VOL. 1

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NO. 7

ANOTHER '49 GOLD RUSH IS ON!



Philco Accessory 1949 Gold Rush Promotions To Offer Big Bargains

Great news one hundred years ago was the famous "Gold Rush of '49" in California. Equally great news, at least for Philco dealers and servicemen, is the announcement of the Philco Accessory monthly "Gold Rush" promotions for 1949.

The Caravan Starts Now

Yes, the caravan is already on the march, loaded to the gunwales with the kind of merchandise offers that every serviceman and dealer is looking for. Starting with February, Philco distributors all over the country are going to make available to you real "gold nuggets" in these red hot promotions in Philco Parts and Accessories.

Exciting February Offer

Your Philco distributor, no doubt, has already acquainted you with the astounding February "Gold Rush" promotion which makes it possible for every Philco dealer and serviceman to obtain one of the exciting new Secretary Pen and Pencil sets at no



"Have you got your order in for the handsome Secretary Pen and Pencil set?"

extra charge with the purchase of Philco Tubes. If you haven't heard about this yet—be sure to 'phone your Philco distributor immediately. He will be glad to give you the details. The handsome pen and pencil set is one of the finest we have ever

WHEN A JOKE ISN'T A JOKE

The old joke about selling refrigerators to Eskimos isn't a joke any more.

Recently, with the sub-freezing temperature at 43 degrees below zero,



a customer at Nerland's Appliance in Fairbanks, Alaska, bought a Philco Model 882 refrigerator, and asked for immediate delivery.

for immediate delivery.

She was told that the delivery truck had frozen up. But she didn't care about that, because all she wanted was her refrigerator. She said her kitchen was too warm for the food, and outdoors was too cold. They delivered the refrigerator that day.

seen—and we know you'll feel the same way about it when you see it.

Real "Pay Dirt" Every Month

And don't forget to be on the lookout for the announcement of the "Gold Rush" Promotion for March—it, too, will be one you can't afford to miss. Yes, siree, thar's gonna be real "pay dirt" in them thar Philco Parts and Accessory monthly "Gold Rush" promotions for 1949.

PARKING TICKET SCHEME CLEVER SERVICE PROMOTION — RATES \$10

From Freeport, Illinois, comes a sample of a clever promotional piece for increasing service business.

It's Bob Smith's idea of simulating a parking violation ticket (same size and color), which he puts on cars every so often. And if you read what he says on the piece, you'll admit it's a pretty good idea.

So there's a \$10 check on its way to Bob Smith, of Bob's Radio Service, in Freeport, Illinois. And if you're interested in receiving a \$10 check in the mail for just writing a letter, send us your ideas.

Every idea printed rates \$10.00.

New Wall Chart For Battery Replacement

Here's the newest and handiest reference for battery replacements in Philco and other makes of radios.

Although there are many different types and brands of batteries on the market, many types, as far as voltages and load considerations are concerned, are duplications which simply cause big stocks to be kept.



nate the confusion and cost of stocking varied battery brands, because the outstanding Philco batteries not only replace most battery makes, but do the job better-making for satisfied customers.

Just hang the chart on your wall for handy reference. You can get it today from your Philco Distributor.

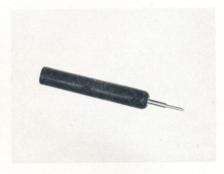
This chart, however, furnishes information which enables you to elimi-

RM RADIO BATTERIES · PORTABLE RADIO BATTERIES · FLASHLIGHT BATTERIES ·

New Probe Aids Oscillator Grid Voltage Check

The importance of measuring the grid voltage of oscillators is well known to every serviceman, and the difficulty of making this measurement without disturbing the operation of the oscillator is also well known.

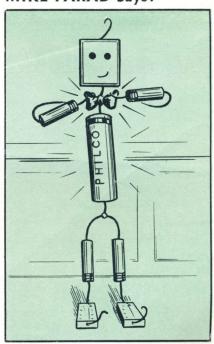
Thus Philco now makes available the Philco Isolation Probe, Part No. 43-5127, for measuring oscillator grid



voltage with a standard high-resistance voltmeter, and eliminating the need for haywire isolation hookups.

Simply use the Philco Isolation Probe instead of an ordinary probe, for 1.5-megohm isolation.

MIKE FARAD Says:

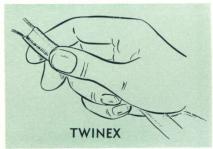


"The best promotion I know is neatness.'

TV Frequencies Determine Choice Of Transmission Line Impedance

A television transmission line is a two-conductor lead used to transfer signal energy from an antenna to a television receiver. Two types of lines are presently used for this purpose. They are: (1) the parallel-wire leadin and (2) the coaxial cable.

The most commonly used parallelwire leadin consists of two conductors of stranded copper wire. These are



equally spaced and covered with a dielectric of polyethylene to form a ribbon. The parallel-wire leadin is relatively inexpensive, compared with coaxial cable, and is easily installed. Its chief disadvantage lies in the fact that it is susceptible to stray pickup and is not practical in areas where interference is great.

Coaxial cable for television frequencies consists of a copper conductor which runs coaxially inside a flexible outside conductor. Copalene, spun glass, or low-loss rubber is commonly used as a dielectric. Coaxial cable offers a distinct advantage over

Have You Heard This Story?



parallel-wire leadin in that the outside conductor acts as a shield and prevents interference pickup in noisy areas. However, a coaxial-cable installation is quite expensive, especially where a long line is necessary. Since the amount of stray pickup is somewhat dependent upon the length of the line, the need for coaxial cable is even greater where a long line must be used.

Impedance Match Not Critical

In television antenna systems, the transmission line connects the center of the driven element of the antenna to the antenna coil of the receiver. The impedance match between the line and antenna is not critical, because the impedance at the center of the antenna varies greatly with different frequencies. For example, if a plain dipole is used as an antenna, its center impedance is about 72 ohms at the frequency to which it is cut. However, a television antenna must usually cover a frequency range of nearly two to one. At a frequency which is twice the resonant frequency of the antenna, the impedance at the



center point may become as high as 2,000 ohms. If two parasitic elements are added to the dipole antenna, the center impedance may be as low as 20 ohms. To cover this wide range of impedances, it is desirable to use a line with such a characteristic impedance as to give maximum transfer of energy at a little less than one-half the difference between the highest and lowest frequencies which the antenna must cover.

Higher Impedance Better

The loss of energy in a transmission line is inversely proportional to its characteristic impedance if all other conditions are constant. For electrical reasons, the line should have as high an impedance as pos-

sible. But a high-impedance line is more expensive, because its conductors must be larger and the amount of dielectric between them must be greater. For greatest economy, the line should have as low an impedance as possible. Therefore, standard optimum impedances have been decided upon by the television industry.

Twinex Common

The 300-ohm parallel-wire leadin is now used for most television applications. Such an impedance is low enough to be relatively cheap, yet high enough to prevent excessive signal losses. When used with nearly any television antenna, the 300-ohm line gives a broad frequency response which is necessary for multichannel reception.

At present, coaxial cable of 72 ohms is popular for installations in noisy locations. The cost of a coaxial cable with an impedance of several hundred ohms would be prohibitive.

New Gram Scale Aids Tone Arm Measurements

For servicemen who work on record players, Philco makes available a new precision instrument at low cost. It's the recently released Philco Gram Scale, designed specifically for



measuring tone-arm friction and pressures from 1 to 20 grams.

Consisting of a long, flat pointer spring set in a movable pivot, the Philco Gram Scale indicates needle pressure as well as vertical and horizontal friction of light-weight tone arms used in Philco album-length record players.

It's available by Part No. 45-1614 at your Philco Distributor, at a dealer net price of \$1.30.

Giant Tube Boxes Part of 5-Piece Window Display



Here's a window combination display that will solve your display problems in color and unity. Handsomely designed and multicolored, this 5-piece combination display will call attention to and sell many Philco tubes for you.

The display includes two giant tube cartons, a colorful window streamer and center piece display, and a distinctively colored decalcomania which can be used on your store window, inside or out.

Don't fail to get this combination window display to brighten your store front with a new, co-ordinated layout. It's available at your Philco Distributor now.

Complete Hermetic Sealing Feature On 1949 Units

The new "D" line of Philco refrigerators for 1949 contains features of special interest to dealers and servicemen—features which will make these new Philcos the undisputed leaders in the field.

Biggest news is the development of a new ultra-quiet motor-compressor, which is hermetically sealed completely, including internal suspension.

The brand new line for Philco '49 refrigerators also features self-cock-

(Continued on page 6)

NATIONAL SERVICE MANAGERS CONVENE IN PHILADELPHIA

Dealer Service Problems Stressed

Service managers of Philco distributors in all parts of the country met recently in Philadelphia, attending a two-day convention to discuss service problems, with special attention being given to increasing assistance to dealers and servicemen.

Meet at Two-Day Convention

The convention offered an opportunity for service managers to meet factory service representatives with whom they exchange information throughout the year.



James M. Skinner, Jr.

"This two-day convention," said James M. Skinner, Jr., Vice President of Service and Parts, "at which Philco plays host, indicates the importance we attach to assuring the consumer of prompt, efficient service."

The first day included presentation of technical information on the new 1949 models of Philco refrigerators and air conditioners. The second day, information on the servicing of other Philco products, was presented by Philco Service managers.

Ed Barth, Refrigeration Service Manager, said, "It is up to the service managers of distributors to help give the latest information to



Ed Barth.

PHILCO SERVICE members, so that these members can continue to offer the excellent service in the field necessary for the quality products sold by Philco."

One of the main features at the convention was a new motion picture on servicing the new refrigerators. This motion picture will be seen shortly by PHILCO SERVICE members throughout the country.

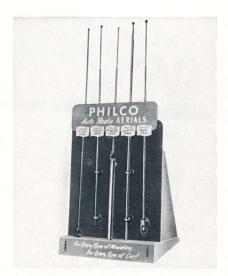
Another feature of the convention was a tour of the giant Philco Plant 50, where Philco refrigerators are assembled. Here visitors saw first hand the quality of materials and material control which make Philco products outstanding.

The dealer's business problems
(Continued on page 7)



Service Managers seeing Philco quality for themselves in Philco's giant new Plant 50.

Sell More Aerials For Autos With This New Display



For every dealer and serviceman who uses and sells auto radio aerials, here's a brand new, reinforced 5-unit auto aerial display.

With its colorful make-up and attention-getting appearance, this display will help you sell more Philco aerials for added profits.

Plan to use it now to brighten up, and get business for your shop or store. Ask your Philco Distributor for this Philco auto aerial merchandising display now.



Watch for this ad in: Radio News—February, 1949 Radio Service Dealer—February, 1949

TIRE STATIC FORGOTTEN SYMPTOM; REAPPEARS IN NEW AUTOMOBILES

An old symptom has reappeared in new automobiles. It's called "Tire Static," and was really troublesome until finally found out.

When a car is moving along the highway an electrical charge is built up on the tires by the friction between the tires and pavement. This charge builds up to quite a high potential and if it is not allowed to each wheel hub grease cap. This spring, Philco Part No. 28-3584, should make contact with depression in the center of the axle spindle, and will cure practically all cases.

Rear Wheels Grounded

Except in the full floating type of rear axle, the rear wheels are generally adequately grounded through



distribute itself uniformly over the tire and to the frame and body of the vehicle, it will leak across in the form of a corona or even a spark. This form of discharge produces a noise in the receiver commonly known as "Tire Static." It is so loud sometimes that programs can't be heard

Spring Contact Available

The only contact between the front wheels and the car axle is through the wheel bearings and this contact generally is of an intermittent nature because of an insulating film of oil or grease on the bearing surfaces.

To maintain constant electrical contact between the axle and the wheels a spring should be inserted in

the wheel drive shafts which are securely fastened to the wheels and to the differential gears in the axle housing.

Synthetic Rubber Bad

With present type of tires containing a percentage of synthetic rubber, tire static may persist even when "Static Collector" springs are used. This is due to the charge built up within the tire and on the surface being "bound" to the outer circumference until potentials high enough to cause a discharge are built up.

To distribute this charge uniformly either the outer or inner surface of the tire must be made to conduct electricity. This is accomplished by

(Continued on page 6)

On 1949 Units . . .

(Continued from page 4)

ing lock mechanisms in all but two models. The positive door-locking action that is possible with this type of mechanism adds another selling point to the outstanding new refrigerators.

A design development of interest to servicemen is simplified temperature-control replacement on many models by simple removal of the top breaker strip without removal of the side breaker mouldings.

Tire Static . . .

(Continued from page 5)

blowing a finely divided conducting material such as graphite or carbon into the tube through the air valve. As the vehicle is operated the powder is distributed over the entire inner surface of the tube. The charge is then distributed evenly to the area where the tire contacts the metal wheel rim and it can dissipate over a low resistance path to the rest of the vehicle.

A commercial form of this wheel static neutralizer powder is provided



by several companies in the form of a kit containing the powder, usually in five separate bags so that it may be applied to the four tires in use and the spare tire.

Tube Types Vary

This kit also contains an injector for application. It must be kept in mind that there are several types of tubes available on the market and it may be necessary with some tubes to not only place the powder within the tube but also place it between the tube and the tire wall to accomplish complete effectiveness.

TWO NEW BATTERY DISPLAYS BRIGHTEN YOUR WINDOW, UP SALES

Two new battery displays are available to brighten your window or counter. They're displays you'll want to obtain immediately from your Philco Distributor, because they're attractive and do a real selling job.

Eye-Catching Important

Every dealer and serviceman knows the importance of eye-catching devices that make customers stop, look, and buy. And here are two personalized battery displays that will bring in buyers—without commission.





The new Portable Radio Battery display makes every season portable radio season. Smartly designed and attractively styled, it's just the thing to sharpen up your window or counter appearance.

Residents from the rural areas will notice—and be sold on—a new farm battery when they see the Farm Radio Battery display. It's just the thing to attract store traffic from the farm areas.

Stop in today for these new displays at your Philco Distributor.

NEW BOOSTER PEAKS TV SIGNALS

FOR USE WITH ONE OR TWO TV AERIALS

The lastest engineering developments have been utilized in the new Philco TV Booster, which makes weak television signals strong, and feeds them into any television set, except a.c./d.c. (series filaments).

Using selective tuning for each television channel, the Philco TV Booster is a specially designed preamplifier containing two 6AK5 tubes as r-f amplifiers, one for the low-frequency, and one for the high-frequency, TV band.

Power for this low-drain unit is taken from the TV receiver by means of an adapter cable and plug, used with the audio output tube.



And it's as simple as that. Provision is made for connection of a low-or high-frequency TV aerial, or both, using any type of TV transmission line.

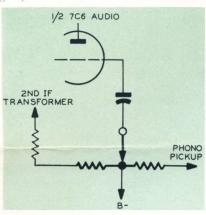
The Philco TV Booster, Part No. 39-9342, is housed in an attractive case finished in green hammertone. Try it at your Philco Distributor.

PHONO-RADIO SWITCHING ELIMINATED

An ingenious and simple method of changing from radio to phono in a combination radio is used in several Philco sets, including Models 48-1201 and 48-1260.

No Switch Used

Instead of using a switching system to go from radio to phono operation, this unique system employs a center-tapped potentiometer (volume control), one end of which is connected to the detector circuit, and the other end to the phono-pickup circuit. The arm goes to the amplifier grid, as shown in the illustration.



The second detector and first audio functions, as well as a.v.c., are handled by a 7C6 duo-diode-triode tube. The last i-f transformer supplies signal to one diode, where it is rectified to provide the audio signal and the a-v-c voltage.

Audio Control Standard

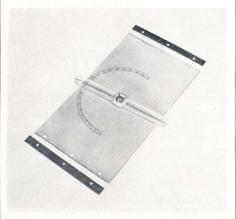
The audio component is taken from the low end of the secondary of the transformer, and after filtering in the usual RC circuit, is applied to one section of the center-tapped volume control. The arm of the control picks off the desired amplitude of signal for application to the triode grid of the tube. Subsequent amplification takes place in the 50A5 output tube.

When the arm of the volume control is turned past the center to the other section of the potentiometer, which is fed by the crystal pickup, the phono signal is then fed into the grid of the audio amplifier. Thus, either phono or radio signal can be fed into the amplifier without a switching system, and the volume controlled at the same time.

MODEL 7070 EASILY CONVERTED TO EXACT-RESET, FM GENERATOR

Two new conversion kits are available for the Philco Model 7070 AM Signal Generator.

One kit is the Vernier-Scale Kit, the main components being a plastic logging dial and pointer with scribed vernier scale. Adding this logging scale and special pointer enables accurate reading to be made of any dial setting—particularly useful for resetting to exact frequencies.



Vernier Kit.

The other kit is for converting the Model 7070 to a Philco 7170 FM-AM Signal Generator. This kit includes a prewired subassembly of a 7F8 dual triode, one half acting as an oscillator, the other half as a reactance modulator. A potentiometer with switch controls the sweep width,



FM Kit.

and cuts the added FM section in or out of the generator circuit.

All parts in both kits are custom made for conversion of the Model 7070 with a minimum of time and effort, and yield a product of professional appearance.

The Vernier-Scale Kit, Part No. 45-1581, is supplied complete with hardware and instructions.

The FM Conversion Kit, Part No. 45-1575, includes the vernier-scale kit as well as the FM section, plus complete instructions on the conversion and use of the converted instrument for AM, FM, and TV alignment.

Convention . . .

(Continued from page 4)

were also discussed at the convention. "There is no doubt," said Mr. Skinner, "that service depends upon sales, because without sales there would be no need for service. But dealers know, without a doubt, that service always follows the first sale, but always precedes the second."

Brochure Prepared

This principle is so important, that a special service brochure has been prepared for Philco dealers, as part of a comprehensive service program. The brochure gives complete whys and wherefores for setting up a good service department.

The brochure is entitled: "Lemons Make the Best Lemonade." It shows how a service department in any dealer's setup, whether the dealer is large or small, can be made to give excellent "lemonade," although it may be considered a "lemon."

Featured in the brochure are illustrations of model service shops for different products and for large and small dealers. The model shops were actually made in miniature.

Construction Details Given

Complete constructional details on service shops to serve any dealer's needs are given in this attractive brochure. In addition, simple record systems are illustrated, thus giving the complete business picture. "Lemons Make the Best Lemonade" brings out very clearly the point that "Service for Sales for Profits" is the answer to continued volume business.

Freezer Basket Now Available For Model DH-81

A hot item for a cold place—that's the new Philco freezer basket designed especially for Philco Freezer Model DH-81.

It's important to remember that freezer compartments are not only very cold, but also conducive to rust-



ing because of frost formations, offering tough conditions for food containers.

But here's a new item that will do the job perfectly.

Every basket has two side hooks for mounting at the upper left and right sides of the DH-81 interior. Mounting hardware is included.

Eight baskets will completely sectionalize the storage space of a Model DH-81

Philco freezer baskets, Part No. 8040-72, are conveniently used in many other freezer and refrigerator makes and models. Order them at your Philco Distributor.

Air Conditioners Tops For This Year With New Features

The single-room air conditioner field will see Philco far in the lead in 1949, with the development of hermetically-sealed units in all models—covered by a 5-year warranty!

The new Model 76-E has a slinger ring for condensate disposal instead of the scroll-type used with a waterfeed slot, eliminating possible overflow from clogged slots.

And the new Model 91-CE console air conditioner has a simplicity of unit replacement hard to beat. The hermetically-sealed system is replaced simply and completely by removing the cabinet, and setting in a new unit in place of the old.

Questions and Answers

- Q. We have one customer who says her vegetables do not stay moist very long in the moist-cold shelf of her refrigerator. What might cause this?
- A. To realize the full benefits of the moist-cold shelf in the Philco refrigerators which have this special feature, do not shake all the water off the vegetables after washing them before placing them in the crisper pan. The moist-cold shelf feature will keep vegetables fresh for long periods of time. This shelf does not generate moisture, but uses the moisture on the vegetables.
- Q. What causes loss of a-g-c action in a Model 48-1001 television receiver? A very black picture and poor sync are the symptoms.
- Although the symptoms might be due to other causes, if the a.g.c. is suspected, try checking the condenser (C322) between the diode plate and triode plate of the a-g-c amplifier tube. If this condenser has developed a high-resistance leak or short a positive voltage will be applied to the a.g.c., thus causing a loss of control of the r-f and i-f amplifiers. If this condenser is found to be defective, it should be replaced with Part No. 61-0120, which is a .01 mfd. at 600 volts.

- Q. What is the special circuit used in the Philco radio Model 46-431 for preventing frequency drift?
- The Philco Model 46-431, and some other models, cover a short-wave band for which a special oscillator circuit is used. A tap on the short-wave oscillator coil supplies a feed-back circuit which neutralizes any oscillator signal voltage appearing at the grid of the mixer. This minimizes interlocking between the aerial and oscillator circuits-a cause of oscillator frequency drift. The feed-back voltage is injected into the mixer grid circuit through a 10-mmf condenser, C404.
- Q. What is the purpose of dial backplate calibration?
- The basic purpose is simply to permit setting the tuner to desired frequencies when the radio chassis is out of the cabinet. This is difficult, of course, when the calibrated dial is mounted on the cabinet, and only the blank backplate is on the chassis. Although some servicemen align i-f stages without concern for the front end setting, this practice is not common among experienced servicemen. For proper alignment and tracking, correct front-end settings are important, and these settings can only be made if the key frequencies are pencilled on the backplate. The proper method is described in PHILCO SERV-ICE manuals on receivers requiring such identification.

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93

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