

## 198/A PREAMP

- PUSHBUTTON TONE CONTROLS**
- GAIN MODULE DESIGN**
- MOTHERBOARD CONSTRUCTION**
- SELF POWERED - WILL**
- WORK WITH ANY AMPLIFIER**

We are proud to offer a preamp and control center that is equal in quality and performance to our new "Tiger .01" amplifier. Both input and tone control settings are push-button switch selected. This makes it possible to get the exact amount of compensation you want every time, just as in

professional studio equipment. When no compensation is wanted the amplification is absolutely flat.

All controls have been designed to make their function as obvious as possible, so that the chances of a mistake in settings will be minimized. Loudness compensation and tape monitor functions are provided.

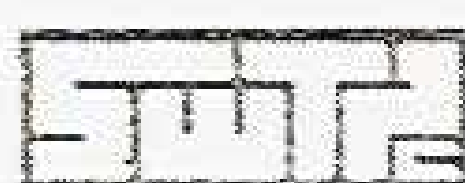
All gain needed is provided by four of our plug-in #195 opamp circuits. These plug into two "motherboards" that contain all the switching and equalization components. The result is vastly simplified wiring, and easy construction.

The kit is complete with a brushed gold finished front panel and the wood grain finished cover shown. Two switched convenience AC receptacles are provided on the back.

#198A Preamp Kit, 6 lbs. . . . \$69.50 + postage

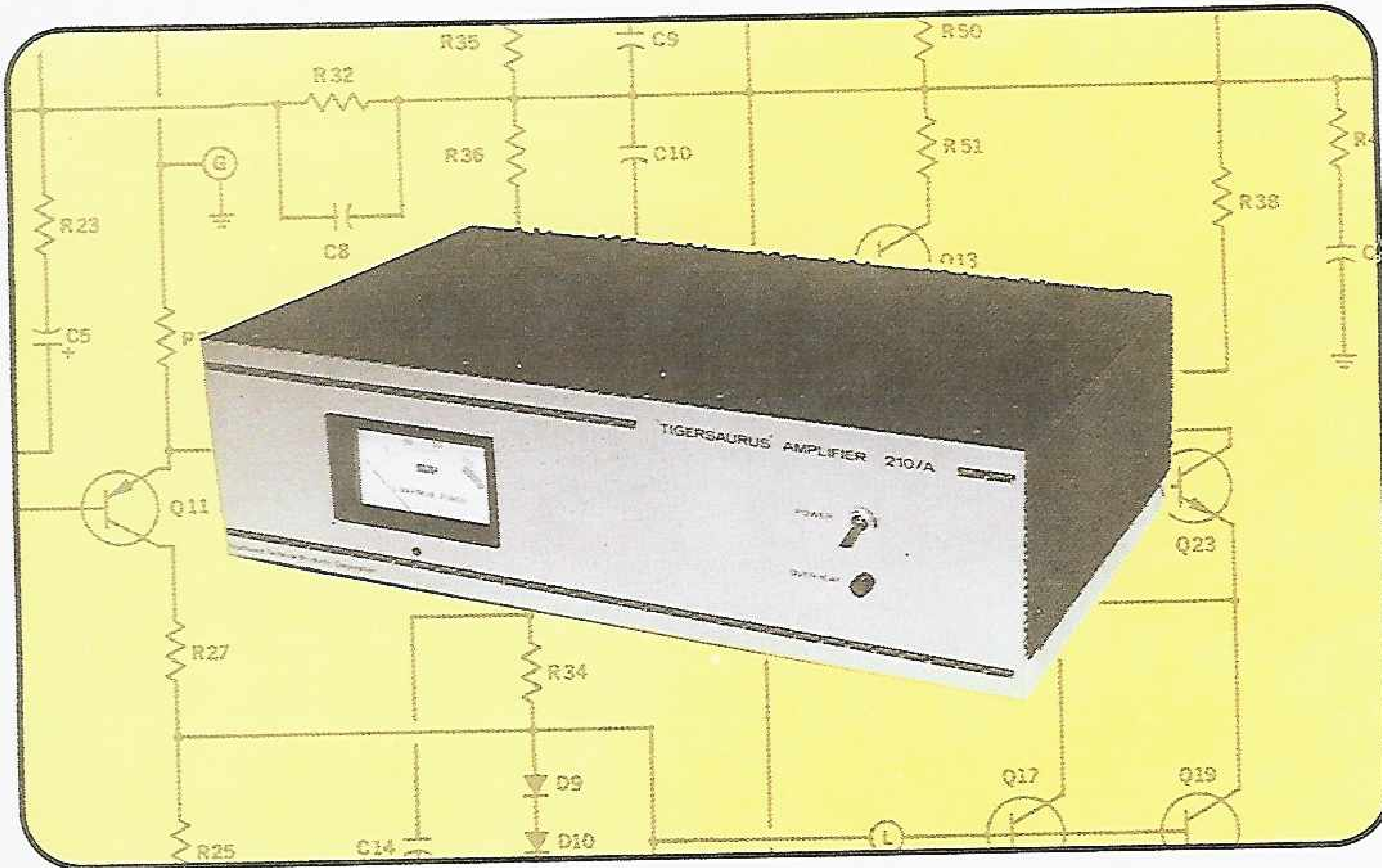
### SPECIFICATIONS

Sensitivity..... Phono and Mic 2.0 mv for 1 Volt output, All Others 100 mv. for 1 Volt output  
 Frequency Response..... Flat  $\pm$  1 db 10 to 100,000 Cycles  
 Distortion..... Less than .05% Harmonic or IM at rated output  
 Noise..... Phono and Mic 65 db down all others 70 db down



Southwest Technical Products Corporation, 219 W. Rhapsody, San Antonio, Texas





## TIGERSAURUS 250

The most powerful amplifier we make for those who want "beastly" amounts of power. We didn't cut any corners, or skimp on any of the parts that went into the design of this animal. The power transformer is a huge 24 pound chunk of iron and copper. The output stage uses eight (8) 200 Watt transistors with a combined rating of 360 Volts @60 Amps. The heat sink for this output stage has over 550 square inches of heavy, efficient extruded aluminum fins. TIGERSAURUS can run at full

rated output all day, day after day without any overheat problems. No fans, or blower are needed if the case has free air circulation around it.

The circuit features our unique all push-pull system and completely complementary output stage. The driver is the same cross coupled, complementary differential type as used in our famous "Tiger .01". The kit also features a large-three inch lighted output level meter and a robust 25 amp rated rectifier in the power supply. The front trim panel is dusky chrome finished.

For those who are using speakers that can take this kind of power, or for those really big PA jobs this is "THE" amplifier to use.

# 210 TIGERSAURUS Amplifier Kit  
Shipping Weight 28 lbs.....\$149.50

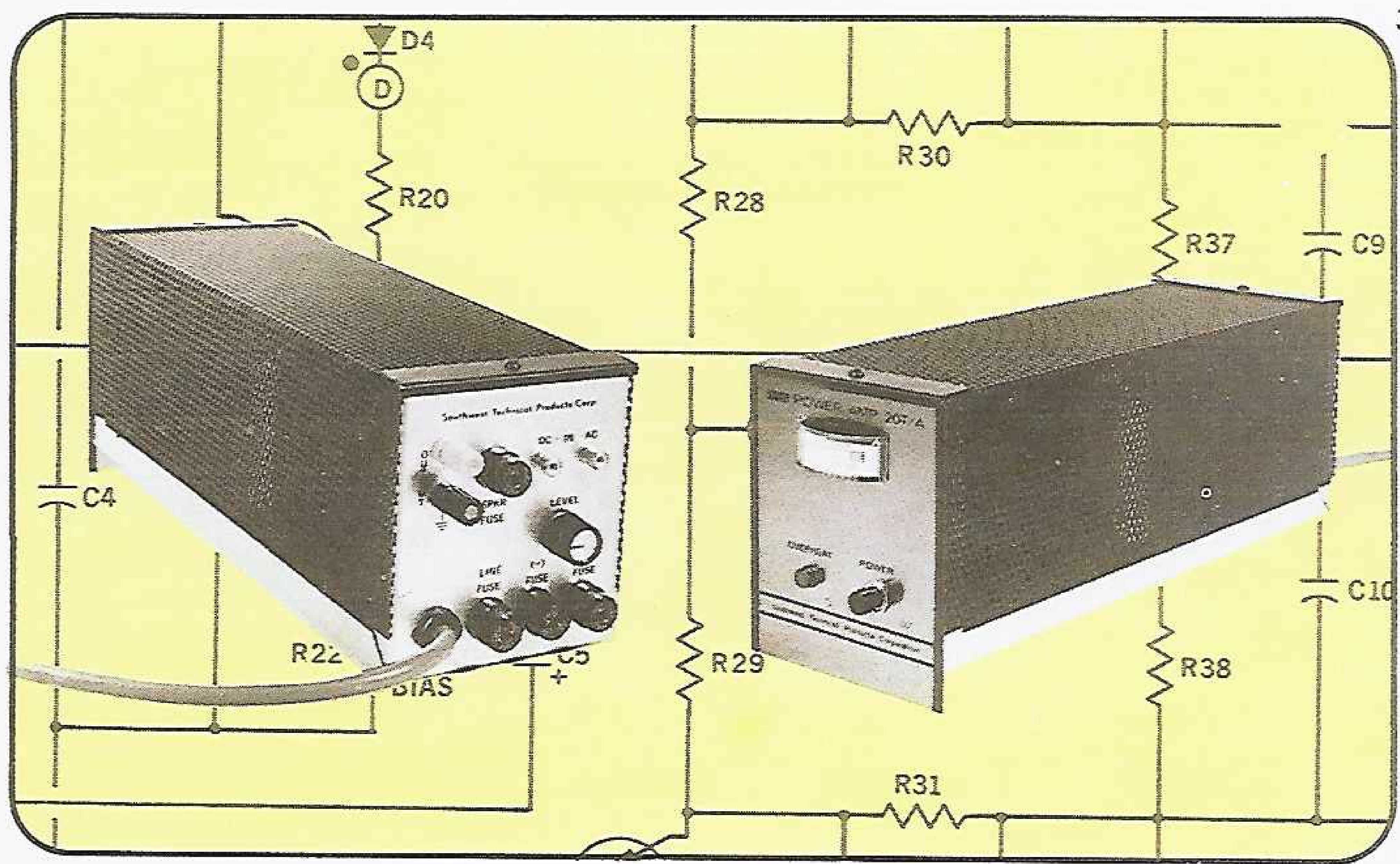
### SPECIFICATIONS

Continuous Sine Wave Output.....200 Watts 8 Ohms  
at rated distortion..... 250 Watts 4 Ohms  
Typical Output at Clipping.....300 Watts  
IM Distortion at rated output......05%  
Harmonic Distortion 20 to 20,000 Hz  
..... not over 0.1%  
Damping.....Over 100 with 8 Ohm  
load 20 to 20,000 Hz.  
Hum and Noise.....More than 90 db  
below rated output  
Sensitivity..... 2.0 Volts RMS for full output



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# TIGER .01

A new standard of performance. We know of no amplifier now available that can match the performance of our new "Tiger .01". Our new completely push-pull circuit with cross coupled push-pull feedback makes possible an IM distortion rating of less than .01% up to rated output. This is easily ten to one hundred times better than many so called Hi-Fi amplifiers. The distortion is so low that presently available instruments cannot accurately measure it. This is the first amplifier that we have ever measured that has lower IM distortion than harmonic distortion. IM distortion is generally recognized as correlating better with listening tests than any other measurement of performance.

The amplifier is designed to be used as either a single channel unit for sound system and

instruments, or in any multiple needed for stereo or quad systems. The front panel is quarter rack size to allow relay rack mounting of up to four of these units in a standard 19 inch relay rack.

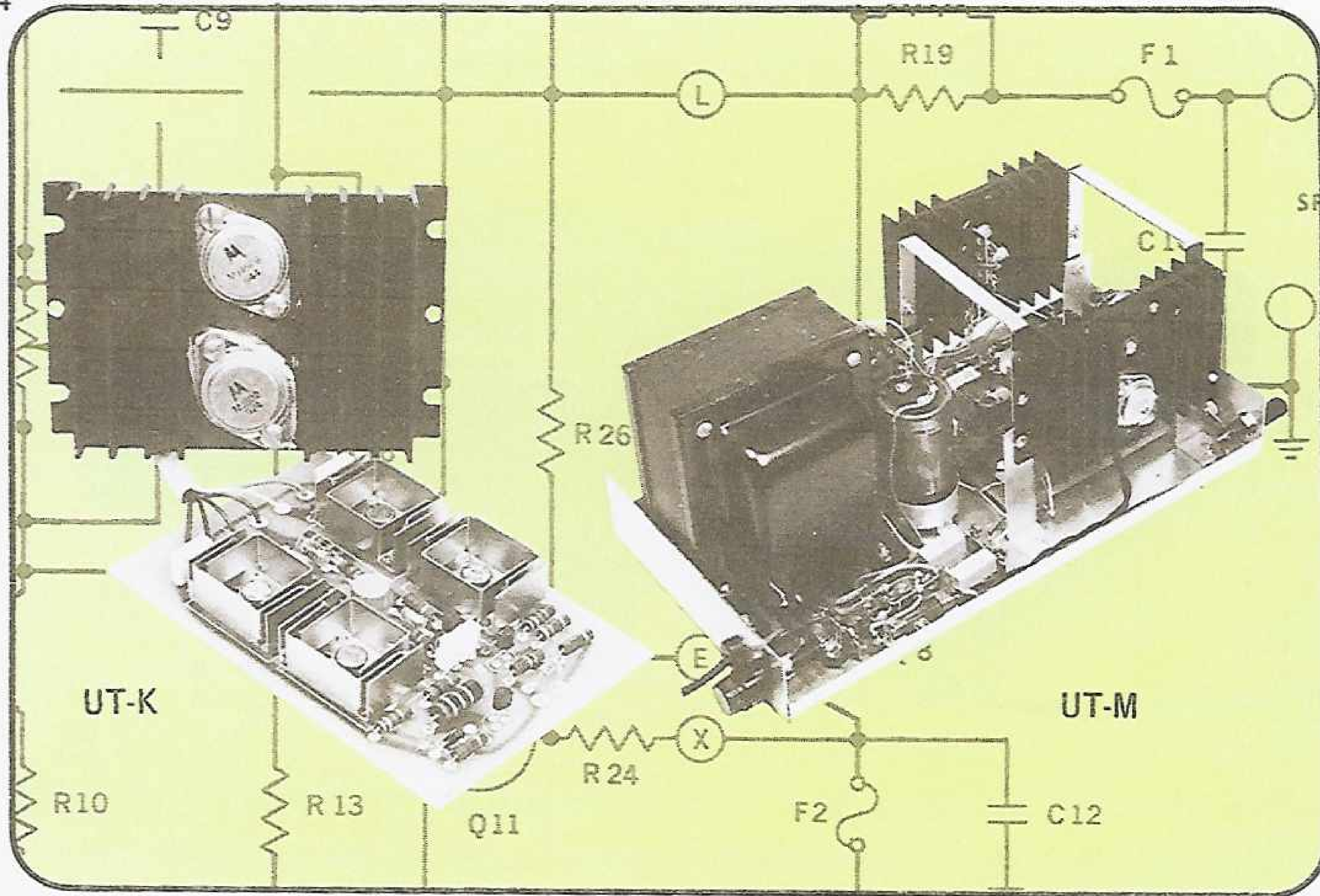
The circuit features volt-amp and fuse protection, plus an over heat thermostat. An output meter is provided on the front panel as shown. The perforated metal cover is included in the standard kit.

- # 207 Complete Kit ..... \$75.00  
shipping weight 15 pounds
- # 207-A Assembled Amplifier ..... \$105.00  
shipping weight 15 pounds

### SPECIFICATIONS

Power Output.....	60 Watts RMS
IM Distortion.....	less than .01%
Harmonic Distortion.....	.03%
Input Impedance .....	50K Ohms
Damping Factor .....	greater than 100
	with 8 Ohm load 20-20,000 Hz.
Sensitivity .....	1.0 Volt for full Output
Hum and Noise.....	More than 80 db below 10Watts
Bandwidth.....	-1 db 10 Hz and 250,000 Hz.





## UNIVERSAL TIGER MK II

Our all purpose, rugged, old standby for almost any type audio application. The "Universal Tiger" is clean enough for the best stereo and hi-fi applications and also powerful enough to be used for PA, organs and sound systems of all types. Total harmonic distortion is typically less than .05% at full rated power and IM distortion less than .2%.

The circuit features a differential amplifier input stage, current source driver and full complementary output stage. The circuit is protected with a volt-amp limiting system, speaker fuses and drive limiting. Two large heat sinks and open construction insure cool reliable operation.

This kit has step-by-step assembly instructions and pictorial assembly drawings to make

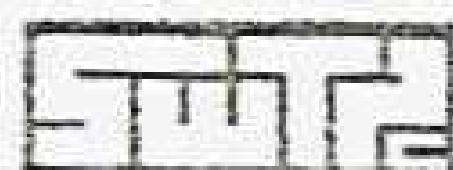
construction as easy as possible. As usual, nothing but the best parts and fibreglass circuit boards are used in the kit.

For those building custom systems, or those who may have a suitable power supply on hand already, we offer a "basic" kit, our UT-K. This consists of the circuit board and parts, plus the heat sink (1) and output transistors. This is the ultimate in economy if you enjoy building from "scratch", and have the other odds and ends needed to complete the amplifier.

UT-K	Kit (left picture) -	
Shipping Weight	3.6 lbs.	\$30.00
UT-M	Single Channel Kit (right picture) 11x6x5-	
Shipping Weight	14 lbs.	\$60.00
2UT-M	Two Channels -	
Shipping Weight	28 lbs.	\$115.00
UT-MA	Assembled and tested -	
Shipping Weight	14 lbs.	\$90.00
2UT-MA	Two Channels Assembled and tested -	
Shipping Weight	28 lbs.	\$175.00

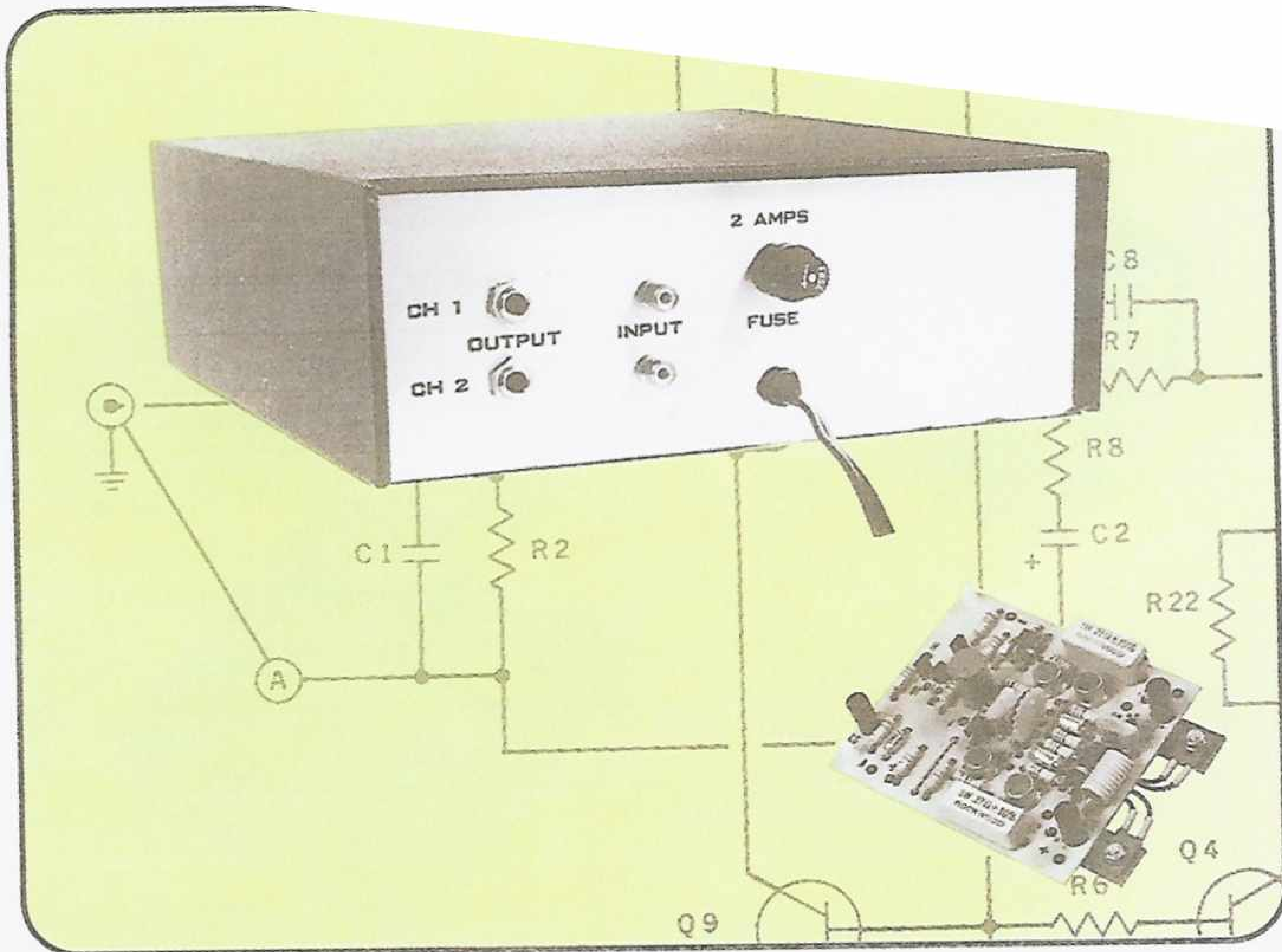
### SPECIFICATIONS

Power Output	90 Watts — 8 Ohm load
	100 Watts — 4 Ohm load
Total Harmonic Distortion	.05%
Input Impedance	20,000 Ohms
Damping Factor	Over 100 with 8 Ohm load
Sensitivity	1.5 Volts RMS for full Output
Hum and Noise	More than 80 db below 10 Watts
Bandwidth	3.0 db down at 0.5 and 250 KHz
IM Distortion	less than 0.2%



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Pictorial assembly drawing and step by step instructions make this kit an easy project for anyone with even an elementary knowledge of electronic construction.

- # 185 "Plastic Tiger" kit - circuit board and parts for one channel only.- 6 oz. .... \$18.50
- # 185-C Complete Stereo Amplifier - consists of two 185 kits as above plus chassis and power supply as shown.- 8 lbs. .... \$55.00
- # 185-CA Assembled Stereo Amplifier-8 lb.. \$75.00

## PLASTIC TIGER

"Plastic Tiger" is the answer for those who want a really good amplifier in the medium power range. It uses the same superior circuit as the "Universal Tiger", but with economical plastic output transistors. Total harmonic distortion is typically below 0.1% up to full rated output.

Compare the specifications of this amplifier with any other amplifier offered in this power range.

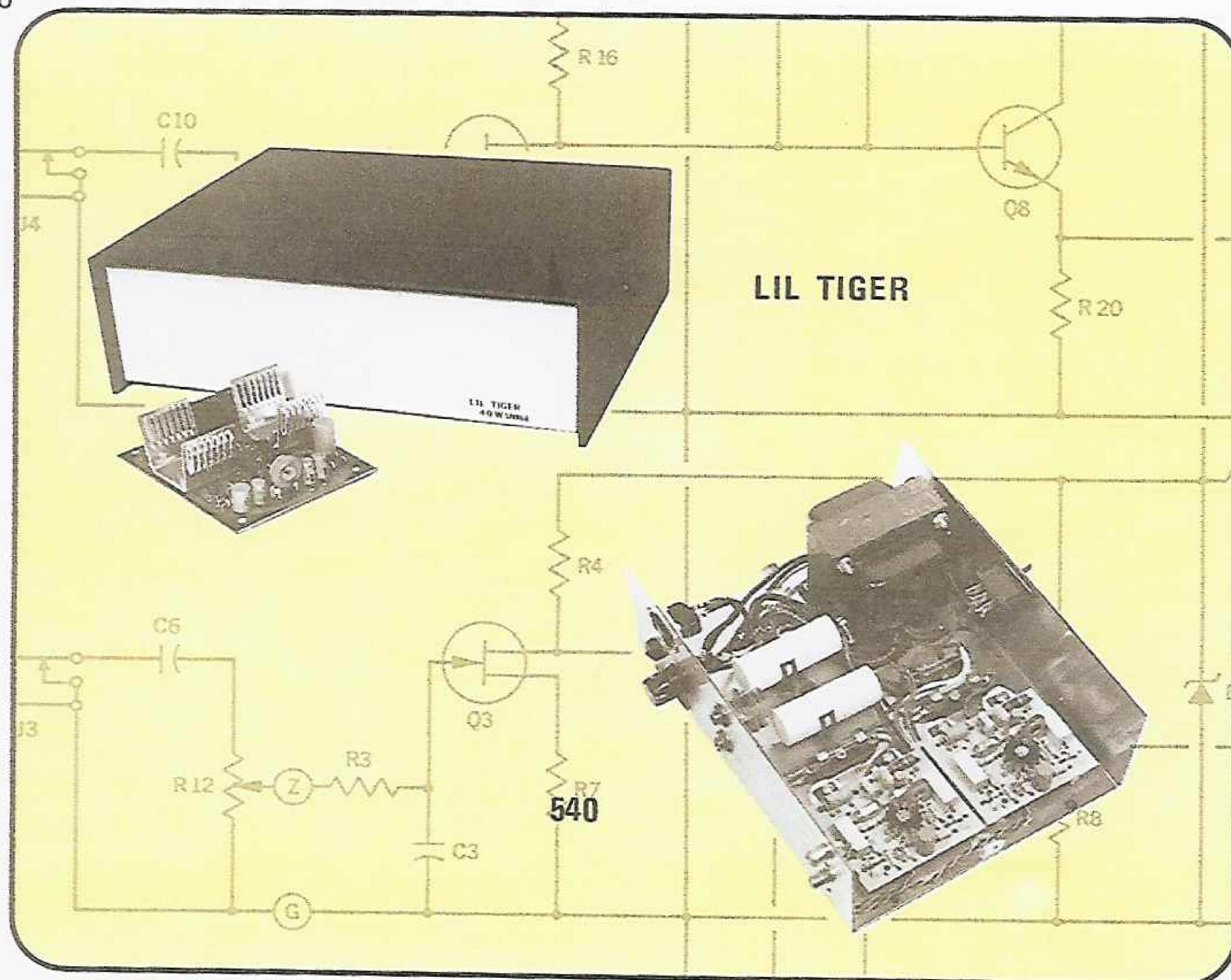
Plastic Tiger is available, as shown above, as just an amplifier, or complete with power supply and chassis. The chassis has brushed red-gold trim panels on the front and rear and a textured black vinyl covered top.

### SPECIFICATIONS

Power Output .....	Either Channel Singly: 36 Watts RMS-8 Ohm load 40 Watt IHFM-8 Ohm load
	Both Channels Driven: 30 Watts RMS-8 Ohm load
Total Harmonic Distortion....	Less than 0.1% up to rated output
Input Impedance.....	22 K Ohms
Output .....	Less than .25 Ohms 20-20,000 Hz
Sensitivity.....	1.25 Volts RMS input for 30 Watts output
Hum & Noise .....	More than 80 db below 10 Watts - less than 1.0 Mv at output
Frequency Response .....	1.0 db down at 5 and 100,000 cycles
	3 db down at 2 and 150,000 cycles
Stability.....	Unconditionally stable with any type load impedance, or input impedance.
Protection .....	Current into shorted load limited by inherent characteristics of circuit

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## LIL TIGER

Power Output ..... 18 Watts RMS .22 Watts IHFM  
per channel into an 8.0-Ohm load with  
45-Volt power supply  
Distortion ..... Less than 1% total harmonic up  
to a full rated output  
Frequency Response.....3db down at 20 Hz and  
100,000 Hz  
Input Impedance..... Approximately 5000 Ohms  
Output Impedance..... Approximately 0.1 Ohm  
(damping factor of 80 with 8-Ohm load)  
Hum and Noise ... More than 80 db below one Watt  
Sensitivity ..... 1.5-Volt input for 20 Watt output  
Supply Voltage ..... 12 to 45 Volts d.c.

## 540

Power Output ..... 20 Watts IHFM  
18 Watts RMS-one channel  
15 Watts RMS-both driven  
Distortion ..... Less than 1% total harmonic at  
full output. Less than 2% at levels  
below 1 Watt  
Frequency Response .....1 db down at 5  
and 100,000 Hz  
Hum and Noise.... More than 80 db below 10 Watt  
Sensitivity..... .4 Volt RMS for full output

In the 20 Watt per channel class we offer you a choice of two amplifiers. For those who have a situation where only a single polarity of supply voltage is available, or who want to build a "classic"; we have Lil Tiger. For those who want the latest design, we have our "540" with IC driver system. Both amplifiers have excellent characteristics and both are packaged in the same chassis with the same power transformer, so the choice of design is yours. Both amplifiers use complementary output transistors and both are constructed on fibreglass circuit boards.

Step-by-step assembly instructions and pictorials make assembly easy enough so that those with only a minimum of electronic experience can easily build these amplifiers.

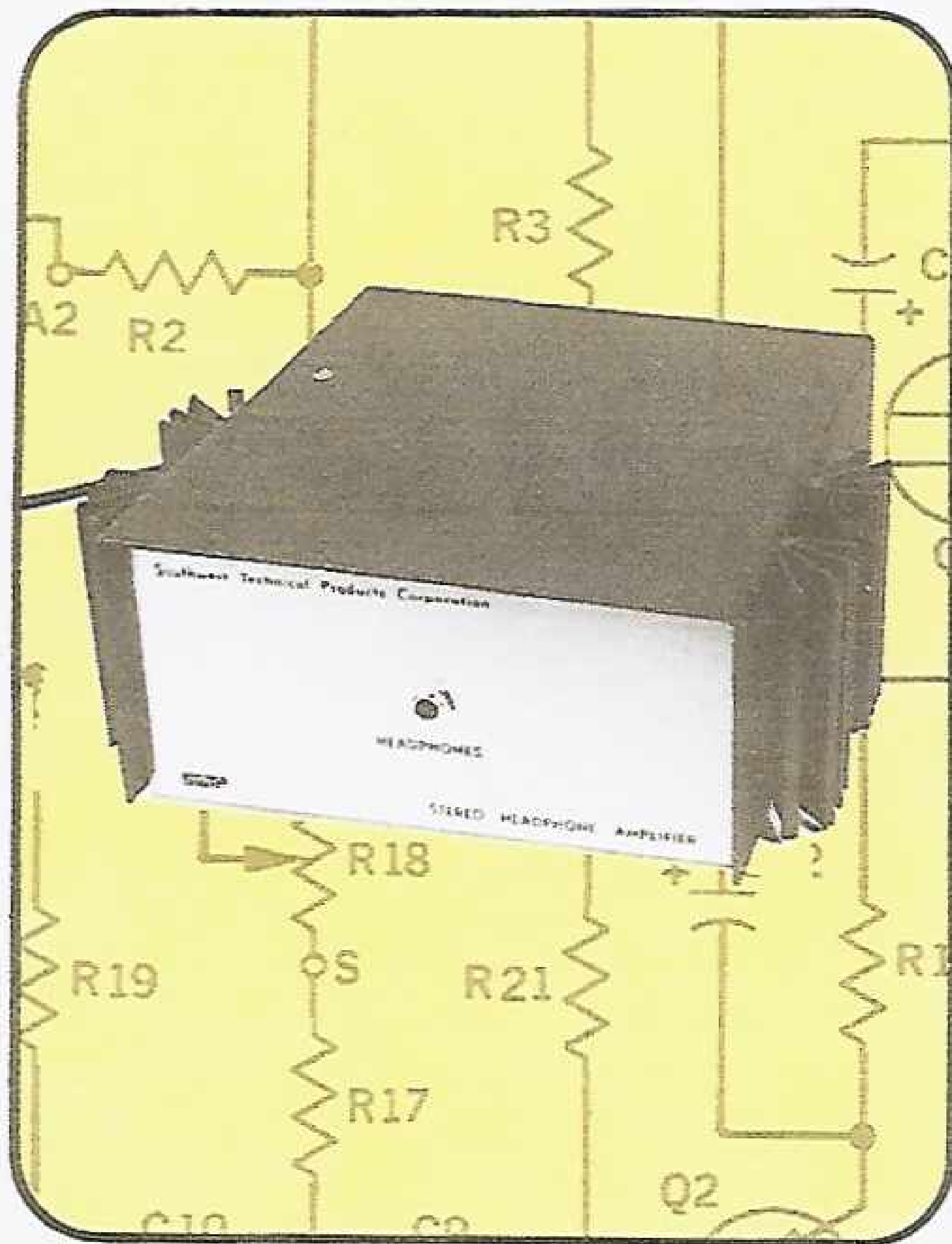
# 140 or # 540 amplifier kit (specify) one channel  
Circuit board and parts only  
Shipping Weight 6 oz.....\$11.95

# 140 or # 540 Complete Stereo Amplifier (consisting of two of the above kits chassis and power supply)  
Shipping Weight 6.0 lbs.....\$39.95



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## HEADSET AMPLIFIER

DESIGNED SPECIFICALLY TO DRIVE HEADSETS

CLASS A OPERATION - LOW DISTORTION AT ANY LEVEL

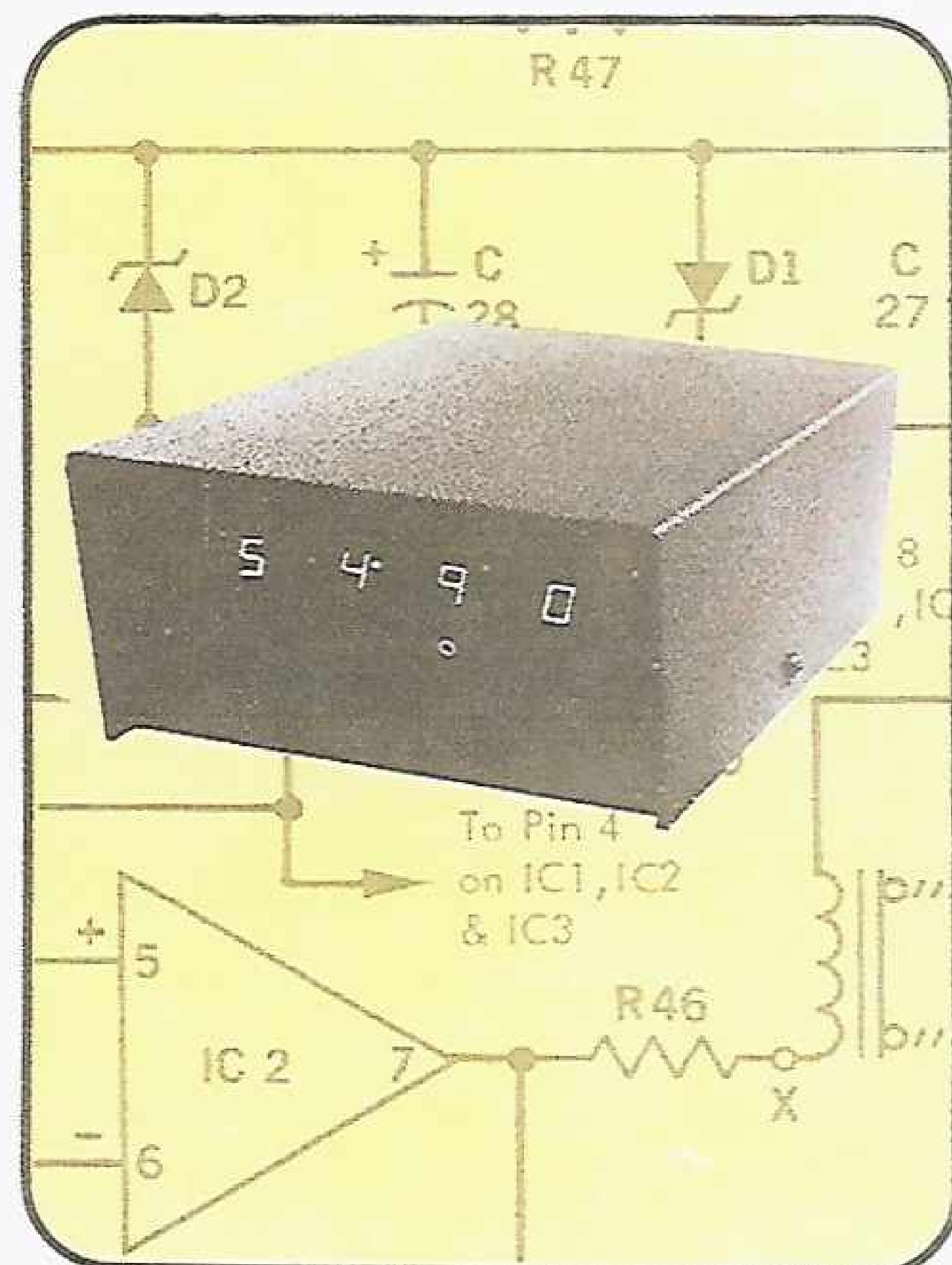
FLAT + 0.5 DB 10 to 100,000 Hz

At last an amplifier designed specifically for driving a headset. This amplifier has all of the features found in the best power amplifiers, but provides a power output suitable for driving headsets safely. This amplifier will deliver 2 Watts per channel of ultra clean class A power with a damping factor greater than 20 into an 8 - 16 Ohm headset.

Construction is easy. All parts except transformers and connection jacks mount on two of our fiberglass circuit boards. The 7x8x3½ deep case is finished in a beautiful new dusky chrome and has a black vinyl covered steel top.

# 202-C Headset Amplifier Kit -

Shipping Weight 7 lbs. .... \$44.50



## DIGITAL TACHOMETER

400 to 9,990 RPM WITH NO RANGE CHANGING

4 DIGIT LED READOUT

WORKS WITH 4, 6 OR 8 CYLINDER ENGINES

Our high accuracy digital readout tachometer. This instrument measures your engines RPM ten times a second and displays it on four bright red 0.3 inch high LED readouts.

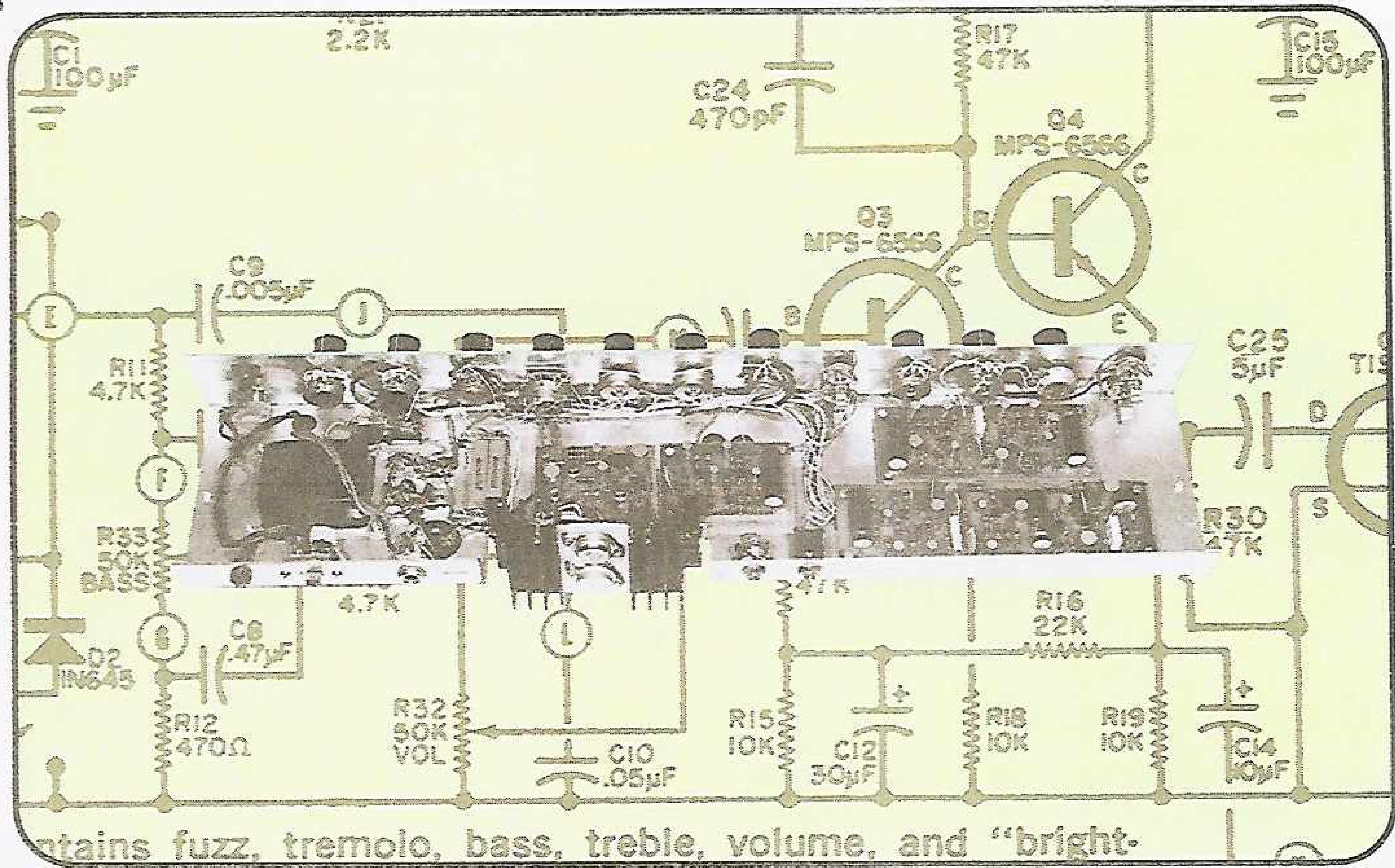
Only three wire connections in the whole kit. The Tachometer is housed in an attractive black vinyl covered aluminum box 4½ wide by 2½ high by 7 inches deep. May be mounted on top of, or under the dash in your car. Simple hookup - only +12 volts, ground and distributor point connections are needed.

TACH-1 Kit. Shipping weight 3.0 lbs. \$79.50



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contains fuzz, tremolo, bass, treble, volume, and "bright-

Time tested by professional combo groups, this instrument amplifier can't be touched by any similar professional unit as far as price, quality and versatility are concerned. A complete custom sound system can be purchased for your electric guitar or other type stringed instrument. If you already have some type of system for your instrument, then special sections can be added for desired effects. Custom fit your instrument as to your needs. This versatile system includes controllable fuzz, tremolo, and reverb; also, a clean 60-Watt booster. A straight preamplifier for vocal or voice announcements can also be added. Now being supplied with short proof output circuit. No more blown transistors from accidentally shorted speaker leads.

- FET INPUT STAGE
- SHORT PROTECTED AMPLIFIER
- PICTORIAL ASSEMBLY INSTRUCTIONS
- BRUSHED FINISH FRONT PANEL

# MMM Complete Amplifier, less cabinet, with reverb and both preamps - Amplifier cabinet size: 24½x9x7½"  
 Shipping Weight 13 lbs. .... \$90.00  
 (Prices of amplifier, preamp and reverb sections as separate items available on request.)

**SPECIFICATIONS**

Power Output ..... 60 Watts RMS  
 150 Watts Peak Power  
 Frequency Response ..... 20 Hz to 50 KHz  
 Dynamic Range..... 60 db without overloading  
 Complete control of Fuzz, Tremolo and Reverb

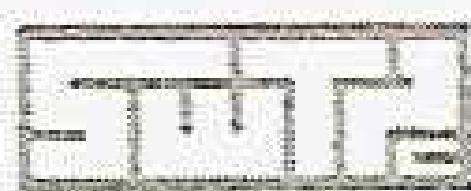
# MMM INSTRUMENT AMPLIFIER

TREMOLO REVERB AND FUZZ

FOOT SWITCH CONTROL OF  
 TREMOLO AND REVERB

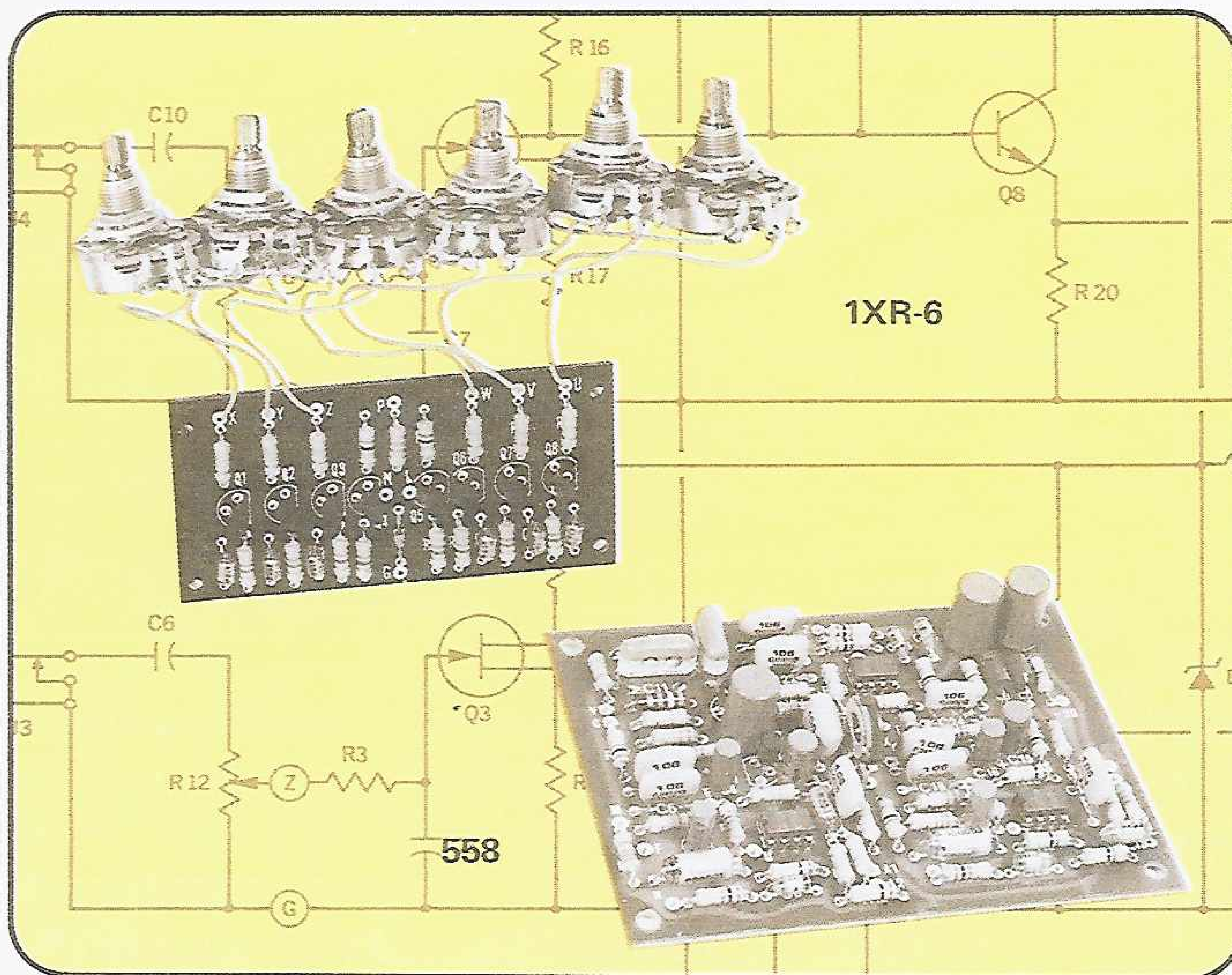
FET INPUT STAGE FOR QUIET  
 OPERATION

60 WATT RMS OUTPUT  
 150 WATTS PEAK



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## DUAL CHANNEL PREAMP 558

One straight preamp with only tone controls, one preamp with tremolo and reverb. All on 3½x4½ circuit board. New op-amp circuit provides all these features and less than 0.1% distortion at 1.0 Volt output. Combine with one of our "Tiger" series, or 540 amplifiers for a complete system.

The circuit features the "558" dual op-amp integrated circuit, for consistent stable operation. Tremolo is controlled by a FET transistor for the cleanest smoothest modulation you have ever heard.

Kit is complete with all controls (9) but less the reverb spring.—("O.C." Z-1B. suggested)

# '558' Preamp Kit - Shipping Weight 1 lb. . \$27.85  
 Reverb Spring - Shipping Weight 2 lbs..... \$10.00

## 6 INPUT MIXER

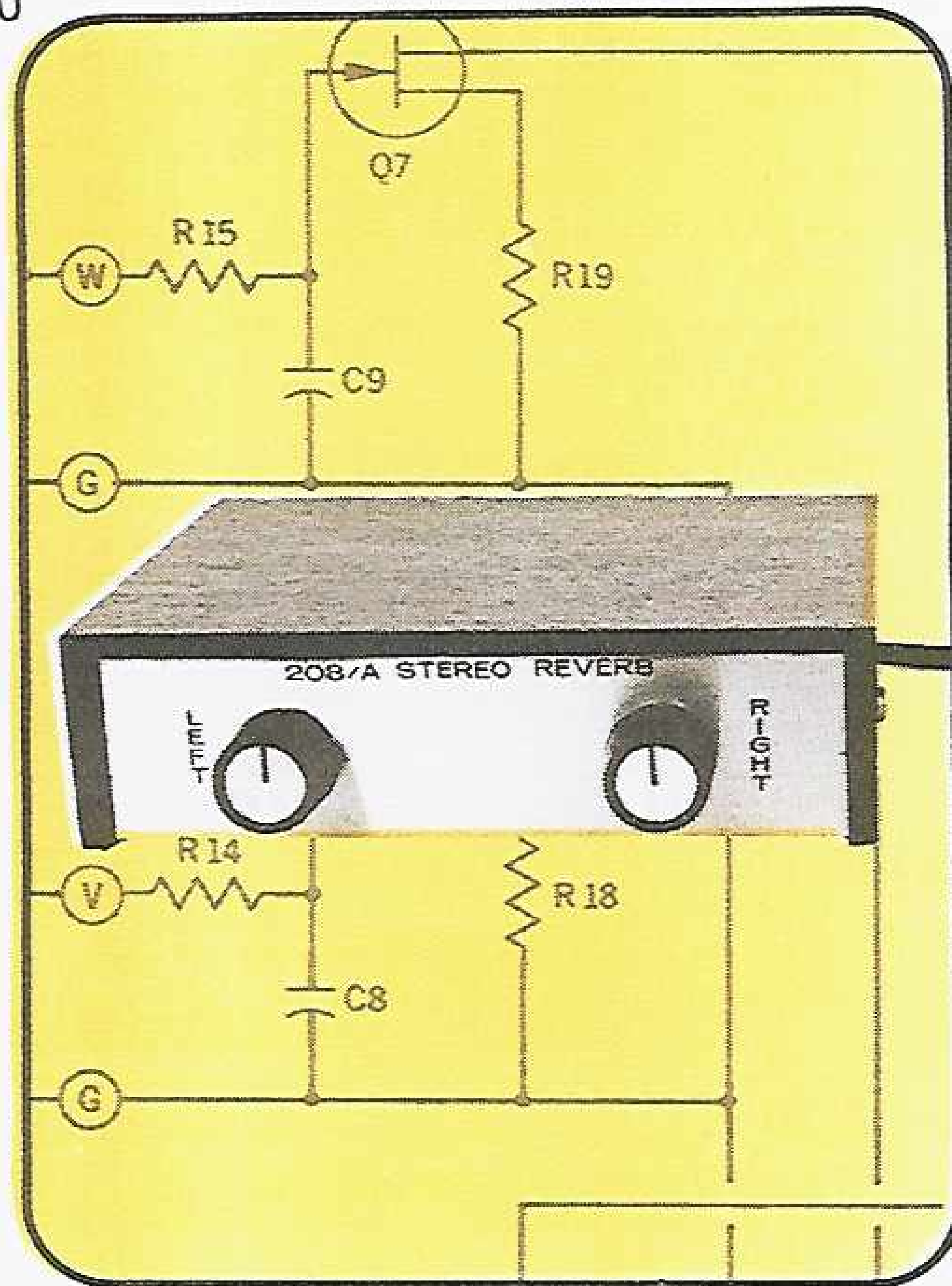
For those custom PA designs — Two channels with three inputs on each channel, or six inputs to one channel as needed. An individual FET high impedance input stage is used with individual volume controls for each input. The mixer cannot cause loading, or add noise to your system. Inputs of up to 0.5 Volts RMS may be used without overloading. Circuit gain of 3 in two channel, or unity if used on one channel allows addition of the mixer at almost any point in your system from the microphone to the power amplifier. Requires 12 to 24 Volts DC at 5 Ma. Complete with controls.

1xr-6 Kit - Shipping Weight 1 lb. .... \$13.75



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## REVERB ADAPTOR

Use our new self powered stereo reverb adapter to put reverberation into your system. The spring reverb unit adds the "Concert hall" reverberation time to your music electronically. Simulates the acoustics of a large hall and gives your music more "life."

Two independent channels with separate controls to add the exact amount of reverb you prefer in each stereo channel. This self-powered unit is connected between your preamp and power amplifier and may be used with any type system.

Brushed gold chassis with wood grain cover. Step-by-step instruction and use of three integrated circuits make this kit quick and easy to assemble.

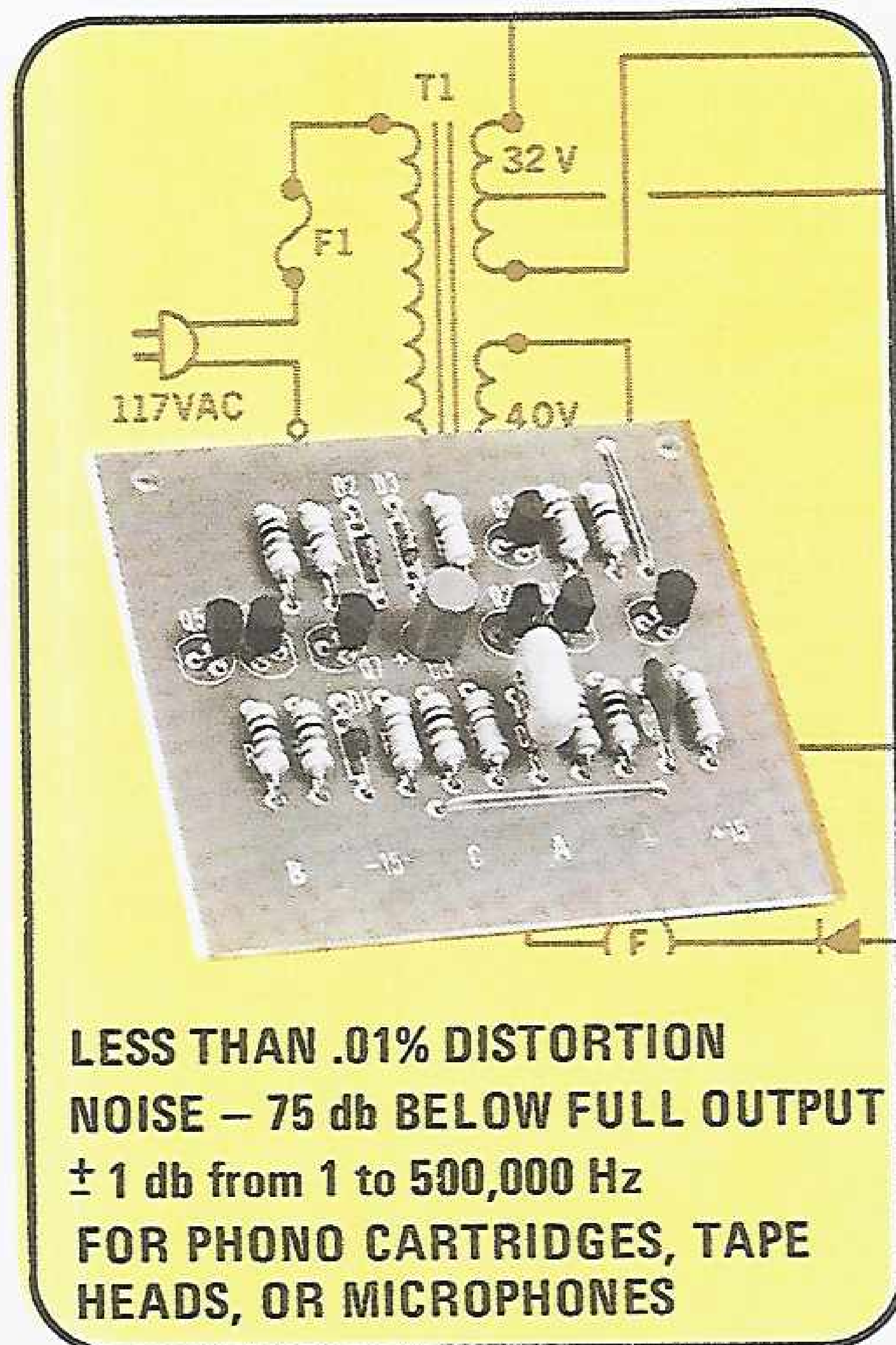
- # 239-C Complete Kit with two spring units --- 5½ lbs. .... \$38.50
- # Z-1C Reverb Springs only as used in above kit. 2,000 Ohm input and output. --- 2.0 lbs. .... each \$10.00

### SPECIFICATIONS

Nominal Delay .....	37 Milliseconds
Reverberation .....	0.50%-Control on panel
Size.....	5 x 5 x ¼



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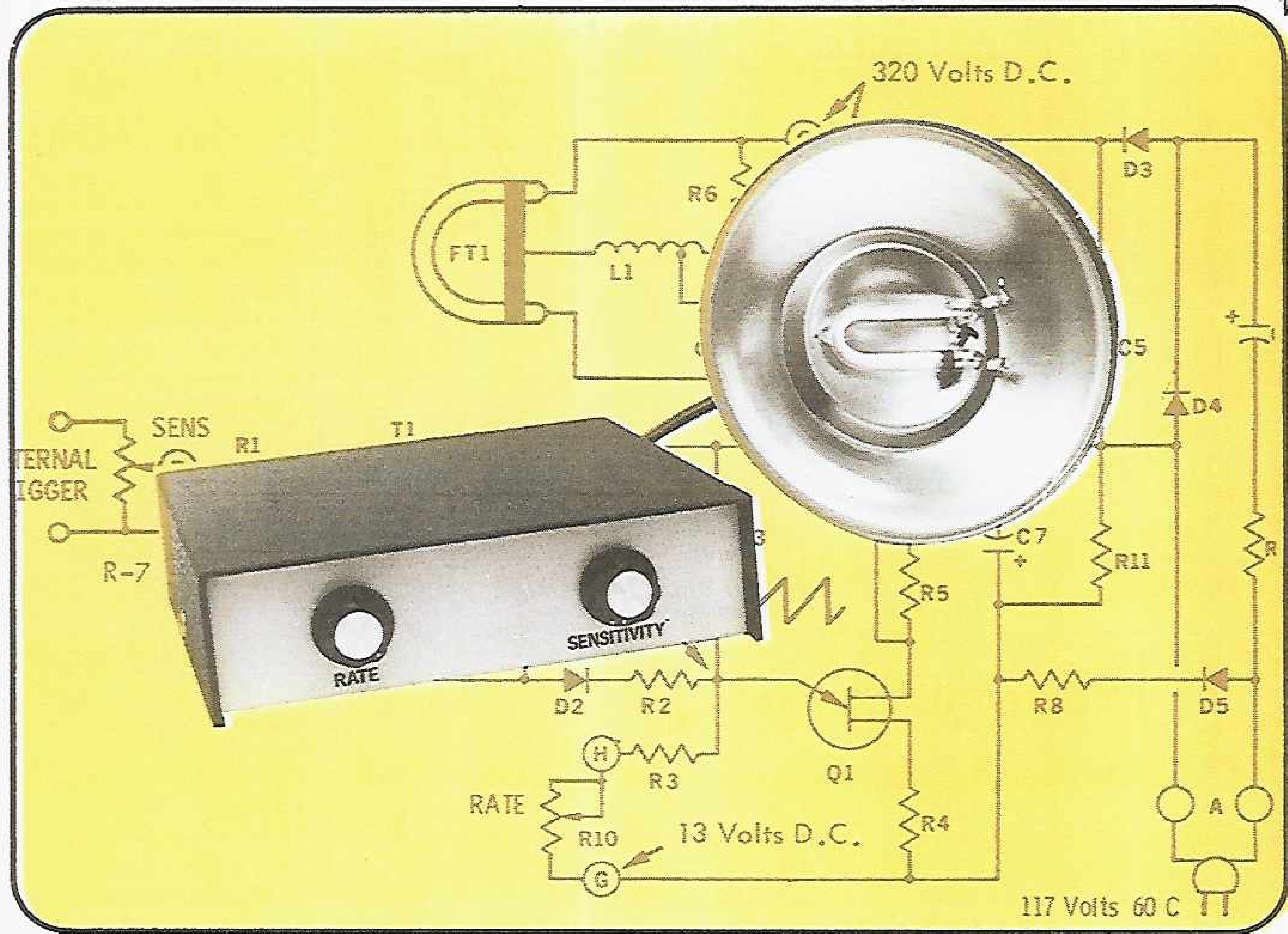
**LESS THAN .01% DISTORTION**  
**NOISE - 75 db BELOW FULL OUTPUT**  
 $\pm 1$  db from 1 to 500,000 Hz  
**FOR PHONO CARTRIDGES, TAPE HEADS, OR MICROPHONES**

## 195 PREAMP

We are happy to be able to offer a really outstanding preamp module for those who enjoy building up their own systems. The # 195 preamp is designed using integrated circuit techniques, but by using discrete components much better characteristics are obtained. It is impossible to get really superior noise figures in an IC preamplifier due to the processing steps that are required, each of which tends to add noise. It is also impossible to get precise resistor values and difficult to make both NPN and PNP transistors on the same chip. Our seven transistor circuit is a basic op-amp type system. You add the equalization needed for your application, just as you would with an IC' op-amp module. The 3 x 3 fiberglass circuit board is designed so that it may be wired, or plugged into PC edge connectors. Distortion is less than .01% at any audio frequency. Suggested power supply is  $\pm 15$  Volts DC @ 10 Ma. which may be obtained from any of our power amplifiers except # 140. Separate supply available.

- #195 Preamp Kit
- Shipping Weight 8 oz. .... \$9.75





One of our most popular electronic kits, the Strobe Light, will delight adults as well as the "teen-scene". Aside from practical uses in photography and general purpose stop-motion observation, this psychedelic strobe light can create the most unusual effects seen with musical groups or "at home" parties. The strobe flashing at a proper rate synchronized with the music in a semi-darkened room produces an illusory and bizarre scene. It reminds one of the old time "flicks" and "The Keystone Kops". Musical groups need not limit their purchase to just one strobe. Experiment with several - The effect is incredible.

The punched cabinet is chrome plated. Top covering is textured black vinyl. Cabinet matches Sonolite Color organ. Polished 5 1/2" reflector.

"Medical opinion concerning the use of strobe lighting in darkened rooms is 'cautionary'. Prolonged use may induce hallucinations or trigger undesired side-effects. It should not be used in the presence of anyone subject to epilepsy."

## PSYCHEDELIC STROBE LIGHT

WIDE RANGE OF FLASH RATES

FLASH HEAD REMOTE FROM CONTROL BOX

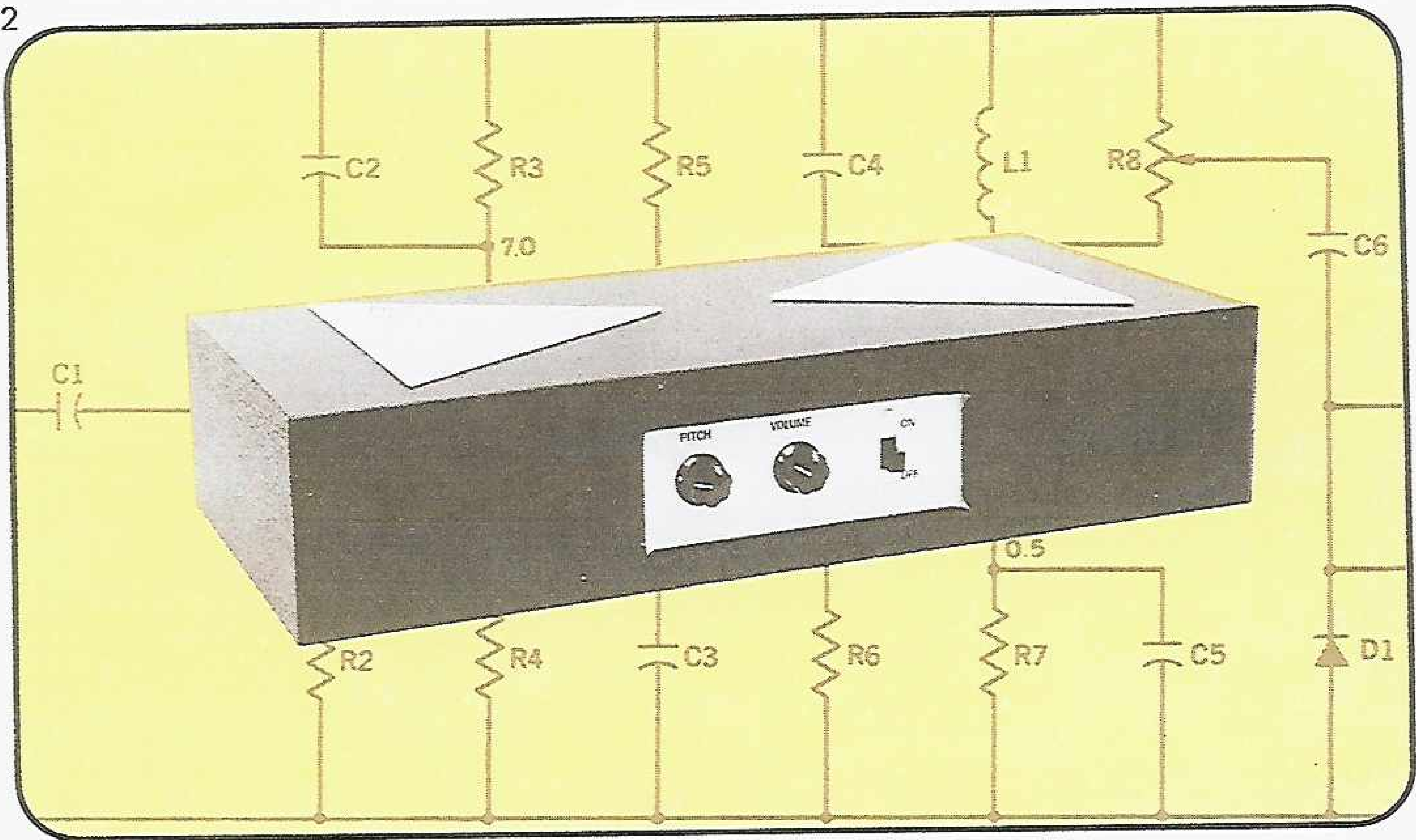
INPUT PROVIDED TO SYNCHRONIZE FLASHES WITH YOUR MUSIC

X-149C Psychedelic Strobe Kit.  
 Shipping Weight 2 lbs. .... \$17.50  
 X-149A Assembled Psychedelic Strobe  
 Shipping Weight 2 lbs. .... \$29.95



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# THEREMIN ELECTRONIC MUSICAL INSTRUMENT



Southwest Technical Products Corporation, 219 W. Rhapsody, San Antonio, Texas

**FET VOLUME CONTROL  
USE WITH ANY INSTRUMENT  
VINYL COVERED CABINET –  
MATCHES INSTRUMENT AMPLIFIER  
POWERED BY 9 VOLT BATTERY**

A modern, solid state version of the Theremin all electronic musical instrument. Two antenna plates, operated by hand capacity, control the pitch and volume of the sound. Add this to your combo for a really unique and different sound.

Our revised version of this instrument now has fully shielded coils and a new tuning circuit. Adjustments are fast and noncritical. The rugged vinyl covered cabinet matches our MMM Instrument amplifier.

# 142 Complete kit for Theremin - with cabinet & Antenna - Shipping Weight 4 lbs. .... \$22.50  
# TE Theremin-electronics kit only (no case) - Shipping Weight 9 oz. .... \$16.50

### SPECIFICATIONS

Controls ..... Pitch - Zero set - Volume  
Approximate Sound Range..... 30 to 15,000 Cycles  
Volume Range ..... 50 to 60 db Change  
Power ..... Internal 9 Volt Battery



To determine the zone distance to a particular post office, ascertain the ZIP Code of the post office to which the parcel is addressed. The first three digits of that ZIP Code are included in this chart, and to the right thereof the zone.

Can be used for Parcel Post and U.P.S. Shipments

Zip Code Prefixes	Zone	Zip Code Prefixes	Zone	Zip Code Prefixes	Zone	Zip Code Prefixes	Zone	Zip Code Prefixes	Zone	Zip Code Prefixes	Zone
006-009	8	299	6	410-412	6	562-567	6	700-705	4	824-834	6
010-039	7			413-414	5	570-571	5	706	3	835	7
040-049	8	300-312	5	415-418	6	572	6	707-722	4	836-837	6
050-098	7	313-314	6	420-427	5	573	5	723-724	5	838	7
		315-326	5	430-458	6	574-593	6	725-749	4	840-844	6
100-146	7	327-334	6	460-462	5	594-596	7	750-754	3	845	5
147	6	335-338	5	463-468	6	597	6	755	4	846-847	6
148-149	7	339	6	469	5	598-599	7	756-764	3	850-875	5
150-168	6	350-364	5	470	6			765	2	877-884	4
169-171	7	365-366	4	471-472	5	600-606	6	766-777	3	890-898	6
172-174	6	367-368	5	473	6	609	5	778-779	2		
175-199	7	369	4	474-479	5	610-611	6	780-782	1	900-937	6
		370-374	5	480-499	6	612-647	5	783-784	2	939-960	7
		376	6			648	4	785	3	961	6
200-217	6	377-386	5	500-520	5	650-666	5	786-789	2	962-966	7
218-219	7	387	4	521	6	667	4	790-794	4	967-969	8
220-286	6	388	5	522-528	5	668-669	5	795-797	3	970-978	7
287-289	5	389-396	4	530-537	6	670-673	4	798-799	4	979	6
290-295	6	397	5	538	5	674-677	5			980-994	7
296	5			539-560	6	678-679	4	800-823	5	995-999	8
297	6	400-409	5	561	5	680-693	5				
298	5										

The local zone rate applies to all parcels mailed at a post office or on its rural routes for delivery at that office or on its rural routes.











# PARCEL POST

Weight: 1 lb. and not exceed- ing (lbs.)	Local							
	1 & 2 Up to 150 miles	3 150 to 300 miles	4 300 to 600 miles	5 600 to 1,000 miles	6 1,000 to 1,400 miles	7 1,400 to 1,800 miles	8 Over 1,800 miles	
2	\$0.60	\$0.70	\$0.75	\$0.80	\$0.90	\$1.00	\$1.05	
3	.60	.80	.85	.95	1.10	1.20	1.35	
4	.65	.85	.90	1.00	1.15	1.25	1.40	
5	.70	.90	1.05	1.15	1.30	1.45	1.60	
6	.70	1.00	1.15	1.25	1.40	1.55	1.70	
7	.75	1.05	1.20	1.35	1.50	1.65	1.85	
8	.75	1.10	1.25	1.40	1.55	1.70	1.90	
9	.80	1.15	1.30	1.45	1.60	1.75	1.95	
10	.80	1.20	1.35	1.50	1.65	1.80	2.00	
11	.80	1.25	1.40	1.55	1.70	1.85	2.05	
12	.85	1.30	1.45	1.60	1.75	1.90	2.10	
13	.85	1.35	1.50	1.65	1.80	1.95	2.15	
14	.90	1.40	1.55	1.70	1.85	2.00	2.20	
15	.90	1.45	1.60	1.75	1.90	2.05	2.25	
16	.95	1.55	1.75	1.95	2.15	2.35	2.55	
17	1.00	1.60	1.80	2.00	2.20	2.40	2.60	
18	1.00	1.65	1.85	2.05	2.25	2.45	2.65	
19	1.05	1.70	1.90	2.10	2.30	2.50	2.70	
20	1.05	1.75	1.95	2.15	2.35	2.55	2.75	
21	1.10	1.85	2.05	2.25	2.45	2.65	2.85	
22	1.15	1.90	2.10	2.30	2.50	2.70	2.90	
23	1.15	1.95	2.15	2.35	2.55	2.75	2.95	
24	1.20	2.00	2.20	2.40	2.60	2.80	3.00	
25	1.20	2.05	2.25	2.45	2.65	2.85	3.05	
26	1.20	2.10	2.30	2.50	2.70	2.90	3.10	
27	1.25	2.15	2.35	2.55	2.75	2.95	3.15	
28	1.25	2.20	2.40	2.60	2.80	3.00	3.20	
29	1.30	2.25	2.45	2.65	2.85	3.05	3.25	
30	1.30	2.30	2.50	2.70	2.90	3.10	3.30	
31	1.35	2.35	2.55	2.75	2.95	3.15	3.35	
32	1.40	2.40	2.60	2.80	3.00	3.20	3.40	
33	1.40	2.45	2.65	2.85	3.05	3.25	3.45	
34	1.45	2.50	2.70	2.90	3.10	3.30	3.50	
35	1.45	2.55	2.75	2.95	3.15	3.35	3.55	
36	1.45	2.60	2.80	3.00	3.20	3.40	3.60	
37	1.50	2.65	2.85	3.05	3.25	3.45	3.65	
38	1.50	2.70	2.90	3.10	3.30	3.50	3.70	
39	1.55	2.75	2.95	3.15	3.35	3.55	3.75	
40	1.55	2.80	3.00	3.20	3.40	3.60	3.80	

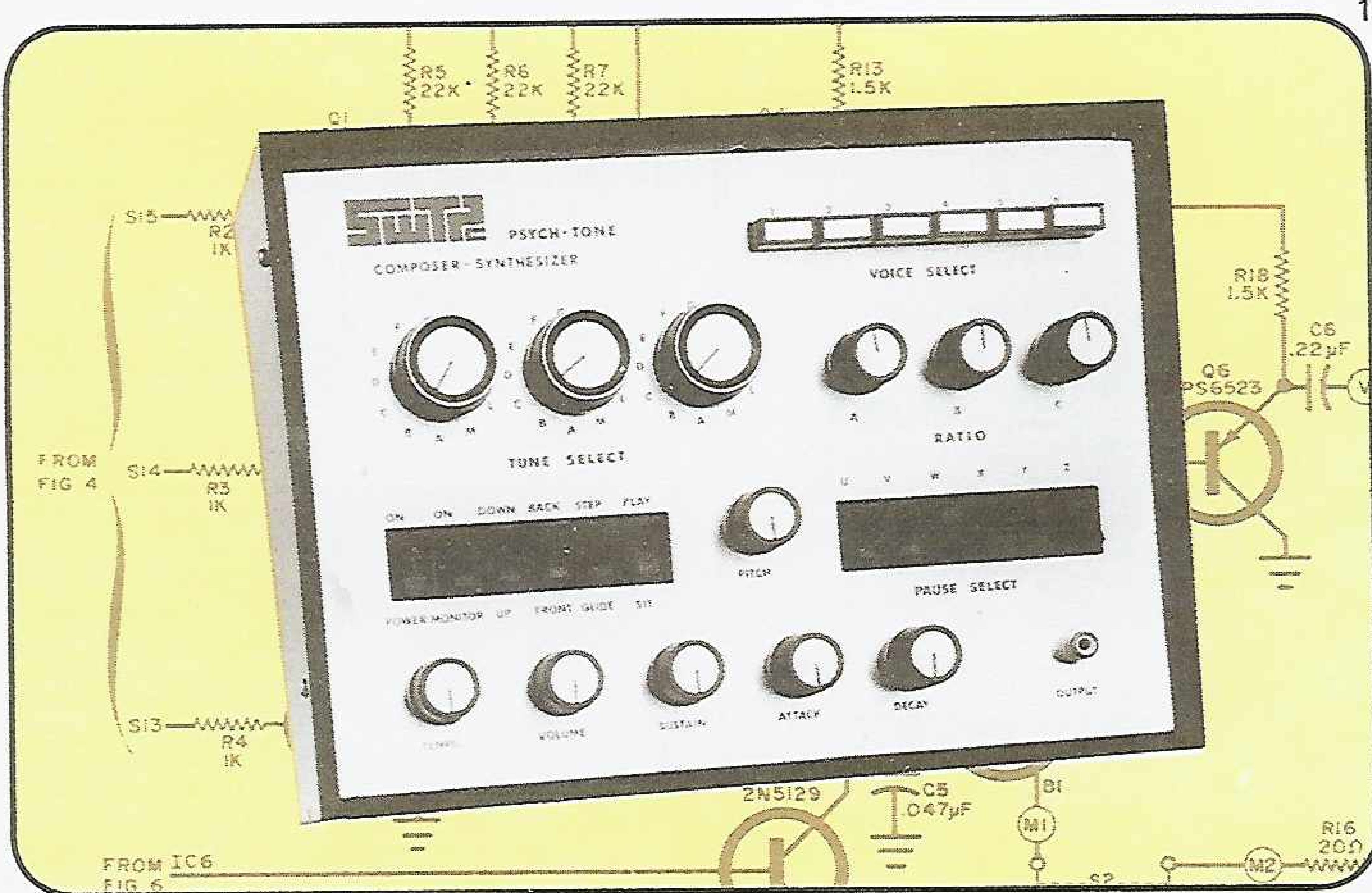
# UNITED PARCEL SERVICE

United Parcel Service can only serve states East of the Mississippi River, plus Iowa, South Dakota, North Dakota & Minnesota. You must give street address on all U.P.S. orders.

Weight not to Exceed (lbs.)	RATES TO (ZONES)								Weight not to Exceed (lbs.)	RATES TO (ZONES)							
	2	3	4	5	6	7	8	26		2	3	4	5	6	7	8	26
1	\$ .55	\$ .57	\$ .60	\$ .62	\$ .65	\$ .68	\$ .72	\$ .72	\$1.80	\$2.32	\$2.97	\$3.62	\$4.40	\$5.18	\$6.22	\$6.22	
2	.60	.64	.69	.74	.80	.86	.94	.94	1.85	2.39	3.07	3.74	4.55	5.36	6.44	6.44	
3	.65	.71	.79	.86	.95	1.04	1.16	1.16	1.90	2.46	3.16	3.86	4.70	5.54	6.66	6.66	
4	.70	.78	.88	.98	1.10	1.22	1.38	1.38	1.95	2.53	3.26	3.98	4.85	5.72	6.88	6.88	
5	.75	.85	.98	1.10	1.25	1.40	1.60	1.60	2.00	2.60	3.35	4.10	5.00	5.90	7.10	7.10	
6	.80	.92	1.07	1.22	1.40	1.58	1.82	1.82	2.05	2.67	3.45	4.22	5.15	6.08	7.32	7.32	
7	.85	.99	1.17	1.34	1.55	1.76	2.04	2.04	2.10	2.74	3.54	4.34	5.30	6.26	7.54	7.54	
8	.90	1.06	1.26	1.46	1.70	1.94	2.26	2.26	2.15	2.81	3.64	4.46	5.45	6.44	7.76	7.76	
9	.95	1.13	1.36	1.58	1.85	2.12	2.48	2.48	2.20	2.88	3.73	4.58	5.60	6.62	7.98	7.98	
10	1.00	1.20	1.45	1.70	2.00	2.30	2.70	2.70	2.25	2.95	3.83	4.70	5.75	6.80	8.20	8.20	
11	1.05	1.27	1.55	1.82	2.15	2.48	2.92	2.92	2.30	3.02	3.92	4.82	5.90	6.98	8.42	8.42	
12	1.10	1.34	1.64	1.94	2.30	2.66	3.14	3.14	2.35	3.09	4.02	4.94	6.05	7.16	8.64	8.64	
13	1.15	1.41	1.74	2.06	2.45	2.84	3.36	3.36	2.40	3.16	4.11	5.06	6.20	7.34	8.86	8.86	
14	1.20	1.48	1.83	2.18	2.60	3.02	3.58	3.58	2.45	3.23	4.21	5.18	6.35	7.52	9.08	9.08	
15	1.25	1.55	1.93	2.30	2.75	3.20	3.80	3.80	2.50	3.30	4.30	5.30	6.50	7.70	9.30	9.30	
16	1.30	1.62	2.02	2.42	2.90	3.38	4.02	4.02	2.55	3.37	4.40	5.42	6.65	7.88	9.52	9.52	
17	1.35	1.69	2.12	2.54	3.05	3.56	4.24	4.24	2.60	3.44	4.49	5.54	6.80	8.06	9.74	9.74	
18	1.40	1.76	2.21	2.66	3.20	3.74	4.46	4.46	2.65	3.51	4.59	5.66	6.95	8.24	9.96	9.96	
19	1.45	1.83	2.31	2.78	3.35	3.92	4.68	4.68	2.70	3.58	4.68	5.78	7.10	8.42	10.18	10.18	
20	1.50	1.90	2.40	2.90	3.50	4.10	4.90	4.90	2.75	3.65	4.78	5.90	7.25	8.60	10.40	10.40	
21	1.55	1.97	2.50	3.02	3.65	4.28	5.12	5.12	2.80	3.72	4.87	6.02	7.40	8.78	10.62	10.62	
22	1.60	2.04	2.59	3.14	3.80	4.46	5.34	5.34	2.85	3.79	4.97	6.14	7.55	8.96	10.84	10.84	
23	1.65	2.11	2.69	3.26	3.95	4.64	5.56	5.56	2.90	3.86	5.06	6.26	7.70	9.14	11.06	11.06	
24	1.70	2.18	2.78	3.38	4.10	4.82	5.78	5.78	2.95	3.93	5.16	6.38	7.85	9.32	11.28	11.28	
25	1.75	2.25	2.88	3.50	4.25	5.00	6.00	6.00	3.00	4.00	5.25	6.50	8.00	9.50	11.50	11.50	

Insurance included to \$100.00





A new and unusual approach to music synthesis. The sounds produced by the Psych-Tone are modern — to say the very least — and operation is simple.

Basically a "psuedo random" sequence generator which operates as a tune computer, the Psych-Tone allows variation of the tempo, voicing, selection of pauses and tone shaping. The internal digital computer may be set for 1728 different 63 note sequences. These may be selected and combined with any of 63 pause combinations to produce 108,864 different melodic lines. These may be played at almost any tempo, pitch, or volume; backward or forward. Six different voices are provided and the user has full control of the attack, sustain and decay functions.

The wide flexibility of the controls makes possible sounds like a piano, violin, bagpipe, or something never heard before. On occasion, the music may sound familiar, but it is more likely to have science-fiction flavor with many wild tonal sequences.

The Psych-Tone has an internal monitor speaker, but preferably, it should be used with an external amplifier having reverb and tremolo to get the most exotic sounds.

#PSY Psych-Tone kit complete with wood grain covered case 7" x 10" x 5" High - Not for beginners - Complex wiring involved.  
Shipping Weight 6 lbs. ....\$53.15

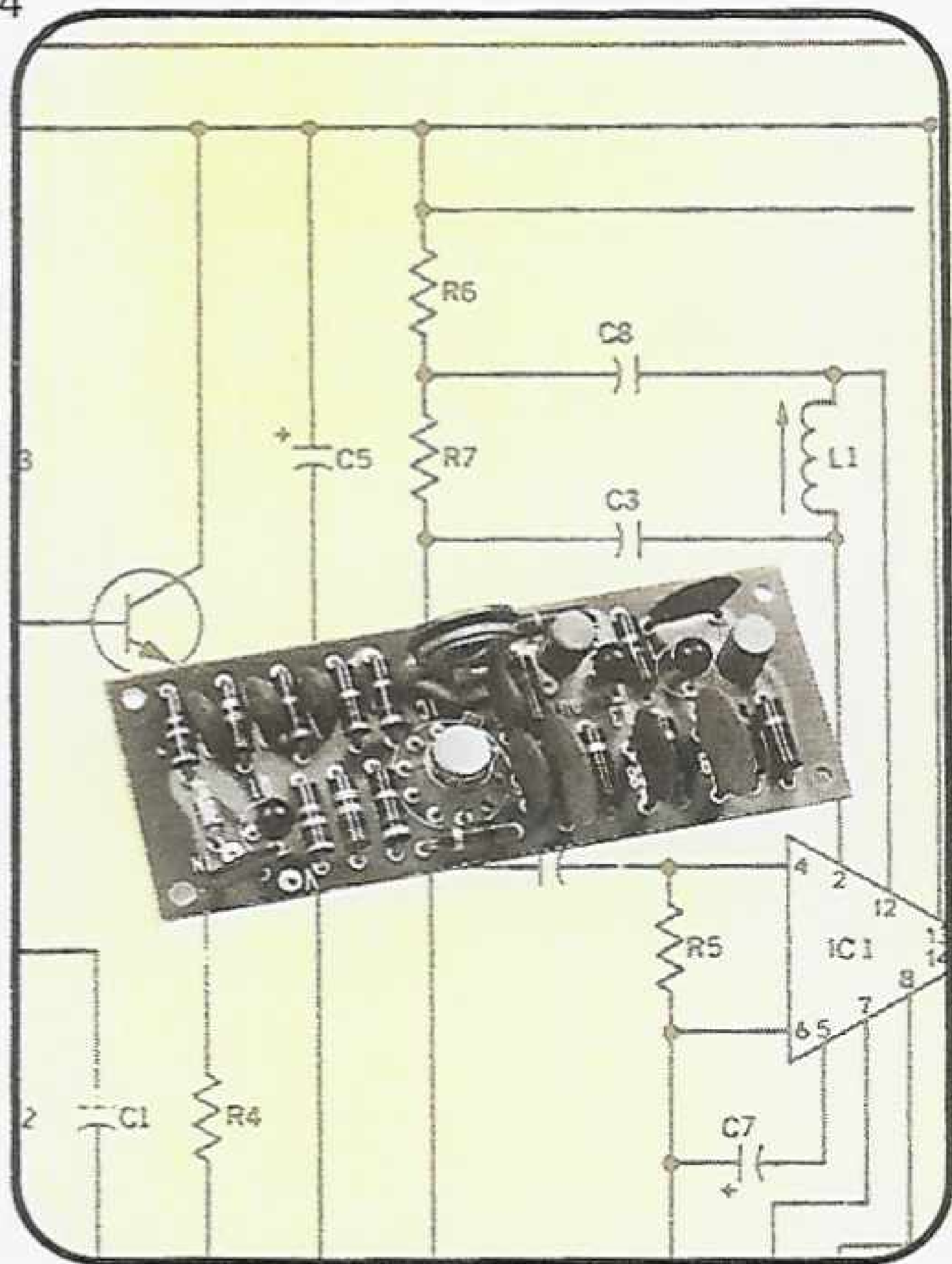
# PSYCH-TONE

**A PROGRAMMABLE MELODY SYNTHESIZER  
WITH 28 CONTROLS AND A 63 NOTE MEMORY**

Warning: Operation of this device in the presence of anyone over thirty may be hazardous to your health.

 Southwest Technical Products Corporation, 219 W. Rhapsody, San Antonio, Texas





## SCA MULTIPLEX ADAPTOR

Now get "Music Only" FM Programs

Sensational new approach to detection of the multiplexed subcarrier used by many FM stations. This adaptor may be used with any FM radio or tuner. New "phase locked loop" integrated circuit provides both the filtering and FM detector needed to receive these broadcasts. Our kit is complete with instructions for installing the adaptor in your tuner. Power required is 12.0 Volts DC @ Ma.

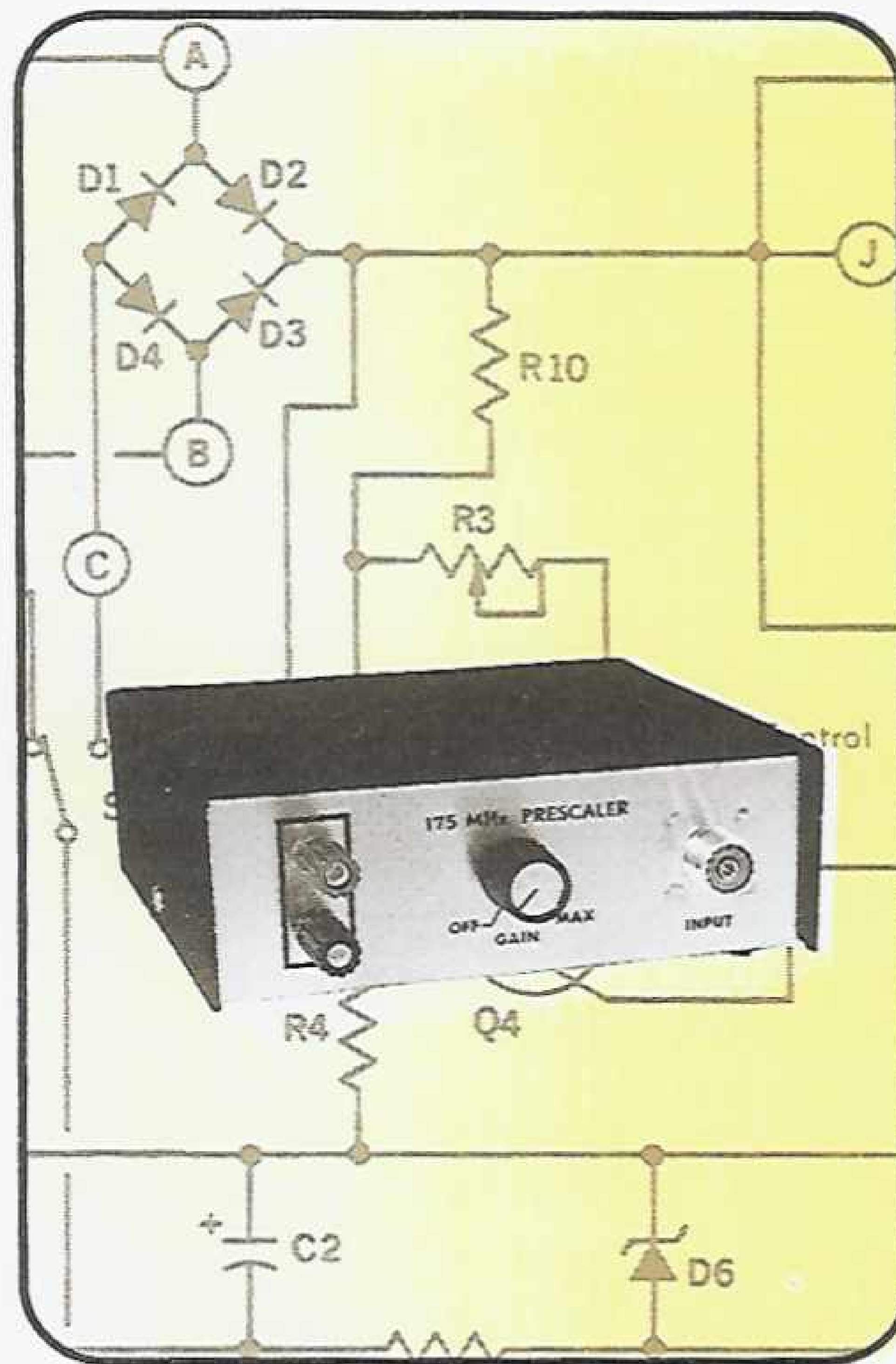
Use of the "phase locked loop" system results in a circuit with superior rejection of unwanted interfering signals, better fidelity and requires no inductors, or tuned circuits.

**Note - Commercial use of this circuit for background music systems is illegal.**

- # PLL - 1 Shipping Weight 2 lbs. .... \$14.50  
Now available with built-in squelch circuit to eliminate noise if your station drops its SCA carrier.
- # PLLS - Shipping Weight 2 lbs. .... \$19.50
- # PLLAS - Assembled -  
Shipping Weight 2 lbs. .... \$29.95

### SPECIFICATIONS

- Input Impedance ..... .5 Meg. Ohms
- Output Level ..... 1.0 Volt
- Detection Range ..... 50-80 KHz



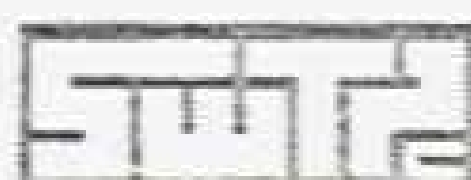
## 175 MHz FREQUENCY SCALER

÷ 10 SCALING 2 to 175 MHz  
UP TO 10 VOLTS RMS INPUT  
ECL CIRCUITS-TTL OUTPUT  
USE WITH ANY COUNTER

Extend the range of your FC-2 or any other counter to 175 MHz. This prescaler uses emitter coupled logic circuits that will count directly to 175 MHz. Used in combination with any frequency counter, this will allow you to measure CB, Ham and 2-way frequencies into the VHF ranges.

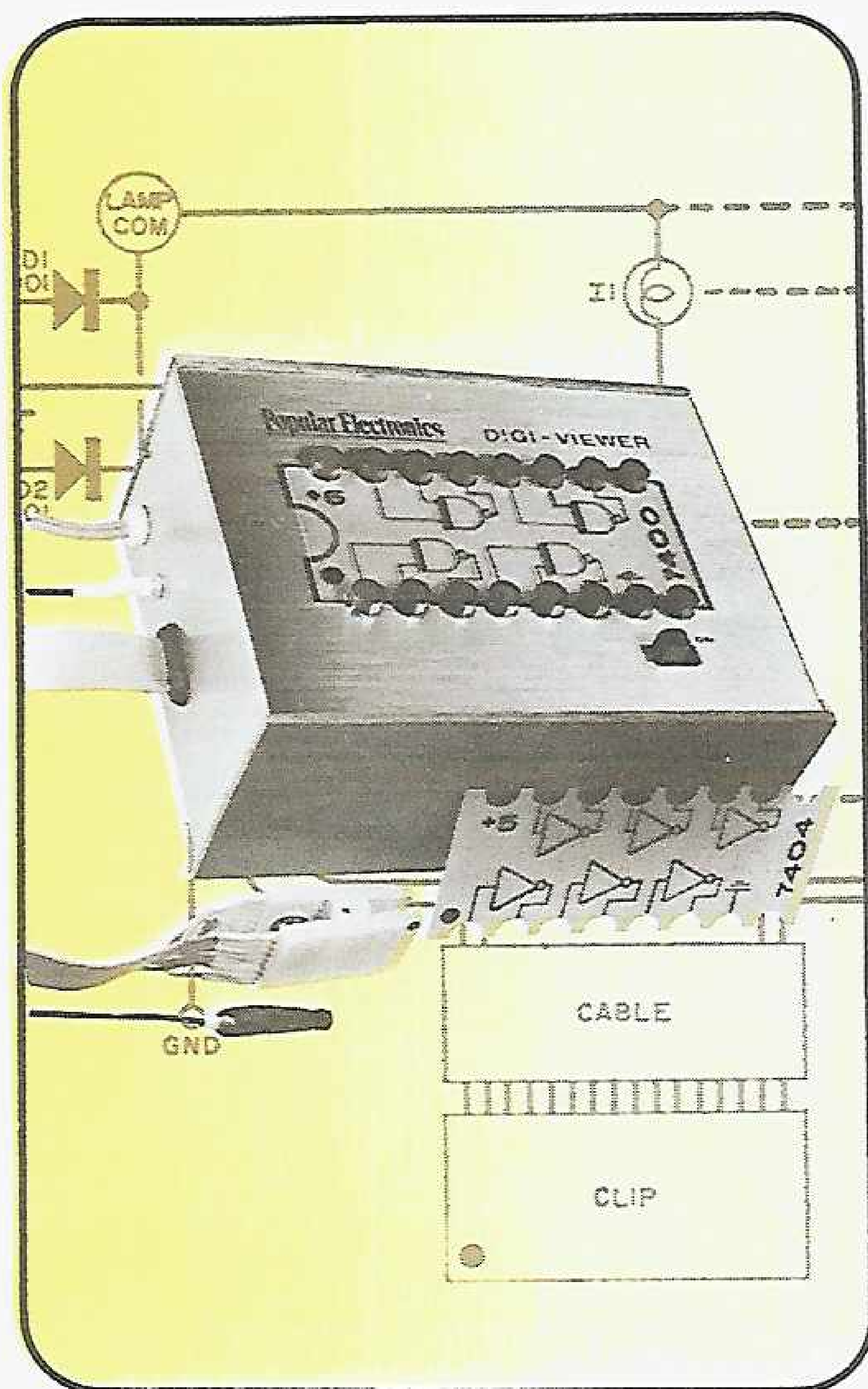
Prescaler and its power supply are in a 6x5 1/4 x 2 metal case with vinyl covered top. Input sensitivity is 0.25 Volts RMS at 2 MHz decreasing to 0.5 Volts at 175 MHz. Output is 3.5 Volts for matching to TTL logic. This kit does the same job as similar equipment costing three times our price.

- # 177 Prescaler Kit. 3 lbs. .... \$33.75



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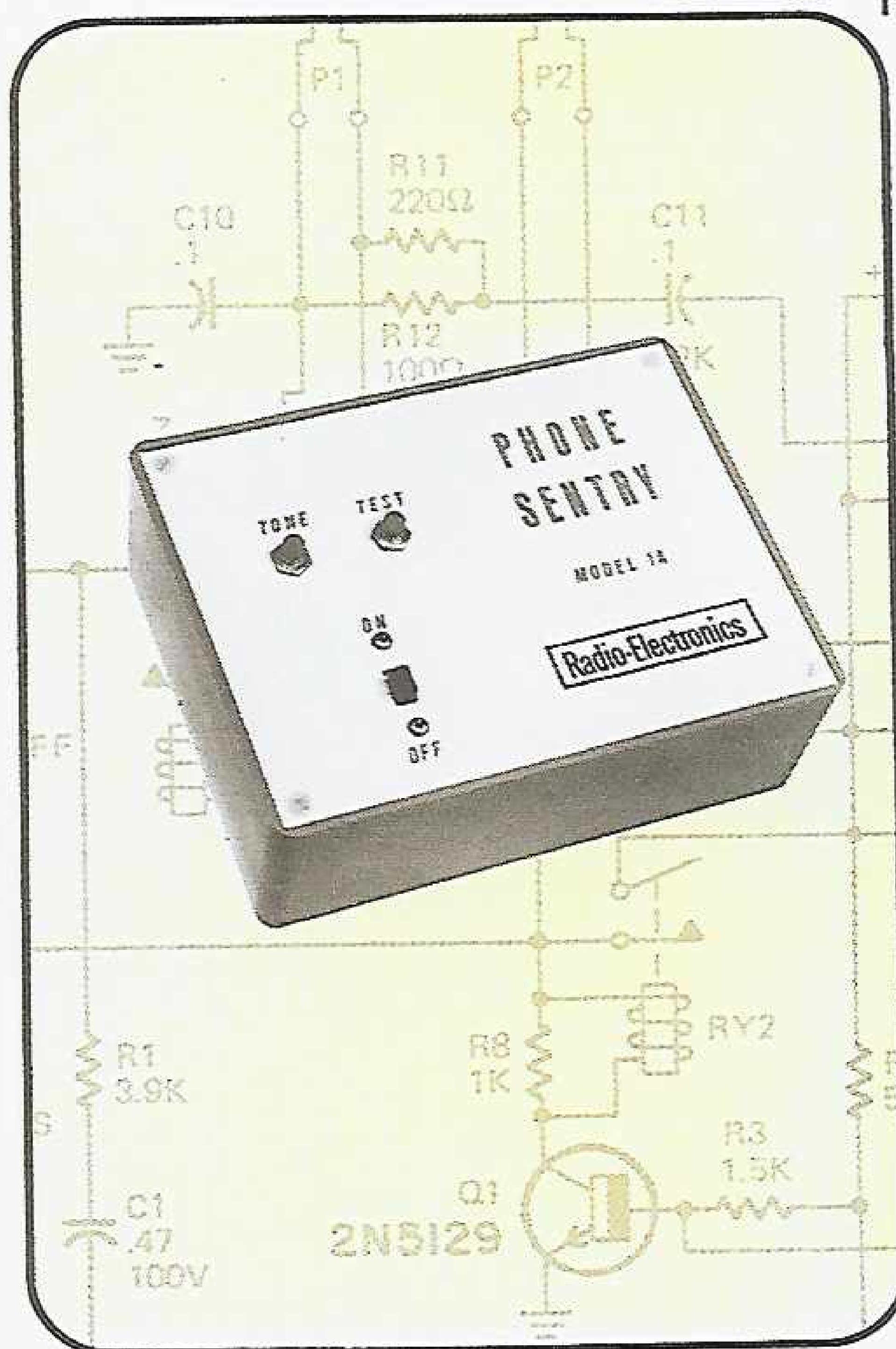


## DIGI-VIEWER

### AUTOMATIC – IN OPERATION TESTING OF DIGITAL INTEGRATED CIRCUITS

In-circuit dynamic testing of integrated circuits is now simple and inexpensive with the Digi-Viewer. The instrument consists of 16 lamps and a special clip which allows quick and easy connection to the pins. The lamps visually show whether the voltage at each pin is over, or under 1.4 Volts. Overlays are provided for all popular circuits, making it possible to see at a glance what is happening at the various pins of the entire package simultaneously.

# VU Kit of all parts including case, clip and sheet of most used overlays  
Shipping Weight 4 lbs. .... \$19.86



## PHONE SENTRY

### AUTOMATIC TELEPHONE ANSWERING

Now you'll have no more missed phone calls with the Phone Sentry on the job. This electronic control unit used with two unmodified cassette tape recorders will give you the convenience of automatic telephone answering at a very low price.

When you are not home, the Phone Sentry will respond to the ring signal by playing a message from one of the recorders explaining that you are not home and then allowing 30 seconds for the person calling to give a message.

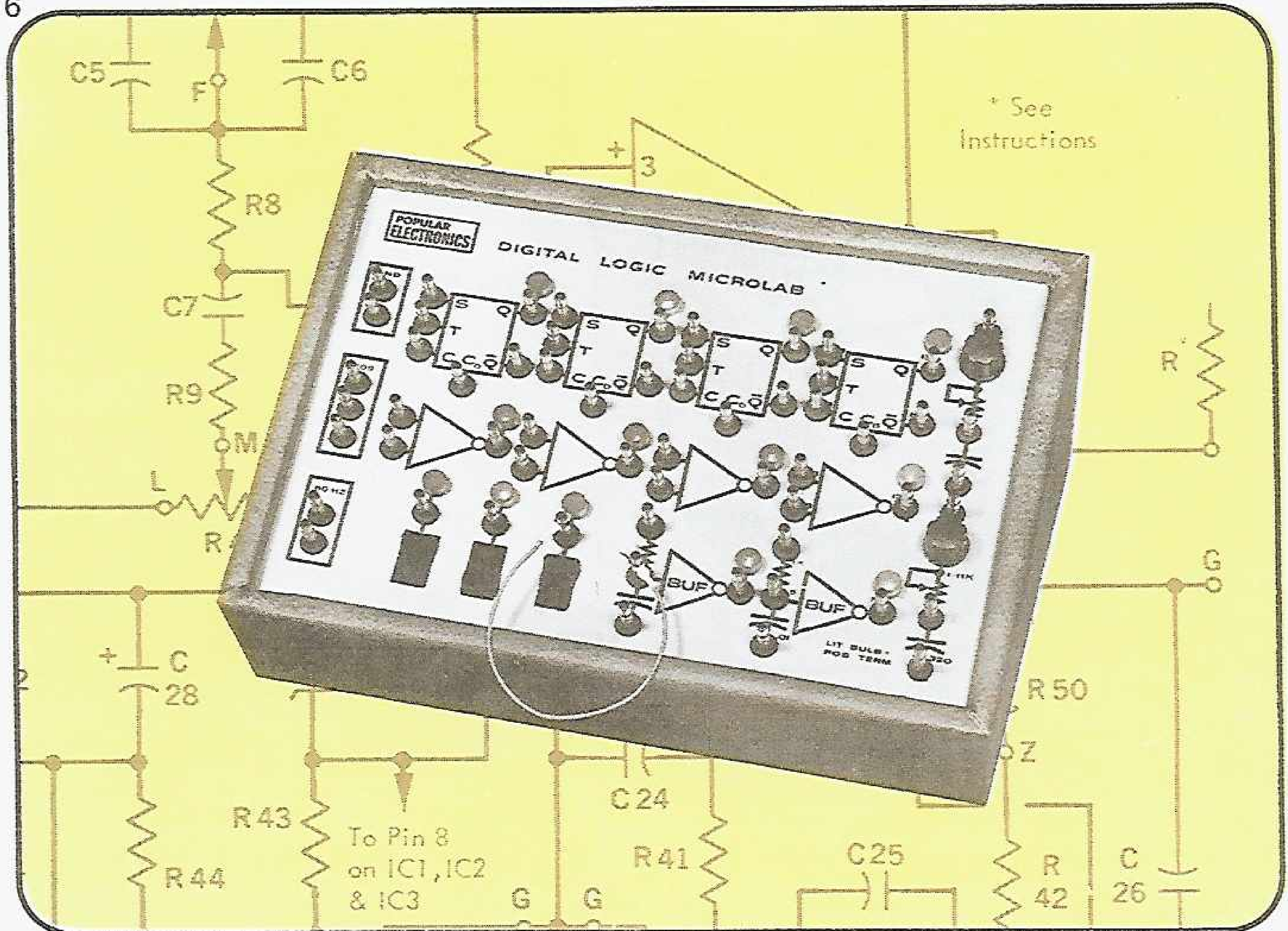
The Phone Sentry circuits are powered by four internal "C" cells and the only connections needed are to the recorders and the telephone line.

# PHS Phone Sentry Kit  
Shipping Weight 3 lbs..... \$29.95



Southwest Technical Products Corporation, 219 W. Rhapsody, San Antonio, Texas





The Microlab makes it possible to quickly check, or understand a variety of digital circuits. The Microlab includes four flip-flops, four gates, two buffers and three bounceless switch circuits that can be used to make hundreds of basic logic circuits. Each logic block has a light to indicate its state. Three types of input signals are available on the panel. Connections are made with simple clip-on leads that require no soldering and are easy to attach and remove. The entire instrument is "goof proof". No possible combination of connections, no matter how wrong, can damage the circuits.

The kit is complete with AC power supply and wood grain outer case. An ideal companion for the Microlab is available. Don Lancaster's "RTL Cookbook" presents basic digital logic in an easy to understand, non-mathematical manner. With this book and the Microlab anyone can have a good understanding of digital circuits in a very short time.

- # DLM Complete Kit as shown -  
Shipping Weight 4 lbs. .... \$29.95
- # "RTL Cookbook" by Don Lancaster  
Shipping Weight 1 lb. .... \$5.50
- Lab Manual (28 Experiments) ..... \$1.95

## DIGITAL LOGIC MICROLAB

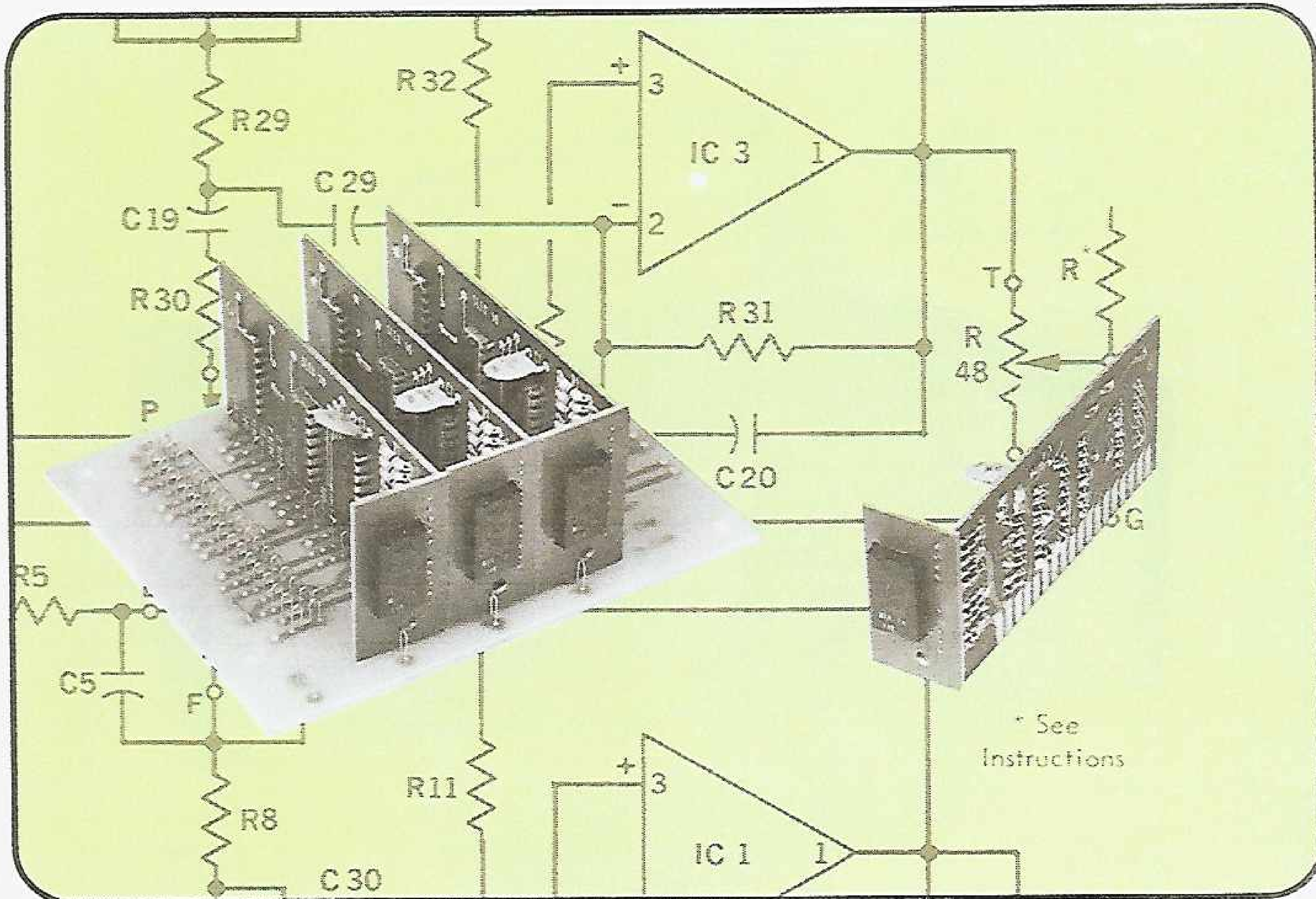
LEARN HOW DIGITAL CIRCUITS WORK

VERIFY DESIGNS QUICKLY  
EXCELLENT TEACHING AID



Southwest Technical Products Corporation, 219 W. Rhapsody, San Antonio, Texas





## LED READOUT

**LARGE MAN-1A READOUTS  
PLUG-IN COUNTER CONSTRUCTION  
BOTH DECADE AND MODULO 6  
AVAILABLE**

**CHOICE OF MOTHER BOARDS  
PARALLEL INPUTS & BCD OUTPUTS**

Now you can build digital projects with beautiful, rugged, large size LED readouts with a minimum of problems. Our mother board system combined with plug-in readout modules makes it possible to build a readout with the type and number of digits you want with a minimum of wiring and without special mounting hardware.

The readout modules use 8200 type TTL counters. These counters have typical counting speed of 25 MHz and parallel input terminals. This makes it possible to enter a number into the counter before actual counting is begun. Digital tuning indicators and "count down" type timers must have this feature. The four line BCD output from the counter is available on the mother board if needed. The counter output is stored by a 7475 latch circuit and displayed only upon command. This provides smooth "blink free" displays. The readout has 0.3 inch high seven segment type pattern. Connections are provided for variable brightness and for automatic blanking of unnecessary zero's.

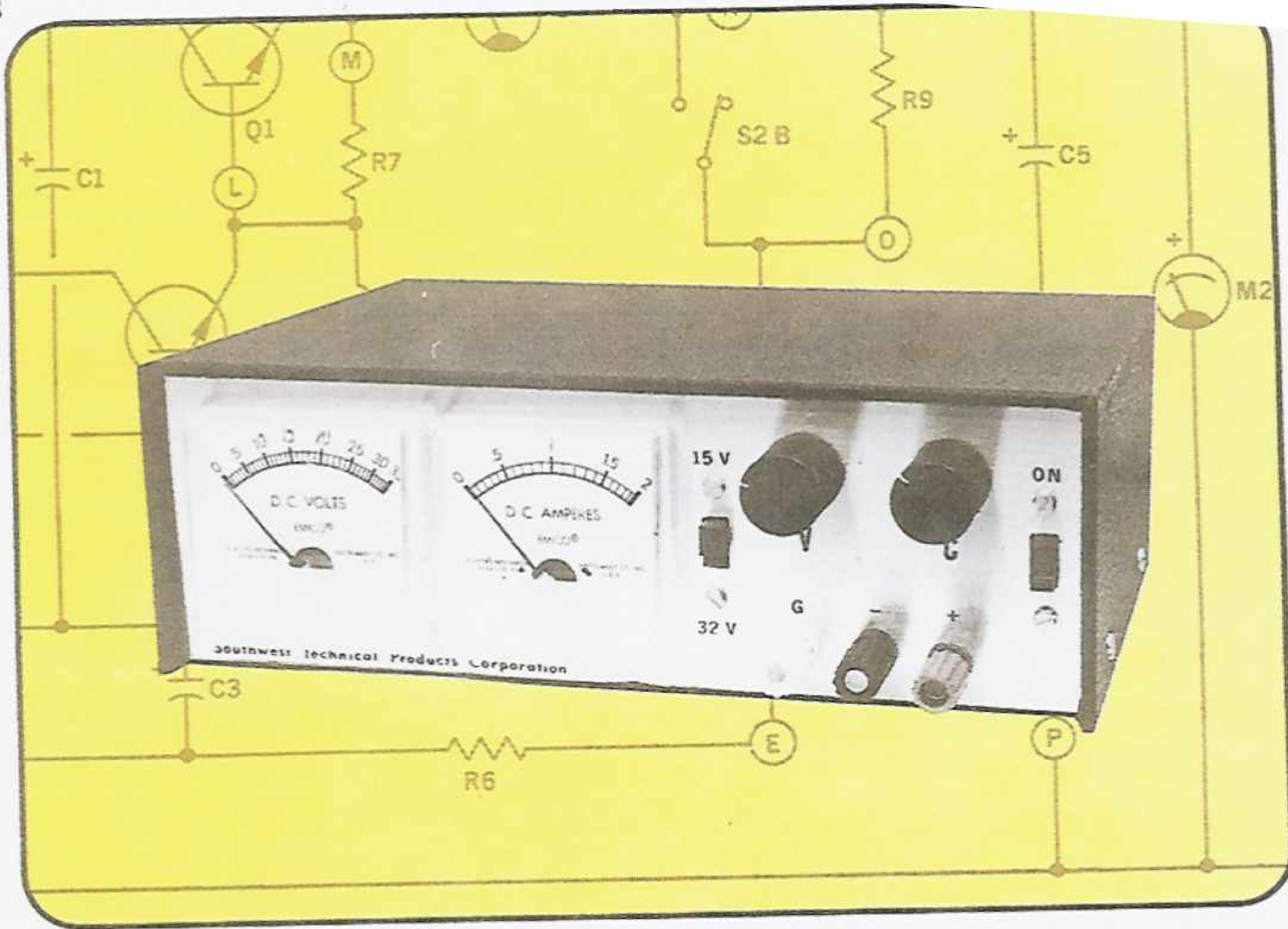
The mother boards are available in four digit, six digit and timer-clock arrangements. All mother boards are complete with high speed buffer circuits for the strobe and reset lines. This reduces fan-in to a maximum of two on any mother board input line. Mother board kits contain all necessary hardware for plug-in counter kits above.

SLED-10 or SLED-6 Counter Kit complete with readout (one decade), 4 oz.....	\$9.95
MO-4 Mother Board Kit, 8 oz.....	\$4.50
MO-6 Mother Board Kit, 8 oz.....	\$5.50
TMO-7 Clock-Timer Mother Board Kit, 8 oz.....	\$6.00
#192 Power Supply for above—	
2 Amps @5 Volts DC, 5 lbs.....	\$12.50



Southwest Technical Products Corporation, 219 W. Rhapsody, San Antonio, Texas





## SHORT PROOF POWER SUPPLIES

### SINGLE POLARITY 0 ± 35 VOLTS DC 0-2 AMPS

High capacity 0-2 Amp power supply for use where only a single polarity power supply is needed. May be used for either positive, or negative ground circuits. Voltage is adjustable from 0 to 15 and from 15 to 35 Volts. Current limiting is adjustable from 10 Ma. to 2.0 Amps.

Cabinet is all metal with a vinyl covered top, and a brushed gold front panel.

# 143 Power Supply Kit  
Shipping Weight 8.0 lbs.....\$39.50

#### SPECIFICATIONS

Regulation.....1% or 0.1 Volt for  
100% load change  
Ripple......03% or 10 Mv. Maximum  
Voltage Range.....0-15 and 15-35 Volts DC  
Input.....110 to 125 Volts AC

### DUAL POLARITY 0 TO ± 20 VOLTS DC 0-1 AMP

The ideal power supply for operational amplifier circuits and any others requiring a split polarity power supply voltage. The voltage control changes both the positive and negative output voltage by equal amounts when adjusted. Current limiting range is 50 Ma. to 1.0 Amp.

Cabinet is same as single polarity type.

#243 Power Supply Kit  
Shipping Weight 8.0 lbs.....\$39.50

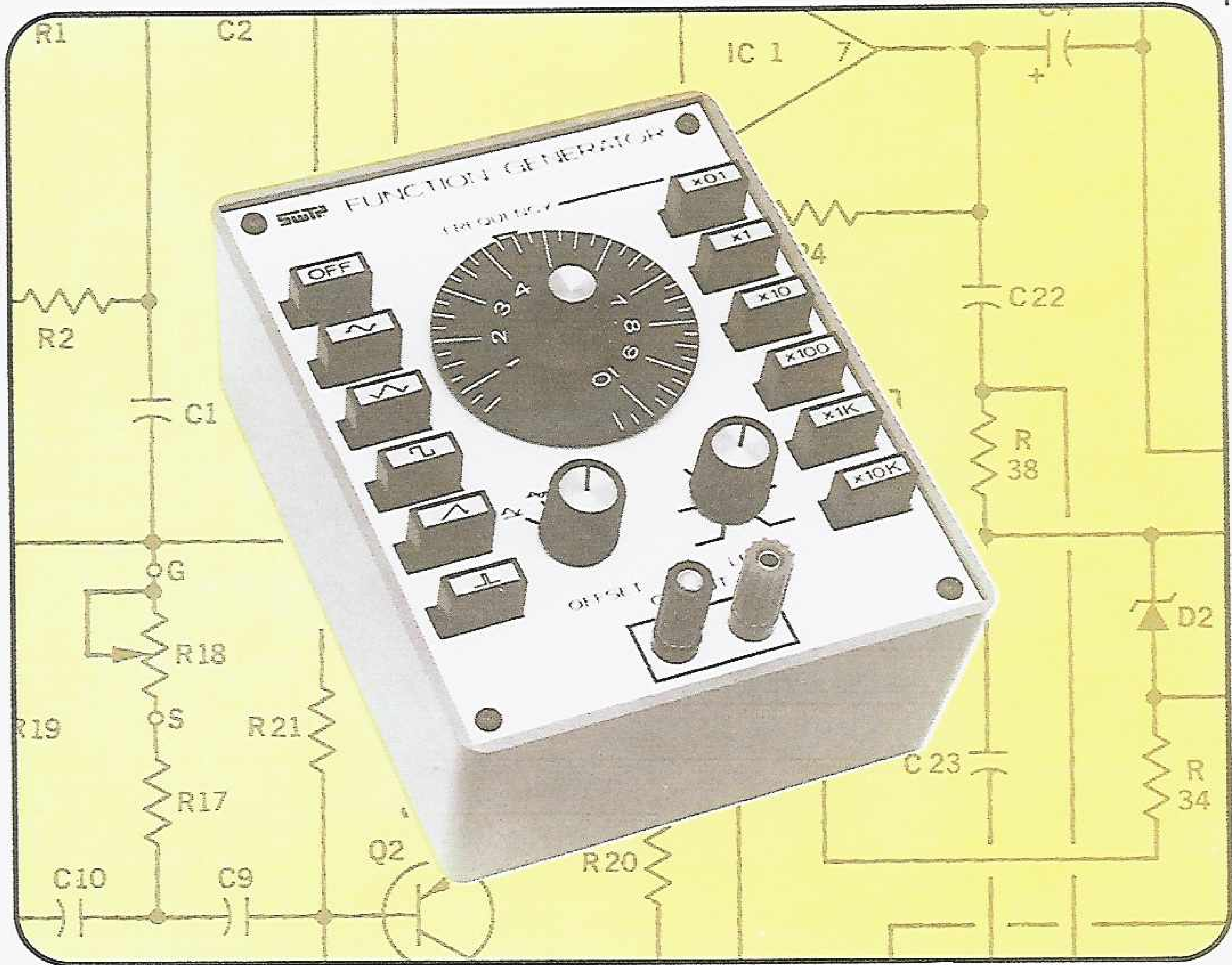
#### SPECIFICATIONS

Regulation......05% or 0.1 Volt for  
100% load change  
Ripple......02% or 5 Mv. Maximum  
Voltage Range.....0 to ± 20 Volts DC  
Input.....110 to 125 Volts AC

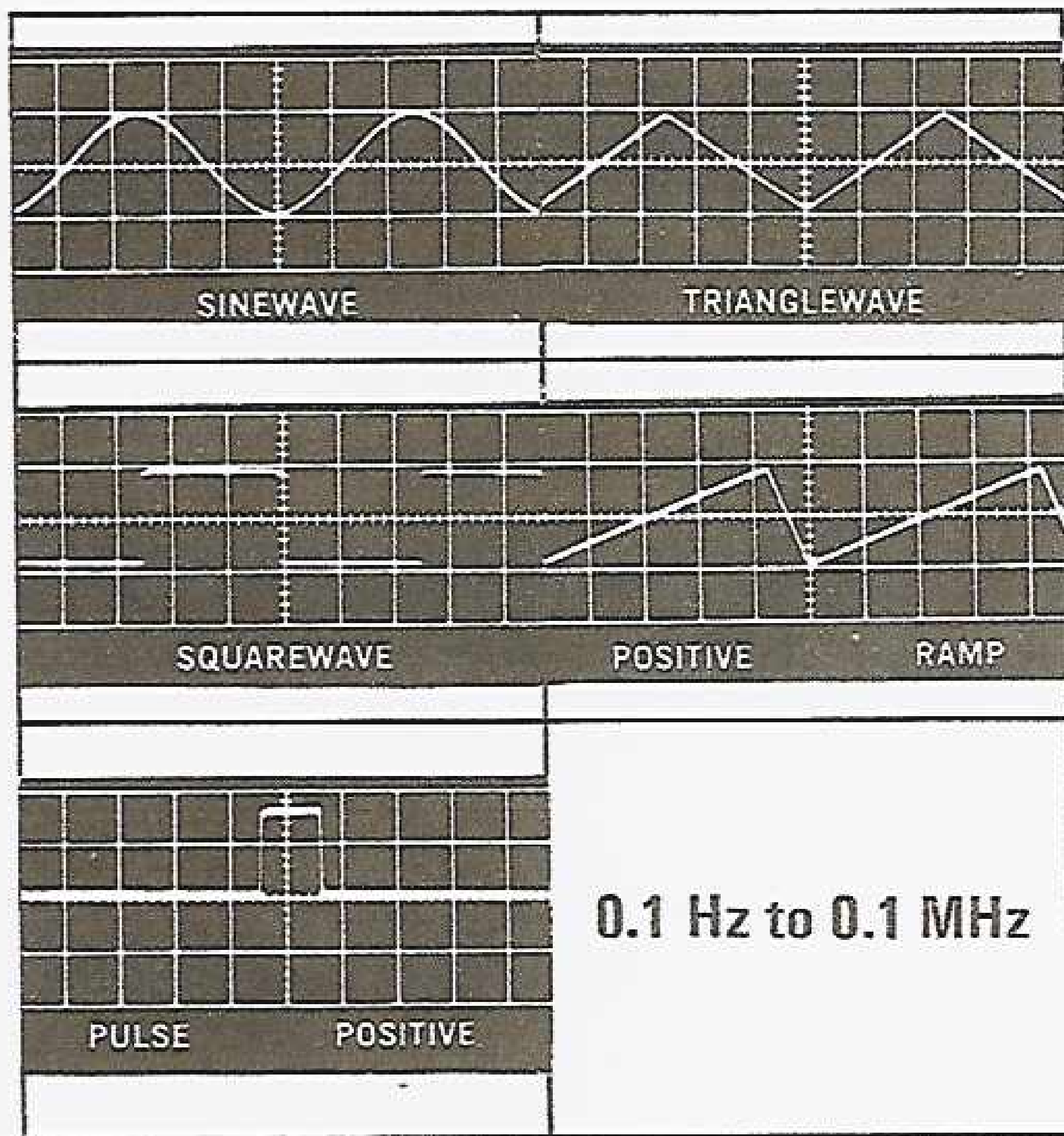


Southwest Technical Products Corporation, 219 W. Rhapsody, San Antonio, Texas





## FUNCTION GENERATOR



Now, thanks to IC technology, everyone can afford one of these versatile waveform generators. This is the ideal general purpose signal generator. Use it for checking audio equipment, digital circuits, sweep circuits, or anywhere you need a variety of waveforms.

Construction is very simple due to extensive use of circuit boards. Only the offset, level and frequency controls are wired. Our kit features switch selection of waveform, frequency range and type of offset. Output amplitude is constant to less than  $\pm 1$  dB on any range and with any waveform. Sine wave distortion is less than 1% from 20 to 20,000 cycles. Square wave and pulse rise times are less than 0.25 microsecond. Accuracy is 1% on the range calibrated and better than 5% on all other ranges.

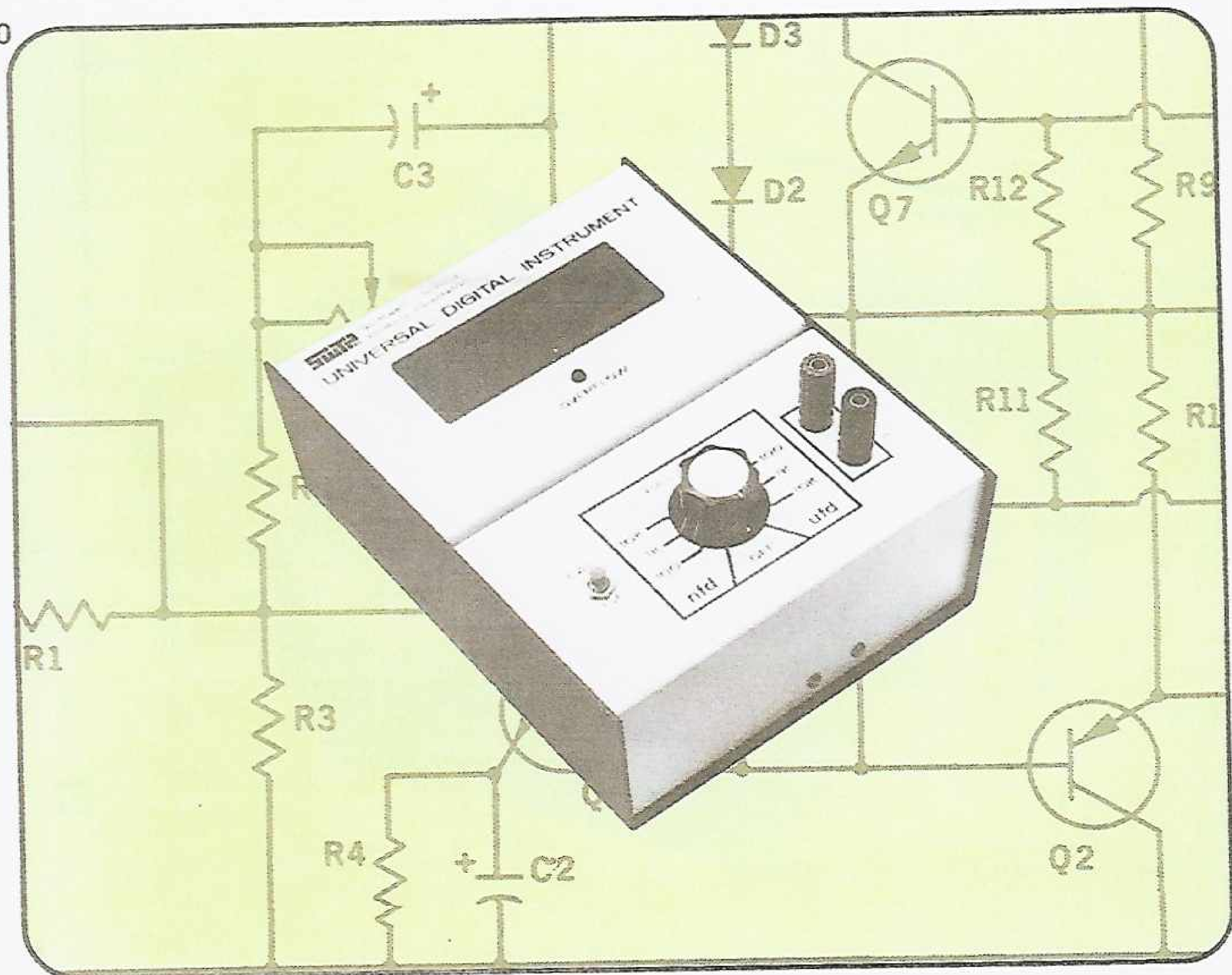
The Instrument is housed in an impact plastic case for maximum drop protection. Case size  $5\frac{1}{4} \times 6\frac{3}{4} \times 2\frac{1}{2}$ . Power required 115 Volts AC.

#FG-2 Function Generator Kit  
Shipping Weight 3 lbs.....\$39.95



Southwest Technical Products Corporation, 219 W. Rhapsody, San Antonio, Texas





## UNIVERSAL DIGITAL INSTRUMENT

The first digital system to offer a choice of battery, or AC operation. Our new digital mainframe is without question the best possible choice for those who want a digital instrument with the most versatile range of applications. This system can do more and at

less cost than any other digital instrument. You get a full four digit LED readout to begin with. Not a skimpy two digit plus over-range system as in other lost cost units. In addition to this the mainframe has its own .001% accurate crystal timebase and a MOS divider circuit. This means that the mainframe can supply timebase, or timing signals to the various plug-ins and simplify their circuits considerably.

The plug-in units connect to the mainframe with a chassis mounted connector making changes fast and easy. The instrument is housed in a rugged 6 x 7½ x 2½ steel case and finished with tough epoxy enamel. With this system you will be able to make many types of measurements with digital accuracy and convenience and at minimum cost. Photo shows the mainframe and capacity plug-in unit described on the opposite page.

Universal Digital Instrument—(less any plug-in units)  
UDI-1 4 lbs. ....\$59.95



Southwest Technical Products Corporation, 219 W. Rhapsody, San Antonio, Texas



### FREQUENCY COUNTER

Frequency counter plug-in for the Universal Digital Instrument. This plug-in allows you to measure frequency or pulse rate from 0.1 Hz to 20 MHz, with .001% accuracy ( $\pm 1$  count). Sensitivity is 100 Mv. up to 2 MHz and 500 Mv maximum over 2 MHz. Input impedance is 1 Meg Ohm shunted by 20 pf. An external trigger level control is provided so that the trigger level may be set correctly on complex waveforms.

Frequency Counter Plug-in Kit—2½ lbs. #FC-3 .....\$24.95

### TIME BASE

The time base plug-in for the Universal Digital Instrument is a good example of the simple handy plug-in units that can be offered due to our unique mainframe divider circuit. This plug-in provides a source for precision symmetrical square waves at any frequency from 1 Hz to 1 MHz. Use it for a scope calibrator, test equipment range adjustments, timing signals or any other type application that requires a stable crystal controlled frequency reference.

Time Base Plug-in Kit—2½ lbs. #TB-3 .....\$11.25

### CAPACITY —

Another very handy instrument to have around the shop. The capacity plug-in lets you measure the capacity of any capacitor from 10 pf to 10,000 mfd quickly and exactly. The circuit uses a safe low voltage for testing and a discharge system of measurement. This prevents any possible damage to low voltage capacitors and eliminates any effects that leakage might have on accuracy.

Capacity Plug-in Kit—2½ lbs. #UC-1 .....\$24.95

### TIME PERIOD

The electronic stop watch plug-in. This handy instrument lets you time the duration of events, or the time between two events with .01% accuracy. The plug-in will time events as short as 10 microseconds, or as long as a million seconds. You can use it for high speed applications such as shutter testing on cameras, or bullet velocity, or you can use it for low speed applications such as slot car races, track and field events, etc.

Time Period Plug-in Kit—2½ lbs. #TM-3 .....\$14.95

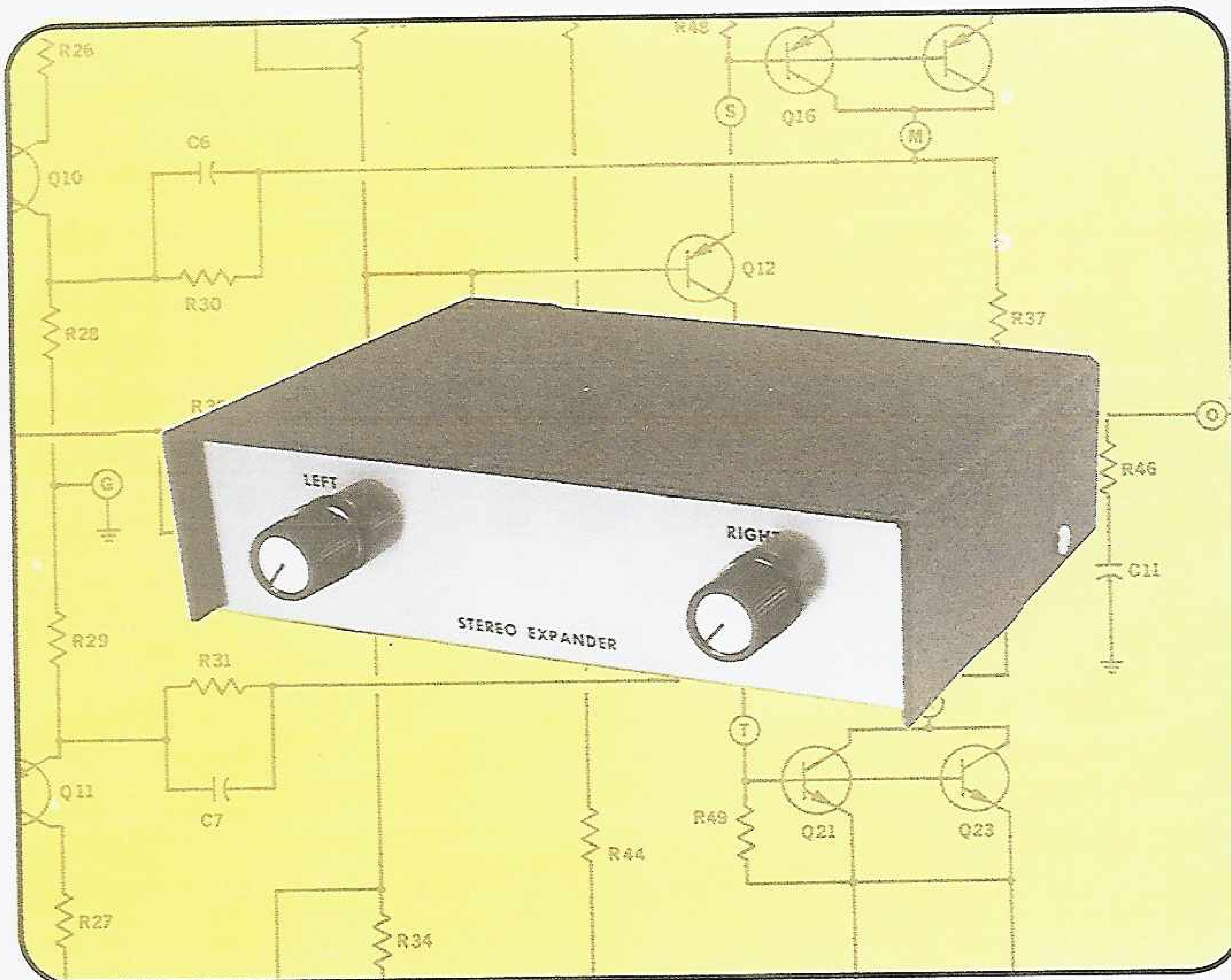
### MORE TO COME

We will soon be ready to announce several more plug-in units for our new Universal Digital Instrument. In the next few months, we will have a Voltmeter-Ohmmeter, Clock-Timer, Ph Meter and many more. We intend to make this the most versatile digital instrument anywhere.



Southwest Technical Products Corporation, 219 W. Rhapsody, San Antonio, Texas





## STEREO COMPRESSOR-EXPANDER

Restore the original dynamic range of the music on your records, or make your own instant background music with this versatile, high quality unit. This easy to use compressor-expander connects to the "tape monitor" jack and the "tape in" jacks on your preamp. The "Tape Monitor" button on the preamp then controls the operation of the circuit.

In the expansion mode the level at which expansion begins can be set, as can the amount of expansion. This allows you to

counteract the effects of volume compressors, etc that are commonly used to maintain a consistently high level on recordings. In many cases the improvement is dramatic.

In the compression mode, the output level is kept almost constant for up to 40 dB variation in input level. This makes it possible to convert almost any type of program into constant level background music.

### SPECIFICATIONS

Adjustable for up to 20 dB of expansion, or 40 dB of compression. Less than 1% total harmonic distortion for normal input levels. Frequency response -3.0 dB at 2 Hz and 100 KHz. Hum and noise 60 dB below normal input with no expansion, 50 dB below at full expansion. Power—117 Volts AC 50-60 Hz. 7 inches wide by 2 inches high by 5½ inches deep.

Stereo Expander Kit — #EX-1

Shipping Weight 3.0 lbs.....\$29.95



Southwest Technical Products Corporation, 219 W. Rhapsody, San Antonio, Texas



Dear Electronic Kit Builder,

As you can see from the cover of this catalog, we are at last able to offer you our 250 Watt amplifier "Tigersaurus." It has taken a bit longer than we expected to get this kit ready due to the long delivery times on many parts these days, but we think you will agree that it was worth the wait. This amplifier represents the way we feel that a high powered amplifier should be built. It has a large and heavy power transformer that supplies a well regulated voltage to the eight (8) output transistors. The heat sink area is over 500 sq. inches per channel of a thick well designed aluminum extrusion. This amplifier can put out the rated power continuously with no overheating, or danger to the circuit. If you want to make a fast comparison of large amplifiers check the weight, the heat sink area and the price. This obviously cannot tell the whole story, but gives you a good indication of where the ripoff's are to be found. There is no substitute for square inches of transformer core, or heat sink, and they are both heavy.

We have been very pleased at the large number of letters we have gotten commenting on "Tiger .01" and the #198/A Preamp. Evidently comparisons with some of the most expensive equipment available does not show any great difference in sound quality. Units that have been taken to test clinics have confirmed our distortion claims many times too. Everyone seems to like the construction of the preamp. The use of plug-in grain modules and mother boards not only simplifies construction and eliminates a bunch of wiring, but also makes it easier to troubleshoot and correct any problems that might crop up. Although we don't provide instructions as elaborate as found in most kits, the vast majority of our customers find them sufficient. The instructions, just like our kits are updated as we hear about problems, or parts that are not as clear as they might be. By this time most of them are good enough that almost anyone who can read would be able to build the kit.

We knew it would happen and the only surprise was the short time it took. You can now get our complementary differential input circuit in at least one other brand of amplifier. Since these are very expensive amplifiers that are only sold through dealers we are not too upset—wonder who will be next.

D. Meyer

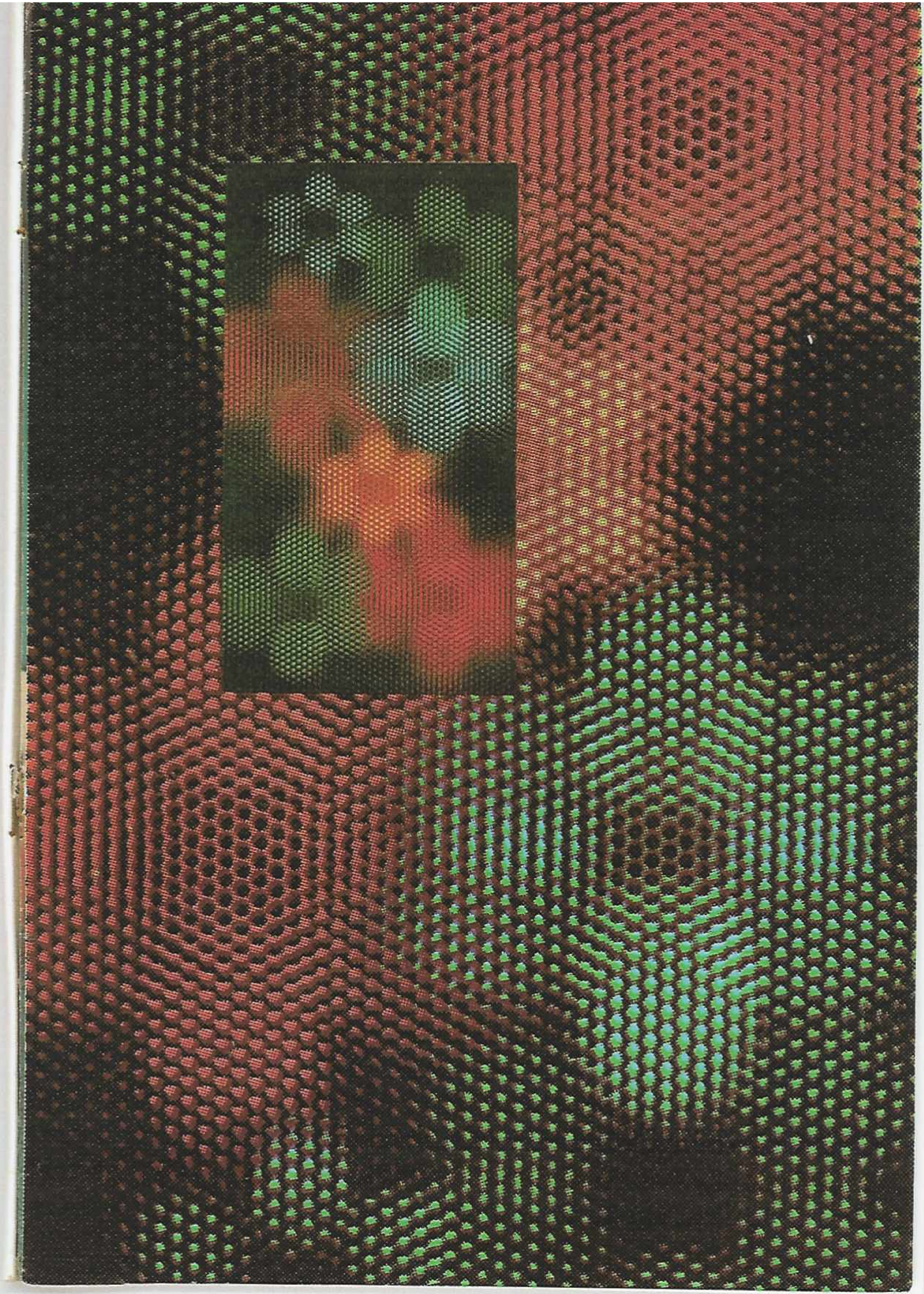


Southwest Technical Products Corporation, 219 W. Rhapsody, San Antonio, Texas

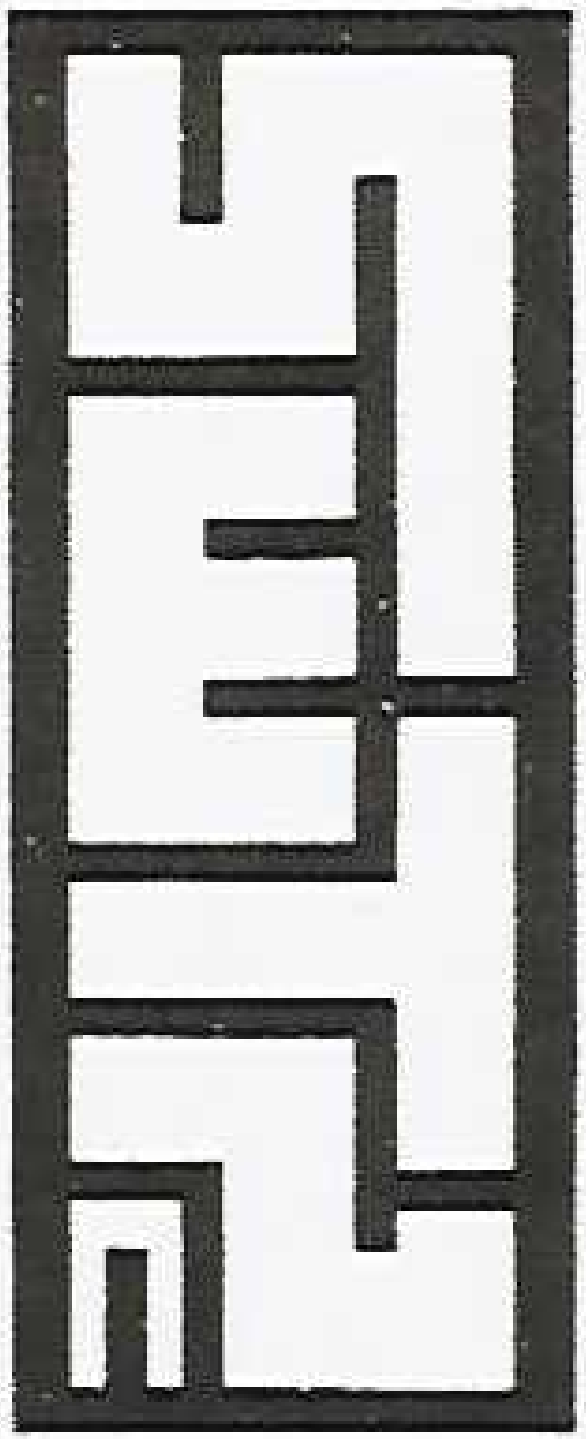












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