Now... multi-modèd, 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

GAIN: Up to 10 DB single and 13 DB two bay stacked

DIRECTIVITY: Excellent pattern and high front-to-back ratio for ghost-free performance

SIZE: No larger than a single channel five element low band Yagi

DURABILITY: High tensile strength aluminum and Fiberglas insulation assures stability

APPEARANCE: Streamlined and symmetrical. Provides neat installation

COLOR TV: Sharply directional, a color TV requirement

PACKAGING: No KING SIZE cartons —easily transported & stored

PRICE:
Cat. No. 1880 Trapper. List: $19.75 ea.
Cat. No. 1882 Stacking lines. List: $1.75 pr.

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, SHERBURE, 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.

Circle 6 on literature card
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
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.

The best TV deserves the best antenna!
Install a Zenith Quality-Engineered Antenna!

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

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—from time to time—a new 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 Huston—41 feet above ground, equipped with rotor and 75 ohm downlead (no preamplifier.) The owner* writes that with the SC-1000 he is receiving superior reception on stations ranging from 60 miles away (Bryan, Texas) to 200 miles away (Alice, 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.

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 Receptance 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 weather tight. Accepts Winegard’s solid state cartridge preamplifiers, color spectrum filler, 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 1966, Winegard Company, Burlington, Iowa
FOR THE FINEST RECEPTION AVAILABLE

NEW SUPER "T"

VHF-FM-COLOR TARGET ANTENNA SERIES

SUPER T ANTENNAS

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

introducing...

ALL-CHANNEL ANTENNAS SUPERB UHF · VHF · FM & FM-STERO

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.

GOT A MINUTE? WRITE US!

A textron COMPANY

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

GC ELECTRONICS
400 South Wyman Street Rockford, Illinois 61101

Circle 58 on literature card
**EXP COLOR MAGIC**

**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!**

- **FAR SUBURBAN**
  - Model No. CM-12
  - 12 Elements
  - VHF - 80 miles
  - UHF - 45 miles
  - FM - 90 miles

- **METROPOLITAN**
  - Model No. CM-9
  - 9 Elements
  - VHF - 50 miles
  - UHF - 25 miles
  - FM - 70 miles

- **FRINGE AREA**
  - Model No. CM-15
  - 15 Elements
  - VHF - 100 miles
  - UHF - 55 miles
  - FM - 110 miles

- **LOCAL AREA**
  - Model No. CM-6
  - 6 Elements
  - VHF - 35 miles
  - UHF - 20 miles
  - FM - 50 miles

**• COMPARE POLAR PATTERNS**

**V-TYPE**
- Resonance is complex - contrary to good television reception.

**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**

**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**

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

**EXP FEATURES:**

- Super high-impact insulators that will not snap in cold weather or high winds.
- High impact plastic "S" type phasing bar insulators.
- Thick walled, sturdy square boom with heavy-duty, reinforced boom clamp for added strength.

November, 1965/RF REPORTER 101
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 different models so Channel Master sure makes it easy for you to pick the right one—with each guard to give top signal strength in its area. I also like the 'Golden Overcoat' protects the antennas. One thing I can tell you from experience: both in design and overall power each of these Ultradynes 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.

*The only antennas covered by 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
NOW...A Revolutionary Pre-Assembled, Pre-Wired TV ANTENNA that Gives Superior Performance on ALL CHANNELS -- yet COSTS YOU ONLY ½ the price of equivalent antennas!

...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.

**SAVES** Note how EASY it is to install the "Flip-Up." It comes to TIME, you compact, folded like an umbrella. You open it—like an LABOR: 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:** Most 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 ½ the price of equivalent antennas.

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

**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.

**TRANVISION, INC., DEPT. RE. NEW ROCHELLE, N.Y.**
**IN CALIF.: TRANVISION 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.

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.

the Circle-vane
first of the new antennas
in the WARD STYLECRAFT LINE

Antennas, styled to the modern tempo...
cleverly patterned to enrich the appearance of any house... expertly
gineered 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
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. Craftsmanship 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.

AMERICAN PHOTOMIC CORPORATION
1850 Smith 5th Ave., Chicago 50, Illinois

Please send me my free copy of the "TV Antenna Folio"

NAME:  
COMPANY:  
ADDRESS:  
CITY:  
STATE:  

Fill in the coupon and send to Amphos, for your free copy of the "TV Antenna Folio."
Engineered To Give
HIGHEST GAIN and
NARROWEST PATTERNS
to solve difficult “GHOST”
problems in the FRINGE
AREA AND IN CLOSE
TO THE STATION

This great series once again reaffirms Finco leadership! Model 502 is a 2-bay unit of the colalateral* 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 — cor-
rrosion 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

IT 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-

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*GUIDE TO CHOOSING TV & FM ANTENNAS*

*BY JULIUS GREEN*

*JULY 1976*
TERRIFIC ACCEPTANCE GREETS THE NEW

SMASH HIT!

TRIO ZIG-ZAG

TV ANTENNA

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-binge 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.

TRIO ROTATOR

A worthy companion to the ZIG-ZAG ANTENNA. Treated and proven under every conceivable condition of load, weather, strain and stress. Two motors, one for each rotation direction. Positive electrical steps 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 lever control. A beautiful instrument you'll be proud to own.

TRIO MANUFACTURING COMPANY

GRIGGSVILLE, ILLINOIS

available in 8 different models, provide a new high in all-channel performance for any area, from metropolitan to ultra-binge. 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.

These ZIG-ZAG ANTENNAS provide the ultimate in extreme binge area reception. ZZ11L provides 15 to 14 db. gain on Channels 2 thru 6. ZZ16H has a gain of 16 db. on Channels 7 thru 13. Those antennas have very narrow forward and high front to back ratio, provide high rejection in areas with co-channel interference.

Where maximum gain is not necessary these channel binge models ZZ11L and ZZ16H are ideal. Model ZZ14L has a gain of 14 db. on Channels 2 thru 6. The ZZ19H provides on 11 db. gain on Channels 7 thru 13. Forward lobe patterns comparable to good multi-element single channel units.

For near binge area reception these ZZ21L and ZZ26H models provide 9 db. gain on all Channels 2 thru 6. Those models have patterns similar to those of cut o channel units.

These ZZ24L and ZZ29H models provide ALL CHANNEL operation with only ONE antenna bay. Model ZZ24L is designed for near binge area reception of all Channels 2 thru 13, with an average gain of 9 db. Model ZZ29H is for use in suburban areas, providing an average of 5 db. on all Channels 2 thru 13.
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 model.

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!

UNIFORMMELY 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 ZZ19L 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 in 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 ZZ19L 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.

ANOTHER NEW TRIO PLANT TO SERVE YOU!

This month, new addition to TRIO's present facilities adds 34,000 sq. ft. of manufacturing space. A new laboratory, aluminum to meet increased demands, are the only two we will be able to fill all orders. We request you order now!
the CHAMPION is the most sensitive all-channel VHF antenna ever designed!

Stacked CHAMPION provides:
11-13 dB High Band gain
6 1/2-7 1/2 dB 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 radar elements or hardware. "Tri-Pole" assembly features automatic Spring Lock Action — all dipoles snap permanently into place without wing nuts or any other hardware.

It's a CHAMPION in any area!
1-bay—local areas
2-bay—secondary and fringe areas
4-bay—super-fringe areas

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!

<table>
<thead>
<tr>
<th>Model No.</th>
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