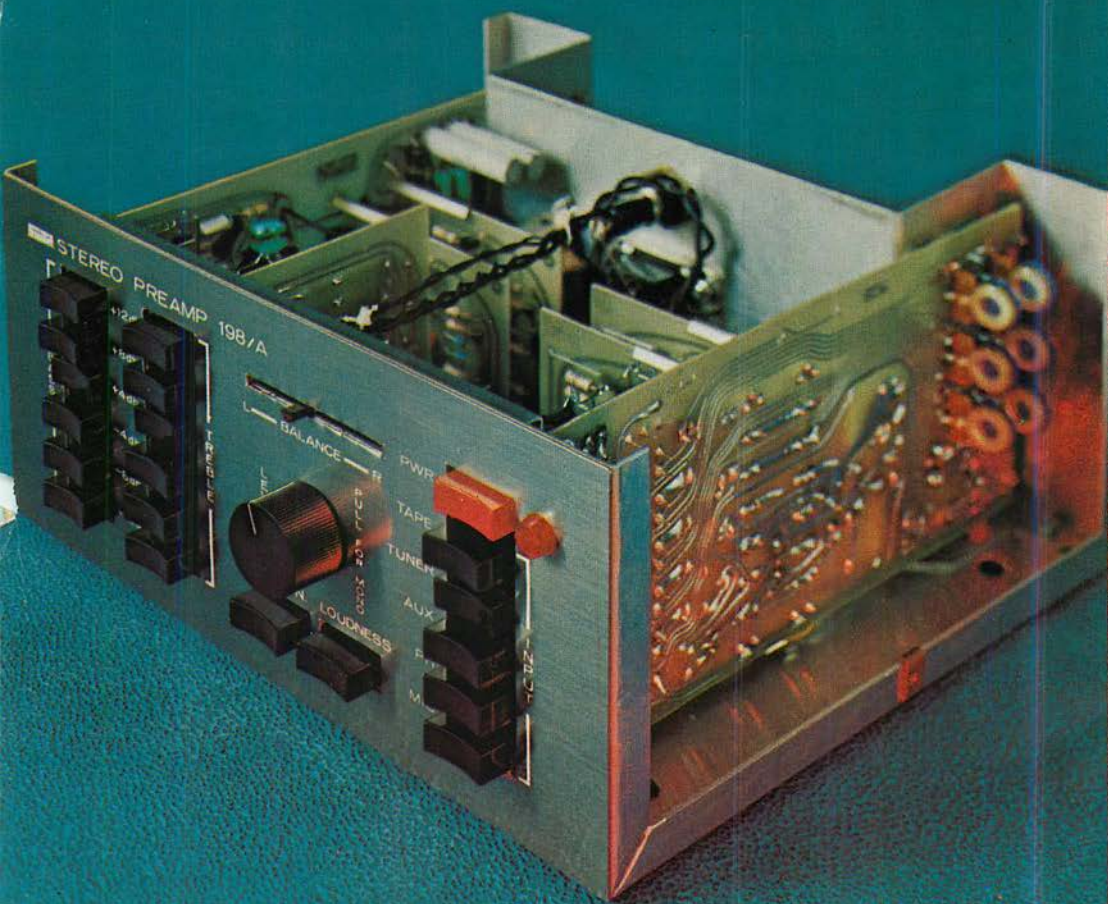


ETA





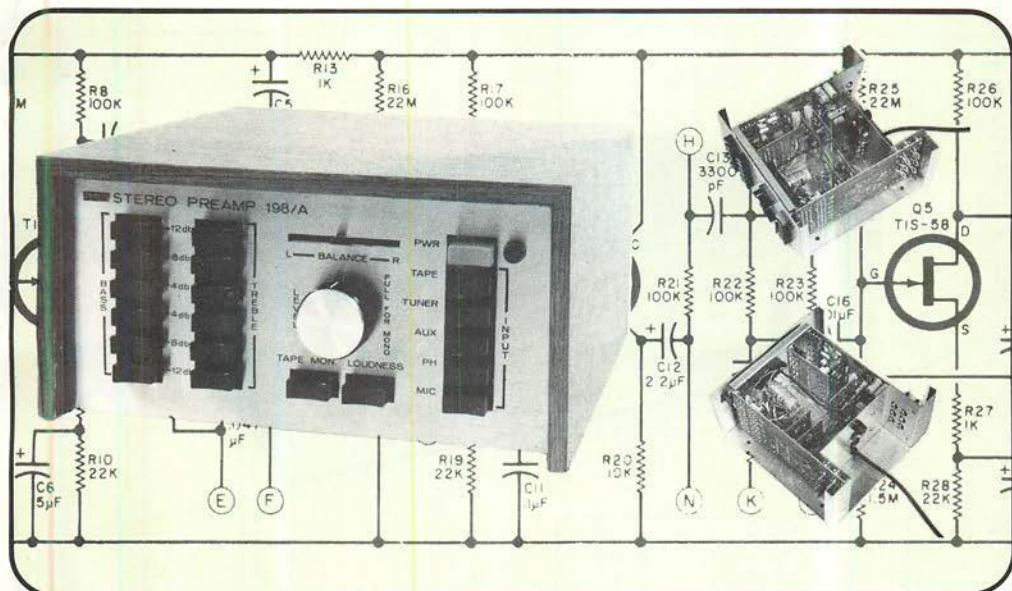
PIONEER
STEREO PREAMP 1987A

12dB
15dB
18dB
21dB
24dB
27dB

BALANCE
L R
LOUDNESS
OFF ON

PWR
TAPE
TUNE
AUX
FM
M

PCB



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.

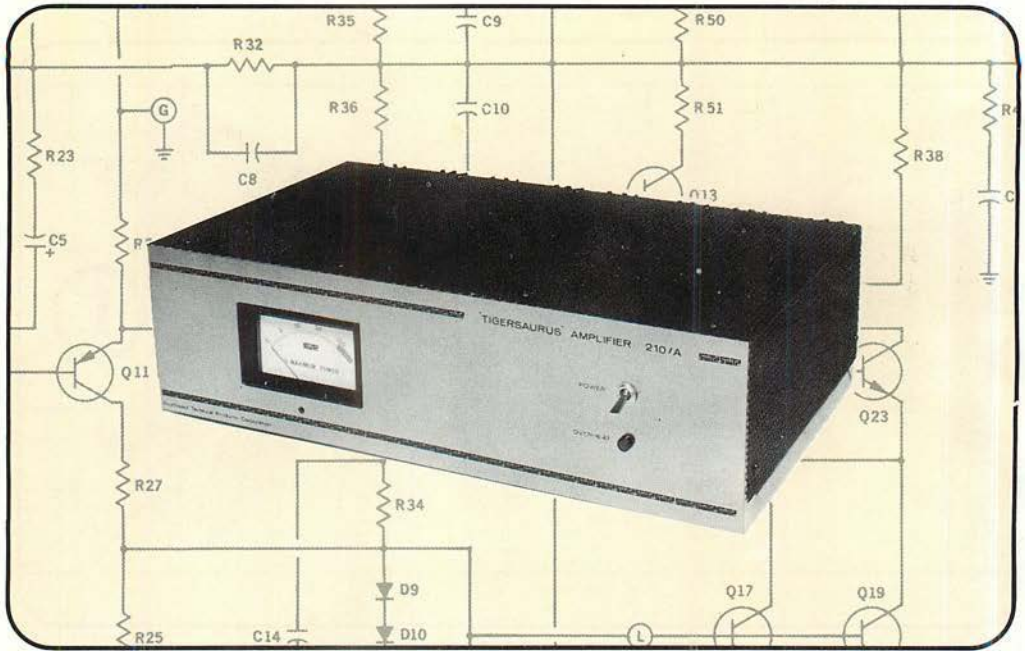
All gain needed is provided by four of our plug-in #195 opamp circuits. These plug into two "motherboards" that contain all the switching and equalization components. The result is vastly simplified wiring, and easy construction.

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.\$74.50 Ppd

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



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.....\$154.50 PPd

SPECIFICATIONS

Continuous Sine Wave Output200 Watts 8 Ohms
at rated distortion 250 Watts 4 Ohms
Typical Output at Clipping.....300 Watts
1M 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 putput



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



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.

4 1/4 x 5 x 14

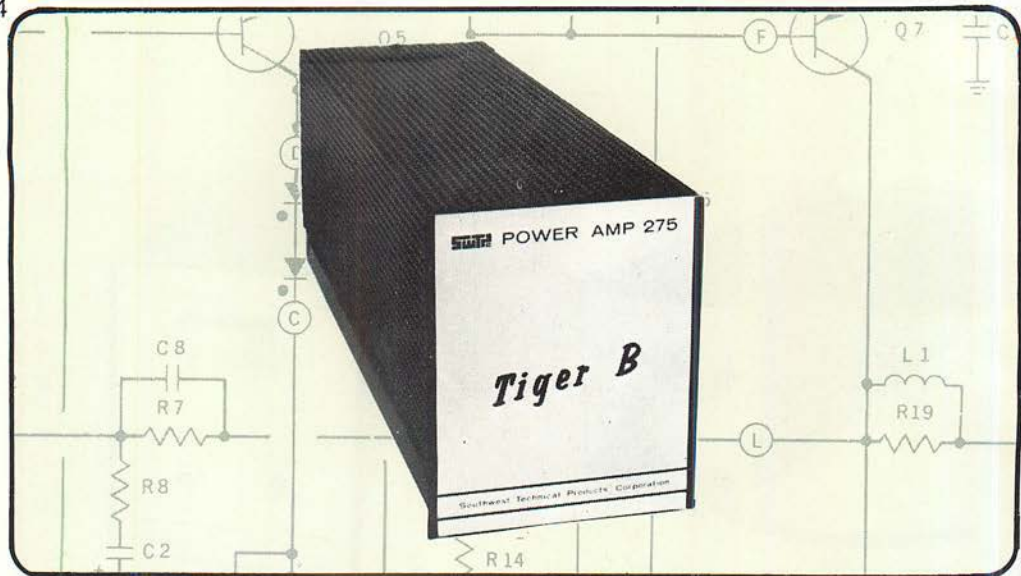
# 207 Complete Kit	
Shipping Weight 15 lbs.....	\$ 77.50 Ppd
# 207-A Assembled Amplifier	
Shipping Weight 15 lbs.....	\$105.00 Ppd

SPECIFICATIONS

Power Putput	60 Watts RMS
IM Distortion	less than .01%
Harmonic Distortion03%
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 10 Watts
Bandwidth	-1 db 1.0 Hz and 250,000 Hz.



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



UNIVERSAL TIGER "B"

The latest version of our famous "UT" amplifier. We have added our complementary differential input circuit to this rugged old standby and dressed it up in a pretty new box, but otherwise it is still the same all purpose basic amplifier. The "Universal Tiger" is cleaner than the majority of hi-fi amplifiers being offered, but the cost is low enough to use it in PA, organs, background music, and sound system of all types. The 4¼ x 5 x 14 package size allows mounting of four of these amplifiers side-by-side in a standard 19 inch relay rack.

The kit has step-by-step instructions, wiring charts and pictorial wiring diagrams. All parts are our usual first quality, standard number parts, made by the world's leading manufacturers. The majority of the construction is on beautiful fiberglass circuits boards.

The circuit features our outstanding complementary differential input system and current drive to fully complementary output devices. The circuit has volt-amp output protection, speaker fuse, power supply and line fuses. Compare our state of the art circuits to anything else available.

For those who want more features, we offer an accessory kit that allows addition of a front panel switch, overheat indicator and output meter; along with a level control on the rear panel.

We think that in "Tiger B" we have one of the most versatile amplifiers made, and the price has to be the bargain of the decade.

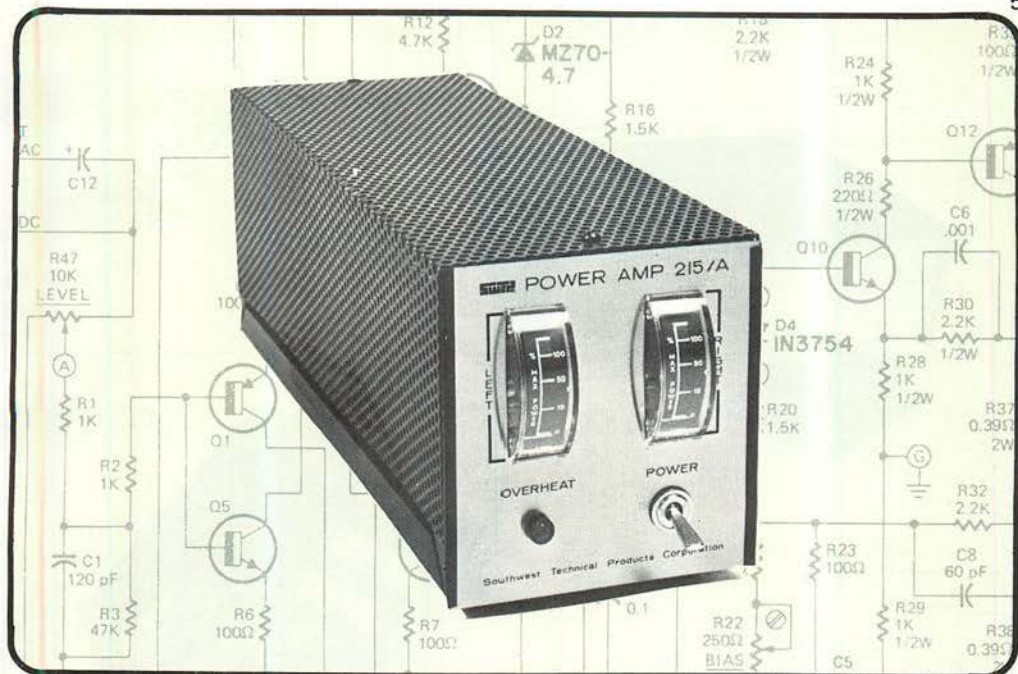
# 275 Universal Tiger Amplifier Kit (single channel)	\$ 64.25 PPD
# 2-275 Two of above Kits (for stereo).....	\$125.00 PPD
# AC-275 Accessory Kit (output meter, switch, etc.).....	\$ 7.90 PPD

SPECIFICATIONS

Power Output	75 Watts—8 Ohm load
.....	90 Watts—4 Ohm load
IM Distortion	less than .03%
Total Harmonic Distortion05%
Input Impedance50K Ohms
Damping Factor	Over 100 with 8 Ohm load
Sensitivity	1.5 Volts RMS for full Output
Hum and Noise	More than 80 db down
Bandwidth	1.0 db down at 1.0 Hz and 250 KHz



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



pictorial wiring diagrams, wiring charts and step by step instructions are provided in the kit.

Compare the specification of this amplifier with any other amplifier offered in this power range. Compare the features, and then compare the prices. Size 4¼ x 4¼ x 13

215 Stereo Amplifier Kit\$69.50 PPD

215

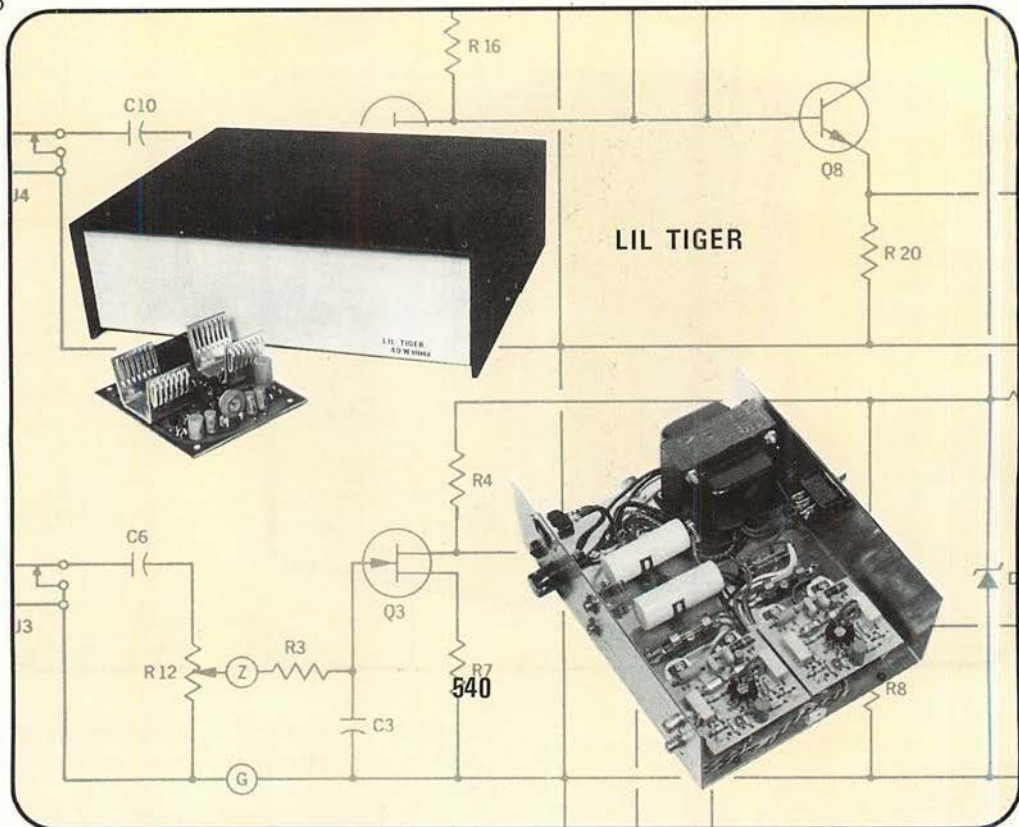
Our # 215 amplifier is for those who want the superior performance of "Tiger .01", but who do not need, or want 60 Watts per channel. The # 215 has the same complementary differential, all push-pull circuit as "Tiger .01" and the same type triple in the output stage. The only difference is in the maximum power output. You get two channels of super clean power in a neat package, with output meters for each channel. The entire circuit, except for the output transistors is built on a plug-in fibreglass circuit board for extra easy construction. The usual

SPECIFICATIONS

Power Output	Either Channel Singly
30 Watts—8.0 Ohm load
Both Channels Driven
25 Watts—8.0 Ohm load
Harmonic Distortion.....	less than .03% up to
	rated output
Intermodulation Distortion01% up to
	rated output
Input Impedance	50K Ohms
Sensitivity	1.25 Volt for 25 Watts
Hum and Noise.....	greater than 80 dB down
Frequency Response	1.0 dB down at 1.0 Hz
	and 250 KHz
Stability	Unconditionally stable with any
	load impedance
Damping factor.....	More than 100—8.0 Ohm load
	20 Hz to 20 KHz



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



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

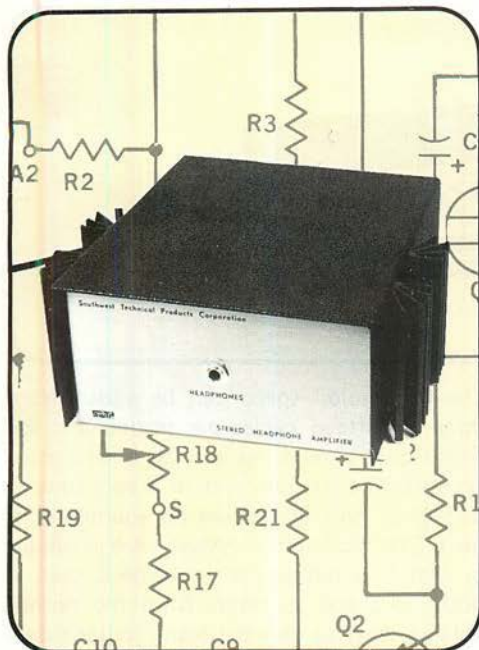
In the 20 Watt per channel class we offer you a choice of two amplifiers. For those who have a situation where only a single polarity of supply voltage is available, or who want to build a "classic"; we have Lil Tiger. For those who want the latest design, we have our "540" with IC driver system. Both 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 PPd

140 or # 540 Complete Stereo Amplifier (consisting of two of the above kits chassis and power supply)
Shipping Weight 6.0 lbs.....\$41.25 PPd





HEADSET AMPLIFIER

DESIGNED SPECIFICALLY TO DRIVE
HEADSETS

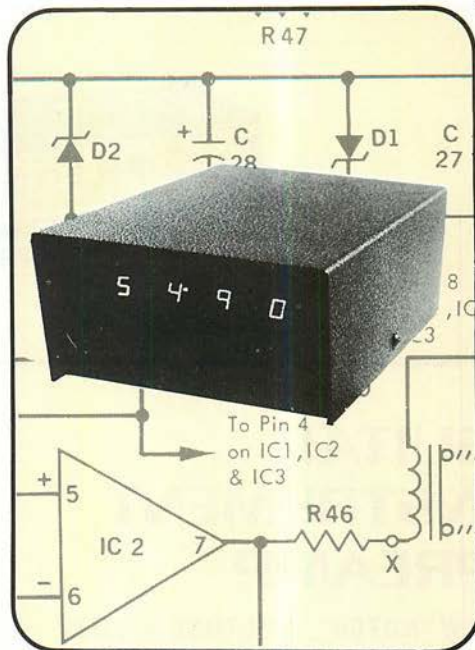
CLASS A OPERATION – LOW
DISTORTION AT ANY LEVEL

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.....\$45.75 PPD



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.....\$59.50 PPD



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



GUITAR and INSTRUMENT PREAMP

**NEW "NOTCH" TYPE TONE SYSTEM
PLUS – SUPER CLEAN TREMOLO
AND – REVERBERATION
GIVES YOU THE ULTIMATE IN
FLEXIBILITY AND SOUND VARIATION**

Our guitar and instrument preamp combines the latest in tone controls "the notch system" with active filter design to give you the ultimate in flexibility. The use of a rejection notch is the latest thing in creating new sounds. It allows you to greatly reduce, or eliminate the fundamental note from your strings and only allow the harmonics and overtones to be heard. Our system is the only one available anywhere that gives you complete control of the amount, width and depth of the notch. In addition to this you get the usual bass and treble tone controls that allow you to cut, or boost these frequencies. As if this wasn't enough, we have also added an "Emphasis" control that allows you to completely eliminate the bass, or treble frequencies; or mix them together in any proportion desired. You can imagine the versatility you would have with this type control system. Here at last is a single front end that can be used for almost any instrument. It is ideal for a bass, but also has the features you need for a lead instrument.

The "Tremolo" speed can be varied from three to fifteen cycles per second and the depth controlled from zero to one-hundred percent. The tremolo system is very smooth and clean and introduces no sounds of its own. The modulation system used is unique in that it is not just a loss type circuit. It both adds and subtracts from the normal volume level so that the sound output does not drop when tremolo is introduced.

The "Reverb" system uses a high quality spring reverberation unit with a high drive circuit for lots of clean good sounding reverb.

The sound quality of this preamp is comparable to the best stereo systems. Total harmonic distortion typically is less than 0.1% and the bandwidth of the circuits is 10 Hz to 100,000 Hz.

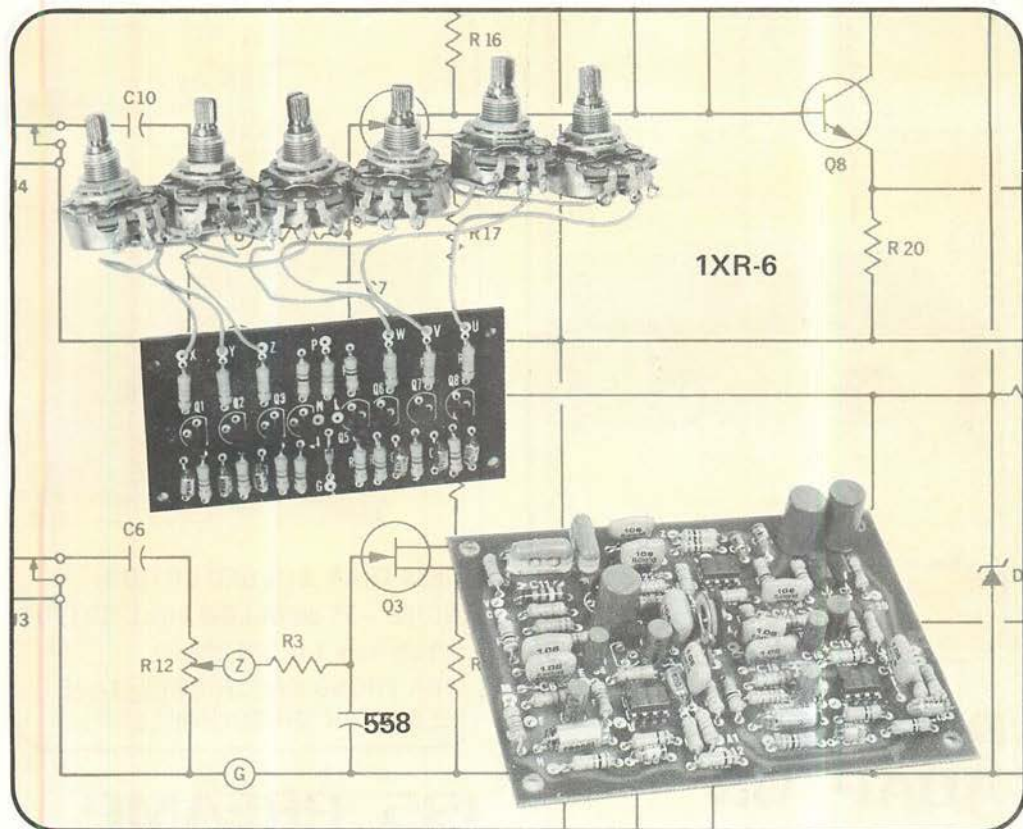
The #211 circuits are powered by an internal AC supply requiring only 110-120 Volts AC at 0.25 Amps. The preamp will drive almost any power amplifier, or PA sound system. The maximum output is over 5 Volts RMS into a 10K Ohm load. This is more than sufficient for any of our power amplifiers and enough for any that we have ever heard about. You are free to use as small, or as large a power amplifier system as necessary for the occasion.

Our preamp is housed in a black vinyl covered wooded cabinet with handsome silver trim and a convenient carrying strap. The cabinet is finished and ready for the electronic portion of the kit. No cabinet assembly is required. 25" x 6½" x 7½" deep

211 Guitar and Instrument Preamp Kit
Shipping Weight 7 lbs. \$96.50 PPd



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



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 - 1 lb.\$28.50 PPd
Reverb Spring - 2 lbs.\$10.75 PPd

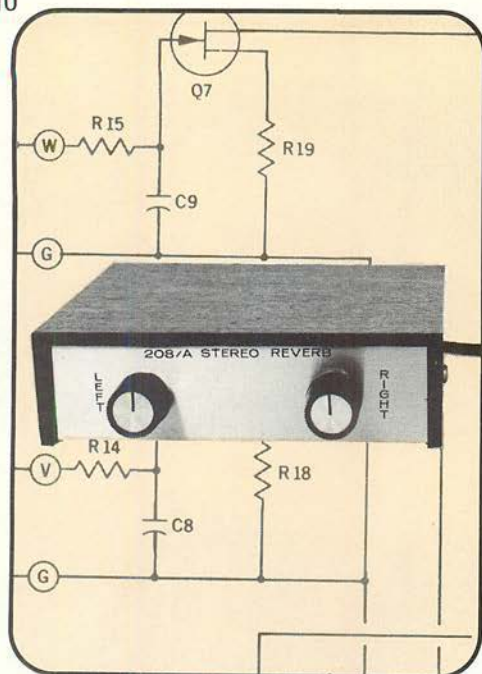
6 INPUT MIXER

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 PPd



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



REVERB ADAPTOR

Use our new self powered stereo reverb adaptor 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."

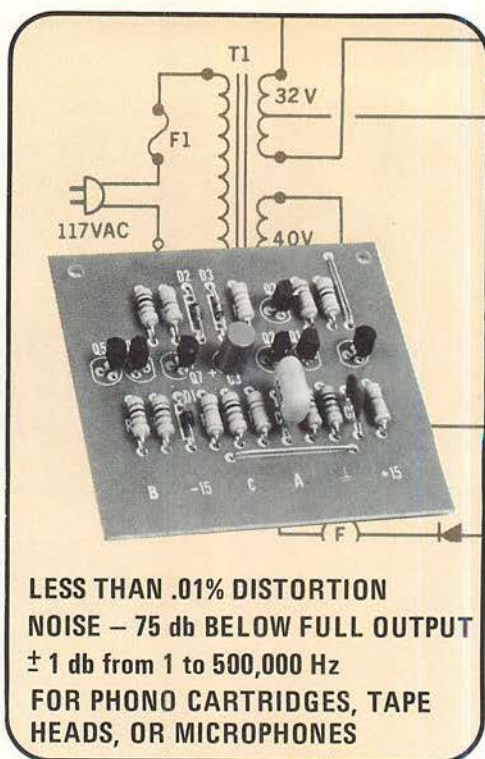
Two independent channels with separate controls to add the exact amount of reverb you prefer in each stereo channel. This self-powered unit is connected between your preamp and power amplifier and may be used with any type system.

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
Shipping Weight 5½ lbs.\$39.50 PPD
Z-1C Reverb Springs only as used in above kit.
2,000 Ohm input and output.
Shipping Weight 2.0 lbs.each \$10.75 PPD

SPECIFICATIONS

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



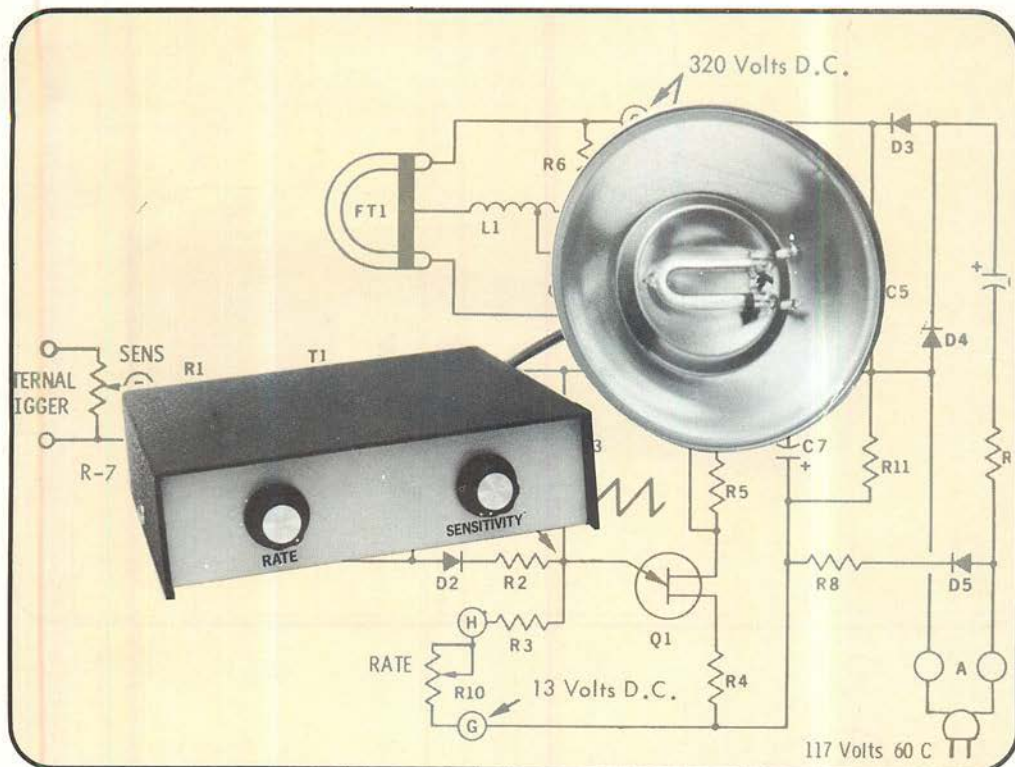
LESS THAN .01% DISTORTION
NOISE - 75 db BELOW FULL OUTPUT
± 1 db from 1 to 500,000 Hz
FOR PHONO CARTRIDGES, TAPE HEADS, OR MICROPHONES

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 ± 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.\$ 8.75 PPD





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 5½" 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."

X-149C Psychedelic Strobe Kit,
Shipping Weight 2 lbs.....\$17.50 PPd

PSYCHEDELIC STROBE LIGHT

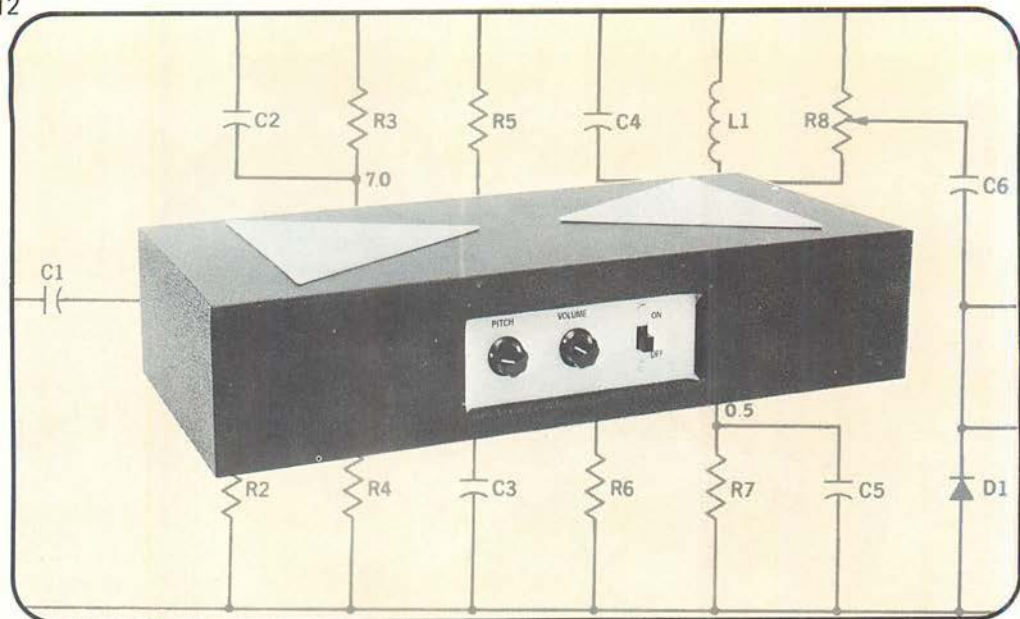
WIDE RANGE OF FLASH RATES

FLASH HEAD REMOTE FROM
CONTROL BOX

INPUT PROVIDED TO SYNCHRONIZE
FLASHES WITH YOUR MUSIC



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



THEREMIN ELECTRONIC MUSICAL INSTRUMENT

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.

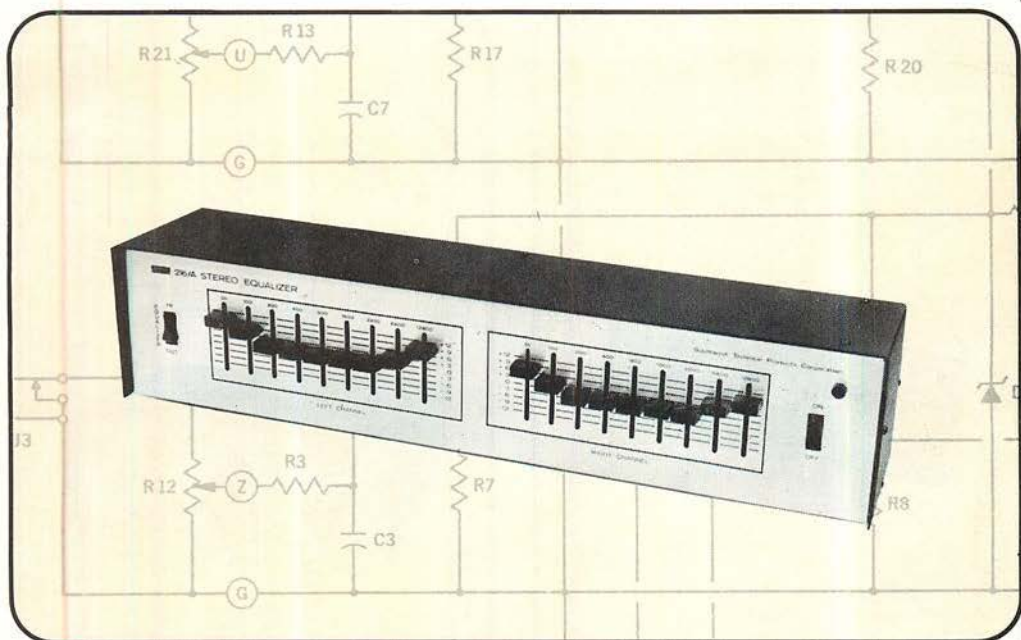
#142 Complete kit for Theremin - with cabinet
& Antenna
Shipping Weight 4 lbs.\$22.75 PPd

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



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



AT LAST

STEREO OCTAVE EQUALIZER

- * NINE INDEPENDENT CONTROLS PER CHANNEL
- * ONE OCTAVE RESPONSE PER CONTROL
- * UP TO ± 12 dB CORRECTION

The one everyone has been asking for. Our octave equalizer is finally ready. It may have taken a while, but we wanted to be able to offer an equalizer that was not only outstanding in performance, but one that was also reasonable in cost.

As shown in the photograph our equalizer has nine (9) independent single octave controls per channel. Each control can either boost or cut frequencies in that particular octave up to ± 12 dB. Controls for each channel are separate, so the equalizer can be used to

adjust each speaker exactly correct with no compromises due to ganged controls for the two channels.

The filter circuits use operational amplifier active filters. There are no inductors to pick up hum or cause ringing problems. This equalizer can be added to your system between the preamp and amplifier, or it can be connected into the tape monitor system of your preamp.

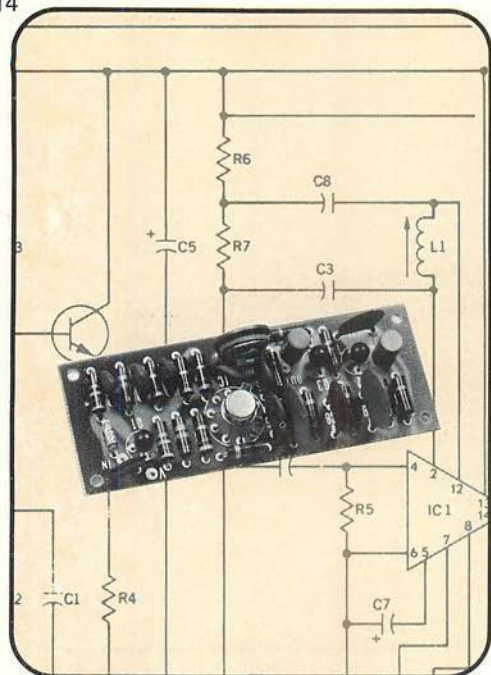
In the flat position, the frequency response is ± 1.0 dB from 5 Hz to 50 KHz. Distortion is typically less than 0.1%. An octave equalizer is the ideal way of compensating for room response. It also makes it possible to compensate for small recording problems that only a narrow band filter could correct. You can bring up weak mid bass, eliminate presence peaks, etc. without affecting the rest of the music.

Our equalizer comes in an all metal enclosure with a black vinyl covered top. The front panel is satin red-gold finished. The circuit is self powered from its own internal power supply. 110-120 Volts AC 50-60 Cycles.

EQ-1 Octave Equalizer Kit.....\$99.50



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.

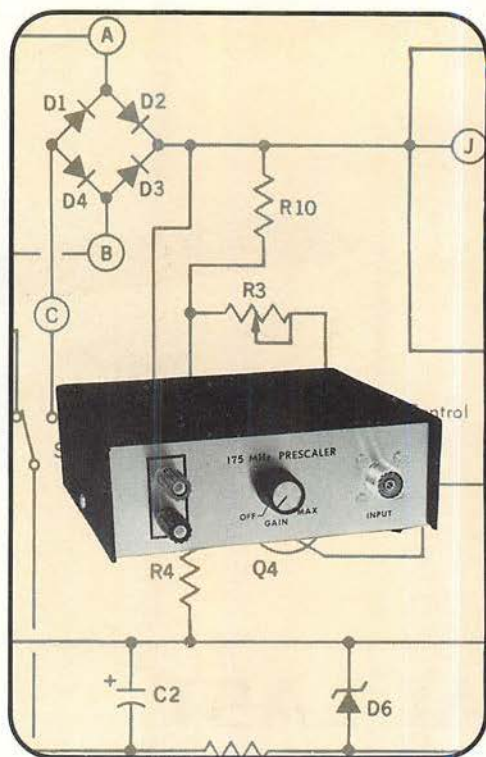
Use of the "phase locked loop" system results in a circuit with superior rejection of unwanted interfering signals, better fidelity and requires no inductors, or tuned circuits.

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

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

SPECIFICATIONS

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



175 MHz FREQUENCY SCALER

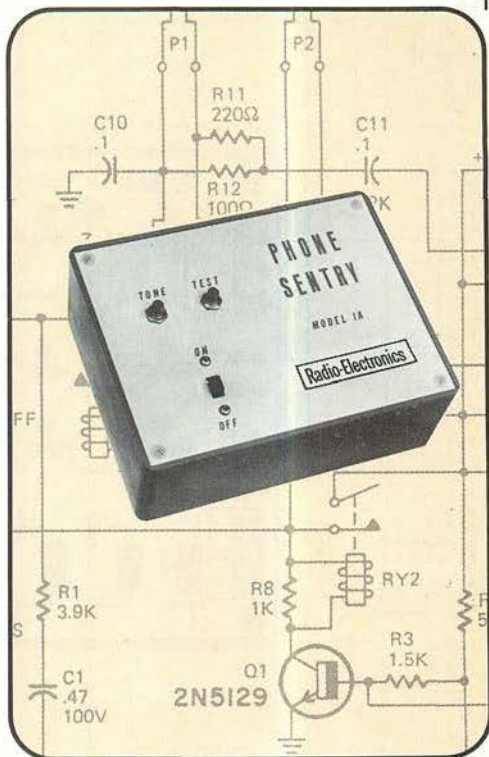
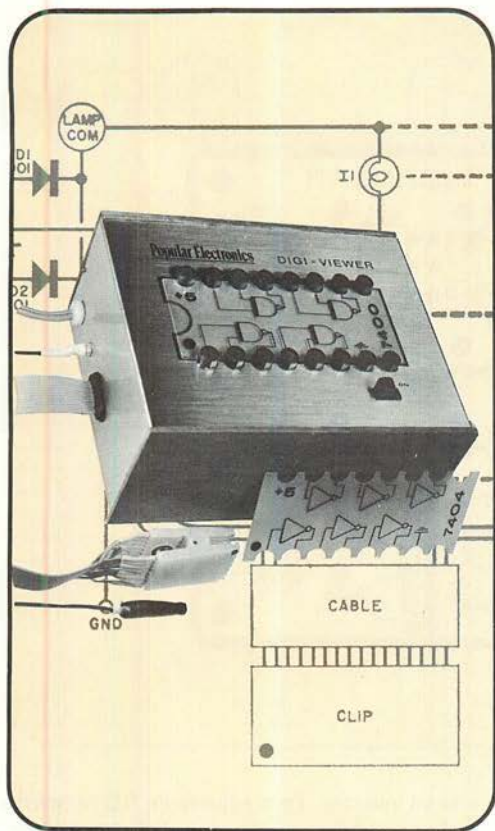
÷ 10 SCALING 2 to 175 MHz
 UP TO 10 VOLTS RMS INPUT
 ECL CIRCUITS-TTL OUTPUT
 USE WITH ANY COUNTER

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 6x5½x2 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 PPd





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 - 4 lbs. \$20.50 PPD

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.

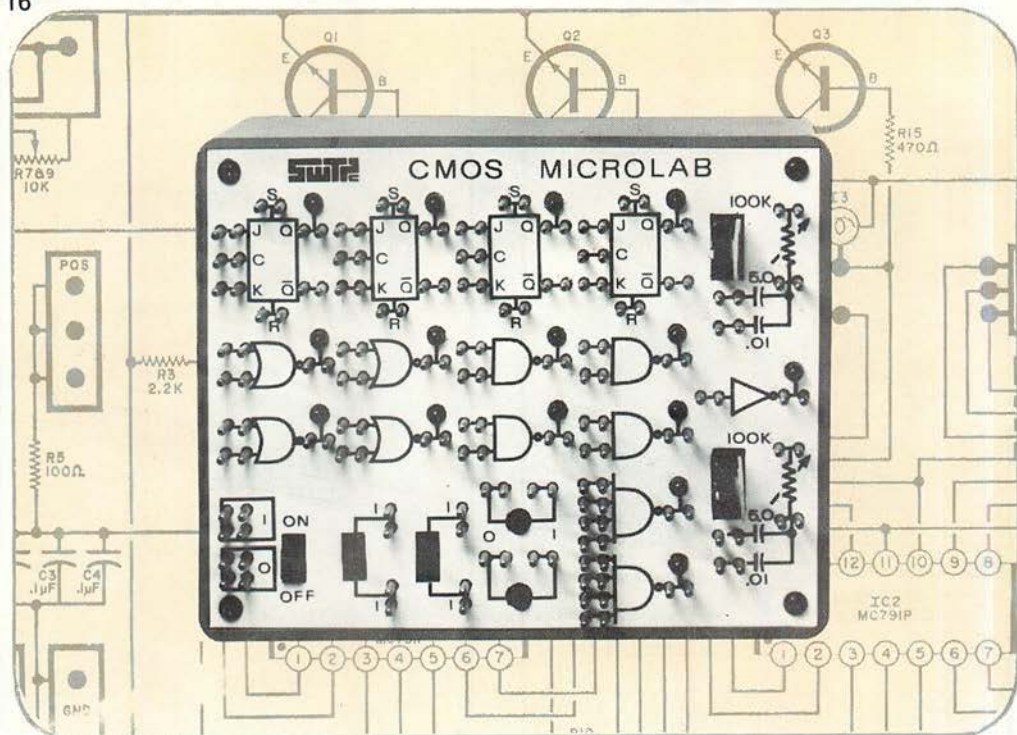
When you are not home, the Phone Sentry will respond to the ring signal by playing a message from one of the recorders explaining that you are not home and then allowing 30 seconds for the person calling to give a message.

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 PPD



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



CMOS MICROLAB

- * LEARN HOW DIGITAL CIRCUITS WORK
- * VERIFY DESIGNS QUICKLY
- * IDEAL TEACHING AID
- * PORTABLE—BATTERY OPERATED

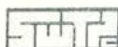
The CMOS Microlab makes it possible to quickly check, or understand a variety of digital circuits. Battery operation makes the Microlab super convenient. Use it anywhere. Indicator lamps are all LED types that are rugged and will never burn out. Included in the Microlab are four (4) flip-flops four (4) dual input NOR gates, four (4) dual input NAND gates, two (2) four input NAND gate

and an inverter. Two adjustable RC networks make possible construction of "on board" rate clocks for use with the various circuits that can be constructed. No external signal sources are needed in most cases. Two slide and two pushbutton switches are provided for manual toggling of the circuits. Connections are made with reliable, easy to use push-on type connectors on the jumper wires. The entire instrument is "goof proof" No possible combination of connections, no matter how wrong, can damage the circuit.

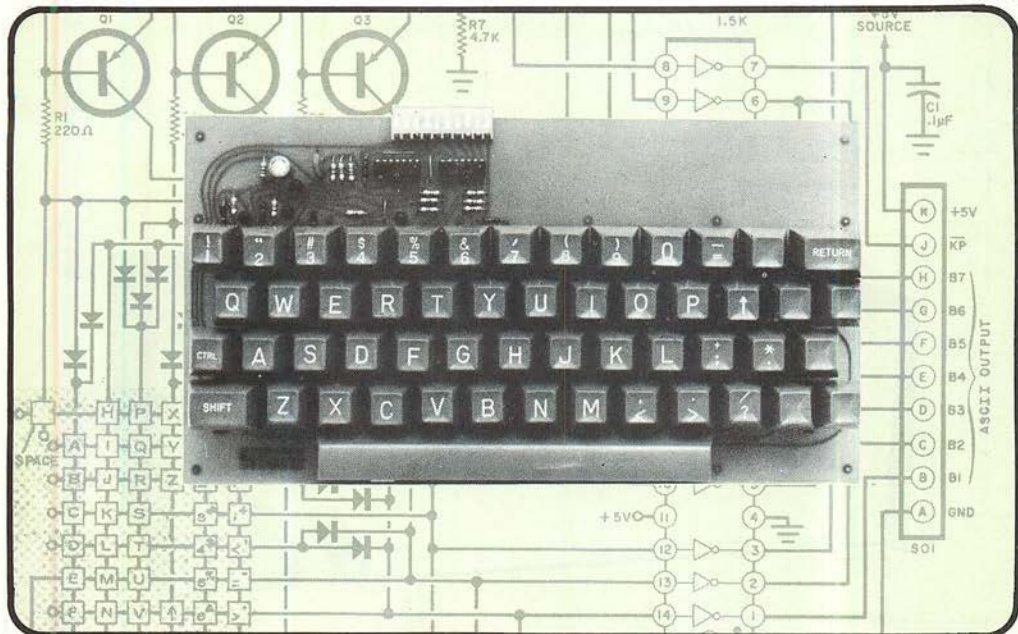
The kit is housed in a 5 x 7 x 3 break resistant impact plastic case. Powered by four (4) standard "D" cells. (Not included in kit)

We stock Don Lancasters "TTL Cookbook" which is a good companion book for this kit. It presents basic digital logic in an easy to understand nonmathematical manner. With this book and the Microlab you can have a good understanding of digital circuits in a very short time.

CMOS Complete Microlab Kit
Shipping Weight 4 lbs.....\$34.50 PPd
"TTL Cookbook"
by D. Lancaster.....\$ 8.00 PPd



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



KEYBOARD and ENCODER

- * FULLY PROFESSIONAL SYSTEM
- * 53 KEYS
- * INCLUDES ASCII ENCODER

FOR:

Terminals
Calculators
TV Typewriters
RTTY Displays
Video Displays
Deaf Communicators
Video Titlers
Teaching Aides

At last here is a top quality fully professional keyboard at a reasonable price. A full 53 key system with internal ASCII encoder and switch debouncing. The keys are full type-

writer travel gold plated contact type and have smooth durable, double shot molded keytops; just like the ones on typewriters. Full length spacebar with equalizer mechanism. "Shift," "Control," "Line Feed," "Escape" and "Cancel" keys are provided along with two user-defined keys. The output is a standard parallel ASCII type code that can be used with almost any type computer system.

Keys and encoder are mounted on a 9 3/4 x 5 7/8 epoxy fibreglass circuit board. The assembled keyboard is approximately 1 1/2 inches high. The circuit requires only +5 Volts for operation of the encoder logic. Output logic levels are standard TTL, which are compatible with almost any type system.

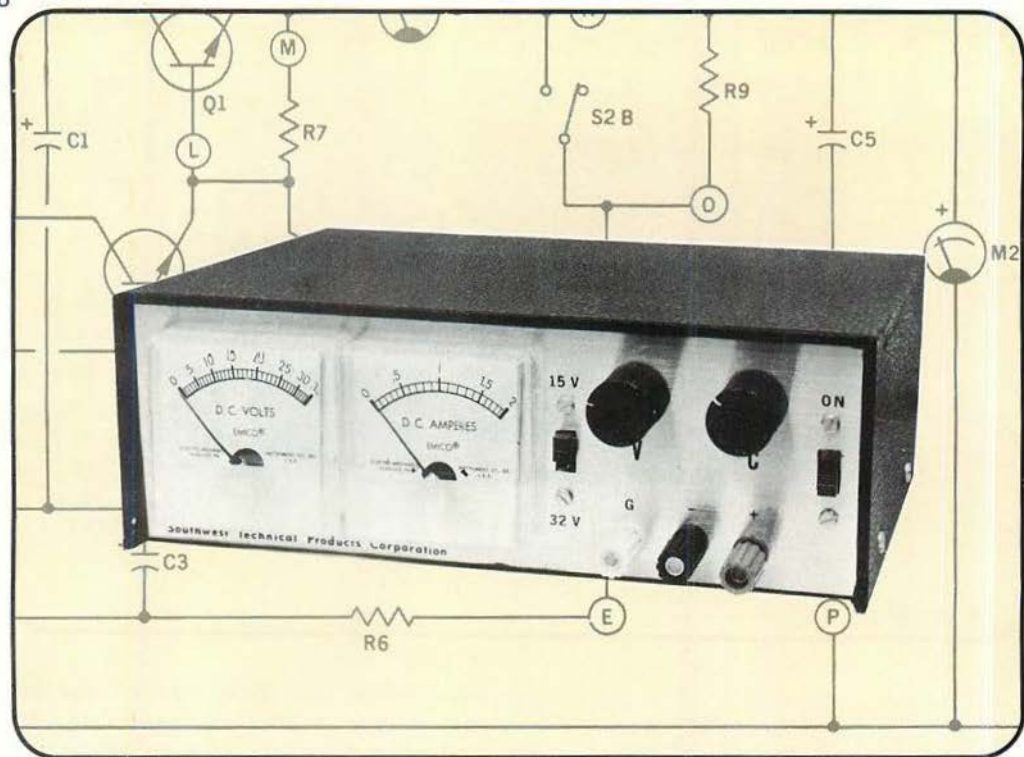
This keyboard uses all brand new key-switches and a modern IC, transistor and diode encoder circuit. NOT a surplus, or rebuilt keyboard system, but an up to date keyboard that looks and works like an expensive electric typewriter.

Check the features; check our price: you won't find a better deal on a keyboard system than this.

KBD-2 Keyboard and Encoder Kit\$39.95 PPD



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.\$41.75 PPd

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

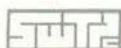
The ideal power supply for operational amplifier circuits and any others requiring a split polarity power supply voltage. The voltage control changes both the positive and negative output voltage by equal amounts when adjusted. Current limiting range is 50 Ma. to 1.0 Amp.

Cabinet is same as single polarity type.

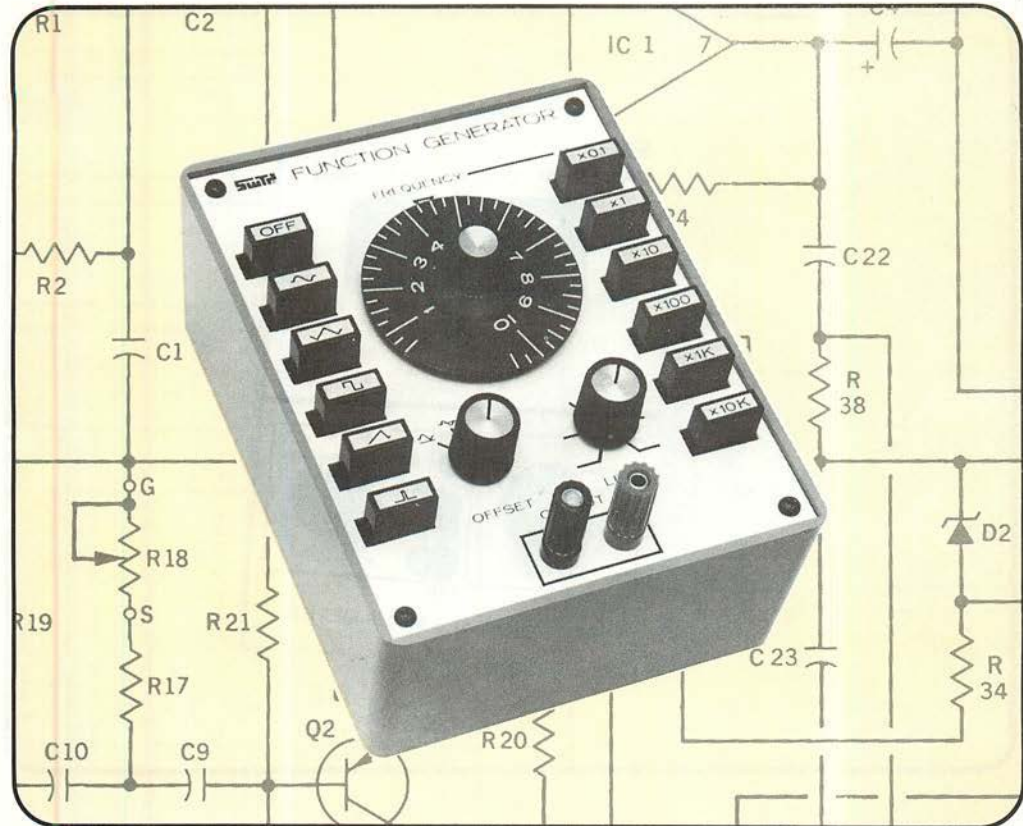
243 Power Supply Kit
Shipping Weight 8.0 lbs.\$41.75 PPd

SPECIFICATIONS

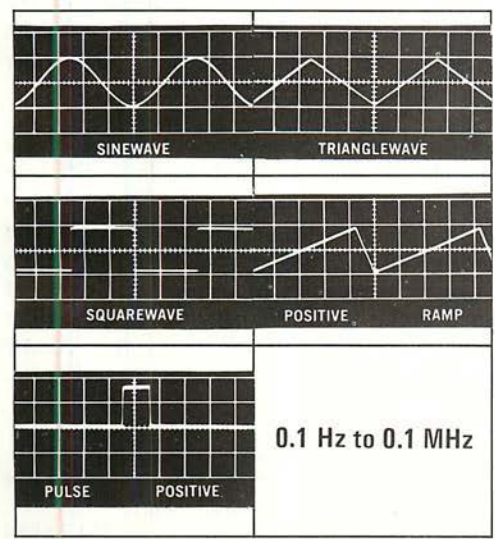
Regulation......05% or 0.1 Volt for
100% load change
Ripple......02% or 5 Mv. Maximum
Voltage Range.....0 to ± 20 Volts DC
Input......110 to 125 Volts AC



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



FUNCTION GENERATOR

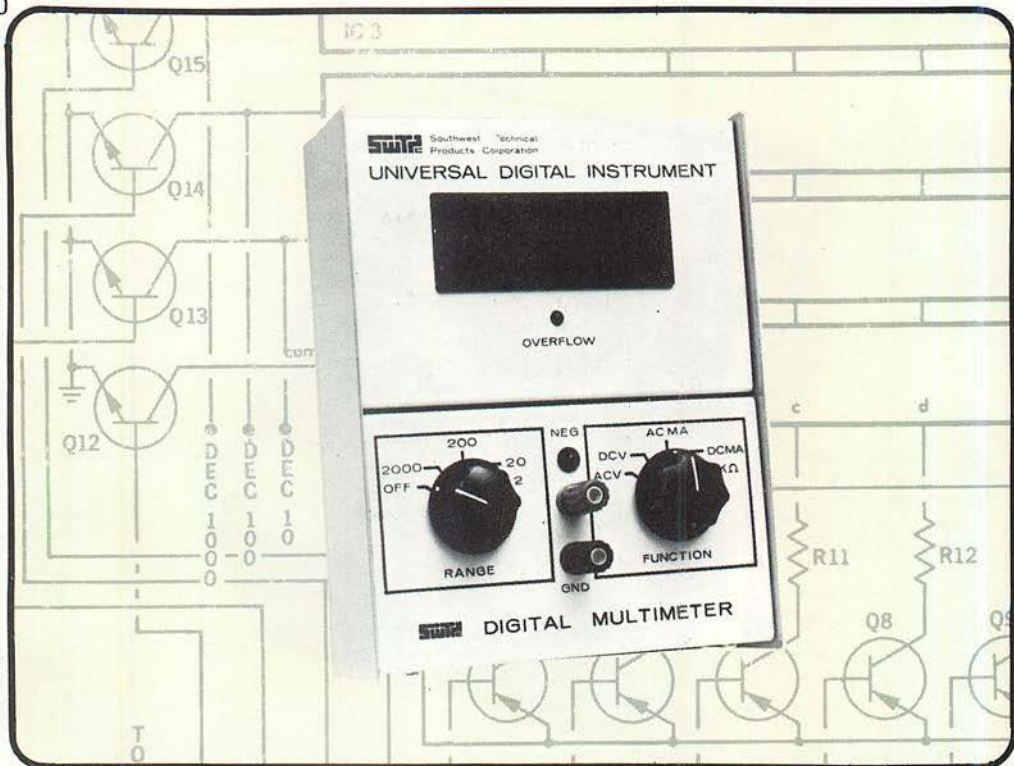


Now, thanks to IC technology, everyone can afford one of these versatile waveform generators. This is the ideal general purpose signal generator. Use it for checking audio equipment, digital circuits, sweep circuits, or anywhere you need a variety of waveforms.

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 ± 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 5½x6¾x2½. Power required 115 Volts AC.

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



UNIVERSAL DIGITAL INSTRUMENT

- * FIRST PORTABLE DIGITAL SYSTEM
- * FOUR DIGIT READOUT
- * TIME BASE and DIVIDER
IN MAINFRAME

The first digital instrument kit to offer the convenience of portable, battery powered operation. Our new digital mainframe is without question the best possible choice for those who want a digital instrument with the most versatile possible range of applications. This system can do more and at less cost than any other digital instrument kit available. You get a full four (4) digit LED readout. Not a skimpy two digit plus overrange system

as in other low cost units. In addition to this the mainframe has its own .001% accurate crystal timebase and a programmable MOS divider circuit. This allows the mainframe to supply timing signals at almost any frequency necessary to the various plug-ins. This simplifies the circuits needed in the plug-in units considerably and makes them rather inexpensive compared to similar equipment having similar features.

The plug-in units can be changed very quickly when you want to do a different job. The instrument is housed in a rugged 6 x 7½ x 2½ steel case, which is finished with a tough epoxy enamel. With this system you will be able to make many types of measurements, with digital accuracy and at minimum cost. Photo shows the VOM-2 "Digital Multimeter" installed in the mainframe.

Universal Digital Instrument Mainframe Kit
 # UDI-1 (less any plug-in units)\$59.95 PPD
 # UDS-1 Optional Line Power Supply
 for above.....\$11.75 PPD



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

DIGITAL MULTIMETER

Measure: Volts (AC and DC), current and resistance with digital accuracy and convenience. Our digital multimeter provides you with 1% accuracy over the entire range of 2 to 2000 Volts, 2 to 2,000 Milliamps and 2,000 to 2 Meg Ohms full scale. This plug-in features an accurate, noise immune A-D conversion system that is made possible by the programmable divider in our mainframe. In addition to this you also get automatic polarity indication, and switching. No need to ever reverse the tests leads again.

VOM-2 Digital Multimeter Kit\$39.95 PPD

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 (± 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 PPD

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\$13.75 PPD

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 PPD

TIME PERIOD

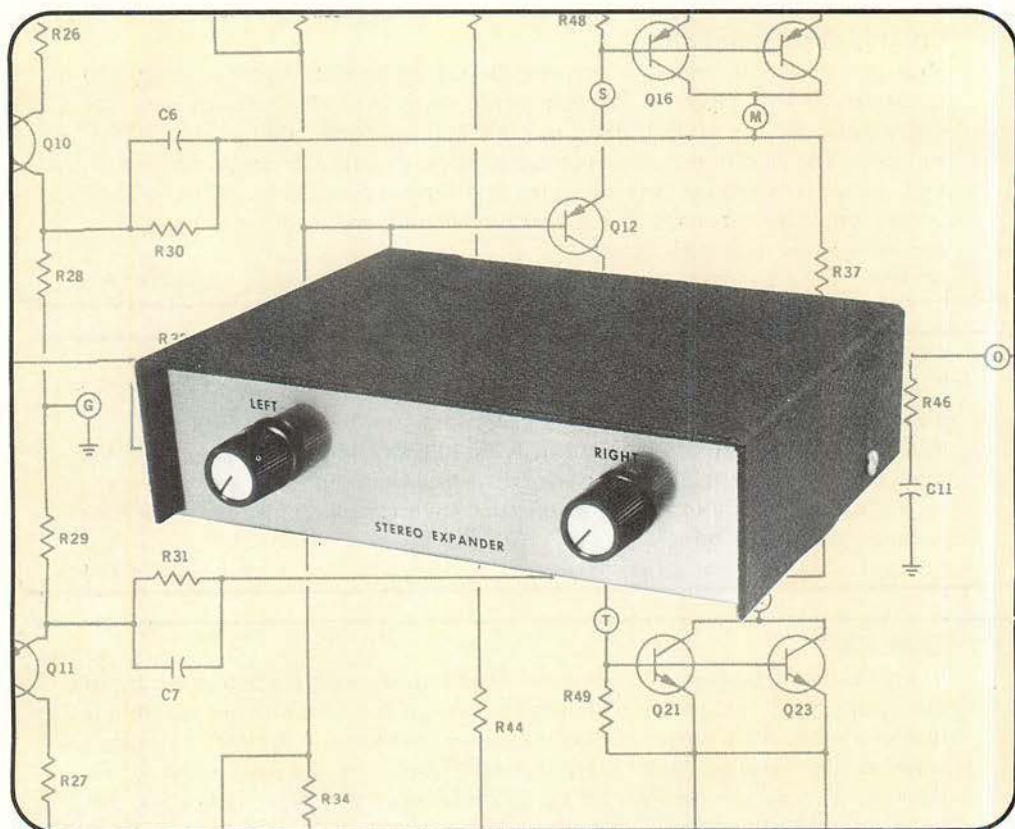
The electronic stop watch plug-in. This handy instrument lets you time the duration of events, or the time between two events with .01% accuracy. The plug-in will time events as short as 10 microseconds, or as long as a million seconds. You can use it for high speed applications such as shutter testing 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 PPD

Blank (unpunched) plug-in unit with connectors for your own custom plug-in designs. Painted and formed as on above units.

BP-1\$3.95 PPD





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 PpD



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

Dear Electronic Kit Builder,

As of this catalog issue, our power amplifiers from 25 to 250 Watts are all available with our all push-pull complementary differential circuit. The immediate acceptance of "Tiger .01" and the letters from happy customers telling us how great the amplifier sounded convinced us that we should offer this system on our complete line as soon as possible. So now a little over a year later, you can get the output power to fit your requirements and still have all the advantages of this great circuit.

The little one is our new # 215 stereo amplifier. This great little amplifier is ideal for those who have efficient speaker systems, or those that don't require high power levels. It features the triple in the complementary output stage, just like the "Tiger .01" and has the same .01% maximum IM distortion rating up to maximum output. It has input level controls, bronze anodized chassis, perforated metal cover and plug-in circuit boards. What else could you ask for in a \$69.50 amplifier kit; how about individual output meters for each channel? Yes it has that too.

Next we have our new "Universal Tiger B". This is the same rugged amplifier as before repackaged in the neater "Tiger .01" type chassis, and with our complementary differential input circuit. This is the ideal BASIC amplifier for those who want inexpensive clean power. Where else are you going to get an amplifier that will put 90 Watts into a 4.0 Ohm load for \$64.50. For those who may wish to "guild the lilly" we have an accessory kit that allows you to add an output level meter input level control, extra input jack, overheat indicator, front panel power switch, etc. to the basic amplifier. This should become the most popular all-purpose amplifier of the decade.

Last of all, I would like to call your attention to our "Digital Multimeter" kit that is now available for our digital instrument mainframe. This is the plug-in that you have been asking for and waiting for. I think you will like it. Note that we also now have blank plug-ins available for those of you who want to build your own special instruments for use with the UDI display system.

Daniel Meyer



