

**EXCLUSIVE!**Approved **WAG** Dual Proportional Kits Available **ONLY** From Ace R/C

We have had the pleasure of working very closely with Dr. Walter A. Good in the development of kits for his Dual Proportional R/C system which is sweeping the country. Ace has been given the **EXCLUSIVE** Kitting rights to the receiver and transmitter. Walt personally selected the type of components to be used and has approved the Ace kits as offered. In order to protect you, all kits from Ace R/C will contain Walt Good's personal signature. Insist on an **APPROVED** Dual Proportional Kit—available **ONLY** from Ace R/C.

Look for this Signature

*Walt Good***★ Transmitter Kit**

While at first glance the WAG Dual Transmitter appears quite complicated, closer study of the March 1956 American Modeller reveals that it is in four sections. There are two twin 3V4 pulsers, two tube audio modulator, and a two tube MOPA transmitter. By building a section at a time, the complexity is cut down. Because of the precision required, quite a number of 5% tolerance resistors are used. Individually measured capacitors are furnished in matched pairs for the pulsers and modulator, to insure uniform results.

**BASIC MOPA TRANSMITTER SECTION KIT**—contains wound coils, RF choke air type trimmer, resistors and capacitors, crystal socket, DPST switch, shielded sockets, etc., with prefabbed base \$5.95

**BASIC PULSER AND MODULATOR SECTION KIT**—contains matched pairs of condensers, individually measured, 5% resistors, sockets, two DPST switches, push switch, 6 Allen Bradley pots—four with lock nuts—8 wire cable and plug and socket, prefabbed chassis \$18.95  
If both basics are purchased at the same time \$23.95

3V4 tubes (7 required)	1.30	13.2675 mc crystal	3.95
3B4 tube	3.50	8x10x10 metal case	3.95
2x4x4 metal case	1.45	112" telescoping ant.	4.95
9 ft. 3 section antenna	2.95	51 or 52.5 crystals	3.95
Unused surplus 4F relays	3.95	New 4F relays	6.00

**STANDARD COMBO**—Basic transmitter and basic pulser and modulator kits, 8x10x10 case, 7 3V4, 3B4, xtal, 9½ foot 3 section antenna, 2x4x4 control box, 2 surplus 4F relays \$54.95

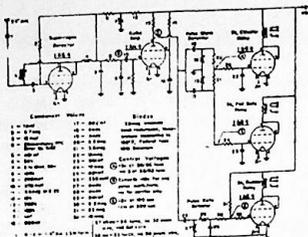
**DELUXE COMBO**—Basic transmitter and basic pulser and modulator kits, 8x10x10 case, 7 3V4, 3B4, xtal, 112" antenna, new Sigma 4F relays, control box (stick type) \$64.95

With **DRILLED** 8 x 10 x 10 case \$67.95

**50-54 MC. VERSION** is available at the same prices above... Please specify whether 51 or 52.5 mc. crystals are desired.

**NOT recommended for beginners or limited R/C experience**

## ★ WAG Dual Proportional Receiver Kit



Kit contains--Cinch 13214 tube sockets, Epoxi Resin Fibre Glass bases completely drilled with over 100 holes. All capacitors and resistors including 5% values. Federal 1215 High Back Resistance diodes, wound tank coil, Miller 6152 RFC, wire, plugs and sockets, spaghetti, solder and instructions for wiring and tuning. The most complete kit we have offered. Remember, it is approved by Dr Good for your protection. It is NOT recommended for beginners or those with limited R/C experience. Kit saves you more than \$3.00 on parts if purchased individually. May be had for 27 $\frac{1}{2}$  or 50-54 $\frac{1}{2}$ ¢. Be sure to specify frequency desired

BASIC Kit, less tubes and relays	\$13.95
TUBE KIT--four IAG4 and one IAH4	9.50
COMBO Kit, Basic. Tube Kit and 3 Gen relays	\$35.95

## ★ Stick Control Box

For the dual proportional fans there has developed a need for some type of simple stick control box that could be built without a machine shop. Ace answers the need for a simple box which gives a stick type of control. It does not use gears and may be built in a short space of time. Easy to adjust and keep adjusted. All the tedious work has been done for you. We offer it in several different versions for your convenience.

Offers full stick control--move stick in direction you want: left, right, up or down. Equipped with normally on switch for motor control. Comes with 8 wire cable and 8 prong plug and socket.

Basic Conversion Kit--for use with your present 3V4 or IAG4 WAG pulser. 2 x 4 x 4" box, idler wheels, cord, mounting brackets, a stick with knob, cable, push switch, LESS POTS \$3.95

Basic Control Box Kit--same as above but with two Allen Bradley J Pots. Either two 1 Meg for the WAG dual, or one 1 Meg and 1 100K for conventional set ups. \$6.95

COMBO, as above, but with sub chassis drilled and punched for making pulser and wiring in present transmitter case. Condensers and resistors measured and matched for no drift performance. Includes two 3V4 tubes, 41P relay, DPST switch \$14.95

COMBO KIT, as above, but with IAG4 tubes \$16.95

## ★ Commander II

A Brand New Commander Receiver! This one, named the Commander II, is a two tube hard tuber that is not at all hard to adjust and to tune and once tuned stays set. Not greatly affected by hand or ground capacity. Represents a year of testing and perfecting. Original circuit was developed in Germany and has been praised by McEntee and Lorenz. Similar to Hill receiver. May be used on 22 $\frac{1}{2}$  to 45 volts of B. 30 v. are recommended for most installations. Relay adjustment is not a bit critical since current rise is from 0 to 2.5 to 5 ma., depending on voltage used. First stage idle is .3 to .5 ma. A really dependable, reliable performer, and one that is destined to make R/C history.

Available in two models. The miniature model uses two 3S4 tubes for economy of purchase price, while the submini model uses two IAG4 tubes for economy of filament drain. As with the first Commander, relay and tubes are furnished, no extras to buy. (Meter and batteries are not furnished). Either model can be recommended for the novice. With the exclusive Ace photo pictorial, wiring is easy. Available Feb. 1957.

Commander II, Mini model	\$11.95	Commander II, Submini	\$13.95
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## ★ Magnalux Wet Cell

Manufactured for a filament type cigarette lighter, these small wet cells are ideally suited for R/C. Weight is less than one ounce. Size is 3/8 x 1 1/16 x 1 3/8". 2 Volt. Will re-charge themselves up to 25 times without external charge. Fine for a low drain application. May be recharged with low ma type charger. Case is sturdy plastic and leak proof. 75¢



## ★ Dual SPDT

Boat men, servo makers, mickey mouse experts, here is the switch you have been looking for. Provides two SPDT snap action switches with silver points, which may be operated by cams, levers or what have you. Only your ingenuity will limit your use of this switch. It is compact, measures 7/8 x 7/8 x 1" and weighs less than half an ounce. May be used as a transmitter keyer by mounting on cabinet using an insulated button. Many R/C applications. 25¢

## ★ Data Sheets

In keeping with our policy of bringing you the latest in design improvements, here are two new data service sheets Each 10¢

SS#9--Galloping Ghost Actuator--For those who would like Dual Proportional Control, but lack the skill to build the new WAG system--here is a simple answer. Use of a Mighty Midget motor as an actuator for both rudder and elevator accomplishes Dual Proportional if it is used with a WAG type pulser or the Ace Stick Control Box. Experts praise it. Simple yet very effective.

SS#10--Pulse Motor Control--Add motor control to your present pulse system, or to the dual system in SS#9. Requires only an additional tube and relay. Pulser conversion is quite easy, too. May be used with many present receivers, Commander, Simple Single, Lorenz, CG, MC and others. Very reliable.

## ★ AB Pots

Now, Allen Bradley pots available in two types—with shafts for pulser use, and with screwdriver slots with a locking bushing for the trim adjustment requirement in dual systems.

AB with shaft. 100K and 1 Meg. Specify \$1.45

AB type JLU, with locking bushing, 50K and 100K \$1.75

## ★ Misc.

Gem replacement springs	.15	3D6 tube	\$1.00
Mighty Midget gear sets	.75	13.2675 MC crystals	3.95
Mighty Midget brushes, pair	.50	Acme 2A, two submini pen	
Idler wheels, 1/2" dia. alum	.10	cells	.40
3 point tie lug	2 for .05	Cable clamp 1/4"	2 for .05
2x4x4" blue hammertone case	1.40	2 x 2 3/8 x 4 aluminum case	1.40
Switchcraft 203, push button, normally open or normally closed .75			

*Ace R C East Ace Radio Control Ace R C West*

Box 1661  
Burlington, N. C.

Box 301  
Higginsville, Mo.

Box 18  
Carmichael, Calif.

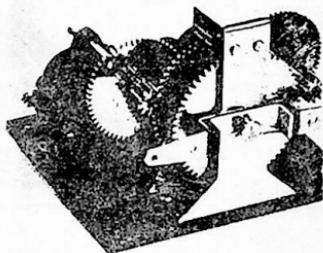
From the Home of Blue Ribbon Kits  
Ace Radio Control

## SUPPLEMENT 57-3

The R/C picture during the first months of 1957 is a fast breaking one. In order to keep you posted here is supplement 57-3--the second in as many months. You'll find many new items and many components hard to locate all now conveniently available. Some catalog changes will be found on third page of this supplement. We want to take this opportunity of thanking you, our customers, for making this year our biggest in our almost 5 year history.

### ★ Robot Synchro

Here is the sensational Robot Synchro which helped cinch 1st, 2nd, and 4th at last year's Mirror meet. For proportional systems, the Synchro follows the pulsing without moving the surfaces. When control switches the move in the direction desired to the degree desired. Weight is 5 ounces, beautifully constructed for trouble free operation. May be used with the Dual Systems. Use with any CW or audio receiver and transmitter and a WAG Pulsar or Stick Control Box for rudder only. Motor control may also be added. Data Sheet #10 gives all the details. Synchro, \$14.95



### ★ Robot I

A simple, light, but very powerful robot for the Galloping Ghost system to provide Dual Proportional effects on Rudder and Elevator. May also be used for Rudder only systems. The Robot is beautifully made and will stand a lot of use. All the power you need for even large surfaces. The WAG pulsar or Stick Control Box may be used for the system. Complete dual installation instructions include with Robot to use both rudder and elevator for proportional control. Simpler Dual systems are the answer for a system which is easier for the R/C novice to build and use. \$9.95

Sorry, no picture

See April American Modelier.

### ★ Yardney Silver Cell

For years Yardney Silver Cells have been used by discriminating modellers for filament and servo or actuators--light in weight, rechargeable, dependable, these units are used and recommended by Dr. Walter A. Good. They have been available only from the factory but now are available from ACE. At Yardney's suggestion, they will be drop shipped on our order to you direct from the factory to insure you of fresh cells. \$6.00



# THE SONIC WAVE

Remote Control Boat  
Only \$24.95

Ready for  
May Release



The Sonic Boat is controlled by a Sonic Gun which is included and can be operated by any age level. No license is required. The impulses caused by the reports of the gun motivate the Sonic System which guides the boat in starboard and port turns, sends it full speed ahead, or brings it to a stop. The gun operates the boat within a range of 50 to 75 feet.

It has a 16" hull, is a Cabin Cruiser, with these features:

- \* High impact styrene plastic hull
- \* Special rubber motor mounting
- \* Gold plating on all Sonic system parts
- \* Specially designed electro-magnetic rotary switches and relay.
- \* Is powered by a newly designed motor with internal switch, built in low vibration and low drainage for longer battery life



## The GEM Micro

You asked for a GEM that's adjustable in the field. We've been working on the engineering.....and here it is! Same crash resistant construction. Same high sensitivity and low contact resistance. Fine silver points. With this micro-meter adjustment the same close tolerance as on the Gem Standard can be easily maintained. Additional tie-point terminals provide mounting for condensers and resistors. \$4.95

## ★ Custom Building Service

At the request of many customers, Ace R/C Kits are now available custom built--ready to fly or float. We offer this service only on a custom building basis. The unit will be as carefully built as skilled technicians know how. They will be guaranteed to perform as well as any commercially available units. Allow two weeks extra for custom building. Initially, custom building will be offered only on the following units: Commander I, Commander II either mini or submini, Lorenz two tube, Lorenz two tube diode, Little Gem diode, Gazistor and Mac Single receivers, and Commander, Mac II, or Lorenz MORA transmitters. To order your custom built Ace kit, simply specify combo desired and remit on the following basis: Combo price plus custom building fee: for one tube units \$5.00, for two tube units \$9.00.

## ★ Service Department

In keeping with our policy of improving our service to our customers we have with the co-operation of two excellent R/C men opened two service centers for the convenience of customers who experience difficulty in getting any Ace kit into proper operation, or if the receiver suffers a prang. Not just every service man for radio or TV is equipped or has the know how required by R/C receivers and transmitters. An entirely different technique is required and we are proud to say that the operators of our Service Departments have that technique. They are licensed radio operators of long standing and have been in radio control since the early days. Their service is fast, courteous and friendly. Service charge for all ordinary repairs is \$2.00 plus return postage. Should the unit require more than ordinary work they will advise approximate cost of repair. In the event of defective component on the kit from Ace it will be replaced without cost. Send to your nearest point.

Ace Service Department  
837 Eastern Avenue  
Schenectady, New York

Ace Service Department  
7020 E. Colfax Avenue  
Denver 7, Colorado

## ★ Babcock BR-3

Light weight 7/8 oz. Operates in any position because of a balanced armature. Adjustable screw contacts silver plated. 5K coil 4.95



## ★ Catalog Changes

CATALOG CHANGES--While we regret having to raise prices on any items, the steel strike and other factors have made it mandatory. We will, of course, pass on any savings, too, as soon as possible. The following prices are now in effect on the following items.

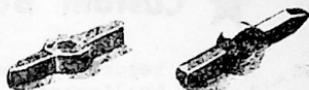
3D6 tubes	\$1.95	Cabinet #2 3x4x5	\$1.95
2 volt synchronous vibrator	\$1.95	Cabinet #3 3x5x8	\$2.50
Transistor Applications discontinued		Cabinet #4	\$2.95
With the Commander II so superior to the Mini II, this and the companion PC4 receivers have been withdrawn.		Cabinet #5 7x3x10	\$3.95
13.2675 mc crystal in 57-2	\$4.50	Cabinet #6 8x10x10	\$4.50
Cabinet #1 discontinued.		Ace Dolphin Boat now with Dmeo Servo only	\$36.95
		With MC250 Transmitter	\$53.95

Standard Gem reduced to \$4.25

ER4-6A battery discontinued.

## ★ Alnico Arrow

Just the trick for use in centering on any magnetic actuator. Use it in the boat or plane to get absolute neutral with no signal. Light and 1" long and 1/8" thick 25%

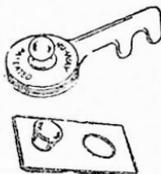


## ★ WAG Dual Instructions

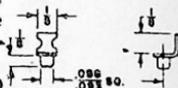
Since the magazines in which the WAG Dual Receiver and Transmitter instructions appear will shortly be unavailable, Dr. Good has suggested that Ace make available the instructions normally sent with the kits as a customer service. Complete Receiver instructions 75¢ Complete Transmitter instructions \$1.00.

## ★ New Items

NU-WAY SNAP CONNECTORS for quick connect and disconnect for use on planes or transmitter antenna for easy exchange. \$.25



SMALL EYELET LUG as used on the Commander II. dimensions shown. Package of 10 .10



### NEW HARDWARE

2/56 x 1 bolts	6 for .10
3/48 x 1/4	10 for .10
3/48 x 1/2	10 for .10
Standard phone tip	.03
#2 self tap screw	10 for .10
#4 self tap screw	10 for .10
#6 self tap screw	10 for .10

EYELETS listed in catalog 57-1 are just right for eyeletting into 1/16" base material. For eyeletting sockets and other material on the base longer ones are required.

3/32 OD x 7/32 deep 10 for .10  
1/8 OD x 5/32 deep 10 for .10

487 B Battery plug .15  
#6 Dry Cell connector 2/ .05

5% RESISTORS in the following values: 15K, 47K, 82K, 100K, 160K, 200K, 470K, 1M, 2M, and 6.2M each .20

SILVER MICA CONDENSERS 5, 10, 15, 33 or 47 mmf .25

Prices subject to change without notice.

### NEW METAL CABINETS

2x3x4 blue hammertone \$1.45  
2x4x5 blue hammertone \$1.95  
National E730 shield can \$ .95  
(1 15/16 x 2 3/8 x 4 1/8)  
With lid, above can \$1.25

PLASTIC BALLS, just the thing for control handles, antenna tops, etc. Two sizes 5/16" and 7/16" diameter, either .05

COMMANDER II QUENCH COILS .75  
(Also for Hill and Graupner)

ARCO 403 3-30 mmf submini .50

9 PRONG PLUG AND SOCKET as used in WAG Transmitter with shield .35

#17 ACME for short 30V battery of with a bit of modifying for use with Magnalux .50

1N46 all purpose diode .60

MATCHED CONDENSERS TO plus or minus 2%. For pulsers, modulators.

.005 Mica Silver .50  
.22 Marbelite .50  
.25 Astron .50

*Ace R C East*

Box 1661  
Burlington, N. C.

*Ace Radio Control*

Box 301  
Higginsville Mo

*Ace R C West*

Box 18  
Carmichael, Calif.

# ARE YOU OPERATING LEGALLY ?

Our 27 mc spot is in jeopardy. The FCC, because of the apparent small number of R/C licenses issued, is allowing voice communication on the spot. This means that we are in danger of interference and can expect more voice licensing unless we do something about it.

It is vital that every R/C'er immediately file a license application with the nearest FCC office if you have not done so. File one for every transmitter, since it is a station license. This is done on Form 505, and we will be happy to furnish copies in the quantities you need without charge.

Urge your friends to register if they have not done so. No examination is required, but it is illegal to operate without a station license. Only by having every R/C'er file for his permit will we ever be able to get additional spot frequencies, as well as interference eliminated on the existing one.

It's up to every one to cooperate for the good of all.

RADIO CONTROL  
ELECTRONIC PARTS

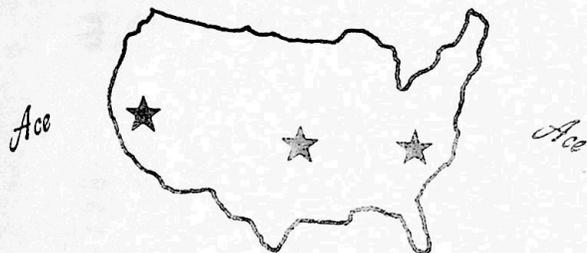
PULSE PROPORTIONAL  
ACE R/C KITS

"DUNHAM'S"  
HOBBIES

CRAFTS - ARTS  
H.O. TRAINS  
HOME TD. 3-4928

10417 LONG BEACH BLVD.  
LYNWOOD, CALIFORNIA  
PHONE LO. 6-0816

NOW — Three locations for even  
FASTER and BETTER SERVICE



We are proud to announce two additional outlets for our East and West Coast customers. This will enable you to get the highest quality R/C kits even faster than ever before. Send your R/C order to the Ace R/C point nearest you.

ACE R/C WEST Marconi at Fair Oaks Carmichael, Calif.	ACE RADIO CONTROL Box 301 Higginsville, Mo.	ACE R/C East Box 1661 Burlington, N. C.
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## CATALOG CHANGES

Since the issuance of catalog 56-1, which is enclosed, there have already been many additions to the line. They are listed here for your convenience. There have been a few price changes, too, and they are listed below.

Page 3--2 volt transformer, 150 or 180 volt output, is reduced to \$3.95.

Page 18--All Price relays have been discontinued.

Page 19--0-5 meter imported from England is no longer available. We have, however, secured and excellent American make which comes in 0-5 ma movement, with 50 ma shunt. Moving coil type, only \$4.95

Page 20--CK722 reduced to only 99¢. This affects kits containing transistors on pages 11, 14, and 17, and reduces the prices by 40¢.

## ★ CL CAPACITORS

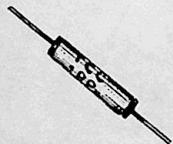
Shown at the right are the actual sizes of these newly manufactured capacitors. They are 10% tolerance, highly stable and will fit in submini applications. At Ace's low price, you can't afford to use anything else.

1, 6.8, 10, 15, 33, 47, 51, 100, 150, 220 and 470 mmf	each	15¢
.001, .005, .01, .02, .04 mf	each	20¢



## ★ SUBMINI ELECTROS

Submin electrolytics for use in audio jobs and other applications where small size is a must. 5 mf. measures 1/4 x 3/4, while smaller values are even smaller. In following sizes: 1, 3, 5, mf. 50 working volts. each 75¢



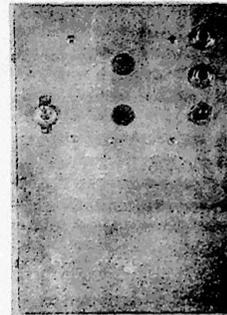
## ★ AUDIO TRANSMITTER

Featured Blue Ribbon R/C in May, 1956 issue of Young Men, this transmitter is designed to fill the need for a hand held job which will operate most non-selective audio receivers on the market including the WAG. Highest quality components assure you trouble free operation. With PRINTED, ILLUSTRATED instructions so that wiring is even more simplified. MOPA transmitter with multivibrator modulator.

Basic kit, consisting of prefabbed RF unit, all necessary components, less antenna tubes, xtal, and case \$6.50

COMBO #1 Basic, undrilled cabinet, tubes, xtal antenna, everything except batteries \$16.75

COMBO #2 As above, but with drilled and silk-screened cabinet \$19.95



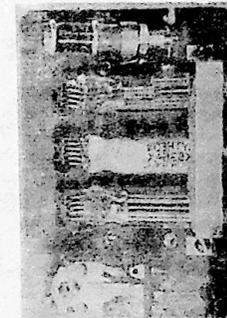
## ★ SUBMINI WAG RECEIVER

The submini WAG receiver uses the same circuit as the original with a few modifications. The use of submini tubes allows a smaller unit, and also a filament drain of only 90 ma. Entire unit, including relay, is housed in plastic case 2 x 2 7/8 x 1".

Basic kit, consists of wound coils, all capacitors, resistors, drilled chassis, wire and PRINTED, ILLUSTRATION instructions.

\$5.50

COMBO--Basic, tubes, and Gem 7.5K relay \$16.95



## ★ DATA SERVICE SHEETS

Keeping up the trend of keeping you informed of the latest RC developments, Ace offers four new Data Service Sheets. More are in preparation and will be offered later. Illustrated.

SS#5 Multichannel Reed Receiver. For use with any 2, 3, 5 or 6 channel reed unit. Uses 1S4, 1S5 and 3S4 for only 150 ma filament drain. 10¢

SS#6 Simple Actuator. Uses two actuator coils and either 1/8" alnico disc for 1/2A ships, or 1/4" alnico for larger jobs. 10¢

SS#7 Hewes' Proportional Rudder, Trimmable Elevator. An extremely simple and fool proof multicontrol system using any pulse box with a few simple additions. Uses regular actuator and either commercial or home built elevator servo. 10¢

SS#8 Elevator Servo. Uses Mighty midget motor to make an extremely simple but ultra reliable elevator control. May be used with Hewes' system or with minor changes may be used with multichannel audio receivers 10¢

## ★ REED UNITS

In addition to the 2 and 3 channel CG reeds listed in catalog 56-1, here are two more for the serious R/C builder

CG AR5--5 reed unit manufactured by Dean	\$19.95
ED6--6 reed unit, imported from England	\$19.95

The ED unit is furnished with schematic for construction of a 3 tube receiver, the CG unit is furnished with schematic of a one tube two transistor receiver.

## ★ ALNICO DISCS

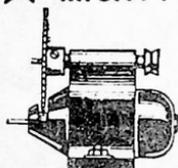
Again available--newly manufactured Alnico V discs. Much improved power, they enable you to make your own actuators or improve your reed units. Manufactured especially for us.

AL1 1/8 x 3/4 inches 40¢      AL2 1/4 x 3/4 inches 1.20

## ★ ACTUATOR COIL

14 ohm actuator coil wound, perfect for making Mactuator or similar actuator. With the purchase of 2 coils and either of the discs above, we offer a free actuator diagram. Please ask for Data Service sheet #6. Actuator coil, each 35¢

## ★ MIGHTY MIDGET MOTOR



A favorite motor used in many home built control systems. Has built in 6 to 1 gear reduction. Ideal for elevator servo as used in proportional rudder and trimmable elevator control developed by Don Hewes. Also excellent for boat servo. Sturdy black plastic case. \$3.95

## ★ DISTLER MOTOR

Here is the amazing little German motor, which operates at unbelievably low current drains. Ideal for use in small boats, as well as control systems \$2.95



## ★ 50-54 mc. CRYSTALS



Two crystals made for us by Petersen for the licensed amateur operator for use on the 50-54 megacycle band. Fundamental 8,500 KC crystal triples to 25.5 which is doubled to 51 mc, while the other fundamental, 8750 KC triples to 26.25 which is doubled to 52.5 mc. These are Z2 crystals and require an FT243 type of holder.

Petersen Z2 51 mc crystal	\$3.95
Petersen Z2 52.5 mc crystal	\$3.95
Holder for Z2 crystals	.25

## ★ PLASTIC CASES

Two excellent sizes of plastic boxes. Design your own receiver to be housed in these little jewels for a crash resistance unit.

PB#1 1 5/8 x 2 1/8 x 1 inch	10¢
PB#2 2 x 2 7/8 x 1 inch	15¢

