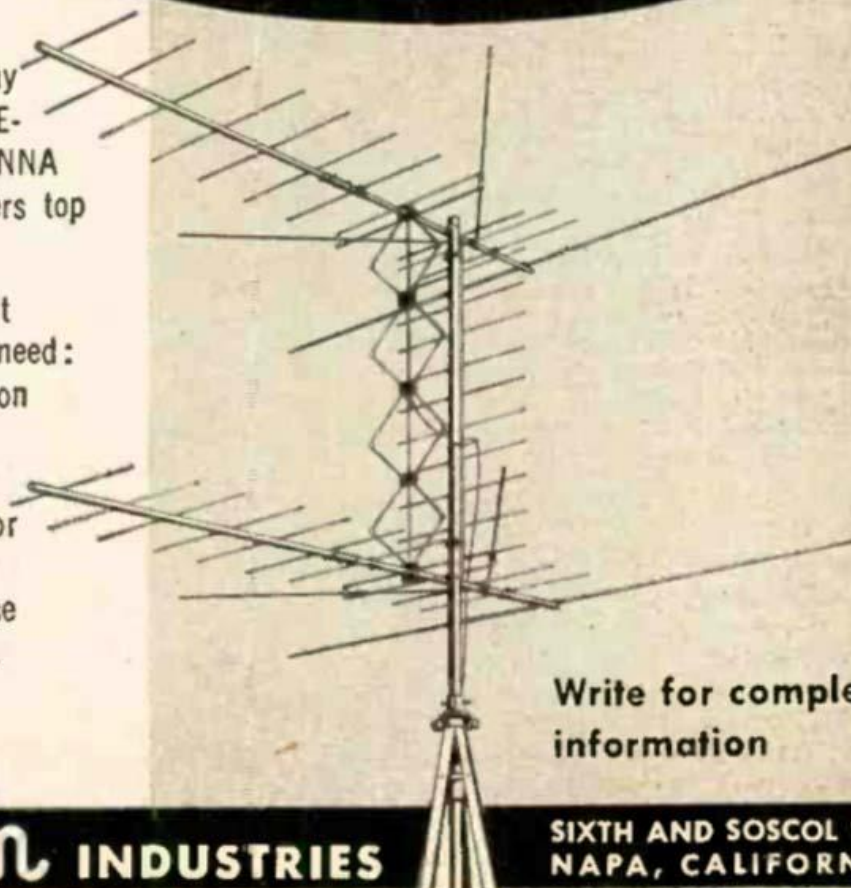


# Now...

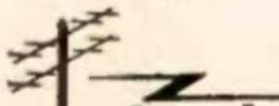
## multi-moded, all channel tele-beam antenna

For UHF or VHF or both...  
close-in or fringe...under any  
receiving conditions, the TELE-  
BEAM MULTI-MODED ANTENNA  
will guarantee your customers top  
reception on all channels.

Basic single Sabre Comet unit  
can be built up to meet any need:  
Add snorkel for an increase on  
VHF highs, stack these for  
more on all VHF channels;  
use diamond stacking bars for  
increase VHF and UHF gain;  
add UHF reflectors to increase  
the UHF gain and directivity.



Write for complete  
information



**tele-beam INDUSTRIES**

SIXTH AND SOSCOL STS.  
NAPA, CALIFORNIA

THE MOST  
**SPECTACULAR**

ANTENNA  
DEVELOPMENT  
IN YEARS...

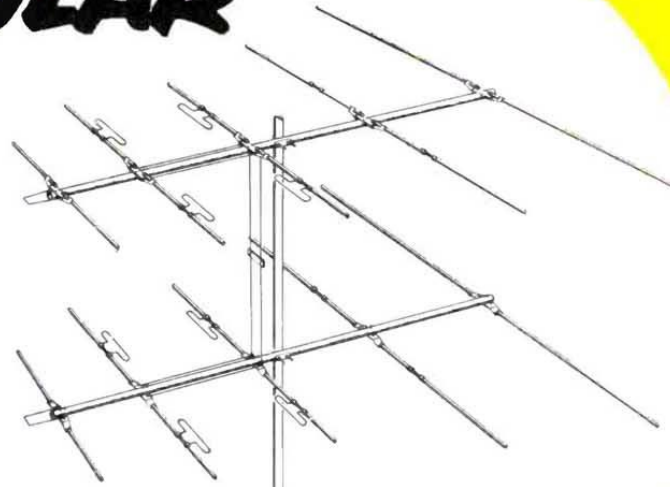
THE

**TACO**

**TRAPPER**

FOR CHANNELS

**2**  
*thru*  
**13**



<p><b>GAIN:</b> Up to 10 DB single and 13 DB two bay stacked</p>	<p><b>DIRECTIVITY:</b> Excellent pattern and high front-to back ratio for ghost-free performance</p>	<p><b>SIZE:</b> No larger than a single channel five element low band Yagi</p>	<p><b>DURABILITY:</b> High tensile strength aluminum and Fiberglass insulation assures stability</p>
<p><b>APPEARANCE:</b> Streamlined and symmetrical. Provides neat installation</p>	<p><b>COLOR TV:</b> Sharply directional, a color TV requirement</p>	<p><b>PACKAGING:</b> No KING SIZE cartons—easily transported &amp; stored</p>	<p><b>PRICE:</b> Cat. No. 1880 Trapper. List: \$19.75 ea. Cat. No. 1882 Stacking lines. List: \$1.75 pr.</p>

**All around, your BEST antenna buy!**

AT LAST, A SINGLE MODEL PACKAGED TWO PER CARTON, TO FILL EVERY VHF INSTALLATION NEED. REDUCES INVENTORY.

TECHNICAL APPLIANCE CORPORATION, SHERBURNE, N. Y. In Canada: Hackbusch Electronics, Ltd., Toronto 4, Ontario



# New Color Crossfire 82

## UHF/VHF Antennas plus FM/FM Stereo

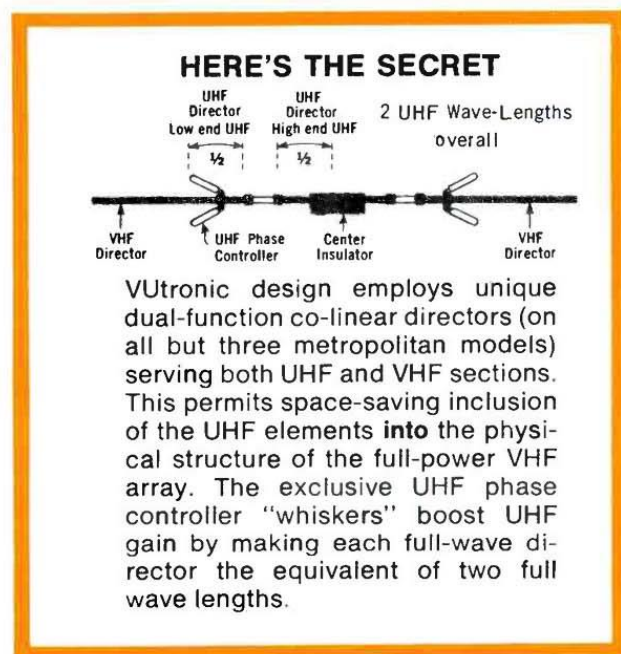
Totally new concepts in UHF/VHF design are joined with Channel Master's proven Crossfire principle to produce the first 82-channel antennas that meet UHF reception needs yet also provide unsurpassed VHF gain...and with no appreciable increase in over-all size.

Here is another example of a major development from Channel Master Laboratories where, as always, leadership begins with research.

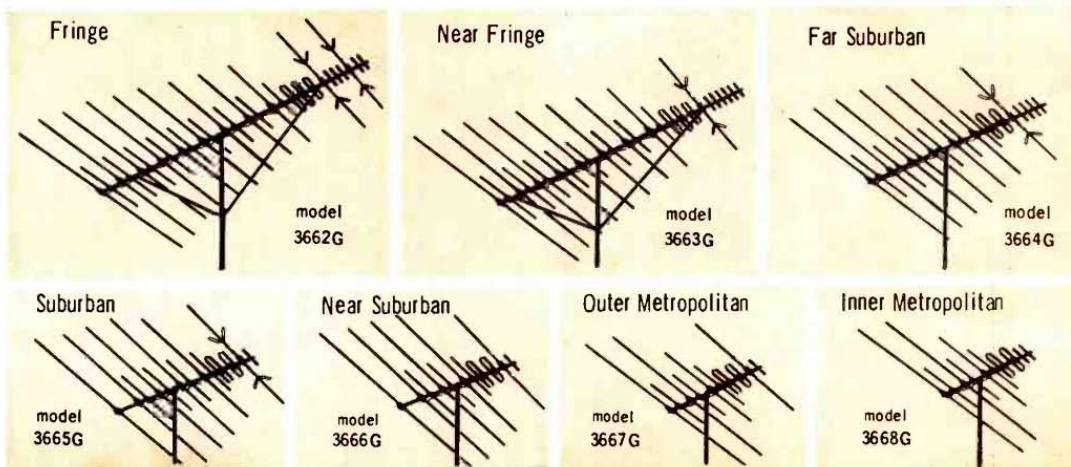
Until now, antenna manufacturers have created combination UHF/VHF antennas by coupling a UHF section to the front of a VHF antenna. To avoid costly, unwieldy, and unsightly construction, this has always meant sacrificing VHF gain. Now Channel Master fills the 82-channel gain gap with Color Crossfire 82 antennas designed for metropolitan to fringe areas where maximum VHF gain is as important as UHF reception power.

In addition to the famous Channel Master Crossfire VHF Proportional Energy Absorption Principle, these new antennas employ unique series-fed folded UHF dipoles with carefully engineered dimensions so that they literally "disappear" and operate as a perfect 300 ohm line at VHF frequencies...no "lossy" couplers required as is the case with the usual parallel-fed UHF elements.

And, of course, every Color Crossfire 82 antenna features Channel Master's famous E.P.C. golden coating and rugged preassembled construction.



**Now the first and only complete line of full VHF Power 82-channel antennas.**

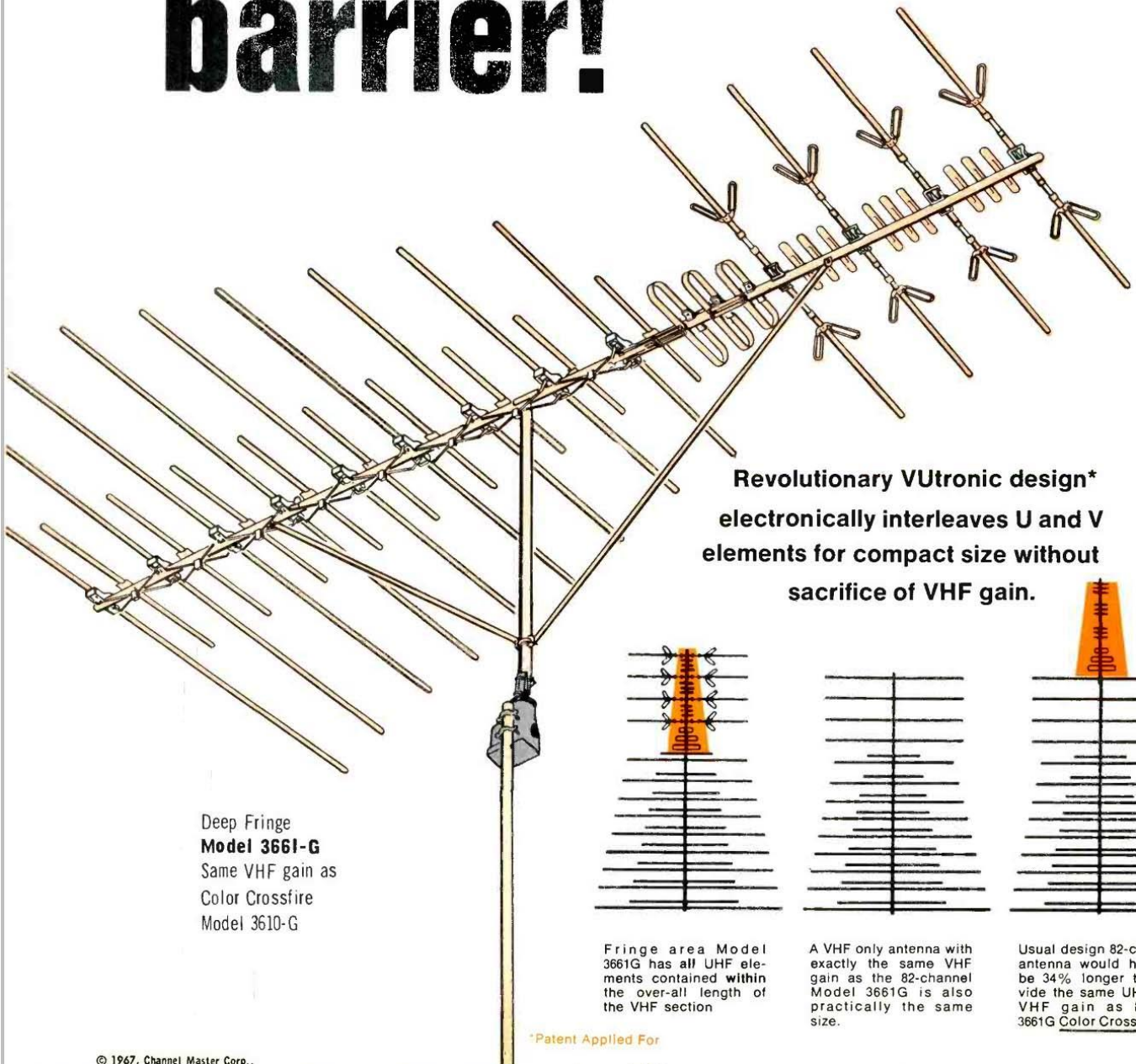


**More Channel Master Crossfire Series Antennas have been sold and are being sold...than any other antenna in the history of television.**

**CHANNEL MASTER**  
Ellenville, N.Y.

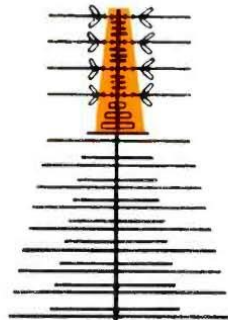


# Channel Master smashes the 82 Channel size barrier!

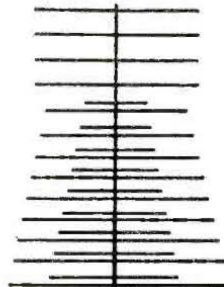


Revolutionary VUtronic design\*  
electronically interleaves U and V  
elements for compact size without  
sacrifice of VHF gain.

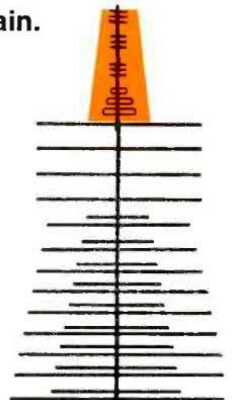
Deep Fringe  
**Model 3661-G**  
Same VHF gain as  
Color Crossfire  
Model 3610-G



Fringe area Model 3661G has all UHF elements contained within the over-all length of the VHF section



A VHF only antenna with exactly the same VHF gain as the 82-channel Model 3661G is also practically the same size.

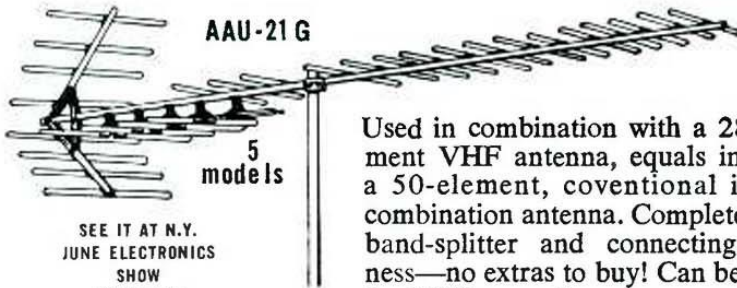


Usual design 82-channel antenna would have to be 34% longer to provide the same UHF and VHF gain as Model 3661G Color Crossfire 82

\*Patent Applied For

## ADD-A-U UNIVERSAL UHF ANTENNA

GET A BETTER PICTURE FROM ANY SET WITH A KAY-TOWNES ANTENNA



SEE IT AT N.Y.  
JUNE ELECTRONICS  
SHOW  
BOOTH 1030

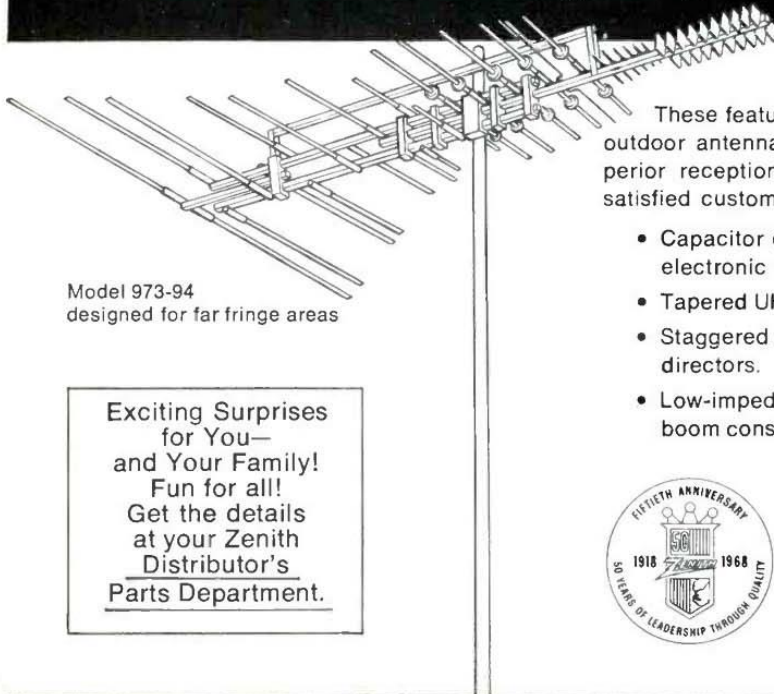
Used in combination with a 28 element VHF antenna, equals in gain a 50-element, conventional inline combination antenna. Complete with band-splitter and connecting harness—no extras to buy! Can be used for UHF reception alone.

# KAY-TOWNES ANTENNA

KAY-TOWNES ANTENNA CO.  
P.O. Box 593, Rome, Georgia 30162

# The best TV deserves the best antenna!

## Install a Zenith Quality-Engineered Antenna!



Model 973-94  
designed for far fringe areas

Exciting Surprises  
for You—  
and Your Family!  
Fun for all!  
Get the details  
at your Zenith  
Distributor's  
Parts Department.

These features help a Zenith outdoor antenna provide the superior reception that makes for satisfied customers:

- Capacitor coupled cap-electronic VHF dipoles.
- Tapered UHF grid driver.
- Staggered square UHF directors.
- Low-impedance, triple boom construction.

You can choose from 12 all-new Zenith VHF/UHF/FM or VHF/FM antennas. All are gold color alodized aluminum for better conductivity, greater corrosion resistance and longer service.

Ask your Zenith distributor for a *free* technical manual. He has charted the reception characteristics of your area, so he can recommend the best antenna for each installation.



BEST YEAR YET TO SELL THE BEST

# ZENITH

The quality goes in  
before the name goes on

Circle 17 on literature card



# introducing the hundred dollar antenna





# plus a not so short story about why Winegard's new SC-1000 is worth every penny...why it's the most powerful 82-channel antenna ever created for civilian use...and how it can change your antenna business.

Every once in a while a new antenna comes along that's more than just "new" and "different looking" and "bigger" and "better" and "more powerful". Once in a while, maybe once in a lifetime, an antenna is created that makes all the "usual claims" and then supports every one of the claims with *performance*. That's our hundred dollar antenna. The SC-1000. The top of our Super Colortron line. The top of any antenna line ever created.

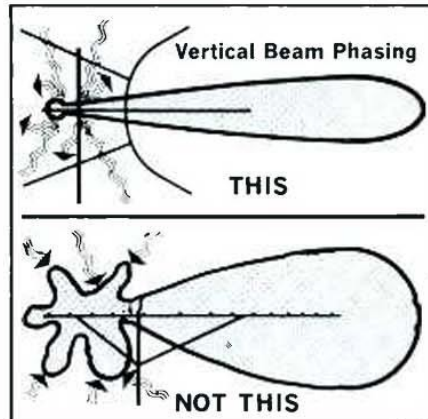
This VHF-UHF-FM super fringe antenna has undergone exhaustive testing and tuning refinements—and proved that it delivers performance worthy of its name, and it's price. Take, for example, an installation in Houston—41-feet above ground, equipped with rotor and 75 ohm downlead (no preamplifier.) The owner\* writes that with the SC-1000 he is now receiving superior reception on stations ranging from 60 miles away (Bryan, Texas) to 200 miles away (Alexandria, La. and Lafayette, La.) Now that's what we call results. And it's why the SC-1000 is already being called "the long distance antenna." Because it pulls in the farthest away, toughest channels—and always better than ever before.

Yes, feature for feature and dollar for dollar (even a hundred dollars) there has never been an antenna like the SC-1000. Let's take a look at the features.

\*Name supplied upon request.

**Exclusive New Compact "Wedge" Design . . . Plus New Vertical Beam Phasing On Each VHF Channel.** Vertical Beam Phasing on all VHF channels means there is no signal pickup from above or below the antenna. It means interference from such sources as airplanes, cars and diathermy machines are shut out. And it means that ghost signals are highly rejected. And that's not all. The VHF capture area is doubled and power gain over a conventional single bay is doubled. The vertical beam is flattened and elongated and spurious vertical lobes are eliminated. All that, and the SC-1000, with its unique "Wedge" design, is

still vastly shorter and more mechanically stable than any other configurations would have to be to come close to the gain of the SC-1000.

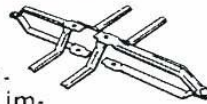


**New "Constant Focus" UHF Screen.** Concentrates all signal on Tetrapole collector element, provides as much signal capture area as an 8-foot parabolic, and at a fraction of a parabolic's size and weight.

**New "Interlaced UHF Resonant Reflectors".** Form a high density magnetic screen with all current fields in phase and working together for a new high in parabolic reflector efficiency.

**Exclusive Patented\* VHF Director System.** Absorbs VHF signal and focuses it onto the collector elements. Helps give the SC-1000 pinpoint directivity to knock-out ghosts, smear and snow. \*U.S. Patent No. 2700105, Canada No. 511984.

**New "Tetrapole" UHF Collector Element.** Has larger signal absorption area than standard UHF dipole. Maintains constant 300 ohm impedance and allows *no loss* coupling between the VHF and UHF operations.



**Exclusive "Impedance Correlators".** Provide perfect 300 ohm VHF impedance match and produce more signal gathering power per inch of antenna—and also contribute to

making the SC-1000 extremely compact.

**Exclusive Ellipsoidal Boom.** Strongest boom ever used on a tv antenna. All elements of antenna are special aluminum alloy 40% stronger than used on most antennas.

**Long Distance FM & FM Stereo Reception Bonus.** Comparable to the results you get with a 10 element FM yagi.

**Genuine Gold Anodized Finish.** The only permanent gold finish on any antenna. Sunfast. Protects against corrosion and fading. Lasts years longer.

**Exclusive Built-In Cartridge Housing.** Integral part of the antenna keeps downlead connection weathertight. Accepts Winegard's solid state cartridge preamplifiers, color spectrum filter, etc. A truly great Winegard innovation.



**Exclusive Winegard Gold Bond Performance Guarantee, Plus A New 2-Year Replacement Warranty.**

**The SC-1000 Will Change Your Entire Antenna Business.** We created the SC-1000 simply because there was a glaring need for a modern 82-channel super powerful, super fringe antenna. And performance figures show that it has far surpassed even our most optimistic goals. So whenever you want to get the last ounce of clean, brilliant reception from a new color set—whenever you have a tough reception problem, install the new Winegard SC-1000. You'll have the most satisfied customers in town. And you'll have the best antenna profits in town!

**Find Out For Yourself.** We want you to see for yourself that "the hundred dollar antenna" is everything we say it is, and more. So try one first chance you get. Ask your Winegard distributor for details now. And write for Fact-Finder #261.



## Winegard

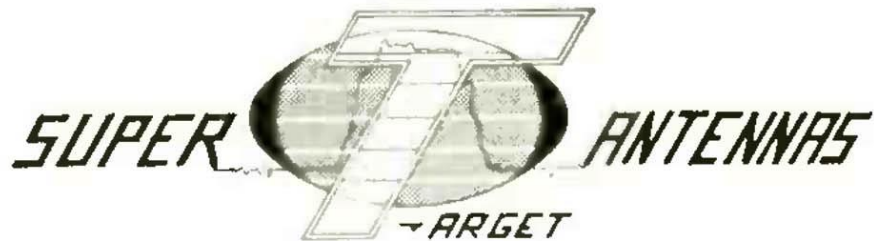
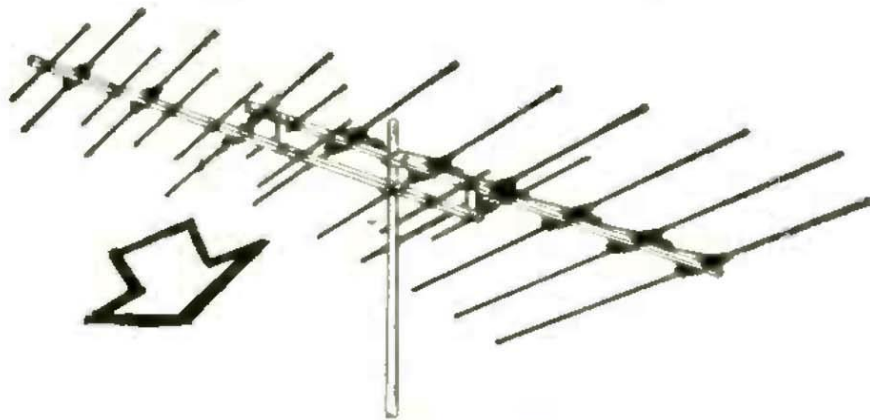
ANTENNA SYSTEMS

WINEGARD COMPANY • 3000 Kirkwood Street • Burlington, Iowa 52601  
© Copyright 1968, Winegard Company, Burlington, Iowa



**FOR THE FINEST  
RECEPTION AVAILABLE**

***NEW SUPER "T"***  
**VHF-FM-COLOR TARGET  
ANTENNA SERIES**



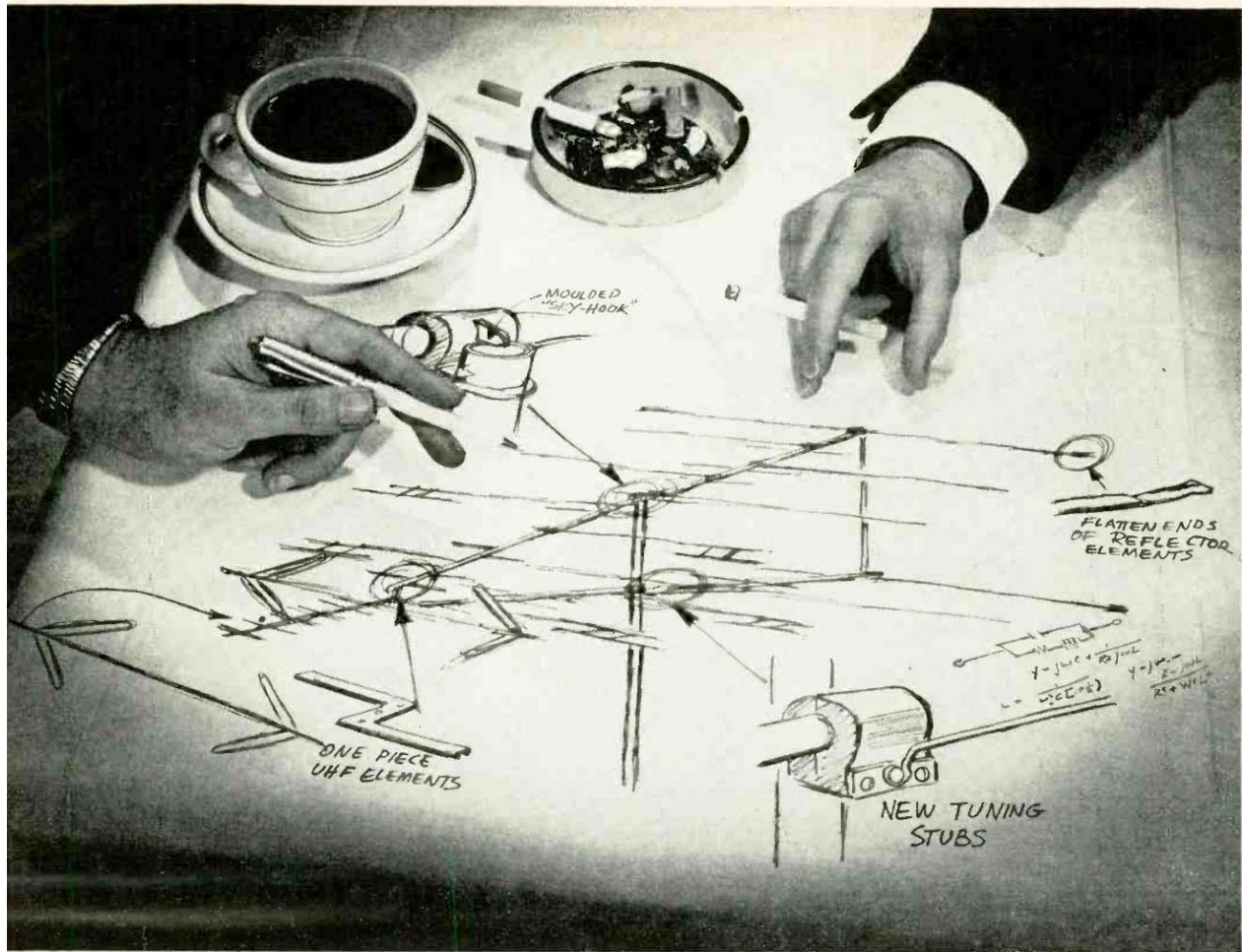
**ELIMINATE THE NEED  
FOR TWO ANTENNAS.**

The best features of Log-Periodic and Yagi type arrays are combined for outstanding performance in Super Target Antennas. New, tougher aluminum alloy used for all elements. Rugged square boom construction. Unique construction features reduce installation time.

**S & A ELECTRONICS INC.**

210 W. Florence Street • Toledo, Ohio 43605





## Give them the world's most fully equipped antenna lab ... and what do they do?

They take their work to lunch with them. Our Engineers are that way ... no matter where or when they get an idea, they develop it on the spot.

Deciding one day that the Color Vector could be made even better, they ruined a perfectly good tablecloth designing changes that give the antenna new mounting flexibility and increased gain on the VHF, UHF and FM Bands.

And they gave it greater wind stability,

and made the whole thing easier to handle, assemble and mount.

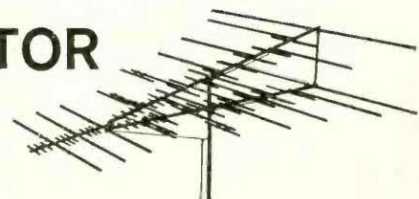
Then, with lots of tablecloth left, they went ahead and designed an entirely new model for near fringe areas ... just to be sure there's a high gain Color Vector for every specific area.

Don't misunderstand ... our Engineers are perfectly free to do what they want at lunch, and if they spend it improving products, that's fine with us. We'll even pay for the tablecloths.

## THE NEW IMPROVED COLOR VECTOR BY **CHANNEL MASTER**

DIVISION OF AVNET, INC., ELLENVILLE, N.Y. 12428

Circle 10 on reader service card





GC Electronics doesn't have the reputation for leading the industry  
in Antenna Design...so

**This should surprise you!**



this is an illustration  
of the TRUEST  
ALL-CHANNEL ANTENNA  
EVER DESIGNED...

for **CLEAR,**  
**SPARKLING COLOR**  
BLACK and WHITE

**GOLD GUARD  
FINISH**

**COLORMAGIC**  
**EXP\***

introducing...

**ALL-CHANNEL ANTENNAS**  
**SUPERB UHF·VHF·FM&FM-STEREO**

\*  
EXPONENTIAL...an Antenna Design based on a natural mathematical Formula...an All-Channel Antenna that almost perfectly matches all the signals transmitted over the entire UHF, VHF and FM bands. In other words, to define the Perfect All-Channel Antenna would be to describe EXP. Compact, Low Cost, 5 brand new models for every televiewing area. You have to see it to believe it.

**4 ANTENNAS in 1**  
**WITHOUT COMPROMISING**  
**ANY PORTION OF THE UHF,**  
**VHF or FM FREQUENCIES!**

**GOT A MINUTE? WRITE US!**

A **textron** COMPANY



**GC ELECTRONICS**

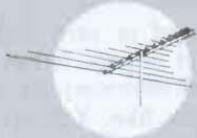
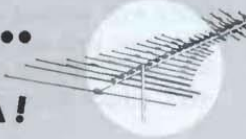

400 South Wymān Street Rockford, Illinois 61101



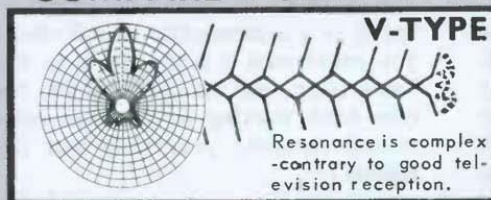
# EXP\* **GOLDRUMAGIC** FOR THE FINEST COLOR RECEPTION

**EXCELLENT V.S.W.R. RATIO • EXCELLENT POLAR PATTERN  
EXCELLENT GAIN-RESPONSE CURVE**

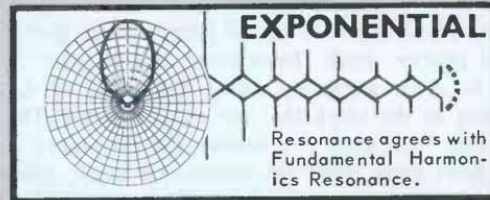
## FIVE MODELS... ONE FOR EVERY TELEVIEWING AREA!

 <b>FAR SUBURBAN MODEL NO. CM-12 12 ELEMENTS</b> VHF - 80 miles UHF - 45 miles FM - 90 miles	 <b>FAR-FRinge MODEL NO. CM-24 24 ELEMENTS</b> VHF - 175 miles UHF - 75 miles FM - 190 miles	 <b>FRINGE AREA MODEL NO. CM-15 15 ELEMENTS</b> VHF - 100 miles UHF - 55 miles FM - 110 miles
 <b>METROPOLITAN MODEL NO. CM-9 9 ELEMENTS</b> VHF - 50 miles UHF - 25 miles FM - 70 miles	 <b>LOCAL AREA MODEL NO. CM-6 6 ELEMENTS</b> VHF - 35 miles UHF - 20 miles FM - 50 miles	

### • COMPARE POLAR PATTERNS



**V-TYPE:** Antennas have polar patterns similar to that shown above. Notice the large side lobes on the polar graph. These lobes indicate distorted reception - the cause of impure color and ghosting.



**EXP-TYPE:** Antennas have even pencil point polar patterns as seen in the typical EXP pattern shown above. This type of polar pattern is indicative of undistorted, high-quality reception.

### • COMPARE V.S.W.R. RATIO

A perfect V.S.W.R. is a 1:1 ratio. This, however, exists in theory only. Up to the present, a V.S.W.R. of 1.5:1 was considered exceptional. Now, the EXP antennas have a unique V.S.W.R. of 1.2:1 - a technical advance in antenna design which insures the purest color and the sharpest black and white reception possible today.

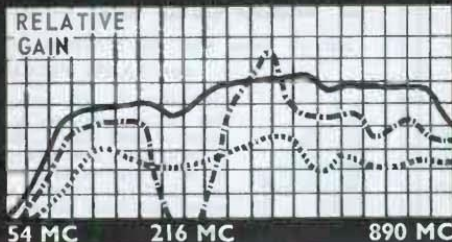
### • COMPARE GAIN-RESPONSE CURVES

KEY:

— EXP ALL-CHANNEL

- - - - "X" TYPE ALL-CHANNEL

..... "Y" TYPE ALL-CHANNEL



EXP All-Channel Antennas show a consistently higher performance level on the gain response curve than comparable All-Channel Antenna models. Curves produced by comparable All-Channel antennas indicate a great deal of fluctuation in performance from band to band - usually falling off in one of the reception areas. EXP All-Channel Antennas graph consistently high on ALL BANDS - showing EXP to be the truest, high-quality ALL CHANNEL Antenna.

## COMPACT-RUGGED CONSTRUCTION

EXP Antennas are compact! The Exponential Curve Design allows elements to be more closely spaced. There's more antenna per square inch! Rugged construction completely protected by Gold-Guard Finish.

## GOLD-GUARD FINISH

### EXP FEATURES:



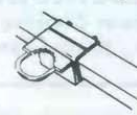
Bridge type construction with rugged reinforcing sleeves add to element stability & antenna durability.



High impact plastic "S" type phasing bar insulators.

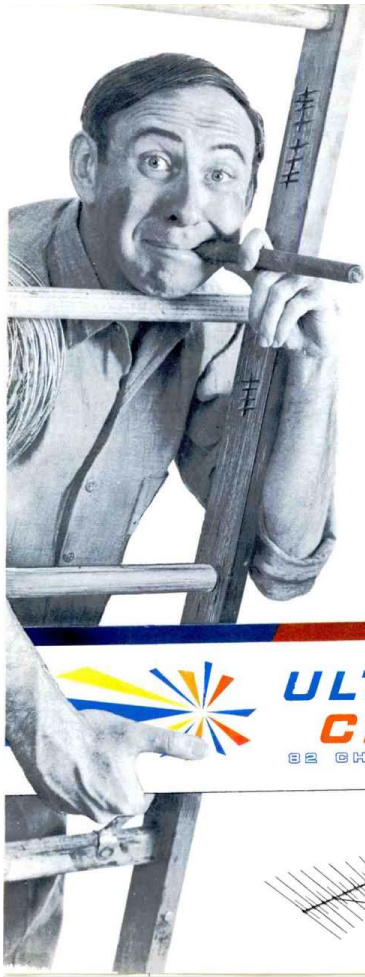


Super high-impact insulators that will not snap in cold weather or high winds.



Thick walled, sturdy square boom with heavy-duty, reinforced boom clamp for added strength.





# Take Channel Master's latest color breakthrough for instance...

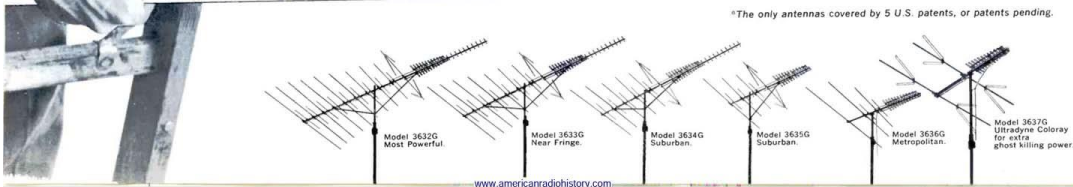
I know for a fact that Channel Master's Color Crossfires are the top-selling antennas in TV history. But for my hard-earned buck, these new Ultradyne Crossfires® are the greatest yet. They're really a major breakthrough. They've got everything because they unite the unique VHF color reception power of the famous Crossfires with a terrific new Ultradyne UHF design principle. The high gain and front-to-back ratios in this combo has those so-called "log-periodic" type antennas beat a mile. And with the Channel Master rotator, I can get my customers extra channels in any direction. Black and white? FM Stereo? They're a cinch. What's more, you choose from 6 dif-

ferent models so Channel Master sure makes it easy to pick the right one—with each geared to give top signal strength in its area. I also like the way that E.P.C. "Golden Overcoat" protects the antennas. One thing I can tell you from experience: both in design and overall power each of these Ultradyne is way ahead of the competition's corresponding model. More profitable, too. The way I see it, the only color antenna worth putting up is the one that gives my customers the most satisfaction. I say as long as you have to install color antennas—why not put up the best! The Ultradyne Crossfire.

Write for complete Ultradyne literature.



\*The only antennas covered by 5 U.S. patents, or patents pending.



## COLOR?

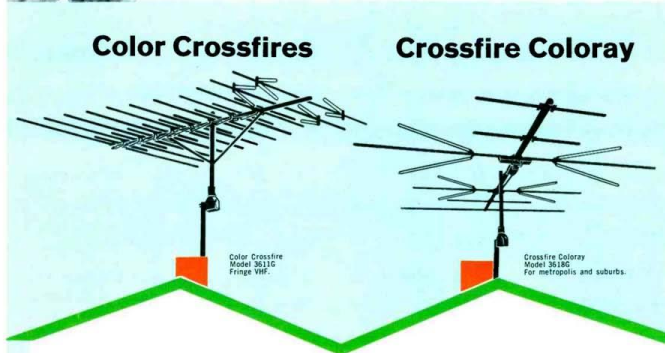
I know it's hit the roof. And brother, I'm cleaning up.

With America's best-selling antennas

# CHANNEL MASTER



## And don't forget the VHF/FM branches of America's most successful COLOR family.



**Each perfectly engineered for color and designed for maximum power in its area**

More Crossfires® have been sold than any other antenna in TV history. A 7-model series of the world's most powerful antennas... now better than ever for color, black-and-white and FM stereo, from suburb to fringe to super-fringe. Combines our revolutionary principle of Proportional Energy Absorption with our exclusive Tri-Band Director System to deliver the high clean broadband gain needed for color reception. Covered by 3 separate patents.

Crossfire Coloray®... ghost-killer extraordinary! For weak-pocket metropolitan and suburban areas. Combines high gain characteristics of Crossfire with a unique Power Equalizer circuit that provides up to 30 to 1 front-to-back ratios. Exclusive 75 and 300 ohm impedance insures ideal color reception for MATV and co-axial home installations. Second model (3110G) available for strong-signal areas. Both models protected by remarkable money-back guarantee.

\*All models protected by exclusive E.P.C. "Golden Overcoat"

Write for the full facts on the Crossfires and the Colorays.

**CHANNEL MASTER**  
ELLENVILLE, NEW YORK





**TELCO E-Z "SWING IN" STAND-OFF**

Wood screw type, 3 1/2", UHF-VHF

No. EZ-8027 \$4.80 / C



**TELCO E-Z "KANT-STRIP" STAND-OFF**

"Swing in" type, 3 1/2", 9" strap

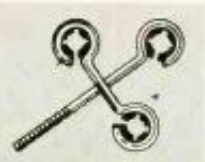
No. EZ-8253 \$0.13



**TELCO "KANT-STRIP" STAND-OFF**

Round insulator, 3 1/2", 9" strap

No. 8253 NET \$0.11



**TELCO 3-WAY STAND-OFF**

For 3-line use, 7 1/2", wood screw

No. 8397 NET \$0.21



**TELCO NUT-TYPE STAND-OFF**

Welded 10-23 nut, 3 1/2", 9" strap

No. 8253-N \$0.12



**TELCO E-Z NUT-TYPE STAND-OFF**

Tougher, inline duplex, 7 1/2", 9" strap

No. EZ-8258-N \$0.24



**TELCO CHIMNEY QUICK MOUNT**

Easy to install, complete

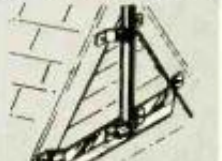
No. 8005 NET \$1.35



**TELCO SNAP-IN CHIMNEY MOUNT**

Fits masts to 1 1/4" complete

No. 8610 NET \$1.71



**TELCO PEAK MOUNT**

Masts to 1 1/4" 30" lower support

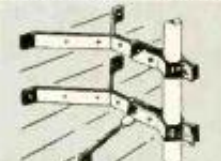
No. 8625 NET \$2.37



**TELCO GALVANIZED ANTENNA MASTS**

1 1/4" OD x 5' crimped end

No. 9013 NET \$0.78



**TELCO DELUXE SNAP-IN WALL MOUNT**

Extra sturdy, 12" clearance

No. 8312 NET \$2.10



**TELCO UNIVERSAL LIGHTNING ARRESTOR**

Easy to install, UL approved

No. 8642 NET \$0.75



**TELCO UHF-VHF GLOBE-TENNA**

Handsome 12" globe plus built-in antenna

No. A-9265 \$11.97

*Ask For These*



**SERVICE AIDS**

*...at Your Jobber*



**TELCO UHF-VHF LIGHTNING ARRESTOR**

Universal type, UL approved

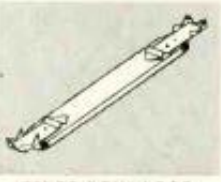
No. 9242 NET \$0.42



**TELCO 3-WAY TV LINE KLIP**

For straight side or plug-in

No. 9015 NET \$0.12



**TELCO LOW-LOSS LINE KLIP**

All one piece, plastic, metal ends

No. 9055 NET \$0.15



**TELCO HINGED TYPE RIDGE MOUNT**

Fits masts to 1 1/4" assembled

No. 9021 NET \$1.17



**TELCO ALL-PURPOSE MAST BRACKET**

Fits masts to 1 1/4" use every where

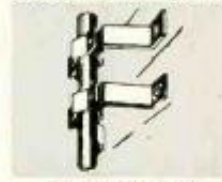
No. 8575 NET \$1.65



**TELCO MAST HANDY MOUNT**

For masts to 1 1/2", extra support

No. 8800-U \$0.33



**TELCO SPECIAL WALL MOUNT**

For close-in (4") mounting

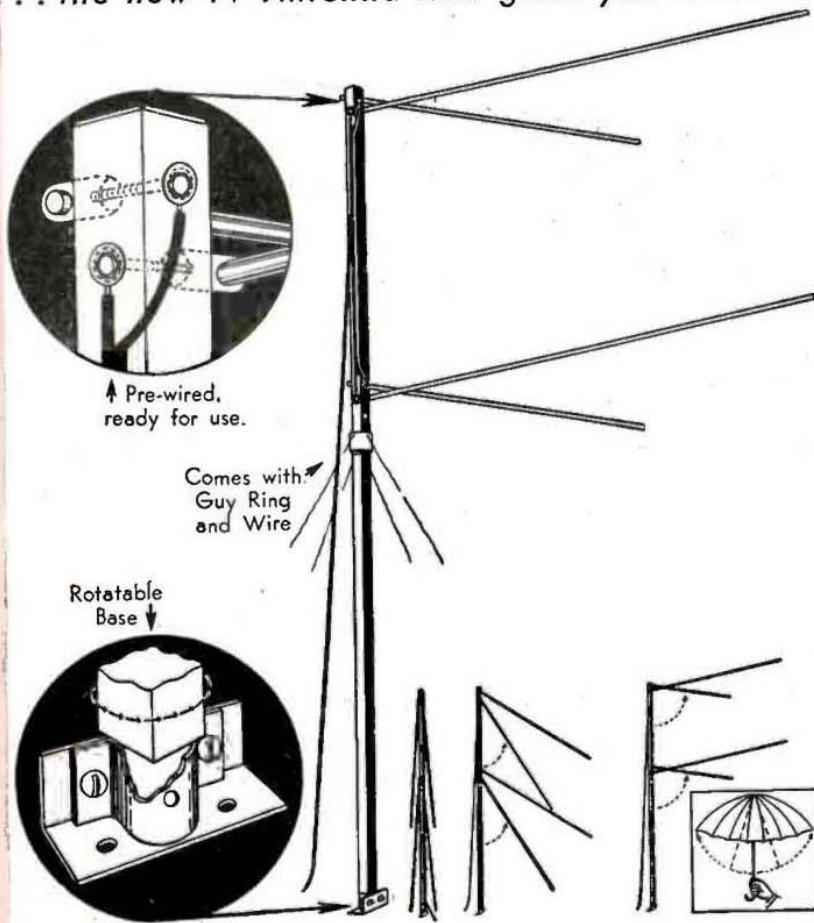
No. 9241 NET \$0.45



**NOW...A Revolutionary Pre-Assembled, Pre-Wired TV ANTENNA**  
**that Gives Superior Performance on ALL CHANNELS - -**  
**-- yet COSTS YOU ONLY 1/2 the price of equivalent antennas!**

# TRANSVISION *Flip-Up*

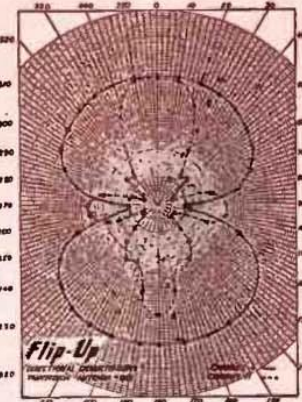
... the new TV Antenna that gives you more value for your money, because - -



- **IT'S PRE-ASSEMBLED**, ready for use. Just "flip-up" (like an umbrella) and install.
- **PRE-WIRED**—just connect your lead-in to the two terminals.
- **RECEIVES ALL CHANNELS**
- **ALL-DIRECTIONAL**; can be oriented for the weakest station in an area with assurance that all other channels will be brought in equally well.
- **EXTREMELY SENSITIVE**. Unusual high gain on upper channels. Ideal for fringe areas.
- **PRICE: \$6.95 NET**

Completely assembled with rotatable base, 7 ft. mast, guy ring and guy wire.

Additional 7 ft. masts, to build antenna up to 19 ft., at small extra cost.



### Superior Performance of the Transvision "Flip-Up" TV Antenna

This chart shows the directional characteristics of the "Flip-Up"—or the relative strength of signals received at different incident angles. The two channels used, 4 and 11, represent the centers of the low and high frequency bands respectively. **THE SIGNIFICANT FEATURES are:** Wide Angle Reception at Low Frequencies; High Sensitivity of High and Low Frequencies; All-Directional.

**SAVES TIME, LABOR!** Note how EASY it is to install the "Flip-Up." It comes to you compact, folded like an umbrella. You open it—like an umbrella, and install.

#### ADDITIONAL Superior Features of the "Flip-Up" Antenna!

- Upper and lower bands completely wired. Eliminates need for two separate antenna installations for the high and low TV bands; therefore, no coupling losses.
- **RUGGED CONSTRUCTION:** Mast of the antenna has been designed of non-conducting material which prevents possible grounding and reduction of signal strength. It has unusually high mechanical strength and is extremely rigid when installed.
- Guy ring and guy wires provided for added rigidity.
- Additional 7 ft. extension masts can be furnished to increase height to total of 19 ft.

—and REMEMBER, "Flip-Up" COSTS ABOUT 1/2 the price of equivalent antennas

All Transvision Prices are fair traded; subject to change without notice. Prices 5% higher west of the Mississippi.

**TRANSVISION, INC., DEPT. RE, NEW ROCHELLE, N. Y.**  
 IN CALIF.: TRANSVISION OF CALIFORNIA, 8572 SANTA MONICA BLVD., HOLLYWOOD 46

**Ask to see the New "Flip-Up" Antenna at Your Transvision Outlet!**



**now-  
GET GREATER TV  
ENJOYMENT WITH THE NEW  
Clear Beam  
"TRAILER  
-Tenna!"**



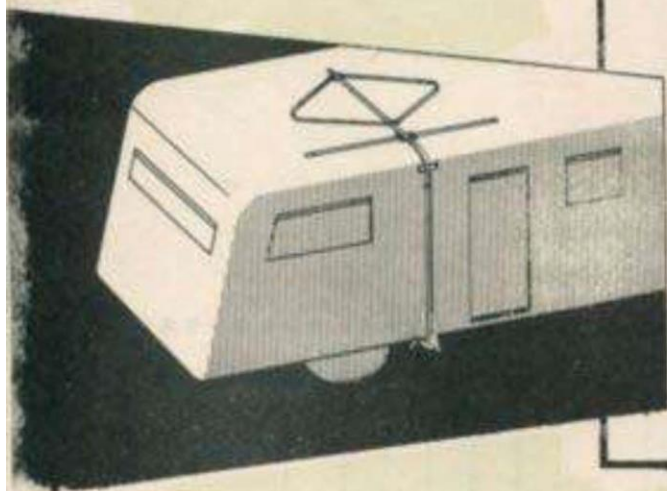
**SPECIFICALLY DESIGNED FOR MOBILE HOMES**

**RAISES FOR RECEPTION  
LOWERS FOR TRAVEL**

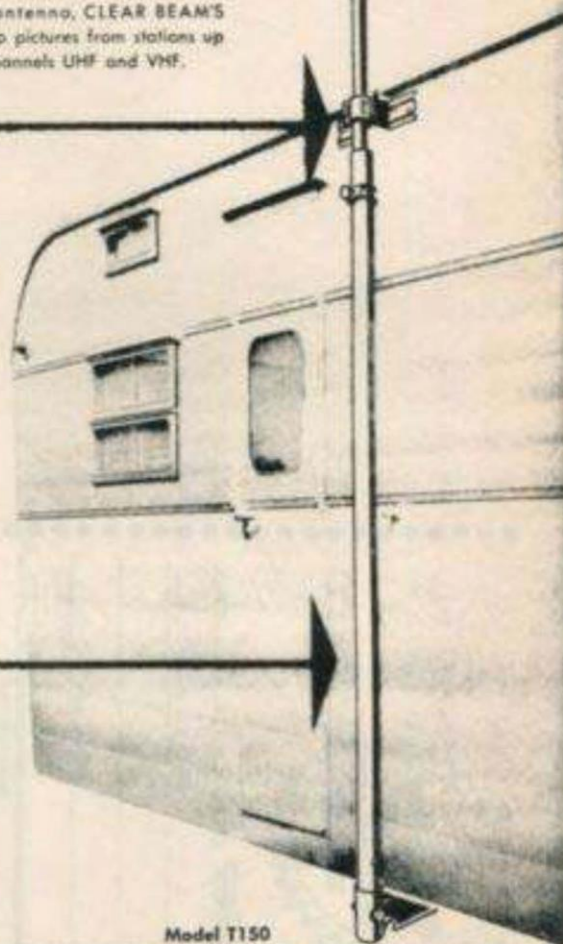
CLEAR BEAM'S Trailer-Tenna is always ready for use. Eliminates the need for installing an antenna each time trailer is parked and troublesome dismantling for traveling. The Trailer-Tenna offers a permanent installation which raises simply and easily for reception, and lowers for travel. Truly a "Mobile" antenna for the "Mobile" Home.

**PERFECT RECEPTION ANYWHERE**

Featuring a RHOMBIC type antenna, CLEAR BEAM'S Trailer-Tenna receives clear sharp pictures from stations up to 100 miles away. Covers all channels UHF and VHF.



Custom  
Engineered  
for  
Luxury  
Trailer  
Living



**INSTALLS ON ANY TRAILER**

CLEAR BEAM'S Trailer-Tenna utilizes universal (rust proof) mounting brackets which insure a neat, attractive installation on any make of mobile home. The entire unit is supported from the structural steel beams under trailer's chassis, not from trailer walls. Shipped as a complete kit - nothing else to buy. Can be installed in minutes without the use of special tools.

Model T150



**CLEAR BEAM** TV ANTENNAS • TELESCOPING MASTS • ACCESSORIES  
CANOGA PARK, CALIF. • CHICAGO, ILL.

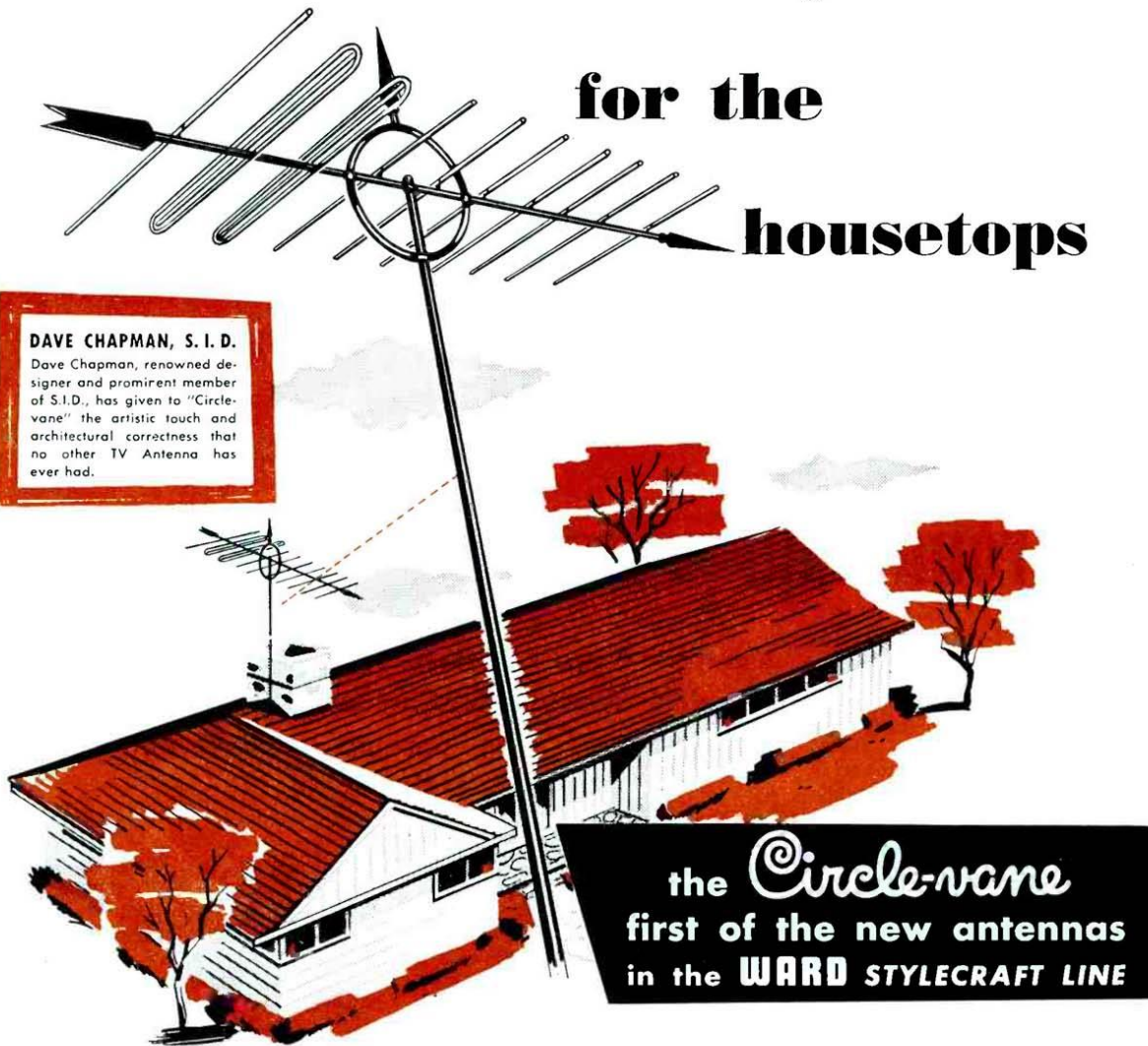


now . . . new beauty

for the

housetops

**DAVE CHAPMAN, S. I. D.**  
Dave Chapman, renowned designer and prominent member of S.I.D., has given to "Circle-vane" the artistic touch and architectural correctness that no other TV Antenna has ever had.



Antennas, styled to the modern tempo . . . cleverly patterned to enrich the appearance of any house . . . expertly engineered to give finer pictures . . . skillfully designed by the famous Dave Chapman, (S.I.D.) . . . these new Ward Circle-vane Antennas complement the home and add dignified charm and beauty. Everybody, dealers and owners alike, have been waiting for "something new" in antennas—  
The new, finer Ward Circle-vane supplies the answer.  
The Ward Circle-vane is constructed of aluminum elements with a cross-arm of durable Permatube . . . Comes completely pre-assembled.

**Be first with this Ward FIRST in your territory. Order today.**

**THE WARD PRODUCTS CORP.**

DIVISION OF THE GABRIEL COMPANY

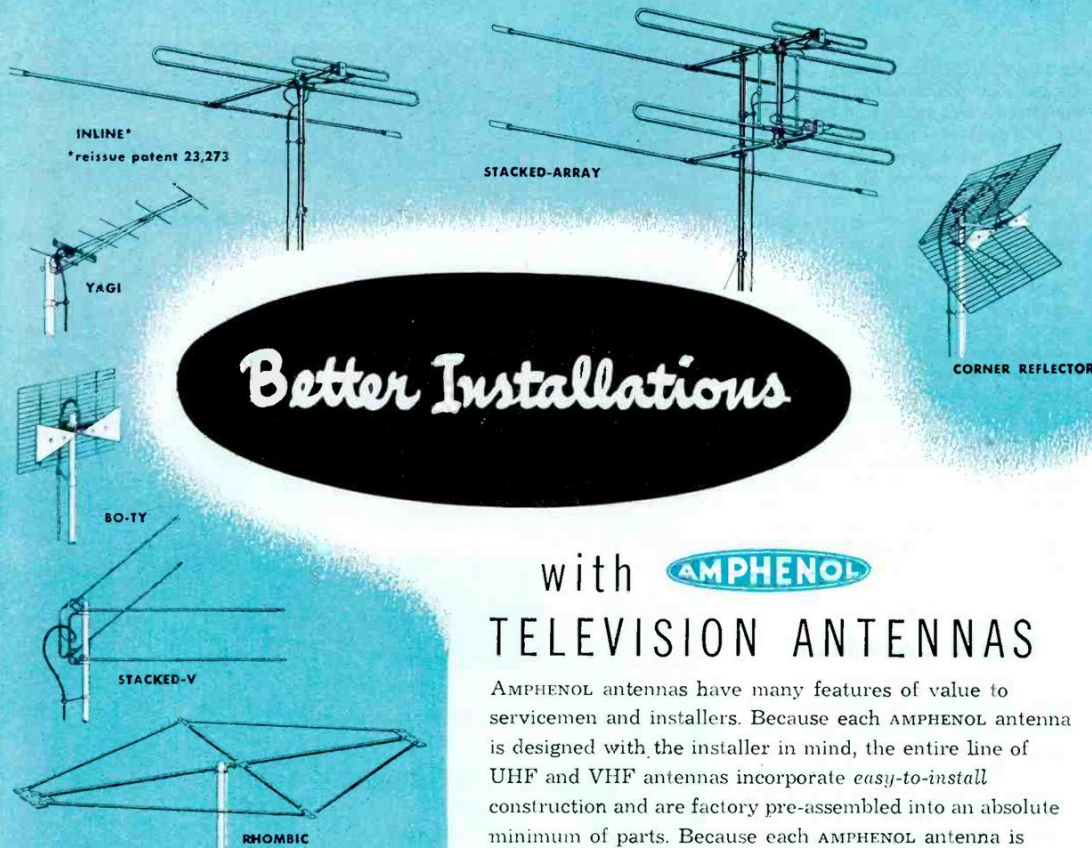


1148 Euclid Avenue, Cleveland 15, Ohio • In Canada: Atlas Radio-Co., Ltd., Toronto, Ont.

48 • SERVICE, OCTOBER, 1953



www.americanradiohistory.com



# Better Installations

with **AMPHENOL**

## TELEVISION ANTENNAS

AMPHENOL antennas have many features of value to servicemen and installers. Because each AMPHENOL antenna is designed with the installer in mind, the entire line of UHF and VHF antennas incorporate *easy-to-install* construction and are factory pre-assembled into an absolute minimum of parts. Because each AMPHENOL antenna is designed with the serviceman also in mind, they feature *stay-up* construction. Craftmanship care in manufacture and the use of fine materials insure longer lasting antenna performance—in all kinds of weather. Finally, the superb electrical characteristics of all AMPHENOL antennas mean better TV picture quality and therefore *customer satisfaction*.

AMPHENOL antennas: *easy-to-install*, *stay-up* construction and *customer satisfaction*—points to remember in every new or replacement antenna installation.

have you seen it?



Now being shown to enthusiastic audiences of dealers and servicemen-installers all over the country. AMPHENOL'S "The UHF-VHF Television Antenna Story" is a film that you won't want to miss. It fully explains the technical details of UHF—makes it easier to understand by comparing the characteristics of UHF and VHF—and gives, as well, full antenna data. Contact your AMPHENOL distributor for details and be sure and see "The UHF-VHF Television Antenna Story."



the Amphenol "TVAntenna Folio"

### A NEW KIND OF PRACTICAL AID FOR TELEVISION SERVICEMEN

Designed to furnish every installer-serviceman with helpful information on UHF/VHF television and thus further aid him in making better antenna installations, the brand new AMPHENOL "TV Antenna Folio" has just been published. It contains a concise resume of television facts and is illustrated with actual Kodachromes from the AMPHENOL film "The UHF-VHF Television Antenna Story." It also contains the latest AMPHENOL antenna and accessories catalog sheets.



Fill in the coupon and send to AMPHENOL for your free copy of the "TVAntenna Folio."

**AMERICAN PHENOLIC CORPORATION**  
1830 South 54th Ave., Chicago 50, Illinois

Please send me my free copy of the "TVAntenna Folio"

NAME \_\_\_\_\_  
COMPANY \_\_\_\_\_  
ADDRESS \_\_\_\_\_ ZONE \_\_\_\_\_ STATE \_\_\_\_\_  
CITY \_\_\_\_\_

**AMPHENOL** antennas for Better TV Pictures

www.americanradiohistory.com





# IMPACT IN UHF

## FINCO

### series 500

#### Great UHF ANTENNAS

Engineered To Give  
**HIGHEST GAIN** and  
**NARROWEST PATTERNS**  
to solve difficult "GHOST"  
problems in the **FRINGE**  
**AREA AND IN CLOSE**  
**TO THE STATION**

## IMPACT Through Advertising

- LOCAL NEWSPAPERS
- LIFE
- RADIO
- FARM MAGAZINES
- TELEVISION

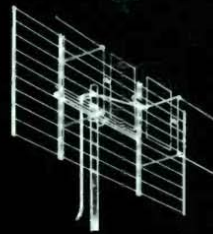
**FINCO IS A NAME  
YOUR CUSTOMERS  
KNOW BECAUSE OF  
THIS POWERFUL  
NATIONAL ADVERTISING  
PROGRAM!**

**THE  
FINNEY COMPANY**  
Dept. S-310 - 4612 St. Clair Ave., Cleveland 3, O.

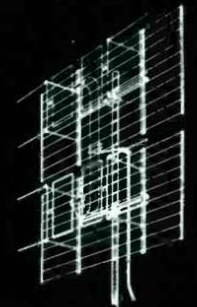
This great series once again reaffirms Finco leadership! Model 502 is a 2-bay unit of the colateral\* type with a "snap-out" screen for instantaneous installation. Model 504 is the 4-bay version, highly effective in super fringe areas where ultra high gain is consistently required. Both models feature high front to back ratio and excellent impedance match to 300 OHM line for low signal fringe areas. Completely preassembled — corrosion proof aluminum throughout (including screen) — one antenna, one transmission line!

Both Units available in 3 models which peak on channel ranges shown below and maintain high gain on balance of frequencies:

- # 502A — channels 14-32
- # 502B — channels 29-55
- # 502C — channels 53-83



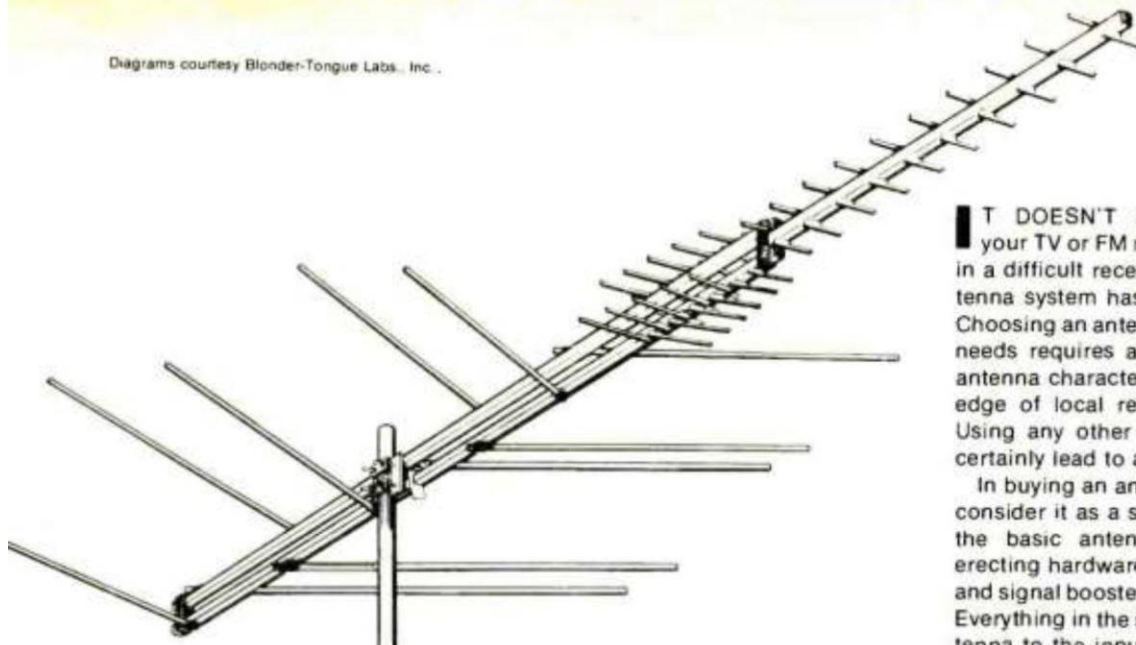
- # 504A — channels 14-32
- # 504B — channels 29-55
- # 504C — channels 53-83



Patent No. 2,566,287  
\*Reg. U.S. Pat. Off.



Diagrams courtesy Blonder-Tongue Labs., Inc.



# GUIDE TO CHOOSING TV & FM ANTENNAS

**I**T DOESN'T matter how good your TV or FM receiver is, if you are in a difficult reception area, your antenna system has to be satisfactory. Choosing an antenna that will fill your needs requires an understanding of antenna characteristics and a knowledge of local reception conditions. Using any other criteria will almost certainly lead to an improper choice.

In buying an antenna, remember to consider it as a system consisting of the basic antenna, mounting and erecting hardware, transmission line, and signal booster/splitter (if needed). Everything in the system, from the antenna to the input terminals on your receiver, must be selected to provide maximum signal transfer. Although this is important for any type of TV reception, it becomes increasingly so when dealing with color and fringe areas.

There are many electrical and mechanical characteristics of antennas that are important to making an intelligent choice.

**By The Numbers.** The one specification that is almost always included in the description of an antenna is the number of elements it has. As a rule, for a given design, the greater the number of elements, the greater the antenna's gain and the more signal captured. For all-band antennas, the numbers of vhf and uhf elements are generally specified separately.

Most reputable antenna manufacturers and retailers give an honest element count, but it pays to know how to count them properly. This may not be as simple as it sounds because of the configurations of some modern antennas. For example, the log-periodic type (Fig. 1) has its elements angled forward to improve high-frequency response. The antenna is fed at the front end and uses a double boom (instead of transposing the feed line that connects to the various elements). Connecting the individual antenna rods to the upper and lower boom elements effectively transposes or crosses the feedline connections. The two boom elements are insulated from the supporting mast. The design of the antenna, as well as the angle at which it is drawn, might make it dif-

BY JULIUS GREEN



**SMASH  
HIT!**

**TERRIFIC ACCEPTANCE GREETS THE NEW**

**TRIO  
ZIG-ZAG**  
(Patent Pending)

**TV ANTENNA**



**TRIO ZIG-ZAG  
TV ANTENNAS**

The sensational new TRIO ZIG-ZAG TV ANTENNA has already proven its superiority in the field. Thousands of installations have given a new high in TV reception, especially in ultra-fringe areas. Word of mouth has done the rest. TRIO'S plant capacity, taxed to the limit in an effort to supply the amazing demand for the ZIG-ZAG ANTENNA series, is being greatly expanded. Very soon now, your ZIG-ZAG ANTENNA will be supplied, and it's well worth waiting for.

ZIG-ZAG ANTENNAS have replaced every known type of installation and TRIO is proud to report that in EVERY instance the ZIG-ZAG ANTENNA has out-performed them all, even the tried and true TRIO dual-channel yagi.

TV listeners are finding that with a ZIG-ZAG ANTENNA they are no longer tied down to just one or two channels, but are getting excellent reception on channels never seen before. ZIG-ZAG ANTENNA is truly HOT on all VHF channels.

available in 8 different models, provide a new high in all-channel performance for any area, from metropolitan to ultra-fringe. Tremendous gain, sharp directivity, excellent match to 300 ohm line, sturdy vibration-proof construction and fast, easy installation tells the rest of the TRIO ZIG-ZAG ANTENNA story.

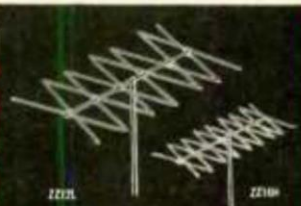
SEE THEM at your JOBBERS. WRITE for CATALOG.



**TRIO ROTATOR**

A worthy companion to the ZIG-ZAG ANTENNA. Tested and proven under every conceivable condition of load, weather, strain and stress. Two motors, one for each rotational direction. Positive electrical stops prevent damage of over-rotation. Positive brake action, no drift even when supporting heavy arrays in 80 MPH winds. Precision built of finest materials and UNCONDITIONALLY GUARANTEED by TRIO for TWO YEARS. SMARTLY STYLED DIRECTION INDICATOR has easy to read dial face and easy to use finger touch control. A beautiful instrument you'll be proud to own.

These ZIG-ZAG ANTENNAS provide the ultimate in extreme fringe area reception. ZZ18L provides 12-14 db. gain on Channels 2 thru 6. ZZ16H has a gain of 14 db. on Channels 7 thru 13. These antennas have very narrow forward lobe, high front to back ratio, provide high rejection in areas with co-channel interference.



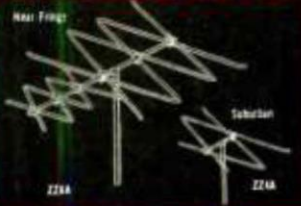
Where maximum gain is not necessary these normal fringe model ZIG-ZAG ANTENNAS are ideal. Model ZZ8L has a gain of 9 db. average on Channel 2 thru 6. The ZZ8H provides an 11 db. gain on Channels 7 thru 13. Forward lobe patterns comparable to good multi-element single channel yagi.



For near fringe area reception these ZIG-ZAG ANTENNA models provide 8-9 db. gains on all Channels 2 thru 13. ZZ6L covers Channels 2 thru 6 and Model ZZ6H covers Channels 7 thru 13. Both models have patterns similar to those of cut-off channel yagi.



These ZIG-ZAG ANTENNAS provide ALL CHANNEL reception with only ONE antenna bay. Model ZZ6A is designed for near fringe area reception of all Channels 2 thru 13, with an average gain of 9 db. Model ZZ4A is for use in suburban areas, providing an average gain of 6 db. on all Channels 2 thru 13.

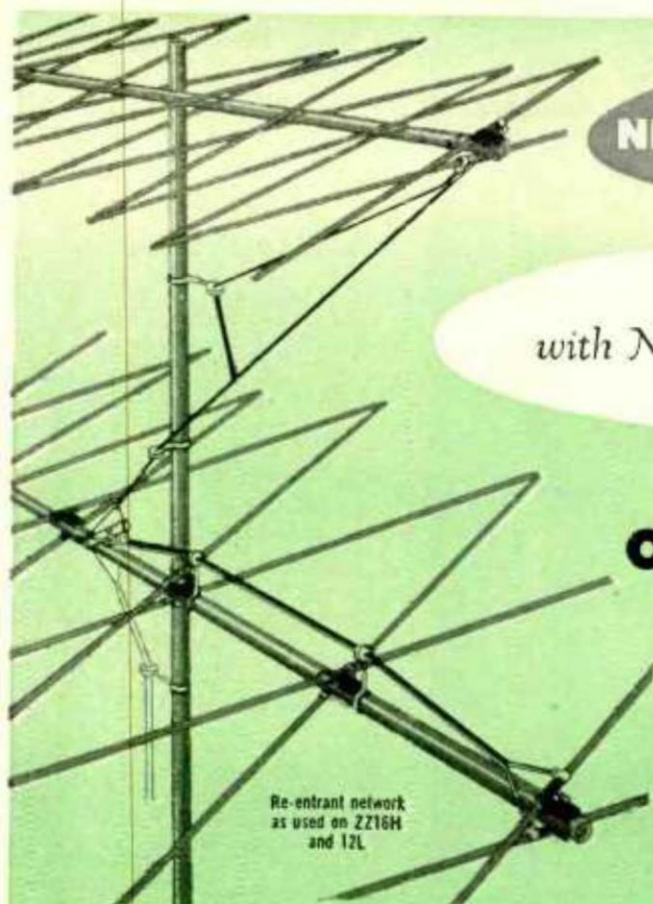


**TRIO**

TRIO MANUFACTURING COMPANY

GRIGGSVILLE, ILLINOIS





Re-entrant network  
as used on ZZ16H  
and 12L

## NEW IMPROVED ZIG-ZAG

with New Re-entrant Network

## OUTPERFORMS ON ALL CHANNELS

(Using Single Lead-in)

The sensational, radically new TRIO ZIG-ZAG antenna, introduced less than a year ago, has enjoyed the greatest acceptance of any TV antenna ever made!

NOW — TRIO introduces a radically new improvement that makes this great antenna even greater than before! It consists of a new re-entrant type impedance matching network for ZIG-ZAG antennas which now provides an almost perfect impedance match to the feedline on EVERY channel!

### UNIFORMLY HIGH GAIN

There is no measurable difference in gain on ANY channel whether operating stacked high-band and low-band ZIG-ZAG antennas from a single feed-line or using them separately. There is no insertion loss such as found in isolation networks. For example, the ZZ12L and ZZ16H now provide 3 to 6 DB. more gain than elaborate, stacked cut-to-channel arrays. This additional gain is often the difference between a good picture and a poor one.

Elaborate tests conducted all over the country under every conceivable type of terrain and in locations where ten out of the thirteen VHF channels were available, proved conclusively that TRIO ZIG-ZAG ANTENNAS OUTPERFORM ANY and EVERY colinear, conical, or broadband multi-element Yagi on the market today — AND ZIG-ZAG

does it on ALL VHF channels. Whether its a new installation or a replacement, INSIST ON TRIO ZIG-ZAG TV ANTENNAS, with their EXTREMELY HIGH GAIN, SHARP DIRECTIVITY, SUPERIOR LINE MATCH, MULTI-CHANNEL COVERAGE and RUGGED-LONG LIFE CONSTRUCTION.

Illustrated above is the NEW re-entrant network developed by TRIO engineers for the model ZZ12L and ZZ16H combination. Current shipments will include the complete network. There is nothing else needed for single feed-line operation!

Used stacked — or separately — TRIO ZIG-ZAG antennas are the hottest ever designed!

New descriptive literature available direct or from your supplier.

*New network supplied with all high-gain Zig-Zag models*

### ANOTHER NEW TRIO PLANT TO SERVE YOU!

This modern, new addition to TRIO's present facilities adds 24,000 sq. ft. of manufacturing space. A new laboratory, not illustrated, has also been added.

Although TRIO has definite commitments for 60 cars of aluminum to meet increased demands, we are not sure we will be able to fill all orders. We suggest you order now!



# TRIO

Manufacturing Co.

GRIGGSVILLE, ILLINOIS





# the **CHAMPION** is the most sensitive all-channel VHF antenna ever designed!

Stacked CHAMPION provides:  
11-13 D B High Band gain  
6½-7½ D B Low Band gain

Here is a totally NEW kind of antenna, completely different — in principal and performance — from any VHF antenna you've ever seen! Since the lifting of the TV freeze means a gradual disappearance of the single-channel VHF area, the VHF antenna of the future will be a multi-channel antenna. Prepare now for outstanding reception on all VHF channels — present and future — with Channel Master's super-sensitive CHAMPION! Outperforms every all-channel VHF antenna made today — and many Yagis, too!

## COMPARE these features with the antenna you are now using:

- Folded dipoles throughout — give close to 300 ohms impedance across the entire band.
- Screen-type reflector provides high uniform gain on every channel, 2 through 13. Not frequency sensitive — this reflector provides more than twice as much extra gain as straight bar reflectors.
- Phase-correcting harness is built-in and fully assembled; the only wiring you do is to attach the lead-in.
- All-aluminum construction . . . lightweight, durable, non-corrosive.

## MARVEL OF PRE-ASSEMBLY

assembles faster than a  
5-element yagi!

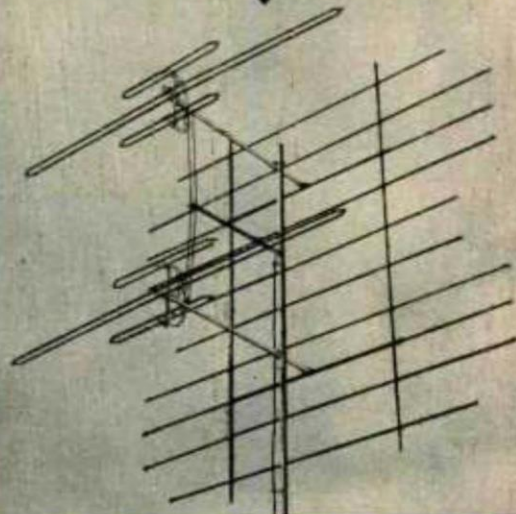
Collapsed "Pop-Up" screen opens instantly — no loose rods, elements or hardware. "Tri-Pole" assembly features automatic Spring Lock Action — all dipoles snap permanently into place without wing nuts or any other hardware.

Single  
Bay

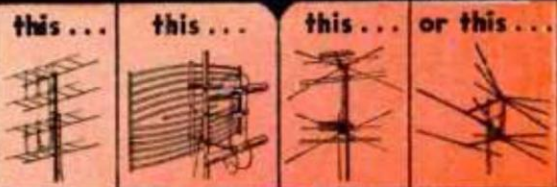
It's a CHAMPION in any area!

- 1-bay—local areas
- 2-bay—secondary and fringe areas
- 4-bay—super-fringe areas

## THIS ANTENNA...

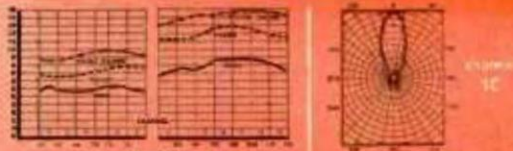


## OUT-PERFORMS:



The 2-Bay CHAMPION actually  
gives you the performance of:

- Separate 5-element Yagis for every Low Band channel!
- Separate 10-element Yagis for every High Band channel!



Model No.		List Price
325	Single Bay	\$20.83
325-2	2-Bay	\$42.36
325-4	4-Bay	\$88.89
Separate Stacking Harness		
325-3	1-Bay Harness	\$ 2.08
325-5	4-Bay Harness	\$ 4.35

Send for complete technical literature.

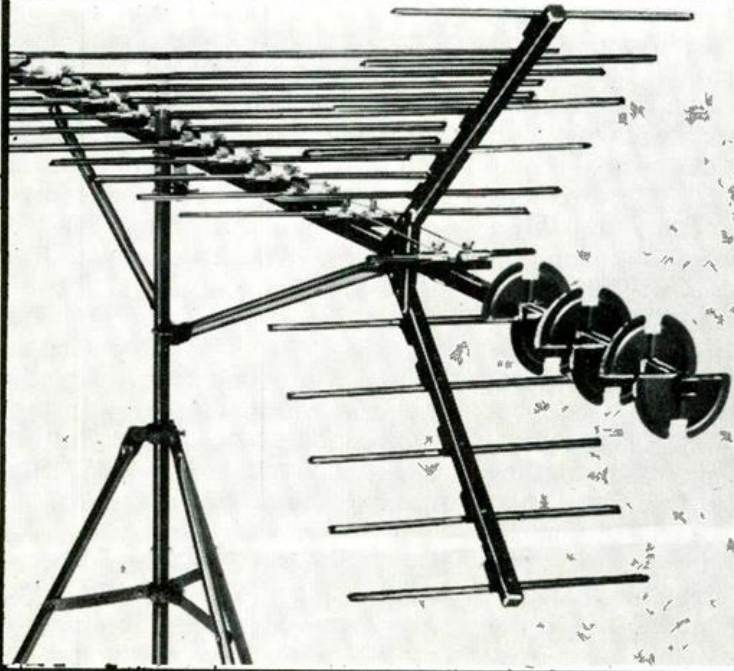
**CHANNEL MASTER CORP.**

ELLENVILLE, N. Y.





# **RMS "STAR-TRACK"™ Antennas are breaking all sales records!**



## **The most Advanced Space-Age VHF/UHF/FM Color Antennas ever introduced!...**

- Similar design to Antennas used in Space Program.
- "Corner Reflector Driven Disc Director Array" for total UHF coverage!
- "Multiple Tuned, Cut-to-Channel VHF Elements" for total VHF-FM coverage!
- Maximum construction features for long dependable life!
- Exclusively features Reynolds Aluminum "COLORWELD" durable baked enamel Gold finish!
- Each Antenna includes famous RMS model SP-332 VHF/UHF Splitter for Single Down-Lead economical installation!
- "STAR-TRACK's" are licensed under U.S. Patent No. 3,440,658.

Write for FREE "Star-Track" Catalog -

### **RMS ELECTRONICS, INC.**

50 Antin Place, Bronx, N.Y. 10462 • Tel. (212) 892-6700

*Circle 18 on literature card*

February, 1972/ELECTRONIC SERVICING 27

**SETTING THE PACE . . .**

in **ALL-CHANNEL**  
fringe antennas!



**SUPER SUN BEAM**  
Model SB662

The new, super-sharp yagi utilizing the unique Tri-King dipole together with completely insulated parasitic directors and reflectors! Actually two antennas in one for peak high and low band reception.



Clear Beam's **5** peak performers solve all fringe problems\* . . .

**TRI-KING**  
Model TK1500

Highest gain of the big screen antennas! Half wave electrical spacing. Eliminates ghosts and co-channel interference. Full radar screen - wind tunnel tested!



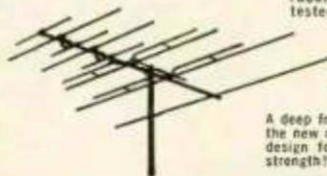
**BIG CHIEF**  
Model BC12-2

An advanced conical Yagi with element diameters varied for precision tuning, matched sensitivity and peak performance in high and low band!



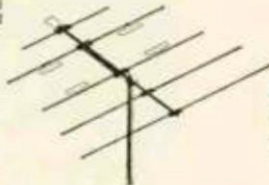
**SKY SWEEP**  
Model MYS80

A deep fringe yagi incorporating the new magnetic "Focal-Sharp" design for concentrating signal strength!



**HUNTER** Model MYH50

New wave trap principle gives extremely high gain, sharp directivity, in-phase tuning on all channels. New, flat design for low wind resistance!



\*Spectrum-tested for balanced color reception!

affiliated with  
TEMPO TV products



**CLEAR ANTENNA CORP.**  
**BEAM** Canoga Park, Calif. • Chicago, Ill.

Warehouses in Seattle, Portland, San Francisco, Honolulu, Dallas, Kansas City, Chicago, Detroit, Baltimore