of Southern California's largest but completely diversified distributing firms took place during the Chicago Parts Show.

Kierulff Electronics, whose total sales last year is said to be around \$7 million, merged with the Ducommun Co., whose main distribution is in basic metals with a total sales around \$55 million, according to the announcement. Ducommun is publicly owned.

Both principals in the merger, "Cap" Kierulff and Charles Ducommun, anticipate an increase in sales from 10% to 25% in the next year.

Ducommun operates warehouses and sales offices in principal cities throughout the western and southwestern states and this will be their first venture into the distribution of electronic parts.

According to Mr. Keirulff, our firm will retain its own identity, but as a wholly owned electronic division of Ducommun." He went on to state "we are still looking to further expansion but, emphasized that , Kierulff Sound Corp. was not a part of this merger.

Reps, Distributors Get Together For Golf Dinner

Forty-five members of the Distributor Division of ERA (Electronic Representatives Association) and AED (Association of Electronic Distributors) got together for a golf tournament and dinner recently—and everybody won. In fact, according to Fred Ritchie, of Valley Electronic; Ellard Strassner, of Ellard E. Strassner Co.; Ken Rothman, of Hollywood Radio; and Jack Berman of Jack Berman Co., co-planners of the event, this may be just the first of many get-togethers of this kind.

Approximately 25 golfers began teeing off at 11:00 A.M. at Woodland Hills Country Club, in Woodland Hills, California. After an 18-hole round, a dinner was held in the club dining room, and awards were made for outstanding prowess on the course — 25 awards in fact, plus some special ones for some particularly unusual performances.

Leading the procession of unusual performers was Rep Charlie Hansen, who, with the help of "Mr. Calloway", succeeded in running away with both the "Low Net" and the "High Gross" trophies! The "Low Gross" prize was awarded to Ed Bidwell, of Radio Prod-

NEWARK ELECTRONICS MERGES WITH TWO DETROIT FIRMS

CHICAGO. ILLINOIS — The Newark Electronics Corp. of Los Angeles and Chicago has announced the merger of that firm with Ferguson Electronics, Inc. and the Cadillac Electric Supply Co. both of Detroit.

The anouncement was made during the Chicago Parts Show by Mr. Sam Poncher, president of Newark Electronics and Herbert G. Blumberg, president of Fergusion and vice president and general manager of Cadillac. Mr. Poncher is also president of the Electronic Industry Show Corp.

According to the announcement, the three firms will retain their own names with the same management with the exception of Cadillac. Morse Goldman, president of Cadillac has retired and Mr. Blumberg will henceforth serve as president of that company as well as head of Ferguson. Newark's sales last year are said to have been between \$13 and \$15 million.

ncts Sales, with "High Net" going to Mike O'Donnell, of Jack Berman Company, who received as an appropriate prize, the book "Out of the Bunker and Into the Trees".

"Blind Bogey" awards went to Mark Markman, John Colbert of Triad, Ken Rothman, and Jack Perlmuth. The marksmanship trophy for the first shot closest to the pin on the 15th hole went to Jack Berman, with Ellard Strassner coming in second.

All those golfers who succeeded in reaching the nineteenth hole received, as a prize, a box of three golf balls. Next year, the committee is considering awarding bottles of Sloan's Liniment instead.

CLASSIFIED AD SECTION DEBUT

Electronic Service Dealer introduces an important, streamlined advertising section, offering easy-toread, easy-to-find classified ads for all segments of the industry.

A "pilot" type of section will be found on Page 30 of this issue, together with full details of cost, how to place an ad, and a coupon for "write your own" ads.

Electronic Service Dealer will utilize the talents of experts in the classified field, and Nancy Brooks, who has had many years' experience in classified, will serve as classified manager.

Any classification is available, and some suggested ones are positions offered, positions wanted, miscellaneous for sale, lines wanted, manufacturers reps wanted, etc. This classified section will reach

This classified section will reach the 8000 readers of Electronic Service Dealer, providing the finest "market place" for industry use.

All classified inquiries should be addressed to Classified Department, 4041 Marlton Ave., Los Angeles 8, phone AXminster 2-0287.

Fisher Named Division President

BURBANK, CALIF. — Gonset Division, Young Spring & Wire Corportaion, Burbank, manufacturer of amateur radio equipment and mobile radio for citizens' band and business use, has announced the appointment of able veteran west coast electronics executive Berne N. Fisher as President of the Division.

A Gonset spokesman said that Fisher's appointment marks the first in a series of moves to strengthen the company's competitive position in the market.

Fisher was formerly Vice President of Telecomputing, Inc., and General Manager of its Value Engineered Products Division, of Los Angeles.

TELEPHONE SALES TIPS

Inck Schwarts, Author, "How to Get More Business by Telephone"

According to a recent survey the average man in this nation spends 20 years working, 20 years sleeping, 16 years playing, and five years shaving and dressing. He also spends five years eating, and three years just waiting, and in his life time he will spend 8,670 hours, a full year talking on the telephone.

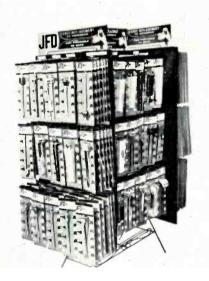
Don't you think it's important to learn how to use this simple instrument which saves us so much time and effort in our business lives?

JFD Announces New Replacement Antenna Merchandising Program

BROOKLYN, N.Y. — JFD Electronics Corporation has announced a comprehensive merchandising program for its Exact Replacement antennas for portable and tote-able TV receivers.

The basis of the new plan will be three self-merchandising display racks designed to "automate" the showing, selling, stacking and inventorizing of these service staples for distributors and service-dealers.

Each preassembled display will be shipped free with the purchase of a back-up inventory of JFD antennas, which are now in a new 3-color skinpacked card for maximum product visibility and protection, as well as quick identification. The antennas will continue to be boxed in standard folding cartons so as to give distributors and dealers a choice that best fits their local needs.



The distributor DMP1200 display unit consists of a three-section pre- assembled, self-supporting, "self- merchandising" wire rack that includes 177 antennas three each of 59 different types). The unit is compactly made to take up a 3 ft. by 2 ft. floor area, and has the added facility of two side panels (9 inches deep) which are easily removable for wall mounting purposes. The display is topped off by three double-faced 3-color Day-glo panels



which identify the contents to all traffic from any viewing angle.

Where the distributor has a branch store, the DMP400 display carrying only one each of the 59 JFD Exact Replacement models will be offered.

On the dealer level ,two "self-merchandising" floor displays will be given free with the purchase of JFD antennas. The DMP530 rack, 6' H. X 27" W. X 9" D., will be included with the order of 30 antennas (2 each of 15 basic JFD types). It is self-supporting but can also be hung on any convenient wall or pole area. Each antenna is "skin-packed."

The other dealer display, the PA515 counter "self-selling" rack, includes one each of the thirteen JFD replacements most in demand. Its small size permits convenient placement on any part of the counter or work bench. Each antenna is boxed in a regular folding cartons.

Each display rack will be shipped with a package of sales promotion aids consisting of the 1961 Exact Replacement Antenna Reference Wall Charts, streamers, newspaper mats, and dealer and consumer mailers.

JFD expects this new merchandising package to increase portable TV antenna replacement volume for JFD distributors and dealers, now running at three and one-half million retail annually, by 50 per cent within the next 12 months.

There's Profits in Antennas

PART II

By Lee Naylor District Sales Manager Channel Master Corp.

In the first part of this article, we discussed the vast potential of the new and replacement antenna business for the aggressive dealer who wishes to tap this lucrative market.

What to do about it?

First, merchandising: Most major antenna manufacturers have available reams of consumer literature, counter displays, booklets for the consumer written in layman's language, operating samples, ad mats, tv commercial films, radio scripts, etc. go over these with your distributor salesman. You will be pleasantly surprised to see just what he can offer you.

Window displays: Dress up your store windows. It isn't necessary to put in full sized antennas. Use empty cartons, miniature antennas, rotor displays, indoor antennas, accessories, twin leads, etc. This makes an unusual window and invariably draws traffic into your store.

Most dealers keep a file of some sort on their customers and prospective customers. Why not dream up a personal letter to them? Maybe you are in an area where a couple of other channels are available from different locations. You know that good antennas and rotor sales have not been promoted, yet there are probably some good installations in the area.

Check up on the programming from these other stations. Chances are good that they are running programs such as football or baseball games which are blacked out on the local channels. Inform your prospect of this in an informative letter. Keep the letter simple and to the point. Keep it as personal as possible and you'll be amazed at the results.

If you're in a specific problem area, talk about it with your distributor, his salesman, the factory man. You'll find that all of them will be most anxious to help, regardless of the problem. Remember, if we're able to help increase your business, we also help ourselves. Given a specific problem, we can almost always come up with special promotions that work and solve the problem. As a matter of fact, a great many of these special promotions are worked in conjunction with more than one dealer.

Secondly: After you get the prospect a little warm, what then? Well, selling tv antennas and accessories isn't the easiest job there is. I believe that the major trap that occurs in selling accessories and antenna installations is the salesperson who gets himself entangled in a technical discussion with the customer, uses terms that the customer knows little or nothing about, and actually convinces the prospect in many cases that the dealer is trying to sell him a bill of goods.

Even the man who understands thoroughly technical aspects of tv antennas often confuses his prospect by getting involved in discussions that go right over the customer's head. Result —lost sales.

Take some of the consumer literature offered, develop vour sales pitch from it. You'll be amazed at how much valuable information you can get from these pieces. Leave decibels and other technical terms out of your pitch. Talk instead about the picture that you can develop on your customer's screen.

One of the most valuable aids 1 know of is a small consumer booklet put out by Channel Master, "Better Pictures from your TV Set." This booklet was written by a woman writer, with no knowledge of our industry or products. Why? We knew that an engineer writing the booklet would completely confuse everyone. What better medium than someone uninformed, a woman who lived at our plant for a solid month, asked questions and then wrote the booklet in plain, everyday language. This piece of literature and other like it are available in quantity from almost any distributor.

Finally, ask your distributor salesman to sit down and go over all of the antenna and accessory merchandise available. You'll be pleasantly surprised to find merchandise which can add a bundle of profit to your organization, wherever you are.



NEW PRODUCTS



FROM COLMAN

... a high voltage putty has been developed to repair and re-build tires on fly-back transformers, and can also be used to stop arcing in yokes, high voltage cages and many similar places. Application is made by molding the flexible material into and around the area to be insulated.



FROM SECO

... a new transmitter tester designed for use with citizens band transmitters and other low power transmitters up to 160 MC is being introduced by Seco Electronics Inc. of Minneapolis. Designated model 510, the new Seco transmitter tester permits amplitude modulation and RF power output checks without removing transmitter chassis from cabinet. It offers direct reading on a three-inch meter of percentage of amplitude modulation on both positive and negative peaks. Direct reading scales are provided for both 0-5 watts RF and 0.400 m.a. RF scale.

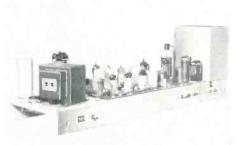
Headphones can be plugged into the unit to monitor amplitude modulation. A scope can be connected to take out the modulation signals for further analysis. A high impedance input for use with handy talkies is provided.

An optional accessory is a "T" pad attenuator (model 511A "Attenu-Load") which adapts the model 510 transmitter tester for use with transmitters rated up to 50 watts output.

A selector switch on the tester removes the 50 ohm load from the meter for small signal (RF) tune-up. The meter may be used for other checks, if desired. The tester is recommended for trouble-shooting as well as routine servicing, alignment and tune-up.

In addition to transmitter checks, the model 510 will measure losses in transmission lines and may be used for testing coaxial insertion devices such as connectors, switches, relays, filters, tuning stubs and patch cords.

Compactly engineered, the new model 510 Seco transmitter tester measures only $63/_{4}$ inches wide by $51/_{4}$ inches high by $21/_{4}$ inches deep.



NEW POWER CHASSIS

... will be featured in the 1962 Sylvania TV line to be introduced this month. This new chassis, the GT-555, is powered by a Sylvania-developed "Flexi-core" transformer which is 30 per cent smaller and lighter than most conventional transformers. The new concept was developed by Sylvania's Lighting Products Division.

The chassis is 231/2 inches wide, 71/4 inches deep and 7 inches high at its highest point. It includes a number of new features to dissipate normal heat and thus increase efficiency. All metal parts are plated in gold-color copper for life-time protection against corrosion and all capacitors are encapsulated to resist humidity. Circuits are "road-mapped" and color-keyed five ways for easy analysis by servicemen. Part designations are printed beside each location, tie points are numbered and test points clearly indicated on the board. All wire from major components to the chassis are equipped with easy-to-remove plugs. Sylvania Electric Products.

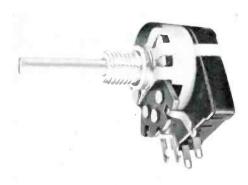


FROM ROBINS

... a complete kit of Robins M/M tape recording replacement heads (record/ playback, and erase) which provides the serviceman with heads which will fit over 75% of the U.S. tape recorders now in use, is available. Robins Industries Corporation of Flushing, N.Y. reports.

Packed in one unit, called the DD-6-1, the set contains a variety of high quality $\frac{1}{4}$ and $\frac{1}{2}$ track heads, both in stereo and mono types.

All of the 16 different heads in the kit are replacement heads requiring no electrical or mechanical modification and may be used to replace original equipment heads in at least 189 models of tape recorders produced by 31 U.S. manufacturers. With mechanical and/ or electrical modification it may also be possible to replace other heads in older recorders, to upgrade them, quality-wise, or convert them to stereo.



FROM CLAROSTAT

... a miniature control and switch has been announced. The new Series 44/44S is designed for use in low-powered. battery-operated, transistorized equipment such as portable radios, battery-operated instruments, and other equipment requiring a compact, reliable control, or control/switch combination.

(Continued Next Page)

NEW PRODUCTS

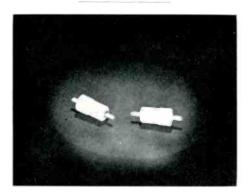
(Continued)



FROM CENTRALAB

. . . a new Auto Radio Control Kit containing the 24 most frequently used replacement auto radio controls has been announced by Centralab, The Electronics Division of Globe-Union Inc.

The units, all exact replacements, are contained in a steel shelved cabinet supplied without charge. Cost of the kit is the same as the cost of the individual controls. The bulk of the controls in the kit are for Chevrolet. Ford and Plymouth radios. Also included are replacements for Automatic Universal radios used in many American and foreign cars. The kit is designated as ACK-100.



FROM SEALELECTRO

. . . the Type DST-900 Press-Fit double standoff terminal which provides the means for wiring both above and below the chassis with complete electrical isolation via a single terminal installation. The DST-900 is mounted on a prepared chassis. A straight shank lug protrudes from both ends. Internally, the two lugs are separated by solid teffon to provide electrical insulation. This component provides separation connection points on both sides of the chassis.

FROM GENERAL ELECTRIC

. . . eight new silicon mesa transistors designed for medium power audio to medium frequency applications have been introduced by General Electric. The new transistors are JEDEC type, designated 2N197, 2N197A, 2N198, 2N656, 2N656A, 2N657 and 2N657A. Immediately available in production quantities, they are priced from \$10.45 each to \$18.30 each to original equipment manufacturers.

The low saturation voltage and low input impedence make the devices suitable for high level linear amplifiers and general switching applications, according to H. W. Gebhardt, western region manager here for the Company's Semiconductor Products Department.

Typical circuits include servo driver and output stages, pulse amplifiers, solenoid drivers and DC and AC converters.

Although the transistors are designed for medium power applications (4 and 5 watts average continuous dissipation, maximum, with a case temperature of 25° C), the "A" versions will dissipate 20-watts peak power at 25° C with a pulse width of 0.8 milliseconds.

In addition, "A" versions have a low maximum saturation resistance of 10-ohms as compared to the non "A" versions' maximum of 25-ohms,

Base input resistance of "A" types is 200-ohms, maximum versus the non "A" versions 500-ohms maximum.

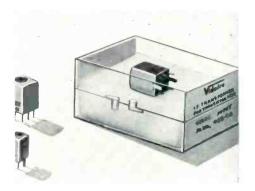
The four basic transistors differ by varying combinations of low beta (12 to 36, high) (30 to 90) beta, low (60 volts, BVCEO) voltage, and high (100volts) voltage.

The transistors are housed in a package which meets the JEDEC TO-5 outline.



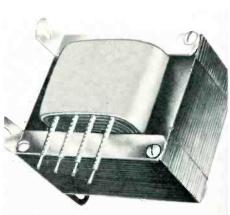
FROM DYMO

. . . now distributors for 2-way radio equipment can use a Dymo-Mite Tapewriter to identify radio units with a cusotmer's name, address, and station call sign. The inexpensive labels meet the requirements of the Federal Communications Commission and replace the old method of identifying the sets by filling out a printed, pasteboard card and fastening it to the unit. The unit embosses letters or numerals on various colored vinyl, clear, or aluminum tapes and costs only pennies per label. A built-in cutting blade trims the label to the correct size.



FROM VIDAIRE ELECTRONICS

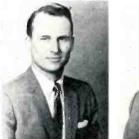
. . . a complete line of I. F. transformers and oscillator coils for the miniature and sub-miniature type transistor sets. Available are four models in the 1/4 x 1/4 size and four models in the 3/8 x 3/8 size comprising the input, interstage, output and oscillator transformers. All models are completely shielded and are iron core tuned.



FROM CHICAGO STANDARD

... Six new filter chokes are now available. Two of these unts are high current filter chokes rated at 1 volt RMS, 60 cycles and have dual windings for series or parallel operation. Stancor C-2690 is rated at 0.3 henries at 1 amp DC with a DC resistance of 3 ohms, for series operation. It is rated at 0.075 henries at 2 amps, DC resistance .75 ohms for parallel operation. Stancor C-2691 is rated at 80 Mh at 2.5 amps DC, DC resistance 0.6 ohms for series operation and 20 Mh at 5 amps DC, DC resistance 0.15 ohms for parallel operation. The four smoothing chokes for DC power supplies are rated at 10 volts RMS, 60 cycles. They range in value from 1.5 henries at 10 DC Ma to 2.6 henries at 310 DC Ma.

news briefs



COLE

BURLINGHAM

Cole, Burlingham Promoted by CBS

DANVERS, MASS.—L. Donald Cole has been promoted to manager of marketing services for CBS Electronics, the manufacturing division of Columbia Broadcasting System, Inc., in an announcement by Michael F. Callahan, vice president and general manager, electron tube operations. He replaces Roy Junsola, who has been transferred to the Lowell Semiconductor Operations.

Cole was formerly sales service manager for CBS Electronics, which he joined in 1954. He is a member of the EIA Receiving Tube Marketing Data Committee, and of the American Management Association. A native of Winchester, Massachusetts, he now lives in Boxford, Massachusetts.

Callahan also announced the promotion of E. Gordon Burlingham to the post of manager, distribution services. Mr. Burlingham was formerly manager, warehouse administration for CBS Electronics, which he joined in 1954. A native of Long Beach, California, he now lives in Ipswich, Massachusetts.

CUNNINGHAM TO GOVERN WESTERN CO-OP FUNDS

NEW YORK—The Electronic Tube Division of Sylvania Electric Products Inc. has announced the appointment of three advertising specialists to initiate and oversee cooperative advertising programs among Sylvania's electronic parts distributors.

Henry H. Cunningham is responsible for cooperative advertising programs in the company's Pacific region and part of the Southern region. He is loiated at Sylvania's sales office, 1811 Adrian Road, Burlingame, Calif.

Mr. Cunningham attended San Franeisco State College where he received a Bachelor of Arts degree in Journalism and Advertising. Before joining Sylvania, he was with the Schlage Lock Company of San Francisco.

WITTING TO KEY NOTE NEMA CONFERENCE IN LOS ANGELES

NEW YORK, N. Y.—Chris J. Witting, Pittsburgh, Pa., Vice President of Westinghouse Electric Corporation, will keynote the Western Conference of the National Electrical Manufacturers Association with an address at the opening luncheon meeting, June 8, at The Biltmore Hotel, Los Angeles, Calif.

The June 8-9 Conference, first to be held west of Chicago by the nation's largest trade organization for electrical manufacturers, will be under the direction of Co-Chairmen A. Arval Morris, Anaheim, Calif., President of Electra Motors, Inc., and Raymond M. Waggoner, Emervville, Calif., Vice President, West Coast, Hubbard and Company.

Mr. Witting, who is a member of the Association's Board of Governors, will discuss challenges and opportunities facing the electrical manufacturing industry in the years ahead. He will be followed on the opening day's program by C. W. Leihy, Publisher of Electrical West and one of the industry's top authorities on business trends and conditions. Other speakers will discuss importexport trade, sales and marketing, and research and development.

Two special meetings also were announced for the morning of June 8 as pre-Conference features. One will bring together western manufacturers of lighting equipment for a "coffee and doughnut" session under the sponsorship of the NEMA Lighting Equipment Division. Purposes of the meeting, which will be headed by L. A. Hobbs, Inglewood, Calif., Vice President of Smoot-Holman Company, will be to review the Division's newly developed "businessgetting" programs in indoor and outdoor areas, and to obtain comments on how such programs can be geared to be of greater value to western companies.

The second "added" feature will be an Area Accounting Seminar, which is expected to attract a number of leading accountants in California and neighboring states. It will be concerned with discussions of these two questions: "Direct Costing," and "Treatment of Officers' Expense Accounts."

The June 9 meeting, which will be of interest primarily to electrical manufacturers, will present major addresses by

STANCOR ELECTRONICS NEW NAME FOR COMPANY

CHICAGO, ILL. — Stancor Electronics, Inc., is the new name for Chicago Standard Transformer Corporation, according to William E. Wilson, Vice President and General Manager. According to Wilson, the change was made to more effectively describe the company's products.

In addition to transformers, the company manufacturers a wide range of inductive devices and specialized power supplies. "We are planning an intensive research and development program which will result in many new products not related to transformers," Wilson added.

Wilson stated that Magnetic Windings, with plants in Easton and Gettysburg, Pa., will be consolidated into the Stancor Electronics organization. These two plants, combined with the facilities in Chicago and Zanesville, Ohio, will give the organization a total of almost 700,000 square feet of production facilities.

Samuel W. Murphy Jr., member of the New York Law Firm of Donovan, Leisure Newton and Irvine, on Implications of Antitrust Laws to Trade Associations, and by A. D. R. Fraser, Rome, New York, President of NEMA and President of Rome Cable Division, Aluminum Company of America, on NEMA's Position in the Electrical Manufacturing Industry. Other top events will include panel discussions on two of the industry's most controversial problems, electrical codes and product standards, and a summary of NEMA's activities and statement of the Association's role in the Far West by Joseph F. Miller, NEMA Managing Director. The Conference will conclude with an Evaluation Luncheon June 9



The Bloodshot

Eye. . . Continued From Page 15

one aperture (.025). This is a standard in original equipment tubes. The smaller manufacturers or rebuilders generally use a larger aperture (usually .039) for several reasons: (a) The larger opening permits more of the electrons emitted from the cathode to reach the screen. This makes a large spot on the screen which creates the illusion of more light while reducing the resolution and focus. (This is where quality is sacrificed drastically). For some reason, service dealers in this trade sometimes assume that a bright light on the screen is far more important than good light output and excellent focus which can be achieved with a quality electron gun. The larger aperture opening is especially useful to the so-called back vard rebuilder who reuses the old screen. (Since the used phosphor efficiency is reduced, he must use a larger aperture opening and sacrifice focus and definition.)

TEST EQUIPMENT

There are several low cost picture tube testers widely distributed and utilized by service dealers which are very poor indicators of the worth or quality of a picture tube. The main value of these testers seems to be to convince the consumer that they need a new picture tube. Since these testers show only emission and do not meter cut-off, a high cut-off tube will look good when tested, even though the tube may be a poor one, while a good tube and a lower cut-off range may read in the replace area. A well designed gun (.025 aperture) will not rapidly destroy the cathode, which is the heart of the electron gun, to achieve high emission for testers prevalently used in the trade. As the cathode material dissipates so does the picture tube. That is why so many of the poorer grade tubes will read good initially but decay rapidly in use.

MERCHANDISING AND ADVERTISING

This industry has been guilty of poor long range planning with regard to its merchandising and advertising. It has used, and is presently using archaic methods that have long been cast aside by other industries. The advertising and merchandising themes used in the past have only served to confuse the consuming public and service dealers, as well as many distributors. There has been a lack of original ideas in merchandising in recent years within the tube industry. Most manufacturers have played a game of 'Follow the leader,' but once in awhile originality within the industry does crop up. One recent program was introduced by a

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Western manufacturer which was highly successful. This merchandising program had a theme of 'The Captive Customer' for the service dealer. Through the use of an extended warranty, a program was developed to show the independent service dealer how to retain his existing trade and obtain new customers on a sound business-like basis.

SUMMARY

We hope that this article has served to remove a great deal of the doubt and misunderstanding that is prevalent in the picture tube industry at all levels. It is felt that with the recent technological changes in cathode ray tubes and the upcoming developments that there will be a standardization in the industry.

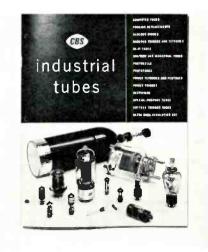
Since the picture tube is such an important part of the Service Dealer business we can only suggest that every dealer make sure of the picture tube he installs. It is short-sighted to sacrifice a good customer for a longer profit.

It is quite obvious that with the cost of Engineering and Equipment soaring rapidly to keep pace with the technological advancements that those manufacturers that fall into categories three and four will not be a factor in the future of the picture tube business. This is an economic evolution which is inevitable.



MODERN ELECTRONIC SERVICE DEALER

CURRENT LITERATURE AVAILABLE



TUBE CATALOG BY CBS ELECTRONICS

A new, 52-page Industrial Tube Catalog has just been announced by CBS Electronics. Conveniently indexed and arranged in easy-to-read, reference chart style, it gives data on more than 400 industrial and special-purpose tubes.

Principal characteristics and ratings are shown, as well as basing diagrams and physical dimensions, for a large variety of tubes in the following categories: computer tubes, foreign replacements, gaseous diodes and triodes, hi-fi tubes, military tubes, photocells, phototubes, power tetrodes and pentodes, power triodes, rectifiers, special-purpose tubes, krytron trigger tubes, and ultrahigh-resolution cathode-ray tubes.

The new catalog PA-400 should be especially useful to those in the industrial renewal field. Valued at 50ϕ , it may be obtained from CBS Electronics distributors, or direct from CBS Electronics, Danvers, Massachusetts.

COPIES OF IEC BROCHURE AVAILABLE FROM ASA

Copies of the International Electrotechnical Commission's brochure listing all IEC publications through December, 1960, are courrently available from the American Standards Association.

In making the announcement the ASA disclosed that the brochure contains a summary of the contents of each IEC publication as well as an alphabetical index for handy reference. The brochure sells for 60 cents a copy from the ASA, Dept. P 224, 10 East 40th Street, New York 16, N. Y.

NEW 12-PAGE CATALOG OF IR PRODUCTS

The complete International Rectifier line available to Commercial Products Distributor is detailed in a new 12-page catalog published by International Rectifier Corporation. The catalog is part of the new IR Commercial Products Distributor Program now being introduced throughout the U.S.

The catalog lists electrical specifications, dimensions and prices of over 270 semi-conductor devices. Included in the 6-section catalog are TV, radio and audio rectifiers and diodes; general purpose rectifiers and diodes; photocells and solar cells; silicon tube replacement rectifiers, hermetically sealed and 'Quad Sealed' Industrial silicon power rectifiers, and multiple purpose selenium rectifier stacks and contact protectors. The new catalogs are available free to IR Commercial Product Distributors for distribution to their customers.

BOOKLET DESCRIBES ELECTRON TUBES

SPRINGDALE, CONN.—A 32-page booklet describing industrial electron tubes, has been published for design engineers by The Machlett Laboratories, Inc.

Applications and electrical characteristics are provided for tubes in the six divisions of triodes, tetrodes, hard-pulse tubes, high-vacuum diodes, mercury vapor diodes, and Vidicon and Image Orthocon TV camera tubes.

Each of these divisions is prefaced by a discussion of the mechanical and electrical design criteria for each major tube type. The free, two-color booklet includes a section on available electron tube accessories.

Of special service to new equipment designers, is the booklet's detailed coverage of the most recent electron tube types.

Single copies of the Machlett electron tube condensed data booklet may be obtained without charge from Robert A. Manes, The Machlett Laboratories, Inc., Springdale, Connecticut.

AUTOMATIC PROFIT CHART

CHICAGO, ILL. — Precision Equipment Co. has announced production of an automatic profit chart . . . a device every businessman needs. This new invention provides a means of figuring profits or establishing a selling price speedily and accurately.

Operation of the chart is extremely simple. For example: If you buy an item at \$7.50 per dozen and wish to figure the selling price each, at a profit of 40%, you merely pull an inner tab up until \$7.50 appears under the column heading "Cost per dozen". You will instantly find your answer "\$1.04", under the column heading 40%. Similarly, if you wish to figure profit on your cost instead of selling price, the operation is just that simple . . . results are accurate. Complete instructions are included with each chart.

For your free Profit Chart write on your business letterhead to Precision Equipment Co., 4411 N. Ravenswood Ave., Chicago 40, Illinois and be sure to mention the name of this magazine. To those of our readers who do not qualitfy as a business executive to receive a free profit chart, Precision Equipment Co. will be pleased to send one for 50ϕ .

NEW BOOKLET OFFERED BY SYLVANIA ELECTRIC

WOBURN, MASS.—A new booklet on epitaxial germanium and silicon mesa transistors and epitaxial silicon mesa diodes has been made available by Sylvania Electric Products Inc., a subsidiary of General Telephone & Electronics Corporation.

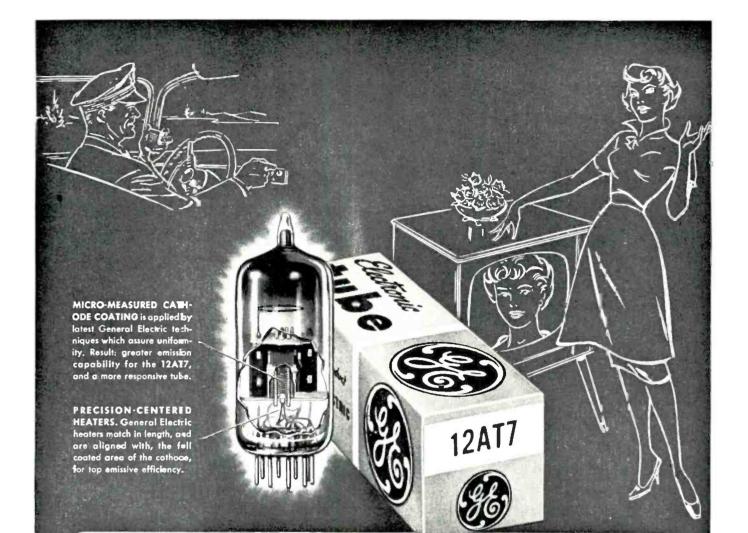
Entitled "A Case History in Progress," the new 8-page brochure contains the mechanical configuration and electrical characteristics of six new high speed switching epitaxial mesa transistors and four silicon mesa diodes. It also includes a typical circuit utilizing epitaxial units.

John Spitzer, advertising-merchandising manager of Sylvania's Semiconductor Division, said comparison of the characteristics of these new epitaxial units with their non-epitaxial counterparts "accentuated the radical improvements in switching time, saturation voltage and, in the case of diodes, increased forward current at high reverse voltages."

Copies of "A Case History in Progress" may be obtained from Sylvania Electric Products Inc., 1100 Main St., Buffalo 9, N. Y.

Continued Next Page





TWO big markets await super-sensitive G-E 12AT7!

Superior mobile reception, more dependable home TV: now you can provide both...profitably!

Highest sensitivity of any 12AT7, especially at low voltages! Puts General Electric's twin triode in a class by itself. You can offer improved reception to police, ambulance, other FM mobile-radio users with a battery or generator power source. Also, you can install the tube to help set owners ward off faulty home-television performance when line voltages drop.

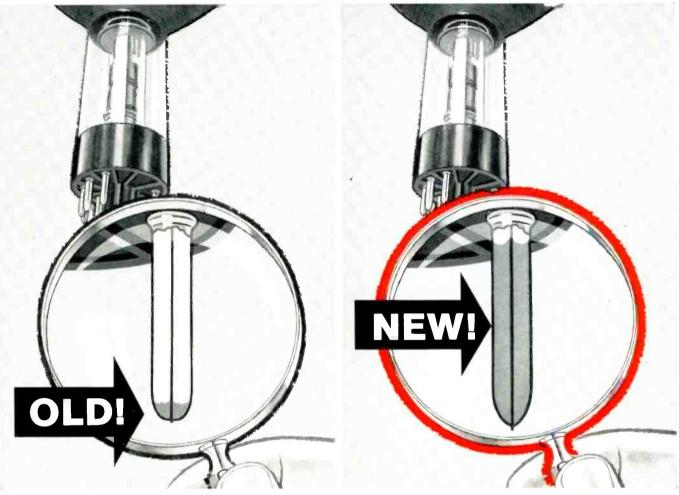
Plenty of sockets for the Service-Designed 12AT7! Make new friends with this fine tube...make money, too! With its close inter-element spacings, Type 12AT7 must be built right – as General Electric builds it. Get the full quality story from your G-E tube distributor! Distributor Sales, Electronic Components Division, General Electric Company, Owensboro, Kentucky.



Modern Electronic Service Dealer 618 So. Western Ave. Los Angeles 5, Calif. Form 3547 Requested Bulk Rate U.S. POSTAGE P A I D Los Angeles, Calif. Permit No. 23055

New Sylvania Technique eliminates erratic pin soldering

Picture tube callbacks due to "open-pin connections" dramatically reduced



The "old" conventional pin soldering method relied upon contact between pin and wire only at their tips.

New Sylvania pin soldering technique extends solder far up into the pins-provides maximum contact with the wire-assures low electrical resistance and high mechanical strength.

What does the new Sylvania pin soldering technique mean to you? It means the solution of a long-standing, industry-wide pin soldering problem. Callbacks will be reduced—crimping and resoldering will be a thing of the past.

Thousands of service technicians have proven for themselves—in millions of service calls—that Sylvania SILVER SCREEN 85 TV PICTURE TUBES are the surest way to build a better business. You should, too. Electronic Tubes Division, Sylvania Electric Products Inc., 1740 Broadway, New York 19, N.Y.





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