FLYER



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ONE OF AMERICA'S LARGEST SUPPLIERS OF Small Set Parts & Plans

FOR THE EXPERIMENTER

Lithographed in U.S.A. by MRL.

Over the editor's desk



"Little too humid?"

HELLO - MRL FANS:

Thanks to all you fellows who kept us more than busy the past season.

1. Alphabetical order. The new arrangement makes it easier to refer to our CAT. sections for

additional items.

2. More fun! A few random bits of fun to get away from Ur more serious problems.

3. Our new address since Feb., 1971. Reno natives prefer blue skies, good water and no rat races to other places. Very few gamble; it's mostly outsiders. We lived here in 1950 but Reno has changed a lot. Reno makes postage

to many Eastern places cheaper.
4. Little delay in moving - we were out of biz. a week. Mabel insists on orders going right out. Our 7½ tons of stuff moved

along very well.

5. Traveling. We've done quite
a bit the last few years - Hawaii, Mexico, Alaska, Canada, Central Europe, and this year to
Scandinavia, Spain and Portugal. Will make some notes in future issues of DS. "EO" had 155,000 miles as Op. on ships 1920-23-and Mabel to Europe - so we've stacked up a few miles, Even so, our travels cover but a small part of the globe, but it makes one appreciate U.S. and Canada!

6. DS Vol. 6 now ready. Contents page 12 This DS at back.

7. Vol 3 DP file is ready. See CAT. p. D-3 Flyer. Also new DP-58 is ready.

8. Our library of 8 bookcases will have to be cut down. Have us quote prices on mags, etc. We

will list many later on.
9. Clymer Books- a fairly complete listing pages 3 and 4.

Several CAT. sections have been re-vamped. We usually send current CATalogs every 6 months, with orders. If you want one in the meantime- send $10_{\mathfrak{C}}$ for postage. That $6\mathfrak{C}$ for first 2 oz. is dynamite!

With best 73's from we'ns
Elmer G. Osterhoudt (EO)
Mabel E Osterhoudt (YXL)
(Oster-howt)

FOLLOWING LAST MINUTE CHANGES:

1 pound cans at------2.95 (we had lots on hand - but when

we had to buy?????)

YOU ARE LUCKY----

you got this Flyer. We're mailing them under "or occupant" because if they come back - it'll cost us 19¢ to get one to you if PO puts on forwarding address. If PO doesn't write good - it'll cost us another 19¢. If a Fan isn't interested enough to send a postal, when he moves, someone a postal, when he moves, someone else will get his Flyer.

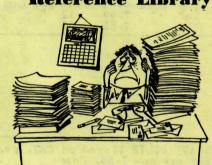
BLANK SPACES - SCLD OUT.

If you see blanks - they have been sold out.

SPECIAL WIRE-UPS.
Please don't ask us to custom-build certain sets. Labor is too high to make one at a time. We build 10 kits at once and come out that way only. About 1930 - it was found, to custom-build an AC-DC midget set would be \$5.50 labor. Off an assembly line it dropped to 75¢. The proportion still holds that way.

ZIP CODES make UR mail faster, -sez the Postoffice.

Build A Reference Library!



Share great moments with other great guys When You Follow M-R-L Tested Instructions and Plans

To save time - some Fans would like a quick summary of MRL-written literature for quicker ordering. We have the following for immediate delivery:

15 MRL Handbooks - 50¢---- 7.50
3 MRL DP Files 1,2,3, \$1-- 3.00
6 MRL DS Vol.1,2,3,4,5,6
at 30¢ each----- 1.80
11 MRL RB&H back numbers-- 2.15
2 MRL E-S - 25¢---- .50
7 MRL DPs - Mimeo'd, 7¢-- .49 15.44

Add postage and insurance.

THE SHAPE OF THE S

MRL CATALOG and FLYER.

We do not issue a new yearly CATalog. Due to lack of time, pages are revised as needed. If you lose yours - please send 10¢ for mailing charge for a fresh one. Whenever possible, we "lift" items from the Flyer and put 'em in the CATalog.

Flyers are mailed to buyers.

Flyers are mailed to buyers. Due to rising costs and postage, we must limit our Flyers to our buyers who send in an occasional order. If one has sufficient interest in Radio experimenting it doesn't take much of an order to keep on our list. Don't forget us later, if you do stop buying.

CAT. SEC B. DATA SHEETS

Vol. 6 now ready. Contents on page 12 of DS this issue. 30¢.

CAT. D. DETAIL PRINTS.

New DP-file #3 is now being assembled. CAT. D-3 this issue. 15 new DPs, including DP-58, MRL #4 xtal completely revised. Cover data on Long Waves. Cover and DPs may be bought for 10¢ each.

CAT. E. COILS.

MRL TYPE B LONG WAVE COIL 7-30 in CAT. should be 1.25 each.

FIBRE COIL TUBING UP.

3/8" O/D. 8-110. .06 per inch.

11/2" 7-99 .12 "

2" 7-66. .15 "

- I Day

SPADE BOLTS listed on CAT. page E-4 are now 7-54. Dozen .20

A NEW COIL BRACKET. Has long hole in the base for coil mounting. Very lite '/4' and sturdy. Many .03

LOOPSTICK CORES 7-182 may be 3/8 or 1/4" dia. as per stock.

LARGE SECTIONAL CHOKES 1-3/4" by 5/8" dia. Res. about 40 ohms. With .0004 var. cond. they work at 120-300 KC range. 6-1 .50

NEW KNIFE SWITCH PRICES. CAT.E-5 SPST 12-12 .40 SPDT 12-13. .50 DPST 12-14. .60 DPDT 12-15. .70

Radio Op. to lady passenger:
"Did you mess
with the Captain?"

Lady: "Oh sure - and I had dinner with him, too!

CAT. F. SEMI CONDUCTORS.

IN63 and N-99 out.

IN 21 or IN 22 Diode Holders now up. CAT. 9-50. Each..... 20

FOLLOWING PMP NOT CATALOG LISTED

2N1265. (2-A) Sylvania. Germani-um. For general use. 10 v. max. Current gain 25. (P.M.P.) .99

2N2613. (I-B) PNP. Ger. 9 v. OK. I mc. Gain 30. Tone good. .99 .99

FOLLOWING NPN NOT CATALOG LISTED

2N657. (1-B) NPN. Silicon. 1 mc. Gen. purp. Gain 100. RF

NEW HIGH FREQUENCY TRANSISTORS.

Special PNP 100 mc. Mesa TRX. (1-B) CAT. Germanium. Similar to 2N705, 2N711, 2N974. 15 v. 360 mw. Gain 40. 9-57. .99

Special PNP MADT 30-180 mc. TRX.

**Germanium. Similar to 2N50 1.

**Total Control of the Contro

Special NPN Epitaxial 200 mc. TRX (1-B) Silicon. Similar to 2N706, 15 v. 500 mw. 9-59. .99

WE are looking into other TRX numbers with most gain, etc. At present our listings are very good for most purposes.

. 45 Assembled stands. 9-17. now

MRL K/D STAND BASE.

Fibre, or Bakelite base. or Holes drilled just right to fit the K/D stand. Other uses. K/D Stand Base. 9-15. | oz.

MRL NICKEL SILVER CATWHISKERS. Norcross, Meadow Vista, Calif. says these find spots all over his Iron Pyrites. CAT. 9-9. .05

NEW BINDING POST CHANGES. due to uppage on Knurled nuts and supplies drying up. 6-32 nickel BP. 4-1. Fach .10 8-32 not obtainable. 6-32 Knurled nut BP. 4-28. Ea.05 8-32 " 4-5 ".05 8-32 6-32 Knurl. nuts. 4-22. Doz. .30 8-32 # 4-6. .30 8-32 BP heads 4-26, 27 priced out of market. Too high.

3/16" sq. SLIDER RODS.

CAT. page F-5. 9-26. Now sells for 5¢ per inch. Those fanatics keep jacking prices!

MRL COIL SLIDERS are 20¢ each. We omitted price on early CAT. runs on page F-5.

SWITCH POINTS & NUTS. 9-21. Per doz. 25¢. Been selling at loss.

WOUND CRYSTAL SET COILS

MRL #7 LOADING COIL. 7-106. Wound on 2XM Celluloid form is \$1.00. On Bakelite \$1.50.

NEW MRL #11 XTAL SET COILS.

For new revised DP-56 (p. 2), we have redesigned the circuit to take different coils. (5-90) is MRL #2 coil (7-101) at \$1.00. (1-2-3-4) is MRL ORW Coil (7-42) at 50¢.

For original circuit for those away from interference - (1-2) coil of 132 turns is (7-110) at 1.50. (3-4) coil of 35 turns is (7-111) for 75¢.

MRL #13 (old DP-52) Coil is now made on 2" fibre tubing 4½" long. 112 Ts #20 Enamel. DP not yet revised. 7-113. Coil 2.00

MRL #29 Loading Coll. For DP-44 circuit. 7-160. Cello 802. 1.00 MRL #29-A Coil. Coil for the 2nd circuit of #44. 7-193. 1.50

NEW #35 XTAL SET COILS. (Page 2) DP-48 was revised to take a different 1-2 coil. We use our #2 coil (CAT. 7-101) at \$1.00. Variocoupler (7-172) is same at \$2.50 for a more workable set.

HEINTZE COIL 7-145.
Sub. #14 bus and space over 2"
long - making "square coil."

50-in-I ANTENNA TUNER. DP-61. Norcross claims 288 ways to tune your Aerial.

LARGE SUN CELLS.

Give ½ volt. 5-8 ma. For more power. 3-21. Each set. -79

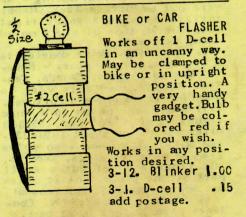
. 15 #2 FLASHLITE CELLS. 3-1.

4.5 v. Mercury batts. sold out. Substitute 9 v. at .35.

D-CELL BATTERY HOLDER.



Holds 2 D cells. We added jumper and a Fahns tock clip so it can put 2 cells in parallel for 1-tuber so you won't burn up the tube with 3 v. 3-22. Each .75



More on Semiconductors on page 7

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Floyd Clymer publishes over 300 Auto and racing books. We are one of their agents.

Price is the same from them, on the newsstands, or from us, but with one exception. If you order from us - it goes on your card. The more on your card - the longer you get free MRL Flyers. We postpay them all - so no need to send any extra to us. Besides, we'll probably be more grateful we'll probably be more grateful for your biz than newsstands. Hi



A PICTORIAL ALBUM OF WIRELESS AND RADIO—1905-1928, is another historical 'first' for this firm. The Album which contains more than a thousand actual photographs of operating wireless and radio equipment has been compiled around the unique collection of broadcast, receiving, and experimental equipment belonging to Harold S. Greenwood, Arcadia, California. This collection of several thousand individual components and complete units is unique, and represents, as far as is known, the largest such grouping of historical radio material in the world. Each component is in operable condition and has been fully and authentically restored to new-like appearance.

Since his High School days, Greenwood has been an ardent radio amateur broadcaster and operated a radio parts wholesale establishment for more than 25 years. His interest in the preservation of typical pieces of equipment dates from his youth and the concise historical notes which accompany the photographs are his personal recollections in many cases.

In addition to photographs of this fabulous collection a selected number of advertisements, dating as far back as World War I, representing the leading firms and their products have been reproduced. Radio Corporation of America, Marconi, Tuska, Deforest, Atwater Kent and Crosley are a few of the pioneer firms whose receiving sets are shown and which will certainly stir nostalgic feelings in the generation which sat up till 2:00 AM "getting Des Moines," "tuning in Honolulu," or the K.C. Night Hawks or Amos and Andy. Crystal sets, Headphones, Battery Climinators, Loop Antennas, The E. I. Co., Superheterodyne, Neuterodyne and Spark Transmitters are other subjects calculated to set memories in motion. A collector's dream.

Both as sheer entertainment and an educational documentary, the Album of Wireless and Radio deserves a place on every Americana bookshelf.

This is really quite an historical book. Just chock full of pictures of old familiar rigs. We get nostalgia when we look at it. Old Timers will have lots of fun discussing it and the "good the control of Padio and Wireless." old days of Radio and Wireless.

Wireless Album. Postpaid ... 3.45

The above has been revamped, enlarged and inproved. Now called "Vintage Radio" Now in stock and sent postpaid for \$3.95. You Heed it How!

are all sent PostPAID

to you, so

Brandes "Superior" Phones. Large 15" Diaphragms Makes Sensitive Phones aluminum Cases. Double Chrome Steel magnets. Sist price 7.75.2000 17.11. Brander 11h 517 6hms 17.11. Brandes, 1.6. 5.17

HOW TO CUT HAIR AT HOME

Ford FALCON — Mercury COMET and FORD FAIRLANE
OWNER'S HANDBOOK
The first owner's Handbook on Ford Falcon, Mercury Comet and Ford Fairlane is now available. Fully detailed and illustrated, with more than 700 photos, this new handbook will enable the owner to properly understand and care for his automobile. All Ford engines, sixes and V8s, which are employed in the three models are fully described. Trouble shooting and major and minor repairs are explained in non-technical terms. Other topics in the 389-page book include: automatic and manual transmissions (three-speed, four-speed and overdrive); cooling system; fuel system; suspension; brakes; electrical system; heating and air conditioning and instruments. A special section gives a full explanation of proper engine tuneup methods for maximum performance and economy. The handbook is written for the layman but is so detailed that it can be used by the professional mechanic as well.

RENAULT OWNER'S HANDBOOK - Revised Edition

This giant 400 page book covers all Renaults—Dauphine, Caravelle, Gordini, 4 CV. Major sections include maintenance and repair of: engine, transmissions (3 and 4-speed), Ferlac and regular clutches, drive train, brakes, suspension, fuel and electric systems.

systems.

Written in non-technical but accurate language, thoroughly detailed and liberally illustrated with clear drawings and photographs, this handbook has been highly praised by experienced mechanics as a most valuable reference for the Renault owner.

Included is a reprint of the 60 page Renault factory owner's manual filled with valuable information, tips and recommendations—Floyd Clymer's road test—and an extremely informative article by Paul Frere, famous Belgian competition driver.

\$4.00

VOLKSWAGEN OWNER'S HANDBOOK Covers 1970 & ALL previous "Bugs"

CORVAIR OWNER'S HANDBOOK Revised Edition No. 2

Revised Edition No. 2

The second edition of Floyd Clymer's popular Corvair Owner's Handbook is now available. Completely revised to incorporate details on all year models, including 1965, the Handbook covers the entire car. Lubrication and maintenance; suspension; brakes; engine; transmissions; clutch; electrical system and tune-up are a few of the topics embraced in the more than 400-page volume. Although fully detailed so that it can serve as an authentic guide to repair of nearly any part of the automobile, the Corvair Owner's Handbook is primarily intended for the enthusiast who prefers to carry out his own maintenance program and make

casional repairs. For this reason it is presented and illustrated in

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VOLVO OWNER'S HANDBOOK NEW
This handbook is actually a service manual covering all models, including the P444, P445, 122 and the P1800...over 500 photos, charts, drawings. Features include engine tune-up, 6 and 12 volt ignition systems, fuel systems, clutch, transmission and overdrive, drive shaft, rear axle, suspension, steering and brakes, plus complete specifications.

Postpaid ... Revised \$7.00

MODERN MOTORCYCLE MECHANICS

MODERN MOTORCYCLE MECHANICS
This new, completely revised, fifth edition has chapters on Design, Operation. Maintenance. Trouble Tracing. Machine Shop Methods and Tuning that are applicable to all makes. While separate chapters deal specifically with most makes that are in general use in the U.S.— including the popular two-strokes.

For each of these models there are separate easy-to-read charts of specifications, clearances, carbure-tor settings and data for valve and ignition timing. Also detailed repair procedures for overhauling top end, crankcase, gearbox, clutch, forks, wheels, etc. 668 pages, more than 500 charts, photographs, data tables, wiring diagrams and assembly drawings. This wonderful reference book for mechanics owners and enthusiasts has recently been revised by J. B. Nicholson— one of the world's best motor-cycle authorities.—Postpaid \$8.00

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Foreign Amateurs outside US.Over
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Radio Amateur DX Guide All Kinds of essential data for Dx Fano. 64 pages. Postprid 2,50

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"ELECTRONIC TEST EQUIPMENT." By Rider. 1962. 186 p. paper cover. Good cond. From bench testers, TRX, tube testers to scopes and oscillators, and more. 1# 2.75

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1940. About 200 lge. mimeo'd.
pages, neatly bound. Lots of FB
data for Ops. Post. 20¢. 2.00

"TELEVISION." Volume 6.
1950. 422 pages. Lots of good
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All kinds of data. In fine condition. Useful. 2# 2.50

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"STUDENT'S LAB. MANUAL."
Advanced. Philco. New. 305 p.
1952. 8½x11. Good material for
the Fan. 3 only. 2 lbs. Ea. 1.50

"WONDERWORLD OF SCIENCE. " Duncan. 1952. 360 p. Calif. school text, altho elementary - we can all learn something. 2# 1.25

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Here is a 110-page fully illustrated how-to-do-it book by VW authority-engineer G. R. Morgan. It gives full information on increasing power, speed and accelera-tion in the Volkswagen engine. It covers all details about high compression, pistons and heads, camshafts,

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\$3.00 Postpaid

NEW - JUST OFF THE PRESS

VOLKSWAGEN OWNER'S HANDBOOK Number 10

Covers 1968 and previous "Beetles"

Covers 1968 and previous "Beetles"

This is the 10th edition in the series of best-selling handbooks for WW owners. Both laymen and professional mechanics will appreciate the clearly written text, with its unsurpassed selection of illustrations, including the automatic transmission. Together they present a comprehensive step-by-step procedure for repair and maintenance of all components: engine fuel and electrical systems, clutch, transmission-rear axie, brakes, suspension and steering. Included are wiring diagrams, trouble shooting guides, lubrication charts, tolerance-wear limit charts, specifications and technical data along with a list of VW changes from year-to-year. 304 pages, 300 photos, drawings and diagrams. -resurci ; 3 - 2 - 0...

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NEW "RADIO HANDBOOK"
17th enlarged edition is ready and an institution in itself. 847 pages. See CAT. 0-1 for more details. Postpaid in US 12.95

REVISED PRICES ON RADIO PUBLICA-TIONS. See CAT. 0-3.

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"CHEMISTRY. "McPherson. 1940. 752 p. College textbook. Includes Electrochemistry, minerals, etc. Lots of tables. 3# 1.50

HE CALL DOOR !

Tu US pad

Duplicate Magazines

If you're looking for any certain Radio mag. issue - drop us a card. We may have it in stock.

Service of the servic

In good readable condition. We will list more later. Most not obtainable- even from publisher. We don't buy used mags. so don't send them. Postage at book rate: 1# 12¢; 6¢ each 1b. additional.

Several of above are priced up higher than original prices due to scarcity and as collector's items no longer obtainable. Give 1st and 2nd cnoices. Here are contents of 2 of them:

******* - -

RADIO ELECTRONICS. April, 1963 Squelch Troubles; Signal Injec-tor; FM Stereo; Holes; Sensitive Lite Meter; AC Bridge; Hum, etc.

Other RE numbers on hand: May-June-1 3-Sept-Nov-Dec, 1963; July Sept-Nov, 1964; Feb. 1967. Any RE sbove, reg. 50¢. each .35

POPULAR ELECTRONICS. Oct., 1966 Hi-Fi amp.; Time Signal Rec'r.; 80/40 m. Vertical Ant., etc.

POPULAR ELECTRONICS. Nov., 1966 DeLuxe Converter; Spark Xmtr. at Sea; Auto Stereo Players; Regu-lated Batt. Power Supply, CB, etc Other Popular Electronics on

hand: Apr-June-Aug-Oct-Nov, 1967; FEb-Mar-Apr-May-June-July-Aug-Sept-Oct-Nov 1968; Jan-Feb-Mar-Apr-May-June-July-Aug-Sept., Oct-Nov., 1969; Jan-Feb-Mar-Apr.; 1970. Any of above PE at .50

ELEMENTARY ELECTRONICS. Jan-Feb., 1968 (1 issue); Nov-Dec., 1969 (1 issue). .75

RADIO AGE. RCA publication re-lating to Research, etc. Jan-Oct 1954; Apr, 1955. Each

more next page

CB MAGAZINE.

"CB DIRECTORY." by CB magazine Lists most equipment. Jan, 1966. 68 p. Reg. \$1. 1 copy at---. 50

Arsenos I diem wall avousile the

OLD MAGAZINES FROM OUR LIBRARY.

Last Flyer we promised to list some of our old mags. for sale. Following "RADIO & TV NEWS" are all for year 1950. Regular price was 35¢ - but average pages from 138-200- and well worth 50¢ now.

Jan-Feb-Mar-June-July Nov-Dec-1950. Each special at .50

RADIO-TV SERVICE DEALER. May-June, 1955. Each

HOME CRAFTSMAN. June- 1960; Feb 1961; June-1962. Each.

POPULAR SCIENCE. Dec-1965; Jan Feb-1966. Reg. 35¢. Each . 20



LABELS



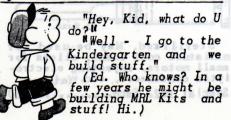
500 of these Gold Stripe Labels in a neat Plastic box. 90¢

It is hard to settle fixed on prices as they go up

and down. Presently these seem rather steady. Hundreds of uses for these labels. Above furnished 2" long with gold stellar 2" long with gold stripe and in a box. 500 postpaid for .90 Additional lines 20¢ each. . 90

We can also furnish a smaller label 1½" long, in a box. 1000 labels postpaid for 1.50

For both above labels figure 25 spaces wide x 4 lines. Usually takes 2-3 weeks.



F. SEMICONDUCTORS, cont.

NEW 1-HOLE BRACKET for #10-26. This new MRL bracket fits into 3/4" square space. It holds Mercury or pen or 9 v. batts. for our #10, 26, etc. 13-176 Each......10

CAT. G. AERIAL-GROUND.

TELCO TV MAST BASE.



TV COMBINATION 3" SCREW-IN @> Insulator, May be used for TV regular leadin. 1-27. .08 or regular leadin. 1-27.

tubes or you're minus a lube.

Tderenare several tubes than and be used without-desther re-

Gring, Ne syregent ave, or alle

MEN DP-73 MAKING HB-N SET AC

ON THE FILAMENT, 1045

H. HARDWARE.

NEW 2" RH MACHINE SCREWS. 6-32. back in stock. 13-23. Noz. .25 4-40 x 5/8 RH " 13-11. ' .10

FLAT HEAD MACHINE SCREWS.

6-32 x 3/16" - for variable condensers to metal panel. Also other uses. 13-39. Dozen . 15

NEW OVAL HEAD WOOD SCREWS.

We have substituted oval head for flathead #2 x ½ as they make a better job. Steel and FB nickel plate. Work fine in back strip assembly. 13-80. Doz. . 10

HEXAGON NUTS 6-40 x 5/16. 13-10. Dozen....15 4-36 x 4 13-83. ''11

#6 CUP WASHERS.

Many uses with Experimenter. We beat center down and mount fixed Xtals in them. Steel and nickel plated. 13-112. Doz. . 10

NEW METAL BUSHING.
3/8" long. Slotted to fit a
4" shaft snugly for extensions,
etc. Other uses. | 13-| 38. DOZ..|5 long. Slotted to fit a

GROMMETS. 1/4" - 13-129. Dozen .20 3/8" - 13-130. " .25 1-2" - 13-131. " .35

Hardware CAT. page H-1 will soon be made over. Quite a few prices will have to be advanced as we've held same prices for many years. We don't advance any prices - unless they charge us more at the source.

Maurice Whalen, 111., sending in a circuit: "The only thing I can draw right is a glass of beer." Hi.

J. CAPACITORS.

MIDGET LOW LOSS SLW TRIMMER.



This replaces our 8-1 -- 2-3 plate trimmer with a bandspread type for fine tuning. Rotor can be 0-100 or 100-0 for straightline wavelength tuning. Plates can be separated for finer tuning. Ideal 4 bandspread. 8-1. 1.00 1/2 Size

6 PLATE MIDGET VAR. CONDENSERS. Like (B) in CAT. J-1. Low-loss used but clean. Special 106. .50

.000 I MIDGET VARIABLE CONDENSER. Isolantite end. Screwdriver adjustment. In new condition. 29 alum. plates. 1½ deep. 1 in stock. Special #13. 4 oz. 1.00

20 PLATE VARIABLE. Alum. plates. 1-hole. 1½ sq. x 1½ deep. Special #138. 4 oz. 1.50

X o creciar

002;003.004 - .02. 8-107. EA. 25

20 PLATE MIDGET COND. 1 hole mtg 1 x 1½ x 2 deep. #137. 1.50

br 283283000 f3TIT .08T33 B AA2

br 283283000 f3TIT .08T33 B AA2

the search of the se MIDGET 27 PLATE VARIABLE. Isolantite insulation. A long shaft. Special #146. 1.25

MINI-MINI 2-GANG VARIABLE plus 2 trimmers. 5/8 square by ½ deep. Isolantite insula-tion. 1/4 shaft OK. #150 1.00

2-GANG .00035 plus .00014 midget panel mtg. Bar knob plus vernier knob. 1½ sq. x 2½ deep. Special #|4|. ½ lb.

- 1.87 11/4"S- bog . 2 . JAM

EXPERIMENTER'S COND. . 00035 plus .00014 superhet. 3/8" shaft to 1/4" reducer. Base or panel mtg. Almost 380 deg. 1½ sq. x 2½ deep Special #142. 3/4 lb. wt. 1.00

12-x 12 aw hair and demain aw

2 Rebnettodicalization for in a

3-GANG SEMI-MIDGET. 2 .00035 and .00014. 3-1/4" deep. Used in Exp. or superhet plus TRF stage Special #119. 1 lb. 2.0

cket holds o. 9. v. XMTR. TYPE TRIMMERS (Antique).
Large plates ½ to 7/8" in dia.
Large air gaps. Panel mounting.
3 screwdriver types; Each ... 25 Special #10.

se .. 05 x 600 bypass cond.

More Capacitors next page.

LOW LOSS COUPLINGS. Allows flexible insulated control.
Various types. 1/4 shaft.
Special #131. Each . 50

TUNING DIAL PULLEYS. Squeeze on.

Some have setscrews.
- 1-3/4 dia. by 1/4 shaft. - 1-3/8 " - 2" 3/8 shaft. E - 2-3/4 F - 3" G - 4" " " Special 135. Give letter. Ea.. 10

CAL NO BELL THE LEASE CONTENSER. 0,700, 4255 2120,72 101 201, 25

HEAVY DUTY MICA CONDENSERS.

5000 v. test. Add to list in
CAT. page J-2. Sizes: .00.5.002-003.004 - .02. 8-107. EA..25

2 MFD x 100 v. TINY ELECTROS. Special #121. Each.

NEW -012 CERAMICS ---- 25

BYPASS CONDENSERS.

.22 mfd. (.25) x 400 v. 8-45..20 .5 '' x 600 v. 8-53......25

CAN ELECTRO. FILTER CONDENSERS.
All checked for leakage and operating conditions. Guaranteed to work OK. Give Special #102.
(2) 4 mfd. 450 v. Reg. 35. Ea. 25
(3) 8 " " " 55. " . 25

(1) 80 x 450; 10 x 400; 10 x 50.

Regular price . 85.........50 Give Special #102 when ordering.

K. KITS.

MRL RADIO KITS HAVE BEEN STEADY in price for years. By figuring out economies and watching for buys - we have kept it so. So --- why all these quick jumps?

MRL 2 and 2-A KITS.

When we wire them up we in-clude 2 Fahnstock clips for a Diode back of the stand. Diode is not furnished.

MRL #10 KIT ADDITION. DP-34.
WE now include a 9 v. TRX battery and connector with each kit or wired rig - no extra charge.

DP-16. MRL TRX AMPLIFIER.

We now build this in a 3" sq.
by 1%" plywood box. Compo. panel
is sprayed. We added a 47K res.
from base to emitter for stabilty. Use. 05 x 600 bypass cond. Now a bracket holds a 9 v. TRX batt. inside box. Lots of wallop TRX and brings in weak stations. At same price as CATalog.

MRL CODE OSCILLATOR. DP-41.
Sometimes the 2K resistor may be changed to 1K for better results and oscillation.

MRL I-TUBE SET NOTE'S

1-tuber may come in 4 or 5 pr. coils, depending on supply of tube bases for coils. If you now have MRL sets of 4 or 5 prong to fit - please advise and we'll try to conform.

PANELS for 1-tuber now 40¢. A sheet costs us \$47 cut up so we have to get more. Scrub them off with Ajax and water before you lacquer to get rid of the oil. 16-8. Alum. panel 4½x6.....40

Use 3 meg. resistor for grid leak instead of the previous 2.2 meg. We also have 3.3 in stock.

DX...All kinds. Wish we had a little more space to tell you!

NEW DP-73. MAKING HB-4 SET AC-ON THE FILAMENT. 10¢.

This DP shows a slight change in wiring of the 1-tuber - so U can use a 1/2 v. battery for 1A5, 1C5 or 1Q5 tubes. Or, you can run a 6.3 v. fil. transformer to A-plus and A-minus for AC tubes. Don't use the transformer on 1/2

v. tubes or you're minus a tube.
There are several tubes that
can be used without further rewiring. We suggest 6V6 or 6F6
which we stock. The extra wattage
sure does make it oscillate.

This new DP-73 is made to fit inside HB-4. Fold in center and raise staples. Force them thru the sheet and bend over. Then trim the edges. Future HB. 4's will have it in.

If you want DP-73, include in order at 10¢. Or, if separately, send 10¢ with stamped envelope. DP-73 has quite a few hints for better operation of the 1-tuber.

NOTE. DP-73 is now included in all HB 4's. Above data is for buyers before Nov., 1968 when it wasn't included in HB-4.

MRL #26 DIODE/TRX SET. (DP-43).
We sell quite a few of these.
We're hoping to have a DX list later. When we wire them, a 9 v. TRX battery is furnished free. So far we can't find any use for the bias resistors. (CAT. K-4)

No batt, furnished with kit. Use 9 v. TRX batt, for a lot of power on weak stations. Use a 3-15 batt. connector for leads so no soldering to batt. required.

Because base sockets are get-ting scarce - we use a 5 pr. MIP socket. To make it easier - solder 5 wires to lugs before mtg. socket on blocks. Then cut wires to length. If we wire it, we incorporate any new kinks plus a 9 v. battery free.

MRL #26 DIODE-TRANSISTOR SET. Marion W. Anthony. Wash. built up one for his son - who sold it for \$20. - and wants another. We have lots of good reports on the 26 - soon as we can print them.

OLD ALUMINUM PLATES. . 009" thick

Rather than throw them away we decided to give them to anyone sending in an order. Sizes up to 10x12". May be used for

shielding if you bolt to them. Not sent without another order.

Wash with water to remove the gum. Remove ink with lacquer thinner and steel wool.

L. DIALS, KNOBS.

12" GRAY BAK. DI ALS. 10-0 in 270 deg. for rear sw. pts, etc. 1/4 shaft. Sim. 10-78. 10-77. . 40

idetas and dials 4, 10-72 at 1 8240

TROUBLE WITH It" Bar Knobs? If setscrew doesn't hold - tap with 8-32 tap and fit with new 8-32 screw. Or return to us for swap.

Some setscrews are pointed. We prefer to grind off point so you have more to hold screw.

15/16" IVORY POINTER PUSH-ON KNOBS. Cat. 10-1. Each.. 10

ARROW KNOBS for 3/16" shaft. Same as 10-13. 10-16. Each . 10

3/4" BLACK POINTER PUSH-ON KNOB. Fit Knurled shaft. No setscrew Brand new. 10-2. Each . 10

SERECAMON MEDEL SELECT Vin National opecs wiles our

M. TEST EQUIPMENT.

-- Hru- 1 104

PRACTICAL POCKET ELECTRIC TESTER

7½" long. Fit into pocket with clip. Very neat. Neon tests AC-DC circuits, Radio, TV, fuses, spark plugs, tells AC or DC, and many other uses. 90-500 v. AC-DC 20-17. Pocket tester. 2 oz....50



A very handy gadget around the shop. Fully insulated handle. It rishes parts out of remote places. Also for starting nuts. Unscrew cap on end and insert test wire. 7" long. Furnished in red 20-21. 6 oz. ,92

21 CC. PLASTIC SYRINGES.

Hanny comment

Special moon



Sterilized. May be used for miniature coil forms, oilers for small motors, injecting electrolytic condensers, etc. Watches.

CHAMPION ELEC. SPRAYING OUTFIT.

1 0-1 p-11.00 in-



Completely self-contained- and just plugs into 110 v. line. It is lightweight and rugged as professional equipment costing 3 times as much.

Sprays paints, enamels, varnishes, lacquers, water, oil, or other liquids from a polished Alum. container or jar or thru a long Poly. tube. Smooth, even finish. Self-cleaning! Only one simple control.

Outfit control.
Outfit contains gun, Aluminum container, strainer, filter, 15'
Poly. tubing, 15' extension cord All in handy steel, grey crackle carrying case. We used it once to paint a fence. Worked fine.
List price 29.95. 6 lbs....14.95

6" DADO SAW COMBINATION.



New. Wards. pcs. equal to 2

for on it.

outside cutters:
4 chippers. 5/8
hole may be fitted with bushing for ½". Cost us
\$8.50. Special #133. 2½1b. 4.95

N. TRANSFORMERS.

AUDIO TRANSFORMERS

NEW TRANSISTOR AUDIO. Tiny. 14 oz. Mount with strap. 1-1/8 by 7/8 x 1" - lots of iron. 8 ohms and 1 ohm DC. Good for TRX audio stages. 24-1. Midget audio 1.00

More TRX Audios CAT. F-3.

OUTPUT TRANSFORMERS

50 Ohm Output Transformer. Good for feeding output into the phones. Imp. about 2500 on pri. Thordarson. 24-15. | 16. | 1.00

MRL PLANS for BUSY HANDS.

PUSH-PULL HEAVY-DUTY OUTPUT TR. 1200 ohms DC (about 8K imp.). CT. Round case 2½" dia. Sec. 3.2 for regular spkr. 3" mtg. Used. Special #20. 8K OT. | 15. | 1.50

HEAVY-DUTY OUTPUT TRANSFORMER. Used, good cond. Pri. 600 ohms DC; Sec. 8 ohms DC (about 40 ohm imp.) 3" mounting centers imp.) 3" mounting centers. Special #27. 600 CT. It lb. 1.50

8000 IMP. H-D OUTPUT TRANS.
Used. Heavy-duty. 8000 imp.
pri.; 3.2 sec. for voice coil.
2-7/8" mounting centers.
Special #38. 8K OT. | lb. | 1.50

P-P HEAVY-DUTY OUTPUT TRANS.
Used. Good cond. 600 ohms DC.
pri. C-tapped; Sec. 3.2 ohms.
Mtg. centers 2½". Heavy-duty.
Special #39. 600 DC OT. 12# 1.50

FILAMENT TRANSFORMERS

NEW. 6 v. 1½ amp. FIL. TRANSFRS. OK for 6 v. car chassis. Only 2 in stock. Special #103. 1 lb.

POWER TRANSFORMERS-

HEAVY DUTY ISOLATION TRANSFR. New cond. 130 v. and 6.3 fil OK TV sets. etc. 2½ x 2½ x 3 h Special #152 l2 lbs. 2.5 2.50

NEW STANCOR P-6296 UNIVERSAL H-D POWER TRANSFORMER-

This husky transformer has 5

secondaries,

as follows: as follows.
(1) 750 CT, 125 ma.;
(2) 5 CT, 3 amps.;
(3) 2½ CT, 12 amps.;
(4) 2½ CT, 1.75 amps.
(5) 2½; 5; 6.3 CT, 4 a.
Is 3x4 x 4 high. Mounts thru

chassis or upright. Good for Ham's separate tube filaments, etc. Usual net around \$10.00. Only 1 in stock. A good buy. Special #42. 5½ lbs. wt. 5.00

TALL UN DELLE TRANS W C 16 rup. 214 rter , De ... 2/2 5.00 AUDIO CHOKES

OF THE CHOKE. bess fine rk. (1 only)

1000 ohm DC AUDIU CHOKE. Tapped. Special 139 12 lbs. 1.25

Special grow Philos. 22 102

FOR RECTIFIER EXPERIMENTERS. 1 Philco electrode, large .75 13 Zinc electrodes 3/16 x 3" 20 Aluminum rods 5/16 x 3" lg. th nut. Each ecify Special #116 long, no nut. Each with nut. Each Specify Special #116

"Say, Dad, can you find the common denominator?"

"Heck- haven't they found that thing yet? They were looking for it when I went to school."

P. PHONES, JACKS.

NEW PRICES ON PHONES & CUSHIONS. 7.20 3.84 17-1.. Featherweights. 17-3. Dependables. 17-3. 17-52. 17-9. 17-10. Acme 4000 DC.
" 2000 DC.
" 1000 singles. 2.76 2.31 1.41 1.08 Phone cushions. pr. One cushion only. 17-12 . 55

STANDARD PHONE PLUGS. CAT. P-1. Black 17-13. Red 17-14. Ea. 40

PHONE CORD EXTENDERS. Tips plug into each end for phones and extension cords. Spec. 147. .50

'ra Ir 10

PHILMORE DYNAMIC PHONES. 15-2 Z See CAT. page P-1, 17-4. About same but 15 ohm impedance instead of 2000. For use on output trans. secondaries. These in-clude 20 ft. cord. 17-7. 1.10

Q. PANELS, SPKRS, MIKES

MIKE OR STEREO PHONE PLUGS. Omitted from catalog. Can be used for either. 17-34.

MIKE TRANSFORMER. Used but OK. 3 connection input. 5K DC output. Alum. case 1-3/8 x 1-3/4 by 2½ hi. Special | 123 | 1b. 2.00

Used microphone jack. Used; OK condition. 1 only. Spec. 114..25

R. RESISTORS.

New 120 ohm x | watt resistors.

EASIER to SORT RESISTORS. When you order an assortment of resistors - we're hooking them on a card - and marking, so you won't have to check colors. Just another of MRL services to you!

USED WIREWOUNDS. 104

Dimenting) 6 millioniditie

Various uses. Meter tested. You may substitute 2 watt carbons for any missing values. In the following sizes only: 1-2-3-31/2-4-5-20-25-750-800-900

1K-1100-1200-1500-1600-5K-10K.

SPECIAL 10 OHM WIREWOUNDS. Gund

PRECISION WIREWOUND RESISTANCES.



On ceramic. (10) 8049 ohms by %; (2) 8500 ohms x 4%; Special #94, Each.....10 1/4%;;

MAKE ADJUSTABLE GRID LEAKS by bending wires around ends of 1 watt resistor and holding by fuse, or grid clips. 25-34. Per clip .02 R. RESISTORS Continued

VARIABLE RESISTORS.

2-gang vol. control 500 plus 500K plus switch. 1 only.....75

. All the towns 148.

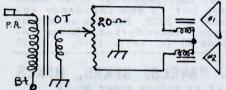
2K pot/rheostat CRL used. 1-hole mtg. Special #60 (1).....50

0-200 WIRE RHEOSTAT. Good cond. 2 in stock. Spec. 120. Each. 50

MINI-MINI VOL. CONTROL.No switch Screwdriver adj. 250K ohms. ½" in dia.,½" long. Spec. |5|. .75

SCREWDRIVER POTS. 3 connections. 1K and 100K. Special #118. Give Res. desired. Each . 35

OUR 20 OHM FADER Here is the way to use our (25-40) - 20 ohm fader CAT. page R-1. The 50¢ includes knob. Use it to



boom up one speaker and lower the other one. It has other uses as per our CATalog.

VARIABLE VOLTAGE DIVIDERS. 1 used Electrad 50K wirewound bleeder, adj. Special #36....75

Electrad 400 ohm 25 w. bleeder

T. TUBES.

Our tube lists are always being changed as we find different numbers. Following additions to T-1 at \$1 each plus postage. Our only tubes at different prices R 1A5, 1C5 at 1.25; 1Q5; at 1.50.

v or grayted one	LIST
RF pentode	3. 25
PA pentode	3. 25
RF pen tode	3.85
sub. 45	10111
PA pen tode	3. 25
Beam PA	3.25
Triode	2.95
The post bout a grant and a	9.05
Triode PA	5.00
Be am PA	3.55
sub. 12L6	
FW rectifier	2.25
PA tetrode	5.00
2-grid PA	5.00
PA triode	5.00
PA pentode	5.00
FW merc. rect	3.50
	3, 50
	0.00
S1111. 2/.	0 00
Acom Kr amp	9.80
Acom triode	9.80
	Triode PA

Above 101-D (WE) UV socket. 2 in stock. Similar to 01-A.

None of following Obtainable: 01-A, X-99 (sub. 30); WD-11, 12. 12-A sub. 71-A OK.

No 19 but have 1J6 that use an 8 pr. socket. Same values.

TRANSMITTING, etc.

841 (VT-51) 7½ v. C amp. --- 5.00 1641/RK-60 FW rect 2500 v 3.00 185/R4 Raytheon res. tube 2.00 We list some 200 types at pre-2.00

sent. Stock up and down.

ANY OF ABOVE at MRL for \$1.00 plus postage. More CAT. T-1.

ASK US ABOUT TUBE SUBSTITUTIONS.

Checking your tube manual, you can find lots of duplicates that may be changed without rewiring. A 1U4 works as a 1T4; 1C5,1A5cs 1Q5; 6C5 for 6J5; 5W4 for 5Y3; etc. Our circuits may call for a 201A. Use a 30 instead, but put a 10 ohm wirewound in series to cut from 3 to 2 volt battery. Sams, 2201 E. 46th St., Indianapolis, Ind. has a \(\chi_2\chi_2\) p. book on direct substitutions for many tubes for \(\frac{1}{2}\). (Not MRL)

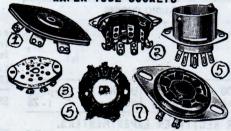
We started to make up a substitution list of tubes for ours in stock - but it was too big a job. Send in your list of tubes and we'll check our substitution lists. Types of tubes have been rigged by the hundreds, just by changing prong connections about changing prong connections about - so they can sell you more of their tubes. This is a complica-tion of the industry that should never have been allowed.

Note: Pentode power amp. tubes, as 1C5gt, etc. make excellent detectors or amp. RF tubes also make good detectors.

Always rotate tubes when removing from sockets. Don't plug tubes into a set with current on - or change tubes around. Have tubes tested at least once every six months.

Because the older tubes, like 01-A, X-99, 30, etc. are more fragile - do not drop them. The later tubes have so many elements, with their glass re-en-forcements - that they are very sturdy and will stand lots of kicking around.

WAFER TUBE SOCKETS



Pins 2 2 01 E ashorizada anis 21
4 UX Bakelite (1)25-612
4 UX Molded plate (7)25-5025
5 UY Molded plate (7)25-1025
6 Bakelite (1)25-812
6 Molded plate (7)25-4925
7 Min. Bakelite (1)25-1312 7 Shielded base (5)25-3120 8 Octal Bakelite (1)25-1112
7 Shielded base (5)25-3120
8 Octal Bakelite (1)25-1112

8 Loktal Molded (2)....25-12..12 9 Min. Bakelite (1)....25-14..12 5 Acorn, Steatite (8)..25-42..40

BASE TUBE SOCKETS

Mount on top of chassis, or on wooden or Compo. base. Made of molded Bakelite. Good for quick experimental circuits.

. . 402 . . . 5 pr. UY. 6 pr. 25-46.....70 8 pr. octal.

MOUNTING ASSEMBLY FOR MIP SOX.
We can furnish 2 black wooden blocks and 2 screws & nuts for raising MIP (molded plate) sockets above base. 25-21. (2) . 15

TUBE SHIELDS.



Fit over tube to cut down howl and hum. Give type. 25-25. . 10

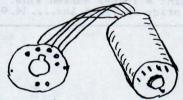
3-PIECE ALUMINUM TUBE SHIELDS. New cond. 1-3/4 dia. x 3½" long. Cut down QRM on detector. 2 in stock. Special #90. Ea.

GRID CLIPS



Fit over tops of grid caps on large tubes. 25-23. 2 for.....05
For small tubes. 25-24. (2).05

TU-BRITE BOOSTER FOR TV TUBE. Brightener by Perma-power. For picture tubes over 1 yr. old. It plugs between socket and picture tube. Cannot injure; does not



wear out. Advise picture tube No. Special #105. One only. Our cost

W. WIRING.

7-CONTACT SCREW TERMINAL STRIP.
44" long. Has terminals marked
1-7. Used but OK. Only one in
stock. Special #110. .25

3/16" SHIELDING. 26-10. Ft. .08

MRL SOLDER is not the cheap kind but have kept prices same for a long time. On re-ordering, we had to jump prices, as usual: 26-17. 10 ft. . 35; | 1b.

10-SCREW TERMINAL STRIP. only one in stock. New. 3/4 x 64" long. Our Special #134.



"Hey, Joe, I got my MRL Flyer Today. I got an order all ready. "

SPST 110 V. WALL SWITCH.

Smaller than regular switch - with 2" mounting centers. Rated 5 A., 250 v. New. Toggle type. Fine for 110 v. panels and if small space required. No plates furnished.

FLASHLIGHT LAMPS. A new item.

2.5 v. x .3 amps. #14



TV CHEATER CORDS. Fit into TV Set and into 110 wall receptacle. 11-38..50

ELECTRIC CORD & PLUG. 6 ft. long to fit onto your AC Radio and other uses. 11-10. .40



New Flat Bakelite Attachment plug cap.

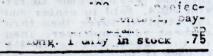
Best made. Easy to handle. A sure fit. Spring plugs. Wires fit solidly.

11-22. 2 oz..... . 15

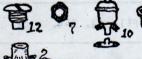


CLOSEOUT ON LAMPS

(A) 6-8 v. #63 dash. Bayonet single contact type. Each .15
(8) 6-8 v. headlite. Bayonet,
2-contact, 32 cp. Lot of 3 includes one good; 2 with 1-side
out. For the lot of 3 .50







(2) WALL SOCKET or cleat receptacle. Handy for quick outlet for iron. lamps, and other uses. Bakelite. 11-35. 6 oz. . 20

(4) BRASS SWITCH PLATE. Push switch only. 11-48. Single .05

(7) 3/8" x #24 HEX. NUT. For lamp fixtures, conduit, etc. Use around shop. 13-170. Dozen .10

(10) Floorlamp sockets. Go on top of floorlamp to hold shade & 2 sockets. Previously sold for 60¢ in store. | 1-36.6 oz. .25

(II) House plug fuses. Standard 15, 20 or 30 Amp. II-23. Ea. .15

We can always use some orders!

MRL Radio Flyer

(12) Appliance fuses. Universal appliance, percolator and many others. 11-27. Each .05 -05

MISCELLANEOUS.

EMERGENCY WARNING LITE SWITCH.



For car. Flip on and all tail, turn and stop lites on automatic flashes. 2x21/2 metal panel. paid Olsen 1.69. Never used as

our new Pontiac had them already on it. Spec. #145. | 1.50

BAIA SUPER 8 FILM SPLICER.



Practically new. 2x 2/2. In gray finish. Also included are some extra tares. Special #153

WINDOW SCREEN BRACKETS. Hold window screens at top. Brand new. Special #122. 20 pairs

DP-57. MRL SHORTWAVE CONVERTER.

Make that 50 mm fd. coupling condenser a .0001 for better volume and surer oscillation.

2 POPULAR ELECTRONICS CAME IN. May, June 1970. Each



6 PRONG MOLDED SOCKET WITH RING. New stock. Ring holds socket securely. Reg. 22¢ wholesale. At MRL 25-18. Each . 12

CARBON MICROPHONE BUTTON. Do you remember the old Skinderviken buttons of Gernsbach's time? Plans show over 14 uses. Sizes about 3/4" dia. Fasten ur leads to back.

2: I AUDIO TRANSFORMER. Low impedance 25 and 50 ohms, or 4% and 9 ohms.OK for TRX or for matching speaker lines etc. 14 x 1-3/4 x 14". 24-2. Each. 6 oz. .98



We found out how to make Egg Foo Yung - we take a young egg and Foo it.



11 NIRELES

Membership around 700. I've been a member for some time. Are from Old Time Wireless "Brass Pounders" to the present who've made their living at telegraph key.It now takes in Ops from USN Air Force, FBI, CAA, etc. Clas-

Air Force, FBI, CAA, etc. Classified as SCP - Spk. gap Pioneer before 1915; P - Pioneer 1915 to 1925; V - Veteran 1926-1935; PA Prof. Associates after 1935.

"Port O' Call" and other publications, meetings, etc. well worth initiation fee of \$2 and \$5 per year.POC is some 60 pages of Old Timer data and experiences. ences.

Write F. Geisel, 2816 Tice Cr. Dr., Walnut Creek, Cal. 94595 and mention "EO" 203-P for the best and latest information.

SOME MORE MAGS. CAME IN. Popular Electronics Aug. 70 . 50 "Science & Electronics. Formerly
"TV Experimenter." Apr-May (1 issue) June-July (1 is.) Ea. .75

Well, fellows, we finally got it to going. We hope you can see a lot of interesting things in it. Let us have your orders at once before the supplies of some items are gone.
Adios y saludos amigos.

MRL DP FILE No. 3.

Here are 15 more tested DPs for your collection. (19 % 19-A count as 2). Lots of good reports on them. Same introductory description as Files 1 and 2.

DP-File #3 Index. This uses a cross-index like the others. Also a lot of data on "Long Wayes" - including a long wave circuit we used to work aboard ship to copy press, etc. Index at same price of 10¢ as other single copies.

DP-6. MRL #39 Selective Xtal. Shows details for building original as shown in HB-17. Back wiring diagram, coil data, etc. Also shows a new plug-in layout, so you can wind for SW bands. It uses Banana jacks and plugs. It makes a very efficient layout. Has no dead-end effects.

DP-18. MRL QRM Coil Transistor Set. We stumbled onto this new arrangement for the most selective Xtal set you've seen. By using 2 QRM Coils- you can sharpen up the stations at will- and get many you never heard on a Xtal set. As a boost to the Xtal diode detector - we added a Transistor amplifier, using 2 pencells for power. Volume controlled. All on a 4x5 panel with base. Very easy to build. Also details for using the QRM Coil in its many ramifications for cutting out stations or boosting them in.

DP-19 and 19-A. A Navy Type Loose Coupler. This is a double print due to so much material. Gives all details for building one. The large primary gives excellent volume and makes it work fine with inside Aerials. Pri. has 2 sets of switches. Secondary operates with a 6-point sw. and slides into primary. Lots of details given for operation and a discussion of original types. Being a double print, it is...20.

DP-27. MRL #15 Crystal Set. It has been completely re-vamped from the original, that used to sell for \$12, all over Oakland, Calif. A most efficient set, as several methods of controlling selectivity may be used. Good for city or country. An entirely new coupler, of Cello, has been designed - having a controlled rotor at each end and a tapped secondary. Also built on a much smaller panel - 6 x8. An adjustable Steel galena, or fixed Diode may be used. Lots of fun operating this crystal set.

DP-35. MRL 2-tube AC Longwave Receiver. May be used for shorter waves if desired. Uses 6BC5 in a very sensitive circuit that oscillates good- where it is required on Lo-F. A 42 output tube delivers 3 watts to speaker and phones in a novel jack hookup. Tickler may be wound over end of

secondary. Uses Selenium or Silicon rectifier in an efficient power supply circuit for A-B. Panel shows speaker layout in easy form. Uses B longwaver.

DP-36. 2-tube E-C Long Wave Receiver. This is a complete revision of original which reported such good results. Uses a 6C6 detector tube and 42 power amplifier for 3 watts output. Has its own power supply. Complete panel and base layouts, etc. Get on these long waves and see what you can find up there. It uses MRL C or 5-C Long Wave coil, but may be adapted to BC if desired.

DP-44. MRL #29 Variometer Xtal Set. Full-sized drawing of Variometer, plus 6 other drawings of all details. Different than the original #29, and a lot better. Also #29-A - a revision of an old selective circuit that is also easy to build. Many more possibilities for experiments.

DP-48. MRL #35 Prize Selector Crystal Set. We have greatly revamped this N.Y. Show prize winner. It uses our #2 coil for 1st stage; Variocoupler for second. Rotor can cut feed-over energy to zero if desired. You'll be amazed at its selectivity and volume obtainable. Built on a 7 x 10 panel. DP shows all wiring, in 2 stages to make it easier.

DP-49. MRL Heavy Duty No-hum Power Supply. Completely revised from our original plan. All the latest improvements. Mounts on a metal chassis for a real commercial-looking job. Has hi-voltage tap for 350-400 v. DC for amplifier circuits. Also an 0-100 v. DC variable control for lo-voltage detector and Transistor circuits. Also 6.3 v. AC filaments. Incorporates the best of filtering for no-hum. Uses pilot lite. Has jack for electro-dynamic field supply. A must for any Radio man's bench.

Not built by us any more - too much labor involved. You may have a lot more extra time than

On DP-49 - make 30x450 v. (2) 8 x 450 filters. More output and less chance to "shoot" the filter condensers. For hi-powered power supplies - smaller filters are used.

DP-50. MRL #|| All-wave Xtal Set. A most simple set to build. Completely re-vamped from our original plan. Now uses a 2-gang condenser working a single coil tuner and a single gang QRM coil wave trap circuit for bothersome stations. Circuit made over for modern Radio congested areas. It has a 4-tap switch for added selectivity control, as well as an 11-pt. for wave bands. Mounts on a 5%x7 panel. Uses Xtal Diode.

DP-58. MRL #4 Telefunken Xtal Set. Just revised. Uses a new layout according to our 5/16" scale. Also adapted to Diode-Xtl stand use at will. Coil has been changed for 3 tap selections for short waves. Also a 1914 version of a Telefunken ship set using several tuned circuits, with a Carborundum crystal detector.

DP-59. MRL All-wave Crystal Hi-Fi Adapter. Altho original circuit is shown, we now have a much more practical tuner that works into the detector tube of any set for maximum efficiency. Mounts on a 4x6 panel. Prefers MRL new 5-X plug-in coils, altho any Xtal or tube set will work. Also shows data on 5-X coils. It shows a pictorial diagram for all essential details. Volume control mounts on adapter.

DP-61. MRL "50-in-1" Antenna Tuner. One of our old stand-bys. Lots of good reports on this one by our customers. Completely redrawn and showing more details than original plan. Mounts on a 5x5 panel. Over 50 combinations for Aerial tuning - to make your signals come in better. Can be set alongside any set and cut in or out at will. Will not injure any Radio set.

NEW OP-73. MAKING HB-4 SET AC. ON THE FILAMENT.

This DP shows a slight change in wiring of the 1-tuber - so U can use a 1½ v. battery for 1A5, 1C5 or 195 tubes. Or, you can run a 6.3 v. fil. transformer to A-plus and A-minus for AC tubes. Don't use the transformer on 1½ v. tubes or you're minus a tube.

v. tubes or you're minus a tube.

There are several tubes that can be used without further rewiring. We suggest 6V5 or 6F6 which we stock. The extra wattage sure does make it oscillate.

sure does make it oscillate.
This new OP-73 is made to fit inside HB-4. Fold in center and raise staples. Force them thru the sheet and bend over. Then trim the edges. Future HB-4's will have it in.

MRL DP File #3. 5-4. oz. 1.00

ALL REVISED DPs 10¢ EACH

plus postage, in Vol. 1,2,3 and others to be revised later, when purchased separately from the DP Files.

A MAN OF MANY MRL SETS.
John W. Rater, lowa says: "Have built up many of your Xtal cir. At present, I have built #37; IP-12 (2 stage TRX amp.); IP-14 (small set amp.); IP-16 (my favorite port. TRX amp.); IP-26 (my #1 on DX); IP-39 (#2 and #3) and at present, am building IP-43 (#26 all wave Xtal). Have two Aerials- a 100 ft. L 50 ft. high and a doublet 30 it. on a side and 30 ft. high, so have lots of free power to use!"