

A NEW
CONCEPT IN
MUSICAL
ENJOYMENT
—THE MOOG
PMS-15
self-powered,
integrated
amplifier-speaker



A lightweight, rugged cabinet, advanced-design amplifier, JBL speaker and rechargeable battery set a new standard for versatility in the smartly styled new Moog PMS-15.

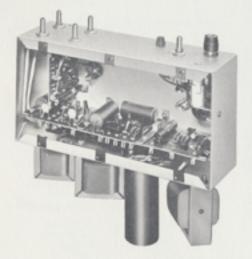
Plugged into a standard wall outlet or operating from its own long-lasting rechargeable battery, the PMS-15 gives you true high fidelity reproduction. Just plug in the output of any portable radio, battery-operated tape recorder or phonograph, microphone or musical instrument. Use it at home for a basic unit in your music system, take it into the back yard for patio parties and barbeques, to the beach or remote vacation spots, wherever you go.

A PMS-15 is a hard worker, too. Here is the first truly portable system to meet the exacting standards of the professional entertainer and the technician. Two low-noise inputs accommodate microphone and instrument or other combinations to give the entertainer the broadest possible capability wherever his audience is gathered. The PMS-15's rechargeable battery delivers power enough for up to several days of operation without recharging. Weighing only half as much as some professional monitoring amplifiers, the PMS-15 enables the technician to amplify any audio signal, regardless of location and independent of the power line.

ENCLOSURE

This cutaway view shows the sandwich type construction of the enclosure. The outer shell is molded Royalite®, tough and resilient, with the look and feel of leather. Acoustical stiffness and insulation comes from the foamed-in-place rigid polyurethane core. Inner shell is a special thin plywood which optimizes the acoustical properties of the cabinet.





AMPLIFIER

Solid state amplifier is conservatively rated at 15 watts output power. The circuitry includes two independent low-noise inputs, bass and treble controls, high-efficiency power stage, regulated power supply and battery charger. The amplifier circuitry includes thirteen transistors and five diodes.

SPEAKER

The PMS-15 uses a James B. Lansing Model D-216 speaker. One of the finest eight-inch speakers available, the D-216 was chosen because of its large power-handling capability, wide range, low distortion and high efficiency.





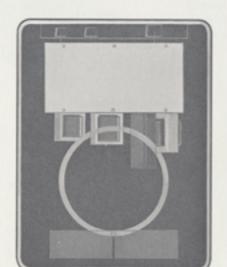
BATTERY

The heavy-duty rechargeable battery used in the PMS-15 gives you up to 30 hours of playing time, depending on the type and loudness of program material. Useful life is several years, or 100-200 discharge cycles in heavy use. Leakproof and explosion proof, this battery cannot be damaged by excessively heavy discharging. Recharge it overnight through the charging circuit on the amplifier chassis.





PMS-15 SPECIFICATIONS



This cutaway view shows relationship of the components within the PMS-15.

Output power of amplifier. 15 watts Total harmonic distortion Less than 2% at full output . Frequency response of ± 1 db 30 cps-20KC amplifier Operating time between From 5 to 30 hours battery charging depending on program material. Average is 15 hours. Either: 117 volts Power sources required 60 cycle AC or: 12 volts DC or: internal 12 volt battery Time for complete battery charge cycle Less than 12 hours Sensitivity of input (two independent inputs) 20 millivolts Signal-to-noise ratio:

Better than 70 db

26 lbs. with battery

20 lbs. without battery

17%" high

141/4" wide

9" deep

How to order the PMS-15

For detailed ordering information, see back cover.

PMS-15 KIT

Assemble your own PMS-15 with clear, step-by-step instructions for assembling amplifier chassis and installing components in the factory built cabinet. All parts and instructions are included. \$129.95 PMS-15 Factory assembled \$199.95 PMS-15B Kit Same as above with battery \$174.95 PMS-15B Factory assembled with battery \$244.95

for input signal of

100 millivolts

Total weight

Overall size

XP-2 KIT

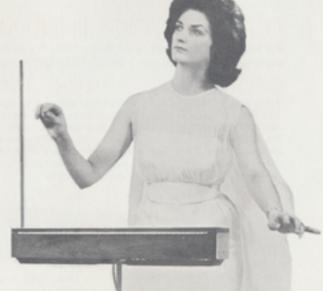
For Science Fair contestants, experimenters, advanced constructors. Kit contains all electronic components and textbook-style instruction booklet. Every circuit feature discussed in detail. Gives all data necessary to design and build cabinet, chassis and wire circuit boards. Suggests circuit additions and modifications.

\$ 89.50

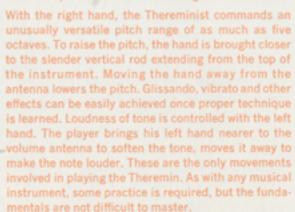
XP-2B Kit with battery \$134.50

THE MOOG THEREMIN

Music's most contemporary instrument



The unique electronic tones of the Theremin, sounding at times like a cello, at others more ethereal than any conventional musical instrument, are controlled by the movements of the performer's hands in the space surrounding the instrument. There are no buttons or keys to determine pitch or tone intensity . . . the Thereminist exercises fully as much control over tone production as does a singer over his voice.



The Theremin was introduced into this country in 1928 by its inventor, Leon Theremin. It gained quick acceptance in musical circles and for many years has been a favorite of contemporary composers and professional musicians. Played extensively on the concert stage and in theme music for motion picture and television productions for many years, the Theremin is now finding its way into thousands of homes where it contributes to family fun and enjoyment of music.



FOUR MOOG THEREMINS

For home entertainment, professional use, for hi-fi enthusiasts and experimenters . . . There's a MOOG THEREMIN just right for you!

CIRCUITRY OF THE MOOG THEREMIN

Every Moog Theremin is fully transistorized and designed for years of trouble-free use. The instrument utilizes hand capacitance to control both pitch and volume. The pitch control section consists of a beat frequency oscillator, whose frequency is changed by the addition of hand capacitance to the pitch antenna. The volume control section utilizes a third R. F. oscillator, whose output is rectified and used to bias a control amplifier. Addition of hand capacitance to the volume antenna varies the output of the oscillator, and hence the gain of the amplifier.

THE MELODIA



The Melodia is a Moog Theremin in kit form. Retaining all of the essential characteristics of the standard Theremin, the Melodia can be assembled with a few hand tools. Step-by step instructions, easy to follow and fully illustrated, make building your own Theremin fun. Tips on playing your Melodia are included, too. All parts are of premium grade. The chassis and panel are pre-formed and punched. The hand-crafted natural walnut cabinet is designed to mount on a microphone stand.

The Melodia has a five-octave range, extending from two octaves below to three octaves above Middle C. Build it, plug it into an audio amplifier, and enjoy the creative challenge of the Theremin.

SPECIFICATIONS:

Power requirements 6 volts at 10

milliamperes (one

6-volt battery)

Transistors 4 2N414

Useful pitch range 60-2,000 cycles

Max. R.M.S. output 0.5 volts, medium

impedance

Cabinet dimensions 221/4" x 6" x 31/4"

Weight 8 pounds

Melodia Model Theremin Kit MT. Shipping weight — 11 pounds \$49.95 Melodia Model Theremin Assembled MA.
Completely assembled and adjusted
at the factory, this model needs only
an amplifier, loudspeaker and microphone stand. Shipping weight — 13
pounds \$75.00

Theremin Components Kit TC. Contains all components needed to build the Melodia Theremin, except chassis, panel and antennas. Ideal for advanced experimenters, Science Fair contestants.

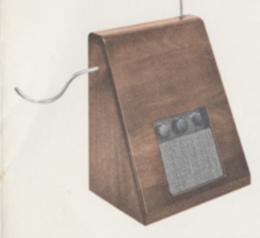
Shipping weight - 3 pounds. \$29.95

THE TROUBADOR



A professional adaptation of the Melodia, the Troubador has a 115 volt AC power supply instead of a battery, special shielding so the instrument may be placed on any table to be played, improved tuning adjustments, and a continously adjustable timbre control.

Troubador Model Theremin (assembled only) Shipping weight — 17 pounds \$160.00 THE VANGUARD



All components of the Vanguard, including the loudspeaker, are housed in a handsome, handrubbed solid mahogany cabinet. The tuning adjustments are conveniently located in front of the player as he faces the instrument.

The pitch range covers three and one-half octaves, extending from an octave below Middle C to two and one-half octaves above Middle C.

The cabinet is 20" high, 18" wide and 12" deep at the base, and is designed to stand on a table 20 to 22" high. The Vanguard is ready to play moments after you receive it. Merely insert the anodized aluminum antennas, plug in the power cord and turn the instrument on. Tuning the instrument takes only seconds. Because its design combines simplicity and reliability of operation, the Vanguard requires little maintenance. Periodic service inspection every two or three years is sufficient. This inherent dependability of the Vanguard is a prime requisite for a true musical instrument.

Vanguard Model Theremin

\$395.00

THE PROFESSIONAL

Truly the finest Theremin made, the Professional is designed to meet every need of the accomplished Thereminist. In addition to all the features of the Vanguard, the Professional allows selection of four timbres or tone colors — Principal, Horn, Woodwind and String. These are not imitative tones, but indicate the general quality of the tones available. The Principal tone is mellow and flutelike — the traditional sound of the Theremin. The Horn tone is sharp and nasal, like that of an oboe. The Woodwind tone is hollow and woody, like a clarinet. The String tone carries the rich overtones of a stringed instrument. Timbre is controlled by a switch on the front panel and may be changed to provide contrasting tonal voices within a piece of music. A special speaker assures the fidelty of each tone color.

The total pitch range of the Professional is four and one-half octaves, with the Principal and Horn tones extending from one-half octave below Middle C to three octaves above Middle C and the Woodwind and String tones extending from one and one-half octaves below Middle C to two octaves above Middle C.

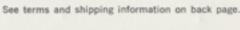
The cabinet is 20" high, 18" wide and 10" deep. The instrument is designed for a table 20 to 22" high.

The Professional Model Theremin is an instrument of the highest quality, advanced in design as far as the state of the art of electronic instrument manufacture permits. It complements the talents of the most gifted Thereminists and holds a foremost place among modern musical instruments.

Professional Model Theremin

\$650.00





See terms and shipping information on back page.

bob

ORDER BLANK

FROM: Name(please print or type)								
City State								
Shipping	address if different than above:							
QUANTITY	DESCRIPTION	PRICE EACH TOTAL						
	PMS-15 Kit	\$129.95						
	PMS-15 Assembled	199.95						
	PMS-15B Kit (with battery)	174.95						
	PMS-15B Assembled (with battery) 244.95						
	XP-2 Kit	89.50						
	XP-2B Kit (with battery)	134.50						
	Melodia Kit MT	49.50						
	Melodia Assembled MA	75.00						
	Theremin Components Kit TC	29.95						
	Troubador Theremin Assembled or	nly 160.00						
	Vanguard Theremin	395.00						
	Professional Theremin	650.00						
Please shi	ip by:							
☐ Parcel	Post	Total Order						
☐ Air Pa	rcel Post Amount	for Shipping						
Other_	То	tal Enclosed						



10th ANNIVERSARY 1954-1964



A WORD ABOUT THE R. A. MOOG COMPANY

The application of electronic technology to music represents a broad area of creative opportunity, an area in which the R. A. Moog Company has been actively working for the past 10 years.

Since we developed and began producing the modern version of Leon Theremin's original design, improvements in technology have enabled us to expand our line of products to include four Theremin models and the new PMS-15 self-powered amplifier-speaker.

Now, on our 10th anniversary, we are engaged in the development of new types of electronic musical instruments. Our customers will be pleased to know that several new instruments, original in concept and design, are now under test and some will be available in 1965.

Our goal, during the coming years, is to maintain the high quality and dependability of our products, and to meet the needs of our customers, both amateur and professional, with new and dramatic products for the production of electronic music.



TERMS OF SALE:

- Professional, Vanguard and Troubador Theremins: Any of these instruments may be purchased through your musical instrument dealer, or directly from the R. A. Moog Co. Our terms of sale are cash with your order. Allow 2 to 3 weeks for delivery. We pay all packing and shipping charges to any destination in North America.
- Assembled Melodia Theremin, Melodia Theremin Kit, Theremin Components Kit, XP-2 and XP-2B Amplifier Components Kit:

These are sold directly by the R. A. Moog Co. and are kept in stock for immediate shipment. Terms of sale are cash with your order, F.O.B. Trumansburg, N. Y. Postage and insurance depends upon your distance from Trumansburg, and is tabulated below:

	DISTANCE FROM TRUMANSBURG, N. Y.								
Item	SHIPPING WT.	Up to 150 miles	150-300 miles	300-600 miles	600-1000 miles	1000-1400 miles	1400-1800 miles	1800+ miles	
Assembled Melodia Theremin (MA)	13 lbs.	1.18	1.32	1.53	1.89	2.22	2.64	3.03	
Melodia Theremin Kit (MT)	11 lbs.	1.03	1.15	1.33	1.63	1.93	2.29	2.63	
Theremin Components Kit (TC)	3 lbs.	.56	.59	.65	.74	.83	.93	1.03	
Amplifier Components Kit XP-2	14 lbs.	1.28	1.43	1.66	2.04	2.39	2.85	3.26	
Amplifier Components Kit XP-28	20 lbs.	1.67	1.89	2.21	2.75	3.20	3.86	4.41	

Air Parcel Post costs about four times as much as regular Parcel Post, but saves up to one week of shipping time to distant points.

Please send sufficient funds to cover postage and insurance. We will promptly refund in case of overpayment.

PMS-15 and PMS-15B Amplifiers and Amplifier Kits: These are sold directly by the R. A. Moog Co. Terms of sale are cash with your order. Shipment is made from stock via REA Express. Express charges will be collected at the time of delivery. (Other transportation arrangements can be made if necessary.)

