

TEST INSTRUMENT BULLETIN



Our 27th Year

Greenwood, Mississippi, U. S. A.

Second Quarter 1954

WHITE DOTS FOR COLOR TV

An Added Feature Of Model 665

A simple modification can be made on the Model 665 Composite Video Generator so that it will produce either a "black dot" or a "white dot" pattern on a TV set. The "white dot" pattern is useful for checking convergence on color sets.

Quick Change

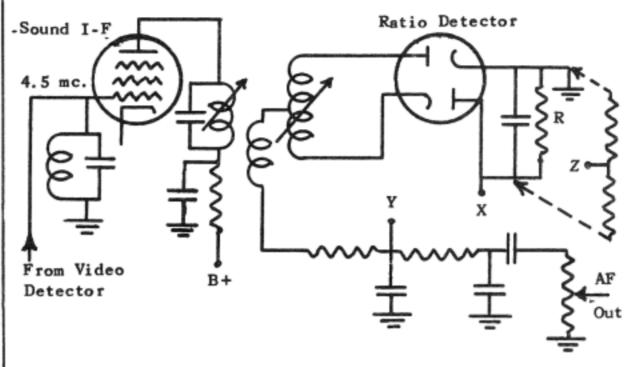
After the modification, a flip of a switch will change the "black dot" pattern to a "white dot" pattern. (Continued on page 2, col. 1)

The busy technician gains inator circuit. a great part of his knowledge by reading. The reading habits of the technician are not fully understood by many writers. He must do his studying and have his recreation after hours. Thus, subject matter must be accurate, concise, unbiased with commercial slants and well illustrated.

Your Help Needed

To assist technicians in is being instituted beginning with this issue. References to outstanding writings in ity is optional.) the field of electronics will be put in the spotlight.

readers of the Test Instrument Bulletin to let item that meets the above requirements.



SOUND ALIGNMENT

Alignment of the sound section of intercarrier sets is required more often than that of the video i-f's. The pro-OF KNOWLEDGE cedure should be clearly understood by every service technician. Practically all TV set manufacturers are now using the ratio detector circuit rather than the limiter-discrim-

> The above illustration shows a typical ratio detector circuit with one sound i-f stage preceeding. Alignment of this section can be accomplished by the use of a signal generator and VTVM. The following procedure is used:

- 1. Connect the unmodulated 4.5 mc. signal generator tion than his predecessors. to the video detector output. Connect the negative lead of the VTVM to point "X" and the positive lead to chassis.
- 2. Adjust the sound takeoff transformer and the ratio detector primary for maximum output on the VTVM.
- 3. Connect in series two resistors of around 100.000 for parts. The expense of locating profitable reading ohms which are within 1% of the same value. Fasten the open matter, "Perusing the Pages" ends to alligator clips and connect across resistor "R".
 - 4. Connect the VTVM across points "Y" and "Z". (Polar- them. If he could make one
 - 5. Adjust secondary of ratio detector for "zero" voltage ones, the cost would drop on VTVM. (A slight adjustment of the slug in either direc-We would like for all tion will give a positive or negative reading.)

An alternate method of adjusting the ratio detector vice firm could use in a us know when they find an secondary is to use an amplitude modulated 4.5 mc. signal lifetime. Here the parts and adjust the secondary slug for minimum AF signal across distributor came into the the volume control.

SUPREME TUBE SETTING SERVICE. BOX 9552 GREENWOOD, MISSISSIPPI

Enclosed is \$1.25.	Please forward by air	mail latest edit	ion of roll	chart	for my	SUPREME
Mode1Tube Te	ster. The number of m	y old chart is				
Name			В	e sure t	o give	number
Address				n old ch		
C: +		State	N	o C.O.D.	's ple	ase!

THEY CHANGED THE PICTURE

Jobbers Played Important Role In Electronic Progress

There were some tough supply problems for the radio serviceman of 25 or 30 years ago. The need for a simple grid leak resistor or input audio transformer could keep a set in the shop for months. Such items usually had to be ordered from the set manufacturer whose setup was not geared for parts sales.

Bottleneck Eliminated

This delivery time, thanks to the parts distributor, has been reduced to a fraction of what it used to be. This means that the modern electronic technician can complete a job, collect for his services in locating the trouble and not tie up valuable time (money) waiting on parts. He now enjoys a much more profitable opera-

Central Supply Agent

Parts cost the technician less nowadays. Twenty-five years ago a set manufacturer didn't like to see an order getting them to the servicemen was high -- far more than what it took to make large shipment to an area instead of hundreds of small considerably. The size of the order required would be more than a large radio serpicture and placed one order for a lot of servicemen. The savings were so great that the jobber could sell the part for less to the serviceman and still make a profit.

No Inventory Risk

Since the technician is not in the parts business, (Continued on page 2, col. 3)

ARE YOU INTERESTED?

Electronic service associations are, not only, assisting members in becoming more proficient as both technicians and business. men; they are actually doing much to upgrade the entire electronics service profession.

United Effort

The very fact that so many successful technicians are members of these service groups is indicative of the tremendous value in group is more than using materials activity. By getting to- of acceptable grade and givgether, they can really ing it a professional appearfight situations which bring ance. The quality to look discredit to all technicians for is the design that can and have a big effect on be relied on to produce reprofitable operations. Every liable facts. From these day these service associations facts or measurements he are playing a more important role by gaining recognition be right the first time. for technicians as being an important part of the electronic industry and community life.

Press Recognition

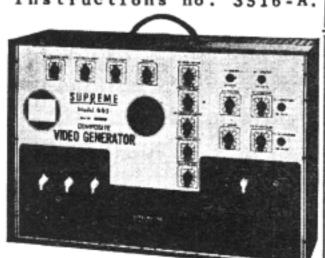
devoting more and more space a real improvement over to these technician groups. earlier models. The exper-If you are interested in | ienced technician expects getting the address of your the instrument he buys to state association, write the include a part of the design editor of the Supreme Test Instrument Bulletin. If a grade instruments this might state association has not represent 5% of the selling been formed, we will give price or only \$10.00 on a you the addresses of local \$200.00 tester. This \$10.00 groups near you.

WHITE DOTS FOR COLOR TV

(Cont'd from page 1, col. 1)

or vice versa. Meanwhile, the set remains in perfect can pay less and get an old synchronization and interlace.

Model 665 can obtain com- actually cost him far too of parts distributors into the factory, giving serial! number of their generator how low the selling price. | towns could reduce their and requesting modification instructions no. 3516-A.



Model 665 \$389.50

9034

YOUR RESEARCH INEW SETTINGS FOR INVESTMENT KEEPS WORKING

Good Design Necessary 6 AN 8 For Quality Equipment 6AN8

Successful electronic tech- 6 CU6 nicians rely more on test instruments than those with less experience and know-how. The more a technician uses 12AZ7 (45) test instruments, the more critical he is in selecting a new model.

Dependable Design

makes a diagnosis that should

Advancing The Art

A quality design requires thousands of man hours. Several engineers may work on a design for a year or Leading trade journals are more before actually showing expense. On the better is not a profit. It is only a minute part of the recovered expense the manufacturer will spend again to design a new model that advances the art of electronic service.

Reflects Skill

A technician knows that he (Cont'd from page 1, col. 4) model with a new face. big dividends.

SUPREME, INCORPORATED GREENWOOD, MISSISSIPPI

> REDER DRUG CO BLUE RAPIDS

KAN

SUPREME TESTERS

For Models 600 and 616. 3 A 3 56 E 2 5 7 22 C 4 7 3589 18 C 4 7 2359 6 BD4 99 B 2 7 17 19 C 2 7 78

Revised Settings

18 C 9 7 345 18 C 9 7 458 1 2AZ7

For Models 589, 599 & 504-A,B. 3 A 3 2 4 62 E 7 6 AN8 4 6 22 C 358 Quality in a test instrument 6AN8 (a4X3) 4 6 18 C 235 2 6 99 B 17 6 CU6 2 6 19 C 78

> (a4X3) Connect lead on 9544X adapter to pin no. 3 of the loctal socket.

IN STOCK N OW F OR

IMMEDIATE DELIVERY

Model 440 Ohmmeter----\$11.50 of the cabinet. Simply re-Model 542-B Multimeter -- \$27.70 move the defective rectifier Model 543-B Multimeter -- \$24.60 tube and measure resistance Model 655 Oscilloscope-\$126.50 with an ohmmeter from the Model 660 Oscilloscope-\$287.60 AC plug (both contacts con-Model 665 Generator----\$389.50 nected together) and the

order to factory for shipment "on" position. direct. Supreme pays transportation if full purchase A NEW EDITION OF price accompanies order. C.O.D. shipments require 30% deposit. Ask about 10 day trial offer.

THEY CHANGED THE PICTURE

He it is risky for him to have also knows that it will not more on his shelves than be in keeping with the skill needed for his immediate Owners of the Supreme he has acquired. It will requirements. As the number plete information regarding much to worry with an in- creased, they located nearer this modification by writing ferior design regardless of the technician. Thus, serhow good the parts used or vicemen even in the smaller The \$10.00 he invested in a parts inventory and rely on \$20,000.00 design will pay jobbers' stocks for "nonstaple" items.

the

MAGAZINES

AUTHOR ---- (EDITOR) (Page 23, March-1954 TECHNICIAN)

AUTHOR ---- R. G. MIDDLETON (Page 62, April 1954 RADIO & TV NEWS)

BOOKS

"INTRODUCTION TO COLOR TY" (A Rider Publication)

SAVE THAT TUBE!

On an AC-DC radio which has a bad 35Z5, or other type rectifier, it's a good idea to check for a shorted filter before inserting a new tube.

This can be easily done without taking the set out cathode contact of the rec-If Supreme instruments are tifier socket (pin 8 on a not displayed by a distrib- 35Z5). The power switch on utor near you, send your the set should be in the

> THE ROLL CHART FOR SUPREME TUBE TESTER MODELS 589, 599. 504B AND ALSO THE "A" SERIES WILL BE RELEASED AROUND THE MIDDLE OF JULY.

ORDER YOUR NEW CHART NOW SO YOU CAN GET DELIVERY AS SOON AS THEY COME OFF THE PRESS. ORDER CHART NUMBER 4965-544.

THE PRICE IS STILL \$1.25.

> Sec. 34.66 P.L.&R. U.S. POSTAGE PAID Greenwood, Miss. Permit No. 81

> > 311426



Publication Digitized and Provided By www.StevenJohnson.com Vintage Schematics, and Publications Steve's Antique Technology