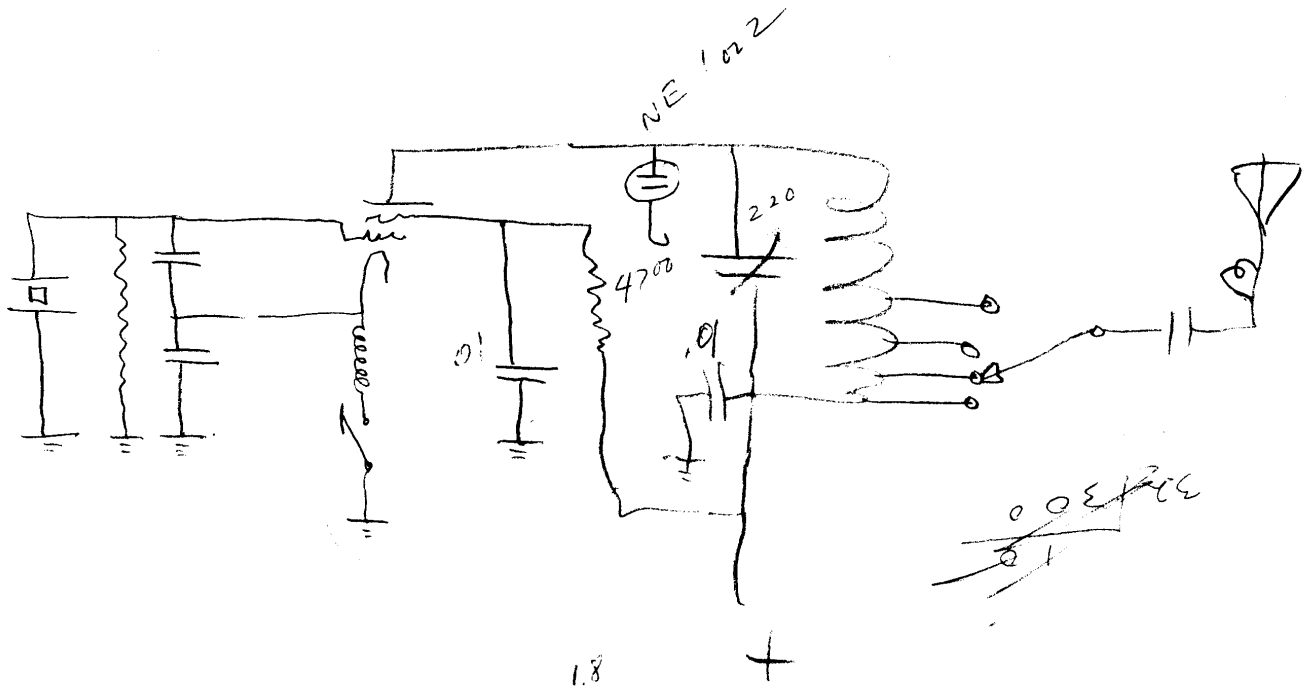


9



This document  
is not to be  
distributed to  
the public

$$\begin{aligned}
 P &= I^2 R \\
 &= (1.20 \times 10^{-2})^2 (155) \\
 &= (1.44 \times 10^{-2}) (155) \\
 &= 2.23 \text{ W.}
 \end{aligned}$$

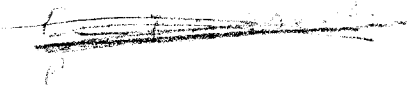
$$\begin{array}{r}
 18 \\
 15 \\
 \hline
 144 \\
 18 \\
 \hline
 324
 \end{array}$$

105

~~SECRET~~

$(48 \text{ mA})^2 (50)$

600/200  
3000  
10000



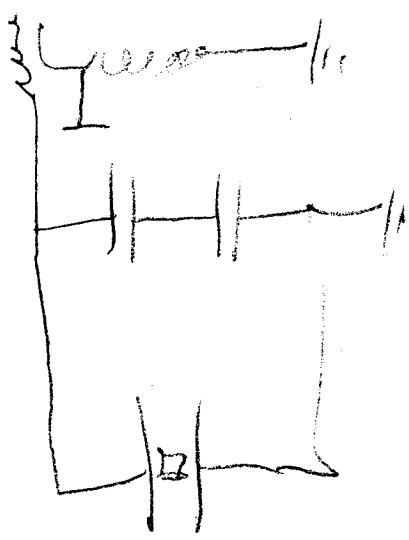
$I R = (30)(0.100) = 3V.$

$C = \frac{1}{2\pi f X_c}$  for  $f = 10 \text{ kHz}$   
 $= \frac{1}{(6.28)(4 \times 10^3)(10)}$

$X_c = \frac{1}{\omega C}$

$\frac{6.28}{251.20}$

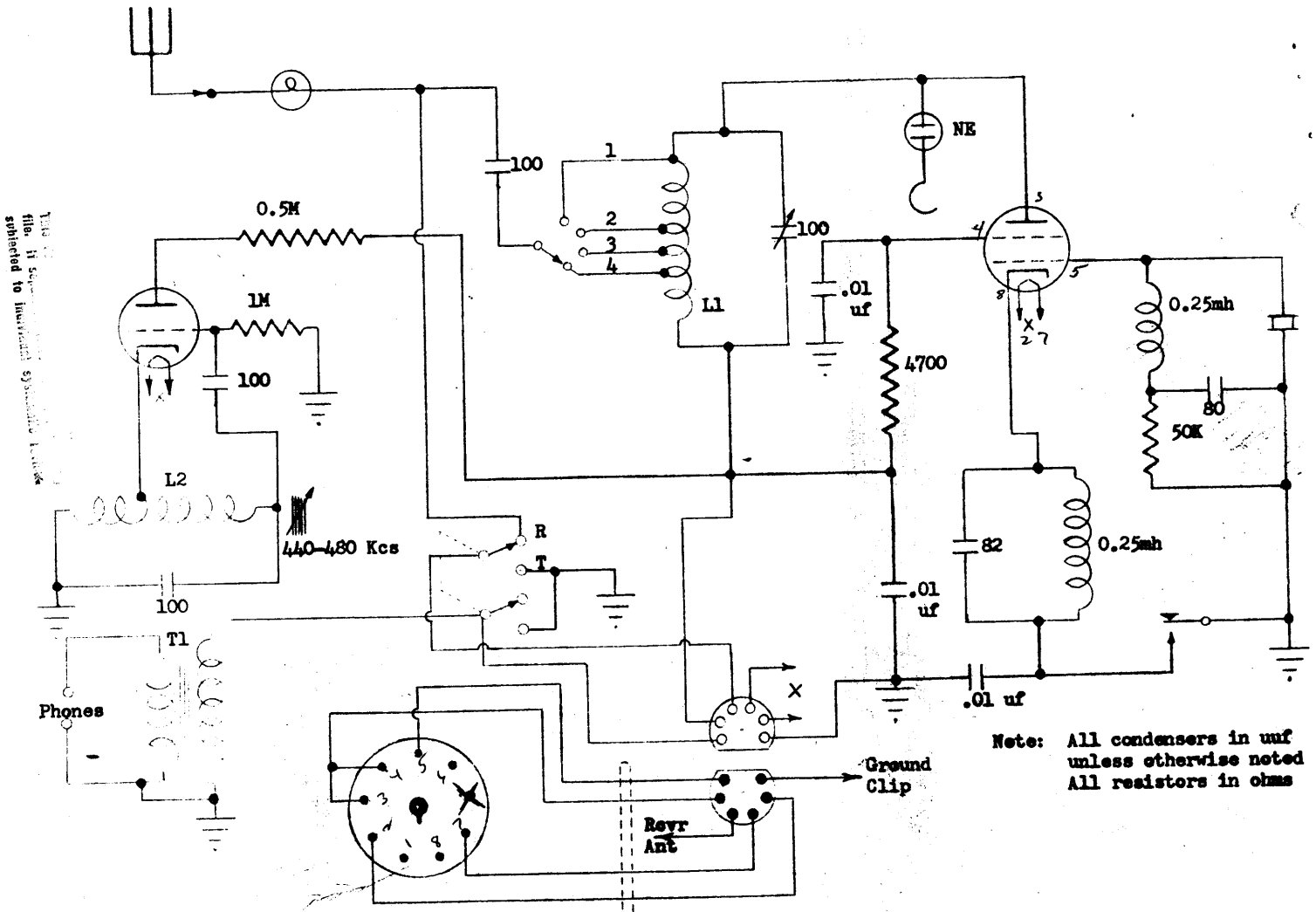
$\frac{10^{-9}}{250} = 400 \text{ pfd}$



$\frac{1}{X_c} = \frac{1}{2\pi f C}$

$C = \frac{1}{2\pi f X_c}$  for  $f = 50 \text{ kHz}$   $X_c = 50 \Omega$

$= \frac{1}{(6.28)(50)(50)} = \frac{1}{(6.28)(2.5 \times 10^3)} = 6.37 \text{ nfd}$



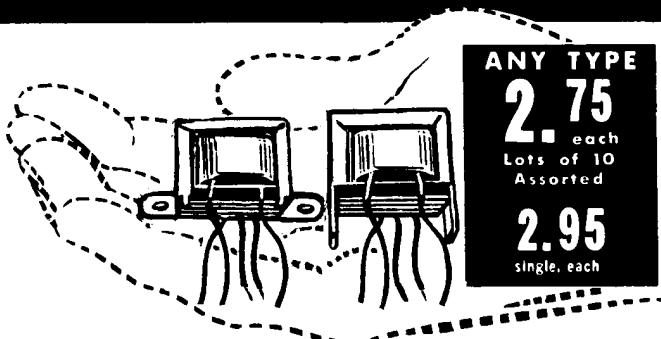
This diagram is a reproduction of a document submitted to the Library of Congress for preservation.

# Argonne TRANSISTOR TRANSFORMERS

**AT LAST A COMPLETE LINE OF QUALITY TRANSFORMERS FOR EVERY TRANSISTOR APPLICATION AT A PRACTICAL PRICE!**

- Nickel-Steel and Silicon Steel Laminations • Wound on Nylon Bobbins • Mylar Outer Wrap • Color Coded Leads

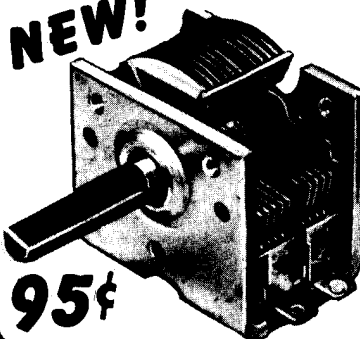
Have you been experimenting with transistor circuits? And have you been forced to make-do with compromise transformers or improvised units? And have you had to pay from \$4.00 to \$12.00 for them? The Argonne line brings you a wide variety for experimentation as well as for replacement. Efficiently designed to meet the needs of miniaturization and engineered to provide more power handling capacity and improved frequency response with minimum distortion. All are nickel-steel laminations except asterisk which are silicon steel. Average net weight 1 1/4 oz.; average shipping wt. 4 ozs.



**ANY TYPE**  
**2.75** each  
 Lots of 10 Assorted  
**2.95** single, each

ARGONNE NUMBER	TYPE	IMPEDANCE PRI-MARY OHMS	SECOND-ARY OHMS	UNBALANCED CURRENT PRL D.C. MA	POWER MILLI- WATTS	D.C. RESISTANCE PRL OHMS	SEC. OHMS	OVERALL SIZE
AR-100	Input	200,000	1,000	.0	100	3600	90	1" x 3/8" x 3/8"
AR-126	Input	150,000	1,500 CT	2.	100	3700	55	1" x 3/8" x 3/8"
AR-101	Input	100,000	3,000 CT	.5	100	3600	60	1" x 3/8" x 3/8"
AR-102	Input	100,000	1,500 CT	.5	100	3600	40	1" x 3/8" x 3/8"
AR-127	Input	50,000	3,000 CT	1.	100	2000	50	1" x 3/8" x 3/8"
AR-128	Input	50,000	1,500 CT	2.	100	3000	50	1" x 3/8" x 3/8"
AR-129	Input	50,000	1,000	2.	100	2500	20	1" x 3/8" x 3/8"
AR-103	Driver	20,000	2,000 CT	1.	100	400	50	1" x 3/8" x 3/8"
AR-104	Driver	20,000	1,000	.0	100	400	50	3/4" x 5/8" x 5/8"
AR-105	Driver	20,000	400	1.	100	600	30	1" x 3/8" x 3/8"
AR-130	Output	20,000	8	.5	100	400	0.6	3/4" x 5/8" x 5/8"
AR-131	Output	20,000	3.2	.5	100	400	0.3	3/4" x 5/8" x 5/8"
AR-106	Driver	16,000	4,000	1.	100	620	350	3/4" x 5/8" x 5/8"
AR-107	Driver	15,000	200	1.5	250	1000	20	1" x 3/8" x 3/8"
AR-108	Driver	10,000	3,000 CT	.0	100	200	100	3/4" x 5/8" x 5/8"
AR-109	Driver	10,000	2,000 CT	.0	100	500	50	3/4" x 5/8" x 5/8"
AR-110	Output	10,000	16	2.	150	600	2.5	3/4" x 5/8" x 5/8"
AR-132	Output	10,000	8	1.	100	600	.6	3/4" x 5/8" x 5/8"
AR-133	Output	10,000	3.2	1.	100	600	.3	3/4" x 5/8" x 5/8"
AR-111	Output	5,000	100	1.	100	600	10	3/4" x 5/8" x 5/8"
AR-134	Output	4,000 CT	8	4.	250	150	.8	1" x 3/8" x 3/8"
AR-135	Output	4,000 CT	3.2	4.	250	150	.3	1" x 3/8" x 3/8"
AR-112	Output	3,500	200	1.	150	120	25	1" x 3/8" x 3/8"
AR-113*	Driver	3,000 CT	1,000	9.	150	100	60	3/4" x 5/8" x 5/8"
AR-114	Output	2,500	11	10.	150	50	.1	3/4" x 5/8" x 5/8"
AR-115	Input	2,000 CT	8,000 CT	.0	150	150	660	1" x 3/8" x 3/8"
AR-116	Output	2,000	200	4.	250	120	20	1" x 3/8" x 3/8"
AR-136*	Output	1,000 CT	100	4.	250	120	10	1" x 3/8" x 3/8"
AR-137*	Output	1,000 CT	8	4.	250	120	.9	1" x 3/8" x 3/8"
AR-138*	Output	1,000 CT	3.2	4.	250	120	.3	1" x 3/8" x 3/8"
AR-117	Output	500 CT	30	.0	100	20	1.5	3/4" x 5/8" x 5/8"
AR-118	Output	500 CT	16	.0	100	20	1.5	3/4" x 5/8" x 5/8"
AR-119	Output	500 CT	3.2	.0	100	20	.3	3/4" x 5/8" x 5/8"
AR-120*	Output	400 CT	11	1.	150	20	.9	3/4" x 5/8" x 5/8"
AR-121*	Output	300 CT	3.2	.0	150	20	.25	3/4" x 5/8" x 5/8"
AR-139*	Output	250 CT	8	2.	250	15	.7	1" x 3/8" x 3/8"
AR-122*	Output	250 CT	3.2	.0	150	11	.3	1" x 3/8" x 3/8"
AR-123	Input	200	2,000 CT	2.	150	11	50	1" x 3/8" x 3/8"
AR-124*	Output	200 CT	16	.0	250	20	1.3	3/4" x 5/8" x 5/8"
AR-140*	Output	200 CT	3.2	2.	100	10	.3	3/4" x 5/8" x 5/8"
AR-125	Input	3	4,000	.0	250	14	50	3/4" x 5/8" x 5/8"

**NEW!**

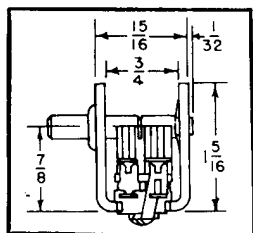


**95¢**

## TRANSISTOR MINIATURE 2 GANG SUPER-HET VARIABLE CONDENSER

**ONLY 15/16" x 1 3/8" x 1-5/16"**

All the new miniaturized transistor operated sets such as GE, Regency, etc., are using this truly miniature 2 gang variable. Lightweight—both the frame and plates are aluminum. Smooth ball bearing action over entire 180° rotation. Bakelite stator insulation. Capacity of 11 plate R.F. section is 6.3 to 123.1 mmf; 9 plate oscillator section is 5.7 to 78.2 mmf. Effective range of trimmers 15 mmf. These add 2 mmf to minimum capacity. Capacity in creases in counter clockwise direction. Flatted shaft, 3/4" diameter by 1/4" long. Frame size only 15/16" D x 1 3/8" W x 1-5/16" H. Shpg. wt. 5 oz.



**MS-261** ..... Net **.95**  
 Matching antenna loop and oscillator coil for transistor superhet circuits listed below.

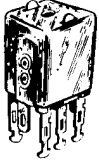
### TRANSISTOR LOOP ANTENNA FOR SUPERHET CIRCUITS



A loop antenna with a primary inductance of 700 microhenry, especially designed with the proper tap to match the input impedance required in transistor circuits. Covers the entire broadcast band from 540-1650 KC when used with latest miniature type variable condensers such as used in G.E. Regency and other sub-miniature sets. (Lafayette MS-261 is ideal). Requires maximum capacity of 123 mmf in RF section of variable condenser. Wound on high efficiency iron core 4" long x 1/4" diam. (See Lafayette MS-265 for matching oscillator coil).  
**MS-264** ..... Net **.95** in lots of 6, Each **.89**

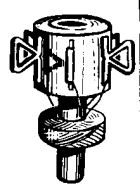
### TRANSISTOR 455 KC I.F.

**89c**

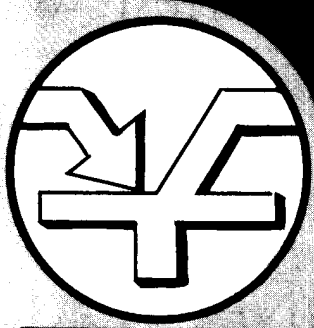


Specially designed for transistor circuits. Only 1/2" square by 3/4" high.  
**MS-126** ..... In lots of 10, each **79¢**  
 Single, Each **89¢**

### MINIATURE TRANSISTOR OSCILLATOR COIL



Matching oscillator coil for use in transistor circuits employing subminiature 455KC IF's such as Lafayette MS-126 and miniature variable condensers (such as Lafayette MS-261) having an oscillator section with maximum capacity of 78 mmf. Ideal for use in combination with MS-264 antenna loop. Size 3/8" core x 1" high.  
**MS-265** ..... Net, Singly **79¢** Ea.  
 In lots of 6, **69¢** Ea.

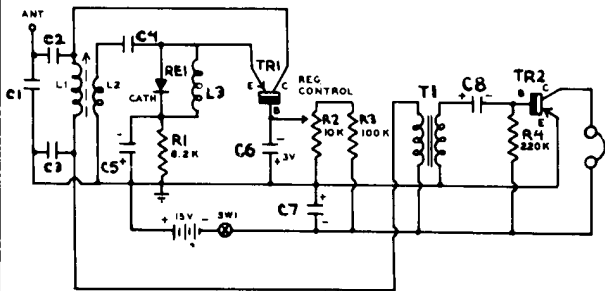


**STAY AHEAD IN TRANSISTORS**

**LAFAYETTE**

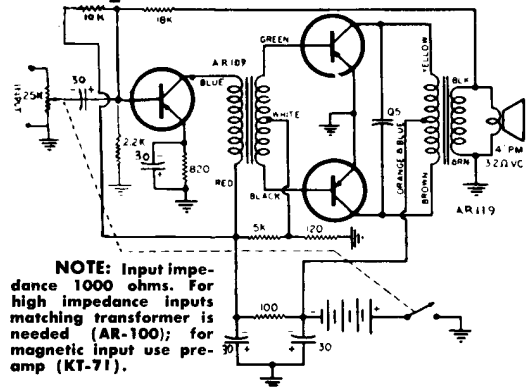
**DEMONSTRATION CIRCUITS**

**SCHEMATIC OF TWO TRANSISTOR POCKET RADIO WITH REGENERATIVE CIRCUIT & TRANSFORMER STAGE**



Lafayette complete kit #KT-68 complete parts, including Transistors, Transformer, Condensers, Resistors, Plastic case, Battery Holders, batteries, etc. (Less Earphones) ..... **11.80**  
For optimum results Lafayette Super Power Dynamic Earphone MS-260 is recommended..... **3.95**

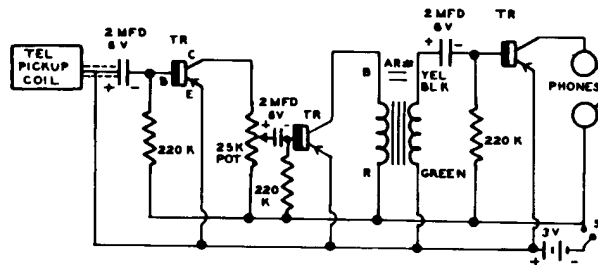
**CIRCUIT DIAGRAM OF LAFAYETTE 3 TRANSISTOR AUDIO AMPLIFIER WITH CLASS 'B' PUSH-PULL FOR SPEAKER OPERATION**



**NOTE:** Input impedance 1000 ohms. For high impedance inputs matching transformer is needed (AR-100); for magnetic input use pre-amp (KT-71).

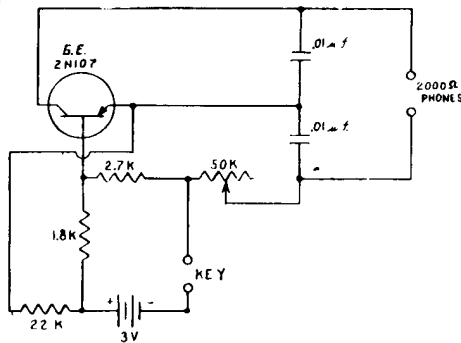
Lafayette Kit — **KT-69**; including all parts, transistors, transformers, chassis, sockets, volume control, resistors, condensers, etc. complete with diagram and instructions. Net..... **17.95**

**CIRCUIT DIAGRAM OF LAFAYETTE 3 TRANSISTOR TELEPHONE PICK-UP AMPLIFIER**



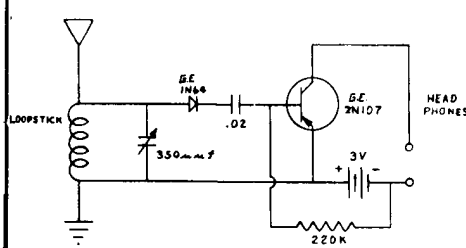
The Lafayette Transistor Telephone Pick-Up Amplifier Kit No. KT-76, includes all necessary parts, chassis, transistors, transformer, condensers, resistors, battery holder, batteries, phone tips, etc. (less Earphone and Telephone Pick-up Coil) Net **9.95**  
For optimum results, Lafayette Super Power Earphone MS-260 is recommended. Net..... **3.95**

**SCHEMATIC OF CODE PRACTICE OSCILLATOR**



Lafayette's Kit — **KT-72**, including all parts, transistor, Masonite board, Telegraph Key, battery holder, batteries, condensers, resistors, Schematic and instructions (less earphones). Net..... **2.99**

**TRANSISTOR RADIO RECEIVER**

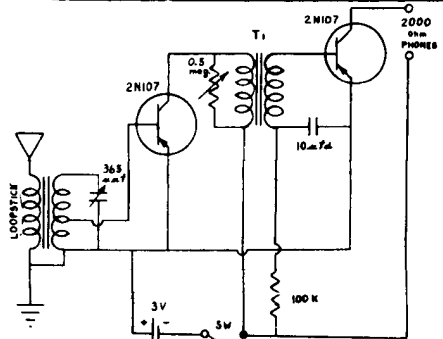


**ESSENTIAL LIST OF PARTS REQUIRED**

- 1 — Loopstick MS-11 ..... **.39**
  - 1 — Variable New Miniature Condenser 365 mmf — MS-215 ..... **.69**
  - 1 — Crystal Diode 1N64 ..... **.50**
  - 1 — Miniature Aerovox .02 mfd Type P82 Condenser ..... **.38**
  - 1 — 220K — 1/2 Watt Resistor ..... **.05**
  - 1 — Raytheon CK-722 Transistor ..... **.99**
  - 1 — Battery Holder MS-138 ..... **.37**
  - 2 — 1 1/2 V. Penlite Cells #7 Cell .08 each ..... **.16**
  - 1 — Transistor Socket MS-252 ..... **.22**
- ADDITIONAL R/C COUPLED AUDIO STAGE CAN BE ADDED WITH THE FOLLOWING PARTS**
- 1 — Raytheon CK-722 Transistor ..... **.99**
  - 1 — 15K — 1/2 Watt Resistor ..... **.05**
  - 1 — 220K 1/2 Watt Resistor ..... **.05**
  - 1 — .02 mfd Ceramic Condenser C-603 ..... **.16**
  - 1 — Transistor Socket MS-252 ..... **.22**

For optimum results: Lafayette's Super Power Dynamic Earphone MS-260 is recommended. Net **3.95**

**TWO TRANSISTOR RADIO RECEIVER**



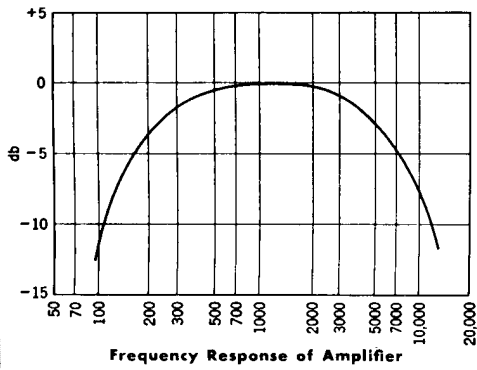
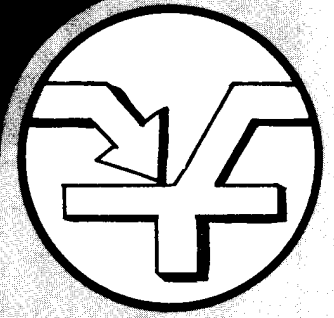
**ESSENTIAL LIST OF PARTS**

- 1 — Loopstick MS-11 (Note: Loopstick is to be modified — tapped between 15 and 20 turns from the free end of coil and then rewound as before and connected as indicated in diagram) ..... **.39**
- 1 — New Miniature Variable Condenser 365 mmf — MS-215 ..... **.69**
- 2 — G.E. — 2N107 Transistors (1.25 ea.) ..... **2.50**
- 1 — Crystal Diode 1N64 ..... **.50**
- 1 — Miniature Aerovox .02 mfd Type P82 Condenser ..... **.38**
- 1 — Miniature 1/2 meg Volume Control with Switch VC-39 ..... **.69**
- 1 — Miniature Barco 10 mfd Cond. P70-10 ..... **.59**
- 1 — Argonne Transistor Transformer AR-100 ..... **2.95**
- 1 — 100K 1/2 Watt Resistor ..... **.05**
- 1 — Battery Holder for 2 #7 Cells MS-138 ..... **.37**
- 2 — 1 1/2 Volt Penlite #7 Cell .08 each ..... **.16**

For optimum results Lafayette's Super Power Dynamic Earphone MS-260 is recommended. Net **3.95**

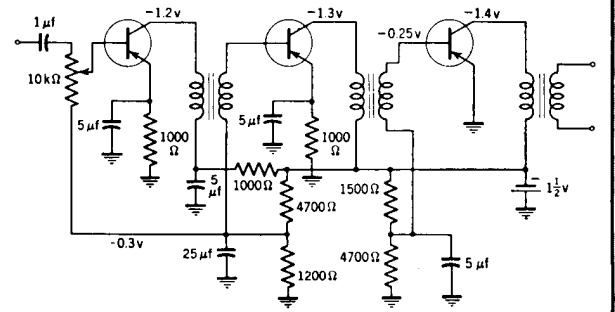
Leads the Field in

# TRANSISTORS Circuits Kits & Components

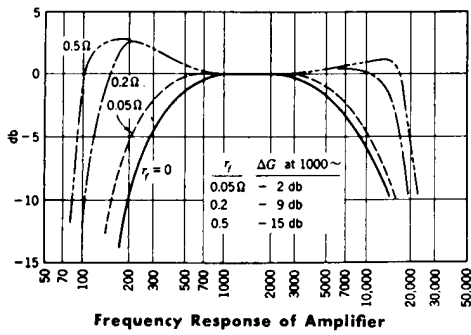


### SCHEMATIC OF SINGLE BATTERY HEARING AID

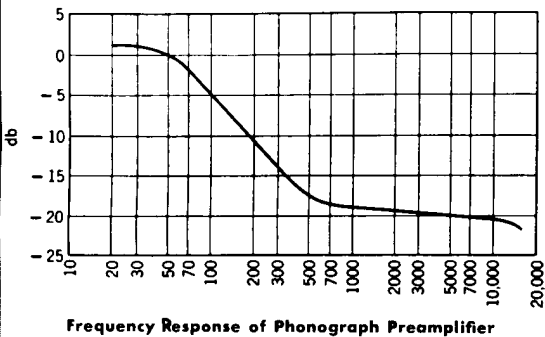
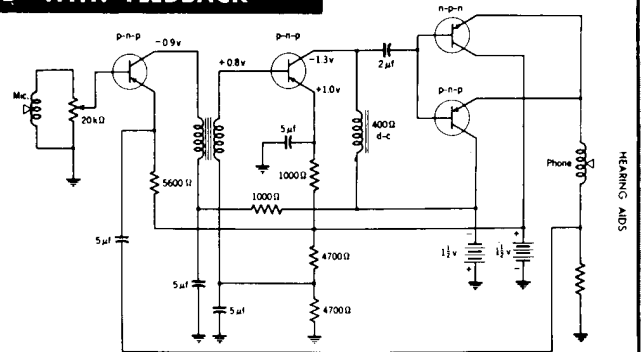
The Transistors are G.E. 2N44; resistors  $\frac{1}{2}$  or  $\frac{1}{2}$  Watt; condensers are subminiature. Transformers are Argonne AR-101. (center tap of sec. not used.)



### SCHEMATIC CLASS 'B' HEARING AID WITH FEEDBACK

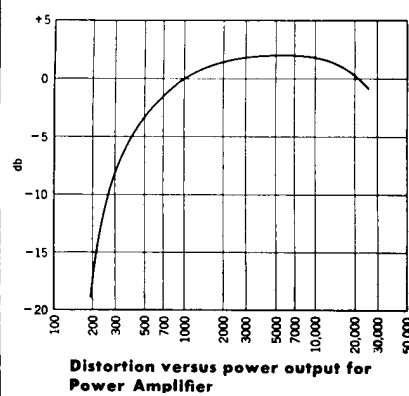
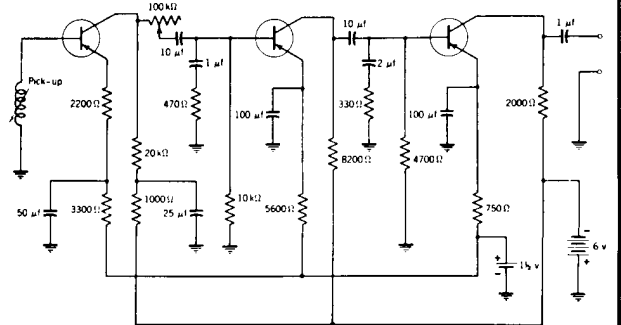


Three stage amplifier with complementary P-N-P and N-P-N arrangement; Transformer coupling is used between the first two stages and choke coupling between driver and output stages. The resistor  $f_r$  varies with frequency response desired. Input impedance at 1000 cycles, 1200 ohms.



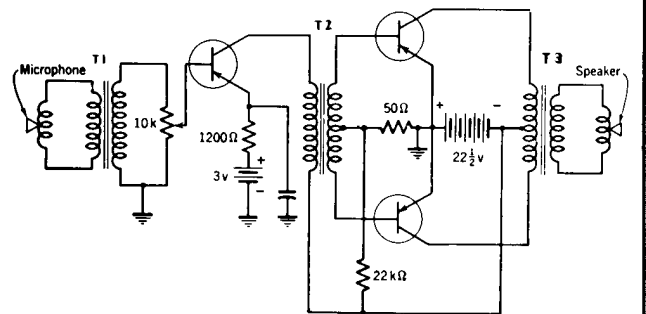
### 3 TRANSISTOR PHONOGRAPH PREAMPLIFIER

Input impedance 60,000 ohm; G.E. 2N44, or 2N43 Transistors can be used; resistors  $\frac{1}{2}$  Watt; condensers subminiature.



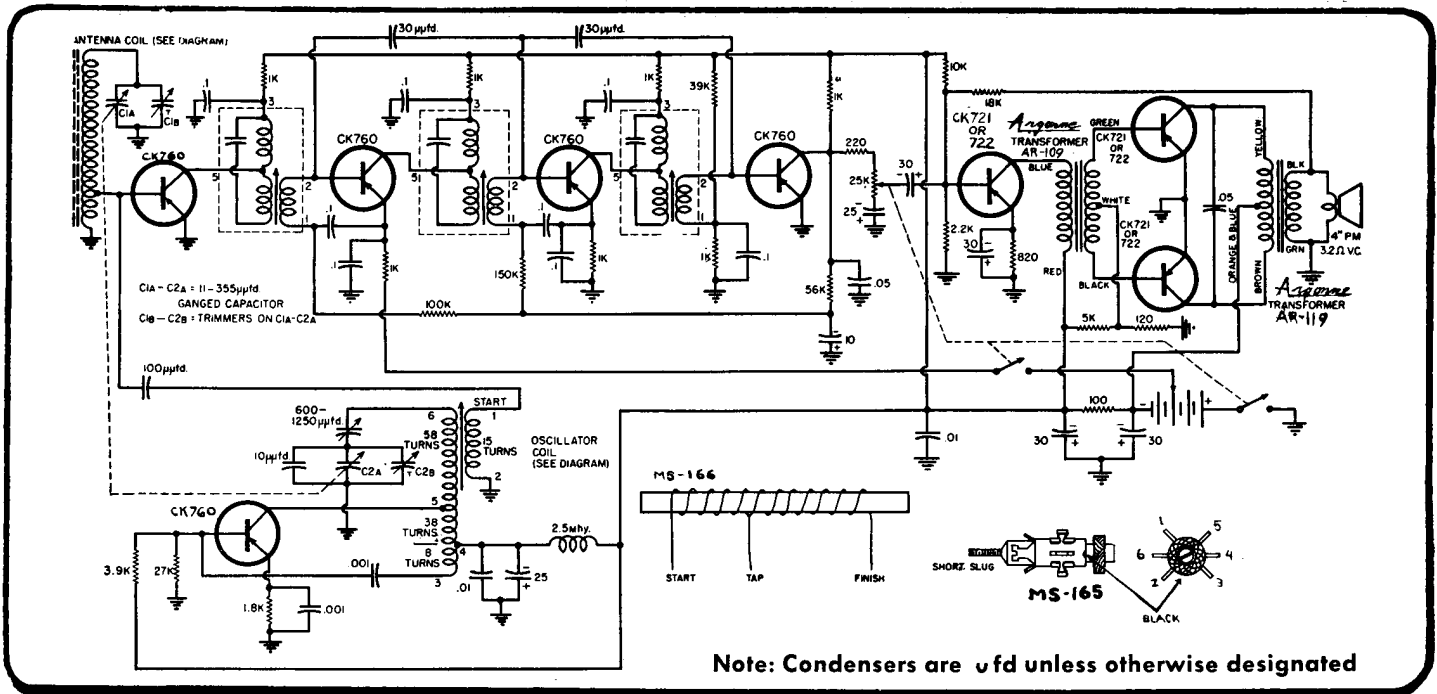
### CIRCUIT OF ELECTRONIC MEGAPHONE AMPLIFIER

This Transistor Amplifier is designed to be mounted directly on the case of a small re-entrant horn loudspeaker to provide a hand-operable megaphone. The microphone is a miniature permanent-magnet loudspeaker, coupled into the base of the first stage through T<sub>1</sub>, Argonne AR-125 Transformer having a step-up ratio of 3-4000 ohms; the coupling transformer of the driver stage T<sub>2</sub>, Argonne AR-103; the output transformer T<sub>3</sub>, AR-138, Transistors G.E. 2N43.



# 8 TRANSISTOR SUPER HET CIRCUIT

WITH CLASS "B" PUSH PULL AMPLIFICATION



## LIST OF PARTS

QUANT.	STOCK NO.	DESCRIPTION	NET PRICE EACH	QUANT.	STOCK NO.	DESCRIPTION	NET PRICE EACH
5	Raytheon CK 760/2N112	Transistor	4.65	1		3,900 ohms 1/2 W Resistor	.05
3	Raytheon CK 722	Transistor	.99	1		4,700 ohms 1/2 W Resistor	.05
1	MS-142	Variable 2 Gang Cond. 365 ufd each section	.98	1		10,000 ohms 1/2 W Resistor	.05
1	Arco 308M	600-1250 ufd Trimmer Cond.	.66	1		18,000 ohms 1/2 W Resistor	.05
1	C-601	10 ufd Ceramic Cond.	.09	1		2,200 ohms 1/2 W Resistor	.05
2	C-601	30 ufd Ceramic Cond.	.09	1		27,000 ohms 1/2 W Resistor	.05
1	C-601	100 ufd Ceramic Cond.	.09	1		39,000 ohms 1/2 W Resistor	.05
2	C-601	.001 ufd Ceramic Cond.	.09	1		56,000 ohms 1/2 W Resistor	.05
2	C-601	.01 ufd Ceramic Cond.	.09	1		100,000 ohms 1/2 W Resistor	.05
2	Aerovox P82	.05 ufd-200V Paper Cond.	.38	1	IRC-Q11-120	25,000 ohms Potentiometer	.73
8	Aerovox P82	.1 ufd-200V Paper Cond.	.41	1	IRC 76-2	DPST Switch	.35
1	Sprague TE 1087	10 ufd-6V Electrolytic Cond.	.61	1	AR-109	Argonne Transformer	2.95
4	Sprague TE 1092	30 ufd-6V Electrolytic Cond.	.65	1	AR-119	Argonne Transformer	2.95
2	Barco P25-25	25 ufd-25V Electrolytic Cond.	.59	1	MS-166	Transistor Loop Antenna	1.25
1		100 ohms 1/2 W Resistor	.05	1	MS-165	Transistor Oscillator Coil	.49
1		120 ohms 1/2 W Resistor	.05	3	MS-126	Transistor 455KC-IF	.89
1		220 ohms 1/2 W Resistor	.05	4	Burgess 2R	1.5 V Flash Cells	.10
1		820 ohms 1/2 W Resistor	.05	1	SK-11	4" P.M. Speaker	1.59
1		1,000 ohms 1/2 W Resistor	.05	1	MS-200	2.5 MH RF Choke	.27
7		1,800 ohms 1/2 W Resistor	.05				

**CHASSIS AND CASE NOT INCLUDED, CHOICE LEFT TO BUILDER**

All resistors are half watt; condensers are sub miniature.

**TRANSISTOR OSCILLATOR COIL**

Designed for transistor circuits to supply the local oscillator energy to mixer stage. Intermediate frequency 455 Kc. Used with a variable condenser maximum capacity of 365 mmfd. Mounting clip fits into 3/8" diameter hole. Dimensions 3/8"x1 1/8" high.

MS-165 ..... Net **49c**

**TRANSISTOR LOOP ANTENNA**

A Transistor Loop Antenna with a fixed inductance loop; specially designed with 1/2" diameter Ferrite Rod to insure adequate signal to the first stage. Inductor is tapped to match an input impedance of 600 ohms. Frequency range 540-1650 Kc. when used with variable condenser having a maximum capacity of 365 mmfd. Dimensions 9/16"x4 1/8".

MS-166 ..... NET **1.25**

**\$1.25**

**Lafayette Radio** DEPT. ST-28 **100 SIXTH AVE. NEW YORK, N.Y.** INCLUDE POSTAGE WITH ORDER

BRONX, N.Y.	542 E. Fordham Rd
NEWARK, N.J.	24 Central Ave.
PLAINFIELD, N.J.	139 West 2nd St
BOSTON, MASS.	110 Federal St

# LAFAYETTE

## Leads the Field in TRANSISTORS Circuits Kits & Components



### TRANSISTOR TELEPHONE PICK-UP AMPLIFIER KIT TWO CAN LISTEN ON SAME PHONE CONVERSATION

With this ingenious kit you can build a tiny transistorized telephone pick-up amplifier with which two people can listen in on telephone conversations without the need of an extension phone. Also serves as a high gain amplifier to feed into a tape recorder, for recording telephone conversations. Can also be used as portable amplifier with crystal microphone and matching transformer when desired. The circuit utilizes a transformer coupled audio high gain and two 3-C coupled stages. Kit comes complete with 3 Transistors, Transistor Audio Transformer, Condensers, Resistors, etc., and Plastic Case. Size: 2 1/2" x 1 1/2" x 3 1/2" and batteries.



- KT-76 Complete Kit (Less Earphones)..... Net 9.95
- MS-16 Telephone Pick-Up ..... Net 2.95
- MS-111 Miniature Crystal Ear Receiver..... Net 1.49
- MS-260 New Super Power Dynamic Earphone, Ideal for Transistor Circuits..... Net 3.95

### 3 TRANSISTOR PUSH-PULL AUDIO AMPLIFIER FOR SPEAKER OPERATION

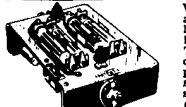


With the New Lafayette KT-69-Kit you can now build a self-powered, push-pull Class "B" transistor, audio amplifier for speaker operation, having a frequency response of 100-8000 cps. The Argonne Transistor transformers were especially designed for transistor circuits. Kit comes complete with 3 transistors, push-pull input and output transformers chassis 3"x4"x1". condensers, resistors, battery holders, etc., schematic diagram.

NOTE: Input impedance 1000 ohms. High impedance inputs matching transformer is needed. (AR-100) magnetic input use preamp (KT-71)

KT-69 Complete with batteries...Net 17.95

### TWO TRANSISTOR PREAMP KIT



With the Lafayette KT-71 you can now build a simple Transistor preamp in a matter of hours. The overall result will be a noiseless, humless and virtually distortionless amplifier. The complete unit is mounted on an aluminum chassis size 3"x4"x1". The Kit comes complete with 2 transistors, condensers, resistors, battery holders, batteries, etc., and schematic diagram.

KT-71 Complete Kit ..... Net - 8.95

### 2 TRANSISTOR POCKET RADIO KIT



Packed into a 2 1/2"x3 1/2"x1 1/4" plastic case. This Two Transistor plus crystal diode radio kit offers many surprises, utilizing a regenerative detector circuit with transformer coupled audio stages, gives you high gain and excellent selectivity, and in distant stations, with ease with more than ample earphone volume. Kit comes complete with two transistors, crystal diode, Loopsick, Argonne transistor audio transformer, resistors, condensers, plastic case, 25 foot antenna lead, etc. Including schematic and instructions.

KT-65A Complete Kit less earphones. Net 11.80  
MS-260 New Super Power Dynamic Earphone, Ideal for Transistor Circuit Imp. 8000 ohm, D.C. 2000 ohm 3.95

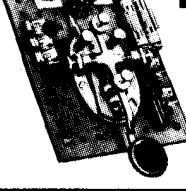
### LAFAYETTE GEIGER COUNTER KIT WITH HIGH SENSITIVITY VICTOREEN TUBF 1B85

Lafayette Geiger Counter Kit with High Sensitivity Victoreen 1B85 tube, makes this one of the most outstanding kit buys in the country. This tube is used only in the most expensive equipment. Easy to build, at only a fraction of the price, of commercial instruments of this type. Just turn it on, flip the high voltage switch and listen to the clicks. Kit includes all parts, tube, carrying case, 22 1/2 and 2 1/2 volt batteries. Complete instructions for quick assembly. Shpg. wt., 1 1/2 lbs.



KT-75.....Net 14.95

### TRANSISTOR CODE PRACTICE OSCILLATOR KIT



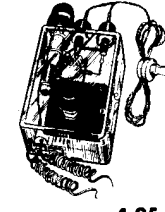
For those interested in mastering the international code, an audio tone oscillator is essential. The circuit of this transistorized feedback oscillator has the simplicity of the neon glow, the signal strength of the vacuum tube, and requires only two penlite cells for weeks of service. It may be used for solo practice, or two may send and receive with the same unit. Kit comes complete with Transistor, Telegraph Key, Resistors, Condensers, Masonite Board, etc., and Schematic Diagram.

KT-72 ..... Net: 2.99  
Cannon ECI - Single Headset ..... Net 1.13

### TRANSISTOR POCKET RADIO RECEIVER KIT

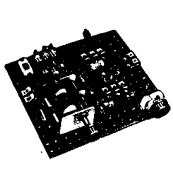
Utilizing One Transistor and Crystal Diode Detector with New Miniature 365 mmf Variable Condenser.

Here is an ideal low cost transistor pocket radio kit for students, hobbyists and the experimenter, who desire to obtain a practical knowledge of transistorized circuits. The circuit utilizes a Ferri-Loopstick and a specially designed miniaturized 365 Variable Condenser permitting the entire receiver to be built in a plastic case size 3"x2"x1". The 1N64 Crystal Diode is used as a detector, the transistor is connected as a grounded emitter amplifier. This receiver with a 50 foot antenna and good ground will bring in good reception over a 50 mile radius. The kit comes complete with transistor, crystal diode, battery holders, batteries, condensers, resistors, plastic case, etc., plus a 115 page book, showing more than 50 practical transistor circuits and How-To-Do-It-Instructions.



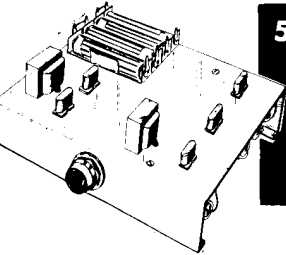
KT-80 Complete Kit (less earphones)..... 4.95  
1 Miniature Crystal for Receiver-MS-111 ..... 1.49

### TWO TRANSISTOR RADIO RECEIVER KIT



This regenerative two Transistor Radio has given more than ample earphone volume on broadcast stations located several hundred miles away. When used with 60 ft. outside antenna well beyond 1000 miles have been repeatedly heard. Kit comes complete with two transistors, Argonne transistor audio transformers, condensers, resistors, masonite board, etc.; schematic diagram plus 115 page book, showing more than 50 practical transistor circuits and "How-to-do-it-Instructions".  
KT-70 Complete Kit with Batteries ..... Net 10.95

### 5 TRANSISTOR AUDIO AMPLIFIER KIT



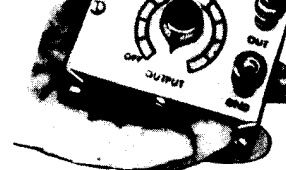
19.50

- Class B Push-Pull Output for speaker operation
- Preamp stage for magnetic cartridges
- Input for magnetic cartridge or crystal mike
- Input for crystal cartridge or tuner

Here is the first practical completely transistorized audio amplifier kit using 5 transistors and 2 special Argonne push-pull input and output transformers. Two inputs are provided, one for magnetic cartridges and crystal mikes, one for crystal cartridge and radio tuners. Operates on only 4-1 1/2 V penlite cells. The preamp stage is designed for such phono cartridges as the GE variable reluctance and other hi-fidelity magnetic cartridges, and provides extra amplification and equalization required. The preamp stage features extremely low distortion, noise and hum. The Argonne transformers are the highest quality. Specially designed for transistor circuits. A volume control is provided. Kit is complete with 5 transistors, two Argonne transformers, condensers, resistors, batteries, battery holders, chassis and all new necessary parts with schematic and pictorial diagrams and instructions for assembly and operation. Chassis size 5 1/2" L x 4" W x 1" H. Shpg. wt., 1 lb.

KT-82 ..... Net 19.50

### TRANSISTOR SINE-WAVE GENERATOR KIT

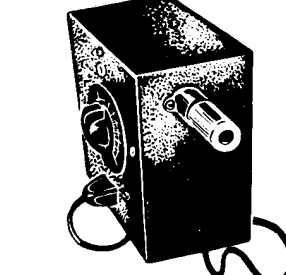


9.75

Reliable, compact transistorized test instrument! The pocket-sized audio signal generator! This generator can be a valuable test instrument in the hands of the experimenter or technician. With it he can service and check operation of P.A. systems, phonograph amplifiers, intercom systems and the audio section of auto sets, home radios and portables, size 3 1/4"x2 1/8"x1 3/8". Shpg. wt., 3 lbs. Kit comes complete with two transistors, metal cabinet, condensers, resistors, transformer etc. schematic diagram.

KT-83 ..... Net 9.75

### CADMIUM SULPHIDE PHOTOCCELL RELAY KIT



11.50

Cadmium sulphide is another semi-conductor used as the active material in modern photocells. This kit utilizing the miniature claibox cadmium sulphide photocell has a high sensitivity, serves as the heart of burglar alarm systems; lighting control systems; door openers; motor or similar devices. The relay circuit is operated directly from the 110 volt A.C. line, incorporates a 5823 cold-cathode tube resulting in quick relay operation at very low illumination levels. Relay contacts rated at 5 amps. Kit comes complete with claibox photocell, tube, resistors, condensers, metal case and chassis, size 3"x4"x5". Schematic diagram and instructions. Shpg. wt., 4 lbs.

KT-81 - Complete Kit ..... Net 11.50

### NEW RAYTHEON TRANSISTORS

**CK722**  
P-N-P  
99c

New Price!  
**CK760**  
(2N112)  
4.65

**2N130**  
P-N-P  
2.00

**2N131**  
P-N-P  
2.80

**2N133**  
P-N-P  
2.95

**TRANSISTOR TYPE 2N107**  
P-N-P  
1.25

**2N76**  
P-N-P  
2.80

HIGH-FREQUENCY TYPES  
**2N135**  
P-N-P  
3.95  
Cut-off Frequency 5 Megacycles

**2N136**  
P-N-P  
5.25  
Cut-off Frequency 7 Megacycles

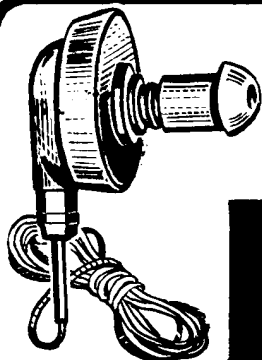
**2N137**  
P-N-P  
6.55  
Cut-off Frequency 10 Megacycles

**SYLVANIA 2N35**  
N-P-N  
2.55

**2N34**  
P-N-P  
3.15



# MINIATURE AND SUB MINIATURE SPECIALTIES



## NEW! SUPER POWER DYNAMIC EARPHONE FOR TRANSISTOR CIRCUITS

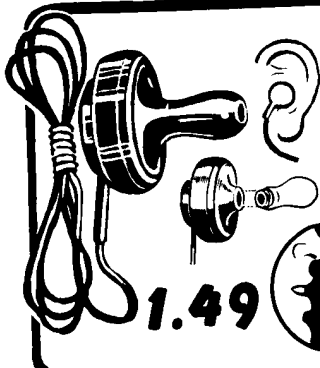
**SPECIAL HIGH OUTPUT-FOR LOW POWER CIRCUITS**

**395**

Lafayette brings you the answer to the problem of the low output inherent in transistor circuits, where the power is so low you cannot afford to lose any of it. You'll be amazed at the difference in volume when you use this new dynamic earphone. Extra efficient construction with a powerful magnet gives up to 3 times the volume of other dynamic earphones, and at the same time gives you the quality of reproduction that is possible only with a dynamic unit. We've tried it on all kinds of transistorized circuits, and this remarkably efficient earphone preserved the precious power so well that in many cases the program was plainly heard with the earphone 2 feet away from the ear. It is not, of course, limited in use to low power devices — it will give superior performance wherever a high impedance dynamic earphone is required. AC impedance 8000 ohms, DC resistance 2000 ohms. Comes complete with 3 ft. detachable plug-in cord.

MS-260

Net 3.95



## CRYSTAL EAR PHONE

Small, almost weightless, plastic ear phone with crystal element, that features high power and sensitivity. Ideal for all applications where a very high impedance unit is preferred. Fits comfortably in the ear. Complete with 3 ft. plastic covered cord.

### CAN BE USED AS MICROPHONE

This unit is so powerful and sensitive that it can be used as a close-talking highly directional crystal microphone. Just screw off the ear-insert and your earphone becomes a mike to use for all sorts of experiments and gadgets.

MS-111.....Net 1.49

**1.49**

## DYNAMIC EAR PHONE

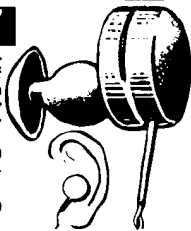
A new lightweight plastic ear phone especially imported by Lafayette to bring you the high quality of a dynamic ear phone with the ease and comfort of an almost weightless unit—at a price less than half that of any comparable unit. Fits right into ear. Excellent sensitivity of 65 db. Ideal for use with miniature sets, hearing aids, transcribing, etc. DC resistance 2000 ohms, impedance 5000 ohms at 1000 cycles. Complete with 3 ft. plastic covered cord.

MS-72.....Net 1.95

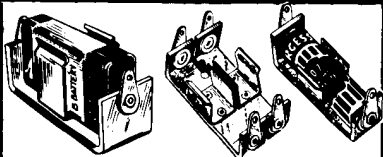
### LOW IMPEDANCE MODEL FOR SILENT LISTENING OR VIEWING

Will replace speaker on any radio set or T.V. for silent listening, by direct connection to secondary of output transformer. Impedance 8 ohms.

MS-100.....Net 1.95



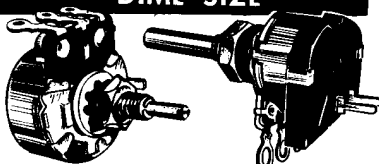
## TRANSISTOR BATTERY HOLDERS



These Battery Holders were especially designed for use in transistor and sub-miniature electronic gear. are made of Aluminum Alloy, sturdy construction with insulated, nickel plated Brass eyelets for easy soldering.

STOCK NO.	DESCRIPTION	NET
MS-137	For 1 #7 Cell	.18
MS-138	For 2 #7 Cells	.37
MS-169	For 3 #7 Cells	.44
MS-170	For 4 #7 Cells	.57
MS-139	For 1 #Z Cells	.20
MS-140	For 2 #Z Cells	.37
MS-171	For 3 #Z Cells	.44
MS-172	For 4 #Z Cells	.57
MS-173	For 1 #1 Cell	.20
MS-174	For 2 #1 Cells	.37
MS-175	For 1 #2 Cell	.20
MS-176	For 2 #2 Cells	.37
MS-177	For U15 22½ V Cell	.20
MS-178	For 2 U15 22½ V Cells	.37
MS-179	For 2 Mallory RM-5020	.26
MS-180	For 4 Mallory RM-5020	.39
MS-181	For 2 Mallory RM12R	.26
MS-182	For 4 Mallory RM12R	.39
MS-183	For 1 #413 30 volt Cell	.24
MS-184	For 2 #413 30 volt Cells	.39
MS-225	For #Y-10 cell	.25

## TRANSISTOR POTENTIOMETERS DIME SIZE



### For Transistor and Sub-Miniature Circuits

Versatile carbon controls for audio, tone and similar applications; specially designed for Transistor and Sub-miniature circuits. Only ¾" diameter, Shaft 1" long ¼" diameter. Shaft easily cut to desired length, includes nut and lock washer. Shpg. wt. 2 oz.

#### WITHOUT SWITCH

VC-32 1,000 ohms	VC-24 25,000 ohms	} 49¢ each
VC-33 5,000 ohms	VC-36 50,000 ohms	
VC-34 10,000 ohms	VC-37 ½ Meg	
VC-35 15,000 ohms	VC-38 1 Meg	
MS-185—Miniature Knob ¾" Diam.—Net..... 7c		

#### WITH S.P.S.T. SWITCH

These Versatile Sub-Miniature Controls with S.P.S.T. switch ratings 1 amp at 20 Volts, ¼ amp at 67½ volts. Control was especially designed for Transistor and Sub-Miniature applications; Bushing ¼" diameter and ¼" long, includes nut and lock washer. Only ¾" diameter 33/64" deep, shaft 1" diameter, 1" long. Shaft can be cut to desired length.

VC-26 1,000 ohms	VC-25 25,000 ohms	} 69¢ each
VC-27 5,000 ohms	VC-31 50,000 ohms	
VC-28 10,000 ohms	VC-39 ½ Meg	
VC-29 15,000 ohms	VC-40 1 Meg	
MS-186—Miniature Knob ¾" Diam.—Net..... 7c		

## TRANSISTOR 455 KC I.F.

FOR TRANSISTOR CIRCUITS ONLY ½" W x ¾" H! SLUG TUNED—IRON CORE



This tiny I.F. is the same one used in the transistorized sets of the leading manufacturers. It's ideal for the experimenter in building and designing miniature equipment. And at this price the serviceman can stock up now for the replacement market. It will sell for 2 to 3 times our price.

MS-126—In lots of 10, each..... 79c  
Singly, each..... 89c

## TRANSISTOR LOOP ANTENNA



Fixed inductance tapped to match 600 ohm input. Covers 540-1650 kc with 365 mmf variable cond. size 9/16 x 4 1/8".

MS-166 Net 1.25

## TELEPHONE PICKUP



FOR RECORDING TELEPHONE CONVERSATIONS

Induction telephone pickup. Telephone conversations can now be picked up with no tapping of wires or special telephone circuits. Simply place the phone base, either cradle or upright type, on the pickup platform and connect the leads to the high impedance input of any medium gain audio amplifier, or directly to any tape disc or wire recorder.

MS-16.....2.95

## TRANSISTOR OSCILLATOR COIL



Supplies local OSC. energy to mixer stage, IF 455 KC. Use with 365 mmf cond. 9/16 x 1 1/8" high.

MS-165.....Net 49¢

## RADIO RECEPTOR PHOTO-TRANSISTOR



**10.80**

APNP germanium miniature photo cell for use in auto headlight dimmers and a variety of control applications. Will operate a relay. Hermetically sealed in glass. Response covers visible spectrum and extends far into infra red. Maximum collector voltage is 12 volts, collector current—20 ma, collector dissipation 50 mw. Light sensitivity 10 ua per ft. candle. Maximum dark current at —4.5 volts (open emitter) is 15 ua. Dynamic source impedance 20,000 ohms nom. Current amplification factor 100 nom. Type RR66A.....Net 10.80

## MINIATURE AUDIO OUTPUT TRANSFORMER

- Weighs less than 1 oz.
- For Experimenters - Hearing Aids
- Only 7/8" H x 3/4" W x 5/8" D

Here's a high quality miniature output transformer that is ideal for use in hearing aids, and in a host of electronic applications where miniature electronic circuitry is used. Primary impedance is 30,000 ohms to match such tubes as CK506AX, CK524AX, etc. Low impedance secondary. Shpg. Wt. 2 oz.

TR-46—In lots of 10, each... 39c  
Singly, each... 49c

## MINIATURE 39¢ VOLUME CONTROL



¾" DIAMETER

Only ¾" Diameter, overall depth approximately 4" including threaded shaft. Ideal for miniature radio, hearing aids, etc.

VC-18—Range 0-500,000 audio taper... 39c  
VC-19—Range 0 to 1 Meg. linear taper 39c  
VC-20—Range 0 to 3 Meg. audio taper 39c  
In Lots of 10—\$3.25



## 4 POSITION MINIATURE SWITCH

**35¢** ¾" DIAMETER

Has 4 positions, one marked OFF. Less than ¼" deep including contact prongs. Self contained wheel type knob. Ideal for miniature radio, hearing aids for tone control switch, etc.

SP-88.....Net .35  
10 for 3.25



ACTUAL SIZE



# LAFAYETTE SPECIALIZES IN MINIATURE PARTS FOR TRANSISTOR CIRCUITS



## SUBMINIATURE VOLUME CONTROLS



For Transistor & Subminiature Tube Circuits with S.P.S.T. Switch Size 23/32" Dia. 1/2" Deep.

The ultra small volume control is a positive marvel of engineering skill. Designed with today's trend toward miniaturization. It forms a perfect complement to subminiature transistor and tube circuits. Switch rating 6.5 amp at 1.5 Volt, 2 amps at 45 Volt. Size: Dia 23/32"; only 1/2" deep.

With S.P.S.T. Switch

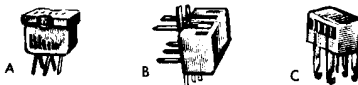
- VC-42 - 5,000 ohm
- VC-43 - 10,000 ohm
- VC-44 - 15,000 ohm
- VC-45 - 25,000 ohm
- VC-46 - 1/2 Meg
- VC-47 - 1 Meg

**79¢**

in lots of 10

**89¢** single each

## TRANSISTOR AND SUBMINIATURE SOCKETS



Used in all sub-miniature radios, hearing aids and other electronic equipment which requires Transistors or sub-miniature tubes. Molded from mica filled low-loss bakelite. Silver plated beryllium copper contacts. All 7/32" deep. Shpg. wt., 2 oz.

Stock No.	Type	Cont.	Size	Net
MS-253	A	5	15/32"x11/32"x7/32"	.19
MS-254	A	6	13/32"x7/32"x9/32"	.19
MS-255	A	7	31/64"x7/32"x5/32"	.22
MS-256	A	8	13/32"x7/16"	.39

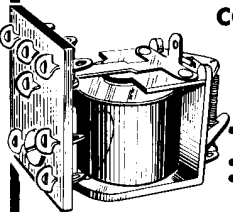
### Transistor Types

5 contact sockets for transistors use Type B for printed circuits, and Type C for wired circuits. Shpg. wt., 2 oz.

- MS-252 For Wired Circuits .....**.22**
- MS-149 For Printed Circuits .....**.22**

## NEW! GEM REMOTE CONTROL RELAY

**3.47**

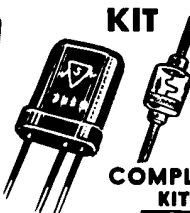


- The Mighty Mite of the R/C Field
- Weighs less than 1/2 oz!
- Size: 3/4" H, 17/32" W, 1-1/16" L

A natural for remote control receivers, it is highly sensitive, and built to withstand severe crashes. The smallest commercial job available, it weighs less than 1/2 oz. Factory adjusted to pull in at 1.4 MA, drop out at 1.2 MA D.C. Single pole, double throw. Used in outstanding R/C receivers.

5,000 ohm coil	Net <b>3.47</b>
7,500 ohm coil	Net <b>3.81</b>
10,000 ohm coil	Net <b>5.88</b>

## SYLVANIA TRANSISTOR KIT



**COMPLETE KIT 4.95**

### For The Experimenter

The Sylvania Transistor Kit is supplied with the Transistor Booklet "28 USES FOR JUNCTION TRANSISTORS," TWO Type 2N35 Transistors and one type 1N34A General Purpose Diode. Complete transistor circuits and detailed instructions make this kit easy to use. Ideal for the experimenter who wants to get the feel of transistorized circuits.

**KIT Complete Kit 4.95**

## SPRAGUE TRANSISTOR ULTRA MINIATURE ELECTROLYTIC CONDENSERS

3/16" Diameter 1/2" Long



A New approach to reliability in reasonably-priced sub-miniature electrolytic capacitors. Smallest hermetically-sealed aluminum electrolytic capacitors made - They'll fit anywhere and work anywhere. Extremely low leakage current, long shelf life. Excellent replacement capacitors for transistorized radio sets presently on the market. Ideal for applications in Hearing Aids and other Miniature Electronic Equipment.

Catalog No.	Capacity	WVDC	Diam.	Length	Net
TE-1080	1 Mf	6	3/16	1/2	.58
TE-1081	2	6	3/16	1/2	.58
TE-1082	3	6	3/16	1/2	.58
TE-1083	4	6	3/16	1/2	.58
TE-1084	5	6	3/16	1/2	.58
TE-1086	8	6	1/4	3/4	.61
TE-1087	10	6	1/4	3/4	.61
TE-1089	15	6	1/4	3/4	.61
TE-1091	25	6	1/4	3/4	.61
TE-1092	30	6	3/8	3/4	.65
TE-1095	40	6	3/8	3/4	.65
TE-1100	50	6	3/8	3/4	.65
TE-1101	60	6	3/8	3/4	.65
TE-1116	15	10	1/4	5/8	.61
TE-1118	25	10	3/8	5/8	.61
TE-1127	5	12	1/4	5/8	.61
TE-1128	10	12	1/4	5/8	.61
TE-1202	5	25	1/4	5/8	.65
TE-1203	6	25	1/4	5/8	.65
TE-1204	10	25	3/8	5/8	.67
TE-1205	15	25	3/8	5/8	.67

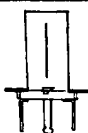
## CAMBRIDGE THERMIONIC CORPORATION SLUG-TUNED COILS



For TV traps, broadband RF amplifiers, general HF circuits, etc. Coil bodies of LSM, LS3 and LS4 are HF paper base phenolic; LS5 and LS6 are ceramic. LS3 has larger slug and greater bondpass. LS4 for larger inductance and Q. Slugs tunable from either end. Locking feature. Sizes: LSM, 27/32x1/4" dia.; LS3, 1 1/8x3/8" dia.; LS4, 2x1/2" dia.; LS5, 1-1/16x3/8" dia.; LS6, 27/32x1/4" dia. Wt., 4 oz.

Type	Description	Net
LS3	Coil Form	.53
LS3	1 Mc Coil	1.02
LS3	5 Mc Coil	.92
LS3	10 Mc Coil	.95
LS3	30 Mc Coil	.90
LS3	60 Mc Coil	.90
LSM	Coil Form	.53
LSM	1 Mc Coil	1.00
LSM	5 Mc Coil	.95
LSM	10 Mc Coil	.90
LSM	30 Mc Coil	.90
LSM	60 Mc Coil	.90
LS4	Coil Form	.72
LS5	Coil Form	.70
LS6	Coil Form	.63

## CAMBRIDGE THERMIONIC PRINTED CIRCUIT COIL FORMS



An internally threaded phenolic tube with collars and solder lugs, with powdered iron core that is adjustable from either end of the form. A simple vertical mounting by punching two to four holes in board. Winding area on form is 11/16" long. Types SPC1 have 5/16" core, Types SPC2 have 3/8" core.

Type No.	Tube Diam.	O.D.	Number of Lugs	Net
SPC1-A-2L	.219"	.356"	2	.29
SPC1-A-3L	.219"	.356"	3	.29
SPC1-A-4L	.219"	.356"	4	.29
SPC2-B-2L	.285"	.426"	2	.29
SPC2-B-3L	.285"	.426"	3	.29
SPC2-B-4L	.285"	.426"	4	.29

## MINIATURE KNOB



Plastic knob, only 3/8" diameter fits 1/8" shafts, for miniature components such as Ferri-loopstock, sub-miniature pots, etc.

**MS-185 Net 7¢**

## BARCO TRANSISTOR ULTRA-MINIATURE ELECTROLYTIC CONDENSERS

1/8" Diameter - 3/8" Long



For applications in Transistor and Miniature Electronic Circuits, small hermetically-sealed aluminum electrolytic condensers. Low-leakage current, stable capacity. Will fit anywhere.

Type	Capacity	W.V.	Diam.	Length	Net
P25-25	1/4 mfd	25V	1/8"	3/8"	.59
P25-4	.4 mfd	25V	1/8"	3/8"	.59
PT12-1	1 mfd	12V	1/8"	1/2"	.59
PT6-2	2 mfd	6V	11/64"	11/16"	.44
P6-8	8 mfd	6V	11/64"	11/16"	.44
P58-5	5 mfd	8V	11/64"	11/16"	.44
PS20-2	2 mfd	20V	11/64"	11/16"	.44
PT12-2	2 mfd	12V	3/16"	17/32"	.44
P6-25	25 mfd	6V	1/4"	11/16"	.44
P12-16	16 mfd	12V	1/4"	11/16"	.44
P25-8	8 mfd	25V	1/4"	11/16"	.44
P40-5	5 mfd	40V	1/4"	11/16"	.44
P70-3	3 mfd	70V	1/4"	11/16"	.44
P6-80	80 mfd	6V	23/64"	11/16"	.59
P25-25	25 mfd	25V	23/64"	11/16"	.59
P40-16	16 mfd	40V	23/64"	11/16"	.59
P70-10	10 mfd	70V	23/64"	11/16"	.59
P6-160	160 mfd	6V	23/64"	1-9/32"	.73
P25-50	50 mfd	25V	23/64"	1-9/32"	.73
P40-30	30 mfd	40V	23/64"	1-9/32"	.73
P70-20	20 mfd	70V	23/64"	1-9/32"	.73

## AEROVOX TYPE P82 METALLIZED-PAPER CAPACITORS



Tiny AeroVox Metallized-Paper tubular units are self-healing to protect against surge voltages. Hyvol K impregnated. In moisture resistant wax impregnated cardboard cases. Up to 78% smaller than equivalent paper units. Standard Tolerance ±20%. Shpg. Wt. 2 oz.

200 VOLTS				400 VOLTS			
Mfd.	Size	Each	Mfd.	Size	Each	Mfd.	Size
.01	3/8x3/8	.35	.01	3/8x3/8	.38		
.02	3/8x3/8	.35	.02	3/8x3/8	.38		
.03	3/8x3/8	.35	.03	3/8x3/8	.38		
.05	3/8x3/8	.38	.05	3/8x3/8	.41		
.1	3/8x3/8	.41	.1	3/8x3/8	.44		
.25	1/2x1 1/8	.53	.25	1/2x1 1/8	.59		
.5	1/2x1 1/8	.62	.5	1/2x1 1/8	.68		
1.0	1/2x1 1/8	.76	1.0	1/2x1 1/8	.84		
2.0	3/4x1 3/8	1.06					

## AEROVOX TYPE P83Z MICRO-MINIATURES

Ultra-small metallized-dielectric capacitor particularly suited to replace the low capacity paper units now used. Hyvol K impregnated in humidity-resistant molded thermo-plastic cases. Shpg. Wt. 1 oz.

200 VOLTS				400 VOLTS			
Mfd.	Size	Each	Mfd.	Size	Each	Mfd.	Size
.005	1/4x1/4	.26	.002	1/4x1/4	.26		
.01	1/4x1/4	.26	.003	1/4x1/4	.26		
.02	1/4x1/4	.32	.01	1/4x1/4	.32		
.04	1/4x1/4	.32					

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Air wound, polystyrene insulation. Easily cut to size. All are 2" Long except 1" Diameter are 3".

Diam.	4 Turns		8 Turns		16 Turns		32 Turns		Net
	Type	Per In.	Type	Per In.	Type	Per In.	Type	Per In.	
1/2"	3001	3002	3003	3004					.36
5/8"	3005	3006	3007	3008					.45
3/4"	3009	3010	3011	3012					.54
1"	3013	3014	3015	3016					.60

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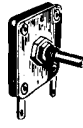
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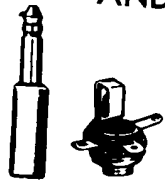
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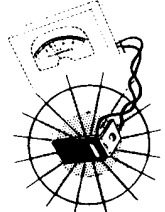
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