A3.6CK

ASSEMBLY MANUAL

For Your

ACE

TRANSVERTER

3. 6 TO 135V

1ST EDITION 25¢

Ace R/C, Inc.
BOX 301
HIGGINSVILLE, MISSOURI

PARTS LIST FOR A3.6CK

RESISTORS
1( ) 75K (violet, green, orange)
1( ) 330 ohm (orange, orange, brown)
1( ) 22 ohm (red, red, black)

CAPACITORS
1( ) 4mf electrolytic

TRANSISTORS
2( ) power transistors CG4R or CK5R

DIODES
4( ) silicon diodes 41093

TRANSFORMER
1( ) cupcore transformer
56 580
40 3B3

HARDWARE
4( ) 4-40x¼ bolts
3( ) 4-40x5-8 bolts
7( ) 4-40 nuts
3( ) 3-8 spacers

WIRE
10'' red, black, brown
12'' solder

MISCELLANEOUS
1( ) P.C. base
1( ) set instructions
1( ) plastic box

These instructions are to assist you in every way to complete your kit with the least possible chance for error. The arrangement shown is the result of considerable trial and error. We suggest you retain the manual in your files for future reference, both for the use and maintenance of your kit.

UNPACK YOUR KIT CAREFULLY AND CHECK EACH PART AGAINST THE PARTS LISTS. In so doing, you will become acquainted with the parts. If some shortage or parts damage is found, return the parts list with your name and address to Ace R/C, Inc., Box 301, Higginsville, Missouri for correction.

In order to get your kit to you as quickly as possible, we occasionally have to make a slight parts substitution. These are all carefully checked and will be found to work as satisfactorily as the original parts specified. They will be found to be minor in nature and are mentioned only to avoid confusion.

If you're ready to go,

1. Lay out all parts so that they are readily available.

2. Have at hand the basic tools you will need: Long nose pliers, side cutters, wire stripping tool for stripping insulation, a 25 or 37½ watt soldering iron of the Ungar type, solder for printed circuit work of the Ersin type.

Many kit builders find it helpful to separate the various parts into convenient categories. Moulded egg cartons or muffin tins make nice trays for small parts. Resistors and capacitors may be placed with their lead ends inserted in the edge of a piece of cardboard until they are needed. Values may be written on the cardboard next to each component.

The use of a converter of the transistor type will convert low voltage to the high voltage required by most transmitters, and eliminate the use of expensive B batteries forever.

To use a converter efficiently, it is only necessary to keep the 3 nickle cadmium type cells fully charged. The converter will draw about one ampere, so you can compute the length of time you can use your transmitter. For instance, with batteries of the 4 Ampere hour type, use it up to about $3\frac{1}{2}$ hours total use, before a complete depletion of the battery may be expected.

Having no moving parts, your converter will last a long time. It will not, however, survive short circuits on the secondary circuit without damage.

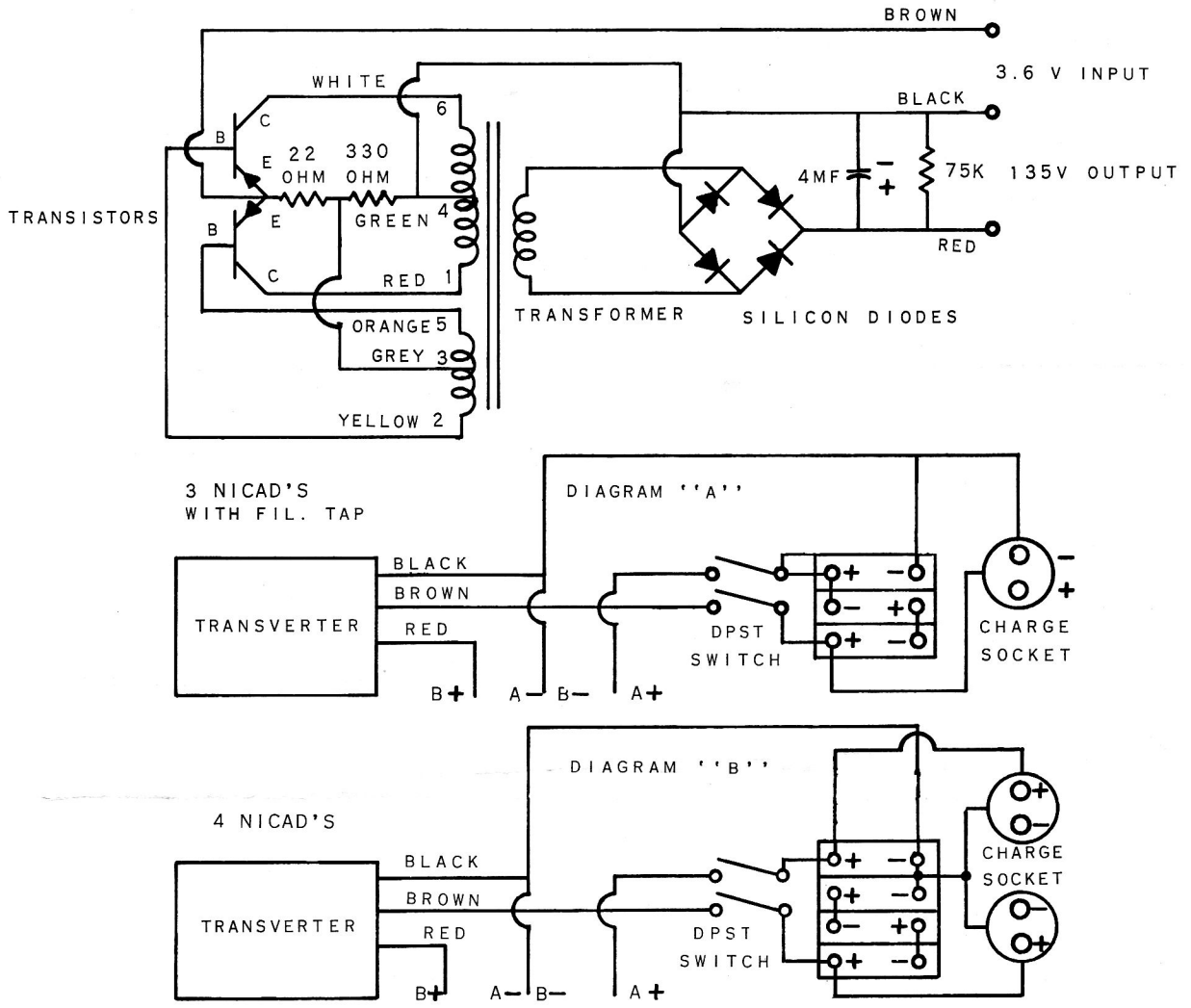
STEP BY STEP INSTRUCTIONS

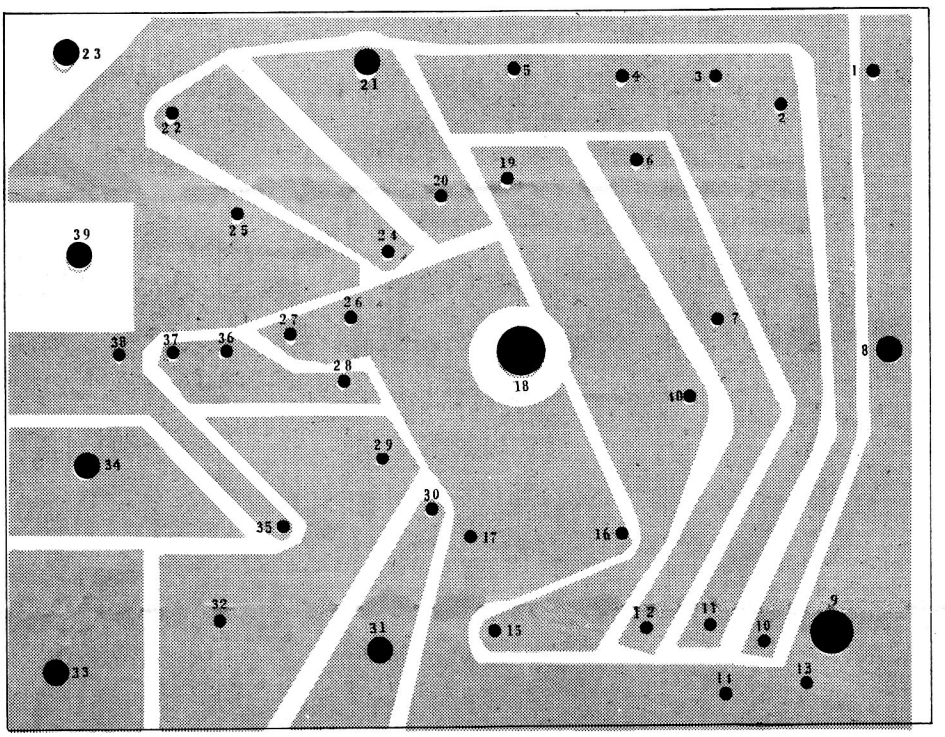
1( ) Mount the cupcore transformer in hole 18.
2( ) Scrape the insulation from the transformer leads.
3( ) Insert the secondary leads in holes 7 and 40.
4( ) Insert the white lead of the transformer in hole 20.
5( ) Insert the yellow lead of the transformer in hole 24.
6( ) Insert the green lead of the transformer in hole 26.
7( ) Insert the grey lead of the transformer in hole 28.
8( ) Insert the orange lead of the transformer in hole 29.
9( ) Insert the red lead of the transformer in hole 30.
10( ) Insert a silicon diode in holes 12 and 16 standing upright over hole 12 with the cathode next to the base.
11( ) Insert a silicon diode in holes 15 and 17 standing upright over hole 15 with the cathode next to the base.
12( ) Insert a silicon diode in holes 4 and 6 standing upright over hole 4 with the cathode next to the base.
13( ) Insert a silicon diode in holes 5 and 19 standing upright over hole 5 with the cathode next to the base.
14( ) Mount a power transistor in holes 21 and 39 with 4-40x¼ bolt and nut with the emitter in hole 25 and the base in hole 22.
15( ) Mount a power transistor in holes 31 and 34 with 4-40x¼ bolt and nut with the emitter in hole 35 and the base in hole 32.
16( ) Insert a 22 ohm resistor (red,red,black) in holes 37 and 38 standing upright over hole 37.
17( ) Insert a 330 ohm resistor (orange,orange,brown) in holes 27 and 36 standing upright over hole 36.
18( ) Strip off ¼ inch insulation off the hookup wire and tint with soldering iron.
19( ) Solder brown wire in hole 10.
20( ) Solder black wire in hole 13.
21( ) Solder red wire in hole 11.
22( ) Insert a 4mf electrolytic capacitor in holes 3 and 14 with the negative lead in hole 14 and the positive lead in hole 3.
23( ) Insert a 75K resistor (violet,green,orange) in holes 1 and 2 standing upright over hole 2.
24( ) Insert a 5-8 inch bolt and a 3-8 inch spacer in holes 8,23,and 33.

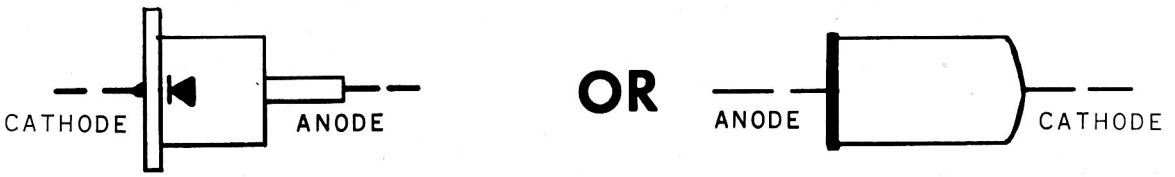
***On the 4 diodes, the cathode is next to board as shown.**

Hook up the transverter to your transmitter according to diagram ''A'' or ''B'' Diagram ''B'' uses a separate ni-cad for filament voltage. Diagram ''B'' is recommended for transmitters with 4 or more tubes. Batteries with an ampere/hour rating of 4 amp. hrs. or better should be used to power the transverter. When the transverter is turned on, a high frequency tone will be heard. The output voltage will be approximately 135-145 volts.

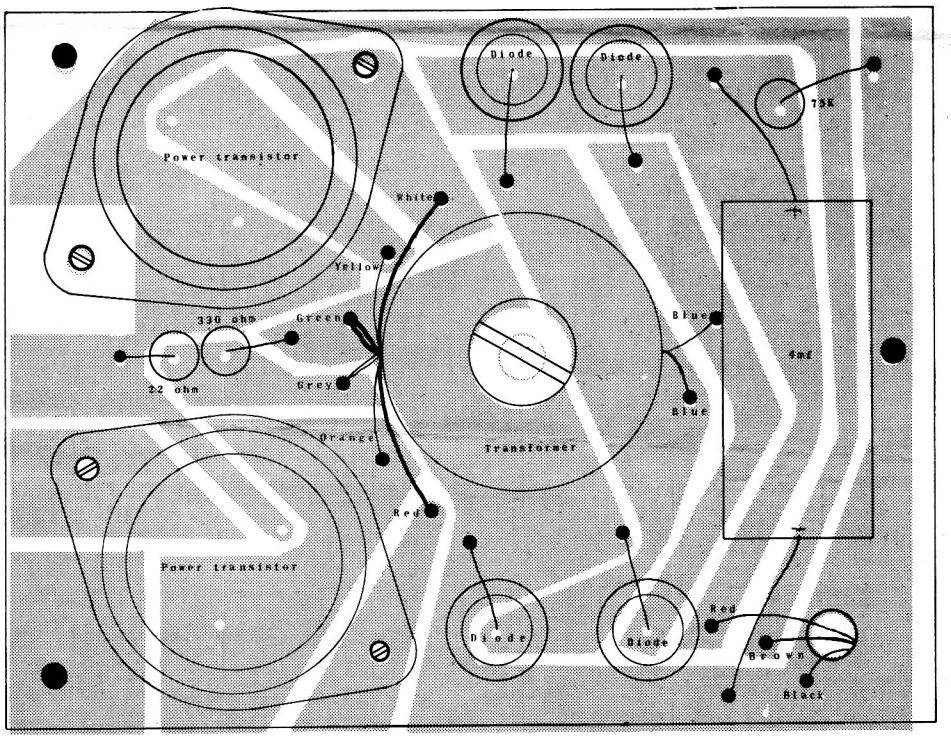
WARNING: NEVER TURN ON TRANSVERTER WHEN CHARGING BATTERIES.





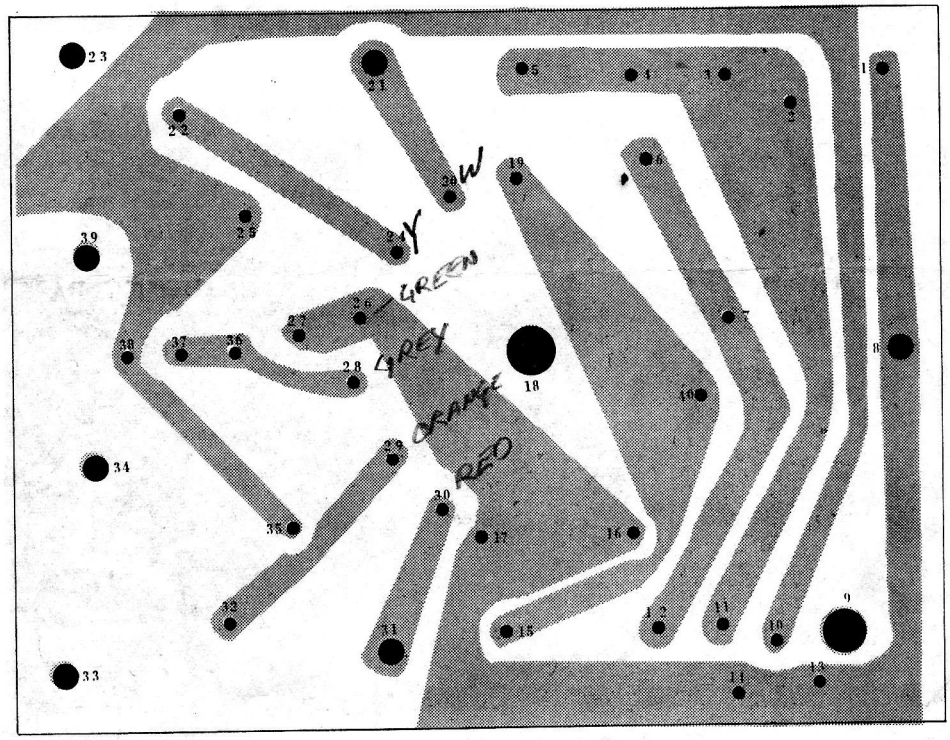


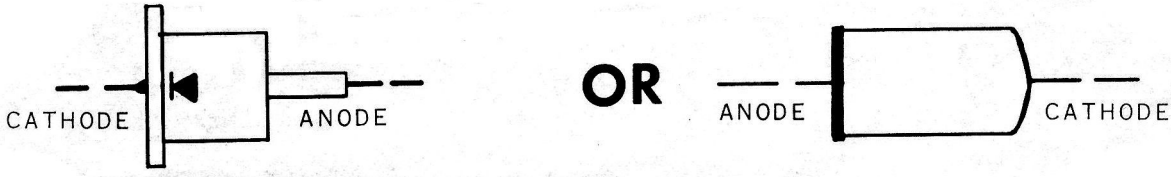
THE INSULLATED END OF THE DIODES IS THE ANODE



ALTERNATE PATTERN

(this is an added page from another assembly sheet)





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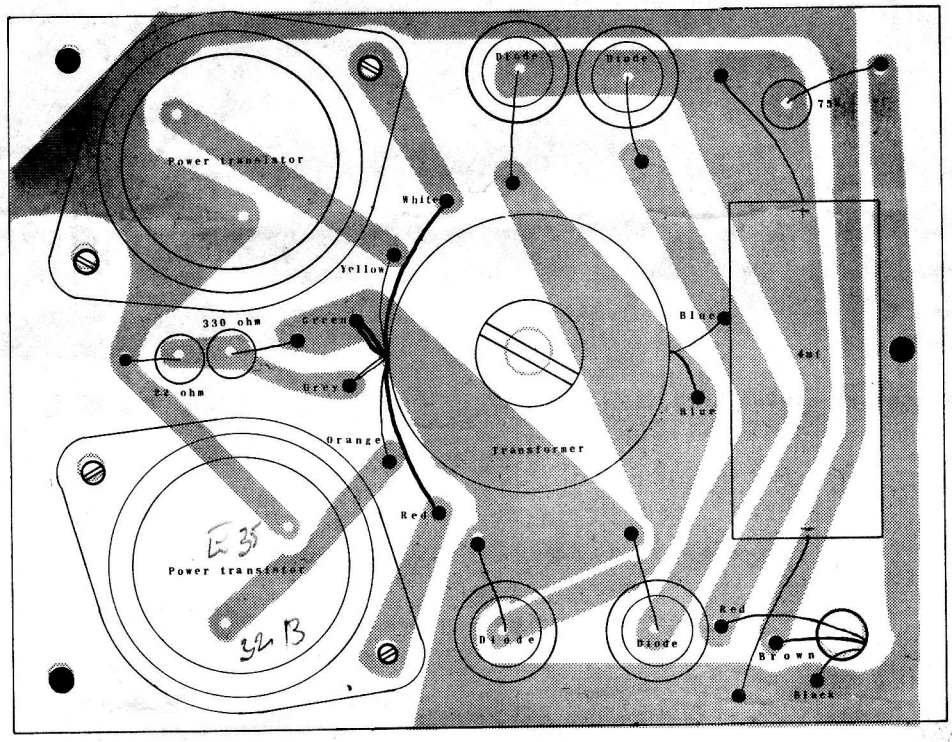
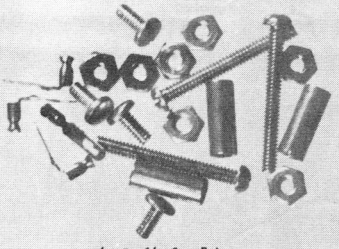
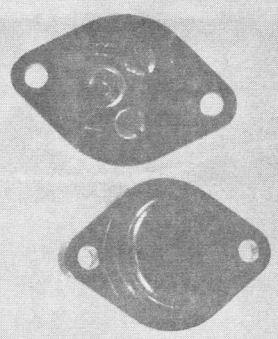


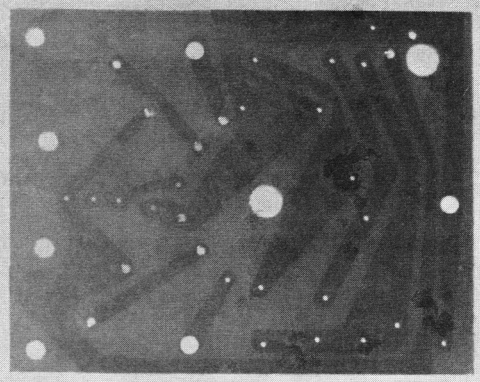
PARTS LIST FOR A3.6CK



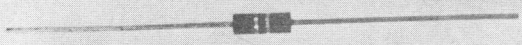
4 4/40x¼ bolts
3 4/40x5/8 bolts
7 4/40 nuts
3 3/8 spacers
4 Transistor contacts



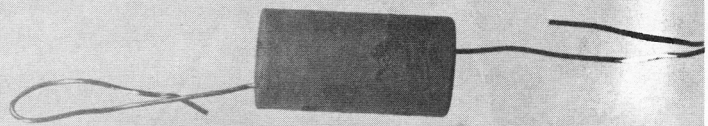
2 Power transistors



1 P.C. Base



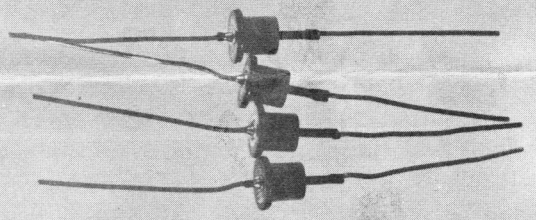
1 75K (violet, green, orange)



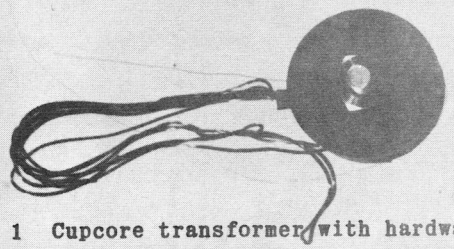
1 4mf electrolytic

1 330 ohm (orange, orange, brown)

1 22 ohm (red, red, black)

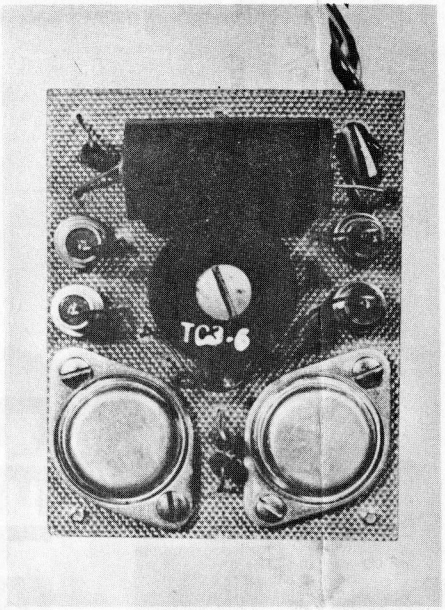


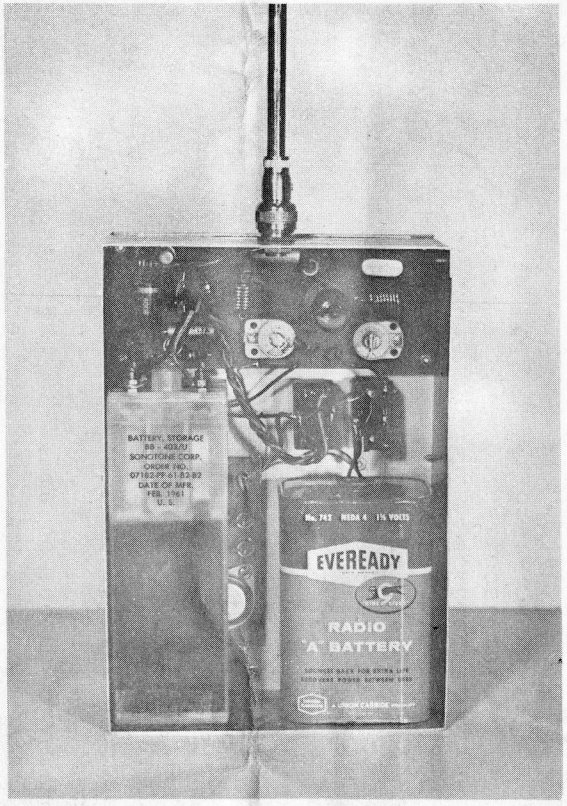
4 Silicon diodes



1 Cupcore transformer with hardware

10'' Hookup wire




BATTERY, STORAGE
BB - 403/U
SONOTONE CORP.
ORDER NO.
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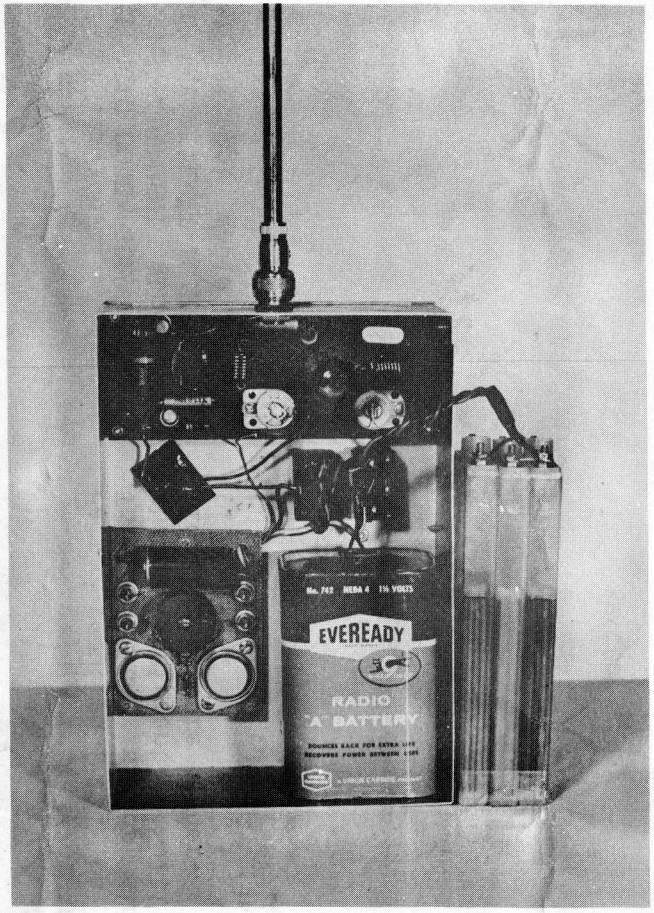
DATE OF MFR.
FEB. 1961
U. S.
EVEREADY
RADIO
"A" BATTERY


EVEREADY
RADIO
"A" BATTERY

SERVICE INFORMATION

If, after applying the information contained in this manual and your best efforts, your Ace R/C kit does not give you the proper performance, we suggest you take advantage of the facilities of our Servicenter, at Box 301, Higginsville, Missouri, #64037.

The Ace Servicenter is manned by personnel that has been trained in the art of servicing R/C equipment. There are problems encountered in R/C equipment that are not encountered in ordinary Radio and Television, and these problems may be difficult for the ordinary Radio and TV Serviceman to spot, unless he has personal knowledge acquired from personal use of R/C equipment.

The service charge will be a reasonable fee plus the replacement of defective components, if in the judgment of the Ace Technician, they were good to begin with. If, in his judgment, they were faulty as you received the kit, they will be replaced without any additional charge.

Service applies only to completed equipment which has been constructed in accordance with the instructions as contained in this manual. Equipment which has been modified, may sometimes not be accepted for service. IF THERE IS EVIDENCE OF ACID CORE SOLDER OR PASTE FLUXES, THE EQUIPMENT WILL BE RETURNED WITHOUT ANY ATTEMPT TO REPAIR --since such an attempt would be a waste of time.

Attach a tag with your name and address to the equipment when it is returned for service. Pack carefully in a carton large enough to contain enough packing so that no damage from handling in the mails will result. Include with the transmitter a letter stating briefly what in your opinion is wrong with the equipment.

On the outside of the parcel be sure to include your name and address. Use a mailing tag, and plainly write in the following address:

Ace Service Center
Box 301
Higginsville, Missouri
#64037

On the package itself, because of your letter, write "Letter enclosed" and add a stamp to cover the postage for this, in addition to the postage the package requires under regular parcel post rates. If available, add stickers such as "Fragile" or "Handle With Care". Your unit will be given prompt attention. If repairs required appear to be extensive, you will be contacted by the Servicenter before further work is done to obtain your authorization. There is a minimum of $2.00 plus postage for service work. Parts required will be additional. This minimum is for simple single channel equipment. Multi and proportional rates are higher.

Ace R/C, Inc.
BOX 301
HIGGINSVILLE, MISSOURI